

Senemig Engenharia



**BAHIA PESCA SA**

## MERCADO DE PESCADOS VALENÇA-BA

### ESPECIFICAÇÕES TÉCNICAS DO PROJETO DAS INSTALAÇÕES ELÉTRICAS E DE TELECOMUNICAÇÕES

REV 01 – 09/05/2021

EMPRESA RESPONSÁVEL: Senemig Engenharia LTDA

RESPONSÁVEIS TÉCNICOS:

ENG. ELETRICISTA MARCO ANTONIO GIMENES – RN: 260369593-2-SP – RR-6583BA

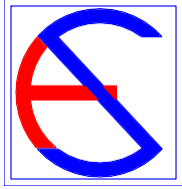
ENGA. ELETRICISTA MÔNICA ANDRADE T. DA SILVA – RN:050264419-2-BA – RR-23379/D-BA

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# Senemig Engenharia

## ESPECIFICAÇÕES TÉCNICAS

### OBJETIVO

Os itens a seguir contêm as especificações técnicas dos equipamentos e materiais que deverão ser utilizados na execução dos projetos elétrico, de ar condicionado e de telecomunicações na reforma e/ou recuperação das instalações do Mercado de Pescado de Valença, Bahia.

Nota: Os modelos e fabricantes indicados são referenciais, tendo o instalador total liberdade de utilizar similares que tenham as mesmas características técnicas e o mesmo padrão de qualidade, desde que aprovados pela fiscalização da CONTRATANTE antes da aquisição.

### CONDUTOS E ACESSÓRIOS

#### Eletróduto Flexível Congrugado

Serão de cloreto de polivinila (PVC) Antichama;

Devem atender as recomendações das Normas: IEC 614-1/94 - Norma Internacional e NBR 5410 - Instalações elétricas de baixa tensão.

O proprietário admitirá a utilização dos produtos fabricados pela TIGRE, ou similar, desde que consultada previamente a fiscalização.

#### Eletróduto, Curva e Luva de PVC rígido roscável.

Serão de cloreto de polivinila (PVC) rígida, e do tipo pesados com roscas e luvas.

O proprietário admitirá a utilização dos produtos fabricados pela Cia Hansen Industrial Tigre, ou similares, desde que consultada previamente a fiscalização.

O proprietário admitirá a utilização dos produtos fabricados pela TIGRE, ou similar, desde que consultada previamente a fiscalização.

#### Eletrocalha/perfilado e Acessórios

Será constituída por perfil "C", em chapa perfurada, com virola, pré-zincada a fogo nas dimensões 38x38mm sem tampa.

O proprietário admitirá a utilização dos produtos fabricados pela Real Perfil Indústria e Comércio MOPA S/A, ou similares, desde que consultada previamente a fiscalização.

#### Bucha e Arruela

Serão fundidas em Alumínio Silício, com ótima resistência mecânica e acabamento liso e de boa aparência, fornecidas com rosca BSP (GÁS), da WETZEL, ou similar.

### CAIXAS DE PASSAGEM, CONDULETES e ACESSÓRIOS PARA CAIXAS DE PASSAGEM

#### Caixas de passagem

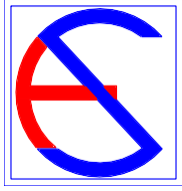
As caixas de passagem deverão ser de chapa de aço esmaltada, galvanizada, em alumínio (quando indicado) ou pintada com tinta de base metálica, quando as dimensões forem superiores a 4"x4" e sua instalação for embutida ou não aparente, de alumínio fundido quando sua instalação for aparente, e de PVC rígido, quando as dimensões forem iguais ou inferiores a 4"x4" e sua instalação for embutida ou não aparente.

As caixas conterão olhais destinados a fixação dos eletródutos (com buchas, arruelas ou roscas).

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As caixas utilizadas para a passagem de condutores, quando metálicas, serão, no mínimo, de chapa de aço nº 14 BWG com uma demão de verniz isolante e outra de zarcão na superfície interna. Suas tampas serão parafusadas e esmerado acabamento.

O proprietário admitirá a utilização de produtos fabricados pela Cia Hansen Industrial Tigre, Mofenco, ou similares, desde que consultada previamente a fiscalização.

### **Conduletes e Caixas de Piso**

Os conduletes e caixas de passagem/tomadas de piso deverão ser em liga de alumínio nas dimensões e com as saídas indicadas em projeto. As saídas devem ser de encaixe, tipo sem rosca.

O proprietário admitirá a utilização de produtos fabricados pela Daisa Conexões e Eletrodutos Ltda, ou similares, desde que consultada previamente a fiscalização.

### **Caixas telefônicas**

As caixas a serem utilizadas deverão ser de alumínio e deverão estar de acordo com as normas da TELEBRÁS e demais determinações da empresa concessionária local e indicações em plantas e memorial descritivo.

### **Caixas de passagem em alvenaria**

As dimensões indicadas em projeto referem-se às dimensões internas das caixas, que deverão ter bom acabamento, com as tampas feitas com armação de ferro apropriada. As caixas deverão ser providas de drenagem.

### **TOMADAS, INTERRUPTORES, E ACESSÓRIOS**

As tomadas de parede para luz e força serão normalmente do tipo pesado, com contatos de bronze fosforoso ou tomback.

Além do aspecto estético desejado após a montagem, deverão ser observadas as demais condições de amperagem e tensão projetadas para cada uso.

Os interruptores serão normalmente de embutir, tipo pesado, modulados e intercambiáveis com contatos de bronze fosforoso e base em baquelite ou nylon brusco.

Além do aspecto estético desejado após a montagem, deverão ser observadas as demais condições de amperagem e tensão e tipos projetados para cada uso.

O proprietário admitirá a utilização dos produtos fabricados pela PIAL Indústria e Comércio S/A, ou similar, desde que consultada previamente a fiscalização, seguindo-se a linha abaixo:

O proprietário admitirá a utilização dos produtos fabricados pela PIAL Indústria e Comércio S/A, da Alumbra, ou similar, desde que consultada previamente a fiscalização, seguindo-se a linha abaixo:

Instalações de embutir: Linha Pial Plus com espelhos para caixas 4"x2" e 4"x4";

Instalações de sobrepor com canaletas: Linha A, da Alumbra;

### **CABOS ELÉTRICOS**

#### **Cabo De Cobre Nu**

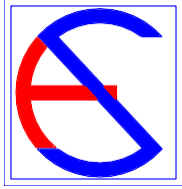
Será formado de fios de cobre eletrolítico nu, têmpera meio dura, encordoamento classe 2A.

O proprietário admitirá a utilização dos produtos fabricados pela Prysmian ou similares, desde que consultada previamente a fiscalização.

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### **Cabo de cobre, PVC, Classe 750 V.**

Com condutor formado de fios de cobre eletrolítico nu, têmpera mole, encordoamento classe 4 ou superior, salvo se houver outra indicação, isolamento para 750V - 70° C, em composto termoplástico em cloreto de polivinila (PVC) tipo DWF, nas cores indicadas em projeto e memorial.  
O proprietário admitirá a utilização dos produtos fabricados pela Prysmian ou similares, desde que consultada previamente a fiscalização

### **Cabo de cobre, PVC, 70°, Classe 1 KV.**

Com condutor formado de fios de cobre eletrolítico nu, têmpera mole, encordoamento classe 4 ou superior, salvo se houver outra indicação, isolamento para 0,6/1 KV - 70° C, em composto termoplástico em cloreto de polivinila (PVC), cor branca e cobertura em composto termoplástico de cloreto de polivinila na cor preta.  
O proprietário admitirá a utilização dos produtos fabricados pela Prysmian ou similares, desde que consultada previamente a fiscalização.

### **Cabo De Cobre Isolado Em EPR, Classe 1 KV**

Será formado de:

Condutor: Metal fio de cobre nú, têmpera mole, de forma redonda compacta, classe de encordoamento 4 ou superior.

Isolação: camada de composto termofixo de borracha etileno propileno (EPR);

Cobertura: Camada extrudada de composto termoplástico de Cloreto de Polivinila (PVC), do tipo ST2, na cor preta, sem chumbo.

O proprietário admitirá a utilização dos produtos fabricados pela Prysmian ou similares, desde que consultada previamente a fiscalização.

### **TERMINAIS PARA CABOS ELÉTRICOS**

Os terminais serão do tipo compressão, isolado até 6 mm<sup>2</sup> e deverão ser estanhados antes de se fazer a compressão.

### **DISJUNTORES, CONTADORES, QUADROS DE MEDIÇÃO, QUADROS ELÉTRICOS E SUPRESSORES DE SURTO**

#### **Disjuntores e Disjuntores Motor**

Os disjuntores deverão possuir as seguintes características compatíveis com a instalação:

- Tensão nominal;
- Corrente nominal;
- Frequência;
- Corrente de interrupção simétrica na tensão de funcionamento;
- Corrente de estabelecimento na tensão de funcionamento;
- Curva de disparo tipo C.
- Quando não disponíveis na corrente nominal indicada, deverá ser utilizado um imediatamente superior com ajuste para a corrente indicada em projeto.

Todos os disjuntores a serem instalados nos quadros deverão ter capacidade de interrupção mínima para 5 KA's em 220V por polo, pela IEC 947-2, quando não houver outra indicação em planta.

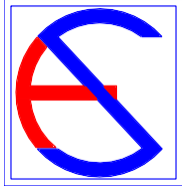
O proprietário admitirá a utilização dos produtos fabricados pela ABB Ltda, Merlin Gerin - Groupe Schneider, Siemens S. A., ou similares, desde que consultada previamente a fiscalização.

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## Interruptores Diferenciais “DRs”

Os interruptores diferenciais deverão possuir as seguintes características compatíveis com a instalação e a indicação em projeto:

- Tensão nominal;
- Corrente nominal;
- Frequência;
- Corrente de interrupção simétrica na tensão de funcionamento;
- Corrente residual;
- Número de pólos.

Todos os interruptores residuais a serem instalados nos quadros deverão ter capacidade de interrupção mínima para 5 KA's em 220V por polo, pela IEC 947-2.

O proprietário admitirá a utilização dos produtos fabricados pela ABB Ltda, Merlin Gerin - Groupe Schneider, Siemens S. A., ou similares, desde que consultada previamente a fiscalização.

## Contatores

Os contatores deverão possuir as seguintes características compatíveis com a instalação e a indicação em projeto:

- Tensão nominal;
- Corrente nominal;
- Frequência;
- Corrente de interrupção simétrica na tensão de funcionamento;
- Número de pólos.
- Suportabilidade de até 100 vezes a corrente do capacitor, sem a necessidade de resistores de amortecimento, quando utilizadas para capacitores

Todos os interruptores residuais a serem instalados nos quadros deverão ter capacidade de interrupção mínima para 5 KA's em 220V por polo, pela IEC 947-2.

O proprietário admitirá a utilização dos produtos fabricados pela ABB Ltda, Merlin Gerin - Groupe Schneider, Siemens S. A., ou similares, desde que consultada previamente a fiscalização.

## Quadros Elétricos

Os quadros elétricos deverão ser projetados, fabricados e fornecidos de acordo com as normas da ABNT e especificações subsequentes:

Os quadros elétricos deverão ser apropriados para instalação interna, em ambiente de alta salinidade e deverão operar sob as seguintes condições ambientais:

- . Altitude em relação ao nível do mar Até 1000 m
- . Temperatura máxima 40° C
- . Temperatura mínima 10° C
- . Umidade relativa do ar (média mensal) 85 %
- . Clima Tropical Úmido

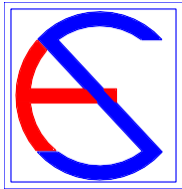
Os quadros auto-portantes deverão ser fabricados com chapa 13 para a estrutura, chapa 16 para fechamento e chapa 13 para placa de montagem reforçada com dobras laterais.

Os quadros de sobrepor até a dimensão de 60x50cm (HxL), deverão ser fabricados com chapa 18 e placa de montagem com chapa 16, com dimensões superiores a 60x50 (HxL) deverão ser fabricados com chapa 16 e placa de montagem 14.

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Os quadros de embutir deverão ser fabricados com espessura mínima de chapa 20 e placa de montagem com espessura mínima de chapa 16.

As placas de montagens serão pintadas na cor laranja.

Os quadros deverão possuir placa de proteção em acrílico com a identificação dos circuitos.

Os quadros deverão conter os meios necessários à ligação dos cabos, bem como dispositivos para sua fixação, de modo a evitar que fiquem pendurados.

Vedação dos quadros deve ser executada, de modo a proteger os equipamentos contra poeira e líquidos não corrosivos em suspensão.

Todas as superfícies metálicas não condutoras de corrente elétrica, deverão ser pintadas e submetidas a tratamentos, os quais deverão proporcionar boa resistência a óleos e graxas em geral, grande durabilidade, inalterabilidade das cores, resistência a corrosão, boa aparência e fino acabamento. O tratamento da chapa deverá ser por jateamento de areia e pintura eletrostática em epoxi com espessura mínima de 80 microns.

Todos os parafusos, porcas e arruelas deverão ser zincadas por imersão a quente.

Os barramentos deverão ser em cobre eletrolítico 99,9%, estanhados, com espessura mínima de 3mm para o barramento principal, e de acordo com a corrente nominal indicada, e com espessura mínima de 2mm para os barramentos secundários..

Os barramentos e suportes deverão ser dimensionados para suportar os efeitos da corrente de curto-circuito e corrente nominal contínua indicadas no diagrama, na frequência de 60 HZ.

Os quadros deverão conter um barramento em cobre para ligação à terra, que permita a interligação aos quadros adjacentes, a fim de formar um conjunto contínuo, quando for o caso.

Os barramentos de neutro e terra deverão ter no mínimo 3mm de espessura, 3cm de largura e 20 cm de comprimento, sendo que o espaçamento entre os parafusos na largura, quando for o caso de duas carreiras de parafusos, deverá ser de 1,5cm entre eixos, e o espaçamento dos parafusos no comprimento deverá ser de no mínimo 1,0cm entre eixos.

Na será admitida qualquer barra de neutro ou terra menor que 20cm de comprimento.

Os isoladores utilizados deverão ser em epóxi e apropriado para os esforços mecânicos a que será submetido.

Não será admitida a utilização de isoladores em PVC.

Os quadros deverão ser fornecidos montados, com toda a fiação e equipamentos fixos, não passíveis de quebra no transporte.

A fiação deverá ser feita com cabos flexíveis e de diâmetros adequados à corrente a ser transportada, porém não menor que 2,5 mm<sup>2</sup>, com isolamento, para o mínimo 600 V, em composto termoplástico não propagante de chamas.

Não serão aceitas emendas nos cabos. Todas as conexões deverão ser feitas através de terminais.

Nas interligações entre partes fixas e móveis dos quadros, os cabos deverão ter comprimento e flexibilidade suficiente.

Para a facilidade de manutenção, todos os cabos deverão ser identificados em ambas as extremidades de acordo com os diagramas de fiação aprovados.

Os quadros deverão ser identificados de maneira apropriada, através de plaquetas ou etiquetas adesivas de PVC. As plaquetas deverão ser aparafusadas, não sendo aceitável o uso de cola. Deverão ser confeccionadas com lâminas de plástico de aproximadamente 3 mm de espessura e não deverão ser instaladas em partes removíveis. As inscrições deverão ser gravadas em branco com fundo preto e serem visíveis a, no mínimo, 2 metros de distância.

Deverão ser fornecidos para todos os quadros, o lay out da área que o mesmo atende, com as luminárias, tomadas e pontos de ar condicionado e os respectivos números de circuito, em tamanho compatível com a tampa do quadro, plastificado, e o diagrama unifilar do mesmo, também em tamanho compatível com a tampa do quadro, plastificado, colados do lado interno da tampa.

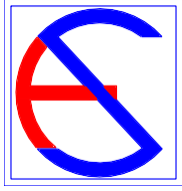
Deverá ser encaminhada a documentação abaixo relacionada e outros documentos e informações que o CONTRATANTE julgar necessários:

- . Desenhos de dimensões dos quadros, arranjos dos dispositivos e detalhes de montagem.
- . Relação dos componentes, peças e acessórios, indicando o tipo e as características principais.
- . Desenho estrutural dos quadros e detalhes da base de fixação.
- . Lista de peças de reserva recomendada.

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. Catálogos técnicos descritivos para cada componente.

O CONTRATANTE reserva o direito de realizar por sua conta ou através de representante credenciado, inspeção dos equipamentos, em qualquer fase de projeto do fabricante, a fim de certificar-se de que o mesmo está sendo projetado, fabricado, ensaiado e acabado conforme especificado.

O proprietário admitirá a utilização dos produtos fabricados pela Cemar, Taunus ou similares, desde que consultada previamente a fiscalização.

### Supressores de Surtos

Os supressores de surtos a serem instalados nos quadros deverão atender às seguintes características:

Apropriados para entrada de energia, conectados permanentemente, instalação em paralelo, com tecnologia de varistores múltiplos com fusíveis individuais, tensão de trabalho 127/220V – F-N, ou 220/380V – F-F, conforme o caso, 60HZ, corrente máxima de surto de 50KA para os quadros gerais e de 40 KA para os de distribuição de força e luz e elétrico de informática, tempo de resposta dos componentes menor que 1 nanosegundo.

O proprietário admitirá a utilização dos produtos fabricados pela JOSLYN, Clamper, Phoenix Contact, ou similares, desde que consultada previamente a fiscalização.

### ATERRAMENTO

#### Haste De Terra

Serão fabricadas com núcleo de aço SEA 1045, revestido com espessa camada de cobre eletrolítico, de fabricação Burndy, ou similar.

#### Caixa de Inspeção

Caixa tipo solo redonda em PVC com tampa de ferro fundido modelo TEL 550 da Termotécnica ou similar.

### LUMINÁRIAS E ACESSÓRIOS

#### LUMINÁRIA COM LÂMPADA TUBOLED

Tipo: Luminária tipo calha;  
Instalação: Embutido ou sobrepôs, conforme projeto;  
Material: **Corpo:** Chapa de aço.  
**Acabamento:** Tinta pó poliéster de alta resistência na cor branca.  
Lâmpada: TuboLED de 18W ou de 9W conforme projeto.  
Modelo/fabricantes: OS122 da Intral ou equivalente técnico;

#### Luminária Hermética IP65 para Câmara Frigorífica

**Tipo:** Luminárias destinada a locais de atmosferas corrosivas e em ambientes que contenham muita umidade, gases, vapores, pó e água, como: áreas litorâneas, frigoríficos, laticínios, moinhos, indústrias de bebidas, papel e celulose, química e petroquímica, minerações e instalações portuárias e indústrias de alimentos.

**Corpo:** Poliéster reforçado em fibra de vidro de alto padrão, garantindo máxima durabilidade, resistência mecânica contra trincos e rachaduras. Acabamento em gel na cor branca e cinza martelado.

**Difusor:** Acrílico liso e transparente, possui alta resistência a impactos e suas cores não são alterados sob efeito do sol e intempéries. Índice de refração de 1,49, transparência luminosa de 94%, resistência a temperatura de até 70°C.

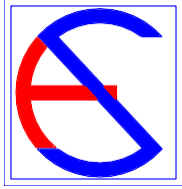
**Refletor:** Em chapa de aço, tipo plano ou prismático, tratado quimicamente e pintura em epóxi branco.

**Vedação:** Borracha EPDM (etil propileno), excelente resistência a intempéries, abrasivos ácidos, óleo e água.

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**Fechos:** Aço inox aro mola (SAE 304), fixado ao corpo da luminária.

**Acessórios:** Fica-cabo rosca PG 11 - IP68, antichamas injetados em nylon 6-Vo. Soquete: Ref.254(lucchi), anti-vibratório e anti-chamas.

**Lâmpadas:** Tuboled de 18W

**Garantia:** 1 ano

**Fabricante:** LEDAZUL, ou similar

### ESPECIFICAÇÕES TÉCNICAS – AR CONDICIONADO SPLIT

#### 1. DAS DEFINIÇÕES

Equipamento: Aparelhos de Ar condicionado TIPO DE EQUIPAMENTO

Tipo 1 - 24.000 BTUS

#### DAS NORMAS E DOCUMENTOS COMPLEMENTARES

2.1. Apresentação da cópia da ETIQUETA NACIONAL DE CONSERVAÇÃO DE ENERGIA – ENCE, na fase de habilitação, em conformidade com as Portarias do Inmetro a seguir:

Portaria/Inmetro nº 007, de 04 de janeiro de 2011 – Etiquetagem Compulsória de Condicionadores de ar até 60.000 BTU/h.

Portaria/Inmetro nº 643, de 30 de novembro de 2012.

#### DAS ESPECIFICAÇÕES TÉCNICAS

##### Especificações para cada tipo:

Tipo 1 - 12.000 BTUS  
Modelo Split Hi Wall  
Tipo de ciclo Frio  
Cor Branco Branco  
ENCE A  
Filtro de Ar Anti-bactéria  
Vazão de Ar No mínimo 500 m<sup>3</sup>/h  
Controle remoto Sim  
Termostato Digital  
Funções Sleep e Swing  
Voltagem 220 V

Tipo 2 - 24.000 BTUS  
Modelo Split Hi Wall  
Tipo de ciclo Frio  
Cor Branco Branco  
ENCE A  
Filtro de Ar Anti-bactéria  
Vazão de Ar No mínimo 1.000 m<sup>3</sup>/h  
Controle remoto Sim  
Termostato Digital  
Funções Sleep e Swing  
Voltagem 220 V

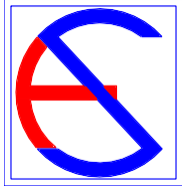
##### Especificações Gerais

Todos os equipamentos de ar condicionado tipo Split Hi Wall com tecnologia convencional.

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Todos os modelos dos aparelhos de ar condicionado deverão apresentar ETIQUETA NACIONAL DE CONSERVAÇÃO DE ENERGIA – ENCE autorizada pelo Inmetro, em conformidade com as seguintes Portarias:

Portaria/Inmetro nº 007, de 04 de janeiro de 2011 – Etiquetagem Compulsória de Condicionadores de ar até 60.000 BTU/h.

Portaria/Inmetro nº 643, de 30 de novembro de 2012 .

Todos os aparelhos de ar condicionado deverão ser acompanhados do manual de instruções em português para uso, conservação e manutenção dos equipamentos.

As especificações técnicas definidas neste Termo de Referência poderão ser igualadas ou superadas por soluções divergentes das especificadas, desde que sejam mantidas as exigências de padrão, desempenho e funcionalidades do ambiente. Para tal, o licitante deverá registrar este fato em sua proposta e encaminhar, oportunamente, para a CONTRATANTE, documentação técnica e explicações que permitam manifestação fundada e conclusiva sobre a equivalência ou superioridade da solução divergente. Considerando as condições usuais de fornecimento de energia elétrica no Brasil, no que tange à tensão de entrada, serão consideradas atendidas aquelas que se encontrarem em qualquer valor entre 200e 220V, inclusive, as exigências de 220V

#### 4. DAS CONDIÇÕES GERAIS

##### Identificação do fornecedor

A etiqueta a ser fixada no equipamento deverá ser auto adesiva vinílica ou de alumínio com informações impressas de forma permanente, do tamanho mínimo 80mm x 40mm, a ser fixada na parte inferior do tampo e do assento, contendo:

Nome do fornecedor;  
Nome do fabricante;  
Logomarca do fabricante;  
Endereço/ telefone do fornecedor;  
Data de fabricação (mês/ano);  
Código do Produto;  
Garantia de, no mínimo, 12 meses após a data da entrega

##### Manual de Uso e Conservação

Todo o equipamento deverá acompanhar o respectivo manual de uso e conservação em português.

##### Embalagem

Todo equipamento fornecido deverá possuir os componentes especificados nos itens de Descrição do Termo de Referência. Os produtos deverão ser entregues acondicionados. A embalagem deverá possuir identificação externa contendo no mínimo a Descrição do Bem. Os produtos deverão ser entregues com todos os componentes especificados.

##### Garantia

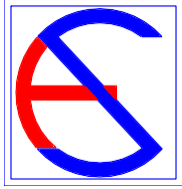
O fabricante (contratada) deverá oferecer garantia de, no mínimo, 12 meses a partir da data da entrega dos equipamentos, contra defeitos de fabricação. A data para cálculo da garantia deve ter com base a data da efetiva entrega dos equipamentos ao interessado (contratante).

#### 5. DO CONTROLE DE QUALIDADE

Os produtos deste Termo de Referência estão sujeitos ao Controle de Qualidade realizado pela CONTRATANTE, pelos interessados ou por instituição indicada por eles.

O Controle de Qualidade ocorrerá, por meio de eventuais visitas técnicas sob a responsabilidade da equipe avaliadora da CONTRATANTE.





## Senemig Engenharia

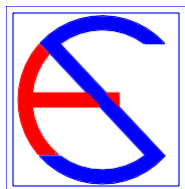
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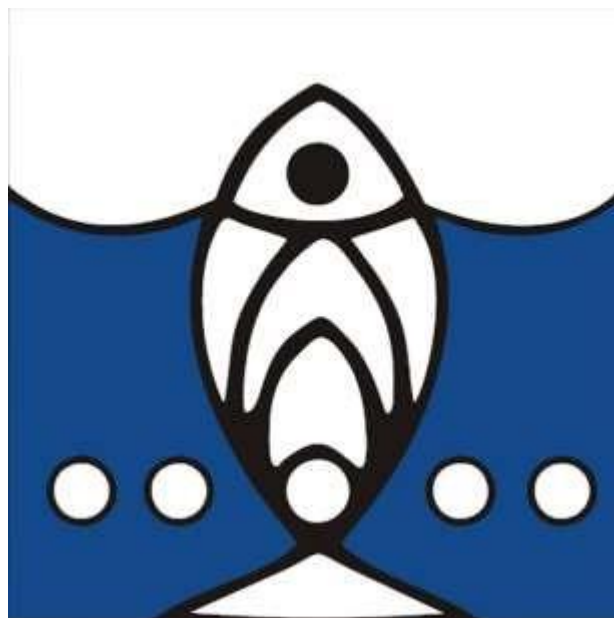
Marco Antonio Gímenes  
Engenheiro Eletricista e Segurança do Trabalho  
CREA: 63.390

Av. Luiz Tarquínio Pontes, 1.904 Sala 01-A, Pitangueiras, Lauro de Freitas, BA - CEP 42.701-450  
Fone 3350-9350 [senemig@senemig.com.br](mailto:senemig@senemig.com.br)





Senemig Engenharia



BAHIA PESCA SA

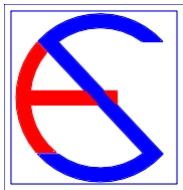
# MERCADO DE PESCADOS VALENÇA-BA

## MEMORIAL DE CÁLCULO DO PROJETO DAS INSTALAÇÕES HIDRÁULICAS E SANITÁRIAS

REV 01 – 07/06/2021

**EMPRESA RESPONSÁVEL:** Senemig Engenharia LTDA  
**RESPONSÁVEIS TÉCNICOS:**  
**ENG. ARQ. EDUARDO ALVES DA COSTA CASTRO – CAU:57.423-6**





## 17. INSTALAÇÕES HIDROSANITÁRIAS

### MEMORIAL DE CÁLCULO

#### DESCRIÇÃO DAS INSTALAÇÕES

O presente documento tem por finalidade apresentar os cálculos de dimensionamento do projeto de Instalações Hidrossanitárias do Mercado de pescados. Localizado na Avenida Marita Almeida, S/N, Valença – BA, Brasil.

#### NORMAS UTILIZADAS

Todas as notas e observações direcionadas ao sistema serão obedecidas às normas de Instalações Hidrossanitárias da ABNT (Associação Brasileira de Normas Técnicas), as normas e padrões em vigor da concessionária local e especificações dos fabricantes dos materiais a serem utilizados na obra. Sendo estas

NBR 5626 - Instalações prediais de água fria

NBR 10843 - ABNT - Tubos de PVC rígido para instalações prediais de águas pluviais - Especificação.

NBR 10844 - ABNT - Instalações Prediais de Águas Pluviais.

NBR 5680 - ABNT - Tubos de PVC rígido - dimensões - Padronização.

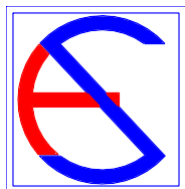
NBR 7229 - ABNT - Construção e Instalação de Fossas Sépticas e Disposição dos efluentes finais.

NBR 8160 - ABNT - Instalações Prediais de Esgoto Sanitário.

NBR 9649 - ABNT - Projeto de redes coletoras de esgoto sanitário.

NBR 9814 - ABNT - Execução de rede coletora de esgoto sanitário - Procedimento.

Códigos de Obras de Salvador – Lei nº 3.903/88



## Dimensionamento de Água fria Potável e Não Potável.

### Dimensionamento do Consumo de água

A demanda estimada diária foi fixada, levando-se em consideração a seguinte taxa de ocupação:

#### ➤ **Mercados**

A demanda estimada diária foi fixada, levando-se em consideração a seguinte taxa de ocupação:

Taxa de Ocupação= 1 pessoa / 2,5m<sup>2</sup> (**retirada de livros publicados por estudiosos com Hélio Creder e Joseph Macintyre**) pela falta de informação no código de obras.

Área Total (Mercado) = 590,64 m<sup>2</sup>

Cálculo da População= 590,64/2,5 ≈ 236 pessoas

População total estimada = 236 pessoas

População fixa = 80 pessoas

População flutuante = 156 pessoas

Consumo per capita: 50 litros (**Estimativa de Consumo retirada de livros publicados por estudiosos com Hélio Creder e Joseph Macintyre**)

População permanente = 80 pessoas x 50 litros = 4.000 litros

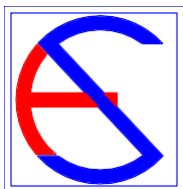
População flutuante = 156 pessoas x 25 litros = 3.900 litros

Considerando uma Reserva de 1,5 dias (Recomendação da Concessionária) temos = 7.900 x 1,5 = 11.850 litros – aproximamos para **10.000 Litros**.

### Reservatórios

- Os reservatórios inferiores e superiores foram dimensionados de acordo com os valores acima e terão os seguintes volumes:

1. Reservatório superior de água potável 10,00 m<sup>3</sup>



## Senemig Engenharia

### Dimensionamento do Ramal Predial

Critérios adotados:

Consumo diário..... 7.900 Litros

Vazão necessária.  $Q = 7.900 / (24 \times 3.660)$  0,094 l/s

Velocidade máxima (pela NBR-5626/98)----- 1,00 m/s

Diâmetro do ramal predial:

$$D^2 = \frac{4 \times Q}{\pi \times V} = \frac{4 \times 0,000094}{3,14 \times 1} = 0,0123$$

D nominal = 12,00 mm

**Adotar DN = 20 mm (1/2")**

Dimensionamento das colunas de distribuição de água fria potável e não potável.

Dimensionamento dos ramais pelo método das vazões:

$$Q = 0,3 \sqrt{\Sigma P}$$

$$V = \frac{4Q}{\pi \cdot D^2} \cdot 1000$$

Onde:

Q = vazão em l/s

C = coeficiente de descarga = 0,30

$\Sigma P$  = soma dos pesos correspondentes a todas as peças suscetíveis de utilização simultânea, ligadas a tubulação que se adota.

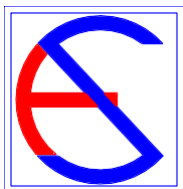
D = diâmetro nominal em mm

V = velocidade de m/s < 2,50 m/s

### Água Potável

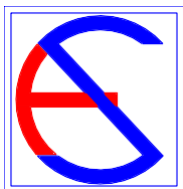
Somatório dos pesos das prumadas de água fria potável.

APARELHOS SANITÁRIOS	NBR - 5626		AF-1 (A.P.)		AF-2 (A.P.)		AF-3 (A.P.)	
	PESOS	VAZÃO L/S	QUANT.	Σ PESOS	QUANT.	Σ PESOS	QUANT.	Σ PESOS
LAVATÓRIO	0,3	0,15	10	3	1	0,3		0
PIA	0,7	0,25	6	4,2		0	36	25,2
CHUVEIRO	0,4	0,25	4	1,6		0		0
DUCHA	0,4	0,20		0	10	4		0
TORNEIRA	0,4	0,20	2	0,8		0		0
BEBEDOURO	0,1	0,10	1	0,1		0	34	3,4
VALVULA DE DESCARGA	32	1,70		0	10	320		0
MICTÓRIO	0,3	0,15	2	0,6		0		0
BACIA ACOPLADA	0,3	0,15		0		0		0
TORNEIRA DE JARDIM	0,4	0,20		0		0	10	4
<b>TOTAL</b>				<b>10,3</b>		<b>324,3</b>		<b>32,6</b>
<b>BARRILETE</b>		<b>381,6</b>						



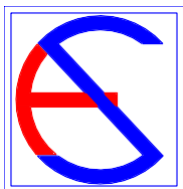
# Senemig Engenharia

Cálculo de canalização - PVC																	
OBRA: MERCADO DOS PESCADOS																	
Calculo Rede Distribuicao Agua Fria Potável																	
TRECHO		PESOS			DIÂMETRO (mm)			VELOCIDADE (m/s)		COMPRIM			PERDA DE CARGA			PRESSÃO (mca)	
INÍCIO	FIM	UNITÁRIO	ACUMU- LADO	VAZÃO (ts/seg)	CÁLCULO	INTERNO	NOMINAL	VELOCIDADE (m/s)	HORIZONTAL	TOTAL DE TUBOS	TOTAL DE CONEXÕES	COMP TOTAL (mt)	UNITÁRIA (J)	TOTAL (mca)	DESNIVEL (mt)	À MONTANTE	À JUSANTE
(ADOTADAS AS PERDAS DE CARGA LOCALIZADAS DA TABELA 6 DA NBR 5626/98)																	
TUBULAÇÃO PVC MARROM - CLASSE 15																	
<b>ÁGUA FRIA POTÁVEL - BARRILETE</b>																	
BARRILETE		367,20	367,20	5,75	48,68	98	110	0,76	5,00	6,50	29,20	35,70	0,01	0,36	1,50	0,00	1,14
RES	A	10,30	10,30														
RES	B	324,30	324,30														
RES	C	32,60	32,60														
<b>PRUMADA DE ÁGUA FRIA AF - AP-01</b>																	
A	9	0,60	10,30	0,96	23,82	53	60	0,44	3,80	5,50	33,00	38,50	0,01	0,39	1,70	1,14	2,45
	9		9,70	0,93	23,54	53	60	0,42	2,05	2,05	9,90	11,95	0	0		2,45	2,45
	8	0,80	8,90	0,89	23,13	53	60	0,41	0,65	0,65	9,90	10,55	0	0		2,45	2,45
	6	2,10	2,10	0,43	17,330	28	32	0,71	3,70	3,70	5,40	9,10	0,03	0,27		2,45	2,18
	6	1,30	6,80	0,78	21,92	44	50	0,51	2,60	2,60	9,50	12,10	0,01	0,12		2,45	2,33
	5	0,60	5,50	0,70	21,01	35	40	0,73	1,25	1,25	6,10	7,35	0,02	0,15		2,33	2,18
	4	0,30	4,90	0,66	20,53	35	40	0,69	1,30	1,30	8,10	9,40	0,02	0,19		2,18	1,99
	3	0,70	4,60	0,64	20,27	35	40	0,67	6,80	6,80	6,10	12,90	0,02	0,26		1,99	1,73
	2	3,90	3,90	0,59	19,61	35	40	0,62	1,50	1,50	4,50	6,00	0,02	0,12		1,73	1,61
<b>PRUMADA DE ÁGUA FRIA AF - AP-02</b>																	
B	4	64,80	324,30	5,40	47,48	76	85	1,19	5,00	6,70	41,00	47,70	0,02	0,95	1,70	1,14	1,89
	4	97,20	259,50	4,83	45,41	76	85	1,07	3,30	3,30	10,90	14,20	0,02	0,28		1,89	1,61
	3	64,80	162,30	3,82	41,35	76	85	0,84	3,15	3,15	10,90	14,05	0,01	0,14		1,61	1,47
	2	97,50	97,50	2,96	37,34	76	85	0,65	4,95	4,95	10,90	15,85	0,01	0,16		1,47	1,31
<b>PRUMADA DE ÁGUA FRIA AF - AP-03</b>																	
C	33	32,60	32,60	1,71	29,99	53	60	0,78	5,20	5,60	24,30	29,90	0,01	0,3	0,40	1,14	1,24
	33	8,20	8,20	0,86	22,76	35	40	0,89	4,00	6,50	12,10	18,60	0,03	0,56	2,50	1,24	3,18
	37	0,40	0,40	0,19	12,44	22	25	0,5	0,20	0,60	2,40	3,00	0,02	0,06	0,40	3,18	3,52
	37	0,80	2,00	0,42	17,16	35	40	0,44	0,30	0,30	6,10	6,40	0,01	0,06		3,18	3,12
	35	1,20	1,20	0,33	15,5	35	40	0,34	2,00	2,00	6,10	8,10	0,01	0,08		3,12	3,04
	37	0,80	5,80	0,72	21,23	35	40	0,75	0,30	0,30	6,10	6,40	0,02	0,13		3,18	3,05
	43	0,80	5,00	0,67	20,61	35	40	0,7	1,50	1,50	6,10	7,60	0,02	0,15		3,05	2,90
	42	0,80	4,20	0,61	19,91	35	40	0,64	0,50	0,50	6,10	6,60	0,02	0,13		2,90	2,77
	41	0,80	3,40	0,55	19,08	35	40	0,57	1,50	1,50	6,10	7,60	0,01	0,08		2,77	2,69
	40	0,80	2,60	0,48	18,09	35	40	0,5	0,50	0,50	6,10	6,60	0,01	0,07		2,69	2,62
	39	1,80	1,80	0,40	16,8	35	40	0,42	1,70	1,70	6,10	7,80	0,01	0,08		2,62	2,54
	33	19,60	24,40	1,48	28,3	53	60	0,67	6,50	6,50	13,30	19,80	0,01	0,2		1,24	1,04
	32	0,80	4,80	0,66	20,45	35	40	0,68	9,40	9,40	6,10	15,50	0,02	0,31		1,04	0,73
	31	2,40	4,00	0,60	19,71	35	40	0,62	2,60	2,60	6,10	8,70	0,02	0,17		0,73	0,56
	29	1,60	1,60	0,38	16,41	35	40	0,39	0,50	3,00	12,10	15,10	0,01	0,15	2,50	0,56	2,91
	29	0,80	2,40	0,46	17,8	35	40	0,48	4,10	6,60	14,10	20,70	0,01	0,21	2,50	0,56	2,85
	28.1	1,60	1,60	0,38	16,41	35	40	0,39	2,00	2,00	6,10	8,10	0,01	0,08		2,85	2,77



# Senemig Engenharia

32	9	6,00	19,60	1,33	27,09	53	60	0,6	2,25	2,25	9,90	12,15	0,01	0,12		1,04	0,92
9	10	4,80	13,60	1,11	25,18	53	60	0,5	0,40	0,40	9,90	10,30	0,01	0,1		0,92	0,82
10	17	8,80	8,80	0,89	23,08	35	40	0,92	4,20	6,70	12,10	18,80	0,03	0,56	2,50	0,82	2,76
17	21	0,80	3,60	0,57	19,3	35	40	0,59	0,30	0,30	6,10	6,40	0,01	0,06		2,76	2,70
21	20	0,80	2,80	0,50	18,36	35	40	0,52	1,50	1,50	6,10	7,60	0,01	0,08		2,70	2,62
20	19	0,80	2,00	0,42	17,16	35	40	0,44	0,50	0,50	6,10	6,60	0,01	0,07		2,62	2,55
19	18	1,20	1,20	0,33	15,5	35	40	0,34	1,50	1,50	6,10	7,60	0,01	0,08		2,55	2,47
17	16	0,80	5,20	0,68	20,78	35	40	0,71	0,30	0,30	6,10	6,40	0,02	0,13		2,76	2,63
16	15	0,80	4,40	0,63	20,09	35	40	0,65	1,50	1,50	6,10	7,60	0,02	0,15		2,63	2,48
15	14	0,80	3,60	0,57	19,3	35	40	0,59	0,50	0,50	6,10	6,60	0,01	0,07		2,48	2,41
14	13	0,80	2,80	0,50	18,36	35	40	0,52	1,50	1,50	6,10	7,60	0,01	0,08		2,41	2,33
13	12	0,80	2,00	0,42	17,16	35	40	0,44	0,50	0,50	6,10	6,60	0,01	0,07		2,33	2,26
12	11	1,20	1,20	0,33	15,5	35	40	0,34	1,50	1,50	6,10	7,60	0,01	0,08		2,26	2,18
10	25	4,80	4,80	0,66	20,45	44	50	0,43	9,60	12,10	15,90	28,00	0,01	0,28	2,50	0,82	3,04
25	27	0,80	2,00	0,42	17,16	35	40	0,44	1,00	1,00	6,10	7,10	0,01	0,07		3,04	2,97
27	26	1,20	1,20	0,33	15,5	35	40	0,34	2,00	2,00	6,10	8,10	0,01	0,08		2,97	2,89
25	24	0,80	2,80	0,50	18,36	35	40	0,52	0,90	0,90	6,10	7,00	0,01	0,07		3,04	2,97
24	23	0,80	2,00	0,42	17,16	35	40	0,44	2,00	2,00	6,10	8,10	0,01	0,08		2,97	2,89
23	22	1,20	1,20	0,33	15,5	35	40	0,34	2,00	2,00	6,10	8,10	0,01	0,08		2,89	2,81
9	5	6,00	6,00	0,73	21,38	44	50	0,48	9,60	9,60	9,50	19,10	0,01	0,19		0,92	0,73
5	8	0,80	2,00	0,42	17,16	35	40	0,44	4,50	7,00	14,10	21,10	0,01	0,21	2,50	0,73	3,02
8	7	0,40	1,20	0,33	15,5	35	40	0,34	0,25	0,25	6,10	6,35	0,01	0,06		3,02	2,96
7	6	0,80	0,80	0,27	14,29	35	40	0,28	3,00	3,00	8,10	11,10	0	0		2,96	2,96
5	4	0,80	4,00	0,60	19,71	35	40	0,62	1,00	3,50	14,10	17,60	0,02	0,35	2,50	0,73	2,88
4	3	0,80	3,20	0,54	18,85	35	40	0,56	2,00	2,00	6,10	8,10	0,01	0,08		2,88	2,80
3	2	0,80	2,40	0,46	17,8	35	40	0,48	2,00	2,00	6,10	8,10	0,01	0,08		2,80	2,72
2	1	1,60	1,60	0,38	16,41	35	40	0,39	2,00	2,00	6,10	8,10	0,01	0,08		2,72	2,64
<b>VERIFICAÇÃO DO ISOMÉTRICO MAIS DESFAVORÁVEL - (AF - A.P.-04) - ISOMÉTRICO 18 - BOX 26</b>																	
1	A	1,00	1,00	0,30	14,94	22	25	0,79	2,80	3,40	5,80	9,20	0,04	0,37	0,60	2,64	2,87
A	PIA	0,70	0,70	0,25	13,91	22	25	0,66	0,40	0,40	2,00	2,40	0,03	0,07		2,87	2,80
<b>VERIFICAÇÃO DE PRESSÃO - PIA - ISO 18</b>																	
PRESSÃO DISPONÍVEL																	
2,87																	
m.c.a.																	
PERDA DE CARGA TOTAL																	
0,07																	
m.c.a.																	
PRESSÃO REAL																	
2,80																	
m.c.a.																	
PRESSÃO NECESSÁRIA																	
2,00																	
m.c.a.																	
SITUAÇÃO																	
ok																	
<b>VERIFICAÇÃO DO ISOMÉTRICO MAIS DESFAVORÁVEL - (AF - A.P.-03) - ISOMÉTRICO 11 - VÁLVULA HYDRA</b>																	
1	C	32,00	64,80	2,41	34,41	53	60	1,09	2,60	4,15	18,80	22,95	0,02	0,46	1,55	1,31	2,40
C	B	0,40	32,80	1,72	30,03	44	50	1,13	0,25	0,25	9,50	9,75	0,03	0,29		2,40	2,11
B	A	32,40	32,40	1,71	29,96	44	50	1,12	0,70	0,70	9,50	10,20	0,03	0,31		2,11	1,80
A	VALV.	0,40	0,40	0,19	12,44	35	40	0,2	0,30	1,10	7,00	8,10	0	0	0,80	1,80	2,60
<b>VERIFICAÇÃO DE PRESSÃO - VÁLVULA DE DESCARGA - ISO 11</b>																	
PRESSÃO DISPONÍVEL																	
1,80																	
m.c.a.																	
PERDA DE CARGA TOTAL																	
0																	
m.c.a.																	
PRESSÃO REAL																	
2,60																	
m.c.a.																	
PRESSÃO NECESSÁRIA																	
2,00																	
m.c.a.																	
SITUAÇÃO																	
ok																	



## ESGOTO

Para o cálculo das tubulações primárias, secundárias e coletores principais, foi observado o descrito na norma ABNT NBR-8160/99, bem como os dados dos fabricantes de diversos equipamentos e, quanto ao dimensionamento da rede, adotar-se-á os seguintes:

Para os ramais de descarga, devem ser adotados no mínimo os diâmetros apresentados na tabela 03 da NBR 8160. Para os aparelhos não relacionados na tabela 03, devem-se adotar as UHC correspondentes aos valores indicados na Tabela 04 da NBR 8160.

Tabela 2 (NBR 8160) – Dimensionamento de colunas e barriletes de ventilação.

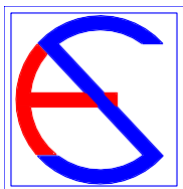
**Tabela 2 - Dimensionamento de colunas e barriletes de ventilação**

Diâmetro nominal do tubo de queda ou do ramal de esgoto <i>DN</i>	Número de unidades de Hunter de contribuição	Diâmetro nominal mínimo do tubo de ventilação							
		40	50	75	100	150	200	250	300
		Comprimento permitido m							
100	43	-	11	76	299	-	-	-	-
100	140	-	8	61	229	-	-	-	-
100	320	-	7	52	195	-	-	-	-
100	530	-	6	46	177	-	-	-	-

COLUNAS DE VENTILAÇÃO			CV-01		CV-02		CV-03		CV-04		CV-05	
Ø ADOTADO CONFORME NBR-8160			75mm		75mm		75mm		75mm		75mm	
APARELHOS SANITÁRIOS	Ø mínimo	UHC	QUANT.	ε	QUANT.	ε	QUANT.	ε	QUANT.	ε	QUANT.	ε
BACIA SANITÁRIA	100	6	5	30	5	30		0		0		0
LAVATÓRIO	40	2	6	12	4	8		0		0		0
MICTÓRIO	40	2	2	4		0		0		0		0
PIA DE COZINHA	50	3		0		0	6	18	5	15	6	18
CAIXA SIFONADA Ø50mm	40	3		0		0	7	21	5	15	5	15
CAIXA SIFONADA Ø75mm	40	5		0		0	1	5	1	5	1	5
CHUVEIRO	40	3	4	12	6	18		0		0		0
<b>TOTAL - UHC</b>			<b>58</b>		<b>56</b>		<b>44</b>		<b>35</b>		<b>38</b>	

COLUNAS DE VENTILAÇÃO			CV-06		CV-07		CV-08	
Ø ADOTADO CONFORME NBR-8160			75mm		75mm		75mm	
APARELHOS SANITÁRIOS	Ø mínimo	UHC	QUANT.	ε	QUANT.	ε	QUANT.	ε
BACIA SANITÁRIA	100	6		0		0		0
LAVATÓRIO	40	2		0		0		0
MICTÓRIO	40	2		0		0		0
PIA DE COZINHA	50	3	9	27	5	15	5	15
CAIXA SIFONADA Ø50mm	40	3	8	24	7	21	6	18
CAIXA SIFONADA Ø75mm	40	5		0	1	5		0
CHUVEIRO	40	3		0		0		0
<b>TOTAL - UHC</b>			<b>56</b>		<b>41</b>		<b>38</b>	



## Senemig Engenharia

Tabela 3 (NBR 8160) - Unidades de Hunter de contribuição dos aparelhos sanitários e diâmetro nominal mínimo dos ramais de descarga.

Aparelho sanitário		Número de unidades de Hunter de contribuição	Diâmetro nominal mínimo do ramal de descarga <i>DN</i>
Bacia sanitária		6	100 <sup>1)</sup>
Banheira de residência		2	40
Bebedouro		0,5	40
Bidê		1	40
Chuveiro	De residência	2	40
	Coletivo	4	40
Lavatório	De residência	1	40
	De uso geral	2	40
Mictório	Válvula de descarga	6	75
	Caixa de descarga	5	50
	Descarga automática	2	40
	De calha	2 <sup>2)</sup>	50
Pia de cozinha residencial		3	50
Pia de cozinha industrial	Preparação	3	50
	Lavagem de painéis	4	50
Tanque de lavar roupas		3	40
Máquina de lavar louças		2	50 <sup>3)</sup>
Máquina de lavar roupas		3	50 <sup>3)</sup>

Tabela 4 (NBR 8160) - Unidades de Hunter de contribuição para aparelhos não relacionados na tabela 3

Diâmetro nominal mínimo do ramal de descarga <i>DN</i>	Número de unidades de Hunter de contribuição UHC
40	2
50	3
75	5
100	6



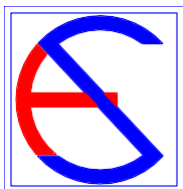


Tabela 5 (NBR 8160) - Dimensionamento de ramais de esgoto

Diâmetro nominal mínimo do tubo <i>DN</i>	Número máximo de unidades de Hunter de contribuição UHC
40	3
50	6
75	20
100	160

Os ramais de esgoto foram projetados conforme, tabela acima, ver planta de detalhe de esgoto.

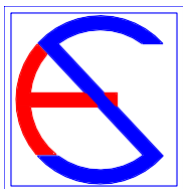
Tabela 6 (NBR 8160) - Dimensionamento dos tubos de quedas

**Tabela 6 - Dimensionamento de tubos de queda**

Diâmetro nominal do tubo <i>DN</i>	Número máximo de unidades de Hunter de contribuição	
	Prédio de até três pavimentos	Prédio com mais de três pavimentos
40	4	8
50	10	24
75	30	70
100	240	500
150	960	1 900
200	2 200	3 600
250	3 800	5 600
300	6 000	8 400

Tabela 7 (NBR8160) - Dimensionamento de subcoletores e coletor predial

Diâmetro nominal do tubo <i>DN</i>	Número máximo de unidades de Hunter de contribuição em função das declividades mínimas %			
	0,5	1	2	4
100	-	180	216	250
150	-	700	840	1 000
200	1 400	1 600	1 920	2 300
250	2 500	2 900	3 500	4 200
300	3 900	4 600	5 600	6 700
400	7 000	8 300	10 000	12 000



# Senemig Engenharia

DIMENSIONAMENTO DA REDE EXTERNA DE ESGOTO (UHC)														
PROJETO: MERCADO DE PESCADOS - VALENÇA - BA														
1 - REDE PRINCIPAL (C.I.E. - 01 a ESTAÇÃO DE TRATAMENTO DE ESGOTO - E.T.E.)														
CAIXA MONTANTE	CAIXA JUSANTE	UHC	UHC ACUM.	DIAM.	COMP.	INCLINAÇÃO	COMP*INCL	COTA DE FUNDO		COTA DE TAMPA		ALTURA DA CAIXA		INC.CAL
								MONTANTE	JUSANTE	MONTANTE	JUSANTE	MONTANTE	JUSANTE	
C.I.E. - 01	C.I.E. - 02	90	90	100	5,60	0,01	0,06	-0,50	-0,75	0,00	0,00	0,50	0,75	4,46%
C.I.E. - 02	C.I.E. - 03	74	164	100	4,00	0,01	0,04	-0,75	-0,87	0,00	0,00	0,56	0,87	3,00%
C.I.E. - 03	E.T.E.	76	423	150	1,30	0,01	0,01	-0,87	-0,90	0,00	0,00	0,87	0,90	2,31%
1.1 - REDE PRINCIPAL - (C.I.E. - 04 - 01 a C.I.E. - 03)														
CAIXA MONTANTE	CAIXA JUSANTE	UHC	UHC ACUM.	DIAM.	COMP.	INCLINAÇÃO	COMP*INCL	COTA DE FUNDO		COTA DE TAMPA		ALTURA DA CAIXA		INC.CAL
								MONTANTE	JUSANTE	MONTANTE	JUSANTE	MONTANTE	JUSANTE	
C.I.E. - 04	C.I.E. - 05	85	85	100	6,00	0,01	0,06	-0,70	-0,76	0,00	0,00	0,70	0,76	1,00%
C.I.E. - 05	C.I.E. - 06	85	100	100	4,00	0,01	0,04	-0,76	-0,80	0,00	0,00	0,76	0,80	1,00%
C.I.E. - 06	C.I.E. - 03	47	132	100	7,20	0,01	0,07	-0,80	-0,87	0,00	0,00	0,80	0,87	1,00%
1.2 - REDE PRINCIPAL - (C.I.E. - 07 a ESTAÇÃO DE TRATAMENTO DE ESGOTO - E.T.E.)														
CAIXA MONTANTE	CAIXA JUSANTE	UHC	UHC ACUM.	DIAM.	COMP.	INCLINAÇÃO	COMP*INCL	COTA DE FUNDO		COTA DE TAMPA		ALTURA DA CAIXA		INC.CAL
								MONTANTE	JUSANTE	MONTANTE	JUSANTE	MONTANTE	JUSANTE	
C.I.E. - 07	C.I.E. - 08	51	51	100	5,70	0,01	0,06	-0,55	-0,70	0,00	0,00	0,55	0,70	2,63%
C.I.E. - 08	E.T.E.	51		100	11,20	0,01	0,11	-0,70	-0,90	0,00	0,00	0,70	0,90	1,79%

A tabela encontra-se na planta de situação de esgoto para melhor visualização.

Tabela 8 (NBR 8160) - Dimensionamento de ramais de ventilação

Tabela 8 - Dimensionamento de ramais de ventilação

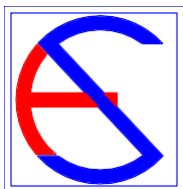
Grupo de aparelhos sem bacias sanitárias		Grupo de aparelhos com bacias sanitárias	
Número de unidades de Hunter de contribuição	Diâmetro nominal do ramal de ventilação	Número de unidades de Hunter de contribuição	Diâmetro nominal do ramal de ventilação
Até 12	40	Até 17	50
13 a 18	50	18 a 60	75
19 a 36	75	-	-

COLUNAS DE VENTILAÇÃO			CV-01		CV-02		CV-03		CV-04		CV-05	
Ø ADOTADO CONFORME NBR-8160			75mm		75mm		75mm		75mm		75mm	
APARELHOS SANITÁRIOS	Ø mínimo	UHC	QUANT.	Σ	QUANT.	Σ	QUANT.	Σ	QUANT.	Σ	QUANT.	Σ
BACIA SANITÁRIA	100	6	5	30	5	30		0		0		0
LAVATÓRIO	40	2	6	12	4	8		0		0		0
MICTÓRIO	40	2	2	4		0		0		0		0
PIA DE COZINHA	50	3		0		0	6	18	5	15	6	18
CAIXA SIFONADA Ø50mm	40	3		0		0	7	21	5	15	5	15
CAIXA SIFONADA Ø75mm	40	5		0		0	1	5	1	5	1	5
CHUVEIRO	40	3	4	12	6	18		0		0		0
<b>TOTAL - UHC</b>			<b>58</b>		<b>56</b>		<b>44</b>		<b>35</b>		<b>38</b>	

COLUNAS DE VENTILAÇÃO			CV-06		CV-07		CV-08	
Ø ADOTADO CONFORME NBR-8160			75mm		75mm		75mm	
APARELHOS SANITÁRIOS	Ø mínimo	UHC	QUANT.	Σ	QUANT.	Σ	QUANT.	Σ
BACIA SANITÁRIA	100	6		0		0		0
LAVATÓRIO	40	2		0		0		0
MICTÓRIO	40	2		0		0		0
PIA DE COZINHA	50	3	9	27	5	15	5	15
CAIXA SIFONADA Ø50mm	40	3	8	24	7	21	6	18
CAIXA SIFONADA Ø75mm	40	5	1	5	1	5	5	15
CHUVEIRO	40	3		0		0		0
<b>TOTAL - UHC</b>			<b>56</b>		<b>41</b>		<b>38</b>	

BAHI

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Declividades nos ramais de descargas

DN	I%
> ou = 75	2
> ou = 100	1

## Dimensionamento da Estação Elevatória de Esgoto E.T.E.

Unidade cilíndrica ou prismática retangular com fluxo horizontal, para tratamento de esgotos por processos de sedimentação, flotação e digestão.

$$V = 1000 + N (C.T + K. Lf) \quad (\text{NBR 7229/1993})$$

Onde:

V= volume útil, em litros

N= número de contribuintes = 203 pessoas

C= contribuição de despejos (480 litros por bacia)

T= período de detenção em dias = 0,83

K= taxa de acumulação de lodo digerido em dias, equivalente ao tempo de acumulação de lodo fresco = 57

Lf = contribuição de lodo frescos (litros/pessoa) = 4,0

$$V = 1000 + 12((480.0,83) + (57.4,0))$$

$$V = 1000 + 12 (398 + 228)$$

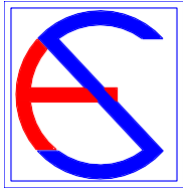
$$V = 1000 + 12 \times 626$$

$$V = 1000 + 7512$$

$$V = 8.512 \text{ Litros ou } 8,52\text{m}^3$$

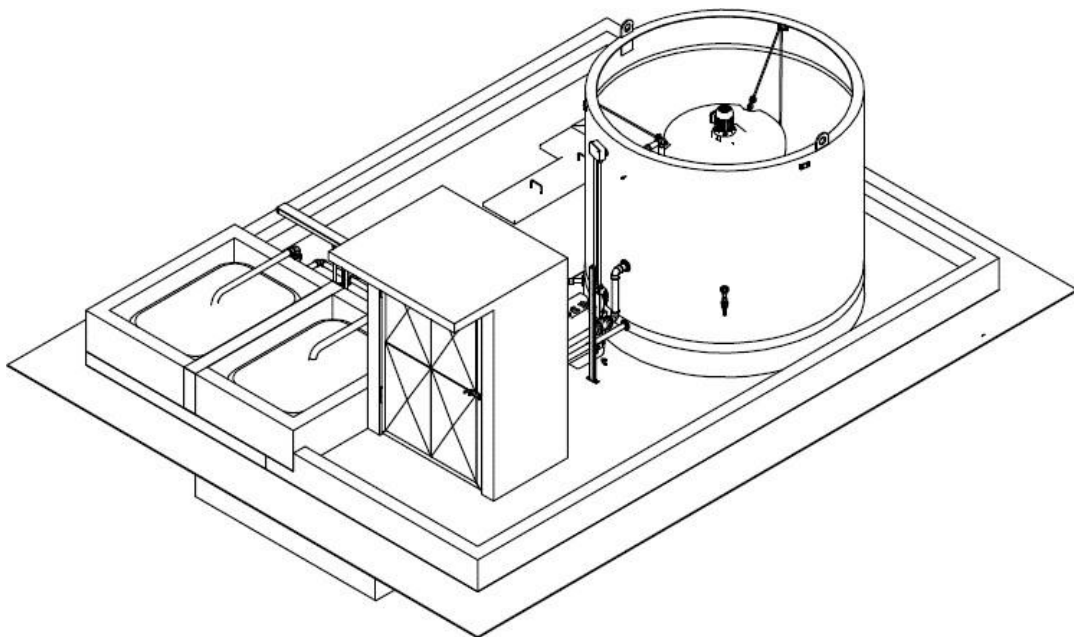
**Então foi adotada um E.T.E. com processo Aeróbico com capacidade de 10.000 litros.**

O sistema proposto serve para tratar esgoto sanitário proveniente de Condomínio Residencial. Este tratamento é baseado nos fenômenos biológicos que ocorrem naturalmente nos cursos de água e permite o descarte do efluente, obedecendo todos os parâmetros exigidos pela legislação brasileira, reduzindo os impactos ambientais e contribuindo com as propostas de gestão ambientalmente responsável

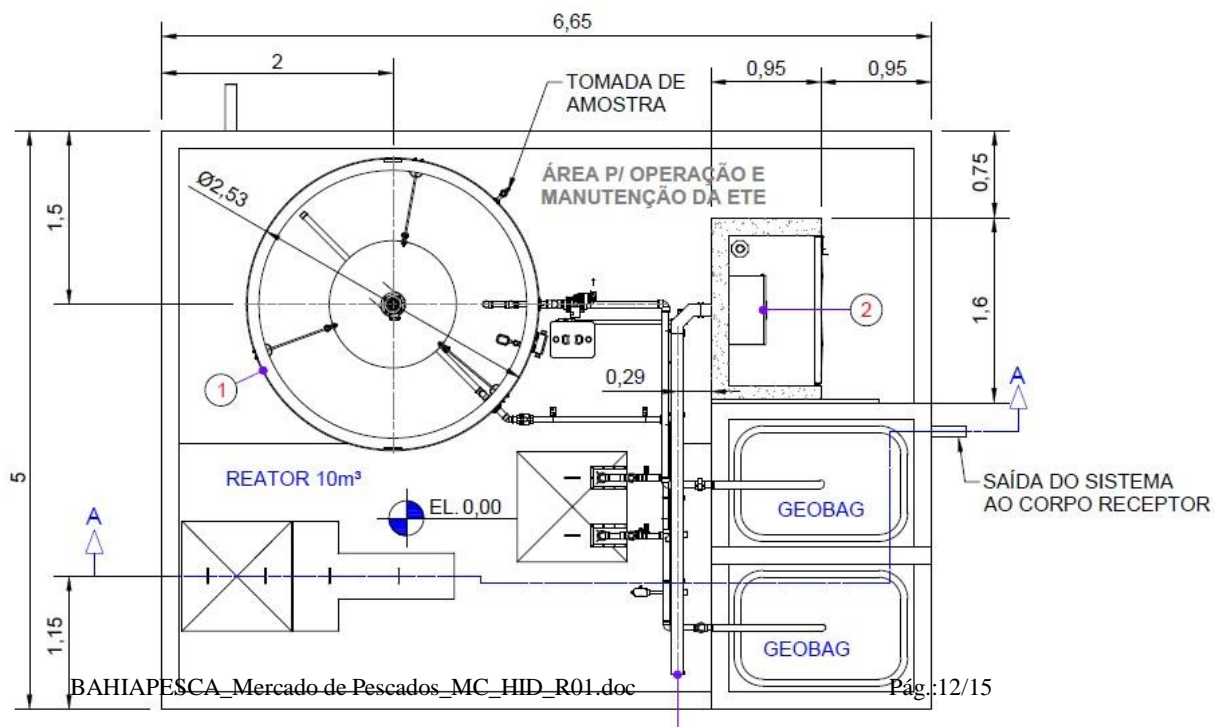


## Senemig Engenharia

e a sustentabilidade do empreendimento. O sistema está em conformidade e de acordo com os padrões de lançamento do CETESB Artº 18 e CONAMA 430 de 2011, Artº 21.



### VISTA DA E.T.E.





## PLANTA BAIXA DA E.T.E.

### ÁGUAS PLUVIAIS

As redes de águas pluviais foram desenvolvidas com base nas informações descritas na NBR 10.844/1989. Admitindo-se que as tubulações e conexões de Água Pluvial serão em PVC Vinilfort JEI.

Local	Valença (BA)
Intensidade pluviométrica*	166 mm/h
Coeficiente de rugosidade (PVC)	0,011

\*Foi retirada a média dos períodos mais chuvosos dos dados da ANA

Dados:

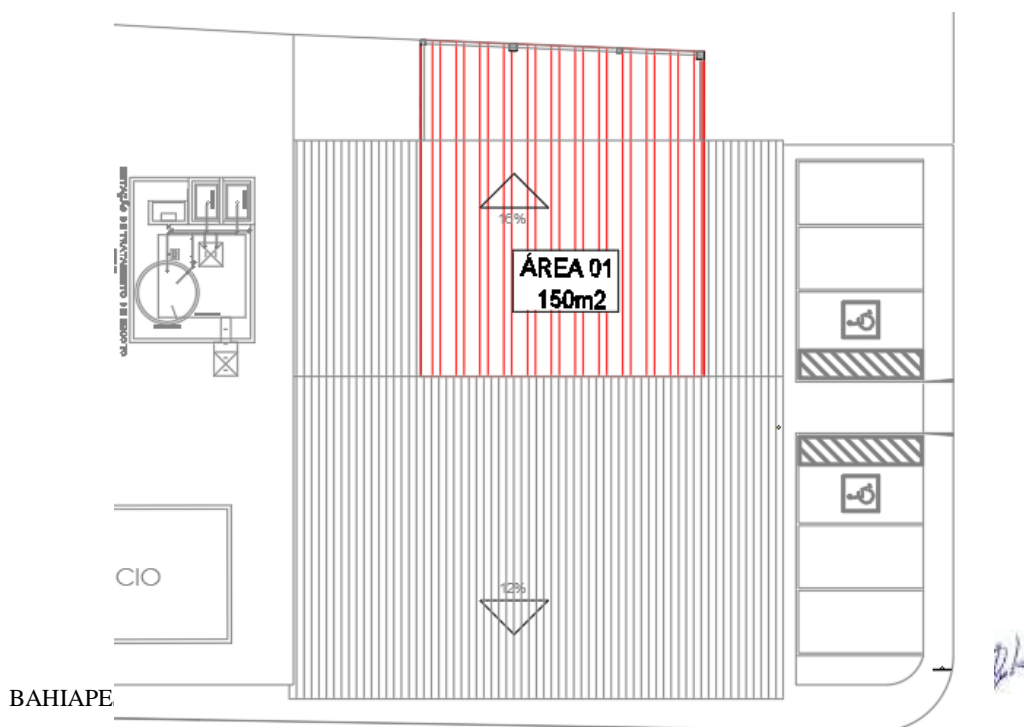
Q = Vazão, em litros/min;

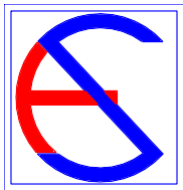
I = Intensidade pluviométrica, em mm/h;

A = Área de contribuição, em m<sup>2</sup>

A vazão de projeto foi calculada pela fórmula:

$$Q = \frac{I \times A}{60}$$





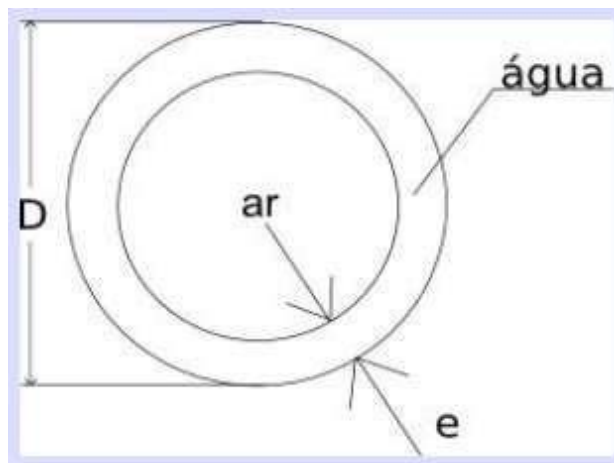
## Senemig Engenharia

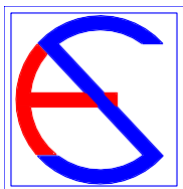
O cálculo dos condutores de águas pluviais foi baseado em estudos da USP/2006 sobre reaproveitamento de água de chuva.

<b>Diâmetro interno (mm)</b>	<b>Vazão (L/min)</b>
50	34,2
100	226,8
125	420,0
150	691,8
200	1510,8

Fonte - Adaptado de Botelho e Ribeiro (1998)

Segundo DEL CONTI (1993), deve-se limitar a espessura do anel de água em um valor máximo de 1/4 a 1/3 da área de seção transversal do condutor vertical, conforme imagem abaixo.





## Senemig Engenharia

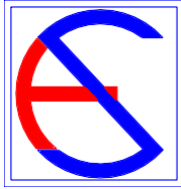
Dessa forma evita-se que o aumento da espessura do anel provoque a mudança do regime de escoamento anular, com aparecimento de ruídos, turbulência e flutuações na pressão.

$$Q = 0,0294 \cdot (TO)^{\frac{2}{3}} \cdot D^{\frac{8}{3}}$$

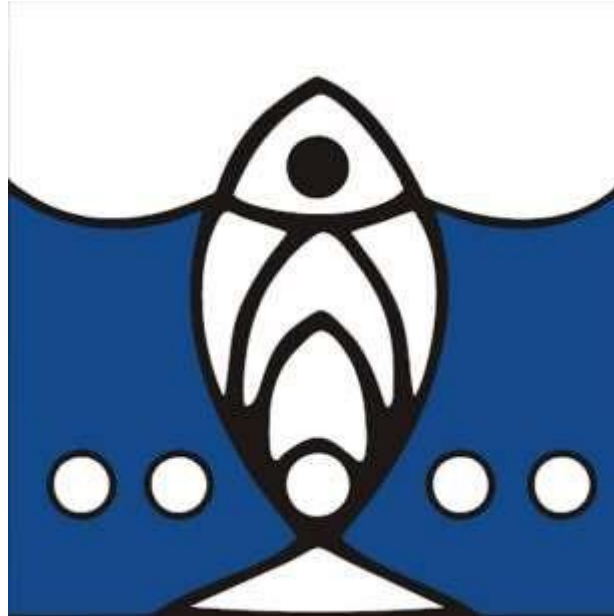
CÁLCULO DE CONDUTOR VERTICAL		ÁREA 01
Área (m <sup>2</sup> )		152
i (Índice Pluviométrico) (mm/h)		166
Q vazão ( l/s )	=	7,01
Q vazão ( m <sup>3</sup> /s )		0,007
Coef. rugosidade	=	0,011
I declividade (m/m)	=	0,01
taxa de ocupação	=	0,25
teta	=	2,094
(teta-sen(teta))		1,23
diâmetro de cálculo (mm)	=	<b>102</b>
diametro adotado (mm)		<b>150</b>

Arqto Eduardo Alves da Costa Castro  
CAU: Registro Nacional: 00A1467409 E





Senemig Engenharia



**BAHIA PESCA SA**

# **MERCADO DE PESCADOS VALENÇA-BA**

## **ANALISE DE RISCO MEMORIA DE CÁLCULO SPDA NBR-5419:2015**

REV 00 – 07/06/2021

**EMPRESA RESPONSÁVEL: Senemig Engenharia LTDA**

**RESPONSÁVEIS TÉCNICOS:**

**ENG. ELETRICISTA MARCO ANTONIO GIMENES – RN: 260369593-2-SP – RR-6583BA**

**ENGA. ELETRICISTA MÔNICA ANDRADE T. DA SILVA – RN:050264419-2-BA – RR-23379/D-BA**

**ARQ. EDUARDO ALVES DA COSTA CASTRO – RN: A-146740-9-BA**

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## **NBR-5419:2015**

### **SPDA (Sistema de Proteção contra Descargas Atmosféricas)**

## **Projeto: Mercado do Peixe de Valença**

### **1) Densidade e descargas atmosféricas para a terra [Ng]**

$$Ng = 0.75 \text{ [Descargas / km}^2\text{/ano]}$$

Fonte = Mapa - Brasil

### **2) Geometria da Estrutura**

$$\text{Comprimento [L]} = 20 \text{ m}$$

$$\text{Largura [W]} = 27 \text{ m}$$

$$\text{Altura [H]} = 10 \text{ m}$$

### **3) Ad - Área de exposição equivalente [em m<sup>2</sup>]**

$$Ad = L * W + 2 * (3 * H) * (L + W) + PI * (3 * H)^2$$

$$Ad = 20 * 27 + 2 * (3 * 10) * (20 + 27) + 3.14159 * (3 * 10)^2$$

$$Ad = 6187.43 \text{ m}^2$$

### **4) Fatores de Ponderação**

#### **Fator de Localização da Estrutura PRINCIPAL - Cd (Tabela A.1)**

Estrutura cercada por objetos da mesma altura ou mais baixos

$$Cd = 0.5$$

#### **Comprimento da Linha de Energia**

$$Ll = 1000 \text{ [m]}$$

#### **Fator de Instalação da Linha ENERGIA - Ci (Tabela A.2)**

Aéreo

$$Ci = 1.0$$

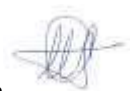
#### **Fator do Tipo de Linha ENERGIA - Ct (Tabela A.3)**

Linha de Energia ou Sinal

$$Ct = 1.0$$

#### **Fator Ambiental da Linha ENERGIA - Ce (Tabela A.4)**

Urbano





$$C_e = 0.1$$

## Comprimento da Linha de Sinal

$$L_{lt} = 1000 \text{ [m]}$$

## Fator de Instalação da Linha SINAL - Cit (Tabela A.2)

$$\begin{aligned} \text{Aéreo} \\ C_{it} = 1.0 \end{aligned}$$

## Fator do Tipo de Linha SINAL - Ctt (Tabela A.3)

$$\begin{aligned} \text{Linha de Energia ou Sinal} \\ C_{tt} = 1.0 \end{aligned}$$

## Fator Ambiental da Linha SINAL - Cet (Tabela A.4)

$$\begin{aligned} \text{Urbano} \\ C_{et} = 0.1 \end{aligned}$$

### **Nd - Número de Eventos Perigosos para a Estrutura [por ano]**

$$\begin{aligned} N_d &= N_g * A_d * C_d * 10^{-6} \\ N_d &= 0.00232 \end{aligned}$$

### **Nm - Número médio anual de eventos perigosos devido a descargas atmosféricas perto da estrutura [por ano]**

$$\begin{aligned} N_m &= N_g * A_m * 10^{-6} \\ A_m &= 2 * 500 * (L + W) + P_i * 500^2 \\ A_m &= 832398.16 \\ N_m &= 0.6243 \end{aligned}$$

### **NI - Número médio anual de eventos perigosos devido a descargas atmosféricas na linha de Energia [por ano]**

$$\begin{aligned} N_l &= N_g * A_l * C_i * C_e * C_t * 10^{-6} \\ A_l &= 40 * L_l \\ A_l &= 40000 \\ N_l &= 0.003 \end{aligned}$$

### **Ni - Número médio anual de eventos perigosos devido a descargas atmosféricas perto da linha de Energia [por ano]**

$$\begin{aligned} N_i &= N_g * A_i * C_i * C_e * C_t * 10^{-6} \\ A_i &= 4000 * L_l \\ A_i &= 4000000 \\ N_i &= 0.3 \end{aligned}$$



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### **Nlt - Número médio anual de eventos perigosos devido a descargas atmosféricas na linha SINAL [por ano]**

$Nlt = Ng * Al * Cit * Cet * Ctt * 10^{-6}$   
 $Alt = 40 * Llt$   
 $Alt = 40000$   
 $Nlt = 0.003$

### **Nit - Número médio anual de eventos perigosos devido a descargas atmosféricas perto da linha SINAL [por ano]**

$Nit = Ng * Ait * Cit * Cet * Ctt * 10^{-6}$   
 $Ait = 4000 * Llt$   
 $Ait = 4000000$   
 $Nit = 0.3$

### **Proteção da Estrutura - Pb (Tabela B.2)**

Estrutura não protegida por SPDA  
 $Pb = 1$

### **Tipo de linha externa Energia - Cld e Cli (Tabela B.4)**

Linha aérea não blindada  
 $Cld = 1$   
 $Cli = 1$

### **Tipo de linha externa SINAL - Cldt e Clit (Tabela B.4)**

Linha aérea não blindada  
 $Cldt = 1$   
 $Clit = 1$

### **Ks1**

Ks1: leva em consideração a eficiência da blindagem por malha da estrutura, SPDA ou outra blindagem na interface ZPR 0/1;  
Dentro de uma ZPR, em uma distância de segurança do limite da malha no mínimo igual à largura da malha  $Wm$ ,  
fatores Ks1 e Ks2 para SPDA ou blindagem tipo malha espacial podem ser avaliados como:  $Ks1 = 0,12 * Wm1$   
 $Ks1 = 1$

### **Uw Energia**

Uw: é a tensão suportável nominal de impulso do sistema a ser protegido, expressa em quilovolts (kV).  
 $Uw = 2.5$

### **Ks4 Energia**





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Ks4: leva em consideração a tensão suportável de impulso do sistema a ser protegido.  $Ks4 = 1 / Uw$

$$Ks4 = 0.4$$

## **Uwt Sinal**

$$Uwt = 1.5$$

## **Ks4t Sinal**

$$Ks4t = 0.67$$

## **Nível de Proteção NP - Peb (Tabela B.7)**

DPS Classe I

$$Peb = 0.01$$

## **Roteamento, blindagem e interligação ENERGIA - Pld (Tabela B.8)**

Linha aérea ou enterrada, não blindada ou com a blindagem não interligada ao mesmo

barramento de equipotencialização do equipamento ( $Uw=2.5$ )

$$Pld = 1$$

## **Roteamento, blindagem e interligação SINAL - Pldt (Tabela B.8)**

Linha aérea ou enterrada, não blindada ou com a blindagem não interligada ao mesmo

barramento de equipotencialização do equipamento ( $Uw=1.5$ )

$$Pldt = 1$$

## **Pv - Probabilidade de Descarga na linha de Energia Causar danos físicos**

$$Pv = Peb * Pld * Cld$$

$$Pv = 0.01$$

## **Pvt - Probabilidade de Descarga na linha de Sinal Causar danos físicos**

$$Pvt = Peb * Pldt * Cltd$$

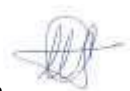
$$Pvt = 0.01$$

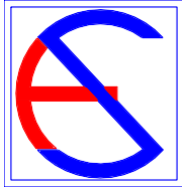
## **5) Zonas da Edificação**

### **Zona: Z1 (entrada área fora da edificação)**

### **Número de pessoas na Zona**

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$nz = 225$

## **Número total de pessoas na Estrutura**

$nt = 225$

## **Tempo de presença das pessoas na Zona (h/ano)**

$tz = 8760$

## **Tempo de presença das pessoas em locais perigosos fora da estrutura (h/ano)**

$te = 0$

## **L1 - Perda de vida humana incluindo ferimento permanente**

Considerar

## **L2 - Perda inaceitável de serviço ao público**

Desprezar

## **L3 - Perda inaceitável de patrimônio cultural**

Desprezar

## **L4 - Perda econômica**

Desprezar

## **Risco de Explosão / Hospitais**

Não

### **Medidas de Proteção (descargas na linha) - Ptu (Tabela B.6)**

Nenhuma medida de proteção

$Ptu = 1$

### **Ks2**

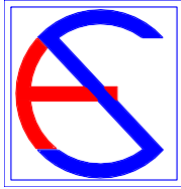
$Ks2 = 1$

### **Nível de Proteção NP ENERGIA - Pspd (Tabela B.3)**

DPS Classe I

$Pspd = 0.01$

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## **Fiação Interna ENERGIA - Ks3 (Tabela B.5)**

Cabo não blindado - sem preocupação no roteamento no sentido de evitar laços  
Condutores em laço com diferentes roteamentos em grandes edifícios (área do laço da ordem de 50 m<sup>2</sup>)  
Ks3 = 1

## **Nível de Proteção NP SINAL - Pspdt (Tabela B.3)**

Nenhuma sistema de DPS coordenado  
Pspdt = 1

## **Fiação Interna SINAL - Ks3t (Tabela B.5)**

Cabo não blindado - sem preocupação no roteamento no sentido de evitar laços  
Condutores em laço com diferentes roteamentos em grandes edifícios (área do laço da ordem de 50 m<sup>2</sup>)  
Ks3t = 1

## **Pc - Probabilidade de Descarga na Estrutura causar Danos em sistemas internos**

$P_c = P_{spdt} * C_{ld}$   
 $P_c = 0.01$

## **Pct - Probabilidade de Descarga na Estrutura causar Danos em sistemas internos SINAL**

$P_{ct} = P_{spdt} * C_{ldt}$   
 $P_{ct} = 1$

## **Pms**

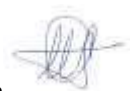
$P_{ms} = (K_{s1} * K_{s2} * K_{s3} * K_{s4})^2$   
 $P_{ms} = 0.16$

## **Pmst**

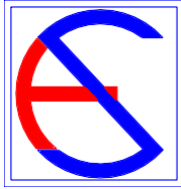
$P_{mst} = (K_{s1} * K_{s2} * K_{s3t} * K_{s4t})^2$   
 $P_{mst} = 0.4489$

## **Pm - Probabilidade de Descarga perto da Estrutura causar Danos em sistemas internos**

$P_m = P_{spdt} * P_{ms}$   
 $P_m = 0.0016$







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### **Pmt - Probabilidade de Descarga perto da Estrutura causar Danos em sistemas internos SINAL**

$$\begin{aligned} Pmt &= Pspdt * Pmst \\ Pm &= 0.4489 \end{aligned}$$

### **Pu - Probabilidade de Descarga na linha causar ferimentos a seres vivos por choque**

$$\begin{aligned} Pu &= Ptu * Peb * Pld * Cld \\ Pu &= 0.01 \end{aligned}$$

### **Put - Probabilidade de Descarga na linha causar ferimentos a seres vivos por choque SINAL**

$$\begin{aligned} Put &= Ptu * Peb * Pldt * Cltd \\ Put &= 0.01 \end{aligned}$$

### **Pw - Probabilidade de Descarga na linha Causar falha de sistemas internos**

$$\begin{aligned} Pw &= Pspd * Pld * Cld \\ Pw &= 0.01 \end{aligned}$$

### **Pwt - Probabilidade de Descarga na linha Causar falha de sistemas internos SINAL**

$$\begin{aligned} Pwt &= Pspdt * Pldt * Cltd \\ Pwt &= 1 \end{aligned}$$

#### **Pli**

$$\begin{aligned} Pli \text{ para } Uw &= 2.5 \text{ kV} \\ Pli &= 0.3 \end{aligned}$$

#### **Plit**

$$\begin{aligned} Plit \text{ para } Uwt &= 1.5 \text{ kV} \\ Plit &= 0.5 \end{aligned}$$

### **Pz - Probabilidade de Descarga perto da linha Causar falha de sistemas internos**

$$\begin{aligned} Pz &= Pspd * Pli * Cli \\ Pz &= 0.003 \end{aligned}$$

### **Pzt - Probabilidade de Descarga perto da linha Causar falha de sistemas internos SINAL**





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$$Pzt = Pspdt * Plit * Clit$$
$$Pzt = 0.5$$

## **Medidas de Proteção (descargas na estrutura) - Pta (Tabela B.1)**

Nenhuma medida de Proteção

$$Pta = 1$$

## **Tipo de superfície do solo ou piso - Fator de redução $r_t$ (Tabela C.3)**

Agricultura, concreto (Resistência de contato  $\leq 1$  ohm)  
 $r_t = 0.01$

## **Providências para reduzir consequências de incêndio - Fator de redução $r_p$ (Tabela C.4)**

Uma das seguintes providências: extintores, instalações fixas operadas manualmente,  
instalações de alarme manuais, hidrantes. compartimentos à prova de fogo,  
rotas de escape  
 $r_p = 0.5$

## **Risco de incêndio ou explosão na estrutura - Fator de redução $r_f$ (Tabela C.5)**

Incêndio: Risco Normal  
 $r_f = 0.01$

## **Perigo Especial - Fator $h_z$ (Tabela C.6)**

Baixo nível de pânico (por exemplo, uma estrutura limitada a dois andares e número de pessoas não superior a 100)  
 $h_z = 2$

## **$P_a$ - Probabilidade de Descarga na estrutura causar ferimentos a seres vivos por choque**

$$P_a = P_{ta} * P_b$$
$$P_a = 1$$

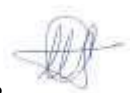
## **L1 - Perda de vida humana incluindo ferimento permanente**

**L<sub>t</sub>**

$$L_t = 0.01$$

## **D2 - Danos Físicos - L<sub>f</sub> (Tabela C.2)**

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Outros  
Lf = 0.01

## D3 - Falhas de sistemas internos - Lo (Tabela C.2)

Não Aplicável  
Lo = 0

### La

La = rt \* Lt \* (nz / nt) \* (tz / 8760)  
La = 0.0001

### Lu

Lu = La = 0.0001

### Lb

Lb = rp \* rf \* hz \* Lf \* (nz / nt) \* (tz / 8760)  
Lb = 0.0001

### Lv

Lv = Lb = 0.0001

### Lc

Lc = Lo \* (nz / nt) \* (tz / 8760)  
Lc = 0

### Lm Lw Lz

Lm = Lw = Lz = Lc = 0

## Riscos da Zona

### Ra

Ra = Nd \* Pa \* La  
Ra = 0.00232 \* 1 \* 0.0001  
Ra = 0.0002 \* 10<sup>-3</sup>

### Rb

Rb = Nd \* Pb \* Lb  
Rb = 0.00232 \* 1 \* 0.0001





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$$R_b = 0.0002 * 10^{-3}$$

## Rc

$$\begin{aligned} R_c &= N_d * P_c * L_c \\ R_c &= 0.00232 * 0.01 * 0 \\ R_c &= 0 \end{aligned}$$

## Rm

$$\begin{aligned} R_m &= N_m * P_m * L_m \\ R_m &= 0.6243 * 0.0016 * 0 \\ R_m &= 0 \end{aligned}$$

## Ru

$$\begin{aligned} R_u &= (N_l + N_{dj}) * P_u * L_u \\ R_u &= (0.003 + 0) * 0.01 * 0.0001 \\ R_u &= 0.0003 * 10^{-5} \end{aligned}$$

## Rut

$$\begin{aligned} R_{ut} &= (N_{lt} + N_{dj}) * P_{ut} * L_u \\ R_{ut} &= (0.003 + 0) * 0.01 * 0.0001 \\ R_{ut} &= 0.0003 * 10^{-5} \end{aligned}$$

## Rv

$$\begin{aligned} R_v &= (N_l + N_{dj}) * P_v * L_v \\ R_v &= (0.003 + 0) * 0.01 * 0.0001 \\ R_v &= 0.0003 * 10^{-5} \end{aligned}$$

## Rvt

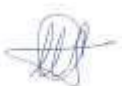
$$\begin{aligned} R_{vt} &= (N_{lt} + N_{dj}) * P_{vt} * L_v \\ R_{vt} &= (0.003 + 0) * 0.01 * 0.0001 \\ R_{vt} &= 0.0003 * 10^{-5} \end{aligned}$$

## Rw

$$\begin{aligned} R_w &= (N_l + N_{dj}) * P_w * L_w \\ R_w &= (0.003 + 0) * 0.01 * 0 \\ R_w &= 0 \end{aligned}$$

## Rwt

$$\begin{aligned} R_{wt} &= (N_{lt} + N_{dj}) * P_{wt} * L_w \\ R_{wt} &= (0.003 + 0) * 1 * 0 \\ R_{wt} &= 0 \end{aligned}$$





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## Rz

$$\begin{aligned}Rz &= Ni * Pz * Lz \\Rz &= 0.3 * 0.003 * 0 \\Rz &= 0\end{aligned}$$

## R1z

$$\begin{aligned}R1z &= Ra + Rb + Ru + Rv + Rut + Rvt \\R1z &= 0.0002*10^{-3} + 0.0002*10^{-3} + 0.0003*10^{-5} + 0.0003*10^{-5} + \\&0.0003*10^{-5} + 0.0003*10^{-5} \\R1z &= 0.0005*10^{-3}\end{aligned}$$

## 6) Risco Total

### R1

$$\begin{aligned}Ra + Rb &= 0.0005*10^{-3} \\R1 &= 0.0005*10^{-3} \\Rt1 &= 1 * 10^{-5} \\R1 &\leq Rt1 \\(Ra + Rb) &\leq Rt1 \\[OK]\end{aligned}$$

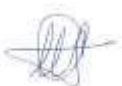
### Estrutura Protegida.

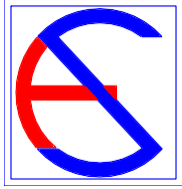
$$R1 \leq Rt1$$

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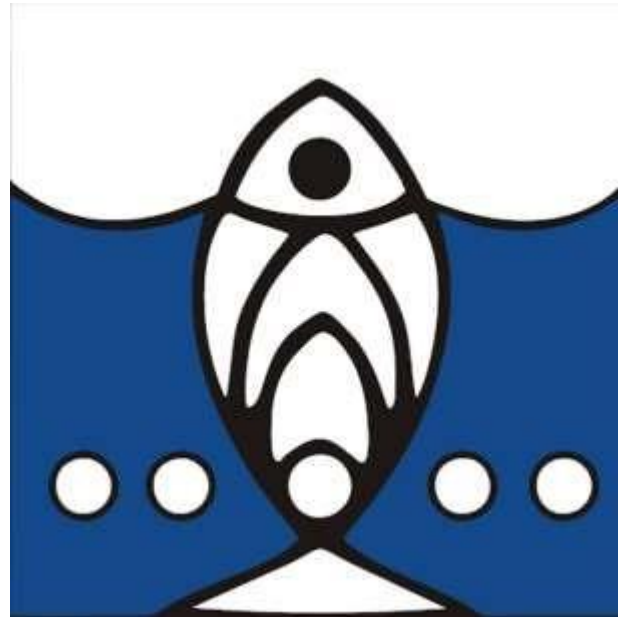
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Marco Antonio Gimenes  
Engenheiro Eletricista e Segurança do Trabalho  
CREA: 63.390





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**BAHIA PESCA SA**

## MERCADO DE PESCADOS VALENÇA-BA

### MEMORIAL DESCRITIVO E ESPECIFICAÇÕES DO PROJETO DAS INSTALAÇÕES ELÉTRICAS E DE TELECOMUNICAÇÕES

REV 01 – 09/05/2021

EMPRESA RESPONSÁVEL: Senemig Engenharia LTDA

RESPONSÁVEIS TÉCNICOS:

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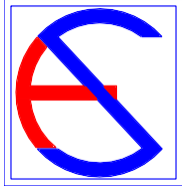
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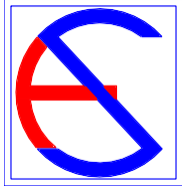


# Senemig Engenharia

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# Senemig Engenharia

## MEMORIAL DESCRITIVO

### 1. OBJETIVO

Este memorial descritivo tem por finalidade esclarecer os pontos básicos da execução dos projetos de reforma das instalações elétricas, de ar condicionado e de telecomunicações do Mercado de Pescados, de Valença, Bahia.

Objetiva também dar orientação a respeito dos procedimentos a serem adotados para montagem. A fiscalização da obra deverá ser consultada em caso de quaisquer dúvidas ou necessidade de esclarecimentos adicionais relativos à execução dos serviços.

### 2. RELAÇÃO DE DESENHOS

PLANTA	DESCRIÇÃO	NONE DO ARQUIVO
ELE 01/02	PROJETO DE ILUMINAÇÃO, TOMADAS, ALIMENTADORES E ENTRADA ELÉTRICA	BAHIAPESCA_MERCADO DO PEIXE_ELE_01-02_R01.DWG
ELE 02/02	QFL-1 E QFL-2 - DIAGRAMA UNIFILAR, QUADRO DE CARGAS E LAY OUT	BAHIAPESCA_MERCADO DO PEIXE_ELE_02-02_R01.DWG
TEL 01/01	PROJETO DE PONTOS - REDE E TELEFONIA	BAHIAPESCA_MERCADO DO PEIXE_TEL_01-01_R01.DWG

### 3. DESCRIÇÃO DAS INSTALAÇÕES

#### Entrada Elétrica

Atualmente a energia elétrica do Mercado se encontra desligada. No projeto está sendo considerada toda a parte da instalação referente à entrada de energia nova, não devendo ser aproveitado nada do existente, uma vez que se dará pela rua principal.

A entrada elétrica será em baixa tensão em 380/220V.

Será instalado um único medidor, a ser alocado na parede frontal, próximo à porta de acesso principal ao Mercado.

#### Aterramento

Será instalada uma haste de terra na área externa, localizada próxima ao medidor de energia, interligada ao mesmo através de cabos de cobre nú de #16mm<sup>2</sup>.

A haste deverá ser de aço cobreado, com espessa camada de cobre, de 5/8"x 2,40m, conforme indicação em planta.

As conexões entre haste/cabos e cabo/cabo deverão ser feitas através de conectores tipo U.

#### Quadros e Alimentadores

Está projetada a instalação de dois quadros no Mercado. O quadro principal, o QFL-1, receberá alimentação diretamente do quadro de medição e deste sairão os alimentadores para os demais.

Do segundo quadro do Mercado, o QFL-2, sairá o alimentador para a ETE.

A planta indica detalhadamente os percursos, seções dos cabos e demais itens necessários à correta instalação dos quadros e alimentadores.

As fases e os neutros de todos os alimentadores dos quadros deverão ter isolamento em EPR, de 1 KV.

Todos os quadros deste projeto deverão ser fornecidos conforme diagramas unifilares e especificações técnicas.

Os quadros serão de embutir/sobrepor (conforme indicação em planta) e deverão possuir placa de montagem, com barramentos de fase, neutro e terra. Os disjuntores e interruptores diferenciais deverão ABB, Merlin Gerin ou Siemens e de capacidade conforme indicado nos unifilares.

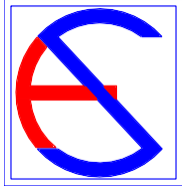
Deve ser dada atenção especial às correntes de curto circuito indicadas nos unifilares, devendo as proteções serem compatíveis com as mesmas.

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## **Iluminação**

Toda iluminação do Mercado será instalada através de ganchos para perfilados.

Toda distribuição principal de circuitos terminais para iluminação, tomadas para iluminação de emergência e para ventiladores será através de perfilados fixados com tirantes na estrutura do telhado. Quando necessário, deverá ser instalado cabo de aço para que os perfilados possam ser pendurados.

O acionamento, tanto das luminárias como dos ventiladores será feita através de interruptores a serem instalados próximos aos quadros elétricos, QFL-1 e QFL-2.

Nas áreas com forro, sanitários, circulações, área administrativa, os circuitos serão distribuídos através de eletrodutos flexíveis, quando embutidos, ou de PVC rígido roscável, quando aparentes ou no entreforro.

Todas as luminárias serão do tipo calhas com lâmpadas TUBOLED, conforme especificações técnicas.

As especificações técnicas detalhadas das luminárias e demais componentes se encontram no documento específico de Especificações Técnicas.

## **Iluminação de Emergência**

Está projetado um sistema de iluminação de emergência através de blocos autônomos.

O projeto elétrico indica a alocação das tomadas e o de segurança indicam a localização dos blocos autônomos.

## **Informações Gerais**

As fases e neutros de todos os circuitos cuja instalação for pelo piso da área externa deverão ser com isolamento para 1 KV, por exemplo, postes de iluminação externa.

## **Perfilados**

Está projetada uma malha de perfilados para distribuição dos circuitos terminais do Mercado, conforme encaminhamento indicado em planta. As saídas dos perfilados até os pontos serão em eletrodutos de PVC rígido roscável.

## **Tomadas Comuns**

Está projetada a instalação de pontos de tomada para os boxes áreas comuns e áreas administrativas, pelo mesmo uma tomada por ambiente.

Toda parte de distribuição de circuitos para tomadas do Mercado será feita pelo piso, com a utilização de eletroduto flexível.

Devido à distância e quantidade de circuitos, foram projetadas caixas de passagem para facilitar a instalação.

Como todo Mercado é área molhada, foi projetada a instalação de interruptor DR para o barramento que alimentará as todas as tomadas.

As cores dos condutores serão: fase: preto, neutro: azul e terra: verde.

## **Ar Condicionado**

Está projetada a instalação para 1 split para a área administrativa.

O alimentador está sendo instalado para o condensador, ficando a alimentação do evaporador por conta da instaladora das máquinas, com o mesmo encaminhamento da tubulação de gás.

O circuito será instalado através de eletrodutos do tipo flexível.

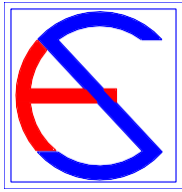
O dreno da unidade evaporadora está contemplado no projeto hidro sanitário deste prédio.

## **Tubulação para refrigerante**

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## Senemig Engenharia

Os tubos e conexões serão em cobre fosforoso sem costura, desoxidado, recozido, conforme norma ASTM B88, espessura tipo L, devendo a parte interna estar limpa, seca e livre de corrosão.

A tubulação deverá ser de preferência sem emendas de solda. Para conexão das tubulações entre as unidades internas e externas, devem ser usados sistemas de flanges e porcas curtas.

As tubulações de refrigerante, líquido e gás dos Splits, devem ser isoladas com espuma elastomérica com 9 mm de espessura, e deve ter a espuma revestida por fita de alumínio nos trechos externos ao prédio.

Para fixação e suporte das tubulações devem ser usadas braçadeiras para tubo. Devem obedecer a um espaçamento máximo conforme tabela abaixo. Entre a tubulação e a braçadeira deve ser usada manta de borracha.

Ø - 1/4" = 1.00m    Ø - 1/2" = 1.50m    Ø - 5/8" = 1.80m

### 4. DESCRIÇÃO DO PROJETO DAS INSTALAÇÕES TELEFÔNICAS E LÓGICAS

#### Entrada Telefônica, Caixas de Distribuição

A entrada telefônica será aérea, conforme detalhe em planta, próxima à entrada de energia elétrica.

Da armação secundária a tubulação seguirá até uma caixa de passagem na mesma parede, com o espelho voltado para o interior do prédio, e desta caixa seguirá para as demais caixas do projeto.

Este projeto contempla apenas a tubulação seca para futura instalação do cabeamento conforme necessidade.

### 5. PROCEDIMENTOS PARA AS INSTALAÇÕES

#### Condições gerais

As instalações elétricas, telefônicas e tubulação para informática serão executadas de acordo com as normas da ABNT, do NEC (National Electrical Code) e das concessionárias locais, além de obedecerem ao disposto neste Memorial e ao contido nas Especificações Técnicas.

Os casos não abordados serão definidos pela FISCALIZAÇÃO do PROPRIETÁRIO, de maneira a manter o padrão de qualidade previsto para a obra em questão.

Sempre que exigido pela FISCALIZAÇÃO deverá o CONSTRUTOR, às suas expensas, obter os documentos comprobatórios da qualidade e similaridade dos materiais empregados na instalação dos equipamentos. Tais atestados serão obtidos em fontes que comprovadamente sejam idôneas e tecnicamente capazes.

Caberá ao CONSTRUTOR executar, na presença da FISCALIZAÇÃO, os testes de recebimento dos equipamentos especificados.

Todas as instalações elétricas e telefônicas serão executadas com esmero e bom acabamento, com todos os condutores, condutos e equipamentos cuidadosamente arrumados em posição e firmemente ligados às estruturas de suporte e aos respectivos pertences, formando um conjunto mecânica e eletricamente satisfatório e de boa aparência.

Todo o equipamento será preso firmemente no local em que deva ser instalado, prevendo-se meios de fixação ou suspensão condizentes com a natureza do suporte e com o peso e as dimensões do equipamento considerado.

As partes vivas expostas dos circuitos e do equipamento elétrico serão protegidas contra contatos acidentais, seja por um invólucro protetor, seja pela sua colocação fora do alcance normal das pessoas não qualificadas.

As partes dos equipamentos elétricos, em operação normal, que possam produzir faíscas, centelhas, chamas ou partículas de metal em fusão, deverão possuir uma separação incombustível protetora ou ser efetivamente separada de todo o material facilmente combustível.

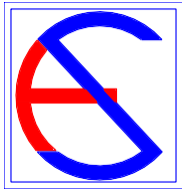
Só serão empregados materiais rigorosamente adequados à finalidade em vista e que satisfaçam às normas que lhes sejam aplicáveis.

Em lugares úmidos ou normalmente molhados e expostos às intempéries, onde o material possa sofrer a ação deletéria dos agentes corrosivos de qualquer natureza, assim como nos locais em que, pela natureza da atmosfera ambiente, possam ocorrer incêndios ou explosões e ainda onde possam os materiais ficar submetidos a temperaturas excessivas, serão usados métodos de instalação adequados e materiais destinados especialmente a essa finalidade.

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## Senemig Engenharia

Todas as extremidades dos tubos serão, antes da concretagem e durante a construção, convenientemente obturadas, a fim de evitar a penetração de detritos e umidade.

A resistência de aterramento quando não tiver os valores indicados nos projetos, não deverá ultrapassar jamais 10 ohms.

### **Condutos, Caixas, Dutos, Leitos, Eletrocalhas, Perfilados**

Os cabos instalados em leitos deverão formar uma única camada, ficando os fios presos à estrutura.

Só se admitirá o uso de curvas pré-fabricadas.

Os condutos metálicos deverão envolver simultaneamente as três fases, neutro e terra de um circuito trifásico, de maneira a evitar perdas e aquecimento por indução.

Os condutos deverão ser limpos e secos internamente antes da passagem dos condutores elétricos.

Todos os condutos não utilizados deverão ser providos de arames-guias.

Todos os condutos metálicos serão aterrados e não sofrerão quebra de continuidade.

A tubulação será instalada de modo a não formar cotovelos, apresentando outrossim, uma ligeira e contínua declividade para as caixas.

Os eletrodutos rígidos só deverão ser cortados perpendicularmente ao seu eixo, abrindo-se nova rosca na extremidade a ser aproveitada e retirando-se cuidadosamente todas as rebarbas deixadas nas operações de corte e de abertura de roscas. Os tubos poderão ser cortados à serra, sendo, porém, escariados à lima para remoção das rebarbas.

Os eletrodutos rígidos deverão ser emendados, quer por meio de luvas atarrachadas em ambas as extremidades a serem ligadas, as quais serão introduzidas na luva até se tocarem para assegurar continuidade da superfície interna da canalização, quer por qualquer outro processo que atenda as seguintes observações, com exceção de emendas tipo "ponta e bolsa":

- Perfeita continuidade elétrica.
- Resistência mecânica equivalente à da tubulação.
- Vedação equivalente à da luva.

Não deverão ser empregadas curvas com deflexão maior que 90°. Em cada trecho da canalização, entre duas caixas ou entre extremidades ou entre extremidade e caixa, poderão ser empregados, no máximo, 3 curvas de 90° ou o seu equivalente até no máximo 270°.

Só poderão ser abertos os olhais destinados a receber ligações de eletrodutos.

As caixas embutidas nas paredes devem facear o parâmetro da alvenaria de modo a não resultar excessiva profundidade depois de concluído o revestimento, sendo também niveladas e aprumadas.

As alturas das caixas em relação ao piso acabado serão as seguintes:

- . Interruptores e botões de campainha (centro da caixa) : 1,30 m
- . Tomadas baixas, quando não indicadas nos rodapés  
ou locais úmidos (centro da caixa) .....0,30 m, quando não especificada.

As caixas de arandelas e de tomadas altas serão instaladas de acordo com as indicações do projeto ou, se este for omissivo, em posição adequada, a critério da FISCALIZAÇÃO.

As caixas de interruptores, quando próximas de alizares, serão localizadas a, no mínimo, 0,10 m dos mesmos.

As diferentes caixas de uma mesma sala serão perfeitamente alinhadas e dispostas de forma a não apresentarem discrepâncias sensíveis no seu conjunto.

Os pontos de luz dos tetos serão rigorosamente centrados ou alinhados nos respectivos recintos.

As caixas ou dispositivos tais como condutores deverão ser colocados em lugares facilmente atingíveis e ser providos de tampas adequadas. As caixas que contiverem interruptores, tomadas e congêneres deverão ser fechadas pelos espelhos que completam a instalação desses dispositivos; as caixas de saída para a alimentação de aparelhos poderão ser fechadas pelas placas destinadas à fixação desses aparelhos.

Os eletrodutos rígidos expostos deverão ser adequadamente fixados, de modo a constituírem um sistema de boa aparência e de firmeza suficiente para suportar o peso dos condutores e os esforços quando da enfição.

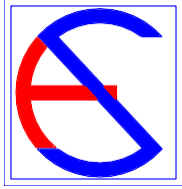
A construção de linhas de dutos obedecerá às seguintes prescrições gerais:

- Os trechos entre caixas serão perfeitamente retilíneos e com caimento num único sentido.
- Os dutos serão assentados de modo a resistirem aos esforços externos e aos provenientes da instalação dos tubos, tendo-se em vista as condições próprias do terreno.

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- A junção dos dutos de uma mesma linha será feita de modo a permitir e manter permanentemente o alinhamento e a estanqueidade. Deverão ser tomadas precauções para evitar rebarbas internas. As caixas usadas nas instalações subterrâneas serão de alvenaria, revestidas com argamassa ou concreto, impermeabilizadas e com previsões, para drenagem. As caixas serão cobertas com tampas convenientemente calafetadas, para impedir a entrada de água e corpos estranhos. Nas passagens do exterior para o interior dos edifícios, pelo menos a extremidade interior da linha, será convenientemente fechada, a fim de impedir a entrada de água e de pequenos animais. Os leitos e as eletrocalhas deverão ser fixos à laje através de tirantes, suspensão para tirante, suporte para suspensão e bucha e parafuso S-8. Os eletrodutos deverão ser fixos à laje através de tirantes, suspensão para tirante, abraçadeira tipo "D" e bucha e parafuso S-8. Para fixação dos leitos e eletrocalhas, no trecho vertical, deverão ser utilizadas peças específicas para este fim.

### Condutores

Os condutores deverão ser instalados de forma a evitar que sofram esforços mecânicos incompatíveis com sua resistência, isolamento ou revestimento. Nas deflexões os condutores serão curvados segundo raios iguais ou maiores do que os mínimos admitidos para seu tipo.

As emendas e derivações dos condutores deverão ser executadas de modo a assegurar resistência mecânica adequada e contato elétrico perfeito e permanente por meio de conectores apropriados, as emendas serão sempre efetuadas em caixas de passagens com dimensões apropriadas. Igualmente, o desencapamento dos fios, para emendas, será cuidadoso, só podendo ocorrer nas caixas.

O isolamento das emendas e derivações deverá ter características no mínimo equivalentes às dos condutores usados.

As ligações dos condutores aos bornes de aparelhos e dispositivos deverão ser feitas de modo a assegurar resistência mecânica adequada e contato elétrico perfeito e permanente, sendo que:

- Os condutores serão ligados por meio de terminais adequados.

Todos os condutores deverão ser instalados de maneira que, quando completada a instalação, o sistema esteja livre de curto-circuito.

A instalação dos condutores de terra deverá obedecer às seguintes disposições:

- O condutor será tão curto e retilíneo quanto possível, sem emendas e não conter chaves ou quaisquer dispositivos que possam causar sua interrupção.
- Serão devidamente protegidos por eletrodutos aterrados, rígidos ou flexíveis, nos trechos em que possam sofrer danos mecânicos.

Em equipamentos elétricos fixos e suas estruturas, as partes metálicas expostas que, em condições normais, não estejam sob tensão, deverão ser ligadas à terra quando:

- O equipamento estiver dentro do alcance de uma pessoa sobre piso de terra, cimento, ladrilhos ou materiais semelhantes.
- O equipamento for suprido por meio de instalação em condutos metálicos.
- O equipamento estiver instalado em local úmido.
- O equipamento estiver instalado em local perigoso.
- O equipamento estiver instalado sobre ou em contato com uma estrutura metálica.
- O equipamento operar com um terminal a mais de 150 Volts contra a terra.

Deverão ser ligados à terra as partes metálicas dos equipamentos abaixo, que, em condições normais não estejam sob tensão.

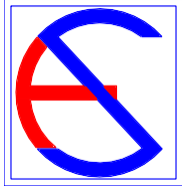
- Caixas e equipamentos de controle ou proteção dos motores.
- Equipamento elétrico de elevadores e guindastes.
- Equipamento de garagens, teatros e cinemas, exceto lâmpadas pendentes em circuitos com menos de 150 Volts contra a terra.
- Estrutura de quadros de distribuição ou de medidores.

O condutor de ligação à terra deverá ser preso ao equipamento por meios mecânicos tais como braçadeiras, orelhas, conectores e semelhantes, que assegurem contato elétrico perfeito e permanente. Não deverão ser usados dispositivos que dependam do uso de solda de estanho.

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## Senemig Engenharia

Os condutores para ligação à terra de equipamentos fixos poderão ou não fazer parte do cabo alimentador do mesmo. Deverão ser instalados de forma a ter assegurada sua proteção mecânica e a não conter qualquer dispositivo capaz de causar ou permitir sua interrupção.

Nos trechos verticais das instalações em eletrodutos rígidos, os condutores deverão ser convenientemente apoiados na extremidade superior da canalização e a intervalos não maiores do que:

BITOLA DO CONDUTOR	INTERVALOS
Até 1/0 AWG (50 mm 2 )	25 metros
De 2/0 a 4/0 AWG (70 a 95 mm 2)	20 metros
Acima de 4/0 AWG (95 mm 2)	10 metros

O apoio dos condutores deverá ser feito por suportes isolantes com resistência mecânica adequada ao peso a suportar e que não danifiquem seu isolamento ou por suportes isolantes que fixem diretamente o material condutor (recomendável no caso de isolamentos com tendência a escorregar sobre o condutor), devendo o isolamento ser recomposto na parte retirada.

Os barramentos indicados no projeto serão constituídos por peças rígidas de cobre eletrolítico nu.

Todos os condutores, isolados ou não, deverão ser convenientemente identificados por cores.

A identificação por cores deverá seguir a seguinte tabela:

- FASE.....preta
- NEUTRO .....azul
- PROTEÇÃO .....verde
- RETORNO ..... branco

As fitas para emendas e derivações serão plásticas constituídas por uma tira de matéria plástica, de cloreto de polivinila, coberta num dos lados com substância adesiva.

: 1. Fita Elétrica no. 33, marca "Scotch", para uso geral - 6 kA.

: 2. Fita Elétrica no. 22, marca "Scotch", para uso na construção e na manutenção de instalações industriais pesadas e em companhias fornecedoras de energia elétrica - 13 kA.

Para as fitas referidas no item anterior o PROPRIETÁRIO admitirá o emprego dos fabricados pela 3M do Brasil Ltda., ou similares, desde que ouvida previamente a FISCALIZAÇÃO.

### Barras Condutoras

As barras nuas sobre isoladores deverão ser instaladas de modo a ficarem protegidas contra contatos acidentais, sendo esta proteção considerada assegurada nos seguintes casos:

- Quando instaladas em recintos acessíveis unicamente a pessoas qualificadas.
- Quando separadas dos locais de circulação ou de trabalho por grades que impeçam que o barramento seja tocado acidentalmente por pessoas ou objetos.
- Quando instaladas em canaletas, desde que protegidas contra penetração de água ou de corpos estranhos.

Não deverão ser empregadas barras nuas nas localizações perigosas.

Nos ambientes corrosivos as barras deverão ser constituídas de material adequado ou protegidas convenientemente contra a corrosão.

### Quadros

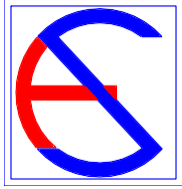
O nível dos quadros de distribuição será regulado por suas dimensões e pela comodidade de operação das chaves ou inspeção dos instrumentos, não devendo, de qualquer modo, ter o bordo inferior a menos de 0,50 m do piso acabado, desde que não seja auto portante.

Deverão ser fornecidos para todos os quadros, o lay out da área que o mesmo atende, com as luminárias, tomadas e pontos de ar condicionado e os respectivos números de circuito, em tamanho compatível com a tampa do quadro, plastificado, e o diagrama unifilar do mesmo, também em tamanho compatível com a tampa do quadro, plastificado, fixos do lado interno da tampa.

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A profundidade será regulada pela espessura do revestimento previsto para o local .

Os quadros das instalações de telecomunicações serão de tipo aprovado pelas concessionárias desses serviços e serão executados de acordo com os desenhos de detalhes previamente aprovados pelo PROPRIETÁRIO.

Além da segurança para as instalações que abrigar, os quadros deverão, também, ser inofensivos a pessoas, ou seja, em suas partes aparentes não deverá haver qualquer tipo de perigo de choque, sendo para tanto isolados os painéis e alavancas externas.

### Luminárias

Quando embutidas no forro deverão ser fixas na laje através de fita metálica chata perfurada, parafuso e bucha S-8 e parafuso com porca e arruela de ¼".

Quando fixas diretamente em laje, deverão ser instaladas através de buchas e parafusos S-8.

Quando pendentes, deverá ser previsto um suporte, pois o ponto de fixação das mesmas coincide com o centro das caixas de passagem na laje.

### 8. IDENTIFICAÇÃO E ORGANIZAÇÃO DAS INSTALAÇÕES

As instalações deverão ser devidamente identificadas conforme abaixo:

Os condutores instalados no interior dos quadros serão agrupados por tipo (fase, neutro e terra) e arrumados, de modo a que se evite montagem mal acabada. Os circuitos serão identificados com anilhas plásticas alfa-numéricas (todos os condutores do circuito: fase e neutro, e terra quando exclusivo) de acordo com o diagrama Unifilar de cada quadro.

A identificação dos quadros será feita com plaquetas de acrílico de aproximadamente 3 mm de espessura com fundo preto e letras brancas de 10mm, no mínimo.

Todos os disjuntores deverão ser identificados por etiquetas plásticas auto-colante na cor cinza ou branca com letras pretas de 5mm, para não permitir seu deslocamento, em coerência com sua ligação constando nº/descrição do circuito conforme Quadro de Cargas em projeto.

Todos os circuitos elétricos serão identificados com anilhas plásticas alfa-numéricas (todos os condutores do circuito: fase e neutro, e terra quando exclusivo).

A derivação dos barramentos principais para os disjuntores parciais será através de barramentos secundários.

A conexão entre condutores e barramentos de neutro e terra deverá ser feita com a utilização de terminais apropriados do tipo de compressão.

Todas as tomadas (elétricas) deverão ser identificadas (número do circuito e quadro que a alimenta) por etiquetas plásticas autocolante na cor cinza ou branca com letras pretas de 5mm no mínimo, para não permitir seu deslocamento.

### 9. NOTAS GERAIS

Todos os circuitos serão executados obrigatoriamente com cabos flexíveis, classe de encordoamento  $\geq 4$ , não se admitindo fio rígido, exceto quando houver indicação diferente.

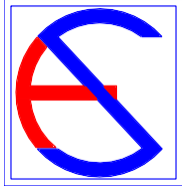
Todo circuito elétrico estabilizado terá neutro e terra individual.

Todos os circuitos elétricos deverão ser identificados com anilhas numéricas ou etiquetas de identificação apropriadas (todos os condutores do circuito: fase, neutro e terra) nos quadros elétricos. Quando o terra for comum para mais de um circuito, como no caso dos circuitos não estabilizados, o mesmo não deverá ter anilhas de identificação.

Deverão ser utilizadas buchas e arruelas de acabamento em toda junção eletroduto/caixa e eletroduto/quadro.







## Senemig Engenharia

Serão aceitos materiais ou equipamentos, comprovadamente similares aos descritos neste memorial e especificações técnicas, desde que tenham a total aprovação da equipe técnica do Bahia Pesca ou responsável autorizado.

Considera-se como similar, o produto de outro fabricante que apresente, rigorosamente, as mesmas características, performance, acabamento, padrão de qualidade e seja fabricado com os mesmos materiais básicos.

A relação de materiais em anexo é aproximada e servirá como referência para a licitação. Quaisquer diferenças nos quantitativos, ou a existência de materiais não constantes desta planilha, deverão ser relacionados e quantificados em planilha complementar.

Quando do recebimento da instalação a contratada deverá fornecer os seguintes documentos:

- As built final em papel copiativo contendo todos os desenhos de execução com todas as alterações introduzidas, caso existam, para a área ampliada e um cadastro das instalações da área existente contendo detalhadamente encaminhamento de eletrodutos, circuitos de distribuição, alimentadores, localização das tomadas, luminárias, interruptores, pontos de ar condicionado, pontos telefônicos, etc.
- Para todos os quadros, o lay out da área que o mesmo atende, com as luminárias, tomadas e pontos de ar condicionado e os respectivos números de circuito, em tamanho compatível com a tampa do quadro, plastificado, e o diagrama unifilar do mesmo, também em tamanho compatível com a tampa do quadro, plastificado, fixos do lado interno da tampa.
- Certificado de garantia da instalação por um período de 12 (doze) meses.
- A contratada deverá manter no prédio pelo prazo de 30 (trinta) dias, a contar da data do recebimento das instalações, por sua exclusiva conta, pessoal habilitado, com o objetivo de prestar serviços de manutenção operação e instrução.
- A contratada deverá endossar o projeto anexo, assumindo integral responsabilidade pela garantia do funcionamento da instalação dentro das condições prefixadas de acordo com as Normas específicas da ABNT, ou indicar na proposta pontos discordantes, justificando-os.
- A proposta deverá conter todas as despesas tais como: mão de obra, materiais, transporte, leis sociais, juros, lucros e tudo mais que possa contribuir para composição do custo final dos serviços.

### 8. TESTES E VERIFICAÇÕES:

Concluídos todos os trabalhos da instaladora, o cliente, ou seu responsável autorizado, realizara as seguintes verificações antes de aceitar todos os serviços de construção e montagem das instalações:

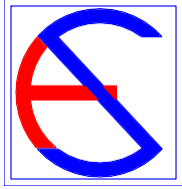
- Limpeza geral das instalações
- Execução em conformidade com projeto
- Qualidade da mão de obra
- Reparação dos danos porventura ocorridos
- Acabamento e alinhamento das instalações
- Verificação de todas as conexões
- Identificação dos circuitos
- Estado de isolamento e rigidez dielétrica dos condutores
- Recolhimento de todas as chaves, ferramentas especiais e outros objetos avulsos.

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Marco Antonio Gimenes  
Engenheiro Eletricista e Segurança do Trabalho  
CREA: 63.390

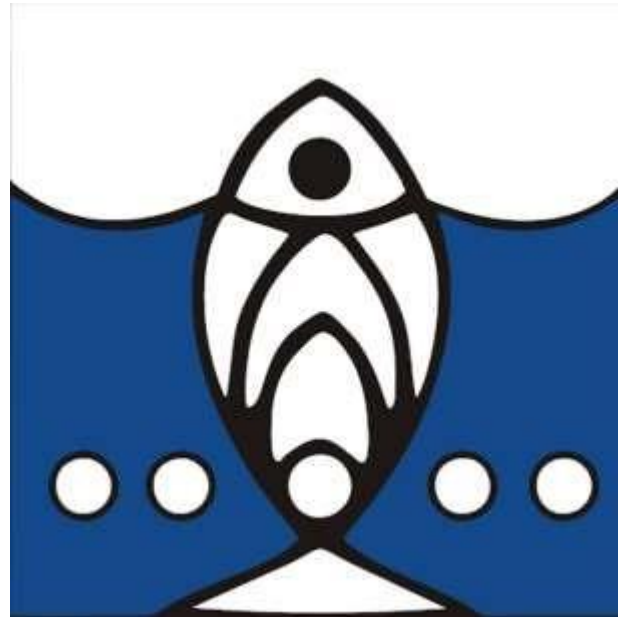
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**BAHIA PESCA SA**

## MERCADO DE PESCADOS VALENÇA-BA

### MEMORIAL DESCRITIVO E ESPECIFICAÇÕES DO PROJETO DAS INSTALAÇÕES HIDRÁULICAS E SANITÁRIAS

REV 01 – 07/06/2021

EMPRESA RESPONSÁVEL: Senemig Engenharia LTDA

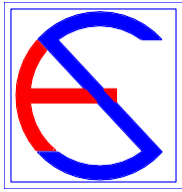
RESPONSÁVEIS TÉCNICOS:

ENG. ARQ. EDUARDO ALVES DA COSTA CASTRO – CAU:57.423-6

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#### **DESCRIÇÃO DAS INSTALAÇÕES**

O sistema de água fria será de forma indireta sem bombeamento, sendo abastecido da rede pública para o reservatório superior. Os pontos de consumo da edificação serão alimentados por meio de gravidade.

Todo o esgoto da edificação será direcionado através de caixas de passagem para o sistema de tratamento de esgoto a ser executado. As águas provenientes da cobertura, laje técnica e estacionamentos serão coletadas superficialmente e encaminhadas para o corpo hídrico.

#### **Sistema de Água Fria**

Conforme legislação vigente NBR 5.626/1998 – A alimentação de água potável para o reservatório superior, será executada de acordo com o projeto específico, a partir da rede pública, com tubo PVC rígido classe 15.

O abastecimento de água do reservatório superior se dará a partir da rede pública.

Na entrada do reservatório superior, será instalada torneira de boia metálica de vazão total, de modo a manter o nível máximo de água depositado independente do controle humano. Deverá ser instalado Registro de Gaveta Bruto a fim de possibilitar a manutenção da torneira de boia.

Todas as saídas de tubulações dos reservatórios serão executadas utilizando-se de adaptadores com flanges apropriados.

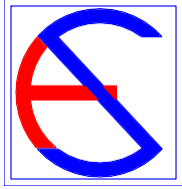
A distribuição das tubulações do barrilete, limpeza e extravassor serão feitas conforme indicações em planta.

#### **Rede de Esgoto**

Com base na NBR 8.160/1999. O projeto do sistema de esgotos sanitários tem por objetivo principal permitir o rápido escoamento dos esgotos, fáceis desobstruções, vedar a passagem de gases e animais das tubulações externas para o interior das edificações, não permitir vazamentos, escapamento de gases e formação de depósitos no interior das tubulações, impedir a poluição de água potável, possibilitar facilidades nas operações de manutenção, garantir o escoamento mais suave possível.

Os esgotos a serem gerados serão, basicamente, de dois tipos:

- Esgoto sanitário proveniente do uso da água para fins higiênicos;
- Esgotos provenientes de lavagens de piso.



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- Esgoto gorduroso proveniente das áreas de cozinha

O sistema de esgotos sanitários compreende a coleta dos efluentes das peças sanitárias, ventilações, tubos de quedas, inspeções, caixas de passagem e despejo final dos efluentes. O sistema de esgoto aqui descrito deve obedecer rigorosamente ao determinado na NBR 8160 e NBR 9649 da ABNT.

Toda rede de esgoto secundário e primário será executada em tubos de PVC classe esgoto, ponta e bolsa soldável (PBS) até 40 mm e ponta e bolsa com virola (PBV) para bitolas entre 50 e 100 mm.

Toda a rede de esgoto foi calculada para trabalhar, no máximo, à meia seção à pressão atmosférica, sendo vetado, portanto, o seu teste sob diferentes condições, como verificação de estanqueidade da rede com o enchimento das mesmas provocando o seu funcionamento sob o sistema de condutos forçados.

A estanqueidade deve ser verificada por teste de fumaça e simulação do funcionamento, obedecendo o previsto nas normas da ABNT.

Com exceção da copa, todo esgoto secundário deverá ser dirigido a um desconector primário, que pode ser uma caixa sifonada em PVC com grelha ou em alvenaria.

Toda a ventilação do esgoto sanitário deverá ser dutada até a fachada externa ou cobertura. As caixas em alvenaria de tijolo maciço receberão argamassa com adição de SIKATOP 107 da SIKA ou VEDAXPLUS da FOSROC ou similar.

Todas as caixas possuirão tampão de ferro fundido ou em concreto armado com capacidade de carga compatível com a solicitação.

Todos os ramais, em PVC branco, serão protegidos por sifão. Os ramais de esgoto de diâmetro de 75 mm ou menos terão caimento mínimo de 2%. Os ramais de esgoto de 100 mm deverão ter um caimento mínimo de 1%; conforme legislação vigente.

### - Coleta

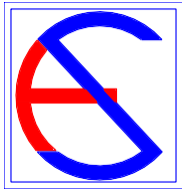
Para a coleta de esgoto foi adotado o sistema convencional, por gravidade, onde todos os efluentes serão coletados por tubulações e destas lançadas em caixas de inspeção, localizadas nas áreas externas das edificações.

A partir das caixas de inspeção os esgotos serão lançados para a o sistema de tratamento de esgoto sanitário da edificação.

### - Rede Coletora

As redes projetadas se destinam a coletar as águas servidas e encaminhá-las a rede de esgoto.

O sistema de esgoto será totalmente independente, não coletando águas de origem pluvial.



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Deverão permitir desobstruções, vedar a passagem de gases para o interior do prédio e impedir a ocorrência de vazamentos ou formação de depósitos no interior das caixas e canalizações.

A tubulação, caixas sifonadas, de gordura, ralos, entre outros, serão executados em PVC. Já as caixas de inspeção, serão feitas de alvenaria, rebocadas e alisadas, com as quinas boleadas, evitando depósito de dejetos.

O traçado da rede de esgoto com seus dispositivos, tubulações, conexões e caixas, bem como a ligação à rede, encontra-se no projeto hidrossanitário em questão.

A rede coletora de esgoto sanitário está localizada na lateral da edificação e terá uma profundidade em relação ao nível do meio-fio.

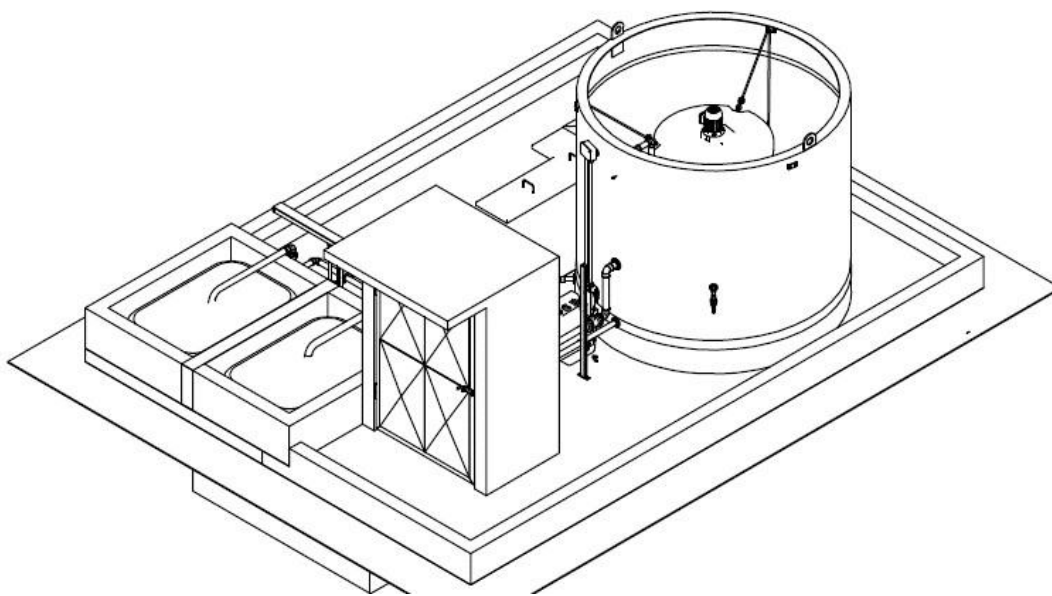
### - E.T.E.

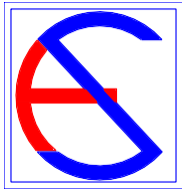
O sistema proposto serve para tratar esgoto sanitário proveniente de Condomínio Residencial. Este tratamento é baseado nos fenômenos biológicos que ocorrem naturalmente nos cursos de água e permite o descarte do efluente, obedecendo todos os parâmetros exigidos pela legislação brasileira, reduzindo os impactos ambientais e contribuindo com as propostas de gestão ambientalmente responsável e a sustentabilidade do empreendimento. O sistema está em conformidade e de acordo com os padrões de lançamento do CETESB Artº 18 e CONAMA 430 de 2011, Artº 21.

O esgoto a ser tratado será introduzido em um reator, onde ocorrerá todas as etapas do tratamento de forma independente. O esgoto será oxigenado por um aerador de alta rotação acoplado num flutuador especialmente desenvolvido para as suas dimensões. Após este procedimento o efluente descansará por um período pré-definido para que o lodo se sedimente no fundo do reator, de onde o seu excesso será descartado. O efluente tratado ficará na parte superior de onde será captado. Uma parte do lodo continuará no reator de maneira a reiniciar o tratamento do próximo volume de esgoto, dando continuidade ao sistema por bateladas.

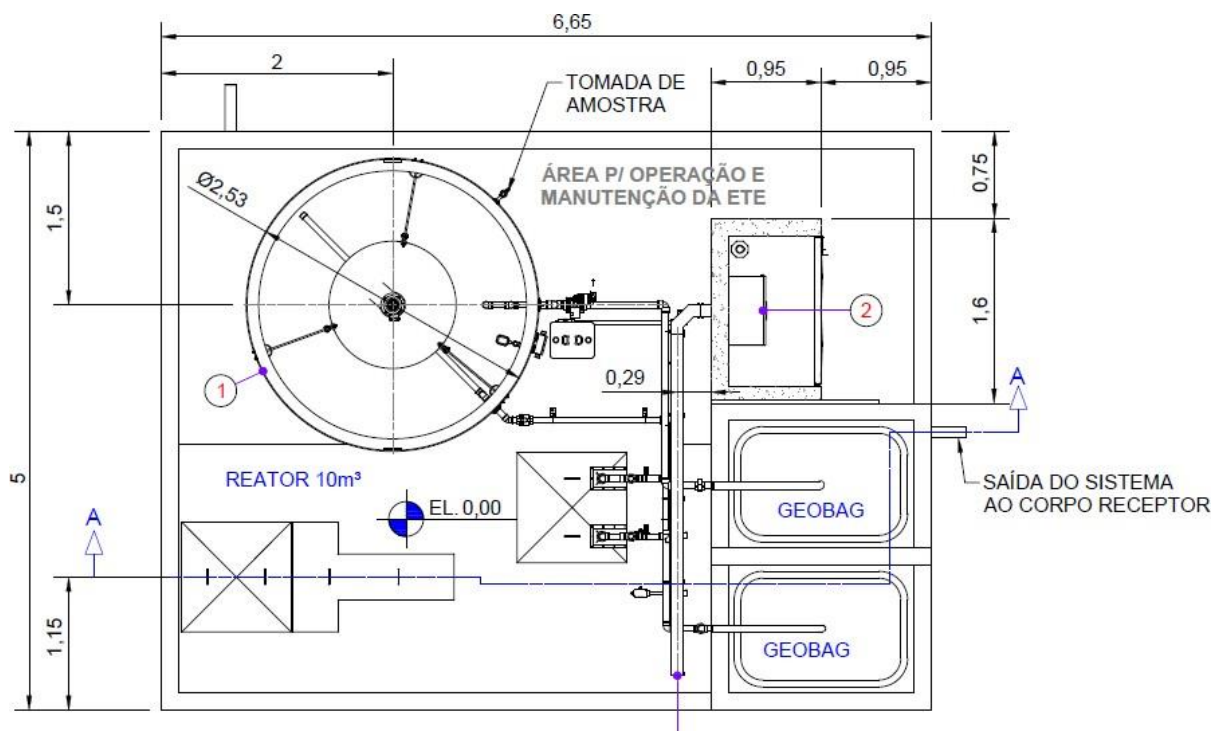
Um controle da descarga do lodo em excesso, dos microrganismos e da qualidade da água tratada garante a eficiência do sistema.

Nota: Neste processo será feito a dosagem de antiespumante para evitar a formação de espumas na parte superior do Reator Aeróbio.





## VISTA - E.T.E.

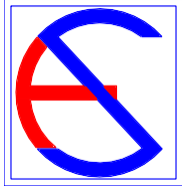


## PLANTA BAIXA - E.T.E.

### NORMAS TÉCNICAS

Os projetos foram concebidos com base nas normas prescritas pelo Ministério do Trabalho, Associação Brasileira de Normas Técnicas – ABNT, nas normas das concessionárias de Todas as instalações a serem executadas devem atender a estas normas.

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- Códigos, Leis, Decretos, Portarias e Normas Federais, Estaduais e Municipais, inclusive normas de concessionárias de serviços públicos;
- Instruções e Resoluções dos Órgãos do Sistema CREA/ CONFEA;
- Normas da ABNT e do INMETRO;
- Normas da Embasa;
- Legislação específica Municipal.
- NBR 5.626/1998 Instalações prediais de água fria
- NBR 10.844/1989 Instalações prediais de águas pluviais
- NBR 8.160/1999 Instalações prediais de esgoto sanitário – Projeto e execução
- NBR 13969/97 – Tanques Sépticos: Unidades de tratamento complementar e disposição final dos efluentes líquidos - Projeto, construção e operação.
- NBR 8219 – Tubos e conexões de PVC - Verificação do efeito sobre a água;
- NBR 10071 - Registro de pressão fabricado com corpo e castelo em ligas de cobre para instalações hidráulicas prediais;
- NBR 10072 - Instalações hidráulicas prediais - Registro de gaveta de liga de cobre – Requisitos;
- NBR 10281 - Torneira de pressão - Requisitos e métodos de ensaio;
- NBR 14534 - Torneira de bóia para reservatórios prediais de água potável - Requisitos e métodos de ensaio;
- NBR 14878 - Ligações flexíveis para aparelhos hidráulicos sanitários - Requisitos e métodos de ensaio;
- NBR 15097 - Aparelho sanitário de material cerâmico - Requisitos e métodos de ensaio;
- NBR 15098 - Aparelhos sanitários de material cerâmico - Procedimento para instalação;

### ENCARGOS DA INSTALADORA

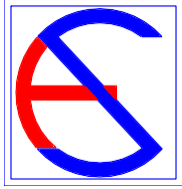
Todos os materiais, equipamentos e serviços necessários à completa execução da obra serão fornecidos pela instaladora.

As obras ocorrerão com o prédio funcionando, portanto, caberá ao instalador articular-se com o o administrador de forma a executar os serviços causando o mínimo de transtorno e de forma a cumprir os prazos de contrato.

Caberá ao presente instalador, logo no início da obra, articular-se com as concessionárias de serviços públicos para prover a alimentação de energia em tempo hábil para o término da obra no prazo previsto.

A instaladora deverá dimensionar sua equipe de pessoal e programar as compras de forma a atender ao prazo previsto para execução da obra.

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A instaladora deverá possuir profissional Engenheiro ou Empresa que responderá pela instalação do sistema. O profissional deverá apresentar Certificado de Acervo Técnico, com no mínimo uma obra de porte idêntico ou superior ao desta obra.

***O instalador, ao final da obra, deverá emitir laudo assinado por profissional legalmente habilitado, se responsabilizando pelas instalações conforme prescrito pelas Normas vigentes. Da mesma forma será responsabilidade do instalador entregar em meio magnético um conjunto completo com os desenhos e documentos de projeto com as atualizações “conforme construído”.***

### SERVIÇOS A EXECUTAR

Todos os serviços deverão ser executados em um prazo definido na Ordem de Serviço corridos contados a partir da assinatura da mesma.

Caberá ao instalador executar todos os serviços necessários para a perfeita conclusão das instalações projetadas e às recomendações deste memorial. Caso seja necessária alteração em projetos, deverá ser submetido à prévia aprovação da fiscalização.

Após a execução dos serviços, o instalador deverá assegurar o perfeito funcionamento das instalações, sua adequação ao diagrama unifilar proposto e um bom acabamento estético das mesmas.

Todos os custos, ônus e taxas decorrentes dos serviços deverão ser previamente verificados pelo instalador e incluídos em sua proposta comercial. Não serão aceitos custos adicionais sob qualquer pretexto, devendo o instalador dirimir previamente todas as dúvidas e assumir inteira responsabilidade pelo funcionamento do sistema.

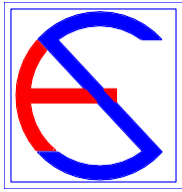
Como a obra ocorrerá com o prédio em funcionamento os serviços deverão ser programados previamente com a fiscalização para liberação das áreas. Em ambientes onde não possa ser liberada a área durante o expediente, os serviços devem ser executados no período noturno e finais de semana.

### GENERALIDADES

#### **17.1.7.1 Sistema de Esgoto**

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A instalação será executada rigorosamente de acordo com as normas da ABNT, com os códigos e posturas dos órgãos oficiais competentes que jurisdicionem a localidade onde será executada a obra e com o projeto e especificações respectivos.

As instalações prediais de esgoto sanitário devem ser executadas de modo a permitir rápido escoamento dos dejetos, vedar a passagem de gases das tubulações para o interior da edificação, não permitir vazamento ou formação de depósitos no interior das tubulações, impedir a contaminação da água potável.

Para a instalação de esgoto serão utilizados tubos de PVC (cloreto de polivinila) com juntas do tipo PBA (ponta e bolsa para soldar). Os tubos serão testados com a pressão mínima de 5 Mpa (50 Kg/cm<sup>2</sup>).

As tubulações que correrem embutidas nas paredes ou rebaixos de pisos nunca poderão ficar rigidamente embutidas em lajes ou vigas de concreto, quando indispensável, serão alojadas em reentrâncias previamente previstos na estrutura. Para que as tubulações ultrapassem elementos estruturais deverão ser feitas perfurações em diâmetros superiores ao diâmetro externo da tubulação. Medidas deverão ser tomadas para que não sofram esforços decorrentes de recalque ou deformações estruturais e para que fique assegurada a possibilidade de dilatações e contrações.

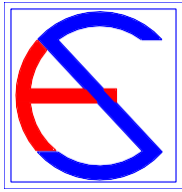
Em instalações enterradas, a tubulação deve ficar, no mínimo a 0,80m onde houver tráfego e no mínimo a 0,60m nos demais casos. As canalizações deverão ser assentes em terreno resistente ou sobre embasamento adequado, com recobrimento de 0,60m, no mínimo. Nos trechos onde tal recobrimento não seja possível ou onde a canalização esteja sujeita a fortes compressões ou choques, ou nos trechos situados em áreas edificadas, a tubulação deverá ter proteção adequada. Em torno da tubulação, nos alicerces ou paredes por ela atravessados, deverá haver a necessária folga para que eventual recalque do edifício não venha prejudicá-la.

As valas para receber as canalizações serão escavadas segundo as linhas de eixo, sendo respeitados os alinhamentos indicados no projeto. Qualquer excesso de escavação ou depressão no fundo das valas, deverá ser preenchido com material de primeira qualidade (areia, argila etc).

Nos aterros firmes, o fundo da vala deverá ter uma depressão junto à bolsa para assentamento desta, devendo o corpo da tubulação ser apoiado sobre o berço que abranja um setor de 90° da seção transversal.

Assentadas as tubulações, será a vala preenchida com camadas de aterro de 0,30m bem apiloado. Para a primeira camada, a terra deverá ser selecionada, verificando-se que não contenha pedras ou outros materiais estranhos que possam afetar os tubos.

As canalizações de esgoto não deverão ser instaladas imediatamente acima de reservatórios de água.



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As cavas abertas no solo, para assentamento das canalizações, só poderão ser fechadas após a verificação, pela fiscalização da obra, das condições das juntas, tubos, proteção dos mesmos, níveis de declividade.

As declividades indicadas no projeto serão consideradas como mínimas, devendo ser procedida uma verificação geral dos níveis, até a rede urbana, antes da instalação dos coletores.

A declividade mínima admitida para as tubulações será de 2% ou 20mm/m.

Os tubos serão assentes com a bolsa voltada em sentido oposto ao de escoamento.

As extremidades das tubulações serão vedadas até a montagem dos aparelhos sanitários, com bujões de roscas ou plugues, convenientemente apertados, sendo vedado o emprego de buchas de papel ou madeira, para tal fim.

Os tubos de queda deverão ser entroncados nas colunas de ventilação.

Toda a tubulação de ventilação deve ser instalada de modo que qualquer líquido que porventura nela venha a ter ingresso possa escoar-se completamente por gravidade para dentro do tubo de queda, ramal de descarga ou desconector em que o ventilador tem origem.

A ligação de um tubo ventilador a uma tubulação horizontal deve ser feita acima do eixo da tubulação, elevando-se o tubo ventilador até 15 cm, ou mais, acima do nível de transbordamento da água do mais alto dos aparelhos servidos.

O tubo ventilador primário e a coluna de ventilação devem ser verticais e, sempre que possível, instalados em um único alinhamento reto. Quando for impossível evitar mudanças de direção, elas devem ser feitas mediante curvas de ângulos central não superior a 90°.

A extremidade do tubo ventilador primário e coluna de ventilação devem estar situados acima da cobertura.

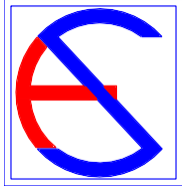
As caixas de inspeção devem ter profundidade máxima de 1,00m. De forma prismática de base quadrada com dimensões internas de 0,60m, com tampa facilmente removível e permitindo perfeita vedação. Com o fundo provido de canaletas em cimentado liso com caimento para a saída, para rápido escoamento e evitando a formação de depósitos.

Toda a tubulação deverá ser inspecionada e ensaiada antes de entrar em funcionamento.

Depois de assentada a tubulação e antes da colocação dos aparelhos, deve ser verificada a existência de vazamentos por meio de testes de água. Após a colocação dos aparelhos a instalação deve ser submetida à prova de fumaça.

Para a execução do primeiro ensaio, a água deve ser introduzida na abertura da parte mais alta da instalação como um todo até o seu transbordamento e todas as aberturas das partes mais baixas devem ser taponadas.





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A água deve permanecer por no mínimo 15 minutos e verificado se há vazamentos. Este ensaio é feito de modo que a pressão estática da água na parte mais baixa não exceda 6m CA.

No ensaio por seções, cada seção com uma altura máxima de 3m deve ser enchidas com água pela abertura mais alta do conjunto, devendo as demais aberturas serem taponadas. A pressão deve ser mantida por 15 minutos no mínimo.

### 17.1.7.2. Sistema de Água Fria

A instalação será executada rigorosamente de acordo com as normas da ABNT, com os códigos e posturas dos órgãos oficiais competentes que jurisdicionem a localidade onde será executada a obra e com o projeto e especificações respectivos.

As colunas de canalização correrão embutidas nas alvenarias, salvo quando em prumadas ou outros espaços previstos para este fim, devendo, neste caso, serem fixadas de 3 em 3 metros no mínimo.

Nos casos em que as canalizações devam ser fixadas em paredes ou suspensas em lajes, os tipos, dimensões e quantidades dos elementos suportantes ou de fixação, como braçadeiras, perfilados "U", bandejas, etc, serão determinados de acordo com o diâmetro, peso e posição das tubulações.

As tubulações correrão embutidas nas paredes, vazios ou lajes rebaixadas, evitando-se sua inclusão no concreto.

As tubulações nunca poderão ficar rigidamente embutidas em lajes ou vigas de concreto. Para ultrapassar esses obstáculos deverão ser feitas perfurações em diâmetros superiores ao diâmetro externo da tubulação.

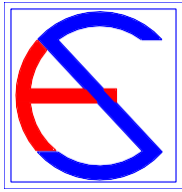
As furações, rasgos e aberturas necessárias em elementos da estrutura de concreto armado serão locadas e tomadas com tacos, buchas ou bainhas da concretagem.

As tubulações não deverão em nenhuma hipótese sofrer esforços decorrentes de recalque ou deformações estruturais e também de dilatações e contrações da estrutura.

As tubulações de distribuição de água nunca serão inteiramente horizontais, devendo apresentar declividade mínima de 1% no sentido do escoamento, não se admitindo o sentido inverso.

As tubulações enterradas terão recobrimento de no mínimo 0,50m sob leito de vias trafegáveis e de 0,30m nos demais casos. Não poderão passar dentro de fossas, poços absorventes, poços de visitas, caixas de inspeção ou valas e deverão ser protegidas contra eventuais acessos de água poluída.

No caso de tubos enterrados, deverá ser levado em conta que o leito esteja isento de pedras ou aresta vivas. O material de envolvimento deverá ser firme, dando-se



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preferência a areia, para conservar a elasticidade longitudinal do tubo, razão pela qual não se recomenda o envolvimento direto com concreto magro.

Sob nenhuma hipótese deverão ser feitas curvas forçadas nas canalizações. Para conseguir ângulos perfeitos deverão ser usadas peças apropriadas para este fim.

Durante a construção e até a montagem dos aparelhos todas as extremidades livres das canalizações deverão ficar protegidas com tampões apropriados, não admitindo o uso de buchas de madeira ou papel.

As tubulações de distribuição de água serão, antes do fechamento dos rasgos das alvenarias ou de seu envolvimento por capas de argamassa, lentamente cheias de água, para eliminação completa de ar, em seguida, submetida à prova de pressão interna.

Essa prova será feita com água sob pressão 50% superior à pressão estática máxima na instalação, não devendo descer, em ponto algum da canalização, a menos de 1 Kg/cm<sup>2</sup>. A duração da prova será de 6 horas no mínimo.

Nos tubos com juntas roscáveis a abertura de roscas deverá ser feita de tal forma que seja possível rosqueá-las com relativa facilidade, para tal deverão ser utilizadas tarraxas com cabeçotes e cossinetes específicos para cada rosca. O corte dos tubos deverá ser feito rigorosamente em esquadro, para que a rosca não se desenvolva torta. As roscas deverão ser concêntricas à periferia do tubo.

A vedação da rosca deverá ser feita por meio de um vedante adequado sobre os filetes: fita Teflon ou similar.

Quando forem utilizadas conexões de metal, a vedação será feita com vedante adequado para tal fim.

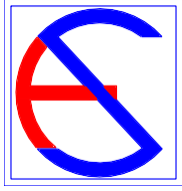
Nos tubos com juntas soldáveis não será admitido a abertura de roscas.

Para a execução da solda primeiro lixa-se a ponta do tubo e a bolsa da conexão por meio de lixa d'água, em seguida limpa-se com solução própria as partes lixadas, logo após aplica-se adesivo, uniformemente, nas duas partes a serem soldadas, encaixando-se rapidamente e removendo o excesso com solução própria.

Antes da solda deverá ser marcada a profundidade da bolsa sobre a ponta do tubo, para a perfeição do encaixe, que deverá ser bastante justo, uma vez que a ausência de pressão não estabelece a soldagem.

### **ESPECIFICAÇÕES TÉCNICAS**

Todos os materiais a empregar nas obras serão novos, comprovadamente de primeira qualidade e satisfarão rigorosamente às condições estipuladas nestas especificações.



## Senemig Engenharia

O CONTRATADO só poderá usar qualquer material depois de submetê-lo ao exame e aprovação da FISCALIZAÇÃO, a quem caberá impugnar o seu emprego, quando em desacordo com as Especificações.

Cada lote ou partida de material deverá, além de outras averiguações, ser comparado com a respectiva amostra, previamente aprovada.

As amostras de materiais aprovadas pela FISCALIZAÇÃO, depois de convenientemente autenticadas por esta e pelo CONTRATADO, serão cuidadosamente conservadas no canteiro de obras até o fim dos trabalhos, de forma a facultar, a qualquer tempo, a verificação de sua perfeita correspondência aos materiais fornecidos ou já empregados.

Obriga-se o CONTRATADO a retirar do recinto das obras os materiais porventura impugnados pela FISCALIZAÇÃO, dentro de 72 horas, a contar da Ordem de Serviço atinente ao assunto, sendo expressamente proibido manter no recinto das obras quaisquer materiais que não satisfaçam a estas Especificações.

Será obrigatória a apresentação de notas fiscais de todos os equipamentos e materiais a empregar nas instalações, do comprovante de qualidade e das especificações obedecendo rigorosamente às condições definidas no projeto.

Considera-se que materiais ou equipamentos apresentam equivalência técnica se desempenham IDÊNTICAS FUNÇÕES NA SUA CONCEPÇÃO CONSTRUTIVA, as MESMAS CARACTERÍSTICAS E ROBUSTEZ exigidas na especificação ou no serviço que a eles se destinam e os fabricantes tenham Certificados de Qualidade ISO 2002 e selos INMETRO.

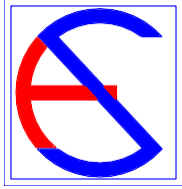
Se as circunstâncias ou condições locais tornarem aconselhável a substituição de alguns dos materiais especificados neste Caderno, a substituição obedecerá ao disposto nos itens subseqüentes e só poderá ser efetuada mediante expressa autorização, por escrito, da FISCALIZAÇÃO, para cada caso particular e será regulada pelo critério de analogia definido a seguir.

Diz-se que dois materiais ou equipamentos apresentam analogia total ou equivalência técnica se desempenham idêntica função construtiva e apresentam as mesmas características exigidas na Especificação ou no Serviço que a eles se refiram;

Diz-se que dois materiais ou equipamentos apresentam analogia parcial ou semelhança se desempenham idêntica função construtiva, mas não apresentam as mesmas características exigidas na Especificação ou no Serviço que a eles se refiram;

Na eventualidade de uma equivalência técnica, a substituição se processará sem haver compensação financeira para as partes, o PROPRIETÁRIO ou o CONTRATADO.

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## Senemig Engenharia

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Na eventualidade de uma semelhança, a substituição se processará com a correspondente compensação financeira para uma das partes, o PROPRIETÁRIO ou o CONTRATADO, conforme contrato.

O critério de analogia referido será estabelecido em cada caso pela FISCALIZAÇÃO, sendo objeto de registro no "Diário de Obras" ou Ordens de Serviço.

Nas Especificações, a identificação de materiais ou equipamentos por determinada marca implica, apenas, a caracterização de uma analogia, ficando a distinção entre equivalência técnica e semelhança subordinada ao critério de analogia estabelecido conforme item anterior.

A consulta sobre analogia envolvendo equivalência técnica ou semelhança será efetuada em tempo oportuno pelo CONTRATADO, não admitindo o PROPRIETÁRIO, em nenhuma hipótese, que dita consulta sirva para justificar o não cumprimento dos prazos estabelecidos na documentação contratual.

### - ÁGUA FRIA

#### **- TUBO EM PVC RÍGICO COM JUNTA ELÁSTICA**

- Indicações: Serão utilizados tubos em PVC em todos os pavimentos da edificação, nas prumadas verticais e redes externas, conforme Projeto Executivo de Instalações Hidrossanitárias.

#### **- TUBO EM PVC RÍGICO CLASSE 15**

- Indicações Serão utilizados tubos em PVC classe 15 para os drenos de ar condicionado, conforme Projeto de Instalações Hidrossanitárias.

- Material: Tubos em PVC soldável rígido, classe 15, pressão de serviço 7,5 Kgf/cm<sup>2</sup> de fabricação TIGRE, AKROS FORTILIT ou equivalente técnico.

Material: PVC ponta e bolsa soldável, rígido

Classe: 15

Pressão máxima de serviço: 7.5 kgf/cm<sup>2</sup>

Temperatura à pressão max. de serviço: 20° C

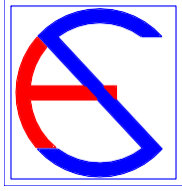
Tipo de Conexão: Soldável

Cor: Marrom

Bitolas: 20, 25, 32, 40, 50, 60, 75, 85, 110mm.

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## Senemig Engenharia

- Processo Executivo: Deverão ser previstos inspeções em todos os pontos crítico por venturas existentes; A declividade mínima das redes horizontais deverá ser 0,5%;  
Planilha de preços: 75051/002U

### **Normas Aplicáveis: EB-1892/77 (NBR 5648)**

- Processo Executivo: Os cortes devem ser executados em perfeito esquadro e possuírem a rebarba removida antes da execução de qualquer conexão.  
Obedecer às determinações do fabricante no que concerne ao espaçamento máximo de suportes e fixações para evitar a ocorrência de flechas.  
Por meio de uma lixa d'água, tirar o brilho das superfícies a serem soldadas, objetivando aumentar área de ataque do adesivo.  
Limpar as superfícies lixadas com solução limpadora, eliminando impurezas e gorduras que poderiam impedir a posterior ação do adesivo.  
Distribuir uniformemente o adesivo com um pincel.  
Encaixar as partes e remover qualquer excesso de adesivo.  
Não pressurizar a rede antes de vinte e quatro horas após a execução da solda.  
Toda rede deve ser testada hidrostáticamente, de acordo com a determinação da norma brasileira.  
Nunca abrir bolsas ou aquecer a tubulação sob qualquer argumento.  
Toda rede deverá ser rigorosamente ancorada nos pontos de inflexão, derivação ou mudança de direção ou nível.  
Nenhuma rede poderá ser solidária com a estrutura da edificação

### **- ADAPTADOR PVC SOLDÁVEL CURTO PARA REGISTRO**

- Indicações: Serão utilizados adaptadores PVC soldável curto nas conexões de registros e outros equipamentos roscáveis com a rede de PVC.

- Material: Adaptador em PVC PBS Classe 20, da Tigre, Fortilit, Cande ou equivalente técnico com as seguintes características técnicas:

Material: PVC soldável, rígido

Classe: 20

Pressão máxima de serviço: 7.5 kgf/cm<sup>2</sup>

Temperatura à pressão max. de serviço 20° C

Tipo de Conexão: Soldável / roscável

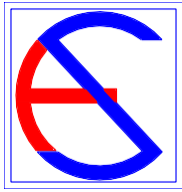
Cor: marrom

Bitolas: 20x1/2", 25x3/4", 32x1", 40x1.1/4", 50x1.1/2", 60x2", 75x2.1/2", 85x3", 110x4"

Normas Aplicáveis: EB-1892/77 (NBR 5648)

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## Senemig Engenharia

- Processo Executivo: Usar fita Teflon nas roscas de modo a garantir a perfeita vedação. Por meio de uma lixa d'água, tirar o brilho das superfícies a serem soldadas, objetivando aumentar área de ataque do adesivo.

Limpar as superfícies lixadas com solução limpadora, eliminando impurezas e gorduras que poderiam impedir a posterior ação do adesivo.

Distribuir uniformemente o adesivo com um pincel.

Encaixar as partes e remover qualquer excesso de adesivo.

Não pressurizar a rede antes de vinte e quatro horas após a execução da solda.

Toda rede deve ser testada hidrosticamente, de acordo com a determinação da norma brasileira.

Ancorar os registros ou equipamentos de modo a não transferir esforços para as tubulações.

Planilha de preços: 75051/002U

### - JOELHO 90° PVC SOLDÁVEL

- Indicações: Serão utilizados joelhos 90° em PVC PBS Classe 20 nas mudanças de direção de tubulações de PVC soldável, conforme Projeto de Instalações Hidrossanitárias.

- Material: Joelhos 90° em PVC PBS Classe 20, da Tigre, Fortilit, Cande ou equivalente técnico, com as seguintes características técnicas:

Material: PVC soldável, rígido

Classe: 20

Pressão máxima de serviço: 7.5 kgf/cm<sup>2</sup>

Temperatura à pressão max. de serviço: 20° C

Tipo de Conexão: Soldável

Cor: Marrom

Bitolas: 20, 25, 32, 40, 50, 60, 75, 85, 110 mm

Normas Aplicáveis: EB-1892/77 (NBR 5648)

- Processo Executivo: Por meio de uma lixa d'água, tirar o brilho das superfícies a serem soldadas, objetivando aumentar área de ataque do adesivo.

Limpar as superfícies lixadas com solução limpadora, eliminando impurezas e gorduras que poderiam impedir a posterior ação do adesivo.

Distribuir uniformemente o adesivo com um pincel.

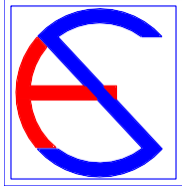
Encaixar as partes e remover qualquer excesso de adesivo.

Não pressurizar a rede antes de vinte e quatro horas após a execução da solda.

Toda rede deve ser testada hidrosticamente, de acordo com a determinação da norma brasileira.

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## Senemig Engenharia

Planilha de preços: 75051/002U

### - JOELHO PVC SOLDÁVEL COM ROSCA E BUCHA DE LATÃO, AZUL

- Indicações: Serão utilizados joelhos em pvc nas conexões com equipamentos roscáveis, conforme Projeto de Instalações Hidrossanitárias.

- Material: Joelho em PVC PBS Classe 20, da Tigre, Fortilit, Cande ou equivalente técnico, com as seguintes características técnicas:

Material: PVC soldável, rígido

Classe: 20

Pressão máxima de serviço: 7.5 kgf/cm<sup>2</sup>

Temperatura à pressão max. de serviço: 20° C

Tipo de Conexão: Soldável

Cor: Marrom

Bitolas: Variável com o fabricante

Normas Aplicáveis: EB-1892/77 (NBR 5648)

- Processo Executivo: Por meio de uma lixa d'água, tirar o brilho das superfícies a serem soldadas, objetivando aumentar área de ataque do adesivo.

Limpar as superfícies lixadas com solução limpadora, eliminando impurezas e gorduras que poderiam impedir a posterior ação do adesivo.

Distribuir uniformemente o adesivo com um pincel.

Encaixar as partes e remover qualquer excesso de adesivo.

Não pressurizar a rede antes de vinte e quatro horas após a execução da solda.

Toda rede deve ser testada hidrosticamente, de acordo com a determinação da norma brasileira.

Planilha de preços: 75051/002U

### - TÊ PVC SOLDÁVEL

- Indicações: Serão utilizados têes em PVC nas derivações em redes de PVC soldável, conforme Projeto de Instalações Hidrossanitárias.

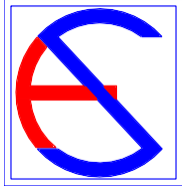
- Material: Te em PVC PBS Classe 20, da Tigre, Fortilit, Cande ou equivalente técnico, com as seguintes características técnicas:

Material: PVC soldável, rígido

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## Senemig Engenharia

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Classe: 20  
Pressão máxima de serviço: 7.5 kgf/cm<sup>2</sup>  
Temperatura à pressão max. de serviço: 20° C  
Tipo de Conexão: Soldável  
Cor: Marrom  
Bitolas: Variável com o fabricante

Normas Aplicáveis: EB-1892/77 (NBR 5648)

- Processo Executivo: Por meio de uma lixa d'água, tirar o brilho das superfícies a serem soldadas, objetivando aumentar área de ataque do adesivo.  
Limpar as superfícies lixadas com solução limpadora, eliminando impurezas e gorduras que poderiam impedir a posterior ação do adesivo.  
Distribuir uniformemente o adesivo com um pincel.  
Encaixar as partes e remover qualquer excesso de adesivo.  
Não pressurizar a rede antes de vinte e quatro horas após a execução da solda.  
Toda rede deve ser testada hidrostaticamente, de acordo com a determinação da norma brasileira.  
Planilha de preços: 75051/002U

### - REGISTRO DE GAVETA COM ACABAMENTO CROMADO

- Indicações: Serão utilizados registros de gaveta nos sanitários, cozinhas e copas, pois devido ao acabamento cromado, é possível a escolha da linha de acordo com a decoração do mesmos.

Os registros de gaveta cromados são utilizados para controle de fluxos hídricos, possibilitando manutenção e reparos das instalações hidráulicas dos sanitários, cozinhas e copas.

- Material: Registro de gaveta, modelo 1509, da DECA, Docol, Fabrimar ou equivalente técnico, com as seguintes características técnicas:

Material: Bronze  
Classe: 125 PSI  
Acabamento: Cromado com canopla  
Bitolas: Indicada no projeto

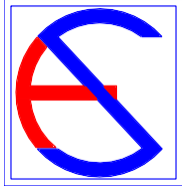
Normas Aplicáveis:

MSS-SP-37 (Manufactures Standardization Society), BS 1952: 1956 (British Standart Institute), WW-V-54D (Federal Specifications-U.S.A. ), ABNT-NB-96, ASTM-B-584 liga844, BS 1400 LG nº1 ou ABNT-NB-96 Liga nº 11.

Planilha de preços: 74176/001U

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### - ENGATE FLEXÍVEL PVC

- Indicações: Será utilizado engate flexível em PVC nas Redes Prediais de Água potável, na ligação de equipamentos ao ponto de água.

- Material: Engate flexível em PVC, modelo AS 01, da Tigre, Fortilit, Cande ou equivalente técnico, com as seguintes características técnicas:

Material: Polietileno

Conexão: Roscável

Cor: Branca

Estabilidade dimensional: Menor que 5% a 140 +/- 5oC

Temperatura em uso contínuo: 50°C

Bitolas: 1/2"x30cm; 1/2"x40cm; 1/2"x50cm;

Normas Aplicáveis: EB-608/77 (NBR 5688) e EB-19/83 (NBR 8160)

- Processo Executivo: Não utilizar na ligação de caixas de descarga de embutir.

Utilizar fita teflon para vedação da rosca, com superposição mínima de 5 voltas.

Evitar retorcer o engate no momento da instalação.

Toda rede deve ser testada, de acordo com a determinação da norma brasileira.

Na execução das conexões obedecer rigorosamente às determinações do fabricante.

### 17.2.2- ESGOTO

#### 17.2.2.1- TUBO PVC PBV PARA ESGOTO SANITÁRIO PREDIAL

- Indicações: Deverão ser usados tubos em PVC PBV nos Sub-ramais, ramais e prumadas de esgoto primário e ventilação de esgoto predial, conforme Projeto de Instalações Hidrossanitárias.

- Material: Tubos em PVC ponta e bolsa com virola, rígido, PVC PBV esgoto primário, da Tigre, Fortilit, Cande ou equivalente técnico, com as seguintes características técnicas:

Material: PVC ponta e bolsa com virola, rígido

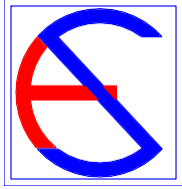
Temperatura em uso contínuo: 50o C

Estabilidade dimensional: Menor que 5% a 140 +/- 5oC

Tipo de Conexão: Soldável e anel de borracha

Cor: Branca

Bitolas: 50 75 e 100 mm.



## Senemig Engenharia

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Normas Aplicáveis: EB-608/77 (NBR 5688) e EB-19/83 (NBR 8160)

- Processo Executivo: Os cortes devem ser executados em perfeito esquadro e possuírem a rebarba removida antes da execução de qualquer conexão.

Obedecer às determinações do fabricante no que concerne ao espaçamento máximo de suportes e fixações para evitar a ocorrência de flechas.

Por meio de uma lixa d'água, tirar o brilho das superfícies a serem soldadas, objetivando aumentar área de ataque do adesivo.

Limpar as superfícies lixadas com solução limpadora, eliminando impurezas e gorduras que poderiam impedir a posterior ação do adesivo.

Distribuir uniformemente o adesivo com um pincel.

Encaixar as partes e remover qualquer excesso de adesivo.

No caso de conexões elásticas usar anel de borracha, instalado com pasta lubrificante.

Jamais usar sabão em substituição ao lubrificante.

Toda rede deve ser testada, de acordo com a determinação da norma brasileira.

Nunca abrir bolsas ou aquecer a tubulação sob qualquer argumento.

Toda rede deverá ser rigorosamente ancorada nos pontos de inflexão, derivação ou mudança de direção ou nível.

Nenhuma rede poderá ser solidária com a estrutura da edificação

Planilha de preços: 74165/001U; 74165/002U; 74165/004U

### **17.2.2.2- TUBO PVC PBV PARA ESGOTO SECUNDÁRIO PREDIAL**

- Indicações: Deverão ser usados tubos em PVC PBV nos Sub-ramais, ramais e prumadas de esgoto secundário predial, conforme Projeto de Instalações Hidrossanitárias.

- Material: Tubos em PVC PBS esgoto secundário, modelo EG 28, da Tigre, Fortilit, Cande ou equivalente técnico, com as seguintes características técnicas:

Material: PVC ponta e bolsa, rígido

Temperatura em uso contínuo: 50° C

Estabilidade dimensional: Menor que 5% a 140 +/- 5oC

Tipo de Conexão: Soldável

Cor: Branca

Bitolas: 40mm.

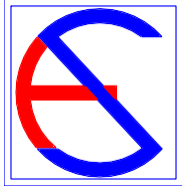
Normas Aplicáveis: EB-608/77 (NBR 5688) e EB-19/83 (NBR 8160)

- Processo Executivo: Os cortes devem ser executados em perfeito esquadro e possuírem a rebarba removida antes da execução de qualquer conexão.

Obedecer às determinações do fabricante no que concerne ao espaçamento máximo de suportes e fixações para evitar a ocorrência de flechas.

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## Senemig Engenharia

Por meio de uma lixa d'água, tirar o brilho das superfícies a serem soldadas, objetivando aumentar área de ataque do adesivo.

Limpar as superfícies lixadas com solução limpadora, eliminando impurezas e gorduras que poderiam impedir a posterior ação do adesivo.

Distribuir uniformemente o adesivo com um pincel.

Encaixar as partes e remover qualquer excesso de adesivo.

Toda rede deve ser testada, de acordo com a determinação da norma brasileira.

Nunca abrir bolsas ou aquecer a tubulação sob qualquer argumento.

Toda rede deverá ser rigorosamente ancorada nos pontos de inflexão, derivação ou mudança de direção ou nível.

Nenhuma rede poderá ser solidária com a estrutura da edificação.

Planilha de preços: 74165/001U; 74165/002U; 74165/004U

### **17.2.2.2- CURVA 87° 30' PVC CURTA SÉRIE R COM BOLSAS PARA PÉS DE COLUNAS DE ESGOTO SANITÁRIO**

- Indicações: Serão utilizadas curva em pvc curta nas redes prediais de esgoto sanitário primário, coletores e sub-coletores, onde será necessário evitar o uso de joelhos, e em "pés" de prumadas, conforme Projeto de Instalações Hidrossanitárias.

- Material: Curva em PVC soldável rígido modelo SR 05, do fabricante Tigre, Fortilit, Cande ou equivalente técnico, com as seguintes características técnicas:

Material: PVC soldável Rígido

Conexão: Ponta e Bolsa com Virola

Cor: Branca

Estabilidade dimensional: Menor que 5% a 140 +/- 5oC

Temperatura em uso contínuo: 50° C

Bitolas: 75mm; 100mm;150mm;

Normas Aplicáveis: EB-608/77 (NBR 5688) e EB-19/83 (NBR 8160)

- Processo Executivo: A conexão em prumadas obrigatoriamente deverá ser executada com anel de borracha.

Conexões horizontais, podem ser executadas com solda PVC.

Por meio de uma lixa d'água, tirar o brilho das superfícies a serem soldadas, objetivando aumentar área de ataque do adesivo.

Limpar as superfícies lixadas com solução limpadora, eliminando impurezas e gorduras que poderiam impedir a posterior ação do adesivo.

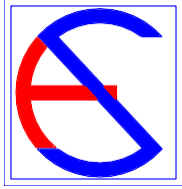
Distribuir uniformemente o adesivo com um pincel.

Encaixar as partes e remover qualquer excesso de adesivo.

A execução de conexão elástica com anel de borracha, deve ser executada com o uso de pasta lubrificante.

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## Senemig Engenharia

Jamais usar sabão, vaselina, óleo, graxa ou derivados de petróleo em substituição à este material.

Toda rede deve ser testada, de acordo com a determinação da norma brasileira.

Na execução das conexões obedecer rigorosamente às determinações do fabricante.

Planilha de preços: 74165/001U; 74165/002U; 74165/004U

### 17.2.2.3- JOELHO 45° E 90° PVC

- Indicações: Serão utilizados joelhos 45° e joelhos 90° em pvc soldável rígido nas Redes Prediais de Esgoto Sanitário Predial, conforme Projeto de Instalações Hidrossanitárias.

- Material: Joelho 45° e joelho 90° em PVC PBV soldável rígido, da Tigre, Fortilit, Cande ou equivalente técnico, com as seguintes características técnicas:

Material: PVC soldável Rígido

Conexão: Ponta e Bolsa com Virola

Cor: Branca

Estabilidade dimensional: Menor que 5% a 140 +/- 5oC

Temperatura em uso contínuo: 50° C

Bitolas: 40mm; 50mm; 75mm; 100mm; 150mm

- Processo Executivo: A conexão em prumadas obrigatoriamente deverá ser executada com anel de borracha.

Conexões horizontais podem ser executadas com solda PVC.

Por meio de uma lixa d'água, tirar o brilho das superfícies a serem soldadas, objetivando aumentar área de ataque do adesivo.

Limpar as superfícies lixadas com solução limpadora, eliminando impurezas e gorduras que poderiam impedir a posterior ação do adesivo.

Distribuir uniformemente o adesivo com um pincel.

Encaixar as partes e remover qualquer excesso de adesivo.

A execução de conexão elástica com anel de borracha, deve ser executada com o uso de pasta lubrificante. Jamais usar sabão, vaselina, óleo, graxa ou derivados de petróleo em substituição à este material.

Toda rede deve ser testada, de acordo com a determinação da norma brasileira.

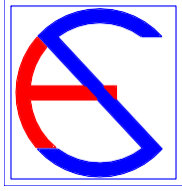
Na execução das conexões obedecer rigorosamente às determinações do fabricante.

Planilha de preços: 74165/001U; 74165/002U; 74165/004U

### 17.2.2.4- JUNÇÃO SIMPLES PVC PARA ESGOTO SANITÁRIO

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## Senemig Engenharia

- Indicações: Serão utilizadas junções simples em pvc soldável rígido nas Redes Prediais de Esgoto Sanitário Primário, conforme Projeto de Instalações Hidrossanitárias.

- Material: Junção simples em PVC PBV soldável rígido, da Tigre, Fortilit, Cande ou equivalente técnico, modelo EG 07, com as seguintes características técnicas:

Material: PVC soldável Rígido

Conexão: Ponta e Bolsa com Virola

Cor: Branca

Estabilidade dimensional: Menor que 5% a 140 +/- 5oC

Temperatura em uso contínuo: 50°C

Bitolas: 50x50mm, 75x50mm; 75x75mm; 100x50mm 100x75mm; 100x100mm

Normas Aplicáveis: EB-608/77 (NBR 5688) e EB-19/83 (NBR 8160)

- Processo Executivo: A conexão em prumadas obrigatoriamente deverá ser executada com anel de borracha.

Conexões horizontais, podem ser executadas com solda PVC.

Por meio de uma lixa d'água, tirar o brilho das superfícies a serem soldadas, objetivando aumentar área de ataque do adesivo.

Limpar as superfícies lixadas com solução limpadora, eliminando impurezas e gorduras que poderiam impedir a posterior ação do adesivo.

Distribuir uniformemente o adesivo com um pincel.

Encaixar as partes e remover qualquer excesso de adesivo.

Limpar as superfícies lixadas com solução limpadora, eliminando impurezas e gorduras que poderiam impedir a posterior ação do adesivo.

Distribuir uniformemente o adesivo com um pincel.

Encaixar as partes e remover qualquer excesso de adesivo.

A execução de conexão elástica com anel de borracha, deve ser executada com o uso de pasta lubrificante. Jamais usar sabão, vaselina, óleo, graxa ou derivados de petróleo em substituição à este material.

Toda rede deve ser testada, de acordo com a determinação da norma brasileira.

Na execução das conexões obedecer rigorosamente às determinações do fabricante.

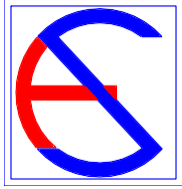
Planilha de preços: 74165/001U; 74165/002U; 74165/004U

### 17.2.2.5- BUCHA DE REDUÇÃO LONGA PARA ESGOTO SECUNDÁRIO

- Indicações: Serão utilizadas buchas de redução longa nas Redes Prediais de Esgoto Sanitário Secundário, conforme Projeto de Instalações Hidrossanitárias.

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## Senemig Engenharia

- Material: Bucha de redução longa em PVC soldável rígido, modelo EG 46, da Tigre, Fortilit, Cande ou equivalente técnico, com as seguintes características técnicas:

Material: PVC soldável Rígido

Conexão: Ponta e Bolsa com Virola

Cor: Branca

Estabilidade dimensional: Menor que 5% a 140 +/- 5oC

Temperatura em uso contínuo: 50° C

Bitolas: 50mm x 40mm

Normas Aplicáveis: EB-608/77 (NBR 5688) e EB-19/83 (NBR 8160)

- Processo Executivo: Por meio de uma lixa d'água, tirar o brilho das superfícies a serem soldadas, objetivando aumentar área de ataque do adesivo.  
Limpar as superfícies lixadas com solução limpadora, eliminando impurezas e gorduras que poderiam impedir a posterior ação do adesivo.

Distribuir uniformemente o adesivo com um pincel.

Encaixar as partes e remover qualquer excesso de adesivo.

Toda rede deve ser testada, de acordo com a determinação da norma brasileira.

Na execução das conexões obedecer rigorosamente às determinações do fabricante.

Planilha de preços: 74165/001U; 74165/002U; 74165/004U

### 17.2.2.6- VEDAÇÃO PARA SAÍDA DE VASO SANITÁRIO

- Indicações: Deverá ser utilizada vedação entre a bacia sanitária e a tubulação de saída do esgoto sanitário, conforme Projeto de Instalações Hidrossanitárias.

- Material: Vedação para saída de vaso sanitário, da Tigre, Fortilit, Cande ou equivalente técnico, modelo EG 27, com as seguintes características técnicas:

Material: Borracha

Cor: Branca

Estabilidade dimensional: Menor que 5% a 140 +/- 5oC

Temperatura em uso contínuo: 50o C

Bitola: 100mm

Normas Aplicáveis: EB-608/77 (NBR 5688) e EB-19/83 (NBR 8160)

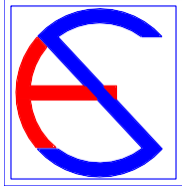
- Processo Executivo: Jamais "atacar" o vaso sanitário com o piso sob qualquer argumento. A superfície do tubo deve estar perfeitamente nivelada com o piso.

Na instalação obedecer rigorosamente às determinações do fabricante

### 17.2.2.7- ADAPTADOR PVC PARA SIFÃO METÁLICO COM ANEL DE BORRACHA

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## Senemig Engenharia

- Indicações: Serão utilizados adaptadores PVC para sifão nas Redes Prediais de Esgoto Sanitário Secundário, na conexão de sifões metálicos com a rede de PVC.
- Material: Adaptador em PVC Soldável Rígido, modelo EG 73, da Tigre, Fortilit, Cande ou equivalente técnico, com as seguintes características técnicas:

Material: PVC soldável Rígido  
Conexão: Ponta e Bolsa com Virola  
Cor: Branca  
Estabilidade dimensional: Menor que 5% a 140 +/- 5oC  
Temperatura em uso contínuo: 50° C  
Bitolas: 40mm x 1.1/2"

Normas Aplicáveis: EB-608/77 (NBR 5688) e EB-19/83 (NBR 8160)

- Processo Executivo: Por meio de uma lixa d'água, tirar o brilho das superfícies a serem soldadas, objetivando aumentar área de ataque do adesivo.  
Limpar as superfícies lixadas com solução limpadora, eliminando impurezas e gorduras que poderiam impedir a posterior ação do adesivo.  
Distribuir uniformemente o adesivo com um pincel.  
Encaixar as partes e remover qualquer excesso de adesivo.  
Toda rede deve ser testada, de acordo com a determinação da norma brasileira.  
Na execução das conexões obedecer rigorosamente às determinações do fabricante.  
Na instalação da junta elástica usar pasta lubrificante conforme determinação do fabricante.

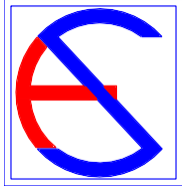
### 17.2.2.8- TÊ PVC PARA ESGOTO SANITÁRIO

- Indicações: Serão utilizados têes em pvc nas Redes Prediais de Esgoto Sanitário Primário, conforme Projeto de Instalações Hidrossanitárias.
- Material: Tê de PVC soldável rígido, modelo EG 10, da Tigre, Fortilit, Cande ou equivalente técnico, com as seguintes características técnicas:

Material: PVC soldável Rígido  
Conexão: Ponta e Bolsa com Virola  
Cor: Branca  
Estabilidade dimensional: Menor que 5% a 140 +/- 5oC  
Temperatura em uso contínuo: 50° C  
Bitolas: 50x50mm, 75x50m; 75x75mm; 100x50mm; 100x75mm; 100x100mm

Normas Aplicáveis: EB-608/77 (NBR 5688) e EB-19/83 (NBR 8160)





## Senemig Engenharia

- Processo Executivo: A conexão em prumadas obrigatoriamente deverá ser executada com anel de borracha.  
Conexões horizontais, podem ser executadas com solda PVC.  
Por meio de uma lixa d'água, tirar o brilho das superfícies a serem soldadas, objetivando aumentar área de ataque do adesivo.  
Limpar as superfícies lixadas com solução limpadora, eliminando impurezas e gorduras que poderiam impedir a posterior ação do adesivo.  
Distribuir uniformemente o adesivo com um pincel.  
Encaixar as partes e remover qualquer excesso de adesivo.  
A execução de conexão elástica com anel de borracha, deve ser executada com o uso de pasta lubrificante. Jamais usar sabão, vaselina, óleo, graxa ou derivados de petróleo em substituição à este material.

Toda rede deve ser testada, de acordo com a determinação da norma brasileira.  
Na execução das conexões obedecer rigorosamente às determinações do fabricante.  
Planilha de preços: 74165/001U; 74165/002U; 74165/004U

### 17.2.2.9- ANEL DE BORRACHA PARA TUBO E CONEXÕES DE PVC

- Indicações: Serão utilizados anéis de borracha nas Redes Prediais de Esgoto Sanitário Primário, onde for necessário se manter a junta elástica ou desmontável, conforme Projeto de Instalações Hidrossanitárias.
- Material: Anel de borracha para tubo e conexões de pvc, da Tigre, Fortilit, Cande ou equivalente técnico, com as seguintes características técnicas:

Material: Borracha Sintética ou Natural  
Temperatura em uso contínuo: 50° C  
Estabilidade dimensional: Menor que 5% a 140 +/- 5oC  
Cor: Preta  
Bitolas: 40; 50; 75; 100; 125; 150; 200; 250; 300; 350 e 400mm.

Normas Aplicáveis: NBR 7362 da ABNT

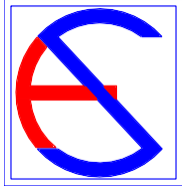
- Processo Executivo: Usar pasta lubrificante na instalação dos anéis de borracha.  
Toda rede deve ser testada, de acordo com a determinação da norma brasileira.  
Obedecer rigorosamente às determinações do fabricante na instalação  
Planilha de preços: 74165/001U; 74165/002U; 74165/004U

### 17.2.3- ACESSÓRIOS

#### 17.2.3.1- CAIXAS E RALOS:

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## Senemig Engenharia

- O corpo das caixas e ralos sifonados será em PVC soldável rígido com temperatura em uso contínuo de 50°C com grelha e guarnição cromadas de fabricação TIGRE, AKROS, FORTILIT ou equivalente técnico;
- As caixas sifonadas oriundas de mictórios deverão possuir tampa cega cromada;
- Os ralos hemisféricos serão do tipo “abacaxi” com saídas conforme projeto gráfico, serão em ferro fundido de fabricação METALÚRGICA BRIANT ou EQUIVALENTE TÉCNICO;
- As caixas de gordura terão as dimensões indicadas em projeto, serão construídas em alvenaria, impermeabilizadas interna e externamente. No seu nível superior possuirá um tampão articulado em ferro fundido para inspeção e limpeza;
- Note-se que as dimensões apresentadas não levam em conta o nível de chegada das tubulações que terão função da declividade, portanto as cotas indicadas se referem ao volume útil das caixas;
- As caixas de inspeção serão construídas em tijolo maciço, sobre base de concreto, revestidas com argamassa de cimento e areia no traço 1:3, e deverão ser executadas de tal maneira, que não permitam formação de depósitos;
- Os tampões das caixas de inspeção projetadas deverão ser em ferro fundido com capacidade de carga compatível com a solicitação;
- As caixas de inspeção até a profundidade de 1,00m serão de 0,60x0,60m e acima desta, serão de 1,10x1,10m ou conforme exijam as condições locais.
- Planilha de preços: 14.001.000014.SER

### 17.2.3.2- CAIXA SIFONADA COM GRELHA

#### 17.2.3.2.1- CORPO DE CAIXA SIFONADA

- Indicações: Será utilizado corpo de caixa sifonada nas Redes Prediais de Esgoto, banheiros, cozinhas, áreas, terraços etc , conforme Projeto de Instalações Hidrossanitárias.

- Material: Corpo de caixa sifonada em PVC soldável rígido, da Tigre, Fortilit, Cande ou equivalente técnico, com as seguintes características técnicas:

Material: PVC soldável Rígido

Conexão: Ponta

Cor: Branca

Estabilidade dimensional: Menor que 5% a 140 +/- 5oC

Temperatura em uso contínuo: 50o C

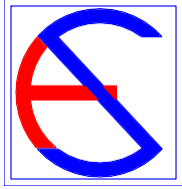
Bitolas: 100 x 100 x 50mm; 100 x 150 x 50mm; 150 x 150 x 50mm.

Normas Aplicáveis: EB-608/77 (NBR 5688) e EB-19/83 (NBR 8160)

- Processo Executivo: Por meio de uma lixa d'água, tirar o brilho das superfícies a serem soldadas, objetivando aumentar área de ataque do adesivo.

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## Senemig Engenharia

Limpar as superfícies lixadas com solução limpadora, eliminando impurezas e gorduras que poderiam impedir a posterior ação do adesivo.

Distribuir uniformemente o adesivo com um pincel.

Encaixar as partes e remover qualquer excesso de adesivo.

Atenção especial deve ser dada ao encontro da impermeabilização com o corpo da caixa.

Na execução das conexões obedecer rigorosamente às determinações do fabricante.

Planilha de preços: 14.001.000014.SER

### 17.2.3.2.1- PROLONGAMENTO PARA CAIXA SIFONADA

- Indicações: Será utilizado prolongamento para caixa sifonada nas Redes Prediais de Esgoto, no prolongamento de caixas secas e sifonadas, conforme Projeto de Instalações Hidrossanitárias.

- Material: Prolongamento de caixa sifonada em PVC soldável rígido, da Tigre, Fortilit, Cande ou equivalente técnico, modelo CX 51, com as seguintes características técnicas:

Material: PVC soldável Rígido

Conexão: Ponta

Cor: Branca

Estabilidade dimensional: Menor que 5% a 140 +/- 5oC

Temperatura em uso contínuo: 50o C

Comprimento padrão: 3000mm

Bitolas: 100; 150; 250mm

Normas Aplicáveis: EB-608/77 (NBR 5688) e EB-19/83 (NBR 8160)

- Processo Executivo: A execução das soldas, devem ser precedidas de lixamento da superfície do tubo e conexão, com lixa d'água número 100, limpeza com solução limpadora, e adição de solda para PVC, de acordo com a recomendação do fabricante.

Atenção especial deve ser dada ao encontro da impermeabilização com o corpo da caixa, e do prolongamento.

O prolongamento deverá ser cortado de forma retilínea e de modo a prover um perfeito nivelamento entre a grelha / porta grelha com o piso do ambiente.

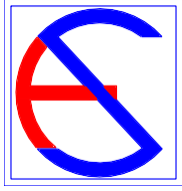
Na execução das conexões obedecer rigorosamente às determinações do fabricante.

### 17.2.3.3- GRELHAS OU GRADES

#### 17.2.3.3.1- GRELHA REDONDA

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## Senemig Engenharia

- Indicações: Será utilizada grelha redonda nas Redes Prediais de Esgoto, para instalação em porta grelhas de caixas e ralos de esgoto sanitário, e drenagem pluvial, conforme Projeto de Instalações Hidrossanitárias.

- Material: Grelha redonda, da Tigre, Fortilit, Cande ou equivalente técnico, com as seguintes características técnicas:

Material: PVC soldável Rígido

Cor: Branca / Cromada

Estabilidade dimensional: Menor que 5% a 140 +/- 5oC

Temperatura em uso contínuo: 50°C

Bitolas: 100mm; 150mm

Normas Aplicáveis: EB-608/77 (NBR 5688) e EB-19/83 (NBR 8160)

OBS: Na execução das conexões obedecer rigorosamente às determinações do fabricante.

### 17.2.3.3.1- PORTA GRELHA QUADRADO PARA GRELHA QUADRADA

- Indicações: Será utilizado porta grelha quadrado nas Redes Prediais de Esgoto, para permitir a instalação da grelha nas caixas ou ralos, conforme Projeto de Instalações Hidrossanitárias.

- Material: Porta grelha quadrado para grelha quadrada, da Tigre, Fortilit, Cande ou equivalente técnico, modelo CX 65, com as seguintes características técnicas:

Material: PVC soldável Rígido

Cor: Branca / Cinza / Cromado

Estabilidade dimensional: Menor que 5% a 140 +/- 5oC

Temperatura em uso contínuo: 50o C

Bitolas: 100; 150mm

Normas Aplicáveis: EB-608/77 (NBR 5688) e EB-19/83 (NBR 8160)

- Processo Executivo: Atenção especial deve ser dada ao encontro da impermeabilização com o corpo da caixa, e do prolongamento, e porta grelha.

Na execução das conexões obedecer rigorosamente às determinações do fabricante

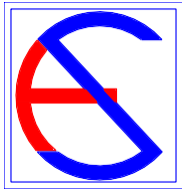
Planilha de preços: 14.001.000014.SER

### 17.2.3.3.3- PORTA GRELHA QUADRADO PARA GRELHA REDONDA

- Indicações:

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## Senemig Engenharia

Será utilizado porta grelha quadrado nas Redes Prediais de Esgoto, para permitir a instalação da grelha nas caixas ou ralos, conforme Projeto de Instalações Hidrossanitárias.

- Material:

Porta grelha quadrado para grelha redonda, da Tigre, Fortilit, Cande ou equivalente técnico, modelo CX 63, com as seguintes características técnicas:

Material: PVC soldável Rígido

Cor: Branca / Cinza

Estabilidade dimensional: Menor que 5% a 140 +/- 5oC

Temperatura em uso contínuo: 50o C

Bitolas: 100mm

Normas Aplicáveis: EB-608/77 (NBR 5688) e EB-19/83 (NBR 8160)

- Processo Executivo: Atenção especial deve ser dada ao encontro da impermeabilização com o corpo da caixa, e do prolongamento, e porta grelha.

Na execução das conexões obedecer rigorosamente às determinações do fabricante.

Planilha de preços: 14.001.000014.SER

### **17.2.4- PASTA LUBRIFICANTE PARA CONEXÕES DE TUBOS DE PVC**

- Indicações: Será utilizada pasta lubrificante nas Redes Prediais de Esgoto Sanitário Primário, na inspeção de prumadas, mudanças de direção e onde é impossível a utilização de caixas de inspeção, conforme Projeto de Instalações Hidrossanitárias.

- Material: Pasta lubrificante, modelo EG 93, da Tigre, Fortilit, Cande ou equivalente técnico, com as seguintes características técnicas:

Material: PVC soldável Rígido

Conexão: Ponta e Bolsa com Virola

Cor: Branca

Estabilidade dimensional: Menor que 5% a 140 +/- 5oC

Temperatura em uso contínuo: 50o C

Bitolas: 100x75mm

Normas Aplicáveis: EB-608/77 (NBR 5688) e EB-19/83 (NBR 8160)

- Processo Executivo: A conexão em prumadas obrigatoriamente deverá ser executada com anel de borracha.

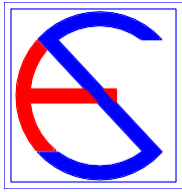
Conexões horizontais, podem ser executadas com solda PVC.

Por meio de uma lixa d'água, tirar o brilho das superfícies a serem soldadas, objetivando aumentar área de ataque do adesivo.

Limpar as superfícies lixadas com solução limpadora, eliminando impurezas e gorduras que poderiam impedir a posterior ação do adesivo.

Av. Luiz Tarquínio Pontes, 1.904 Sala 01-A, Pitangueiras, Lauro de Freitas, BA - CEP 42.701-450

Fone 3350-9350 [senemig@senemig.com.br](mailto:senemig@senemig.com.br)



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Distribuir uniformemente o adesivo com um pincel.

Encaixar as partes e remover qualquer excesso de adesivo.

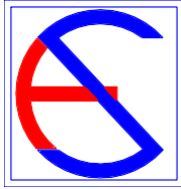
A execução de conexão elástica com anel de borracha, deve ser executada com o uso de pasta lubrificante. Jamais usar sabão, vaselina, óleo, graxa ou derivados de petróleo em substituição à este material.

Toda rede deve ser testada, de acordo com a determinação da norma brasileira.

Na execução das conexões obedecer rigorosamente às determinações do fabricante.

Deve ser deixado livre acesso e fácil operação no ponto de inspeção.

Arqto Eduardo Alves da Costa Castro  
CAU: Registro Nacional: 00A1467409 E



Senemig Engenharia



BAHIA PESCA SA

## MERCADO DE PESCADOS VALENÇA-BA

### MEMORIAL DESCRITIVO E ESPECIFICAÇÕES DO PROJETO DE PROTEÇÃO CONTRA INCÊNDIO

REV 00 – 07/06/2021

**EMPRESA RESPONSÁVEL:** Senemig Engenharia LTDA

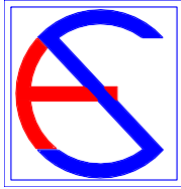
**RESPONSÁVEIS TÉCNICOS:**

**ENG. ELETRICISTA MARCO ANTONIO GIMENES – RN: 260369593-2-SP – RR-6583BA**

**ENGA. ELETRICISTA MÔNICA ANDRADE T. DA SILVA – RN:050264419-2-BA – RR-23379/D-BA**

**ARQ. EDUARDO ALVES DA COSTA CASTRO – RN: A-146740-9-BA**

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# Senemig Engenharia

## MEMORIAL DESCRITIVO DE SEGURANÇA CONTRA INCÊNDIO E PÂNICO

### EXIGÊNCIAS

Decreto Lei Nº 16.302, de 27 de agosto de 2015 regulamenta a Lei Nº 16.302, de 27 de dezembro de 2013 – Segurança Contra Incêndio e Pânico

IT 01 - CBMBA – Procedimentos Administrativos

IT 03 - CBMBA – Terminologia de Segurança contra Incêndio

IT 04 - CBMBA – Símbolos Gráficos para Projetos de Segurança Contra Incêndio

IT 06 - CBMBA – Acesso de VTR na Edificação Estruturas e Áreas de Risco

IT 07 - CBMBA – Separações Entre Edificações

IT 08 - CBMBA – Resistência ao Fogo dos Elementos de Construção

IT 10 - CBMBA – Controle de Materiais de Acabamento e Revestimento

IT 11 - CBMBA – Saídas de Emergência

IT 14 - CBMBA – Carga de Incêndio

IT 17 - CBMBA – Brigadas de Incêndio

IT 21 - CBMBA – Sistema de Proteção por Extintores de Incêndio

NBR 5410 - Instalações Elétricas de Baixa Tensão

NBR 5590 - Tubo de Aço Carbono com ou sem Costura, Prestos ou Galvanizador por imersão a quente, para Fluidos - Especificação

NBR 9077 - Saídas de Emergência em Edifícios

NBR 9441 - Execução de Sistema de Detecção e Alarme de Incêndio

NBR 10351 - Conexões Injetadas de PVC Rígido com Junta Elástica para Redes e Adutoras de Água - Especificação

NBR 10897 - Proteção Contra Incêndio por Chuveiros Automático - Procedimento

NBR 10898 - Sistema de Iluminação de Emergência

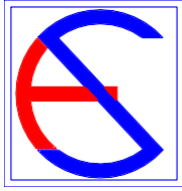
NBR 11861 - Mangueira de Incêndio - Requisitos e Métodos de Ensaio

NBR 12693 - Sistema de Proteção por Extintores de Incêndio

NBR 13434 - Sinalização de Segurança Contra Incêndio e Pânico

NBR 14276 - Programa de Brigada de Incêndio

NBR 11742 - Portas Corta-Fogo para saídas de emergência



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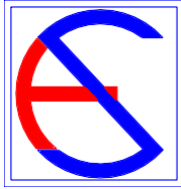
## DESCRIÇÃO DAS INSTALAÇÕES

O projeto foi desenvolvido considerando ocupação para depósitos considerando:

- 1- Área construída: 515,00 m<sup>2</sup>
- 2- Área do Terreno: 1403,00 m<sup>2</sup>
- 3- Mercados – Risco médio - Entre 300 e 1.200 MJ/m<sup>2</sup>
- 4- Edificação tipo C-2







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## DA EDIFICAÇÃO E ÁREAS DE RISCO:

<b>Número da ART do projeto:</b>			
<b>Classificação da edificação: C-2</b>			
<b>Grupo</b>	<b>Ocupação</b>	<b>Divisão</b>	<b>Descrição</b>
C	Comercial	C-2	Mercado Público
<b>Descrição das atividades econômicas da edificação (Conforme cartão CNPJ)</b>			
	<b>Descrição</b>		
	Bahia Pesca SA – Mercado de Pescados		
<b>Carga de Incêndio Específica:</b>			
<b>Risco (em MJ/m²):</b>	( ) Baixo - CI < 300	( X ) Médio - 300 < CI < 1200	( ) Alto - CI > 1200
<b>Projetista:</b>	Eng Marco Antonio Gimenes		
<b>Classificação da edificação quanto a sua existência:</b>			
( x ) Em fase de projeto (não construída)	( ) Construída e possui Projeto de Segurança (atualização ou reforma)	( ) Construída e não possui Projeto de Segurança	
<b>Endereço:</b>	Avenida Marita Almeida, s/nº, Centro, Valença - BA, CEP 45.400-000		
<b>Área total construída:</b>	515.00 m²		
<b>Área total do terreno:</b>	1.403,00 m²	<b>Altura Real:</b>	Térrea
<b>Área por pavimento tipo:</b>	xxxxx	<b>Altura descendente:</b>	xxxxxx
<b>Número de Pavimentos:</b>	01	<b>Número de Blocos:</b>	01
<b>Descrição do imóvel:</b>			
O imóvel será reformado, as estruturas serão em concreto, vigas e pilares em concreto, com pisos antiderrapantes, cobertura com telha canaleta 90.			



## INSTALAÇÕES PREVENTIVAS DE PROTEÇÃO CONTRA INCÊNDIO E PÂNICO

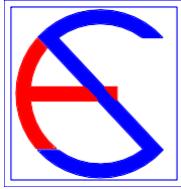
	Acesso de viatura do Corpo de Bombeiros		Detecção de incêndio
	Separação entre edificações		Alarme de incêndio
	Resistência ao fogo dos elementos de construção	X	Brigada de incêndio
	Controle de material de acabamento		Bombeiro Civil
X	Sinalização de emergência		Plano de Emergência contra Incêndio
X	Iluminação de emergência		Compartimentação horizontal
X	Extintores de Incêndio		Compartimentação Vertical
X	Saídas de emergência		Controle de Fumaça
	Elevador de emergência		
	Chuveiros automáticos		
	Hidrantes		

## RISCOS ESPECIAIS

	Armazenamento de líquidos inflamáveis		Fogos de artifício
	Armazenamento de produtos perigosos		Vaso sob pressão (caldeira)

### Consumo de Gás:

x	Não faz uso		Até 45 kg de GLP		Central de GLP ou Gás natural
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## QUADRO RESUMO DAS MEDIDAS DE SEGUANÇA

EXTINTORES IT-21	PÓ QUÍMICO ABC- 3:A, 40:BC CO2 - 5:BC
ACESSO DE VIATURAS	A EDIFICAÇÃO POSSUI A FACHADA VOLTADO AO LOGRADOURO PÚBLICO.
PROTEÇÃO ESTRUTURAL	TRRF DE 60 MIM (C2 e H <6m)
SINALIZAÇÃO DE EMERGÊNCIA	CONFORME IT-20
INSTALAÇÕES ELÉTRICAS	CONFORME IT -41
ILUMINAÇÃO DE EMERGÊNCIA	CONFORME NBR 10898/2013
SAÍDA DE EMERGÊNCIA	CONFORME IT-11
ALARME E DETECÇÃO	NÃO SE APLICA
REDE DE HIDRANTES	NÃO SE APLICA
BRIGADA DE INCÊNDIO	CONFORME IT-17
COMPARTIMENTAÇÃO	NÃO SE APLICA
SPDA	CONFORME NBR 5419/2015

## CLASSIFICAÇÃO - DECRETO ESTADUAL 16.302/15

GRUPO	OCUPAÇÃO	DIVISÃO	DESCRIÇÃO
C	MERCADOS	C-2	COMERCIAL
CARGA DE INCÊNDIO IT-14			
OCUPAÇÃO/USO	DESCRIÇÃO	DIVISÃO	CARGA DE INCÊNDIO MJ/M2
COMERCIAL	MERCADOS	C-2	ENTRE 300 e 1.200 MJ/M2
RISCO	CARGA DE INCÊNDIO MJ/M2		
MÉDIO	ENTRE 300 e 1.200 MJ/M2		



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### ACESSO DE VIATURAS - conforme IT nº 06 - CBMBA

A edificação possui a fachada voltada ao logradouro público. A edificação fica localizada na Avenida Marita Almeida, cuja a largura da via é de 14,50 metros. Não é possível garantir que as vias suportem viaturas com peso de 25.000 Kgf.

### RESISTÊNCIA AO FOGO DOS ELEMENTOS DE CONSTRUÇÃO - conforme IT nº 08 - CBMBA

A edificação foi e possui elementos estruturais e de compartimentação com características de resistência e atendimento aos Tempos Requeridos de Resistência ao Fogo (TRRF), para que, em situação de incêndio, seja evitado o colapso estrutural por tempo suficiente para possibilitar a saída segura das pessoas e o acesso para as operações do Corpo de Bombeiros, conforme NBR 5628 - ABNT - Componentes construtivos estruturais - Determinação da resistência ao fogo.

#### Classificação quanto ao TRRF conforme Tabela A da IT 08

<b>Ocupação / Uso</b>	Comercial/Mercado	<b>Divisão</b>	C-2
<b>Profundidade do subsolo (hs)</b>	xxxx	<b>Classe do subsolo</b>	xxxx
<b>Altura da Edificação (h)</b>	6,00 m	<b>Classe da altura</b>	P1
<b>TRRF estrutural</b>			60 minutos
<b>TRRF para a PCF P60</b>			60 minutos

### SINALIZAÇÃO DE EMERGÊNCIA - conforme IT-20 – CBMBA

A sinalização de segurança contra incêndio tem como objetivo reduzir o risco de ocorrência de incêndio, alertando para os riscos existentes, e garantir que sejam adotadas ações adequadas à situação de risco, que orientem as ações de combate e facilitem a localização dos equipamentos e das rotas de saídas para abandono seguro da edificação em caso de incêndio.

Os locais de onde houver sinalização de emergência deverão obedecer as sinalizações conforme plantas baixa do projeto.

Manutenção das sinalizações de emergência deverá seguir as instruções da NBR 13434.

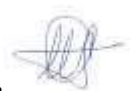
#### DESCRIÇÃO DAS SINALIZAÇÕES

Sinalização de orientação e salvamento

Sinalização de equipamentos de combate a incêndio e alarme

Indicação continuada de rota de fuga

A sinalização apropriada deve ser instalada em local visível e a uma altura mínima de 1,80 m, medida do piso acabado à base da sinalização. A mesma sinalização deve estar distribuída em mais de um






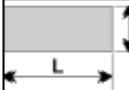


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ponto dentro da área de risco, de modo que pelo menos uma delas seja claramente visível de qualquer posição dentro da área, e devem estar distanciadas entre si em no máximo 15,0 m.

### FORMAS GEOMÉTRICAS E DIMENSÕES PARA A SINALIZAÇÃO DE EMERGÊNCIA

As dimensões da sinalização de emergência estão indicadas nas pranchas em conformidade com a tabela abaixo:

Sinal	Forma geométrica	Cota mm	Distância máxima de visibilidade											
			m											
			4	6	8	10	12	14	16	18	20	24	28	30
Proibição		D	101	151	202	252	303	353	404	454	505	606	706	757
Alerta		L	136	204	272	340	408	476	544	612	680	816	951	1019
Orientação, salvamento e equipamentos		L	89	134	179	224	268	313	358	402	447	537	626	671
		H (L=2H)	63	95	126	158	190	221	253	285	316	379	443	474

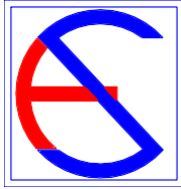
<sup>1)</sup> As dimensões (cotas) apresentadas são valores mínimos de referência para as distâncias dadas.

### ILUMINAÇÃO DE EMERGÊNCIA - conforme NBR 10.898/2013

A edificação deverá possuir sistema de iluminação de emergência com condições de clarear áreas escuras de passagens, horizontais e verticais, incluindo áreas de trabalho e áreas técnicas de controle de restabelecimento de serviços essenciais e normais, na falta de iluminação normal.

Tipo de Sistema:

Altura do ponto de luz em relação ao piso m	Intensidade máxima do ponto de luz cd	Iluminação ao nível do piso cd/m <sup>2</sup>
2,20	400	64



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Tipo de luminárias	Balizamento e Aclaramento
Tipo de lâmpada	60 LEDs
Potencia em watts	4W
Tensão, em volts	110 / 220 automático
Autonomia	4 horas para LEDs na função brilho intenso, ou 3 horas para LEDs na função brilho suave.
Fluxo luminoso nominal, em lumens	Min 360lm Máx 720lm
Ângulo de dispersão	--
Vida útil do elemento gerador de luz	--
<i>De acordo com itens 4.7.2, 4.7.5 e Tabela 1 da NBR 10898/2013 da ABNT</i>	

Deve assegurar o mínimo de proteção de acordo com a NBR 6146, de forma a ter resistência contra impacto de água, sem causar danos mecânicos nem o desprendimento da luminária.

Os locais de onde houver a instalação das luminárias de emergência deverão obedecer a distribuição conforme plantas baixa do projeto, sendo que, os circuitos alimentadores destas luminárias serão independentes dos demais circuitos (iluminação, tomadas etc) , permitindo manutenção e testes periódicos, sem comprometer o funcionamento normal do estabelecimento.

A Manutenção do sistema de iluminação de emergência deverá seguir as instruções da NBR 10898.

### ILUMINAÇÃO POR SINALIZAÇÃO

A iluminação de sinalização deve assinalar todas as mudanças de direção, obstáculos, saídas, escadas, etc. e não deve ser obstruída por anteparos ou arranjos decorativos.

O fluxo luminoso do ponto de luz, exclusivamente de iluminação de sinalização, deve ser no mínimo igual a 30 lmA iluminação de sinalização deve assinalar todas as mudanças de direção, obstáculos, saídas, escadas, etc. e não deve ser obstruída por anteparos ou arranjos decorativos.

O fluxo luminoso do ponto de luz, exclusivamente de iluminação de sinalização, deve ser no mínimo igual a 30 lm

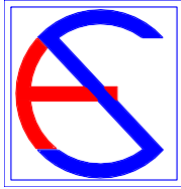
### EXTINTORES - conforme CBMBA IT-21

Risco da Edificação:	A, B e C
----------------------	----------

Foi projetado um Sistema de Extintores Portáteis para **RISCO MÉDIO 3-A / 40-BC**, e proteger o edifício de modo que o número, tipo e capacidade dos Extintores sejam em função de:

- a) da natureza do fogo;
- b) do agente extintor;
- c) da quantidade do agente extintor;

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- d) da classe ocupacional do risco e de sua respectiva área.
- Atendendo a classificação do risco, foi dimensionada uma Proteção através Extintores Portáteis com emprego de unidades a base de Pó Químico ABC e CO2 para a Subestação, observando-se **a distância de 20m** a ser percorrido pelo Operador hipotético de onde estiver ao extintor mais próximo.
- Em atendimento a IT 21 e a norma NBR 12693, item 5.10 deveser instalado no mínimo uma unidade extintora na entrada principal não ultrapassando 5m da porta de acesso.
- Instalação: Os Extintores devem ser instalados nas locações indicadas em planta baixa, observando-se:
  - Suporte de parede ou cabide: deve ser fixado no máximo, a 1,60m acima da cota do piso, podendo ser empregado em sua fixação buchas de nylon;
  - Os extintores portáteis deverão ser afixados em locais com boa visibilidade e acesso desimpedido;
  - Os extintores portáteis deverão ser afixados de maneira que nenhuma de suas partes fique acima de 1,60 metros do piso acabado.

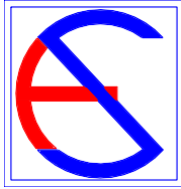
### SAÍDA DE EMERGÊNCIA - conforme IT-11 - CPMB - NBR 9077/2001

A edificação deve possuir condições para que sua população possa abandoná-la, em caso de incêndio, completamente protegida em sua integridade física, bem como permitir o fácil acesso de auxílio externo (bombeiros) para o combate ao fogo e a retirada da população.

#### Tabela de Classificação

Quanto à ocupação:	Grupo C	
Quanto à altura:	III – Edificação, estrutura e área de risco de Baixa Média Altura 6 < H 12 m	
Área do maior pavimento:	515,00 m <sup>2</sup>	
Número de saídas:	2	
Tipo de escada:	Normal	
Distancia a ser percorrida sem chuveiros	50m pavimento de descarga	
( X ) NE - Não enclausurada	( ) EP - Escada Protegida	( ) PF - À prova de fumaça
TRRF dos elementos estruturais:	1 hora	
Tipo de porta corta fogo da escada:	PCF-60	





## CÁLCULO DE DIMENSIONAMENTO DA SAÍDA DE EMERGÊNCIA

A largura das saídas deve ser dimensionada em função do número de pessoas que por elas deva transitar, observados os seguintes critérios:

- os acessos são dimensionados em função dos pavimentos que servirem à população;
- as escadas, rampas e descargas são dimensionadas em função do pavimento de maior população, o qual determina as larguras mínimas para os lanços correspondentes aos demais pavimentos, considerando-se o sentido da saída.

### Dados para o dimensionamento das saídas

Grupo	Divisão	População	Capacidade de Unidade de Passagem		
			Acessos e descargas	Escadas e rampas	Portas
C	C-2	Uma pessoa por 5,00m <sup>2</sup>	100	75	100

### População por pavimento específico e largura dos acessos

Descrição do Pavimento	Área do Pavimento (m <sup>2</sup> )	População	Número de Unidades de Passagem dos acessos (N)	Largura calculada (m)	Largura adotada (m)
TÉRREO	515	103	$N = 103 / 100 = 1,03 = 1 \text{ U.P.}$	$L = 0,55 * 2 = 1,10$	2x2,00

**Foram projetadas 02 (duas) portas para Acesso e Descargas sendo que cada uma delas com largura de 2,00m**

**As circulações são de pelo menos 1,10m a menor e 2.26m a maior.**

### BRIGADA DE INCÊNDIO - conforme IT-17 - CBMBA

A edificação deve possuir requisitos mínimos para implantação de brigada de incêndio, preparada para atuar na prevenção e no combate ao princípio de incêndio, abandono de área e primeiros socorros.

### - QUANTO A CLASSE DE OCUPAÇÃO:

Conforme ANEXO A, Tabela A1 – Composição mínima de Brigadista por Pavimento ou compartimento

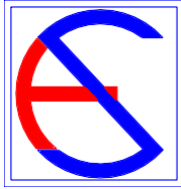
Comércio - Classe de ocupação **C-2**

Considerando a classificação da edificação, estrutura e áreas de risco quanto a carga de incêndio de 400MJ/m<sup>2</sup> teremos a edificação classificada como **risco médio**.

Área construída total – **515,00m<sup>2</sup>**







## Senemig Engenharia

Nível de Treinamento: **Intermediário**

Pavimentos acima de 10 pessoas

- 10 brigadista até 10 pessoas.

Acima de 10 pessoas temos:

Risco baixo: +1 brigadista para cada grupo de até 20 pessoas;

Risco médio: +1 brigadista para cada grupo de até 15 pessoas;

Risco alto: +1 brigadista para cada grupo de até 10 pessoas;

### Memorial de Dimensionamento:

Prédio	População	Até 10 pessoas	Acima de 10 pessoas	Total de Brigadista
Térreo	103	4	6	10
Total de Brigadista				10

**Total de Brigadistas = 10 brigadistas**

**Brigadista Profissional por turno = isento**

Em caso de alteração da população fixa da edificação, o proprietário desta fica responsável pela readequação do quantitativo de brigadistas, devendo ser apresentado novo cálculo no momento da vistoria técnica.

Os brigadistas deverão ter treinamento com o conteúdo programático conforme Tabela B.1 da IT-17 e Carga Horárias conforme Tabela B.2 da IT-17.

### ANEXO B : TABELA B-2 MÓDULO E CARGA HORÁRIA MÍNIMA POR NÍVEL DE TREINAMENTO

#### Treinamento Intermediário:

1- Parte Teórica de combate a incêndio: Módulos 01 a 14, 19 e 20

Carga horária mínima – 4 horas

2- Parte prática de combate a incêndio: Módulos 5, 7, 8, 9, 10, 11 e 12

Carga horária mínima – 4 horas

3- Parte Teórica e prática de primeiros socorros: Módulos 17 a 27

Carga horária mínima para teoria de primeiros socorros – 8 horas

Carga horária mínima para prática de primeiros socorros – 4 horas

#### Conteúdo Programático conforme tabela B.1 da IT-17

#### COMPOSIÇÃO DO INVENTÁRIO DE PRIMEIROS SOCORROS

Como a população fixa é maior que 100 e menor que 500 pessoas, a composição do material de primeiros socorros deverá ser de 2 Inventários, conforme Anexo H da IT-17.





# Senemig Engenharia

## ANEXO H

### INVENTÁRIO DE PRIMEIROS SOCORROS

O inventário de primeiros socorros deve conter no mínimo os seguintes materiais:

1. 50 (cinquenta) unidades de compressas de gaze 08 (oito) dobras (7,50cm x 7,50cm);
2. 04 (quatro) unidades de compressas de gaze esterilizadas (10 cm x 15 cm);
3. 10 (dez) unidades de ataduras de crepe (20 cm de largura);
4. 04 (quatro) unidades de plástico protetor de queimaduras e escarificações (1m x 1m) esterilizado;
5. 05 (cinco) frascos de soro fisiológico de 250 ml (duzentos e cinquenta mililitros), 6. 01 (uma) unidade de fita adesiva grande (crepe);
6. 03 (três) unidades de talas moldáveis grandes (86 cm x 10 cm x 02 cm);
7. 03 (três) unidades de talas moldáveis médias (63 cm x 09 cm x 02 cm);
8. 03 (três) unidades de talas moldáveis pequenas (30 cm x 08 cm x 02 cm);
9. 01 (uma) prancha longa de madeira ou material de similar resistência (190 cm x 45 cm);
10. 06 (seis) unidades de bandagens triangulares (142 cm x 100 cm x 100 cm);
11. 01(um) ressuscitador manual (ambu) ou máscara de ressuscitação para ventilação artificial;
12. 01 (um) colar cervical de cada tamanho padronizado (grande, médio e pequeno) ou 02 (dois) reguláveis;
13. 01 (uma) tesoura de ponta romba e equipamentos de proteção individual para o socorrista (Óculos de segurança, mascara semi-facial e luvas de procedimento).

Para dimensionar o inventário utilize a tabela abaixo:

POPULAÇÃO FIXA	QUANTIDADE
20 a 100	01 inventário
101 a 500	02 inventários
ACIMA DE 500	03 inventários

## DISPOSIÇÕES FINAIS

### SISTEMA DE PROTEÇÃO CONTRA DESCARGAS ATMOSFÉRICAS

De acordo com a NBR-5419:2015 – SPDA Sistema de Proteção contra Descargas Atmosféricas, não há necessidade de proteção externa da estrutura.

#### **NBR-5419:2015**

#### **SPDA (Sistema de Proteção contra Descargas Atmosféricas)**

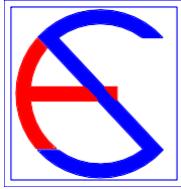
### **Projeto: Mercado do Peixe de Valença**

#### **1) Densidade e descargas atmosféricas para a terra [Ng]**

$$Ng = 0.75 \text{ [Descargas / km}^2\text{/ano]}$$

Fonte = Mapa - Brasil





## 2) Geometria da Estrutura

Comprimento [L] = 20 m  
Largura [W] = 27 m  
Altura [H] = 10 m

## 3) Ad - Área de exposição equivalente [em m<sup>2</sup>]

$$Ad = L * W + 2 * (3 * H) * (L + W) + PI * (3 * H)^2$$
$$Ad = 20 * 27 + 2 * (3 * 10) * (20 + 27) + 3.14159 * (3 * 10)^2$$
$$Ad = 6187.43 \text{ m}^2$$

### 5.1.30) Medidas de Proteção (descargas na estrutura) - Pta (Tabela B.1)

Nenhuma medida de Proteção

Pta = 1

## 6) Risco Total

### R1

$$Ra + Rb = 0.0005 * 10^{-3}$$
$$R1 = 0.0005 * 10^{-3}$$
$$Rt1 = 1 * 10^{-5}$$
$$R1 \leq Rt1$$
$$(Ra + Rb) \leq Rt1$$

[OK]

### Estrutura Protegida.

$$R1 \leq Rt1$$

## 21. GENERALIDADES E ESPECIFICAÇÕES TÉCNICAS

### NORMAS TÉCNICAS

Os projetos foram concebidos com base nas normas prescritas pelo Ministério do Trabalho, Associação Brasileira de Normas Técnicas – ABNT, nas normas das concessionárias de Energia e nos padrões do Tribunal de Justiça da Bahia.

### ENCARGOS DA INSTALADORA

Todos os materiais, equipamentos e serviços necessários à completa execução da obra serão fornecidos pela instaladora.





## Senemig Engenharia

As obras ocorrerão com o prédio funcionando, portanto caberá ao instalador articular-se com o o administrador de forma a executar os serviços causando o mínimo de transtorno e de forma a cumprir os prazos de contrato.

Caberá ao presente instalador, logo no início da obra, articular-se com as concessionárias de serviços públicos para prover a alimentação de energia em tempo hábil para o término da obra no prazo previsto.

A instaladora deverá dimensionar sua equipe de pessoal e programar as compras de forma a atender ao prazo previsto para execução da obra.

A instaladora deverá possuir profissional Engenheiro Eletricista ou Empresa que responderá pela instalação do sistema. O profissional deverá apresentar Certificado de Acervo Técnico, com no mínimo uma obra de porte idêntico ou superior ao desta obra.

***O instalador, ao final da obra, deverá emitir laudo assinado por profissional legalmente habilitado, se responsabilizando pelas instalações conforme prescrito pelas Normas vigentes, em especial o item 10.2.4 da NR-10. Da mesma forma será responsabilidade do instalador entregar em meio magnético um conjunto completo com os desenhos e documentos de projeto com as atualizações “conforme construído”.***

### **SERVIÇOS A EXECUTAR**

Todos os serviços deverão ser executados em um prazo definido na Ordem de Serviço corridos contados a partir da assinatura da mesma.

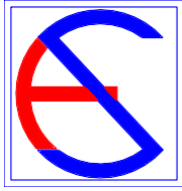
Caberá ao instalador executar todos os serviços necessários para a perfeita conclusão das instalações projetadas e às recomendações deste memorial. Caso seja necessária alteração em projetos, deverá ser submetido à prévia aprovação da fiscalização.

Após a execução dos serviços, o instalador deverá assegurar o perfeito funcionamento das instalações, sua adequação ao diagrama unifilar proposto e um bom acabamento estético das mesmas.

Todos os custos, ônus e taxas decorrentes dos serviços deverão ser previamente verificados pelo instalador e incluídos em sua proposta comercial. Não serão aceitos custos adicionais sob qualquer pretexto, devendo o instalador dirimir previamente todas as dúvidas e assumir inteira responsabilidade pelo funcionamento do sistema.

Como a obra ocorrerá com o prédio em funcionamento os serviços deverão ser programados previamente com a fiscalização para liberação das áreas. Em ambientes onde não possa ser liberada a área durante o expediente, os serviços devem ser executados no período noturno e finais de semana.





# Senemig Engenharia

## **GENERALIDADES**

Os eletrodutos deverão ser instalados com cuidado, de modo a se evitar moedas que reduzam os seus diâmetros. Quando cortados a serra, terão suas bordas limadas para remover as rebarbas. As emendas serão feitas com luvas atarraxadas.

Não se fará emprego de curvas com raio interno menor que 90º em cada trecho de canalização. Entre duas caixas ou entre extremidades e caixas, só poderão, no máximo, ser empregadas 2 curvas de 90º.

As ligações dos eletrodutos com as caixas de passagem serão feitas com arruelas pelo lado externo e bucha pelo lado interno, nas caixas maiores que 4x4" quando embutidas nas paredes e em todas as caixas instaladas aparentes dentro do forro. Após a instalação dos eletrodutos, eles devem ser tampados, nas caixas, com papelão ou estopa.

Não é permitido a emenda dos condutores alimentadores dos quadros. Os condutores de distribuição, que alimentarão luminárias e tomadas, quando emendados terão seu isolamento recomposto com fita isolante. Todos os condutores deverão receber identificação com anilhas em ambas as extremidades com o número do circuito.

Todas as emendas de condutores deverão ser realizadas no interior das caixas de passagem e após a enfição dos condutores.

As emendas de cabos com bitola igual ou inferior a 4,0mm<sup>2</sup> serão estanhadas e isoladas com fita de auto fusão e PVC. Para cabos com bitola igual ou superior a 6,0mm<sup>2</sup> as emendas devem ser feitas com conectores apropriados, fitas de auto fusão e de PVC.

Os condutores somente deverão ser enfiados após estar totalmente concluída a rede de eletrodutos e eletrocalhas e terminados todos os serviços de construção que possam danificar os mesmos. Todo cabeamento no interior de eletrocalhas deverá ser organizado e chicoteado com espiral de PVC. É vedada a instalação de fio aparente.

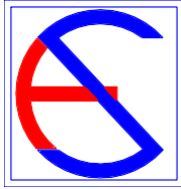
Antes da enfição, deve-se passar uma bucha de estopa através dos eletrodutos, para se retirar a umidade e qualquer sujeira.

As ligações dos condutores aos componentes elétricos devem ser feitas através de terminais de compressão apropriados. Nas ligações deverão ser empregadas arruelas lisas de pressão ou de segurança (dentadas), além dos parafusos e/ou porcas e contra – porcas, onde aplicáveis. No caso de dois condutores ligados ao mesmo terminal (ou borne), cada condutor deve ter seu terminal.

## **21.1 ESPECIFICAÇÕES TÉCNICAS**

Todos os materiais a empregar nas obras serão novos, comprovadamente de primeira qualidade e satisfarão rigorosamente às condições estipuladas nestas especificações.





## Senemig Engenharia

O CONTRATADO só poderá usar qualquer material depois de submetê-lo ao exame e aprovação da FISCALIZAÇÃO, a quem caberá impugnar o seu emprego, quando em desacordo com as Especificações.

Cada lote ou partida de material deverá, além de outras averiguações, ser comparado com a respectiva amostra, previamente aprovada.

As amostras de materiais aprovadas pela FISCALIZAÇÃO, depois de convenientemente autenticadas por esta e pelo CONTRATADO, serão cuidadosamente conservadas no canteiro de obras até o fim dos trabalhos, de forma a facultar, a qualquer tempo, a verificação de sua perfeita correspondência aos materiais fornecidos ou já empregados.

Obriga-se o CONTRATADO a retirar do recinto das obras os materiais porventura impugnados pela FISCALIZAÇÃO, dentro de 72 horas, a contar da Ordem de Serviço atinente ao assunto, sendo expressamente proibido manter no recinto das obras quaisquer materiais que não satisfaçam a estas Especificações.

Será obrigatória a apresentação de notas fiscais de todos os equipamentos e materiais a empregar nas instalações, do comprovante de qualidade e das especificações obedecendo rigorosamente às condições definidas no projeto.

Considera-se que materiais ou equipamentos apresentam equivalência técnica se desempenham IDÊNTICAS FUNÇÕES NA SUA CONCEPÇÃO CONSTRUTIVA, as MESMAS CARACTERÍSTICAS E ROBUSTEZ exigidas na especificação ou no serviço que a eles se destinam e os fabricantes tenham Certificados de Qualidade ISO 2002 e selos INMETRO.

Se as circunstâncias ou condições locais tornarem aconselhável a substituição de alguns dos materiais especificados neste Caderno, a substituição obedecerá ao disposto nos itens subseqüentes e só poderá ser efetuada mediante expressa autorização, por escrito, da FISCALIZAÇÃO, para cada caso particular e será regulada pelo critério de analogia definido a seguir.

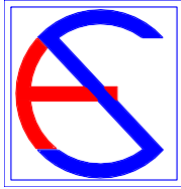
Diz-se que dois materiais ou equipamentos apresentam analogia total ou equivalência técnica se desempenham idêntica função construtiva e apresentam as mesmas características exigidas na Especificação ou no Serviço que a eles se referam;

Diz-se que dois materiais ou equipamentos apresentam analogia parcial ou semelhança se desempenham idêntica função construtiva, mas não apresentam as mesmas características exigidas na Especificação ou no Serviço que a eles se referam;

Na eventualidade de uma equivalência técnica, a substituição se processará sem haver compensação financeira para as partes, o PROPRIETÁRIO ou o CONTRATADO.

Na eventualidade de uma semelhança, a substituição se processará com a correspondente compensação financeira para uma das partes, o PROPRIETÁRIO ou o CONTRATADO, conforme contrato.





## Senemig Engenharia

O critério de analogia referido será estabelecido em cada caso pela FISCALIZAÇÃO, sendo objeto de registro no "Diário de Obras" ou Ordens de Serviço.

Nas Especificações, a identificação de materiais ou equipamentos por determinada marca implica, apenas, a caracterização de uma analogia, ficando a distinção entre equivalência técnica e semelhança subordinada ao critério de analogia estabelecido conforme item anterior.

A consulta sobre analogia envolvendo equivalência técnica ou semelhança será efetuada em tempo oportuno pelo CONTRATADO, não admitindo o PROPRIETÁRIO, em nenhuma hipótese, que dita consulta sirva para justificar o não cumprimento dos prazos estabelecidos na documentação contratual.

### CONDUTORES E ACESSÓRIOS

#### **CIRCUITOS DE LAÇOS**

Material do condutor: Condutores elétricos, tipo cabo trançado, com isolamento para 600V, adequados para instalação em eletrodutos, formados de condutor de cobre nu de 1,5mm<sup>2</sup>, tempera mole, isolados em composto termoplástico conforme recomendações das Normas e seções indicadas e com blindagem marca Lipperfil, Conducab ou similar.  
Cobre de têmpera mole;

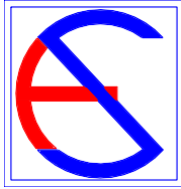
Acessórios: Terminações, anilhas, conectores, fitas isolantes, etc;  
Norma a ser seguida: NBR-6812 - fios e cabos elétricos - queima vertical (fogueira)  
NBR-6880 - condutores de cobre para cabos isolados (padronização)  
NBR-7288 - cabos com isolamento sólida extrudada de cloreto de polivinila (PVC) para tensões de 1 a 20kV (especificação);  
Planilha preços: COOBA-73860/009

#### **CIRCUITOS DE ALARME**

Material do condutor: Condutores elétricos, tipo cabo flexível, com isolamento para 600V, adequados para instalação em eletrodutos, formados de condutor de cobre nu de 1,5mm<sup>2</sup>, tempera mole, isolados em composto termoplástico conforme recomendações das Normas e seções indicadas e com blindagem marca Lipperfil, Conducab ou similar.  
Cobre de têmpera mole;

Classe de isolamento: 450/750V;





## Senemig Engenharia

Acessórios:	Terminações, anilhas, conectores, fitas isolantes, etc;
Norma a ser seguida:	NBR-6148 - fios e cabos com isolamento sólida extrudada de cloreto de polivinila para tensões até 750v (especificação) NBR-6880- condutores de cobre para cabos isolados (padronização)
Fabricante:	PIRELLI, SIEMENS, FICAP, CONDUCAB ou similar aprovado pela fiscalização;
Planilha preços:	COOBA-73860/009

### **ELETRODUTOS, ELETROCALHAS E ACESSÓRIOS**

#### **ELETRODUTOS DE PVC RÍGIDO ROSCÁVEL** Material

construtivo:	Cloreto de polivinila (PVC);
Tipo:	Rígido roscável;
Fornecimento:	Varas de 3-m;
Bitola:	Indicada em projeto (em polegadas);
Acessórios:	Luvas, curvas raio longo, buchas, arruelas, abraçadeiras, etc.
Norma de referência para Fabricação:	NBR-6150;
Fabricantes:	TIGRE ou similar aprovado pela fiscalização.
Planilha preços:	55865U; 74252/001U;

#### **ELETRODUTO DE AÇO GALVANIZADO**

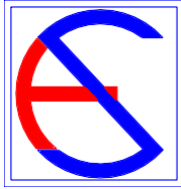
Descrição:	Eletróduto rígido, sem costura, série extra, com uma extremidade com luva e a outra com proteção mecânica na rosca;
Material construtivo:	Aço ASTM a 53°C, revestimento galvanizado a quente, por imersão;
Fornecimento:	Varas de 3m;
Bitola:	Indicada em projeto (em polegadas);
Roscas:	Externas nas duas extremidades com no mínimo 5 fios efetivos de rosca NPT (ANSI b 2.1)
Acessórios:	Luvas, curvas raio longo, buchas, arruelas, abraçadeiras, etc.
Norma de referência para Fabricação:	NBR-5597 - Eletróduto rígido de aço-carbono, com revestimento protetor, com rosca ANSI/ASME b.1.20.1; NBR-7414 - Zincagem por imersão a quente;
Fabricantes:	MANESMAM ou similar aprovado pela fiscalização.
Planilha preços:	72308U

#### **PERFILADOS E ELETROCALHAS EM AÇO**

Material:	Chapa de aço com bitola mínima 14 MSG lisa ou perfurada, conforme indicação em planta;
Tratamento do material:	Galvanização a fogo (NBR-7414 );
Dimensões:	Conforme indicado em planta;
Sustentação:	Através de suportes metálicos, tirantes rosca total, mãos francesa







## Senemig Engenharia

Acessórios:	e outros conforme indicado em planta; Tampas, curvas, cotovelos, junções, suportes verticais e horizontais, tirantes de aço, etc. Todos os acessórios devem ser apropriados para utilização com os perfilados ou eletrocalhas e galvanizados a fogo;
Fabricantes:	MOPA, FRIULIM ou similar aprovado pela fiscalização.
Planilha preços:	COOBA-19.2002; COOBA-2006CI133; COOBA-2006CIH123; COOBA-2006E3; COOBA-2006FG4-; COOBA-2006T143; COOBA-2006TP2D; COOBA-S4004-11

### **ELETROCALHAS DE AÇO GALVANIZADO**

Material:	Chapa de aço com bitola mínima 14 MSG lisa ou perfurada, conforme indicação em planta;
Tratamento do material:	Galvanização a fogo (NBR-7414 );
Dimensões:	Conforme indicado em planta;
Sustentação:	Através de suportes metálicos, tirantes rosca total, mãos francesa e outros conforme indicado em planta;
Acessórios:	Tampas, curvas, cotovelos, junções, suportes verticais e horizontais, tirantes de aço, etc. Todos os acessórios devem ser apropriados para utilização com os perfilados ou eletrocalhas e galvanizados a fogo;
Fabricantes:	MOPA, MEGA, DUTOTEC ou similar aprovado pela fiscalização.
Planilha preços:	COOBA-19.2002; COOBA-2006CI133; COOBA-2006CIH123; COOBA-2006E3; COOBA-2006FG4-; COOBA-2006T143; COOBA-2006TP2D; COOBA-S4004-11

### **ELETRODUTO METÁLICO FLEXÍVEL**

- Material: Aço doce zincado, latão, cobre ou alumínio com cobertura em PVC;
  - Tipo: Flexível à prova d'água, gases, vapores e pós;
  - Dimensões: Conforme indicado em planta;
  - Fixação: Através de abraçadeiras galvanizadas espaçadas 1,00m entre si (ou outra indicada em planta);
  - Acessórios: Conectores tipo BOX reto ou curvo, tipo macho ou fêmea em liga de alumínio fundido. Todos os acessórios devem ser apropriados para utilização com os eletrodutos;
  - Fabricantes: Sealtubo da SPTF ou similar aprovado pela fiscalização.
- Planilha preços: 72925U

### **CAIXAS DE PASSAGEM**

#### **CAIXAS EM PVC**

Tipo:	Caixa em PVC com abas para fixação dos equipamentos também em PVC;
Instalação:	Embutidas nas paredes ou teto, aparentes no entreferro ou aparentes sob o piso elevado;





## Senemig Engenharia

Dimensões: Indicadas em planta;  
Acessórios: Fornecida com tampa cega, quando não contiver equipamentos (interruptores, etc) ou quando não for especificado em contrário (tampa com furo central, etc);  
Fabricantes: TIGRE, PIAL LEGRAND ou similar aprovado pela fiscalização.  
Planilha preços: 16.003.000001.SER; 16.003.000065.SER; 16.003.000065.SER

### CAIXAS EM CHAPA METÁLICA

Tipo: Caixa em chapa metálica de aço bitola 16 MSG (no mínimo), tratada com pintura epóxi, com abas para fixação dos equipamentos;  
Instalação: Embutidas ou aparentes conforme indicado em planta;  
Dimensões: Indicadas em planta;  
Acessórios: Fornecida com tampa cega, quando não contiver equipamentos (interruptores, etc) ou quando não for especificado em contrário (tampa com furo central, etc);  
Fabricantes: TAUNUS, MOFERCO ou similar aprovado pela fiscalização.  
Planilha preços: 16.003.000022.SER;

### CAIXAS EM PVC PARA CANALETA

Tipo: Caixa em PVC com abas para fixação dos equipamentos também em PVC. Estas caixas devem ser adequadas para instalação com as canaletas ou dutos utilizados e da mesma linha e fabricante que os mesmos;  
Instalação: Aparentes nas paredes, divisórias ou teto;  
Dimensões: Indicadas em planta;  
Acessórios: Fornecida com tampa cega, quando não contiver equipamentos (interruptores, etc) ou quando não for especificado em contrário (tampa com furo central, etc);  
Fabricantes: Linha DLP da PIAL LEGRAND, DUTOTEC ou similar aprovado pela fiscalização.

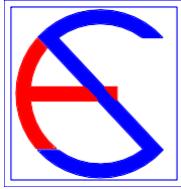
### CAIXAS EM ALUMÍNIO FUNDIDO

Tipo: Caixa em liga de alumínio fundido de alta resistência mecânica e a corrosão;  
Instalação: Embutidas nos pisos, aparentes no entreferro ou aparentes sob o piso elevado;  
Dimensões: Indicadas em planta;  
Acessórios: Fornecida com tampa cega em bronze ou latão, quando não contiver equipamentos (tomadas, etc) ou quando não for especificado em contrário (tampa com furo central, etc);  
Fabricantes: MOFERCO, FRIULIM, MOPA ou similar aprovado pela fiscalização.  
Planilha preços: COOBA-S-17.002.11

### CONDULETES EM ALUMÍNIO FUNDIDO

Tipo: Caixa tipo Condulete em liga de alumínio fundido de alta resistência mecânica e a corrosão;  
Instalação: Aparentes nas paredes, teto, entreferro ou sob o piso elevado;





## Senemig Engenharia

Entradas e Saídas: Roscadas do tipo (LL,LR, T, LB, etc.) e diâmetro indicado em planta;  
Dimensões: De acordo com o tipo e o diâmetro das entradas e saídas;  
Acessórios: Fornecida com tampa cega quando não contiver equipamentos (tomadas, etc) ou quando não for especificado em contrário (tampa com furo central, etc). Em todos os casos a tampa deve possuir junta de vedação em borracha e parafusos imperdíveis;  
Fabricantes: MOFERCO, WETZEL ou similar aprovado pela fiscalização.  
Planilha preços: 73861/014U; 73861/017U; 73861/020U

### **CAIXAS EM CONCRETO**

Tipo: Caixa em concreto;  
Instalação: Embutidos no piso da área externa;  
Entradas e Saídas: Todos os dutos devem ter suas arestas e rebarbas aparadas e conter bucha na extremidade;  
Dimensões: Dimensões internas indicadas em planta;  
Características construtivas: Fundo com abertura de 50% da sua área e uma camada de brita de 5cm para facilitar a drenagem;  
Tampa em concreto armado capaz de suportar o peso de um automóvel tipo utilitário;  
Tampa com alças capazes de suportar o içamento da mesma para abertura da caixa;  
Vedação da tampa com resina asfáltica (após a instalação dos cabos);  
Marcação na tampa da finalidade da caixa (ELETRICIDADE BT, ELETRICIDADE AT, etc) com letras em baixo relevo e tinta preta. As letras devem ter, no mínimo 3,0cm de altura;  
No caso de instalação em pisos de vegetação ou terra, a tampa das caixas deve ser instalada 5cm acima do piso acabado e ter acabamento em concreto. Nos demais casos deve ter acabamento idêntico ao do piso e ser instalada na mesma cota que o piso acabado, de forma a torna-la imperceptível;  
Fabricantes: Fabricada na obra.  
Planilha preços: 74248/001U

### **LUMINÁRIAS E ACESSÓRIOS**

#### **BLOCOS AUTÔNOMOS DE EMERGÊNCIA**

Tipo: Para aclaramento;  
Acessórios: Base para fixação de blocos, parafuso antifurto, fusível 0,2A, base para fixação no forro;  
Bateria: De níquel-cádmio recarregáveis, incorporadas ao produto;  
Autonomia: Superior a 1 hora;  
Tensão de alimentação: 127 V / 60 Hz;





## Senemig Engenharia

Lâmpada:	LED;
Fluxo luminoso:	680 lumens;
Fabricação:	UNITRON, PIAL LEGRAND ou Similar aprovado pela fiscalização.
Planilha preços:	COOBA-S-15.001.06

### EQUIPAMENTOS E SERVIÇOS DIVERSOS

#### **21.1.8 - EXTINTORES**

##### **21.1.8.1- instalação**

Os extintores deverão estar devidamente sinalizados e com etiqueta de identificação numerada presa em seu bojo contendo data de carga e recarga e selo de "VISTORIADO" e / ou "conformidade" FORNECIDO PELA ABNT, a altura do ponto mais alto destes extintores será de 1,50m.

##### **21.1.8.2 - de Água Pressurizada 10 litros e Sinalização**

Extintor de água pressurizada, com capacidade de 10 litros, **3-A** fabricado em chapa de aço nº 16, aprovado pela ABNT, segundo a norma EB-149, contendo válvula de pronta ação e manômetro indicador de pressão. Deverá ser fornecido com mangote de descarga em borracha, com bico em alumínio ou latão, fornecido com carga inicial, suporte para fixação e placa de sinalização apropriada.

##### **21.1.8.2- de Pó Químico ABC e Sinalização**

Extintor de Pó Químico, tipo ABC de 6,0kg, **3-A / 40-BC**, com cilindro fabricado em aço carbono sem costura, com válvulas tipo latão estampado, de descarga intermitente, dotada de dispositivo de segurança calibrado de 180 a 200 Kgf/cm<sup>2</sup>, pintado na cor vermelha, padrão Corpo de Bombeiros, e fornecido com carga inicial, suporte para fixação e placa de sinalização apropriada.

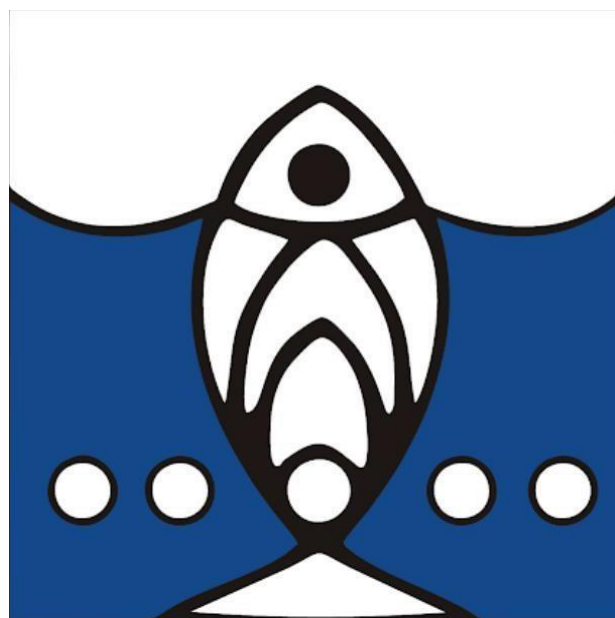
##### **21.1.8.3- de CO<sub>2</sub> e Sinalização**

Extintor de CO, **5-BC** com cilindro fabricado em aço carbono sem costura, com válvulas tipo latão estampado, de descarga intermitente, dotada de dispositivo de segurança calibrado de 180 a 200 Kgf/cm<sup>2</sup>, difusor plástico inquebrável. Pintado na cor vermelha, padrão Corpo de Bombeiros, e fornecido com carga inicial, suporte para fixação e placa de sinalização apropriada.  
de aditivos.

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Marco Antonio Gimenes  
Engenheiro Eletricista e Segurança do Trabalho  
CREA: 63.390





**BAHIA PESCA SA**

**MERCADO DE PESCADOS  
VALENÇA-BA**

**MEMORIAL DESCRITIVO E ESPECIFICAÇÕES  
DO PROJETO DE ARQUITETURA**

EMPRESA RESPONSÁVEL: [Senemig Engenharia LTDA](#)  
ARQ. THAISE SACERDOTE – CAU: A173 770-8

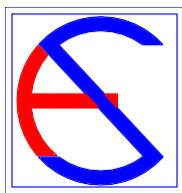
REV 00 – 07/06/2021

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## Senemig Engenharia

### 1. INTRODUÇÃO

#### OBJETO

Reforma e Adequação arquitetônica de uma edificação existente para a construção de um novo mercado de pescados.

#### LOCALIZAÇÃO

Av. Marita Almeida, snº, Centro, Valença/BA – CEP: 45. 400-000

#### 1.3 OBJETIVO

O presente Memorial Descritivo é parte integrante do Projeto Arquitetônico e tem a finalidade de caracterizar todos os materiais e componentes envolvidos na construção da unidade proposta, bem como toda a sistemática construtiva a ser utilizada. Tal documento define os principais elementos do projeto básico e suas particularidades. Consta do presente memorial descritivo a descrição dos elementos constituintes do Projeto Arquitetônico, com suas respectivas sequências executivas e especificações. Consta também do Memorial a citação de leis, normas, decretos, regulamentos, portarias, códigos referentes à construção civil, emitidos por órgãos públicos federais, estaduais e municipais, ou por concessionárias de serviços públicos.

### 2. ARQUITETURA

#### CONSIDERAÇÕES GERAIS

O partido arquitetônico adotado foi baseado nas necessidades de desenvolvimento das atividades dos pescadores da região, envolvendo não só a área de trabalho, como cultivando a cultura e cursos de capacitação, para a obtenção de uma melhor qualificação de trabalho e fonte de renda.

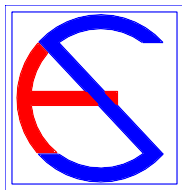
Foi levada em consideração a disponibilidade de insumos na região de influência, reforçando a preocupação com custos, aspectos ambientais e climáticos. Do ponto de vista do conforto, foram projetadas aberturas que proporcionem grandes áreas de iluminação e ventilação natural, cores claras e pé-direito alto para melhorar a troca de ar.

Outra preocupação no projeto tem relação com o valor estético, buscando a simplicidade nas formas e, ao mesmo tempo, determinar um marco importante na cidade ou região, adotando marcas e cores que identifiquem o mercado de pescados integrando a arquitetura aos ambientes internos e externos (volumetria, formas, materiais, cores, texturas) com as

Av. Luiz Tarquínio Pontes, 1.904 Sala 01-A, Pitangueiras, Lauro de Freitas, BA - CEP 42.701-450

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práticas culturais e sociais, tornando o Mercado de Pescados uma referência que permita o aumento da autoestima local e fonte de renda.

### PARÂMETROS DE IMPLANTAÇÃO

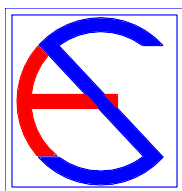
Para definir a implantação do projeto no terreno foram considerados e adotados alguns parâmetros indispensáveis ao adequado posicionamento a fim de privilegiar a edificação com as melhores condições como:

- Características do terreno: As avaliações de dimensões, forma e topografia do terreno, existência de vegetação
- Localização do terreno: Privilegiar localização a adequação da edificação aos parâmetros ambientais: adequação térmica, restrição quanto ao excesso de insolação direta, priorização da iluminação natural e da ventilação cruzada em todos os ambientes;
- Adequação ao clima regional: em função do paisagismo do terreno, das superfícies de água, dos ventos, do sol e de vários outros elementos que compõem a paisagem a fim de antecipar futuros problemas relativos ao conforto dos usuários;
  - Características do solo: o conhecimento do tipo de solo presente no terreno para dimensionar corretamente as fundações, garantir segurança e economia na construção do edifício. Para a escolha correta do tipo de fundação, foi necessário conhecer as características mecânicas e de composição do solo, mediante ensaios de pesquisas esondagem de solo;
  - Topografia: todo o levantamento topográfico do terreno foi observando atentamente suas características, procurando identificar as prováveis influências do relevo sobre a edificação, sobre os aspectos de fundações, conforto ambiental, assim como influência no escoamento das águas superficiais;

### PARÂMETROS FUNCIONAIS E ESTÉTICOS

Para a elaboração do projeto e definição do partido arquitetônico foram condicionantes alguns parâmetros a seguir relacionados:

- Programa arquitetônico – Elaborado com base no número de usuários e nas necessidades operacionais cotidianas do mercado de pescados;
- Programa de necessidades – A distribuição do programa se dá por uma setorização clara dos conjuntos funcionais em pavimentos e previsão dos principais fluxos e circulações; a setorização prevê tantos espaços para atividades particulares, restritas e ao público.



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- Volumetria – Derivada do dimensionamento dos espaços e da tipologia de cobertura adotada, a volumetria é elemento de identidade visual do projeto.

### **ESPAÇOS DEFINIDOS E DESCRIÇÃO DOS AMBIENTES**

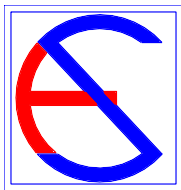
O mercado de pescados possui uma edificação de um pavimento a edificação é composta da seguinte forma:

- Área de Carga e Descarga
- Higienização
- Lavagem Comum
- Circulação Interna
- Sanitários Masculino, Feminino e PCD
- Vestiário Feminino
- Vestiário Masculino
- Loja de Isopor
- Loja de Gelo
- Deposito de Gelo
- Deposito de Resíduo
- 34 boxes
- Lavagem de Caixas

### **ACESSIBILIDADE**

Com base no artigo 80 do Decreto Federal N°5.296, de 2 de dezembro de 2004, a acessibilidade é definida como “Condição para utilização, com segurança e autonomia, total ou assistida, dos espaços, mobiliários e equipamentos urbanos, das edificações, dos serviços de transporte e dos dispositivos, sistemas e meios de comunicação e informação, por pessoa portadora de deficiência ou com mobilidade reduzida”. O projeto arquitetônico baseado na norma ABNT NBR 9050 - Acessibilidade a edificações, mobiliário, espaços e equipamentos urbanos, prevê além dos espaços com dimensionamentos adequados, todos os equipamentos de acordo com o especificado na norma, tais como: barras de apoio, equipamentos sanitários, sinalizações visuais e táteis. Tendo em vista a legislação vigente sobre o assunto, o projeto prevê:

- Piso tátil direcional e de alerta perceptível por pessoas com deficiência visual;
- Sanitários para adultos (feminino e masculino) portadores de necessidade especiais;



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Observação: Os sanitários contam com bacia sanitária e lavatório específicos para estes usuários, bem como barras de apoio nas paredes e portas para a abertura/fechamento de cada ambiente e demais equipamentos e acessórios.

O projeto executivo, definido após a implantação da edificação no terreno, deverá ainda considerar a necessidade de rampas de acesso, adequadas à topografia do terreno e a Norma de Acessibilidade.

### 3. SISTEMAS CONSTRUTIVOS

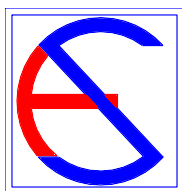
#### DEMOLIÇÕES E RETIRADAS

Serão considerados aspectos importantes antes da demolição como a natureza da estrutura, os métodos utilizados na construção da edificação, as condições das construções da edificação, as condições das construções vizinhas, existência de porões, subsolos e depósitos de combustíveis e outros. As linhas de abastecimento de energia elétrica, água, gás, bem como as canalizações de esgoto e águas pluviais deverão ser removidas ou protegidas, respeitando as normas e determinações das empresas concessionárias de serviços públicos. Precauções especiais serão tomadas, se existirem instalações elétricas, antenas de radiodifusão e para-raios nas proximidades.

Os serviços de demolição deverão ser iniciados pelas partes superiores da edificação, mediante o emprego de calhas, evitando o lançamento do produto da demolição em queda livre. As partes a serem demolidas deverão ser previamente molhadas para evitar poeira em excesso durante o processo demolição. Os materiais provenientes da demolição, reaproveitáveis ou não, serão convenientemente removidos para os locais indicados pela FISCALIZAÇÃO.

A demolição manual será executada progressivamente, utilizando ferramentas portáteis motorizadas ou manuais. Peças de grande porte de concreto, aço ou madeira poderão ser arreadas até o solo, por meio de guindaste, ou removidas através de calhas, desde que reduzidas a pequenos fragmentos. A demolição mecânica será executada com os equipamentos indicados para cada caso, segundo sempre as recomendações dos fabricantes. As demolições realizadas em alvenarias solidárias à elementos estruturais deverão ser realizados com extremo apuro técnico para se evitar danos que comprometam a sua estabilidade. Os serviços serão aceitos após a efetiva demolição definida no projeto e a posterior remoção da totalidade dos entulhos resultantes. A execução de serviços de Demolição deverá atender às especificações da NBR 5682, NR 18 e demais normas e práticas complementares.

#### 3.2 REVESTIMENTOS



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Todos os materiais componentes dos revestimentos, como cimento, areia, cal, água e outros, deverão ser da melhor procedência, para garantir a boa qualidade dos serviços. Antes de iniciar os trabalhos de revestimento, deverá a adotar providências para que todas as superfícies a revestir estejam firmes, retilíneas, niveladas e aprumadas. Qualquer correção nesse sentido será feita antes da aplicação do revestimento. A superfície a revestir deverá estar limpa, livre de pó, graxas, óleos ou resíduos orgânicos. As eflorescências visíveis decorrentes de sais solúveis em água (sulfato, cloretos, nitratos, etc.) impedem a aderência firme entre as camadas dos revestimentos. Por isso deverão ser eliminadas as eflorescências através de escovamento a seco, antes do início da aplicação do revestimento.

Todas as instalações hidráulicas e elétricas serão executadas antes do chapisco, evitando-se dessa forma, retoques no revestimento. As superfícies impróprias para base de revestimento (por exemplo, partes em madeira ou em ferro) deverão ser cobertas com um suporte de revestimento (tela de arame, etc.). Qualquer camada de revestimento só poderá ser aplicada quando a anterior estiver suficientemente firme. A aplicação de cada nova camada de revestimento exigirá a umidificação da anterior.

### 4. PIAS E TORNEIRAS

(11) - Cuba de Louça de Embutir Oval 48,500x37,500 cm Branco Gelo L.37.17 – Deca ou similar;

(07) - Torneira para Banheiro de Mesa Pressmatic Compact Docol p/ áreas de banheiros e vestiários de funcionários;

(38) - Torneira 1158 para Pia Bica Longa 180 Parede Docol Cromado p/ área dos boxes

(34) Pia de aço inox simples;

### VASOS E MICTÓRIOS

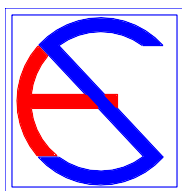
(2) Mictório com Sifão Integrado Branca (Deca - M.175)

(10) Kit Bacia Sanitária com Caixa Acoplada 3/6 Litros Like com Acessórios Branco – Celite

(4) Alça de Apoio (Deca - 2077.C)

(2) Barra de Apoio Articulada Articulada 80cm (Deca - 2315.I.080) –

**OBS: Todas as louças sanitárias serão na cor branca e todas os metais serão cromados.**



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### CHUVEIROS

(04) Ducha Plástica com Braço 4" Branca 26913004 - Tigre

### BANCADAS

(2) Bancadas em Granito Branco Siena - Dimensões: 200x50cm (Vestiário Masc.) / 210x50cm (Vestiário. F e M.)

(1) Bancadas em Granito Branco Siena - Dimensões: 175x50cm

(1) Bancadas em Granito Branco Siena - Dimensões: 93x50cm

(1) Bancadas em Granito Branco Siena - Dimensões: 288x50cm

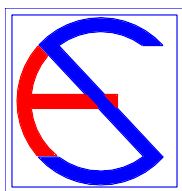
### BANCADAS DE CORTE

(34) bancadas revestidas de cerâmica 10x10 cm brilhante branco tecnogres ou Azulejo para piscina e áreas externas branco 10x10 strufaldi.

(29) Metragem: 54,81m<sup>2</sup> / (5) Metragem = 8,15m<sup>2</sup>

### 5. JANELAS

JANELAS	DIM.(M)	ESPECIFICAÇÕES	QUANTIDADE
J14	160x60cm	Esquadria de Alumínio Branca de Correr 2 folhas com Vidro Temperado 8mm – 1,60x0,60m	1
J19	180x50cm	Esquadria de Alumínio Branca de Correr 2 folhas com Vidro Temperado 8mm – 1,80x0,50m	1



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### COBOGÓS

Elemento vazado de concreto, quadriculado, 16 furos 50 x 50 x 7 cm - 61,44 m<sup>2</sup>

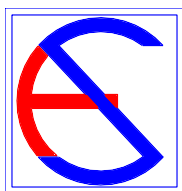
### PORTA

PORTAS	DIM.(M)	ESPECIFICAÇÕES	QUANTIDADE
C27	60X177cm	Porta em giro lambril duplo- linha 25 com fechadura livre/ocupado na cor branco.	13
C28	205xc210m	Porta corta fogo	02
P01	90X210cm	Porta de Madeira Lisa comum (de abrir)	02
P03	70X210cm	Porta de Madeira Lisa comum (de abrir)	7
P04	60X210cm	Porta de Madeira Lisa comum (de abrir)	4

## 6. SISTEMA DE PISOS INTERNOS E EXTERNOS

### PISOS

- Piso de alta resistência  
metragem: 422,27m<sup>2</sup>
- (290) Piso Tátil 25x25cm em Borracha Sintética Cinza



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- Revestimento cerâmico 10x10 cm brilhante branco tecnogres ou Azulejo para piscina e áreas externas branco 10x10 strufaldi.

Metragem: 27,76 m<sup>2</sup> nas bancadas

621,01 m<sup>2</sup> nas paredes

- Revestimento cerâmico 10x10 cm brilhante azul tecnogres ou azulejo para piscina e áreas externas azul 10x10 strufaldi

Metragem: 88,67 m<sup>2</sup>

- Revestimento Cerâmica Tipo A 57x57 cm Bold Esmaltado Brilhante Aurora Premium Marmorizado – Cerbras. Metragem: 184,91 M<sup>2</sup>

- **6.2 SOLEIRAS**

Vestiário Masculino:

- (1) Granito cinza andorinha – 70x15cm

Vestiário Feminino:

- (1) Granito cinza andorinha – 70x15cm

Sanitário Fem/ Masc. – Área Comum Mercado:

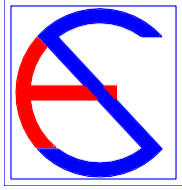
- (1) Granito cinza andorinha – 60x15cm

Sanitário Pcd :

- (1) Granito cinza andorinha – 90x15cm

### 6.3 RODAPÉ

Sala de administração, material piso de alta resistência cor cinza  
Dimensões: 16,40 m



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### 7. SISTEMA DE PAREDES INTERNAS E EXTERNAS

#### 7.1 PAREDES

Alvenaria de bloco de concreto com pintura acrílica, paredes internas na cor luz do dia-Suvinil ou similar. Paredes externas e fachada em tinta cor luau marca Suvinil ou similar.

### 8. TELHA

Será de canaleta 90

#### 8.1 IMPERMEABILIZAÇÃO

- Impermeabilizante à base de emulsão asfáltica modificada com elastômeros na cor preta, para moldagem "in loco", formando uma membrana elástica e flexível, sem emendas. Consumo médio: 0,5 a 1,0kg/m<sup>2</sup>/demão. Protótipo comercial: vedapren preto (otto baumgart) igolflex preto (sika) flexcote preto (wolf hacker) monex (mónea) denver pren (denver) k 100 (viapol) Esta impermeabilização será executada nas "áreas frias".

Impermeabilização de lajes com manta asfáltica as lajes expostas às intempéries serão impermeabilizadas com manta asfáltica e proteção mecânica A espessura da manta deverá ser de 3 mm.

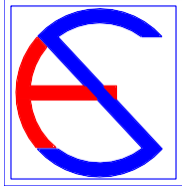
A superfície deve ser regularizada com argamassa de cimento e areia, no traço 1:3 (em volume) e isenta de hidrofugantes, acabamento com desempenadeira sem queimas, com declividade mínima de 1% em direção aos pontos de escoamento da água e espessura mínima de 1,00 cm. Em áreas verticais o arremate da impermeabilização deve ser de no mínimo 50 cm do nível do piso acabado e a regularização deve ser feita sobre um chapisco de cimento e areia grossa, traço 1:3 (em volume). Nas áreas cobertas ou protegidas, a regularização deve adentrar de 50 a 60 cm por baixo dos batentes e contra marcos para posterior arremate da impermeabilização. Todos os cantos e arestas devem ser arredondados com diâmetro de 5,0 a 8,0cm. No entorno de ralos e condutores deve-se criar desníveis de 1cm com raio de 30cm para evitar acúmulo de água e para execução do reforço.

- Argamassa Polimérica:

Argamassa polimérica semiflexível impermeável. - Balde de 18Kg; Caixa 18Kg; - Modelo de Referência: Vedatop base acrílica. poço da plataforma elevatória, áreas molhadas.

### 9. ESPELHOS





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(1) Espelho Grande Parede Multiuso Bonito Astra Rios -  
Dimensões: 200x130cm

(1) Espelho Grande Parede Multiuso Bonito Astra Rios -  
Dimensões: 210x130cm

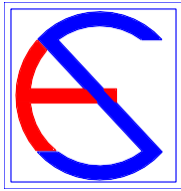
(1) Espelho Grande Parede Multiuso Bonito Astra Rios –  
Dimensões: 90x130cm

(2) ESPELHO ARTICULADO PNE SICMOL

(1) Espelho Grande Parede Multiuso Bonito Astra Rios -  
Dimensões: 100x130cm

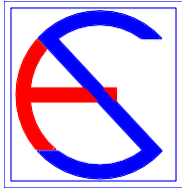
### 10. COMUNICAÇÃO VISUAL

- Letreiro: Quantitativo de Letras: 28 - Altura 25 cm - Mercado principal  
Material: aço polido
- 34 Placas dos boxes com numerações: 01 a 34  
Dimensões: 30x 40cm  
Fundo da placa azul médio  
Cor da fonte: branca  
Material acrílico
- 1 Placa: administração  
Dimensões: 5x25cm  
Material: alumínio  
Cor da fonte: preto
- 1 Placa: Recepção  
Material: alumínio  
Cor da fonte: preto  
Dimensões: 30cmx 40cm
- 1 Placas banheiro feminino



## Senemig Engenharia

- Fundo da placa azul médio  
Cor da fonte: branca  
Material acrílico  
Dimensões: 25x10cm
- 1Placas de banheiro masculino  
Fundo da placa azul médio  
Cor da fonte: branca  
Material acrílico  
Dimensões: 25x10cm
- 01 Placas de banheiro acessibilidade  
Fundo da placa azul médio  
Cor da fonte: branca  
Material acrílico  
Dimensões: 25x10cm
- 01 Placa vestiário masculino  
Fundo da placa azul médio  
Cor da fonte: branca  
Material acrílico  
Dimensões: 25x10cm
- 01 Placa vestiário feminino  
Fundo da placa azul médio  
Cor da fonte: branca  
Material acrílico  
Dimensões: 25x10cm
- 03 Placas PERIGO: Risco de choque elétrico 25x18cm, material: Ps de alta Resistência
- 04 Placas indicativas de Extintores de Incêndio. Material: PS de alta resistência, dimensões: 30x 15cm
- 01 placa para carga e descarga. Material: PS de alta resistência, dimensões: 40x 30cm



## Senemig Engenharia

- 01 placa para depósito de resíduo. Material: PS de alta resistência, dimensões: 30x 40cm. Cor: fundo marrom e fonte branca.
- 02 placas de saída. Material: PS de alta resistência, dimensões: 40x 20cm

### 11. PAISAGISMOS E ÁREA EXTERNA

#### SISTEMA DE PISOS INTERNOS E EXTERNOS

##### PISOS/ PASSEIO

Blocos de concreto pré-fabricados, assentados sobre um colchão de areia, travados por meio de contenção lateral e atrito entre as peças. Permitem manutenção sem necessidade de quebrar o calçamento para a execução da obra. Piso intertravado de 10cm para área de fluxos de automóveis e de 6 cm para passeios.

##### ACESSIBILIDADE

(3) Rampas de Acessibilidade de veículos e pedestre em concreto convencional - Mistura padrão de água, cimento, areia e brita, sem aditivos. Resistência de 25 MPa (Mega Pascal). Dimensões:

- 472x120cm
- 350x120cm
- 200x120cm

##### PAISAGISMO

Gramma: 39,08m<sup>2</sup>  
Tipo esmeralda

##### FACHADA

Área total de 136,27m<sup>22</sup> da fachada será com aplicação manual de pintura com tinta látex acrílica.


## 12. LIMPEZA DE OBRA

Limpeza geral final de pisos, paredes, vidros, equipamentos (louças, metais, etc.) e áreas externas, inclusive jardins.

Para a limpeza deverá ser usada de modo geral água e sabão neutro: o uso de detergentes, solventes e removedores químicos deverão ser restritos e feitos de modo a não causar PISO TÁTIL

Na calçada externa (ver detalhe) deverá ser utilizado piso em placa de concreto tátil 30x30cm, alerta, cor terracota (vermelho), conforme NBR/ABNT 9050.

**OBS: Todos os materiais indicados poderão ser substituídos por similares de mesma**

	AltoQi Eberick 2018 Plena	
	Leilson Campos Rezende Rezende Engenharia	11/5/2021 12:08:03

LEILSON CAMPOS  
REZENDE:  
34821520559


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REZENDE:34821520559  
DN: cn=leilson, ou=CP, email=OU=AC SOLUTI Multipia  
c=BR, ou=29186812000100, ou=Certificado PF A1,  
cn=LEILSON CAMPOS REZENDE:34821520559  
Raizdo: Eu sou o autor deste documento  
Localizado: 11/05/2021 12:08:03  
Data: 2021-05-11 12:08:03  
Hora: Resende Versão: 10.0.1

## Resultado dos Blocos


<b>Térreo</b>	fck = 300.00 kgf/cm <sup>2</sup>	E = 268384 kgf/cm <sup>2</sup>	Peso Espec = 2500.00 kgf/m <sup>3</sup>
<b>Lance 1</b>		cobr = 4.50 cm	

Dados						Resultados				
Blocos	ne Estaca	LB (cm) LH	NTotal (tf)	MB (kgf.m) MH	FB (tf) FH	hb (cm)	As1 (cm <sup>2</sup> ) Ferros As2	As3 (cm <sup>2</sup> ) Ferros As4	As5 (cm <sup>2</sup> ) Ferros As6	As7 (cm <sup>2</sup> ) Ferros
B1	1 C30	60.00 60.00	17.06	0.00 0.00	0.71 0.61			3.93 5 ø 10.0 3.14 2 ø 10.0		
B2	2 C30	180.00 60.00	36.01	0.00 0.00	0.62 0.18	80.00	5.50 7 ø 10.0	3.93 5 ø 10.0 3.93 5 ø 10.0	3.14 4 ø 10.0	1.57 ø 10.0 c/10
B3	2 C30	180.00 60.00	34.65	0.00 0.00	0.49 0.09	80.00	4.91 4 ø 12.5	3.93 5 ø 10.0 3.93 5 ø 10.0	3.14 4 ø 10.0	1.57 ø 10.0 c/10
B4	1 C30	60.00 60.00	13.62	0.00 0.00	0.28 0.51			3.93 5 ø 10.0 3.14 2 ø 10.0		
B5	1 C30	60.00 60.00	9.22	0.00 0.00	0.69 0.47			3.93 5 ø 10.0 3.14 2 ø 10.0		
B6	1 C30	60.00 60.00	25.72	0.00 0.00	0.47 0.28			3.93 5 ø 10.0 3.14 2 ø 10.0		
B7	2 C30	180.00 60.00	43.51	0.00 0.00	0.23 0.54	80.00	6.14 5 ø 12.5	3.93 5 ø 10.0 3.93 5 ø 10.0	3.14 4 ø 10.0	1.57 ø 10.0 c/10
B8	2 C30	180.00 60.00	36.71	0.00 0.00	0.36 0.34	80.00	5.50 7 ø 10.0	3.93 5 ø 10.0 3.93 5 ø 10.0	3.14 4 ø 10.0	1.57 ø 10.0 c/10
B9	1 C30	60.00 60.00	19.63	0.00 0.00	0.41 0.58			3.93 5 ø 10.0 3.14 2 ø 10.0		
B10	1 C30	60.00 60.00	7.48	0.00 0.00	0.54 0.49			3.93 5 ø 10.0 3.14 2 ø 10.0		
B11	1 C30	60.00 60.00	4.87	0.00 0.00	0.32 0.32			3.93 5 ø 10.0 3.14 2 ø 10.0		
B12	1 C30	60.00 60.00	12.29	0.00 0.00	0.02 0.47			3.93 5 ø 10.0		

								3.14 2 ø 10.0		
B13	1 C30	60.00 60.00	12.49	0.00 0.00	0.43 0.26			3.93 5 ø 10.0 3.14 2 ø 10.0		
B14	1 C30	60.00 60.00	8.85	0.00 0.00	0.68 0.27			3.93 5 ø 10.0 3.14 2 ø 10.0		
B15	1 C30	60.00 60.00	12.77	0.00 0.00	0.21 0.46			3.93 5 ø 10.0 3.14 2 ø 10.0		
B16	1 C30	60.00 60.00	14.00	0.00 0.00	0.23 0.14			3.93 5 ø 10.0 3.14 2 ø 10.0		
B18	1 C30	60.00 60.00	18.45	0.00 0.00	1.09 0.77			3.93 5 ø 10.0 3.14 2 ø 10.0		
B19	1 C30	60.00 60.00	10.48	0.00 0.00	0.47 0.68			3.93 5 ø 10.0 3.14 2 ø 10.0		
B20	1 C30	60.00 60.00	14.37	0.00 0.00	0.26 0.48			3.93 5 ø 10.0 3.14 2 ø 10.0		
B21	1 C30	60.00 60.00	14.97	0.00 0.00	0.32 0.14			3.93 5 ø 10.0 3.14 2 ø 10.0		
B22	1 C30	60.00 60.00	18.21	0.00 0.00	0.30 0.42			3.93 5 ø 10.0 3.14 2 ø 10.0		
B23	1 C30	60.00 60.00	15.27	0.00 0.00	0.24 0.36			3.93 5 ø 10.0 3.14 2 ø 10.0		
B24	1 C30	60.00 60.00	15.17	0.00 0.00	0.33 0.15			3.93 5 ø 10.0 3.14 2 ø 10.0		
B25	1 C30	60.00 60.00	16.33	0.00 0.00	0.38 0.38			3.93 5 ø 10.0 3.14 2 ø 10.0		
B26	1 C40	70.00 70.00	12.88	0.00 0.00	1.55 0.67			3.93 5 ø 10.0 3.14 2 ø 10.0		
B27	1 C30	60.00 60.00	22.87	0.00 0.00	1.23 0.25			3.93 5 ø 10.0 3.14 2 ø 10.0		
B28	1 C40	70.00 70.00	15.07	0.00 0.00	2.25 0.68			3.93 5 ø 10.0 3.14 2 ø 10.0		

	<b>AltoQi Eberick 2018 Plena</b>	
	<b>Leilson Campos Rezende Rezende Engenharia</b>	<b>11/5/2021 12:08:03</b>

<b>As1:</b>	Armadura principal na direção X	<b>As2:</b>	Armadura principal na direção Y
<b>As3:</b>	Estribo horizontal	<b>As4:</b>	Estribo vertical
<b>As5:</b>	Armadura superior na direção X	<b>As6:</b>	Armadura superior na direção Y
<b>As7:</b>	Armadura de distribuição		

	AltoQi Eberick 2018 Plena	
	Leilson Campos Rezende Rezende Engenharia	11/5/2021 12:20:16

## Relatório de Combinações

Cobertura Lance 2

LEILSON CAMPOS  
REZENDE:  
34821520559


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34821520559  
DN: cn=Leilson Campos Rezende, ou=AC SOLUTI Multipla v5,  
ou=20180912000100, ou=Certificado PF A1, CN=LEILSON  
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CASO: Peso próprio (G1)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 2.15	181.66 -327.37	181.66	-120.18 100.77	100.77	-0.11 0.11	-0.05 0.05	-1.61
P2	0.00	0.00 4.11	-13.42 81.71	81.71	58.25 -164.48	58.25	0.02 -0.02	0.05 -0.05	-4.94
P3	0.00	0.00 4.04	-53.45 175.44	175.44	48.38 -71.07	48.38	0.05 -0.05	0.03 -0.03	-2.62
P4	0.00	0.00 1.93	58.15 -120.57	58.15	-80.36 90.69	90.69	-0.04 0.04	-0.04 0.04	0.41
P5	0.00	0.00 2.34	104.42 -125.11	104.42	-188.53 263.17	263.17	-0.05 0.05	-0.10 0.10	1.24
P6	0.00	0.00 3.83	-5.81 13.67	13.67	-78.53 117.36	117.36	0.00 0.00	-0.04 0.04	-0.47
P7	0.00	0.00 5.97	37.49 -88.77	37.49	39.13 -18.30	39.13	-0.03 0.03	0.01 -0.01	-3.25
P8	0.00	0.00 4.48	-26.72 24.06	24.06	5.82 -3.47	5.82	0.01 -0.01	0.00 0.00	0.01
P9	0.00	0.00 3.28	-27.13 51.03	51.03	-28.96 24.12	24.12	0.02 -0.02	-0.01 0.01	-0.91
P10	0.00	0.00 1.74	-85.61 102.18	102.18	-40.29 47.31	47.31	0.04 -0.04	-0.02 0.02	7.06
P11	0.00	0.00 0.72	-29.18 26.89	26.89	-47.11 53.03	53.03	0.01 -0.01	-0.02 0.02	0.63
P12	0.00	0.00 2.22	52.17 -55.85	52.17	1.75 2.97	2.97	-0.02 0.02	0.00 0.00	1.16
P13	0.00	0.00 1.77	0.13 0.30	0.30	-24.46 38.45	38.45	0.00 0.00	-0.01 0.01	0.41
P14	0.00	0.00 1.81	20.35 -24.10	20.35	-221.99 336.02	336.02	-0.01 0.01	-0.12 0.12	6.00
P15	0.00	0.00 3.65	40.06 -35.74	40.06	146.80 400.72	400.72	-0.02 0.02	-0.06 0.06	-5.42
P16	0.00	0.00 6.86	-11.62 -46.46	0.00	37.31 149.26	149.26	-0.01 0.01	-0.02 0.02	0.00
P18	0.00	0.00 3.96	99.16 -104.55	99.16	280.87 -725.37	280.87	-0.05 0.05	0.22 -0.22	-4.20
P19	0.00	0.00 1.82	-215.28 314.27	314.27	-131.75 132.14	132.14	0.12 -0.12	-0.06 0.06	-0.71
P20	0.00	0.00 3.81	68.59 -79.52	68.59	162.62 330.28	330.28	-0.03 0.03	-0.04 0.04	2.23
P21	0.00	0.00 7.81	-3.07 -12.28	0.00	67.06 268.26	268.26	0.00 0.00	-0.04 0.04	0.00
P22	0.00	0.00 4.67	-10.52 24.04	24.04	-239.14 -738.64	0.00	0.01 -0.01	0.11 -0.11	21.46
P23	0.00	0.00 3.97	-9.18 -0.74	0.00	160.80 352.90	352.90	0.00 0.00	-0.04 0.04	6.16
P24	0.00	0.00 7.96	1.00 4.00	4.00	73.36 293.46	293.46	0.00 0.00	-0.05 0.05	0.00




P25	0.00	0.00 4.51	-1.84 -15.89	0.00	-251.72 -711.07	0.00	0.00 0.00	0.10 -0.10	-11.14
P26	0.00	0.00 3.15	-197.78 259.21	259.21	-611.34 753.90	753.90	0.10 -0.10	-0.30 0.30	2.32
P27	0.00	0.00 6.87	180.73 86.32	180.73	-406.70 514.91	514.91	-0.02 0.02	-0.20 0.20	-0.90
P28	0.00	0.00 3.70	-193.75 255.20	255.20	935.09 -1320.84	935.09	0.10 -0.10	0.50 -0.50	-5.40

CASO: Adicional (G2)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 2.43	363.37 -447.08	363.37	-350.26 308.76	308.76	-0.18 0.18	-0.15 0.15	-1.19
P2	0.00	0.00 4.53	84.98 1.24	84.98	140.46 -223.76	140.46	-0.02 0.02	0.08 -0.08	-3.27
P3	0.00	0.00 4.25	-129.51 225.31	225.31	113.65 -124.48	113.65	0.08 -0.08	0.05 -0.05	-3.56
P4	0.00	0.00 2.04	81.02 -121.46	81.02	-234.34 291.30	291.30	-0.04 0.04	-0.12 0.12	-1.12
P5	0.00	0.00 2.40	264.79 -318.33	264.79	-399.76 456.08	456.08	-0.13 0.13	-0.19 0.19	6.36
P6	0.00	0.00 4.93	2.08 10.67	10.67	-122.84 146.58	146.58	0.00 0.00	-0.06 0.06	-0.80
P7	0.00	0.00 6.15	39.24 -99.27	39.24	39.60 -42.72	39.60	-0.03 0.03	0.02 -0.02	-3.68
P8	0.00	0.00 4.75	-67.21 45.09	45.09	25.24 -27.32	25.24	0.02 -0.02	0.01 -0.01	-0.82
P9	0.00	0.00 3.67	-12.69 38.45	38.45	-143.85 163.71	163.71	0.01 -0.01	-0.07 0.07	-1.45
P10	0.00	0.00 1.49	-211.31 254.55	254.55	-64.08 55.21	55.21	0.10 -0.10	-0.03 0.03	3.76
P11	0.00	0.00 1.27	-51.84 64.83	64.83	-135.46 148.07	148.07	0.03 -0.03	-0.06 0.06	2.08
P12	0.00	0.00 3.70	160.38 -174.84	160.38	-2.26 9.52	9.52	-0.07 0.07	0.00 0.00	3.99
P13	0.00	0.00 3.89	-16.09 18.03	18.03	-45.10 52.86	52.86	0.01 -0.01	-0.02 0.02	0.82
P14	0.00	0.00 2.81	70.20 -79.70	70.20	-519.91 616.96	616.96	-0.03 0.03	-0.25 0.25	8.99
P15	0.00	0.00 4.72	101.61 -95.57	101.61	249.17 462.11	462.11	-0.04 0.04	-0.05 0.05	-6.73
P16	0.00	0.00 6.73	14.49 57.97	57.97	86.20 344.82	344.82	0.01 -0.01	-0.06 0.06	0.00
P18	0.00	0.00 6.31	292.25 -318.71	292.25	844.28 -1363.36	844.28	-0.14 0.14	0.49 -0.49	-9.92
P19	0.00	0.00 3.37	-514.98 611.44	611.44	-319.78 335.12	335.12	0.25 -0.25	-0.15 0.15	-2.47
P20	0.00	0.00 5.28	179.90 -207.73	179.90	282.49 311.07	311.07	-0.09 0.09	-0.01 0.01	4.59
P21	0.00	0.00 6.77	7.29 29.14	29.14	77.33 309.31	309.31	0.00 0.00	-0.05 0.05	0.00
P22	0.00	0.00 6.92	-82.04 125.81	125.81	-420.99 -833.66	0.00	0.05 -0.05	0.09 -0.09	25.71
P23	0.00	0.00 5.70	-14.40 -10.75	0.00	284.76 357.65	357.65	0.00 0.00	-0.02 0.02	11.17
P24	0.00	0.00 6.80	8.25 33.00	33.00	91.29 365.16	365.16	0.01 -0.01	-0.06 0.06	0.00
P25	0.00	0.00 6.31	12.90 -60.93	12.90	-394.05 -805.25	0.00	-0.02 0.02	0.09 -0.09	-18.86
P26	0.00	0.00	-524.56	693.31	-1008.84	1052.05	0.27	-0.46	-0.51

	AltoQi Eberick 2018 Plena	
	Leilson Campos Rezende Rezende Engenharia	11/5/2021 12:20:16


		3.46	693.31		1052.05		-0.27	0.46	
P27	0.00	0.00 6.57	301.90 -150.80	301.90	-649.39 717.04	717.04	-0.10 0.10	-0.30 0.30	-6.47
P28	0.00	0.00 4.14	-517.66 693.16	693.16	1608.42 -1793.59	1608.42	0.27 -0.27	0.76 -0.76	3.69

CASO: Solo (S)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P3	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P4	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P5	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P6	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P7	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P8	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P9	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P10	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P11	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P12	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P13	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P14	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P15	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P16	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P18	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P19	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P20	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P21	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P22	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P23	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P24	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P25	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P26	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P27	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00

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P28	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
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CASO: Acidental (Q)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 7.02	635.42 -1857.33	635.42	-94.63 37.43	37.43	-0.55 0.55	-0.03 0.03	-13.62
P2	0.00	0.00 20.47	-423.07 835.28	835.28	130.69 -970.69	130.69	0.28 -0.28	0.24 -0.24	-39.90
P3	0.00	0.00 20.81	-131.64 1083.89	1083.89	102.85 -286.43	102.85	0.27 -0.27	0.09 -0.09	-16.76
P4	0.00	0.00 6.20	341.18 -875.07	341.18	-55.71 -21.95	0.00	-0.27 0.27	-0.01 0.01	7.77
P5	0.00	0.00 0.17	-17.93 19.57	19.57	-72.17 170.85	170.85	0.01 -0.01	-0.05 0.05	19.68
P6	0.00	0.00 9.69	7.10 -3.01	7.10	-406.38 746.81	746.81	0.00 0.00	-0.26 0.26	-3.77
P7	0.00	0.00 21.90	214.63 -460.75	214.63	276.47 11.72	276.47	-0.15 0.15	0.06 -0.06	-22.29
P8	0.00	0.00 18.53	-39.46 72.61	72.61	12.58 9.44	12.58	0.02 -0.02	0.00 0.00	2.87
P9	0.00	0.00 7.69	-195.16 353.13	353.13	133.60 -202.22	133.60	0.12 -0.12	0.07 -0.07	-4.37
P10	0.00	-0.80 0.00	-53.18 56.04	56.04	-25.81 11.62	11.62	0.02 -0.02	-0.01 0.01	25.77
P11	0.00	-1.56 0.00	-54.95 -54.12	0.00	-5.69 13.81	13.81	0.00 0.00	0.00 0.00	-4.78
P12	0.00	0.00 1.19	-5.03 4.36	4.36	26.63 5.50	26.63	0.00 0.00	0.00 0.00	-6.10
P13	0.00	0.00 0.59	-7.86 9.09	9.09	-42.87 129.52	129.52	0.00 0.00	-0.04 0.04	-1.01
P14	0.00	0.00 0.01	6.10 -6.90	6.10	-21.54 21.51	21.51	0.00 0.00	-0.01 0.01	6.21
P15	0.00	0.00 0.00	-15.48 15.17	15.17	-0.29 -1.43	0.00	0.01 -0.01	0.00 0.00	-0.75
P16	0.00	-0.43 0.00	-2.97 -11.87	0.00	-0.04 -0.14	0.00	0.00 0.00	0.00 0.00	0.00
P18	0.00	-0.03 0.00	69.50 -75.82	69.50	-4.09 3.60	3.60	-0.03 0.03	0.00 0.00	4.78
P19	0.00	-0.01 0.00	22.31 -22.44	22.31	-2.20 2.33	2.33	-0.01 0.01	0.00 0.00	0.51
P20	0.00	0.00 0.00	-13.73 14.82	14.82	-0.17 0.29	0.29	0.01 -0.01	0.00 0.00	0.49
P21	0.00	0.00 0.02	3.72 14.86	14.86	0.04 0.15	0.00	0.00 0.00	0.00 0.00	0.00
P22	0.00	0.00 0.00	54.87 -57.90	54.87	0.56 -0.23	0.56	-0.03 0.03	0.00 0.00	-2.39
P23	0.00	0.00 0.00	-13.98 14.91	14.91	-0.10 0.25	0.25	0.01 -0.01	0.00 0.00	0.67
P24	0.00	0.00 0.00	2.52 10.09	10.09	0.04 0.18	0.00	0.00 0.00	0.00 0.00	0.00
P25	0.00	0.00 0.00	55.95 -60.55	55.95	-0.07 0.30	0.30	-0.03 0.03	0.00 0.00	-2.25
P26	0.00	0.00 0.00	-10.03 10.80	10.80	0.57 -0.89	0.57	0.00 0.00	0.00 0.00	0.42
P27	0.00	0.00 0.00	2.21 9.54	9.54	1.26 -1.34	0.00	0.00 0.00	0.00 0.00	-0.70
P28	0.00	-0.01 0.00	40.33 -43.58	40.33	1.66 -1.63	1.66	-0.02 0.02	0.00 0.00	-2.35

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CASO: Água (A)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P3	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P4	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P5	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P6	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P7	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P8	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P9	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P10	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P11	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P12	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P13	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P14	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P15	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P16	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P18	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P19	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P20	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P21	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P22	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P23	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P24	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P25	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P26	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P27	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P28	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00

CASO: Subpressão (AS)									
Elemento	Carga (kgf/m)	Rd Nd	Mxi Mxf	MxMáx (kgf.m)	Myi Myf	MyMáx (kgf.m)	Vxi Vxf	Vyi Vyf	Mtd (kgf/m)

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		(tf)	(kgf.m)		(kgf.m)		(tf)	(tf)	
P1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P3	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P4	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P5	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P6	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P7	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P8	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P9	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P10	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P11	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P12	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P13	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P14	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P15	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P16	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P18	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P19	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P20	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P21	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P22	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P23	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P24	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P25	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P26	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P27	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P28	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00

CASO: Vento X+ (V1)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	-0.20 0.00	-21.78 21.84	21.84	364.85 -392.49	364.85	0.01 -0.01	0.17 -0.17	-0.46


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P2	0.00	0.00 0.10	466.25 -489.63	466.25	20.36 -25.11	20.36	-0.21 0.21	0.01 -0.01	-1.40
P3	0.00	-0.13 0.00	-7.12 14.55	14.55	472.06 -494.28	472.06	0.00 0.00	0.21 -0.21	-0.75
P4	0.00	0.00 0.23	375.85 -402.71	375.85	11.37 -12.71	11.37	-0.17 0.17	0.01 -0.01	-0.35
P5	0.00	-0.21 0.00	-22.33 16.95	16.95	596.60 -784.74	596.60	0.01 -0.01	0.31 -0.31	3.62
P6	0.00	0.00 0.04	-259.86 255.91	255.91	-15.85 15.81	15.81	0.11 -0.11	-0.01 0.01	-0.42
P7	0.00	0.00 0.00	-826.61 964.06	964.06	-3.76 16.41	16.41	0.40 -0.40	0.00 0.00	-3.17
P8	0.00	0.00 0.03	-245.91 246.37	246.37	-1.30 1.84	1.84	0.11 -0.11	0.00 0.00	-0.22
P9	0.00	-0.37 0.00	-706.55 750.23	750.23	-2.74 4.69	4.69	0.32 -0.32	0.00 0.00	-0.66
P10	0.00	0.00 0.48	-44.05 47.43	47.43	-778.44 914.93	914.93	0.02 -0.02	-0.38 0.38	-7.93
P11	0.00	-0.15 0.00	-16.50 17.18	17.18	255.25 -264.07	255.25	0.01 -0.01	0.12 -0.12	-7.43
P12	0.00	0.00 0.07	-556.02 586.86	586.86	-0.60 3.11	3.11	0.25 -0.25	0.00 0.00	-7.59
P13	0.00	-0.04 0.00	-286.87 291.38	291.38	-2.19 2.69	2.69	0.13 -0.13	0.00 0.00	-5.72
P14	0.00	0.00 0.02	239.91 -249.70	239.91	61.24 -55.03	61.24	-0.11 0.11	0.03 -0.03	-2.53
P15	0.00	-0.10 0.00	-31.39 22.90	22.90	-173.83 -528.91	0.00	0.01 -0.01	0.08 -0.08	7.18
P16	0.00	0.00 0.04	4.43 17.72	17.72	-199.70 -591.81	0.00	0.00 0.00	0.09 -0.09	0.00
P18	0.00	0.00 0.27	90.24 -84.45	90.24	566.95 -937.77	566.95	-0.04 0.04	0.33 -0.33	-13.32
P19	0.00	-0.17 0.00	34.62 -30.53	34.62	310.65 -346.07	310.65	-0.01 0.01	0.15 -0.15	-7.68
P20	0.00	-0.16 0.00	-21.44 17.95	17.95	-275.00 -890.73	0.00	0.01 -0.01	0.14 -0.14	1.25
P21	0.00	0.00 0.03	3.74 14.94	14.94	-305.91 -1016.66	0.00	0.00 0.00	0.16 -0.16	0.00
P22	0.00	0.00 0.21	31.96 -29.63	31.96	-203.90 -900.65	0.00	-0.01 0.01	0.15 -0.15	25.64
P23	0.00	-0.16 0.00	4.83 4.55	4.83	-256.21 -882.15	0.00	0.00 0.00	0.14 -0.14	-4.47
P24	0.00	0.00 0.03	3.95 15.82	15.82	-300.45 -994.81	0.00	0.00 0.00	0.15 -0.15	0.00
P25	0.00	0.00 0.12	34.93 -49.79	34.93	-257.50 -850.34	0.00	-0.02 0.02	0.13 -0.13	-8.37
P26	0.00	-0.11 0.00	7.30 3.42	7.30	465.00 -556.91	465.00	0.00 0.00	0.23 -0.23	-0.84
P27	0.00	0.00 0.03	6.72 11.51	11.51	667.56 -737.88	667.56	0.00 0.00	0.31 -0.31	17.05
P28	0.00	0.00 0.07	16.86 -31.27	16.86	423.29 -519.10	423.29	-0.01 0.01	0.21 -0.21	-1.50

CASO: Vento X- (V2)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 0.20	21.78 -21.84	21.78	-364.85 392.49	392.49	-0.01 0.01	-0.17 0.17	0.46
P2	0.00	-0.10 0.00	-466.25 489.63	489.63	-20.36 25.11	25.11	0.21 -0.21	-0.01 0.01	1.40
P3	0.00	0.00	7.12	7.12	-472.06	494.28	0.00	-0.21	0.75

		0.13	-14.55		494.28		0.00	0.21	
P4	0.00	-0.23 0.00	-375.85 402.71	402.71	-11.37 12.71	12.71	0.17 -0.17	-0.01 0.01	0.35
P5	0.00	0.00 0.21	22.33 -16.95	22.33	-596.60 784.74	784.74	-0.01 0.01	-0.31 0.31	-3.62
P6	0.00	-0.04 0.00	259.86 -255.91	259.86	15.85 -15.81	15.85	-0.11 0.11	0.01 -0.01	0.42
P7	0.00	0.00 0.00	826.61 -964.06	826.61	3.76 -16.41	3.76	-0.40 0.40	0.00 0.00	3.17
P8	0.00	-0.03 0.00	245.91 -246.37	245.91	1.30 -1.84	1.30	-0.11 0.11	0.00 0.00	0.22
P9	0.00	0.00 0.37	706.55 -750.23	706.55	2.74 -4.69	2.74	-0.32 0.32	0.00 0.00	0.66
P10	0.00	-0.48 0.00	44.05 -47.43	44.05	778.44 -914.93	778.44	-0.02 0.02	0.38 -0.38	7.93
P11	0.00	0.00 0.15	16.50 -17.18	16.50	-255.25 264.07	264.07	-0.01 0.01	-0.12 0.12	7.43
P12	0.00	-0.07 0.00	556.02 -586.86	556.02	0.60 -3.11	0.60	-0.25 0.25	0.00 0.00	7.59
P13	0.00	0.00 0.04	286.87 -291.38	286.87	2.19 -2.69	2.19	-0.13 0.13	0.00 0.00	5.72
P14	0.00	-0.02 0.00	-239.91 249.70	249.70	-61.24 55.03	55.03	0.11 -0.11	-0.03 0.03	2.53
P15	0.00	0.00 0.10	31.39 -22.90	31.39	173.83 528.91	528.91	-0.01 0.01	-0.08 0.08	-7.18
P16	0.00	-0.04 0.00	-4.43 -17.72	0.00	199.70 591.81	591.81	0.00 0.00	-0.09 0.09	0.00
P18	0.00	-0.27 0.00	-90.24 84.45	84.45	-566.95 937.77	937.77	0.04 -0.04	-0.33 0.33	13.32
P19	0.00	0.00 0.17	-34.62 30.53	30.53	-310.65 346.07	346.07	0.01 -0.01	-0.15 0.15	7.68
P20	0.00	0.00 0.16	21.44 -17.95	21.44	275.00 890.73	890.73	-0.01 0.01	-0.14 0.14	-1.25
P21	0.00	-0.03 0.00	-3.74 -14.94	0.00	305.91 1016.66	1016.66	0.00 0.00	-0.16 0.16	0.00
P22	0.00	-0.21 0.00	-31.96 29.63	29.63	203.90 900.65	900.65	0.01 -0.01	-0.15 0.15	-25.64
P23	0.00	0.00 0.16	-4.83 -4.55	0.00	256.21 882.15	882.15	0.00 0.00	-0.14 0.14	4.47
P24	0.00	-0.03 0.00	-3.95 -15.82	0.00	300.45 994.81	994.81	0.00 0.00	-0.15 0.15	0.00
P25	0.00	-0.12 0.00	-34.93 49.79	49.79	257.50 850.34	850.34	0.02 -0.02	-0.13 0.13	8.37
P26	0.00	0.00 0.11	-7.30 -3.42	0.00	-465.00 556.91	556.91	0.00 0.00	-0.23 0.23	0.84
P27	0.00	-0.03 0.00	-6.72 -11.51	0.00	-667.56 737.88	737.88	0.00 0.00	-0.31 0.31	-17.05
P28	0.00	-0.07 0.00	-16.86 31.27	31.27	-423.29 519.10	519.10	0.01 -0.01	-0.21 0.21	1.50


CASO: Vento Y+ (V3)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 0.19	527.77 -578.22	527.77	49.25 -55.12	49.25	-0.25 0.25	0.02 -0.02	13.51
P2	0.00	0.00 0.02	41.69 -47.64	41.69	107.99 -2.16	107.99	-0.02 0.02	0.02 -0.02	2.19
P3	0.00	-0.03 0.00	29.40 -1.28	29.40	51.99 -52.35	51.99	-0.01 0.01	0.02 -0.02	6.34
P4	0.00	0.00 0.26	46.77 -51.43	46.77	-434.40 467.12	467.12	-0.02 0.02	-0.20 0.20	4.94

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P5	0.00	0.00 0.20	389.91 -428.29	389.91	-4.47 6.59	6.59	-0.18 0.18	0.00 0.00	-62.22
P6	0.00	0.00 0.01	-0.30 0.02	0.02	393.02 -397.14	393.02	0.00 0.00	0.18 -0.18	5.24
P7	0.00	0.00 0.38	4.81 -7.40	4.81	-58.13 -601.20	0.00	0.00 0.00	0.12 -0.12	26.57
P8	0.00	0.00 0.21	-0.09 0.98	0.98	271.40 -277.10	271.40	0.00 0.00	0.12 -0.12	0.86
P9	0.00	-0.14 0.00	-0.29 1.53	1.53	340.44 -359.98	340.44	0.00 0.00	0.16 -0.16	5.49
P10	0.00	0.00 0.19	-459.00 500.98	500.98	13.82 -16.64	13.82	0.21 -0.21	0.01 -0.01	57.11
P11	0.00	-0.22 0.00	322.29 -320.21	322.29	-11.17 11.51	11.51	-0.14 0.14	-0.01 0.01	3.28
P12	0.00	-0.20 0.00	15.81 -16.38	15.81	0.70 -99.45	0.70	-0.01 0.01	0.02 -0.02	3.98
P13	0.00	-0.27 0.00	8.43 -9.01	8.43	272.13 -278.02	272.13	0.00 0.00	0.12 -0.12	0.21
P14	0.00	0.00 0.08	-10.52 11.85	11.85	-213.55 226.04	226.04	0.00 0.00	-0.10 0.10	0.79
P15	0.00	-0.09 0.00	519.73 -553.61	519.73	-15.87 37.00	37.00	-0.24 0.24	-0.01 0.01	-26.23
P16	0.00	-0.06 0.00	-181.94 -571.61	0.00	6.05 24.18	24.18	-0.09 0.09	0.00 0.00	0.00
P18	0.00	-0.14 0.00	605.93 -648.64	605.93	-17.18 37.28	37.28	-0.28 0.28	-0.01 0.01	49.68
P19	0.00	-0.07 0.00	205.64 -217.09	205.64	-28.17 30.21	30.21	-0.09 0.09	-0.01 0.01	6.28
P20	0.00	-0.02 0.00	451.67 -488.34	451.67	7.18 36.72	36.72	-0.21 0.21	-0.01 0.01	-26.59
P21	0.00	-0.03 0.00	-175.77 -546.91	0.00	10.13 40.53	40.53	-0.08 0.08	-0.01 0.01	0.00
P22	0.00	-0.04 0.00	531.42 -572.03	531.42	11.33 32.83	32.83	-0.25 0.25	0.00 0.00	15.00
P23	0.00	0.00 0.04	467.91 -509.36	467.91	9.10 3.10	9.10	-0.22 0.22	0.00 0.00	-30.09
P24	0.00	0.00 0.07	-180.98 -567.75	0.00	2.19 8.78	8.78	-0.09 0.09	0.00 0.00	0.00
P25	0.00	0.00 0.05	544.45 -591.86	544.45	-5.39 12.23	12.23	-0.25 0.25	0.00 0.00	22.69
P26	0.00	-0.12 0.00	328.21 -366.63	328.21	11.89 -7.08	11.89	-0.15 0.15	0.00 0.00	-23.36
P27	0.00	-0.14 0.00	-151.70 -476.16	0.00	7.31 -6.83	7.31	-0.07 0.07	0.00 0.00	-3.33
P28	0.00	-0.13 0.00	383.25 -426.44	383.25	-3.32 -2.67	0.00	-0.18 0.18	0.00 0.00	16.60

CASO: Vento Y- (V4)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	-0.19 0.00	-527.77 578.22	578.22	-49.25 55.12	55.12	0.25 -0.25	-0.02 0.02	-13.51
P2	0.00	-0.02 0.00	-41.69 47.64	47.64	-107.99 2.16	2.16	0.02 -0.02	-0.02 0.02	-2.19
P3	0.00	0.00 0.03	-29.40 1.28	1.28	-51.99 52.35	52.35	0.01 -0.01	-0.02 0.02	-6.34
P4	0.00	-0.26 0.00	-46.77 51.43	51.43	434.40 -467.12	434.40	0.02 -0.02	0.20 -0.20	-4.94
P5	0.00	-0.20 0.00	-389.91 428.29	428.29	4.47 -6.59	4.47	0.18 -0.18	0.00 0.00	62.22
P6	0.00	-0.01	0.30	0.30	-393.02	397.14	0.00	-0.18	-5.24



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		0.00	-0.02		397.14		0.00	0.18	
P7	0.00	-0.38 0.00	-4.81 7.40	7.40	58.13 601.20	601.20	0.00 0.00	-0.12 0.12	-26.57
P8	0.00	-0.21 0.00	0.09 -0.98	0.09	-271.40 277.10	277.10	0.00 0.00	-0.12 0.12	-0.86
P9	0.00	0.00 0.14	0.29 -1.53	0.29	-340.44 359.98	359.98	0.00 0.00	-0.16 0.16	-5.49
P10	0.00	-0.19 0.00	459.00 -500.98	459.00	-13.82 16.64	16.64	-0.21 0.21	-0.01 0.01	-57.11
P11	0.00	0.00 0.22	-322.29 320.21	320.21	11.17 -11.51	11.17	0.14 -0.14	0.01 -0.01	-3.28
P12	0.00	0.00 0.20	-15.81 16.38	16.38	-0.70 99.45	99.45	0.01 -0.01	-0.02 0.02	-3.98
P13	0.00	0.00 0.27	-8.43 9.01	9.01	-272.13 278.02	278.02	0.00 0.00	-0.12 0.12	-0.21
P14	0.00	-0.08 0.00	10.52 -11.85	10.52	213.55 -226.04	213.55	0.00 0.00	0.10 -0.10	-0.79
P15	0.00	0.00 0.09	-519.73 553.61	553.61	15.87 -37.00	15.87	0.24 -0.24	0.01 -0.01	26.23
P16	0.00	0.00 0.06	181.94 571.61	571.61	-6.05 -24.18	0.00	0.09 -0.09	0.00 0.00	0.00
P18	0.00	0.00 0.14	-605.93 648.64	648.64	17.18 -37.28	17.18	0.28 -0.28	0.01 -0.01	-49.68
P19	0.00	0.00 0.07	-205.64 217.09	217.09	28.17 -30.21	28.17	0.09 -0.09	0.01 -0.01	-6.28
P20	0.00	0.00 0.02	-451.67 488.34	488.34	-7.18 -36.72	0.00	0.21 -0.21	0.01 -0.01	26.59
P21	0.00	0.00 0.03	175.77 546.91	546.91	-10.13 -40.53	0.00	0.08 -0.08	0.01 -0.01	0.00
P22	0.00	0.00 0.04	-531.42 572.03	572.03	-11.33 -32.83	0.00	0.25 -0.25	0.00 0.00	-15.00
P23	0.00	-0.04 0.00	-467.91 509.36	509.36	-9.10 -3.10	0.00	0.22 -0.22	0.00 0.00	30.09
P24	0.00	-0.07 0.00	180.98 567.75	567.75	-2.19 -8.78	0.00	0.09 -0.09	0.00 0.00	0.00
P25	0.00	-0.05 0.00	-544.45 591.86	591.86	5.39 -12.23	5.39	0.25 -0.25	0.00 0.00	-22.69
P26	0.00	0.00 0.12	-328.21 366.63	366.63	-11.89 7.08	7.08	0.15 -0.15	0.00 0.00	23.36
P27	0.00	0.00 0.14	151.70 476.16	476.16	-7.31 6.83	0.00	0.07 -0.07	0.00 0.00	3.33
P28	0.00	0.00 0.13	-383.25 426.44	426.44	3.32 2.67	3.32	0.18 -0.18	0.00 0.00	-16.60

CASO: Desaprumo X+ (D1)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	-0.04 0.00	7.85 -8.76	7.85	85.40 -92.56	85.40	0.00 0.00	0.04 -0.04	0.87
P2	0.00	0.00 0.02	109.34 -115.23	109.34	5.95 -5.87	5.95	-0.05 0.05	0.00 0.00	0.71
P3	0.00	-0.03 0.00	-3.50 3.48	3.48	110.79 -116.37	110.79	0.00 0.00	0.05 -0.05	0.61
P4	0.00	0.00 0.05	87.67 -94.49	87.67	11.59 -12.26	11.59	-0.04 0.04	0.01 -0.01	0.76
P5	0.00	-0.04 0.00	0.35 -1.54	0.35	124.34 -166.59	124.34	0.00 0.00	0.06 -0.06	-0.68
P6	0.00	0.00 0.01	-55.89 54.97	54.97	5.77 -5.88	5.77	0.02 -0.02	0.00 0.00	0.26
P7	0.00	0.00 0.00	-175.11 205.89	205.89	-0.55 -4.22	0.00	0.08 -0.08	0.00 0.00	1.46

P8	0.00	0.00 0.00	-52.80 52.89	52.89	-1.70 1.80	1.80	0.02 -0.02	0.00 0.00	0.22
P9	0.00	-0.08 0.00	-151.29 160.98	160.98	-7.38 8.11	8.11	0.07 -0.07	0.00 0.00	0.82
P10	0.00	0.00 0.10	-0.21 0.27	0.27	-164.97 195.52	195.52	0.00 0.00	-0.08 0.08	-2.98
P11	0.00	-0.03 0.00	4.02 -3.83	4.02	42.19 -43.86	42.19	0.00 0.00	0.02 -0.02	0.19
P12	0.00	0.00 0.01	-91.02 97.16	97.16	-0.02 -0.61	0.00	0.04 -0.04	0.00 0.00	-0.27
P13	0.00	0.00 0.00	-47.74 48.56	48.56	-1.82 1.90	1.90	0.02 -0.02	0.00 0.00	0.29
P14	0.00	0.00 0.00	39.41 -41.36	39.41	10.40 -9.06	10.40	-0.02 0.02	0.00 0.00	-0.78
P15	0.00	-0.02 0.00	0.04 -1.62	0.04	-34.77 -86.59	0.00	0.00 0.00	0.01 -0.01	1.55
P16	0.00	0.00 0.01	-0.86 -3.44	0.00	-27.16 -104.18	0.00	0.00 0.00	0.02 -0.02	0.00
P18	0.00	0.00 0.05	5.99 -4.32	5.99	84.56 -151.38	84.56	0.00 0.00	0.05 -0.05	-0.74
P19	0.00	-0.03 0.00	5.95 -4.92	5.95	47.04 -53.38	47.04	0.00 0.00	0.02 -0.02	-1.00
P20	0.00	-0.03 0.00	0.35 -1.40	0.35	-53.57 -146.78	0.00	0.00 0.00	0.02 -0.02	-0.05
P21	0.00	0.00 0.00	-0.90 -3.60	0.00	-45.03 -175.65	0.00	0.00 0.00	0.03 -0.03	0.00
P22	0.00	0.00 0.03	-1.99 2.87	2.87	-45.62 -146.17	0.00	0.00 0.00	0.02 -0.02	3.30
P23	0.00	-0.03 0.00	5.31 -4.04	5.31	-52.81 -152.06	0.00	0.00 0.00	0.02 -0.02	-1.15
P24	0.00	0.00 0.01	-0.91 -3.65	0.00	-46.16 -180.19	0.00	0.00 0.00	0.03 -0.03	0.00
P25	0.00	0.00 0.02	-1.93 0.08	0.08	-53.09 -146.57	0.00	0.00 0.00	0.02 -0.02	-0.73
P26	0.00	-0.02 0.00	4.53 -2.96	4.53	67.20 -84.33	67.20	0.00 0.00	0.03 -0.03	-0.32
P27	0.00	0.00 0.00	-0.09 -3.36	0.00	100.72 -112.94	100.72	0.00 0.00	0.05 -0.05	3.06
P28	0.00	0.00 0.01	-2.92 0.87	0.87	59.80 -78.10	59.80	0.00 0.00	0.03 -0.03	0.46

CASO: Desaprumo X- (D2)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 0.04	-7.85 8.76	8.76	-85.40 92.56	92.56	0.00 0.00	-0.04 0.04	-0.87
P2	0.00	-0.02 0.00	-109.34 115.23	115.23	-5.95 5.87	5.87	0.05 -0.05	0.00 0.00	-0.71
P3	0.00	0.00 0.03	3.50 -3.48	3.50	-110.79 116.37	116.37	0.00 0.00	-0.05 0.05	-0.61
P4	0.00	-0.05 0.00	-87.67 94.49	94.49	-11.59 12.26	12.26	0.04 -0.04	-0.01 0.01	-0.76
P5	0.00	0.00 0.04	-0.35 1.54	1.54	-124.34 166.59	166.59	0.00 0.00	-0.06 0.06	0.68
P6	0.00	-0.01 0.00	55.89 -54.97	55.89	-5.77 5.88	5.88	-0.02 0.02	0.00 0.00	-0.26
P7	0.00	0.00 0.00	175.11 -205.89	175.11	0.55 4.22	4.22	-0.08 0.08	0.00 0.00	-1.46
P8	0.00	0.00 0.00	52.80 -52.89	52.80	1.70 -1.80	1.70	-0.02 0.02	0.00 0.00	-0.22
P9	0.00	0.00	151.29	151.29	7.38	7.38	-0.07	0.00	-0.82

		0.08	-160.98		-8.11		0.07	0.00	
P10	0.00	-0.10 0.00	0.21 -0.27	0.21	164.97 -195.52	164.97	0.00 0.00	0.08 -0.08	2.98
P11	0.00	0.00 0.03	-4.02 3.83	3.83	-42.19 43.86	43.86	0.00 0.00	-0.02 0.02	-0.19
P12	0.00	-0.01 0.00	91.02 -97.16	91.02	0.02 0.61	0.61	-0.04 0.04	0.00 0.00	0.27
P13	0.00	0.00 0.00	47.74 -48.56	47.74	1.82 -1.90	1.82	-0.02 0.02	0.00 0.00	-0.29
P14	0.00	0.00 0.00	-39.41 41.36	41.36	-10.40 9.06	9.06	0.02 -0.02	0.00 0.00	0.78
P15	0.00	0.00 0.02	-0.04 1.62	1.62	34.77 86.59	86.59	0.00 0.00	-0.01 0.01	-1.55
P16	0.00	-0.01 0.00	0.86 3.44	3.44	27.16 104.18	104.18	0.00 0.00	-0.02 0.02	0.00
P18	0.00	-0.05 0.00	-5.99 4.32	4.32	-84.56 151.38	151.38	0.00 0.00	-0.05 0.05	0.74
P19	0.00	0.00 0.03	-5.95 4.92	4.92	-47.04 53.38	53.38	0.00 0.00	-0.02 0.02	1.00
P20	0.00	0.00 0.03	-0.35 1.40	1.40	53.57 146.78	146.78	0.00 0.00	-0.02 0.02	0.05
P21	0.00	0.00 0.00	0.90 3.60	3.60	45.03 175.65	175.65	0.00 0.00	-0.03 0.03	0.00
P22	0.00	-0.03 0.00	1.99 -2.87	1.99	45.62 146.17	146.17	0.00 0.00	-0.02 0.02	-3.30
P23	0.00	0.00 0.03	-5.31 4.04	4.04	52.81 152.06	152.06	0.00 0.00	-0.02 0.02	1.15
P24	0.00	-0.01 0.00	0.91 3.65	3.65	46.16 180.19	180.19	0.00 0.00	-0.03 0.03	0.00
P25	0.00	-0.02 0.00	1.93 -0.08	1.93	53.09 146.57	146.57	0.00 0.00	-0.02 0.02	0.73
P26	0.00	0.00 0.02	-4.53 2.96	2.96	-67.20 84.33	84.33	0.00 0.00	-0.03 0.03	0.32
P27	0.00	0.00 0.00	0.09 3.36	3.36	-100.72 112.94	112.94	0.00 0.00	-0.05 0.05	-3.06
P28	0.00	-0.01 0.00	2.92 -0.87	2.92	-59.80 78.10	78.10	0.00 0.00	-0.03 0.03	-0.46

CASO: Desaprumo Y+ (D3)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 0.05	155.83 -172.12	155.83	15.81 -17.75	15.81	-0.07 0.07	0.01 -0.01	4.28
P2	0.00	0.00 0.01	13.54 -15.78	13.54	40.39 -0.76	40.39	-0.01 0.01	0.01 -0.01	1.15
P3	0.00	-0.01 0.00	1.40 -0.29	1.40	16.85 -17.22	16.85	0.00 0.00	0.01 -0.01	1.54
P4	0.00	0.00 0.08	15.19 -16.54	15.19	-127.44 137.27	137.27	-0.01 0.01	-0.06 0.06	1.49
P5	0.00	0.00 0.04	80.31 -89.89	80.31	-2.37 2.96	2.96	-0.04 0.04	0.00 0.00	-21.36
P6	0.00	0.00 0.00	-0.07 -0.02	0.00	117.44 -118.66	117.44	0.00 0.00	0.05 -0.05	1.70
P7	0.00	0.00 0.11	1.67 -2.40	1.67	-36.62 -168.19	0.00	0.00 0.00	0.03 -0.03	8.39
P8	0.00	0.00 0.06	0.05 0.21	0.21	78.06 -79.99	78.06	0.00 0.00	0.04 -0.04	0.26
P9	0.00	-0.04 0.00	0.08 0.31	0.31	100.07 -105.88	100.07	0.00 0.00	0.05 -0.05	1.63
P10	0.00	0.00 0.04	-103.04 114.53	114.53	3.44 -4.21	3.44	0.05 -0.05	0.00 0.00	22.04

P11	0.00	-0.07 0.00	95.97 -95.51	95.97	-2.86 2.97	2.97	-0.04 0.04	0.00 0.00	0.98
P12	0.00	-0.05 0.00	3.57 -3.72	3.57	-2.55 -27.70	0.00	0.00 0.00	0.01 -0.01	1.35
P13	0.00	-0.08 0.00	1.86 -2.02	1.86	78.25 -80.24	78.25	0.00 0.00	0.04 -0.04	-0.44
P14	0.00	0.00 0.02	-2.66 3.04	3.04	-50.06 53.38	53.38	0.00 0.00	-0.02 0.02	2.46
P15	0.00	-0.02 0.00	108.65 -116.14	108.65	-4.26 14.95	14.95	-0.05 0.05	0.00 0.00	-9.84
P16	0.00	-0.02 0.00	-45.35 -176.95	0.00	2.90 11.60	11.60	-0.03 0.03	0.00 0.00	0.00
P18	0.00	-0.03 0.00	136.96 -147.63	136.96	-7.41 16.39	16.39	-0.06 0.06	-0.01 0.01	12.09
P19	0.00	-0.01 0.00	47.26 -50.58	47.26	-7.86 8.46	8.46	-0.02 0.02	0.00 0.00	1.55
P20	0.00	0.00 0.00	92.95 -101.77	92.95	2.68 11.91	11.91	-0.04 0.04	0.00 0.00	-9.26
P21	0.00	-0.01 0.00	-43.53 -169.64	0.00	3.34 13.37	13.37	-0.03 0.03	0.00 0.00	0.00
P22	0.00	-0.01 0.00	119.72 -130.29	119.72	3.54 10.98	10.98	-0.06 0.06	0.00 0.00	5.75
P23	0.00	0.00 0.01	96.53 -106.07	96.53	2.73 1.30	2.73	-0.05 0.05	0.00 0.00	-10.54
P24	0.00	0.00 0.02	-44.75 -174.53	0.00	0.74 2.96	2.96	-0.03 0.03	0.00 0.00	0.00
P25	0.00	0.00 0.01	122.63 -134.52	122.63	-1.47 3.85	3.85	-0.06 0.06	0.00 0.00	8.03
P26	0.00	-0.02 0.00	65.54 -75.64	65.54	4.44 -2.89	4.44	-0.03 0.03	0.00 0.00	-8.35
P27	0.00	-0.04 0.00	-62.21 -134.37	0.00	2.58 -2.44	2.58	-0.02 0.02	0.00 0.00	-1.21
P28	0.00	-0.03 0.00	83.88 -96.17	83.88	-1.44 -0.54	0.00	-0.04 0.04	0.00 0.00	5.95

CASO: Desaprumo Y- (D4)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	-0.05 0.00	-155.83 172.12	172.12	-15.81 17.75	17.75	0.07 -0.07	-0.01 0.01	-4.28
P2	0.00	-0.01 0.00	-13.54 15.78	15.78	-40.39 0.76	0.76	0.01 -0.01	-0.01 0.01	-1.15
P3	0.00	0.00 0.01	-1.40 0.29	0.29	-16.85 17.22	17.22	0.00 0.00	-0.01 0.01	-1.54
P4	0.00	-0.08 0.00	-15.19 16.54	16.54	127.44 -137.27	127.44	0.01 -0.01	0.06 -0.06	-1.49
P5	0.00	-0.04 0.00	-80.31 89.89	89.89	2.37 -2.96	2.37	0.04 -0.04	0.00 0.00	21.36
P6	0.00	0.00 0.00	0.07 0.02	0.07	-117.44 118.66	118.66	0.00 0.00	-0.05 0.05	-1.70
P7	0.00	-0.11 0.00	-1.67 2.40	2.40	36.62 168.19	168.19	0.00 0.00	-0.03 0.03	-8.39
P8	0.00	-0.06 0.00	-0.05 -0.21	0.00	-78.06 79.99	79.99	0.00 0.00	-0.04 0.04	-0.26
P9	0.00	0.00 0.04	-0.08 -0.31	0.00	-100.07 105.88	105.88	0.00 0.00	-0.05 0.05	-1.63
P10	0.00	-0.04 0.00	103.04 -114.53	103.04	-3.44 4.21	4.21	-0.05 0.05	0.00 0.00	-22.04
P11	0.00	0.00 0.07	-95.97 95.51	95.51	2.86 -2.97	2.86	0.04 -0.04	0.00 0.00	-0.98
P12	0.00	0.00	-3.57	3.72	2.55	27.70	0.00	-0.01	-1.35



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		0.05	3.72		27.70		0.00	0.01	
P13	0.00	0.00 0.08	-1.86 2.02	2.02	-78.25 80.24	80.24	0.00 0.00	-0.04 0.04	0.44
P14	0.00	-0.02 0.00	2.66 -3.04	2.66	50.06 -53.38	50.06	0.00 0.00	0.02 -0.02	-2.46
P15	0.00	0.00 0.02	-108.65 116.14	116.14	4.26 -14.95	4.26	0.05 -0.05	0.00 0.00	9.84
P16	0.00	0.00 0.02	45.35 176.95	176.95	-2.90 -11.60	0.00	0.03 -0.03	0.00 0.00	0.00
P18	0.00	0.00 0.03	-136.96 147.63	147.63	7.41 -16.39	7.41	0.06 -0.06	0.01 -0.01	-12.09
P19	0.00	0.00 0.01	-47.26 50.58	50.58	7.86 -8.46	7.86	0.02 -0.02	0.00 0.00	-1.55
P20	0.00	0.00 0.00	-92.95 101.77	101.77	-2.68 -11.91	0.00	0.04 -0.04	0.00 0.00	9.26
P21	0.00	0.00 0.01	43.53 169.64	169.64	-3.34 -13.37	0.00	0.03 -0.03	0.00 0.00	0.00
P22	0.00	0.00 0.01	-119.72 130.29	130.29	-3.54 -10.98	0.00	0.06 -0.06	0.00 0.00	-5.75
P23	0.00	-0.01 0.00	-96.53 106.07	106.07	-2.73 -1.30	0.00	0.05 -0.05	0.00 0.00	10.54
P24	0.00	-0.02 0.00	44.75 174.53	174.53	-0.74 -2.96	0.00	0.03 -0.03	0.00 0.00	0.00
P25	0.00	-0.01 0.00	-122.63 134.52	134.52	1.47 -3.85	1.47	0.06 -0.06	0.00 0.00	-8.03
P26	0.00	0.00 0.02	-65.54 75.64	75.64	-4.44 2.89	2.89	0.03 -0.03	0.00 0.00	8.35
P27	0.00	0.00 0.04	62.21 134.37	134.37	-2.58 2.44	0.00	0.02 -0.02	0.00 0.00	1.21
P28	0.00	0.00 0.03	-83.88 96.17	96.17	1.44 0.54	1.44	0.04 -0.04	0.00 0.00	-5.95

**CASO: 1.3G1+1.4G2**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 6.19	744.88 -1051.49	744.88	-646.60 563.27	563.27	-0.40 0.40	-0.27 0.27	-3.77
P2	0.00	0.00 11.68	101.53 107.96	107.96	272.37 -527.09	272.37	0.00 0.00	0.18 -0.18	-11.00
P3	0.00	0.00 11.21	-250.80 543.50	543.50	222.00 -266.67	222.00	0.18 -0.18	0.11 -0.11	-8.39
P4	0.00	0.00 5.36	189.02 -326.79	189.02	-432.55 525.72	525.72	-0.11 0.11	-0.21 0.21	-1.04
P5	0.00	0.00 6.40	506.44 -608.30	506.44	-804.76 980.63	980.63	-0.25 0.25	-0.40 0.40	10.52
P6	0.00	0.00 11.88	-4.64 32.70	32.70	-274.06 357.78	357.78	0.01 -0.01	-0.14 0.14	-1.73
P7	0.00	0.00 16.37	103.67 -254.38	103.67	106.31 -83.61	106.31	-0.08 0.08	0.04 -0.04	-9.38
P8	0.00	0.00 12.47	-128.84 94.41	94.41	42.90 -42.76	42.90	0.05 -0.05	0.02 -0.02	-1.13
P9	0.00	0.00 9.40	-53.03 120.17	120.17	-239.05 260.54	260.54	0.04 -0.04	-0.11 0.11	-3.22
P10	0.00	0.00 4.34	-407.13 489.20	489.20	-142.09 138.79	138.79	0.20 -0.20	-0.06 0.06	14.45
P11	0.00	0.00 2.72	-110.51 125.72	125.72	-250.89 276.24	276.24	0.05 -0.05	-0.12 0.12	3.74
P12	0.00	0.00 8.06	292.35 -317.39	292.35	-0.89 17.19	17.19	-0.14 0.14	0.00 0.00	7.10
P13	0.00	0.00 7.74	-22.36 25.63	25.63	-94.93 123.99	123.99	0.01 -0.01	-0.05 0.05	1.69



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P14	0.00	0.00 6.29	124.73 -142.90	124.73	-1016.45 1300.57	1300.57	-0.06 0.06	-0.51 0.51	20.38
P15	0.00	0.00 11.35	194.33 -180.26	194.33	539.68 1167.88	1167.88	-0.08 0.08	-0.14 0.14	-16.47
P16	0.00	0.00 18.34	5.19 20.76	20.76	169.20 676.78	676.78	0.00 0.00	-0.11 0.11	0.00
P18	0.00	0.00 13.97	538.06 -582.11	538.06	1547.13 -2851.69	1547.13	-0.25 0.25	0.98 -0.98	-19.36
P19	0.00	0.00 7.08	-1000.84 1264.58	1264.58	-618.96 640.95	640.95	0.50 -0.50	-0.28 0.28	-4.38
P20	0.00	0.00 12.34	341.03 -394.20	341.03	606.89 864.87	864.87	-0.16 0.16	-0.06 0.06	9.32
P21	0.00	0.00 19.64	6.21 24.84	24.84	195.44 781.77	781.77	0.00 0.00	-0.13 0.13	0.00
P22	0.00	0.00 15.75	-128.53 207.38	207.38	-900.27 -2127.36	0.00	0.07 -0.07	0.27 -0.27	63.90
P23	0.00	0.00 13.14	-32.10 -16.00	0.00	607.70 959.48	959.48	0.00 0.00	-0.08 0.08	23.65
P24	0.00	0.00 19.86	12.85 51.39	51.39	223.18 892.72	892.72	0.01 -0.01	-0.15 0.15	0.00
P25	0.00	0.00 14.70	15.66 -105.96	15.66	-878.90 -2051.75	0.00	-0.03 0.03	0.26 -0.26	-40.89
P26	0.00	0.00 8.93	-991.49 1307.60	1307.60	-2207.12 2452.94	2452.94	0.51 -0.51	-1.04 1.04	2.30
P27	0.00	0.00 18.12	657.61 -98.91	657.61	-1437.86 1673.23	1673.23	-0.17 0.17	-0.69 0.69	-10.22
P28	0.00	0.00 10.61	-976.59 1302.19	1302.19	3467.40 -4228.13	3467.40	0.51 -0.51	1.71 -1.71	-1.85

<b>CASO: 1.3G1+1.4G2+0.84V1+1.4D1</b>									
<b>Elemento</b>	<b>Carga (kgf/m)</b>	<b>Rd Nd (tf)</b>	<b>Mxi Mxf (kgf.m)</b>	<b>MxMáx (kgf.m)</b>	<b>Myi Myf (kgf.m)</b>	<b>MyMáx (kgf.m)</b>	<b>Vxi Vxf (tf)</b>	<b>Vyi Vyf (tf)</b>	<b>Mtd (kgf/m)</b>
P1	0.00	0.00 5.97	737.58 -1045.41	737.58	-220.57 104.00	104.00	-0.40 0.40	-0.07 0.07	-2.93
P2	0.00	0.00 11.81	646.25 -464.65	646.25	297.80 -556.40	297.80	-0.25 0.25	0.19 -0.19	-11.17
P3	0.00	0.00 11.06	-261.68 560.59	560.59	773.65 -844.78	773.65	0.18 -0.18	0.36 -0.36	-8.17
P4	0.00	0.00 5.61	627.47 -797.37	627.47	-406.76 497.88	497.88	-0.32 0.32	-0.20 0.20	-0.26
P5	0.00	0.00 6.17	488.17 -596.22	488.17	-129.53 88.23	88.23	-0.24 0.24	-0.05 0.05	12.60
P6	0.00	0.00 11.93	-301.16 324.63	324.63	-279.30 362.83	362.83	0.14 -0.14	-0.14 0.14	-1.71
P7	0.00	0.00 16.38	-835.84 843.68	843.68	102.38 -75.73	102.38	0.37 -0.37	0.04 -0.04	-10.00
P8	0.00	0.00 12.50	-409.32 375.40	375.40	39.43 -38.69	39.43	0.17 -0.17	0.02 -0.02	-1.01
P9	0.00	0.00 8.99	-858.34 975.74	975.74	-251.68 275.83	275.83	0.41 -0.41	-0.12 0.12	-2.62
P10	0.00	0.00 4.89	-444.42 529.43	529.43	-1026.94 1181.05	1181.05	0.22 -0.22	-0.49 0.49	3.61
P11	0.00	0.00 2.55	-118.74 134.79	134.79	22.58 -6.99	22.58	0.06 -0.06	0.01 -0.01	-2.23
P12	0.00	0.00 8.13	-302.13 311.59	311.59	-1.41 18.94	18.94	0.14 -0.14	0.00 0.00	0.35
P13	0.00	0.00 7.71	-330.17 338.37	338.37	-99.31 128.91	128.91	0.15 -0.15	-0.05 0.05	-2.71
P14	0.00	0.00 6.31	381.43 -410.55	381.43	-950.46 1241.66	1241.66	-0.18 0.18	-0.49 0.49	17.17
P15	0.00	0.00	168.02	168.02	344.99	602.38	-0.07	-0.06	-8.28



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		11.24	-163.30		602.38		0.07	0.06	
P16	0.00	0.00 18.39	7.71 30.82	30.82	-36.58 33.81	33.81	0.01 -0.01	-0.02 0.02	0.00
P18	0.00	0.00 14.27	622.25 -659.09	622.25	2141.76 -3851.34	2141.76	-0.28 0.28	1.33 -1.33	-31.59
P19	0.00	0.00 6.90	-963.43 1232.04	1232.04	-292.15 275.52	275.52	0.49 -0.49	-0.13 0.13	-12.24
P20	0.00	0.00 12.17	323.51 -381.08	323.51	300.89 -88.84	300.89	-0.16 0.16	0.09 -0.09	10.31
P21	0.00	0.00 19.67	8.09 32.35	32.35	-124.57 -318.14	0.00	0.01 -0.01	0.04 -0.04	0.00
P22	0.00	0.00 15.97	-104.48 186.50	186.50	-1135.42 -3088.54	0.00	0.06 -0.06	0.43 -0.43	90.07
P23	0.00	0.00 12.96	-20.61 -17.83	0.00	318.54 5.59	318.54	0.00 0.00	0.07 -0.07	18.29
P24	0.00	0.00 19.89	14.89 59.57	59.57	-93.83 -195.19	0.00	0.01 -0.01	0.02 -0.02	0.00
P25	0.00	0.00 14.83	42.29 -147.68	42.29	-1169.52 -2971.24	0.00	-0.04 0.04	0.40 -0.40	-48.94
P26	0.00	0.00 8.82	-979.01 1306.34	1306.34	-1722.44 1867.08	1867.08	0.51 -0.51	-0.80 0.80	1.14
P27	0.00	0.00 18.15	663.13 -93.94	663.13	-736.10 895.30	895.30	-0.17 0.17	-0.36 0.36	8.39
P28	0.00	0.00 10.69	-966.51 1277.14	1277.14	3906.69 -4773.50	3906.69	0.50 -0.50	1.93 -1.93	-2.47

**CASO: 1.3G1+1.4G2+0.84V2+1.4D2**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 6.42	752.18 -1057.57	752.18	-1072.62 1022.54	1022.54	-0.40 0.40	-0.47 0.47	-4.60
P2	0.00	0.00 11.56	-443.20 680.57	680.57	246.94 -497.78	246.94	0.25 -0.25	0.17 -0.17	-10.82
P3	0.00	0.00 11.36	-239.92 526.40	526.40	-329.64 311.45	311.45	0.17 -0.17	-0.14 0.14	-8.61
P4	0.00	0.00 5.10	-249.44 143.78	143.78	-458.33 553.57	553.57	0.09 -0.09	-0.22 0.22	-1.82
P5	0.00	0.00 6.63	524.72 -620.38	524.72	-1479.98 1873.04	1873.04	-0.25 0.25	-0.75 0.75	8.44
P6	0.00	0.00 11.84	291.88 -259.23	291.88	-268.82 352.73	352.73	-0.12 0.12	-0.14 0.14	-1.75
P7	0.00	0.00 16.36	1043.17 -1352.44	1043.17	110.25 -91.49	110.25	-0.53 0.53	0.04 -0.04	-8.75
P8	0.00	0.00 12.44	151.64 -186.58	151.64	46.37 -46.83	46.37	-0.08 0.08	0.02 -0.02	-1.25
P9	0.00	0.00 9.82	752.27 -735.39	752.27	-226.41 245.25	245.25	-0.33 0.33	-0.10 0.10	-3.81
P10	0.00	0.00 3.79	-369.84 448.98	448.98	742.77 -903.48	742.77	0.18 -0.18	0.37 -0.37	25.29
P11	0.00	0.00 2.89	-102.28 116.65	116.65	-524.36 559.47	559.47	0.05 -0.05	-0.24 0.24	9.72
P12	0.00	0.00 7.99	886.83 -946.36	886.83	-0.36 15.43	15.43	-0.41 0.41	0.00 0.00	13.86
P13	0.00	0.00 7.78	285.45 -287.10	285.45	-90.55 119.08	119.08	-0.13 0.13	-0.05 0.05	6.08
P14	0.00	0.00 6.26	-131.97 124.75	124.75	-1082.45 1359.47	1359.47	0.06 -0.06	-0.54 0.54	23.59
P15	0.00	0.00 11.46	220.64 -197.22	220.64	734.37 1733.39	1733.39	-0.09 0.09	-0.22 0.22	-24.66
P16	0.00	0.00 18.29	2.67 10.69	10.69	374.97 1319.75	1319.75	0.00 0.00	-0.21 0.21	0.00



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P18	0.00	0.00 13.68	453.87 -505.12	453.87	952.50 -1852.04	952.50	-0.21 0.21	0.62 -0.62	-7.13
P19	0.00	0.00 7.26	-1038.24 1297.11	1297.11	-945.76 1006.39	1006.39	0.52 -0.52	-0.43 0.43	3.47
P20	0.00	0.00 12.51	358.55 -407.32	358.55	912.89 1818.57	1818.57	-0.17 0.17	-0.20 0.20	8.34
P21	0.00	0.00 19.61	4.33 17.33	17.33	515.45 1881.68	1881.68	0.00 0.00	-0.30 0.30	0.00
P22	0.00	0.00 15.53	-152.59 228.26	228.26	-665.12 -1166.17	0.00	0.08 -0.08	0.11 -0.11	37.74
P23	0.00	0.00 13.31	-43.59 -14.18	0.00	896.86 1913.37	1913.37	0.01 -0.01	-0.23 0.23	29.01
P24	0.00	0.00 19.82	10.80 43.22	43.22	540.19 1980.63	1980.63	0.01 -0.01	-0.32 0.32	0.00
P25	0.00	0.00 14.57	-10.97 -64.25	0.00	-588.28 -1132.26	0.00	-0.01 0.01	0.12 -0.12	-32.83
P26	0.00	0.00 9.05	-1003.97 1308.87	1308.87	-2691.80 3038.81	3038.81	0.51 -0.51	-1.27 1.27	3.45
P27	0.00	0.00 18.09	652.10 -103.87	652.10	-2139.61 2451.16	2451.16	-0.17 0.17	-1.02 1.02	-28.83
P28	0.00	0.00 10.53	-986.67 1327.24	1327.24	3028.12 -3682.75	3028.12	0.51 -0.51	1.49 -1.49	-1.24

CASO: 1.3G1+1.4G2+0.84V3+1.4D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 6.42	1406.38 -1778.16	1406.38	-583.10 492.11	492.11	-0.71 0.71	-0.24 0.24	13.58
P2	0.00	0.00 11.71	155.51 45.85	155.51	419.62 -529.97	419.62	-0.02 0.02	0.21 -0.21	-7.55
P3	0.00	0.00 11.17	-224.14 542.02	542.02	289.27 -334.75	289.27	0.17 -0.17	0.14 -0.14	-0.91
P4	0.00	0.00 5.68	249.57 -393.15	249.57	-975.87 1110.28	1110.28	-0.14 0.14	-0.46 0.46	5.20
P5	0.00	0.00 6.62	946.40 -1093.91	946.40	-811.83 990.32	990.32	-0.45 0.45	-0.40 0.40	-71.65
P6	0.00	0.00 11.89	-4.99 32.68	32.68	220.49 -141.95	220.49	0.01 -0.01	0.08 -0.08	5.04
P7	0.00	0.00 16.85	110.04 -263.96	110.04	6.22 -824.08	6.22	-0.08 0.08	0.18 -0.18	24.69
P8	0.00	0.00 12.73	-128.85 95.53	95.53	380.16 -387.51	380.16	0.05 -0.05	0.17 -0.17	-0.05
P9	0.00	0.00 9.23	-53.16 121.89	121.89	187.01 -190.07	187.01	0.04 -0.04	0.08 -0.08	3.67
P10	0.00	0.00 4.56	-936.95 1070.37	1070.37	-125.66 118.92	118.92	0.45 -0.45	-0.05 0.05	93.28
P11	0.00	0.00 2.44	294.57 -276.97	294.57	-264.28 290.07	290.07	-0.13 0.13	-0.12 0.12	7.87
P12	0.00	0.00 7.83	310.63 -336.36	310.63	-3.87 -105.14	0.00	-0.14 0.14	0.02 -0.02	12.34
P13	0.00	0.00 7.40	-12.67 15.24	15.24	243.22 -221.88	243.22	0.01 -0.01	0.10 -0.10	1.25
P14	0.00	0.00 6.39	112.17 -128.70	112.17	-1265.91 1565.17	1565.17	-0.05 0.05	-0.63 0.63	24.49
P15	0.00	0.00 11.25	783.01 -807.89	783.01	520.39 1219.89	1219.89	-0.35 0.35	-0.16 0.16	-52.28
P16	0.00	0.00 18.26	-211.14 -707.13	0.00	178.33 713.34	713.34	-0.11 0.11	-0.12 0.12	0.00
P18	0.00	0.00 13.81	1238.79 -1333.64	1238.79	1522.32 -2797.44	1522.32	-0.57 0.57	0.96 -0.96	39.31
P19	0.00	0.00	-761.93	1011.41	-653.62	678.17	0.39	-0.30	3.06





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		7.00	1011.41		678.17		-0.39	0.30	
P20	0.00	0.00 12.32	850.56 -946.89	850.56	616.68 912.38	912.38	-0.40 0.40	-0.07 0.07	-25.98
P21	0.00	0.00 19.60	-202.37 -672.07	0.00	208.63 834.53	834.53	-0.10 0.10	-0.14 0.14	0.00
P22	0.00	0.00 15.71	485.47 -455.53	485.47	-885.80 -2084.40	0.00	-0.21 0.21	0.27 -0.27	84.55
P23	0.00	0.00 13.19	496.08 -592.36	496.08	619.16 963.90	963.90	-0.24 0.24	-0.08 0.08	-16.38
P24	0.00	0.00 19.94	-201.82 -669.86	0.00	226.06 904.23	904.23	-0.10 0.10	-0.15 0.15	0.00
P25	0.00	0.00 14.76	644.68 -791.46	644.68	-885.49 -2036.09	0.00	-0.32 0.32	0.26 -0.26	-10.59
P26	0.00	0.00 8.80	-624.04 893.74	893.74	-2190.92 2442.94	2442.94	0.34 -0.34	-1.03 1.03	-29.01
P27	0.00	0.00 17.95	443.09 -687.00	443.09	-1428.10 1664.08	1664.08	-0.25 0.25	-0.69 0.69	-14.71
P28	0.00	0.00 10.46	-537.23 809.34	809.34	3462.60 -4231.12	3462.60	0.30 -0.30	1.71 -1.71	20.42

**CASO: 1.3G1+1.4G2+0.84V4+1.4D4**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 5.96	83.39 -324.82	83.39	-710.09 634.42	634.42	-0.09 0.09	-0.30 0.30	-21.11
P2	0.00	0.00 11.66	47.55 170.07	170.07	125.12 -524.21	125.12	0.03 -0.03	0.14 -0.14	-14.44
P3	0.00	0.00 11.24	-277.46 544.98	544.98	154.74 -198.58	154.74	0.18 -0.18	0.08 -0.08	-15.87
P4	0.00	0.00 5.03	128.47 -260.44	128.47	110.77 -58.83	110.77	-0.09 0.09	0.04 -0.04	-7.28
P5	0.00	0.00 6.17	66.49 -122.69	66.49	-797.68 970.95	970.95	-0.04 0.04	-0.39 0.39	92.68
P6	0.00	0.00 11.87	-4.30 32.71	32.71	-768.61 857.50	857.50	0.01 -0.01	-0.36 0.36	-8.51
P7	0.00	0.00 15.90	97.29 -244.80	97.29	206.40 656.86	656.86	-0.08 0.08	-0.10 0.10	-43.45
P8	0.00	0.00 12.22	-128.83 93.29	93.29	-294.35 302.00	302.00	0.05 -0.05	-0.13 0.13	-2.21
P9	0.00	0.00 9.57	-52.90 118.46	118.46	-665.11 711.16	711.16	0.04 -0.04	-0.31 0.31	-10.11
P10	0.00	0.00 4.12	122.69 -91.96	122.69	-158.51 158.65	158.65	-0.05 0.05	-0.07 0.07	-64.38
P11	0.00	0.00 3.00	-515.59 528.40	528.40	-237.50 262.41	262.41	0.23 -0.23	-0.11 0.11	-0.38
P12	0.00	0.00 8.29	274.08 -298.41	274.08	2.09 139.51	139.51	-0.13 0.13	-0.03 0.03	1.87
P13	0.00	0.00 8.08	-32.05 36.03	36.03	-433.07 469.87	469.87	0.02 -0.02	-0.20 0.20	2.13
P14	0.00	0.00 6.19	137.29 -157.11	137.29	-767.00 1035.96	1035.96	-0.07 0.07	-0.40 0.40	16.27
P15	0.00	0.00 11.45	-394.35 447.37	447.37	558.97 1115.88	1115.88	0.19 -0.19	-0.12 0.12	19.34
P16	0.00	0.00 18.42	221.52 748.65	748.65	160.06 640.23	640.23	0.12 -0.12	-0.11 0.11	0.00
P18	0.00	0.00 14.13	-162.67 169.43	169.43	1571.94 -2905.95	1571.94	0.07 -0.07	1.00 -1.00	-78.03
P19	0.00	0.00 7.16	-1239.74 1517.75	1517.75	-584.29 603.73	603.73	0.61 -0.61	-0.26 0.26	-11.82
P20	0.00	0.00 12.36	-168.50 158.48	158.48	597.10 817.35	817.35	0.07 -0.07	-0.05 0.05	44.63



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P21	0.00	0.00 19.68	214.79 721.74	721.74	182.25 729.01	729.01	0.11 -0.11	-0.12 0.12	0.00
P22	0.00	0.00 15.80	-742.54 870.29	870.29	-914.74 -2170.31	0.00	0.36 -0.36	0.28 -0.28	43.25
P23	0.00	0.00 13.09	-560.28 560.35	560.35	596.23 955.06	955.06	0.25 -0.25	-0.08 0.08	63.67
P24	0.00	0.00 19.78	227.52 772.64	772.64	220.30 881.20	881.20	0.12 -0.12	-0.15 0.15	0.00
P25	0.00	0.00 14.64	-613.36 579.53	579.53	-872.31 -2067.41	0.00	0.27 -0.27	0.27 -0.27	-71.18
P26	0.00	0.00 9.07	-1358.94 1721.47	1721.47	-2223.33 2462.94	2462.94	0.68 -0.68	-1.04 1.04	33.61
P27	0.00	0.00 18.29	872.14 489.19	872.14	-1447.61 1682.39	1682.39	-0.09 0.09	-0.70 0.70	-5.73
P28	0.00	0.00 10.76	-1415.96 1795.04	1795.04	3472.21 -4225.13	3472.21	0.71 -0.71	1.71 -1.71	-24.13

**CASO: 1.3G1+1.4G2+0.98Q+0.84V1+1.4D1**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 12.85	1360.29 -2865.59	1360.29	-313.31 140.67	140.67	-0.94 0.94	-0.10 0.10	-16.27
P2	0.00	0.00 31.86	231.64 353.93	353.93	425.88 -1507.68	425.88	0.03 -0.03	0.43 -0.43	-50.28
P3	0.00	0.00 31.45	-390.68 1622.81	1622.81	874.45 -1125.48	874.45	0.45 -0.45	0.44 -0.44	-24.59
P4	0.00	0.00 11.69	961.83 -1654.94	961.83	-461.36 476.36	476.36	-0.58 0.58	-0.21 0.21	7.35
P5	0.00	0.00 6.33	470.60 -577.04	470.60	-200.26 255.66	255.66	-0.23 0.23	-0.10 0.10	31.89
P6	0.00	0.00 21.42	-294.20 321.68	321.68	-677.55 1094.70	1094.70	0.14 -0.14	-0.39 0.39	-5.40
P7	0.00	0.00 37.84	-625.51 392.14	392.14	373.31 -64.24	373.31	0.23 -0.23	0.10 -0.10	-31.84
P8	0.00	0.00 30.66	-447.99 446.56	446.56	51.76 -29.45	51.76	0.20 -0.20	0.02 -0.02	1.80
P9	0.00	0.00 16.53	-1049.59 1321.81	1321.81	-120.76 77.65	77.65	0.53 -0.53	-0.04 0.04	-6.90
P10	0.00	0.00 4.10	-496.54 584.35	584.35	-1052.24 1192.44	1192.44	0.24 -0.24	-0.50 0.50	28.87
P11	0.00	0.00 1.02	-172.59 81.75	81.75	17.01 6.55	17.01	0.06 -0.06	0.00 0.00	-6.92
P12	0.00	0.00 9.30	-307.06 315.86	315.86	24.69 24.33	24.69	0.14 -0.14	0.00 0.00	-5.63
P13	0.00	0.00 8.28	-337.88 347.28	347.28	-141.32 255.84	255.84	0.15 -0.15	-0.09 0.09	-3.70
P14	0.00	0.00 6.32	387.41 -417.31	387.41	-971.57 1262.74	1262.74	-0.18 0.18	-0.50 0.50	23.26
P15	0.00	0.00 11.24	152.84 -148.43	152.84	344.70 600.98	600.98	-0.07 0.07	-0.06 0.06	-9.01
P16	0.00	0.00 17.97	4.80 19.19	19.19	-36.61 33.68	33.68	0.00 0.00	-0.02 0.02	0.00
P18	0.00	0.00 14.24	690.36 -733.40	690.36	2137.75 -3847.82	2137.75	-0.32 0.32	1.33 -1.33	-26.90
P19	0.00	0.00 6.90	-941.57 1210.05	1210.05	-294.31 277.80	277.80	0.48 -0.48	-0.13 0.13	-11.73
P20	0.00	0.00 12.17	310.06 -366.56	310.06	300.72 -88.56	300.72	-0.15 0.15	0.09 -0.09	10.79
P21	0.00	0.00 19.69	11.73 46.91	46.91	-124.53 -317.99	0.00	0.01 -0.01	0.04 -0.04	0.00
P22	0.00	0.00	-50.71	129.76	-1134.87	0.00	0.04	0.43	87.73



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		15.97	129.76		-3088.77		-0.04	-0.43	
P23	0.00	0.00 12.96	-34.31 -3.22	0.00	318.45 5.84	318.45	0.01 -0.01	0.07 -0.07	18.95
P24	0.00	0.00 19.89	17.36 69.45	69.45	-93.79 -195.02	0.00	0.01 -0.01	0.02 -0.02	0.00
P25	0.00	0.00 14.83	97.12 -207.01	97.12	-1169.59 -2970.95	0.00	-0.07 0.07	0.40 -0.40	-51.15
P26	0.00	0.00 8.82	-988.84 1316.92	1316.92	-1721.88 1866.20	1866.20	0.51 -0.51	-0.80 0.80	1.55
P27	0.00	0.00 18.16	665.30 -84.60	665.30	-734.87 893.99	893.99	-0.17 0.17	-0.36 0.36	7.71
P28	0.00	0.00 10.68	-926.99 1234.43	1234.43	3908.32 -4775.10	3908.32	0.48 -0.48	1.93 -1.93	-4.77

**CASO: 1.3G1+1.4G2+0.98Q+0.84V2+1.4D2**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 13.29	1374.90 -2877.75	1374.90	-1165.36 1059.22	1059.22	-0.95 0.95	-0.49 0.49	-17.95
P2	0.00	0.00 31.62	-857.81 1499.14	1499.14	375.02 -1449.06	375.02	0.52 -0.52	0.41 -0.41	-49.92
P3	0.00	0.00 31.75	-368.93 1588.62	1588.62	-228.85 30.75	30.75	0.44 -0.44	-0.06 0.06	-25.03
P4	0.00	0.00 11.18	84.92 -713.79	84.92	-512.93 532.05	532.05	-0.18 0.18	-0.23 0.23	5.79
P5	0.00	0.00 6.79	507.15 -601.20	507.15	-1550.71 2040.48	2040.48	-0.25 0.25	-0.80 0.80	27.72
P6	0.00	0.00 21.33	298.84 -262.18	298.84	-667.07 1084.60	1084.60	-0.12 0.12	-0.39 0.39	-5.44
P7	0.00	0.00 37.82	1253.50 -1803.97	1253.50	381.19 -80.00	381.19	-0.68 0.68	0.10 -0.10	-30.60
P8	0.00	0.00 30.60	112.98 -115.41	112.98	58.70 -37.58	58.70	-0.05 0.05	0.02 -0.02	1.56
P9	0.00	0.00 17.36	561.02 -389.32	561.02	-95.49 47.08	47.08	-0.21 0.21	-0.03 0.03	-8.09
P10	0.00	0.00 3.01	-421.95 503.90	503.90	717.48 -892.09	717.48	0.21 -0.21	0.36 -0.36	50.55
P11	0.00	0.00 1.35	-156.13 63.61	63.61	-529.94 573.00	573.00	0.05 -0.05	-0.25 0.25	5.03
P12	0.00	0.00 9.16	881.90 -942.10	881.90	25.73 20.82	25.73	-0.41 0.41	0.00 0.00	7.89
P13	0.00	0.00 8.35	277.74 -278.19	277.74	-132.56 246.00	246.00	-0.12 0.12	-0.08 0.08	5.09
P14	0.00	0.00 6.27	-126.00 117.99	117.99	-1103.56 1380.55	1380.55	0.05 -0.05	-0.55 0.55	29.68
P15	0.00	0.00 11.46	205.47 -182.36	205.47	734.09 1731.99	1731.99	-0.09 0.09	-0.22 0.22	-25.39
P16	0.00	0.00 17.87	-0.23 -0.94	0.00	374.93 1319.61	1319.61	0.00 0.00	-0.21 0.21	0.00
P18	0.00	0.00 13.65	521.98 -579.43	521.98	948.49 -1848.51	948.49	-0.24 0.24	0.62 -0.62	-2.44
P19	0.00	0.00 7.25	-1016.38 1275.13	1275.13	-947.92 1008.67	1008.67	0.51 -0.51	-0.43 0.43	3.97
P20	0.00	0.00 12.51	345.09 -392.80	345.09	912.72 1818.86	1818.86	-0.16 0.16	-0.20 0.20	8.82
P21	0.00	0.00 19.63	7.97 31.89	31.89	515.49 1881.82	1881.82	0.01 -0.01	-0.30 0.30	0.00
P22	0.00	0.00 15.53	-98.82 171.51	171.51	-664.57 -1166.40	0.00	0.06 -0.06	0.11 -0.11	35.40
P23	0.00	0.00 13.31	-57.29 0.43	0.43	896.76 1913.61	1913.61	0.01 -0.01	-0.23 0.23	29.67



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P24	0.00	0.00 19.81	13.28 53.10	53.10	540.23 1980.80	1980.80	0.01 -0.01	-0.32 0.32	0.00
P25	0.00	0.00 14.57	43.86 -123.59	43.86	-588.35 -1131.97	0.00	-0.04 0.04	0.12 -0.12	-35.04
P26	0.00	0.00 9.05	-1013.80 1319.45	1319.45	-2691.25 3037.93	3037.93	0.52 -0.52	-1.27 1.27	3.87
P27	0.00	0.00 18.10	654.27 -94.53	654.27	-2138.38 2449.85	2449.85	-0.17 0.17	-1.02 1.02	-29.52
P28	0.00	0.00 10.52	-947.15 1284.52	1284.52	3029.74 -3684.34	3029.74	0.50 -0.50	1.49 -1.49	-3.54


**CASO: 1.3G1+1.4G2+0.98Q+0.84V3+1.4D3**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 13.30	2029.09 -3598.34	2029.09	-675.84 528.79	528.79	-1.25 1.25	-0.27 0.27	0.23
P2	0.00	0.00 31.76	-259.10 864.43	864.43	547.70 -1481.25	547.70	0.25 -0.25	0.45 -0.45	-46.65
P3	0.00	0.00 31.56	-353.14 1604.24	1604.24	390.06 -615.45	390.06	0.43 -0.43	0.22 -0.22	-17.33
P4	0.00	0.00 11.76	583.93 -1250.72	583.93	-1030.47 1088.76	1088.76	-0.41 0.41	-0.47 0.47	12.81
P5	0.00	0.00 6.79	928.84 -1074.73	928.84	-882.56 1157.76	1157.76	-0.45 0.45	-0.45 0.45	-52.36
P6	0.00	0.00 21.39	1.97 29.74	29.74	-177.76 589.93	589.93	0.01 -0.01	-0.17 0.17	1.35
P7	0.00	0.00 38.31	320.38 -715.49	320.38	277.16 -812.59	277.16	-0.23 0.23	0.24 -0.24	2.85
P8	0.00	0.00 30.89	-167.52 166.70	166.70	392.48 -378.27	392.48	0.07 -0.07	0.17 -0.17	2.76
P9	0.00	0.00 16.77	-244.42 467.96	467.96	317.94 -388.25	317.94	0.16 -0.16	0.16 -0.16	-0.61
P10	0.00	0.00 3.77	-989.07 1125.29	1125.29	-150.96 130.31	130.31	0.47 -0.47	-0.06 0.06	118.54
P11	0.00	0.00 0.90	240.72 -330.01	240.72	-269.85 303.60	303.60	-0.13 0.13	-0.13 0.13	3.18
P12	0.00	0.00 9.00	305.70 -332.09	305.70	22.23 -99.75	22.23	-0.14 0.14	0.03 -0.03	6.36
P13	0.00	0.00 7.98	-20.38 24.15	24.15	201.21 -94.95	201.21	0.01 -0.01	0.07 -0.07	0.26
P14	0.00	0.00 6.40	118.15 -135.45	118.15	-1287.02 1586.25	1586.25	-0.06 0.06	-0.64 0.64	30.58
P15	0.00	0.00 11.25	767.84 -793.02	767.84	520.10 1218.49	1218.49	-0.35 0.35	-0.16 0.16	-53.01
P16	0.00	0.00 17.84	-214.05 -718.76	0.00	178.30 713.20	713.20	-0.11 0.11	-0.12 0.12	0.00
P18	0.00	0.00 13.79	1306.90 -1407.95	1306.90	1518.31 -2793.91	1518.31	-0.60 0.60	0.96 -0.96	43.99
P19	0.00	0.00 7.00	-740.07 989.42	989.42	-655.78 680.45	680.45	0.38 -0.38	-0.30 0.30	3.56
P20	0.00	0.00 12.33	837.11 -932.36	837.11	616.51 912.67	912.67	-0.39 0.39	-0.07 0.07	-25.50
P21	0.00	0.00 19.61	-198.73 -657.50	0.00	208.67 834.67	834.67	-0.10 0.10	-0.14 0.14	0.00
P22	0.00	0.00 15.71	539.24 -512.27	539.24	-885.25 -2084.63	0.00	-0.23 0.23	0.27 -0.27	82.21
P23	0.00	0.00 13.19	482.39 -577.75	482.39	619.07 964.15	964.15	-0.24 0.24	-0.08 0.08	-15.72
P24	0.00	0.00 19.93	-199.35 -659.97	0.00	226.10 904.41	904.41	-0.10 0.10	-0.15 0.15	0.00
P25	0.00	0.00	699.51	699.51	-885.56	0.00	-0.34	0.26	-12.79

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		14.76	-850.79		-2035.80		0.34	-0.26	
P26	0.00	0.00 8.81	-633.87 904.32	904.32	-2190.36 2442.06	2442.06	0.34 -0.34	-1.03 1.03	-28.60
P27	0.00	0.00 17.96	445.26 -677.65	445.26	-1426.87 1662.76	1662.76	-0.25 0.25	-0.69 0.69	-15.40
P28	0.00	0.00 10.44	-497.70 766.63	766.63	3464.23 -4232.72	3464.23	0.28 -0.28	1.71 -1.71	18.12

CASO: 1.3G1+1.4G2+0.98Q+0.84V4+1.4D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 12.84	706.10 -2145.00	706.10	-802.83 671.10	671.10	-0.63 0.63	-0.33 0.33	-34.46
P2	0.00	0.00 31.72	-367.06 988.64	988.64	253.20 -1475.49	253.20	0.30 -0.30	0.38 -0.38	-53.55
P3	0.00	0.00 31.63	-406.47 1607.19	1607.19	255.54 -479.28	255.54	0.45 -0.45	0.16 -0.16	-32.29
P4	0.00	0.00 11.11	462.83 -1118.01	462.83	56.18 -80.35	56.18	-0.35 0.35	0.03 -0.03	0.33
P5	0.00	0.00 6.34	48.92 -103.51	48.92	-868.41 1138.38	1138.38	-0.03 0.03	-0.45 0.45	111.97
P6	0.00	0.00 21.37	2.66 29.77	29.77	-1166.86 1589.38	1589.38	0.01 -0.01	-0.61 0.61	-12.20
P7	0.00	0.00 37.36	307.62 -696.33	307.62	477.34 668.35	668.35	-0.22 0.22	-0.04 0.04	-65.29
P8	0.00	0.00 30.38	-167.50 164.45	164.45	-282.02 311.24	311.24	0.07 -0.07	-0.13 0.13	0.60
P9	0.00	0.00 17.11	-244.15 464.53	464.53	-534.18 512.98	512.98	0.16 -0.16	-0.23 0.23	-14.38
P10	0.00	0.00 3.34	70.57 -37.04	70.57	-183.80 170.04	170.04	-0.02 0.02	-0.08 0.08	-39.13
P11	0.00	0.00 1.47	-569.44 475.36	475.36	-243.08 275.95	275.95	0.23 -0.23	-0.12 0.12	-5.07
P12	0.00	0.00 9.46	269.15 -294.14	269.15	28.19 144.90	144.90	-0.13 0.13	-0.03 0.03	-4.10
P13	0.00	0.00 8.66	-39.76 44.94	44.94	-475.08 596.80	596.80	0.02 -0.02	-0.24 0.24	1.13
P14	0.00	0.00 6.20	143.26 -163.86	143.26	-788.11 1057.04	1057.04	-0.07 0.07	-0.41 0.41	22.36
P15	0.00	0.00 11.45	-409.53 462.24	462.24	558.69 1114.48	1114.48	0.19 -0.19	-0.12 0.12	18.61
P16	0.00	0.00 18.00	218.61 737.01	737.01	160.02 640.09	640.09	0.12 -0.12	-0.11 0.11	0.00
P18	0.00	0.00 14.11	-94.56 95.12	95.12	1567.93 -2902.42	1567.93	0.04 -0.04	0.99 -0.99	-73.34
P19	0.00	0.00 7.15	-1217.88 1495.76	1495.76	-586.45 606.01	606.01	0.60 -0.60	-0.26 0.26	-11.32
P20	0.00	0.00 12.36	-181.95 173.01	173.01	596.93 817.63	817.63	0.08 -0.08	-0.05 0.05	45.11
P21	0.00	0.00 19.70	218.44 736.31	736.31	182.29 729.15	729.15	0.12 -0.12	-0.12 0.12	0.00
P22	0.00	0.00 15.80	-688.77 813.54	813.54	-914.19 -2170.54	0.00	0.33 -0.33	0.28 -0.28	40.91
P23	0.00	0.00 13.09	-573.98 574.96	574.96	596.14 955.30	955.30	0.26 -0.26	-0.08 0.08	64.33
P24	0.00	0.00 19.77	229.99 782.53	782.53	220.34 881.38	881.38	0.12 -0.12	-0.15 0.15	0.00
P25	0.00	0.00 14.65	-558.53 520.19	520.19	-872.37 -2067.12	0.00	0.24 -0.24	0.27 -0.27	-73.39
P26	0.00	0.00 9.07	-1368.77 1732.05	1732.05	-2222.77 2462.07	2462.07	0.69 -0.69	-1.04 1.04	34.02

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P27	0.00	0.00 18.30	874.31 498.53	874.31	-1446.37 1681.07	1681.07	-0.08 0.08	-0.69 0.69	-6.41
P28	0.00	0.00 10.75	-1376.44 1752.33	1752.33	3473.84 -4226.72	3473.84	0.70 -0.70	1.71 -1.71	-26.43

CASO: 1.3G1+1.4G2+0.98Q+1.4V1+0.84D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 12.76	1343.70 -2848.45	1343.70	-156.82 -27.29	0.00	-0.93 0.93	-0.03 0.03	-17.02
P2	0.00	0.00 31.91	431.52 144.27	431.52	433.95 -1518.45	433.95	-0.06 0.06	0.43 -0.43	-51.46
P3	0.00	0.00 31.39	-392.71 1629.01	1629.01	1076.76 -1337.11	1076.76	0.45 -0.45	0.54 -0.54	-25.35
P4	0.00	0.00 11.79	1123.21 -1827.54	1123.21	-461.48 476.11	476.11	-0.66 0.66	-0.21 0.21	6.73
P5	0.00	0.00 6.24	457.90 -566.69	457.90	64.20 -90.50	64.20	-0.23 0.23	0.03 -0.03	34.30
P6	0.00	0.00 21.44	-408.42 434.21	434.21	-689.66 1106.85	1106.85	0.19 -0.19	-0.40 0.40	-5.78
P7	0.00	0.00 37.84	-990.35 816.72	816.72	371.52 -52.69	371.52	0.40 -0.40	0.09 -0.09	-34.43
P8	0.00	0.00 30.67	-556.13 554.91	554.91	51.99 -29.42	51.99	0.25 -0.25	0.02 -0.02	1.56
P9	0.00	0.00 16.36	-1360.54 1651.79	1651.79	-118.16 75.74	75.74	0.67 -0.67	-0.04 0.04	-7.73
P10	0.00	0.00 4.32	-521.09 610.76	610.76	-1395.78 1595.31	1595.31	0.25 -0.25	-0.66 0.66	26.10
P11	0.00	0.00 0.95	-184.08 93.51	93.51	136.33 -116.77	136.33	0.06 -0.06	0.06 -0.06	-11.19
P12	0.00	0.00 9.33	-567.46 590.10	590.10	24.36 26.41	26.41	0.26 -0.26	0.00 0.00	-9.72
P13	0.00	0.00 8.26	-471.79 483.26	483.26	-141.53 256.28	256.28	0.21 -0.21	-0.09 0.09	-7.07
P14	0.00	0.00 6.33	499.69 -533.98	499.69	-943.10 1236.99	1236.99	-0.23 0.23	-0.48 0.48	22.28
P15	0.00	0.00 11.20	135.24 -134.69	135.24	266.83 353.28	353.28	-0.06 0.06	-0.02 0.02	-5.86
P16	0.00	0.00 17.99	7.76 31.04	31.04	-133.24 -239.40	0.00	0.01 -0.01	0.02 -0.02	0.00
P18	0.00	0.00 14.37	737.53 -778.28	737.53	2407.89 -4288.20	2407.89	-0.34 0.34	1.49 -1.49	-33.94
P19	0.00	0.00 6.82	-925.52 1195.71	1195.71	-146.68 113.89	113.89	0.47 -0.47	-0.06 0.06	-15.47
P20	0.00	0.00 12.10	297.85 -355.72	297.85	176.72 -505.17	176.72	-0.15 0.15	0.15 -0.15	11.52
P21	0.00	0.00 19.70	14.32 57.30	57.30	-270.63 -788.96	0.00	0.01 -0.01	0.12 -0.12	0.00
P22	0.00	0.00 16.07	-31.70 111.56	111.56	-1223.51 -3511.28	0.00	0.03 -0.03	0.51 -0.51	100.24
P23	0.00	0.00 12.89	-34.58 1.59	1.59	204.54 -403.01	204.54	0.01 -0.01	0.14 -0.14	17.08
P24	0.00	0.00 19.91	20.09 80.36	80.36	-236.19 -651.21	0.00	0.01 -0.01	0.09 -0.09	0.00
P25	0.00	0.00 14.89	117.76 -234.94	117.76	-1284.06 -3365.06	0.00	-0.08 0.08	0.46 -0.46	-55.42
P26	0.00	0.00 8.77	-987.29 1320.49	1320.49	-1499.12 1601.56	1601.56	0.51 -0.51	-0.69 0.69	1.26
P27	0.00	0.00 18.17	669.12 -76.27	669.12	-417.43 544.03	544.03	-0.17 0.17	-0.21 0.21	15.54
P28	0.00	0.00	-915.91	1216.43	4111.88	4111.88	0.47	2.03	-5.87

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		10.71	1216.43		-5022.06		-0.47	-2.03	
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CASO: 1.3G1+1.4G2+0.98Q+1.4V2+0.84D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 13.38	1391.49 -2894.89	1391.49	-1321.85 1227.18	1227.18	-0.95 0.95	-0.57 0.57	-17.20
P2	0.00	0.00 31.57	-1057.68 1708.81	1708.81	366.95 -1438.28	366.95	0.61 -0.61	0.40 -0.40	-48.74
P3	0.00	0.00 31.80	-366.90 1582.42	1582.42	-431.16 242.38	242.38	0.43 -0.43	-0.15 0.15	-24.27
P4	0.00	0.00 11.08	-76.46 -541.19	0.00	-512.80 532.31	532.31	-0.10 0.10	-0.23 0.23	6.41
P5	0.00	0.00 6.89	519.85 -611.55	519.85	-1815.17 2386.64	2386.64	-0.25 0.25	-0.93 0.93	25.31
P6	0.00	0.00 21.31	413.06 -374.71	413.06	-654.96 1072.45	1072.45	-0.18 0.18	-0.38 0.38	-5.06
P7	0.00	0.00 37.82	1618.35 -2228.54	1618.35	382.98 -91.55	382.98	-0.85 0.85	0.11 -0.11	-28.01
P8	0.00	0.00 30.59	221.12 -223.76	221.12	58.47 -37.60	58.47	-0.10 0.10	0.02 -0.02	1.80
P9	0.00	0.00 17.52	871.97 -719.30	871.97	-98.08 48.99	48.99	-0.35 0.35	-0.03 0.03	-7.26
P10	0.00	0.00 2.79	-397.40 477.49	477.49	1061.02 -1294.96	1061.02	0.19 -0.19	0.52 -0.52	53.32
P11	0.00	0.00 1.42	-144.64 51.84	51.84	-649.25 696.32	696.32	0.04 -0.04	-0.30 0.30	9.30
P12	0.00	0.00 9.13	1142.30 -1216.33	1142.30	26.06 18.73	26.06	-0.52 0.52	0.00 0.00	11.99
P13	0.00	0.00 8.37	411.65 -414.17	411.65	-132.35 245.56	245.56	-0.18 0.18	-0.08 0.08	8.45
P14	0.00	0.00 6.26	-238.28 234.67	234.67	-1132.03 1406.30	1406.30	0.11 -0.11	-0.56 0.56	30.66
P15	0.00	0.00 11.50	223.07 -196.09	223.07	811.96 1979.69	1979.69	-0.09 0.09	-0.26 0.26	-28.55
P16	0.00	0.00 17.85	-3.20 -12.79	0.00	471.56 1592.68	1592.68	0.00 0.00	-0.25 0.25	0.00
P18	0.00	0.00 13.53	474.80 -534.55	474.80	678.35 -1408.13	678.35	-0.22 0.22	0.46 -0.46	4.60
P19	0.00	0.00 7.33	-1032.43 1289.47	1289.47	-1095.54 1172.57	1172.57	0.52 -0.52	-0.50 0.50	7.71
P20	0.00	0.00 12.59	357.30 -403.64	357.30	1036.72 2235.47	2235.47	-0.17 0.17	-0.27 0.27	8.09
P21	0.00	0.00 19.61	5.38 21.51	21.51	661.58 2352.78	2352.78	0.00 0.00	-0.38 0.38	0.00
P22	0.00	0.00 15.44	-117.84 189.72	189.72	-575.93 -743.89	0.00	0.07 -0.07	0.04 -0.04	22.89
P23	0.00	0.00 13.39	-57.02 -4.38	0.00	1010.67 2322.46	2322.46	0.01 -0.01	-0.29 0.29	31.53
P24	0.00	0.00 19.80	10.55 42.20	42.20	682.63 2436.99	2436.99	0.01 -0.01	-0.39 0.39	0.00
P25	0.00	0.00 14.52	23.22 -95.66	23.22	-473.88 -737.86	0.00	-0.03 0.03	0.06 -0.06	-30.76
P26	0.00	0.00 9.11	-1015.35 1315.88	1315.88	-2914.01 3302.57	3302.57	0.52 -0.52	-1.38 1.38	4.15
P27	0.00	0.00 18.08	650.45 -102.85	650.45	-2455.81 2799.81	2799.81	-0.17 0.17	-1.17 1.17	-37.35
P28	0.00	0.00 10.48	-958.23 1302.52	1302.52	2826.19 -3437.38	2826.19	0.50 -0.50	1.39 -1.39	-2.44





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**CASO: 1.3G1+1.4G2+0.98Q+1.4V3+0.84D3**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 13.37	2237.38 -3825.75	2237.38	-657.11 507.87	507.87	-1.35 1.35	-0.26 0.26	5.40
P2	0.00	0.00 31.77	-243.34 846.58	846.58	585.55 -1482.03	585.55	0.24 -0.24	0.46 -0.46	-46.07
P3	0.00	0.00 31.55	-337.47 1603.68	1603.68	409.74 -635.13	409.74	0.43 -0.43	0.23 -0.23	-14.64
P4	0.00	0.00 11.86	601.62 -1270.26	601.62	-1202.36 1273.48	1273.48	-0.42 0.42	-0.55 0.55	14.74
P5	0.00	0.00 6.87	1102.21 -1264.24	1102.21	-883.73 1159.79	1159.79	-0.53 0.53	-0.45 0.45	-75.24
P6	0.00	0.00 21.39	1.85 29.76	29.76	-23.44 433.98	433.98	0.01 -0.01	-0.10 0.10	3.34
P7	0.00	0.00 38.46	322.14 -718.29	322.14	265.11 -1055.08	265.11	-0.23 0.23	0.29 -0.29	13.03
P8	0.00	0.00 30.97	-167.59 167.12	167.12	500.75 -488.65	500.75	0.07 -0.07	0.22 -0.22	3.09
P9	0.00	0.00 16.72	-244.62 468.64	468.64	452.55 -530.55	452.55	0.16 -0.16	0.22 -0.22	1.55
P10	0.00	0.00 3.85	-1188.41 1341.70	1341.70	-145.14 123.35	123.35	0.56 -0.56	-0.06 0.06	138.18
P11	0.00	0.00 0.82	367.47 -455.84	367.47	-274.50 308.38	308.38	-0.18 0.18	-0.13 0.13	4.47
P12	0.00	0.00 8.91	312.56 -339.18	312.56	24.05 -139.93	24.05	-0.14 0.14	0.04 -0.04	7.84
P13	0.00	0.00 7.87	-16.70 20.24	20.24	309.78 -205.71	309.78	0.01 -0.01	0.11 -0.11	0.62
P14	0.00	0.00 6.43	113.75 -130.52	113.75	-1378.58 1682.94	1682.94	-0.05 0.05	-0.68 0.68	29.65
P15	0.00	0.00 11.21	998.04 -1038.00	998.04	513.60 1230.84	1230.84	-0.45 0.45	-0.16 0.16	-62.20
P16	0.00	0.00 17.81	-290.54 -939.77	0.00	180.06 720.24	720.24	-0.14 0.14	-0.12 0.12	0.00
P18	0.00	0.00 13.73	1569.52 -1688.52	1569.52	1512.84 -2782.21	1512.84	-0.72 0.72	0.95 -0.95	65.04
P19	0.00	0.00 6.97	-651.38 896.17	896.17	-667.16 692.63	692.63	0.34 -0.34	-0.30 0.30	6.21
P20	0.00	0.00 12.32	1038.00 -1148.84	1038.00	619.03 926.56	926.56	-0.49 0.49	-0.07 0.07	-35.20
P21	0.00	0.00 19.60	-272.79 -868.77	0.00	212.47 849.88	849.88	-0.13 0.13	-0.14 0.14	0.00
P22	0.00	0.00 15.69	769.79 -759.64	769.79	-880.88 -2072.40	0.00	-0.34 0.34	0.26 -0.26	87.39
P23	0.00	0.00 13.21	690.36 -803.60	690.36	622.64 965.16	965.16	-0.33 0.33	-0.08 0.08	-26.67
P24	0.00	0.00 19.96	-275.64 -880.17	0.00	226.92 907.67	907.67	-0.13 0.13	-0.15 0.15	0.00
P25	0.00	0.00 14.78	935.73 -1106.91	935.73	-887.76 -2031.10	0.00	-0.45 0.45	0.25 -0.25	-4.59
P26	0.00	0.00 8.75	-486.77 741.37	741.37	-2186.19 2439.72	2439.72	0.27 -0.27	-1.03 1.03	-37.01
P27	0.00	0.00 17.90	395.15 -869.06	395.15	-1424.22 1660.30	1660.30	-0.28 0.28	-0.69 0.69	-16.58
P28	0.00	0.00 10.39	-330.05 581.68	581.68	3463.18 -4233.91	3463.18	0.20 -0.20	1.71 -1.71	24.09

**CASO: 1.3G1+1.4G2+0.98Q+1.4V4+0.84D4**

Elemento	Carga (kgf/m)	Rd Nd	Mxi Mxf	MxMáx (kgf.m)	Myi Myf	MyMáx (kgf.m)	Vxi Vxf	Vyi Vyf	Mtd (kgf/m)
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		(tf)	(kgf.m)		(kgf.m)		(tf)	(tf)	
P1	0.00	0.00 12.76	497.81 -1917.59	497.81	-821.56 692.02	692.02	-0.54 0.54	-0.34 0.34	-39.62
P2	0.00	0.00 31.71	-382.82 1006.49	1006.49	215.34 -1474.70	215.34	0.31 -0.31	0.38 -0.38	-54.13
P3	0.00	0.00 31.64	-422.14 1607.74	1607.74	235.86 -459.61	235.86	0.45 -0.45	0.15 -0.15	-34.98
P4	0.00	0.00 11.01	445.14 -1098.47	445.14	228.08 -265.07	228.08	-0.34 0.34	0.11 -0.11	-1.60
P5	0.00	0.00 6.26	-124.46 86.00	86.00	-867.24 1136.35	1136.35	0.05 -0.05	-0.45 0.45	134.85
P6	0.00	0.00 21.37	2.79 29.75	29.75	-1321.18 1745.32	1745.32	0.01 -0.01	-0.68 0.68	-14.18
P7	0.00	0.00 37.20	305.86 -693.54	305.86	489.39 910.84	910.84	-0.22 0.22	-0.09 0.09	-75.47
P8	0.00	0.00 30.30	-167.42 164.03	164.03	-390.30 421.62	421.62	0.07 -0.07	-0.18 0.18	0.26
P9	0.00	0.00 17.17	-243.95 463.85	463.85	-668.79 655.28	655.28	0.16 -0.16	-0.29 0.29	-16.55
P10	0.00	0.00 3.25	269.91 -253.45	269.91	-189.62 177.00	177.00	-0.12 0.12	-0.08 0.08	-58.77
P11	0.00	0.00 1.56	-696.18 601.20	601.20	-238.43 271.17	271.17	0.29 -0.29	-0.11 0.11	-6.36
P12	0.00	0.00 9.54	262.29 -287.05	262.29	26.37 185.07	185.07	-0.12 0.12	-0.04 0.04	-5.58
P13	0.00	0.00 8.77	-43.43 48.85	48.85	-583.66 707.55	707.55	0.02 -0.02	-0.29 0.29	0.76
P14	0.00	0.00 6.16	147.66 -168.80	147.66	-696.55 960.35	960.35	-0.07 0.07	-0.37 0.37	23.29
P15	0.00	0.00 11.49	-639.73 707.22	707.22	565.19 1102.13	1102.13	0.30 -0.30	-0.12 0.12	27.79
P16	0.00	0.00 18.03	295.10 958.02	958.02	158.26 633.04	633.04	0.15 -0.15	-0.11 0.11	0.00
P18	0.00	0.00 14.16	-357.19 375.69	375.69	1573.40 -2914.12	1573.40	0.16 -0.16	1.00 -1.00	-94.39
P19	0.00	0.00 7.18	-1306.57 1589.01	1589.01	-575.07 593.84	593.84	0.64 -0.64	-0.26 0.26	-13.97
P20	0.00	0.00 12.37	-382.84 389.49	389.49	594.41 803.74	803.74	0.17 -0.17	-0.05 0.05	54.81
P21	0.00	0.00 19.71	292.49 947.58	947.58	178.49 713.94	713.94	0.15 -0.15	-0.12 0.12	0.00
P22	0.00	0.00 15.82	-919.32 1060.92	1060.92	-918.56 -2182.77	0.00	0.44 -0.44	0.28 -0.28	35.74
P23	0.00	0.00 13.07	-781.96 800.81	800.81	592.57 954.30	954.30	0.35 -0.35	-0.08 0.08	75.28
P24	0.00	0.00 19.75	306.28 1002.73	1002.73	219.53 878.12	878.12	0.15 -0.15	-0.15 0.15	0.00
P25	0.00	0.00 14.62	-794.75 776.31	776.31	-870.18 -2071.81	0.00	0.35 -0.35	0.27 -0.27	-81.60
P26	0.00	0.00 9.12	-1515.87 1895.00	1895.00	-2226.94 2464.41	2464.41	0.76 -0.76	-1.04 1.04	42.42
P27	0.00	0.00 18.35	924.42 689.94	924.42	-1449.02 1683.53	1683.53	-0.05 0.05	-0.70 0.70	-5.23
P28	0.00	0.00 10.81	-1544.09 1937.28	1937.28	3474.89 -4225.53	3474.89	0.77 -0.77	1.71 -1.71	-32.40

CASO: 1.3G1+1.4G2+1.2D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 6.14	754.30 -1062.00	754.30	-544.12 452.20	452.20	-0.40 0.40	-0.22 0.22	-2.72



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Plena**

**Leilson Campos  
Rezende  
Rezende Engenharia**

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P2	0.00	0.00 11.71	232.73 -30.32	232.73	279.50 -534.13	279.50	-0.06 0.06	0.18 -0.18	-10.14
P3	0.00	0.00 11.17	-255.00 547.67	547.67	354.96 -406.31	354.96	0.18 -0.18	0.17 -0.17	-7.66
P4	0.00	0.00 5.42	294.23 -440.19	294.23	-418.64 511.01	511.01	-0.16 0.16	-0.21 0.21	-0.12
P5	0.00	0.00 6.35	506.86 -610.14	506.86	-655.55 780.73	780.73	-0.25 0.25	-0.32 0.32	9.70
P6	0.00	0.00 11.89	-71.71 98.67	98.67	-267.14 350.72	350.72	0.04 -0.04	-0.14 0.14	-1.41
P7	0.00	0.00 16.38	-106.46 -7.31	0.00	105.65 -88.67	105.65	0.02 -0.02	0.04 -0.04	-7.63
P8	0.00	0.00 12.48	-192.20 157.88	157.88	40.86 -40.60	40.86	0.08 -0.08	0.02 -0.02	-0.87
P9	0.00	0.00 9.31	-234.58 313.35	313.35	-247.90 270.27	270.27	0.12 -0.12	-0.12 0.12	-2.24
P10	0.00	0.00 4.46	-407.38 489.53	489.53	-340.06 373.41	373.41	0.20 -0.20	-0.16 0.16	10.87
P11	0.00	0.00 2.68	-105.69 121.12	121.12	-200.26 223.60	223.60	0.05 -0.05	-0.09 0.09	3.97
P12	0.00	0.00 8.07	183.13 -200.80	183.13	-0.91 16.45	16.45	-0.09 0.09	0.00 0.00	6.78
P13	0.00	0.00 7.74	-79.65 83.90	83.90	-97.11 126.27	126.27	0.04 -0.04	-0.05 0.05	2.04
P14	0.00	0.00 6.29	172.02 -192.53	172.02	-1003.98 1289.70	1289.70	-0.08 0.08	-0.51 0.51	19.45
P15	0.00	0.00 11.33	194.38 -182.21	194.38	497.96 1063.98	1063.98	-0.08 0.08	-0.13 0.13	-14.61
P16	0.00	0.00 18.35	4.16 16.63	16.63	136.60 551.77	551.77	0.00 0.00	-0.09 0.09	0.00
P18	0.00	0.00 14.03	545.25 -587.29	545.25	1648.61 -3033.34	1648.61	-0.25 0.25	1.04 -1.04	-20.25
P19	0.00	0.00 7.05	-993.70 1258.67	1258.67	-562.51 576.89	576.89	0.50 -0.50	-0.25 0.25	-5.58
P20	0.00	0.00 12.31	341.45 -395.88	341.45	542.60 688.73	688.73	-0.16 0.16	-0.03 0.03	9.26
P21	0.00	0.00 19.65	5.13 20.52	20.52	141.41 570.98	570.98	0.00 0.00	-0.10 0.10	0.00
P22	0.00	0.00 15.79	-130.92 210.82	210.82	-955.02 -2302.76	0.00	0.08 -0.08	0.30 -0.30	67.87
P23	0.00	0.00 13.11	-25.73 -20.85	0.00	544.32 777.01	777.01	0.00 0.00	-0.05 0.05	22.27
P24	0.00	0.00 19.86	11.75 47.01	47.01	167.78 676.49	676.49	0.01 -0.01	-0.11 0.11	0.00
P25	0.00	0.00 14.72	13.34 -105.87	13.34	-942.60 -2227.64	0.00	-0.03 0.03	0.29 -0.29	-41.77
P26	0.00	0.00 8.91	-986.06 1304.06	1304.06	-2126.48 2351.74	2351.74	0.51 -0.51	-1.00 1.00	1.91
P27	0.00	0.00 18.13	657.50 -102.94	657.50	-1317.00 1537.71	1537.71	-0.17 0.17	-0.63 0.63	-6.54
P28	0.00	0.00 10.63	-980.10 1303.23	1303.23	3539.17 -4321.84	3539.17	0.51 -0.51	1.75 -1.75	-1.30

**CASO: 1.3G1+1.4G2+1.2D2**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 6.24	735.46 -1040.97	735.46	-749.07 674.34	674.34	-0.39 0.39	-0.32 0.32	-4.81
P2	0.00	0.00 11.66	-29.68 246.23	246.23	265.23 -520.05	265.23	0.06 -0.06	0.17 -0.17	-11.85
P3	0.00	0.00	-246.61	539.32	89.05	89.05	0.17	0.05	-9.12

		11.24	539.32		-127.02		-0.17	-0.05	
P4	0.00	0.00 5.30	83.81 -213.40	83.81	-446.46 540.44	540.44	-0.07 0.07	-0.22 0.22	-1.96
P5	0.00	0.00 6.45	506.03 -606.45	506.03	-953.96 1180.54	1180.54	-0.25 0.25	-0.47 0.47	11.34
P6	0.00	0.00 11.87	62.42 -33.27	62.42	-280.98 364.84	364.84	-0.02 0.02	-0.14 0.14	-2.05
P7	0.00	0.00 16.37	313.80 -501.45	313.80	106.98 -78.55	106.98	-0.18 0.18	0.04 -0.04	-11.12
P8	0.00	0.00 12.47	-65.48 30.95	30.95	44.94 -44.92	44.94	0.02 -0.02	0.02 -0.02	-1.39
P9	0.00	0.00 9.49	128.51 -73.00	128.51	-230.19 250.82	250.82	-0.04 0.04	-0.11 0.11	-4.20
P10	0.00	0.00 4.22	-406.88 488.88	488.88	55.88 -95.84	55.88	0.20 -0.20	0.03 -0.03	18.03
P11	0.00	0.00 2.75	-115.33 130.31	130.31	-301.52 328.87	328.87	0.05 -0.05	-0.14 0.14	3.51
P12	0.00	0.00 8.05	401.57 -433.97	401.57	-0.87 17.92	17.92	-0.19 0.19	0.00 0.00	7.43
P13	0.00	0.00 7.75	34.93 -32.63	34.93	-92.75 121.71	121.71	-0.02 0.02	-0.05 0.05	1.34
P14	0.00	0.00 6.28	77.44 -93.27	77.44	-1028.93 1311.44	1311.44	-0.04 0.04	-0.52 0.52	21.31
P15	0.00	0.00 11.37	194.28 -178.31	194.28	581.40 1271.79	1271.79	-0.08 0.08	-0.15 0.15	-18.33
P16	0.00	0.00 18.33	6.22 24.89	24.89	201.79 801.79	801.79	0.00 0.00	-0.13 0.13	0.00
P18	0.00	0.00 13.92	530.87 -576.92	530.87	1445.65 -2670.04	1445.65	-0.25 0.25	0.91 -0.91	-18.47
P19	0.00	0.00 7.11	-1007.97 1270.48	1270.48	-675.41 705.01	705.01	0.51 -0.51	-0.31 0.31	-3.18
P20	0.00	0.00 12.37	340.60 -392.52	340.60	671.17 1041.00	1041.00	-0.16 0.16	-0.08 0.08	9.38
P21	0.00	0.00 19.63	7.29 29.16	29.16	249.48 992.55	992.55	0.00 0.00	-0.17 0.17	0.00
P22	0.00	0.00 15.71	-126.14 203.94	203.94	-845.52 -1951.95	0.00	0.07 -0.07	0.25 -0.25	59.94
P23	0.00	0.00 13.17	-38.47 -11.16	0.00	671.07 1141.95	1141.95	0.01 -0.01	-0.10 0.10	25.02
P24	0.00	0.00 19.85	13.94 55.77	55.77	278.58 1108.95	1108.95	0.01 -0.01	-0.18 0.18	0.00
P25	0.00	0.00 14.67	17.98 -106.05	17.98	-815.20 -1875.86	0.00	-0.03 0.03	0.24 -0.24	-40.01
P26	0.00	0.00 8.96	-996.93 1311.15	1311.15	-2287.77 2554.14	2554.14	0.51 -0.51	-1.08 1.08	2.69
P27	0.00	0.00 18.12	657.73 -94.88	657.73	-1558.71 1808.76	1808.76	-0.17 0.17	-0.75 0.75	-13.89
P28	0.00	0.00 10.60	-973.09 1301.14	1301.14	3395.64 -4134.41	3395.64	0.51 -0.51	1.67 -1.67	-2.41

CASO: 1.3G1+1.4G2+1.2D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 6.26	931.88 -1258.03	931.88	-627.63 541.96	541.96	-0.49 0.49	-0.26 0.26	1.37
P2	0.00	0.00 11.69	117.78 89.02	117.78	320.83 -528.00	320.83	-0.01 0.01	0.19 -0.19	-9.62
P3	0.00	0.00 11.20	-249.11 543.15	543.15	242.23 -287.33	242.23	0.18 -0.18	0.12 -0.12	-6.54
P4	0.00	0.00 5.45	207.24 -346.65	207.24	-585.48 690.44	690.44	-0.12 0.12	-0.28 0.28	0.75

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P5	0.00	0.00 6.45	602.82 -716.17	602.82	-807.60 984.19	984.19	-0.29 0.29	-0.40 0.40	-15.11
P6	0.00	0.00 11.88	-4.73 32.68	32.68	-133.13 215.38	215.38	0.01 -0.01	-0.08 0.08	0.31
P7	0.00	0.00 16.50	105.67 -257.26	105.67	62.37 -285.44	62.37	-0.08 0.08	0.08 -0.08	0.70
P8	0.00	0.00 12.54	-128.78 94.67	94.67	136.57 -138.75	136.57	0.05 -0.05	0.06 -0.06	-0.82
P9	0.00	0.00 9.35	-52.94 120.54	120.54	-118.97 133.49	133.49	0.04 -0.04	-0.06 0.06	-1.27
P10	0.00	0.00 4.39	-530.78 626.64	626.64	-137.96 133.74	133.74	0.26 -0.26	-0.06 0.06	40.90
P11	0.00	0.00 2.64	4.65 11.11	11.11	-254.33 279.80	279.80	0.00 0.00	-0.12 0.12	4.92
P12	0.00	0.00 8.00	296.63 -321.85	296.63	-3.94 -16.06	0.00	-0.14 0.14	0.00 0.00	8.72
P13	0.00	0.00 7.65	-20.13 23.21	23.21	-1.03 27.70	27.70	0.01 -0.01	-0.01 0.01	1.16
P14	0.00	0.00 6.31	121.54 -139.25	121.54	-1076.52 1364.62	1364.62	-0.06 0.06	-0.54 0.54	23.33
P15	0.00	0.00 11.33	324.71 -319.63	324.71	534.57 1185.82	1185.82	-0.14 0.14	-0.14 0.14	-28.28
P16	0.00	0.00 18.32	-49.24 -191.59	0.00	172.68 690.70	690.70	-0.03 0.03	-0.12 0.12	0.00
P18	0.00	0.00 13.93	702.41 -759.26	702.41	1538.24 -2832.03	1538.24	-0.32 0.32	0.97 -0.97	-4.85
P19	0.00	0.00 7.06	-944.12 1203.88	1203.88	-628.38 651.11	651.11	0.48 -0.48	-0.28 0.28	-2.52
P20	0.00	0.00 12.34	452.56 -516.32	452.56	610.11 879.16	879.16	-0.22 0.22	-0.06 0.06	-1.79
P21	0.00	0.00 19.63	-46.02 -178.74	0.00	199.45 797.81	797.81	-0.03 0.03	-0.13 0.13	0.00
P22	0.00	0.00 15.74	15.13 51.03	51.03	-896.03 -2114.18	0.00	0.01 -0.01	0.27 -0.27	70.80
P23	0.00	0.00 13.15	83.73 -143.28	83.73	610.97 961.04	961.04	-0.05 0.05	-0.08 0.08	11.00
P24	0.00	0.00 19.88	-40.85 -158.05	0.00	224.07 896.26	896.26	-0.03 0.03	-0.15 0.15	0.00
P25	0.00	0.00 14.71	162.82 -267.39	162.82	-880.67 -2047.13	0.00	-0.10 0.10	0.26 -0.26	-31.25
P26	0.00	0.00 8.91	-912.85 1216.84	1216.84	-2201.80 2449.47	2449.47	0.47 -0.47	-1.03 1.03	-7.72
P27	0.00	0.00 18.08	582.95 -260.15	582.95	-1434.76 1670.30	1670.30	-0.19 0.19	-0.69 0.69	-11.67
P28	0.00	0.00 10.57	-875.94 1186.78	1186.78	3465.67 -4228.77	3465.67	0.46 -0.46	1.71 -1.71	5.29

CASO: 1.3G1+1.4G2+1.2D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 6.13	557.88 -844.94	557.88	-665.56 584.57	584.57	-0.31 0.31	-0.28 0.28	-8.91
P2	0.00	0.00 11.68	85.28 126.89	126.89	223.90 -526.17	223.90	0.01 -0.01	0.17 -0.17	-12.37
P3	0.00	0.00 11.22	-252.49 543.84	543.84	201.78 -246.00	201.78	0.18 -0.18	0.10 -0.10	-10.23
P4	0.00	0.00 5.26	170.79 -306.94	170.79	-279.62 361.00	361.00	-0.11 0.11	-0.14 0.14	-2.83
P5	0.00	0.00 6.35	410.07 -500.43	410.07	-801.91 977.08	977.08	-0.20 0.20	-0.40 0.40	36.15
P6	0.00	0.00	-4.56	32.72	-414.99	500.18	0.01	-0.20	-3.77



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		11.88	32.72		500.18		-0.01	0.20	
P7	0.00	0.00 16.25	101.66 -251.50	101.66	150.25 118.22	150.25	-0.08 0.08	0.01 -0.01	-19.45
P8	0.00	0.00 12.40	-128.90 94.15	94.15	-50.77 53.23	53.23	0.05 -0.05	-0.02 0.02	-1.44
P9	0.00	0.00 9.45	-53.12 119.80	119.80	-359.13 387.60	387.60	0.04 -0.04	-0.17 0.17	-5.17
P10	0.00	0.00 4.29	-283.48 351.77	351.77	-146.21 143.83	143.83	0.14 -0.14	-0.06 0.06	-12.00
P11	0.00	0.00 2.80	-225.67 240.33	240.33	-247.45 272.67	272.67	0.10 -0.10	-0.12 0.12	2.57
P12	0.00	0.00 8.12	288.07 -312.92	288.07	2.17 50.43	50.43	-0.13 0.13	-0.01 0.01	5.49
P13	0.00	0.00 7.84	-24.60 28.06	28.06	-188.83 220.28	220.28	0.01 -0.01	-0.09 0.09	2.22
P14	0.00	0.00 6.26	127.92 -146.55	127.92	-956.39 1236.51	1236.51	-0.06 0.06	-0.49 0.49	17.43
P15	0.00	0.00 11.37	63.95 -40.89	63.95	544.79 1149.94	1149.94	-0.02 0.02	-0.13 0.13	-4.66
P16	0.00	0.00 18.36	59.61 233.10	233.10	165.71 662.86	662.86	0.04 -0.04	-0.11 0.11	0.00
P18	0.00	0.00 14.01	373.70 -404.96	373.70	1556.03 -2871.36	1556.03	-0.17 0.17	0.98 -0.98	-33.87
P19	0.00	0.00 7.10	-1057.55 1325.27	1325.27	-609.53 630.80	630.80	0.53 -0.53	-0.28 0.28	-6.24
P20	0.00	0.00 12.35	229.49 -272.08	229.49	603.67 850.58	850.58	-0.11 0.11	-0.05 0.05	20.44
P21	0.00	0.00 19.65	58.44 228.41	228.41	191.43 765.72	765.72	0.04 -0.04	-0.13 0.13	0.00
P22	0.00	0.00 15.77	-272.20 363.73	363.73	-904.51 -2140.54	0.00	0.14 -0.14	0.27 -0.27	57.00
P23	0.00	0.00 13.13	-147.93 111.28	111.28	604.43 957.92	957.92	0.06 -0.06	-0.08 0.08	36.29
P24	0.00	0.00 19.84	66.55 260.83	260.83	222.29 889.17	889.17	0.04 -0.04	-0.15 0.15	0.00
P25	0.00	0.00 14.68	-131.49 55.46	55.46	-877.13 -2056.37	0.00	0.04 -0.04	0.26 -0.26	-50.52
P26	0.00	0.00 8.96	-1070.14 1398.37	1398.37	-2212.45 2456.41	2456.41	0.55 -0.55	-1.04 1.04	12.32
P27	0.00	0.00 18.17	732.27 62.34	732.27	-1440.95 1676.16	1676.16	-0.15 0.15	-0.69 0.69	-8.76
P28	0.00	0.00 10.65	-1077.25 1417.60	1417.60	3469.14 -4227.48	3469.14	0.55 -0.55	1.71 -1.71	-8.99


**CASO: 1.3G1+1.4G2+1.4Q**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 16.02	1634.47 -3651.75	1634.47	-779.08 615.66	615.66	-1.17 1.17	-0.31 0.31	-22.83
P2	0.00	0.00 40.34	-490.77 1277.36	1277.36	455.34 -1886.06	455.34	0.39 -0.39	0.52 -0.52	-66.86
P3	0.00	0.00 40.34	-435.09 2060.95	2060.95	366.00 -667.67	366.00	0.55 -0.55	0.23 -0.23	-31.85
P4	0.00	0.00 14.04	666.67 -1551.89	666.67	-510.54 494.99	494.99	-0.49 0.49	-0.22 0.22	9.83
P5	0.00	0.00 6.64	481.35 -580.90	481.35	-905.80 1219.83	1219.83	-0.24 0.24	-0.47 0.47	38.07
P6	0.00	0.00 25.45	5.30 28.49	28.49	-842.99 1403.31	1403.31	0.01 -0.01	-0.50 0.50	-7.00
P7	0.00	0.00 47.03	404.14 -899.43	404.14	493.37 -67.20	493.37	-0.29 0.29	0.12 -0.12	-40.58

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P8	0.00	0.00 38.41	-184.08 196.07	196.07	60.51 -29.55	60.51	0.08 -0.08	0.02 -0.02	2.88
P9	0.00	0.00 20.17	-326.25 614.56	614.56	-52.01 -22.57	0.00	0.21 -0.21	-0.01 0.01	-9.33
P10	0.00	0.00 3.22	-481.58 567.66	567.66	-178.22 155.06	155.06	0.23 -0.23	-0.07 0.07	50.53
P11	0.00	0.00 0.53	-187.43 49.94	49.94	-258.85 295.58	295.58	0.05 -0.05	-0.12 0.12	-2.95
P12	0.00	0.00 9.73	285.31 -311.29	285.31	36.39 24.88	36.39	-0.13 0.13	0.00 0.00	-1.43
P13	0.00	0.00 8.56	-33.37 38.36	38.36	-154.94 305.32	305.32	0.02 -0.02	-0.10 0.10	0.27
P14	0.00	0.00 6.30	133.27 -152.55	133.27	-1046.61 1330.68	1330.68	-0.06 0.06	-0.53 0.53	29.08
P15	0.00	0.00 11.35	172.65 -159.02	172.65	539.27 1165.89	1165.89	-0.07 0.07	-0.14 0.14	-17.52
P16	0.00	0.00 17.74	1.04 4.14	4.14	169.15 676.58	676.58	0.00 0.00	-0.11 0.11	0.00
P18	0.00	0.00 13.94	635.35 -688.26	635.35	1541.40 -2846.65	1541.40	-0.29 0.29	0.98 -0.98	-12.67
P19	0.00	0.00 7.07	-969.61 1233.17	1233.17	-622.04 644.21	644.21	0.49 -0.49	-0.28 0.28	-3.67
P20	0.00	0.00 12.34	321.81 -373.45	321.81	606.65 865.27	865.27	-0.15 0.15	-0.06 0.06	10.01
P21	0.00	0.00 19.66	11.41 45.65	45.65	195.49 781.97	781.97	0.01 -0.01	-0.13 0.13	0.00
P22	0.00	0.00 15.75	-51.72 126.32	126.32	-899.48 -2127.68	0.00	0.04 -0.04	0.27 -0.27	60.56
P23	0.00	0.00 13.14	-51.67 4.87	4.87	607.57 959.83	959.83	0.01 -0.01	-0.08 0.08	24.59
P24	0.00	0.00 19.85	16.38 65.52	65.52	223.24 892.97	892.97	0.01 -0.01	-0.15 0.15	0.00
P25	0.00	0.00 14.70	93.99 -190.73	93.99	-878.99 -2051.33	0.00	-0.06 0.06	0.26 -0.26	-44.04
P26	0.00	0.00 8.94	-1005.53 1322.72	1322.72	-2206.32 2451.69	2451.69	0.52 -0.52	-1.04 1.04	2.89
P27	0.00	0.00 18.13	660.71 -85.56	660.71	-1436.09 1671.36	1671.36	-0.17 0.17	-0.69 0.69	-11.20
P28	0.00	0.00 10.59	-920.13 1241.17	1241.17	3469.73 -4230.40	3469.73	0.48 -0.48	1.71 -1.71	-5.14


CASO: 1.3G1+1.4G2+1.4Q+0.84V1+0.84D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 15.82	1622.77 -3640.76	1622.77	-400.88 208.22	208.22	-1.17 1.17	-0.14 0.14	-22.48
P2	0.00	0.00 40.45	-7.28 769.28	769.28	477.44 -1912.08	477.44	0.17 -0.17	0.53 -0.53	-67.43
P3	0.00	0.00 40.20	-444.01 2076.10	2076.10	855.60 -1180.62	855.60	0.56 -0.56	0.45 -0.45	-31.97
P4	0.00	0.00 14.27	1056.03 -1969.55	1056.03	-491.25 474.01	474.01	-0.67 0.67	-0.21 0.21	10.18
P5	0.00	0.00 6.43	462.88 -567.96	462.88	-300.21 420.71	420.71	-0.23 0.23	-0.16 0.16	40.54
P6	0.00	0.00 25.49	-259.92 289.63	289.63	-851.46 1411.65	1411.65	0.12 -0.12	-0.50 0.50	-7.13
P7	0.00	0.00 47.04	-437.30 83.33	83.33	489.74 -56.96	489.74	0.12 -0.12	0.12 -0.12	-42.02
P8	0.00	0.00 38.44	-434.99 447.44	447.44	57.99 -26.49	57.99	0.20 -0.20	0.02 -0.02	2.88
P9	0.00	0.00	-1046.83	1379.97	-60.51	0.00	0.54	-0.01	-9.20

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		19.80	1379.97		-11.82		-0.54	0.01	
P10	0.00	0.00 3.71	-518.76 607.73	607.73	-970.69 1087.83	1087.83	0.25 -0.25	-0.46 0.46	41.36
P11	0.00	0.00 0.38	-197.92 61.16	61.16	-9.00 36.91	36.91	0.06 -0.06	-0.01 0.01	-9.04
P12	0.00	0.00 9.79	-258.20 263.29	263.29	35.88 26.98	35.88	0.12 -0.12	0.00 0.00	-8.03
P13	0.00	0.00 8.53	-314.44 323.91	323.91	-158.31 309.17	309.17	0.14 -0.14	-0.10 0.10	-4.29
P14	0.00	0.00 6.32	367.90 -397.04	367.90	-986.44 1276.84	1276.84	-0.17 0.17	-0.50 0.50	26.31
P15	0.00	0.00 11.25	146.32 -141.15	146.32	364.05 648.87	648.87	-0.06 0.06	-0.06 0.06	-10.19
P16	0.00	0.00 17.78	4.03 16.14	16.14	-21.42 91.96	91.96	0.00 0.00	-0.03 0.03	0.00
P18	0.00	0.00 14.20	716.19 -762.83	716.19	2088.67 -3761.53	2088.67	-0.33 0.33	1.30 -1.30	-24.48
P19	0.00	0.00 6.91	-935.53 1203.39	1203.39	-321.57 308.67	308.67	0.48 -0.48	-0.14 0.14	-10.96
P20	0.00	0.00 12.19	304.10 -359.55	304.10	330.65 -6.24	330.65	-0.15 0.15	0.07 -0.07	11.02
P21	0.00	0.00 19.69	13.79 55.17	55.17	-99.30 -219.57	0.00	0.01 -0.01	0.03 -0.03	0.00
P22	0.00	0.00 15.95	-26.55 103.84	103.84	-1109.09 -3007.01	0.00	0.03 -0.03	0.42 -0.42	84.87
P23	0.00	0.00 12.98	-43.15 5.30	5.30	347.98 91.10	347.98	0.01 -0.01	0.06 -0.06	19.87
P24	0.00	0.00 19.89	18.93 75.74	75.74	-67.92 -94.04	0.00	0.01 -0.01	0.01 -0.01	0.00
P25	0.00	0.00 14.82	121.70 -232.49	121.70	-1139.89 -2888.74	0.00	-0.08 0.08	0.39 -0.39	-51.68
P26	0.00	0.00 8.83	-995.59 1323.11	1323.11	-1759.28 1913.05	1913.05	0.52 -0.52	-0.82 0.82	1.91
P27	0.00	0.00 18.16	666.28 -78.71	666.28	-790.74 956.67	956.67	-0.17 0.17	-0.39 0.39	5.70
P28	0.00	0.00 10.67	-908.42 1215.64	1215.64	3875.53 -4732.05	3875.53	0.47 -0.47	1.91 -1.91	-6.01

CASO: 1.3G1+1.4G2+1.4Q+0.84V2+0.84D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 16.21	1646.17 -3662.73	1646.17	-1157.28 1023.10	1023.10	-1.18 1.18	-0.48 0.48	-23.18
P2	0.00	0.00 40.23	-974.27 1785.44	1785.44	433.24 -1860.03	433.24	0.61 -0.61	0.51 -0.51	-66.28
P3	0.00	0.00 40.47	-426.17 2045.80	2045.80	-123.60 -154.72	0.00	0.55 -0.55	0.01 -0.01	-31.73
P4	0.00	0.00 13.81	277.32 -1134.24	277.32	-529.83 515.97	515.97	-0.31 0.31	-0.23 0.23	9.48
P5	0.00	0.00 6.84	499.81 -593.85	499.81	-1511.39 2018.94	2018.94	-0.24 0.24	-0.78 0.78	35.61
P6	0.00	0.00 25.41	270.53 -232.66	270.53	-834.52 1394.97	1394.97	-0.11 0.11	-0.50 0.50	-6.88
P7	0.00	0.00 47.02	1245.59 -1882.19	1245.59	496.99 -77.44	496.99	-0.70 0.70	0.13 -0.13	-39.14
P8	0.00	0.00 38.39	66.84 -55.30	66.84	63.03 -32.61	63.03	-0.03 0.03	0.02 -0.02	2.88
P9	0.00	0.00 20.54	394.33 -150.85	394.33	-43.51 -33.32	0.00	-0.12 0.12	0.00 0.00	-9.47
P10	0.00	0.00 2.73	-444.41 527.59	527.59	614.25 -777.72	614.25	0.22 -0.22	0.31 -0.31	59.70



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P11	0.00	0.00 0.68	-176.95 38.73	38.73	-508.70 554.24	554.24	0.05 -0.05	-0.24 0.24	3.13
P12	0.00	0.00 9.67	828.82 -885.86	828.82	36.91 22.79	36.91	-0.38 0.38	0.00 0.00	5.18
P13	0.00	0.00 8.60	247.70 -247.18	247.70	-151.58 301.47	301.47	-0.11 0.11	-0.10 0.10	4.82
P14	0.00	0.00 6.28	-101.37 91.94	91.94	-1106.78 1384.51	1384.51	0.04 -0.04	-0.55 0.55	31.86
P15	0.00	0.00 11.45	198.99 -176.89	198.99	714.49 1682.90	1682.90	-0.08 0.08	-0.22 0.22	-24.84
P16	0.00	0.00 17.70	-1.96 -7.85	0.00	359.71 1261.21	1261.21	0.00 0.00	-0.20 0.20	0.00
P18	0.00	0.00 13.67	554.52 -613.69	554.52	994.13 -1931.77	994.13	-0.26 0.26	0.65 -0.65	-0.85
P19	0.00	0.00 7.23	-1003.68 1262.95	1262.95	-922.50 979.75	979.75	0.50 -0.50	-0.42 0.42	3.63
P20	0.00	0.00 12.50	339.53 -387.36	339.53	882.65 1736.78	1736.78	-0.16 0.16	-0.19 0.19	9.00
P21	0.00	0.00 19.63	9.03 36.12	36.12	490.29 1783.51	1783.51	0.01 -0.01	-0.29 0.29	0.00
P22	0.00	0.00 15.55	-76.90 148.80	148.80	-689.88 -1248.35	0.00	0.05 -0.05	0.12 -0.12	36.25
P23	0.00	0.00 13.30	-60.18 4.43	4.43	867.15 1828.57	1828.57	0.01 -0.01	-0.21 0.21	29.31
P24	0.00	0.00 19.82	13.82 55.30	55.30	514.40 1879.97	1879.97	0.01 -0.01	-0.30 0.30	0.00
P25	0.00	0.00 14.59	66.27 -148.97	66.27	-618.10 -1213.93	0.00	-0.05 0.05	0.13 -0.13	-36.39
P26	0.00	0.00 9.05	-1015.47 1322.33	1322.33	-2653.37 2990.33	2990.33	0.52 -0.52	-1.25 1.25	3.86
P27	0.00	0.00 18.10	655.14 -92.40	655.14	-2081.45 2386.04	2386.04	-0.17 0.17	-0.99 0.99	-28.09
P28	0.00	0.00 10.52	-931.85 1266.71	1266.71	3063.93 -3728.76	3063.93	0.49 -0.49	1.51 -1.51	-4.27

CASO: 1.3G1+1.4G2+1.4Q+0.84V3+0.84D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 16.22	2208.70 -4282.03	2208.70	-724.43 554.45	554.45	-1.44 1.44	-0.28 0.28	-7.88
P2	0.00	0.00 40.36	-444.38 1224.08	1224.08	579.97 -1888.51	579.97	0.37 -0.37	0.55 -0.55	-64.05
P3	0.00	0.00 40.31	-409.22 2059.63	2059.63	423.83 -726.11	423.83	0.55 -0.55	0.26 -0.26	-25.23
P4	0.00	0.00 14.32	718.72 -1608.99	718.72	-982.49 1002.67	1002.67	-0.52 0.52	-0.44 0.44	15.24
P5	0.00	0.00 6.83	876.33 -1016.18	876.33	-911.54 1227.85	1227.85	-0.42 0.42	-0.48 0.48	-32.13
P6	0.00	0.00 25.45	5.00 28.48	28.48	-414.20 970.04	970.04	0.01 -0.01	-0.31 0.31	-1.18
P7	0.00	0.00 47.44	409.59 -907.66	409.59	413.78 -713.48	413.78	-0.29 0.29	0.25 -0.25	-11.21
P8	0.00	0.00 38.64	-184.12 197.07	197.07	354.05 -329.51	354.05	0.08 -0.08	0.15 -0.15	3.82
P9	0.00	0.00 20.02	-326.43 616.10	616.10	318.01 -413.89	318.01	0.21 -0.21	0.16 -0.16	-3.35
P10	0.00	0.00 3.41	-953.70 1084.69	1084.69	-163.72 137.55	137.55	0.45 -0.45	-0.07 0.07	117.02
P11	0.00	0.00 0.29	163.90 -299.26	163.90	-270.64 307.74	307.74	-0.10 0.10	-0.13 0.13	0.62
P12	0.00	0.00	301.59	301.59	34.84	34.84	-0.14	0.03	3.05





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		9.52	-328.18		-81.93		0.14	-0.03	
P13	0.00	0.00 8.27	-24.73 29.10	29.10	139.38 4.38	139.38	0.01 -0.01	0.03 -0.03	0.08
P14	0.00	0.00 6.39	122.20 -140.05	122.20	-1268.04 1565.39	1565.39	-0.06 0.06	-0.63 0.63	31.82
P15	0.00	0.00 11.26	700.49 -721.61	700.49	522.37 1209.52	1209.52	-0.32 0.32	-0.15 0.15	-47.82
P16	0.00	0.00 17.67	-189.90 -624.65	0.00	176.66 706.64	706.64	-0.10 0.10	-0.12 0.12	0.00
P18	0.00	0.00 13.79	1259.39 -1357.13	1259.39	1520.74 -2801.57	1520.74	-0.58 0.58	0.96 -0.96	39.23
P19	0.00	0.00 7.00	-757.17 1008.32	1008.32	-652.30 676.69	676.69	0.39 -0.39	-0.30 0.30	2.91
P20	0.00	0.00 12.33	779.29 -869.15	779.29	614.94 906.12	906.12	-0.37 0.37	-0.06 0.06	-20.10
P21	0.00	0.00 19.63	-172.80 -556.26	0.00	206.81 827.25	827.25	-0.09 0.09	-0.14 0.14	0.00
P22	0.00	0.00 15.71	495.24 -463.62	495.24	-886.99 -2090.88	0.00	-0.21 0.21	0.27 -0.27	77.99
P23	0.00	0.00 13.18	422.46 -512.10	422.46	617.50 963.53	963.53	-0.21 0.21	-0.08 0.08	-9.54
P24	0.00	0.00 19.92	-173.23 -558.00	0.00	225.71 902.82	902.82	-0.09 0.09	-0.15 0.15	0.00
P25	0.00	0.00 14.76	654.33 -800.89	654.33	-884.76 -2037.83	0.00	-0.32 0.32	0.26 -0.26	-18.24
P26	0.00	0.00 8.82	-674.78 951.22	951.22	-2192.61 2443.31	2443.31	0.36 -0.36	-1.03 1.03	-23.75
P27	0.00	0.00 17.98	481.03 -598.40	481.03	-1427.79 1663.57	1663.57	-0.24 0.24	-0.69 0.69	-15.01
P28	0.00	0.00 10.46	-527.74 802.18	802.18	3465.73 -4233.10	3465.73	0.30 -0.30	1.71 -1.71	13.81

**CASO: 1.3G1+1.4G2+1.4Q+0.84V4+0.84D4**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 15.81	1060.24 -3021.47	1060.24	-833.72 676.87	676.87	-0.91 0.91	-0.34 0.34	-37.78
P2	0.00	0.00 40.32	-537.17 1330.63	1330.63	330.71 -1883.60	330.71	0.42 -0.42	0.49 -0.49	-69.66
P3	0.00	0.00 40.37	-460.97 2062.26	2062.26	308.18 -609.22	308.18	0.56 -0.56	0.20 -0.20	-38.46
P4	0.00	0.00 13.76	614.63 -1494.80	614.63	-38.59 -12.70	0.00	-0.47 0.47	-0.01 0.01	4.43
P5	0.00	0.00 6.44	86.36 -145.63	86.36	-900.05 1211.80	1211.80	-0.05 0.05	-0.47 0.47	108.28
P6	0.00	0.00 25.44	5.61 28.49	28.49	-1271.77 1836.58	1836.58	0.01 -0.01	-0.69 0.69	-12.83
P7	0.00	0.00 46.62	398.70 -891.19	398.70	572.95 579.09	579.09	-0.29 0.29	0.00 0.00	-69.95
P8	0.00	0.00 38.19	-184.04 195.07	195.07	-233.03 270.41	270.41	0.08 -0.08	-0.11 0.11	1.95
P9	0.00	0.00 20.32	-326.08 613.02	613.02	-422.03 368.75	368.75	0.21 -0.21	-0.18 0.18	-15.31
P10	0.00	0.00 3.02	-9.47 50.64	50.64	-192.72 172.57	172.57	0.01 -0.01	-0.08 0.08	-15.96
P11	0.00	0.00 0.77	-538.77 399.15	399.15	-247.07 283.41	283.41	0.21 -0.21	-0.12 0.12	-6.53
P12	0.00	0.00 9.93	269.03 -294.40	269.03	37.95 131.69	131.69	-0.13 0.13	-0.02 0.02	-5.91
P13	0.00	0.00 8.86	-42.02 47.63	47.63	-449.27 606.26	606.26	0.02 -0.02	-0.23 0.23	0.46



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P14	0.00	0.00 6.22	144.33 -165.06	144.33	-825.19 1095.97	1095.97	-0.07 0.07	-0.43 0.43	26.35
P15	0.00	0.00 11.44	-355.19 403.57	403.57	556.18 1122.25	1122.25	0.17 -0.17	-0.13 0.13	12.79
P16	0.00	0.00 17.81	191.97 632.94	632.94	161.63 646.53	646.53	0.10 -0.10	-0.11 0.11	0.00
P18	0.00	0.00 14.08	11.32 -19.39	11.32	1562.06 -2891.73	1562.06	-0.01 0.01	0.99 -0.99	-64.56
P19	0.00	0.00 7.14	-1182.05 1458.01	1458.01	-591.77 611.73	611.73	0.59 -0.59	-0.27 0.27	-10.24
P20	0.00	0.00 12.36	-135.67 122.24	122.24	598.36 824.42	824.42	0.06 -0.06	-0.05 0.05	40.13
P21	0.00	0.00 19.70	195.62 647.55	647.55	184.18 736.70	736.70	0.10 -0.10	-0.12 0.12	0.00
P22	0.00	0.00 15.79	-598.68 716.27	716.27	-911.98 -2164.48	0.00	0.29 -0.29	0.28 -0.28	43.13
P23	0.00	0.00 13.09	-525.80 521.83	521.83	597.63 956.14	956.14	0.23 -0.23	-0.08 0.08	58.71
P24	0.00	0.00 19.78	205.99 689.03	689.03	220.78 883.11	883.11	0.11 -0.11	-0.15 0.15	0.00
P25	0.00	0.00 14.65	-466.36 419.43	419.43	-873.23 -2064.84	0.00	0.20 -0.20	0.26 -0.26	-69.84
P26	0.00	0.00 9.06	-1336.28 1694.23	1694.23	-2220.04 2460.07	2460.07	0.67 -0.67	-1.04 1.04	29.52
P27	0.00	0.00 18.28	840.40 427.29	840.40	-1444.40 1679.14	1679.14	-0.09 0.09	-0.69 0.69	-7.38
P28	0.00	0.00 10.73	-1312.53 1680.17	1680.17	3473.73 -4227.71	3473.73	0.67 -0.67	1.71 -1.71	-24.09


**CASO: 1.3G1+1.4G2+1.4Q+1.2D1**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 15.97	1643.89 -3662.26	1643.89	-676.60 504.59	504.59	-1.18 1.18	-0.26 0.26	-21.78
P2	0.00	0.00 40.37	-359.57 1139.08	1139.08	462.47 -1893.10	462.47	0.33 -0.33	0.52 -0.52	-66.00
P3	0.00	0.00 40.30	-439.29 2065.13	2065.13	498.95 -807.31	498.95	0.56 -0.56	0.29 -0.29	-31.12
P4	0.00	0.00 14.10	771.88 -1665.29	771.88	-496.63 480.27	480.27	-0.54 0.54	-0.22 0.22	10.75
P5	0.00	0.00 6.59	481.76 -582.75	481.76	-756.59 1019.92	1019.92	-0.24 0.24	-0.39 0.39	37.25
P6	0.00	0.00 25.46	-61.76 94.46	94.46	-836.07 1396.25	1396.25	0.03 -0.03	-0.50 0.50	-6.69
P7	0.00	0.00 47.04	194.01 -652.36	194.01	492.70 -72.26	492.70	-0.19 0.19	0.13 -0.13	-38.84
P8	0.00	0.00 38.42	-247.44 259.53	259.53	58.47 -27.39	58.47	0.11 -0.11	0.02 -0.02	3.14
P9	0.00	0.00 20.08	-507.80 807.74	807.74	-60.86 -12.84	0.00	0.29 -0.29	-0.01 0.01	-8.35
P10	0.00	0.00 3.34	-481.83 567.99	567.99	-376.19 389.68	389.68	0.23 -0.23	-0.17 0.17	46.95
P11	0.00	0.00 0.49	-182.61 45.35	45.35	-208.23 242.94	242.94	0.05 -0.05	-0.10 0.10	-2.72
P12	0.00	0.00 9.74	176.09 -194.70	176.09	36.37 24.15	36.37	-0.08 0.08	0.00 0.00	-1.76
P13	0.00	0.00 8.56	-90.66 96.63	96.63	-157.12 307.60	307.60	0.04 -0.04	-0.10 0.10	0.62
P14	0.00	0.00 6.31	180.56 -202.18	180.56	-1034.14 1319.81	1319.81	-0.09 0.09	-0.52 0.52	28.15
P15	0.00	0.00	172.70	172.70	497.55	1061.98	-0.07	-0.13	-15.66

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		11.33	-160.97		1061.98		0.07	0.13	
P16	0.00	0.00 17.75	0.00 0.01	0.01	136.55 551.57	551.57	0.00 0.00	-0.09 0.09	0.00
P18	0.00	0.00 13.99	642.54 -693.44	642.54	1642.88 -3028.30	1642.88	-0.30 0.30	1.04 -1.04	-13.56
P19	0.00	0.00 7.04	-962.47 1227.26	1227.26	-565.59 580.15	580.15	0.49 -0.49	-0.25 0.25	-4.87
P20	0.00	0.00 12.31	322.23 -375.14	322.23	542.37 689.14	689.14	-0.15 0.15	-0.03 0.03	9.96
P21	0.00	0.00 19.67	10.33 41.32	41.32	141.46 571.19	571.19	0.01 -0.01	-0.10 0.10	0.00
P22	0.00	0.00 15.79	-54.11 129.76	129.76	-954.23 -2303.08	0.00	0.04 -0.04	0.30 -0.30	64.53
P23	0.00	0.00 13.10	-45.30 0.02	0.02	544.19 777.36	777.36	0.01 -0.01	-0.05 0.05	23.21
P24	0.00	0.00 19.86	15.28 61.14	61.14	167.84 676.74	676.74	0.01 -0.01	-0.11 0.11	0.00
P25	0.00	0.00 14.73	91.67 -190.64	91.67	-942.70 -2227.22	0.00	-0.06 0.06	0.29 -0.29	-44.92
P26	0.00	0.00 8.92	-1000.09 1319.17	1319.17	-2125.68 2350.49	2350.49	0.52 -0.52	-0.99 0.99	2.50
P27	0.00	0.00 18.13	660.60 -89.59	660.60	-1315.23 1535.83	1535.83	-0.17 0.17	-0.63 0.63	-7.52
P28	0.00	0.00 10.61	-923.63 1242.22	1242.22	3541.50 -4324.12	3541.50	0.48 -0.48	1.75 -1.75	-4.58

CASO: 1.3G1+1.4G2+1.4Q+1.2D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 16.06	1625.05 -3641.23	1625.05	-881.55 726.73	726.73	-1.17 1.17	-0.36 0.36	-23.88
P2	0.00	0.00 40.31	-621.98 1415.63	1415.63	448.20 -1879.02	448.20	0.45 -0.45	0.52 -0.52	-67.71
P3	0.00	0.00 40.37	-430.90 2056.77	2056.77	233.05 -528.02	233.05	0.55 -0.55	0.17 -0.17	-32.57
P4	0.00	0.00 13.98	561.47 -1438.50	561.47	-524.45 509.70	509.70	-0.44 0.44	-0.23 0.23	8.91
P5	0.00	0.00 6.69	480.93 -579.06	480.93	-1055.01 1419.73	1419.73	-0.24 0.24	-0.55 0.55	38.89
P6	0.00	0.00 25.44	72.37 -37.48	72.37	-849.91 1410.37	1410.37	-0.02 0.02	-0.50 0.50	-7.32
P7	0.00	0.00 47.02	614.27 -1146.50	614.27	494.03 -62.13	494.03	-0.39 0.39	0.12 -0.12	-42.33
P8	0.00	0.00 38.41	-120.72 132.61	132.61	62.55 -31.71	62.55	0.06 -0.06	0.02 -0.02	2.62
P9	0.00	0.00 20.26	-144.70 421.39	421.39	-43.16 -32.30	0.00	0.13 -0.13	0.00 0.00	-10.31
P10	0.00	0.00 3.10	-481.33 567.34	567.34	19.75 -79.56	19.75	0.23 -0.23	0.02 -0.02	54.11
P11	0.00	0.00 0.56	-192.26 54.54	54.54	-309.48 348.21	348.21	0.05 -0.05	-0.15 0.15	-3.19
P12	0.00	0.00 9.72	394.53 -427.87	394.53	36.42 25.62	36.42	-0.18 0.18	0.00 0.00	-1.10
P13	0.00	0.00 8.57	23.92 -19.91	23.92	-152.76 303.04	303.04	-0.01 0.01	-0.10 0.10	-0.08
P14	0.00	0.00 6.30	85.97 -102.93	85.97	-1059.09 1341.55	1341.55	-0.04 0.04	-0.53 0.53	30.01
P15	0.00	0.00 11.37	172.60 -157.07	172.60	581.00 1269.79	1269.79	-0.07 0.07	-0.15 0.15	-19.37
P16	0.00	0.00 17.73	2.07 8.27	8.27	201.74 801.60	801.60	0.00 0.00	-0.13 0.13	0.00

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P18	0.00	0.00 13.88	628.16 -683.08	628.16	1439.92 -2665.00	1439.92	-0.29 0.29	0.91 -0.91	-11.77
P19	0.00	0.00 7.10	-976.74 1239.07	1239.07	-678.49 708.27	708.27	0.49 -0.49	-0.31 0.31	-2.46
P20	0.00	0.00 12.38	321.39 -371.77	321.39	670.93 1041.40	1041.40	-0.15 0.15	-0.08 0.08	10.07
P21	0.00	0.00 19.66	12.49 49.97	49.97	249.53 992.76	992.76	0.01 -0.01	-0.17 0.17	0.00
P22	0.00	0.00 15.71	-49.33 122.88	122.88	-844.74 -1952.28	0.00	0.04 -0.04	0.25 -0.25	56.59
P23	0.00	0.00 13.17	-58.04 9.71	9.71	670.94 1142.30	1142.30	0.02 -0.02	-0.10 0.10	25.96
P24	0.00	0.00 19.84	17.47 69.90	69.90	278.64 1109.20	1109.20	0.01 -0.01	-0.18 0.18	0.00
P25	0.00	0.00 14.68	96.31 -190.82	96.31	-815.29 -1875.45	0.00	-0.06 0.06	0.24 -0.24	-43.15
P26	0.00	0.00 8.96	-1010.97 1326.27	1326.27	-2286.97 2552.89	2552.89	0.52 -0.52	-1.08 1.08	3.28
P27	0.00	0.00 18.12	660.83 -81.53	660.83	-1556.95 1806.88	1806.88	-0.16 0.16	-0.75 0.75	-14.87
P28	0.00	0.00 10.58	-916.63 1240.13	1240.13	3397.97 -4136.69	3397.97	0.48 -0.48	1.67 -1.67	-5.70

CASO: 1.3G1+1.4G2+1.4Q+1.2D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 16.08	1821.47 -3858.29	1821.47	-760.11 594.36	594.36	-1.26 1.26	-0.30 0.30	-17.69
P2	0.00	0.00 40.34	-474.52 1258.42	1258.42	503.80 -1886.97	503.80	0.39 -0.39	0.53 -0.53	-65.48
P3	0.00	0.00 40.33	-433.41 2060.60	2060.60	386.22 -688.33	386.22	0.55 -0.55	0.24 -0.24	-30.00
P4	0.00	0.00 14.13	684.90 -1571.74	684.90	-663.47 659.71	659.71	-0.50 0.50	-0.29 0.29	11.62
P5	0.00	0.00 6.69	577.72 -688.77	577.72	-908.64 1223.38	1223.38	-0.28 0.28	-0.47 0.47	12.44
P6	0.00	0.00 25.45	5.22 28.46	28.46	-702.06 1260.91	1260.91	0.01 -0.01	-0.44 0.44	-4.97
P7	0.00	0.00 47.16	406.14 -902.31	406.14	449.43 -269.02	449.43	-0.29 0.29	0.16 -0.16	-30.51
P8	0.00	0.00 38.49	-184.02 196.33	196.33	154.18 -125.54	154.18	0.08 -0.08	0.06 -0.06	3.19
P9	0.00	0.00 20.12	-326.16 614.93	614.93	68.07 -149.63	68.07	0.21 -0.21	0.05 -0.05	-7.38
P10	0.00	0.00 3.27	-605.23 705.10	705.10	-174.10 150.01	150.01	0.29 -0.29	-0.07 0.07	76.98
P11	0.00	0.00 0.45	-72.27 -64.66	0.00	-262.29 299.14	299.14	0.00 0.00	-0.12 0.12	-1.78
P12	0.00	0.00 9.67	289.59 -315.75	289.59	33.34 -8.36	33.34	-0.13 0.13	0.01 -0.01	0.19
P13	0.00	0.00 8.47	-31.14 35.94	35.94	-61.04 209.03	209.03	0.01 -0.01	-0.06 0.06	-0.26
P14	0.00	0.00 6.33	130.08 -148.91	130.08	-1106.68 1394.73	1394.73	-0.06 0.06	-0.56 0.56	32.03
P15	0.00	0.00 11.33	303.03 -298.39	303.03	534.17 1183.82	1183.82	-0.13 0.13	-0.14 0.14	-29.32
P16	0.00	0.00 17.71	-53.39 -208.20	0.00	172.63 690.50	690.50	-0.03 0.03	-0.12 0.12	0.00
P18	0.00	0.00 13.90	799.71 -865.41	799.71	1532.51 -2826.99	1532.51	-0.37 0.37	0.97 -0.97	1.85
P19	0.00	0.00	-912.89	1172.47	-631.46	654.36	0.46	-0.29	-1.81

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		7.05	1172.47		654.36		-0.46	0.29	
P20	0.00	0.00 12.34	433.35 -495.58	433.35	609.87 879.56	879.56	-0.21 0.21	-0.06 0.06	-1.10
P21	0.00	0.00 19.65	-40.82 -157.93	0.00	199.50 798.02	798.02	-0.03 0.03	-0.13 0.13	0.00
P22	0.00	0.00 15.74	91.94 -30.03	91.94	-895.24 -2114.50	0.00	-0.03 0.03	0.27 -0.27	67.46
P23	0.00	0.00 13.15	64.16 -122.41	64.16	610.84 961.39	961.39	-0.04 0.04	-0.08 0.08	11.94
P24	0.00	0.00 19.87	-37.32 -143.92	0.00	224.13 896.52	896.52	-0.02 0.02	-0.15 0.15	0.00
P25	0.00	0.00 14.72	241.14 -352.16	241.14	-880.76 -2046.71	0.00	-0.13 0.13	0.26 -0.26	-34.40
P26	0.00	0.00 8.91	-926.89 1231.95	1231.95	-2201.00 2448.22	2448.22	0.48 -0.48	-1.03 1.03	-7.14
P27	0.00	0.00 18.08	586.05 -246.80	586.05	-1433.00 1668.43	1668.43	-0.19 0.19	-0.69 0.69	-12.65
P28	0.00	0.00 10.56	-819.47 1125.76	1125.76	3468.00 -4231.05	3468.00	0.43 -0.43	1.71 -1.71	2.00

CASO: 1.3G1+1.4G2+1.4Q+1.2D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 15.95	1447.47 -3445.20	1447.47	-798.05 636.97	636.97	-1.09 1.09	-0.32 0.32	-27.97
P2	0.00	0.00 40.33	-507.02 1296.29	1296.29	406.87 -1885.15	406.87	0.40 -0.40	0.51 -0.51	-68.23
P3	0.00	0.00 40.35	-436.78 2061.29	2061.29	345.78 -647.00	345.78	0.56 -0.56	0.22 -0.22	-33.69
P4	0.00	0.00 13.95	648.45 -1532.04	648.45	-357.61 330.27	330.27	-0.48 0.48	-0.15 0.15	8.04
P5	0.00	0.00 6.59	384.97 -473.04	384.97	-902.95 1216.27	1216.27	-0.19 0.19	-0.47 0.47	63.70
P6	0.00	0.00 25.44	5.39 28.51	28.51	-983.92 1545.71	1545.71	0.01 -0.01	-0.56 0.56	-9.04
P7	0.00	0.00 46.90	402.14 -896.55	402.14	537.30 134.63	537.30	-0.29 0.29	0.09 -0.09	-50.65
P8	0.00	0.00 38.34	-184.14 195.81	195.81	-33.16 66.44	66.44	0.08 -0.08	-0.02 0.02	2.57
P9	0.00	0.00 20.22	-326.34 614.19	614.19	-172.09 104.49	104.49	0.21 -0.21	-0.06 0.06	-11.28
P10	0.00	0.00 3.17	-357.93 430.23	430.23	-182.35 160.10	160.10	0.18 -0.18	-0.08 0.08	24.08
P11	0.00	0.00 0.61	-302.60 164.55	164.55	-255.42 292.01	292.01	0.10 -0.10	-0.12 0.12	-4.13
P12	0.00	0.00 9.79	281.03 -306.82	281.03	39.45 58.13	58.13	-0.13 0.13	0.00 0.00	-3.05
P13	0.00	0.00 8.66	-35.61 40.78	40.78	-248.85 401.61	401.61	0.02 -0.02	-0.14 0.14	0.80
P14	0.00	0.00 6.28	136.46 -156.20	136.46	-986.55 1266.62	1266.62	-0.07 0.07	-0.50 0.50	26.13
P15	0.00	0.00 11.37	42.27 -19.65	42.27	544.38 1147.95	1147.95	-0.01 0.01	-0.13 0.13	-5.71
P16	0.00	0.00 17.76	55.46 216.48	216.48	165.67 662.66	662.66	0.04 -0.04	-0.11 0.11	0.00
P18	0.00	0.00 13.98	471.00 -511.11	471.00	1550.29 -2866.32	1550.29	-0.22 0.22	0.98 -0.98	-27.18
P19	0.00	0.00 7.09	-1026.32 1293.86	1293.86	-612.61 634.06	634.06	0.52 -0.52	-0.28 0.28	-5.52
P20	0.00	0.00 12.35	210.28 -251.33	210.28	603.43 850.98	850.98	-0.10 0.10	-0.06 0.06	21.13



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P21	0.00	0.00 19.67	63.64 249.22	249.22	191.48 765.93	765.93	0.04 -0.04	-0.13 0.13	0.00
P22	0.00	0.00 15.77	-195.39 282.67	282.67	-903.73 -2140.86	0.00	0.11 -0.11	0.27 -0.27	53.66
P23	0.00	0.00 13.13	-167.50 132.15	132.15	604.29 958.27	958.27	0.07 -0.07	-0.08 0.08	37.24
P24	0.00	0.00 19.83	70.08 274.95	274.95	222.35 889.42	889.42	0.05 -0.05	-0.15 0.15	0.00
P25	0.00	0.00 14.69	-53.17 -29.31	0.00	-877.23 -2055.95	0.00	0.01 -0.01	0.26 -0.26	-53.67
P26	0.00	0.00 8.97	-1084.17 1413.49	1413.49	-2211.65 2455.16	2455.16	0.56 -0.56	-1.04 1.04	12.91
P27	0.00	0.00 18.18	735.37 75.69	735.37	-1439.19 1674.28	1674.28	-0.15 0.15	-0.69 0.69	-9.74
P28	0.00	0.00 10.63	-1020.79 1356.58	1356.58	3471.47 -4229.75	3471.47	0.53 -0.53	1.71 -1.71	-12.28

**CASO: 1.3G1+1.4G2+1.4Q+D1**


Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 15.97	1642.32 -3660.51	1642.32	-693.68 523.11	523.11	-1.18 1.18	-0.27 0.27	-21.96
P2	0.00	0.00 40.36	-381.43 1162.12	1162.12	461.29 -1891.93	461.29	0.34 -0.34	0.52 -0.52	-66.15
P3	0.00	0.00 40.31	-438.59 2064.43	2064.43	476.80 -784.04	476.80	0.56 -0.56	0.28 -0.28	-31.24
P4	0.00	0.00 14.09	754.35 -1646.39	754.35	-498.95 482.73	482.73	-0.53 0.53	-0.22 0.22	10.60
P5	0.00	0.00 6.59	481.69 -582.44	481.69	-781.46 1053.24	1053.24	-0.24 0.24	-0.41 0.41	37.39
P6	0.00	0.00 25.46	-50.58 83.46	83.46	-837.22 1397.43	1397.43	0.03 -0.03	-0.50 0.50	-6.74
P7	0.00	0.00 47.03	229.03 -693.54	229.03	492.81 -71.41	492.81	-0.21 0.21	0.13 -0.13	-39.13
P8	0.00	0.00 38.42	-236.88 248.96	248.96	58.81 -27.75	58.81	0.11 -0.11	0.02 -0.02	3.10
P9	0.00	0.00 20.10	-477.54 775.54	775.54	-59.39 -14.46	0.00	0.28 -0.28	-0.01 0.01	-8.51
P10	0.00	0.00 3.32	-481.79 567.93	567.93	-343.20 350.57	350.57	0.23 -0.23	-0.15 0.15	47.55
P11	0.00	0.00 0.50	-183.41 46.12	46.12	-216.67 251.71	251.71	0.05 -0.05	-0.10 0.10	-2.76
P12	0.00	0.00 9.74	194.29 -214.13	194.29	36.38 24.27	36.38	-0.09 0.09	0.00 0.00	-1.70
P13	0.00	0.00 8.56	-81.11 86.92	86.92	-156.76 307.22	307.22	0.04 -0.04	-0.10 0.10	0.56
P14	0.00	0.00 6.31	172.68 -193.91	172.68	-1036.22 1321.62	1321.62	-0.08 0.08	-0.52 0.52	28.30
P15	0.00	0.00 11.33	172.69 -160.64	172.69	504.51 1079.30	1079.30	-0.07 0.07	-0.13 0.13	-15.97
P16	0.00	0.00 17.74	0.17 0.70	0.70	141.99 572.41	572.41	0.00 0.00	-0.10 0.10	0.00
P18	0.00	0.00 13.98	641.35 -692.58	641.35	1625.96 -2998.03	1625.96	-0.30 0.30	1.03 -1.03	-13.41
P19	0.00	0.00 7.04	-963.66 1228.25	1228.25	-575.00 590.83	590.83	0.49 -0.49	-0.26 0.26	-4.67
P20	0.00	0.00 12.32	322.16 -374.86	322.16	553.08 718.49	718.49	-0.15 0.15	-0.04 0.04	9.97
P21	0.00	0.00 19.67	10.51 42.04	42.04	150.46 606.32	606.32	0.01 -0.01	-0.10 0.10	0.00
P22	0.00	0.00	-53.71	129.19	-945.11	0.00	0.04	0.30	63.86

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		15.79	129.19		-2273.85		-0.04	-0.30	
P23	0.00	0.00 13.11	-46.36 0.83	0.83	554.75 807.78	807.78	0.01 -0.01	-0.06 0.06	23.44
P24	0.00	0.00 19.86	15.47 61.87	61.87	177.08 712.77	712.77	0.01 -0.01	-0.12 0.12	0.00
P25	0.00	0.00 14.73	92.05 -190.65	92.05	-932.08 -2197.91	0.00	-0.06 0.06	0.28 -0.28	-44.77
P26	0.00	0.00 8.92	-1001.00 1319.77	1319.77	-2139.12 2367.36	2367.36	0.52 -0.52	-1.00 1.00	2.56
P27	0.00	0.00 18.13	660.62 -88.92	660.62	-1335.38 1558.42	1558.42	-0.17 0.17	-0.64 0.64	-8.13
P28	0.00	0.00 10.61	-923.05 1242.04	1242.04	3529.54 -4308.50	3529.54	0.48 -0.48	1.74 -1.74	-4.68

CASO: 1.3G1+1.4G2+1.4Q+D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 16.06	1626.62 -3642.98	1626.62	-864.47 708.22	708.22	-1.17 1.17	-0.35 0.35	-23.70
P2	0.00	0.00 40.31	-600.11 1392.59	1392.59	449.39 -1880.19	449.39	0.44 -0.44	0.52 -0.52	-67.57
P3	0.00	0.00 40.37	-431.60 2057.47	2057.47	255.21 -551.30	255.21	0.55 -0.55	0.18 -0.18	-32.45
P4	0.00	0.00 13.99	579.00 -1457.40	579.00	-522.13 507.25	507.25	-0.45 0.45	-0.23 0.23	9.07
P5	0.00	0.00 6.68	481.00 -579.37	481.00	-1030.14 1386.41	1386.41	-0.24 0.24	-0.54 0.54	38.76
P6	0.00	0.00 25.44	61.19 -26.49	61.19	-848.76 1409.19	1409.19	-0.02 0.02	-0.50 0.50	-7.27
P7	0.00	0.00 47.02	579.25 -1105.32	579.25	493.92 -62.98	493.92	-0.37 0.37	0.12 -0.12	-42.04
P8	0.00	0.00 38.41	-131.28 143.19	143.19	62.21 -31.35	62.21	0.06 -0.06	0.02 -0.02	2.67
P9	0.00	0.00 20.25	-174.96 453.58	453.58	-44.63 -30.68	0.00	0.14 -0.14	0.00 0.00	-10.15
P10	0.00	0.00 3.12	-481.37 567.39	567.39	-13.25 -40.46	0.00	0.23 -0.23	0.01 -0.01	53.51
P11	0.00	0.00 0.56	-191.45 53.77	53.77	-301.04 339.44	339.44	0.05 -0.05	-0.14 0.14	-3.15
P12	0.00	0.00 9.72	376.33 -408.44	376.33	36.41 25.50	36.41	-0.17 0.17	0.00 0.00	-1.16
P13	0.00	0.00 8.57	14.37 -10.20	14.37	-153.13 303.42	303.42	-0.01 0.01	-0.10 0.10	-0.03
P14	0.00	0.00 6.30	93.86 -111.20	93.86	-1057.01 1339.74	1339.74	-0.05 0.05	-0.53 0.53	29.86
P15	0.00	0.00 11.37	172.61 -157.39	172.61	574.04 1252.47	1252.47	-0.07 0.07	-0.15 0.15	-19.06
P16	0.00	0.00 17.73	1.90 7.59	7.59	196.31 780.76	780.76	0.00 0.00	-0.13 0.13	0.00
P18	0.00	0.00 13.89	629.36 -683.94	629.36	1456.84 -2695.28	1456.84	-0.29 0.29	0.92 -0.92	-11.92
P19	0.00	0.00 7.10	-975.55 1238.09	1238.09	-669.08 697.59	697.59	0.49 -0.49	-0.30 0.30	-2.66
P20	0.00	0.00 12.37	321.46 -372.05	321.46	660.22 1012.05	1012.05	-0.15 0.15	-0.08 0.08	10.06
P21	0.00	0.00 19.66	12.31 49.25	49.25	240.52 957.63	957.63	0.01 -0.01	-0.16 0.16	0.00
P22	0.00	0.00 15.72	-49.73 123.45	123.45	-853.86 -1981.51	0.00	0.04 -0.04	0.25 -0.25	57.26
P23	0.00	0.00 13.16	-56.98 8.90	8.90	660.38 1111.89	1111.89	0.01 -0.01	-0.10 0.10	25.74



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P24	0.00	0.00 19.84	17.29 69.17	69.17	269.41 1073.16	1073.16	0.01 -0.01	-0.18 0.18	0.00
P25	0.00	0.00 14.68	95.92 -190.81	95.92	-825.91 -1904.76	0.00	-0.06 0.06	0.24 -0.24	-43.30
P26	0.00	0.00 8.96	-1010.06 1325.68	1325.68	-2273.53 2536.02	2536.02	0.52 -0.52	-1.07 1.07	3.21
P27	0.00	0.00 18.12	660.81 -82.20	660.81	-1536.81 1784.29	1784.29	-0.17 0.17	-0.74 0.74	-14.26
P28	0.00	0.00 10.58	-917.21 1240.30	1240.30	3409.93 -4152.31	3409.93	0.48 -0.48	1.68 -1.68	-5.60

CASO: 1.3G1+1.4G2+1.4Q+D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 16.07	1790.31 -3823.87	1790.31	-763.27 597.91	597.91	-1.25 1.25	-0.30 0.30	-18.55
P2	0.00	0.00 40.34	-477.23 1261.58	1261.58	495.73 -1886.82	495.73	0.39 -0.39	0.53 -0.53	-65.71
P3	0.00	0.00 40.33	-433.69 2060.66	2060.66	382.85 -684.89	382.85	0.55 -0.55	0.24 -0.24	-30.31
P4	0.00	0.00 14.12	681.86 -1568.44	681.86	-637.98 632.25	632.25	-0.50 0.50	-0.28 0.28	11.32
P5	0.00	0.00 6.68	561.66 -670.79	561.66	-908.17 1222.79	1222.79	-0.27 0.27	-0.47 0.47	16.71
P6	0.00	0.00 25.45	5.23 28.47	28.47	-725.55 1284.65	1284.65	0.01 -0.01	-0.45 0.45	-5.31
P7	0.00	0.00 47.14	405.81 -901.83	405.81	456.75 -235.39	456.75	-0.29 0.29	0.15 -0.15	-32.19
P8	0.00	0.00 38.47	-184.03 196.29	196.29	138.57 -109.54	138.57	0.08 -0.08	0.06 -0.06	3.14
P9	0.00	0.00 20.13	-326.17 614.87	614.87	48.06 -128.45	48.06	0.21 -0.21	0.04 -0.04	-7.71
P10	0.00	0.00 3.26	-584.62 682.19	682.19	-174.78 150.85	150.85	0.28 -0.28	-0.07 0.07	72.57
P11	0.00	0.00 0.46	-91.47 -45.56	0.00	-261.72 298.55	298.55	0.01 -0.01	-0.12 0.12	-1.98
P12	0.00	0.00 9.68	288.88 -315.01	288.88	33.85 -2.82	33.85	-0.13 0.13	0.01 -0.01	-0.08
P13	0.00	0.00 8.48	-31.51 36.34	36.34	-76.69 225.08	225.08	0.02 -0.02	-0.07 0.07	-0.17
P14	0.00	0.00 6.32	130.61 -149.52	130.61	-1096.67 1384.06	1384.06	-0.06 0.06	-0.55 0.55	31.54
P15	0.00	0.00 11.33	281.30 -275.16	281.30	535.02 1180.83	1180.83	-0.12 0.12	-0.14 0.14	-27.36
P16	0.00	0.00 17.72	-44.32 -172.81	0.00	172.05 688.18	688.18	-0.03 0.03	-0.11 0.11	0.00
P18	0.00	0.00 13.90	772.32 -835.89	772.32	1533.99 -2830.27	1533.99	-0.36 0.36	0.97 -0.97	-0.57
P19	0.00	0.00 7.06	-922.34 1182.59	1182.59	-629.89 652.67	652.67	0.47 -0.47	-0.29 0.29	-2.12
P20	0.00	0.00 12.34	414.76 -475.22	414.76	609.33 877.18	877.18	-0.20 0.20	-0.06 0.06	0.75
P21	0.00	0.00 19.65	-32.12 -124.00	0.00	198.84 795.34	795.34	-0.02 0.02	-0.13 0.13	0.00
P22	0.00	0.00 15.74	68.00 -3.97	68.00	-895.95 -2116.70	0.00	-0.02 0.02	0.27 -0.27	66.31
P23	0.00	0.00 13.15	44.86 -101.20	44.86	610.29 961.13	961.13	-0.03 0.03	-0.08 0.08	14.05
P24	0.00	0.00 19.87	-28.37 -109.02	0.00	223.98 895.92	895.92	-0.02 0.02	-0.15 0.15	0.00
P25	0.00	0.00	216.61	216.61	-880.47	0.00	-0.12	0.26	-36.01





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		14.72	-325.25		-2047.48		0.12	-0.26	
P26	0.00	0.00 8.91	-939.99 1247.08	1247.08	-2201.89 2448.80	2448.80	0.49 -0.49	-1.03 1.03	-5.47
P27	0.00	0.00 18.09	598.50 -219.93	598.50	-1433.51 1668.92	1668.92	-0.18 0.18	-0.69 0.69	-12.41
P28	0.00	0.00 10.56	-836.25 1145.00	1145.00	3468.29 -4230.94	3468.29	0.44 -0.44	1.71 -1.71	0.81

**CASO: 1.3G1+1.4G2+1.4Q+D4**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 15.96	1478.64 -3479.63	1478.64	-794.89 633.42	633.42	-1.10 1.10	-0.32 0.32	-27.11
P2	0.00	0.00 40.33	-504.32 1293.13	1293.13	414.95 -1885.30	414.95	0.40 -0.40	0.51 -0.51	-68.00
P3	0.00	0.00 40.35	-436.50 2061.24	2061.24	349.15 -650.44	349.15	0.56 -0.56	0.22 -0.22	-33.38
P4	0.00	0.00 13.96	651.49 -1535.35	651.49	-383.10 357.72	357.72	-0.49 0.49	-0.16 0.16	8.34
P5	0.00	0.00 6.59	401.04 -491.01	401.04	-903.43 1216.86	1216.86	-0.20 0.20	-0.47 0.47	59.43
P6	0.00	0.00 25.44	5.37 28.51	28.51	-960.43 1521.97	1521.97	0.01 -0.01	-0.55 0.55	-8.70
P7	0.00	0.00 46.92	402.47 -897.03	402.47	529.98 100.99	529.98	-0.29 0.29	0.10 -0.10	-48.98
P8	0.00	0.00 38.36	-184.13 195.86	195.86	-17.54 50.44	50.44	0.08 -0.08	-0.02 0.02	2.62
P9	0.00	0.00 20.21	-326.33 614.25	614.25	-152.08 83.31	83.31	0.21 -0.21	-0.05 0.05	-10.96
P10	0.00	0.00 3.18	-378.54 453.13	453.13	-181.66 159.26	159.26	0.18 -0.18	-0.08 0.08	28.49
P11	0.00	0.00 0.60	-283.40 145.45	145.45	-255.99 292.61	292.61	0.10 -0.10	-0.12 0.12	-3.93
P12	0.00	0.00 9.78	281.74 -307.56	281.74	38.94 52.59	52.59	-0.13 0.13	0.00 0.00	-2.78
P13	0.00	0.00 8.64	-35.23 40.38	40.38	-233.19 385.56	385.56	0.02 -0.02	-0.14 0.14	0.71
P14	0.00	0.00 6.28	135.92 -155.59	135.92	-996.56 1277.30	1277.30	-0.06 0.06	-0.51 0.51	26.62
P15	0.00	0.00 11.37	64.00 -42.87	64.00	543.53 1150.94	1150.94	-0.02 0.02	-0.13 0.13	-7.68
P16	0.00	0.00 17.76	46.39 181.09	181.09	166.25 664.98	664.98	0.03 -0.03	-0.11 0.11	0.00
P18	0.00	0.00 13.97	498.39 -540.63	498.39	1548.81 -2863.04	1548.81	-0.23 0.23	0.98 -0.98	-24.76
P19	0.00	0.00 7.09	-1016.87 1283.74	1283.74	-614.18 635.75	635.75	0.51 -0.51	-0.28 0.28	-5.21
P20	0.00	0.00 12.35	228.86 -271.68	228.86	603.97 853.36	853.36	-0.11 0.11	-0.06 0.06	19.28
P21	0.00	0.00 19.67	54.94 215.29	215.29	192.15 768.60	768.60	0.04 -0.04	-0.13 0.13	0.00
P22	0.00	0.00 15.76	-171.45 256.61	256.61	-903.02 -2138.66	0.00	0.10 -0.10	0.27 -0.27	54.81
P23	0.00	0.00 13.13	-148.19 110.93	110.93	604.84 958.53	958.53	0.06 -0.06	-0.08 0.08	35.13
P24	0.00	0.00 19.83	61.13 240.05	240.05	222.50 890.01	890.01	0.04 -0.04	-0.15 0.15	0.00
P25	0.00	0.00 14.69	-28.64 -56.21	0.00	-877.52 -2055.18	0.00	-0.01 0.01	0.26 -0.26	-52.07
P26	0.00	0.00 8.96	-1071.07 1398.36	1398.36	-2210.76 2454.58	2454.58	0.55 -0.55	-1.04 1.04	11.24

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P27	0.00	0.00 18.17	722.93 48.81	722.93	-1438.67 1673.80	1673.80	-0.15 0.15	-0.69 0.69	-9.98
P28	0.00	0.00 10.62	-1004.01 1337.35	1337.35	3471.18 -4229.86	3471.18	0.52 -0.52	1.71 -1.71	-11.09

CASO: 1.3G1+1.4G2+1.4V1+0.84D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 5.88	720.99 -1028.27	720.99	-64.08 -63.97	0.00	-0.39 0.39	0.00 0.00	-3.67
P2	0.00	0.00 11.85	846.13 -674.31	846.13	305.87 -567.17	305.87	-0.34 0.34	0.19 -0.19	-12.35
P3	0.00	0.00 11.00	-263.71 566.79	566.79	975.96 -1056.41	975.96	0.18 -0.18	0.45 -0.45	-8.93
P4	0.00	0.00 5.71	788.85 -969.97	788.85	-406.89 497.62	497.62	-0.39 0.39	-0.20 0.20	-0.88
P5	0.00	0.00 6.07	475.47 -585.87	475.47	134.93 -257.94	134.93	-0.24 0.24	0.09 -0.09	15.01
P6	0.00	0.00 11.95	-415.39 437.16	437.16	-291.41 374.98	374.98	0.19 -0.19	-0.15 0.15	-2.09
P7	0.00	0.00 16.38	-1200.68 1268.25	1268.25	100.58 -64.18	100.58	0.55 -0.55	0.04 -0.04	-12.59
P8	0.00	0.00 12.51	-517.46 483.75	483.75	39.66 -38.67	39.66	0.22 -0.22	0.02 -0.02	-1.25
P9	0.00	0.00 8.82	-1169.28 1305.71	1305.71	-249.09 273.92	273.92	0.55 -0.55	-0.12 0.12	-3.45
P10	0.00	0.00 5.10	-468.97 555.84	555.84	-1370.49 1583.92	1583.92	0.23 -0.23	-0.66 0.66	0.84
P11	0.00	0.00 2.48	-130.23 146.55	146.55	141.90 -130.30	141.90	0.06 -0.06	0.06 -0.06	-6.50
P12	0.00	0.00 8.16	-562.53 585.83	585.83	-1.74 21.03	21.03	0.26 -0.26	-0.01 0.01	-3.75
P13	0.00	0.00 7.69	-464.08 474.35	474.35	-99.52 129.35	129.35	0.21 -0.21	-0.05 0.05	-6.07
P14	0.00	0.00 6.32	493.71 -527.22	493.71	-921.99 1215.91	1215.91	-0.23 0.23	-0.48 0.48	16.19
P15	0.00	0.00 11.20	150.41 -149.56	150.41	267.12 354.68	354.68	-0.07 0.07	-0.02 0.02	-5.13
P16	0.00	0.00 18.41	10.67 42.68	42.68	-133.20 -239.26	0.00	0.01 -0.01	0.02 -0.02	0.00
P18	0.00	0.00 14.39	669.43 -703.97	669.43	2411.90 -4291.72	2411.90	-0.31 0.31	1.49 -1.49	-38.63
P19	0.00	0.00 6.82	-947.38 1217.70	1217.70	-144.53 111.61	111.61	0.48 -0.48	-0.06 0.06	-15.98
P20	0.00	0.00 12.10	311.31 -370.24	311.31	176.88 -505.45	176.88	-0.15 0.15	0.15 -0.15	11.03
P21	0.00	0.00 19.68	10.68 42.73	42.73	-270.66 -789.10	0.00	0.01 -0.01	0.12 -0.12	0.00
P22	0.00	0.00 16.07	-85.46 168.30	168.30	-1224.06 -3511.05	0.00	0.06 -0.06	0.51 -0.51	102.58
P23	0.00	0.00 12.89	-20.88 -13.02	0.00	204.64 -403.26	204.64	0.00 0.00	0.14 -0.14	16.42
P24	0.00	0.00 19.91	17.62 70.47	70.47	-236.23 -651.38	0.00	0.01 -0.01	0.09 -0.09	0.00
P25	0.00	0.00 14.89	62.94 -175.60	62.94	-1283.99 -3365.35	0.00	-0.05 0.05	0.46 -0.46	-53.22
P26	0.00	0.00 8.77	-977.46 1309.91	1309.91	-1499.68 1602.43	1602.43	0.51 -0.51	-0.69 0.69	0.85
P27	0.00	0.00 18.17	666.95 -85.61	666.95	-418.67 545.34	545.34	-0.17 0.17	-0.21 0.21	16.23
P28	0.00	0.00	-955.43	1259.15	4110.25	4110.25	0.49	2.03	-3.57




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		10.73	1259.15		-5020.46		-0.49	-2.03	
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CASO: 1.3G1+1.4G2+1.4V2+0.84D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 6.50	768.78 -1074.71	768.78	-1229.11 1190.50	1190.50	-0.41 0.41	-0.54 0.54	-3.86
P2	0.00	0.00 11.52	-643.07 890.23	890.23	238.87 -487.00	238.87	0.34 -0.34	0.16 -0.16	-9.64
P3	0.00	0.00 11.41	-237.89 520.20	520.20	-531.95 523.08	523.08	0.17 -0.17	-0.23 0.23	-7.85
P4	0.00	0.00 5.00	-410.82 316.38	316.38	-458.21 553.82	553.82	0.16 -0.16	-0.22 0.22	-1.20
P5	0.00	0.00 6.72	537.42 -630.73	537.42	-1744.44 2219.21	2219.21	-0.26 0.26	-0.88 0.88	6.03
P6	0.00	0.00 11.82	406.10 -371.76	406.10	-256.71 340.58	340.58	-0.17 0.17	-0.13 0.13	-1.37
P7	0.00	0.00 16.37	1408.01 -1777.01	1408.01	112.04 -103.04	112.04	-0.71 0.71	0.05 -0.05	-6.16
P8	0.00	0.00 12.43	259.79 -294.92	259.79	46.15 -46.85	46.15	-0.12 0.12	0.02 -0.02	-1.01
P9	0.00	0.00 9.98	1063.22 -1065.37	1063.22	-229.01 247.17	247.17	-0.47 0.47	-0.11 0.11	-2.98
P10	0.00	0.00 3.58	-345.29 422.57	422.57	1086.31 -1306.35	1086.31	0.17 -0.17	0.53 -0.53	28.06
P11	0.00	0.00 2.96	-90.79 104.88	104.88	-643.68 682.78	682.78	0.04 -0.04	-0.29 0.29	13.99
P12	0.00	0.00 7.96	1147.23 -1220.60	1147.23	-0.04 13.35	13.35	-0.53 0.53	0.00 0.00	17.96
P13	0.00	0.00 7.80	419.36 -423.08	419.36	-90.34 118.64	118.64	-0.19 0.19	-0.05 0.05	9.45
P14	0.00	0.00 6.25	-244.25 241.42	241.42	-1110.92 1385.22	1385.22	0.11 -0.11	-0.55 0.55	24.57
P15	0.00	0.00 11.51	238.25 -210.96	238.25	812.24 1981.09	1981.09	-0.10 0.10	-0.26 0.26	-27.81
P16	0.00	0.00 18.27	-0.29 -1.16	0.00	471.59 1592.82	1592.82	0.00 0.00	-0.25 0.25	0.00
P18	0.00	0.00 13.55	406.69 -460.24	406.69	682.37 -1411.66	682.37	-0.19 0.19	0.47 -0.47	-0.09
P19	0.00	0.00 7.34	-1054.30 1311.45	1311.45	-1093.39 1170.29	1170.29	0.53 -0.53	-0.50 0.50	7.21
P20	0.00	0.00 12.59	370.75 -418.16	370.75	1036.89 2235.19	2235.19	-0.18 0.18	-0.27 0.27	7.61
P21	0.00	0.00 19.60	1.74 6.94	6.94	661.55 2352.64	2352.64	0.00 0.00	-0.38 0.38	0.00
P22	0.00	0.00 15.44	-171.60 246.46	246.46	-576.48 -743.67	0.00	0.09 -0.09	0.04 -0.04	25.23
P23	0.00	0.00 13.39	-43.32 -18.99	0.00	1010.76 2322.22	2322.22	0.01 -0.01	-0.29 0.29	30.87
P24	0.00	0.00 19.80	8.08 32.32	32.32	682.59 2436.82	2436.82	0.01 -0.01	-0.39 0.39	0.00
P25	0.00	0.00 14.51	-31.61 -36.33	0.00	-473.81 -738.15	0.00	0.00 0.00	0.06 -0.06	-28.56
P26	0.00	0.00 9.10	-1005.53 1305.30	1305.30	-2914.57 3303.45	3303.45	0.51 -0.51	-1.38 1.38	3.74
P27	0.00	0.00 18.08	648.28 -112.20	648.28	-2457.04 2801.13	2801.13	-0.17 0.17	-1.17 1.17	-36.66
P28	0.00	0.00 10.50	-997.75 1345.23	1345.23	2824.56 -3435.79	2824.56	0.52 -0.52	1.39 -1.39	-0.14


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CASO: 1.3G1+1.4G2+1.4V3+0.84D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 6.50	1614.66 -2005.57	1614.66	-564.37 471.19	471.19	-0.80 0.80	-0.23 0.23	18.74
P2	0.00	0.00 11.71	171.27 28.00	171.27	457.47 -530.75	457.47	-0.03 0.03	0.22 -0.22	-6.96
P3	0.00	0.00 11.16	-208.46 541.47	541.47	308.94 -354.43	308.94	0.17 -0.17	0.15 -0.15	1.78
P4	0.00	0.00 5.79	267.26 -412.69	267.26	-1147.77 1295.00	1295.00	-0.15 0.15	-0.54 0.54	7.13
P5	0.00	0.00 6.71	1119.78 -1283.42	1119.78	-813.00 992.35	992.35	-0.53 0.53	-0.40 0.40	-94.53
P6	0.00	0.00 11.89	-5.12 32.70	32.70	374.81 -297.89	374.81	0.01 -0.01	0.15 -0.15	7.02
P7	0.00	0.00 17.00	111.81 -266.76	111.81	-5.83 -1066.57	0.00	-0.08 0.08	0.24 -0.24	34.87
P8	0.00	0.00 12.81	-128.93 95.96	95.96	488.43 -497.89	488.43	0.05 -0.05	0.22 -0.22	0.29
P9	0.00	0.00 9.18	-53.37 122.57	122.57	321.62 -332.37	321.62	0.04 -0.04	0.15 -0.15	5.83
P10	0.00	0.00 4.64	-1136.29 1286.78	1286.78	-119.85 111.96	111.96	0.54 -0.54	-0.05 0.05	112.92
P11	0.00	0.00 2.35	421.31 -402.80	421.31	-268.93 294.85	294.85	-0.18 0.18	-0.13 0.13	9.16
P12	0.00	0.00 7.75	317.49 -343.45	317.49	-2.05 -145.31	0.00	-0.15 0.15	0.03 -0.03	13.81
P13	0.00	0.00 7.29	-9.00 11.33	11.33	351.79 -332.64	351.79	0.00 0.00	0.15 -0.15	1.62
P14	0.00	0.00 6.42	107.77 -123.76	107.77	-1357.47 1661.86	1661.86	-0.05 0.05	-0.67 0.67	23.56
P15	0.00	0.00 11.21	1013.22 -1052.87	1013.22	513.88 1232.23	1232.23	-0.46 0.46	-0.16 0.16	-61.46
P16	0.00	0.00 18.23	-287.63 -928.14	0.00	180.10 720.38	720.38	-0.14 0.14	-0.12 0.12	0.00
P18	0.00	0.00 13.75	1501.41 -1614.21	1501.41	1516.85 -2785.74	1516.85	-0.69 0.69	0.96 -0.96	60.36
P19	0.00	0.00 6.98	-673.24 918.16	918.16	-665.00 690.35	690.35	0.35 -0.35	-0.30 0.30	5.70
P20	0.00	0.00 12.32	1051.45 -1163.37	1051.45	619.20 926.28	926.28	-0.49 0.49	-0.07 0.07	-35.68
P21	0.00	0.00 19.59	-276.43 -883.34	0.00	212.43 849.74	849.74	-0.13 0.13	-0.14 0.14	0.00
P22	0.00	0.00 15.69	716.02 -702.90	716.02	-881.43 -2072.17	0.00	-0.32 0.32	0.26 -0.26	89.73
P23	0.00	0.00 13.21	704.06 -818.21	704.06	622.73 964.91	964.91	-0.34 0.34	-0.08 0.08	-27.33
P24	0.00	0.00 19.96	-278.11 -890.06	0.00	226.87 907.49	907.49	-0.14 0.14	-0.15 0.15	0.00
P25	0.00	0.00 14.78	880.91 -1047.57	880.91	-887.69 -2031.40	0.00	-0.43 0.43	0.25 -0.25	-2.38
P26	0.00	0.00 8.75	-476.95 730.79	730.79	-2186.75 2440.59	2440.59	0.27 -0.27	-1.03 1.03	-37.42
P27	0.00	0.00 17.90	392.98 -878.40	392.98	-1425.46 1661.62	1661.62	-0.28 0.28	-0.69 0.69	-15.89
P28	0.00	0.00 10.40	-369.58 624.39	624.39	3461.55 -4232.31	3461.55	0.22 -0.22	1.71 -1.71	26.39

CASO: 1.3G1+1.4G2+1.4V4+0.84D4									
Elemento	Carga (kgf/m)	Rd Nd	Mxi Mxf	MxMáx (kgf.m)	Myi Myf	MyMáx (kgf.m)	Vxi Vxf	Vyi Vyf	Mtd (kgf/m)

		(tf)	(kgf.m)		(kgf.m)		(tf)	(tf)	
P1	0.00	0.00 5.89	-124.90 -97.41	0.00	-728.82 655.34	655.34	0.01 -0.01	-0.31 0.31	-26.28
P2	0.00	0.00 11.66	31.79 187.91	187.91	87.26 -523.42	87.26	0.03 -0.03	0.14 -0.14	-15.03
P3	0.00	0.00 11.25	-293.14 545.53	545.53	135.07 -178.90	135.07	0.19 -0.19	0.07 -0.07	-18.56
P4	0.00	0.00 4.93	110.78 -240.90	110.78	282.67 -243.55	282.67	-0.08 0.08	0.12 -0.12	-9.21
P5	0.00	0.00 6.09	-106.89 66.82	66.82	-796.51 968.91	968.91	0.04 -0.04	-0.39 0.39	115.56
P6	0.00	0.00 11.87	-4.17 32.69	32.69	-922.93 1013.45	1013.45	0.01 -0.01	-0.43 0.43	-10.49
P7	0.00	0.00 15.75	95.52 -242.00	95.52	218.45 899.35	899.35	-0.08 0.08	-0.15 0.15	-53.62
P8	0.00	0.00 12.14	-128.75 92.86	92.86	-402.62 412.38	412.38	0.05 -0.05	-0.18 0.18	-2.55
P9	0.00	0.00 9.63	-52.70 117.78	117.78	-799.71 853.46	853.46	0.04 -0.04	-0.37 0.37	-12.27
P10	0.00	0.00 4.04	322.03 -308.37	322.03	-164.32 165.61	165.61	-0.14 0.14	-0.07 0.07	-84.02
P11	0.00	0.00 3.09	-642.33 654.24	654.24	-232.85 257.63	257.63	0.29 -0.29	-0.11 0.11	-1.67
P12	0.00	0.00 8.38	267.22 -291.32	267.22	0.28 179.69	179.69	-0.12 0.12	-0.04 0.04	0.40
P13	0.00	0.00 8.19	-35.72 39.94	39.94	-541.65 580.63	580.63	0.02 -0.02	-0.25 0.25	1.76
P14	0.00	0.00 6.15	141.69 -162.04	141.69	-675.44 939.27	939.27	-0.07 0.07	-0.36 0.36	17.20
P15	0.00	0.00 11.49	-624.56 692.35	692.35	565.48 1103.53	1103.53	0.29 -0.29	-0.12 0.12	28.52
P16	0.00	0.00 18.45	298.01 969.66	969.66	158.29 633.18	633.18	0.15 -0.15	-0.11 0.11	0.00
P18	0.00	0.00 14.19	-425.29 450.00	450.00	1577.41 -2917.65	1577.41	0.19 -0.19	1.00 -1.00	-99.08
P19	0.00	0.00 7.19	-1328.44 1610.99	1610.99	-572.91 591.56	591.56	0.65 -0.65	-0.26 0.26	-14.47
P20	0.00	0.00 12.37	-369.39 374.96	374.96	594.58 803.46	803.46	0.17 -0.17	-0.05 0.05	54.33
P21	0.00	0.00 19.70	288.85 933.01	933.01	178.45 713.80	713.80	0.14 -0.14	-0.12 0.12	0.00
P22	0.00	0.00 15.82	-973.09 1117.66	1117.66	-919.11 -2182.54	0.00	0.46 -0.46	0.28 -0.28	38.08
P23	0.00	0.00 13.07	-768.26 786.20	786.20	592.67 954.05	954.05	0.35 -0.35	-0.08 0.08	74.62
P24	0.00	0.00 19.75	303.81 992.84	992.84	219.49 877.94	877.94	0.15 -0.15	-0.15 0.15	0.00
P25	0.00	0.00 14.62	-849.58 835.64	835.64	-870.11 -2072.10	0.00	0.37 -0.37	0.27 -0.27	-79.39
P26	0.00	0.00 9.12	-1506.04 1884.42	1884.42	-2227.50 2465.29	2465.29	0.75 -0.75	-1.04 1.04	42.01
P27	0.00	0.00 18.35	922.25 680.59	922.25	-1450.26 1684.85	1684.85	-0.05 0.05	-0.70 0.70	-4.54
P28	0.00	0.00 10.82	-1583.61 1979.99	1979.99	3473.26 -4223.94	3473.26	0.79 -0.79	1.71 -1.71	-30.10

CASO: 1.3G1+1.4G2+D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 6.15	752.73 -1060.25	752.73	-561.20 470.71	470.71	-0.40 0.40	-0.23 0.23	-2.89

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P2	0.00	0.00 11.71	210.86 -7.27	210.86	278.31 -532.96	278.31	-0.05 0.05	0.18 -0.18	-10.28
P3	0.00	0.00 11.18	-254.30 546.98	546.98	332.80 -383.04	332.80	0.18 -0.18	0.16 -0.16	-7.78
P4	0.00	0.00 5.41	276.69 -421.29	276.69	-420.96 513.46	513.46	-0.16 0.16	-0.21 0.21	-0.27
P5	0.00	0.00 6.36	506.79 -609.84	506.79	-680.42 814.05	814.05	-0.25 0.25	-0.33 0.33	9.83
P6	0.00	0.00 11.89	-60.53 87.67	87.67	-268.29 351.90	351.90	0.03 -0.03	-0.14 0.14	-1.47
P7	0.00	0.00 16.38	-71.44 -48.49	0.00	105.76 -87.83	105.76	0.01 -0.01	0.04 -0.04	-7.92
P8	0.00	0.00 12.48	-181.64 147.30	147.30	41.20 -40.96	41.20	0.07 -0.07	0.02 -0.02	-0.92
P9	0.00	0.00 9.33	-204.32 281.15	281.15	-246.43 268.65	268.65	0.11 -0.11	-0.11 0.11	-2.40
P10	0.00	0.00 4.44	-407.34 489.48	489.48	-307.06 334.30	334.30	0.20 -0.20	-0.14 0.14	11.47
P11	0.00	0.00 2.69	-106.49 121.89	121.89	-208.70 232.38	232.38	0.05 -0.05	-0.10 0.10	3.94
P12	0.00	0.00 8.07	201.34 -220.23	201.34	-0.90 16.57	16.57	-0.09 0.09	0.00 0.00	6.83
P13	0.00	0.00 7.74	-70.10 74.19	74.19	-96.74 125.89	125.89	0.03 -0.03	-0.05 0.05	1.98
P14	0.00	0.00 6.29	164.14 -184.26	164.14	-1006.06 1291.51	1291.51	-0.08 0.08	-0.51 0.51	19.60
P15	0.00	0.00 11.33	194.37 -181.88	194.37	504.91 1081.29	1081.29	-0.08 0.08	-0.13 0.13	-14.92
P16	0.00	0.00 18.35	4.33 17.31	17.31	142.03 572.60	572.60	0.00 0.00	-0.10 0.10	0.00
P18	0.00	0.00 14.02	544.05 -586.42	544.05	1631.70 -3003.07	1631.70	-0.25 0.25	1.03 -1.03	-20.10
P19	0.00	0.00 7.06	-994.89 1259.66	1259.66	-571.92 587.57	587.57	0.50 -0.50	-0.26 0.26	-5.38
P20	0.00	0.00 12.32	341.38 -395.60	341.38	553.32 718.09	718.09	-0.16 0.16	-0.04 0.04	9.27
P21	0.00	0.00 19.65	5.31 21.24	21.24	150.41 606.12	606.12	0.00 0.00	-0.10 0.10	0.00
P22	0.00	0.00 15.79	-130.53 210.25	210.25	-945.89 -2273.53	0.00	0.08 -0.08	0.30 -0.30	67.21
P23	0.00	0.00 13.11	-26.79 -20.04	0.00	554.89 807.42	807.42	0.00 0.00	-0.06 0.06	22.50
P24	0.00	0.00 19.86	11.94 47.74	47.74	177.01 712.52	712.52	0.01 -0.01	-0.12 0.12	0.00
P25	0.00	0.00 14.72	13.73 -105.89	13.73	-931.99 -2198.32	0.00	-0.03 0.03	0.28 -0.28	-41.62
P26	0.00	0.00 8.92	-986.96 1304.65	1304.65	-2139.92 2368.61	2368.61	0.51 -0.51	-1.00 1.00	1.97
P27	0.00	0.00 18.13	657.52 -102.27	657.52	-1337.14 1560.29	1560.29	-0.17 0.17	-0.64 0.64	-7.16
P28	0.00	0.00 10.62	-979.51 1303.06	1303.06	3527.21 -4306.22	3527.21	0.51 -0.51	1.74 -1.74	-1.39

CASO: 1.3G1+1.4G2+D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 6.23	737.03 -1042.72	737.03	-731.99 655.82	655.82	-0.40 0.40	-0.31 0.31	-4.64
P2	0.00	0.00 11.66	-7.81 223.19	223.19	266.42 -521.22	266.42	0.05 -0.05	0.18 -0.18	-11.71
P3	0.00	0.00	-247.30	540.02	111.21	111.21	0.17	0.06	-9.00

		11.24	540.02		-150.29		-0.17	-0.06	
P4	0.00	0.00 5.31	101.35 -232.30	101.35	-444.14 537.98	537.98	-0.07 0.07	-0.22 0.22	-1.80
P5	0.00	0.00 6.44	506.10 -606.76	506.10	-929.10 1147.22	1147.22	-0.25 0.25	-0.46 0.46	11.20
P6	0.00	0.00 11.87	51.24 -22.27	51.24	-279.83 363.66	363.66	-0.02 0.02	-0.14 0.14	-2.00
P7	0.00	0.00 16.37	278.77 -460.27	278.77	106.87 -79.39	106.87	-0.16 0.16	0.04 -0.04	-10.83
P8	0.00	0.00 12.47	-76.04 41.53	41.53	44.60 -44.56	44.60	0.03 -0.03	0.02 -0.02	-1.35
P9	0.00	0.00 9.48	98.26 -40.81	98.26	-231.67 252.44	252.44	-0.03 0.03	-0.11 0.11	-4.04
P10	0.00	0.00 4.24	-406.92 488.93	488.93	22.89 -56.73	22.89	0.20 -0.20	0.02 -0.02	17.43
P11	0.00	0.00 2.75	-114.53 129.55	129.55	-293.08 320.10	320.10	0.05 -0.05	-0.14 0.14	3.55
P12	0.00	0.00 8.05	383.37 -414.54	383.37	-0.87 17.80	17.80	-0.18 0.18	0.00 0.00	7.38
P13	0.00	0.00 7.75	25.38 -22.92	25.38	-93.11 122.09	122.09	-0.01 0.01	-0.05 0.05	1.39
P14	0.00	0.00 6.28	85.32 -101.54	85.32	-1026.85 1309.63	1309.63	-0.04 0.04	-0.52 0.52	21.16
P15	0.00	0.00 11.37	194.29 -178.63	194.29	574.45 1254.47	1254.47	-0.08 0.08	-0.15 0.15	-18.02
P16	0.00	0.00 18.33	6.05 24.20	24.20	196.36 780.96	780.96	0.00 0.00	-0.13 0.13	0.00
P18	0.00	0.00 13.93	532.07 -577.79	532.07	1462.57 -2700.32	1462.57	-0.25 0.25	0.93 -0.93	-18.62
P19	0.00	0.00 7.11	-1006.78 1269.50	1269.50	-666.00 694.34	694.34	0.51 -0.51	-0.30 0.30	-3.38
P20	0.00	0.00 12.37	340.68 -392.80	340.68	660.46 1011.65	1011.65	-0.16 0.16	-0.08 0.08	9.37
P21	0.00	0.00 19.64	7.11 28.44	28.44	240.47 957.42	957.42	0.00 0.00	-0.16 0.16	0.00
P22	0.00	0.00 15.72	-126.54 204.51	204.51	-854.65 -1981.19	0.00	0.07 -0.07	0.25 -0.25	60.60
P23	0.00	0.00 13.17	-37.41 -11.97	0.00	660.51 1111.54	1111.54	0.01 -0.01	-0.10 0.10	24.79
P24	0.00	0.00 19.85	13.76 55.04	55.04	269.34 1072.91	1072.91	0.01 -0.01	-0.18 0.18	0.00
P25	0.00	0.00 14.68	17.60 -106.04	17.60	-825.81 -1905.18	0.00	-0.03 0.03	0.24 -0.24	-40.15
P26	0.00	0.00 8.95	-996.03 1310.56	1310.56	-2274.33 2537.27	2537.27	0.51 -0.51	-1.07 1.07	2.62
P27	0.00	0.00 18.12	657.71 -95.55	657.71	-1538.57 1786.17	1786.17	-0.17 0.17	-0.74 0.74	-13.28
P28	0.00	0.00 10.60	-973.68 1301.32	1301.32	3407.60 -4150.03	3407.60	0.51 -0.51	1.68 -1.68	-2.32

CASO: 1.3G1+1.4G2+D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 6.25	900.72 -1223.61	900.72	-630.79 545.51	545.51	-0.47 0.47	-0.26 0.26	0.52
P2	0.00	0.00 11.69	115.07 92.18	115.07	312.76 -527.85	312.76	-0.01 0.01	0.19 -0.19	-9.85
P3	0.00	0.00 11.20	-249.40 543.21	543.21	238.86 -283.89	238.86	0.18 -0.18	0.12 -0.12	-6.85
P4	0.00	0.00 5.43	204.21 -343.34	204.21	-559.99 662.99	662.99	-0.12 0.12	-0.27 0.27	0.45





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Plena**

**Leilson Campos  
Rezende  
Rezende Engenharia**


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P5	0.00	0.00 6.44	586.76 -698.19	586.76	-807.13 983.60	983.60	-0.29 0.29	-0.40 0.40	-10.84
P6	0.00	0.00 11.88	-4.71 32.68	32.68	-156.62 239.12	239.12	0.01 -0.01	-0.09 0.09	-0.03
P7	0.00	0.00 16.48	105.33 -256.78	105.33	69.70 -251.80	69.70	-0.08 0.08	0.07 -0.07	-0.98
P8	0.00	0.00 12.53	-128.79 94.63	94.63	120.96 -122.75	120.96	0.05 -0.05	0.05 -0.05	-0.87
P9	0.00	0.00 9.36	-52.96 120.48	120.48	-138.98 154.66	154.66	0.04 -0.04	-0.07 0.07	-1.59
P10	0.00	0.00 4.38	-510.17 603.73	603.73	-138.65 134.58	134.58	0.25 -0.25	-0.06 0.06	36.49
P11	0.00	0.00 2.65	-14.54 30.21	30.21	-253.75 279.21	279.21	0.01 -0.01	-0.12 0.12	4.72
P12	0.00	0.00 8.01	295.92 -321.11	295.92	-3.43 -10.52	0.00	-0.14 0.14	0.00 0.00	8.45
P13	0.00	0.00 7.67	-20.50 23.62	23.62	-16.68 43.75	43.75	0.01 -0.01	-0.01 0.01	1.25
P14	0.00	0.00 6.31	122.07 -139.86	122.07	-1066.51 1353.95	1353.95	-0.06 0.06	-0.54 0.54	22.84
P15	0.00	0.00 11.33	302.98 -296.40	302.98	535.42 1182.83	1182.83	-0.13 0.13	-0.14 0.14	-26.31
P16	0.00	0.00 18.32	-40.17 -156.20	0.00	172.10 688.38	688.38	-0.03 0.03	-0.11 0.11	0.00
P18	0.00	0.00 13.94	675.02 -729.73	675.02	1539.72 -2835.31	1539.72	-0.31 0.31	0.97 -0.97	-7.27
P19	0.00	0.00 7.07	-953.57 1214.00	1214.00	-626.81 649.41	649.41	0.48 -0.48	-0.28 0.28	-2.83
P20	0.00	0.00 12.34	433.97 -495.97	433.97	609.57 876.78	876.78	-0.21 0.21	-0.06 0.06	0.06
P21	0.00	0.00 19.63	-37.32 -144.81	0.00	198.78 795.14	795.14	-0.02 0.02	-0.13 0.13	0.00
P22	0.00	0.00 15.75	-8.81 77.09	77.09	-896.73 -2116.37	0.00	0.02 -0.02	0.27 -0.27	69.65
P23	0.00	0.00 13.15	64.42 -122.07	64.42	610.43 960.78	960.78	-0.04 0.04	-0.08 0.08	13.11
P24	0.00	0.00 19.87	-31.90 -123.14	0.00	223.92 895.67	895.67	-0.02 0.02	-0.15 0.15	0.00
P25	0.00	0.00 14.71	138.29 -240.48	138.29	-880.37 -2047.90	0.00	-0.08 0.08	0.26 -0.26	-32.86
P26	0.00	0.00 8.91	-925.96 1231.96	1231.96	-2202.68 2450.05	2450.05	0.48 -0.48	-1.03 1.03	-6.05
P27	0.00	0.00 18.08	595.40 -233.28	595.40	-1435.28 1670.79	1670.79	-0.18 0.18	-0.69 0.69	-11.43
P28	0.00	0.00 10.58	-892.71 1206.02	1206.02	3465.96 -4228.67	3465.96	0.47 -0.47	1.71 -1.71	4.10

**CASO: 1.3G1+1.4G2+D4**


Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 6.14	589.05 -879.37	589.05	-662.40 581.02	581.02	-0.33 0.33	-0.28 0.28	-8.05
P2	0.00	0.00 11.68	87.98 123.74	123.74	231.98 -526.33	231.98	0.01 -0.01	0.17 -0.17	-12.14
P3	0.00	0.00 11.21	-252.21 543.79	543.79	205.15 -249.44	205.15	0.18 -0.18	0.10 -0.10	-9.92
P4	0.00	0.00 5.28	173.83 -310.25	173.83	-305.11 388.46	388.46	-0.11 0.11	-0.15 0.15	-2.53
P5	0.00	0.00 6.36	426.13 -518.41	426.13	-802.38 977.67	977.67	-0.21 0.21	-0.40 0.40	31.88
P6	0.00	0.00	-4.57	32.72	-391.50	476.44	0.01	-0.19	-3.43



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		11.88	32.72		476.44		-0.01	0.19	
P7	0.00	0.00 16.27	102.00 -251.98	102.00	142.93 84.58	142.93	-0.08 0.08	0.01 -0.01	-17.77
P8	0.00	0.00 12.41	-128.89 94.20	94.20	-35.15 37.23	37.23	0.05 -0.05	-0.02 0.02	-1.39
P9	0.00	0.00 9.44	-53.11 119.87	119.87	-339.11 366.43	366.43	0.04 -0.04	-0.16 0.16	-4.84
P10	0.00	0.00 4.30	-304.09 374.67	374.67	-145.52 142.99	142.99	0.15 -0.15	-0.06 0.06	-7.59
P11	0.00	0.00 2.79	-206.48 221.22	221.22	-248.03 273.27	273.27	0.10 -0.10	-0.12 0.12	2.76
P12	0.00	0.00 8.11	288.79 -313.66	288.79	1.66 44.89	44.89	-0.13 0.13	-0.01 0.01	5.76
P13	0.00	0.00 7.82	-24.22 27.65	27.65	-173.18 204.23	204.23	0.01 -0.01	-0.08 0.08	2.13
P14	0.00	0.00 6.27	127.39 -145.94	127.39	-966.40 1247.19	1247.19	-0.06 0.06	-0.49 0.49	17.92
P15	0.00	0.00 11.37	85.68 -64.11	85.68	543.94 1152.93	1152.93	-0.03 0.03	-0.14 0.14	-6.63
P16	0.00	0.00 18.36	50.54 197.71	197.71	166.29 665.18	665.18	0.03 -0.03	-0.11 0.11	0.00
P18	0.00	0.00 14.01	401.10 -434.48	401.10	1554.54 -2868.08	1554.54	-0.19 0.19	0.98 -0.98	-31.45
P19	0.00	0.00 7.10	-1048.10 1315.15	1315.15	-611.10 632.49	632.49	0.53 -0.53	-0.28 0.28	-5.93
P20	0.00	0.00 12.34	248.08 -292.43	248.08	604.20 852.96	852.96	-0.12 0.12	-0.06 0.06	18.59
P21	0.00	0.00 19.65	49.74 194.48	194.48	192.10 768.40	768.40	0.03 -0.03	-0.13 0.13	0.00
P22	0.00	0.00 15.76	-248.26 337.67	337.67	-903.81 -2138.34	0.00	0.13 -0.13	0.27 -0.27	58.15
P23	0.00	0.00 13.13	-128.63 90.06	90.06	604.97 958.18	958.18	0.05 -0.05	-0.08 0.08	34.19
P24	0.00	0.00 19.84	57.60 225.92	225.92	222.44 889.76	889.76	0.04 -0.04	-0.15 0.15	0.00
P25	0.00	0.00 14.69	-106.96 28.56	28.56	-877.43 -2055.60	0.00	0.03 -0.03	0.26 -0.26	-48.92
P26	0.00	0.00 8.96	-1057.03 1383.24	1383.24	-2211.56 2455.83	2455.83	0.54 -0.54	-1.04 1.04	10.65
P27	0.00	0.00 18.16	719.83 35.46	719.83	-1440.43 1675.67	1675.67	-0.15 0.15	-0.69 0.69	-9.01
P28	0.00	0.00 10.64	-1060.47 1398.36	1398.36	3468.85 -4227.59	3468.85	0.55 -0.55	1.71 -1.71	-7.80

CASO: G1+G2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 4.58	545.03 -774.45	545.03	-470.44 409.53	409.53	-0.29 0.29	-0.20 0.20	-2.81
P2	0.00	0.00 8.64	71.56 82.95	82.95	198.71 -388.24	198.71	0.00 0.00	0.13 -0.13	-8.21
P3	0.00	0.00 8.29	-182.96 400.74	400.74	162.03 -195.55	162.03	0.13 -0.13	0.08 -0.08	-6.18
P4	0.00	0.00 3.96	139.17 -242.04	139.17	-314.70 381.99	381.99	-0.08 0.08	-0.15 0.15	-0.71
P5	0.00	0.00 4.74	369.20 -443.44	369.20	-588.29 719.25	719.25	-0.18 0.18	-0.29 0.29	7.60
P6	0.00	0.00 8.76	-3.73 24.33	24.33	-201.37 263.94	263.94	0.01 -0.01	-0.10 0.10	-1.27
P7	0.00	0.00 12.12	76.72 -188.04	76.72	78.73 -61.03	78.73	-0.06 0.06	0.03 -0.03	-6.93

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P8	0.00	0.00 9.23	-93.94 69.16	69.16	31.06 -30.79	31.06	0.04 -0.04	0.01 -0.01	-0.81
P9	0.00	0.00 6.95	-39.82 89.48	89.48	-172.82 187.83	187.83	0.03 -0.03	-0.08 0.08	-2.36
P10	0.00	0.00 3.22	-296.92 356.73	356.73	-104.37 102.51	102.51	0.15 -0.15	-0.05 0.05	10.83
P11	0.00	0.00 1.99	-81.02 91.72	91.72	-182.57 201.10	201.10	0.04 -0.04	-0.09 0.09	2.72
P12	0.00	0.00 5.92	212.55 -230.69	212.55	-0.51 12.49	12.49	-0.10 0.10	0.00 0.00	5.16
P13	0.00	0.00 5.66	-15.96 18.33	18.33	-69.55 91.31	91.31	0.01 -0.01	-0.04 0.04	1.23
P14	0.00	0.00 4.62	90.55 -103.79	90.55	-741.90 952.98	952.98	-0.04 0.04	-0.38 0.38	14.99
P15	0.00	0.00 8.37	141.67 -131.31	141.67	395.97 862.82	862.82	-0.06 0.06	-0.10 0.10	-12.15
P16	0.00	0.00 13.59	2.88 11.51	11.51	123.52 494.08	494.08	0.00 0.00	-0.08 0.08	0.00
P18	0.00	0.00 10.26	391.41 -423.26	391.41	1125.16 -2088.74	1125.16	-0.18 0.18	0.71 -0.71	-14.13
P19	0.00	0.00 5.19	-730.26 925.72	925.72	-451.52 467.26	467.26	0.37 -0.37	-0.20 0.20	-3.18
P20	0.00	0.00 9.09	248.49 -287.25	248.49	445.11 641.35	641.35	-0.12 0.12	-0.04 0.04	6.82
P21	0.00	0.00 14.59	4.22 16.86	16.86	144.39 577.57	577.57	0.00 0.00	-0.10 0.10	0.00
P22	0.00	0.00 11.59	-92.56 149.85	149.85	-660.13 -1572.30	0.00	0.05 -0.05	0.20 -0.20	47.18
P23	0.00	0.00 9.67	-23.58 -11.48	0.00	445.56 710.55	710.55	0.00 0.00	-0.06 0.06	17.33
P24	0.00	0.00 14.75	9.25 36.99	36.99	164.65 658.62	658.62	0.01 -0.01	-0.11 0.11	0.00
P25	0.00	0.00 10.82	11.06 -76.82	11.06	-645.77 -1516.33	0.00	-0.02 0.02	0.19 -0.19	-30.00
P26	0.00	0.00 6.61	-722.34 952.52	952.52	-1620.18 1805.95	1805.95	0.37 -0.37	-0.76 0.76	1.81
P27	0.00	0.00 13.44	482.63 -64.48	482.63	-1056.09 1231.94	1231.94	-0.12 0.12	-0.51 0.51	-7.36
P28	0.00	0.00 7.84	-711.41 948.36	948.36	2543.51 -3114.44	2543.51	0.37 -0.37	1.26 -1.26	-1.71

CASO: G1+G2+0.84V1+1.4D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 4.35	537.73 -768.37	537.73	-44.41 -49.74	0.00	-0.29 0.29	0.00 0.00	-1.97
P2	0.00	0.00 8.76	616.29 -489.66	616.29	224.14 -417.55	224.14	-0.25 0.25	0.14 -0.14	-8.38
P3	0.00	0.00 8.14	-193.84 417.84	417.84	713.68 -773.67	713.68	0.14 -0.14	0.33 -0.33	-5.96
P4	0.00	0.00 4.22	577.62 -712.61	577.62	-288.92 354.15	354.15	-0.29 0.29	-0.14 0.14	0.07
P5	0.00	0.00 4.51	350.93 -431.35	350.93	86.93 -173.16	86.93	-0.17 0.17	0.06 -0.06	9.68
P6	0.00	0.00 8.81	-300.25 316.26	316.26	-206.61 268.99	268.99	0.14 -0.14	-0.11 0.11	-1.25
P7	0.00	0.00 12.13	-862.78 910.02	910.02	74.80 -53.15	74.80	0.39 -0.39	0.03 -0.03	-7.55
P8	0.00	0.00 9.26	-374.42 350.14	350.14	27.59 -26.72	27.59	0.16 -0.16	0.01 -0.01	-0.69
P9	0.00	0.00	-845.12	945.04	-185.45	203.11	0.40	-0.09	-1.77

		6.54	945.04		203.11		-0.40	0.09	
P10	0.00	0.00 3.77	-334.22 396.95	396.95	-989.22 1144.78	1144.78	0.16 -0.16	-0.47 0.47	-0.01
P11	0.00	0.00 1.82	-89.25 100.79	100.79	90.90 -82.13	90.90	0.04 -0.04	0.04 -0.04	-3.25
P12	0.00	0.00 5.99	-381.93 398.29	398.29	-1.03 14.24	14.24	0.17 -0.17	0.00 0.00	-1.60
P13	0.00	0.00 5.62	-323.77 331.07	331.07	-73.93 96.23	96.23	0.15 -0.15	-0.04 0.04	-3.16
P14	0.00	0.00 4.64	347.25 -371.44	347.25	-675.90 894.07	894.07	-0.16 0.16	-0.35 0.35	11.78
P15	0.00	0.00 8.26	115.36 -114.35	115.36	201.28 297.32	297.32	-0.05 0.05	-0.02 0.02	-3.96
P16	0.00	0.00 13.64	5.39 21.57	21.57	-82.25 -148.89	0.00	0.00 0.00	0.01 -0.01	0.00
P18	0.00	0.00 10.56	475.60 -500.24	475.60	1719.79 -3088.39	1719.79	-0.22 0.22	1.07 -1.07	-26.36
P19	0.00	0.00 5.01	-692.86 893.18	893.18	-124.72 101.83	101.83	0.35 -0.35	-0.05 0.05	-11.03
P20	0.00	0.00 8.92	230.98 -274.13	230.98	139.11 -312.35	139.11	-0.11 0.11	0.10 -0.10	7.80
P21	0.00	0.00 14.62	6.09 24.37	24.37	-175.62 -522.34	0.00	0.00 0.00	0.08 -0.08	0.00
P22	0.00	0.00 11.81	-68.50 128.97	128.97	-895.28 -2533.48	0.00	0.04 -0.04	0.36 -0.36	73.34
P23	0.00	0.00 9.49	-12.10 -13.31	0.00	156.40 -243.34	156.40	0.00 0.00	0.09 -0.09	11.97
P24	0.00	0.00 14.79	11.29 45.17	45.17	-152.36 -429.30	0.00	0.01 -0.01	0.06 -0.06	0.00
P25	0.00	0.00 10.95	37.69 -118.54	37.69	-936.39 -2435.81	0.00	-0.03 0.03	0.33 -0.33	-38.06
P26	0.00	0.00 6.49	-709.86 951.25	951.25	-1135.50 1220.09	1220.09	0.37 -0.37	-0.52 0.52	0.65
P27	0.00	0.00 13.47	488.15 -59.52	488.15	-354.34 454.02	454.02	-0.12 0.12	-0.18 0.18	11.25
P28	0.00	0.00 7.92	-701.32 923.32	923.32	2982.80 -3659.81	2982.80	0.36 -0.36	1.48 -1.48	-2.32

CASO: G1+G2+0.84V2+1.4D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 4.80	552.34 -780.52	552.34	-896.46 868.80	868.80	-0.30 0.30	-0.39 0.39	-3.64
P2	0.00	0.00 8.52	-473.16 655.56	655.56	173.28 -358.93	173.28	0.25 -0.25	0.12 -0.12	-8.03
P3	0.00	0.00 8.44	-172.08 383.65	383.65	-389.62 382.56	382.56	0.12 -0.12	-0.17 0.17	-6.40
P4	0.00	0.00 3.71	-299.29 228.53	228.53	-340.49 409.84	409.84	0.12 -0.12	-0.17 0.17	-1.49
P5	0.00	0.00 4.97	387.48 -455.52	387.48	-1263.51 1611.66	1611.66	-0.19 0.19	-0.64 0.64	5.52
P6	0.00	0.00 8.72	292.79 -267.60	292.79	-196.12 258.89	258.89	-0.12 0.12	-0.10 0.10	-1.29
P7	0.00	0.00 12.11	1016.23 -1286.10	1016.23	82.67 -68.91	82.67	-0.51 0.51	0.03 -0.03	-6.31
P8	0.00	0.00 9.20	186.55 -211.83	186.55	34.53 -34.86	34.53	-0.09 0.09	0.02 -0.02	-0.93
P9	0.00	0.00 7.36	765.49 -766.08	765.49	-160.18 172.54	172.54	-0.34 0.34	-0.07 0.07	-2.96
P10	0.00	0.00 2.68	-259.63 316.51	316.51	780.49 -939.75	780.49	0.13 -0.13	0.38 -0.38	21.67



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**Leilson Campos  
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P11	0.00	0.00 2.16	-72.79 82.65	82.65	-456.05 484.33	484.33	0.03 -0.03	-0.21 0.21	8.69
P12	0.00	0.00 5.85	807.03 -859.67	807.03	0.02 10.73	10.73	-0.37 0.37	0.00 0.00	11.92
P13	0.00	0.00 5.69	291.85 -294.41	291.85	-65.17 86.40	86.40	-0.13 0.13	-0.03 0.03	5.63
P14	0.00	0.00 4.60	-166.15 163.86	163.86	-807.89 1011.89	1011.89	0.07 -0.07	-0.40 0.40	18.20
P15	0.00	0.00 8.48	167.98 -148.27	167.98	590.66 1428.33	1428.33	-0.07 0.07	-0.19 0.19	-20.34
P16	0.00	0.00 13.54	0.36 1.44	1.44	329.29 1137.04	1137.04	0.00 0.00	-0.18 0.18	0.00
P18	0.00	0.00 9.97	307.22 -346.27	307.22	530.53 -1089.08	530.53	-0.15 0.15	0.36 -0.36	-1.90
P19	0.00	0.00 5.37	-767.67 958.25	958.25	-778.33 832.70	832.70	0.38 -0.38	-0.36 0.36	4.67
P20	0.00	0.00 9.26	266.01 -300.37	266.01	751.11 1595.06	1595.06	-0.13 0.13	-0.19 0.19	5.83
P21	0.00	0.00 14.56	2.34 9.35	9.35	464.40 1677.47	1677.47	0.00 0.00	-0.27 0.27	0.00
P22	0.00	0.00 11.37	-116.62 170.72	170.72	-424.98 -611.12	0.00	0.06 -0.06	0.04 -0.04	21.01
P23	0.00	0.00 9.84	-35.07 -9.66	0.00	734.71 1664.44	1664.44	0.01 -0.01	-0.21 0.21	22.69
P24	0.00	0.00 14.71	7.20 28.82	28.82	481.66 1746.53	1746.53	0.00 0.00	-0.28 0.28	0.00
P25	0.00	0.00 10.69	-15.57 -35.11	0.00	-355.15 -596.84	0.00	0.00 0.00	0.05 -0.05	-21.95
P26	0.00	0.00 6.72	-734.82 953.78	953.78	-2104.86 2391.82	2391.82	0.38 -0.38	-1.00 1.00	2.96
P27	0.00	0.00 13.41	477.12 -69.45	477.12	-1757.84 2009.87	2009.87	-0.12 0.12	-0.84 0.84	-25.98
P28	0.00	0.00 7.76	-721.49 973.41	973.41	2104.22 -2569.06	2104.22	0.38 -0.38	1.04 -1.04	-1.10

**CASO: G1+G2+0.84V3+1.4D3**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 4.81	1206.53 -1501.11	1206.53	-406.94 338.38	338.38	-0.60 0.60	-0.17 0.17	14.54
P2	0.00	0.00 8.66	125.54 20.84	125.54	345.96 -391.12	345.96	-0.02 0.02	0.16 -0.16	-4.76
P3	0.00	0.00 8.26	-156.30 399.27	399.27	229.29 -263.64	229.29	0.12 -0.12	0.11 -0.11	1.30
P4	0.00	0.00 4.29	199.72 -308.39	199.72	-858.03 966.55	966.55	-0.11 0.11	-0.41 0.41	5.53
P5	0.00	0.00 4.96	809.16 -929.05	809.16	-595.36 728.94	728.94	-0.39 0.39	-0.29 0.29	-74.56
P6	0.00	0.00 8.77	-4.08 24.32	24.32	293.18 -235.79	293.18	0.01 -0.01	0.12 -0.12	5.51
P7	0.00	0.00 12.60	83.10 -197.62	83.10	-21.36 -801.50	0.00	-0.06 0.06	0.17 -0.17	27.14
P8	0.00	0.00 9.48	-93.94 70.28	70.28	368.31 -375.55	368.31	0.04 -0.04	0.17 -0.17	0.28
P9	0.00	0.00 6.78	-39.95 91.20	91.20	253.24 -262.79	253.24	0.03 -0.03	0.11 -0.11	4.52
P10	0.00	0.00 3.44	-826.74 937.89	937.89	-87.95 82.65	82.65	0.39 -0.39	-0.04 0.04	89.66
P11	0.00	0.00 1.71	324.06 -310.96	324.06	-195.96 214.93	214.93	-0.14 0.14	-0.09 0.09	6.84
P12	0.00	0.00	230.83	230.83	-3.49	0.00	-0.11	0.02	10.39

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		5.68	-249.67		-109.83		0.11	-0.02	
P13	0.00	0.00	-6.28	7.94	268.59	268.59	0.00	0.12	0.80
		5.32	7.94		-254.56		0.00	-0.12	
P14	0.00	0.00	77.99	77.99	-991.35	1217.58	-0.04	-0.49	19.10
		4.72	-89.59		1217.58		0.04	0.49	
P15	0.00	0.00	730.35	730.35	376.68	914.83	-0.33	-0.12	-47.96
		8.27	-758.94		914.83		0.33	0.12	
P16	0.00	0.00	-213.45	0.00	132.66	530.63	-0.11	-0.09	0.00
		13.51	-716.38		530.63		0.11	0.09	
P18	0.00	0.00	1092.14	1092.14	1100.35	1100.35	-0.50	0.70	44.54
		10.10	-1174.80		-2034.48		0.50	-0.70	
P19	0.00	0.00	-491.35	672.55	-486.19	504.48	0.26	-0.22	4.26
		5.11	672.55		504.48		-0.26	0.22	
P20	0.00	0.00	758.02	758.02	454.89	688.87	-0.36	-0.05	-28.49
		9.07	-839.94		688.87		0.36	0.05	
P21	0.00	0.00	-204.37	0.00	157.58	630.33	-0.11	-0.11	0.00
		14.55	-680.04		630.33		0.11	0.11	
P22	0.00	0.00	521.44	521.44	-645.66	0.00	-0.23	0.20	67.83
		11.54	-513.06		-1529.35		0.23	-0.20	
P23	0.00	0.00	504.60	504.60	457.02	714.97	-0.24	-0.06	-22.70
		9.72	-587.84		714.97		0.24	0.06	
P24	0.00	0.00	-205.42	0.00	167.53	670.13	-0.11	-0.11	0.00
		14.83	-684.26		670.13		0.11	0.11	
P25	0.00	0.00	640.08	640.08	-652.36	0.00	-0.31	0.19	0.30
		10.88	-762.32		-1500.66		0.31	-0.19	
P26	0.00	0.00	-354.89	538.65	-1603.98	1795.95	0.20	-0.76	-29.50
		6.47	538.65		1795.95		-0.20	0.76	
P27	0.00	0.00	268.11	268.11	-1046.34	1222.79	-0.20	-0.50	-11.86
		13.27	-652.57		1222.79		0.20	0.50	
P28	0.00	0.00	-272.04	455.51	2538.70	2538.70	0.16	1.26	20.57
		7.69	455.51		-3117.43		-0.16	-1.26	

CASO: G1+G2+0.84V4+1.4D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00	-116.46	0.00	-533.94	480.69	0.02	-0.23	-20.15
		4.34	-47.78		480.69		-0.02	0.23	
P2	0.00	0.00	17.58	145.06	51.46	51.46	0.03	0.10	-11.65
		8.62	145.06		-385.36		-0.03	-0.10	
P3	0.00	0.00	-209.62	402.22	94.77	94.77	0.14	0.05	-13.66
		8.33	402.22		-127.46		-0.14	-0.05	
P4	0.00	0.00	78.62	78.62	228.62	228.62	-0.06	0.10	-6.95
		3.64	-175.68		-202.56		0.06	-0.10	
P5	0.00	0.00	-70.75	42.18	-581.22	709.56	0.03	-0.29	89.77
		4.51	42.18		709.56		-0.03	0.29	
P6	0.00	0.00	-3.39	24.35	-695.92	763.66	0.01	-0.32	-8.05
		8.75	24.35		763.66		-0.01	0.32	
P7	0.00	0.00	70.35	70.35	178.82	679.44	-0.06	-0.11	-41.00
		11.65	-178.46		679.44		0.06	0.11	
P8	0.00	0.00	-93.93	68.03	-306.19	313.97	0.04	-0.14	-1.89
		8.97	68.03		313.97		-0.04	0.14	
P9	0.00	0.00	-39.68	87.77	-598.88	638.44	0.03	-0.27	-9.25
		7.12	87.77		638.44		-0.03	0.27	
P10	0.00	0.00	232.90	232.90	-120.79	122.38	-0.10	-0.05	-68.01
		3.01	-224.43		122.38		0.10	0.05	
P11	0.00	0.00	-486.10	494.40	-169.18	187.27	0.22	-0.08	-1.41
		2.27	494.40		187.27		-0.22	0.08	
P12	0.00	0.00	194.27	194.27	2.47	134.81	-0.09	-0.03	-0.08
		6.15	-211.72		134.81		0.09	0.03	
P13	0.00	0.00	-25.65	28.73	-407.70	437.19	0.01	-0.19	1.67
		6.00	28.73		437.19		-0.01	0.19	



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Plena**

**Leilson Campos  
Rezende  
Rezende Engenharia**

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P14	0.00	0.00 4.52	103.10 -118.00	103.10	-492.44 688.37	688.37	-0.05 0.05	-0.26 0.26	10.87
P15	0.00	0.00 8.47	-447.01 496.32	496.32	415.26 810.82	810.82	0.21 -0.21	-0.09 0.09	23.66
P16	0.00	0.00 13.67	219.21 739.40	739.40	114.38 457.52	457.52	0.12 -0.12	-0.08 0.08	0.00
P18	0.00	0.00 10.42	-309.32 328.28	328.28	1149.97 -2142.99	1149.97	0.14 -0.14	0.73 -0.73	-72.80
P19	0.00	0.00 5.27	-969.17 1178.89	1178.89	-416.86 430.04	430.04	0.48 -0.48	-0.19 0.19	-10.62
P20	0.00	0.00 9.11	-261.04 265.43	265.43	435.32 593.84	593.84	0.12 -0.12	-0.04 0.04	42.12
P21	0.00	0.00 14.63	212.80 713.77	713.77	131.20 524.81	524.81	0.11 -0.11	-0.09 0.09	0.00
P22	0.00	0.00 11.63	-706.56 812.75	812.75	-674.60 -1615.25	0.00	0.34 -0.34	0.21 -0.21	26.53
P23	0.00	0.00 9.62	-551.77 564.87	564.87	434.09 706.13	706.13	0.25 -0.25	-0.06 0.06	57.36
P24	0.00	0.00 14.67	223.92 758.25	758.25	161.78 647.10	647.10	0.12 -0.12	-0.11 0.11	0.00
P25	0.00	0.00 10.76	-617.96 608.67	608.67	-639.17 -1531.99	0.00	0.27 -0.27	0.20 -0.20	-60.30
P26	0.00	0.00 6.74	-1089.79 1366.38	1366.38	-1636.39 1815.95	1815.95	0.55 -0.55	-0.77 0.77	33.12
P27	0.00	0.00 13.61	697.16 523.61	697.16	-1065.84 1241.10	1241.10	-0.04 0.04	-0.51 0.51	-2.87
P28	0.00	0.00 8.00	-1150.77 1441.21	1441.21	2548.32 -3111.44	2548.32	0.58 -0.58	1.26 -1.26	-23.99

**CASO: G1+G2+0.98Q+0.84V1+1.4D1**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 11.23	1160.45 -2588.55	1160.45	-137.15 -13.06	0.00	-0.83 0.83	-0.03 0.03	-15.31
P2	0.00	0.00 28.82	201.68 328.92	328.92	352.22 -1368.83	352.22	0.03 -0.03	0.38 -0.38	-47.49
P3	0.00	0.00 28.54	-322.84 1480.06	1480.06	814.48 -1054.37	814.48	0.40 -0.40	0.42 -0.42	-22.38
P4	0.00	0.00 10.30	911.98 -1570.18	911.98	-343.51 332.63	332.63	-0.55 0.55	-0.15 0.15	7.68
P5	0.00	0.00 4.67	333.36 -412.18	333.36	16.20 -5.72	16.20	-0.17 0.17	0.00 0.00	28.97
P6	0.00	0.00 18.30	-293.29 313.32	313.32	-604.86 1000.86	1000.86	0.13 -0.13	-0.36 0.36	-4.94
P7	0.00	0.00 33.59	-652.45 458.48	458.48	345.73 -41.66	345.73	0.25 -0.25	0.09 -0.09	-29.40
P8	0.00	0.00 27.42	-413.09 421.31	421.31	39.92 -17.48	39.92	0.19 -0.19	0.01 -0.01	2.12
P9	0.00	0.00 14.07	-1036.38 1291.12	1291.12	-54.53 4.93	4.93	0.52 -0.52	-0.01 0.01	-6.05
P10	0.00	0.00 2.98	-386.33 451.87	451.87	-1014.52 1156.17	1156.17	0.19 -0.19	-0.48 0.48	25.24
P11	0.00	0.00 0.29	-143.10 47.75	47.75	85.33 -68.59	85.33	0.04 -0.04	0.03 -0.03	-7.94
P12	0.00	0.00 7.15	-386.86 402.56	402.56	25.06 19.63	25.06	0.18 -0.18	0.00 0.00	-7.57
P13	0.00	0.00 6.20	-331.48 339.98	339.98	-115.94 223.16	223.16	0.15 -0.15	-0.08 0.08	-4.15
P14	0.00	0.00 4.66	353.22 -378.20	353.22	-697.01 915.15	915.15	-0.16 0.16	-0.36 0.36	17.87
P15	0.00	0.00	100.18	100.18	201.00	295.92	-0.04	-0.02	-4.69

		8.26	-99.48		295.92		0.04	0.02	
P16	0.00	0.00 13.22	2.49 9.94	9.94	-82.29 -149.03	0.00	0.00 0.00	0.01 -0.01	0.00
P18	0.00	0.00 10.53	543.71 -574.55	543.71	1715.77 -3084.86	1715.77	-0.25 0.25	1.07 -1.07	-21.67
P19	0.00	0.00 5.00	-670.99 871.20	871.20	-126.87 104.11	104.11	0.34 -0.34	-0.05 0.05	-10.53
P20	0.00	0.00 8.92	217.52 -259.61	217.52	138.94 -312.07	138.94	-0.11 0.11	0.10 -0.10	8.29
P21	0.00	0.00 14.63	9.73 38.94	38.94	-175.58 -522.20	0.00	0.01 -0.01	0.08 -0.08	0.00
P22	0.00	0.00 11.81	-14.74 72.23	72.23	-894.73 -2533.71	0.00	0.02 -0.02	0.36 -0.36	71.00
P23	0.00	0.00 9.49	-25.79 1.30	1.30	156.30 -243.09	156.30	0.01 -0.01	0.09 -0.09	12.63
P24	0.00	0.00 14.79	13.76 55.06	55.06	-152.31 -429.12	0.00	0.01 -0.01	0.06 -0.06	0.00
P25	0.00	0.00 10.96	92.51 -177.87	92.51	-936.45 -2435.52	0.00	-0.06 0.06	0.33 -0.33	-40.26
P26	0.00	0.00 6.49	-719.68 961.83	961.83	-1134.94 1219.21	1219.21	0.37 -0.37	-0.52 0.52	1.06
P27	0.00	0.00 13.47	490.32 -50.17	490.32	-353.10 452.70	452.70	-0.12 0.12	-0.18 0.18	10.56
P28	0.00	0.00 7.91	-661.80 880.61	880.61	2984.43 -3661.41	2984.43	0.34 -0.34	1.48 -1.48	-4.62

CASO: G1+G2+0.98Q+0.84V2+1.4D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 11.68	1175.05 -2600.71	1175.05	-989.20 905.48	905.48	-0.84 0.84	-0.42 0.42	-16.99
P2	0.00	0.00 28.57	-887.77 1474.14	1474.14	301.36 -1310.21	301.36	0.52 -0.52	0.36 -0.36	-47.13
P3	0.00	0.00 28.84	-301.09 1445.86	1445.86	-288.82 101.86	101.86	0.39 -0.39	-0.09 0.09	-22.82
P4	0.00	0.00 9.78	35.07 -629.03	35.07	-395.08 388.32	388.32	-0.15 0.15	-0.17 0.17	6.12
P5	0.00	0.00 5.13	369.91 -436.34	369.91	-1334.24 1779.09	1779.09	-0.18 0.18	-0.69 0.69	24.81
P6	0.00	0.00 18.21	299.75 -270.55	299.75	-594.37 990.76	990.76	-0.13 0.13	-0.35 0.35	-4.98
P7	0.00	0.00 33.57	1226.56 -1737.63	1226.56	353.61 -57.42	353.61	-0.66 0.66	0.09 -0.09	-28.15
P8	0.00	0.00 27.36	147.88 -140.67	147.88	46.86 -25.61	46.86	-0.06 0.06	0.02 -0.02	1.88
P9	0.00	0.00 14.90	574.23 -420.01	574.23	-29.26 -25.64	0.00	-0.22 0.22	0.00 0.00	-7.24
P10	0.00	0.00 1.89	-311.75 371.43	371.43	755.19 -928.36	755.19	0.15 -0.15	0.37 -0.37	46.92
P11	0.00	0.00 0.63	-126.64 29.61	29.61	-461.62 497.86	497.86	0.03 -0.03	-0.21 0.21	4.00
P12	0.00	0.00 7.02	802.10 -855.40	802.10	26.11 16.12	26.11	-0.37 0.37	0.00 0.00	5.94
P13	0.00	0.00 6.27	284.14 -285.50	284.14	-107.18 213.32	213.32	-0.13 0.13	-0.07 0.07	4.63
P14	0.00	0.00 4.61	-160.18 157.10	157.10	-829.00 1032.96	1032.96	0.07 -0.07	-0.41 0.41	24.29
P15	0.00	0.00 8.48	152.81 -133.41	152.81	590.38 1426.93	1426.93	-0.06 0.06	-0.19 0.19	-21.08
P16	0.00	0.00 13.12	-2.55 -10.19	0.00	329.26 1136.90	1136.90	0.00 0.00	-0.18 0.18	0.00





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Rezende  
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P18	0.00	0.00 9.94	375.33 -420.58	375.33	526.52 -1085.56	526.52	-0.18 0.18	0.36 -0.36	2.79
P19	0.00	0.00 5.36	-745.80 936.27	936.27	-780.49 834.98	834.98	0.37 -0.37	-0.36 0.36	5.17
P20	0.00	0.00 9.26	252.56 -285.85	252.56	750.94 1595.34	1595.34	-0.12 0.12	-0.19 0.19	6.32
P21	0.00	0.00 14.57	5.98 23.92	23.92	464.44 1677.62	1677.62	0.00 0.00	-0.27 0.27	0.00
P22	0.00	0.00 11.37	-62.85 113.98	113.98	-424.43 -611.35	0.00	0.04 -0.04	0.04 -0.04	18.67
P23	0.00	0.00 9.84	-48.77 4.95	4.95	734.62 1664.68	1664.68	0.01 -0.01	-0.21 0.21	23.35
P24	0.00	0.00 14.71	9.68 38.70	38.70	481.71 1746.70	1746.70	0.01 -0.01	-0.28 0.28	0.00
P25	0.00	0.00 10.69	39.25 -94.45	39.25	-355.21 -596.55	0.00	-0.03 0.03	0.05 -0.05	-24.15
P26	0.00	0.00 6.73	-744.64 964.37	964.37	-2104.31 2390.94	2390.94	0.38 -0.38	-1.00 1.00	3.38
P27	0.00	0.00 13.41	479.29 -60.10	479.29	-1756.61 2008.56	2008.56	-0.12 0.12	-0.84 0.84	-26.66
P28	0.00	0.00 7.75	-681.96 930.70	930.70	2105.85 -2570.65	2105.85	0.36 -0.36	1.04 -1.04	-3.40

<b>CASO: G1+G2+0.98Q+0.84V3+1.4D3</b>									
<b>Elemento</b>	<b>Carga (kgf/m)</b>	<b>Rd Nd (tf)</b>	<b>Mxi Mxf (kgf.m)</b>	<b>MxMáx (kgf.m)</b>	<b>Myi Myf (kgf.m)</b>	<b>MyMáx (kgf.m)</b>	<b>Vxi Vxf (tf)</b>	<b>Vyi Vyf (tf)</b>	<b>Mtd (kgf/m)</b>
P1	0.00	0.00 11.68	1829.24 -3321.30	1829.24	-499.68 375.06	375.06	-1.14 1.14	-0.19 0.19	1.19
P2	0.00	0.00 28.72	-289.07 839.42	839.42	474.04 -1342.40	474.04	0.25 -0.25	0.40 -0.40	-43.86
P3	0.00	0.00 28.65	-285.30 1461.48	1461.48	330.09 -544.34	330.09	0.39 -0.39	0.19 -0.19	-15.12
P4	0.00	0.00 10.37	534.08 -1165.96	534.08	-912.62 945.03	945.03	-0.38 0.38	-0.41 0.41	13.14
P5	0.00	0.00 5.13	791.60 -909.87	791.60	-666.09 896.37	896.37	-0.38 0.38	-0.35 0.35	-55.28
P6	0.00	0.00 18.26	2.89 21.37	21.37	-105.07 496.09	496.09	0.00 0.00	-0.13 0.13	1.82
P7	0.00	0.00 34.05	293.44 -649.15	293.44	249.58 -790.01	249.58	-0.21 0.21	0.23 -0.23	5.30
P8	0.00	0.00 27.64	-132.61 141.44	141.44	380.64 -366.30	380.64	0.06 -0.06	0.17 -0.17	3.09
P9	0.00	0.00 14.32	-231.20 437.27	437.27	384.17 -460.97	384.17	0.15 -0.15	0.19 -0.19	0.24
P10	0.00	0.00 2.66	-878.86 992.81	992.81	-113.24 94.04	94.04	0.42 -0.42	-0.05 0.05	114.92
P11	0.00	0.00 0.18	270.21 -364.01	270.21	-201.54 228.47	228.47	-0.14 0.14	-0.10 0.10	2.16
P12	0.00	0.00 6.85	225.90 -245.40	225.90	22.61 -104.45	22.61	-0.10 0.10	0.03 -0.03	4.42
P13	0.00	0.00 5.89	-13.98 16.85	16.85	226.58 -127.63	226.58	0.01 -0.01	0.08 -0.08	-0.20
P14	0.00	0.00 4.73	83.96 -96.35	83.96	-1012.46 1238.66	1238.66	-0.04 0.04	-0.50 0.50	25.19
P15	0.00	0.00 8.27	715.18 -744.07	715.18	376.40 913.43	913.43	-0.32 0.32	-0.12 0.12	-48.70
P16	0.00	0.00 13.09	-216.36 -728.01	0.00	132.62 530.49	530.49	-0.11 0.11	-0.09 0.09	0.00
P18	0.00	0.00 10.08	1160.25 -1249.10	1160.25	1096.33 -2030.95	1096.33	-0.54 0.54	0.69 -0.69	49.22
P19	0.00	0.00	-469.49	650.56	-488.34	506.76	0.25	-0.22	4.76



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		5.10	650.56		506.76		-0.25	0.22	
P20	0.00	0.00 9.07	744.57 -825.41	744.57	454.73 689.15	689.15	-0.35 0.35	-0.05 0.05	-28.00
P21	0.00	0.00 14.56	-200.73 -665.48	0.00	157.62 630.47	630.47	-0.10 0.10	-0.11 0.11	0.00
P22	0.00	0.00 11.54	575.21 -569.80	575.21	-645.11 -1529.58	0.00	-0.25 0.25	0.20 -0.20	65.49
P23	0.00	0.00 9.72	490.90 -573.23	490.90	456.93 715.22	715.22	-0.24 0.24	-0.06 0.06	-22.04
P24	0.00	0.00 14.83	-202.95 -674.37	0.00	167.58 670.30	670.30	-0.10 0.10	-0.11 0.11	0.00
P25	0.00	0.00 10.88	694.90 -821.65	694.90	-652.42 -1500.37	0.00	-0.34 0.34	0.19 -0.19	-1.91
P26	0.00	0.00 6.48	-364.71 549.24	549.24	-1603.42 1795.07	1795.07	0.20 -0.20	-0.76 0.76	-29.09
P27	0.00	0.00 13.27	270.28 -643.23	270.28	-1045.10 1221.48	1221.48	-0.20 0.20	-0.50 0.50	-12.54
P28	0.00	0.00 7.68	-232.52 412.80	412.80	2540.33 -3119.03	2540.33	0.14 -0.14	1.26 -1.26	18.27

CASO: G1+G2+0.98Q+0.84V4+1.4D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 11.22	506.25 -1867.96	506.25	-626.67 517.36	517.36	-0.53 0.53	-0.25 0.25	-33.50
P2	0.00	0.00 28.68	-397.03 963.64	963.64	179.54 -1336.64	179.54	0.30 -0.30	0.34 -0.34	-50.76
P3	0.00	0.00 28.72	-338.63 1464.44	1464.44	195.57 -408.17	195.57	0.40 -0.40	0.13 -0.13	-30.08
P4	0.00	0.00 9.72	412.97 -1033.25	412.97	174.02 -224.08	174.02	-0.32 0.32	0.09 -0.09	0.66
P5	0.00	0.00 4.68	-88.32 61.35	61.35	-651.95 877.00	877.00	0.03 -0.03	-0.34 0.34	109.05
P6	0.00	0.00 18.25	3.58 21.40	21.40	-1094.17 1495.54	1495.54	0.00 0.00	-0.58 0.58	-11.74
P7	0.00	0.00 33.11	280.68 -630.00	280.68	449.76 690.93	690.93	-0.20 0.20	-0.05 0.05	-62.84
P8	0.00	0.00 27.13	-132.60 139.20	139.20	-293.87 323.21	323.21	0.06 -0.06	-0.14 0.14	0.92
P9	0.00	0.00 14.66	-230.94 433.84	433.84	-467.95 440.26	440.26	0.15 -0.15	-0.20 0.20	-13.53
P10	0.00	0.00 2.22	180.78 -169.51	180.78	-146.08 133.77	133.77	-0.08 0.08	-0.06 0.06	-42.75
P11	0.00	0.00 0.74	-539.95 441.36	441.36	-174.76 200.81	200.81	0.22 -0.22	-0.08 0.08	-6.09
P12	0.00	0.00 7.32	189.34 -207.45	189.34	28.57 140.20	140.20	-0.09 0.09	-0.02 0.02	-6.05
P13	0.00	0.00 6.57	-33.36 37.63	37.63	-449.71 564.12	564.12	0.02 -0.02	-0.23 0.23	0.68
P14	0.00	0.00 4.53	109.08 -124.76	109.08	-513.55 709.45	709.45	-0.05 0.05	-0.27 0.27	16.96
P15	0.00	0.00 8.47	-462.19 511.19	511.19	414.98 809.42	809.42	0.22 -0.22	-0.09 0.09	22.93
P16	0.00	0.00 13.25	216.30 727.77	727.77	114.35 457.38	457.38	0.11 -0.11	-0.08 0.08	0.00
P18	0.00	0.00 10.40	-241.21 253.97	253.97	1145.95 -2139.46	1145.95	0.11 -0.11	0.73 -0.73	-68.11
P19	0.00	0.00 5.26	-947.31 1156.90	1156.90	-419.02 432.32	432.32	0.47 -0.47	-0.19 0.19	-10.12
P20	0.00	0.00 9.11	-274.49 279.96	279.96	435.15 594.12	594.12	0.12 -0.12	-0.04 0.04	42.61

P21	0.00	0.00 14.64	216.44 728.34	728.34	131.24 524.95	524.95	0.11 -0.11	-0.09 0.09	0.00
P22	0.00	0.00 11.63	-652.80 756.01	756.01	-674.05 -1615.48	0.00	0.31 -0.31	0.21 -0.21	24.19
P23	0.00	0.00 9.62	-565.47 579.48	579.48	434.00 706.37	706.37	0.25 -0.25	-0.06 0.06	58.02
P24	0.00	0.00 14.67	226.39 768.13	768.13	161.82 647.28	647.28	0.12 -0.12	-0.11 0.11	0.00
P25	0.00	0.00 10.77	-563.14 549.33	549.33	-639.24 -1531.70	0.00	0.25 -0.25	0.20 -0.20	-62.50
P26	0.00	0.00 6.74	-1099.61 1376.96	1376.96	-1635.83 1815.07	1815.07	0.55 -0.55	-0.77 0.77	33.53
P27	0.00	0.00 13.61	699.33 532.96	699.33	-1064.61 1239.79	1239.79	-0.04 0.04	-0.51 0.51	-3.56
P28	0.00	0.00 7.98	-1111.25 1398.50	1398.50	2549.95 -3113.03	2549.95	0.56 -0.56	1.26 -1.26	-26.29

CASO: G1+G2+0.98Q+1.4V1+0.84D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 11.14	1143.85 -2571.41	1143.85	19.34 -181.03	19.34	-0.83 0.83	0.04 -0.04	-16.06
P2	0.00	0.00 28.86	401.55 119.26	401.55	360.29 -1379.61	360.29	-0.06 0.06	0.39 -0.39	-48.67
P3	0.00	0.00 28.48	-324.87 1486.26	1486.26	1016.79 -1266.00	1016.79	0.40 -0.40	0.51 -0.51	-23.14
P4	0.00	0.00 10.40	1073.36 -1742.78	1073.36	-343.64 332.38	332.38	-0.63 0.63	-0.15 0.15	7.05
P5	0.00	0.00 4.58	320.66 -401.83	320.66	280.67 -351.89	280.67	-0.16 0.16	0.14 -0.14	31.38
P6	0.00	0.00 18.32	-407.51 425.84	425.84	-616.97 1013.01	1013.01	0.19 -0.19	-0.36 0.36	-5.32
P7	0.00	0.00 33.59	-1017.29 883.06	883.06	343.94 -30.11	343.94	0.42 -0.42	0.08 -0.08	-31.99
P8	0.00	0.00 27.43	-521.23 529.65	529.65	40.14 -17.45	40.14	0.23 -0.23	0.01 -0.01	1.88
P9	0.00	0.00 13.91	-1347.32 1621.09	1621.09	-51.93 3.02	3.02	0.66 -0.66	-0.01 0.01	-6.88
P10	0.00	0.00 3.20	-410.88 478.28	478.28	-1358.06 1559.04	1559.04	0.20 -0.20	-0.65 0.65	22.47
P11	0.00	0.00 0.22	-154.59 59.51	59.51	204.64 -191.90	204.64	0.05 -0.05	0.09 -0.09	-12.21
P12	0.00	0.00 7.18	-647.26 676.79	676.79	24.74 21.72	24.74	0.29 -0.29	0.00 0.00	-11.67
P13	0.00	0.00 6.18	-465.39 475.96	475.96	-116.15 223.60	223.60	0.21 -0.21	-0.08 0.08	-7.52
P14	0.00	0.00 4.66	465.50 -494.88	465.50	-668.54 889.40	889.40	-0.21 0.21	-0.35 0.35	16.89
P15	0.00	0.00 8.21	82.58 -85.74	82.58	123.12 48.22	123.12	-0.04 0.04	0.02 -0.02	-1.54
P16	0.00	0.00 13.24	5.45 21.80	21.80	-178.91 -422.10	0.00	0.00 0.00	0.05 -0.05	0.00
P18	0.00	0.00 10.66	590.89 -619.43	590.89	1985.91 -3525.24	1985.91	-0.27 0.27	1.22 -1.22	-28.71
P19	0.00	0.00 4.92	-654.94 856.85	856.85	20.75 -59.80	20.75	0.34 -0.34	0.02 -0.02	-14.27
P20	0.00	0.00 8.84	205.32 -248.77	205.32	14.94 -728.68	14.94	-0.10 0.10	0.17 -0.17	9.01
P21	0.00	0.00 14.65	12.33 49.32	49.32	-321.68 -993.16	0.00	0.01 -0.01	0.15 -0.15	0.00
P22	0.00	0.00	4.28	54.03	-983.37	0.00	0.01	0.44	83.51



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		11.90	54.03		-2956.22		-0.01	-0.44	
P23	0.00	0.00 9.42	-26.06 6.11	6.11	42.40 -651.94	42.40	0.01 -0.01	0.15 -0.15	10.77
P24	0.00	0.00 14.80	16.49 65.96	65.96	-294.71 -885.31	0.00	0.01 -0.01	0.13 -0.13	0.00
P25	0.00	0.00 11.01	113.15 -205.80	113.15	-1050.92 -2829.63	0.00	-0.07 0.07	0.40 -0.40	-44.54
P26	0.00	0.00 6.44	-718.13 965.40	965.40	-912.18 954.57	954.57	0.37 -0.37	-0.41 0.41	0.77
P27	0.00	0.00 13.49	494.14 -41.84	494.14	-35.67 102.74	102.74	-0.12 0.12	-0.03 0.03	18.40
P28	0.00	0.00 7.94	-650.72 862.61	862.61	3187.98 -3908.37	3187.98	0.34 -0.34	1.58 -1.58	-5.72

<b>CASO: G1+G2+0.98Q+1.4V2+0.84D2</b>									
<b>Elemento</b>	<b>Carga (kgf/m)</b>	<b>Rd Nd (tf)</b>	<b>Mxi Mxf (kgf.m)</b>	<b>MxMáx (kgf.m)</b>	<b>Myi Myf (kgf.m)</b>	<b>MyMáx (kgf.m)</b>	<b>Vxi Vxf (tf)</b>	<b>Vyi Vyf (tf)</b>	<b>Mtd (kgf/m)</b>
P1	0.00	0.00 11.76	1191.64 -2617.85	1191.64	-1145.69 1073.44	1073.44	-0.85 0.85	-0.49 0.49	-16.24
P2	0.00	0.00 28.53	-1087.65 1683.80	1683.80	293.29 -1299.43	293.29	0.62 -0.62	0.35 -0.35	-45.95
P3	0.00	0.00 28.89	-299.06 1439.66	1439.66	-491.13 313.49	313.49	0.39 -0.39	-0.18 0.18	-22.06
P4	0.00	0.00 9.68	-126.31 -456.43	0.00	-394.96 388.58	388.58	-0.07 0.07	-0.17 0.17	6.74
P5	0.00	0.00 5.23	382.61 -446.69	382.61	-1598.71 2125.26	2125.26	-0.18 0.18	-0.83 0.83	22.40
P6	0.00	0.00 18.19	413.97 -383.07	413.97	-582.26 978.61	978.61	-0.18 0.18	-0.35 0.35	-4.60
P7	0.00	0.00 33.57	1591.40 -2162.21	1591.40	355.40 -68.97	355.40	-0.83 0.83	0.09 -0.09	-25.56
P8	0.00	0.00 27.35	256.02 -249.02	256.02	46.63 -25.64	46.63	-0.11 0.11	0.02 -0.02	2.13
P9	0.00	0.00 15.07	885.18 -749.99	885.18	-31.85 -23.73	0.00	-0.36 0.36	0.00 0.00	-6.41
P10	0.00	0.00 1.68	-287.20 345.02	345.02	1098.74 -1331.23	1098.74	0.14 -0.14	0.54 -0.54	49.69
P11	0.00	0.00 0.70	-115.15 17.84	17.84	-580.94 621.18	621.18	0.03 -0.03	-0.27 0.27	8.27
P12	0.00	0.00 6.98	1062.50 -1129.64	1062.50	26.44 14.04	26.44	-0.49 0.49	0.00 0.00	10.04
P13	0.00	0.00 6.28	418.05 -421.48	418.05	-106.97 212.88	212.88	-0.19 0.19	-0.07 0.07	8.00
P14	0.00	0.00 4.60	-272.46 273.77	273.77	-857.47 1058.71	1058.71	0.12 -0.12	-0.43 0.43	25.27
P15	0.00	0.00 8.52	170.41 -147.14	170.41	668.25 1674.63	1674.63	-0.07 0.07	-0.22 0.22	-24.23
P16	0.00	0.00 13.10	-5.51 -22.04	0.00	425.88 1409.98	1409.98	0.00 0.00	-0.22 0.22	0.00
P18	0.00	0.00 9.82	328.15 -375.70	328.15	256.38 -645.18	256.38	-0.16 0.16	0.20 -0.20	9.83
P19	0.00	0.00 5.44	-761.86 950.61	950.61	-928.11 998.88	998.88	0.38 -0.38	-0.43 0.43	8.91
P20	0.00	0.00 9.33	264.76 -296.69	264.76	874.94 2011.96	2011.96	-0.12 0.12	-0.25 0.25	5.59
P21	0.00	0.00 14.56	3.38 13.54	13.54	610.53 2148.58	2148.58	0.00 0.00	-0.34 0.34	0.00
P22	0.00	0.00 11.27	-81.86 132.18	132.18	-335.79 -188.84	0.00	0.05 -0.05	-0.03 0.03	6.16
P23	0.00	0.00 9.92	-48.50 0.14	0.14	848.53 2073.53	2073.53	0.01 -0.01	-0.27 0.27	25.21



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P24	0.00	0.00 14.69	6.95 27.80	27.80	624.11 2202.89	2202.89	0.00 0.00	-0.35 0.35	0.00
P25	0.00	0.00 10.64	18.61 -66.52	18.61	-240.74 -202.44	0.00	-0.02 0.02	-0.01 0.01	-19.87
P26	0.00	0.00 6.78	-746.20 960.80	960.80	-2327.07 2655.58	2655.58	0.38 -0.38	-1.11 1.11	3.66
P27	0.00	0.00 13.39	475.47 -68.43	475.47	-2074.04 2358.52	2358.52	-0.12 0.12	-0.99 0.99	-34.49
P28	0.00	0.00 7.72	-693.04 948.70	948.70	1902.30 -2323.69	1902.30	0.36 -0.36	0.94 -0.94	-2.30


**CASO: G1+G2+0.98Q+1.4V3+0.84D3**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 11.76	2037.53 -3548.71	2037.53	-480.95 354.13	354.13	-1.24 1.24	-0.19 0.19	6.36
P2	0.00	0.00 28.72	-273.31 821.58	821.58	511.90 -1343.18	511.90	0.24 -0.24	0.41 -0.41	-43.28
P3	0.00	0.00 28.64	-269.63 1460.93	1460.93	349.77 -564.01	349.77	0.38 -0.38	0.20 -0.20	-12.43
P4	0.00	0.00 10.47	551.77 -1185.50	551.77	-1084.52 1129.75	1129.75	-0.39 0.39	-0.49 0.49	15.07
P5	0.00	0.00 5.21	964.97 -1099.38	964.97	-667.27 898.40	898.40	-0.46 0.46	-0.35 0.35	-78.16
P6	0.00	0.00 18.27	2.76 21.39	21.39	49.26 340.14	340.14	0.00 0.00	-0.06 0.06	3.80
P7	0.00	0.00 34.21	295.20 -651.95	295.20	237.53 -1032.50	237.53	-0.21 0.21	0.28 -0.28	15.48
P8	0.00	0.00 27.73	-132.69 141.87	141.87	488.91 -476.68	488.91	0.06 -0.06	0.21 -0.21	3.42
P9	0.00	0.00 14.26	-231.41 437.95	437.95	518.78 -603.27	518.78	0.15 -0.15	0.25 -0.25	2.41
P10	0.00	0.00 2.74	-1078.20 1209.22	1209.22	-107.43 87.07	87.07	0.51 -0.51	-0.04 0.04	134.55
P11	0.00	0.00 0.09	396.96 -489.84	396.96	-206.18 233.25	233.25	-0.20 0.20	-0.10 0.10	3.44
P12	0.00	0.00 6.77	232.75 -252.49	232.75	24.42 -144.62	24.42	-0.11 0.11	0.04 -0.04	5.89
P13	0.00	0.00 5.78	-10.31 12.93	12.93	335.15 -238.39	335.15	0.01 -0.01	0.13 -0.13	0.17
P14	0.00	0.00 4.76	79.56 -91.41	79.56	-1104.02 1335.35	1335.35	-0.04 0.04	-0.54 0.54	24.26
P15	0.00	0.00 8.23	945.38 -989.05	945.38	369.89 925.78	925.78	-0.43 0.43	-0.12 0.12	-57.88
P16	0.00	0.00 13.06	-292.85 -949.02	0.00	134.38 537.54	537.54	-0.15 0.15	-0.09 0.09	0.00
P18	0.00	0.00 10.02	1422.87 -1529.67	1422.87	1090.86 -2019.25	1090.86	-0.66 0.66	0.69 -0.69	70.28
P19	0.00	0.00 5.07	-380.80 557.31	557.31	-499.72 518.94	518.94	0.21 -0.21	-0.23 0.23	7.41
P20	0.00	0.00 9.06	945.46 -1041.89	945.46	457.25 703.05	703.05	-0.44 0.44	-0.05 0.05	-37.70
P21	0.00	0.00 14.55	-274.78 -876.74	0.00	161.42 645.68	645.68	-0.13 0.13	-0.11 0.11	0.00
P22	0.00	0.00 11.52	805.76 -817.17	805.76	-640.74 -1517.34	0.00	-0.36 0.36	0.19 -0.19	70.66
P23	0.00	0.00 9.74	698.88 -799.08	698.88	460.50 716.23	716.23	-0.33 0.33	-0.06 0.06	-32.98
P24	0.00	0.00 14.86	-279.24 -894.57	0.00	168.39 673.56	673.56	-0.14 0.14	-0.11 0.11	0.00
P25	0.00	0.00	931.12	931.12	-654.62	0.00	-0.45	0.19	6.30

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		10.90	-1077.77		-1495.68		0.45	-0.19	
P26	0.00	0.00 6.43	-217.61 386.28	386.28	-1599.25 1792.73	1792.73	0.13 -0.13	-0.75 0.75	-37.50
P27	0.00	0.00 13.21	220.17 -834.63	220.17	-1042.45 1219.02	1219.02	-0.23 0.23	-0.50 0.50	-13.72
P28	0.00	0.00 7.62	-64.87 227.85	227.85	2539.28 -3120.22	2539.28	0.07 -0.07	1.26 -1.26	24.23

CASO: G1+G2+0.98Q+1.4V4+0.84D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 11.15	297.97 -1640.55	297.97	-645.40 538.28	538.28	-0.43 0.43	-0.26 0.26	-38.66
P2	0.00	0.00 28.67	-412.79 981.48	981.48	141.68 -1335.85	141.68	0.31 -0.31	0.33 -0.33	-51.34
P3	0.00	0.00 28.73	-354.30 1464.99	1464.99	175.89 -388.49	175.89	0.40 -0.40	0.13 -0.13	-32.77
P4	0.00	0.00 9.61	395.29 -1013.71	395.29	345.92 -408.80	345.92	-0.31 0.31	0.17 -0.17	-1.28
P5	0.00	0.00 4.60	-261.70 250.86	250.86	-650.78 874.96	874.96	0.11 -0.11	-0.34 0.34	131.93
P6	0.00	0.00 18.24	3.70 21.38	21.38	-1248.49 1651.48	1651.48	0.00 0.00	-0.64 0.64	-13.72
P7	0.00	0.00 32.95	278.92 -627.20	278.92	461.81 933.42	933.42	-0.20 0.20	-0.10 0.10	-73.02
P8	0.00	0.00 27.05	-132.52 138.77	138.77	-402.14 433.59	433.59	0.06 -0.06	-0.19 0.19	0.59
P9	0.00	0.00 14.71	-230.74 433.16	433.16	-602.56 582.56	582.56	0.15 -0.15	-0.26 0.26	-15.69
P10	0.00	0.00 2.14	380.12 -385.92	380.12	-151.90 140.73	140.73	-0.17 0.17	-0.07 0.07	-62.39
P11	0.00	0.00 0.83	-666.69 567.20	567.20	-170.11 196.03	196.03	0.27 -0.27	-0.08 0.08	-7.38
P12	0.00	0.00 7.40	182.49 -200.36	182.49	26.75 180.38	180.38	-0.09 0.09	-0.03 0.03	-7.52
P13	0.00	0.00 6.68	-37.03 41.55	41.55	-558.28 674.87	674.87	0.02 -0.02	-0.27 0.27	0.31
P14	0.00	0.00 4.50	113.48 -129.69	113.48	-421.99 612.76	612.76	-0.05 0.05	-0.23 0.23	17.90
P15	0.00	0.00 8.51	-692.39 756.17	756.17	421.48 797.07	797.07	0.32 -0.32	-0.08 0.08	32.11
P16	0.00	0.00 13.28	292.79 948.78	948.78	112.58 450.34	450.34	0.15 -0.15	-0.08 0.08	0.00
P18	0.00	0.00 10.45	-503.84 534.54	534.54	1151.43 -2151.16	1151.43	0.23 -0.23	0.73 -0.73	-89.16
P19	0.00	0.00 5.29	-1036.00 1250.15	1250.15	-407.64 420.14	420.14	0.51 -0.51	-0.18 0.18	-12.77
P20	0.00	0.00 9.11	-475.38 496.44	496.44	432.63 580.23	580.23	0.22 -0.22	-0.03 0.03	52.31
P21	0.00	0.00 14.66	290.50 939.61	939.61	127.44 509.74	509.74	0.14 -0.14	-0.08 0.08	0.00
P22	0.00	0.00 11.65	-883.35 1003.38	1003.38	-678.42 -1627.72	0.00	0.42 -0.42	0.21 -0.21	19.01
P23	0.00	0.00 9.60	-773.44 805.33	805.33	430.43 705.37	705.37	0.35 -0.35	-0.06 0.06	68.96
P24	0.00	0.00 14.64	302.68 988.33	988.33	161.00 644.02	644.02	0.15 -0.15	-0.11 0.11	0.00
P25	0.00	0.00 10.75	-799.36 805.45	805.45	-637.04 -1536.39	0.00	0.36 -0.36	0.20 -0.20	-70.71
P26	0.00	0.00 6.79	-1246.71 1539.92	1539.92	-1640.00 1817.42	1817.42	0.62 -0.62	-0.77 0.77	41.93

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P27	0.00	0.00 13.66	749.44 724.36	749.44	-1067.26 1242.25	1242.25	-0.01 0.01	-0.51 0.51	-2.37
P28	0.00	0.00 8.04	-1278.90 1583.45	1583.45	2550.99 -3111.84	2550.99	0.64 -0.64	1.26 -1.26	-32.25


CASO: G1+G2+1.2D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 4.53	554.46 -784.96	554.46	-367.96 298.46	298.46	-0.30 0.30	-0.15 0.15	-1.76
P2	0.00	0.00 8.67	202.77 -55.33	202.77	205.85 -395.28	205.85	-0.06 0.06	0.13 -0.13	-7.35
P3	0.00	0.00 8.26	-187.16 404.92	404.92	294.98 -335.20	294.98	0.13 -0.13	0.14 -0.14	-5.45
P4	0.00	0.00 4.02	244.37 -355.43	244.37	-300.79 367.28	367.28	-0.13 0.13	-0.15 0.15	0.21
P5	0.00	0.00 4.69	369.62 -445.28	369.62	-439.08 519.34	519.34	-0.18 0.18	-0.21 0.21	6.78
P6	0.00	0.00 8.77	-70.79 90.30	90.30	-194.45 256.88	256.88	0.04 -0.04	-0.10 0.10	-0.95
P7	0.00	0.00 12.13	-133.41 59.03	59.03	78.07 -66.09	78.07	0.04 -0.04	0.03 -0.03	-5.18
P8	0.00	0.00 9.23	-157.29 132.62	132.62	29.02 -28.63	29.02	0.06 -0.06	0.01 -0.01	-0.55
P9	0.00	0.00 6.86	-221.36 282.66	282.66	-181.67 197.55	197.55	0.11 -0.11	-0.08 0.08	-1.38
P10	0.00	0.00 3.34	-297.17 357.06	357.06	-302.34 337.13	337.13	0.15 -0.15	-0.14 0.14	7.25
P11	0.00	0.00 1.96	-76.20 87.12	87.12	-131.95 148.47	148.47	0.04 -0.04	-0.06 0.06	2.95
P12	0.00	0.00 5.93	103.33 -114.11	103.33	-0.53 11.75	11.75	-0.05 0.05	0.00 0.00	4.83
P13	0.00	0.00 5.65	-73.25 76.60	76.60	-71.73 93.59	93.59	0.03 -0.03	-0.04 0.04	1.59
P14	0.00	0.00 4.63	137.84 -153.42	137.84	-729.42 942.11	942.11	-0.06 0.06	-0.37 0.37	14.05
P15	0.00	0.00 8.35	141.72 -133.26	141.72	354.25 758.92	758.92	-0.06 0.06	-0.09 0.09	-10.30
P16	0.00	0.00 13.60	1.84 7.38	7.38	90.93 369.06	369.06	0.00 0.00	-0.06 0.06	0.00
P18	0.00	0.00 10.32	398.60 -428.44	398.60	1226.63 -2270.39	1226.63	-0.18 0.18	0.78 -0.78	-15.02
P19	0.00	0.00 5.16	-723.12 919.81	919.81	-395.07 403.20	403.20	0.37 -0.37	-0.18 0.18	-4.38
P20	0.00	0.00 9.06	248.92 -288.94	248.92	380.82 465.22	465.22	-0.12 0.12	-0.02 0.02	6.76
P21	0.00	0.00 14.59	3.14 12.54	12.54	90.36 366.78	366.78	0.00 0.00	-0.06 0.06	0.00
P22	0.00	0.00 11.63	-94.95 153.29	153.29	-714.88 -1747.70	0.00	0.06 -0.06	0.23 -0.23	51.14
P23	0.00	0.00 9.64	-17.22 -16.33	0.00	382.18 528.08	528.08	0.00 0.00	-0.03 0.03	15.95
P24	0.00	0.00 14.76	8.15 32.61	32.61	109.26 442.38	442.38	0.01 -0.01	-0.07 0.07	0.00
P25	0.00	0.00 10.85	8.74 -76.73	8.74	-709.47 -1692.21	0.00	-0.02 0.02	0.22 -0.22	-30.88
P26	0.00	0.00 6.59	-716.90 948.97	948.97	-1539.54 1704.75	1704.75	0.37 -0.37	-0.72 0.72	1.42
P27	0.00	0.00 13.44	482.52 -68.51	482.52	-935.23 1096.42	1096.42	-0.12 0.12	-0.45 0.45	-3.69
P28	0.00	0.00	-714.91	949.41	2615.27	2615.27	0.37	1.29	-1.15

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		7.86	949.41		-3208.15		-0.37	-1.29	
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CASO: G1+G2+1.2D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 4.63	535.61 -763.93	535.61	-572.91 520.60	520.60	-0.29 0.29	-0.24 0.24	-3.85
P2	0.00	0.00 8.61	-59.64 221.23	221.23	191.57 -381.20	191.57	0.06 -0.06	0.13 -0.13	-9.06
P3	0.00	0.00 8.33	-178.77 396.57	396.57	29.08 -55.91	29.08	0.13 -0.13	0.02 -0.02	-6.91
P4	0.00	0.00 3.91	33.96 -128.64	33.96	-328.62 396.71	396.71	-0.04 0.04	-0.16 0.16	-1.63
P5	0.00	0.00 4.79	368.79 -441.59	368.79	-737.50 919.16	919.16	-0.18 0.18	-0.37 0.37	8.42
P6	0.00	0.00 8.75	63.33 -41.64	63.33	-208.29 271.00	271.00	-0.02 0.02	-0.11 0.11	-1.59
P7	0.00	0.00 12.12	286.85 -435.11	286.85	79.40 -55.97	79.40	-0.16 0.16	0.03 -0.03	-8.68
P8	0.00	0.00 9.22	-30.58 5.69	5.69	33.10 -32.95	33.10	0.01 -0.01	0.01 -0.01	-1.07
P9	0.00	0.00 7.04	141.73 -103.69	141.73	-163.96 178.10	178.10	-0.05 0.05	-0.08 0.08	-3.35
P10	0.00	0.00 3.10	-296.67 356.40	356.40	93.60 -132.11	93.60	0.15 -0.15	0.05 -0.05	14.41
P11	0.00	0.00 2.03	-85.84 96.31	96.31	-233.20 253.74	253.74	0.04 -0.04	-0.11 0.11	2.49
P12	0.00	0.00 5.91	321.77 -347.28	321.77	-0.49 13.23	13.23	-0.15 0.15	0.00 0.00	5.49
P13	0.00	0.00 5.66	41.33 -39.94	41.33	-67.38 89.03	89.03	-0.02 0.02	-0.03 0.03	0.88
P14	0.00	0.00 4.62	43.25 -54.17	43.25	-754.37 963.85	963.85	-0.02 0.02	-0.38 0.38	15.92
P15	0.00	0.00 8.39	141.62 -129.36	141.62	437.69 966.73	966.73	-0.06 0.06	-0.12 0.12	-14.01
P16	0.00	0.00 13.58	3.91 15.64	15.64	156.11 619.09	619.09	0.00 0.00	-0.10 0.10	0.00
P18	0.00	0.00 10.21	384.22 -418.08	384.22	1023.68 -1907.08	1023.68	-0.18 0.18	0.65 -0.65	-13.24
P19	0.00	0.00 5.22	-737.40 931.62	931.62	-507.97 531.32	531.32	0.37 -0.37	-0.23 0.23	-1.98
P20	0.00	0.00 9.12	248.07 -285.57	248.07	509.39 817.49	817.49	-0.12 0.12	-0.07 0.07	6.88
P21	0.00	0.00 14.58	5.30 21.19	21.19	198.43 788.35	788.35	0.00 0.00	-0.13 0.13	0.00
P22	0.00	0.00 11.55	-90.17 146.40	146.40	-605.38 -1396.90	0.00	0.05 -0.05	0.18 -0.18	43.21
P23	0.00	0.00 9.70	-29.95 -6.64	0.00	508.93 893.02	893.02	0.01 -0.01	-0.09 0.09	18.71
P24	0.00	0.00 14.74	10.34 41.37	41.37	220.05 874.85	874.85	0.01 -0.01	-0.15 0.15	0.00
P25	0.00	0.00 10.80	13.38 -76.91	13.38	-582.06 -1340.44	0.00	-0.02 0.02	0.17 -0.17	-29.12
P26	0.00	0.00 6.63	-727.78 956.06	956.06	-1700.83 1907.15	1907.15	0.37 -0.37	-0.80 0.80	2.20
P27	0.00	0.00 13.43	482.75 -60.45	482.75	-1176.95 1367.47	1367.47	-0.12 0.12	-0.57 0.57	-11.04
P28	0.00	0.00 7.83	-707.90 947.32	947.32	2471.75 -3020.72	2471.75	0.37 -0.37	1.22 -1.22	-2.27



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CASO: G1+G2+1.2D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 4.64	732.04 -980.99	732.04	-451.47 388.23	388.23	-0.38 0.38	-0.19 0.19	2.34
P2	0.00	0.00 8.65	87.81 64.01	87.81	247.17 -389.15	247.17	-0.01 0.01	0.14 -0.14	-6.83
P3	0.00	0.00 8.28	-181.28 400.40	400.40	182.25 -216.22	182.25	0.13 -0.13	0.09 -0.09	-4.33
P4	0.00	0.00 4.06	157.39 -261.89	157.39	-467.64 546.71	546.71	-0.09 0.09	-0.23 0.23	1.08
P5	0.00	0.00 4.79	465.58 -551.30	465.58	-591.14 722.81	722.81	-0.23 0.23	-0.29 0.29	-18.03
P6	0.00	0.00 8.76	-3.81 24.31	24.31	-60.44 121.54	121.54	0.01 -0.01	-0.04 0.04	0.77
P7	0.00	0.00 12.25	78.73 -190.92	78.73	34.79 -262.86	34.79	-0.06 0.06	0.07 -0.07	3.14
P8	0.00	0.00 9.30	-93.88 69.41	69.41	124.73 -126.78	124.73	0.04 -0.04	0.06 -0.06	-0.49
P9	0.00	0.00 6.90	-39.73 89.85	89.85	-52.74 60.77	60.77	0.03 -0.03	-0.03 0.03	-0.41
P10	0.00	0.00 3.27	-420.57 494.17	494.17	-100.24 97.46	97.46	0.20 -0.20	-0.04 0.04	37.28
P11	0.00	0.00 1.91	34.14 -22.89	34.14	-186.01 204.67	204.67	-0.01 0.01	-0.09 0.09	3.89
P12	0.00	0.00 5.86	216.83 -235.16	216.83	-3.56 -20.76	0.00	-0.10 0.10	0.00 0.00	6.78
P13	0.00	0.00 5.56	-13.73 15.91	15.91	24.35 -4.98	24.35	0.01 -0.01	0.01 -0.01	0.71
P14	0.00	0.00 4.64	87.36 -100.15	87.36	-801.96 1017.03	1017.03	-0.04 0.04	-0.40 0.40	17.94
P15	0.00	0.00 8.35	272.05 -270.68	272.05	390.86 880.76	880.76	-0.12 0.12	-0.11 0.11	-23.96
P16	0.00	0.00 13.57	-51.55 -200.84	0.00	127.00 508.00	508.00	-0.03 0.03	-0.08 0.08	0.00
P18	0.00	0.00 10.22	555.77 -600.41	555.77	1116.26 -2069.07	1116.26	-0.26 0.26	0.71 -0.71	0.38
P19	0.00	0.00 5.17	-673.54 865.02	865.02	-460.95 477.42	477.42	0.34 -0.34	-0.21 0.21	-1.32
P20	0.00	0.00 9.08	360.03 -409.38	360.03	448.32 655.64	655.64	-0.17 0.17	-0.05 0.05	-4.30
P21	0.00	0.00 14.58	-48.02 -186.71	0.00	148.40 593.61	593.61	-0.03 0.03	-0.10 0.10	0.00
P22	0.00	0.00 11.58	51.11 -6.50	51.11	-655.89 -1559.12	0.00	-0.01 0.01	0.20 -0.20	54.08
P23	0.00	0.00 9.68	92.25 -138.76	92.25	448.83 712.11	712.11	-0.05 0.05	-0.06 0.06	4.68
P24	0.00	0.00 14.77	-44.45 -172.44	0.00	165.54 662.16	662.16	-0.03 0.03	-0.11 0.11	0.00
P25	0.00	0.00 10.83	158.21 -238.25	158.21	-647.53 -1511.71	0.00	-0.09 0.09	0.19 -0.19	-20.37
P26	0.00	0.00 6.58	-643.69 861.75	861.75	-1614.86 1802.48	1802.48	0.33 -0.33	-0.76 0.76	-8.21
P27	0.00	0.00 13.39	407.98 -225.73	407.98	-1052.99 1229.02	1229.02	-0.14 0.14	-0.51 0.51	-8.82
P28	0.00	0.00 7.81	-610.75 832.96	832.96	2541.78 -3115.08	2541.78	0.32 -0.32	1.26 -1.26	5.43

CASO: G1+G2+1.2D4									
Elemento	Carga (kgf/m)	Rd Nd	Mxi Mxf	MxMáx (kgf.m)	Myi Myf	MyMáx (kgf.m)	Vxi Vxf	Vyi Vyf	Mtd (kgf/m)





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		(tf)	(kgf.m)		(kgf.m)		(tf)	(tf)	
P1	0.00	0.00 4.51	358.03 -567.90	358.03	-489.41 430.84	430.84	-0.21 0.21	-0.20 0.20	-7.95
P2	0.00	0.00 8.63	55.31 101.88	101.88	150.25 -387.33	150.25	0.01 -0.01	0.12 -0.12	-9.58
P3	0.00	0.00 8.30	-184.65 401.09	401.09	141.81 -174.88	141.81	0.13 -0.13	0.07 -0.07	-8.02
P4	0.00	0.00 3.87	120.94 -222.19	120.94	-161.77 217.27	217.27	-0.08 0.08	-0.08 0.08	-2.50
P5	0.00	0.00 4.69	272.83 -335.57	272.83	-585.45 715.70	715.70	-0.14 0.14	-0.29 0.29	33.23
P6	0.00	0.00 8.76	-3.65 24.36	24.36	-342.30 406.34	406.34	0.01 -0.01	-0.17 0.17	-3.31
P7	0.00	0.00 11.99	74.72 -185.16	74.72	122.67 140.80	140.80	-0.06 0.06	0.00 0.00	-17.00
P8	0.00	0.00 9.16	-93.99 68.90	68.90	-62.61 65.20	65.20	0.04 -0.04	-0.03 0.03	-1.12
P9	0.00	0.00 7.00	-39.91 89.11	89.11	-292.90 314.88	314.88	0.03 -0.03	-0.14 0.14	-4.31
P10	0.00	0.00 3.18	-173.27 219.30	219.30	-108.49 107.56	107.56	0.09 -0.09	-0.05 0.05	-15.62
P11	0.00	0.00 2.07	-196.18 206.33	206.33	-179.14 197.54	197.54	0.09 -0.09	-0.08 0.08	1.54
P12	0.00	0.00 5.98	208.27 -226.23	208.27	2.55 45.73	45.73	-0.10 0.10	-0.01 0.01	3.54
P13	0.00	0.00 5.75	-18.20 20.75	20.75	-163.46 187.60	187.60	0.01 -0.01	-0.08 0.08	1.76
P14	0.00	0.00 4.60	93.74 -107.44	93.74	-681.83 888.92	888.92	-0.04 0.04	-0.35 0.35	12.03
P15	0.00	0.00 8.39	11.29 8.06	11.29	401.08 844.89	844.89	0.00 0.00	-0.10 0.10	-0.34
P16	0.00	0.00 13.61	57.30 223.85	223.85	120.04 480.16	480.16	0.04 -0.04	-0.08 0.08	0.00
P18	0.00	0.00 10.30	227.06 -246.11	227.06	1134.05 -2108.40	1134.05	-0.11 0.11	0.72 -0.72	-28.64
P19	0.00	0.00 5.21	-786.98 986.41	986.41	-442.10 457.11	457.11	0.39 -0.39	-0.20 0.20	-5.04
P20	0.00	0.00 9.09	136.96 -165.13	136.96	441.89 627.06	627.06	-0.07 0.07	-0.04 0.04	17.93
P21	0.00	0.00 14.60	56.45 220.44	220.44	140.38 561.52	561.52	0.04 -0.04	-0.09 0.09	0.00
P22	0.00	0.00 11.60	-236.23 306.19	306.19	-664.37 -1585.48	0.00	0.12 -0.12	0.20 -0.20	40.28
P23	0.00	0.00 9.66	-139.41 115.80	115.80	442.28 708.99	708.99	0.06 -0.06	-0.06 0.06	29.98
P24	0.00	0.00 14.73	62.95 246.43	246.43	163.77 655.07	655.07	0.04 -0.04	-0.11 0.11	0.00
P25	0.00	0.00 10.81	-136.10 84.60	84.60	-644.00 -1520.95	0.00	0.05 -0.05	0.19 -0.19	-39.64
P26	0.00	0.00 6.64	-800.98 1043.28	1043.28	-1625.51 1809.42	1809.42	0.41 -0.41	-0.76 0.76	11.83
P27	0.00	0.00 13.48	557.29 96.76	557.29	-1059.18 1234.87	1234.87	-0.10 0.10	-0.51 0.51	-5.91
P28	0.00	0.00 7.88	-812.06 1063.77	1063.77	2545.24 -3113.79	2545.24	0.42 -0.42	1.26 -1.26	-8.85

CASO: G1+G2+1.4Q

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 14.40	1434.62 -3374.71	1434.62	-602.92 461.93	461.93	-1.07 1.07	-0.24 0.24	-21.87



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P2	0.00	0.00 37.29	-520.74 1252.35	1252.35	381.68 -1747.21	381.68	0.39 -0.39	0.47 -0.47	-64.07
P3	0.00	0.00 37.42	-367.25 1918.19	1918.19	306.03 -596.55	306.03	0.51 -0.51	0.20 -0.20	-29.64
P4	0.00	0.00 12.65	616.82 -1467.14	616.82	-392.69 351.26	351.26	-0.46 0.46	-0.17 0.17	10.16
P5	0.00	0.00 4.97	344.11 -416.04	344.11	-689.33 958.44	958.44	-0.17 0.17	-0.37 0.37	35.15
P6	0.00	0.00 22.32	6.21 20.12	20.12	-770.30 1309.47	1309.47	0.00 0.00	-0.46 0.46	-6.54
P7	0.00	0.00 42.78	377.20 -833.09	377.20	465.79 -44.61	465.79	-0.27 0.27	0.11 -0.11	-38.14
P8	0.00	0.00 35.17	-149.18 170.82	170.82	48.67 -17.58	48.67	0.07 -0.07	0.01 -0.01	3.21
P9	0.00	0.00 17.72	-313.04 583.87	583.87	14.22 -95.29	14.22	0.20 -0.20	0.02 -0.02	-8.48
P10	0.00	0.00 2.10	-371.37 435.19	435.19	-140.50 118.78	118.78	0.18 -0.18	-0.06 0.06	46.91
P11	0.00	-0.20 0.00	-157.94 15.95	15.95	-190.54 220.44	220.44	0.04 -0.04	-0.09 0.09	-3.98
P12	0.00	0.00 7.58	205.51 -224.59	205.51	36.77 20.18	36.77	-0.10 0.10	0.00 0.00	-3.38
P13	0.00	0.00 6.48	-26.97 31.06	31.06	-129.57 272.64	272.64	0.01 -0.01	-0.09 0.09	-0.19
P14	0.00	0.00 4.64	99.08 -113.45	99.08	-772.05 983.09	983.09	-0.05 0.05	-0.39 0.39	23.69
P15	0.00	0.00 8.37	119.99 -110.07	119.99	395.57 860.83	860.83	-0.05 0.05	-0.10 0.10	-13.20
P16	0.00	0.00 12.99	-1.28 -5.11	0.00	123.47 493.88	493.88	0.00 0.00	-0.08 0.08	0.00
P18	0.00	0.00 10.23	488.71 -529.41	488.71	1119.43 -2083.70	1119.43	-0.23 0.23	0.71 -0.71	-7.43
P19	0.00	0.00 5.18	-699.03 894.31	894.31	-454.60 470.52	470.52	0.35 -0.35	-0.21 0.21	-2.46
P20	0.00	0.00 9.09	229.27 -266.50	229.27	444.87 641.76	641.76	-0.11 0.11	-0.04 0.04	7.51
P21	0.00	0.00 14.61	9.42 37.67	37.67	144.44 577.77	577.77	0.01 -0.01	-0.10 0.10	0.00
P22	0.00	0.00 11.59	-15.75 68.79	68.79	-659.35 -1572.63	0.00	0.02 -0.02	0.20 -0.20	43.83
P23	0.00	0.00 9.67	-43.15 9.39	9.39	445.42 710.90	710.90	0.01 -0.01	-0.06 0.06	18.27
P24	0.00	0.00 14.75	12.78 51.12	51.12	164.72 658.87	658.87	0.01 -0.01	-0.11 0.11	0.00
P25	0.00	0.00 10.83	89.38 -161.59	89.38	-645.86 -1515.91	0.00	-0.06 0.06	0.19 -0.19	-33.15
P26	0.00	0.00 6.61	-736.37 967.64	967.64	-1619.39 1804.70	1804.70	0.38 -0.38	-0.76 0.76	2.40
P27	0.00	0.00 13.44	485.73 -51.13	485.73	-1054.33 1230.07	1230.07	-0.12 0.12	-0.51 0.51	-8.34
P28	0.00	0.00 7.82	-654.94 887.35	887.35	2545.84 -3116.71	2545.84	0.34 -0.34	1.26 -1.26	-5.00

**CASO: G1+G2+1.4Q+0.84V1+0.84D1**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 14.20	1422.93 -3363.72	1422.93	-224.72 54.49	54.49	-1.06 1.06	-0.06 0.06	-21.52
P2	0.00	0.00 37.40	-37.24 744.27	744.27	403.78 -1773.23	403.78	0.17 -0.17	0.48 -0.48	-64.64
P3	0.00	0.00	-376.17	1933.34	795.63	795.63	0.51	0.42	-29.76



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		37.29	1933.34		-1109.50		-0.51	-0.42	
P4	0.00	0.00 12.88	1006.18 -1884.79	1006.18	-373.40 330.28	330.28	-0.64 0.64	-0.16 0.16	10.51
P5	0.00	0.00 4.77	325.64 -403.10	325.64	-83.74 159.32	159.32	-0.16 0.16	-0.05 0.05	37.62
P6	0.00	0.00 22.37	-259.01 281.27	281.27	-778.77 1317.81	1317.81	0.12 -0.12	-0.47 0.47	-6.67
P7	0.00	0.00 42.78	-464.24 149.67	149.67	462.16 -34.37	462.16	0.14 -0.14	0.11 -0.11	-39.58
P8	0.00	0.00 35.20	-400.09 422.19	422.19	46.15 -14.52	46.15	0.18 -0.18	0.01 -0.01	3.21
P9	0.00	0.00 17.35	-1033.62 1349.28	1349.28	5.72 -84.54	5.72	0.53 -0.53	0.02 -0.02	-8.34
P10	0.00	0.00 2.59	-408.55 475.26	475.26	-932.97 1051.56	1051.56	0.20 -0.20	-0.44 0.44	37.74
P11	0.00	-0.35 0.00	-168.43 27.16	27.16	59.31 -38.22	59.31	0.04 -0.04	0.02 -0.02	-10.06
P12	0.00	0.00 7.65	-338.00 349.98	349.98	36.26 22.28	36.26	0.15 -0.15	0.00 0.00	-9.98
P13	0.00	0.00 6.44	-308.05 316.61	316.61	-132.93 276.49	276.49	0.14 -0.14	-0.09 0.09	-4.74
P14	0.00	0.00 4.66	333.71 -357.94	333.71	-711.88 929.26	929.26	-0.15 0.15	-0.36 0.36	20.91
P15	0.00	0.00 8.27	93.65 -92.20	93.65	220.34 343.81	343.81	-0.04 0.04	-0.03 0.03	-5.87
P16	0.00	0.00 13.03	1.72 6.89	6.89	-67.09 -90.75	0.00	0.00 0.00	0.01 -0.01	0.00
P18	0.00	0.00 10.49	569.54 -603.98	569.54	1666.70 -2998.58	1666.70	-0.26 0.26	1.04 -1.04	-19.25
P19	0.00	0.00 5.01	-664.96 864.53	864.53	-154.14 134.98	134.98	0.34 -0.34	-0.06 0.06	-9.76
P20	0.00	0.00 8.93	211.56 -252.60	211.56	168.87 -229.75	168.87	-0.10 0.10	0.09 -0.09	8.52
P21	0.00	0.00 14.64	11.80 47.20	47.20	-150.35 -423.77	0.00	0.01 -0.01	0.06 -0.06	0.00
P22	0.00	0.00 11.79	9.42 46.30	46.30	-868.95 -2451.95	0.00	0.01 -0.01	0.35 -0.35	68.15
P23	0.00	0.00 9.51	-34.64 9.82	9.82	185.84 -157.83	185.84	0.01 -0.01	0.08 -0.08	13.55
P24	0.00	0.00 14.78	15.33 61.34	61.34	-126.44 -328.14	0.00	0.01 -0.01	0.04 -0.04	0.00
P25	0.00	0.00 10.95	117.09 -203.35	117.09	-906.75 -2353.32	0.00	-0.07 0.07	0.32 -0.32	-40.79
P26	0.00	0.00 6.50	-726.43 968.02	968.02	-1172.34 1266.06	1266.06	0.38 -0.38	-0.54 0.54	1.42
P27	0.00	0.00 13.47	491.30 -44.29	491.30	-408.97 515.39	515.39	-0.12 0.12	-0.21 0.21	8.56
P28	0.00	0.00 7.90	-643.23 861.81	861.81	2951.64 -3618.36	2951.64	0.33 -0.33	1.46 -1.46	-5.87

**CASO: G1+G2+1.4Q+0.84V2+0.84D2**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 14.60	1446.32 -3385.69	1446.32	-981.12 869.37	869.37	-1.07 1.07	-0.41 0.41	-22.22
P2	0.00	0.00 37.18	-1004.24 1760.43	1760.43	359.58 -1721.19	359.58	0.61 -0.61	0.46 -0.46	-63.49
P3	0.00	0.00 37.56	-358.33 1903.05	1903.05	-183.58 -83.61	0.00	0.50 -0.50	-0.02 0.02	-29.52
P4	0.00	0.00 12.42	227.46 -1049.48	227.46	-411.99 372.24	372.24	-0.28 0.28	-0.17 0.17	9.81

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P5	0.00	0.00 5.18	362.57 -428.98	362.57	-1294.93 1757.56	1757.56	-0.18 0.18	-0.68 0.68	32.69
P6	0.00	0.00 22.28	271.44 -241.02	271.44	-761.82 1301.13	1301.13	-0.11 0.11	-0.46 0.46	-6.41
P7	0.00	0.00 42.77	1218.64 -1815.85	1218.64	469.41 -54.86	469.41	-0.67 0.67	0.12 -0.12	-36.70
P8	0.00	0.00 35.15	101.74 -80.56	101.74	51.19 -20.64	51.19	-0.04 0.04	0.02 -0.02	3.21
P9	0.00	0.00 18.09	407.55 -181.54	407.55	22.72 -106.04	22.72	-0.13 0.13	0.03 -0.03	-8.61
P10	0.00	0.00 1.61	-334.20 395.12	395.12	651.97 -813.99	651.97	0.16 -0.16	0.33 -0.33	56.08
P11	0.00	-0.04 0.00	-147.46 4.73	4.73	-440.38 479.10	479.10	0.03 -0.03	-0.20 0.20	2.10
P12	0.00	0.00 7.52	749.02 -799.17	749.02	37.29 18.09	37.29	-0.34 0.34	0.00 0.00	3.23
P13	0.00	0.00 6.51	254.10 -254.49	254.10	-126.20 268.79	268.79	-0.11 0.11	-0.09 0.09	4.37
P14	0.00	0.00 4.61	-135.55 131.04	131.04	-832.23 1036.93	1036.93	0.06 -0.06	-0.42 0.42	26.46
P15	0.00	0.00 8.47	146.33 -127.94	146.33	570.79 1377.84	1377.84	-0.06 0.06	-0.18 0.18	-20.52
P16	0.00	0.00 12.95	-4.28 -17.10	0.00	314.03 1078.51	1078.51	0.00 0.00	-0.17 0.17	0.00
P18	0.00	0.00 9.96	407.87 -454.84	407.87	572.15 -1168.81	572.15	-0.19 0.19	0.39 -0.39	4.38
P19	0.00	0.00 5.34	-733.10 924.09	924.09	-755.07 806.06	806.06	0.37 -0.37	-0.35 0.35	4.83
P20	0.00	0.00 9.25	246.99 -280.41	246.99	720.87 1513.27	1513.27	-0.12 0.12	-0.18 0.18	6.50
P21	0.00	0.00 14.58	7.04 28.15	28.15	439.24 1579.31	1579.31	0.00 0.00	-0.25 0.25	0.00
P22	0.00	0.00 11.38	-40.92 91.27	91.27	-449.74 -693.30	0.00	0.03 -0.03	0.05 -0.05	19.52
P23	0.00	0.00 9.83	-51.67 8.95	8.95	705.01 1579.64	1579.64	0.01 -0.01	-0.19 0.19	22.99
P24	0.00	0.00 14.71	10.22 40.90	40.90	455.87 1645.87	1645.87	0.01 -0.01	-0.26 0.26	0.00
P25	0.00	0.00 10.71	61.67 -119.83	61.67	-384.97 -678.50	0.00	-0.04 0.04	0.07 -0.07	-25.50
P26	0.00	0.00 6.72	-746.32 967.25	967.25	-2066.43 2343.34	2343.34	0.38 -0.38	-0.98 0.98	3.37
P27	0.00	0.00 13.41	480.16 -57.98	480.16	-1699.68 1944.75	1944.75	-0.12 0.12	-0.81 0.81	-25.24
P28	0.00	0.00 7.75	-666.66 912.88	912.88	2140.04 -2615.07	2140.04	0.35 -0.35	1.06 -1.06	-4.12

CASO: G1+G2+1.4Q+0.84V3+0.84D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 14.60	2008.85 -4004.99	2008.85	-548.28 400.72	400.72	-1.34 1.34	-0.21 0.21	-6.92
P2	0.00	0.00 37.31	-474.34 1199.07	1199.07	506.31 -1749.66	506.31	0.37 -0.37	0.50 -0.50	-61.26
P3	0.00	0.00 37.40	-341.38 1916.88	1916.88	363.85 -655.00	363.85	0.50 -0.50	0.23 -0.23	-23.02
P4	0.00	0.00 12.93	668.87 -1524.23	668.87	-864.65 858.94	858.94	-0.49 0.49	-0.38 0.38	15.56
P5	0.00	0.00 5.17	739.09 -851.31	739.09	-695.08 966.47	966.47	-0.35 0.35	-0.37 0.37	-35.05
P6	0.00	0.00	5.91	20.12	-341.51	876.20	0.00	-0.27	-0.72



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		22.33	20.12		876.20		0.00	0.27	
P7	0.00	0.00 43.19	382.65 -841.32	382.65	386.20 -690.90	386.20	-0.27 0.27	0.24 -0.24	-8.77
P8	0.00	0.00 35.39	-149.21 171.82	171.82	342.21 -317.54	342.21	0.07 -0.07	0.15 -0.15	4.14
P9	0.00	0.00 17.57	-313.21 585.41	585.41	384.24 -486.61	384.24	0.20 -0.20	0.19 -0.19	-2.50
P10	0.00	0.00 2.30	-843.49 952.21	952.21	-126.01 101.27	101.27	0.40 -0.40	-0.05 0.05	113.40
P11	0.00	-0.44 0.00	193.39 -333.26	193.39	-202.32 232.60	232.60	-0.12 0.12	-0.10 0.10	-0.40
P12	0.00	0.00 7.38	221.79 -241.48	221.79	35.22 -86.62	35.22	-0.10 0.10	0.03 -0.03	1.10
P13	0.00	0.00 6.18	-18.33 21.80	21.80	164.76 -28.30	164.76	0.01 -0.01	0.04 -0.04	-0.38
P14	0.00	0.00 4.72	88.01 -100.94	88.01	-993.48 1217.80	1217.80	-0.04 0.04	-0.49 0.49	26.42
P15	0.00	0.00 8.28	647.83 -672.66	647.83	378.66 904.46	904.46	-0.29 0.29	-0.12 0.12	-43.50
P16	0.00	0.00 12.92	-192.21 -633.90	0.00	130.98 523.94	523.94	-0.10 0.10	-0.09 0.09	0.00
P18	0.00	0.00 10.08	1112.74 -1198.28	1112.74	1098.77 -2038.62	1098.77	-0.51 0.51	0.70 -0.70	44.46
P19	0.00	0.00 5.11	-486.59 669.46	669.46	-484.87 503.00	503.00	0.26 -0.26	-0.22 0.22	4.11
P20	0.00	0.00 9.07	686.75 -762.20	686.75	453.16 682.60	682.60	-0.32 0.32	-0.05 0.05	-22.61
P21	0.00	0.00 14.57	-174.79 -564.23	0.00	155.76 623.05	623.05	-0.09 0.09	-0.10 0.10	0.00
P22	0.00	0.00 11.55	531.21 -521.16	531.21	-646.85 -1535.82	0.00	-0.23 0.23	0.20 -0.20	61.26
P23	0.00	0.00 9.71	430.98 -507.58	430.98	455.36 714.60	714.60	-0.21 0.21	-0.06 0.06	-15.85
P24	0.00	0.00 14.82	-176.83 -572.39	0.00	167.18 668.72	668.72	-0.09 0.09	-0.11 0.11	0.00
P25	0.00	0.00 10.88	649.73 -771.75	649.73	-651.63 -1502.40	0.00	-0.32 0.32	0.19 -0.19	-7.35
P26	0.00	0.00 6.49	-405.62 596.13	596.13	-1605.67 1796.32	1796.32	0.22 -0.22	-0.76 0.76	-24.24
P27	0.00	0.00 13.29	306.05 -563.98	306.05	-1046.02 1222.28	1222.28	-0.19 0.19	-0.50 0.50	-12.15
P28	0.00	0.00 7.69	-262.55 448.35	448.35	2541.84 -3119.41	2541.84	0.16 -0.16	1.26 -1.26	13.95

**CASO: G1+G2+1.4Q+0.84V4+0.84D4**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 14.20	860.40 -2744.42	860.40	-657.57 523.14	523.14	-0.80 0.80	-0.26 0.26	-36.82
P2	0.00	0.00 37.27	-567.13 1305.62	1305.62	257.05 -1744.76	257.05	0.42 -0.42	0.44 -0.44	-66.87
P3	0.00	0.00 37.45	-393.13 1919.51	1919.51	248.20 -538.11	248.20	0.51 -0.51	0.17 -0.17	-36.25
P4	0.00	0.00 12.36	564.78 -1410.04	564.78	79.26 -156.43	79.26	-0.44 0.44	0.05 -0.05	4.75
P5	0.00	0.00 4.78	-50.88 19.23	19.23	-683.59 950.41	950.41	0.02 -0.02	-0.36 0.36	105.36
P6	0.00	0.00 22.32	6.52 20.13	20.13	-1199.08 1742.74	1742.74	0.00 0.00	-0.65 0.65	-12.37
P7	0.00	0.00 42.36	371.76 -824.86	371.76	545.37 601.67	601.67	-0.27 0.27	-0.01 0.01	-67.51



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P8	0.00	0.00 34.95	-149.14 169.81	169.81	-244.87 282.38	282.38	0.07 -0.07	-0.12 0.12	2.27
P9	0.00	0.00 17.87	-312.86 582.33	582.33	-355.80 296.04	296.04	0.20 -0.20	-0.14 0.14	-14.45
P10	0.00	0.00 1.91	100.74 -81.84	100.74	-155.00 136.29	136.29	-0.04 0.04	-0.06 0.06	-19.58
P11	0.00	0.00 0.05	-509.28 365.15	365.15	-178.75 208.28	208.28	0.19 -0.19	-0.09 0.09	-7.55
P12	0.00	0.00 7.79	189.23 -207.71	189.23	38.33 126.99	126.99	-0.09 0.09	-0.02 0.02	-7.85
P13	0.00	0.00 6.77	-35.62 40.32	40.32	-423.89 573.58	573.58	0.02 -0.02	-0.22 0.22	0.01
P14	0.00	0.00 4.55	110.15 -125.95	110.15	-550.63 748.38	748.38	-0.05 0.05	-0.29 0.29	20.95
P15	0.00	0.00 8.46	-407.85 452.52	452.52	412.47 817.19	817.19	0.19 -0.19	-0.09 0.09	17.10
P16	0.00	0.00 13.06	189.65 623.69	623.69	115.96 463.82	463.82	0.10 -0.10	-0.08 0.08	0.00
P18	0.00	0.00 10.37	-135.33 139.46	139.46	1140.09 -2128.77	1140.09	0.06 -0.06	0.73 -0.73	-59.33
P19	0.00	0.00 5.25	-911.47 1119.15	1119.15	-424.34 438.04	438.04	0.45 -0.45	-0.19 0.19	-9.04
P20	0.00	0.00 9.11	-228.21 229.19	229.19	436.58 600.91	600.91	0.10 -0.10	-0.04 0.04	37.63
P21	0.00	0.00 14.65	193.63 639.58	639.58	133.12 532.50	532.50	0.10 -0.10	-0.09 0.09	0.00
P22	0.00	0.00 11.63	-562.71 658.73	658.73	-671.84 -1609.43	0.00	0.27 -0.27	0.21 -0.21	26.41
P23	0.00	0.00 9.62	-517.28 526.35	526.35	435.49 707.21	707.21	0.23 -0.23	-0.06 0.06	52.40
P24	0.00	0.00 14.68	202.39 674.63	674.63	162.25 649.01	649.01	0.10 -0.10	-0.11 0.11	0.00
P25	0.00	0.00 10.78	-470.97 448.57	448.57	-640.09 -1529.41	0.00	0.20 -0.20	0.20 -0.20	-58.95
P26	0.00	0.00 6.73	-1067.12 1339.14	1339.14	-1633.10 1813.08	1813.08	0.53 -0.53	-0.77 0.77	29.03
P27	0.00	0.00 13.59	665.42 461.71	665.42	-1062.63 1237.86	1237.86	-0.05 0.05	-0.51 0.51	-4.53
P28	0.00	0.00 7.96	-1047.34 1326.34	1326.34	2549.84 -3114.02	2549.84	0.53 -0.53	1.26 -1.26	-23.94


**CASO: G1+G2+1.4Q+1.2D1**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 14.35	1444.05 -3385.22	1444.05	-500.45 350.86	350.86	-1.07 1.07	-0.19 0.19	-20.82
P2	0.00	0.00 37.32	-389.53 1114.07	1114.07	388.82 -1754.25	388.82	0.33 -0.33	0.48 -0.48	-63.21
P3	0.00	0.00 37.39	-371.45 1922.37	1922.37	438.98 -736.20	438.98	0.51 -0.51	0.26 -0.26	-28.91
P4	0.00	0.00 12.70	722.03 -1580.53	722.03	-378.78 336.55	336.55	-0.51 0.51	-0.16 0.16	11.08
P5	0.00	0.00 4.93	344.52 -417.89	344.52	-540.12 758.54	758.54	-0.17 0.17	-0.29 0.29	34.33
P6	0.00	0.00 22.34	-60.85 86.09	86.09	-763.38 1302.41	1302.41	0.03 -0.03	-0.46 0.46	-6.22
P7	0.00	0.00 42.78	167.07 -586.02	167.07	465.12 -49.68	465.12	-0.17 0.17	0.11 -0.11	-36.39
P8	0.00	0.00 35.18	-212.54 234.28	234.28	46.63 -15.42	46.63	0.10 -0.10	0.01 -0.01	3.47
P9	0.00	0.00	-494.58	777.05	5.37	5.37	0.28	0.02	-7.49

		17.63	777.05		-85.56		-0.28	-0.02	
P10	0.00	0.00 2.22	-371.62 435.51	435.51	-338.47 353.40	353.40	0.18 -0.18	-0.15 0.15	43.33
P11	0.00	-0.23 0.00	-153.12 11.35	11.35	-139.91 167.80	167.80	0.04 -0.04	-0.07 0.07	-3.75
P12	0.00	0.00 7.59	96.29 -108.01	96.29	36.75 19.45	36.75	-0.05 0.05	0.00 0.00	-3.70
P13	0.00	0.00 6.47	-84.26 89.33	89.33	-131.74 274.92	274.92	0.04 -0.04	-0.09 0.09	0.17
P14	0.00	0.00 4.64	146.37 -163.07	146.37	-759.58 972.22	972.22	-0.07 0.07	-0.38 0.38	22.75
P15	0.00	0.00 8.35	120.04 -112.02	120.04	353.84 756.92	756.92	-0.05 0.05	-0.09 0.09	-11.34
P16	0.00	0.00 13.00	-2.31 -9.24	0.00	90.88 368.87	368.87	0.00 0.00	-0.06 0.06	0.00
P18	0.00	0.00 10.28	495.90 -534.59	495.90	1220.90 -2265.35	1220.90	-0.23 0.23	0.77 -0.77	-8.33
P19	0.00	0.00 5.15	-691.89 888.40	888.40	-398.15 406.46	406.46	0.35 -0.35	-0.18 0.18	-3.67
P20	0.00	0.00 9.06	229.70 -268.19	229.70	380.58 465.62	465.62	-0.11 0.11	-0.02 0.02	7.45
P21	0.00	0.00 14.61	8.34 33.35	33.35	90.41 366.99	366.99	0.01 -0.01	-0.06 0.06	0.00
P22	0.00	0.00 11.63	-18.14 72.23	72.23	-714.09 -1748.03	0.00	0.02 -0.02	0.23 -0.23	47.80
P23	0.00	0.00 9.63	-36.78 4.54	4.54	382.05 528.43	528.43	0.01 -0.01	-0.03 0.03	16.90
P24	0.00	0.00 14.75	11.68 46.74	46.74	109.32 442.64	442.64	0.01 -0.01	-0.07 0.07	0.00
P25	0.00	0.00 10.85	87.06 -161.50	87.06	-709.57 -1691.80	0.00	-0.06 0.06	0.22 -0.22	-34.03
P26	0.00	0.00 6.59	-730.94 964.09	964.09	-1538.74 1703.50	1703.50	0.38 -0.38	-0.72 0.72	2.01
P27	0.00	0.00 13.44	485.62 -55.16	485.62	-933.47 1094.54	1094.54	-0.12 0.12	-0.45 0.45	-4.67
P28	0.00	0.00 7.84	-658.45 888.39	888.39	2617.60 -3210.43	2617.60	0.34 -0.34	1.30 -1.30	-4.44

CASO: G1+G2+1.4Q+1.2D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 14.45	1425.20 -3364.19	1425.20	-705.40 573.00	573.00	-1.06 1.06	-0.28 0.28	-22.92
P2	0.00	0.00 37.26	-651.94 1390.62	1390.62	374.54 -1740.17	374.54	0.45 -0.45	0.47 -0.47	-64.92
P3	0.00	0.00 37.46	-363.06 1914.02	1914.02	173.07 -456.91	173.07	0.51 -0.51	0.14 -0.14	-30.37
P4	0.00	0.00 12.59	511.62 -1353.74	511.62	-406.61 365.97	365.97	-0.41 0.41	-0.17 0.17	9.24
P5	0.00	0.00 5.02	343.69 -414.19	343.69	-838.54 1158.35	1158.35	-0.17 0.17	-0.44 0.44	35.98
P6	0.00	0.00 22.31	73.28 -45.85	73.28	-777.22 1316.53	1316.53	-0.03 0.03	-0.47 0.47	-6.86
P7	0.00	0.00 42.77	587.33 -1080.16	587.33	466.45 -39.55	466.45	-0.37 0.37	0.11 -0.11	-39.88
P8	0.00	0.00 35.17	-85.82 107.35	107.35	50.71 -19.74	50.71	0.04 -0.04	0.02 -0.02	2.95
P9	0.00	0.00 17.81	-131.49 390.70	390.70	23.07 -105.02	23.07	0.12 -0.12	0.03 -0.03	-9.46
P10	0.00	0.00 1.98	-371.12 434.86	434.86	57.47 -115.84	57.47	0.18 -0.18	0.04 -0.04	50.49




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P11	0.00	-0.16 0.00	-162.77 20.54	20.54	-241.16 273.08	273.08	0.04 -0.04	-0.11 0.11	-4.21
P12	0.00	0.00 7.57	314.73 -341.18	314.73	36.79 20.92	36.79	-0.15 0.15	0.00 0.00	-3.05
P13	0.00	0.00 6.48	30.32 -27.21	30.32	-127.39 270.36	270.36	-0.01 0.01	-0.09 0.09	-0.54
P14	0.00	0.00 4.63	51.79 -63.82	51.79	-784.53 993.96	993.96	-0.03 0.03	-0.40 0.40	24.62
P15	0.00	0.00 8.39	119.94 -108.12	119.94	437.29 964.73	964.73	-0.05 0.05	-0.12 0.12	-15.05
P16	0.00	0.00 12.98	-0.24 -0.98	0.00	156.06 618.89	618.89	0.00 0.00	-0.10 0.10	0.00
P18	0.00	0.00 10.17	481.52 -524.23	481.52	1017.95 -1902.04	1017.95	-0.22 0.22	0.65 -0.65	-6.54
P19	0.00	0.00 5.21	-706.17 900.21	900.21	-511.05 534.58	534.58	0.36 -0.36	-0.23 0.23	-1.26
P20	0.00	0.00 9.12	228.85 -264.82	228.85	509.15 817.89	817.89	-0.11 0.11	-0.07 0.07	7.57
P21	0.00	0.00 14.60	10.50 41.99	41.99	198.48 788.56	788.56	0.01 -0.01	-0.13 0.13	0.00
P22	0.00	0.00 11.55	-13.36 65.34	65.34	-604.60 -1397.22	0.00	0.02 -0.02	0.18 -0.18	39.87
P23	0.00	0.00 9.70	-49.52 14.23	14.23	508.80 893.37	893.37	0.01 -0.01	-0.09 0.09	19.65
P24	0.00	0.00 14.74	13.87 55.50	55.50	220.11 875.10	875.10	0.01 -0.01	-0.15 0.15	0.00
P25	0.00	0.00 10.80	91.70 -161.68	91.70	-582.16 -1340.02	0.00	-0.06 0.06	0.17 -0.17	-32.27
P26	0.00	0.00 6.63	-741.81 971.18	971.18	-1700.03 1905.90	1905.90	0.38 -0.38	-0.80 0.80	2.78
P27	0.00	0.00 13.44	485.85 -47.10	485.85	-1175.18 1365.59	1365.59	-0.12 0.12	-0.56 0.56	-12.02
P28	0.00	0.00 7.81	-651.44 886.30	886.30	2474.07 -3023.00	2474.07	0.34 -0.34	1.22 -1.22	-5.55

CASO: G1+G2+1.4Q+1.2D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 14.46	1621.63 -3581.25	1621.63	-583.95 440.62	440.62	-1.16 1.16	-0.23 0.23	-16.73
P2	0.00	0.00 37.30	-504.49 1233.41	1233.41	430.14 -1748.12	430.14	0.39 -0.39	0.48 -0.48	-62.69
P3	0.00	0.00 37.42	-365.57 1917.85	1917.85	326.25 -617.22	326.25	0.51 -0.51	0.21 -0.21	-27.79
P4	0.00	0.00 12.74	635.05 -1486.99	635.05	-545.63 515.98	515.98	-0.47 0.47	-0.24 0.24	11.95
P5	0.00	0.00 5.02	440.48 -523.91	440.48	-692.18 962.00	962.00	-0.21 0.21	-0.37 0.37	9.52
P6	0.00	0.00 22.33	6.13 20.10	20.10	-629.37 1167.07	1167.07	0.00 0.00	-0.40 0.40	-4.50
P7	0.00	0.00 42.91	379.20 -835.97	379.20	421.85 -246.44	421.85	-0.27 0.27	0.15 -0.15	-28.07
P8	0.00	0.00 35.24	-149.12 171.07	171.07	142.34 -113.57	142.34	0.07 -0.07	0.06 -0.06	3.52
P9	0.00	0.00 17.67	-312.95 584.24	584.24	134.30 -222.35	134.30	0.20 -0.20	0.08 -0.08	-6.53
P10	0.00	0.00 2.15	-495.02 572.62	572.62	-136.38 113.74	113.74	0.24 -0.24	-0.06 0.06	73.36
P11	0.00	-0.28 0.00	-42.78 -98.66	0.00	-193.97 224.01	224.01	-0.01 0.01	-0.09 0.09	-2.80
P12	0.00	0.00	209.79	209.79	33.72	33.72	-0.10	0.01	-1.76



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		7.53	-229.06		-13.06		0.10	-0.01	
P13	0.00	0.00 6.38	-24.74 28.64	28.64	-35.66 176.35	176.35	0.01 -0.01	-0.05 0.05	-0.71
P14	0.00	0.00 4.66	95.89 -109.80	95.89	-832.12 1047.15	1047.15	-0.05 0.05	-0.42 0.42	26.64
P15	0.00	0.00 8.35	250.37 -249.44	250.37	390.46 878.76	878.76	-0.11 0.11	-0.11 0.11	-25.01
P16	0.00	0.00 12.96	-55.70 -217.45	0.00	126.95 507.80	507.80	-0.04 0.04	-0.08 0.08	0.00
P18	0.00	0.00 10.19	653.06 -706.56	653.06	1110.53 -2064.03	1110.53	-0.30 0.30	0.71 -0.71	7.08
P19	0.00	0.00 5.16	-642.31 833.61	833.61	-464.03 480.67	480.67	0.33 -0.33	-0.21 0.21	-0.61
P20	0.00	0.00 9.09	340.81 -388.63	340.81	448.09 656.05	656.05	-0.16 0.16	-0.05 0.05	-3.61
P21	0.00	0.00 14.60	-42.81 -165.90	0.00	148.45 593.82	593.82	-0.03 0.03	-0.10 0.10	0.00
P22	0.00	0.00 11.57	127.92 -87.56	127.92	-655.10 -1559.45	0.00	-0.05 0.05	0.20 -0.20	50.74
P23	0.00	0.00 9.68	72.68 -117.89	72.68	448.70 712.46	712.46	-0.04 0.04	-0.06 0.06	5.63
P24	0.00	0.00 14.77	-40.92 -158.32	0.00	165.60 662.41	662.41	-0.03 0.03	-0.11 0.11	0.00
P25	0.00	0.00 10.84	236.53 -323.02	236.53	-647.63 -1511.29	0.00	-0.12 0.12	0.19 -0.19	-23.51
P26	0.00	0.00 6.58	-657.73 876.87	876.87	-1614.06 1801.23	1801.23	0.34 -0.34	-0.76 0.76	-7.63
P27	0.00	0.00 13.39	411.07 -212.37	411.07	-1051.23 1227.14	1227.14	-0.14 0.14	-0.51 0.51	-9.80
P28	0.00	0.00 7.79	-554.29 771.94	771.94	2544.10 -3117.36	2544.10	0.29 -0.29	1.26 -1.26	2.14

CASO: G1+G2+1.4Q+1.2D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 14.33	1247.62 -3168.16	1247.62	-621.89 483.23	483.23	-0.98 0.98	-0.25 0.25	-27.01
P2	0.00	0.00 37.29	-536.99 1271.28	1271.28	333.22 -1746.30	333.22	0.40 -0.40	0.46 -0.46	-65.44
P3	0.00	0.00 37.43	-368.94 1918.54	1918.54	285.80 -575.89	285.80	0.51 -0.51	0.19 -0.19	-31.48
P4	0.00	0.00 12.55	598.60 -1447.28	598.60	-239.76 186.54	186.54	-0.45 0.45	-0.09 0.09	8.37
P5	0.00	0.00 4.93	247.73 -308.17	247.73	-686.49 954.89	954.89	-0.12 0.12	-0.36 0.36	60.79
P6	0.00	0.00 22.32	6.30 20.15	20.15	-911.22 1451.87	1451.87	0.00 0.00	-0.53 0.53	-8.58
P7	0.00	0.00 42.65	375.20 -830.21	375.20	509.72 157.21	509.72	-0.27 0.27	0.08 -0.08	-48.21
P8	0.00	0.00 35.10	-149.24 170.56	170.56	-45.00 78.41	78.41	0.07 -0.07	-0.03 0.03	2.90
P9	0.00	0.00 17.77	-313.13 583.50	583.50	-105.86 31.77	31.77	0.20 -0.20	-0.03 0.03	-10.43
P10	0.00	0.00 2.05	-247.73 297.75	297.75	-144.63 123.83	123.83	0.12 -0.12	-0.06 0.06	20.45
P11	0.00	-0.12 0.00	-273.11 130.55	130.55	-187.10 216.87	216.87	0.09 -0.09	-0.09 0.09	-5.15
P12	0.00	0.00 7.64	201.23 -220.13	201.23	39.83 53.43	53.43	-0.09 0.09	0.00 0.00	-5.00
P13	0.00	0.00 6.57	-29.21 33.48	33.48	-223.47 368.93	368.93	0.01 -0.01	-0.13 0.13	0.34



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Plena**


**Leilson Campos  
Rezende  
Rezende Engenharia**

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P14	0.00	0.00 4.61	102.27 -117.09	102.27	-711.99 919.04	919.04	-0.05 0.05	-0.36 0.36	20.73
P15	0.00	0.00 8.39	-10.39 29.30	29.30	400.67 842.89	842.89	0.01 -0.01	-0.10 0.10	-1.39
P16	0.00	0.00 13.01	53.15 207.24	207.24	119.99 479.96	479.96	0.03 -0.03	-0.08 0.08	0.00
P18	0.00	0.00 10.27	324.35 -352.26	324.35	1128.32 -2103.36	1128.32	-0.15 0.15	0.72 -0.72	-21.95
P19	0.00	0.00 5.20	-755.75 955.00	955.00	-445.18 460.36	460.36	0.38 -0.38	-0.20 0.20	-4.32
P20	0.00	0.00 9.09	117.74 -144.38	117.74	441.65 627.47	627.47	-0.06 0.06	-0.04 0.04	18.63
P21	0.00	0.00 14.62	61.65 241.25	241.25	140.43 561.73	561.73	0.04 -0.04	-0.09 0.09	0.00
P22	0.00	0.00 11.60	-159.42 225.13	225.13	-663.59 -1585.80	0.00	0.09 -0.09	0.20 -0.20	36.93
P23	0.00	0.00 9.66	-158.98 136.67	136.67	442.15 709.34	709.34	0.07 -0.07	-0.06 0.06	30.92
P24	0.00	0.00 14.73	66.48 260.56	260.56	163.83 655.32	655.32	0.04 -0.04	-0.11 0.11	0.00
P25	0.00	0.00 10.81	-57.77 -0.17	0.00	-644.09 -1520.53	0.00	0.01 -0.01	0.19 -0.19	-42.78
P26	0.00	0.00 6.64	-815.02 1058.40	1058.40	-1624.71 1808.17	1808.17	0.42 -0.42	-0.76 0.76	12.42
P27	0.00	0.00 13.49	560.39 110.11	560.39	-1057.42 1233.00	1233.00	-0.10 0.10	-0.51 0.51	-6.89
P28	0.00	0.00 7.86	-755.60 1002.75	1002.75	2547.57 -3116.07	2547.57	0.39 -0.39	1.26 -1.26	-12.14

**CASO: G1+G2+1.4Q+D1**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 14.36	1442.48 -3383.47	1442.48	-517.52 369.37	369.37	-1.07 1.07	-0.20 0.20	-21.00
P2	0.00	0.00 37.32	-411.40 1137.12	1137.12	387.63 -1753.08	387.63	0.34 -0.34	0.48 -0.48	-63.36
P3	0.00	0.00 37.39	-370.75 1921.68	1921.68	416.82 -712.92	416.82	0.51 -0.51	0.25 -0.25	-29.03
P4	0.00	0.00 12.69	704.50 -1561.63	704.50	-381.10 339.00	339.00	-0.50 0.50	-0.16 0.16	10.92
P5	0.00	0.00 4.93	344.45 -417.58	344.45	-564.99 791.85	791.85	-0.17 0.17	-0.30 0.30	34.47
P6	0.00	0.00 22.33	-49.67 75.10	75.10	-764.53 1303.59	1303.59	0.03 -0.03	-0.46 0.46	-6.28
P7	0.00	0.00 42.78	202.09 -627.20	202.09	465.23 -48.83	465.23	-0.18 0.18	0.11 -0.11	-36.68
P8	0.00	0.00 35.18	-201.98 223.70	223.70	46.97 -15.78	46.97	0.09 -0.09	0.01 -0.01	3.42
P9	0.00	0.00 17.64	-464.33 744.85	744.85	6.84 -87.18	6.84	0.27 -0.27	0.02 -0.02	-7.66
P10	0.00	0.00 2.20	-371.58 435.46	435.46	-305.48 314.30	314.30	0.18 -0.18	-0.14 0.14	43.92
P11	0.00	-0.23 0.00	-153.92 12.12	12.12	-148.35 176.58	176.58	0.04 -0.04	-0.07 0.07	-3.78
P12	0.00	0.00 7.59	114.49 -127.44	114.49	36.76 19.57	36.76	-0.05 0.05	0.00 0.00	-3.65
P13	0.00	0.00 6.47	-74.71 79.62	79.62	-131.38 274.54	274.54	0.03 -0.03	-0.09 0.09	0.11
P14	0.00	0.00 4.64	138.49 -154.80	138.49	-761.66 974.03	974.03	-0.07 0.07	-0.39 0.39	22.91
P15	0.00	0.00	120.03	120.03	360.80	774.24	-0.05	-0.09	-11.65

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		8.35	-111.69		774.24		0.05	0.09	
P16	0.00	0.00 13.00	-2.14 -8.55	0.00	96.31 389.70	389.70	0.00 0.00	-0.07 0.07	0.00
P18	0.00	0.00 10.27	494.70 -533.73	494.70	1203.99 -2235.07	1203.99	-0.23 0.23	0.76 -0.76	-8.18
P19	0.00	0.00 5.15	-693.08 889.39	889.39	-407.56 417.14	417.14	0.35 -0.35	-0.18 0.18	-3.47
P20	0.00	0.00 9.06	229.63 -267.91	229.63	391.30 494.98	494.98	-0.11 0.11	-0.02 0.02	7.46
P21	0.00	0.00 14.61	8.52 34.07	34.07	99.41 402.12	402.12	0.01 -0.01	-0.07 0.07	0.00
P22	0.00	0.00 11.62	-17.74 71.66	71.66	-704.97 -1718.79	0.00	0.02 -0.02	0.23 -0.23	47.14
P23	0.00	0.00 9.64	-37.85 5.35	5.35	392.61 558.85	558.85	0.01 -0.01	-0.04 0.04	17.13
P24	0.00	0.00 14.75	11.87 47.47	47.47	118.55 478.67	478.67	0.01 -0.01	-0.08 0.08	0.00
P25	0.00	0.00 10.85	87.45 -161.51	87.45	-698.95 -1662.48	0.00	-0.06 0.06	0.21 -0.21	-33.88
P26	0.00	0.00 6.59	-731.84 964.68	964.68	-1552.18 1720.37	1720.37	0.38 -0.38	-0.73 0.73	2.07
P27	0.00	0.00 13.44	485.64 -54.49	485.64	-953.61 1117.13	1117.13	-0.12 0.12	-0.46 0.46	-5.28
P28	0.00	0.00 7.84	-657.86 888.22	888.22	2605.64 -3194.81	2605.64	0.34 -0.34	1.29 -1.29	-4.53

CASO: G1+G2+1.4Q+D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 14.44	1426.77 -3365.94	1426.77	-688.32 554.49	554.49	-1.07 1.07	-0.28 0.28	-22.74
P2	0.00	0.00 37.27	-630.08 1367.58	1367.58	375.73 -1741.34	375.73	0.44 -0.44	0.47 -0.47	-64.78
P3	0.00	0.00 37.45	-363.76 1914.71	1914.71	195.23 -480.18	195.23	0.51 -0.51	0.15 -0.15	-30.24
P4	0.00	0.00 12.60	529.15 -1372.64	529.15	-404.29 363.52	363.52	-0.42 0.42	-0.17 0.17	9.39
P5	0.00	0.00 5.02	343.76 -414.50	343.76	-813.67 1125.03	1125.03	-0.17 0.17	-0.43 0.43	35.84
P6	0.00	0.00 22.32	62.10 -34.85	62.10	-776.06 1315.35	1315.35	-0.02 0.02	-0.46 0.46	-6.81
P7	0.00	0.00 42.77	552.31 -1038.98	552.31	466.34 -40.40	466.34	-0.35 0.35	0.11 -0.11	-39.59
P8	0.00	0.00 35.17	-96.38 117.93	117.93	50.37 -19.38	50.37	0.05 -0.05	0.02 -0.02	2.99
P9	0.00	0.00 17.79	-161.75 422.89	422.89	21.60 -103.40	21.60	0.13 -0.13	0.03 -0.03	-9.30
P10	0.00	0.00 2.00	-371.17 434.92	434.92	24.47 -76.74	24.47	0.18 -0.18	0.02 -0.02	49.89
P11	0.00	-0.17 0.00	-161.96 19.77	19.77	-232.72 264.30	264.30	0.04 -0.04	-0.11 0.11	-4.17
P12	0.00	0.00 7.58	296.52 -321.75	296.52	36.79 20.80	36.79	-0.14 0.14	0.00 0.00	-3.10
P13	0.00	0.00 6.48	20.77 -17.50	20.77	-127.75 270.74	270.74	-0.01 0.01	-0.09 0.09	-0.48
P14	0.00	0.00 4.63	59.67 -72.09	59.67	-782.45 992.15	992.15	-0.03 0.03	-0.39 0.39	24.46
P15	0.00	0.00 8.39	119.95 -108.44	119.95	430.33 947.41	947.41	-0.05 0.05	-0.11 0.11	-14.74
P16	0.00	0.00 12.98	-0.42 -1.66	0.00	150.63 598.06	598.06	0.00 0.00	-0.10 0.10	0.00



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P18	0.00	0.00 10.18	482.71 -525.09	482.71	1034.86 -1932.32	1034.86	-0.22 0.22	0.66 -0.66	-6.69
P19	0.00	0.00 5.20	-704.98 899.23	899.23	-501.64 523.90	523.90	0.36 -0.36	-0.23 0.23	-1.46
P20	0.00	0.00 9.12	228.92 -265.10	228.92	498.44 788.53	788.53	-0.11 0.11	-0.06 0.06	7.56
P21	0.00	0.00 14.60	10.32 41.27	41.27	189.47 753.43	753.43	0.01 -0.01	-0.13 0.13	0.00
P22	0.00	0.00 11.55	-13.76 65.92	65.92	-613.72 -1426.46	0.00	0.02 -0.02	0.18 -0.18	40.53
P23	0.00	0.00 9.69	-48.46 13.42	13.42	498.24 862.96	862.96	0.01 -0.01	-0.08 0.08	19.42
P24	0.00	0.00 14.74	13.69 54.77	54.77	210.88 839.06	839.06	0.01 -0.01	-0.14 0.14	0.00
P25	0.00	0.00 10.81	91.31 -161.67	91.31	-592.77 -1369.34	0.00	-0.06 0.06	0.17 -0.17	-32.41
P26	0.00	0.00 6.63	-740.91 970.59	970.59	-1686.59 1889.03	1889.03	0.38 -0.38	-0.79 0.79	2.72
P27	0.00	0.00 13.44	485.83 -47.77	485.83	-1155.04 1343.01	1343.01	-0.12 0.12	-0.56 0.56	-11.40
P28	0.00	0.00 7.81	-652.03 886.48	886.48	2486.03 -3038.62	2486.03	0.34 -0.34	1.23 -1.23	-5.46

**CASO: G1+G2+1.4Q+D3**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 14.45	1590.46 -3546.83	1590.46	-587.11 444.17	444.17	-1.14 1.14	-0.23 0.23	-17.59
P2	0.00	0.00 37.30	-507.20 1236.57	1236.57	422.07 -1747.97	422.07	0.39 -0.39	0.48 -0.48	-62.92
P3	0.00	0.00 37.42	-365.85 1917.91	1917.91	322.88 -613.78	322.88	0.51 -0.51	0.21 -0.21	-28.10
P4	0.00	0.00 12.72	632.01 -1483.68	632.01	-520.14 488.52	488.52	-0.47 0.47	-0.22 0.22	11.65
P5	0.00	0.00 5.02	424.42 -505.93	424.42	-691.70 961.41	961.41	-0.21 0.21	-0.37 0.37	13.79
P6	0.00	0.00 22.33	6.15 20.10	20.10	-652.85 1190.81	1190.81	0.00 0.00	-0.41 0.41	-4.84
P7	0.00	0.00 42.89	378.87 -835.49	378.87	429.17 -212.80	429.17	-0.27 0.27	0.14 -0.14	-29.74
P8	0.00	0.00 35.23	-149.13 171.03	171.03	126.73 -97.57	126.73	0.07 -0.07	0.05 -0.05	3.47
P9	0.00	0.00 17.68	-312.96 584.18	584.18	114.29 -201.17	114.29	0.20 -0.20	0.07 -0.07	-6.85
P10	0.00	0.00 2.14	-474.41 549.72	549.72	-137.06 114.58	114.58	0.23 -0.23	-0.06 0.06	68.95
P11	0.00	-0.26 0.00	-61.98 -79.56	0.00	-193.40 223.41	223.41	0.00 0.00	-0.09 0.09	-3.00
P12	0.00	0.00 7.54	209.07 -228.32	209.07	34.23 -7.52	34.23	-0.10 0.10	0.01 -0.01	-2.03
P13	0.00	0.00 6.40	-25.11 29.04	29.04	-51.31 192.40	192.40	0.01 -0.01	-0.05 0.05	-0.63
P14	0.00	0.00 4.66	96.42 -110.41	96.42	-822.11 1036.47	1036.47	-0.05 0.05	-0.41 0.41	26.15
P15	0.00	0.00 8.35	228.64 -226.21	228.64	391.31 875.78	875.78	-0.10 0.10	-0.11 0.11	-23.04
P16	0.00	0.00 12.97	-46.63 -182.06	0.00	126.37 505.48	505.48	-0.03 0.03	-0.08 0.08	0.00
P18	0.00	0.00 10.19	625.67 -677.04	625.67	1112.01 -2067.31	1112.01	-0.29 0.29	0.71 -0.71	4.66
P19	0.00	0.00	-651.77	843.73	-462.46	478.98	0.33	-0.21	-0.92



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		5.16	843.73		478.98		-0.33	0.21	
P20	0.00	0.00 9.09	322.22 -368.27	322.22	447.55 653.67	653.67	-0.15 0.15	-0.05 0.05	-1.75
P21	0.00	0.00 14.60	-34.11 -131.97	0.00	147.79 591.14	591.14	-0.02 0.02	-0.10 0.10	0.00
P22	0.00	0.00 11.58	103.97 -61.50	103.97	-655.81 -1561.64	0.00	-0.04 0.04	0.20 -0.20	49.59
P23	0.00	0.00 9.68	53.37 -96.68	53.37	448.15 712.20	712.20	-0.03 0.03	-0.06 0.06	7.73
P24	0.00	0.00 14.76	-31.97 -123.41	0.00	165.46 661.82	661.82	-0.02 0.02	-0.11 0.11	0.00
P25	0.00	0.00 10.84	212.01 -296.11	212.01	-647.33 -1512.06	0.00	-0.11 0.11	0.19 -0.19	-25.12
P26	0.00	0.00 6.59	-670.84 892.00	892.00	-1614.95 1801.81	1801.81	0.35 -0.35	-0.76 0.76	-5.96
P27	0.00	0.00 13.40	423.52 -185.50	423.52	-1051.75 1227.63	1227.63	-0.14 0.14	-0.51 0.51	-9.55
P28	0.00	0.00 7.79	-571.06 791.17	791.17	2544.39 -3117.25	2544.39	0.30 -0.30	1.26 -1.26	0.95


**CASO: G1+G2+1.4Q+D4**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 14.34	1278.79 -3202.59	1278.79	-618.73 479.68	479.68	-1.00 1.00	-0.24 0.24	-26.15
P2	0.00	0.00 37.29	-534.28 1268.13	1268.13	341.29 -1746.45	341.29	0.40 -0.40	0.46 -0.46	-65.21
P3	0.00	0.00 37.43	-368.66 1918.48	1918.48	289.17 -579.33	289.17	0.51 -0.51	0.19 -0.19	-31.17
P4	0.00	0.00 12.57	601.64 -1450.59	601.64	-265.25 213.99	213.99	-0.46 0.46	-0.11 0.11	8.67
P5	0.00	0.00 4.93	263.80 -326.15	263.80	-686.96 955.48	955.48	-0.13 0.13	-0.36 0.36	56.51
P6	0.00	0.00 22.32	6.28 20.14	20.14	-887.74 1428.13	1428.13	0.00 0.00	-0.51 0.51	-8.24
P7	0.00	0.00 42.67	375.53 -830.69	375.53	502.40 123.57	502.40	-0.27 0.27	0.08 -0.08	-46.53
P8	0.00	0.00 35.11	-149.23 170.60	170.60	-29.39 62.41	62.41	0.07 -0.07	-0.02 0.02	2.95
P9	0.00	0.00 17.76	-313.11 583.56	583.56	-85.85 10.59	10.59	0.20 -0.20	-0.02 0.02	-10.10
P10	0.00	0.00 2.06	-268.33 320.66	320.66	-143.94 122.99	122.99	0.13 -0.13	-0.06 0.06	24.86
P11	0.00	-0.13 0.00	-253.91 111.45	111.45	-187.67 217.47	217.47	0.08 -0.08	-0.09 0.09	-4.96
P12	0.00	0.00 7.63	201.94 -220.87	201.94	39.32 47.89	47.89	-0.09 0.09	0.00 0.00	-4.73
P13	0.00	0.00 6.56	-28.84 33.08	33.08	-207.82 352.88	352.88	0.01 -0.01	-0.12 0.12	0.26
P14	0.00	0.00 4.62	101.74 -116.49	101.74	-722.00 929.71	929.71	-0.05 0.05	-0.37 0.37	21.22
P15	0.00	0.00 8.39	11.34 6.08	11.34	399.82 845.88	845.88	0.00 0.00	-0.10 0.10	-3.36
P16	0.00	0.00 13.01	44.08 171.85	171.85	120.57 482.28	482.28	0.03 -0.03	-0.08 0.08	0.00
P18	0.00	0.00 10.26	351.74 -381.79	351.74	1126.84 -2100.08	1126.84	-0.16 0.16	0.72 -0.72	-19.53
P19	0.00	0.00 5.19	-746.29 944.88	944.88	-446.75 462.06	462.06	0.38 -0.38	-0.20 0.20	-4.01
P20	0.00	0.00 9.09	136.33 -164.73	136.33	442.19 629.85	629.85	-0.07 0.07	-0.04 0.04	16.77

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P21	0.00	0.00 14.62	52.95 207.32	207.32	141.10 564.40	564.40	0.03 -0.03	-0.09 0.09	0.00
P22	0.00	0.00 11.60	-135.47 199.08	199.08	-662.88 -1583.61	0.00	0.07 -0.07	0.20 -0.20	38.08
P23	0.00	0.00 9.66	-139.68 115.45	115.45	442.70 709.60	709.60	0.06 -0.06	-0.06 0.06	28.81
P24	0.00	0.00 14.73	57.53 225.65	225.65	163.98 655.91	655.91	0.04 -0.04	-0.11 0.11	0.00
P25	0.00	0.00 10.82	-33.25 -27.07	0.00	-644.39 -1519.76	0.00	0.00 0.00	0.19 -0.19	-41.18
P26	0.00	0.00 6.64	-801.91 1043.28	1043.28	-1623.82 1807.59	1807.59	0.41 -0.41	-0.76 0.76	10.75
P27	0.00	0.00 13.48	547.95 83.24	547.95	-1056.91 1232.51	1232.51	-0.10 0.10	-0.51 0.51	-7.13
P28	0.00	0.00 7.85	-738.83 983.52	983.52	2547.28 -3116.17	2547.28	0.38 -0.38	1.26 -1.26	-10.95


CASO: G1+G2+1.4V1+0.84D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 4.27	521.14 -751.23	521.14	112.08 -217.70	112.08	-0.28 0.28	0.07 -0.07	-2.71
P2	0.00	0.00 8.81	816.16 -699.32	816.16	232.21 -428.33	232.21	-0.34 0.34	0.15 -0.15	-9.56
P3	0.00	0.00 8.09	-195.87 424.04	424.04	915.99 -985.30	915.99	0.14 -0.14	0.42 -0.42	-6.72
P4	0.00	0.00 4.32	739.00 -885.21	739.00	-289.04 353.89	353.89	-0.36 0.36	-0.14 0.14	-0.55
P5	0.00	0.00 4.41	338.23 -421.00	338.23	351.40 -519.32	351.40	-0.17 0.17	0.19 -0.19	12.09
P6	0.00	0.00 8.82	-414.47 428.79	428.79	-218.72 281.14	281.14	0.19 -0.19	-0.11 0.11	-1.63
P7	0.00	0.00 12.13	-1227.62 1334.59	1334.59	73.00 -41.60	73.00	0.57 -0.57	0.03 -0.03	-10.14
P8	0.00	0.00 9.27	-482.56 458.49	458.49	27.82 -26.70	27.82	0.21 -0.21	0.01 -0.01	-0.93
P9	0.00	0.00 6.37	-1156.07 1275.02	1275.02	-182.86 201.20	201.20	0.54 -0.54	-0.09 0.09	-2.60
P10	0.00	0.00 3.99	-358.77 423.36	423.36	-1332.77 1547.65	1547.65	0.17 -0.17	-0.64 0.64	-2.78
P11	0.00	0.00 1.76	-100.74 112.56	112.56	210.22 -205.44	210.22	0.05 -0.05	0.09 -0.09	-7.53
P12	0.00	0.00 6.02	-642.33 672.52	672.52	-1.36 16.33	16.33	0.29 -0.29	0.00 0.00	-5.70
P13	0.00	0.00 5.60	-457.68 467.05	467.05	-74.14 96.67	96.67	0.21 -0.21	-0.04 0.04	-6.52
P14	0.00	0.00 4.65	459.53 -488.12	459.53	-647.43 868.33	868.33	-0.21 0.21	-0.34 0.34	10.79
P15	0.00	0.00 8.22	97.75 -100.61	97.75	123.41 49.62	123.41	-0.04 0.04	0.02 -0.02	-0.81
P16	0.00	0.00 13.66	8.36 33.43	33.43	-178.88 -421.96	0.00	0.01 -0.01	0.05 -0.05	0.00
P18	0.00	0.00 10.68	522.78 -545.12	522.78	1989.92 -3528.77	1989.92	-0.24 0.24	1.23 -1.23	-33.40
P19	0.00	0.00 4.93	-676.80 878.84	878.84	22.91 -62.08	22.91	0.35 -0.35	0.02 -0.02	-14.77
P20	0.00	0.00 8.84	218.77 -263.29	218.77	15.10 -728.97	15.10	-0.11 0.11	0.17 -0.17	8.53
P21	0.00	0.00 14.63	8.69 34.76	34.76	-321.71 -993.30	0.00	0.01 -0.01	0.15 -0.15	0.00
P22	0.00	0.00	-49.49	110.77	-983.92	0.00	0.04	0.44	85.85

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		11.90	110.77		-2955.99		-0.04	-0.44	
P23	0.00	0.00 9.42	-12.36 -8.50	0.00	42.49 -652.19	42.49	0.00 0.00	0.15 -0.15	10.11
P24	0.00	0.00 14.81	14.02 56.07	56.07	-294.76 -885.48	0.00	0.01 -0.01	0.13 -0.13	0.00
P25	0.00	0.00 11.01	58.33 -146.46	58.33	-1050.86 -2829.92	0.00	-0.05 0.05	0.40 -0.40	-42.33
P26	0.00	0.00 6.44	-708.30 954.82	954.82	-912.74 955.44	955.44	0.37 -0.37	-0.42 0.42	0.36
P27	0.00	0.00 13.48	491.97 -51.19	491.97	-36.90 104.05	104.05	-0.12 0.12	-0.03 0.03	19.08
P28	0.00	0.00 7.96	-690.25 905.32	905.32	3186.35 -3906.77	3186.35	0.35 -0.35	1.58 -1.58	-3.42

CASO: G1+G2+1.4V2+0.84D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 4.89	568.93 -797.67	568.93	-1052.95 1036.77	1036.77	-0.30 0.30	-0.46 0.46	-2.90
P2	0.00	0.00 8.47	-673.04 865.22	865.22	165.21 -348.15	165.21	0.34 -0.34	0.11 -0.11	-6.85
P3	0.00	0.00 8.50	-170.05 377.45	377.45	-591.93 594.19	594.19	0.12 -0.12	-0.26 0.26	-5.64
P4	0.00	0.00 3.61	-460.67 401.14	401.14	-340.37 410.09	410.09	0.19 -0.19	-0.17 0.17	-0.87
P5	0.00	0.00 5.06	400.18 -465.87	400.18	-1527.98 1957.82	1957.82	-0.19 0.19	-0.77 0.77	3.11
P6	0.00	0.00 8.70	407.01 -380.13	407.01	-184.01 246.74	246.74	-0.17 0.17	-0.10 0.10	-0.91
P7	0.00	0.00 12.11	1381.07 -1710.67	1381.07	84.46 -80.46	84.46	-0.69 0.69	0.04 -0.04	-3.72
P8	0.00	0.00 9.19	294.69 -320.18	294.69	34.30 -34.88	34.30	-0.14 0.14	0.02 -0.02	-0.68
P9	0.00	0.00 7.53	1076.43 -1096.06	1076.43	-162.78 174.45	174.45	-0.48 0.48	-0.07 0.07	-2.13
P10	0.00	0.00 2.46	-235.08 290.10	290.10	1124.03 -1342.62	1124.03	0.12 -0.12	0.55 -0.55	24.44
P11	0.00	0.00 2.23	-61.30 70.88	70.88	-575.36 607.64	607.64	0.03 -0.03	-0.26 0.26	12.96
P12	0.00	0.00 5.82	1067.43 -1133.91	1067.43	0.34 8.65	8.65	-0.49 0.49	0.00 0.00	16.01
P13	0.00	0.00 5.71	425.76 -430.39	425.76	-64.96 85.96	85.96	-0.19 0.19	-0.03 0.03	8.99
P14	0.00	0.00 4.59	-278.44 280.53	280.53	-836.36 1037.63	1037.63	0.12 -0.12	-0.42 0.42	19.18
P15	0.00	0.00 8.52	185.59 -162.01	185.59	668.54 1676.03	1676.03	-0.08 0.08	-0.22 0.22	-23.50
P16	0.00	0.00 13.52	-2.60 -10.41	0.00	425.92 1410.12	1410.12	0.00 0.00	-0.22 0.22	0.00
P18	0.00	0.00 9.84	260.04 -301.40	260.04	260.39 -648.70	260.39	-0.12 0.12	0.20 -0.20	5.14
P19	0.00	0.00 5.45	-783.72 972.60	972.60	-925.95 996.60	996.60	0.39 -0.39	-0.43 0.43	8.41
P20	0.00	0.00 9.33	278.21 -311.21	278.21	875.11 2011.68	2011.68	-0.13 0.13	-0.25 0.25	5.11
P21	0.00	0.00 14.54	-0.26 -1.03	0.00	610.50 2148.44	2148.44	0.00 0.00	-0.34 0.34	0.00
P22	0.00	0.00 11.27	-135.63 188.92	188.92	-336.34 -188.61	0.00	0.07 -0.07	-0.03 0.03	8.51
P23	0.00	0.00 9.92	-34.81 -14.47	0.00	848.62 2073.29	2073.29	0.00 0.00	-0.27 0.27	24.55




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P24	0.00	0.00 14.70	4.48 17.92	17.92	624.07 2202.71	2202.71	0.00 0.00	-0.35 0.35	0.00
P25	0.00	0.00 10.63	-36.21 -7.19	0.00	-240.68 -202.73	0.00	0.01 -0.01	-0.01 0.01	-17.67
P26	0.00	0.00 6.77	-736.37 950.21	950.21	-2327.63 2656.46	2656.46	0.37 -0.37	-1.11 1.11	3.25
P27	0.00	0.00 13.39	473.30 -77.77	473.30	-2075.28 2359.84	2359.84	-0.12 0.12	-0.99 0.99	-33.81
P28	0.00	0.00 7.73	-732.57 991.41	991.41	1900.67 -2322.10	1900.67	0.38 -0.38	0.94 -0.94	0.00


CASO: G1+G2+1.4V3+0.84D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 4.88	1414.82 -1728.53	1414.82	-388.21 317.46	317.46	-0.70 0.70	-0.16 0.16	19.71
P2	0.00	0.00 8.67	141.30 3.00	141.30	383.82 -391.90	383.82	-0.03 0.03	0.17 -0.17	-4.17
P3	0.00	0.00 8.25	-140.62 398.71	398.71	248.97 -283.31	248.97	0.12 -0.12	0.12 -0.12	3.99
P4	0.00	0.00 4.39	217.41 -327.93	217.41	-1029.92 1151.27	1151.27	-0.12 0.12	-0.48 0.48	7.46
P5	0.00	0.00 5.04	982.54 -1118.55	982.54	-596.54 730.97	730.97	-0.47 0.47	-0.30 0.30	-97.44
P6	0.00	0.00 8.77	-4.20 24.34	24.34	447.51 -391.73	447.51	0.01 -0.01	0.19 -0.19	7.49
P7	0.00	0.00 12.75	84.87 -200.42	84.87	-33.41 -1043.99	0.00	-0.06 0.06	0.22 -0.22	37.32
P8	0.00	0.00 9.57	-94.02 70.70	70.70	476.59 -485.93	476.59	0.04 -0.04	0.21 -0.21	0.61
P9	0.00	0.00 6.73	-40.15 91.88	91.88	387.85 -405.09	387.85	0.03 -0.03	0.18 -0.18	6.69
P10	0.00	0.00 3.52	-1026.08 1154.30	1154.30	-82.13 75.68	75.68	0.48 -0.48	-0.04 0.04	109.30
P11	0.00	0.00 1.62	450.80 -436.80	450.80	-200.61 219.71	219.71	-0.20 0.20	-0.09 0.09	8.13
P12	0.00	0.00 5.60	237.68 -256.76	237.68	-1.67 -150.01	0.00	-0.11 0.11	0.03 -0.03	11.87
P13	0.00	0.00 5.21	-2.60 4.02	4.02	377.16 -365.32	377.16	0.00 0.00	0.16 -0.16	1.16
P14	0.00	0.00 4.75	73.59 -84.65	73.59	-1082.91 1314.27	1314.27	-0.04 0.04	-0.53 0.53	18.17
P15	0.00	0.00 8.23	960.55 -1003.92	960.55	370.17 927.18	927.18	-0.44 0.44	-0.12 0.12	-57.14
P16	0.00	0.00 13.48	-289.94 -937.39	0.00	134.42 537.68	537.68	-0.14 0.14	-0.09 0.09	0.00
P18	0.00	0.00 10.05	1354.76 -1455.37	1354.76	1094.87 -2022.78	1094.87	-0.62 0.62	0.69 -0.69	65.59
P19	0.00	0.00 5.08	-402.66 579.30	579.30	-497.57 516.66	516.66	0.22 -0.22	-0.23 0.23	6.91
P20	0.00	0.00 9.06	958.91 -1056.42	958.91	457.42 702.76	702.76	-0.45 0.45	-0.05 0.05	-38.19
P21	0.00	0.00 14.53	-278.42 -891.31	0.00	161.38 645.54	645.54	-0.14 0.14	-0.11 0.11	0.00
P22	0.00	0.00 11.53	751.99 -760.43	751.99	-641.29 -1517.11	0.00	-0.34 0.34	0.19 -0.19	73.00
P23	0.00	0.00 9.74	712.58 -813.69	712.58	460.59 715.98	715.98	-0.34 0.34	-0.06 0.06	-33.64
P24	0.00	0.00 14.86	-281.71 -904.46	0.00	168.35 673.39	673.39	-0.14 0.14	-0.11 0.11	0.00
P25	0.00	0.00	876.30	876.30	-654.55	0.00	-0.42	0.19	8.50



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		10.90	-1018.43		-1495.97		0.42	-0.19	
P26	0.00	0.00 6.42	-207.79 375.70	375.70	-1599.81 1793.60	1793.60	0.13 -0.13	-0.75 0.75	-37.91
P27	0.00	0.00 13.21	218.00 -843.98	218.00	-1043.69 1220.33	1220.33	-0.24 0.24	-0.50 0.50	-13.04
P28	0.00	0.00 7.63	-104.39 270.57	270.57	2537.65 -3118.62	2537.65	0.08 -0.08	1.26 -1.26	26.53

CASO: G1+G2+1.4V4+0.84D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 4.27	-324.75 179.64	179.64	-552.66 501.61	501.61	0.11 -0.11	-0.23 0.23	-25.32
P2	0.00	0.00 8.61	1.82 162.90	162.90	13.60 -384.57	13.60	0.04 -0.04	0.09 -0.09	-12.24
P3	0.00	0.00 8.34	-225.30 402.78	402.78	75.09 -107.79	75.09	0.14 -0.14	0.04 -0.04	-16.35
P4	0.00	0.00 3.54	60.93 -156.15	60.93	400.52 -387.28	400.52	-0.05 0.05	0.18 -0.18	-8.89
P5	0.00	0.00 4.43	-244.13 231.68	231.68	-580.05 707.53	707.53	0.11 -0.11	-0.29 0.29	112.65
P6	0.00	0.00 8.75	-3.26 24.33	24.33	-850.24 919.61	919.61	0.01 -0.01	-0.39 0.39	-10.03
P7	0.00	0.00 11.49	68.58 -175.66	68.58	190.87 921.93	921.93	-0.05 0.05	-0.16 0.16	-51.18
P8	0.00	0.00 8.89	-93.85 67.61	67.61	-414.46 424.35	424.35	0.04 -0.04	-0.19 0.19	-2.22
P9	0.00	0.00 7.17	-39.48 87.09	87.09	-733.48 780.74	780.74	0.03 -0.03	-0.34 0.34	-11.42
P10	0.00	0.00 2.92	432.24 -440.84	432.24	-126.60 129.34	129.34	-0.19 0.19	-0.06 0.06	-87.65
P11	0.00	0.00 2.36	-612.84 620.24	620.24	-164.53 182.49	182.49	0.27 -0.27	-0.08 0.08	-2.69
P12	0.00	0.00 6.23	187.42 -204.63	187.42	0.65 174.99	174.99	-0.09 0.09	-0.04 0.04	-1.55
P13	0.00	0.00 6.11	-29.33 32.64	32.64	-516.27 547.95	547.95	0.01 -0.01	-0.24 0.24	1.31
P14	0.00	0.00 4.49	107.51 -122.93	107.51	-400.88 591.68	591.68	-0.05 0.05	-0.22 0.22	11.81
P15	0.00	0.00 8.51	-677.22 741.30	741.30	421.77 798.47	798.47	0.32 -0.32	-0.08 0.08	32.84
P16	0.00	0.00 13.70	295.70 960.41	960.41	112.62 450.47	450.47	0.15 -0.15	-0.08 0.08	0.00
P18	0.00	0.00 10.48	-571.94 608.85	608.85	1155.44 -2154.69	1155.44	0.26 -0.26	0.74 -0.74	-93.85
P19	0.00	0.00 5.30	-1057.86 1272.14	1272.14	-405.48 417.86	417.86	0.52 -0.52	-0.18 0.18	-13.27
P20	0.00	0.00 9.11	-461.93 481.91	481.91	432.80 579.94	579.94	0.21 -0.21	-0.03 0.03	51.82
P21	0.00	0.00 14.64	286.86 925.04	925.04	127.40 509.60	509.60	0.14 -0.14	-0.08 0.08	0.00
P22	0.00	0.00 11.65	-937.11 1060.12	1060.12	-678.97 -1627.49	0.00	0.44 -0.44	0.21 -0.21	21.35
P23	0.00	0.00 9.60	-759.75 790.72	790.72	430.52 705.12	705.12	0.34 -0.34	-0.06 0.06	68.30
P24	0.00	0.00 14.64	300.21 978.44	978.44	160.96 643.84	643.84	0.15 -0.15	-0.11 0.11	0.00
P25	0.00	0.00 10.74	-854.19 864.78	864.78	-636.98 -1536.68	0.00	0.38 -0.38	0.20 -0.20	-68.51
P26	0.00	0.00 6.79	-1236.89 1529.33	1529.33	-1640.56 1818.30	1818.30	0.61 -0.61	-0.77 0.77	41.52

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P27	0.00	0.00 13.66	747.27 715.01	747.27	-1068.49 1243.56	1243.56	-0.01 0.01	-0.51 0.51	-1.69
P28	0.00	0.00 8.05	-1318.42 1626.16	1626.16	2549.36 -3110.25	2549.36	0.65 -0.65	1.26 -1.26	-29.95

<b>CASO: G1+G2+D1</b>									
<b>Elemento</b>	<b>Carga (kgf/m)</b>	<b>Rd Nd (tf)</b>	<b>Mxi Mxf (kgf.m)</b>	<b>MxMáx (kgf.m)</b>	<b>Myi Myf (kgf.m)</b>	<b>MyMáx (kgf.m)</b>	<b>Vxi Vxf (tf)</b>	<b>Vyi Vyf (tf)</b>	<b>Mtd (kgf/m)</b>
P1	0.00	0.00 4.53	552.89 -783.21	552.89	-385.04 316.97	316.97	-0.30 0.30	-0.16 0.16	-1.93
P2	0.00	0.00 8.66	180.90 -32.28	180.90	204.66 -394.11	204.66	-0.05 0.05	0.13 -0.13	-7.49
P3	0.00	0.00 8.26	-186.46 404.22	404.22	272.83 -311.92	272.83	0.13 -0.13	0.13 -0.13	-5.57
P4	0.00	0.00 4.01	226.84 -336.53	226.84	-303.11 369.73	369.73	-0.13 0.13	-0.15 0.15	0.05
P5	0.00	0.00 4.69	369.55 -444.97	369.55	-463.95 552.66	552.66	-0.18 0.18	-0.23 0.23	6.92
P6	0.00	0.00 8.77	-59.62 79.31	79.31	-195.60 258.06	258.06	0.03 -0.03	-0.10 0.10	-1.01
P7	0.00	0.00 12.13	-98.38 17.85	17.85	78.18 -65.25	78.18	0.03 -0.03	0.03 -0.03	-5.47
P8	0.00	0.00 9.23	-146.74 122.04	122.04	29.36 -28.99	29.36	0.06 -0.06	0.01 -0.01	-0.59
P9	0.00	0.00 6.88	-191.11 250.46	250.46	-180.20 195.93	195.93	0.10 -0.10	-0.08 0.08	-1.54
P10	0.00	0.00 3.32	-297.13 357.00	357.00	-269.34 298.03	298.03	0.15 -0.15	-0.13 0.13	7.84
P11	0.00	0.00 1.96	-77.00 87.89	87.89	-140.38 157.24	157.24	0.04 -0.04	-0.07 0.07	2.91
P12	0.00	0.00 5.93	121.53 -133.54	121.53	-0.53 11.87	11.87	-0.06 0.06	0.00 0.00	4.88
P13	0.00	0.00 5.65	-63.70 66.89	66.89	-71.37 93.21	93.21	0.03 -0.03	-0.04 0.04	1.53
P14	0.00	0.00 4.62	129.96 -145.15	129.96	-731.50 943.92	943.92	-0.06 0.06	-0.37 0.37	14.21
P15	0.00	0.00 8.35	141.71 -132.93	141.71	361.20 776.24	776.24	-0.06 0.06	-0.09 0.09	-10.60
P16	0.00	0.00 13.60	2.02 8.06	8.06	96.36 389.90	389.90	0.00 0.00	-0.07 0.07	0.00
P18	0.00	0.00 10.31	397.40 -427.58	397.40	1209.72 -2240.11	1209.72	-0.18 0.18	0.77 -0.77	-14.87
P19	0.00	0.00 5.16	-724.31 920.80	920.80	-404.48 413.88	413.88	0.37 -0.37	-0.18 0.18	-4.18
P20	0.00	0.00 9.06	248.85 -288.66	248.85	391.54 494.58	494.58	-0.12 0.12	-0.02 0.02	6.77
P21	0.00	0.00 14.59	3.32 13.26	13.26	99.36 401.91	401.91	0.00 0.00	-0.07 0.07	0.00
P22	0.00	0.00 11.62	-94.55 152.71	152.71	-705.75 -1718.47	0.00	0.05 -0.05	0.23 -0.23	50.48
P23	0.00	0.00 9.64	-18.28 -15.52	0.00	392.74 558.49	558.49	0.00 0.00	-0.04 0.04	16.18
P24	0.00	0.00 14.76	8.34 33.34	33.34	118.49 478.42	478.42	0.01 -0.01	-0.08 0.08	0.00
P25	0.00	0.00 10.84	9.12 -76.75	9.12	-698.85 -1662.90	0.00	-0.02 0.02	0.21 -0.21	-30.74
P26	0.00	0.00 6.59	-717.81 949.56	949.56	-1552.98 1721.62	1721.62	0.37 -0.37	-0.73 0.73	1.48
P27	0.00	0.00 13.44	482.54 -67.84	482.54	-955.37 1119.01	1119.01	-0.12 0.12	-0.46 0.46	-4.30
P28	0.00	0.00	-714.32	949.23	2603.31	2603.31	0.37	1.29	-1.25



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Plena


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Rezende  
Rezende Engenharia

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		7.86	949.23		-3192.53		-0.37	-1.29	
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CASO: G1+G2+D2

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 4.62	537.18 -765.68	537.18	-555.83 502.09	502.09	-0.29 0.29	-0.24 0.24	-3.68
P2	0.00	0.00 8.62	-37.78 198.18	198.18	192.76 -382.37	192.76	0.05 -0.05	0.13 -0.13	-8.92
P3	0.00	0.00 8.32	-179.47 397.26	397.26	51.24 -79.18	51.24	0.13 -0.13	0.03 -0.03	-6.79
P4	0.00	0.00 3.92	51.49 -147.54	51.49	-326.30 394.25	394.25	-0.04 0.04	-0.16 0.16	-1.48
P5	0.00	0.00 4.78	368.86 -441.90	368.86	-712.63 885.84	885.84	-0.18 0.18	-0.36 0.36	8.29
P6	0.00	0.00 8.75	52.15 -30.64	52.15	-207.13 269.82	269.82	-0.02 0.02	-0.11 0.11	-1.54
P7	0.00	0.00 12.12	251.83 -393.93	251.83	79.29 -56.81	79.29	-0.14 0.14	0.03 -0.03	-8.39
P8	0.00	0.00 9.22	-41.14 16.27	16.27	32.76 -32.59	32.76	0.01 -0.01	0.01 -0.01	-1.02
P9	0.00	0.00 7.03	111.47 -71.50	111.47	-165.44 179.72	179.72	-0.04 0.04	-0.08 0.08	-3.18
P10	0.00	0.00 3.12	-296.71 356.46	356.46	60.61 -93.01	60.61	0.15 -0.15	0.03 -0.03	13.81
P11	0.00	0.00 2.02	-85.04 95.55	95.55	-224.76 244.96	244.96	0.04 -0.04	-0.10 0.10	2.52
P12	0.00	0.00 5.91	303.57 -327.85	303.57	-0.49 13.10	13.10	-0.14 0.14	0.00 0.00	5.43
P13	0.00	0.00 5.66	31.78 -30.23	31.78	-67.74 89.41	89.41	-0.01 0.01	-0.03 0.03	0.94
P14	0.00	0.00 4.62	51.14 -62.44	51.14	-752.29 962.04	962.04	-0.03 0.03	-0.38 0.38	15.76
P15	0.00	0.00 8.39	141.63 -129.68	141.63	430.74 949.41	949.41	-0.06 0.06	-0.12 0.12	-13.70
P16	0.00	0.00 13.58	3.74 14.95	14.95	150.68 598.25	598.25	0.00 0.00	-0.10 0.10	0.00
P18	0.00	0.00 10.22	385.42 -418.94	385.42	1040.59 -1937.36	1040.59	-0.18 0.18	0.66 -0.66	-13.38
P19	0.00	0.00 5.21	-736.21 930.64	930.64	-498.56 520.65	520.65	0.37 -0.37	-0.23 0.23	-2.18
P20	0.00	0.00 9.12	248.14 -285.85	248.14	498.68 788.13	788.13	-0.12 0.12	-0.06 0.06	6.87
P21	0.00	0.00 14.58	5.12 20.47	20.47	189.42 753.22	753.22	0.00 0.00	-0.13 0.13	0.00
P22	0.00	0.00 11.55	-90.57 146.98	146.98	-614.51 -1426.13	0.00	0.05 -0.05	0.18 -0.18	43.87
P23	0.00	0.00 9.70	-28.89 -7.45	0.00	498.37 862.61	862.61	0.00 0.00	-0.08 0.08	18.48
P24	0.00	0.00 14.74	10.16 40.64	40.64	210.82 838.81	838.81	0.01 -0.01	-0.14 0.14	0.00
P25	0.00	0.00 10.80	12.99 -76.90	12.99	-592.68 -1369.75	0.00	-0.02 0.02	0.17 -0.17	-29.27
P26	0.00	0.00 6.62	-726.87 955.47	955.47	-1687.39 1890.28	1890.28	0.37 -0.37	-0.80 0.80	2.13
P27	0.00	0.00 13.43	482.73 -61.12	482.73	-1156.80 1344.88	1344.88	-0.12 0.12	-0.56 0.56	-10.43
P28	0.00	0.00 7.83	-708.49 947.49	947.49	2483.71 -3036.34	2483.71	0.37 -0.37	1.23 -1.23	-2.17

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CASO: G1+G2+D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 4.63	700.87 -946.57	700.87	-454.63 391.78	391.78	-0.37 0.37	-0.19 0.19	1.48
P2	0.00	0.00 8.64	85.10 67.17	85.10	239.10 -389.00	239.10	0.00 0.00	0.14 -0.14	-7.06
P3	0.00	0.00 8.29	-181.56 400.46	400.46	178.88 -212.77	178.88	0.13 -0.13	0.09 -0.09	-4.64
P4	0.00	0.00 4.04	154.35 -258.58	154.35	-442.15 519.26	519.26	-0.09 0.09	-0.21 0.21	0.78
P5	0.00	0.00 4.78	449.52 -533.33	449.52	-590.66 722.21	722.21	-0.22 0.22	-0.29 0.29	-13.76
P6	0.00	0.00 8.76	-3.80 24.31	24.31	-83.93 145.28	145.28	0.01 -0.01	-0.05 0.05	0.43
P7	0.00	0.00 12.23	78.39 -190.44	78.39	42.12 -229.22	42.12	-0.06 0.06	0.06 -0.06	1.46
P8	0.00	0.00 9.29	-93.89 69.37	69.37	109.12 -110.78	109.12	0.04 -0.04	0.05 -0.05	-0.55
P9	0.00	0.00 6.91	-39.74 89.79	89.79	-72.75 81.94	81.94	0.03 -0.03	-0.03 0.03	-0.74
P10	0.00	0.00 3.27	-399.96 471.26	471.26	-100.93 98.31	98.31	0.19 -0.19	-0.04 0.04	32.87
P11	0.00	0.00 1.93	14.95 -3.79	14.95	-185.44 204.07	204.07	0.00 0.00	-0.09 0.09	3.70
P12	0.00	0.00 5.87	216.12 -234.41	216.12	-3.06 -15.22	0.00	-0.10 0.10	0.00 0.00	6.51
P13	0.00	0.00 5.58	-14.10 16.31	16.31	8.70 11.07	11.07	0.01 -0.01	0.00 0.00	0.79
P14	0.00	0.00 4.64	87.89 -100.76	87.89	-791.95 1006.36	1006.36	-0.04 0.04	-0.40 0.40	17.45
P15	0.00	0.00 8.35	250.32 -247.45	250.32	391.72 877.77	877.77	-0.11 0.11	-0.11 0.11	-21.99
P16	0.00	0.00 13.57	-42.48 -165.44	0.00	126.42 505.68	505.68	-0.03 0.03	-0.08 0.08	0.00
P18	0.00	0.00 10.23	528.37 -570.88	528.37	1117.75 -2072.35	1117.75	-0.24 0.24	0.71 -0.71	-2.03
P19	0.00	0.00 5.17	-683.00 875.14	875.14	-459.38 475.72	475.72	0.35 -0.35	-0.21 0.21	-1.63
P20	0.00	0.00 9.09	341.44 -389.02	341.44	447.79 653.26	653.26	-0.16 0.16	-0.05 0.05	-2.45
P21	0.00	0.00 14.58	-39.31 -152.78	0.00	147.73 590.94	590.94	-0.03 0.03	-0.10 0.10	0.00
P22	0.00	0.00 11.58	27.16 19.56	27.16	-656.59 -1561.32	0.00	0.00 0.00	0.20 -0.20	52.93
P23	0.00	0.00 9.68	72.94 -117.55	72.94	448.28 711.85	711.85	-0.04 0.04	-0.06 0.06	6.79
P24	0.00	0.00 14.77	-35.50 -137.54	0.00	165.39 661.57	661.57	-0.02 0.02	-0.11 0.11	0.00
P25	0.00	0.00 10.83	133.68 -211.34	133.68	-647.24 -1512.48	0.00	-0.08 0.08	0.19 -0.19	-21.97
P26	0.00	0.00 6.58	-656.80 876.88	876.88	-1615.74 1803.06	1803.06	0.34 -0.34	-0.76 0.76	-6.54
P27	0.00	0.00 13.40	420.42 -198.85	420.42	-1053.51 1229.50	1229.50	-0.14 0.14	-0.51 0.51	-8.58
P28	0.00	0.00 7.81	-627.52 852.19	852.19	2542.07 -3114.98	2542.07	0.33 -0.33	1.26 -1.26	4.24

CASO: G1+G2+D4									
Elemento	Carga (kgf/m)	Rd Nd	Mxi Mxf	MxMáx (kgf.m)	Myi Myf	MyMáx (kgf.m)	Vxi Vxf	Vyi Vyf	Mtd (kgf/m)




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Plena**

**Leilson Campos  
Rezende  
Rezende Engenharia**

**11/5/2021  
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		(tf)	(kgf.m)		(kgf.m)		(tf)	(tf)	
P1	0.00	0.00 4.52	389.20 -602.33	389.20	-486.25 427.29	427.29	-0.22 0.22	-0.20 0.20	-7.09
P2	0.00	0.00 8.63	58.02 98.73	98.73	158.32 -387.48	158.32	0.01 -0.01	0.12 -0.12	-9.35
P3	0.00	0.00 8.30	-184.37 401.03	401.03	145.18 -178.33	145.18	0.13 -0.13	0.07 -0.07	-7.71
P4	0.00	0.00 3.89	123.98 -225.49	123.98	-187.26 244.73	244.73	-0.08 0.08	-0.10 0.10	-2.20
P5	0.00	0.00 4.69	288.89 -353.55	288.89	-585.92 716.29	716.29	-0.14 0.14	-0.29 0.29	28.96
P6	0.00	0.00 8.76	-3.66 24.35	24.35	-318.81 382.60	382.60	0.01 -0.01	-0.16 0.16	-2.97
P7	0.00	0.00 12.02	75.06 -185.64	75.06	115.35 107.16	115.35	-0.06 0.06	0.00 0.00	-15.32
P8	0.00	0.00 9.17	-93.99 68.94	68.94	-47.00 49.20	49.20	0.04 -0.04	-0.02 0.02	-1.07
P9	0.00	0.00 6.99	-39.89 89.18	89.18	-272.88 293.71	293.71	0.03 -0.03	-0.13 0.13	-3.99
P10	0.00	0.00 3.18	-193.88 242.20	242.20	-107.81 106.72	106.72	0.10 -0.10	-0.05 0.05	-11.22
P11	0.00	0.00 2.06	-176.99 187.23	187.23	-179.71 198.13	198.13	0.08 -0.08	-0.08 0.08	1.74
P12	0.00	0.00 5.97	208.98 -226.97	208.98	2.04 40.19	40.19	-0.10 0.10	-0.01 0.01	3.81
P13	0.00	0.00 5.74	-17.83 20.35	20.35	-147.81 171.55	171.55	0.01 -0.01	-0.07 0.07	1.68
P14	0.00	0.00 4.60	93.20 -106.83	93.20	-691.84 899.60	899.60	-0.04 0.04	-0.35 0.35	12.52
P15	0.00	0.00 8.39	33.02 -15.16	33.02	400.23 847.88	847.88	-0.01 0.01	-0.10 0.10	-2.31
P16	0.00	0.00 13.61	48.23 188.46	188.46	120.62 482.48	482.48	0.03 -0.03	-0.08 0.08	0.00
P18	0.00	0.00 10.30	254.45 -275.63	254.45	1132.57 -2105.12	1132.57	-0.12 0.12	0.72 -0.72	-26.22
P19	0.00	0.00 5.20	-777.52 976.29	976.29	-443.67 458.80	458.80	0.39 -0.39	-0.20 0.20	-4.73
P20	0.00	0.00 9.09	155.55 -185.48	155.55	442.42 629.45	629.45	-0.08 0.08	-0.04 0.04	16.08
P21	0.00	0.00 14.60	47.74 186.51	186.51	141.05 564.20	564.20	0.03 -0.03	-0.09 0.09	0.00
P22	0.00	0.00 11.60	-212.28 280.13	280.13	-663.67 -1583.28	0.00	0.11 -0.11	0.20 -0.20	41.43
P23	0.00	0.00 9.66	-120.11 94.58	94.58	442.83 709.25	709.25	0.05 -0.05	-0.06 0.06	27.87
P24	0.00	0.00 14.73	54.00 211.53	211.53	163.91 655.66	655.66	0.04 -0.04	-0.11 0.11	0.00
P25	0.00	0.00 10.81	-111.57 57.70	57.70	-644.29 -1520.18	0.00	0.04 -0.04	0.19 -0.19	-38.03
P26	0.00	0.00 6.63	-787.87 1028.16	1028.16	-1624.62 1808.84	1808.84	0.40 -0.40	-0.76 0.76	10.16
P27	0.00	0.00 13.48	544.85 69.89	544.85	-1058.67 1234.38	1234.38	-0.11 0.11	-0.51 0.51	-6.15
P28	0.00	0.00 7.87	-795.29 1044.54	1044.54	2544.95 -3113.90	2544.95	0.41 -0.41	1.26 -1.26	-7.66

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## Relatório de Combinações

Térreo Lance 1

LEILSON CAMPOS  
REZENDE:  
34821520559

Assinado digitalmente por LEILSON CAMPOS  
REZENDE:34821520559  
DN: C=BR, O=ICP-Brasil, OU=AC Soluti Multipla  
v5, OU=29186612000100, OU=Certificado PF A1,  
CN=LEILSON CAMPOS REZENDE:34821520559  
Resido: Eu sou o autor deste documento  
Localização: sua localização de assinatura aqui  
Data: 2021-06-11 16:41:20  
Font Reader Versão: 10.0.1

CASO: Peso próprio (G1)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 3.51	0.00 -124.43	0.00	0.00 181.36	181.36	-0.08 0.08	-0.12 0.12	0.00
P2	0.00	0.00 5.93	0.00 -96.36	0.00	0.00 -24.22	0.00	-0.06 0.06	0.02 -0.02	0.00
P3	0.00	0.00 5.54	0.00 17.35	17.35	0.00 -54.54	0.00	0.01 -0.01	0.04 -0.04	0.00
P4	0.00	0.00 2.78	0.00 -18.03	0.00	0.00 86.30	86.30	-0.01 0.01	-0.06 0.06	0.00
P5	0.00	0.00 3.64	0.00 -102.62	0.00	0.00 187.33	187.33	-0.07 0.07	-0.12 0.12	0.00
P6	0.00	0.00 5.84	0.00 -5.91	0.00	0.00 31.34	31.34	0.00 0.00	-0.02 0.02	0.00
P7	0.00	0.00 8.50	0.00 3.84	3.84	0.00 22.47	22.47	0.00 0.00	-0.01 0.01	0.00
P8	0.00	0.00 6.78	0.00 40.48	40.48	0.00 21.04	21.04	0.03 -0.03	-0.01 0.01	0.00
P9	0.00	0.00 4.57	0.00 -5.25	0.00	0.00 60.43	60.43	0.00 0.00	-0.04 0.04	0.00
P10	0.00	0.00 2.76	0.00 91.19	91.19	0.00 33.82	33.82	0.06 -0.06	-0.02 0.02	0.00
P11	0.00	0.00 1.34	0.00 19.13	19.13	0.00 48.82	48.82	0.01 -0.01	-0.03 0.03	0.00
P12	0.00	0.00 3.50	0.00 -39.86	0.00	0.00 2.13	2.13	-0.03 0.03	0.00 0.00	0.00
P13	0.00	0.00 3.16	0.00 11.87	11.87	0.00 48.72	48.72	0.01 -0.01	-0.03 0.03	0.00
P14	0.00	0.00 2.87	0.00 -38.71	0.00	0.00 171.18	171.18	-0.03 0.03	-0.11 0.11	0.00
P15	0.00	0.00 5.04	0.00 -46.37	0.00	0.00 69.33	69.33	-0.03 0.03	-0.05 0.05	0.00
P16	0.00	0.00 7.20	0.00 -11.62	0.00	0.00 37.31	37.31	-0.01 0.01	-0.02 0.02	0.00
P18	0.00	0.00 6.17	0.00 -130.74	0.00	0.00 -311.59	0.00	-0.09 0.09	0.21 -0.21	0.00
P19	0.00	0.00 3.07	0.00 167.31	167.31	0.00 34.05	34.05	0.11 -0.11	-0.02 0.02	0.00
P20	0.00	0.00 5.48	0.00 -79.15	0.00	0.00 63.00	63.00	-0.05 0.05	-0.04 0.04	0.00
P21	0.00	0.00 8.15	0.00 -3.07	0.00	0.00 67.06	67.06	0.00 0.00	-0.04 0.04	0.00
P22	0.00	0.00 6.61	0.00 26.21	26.21	0.00 -120.37	0.00	0.02 -0.02	0.08 -0.08	0.00
P23	0.00	0.00 5.72	0.00 24.04	24.04	0.00 56.00	56.00	0.02 -0.02	-0.04 0.04	0.00
P24	0.00	0.00 8.29	0.00 1.00	1.00	0.00 73.36	73.36	0.00 0.00	-0.05 0.05	0.00



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Rezende  
Rezende Engenharia

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P25	0.00	0.00 6.24	0.00 15.53	15.53	0.00 -148.31	0.00	0.01 -0.01	0.10 -0.10	0.00
P26	0.00	0.00 5.21	0.00 203.69	203.69	0.00 592.84	592.84	0.14 -0.14	-0.40 0.40	0.00
P27	0.00	0.00 10.09	0.00 -34.66	0.00	0.00 339.59	339.59	-0.02 0.02	-0.23 0.23	0.00
P28	0.00	0.00 6.05	0.00 196.73	196.73	0.00 -923.17	0.00	0.13 -0.13	0.62 -0.62	0.00

**CASO: Adicional (G2)**


Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 5.84	0.00 -382.26	0.00	0.00 559.48	559.48	-0.25 0.25	-0.37 0.37	0.00
P2	0.00	0.00 9.47	0.00 -270.88	0.00	0.00 -120.79	0.00	-0.18 0.18	0.08 -0.08	0.00
P3	0.00	0.00 8.25	0.00 91.87	91.87	0.00 -163.53	0.00	0.06 -0.06	0.11 -0.11	0.00
P4	0.00	0.00 3.89	0.00 -73.63	0.00	0.00 259.04	259.04	-0.05 0.05	-0.17 0.17	0.00
P5	0.00	0.00 4.86	0.00 -262.85	0.00	0.00 489.22	489.22	-0.18 0.18	-0.33 0.33	0.00
P6	0.00	0.00 10.48	0.00 -18.78	0.00	0.00 162.45	162.45	-0.01 0.01	-0.11 0.11	0.00
P7	0.00	0.00 12.72	0.00 35.64	35.64	0.00 -11.45	0.00	0.02 -0.02	0.01 -0.01	0.00
P8	0.00	0.00 11.29	0.00 132.90	132.90	0.00 -26.90	0.00	0.09 -0.09	0.02 -0.02	0.00
P9	0.00	0.00 6.60	0.00 -24.40	0.00	0.00 187.49	187.49	-0.02 0.02	-0.12 0.12	0.00
P10	0.00	0.00 3.24	0.00 227.85	227.85	0.00 97.76	97.76	0.15 -0.15	-0.07 0.07	0.00
P11	0.00	0.00 2.65	0.00 71.78	71.78	0.00 157.78	157.78	0.05 -0.05	-0.11 0.11	0.00
P12	0.00	0.00 7.45	0.00 -152.59	0.00	0.00 -1.65	0.00	-0.10 0.10	0.00 0.00	0.00
P13	0.00	0.00 7.71	0.00 45.73	45.73	0.00 63.77	63.77	0.03 -0.03	-0.04 0.04	0.00
P14	0.00	0.00 5.69	0.00 -115.03	0.00	0.00 616.66	616.66	-0.08 0.08	-0.41 0.41	0.00
P15	0.00	0.00 7.45	0.00 -122.16	0.00	0.00 46.45	46.45	-0.08 0.08	-0.03 0.03	0.00
P16	0.00	0.00 6.73	0.00 14.49	14.49	0.00 86.20	86.20	0.01 -0.01	-0.06 0.06	0.00
P18	0.00	0.00 11.53	0.00 -365.49	0.00	0.00 -791.92	0.00	-0.24 0.24	0.53 -0.53	0.00
P19	0.00	0.00 6.83	0.00 640.51	640.51	0.00 210.65	210.65	0.43 -0.43	-0.14 0.14	0.00
P20	0.00	0.00 8.72	0.00 -209.48	0.00	0.00 23.46	23.46	-0.14 0.14	-0.02 0.02	0.00
P21	0.00	0.00 6.77	0.00 7.29	7.29	0.00 77.33	77.33	0.00 0.00	-0.05 0.05	0.00
P22	0.00	0.00 11.21	0.00 100.71	100.71	0.00 -101.29	0.00	0.07 -0.07	0.07 -0.07	0.00
P23	0.00	0.00 9.38	0.00 58.81	58.81	0.00 10.69	10.69	0.04 -0.04	-0.01 0.01	0.00
P24	0.00	0.00 6.80	0.00 8.25	8.25	0.00 91.29	91.29	0.01 -0.01	-0.06 0.06	0.00
P25	0.00	0.00 9.95	0.00 32.47	32.47	0.00 -124.14	0.00	0.02 -0.02	0.08 -0.08	0.00
P26	0.00	0.00	0.00	543.73	0.00	1303.67	0.36	-0.87	0.00

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		7.32	543.73		1303.67		-0.36	0.87	
P27	0.00	0.00 12.62	0.00 -150.68	0.00	0.00 780.66	780.66	-0.10 0.10	-0.52 0.52	0.00
P28	0.00	0.00 8.63	0.00 532.06	532.06	0.00 -2080.22	0.00	0.35 -0.35	1.39 -1.39	0.00


CASO: Solo (S)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P3	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P4	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P5	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P6	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P7	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P8	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P9	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P10	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P11	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P12	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P13	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P14	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P15	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P16	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P18	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P19	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P20	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P21	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P22	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P23	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P24	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P25	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P26	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P27	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00



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P28	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
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CASO: Acidental (Q)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 7.32	0.00 16.32	16.32	0.00 20.36	20.36	0.01 -0.01	-0.01 0.01	0.00
P2	0.00	0.00 20.42	0.00 -92.58	0.00	0.00 143.90	143.90	-0.06 0.06	-0.10 0.10	0.00
P3	0.00	0.00 20.62	0.00 -134.06	0.00	0.00 -24.09	0.00	-0.09 0.09	0.02 -0.02	0.00
P4	0.00	0.00 6.42	0.00 66.14	66.14	0.00 40.45	40.45	0.04 -0.04	-0.03 0.03	0.00
P5	0.00	0.00 0.20	0.00 2.12	2.12	0.00 43.19	43.19	0.00 0.00	-0.03 0.03	0.00
P6	0.00	0.00 9.25	0.00 -30.36	0.00	0.00 -242.68	0.00	-0.02 0.02	0.16 -0.16	0.00
P7	0.00	0.00 21.99	0.00 -24.40	0.00	0.00 276.95	276.95	-0.02 0.02	-0.18 0.18	0.00
P8	0.00	0.00 18.03	0.00 -5.29	0.00	0.00 254.27	254.27	0.00 0.00	-0.17 0.17	0.00
P9	0.00	0.00 7.74	0.00 21.60	21.60	0.00 -9.25	0.00	0.01 -0.01	0.01 -0.01	0.00
P10	0.00	-0.75 0.00	0.00 35.88	35.88	0.00 3.24	3.24	0.02 -0.02	0.00 0.00	0.00
P11	0.00	-1.37 0.00	0.00 -93.32	0.00	0.00 -5.06	0.00	-0.06 0.06	0.00 0.00	0.00
P12	0.00	0.00 1.18	0.00 11.51	11.51	0.00 28.25	28.25	0.01 -0.01	-0.02 0.02	0.00
P13	0.00	0.00 0.85	0.00 11.65	11.65	0.00 237.23	237.23	0.01 -0.01	-0.16 0.16	0.00
P14	0.00	0.00 0.03	0.00 -11.47	0.00	0.00 1.98	1.98	-0.01 0.01	0.00 0.00	0.00
P15	0.00	0.00 0.00	0.00 11.28	11.28	0.00 -0.73	0.00	0.01 -0.01	0.00 0.00	0.00
P16	0.00	-0.43 0.00	0.00 -2.97	0.00	0.00 -0.04	0.00	0.00 0.00	0.00 0.00	0.00
P18	0.00	-0.05 0.00	0.00 -49.84	0.00	0.00 -6.48	0.00	-0.03 0.03	0.00 0.00	0.00
P19	0.00	-0.02 0.00	0.00 -1.95	0.00	0.00 1.22	1.22	0.00 0.00	0.00 0.00	0.00
P20	0.00	0.00 0.00	0.00 8.55	8.55	0.00 -0.23	0.00	0.01 -0.01	0.00 0.00	0.00
P21	0.00	0.00 0.02	0.00 3.72	3.72	0.00 0.04	0.04	0.00 0.00	0.00 0.00	0.00
P22	0.00	-0.01 0.00	0.00 -39.20	0.00	0.00 0.18	0.18	-0.03 0.03	0.00 0.00	0.00
P23	0.00	0.00 0.00	0.00 9.24	9.24	0.00 0.01	0.01	0.01 -0.01	0.00 0.00	0.00
P24	0.00	0.00 0.00	0.00 2.52	2.52	0.00 0.04	0.04	0.00 0.00	0.00 0.00	0.00
P25	0.00	0.00 0.01	0.00 -41.32	0.00	0.00 0.39	0.39	-0.03 0.03	0.00 0.00	0.00
P26	0.00	0.00 0.01	0.00 4.67	4.67	0.00 -1.09	0.00	0.00 0.00	0.00 0.00	0.00
P27	0.00	0.00 0.00	0.00 2.31	2.31	0.00 -0.91	0.00	0.00 0.00	0.00 0.00	0.00
P28	0.00	-0.03 0.00	0.00 -20.64	0.00	0.00 -0.95	0.00	-0.01 0.01	0.00 0.00	0.00

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CASO: Água (A)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P3	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P4	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P5	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P6	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P7	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P8	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P9	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P10	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P11	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P12	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P13	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P14	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P15	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P16	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P18	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P19	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P20	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P21	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P22	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P23	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P24	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P25	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P26	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P27	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P28	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00

CASO: Subpressão (AS)									
Elemento	Carga (kgf/m)	Rd Nd	Mxi Mxf	MxMáx (kgf.m)	Myi Myf	MyMáx (kgf.m)	Vxi Vxf	Vyi Vyf	Mtd (kgf/m)


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		(tf)	(kgf.m)		(kgf.m)		(tf)	(tf)	
P1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P3	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P4	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P5	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P6	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P7	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P8	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P9	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P10	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P11	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P12	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P13	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P14	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P15	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P16	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P18	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P19	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P20	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P21	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P22	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P23	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P24	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P25	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P26	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P27	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
P28	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00

CASO: Vento X+ (V1)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	-0.53 0.00	0.00 6.96	6.96	0.00 -274.15	0.00	0.00 0.00	0.18 -0.18	0.00

P2	0.00	0.00 0.26	0.00 -428.99	0.00	0.00 -24.05	0.00	-0.29 0.29	0.02 -0.02	0.00
P3	0.00	-0.33 0.00	0.00 21.40	21.40	0.00 -438.89	0.00	0.01 -0.01	0.29 -0.29	0.00
P4	0.00	0.00 0.60	0.00 -289.74	0.00	0.00 -27.93	0.00	-0.19 0.19	0.02 -0.02	0.00
P5	0.00	-0.47 0.00	0.00 13.91	13.91	0.00 -290.31	0.00	0.01 -0.01	0.19 -0.19	0.00
P6	0.00	-0.02 0.00	0.00 326.84	326.84	0.00 13.41	13.41	0.22 -0.22	-0.01 0.01	0.00
P7	0.00	0.00 0.05	0.00 674.33	674.33	0.00 -4.52	0.00	0.45 -0.45	0.00 0.00	0.00
P8	0.00	0.00 0.06	0.00 294.52	294.52	0.00 10.65	10.65	0.20 -0.20	-0.01 0.01	0.00
P9	0.00	-0.99 0.00	0.00 741.03	741.03	0.00 9.16	9.16	0.49 -0.49	-0.01 0.01	0.00
P10	0.00	0.00 1.32	0.00 28.87	28.87	0.00 591.03	591.03	0.02 -0.02	-0.39 0.39	0.00
P11	0.00	-0.43 0.00	0.00 13.67	13.67	0.00 -238.77	0.00	0.01 -0.01	0.16 -0.16	0.00
P12	0.00	0.00 0.21	0.00 455.46	455.46	0.00 -0.44	0.00	0.30 -0.30	0.00 0.00	0.00
P13	0.00	-0.11 0.00	0.00 292.12	292.12	0.00 11.62	11.62	0.19 -0.19	-0.01 0.01	0.00
P14	0.00	0.00 0.06	0.00 -214.65	0.00	0.00 -81.71	0.00	-0.14 0.14	0.05 -0.05	0.00
P15	0.00	-0.09 0.00	0.00 7.27	7.27	0.00 -175.04	0.00	0.00 0.00	0.12 -0.12	0.00
P16	0.00	0.00 0.04	0.00 4.43	4.43	0.00 -199.70	0.00	0.00 0.00	0.13 -0.13	0.00
P18	0.00	0.00 0.68	0.00 -123.60	0.00	0.00 -474.31	0.00	-0.08 0.08	0.32 -0.32	0.00
P19	0.00	-0.53 0.00	0.00 -75.13	0.00	0.00 -418.66	0.00	-0.05 0.05	0.28 -0.28	0.00
P20	0.00	-0.16 0.00	0.00 5.38	5.38	0.00 -277.06	0.00	0.00 0.00	0.18 -0.18	0.00
P21	0.00	0.00 0.03	0.00 3.74	3.74	0.00 -305.91	0.00	0.00 0.00	0.20 -0.20	0.00
P22	0.00	0.00 0.36	0.00 42.32	42.32	0.00 -195.34	0.00	0.03 -0.03	0.13 -0.13	0.00
P23	0.00	-0.15 0.00	0.00 13.14	13.14	0.00 -260.46	0.00	0.01 -0.01	0.17 -0.17	0.00
P24	0.00	0.00 0.03	0.00 3.95	3.95	0.00 -300.45	0.00	0.00 0.00	0.20 -0.20	0.00
P25	0.00	0.00 0.11	0.00 -62.77	0.00	0.00 -261.80	0.00	-0.04 0.04	0.17 -0.17	0.00
P26	0.00	-0.30 0.00	0.00 7.20	7.20	0.00 -385.30	0.00	0.00 0.00	0.26 -0.26	0.00
P27	0.00	0.00 0.08	0.00 2.85	2.85	0.00 -646.28	0.00	0.00 0.00	0.43 -0.43	0.00
P28	0.00	0.00 0.19	0.00 -29.44	0.00	0.00 -322.89	0.00	-0.02 0.02	0.22 -0.22	0.00

CASO: Vento X- (V2)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 0.53	0.00 -6.96	0.00	0.00 274.15	274.15	0.00 0.00	-0.18 0.18	0.00
P2	0.00	-0.26 0.00	0.00 428.99	428.99	0.00 24.05	24.05	0.29 -0.29	-0.02 0.02	0.00
P3	0.00	0.00	0.00	0.00	0.00	438.89	-0.01	-0.29	0.00

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		0.33	-21.40		438.89		0.01	0.29	
P4	0.00	-0.60 0.00	0.00 289.74	289.74	0.00 27.93	27.93	0.19 -0.19	-0.02 0.02	0.00
P5	0.00	0.00 0.47	0.00 -13.91	0.00	0.00 290.31	290.31	-0.01 0.01	-0.19 0.19	0.00
P6	0.00	0.00 0.02	0.00 -326.84	0.00	0.00 -13.41	0.00	-0.22 0.22	0.01 -0.01	0.00
P7	0.00	-0.05 0.00	0.00 -674.33	0.00	0.00 4.52	4.52	-0.45 0.45	0.00 0.00	0.00
P8	0.00	-0.06 0.00	0.00 -294.52	0.00	0.00 -10.65	0.00	-0.20 0.20	0.01 -0.01	0.00
P9	0.00	0.00 0.99	0.00 -741.03	0.00	0.00 -9.16	0.00	-0.49 0.49	0.01 -0.01	0.00
P10	0.00	-1.32 0.00	0.00 -28.87	0.00	0.00 -591.03	0.00	-0.02 0.02	0.39 -0.39	0.00
P11	0.00	0.00 0.43	0.00 -13.67	0.00	0.00 238.77	238.77	-0.01 0.01	-0.16 0.16	0.00
P12	0.00	-0.21 0.00	0.00 -455.46	0.00	0.00 0.44	0.44	-0.30 0.30	0.00 0.00	0.00
P13	0.00	0.00 0.11	0.00 -292.12	0.00	0.00 -11.62	0.00	-0.19 0.19	0.01 -0.01	0.00
P14	0.00	-0.06 0.00	0.00 214.65	214.65	0.00 81.71	81.71	0.14 -0.14	-0.05 0.05	0.00
P15	0.00	0.00 0.09	0.00 -7.27	0.00	0.00 175.04	175.04	0.00 0.00	-0.12 0.12	0.00
P16	0.00	-0.04 0.00	0.00 -4.43	0.00	0.00 199.70	199.70	0.00 0.00	-0.13 0.13	0.00
P18	0.00	-0.68 0.00	0.00 123.60	123.60	0.00 474.31	474.31	0.08 -0.08	-0.32 0.32	0.00
P19	0.00	0.00 0.53	0.00 75.13	75.13	0.00 418.66	418.66	0.05 -0.05	-0.28 0.28	0.00
P20	0.00	0.00 0.16	0.00 -5.38	0.00	0.00 277.06	277.06	0.00 0.00	-0.18 0.18	0.00
P21	0.00	-0.03 0.00	0.00 -3.74	0.00	0.00 305.91	305.91	0.00 0.00	-0.20 0.20	0.00
P22	0.00	-0.36 0.00	0.00 -42.32	0.00	0.00 195.34	195.34	-0.03 0.03	-0.13 0.13	0.00
P23	0.00	0.00 0.15	0.00 -13.14	0.00	0.00 260.46	260.46	-0.01 0.01	-0.17 0.17	0.00
P24	0.00	-0.03 0.00	0.00 -3.95	0.00	0.00 300.45	300.45	0.00 0.00	-0.20 0.20	0.00
P25	0.00	-0.11 0.00	0.00 62.77	62.77	0.00 261.80	261.80	0.04 -0.04	-0.17 0.17	0.00
P26	0.00	0.00 0.30	0.00 -7.20	0.00	0.00 385.30	385.30	0.00 0.00	-0.26 0.26	0.00
P27	0.00	-0.08 0.00	0.00 -2.85	0.00	0.00 646.28	646.28	0.00 0.00	-0.43 0.43	0.00
P28	0.00	-0.19 0.00	0.00 29.44	29.44	0.00 322.89	322.89	0.02 -0.02	-0.22 0.22	0.00

CASO: Vento Y+ (V3)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 0.48	0.00 -344.46	0.00	0.00 -26.10	0.00	-0.23 0.23	0.02 -0.02	0.00
P2	0.00	0.00 0.03	0.00 -38.39	0.00	0.00 106.23	106.23	-0.03 0.03	-0.07 0.07	0.00
P3	0.00	-0.06 0.00	0.00 31.43	31.43	0.00 -44.41	0.00	0.02 -0.02	0.03 -0.03	0.00
P4	0.00	0.00 0.70	0.00 -22.72	0.00	0.00 328.89	328.89	-0.02 0.02	-0.22 0.22	0.00



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P5	0.00	0.00 0.52	0.00 -296.41	0.00	0.00 -11.52	0.00	-0.20 0.20	0.01 -0.01	0.00
P6	0.00	0.00 0.20	0.00 0.33	0.33	0.00 -428.07	0.00	0.00 0.00	0.29 -0.29	0.00
P7	0.00	0.00 0.40	0.00 0.63	0.63	0.00 -65.09	0.00	0.00 0.00	0.04 -0.04	0.00
P8	0.00	0.00 0.78	0.00 1.61	1.61	0.00 -309.67	0.00	0.00 0.00	0.21 -0.21	0.00
P9	0.00	-0.50 0.00	0.00 6.14	6.14	0.00 -311.11	0.00	0.00 0.00	0.21 -0.21	0.00
P10	0.00	0.00 0.55	0.00 333.77	333.77	0.00 -13.50	0.00	0.22 -0.22	0.01 -0.01	0.00
P11	0.00	-0.74 0.00	0.00 -331.00	0.00	0.00 12.13	12.13	-0.22 0.22	-0.01 0.01	0.00
P12	0.00	-0.20 0.00	0.00 -12.40	0.00	0.00 -4.44	0.00	-0.01 0.01	0.00 0.00	0.00
P13	0.00	-0.86 0.00	0.00 -8.30	0.00	0.00 -309.67	0.00	-0.01 0.01	0.21 -0.21	0.00
P14	0.00	0.00 0.23	0.00 11.59	11.59	0.00 197.79	197.79	0.01 -0.01	-0.13 0.13	0.00
P15	0.00	-0.24 0.00	0.00 -463.18	0.00	0.00 -4.35	0.00	-0.31 0.31	0.00 0.00	0.00
P16	0.00	-0.06 0.00	0.00 -181.94	0.00	0.00 6.05	6.05	-0.12 0.12	0.00 0.00	0.00
P18	0.00	-0.34 0.00	0.00 -541.90	0.00	0.00 35.77	35.77	-0.36 0.36	-0.02 0.02	0.00
P19	0.00	-0.19 0.00	0.00 -188.25	0.00	0.00 35.67	35.67	-0.13 0.13	-0.02 0.02	0.00
P20	0.00	-0.06 0.00	0.00 -382.18	0.00	0.00 10.49	10.49	-0.25 0.25	-0.01 0.01	0.00
P21	0.00	-0.03 0.00	0.00 -175.77	0.00	0.00 10.13	10.13	-0.12 0.12	-0.01 0.01	0.00
P22	0.00	-0.10 0.00	0.00 -441.38	0.00	0.00 6.89	6.89	-0.29 0.29	0.00 0.00	0.00
P23	0.00	0.00 0.10	0.00 -397.68	0.00	0.00 4.77	4.77	-0.27 0.27	0.00 0.00	0.00
P24	0.00	0.00 0.07	0.00 -180.98	0.00	0.00 2.19	2.19	-0.12 0.12	0.00 0.00	0.00
P25	0.00	0.00 0.12	0.00 -456.50	0.00	0.00 -0.56	0.00	-0.30 0.30	0.00 0.00	0.00
P26	0.00	-0.30 0.00	0.00 -221.42	0.00	0.00 3.96	3.96	-0.15 0.15	0.00 0.00	0.00
P27	0.00	-0.13 0.00	0.00 -155.45	0.00	0.00 -4.72	0.00	-0.10 0.10	0.00 0.00	0.00
P28	0.00	-0.34 0.00	0.00 -252.04	0.00	0.00 -12.38	0.00	-0.17 0.17	0.01 -0.01	0.00

**CASO: Vento Y- (V4)**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	-0.48 0.00	0.00 344.46	344.46	0.00 26.10	26.10	0.23 -0.23	-0.02 0.02	0.00
P2	0.00	-0.03 0.00	0.00 38.39	38.39	0.00 -106.23	0.00	0.03 -0.03	0.07 -0.07	0.00
P3	0.00	0.00 0.06	0.00 -31.43	0.00	0.00 44.41	44.41	-0.02 0.02	-0.03 0.03	0.00
P4	0.00	-0.70 0.00	0.00 22.72	22.72	0.00 -328.89	0.00	0.02 -0.02	0.22 -0.22	0.00
P5	0.00	-0.52 0.00	0.00 296.41	296.41	0.00 11.52	11.52	0.20 -0.20	-0.01 0.01	0.00
P6	0.00	-0.20	0.00	0.00	0.00	428.07	0.00	-0.29	0.00

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		0.00	-0.33		428.07		0.00	0.29	
P7	0.00	-0.40 0.00	0.00 -0.63	0.00	0.00 65.09	65.09	0.00 0.00	-0.04 0.04	0.00
P8	0.00	-0.78 0.00	0.00 -1.61	0.00	0.00 309.67	309.67	0.00 0.00	-0.21 0.21	0.00
P9	0.00	0.00 0.50	0.00 -6.14	0.00	0.00 311.11	311.11	0.00 0.00	-0.21 0.21	0.00
P10	0.00	-0.55 0.00	0.00 -333.77	0.00	0.00 13.50	13.50	-0.22 0.22	-0.01 0.01	0.00
P11	0.00	0.00 0.74	0.00 331.00	331.00	0.00 -12.13	0.00	0.22 -0.22	0.01 -0.01	0.00
P12	0.00	0.00 0.20	0.00 12.40	12.40	0.00 4.44	4.44	0.01 -0.01	0.00 0.00	0.00
P13	0.00	0.00 0.86	0.00 8.30	8.30	0.00 309.67	309.67	0.01 -0.01	-0.21 0.21	0.00
P14	0.00	-0.23 0.00	0.00 -11.59	0.00	0.00 -197.79	0.00	-0.01 0.01	0.13 -0.13	0.00
P15	0.00	0.00 0.24	0.00 463.18	463.18	0.00 4.35	4.35	0.31 -0.31	0.00 0.00	0.00
P16	0.00	0.00 0.06	0.00 181.94	181.94	0.00 -6.05	0.00	0.12 -0.12	0.00 0.00	0.00
P18	0.00	0.00 0.34	0.00 541.90	541.90	0.00 -35.77	0.00	0.36 -0.36	0.02 -0.02	0.00
P19	0.00	0.00 0.19	0.00 188.25	188.25	0.00 -35.67	0.00	0.13 -0.13	0.02 -0.02	0.00
P20	0.00	0.00 0.06	0.00 382.18	382.18	0.00 -10.49	0.00	0.25 -0.25	0.01 -0.01	0.00
P21	0.00	0.00 0.03	0.00 175.77	175.77	0.00 -10.13	0.00	0.12 -0.12	0.01 -0.01	0.00
P22	0.00	0.00 0.10	0.00 441.38	441.38	0.00 -6.89	0.00	0.29 -0.29	0.00 0.00	0.00
P23	0.00	-0.10 0.00	0.00 397.68	397.68	0.00 -4.77	0.00	0.27 -0.27	0.00 0.00	0.00
P24	0.00	-0.07 0.00	0.00 180.98	180.98	0.00 -2.19	0.00	0.12 -0.12	0.00 0.00	0.00
P25	0.00	-0.12 0.00	0.00 456.50	456.50	0.00 0.56	0.56	0.30 -0.30	0.00 0.00	0.00
P26	0.00	0.00 0.30	0.00 221.42	221.42	0.00 -3.96	0.00	0.15 -0.15	0.00 0.00	0.00
P27	0.00	0.00 0.13	0.00 155.45	155.45	0.00 4.72	4.72	0.10 -0.10	0.00 0.00	0.00
P28	0.00	0.00 0.34	0.00 252.04	252.04	0.00 12.38	12.38	0.17 -0.17	-0.01 0.01	0.00

CASO: Desaprumo X+ (D1)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	-0.11 0.00	0.00 -4.94	0.00	0.00 -69.85	0.00	0.00 0.00	0.05 -0.05	0.00
P2	0.00	0.00 0.06	0.00 -107.48	0.00	0.00 -4.78	0.00	-0.07 0.07	0.00 0.00	0.00
P3	0.00	-0.08 0.00	0.00 3.43	3.43	0.00 -109.52	0.00	0.00 0.00	0.07 -0.07	0.00
P4	0.00	0.00 0.13	0.00 -73.28	0.00	0.00 -11.11	0.00	-0.05 0.05	0.01 -0.01	0.00
P5	0.00	-0.09 0.00	0.00 -0.59	0.00	0.00 -71.94	0.00	0.00 0.00	0.05 -0.05	0.00
P6	0.00	0.00 0.00	0.00 73.99	73.99	0.00 -6.16	0.00	0.05 -0.05	0.00 0.00	0.00
P7	0.00	0.00 0.01	0.00 157.41	157.41	0.00 -0.81	0.00	0.10 -0.10	0.00 0.00	0.00

P8	0.00	0.00 0.01	0.00 66.75	66.75	0.00 2.08	2.08	0.04 -0.04	0.00 0.00	0.00
P9	0.00	-0.21 0.00	0.00 168.61	168.61	0.00 6.71	6.71	0.11 -0.11	0.00 0.00	0.00
P10	0.00	0.00 0.28	0.00 0.04	0.04	0.00 137.89	137.89	0.00 0.00	-0.09 0.09	0.00
P11	0.00	-0.09 0.00	0.00 -3.98	0.00	0.00 -45.93	0.00	0.00 0.00	0.03 -0.03	0.00
P12	0.00	0.00 0.03	0.00 89.66	89.66	0.00 -0.04	0.00	0.06 -0.06	0.00 0.00	0.00
P13	0.00	-0.02 0.00	0.00 55.70	55.70	0.00 2.27	2.27	0.04 -0.04	0.00 0.00	0.00
P14	0.00	0.00 0.01	0.00 -41.80	0.00	0.00 -15.40	0.00	-0.03 0.03	0.01 -0.01	0.00
P15	0.00	-0.02 0.00	0.00 -2.32	0.00	0.00 -34.78	0.00	0.00 0.00	0.02 -0.02	0.00
P16	0.00	0.00 0.01	0.00 -0.86	0.00	0.00 -27.16	0.00	0.00 0.00	0.02 -0.02	0.00
P18	0.00	0.00 0.12	0.00 -13.52	0.00	0.00 -97.61	0.00	-0.01 0.01	0.07 -0.07	0.00
P19	0.00	-0.09 0.00	0.00 -12.28	0.00	0.00 -75.13	0.00	-0.01 0.01	0.05 -0.05	0.00
P20	0.00	-0.03 0.00	0.00 -2.62	0.00	0.00 -53.86	0.00	0.00 0.00	0.04 -0.04	0.00
P21	0.00	0.00 0.00	0.00 -0.90	0.00	0.00 -45.03	0.00	0.00 0.00	0.03 -0.03	0.00
P22	0.00	0.00 0.06	0.00 13.32	13.32	0.00 -44.11	0.00	0.01 -0.01	0.03 -0.03	0.00
P23	0.00	-0.03 0.00	0.00 -1.18	0.00	0.00 -53.66	0.00	0.00 0.00	0.04 -0.04	0.00
P24	0.00	0.00 0.01	0.00 -0.91	0.00	0.00 -46.16	0.00	0.00 0.00	0.03 -0.03	0.00
P25	0.00	0.00 0.02	0.00 -4.53	0.00	0.00 -53.96	0.00	0.00 0.00	0.04 -0.04	0.00
P26	0.00	-0.05 0.00	0.00 -0.80	0.00	0.00 -78.03	0.00	0.00 0.00	0.05 -0.05	0.00
P27	0.00	0.00 0.01	0.00 -0.80	0.00	0.00 -123.56	0.00	0.00 0.00	0.08 -0.08	0.00
P28	0.00	0.00 0.04	0.00 -1.81	0.00	0.00 -67.61	0.00	0.00 0.00	0.05 -0.05	0.00


CASO: Desaprumo X- (D2)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 0.11	0.00 4.94	4.94	0.00 69.85	69.85	0.00 0.00	-0.05 0.05	0.00
P2	0.00	-0.06 0.00	0.00 107.48	107.48	0.00 4.78	4.78	0.07 -0.07	0.00 0.00	0.00
P3	0.00	0.00 0.08	0.00 -3.43	0.00	0.00 109.52	109.52	0.00 0.00	-0.07 0.07	0.00
P4	0.00	-0.13 0.00	0.00 73.28	73.28	0.00 11.11	11.11	0.05 -0.05	-0.01 0.01	0.00
P5	0.00	0.00 0.09	0.00 0.59	0.59	0.00 71.94	71.94	0.00 0.00	-0.05 0.05	0.00
P6	0.00	0.00 0.00	0.00 -73.99	0.00	0.00 6.16	6.16	-0.05 0.05	0.00 0.00	0.00
P7	0.00	-0.01 0.00	0.00 -157.41	0.00	0.00 0.81	0.81	-0.10 0.10	0.00 0.00	0.00
P8	0.00	-0.01 0.00	0.00 -66.75	0.00	0.00 -2.08	0.00	-0.04 0.04	0.00 0.00	0.00
P9	0.00	0.00	0.00	0.00	0.00	0.00	-0.11	0.00	0.00



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		0.21	-168.61		-6.71		0.11	0.00	
P10	0.00	-0.28 0.00	0.00 -0.04	0.00	0.00 -137.89	0.00	0.00 0.00	0.09 -0.09	0.00
P11	0.00	0.00 0.09	0.00 3.98	3.98	0.00 45.93	45.93	0.00 0.00	-0.03 0.03	0.00
P12	0.00	-0.03 0.00	0.00 -89.66	0.00	0.00 0.04	0.04	-0.06 0.06	0.00 0.00	0.00
P13	0.00	0.00 0.02	0.00 -55.70	0.00	0.00 -2.27	0.00	-0.04 0.04	0.00 0.00	0.00
P14	0.00	-0.01 0.00	0.00 41.80	41.80	0.00 15.40	15.40	0.03 -0.03	-0.01 0.01	0.00
P15	0.00	0.00 0.02	0.00 2.32	2.32	0.00 34.78	34.78	0.00 0.00	-0.02 0.02	0.00
P16	0.00	-0.01 0.00	0.00 0.86	0.86	0.00 27.16	27.16	0.00 0.00	-0.02 0.02	0.00
P18	0.00	-0.12 0.00	0.00 13.52	13.52	0.00 97.61	97.61	0.01 -0.01	-0.07 0.07	0.00
P19	0.00	0.00 0.09	0.00 12.28	12.28	0.00 75.13	75.13	0.01 -0.01	-0.05 0.05	0.00
P20	0.00	0.00 0.03	0.00 2.62	2.62	0.00 53.86	53.86	0.00 0.00	-0.04 0.04	0.00
P21	0.00	0.00 0.00	0.00 0.90	0.90	0.00 45.03	45.03	0.00 0.00	-0.03 0.03	0.00
P22	0.00	-0.06 0.00	0.00 -13.32	0.00	0.00 44.11	44.11	-0.01 0.01	-0.03 0.03	0.00
P23	0.00	0.00 0.03	0.00 1.18	1.18	0.00 53.66	53.66	0.00 0.00	-0.04 0.04	0.00
P24	0.00	-0.01 0.00	0.00 0.91	0.91	0.00 46.16	46.16	0.00 0.00	-0.03 0.03	0.00
P25	0.00	-0.02 0.00	0.00 4.53	4.53	0.00 53.96	53.96	0.00 0.00	-0.04 0.04	0.00
P26	0.00	0.00 0.05	0.00 0.80	0.80	0.00 78.03	78.03	0.00 0.00	-0.05 0.05	0.00
P27	0.00	-0.01 0.00	0.00 0.80	0.80	0.00 123.56	123.56	0.00 0.00	-0.08 0.08	0.00
P28	0.00	-0.04 0.00	0.00 1.81	1.81	0.00 67.61	67.61	0.00 0.00	-0.05 0.05	0.00

CASO: Desaprumo Y+ (D3)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 0.14	0.00 -110.37	0.00	0.00 -8.49	0.00	-0.07 0.07	0.01 -0.01	0.00
P2	0.00	0.00 0.01	0.00 -12.84	0.00	0.00 39.77	39.77	-0.01 0.01	-0.03 0.03	0.00
P3	0.00	-0.02 0.00	0.00 2.06	2.06	0.00 -14.37	0.00	0.00 0.00	0.01 -0.01	0.00
P4	0.00	0.00 0.21	0.00 -7.45	0.00	0.00 98.32	98.32	0.00 0.00	-0.07 0.07	0.00
P5	0.00	0.00 0.11	0.00 -72.20	0.00	0.00 -2.93	0.00	-0.05 0.05	0.00 0.00	0.00
P6	0.00	0.00 0.06	0.00 0.18	0.18	0.00 -132.87	0.00	0.00 0.00	0.09 -0.09	0.00
P7	0.00	0.00 0.11	0.00 0.61	0.61	0.00 -38.75	0.00	0.00 0.00	0.03 -0.03	0.00
P8	0.00	0.00 0.24	0.00 0.60	0.60	0.00 -101.44	0.00	0.00 0.00	0.07 -0.07	0.00
P9	0.00	-0.15 0.00	0.00 2.40	2.40	0.00 -92.73	0.00	0.00 0.00	0.06 -0.06	0.00
P10	0.00	0.00 0.13	0.00 88.33	88.33	0.00 -2.98	0.00	0.06 -0.06	0.00 0.00	0.00

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P11	0.00	-0.23 0.00	0.00 -103.17	0.00	0.00 3.39	3.39	-0.07 0.07	0.00 0.00	0.00
P12	0.00	-0.05 0.00	0.00 -3.25	0.00	0.00 -4.12	0.00	0.00 0.00	0.00 0.00	0.00
P13	0.00	-0.26 0.00	0.00 -2.06	0.00	0.00 -101.42	0.00	0.00 0.00	0.07 -0.07	0.00
P14	0.00	0.00 0.06	0.00 3.37	3.37	0.00 55.63	55.63	0.00 0.00	-0.04 0.04	0.00
P15	0.00	-0.05 0.00	0.00 -106.76	0.00	0.00 -1.63	0.00	-0.07 0.07	0.00 0.00	0.00
P16	0.00	-0.02 0.00	0.00 -45.35	0.00	0.00 2.90	2.90	-0.03 0.03	0.00 0.00	0.00
P18	0.00	-0.09 0.00	0.00 -137.27	0.00	0.00 16.47	16.47	-0.09 0.09	-0.01 0.01	0.00
P19	0.00	-0.04 0.00	0.00 -51.73	0.00	0.00 10.37	10.37	-0.03 0.03	-0.01 0.01	0.00
P20	0.00	-0.01 0.00	0.00 -90.10	0.00	0.00 3.40	3.40	-0.06 0.06	0.00 0.00	0.00
P21	0.00	-0.01 0.00	0.00 -43.53	0.00	0.00 3.34	3.34	-0.03 0.03	0.00 0.00	0.00
P22	0.00	-0.03 0.00	0.00 -113.96	0.00	0.00 2.44	2.44	-0.08 0.08	0.00 0.00	0.00
P23	0.00	0.00 0.02	0.00 -93.88	0.00	0.00 1.75	1.75	-0.06 0.06	0.00 0.00	0.00
P24	0.00	0.00 0.02	0.00 -44.75	0.00	0.00 0.74	0.74	-0.03 0.03	0.00 0.00	0.00
P25	0.00	0.00 0.03	0.00 -117.53	0.00	0.00 -0.30	0.00	-0.08 0.08	0.00 0.00	0.00
P26	0.00	-0.07 0.00	0.00 -55.95	0.00	0.00 0.81	0.81	-0.04 0.04	0.00 0.00	0.00
P27	0.00	-0.04 0.00	0.00 -63.42	0.00	0.00 -1.65	0.00	-0.04 0.04	0.00 0.00	0.00
P28	0.00	-0.08 0.00	0.00 -69.17	0.00	0.00 -3.80	0.00	-0.05 0.05	0.00 0.00	0.00

CASO: Desaprumo Y- (D4)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	-0.14 0.00	0.00 110.37	110.37	0.00 8.49	8.49	0.07 -0.07	-0.01 0.01	0.00
P2	0.00	-0.01 0.00	0.00 12.84	12.84	0.00 -39.77	0.00	0.01 -0.01	0.03 -0.03	0.00
P3	0.00	0.00 0.02	0.00 -2.06	0.00	0.00 14.37	14.37	0.00 0.00	-0.01 0.01	0.00
P4	0.00	-0.21 0.00	0.00 7.45	7.45	0.00 -98.32	0.00	0.00 0.00	0.07 -0.07	0.00
P5	0.00	-0.11 0.00	0.00 72.20	72.20	0.00 2.93	2.93	0.05 -0.05	0.00 0.00	0.00
P6	0.00	-0.06 0.00	0.00 -0.18	0.00	0.00 132.87	132.87	0.00 0.00	-0.09 0.09	0.00
P7	0.00	-0.11 0.00	0.00 -0.61	0.00	0.00 38.75	38.75	0.00 0.00	-0.03 0.03	0.00
P8	0.00	-0.24 0.00	0.00 -0.60	0.00	0.00 101.44	101.44	0.00 0.00	-0.07 0.07	0.00
P9	0.00	0.00 0.15	0.00 -2.40	0.00	0.00 92.73	92.73	0.00 0.00	-0.06 0.06	0.00
P10	0.00	-0.13 0.00	0.00 -88.33	0.00	0.00 2.98	2.98	-0.06 0.06	0.00 0.00	0.00
P11	0.00	0.00 0.23	0.00 103.17	103.17	0.00 -3.39	0.00	0.07 -0.07	0.00 0.00	0.00
P12	0.00	0.00	0.00	3.25	0.00	4.12	0.00	0.00	0.00



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		0.05	3.25		4.12		0.00	0.00	
P13	0.00	0.00 0.26	0.00 2.06	2.06	0.00 101.42	101.42	0.00 0.00	-0.07 0.07	0.00
P14	0.00	-0.06 0.00	0.00 -3.37	0.00	0.00 -55.63	0.00	0.00 0.00	0.04 -0.04	0.00
P15	0.00	0.00 0.05	0.00 106.76	106.76	0.00 1.63	1.63	0.07 -0.07	0.00 0.00	0.00
P16	0.00	0.00 0.02	0.00 45.35	45.35	0.00 -2.90	0.00	0.03 -0.03	0.00 0.00	0.00
P18	0.00	0.00 0.09	0.00 137.27	137.27	0.00 -16.47	0.00	0.09 -0.09	0.01 -0.01	0.00
P19	0.00	0.00 0.04	0.00 51.73	51.73	0.00 -10.37	0.00	0.03 -0.03	0.01 -0.01	0.00
P20	0.00	0.00 0.01	0.00 90.10	90.10	0.00 -3.40	0.00	0.06 -0.06	0.00 0.00	0.00
P21	0.00	0.00 0.01	0.00 43.53	43.53	0.00 -3.34	0.00	0.03 -0.03	0.00 0.00	0.00
P22	0.00	0.00 0.03	0.00 113.96	113.96	0.00 -2.44	0.00	0.08 -0.08	0.00 0.00	0.00
P23	0.00	-0.02 0.00	0.00 93.88	93.88	0.00 -1.75	0.00	0.06 -0.06	0.00 0.00	0.00
P24	0.00	-0.02 0.00	0.00 44.75	44.75	0.00 -0.74	0.00	0.03 -0.03	0.00 0.00	0.00
P25	0.00	-0.03 0.00	0.00 117.53	117.53	0.00 0.30	0.30	0.08 -0.08	0.00 0.00	0.00
P26	0.00	0.00 0.07	0.00 55.95	55.95	0.00 -0.81	0.00	0.04 -0.04	0.00 0.00	0.00
P27	0.00	0.00 0.04	0.00 63.42	63.42	0.00 1.65	1.65	0.04 -0.04	0.00 0.00	0.00
P28	0.00	0.00 0.08	0.00 69.17	69.17	0.00 3.80	3.80	0.05 -0.05	0.00 0.00	0.00

CASO: 1.3G1+1.4G2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 12.74	0.00 -696.93	0.00	0.00 1019.04	1019.04	-0.46 0.46	-0.68 0.68	0.00
P2	0.00	0.00 20.96	0.00 -504.49	0.00	0.00 -200.58	0.00	-0.34 0.34	0.13 -0.13	0.00
P3	0.00	0.00 18.74	0.00 151.18	151.18	0.00 -299.84	0.00	0.10 -0.10	0.20 -0.20	0.00
P4	0.00	0.00 9.06	0.00 -126.52	0.00	0.00 474.85	474.85	-0.08 0.08	-0.32 0.32	0.00
P5	0.00	0.00 11.54	0.00 -501.40	0.00	0.00 928.44	928.44	-0.33 0.33	-0.62 0.62	0.00
P6	0.00	0.00 22.26	0.00 -33.98	0.00	0.00 268.18	268.18	-0.02 0.02	-0.18 0.18	0.00
P7	0.00	0.00 28.85	0.00 54.88	54.88	0.00 13.18	13.18	0.04 -0.04	-0.01 0.01	0.00
P8	0.00	0.00 24.62	0.00 238.68	238.68	0.00 -10.31	0.00	0.16 -0.16	0.01 -0.01	0.00
P9	0.00	0.00 15.18	0.00 -40.99	0.00	0.00 341.04	341.04	-0.03 0.03	-0.23 0.23	0.00
P10	0.00	0.00 8.11	0.00 437.54	437.54	0.00 180.83	180.83	0.29 -0.29	-0.12 0.12	0.00
P11	0.00	0.00 5.45	0.00 125.36	125.36	0.00 284.36	284.36	0.08 -0.08	-0.19 0.19	0.00
P12	0.00	0.00 14.98	0.00 -265.44	0.00	0.00 0.45	0.45	-0.18 0.18	0.00 0.00	0.00
P13	0.00	0.00 14.91	0.00 79.45	79.45	0.00 152.63	152.63	0.05 -0.05	-0.10 0.10	0.00



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P14	0.00	0.00 11.71	0.00 -211.37	0.00	0.00 1085.85	1085.85	-0.14 0.14	-0.72 0.72	0.00
P15	0.00	0.00 16.99	0.00 -231.31	0.00	0.00 155.16	155.16	-0.15 0.15	-0.10 0.10	0.00
P16	0.00	0.00 18.78	0.00 5.19	5.19	0.00 169.20	169.20	0.00 0.00	-0.11 0.11	0.00
P18	0.00	0.00 24.16	0.00 -681.65	0.00	0.00 -1513.76	0.00	-0.45 0.45	1.01 -1.01	0.00
P19	0.00	0.00 13.55	0.00 1114.22	1114.22	0.00 339.17	339.17	0.74 -0.74	-0.23 0.23	0.00
P20	0.00	0.00 19.33	0.00 -396.16	0.00	0.00 114.75	114.75	-0.26 0.26	-0.08 0.08	0.00
P21	0.00	0.00 20.08	0.00 6.21	6.21	0.00 195.44	195.44	0.00 0.00	-0.13 0.13	0.00
P22	0.00	0.00 24.28	0.00 175.07	175.07	0.00 -298.28	0.00	0.12 -0.12	0.20 -0.20	0.00
P23	0.00	0.00 20.57	0.00 113.58	113.58	0.00 87.77	87.77	0.08 -0.08	-0.06 0.06	0.00
P24	0.00	0.00 20.30	0.00 12.85	12.85	0.00 223.18	223.18	0.01 -0.01	-0.15 0.15	0.00
P25	0.00	0.00 22.04	0.00 65.64	65.64	0.00 -366.60	0.00	0.04 -0.04	0.24 -0.24	0.00
P26	0.00	0.00 17.02	0.00 1026.02	1026.02	0.00 2595.82	2595.82	0.68 -0.68	-1.73 1.73	0.00
P27	0.00	0.00 30.79	0.00 -256.01	0.00	0.00 1534.39	1534.39	-0.17 0.17	-1.02 1.02	0.00
P28	0.00	0.00 19.94	0.00 1000.64	1000.64	0.00 -4112.44	0.00	0.67 -0.67	2.74 -2.74	0.00

**CASO: 1.3G1+1.4G2+0.84V1+1.4D1**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 12.14	0.00 -697.99	0.00	0.00 690.96	690.96	-0.47 0.47	-0.46 0.46	0.00
P2	0.00	0.00 21.27	0.00 -1015.31	0.00	0.00 -227.48	0.00	-0.68 0.68	0.15 -0.15	0.00
P3	0.00	0.00 18.35	0.00 173.96	173.96	0.00 -821.83	0.00	0.12 -0.12	0.55 -0.55	0.00
P4	0.00	0.00 9.75	0.00 -472.50	0.00	0.00 435.83	435.83	-0.31 0.31	-0.29 0.29	0.00
P5	0.00	0.00 11.01	0.00 -490.54	0.00	0.00 583.87	583.87	-0.33 0.33	-0.39 0.39	0.00
P6	0.00	0.00 22.24	0.00 344.14	344.14	0.00 270.81	270.81	0.23 -0.23	-0.18 0.18	0.00
P7	0.00	0.00 28.91	0.00 841.69	841.69	0.00 8.25	8.25	0.56 -0.56	-0.01 0.01	0.00
P8	0.00	0.00 24.68	0.00 579.51	579.51	0.00 1.55	1.55	0.39 -0.39	0.00 0.00	0.00
P9	0.00	0.00 14.06	0.00 817.52	817.52	0.00 358.14	358.14	0.55 -0.55	-0.24 0.24	0.00
P10	0.00	0.00 9.61	0.00 461.85	461.85	0.00 870.34	870.34	0.31 -0.31	-0.58 0.58	0.00
P11	0.00	0.00 4.97	0.00 131.27	131.27	0.00 19.49	19.49	0.09 -0.09	-0.01 0.01	0.00
P12	0.00	0.00 15.21	0.00 242.67	242.67	0.00 0.02	0.02	0.16 -0.16	0.00 0.00	0.00
P13	0.00	0.00 14.79	0.00 402.81	402.81	0.00 165.56	165.56	0.27 -0.27	-0.11 0.11	0.00
P14	0.00	0.00 11.78	0.00 -450.19	0.00	0.00 995.65	995.65	-0.30 0.30	-0.66 0.66	0.00
P15	0.00	0.00	0.00	0.00	0.00	0.00	-0.15	0.03	0.00




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		16.89	-228.44		-40.55		0.15	-0.03	
P16	0.00	0.00 18.83	0.00 7.71	7.71	0.00 -36.58	0.00	0.01 -0.01	0.02 -0.02	0.00
P18	0.00	0.00 24.90	0.00 -804.41	0.00	0.00 -2048.83	0.00	-0.54 0.54	1.37 -1.37	0.00
P19	0.00	0.00 12.98	0.00 1033.91	1033.91	0.00 -117.68	0.00	0.69 -0.69	0.08 -0.08	0.00
P20	0.00	0.00 19.16	0.00 -395.32	0.00	0.00 -193.39	0.00	-0.26 0.26	0.13 -0.13	0.00
P21	0.00	0.00 20.11	0.00 8.09	8.09	0.00 -124.57	0.00	0.01 -0.01	0.08 -0.08	0.00
P22	0.00	0.00 24.67	0.00 229.27	229.27	0.00 -524.12	0.00	0.15 -0.15	0.35 -0.35	0.00
P23	0.00	0.00 20.41	0.00 122.98	122.98	0.00 -206.13	0.00	0.08 -0.08	0.14 -0.14	0.00
P24	0.00	0.00 20.33	0.00 14.89	14.89	0.00 -93.83	0.00	0.01 -0.01	0.06 -0.06	0.00
P25	0.00	0.00 22.16	0.00 6.57	6.57	0.00 -662.05	0.00	0.00 0.00	0.44 -0.44	0.00
P26	0.00	0.00 16.70	0.00 1030.95	1030.95	0.00 2162.93	2162.93	0.69 -0.69	-1.44 1.44	0.00
P27	0.00	0.00 30.88	0.00 -254.73	0.00	0.00 818.52	818.52	-0.17 0.17	-0.55 0.55	0.00
P28	0.00	0.00 20.15	0.00 973.37	973.37	0.00 -4478.32	0.00	0.65 -0.65	2.99 -2.99	0.00

CASO: 1.3G1+1.4G2+0.84V2+1.4D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 13.35	0.00 -695.86	0.00	0.00 1347.11	1347.11	-0.46 0.46	-0.90 0.90	0.00
P2	0.00	0.00 20.65	0.00 6.32	6.32	0.00 -173.69	0.00	0.00 0.00	0.12 -0.12	0.00
P3	0.00	0.00 19.14	0.00 128.41	128.41	0.00 222.15	222.15	0.09 -0.09	-0.15 0.15	0.00
P4	0.00	0.00 8.36	0.00 219.45	219.45	0.00 513.87	513.87	0.15 -0.15	-0.34 0.34	0.00
P5	0.00	0.00 12.06	0.00 -512.27	0.00	0.00 1273.01	1273.01	-0.34 0.34	-0.85 0.85	0.00
P6	0.00	0.00 22.28	0.00 -412.11	0.00	0.00 265.54	265.54	-0.27 0.27	-0.18 0.18	0.00
P7	0.00	0.00 28.79	0.00 -731.93	0.00	0.00 18.11	18.11	-0.49 0.49	-0.01 0.01	0.00
P8	0.00	0.00 24.55	0.00 -102.16	0.00	0.00 -22.17	0.00	-0.07 0.07	0.01 -0.01	0.00
P9	0.00	0.00 16.29	0.00 -899.50	0.00	0.00 323.95	323.95	-0.60 0.60	-0.22 0.22	0.00
P10	0.00	0.00 6.62	0.00 413.22	413.22	0.00 -508.68	0.00	0.28 -0.28	0.34 -0.34	0.00
P11	0.00	0.00 5.94	0.00 119.45	119.45	0.00 549.23	549.23	0.08 -0.08	-0.37 0.37	0.00
P12	0.00	0.00 14.76	0.00 -773.55	0.00	0.00 0.89	0.89	-0.52 0.52	0.00 0.00	0.00
P13	0.00	0.00 15.03	0.00 -243.91	0.00	0.00 139.69	139.69	-0.16 0.16	-0.09 0.09	0.00
P14	0.00	0.00 11.64	0.00 27.46	27.46	0.00 1176.05	1176.05	0.02 -0.02	-0.78 0.78	0.00
P15	0.00	0.00 17.09	0.00 -234.17	0.00	0.00 350.88	350.88	-0.16 0.16	-0.23 0.23	0.00
P16	0.00	0.00 18.73	0.00 2.67	2.67	0.00 374.97	374.97	0.00 0.00	-0.25 0.25	0.00

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P18	0.00	0.00 23.42	0.00 -558.90	0.00	0.00 -978.68	0.00	-0.37 0.37	0.65 -0.65	0.00
P19	0.00	0.00 14.11	0.00 1194.52	1194.52	0.00 796.03	796.03	0.80 -0.80	-0.53 0.53	0.00
P20	0.00	0.00 19.50	0.00 -397.01	0.00	0.00 422.89	422.89	-0.26 0.26	-0.28 0.28	0.00
P21	0.00	0.00 20.05	0.00 4.33	4.33	0.00 515.45	515.45	0.00 0.00	-0.34 0.34	0.00
P22	0.00	0.00 23.90	0.00 120.88	120.88	0.00 -72.44	0.00	0.08 -0.08	0.05 -0.05	0.00
P23	0.00	0.00 20.73	0.00 104.19	104.19	0.00 381.67	381.67	0.07 -0.07	-0.25 0.25	0.00
P24	0.00	0.00 20.26	0.00 10.80	10.80	0.00 540.19	540.19	0.01 -0.01	-0.36 0.36	0.00
P25	0.00	0.00 21.92	0.00 124.71	124.71	0.00 -71.14	0.00	0.08 -0.08	0.05 -0.05	0.00
P26	0.00	0.00 17.34	0.00 1021.09	1021.09	0.00 3028.72	3028.72	0.68 -0.68	-2.02 2.02	0.00
P27	0.00	0.00 30.70	0.00 -257.29	0.00	0.00 2250.26	2250.26	-0.17 0.17	-1.50 1.50	0.00
P28	0.00	0.00 19.73	0.00 1027.91	1027.91	0.00 -3746.56	0.00	0.69 -0.69	2.50 -2.50	0.00

CASO: 1.3G1+1.4G2+0.84V3+1.4D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 13.35	0.00 -1140.78	0.00	0.00 985.23	985.23	-0.76 0.76	-0.66 0.66	0.00
P2	0.00	0.00 21.00	0.00 -554.72	0.00	0.00 -55.67	0.00	-0.37 0.37	0.04 -0.04	0.00
P3	0.00	0.00 18.67	0.00 180.48	180.48	0.00 -357.26	0.00	0.12 -0.12	0.24 -0.24	0.00
P4	0.00	0.00 9.93	0.00 -156.04	0.00	0.00 888.77	888.77	-0.10 0.10	-0.59 0.59	0.00
P5	0.00	0.00 12.13	0.00 -851.47	0.00	0.00 914.66	914.66	-0.57 0.57	-0.61 0.61	0.00
P6	0.00	0.00 22.51	0.00 -33.46	0.00	0.00 -277.42	0.00	-0.02 0.02	0.18 -0.18	0.00
P7	0.00	0.00 29.34	0.00 56.25	56.25	0.00 -95.75	0.00	0.04 -0.04	0.06 -0.06	0.00
P8	0.00	0.00 25.60	0.00 240.87	240.87	0.00 -412.45	0.00	0.16 -0.16	0.27 -0.27	0.00
P9	0.00	0.00 14.55	0.00 -32.47	0.00	0.00 -50.11	0.00	-0.02 0.02	0.03 -0.03	0.00
P10	0.00	0.00 8.76	0.00 841.57	841.57	0.00 165.32	165.32	0.56 -0.56	-0.11 0.11	0.00
P11	0.00	0.00 4.52	0.00 -297.12	0.00	0.00 299.30	299.30	-0.20 0.20	-0.20 0.20	0.00
P12	0.00	0.00 14.74	0.00 -280.40	0.00	0.00 -9.04	0.00	-0.19 0.19	0.01 -0.01	0.00
P13	0.00	0.00 13.82	0.00 69.60	69.60	0.00 -249.48	0.00	0.05 -0.05	0.17 -0.17	0.00
P14	0.00	0.00 11.98	0.00 -196.92	0.00	0.00 1329.87	1329.87	-0.13 0.13	-0.89 0.89	0.00
P15	0.00	0.00 16.71	0.00 -769.85	0.00	0.00 149.22	149.22	-0.51 0.51	-0.10 0.10	0.00
P16	0.00	0.00 18.70	0.00 -211.14	0.00	0.00 178.33	178.33	-0.14 0.14	-0.12 0.12	0.00
P18	0.00	0.00 23.75	0.00 -1329.03	0.00	0.00 -1460.65	0.00	-0.89 0.89	0.97 -0.97	0.00
P19	0.00	0.00	0.00	883.66	0.00	383.65	0.59	-0.26	0.00



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Rezende  
Rezende Engenharia

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		13.33	883.66		383.65		-0.59	0.26	
P20	0.00	0.00 19.27	0.00 -843.33	0.00	0.00 128.32	128.32	-0.56 0.56	-0.09 0.09	0.00
P21	0.00	0.00 20.04	0.00 -202.37	0.00	0.00 208.63	208.63	-0.13 0.13	-0.14 0.14	0.00
P22	0.00	0.00 24.17	0.00 -355.23	0.00	0.00 -289.08	0.00	-0.24 0.24	0.19 -0.19	0.00
P23	0.00	0.00 20.68	0.00 -351.90	0.00	0.00 94.23	94.23	-0.23 0.23	-0.06 0.06	0.00
P24	0.00	0.00 20.38	0.00 -201.82	0.00	0.00 226.06	226.06	-0.13 0.13	-0.15 0.15	0.00
P25	0.00	0.00 22.17	0.00 -482.36	0.00	0.00 -367.49	0.00	-0.32 0.32	0.24 -0.24	0.00
P26	0.00	0.00 16.68	0.00 761.70	761.70	0.00 2600.29	2600.29	0.51 -0.51	-1.73 1.73	0.00
P27	0.00	0.00 30.63	0.00 -475.37	0.00	0.00 1528.12	1528.12	-0.32 0.32	-1.02 1.02	0.00
P28	0.00	0.00 19.54	0.00 692.09	692.09	0.00 -4128.15	0.00	0.46 -0.46	2.75 -2.75	0.00

**CASO: 1.3G1+1.4G2+0.84V4+1.4D4**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 12.14	0.00 -253.07	0.00	0.00 1052.85	1052.85	-0.17 0.17	-0.70 0.70	0.00
P2	0.00	0.00 20.93	0.00 -454.27	0.00	0.00 -345.50	0.00	-0.30 0.30	0.23 -0.23	0.00
P3	0.00	0.00 18.82	0.00 121.89	121.89	0.00 -242.42	0.00	0.08 -0.08	0.16 -0.16	0.00
P4	0.00	0.00 8.18	0.00 -97.01	0.00	0.00 60.94	60.94	-0.06 0.06	-0.04 0.04	0.00
P5	0.00	0.00 10.94	0.00 -151.34	0.00	0.00 942.22	942.22	-0.10 0.10	-0.63 0.63	0.00
P6	0.00	0.00 22.01	0.00 -34.51	0.00	0.00 813.77	813.77	-0.02 0.02	-0.54 0.54	0.00
P7	0.00	0.00 28.36	0.00 53.50	53.50	0.00 122.11	122.11	0.04 -0.04	-0.08 0.08	0.00
P8	0.00	0.00 23.63	0.00 236.48	236.48	0.00 391.83	391.83	0.16 -0.16	-0.26 0.26	0.00
P9	0.00	0.00 15.80	0.00 -49.51	0.00	0.00 732.19	732.19	-0.03 0.03	-0.49 0.49	0.00
P10	0.00	0.00 7.47	0.00 33.51	33.51	0.00 196.34	196.34	0.02 -0.02	-0.13 0.13	0.00
P11	0.00	0.00 6.39	0.00 547.84	547.84	0.00 269.42	269.42	0.37 -0.37	-0.18 0.18	0.00
P12	0.00	0.00 15.23	0.00 -250.47	0.00	0.00 9.95	9.95	-0.17 0.17	-0.01 0.01	0.00
P13	0.00	0.00 16.00	0.00 89.30	89.30	0.00 554.73	554.73	0.06 -0.06	-0.37 0.37	0.00
P14	0.00	0.00 11.43	0.00 -225.81	0.00	0.00 841.82	841.82	-0.15 0.15	-0.56 0.56	0.00
P15	0.00	0.00 17.26	0.00 307.23	307.23	0.00 161.10	161.10	0.20 -0.20	-0.11 0.11	0.00
P16	0.00	0.00 18.86	0.00 221.52	221.52	0.00 160.06	160.06	0.15 -0.15	-0.11 0.11	0.00
P18	0.00	0.00 24.57	0.00 -34.28	0.00	0.00 -1566.86	0.00	-0.02 0.02	1.04 -1.04	0.00
P19	0.00	0.00 13.77	0.00 1344.78	1344.78	0.00 294.70	294.70	0.90 -0.90	-0.20 0.20	0.00
P20	0.00	0.00 19.39	0.00 51.00	51.00	0.00 101.18	101.18	0.03 -0.03	-0.07 0.07	0.00

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P21	0.00	0.00 20.12	0.00 214.79	214.79	0.00 182.25	182.25	0.14 -0.14	-0.12 0.12	0.00
P22	0.00	0.00 24.40	0.00 705.37	705.37	0.00 -307.47	0.00	0.47 -0.47	0.20 -0.20	0.00
P23	0.00	0.00 20.45	0.00 579.07	579.07	0.00 81.31	81.31	0.39 -0.39	-0.05 0.05	0.00
P24	0.00	0.00 20.21	0.00 227.52	227.52	0.00 220.30	220.30	0.15 -0.15	-0.15 0.15	0.00
P25	0.00	0.00 21.91	0.00 613.64	613.64	0.00 -365.70	0.00	0.41 -0.41	0.24 -0.24	0.00
P26	0.00	0.00 17.37	0.00 1290.34	1290.34	0.00 2591.36	2591.36	0.86 -0.86	-1.73 1.73	0.00
P27	0.00	0.00 30.95	0.00 -36.65	0.00	0.00 1540.66	1540.66	-0.02 0.02	-1.03 1.03	0.00
P28	0.00	0.00 20.34	0.00 1309.18	1309.18	0.00 -4096.72	0.00	0.87 -0.87	2.73 -2.73	0.00

CASO: 1.3G1+1.4G2+0.98Q+0.84V1+1.4D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 19.31	0.00 -682.00	0.00	0.00 710.91	710.91	-0.45 0.45	-0.47 0.47	0.00
P2	0.00	0.00 41.28	0.00 -1106.04	0.00	0.00 -86.45	0.00	-0.74 0.74	0.06 -0.06	0.00
P3	0.00	0.00 38.56	0.00 42.58	42.58	0.00 -845.43	0.00	0.03 -0.03	0.56 -0.56	0.00
P4	0.00	0.00 16.03	0.00 -407.68	0.00	0.00 475.47	475.47	-0.27 0.27	-0.32 0.32	0.00
P5	0.00	0.00 11.21	0.00 -488.46	0.00	0.00 626.19	626.19	-0.33 0.33	-0.42 0.42	0.00
P6	0.00	0.00 31.30	0.00 314.39	314.39	0.00 32.99	32.99	0.21 -0.21	-0.02 0.02	0.00
P7	0.00	0.00 50.46	0.00 817.77	817.77	0.00 279.66	279.66	0.55 -0.55	-0.19 0.19	0.00
P8	0.00	0.00 42.36	0.00 574.33	574.33	0.00 250.73	250.73	0.38 -0.38	-0.17 0.17	0.00
P9	0.00	0.00 21.65	0.00 838.69	838.69	0.00 349.07	349.07	0.56 -0.56	-0.23 0.23	0.00
P10	0.00	0.00 8.88	0.00 497.02	497.02	0.00 873.52	873.52	0.33 -0.33	-0.58 0.58	0.00
P11	0.00	0.00 3.63	0.00 39.82	39.82	0.00 14.53	14.53	0.03 -0.03	-0.01 0.01	0.00
P12	0.00	0.00 16.37	0.00 253.95	253.95	0.00 27.71	27.71	0.17 -0.17	-0.02 0.02	0.00
P13	0.00	0.00 15.63	0.00 414.23	414.23	0.00 398.05	398.05	0.28 -0.28	-0.27 0.27	0.00
P14	0.00	0.00 11.81	0.00 -461.43	0.00	0.00 997.59	997.59	-0.31 0.31	-0.67 0.67	0.00
P15	0.00	0.00 16.89	0.00 -217.39	0.00	0.00 -41.27	0.00	-0.14 0.14	0.03 -0.03	0.00
P16	0.00	0.00 18.40	0.00 4.80	4.80	0.00 -36.61	0.00	0.00 0.00	0.02 -0.02	0.00
P18	0.00	0.00 24.85	0.00 -853.25	0.00	0.00 -2055.18	0.00	-0.57 0.57	1.37 -1.37	0.00
P19	0.00	0.00 12.97	0.00 1032.00	1032.00	0.00 -116.49	0.00	0.69 -0.69	0.08 -0.08	0.00
P20	0.00	0.00 19.16	0.00 -386.94	0.00	0.00 -193.61	0.00	-0.26 0.26	0.13 -0.13	0.00
P21	0.00	0.00 20.13	0.00 11.73	11.73	0.00 -124.53	0.00	0.01 -0.01	0.08 -0.08	0.00
P22	0.00	0.00	0.00	190.85	0.00	0.00	0.13	0.35	0.00






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Rezende  
Rezende Engenharia

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		24.66	190.85		-523.94		-0.13	-0.35	
P23	0.00	0.00 20.40	0.00 132.03	132.03	0.00 -206.12	0.00	0.09 -0.09	0.14 -0.14	0.00
P24	0.00	0.00 20.33	0.00 17.36	17.36	0.00 -93.79	0.00	0.01 -0.01	0.06 -0.06	0.00
P25	0.00	0.00 22.17	0.00 -33.93	0.00	0.00 -661.67	0.00	-0.02 0.02	0.44 -0.44	0.00
P26	0.00	0.00 16.71	0.00 1035.53	1035.53	0.00 2161.86	2161.86	0.69 -0.69	-1.44 1.44	0.00
P27	0.00	0.00 30.88	0.00 -252.47	0.00	0.00 817.62	817.62	-0.17 0.17	-0.55 0.55	0.00
P28	0.00	0.00 20.12	0.00 953.14	953.14	0.00 -4479.24	0.00	0.64 -0.64	2.99 -2.99	0.00

CASO: 1.3G1+1.4G2+0.98Q+0.84V2+1.4D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 20.52	0.00 -679.87	0.00	0.00 1367.06	1367.06	-0.45 0.45	-0.91 0.91	0.00
P2	0.00	0.00 40.66	0.00 -84.41	0.00	0.00 -32.66	0.00	-0.06 0.06	0.02 -0.02	0.00
P3	0.00	0.00 39.34	0.00 -2.97	0.00	0.00 198.54	198.54	0.00 0.00	-0.13 0.13	0.00
P4	0.00	0.00 14.65	0.00 284.27	284.27	0.00 553.51	553.51	0.19 -0.19	-0.37 0.37	0.00
P5	0.00	0.00 12.25	0.00 -510.19	0.00	0.00 1315.34	1315.34	-0.34 0.34	-0.88 0.88	0.00
P6	0.00	0.00 31.34	0.00 -441.86	0.00	0.00 27.71	27.71	-0.29 0.29	-0.02 0.02	0.00
P7	0.00	0.00 50.34	0.00 -755.85	0.00	0.00 289.52	289.52	-0.50 0.50	-0.19 0.19	0.00
P8	0.00	0.00 42.22	0.00 -107.35	0.00	0.00 227.02	227.02	-0.07 0.07	-0.15 0.15	0.00
P9	0.00	0.00 23.88	0.00 -878.33	0.00	0.00 314.88	314.88	-0.59 0.59	-0.21 0.21	0.00
P10	0.00	0.00 5.88	0.00 448.39	448.39	0.00 -505.50	0.00	0.30 -0.30	0.34 -0.34	0.00
P11	0.00	0.00 4.60	0.00 28.00	28.00	0.00 544.27	544.27	0.02 -0.02	-0.36 0.36	0.00
P12	0.00	0.00 15.92	0.00 -762.27	0.00	0.00 28.58	28.58	-0.51 0.51	-0.02 0.02	0.00
P13	0.00	0.00 15.86	0.00 -232.49	0.00	0.00 372.17	372.17	-0.15 0.15	-0.25 0.25	0.00
P14	0.00	0.00 11.67	0.00 16.22	16.22	0.00 1177.99	1177.99	0.01 -0.01	-0.79 0.79	0.00
P15	0.00	0.00 17.09	0.00 -223.12	0.00	0.00 350.16	350.16	-0.15 0.15	-0.23 0.23	0.00
P16	0.00	0.00 18.31	0.00 -0.23	0.00	0.00 374.93	374.93	0.00 0.00	-0.25 0.25	0.00
P18	0.00	0.00 23.37	0.00 -607.74	0.00	0.00 -985.03	0.00	-0.41 0.41	0.66 -0.66	0.00
P19	0.00	0.00 14.10	0.00 1192.62	1192.62	0.00 797.23	797.23	0.80 -0.80	-0.53 0.53	0.00
P20	0.00	0.00 19.50	0.00 -388.63	0.00	0.00 422.66	422.66	-0.26 0.26	-0.28 0.28	0.00
P21	0.00	0.00 20.06	0.00 7.97	7.97	0.00 515.49	515.49	0.01 -0.01	-0.34 0.34	0.00
P22	0.00	0.00 23.89	0.00 82.46	82.46	0.00 -72.26	0.00	0.05 -0.05	0.05 -0.05	0.00
P23	0.00	0.00 20.73	0.00 113.25	113.25	0.00 381.68	381.68	0.08 -0.08	-0.25 0.25	0.00

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P24	0.00	0.00 20.25	0.00 13.28	13.28	0.00 540.23	540.23	0.01 -0.01	-0.36 0.36	0.00
P25	0.00	0.00 21.93	0.00 84.22	84.22	0.00 -70.77	0.00	0.06 -0.06	0.05 -0.05	0.00
P26	0.00	0.00 17.35	0.00 1025.66	1025.66	0.00 3027.65	3027.65	0.68 -0.68	-2.02 2.02	0.00
P27	0.00	0.00 30.70	0.00 -255.02	0.00	0.00 2249.36	2249.36	-0.17 0.17	-1.50 1.50	0.00
P28	0.00	0.00 19.70	0.00 1007.68	1007.68	0.00 -3747.49	0.00	0.67 -0.67	2.50 -2.50	0.00

CASO: 1.3G1+1.4G2+0.98Q+0.84V3+1.4D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 20.52	0.00 -1124.79	0.00	0.00 1005.18	1005.18	-0.75 0.75	-0.67 0.67	0.00
P2	0.00	0.00 41.01	0.00 -645.45	0.00	0.00 85.36	85.36	-0.43 0.43	-0.06 0.06	0.00
P3	0.00	0.00 38.88	0.00 49.10	49.10	0.00 -380.87	0.00	0.03 -0.03	0.25 -0.25	0.00
P4	0.00	0.00 16.22	0.00 -91.22	0.00	0.00 928.41	928.41	-0.06 0.06	-0.62 0.62	0.00
P5	0.00	0.00 12.32	0.00 -849.38	0.00	0.00 956.99	956.99	-0.57 0.57	-0.64 0.64	0.00
P6	0.00	0.00 31.57	0.00 -63.21	0.00	0.00 -515.25	0.00	-0.04 0.04	0.34 -0.34	0.00
P7	0.00	0.00 50.89	0.00 32.34	32.34	0.00 175.66	175.66	0.02 -0.02	-0.12 0.12	0.00
P8	0.00	0.00 43.28	0.00 235.68	235.68	0.00 -163.26	0.00	0.16 -0.16	0.11 -0.11	0.00
P9	0.00	0.00 22.14	0.00 -11.30	0.00	0.00 -59.18	0.00	-0.01 0.01	0.04 -0.04	0.00
P10	0.00	0.00 8.03	0.00 876.74	876.74	0.00 168.50	168.50	0.58 -0.58	-0.11 0.11	0.00
P11	0.00	0.00 3.17	0.00 -388.57	0.00	0.00 294.34	294.34	-0.26 0.26	-0.20 0.20	0.00
P12	0.00	0.00 15.90	0.00 -269.12	0.00	0.00 18.65	18.65	-0.18 0.18	-0.01 0.01	0.00
P13	0.00	0.00 14.65	0.00 81.01	81.01	0.00 -17.00	0.00	0.05 -0.05	0.01 -0.01	0.00
P14	0.00	0.00 12.01	0.00 -208.15	0.00	0.00 1331.82	1331.82	-0.14 0.14	-0.89 0.89	0.00
P15	0.00	0.00 16.71	0.00 -758.79	0.00	0.00 148.50	148.50	-0.51 0.51	-0.10 0.10	0.00
P16	0.00	0.00 18.28	0.00 -214.05	0.00	0.00 178.30	178.30	-0.14 0.14	-0.12 0.12	0.00
P18	0.00	0.00 23.70	0.00 -1377.87	0.00	0.00 -1467.00	0.00	-0.92 0.92	0.98 -0.98	0.00
P19	0.00	0.00 13.31	0.00 881.75	881.75	0.00 384.85	384.85	0.59 -0.59	-0.26 0.26	0.00
P20	0.00	0.00 19.27	0.00 -834.95	0.00	0.00 128.10	128.10	-0.56 0.56	-0.09 0.09	0.00
P21	0.00	0.00 20.05	0.00 -198.73	0.00	0.00 208.67	208.67	-0.13 0.13	-0.14 0.14	0.00
P22	0.00	0.00 24.16	0.00 -393.64	0.00	0.00 -288.90	0.00	-0.26 0.26	0.19 -0.19	0.00
P23	0.00	0.00 20.68	0.00 -342.85	0.00	0.00 94.24	94.24	-0.23 0.23	-0.06 0.06	0.00
P24	0.00	0.00 20.37	0.00 -199.35	0.00	0.00 226.10	226.10	-0.13 0.13	-0.15 0.15	0.00
P25	0.00	0.00	0.00	0.00	0.00	0.00	-0.35	0.24	0.00

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		22.19	-522.86		-367.11		0.35	-0.24	
P26	0.00	0.00 16.69	0.00 766.28	766.28	0.00 2599.22	2599.22	0.51 -0.51	-1.73 1.73	0.00
P27	0.00	0.00 30.63	0.00 -473.11	0.00	0.00 1527.22	1527.22	-0.32 0.32	-1.02 1.02	0.00
P28	0.00	0.00 19.51	0.00 671.86	671.86	0.00 -4129.08	0.00	0.45 -0.45	2.75 -2.75	0.00

CASO: 1.3G1+1.4G2+0.98Q+0.84V4+1.4D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 19.31	0.00 -237.08	0.00	0.00 1072.80	1072.80	-0.16 0.16	-0.72 0.72	0.00
P2	0.00	0.00 40.94	0.00 -544.99	0.00	0.00 -204.47	0.00	-0.36 0.36	0.14 -0.14	0.00
P3	0.00	0.00 39.02	0.00 -9.49	0.00	0.00 -266.02	0.00	-0.01 0.01	0.18 -0.18	0.00
P4	0.00	0.00 14.47	0.00 -32.19	0.00	0.00 100.58	100.58	-0.02 0.02	-0.07 0.07	0.00
P5	0.00	0.00 11.14	0.00 -149.26	0.00	0.00 984.54	984.54	-0.10 0.10	-0.66 0.66	0.00
P6	0.00	0.00 31.07	0.00 -64.26	0.00	0.00 575.94	575.94	-0.04 0.04	-0.38 0.38	0.00
P7	0.00	0.00 49.91	0.00 29.59	29.59	0.00 393.52	393.52	0.02 -0.02	-0.26 0.26	0.00
P8	0.00	0.00 41.30	0.00 231.29	231.29	0.00 641.02	641.02	0.15 -0.15	-0.43 0.43	0.00
P9	0.00	0.00 23.39	0.00 -28.34	0.00	0.00 723.13	723.13	-0.02 0.02	-0.48 0.48	0.00
P10	0.00	0.00 6.74	0.00 68.67	68.67	0.00 199.51	199.51	0.05 -0.05	-0.13 0.13	0.00
P11	0.00	0.00 5.05	0.00 456.39	456.39	0.00 264.46	264.46	0.30 -0.30	-0.18 0.18	0.00
P12	0.00	0.00 16.38	0.00 -239.19	0.00	0.00 37.64	37.64	-0.16 0.16	-0.03 0.03	0.00
P13	0.00	0.00 16.83	0.00 100.72	100.72	0.00 787.22	787.22	0.07 -0.07	-0.52 0.52	0.00
P14	0.00	0.00 11.46	0.00 -237.05	0.00	0.00 843.77	843.77	-0.16 0.16	-0.56 0.56	0.00
P15	0.00	0.00 17.27	0.00 318.28	318.28	0.00 160.39	160.39	0.21 -0.21	-0.11 0.11	0.00
P16	0.00	0.00 18.44	0.00 218.61	218.61	0.00 160.02	160.02	0.15 -0.15	-0.11 0.11	0.00
P18	0.00	0.00 24.52	0.00 -83.12	0.00	0.00 -1573.21	0.00	-0.06 0.06	1.05 -1.05	0.00
P19	0.00	0.00 13.76	0.00 1342.87	1342.87	0.00 295.89	295.89	0.90 -0.90	-0.20 0.20	0.00
P20	0.00	0.00 19.40	0.00 59.38	59.38	0.00 100.96	100.96	0.04 -0.04	-0.07 0.07	0.00
P21	0.00	0.00 20.14	0.00 218.44	218.44	0.00 182.29	182.29	0.15 -0.15	-0.12 0.12	0.00
P22	0.00	0.00 24.40	0.00 666.96	666.96	0.00 -307.29	0.00	0.44 -0.44	0.20 -0.20	0.00
P23	0.00	0.00 20.45	0.00 588.12	588.12	0.00 81.32	81.32	0.39 -0.39	-0.05 0.05	0.00
P24	0.00	0.00 20.21	0.00 229.99	229.99	0.00 220.34	220.34	0.15 -0.15	-0.15 0.15	0.00
P25	0.00	0.00 21.92	0.00 573.15	573.15	0.00 -365.32	0.00	0.38 -0.38	0.24 -0.24	0.00
P26	0.00	0.00 17.37	0.00 1294.92	1294.92	0.00 2590.29	2590.29	0.86 -0.86	-1.73 1.73	0.00



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P27	0.00	0.00 30.95	0.00 -34.38	0.00	0.00 1539.76	1539.76	-0.02 0.02	-1.03 1.03	0.00
P28	0.00	0.00 20.31	0.00 1288.95	1288.95	0.00 -4097.65	0.00	0.86 -0.86	2.73 -2.73	0.00

**CASO: 1.3G1+1.4G2+0.98Q+1.4V1+0.84D1**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 19.08	0.00 -675.33	0.00	0.00 596.50	596.50	-0.45 0.45	-0.40 0.40	0.00
P2	0.00	0.00 41.39	0.00 -1286.09	0.00	0.00 -97.25	0.00	-0.86 0.86	0.06 -0.06	0.00
P3	0.00	0.00 38.42	0.00 52.65	52.65	0.00 -1029.88	0.00	0.04 -0.04	0.69 -0.69	0.00
P4	0.00	0.00 16.30	0.00 -528.90	0.00	0.00 466.05	466.05	-0.35 0.35	-0.31 0.31	0.00
P5	0.00	0.00 11.00	0.00 -480.34	0.00	0.00 503.90	503.90	-0.32 0.32	-0.34 0.34	0.00
P6	0.00	0.00 31.29	0.00 455.99	455.99	0.00 43.95	43.95	0.30 -0.30	-0.03 0.03	0.00
P7	0.00	0.00 50.48	0.00 1107.25	1107.25	0.00 277.59	277.59	0.74 -0.74	-0.19 0.19	0.00
P8	0.00	0.00 42.38	0.00 701.88	701.88	0.00 255.53	255.53	0.47 -0.47	-0.17 0.17	0.00
P9	0.00	0.00 21.21	0.00 1159.25	1159.25	0.00 350.44	350.44	0.77 -0.77	-0.23 0.23	0.00
P10	0.00	0.00 9.46	0.00 513.16	513.16	0.00 1127.27	1127.27	0.34 -0.34	-0.75 0.75	0.00
P11	0.00	0.00 3.43	0.00 49.70	49.70	0.00 -93.46	0.00	0.03 -0.03	0.06 -0.06	0.00
P12	0.00	0.00 16.47	0.00 458.80	458.80	0.00 27.49	27.49	0.31 -0.31	-0.02 0.02	0.00
P13	0.00	0.00 15.58	0.00 546.62	546.62	0.00 403.28	403.28	0.36 -0.36	-0.27 0.27	0.00
P14	0.00	0.00 11.83	0.00 -558.22	0.00	0.00 960.46	960.46	-0.37 0.37	-0.64 0.64	0.00
P15	0.00	0.00 16.85	0.00 -212.02	0.00	0.00 -119.82	0.00	-0.14 0.14	0.08 -0.08	0.00
P16	0.00	0.00 18.43	0.00 7.76	7.76	0.00 -133.24	0.00	0.01 -0.01	0.09 -0.09	0.00
P18	0.00	0.00 25.17	0.00 -914.89	0.00	0.00 -2266.13	0.00	-0.61 0.61	1.51 -1.51	0.00
P19	0.00	0.00 12.72	0.00 996.81	996.81	0.00 -308.87	0.00	0.66 -0.66	0.21 -0.21	0.00
P20	0.00	0.00 19.09	0.00 -382.46	0.00	0.00 -318.60	0.00	-0.25 0.25	0.21 -0.21	0.00
P21	0.00	0.00 20.14	0.00 14.32	14.32	0.00 -270.63	0.00	0.01 -0.01	0.18 -0.18	0.00
P22	0.00	0.00 24.83	0.00 207.10	207.10	0.00 -608.63	0.00	0.14 -0.14	0.41 -0.41	0.00
P23	0.00	0.00 20.33	0.00 140.05	140.05	0.00 -321.93	0.00	0.09 -0.09	0.21 -0.21	0.00
P24	0.00	0.00 20.35	0.00 20.09	20.09	0.00 -236.19	0.00	0.01 -0.01	0.16 -0.16	0.00
P25	0.00	0.00 22.22	0.00 -66.54	0.00	0.00 -778.06	0.00	-0.04 0.04	0.52 -0.52	0.00
P26	0.00	0.00 16.57	0.00 1040.01	1040.01	0.00 1989.79	1989.79	0.69 -0.69	-1.33 1.33	0.00
P27	0.00	0.00 30.92	0.00 -250.42	0.00	0.00 524.90	524.90	-0.17 0.17	-0.35 0.35	0.00
P28	0.00	0.00	0.00	937.66	0.00	0.00	0.63	3.08	0.00

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		20.21	937.66		-4622.20		-0.63	-3.08	
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CASO: 1.3G1+1.4G2+0.98Q+1.4V2+0.84D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 20.75	0.00 -686.53	0.00	0.00 1481.47	1481.47	-0.46 0.46	-0.99 0.99	0.00
P2	0.00	0.00 40.55	0.00 95.64	95.64	0.00 -21.87	0.00	0.06 -0.06	0.01 -0.01	0.00
P3	0.00	0.00 39.49	0.00 -13.04	0.00	0.00 382.99	382.99	-0.01 0.01	-0.26 0.26	0.00
P4	0.00	0.00 14.39	0.00 405.49	405.49	0.00 562.93	562.93	0.27 -0.27	-0.38 0.38	0.00
P5	0.00	0.00 12.46	0.00 -518.31	0.00	0.00 1437.63	1437.63	-0.35 0.35	-0.96 0.96	0.00
P6	0.00	0.00 31.36	0.00 -583.46	0.00	0.00 16.75	16.75	-0.39 0.39	-0.01 0.01	0.00
P7	0.00	0.00 50.32	0.00 -1045.33	0.00	0.00 291.60	291.60	-0.70 0.70	-0.19 0.19	0.00
P8	0.00	0.00 42.19	0.00 -234.90	0.00	0.00 222.22	222.22	-0.16 0.16	-0.15 0.15	0.00
P9	0.00	0.00 24.32	0.00 -1198.88	0.00	0.00 313.51	313.51	-0.80 0.80	-0.21 0.21	0.00
P10	0.00	0.00 5.30	0.00 432.25	432.25	0.00 -759.26	0.00	0.29 -0.29	0.51 -0.51	0.00
P11	0.00	0.00 4.79	0.00 18.12	18.12	0.00 652.26	652.26	0.01 -0.01	-0.43 0.43	0.00
P12	0.00	0.00 15.82	0.00 -967.11	0.00	0.00 28.80	28.80	-0.64 0.64	-0.02 0.02	0.00
P13	0.00	0.00 15.91	0.00 -364.89	0.00	0.00 366.94	366.94	-0.24 0.24	-0.24 0.24	0.00
P14	0.00	0.00 11.64	0.00 113.02	113.02	0.00 1215.12	1215.12	0.08 -0.08	-0.81 0.81	0.00
P15	0.00	0.00 17.13	0.00 -228.49	0.00	0.00 428.71	428.71	-0.15 0.15	-0.29 0.29	0.00
P16	0.00	0.00 18.29	0.00 -3.20	0.00	0.00 471.56	471.56	0.00 0.00	-0.31 0.31	0.00
P18	0.00	0.00 23.05	0.00 -546.09	0.00	0.00 -774.08	0.00	-0.36 0.36	0.52 -0.52	0.00
P19	0.00	0.00 14.35	0.00 1227.81	1227.81	0.00 989.60	989.60	0.82 -0.82	-0.66 0.66	0.00
P20	0.00	0.00 19.58	0.00 -393.11	0.00	0.00 547.65	547.65	-0.26 0.26	-0.37 0.37	0.00
P21	0.00	0.00 20.05	0.00 5.38	5.38	0.00 661.58	661.58	0.00 0.00	-0.44 0.44	0.00
P22	0.00	0.00 23.73	0.00 66.22	66.22	0.00 12.43	12.43	0.04 -0.04	-0.01 0.01	0.00
P23	0.00	0.00 20.80	0.00 105.23	105.23	0.00 497.49	497.49	0.07 -0.07	-0.33 0.33	0.00
P24	0.00	0.00 20.24	0.00 10.55	10.55	0.00 682.63	682.63	0.01 -0.01	-0.46 0.46	0.00
P25	0.00	0.00 21.88	0.00 116.83	116.83	0.00 45.63	45.63	0.08 -0.08	-0.03 0.03	0.00
P26	0.00	0.00 17.49	0.00 1021.18	1021.18	0.00 3199.72	3199.72	0.68 -0.68	-2.13 2.13	0.00
P27	0.00	0.00 30.66	0.00 -257.07	0.00	0.00 2542.08	2542.08	-0.17 0.17	-1.69 1.69	0.00
P28	0.00	0.00 19.61	0.00 1023.15	1023.15	0.00 -3604.53	0.00	0.68 -0.68	2.40 -2.40	0.00



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Plena

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Rezende  
Rezende Engenharia

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**CASO: 1.3G1+1.4G2+0.98Q+1.4V3+0.84D3**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 20.71	0.00 -1255.88	0.00	0.00 995.31	995.31	-0.84 0.84	-0.66 0.66	0.00
P2	0.00	0.00 41.02	0.00 -659.76	0.00	0.00 122.57	122.57	-0.44 0.44	-0.08 0.08	0.00
P3	0.00	0.00 38.86	0.00 65.55	65.55	0.00 -397.69	0.00	0.04 -0.04	0.27 -0.27	0.00
P4	0.00	0.00 16.49	0.00 -99.77	0.00	0.00 1057.53	1057.53	-0.07 0.07	-0.71 0.71	0.00
P5	0.00	0.00 12.55	0.00 -974.95	0.00	0.00 952.18	952.18	-0.65 0.65	-0.63 0.63	0.00
P6	0.00	0.00 31.65	0.00 -63.13	0.00	0.00 -680.56	0.00	-0.04 0.04	0.45 -0.45	0.00
P7	0.00	0.00 51.06	0.00 32.35	32.35	0.00 160.91	160.91	0.02 -0.02	-0.11 0.11	0.00
P8	0.00	0.00 43.58	0.00 236.25	236.25	0.00 -279.87	0.00	0.16 -0.16	0.19 -0.19	0.00
P9	0.00	0.00 21.94	0.00 -9.20	0.00	0.00 -181.47	0.00	-0.01 0.01	0.12 -0.12	0.00
P10	0.00	0.00 8.26	0.00 1014.18	1014.18	0.00 162.61	162.61	0.68 -0.68	-0.11 0.11	0.00
P11	0.00	0.00 2.89	0.00 -516.16	0.00	0.00 299.23	299.23	-0.34 0.34	-0.20 0.20	0.00
P12	0.00	0.00 15.81	0.00 -274.24	0.00	0.00 18.47	18.47	-0.18 0.18	-0.01 0.01	0.00
P13	0.00	0.00 14.32	0.00 77.52	77.52	0.00 -133.61	0.00	0.05 -0.05	0.09 -0.09	0.00
P14	0.00	0.00 12.11	0.00 -203.55	0.00	0.00 1411.43	1411.43	-0.14 0.14	-0.94 0.94	0.00
P15	0.00	0.00 16.61	0.00 -958.39	0.00	0.00 146.98	146.98	-0.64 0.64	-0.10 0.10	0.00
P16	0.00	0.00 18.25	0.00 -290.54	0.00	0.00 180.06	180.06	-0.19 0.19	-0.12 0.12	0.00
P18	0.00	0.00 23.56	0.00 -1604.46	0.00	0.00 -1456.19	0.00	-1.07 1.07	0.97 -0.97	0.00
P19	0.00	0.00 13.23	0.00 805.30	805.30	0.00 399.01	399.01	0.54 -0.54	-0.27 0.27	0.00
P20	0.00	0.00 19.24	0.00 -998.52	0.00	0.00 132.07	132.07	-0.67 0.67	-0.09 0.09	0.00
P21	0.00	0.00 20.04	0.00 -272.79	0.00	0.00 212.47	212.47	-0.18 0.18	-0.14 0.14	0.00
P22	0.00	0.00 24.12	0.00 -576.99	0.00	0.00 -286.41	0.00	-0.38 0.38	0.19 -0.19	0.00
P23	0.00	0.00 20.73	0.00 -512.97	0.00	0.00 95.94	95.94	-0.34 0.34	-0.06 0.06	0.00
P24	0.00	0.00 20.40	0.00 -275.64	0.00	0.00 226.92	226.92	-0.18 0.18	-0.15 0.15	0.00
P25	0.00	0.00 22.24	0.00 -712.68	0.00	0.00 -367.26	0.00	-0.48 0.48	0.24 -0.24	0.00
P26	0.00	0.00 16.56	0.00 673.61	673.61	0.00 2600.98	2600.98	0.45 -0.45	-1.73 1.73	0.00
P27	0.00	0.00 30.58	0.00 -524.65	0.00	0.00 1525.50	1525.50	-0.35 0.35	-1.02 1.02	0.00
P28	0.00	0.00 19.37	0.00 569.45	569.45	0.00 -4133.88	0.00	0.38 -0.38	2.76 -2.76	0.00

**CASO: 1.3G1+1.4G2+0.98Q+1.4V4+0.84D4**

Elemento	Carga (kgf/m)	Rd Nd	Mxi Mxf	MxMáx (kgf.m)	Myi Myf	MyMáx (kgf.m)	Vxi Vxf	Vyi Vyf	Mtd (kgf/m)
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		(tf)	(kgf.m)		(kgf.m)		(tf)	(tf)	
P1	0.00	0.00 19.12	0.00 -105.99	0.00	0.00 1082.66	1082.66	-0.07 0.07	-0.72 0.72	0.00
P2	0.00	0.00 40.92	0.00 -530.69	0.00	0.00 -241.69	0.00	-0.35 0.35	0.16 -0.16	0.00
P3	0.00	0.00 39.04	0.00 -25.94	0.00	0.00 -249.20	0.00	-0.02 0.02	0.17 -0.17	0.00
P4	0.00	0.00 14.20	0.00 -23.64	0.00	0.00 -28.54	0.00	-0.02 0.02	0.02 -0.02	0.00
P5	0.00	0.00 10.91	0.00 -23.70	0.00	0.00 989.35	989.35	-0.02 0.02	-0.66 0.66	0.00
P6	0.00	0.00 31.00	0.00 -64.34	0.00	0.00 741.25	741.25	-0.04 0.04	-0.49 0.49	0.00
P7	0.00	0.00 49.75	0.00 29.58	29.58	0.00 408.27	408.27	0.02 -0.02	-0.27 0.27	0.00
P8	0.00	0.00 40.99	0.00 230.73	230.73	0.00 757.63	757.63	0.15 -0.15	-0.51 0.51	0.00
P9	0.00	0.00 23.59	0.00 -30.43	0.00	0.00 845.41	845.41	-0.02 0.02	-0.56 0.56	0.00
P10	0.00	0.00 6.50	0.00 -68.78	0.00	0.00 205.41	205.41	-0.05 0.05	-0.14 0.14	0.00
P11	0.00	0.00 5.34	0.00 583.98	583.98	0.00 259.57	259.57	0.39 -0.39	-0.17 0.17	0.00
P12	0.00	0.00 16.47	0.00 -234.07	0.00	0.00 37.82	37.82	-0.16 0.16	-0.03 0.03	0.00
P13	0.00	0.00 17.17	0.00 104.22	104.22	0.00 903.83	903.83	0.07 -0.07	-0.60 0.60	0.00
P14	0.00	0.00 11.37	0.00 -241.65	0.00	0.00 764.15	764.15	-0.16 0.16	-0.51 0.51	0.00
P15	0.00	0.00 17.38	0.00 517.88	517.88	0.00 161.91	161.91	0.35 -0.35	-0.11 0.11	0.00
P16	0.00	0.00 18.46	0.00 295.10	295.10	0.00 158.26	158.26	0.20 -0.20	-0.11 0.11	0.00
P18	0.00	0.00 24.66	0.00 143.48	143.48	0.00 -1584.02	0.00	0.10 -0.10	1.06 -1.06	0.00
P19	0.00	0.00 13.84	0.00 1419.32	1419.32	0.00 281.72	281.72	0.95 -0.95	-0.19 0.19	0.00
P20	0.00	0.00 19.42	0.00 222.94	222.94	0.00 96.98	96.98	0.15 -0.15	-0.06 0.06	0.00
P21	0.00	0.00 20.15	0.00 292.49	292.49	0.00 178.49	178.49	0.19 -0.19	-0.12 0.12	0.00
P22	0.00	0.00 24.44	0.00 850.31	850.31	0.00 -309.78	0.00	0.57 -0.57	0.21 -0.21	0.00
P23	0.00	0.00 20.40	0.00 758.25	758.25	0.00 79.63	79.63	0.51 -0.51	-0.05 0.05	0.00
P24	0.00	0.00 20.18	0.00 306.28	306.28	0.00 219.53	219.53	0.20 -0.20	-0.15 0.15	0.00
P25	0.00	0.00 21.87	0.00 762.97	762.97	0.00 -365.18	0.00	0.51 -0.51	0.24 -0.24	0.00
P26	0.00	0.00 17.51	0.00 1387.58	1387.58	0.00 2588.53	2588.53	0.93 -0.93	-1.73 1.73	0.00
P27	0.00	0.00 31.00	0.00 17.15	17.15	0.00 1541.48	1541.48	0.01 -0.01	-1.03 1.03	0.00
P28	0.00	0.00 20.45	0.00 1391.36	1391.36	0.00 -4092.85	0.00	0.93 -0.93	2.73 -2.73	0.00

CASO: 1.3G1+1.4G2+1.2D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 12.60	0.00 -702.85	0.00	0.00 935.22	935.22	-0.47 0.47	-0.62 0.62	0.00



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P2	0.00	0.00 21.04	0.00 -633.47	0.00	0.00 -206.32	0.00	-0.42 0.42	0.14 -0.14	0.00
P3	0.00	0.00 18.65	0.00 155.30	155.30	0.00 -431.26	0.00	0.10 -0.10	0.29 -0.29	0.00
P4	0.00	0.00 9.22	0.00 -214.46	0.00	0.00 461.52	461.52	-0.14 0.14	-0.31 0.31	0.00
P5	0.00	0.00 11.42	0.00 -502.11	0.00	0.00 842.12	842.12	-0.33 0.33	-0.56 0.56	0.00
P6	0.00	0.00 22.26	0.00 54.80	54.80	0.00 260.78	260.78	0.04 -0.04	-0.17 0.17	0.00
P7	0.00	0.00 28.87	0.00 243.77	243.77	0.00 12.21	12.21	0.16 -0.16	-0.01 0.01	0.00
P8	0.00	0.00 24.63	0.00 318.77	318.77	0.00 -7.81	0.00	0.21 -0.21	0.01 -0.01	0.00
P9	0.00	0.00 14.93	0.00 161.34	161.34	0.00 349.10	349.10	0.11 -0.11	-0.23 0.23	0.00
P10	0.00	0.00 8.45	0.00 437.59	437.59	0.00 346.30	346.30	0.29 -0.29	-0.23 0.23	0.00
P11	0.00	0.00 5.34	0.00 120.59	120.59	0.00 229.24	229.24	0.08 -0.08	-0.15 0.15	0.00
P12	0.00	0.00 15.03	0.00 -157.85	0.00	0.00 0.40	0.40	-0.11 0.11	0.00 0.00	0.00
P13	0.00	0.00 14.89	0.00 146.29	146.29	0.00 155.35	155.35	0.10 -0.10	-0.10 0.10	0.00
P14	0.00	0.00 11.72	0.00 -261.52	0.00	0.00 1067.36	1067.36	-0.17 0.17	-0.71 0.71	0.00
P15	0.00	0.00 16.97	0.00 -234.09	0.00	0.00 113.43	113.43	-0.16 0.16	-0.08 0.08	0.00
P16	0.00	0.00 18.79	0.00 4.16	4.16	0.00 136.60	136.60	0.00 0.00	-0.09 0.09	0.00
P18	0.00	0.00 24.30	0.00 -697.88	0.00	0.00 -1630.89	0.00	-0.47 0.47	1.09 -1.09	0.00
P19	0.00	0.00 13.45	0.00 1099.48	1099.48	0.00 249.02	249.02	0.73 -0.73	-0.17 0.17	0.00
P20	0.00	0.00 19.30	0.00 -399.31	0.00	0.00 50.11	50.11	-0.27 0.27	-0.03 0.03	0.00
P21	0.00	0.00 20.09	0.00 5.13	5.13	0.00 141.41	141.41	0.00 0.00	-0.09 0.09	0.00
P22	0.00	0.00 24.36	0.00 191.05	191.05	0.00 -351.21	0.00	0.13 -0.13	0.23 -0.23	0.00
P23	0.00	0.00 20.54	0.00 112.17	112.17	0.00 23.38	23.38	0.07 -0.07	-0.02 0.02	0.00
P24	0.00	0.00 20.30	0.00 11.75	11.75	0.00 167.78	167.78	0.01 -0.01	-0.11 0.11	0.00
P25	0.00	0.00 22.06	0.00 60.20	60.20	0.00 -431.34	0.00	0.04 -0.04	0.29 -0.29	0.00
P26	0.00	0.00 16.96	0.00 1025.06	1025.06	0.00 2502.18	2502.18	0.68 -0.68	-1.67 1.67	0.00
P27	0.00	0.00 30.80	0.00 -256.97	0.00	0.00 1386.11	1386.11	-0.17 0.17	-0.92 0.92	0.00
P28	0.00	0.00 19.99	0.00 998.46	998.46	0.00 -4193.57	0.00	0.67 -0.67	2.80 -2.80	0.00

**CASO: 1.3G1+1.4G2+1.2D2**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 12.88	0.00 -691.00	0.00	0.00 1102.85	1102.85	-0.46 0.46	-0.74 0.74	0.00
P2	0.00	0.00 20.89	0.00 -375.52	0.00	0.00 -194.85	0.00	-0.25 0.25	0.13 -0.13	0.00
P3	0.00	0.00	0.00	147.07	0.00	0.00	0.10	0.11	0.00





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		18.84	147.07		-168.42		-0.10	-0.11	
P4	0.00	0.00 8.90	0.00 -38.59	0.00	0.00 488.19	488.19	-0.03 0.03	-0.33 0.33	0.00
P5	0.00	0.00 11.65	0.00 -500.70	0.00	0.00 1014.76	1014.76	-0.33 0.33	-0.68 0.68	0.00
P6	0.00	0.00 22.26	0.00 -122.77	0.00	0.00 275.57	275.57	-0.08 0.08	-0.18 0.18	0.00
P7	0.00	0.00 28.83	0.00 -134.01	0.00	0.00 14.15	14.15	-0.09 0.09	-0.01 0.01	0.00
P8	0.00	0.00 24.60	0.00 158.58	158.58	0.00 -12.81	0.00	0.11 -0.11	0.01 -0.01	0.00
P9	0.00	0.00 15.42	0.00 -243.31	0.00	0.00 332.99	332.99	-0.16 0.16	-0.22 0.22	0.00
P10	0.00	0.00 7.78	0.00 437.48	437.48	0.00 15.36	15.36	0.29 -0.29	-0.01 0.01	0.00
P11	0.00	0.00 5.56	0.00 130.14	130.14	0.00 339.48	339.48	0.09 -0.09	-0.23 0.23	0.00
P12	0.00	0.00 14.94	0.00 -373.03	0.00	0.00 0.51	0.51	-0.25 0.25	0.00 0.00	0.00
P13	0.00	0.00 14.93	0.00 12.61	12.61	0.00 149.90	149.90	0.01 -0.01	-0.10 0.10	0.00
P14	0.00	0.00 11.69	0.00 -161.21	0.00	0.00 1104.33	1104.33	-0.11 0.11	-0.74 0.74	0.00
P15	0.00	0.00 17.01	0.00 -228.53	0.00	0.00 196.89	196.89	-0.15 0.15	-0.13 0.13	0.00
P16	0.00	0.00 18.77	0.00 6.22	6.22	0.00 201.79	201.79	0.00 0.00	-0.13 0.13	0.00
P18	0.00	0.00 24.02	0.00 -665.43	0.00	0.00 -1396.62	0.00	-0.44 0.44	0.93 -0.93	0.00
P19	0.00	0.00 13.65	0.00 1128.96	1128.96	0.00 429.33	429.33	0.75 -0.75	-0.29 0.29	0.00
P20	0.00	0.00 19.36	0.00 -393.02	0.00	0.00 179.38	179.38	-0.26 0.26	-0.12 0.12	0.00
P21	0.00	0.00 20.07	0.00 7.29	7.29	0.00 249.48	249.48	0.00 0.00	-0.17 0.17	0.00
P22	0.00	0.00 24.21	0.00 159.09	159.09	0.00 -245.35	0.00	0.11 -0.11	0.16 -0.16	0.00
P23	0.00	0.00 20.60	0.00 115.00	115.00	0.00 152.15	152.15	0.08 -0.08	-0.10 0.10	0.00
P24	0.00	0.00 20.29	0.00 13.94	13.94	0.00 278.58	278.58	0.01 -0.01	-0.19 0.19	0.00
P25	0.00	0.00 22.02	0.00 71.08	71.08	0.00 -301.85	0.00	0.05 -0.05	0.20 -0.20	0.00
P26	0.00	0.00 17.08	0.00 1026.98	1026.98	0.00 2689.46	2689.46	0.68 -0.68	-1.79 1.79	0.00
P27	0.00	0.00 30.77	0.00 -255.05	0.00	0.00 1682.66	1682.66	-0.17 0.17	-1.12 1.12	0.00
P28	0.00	0.00 19.90	0.00 1002.81	1002.81	0.00 -4031.31	0.00	0.67 -0.67	2.69 -2.69	0.00

**CASO: 1.3G1+1.4G2+1.2D3**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 12.91	0.00 -829.37	0.00	0.00 1008.85	1008.85	-0.55 0.55	-0.67 0.67	0.00
P2	0.00	0.00 20.97	0.00 -519.91	0.00	0.00 -152.85	0.00	-0.35 0.35	0.10 -0.10	0.00
P3	0.00	0.00 18.72	0.00 153.66	153.66	0.00 -317.08	0.00	0.10 -0.10	0.21 -0.21	0.00
P4	0.00	0.00 9.30	0.00 -135.47	0.00	0.00 592.84	592.84	-0.09 0.09	-0.40 0.40	0.00



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P5	0.00	0.00 11.67	0.00 -588.04	0.00	0.00 924.92	924.92	-0.39 0.39	-0.62 0.62	0.00
P6	0.00	0.00 22.33	0.00 -33.77	0.00	0.00 108.73	108.73	-0.02 0.02	-0.07 0.07	0.00
P7	0.00	0.00 28.98	0.00 55.61	55.61	0.00 -33.32	0.00	0.04 -0.04	0.02 -0.02	0.00
P8	0.00	0.00 24.90	0.00 239.40	239.40	0.00 -132.04	0.00	0.16 -0.16	0.09 -0.09	0.00
P9	0.00	0.00 15.00	0.00 -38.11	0.00	0.00 229.76	229.76	-0.03 0.03	-0.15 0.15	0.00
P10	0.00	0.00 8.27	0.00 543.53	543.53	0.00 177.26	177.26	0.36 -0.36	-0.12 0.12	0.00
P11	0.00	0.00 5.18	0.00 1.56	1.56	0.00 288.43	288.43	0.00 0.00	-0.19 0.19	0.00
P12	0.00	0.00 14.92	0.00 -269.34	0.00	0.00 -4.49	0.00	-0.18 0.18	0.00 0.00	0.00
P13	0.00	0.00 14.60	0.00 76.98	76.98	0.00 30.92	30.92	0.05 -0.05	-0.02 0.02	0.00
P14	0.00	0.00 11.78	0.00 -207.32	0.00	0.00 1152.60	1152.60	-0.14 0.14	-0.77 0.77	0.00
P15	0.00	0.00 16.92	0.00 -359.42	0.00	0.00 153.20	153.20	-0.24 0.24	-0.10 0.10	0.00
P16	0.00	0.00 18.76	0.00 -49.24	0.00	0.00 172.68	172.68	-0.03 0.03	-0.12 0.12	0.00
P18	0.00	0.00 24.06	0.00 -846.38	0.00	0.00 -1493.99	0.00	-0.56 0.56	1.00 -1.00	0.00
P19	0.00	0.00 13.50	0.00 1052.14	1052.14	0.00 351.62	351.62	0.70 -0.70	-0.23 0.23	0.00
P20	0.00	0.00 19.32	0.00 -504.28	0.00	0.00 118.83	118.83	-0.34 0.34	-0.08 0.08	0.00
P21	0.00	0.00 20.07	0.00 -46.02	0.00	0.00 199.45	199.45	-0.03 0.03	-0.13 0.13	0.00
P22	0.00	0.00 24.25	0.00 38.32	38.32	0.00 -295.36	0.00	0.03 -0.03	0.20 -0.20	0.00
P23	0.00	0.00 20.59	0.00 0.93	0.93	0.00 89.87	89.87	0.00 0.00	-0.06 0.06	0.00
P24	0.00	0.00 20.32	0.00 -40.85	0.00	0.00 224.07	224.07	-0.03 0.03	-0.15 0.15	0.00
P25	0.00	0.00 22.07	0.00 -75.40	0.00	0.00 -366.96	0.00	-0.05 0.05	0.24 -0.24	0.00
P26	0.00	0.00 16.94	0.00 958.88	958.88	0.00 2596.80	2596.80	0.64 -0.64	-1.73 1.73	0.00
P27	0.00	0.00 30.74	0.00 -332.11	0.00	0.00 1532.41	1532.41	-0.22 0.22	-1.02 1.02	0.00
P28	0.00	0.00 19.85	0.00 917.63	917.63	0.00 -4117.00	0.00	0.61 -0.61	2.74 -2.74	0.00


**CASO: 1.3G1+1.4G2+1.2D4**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Yi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 12.57	0.00 -564.49	0.00	0.00 1029.22	1029.22	-0.38 0.38	-0.69 0.69	0.00
P2	0.00	0.00 20.95	0.00 -489.08	0.00	0.00 -248.31	0.00	-0.33 0.33	0.17 -0.17	0.00
P3	0.00	0.00 18.77	0.00 148.71	148.71	0.00 -282.59	0.00	0.10 -0.10	0.19 -0.19	0.00
P4	0.00	0.00 8.81	0.00 -117.58	0.00	0.00 356.87	356.87	-0.08 0.08	-0.24 0.24	0.00
P5	0.00	0.00 11.40	0.00 -414.77	0.00	0.00 931.96	931.96	-0.28 0.28	-0.62 0.62	0.00
P6	0.00	0.00	0.00	0.00	0.00	427.62	-0.02	-0.29	0.00

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		22.19	-34.20		427.62		0.02	0.29	
P7	0.00	0.00 28.72	0.00 54.15	54.15	0.00 59.68	59.68	0.04 -0.04	-0.04 0.04	0.00
P8	0.00	0.00 24.33	0.00 237.95	237.95	0.00 111.42	111.42	0.16 -0.16	-0.07 0.07	0.00
P9	0.00	0.00 15.35	0.00 -43.87	0.00	0.00 452.32	452.32	-0.03 0.03	-0.30 0.30	0.00
P10	0.00	0.00 7.96	0.00 331.54	331.54	0.00 184.40	184.40	0.22 -0.22	-0.12 0.12	0.00
P11	0.00	0.00 5.72	0.00 249.17	249.17	0.00 280.29	280.29	0.17 -0.17	-0.19 0.19	0.00
P12	0.00	0.00 15.05	0.00 -261.54	0.00	0.00 5.40	5.40	-0.17 0.17	0.00 0.00	0.00
P13	0.00	0.00 15.22	0.00 81.92	81.92	0.00 274.33	274.33	0.05 -0.05	-0.18 0.18	0.00
P14	0.00	0.00 11.64	0.00 -215.41	0.00	0.00 1019.10	1019.10	-0.14 0.14	-0.68 0.68	0.00
P15	0.00	0.00 17.05	0.00 -103.20	0.00	0.00 157.12	157.12	-0.07 0.07	-0.10 0.10	0.00
P16	0.00	0.00 18.80	0.00 59.61	59.61	0.00 165.71	165.71	0.04 -0.04	-0.11 0.11	0.00
P18	0.00	0.00 24.26	0.00 -516.93	0.00	0.00 -1533.52	0.00	-0.34 0.34	1.02 -1.02	0.00
P19	0.00	0.00 13.60	0.00 1176.30	1176.30	0.00 326.73	326.73	0.78 -0.78	-0.22 0.22	0.00
P20	0.00	0.00 19.34	0.00 -288.05	0.00	0.00 110.67	110.67	-0.19 0.19	-0.07 0.07	0.00
P21	0.00	0.00 20.09	0.00 58.44	58.44	0.00 191.43	191.43	0.04 -0.04	-0.13 0.13	0.00
P22	0.00	0.00 24.31	0.00 311.82	311.82	0.00 -301.20	0.00	0.21 -0.21	0.20 -0.20	0.00
P23	0.00	0.00 20.54	0.00 226.24	226.24	0.00 85.67	85.67	0.15 -0.15	-0.06 0.06	0.00
P24	0.00	0.00 20.27	0.00 66.55	66.55	0.00 222.29	222.29	0.04 -0.04	-0.15 0.15	0.00
P25	0.00	0.00 22.01	0.00 206.68	206.68	0.00 -366.23	0.00	0.14 -0.14	0.24 -0.24	0.00
P26	0.00	0.00 17.10	0.00 1093.16	1093.16	0.00 2594.85	2594.85	0.73 -0.73	-1.73 1.73	0.00
P27	0.00	0.00 30.83	0.00 -179.91	0.00	0.00 1536.36	1536.36	-0.12 0.12	-1.02 1.02	0.00
P28	0.00	0.00 20.04	0.00 1083.64	1083.64	0.00 -4107.88	0.00	0.72 -0.72	2.74 -2.74	0.00

CASO: 1.3G1+1.4G2+1.4Q									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 22.99	0.00 -674.08	0.00	0.00 1047.54	1047.54	-0.45 0.45	-0.70 0.70	0.00
P2	0.00	0.00 49.55	0.00 -634.11	0.00	0.00 0.88	0.88	-0.42 0.42	0.00 0.00	0.00
P3	0.00	0.00 47.61	0.00 -36.50	0.00	0.00 -333.56	0.00	-0.02 0.02	0.22 -0.22	0.00
P4	0.00	0.00 18.04	0.00 -33.93	0.00	0.00 531.48	531.48	-0.02 0.02	-0.35 0.35	0.00
P5	0.00	0.00 11.81	0.00 -498.43	0.00	0.00 988.90	988.90	-0.33 0.33	-0.66 0.66	0.00
P6	0.00	0.00 35.21	0.00 -76.49	0.00	0.00 -71.58	0.00	-0.05 0.05	0.05 -0.05	0.00
P7	0.00	0.00 59.64	0.00 20.71	20.71	0.00 400.91	400.91	0.01 -0.01	-0.27 0.27	0.00


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P8	0.00	0.00 49.86	0.00 231.27	231.27	0.00 345.67	345.67	0.15 -0.15	-0.23 0.23	0.00
P9	0.00	0.00 26.02	0.00 -10.74	0.00	0.00 328.09	328.09	-0.01 0.01	-0.22 0.22	0.00
P10	0.00	0.00 7.07	0.00 487.78	487.78	0.00 185.37	185.37	0.33 -0.33	-0.12 0.12	0.00
P11	0.00	0.00 3.54	0.00 -5.29	0.00	0.00 277.28	277.28	0.00 0.00	-0.18 0.18	0.00
P12	0.00	0.00 16.64	0.00 -249.32	0.00	0.00 40.01	40.01	-0.17 0.17	-0.03 0.03	0.00
P13	0.00	0.00 16.10	0.00 95.76	95.76	0.00 484.75	484.75	0.06 -0.06	-0.32 0.32	0.00
P14	0.00	0.00 11.75	0.00 -227.42	0.00	0.00 1088.62	1088.62	-0.15 0.15	-0.73 0.73	0.00
P15	0.00	0.00 16.99	0.00 -215.52	0.00	0.00 154.14	154.14	-0.14 0.14	-0.10 0.10	0.00
P16	0.00	0.00 18.18	0.00 1.04	1.04	0.00 169.15	169.15	0.00 0.00	-0.11 0.11	0.00
P18	0.00	0.00 24.09	0.00 -751.42	0.00	0.00 -1522.83	0.00	-0.50 0.50	1.02 -1.02	0.00
P19	0.00	0.00 13.53	0.00 1111.49	1111.49	0.00 340.88	340.88	0.74 -0.74	-0.23 0.23	0.00
P20	0.00	0.00 19.33	0.00 -384.20	0.00	0.00 114.43	114.43	-0.26 0.26	-0.08 0.08	0.00
P21	0.00	0.00 20.10	0.00 11.41	11.41	0.00 195.49	195.49	0.01 -0.01	-0.13 0.13	0.00
P22	0.00	0.00 24.28	0.00 120.20	120.20	0.00 -298.02	0.00	0.08 -0.08	0.20 -0.20	0.00
P23	0.00	0.00 20.56	0.00 126.52	126.52	0.00 87.79	87.79	0.08 -0.08	-0.06 0.06	0.00
P24	0.00	0.00 20.29	0.00 16.38	16.38	0.00 223.24	223.24	0.01 -0.01	-0.15 0.15	0.00
P25	0.00	0.00 22.06	0.00 7.79	7.79	0.00 -366.06	0.00	0.01 -0.01	0.24 -0.24	0.00
P26	0.00	0.00 17.03	0.00 1032.56	1032.56	0.00 2594.30	2594.30	0.69 -0.69	-1.73 1.73	0.00
P27	0.00	0.00 30.79	0.00 -252.78	0.00	0.00 1533.11	1533.11	-0.17 0.17	-1.02 1.02	0.00
P28	0.00	0.00 19.90	0.00 971.74	971.74	0.00 -4113.76	0.00	0.65 -0.65	2.74 -2.74	0.00

CASO: 1.3G1+1.4G2+1.4Q+0.84V1+0.84D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 22.45	0.00 -672.38	0.00	0.00 758.58	758.58	-0.45 0.45	-0.51 0.51	0.00
P2	0.00	0.00 49.82	0.00 -1084.74	0.00	0.00 -23.34	0.00	-0.72 0.72	0.02 -0.02	0.00
P3	0.00	0.00 47.26	0.00 -15.64	0.00	0.00 -794.22	0.00	-0.01 0.01	0.53 -0.53	0.00
P4	0.00	0.00 18.66	0.00 -338.87	0.00	0.00 498.68	498.68	-0.23 0.23	-0.33 0.33	0.00
P5	0.00	0.00 11.34	0.00 -487.24	0.00	0.00 684.61	684.61	-0.32 0.32	-0.46 0.46	0.00
P6	0.00	0.00 35.19	0.00 260.20	260.20	0.00 -65.49	0.00	0.17 -0.17	0.04 -0.04	0.00
P7	0.00	0.00 59.69	0.00 719.37	719.37	0.00 396.44	396.44	0.48 -0.48	-0.26 0.26	0.00
P8	0.00	0.00 49.92	0.00 534.73	534.73	0.00 356.36	356.36	0.36 -0.36	-0.24 0.24	0.00
P9	0.00	0.00	0.00	753.35	0.00	341.42	0.50	-0.23	0.00


		25.02	753.35		341.42		-0.50	0.23	
P10	0.00	0.00 8.41	0.00 512.06	512.06	0.00 797.66	797.66	0.34 -0.34	-0.53 0.53	0.00
P11	0.00	0.00 3.10	0.00 2.85	2.85	0.00 38.13	38.13	0.00 0.00	-0.03 0.03	0.00
P12	0.00	0.00 16.84	0.00 208.58	208.58	0.00 39.60	39.60	0.14 -0.14	-0.03 0.03	0.00
P13	0.00	0.00 15.99	0.00 387.93	387.93	0.00 496.41	496.41	0.26 -0.26	-0.33 0.33	0.00
P14	0.00	0.00 11.81	0.00 -442.83	0.00	0.00 1007.05	1007.05	-0.30 0.30	-0.67 0.67	0.00
P15	0.00	0.00 16.90	0.00 -211.35	0.00	0.00 -22.10	0.00	-0.14 0.14	0.01 -0.01	0.00
P16	0.00	0.00 18.22	0.00 4.03	4.03	0.00 -21.42	0.00	0.00 0.00	0.01 -0.01	0.00
P18	0.00	0.00 24.77	0.00 -866.61	0.00	0.00 -2003.24	0.00	-0.58 0.58	1.34 -1.34	0.00
P19	0.00	0.00 13.01	0.00 1038.07	1038.07	0.00 -73.91	0.00	0.69 -0.69	0.05 -0.05	0.00
P20	0.00	0.00 19.18	0.00 -381.88	0.00	0.00 -163.54	0.00	-0.25 0.25	0.11 -0.11	0.00
P21	0.00	0.00 20.13	0.00 13.79	13.79	0.00 -99.30	0.00	0.01 -0.01	0.07 -0.07	0.00
P22	0.00	0.00 24.63	0.00 166.94	166.94	0.00 -499.16	0.00	0.11 -0.11	0.33 -0.33	0.00
P23	0.00	0.00 20.42	0.00 136.57	136.57	0.00 -176.07	0.00	0.09 -0.09	0.12 -0.12	0.00
P24	0.00	0.00 20.32	0.00 18.93	18.93	0.00 -67.92	0.00	0.01 -0.01	0.05 -0.05	0.00
P25	0.00	0.00 22.16	0.00 -48.74	0.00	0.00 -631.29	0.00	-0.03 0.03	0.42 -0.42	0.00
P26	0.00	0.00 16.74	0.00 1037.94	1037.94	0.00 2205.10	2205.10	0.69 -0.69	-1.47 1.47	0.00
P27	0.00	0.00 30.87	0.00 -251.05	0.00	0.00 886.44	886.44	-0.17 0.17	-0.59 0.59	0.00
P28	0.00	0.00 20.09	0.00 945.48	945.48	0.00 -4441.78	0.00	0.63 -0.63	2.96 -2.96	0.00

CASO: 1.3G1+1.4G2+1.4Q+0.84V2+0.84D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 23.53	0.00 -675.78	0.00	0.00 1336.50	1336.50	-0.45 0.45	-0.89 0.89	0.00
P2	0.00	0.00 49.27	0.00 -183.48	0.00	0.00 25.10	25.10	-0.12 0.12	-0.02 0.02	0.00
P3	0.00	0.00 47.96	0.00 -57.36	0.00	0.00 127.10	127.10	-0.04 0.04	-0.08 0.08	0.00
P4	0.00	0.00 17.42	0.00 271.01	271.01	0.00 564.28	564.28	0.18 -0.18	-0.38 0.38	0.00
P5	0.00	0.00 12.28	0.00 -509.63	0.00	0.00 1293.19	1293.19	-0.34 0.34	-0.86 0.86	0.00
P6	0.00	0.00 35.23	0.00 -413.18	0.00	0.00 -77.67	0.00	-0.28 0.28	0.05 -0.05	0.00
P7	0.00	0.00 59.59	0.00 -677.95	0.00	0.00 405.39	405.39	-0.45 0.45	-0.27 0.27	0.00
P8	0.00	0.00 49.80	0.00 -72.19	0.00	0.00 334.98	334.98	-0.05 0.05	-0.22 0.22	0.00
P9	0.00	0.00 27.02	0.00 -774.83	0.00	0.00 314.75	314.75	-0.52 0.52	-0.21 0.21	0.00
P10	0.00	0.00 5.73	0.00 463.49	463.49	0.00 -426.92	0.00	0.31 -0.31	0.28 -0.28	0.00

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P11	0.00	0.00 3.97	0.00 -13.43	0.00	0.00 516.42	516.42	-0.01 0.01	-0.34 0.34	0.00
P12	0.00	0.00 16.43	0.00 -707.22	0.00	0.00 40.42	40.42	-0.47 0.47	-0.03 0.03	0.00
P13	0.00	0.00 16.21	0.00 -196.41	0.00	0.00 473.08	473.08	-0.13 0.13	-0.32 0.32	0.00
P14	0.00	0.00 11.69	0.00 -12.00	0.00	0.00 1170.20	1170.20	-0.01 0.01	-0.78 0.78	0.00
P15	0.00	0.00 17.08	0.00 -219.68	0.00	0.00 330.38	330.38	-0.15 0.15	-0.22 0.22	0.00
P16	0.00	0.00 18.13	0.00 -1.96	0.00	0.00 359.71	359.71	0.00 0.00	-0.24 0.24	0.00
P18	0.00	0.00 23.41	0.00 -636.24	0.00	0.00 -1042.41	0.00	-0.42 0.42	0.69 -0.69	0.00
P19	0.00	0.00 14.04	0.00 1184.92	1184.92	0.00 755.66	755.66	0.79 -0.79	-0.50 0.50	0.00
P20	0.00	0.00 19.49	0.00 -386.51	0.00	0.00 392.41	392.41	-0.26 0.26	-0.26 0.26	0.00
P21	0.00	0.00 20.07	0.00 9.03	9.03	0.00 490.29	490.29	0.01 -0.01	-0.33 0.33	0.00
P22	0.00	0.00 23.93	0.00 73.46	73.46	0.00 -96.88	0.00	0.05 -0.05	0.06 -0.06	0.00
P23	0.00	0.00 20.71	0.00 116.47	116.47	0.00 351.64	351.64	0.08 -0.08	-0.23 0.23	0.00
P24	0.00	0.00 20.26	0.00 13.82	13.82	0.00 514.40	514.40	0.01 -0.01	-0.34 0.34	0.00
P25	0.00	0.00 21.95	0.00 64.33	64.33	0.00 -100.82	0.00	0.04 -0.04	0.07 -0.07	0.00
P26	0.00	0.00 17.33	0.00 1027.18	1027.18	0.00 2983.49	2983.49	0.68 -0.68	-1.99 1.99	0.00
P27	0.00	0.00 30.71	0.00 -254.50	0.00	0.00 2179.78	2179.78	-0.17 0.17	-1.45 1.45	0.00
P28	0.00	0.00 19.71	0.00 997.99	997.99	0.00 -3785.74	0.00	0.67 -0.67	2.52 -2.52	0.00

CASO: 1.3G1+1.4G2+1.4Q+0.84V3+0.84D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 23.51	0.00 -1056.13	0.00	0.00 1018.48	1018.48	-0.70 0.70	-0.68 0.68	0.00
P2	0.00	0.00 49.58	0.00 -677.15	0.00	0.00 123.52	123.52	-0.45 0.45	-0.08 0.08	0.00
P3	0.00	0.00 47.55	0.00 -8.36	0.00	0.00 -382.94	0.00	-0.01 0.01	0.26 -0.26	0.00
P4	0.00	0.00 18.80	0.00 -59.27	0.00	0.00 890.34	890.34	-0.04 0.04	-0.59 0.59	0.00
P5	0.00	0.00 12.34	0.00 -808.06	0.00	0.00 976.77	976.77	-0.54 0.54	-0.65 0.65	0.00
P6	0.00	0.00 35.42	0.00 -76.06	0.00	0.00 -542.77	0.00	-0.05 0.05	0.36 -0.36	0.00
P7	0.00	0.00 60.07	0.00 21.75	21.75	0.00 313.68	313.68	0.01 -0.01	-0.21 0.21	0.00
P8	0.00	0.00 50.72	0.00 233.12	233.12	0.00 0.34	0.34	0.16 -0.16	0.00 0.00	0.00
P9	0.00	0.00 25.47	0.00 -3.57	0.00	0.00 -11.14	0.00	0.00 0.00	0.01 -0.01	0.00
P10	0.00	0.00 7.64	0.00 842.34	842.34	0.00 171.53	171.53	0.56 -0.56	-0.11 0.11	0.00
P11	0.00	0.00 2.73	0.00 -369.99	0.00	0.00 290.32	290.32	-0.25 0.25	-0.19 0.19	0.00
P12	0.00	0.00	0.00	0.00	0.00	32.82	-0.17	-0.02	0.00

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		16.42	-262.47		32.82		0.17	0.02	
P13	0.00	0.00 15.16	0.00 87.06	87.06	0.00 139.43	139.43	0.06 -0.06	-0.09 0.09	0.00
P14	0.00	0.00 11.99	0.00 -214.86	0.00	0.00 1301.50	1301.50	-0.14 0.14	-0.87 0.87	0.00
P15	0.00	0.00 16.74	0.00 -694.27	0.00	0.00 149.11	149.11	-0.46 0.46	-0.10 0.10	0.00
P16	0.00	0.00 18.11	0.00 -189.90	0.00	0.00 176.66	176.66	-0.13 0.13	-0.12 0.12	0.00
P18	0.00	0.00 23.73	0.00 -1321.93	0.00	0.00 -1478.94	0.00	-0.88 0.88	0.99 -0.99	0.00
P19	0.00	0.00 13.33	0.00 909.90	909.90	0.00 379.55	379.55	0.61 -0.61	-0.25 0.25	0.00
P20	0.00	0.00 19.28	0.00 -780.91	0.00	0.00 126.10	126.10	-0.52 0.52	-0.08 0.08	0.00
P21	0.00	0.00 20.07	0.00 -172.80	0.00	0.00 206.81	206.81	-0.12 0.12	-0.14 0.14	0.00
P22	0.00	0.00 24.17	0.00 -346.28	0.00	0.00 -290.19	0.00	-0.23 0.23	0.19 -0.19	0.00
P23	0.00	0.00 20.67	0.00 -286.39	0.00	0.00 93.27	93.27	-0.19 0.19	-0.06 0.06	0.00
P24	0.00	0.00 20.36	0.00 -173.23	0.00	0.00 225.71	225.71	-0.12 0.12	-0.15 0.15	0.00
P25	0.00	0.00 22.17	0.00 -474.39	0.00	0.00 -366.78	0.00	-0.32 0.32	0.24 -0.24	0.00
P26	0.00	0.00 16.73	0.00 799.57	799.57	0.00 2598.30	2598.30	0.53 -0.53	-1.73 1.73	0.00
P27	0.00	0.00 30.65	0.00 -436.62	0.00	0.00 1527.76	1527.76	-0.29 0.29	-1.02 1.02	0.00
P28	0.00	0.00 19.54	0.00 701.92	701.92	0.00 -4127.35	0.00	0.47 -0.47	2.75 -2.75	0.00

CASO: 1.3G1+1.4G2+1.4Q+0.84V4+0.84D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 22.46	0.00 -292.03	0.00	0.00 1076.59	1076.59	-0.19 0.19	-0.72 0.72	0.00
P2	0.00	0.00 49.52	0.00 -591.07	0.00	0.00 -121.76	0.00	-0.39 0.39	0.08 -0.08	0.00
P3	0.00	0.00 47.67	0.00 -64.64	0.00	0.00 -284.18	0.00	-0.04 0.04	0.19 -0.19	0.00
P4	0.00	0.00 17.28	0.00 -8.59	0.00	0.00 172.62	172.62	-0.01 0.01	-0.12 0.12	0.00
P5	0.00	0.00 11.28	0.00 -188.80	0.00	0.00 1001.04	1001.04	-0.13 0.13	-0.67 0.67	0.00
P6	0.00	0.00 34.99	0.00 -76.91	0.00	0.00 399.61	399.61	-0.05 0.05	-0.27 0.27	0.00
P7	0.00	0.00 59.21	0.00 19.68	19.68	0.00 488.14	488.14	0.01 -0.01	-0.33 0.33	0.00
P8	0.00	0.00 49.00	0.00 229.41	229.41	0.00 691.00	691.00	0.15 -0.15	-0.46 0.46	0.00
P9	0.00	0.00 26.56	0.00 -17.92	0.00	0.00 667.31	667.31	-0.01 0.01	-0.44 0.44	0.00
P10	0.00	0.00 6.49	0.00 133.21	133.21	0.00 199.21	199.21	0.09 -0.09	-0.13 0.13	0.00
P11	0.00	0.00 4.35	0.00 359.42	359.42	0.00 264.24	264.24	0.24 -0.24	-0.18 0.18	0.00
P12	0.00	0.00 16.85	0.00 -236.18	0.00	0.00 47.20	47.20	-0.16 0.16	-0.03 0.03	0.00
P13	0.00	0.00 17.04	0.00 104.46	104.46	0.00 830.06	830.06	0.07 -0.07	-0.55 0.55	0.00



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Plena**

**Leilson Campos  
Rezende  
Rezende Engenharia**


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P14	0.00	0.00 11.51	0.00 -239.98	0.00	0.00 875.75	875.75	-0.16 0.16	-0.58 0.58	0.00
P15	0.00	0.00 17.24	0.00 263.24	263.24	0.00 159.17	159.17	0.18 -0.18	-0.11 0.11	0.00
P16	0.00	0.00 18.25	0.00 191.97	191.97	0.00 161.63	161.63	0.13 -0.13	-0.11 0.11	0.00
P18	0.00	0.00 24.45	0.00 -180.92	0.00	0.00 -1566.71	0.00	-0.12 0.12	1.04 -1.04	0.00
P19	0.00	0.00 13.72	0.00 1313.08	1313.08	0.00 302.21	302.21	0.88 -0.88	-0.20 0.20	0.00
P20	0.00	0.00 19.39	0.00 12.51	12.51	0.00 102.76	102.76	0.01 -0.01	-0.07 0.07	0.00
P21	0.00	0.00 20.14	0.00 195.62	195.62	0.00 184.18	184.18	0.13 -0.13	-0.12 0.12	0.00
P22	0.00	0.00 24.38	0.00 586.68	586.68	0.00 -305.85	0.00	0.39 -0.39	0.20 -0.20	0.00
P23	0.00	0.00 20.46	0.00 539.43	539.43	0.00 82.31	82.31	0.36 -0.36	-0.05 0.05	0.00
P24	0.00	0.00 20.22	0.00 205.99	205.99	0.00 220.78	220.78	0.14 -0.14	-0.15 0.15	0.00
P25	0.00	0.00 21.94	0.00 489.98	489.98	0.00 -365.33	0.00	0.33 -0.33	0.24 -0.24	0.00
P26	0.00	0.00 17.34	0.00 1265.55	1265.55	0.00 2590.29	2590.29	0.84 -0.84	-1.73 1.73	0.00
P27	0.00	0.00 30.93	0.00 -68.93	0.00	0.00 1538.45	1538.45	-0.05 0.05	-1.03 1.03	0.00
P28	0.00	0.00 20.25	0.00 1241.55	1241.55	0.00 -4100.17	0.00	0.83 -0.83	2.73 -2.73	0.00

**CASO: 1.3G1+1.4G2+1.4Q+1.2D1**


Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 22.85	0.00 -680.00	0.00	0.00 963.72	963.72	-0.45 0.45	-0.64 0.64	0.00
P2	0.00	0.00 49.62	0.00 -763.08	0.00	0.00 -4.85	0.00	-0.51 0.51	0.00 0.00	0.00
P3	0.00	0.00 47.52	0.00 -32.39	0.00	0.00 -464.98	0.00	-0.02 0.02	0.31 -0.31	0.00
P4	0.00	0.00 18.20	0.00 -121.87	0.00	0.00 518.15	518.15	-0.08 0.08	-0.35 0.35	0.00
P5	0.00	0.00 11.70	0.00 -499.14	0.00	0.00 902.58	902.58	-0.33 0.33	-0.60 0.60	0.00
P6	0.00	0.00 35.20	0.00 12.29	12.29	0.00 -78.97	0.00	0.01 -0.01	0.05 -0.05	0.00
P7	0.00	0.00 59.66	0.00 209.60	209.60	0.00 399.94	399.94	0.14 -0.14	-0.27 0.27	0.00
P8	0.00	0.00 49.87	0.00 311.36	311.36	0.00 348.17	348.17	0.21 -0.21	-0.23 0.23	0.00
P9	0.00	0.00 25.77	0.00 191.58	191.58	0.00 336.14	336.14	0.13 -0.13	-0.22 0.22	0.00
P10	0.00	0.00 7.40	0.00 487.83	487.83	0.00 350.83	350.83	0.33 -0.33	-0.23 0.23	0.00
P11	0.00	0.00 3.43	0.00 -10.07	0.00	0.00 222.16	222.16	-0.01 0.01	-0.15 0.15	0.00
P12	0.00	0.00 16.68	0.00 -141.73	0.00	0.00 39.96	39.96	-0.09 0.09	-0.03 0.03	0.00
P13	0.00	0.00 16.08	0.00 162.60	162.60	0.00 487.47	487.47	0.11 -0.11	-0.32 0.32	0.00
P14	0.00	0.00 11.76	0.00 -277.58	0.00	0.00 1070.14	1070.14	-0.19 0.19	-0.71 0.71	0.00
P15	0.00	0.00	0.00	0.00	0.00	112.41	-0.15	-0.07	0.00



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		16.97	-218.30		112.41		0.15	0.07	
P16	0.00	0.00 18.19	0.00 0.00	0.00	0.00 136.55	136.55	0.00 0.00	-0.09 0.09	0.00
P18	0.00	0.00 24.23	0.00 -767.65	0.00	0.00 -1639.96	0.00	-0.51 0.51	1.09 -1.09	0.00
P19	0.00	0.00 13.42	0.00 1096.75	1096.75	0.00 250.72	250.72	0.73 -0.73	-0.17 0.17	0.00
P20	0.00	0.00 19.30	0.00 -387.34	0.00	0.00 49.80	49.80	-0.26 0.26	-0.03 0.03	0.00
P21	0.00	0.00 20.11	0.00 10.33	10.33	0.00 141.46	141.46	0.01 -0.01	-0.09 0.09	0.00
P22	0.00	0.00 24.35	0.00 136.18	136.18	0.00 -350.95	0.00	0.09 -0.09	0.23 -0.23	0.00
P23	0.00	0.00 20.53	0.00 125.11	125.11	0.00 23.40	23.40	0.08 -0.08	-0.02 0.02	0.00
P24	0.00	0.00 20.30	0.00 15.28	15.28	0.00 167.84	167.84	0.01 -0.01	-0.11 0.11	0.00
P25	0.00	0.00 22.08	0.00 2.35	2.35	0.00 -430.80	0.00	0.00 0.00	0.29 -0.29	0.00
P26	0.00	0.00 16.97	0.00 1031.60	1031.60	0.00 2500.66	2500.66	0.69 -0.69	-1.67 1.67	0.00
P27	0.00	0.00 30.81	0.00 -253.74	0.00	0.00 1384.83	1384.83	-0.17 0.17	-0.92 0.92	0.00
P28	0.00	0.00 19.94	0.00 969.56	969.56	0.00 -4194.89	0.00	0.65 -0.65	2.80 -2.80	0.00

CASO: 1.3G1+1.4G2+1.4Q+1.2D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 23.12	0.00 -668.15	0.00	0.00 1131.35	1131.35	-0.45 0.45	-0.75 0.75	0.00
P2	0.00	0.00 49.47	0.00 -505.14	0.00	0.00 6.62	6.62	-0.34 0.34	0.00 0.00	0.00
P3	0.00	0.00 47.71	0.00 -40.61	0.00	0.00 -202.14	0.00	-0.03 0.03	0.13 -0.13	0.00
P4	0.00	0.00 17.88	0.00 54.01	54.01	0.00 544.82	544.82	0.04 -0.04	-0.36 0.36	0.00
P5	0.00	0.00 11.93	0.00 -497.73	0.00	0.00 1075.22	1075.22	-0.33 0.33	-0.72 0.72	0.00
P6	0.00	0.00 35.21	0.00 -165.27	0.00	0.00 -64.18	0.00	-0.11 0.11	0.04 -0.04	0.00
P7	0.00	0.00 59.62	0.00 -168.18	0.00	0.00 401.88	401.88	-0.11 0.11	-0.27 0.27	0.00
P8	0.00	0.00 49.85	0.00 151.17	151.17	0.00 343.17	343.17	0.10 -0.10	-0.23 0.23	0.00
P9	0.00	0.00 26.26	0.00 -213.07	0.00	0.00 320.03	320.03	-0.14 0.14	-0.21 0.21	0.00
P10	0.00	0.00 6.73	0.00 487.72	487.72	0.00 19.90	19.90	0.33 -0.33	-0.01 0.01	0.00
P11	0.00	0.00 3.65	0.00 -0.51	0.00	0.00 332.40	332.40	0.00 0.00	-0.22 0.22	0.00
P12	0.00	0.00 16.60	0.00 -356.91	0.00	0.00 40.07	40.07	-0.24 0.24	-0.03 0.03	0.00
P13	0.00	0.00 16.12	0.00 28.92	28.92	0.00 482.02	482.02	0.02 -0.02	-0.32 0.32	0.00
P14	0.00	0.00 11.74	0.00 -177.26	0.00	0.00 1107.11	1107.11	-0.12 0.12	-0.74 0.74	0.00
P15	0.00	0.00 17.01	0.00 -212.74	0.00	0.00 195.87	195.87	-0.14 0.14	-0.13 0.13	0.00
P16	0.00	0.00 18.17	0.00 2.07	2.07	0.00 201.74	201.74	0.00 0.00	-0.13 0.13	0.00

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P18	0.00	0.00 23.95	0.00 -735.20	0.00	0.00 -1405.69	0.00	-0.49 0.49	0.94 -0.94	0.00
P19	0.00	0.00 13.63	0.00 1126.23	1126.23	0.00 431.03	431.03	0.75 -0.75	-0.29 0.29	0.00
P20	0.00	0.00 19.37	0.00 -381.05	0.00	0.00 179.07	179.07	-0.25 0.25	-0.12 0.12	0.00
P21	0.00	0.00 20.10	0.00 12.49	12.49	0.00 249.53	249.53	0.01 -0.01	-0.17 0.17	0.00
P22	0.00	0.00 24.21	0.00 104.22	104.22	0.00 -245.09	0.00	0.07 -0.07	0.16 -0.16	0.00
P23	0.00	0.00 20.60	0.00 127.93	127.93	0.00 152.18	152.18	0.09 -0.09	-0.10 0.10	0.00
P24	0.00	0.00 20.28	0.00 17.47	17.47	0.00 278.64	278.64	0.01 -0.01	-0.19 0.19	0.00
P25	0.00	0.00 22.03	0.00 13.23	13.23	0.00 -301.31	0.00	0.01 -0.01	0.20 -0.20	0.00
P26	0.00	0.00 17.10	0.00 1033.51	1033.51	0.00 2687.94	2687.94	0.69 -0.69	-1.79 1.79	0.00
P27	0.00	0.00 30.78	0.00 -251.82	0.00	0.00 1681.39	1681.39	-0.17 0.17	-1.12 1.12	0.00
P28	0.00	0.00 19.85	0.00 973.91	973.91	0.00 -4032.63	0.00	0.65 -0.65	2.69 -2.69	0.00

CASO: 1.3G1+1.4G2+1.4Q+1.2D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 23.16	0.00 -806.52	0.00	0.00 1037.35	1037.35	-0.54 0.54	-0.69 0.69	0.00
P2	0.00	0.00 49.56	0.00 -649.52	0.00	0.00 48.61	48.61	-0.43 0.43	-0.03 0.03	0.00
P3	0.00	0.00 47.59	0.00 -34.02	0.00	0.00 -350.81	0.00	-0.02 0.02	0.23 -0.23	0.00
P4	0.00	0.00 18.29	0.00 -42.88	0.00	0.00 649.47	649.47	-0.03 0.03	-0.43 0.43	0.00
P5	0.00	0.00 11.95	0.00 -585.07	0.00	0.00 985.38	985.38	-0.39 0.39	-0.66 0.66	0.00
P6	0.00	0.00 35.28	0.00 -76.28	0.00	0.00 -231.02	0.00	-0.05 0.05	0.15 -0.15	0.00
P7	0.00	0.00 59.77	0.00 21.44	21.44	0.00 354.41	354.41	0.01 -0.01	-0.24 0.24	0.00
P8	0.00	0.00 50.14	0.00 231.99	231.99	0.00 223.94	223.94	0.15 -0.15	-0.15 0.15	0.00
P9	0.00	0.00 25.84	0.00 -7.86	0.00	0.00 216.81	216.81	-0.01 0.01	-0.14 0.14	0.00
P10	0.00	0.00 7.22	0.00 593.77	593.77	0.00 181.80	181.80	0.40 -0.40	-0.12 0.12	0.00
P11	0.00	0.00 3.27	0.00 -129.09	0.00	0.00 281.35	281.35	-0.09 0.09	-0.19 0.19	0.00
P12	0.00	0.00 16.58	0.00 -253.22	0.00	0.00 35.07	35.07	-0.17 0.17	-0.02 0.02	0.00
P13	0.00	0.00 15.79	0.00 93.29	93.29	0.00 363.04	363.04	0.06 -0.06	-0.24 0.24	0.00
P14	0.00	0.00 11.82	0.00 -223.38	0.00	0.00 1155.38	1155.38	-0.15 0.15	-0.77 0.77	0.00
P15	0.00	0.00 16.93	0.00 -343.63	0.00	0.00 152.18	152.18	-0.23 0.23	-0.10 0.10	0.00
P16	0.00	0.00 18.15	0.00 -53.39	0.00	0.00 172.63	172.63	-0.04 0.04	-0.12 0.12	0.00
P18	0.00	0.00 23.99	0.00 -916.15	0.00	0.00 -1503.06	0.00	-0.61 0.61	1.00 -1.00	0.00
P19	0.00	0.00	0.00	1049.41	0.00	353.32	0.70	-0.24	0.00



AltoQi Eberick 2018  
Plena


Leilson Campos  
Rezende  
Rezende Engenharia

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		13.47	1049.41		353.32		-0.70	0.24	
P20	0.00	0.00 19.32	0.00 -492.31	0.00	0.00 118.51	118.51	-0.33 0.33	-0.08 0.08	0.00
P21	0.00	0.00 20.09	0.00 -40.82	0.00	0.00 199.50	199.50	-0.03 0.03	-0.13 0.13	0.00
P22	0.00	0.00 24.25	0.00 -16.55	0.00	0.00 -295.10	0.00	-0.01 0.01	0.20 -0.20	0.00
P23	0.00	0.00 20.59	0.00 13.86	13.86	0.00 89.89	89.89	0.01 -0.01	-0.06 0.06	0.00
P24	0.00	0.00 20.31	0.00 -37.32	0.00	0.00 224.13	224.13	-0.02 0.02	-0.15 0.15	0.00
P25	0.00	0.00 22.09	0.00 -133.25	0.00	0.00 -366.42	0.00	-0.09 0.09	0.24 -0.24	0.00
P26	0.00	0.00 16.96	0.00 965.42	965.42	0.00 2595.27	2595.27	0.64 -0.64	-1.73 1.73	0.00
P27	0.00	0.00 30.75	0.00 -328.88	0.00	0.00 1531.13	1531.13	-0.22 0.22	-1.02 1.02	0.00
P28	0.00	0.00 19.80	0.00 888.73	888.73	0.00 -4118.32	0.00	0.59 -0.59	2.75 -2.75	0.00


**CASO: 1.3G1+1.4G2+1.4Q+1.2D4**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 22.81	0.00 -541.64	0.00	0.00 1057.72	1057.72	-0.36 0.36	-0.71 0.71	0.00
P2	0.00	0.00 49.54	0.00 -618.70	0.00	0.00 -46.85	0.00	-0.41 0.41	0.03 -0.03	0.00
P3	0.00	0.00 47.63	0.00 -38.98	0.00	0.00 -316.32	0.00	-0.03 0.03	0.21 -0.21	0.00
P4	0.00	0.00 17.79	0.00 -24.98	0.00	0.00 413.50	413.50	-0.02 0.02	-0.28 0.28	0.00
P5	0.00	0.00 11.68	0.00 -411.80	0.00	0.00 992.42	992.42	-0.27 0.27	-0.66 0.66	0.00
P6	0.00	0.00 35.13	0.00 -76.70	0.00	0.00 87.87	87.87	-0.05 0.05	-0.06 0.06	0.00
P7	0.00	0.00 59.50	0.00 19.98	19.98	0.00 447.41	447.41	0.01 -0.01	-0.30 0.30	0.00
P8	0.00	0.00 49.58	0.00 230.54	230.54	0.00 467.40	467.40	0.15 -0.15	-0.31 0.31	0.00
P9	0.00	0.00 26.20	0.00 -13.62	0.00	0.00 439.36	439.36	-0.01 0.01	-0.29 0.29	0.00
P10	0.00	0.00 6.91	0.00 381.78	381.78	0.00 188.94	188.94	0.25 -0.25	-0.13 0.13	0.00
P11	0.00	0.00 3.81	0.00 118.52	118.52	0.00 273.21	273.21	0.08 -0.08	-0.18 0.18	0.00
P12	0.00	0.00 16.70	0.00 -245.42	0.00	0.00 44.96	44.96	-0.16 0.16	-0.03 0.03	0.00
P13	0.00	0.00 16.41	0.00 98.23	98.23	0.00 606.45	606.45	0.07 -0.07	-0.40 0.40	0.00
P14	0.00	0.00 11.68	0.00 -231.46	0.00	0.00 1021.87	1021.87	-0.15 0.15	-0.68 0.68	0.00
P15	0.00	0.00 17.06	0.00 -87.41	0.00	0.00 156.10	156.10	-0.06 0.06	-0.10 0.10	0.00
P16	0.00	0.00 18.20	0.00 55.46	55.46	0.00 165.67	165.67	0.04 -0.04	-0.11 0.11	0.00
P18	0.00	0.00 24.19	0.00 -586.70	0.00	0.00 -1542.59	0.00	-0.39 0.39	1.03 -1.03	0.00
P19	0.00	0.00 13.58	0.00 1173.57	1173.57	0.00 328.44	328.44	0.78 -0.78	-0.22 0.22	0.00
P20	0.00	0.00 19.35	0.00 -276.08	0.00	0.00 110.35	110.35	-0.18 0.18	-0.07 0.07	0.00

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P21	0.00	0.00 20.11	0.00 63.64	63.64	0.00 191.48	191.48	0.04 -0.04	-0.13 0.13	0.00
P22	0.00	0.00 24.31	0.00 256.95	256.95	0.00 -300.94	0.00	0.17 -0.17	0.20 -0.20	0.00
P23	0.00	0.00 20.54	0.00 239.18	239.18	0.00 85.69	85.69	0.16 -0.16	-0.06 0.06	0.00
P24	0.00	0.00 20.27	0.00 70.08	70.08	0.00 222.35	222.35	0.05 -0.05	-0.15 0.15	0.00
P25	0.00	0.00 22.02	0.00 148.83	148.83	0.00 -365.69	0.00	0.10 -0.10	0.24 -0.24	0.00
P26	0.00	0.00 17.11	0.00 1099.70	1099.70	0.00 2593.32	2593.32	0.73 -0.73	-1.73 1.73	0.00
P27	0.00	0.00 30.84	0.00 -176.67	0.00	0.00 1535.08	1535.08	-0.12 0.12	-1.02 1.02	0.00
P28	0.00	0.00 19.99	0.00 1054.74	1054.74	0.00 -4109.20	0.00	0.70 -0.70	2.74 -2.74	0.00

CASO: 1.3G1+1.4G2+1.4Q+D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 22.87	0.00 -679.01	0.00	0.00 977.69	977.69	-0.45 0.45	-0.65 0.65	0.00
P2	0.00	0.00 49.61	0.00 -741.58	0.00	0.00 -3.90	0.00	-0.49 0.49	0.00 0.00	0.00
P3	0.00	0.00 47.53	0.00 -33.07	0.00	0.00 -443.08	0.00	-0.02 0.02	0.30 -0.30	0.00
P4	0.00	0.00 18.17	0.00 -107.21	0.00	0.00 520.37	520.37	-0.07 0.07	-0.35 0.35	0.00
P5	0.00	0.00 11.72	0.00 -499.02	0.00	0.00 916.97	916.97	-0.33 0.33	-0.61 0.61	0.00
P6	0.00	0.00 35.20	0.00 -2.50	0.00	0.00 -77.74	0.00	0.00 0.00	0.05 -0.05	0.00
P7	0.00	0.00 59.65	0.00 178.12	178.12	0.00 400.10	400.10	0.12 -0.12	-0.27 0.27	0.00
P8	0.00	0.00 49.87	0.00 298.01	298.01	0.00 347.75	347.75	0.20 -0.20	-0.23 0.23	0.00
P9	0.00	0.00 25.81	0.00 157.86	157.86	0.00 334.80	334.80	0.11 -0.11	-0.22 0.22	0.00
P10	0.00	0.00 7.34	0.00 487.82	487.82	0.00 323.26	323.26	0.33 -0.33	-0.22 0.22	0.00
P11	0.00	0.00 3.45	0.00 -9.27	0.00	0.00 231.34	231.34	-0.01 0.01	-0.15 0.15	0.00
P12	0.00	0.00 16.67	0.00 -159.66	0.00	0.00 39.97	39.97	-0.11 0.11	-0.03 0.03	0.00
P13	0.00	0.00 16.09	0.00 151.46	151.46	0.00 487.02	487.02	0.10 -0.10	-0.32 0.32	0.00
P14	0.00	0.00 11.76	0.00 -269.22	0.00	0.00 1073.22	1073.22	-0.18 0.18	-0.72 0.72	0.00
P15	0.00	0.00 16.97	0.00 -217.83	0.00	0.00 119.36	119.36	-0.15 0.15	-0.08 0.08	0.00
P16	0.00	0.00 18.18	0.00 0.17	0.17	0.00 141.99	141.99	0.00 0.00	-0.09 0.09	0.00
P18	0.00	0.00 24.21	0.00 -764.94	0.00	0.00 -1620.44	0.00	-0.51 0.51	1.08 -1.08	0.00
P19	0.00	0.00 13.44	0.00 1099.21	1099.21	0.00 265.75	265.75	0.73 -0.73	-0.18 0.18	0.00
P20	0.00	0.00 19.31	0.00 -386.82	0.00	0.00 60.57	60.57	-0.26 0.26	-0.04 0.04	0.00
P21	0.00	0.00 20.11	0.00 10.51	10.51	0.00 150.46	150.46	0.01 -0.01	-0.10 0.10	0.00
P22	0.00	0.00	0.00	133.51	0.00	0.00	0.09	0.23	0.00

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		24.34	133.51		-342.13		-0.09	-0.23	
P23	0.00	0.00 20.54	0.00 125.34	125.34	0.00 34.13	34.13	0.08 -0.08	-0.02 0.02	0.00
P24	0.00	0.00 20.30	0.00 15.47	15.47	0.00 177.08	177.08	0.01 -0.01	-0.12 0.12	0.00
P25	0.00	0.00 22.07	0.00 3.26	3.26	0.00 -420.01	0.00	0.00 0.00	0.28 -0.28	0.00
P26	0.00	0.00 16.98	0.00 1031.76	1031.76	0.00 2516.26	2516.26	0.69 -0.69	-1.68 1.68	0.00
P27	0.00	0.00 30.80	0.00 -253.58	0.00	0.00 1409.54	1409.54	-0.17 0.17	-0.94 0.94	0.00
P28	0.00	0.00 19.93	0.00 969.92	969.92	0.00 -4181.37	0.00	0.65 -0.65	2.79 -2.79	0.00

CASO: 1.3G1+1.4G2+1.4Q+D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 23.10	0.00 -669.14	0.00	0.00 1117.38	1117.38	-0.45 0.45	-0.74 0.74	0.00
P2	0.00	0.00 49.48	0.00 -526.63	0.00	0.00 5.66	5.66	-0.35 0.35	0.00 0.00	0.00
P3	0.00	0.00 47.69	0.00 -39.93	0.00	0.00 -224.04	0.00	-0.03 0.03	0.15 -0.15	0.00
P4	0.00	0.00 17.90	0.00 39.35	39.35	0.00 542.59	542.59	0.03 -0.03	-0.36 0.36	0.00
P5	0.00	0.00 11.91	0.00 -497.84	0.00	0.00 1060.84	1060.84	-0.33 0.33	-0.71 0.71	0.00
P6	0.00	0.00 35.21	0.00 -150.47	0.00	0.00 -65.42	0.00	-0.10 0.10	0.04 -0.04	0.00
P7	0.00	0.00 59.62	0.00 -136.70	0.00	0.00 401.72	401.72	-0.09 0.09	-0.27 0.27	0.00
P8	0.00	0.00 49.85	0.00 164.52	164.52	0.00 343.59	343.59	0.11 -0.11	-0.23 0.23	0.00
P9	0.00	0.00 26.22	0.00 -179.35	0.00	0.00 321.37	321.37	-0.12 0.12	-0.21 0.21	0.00
P10	0.00	0.00 6.79	0.00 487.73	487.73	0.00 47.48	47.48	0.33 -0.33	-0.03 0.03	0.00
P11	0.00	0.00 3.63	0.00 -1.31	0.00	0.00 323.21	323.21	0.00 0.00	-0.22 0.22	0.00
P12	0.00	0.00 16.60	0.00 -338.98	0.00	0.00 40.06	40.06	-0.23 0.23	-0.03 0.03	0.00
P13	0.00	0.00 16.12	0.00 40.06	40.06	0.00 482.47	482.47	0.03 -0.03	-0.32 0.32	0.00
P14	0.00	0.00 11.74	0.00 -185.62	0.00	0.00 1104.03	1104.03	-0.12 0.12	-0.74 0.74	0.00
P15	0.00	0.00 17.01	0.00 -213.20	0.00	0.00 188.91	188.91	-0.14 0.14	-0.13 0.13	0.00
P16	0.00	0.00 18.17	0.00 1.90	1.90	0.00 196.31	196.31	0.00 0.00	-0.13 0.13	0.00
P18	0.00	0.00 23.97	0.00 -737.90	0.00	0.00 -1425.21	0.00	-0.49 0.49	0.95 -0.95	0.00
P19	0.00	0.00 13.61	0.00 1123.78	1123.78	0.00 416.01	416.01	0.75 -0.75	-0.28 0.28	0.00
P20	0.00	0.00 19.36	0.00 -381.58	0.00	0.00 168.29	168.29	-0.25 0.25	-0.11 0.11	0.00
P21	0.00	0.00 20.10	0.00 12.31	12.31	0.00 240.52	240.52	0.01 -0.01	-0.16 0.16	0.00
P22	0.00	0.00 24.22	0.00 106.88	106.88	0.00 -253.91	0.00	0.07 -0.07	0.17 -0.17	0.00
P23	0.00	0.00 20.59	0.00 127.70	127.70	0.00 141.44	141.44	0.09 -0.09	-0.09 0.09	0.00

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P24	0.00	0.00 20.28	0.00 17.29	17.29	0.00 269.41	269.41	0.01 -0.01	-0.18 0.18	0.00
P25	0.00	0.00 22.04	0.00 12.32	12.32	0.00 -312.10	0.00	0.01 -0.01	0.21 -0.21	0.00
P26	0.00	0.00 17.09	0.00 1033.36	1033.36	0.00 2672.33	2672.33	0.69 -0.69	-1.78 1.78	0.00
P27	0.00	0.00 30.78	0.00 -251.98	0.00	0.00 1656.67	1656.67	-0.17 0.17	-1.10 1.10	0.00
P28	0.00	0.00 19.86	0.00 973.55	973.55	0.00 -4046.15	0.00	0.65 -0.65	2.70 -2.70	0.00

CASO: 1.3G1+1.4G2+1.4Q+D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 23.13	0.00 -784.44	0.00	0.00 1039.05	1039.05	-0.52 0.52	-0.69 0.69	0.00
P2	0.00	0.00 49.56	0.00 -646.95	0.00	0.00 40.65	40.65	-0.43 0.43	-0.03 0.03	0.00
P3	0.00	0.00 47.59	0.00 -34.44	0.00	0.00 -347.93	0.00	-0.02 0.02	0.23 -0.23	0.00
P4	0.00	0.00 18.24	0.00 -41.38	0.00	0.00 629.80	629.80	-0.03 0.03	-0.42 0.42	0.00
P5	0.00	0.00 11.92	0.00 -570.63	0.00	0.00 985.97	985.97	-0.38 0.38	-0.66 0.66	0.00
P6	0.00	0.00 35.27	0.00 -76.31	0.00	0.00 -204.45	0.00	-0.05 0.05	0.14 -0.14	0.00
P7	0.00	0.00 59.75	0.00 21.32	21.32	0.00 362.16	362.16	0.01 -0.01	-0.24 0.24	0.00
P8	0.00	0.00 50.10	0.00 231.87	231.87	0.00 244.23	244.23	0.15 -0.15	-0.16 0.16	0.00
P9	0.00	0.00 25.87	0.00 -8.34	0.00	0.00 235.36	235.36	-0.01 0.01	-0.16 0.16	0.00
P10	0.00	0.00 7.20	0.00 576.10	576.10	0.00 182.39	182.39	0.38 -0.38	-0.12 0.12	0.00
P11	0.00	0.00 3.31	0.00 -108.46	0.00	0.00 280.67	280.67	-0.07 0.07	-0.19 0.19	0.00
P12	0.00	0.00 16.59	0.00 -252.57	0.00	0.00 35.89	35.89	-0.17 0.17	-0.02 0.02	0.00
P13	0.00	0.00 15.84	0.00 93.70	93.70	0.00 383.33	383.33	0.06 -0.06	-0.26 0.26	0.00
P14	0.00	0.00 11.81	0.00 -224.05	0.00	0.00 1144.25	1144.25	-0.15 0.15	-0.76 0.76	0.00
P15	0.00	0.00 16.94	0.00 -322.28	0.00	0.00 152.51	152.51	-0.21 0.21	-0.10 0.10	0.00
P16	0.00	0.00 18.16	0.00 -44.32	0.00	0.00 172.05	172.05	-0.03 0.03	-0.11 0.11	0.00
P18	0.00	0.00 24.00	0.00 -888.69	0.00	0.00 -1506.35	0.00	-0.59 0.59	1.00 -1.00	0.00
P19	0.00	0.00 13.48	0.00 1059.76	1059.76	0.00 351.25	351.25	0.71 -0.71	-0.23 0.23	0.00
P20	0.00	0.00 19.32	0.00 -474.29	0.00	0.00 117.83	117.83	-0.32 0.32	-0.08 0.08	0.00
P21	0.00	0.00 20.09	0.00 -32.12	0.00	0.00 198.84	198.84	-0.02 0.02	-0.13 0.13	0.00
P22	0.00	0.00 24.25	0.00 6.24	6.24	0.00 -295.58	0.00	0.00 0.00	0.20 -0.20	0.00
P23	0.00	0.00 20.59	0.00 32.64	32.64	0.00 89.54	89.54	0.02 -0.02	-0.06 0.06	0.00
P24	0.00	0.00 20.31	0.00 -28.37	0.00	0.00 223.98	223.98	-0.02 0.02	-0.15 0.15	0.00
P25	0.00	0.00	0.00	0.00	0.00	0.00	-0.07	0.24	0.00




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Plena

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Rezende  
Rezende Engenharia

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		22.08	-109.74		-366.36		0.07	-0.24	
P26	0.00	0.00 16.97	0.00 976.61	976.61	0.00 2595.11	2595.11	0.65 -0.65	-1.73 1.73	0.00
P27	0.00	0.00 30.75	0.00 -316.19	0.00	0.00 1531.46	1531.46	-0.21 0.21	-1.02 1.02	0.00
P28	0.00	0.00 19.82	0.00 902.57	902.57	0.00 -4117.56	0.00	0.60 -0.60	2.75 -2.75	0.00


CASO: 1.3G1+1.4G2+1.4Q+D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 22.84	0.00 -563.71	0.00	0.00 1056.03	1056.03	-0.38 0.38	-0.70 0.70	0.00
P2	0.00	0.00 49.54	0.00 -621.26	0.00	0.00 -38.89	0.00	-0.41 0.41	0.03 -0.03	0.00
P3	0.00	0.00 47.63	0.00 -38.57	0.00	0.00 -319.19	0.00	-0.03 0.03	0.21 -0.21	0.00
P4	0.00	0.00 17.83	0.00 -26.48	0.00	0.00 433.16	433.16	-0.02 0.02	-0.29 0.29	0.00
P5	0.00	0.00 11.70	0.00 -426.24	0.00	0.00 991.83	991.83	-0.28 0.28	-0.66 0.66	0.00
P6	0.00	0.00 35.15	0.00 -76.67	0.00	0.00 61.29	61.29	-0.05 0.05	-0.04 0.04	0.00
P7	0.00	0.00 59.53	0.00 20.11	20.11	0.00 439.66	439.66	0.01 -0.01	-0.29 0.29	0.00
P8	0.00	0.00 49.62	0.00 230.66	230.66	0.00 447.11	447.11	0.15 -0.15	-0.30 0.30	0.00
P9	0.00	0.00 26.17	0.00 -13.14	0.00	0.00 420.82	420.82	-0.01 0.01	-0.28 0.28	0.00
P10	0.00	0.00 6.94	0.00 399.45	399.45	0.00 188.34	188.34	0.27 -0.27	-0.13 0.13	0.00
P11	0.00	0.00 3.76	0.00 97.88	97.88	0.00 273.88	273.88	0.07 -0.07	-0.18 0.18	0.00
P12	0.00	0.00 16.69	0.00 -246.07	0.00	0.00 44.13	44.13	-0.16 0.16	-0.03 0.03	0.00
P13	0.00	0.00 16.36	0.00 97.82	97.82	0.00 586.16	586.16	0.07 -0.07	-0.39 0.39	0.00
P14	0.00	0.00 11.69	0.00 -230.79	0.00	0.00 1033.00	1033.00	-0.15 0.15	-0.69 0.69	0.00
P15	0.00	0.00 17.04	0.00 -108.76	0.00	0.00 155.77	155.77	-0.07 0.07	-0.10 0.10	0.00
P16	0.00	0.00 18.20	0.00 46.39	46.39	0.00 166.25	166.25	0.03 -0.03	-0.11 0.11	0.00
P18	0.00	0.00 24.18	0.00 -614.15	0.00	0.00 -1539.30	0.00	-0.41 0.41	1.03 -1.03	0.00
P19	0.00	0.00 13.57	0.00 1163.23	1163.23	0.00 330.51	330.51	0.78 -0.78	-0.22 0.22	0.00
P20	0.00	0.00 19.34	0.00 -294.10	0.00	0.00 111.03	111.03	-0.20 0.20	-0.07 0.07	0.00
P21	0.00	0.00 20.11	0.00 54.94	54.94	0.00 192.15	192.15	0.04 -0.04	-0.13 0.13	0.00
P22	0.00	0.00 24.30	0.00 234.15	234.15	0.00 -300.46	0.00	0.16 -0.16	0.20 -0.20	0.00
P23	0.00	0.00 20.54	0.00 220.40	220.40	0.00 86.04	86.04	0.15 -0.15	-0.06 0.06	0.00
P24	0.00	0.00 20.27	0.00 61.13	61.13	0.00 222.50	222.50	0.04 -0.04	-0.15 0.15	0.00
P25	0.00	0.00 22.03	0.00 125.32	125.32	0.00 -365.75	0.00	0.08 -0.08	0.24 -0.24	0.00
P26	0.00	0.00 17.10	0.00 1088.51	1088.51	0.00 2593.48	2593.48	0.73 -0.73	-1.73 1.73	0.00

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P27	0.00	0.00 30.83	0.00 -189.36	0.00	0.00 1534.76	1534.76	-0.13 0.13	-1.02 1.02	0.00
P28	0.00	0.00 19.98	0.00 1040.91	1040.91	0.00 -4109.96	0.00	0.69 -0.69	2.74 -2.74	0.00

CASO: 1.3G1+1.4G2+1.4V1+0.84D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 11.91	0.00 -691.33	0.00	0.00 576.55	576.55	-0.46 0.46	-0.38 0.38	0.00
P2	0.00	0.00 21.38	0.00 -1195.36	0.00	0.00 -238.27	0.00	-0.80 0.80	0.16 -0.16	0.00
P3	0.00	0.00 18.21	0.00 184.02	184.02	0.00 -1006.28	0.00	0.12 -0.12	0.67 -0.67	0.00
P4	0.00	0.00 10.01	0.00 -593.72	0.00	0.00 426.41	426.41	-0.40 0.40	-0.28 0.28	0.00
P5	0.00	0.00 10.80	0.00 -482.42	0.00	0.00 461.58	461.58	-0.32 0.32	-0.31 0.31	0.00
P6	0.00	0.00 22.22	0.00 485.74	485.74	0.00 281.78	281.78	0.32 -0.32	-0.19 0.19	0.00
P7	0.00	0.00 28.93	0.00 1131.16	1131.16	0.00 6.17	6.17	0.75 -0.75	0.00 0.00	0.00
P8	0.00	0.00 24.71	0.00 707.06	707.06	0.00 6.34	6.34	0.47 -0.47	0.00 0.00	0.00
P9	0.00	0.00 13.62	0.00 1138.08	1138.08	0.00 359.51	359.51	0.76 -0.76	-0.24 0.24	0.00
P10	0.00	0.00 10.19	0.00 477.99	477.99	0.00 1124.10	1124.10	0.32 -0.32	-0.75 0.75	0.00
P11	0.00	0.00 4.78	0.00 141.16	141.16	0.00 -88.50	0.00	0.09 -0.09	0.06 -0.06	0.00
P12	0.00	0.00 15.31	0.00 447.52	447.52	0.00 -0.20	0.00	0.30 -0.30	0.00 0.00	0.00
P13	0.00	0.00 14.74	0.00 535.21	535.21	0.00 170.80	170.80	0.36 -0.36	-0.11 0.11	0.00
P14	0.00	0.00 11.80	0.00 -546.98	0.00	0.00 958.52	958.52	-0.36 0.36	-0.64 0.64	0.00
P15	0.00	0.00 16.85	0.00 -223.07	0.00	0.00 -119.10	0.00	-0.15 0.15	0.08 -0.08	0.00
P16	0.00	0.00 18.85	0.00 10.67	10.67	0.00 -133.20	0.00	0.01 -0.01	0.09 -0.09	0.00
P18	0.00	0.00 25.22	0.00 -866.05	0.00	0.00 -2259.78	0.00	-0.58 0.58	1.51 -1.51	0.00
P19	0.00	0.00 12.74	0.00 998.72	998.72	0.00 -310.06	0.00	0.67 -0.67	0.21 -0.21	0.00
P20	0.00	0.00 19.09	0.00 -390.84	0.00	0.00 -318.38	0.00	-0.26 0.26	0.21 -0.21	0.00
P21	0.00	0.00 20.12	0.00 10.68	10.68	0.00 -270.66	0.00	0.01 -0.01	0.18 -0.18	0.00
P22	0.00	0.00 24.84	0.00 245.51	245.51	0.00 -608.81	0.00	0.16 -0.16	0.41 -0.41	0.00
P23	0.00	0.00 20.34	0.00 131.00	131.00	0.00 -321.94	0.00	0.09 -0.09	0.21 -0.21	0.00
P24	0.00	0.00 20.35	0.00 17.62	17.62	0.00 -236.23	0.00	0.01 -0.01	0.16 -0.16	0.00
P25	0.00	0.00 22.21	0.00 -26.05	0.00	0.00 -778.44	0.00	-0.02 0.02	0.52 -0.52	0.00
P26	0.00	0.00 16.57	0.00 1035.43	1035.43	0.00 1990.86	1990.86	0.69 -0.69	-1.33 1.33	0.00
P27	0.00	0.00 30.92	0.00 -252.69	0.00	0.00 525.80	525.80	-0.17 0.17	-0.35 0.35	0.00
P28	0.00	0.00	0.00	957.89	0.00	0.00	0.64	3.08	0.00



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		20.24	957.89		-4621.27		-0.64	-3.08	
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CASO: 1.3G1+1.4G2+1.4V2+0.84D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 13.58	0.00 -702.53	0.00	0.00 1461.52	1461.52	-0.47 0.47	-0.97 0.97	0.00
P2	0.00	0.00 20.54	0.00 186.37	186.37	0.00 -162.89	0.00	0.12 -0.12	0.11 -0.11	0.00
P3	0.00	0.00 19.28	0.00 118.34	118.34	0.00 406.60	406.60	0.08 -0.08	-0.27 0.27	0.00
P4	0.00	0.00 8.10	0.00 340.67	340.67	0.00 523.29	523.29	0.23 -0.23	-0.35 0.35	0.00
P5	0.00	0.00 12.27	0.00 -520.39	0.00	0.00 1395.30	1395.30	-0.35 0.35	-0.93 0.93	0.00
P6	0.00	0.00 22.29	0.00 -553.70	0.00	0.00 254.57	254.57	-0.37 0.37	-0.17 0.17	0.00
P7	0.00	0.00 28.77	0.00 -1021.41	0.00	0.00 20.18	20.18	-0.68 0.68	-0.01 0.01	0.00
P8	0.00	0.00 24.52	0.00 -229.71	0.00	0.00 -26.96	0.00	-0.15 0.15	0.02 -0.02	0.00
P9	0.00	0.00 16.73	0.00 -1220.05	0.00	0.00 322.57	322.57	-0.81 0.81	-0.22 0.22	0.00
P10	0.00	0.00 6.03	0.00 397.08	397.08	0.00 -762.44	0.00	0.26 -0.26	0.51 -0.51	0.00
P11	0.00	0.00 6.13	0.00 109.57	109.57	0.00 657.22	657.22	0.07 -0.07	-0.44 0.44	0.00
P12	0.00	0.00 14.66	0.00 -978.39	0.00	0.00 1.11	1.11	-0.65 0.65	0.00 0.00	0.00
P13	0.00	0.00 15.08	0.00 -376.31	0.00	0.00 134.45	134.45	-0.25 0.25	-0.09 0.09	0.00
P14	0.00	0.00 11.61	0.00 124.25	124.25	0.00 1213.18	1213.18	0.08 -0.08	-0.81 0.81	0.00
P15	0.00	0.00 17.13	0.00 -239.54	0.00	0.00 429.43	429.43	-0.16 0.16	-0.29 0.29	0.00
P16	0.00	0.00 18.71	0.00 -0.29	0.00	0.00 471.59	471.59	0.00 0.00	-0.31 0.31	0.00
P18	0.00	0.00 23.10	0.00 -497.25	0.00	0.00 -767.73	0.00	-0.33 0.33	0.51 -0.51	0.00
P19	0.00	0.00 14.36	0.00 1229.72	1229.72	0.00 988.41	988.41	0.82 -0.82	-0.66 0.66	0.00
P20	0.00	0.00 19.57	0.00 -401.49	0.00	0.00 547.88	547.88	-0.27 0.27	-0.37 0.37	0.00
P21	0.00	0.00 20.04	0.00 1.74	1.74	0.00 661.55	661.55	0.00 0.00	-0.44 0.44	0.00
P22	0.00	0.00 23.73	0.00 104.63	104.63	0.00 12.25	12.25	0.07 -0.07	-0.01 0.01	0.00
P23	0.00	0.00 20.80	0.00 96.17	96.17	0.00 497.48	497.48	0.06 -0.06	-0.33 0.33	0.00
P24	0.00	0.00 20.24	0.00 8.08	8.08	0.00 682.59	682.59	0.01 -0.01	-0.46 0.46	0.00
P25	0.00	0.00 21.87	0.00 157.33	157.33	0.00 45.25	45.25	0.10 -0.10	-0.03 0.03	0.00
P26	0.00	0.00 17.48	0.00 1016.61	1016.61	0.00 3200.78	3200.78	0.68 -0.68	-2.13 2.13	0.00
P27	0.00	0.00 30.66	0.00 -259.33	0.00	0.00 2542.98	2542.98	-0.17 0.17	-1.70 1.70	0.00
P28	0.00	0.00 19.64	0.00 1043.38	1043.38	0.00 -3603.60	0.00	0.70 -0.70	2.40 -2.40	0.00



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CASO: 1.3G1+1.4G2+1.4V3+0.84D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 13.54	0.00 -1271.87	0.00	0.00 975.36	975.36	-0.85 0.85	-0.65 0.65	0.00
P2	0.00	0.00 21.01	0.00 -569.03	0.00	0.00 -18.45	0.00	-0.38 0.38	0.01 -0.01	0.00
P3	0.00	0.00 18.65	0.00 196.93	196.93	0.00 -374.09	0.00	0.13 -0.13	0.25 -0.25	0.00
P4	0.00	0.00 10.20	0.00 -164.58	0.00	0.00 1017.89	1017.89	-0.11 0.11	-0.68 0.68	0.00
P5	0.00	0.00 12.35	0.00 -977.03	0.00	0.00 909.86	909.86	-0.65 0.65	-0.61 0.61	0.00
P6	0.00	0.00 22.58	0.00 -33.38	0.00	0.00 -442.73	0.00	-0.02 0.02	0.30 -0.30	0.00
P7	0.00	0.00 29.50	0.00 56.26	56.26	0.00 -110.50	0.00	0.04 -0.04	0.07 -0.07	0.00
P8	0.00	0.00 25.91	0.00 241.43	241.43	0.00 -529.06	0.00	0.16 -0.16	0.35 -0.35	0.00
P9	0.00	0.00 14.35	0.00 -30.37	0.00	0.00 -172.40	0.00	-0.02 0.02	0.11 -0.11	0.00
P10	0.00	0.00 9.00	0.00 979.02	979.02	0.00 159.43	159.43	0.65 -0.65	-0.11 0.11	0.00
P11	0.00	0.00 4.23	0.00 -424.71	0.00	0.00 304.19	304.19	-0.28 0.28	-0.20 0.20	0.00
P12	0.00	0.00 14.66	0.00 -285.53	0.00	0.00 -9.22	0.00	-0.19 0.19	0.01 -0.01	0.00
P13	0.00	0.00 13.48	0.00 66.10	66.10	0.00 -366.10	0.00	0.04 -0.04	0.24 -0.24	0.00
P14	0.00	0.00 12.08	0.00 -192.31	0.00	0.00 1409.49	1409.49	-0.13 0.13	-0.94 0.94	0.00
P15	0.00	0.00 16.60	0.00 -969.44	0.00	0.00 147.70	147.70	-0.65 0.65	-0.10 0.10	0.00
P16	0.00	0.00 18.67	0.00 -287.63	0.00	0.00 180.10	180.10	-0.19 0.19	-0.12 0.12	0.00
P18	0.00	0.00 23.61	0.00 -1555.62	0.00	0.00 -1449.84	0.00	-1.04 1.04	0.97 -0.97	0.00
P19	0.00	0.00 13.24	0.00 807.20	807.20	0.00 397.82	397.82	0.54 -0.54	-0.27 0.27	0.00
P20	0.00	0.00 19.24	0.00 -1006.89	0.00	0.00 132.29	132.29	-0.67 0.67	-0.09 0.09	0.00
P21	0.00	0.00 20.02	0.00 -276.43	0.00	0.00 212.43	212.43	-0.18 0.18	-0.14 0.14	0.00
P22	0.00	0.00 24.12	0.00 -538.58	0.00	0.00 -286.59	0.00	-0.36 0.36	0.19 -0.19	0.00
P23	0.00	0.00 20.73	0.00 -522.03	0.00	0.00 95.92	95.92	-0.35 0.35	-0.06 0.06	0.00
P24	0.00	0.00 20.40	0.00 -278.11	0.00	0.00 226.87	226.87	-0.19 0.19	-0.15 0.15	0.00
P25	0.00	0.00 22.22	0.00 -672.18	0.00	0.00 -367.63	0.00	-0.45 0.45	0.25 -0.25	0.00
P26	0.00	0.00 16.55	0.00 669.03	669.03	0.00 2602.05	2602.05	0.45 -0.45	-1.73 1.73	0.00
P27	0.00	0.00 30.57	0.00 -526.91	0.00	0.00 1526.40	1526.40	-0.35 0.35	-1.02 1.02	0.00
P28	0.00	0.00 19.40	0.00 589.68	589.68	0.00 -4132.96	0.00	0.39 -0.39	2.76 -2.76	0.00

CASO: 1.3G1+1.4G2+1.4V4+0.84D4									
Elemento	Carga (kgf/m)	Rd Nd	Mxi Mxf	MxMáx (kgf.m)	Myi Myf	MyMáx (kgf.m)	Vxi Vxf	Vyi Vyf	Mtd (kgf/m)



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		(tf)	(kgf.m)		(kgf.m)		(tf)	(tf)	
P1	0.00	0.00 11.95	0.00 -121.98	0.00	0.00 1062.71	1062.71	-0.08 0.08	-0.71 0.71	0.00
P2	0.00	0.00 20.92	0.00 -439.96	0.00	0.00 -382.72	0.00	-0.29 0.29	0.26 -0.26	0.00
P3	0.00	0.00 18.84	0.00 105.44	105.44	0.00 -225.59	0.00	0.07 -0.07	0.15 -0.15	0.00
P4	0.00	0.00 7.91	0.00 -88.46	0.00	0.00 -68.18	0.00	-0.06 0.06	0.05 -0.05	0.00
P5	0.00	0.00 10.72	0.00 -25.78	0.00	0.00 947.02	947.02	-0.02 0.02	-0.63 0.63	0.00
P6	0.00	0.00 21.93	0.00 -34.59	0.00	0.00 979.08	979.08	-0.02 0.02	-0.65 0.65	0.00
P7	0.00	0.00 28.20	0.00 53.49	53.49	0.00 136.86	136.86	0.04 -0.04	-0.09 0.09	0.00
P8	0.00	0.00 23.32	0.00 235.92	235.92	0.00 508.44	508.44	0.16 -0.16	-0.34 0.34	0.00
P9	0.00	0.00 16.00	0.00 -51.60	0.00	0.00 854.48	854.48	-0.03 0.03	-0.57 0.57	0.00
P10	0.00	0.00 7.23	0.00 -103.94	0.00	0.00 202.23	202.23	-0.07 0.07	-0.13 0.13	0.00
P11	0.00	0.00 6.68	0.00 675.43	675.43	0.00 264.53	264.53	0.45 -0.45	-0.18 0.18	0.00
P12	0.00	0.00 15.31	0.00 -245.35	0.00	0.00 10.13	10.13	-0.16 0.16	-0.01 0.01	0.00
P13	0.00	0.00 16.34	0.00 92.80	92.80	0.00 671.35	671.35	0.06 -0.06	-0.45 0.45	0.00
P14	0.00	0.00 11.34	0.00 -230.42	0.00	0.00 762.21	762.21	-0.15 0.15	-0.51 0.51	0.00
P15	0.00	0.00 17.37	0.00 506.83	506.83	0.00 162.63	162.63	0.34 -0.34	-0.11 0.11	0.00
P16	0.00	0.00 18.89	0.00 298.01	298.01	0.00 158.29	158.29	0.20 -0.20	-0.11 0.11	0.00
P18	0.00	0.00 24.71	0.00 192.32	192.32	0.00 -1577.67	0.00	0.13 -0.13	1.05 -1.05	0.00
P19	0.00	0.00 13.85	0.00 1421.23	1421.23	0.00 280.53	280.53	0.95 -0.95	-0.19 0.19	0.00
P20	0.00	0.00 19.42	0.00 214.57	214.57	0.00 97.21	97.21	0.14 -0.14	-0.06 0.06	0.00
P21	0.00	0.00 20.13	0.00 288.85	288.85	0.00 178.45	178.45	0.19 -0.19	-0.12 0.12	0.00
P22	0.00	0.00 24.45	0.00 888.72	888.72	0.00 -309.97	0.00	0.59 -0.59	0.21 -0.21	0.00
P23	0.00	0.00 20.41	0.00 749.20	749.20	0.00 79.61	79.61	0.50 -0.50	-0.05 0.05	0.00
P24	0.00	0.00 20.19	0.00 303.81	303.81	0.00 219.49	219.49	0.20 -0.20	-0.15 0.15	0.00
P25	0.00	0.00 21.86	0.00 803.46	803.46	0.00 -365.56	0.00	0.54 -0.54	0.24 -0.24	0.00
P26	0.00	0.00 17.50	0.00 1383.01	1383.01	0.00 2589.60	2589.60	0.92 -0.92	-1.73 1.73	0.00
P27	0.00	0.00 31.00	0.00 14.89	14.89	0.00 1542.38	1542.38	0.01 -0.01	-1.03 1.03	0.00
P28	0.00	0.00 20.49	0.00 1411.59	1411.59	0.00 -4091.92	0.00	0.94 -0.94	2.73 -2.73	0.00

**CASO: 1.3G1+1.4G2+D1**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 12.63	0.00 -701.87	0.00	0.00 949.19	949.19	-0.47 0.47	-0.63 0.63	0.00



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P2	0.00	0.00 21.03	0.00 -611.97	0.00	0.00 -205.36	0.00	-0.41 0.41	0.14 -0.14	0.00
P3	0.00	0.00 18.67	0.00 154.61	154.61	0.00 -409.36	0.00	0.10 -0.10	0.27 -0.27	0.00
P4	0.00	0.00 9.19	0.00 -199.80	0.00	0.00 463.74	463.74	-0.13 0.13	-0.31 0.31	0.00
P5	0.00	0.00 11.44	0.00 -501.99	0.00	0.00 856.51	856.51	-0.33 0.33	-0.57 0.57	0.00
P6	0.00	0.00 22.26	0.00 40.00	40.00	0.00 262.01	262.01	0.03 -0.03	-0.17 0.17	0.00
P7	0.00	0.00 28.87	0.00 212.29	212.29	0.00 12.37	12.37	0.14 -0.14	-0.01 0.01	0.00
P8	0.00	0.00 24.63	0.00 305.42	305.42	0.00 -8.23	0.00	0.20 -0.20	0.01 -0.01	0.00
P9	0.00	0.00 14.97	0.00 127.62	127.62	0.00 347.75	347.75	0.09 -0.09	-0.23 0.23	0.00
P10	0.00	0.00 8.39	0.00 437.58	437.58	0.00 318.72	318.72	0.29 -0.29	-0.21 0.21	0.00
P11	0.00	0.00 5.36	0.00 121.38	121.38	0.00 238.43	238.43	0.08 -0.08	-0.16 0.16	0.00
P12	0.00	0.00 15.02	0.00 -175.78	0.00	0.00 0.41	0.41	-0.12 0.12	0.00 0.00	0.00
P13	0.00	0.00 14.89	0.00 135.15	135.15	0.00 154.90	154.90	0.09 -0.09	-0.10 0.10	0.00
P14	0.00	0.00 11.72	0.00 -253.17	0.00	0.00 1070.44	1070.44	-0.17 0.17	-0.71 0.71	0.00
P15	0.00	0.00 16.97	0.00 -233.63	0.00	0.00 120.39	120.39	-0.16 0.16	-0.08 0.08	0.00
P16	0.00	0.00 18.79	0.00 4.33	4.33	0.00 142.03	142.03	0.00 0.00	-0.09 0.09	0.00
P18	0.00	0.00 24.28	0.00 -695.17	0.00	0.00 -1611.37	0.00	-0.46 0.46	1.07 -1.07	0.00
P19	0.00	0.00 13.46	0.00 1101.93	1101.93	0.00 264.05	264.05	0.73 -0.73	-0.18 0.18	0.00
P20	0.00	0.00 19.30	0.00 -398.79	0.00	0.00 60.89	60.89	-0.27 0.27	-0.04 0.04	0.00
P21	0.00	0.00 20.08	0.00 5.31	5.31	0.00 150.41	150.41	0.00 0.00	-0.10 0.10	0.00
P22	0.00	0.00 24.34	0.00 188.39	188.39	0.00 -342.39	0.00	0.13 -0.13	0.23 -0.23	0.00
P23	0.00	0.00 20.54	0.00 112.41	112.41	0.00 34.11	34.11	0.07 -0.07	-0.02 0.02	0.00
P24	0.00	0.00 20.30	0.00 11.94	11.94	0.00 177.01	177.01	0.01 -0.01	-0.12 0.12	0.00
P25	0.00	0.00 22.06	0.00 61.11	61.11	0.00 -420.55	0.00	0.04 -0.04	0.28 -0.28	0.00
P26	0.00	0.00 16.97	0.00 1025.22	1025.22	0.00 2517.79	2517.79	0.68 -0.68	-1.68 1.68	0.00
P27	0.00	0.00 30.80	0.00 -256.81	0.00	0.00 1410.82	1410.82	-0.17 0.17	-0.94 0.94	0.00
P28	0.00	0.00 19.98	0.00 998.82	998.82	0.00 -4180.05	0.00	0.67 -0.67	2.79 -2.79	0.00

**CASO: 1.3G1+1.4G2+D2**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 12.86	0.00 -691.99	0.00	0.00 1088.88	1088.88	-0.46 0.46	-0.73 0.73	0.00
P2	0.00	0.00 20.90	0.00 -397.02	0.00	0.00 -195.80	0.00	-0.26 0.26	0.13 -0.13	0.00
P3	0.00	0.00	0.00	147.76	0.00	0.00	0.10	0.13	0.00



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		18.82	147.76		-190.32		-0.10	-0.13	
P4	0.00	0.00 8.92	0.00 -53.24	0.00	0.00 485.97	485.97	-0.04 0.04	-0.32 0.32	0.00
P5	0.00	0.00 11.63	0.00 -500.82	0.00	0.00 1000.38	1000.38	-0.33 0.33	-0.67 0.67	0.00
P6	0.00	0.00 22.26	0.00 -107.97	0.00	0.00 274.34	274.34	-0.07 0.07	-0.18 0.18	0.00
P7	0.00	0.00 28.84	0.00 -102.53	0.00	0.00 13.99	13.99	-0.07 0.07	-0.01 0.01	0.00
P8	0.00	0.00 24.60	0.00 171.93	171.93	0.00 -12.39	0.00	0.11 -0.11	0.01 -0.01	0.00
P9	0.00	0.00 15.38	0.00 -209.59	0.00	0.00 334.33	334.33	-0.14 0.14	-0.22 0.22	0.00
P10	0.00	0.00 7.84	0.00 437.49	437.49	0.00 42.94	42.94	0.29 -0.29	-0.03 0.03	0.00
P11	0.00	0.00 5.54	0.00 129.34	129.34	0.00 330.29	330.29	0.09 -0.09	-0.22 0.22	0.00
P12	0.00	0.00 14.95	0.00 -355.10	0.00	0.00 0.50	0.50	-0.24 0.24	0.00 0.00	0.00
P13	0.00	0.00 14.93	0.00 23.75	23.75	0.00 150.35	150.35	0.02 -0.02	-0.10 0.10	0.00
P14	0.00	0.00 11.70	0.00 -169.57	0.00	0.00 1101.25	1101.25	-0.11 0.11	-0.73 0.73	0.00
P15	0.00	0.00 17.01	0.00 -228.99	0.00	0.00 189.94	189.94	-0.15 0.15	-0.13 0.13	0.00
P16	0.00	0.00 18.77	0.00 6.05	6.05	0.00 196.36	196.36	0.00 0.00	-0.13 0.13	0.00
P18	0.00	0.00 24.04	0.00 -668.13	0.00	0.00 -1416.14	0.00	-0.45 0.45	0.94 -0.94	0.00
P19	0.00	0.00 13.64	0.00 1126.50	1126.50	0.00 414.30	414.30	0.75 -0.75	-0.28 0.28	0.00
P20	0.00	0.00 19.36	0.00 -393.54	0.00	0.00 168.61	168.61	-0.26 0.26	-0.11 0.11	0.00
P21	0.00	0.00 20.07	0.00 7.11	7.11	0.00 240.47	240.47	0.00 0.00	-0.16 0.16	0.00
P22	0.00	0.00 24.23	0.00 161.76	161.76	0.00 -254.17	0.00	0.11 -0.11	0.17 -0.17	0.00
P23	0.00	0.00 20.59	0.00 114.76	114.76	0.00 141.42	141.42	0.08 -0.08	-0.09 0.09	0.00
P24	0.00	0.00 20.29	0.00 13.76	13.76	0.00 269.34	269.34	0.01 -0.01	-0.18 0.18	0.00
P25	0.00	0.00 22.02	0.00 70.17	70.17	0.00 -312.64	0.00	0.05 -0.05	0.21 -0.21	0.00
P26	0.00	0.00 17.07	0.00 1026.82	1026.82	0.00 2673.86	2673.86	0.68 -0.68	-1.78 1.78	0.00
P27	0.00	0.00 30.78	0.00 -255.21	0.00	0.00 1657.95	1657.95	-0.17 0.17	-1.11 1.11	0.00
P28	0.00	0.00 19.91	0.00 1002.45	1002.45	0.00 -4044.83	0.00	0.67 -0.67	2.70 -2.70	0.00

**CASO: 1.3G1+1.4G2+D3**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 12.89	0.00 -807.29	0.00	0.00 1010.55	1010.55	-0.54 0.54	-0.67 0.67	0.00
P2	0.00	0.00 20.97	0.00 -517.34	0.00	0.00 -160.81	0.00	-0.34 0.34	0.11 -0.11	0.00
P3	0.00	0.00 18.73	0.00 153.25	153.25	0.00 -314.21	0.00	0.10 -0.10	0.21 -0.21	0.00
P4	0.00	0.00 9.26	0.00 -133.98	0.00	0.00 573.18	573.18	-0.09 0.09	-0.38 0.38	0.00



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P5	0.00	0.00 11.65	0.00 -573.60	0.00	0.00 925.51	925.51	-0.38 0.38	-0.62 0.62	0.00
P6	0.00	0.00 22.32	0.00 -33.80	0.00	0.00 135.30	135.30	-0.02 0.02	-0.09 0.09	0.00
P7	0.00	0.00 28.96	0.00 55.48	55.48	0.00 -25.57	0.00	0.04 -0.04	0.02 -0.02	0.00
P8	0.00	0.00 24.85	0.00 239.28	239.28	0.00 -111.75	0.00	0.16 -0.16	0.07 -0.07	0.00
P9	0.00	0.00 15.03	0.00 -38.59	0.00	0.00 248.31	248.31	-0.03 0.03	-0.17 0.17	0.00
P10	0.00	0.00 8.24	0.00 525.87	525.87	0.00 177.85	177.85	0.35 -0.35	-0.12 0.12	0.00
P11	0.00	0.00 5.23	0.00 22.19	22.19	0.00 287.75	287.75	0.01 -0.01	-0.19 0.19	0.00
P12	0.00	0.00 14.93	0.00 -268.69	0.00	0.00 -3.67	0.00	-0.18 0.18	0.00 0.00	0.00
P13	0.00	0.00 14.65	0.00 77.39	77.39	0.00 51.21	51.21	0.05 -0.05	-0.03 0.03	0.00
P14	0.00	0.00 11.77	0.00 -208.00	0.00	0.00 1141.48	1141.48	-0.14 0.14	-0.76 0.76	0.00
P15	0.00	0.00 16.93	0.00 -338.07	0.00	0.00 153.53	153.53	-0.23 0.23	-0.10 0.10	0.00
P16	0.00	0.00 18.76	0.00 -40.17	0.00	0.00 172.10	172.10	-0.03 0.03	-0.11 0.11	0.00
P18	0.00	0.00 24.07	0.00 -818.92	0.00	0.00 -1497.29	0.00	-0.55 0.55	1.00 -1.00	0.00
P19	0.00	0.00 13.51	0.00 1062.48	1062.48	0.00 349.54	349.54	0.71 -0.71	-0.23 0.23	0.00
P20	0.00	0.00 19.32	0.00 -486.26	0.00	0.00 118.15	118.15	-0.32 0.32	-0.08 0.08	0.00
P21	0.00	0.00 20.07	0.00 -37.32	0.00	0.00 198.78	198.78	-0.02 0.02	-0.13 0.13	0.00
P22	0.00	0.00 24.26	0.00 61.11	61.11	0.00 -295.84	0.00	0.04 -0.04	0.20 -0.20	0.00
P23	0.00	0.00 20.59	0.00 19.70	19.70	0.00 89.52	89.52	0.01 -0.01	-0.06 0.06	0.00
P24	0.00	0.00 20.31	0.00 -31.90	0.00	0.00 223.92	223.92	-0.02 0.02	-0.15 0.15	0.00
P25	0.00	0.00 22.07	0.00 -51.89	0.00	0.00 -366.90	0.00	-0.03 0.03	0.24 -0.24	0.00
P26	0.00	0.00 16.96	0.00 970.07	970.07	0.00 2596.64	2596.64	0.65 -0.65	-1.73 1.73	0.00
P27	0.00	0.00 30.75	0.00 -319.43	0.00	0.00 1532.74	1532.74	-0.21 0.21	-1.02 1.02	0.00
P28	0.00	0.00 19.86	0.00 931.47	931.47	0.00 -4116.24	0.00	0.62 -0.62	2.74 -2.74	0.00

**CASO: 1.3G1+1.4G2+D4**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 12.60	0.00 -586.56	0.00	0.00 1027.53	1027.53	-0.39 0.39	-0.69 0.69	0.00
P2	0.00	0.00 20.95	0.00 -491.65	0.00	0.00 -240.36	0.00	-0.33 0.33	0.16 -0.16	0.00
P3	0.00	0.00 18.76	0.00 149.12	149.12	0.00 -285.47	0.00	0.10 -0.10	0.19 -0.19	0.00
P4	0.00	0.00 8.85	0.00 -119.07	0.00	0.00 376.53	376.53	-0.08 0.08	-0.25 0.25	0.00
P5	0.00	0.00 11.42	0.00 -429.21	0.00	0.00 931.37	931.37	-0.29 0.29	-0.62 0.62	0.00
P6	0.00	0.00	0.00	0.00	0.00	401.05	-0.02	-0.27	0.00

		22.20	-34.16		401.05		0.02	0.27	
P7	0.00	0.00 28.74	0.00 54.27	54.27	0.00 51.93	51.93	0.04 -0.04	-0.03 0.03	0.00
P8	0.00	0.00 24.38	0.00 238.07	238.07	0.00 91.13	91.13	0.16 -0.16	-0.06 0.06	0.00
P9	0.00	0.00 15.32	0.00 -43.39	0.00	0.00 433.77	433.77	-0.03 0.03	-0.29 0.29	0.00
P10	0.00	0.00 7.98	0.00 349.21	349.21	0.00 183.81	183.81	0.23 -0.23	-0.12 0.12	0.00
P11	0.00	0.00 5.68	0.00 228.53	228.53	0.00 280.97	280.97	0.15 -0.15	-0.19 0.19	0.00
P12	0.00	0.00 15.04	0.00 -262.19	0.00	0.00 4.58	4.58	-0.17 0.17	0.00 0.00	0.00
P13	0.00	0.00 15.17	0.00 81.51	81.51	0.00 254.04	254.04	0.05 -0.05	-0.17 0.17	0.00
P14	0.00	0.00 11.65	0.00 -214.73	0.00	0.00 1030.22	1030.22	-0.14 0.14	-0.69 0.69	0.00
P15	0.00	0.00 17.04	0.00 -124.55	0.00	0.00 156.80	156.80	-0.08 0.08	-0.10 0.10	0.00
P16	0.00	0.00 18.80	0.00 50.54	50.54	0.00 166.29	166.29	0.03 -0.03	-0.11 0.11	0.00
P18	0.00	0.00 24.25	0.00 -544.38	0.00	0.00 -1530.23	0.00	-0.36 0.36	1.02 -1.02	0.00
P19	0.00	0.00 13.59	0.00 1165.95	1165.95	0.00 328.81	328.81	0.78 -0.78	-0.22 0.22	0.00
P20	0.00	0.00 19.34	0.00 -306.07	0.00	0.00 111.35	111.35	-0.20 0.20	-0.07 0.07	0.00
P21	0.00	0.00 20.09	0.00 49.74	49.74	0.00 192.10	192.10	0.03 -0.03	-0.13 0.13	0.00
P22	0.00	0.00 24.31	0.00 289.03	289.03	0.00 -300.72	0.00	0.19 -0.19	0.20 -0.20	0.00
P23	0.00	0.00 20.55	0.00 207.46	207.46	0.00 86.02	86.02	0.14 -0.14	-0.06 0.06	0.00
P24	0.00	0.00 20.28	0.00 57.60	57.60	0.00 222.44	222.44	0.04 -0.04	-0.15 0.15	0.00
P25	0.00	0.00 22.01	0.00 183.17	183.17	0.00 -366.29	0.00	0.12 -0.12	0.24 -0.24	0.00
P26	0.00	0.00 17.09	0.00 1081.97	1081.97	0.00 2595.01	2595.01	0.72 -0.72	-1.73 1.73	0.00
P27	0.00	0.00 30.83	0.00 -192.59	0.00	0.00 1536.03	1536.03	-0.13 0.13	-1.02 1.02	0.00
P28	0.00	0.00 20.02	0.00 1069.81	1069.81	0.00 -4108.64	0.00	0.71 -0.71	2.74 -2.74	0.00


CASO: G1+G2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 9.35	0.00 -506.69	0.00	0.00 740.84	740.84	-0.34 0.34	-0.49 0.49	0.00
P2	0.00	0.00 15.40	0.00 -367.24	0.00	0.00 -145.00	0.00	-0.24 0.24	0.10 -0.10	0.00
P3	0.00	0.00 13.78	0.00 109.23	109.23	0.00 -218.07	0.00	0.07 -0.07	0.15 -0.15	0.00
P4	0.00	0.00 6.67	0.00 -91.66	0.00	0.00 345.35	345.35	-0.06 0.06	-0.23 0.23	0.00
P5	0.00	0.00 8.50	0.00 -365.48	0.00	0.00 676.55	676.55	-0.24 0.24	-0.45 0.45	0.00
P6	0.00	0.00 16.32	0.00 -24.70	0.00	0.00 193.79	193.79	-0.02 0.02	-0.13 0.13	0.00
P7	0.00	0.00 21.21	0.00 39.47	39.47	0.00 11.02	11.02	0.03 -0.03	-0.01 0.01	0.00

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P8	0.00	0.00 18.07	0.00 173.37	173.37	0.00 -5.86	0.00	0.12 -0.12	0.00 0.00	0.00
P9	0.00	0.00 11.17	0.00 -29.65	0.00	0.00 247.92	247.92	-0.02 0.02	-0.17 0.17	0.00
P10	0.00	0.00 5.99	0.00 319.04	319.04	0.00 131.58	131.58	0.21 -0.21	-0.09 0.09	0.00
P11	0.00	0.00 3.99	0.00 90.91	90.91	0.00 206.60	206.60	0.06 -0.06	-0.14 0.14	0.00
P12	0.00	0.00 10.95	0.00 -192.44	0.00	0.00 0.48	0.48	-0.13 0.13	0.00 0.00	0.00
P13	0.00	0.00 10.88	0.00 57.60	57.60	0.00 112.50	112.50	0.04 -0.04	-0.07 0.07	0.00
P14	0.00	0.00 8.57	0.00 -153.74	0.00	0.00 787.83	787.83	-0.10 0.10	-0.53 0.53	0.00
P15	0.00	0.00 12.49	0.00 -168.53	0.00	0.00 115.78	115.78	-0.11 0.11	-0.08 0.08	0.00
P16	0.00	0.00 13.93	0.00 2.88	2.88	0.00 123.52	123.52	0.00 0.00	-0.08 0.08	0.00
P18	0.00	0.00 17.70	0.00 -496.23	0.00	0.00 -1103.51	0.00	-0.33 0.33	0.74 -0.74	0.00
P19	0.00	0.00 9.90	0.00 807.82	807.82	0.00 244.70	244.70	0.54 -0.54	-0.16 0.16	0.00
P20	0.00	0.00 14.20	0.00 -288.63	0.00	0.00 86.46	86.46	-0.19 0.19	-0.06 0.06	0.00
P21	0.00	0.00 14.92	0.00 4.22	4.22	0.00 144.39	144.39	0.00 0.00	-0.10 0.10	0.00
P22	0.00	0.00 17.82	0.00 126.92	126.92	0.00 -221.65	0.00	0.08 -0.08	0.15 -0.15	0.00
P23	0.00	0.00 15.10	0.00 82.85	82.85	0.00 66.69	66.69	0.06 -0.06	-0.04 0.04	0.00
P24	0.00	0.00 15.09	0.00 9.25	9.25	0.00 164.65	164.65	0.01 -0.01	-0.11 0.11	0.00
P25	0.00	0.00 16.19	0.00 47.99	47.99	0.00 -272.45	0.00	0.03 -0.03	0.18 -0.18	0.00
P26	0.00	0.00 12.53	0.00 747.42	747.42	0.00 1896.51	1896.51	0.50 -0.50	-1.26 1.26	0.00
P27	0.00	0.00 22.71	0.00 -185.34	0.00	0.00 1120.25	1120.25	-0.12 0.12	-0.75 0.75	0.00
P28	0.00	0.00 14.68	0.00 728.79	728.79	0.00 -3003.40	0.00	0.49 -0.49	2.00 -2.00	0.00


CASO: G1+G2+0.84V1+1.4D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 8.75	0.00 -507.76	0.00	0.00 412.76	412.76	-0.34 0.34	-0.28 0.28	0.00
P2	0.00	0.00 15.71	0.00 -878.05	0.00	0.00 -171.90	0.00	-0.59 0.59	0.11 -0.11	0.00
P3	0.00	0.00 13.39	0.00 132.00	132.00	0.00 -740.06	0.00	0.09 -0.09	0.49 -0.49	0.00
P4	0.00	0.00 7.36	0.00 -437.64	0.00	0.00 306.32	306.32	-0.29 0.29	-0.20 0.20	0.00
P5	0.00	0.00 7.98	0.00 -354.61	0.00	0.00 331.98	331.98	-0.24 0.24	-0.22 0.22	0.00
P6	0.00	0.00 16.29	0.00 353.43	353.43	0.00 196.43	196.43	0.24 -0.24	-0.13 0.13	0.00
P7	0.00	0.00 21.28	0.00 826.28	826.28	0.00 6.09	6.09	0.55 -0.55	0.00 0.00	0.00
P8	0.00	0.00 18.14	0.00 514.21	514.21	0.00 6.00	6.00	0.34 -0.34	0.00 0.00	0.00
P9	0.00	0.00	0.00	828.86	0.00	265.01	0.55	-0.18	0.00



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		10.05	828.86		265.01		-0.55	0.18	
P10	0.00	0.00 7.49	0.00 343.35	343.35	0.00 821.09	821.09	0.23 -0.23	-0.55 0.55	0.00
P11	0.00	0.00 3.50	0.00 96.82	96.82	0.00 -58.27	0.00	0.06 -0.06	0.04 -0.04	0.00
P12	0.00	0.00 11.18	0.00 315.66	315.66	0.00 0.04	0.04	0.21 -0.21	0.00 0.00	0.00
P13	0.00	0.00 10.76	0.00 380.96	380.96	0.00 125.44	125.44	0.25 -0.25	-0.08 0.08	0.00
P14	0.00	0.00 8.64	0.00 -392.56	0.00	0.00 697.63	697.63	-0.26 0.26	-0.47 0.47	0.00
P15	0.00	0.00 12.39	0.00 -165.67	0.00	0.00 -79.93	0.00	-0.11 0.11	0.05 -0.05	0.00
P16	0.00	0.00 13.98	0.00 5.39	5.39	0.00 -82.25	0.00	0.00 0.00	0.05 -0.05	0.00
P18	0.00	0.00 18.44	0.00 -618.99	0.00	0.00 -1638.59	0.00	-0.41 0.41	1.09 -1.09	0.00
P19	0.00	0.00 9.33	0.00 727.51	727.51	0.00 -212.16	0.00	0.49 -0.49	0.14 -0.14	0.00
P20	0.00	0.00 14.03	0.00 -287.78	0.00	0.00 -221.68	0.00	-0.19 0.19	0.15 -0.15	0.00
P21	0.00	0.00 14.96	0.00 6.09	6.09	0.00 -175.62	0.00	0.00 0.00	0.12 -0.12	0.00
P22	0.00	0.00 18.20	0.00 181.12	181.12	0.00 -447.50	0.00	0.12 -0.12	0.30 -0.30	0.00
P23	0.00	0.00 14.94	0.00 92.24	92.24	0.00 -227.21	0.00	0.06 -0.06	0.15 -0.15	0.00
P24	0.00	0.00 15.13	0.00 11.29	11.29	0.00 -152.36	0.00	0.01 -0.01	0.10 -0.10	0.00
P25	0.00	0.00 16.31	0.00 -11.08	0.00	0.00 -567.90	0.00	-0.01 0.01	0.38 -0.38	0.00
P26	0.00	0.00 12.21	0.00 752.35	752.35	0.00 1463.61	1463.61	0.50 -0.50	-0.98 0.98	0.00
P27	0.00	0.00 22.80	0.00 -184.06	0.00	0.00 404.38	404.38	-0.12 0.12	-0.27 0.27	0.00
P28	0.00	0.00 14.89	0.00 701.52	701.52	0.00 -3369.27	0.00	0.47 -0.47	2.25 -2.25	0.00

CASO: G1+G2+0.84V2+1.4D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 9.96	0.00 -505.63	0.00	0.00 1068.91	1068.91	-0.34 0.34	-0.71 0.71	0.00
P2	0.00	0.00 15.09	0.00 143.58	143.58	0.00 -118.11	0.00	0.10 -0.10	0.08 -0.08	0.00
P3	0.00	0.00 14.18	0.00 86.45	86.45	0.00 303.92	303.92	0.06 -0.06	-0.20 0.20	0.00
P4	0.00	0.00 5.98	0.00 254.32	254.32	0.00 384.37	384.37	0.17 -0.17	-0.26 0.26	0.00
P5	0.00	0.00 9.02	0.00 -376.34	0.00	0.00 1021.13	1021.13	-0.25 0.25	-0.68 0.68	0.00
P6	0.00	0.00 16.34	0.00 -402.82	0.00	0.00 191.15	191.15	-0.27 0.27	-0.13 0.13	0.00
P7	0.00	0.00 21.15	0.00 -747.34	0.00	0.00 15.95	15.95	-0.50 0.50	-0.01 0.01	0.00
P8	0.00	0.00 18.00	0.00 -167.46	0.00	0.00 -17.72	0.00	-0.11 0.11	0.01 -0.01	0.00
P9	0.00	0.00 12.28	0.00 -888.16	0.00	0.00 230.82	230.82	-0.59 0.59	-0.15 0.15	0.00
P10	0.00	0.00 4.50	0.00 294.73	294.73	0.00 -557.93	0.00	0.20 -0.20	0.37 -0.37	0.00

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P11	0.00	0.00 4.48	0.00 85.00	85.00	0.00 471.47	471.47	0.06 -0.06	-0.31 0.31	0.00
P12	0.00	0.00 10.73	0.00 -700.55	0.00	0.00 0.91	0.91	-0.47 0.47	0.00 0.00	0.00
P13	0.00	0.00 10.99	0.00 -265.76	0.00	0.00 99.56	99.56	-0.18 0.18	-0.07 0.07	0.00
P14	0.00	0.00 8.50	0.00 85.08	85.08	0.00 878.04	878.04	0.06 -0.06	-0.59 0.59	0.00
P15	0.00	0.00 12.59	0.00 -171.40	0.00	0.00 311.50	311.50	-0.11 0.11	-0.21 0.21	0.00
P16	0.00	0.00 13.88	0.00 0.36	0.36	0.00 329.29	329.29	0.00 0.00	-0.22 0.22	0.00
P18	0.00	0.00 16.96	0.00 -373.48	0.00	0.00 -568.43	0.00	-0.25 0.25	0.38 -0.38	0.00
P19	0.00	0.00 10.46	0.00 888.13	888.13	0.00 701.56	701.56	0.59 -0.59	-0.47 0.47	0.00
P20	0.00	0.00 14.37	0.00 -289.47	0.00	0.00 394.60	394.60	-0.19 0.19	-0.26 0.26	0.00
P21	0.00	0.00 14.89	0.00 2.34	2.34	0.00 464.40	464.40	0.00 0.00	-0.31 0.31	0.00
P22	0.00	0.00 17.43	0.00 72.73	72.73	0.00 4.19	4.19	0.05 -0.05	0.00 0.00	0.00
P23	0.00	0.00 15.26	0.00 73.46	73.46	0.00 360.59	360.59	0.05 -0.05	-0.24 0.24	0.00
P24	0.00	0.00 15.05	0.00 7.20	7.20	0.00 481.66	481.66	0.00 0.00	-0.32 0.32	0.00
P25	0.00	0.00 16.07	0.00 107.07	107.07	0.00 23.00	23.00	0.07 -0.07	-0.02 0.02	0.00
P26	0.00	0.00 12.85	0.00 742.49	742.49	0.00 2329.40	2329.40	0.49 -0.49	-1.55 1.55	0.00
P27	0.00	0.00 22.62	0.00 -186.62	0.00	0.00 1836.12	1836.12	-0.12 0.12	-1.22 1.22	0.00
P28	0.00	0.00 14.47	0.00 756.06	756.06	0.00 -2637.52	0.00	0.50 -0.50	1.76 -1.76	0.00

CASO: G1+G2+0.84V3+1.4D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 9.96	0.00 -950.55	0.00	0.00 707.03	707.03	-0.63 0.63	-0.47 0.47	0.00
P2	0.00	0.00 15.43	0.00 -417.47	0.00	0.00 -0.09	0.00	-0.28 0.28	0.00 0.00	0.00
P3	0.00	0.00 13.71	0.00 138.52	138.52	0.00 -275.49	0.00	0.09 -0.09	0.18 -0.18	0.00
P4	0.00	0.00 7.54	0.00 -121.18	0.00	0.00 759.26	759.26	-0.08 0.08	-0.51 0.51	0.00
P5	0.00	0.00 9.09	0.00 -715.54	0.00	0.00 662.78	662.78	-0.48 0.48	-0.44 0.44	0.00
P6	0.00	0.00 16.56	0.00 -24.17	0.00	0.00 -351.80	0.00	-0.02 0.02	0.23 -0.23	0.00
P7	0.00	0.00 21.71	0.00 40.85	40.85	0.00 -97.91	0.00	0.03 -0.03	0.07 -0.07	0.00
P8	0.00	0.00 19.06	0.00 175.57	175.57	0.00 -408.00	0.00	0.12 -0.12	0.27 -0.27	0.00
P9	0.00	0.00 10.54	0.00 -21.13	0.00	0.00 -143.23	0.00	-0.01 0.01	0.10 -0.10	0.00
P10	0.00	0.00 6.64	0.00 723.07	723.07	0.00 116.07	116.07	0.48 -0.48	-0.08 0.08	0.00
P11	0.00	0.00 3.05	0.00 -331.57	0.00	0.00 221.54	221.54	-0.22 0.22	-0.15 0.15	0.00
P12	0.00	0.00	0.00	0.00	0.00	0.00	-0.14	0.01	0.00

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		10.71	-207.41		-9.02		0.14	-0.01	
P13	0.00	0.00 9.79	0.00 47.74	47.74	0.00 -289.61	0.00	0.03 -0.03	0.19 -0.19	0.00
P14	0.00	0.00 8.84	0.00 -139.29	0.00	0.00 1031.86	1031.86	-0.09 0.09	-0.69 0.69	0.00
P15	0.00	0.00 12.22	0.00 -707.07	0.00	0.00 109.84	109.84	-0.47 0.47	-0.07 0.07	0.00
P16	0.00	0.00 13.85	0.00 -213.45	0.00	0.00 132.66	132.66	-0.14 0.14	-0.09 0.09	0.00
P18	0.00	0.00 17.29	0.00 -1143.61	0.00	0.00 -1050.40	0.00	-0.76 0.76	0.70 -0.70	0.00
P19	0.00	0.00 9.67	0.00 577.26	577.26	0.00 289.18	289.18	0.38 -0.38	-0.19 0.19	0.00
P20	0.00	0.00 14.13	0.00 -735.79	0.00	0.00 100.03	100.03	-0.49 0.49	-0.07 0.07	0.00
P21	0.00	0.00 14.88	0.00 -204.37	0.00	0.00 157.58	157.58	-0.14 0.14	-0.11 0.11	0.00
P22	0.00	0.00 17.70	0.00 -403.37	0.00	0.00 -212.46	0.00	-0.27 0.27	0.14 -0.14	0.00
P23	0.00	0.00 15.22	0.00 -382.64	0.00	0.00 73.15	73.15	-0.26 0.26	-0.05 0.05	0.00
P24	0.00	0.00 15.17	0.00 -205.42	0.00	0.00 167.53	167.53	-0.14 0.14	-0.11 0.11	0.00
P25	0.00	0.00 16.32	0.00 -500.01	0.00	0.00 -273.34	0.00	-0.33 0.33	0.18 -0.18	0.00
P26	0.00	0.00 12.19	0.00 483.10	483.10	0.00 1900.97	1900.97	0.32 -0.32	-1.27 1.27	0.00
P27	0.00	0.00 22.55	0.00 -404.70	0.00	0.00 1113.98	1113.98	-0.27 0.27	-0.74 0.74	0.00
P28	0.00	0.00 14.28	0.00 420.24	420.24	0.00 -3019.11	0.00	0.28 -0.28	2.01 -2.01	0.00

CASO: G1+G2+0.84V4+1.4D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 8.75	0.00 -62.84	0.00	0.00 774.65	774.65	-0.04 0.04	-0.52 0.52	0.00
P2	0.00	0.00 15.36	0.00 -317.01	0.00	0.00 -289.92	0.00	-0.21 0.21	0.19 -0.19	0.00
P3	0.00	0.00 13.86	0.00 79.93	79.93	0.00 -160.64	0.00	0.05 -0.05	0.11 -0.11	0.00
P4	0.00	0.00 5.79	0.00 -62.14	0.00	0.00 -68.57	0.00	-0.04 0.04	0.05 -0.05	0.00
P5	0.00	0.00 7.91	0.00 -15.41	0.00	0.00 690.33	690.33	-0.01 0.01	-0.46 0.46	0.00
P6	0.00	0.00 16.07	0.00 -25.22	0.00	0.00 739.39	739.39	-0.02 0.02	-0.49 0.49	0.00
P7	0.00	0.00 20.72	0.00 38.10	38.10	0.00 119.95	119.95	0.03 -0.03	-0.08 0.08	0.00
P8	0.00	0.00 17.08	0.00 171.18	171.18	0.00 396.28	396.28	0.11 -0.11	-0.26 0.26	0.00
P9	0.00	0.00 11.79	0.00 -38.17	0.00	0.00 639.07	639.07	-0.03 0.03	-0.43 0.43	0.00
P10	0.00	0.00 5.35	0.00 -84.99	0.00	0.00 147.09	147.09	-0.06 0.06	-0.10 0.10	0.00
P11	0.00	0.00 4.93	0.00 513.39	513.39	0.00 191.66	191.66	0.34 -0.34	-0.13 0.13	0.00
P12	0.00	0.00 11.20	0.00 -177.48	0.00	0.00 9.97	9.97	-0.12 0.12	-0.01 0.01	0.00
P13	0.00	0.00 11.97	0.00 67.45	67.45	0.00 514.60	514.60	0.04 -0.04	-0.34 0.34	0.00



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P14	0.00	0.00 8.30	0.00 -168.19	0.00	0.00 543.81	543.81	-0.11 0.11	-0.36 0.36	0.00
P15	0.00	0.00 12.77	0.00 370.00	370.00	0.00 121.72	121.72	0.25 -0.25	-0.08 0.08	0.00
P16	0.00	0.00 14.01	0.00 219.21	219.21	0.00 114.38	114.38	0.15 -0.15	-0.08 0.08	0.00
P18	0.00	0.00 18.11	0.00 151.14	151.14	0.00 -1156.62	0.00	0.10 -0.10	0.77 -0.77	0.00
P19	0.00	0.00 10.12	0.00 1038.38	1038.38	0.00 200.22	200.22	0.69 -0.69	-0.13 0.13	0.00
P20	0.00	0.00 14.26	0.00 158.54	158.54	0.00 72.89	72.89	0.11 -0.11	-0.05 0.05	0.00
P21	0.00	0.00 14.97	0.00 212.80	212.80	0.00 131.20	131.20	0.14 -0.14	-0.09 0.09	0.00
P22	0.00	0.00 17.94	0.00 657.22	657.22	0.00 -230.85	0.00	0.44 -0.44	0.15 -0.15	0.00
P23	0.00	0.00 14.98	0.00 548.33	548.33	0.00 60.23	60.23	0.37 -0.37	-0.04 0.04	0.00
P24	0.00	0.00 15.01	0.00 223.92	223.92	0.00 161.78	161.78	0.15 -0.15	-0.11 0.11	0.00
P25	0.00	0.00 16.05	0.00 596.00	596.00	0.00 -271.55	0.00	0.40 -0.40	0.18 -0.18	0.00
P26	0.00	0.00 12.88	0.00 1011.74	1011.74	0.00 1892.04	1892.04	0.67 -0.67	-1.26 1.26	0.00
P27	0.00	0.00 22.87	0.00 34.02	34.02	0.00 1126.52	1126.52	0.02 -0.02	-0.75 0.75	0.00
P28	0.00	0.00 15.07	0.00 1037.34	1037.34	0.00 -2987.68	0.00	0.69 -0.69	1.99 -1.99	0.00

**CASO: G1+G2+0.98Q+0.84V1+1.4D1**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 15.92	0.00 -491.76	0.00	0.00 432.71	432.71	-0.33 0.33	-0.29 0.29	0.00
P2	0.00	0.00 35.72	0.00 -968.78	0.00	0.00 -30.87	0.00	-0.65 0.65	0.02 -0.02	0.00
P3	0.00	0.00 33.60	0.00 0.62	0.62	0.00 -763.66	0.00	0.00 0.00	0.51 -0.51	0.00
P4	0.00	0.00 13.65	0.00 -372.82	0.00	0.00 345.96	345.96	-0.25 0.25	-0.23 0.23	0.00
P5	0.00	0.00 8.17	0.00 -352.53	0.00	0.00 374.30	374.30	-0.24 0.24	-0.25 0.25	0.00
P6	0.00	0.00 25.36	0.00 323.68	323.68	0.00 -41.40	0.00	0.22 -0.22	0.03 -0.03	0.00
P7	0.00	0.00 42.83	0.00 802.37	802.37	0.00 277.50	277.50	0.53 -0.53	-0.19 0.19	0.00
P8	0.00	0.00 35.81	0.00 509.03	509.03	0.00 255.18	255.18	0.34 -0.34	-0.17 0.17	0.00
P9	0.00	0.00 17.64	0.00 850.03	850.03	0.00 255.94	255.94	0.57 -0.57	-0.17 0.17	0.00
P10	0.00	0.00 6.76	0.00 378.52	378.52	0.00 824.27	824.27	0.25 -0.25	-0.55 0.55	0.00
P11	0.00	0.00 2.16	0.00 5.36	5.36	0.00 -63.23	0.00	0.00 0.00	0.04 -0.04	0.00
P12	0.00	0.00 12.34	0.00 326.95	326.95	0.00 27.73	27.73	0.22 -0.22	-0.02 0.02	0.00
P13	0.00	0.00 11.59	0.00 392.38	392.38	0.00 357.92	357.92	0.26 -0.26	-0.24 0.24	0.00
P14	0.00	0.00 8.67	0.00 -403.80	0.00	0.00 699.57	699.57	-0.27 0.27	-0.47 0.47	0.00
P15	0.00	0.00	0.00	0.00	0.00	0.00	-0.10	0.05	0.00



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Plena

Leilson Campos  
Rezende  
Rezende Engenharia

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		12.40	-154.61		-80.65		0.10	-0.05	
P16	0.00	0.00 13.55	0.00 2.49	2.49	0.00 -82.29	0.00	0.00 0.00	0.05 -0.05	0.00
P18	0.00	0.00 18.39	0.00 -667.83	0.00	0.00 -1644.94	0.00	-0.45 0.45	1.10 -1.10	0.00
P19	0.00	0.00 9.32	0.00 725.61	725.61	0.00 -210.96	0.00	0.48 -0.48	0.14 -0.14	0.00
P20	0.00	0.00 14.03	0.00 -279.40	0.00	0.00 -221.90	0.00	-0.19 0.19	0.15 -0.15	0.00
P21	0.00	0.00 14.97	0.00 9.73	9.73	0.00 -175.58	0.00	0.01 -0.01	0.12 -0.12	0.00
P22	0.00	0.00 18.20	0.00 142.71	142.71	0.00 -447.32	0.00	0.10 -0.10	0.30 -0.30	0.00
P23	0.00	0.00 14.94	0.00 101.30	101.30	0.00 -227.20	0.00	0.07 -0.07	0.15 -0.15	0.00
P24	0.00	0.00 15.12	0.00 13.76	13.76	0.00 -152.31	0.00	0.01 -0.01	0.10 -0.10	0.00
P25	0.00	0.00 16.32	0.00 -51.57	0.00	0.00 -567.52	0.00	-0.03 0.03	0.38 -0.38	0.00
P26	0.00	0.00 12.22	0.00 756.93	756.93	0.00 1462.54	1462.54	0.50 -0.50	-0.98 0.98	0.00
P27	0.00	0.00 22.80	0.00 -181.80	0.00	0.00 403.48	403.48	-0.12 0.12	-0.27 0.27	0.00
P28	0.00	0.00 14.86	0.00 681.29	681.29	0.00 -3370.20	0.00	0.45 -0.45	2.25 -2.25	0.00

**CASO: G1+G2+0.98Q+0.84V2+1.4D2**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 17.13	0.00 -489.63	0.00	0.00 1088.86	1088.86	-0.33 0.33	-0.73 0.73	0.00
P2	0.00	0.00 35.10	0.00 52.85	52.85	0.00 22.92	22.92	0.04 -0.04	-0.02 0.02	0.00
P3	0.00	0.00 34.38	0.00 -44.93	0.00	0.00 280.32	280.32	-0.03 0.03	-0.19 0.19	0.00
P4	0.00	0.00 12.26	0.00 319.13	319.13	0.00 424.01	424.01	0.21 -0.21	-0.28 0.28	0.00
P5	0.00	0.00 9.22	0.00 -374.26	0.00	0.00 1063.45	1063.45	-0.25 0.25	-0.71 0.71	0.00
P6	0.00	0.00 25.40	0.00 -432.57	0.00	0.00 -46.67	0.00	-0.29 0.29	0.03 -0.03	0.00
P7	0.00	0.00 42.70	0.00 -771.25	0.00	0.00 287.36	287.36	-0.51 0.51	-0.19 0.19	0.00
P8	0.00	0.00 35.67	0.00 -172.65	0.00	0.00 231.47	231.47	-0.12 0.12	-0.15 0.15	0.00
P9	0.00	0.00 19.87	0.00 -866.99	0.00	0.00 221.75	221.75	-0.58 0.58	-0.15 0.15	0.00
P10	0.00	0.00 3.76	0.00 329.89	329.89	0.00 -554.75	0.00	0.22 -0.22	0.37 -0.37	0.00
P11	0.00	0.00 3.14	0.00 -6.45	0.00	0.00 466.51	466.51	0.00 0.00	-0.31 0.31	0.00
P12	0.00	0.00 11.88	0.00 -689.27	0.00	0.00 28.60	28.60	-0.46 0.46	-0.02 0.02	0.00
P13	0.00	0.00 11.83	0.00 -254.34	0.00	0.00 332.05	332.05	-0.17 0.17	-0.22 0.22	0.00
P14	0.00	0.00 8.53	0.00 73.85	73.85	0.00 879.98	879.98	0.05 -0.05	-0.59 0.59	0.00
P15	0.00	0.00 12.60	0.00 -160.34	0.00	0.00 310.78	310.78	-0.11 0.11	-0.21 0.21	0.00
P16	0.00	0.00 13.46	0.00 -2.55	0.00	0.00 329.26	329.26	0.00 0.00	-0.22 0.22	0.00




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Plena

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Rezende  
Rezende Engenharia

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P18	0.00	0.00 16.91	0.00 -422.32	0.00	0.00 -574.78	0.00	-0.28 0.28	0.38 -0.38	0.00
P19	0.00	0.00 10.45	0.00 886.22	886.22	0.00 702.75	702.75	0.59 -0.59	-0.47 0.47	0.00
P20	0.00	0.00 14.37	0.00 -281.10	0.00	0.00 394.38	394.38	-0.19 0.19	-0.26 0.26	0.00
P21	0.00	0.00 14.91	0.00 5.98	5.98	0.00 464.44	464.44	0.00 0.00	-0.31 0.31	0.00
P22	0.00	0.00 17.43	0.00 34.32	34.32	0.00 4.37	4.37	0.02 -0.02	0.00 0.00	0.00
P23	0.00	0.00 15.26	0.00 82.51	82.51	0.00 360.61	360.61	0.06 -0.06	-0.24 0.24	0.00
P24	0.00	0.00 15.05	0.00 9.68	9.68	0.00 481.71	481.71	0.01 -0.01	-0.32 0.32	0.00
P25	0.00	0.00 16.08	0.00 66.57	66.57	0.00 23.38	23.38	0.04 -0.04	-0.02 0.02	0.00
P26	0.00	0.00 12.86	0.00 747.06	747.06	0.00 2328.33	2328.33	0.50 -0.50	-1.55 1.55	0.00
P27	0.00	0.00 22.63	0.00 -184.35	0.00	0.00 1835.22	1835.22	-0.12 0.12	-1.22 1.22	0.00
P28	0.00	0.00 14.43	0.00 735.83	735.83	0.00 -2638.45	0.00	0.49 -0.49	1.76 -1.76	0.00

CASO: G1+G2+0.98Q+0.84V3+1.4D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 17.13	0.00 -934.55	0.00	0.00 726.98	726.98	-0.62 0.62	-0.48 0.48	0.00
P2	0.00	0.00 35.44	0.00 -508.20	0.00	0.00 140.94	140.94	-0.34 0.34	-0.09 0.09	0.00
P3	0.00	0.00 33.92	0.00 7.15	7.15	0.00 -299.10	0.00	0.00 0.00	0.20 -0.20	0.00
P4	0.00	0.00 13.83	0.00 -56.36	0.00	0.00 798.90	798.90	-0.04 0.04	-0.53 0.53	0.00
P5	0.00	0.00 9.29	0.00 -713.46	0.00	0.00 705.10	705.10	-0.48 0.48	-0.47 0.47	0.00
P6	0.00	0.00 25.63	0.00 -53.93	0.00	0.00 -589.63	0.00	-0.04 0.04	0.39 -0.39	0.00
P7	0.00	0.00 43.26	0.00 16.93	16.93	0.00 173.50	173.50	0.01 -0.01	-0.12 0.12	0.00
P8	0.00	0.00 36.73	0.00 170.38	170.38	0.00 -158.81	0.00	0.11 -0.11	0.11 -0.11	0.00
P9	0.00	0.00 18.13	0.00 0.04	0.04	0.00 -152.30	0.00	0.00 0.00	0.10 -0.10	0.00
P10	0.00	0.00 5.90	0.00 758.24	758.24	0.00 119.25	119.25	0.51 -0.51	-0.08 0.08	0.00
P11	0.00	0.00 1.71	0.00 -423.03	0.00	0.00 216.58	216.58	-0.28 0.28	-0.14 0.14	0.00
P12	0.00	0.00 11.87	0.00 -196.13	0.00	0.00 18.67	18.67	-0.13 0.13	-0.01 0.01	0.00
P13	0.00	0.00 10.62	0.00 59.16	59.16	0.00 -57.12	0.00	0.04 -0.04	0.04 -0.04	0.00
P14	0.00	0.00 8.87	0.00 -150.53	0.00	0.00 1033.80	1033.80	-0.10 0.10	-0.69 0.69	0.00
P15	0.00	0.00 12.22	0.00 -696.02	0.00	0.00 109.12	109.12	-0.46 0.46	-0.07 0.07	0.00
P16	0.00	0.00 13.42	0.00 -216.36	0.00	0.00 132.62	132.62	-0.14 0.14	-0.09 0.09	0.00
P18	0.00	0.00 17.24	0.00 -1192.45	0.00	0.00 -1056.75	0.00	-0.79 0.79	0.70 -0.70	0.00
P19	0.00	0.00	0.00	575.35	0.00	290.37	0.38	-0.19	0.00

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		9.66	575.35		290.37		-0.38	0.19	
P20	0.00	0.00 14.14	0.00 -727.42	0.00	0.00 99.81	99.81	-0.48 0.48	-0.07 0.07	0.00
P21	0.00	0.00 14.90	0.00 -200.73	0.00	0.00 157.62	157.62	-0.13 0.13	-0.11 0.11	0.00
P22	0.00	0.00 17.69	0.00 -441.79	0.00	0.00 -212.28	0.00	-0.29 0.29	0.14 -0.14	0.00
P23	0.00	0.00 15.21	0.00 -373.58	0.00	0.00 73.17	73.17	-0.25 0.25	-0.05 0.05	0.00
P24	0.00	0.00 15.17	0.00 -202.95	0.00	0.00 167.58	167.58	-0.14 0.14	-0.11 0.11	0.00
P25	0.00	0.00 16.33	0.00 -540.50	0.00	0.00 -272.96	0.00	-0.36 0.36	0.18 -0.18	0.00
P26	0.00	0.00 12.20	0.00 487.68	487.68	0.00 1899.90	1899.90	0.33 -0.33	-1.27 1.27	0.00
P27	0.00	0.00 22.55	0.00 -402.44	0.00	0.00 1113.08	1113.08	-0.27 0.27	-0.74 0.74	0.00
P28	0.00	0.00 14.25	0.00 400.02	400.02	0.00 -3020.04	0.00	0.27 -0.27	2.01 -2.01	0.00


CASO: G1+G2+0.98Q+0.84V4+1.4D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 15.92	0.00 -46.84	0.00	0.00 794.60	794.60	-0.03 0.03	-0.53 0.53	0.00
P2	0.00	0.00 35.37	0.00 -407.74	0.00	0.00 -148.90	0.00	-0.27 0.27	0.10 -0.10	0.00
P3	0.00	0.00 34.06	0.00 -51.45	0.00	0.00 -184.25	0.00	-0.03 0.03	0.12 -0.12	0.00
P4	0.00	0.00 12.08	0.00 2.67	2.67	0.00 -28.93	0.00	0.00 0.00	0.02 -0.02	0.00
P5	0.00	0.00 8.10	0.00 -13.33	0.00	0.00 732.65	732.65	-0.01 0.01	-0.49 0.49	0.00
P6	0.00	0.00 25.13	0.00 -54.97	0.00	0.00 501.56	501.56	-0.04 0.04	-0.33 0.33	0.00
P7	0.00	0.00 42.27	0.00 14.18	14.18	0.00 391.36	391.36	0.01 -0.01	-0.26 0.26	0.00
P8	0.00	0.00 34.75	0.00 165.99	165.99	0.00 645.46	645.46	0.11 -0.11	-0.43 0.43	0.00
P9	0.00	0.00 19.38	0.00 -17.00	0.00	0.00 630.00	630.00	-0.01 0.01	-0.42 0.42	0.00
P10	0.00	0.00 4.62	0.00 -49.82	0.00	0.00 150.26	150.26	-0.03 0.03	-0.10 0.10	0.00
P11	0.00	0.00 3.59	0.00 421.94	421.94	0.00 186.70	186.70	0.28 -0.28	-0.12 0.12	0.00
P12	0.00	0.00 12.35	0.00 -166.20	0.00	0.00 37.66	37.66	-0.11 0.11	-0.03 0.03	0.00
P13	0.00	0.00 12.80	0.00 78.87	78.87	0.00 747.09	747.09	0.05 -0.05	-0.50 0.50	0.00
P14	0.00	0.00 8.32	0.00 -179.42	0.00	0.00 545.75	545.75	-0.12 0.12	-0.36 0.36	0.00
P15	0.00	0.00 12.78	0.00 381.06	381.06	0.00 121.01	121.01	0.25 -0.25	-0.08 0.08	0.00
P16	0.00	0.00 13.59	0.00 216.30	216.30	0.00 114.35	114.35	0.14 -0.14	-0.08 0.08	0.00
P18	0.00	0.00 18.06	0.00 102.30	102.30	0.00 -1162.97	0.00	0.07 -0.07	0.78 -0.78	0.00
P19	0.00	0.00 10.10	0.00 1036.47	1036.47	0.00 201.41	201.41	0.69 -0.69	-0.13 0.13	0.00
P20	0.00	0.00 14.27	0.00 166.91	166.91	0.00 72.67	72.67	0.11 -0.11	-0.05 0.05	0.00

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P21	0.00	0.00 14.98	0.00 216.44	216.44	0.00 131.24	131.24	0.14 -0.14	-0.09 0.09	0.00
P22	0.00	0.00 17.93	0.00 618.81	618.81	0.00 -230.67	0.00	0.41 -0.41	0.15 -0.15	0.00
P23	0.00	0.00 14.98	0.00 557.39	557.39	0.00 60.25	60.25	0.37 -0.37	-0.04 0.04	0.00
P24	0.00	0.00 15.01	0.00 226.39	226.39	0.00 161.82	161.82	0.15 -0.15	-0.11 0.11	0.00
P25	0.00	0.00 16.06	0.00 555.50	555.50	0.00 -271.18	0.00	0.37 -0.37	0.18 -0.18	0.00
P26	0.00	0.00 12.88	0.00 1016.32	1016.32	0.00 1890.97	1890.97	0.68 -0.68	-1.26 1.26	0.00
P27	0.00	0.00 22.88	0.00 36.29	36.29	0.00 1125.62	1125.62	0.02 -0.02	-0.75 0.75	0.00
P28	0.00	0.00 15.04	0.00 1017.11	1017.11	0.00 -2988.61	0.00	0.68 -0.68	1.99 -1.99	0.00


CASO: G1+G2+0.98Q+1.4V1+0.84D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 15.69	0.00 -485.10	0.00	0.00 318.30	318.30	-0.32 0.32	-0.21 0.21	0.00
P2	0.00	0.00 35.83	0.00 -1148.83	0.00	0.00 -41.67	0.00	-0.77 0.77	0.03 -0.03	0.00
P3	0.00	0.00 33.46	0.00 10.69	10.69	0.00 -948.11	0.00	0.01 -0.01	0.63 -0.63	0.00
P4	0.00	0.00 13.91	0.00 -494.04	0.00	0.00 336.55	336.55	-0.33 0.33	-0.22 0.22	0.00
P5	0.00	0.00 7.96	0.00 -344.41	0.00	0.00 252.01	252.01	-0.23 0.23	-0.17 0.17	0.00
P6	0.00	0.00 25.35	0.00 465.27	465.27	0.00 -30.43	0.00	0.31 -0.31	0.02 -0.02	0.00
P7	0.00	0.00 42.85	0.00 1091.84	1091.84	0.00 275.43	275.43	0.73 -0.73	-0.18 0.18	0.00
P8	0.00	0.00 35.83	0.00 636.58	636.58	0.00 259.98	259.98	0.42 -0.42	-0.17 0.17	0.00
P9	0.00	0.00 17.20	0.00 1170.58	1170.58	0.00 257.32	257.32	0.78 -0.78	-0.17 0.17	0.00
P10	0.00	0.00 7.34	0.00 394.66	394.66	0.00 1078.02	1078.02	0.26 -0.26	-0.72 0.72	0.00
P11	0.00	0.00 1.97	0.00 15.25	15.25	0.00 -171.22	0.00	0.01 -0.01	0.11 -0.11	0.00
P12	0.00	0.00 12.44	0.00 531.79	531.79	0.00 27.51	27.51	0.35 -0.35	-0.02 0.02	0.00
P13	0.00	0.00 11.54	0.00 524.77	524.77	0.00 363.15	363.15	0.35 -0.35	-0.24 0.24	0.00
P14	0.00	0.00 8.69	0.00 -500.59	0.00	0.00 662.44	662.44	-0.33 0.33	-0.44 0.44	0.00
P15	0.00	0.00 12.36	0.00 -149.24	0.00	0.00 -159.20	0.00	-0.10 0.10	0.11 -0.11	0.00
P16	0.00	0.00 13.57	0.00 5.45	5.45	0.00 -178.91	0.00	0.00 0.00	0.12 -0.12	0.00
P18	0.00	0.00 18.71	0.00 -729.47	0.00	0.00 -1855.88	0.00	-0.49 0.49	1.24 -1.24	0.00
P19	0.00	0.00 9.07	0.00 690.41	690.41	0.00 -403.34	0.00	0.46 -0.46	0.27 -0.27	0.00
P20	0.00	0.00 13.96	0.00 -274.93	0.00	0.00 -346.89	0.00	-0.18 0.18	0.23 -0.23	0.00
P21	0.00	0.00 14.98	0.00 12.33	12.33	0.00 -321.68	0.00	0.01 -0.01	0.21 -0.21	0.00
P22	0.00	0.00	0.00	158.95	0.00	0.00	0.11	0.35	0.00



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		18.36	158.95		-532.01		-0.11	-0.35	
P23	0.00	0.00 14.87	0.00 109.32	109.32	0.00 -343.00	0.00	0.07 -0.07	0.23 -0.23	0.00
P24	0.00	0.00 15.14	0.00 16.49	16.49	0.00 -294.71	0.00	0.01 -0.01	0.20 -0.20	0.00
P25	0.00	0.00 16.37	0.00 -84.18	0.00	0.00 -683.92	0.00	-0.06 0.06	0.46 -0.46	0.00
P26	0.00	0.00 12.08	0.00 761.41	761.41	0.00 1290.47	1290.47	0.51 -0.51	-0.86 0.86	0.00
P27	0.00	0.00 22.84	0.00 -179.75	0.00	0.00 110.76	110.76	-0.12 0.12	-0.07 0.07	0.00
P28	0.00	0.00 14.94	0.00 665.82	665.82	0.00 -3513.16	0.00	0.44 -0.44	2.34 -2.34	0.00

CASO: G1+G2+0.98Q+1.4V2+0.84D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 17.36	0.00 -496.30	0.00	0.00 1203.27	1203.27	-0.33 0.33	-0.80 0.80	0.00
P2	0.00	0.00 34.98	0.00 232.90	232.90	0.00 33.71	33.71	0.16 -0.16	-0.02 0.02	0.00
P3	0.00	0.00 34.53	0.00 -54.99	0.00	0.00 464.76	464.76	-0.04 0.04	-0.31 0.31	0.00
P4	0.00	0.00 12.00	0.00 440.35	440.35	0.00 433.42	433.42	0.29 -0.29	-0.29 0.29	0.00
P5	0.00	0.00 9.42	0.00 -382.38	0.00	0.00 1185.74	1185.74	-0.25 0.25	-0.79 0.79	0.00
P6	0.00	0.00 25.41	0.00 -574.17	0.00	0.00 -57.64	0.00	-0.38 0.38	0.04 -0.04	0.00
P7	0.00	0.00 42.69	0.00 -1060.73	0.00	0.00 289.44	289.44	-0.71 0.71	-0.19 0.19	0.00
P8	0.00	0.00 35.64	0.00 -300.20	0.00	0.00 226.67	226.67	-0.20 0.20	-0.15 0.15	0.00
P9	0.00	0.00 20.31	0.00 -1187.54	0.00	0.00 220.38	220.38	-0.79 0.79	-0.15 0.15	0.00
P10	0.00	0.00 3.18	0.00 313.75	313.75	0.00 -808.51	0.00	0.21 -0.21	0.54 -0.54	0.00
P11	0.00	0.00 3.33	0.00 -16.34	0.00	0.00 574.50	574.50	-0.01 0.01	-0.38 0.38	0.00
P12	0.00	0.00 11.79	0.00 -894.12	0.00	0.00 28.82	28.82	-0.60 0.60	-0.02 0.02	0.00
P13	0.00	0.00 11.88	0.00 -386.74	0.00	0.00 326.81	326.81	-0.26 0.26	-0.22 0.22	0.00
P14	0.00	0.00 8.50	0.00 170.64	170.64	0.00 917.11	917.11	0.11 -0.11	-0.61 0.61	0.00
P15	0.00	0.00 12.64	0.00 -165.72	0.00	0.00 389.33	389.33	-0.11 0.11	-0.26 0.26	0.00
P16	0.00	0.00 13.44	0.00 -5.51	0.00	0.00 425.88	425.88	0.00 0.00	-0.28 0.28	0.00
P18	0.00	0.00 16.59	0.00 -360.67	0.00	0.00 -363.83	0.00	-0.24 0.24	0.24 -0.24	0.00
P19	0.00	0.00 10.69	0.00 921.41	921.41	0.00 895.13	895.13	0.61 -0.61	-0.60 0.60	0.00
P20	0.00	0.00 14.44	0.00 -285.57	0.00	0.00 519.37	519.37	-0.19 0.19	-0.35 0.35	0.00
P21	0.00	0.00 14.90	0.00 3.38	3.38	0.00 610.53	610.53	0.00 0.00	-0.41 0.41	0.00
P22	0.00	0.00 17.26	0.00 18.07	18.07	0.00 89.06	89.06	0.01 -0.01	-0.06 0.06	0.00
P23	0.00	0.00 15.33	0.00 74.49	74.49	0.00 476.42	476.42	0.05 -0.05	-0.32 0.32	0.00

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P24	0.00	0.00 15.03	0.00 6.95	6.95	0.00 624.11	624.11	0.00 0.00	-0.42 0.42	0.00
P25	0.00	0.00 16.03	0.00 99.19	99.19	0.00 139.78	139.78	0.07 -0.07	-0.09 0.09	0.00
P26	0.00	0.00 13.00	0.00 742.58	742.58	0.00 2500.40	2500.40	0.50 -0.50	-1.67 1.67	0.00
P27	0.00	0.00 22.59	0.00 -186.40	0.00	0.00 2127.94	2127.94	-0.12 0.12	-1.42 1.42	0.00
P28	0.00	0.00 14.35	0.00 751.31	751.31	0.00 -2495.49	0.00	0.50 -0.50	1.66 -1.66	0.00

CASO: G1+G2+0.98Q+1.4V3+0.84D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 17.32	0.00 -1065.64	0.00	0.00 717.12	717.12	-0.71 0.71	-0.48 0.48	0.00
P2	0.00	0.00 35.45	0.00 -522.50	0.00	0.00 178.15	178.15	-0.35 0.35	-0.12 0.12	0.00
P3	0.00	0.00 33.90	0.00 23.59	23.59	0.00 -315.92	0.00	0.02 -0.02	0.21 -0.21	0.00
P4	0.00	0.00 14.10	0.00 -64.91	0.00	0.00 928.02	928.02	-0.04 0.04	-0.62 0.62	0.00
P5	0.00	0.00 9.51	0.00 -839.02	0.00	0.00 700.29	700.29	-0.56 0.56	-0.47 0.47	0.00
P6	0.00	0.00 25.70	0.00 -53.84	0.00	0.00 -754.94	0.00	-0.04 0.04	0.50 -0.50	0.00
P7	0.00	0.00 43.42	0.00 16.94	16.94	0.00 158.75	158.75	0.01 -0.01	-0.11 0.11	0.00
P8	0.00	0.00 37.03	0.00 170.95	170.95	0.00 -275.43	0.00	0.11 -0.11	0.18 -0.18	0.00
P9	0.00	0.00 17.93	0.00 2.13	2.13	0.00 -274.59	0.00	0.00 0.00	0.18 -0.18	0.00
P10	0.00	0.00 6.14	0.00 895.69	895.69	0.00 113.36	113.36	0.60 -0.60	-0.08 0.08	0.00
P11	0.00	0.00 1.42	0.00 -550.61	0.00	0.00 221.48	221.48	-0.37 0.37	-0.15 0.15	0.00
P12	0.00	0.00 11.78	0.00 -201.25	0.00	0.00 18.49	18.49	-0.13 0.13	-0.01 0.01	0.00
P13	0.00	0.00 10.28	0.00 55.66	55.66	0.00 -173.74	0.00	0.04 -0.04	0.12 -0.12	0.00
P14	0.00	0.00 8.97	0.00 -145.93	0.00	0.00 1113.41	1113.41	-0.10 0.10	-0.74 0.74	0.00
P15	0.00	0.00 12.11	0.00 -895.61	0.00	0.00 107.60	107.60	-0.60 0.60	-0.07 0.07	0.00
P16	0.00	0.00 13.40	0.00 -292.85	0.00	0.00 134.38	134.38	-0.20 0.20	-0.09 0.09	0.00
P18	0.00	0.00 17.10	0.00 -1419.04	0.00	0.00 -1045.95	0.00	-0.95 0.95	0.70 -0.70	0.00
P19	0.00	0.00 9.58	0.00 498.90	498.90	0.00 304.54	304.54	0.33 -0.33	-0.20 0.20	0.00
P20	0.00	0.00 14.11	0.00 -890.98	0.00	0.00 103.78	103.78	-0.59 0.59	-0.07 0.07	0.00
P21	0.00	0.00 14.89	0.00 -274.78	0.00	0.00 161.42	161.42	-0.18 0.18	-0.11 0.11	0.00
P22	0.00	0.00 17.65	0.00 -625.14	0.00	0.00 -209.79	0.00	-0.42 0.42	0.14 -0.14	0.00
P23	0.00	0.00 15.26	0.00 -543.71	0.00	0.00 74.86	74.86	-0.36 0.36	-0.05 0.05	0.00
P24	0.00	0.00 15.19	0.00 -279.24	0.00	0.00 168.39	168.39	-0.19 0.19	-0.11 0.11	0.00
P25	0.00	0.00	0.00	0.00	0.00	0.00	-0.49	0.18	0.00



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Plena


Leilson Campos  
Rezende  
Rezende Engenharia

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		16.38	-730.32		-273.11		0.49	-0.18	
P26	0.00	0.00 12.06	0.00 395.01	395.01	0.00 1901.66	1901.66	0.26 -0.26	-1.27 1.27	0.00
P27	0.00	0.00 22.50	0.00 -453.98	0.00	0.00 1111.36	1111.36	-0.30 0.30	-0.74 0.74	0.00
P28	0.00	0.00 14.10	0.00 297.61	297.61	0.00 -3024.84	0.00	0.20 -0.20	2.02 -2.02	0.00

**CASO: G1+G2+0.98Q+1.4V4+0.84D4**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 15.73	0.00 84.25	84.25	0.00 804.46	804.46	0.06 -0.06	-0.54 0.54	0.00
P2	0.00	0.00 35.36	0.00 -393.43	0.00	0.00 -186.11	0.00	-0.26 0.26	0.12 -0.12	0.00
P3	0.00	0.00 34.08	0.00 -67.89	0.00	0.00 -167.42	0.00	-0.05 0.05	0.11 -0.11	0.00
P4	0.00	0.00 11.81	0.00 11.22	11.22	0.00 -158.05	0.00	0.01 -0.01	0.11 -0.11	0.00
P5	0.00	0.00 7.87	0.00 112.23	112.23	0.00 737.46	737.46	0.07 -0.07	-0.49 0.49	0.00
P6	0.00	0.00 25.05	0.00 -55.06	0.00	0.00 666.87	666.87	-0.04 0.04	-0.44 0.44	0.00
P7	0.00	0.00 42.11	0.00 14.17	14.17	0.00 406.11	406.11	0.01 -0.01	-0.27 0.27	0.00
P8	0.00	0.00 34.44	0.00 165.43	165.43	0.00 762.08	762.08	0.11 -0.11	-0.51 0.51	0.00
P9	0.00	0.00 19.58	0.00 -19.10	0.00	0.00 752.29	752.29	-0.01 0.01	-0.50 0.50	0.00
P10	0.00	0.00 4.38	0.00 -187.27	0.00	0.00 156.16	156.16	-0.12 0.12	-0.10 0.10	0.00
P11	0.00	0.00 3.88	0.00 549.52	549.52	0.00 181.81	181.81	0.37 -0.37	-0.12 0.12	0.00
P12	0.00	0.00 12.44	0.00 -161.08	0.00	0.00 37.84	37.84	-0.11 0.11	-0.03 0.03	0.00
P13	0.00	0.00 13.14	0.00 82.37	82.37	0.00 863.71	863.71	0.05 -0.05	-0.58 0.58	0.00
P14	0.00	0.00 8.23	0.00 -184.03	0.00	0.00 466.14	466.14	-0.12 0.12	-0.31 0.31	0.00
P15	0.00	0.00 12.88	0.00 580.66	580.66	0.00 122.53	122.53	0.39 -0.39	-0.08 0.08	0.00
P16	0.00	0.00 13.61	0.00 292.79	292.79	0.00 112.58	112.58	0.20 -0.20	-0.08 0.08	0.00
P18	0.00	0.00 18.20	0.00 328.90	328.90	0.00 -1173.77	0.00	0.22 -0.22	0.78 -0.78	0.00
P19	0.00	0.00 10.19	0.00 1112.92	1112.92	0.00 187.25	187.25	0.74 -0.74	-0.12 0.12	0.00
P20	0.00	0.00 14.29	0.00 330.48	330.48	0.00 68.70	68.70	0.22 -0.22	-0.05 0.05	0.00
P21	0.00	0.00 14.99	0.00 290.50	290.50	0.00 127.44	127.44	0.19 -0.19	-0.08 0.08	0.00
P22	0.00	0.00 17.97	0.00 802.16	802.16	0.00 -233.16	0.00	0.53 -0.53	0.16 -0.16	0.00
P23	0.00	0.00 14.94	0.00 727.52	727.52	0.00 58.55	58.55	0.49 -0.49	-0.04 0.04	0.00
P24	0.00	0.00 14.98	0.00 302.68	302.68	0.00 161.00	161.00	0.20 -0.20	-0.11 0.11	0.00
P25	0.00	0.00 16.02	0.00 745.33	745.33	0.00 -271.03	0.00	0.50 -0.50	0.18 -0.18	0.00
P26	0.00	0.00 13.01	0.00 1108.98	1108.98	0.00 1889.21	1889.21	0.74 -0.74	-1.26 1.26	0.00

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P27	0.00	0.00 22.93	0.00 87.82	87.82	0.00 1127.34	1127.34	0.06 -0.06	-0.75 0.75	0.00
P28	0.00	0.00 15.19	0.00 1119.52	1119.52	0.00 -2983.81	0.00	0.75 -0.75	1.99 -1.99	0.00

CASO: G1+G2+1.2D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 9.21	0.00 -512.62	0.00	0.00 657.02	657.02	-0.34 0.34	-0.44 0.44	0.00
P2	0.00	0.00 15.47	0.00 -496.21	0.00	0.00 -150.74	0.00	-0.33 0.33	0.10 -0.10	0.00
P3	0.00	0.00 13.69	0.00 113.34	113.34	0.00 -349.49	0.00	0.08 -0.08	0.23 -0.23	0.00
P4	0.00	0.00 6.83	0.00 -179.60	0.00	0.00 332.01	332.01	-0.12 0.12	-0.22 0.22	0.00
P5	0.00	0.00 8.39	0.00 -366.18	0.00	0.00 590.23	590.23	-0.24 0.24	-0.39 0.39	0.00
P6	0.00	0.00 16.31	0.00 64.09	64.09	0.00 186.40	186.40	0.04 -0.04	-0.12 0.12	0.00
P7	0.00	0.00 21.23	0.00 228.36	228.36	0.00 10.05	10.05	0.15 -0.15	-0.01 0.01	0.00
P8	0.00	0.00 18.08	0.00 253.47	253.47	0.00 -3.36	0.00	0.17 -0.17	0.00 0.00	0.00
P9	0.00	0.00 10.92	0.00 172.67	172.67	0.00 255.97	255.97	0.12 -0.12	-0.17 0.17	0.00
P10	0.00	0.00 6.32	0.00 319.09	319.09	0.00 297.05	297.05	0.21 -0.21	-0.20 0.20	0.00
P11	0.00	0.00 3.88	0.00 86.13	86.13	0.00 151.48	151.48	0.06 -0.06	-0.10 0.10	0.00
P12	0.00	0.00 11.00	0.00 -84.85	0.00	0.00 0.42	0.42	-0.06 0.06	0.00 0.00	0.00
P13	0.00	0.00 10.86	0.00 124.44	124.44	0.00 115.22	115.22	0.08 -0.08	-0.08 0.08	0.00
P14	0.00	0.00 8.58	0.00 -203.90	0.00	0.00 769.35	769.35	-0.14 0.14	-0.51 0.51	0.00
P15	0.00	0.00 12.47	0.00 -171.31	0.00	0.00 74.05	74.05	-0.11 0.11	-0.05 0.05	0.00
P16	0.00	0.00 13.94	0.00 1.84	1.84	0.00 90.93	90.93	0.00 0.00	-0.06 0.06	0.00
P18	0.00	0.00 17.84	0.00 -512.46	0.00	0.00 -1220.65	0.00	-0.34 0.34	0.81 -0.81	0.00
P19	0.00	0.00 9.79	0.00 793.08	793.08	0.00 154.55	154.55	0.53 -0.53	-0.10 0.10	0.00
P20	0.00	0.00 14.17	0.00 -291.77	0.00	0.00 21.83	21.83	-0.19 0.19	-0.01 0.01	0.00
P21	0.00	0.00 14.93	0.00 3.14	3.14	0.00 90.36	90.36	0.00 0.00	-0.06 0.06	0.00
P22	0.00	0.00 17.89	0.00 142.90	142.90	0.00 -274.59	0.00	0.10 -0.10	0.18 -0.18	0.00
P23	0.00	0.00 15.07	0.00 81.44	81.44	0.00 2.31	2.31	0.05 -0.05	0.00 0.00	0.00
P24	0.00	0.00 15.10	0.00 8.15	8.15	0.00 109.26	109.26	0.01 -0.01	-0.07 0.07	0.00
P25	0.00	0.00 16.21	0.00 42.56	42.56	0.00 -337.20	0.00	0.03 -0.03	0.22 -0.22	0.00
P26	0.00	0.00 12.47	0.00 746.46	746.46	0.00 1802.87	1802.87	0.50 -0.50	-1.20 1.20	0.00
P27	0.00	0.00 22.73	0.00 -186.30	0.00	0.00 971.97	971.97	-0.12 0.12	-0.65 0.65	0.00
P28	0.00	0.00	0.00	726.62	0.00	0.00	0.48	2.06	0.00




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Plena

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Rezende  
Rezende Engenharia

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		14.72	726.62		-3084.53		-0.48	-2.06	
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CASO: G1+G2+1.2D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 9.49	0.00 -500.77	0.00	0.00 824.65	824.65	-0.33 0.33	-0.55 0.55	0.00
P2	0.00	0.00 15.32	0.00 -238.26	0.00	0.00 -139.27	0.00	-0.16 0.16	0.09 -0.09	0.00
P3	0.00	0.00 13.88	0.00 105.12	105.12	0.00 -86.65	0.00	0.07 -0.07	0.06 -0.06	0.00
P4	0.00	0.00 6.51	0.00 -3.72	0.00	0.00 358.68	358.68	0.00 0.00	-0.24 0.24	0.00
P5	0.00	0.00 8.61	0.00 -364.77	0.00	0.00 762.88	762.88	-0.24 0.24	-0.51 0.51	0.00
P6	0.00	0.00 16.32	0.00 -113.48	0.00	0.00 201.19	201.19	-0.08 0.08	-0.13 0.13	0.00
P7	0.00	0.00 21.20	0.00 -149.42	0.00	0.00 11.99	11.99	-0.10 0.10	-0.01 0.01	0.00
P8	0.00	0.00 18.05	0.00 93.28	93.28	0.00 -8.36	0.00	0.06 -0.06	0.01 -0.01	0.00
P9	0.00	0.00 11.41	0.00 -231.98	0.00	0.00 239.86	239.86	-0.15 0.15	-0.16 0.16	0.00
P10	0.00	0.00 5.66	0.00 318.99	318.99	0.00 -33.89	0.00	0.21 -0.21	0.02 -0.02	0.00
P11	0.00	0.00 4.10	0.00 95.69	95.69	0.00 261.72	261.72	0.06 -0.06	-0.17 0.17	0.00
P12	0.00	0.00 10.91	0.00 -300.04	0.00	0.00 0.53	0.53	-0.20 0.20	0.00 0.00	0.00
P13	0.00	0.00 10.90	0.00 -9.24	0.00	0.00 109.77	109.77	-0.01 0.01	-0.07 0.07	0.00
P14	0.00	0.00 8.55	0.00 -103.58	0.00	0.00 806.32	806.32	-0.07 0.07	-0.54 0.54	0.00
P15	0.00	0.00 12.52	0.00 -165.75	0.00	0.00 157.51	157.51	-0.11 0.11	-0.11 0.11	0.00
P16	0.00	0.00 13.92	0.00 3.91	3.91	0.00 156.11	156.11	0.00 0.00	-0.10 0.10	0.00
P18	0.00	0.00 17.55	0.00 -480.01	0.00	0.00 -986.38	0.00	-0.32 0.32	0.66 -0.66	0.00
P19	0.00	0.00 10.00	0.00 822.56	822.56	0.00 334.85	334.85	0.55 -0.55	-0.22 0.22	0.00
P20	0.00	0.00 14.23	0.00 -285.48	0.00	0.00 151.10	151.10	-0.19 0.19	-0.10 0.10	0.00
P21	0.00	0.00 14.92	0.00 5.30	5.30	0.00 198.43	198.43	0.00 0.00	-0.13 0.13	0.00
P22	0.00	0.00 17.75	0.00 110.94	110.94	0.00 -168.72	0.00	0.07 -0.07	0.11 -0.11	0.00
P23	0.00	0.00 15.13	0.00 84.26	84.26	0.00 131.08	131.08	0.06 -0.06	-0.09 0.09	0.00
P24	0.00	0.00 15.08	0.00 10.34	10.34	0.00 220.05	220.05	0.01 -0.01	-0.15 0.15	0.00
P25	0.00	0.00 16.17	0.00 53.43	53.43	0.00 -207.70	0.00	0.04 -0.04	0.14 -0.14	0.00
P26	0.00	0.00 12.59	0.00 748.38	748.38	0.00 1990.14	1990.14	0.50 -0.50	-1.33 1.33	0.00
P27	0.00	0.00 22.70	0.00 -184.38	0.00	0.00 1268.52	1268.52	-0.12 0.12	-0.85 0.85	0.00
P28	0.00	0.00 14.63	0.00 730.97	730.97	0.00 -2922.27	0.00	0.49 -0.49	1.95 -1.95	0.00

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CASO: G1+G2+1.2D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 9.52	0.00 -639.13	0.00	0.00 730.65	730.65	-0.43 0.43	-0.49 0.49	0.00
P2	0.00	0.00 15.41	0.00 -382.65	0.00	0.00 -97.27	0.00	-0.26 0.26	0.06 -0.06	0.00
P3	0.00	0.00 13.76	0.00 111.71	111.71	0.00 -235.31	0.00	0.07 -0.07	0.16 -0.16	0.00
P4	0.00	0.00 6.92	0.00 -100.61	0.00	0.00 463.33	463.33	-0.07 0.07	-0.31 0.31	0.00
P5	0.00	0.00 8.64	0.00 -452.11	0.00	0.00 673.04	673.04	-0.30 0.30	-0.45 0.45	0.00
P6	0.00	0.00 16.39	0.00 -24.48	0.00	0.00 34.35	34.35	-0.02 0.02	-0.02 0.02	0.00
P7	0.00	0.00 21.35	0.00 40.20	40.20	0.00 -35.48	0.00	0.03 -0.03	0.02 -0.02	0.00
P8	0.00	0.00 18.35	0.00 174.10	174.10	0.00 -127.59	0.00	0.12 -0.12	0.09 -0.09	0.00
P9	0.00	0.00 10.99	0.00 -26.77	0.00	0.00 136.64	136.64	-0.02 0.02	-0.09 0.09	0.00
P10	0.00	0.00 6.15	0.00 425.04	425.04	0.00 128.01	128.01	0.28 -0.28	-0.09 0.09	0.00
P11	0.00	0.00 3.72	0.00 -32.89	0.00	0.00 210.67	210.67	-0.02 0.02	-0.14 0.14	0.00
P12	0.00	0.00 10.89	0.00 -196.34	0.00	0.00 -4.47	0.00	-0.13 0.13	0.00 0.00	0.00
P13	0.00	0.00 10.56	0.00 55.13	55.13	0.00 -9.21	0.00	0.04 -0.04	0.01 -0.01	0.00
P14	0.00	0.00 8.64	0.00 -149.70	0.00	0.00 854.59	854.59	-0.10 0.10	-0.57 0.57	0.00
P15	0.00	0.00 12.43	0.00 -296.64	0.00	0.00 113.82	113.82	-0.20 0.20	-0.08 0.08	0.00
P16	0.00	0.00 13.90	0.00 -51.55	0.00	0.00 127.00	127.00	-0.03 0.03	-0.08 0.08	0.00
P18	0.00	0.00 17.59	0.00 -660.96	0.00	0.00 -1083.75	0.00	-0.44 0.44	0.72 -0.72	0.00
P19	0.00	0.00 9.84	0.00 745.74	745.74	0.00 257.14	257.14	0.50 -0.50	-0.17 0.17	0.00
P20	0.00	0.00 14.18	0.00 -396.74	0.00	0.00 90.54	90.54	-0.26 0.26	-0.06 0.06	0.00
P21	0.00	0.00 14.91	0.00 -48.02	0.00	0.00 148.40	148.40	-0.03 0.03	-0.10 0.10	0.00
P22	0.00	0.00 17.79	0.00 -9.83	0.00	0.00 -218.73	0.00	-0.01 0.01	0.15 -0.15	0.00
P23	0.00	0.00 15.13	0.00 -29.81	0.00	0.00 68.79	68.79	-0.02 0.02	-0.05 0.05	0.00
P24	0.00	0.00 15.11	0.00 -44.45	0.00	0.00 165.54	165.54	-0.03 0.03	-0.11 0.11	0.00
P25	0.00	0.00 16.22	0.00 -93.04	0.00	0.00 -272.81	0.00	-0.06 0.06	0.18 -0.18	0.00
P26	0.00	0.00 12.45	0.00 680.28	680.28	0.00 1897.48	1897.48	0.45 -0.45	-1.26 1.26	0.00
P27	0.00	0.00 22.67	0.00 -261.44	0.00	0.00 1118.27	1118.27	-0.17 0.17	-0.75 0.75	0.00
P28	0.00	0.00 14.58	0.00 645.79	645.79	0.00 -3007.96	0.00	0.43 -0.43	2.01 -2.01	0.00

CASO: G1+G2+1.2D4									
Elemento	Carga (kgf/m)	Rd Nd	Mxi Mxf	MxMáx (kgf.m)	Myi Myf	MyMáx (kgf.m)	Vxi Vxf	Vyi Vyf	Mtd (kgf/m)



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		(tf)	(kgf.m)		(kgf.m)		(tf)	(tf)	
P1	0.00	0.00 9.18	0.00 -374.25	0.00	0.00 751.03	751.03	-0.25 0.25	-0.50 0.50	0.00
P2	0.00	0.00 15.39	0.00 -351.82	0.00	0.00 -192.73	0.00	-0.23 0.23	0.13 -0.13	0.00
P3	0.00	0.00 13.81	0.00 106.75	106.75	0.00 -200.82	0.00	0.07 -0.07	0.13 -0.13	0.00
P4	0.00	0.00 6.42	0.00 -82.72	0.00	0.00 227.36	227.36	-0.06 0.06	-0.15 0.15	0.00
P5	0.00	0.00 8.36	0.00 -278.84	0.00	0.00 680.07	680.07	-0.19 0.19	-0.45 0.45	0.00
P6	0.00	0.00 16.24	0.00 -24.91	0.00	0.00 353.24	353.24	-0.02 0.02	-0.24 0.24	0.00
P7	0.00	0.00 21.08	0.00 38.74	38.74	0.00 57.52	57.52	0.03 -0.03	-0.04 0.04	0.00
P8	0.00	0.00 17.78	0.00 172.65	172.65	0.00 115.87	115.87	0.12 -0.12	-0.08 0.08	0.00
P9	0.00	0.00 11.34	0.00 -32.53	0.00	0.00 359.19	359.19	-0.02 0.02	-0.24 0.24	0.00
P10	0.00	0.00 5.84	0.00 213.05	213.05	0.00 135.15	135.15	0.14 -0.14	-0.09 0.09	0.00
P11	0.00	0.00 4.26	0.00 214.72	214.72	0.00 202.53	202.53	0.14 -0.14	-0.14 0.14	0.00
P12	0.00	0.00 11.01	0.00 -188.54	0.00	0.00 5.42	5.42	-0.13 0.13	0.00 0.00	0.00
P13	0.00	0.00 11.19	0.00 60.07	60.07	0.00 234.20	234.20	0.04 -0.04	-0.16 0.16	0.00
P14	0.00	0.00 8.50	0.00 -157.78	0.00	0.00 721.08	721.08	-0.11 0.11	-0.48 0.48	0.00
P15	0.00	0.00 12.56	0.00 -40.42	0.00	0.00 117.74	117.74	-0.03 0.03	-0.08 0.08	0.00
P16	0.00	0.00 13.95	0.00 57.30	57.30	0.00 120.04	120.04	0.04 -0.04	-0.08 0.08	0.00
P18	0.00	0.00 17.80	0.00 -331.51	0.00	0.00 -1123.28	0.00	-0.22 0.22	0.75 -0.75	0.00
P19	0.00	0.00 9.95	0.00 869.90	869.90	0.00 232.26	232.26	0.58 -0.58	-0.15 0.15	0.00
P20	0.00	0.00 14.21	0.00 -180.51	0.00	0.00 82.38	82.38	-0.12 0.12	-0.05 0.05	0.00
P21	0.00	0.00 14.94	0.00 56.45	56.45	0.00 140.38	140.38	0.04 -0.04	-0.09 0.09	0.00
P22	0.00	0.00 17.85	0.00 263.67	263.67	0.00 -224.58	0.00	0.18 -0.18	0.15 -0.15	0.00
P23	0.00	0.00 15.07	0.00 195.50	195.50	0.00 64.59	64.59	0.13 -0.13	-0.04 0.04	0.00
P24	0.00	0.00 15.07	0.00 62.95	62.95	0.00 163.77	163.77	0.04 -0.04	-0.11 0.11	0.00
P25	0.00	0.00 16.16	0.00 189.03	189.03	0.00 -272.09	0.00	0.13 -0.13	0.18 -0.18	0.00
P26	0.00	0.00 12.61	0.00 814.56	814.56	0.00 1895.53	1895.53	0.54 -0.54	-1.26 1.26	0.00
P27	0.00	0.00 22.76	0.00 -109.24	0.00	0.00 1122.22	1122.22	-0.07 0.07	-0.75 0.75	0.00
P28	0.00	0.00 14.77	0.00 811.80	811.80	0.00 -2998.84	0.00	0.54 -0.54	2.00 -2.00	0.00

**CASO: G1+G2+1.4Q**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 19.60	0.00 -483.84	0.00	0.00 769.34	769.34	-0.32 0.32	-0.51 0.51	0.00



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P2	0.00	0.00 43.98	0.00 -496.85	0.00	0.00 56.46	56.46	-0.33 0.33	-0.04 0.04	0.00
P3	0.00	0.00 42.65	0.00 -78.46	0.00	0.00 -251.79	0.00	-0.05 0.05	0.17 -0.17	0.00
P4	0.00	0.00 15.65	0.00 0.93	0.93	0.00 401.97	401.97	0.00 0.00	-0.27 0.27	0.00
P5	0.00	0.00 8.78	0.00 -362.50	0.00	0.00 737.01	737.01	-0.24 0.24	-0.49 0.49	0.00
P6	0.00	0.00 29.26	0.00 -67.20	0.00	0.00 -145.96	0.00	-0.04 0.04	0.10 -0.10	0.00
P7	0.00	0.00 52.00	0.00 5.31	5.31	0.00 398.75	398.75	0.00 0.00	-0.27 0.27	0.00
P8	0.00	0.00 43.31	0.00 165.96	165.96	0.00 350.12	350.12	0.11 -0.11	-0.23 0.23	0.00
P9	0.00	0.00 22.01	0.00 0.59	0.59	0.00 234.96	234.96	0.00 0.00	-0.16 0.16	0.00
P10	0.00	0.00 4.95	0.00 369.28	369.28	0.00 136.12	136.12	0.25 -0.25	-0.09 0.09	0.00
P11	0.00	0.00 2.08	0.00 -39.74	0.00	0.00 199.52	199.52	-0.03 0.03	-0.13 0.13	0.00
P12	0.00	0.00 12.61	0.00 -176.33	0.00	0.00 40.03	40.03	-0.12 0.12	-0.03 0.03	0.00
P13	0.00	0.00 12.07	0.00 73.91	73.91	0.00 444.62	444.62	0.05 -0.05	-0.30 0.30	0.00
P14	0.00	0.00 8.61	0.00 -169.79	0.00	0.00 790.61	790.61	-0.11 0.11	-0.53 0.53	0.00
P15	0.00	0.00 12.50	0.00 -152.74	0.00	0.00 114.76	114.76	-0.10 0.10	-0.08 0.08	0.00
P16	0.00	0.00 13.33	0.00 -1.28	0.00	0.00 123.47	123.47	0.00 0.00	-0.08 0.08	0.00
P18	0.00	0.00 17.63	0.00 -566.00	0.00	0.00 -1112.58	0.00	-0.38 0.38	0.74 -0.74	0.00
P19	0.00	0.00 9.87	0.00 805.10	805.10	0.00 246.40	246.40	0.54 -0.54	-0.16 0.16	0.00
P20	0.00	0.00 14.20	0.00 -276.66	0.00	0.00 86.15	86.15	-0.18 0.18	-0.06 0.06	0.00
P21	0.00	0.00 14.95	0.00 9.42	9.42	0.00 144.44	144.44	0.01 -0.01	-0.10 0.10	0.00
P22	0.00	0.00 17.81	0.00 72.05	72.05	0.00 -221.40	0.00	0.05 -0.05	0.15 -0.15	0.00
P23	0.00	0.00 15.10	0.00 95.78	95.78	0.00 66.71	66.71	0.06 -0.06	-0.04 0.04	0.00
P24	0.00	0.00 15.08	0.00 12.78	12.78	0.00 164.72	164.72	0.01 -0.01	-0.11 0.11	0.00
P25	0.00	0.00 16.20	0.00 -9.85	0.00	0.00 -271.91	0.00	-0.01 0.01	0.18 -0.18	0.00
P26	0.00	0.00 12.54	0.00 753.96	753.96	0.00 1894.98	1894.98	0.50 -0.50	-1.26 1.26	0.00
P27	0.00	0.00 22.72	0.00 -182.11	0.00	0.00 1118.97	1118.97	-0.12 0.12	-0.75 0.75	0.00
P28	0.00	0.00 14.63	0.00 699.89	699.89	0.00 -3004.72	0.00	0.47 -0.47	2.00 -2.00	0.00

**CASO: G1+G2+1.4Q+0.84V1+0.84D1**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 19.06	0.00 -482.14	0.00	0.00 480.38	480.38	-0.32 0.32	-0.32 0.32	0.00
P2	0.00	0.00 44.26	0.00 -947.48	0.00	0.00 32.24	32.24	-0.63 0.63	-0.02 0.02	0.00
P3	0.00	0.00	0.00	0.00	0.00	0.00	-0.04	0.47	0.00





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		42.30	-57.60		-712.45		0.04	-0.47	
P4	0.00	0.00 16.27	0.00 -304.01	0.00	0.00 369.18	369.18	-0.20 0.20	-0.25 0.25	0.00
P5	0.00	0.00 8.31	0.00 -351.31	0.00	0.00 432.73	432.73	-0.23 0.23	-0.29 0.29	0.00
P6	0.00	0.00 29.24	0.00 269.49	269.49	0.00 -139.87	0.00	0.18 -0.18	0.09 -0.09	0.00
P7	0.00	0.00 52.06	0.00 703.97	703.97	0.00 394.28	394.28	0.47 -0.47	-0.26 0.26	0.00
P8	0.00	0.00 43.37	0.00 469.42	469.42	0.00 360.81	360.81	0.31 -0.31	-0.24 0.24	0.00
P9	0.00	0.00 21.01	0.00 764.68	764.68	0.00 248.30	248.30	0.51 -0.51	-0.17 0.17	0.00
P10	0.00	0.00 6.29	0.00 393.57	393.57	0.00 748.41	748.41	0.26 -0.26	-0.50 0.50	0.00
P11	0.00	0.00 1.64	0.00 -31.60	0.00	0.00 -39.63	0.00	-0.02 0.02	0.03 -0.03	0.00
P12	0.00	0.00 12.81	0.00 281.57	281.57	0.00 39.63	39.63	0.19 -0.19	-0.03 0.03	0.00
P13	0.00	0.00 11.96	0.00 366.08	366.08	0.00 456.28	456.28	0.24 -0.24	-0.30 0.30	0.00
P14	0.00	0.00 8.67	0.00 -385.21	0.00	0.00 709.03	709.03	-0.26 0.26	-0.47 0.47	0.00
P15	0.00	0.00 12.41	0.00 -148.58	0.00	0.00 -61.49	0.00	-0.10 0.10	0.04 -0.04	0.00
P16	0.00	0.00 13.37	0.00 1.72	1.72	0.00 -67.09	0.00	0.00 0.00	0.04 -0.04	0.00
P18	0.00	0.00 18.30	0.00 -681.19	0.00	0.00 -1592.99	0.00	-0.45 0.45	1.06 -1.06	0.00
P19	0.00	0.00 9.36	0.00 731.67	731.67	0.00 -168.38	0.00	0.49 -0.49	0.11 -0.11	0.00
P20	0.00	0.00 14.05	0.00 -274.35	0.00	0.00 -191.83	0.00	-0.18 0.18	0.13 -0.13	0.00
P21	0.00	0.00 14.97	0.00 11.80	11.80	0.00 -150.35	0.00	0.01 -0.01	0.10 -0.10	0.00
P22	0.00	0.00 18.16	0.00 118.79	118.79	0.00 -422.54	0.00	0.08 -0.08	0.28 -0.28	0.00
P23	0.00	0.00 14.95	0.00 105.84	105.84	0.00 -197.14	0.00	0.07 -0.07	0.13 -0.13	0.00
P24	0.00	0.00 15.12	0.00 15.33	15.33	0.00 -126.44	0.00	0.01 -0.01	0.08 -0.08	0.00
P25	0.00	0.00 16.31	0.00 -66.39	0.00	0.00 -537.14	0.00	-0.04 0.04	0.36 -0.36	0.00
P26	0.00	0.00 12.25	0.00 759.34	759.34	0.00 1505.78	1505.78	0.51 -0.51	-1.00 1.00	0.00
P27	0.00	0.00 22.80	0.00 -180.38	0.00	0.00 472.30	472.30	-0.12 0.12	-0.31 0.31	0.00
P28	0.00	0.00 14.82	0.00 673.64	673.64	0.00 -3332.74	0.00	0.45 -0.45	2.22 -2.22	0.00


**CASO: G1+G2+1.4Q+0.84V2+0.84D2**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 20.14	0.00 -485.54	0.00	0.00 1058.30	1058.30	-0.32 0.32	-0.71 0.71	0.00
P2	0.00	0.00 43.71	0.00 -46.22	0.00	0.00 80.68	80.68	-0.03 0.03	-0.05 0.05	0.00
P3	0.00	0.00 43.00	0.00 -99.31	0.00	0.00 208.87	208.87	-0.07 0.07	-0.14 0.14	0.00
P4	0.00	0.00 15.03	0.00 305.87	305.87	0.00 434.77	434.77	0.20 -0.20	-0.29 0.29	0.00

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P5	0.00	0.00 9.25	0.00 -373.70	0.00	0.00 1041.30	1041.30	-0.25 0.25	-0.69 0.69	0.00
P6	0.00	0.00 29.28	0.00 -403.89	0.00	0.00 -152.05	0.00	-0.27 0.27	0.10 -0.10	0.00
P7	0.00	0.00 51.95	0.00 -693.35	0.00	0.00 403.23	403.23	-0.46 0.46	-0.27 0.27	0.00
P8	0.00	0.00 43.25	0.00 -137.50	0.00	0.00 339.43	339.43	-0.09 0.09	-0.23 0.23	0.00
P9	0.00	0.00 23.01	0.00 -763.50	0.00	0.00 221.63	221.63	-0.51 0.51	-0.15 0.15	0.00
P10	0.00	0.00 3.61	0.00 344.99	344.99	0.00 -476.17	0.00	0.23 -0.23	0.32 -0.32	0.00
P11	0.00	0.00 2.51	0.00 -47.88	0.00	0.00 438.67	438.67	-0.03 0.03	-0.29 0.29	0.00
P12	0.00	0.00 12.40	0.00 -634.23	0.00	0.00 40.44	40.44	-0.42 0.42	-0.03 0.03	0.00
P13	0.00	0.00 12.17	0.00 -218.26	0.00	0.00 432.95	432.95	-0.15 0.15	-0.29 0.29	0.00
P14	0.00	0.00 8.55	0.00 45.62	45.62	0.00 872.18	872.18	0.03 -0.03	-0.58 0.58	0.00
P15	0.00	0.00 12.59	0.00 -156.90	0.00	0.00 291.00	291.00	-0.10 0.10	-0.19 0.19	0.00
P16	0.00	0.00 13.28	0.00 -4.28	0.00	0.00 314.03	314.03	0.00 0.00	-0.21 0.21	0.00
P18	0.00	0.00 16.95	0.00 -450.82	0.00	0.00 -632.17	0.00	-0.30 0.30	0.42 -0.42	0.00
P19	0.00	0.00 10.39	0.00 878.52	878.52	0.00 661.19	661.19	0.59 -0.59	-0.44 0.44	0.00
P20	0.00	0.00 14.36	0.00 -278.97	0.00	0.00 364.12	364.12	-0.19 0.19	-0.24 0.24	0.00
P21	0.00	0.00 14.92	0.00 7.04	7.04	0.00 439.24	439.24	0.00 0.00	-0.29 0.29	0.00
P22	0.00	0.00 17.46	0.00 25.31	25.31	0.00 -20.26	0.00	0.02 -0.02	0.01 -0.01	0.00
P23	0.00	0.00 15.24	0.00 85.73	85.73	0.00 330.57	330.57	0.06 -0.06	-0.22 0.22	0.00
P24	0.00	0.00 15.05	0.00 10.22	10.22	0.00 455.87	455.87	0.01 -0.01	-0.30 0.30	0.00
P25	0.00	0.00 16.10	0.00 46.68	46.68	0.00 -6.67	0.00	0.03 -0.03	0.00 0.00	0.00
P26	0.00	0.00 12.83	0.00 748.58	748.58	0.00 2284.17	2284.17	0.50 -0.50	-1.52 1.52	0.00
P27	0.00	0.00 22.64	0.00 -183.83	0.00	0.00 1765.64	1765.64	-0.12 0.12	-1.18 1.18	0.00
P28	0.00	0.00 14.44	0.00 726.15	726.15	0.00 -2676.70	0.00	0.48 -0.48	1.78 -1.78	0.00

CASO: G1+G2+1.4Q+0.84V3+0.84D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 20.12	0.00 -865.89	0.00	0.00 740.28	740.28	-0.58 0.58	-0.49 0.49	0.00
P2	0.00	0.00 44.01	0.00 -539.89	0.00	0.00 179.10	179.10	-0.36 0.36	-0.12 0.12	0.00
P3	0.00	0.00 42.59	0.00 -50.32	0.00	0.00 -301.17	0.00	-0.03 0.03	0.20 -0.20	0.00
P4	0.00	0.00 16.41	0.00 -24.41	0.00	0.00 760.83	760.83	-0.02 0.02	-0.51 0.51	0.00
P5	0.00	0.00 9.31	0.00 -672.14	0.00	0.00 724.88	724.88	-0.45 0.45	-0.48 0.48	0.00
P6	0.00	0.00	0.00	0.00	0.00	0.00	-0.04	0.41	0.00

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		29.48	-66.78		-617.15		0.04	-0.41	
P7	0.00	0.00 52.43	0.00 6.34	6.34	0.00 311.52	311.52	0.00 0.00	-0.21 0.21	0.00
P8	0.00	0.00 44.17	0.00 167.82	167.82	0.00 4.79	4.79	0.11 -0.11	0.00 0.00	0.00
P9	0.00	0.00 21.46	0.00 7.77	7.77	0.00 -104.26	0.00	0.01 -0.01	0.07 -0.07	0.00
P10	0.00	0.00 5.52	0.00 723.85	723.85	0.00 122.28	122.28	0.48 -0.48	-0.08 0.08	0.00
P11	0.00	0.00 1.26	0.00 -404.45	0.00	0.00 212.56	212.56	-0.27 0.27	-0.14 0.14	0.00
P12	0.00	0.00 12.39	0.00 -189.47	0.00	0.00 32.85	32.85	-0.13 0.13	-0.02 0.02	0.00
P13	0.00	0.00 11.12	0.00 65.21	65.21	0.00 99.31	99.31	0.04 -0.04	-0.07 0.07	0.00
P14	0.00	0.00 8.85	0.00 -157.23	0.00	0.00 1003.48	1003.48	-0.10 0.10	-0.67 0.67	0.00
P15	0.00	0.00 12.25	0.00 -631.49	0.00	0.00 109.73	109.73	-0.42 0.42	-0.07 0.07	0.00
P16	0.00	0.00 13.26	0.00 -192.21	0.00	0.00 130.98	130.98	-0.13 0.13	-0.09 0.09	0.00
P18	0.00	0.00 17.27	0.00 -1136.51	0.00	0.00 -1068.70	0.00	-0.76 0.76	0.71 -0.71	0.00
P19	0.00	0.00 9.68	0.00 603.51	603.51	0.00 285.08	285.08	0.40 -0.40	-0.19 0.19	0.00
P20	0.00	0.00 14.14	0.00 -673.37	0.00	0.00 97.81	97.81	-0.45 0.45	-0.07 0.07	0.00
P21	0.00	0.00 14.91	0.00 -174.79	0.00	0.00 155.76	155.76	-0.12 0.12	-0.10 0.10	0.00
P22	0.00	0.00 17.70	0.00 -394.43	0.00	0.00 -213.57	0.00	-0.26 0.26	0.14 -0.14	0.00
P23	0.00	0.00 15.20	0.00 -317.13	0.00	0.00 72.19	72.19	-0.21 0.21	-0.05 0.05	0.00
P24	0.00	0.00 15.15	0.00 -176.83	0.00	0.00 167.18	167.18	-0.12 0.12	-0.11 0.11	0.00
P25	0.00	0.00 16.32	0.00 -492.04	0.00	0.00 -272.63	0.00	-0.33 0.33	0.18 -0.18	0.00
P26	0.00	0.00 12.24	0.00 520.97	520.97	0.00 1898.99	1898.99	0.35 -0.35	-1.27 1.27	0.00
P27	0.00	0.00 22.58	0.00 -365.95	0.00	0.00 1113.62	1113.62	-0.24 0.24	-0.74 0.74	0.00
P28	0.00	0.00 14.28	0.00 430.08	430.08	0.00 -3018.31	0.00	0.29 -0.29	2.01 -2.01	0.00

CASO: G1+G2+1.4Q+0.84V4+0.84D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 19.07	0.00 -101.79	0.00	0.00 798.39	798.39	-0.07 0.07	-0.53 0.53	0.00
P2	0.00	0.00 43.95	0.00 -453.81	0.00	0.00 -66.18	0.00	-0.30 0.30	0.04 -0.04	0.00
P3	0.00	0.00 42.71	0.00 -106.60	0.00	0.00 -202.41	0.00	-0.07 0.07	0.13 -0.13	0.00
P4	0.00	0.00 14.89	0.00 26.27	26.27	0.00 43.12	43.12	0.02 -0.02	-0.03 0.03	0.00
P5	0.00	0.00 8.25	0.00 -52.87	0.00	0.00 749.15	749.15	-0.04 0.04	-0.50 0.50	0.00
P6	0.00	0.00 29.05	0.00 -67.63	0.00	0.00 325.23	325.23	-0.05 0.05	-0.22 0.22	0.00
P7	0.00	0.00 51.57	0.00 4.27	4.27	0.00 485.98	485.98	0.00 0.00	-0.32 0.32	0.00

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P8	0.00	0.00 42.46	0.00 164.11	164.11	0.00 695.45	695.45	0.11 -0.11	-0.46 0.46	0.00
P9	0.00	0.00 22.55	0.00 -6.58	0.00	0.00 574.19	574.19	0.00 0.00	-0.38 0.38	0.00
P10	0.00	0.00 4.37	0.00 14.71	14.71	0.00 149.96	149.96	0.01 -0.01	-0.10 0.10	0.00
P11	0.00	0.00 2.89	0.00 324.97	324.97	0.00 186.48	186.48	0.22 -0.22	-0.12 0.12	0.00
P12	0.00	0.00 12.82	0.00 -163.18	0.00	0.00 47.22	47.22	-0.11 0.11	-0.03 0.03	0.00
P13	0.00	0.00 13.01	0.00 82.61	82.61	0.00 789.93	789.93	0.06 -0.06	-0.53 0.53	0.00
P14	0.00	0.00 8.37	0.00 -182.35	0.00	0.00 577.74	577.74	-0.12 0.12	-0.39 0.39	0.00
P15	0.00	0.00 12.75	0.00 326.01	326.01	0.00 119.79	119.79	0.22 -0.22	-0.08 0.08	0.00
P16	0.00	0.00 13.40	0.00 189.65	189.65	0.00 115.96	115.96	0.13 -0.13	-0.08 0.08	0.00
P18	0.00	0.00 17.99	0.00 4.50	4.50	0.00 -1156.46	0.00	0.00 0.00	0.77 -0.77	0.00
P19	0.00	0.00 10.07	0.00 1006.68	1006.68	0.00 207.73	207.73	0.67 -0.67	-0.14 0.14	0.00
P20	0.00	0.00 14.26	0.00 120.05	120.05	0.00 74.48	74.48	0.08 -0.08	-0.05 0.05	0.00
P21	0.00	0.00 14.98	0.00 193.63	193.63	0.00 133.12	133.12	0.13 -0.13	-0.09 0.09	0.00
P22	0.00	0.00 17.92	0.00 538.53	538.53	0.00 -229.23	0.00	0.36 -0.36	0.15 -0.15	0.00
P23	0.00	0.00 14.99	0.00 508.70	508.70	0.00 61.23	61.23	0.34 -0.34	-0.04 0.04	0.00
P24	0.00	0.00 15.01	0.00 202.39	202.39	0.00 162.25	162.25	0.13 -0.13	-0.11 0.11	0.00
P25	0.00	0.00 16.08	0.00 472.33	472.33	0.00 -271.18	0.00	0.31 -0.31	0.18 -0.18	0.00
P26	0.00	0.00 12.85	0.00 986.95	986.95	0.00 1890.97	1890.97	0.66 -0.66	-1.26 1.26	0.00
P27	0.00	0.00 22.86	0.00 1.74	1.74	0.00 1124.32	1124.32	0.00 0.00	-0.75 0.75	0.00
P28	0.00	0.00 14.98	0.00 969.71	969.71	0.00 -2991.13	0.00	0.65 -0.65	1.99 -1.99	0.00

CASO: G1+G2+1.4Q+1.2D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 19.46	0.00 -489.77	0.00	0.00 685.52	685.52	-0.33 0.33	-0.46 0.46	0.00
P2	0.00	0.00 44.06	0.00 -625.82	0.00	0.00 50.73	50.73	-0.42 0.42	-0.03 0.03	0.00
P3	0.00	0.00 42.56	0.00 -74.34	0.00	0.00 -383.21	0.00	-0.05 0.05	0.26 -0.26	0.00
P4	0.00	0.00 15.81	0.00 -87.00	0.00	0.00 388.64	388.64	-0.06 0.06	-0.26 0.26	0.00
P5	0.00	0.00 8.66	0.00 -363.21	0.00	0.00 650.69	650.69	-0.24 0.24	-0.43 0.43	0.00
P6	0.00	0.00 29.26	0.00 21.58	21.58	0.00 -153.36	0.00	0.01 -0.01	0.10 -0.10	0.00
P7	0.00	0.00 52.02	0.00 194.20	194.20	0.00 397.78	397.78	0.13 -0.13	-0.27 0.27	0.00
P8	0.00	0.00 43.33	0.00 246.06	246.06	0.00 352.62	352.62	0.16 -0.16	-0.24 0.24	0.00
P9	0.00	0.00	0.00	202.92	0.00	243.02	0.14	-0.16	0.00

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		21.76	202.92		243.02		-0.14	0.16	
P10	0.00	0.00 5.28	0.00 369.33	369.33	0.00 301.58	301.58	0.25 -0.25	-0.20 0.20	0.00
P11	0.00	0.00 1.97	0.00 -44.52	0.00	0.00 144.40	144.40	-0.03 0.03	-0.10 0.10	0.00
P12	0.00	0.00 12.65	0.00 -68.74	0.00	0.00 39.98	39.98	-0.05 0.05	-0.03 0.03	0.00
P13	0.00	0.00 12.05	0.00 140.75	140.75	0.00 447.34	447.34	0.09 -0.09	-0.30 0.30	0.00
P14	0.00	0.00 8.62	0.00 -219.95	0.00	0.00 772.12	772.12	-0.15 0.15	-0.51 0.51	0.00
P15	0.00	0.00 12.48	0.00 -155.52	0.00	0.00 73.03	73.03	-0.10 0.10	-0.05 0.05	0.00
P16	0.00	0.00 13.33	0.00 -2.31	0.00	0.00 90.88	90.88	0.00 0.00	-0.06 0.06	0.00
P18	0.00	0.00 17.77	0.00 -582.23	0.00	0.00 -1229.72	0.00	-0.39 0.39	0.82 -0.82	0.00
P19	0.00	0.00 9.77	0.00 790.36	790.36	0.00 156.25	156.25	0.53 -0.53	-0.10 0.10	0.00
P20	0.00	0.00 14.17	0.00 -279.81	0.00	0.00 21.51	21.51	-0.19 0.19	-0.01 0.01	0.00
P21	0.00	0.00 14.95	0.00 8.34	8.34	0.00 90.41	90.41	0.01 -0.01	-0.06 0.06	0.00
P22	0.00	0.00 17.88	0.00 88.03	88.03	0.00 -274.33	0.00	0.06 -0.06	0.18 -0.18	0.00
P23	0.00	0.00 15.07	0.00 94.37	94.37	0.00 2.33	2.33	0.06 -0.06	0.00 0.00	0.00
P24	0.00	0.00 15.09	0.00 11.68	11.68	0.00 109.32	109.32	0.01 -0.01	-0.07 0.07	0.00
P25	0.00	0.00 16.23	0.00 -15.29	0.00	0.00 -336.66	0.00	-0.01 0.01	0.22 -0.22	0.00
P26	0.00	0.00 12.48	0.00 753.00	753.00	0.00 1801.34	1801.34	0.50 -0.50	-1.20 1.20	0.00
P27	0.00	0.00 22.73	0.00 -183.07	0.00	0.00 970.69	970.69	-0.12 0.12	-0.65 0.65	0.00
P28	0.00	0.00 14.67	0.00 697.72	697.72	0.00 -3085.85	0.00	0.47 -0.47	2.06 -2.06	0.00

CASO: G1+G2+1.4Q+1.2D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 19.73	0.00 -477.92	0.00	0.00 853.16	853.16	-0.32 0.32	-0.57 0.57	0.00
P2	0.00	0.00 43.91	0.00 -367.88	0.00	0.00 62.19	62.19	-0.25 0.25	-0.04 0.04	0.00
P3	0.00	0.00 42.75	0.00 -82.57	0.00	0.00 -120.37	0.00	-0.06 0.06	0.08 -0.08	0.00
P4	0.00	0.00 15.49	0.00 88.87	88.87	0.00 415.31	415.31	0.06 -0.06	-0.28 0.28	0.00
P5	0.00	0.00 8.89	0.00 -361.80	0.00	0.00 823.34	823.34	-0.24 0.24	-0.55 0.55	0.00
P6	0.00	0.00 29.27	0.00 -155.99	0.00	0.00 -138.57	0.00	-0.10 0.10	0.09 -0.09	0.00
P7	0.00	0.00 51.99	0.00 -183.58	0.00	0.00 399.72	399.72	-0.12 0.12	-0.27 0.27	0.00
P8	0.00	0.00 43.30	0.00 85.87	85.87	0.00 347.62	347.62	0.06 -0.06	-0.23 0.23	0.00
P9	0.00	0.00 22.25	0.00 -201.73	0.00	0.00 226.91	226.91	-0.13 0.13	-0.15 0.15	0.00
P10	0.00	0.00 4.61	0.00 369.22	369.22	0.00 -29.35	0.00	0.25 -0.25	0.02 -0.02	0.00



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P11	0.00	0.00 2.18	0.00 -34.96	0.00	0.00 254.64	254.64	-0.02 0.02	-0.17 0.17	0.00
P12	0.00	0.00 12.56	0.00 -283.92	0.00	0.00 40.09	40.09	-0.19 0.19	-0.03 0.03	0.00
P13	0.00	0.00 12.09	0.00 7.07	7.07	0.00 441.89	441.89	0.00 0.00	-0.29 0.29	0.00
P14	0.00	0.00 8.60	0.00 -119.63	0.00	0.00 809.09	809.09	-0.08 0.08	-0.54 0.54	0.00
P15	0.00	0.00 12.52	0.00 -149.96	0.00	0.00 156.49	156.49	-0.10 0.10	-0.10 0.10	0.00
P16	0.00	0.00 13.32	0.00 -0.24	0.00	0.00 156.06	156.06	0.00 0.00	-0.10 0.10	0.00
P18	0.00	0.00 17.48	0.00 -549.78	0.00	0.00 -995.44	0.00	-0.37 0.37	0.66 -0.66	0.00
P19	0.00	0.00 9.98	0.00 819.84	819.84	0.00 336.56	336.56	0.55 -0.55	-0.22 0.22	0.00
P20	0.00	0.00 14.23	0.00 -273.51	0.00	0.00 150.78	150.78	-0.18 0.18	-0.10 0.10	0.00
P21	0.00	0.00 14.94	0.00 10.50	10.50	0.00 198.48	198.48	0.01 -0.01	-0.13 0.13	0.00
P22	0.00	0.00 17.74	0.00 56.07	56.07	0.00 -168.46	0.00	0.04 -0.04	0.11 -0.11	0.00
P23	0.00	0.00 15.13	0.00 97.20	97.20	0.00 131.10	131.10	0.06 -0.06	-0.09 0.09	0.00
P24	0.00	0.00 15.08	0.00 13.87	13.87	0.00 220.11	220.11	0.01 -0.01	-0.15 0.15	0.00
P25	0.00	0.00 16.18	0.00 -4.41	0.00	0.00 -207.16	0.00	0.00 0.00	0.14 -0.14	0.00
P26	0.00	0.00 12.60	0.00 754.92	754.92	0.00 1988.62	1988.62	0.50 -0.50	-1.33 1.33	0.00
P27	0.00	0.00 22.70	0.00 -181.14	0.00	0.00 1267.25	1267.25	-0.12 0.12	-0.84 0.84	0.00
P28	0.00	0.00 14.59	0.00 702.07	702.07	0.00 -2923.59	0.00	0.47 -0.47	1.95 -1.95	0.00

**CASO: G1+G2+1.4Q+1.2D3**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 19.77	0.00 -616.28	0.00	0.00 759.15	759.15	-0.41 0.41	-0.51 0.51	0.00
P2	0.00	0.00 43.99	0.00 -512.26	0.00	0.00 104.19	104.19	-0.34 0.34	-0.07 0.07	0.00
P3	0.00	0.00 42.63	0.00 -75.98	0.00	0.00 -269.03	0.00	-0.05 0.05	0.18 -0.18	0.00
P4	0.00	0.00 15.90	0.00 -8.01	0.00	0.00 519.96	519.96	-0.01 0.01	-0.35 0.35	0.00
P5	0.00	0.00 8.91	0.00 -449.14	0.00	0.00 733.50	733.50	-0.30 0.30	-0.49 0.49	0.00
P6	0.00	0.00 29.34	0.00 -66.99	0.00	0.00 -305.41	0.00	-0.04 0.04	0.20 -0.20	0.00
P7	0.00	0.00 52.14	0.00 6.04	6.04	0.00 352.25	352.25	0.00 0.00	-0.23 0.23	0.00
P8	0.00	0.00 43.60	0.00 166.69	166.69	0.00 228.39	228.39	0.11 -0.11	-0.15 0.15	0.00
P9	0.00	0.00 21.83	0.00 3.47	3.47	0.00 123.69	123.69	0.00 0.00	-0.08 0.08	0.00
P10	0.00	0.00 5.10	0.00 475.27	475.27	0.00 132.55	132.55	0.32 -0.32	-0.09 0.09	0.00
P11	0.00	0.00 1.81	0.00 -163.54	0.00	0.00 203.59	203.59	-0.11 0.11	-0.14 0.14	0.00
P12	0.00	0.00	0.00	0.00	0.00	35.09	-0.12	-0.02	0.00




**AltoQi Eberick 2018  
Plena**

**Leilson Campos  
Rezende  
Rezende Engenharia**

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		12.55	-180.23		35.09		0.12	0.02	
P13	0.00	0.00 11.75	0.00 71.44	71.44	0.00 322.91	322.91	0.05 -0.05	-0.22 0.22	0.00
P14	0.00	0.00 8.68	0.00 -165.75	0.00	0.00 857.36	857.36	-0.11 0.11	-0.57 0.57	0.00
P15	0.00	0.00 12.44	0.00 -280.85	0.00	0.00 112.80	112.80	-0.19 0.19	-0.08 0.08	0.00
P16	0.00	0.00 13.30	0.00 -55.70	0.00	0.00 126.95	126.95	-0.04 0.04	-0.08 0.08	0.00
P18	0.00	0.00 17.52	0.00 -730.73	0.00	0.00 -1092.81	0.00	-0.49 0.49	0.73 -0.73	0.00
P19	0.00	0.00 9.82	0.00 743.02	743.02	0.00 258.85	258.85	0.50 -0.50	-0.17 0.17	0.00
P20	0.00	0.00 14.19	0.00 -384.78	0.00	0.00 90.23	90.23	-0.26 0.26	-0.06 0.06	0.00
P21	0.00	0.00 14.94	0.00 -42.81	0.00	0.00 148.45	148.45	-0.03 0.03	-0.10 0.10	0.00
P22	0.00	0.00 17.78	0.00 -64.70	0.00	0.00 -218.47	0.00	-0.04 0.04	0.15 -0.15	0.00
P23	0.00	0.00 15.12	0.00 -16.87	0.00	0.00 68.81	68.81	-0.01 0.01	-0.05 0.05	0.00
P24	0.00	0.00 15.10	0.00 -40.92	0.00	0.00 165.60	165.60	-0.03 0.03	-0.11 0.11	0.00
P25	0.00	0.00 16.24	0.00 -150.89	0.00	0.00 -272.27	0.00	-0.10 0.10	0.18 -0.18	0.00
P26	0.00	0.00 12.46	0.00 686.82	686.82	0.00 1895.95	1895.95	0.46 -0.46	-1.26 1.26	0.00
P27	0.00	0.00 22.67	0.00 -258.21	0.00	0.00 1116.99	1116.99	-0.17 0.17	-0.74 0.74	0.00
P28	0.00	0.00 14.53	0.00 616.89	616.89	0.00 -3009.28	0.00	0.41 -0.41	2.01 -2.01	0.00

<b>CASO: G1+G2+1.4Q+1.2D4</b>									
<b>Elemento</b>	<b>Carga (kgf/m)</b>	<b>Rd Nd (tf)</b>	<b>Mxi Mxf (kgf.m)</b>	<b>MxMáx (kgf.m)</b>	<b>Myi Myf (kgf.m)</b>	<b>MyMáx (kgf.m)</b>	<b>Vxi Vxf (tf)</b>	<b>Vyi Vyf (tf)</b>	<b>Mtd (kgf/m)</b>
P1	0.00	0.00 19.42	0.00 -351.40	0.00	0.00 779.53	779.53	-0.23 0.23	-0.52 0.52	0.00
P2	0.00	0.00 43.97	0.00 -481.44	0.00	0.00 8.73	8.73	-0.32 0.32	-0.01 0.01	0.00
P3	0.00	0.00 42.67	0.00 -80.93	0.00	0.00 -234.54	0.00	-0.05 0.05	0.16 -0.16	0.00
P4	0.00	0.00 15.40	0.00 9.88	9.88	0.00 283.99	283.99	0.01 -0.01	-0.19 0.19	0.00
P5	0.00	0.00 8.64	0.00 -275.87	0.00	0.00 740.53	740.53	-0.18 0.18	-0.49 0.49	0.00
P6	0.00	0.00 29.19	0.00 -67.41	0.00	0.00 13.48	13.48	-0.04 0.04	-0.01 0.01	0.00
P7	0.00	0.00 51.87	0.00 4.58	4.58	0.00 445.25	445.25	0.00 0.00	-0.30 0.30	0.00
P8	0.00	0.00 43.03	0.00 165.24	165.24	0.00 471.85	471.85	0.11 -0.11	-0.31 0.31	0.00
P9	0.00	0.00 22.19	0.00 -2.29	0.00	0.00 346.24	346.24	0.00 0.00	-0.23 0.23	0.00
P10	0.00	0.00 4.79	0.00 263.28	263.28	0.00 139.69	139.69	0.18 -0.18	-0.09 0.09	0.00
P11	0.00	0.00 2.35	0.00 84.06	84.06	0.00 195.45	195.45	0.06 -0.06	-0.13 0.13	0.00
P12	0.00	0.00 12.67	0.00 -172.43	0.00	0.00 44.98	44.98	-0.11 0.11	-0.03 0.03	0.00
P13	0.00	0.00 12.38	0.00 76.38	76.38	0.00 566.32	566.32	0.05 -0.05	-0.38 0.38	0.00

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P14	0.00	0.00 8.54	0.00 -173.83	0.00	0.00 723.86	723.86	-0.12 0.12	-0.48 0.48	0.00
P15	0.00	0.00 12.56	0.00 -24.63	0.00	0.00 116.72	116.72	-0.02 0.02	-0.08 0.08	0.00
P16	0.00	0.00 13.35	0.00 53.15	53.15	0.00 119.99	119.99	0.04 -0.04	-0.08 0.08	0.00
P18	0.00	0.00 17.73	0.00 -401.28	0.00	0.00 -1132.35	0.00	-0.27 0.27	0.75 -0.75	0.00
P19	0.00	0.00 9.93	0.00 867.18	867.18	0.00 233.96	233.96	0.58 -0.58	-0.16 0.16	0.00
P20	0.00	0.00 14.22	0.00 -168.54	0.00	0.00 82.07	82.07	-0.11 0.11	-0.05 0.05	0.00
P21	0.00	0.00 14.96	0.00 61.65	61.65	0.00 140.43	140.43	0.04 -0.04	-0.09 0.09	0.00
P22	0.00	0.00 17.84	0.00 208.80	208.80	0.00 -224.32	0.00	0.14 -0.14	0.15 -0.15	0.00
P23	0.00	0.00 15.07	0.00 208.44	208.44	0.00 64.61	64.61	0.14 -0.14	-0.04 0.04	0.00
P24	0.00	0.00 15.06	0.00 66.48	66.48	0.00 163.83	163.83	0.04 -0.04	-0.11 0.11	0.00
P25	0.00	0.00 16.17	0.00 131.18	131.18	0.00 -271.55	0.00	0.09 -0.09	0.18 -0.18	0.00
P26	0.00	0.00 12.62	0.00 821.10	821.10	0.00 1894.00	1894.00	0.55 -0.55	-1.26 1.26	0.00
P27	0.00	0.00 22.76	0.00 -106.00	0.00	0.00 1120.94	1120.94	-0.07 0.07	-0.75 0.75	0.00
P28	0.00	0.00 14.73	0.00 782.90	782.90	0.00 -3000.16	0.00	0.52 -0.52	2.00 -2.00	0.00

CASO: G1+G2+1.4Q+D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 19.48	0.00 -488.78	0.00	0.00 699.49	699.49	-0.33 0.33	-0.47 0.47	0.00
P2	0.00	0.00 44.04	0.00 -604.33	0.00	0.00 51.68	51.68	-0.40 0.40	-0.03 0.03	0.00
P3	0.00	0.00 42.57	0.00 -75.03	0.00	0.00 -361.31	0.00	-0.05 0.05	0.24 -0.24	0.00
P4	0.00	0.00 15.78	0.00 -72.35	0.00	0.00 390.86	390.86	-0.05 0.05	-0.26 0.26	0.00
P5	0.00	0.00 8.68	0.00 -363.09	0.00	0.00 665.08	665.08	-0.24 0.24	-0.44 0.44	0.00
P6	0.00	0.00 29.26	0.00 6.78	6.78	0.00 -152.12	0.00	0.00 0.00	0.10 -0.10	0.00
P7	0.00	0.00 52.02	0.00 162.72	162.72	0.00 397.94	397.94	0.11 -0.11	-0.27 0.27	0.00
P8	0.00	0.00 43.32	0.00 232.71	232.71	0.00 352.20	352.20	0.16 -0.16	-0.23 0.23	0.00
P9	0.00	0.00 21.80	0.00 169.20	169.20	0.00 241.68	241.68	0.11 -0.11	-0.16 0.16	0.00
P10	0.00	0.00 5.22	0.00 369.32	369.32	0.00 274.01	274.01	0.25 -0.25	-0.18 0.18	0.00
P11	0.00	0.00 1.99	0.00 -43.72	0.00	0.00 153.58	153.58	-0.03 0.03	-0.10 0.10	0.00
P12	0.00	0.00 12.64	0.00 -86.67	0.00	0.00 39.99	39.99	-0.06 0.06	-0.03 0.03	0.00
P13	0.00	0.00 12.05	0.00 129.61	129.61	0.00 446.89	446.89	0.09 -0.09	-0.30 0.30	0.00
P14	0.00	0.00 8.62	0.00 -211.59	0.00	0.00 775.20	775.20	-0.14 0.14	-0.52 0.52	0.00
P15	0.00	0.00	0.00	0.00	0.00	79.98	-0.10	-0.05	0.00





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Leilson Campos  
Rezende  
Rezende Engenharia

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		12.48	-155.06		79.98		0.10	0.05	
P16	0.00	0.00 13.33	0.00 -2.14	0.00	0.00 96.31	96.31	0.00 0.00	-0.06 0.06	0.00
P18	0.00	0.00 17.75	0.00 -579.52	0.00	0.00 -1210.19	0.00	-0.39 0.39	0.81 -0.81	0.00
P19	0.00	0.00 9.79	0.00 792.81	792.81	0.00 171.28	171.28	0.53 -0.53	-0.11 0.11	0.00
P20	0.00	0.00 14.17	0.00 -279.28	0.00	0.00 32.28	32.28	-0.19 0.19	-0.02 0.02	0.00
P21	0.00	0.00 14.95	0.00 8.52	8.52	0.00 99.41	99.41	0.01 -0.01	-0.07 0.07	0.00
P22	0.00	0.00 17.87	0.00 85.37	85.37	0.00 -265.51	0.00	0.06 -0.06	0.18 -0.18	0.00
P23	0.00	0.00 15.07	0.00 94.61	94.61	0.00 13.06	13.06	0.06 -0.06	-0.01 0.01	0.00
P24	0.00	0.00 15.09	0.00 11.87	11.87	0.00 118.55	118.55	0.01 -0.01	-0.08 0.08	0.00
P25	0.00	0.00 16.22	0.00 -14.39	0.00	0.00 -325.86	0.00	-0.01 0.01	0.22 -0.22	0.00
P26	0.00	0.00 12.49	0.00 753.16	753.16	0.00 1816.94	1816.94	0.50 -0.50	-1.21 1.21	0.00
P27	0.00	0.00 22.73	0.00 -182.91	0.00	0.00 995.40	995.40	-0.12 0.12	-0.66 0.66	0.00
P28	0.00	0.00 14.67	0.00 698.08	698.08	0.00 -3072.33	0.00	0.47 -0.47	2.05 -2.05	0.00


CASO: G1+G2+1.4Q+D2

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 19.71	0.00 -478.90	0.00	0.00 839.19	839.19	-0.32 0.32	-0.56 0.56	0.00
P2	0.00	0.00 43.92	0.00 -389.37	0.00	0.00 61.24	61.24	-0.26 0.26	-0.04 0.04	0.00
P3	0.00	0.00 42.73	0.00 -81.88	0.00	0.00 -142.27	0.00	-0.05 0.05	0.09 -0.09	0.00
P4	0.00	0.00 15.52	0.00 74.21	74.21	0.00 413.09	413.09	0.05 -0.05	-0.28 0.28	0.00
P5	0.00	0.00 8.87	0.00 -361.92	0.00	0.00 808.95	808.95	-0.24 0.24	-0.54 0.54	0.00
P6	0.00	0.00 29.26	0.00 -141.19	0.00	0.00 -139.80	0.00	-0.09 0.09	0.09 -0.09	0.00
P7	0.00	0.00 51.99	0.00 -152.10	0.00	0.00 399.56	399.56	-0.10 0.10	-0.27 0.27	0.00
P8	0.00	0.00 43.30	0.00 99.22	99.22	0.00 348.04	348.04	0.07 -0.07	-0.23 0.23	0.00
P9	0.00	0.00 22.21	0.00 -168.01	0.00	0.00 228.25	228.25	-0.11 0.11	-0.15 0.15	0.00
P10	0.00	0.00 4.67	0.00 369.23	369.23	0.00 -1.77	0.00	0.25 -0.25	0.00 0.00	0.00
P11	0.00	0.00 2.17	0.00 -35.76	0.00	0.00 245.45	245.45	-0.02 0.02	-0.16 0.16	0.00
P12	0.00	0.00 12.57	0.00 -265.99	0.00	0.00 40.08	40.08	-0.18 0.18	-0.03 0.03	0.00
P13	0.00	0.00 12.08	0.00 18.21	18.21	0.00 442.35	442.35	0.01 -0.01	-0.29 0.29	0.00
P14	0.00	0.00 8.60	0.00 -127.99	0.00	0.00 806.01	806.01	-0.09 0.09	-0.54 0.54	0.00
P15	0.00	0.00 12.52	0.00 -150.42	0.00	0.00 149.53	149.53	-0.10 0.10	-0.10 0.10	0.00
P16	0.00	0.00 13.32	0.00 -0.42	0.00	0.00 150.63	150.63	0.00 0.00	-0.10 0.10	0.00

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P18	0.00	0.00 17.51	0.00 -552.48	0.00	0.00 -1014.97	0.00	-0.37 0.37	0.68 -0.68	0.00
P19	0.00	0.00 9.96	0.00 817.38	817.38	0.00 321.53	321.53	0.54 -0.54	-0.21 0.21	0.00
P20	0.00	0.00 14.23	0.00 -274.04	0.00	0.00 140.01	140.01	-0.18 0.18	-0.09 0.09	0.00
P21	0.00	0.00 14.94	0.00 10.32	10.32	0.00 189.47	189.47	0.01 -0.01	-0.13 0.13	0.00
P22	0.00	0.00 17.75	0.00 58.73	58.73	0.00 -177.28	0.00	0.04 -0.04	0.12 -0.12	0.00
P23	0.00	0.00 15.12	0.00 96.96	96.96	0.00 120.37	120.37	0.06 -0.06	-0.08 0.08	0.00
P24	0.00	0.00 15.08	0.00 13.69	13.69	0.00 210.88	210.88	0.01 -0.01	-0.14 0.14	0.00
P25	0.00	0.00 16.19	0.00 -5.32	0.00	0.00 -217.95	0.00	0.00 0.00	0.15 -0.15	0.00
P26	0.00	0.00 12.59	0.00 754.76	754.76	0.00 1973.01	1973.01	0.50 -0.50	-1.32 1.32	0.00
P27	0.00	0.00 22.70	0.00 -181.30	0.00	0.00 1242.53	1242.53	-0.12 0.12	-0.83 0.83	0.00
P28	0.00	0.00 14.59	0.00 701.71	701.71	0.00 -2937.11	0.00	0.47 -0.47	1.96 -1.96	0.00

CASO: G1+G2+1.4Q+D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 19.74	0.00 -594.21	0.00	0.00 760.85	760.85	-0.40 0.40	-0.51 0.51	0.00
P2	0.00	0.00 43.99	0.00 -509.69	0.00	0.00 96.23	96.23	-0.34 0.34	-0.06 0.06	0.00
P3	0.00	0.00 42.63	0.00 -76.39	0.00	0.00 -266.16	0.00	-0.05 0.05	0.18 -0.18	0.00
P4	0.00	0.00 15.86	0.00 -6.52	0.00	0.00 500.30	500.30	0.00 0.00	-0.33 0.33	0.00
P5	0.00	0.00 8.89	0.00 -434.70	0.00	0.00 734.08	734.08	-0.29 0.29	-0.49 0.49	0.00
P6	0.00	0.00 29.32	0.00 -67.02	0.00	0.00 -278.83	0.00	-0.04 0.04	0.19 -0.19	0.00
P7	0.00	0.00 52.12	0.00 5.91	5.91	0.00 360.00	360.00	0.00 0.00	-0.24 0.24	0.00
P8	0.00	0.00 43.55	0.00 166.57	166.57	0.00 248.68	248.68	0.11 -0.11	-0.17 0.17	0.00
P9	0.00	0.00 21.86	0.00 2.99	2.99	0.00 142.23	142.23	0.00 0.00	-0.09 0.09	0.00
P10	0.00	0.00 5.07	0.00 457.61	457.61	0.00 133.14	133.14	0.31 -0.31	-0.09 0.09	0.00
P11	0.00	0.00 1.85	0.00 -142.91	0.00	0.00 202.91	202.91	-0.10 0.10	-0.14 0.14	0.00
P12	0.00	0.00 12.56	0.00 -179.58	0.00	0.00 35.91	35.91	-0.12 0.12	-0.02 0.02	0.00
P13	0.00	0.00 11.81	0.00 71.85	71.85	0.00 343.20	343.20	0.05 -0.05	-0.23 0.23	0.00
P14	0.00	0.00 8.67	0.00 -166.42	0.00	0.00 846.24	846.24	-0.11 0.11	-0.56 0.56	0.00
P15	0.00	0.00 12.45	0.00 -259.50	0.00	0.00 113.13	113.13	-0.17 0.17	-0.08 0.08	0.00
P16	0.00	0.00 13.31	0.00 -46.63	0.00	0.00 126.37	126.37	-0.03 0.03	-0.08 0.08	0.00
P18	0.00	0.00 17.54	0.00 -703.28	0.00	0.00 -1096.11	0.00	-0.47 0.47	0.73 -0.73	0.00
P19	0.00	0.00	0.00	753.36	0.00	256.77	0.50	-0.17	0.00

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		9.83	753.36		256.77		-0.50	0.17	
P20	0.00	0.00 14.19	0.00 -366.76	0.00	0.00 89.55	89.55	-0.24 0.24	-0.06 0.06	0.00
P21	0.00	0.00 14.94	0.00 -34.11	0.00	0.00 147.79	147.79	-0.02 0.02	-0.10 0.10	0.00
P22	0.00	0.00 17.79	0.00 -41.91	0.00	0.00 -218.96	0.00	-0.03 0.03	0.15 -0.15	0.00
P23	0.00	0.00 15.12	0.00 1.90	1.90	0.00 68.46	68.46	0.00 0.00	-0.05 0.05	0.00
P24	0.00	0.00 15.10	0.00 -31.97	0.00	0.00 165.46	165.46	-0.02 0.02	-0.11 0.11	0.00
P25	0.00	0.00 16.23	0.00 -127.38	0.00	0.00 -272.21	0.00	-0.08 0.08	0.18 -0.18	0.00
P26	0.00	0.00 12.48	0.00 698.01	698.01	0.00 1895.79	1895.79	0.47 -0.47	-1.26 1.26	0.00
P27	0.00	0.00 22.68	0.00 -245.52	0.00	0.00 1117.32	1117.32	-0.16 0.16	-0.74 0.74	0.00
P28	0.00	0.00 14.55	0.00 630.72	630.72	0.00 -3008.52	0.00	0.42 -0.42	2.01 -2.01	0.00

CASO: G1+G2+1.4Q+D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 19.45	0.00 -373.48	0.00	0.00 777.83	777.83	-0.25 0.25	-0.52 0.52	0.00
P2	0.00	0.00 43.97	0.00 -484.01	0.00	0.00 16.69	16.69	-0.32 0.32	-0.01 0.01	0.00
P3	0.00	0.00 42.67	0.00 -80.52	0.00	0.00 -237.42	0.00	-0.05 0.05	0.16 -0.16	0.00
P4	0.00	0.00 15.44	0.00 8.39	8.39	0.00 303.65	303.65	0.01 -0.01	-0.20 0.20	0.00
P5	0.00	0.00 8.66	0.00 -290.31	0.00	0.00 739.95	739.95	-0.19 0.19	-0.49 0.49	0.00
P6	0.00	0.00 29.20	0.00 -67.38	0.00	0.00 -13.09	0.00	-0.04 0.04	0.01 -0.01	0.00
P7	0.00	0.00 51.89	0.00 4.70	4.70	0.00 437.50	437.50	0.00 0.00	-0.29 0.29	0.00
P8	0.00	0.00 43.07	0.00 165.36	165.36	0.00 451.56	451.56	0.11 -0.11	-0.30 0.30	0.00
P9	0.00	0.00 22.16	0.00 -1.81	0.00	0.00 327.69	327.69	0.00 0.00	-0.22 0.22	0.00
P10	0.00	0.00 4.82	0.00 280.95	280.95	0.00 139.09	139.09	0.19 -0.19	-0.09 0.09	0.00
P11	0.00	0.00 2.30	0.00 63.43	63.43	0.00 196.13	196.13	0.04 -0.04	-0.13 0.13	0.00
P12	0.00	0.00 12.66	0.00 -173.08	0.00	0.00 44.15	44.15	-0.12 0.12	-0.03 0.03	0.00
P13	0.00	0.00 12.33	0.00 75.97	75.97	0.00 546.04	546.04	0.05 -0.05	-0.36 0.36	0.00
P14	0.00	0.00 8.55	0.00 -173.16	0.00	0.00 734.98	734.98	-0.12 0.12	-0.49 0.49	0.00
P15	0.00	0.00 12.55	0.00 -45.98	0.00	0.00 116.39	116.39	-0.03 0.03	-0.08 0.08	0.00
P16	0.00	0.00 13.35	0.00 44.08	44.08	0.00 120.57	120.57	0.03 -0.03	-0.08 0.08	0.00
P18	0.00	0.00 17.71	0.00 -428.73	0.00	0.00 -1129.05	0.00	-0.29 0.29	0.75 -0.75	0.00
P19	0.00	0.00 9.92	0.00 856.83	856.83	0.00 236.04	236.04	0.57 -0.57	-0.16 0.16	0.00
P20	0.00	0.00 14.21	0.00 -186.56	0.00	0.00 82.75	82.75	-0.12 0.12	-0.06 0.06	0.00

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P21	0.00	0.00 14.96	0.00 52.95	52.95	0.00 141.10	141.10	0.04 -0.04	-0.09 0.09	0.00
P22	0.00	0.00 17.84	0.00 186.01	186.01	0.00 -223.83	0.00	0.12 -0.12	0.15 -0.15	0.00
P23	0.00	0.00 15.07	0.00 189.66	189.66	0.00 64.96	64.96	0.13 -0.13	-0.04 0.04	0.00
P24	0.00	0.00 15.07	0.00 57.53	57.53	0.00 163.98	163.98	0.04 -0.04	-0.11 0.11	0.00
P25	0.00	0.00 16.18	0.00 107.68	107.68	0.00 -271.61	0.00	0.07 -0.07	0.18 -0.18	0.00
P26	0.00	0.00 12.61	0.00 809.91	809.91	0.00 1894.17	1894.17	0.54 -0.54	-1.26 1.26	0.00
P27	0.00	0.00 22.75	0.00 -118.69	0.00	0.00 1120.62	1120.62	-0.08 0.08	-0.75 0.75	0.00
P28	0.00	0.00 14.71	0.00 769.06	769.06	0.00 -3000.92	0.00	0.51 -0.51	2.00 -2.00	0.00

CASO: G1+G2+1.4V1+0.84D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 8.52	0.00 -501.10	0.00	0.00 298.35	298.35	-0.33 0.33	-0.20 0.20	0.00
P2	0.00	0.00 15.82	0.00 -1058.10	0.00	0.00 -182.69	0.00	-0.71 0.71	0.12 -0.12	0.00
P3	0.00	0.00 13.25	0.00 142.07	142.07	0.00 -924.50	0.00	0.09 -0.09	0.62 -0.62	0.00
P4	0.00	0.00 7.62	0.00 -558.86	0.00	0.00 296.91	296.91	-0.37 0.37	-0.20 0.20	0.00
P5	0.00	0.00 7.77	0.00 -346.49	0.00	0.00 209.69	209.69	-0.23 0.23	-0.14 0.14	0.00
P6	0.00	0.00 16.28	0.00 495.03	495.03	0.00 207.39	207.39	0.33 -0.33	-0.14 0.14	0.00
P7	0.00	0.00 21.29	0.00 1115.76	1115.76	0.00 4.01	4.01	0.74 -0.74	0.00 0.00	0.00
P8	0.00	0.00 18.16	0.00 641.76	641.76	0.00 10.79	10.79	0.43 -0.43	-0.01 0.01	0.00
P9	0.00	0.00 9.61	0.00 1149.41	1149.41	0.00 266.38	266.38	0.77 -0.77	-0.18 0.18	0.00
P10	0.00	0.00 8.07	0.00 359.50	359.50	0.00 1074.85	1074.85	0.24 -0.24	-0.72 0.72	0.00
P11	0.00	0.00 3.31	0.00 106.70	106.70	0.00 -166.26	0.00	0.07 -0.07	0.11 -0.11	0.00
P12	0.00	0.00 11.28	0.00 520.51	520.51	0.00 -0.18	0.00	0.35 -0.35	0.00 0.00	0.00
P13	0.00	0.00 10.71	0.00 513.35	513.35	0.00 130.67	130.67	0.34 -0.34	-0.09 0.09	0.00
P14	0.00	0.00 8.66	0.00 -489.36	0.00	0.00 660.50	660.50	-0.33 0.33	-0.44 0.44	0.00
P15	0.00	0.00 12.35	0.00 -160.30	0.00	0.00 -158.48	0.00	-0.11 0.11	0.11 -0.11	0.00
P16	0.00	0.00 14.00	0.00 8.36	8.36	0.00 -178.88	0.00	0.01 -0.01	0.12 -0.12	0.00
P18	0.00	0.00 18.76	0.00 -680.64	0.00	0.00 -1849.54	0.00	-0.45 0.45	1.23 -1.23	0.00
P19	0.00	0.00 9.09	0.00 692.32	692.32	0.00 -404.54	0.00	0.46 -0.46	0.27 -0.27	0.00
P20	0.00	0.00 13.96	0.00 -283.30	0.00	0.00 -346.67	0.00	-0.19 0.19	0.23 -0.23	0.00
P21	0.00	0.00 14.97	0.00 8.69	8.69	0.00 -321.71	0.00	0.01 -0.01	0.21 -0.21	0.00
P22	0.00	0.00	0.00	197.36	0.00	0.00	0.13	0.35	0.00

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		18.37	197.36		-532.19		-0.13	-0.35	
P23	0.00	0.00 14.87	0.00 100.26	100.26	0.00 -343.02	0.00	0.07 -0.07	0.23 -0.23	0.00
P24	0.00	0.00 15.14	0.00 14.02	14.02	0.00 -294.76	0.00	0.01 -0.01	0.20 -0.20	0.00
P25	0.00	0.00 16.36	0.00 -43.69	0.00	0.00 -684.29	0.00	-0.03 0.03	0.46 -0.46	0.00
P26	0.00	0.00 12.07	0.00 756.83	756.83	0.00 1291.54	1291.54	0.50 -0.50	-0.86 0.86	0.00
P27	0.00	0.00 22.84	0.00 -182.02	0.00	0.00 111.66	111.66	-0.12 0.12	-0.07 0.07	0.00
P28	0.00	0.00 14.97	0.00 686.05	686.05	0.00 -3512.23	0.00	0.46 -0.46	2.34 -2.34	0.00

CASO: G1+G2+1.4V2+0.84D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 10.19	0.00 -512.29	0.00	0.00 1183.32	1183.32	-0.34 0.34	-0.79 0.79	0.00
P2	0.00	0.00 14.97	0.00 323.63	323.63	0.00 -107.31	0.00	0.22 -0.22	0.07 -0.07	0.00
P3	0.00	0.00 14.32	0.00 76.39	76.39	0.00 488.37	488.37	0.05 -0.05	-0.33 0.33	0.00
P4	0.00	0.00 5.71	0.00 375.54	375.54	0.00 393.78	393.78	0.25 -0.25	-0.26 0.26	0.00
P5	0.00	0.00 9.23	0.00 -384.46	0.00	0.00 1143.42	1143.42	-0.26 0.26	-0.76 0.76	0.00
P6	0.00	0.00 16.35	0.00 -544.42	0.00	0.00 180.19	180.19	-0.36 0.36	-0.12 0.12	0.00
P7	0.00	0.00 21.13	0.00 -1036.82	0.00	0.00 18.02	18.02	-0.69 0.69	-0.01 0.01	0.00
P8	0.00	0.00 17.97	0.00 -295.02	0.00	0.00 -22.51	0.00	-0.20 0.20	0.02 -0.02	0.00
P9	0.00	0.00 12.72	0.00 -1208.72	0.00	0.00 229.45	229.45	-0.81 0.81	-0.15 0.15	0.00
P10	0.00	0.00 3.91	0.00 278.58	278.58	0.00 -811.69	0.00	0.19 -0.19	0.54 -0.54	0.00
P11	0.00	0.00 4.67	0.00 75.12	75.12	0.00 579.46	579.46	0.05 -0.05	-0.39 0.39	0.00
P12	0.00	0.00 10.63	0.00 -905.40	0.00	0.00 1.13	1.13	-0.60 0.60	0.00 0.00	0.00
P13	0.00	0.00 11.04	0.00 -398.16	0.00	0.00 94.33	94.33	-0.27 0.27	-0.06 0.06	0.00
P14	0.00	0.00 8.47	0.00 181.88	181.88	0.00 915.17	915.17	0.12 -0.12	-0.61 0.61	0.00
P15	0.00	0.00 12.64	0.00 -176.77	0.00	0.00 390.05	390.05	-0.12 0.12	-0.26 0.26	0.00
P16	0.00	0.00 13.86	0.00 -2.60	0.00	0.00 425.92	425.92	0.00 0.00	-0.28 0.28	0.00
P18	0.00	0.00 16.64	0.00 -311.83	0.00	0.00 -357.49	0.00	-0.21 0.21	0.24 -0.24	0.00
P19	0.00	0.00 10.71	0.00 923.32	923.32	0.00 893.94	893.94	0.62 -0.62	-0.60 0.60	0.00
P20	0.00	0.00 14.44	0.00 -293.95	0.00	0.00 519.59	519.59	-0.20 0.20	-0.35 0.35	0.00
P21	0.00	0.00 14.88	0.00 -0.26	0.00	0.00 610.50	610.50	0.00 0.00	-0.41 0.41	0.00
P22	0.00	0.00 17.27	0.00 56.48	56.48	0.00 88.88	88.88	0.04 -0.04	-0.06 0.06	0.00
P23	0.00	0.00 15.33	0.00 65.44	65.44	0.00 476.40	476.40	0.04 -0.04	-0.32 0.32	0.00



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P24	0.00	0.00 15.04	0.00 4.48	4.48	0.00 624.07	624.07	0.00 0.00	-0.42 0.42	0.00
P25	0.00	0.00 16.02	0.00 139.68	139.68	0.00 139.40	139.40	0.09 -0.09	-0.09 0.09	0.00
P26	0.00	0.00 12.99	0.00 738.01	738.01	0.00 2501.47	2501.47	0.49 -0.49	-1.67 1.67	0.00
P27	0.00	0.00 22.58	0.00 -188.66	0.00	0.00 2128.84	2128.84	-0.13 0.13	-1.42 1.42	0.00
P28	0.00	0.00 14.38	0.00 771.54	771.54	0.00 -2494.56	0.00	0.51 -0.51	1.66 -1.66	0.00

**CASO: G1+G2+1.4V3+0.84D3**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 10.15	0.00 -1081.64	0.00	0.00 697.17	697.17	-0.72 0.72	-0.46 0.46	0.00
P2	0.00	0.00 15.44	0.00 -431.77	0.00	0.00 37.13	37.13	-0.29 0.29	-0.02 0.02	0.00
P3	0.00	0.00 13.69	0.00 154.97	154.97	0.00 -292.31	0.00	0.10 -0.10	0.19 -0.19	0.00
P4	0.00	0.00 7.82	0.00 -129.72	0.00	0.00 888.38	888.38	-0.09 0.09	-0.59 0.59	0.00
P5	0.00	0.00 9.32	0.00 -841.10	0.00	0.00 657.97	657.97	-0.56 0.56	-0.44 0.44	0.00
P6	0.00	0.00 16.64	0.00 -24.09	0.00	0.00 -517.11	0.00	-0.02 0.02	0.34 -0.34	0.00
P7	0.00	0.00 21.87	0.00 40.86	40.86	0.00 -112.66	0.00	0.03 -0.03	0.08 -0.08	0.00
P8	0.00	0.00 19.36	0.00 176.13	176.13	0.00 -524.61	0.00	0.12 -0.12	0.35 -0.35	0.00
P9	0.00	0.00 10.34	0.00 -19.04	0.00	0.00 -265.52	0.00	-0.01 0.01	0.18 -0.18	0.00
P10	0.00	0.00 6.87	0.00 860.52	860.52	0.00 110.18	110.18	0.57 -0.57	-0.07 0.07	0.00
P11	0.00	0.00 2.76	0.00 -459.16	0.00	0.00 226.44	226.44	-0.31 0.31	-0.15 0.15	0.00
P12	0.00	0.00 10.63	0.00 -212.53	0.00	0.00 -9.20	0.00	-0.14 0.14	0.01 -0.01	0.00
P13	0.00	0.00 9.45	0.00 44.25	44.25	0.00 -406.23	0.00	0.03 -0.03	0.27 -0.27	0.00
P14	0.00	0.00 8.94	0.00 -134.69	0.00	0.00 1111.47	1111.47	-0.09 0.09	-0.74 0.74	0.00
P15	0.00	0.00 12.11	0.00 -906.67	0.00	0.00 108.32	108.32	-0.60 0.60	-0.07 0.07	0.00
P16	0.00	0.00 13.82	0.00 -289.94	0.00	0.00 134.42	134.42	-0.19 0.19	-0.09 0.09	0.00
P18	0.00	0.00 17.15	0.00 -1370.20	0.00	0.00 -1039.60	0.00	-0.91 0.91	0.69 -0.69	0.00
P19	0.00	0.00 9.59	0.00 500.81	500.81	0.00 303.35	303.35	0.33 -0.33	-0.20 0.20	0.00
P20	0.00	0.00 14.11	0.00 -899.36	0.00	0.00 104.00	104.00	-0.60 0.60	-0.07 0.07	0.00
P21	0.00	0.00 14.87	0.00 -278.42	0.00	0.00 161.38	161.38	-0.19 0.19	-0.11 0.11	0.00
P22	0.00	0.00 17.66	0.00 -586.73	0.00	0.00 -209.97	0.00	-0.39 0.39	0.14 -0.14	0.00
P23	0.00	0.00 15.26	0.00 -552.76	0.00	0.00 74.85	74.85	-0.37 0.37	-0.05 0.05	0.00
P24	0.00	0.00 15.20	0.00 -281.71	0.00	0.00 168.35	168.35	-0.19 0.19	-0.11 0.11	0.00
P25	0.00	0.00	0.00	0.00	0.00	0.00	-0.46	0.18	0.00



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Rezende  
Rezende Engenharia

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		16.37	-689.83		-273.49		0.46	-0.18	
P26	0.00	0.00 12.06	0.00 390.43	390.43	0.00 1902.73	1902.73	0.26 -0.26	-1.27 1.27	0.00
P27	0.00	0.00 22.50	0.00 -456.24	0.00	0.00 1112.26	1112.26	-0.30 0.30	-0.74 0.74	0.00
P28	0.00	0.00 14.13	0.00 317.84	317.84	0.00 -3023.91	0.00	0.21 -0.21	2.02 -2.02	0.00


CASO: G1+G2+1.4V4+0.84D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 8.56	0.00 68.25	68.25	0.00 784.51	784.51	0.05 -0.05	-0.52 0.52	0.00
P2	0.00	0.00 15.35	0.00 -302.70	0.00	0.00 -327.14	0.00	-0.20 0.20	0.22 -0.22	0.00
P3	0.00	0.00 13.88	0.00 63.48	63.48	0.00 -143.82	0.00	0.04 -0.04	0.10 -0.10	0.00
P4	0.00	0.00 5.52	0.00 -53.60	0.00	0.00 -197.69	0.00	-0.04 0.04	0.13 -0.13	0.00
P5	0.00	0.00 7.68	0.00 110.15	110.15	0.00 695.14	695.14	0.07 -0.07	-0.46 0.46	0.00
P6	0.00	0.00 15.99	0.00 -25.30	0.00	0.00 904.70	904.70	-0.02 0.02	-0.60 0.60	0.00
P7	0.00	0.00 20.56	0.00 38.09	38.09	0.00 134.70	134.70	0.03 -0.03	-0.09 0.09	0.00
P8	0.00	0.00 16.77	0.00 170.61	170.61	0.00 512.89	512.89	0.11 -0.11	-0.34 0.34	0.00
P9	0.00	0.00 11.99	0.00 -40.27	0.00	0.00 761.36	761.36	-0.03 0.03	-0.51 0.51	0.00
P10	0.00	0.00 5.11	0.00 -222.44	0.00	0.00 152.98	152.98	-0.15 0.15	-0.10 0.10	0.00
P11	0.00	0.00 5.22	0.00 640.98	640.98	0.00 186.77	186.77	0.43 -0.43	-0.12 0.12	0.00
P12	0.00	0.00 11.28	0.00 -172.36	0.00	0.00 10.15	10.15	-0.11 0.11	-0.01 0.01	0.00
P13	0.00	0.00 12.30	0.00 70.95	70.95	0.00 631.22	631.22	0.05 -0.05	-0.42 0.42	0.00
P14	0.00	0.00 8.20	0.00 -172.79	0.00	0.00 464.20	464.20	-0.12 0.12	-0.31 0.31	0.00
P15	0.00	0.00 12.88	0.00 569.60	569.60	0.00 123.25	123.25	0.38 -0.38	-0.08 0.08	0.00
P16	0.00	0.00 14.03	0.00 295.70	295.70	0.00 112.62	112.62	0.20 -0.20	-0.08 0.08	0.00
P18	0.00	0.00 18.25	0.00 377.74	377.74	0.00 -1167.42	0.00	0.25 -0.25	0.78 -0.78	0.00
P19	0.00	0.00 10.20	0.00 1114.83	1114.83	0.00 186.05	186.05	0.74 -0.74	-0.12 0.12	0.00
P20	0.00	0.00 14.29	0.00 322.10	322.10	0.00 68.92	68.92	0.21 -0.21	-0.05 0.05	0.00
P21	0.00	0.00 14.98	0.00 286.86	286.86	0.00 127.40	127.40	0.19 -0.19	-0.08 0.08	0.00
P22	0.00	0.00 17.98	0.00 840.58	840.58	0.00 -233.34	0.00	0.56 -0.56	0.16 -0.16	0.00
P23	0.00	0.00 14.94	0.00 718.46	718.46	0.00 58.54	58.54	0.48 -0.48	-0.04 0.04	0.00
P24	0.00	0.00 14.98	0.00 300.21	300.21	0.00 160.96	160.96	0.20 -0.20	-0.11 0.11	0.00
P25	0.00	0.00 16.00	0.00 785.82	785.82	0.00 -271.41	0.00	0.52 -0.52	0.18 -0.18	0.00
P26	0.00	0.00 13.01	0.00 1104.41	1104.41	0.00 1890.28	1890.28	0.74 -0.74	-1.26 1.26	0.00

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P27	0.00	0.00 22.93	0.00 85.56	85.56	0.00 1128.24	1128.24	0.06 -0.06	-0.75 0.75	0.00
P28	0.00	0.00 15.22	0.00 1139.75	1139.75	0.00 -2982.88	0.00	0.76 -0.76	1.99 -1.99	0.00


CASO: G1+G2+D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 9.24	0.00 -511.63	0.00	0.00 670.99	670.99	-0.34 0.34	-0.45 0.45	0.00
P2	0.00	0.00 15.46	0.00 -474.71	0.00	0.00 -149.78	0.00	-0.32 0.32	0.10 -0.10	0.00
P3	0.00	0.00 13.71	0.00 112.65	112.65	0.00 -327.58	0.00	0.08 -0.08	0.22 -0.22	0.00
P4	0.00	0.00 6.80	0.00 -164.94	0.00	0.00 334.23	334.23	-0.11 0.11	-0.22 0.22	0.00
P5	0.00	0.00 8.40	0.00 -366.06	0.00	0.00 604.62	604.62	-0.24 0.24	-0.40 0.40	0.00
P6	0.00	0.00 16.31	0.00 49.29	49.29	0.00 187.63	187.63	0.03 -0.03	-0.13 0.13	0.00
P7	0.00	0.00 21.23	0.00 196.88	196.88	0.00 10.21	10.21	0.13 -0.13	-0.01 0.01	0.00
P8	0.00	0.00 18.08	0.00 240.12	240.12	0.00 -3.78	0.00	0.16 -0.16	0.00 0.00	0.00
P9	0.00	0.00 10.96	0.00 138.95	138.95	0.00 254.63	254.63	0.09 -0.09	-0.17 0.17	0.00
P10	0.00	0.00 6.27	0.00 319.09	319.09	0.00 269.47	269.47	0.21 -0.21	-0.18 0.18	0.00
P11	0.00	0.00 3.90	0.00 86.93	86.93	0.00 160.67	160.67	0.06 -0.06	-0.11 0.11	0.00
P12	0.00	0.00 10.99	0.00 -102.79	0.00	0.00 0.43	0.43	-0.07 0.07	0.00 0.00	0.00
P13	0.00	0.00 10.86	0.00 113.30	113.30	0.00 114.77	114.77	0.08 -0.08	-0.08 0.08	0.00
P14	0.00	0.00 8.58	0.00 -195.54	0.00	0.00 772.43	772.43	-0.13 0.13	-0.51 0.51	0.00
P15	0.00	0.00 12.48	0.00 -170.85	0.00	0.00 81.01	81.01	-0.11 0.11	-0.05 0.05	0.00
P16	0.00	0.00 13.93	0.00 2.02	2.02	0.00 96.36	96.36	0.00 0.00	-0.06 0.06	0.00
P18	0.00	0.00 17.82	0.00 -509.75	0.00	0.00 -1201.12	0.00	-0.34 0.34	0.80 -0.80	0.00
P19	0.00	0.00 9.81	0.00 795.54	795.54	0.00 169.57	169.57	0.53 -0.53	-0.11 0.11	0.00
P20	0.00	0.00 14.17	0.00 -291.25	0.00	0.00 32.60	32.60	-0.19 0.19	-0.02 0.02	0.00
P21	0.00	0.00 14.93	0.00 3.32	3.32	0.00 99.36	99.36	0.00 0.00	-0.07 0.07	0.00
P22	0.00	0.00 17.88	0.00 140.24	140.24	0.00 -265.77	0.00	0.09 -0.09	0.18 -0.18	0.00
P23	0.00	0.00 15.08	0.00 81.67	81.67	0.00 13.04	13.04	0.05 -0.05	-0.01 0.01	0.00
P24	0.00	0.00 15.10	0.00 8.34	8.34	0.00 118.49	118.49	0.01 -0.01	-0.08 0.08	0.00
P25	0.00	0.00 16.21	0.00 43.46	43.46	0.00 -326.40	0.00	0.03 -0.03	0.22 -0.22	0.00
P26	0.00	0.00 12.48	0.00 746.62	746.62	0.00 1818.47	1818.47	0.50 -0.50	-1.21 1.21	0.00
P27	0.00	0.00 22.72	0.00 -186.14	0.00	0.00 996.68	996.68	-0.12 0.12	-0.66 0.66	0.00
P28	0.00	0.00	0.00	726.98	0.00	0.00	0.48	2.05	0.00



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		14.71	726.98		-3071.00		-0.48	-2.05	
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CASO: G1+G2+D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 9.47	0.00 -501.76	0.00	0.00 810.69	810.69	-0.33 0.33	-0.54 0.54	0.00
P2	0.00	0.00 15.33	0.00 -259.76	0.00	0.00 -140.22	0.00	-0.17 0.17	0.09 -0.09	0.00
P3	0.00	0.00 13.86	0.00 105.80	105.80	0.00 -108.55	0.00	0.07 -0.07	0.07 -0.07	0.00
P4	0.00	0.00 6.53	0.00 -18.38	0.00	0.00 356.46	356.46	-0.01 0.01	-0.24 0.24	0.00
P5	0.00	0.00 8.59	0.00 -364.89	0.00	0.00 748.49	748.49	-0.24 0.24	-0.50 0.50	0.00
P6	0.00	0.00 16.32	0.00 -98.68	0.00	0.00 199.95	199.95	-0.07 0.07	-0.13 0.13	0.00
P7	0.00	0.00 21.20	0.00 -117.94	0.00	0.00 11.83	11.83	-0.08 0.08	-0.01 0.01	0.00
P8	0.00	0.00 18.05	0.00 106.63	106.63	0.00 -7.94	0.00	0.07 -0.07	0.01 -0.01	0.00
P9	0.00	0.00 11.37	0.00 -198.26	0.00	0.00 241.20	241.20	-0.13 0.13	-0.16 0.16	0.00
P10	0.00	0.00 5.71	0.00 319.00	319.00	0.00 -6.31	0.00	0.21 -0.21	0.00 0.00	0.00
P11	0.00	0.00 4.08	0.00 94.89	94.89	0.00 252.54	252.54	0.06 -0.06	-0.17 0.17	0.00
P12	0.00	0.00 10.92	0.00 -282.10	0.00	0.00 0.52	0.52	-0.19 0.19	0.00 0.00	0.00
P13	0.00	0.00 10.89	0.00 1.90	1.90	0.00 110.23	110.23	0.00 0.00	-0.07 0.07	0.00
P14	0.00	0.00 8.56	0.00 -111.94	0.00	0.00 803.24	803.24	-0.07 0.07	-0.54 0.54	0.00
P15	0.00	0.00 12.51	0.00 -166.22	0.00	0.00 150.56	150.56	-0.11 0.11	-0.10 0.10	0.00
P16	0.00	0.00 13.92	0.00 3.74	3.74	0.00 150.68	150.68	0.00 0.00	-0.10 0.10	0.00
P18	0.00	0.00 17.58	0.00 -482.71	0.00	0.00 -1005.90	0.00	-0.32 0.32	0.67 -0.67	0.00
P19	0.00	0.00 9.98	0.00 820.10	820.10	0.00 319.83	319.83	0.55 -0.55	-0.21 0.21	0.00
P20	0.00	0.00 14.23	0.00 -286.01	0.00	0.00 140.32	140.32	-0.19 0.19	-0.09 0.09	0.00
P21	0.00	0.00 14.92	0.00 5.12	5.12	0.00 189.42	189.42	0.00 0.00	-0.13 0.13	0.00
P22	0.00	0.00 17.76	0.00 113.61	113.61	0.00 -177.54	0.00	0.08 -0.08	0.12 -0.12	0.00
P23	0.00	0.00 15.13	0.00 84.02	84.02	0.00 120.35	120.35	0.06 -0.06	-0.08 0.08	0.00
P24	0.00	0.00 15.08	0.00 10.16	10.16	0.00 210.82	210.82	0.01 -0.01	-0.14 0.14	0.00
P25	0.00	0.00 16.17	0.00 52.53	52.53	0.00 -218.49	0.00	0.04 -0.04	0.15 -0.15	0.00
P26	0.00	0.00 12.58	0.00 748.22	748.22	0.00 1974.54	1974.54	0.50 -0.50	-1.32 1.32	0.00
P27	0.00	0.00 22.70	0.00 -184.54	0.00	0.00 1243.81	1243.81	-0.12 0.12	-0.83 0.83	0.00
P28	0.00	0.00 14.64	0.00 730.61	730.61	0.00 -2935.79	0.00	0.49 -0.49	1.96 -1.96	0.00

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CASO: G1+G2+D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
P1	0.00	0.00 9.50	0.00 -617.06	0.00	0.00 732.35	732.35	-0.41 0.41	-0.49 0.49	0.00
P2	0.00	0.00 15.41	0.00 -380.08	0.00	0.00 -105.23	0.00	-0.25 0.25	0.07 -0.07	0.00
P3	0.00	0.00 13.77	0.00 111.29	111.29	0.00 -232.44	0.00	0.07 -0.07	0.15 -0.15	0.00
P4	0.00	0.00 6.87	0.00 -99.11	0.00	0.00 443.67	443.67	-0.07 0.07	-0.30 0.30	0.00
P5	0.00	0.00 8.61	0.00 -437.67	0.00	0.00 673.62	673.62	-0.29 0.29	-0.45 0.45	0.00
P6	0.00	0.00 16.38	0.00 -24.52	0.00	0.00 60.92	60.92	-0.02 0.02	-0.04 0.04	0.00
P7	0.00	0.00 21.33	0.00 40.08	40.08	0.00 -27.73	0.00	0.03 -0.03	0.02 -0.02	0.00
P8	0.00	0.00 18.30	0.00 173.98	173.98	0.00 -107.30	0.00	0.12 -0.12	0.07 -0.07	0.00
P9	0.00	0.00 11.02	0.00 -27.25	0.00	0.00 155.19	155.19	-0.02 0.02	-0.10 0.10	0.00
P10	0.00	0.00 6.12	0.00 407.37	407.37	0.00 128.60	128.60	0.27 -0.27	-0.09 0.09	0.00
P11	0.00	0.00 3.77	0.00 -12.26	0.00	0.00 209.99	209.99	-0.01 0.01	-0.14 0.14	0.00
P12	0.00	0.00 10.90	0.00 -195.69	0.00	0.00 -3.64	0.00	-0.13 0.13	0.00 0.00	0.00
P13	0.00	0.00 10.61	0.00 55.54	55.54	0.00 11.08	11.08	0.04 -0.04	-0.01 0.01	0.00
P14	0.00	0.00 8.63	0.00 -150.37	0.00	0.00 843.46	843.46	-0.10 0.10	-0.56 0.56	0.00
P15	0.00	0.00 12.44	0.00 -275.29	0.00	0.00 114.15	114.15	-0.18 0.18	-0.08 0.08	0.00
P16	0.00	0.00 13.91	0.00 -42.48	0.00	0.00 126.42	126.42	-0.03 0.03	-0.08 0.08	0.00
P18	0.00	0.00 17.61	0.00 -633.51	0.00	0.00 -1087.04	0.00	-0.42 0.42	0.72 -0.72	0.00
P19	0.00	0.00 9.85	0.00 756.09	756.09	0.00 255.07	255.07	0.50 -0.50	-0.17 0.17	0.00
P20	0.00	0.00 14.19	0.00 -378.72	0.00	0.00 89.86	89.86	-0.25 0.25	-0.06 0.06	0.00
P21	0.00	0.00 14.92	0.00 -39.31	0.00	0.00 147.73	147.73	-0.03 0.03	-0.10 0.10	0.00
P22	0.00	0.00 17.79	0.00 12.97	12.97	0.00 -219.22	0.00	0.01 -0.01	0.15 -0.15	0.00
P23	0.00	0.00 15.12	0.00 -11.03	0.00	0.00 68.44	68.44	-0.01 0.01	-0.05 0.05	0.00
P24	0.00	0.00 15.11	0.00 -35.50	0.00	0.00 165.39	165.39	-0.02 0.02	-0.11 0.11	0.00
P25	0.00	0.00 16.22	0.00 -69.54	0.00	0.00 -272.75	0.00	-0.05 0.05	0.18 -0.18	0.00
P26	0.00	0.00 12.47	0.00 691.47	691.47	0.00 1897.32	1897.32	0.46 -0.46	-1.26 1.26	0.00
P27	0.00	0.00 22.67	0.00 -248.76	0.00	0.00 1118.60	1118.60	-0.17 0.17	-0.75 0.75	0.00
P28	0.00	0.00 14.60	0.00 659.62	659.62	0.00 -3007.20	0.00	0.44 -0.44	2.00 -2.00	0.00

CASO: G1+G2+D4									
Elemento	Carga (kgf/m)	Rd Nd	Mxi Mxf	MxMáx (kgf.m)	Myi Myf	MyMáx (kgf.m)	Vxi Vxf	Vyi Vyf	Mtd (kgf/m)




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Plena

Leilson Campos  
Rezende  
Rezende Engenharia

11/5/2021  
12:09:48

		(tf)	(kgf.m)		(kgf.m)		(tf)	(tf)	
P1	0.00	0.00 9.21	0.00 -396.33	0.00	0.00 749.33	749.33	-0.26 0.26	-0.50 0.50	0.00
P2	0.00	0.00 15.39	0.00 -354.39	0.00	0.00 -184.78	0.00	-0.24 0.24	0.12 -0.12	0.00
P3	0.00	0.00 13.80	0.00 107.16	107.16	0.00 -203.70	0.00	0.07 -0.07	0.14 -0.14	0.00
P4	0.00	0.00 6.46	0.00 -84.21	0.00	0.00 247.02	247.02	-0.06 0.06	-0.16 0.16	0.00
P5	0.00	0.00 8.39	0.00 -293.28	0.00	0.00 679.48	679.48	-0.20 0.20	-0.45 0.45	0.00
P6	0.00	0.00 16.26	0.00 -24.87	0.00	0.00 326.66	326.66	-0.02 0.02	-0.22 0.22	0.00
P7	0.00	0.00 21.10	0.00 38.86	38.86	0.00 49.77	49.77	0.03 -0.03	-0.03 0.03	0.00
P8	0.00	0.00 17.83	0.00 172.77	172.77	0.00 95.58	95.58	0.12 -0.12	-0.06 0.06	0.00
P9	0.00	0.00 11.31	0.00 -32.05	0.00	0.00 340.65	340.65	-0.02 0.02	-0.23 0.23	0.00
P10	0.00	0.00 5.86	0.00 230.71	230.71	0.00 134.56	134.56	0.15 -0.15	-0.09 0.09	0.00
P11	0.00	0.00 4.22	0.00 194.08	194.08	0.00 203.21	203.21	0.13 -0.13	-0.14 0.14	0.00
P12	0.00	0.00 11.00	0.00 -189.19	0.00	0.00 4.60	4.60	-0.13 0.13	0.00 0.00	0.00
P13	0.00	0.00 11.14	0.00 59.65	59.65	0.00 213.92	213.92	0.04 -0.04	-0.14 0.14	0.00
P14	0.00	0.00 8.51	0.00 -157.11	0.00	0.00 732.21	732.21	-0.10 0.10	-0.49 0.49	0.00
P15	0.00	0.00 12.55	0.00 -61.77	0.00	0.00 117.42	117.42	-0.04 0.04	-0.08 0.08	0.00
P16	0.00	0.00 13.95	0.00 48.23	48.23	0.00 120.62	120.62	0.03 -0.03	-0.08 0.08	0.00
P18	0.00	0.00 17.78	0.00 -358.96	0.00	0.00 -1119.98	0.00	-0.24 0.24	0.75 -0.75	0.00
P19	0.00	0.00 9.94	0.00 859.55	859.55	0.00 234.33	234.33	0.57 -0.57	-0.16 0.16	0.00
P20	0.00	0.00 14.21	0.00 -198.53	0.00	0.00 83.06	83.06	-0.13 0.13	-0.06 0.06	0.00
P21	0.00	0.00 14.93	0.00 47.74	47.74	0.00 141.05	141.05	0.03 -0.03	-0.09 0.09	0.00
P22	0.00	0.00 17.84	0.00 240.88	240.88	0.00 -224.09	0.00	0.16 -0.16	0.15 -0.15	0.00
P23	0.00	0.00 15.08	0.00 176.73	176.73	0.00 64.94	64.94	0.12 -0.12	-0.04 0.04	0.00
P24	0.00	0.00 15.07	0.00 54.00	54.00	0.00 163.91	163.91	0.04 -0.04	-0.11 0.11	0.00
P25	0.00	0.00 16.16	0.00 165.53	165.53	0.00 -272.15	0.00	0.11 -0.11	0.18 -0.18	0.00
P26	0.00	0.00 12.60	0.00 803.37	803.37	0.00 1895.69	1895.69	0.54 -0.54	-1.26 1.26	0.00
P27	0.00	0.00 22.75	0.00 -121.92	0.00	0.00 1121.89	1121.89	-0.08 0.08	-0.75 0.75	0.00
P28	0.00	0.00 14.76	0.00 797.96	797.96	0.00 -2999.60	0.00	0.53 -0.53	2.00 -2.00	0.00

	AltoQi Eberick 2018 Plena	
	Leilson Campos Rezende Rezende Engenharia	11/5/2021 12:23:34

## Relatório de Combinações

LEILSON  
CAMPOS  
REZENDE:  
34821520559

Assinado digitalmente por LEILSON CAMPOS  
REZENDE:34821520559  
DN: c=BR, ou=ICP-Brasil, ou=AC SOLUTI  
Múltipla v& OU=29186812000100  
OU=Certificado PFI A1, CN=LEILSON CAMPOS  
REZENDE:34821520559  
Razão: Eu sou o autor deste documento  
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Data: 2021-05-11 16:40:18  
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Cobertura Lance 2

CASO: Peso próprio (G1)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	187.50	0.00 0.04	-149.00 0.08	145.90	25.78 -13.62	0.00	0.33 0.23	0.01 -0.01	2.32
VB1 - 2	544.80	0.00 0.03	0.15 -958.38	0.15	25.13 -6.97	0.00	-1.51 1.82	0.06 -0.06	2.31
VB1 - 3	701.54	0.00 0.04	-1040.24 -216.01	641.03	-3.08 -21.51	0.00	1.59 1.02	0.00 0.00	-0.19
VB1 - 4	597.43	0.00 0.05	-215.40 -1104.48	0.00	-25.73 -39.67	0.00	-1.56 1.88	0.03 -0.03	2.20
VB1 - 5	718.11	0.00 0.02	-1032.99 -138.37	400.64	-35.78 36.34	0.00	1.46 0.88	-0.02 0.02	-1.31
VB2 - 1	400.00	0.00 0.09	-289.89 -549.85	848.65	13.55 17.36	17.36	0.95 1.06	0.00 0.00	3.32
VB2 - 2	400.00	0.00 0.08	-565.20 -100.18	0.00	53.39 -32.05	0.00	0.66 0.25	0.04 -0.04	-4.00
VB2 - 3	400.00	0.00 0.08	-100.24 -500.49	0.00	-32.05 -45.38	0.00	-0.40 0.69	0.02 -0.02	-4.00
VB2 - 4	771.69	0.00 0.10	-500.57 -1741.65	0.00	-20.20 -7.18	0.00	-2.03 2.46	-0.02 0.02	-4.00
VB2 - 5	844.92	0.00 0.11	-1830.62 177.56	177.56	20.63 39.59	0.00	2.46 -1.61	-0.02 0.02	0.17
VB2 - 6	1052.47	0.00 0.11	177.48 1086.83	1086.83	39.59 -7.60	0.00	1.47 -0.34	0.04 -0.04	0.17
VB2 - 7	862.80	0.00 0.11	1086.60 153.56	1114.70	-7.60 -50.86	0.00	0.20 1.25	0.03 -0.03	0.17
VB2 - 8	760.25	0.00 0.11	152.96 -1039.01	152.96	-53.25 -54.91	0.00	-1.77 2.23	0.00 0.00	0.17
VB2 - 9	974.72	0.00 0.07	-1013.65 465.58	465.58	-29.20 10.12	0.00	1.75 -0.27	-0.03 0.03	0.46
VB2 - 10	892.95	0.00 0.07	465.94 -739.80	476.78	10.12 20.63	0.00	0.09 1.46	-0.01 0.01	0.46
VB2 - 11	400.00	0.00 0.03	-697.70 -71.15	104.27	-16.98 -13.68	0.00	0.80 0.38	0.00 0.00	-1.37
VB3 - 1	187.50	0.00 0.04	-53.09 135.53	180.35	11.00 1.59	11.00	0.30 0.13	0.00 0.00	0.01
VB3 - 2	187.50	0.00 0.04	135.58 -375.50	135.58	1.59 -28.82	1.59	-0.27 0.52	0.02 -0.02	0.01
VB3 - 3	187.50	0.00 0.02	-430.60 82.62	82.62	40.24 -9.84	40.24	0.60 -0.42	0.05 -0.05	0.29
VB3 - 4	187.50	0.00 0.02	82.70 268.11	268.11	-9.84 4.05	0.00	0.27 -0.07	-0.01 0.01	0.29
VB3 - 5	187.50	0.00 0.02	268.34 -379.50	268.34	4.05 -8.00	4.05	-0.07 0.50	0.01 -0.01	0.29
VB3 - 6	187.50	0.00 0.05	-371.43 179.98	179.98	16.81 -16.73	16.81	0.51 -0.22	0.02 -0.02	-4.28
VB3 - 7	187.50	0.00 0.05	179.62 10.93	184.24	-16.73 -20.28	0.00	0.04 0.25	0.00 0.00	-4.28




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VB4 - 1	468.75	0.00 0.06	-483.40 -4469.38	2091.63	15.52 -23.31	15.52	1.55 2.48	0.00 0.00	-0.57
VB4 - 2	468.75	0.00 0.15	-4618.79 1697.68	2541.08	28.41 -6.03	28.41	2.59 0.89	0.00 0.00	-3.00
VB4 - 3	468.75	0.00 0.19	1701.17 1230.90	1708.16	37.18 3.33	0.00	0.08 0.67	0.02 -0.02	7.79
VB4 - 4	468.75	0.00 0.19	1233.18 -819.97	1233.18	3.33 -13.03	3.33	-0.98 1.70	0.01 -0.01	7.79
VB5 - 1	187.50	0.00 0.05	-160.27 403.66	403.66	-8.38 4.08	4.08	0.51 -0.21	-0.01 0.01	-2.95
VB5 - 2	187.50	0.00 0.05	401.39 0.00	401.39	4.08 0.00	4.08	-0.10 0.40	0.00 0.00	-2.95
VB6 - 1	468.75	0.00 0.03	-428.92 -5038.45	1912.88	-2.98 10.17	10.17	1.48 2.55	0.00 0.00	0.03
VB6 - 2	468.75	0.00 0.07	-5307.10 -859.91	3641.08	12.26 -19.61	12.26	2.90 2.05	0.00 0.00	0.41
VB7 - 1	468.75	0.00 0.05	-463.41 -5026.69	1895.60	-10.93 11.87	11.87	1.49 2.55	0.00 0.00	-0.11
VB7 - 2	468.75	0.00 0.10	-5320.27 -819.82	3658.64	9.59 -9.68	9.59	2.90 2.05	0.00 0.00	0.02
VB8 - 1	468.75	0.00 0.30	-796.40 -4677.33	1820.16	-10.45 8.83	8.83	1.57 2.47	0.00 0.00	0.34
VB8 - 2	468.75	0.00 0.50	-5192.12 -1363.45	3399.22	6.33 2.14	6.33	2.84 2.11	0.00 0.00	-0.29
VB9 - 1	225.00	0.00 0.10	-298.02 -795.42	418.23	8.20 -8.32	8.20	0.57 0.74	0.00 0.00	-0.10
VB9 - 2	225.00	0.00 0.10	-794.80 -687.07	399.41	-3.50 2.45	2.45	0.73 0.70	0.00 0.00	-0.02
VB10 - 1	225.00	0.00 0.06	-607.51 -449.91	240.05	5.79 -6.09	5.79	0.62 0.56	0.00 0.00	-0.16
VB10 - 2	225.00	0.00 0.05	-414.74 -96.55	207.40	-15.27 7.75	7.75	0.53 0.37	-0.01 0.01	1.03
VB11	150.00	0.00 0.02	-34.29 -365.62	0.00	-11.11 18.44	18.44	-0.03 0.32	-0.02 0.02	0.73
VB12	595.57	0.00 0.10	-576.20 -338.22	790.31	-19.09 21.68	0.00	1.34 1.11	-0.01 0.01	-0.29
VB13	150.00	0.00 0.02	0.00 0.00	67.32	0.00 0.00	0.00	0.14 0.14	0.00 0.00	-0.06
VB14	641.06	-0.04 0.00	0.00 0.00	1403.39	-25.18 38.75	0.00	1.34 1.28	-0.02 0.02	0.07
VB15 - 1	225.00	-0.02 0.00	-219.61 -814.64	455.34	8.44 -7.91	8.44	0.55 0.76	0.00 0.00	-0.11
VB15 - 2	225.00	-0.01 0.00	-818.51 -680.90	391.12	-5.64 6.05	6.05	0.74 0.69	0.00 0.00	0.00
VB15 - 3	225.00	-0.01 0.00	-668.25 -302.49	291.85	3.97 -8.53	3.97	0.66 0.52	0.00 0.00	0.39
VB15 - 4	225.00	-0.02 0.00	-258.47 -193.67	0.00	-60.25 61.03	61.03	0.26 0.20	-0.06 0.06	0.54
VB15 - 5	225.00	0.00 0.01	-196.35 141.80	146.05	-9.18 24.20	24.20	0.39 0.04	-0.02 0.02	-0.20
VB16	150.00	-0.06 0.00	0.00 0.00	67.32	0.00 0.00	0.00	0.14 0.14	0.00 0.00	-0.08
VB17	150.00	0.00 0.02	0.00 0.00	67.32	0.00 0.00	0.00	0.14 0.14	0.00 0.00	-0.23
VB18	271.16	-0.02 0.00	0.00 0.00	670.06	2.39 -4.22	0.00	0.53 0.54	0.00 0.00	0.60
VB19	187.50	0.00 0.03	-68.11 195.45	200.71	-23.79 28.42	28.42	0.32 0.04	-0.03 0.03	0.17
VB20	187.50	-0.02 0.00	0.00 0.00	84.16	0.00 0.00	0.00	0.18 0.18	0.00 0.00	0.36
VB21 - 1	187.50	0.00 0.11	-327.35 1500.88	1500.88	6.84 -10.40	6.84	0.86 -0.25	0.01 -0.01	1.95
VB21 - 2	187.50	0.00	1511.67	1511.67	-53.62	21.28	-0.72	-0.04	-1.54

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		0.13	-346.67		21.28		1.11	0.04	
VB22	187.50	0.00 0.02	-139.06 -146.35	169.20	36.24 -36.19	0.00	0.34 0.34	0.02 -0.02	0.43
VB23	187.50	0.00 0.01	0.00 0.00	256.63	0.00 0.00	0.00	0.31 0.31	0.00 0.00	2.28
VB24 - 1	225.00	0.00 0.10	-307.74 -775.64	421.74	2.43 -4.60	2.43	0.57 0.73	0.00 0.00	0.37
VB24 - 2	225.00	0.00 0.09	-759.76 -796.40	361.12	-3.51 1.84	1.84	0.71 0.72	0.00 0.00	-0.03
VB25 - 1	225.00	0.00 0.10	-820.85 457.07	457.07	-38.88 32.53	32.53	0.88 -0.45	-0.04 0.04	-0.93
VB25 - 2	225.00	0.00 0.10	460.03 -599.65	465.97	32.53 -20.71	32.53	0.05 0.69	0.02 -0.02	-0.93
VB25 - 3	225.00	0.00 0.04	-502.89 -90.97	175.29	-33.74 24.93	24.93	0.55 0.35	-0.01 0.01	-2.14

CASO: Adicional (G2)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	585.00	0.00 0.14	-371.24 8.71	497.74	30.05 -8.92	0.00	1.00 0.75	0.01 -0.01	2.51
VB1 - 2	804.70	0.00 0.12	9.10 -1391.03	9.10	49.34 -2.91	0.00	-2.19 2.65	0.09 -0.09	2.50
VB1 - 3	808.39	0.00 0.09	-1392.34 -68.73	723.01	1.29 -35.57	0.00	1.88 1.14	0.01 -0.01	0.01
VB1 - 4	738.78	0.00 0.09	-67.96 -1332.97	0.00	-19.73 -47.27	0.00	-2.26 2.65	0.05 -0.05	0.74
VB1 - 5	784.05	0.00 0.03	-1207.88 -176.13	407.10	-41.15 30.99	0.00	1.60 0.96	-0.02 0.02	-2.10
VB2 - 1	585.00	0.00 0.17	-527.97 -743.40	1216.24	31.40 36.33	36.33	1.43 1.51	0.00 0.00	4.22
VB2 - 2	585.00	0.00 0.15	-773.53 56.86	132.57	93.71 -56.49	0.00	1.03 0.30	0.07 -0.07	-4.80
VB2 - 3	585.00	0.00 0.15	56.46 -737.26	56.46	-56.49 -72.87	0.00	-0.86 1.29	0.02 -0.02	-4.80
VB2 - 4	815.92	0.00 0.17	-737.65 -2389.93	0.00	-40.95 -10.99	0.00	-2.75 3.20	-0.05 0.05	-4.80
VB2 - 5	797.93	0.00 0.17	-2488.78 68.40	68.40	45.09 91.35	0.00	2.97 -2.17	-0.05 0.05	-0.18
VB2 - 6	824.76	0.00 0.17	69.49 1294.62	1294.62	91.35 -9.76	0.00	1.61 -0.72	0.09 -0.09	-0.18
VB2 - 7	801.05	0.00 0.17	1294.42 449.06	1311.95	-9.76 -99.12	0.00	0.16 1.18	0.05 -0.05	-0.18
VB2 - 8	720.14	0.00 0.17	448.29 -1038.49	448.29	-81.73 -86.77	0.00	-2.30 2.73	0.01 -0.01	-0.18
VB2 - 9	800.60	0.00 0.09	-983.54 532.33	532.33	-29.24 21.31	0.00	1.62 -0.40	-0.03 0.03	4.97
VB2 - 10	769.92	0.00 0.09	532.97 -906.64	532.97	21.31 29.36	0.00	-0.15 1.49	0.00 0.00	4.97
VB2 - 11	585.00	0.00 0.07	-894.95 -118.47	187.37	12.01 -56.00	12.01	1.13 0.60	0.02 -0.02	-6.08
VB3 - 1	585.00	0.00 0.10	-158.65 415.24	559.08	23.89 3.73	23.89	0.92 0.41	0.01 -0.01	-0.30
VB3 - 2	585.00	0.00 0.10	415.64 -1331.65	415.64	3.73 -64.17	3.73	-0.97 1.73	0.05 -0.05	-0.30
VB3 - 3	585.00	0.00 0.07	-1506.00 276.67	276.67	89.65 -22.00	89.65	2.07 -1.48	0.11 -0.11	0.28
VB3 - 4	585.00	0.00 0.07	275.58 928.17	928.17	-22.00 9.16	0.00	0.92 -0.29	-0.03 0.03	0.28
VB3 - 5	585.00	0.00 0.07	928.37 -1189.94	928.37	9.16 -18.25	9.16	-0.27 1.60	0.01 -0.01	0.28




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VB3 - 6	585.00	0.00 0.12	-1153.39 538.75	538.75	35.19 -31.35	35.19	1.56 -0.67	0.04 -0.04	-6.54
VB3 - 7	585.00	0.00 0.12	538.10 -17.63	548.30	-31.35 -55.32	0.00	0.11 0.81	0.02 -0.02	-6.54
VB4 - 1	585.00	0.00 0.08	-674.17 -5978.89	2415.09	14.25 -40.22	14.25	1.90 3.13	0.01 -0.01	0.44
VB4 - 2	585.00	0.00 0.29	-6324.43 3276.17	3934.87	49.70 11.61	49.70	3.47 0.88	0.01 -0.01	-6.83
VB4 - 3	585.00	0.00 0.40	3282.01 2254.45	3282.01	92.69 1.72	0.00	-0.17 1.11	0.06 -0.06	12.16
VB4 - 4	585.00	0.00 0.40	2258.52 -1616.39	2258.52	1.72 -19.37	1.72	-2.08 2.98	0.01 -0.01	12.16
VB5 - 1	585.00	0.00 0.12	-394.60 1311.27	1311.27	-39.50 14.24	14.24	1.55 -0.63	-0.03 0.03	-4.68
VB5 - 2	585.00	0.00 0.12	1307.20 0.00	1307.20	14.24 0.00	14.24	-0.34 1.28	0.01 -0.01	-4.68
VB6 - 1	585.00	-0.01 0.00	-568.05 -6312.15	2357.71	-28.39 43.84	43.84	1.85 3.19	-0.01 0.01	0.71
VB6 - 2	585.00	0.00 0.02	-6621.65 -1159.71	4494.82	23.07 -42.18	23.07	3.61 2.57	0.01 -0.01	0.77
VB7 - 1	585.00	0.00 0.02	-645.28 -6283.04	2320.05	-16.23 23.13	23.13	1.86 3.17	0.00 0.00	-0.06
VB7 - 2	585.00	0.00 0.09	-6648.37 -1087.14	4525.38	28.55 -26.85	28.55	3.62 2.56	0.01 -0.01	-0.19
VB8 - 1	585.00	0.00 0.45	-1162.22 -5711.86	2219.39	-18.95 18.04	18.04	1.99 3.05	0.00 0.00	-3.67
VB8 - 2	585.00	0.00 0.75	-6428.73 -1904.31	4146.87	23.07 -2.89	23.07	3.52 2.66	0.00 0.00	3.02
VB9 - 1	585.00	0.00 0.27	-746.71 -2077.13	1098.89	10.84 -11.58	10.84	1.47 1.93	0.00 0.00	-0.12
VB9 - 2	585.00	0.00 0.26	-2066.44 -1789.70	1036.77	-6.23 6.66	6.66	1.91 1.82	0.00 0.00	-0.04
VB10 - 1	585.00	0.00 0.17	-1581.26 -1162.68	627.15	37.55 -37.56	37.55	1.61 1.45	0.01 -0.01	-0.05
VB10 - 2	585.00	0.00 0.13	-1066.68 -274.83	530.37	-42.27 22.16	22.16	1.37 0.97	-0.02 0.02	0.92
VB11	585.00	0.00 0.03	-88.07 -491.62	19.96	-24.43 40.41	40.41	0.36 0.77	-0.03 0.03	1.68
VB12	738.08	0.00 0.16	-774.51 -478.86	933.74	-19.65 27.92	0.00	1.61 1.43	-0.01 0.01	-0.74
VB13	585.00	0.00 0.04	0.00 0.00	262.56	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-0.40
VB14	707.65	-0.08 0.00	0.00 0.00	1407.48	-31.92 58.26	0.00	1.46 1.44	-0.02 0.02	0.39
VB15 - 1	0.00	-0.09 0.00	-6.61 5.89	5.89	8.95 -7.69	8.95	0.00 0.00	0.00 0.00	-0.17
VB15 - 2	0.00	-0.08 0.00	-27.23 31.30	31.30	-13.10 15.53	15.53	0.01 -0.01	0.00 0.00	0.00
VB15 - 3	0.00	-0.06 0.00	2.21 -46.95	2.21	36.30 -48.11	36.30	-0.01 0.01	0.02 -0.02	0.19
VB15 - 4	0.00	-0.05 0.00	-112.19 129.89	129.89	-138.03 138.62	138.62	0.12 -0.12	-0.13 0.13	0.92
VB15 - 5	0.00	0.00 0.01	120.94 158.64	158.64	-19.20 52.61	0.00	0.02 -0.02	-0.04 0.04	0.43
VB16	585.00	-0.14 0.00	0.00 0.00	262.56	0.00 0.00	0.00	0.56 0.56	0.00 0.00	1.09
VB17	585.00	0.00 0.04	0.00 0.00	262.56	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-0.20
VB18	572.86	-0.04 0.00	0.00 0.00	1074.62	-17.40 15.84	0.00	1.12 1.12	-0.01 0.01	0.77
VB19	585.00	0.00 0.05	-138.54 185.15	319.80	-51.64 62.26	62.26	0.73 0.40	-0.06 0.06	-0.20
VB20	585.00	-0.03	0.00	262.56	0.00	0.00	0.56	0.00	0.64

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		0.00	0.00		0.00		0.56	0.00	
VB21 - 1	585.00	0.00 0.22	-647.03 2184.58	2193.00	37.79 -51.87	37.79	1.82 0.10	0.03 -0.03	4.25
VB21 - 2	585.00	0.00 0.27	2203.57 -643.84	2203.57	-132.96 53.07	53.07	-0.81 2.00	-0.09 0.09	-1.59
VB22	585.00	0.00 0.10	-305.71 -353.53	643.52	15.23 -29.12	0.00	1.05 1.08	0.01 -0.01	0.42
VB23	585.00	0.00 0.04	0.00 0.00	800.68	0.00 0.00	0.00	0.97 0.97	0.00 0.00	4.07
VB24 - 1	585.00	0.00 0.27	-762.71 -2018.59	1116.31	-5.46 0.92	0.92	1.48 1.92	0.00 0.00	0.53
VB24 - 2	585.00	0.00 0.24	-1957.47 -2128.31	920.24	-8.69 5.15	5.15	1.84 1.89	0.00 0.00	-0.05
VB25 - 1	585.00	0.00 0.28	-2254.88 1369.91	1369.91	-59.75 80.05	80.05	2.45 -1.33	-0.07 0.07	-0.40
VB25 - 2	585.00	0.00 0.28	1374.59 -1659.84	1374.59	80.05 -69.63	80.05	0.05 1.88	0.05 -0.05	-0.40
VB25 - 3	585.00	0.00 0.13	-1353.28 -240.64	436.29	-90.29 71.50	71.50	1.45 0.89	-0.04 0.04	-3.52

CASO: Solo (S)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB1 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB1 - 3	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB1 - 4	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB1 - 5	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB2 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB2 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB2 - 3	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB2 - 4	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB2 - 5	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB2 - 6	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB2 - 7	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB2 - 8	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB2 - 9	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB2 - 10	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB2 - 11	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB3 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB3 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB3 - 3	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00






		0.00	0.00		0.00		0.00	0.00	
VB19	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB20	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB21 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB21 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB22	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB23	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB24 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB24 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB25 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB25 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB25 - 3	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00

CASO: Acidental (Q)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	0.00	-0.04 0.00	-333.80 36.24	36.24	184.08 -146.40	0.00	0.12 -0.12	0.11 -0.11	15.58
VB1 - 2	2989.51	-0.13 0.00	35.77 -5344.91	35.77	76.14 -77.16	0.00	-8.55 10.21	0.26 -0.26	15.63
VB1 - 3	4590.56	0.00 0.14	-6181.49 -2050.10	4278.95	-51.19 -80.36	0.00	10.26 6.83	0.01 -0.01	-2.05
VB1 - 4	3844.48	0.00 0.20	-2045.99 -7076.93	0.00	-192.02 -249.48	0.00	-8.65 10.72	0.11 -0.11	20.69
VB1 - 5	4976.29	0.00 0.10	-6788.28 -882.00	2937.33	-228.59 269.06	0.00	10.09 6.15	-0.15 0.15	-6.66
VB2 - 1	0.00	0.00 0.06	-171.06 701.35	701.35	-40.10 96.34	96.34	0.17 -0.17	-0.03 0.03	20.02
VB2 - 2	0.00	0.00 0.13	509.28 -817.26	509.28	244.89 -117.02	0.00	-0.58 0.58	0.16 -0.16	-25.59
VB2 - 3	0.00	0.00 0.13	-817.24 -1245.62	0.00	-117.02 -222.01	0.00	-0.58 0.58	0.14 -0.14	-25.59
VB2 - 4	3102.34	0.00 0.23	-1245.16 -7123.07	0.00	-26.22 -22.34	0.00	-9.87 11.53	-0.01 0.01	-25.59
VB2 - 5	3912.10	0.00 0.38	-7586.01 1306.36	1306.36	15.74 5.62	0.00	11.16 -7.23	0.01 -0.01	0.49
VB2 - 6	5971.84	0.00 0.38	1303.77 5052.29	5052.29	5.62 -54.23	0.00	7.23 -0.80	0.06 -0.06	0.49
VB2 - 7	4081.65	0.00 0.38	5051.33 165.26	5199.47	-54.23 -136.66	0.00	0.80 5.98	0.05 -0.05	0.49
VB2 - 8	3378.52	0.00 0.32	161.25 -5108.84	161.25	-247.22 -212.09	0.00	-7.70 9.77	-0.06 0.06	0.49
VB2 - 9	5389.92	0.00 0.27	-5049.34 2340.48	2340.48	-199.31 37.60	0.00	9.33 -1.14	-0.16 0.16	-7.04
VB2 - 10	4623.04	0.00 0.27	2341.53 -2831.09	2588.98	37.60 100.70	0.00	1.14 6.91	-0.04 0.04	-7.04
VB2 - 11	0.00	-0.01 0.00	-2480.00 -14.20	0.00	-228.20 73.39	73.39	0.84 -0.84	-0.10 0.10	4.21
VB3 - 1	0.00	0.00 0.01	25.03 29.63	29.63	8.60 1.47	0.00	0.00 0.00	0.00 0.00	2.44




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		0.00	0.00		0.00		0.00	0.00	
VB17	0.00	0.00 0.01	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.97
VB18	904.85	-0.11 0.00	0.00 0.00	3373.49	110.56 -111.66	0.00	1.72 1.82	0.06 -0.06	4.01
VB19	0.00	0.00 0.10	-133.49 972.12	972.12	-21.84 20.43	20.43	0.57 -0.57	-0.02 0.02	1.37
VB20	0.00	-0.12 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	1.05
VB21 - 1	0.00	-0.01 0.00	22.38 -5.88	22.38	1.36 0.47	1.36	-0.01 0.01	0.00 0.00	0.00
VB21 - 2	0.00	-0.05 0.00	-5.99 -23.96	0.00	1.85 -27.57	1.85	-0.01 0.01	0.01 -0.01	0.03
VB22	0.00	-0.14 0.00	-173.69 -360.84	0.00	322.51 -274.22	0.00	-0.05 0.05	0.16 -0.16	3.32
VB23	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB24 - 1	0.00	-0.02 0.00	43.45 -34.33	43.45	-4.67 4.26	4.26	-0.01 0.01	0.00 0.00	0.00
VB24 - 2	0.00	-0.05 0.00	26.14 -28.80	26.14	-3.87 4.06	4.06	-0.01 0.01	0.00 0.00	0.00
VB25 - 1	0.00	-0.07 0.00	29.05 10.99	29.05	-2.71 -1.28	0.00	-0.01 0.01	0.00 0.00	0.00
VB25 - 2	0.00	-0.07 0.00	11.03 -18.05	11.03	-1.28 -1.24	0.00	-0.01 0.01	0.00 0.00	0.00
VB25 - 3	0.00	-0.08 0.00	57.63 -79.78	57.63	31.00 -53.90	31.00	-0.03 0.03	0.02 -0.02	0.00

CASO: Água (A)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB1 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB1 - 3	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB1 - 4	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB1 - 5	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB2 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB2 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB2 - 3	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB2 - 4	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB2 - 5	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB2 - 6	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB2 - 7	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB2 - 8	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB2 - 9	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB2 - 10	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00




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		0.00	0.00		0.00		0.00	0.00	
VB15 - 5	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB16	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB17	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB18	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB19	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB20	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB21 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB21 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB22	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB23	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB24 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB24 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB25 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB25 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB25 - 3	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00

CASO: Subpressão (AS)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB1 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB1 - 3	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB1 - 4	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB1 - 5	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB2 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB2 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB2 - 3	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB2 - 4	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB2 - 5	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB2 - 6	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB2 - 7	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB2 - 8	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00



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		0.00	0.00		0.00		0.00	0.00	
VB15 - 3	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB15 - 4	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB15 - 5	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB16	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB17	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB18	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB19	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB20	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB21 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB21 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB22	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB23	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB24 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB24 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB25 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB25 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB25 - 3	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00

CASO: Vento X+ (V1)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	0.00	0.00 0.02	392.49 -186.90	392.49	12.13 -20.81	0.00	-0.19 0.19	0.01 -0.01	0.08
VB1 - 2	0.00	0.00 0.00	-186.80 -299.18	0.00	7.82 1.05	0.00	-0.19 0.19	0.01 -0.01	-0.06
VB1 - 3	0.00	-0.02 0.00	190.85 -141.81	190.85	3.29 -5.11	0.00	-0.09 0.09	0.00 0.00	-0.17
VB1 - 4	0.00	-0.01 0.00	-141.91 -187.55	0.00	-15.44 -13.47	0.00	-0.09 0.09	0.00 0.00	1.42
VB1 - 5	0.00	-0.03 0.00	307.18 -403.05	307.18	-11.74 14.15	0.00	-0.22 0.22	-0.01 0.01	0.02
VB2 - 1	0.00	-0.08 0.00	785.06 -225.68	785.06	-76.82 57.01	57.01	-0.20 0.20	-0.03 0.03	0.04
VB2 - 2	0.00	0.00 0.10	31.36 -306.30	31.36	-29.07 47.74	0.00	-0.15 0.15	-0.03 0.03	-0.09
VB2 - 3	0.00	0.00 0.10	-306.41 -415.45	0.00	47.74 46.55	0.00	-0.15 0.15	0.00 0.00	-0.09
VB2 - 4	0.00	0.00 0.12	-415.55 -498.05	0.00	106.64 105.60	0.00	-0.15 0.15	0.00 0.00	-0.09
VB2 - 5	0.00	0.00 0.07	466.57 324.50	466.57	-61.36 -145.64	0.00	-0.14 0.14	0.08 -0.08	0.09
VB2 - 6	0.00	0.00 0.07	324.53 172.53	324.53	-145.64 -6.72	0.00	-0.14 0.14	-0.13 0.13	0.09






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VB2 - 7	0.00	0.00 0.07	172.41 -65.88	172.41	-6.72 65.49	0.00	-0.14 0.14	-0.04 0.04	0.09
VB2 - 8	0.00	0.00 0.06	-65.78 -148.92	0.00	48.96 70.68	0.00	-0.14 0.14	-0.04 0.04	0.09
VB2 - 9	0.00	0.00 0.28	97.53 -74.54	97.53	-66.31 3.51	0.00	-0.11 0.11	-0.05 0.05	0.18
VB2 - 10	0.00	0.00 0.28	-74.61 -271.59	0.00	3.51 16.58	0.00	-0.11 0.11	-0.01 0.01	0.18
VB2 - 11	0.00	0.00 0.15	479.25 -916.00	479.25	-4.78 65.12	65.12	-0.47 0.47	-0.02 0.02	-0.05
VB3 - 1	0.00	-0.01 0.00	263.26 -118.61	263.26	-61.86 4.22	4.22	-0.17 0.17	-0.03 0.03	-0.02
VB3 - 2	0.00	-0.01 0.00	-118.49 -335.77	0.00	4.22 87.48	87.48	-0.17 0.17	-0.06 0.06	-0.02
VB3 - 3	0.00	-0.11 0.00	249.73 158.58	249.73	-128.19 33.35	0.00	-0.09 0.09	-0.16 0.16	0.00
VB3 - 4	0.00	-0.11 0.00	158.54 61.02	158.54	33.35 -22.90	0.00	-0.09 0.09	0.05 -0.05	0.00
VB3 - 5	0.00	-0.11 0.00	61.14 -145.12	61.14	-22.90 54.51	54.51	-0.09 0.09	-0.03 0.03	0.00
VB3 - 6	0.00	-0.18 0.00	146.17 -49.15	146.17	-55.75 -15.05	0.00	-0.13 0.13	-0.03 0.03	0.34
VB3 - 7	0.00	-0.18 0.00	-49.08 -252.36	0.00	-15.05 88.08	88.08	-0.13 0.13	-0.07 0.07	0.34
VB4 - 1	0.00	0.00 0.12	529.18 -318.01	529.18	-161.11 134.41	134.41	-0.10 0.10	-0.03 0.03	0.03
VB4 - 2	0.00	0.00 0.16	274.60 -213.02	274.60	-112.82 120.77	120.77	-0.07 0.07	-0.03 0.03	0.38
VB4 - 3	0.00	0.00 0.14	-211.68 -583.96	0.00	-98.75 -37.56	0.00	-0.23 0.23	-0.04 0.04	-0.94
VB4 - 4	0.00	0.00 0.14	-584.13 -940.58	0.00	-37.56 145.90	145.90	-0.23 0.23	-0.12 0.12	-0.94
VB5 - 1	0.00	-0.02 0.00	347.13 175.51	347.13	-91.05 18.67	0.00	-0.11 0.11	-0.07 0.07	0.28
VB5 - 2	0.00	-0.02 0.00	175.68 0.00	175.68	18.67 0.00	18.67	-0.11 0.11	0.01 -0.01	0.28
VB6 - 1	0.00	0.00 0.02	890.25 -510.40	890.25	-94.62 65.85	65.85	-0.16 0.16	-0.02 0.02	-0.01
VB6 - 2	0.00	0.00 0.01	506.26 -905.91	506.26	-55.00 106.52	106.52	-0.13 0.13	-0.02 0.02	0.20
VB7 - 1	0.00	0.00 0.01	881.90 -511.36	881.90	132.26 -85.69	132.26	-0.16 0.16	0.03 -0.03	-0.01
VB7 - 2	0.00	-0.02 0.00	483.47 -849.80	483.47	99.38 -139.92	99.38	-0.13 0.13	0.02 -0.02	0.04
VB8 - 1	0.00	0.00 0.02	557.06 -387.82	557.06	142.13 -78.52	142.13	-0.11 0.11	0.03 -0.03	-0.03
VB8 - 2	0.00	-0.04 0.00	350.03 -518.69	350.03	90.53 -142.02	90.53	-0.08 0.08	0.02 -0.02	0.12
VB9 - 1	0.00	0.00 0.02	-0.70 0.58	0.58	-142.70 144.99	144.99	0.00 0.00	-0.05 0.05	-0.17
VB9 - 2	0.00	0.00 0.05	-3.98 4.78	4.78	15.30 8.05	15.30	0.00 0.00	0.00 0.00	-0.01
VB10 - 1	0.00	0.00 0.04	-13.18 14.36	14.36	102.16 -96.08	102.16	0.01 -0.01	0.04 -0.04	0.19
VB10 - 2	0.00	0.00 0.02	-8.51 10.20	10.20	59.52 -71.91	59.52	0.00 0.00	0.03 -0.03	-0.04
VB11	0.00	-0.02 0.00	-13.00 19.04	19.04	69.55 -106.65	69.55	0.02 -0.02	0.09 -0.09	0.39
VB12	0.00	-0.02 0.00	0.45 14.00	14.00	-11.25 13.54	0.00	0.00 0.00	-0.01 0.01	-0.49
VB13	0.00	-0.04 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.12
VB14	0.00	0.00	0.00	0.00	-60.08	0.00	0.00	-0.02	0.09

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		0.00	0.00		28.63		0.00	0.02	
VB15 - 1	0.00	0.00 0.00	-12.05 9.07	9.07	-187.42 185.35	185.35	0.00 0.00	-0.06 0.06	0.02
VB15 - 2	0.00	0.00 0.00	-6.70 7.77	7.77	0.28 5.47	5.47	0.00 0.00	0.00 0.00	0.00
VB15 - 3	0.00	0.00 0.00	-6.96 2.74	2.74	126.32 -119.65	126.32	0.00 0.00	0.05 -0.05	0.01
VB15 - 4	0.00	0.00 0.01	-14.64 13.23	13.23	127.59 -102.66	127.59	0.01 -0.01	0.11 -0.11	-0.80
VB15 - 5	0.00	-0.09 0.00	10.14 16.45	16.45	120.61 -168.33	120.61	0.00 0.00	0.15 -0.15	0.56
VB16	0.00	0.00 0.21	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.04
VB17	0.00	-0.09 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.12
VB18	0.00	0.00 0.01	0.00 0.00	0.00	16.53 -10.32	0.00	0.00 0.00	0.01 -0.01	-0.10
VB19	0.00	0.00 0.01	-1.40 3.16	3.16	114.46 -148.09	114.46	0.00 0.00	0.14 -0.14	0.14
VB20	0.00	-0.04 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.07
VB21 - 1	0.00	-0.08 0.00	33.00 -163.72	33.00	100.92 -121.35	100.92	-0.06 0.06	0.07 -0.07	0.76
VB21 - 2	0.00	-0.09 0.00	-165.04 52.16	52.16	98.17 -83.45	98.17	0.11 -0.11	0.09 -0.09	-0.58
VB22	0.00	-0.01 0.00	13.10 -16.06	13.10	15.57 -13.55	0.00	-0.01 0.01	0.01 -0.01	-0.41
VB23	0.00	0.00 0.08	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.17
VB24 - 1	0.00	-0.03 0.00	29.09 -18.75	29.09	-142.09 143.46	143.46	-0.01 0.01	-0.05 0.05	-0.21
VB24 - 2	0.00	-0.07 0.00	31.00 -52.83	31.00	8.79 23.36	23.36	-0.01 0.01	0.00 0.00	-0.03
VB25 - 1	0.00	-0.07 0.00	-23.40 90.05	90.05	104.36 9.83	104.36	0.06 -0.06	0.05 -0.05	0.14
VB25 - 2	0.00	-0.08 0.00	89.77 -75.45	89.77	9.83 -93.42	9.83	-0.05 0.05	0.03 -0.03	0.14
VB25 - 3	0.00	0.00 0.00	9.94 -31.67	9.94	71.87 -68.43	71.87	-0.01 0.01	0.04 -0.04	0.29

CASO: Vento X- (V2)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	0.00	-0.02 0.00	-392.49 186.90	186.90	-12.13 20.81	0.00	0.19 -0.19	-0.01 0.01	-0.08
VB1 - 2	0.00	0.00 0.00	186.80 299.18	299.18	-7.82 -1.05	0.00	0.19 -0.19	-0.01 0.01	0.06
VB1 - 3	0.00	0.00 0.02	-190.85 141.81	141.81	-3.29 5.11	0.00	0.09 -0.09	0.00 0.00	0.17
VB1 - 4	0.00	0.00 0.01	141.91 187.55	187.55	15.44 13.47	0.00	0.09 -0.09	0.00 0.00	-1.42
VB1 - 5	0.00	0.00 0.03	-307.18 403.05	403.05	11.74 -14.15	0.00	0.22 -0.22	0.01 -0.01	-0.02
VB2 - 1	0.00	0.00 0.08	-785.06 225.68	225.68	76.82 -57.01	76.82	0.20 -0.20	0.03 -0.03	-0.04
VB2 - 2	0.00	-0.10 0.00	-31.36 306.30	306.30	29.07 -47.74	0.00	0.15 -0.15	0.03 -0.03	0.09
VB2 - 3	0.00	-0.10 0.00	306.41 415.45	415.45	-47.74 -46.55	0.00	0.15 -0.15	0.00 0.00	0.09
VB2 - 4	0.00	-0.12 0.00	415.55 498.05	498.05	-106.64 -105.60	0.00	0.15 -0.15	0.00 0.00	0.09




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VB2 - 5	0.00	-0.07 0.00	-466.57 -324.50	0.00	61.36 145.64	0.00	0.14 -0.14	-0.08 0.08	-0.09
VB2 - 6	0.00	-0.07 0.00	-324.53 -172.53	0.00	145.64 6.72	0.00	0.14 -0.14	0.13 -0.13	-0.09
VB2 - 7	0.00	-0.07 0.00	-172.41 65.88	65.88	6.72 -65.49	0.00	0.14 -0.14	0.04 -0.04	-0.09
VB2 - 8	0.00	-0.06 0.00	65.78 148.92	148.92	-48.96 -70.68	0.00	0.14 -0.14	0.04 -0.04	-0.09
VB2 - 9	0.00	-0.28 0.00	-97.53 74.54	74.54	66.31 -3.51	0.00	0.11 -0.11	0.05 -0.05	-0.18
VB2 - 10	0.00	-0.28 0.00	74.61 271.59	271.59	-3.51 -16.58	0.00	0.11 -0.11	0.01 -0.01	-0.18
VB2 - 11	0.00	-0.15 0.00	-479.25 916.00	916.00	4.78 -65.12	4.78	0.47 -0.47	0.02 -0.02	0.05
VB3 - 1	0.00	0.00 0.01	-263.26 118.61	118.61	61.86 -4.22	61.86	0.17 -0.17	0.03 -0.03	0.02
VB3 - 2	0.00	0.00 0.01	118.49 335.77	335.77	-4.22 -87.48	0.00	0.17 -0.17	0.06 -0.06	0.02
VB3 - 3	0.00	0.00 0.11	-249.73 -158.58	0.00	128.19 -33.35	128.19	0.09 -0.09	0.16 -0.16	0.00
VB3 - 4	0.00	0.00 0.11	-158.54 -61.02	0.00	-33.35 22.90	22.90	0.09 -0.09	-0.05 0.05	0.00
VB3 - 5	0.00	0.00 0.11	-61.14 145.12	145.12	22.90 -54.51	22.90	0.09 -0.09	0.03 -0.03	0.00
VB3 - 6	0.00	0.00 0.18	-146.17 49.15	49.15	55.75 15.05	55.75	0.13 -0.13	0.03 -0.03	-0.34
VB3 - 7	0.00	0.00 0.18	49.08 252.36	252.36	15.05 -88.08	0.00	0.13 -0.13	0.07 -0.07	-0.34
VB4 - 1	0.00	-0.12 0.00	-529.18 318.01	318.01	161.11 -134.41	161.11	0.10 -0.10	0.03 -0.03	-0.03
VB4 - 2	0.00	-0.16 0.00	-274.60 213.02	213.02	112.82 -120.77	112.82	0.07 -0.07	0.03 -0.03	-0.38
VB4 - 3	0.00	-0.14 0.00	211.68 583.96	583.96	98.75 37.56	0.00	0.23 -0.23	0.04 -0.04	0.94
VB4 - 4	0.00	-0.14 0.00	584.13 940.58	940.58	37.56 -145.90	0.00	0.23 -0.23	0.12 -0.12	0.94
VB5 - 1	0.00	0.00 0.02	-347.13 -175.51	0.00	91.05 -18.67	91.05	0.11 -0.11	0.07 -0.07	-0.28
VB5 - 2	0.00	0.00 0.02	-175.68 0.00	0.00	-18.67 0.00	0.00	0.11 -0.11	-0.01 0.01	-0.28
VB6 - 1	0.00	-0.02 0.00	-890.25 510.40	510.40	94.62 -65.85	94.62	0.16 -0.16	0.02 -0.02	0.01
VB6 - 2	0.00	-0.01 0.00	-506.26 905.91	905.91	55.00 -106.52	55.00	0.13 -0.13	0.02 -0.02	-0.20
VB7 - 1	0.00	-0.01 0.00	-881.90 511.36	511.36	-132.26 85.69	85.69	0.16 -0.16	-0.03 0.03	0.01
VB7 - 2	0.00	0.00 0.02	-483.47 849.80	849.80	-99.38 139.92	139.92	0.13 -0.13	-0.02 0.02	-0.04
VB8 - 1	0.00	-0.02 0.00	-557.06 387.82	387.82	-142.13 78.52	78.52	0.11 -0.11	-0.03 0.03	0.03
VB8 - 2	0.00	0.00 0.04	-350.03 518.69	518.69	-90.53 142.02	142.02	0.08 -0.08	-0.02 0.02	-0.12
VB9 - 1	0.00	-0.02 0.00	0.70 -0.58	0.70	142.70 -144.99	142.70	0.00 0.00	0.05 -0.05	0.17
VB9 - 2	0.00	-0.05 0.00	3.98 -4.78	3.98	-15.30 -8.05	0.00	0.00 0.00	0.00 0.00	0.01
VB10 - 1	0.00	-0.04 0.00	13.18 -14.36	13.18	-102.16 96.08	96.08	-0.01 0.01	-0.04 0.04	-0.19
VB10 - 2	0.00	-0.02 0.00	8.51 -10.20	8.51	-59.52 71.91	71.91	0.00 0.00	-0.03 0.03	0.04
VB11	0.00	0.00 0.02	13.00 -19.04	13.00	-69.55 106.65	106.65	-0.02 0.02	-0.09 0.09	-0.39
VB12	0.00	0.00	-0.45	0.00	11.25	0.00	0.00	0.01	0.49

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		0.02	-14.00		-13.54		0.00	-0.01	
VB13	0.00	0.00 0.04	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.12
VB14	0.00	0.00 0.00	0.00 0.00	0.00	60.08 -28.63	0.00	0.00 0.00	0.02 -0.02	-0.09
VB15 - 1	0.00	0.00 0.00	12.05 -9.07	12.05	187.42 -185.35	187.42	0.00 0.00	0.06 -0.06	-0.02
VB15 - 2	0.00	0.00 0.00	6.70 -7.77	6.70	-0.28 -5.47	0.00	0.00 0.00	0.00 0.00	0.00
VB15 - 3	0.00	0.00 0.00	6.96 -2.74	6.96	-126.32 119.65	119.65	0.00 0.00	-0.05 0.05	-0.01
VB15 - 4	0.00	-0.01 0.00	14.64 -13.23	14.64	-127.59 102.66	102.66	-0.01 0.01	-0.11 0.11	0.80
VB15 - 5	0.00	0.00 0.09	-10.14 -16.45	0.00	-120.61 168.33	168.33	0.00 0.00	-0.15 0.15	-0.56
VB16	0.00	-0.21 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.04
VB17	0.00	0.00 0.09	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.12
VB18	0.00	-0.01 0.00	0.00 0.00	0.00	-16.53 10.32	0.00	0.00 0.00	-0.01 0.01	0.10
VB19	0.00	-0.01 0.00	1.40 -3.16	1.40	-114.46 148.09	148.09	0.00 0.00	-0.14 0.14	-0.14
VB20	0.00	0.00 0.04	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.07
VB21 - 1	0.00	0.00 0.08	-33.00 163.72	163.72	-100.92 121.35	121.35	0.06 -0.06	-0.07 0.07	-0.76
VB21 - 2	0.00	0.00 0.09	165.04 -52.16	165.04	-98.17 83.45	83.45	-0.11 0.11	-0.09 0.09	0.58
VB22	0.00	0.00 0.01	-13.10 16.06	16.06	-15.57 13.55	0.00	0.01 -0.01	-0.01 0.01	0.41
VB23	0.00	-0.08 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.17
VB24 - 1	0.00	0.00 0.03	-29.09 18.75	18.75	142.09 -143.46	142.09	0.01 -0.01	0.05 -0.05	0.21
VB24 - 2	0.00	0.00 0.07	-31.00 52.83	52.83	-8.79 -23.36	0.00	0.01 -0.01	0.00 0.00	0.03
VB25 - 1	0.00	0.00 0.07	23.40 -90.05	23.40	-104.36 -9.83	0.00	-0.06 0.06	-0.05 0.05	-0.14
VB25 - 2	0.00	0.00 0.08	-89.77 75.45	75.45	-9.83 93.42	93.42	0.05 -0.05	-0.03 0.03	-0.14
VB25 - 3	0.00	0.00 0.00	-9.94 31.67	31.67	-71.87 68.43	68.43	0.01 -0.01	-0.04 0.04	-0.29

CASO: Vento Y+ (V3)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	0.00	-0.19 0.00	46.16 -20.19	46.16	301.89 -289.31	0.00	-0.02 0.02	0.20 -0.20	0.92
VB1 - 2	0.00	-0.29 0.00	-20.25 -33.12	0.00	-89.73 -160.97	0.00	-0.02 0.02	0.12 -0.12	0.91
VB1 - 3	0.00	-0.32 0.00	14.54 -6.97	14.54	-162.21 19.42	0.00	-0.01 0.01	-0.05 0.05	0.30
VB1 - 4	0.00	-0.18 0.00	-7.06 -10.01	0.00	-254.28 -232.93	0.00	-0.01 0.01	-0.04 0.04	0.39
VB1 - 5	0.00	-0.21 0.00	42.30 -62.83	42.30	-237.94 358.57	0.00	-0.03 0.03	-0.18 0.18	-1.84
VB2 - 1	0.00	-0.06 0.00	-20.79 8.88	8.88	210.73 -409.34	210.73	0.01 -0.01	0.12 -0.12	-1.03
VB2 - 2	0.00	0.00 0.13	8.60 -13.83	8.60	5.37 -142.12	0.00	-0.01 0.01	0.06 -0.06	1.60




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VB2 - 3	0.00	0.00 0.13	-13.82 -21.06	0.00	-142.12 -186.75	0.00	-0.01 0.01	0.06 -0.06	1.60
VB2 - 4	0.00	0.00 0.22	-21.00 -26.48	0.00	-12.48 -89.94	0.00	-0.01 0.01	0.14 -0.14	1.60
VB2 - 5	0.00	0.00 0.26	-33.95 -8.03	0.00	-152.29 -118.11	0.00	0.03 -0.03	-0.03 0.03	-0.48
VB2 - 6	0.00	0.00 0.26	-8.08 19.65	19.65	-118.11 -42.97	0.00	0.03 -0.03	-0.07 0.07	-0.48
VB2 - 7	0.00	0.00 0.26	19.61 63.08	63.08	-42.97 41.13	0.00	0.03 -0.03	-0.05 0.05	-0.48
VB2 - 8	0.00	0.00 0.13	63.17 78.34	78.34	-214.19 -178.73	0.00	0.03 -0.03	-0.06 0.06	-0.48
VB2 - 9	0.00	0.00 0.15	86.69 -2.01	86.69	-207.30 1.81	0.00	-0.06 0.06	-0.14 0.14	0.14
VB2 - 10	0.00	0.00 0.15	-1.85 -103.38	0.00	1.81 105.90	0.00	-0.06 0.06	-0.06 0.06	0.14
VB2 - 11	0.00	-0.07 0.00	-96.08 0.01	0.01	-373.87 185.89	185.89	0.03 -0.03	-0.19 0.19	0.67
VB3 - 1	0.00	-0.01 0.00	-5.78 9.83	9.83	-15.31 3.59	3.59	0.01 -0.01	-0.01 0.01	-0.67
VB3 - 2	0.00	-0.01 0.00	9.81 18.69	18.69	3.59 9.07	0.00	0.01 -0.01	0.00 0.00	-0.67
VB3 - 3	0.00	-0.07 0.00	2.39 -0.31	2.39	-18.86 6.11	6.11	0.00 0.00	-0.02 0.02	0.26
VB3 - 4	0.00	-0.07 0.00	-0.26 -3.15	0.00	6.11 -5.73	6.11	0.00 0.00	0.01 -0.01	0.26
VB3 - 5	0.00	-0.07 0.00	-3.10 -9.21	0.00	-5.73 14.67	14.67	0.00 0.00	-0.01 0.01	0.26
VB3 - 6	0.00	-0.09 0.00	-25.51 -5.67	0.00	-3.03 -30.01	0.00	0.01 -0.01	0.02 -0.02	0.08
VB3 - 7	0.00	-0.09 0.00	-5.83 14.81	14.81	-30.01 64.88	64.88	0.01 -0.01	-0.06 0.06	0.08
VB4 - 1	0.00	0.00 0.06	-29.76 24.10	24.10	178.85 -180.49	178.85	0.01 -0.01	0.04 -0.04	0.08
VB4 - 2	0.00	0.00 0.08	-0.10 -12.14	0.00	-103.42 -46.81	0.00	0.00 0.00	-0.01 0.01	-1.03
VB4 - 3	0.00	0.00 0.04	-12.10 17.57	17.57	-230.56 -43.95	0.00	0.02 -0.02	-0.12 0.12	2.45
VB4 - 4	0.00	0.00 0.04	17.62 46.03	46.03	-43.95 229.16	229.16	0.02 -0.02	-0.18 0.18	2.45
VB5 - 1	0.00	-0.03 0.00	-27.89 -14.08	0.00	-73.40 11.82	11.82	0.01 -0.01	-0.05 0.05	-0.49
VB5 - 2	0.00	-0.03 0.00	-14.13 0.00	0.00	11.82 0.00	11.82	0.01 -0.01	0.01 -0.01	-0.49
VB6 - 1	0.00	0.00 0.01	-34.99 20.52	20.52	125.71 -184.72	125.71	0.01 -0.01	0.04 -0.04	0.10
VB6 - 2	0.00	0.00 0.03	-20.01 35.28	35.28	-160.61 123.66	123.66	0.01 -0.01	-0.03 0.03	0.00
VB7 - 1	0.00	-0.01 0.00	-6.38 3.99	3.99	128.00 -176.57	128.00	0.00 0.00	0.04 -0.04	-0.02
VB7 - 2	0.00	-0.01 0.00	-4.79 8.41	8.41	-161.20 109.17	109.17	0.00 0.00	-0.03 0.03	0.09
VB8 - 1	0.00	0.00 0.02	15.59 -9.25	15.59	82.55 -154.37	82.55	0.00 0.00	0.03 -0.03	0.43
VB8 - 2	0.00	0.00 0.02	-2.41 7.24	7.24	-140.10 68.57	68.57	0.00 0.00	-0.02 0.02	-0.20
VB9 - 1	0.00	0.00 0.02	367.12 -292.96	367.12	-60.34 54.52	54.52	-0.11 0.11	-0.02 0.02	0.01
VB9 - 2	0.00	-0.01 0.00	216.38 -228.75	216.38	-40.80 41.77	41.77	-0.07 0.07	-0.01 0.01	0.01
VB10 - 1	0.00	-0.04 0.00	259.69 -224.53	259.69	-55.44 45.01	45.01	-0.09 0.09	-0.02 0.02	-0.01
VB10 - 2	0.00	-0.09	329.15	329.15	-103.90	157.28	-0.19	-0.07	-0.01

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		0.00	-427.06		157.28		0.19	0.07	
VB11	0.00	0.00 0.00	319.37 -125.51	319.37	11.84 -20.25	11.84	-0.23 0.23	0.02 -0.02	0.03
VB12	0.00	-0.09 0.00	275.04 -580.07	275.04	-428.83 310.26	0.00	-0.21 0.21	-0.18 0.18	-0.09
VB13	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.01
VB14	0.00	0.00 0.08	0.00 0.00	0.00	-174.27 199.59	0.00	0.00 0.00	-0.09 0.09	-0.06
VB15 - 1	0.00	0.00 0.03	475.45 -343.89	475.45	-10.93 11.07	11.07	-0.14 0.14	0.00 0.00	0.00
VB15 - 2	0.00	0.00 0.03	223.96 -249.86	223.96	-4.30 2.82	2.82	-0.07 0.07	0.00 0.00	0.00
VB15 - 3	0.00	0.00 0.03	296.95 -258.81	296.95	-21.29 27.20	27.20	-0.11 0.11	-0.01 0.01	0.00
VB15 - 4	0.00	0.00 0.04	311.69 -21.96	311.69	-49.87 6.89	6.89	-0.16 0.16	-0.03 0.03	0.02
VB15 - 5	0.00	0.00 0.15	78.43 -597.93	78.43	30.84 -37.05	30.84	-0.35 0.35	0.03 -0.03	-0.06
VB16	0.00	0.00 0.04	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.05
VB17	0.00	-0.02 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.04
VB18	0.00	-0.01 0.00	0.00 0.00	0.00	255.32 -273.70	0.00	0.00 0.00	0.14 -0.14	-0.09
VB19	0.00	0.00 0.05	277.44 -281.93	277.44	18.29 -27.58	18.29	-0.29 0.29	0.02 -0.02	0.05
VB20	0.00	-0.08 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.16
VB21 - 1	0.00	0.00 0.00	216.43 -33.73	216.43	66.54 -75.97	66.54	-0.08 0.08	0.04 -0.04	-0.01
VB21 - 2	0.00	-0.11 0.00	-30.25 -225.63	0.00	107.78 -58.59	107.78	-0.10 0.10	0.08 -0.08	-0.05
VB22	0.00	-0.14 0.00	355.96 -473.36	355.96	466.54 -349.41	0.00	-0.23 0.23	0.22 -0.22	-0.10
VB23	0.00	0.00 0.06	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.05
VB24 - 1	0.00	-0.01 0.00	426.66 -340.60	426.66	50.60 -44.34	50.60	-0.13 0.13	0.02 -0.02	0.00
VB24 - 2	0.00	-0.09 0.00	251.17 -264.53	251.17	36.18 -33.33	36.18	-0.08 0.08	0.01 -0.01	0.01
VB25 - 1	0.00	-0.16 0.00	307.49 89.12	307.49	70.01 -13.14	0.00	-0.11 0.11	0.04 -0.04	-0.01
VB25 - 2	0.00	-0.17 0.00	89.61 -258.85	89.61	-13.14 -56.44	0.00	-0.11 0.11	0.01 -0.01	-0.01
VB25 - 3	0.00	-0.12 0.00	387.34 -501.40	387.34	126.53 -140.54	126.53	-0.22 0.22	0.07 -0.07	-0.05

CASO: Vento Y- (V4)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	0.00	0.00 0.19	-46.16 20.19	20.19	-301.89 289.31	0.00	0.02 -0.02	-0.20 0.20	-0.92
VB1 - 2	0.00	0.00 0.29	20.25 33.12	33.12	89.73 160.97	0.00	0.02 -0.02	-0.12 0.12	-0.91
VB1 - 3	0.00	0.00 0.32	-14.54 6.97	6.97	162.21 -19.42	0.00	0.01 -0.01	0.05 -0.05	-0.30
VB1 - 4	0.00	0.00 0.18	7.06 10.01	10.01	254.28 232.93	0.00	0.01 -0.01	0.04 -0.04	-0.39
VB1 - 5	0.00	0.00 0.21	-42.30 62.83	62.83	237.94 -358.57	0.00	0.03 -0.03	0.18 -0.18	1.84




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VB2 - 1	0.00	0.00 0.06	20.79 -8.88	20.79	-210.73 409.34	409.34	-0.01 0.01	-0.12 0.12	1.03
VB2 - 2	0.00	-0.13 0.00	-8.60 13.83	13.83	-5.37 142.12	0.00	0.01 -0.01	-0.06 0.06	-1.60
VB2 - 3	0.00	-0.13 0.00	13.82 21.06	21.06	142.12 186.75	0.00	0.01 -0.01	-0.06 0.06	-1.60
VB2 - 4	0.00	-0.22 0.00	21.00 26.48	26.48	12.48 89.94	0.00	0.01 -0.01	-0.14 0.14	-1.60
VB2 - 5	0.00	-0.26 0.00	33.95 8.03	33.95	152.29 118.11	0.00	-0.03 0.03	0.03 -0.03	0.48
VB2 - 6	0.00	-0.26 0.00	8.08 -19.65	8.08	118.11 42.97	0.00	-0.03 0.03	0.07 -0.07	0.48
VB2 - 7	0.00	-0.26 0.00	-19.61 -63.08	0.00	42.97 -41.13	0.00	-0.03 0.03	0.05 -0.05	0.48
VB2 - 8	0.00	-0.13 0.00	-63.17 -78.34	0.00	214.19 178.73	0.00	-0.03 0.03	0.06 -0.06	0.48
VB2 - 9	0.00	-0.15 0.00	-86.69 2.01	2.01	207.30 -1.81	0.00	0.06 -0.06	0.14 -0.14	-0.14
VB2 - 10	0.00	-0.15 0.00	1.85 103.38	103.38	-1.81 -105.90	0.00	0.06 -0.06	0.06 -0.06	-0.14
VB2 - 11	0.00	0.00 0.07	96.08 -0.01	96.08	373.87 -185.89	373.87	-0.03 0.03	0.19 -0.19	-0.67
VB3 - 1	0.00	0.00 0.01	5.78 -9.83	5.78	15.31 -3.59	15.31	-0.01 0.01	0.01 -0.01	0.67
VB3 - 2	0.00	0.00 0.01	-9.81 -18.69	0.00	-3.59 -9.07	0.00	-0.01 0.01	0.00 0.00	0.67
VB3 - 3	0.00	0.00 0.07	-2.39 0.31	0.31	18.86 -6.11	18.86	0.00 0.00	0.02 -0.02	-0.26
VB3 - 4	0.00	0.00 0.07	0.26 3.15	3.15	-6.11 5.73	5.73	0.00 0.00	-0.01 0.01	-0.26
VB3 - 5	0.00	0.00 0.07	3.10 9.21	9.21	5.73 -14.67	5.73	0.00 0.00	0.01 -0.01	-0.26
VB3 - 6	0.00	0.00 0.09	25.51 5.67	25.51	3.03 30.01	30.01	-0.01 0.01	-0.02 0.02	-0.08
VB3 - 7	0.00	0.00 0.09	5.83 -14.81	5.83	30.01 -64.88	30.01	-0.01 0.01	0.06 -0.06	-0.08
VB4 - 1	0.00	-0.06 0.00	29.76 -24.10	29.76	-178.85 180.49	180.49	-0.01 0.01	-0.04 0.04	-0.08
VB4 - 2	0.00	-0.08 0.00	0.10 12.14	12.14	103.42 46.81	103.42	0.00 0.00	0.01 -0.01	1.03
VB4 - 3	0.00	-0.04 0.00	12.10 -17.57	12.10	230.56 43.95	230.56	-0.02 0.02	0.12 -0.12	-2.45
VB4 - 4	0.00	-0.04 0.00	-17.62 -46.03	0.00	43.95 -229.16	43.95	-0.02 0.02	0.18 -0.18	-2.45
VB5 - 1	0.00	0.00 0.03	27.89 14.08	27.89	73.40 -11.82	73.40	-0.01 0.01	0.05 -0.05	0.49
VB5 - 2	0.00	0.00 0.03	14.13 0.00	14.13	-11.82 0.00	0.00	-0.01 0.01	-0.01 0.01	0.49
VB6 - 1	0.00	-0.01 0.00	34.99 -20.52	34.99	-125.71 184.72	184.72	-0.01 0.01	-0.04 0.04	-0.10
VB6 - 2	0.00	-0.03 0.00	20.01 -35.28	20.01	160.61 -123.66	160.61	-0.01 0.01	0.03 -0.03	0.00
VB7 - 1	0.00	0.00 0.01	6.38 -3.99	6.38	-128.00 176.57	176.57	0.00 0.00	-0.04 0.04	0.02
VB7 - 2	0.00	0.00 0.01	4.79 -8.41	4.79	161.20 -109.17	161.20	0.00 0.00	0.03 -0.03	-0.09
VB8 - 1	0.00	-0.02 0.00	-15.59 9.25	9.25	-82.55 154.37	154.37	0.00 0.00	-0.03 0.03	-0.43
VB8 - 2	0.00	-0.02 0.00	2.41 -7.24	2.41	140.10 -68.57	140.10	0.00 0.00	0.02 -0.02	0.20
VB9 - 1	0.00	-0.02 0.00	-367.12 292.96	292.96	60.34 -54.52	60.34	0.11 -0.11	0.02 -0.02	-0.01
VB9 - 2	0.00	0.00	-216.38	228.75	40.80	40.80	0.07	0.01	-0.01

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		0.01	228.75		-41.77		-0.07	-0.01	
VB10 - 1	0.00	0.00 0.04	-259.69 224.53	224.53	55.44 -45.01	55.44	0.09 -0.09	0.02 -0.02	0.01
VB10 - 2	0.00	0.00 0.09	-329.15 427.06	427.06	103.90 -157.28	103.90	0.19 -0.19	0.07 -0.07	0.01
VB11	0.00	0.00 0.00	-319.37 125.51	125.51	-11.84 20.25	20.25	0.23 -0.23	-0.02 0.02	-0.03
VB12	0.00	0.00 0.09	-275.04 580.07	580.07	428.83 -310.26	0.00	0.21 -0.21	0.18 -0.18	0.09
VB13	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.01
VB14	0.00	-0.08 0.00	0.00 0.00	0.00	174.27 -199.59	0.00	0.00 0.00	0.09 -0.09	0.06
VB15 - 1	0.00	-0.03 0.00	-475.45 343.89	343.89	10.93 -11.07	10.93	0.14 -0.14	0.00 0.00	0.00
VB15 - 2	0.00	-0.03 0.00	-223.96 249.86	249.86	4.30 -2.82	4.30	0.07 -0.07	0.00 0.00	0.00
VB15 - 3	0.00	-0.03 0.00	-296.95 258.81	258.81	21.29 -27.20	21.29	0.11 -0.11	0.01 -0.01	0.00
VB15 - 4	0.00	-0.04 0.00	-311.69 21.96	21.96	49.87 -6.89	49.87	0.16 -0.16	0.03 -0.03	-0.02
VB15 - 5	0.00	-0.15 0.00	-78.43 597.93	597.93	-30.84 37.05	37.05	0.35 -0.35	-0.03 0.03	0.06
VB16	0.00	-0.04 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.05
VB17	0.00	0.00 0.02	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.04
VB18	0.00	0.00 0.01	0.00 0.00	0.00	-255.32 273.70	0.00	0.00 0.00	-0.14 0.14	0.09
VB19	0.00	-0.05 0.00	-277.44 281.93	281.93	-18.29 27.58	27.58	0.29 -0.29	-0.02 0.02	-0.05
VB20	0.00	0.00 0.08	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.16
VB21 - 1	0.00	0.00 0.00	-216.43 33.73	33.73	-66.54 75.97	75.97	0.08 -0.08	-0.04 0.04	0.01
VB21 - 2	0.00	0.00 0.11	30.25 225.63	225.63	-107.78 58.59	58.59	0.10 -0.10	-0.08 0.08	0.05
VB22	0.00	0.00 0.14	-355.96 473.36	473.36	-466.54 349.41	0.00	0.23 -0.23	-0.22 0.22	0.10
VB23	0.00	-0.06 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.05
VB24 - 1	0.00	0.00 0.01	-426.66 340.60	340.60	-50.60 44.34	44.34	0.13 -0.13	-0.02 0.02	0.00
VB24 - 2	0.00	0.00 0.09	-251.17 264.53	264.53	-36.18 33.33	33.33	0.08 -0.08	-0.01 0.01	-0.01
VB25 - 1	0.00	0.00 0.16	-307.49 -89.12	0.00	-70.01 13.14	13.14	0.11 -0.11	-0.04 0.04	0.01
VB25 - 2	0.00	0.00 0.17	-89.61 258.85	258.85	13.14 56.44	56.44	0.11 -0.11	-0.01 0.01	0.01
VB25 - 3	0.00	0.00 0.12	-387.34 501.40	501.40	-126.53 140.54	140.54	0.22 -0.22	-0.07 0.07	0.05

CASO: Desaprumo X+ (D1)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	0.00	-0.01 0.00	92.35 -43.86	92.35	13.43 -6.34	0.00	-0.05 0.05	0.01 -0.01	0.02
VB1 - 2	0.00	-0.03 0.00	-43.84 -70.25	0.00	22.80 15.73	0.00	-0.05 0.05	0.01 -0.01	-0.01
VB1 - 3	0.00	0.00 0.01	45.07 -33.58	45.07	13.24 -17.05	0.00	-0.02 0.02	0.01 -0.01	-0.07






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VB1 - 4	0.00	-0.01 0.00	-33.60 -44.39	0.00	18.07 11.19	0.00	-0.02 0.02	0.01 -0.01	0.30
VB1 - 5	0.00	0.00 0.03	72.08 -94.35	72.08	8.84 -24.80	0.00	-0.05 0.05	0.01 -0.01	0.01
VB2 - 1	0.00	-0.05 0.00	166.47 -47.95	166.47	-0.61 -9.69	0.00	-0.04 0.04	0.00 0.00	-0.01
VB2 - 2	0.00	-0.01 0.00	7.25 -65.11	7.25	7.90 1.55	0.00	-0.03 0.03	0.00 0.00	0.01
VB2 - 3	0.00	-0.01 0.00	-65.13 -88.50	0.00	1.55 -6.98	0.00	-0.03 0.03	0.01 -0.01	0.01
VB2 - 4	0.00	0.00 0.00	-88.52 -106.20	0.00	22.54 18.87	0.00	-0.03 0.03	0.01 -0.01	0.01
VB2 - 5	0.00	0.00 0.01	99.76 69.22	99.76	22.62 0.62	0.00	-0.03 0.03	0.02 -0.02	0.00
VB2 - 6	0.00	0.00 0.01	69.22 36.54	69.22	0.62 -6.58	0.00	-0.03 0.03	0.01 -0.01	0.00
VB2 - 7	0.00	0.00 0.01	36.53 -14.70	36.53	-6.58 -21.51	0.00	-0.03 0.03	0.01 -0.01	0.00
VB2 - 8	0.00	0.00 0.02	-14.68 -32.56	0.00	10.08 7.54	0.00	-0.03 0.03	0.00 0.00	0.00
VB2 - 9	0.00	0.00 0.08	20.31 -15.87	20.31	10.53 1.35	0.00	-0.02 0.02	0.01 -0.01	0.02
VB2 - 10	0.00	0.00 0.08	-15.88 -57.30	0.00	1.35 -9.03	0.00	-0.02 0.02	0.01 -0.01	0.02
VB2 - 11	0.00	0.00 0.07	103.71 -195.41	103.71	24.38 -1.15	24.38	-0.10 0.10	0.01 -0.01	-0.02
VB3 - 1	0.00	-0.02 0.00	43.84 -19.53	43.84	0.52 -1.68	0.52	-0.03 0.03	0.00 0.00	-0.02
VB3 - 2	0.00	-0.02 0.00	-19.51 -55.56	0.00	-1.68 8.45	8.45	-0.03 0.03	-0.01 0.01	-0.02
VB3 - 3	0.00	0.00 0.00	41.40 26.27	41.40	-10.62 2.34	0.00	-0.02 0.02	-0.01 0.01	0.00
VB3 - 4	0.00	0.00 0.00	26.26 10.08	26.26	2.34 -0.15	0.00	-0.02 0.02	0.00 0.00	0.00
VB3 - 5	0.00	0.00 0.00	10.10 -24.13	10.10	-0.15 -0.47	0.00	-0.02 0.02	0.00 0.00	0.00
VB3 - 6	0.00	-0.01 0.00	24.44 -8.01	24.44	-1.08 3.76	3.76	-0.02 0.02	0.00 0.00	0.05
VB3 - 7	0.00	-0.01 0.00	-8.00 -41.77	0.00	3.76 8.68	8.68	-0.02 0.02	0.00 0.00	0.05
VB4 - 1	0.00	0.00 0.02	86.75 -55.93	86.75	-18.45 18.45	18.45	-0.02 0.02	0.00 0.00	0.01
VB4 - 2	0.00	0.00 0.02	48.38 -34.50	48.38	-26.08 23.12	23.12	-0.01 0.01	-0.01 0.01	0.05
VB4 - 3	0.00	0.00 0.02	-34.29 -94.40	0.00	-10.54 -8.17	0.00	-0.04 0.04	0.00 0.00	-0.16
VB4 - 4	0.00	0.00 0.02	-94.43 -151.99	0.00	-8.17 11.85	11.85	-0.04 0.04	-0.01 0.01	-0.16
VB5 - 1	0.00	-0.02 0.00	53.55 27.08	53.55	-13.71 2.26	0.00	-0.02 0.02	-0.01 0.01	0.04
VB5 - 2	0.00	-0.02 0.00	27.10 0.00	27.10	2.26 0.00	2.26	-0.02 0.02	0.00 0.00	0.04
VB6 - 1	0.00	0.00 0.00	146.71 -89.21	146.71	-16.00 7.83	7.83	-0.03 0.03	0.00 0.00	0.00
VB6 - 2	0.00	0.00 0.01	86.45 -147.00	86.45	-15.30 27.55	27.55	-0.02 0.02	0.00 0.00	0.01
VB7 - 1	0.00	0.00 0.00	151.97 -92.94	151.97	24.97 -17.80	24.97	-0.03 0.03	0.00 0.00	0.00
VB7 - 2	0.00	0.00 0.00	87.25 -146.42	87.25	13.87 -22.25	13.87	-0.02 0.02	0.00 0.00	-0.01
VB8 - 1	0.00	0.00 0.00	84.44 -59.54	84.44	27.26 -17.51	27.26	-0.02 0.02	0.01 -0.01	0.00
VB8 - 2	0.00	0.00	53.40	53.40	13.70	13.70	-0.01	0.00	-0.01

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		0.00	-78.17		-24.24		0.01	0.00	
VB9 - 1	0.00	0.00 0.00	3.38 -2.74	3.38	-27.32 27.74	27.74	0.00 0.00	-0.01 0.01	-0.03
VB9 - 2	0.00	0.00 0.01	1.30 -1.29	1.30	3.70 0.65	3.70	0.00 0.00	0.00 0.00	0.00
VB10 - 1	0.00	0.00 0.00	0.12 0.55	0.55	16.94 -17.48	16.94	0.00 0.00	0.01 -0.01	0.03
VB10 - 2	0.00	0.00 0.00	2.18 -2.96	2.18	-0.23 0.49	0.49	0.00 0.00	0.00 0.00	-0.03
VB11	0.00	0.00 0.00	4.51 0.99	4.51	-1.11 0.93	0.00	0.00 0.00	0.00 0.00	0.07
VB12	0.00	0.00 0.00	6.34 -10.61	6.34	-15.12 13.84	0.00	0.00 0.00	-0.01 0.01	-0.11
VB13	0.00	-0.01 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.02
VB14	0.00	0.00 0.00	0.00 0.00	0.00	-29.53 29.13	0.00	0.00 0.00	-0.01 0.01	0.02
VB15 - 1	0.00	0.00 0.00	3.24 -2.28	3.24	-34.18 33.93	33.93	0.00 0.00	-0.01 0.01	0.00
VB15 - 2	0.00	0.00 0.00	1.36 -1.47	1.36	2.27 -1.50	2.27	0.00 0.00	0.00 0.00	0.00
VB15 - 3	0.00	-0.01 0.00	2.15 -2.46	2.15	21.63 -19.84	21.63	0.00 0.00	0.01 -0.01	0.00
VB15 - 4	0.00	-0.01 0.00	1.03 2.02	2.02	24.69 -28.32	24.69	0.00 0.00	0.03 -0.03	-0.13
VB15 - 5	0.00	-0.01 0.00	2.66 -4.16	2.66	-8.98 4.93	4.93	0.00 0.00	-0.01 0.01	0.07
VB16	0.00	0.00 0.02	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB17	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.02
VB18	0.00	0.00 0.00	0.00 0.00	0.00	-31.60 35.13	0.00	0.00 0.00	-0.02 0.02	-0.02
VB19	0.00	0.00 0.00	-1.69 2.10	2.10	0.18 0.24	0.24	0.00 0.00	0.00 0.00	0.03
VB20	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.01
VB21 - 1	0.00	-0.01 0.00	5.30 -25.65	5.30	14.76 -18.06	14.76	-0.01 0.01	0.01 -0.01	0.12
VB21 - 2	0.00	-0.01 0.00	-25.86 8.58	8.58	15.59 -9.04	15.59	0.02 -0.02	0.01 -0.01	-0.10
VB22	0.00	0.00 0.01	-4.27 5.53	5.53	-34.89 24.39	0.00	0.00 0.00	-0.02 0.02	-0.10
VB23	0.00	0.00 0.01	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.03
VB24 - 1	0.00	0.00 0.00	-1.17 1.63	1.63	-24.88 25.31	25.31	0.00 0.00	-0.01 0.01	-0.04
VB24 - 2	0.00	-0.01 0.00	1.56 -4.60	1.56	3.57 3.11	3.57	0.00 0.00	0.00 0.00	0.00
VB25 - 1	0.00	0.00 0.00	-7.48 12.49	12.49	27.74 -7.17	27.74	0.01 -0.01	0.02 -0.02	0.02
VB25 - 2	0.00	0.00 0.00	12.44 -8.78	12.44	-7.17 -11.07	0.00	-0.01 0.01	0.00 0.00	0.02
VB25 - 3	0.00	0.00 0.01	-4.30 3.10	3.10	2.33 1.25	2.33	0.00 0.00	0.00 0.00	0.03

CASO: Desaprumo X- (D2)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	0.00	0.00 0.01	-92.35 43.86	43.86	-13.43 6.34	0.00	0.05 -0.05	-0.01 0.01	-0.02




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VB1 - 2	0.00	0.00 0.03	43.84 70.25	70.25	-22.80 -15.73	0.00	0.05 -0.05	-0.01 0.01	0.01
VB1 - 3	0.00	-0.01 0.00	-45.07 33.58	33.58	-13.24 17.05	0.00	0.02 -0.02	-0.01 0.01	0.07
VB1 - 4	0.00	0.00 0.01	33.60 44.39	44.39	-18.07 -11.19	0.00	0.02 -0.02	-0.01 0.01	-0.30
VB1 - 5	0.00	-0.03 0.00	-72.08 94.35	94.35	-8.84 24.80	0.00	0.05 -0.05	-0.01 0.01	-0.01
VB2 - 1	0.00	0.00 0.05	-166.47 47.95	47.95	0.61 9.69	9.69	0.04 -0.04	0.00 0.00	0.01
VB2 - 2	0.00	0.00 0.01	-7.25 65.11	65.11	-7.90 -1.55	0.00	0.03 -0.03	0.00 0.00	-0.01
VB2 - 3	0.00	0.00 0.01	65.13 88.50	88.50	-1.55 6.98	0.00	0.03 -0.03	-0.01 0.01	-0.01
VB2 - 4	0.00	0.00 0.00	88.52 106.20	106.20	-22.54 -18.87	0.00	0.03 -0.03	-0.01 0.01	-0.01
VB2 - 5	0.00	-0.01 0.00	-99.76 -69.22	0.00	-22.62 -0.62	0.00	0.03 -0.03	-0.02 0.02	0.00
VB2 - 6	0.00	-0.01 0.00	-69.22 -36.54	0.00	-0.62 6.58	0.00	0.03 -0.03	-0.01 0.01	0.00
VB2 - 7	0.00	-0.01 0.00	-36.53 14.70	14.70	6.58 21.51	0.00	0.03 -0.03	-0.01 0.01	0.00
VB2 - 8	0.00	-0.02 0.00	14.68 32.56	32.56	-10.08 -7.54	0.00	0.03 -0.03	0.00 0.00	0.00
VB2 - 9	0.00	-0.08 0.00	-20.31 15.87	15.87	-10.53 -1.35	0.00	0.02 -0.02	-0.01 0.01	-0.02
VB2 - 10	0.00	-0.08 0.00	15.88 57.30	57.30	-1.35 9.03	0.00	0.02 -0.02	-0.01 0.01	-0.02
VB2 - 11	0.00	-0.07 0.00	-103.71 195.41	195.41	-24.38 1.15	1.15	0.10 -0.10	-0.01 0.01	0.02
VB3 - 1	0.00	0.00 0.02	-43.84 19.53	19.53	-0.52 1.68	1.68	0.03 -0.03	0.00 0.00	0.02
VB3 - 2	0.00	0.00 0.02	19.51 55.56	55.56	1.68 -8.45	0.00	0.03 -0.03	0.01 -0.01	0.02
VB3 - 3	0.00	0.00 0.00	-41.40 -26.27	0.00	10.62 -2.34	10.62	0.02 -0.02	0.01 -0.01	0.00
VB3 - 4	0.00	0.00 0.00	-26.26 -10.08	0.00	-2.34 0.15	0.15	0.02 -0.02	0.00 0.00	0.00
VB3 - 5	0.00	0.00 0.00	-10.10 24.13	24.13	0.15 0.47	0.47	0.02 -0.02	0.00 0.00	0.00
VB3 - 6	0.00	0.00 0.01	-24.44 8.01	8.01	1.08 -3.76	1.08	0.02 -0.02	0.00 0.00	-0.05
VB3 - 7	0.00	0.00 0.01	8.00 41.77	41.77	-3.76 -8.68	0.00	0.02 -0.02	0.00 0.00	-0.05
VB4 - 1	0.00	-0.02 0.00	-86.75 55.93	55.93	18.45 -18.45	18.45	0.02 -0.02	0.00 0.00	-0.01
VB4 - 2	0.00	-0.02 0.00	-48.38 34.50	34.50	26.08 -23.12	26.08	0.01 -0.01	0.01 -0.01	-0.05
VB4 - 3	0.00	-0.02 0.00	34.29 94.40	94.40	10.54 8.17	0.00	0.04 -0.04	0.00 0.00	0.16
VB4 - 4	0.00	-0.02 0.00	94.43 151.99	151.99	8.17 -11.85	0.00	0.04 -0.04	0.01 -0.01	0.16
VB5 - 1	0.00	0.00 0.02	-53.55 -27.08	0.00	13.71 -2.26	13.71	0.02 -0.02	0.01 -0.01	-0.04
VB5 - 2	0.00	0.00 0.02	-27.10 0.00	0.00	-2.26 0.00	0.00	0.02 -0.02	0.00 0.00	-0.04
VB6 - 1	0.00	0.00 0.00	-146.71 89.21	89.21	16.00 -7.83	16.00	0.03 -0.03	0.00 0.00	0.00
VB6 - 2	0.00	-0.01 0.00	-86.45 147.00	147.00	15.30 -27.55	15.30	0.02 -0.02	0.00 0.00	-0.01
VB7 - 1	0.00	0.00 0.00	-151.97 92.94	92.94	-24.97 17.80	17.80	0.03 -0.03	0.00 0.00	0.00
VB7 - 2	0.00	0.00	-87.25	146.42	-13.87	22.25	0.02	0.00	0.01

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		0.00	146.42		22.25		-0.02	0.00	
VB8 - 1	0.00	0.00 0.00	-84.44 59.54	59.54	-27.26 17.51	17.51	0.02 -0.02	-0.01 0.01	0.00
VB8 - 2	0.00	0.00 0.00	-53.40 78.17	78.17	-13.70 24.24	24.24	0.01 -0.01	0.00 0.00	0.01
VB9 - 1	0.00	0.00 0.00	-3.38 2.74	2.74	27.32 -27.74	27.32	0.00 0.00	0.01 -0.01	0.03
VB9 - 2	0.00	-0.01 0.00	-1.30 1.29	1.29	-3.70 -0.65	0.00	0.00 0.00	0.00 0.00	0.00
VB10 - 1	0.00	0.00 0.00	-0.12 -0.55	0.00	-16.94 17.48	17.48	0.00 0.00	-0.01 0.01	-0.03
VB10 - 2	0.00	0.00 0.00	-2.18 2.96	2.96	0.23 -0.49	0.23	0.00 0.00	0.00 0.00	0.03
VB11	0.00	0.00 0.00	-4.51 -0.99	0.00	1.11 -0.93	1.11	0.00 0.00	0.00 0.00	-0.07
VB12	0.00	0.00 0.00	-6.34 10.61	10.61	15.12 -13.84	0.00	0.00 0.00	0.01 -0.01	0.11
VB13	0.00	0.00 0.01	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.02
VB14	0.00	0.00 0.00	0.00 0.00	0.00	29.53 -29.13	0.00	0.00 0.00	0.01 -0.01	-0.02
VB15 - 1	0.00	0.00 0.00	-3.24 2.28	2.28	34.18 -33.93	34.18	0.00 0.00	0.01 -0.01	0.00
VB15 - 2	0.00	0.00 0.00	-1.36 1.47	1.47	-2.27 1.50	1.50	0.00 0.00	0.00 0.00	0.00
VB15 - 3	0.00	0.00 0.01	-2.15 2.46	2.46	-21.63 19.84	19.84	0.00 0.00	-0.01 0.01	0.00
VB15 - 4	0.00	0.00 0.01	-1.03 -2.02	0.00	-24.69 28.32	28.32	0.00 0.00	-0.03 0.03	0.13
VB15 - 5	0.00	0.00 0.01	-2.66 4.16	4.16	8.98 -4.93	8.98	0.00 0.00	0.01 -0.01	-0.07
VB16	0.00	-0.02 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VB17	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.02
VB18	0.00	0.00 0.00	0.00 0.00	0.00	31.60 -35.13	0.00	0.00 0.00	0.02 -0.02	0.02
VB19	0.00	0.00 0.00	1.69 -2.10	1.69	-0.18 -0.24	0.00	0.00 0.00	0.00 0.00	-0.03
VB20	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.01
VB21 - 1	0.00	0.00 0.01	-5.30 25.65	25.65	-14.76 18.06	18.06	0.01 -0.01	-0.01 0.01	-0.12
VB21 - 2	0.00	0.00 0.01	25.86 -8.58	25.86	-15.59 9.04	9.04	-0.02 0.02	-0.01 0.01	0.10
VB22	0.00	-0.01 0.00	4.27 -5.53	4.27	34.89 -24.39	0.00	0.00 0.00	0.02 -0.02	0.10
VB23	0.00	-0.01 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.03
VB24 - 1	0.00	0.00 0.00	1.17 -1.63	1.17	24.88 -25.31	24.88	0.00 0.00	0.01 -0.01	0.04
VB24 - 2	0.00	0.00 0.01	-1.56 4.60	4.60	-3.57 -3.11	0.00	0.00 0.00	0.00 0.00	0.00
VB25 - 1	0.00	0.00 0.00	7.48 -12.49	7.48	-27.74 7.17	7.17	-0.01 0.01	-0.02 0.02	-0.02
VB25 - 2	0.00	0.00 0.00	-12.44 8.78	8.78	7.17 11.07	11.07	0.01 -0.01	0.00 0.00	-0.02
VB25 - 3	0.00	-0.01 0.00	4.30 -3.10	4.30	-2.33 -1.25	0.00	0.00 0.00	0.00 0.00	-0.03

CASO: Desaprumo Y+ (D3)									
Elemento	Carga	Rd	Mxi	MxMáx	Myi	MyMáx	Vxi	Vyi	Mtd



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Rezende  
Rezende Engenharia

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	(kgf/m)	Nd (tf)	Mxf (kgf.m)	(kgf.m)	Myf (kgf.m)	(kgf.m)	Vxf (tf)	Vyf (tf)	(kgf/m)
VB1 - 1	0.00	-0.08 0.00	15.09 -6.69	15.09	133.17 -124.52	0.00	-0.01 0.01	0.09 -0.09	0.24
VB1 - 2	0.00	-0.13 0.00	-6.70 -10.93	0.00	-21.03 -65.85	0.00	-0.01 0.01	0.08 -0.08	0.23
VB1 - 3	0.00	-0.14 0.00	4.86 -2.67	4.86	-66.69 -1.77	0.00	0.00 0.00	-0.02 0.02	0.09
VB1 - 4	0.00	-0.08 0.00	-2.69 -3.72	0.00	-115.21 -115.63	0.00	0.00 0.00	0.00 0.00	0.12
VB1 - 5	0.00	-0.09 0.00	13.49 -19.89	13.49	-116.71 159.93	0.00	-0.01 0.01	-0.08 0.08	-0.51
VB2 - 1	0.00	-0.02 0.00	-5.95 2.97	2.97	75.26 -142.01	75.26	0.00 0.00	0.04 -0.04	-0.22
VB2 - 2	0.00	0.00 0.06	2.86 -4.12	2.86	30.27 -65.07	0.00	0.00 0.00	0.04 -0.04	0.45
VB2 - 3	0.00	0.00 0.06	-4.12 -6.38	0.00	-65.07 -94.40	0.00	0.00 0.00	0.04 -0.04	0.45
VB2 - 4	0.00	0.00 0.11	-6.36 -8.07	0.00	-2.64 -30.84	0.00	0.00 0.00	0.05 -0.05	0.45
VB2 - 5	0.00	0.00 0.12	-10.48 -2.68	0.00	-54.12 -45.11	0.00	0.01 -0.01	-0.01 0.01	-0.13
VB2 - 6	0.00	0.00 0.12	-2.69 5.66	5.66	-45.11 -24.36	0.00	0.01 -0.01	-0.02 0.02	-0.13
VB2 - 7	0.00	0.00 0.12	5.65 18.74	18.74	-24.36 -8.61	0.00	0.01 -0.01	-0.01 0.01	-0.13
VB2 - 8	0.00	0.00 0.07	18.77 23.34	23.34	-119.41 -102.40	0.00	0.01 -0.01	-0.03 0.03	-0.13
VB2 - 9	0.00	0.00 0.07	25.68 -0.35	25.68	-111.43 29.18	0.00	-0.02 0.02	-0.09 0.09	0.04
VB2 - 10	0.00	0.00 0.07	-0.31 -30.10	0.00	29.18 53.24	0.00	-0.02 0.02	-0.01 0.01	0.04
VB2 - 11	0.00	-0.02 0.00	-28.10 0.41	0.41	-142.27 66.05	66.05	0.01 -0.01	-0.07 0.07	0.07
VB3 - 1	0.00	-0.01 0.00	-1.26 2.80	2.80	-5.27 1.19	1.19	0.00 0.00	0.00 0.00	-0.20
VB3 - 2	0.00	-0.01 0.00	2.80 5.11	5.11	1.19 2.30	0.00	0.00 0.00	0.00 0.00	-0.20
VB3 - 3	0.00	-0.03 0.00	1.41 0.37	1.41	-4.20 1.62	1.62	0.00 0.00	-0.01 0.01	0.08
VB3 - 4	0.00	-0.03 0.00	0.39 -0.72	0.39	1.62 -3.26	1.62	0.00 0.00	0.00 0.00	0.08
VB3 - 5	0.00	-0.03 0.00	-0.70 -3.05	0.00	-3.26 9.03	9.03	0.00 0.00	-0.01 0.01	0.08
VB3 - 6	0.00	-0.04 0.00	-7.17 -1.79	0.00	6.94 -36.50	6.94	0.00 0.00	0.03 -0.03	0.00
VB3 - 7	0.00	-0.04 0.00	-1.83 3.76	3.76	-36.50 42.74	42.74	0.00 0.00	-0.05 0.05	0.00
VB4 - 1	0.00	0.00 0.02	-13.41 9.26	9.26	65.07 -73.56	65.07	0.00 0.00	0.02 -0.02	0.07
VB4 - 2	0.00	0.00 0.04	-2.35 -1.12	0.00	-49.09 10.87	10.87	0.00 0.00	-0.01 0.01	-0.29
VB4 - 3	0.00	0.00 0.01	-1.11 8.85	8.85	-48.98 -7.31	0.00	0.01 -0.01	-0.03 0.03	0.57
VB4 - 4	0.00	0.00 0.01	8.86 18.40	18.40	-7.31 61.88	61.88	0.01 -0.01	-0.05 0.05	0.57
VB5 - 1	0.00	-0.01 0.00	-7.93 -4.01	0.00	-21.03 4.55	4.55	0.00 0.00	-0.02 0.02	-0.12
VB5 - 2	0.00	-0.01 0.00	-4.02 0.00	0.00	4.55 0.00	4.55	0.00 0.00	0.00 0.00	-0.12
VB6 - 1	0.00	0.00 0.00	-11.55 6.76	6.76	43.26 -63.13	43.26	0.00 0.00	0.01 -0.01	0.10
VB6 - 2	0.00	0.00	-6.61	11.56	-56.56	41.53	0.00	-0.01	-0.05




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		0.01	11.56		41.53		0.00	0.01	
VB7 - 1	0.00	0.00 0.00	-1.97 1.28	1.28	44.66 -62.01	44.66	0.00 0.00	0.01 -0.01	0.06
VB7 - 2	0.00	0.00 0.00	-1.68 3.00	3.00	-56.28 37.88	37.88	0.00 0.00	-0.01 0.01	-0.03
VB8 - 1	0.00	0.00 0.01	4.66 -3.03	4.66	29.74 -54.57	29.74	0.00 0.00	0.01 -0.01	0.19
VB8 - 2	0.00	0.00 0.01	-0.59 1.70	1.70	-49.48 24.51	24.51	0.00 0.00	-0.01 0.01	-0.11
VB9 - 1	0.00	0.00 0.00	75.85 -60.88	75.85	-21.10 19.20	19.20	-0.02 0.02	-0.01 0.01	0.00
VB9 - 2	0.00	-0.01 0.00	45.25 -47.69	45.25	-14.61 14.91	14.91	-0.01 0.01	0.00 0.00	0.00
VB10 - 1	0.00	-0.01 0.00	54.17 -47.01	54.17	-18.78 15.65	15.65	-0.02 0.02	-0.01 0.01	0.00
VB10 - 2	0.00	-0.02 0.00	69.20 -89.61	69.20	-38.88 56.14	56.14	-0.04 0.04	-0.02 0.02	-0.01
VB11	0.00	-0.04 0.00	95.26 -37.54	95.26	5.25 -8.23	5.25	-0.07 0.07	0.01 -0.01	0.01
VB12	0.00	-0.04 0.00	82.04 -172.66	82.04	-178.07 135.61	0.00	-0.06 0.06	-0.08 0.08	-0.03
VB13	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.01
VB14	0.00	0.00 0.01	0.00 0.00	0.00	-91.76 103.49	0.00	0.00 0.00	-0.05 0.05	-0.02
VB15 - 1	0.00	0.00 0.01	134.04 -102.45	134.04	-3.87 3.89	3.89	-0.04 0.04	0.00 0.00	0.00
VB15 - 2	0.00	0.00 0.00	71.99 -78.13	71.99	-1.85 1.56	1.56	-0.02 0.02	0.00 0.00	0.00
VB15 - 3	0.00	-0.01 0.00	91.37 -80.24	91.37	-5.01 5.13	5.13	-0.03 0.03	0.00 0.00	0.00
VB15 - 4	0.00	-0.02 0.00	96.35 -7.59	96.35	-19.35 8.77	8.77	-0.05 0.05	-0.01 0.01	0.00
VB15 - 5	0.00	-0.01 0.00	20.39 -167.25	20.39	13.91 -15.41	13.91	-0.10 0.10	0.02 -0.02	-0.02
VB16	0.00	0.00 0.01	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.01
VB17	0.00	-0.01 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.01
VB18	0.00	-0.02 0.00	0.00 0.00	0.00	110.81 -113.44	0.00	0.00 0.00	0.06 -0.06	-0.03
VB19	0.00	0.00 0.02	80.05 -81.41	80.05	2.84 -8.63	2.84	-0.08 0.08	0.01 -0.01	0.01
VB20	0.00	-0.08 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.04
VB21 - 1	0.00	-0.02 0.00	50.41 -6.63	50.41	19.99 -23.49	19.99	-0.02 0.02	0.01 -0.01	-0.01
VB21 - 2	0.00	-0.04 0.00	-5.77 -53.29	0.00	36.36 -38.10	36.36	-0.02 0.02	0.04 -0.04	-0.02
VB22	0.00	-0.06 0.00	104.57 -139.17	104.57	190.61 -156.56	0.00	-0.07 0.07	0.10 -0.10	-0.03
VB23	0.00	0.00 0.02	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.01
VB24 - 1	0.00	-0.01 0.00	96.28 -77.26	96.28	17.68 -15.60	17.68	-0.03 0.03	0.01 -0.01	0.00
VB24 - 2	0.00	-0.03 0.00	57.28 -60.13	57.28	13.02 -12.35	13.02	-0.02 0.02	0.00 0.00	0.00
VB25 - 1	0.00	-0.04 0.00	70.21 19.91	70.21	22.51 -2.91	22.51	-0.03 0.03	0.01 -0.01	0.00
VB25 - 2	0.00	-0.04 0.00	20.02 -58.68	20.02	-2.91 -15.12	0.00	-0.02 0.02	0.00 0.00	0.00
VB25 - 3	0.00	-0.03 0.00	88.37 -114.78	88.37	35.57 -46.97	35.57	-0.05 0.05	0.02 -0.02	-0.02


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CASO: Desaprumo Y- (D4)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	0.00	0.00 0.08	-15.09 6.69	6.69	-133.17 124.52	0.00	0.01 -0.01	-0.09 0.09	-0.24
VB1 - 2	0.00	0.00 0.13	6.70 10.93	10.93	21.03 65.85	0.00	0.01 -0.01	-0.08 0.08	-0.23
VB1 - 3	0.00	0.00 0.14	-4.86 2.67	2.67	66.69 1.77	0.00	0.00 0.00	0.02 -0.02	-0.09
VB1 - 4	0.00	0.00 0.08	2.69 3.72	3.72	115.21 115.63	0.00	0.00 0.00	0.00 0.00	-0.12
VB1 - 5	0.00	0.00 0.09	-13.49 19.89	19.89	116.71 -159.93	0.00	0.01 -0.01	0.08 -0.08	0.51
VB2 - 1	0.00	0.00 0.02	5.95 -2.97	5.95	-75.26 142.01	142.01	0.00 0.00	-0.04 0.04	0.22
VB2 - 2	0.00	-0.06 0.00	-2.86 4.12	4.12	-30.27 65.07	0.00	0.00 0.00	-0.04 0.04	-0.45
VB2 - 3	0.00	-0.06 0.00	4.12 6.38	6.38	65.07 94.40	0.00	0.00 0.00	-0.04 0.04	-0.45
VB2 - 4	0.00	-0.11 0.00	6.36 8.07	8.07	2.64 30.84	0.00	0.00 0.00	-0.05 0.05	-0.45
VB2 - 5	0.00	-0.12 0.00	10.48 2.68	10.48	54.12 45.11	0.00	-0.01 0.01	0.01 -0.01	0.13
VB2 - 6	0.00	-0.12 0.00	2.69 -5.66	2.69	45.11 24.36	0.00	-0.01 0.01	0.02 -0.02	0.13
VB2 - 7	0.00	-0.12 0.00	-5.65 -18.74	0.00	24.36 8.61	0.00	-0.01 0.01	0.01 -0.01	0.13
VB2 - 8	0.00	-0.07 0.00	-18.77 -23.34	0.00	119.41 102.40	0.00	-0.01 0.01	0.03 -0.03	0.13
VB2 - 9	0.00	-0.07 0.00	-25.68 0.35	0.35	111.43 -29.18	0.00	0.02 -0.02	0.09 -0.09	-0.04
VB2 - 10	0.00	-0.07 0.00	0.31 30.10	30.10	-29.18 -53.24	0.00	0.02 -0.02	0.01 -0.01	-0.04
VB2 - 11	0.00	0.00 0.02	28.10 -0.41	28.10	142.27 -66.05	142.27	-0.01 0.01	0.07 -0.07	-0.07
VB3 - 1	0.00	0.00 0.01	1.26 -2.80	1.26	5.27 -1.19	5.27	0.00 0.00	0.00 0.00	0.20
VB3 - 2	0.00	0.00 0.01	-2.80 -5.11	0.00	-1.19 -2.30	0.00	0.00 0.00	0.00 0.00	0.20
VB3 - 3	0.00	0.00 0.03	-1.41 -0.37	0.00	4.20 -1.62	4.20	0.00 0.00	0.01 -0.01	-0.08
VB3 - 4	0.00	0.00 0.03	-0.39 0.72	0.72	-1.62 3.26	3.26	0.00 0.00	0.00 0.00	-0.08
VB3 - 5	0.00	0.00 0.03	0.70 3.05	3.05	3.26 -9.03	3.26	0.00 0.00	0.01 -0.01	-0.08
VB3 - 6	0.00	0.00 0.04	7.17 1.79	7.17	-6.94 36.50	36.50	0.00 0.00	-0.03 0.03	0.00
VB3 - 7	0.00	0.00 0.04	1.83 -3.76	1.83	36.50 -42.74	36.50	0.00 0.00	0.05 -0.05	0.00
VB4 - 1	0.00	-0.02 0.00	13.41 -9.26	13.41	-65.07 73.56	73.56	0.00 0.00	-0.02 0.02	-0.07
VB4 - 2	0.00	-0.04 0.00	2.35 1.12	2.35	49.09 -10.87	49.09	0.00 0.00	0.01 -0.01	0.29
VB4 - 3	0.00	-0.01 0.00	1.11 -8.85	1.11	48.98 7.31	48.98	-0.01 0.01	0.03 -0.03	-0.57
VB4 - 4	0.00	-0.01 0.00	-8.86 -18.40	0.00	7.31 -61.88	7.31	-0.01 0.01	0.05 -0.05	-0.57
VB5 - 1	0.00	0.00 0.01	7.93 4.01	7.93	21.03 -4.55	21.03	0.00 0.00	0.02 -0.02	0.12
VB5 - 2	0.00	0.00	4.02	4.02	-4.55	0.00	0.00	0.00	0.12

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		0.01	0.00		0.00		0.00	0.00	
VB6 - 1	0.00	0.00 0.00	11.55 -6.76	11.55	-43.26 63.13	63.13	0.00 0.00	-0.01 0.01	-0.10
VB6 - 2	0.00	-0.01 0.00	6.61 -11.56	6.61	56.56 -41.53	56.56	0.00 0.00	0.01 -0.01	0.05
VB7 - 1	0.00	0.00 0.00	1.97 -1.28	1.97	-44.66 62.01	62.01	0.00 0.00	-0.01 0.01	-0.06
VB7 - 2	0.00	0.00 0.00	1.68 -3.00	1.68	56.28 -37.88	56.28	0.00 0.00	0.01 -0.01	0.03
VB8 - 1	0.00	-0.01 0.00	-4.66 3.03	3.03	-29.74 54.57	54.57	0.00 0.00	-0.01 0.01	-0.19
VB8 - 2	0.00	-0.01 0.00	0.59 -1.70	0.59	49.48 -24.51	49.48	0.00 0.00	0.01 -0.01	0.11
VB9 - 1	0.00	0.00 0.00	-75.85 60.88	60.88	21.10 -19.20	21.10	0.02 -0.02	0.01 -0.01	0.00
VB9 - 2	0.00	0.00 0.01	-45.25 47.69	47.69	14.61 -14.91	14.61	0.01 -0.01	0.00 0.00	0.00
VB10 - 1	0.00	0.00 0.01	-54.17 47.01	47.01	18.78 -15.65	18.78	0.02 -0.02	0.01 -0.01	0.00
VB10 - 2	0.00	0.00 0.02	-69.20 89.61	89.61	38.88 -56.14	38.88	0.04 -0.04	0.02 -0.02	0.01
VB11	0.00	0.00 0.04	-95.26 37.54	37.54	-5.25 8.23	8.23	0.07 -0.07	-0.01 0.01	-0.01
VB12	0.00	0.00 0.04	-82.04 172.66	172.66	178.07 -135.61	0.00	0.06 -0.06	0.08 -0.08	0.03
VB13	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.01
VB14	0.00	-0.01 0.00	0.00 0.00	0.00	91.76 -103.49	0.00	0.00 0.00	0.05 -0.05	0.02
VB15 - 1	0.00	-0.01 0.00	-134.04 102.45	102.45	3.87 -3.89	3.87	0.04 -0.04	0.00 0.00	0.00
VB15 - 2	0.00	0.00 0.00	-71.99 78.13	78.13	1.85 -1.56	1.85	0.02 -0.02	0.00 0.00	0.00
VB15 - 3	0.00	0.00 0.01	-91.37 80.24	80.24	5.01 -5.13	5.01	0.03 -0.03	0.00 0.00	0.00
VB15 - 4	0.00	0.00 0.02	-96.35 7.59	7.59	19.35 -8.77	19.35	0.05 -0.05	0.01 -0.01	0.00
VB15 - 5	0.00	0.00 0.01	-20.39 167.25	167.25	-13.91 15.41	15.41	0.10 -0.10	-0.02 0.02	0.02
VB16	0.00	-0.01 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.01
VB17	0.00	0.00 0.01	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.01
VB18	0.00	0.00 0.02	0.00 0.00	0.00	-110.81 113.44	0.00	0.00 0.00	-0.06 0.06	0.03
VB19	0.00	-0.02 0.00	-80.05 81.41	81.41	-2.84 8.63	8.63	0.08 -0.08	-0.01 0.01	-0.01
VB20	0.00	0.00 0.08	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.04
VB21 - 1	0.00	0.00 0.02	-50.41 6.63	6.63	-19.99 23.49	23.49	0.02 -0.02	-0.01 0.01	0.01
VB21 - 2	0.00	0.00 0.04	5.77 53.29	53.29	-36.36 38.10	38.10	0.02 -0.02	-0.04 0.04	0.02
VB22	0.00	0.00 0.06	-104.57 139.17	139.17	-190.61 156.56	0.00	0.07 -0.07	-0.10 0.10	0.03
VB23	0.00	-0.02 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.01
VB24 - 1	0.00	0.00 0.01	-96.28 77.26	77.26	-17.68 15.60	15.60	0.03 -0.03	-0.01 0.01	0.00
VB24 - 2	0.00	0.00 0.03	-57.28 60.13	60.13	-13.02 12.35	12.35	0.02 -0.02	0.00 0.00	0.00
VB25 - 1	0.00	0.00 0.04	-70.21 -19.91	0.00	-22.51 2.91	2.91	0.03 -0.03	-0.01 0.01	0.00



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VB25 - 2	0.00	0.00 0.04	-20.02 58.68	58.68	2.91 15.12	15.12	0.02 -0.02	0.00 0.00	0.00
VB25 - 3	0.00	0.00 0.03	-88.37 114.78	114.78	-35.57 46.97	46.97	0.05 -0.05	-0.02 0.02	0.02

CASO: 1.3G1+1.4G2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	1062.75	0.00 0.24	-713.44 12.30	886.51	75.58 -30.19	0.00	1.83 1.35	0.04 -0.04	6.53
VB1 - 2	1834.82	0.00 0.20	12.93 -3193.33	12.93	101.75 -13.14	0.00	-5.02 6.07	0.20 -0.20	6.51
VB1 - 3	2043.74	0.00 0.19	-3301.59 -377.04	1845.55	-2.19 -77.76	0.00	4.70 2.93	0.02 -0.02	-0.24
VB1 - 4	1810.95	0.00 0.19	-375.16 -3301.98	0.00	-61.07 -117.76	0.00	-5.20 6.15	0.11 -0.11	3.89
VB1 - 5	2031.22	0.00 0.07	-3033.93 -426.47	1090.77	-104.13 90.63	0.00	4.14 2.48	-0.06 0.06	-4.64
VB2 - 1	1339.00	0.00 0.37	-1116.01 -1755.56	2805.98	61.58 73.43	73.43	3.24 3.50	0.00 0.00	10.23
VB2 - 2	1339.00	0.00 0.32	-1817.70 -50.63	159.09	200.60 -120.75	0.00	2.30 0.75	0.14 -0.14	-11.92
VB2 - 3	1339.00	0.00 0.32	-51.27 -1682.81	0.00	-120.75 -161.01	0.00	-1.72 2.71	0.05 -0.05	-11.92
VB2 - 4	2145.48	0.00 0.37	-1683.45 -5610.05	0.00	-83.59 -24.72	0.00	-6.50 7.67	-0.11 0.11	-11.92
VB2 - 5	2215.49	0.00 0.38	-5864.10 326.59	326.59	89.95 179.36	0.00	7.36 -5.13	-0.09 0.09	-0.03
VB2 - 6	2522.88	0.00 0.38	328.02 3225.34	3225.34	179.36 -23.55	0.00	4.16 -1.45	0.19 -0.19	-0.03
VB2 - 7	2243.12	0.00 0.38	3224.77 828.32	3285.84	-23.55 -204.89	0.00	0.48 3.28	0.11 -0.11	-0.03
VB2 - 8	1996.52	0.00 0.39	826.45 -2804.60	826.45	-183.64 -192.85	0.00	-5.53 6.72	0.02 -0.02	-0.03
VB2 - 9	2387.97	0.00 0.22	-2694.70 1350.51	1350.51	-78.89 43.00	0.00	4.55 -0.92	-0.08 0.08	7.55
VB2 - 10	2238.72	0.00 0.22	1351.88 -2231.04	1351.88	43.00 67.92	0.00	-0.09 3.99	-0.01 0.01	7.55
VB2 - 11	1339.00	0.00 0.14	-2159.94 -258.35	397.29	-5.26 -96.19	0.00	2.62 1.33	0.03 -0.03	-10.29
VB3 - 1	1062.75	0.00 0.18	-291.13 757.52	1017.16	47.74 7.29	47.74	1.67 0.75	0.02 -0.02	-0.41
VB3 - 2	1062.75	0.00 0.18	758.16 -2352.47	758.16	7.29 -127.30	7.29	-1.71 3.09	0.10 -0.10	-0.41
VB3 - 3	1062.75	0.00 0.13	-2668.19 494.75	494.75	177.82 -43.59	177.82	3.68 -2.61	0.22 -0.22	0.77
VB3 - 4	1062.75	0.00 0.13	493.32 1647.98	1647.98	-43.59 18.09	0.00	1.65 -0.50	-0.06 0.06	0.77
VB3 - 5	1062.75	0.00 0.13	1648.56 -2159.27	1648.56	18.09 -35.96	18.09	-0.46 2.88	0.02 -0.02	0.77
VB3 - 6	1062.75	0.00 0.24	-2097.61 988.22	988.22	71.13 -65.64	71.13	2.84 -1.22	0.09 -0.09	-14.71
VB3 - 7	1062.75	0.00 0.24	986.85 -10.46	1007.14	-65.64 -103.81	0.00	0.21 1.47	0.02 -0.02	-14.71
VB4 - 1	1428.38	0.00 0.19	-1572.25 -14180.64	6098.67	40.13 -86.62	40.13	4.68 7.61	0.01 -0.01	-0.12
VB4 - 2	1428.37	0.00 0.60	-14858.63 6793.62	8788.34	106.51 8.41	106.51	8.22 2.39	0.01 -0.01	-13.47
VB4 - 3	1428.38	0.00 0.82	6806.32 4756.40	6806.32	178.11 6.73	0.00	-0.14 2.42	0.11 -0.11	27.14
VB4 - 4	1428.38	0.00	4765.06	4765.06	6.73	6.73	-4.18	0.03	27.14



**AltoQi Eberick 2018  
Plena**

**Leilson Campos  
Rezende  
Rezende Engenharia**

**11/5/2021  
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		0.82	-3328.92		-44.06		6.37	-0.03	
VB5 - 1	1062.75	0.00 0.24	-760.80 2360.54	2360.54	-66.20 25.24	25.24	2.82 -1.15	-0.06 0.06	-10.39
VB5 - 2	1062.75	0.00 0.24	2351.88 0.00	2351.88	25.24 0.00	25.24	-0.61 2.32	0.02 -0.02	-10.39
VB6 - 1	1428.38	0.00 0.03	-1352.86 -15387.00	5787.54	-43.62 74.60	74.60	4.52 7.78	-0.01 0.01	1.04
VB6 - 2	1428.38	0.00 0.13	-16169.54 -2741.48	11026.14	48.23 -84.55	48.23	8.81 6.27	0.01 -0.01	1.60
VB7 - 1	1428.38	0.00 0.09	-1505.81 -15330.96	5712.35	-36.93 47.81	47.81	4.54 7.75	-0.01 0.01	-0.23
VB7 - 2	1428.38	0.00 0.26	-16224.07 -2587.76	11091.76	52.43 -50.18	52.43	8.83 6.25	0.01 -0.01	-0.24
VB8 - 1	1428.38	0.00 1.03	-2662.42 -14077.13	5473.36	-40.12 36.73	36.73	4.82 7.47	-0.01 0.01	-4.69
VB8 - 2	1428.38	0.00 1.71	-15749.97 -4438.51	10224.59	40.53 -1.27	40.53	8.61 6.47	0.00 0.00	3.85
VB9 - 1	1111.50	0.00 0.50	-1432.83 -3942.03	2082.16	25.84 -27.03	25.84	2.80 3.66	0.01 -0.01	-0.29
VB9 - 2	1111.50	0.00 0.50	-3926.26 -3398.78	1970.71	-13.28 12.51	12.51	3.62 3.46	0.00 0.00	-0.08
VB10 - 1	1111.50	0.00 0.32	-3003.54 -2212.65	1190.08	60.10 -60.51	60.10	3.05 2.75	0.02 -0.02	-0.27
VB10 - 2	1111.50	0.00 0.25	-2032.51 -510.28	1012.13	-79.03 41.09	41.09	2.60 1.84	-0.03 0.03	2.62
VB11	1014.00	0.00 0.07	-167.87 -1163.57	0.00	-48.64 80.55	80.55	0.46 1.49	-0.07 0.07	3.29
VB12	1807.55	0.00 0.35	-1833.37 -1110.09	2334.63	-52.33 67.26	0.00	4.01 3.44	-0.03 0.03	-1.41
VB13	1014.00	0.00 0.09	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.64
VB14	1824.09	-0.16 0.00	0.00 0.00	3794.88	-77.42 131.94	0.00	3.79 3.67	-0.05 0.05	0.64
VB15 - 1	292.50	-0.16 0.00	-294.75 -1050.78	589.93	23.51 -21.05	23.51	0.72 0.98	0.01 -0.01	-0.39
VB15 - 2	292.50	-0.13 0.00	-1102.19 -841.36	512.63	-25.67 29.60	29.60	0.97 0.89	-0.01 0.01	0.01
VB15 - 3	292.50	-0.10 0.00	-865.63 -458.97	344.85	55.97 -78.44	55.97	0.84 0.69	0.03 -0.03	0.78
VB15 - 4	292.50	-0.09 0.00	-493.07 -69.93	0.00	-271.57 273.42	273.42	0.51 0.09	-0.27 0.27	2.00
VB15 - 5	292.50	0.00 0.03	-85.94 406.45	406.45	-38.81 105.12	105.12	0.54 0.03	-0.07 0.07	0.33
VB16	1014.00	-0.28 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	1.43
VB17	1014.00	0.00 0.08	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.58
VB18	1154.52	-0.09 0.00	0.00 0.00	2372.19	-21.25 16.69	0.00	2.25 2.26	-0.01 0.01	1.87
VB19	1062.75	0.00 0.11	-282.49 513.28	688.65	-103.22 124.10	124.10	1.44 0.61	-0.12 0.12	-0.06
VB20	1062.75	-0.07 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	1.37
VB21 - 1	1062.75	0.00 0.45	-1331.40 5009.56	5009.56	61.79 -86.15	61.79	3.68 -0.18	0.04 -0.04	8.48
VB21 - 2	1062.75	0.00 0.54	5050.16 -1352.05	5050.16	-255.85 101.96	101.96	-2.07 4.23	-0.18 0.18	-4.23
VB22	1062.75	0.00 0.16	-608.77 -685.20	1120.89	68.43 -87.82	0.00	1.92 1.96	0.04 -0.04	1.14
VB23	1062.75	0.00 0.07	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.66
VB24 - 1	1111.50	0.00 0.50	-1467.86 -3834.36	2111.09	-4.48 -4.68	0.00	2.82 3.64	0.00 0.00	1.23

VB24 - 2	1111.50	0.00 0.47	-3728.15 -4014.96	1757.79	-16.73 9.60	9.60	3.49 3.58	0.00 0.00	-0.10
VB25 - 1	1111.50	0.00 0.53	-4223.94 2512.07	2512.07	-134.20 154.35	154.35	4.58 -2.46	-0.15 0.15	-1.77
VB25 - 2	1111.50	0.00 0.51	2522.46 -3103.32	2527.41	154.35 -124.41	154.35	0.14 3.54	0.08 -0.08	-1.77
VB25 - 3	1111.50	0.00 0.23	-2548.36 -455.15	838.69	-170.27 132.51	132.51	2.74 1.70	-0.08 0.08	-7.71

CASO: 1.3G1+1.4G2+0.84V1+1.4D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	1062.75	0.00 0.24	-254.47 -206.09	978.97	104.57 -56.55	0.00	1.61 1.58	0.05 -0.05	6.62
VB1 - 2	1834.82	0.00 0.16	-205.35 -3543.00	0.00	140.23 9.76	0.00	-5.25 6.30	0.22 -0.22	6.44
VB1 - 3	2043.74	0.00 0.19	-3078.18 -543.18	1830.90	19.10 -105.92	0.00	4.60 3.04	0.03 -0.03	-0.48
VB1 - 4	1810.95	0.00 0.17	-541.41 -3521.68	0.00	-48.73 -113.41	0.00	-5.30 6.25	0.13 -0.13	5.51
VB1 - 5	2031.22	0.00 0.08	-2674.98 -897.12	963.43	-101.62 67.79	0.00	3.89 2.74	-0.05 0.05	-4.62
VB2 - 1	1339.00	0.00 0.23	-223.51 -2012.25	3164.20	-3.81 107.75	107.75	3.01 3.72	-0.02 0.02	10.25
VB2 - 2	1339.00	0.00 0.38	-1781.21 -399.07	0.00	187.24 -78.48	0.00	2.13 0.92	0.12 -0.12	-11.99
VB2 - 3	1339.00	0.00 0.38	-399.84 -2155.69	0.00	-78.48 -131.68	0.00	-1.89 2.88	0.07 -0.07	-11.99
VB2 - 4	2145.48	0.00 0.47	-2156.44 -6177.09	0.00	37.55 90.40	0.00	-6.66 7.84	-0.09 0.09	-11.99
VB2 - 5	2215.49	0.00 0.44	-5332.51 696.08	696.08	70.07 57.88	0.00	7.20 -4.97	0.01 -0.01	0.04
VB2 - 6	2522.88	0.00 0.44	697.54 3421.43	3421.43	57.88 -38.41	0.00	4.00 -1.29	0.09 -0.09	0.04
VB2 - 7	2243.12	0.00 0.44	3420.72 752.39	3447.81	-38.41 -180.00	0.00	0.32 3.44	0.08 -0.08	0.04
VB2 - 8	1996.52	0.00 0.47	750.65 -2975.27	750.65	-128.39 -122.92	0.00	-5.69 6.89	-0.01 0.01	0.04
VB2 - 9	2387.97	0.00 0.57	-2584.34 1265.67	1265.67	-119.85 47.84	0.00	4.42 -0.79	-0.11 0.11	7.72
VB2 - 10	2238.72	0.00 0.57	1266.97 -2539.39	1266.97	47.84 69.21	0.00	-0.22 4.12	-0.01 0.01	7.72
VB2 - 11	1339.00	0.00 0.36	-1612.18 -1301.37	0.00	24.85 -43.09	24.85	2.08 1.87	0.02 -0.02	-10.36
VB3 - 1	1062.75	0.00 0.15	-8.61 630.55	1034.70	-3.49 8.47	8.47	1.49 0.93	-0.01 0.01	-0.44
VB3 - 2	1062.75	0.00 0.15	631.31 -2712.30	631.31	8.47 -41.99	8.47	-1.89 3.27	0.04 -0.04	-0.44
VB3 - 3	1062.75	0.00 0.03	-2400.46 664.73	664.73	55.27 -12.30	55.27	3.58 -2.51	0.07 -0.07	0.77
VB3 - 4	1062.75	0.00 0.03	663.27 1713.35	1713.35	-12.30 -1.36	0.00	1.55 -0.40	-0.01 0.01	0.77
VB3 - 5	1062.75	0.00 0.03	1714.05 -2314.96	1714.05	-1.36 9.18	9.18	-0.56 2.98	0.00 0.00	0.77
VB3 - 6	1062.75	0.00 0.08	-1940.60 935.73	935.73	22.78 -73.03	22.78	2.70 -1.09	0.06 -0.06	-14.35
VB3 - 7	1062.75	0.00 0.08	934.43 -280.93	934.43	-73.03 -17.67	0.00	0.07 1.61	-0.04 0.04	-14.35
VB4 - 1	1428.38	0.00 0.32	-1006.29 -14526.06	6325.50	-121.03 52.12	52.12	4.58 7.72	-0.02 0.02	-0.09
VB4 - 2	1428.37	0.00	-14560.24	8679.30	-24.77	142.22	8.15	-0.02	-13.08

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		0.77	6566.38		142.22		2.46	0.02	
VB4 - 3	1428.38	0.00 0.97	6580.51 4133.71	6580.51	80.40 -36.26	0.00	-0.38 2.67	0.07 -0.07	26.13
VB4 - 4	1428.38	0.00 0.97	4142.19 -4331.78	4142.19	-36.26 95.09	95.09	-4.43 6.62	-0.09 0.09	26.13
VB5 - 1	1062.75	0.00 0.20	-394.24 2545.88	2545.88	-161.88 44.09	44.09	2.71 -1.04	-0.13 0.13	-10.09
VB5 - 2	1062.75	0.00 0.20	2537.40 0.00	2537.40	44.09 0.00	44.09	-0.72 2.43	0.03 -0.03	-10.09
VB6 - 1	1428.38	0.00 0.05	-399.65 -15940.62	6198.09	-145.51 140.87	140.87	4.34 7.95	-0.03 0.03	1.03
VB6 - 2	1428.38	0.00 0.14	-15623.26 -3708.25	10699.51	-19.39 43.50	43.50	8.67 6.42	-0.01 0.01	1.79
VB7 - 1	1428.38	0.00 0.09	-552.25 -15890.62	6116.16	109.12 -49.08	109.12	4.37 7.93	0.02 -0.02	-0.24
VB7 - 2	1428.38	0.00 0.24	-15695.80 -3506.58	10785.17	155.33 -198.87	155.33	8.70 6.39	0.03 -0.03	-0.22
VB8 - 1	1428.38	0.00 1.03	-2076.28 -14486.26	5668.46	117.43 -53.74	117.43	4.71 7.59	0.02 -0.02	-4.71
VB8 - 2	1428.38	0.00 1.68	-15381.19 -4983.65	10072.44	135.75 -154.49	135.75	8.53 6.56	0.03 -0.03	3.94
VB9 - 1	1111.50	0.00 0.53	-1428.69 -3945.38	2082.94	-132.28 133.59	133.59	2.80 3.66	-0.05 0.05	-0.48
VB9 - 2	1111.50	0.00 0.55	-3927.78 -3396.56	1971.11	4.76 20.19	20.19	3.62 3.45	0.00 0.00	-0.08
VB10 - 1	1111.50	0.00 0.36	-3014.44 -2199.81	1191.95	169.63 -165.68	169.63	3.06 2.75	0.06 -0.06	-0.07
VB10 - 2	1111.50	0.00 0.26	-2036.61 -505.85	1012.97	-29.34 -18.63	0.00	2.60 1.84	0.00 0.00	2.55
VB11	1014.00	0.00 0.05	-172.48 -1146.19	0.00	8.22 -7.74	8.22	0.48 1.48	0.01 -0.01	3.72
VB12	1807.55	0.00 0.33	-1824.11 -1113.18	2337.72	-82.95 98.02	0.00	4.00 3.45	-0.04 0.04	-1.99
VB13	1014.00	0.00 0.04	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.76
VB14	1824.09	-0.17 0.00	0.00 0.00	3794.88	-169.23 196.77	0.00	3.79 3.67	-0.09 0.09	0.75
VB15 - 1	292.50	-0.16 0.00	-300.33 -1046.36	588.49	-181.77 182.15	182.15	0.72 0.98	-0.06 0.06	-0.37
VB15 - 2	292.50	-0.14 0.00	-1105.91 -836.88	513.13	-22.26 32.10	32.10	0.97 0.89	-0.01 0.01	0.01
VB15 - 3	292.50	-0.10 0.00	-868.47 -460.11	342.93	192.36 -206.72	192.36	0.84 0.69	0.08 -0.08	0.79
VB15 - 4	292.50	-0.10 0.00	-503.92 -55.98	0.00	-129.84 147.54	147.54	0.52 0.08	-0.13 0.13	1.15
VB15 - 5	292.50	-0.07 0.00	-73.70 414.44	414.57	49.92 -29.38	49.92	0.54 0.03	0.04 -0.04	0.90
VB16	1014.00	-0.08 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	1.46
VB17	1014.00	0.00 0.01	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.71
VB18	1154.52	-0.09 0.00	0.00 0.00	2372.19	-51.61 57.20	0.00	2.25 2.26	-0.03 0.03	1.75
VB19	1062.75	0.00 0.12	-286.03 518.88	691.20	-6.82 0.03	0.03	1.44 0.61	0.00 0.00	0.10
VB20	1062.75	-0.10 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	1.30
VB21 - 1	1062.75	0.00 0.36	-1296.26 4836.12	4836.12	167.22 -213.37	167.22	3.61 -0.12	0.12 -0.12	9.28
VB21 - 2	1062.75	0.00 0.45	4875.32 -1296.23	4875.32	-151.55 19.21	19.21	-1.96 4.12	-0.08 0.08	-4.85
VB22	1062.75	0.00 0.15	-603.74 -690.96	1120.53	32.66 -65.06	0.00	1.91 1.96	0.03 -0.03	0.66

VB23	1062.75	0.00 0.16	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.48
VB24 - 1	1111.50	0.00 0.47	-1445.07 -3847.83	2117.63	-158.68 151.26	151.26	2.82 3.64	-0.05 0.05	1.00
VB24 - 2	1111.50	0.00 0.40	-3699.94 -4065.77	1747.76	-4.34 33.57	33.57	3.48 3.60	-0.01 0.01	-0.13
VB25 - 1	1111.50	0.00 0.47	-4254.07 2605.20	2605.20	-7.70 152.57	152.57	4.65 -2.52	-0.08 0.08	-1.62
VB25 - 2	1111.50	0.00 0.44	2615.29 -3178.99	2615.29	152.57 -218.37	152.57	0.09 3.59	0.11 -0.11	-1.62
VB25 - 3	1111.50	0.00 0.24	-2546.02 -477.41	825.49	-106.63 76.77	76.77	2.74 1.70	-0.05 0.05	-7.42

CASO: 1.3G1+1.4G2+0.84V2+1.4D2										
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)	
VB1 - 1	1062.75	0.00 0.24	-1172.42 230.69	841.23	46.59 -3.84	0.00	2.06 1.12	0.02 -0.02	6.43	
VB1 - 2	1834.82	0.00 0.23	231.22 -2843.66	231.22	63.26 -36.03	0.00	-4.80 5.84	0.17 -0.17	6.58	
VB1 - 3	2043.74	0.00 0.19	-3525.00 -210.90	1860.20	-23.49 -49.59	0.00	4.80 2.83	0.01 -0.01	0.01	
VB1 - 4	1810.95	0.00 0.21	-208.91 -3082.29	0.00	-73.40 -122.11	0.00	-5.09 6.04	0.09 -0.09	2.27	
VB1 - 5	2031.22	0.00 0.06	-3392.87 44.18	1276.46	-106.64 113.46	0.00	4.40 2.23	-0.07 0.07	-4.67	
VB2 - 1	1339.00	0.00 0.50	-2008.51 -1498.86	2485.48	126.96 39.10	126.96	3.47 3.27	0.02 -0.02	10.20	
VB2 - 2	1339.00	0.00 0.26	-1854.20 297.82	425.28	213.95 -163.03	0.00	2.47 0.58	0.17 -0.17	-11.85	
VB2 - 3	1339.00	0.00 0.26	297.31 -1209.93	297.31	-163.03 -190.34	0.00	-1.55 2.54	0.04 -0.04	-11.85	
VB2 - 4	2145.48	0.00 0.27	-1210.46 -5043.01	0.00	-204.72 -139.84	0.00	-6.33 7.50	-0.12 0.12	-11.85	
VB2 - 5	2215.49	0.00 0.31	-6395.69 -42.89	0.00	109.83 300.84	0.00	7.52 -5.29	-0.19 0.19	-0.10	
VB2 - 6	2522.88	0.00 0.31	-41.50 3029.26	3029.26	300.84 -8.70	0.00	4.32 -1.61	0.29 -0.29	-0.10	
VB2 - 7	2243.12	0.00 0.31	3028.81 904.24	3123.87	-8.70 -229.78	0.00	0.64 3.12	0.13 -0.13	-0.10	
VB2 - 8	1996.52	0.00 0.30	902.26 -2633.92	902.26	-238.88 -262.78	0.00	-5.37 6.56	0.04 -0.04	-0.10	
VB2 - 9	2387.97	-0.13 0.00	-2805.05 1435.35	1435.35	-37.94 38.15	0.00	4.68 -1.05	-0.05 0.05	7.37	
VB2 - 10	2238.72	-0.13 0.00	1436.80 -1922.68	1436.80	38.15 66.63	0.00	0.03 3.86	-0.02 0.02	7.37	
VB2 - 11	1339.00	-0.09 0.00	-2707.69 784.67	1015.14	-35.37 -149.28	0.00	3.16 0.79	0.04 -0.04	-10.21	
VB3 - 1	1062.75	0.00 0.22	-573.64 884.49	1032.45	98.98 6.10	98.98	1.85 0.57	0.04 -0.04	-0.37	
VB3 - 2	1062.75	0.00 0.22	885.00 -1992.64	885.00	6.10 -212.61	6.10	-1.53 2.91	0.17 -0.17	-0.37	
VB3 - 3	1062.75	0.00 0.23	-2935.92 324.77	324.77	300.37 -74.88	300.37	3.78 -2.71	0.37 -0.37	0.76	
VB3 - 4	1062.75	0.00 0.23	323.37 1582.62	1582.62	-74.88 37.53	0.00	1.74 -0.60	-0.10 0.10	0.76	
VB3 - 5	1062.75	0.00 0.23	1583.07 -2003.58	1583.07	37.53 -81.09	37.53	-0.37 2.79	0.05 -0.05	0.76	
VB3 - 6	1062.75	0.00 0.39	-2254.62 1040.72	1040.72	119.47 -58.26	119.47	2.98 -1.36	0.12 -0.12	-15.07	
VB3 - 7	1062.75	0.00	1039.27	1090.71	-58.26	0.00	0.35	0.08	-15.07	



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		0.39	260.00		-189.95		1.33	-0.08	
VB4 - 1	1428.38	0.00 0.06	-2138.21 -13835.21	5885.97	201.28 -225.35	201.28	4.79 7.51	0.05 -0.05	-0.16
VB4 - 2	1428.37	0.00 0.42	-15157.03 7020.86	8901.93	237.78 -125.41	237.78	8.29 2.32	0.05 -0.05	-13.85
VB4 - 3	1428.38	0.00 0.67	7032.14 5379.09	7032.14	275.81 49.72	0.00	0.11 2.18	0.14 -0.14	28.16
VB4 - 4	1428.38	0.00 0.67	5387.93 -2326.05	5387.93	49.72 -183.21	49.72	-3.93 6.13	0.15 -0.15	28.16
VB5 - 1	1062.75	0.00 0.27	-1127.36 2175.21	2175.21	29.49 6.39	29.49	2.94 -1.27	0.01 -0.01	-10.69
VB5 - 2	1062.75	0.00 0.27	2166.37 0.00	2166.37	6.39 0.00	6.39	-0.49 2.20	0.00 0.00	-10.69
VB6 - 1	1428.38	0.00 0.01	-2306.06 -14833.38	5395.02	58.26 8.33	58.26	4.69 7.60	0.01 -0.01	1.05
VB6 - 2	1428.38	0.00 0.11	-16715.82 -1774.72	11374.89	115.84 -212.60	115.84	8.96 6.13	0.03 -0.03	1.42
VB7 - 1	1428.38	0.00 0.09	-2459.37 -14771.30	5321.85	-182.98 144.71	144.71	4.72 7.58	-0.04 0.04	-0.22
VB7 - 2	1428.38	0.00 0.27	-16752.34 -1668.94	11423.20	-50.46 98.51	98.51	8.97 6.12	-0.01 0.01	-0.27
VB8 - 1	1428.38	0.00 1.02	-3248.57 -13668.00	5280.69	-197.68 127.20	127.20	4.94 7.36	-0.04 0.04	-4.67
VB8 - 2	1428.38	0.00 1.74	-16118.76 -3893.37	10383.08	-54.69 151.96	151.96	8.70 6.39	-0.02 0.02	3.76
VB9 - 1	1111.50	0.00 0.48	-1436.96 -3938.69	2081.37	183.96 -187.66	183.96	2.80 3.66	0.06 -0.06	-0.11
VB9 - 2	1111.50	0.00 0.44	-3924.74 -3401.00	1970.30	-31.31 4.84	4.84	3.62 3.46	-0.01 0.01	-0.08
VB10 - 1	1111.50	0.00 0.28	-2992.63 -2225.48	1188.20	-49.43 44.66	44.66	3.05 2.76	-0.02 0.02	-0.47
VB10 - 2	1111.50	0.00 0.24	-2028.41 -514.71	1011.30	-128.71 100.81	100.81	2.60 1.84	-0.06 0.06	2.69
VB11	1014.00	0.00 0.09	-163.26 -1180.95	0.00	-105.50 168.84	168.84	0.45 1.51	-0.14 0.14	2.86
VB12	1807.55	0.00 0.38	-1842.62 -1106.99	2331.55	-21.71 36.51	0.00	4.01 3.44	-0.01 0.01	-0.84
VB13	1014.00	0.00 0.13	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.51
VB14	1824.09	-0.15 0.00	0.00 0.00	3794.88	14.38 67.10	0.00	3.79 3.67	-0.01 0.01	0.54
VB15 - 1	292.50	-0.15 0.00	-289.17 -1055.20	591.37	228.80 -224.25	228.80	0.72 0.98	0.08 -0.08	-0.41
VB15 - 2	292.50	-0.12 0.00	-1098.46 -845.83	512.12	-29.08 27.10	27.10	0.97 0.89	-0.01 0.01	0.00
VB15 - 3	292.50	-0.09 0.00	-862.79 -457.83	346.78	-80.41 49.83	49.83	0.84 0.69	-0.02 0.02	0.77
VB15 - 4	292.50	-0.09 0.00	-482.22 -83.88	0.00	-413.30 399.29	399.29	0.49 0.11	-0.40 0.40	2.84
VB15 - 5	292.50	0.00 0.12	-98.18 398.46	398.46	-127.55 239.62	239.62	0.54 0.03	-0.19 0.19	-0.24
VB16	1014.00	-0.48 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	1.39
VB17	1014.00	0.00 0.16	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.45
VB18	1154.52	-0.09 0.00	0.00 0.00	2372.19	9.10 -23.81	0.00	2.25 2.26	0.01 -0.01	1.99
VB19	1062.75	0.00 0.11	-278.95 507.68	686.10	-199.63 248.17	248.17	1.43 0.62	-0.23 0.23	-0.22
VB20	1062.75	-0.03 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	1.45
VB21 - 1	1062.75	0.00 0.53	-1366.54 5183.00	5183.00	-43.64 41.07	41.07	3.74 -0.24	-0.03 0.03	7.68

VB21 - 2	1062.75	0.00 0.63	5225.01 -1407.88	5225.01	-360.14 184.72	184.72	-2.19 4.35	-0.27 0.27	-3.60
VB22	1062.75	0.00 0.16	-613.80 -679.45	1121.25	104.19 -110.58	0.00	1.92 1.96	0.06 -0.06	1.61
VB23	1062.75	-0.01 0.00	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.84
VB24 - 1	1111.50	0.00 0.53	-1490.65 -3820.88	2104.56	149.71 -160.63	149.71	2.83 3.63	0.05 -0.05	1.46
VB24 - 2	1111.50	0.00 0.54	-3756.37 -3964.14	1767.81	-29.12 -14.37	0.00	3.51 3.57	0.00 0.00	-0.07
VB25 - 1	1111.50	0.00 0.59	-4193.81 2418.94	2418.94	-260.69 156.14	156.14	4.52 -2.39	-0.22 0.22	-1.92
VB25 - 2	1111.50	0.00 0.59	2429.63 -3027.65	2445.11	156.14 -30.45	156.14	0.19 3.49	0.06 -0.06	-1.92
VB25 - 3	1111.50	0.00 0.22	-2550.69 -432.89	851.89	-233.90 188.24	188.24	2.75 1.69	-0.11 0.11	-8.01

CASO: 1.3G1+1.4G2+0.84V3+1.4D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	1062.75	-0.03 0.00	-653.55 -14.02	895.17	515.61 -447.54	0.00	1.81 1.38	0.32 -0.32	7.64
VB1 - 2	1834.82	-0.23 0.00	-13.46 -3236.45	0.00	-3.06 -240.55	0.00	-5.05 6.10	0.41 -0.41	7.60
VB1 - 3	2043.74	-0.27 0.00	-3282.58 -386.63	1847.09	-231.81 -63.93	0.00	4.69 2.94	-0.04 0.04	0.14
VB1 - 4	1810.95	-0.08 0.00	-384.86 -3315.60	0.00	-435.96 -475.30	0.00	-5.21 6.16	0.08 -0.08	4.38
VB1 - 5	2031.22	-0.24 0.00	-2979.52 -507.09	1060.79	-467.39 615.74	0.00	4.10 2.53	-0.33 0.33	-6.91
VB2 - 1	1339.00	0.00 0.28	-1141.80 -1743.94	2798.14	343.96 -469.24	343.96	3.25 3.49	0.16 -0.16	9.05
VB2 - 2	1339.00	0.00 0.52	-1806.47 -68.02	149.50	247.49 -331.24	0.00	2.29 0.77	0.25 -0.25	-9.95
VB2 - 3	1339.00	0.00 0.52	-68.64 -1709.43	0.00	-331.24 -450.04	0.00	-1.73 2.72	0.16 -0.16	-9.95
VB2 - 4	2145.48	0.00 0.71	-1710.00 -5643.59	0.00	-97.76 -143.45	0.00	-6.51 7.68	0.08 -0.08	-9.95
VB2 - 5	2215.49	0.00 0.77	-5907.29 316.10	316.10	-113.74 17.00	0.00	7.39 -5.16	-0.13 0.13	-0.62
VB2 - 6	2522.88	0.00 0.77	317.46 3249.78	3249.78	17.00 -93.75	0.00	4.20 -1.48	0.10 -0.10	-0.62
VB2 - 7	2243.12	0.00 0.77	3249.14 907.54	3317.07	-93.75 -182.39	0.00	0.51 3.25	0.05 -0.05	-0.62
VB2 - 8	1996.52	0.00 0.59	905.79 -2706.12	905.79	-530.74 -486.35	0.00	-5.50 6.69	-0.08 0.08	-0.62
VB2 - 9	2387.97	0.00 0.45	-2585.93 1348.33	1348.33	-409.04 85.36	0.00	4.48 -0.85	-0.33 0.33	7.72
VB2 - 10	2238.72	0.00 0.45	1349.90 -2360.03	1349.90	85.36 231.41	0.00	-0.17 4.06	-0.08 0.08	7.72
VB2 - 11	1339.00	0.00 0.05	-2279.97 -257.77	354.79	-518.49 152.44	152.44	2.66 1.29	-0.23 0.23	-9.62
VB3 - 1	1062.75	0.00 0.17	-297.75 769.70	1024.21	27.50 11.97	27.50	1.68 0.74	0.01 -0.01	-1.25
VB3 - 2	1062.75	0.00 0.17	770.32 -2329.61	770.32	11.97 -116.47	11.97	-1.71 3.08	0.10 -0.10	-1.25
VB3 - 3	1062.75	0.00 0.03	-2664.20 495.01	495.01	156.10 -36.19	156.10	3.68 -2.61	0.19 -0.19	1.09
VB3 - 4	1062.75	0.00 0.03	493.65 1644.34	1644.34	-36.19 8.70	0.00	1.64 -0.50	-0.04 0.04	1.09
VB3 - 5	1062.75	0.00	1644.97	1644.97	8.70	8.70	-0.47	0.01	1.09





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		0.03	-2171.27		-10.99		2.89	-0.01	
VB3 - 6	1062.75	0.00 0.11	-2129.07 980.95	980.95	78.29 -141.95	78.29	2.85 -1.24	0.14 -0.14	-14.64
VB3 - 7	1062.75	0.00 0.11	979.39 7.25	1003.27	-141.95 10.53	10.53	0.23 1.46	-0.10 0.10	-14.64
VB4 - 1	1428.38	0.00 0.27	-1616.02 -14147.43	6083.54	281.46 -341.21	281.46	4.69 7.60	0.07 -0.07	0.04
VB4 - 2	1428.37	0.00 0.71	-14862.00 6781.86	8778.40	-49.09 -15.69	0.00	8.22 2.39	0.00 0.00	-14.74
VB4 - 3	1428.38	0.00 0.87	6794.61 4783.55	6794.61	-84.13 -40.43	0.00	-0.11 2.40	-0.03 0.03	30.00
VB4 - 4	1428.38	0.00 0.87	4792.27 -3264.49	4792.27	-40.43 235.06	235.06	-4.16 6.35	-0.18 0.18	30.00
VB5 - 1	1062.75	0.00 0.20	-795.33 2343.11	2343.11	-157.30 41.54	41.54	2.83 -1.16	-0.13 0.13	-10.97
VB5 - 2	1062.75	0.00 0.20	2334.39 0.00	2334.39	41.54 0.00	41.54	-0.60 2.31	0.03 -0.03	-10.97
VB6 - 1	1428.38	0.00 0.05	-1398.42 -15360.29	5768.87	122.54 -168.95	122.54	4.53 7.77	0.03 -0.03	1.26
VB6 - 2	1428.38	0.00 0.16	-16195.60 -2695.65	11041.56	-165.87 77.46	77.46	8.82 6.27	-0.02 0.02	1.54
VB7 - 1	1428.38	0.00 0.08	-1513.93 -15325.81	5709.17	133.11 -187.32	133.11	4.54 7.75	0.04 -0.04	-0.15
VB7 - 2	1428.38	0.00 0.24	-16230.44 -2576.50	11095.56	-161.76 94.56	94.56	8.84 6.25	-0.02 0.02	-0.20
VB8 - 1	1428.38	0.00 1.05	-2642.81 -14089.14	5480.47	70.86 -169.34	70.86	4.82 7.48	0.03 -0.03	-4.07
VB8 - 2	1428.38	0.00 1.73	-15752.83 -4430.05	10228.27	-146.42 90.66	90.66	8.62 6.47	-0.02 0.02	3.54
VB9 - 1	1111.50	0.00 0.52	-1018.24 -4273.36	2185.38	-54.38 45.65	45.65	2.67 3.79	-0.02 0.02	-0.28
VB9 - 2	1111.50	0.00 0.48	-3681.15 -3657.69	1955.67	-68.00 68.47	68.47	3.54 3.53	-0.02 0.02	-0.06
VB10 - 1	1111.50	0.00 0.27	-2709.55 -2467.07	1201.87	-12.76 -0.79	0.00	2.95 2.86	0.00 0.00	-0.28
VB10 - 2	1111.50	0.00 0.15	-1659.14 -994.47	903.21	-220.74 251.80	251.80	2.39 2.05	-0.12 0.12	2.60
VB11	1014.00	0.00 0.01	233.76 -1321.56	247.80	-31.35 52.02	52.02	0.17 1.78	-0.04 0.04	3.33
VB12	1807.55	0.00 0.22	-1487.48 -1839.08	2143.08	-661.84 517.74	0.00	3.74 3.70	-0.29 0.29	-1.53
VB13	1014.00	0.00 0.09	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.62
VB14	1824.09	-0.08 0.00	0.00 0.00	3794.88	-352.27 444.47	0.00	3.79 3.67	-0.19 0.19	0.57
VB15 - 1	292.50	-0.12 0.00	292.29 -1483.08	797.95	8.91 -6.31	8.91	0.54 1.16	0.00 0.00	-0.39
VB15 - 2	292.50	-0.10 0.00	-813.27 -1160.63	498.84	-31.87 34.15	34.15	0.88 0.99	-0.01 0.01	0.01
VB15 - 3	292.50	-0.08 0.00	-488.28 -788.71	364.57	31.07 -48.42	31.07	0.71 0.82	0.02 -0.02	0.78
VB15 - 4	292.50	-0.09 0.00	-96.35 -99.00	56.88	-340.54 291.48	291.48	0.30 0.30	-0.31 0.31	2.02
VB15 - 5	292.50	0.00 0.13	8.48 -329.97	28.42	6.57 52.42	52.42	0.11 0.46	-0.02 0.02	0.25
VB16	1014.00	-0.23 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	1.36
VB17	1014.00	0.00 0.05	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.63
VB18	1154.52	-0.13 0.00	0.00 0.00	2372.19	348.34 -372.03	0.00	2.25 2.26	0.18 -0.18	1.75
VB19	1062.75	0.00 0.18	62.64 162.49	607.70	-83.89 88.85	88.85	1.08 0.97	-0.09 0.09	0.00





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VB20	1062.75	-0.24 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	1.57
VB21 - 1	1062.75	0.00 0.41	-1079.02 4971.94	4971.94	145.66 -182.84	145.66	3.59 -0.09	0.10 -0.10	8.46
VB21 - 2	1062.75	0.00 0.39	5016.68 -1616.19	5016.68	-114.40 -0.59	0.00	-2.19 4.35	-0.06 0.06	-4.29
VB22	1062.75	-0.04 0.00	-163.36 -1277.66	1087.44	727.18 -600.51	0.00	1.63 2.24	0.36 -0.36	1.01
VB23	1062.75	0.00 0.15	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.72
VB24 - 1	1111.50	0.00 0.48	-974.67 -4228.63	2229.43	62.77 -63.77	62.77	2.67 3.79	0.02 -0.02	1.23
VB24 - 2	1111.50	0.00 0.35	-3436.97 -4321.34	1759.82	31.90 -35.69	31.90	3.40 3.68	0.01 -0.01	-0.08
VB25 - 1	1111.50	0.00 0.34	-3867.35 2614.80	2614.80	-43.87 139.25	139.25	4.45 -2.32	-0.10 0.10	-1.79
VB25 - 2	1111.50	0.00 0.31	2625.77 -3402.91	2625.77	139.25 -192.98	139.25	0.02 3.66	0.10 -0.10	-1.79
VB25 - 3	1111.50	0.00 0.08	-2099.27 -1037.01	679.08	-14.18 -51.30	0.00	2.49 1.96	0.01 -0.01	-7.78

CASO: 1.3G1+1.4G2+0.84V4+1.4D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	1062.75	0.00 0.52	-773.34 38.62	878.34	-364.45 387.15	0.00	1.86 1.32	-0.25 0.25	5.42
VB1 - 2	1834.82	0.00 0.62	39.33 -3150.22	39.33	206.56 214.27	0.00	-4.99 6.04	-0.01 0.01	5.42
VB1 - 3	2043.74	0.00 0.65	-3320.60 -367.46	1844.02	227.42 -91.59	0.00	4.71 2.93	0.09 -0.09	-0.62
VB1 - 4	1810.95	0.00 0.45	-365.46 -3288.36	0.00	313.83 239.78	0.00	-5.19 6.14	0.14 -0.14	3.39
VB1 - 5	2031.22	0.00 0.37	-3088.34 -345.85	1120.76	259.13 -434.48	0.00	4.19 2.44	0.21 -0.21	-2.38
VB2 - 1	1339.00	0.00 0.45	-1090.21 -1767.17	2813.82	-220.81 616.09	616.09	3.23 3.50	-0.17 0.17	11.40
VB2 - 2	1339.00	0.00 0.12	-1828.93 -33.23	168.68	153.70 89.74	0.00	2.31 0.74	0.03 -0.03	-13.89
VB2 - 3	1339.00	0.00 0.12	-33.89 -1656.19	0.00	89.74 128.02	0.00	-1.71 2.69	-0.05 0.05	-13.89
VB2 - 4	2145.48	0.00 0.03	-1656.91 -5576.51	0.00	-69.41 94.01	0.00	-6.48 7.66	-0.29 0.29	-13.89
VB2 - 5	2215.49	-0.02 0.00	-5820.91 337.08	337.08	293.64 341.72	0.00	7.32 -5.10	-0.05 0.05	0.55
VB2 - 6	2522.88	-0.02 0.00	338.57 3200.91	3200.91	341.72 46.64	0.00	4.13 -1.42	0.27 -0.27	0.55
VB2 - 7	2243.12	-0.02 0.00	3200.39 749.09	3254.61	46.64 -227.39	0.00	0.45 3.31	0.16 -0.16	0.55
VB2 - 8	1996.52	0.00 0.19	747.11 -2903.07	747.11	163.46 100.64	0.00	-5.57 6.76	0.11 -0.11	0.55
VB2 - 9	2387.97	-0.01 0.00	-2803.47 1352.69	1352.69	251.25 0.63	0.00	4.62 -0.99	0.16 -0.16	7.37
VB2 - 10	2238.72	-0.01 0.00	1353.87 -2102.05	1353.87	0.63 -95.57	0.00	-0.02 3.92	0.06 -0.06	7.37
VB2 - 11	1339.00	0.00 0.23	-2039.90 -258.93	439.79	507.97 -344.81	507.97	2.58 1.37	0.29 -0.29	-10.95
VB3 - 1	1062.75	0.00 0.20	-284.51 745.34	1010.11	67.98 2.60	67.98	1.66 0.76	0.03 -0.03	0.43
VB3 - 2	1062.75	0.00 0.20	746.00 -2375.32	746.00	2.60 -138.13	2.60	-1.72 3.10	0.11 -0.11	0.43
VB3 - 3	1062.75	0.00	-2672.17	494.48	199.54	199.54	3.68	0.25	0.44

		0.23	494.48		-50.99		-2.62	-0.25	
VB3 - 4	1062.75	0.00 0.23	492.99 1651.63	1651.63	-50.99 27.48	0.00	1.65 -0.51	-0.07 0.07	0.44
VB3 - 5	1062.75	0.00 0.23	1652.15 -2147.26	1652.15	27.48 -60.93	27.48	-0.46 2.88	0.04 -0.04	0.44
VB3 - 6	1062.75	0.00 0.36	-2066.15 995.49	995.49	63.96 10.66	63.96	2.82 -1.21	0.04 -0.04	-14.78
VB3 - 7	1062.75	0.00 0.36	994.31 -28.17	1011.01	10.66 -218.15	10.66	0.19 1.49	0.14 -0.14	-14.78
VB4 - 1	1428.38	0.00 0.11	-1528.47 -14213.84	6113.80	-201.21 167.98	167.98	4.67 7.62	-0.04 0.04	-0.28
VB4 - 2	1428.37	0.00 0.48	-14855.27 6805.38	8798.29	262.10 32.50	262.10	8.22 2.39	0.03 -0.03	-12.19
VB4 - 3	1428.38	0.00 0.77	6818.04 4729.25	6818.04	440.34 53.89	0.00	-0.16 2.45	0.24 -0.24	24.28
VB4 - 4	1428.38	0.00 0.77	4737.85 -3393.34	4737.85	53.89 -323.19	53.89	-4.21 6.40	0.25 -0.25	24.28
VB5 - 1	1062.75	0.00 0.27	-726.27 2377.98	2377.98	24.91 8.94	24.91	2.81 -1.14	0.01 -0.01	-9.82
VB5 - 2	1062.75	0.00 0.27	2369.38 0.00	2369.38	8.94 0.00	8.94	-0.62 2.33	0.01 -0.01	-9.82
VB6 - 1	1428.38	0.00 0.01	-1307.30 -15413.71	5806.21	-209.79 318.15	318.15	4.51 7.79	-0.06 0.06	0.83
VB6 - 2	1428.38	0.00 0.09	-16143.49 -2787.31	11010.73	262.33 -246.56	262.33	8.81 6.28	0.05 -0.05	1.67
VB7 - 1	1428.38	0.00 0.10	-1497.69 -15336.11	5715.54	-206.97 282.95	282.95	4.54 7.76	-0.06 0.06	-0.31
VB7 - 2	1428.38	0.00 0.27	-16217.70 -2599.03	11087.95	266.63 -194.92	266.63	8.83 6.25	0.04 -0.04	-0.28
VB8 - 1	1428.38	0.00 1.01	-2682.04 -14065.12	5466.25	-151.10 242.80	242.80	4.82 7.47	-0.05 0.05	-5.32
VB8 - 2	1428.38	0.00 1.69	-15747.12 -4446.97	10220.92	227.48 -93.19	227.48	8.61 6.47	0.03 -0.03	4.16
VB9 - 1	1111.50	0.00 0.49	-1847.41 -3610.71	2001.95	106.06 -99.71	106.06	2.93 3.53	0.04 -0.04	-0.31
VB9 - 2	1111.50	0.00 0.52	-4171.37 -3139.86	1985.74	41.45 -43.44	41.45	3.70 3.38	0.01 -0.01	-0.09
VB10 - 1	1111.50	0.00 0.37	-3297.52 -1958.22	1191.39	132.96 -120.23	132.96	3.16 2.65	0.05 -0.05	-0.27
VB10 - 2	1111.50	0.00 0.35	-2405.88 -26.09	1162.16	62.69 -169.62	62.69	2.82 1.63	0.06 -0.06	2.63
VB11	1014.00	0.00 0.14	-569.51 -1005.59	0.00	-65.94 109.08	109.08	0.75 1.21	-0.09 0.09	3.25
VB12	1807.55	0.00 0.49	-2179.25 -381.10	2573.05	557.18 -383.22	0.00	4.27 3.18	0.23 -0.23	-1.30
VB13	1014.00	0.00 0.08	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.66
VB14	1824.09	-0.24 0.00	0.00 0.00	3794.88	197.43 -180.60	0.00	3.79 3.67	0.09 -0.09	0.72
VB15 - 1	292.50	-0.19 0.00	-881.78 -618.48	487.15	38.11 -35.79	38.11	0.90 0.80	0.01 -0.01	-0.39
VB15 - 2	292.50	-0.15 0.00	-1391.10 -522.08	556.67	-19.47 25.04	25.04	1.07 0.79	-0.01 0.01	0.01
VB15 - 3	292.50	-0.11 0.00	-1242.98 -129.23	388.22	80.87 -108.47	80.87	0.98 0.55	0.04 -0.04	0.77
VB15 - 4	292.50	-0.10 0.00	-889.79 -40.86	0.00	-202.59 255.35	255.35	0.71 -0.11	-0.22 0.22	1.97
VB15 - 5	292.50	-0.08 0.00	-180.36 1142.87	1142.87	-84.19 157.81	157.81	0.97 -0.40	-0.12 0.12	0.41
VB16	1014.00	-0.32 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	1.49
VB17	1014.00	0.00 0.11	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.52

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VB18	1154.52	-0.06 0.00	0.00 0.00	2372.19	-390.85 405.41	0.00	2.25 2.26	-0.20 0.20	1.98
VB19	1062.75	0.00 0.05	-627.62 864.07	894.16	-122.56 159.36	159.36	1.80 0.25	-0.15 0.15	-0.12
VB20	1062.75	0.00 0.11	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	1.18
VB21 - 1	1062.75	0.00 0.48	-1583.77 5047.17	5047.17	-22.09 10.55	10.55	3.76 -0.27	-0.01 0.01	8.50
VB21 - 2	1062.75	0.00 0.69	5083.65 -1087.92	5083.65	-397.29 204.52	204.52	-1.96 4.12	-0.30 0.30	-4.16
VB22	1062.75	0.00 0.36	-1054.18 -92.74	1226.00	-590.32 424.87	0.00	2.20 1.67	-0.28 0.28	1.26
VB23	1062.75	0.00 0.00	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.60
VB24 - 1	1111.50	0.00 0.53	-1961.05 -3440.08	2015.73	-71.74 54.40	54.40	2.97 3.48	-0.02 0.02	1.23
VB24 - 2	1111.50	0.00 0.58	-4019.33 -3708.57	1765.78	-65.36 54.89	54.89	3.59 3.49	-0.02 0.02	-0.12
VB25 - 1	1111.50	0.00 0.72	-4580.53 2409.34	2409.34	-224.52 169.46	169.46	4.72 -2.59	-0.21 0.21	-1.76
VB25 - 2	1111.50	0.00 0.71	2419.16 -2803.73	2449.28	169.46 -55.84	169.46	0.26 3.42	0.07 -0.07	-1.76
VB25 - 3	1111.50	0.00 0.38	-2997.45 126.71	1057.66	-326.35 316.32	316.32	3.00 1.44	-0.16 0.16	-7.65

CASO: 1.3G1+1.4G2+0.98Q+0.84V1+1.4D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	1062.75	0.00 0.21	-581.59 -170.58	845.25	284.96 -200.02	0.00	1.73 1.46	0.16 -0.16	21.89
VB1 - 2	4764.53	0.00 0.03	-170.30 -8781.01	0.00	214.84 -65.86	0.00	-13.62 16.30	0.48 -0.48	21.75
VB1 - 3	6542.49	0.00 0.32	-9136.05 -2552.28	5971.29	-31.07 -184.68	0.00	14.65 9.73	0.04 -0.04	-2.49
VB1 - 4	5578.54	0.00 0.36	-2546.48 -10457.07	0.00	-236.91 -357.90	0.00	-13.78 16.76	0.24 -0.24	25.79
VB1 - 5	6907.99	0.00 0.18	-9327.49 -1761.47	3842.01	-325.63 331.47	0.00	13.77 8.76	-0.20 0.20	-11.14
VB2 - 1	1339.00	0.00 0.29	-391.15 -1324.93	3389.61	-43.10 202.16	202.16	3.18 3.55	-0.05 0.05	29.87
VB2 - 2	1339.00	0.00 0.51	-1282.11 -1199.99	0.00	427.23 -193.16	0.00	1.56 1.49	0.27 -0.27	-37.07
VB2 - 3	1339.00	0.00 0.51	-1200.73 -3376.41	0.00	-193.16 -349.25	0.00	-2.46 3.45	0.21 -0.21	-37.07
VB2 - 4	5185.78	0.00 0.70	-3376.70 -13157.70	0.00	11.85 68.51	0.00	-16.34 19.14	-0.10 0.10	-37.07
VB2 - 5	6049.35	0.00 0.81	-12766.80 1976.31	1976.31	85.50 63.39	0.00	18.13 -12.05	0.02 -0.02	0.52
VB2 - 6	8375.28	0.00 0.81	1975.24 8372.68	8372.68	63.39 -91.55	0.00	11.08 -2.07	0.14 -0.14	0.52
VB2 - 7	6243.13	0.00 0.81	8371.02 914.34	8543.29	-91.55 -313.93	0.00	1.11 9.30	0.13 -0.13	0.52
VB2 - 8	5307.47	0.00 0.79	908.67 -7981.94	908.67	-370.67 -330.77	0.00	-13.24 16.46	-0.07 0.07	0.52
VB2 - 9	7670.09	0.00 0.84	-7532.69 3559.34	3559.34	-315.18 84.69	0.00	13.56 -1.91	-0.26 0.26	0.83
VB2 - 10	6769.31	0.00 0.84	3561.67 -5313.86	3724.07	84.69 167.89	0.00	0.89 10.89	-0.05 0.05	0.83
VB2 - 11	1339.00	0.00 0.35	-4042.58 -1315.29	0.00	-198.78 28.82	28.82	2.90 1.05	-0.08 0.08	-6.24
VB3 - 1	1062.75	0.00	15.91	1062.10	4.93	0.00	1.49	0.00	1.94



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**Leilson Campos  
Rezende  
Rezende Engenharia**

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		0.16	659.59		9.91		0.93	0.00	
VB3 - 2	1062.75	0.00	660.33	660.33	9.91	9.91	-1.89	0.06	1.94
		0.16	-2680.72		-64.99		3.27	-0.06	
VB3 - 3	1062.75	0.00	-2362.54	688.15	86.32	86.32	3.57	0.10	1.99
		0.00	688.15		-19.18		-2.50	-0.10	
VB3 - 4	1062.75	0.00	689.23	1723.80	-19.18	0.00	1.53	-0.02	1.99
		0.00	1723.80		-0.77		-0.39	0.02	
VB3 - 5	1062.75	0.00	1725.45	1725.45	-0.77	10.48	-0.58	0.00	1.99
		0.00	-2336.36		10.48		2.99	0.00	
VB3 - 6	1062.75	0.00	-1940.42	933.13	49.30	49.30	2.70	0.12	-16.70
		0.07	933.13		-133.23		-1.08	-0.12	
VB3 - 7	1062.75	0.00	930.80	930.80	-133.23	17.26	0.07	-0.10	-16.70
		0.07	-287.45		17.26		1.61	0.10	
VB4 - 1	1428.38	0.00	-1004.44	6324.52	-131.11	59.93	4.58	-0.02	-0.32
		0.31	-14531.84		59.93		7.72	0.02	
VB4 - 2	1428.37	0.00	-14565.79	8679.18	23.16	93.71	8.15	-0.01	-12.83
		0.80	6568.00		93.71		2.46	0.01	
VB4 - 3	1428.38	0.00	6582.10	6582.10	30.55	0.00	-0.38	0.05	26.27
		0.99	4137.26		-41.66		2.67	-0.05	
VB4 - 4	1428.38	0.00	4145.74	4145.74	-41.66	131.69	-4.43	-0.11	26.27
		0.99	-4326.37		131.69		6.62	0.11	
VB5 - 1	1062.75	0.00	-396.27	2544.85	-163.39	43.04	2.71	-0.13	-10.13
		0.20	2544.85		43.04		-1.04	0.13	
VB5 - 2	1062.75	0.00	2536.37	2536.37	43.04	43.04	-0.72	0.03	-10.13
		0.20	0.00		0.00		2.43	-0.03	
VB6 - 1	1428.38	0.00	-400.04	6197.96	-147.70	147.36	4.34	-0.03	1.08
		0.05	-15940.26		147.36		7.95	0.03	
VB6 - 2	1428.38	0.00	-15623.04	10699.51	-9.53	36.49	8.67	0.00	1.84
		0.15	-3708.41		36.49		6.42	0.00	
VB7 - 1	1428.38	0.00	-552.40	6116.10	105.75	105.75	4.37	0.02	-0.24
		0.09	-15890.52		-42.06		7.93	-0.02	
VB7 - 2	1428.38	0.00	-15695.88	10785.10	165.71	165.71	8.70	0.04	-0.15
		0.24	-3506.64		-207.01		6.39	-0.04	
VB8 - 1	1428.38	0.00	-2075.65	5668.66	115.25	115.25	4.71	0.02	-4.71
		1.03	-14486.80		-47.23		7.59	-0.02	
VB8 - 2	1428.38	0.00	-15380.43	10072.44	144.64	144.64	8.53	0.03	4.07
		1.68	-4984.26		-159.92		6.56	-0.03	
VB9 - 1	1111.50	0.00	-1439.26	2080.92	-130.80	132.27	2.80	-0.05	-0.48
		0.53	-3936.86		132.27		3.66	0.05	
VB9 - 2	1111.50	0.00	-3933.88	1971.36	5.77	19.03	3.62	0.00	-0.08
		0.56	-3390.37		19.03		3.45	0.00	
VB10 - 1	1111.50	0.00	-3022.73	1192.94	169.79	169.79	3.06	0.06	-0.07
		0.37	-2190.87		-164.49		2.74	-0.06	
VB10 - 2	1111.50	0.00	-2042.76	1013.41	-17.68	0.00	2.61	0.01	2.13
		0.28	-500.62		-42.08		1.83	-0.01	
VB11	1014.00	0.00	-117.10	0.00	4.67	4.67	-1.06	0.00	4.02
		0.05	-4055.43		1.46		3.02	0.00	
VB12	5558.00	0.00	-5472.93	7407.52	-220.25	0.00	12.70	-0.11	-1.64
		0.77	-2940.36		244.47		10.20	0.11	
VB13	1014.00	0.00	0.00	455.11	0.00	0.00	0.97	0.00	-0.74
		0.06	0.00		0.00		0.97	0.00	
VB14	6127.65	-0.31	0.00	13644.20	-361.10	0.00	12.90	-0.19	0.29
		0.00	0.00		414.86		12.17	0.19	
VB15 - 1	292.50	-0.16	-309.55	586.55	-183.46	183.82	0.72	-0.06	-0.37
		0.00	-1037.98		183.82		0.98	0.06	
VB15 - 2	292.50	-0.13	-1107.34	510.19	-23.96	33.80	0.97	-0.01	0.01
		0.00	-841.24		33.80		0.89	0.01	
VB15 - 3	292.50	-0.09	-887.40	367.07	190.70	190.70	0.86	0.08	0.79
		0.00	-400.92		-205.57		0.67	-0.08	
VB15 - 4	292.50	-0.07	-432.62	0.00	-168.80	196.73	0.11	-0.18	1.07
		0.00	-824.60		196.73		0.49	0.18	
VB15 - 5	292.50	-0.03	-848.87	1142.96	51.04	51.04	1.31	0.04	-1.25
		0.00	1142.96		-18.66		-0.74	-0.04	

VB16	1014.00	-0.12 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-1.08
VB17	1014.00	0.00 0.01	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-1.65
VB18	2041.27	-0.20 0.00	0.00 0.00	5678.21	56.74 -52.23	0.00	3.94 4.05	0.03 -0.03	5.68
VB19	1062.75	0.00 0.21	-416.86 1471.56	1471.56	-28.22 20.06	20.06	2.00 0.05	-0.02 0.02	1.44
VB20	1062.75	-0.22 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	2.33
VB21 - 1	1062.75	0.00 0.35	-1274.32 4830.35	4830.35	168.55 -212.90	168.55	3.60 -0.11	0.12 -0.12	9.28
VB21 - 2	1062.75	0.00 0.40	4869.45 -1319.71	4869.45	-149.74 -7.80	0.00	-1.97 4.13	-0.07 0.07	-4.83
VB22	1062.75	0.00 0.01	-773.95 -1044.58	858.61	348.73 -333.79	0.00	1.86 2.01	0.19 -0.19	3.92
VB23	1062.75	0.00 0.16	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.48
VB24 - 1	1111.50	0.00 0.45	-1402.49 -3881.48	2126.04	-163.25 155.44	155.44	2.80 3.66	-0.05 0.05	1.00
VB24 - 2	1111.50	0.00 0.35	-3674.31 -4094.00	1747.33	-8.14 37.55	37.55	3.47 3.60	-0.01 0.01	-0.13
VB25 - 1	1111.50	0.00 0.39	-4225.59 2615.97	2615.97	-10.35 151.32	151.32	4.64 -2.51	-0.08 0.08	-1.62
VB25 - 2	1111.50	0.00 0.37	2626.10 -3196.68	2626.10	151.32 -219.59	151.32	0.08 3.60	0.11 -0.11	-1.62
VB25 - 3	1111.50	0.00 0.16	-2489.54 -555.60	796.91	-76.25 23.95	23.95	2.70 1.74	-0.03 0.03	-7.42

CASO: 1.3G1+1.4G2+0.98Q+0.84V2+1.4D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	1062.75	0.00 0.20	-1499.54 266.21	755.87	226.99 -147.32	0.00	2.18 1.00	0.12 -0.12	21.70
VB1 - 2	4764.53	0.00 0.10	266.27 -8081.67	266.27	137.88 -111.65	0.00	-13.17 15.85	0.43 -0.43	21.90
VB1 - 3	6542.49	0.00 0.33	-9582.86 -2220.00	5991.21	-73.66 -128.34	0.00	14.86 9.52	0.01 -0.01	-2.00
VB1 - 4	5578.54	0.00 0.40	-2213.97 -10017.68	0.00	-261.58 -366.59	0.00	-13.57 16.55	0.20 -0.20	22.55
VB1 - 5	6907.99	0.00 0.16	-10045.38 -820.17	4102.78	-330.66 377.14	0.00	14.28 8.26	-0.22 0.22	-11.19
VB2 - 1	1339.00	0.00 0.57	-2176.15 -811.54	2762.79	87.67 133.51	133.51	3.64 3.10	-0.01 0.01	29.82
VB2 - 2	1339.00	0.00 0.38	-1355.11 -503.10	0.00	453.95 -277.71	0.00	1.90 1.15	0.32 -0.32	-36.93
VB2 - 3	1339.00	0.00 0.38	-503.59 -2430.64	0.00	-277.71 -407.91	0.00	-2.12 3.11	0.18 -0.18	-36.93
VB2 - 4	5185.78	0.00 0.50	-2430.72 -12023.61	0.00	-230.42 -161.74	0.00	-16.00 18.80	-0.12 0.12	-36.93
VB2 - 5	6049.35	0.00 0.68	-13829.98 1237.34	1237.34	125.26 306.35	0.00	18.46 -12.37	-0.18 0.18	0.38
VB2 - 6	8375.28	0.00 0.68	1236.19 7980.51	7980.51	306.35 -61.84	0.00	11.41 -2.40	0.34 -0.34	0.38
VB2 - 7	6243.13	0.00 0.68	7979.11 1066.19	8219.35	-61.84 -363.71	0.00	1.43 8.97	0.18 -0.18	0.38
VB2 - 8	5307.47	0.00 0.61	1060.28 -7640.59	1060.28	-481.16 -470.63	0.00	-12.92 16.14	-0.02 0.02	0.38
VB2 - 9	7670.09	0.00 0.13	-7753.40 3729.02	3729.02	-233.26 75.00	0.00	13.82 -2.16	-0.20 0.20	0.47
VB2 - 10	6769.31	0.00	3731.49	3949.75	75.00	0.00	1.15	-0.05	0.47




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		0.13	-4697.15		165.32		10.63	0.05	
VB2 - 11	1339.00	-0.10 0.00	-5138.09 770.75	770.75	-259.01 -77.36	0.00	3.98 -0.03	-0.06 0.06	-6.09
VB3 - 1	1062.75	0.00 0.23	-549.12 913.53	1060.26	107.40 7.54	107.40	1.85 0.57	0.04 -0.04	2.02
VB3 - 2	1062.75	0.00 0.23	914.02 -1961.05	914.02	7.54 -235.61	7.54	-1.53 2.91	0.19 -0.19	2.02
VB3 - 3	1062.75	0.00 0.20	-2898.00 348.19	348.19	331.42 -81.76	331.42	3.76 -2.69	0.41 -0.41	1.98
VB3 - 4	1062.75	0.00 0.20	349.34 1593.07	1593.07	-81.76 38.12	0.00	1.73 -0.58	-0.11 0.11	1.98
VB3 - 5	1062.75	0.00 0.20	1594.47 -2024.98	1594.47	38.12 -79.79	38.12	-0.38 2.80	0.05 -0.05	1.98
VB3 - 6	1062.75	0.00 0.38	-2254.44 1038.12	1038.12	145.99 -118.46	145.99	2.97 -1.36	0.17 -0.17	-17.43
VB3 - 7	1062.75	0.00 0.38	1035.65 253.48	1086.67	-118.46 -155.02	0.00	0.35 1.33	0.02 -0.02	-17.43
VB4 - 1	1428.38	0.00 0.05	-2136.35 -13840.98	5884.81	191.20 -217.53	191.20	4.79 7.51	0.05 -0.05	-0.39
VB4 - 2	1428.37	0.00 0.46	-15162.58 7022.49	8902.01	285.71 -173.92	285.71	8.29 2.32	0.06 -0.06	-13.60
VB4 - 3	1428.38	0.00 0.69	7033.74 5382.63	7033.74	225.95 44.31	0.00	0.11 2.17	0.11 -0.11	28.30
VB4 - 4	1428.38	0.00 0.69	5391.48 -2320.63	5391.48	44.31 -146.61	44.31	-3.93 6.12	0.12 -0.12	28.30
VB5 - 1	1062.75	0.00 0.27	-1129.38 2174.19	2174.19	27.97 5.33	27.97	2.94 -1.27	0.01 -0.01	-10.73
VB5 - 2	1062.75	0.00 0.27	2165.34 0.00	2165.34	5.33 0.00	5.33	-0.49 2.20	0.00 0.00	-10.73
VB6 - 1	1428.38	0.00 0.01	-2306.45 -14833.02	5394.91	56.07 14.82	56.07	4.69 7.60	0.00 0.00	1.09
VB6 - 2	1428.38	0.00 0.11	-16715.60 -1774.88	11374.88	125.70 -219.61	125.70	8.96 6.13	0.03 -0.03	1.46
VB7 - 1	1428.38	0.00 0.09	-2459.52 -14771.21	5321.80	-186.36 151.73	151.73	4.72 7.58	-0.04 0.04	-0.23
VB7 - 2	1428.38	0.00 0.27	-16752.42 -1669.00	11423.14	-40.08 90.36	90.36	8.97 6.12	-0.01 0.01	-0.20
VB8 - 1	1428.38	0.00 1.02	-3247.94 -13668.55	5280.86	-199.85 133.72	133.72	4.94 7.36	-0.04 0.04	-4.67
VB8 - 2	1428.38	0.00 1.74	-16117.99 -3893.98	10383.05	-45.80 146.54	146.54	8.70 6.39	-0.02 0.02	3.89
VB9 - 1	1111.50	0.00 0.48	-1447.53 -3930.18	2079.35	185.44 -188.98	185.44	2.80 3.66	0.06 -0.06	-0.11
VB9 - 2	1111.50	0.00 0.45	-3930.83 -3394.81	1970.54	-30.30 3.68	3.68	3.62 3.45	-0.01 0.01	-0.08
VB10 - 1	1111.50	0.00 0.29	-3000.92 -2216.54	1189.19	-49.27 45.86	45.86	3.05 2.75	-0.02 0.02	-0.47
VB10 - 2	1111.50	0.00 0.26	-2034.57 -509.47	1011.74	-117.05 77.36	77.36	2.60 1.84	-0.05 0.05	2.26
VB11	1014.00	0.00 0.09	-107.88 -4090.19	0.00	-109.05 178.05	178.05	-1.08 3.04	-0.15 0.15	3.17
VB12	5558.00	0.00 0.81	-5491.44 -2934.17	7401.36	-159.01 182.96	0.00	12.71 10.20	-0.08 0.08	-0.49
VB13	1014.00	0.00 0.14	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.49
VB14	6127.65	-0.30 0.00	0.00 0.00	13644.20	-177.49 285.19	0.00	12.90 12.17	-0.11 0.11	0.08
VB15 - 1	292.50	-0.15 0.00	-298.39 -1046.82	589.43	227.11 -222.58	227.11	0.72 0.98	0.08 -0.08	-0.41
VB15 - 2	292.50	-0.11 0.00	-1099.89 -850.20	509.17	-30.77 28.81	28.81	0.97 0.89	-0.01 0.01	0.00
VB15 - 3	292.50	-0.08 0.00	-881.72 -398.64	370.79	-82.07 50.98	50.98	0.86 0.67	-0.03 0.03	0.77

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VB15 - 4	292.50	-0.06 0.00	-410.92 -852.49	0.00	-452.26 448.49	448.49	0.09 0.52	-0.44 0.44	2.76
VB15 - 5	292.50	0.00 0.16	-873.35 1126.98	1126.98	-126.43 250.35	250.35	1.31 -0.75	-0.19 0.19	-2.39
VB16	1014.00	-0.52 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-1.15
VB17	1014.00	0.00 0.16	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-1.40
VB18	2041.27	-0.20 0.00	0.00 0.00	5678.21	117.45 -133.24	0.00	3.94 4.05	0.06 -0.06	5.92
VB19	1062.75	0.00 0.21	-409.77 1460.36	1460.36	-221.03 268.19	268.19	1.99 0.06	-0.25 0.25	1.13
VB20	1062.75	-0.15 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	2.48
VB21 - 1	1062.75	0.00 0.52	-1344.60 5177.23	5177.23	-42.31 41.54	41.54	3.73 -0.24	-0.03 0.03	7.68
VB21 - 2	1062.75	0.00 0.58	5219.14 -1431.36	5219.14	-358.33 157.70	157.70	-2.20 4.35	-0.25 0.25	-3.57
VB22	1062.75	0.00 0.02	-784.02 -1033.07	859.33	420.26 -379.32	0.00	1.87 2.01	0.22 -0.22	4.87
VB23	1062.75	-0.01 0.00	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.85
VB24 - 1	1111.50	0.00 0.51	-1448.07 -3854.53	2112.97	145.14 -156.45	145.14	2.81 3.64	0.05 -0.05	1.46
VB24 - 2	1111.50	0.00 0.49	-3730.75 -3992.36	1767.38	-32.92 -10.39	0.00	3.50 3.58	0.00 0.00	-0.07
VB25 - 1	1111.50	0.00 0.52	-4165.34 2429.71	2429.71	-263.34 154.89	154.89	4.51 -2.38	-0.22 0.22	-1.92
VB25 - 2	1111.50	0.00 0.51	2440.44 -3045.34	2454.13	154.89 -31.66	154.89	0.18 3.50	0.06 -0.06	-1.92
VB25 - 3	1111.50	0.00 0.14	-2494.21 -511.07	823.32	-203.52 135.41	135.41	2.72 1.72	-0.08 0.08	-8.00

CASO: 1.3G1+1.4G2+0.98Q+0.84V3+1.4D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	1062.75	-0.07 0.00	-980.67 21.49	785.13	696.00 -591.01	0.00	1.93 1.26	0.43 -0.43	22.91
VB1 - 2	4764.53	-0.36 0.00	21.59 -8474.46	21.59	71.55 -316.17	0.00	-13.43 16.10	0.67 -0.67	22.92
VB1 - 3	6542.49	-0.13 0.00	-9340.44 -2395.73	5978.09	-281.98 -142.68	0.00	14.74 9.63	-0.04 0.04	-1.86
VB1 - 4	5578.54	0.00 0.12	-2389.92 -10251.00	0.00	-624.14 -719.78	0.00	-13.68 16.66	0.19 -0.19	24.66
VB1 - 5	6907.99	-0.14 0.00	-9632.03 -1371.44	3928.17	-691.41 879.41	0.00	13.99 8.55	-0.48 0.48	-13.43
VB2 - 1	1339.00	0.00 0.34	-1309.45 -1056.62	3051.00	304.67 -374.83	304.67	3.42 3.32	0.14 -0.14	28.66
VB2 - 2	1339.00	0.00 0.64	-1307.38 -868.94	0.00	487.48 -445.92	0.00	1.72 1.34	0.41 -0.41	-35.03
VB2 - 3	1339.00	0.00 0.64	-869.53 -2930.14	0.00	-445.92 -667.61	0.00	-2.30 3.29	0.30 -0.30	-35.03
VB2 - 4	5185.78	0.00 0.94	-2930.25 -12624.19	0.00	-123.46 -165.35	0.00	-16.18 18.98	0.08 -0.08	-35.03
VB2 - 5	6049.35	0.00 1.14	-13341.58 1596.34	1596.34	-98.31 22.51	0.00	18.33 -12.24	-0.12 0.12	-0.13
VB2 - 6	8375.28	0.00 1.14	1595.16 8201.02	8201.02	22.51 -146.89	0.00	11.28 -2.27	0.16 -0.16	-0.13
VB2 - 7	6243.13	0.00 1.14	8199.44 1069.49	8412.55	-146.89 -316.32	0.00	1.30 9.10	0.10 -0.10	-0.13
VB2 - 8	5307.47	0.00	1063.81	1063.81	-773.01	0.00	-13.05	-0.13	-0.13






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		0.90	-7712.79		-694.20		16.27	0.13	
VB2 - 9	7670.09	0.00 0.71	-7534.28 3642.00	3642.00	-604.37 122.22	0.00	13.62 -1.96	-0.48 0.48	0.82
VB2 - 10	6769.31	0.00 0.71	3644.60 -5134.50	3819.05	122.22 330.10	0.00	0.95 10.83	-0.12 0.12	0.82
VB2 - 11	1339.00	0.00 0.03	-4710.37 -271.69	0.00	-742.13 224.36	224.36	3.48 0.47	-0.33 0.33	-5.50
VB3 - 1	1062.75	0.00 0.18	-273.22 798.73	1052.02	35.93 13.41	35.93	1.68 0.74	0.01 -0.01	1.14
VB3 - 2	1062.75	0.00 0.18	799.33 -2298.03	799.33	13.41 -139.47	13.41	-1.70 3.08	0.12 -0.12	1.14
VB3 - 3	1062.75	0.00 0.00	-2626.29 518.44	518.44	187.15 -43.07	187.15	3.66 -2.59	0.23 -0.23	2.32
VB3 - 4	1062.75	0.00 0.00	519.61 1654.79	1654.79	-43.07 9.28	0.00	1.63 -0.48	-0.05 0.05	2.32
VB3 - 5	1062.75	0.00 0.00	1656.37 -2192.67	1656.37	9.28 -9.68	9.28	-0.48 2.90	0.01 -0.01	2.32
VB3 - 6	1062.75	0.00 0.10	-2128.89 978.36	978.36	104.81 -202.15	104.81	2.85 -1.24	0.20 -0.20	-17.00
VB3 - 7	1062.75	0.00 0.10	975.76 0.73	999.23	-202.15 45.46	45.46	0.22 1.46	-0.16 0.16	-17.00
VB4 - 1	1428.38	0.00 0.26	-1614.17 -14153.20	6082.55	271.38 -333.40	271.38	4.69 7.60	0.07 -0.07	-0.19
VB4 - 2	1428.37	0.00 0.75	-14867.55 6783.48	8778.47	-1.16 -64.20	0.00	8.22 2.39	0.01 -0.01	-14.49
VB4 - 3	1428.38	0.00 0.89	6796.20 4787.09	6796.20	-133.98 -45.84	0.00	-0.11 2.40	-0.06 0.06	30.14
VB4 - 4	1428.38	0.00 0.89	4795.82 -3259.08	4795.82	-45.84 271.67	271.67	-4.16 6.35	-0.21 0.21	30.14
VB5 - 1	1062.75	0.00 0.20	-797.36 2342.08	2342.08	-158.82 40.48	40.48	2.83 -1.16	-0.13 0.13	-11.01
VB5 - 2	1062.75	0.00 0.20	2333.36 0.00	2333.36	40.48 0.00	40.48	-0.60 2.31	0.03 -0.03	-11.01
VB6 - 1	1428.38	0.00 0.05	-1398.81 -15359.93	5768.76	120.34 -162.46	120.34	4.53 7.77	0.03 -0.03	1.30
VB6 - 2	1428.38	0.00 0.16	-16195.38 -2695.82	11041.55	-156.02 70.45	70.45	8.82 6.27	-0.02 0.02	1.58
VB7 - 1	1428.38	0.00 0.08	-1514.08 -15325.72	5709.12	129.74 -180.30	129.74	4.54 7.75	0.04 -0.04	-0.16
VB7 - 2	1428.38	0.00 0.24	-16230.52 -2576.56	11095.49	-151.38 86.42	86.42	8.84 6.25	-0.02 0.02	-0.13
VB8 - 1	1428.38	0.00 1.05	-2642.18 -14089.68	5480.64	68.68 -162.82	68.68	4.82 7.48	0.03 -0.03	-4.06
VB8 - 2	1428.38	0.00 1.73	-15752.06 -4430.66	10228.24	-137.53 85.23	85.23	8.62 6.47	-0.02 0.02	3.67
VB9 - 1	1111.50	0.00 0.52	-1028.82 -4264.84	2182.71	-52.90 44.32	44.32	2.67 3.79	-0.02 0.02	-0.28
VB9 - 2	1111.50	0.00 0.48	-3687.25 -3651.51	1955.91	-66.99 67.31	67.31	3.54 3.53	-0.02 0.02	-0.06
VB10 - 1	1111.50	0.00 0.28	-2717.84 -2458.13	1202.19	-12.60 0.41	0.41	2.95 2.85	0.00 0.00	-0.27
VB10 - 2	1111.50	0.00 0.17	-1665.30 -989.23	903.05	-209.08 228.35	228.35	2.39 2.05	-0.11 0.11	2.18
VB11	1014.00	0.00 0.01	289.14 -4230.79	289.14	-34.89 61.22	61.22	-1.36 3.32	-0.05 0.05	3.63
VB12	5558.00	0.00 0.65	-5136.30 -3666.26	7212.88	-799.14 664.20	0.00	12.44 10.46	-0.36 0.36	-1.18
VB13	1014.00	0.00 0.11	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.60
VB14	6127.65	-0.23 0.00	0.00 0.00	13644.20	-544.15 662.56	0.00	12.90 12.17	-0.30 0.30	0.11
VB15 - 1	292.50	-0.12 0.00	283.07 -1474.70	794.19	7.22 -4.64	7.22	0.55 1.15	0.00 0.00	-0.39



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VB15 - 2	292.50	-0.09 0.00	-814.70 -1164.99	495.99	-33.56 35.86	35.86	0.88 0.99	-0.01 0.01	0.01
VB15 - 3	292.50	-0.07 0.00	-507.21 -729.52	381.70	29.42 -47.27	29.42	0.72 0.81	0.01 -0.01	0.78
VB15 - 4	292.50	-0.06 0.00	-25.06 -867.62	0.00	-379.51 340.67	340.67	-0.11 0.71	-0.35 0.35	1.94
VB15 - 5	292.50	0.00 0.17	-766.69 398.56	398.56	7.69 63.15	63.15	0.88 -0.32	-0.03 0.03	-1.90
VB16	1014.00	-0.28 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-1.18
VB17	1014.00	0.00 0.06	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-1.58
VB18	2041.27	-0.23 0.00	0.00 0.00	5678.21	456.69 -481.46	0.00	3.94 4.05	0.24 -0.24	5.68
VB19	1062.75	0.00 0.28	-68.18 1115.18	1194.91	-105.29 108.87	108.87	1.64 0.41	-0.11 0.11	1.34
VB20	1062.75	-0.36 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	2.60
VB21 - 1	1062.75	0.00 0.40	-1057.09 4966.18	4966.18	146.99 -182.38	146.99	3.58 -0.08	0.10 -0.10	8.46
VB21 - 2	1062.75	0.00 0.34	5010.81 -1639.67	5010.81	-112.59 -27.61	0.00	-2.20 4.35	-0.04 0.04	-4.26
VB22	1062.75	-0.18 0.00	-333.57 -1631.28	842.33	1043.24 -869.24	0.00	1.58 2.29	0.52 -0.52	4.27
VB23	1062.75	0.00 0.15	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.72
VB24 - 1	1111.50	0.00 0.46	-932.09 -4262.28	2240.47	58.19 -59.59	58.19	2.66 3.80	0.02 -0.02	1.23
VB24 - 2	1111.50	0.00 0.30	-3411.35 -4349.56	1759.39	28.10 -31.71	28.10	3.39 3.69	0.01 -0.01	-0.08
VB25 - 1	1111.50	0.00 0.26	-3838.88 2625.57	2625.57	-46.53 137.99	137.99	4.44 -2.31	-0.10 0.10	-1.79
VB25 - 2	1111.50	0.00 0.24	2636.58 -3420.59	2636.58	137.99 -194.20	137.99	0.01 3.67	0.10 -0.10	-1.79
VB25 - 3	1111.50	0.00 0.01	-2042.79 -1115.20	657.94	16.20 -104.13	16.20	2.45 1.99	0.03 -0.03	-7.77

CASO: 1.3G1+1.4G2+0.98Q+0.84V4+1.4D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	1062.75	0.00 0.48	-1100.46 74.14	768.80	-184.05 243.68	0.00	1.98 1.20	-0.14 0.14	20.69
VB1 - 2	4764.53	0.00 0.49	74.38 -8388.22	74.38	281.17 138.65	0.00	-13.37 16.05	0.25 -0.25	20.73
VB1 - 3	6542.49	0.00 0.78	-9378.47 -2376.55	5975.02	177.25 -170.34	0.00	14.76 9.62	0.09 -0.09	-2.62
VB1 - 4	5578.54	0.00 0.65	-2370.53 -10223.75	0.00	125.65 -4.70	0.00	-13.67 16.65	0.25 -0.25	23.67
VB1 - 5	6907.99	0.00 0.47	-9740.85 -1210.20	3973.21	35.11 -170.80	0.00	14.07 8.47	0.06 -0.06	-8.90
VB2 - 1	1339.00	0.00 0.51	-1257.85 -1079.85	3063.68	-260.10 710.50	710.50	3.40 3.33	-0.19 0.19	31.02
VB2 - 2	1339.00	0.00 0.25	-1329.84 -834.15	0.00	393.69 -24.95	0.00	1.75 1.31	0.18 -0.18	-38.97
VB2 - 3	1339.00	0.00 0.25	-834.79 -2876.91	0.00	-24.95 -89.55	0.00	-2.28 3.26	0.09 -0.09	-38.97
VB2 - 4	5185.78	0.00 0.26	-2877.16 -12557.12	0.00	-95.11 72.11	0.00	-16.16 18.96	-0.30 0.30	-38.97
VB2 - 5	6049.35	0.00 0.35	-13255.20 1617.32	1617.32	309.07 347.23	0.00	18.26 -12.18	-0.04 0.04	1.03
VB2 - 6	8375.28	0.00	1616.27	8152.16	347.23	0.00	11.21	0.33	1.03




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		0.35	8152.16		-6.50		-2.20	-0.33	
VB2 - 7	6243.13	0.00	8150.69	8350.09	-6.50	0.00	1.24	0.21	1.03
		0.35	911.05		-361.32		9.17	-0.21	
VB2 - 8	5307.47	0.00	905.14	905.14	-78.82	0.00	-13.11	0.05	1.03
		0.50	-7909.74		-107.20		16.33	-0.05	
VB2 - 9	7670.09	0.00	-7751.82	3646.36	55.92	0.00	13.77	0.01	0.47
		0.26	3646.36		37.48		-2.11	-0.01	
VB2 - 10	6769.31	0.00	3648.57	3854.77	37.48	0.00	1.09	0.02	0.47
		0.26	-4876.52		3.12		10.68	-0.02	
VB2 - 11	1339.00	0.00	-4470.30	0.00	284.34	284.34	3.40	0.19	-6.83
		0.22	-272.85		-272.89		0.55	-0.19	
VB3 - 1	1062.75	0.00	-259.98	1037.92	76.41	76.41	1.66	0.03	2.82
		0.21	774.38		4.04		0.75	-0.03	
VB3 - 2	1062.75	0.00	775.01	775.01	4.04	4.04	-1.72	0.13	2.82
		0.21	-2343.74		-161.13		3.10	-0.13	
VB3 - 3	1062.75	0.00	-2634.25	517.90	230.59	230.59	3.67	0.29	1.66
		0.20	517.90		-57.87		-2.60	-0.29	
VB3 - 4	1062.75	0.00	518.95	1662.08	-57.87	0.00	1.63	-0.08	1.66
		0.20	1662.08		28.06		-0.49	0.08	
VB3 - 5	1062.75	0.00	1663.55	1663.55	28.06	28.06	-0.48	0.04	1.66
		0.20	-2168.67		-59.62		2.89	-0.04	
VB3 - 6	1062.75	0.00	-2065.97	992.90	90.48	90.48	2.82	0.09	-17.14
		0.35	992.90		-49.54		-1.21	-0.09	
VB3 - 7	1062.75	0.00	990.69	1006.97	-49.54	0.00	0.19	0.08	-17.14
		0.35	-34.69		-183.22		1.49	-0.08	
VB4 - 1	1428.38	0.00	-1526.62	6112.81	-211.29	175.80	4.67	-0.04	-0.51
		0.10	-14219.62		175.80		7.62	0.04	
VB4 - 2	1428.37	0.00	-14860.82	8798.36	310.03	310.03	8.22	0.04	-11.94
		0.51	6807.01		-16.00		2.39	-0.04	
VB4 - 3	1428.38	0.00	6819.64	6819.64	390.49	0.00	-0.16	0.21	24.42
		0.79	4732.79		48.48		2.45	-0.21	
VB4 - 4	1428.38	0.00	4741.40	4741.40	48.48	48.48	-4.21	0.22	24.42
		0.79	-3387.92		-286.59		6.40	-0.22	
VB5 - 1	1062.75	0.00	-728.29	2376.96	23.39	23.39	2.81	0.01	-9.86
		0.27	2376.96		7.89		-1.14	-0.01	
VB5 - 2	1062.75	0.00	2368.35	2368.35	7.89	7.89	-0.62	0.00	-9.86
		0.27	0.00		0.00		2.33	0.00	
VB6 - 1	1428.38	0.00	-1307.69	5806.10	-211.98	324.64	4.51	-0.06	0.87
		0.01	-15413.35		324.64		7.79	0.06	
VB6 - 2	1428.38	0.00	-16143.27	11010.72	272.18	272.18	8.81	0.05	1.72
		0.09	-2787.48		-253.57		6.28	-0.05	
VB7 - 1	1428.38	0.00	-1497.84	5715.48	-210.35	289.97	4.54	-0.06	-0.31
		0.10	-15336.01		289.97		7.76	0.06	
VB7 - 2	1428.38	0.00	-16217.79	11087.88	277.01	277.01	8.83	0.05	-0.21
		0.27	-2599.08		-203.06		6.25	-0.05	
VB8 - 1	1428.38	0.00	-2681.41	5466.41	-153.28	249.31	4.82	-0.05	-5.31
		1.01	-14065.66		249.31		7.47	0.05	
VB8 - 2	1428.38	0.00	-15746.35	10220.90	236.37	236.37	8.61	0.03	4.29
		1.69	-4447.58		-98.61		6.47	-0.03	
VB9 - 1	1111.50	0.00	-1857.98	1999.93	107.54	107.54	2.93	0.04	-0.31
		0.49	-3602.20		-101.03		3.53	-0.04	
VB9 - 2	1111.50	0.00	-4177.47	1985.98	42.46	42.46	3.70	0.01	-0.09
		0.52	-3133.68		-44.60		3.37	-0.01	
VB10 - 1	1111.50	0.00	-3305.81	1192.38	133.12	133.12	3.16	0.05	-0.26
		0.38	-1949.28		-119.04		2.64	-0.05	
VB10 - 2	1111.50	0.00	-2412.03	1163.20	74.35	74.35	2.82	0.07	2.21
		0.37	-20.86		-193.07		1.62	-0.07	
VB11	1014.00	0.00	-514.13	0.00	-69.48	118.29	-0.78	-0.10	3.56
		0.14	-3914.83		118.29		2.74	0.10	
VB12	5558.00	0.00	-5828.07	7630.79	419.88	0.00	12.97	0.16	-0.95
		0.93	-2208.28		-236.76		9.94	-0.16	
VB13	1014.00	0.00	0.00	455.11	0.00	0.00	0.97	0.00	-0.64
		0.10	0.00		0.00		0.97	0.00	

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VB14	6127.65	-0.39 0.00	0.00 0.00	13644.20	5.56 37.50	0.00	12.90 12.17	-0.01 0.01	0.26
VB15 - 1	292.50	-0.18 0.00	-891.01 -610.10	487.03	36.43 -34.12	36.43	0.90 0.80	0.01 -0.01	-0.39
VB15 - 2	292.50	-0.14 0.00	-1392.54 -526.44	553.54	-21.17 26.75	26.75	1.07 0.79	-0.01 0.01	0.01
VB15 - 3	292.50	-0.10 0.00	-1261.91 -70.04	420.37	79.21 -107.32	79.21	0.99 0.54	0.04 -0.04	0.77
VB15 - 4	292.50	-0.07 0.00	-818.49 -809.48	0.00	-241.56 304.54	304.54	0.31 0.30	-0.27 0.27	1.89
VB15 - 5	292.50	-0.04 0.00	-955.53 1871.39	1871.39	-83.08 168.54	168.54	1.74 -1.17	-0.13 0.13	-1.74
VB16	1014.00	-0.37 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-1.05
VB17	1014.00	0.00 0.12	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-1.47
VB18	2041.27	-0.16 0.00	0.00 0.00	5678.21	-282.51 295.99	0.00	3.94 4.05	-0.15 0.15	5.91
VB19	1062.75	0.00 0.14	-758.44 1816.75	1816.75	-143.96 179.38	179.38	2.36 -0.31	-0.17 0.17	1.23
VB20	1062.75	-0.01 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	2.21
VB21 - 1	1062.75	0.00 0.47	-1561.84 5041.41	5041.41	-20.75 11.01	11.01	3.76 -0.26	-0.01 0.01	8.49
VB21 - 2	1062.75	0.00 0.64	5077.78 -1111.40	5077.78	-395.48 177.50	177.50	-1.97 4.13	-0.28 0.28	-4.14
VB22	1062.75	0.00 0.22	-1224.40 -446.36	953.89	-274.26 156.13	0.00	2.15 1.73	-0.12 0.12	4.52
VB23	1062.75	0.00 0.00	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.61
VB24 - 1	1111.50	0.00 0.51	-1918.47 -3473.73	2024.14	-76.31 58.57	58.57	2.96 3.50	-0.02 0.02	1.23
VB24 - 2	1111.50	0.00 0.53	-3993.71 -3736.79	1763.61	-69.16 58.87	58.87	3.58 3.50	-0.02 0.02	-0.12
VB25 - 1	1111.50	0.00 0.65	-4552.05 2420.11	2420.11	-227.17 168.21	168.21	4.71 -2.58	-0.21 0.21	-1.76
VB25 - 2	1111.50	0.00 0.64	2429.97 -2821.42	2458.31	168.21 -57.05	168.21	0.25 3.43	0.07 -0.07	-1.76
VB25 - 3	1111.50	0.00 0.30	-2940.97 48.53	1022.00	-295.97 263.49	263.49	2.97 1.47	-0.14 0.14	-7.65

CASO: 1.3G1+1.4G2+0.98Q+1.4V1+0.84D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	1062.75	0.00 0.23	-413.51 -250.68	880.97	284.24 -208.13	0.00	1.65 1.54	0.16 -0.16	21.93
VB1 - 2	4764.53	0.00 0.04	-250.36 -8909.21	0.00	206.45 -74.08	0.00	-13.71 16.38	0.48 -0.48	21.72
VB1 - 3	6542.49	0.00 0.31	-9054.41 -2612.89	5973.90	-36.64 -177.99	0.00	14.61 9.77	0.04 -0.04	-2.54
VB1 - 4	5578.54	0.00 0.36	-2607.13 -10537.24	0.00	-255.67 -371.71	0.00	-13.82 16.80	0.23 -0.23	26.42
VB1 - 5	6907.99	0.00 0.15	-9195.84 -1934.35	3802.37	-337.16 353.28	0.00	13.68 8.86	-0.21 0.21	-11.14
VB2 - 1	1339.00	0.00 0.28	-44.74 -1424.46	3522.94	-85.78 239.52	239.52	3.09 3.64	-0.06 0.06	29.89
VB2 - 2	1339.00	0.00 0.57	-1268.62 -1335.05	0.00	406.52 -167.29	0.00	1.50 1.56	0.25 -0.25	-37.12
VB2 - 3	1339.00	0.00 0.57	-1335.85 -3559.50	0.00	-167.29 -319.27	0.00	-2.52 3.51	0.21 -0.21	-37.12
VB2 - 4	5185.78	0.00	-3559.84	0.00	58.94	0.00	-16.41	-0.10	-37.12




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		0.77	-13377.13		117.07		19.20	0.10	
VB2 - 5	6049.35	0.00 0.85	-12561.39 2119.27	2119.27	38.47 -18.52	0.00	18.07 -11.99	0.06 -0.06	0.57
VB2 - 6	8375.28	0.00 0.85	2118.21 8448.83	8448.83	-18.52 -91.64	0.00	11.02 -2.01	0.07 -0.07	0.57
VB2 - 7	6243.13	0.00 0.85	8447.12 885.68	8606.29	-91.64 -265.21	0.00	1.05 9.36	0.10 -0.10	0.57
VB2 - 8	5307.47	0.00 0.80	880.05 -8047.10	880.05	-348.90 -295.42	0.00	-13.30 16.52	-0.09 0.09	0.57
VB2 - 9	7670.09	0.00 0.95	-7489.45 3526.48	3526.48	-358.21 85.90	0.00	13.51 -1.86	-0.29 0.29	0.91
VB2 - 10	6769.31	0.00 0.95	3528.78 -5433.86	3680.29	85.90 182.23	0.00	0.84 10.94	-0.06 0.06	0.91
VB2 - 11	1339.00	0.00 0.39	-3832.27 -1718.82	0.00	-215.11 65.93	65.93	2.69 1.26	-0.10 0.10	-6.25
VB3 - 1	1062.75	0.00 0.16	138.79 604.10	1074.64	-30.00 13.22	0.00	1.41 1.00	-0.02 0.02	1.94
VB3 - 2	1062.75	0.00 0.16	604.90 -2837.64	604.90	13.22 -20.74	13.22	-1.97 3.35	0.03 -0.03	1.94
VB3 - 3	1062.75	-0.05 0.00	-2245.87 762.25	762.25	20.48 -1.81	20.48	3.53 -2.46	0.02 -0.02	2.00
VB3 - 4	1062.75	-0.05 0.00	763.31 1752.32	1752.32	-1.81 -13.52	0.00	1.49 -0.35	0.01 -0.01	2.00
VB3 - 5	1062.75	-0.05 0.00	1754.04 -2404.11	1754.04	-13.52 41.27	41.27	-0.62 3.04	-0.02 0.02	2.00
VB3 - 6	1062.75	-0.03 0.00	-1872.25 910.09	910.09	18.68 -143.76	18.68	2.64 -1.02	0.11 -0.11	-16.54
VB3 - 7	1062.75	-0.03 0.00	907.79 -405.38	907.79	-143.76 61.73	61.73	0.01 1.67	-0.13 0.13	-16.54
VB4 - 1	1428.38	0.00 0.37	-756.68 -14678.60	6425.48	-211.00 124.87	124.87	4.53 7.76	-0.04 0.04	-0.31
VB4 - 2	1428.37	0.00 0.88	-14439.11 6468.03	8634.34	-25.42 148.40	148.40	8.12 2.49	-0.02 0.02	-12.65
VB4 - 3	1428.38	0.00 1.05	6482.76 3863.10	6482.76	-18.85 -58.13	0.00	-0.49 2.78	0.02 -0.02	25.83
VB4 - 4	1428.38	0.00 1.05	3871.51 -4767.98	3871.51	-58.13 206.76	206.76	-4.54 6.73	-0.17 0.17	25.83
VB5 - 1	1062.75	0.00 0.20	-231.87 2627.98	2627.98	-206.70 52.22	52.22	2.65 -0.98	-0.16 0.16	-10.00
VB5 - 2	1062.75	0.00 0.20	2619.58 0.00	2619.58	52.22 0.00	52.22	-0.77 2.48	0.03 -0.03	-10.00
VB6 - 1	1428.38	0.00 0.06	16.34 -16176.12	6386.81	-191.72 179.85	179.85	4.27 8.03	-0.04 0.04	1.08
VB6 - 2	1428.38	0.00 0.15	-15387.95 -4133.40	10553.78	-31.76 80.71	80.71	8.61 6.48	-0.01 0.01	1.94
VB7 - 1	1428.38	0.00 0.10	-143.64 -16124.84	6300.53	165.83 -80.08	165.83	4.29 8.00	0.03 -0.03	-0.24
VB7 - 2	1428.38	0.00 0.23	-15474.00 -3900.53	10651.73	213.60 -272.91	213.60	8.64 6.45	0.05 -0.05	-0.12
VB8 - 1	1428.38	0.00 1.05	-1810.98 -14670.63	5766.44	179.58 -81.39	179.58	4.65 7.64	0.03 -0.03	-4.73
VB8 - 2	1428.38	0.00 1.66	-15214.31 -5230.95	10008.33	187.66 -225.88	187.66	8.49 6.60	0.04 -0.04	4.15
VB9 - 1	1111.50	0.00 0.54	-1441.55 -3935.00	2080.49	-195.42 197.93	197.93	2.80 3.66	-0.07 0.07	-0.56
VB9 - 2	1111.50	0.00 0.58	-3936.84 -3386.98	1971.68	12.27 23.18	23.18	3.62 3.45	0.00 0.00	-0.08
VB10 - 1	1111.50	0.00 0.39	-3030.18 -2183.14	1193.67	217.51 -208.51	217.51	3.06 2.74	0.08 -0.08	0.02
VB10 - 2	1111.50	0.00 0.29	-2048.75 -493.25	1015.16	15.78 -82.63	15.78	2.61 1.83	0.02 -0.02	2.12
VB11	1014.00	0.00 0.04	-126.91 -4045.32	0.00	44.24 -58.78	44.24	-1.05 3.01	0.05 -0.05	4.20

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VB12	5558.00	0.00 0.76	-5476.23 -2926.58	7412.76	-218.09 244.31	0.00	12.71 10.20	-0.11 0.11	-1.85
VB13	1014.00	0.00 0.05	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.80
VB14	6127.65	-0.31 0.00	0.00 0.00	13644.20	-378.21 414.58	0.00	12.90 12.17	-0.19 0.19	0.34
VB15 - 1	292.50	-0.16 0.00	-318.11 -1031.62	584.16	-269.27 268.61	268.61	0.73 0.97	-0.09 0.09	-0.35
VB15 - 2	292.50	-0.13 0.00	-1111.86 -836.06	510.67	-25.07 37.71	37.71	0.97 0.89	-0.01 0.01	0.01
VB15 - 3	292.50	-0.08 0.00	-892.50 -398.01	366.59	249.33 -261.47	249.33	0.86 0.67	0.10 -0.10	0.79
VB15 - 4	292.50	-0.06 0.00	-441.40 -818.32	0.00	-111.18 155.10	155.10	0.12 0.48	-0.13 0.13	0.69
VB15 - 5	292.50	-0.07 0.00	-844.68 1154.51	1154.51	123.61 -115.68	123.61	1.31 -0.75	0.12 -0.12	-0.98
VB16	1014.00	-0.01 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-1.06
VB17	1014.00	-0.03 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-1.71
VB18	2041.27	-0.19 0.00	0.00 0.00	5678.21	83.69 -77.68	0.00	3.94 4.05	0.04 -0.04	5.63
VB19	1062.75	0.00 0.22	-416.69 1472.16	1472.16	35.77 -63.00	35.77	2.00 0.05	0.05 -0.05	1.51
VB20	1062.75	-0.24 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	2.30
VB21 - 1	1062.75	0.00 0.31	-1258.81 4753.03	4753.03	216.80 -270.75	216.80	3.58 -0.08	0.15 -0.15	9.64
VB21 - 2	1062.75	0.00 0.35	4791.51 -1295.30	4791.51	-103.50 -49.47	0.00	-1.92 4.08	-0.03 0.03	-5.10
VB22	1062.75	0.00 0.00	-764.23 -1056.66	857.43	376.98 -355.04	0.00	1.86 2.02	0.20 -0.20	3.74
VB23	1062.75	0.00 0.20	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.40
VB24 - 1	1111.50	0.00 0.43	-1385.54 -3892.89	2130.27	-228.89 221.60	221.60	2.80 3.66	-0.08 0.08	0.91
VB24 - 2	1111.50	0.00 0.31	-3657.83 -4121.01	1742.77	-5.22 48.89	48.89	3.47 3.61	-0.01 0.01	-0.15
VB25 - 1	1111.50	0.00 0.35	-4234.51 2659.41	2659.41	32.55 160.84	160.84	4.67 -2.54	-0.07 0.07	-1.56
VB25 - 2	1111.50	0.00 0.32	2669.41 -3234.01	2669.41	160.84 -265.70	160.84	0.05 3.62	0.13 -0.13	-1.56
VB25 - 3	1111.50	0.00 0.16	-2481.57 -575.07	787.56	-37.31 -15.07	0.00	2.70 1.74	-0.01 0.01	-7.27

CASO: 1.3G1+1.4G2+0.98Q+1.4V2+0.84D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	1062.75	0.00 0.19	-1667.62 346.31	758.12	227.71 -139.21	0.00	2.26 0.92	0.12 -0.12	21.66
VB1 - 2	4764.53	0.00 0.09	346.33 -7953.47	346.33	146.27 -103.43	0.00	-13.09 15.77	0.43 -0.43	21.93
VB1 - 3	6542.49	0.00 0.34	-9664.50 -2159.39	5996.50	-68.09 -135.03	0.00	14.89 9.49	0.02 -0.02	-1.94
VB1 - 4	5578.54	0.00 0.40	-2153.32 -9937.52	0.00	-242.82 -352.78	0.00	-13.53 16.51	0.21 -0.21	21.92
VB1 - 5	6907.99	0.00 0.19	-10177.03 -647.30	4174.66	-319.13 355.33	0.00	14.38 8.16	-0.21 0.21	-11.19
VB2 - 1	1339.00	0.00 0.58	-2522.56 -712.01	2666.10	130.35 96.16	130.35	3.73 3.01	0.01 -0.01	29.79
VB2 - 2	1339.00	0.00	-1368.61	75.04	474.65	0.00	1.97	0.34	-36.87



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		0.32	-368.03		-303.58		1.09	-0.34	
VB2 - 3	1339.00	0.00	-368.47	0.00	-303.58	0.00	-2.06	0.18	-36.87
		0.32	-2247.54		-437.89		3.04	-0.18	
VB2 - 4	5185.78	0.00	-2247.58	0.00	-277.51	0.00	-15.94	-0.12	-36.87
		0.43	-11804.18		-210.30		18.73	0.12	
VB2 - 5	6049.35	0.00	-14035.39	1094.39	172.29	0.00	18.52	-0.21	0.33
		0.65	1094.39		388.25		-12.44	0.21	
VB2 - 6	8375.28	0.00	1093.22	7904.36	388.25	0.00	11.47	0.42	0.33
		0.65	7904.36		-61.76		-2.46	-0.42	
VB2 - 7	6243.13	0.00	7903.02	8156.35	-61.76	0.00	1.49	0.21	0.33
		0.65	1094.86		-412.43		8.91	-0.21	
VB2 - 8	5307.47	0.00	1088.89	1088.89	-502.93	0.00	-12.86	0.01	0.33
		0.59	-7575.42		-505.99		16.08	-0.01	
VB2 - 9	7670.09	0.00	-7796.64	3761.87	-190.23	0.00	13.87	-0.17	0.39
		0.02	3761.87		73.80		-2.21	0.17	
VB2 - 10	6769.31	0.00	3764.38	3993.53	73.80	0.00	1.20	-0.04	0.39
		0.02	-4577.15		150.98		10.58	0.04	
VB2 - 11	1339.00	-0.14	-5348.39	1174.28	-242.68	0.00	4.19	-0.04	-6.08
		0.00	1174.28		-114.47		-0.24	0.04	
VB3 - 1	1062.75	0.00	-671.99	1079.87	142.33	142.33	1.93	0.06	2.02
		0.22	969.01		4.23		0.49	-0.06	
VB3 - 2	1062.75	0.00	969.45	969.45	4.23	4.23	-1.45	0.22	2.02
		0.22	-1804.14		-279.87		2.83	-0.22	
VB3 - 3	1062.75	0.00	-3014.67	274.09	397.26	397.26	3.81	0.49	1.98
		0.25	274.09		-99.13		-2.74	-0.49	
VB3 - 4	1062.75	0.00	275.26	1564.54	-99.13	0.00	1.77	-0.14	1.98
		0.25	1564.54		50.86		-0.63	0.14	
VB3 - 5	1062.75	0.00	1565.88	1565.88	50.86	50.86	-0.34	0.07	1.98
		0.25	-1957.23		-110.58		2.76	-0.07	
VB3 - 6	1062.75	0.00	-2322.61	1061.16	176.61	176.61	3.03	0.19	-17.59
		0.48	1061.16		-107.93		-1.42	-0.19	
VB3 - 7	1062.75	0.00	1058.65	1133.57	-107.93	0.00	0.41	0.06	-17.59
		0.48	371.41		-199.48		1.27	-0.06	
VB4 - 1	1428.38	0.00	-2384.11	5793.03	271.09	271.09	4.83	0.06	-0.40
		0.00	-13694.21		-282.47		7.46	-0.06	
VB4 - 2	1428.37	0.00	-15289.27	8952.97	334.29	334.29	8.32	0.08	-13.79
		0.38	7122.46		-228.60		2.29	-0.08	
VB4 - 3	1428.38	0.00	7133.08	7148.96	275.35	0.00	0.22	0.13	28.74
		0.62	5656.78		60.77		2.07	-0.13	
VB4 - 4	1428.38	0.00	5665.71	5665.71	60.77	60.77	-3.82	0.18	28.74
		0.62	-1879.02		-221.68		6.01	-0.18	
VB5 - 1	1062.75	0.00	-1293.79	2091.07	71.28	71.28	2.99	0.05	-10.87
		0.28	2091.07		-3.85		-1.32	-0.05	
VB5 - 2	1062.75	0.00	2082.14	2082.14	-3.85	0.00	-0.44	0.00	-10.87
		0.28	0.00		0.00		2.15	0.00	
VB6 - 1	1428.38	0.00	-2722.83	5231.24	100.09	100.09	4.77	0.01	1.10
		0.00	-14597.15		-17.67		7.53	-0.01	
VB6 - 2	1428.38	0.00	-16950.70	11533.30	147.93	147.93	9.02	0.04	1.36
		0.11	-1349.90		-263.83		6.07	-0.04	
VB7 - 1	1428.38	0.00	-2868.28	5167.12	-246.45	189.75	4.79	-0.05	-0.22
		0.09	-14536.89		189.75		7.50	0.05	
VB7 - 2	1428.38	0.00	-16974.31	11568.35	-87.97	156.26	9.03	-0.02	-0.22
		0.28	-1275.11		156.26		6.06	0.02	
VB8 - 1	1428.38	0.00	-3512.61	5193.51	-264.18	167.89	4.99	-0.05	-4.65
		1.00	-13484.71		167.89		7.31	0.05	
VB8 - 2	1428.38	0.00	-16284.10	10455.09	-88.83	212.50	8.74	-0.03	3.82
		1.76	-3647.29		212.50		6.35	0.03	
VB9 - 1	1111.50	0.00	-1445.25	2079.78	250.06	250.06	2.80	0.09	-0.03
		0.47	-3932.04		-254.64		3.66	-0.09	
VB9 - 2	1111.50	0.00	-3927.88	1970.22	-36.80	0.00	3.62	-0.01	-0.07
		0.43	-3398.21		-0.46		3.45	0.01	
VB10 - 1	1111.50	0.00	-2993.47	1188.46	-96.99	89.88	3.05	-0.04	-0.56
		0.27	-2224.28		89.88		2.76	0.04	



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VB10 - 2	1111.50	0.00 0.24	-2028.58 -516.83	1009.99	-150.51 117.91	117.91	2.60 1.84	-0.07 0.07	2.27
VB11	1014.00	0.00 0.10	-98.08 -4100.30	0.00	-148.62 238.29	238.29	-1.09 3.05	-0.20 0.20	2.99
VB12	5558.00	0.00 0.82	-5488.14 -2947.96	7396.11	-161.18 183.13	0.00	12.70 10.20	-0.08 0.08	-0.28
VB13	1014.00	0.00 0.16	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.44
VB14	6127.65	-0.30 0.00	0.00 0.00	13644.20	-160.38 285.48	0.00	12.90 12.17	-0.11 0.11	0.04
VB15 - 1	292.50	-0.15 0.00	-289.83 -1053.18	591.82	312.93 -307.37	312.93	0.72 0.98	0.11 -0.11	-0.42
VB15 - 2	292.50	-0.11 0.00	-1095.38 -855.37	508.69	-29.66 24.90	24.90	0.97 0.89	-0.01 0.01	0.00
VB15 - 3	292.50	-0.08 0.00	-876.62 -401.55	371.27	-140.70 106.87	106.87	0.85 0.67	-0.05 0.05	0.77
VB15 - 4	292.50	-0.07 0.00	-402.15 -858.77	0.00	-509.89 490.11	490.11	0.08 0.52	-0.49 0.49	3.14
VB15 - 5	292.50	0.00 0.20	-877.54 1115.44	1115.44	-199.00 347.38	347.38	1.31 -0.74	-0.28 0.28	-2.66
VB16	1014.00	-0.63 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-1.17
VB17	1014.00	0.00 0.21	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-1.34
VB18	2041.27	-0.20 0.00	0.00 0.00	5678.21	90.50 -107.79	0.00	3.94 4.05	0.05 -0.05	5.96
VB19	1062.75	0.00 0.20	-409.93 1459.77	1459.77	-285.03 351.25	351.25	1.99 0.06	-0.33 0.33	1.06
VB20	1062.75	-0.13 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	2.51
VB21 - 1	1062.75	0.00 0.56	-1360.11 5254.56	5254.56	-90.56 99.38	99.38	3.76 -0.26	-0.06 0.06	7.32
VB21 - 2	1062.75	0.00 0.62	5297.08 -1455.76	5297.08	-404.57 199.37	199.37	-2.25 4.40	-0.30 0.30	-3.30
VB22	1062.75	0.00 0.03	-793.74 -1020.98	860.51	392.00 -358.07	0.00	1.88 2.00	0.21 -0.21	5.04
VB23	1062.75	-0.05 0.00	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.93
VB24 - 1	1111.50	0.00 0.53	-1465.02 -3843.12	2108.73	210.77 -222.62	210.77	2.82 3.64	0.07 -0.07	1.56
VB24 - 2	1111.50	0.00 0.53	-3747.23 -3965.35	1771.94	-35.84 -21.73	0.00	3.50 3.57	0.00 0.00	-0.05
VB25 - 1	1111.50	0.00 0.56	-4156.43 2386.27	2386.27	-306.25 145.37	145.37	4.48 -2.35	-0.24 0.24	-1.99
VB25 - 2	1111.50	0.00 0.56	2397.14 -3008.00	2415.87	145.37 14.45	145.37	0.21 3.47	0.04 -0.04	-1.99
VB25 - 3	1111.50	0.00 0.15	-2502.19 -491.61	832.67	-242.46 174.43	174.43	2.72 1.72	-0.10 0.10	-8.15

**CASO: 1.3G1+1.4G2+0.98Q+1.4V3+0.84D3**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	1062.75	-0.13 0.00	-963.27 13.93	787.56	790.48 -683.30	0.00	1.92 1.27	0.49 -0.49	23.29
VB1 - 2	4764.53	-0.45 0.00	14.01 -8486.88	14.01	33.08 -369.44	0.00	-13.43 16.11	0.69 -0.69	23.29
VB1 - 3	6542.49	-0.23 0.00	-9335.02 -2398.14	5978.73	-335.47 -130.82	0.00	14.74 9.64	-0.05 0.05	-1.74
VB1 - 4	5578.54	0.00 0.06	-2392.37 -10254.52	0.00	-702.02 -785.47	0.00	-13.68 16.67	0.16 -0.16	24.81
VB1 - 5	6907.99	-0.20	-9615.89	3921.70	-759.30	0.00	13.98	-0.54	-14.18






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		0.00	-1395.49		990.65		8.56	0.54	
VB2 - 1	1339.00	0.00 0.32	-1317.76 -1053.31	3048.72	380.53 -524.53	380.53	3.42 3.32	0.18 -0.18	28.21
VB2 - 2	1339.00	0.00 0.68	-1304.17 -874.37	0.00	473.54 -489.07	0.00	1.72 1.34	0.42 -0.42	-34.39
VB2 - 3	1339.00	0.00 0.68	-874.97 -2938.36	0.00	-489.07 -719.32	0.00	-2.31 3.29	0.31 -0.31	-34.39
VB2 - 4	5185.78	0.00 1.00	-2938.45 -12634.51	0.00	-128.97 -198.44	0.00	-16.19 18.98	0.12 -0.12	-34.39
VB2 - 5	6049.35	0.00 1.22	-13354.72 1593.34	1593.34	-153.29 -18.37	0.00	18.34 -12.25	-0.13 0.13	-0.33
VB2 - 6	8375.28	0.00 1.22	1592.14 8208.86	8208.86	-18.37 -157.32	0.00	11.29 -2.28	0.13 -0.13	-0.33
VB2 - 7	6243.13	0.00 1.22	8207.26 1094.32	8422.50	-157.32 -288.47	0.00	1.31 9.09	0.08 -0.08	-0.33
VB2 - 8	5307.47	0.00 0.93	1088.68 -7681.99	1088.68	-826.09 -736.95	0.00	-13.04 16.26	-0.15 0.15	-0.33
VB2 - 9	7670.09	0.00 0.76	-7500.11 3641.07	3641.07	-658.05 106.89	0.00	13.60 -1.94	-0.50 0.50	0.88
VB2 - 10	6769.31	0.00 0.76	3643.73 -5175.53	3813.17	106.89 359.59	0.00	0.92 10.85	-0.15 0.15	0.88
VB2 - 11	1339.00	0.00 0.00	-4748.44 -271.92	0.00	-871.82 291.47	291.47	3.49 0.45	-0.39 0.39	-5.17
VB3 - 1	1062.75	0.00 0.17	-275.75 802.67	1054.19	30.30 14.75	30.30	1.68 0.74	0.01 -0.01	0.88
VB3 - 2	1062.75	0.00 0.17	803.26 -2290.43	803.26	14.75 -135.68	14.75	-1.70 3.08	0.12 -0.12	0.88
VB3 - 3	1062.75	-0.02 0.00	-2625.73 518.05	518.05	178.94 -40.55	178.94	3.66 -2.59	0.22 -0.22	2.42
VB3 - 4	1062.75	-0.02 0.00	519.25 1653.43	1653.43	-40.55 7.90	0.00	1.63 -0.48	-0.05 0.05	2.42
VB3 - 5	1062.75	-0.02 0.00	1655.02 -2196.12	1655.02	7.90 -6.52	7.90	-0.48 2.90	0.01 -0.01	2.42
VB3 - 6	1062.75	0.00 0.07	-2139.16 976.18	976.18	99.23 -198.51	99.23	2.86 -1.24	0.20 -0.20	-16.95
VB3 - 7	1062.75	0.00 0.07	973.52 6.92	998.19	-198.51 57.86	57.86	0.23 1.45	-0.16 0.16	-16.95
VB4 - 1	1428.38	0.00 0.28	-1623.32 -14144.89	6079.90	335.10 -393.28	335.10	4.69 7.60	0.08 -0.08	-0.19
VB4 - 2	1428.37	0.00 0.77	-14866.30 6777.31	8773.90	-31.59 -96.50	0.00	8.22 2.39	0.01 -0.01	-14.90
VB4 - 3	1428.38	0.00 0.90	6790.05 4791.98	6790.05	-235.67 -66.35	0.00	-0.10 2.39	-0.11 0.11	31.20
VB4 - 4	1428.38	0.00 0.90	4800.72 -3243.61	4800.72	-66.35 365.34	365.34	-4.15 6.34	-0.28 0.28	31.20
VB5 - 1	1062.75	0.00 0.19	-808.54 2336.44	2336.44	-188.14 44.56	44.56	2.84 -1.17	-0.15 0.15	-11.22
VB5 - 2	1062.75	0.00 0.19	2327.69 0.00	2327.69	44.56 0.00	44.56	-0.59 2.30	0.03 -0.03	-11.22
VB6 - 1	1428.38	0.00 0.05	-1411.94 -15352.23	5763.39	166.51 -230.55	166.51	4.53 7.77	0.05 -0.05	1.30
VB6 - 2	1428.38	0.00 0.17	-16202.88 -2682.54	11046.04	-214.28 116.44	116.44	8.82 6.26	-0.03 0.03	1.61
VB7 - 1	1428.38	0.00 0.08	-1516.54 -15324.20	5708.13	176.40 -244.45	176.40	4.54 7.75	0.05 -0.05	-0.20
VB7 - 2	1428.38	0.00 0.24	-16232.26 -2573.52	11096.51	-210.14 126.34	126.34	8.84 6.25	-0.03 0.03	-0.07
VB8 - 1	1428.38	0.00 1.05	-2636.05 -14093.16	5482.97	98.25 -218.71	98.25	4.82 7.48	0.04 -0.04	-3.93
VB8 - 2	1428.38	0.00 1.74	-15753.08 -4427.56	10229.60	-188.28 109.90	109.90	8.62 6.47	-0.03 0.03	3.62
VB9 - 1	1111.50	0.00 0.53	-865.71 -4394.81	2224.55	-74.88 64.11	64.11	2.62 3.84	-0.02 0.02	-0.28



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VB9 - 2	1111.50	0.00 0.48	-3591.41 -3752.90	1955.17	-81.66 82.36	82.36	3.51 3.56	-0.03 0.03	-0.06
VB10 - 1	1111.50	0.00 0.27	-2602.75 -2557.54	1210.03	-33.13 16.85	16.85	2.91 2.89	-0.01 0.01	-0.28
VB10 - 2	1111.50	0.00 0.13	-1519.73 -1178.20	872.54	-245.49 284.99	284.99	2.31 2.14	-0.13 0.13	2.18
VB11	1014.00	0.00 0.03	414.64 -4280.06	414.64	-31.21 54.50	54.50	-1.45 3.41	-0.04 0.04	3.64
VB12	5558.00	0.00 0.63	-5028.22 -3894.41	7152.85	-939.57 762.00	0.00	12.36 10.54	-0.41 0.41	-1.22
VB13	1014.00	0.00 0.11	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.59
VB14	6127.65	-0.19 0.00	0.00 0.00	13644.20	-590.35 716.38	0.00	12.90 12.17	-0.32 0.32	0.09
VB15 - 1	292.50	-0.11 0.00	474.25 -1609.90	885.50	3.27 -0.62	3.27	0.49 1.21	0.00 0.00	-0.39
VB15 - 2	292.50	-0.08 0.00	-729.60 -1261.16	498.20	-34.94 36.57	36.57	0.85 1.01	-0.01 0.01	0.01
VB15 - 3	292.50	-0.05 0.00	-392.08 -829.52	397.54	20.30 -34.91	20.30	0.68 0.85	0.01 -0.01	0.79
VB15 - 4	292.50	-0.03 0.00	95.53 -875.66	95.53	-396.60 339.62	339.62	-0.17 0.77	-0.36 0.36	1.95
VB15 - 5	292.50	0.00 0.26	-734.19 157.38	157.38	17.17 51.04	51.04	0.74 -0.18	-0.02 0.02	-1.92
VB16	1014.00	-0.26 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-1.20
VB17	1014.00	0.00 0.05	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-1.60
VB18	2041.27	-0.23 0.00	0.00 0.00	5678.21	537.62 -571.20	0.00	3.94 4.05	0.28 -0.28	5.64
VB19	1062.75	0.00 0.30	42.36 1002.88	1132.14	-96.64 98.26	98.26	1.52 0.53	-0.10 0.10	1.36
VB20	1062.75	-0.36 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	2.66
VB21 - 1	1062.75	0.00 0.41	-964.12 4951.00	4951.00	173.07 -211.77	173.07	3.55 -0.05	0.12 -0.12	8.46
VB21 - 2	1062.75	0.00 0.30	4997.10 -1736.18	4997.10	-72.60 -39.08	0.00	-2.24 4.39	-0.02 0.02	-4.28
VB22	1062.75	-0.23 0.00	-192.79 -1818.42	855.59	1197.76 -977.24	0.00	1.49 2.38	0.60 -0.60	4.23
VB23	1062.75	0.00 0.18	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.75
VB24 - 1	1111.50	0.00 0.46	-747.08 -4409.74	2287.90	76.63 -75.69	76.63	2.60 3.86	0.03 -0.03	1.23
VB24 - 2	1111.50	0.00 0.27	-3302.77 -4464.03	1760.04	41.07 -43.46	41.07	3.36 3.72	0.01 -0.01	-0.08
VB25 - 1	1111.50	0.00 0.19	-3706.01 2664.32	2664.32	-19.93 132.26	132.26	4.39 -2.26	-0.08 0.08	-1.80
VB25 - 2	1111.50	0.00 0.17	2675.54 -3532.69	2675.54	132.26 -217.34	132.26	-0.04 3.72	0.11 -0.11	-1.80
VB25 - 3	1111.50	-0.04 0.00	-1875.36 -1331.71	623.29	67.14 -156.53	67.14	2.36 2.08	0.06 -0.06	-7.79

CASO: 1.3G1+1.4G2+0.98Q+1.4V4+0.84D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	1062.75	0.00 0.55	-1117.86 81.70	766.38	-278.53 335.96	0.00	1.99 1.19	-0.21 0.21	20.31
VB1 - 2	4764.53	0.00 0.58	81.96 -8375.80	81.96	319.64 191.92	0.00	-13.36 16.04	0.22 -0.22	20.36
VB1 - 3	6542.49	0.00	-9383.89	5974.39	230.75	0.00	14.76	0.11	-2.74



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		0.88	-2374.14		-182.20		9.62	-0.11	
VB1 - 4	5578.54	0.00 0.70	-2368.08 -10220.23	0.00	203.53 60.99	0.00	-13.67 16.65	0.28 -0.28	23.52
VB1 - 5	6907.99	0.00 0.54	-9756.98 -1186.16	3982.19	103.00 -282.04	0.00	14.08 8.46	0.12 -0.12	-8.16
VB2 - 1	1339.00	0.00 0.54	-1249.54 -1083.15	3065.95	-335.97 860.21	860.21	3.40 3.33	-0.24 0.24	31.47
VB2 - 2	1339.00	0.00 0.21	-1333.05 -828.71	0.00	407.63 18.20	0.00	1.75 1.31	0.17 -0.17	-39.61
VB2 - 3	1339.00	0.00 0.21	-829.36 -2868.68	0.00	18.20 -37.83	0.00	-2.27 3.26	0.08 -0.08	-39.61
VB2 - 4	5185.78	0.00 0.19	-2868.96 -12546.81	0.00	-89.60 105.20	0.00	-16.16 18.95	-0.35 0.35	-39.61
VB2 - 5	6049.35	0.00 0.27	-13242.06 1620.32	1620.32	364.05 388.11	0.00	18.25 -12.17	-0.02 0.02	1.23
VB2 - 6	8375.28	0.00 0.27	1619.29 8144.32	8144.32	388.11 3.92	0.00	11.20 -2.19	0.36 -0.36	1.23
VB2 - 7	6243.13	0.00 0.27	8142.87 886.22	8340.14	3.92 -389.18	0.00	1.23 9.18	0.23 -0.23	1.23
VB2 - 8	5307.47	0.00 0.47	880.27 -7940.54	880.27	-25.74 -64.46	0.00	-13.12 16.34	0.07 -0.07	1.23
VB2 - 9	7670.09	0.00 0.21	-7785.98 3647.28	3647.28	109.61 52.81	0.00	13.79 -2.13	0.04 -0.04	0.42
VB2 - 10	6769.31	0.00 0.21	3649.43 -4835.48	3860.66	52.81 -26.37	0.00	1.12 10.66	0.05 -0.05	0.42
VB2 - 11	1339.00	0.00 0.25	-4432.23 -272.62	0.00	414.03 -340.00	414.03	3.38 0.56	0.26 -0.26	-7.16
VB3 - 1	1062.75	0.00 0.22	-257.45 770.44	1035.75	82.03 2.70	82.03	1.66 0.76	0.03 -0.03	3.08
VB3 - 2	1062.75	0.00 0.22	771.09 -2351.35	771.09	2.70 -164.93	2.70	-1.72 3.10	0.13 -0.13	3.08
VB3 - 3	1062.75	0.00 0.22	-2634.80 518.29	518.29	238.80 -60.38	238.80	3.67 -2.60	0.30 -0.30	1.56
VB3 - 4	1062.75	0.00 0.22	519.32 1663.44	1663.44	-60.38 29.44	0.00	1.64 -0.49	-0.08 0.08	1.56
VB3 - 5	1062.75	0.00 0.22	1664.89 -2165.22	1664.89	29.44 -62.78	29.44	-0.47 2.89	0.04 -0.04	1.56
VB3 - 6	1062.75	0.00 0.38	-2055.70 995.07	995.07	96.06 -53.17	96.06	2.82 -1.20	0.10 -0.10	-17.18
VB3 - 7	1062.75	0.00 0.38	992.92 -40.88	1008.00	-53.17 -195.62	0.00	0.19 1.49	0.09 -0.09	-17.18
VB4 - 1	1428.38	0.00 0.08	-1517.47 -14227.93	6115.47	-275.01 235.68	235.68	4.67 7.62	-0.06 0.06	-0.52
VB4 - 2	1428.37	0.00 0.49	-14862.08 6813.17	8802.92	340.46 16.30	340.46	8.22 2.39	0.04 -0.04	-11.53
VB4 - 3	1428.38	0.00 0.77	6825.79 4727.91	6825.79	492.17 69.00	0.00	-0.17 2.45	0.26 -0.26	23.37
VB4 - 4	1428.38	0.00 0.77	4736.50 -3403.40	4736.50	69.00 -380.26	69.00	-4.21 6.40	0.29 -0.29	23.37
VB5 - 1	1062.75	0.00 0.29	-717.12 2382.61	2382.61	52.72 3.81	52.72	2.81 -1.14	0.03 -0.03	-9.65
VB5 - 2	1062.75	0.00 0.29	2374.02 0.00	2374.02	3.81 0.00	3.81	-0.62 2.33	0.00 0.00	-9.65
VB6 - 1	1428.38	0.00 0.01	-1294.56 -15421.05	5811.48	-258.15 392.73	392.73	4.51 7.79	-0.08 0.08	0.87
VB6 - 2	1428.38	0.00 0.08	-16135.76 -2800.76	11006.23	330.45 -299.57	330.45	8.81 6.28	0.06 -0.06	1.69
VB7 - 1	1428.38	0.00 0.11	-1495.37 -15337.53	5716.46	-257.02 354.12	354.12	4.54 7.76	-0.07 0.07	-0.26
VB7 - 2	1428.38	0.00 0.27	-16216.05 -2602.12	11086.87	335.77 -242.99	335.77	8.83 6.25	0.05 -0.05	-0.28
VB8 - 1	1428.38	0.00 1.00	-2687.54 -14062.18	5464.08	-182.85 305.20	305.20	4.83 7.47	-0.06 0.06	-5.44



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VB8 - 2	1428.38	0.00 1.68	-15745.33 -4450.68	10219.54	287.12 -123.28	287.12	8.61 6.47	0.04 -0.04	4.35
VB9 - 1	1111.50	0.00 0.48	-2021.09 -3472.23	1968.20	129.52 -120.82	129.52	2.98 3.48	0.04 -0.04	-0.31
VB9 - 2	1111.50	0.00 0.53	-4273.30 -3032.29	1991.94	57.13 -59.64	57.13	3.73 3.34	0.02 -0.02	-0.10
VB10 - 1	1111.50	0.00 0.40	-3420.90 -1849.87	1192.79	153.65 -135.48	153.65	3.20 2.60	0.06 -0.06	-0.26
VB10 - 2	1111.50	0.00 0.41	-2557.60 168.12	1228.92	110.76 -249.71	110.76	2.90 1.54	0.09 -0.09	2.21
VB11	1014.00	0.00 0.12	-639.63 -3865.56	0.00	-73.17 125.01	125.01	-0.69 2.65	-0.10 0.10	3.55
VB12	5558.00	0.00 0.95	-5936.15 -1980.13	7707.64	560.31 -334.56	0.00	13.05 9.86	0.22 -0.22	-0.92
VB13	1014.00	0.00 0.09	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.64
VB14	6127.65	-0.43 0.00	0.00 0.00	13644.20	51.77 -16.32	0.00	12.90 12.17	0.02 -0.02	0.28
VB15 - 1	292.50	-0.20 0.00	-1082.19 -474.90	473.87	40.38 -38.14	40.38	0.95 0.75	0.01 -0.01	-0.39
VB15 - 2	292.50	-0.16 0.00	-1477.64 -430.28	573.69	-19.80 26.04	26.04	1.10 0.77	-0.01 0.01	0.00
VB15 - 3	292.50	-0.12 0.00	-1377.04 29.96	446.90	88.33 -119.68	88.33	1.03 0.49	0.04 -0.04	0.77
VB15 - 4	292.50	-0.11 0.00	-939.08 -801.43	0.00	-224.46 305.59	305.59	0.37 0.23	-0.26 0.26	1.88
VB15 - 5	292.50	-0.13 0.00	-988.03 2112.57	2112.57	-92.56 180.66	180.66	1.88 -1.31	-0.14 0.14	-1.72
VB16	1014.00	-0.38 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-1.03
VB17	1014.00	0.00 0.12	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-1.45
VB18	2041.27	-0.17 0.00	0.00 0.00	5678.21	-363.43 385.73	0.00	3.94 4.05	-0.19 0.19	5.95
VB19	1062.75	0.00 0.12	-868.98 1929.04	1929.04	-152.62 189.99	189.99	2.47 -0.42	-0.18 0.18	1.21
VB20	1062.75	-0.01 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	2.15
VB21 - 1	1062.75	0.00 0.46	-1654.81 5056.59	5056.59	-46.82 40.41	40.41	3.79 -0.29	-0.03 0.03	8.50
VB21 - 2	1062.75	0.00 0.68	5091.49 -1014.88	5091.49	-435.47 188.98	188.98	-1.93 4.09	-0.31 0.31	-4.12
VB22	1062.75	0.00 0.26	-1365.18 -259.22	995.29	-428.78 264.12	0.00	2.24 1.64	-0.19 0.19	4.56
VB23	1062.75	-0.03 0.00	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.59
VB24 - 1	1111.50	0.00 0.51	-2103.48 -3326.26	1990.62	-94.75 74.67	74.67	3.02 3.44	-0.03 0.03	1.23
VB24 - 2	1111.50	0.00 0.57	-4102.29 -3622.32	1770.15	-82.12 70.62	70.62	3.61 3.46	-0.02 0.02	-0.12
VB25 - 1	1111.50	0.00 0.72	-4684.93 2381.36	2381.36	-253.77 173.94	173.94	4.76 -2.63	-0.22 0.22	-1.75
VB25 - 2	1111.50	0.00 0.71	2391.00 -2709.32	2428.79	173.94 -33.91	173.94	0.30 3.38	0.06 -0.06	-1.75
VB25 - 3	1111.50	0.00 0.35	-3108.39 265.03	1117.26	-346.91 315.89	315.89	3.07 1.38	-0.17 0.17	-7.63

**CASO: 1.3G1+1.4G2+1.2D1**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	1062.75	0.00	-602.63	904.90	91.69	0.00	1.78	0.04	6.55



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		0.23	-40.33		-37.80		1.40	-0.04	
VB1 - 2	1834.82	0.00 0.17	-39.67 -3277.64	0.00	129.10 5.73	0.00	-5.08 6.13	0.21 -0.21	6.49
VB1 - 3	2043.74	0.00 0.20	-3247.51 -417.34	1841.96	13.69 -98.22	0.00	4.67 2.96	0.03 -0.03	-0.33
VB1 - 4	1810.95	0.00 0.18	-415.48 -3355.26	0.00	-39.38 -104.33	0.00	-5.22 6.17	0.13 -0.13	4.25
VB1 - 5	2031.22	0.00 0.10	-2947.43 -539.68	1052.45	-93.52 60.87	0.00	4.08 2.55	-0.05 0.05	-4.63
VB2 - 1	1339.00	0.00 0.31	-916.25 -1813.09	2882.24	60.84 61.80	61.80	3.19 3.55	0.00 0.00	10.22
VB2 - 2	1339.00	0.00 0.30	-1809.00 -128.76	104.64	210.08 -118.89	0.00	2.26 0.79	0.14 -0.14	-11.91
VB2 - 3	1339.00	0.00 0.30	-129.42 -1789.01	0.00	-118.89 -169.39	0.00	-1.76 2.75	0.07 -0.07	-11.91
VB2 - 4	2145.48	0.00 0.37	-1789.68 -5737.49	0.00	-56.53 -2.07	0.00	-6.53 7.71	-0.10 0.10	-11.91
VB2 - 5	2215.49	0.00 0.39	-5744.38 409.66	409.66	117.09 180.10	0.00	7.32 -5.09	-0.06 0.06	-0.04
VB2 - 6	2522.88	0.00 0.39	411.09 3269.20	3269.20	180.10 -31.44	0.00	4.13 -1.41	0.20 -0.20	-0.04
VB2 - 7	2243.12	0.00 0.39	3268.60 810.67	3321.98	-31.44 -230.71	0.00	0.45 3.31	0.12 -0.12	-0.04
VB2 - 8	1996.52	0.00 0.42	808.83 -2843.66	808.83	-171.54 -183.80	0.00	-5.57 6.76	0.02 -0.02	-0.04
VB2 - 9	2387.97	0.00 0.32	-2670.33 1331.46	1331.46	-66.26 44.62	0.00	4.52 -0.89	-0.07 0.07	7.57
VB2 - 10	2238.72	0.00 0.32	1332.83 -2299.80	1332.83	44.62 57.09	0.00	-0.12 4.02	-0.01 0.01	7.57
VB2 - 11	1339.00	0.00 0.23	-2035.49 -492.84	290.99	24.00 -97.56	24.00	2.50 1.45	0.04 -0.04	-10.31
VB3 - 1	1062.75	0.00 0.16	-238.52 734.09	1016.99	48.37 5.27	48.37	1.64 0.78	0.02 -0.02	-0.43
VB3 - 2	1062.75	0.00 0.16	734.75 -2419.14	734.75	5.27 -117.17	5.27	-1.75 3.12	0.09 -0.09	-0.43
VB3 - 3	1062.75	0.00 0.12	-2618.51 526.27	526.27	165.08 -40.78	165.08	3.66 -2.59	0.20 -0.20	0.77
VB3 - 4	1062.75	0.00 0.12	524.84 1660.08	1660.08	-40.78 17.91	0.00	1.63 -0.48	-0.05 0.05	0.77
VB3 - 5	1062.75	0.00 0.12	1660.68 -2188.23	1660.68	17.91 -36.52	17.91	-0.48 2.90	0.02 -0.02	0.77
VB3 - 6	1062.75	0.00 0.23	-2068.28 978.62	978.62	69.83 -61.14	69.83	2.81 -1.20	0.09 -0.09	-14.65
VB3 - 7	1062.75	0.00 0.23	977.25 -60.59	991.75	-61.14 -93.39	0.00	0.18 1.50	0.02 -0.02	-14.65
VB4 - 1	1428.38	0.00 0.22	-1468.15 -14247.75	6139.06	17.99 -64.48	17.99	4.66 7.63	0.01 -0.01	-0.11
VB4 - 2	1428.37	0.00 0.62	-14800.58 6752.21	8768.44	75.22 36.15	75.22	8.21 2.40	0.01 -0.01	-13.40
VB4 - 3	1428.38	0.00 0.84	6765.18 4643.12	6765.18	165.46 -3.07	0.00	-0.18 2.47	0.11 -0.11	26.95
VB4 - 4	1428.38	0.00 0.84	4651.75 -3511.30	4651.75	-3.07 -29.84	0.00	-4.23 6.42	0.02 -0.02	26.95
VB5 - 1	1062.75	0.00 0.21	-696.54 2393.03	2393.03	-82.65 27.96	27.96	2.80 -1.13	-0.07 0.07	-10.34
VB5 - 2	1062.75	0.00 0.21	2384.41 0.00	2384.41	27.96 0.00	27.96	-0.63 2.34	0.02 -0.02	-10.34
VB6 - 1	1428.38	0.00 0.03	-1176.80 -15494.05	5858.26	-62.83 84.00	84.00	4.48 7.81	-0.02 0.02	1.04
VB6 - 2	1428.38	0.00 0.13	-16065.80 -2917.88	10968.26	29.87 -51.49	29.87	8.79 6.30	0.01 -0.01	1.62
VB7 - 1	1428.38	0.00 0.09	-1323.44 -15442.49	5785.37	-6.97 26.45	26.45	4.51 7.79	0.00 0.00	-0.23



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VB7 - 2	1428.38	0.00 0.25	-16119.37 -2763.47	11034.68	69.07 -76.88	69.07	8.81 6.28	0.01 -0.01	-0.25
VB8 - 1	1428.38	0.00 1.02	-2561.09 -14148.58	5506.38	-7.41 15.72	15.72	4.80 7.49	0.00 0.00	-4.69
VB8 - 2	1428.38	0.00 1.71	-15685.90 -4532.32	10197.58	56.97 -30.35	56.97	8.60 6.49	0.01 -0.01	3.84
VB9 - 1	1111.50	0.00 0.51	-1428.77 -3945.32	2082.92	-6.95 6.25	6.25	2.80 3.66	0.00 0.00	-0.33
VB9 - 2	1111.50	0.00 0.50	-3924.70 -3400.32	1970.67	-8.83 13.29	13.29	3.62 3.46	0.00 0.00	-0.08
VB10 - 1	1111.50	0.00 0.32	-3003.39 -2211.99	1190.50	80.43 -81.48	80.43	3.05 2.75	0.03 -0.03	-0.24
VB10 - 2	1111.50	0.00 0.25	-2029.89 -513.83	1011.18	-79.30 41.68	41.68	2.60 1.84	-0.03 0.03	2.59
VB11	1014.00	0.00 0.07	-162.46 -1162.38	0.00	-49.98 81.66	81.66	0.46 1.50	-0.07 0.07	3.38
VB12	1807.55	0.00 0.35	-1825.76 -1122.82	2332.07	-70.48 83.88	0.00	4.00 3.45	-0.04 0.04	-1.55
VB13	1014.00	0.00 0.08	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.66
VB14	1824.09	-0.17 0.00	0.00 0.00	3794.88	-112.86 166.90	0.00	3.79 3.67	-0.07 0.07	0.67
VB15 - 1	292.50	-0.16 0.00	-290.86 -1053.52	591.08	-17.50 19.67	19.67	0.72 0.98	-0.01 0.01	-0.39
VB15 - 2	292.50	-0.13 0.00	-1100.55 -843.11	512.51	-22.95 27.80	27.80	0.97 0.89	-0.01 0.01	0.01
VB15 - 3	292.50	-0.10 0.00	-863.05 -461.92	344.46	81.93 -102.25	81.93	0.84 0.69	0.04 -0.04	0.78
VB15 - 4	292.50	-0.11 0.00	-491.83 -67.50	0.00	-241.94 239.43	239.43	0.51 0.09	-0.23 0.23	1.85
VB15 - 5	292.50	0.00 0.01	-82.75 401.45	402.02	-49.59 111.03	111.03	0.53 0.03	-0.08 0.08	0.42
VB16	1014.00	-0.26 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	1.43
VB17	1014.00	0.00 0.08	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.60
VB18	1154.52	-0.10 0.00	0.00 0.00	2372.19	-59.17 58.84	0.00	2.25 2.26	-0.03 0.03	1.84
VB19	1062.75	0.00 0.11	-284.52 515.81	689.66	-103.00 124.38	124.38	1.44 0.61	-0.12 0.12	-0.03
VB20	1062.75	-0.07 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	1.36
VB21 - 1	1062.75	0.00 0.43	-1325.03 4978.77	4978.77	79.49 -107.82	79.49	3.66 -0.17	0.06 -0.06	8.62
VB21 - 2	1062.75	0.00 0.53	5019.13 -1341.76	5019.13	-237.13 91.12	91.12	-2.05 4.21	-0.16 0.16	-4.34
VB22	1062.75	0.00 0.16	-613.89 -678.57	1121.64	26.56 -58.55	0.00	1.92 1.96	0.02 -0.02	1.02
VB23	1062.75	0.00 0.09	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.63
VB24 - 1	1111.50	0.00 0.50	-1469.27 -3832.40	2111.19	-34.34 25.69	25.69	2.82 3.64	-0.01 0.01	1.18
VB24 - 2	1111.50	0.00 0.46	-3726.28 -4020.47	1756.08	-12.44 13.33	13.33	3.49 3.58	0.00 0.00	-0.10
VB25 - 1	1111.50	0.00 0.53	-4232.92 2527.06	2527.06	-100.91 145.75	145.75	4.60 -2.47	-0.13 0.13	-1.75
VB25 - 2	1111.50	0.00 0.51	2537.40 -3113.85	2540.75	145.75 -137.69	145.75	0.13 3.55	0.09 -0.09	-1.75
VB25 - 3	1111.50	0.00 0.24	-2553.52 -451.43	839.13	-167.46 134.01	134.01	2.75 1.69	-0.08 0.08	-7.67

**CASO: 1.3G1+1.4G2+1.2D2**



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Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	1062.75	0.00 0.26	-824.26 64.92	873.75	59.47 -22.59	0.00	1.89 1.30	0.03 -0.03	6.50
VB1 - 2	1834.82	0.00 0.23	65.54 -3109.03	65.54	74.39 -32.01	0.00	-4.97 6.02	0.18 -0.18	6.53
VB1 - 3	2043.74	0.00 0.18	-3355.67 -336.74	1849.15	-18.08 -57.29	0.00	4.72 2.91	0.01 -0.01	-0.15
VB1 - 4	1810.95	0.00 0.20	-334.83 -3248.71	0.00	-82.75 -131.18	0.00	-5.17 6.12	0.09 -0.09	3.52
VB1 - 5	2031.22	0.00 0.04	-3120.43 -313.25	1129.09	-114.73 120.39	0.00	4.20 2.42	-0.07 0.07	-4.65
VB2 - 1	1339.00	0.00 0.43	-1315.77 -1698.02	2729.72	62.31 85.05	85.05	3.29 3.44	0.00 0.00	10.23
VB2 - 2	1339.00	0.00 0.34	-1826.41 27.51	213.54	191.11 -122.61	0.00	2.34 0.72	0.14 -0.14	-11.93
VB2 - 3	1339.00	0.00 0.34	26.89 -1576.61	26.89	-122.61 -152.63	0.00	-1.68 2.67	0.04 -0.04	-11.93
VB2 - 4	2145.48	0.00 0.37	-1577.23 -5482.61	0.00	-110.64 -47.37	0.00	-6.46 7.63	-0.11 0.11	-11.93
VB2 - 5	2215.49	0.00 0.37	-5983.82 243.53	243.53	62.81 178.62	0.00	7.39 -5.17	-0.12 0.12	-0.03
VB2 - 6	2522.88	0.00 0.37	244.95 3181.49	3181.49	178.62 -15.66	0.00	4.20 -1.49	0.18 -0.18	-0.03
VB2 - 7	2243.12	0.00 0.37	3180.94 845.96	3249.69	-15.66 -179.08	0.00	0.52 3.24	0.10 -0.10	-0.03
VB2 - 8	1996.52	0.00 0.36	844.07 -2765.53	844.07	-195.74 -201.91	0.00	-5.50 6.69	0.01 -0.01	-0.03
VB2 - 9	2387.97	0.00 0.12	-2719.07 1369.56	1369.56	-91.53 41.37	0.00	4.58 -0.95	-0.09 0.09	7.52
VB2 - 10	2238.72	0.00 0.12	1370.94 -2162.27	1370.94	41.37 78.76	0.00	-0.07 3.96	-0.02 0.02	7.52
VB2 - 11	1339.00	0.00 0.05	-2284.39 -23.85	516.75	-34.51 -94.81	0.00	2.74 1.21	0.02 -0.02	-10.26
VB3 - 1	1062.75	0.00 0.20	-343.73 780.95	1019.86	47.12 9.31	47.12	1.70 0.71	0.02 -0.02	-0.39
VB3 - 2	1062.75	0.00 0.20	781.57 -2285.79	781.57	9.31 -137.44	9.31	-1.68 3.06	0.11 -0.11	-0.39
VB3 - 3	1062.75	0.00 0.13	-2717.86 463.23	463.23	190.56 -46.40	190.56	3.70 -2.63	0.24 -0.24	0.77
VB3 - 4	1062.75	0.00 0.13	461.80 1635.89	1635.89	-46.40 18.27	0.00	1.66 -0.52	-0.06 0.06	0.77
VB3 - 5	1062.75	0.00 0.13	1636.44 -2130.30	1636.44	18.27 -35.40	18.27	-0.45 2.86	0.02 -0.02	0.77
VB3 - 6	1062.75	0.00 0.25	-2126.95 997.83	997.83	72.42 -70.15	72.42	2.86 -1.25	0.09 -0.09	-14.78
VB3 - 7	1062.75	0.00 0.25	996.45 39.67	1022.53	-70.15 -114.23	0.00	0.24 1.45	0.03 -0.03	-14.78
VB4 - 1	1428.38	0.00 0.17	-1676.35 -14113.52	6058.27	62.26 -108.75	62.26	4.70 7.59	0.02 -0.02	-0.13
VB4 - 2	1428.37	0.00 0.57	-14916.68 6835.02	8808.24	137.80 -19.34	137.80	8.23 2.38	0.02 -0.02	-13.53
VB4 - 3	1428.38	0.00 0.79	6847.47 4869.68	6847.47	190.75 16.53	0.00	-0.09 2.38	0.11 -0.11	27.33
VB4 - 4	1428.38	0.00 0.79	4878.37 -3146.53	4878.37	16.53 -58.28	16.53	-4.14 6.33	0.05 -0.05	27.33
VB5 - 1	1062.75	0.00 0.26	-825.06 2328.05	2328.05	-49.74 22.52	22.52	2.84 -1.17	-0.05 0.05	-10.45
VB5 - 2	1062.75	0.00 0.26	2319.36 0.00	2319.36	22.52 0.00	22.52	-0.59 2.30	0.01 -0.01	-10.45
VB6 - 1	1428.38	0.00 0.03	-1528.91 -15279.95	5716.83	-24.42 65.21	65.21	4.55 7.74	-0.01 0.01	1.04




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VB6 - 2	1428.38	0.00 0.12	-16273.28 -2565.08	11084.02	66.59 -117.61	66.59	8.84 6.25	0.02 -0.02	1.59
VB7 - 1	1428.38	0.00 0.10	-1688.18 -15219.43	5639.34	-66.89 69.17	69.17	4.58 7.72	-0.02 0.02	-0.23
VB7 - 2	1428.38	0.00 0.26	-16328.77 -2412.05	11151.25	35.79 -23.48	35.79	8.86 6.23	0.01 -0.01	-0.24
VB8 - 1	1428.38	0.00 1.03	-2763.75 -14005.68	5440.34	-72.84 57.74	57.74	4.84 7.45	-0.02 0.02	-4.70
VB8 - 2	1428.38	0.00 1.71	-15814.05 -4344.71	10251.61	24.09 27.82	27.82	8.63 6.46	0.00 0.00	3.86
VB9 - 1	1111.50	0.00 0.50	-1436.88 -3938.75	2081.39	58.62 -60.32	58.62	2.80 3.66	0.02 -0.02	-0.26
VB9 - 2	1111.50	0.00 0.49	-3927.82 -3397.24	1970.75	-17.72 11.73	11.73	3.62 3.45	0.00 0.00	-0.08
VB10 - 1	1111.50	0.00 0.31	-3003.68 -2213.30	1189.66	39.77 -39.54	39.77	3.05 2.75	0.02 -0.02	-0.31
VB10 - 2	1111.50	0.00 0.25	-2035.13 -506.73	1013.09	-78.75 40.50	40.50	2.60 1.84	-0.03 0.03	2.65
VB11	1014.00	0.00 0.07	-173.28 -1164.76	0.00	-47.31 79.44	79.44	0.47 1.49	-0.07 0.07	3.21
VB12	1807.55	0.00 0.36	-1840.98 -1097.35	2337.20	-34.18 50.65	0.00	4.01 3.44	-0.02 0.02	-1.28
VB13	1014.00	0.00 0.10	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.62
VB14	1824.09	-0.15 0.00	0.00 0.00	3794.88	-41.99 96.98	0.00	3.79 3.67	-0.03 0.03	0.62
VB15 - 1	292.50	-0.15 0.00	-298.64 -1048.04	588.78	64.53 -61.77	64.53	0.72 0.98	0.02 -0.02	-0.39
VB15 - 2	292.50	-0.12 0.00	-1103.82 -839.60	512.74	-28.39 31.40	31.40	0.97 0.89	-0.01 0.01	0.01
VB15 - 3	292.50	-0.09 0.00	-868.21 -456.02	345.25	30.02 -54.64	30.02	0.84 0.68	0.02 -0.02	0.78
VB15 - 4	292.50	-0.08 0.00	-494.31 -72.36	0.00	-301.19 307.40	307.40	0.51 0.10	-0.30 0.30	2.15
VB15 - 5	292.50	0.00 0.04	-89.13 411.45	411.45	-28.03 99.20	99.20	0.54 0.03	-0.07 0.07	0.24
VB16	1014.00	-0.30 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	1.42
VB17	1014.00	0.00 0.08	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.55
VB18	1154.52	-0.09 0.00	0.00 0.00	2372.19	16.66 -25.46	0.00	2.25 2.26	0.01 -0.01	1.89
VB19	1062.75	0.00 0.12	-280.46 510.76	687.64	-103.44 123.82	123.82	1.44 0.62	-0.12 0.12	-0.09
VB20	1062.75	-0.07 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	1.38
VB21 - 1	1062.75	0.00 0.46	-1337.76 5040.34	5040.34	44.08 -64.47	44.08	3.69 -0.19	0.03 -0.03	8.34
VB21 - 2	1062.75	0.00 0.55	5081.20 -1362.35	5081.20	-274.56 112.81	112.81	-2.09 4.25	-0.19 0.19	-4.11
VB22	1062.75	0.00 0.15	-603.65 -691.83	1120.13	110.29 -117.09	0.00	1.91 1.96	0.06 -0.06	1.25
VB23	1062.75	0.00 0.06	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.69
VB24 - 1	1111.50	0.00 0.51	-1466.45 -3836.31	2111.00	25.38 -35.06	25.38	2.82 3.64	0.01 -0.01	1.28
VB24 - 2	1111.50	0.00 0.47	-3730.02 -4009.44	1759.49	-21.02 5.87	5.87	3.49 3.58	0.00 0.00	-0.10
VB25 - 1	1111.50	0.00 0.53	-4214.96 2497.08	2497.08	-167.49 162.96	162.96	4.57 -2.44	-0.17 0.17	-1.80
VB25 - 2	1111.50	0.00 0.51	2507.53 -3092.79	2514.06	162.96 -111.13	162.96	0.15 3.53	0.08 -0.08	-1.80
VB25 - 3	1111.50	0.00	-2543.20	838.24	-173.07	131.01	2.74	-0.08	-7.75



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		0.22	-458.87		131.01		1.70	0.08	
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CASO: 1.3G1+1.4G2+1.2D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	1062.75	0.00 0.15	-695.34 4.27	888.93	235.39 -179.61	0.00	1.83 1.36	0.14 -0.14	6.81
VB1 - 2	1834.82	0.00 0.04	4.89 -3206.45	4.89	76.51 -92.16	0.00	-5.03 6.08	0.29 -0.29	6.79
VB1 - 3	2043.74	0.00 0.02	-3295.76 -380.24	1845.86	-82.22 -79.88	0.00	4.70 2.94	0.00 0.00	-0.13
VB1 - 4	1810.95	0.00 0.09	-378.39 -3306.45	0.00	-199.32 -256.51	0.00	-5.20 6.15	0.11 -0.11	4.03
VB1 - 5	2031.22	-0.04 0.00	-3017.74 -450.33	1081.92	-244.18 282.55	0.00	4.13 2.50	-0.16 0.16	-5.26
VB2 - 1	1339.00	0.00 0.34	-1123.15 -1751.99	2803.98	151.89 -96.99	151.89	3.24 3.49	0.05 -0.05	9.96
VB2 - 2	1339.00	0.00 0.39	-1814.27 -55.57	156.43	236.92 -198.84	0.00	2.30 0.76	0.19 -0.19	-11.38
VB2 - 3	1339.00	0.00 0.39	-56.21 -1690.46	0.00	-198.84 -274.29	0.00	-1.72 2.71	0.10 -0.10	-11.38
VB2 - 4	2145.48	0.00 0.50	-1691.08 -5619.73	0.00	-86.75 -61.73	0.00	-6.50 7.68	-0.04 0.04	-11.38
VB2 - 5	2215.49	0.00 0.53	-5876.68 323.38	323.38	25.02 125.23	0.00	7.37 -5.14	-0.10 0.10	-0.18
VB2 - 6	2522.88	0.00 0.53	324.79 3232.14	3232.14	125.23 -52.78	0.00	4.17 -1.46	0.17 -0.17	-0.18
VB2 - 7	2243.12	0.00 0.53	3231.54 850.81	3294.58	-52.78 -215.22	0.00	0.49 3.27	0.10 -0.10	-0.18
VB2 - 8	1996.52	0.00 0.47	848.97 -2776.59	848.97	-326.93 -315.74	0.00	-5.52 6.71	-0.02 0.02	-0.18
VB2 - 9	2387.97	0.00 0.31	-2663.88 1350.09	1350.09	-212.61 78.01	0.00	4.53 -0.90	-0.19 0.19	7.60
VB2 - 10	2238.72	0.00 0.31	1351.52 -2267.16	1351.52	78.01 131.80	0.00	-0.11 4.01	-0.03 0.03	7.60
VB2 - 11	1339.00	0.00 0.11	-2193.65 -257.86	385.56	-175.98 -16.92	0.00	2.63 1.32	-0.05 0.05	-10.20
VB3 - 1	1062.75	0.00 0.18	-292.64 760.88	1019.19	41.42 8.72	41.42	1.67 0.75	0.01 -0.01	-0.65
VB3 - 2	1062.75	0.00 0.18	761.52 -2346.34	761.52	8.72 -124.55	8.72	-1.71 3.09	0.10 -0.10	-0.65
VB3 - 3	1062.75	0.00 0.09	-2666.50 495.20	495.20	172.79 -41.65	172.79	3.68 -2.61	0.21 -0.21	0.86
VB3 - 4	1062.75	0.00 0.09	493.79 1647.12	1647.12	-41.65 14.17	0.00	1.64 -0.50	-0.05 0.05	0.86
VB3 - 5	1062.75	0.00 0.09	1647.72 -2162.92	1647.72	14.17 -25.12	14.17	-0.47 2.88	0.02 -0.02	0.86
VB3 - 6	1062.75	0.00 0.19	-2106.21 986.08	986.08	79.45 -109.44	79.45	2.84 -1.23	0.12 -0.12	-14.71
VB3 - 7	1062.75	0.00 0.19	984.65 -5.95	1005.90	-109.44 -52.51	0.00	0.21 1.47	-0.04 0.04	-14.71
VB4 - 1	1428.38	0.00 0.22	-1588.35 -14169.53	6092.69	118.21 -174.89	118.21	4.69 7.61	0.03 -0.03	-0.04
VB4 - 2	1428.37	0.00 0.64	-14861.45 6792.27	8786.68	47.60 21.45	47.60	8.22 2.39	0.00 0.00	-13.81
VB4 - 3	1428.38	0.00 0.83	6804.99 4767.02	6804.99	119.33 -2.05	0.00	-0.13 2.42	0.08 -0.08	27.83
VB4 - 4	1428.38	0.00 0.83	4775.69 -3306.84	4775.69	-2.05 30.19	30.19	-4.17 6.37	-0.02 0.02	27.83
VB5 - 1	1062.75	0.00 0.22	-770.32 2355.74	2355.74	-91.44 30.70	30.70	2.82 -1.15	-0.08 0.08	-10.53





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VB5 - 2	1062.75	0.00 0.22	2347.06 0.00	2347.06	30.70 0.00	30.70	-0.60 2.31	0.02 -0.02	-10.53
VB6 - 1	1428.38	0.00 0.03	-1366.71 -15378.88	5781.86	8.29 -1.16	8.29	4.52 7.78	0.00 0.00	1.16
VB6 - 2	1428.38	0.00 0.14	-16177.47 -2727.60	11030.80	-19.65 -34.71	0.00	8.82 6.27	0.00 0.00	1.54
VB7 - 1	1428.38	0.00 0.09	-1508.18 -15329.42	5711.44	16.66 -26.60	16.66	4.54 7.75	0.01 -0.01	-0.15
VB7 - 2	1428.38	0.00 0.25	-16226.08 -2584.17	11092.98	-15.10 -4.72	0.00	8.84 6.25	0.00 0.00	-0.27
VB8 - 1	1428.38	0.00 1.03	-2656.84 -14080.77	5475.30	-4.43 -28.75	0.00	4.82 7.47	0.00 0.00	-4.46
VB8 - 2	1428.38	0.00 1.72	-15750.69 -4436.47	10225.47	-18.84 28.15	28.15	8.61 6.47	0.00 0.00	3.73
VB9 - 1	1111.50	0.00 0.50	-1341.80 -4015.09	2102.58	0.52 -3.99	0.52	2.77 3.69	0.00 0.00	-0.29
VB9 - 2	1111.50	0.00 0.49	-3871.96 -3456.01	1967.44	-30.80 30.40	30.40	3.60 3.47	-0.01 0.01	-0.07
VB10 - 1	1111.50	0.00 0.31	-2938.53 -2269.06	1189.70	37.57 -41.73	37.57	3.03 2.77	0.02 -0.02	-0.27
VB10 - 2	1111.50	0.00 0.23	-1949.47 -617.81	984.85	-125.69 108.46	108.46	2.55 1.89	-0.06 0.06	2.61
VB11	1014.00	0.00 0.02	-53.56 -1208.62	16.75	-42.34 70.67	70.67	0.38 1.58	-0.06 0.06	3.30
VB12	1807.55	0.00 0.30	-1734.92 -1317.28	2280.26	-266.01 230.00	0.00	3.93 3.52	-0.12 0.12	-1.45
VB13	1014.00	0.00 0.09	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.63
VB14	1824.09	-0.15 0.00	0.00 0.00	3794.88	-187.53 256.12	0.00	3.79 3.67	-0.11 0.11	0.62
VB15 - 1	292.50	-0.15 0.00	-133.90 -1173.72	633.98	18.87 -16.39	18.87	0.67 1.03	0.01 -0.01	-0.39
VB15 - 2	292.50	-0.13 0.00	-1015.80 -935.12	506.03	-27.89 31.47	31.47	0.94 0.92	-0.01 0.01	0.01
VB15 - 3	292.50	-0.10 0.00	-755.99 -555.26	343.61	49.96 -72.29	49.96	0.80 0.73	0.02 -0.02	0.78
VB15 - 4	292.50	-0.12 0.00	-377.45 -79.04	0.00	-294.78 283.94	283.94	0.45 0.16	-0.28 0.28	2.00
VB15 - 5	292.50	0.00 0.01	-61.47 205.74	241.51	-22.12 86.62	86.62	0.42 0.15	-0.06 0.06	0.31
VB16	1014.00	-0.27 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	1.41
VB17	1014.00	0.00 0.07	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.59
VB18	1154.52	-0.12 0.00	0.00 0.00	2372.19	111.71 -119.44	0.00	2.25 2.26	0.06 -0.06	1.84
VB19	1062.75	0.00 0.14	-186.43 415.59	655.54	-99.82 113.74	113.74	1.34 0.71	-0.11 0.11	-0.04
VB20	1062.75	-0.16 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	1.43
VB21 - 1	1062.75	0.00 0.42	-1270.90 5001.60	5001.60	85.77 -114.33	85.77	3.65 -0.16	0.06 -0.06	8.47
VB21 - 2	1062.75	0.00 0.49	5043.24 -1416.00	5043.24	-212.21 56.24	56.24	-2.10 4.26	-0.13 0.13	-4.24
VB22	1062.75	0.00 0.08	-483.28 -852.20	1100.13	297.16 -275.69	0.00	1.84 2.04	0.16 -0.16	1.10
VB23	1062.75	0.00 0.10	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.68
VB24 - 1	1111.50	0.00 0.49	-1352.32 -3927.07	2133.28	16.73 -23.40	16.73	2.79 3.67	0.01 -0.01	1.23
VB24 - 2	1111.50	0.00 0.43	-3659.41 -4087.11	1758.35	-1.10 -5.22	0.00	3.47 3.61	0.00 0.00	-0.09
VB25 - 1	1111.50	0.00	-4139.69	2535.96	-107.18	150.87	4.55	-0.13	-1.78



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		0.48	2535.96		150.87		-2.42	0.13	
VB25 - 2	1111.50	0.00 0.46	2546.49 -3173.73	2546.49	150.87 -142.55	150.87	0.11 3.57	0.09 -0.09	-1.78
VB25 - 3	1111.50	0.00 0.19	-2442.31 -592.88	791.77	-127.59 76.14	76.14	2.68 1.76	-0.05 0.05	-7.73

**CASO: 1.3G1+1.4G2+1.2D4**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	1062.75	0.00 0.34	-731.54 20.32	884.08	-84.23 119.23	0.00	1.84 1.34	-0.07 0.07	6.24
VB1 - 2	1834.82	0.00 0.35	20.98 -3180.22	20.98	126.98 65.88	0.00	-5.01 6.06	0.11 -0.11	6.23
VB1 - 3	2043.74	0.00 0.36	-3307.42 -373.84	1845.24	77.83 -75.63	0.00	4.70 2.93	0.04 -0.04	-0.34
VB1 - 4	1810.95	0.00 0.28	-371.93 -3297.51	0.00	77.19 20.99	0.00	-5.20 6.15	0.11 -0.11	3.74
VB1 - 5	2031.22	0.00 0.18	-3050.11 -402.60	1099.62	35.92 -101.29	0.00	4.16 2.47	0.04 -0.04	-4.03
VB2 - 1	1339.00	0.00 0.39	-1108.87 -1759.12	2807.98	-28.74 243.84	243.84	3.24 3.50	-0.05 0.05	10.49
VB2 - 2	1339.00	0.00 0.25	-1821.14 -45.68	161.75	164.27 -42.66	0.00	2.31 0.75	0.09 -0.09	-12.46
VB2 - 3	1339.00	0.00 0.25	-46.32 -1675.16	0.00	-42.66 -47.73	0.00	-1.72 2.70	0.01 -0.01	-12.46
VB2 - 4	2145.48	0.00 0.24	-1675.82 -5600.37	0.00	-80.42 12.29	0.00	-6.49 7.67	-0.17 0.17	-12.46
VB2 - 5	2215.49	0.00 0.23	-5851.52 329.81	329.81	154.89 233.49	0.00	7.35 -5.12	-0.08 0.08	0.12
VB2 - 6	2522.88	0.00 0.23	331.25 3218.55	3218.55	233.49 5.68	0.00	4.15 -1.44	0.21 -0.21	0.12
VB2 - 7	2243.12	0.00 0.23	3217.99 805.83	3277.10	5.68 -194.56	0.00	0.47 3.29	0.12 -0.12	0.12
VB2 - 8	1996.52	0.00 0.31	803.93 -2832.60	803.93	-40.34 -69.97	0.00	-5.54 6.73	0.05 -0.05	0.12
VB2 - 9	2387.97	0.00 0.13	-2725.51 1350.93	1350.93	54.83 7.99	0.00	4.57 -0.94	0.03 -0.03	7.50
VB2 - 10	2238.72	0.00 0.13	1352.25 -2194.91	1352.25	7.99 4.04	0.00	-0.07 3.97	0.00 0.00	7.50
VB2 - 11	1339.00	0.00 0.17	-2126.22 -258.84	409.01	165.47 -175.45	165.47	2.61 1.34	0.12 -0.12	-10.38
VB3 - 1	1062.75	0.00 0.19	-289.61 754.16	1015.13	54.07 5.86	54.07	1.67 0.75	0.02 -0.02	-0.17
VB3 - 2	1062.75	0.00 0.19	754.80 -2358.60	754.80	5.86 -130.06	5.86	-1.72 3.09	0.10 -0.10	-0.17
VB3 - 3	1062.75	0.00 0.17	-2669.88 494.30	494.30	182.86 -45.54	182.86	3.68 -2.61	0.23 -0.23	0.67
VB3 - 4	1062.75	0.00 0.17	492.86 1648.85	1648.85	-45.54 22.01	0.00	1.65 -0.50	-0.06 0.06	0.67
VB3 - 5	1062.75	0.00 0.17	1649.41 -2155.61	1649.41	22.01 -46.80	22.01	-0.46 2.88	0.03 -0.03	0.67
VB3 - 6	1062.75	0.00 0.28	-2089.01 990.37	990.37	62.80 -21.85	62.80	2.83 -1.22	0.06 -0.06	-14.71
VB3 - 7	1062.75	0.00 0.28	989.05 -14.98	1008.38	-21.85 -155.10	0.00	0.21 1.48	0.08 -0.08	-14.71
VB4 - 1	1428.38	0.00 0.17	-1556.15 -14191.74	6104.64	-37.96 1.66	1.66	4.68 7.62	0.00 0.00	-0.21
VB4 - 2	1428.37	0.00 0.55	-14855.82 6794.96	8790.01	165.41 -4.64	165.41	8.22 2.39	0.02 -0.02	-13.12
VB4 - 3	1428.38	0.00 0.80	6807.66 4745.78	6807.66	236.88 15.51	0.00	-0.14 2.43	0.14 -0.14	26.46




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VB4 - 4	1428.38	0.00 0.80	4754.43 -3351.00	4754.43	15.51 -118.32	15.51	-4.19 6.38	0.09 -0.09	26.46
VB5 - 1	1062.75	0.00 0.25	-751.29 2365.35	2365.35	-40.95 19.78	19.78	2.82 -1.15	-0.04 0.04	-10.25
VB5 - 2	1062.75	0.00 0.25	2356.71 0.00	2356.71	19.78 0.00	19.78	-0.61 2.32	0.01 -0.01	-10.25
VB6 - 1	1428.38	0.00 0.03	-1339.00 -15395.12	5793.22	-95.54 150.36	150.36	4.51 7.78	-0.03 0.03	0.93
VB6 - 2	1428.38	0.00 0.12	-16161.61 -2755.36	11021.49	116.10 -134.38	116.10	8.81 6.27	0.02 -0.02	1.66
VB7 - 1	1428.38	0.00 0.09	-1503.45 -15332.50	5713.27	-90.52 122.23	122.23	4.54 7.75	-0.02 0.02	-0.31
VB7 - 2	1428.38	0.00 0.26	-16222.06 -2591.36	11090.53	119.96 -95.64	119.96	8.83 6.25	0.02 -0.02	-0.21
VB8 - 1	1428.38	0.00 1.02	-2668.01 -14073.49	5471.42	-75.81 102.21	102.21	4.82 7.47	-0.02 0.02	-4.92
VB8 - 2	1428.38	0.00 1.70	-15749.26 -4440.55	10223.72	99.90 -30.68	99.90	8.61 6.47	0.01 -0.01	3.98
VB9 - 1	1111.50	0.00 0.50	-1523.85 -3868.97	2064.69	51.15 -50.07	51.15	2.83 3.63	0.02 -0.02	-0.30
VB9 - 2	1111.50	0.00 0.50	-3980.55 -3341.55	1973.97	4.25 -5.38	4.25	3.64 3.44	0.00 0.00	-0.08
VB10 - 1	1111.50	0.00 0.33	-3068.54 -2156.23	1190.45	82.63 -79.29	82.63	3.08 2.73	0.03 -0.03	-0.27
VB10 - 2	1111.50	0.00 0.27	-2115.55 -402.75	1039.42	-32.36 -26.28	0.00	2.65 1.79	0.00 0.00	2.63
VB11	1014.00	0.00 0.12	-282.19 -1118.53	0.00	-54.95 90.43	90.43	0.55 1.41	-0.08 0.08	3.28
VB12	1807.55	0.00 0.41	-1931.81 -902.89	2397.41	161.35 -95.47	0.00	4.08 3.37	0.06 -0.06	-1.38
VB13	1014.00	0.00 0.08	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.65
VB14	1824.09	-0.17 0.00	0.00 0.00	3794.88	32.69 7.75	0.00	3.79 3.67	0.01 -0.01	0.66
VB15 - 1	292.50	-0.16 0.00	-455.60 -927.84	553.71	28.16 -25.72	28.16	0.77 0.93	0.01 -0.01	-0.39
VB15 - 2	292.50	-0.13 0.00	-1188.57 -747.59	521.11	-23.45 27.73	27.73	1.00 0.86	-0.01 0.01	0.01
VB15 - 3	292.50	-0.09 0.00	-975.27 -362.68	351.95	61.99 -84.60	61.99	0.88 0.65	0.03 -0.03	0.78
VB15 - 4	292.50	-0.07 0.00	-608.70 -60.82	0.00	-248.35 262.89	262.89	0.57 0.03	-0.25 0.25	1.99
VB15 - 5	292.50	0.00 0.04	-110.41 607.15	607.15	-55.51 123.61	123.61	0.65 -0.09	-0.09 0.09	0.35
VB16	1014.00	-0.29 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	1.44
VB17	1014.00	0.00 0.09	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.56
VB18	1154.52	-0.07 0.00	0.00 0.00	2372.19	-154.22 152.82	0.00	2.25 2.26	-0.08 0.08	1.90
VB19	1062.75	0.00 0.09	-378.55 610.97	733.78	-106.63 134.46	134.46	1.54 0.51	-0.12 0.12	-0.08
VB20	1062.75	0.00 0.03	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	1.32
VB21 - 1	1062.75	0.00 0.47	-1391.89 5017.51	5017.51	37.80 -57.96	37.80	3.70 -0.20	0.03 -0.03	8.49
VB21 - 2	1062.75	0.00 0.59	5057.09 -1288.11	5057.09	-299.48 147.69	147.69	-2.04 4.20	-0.22 0.22	-4.21
VB22	1062.75	0.00 0.23	-734.26 -518.20	1141.64	-160.30 100.05	0.00	2.00 1.88	-0.07 0.07	1.17
VB23	1062.75	0.00 0.05	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.65
VB24 - 1	1111.50	0.00	-1583.40	2088.91	-25.69	14.03	2.86	-0.01	1.23

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		0.51	-3741.64		14.03		3.60	0.01	
VB24 - 2	1111.50	0.00 0.50	-3796.89 -3942.81	1757.22	-32.36 24.42	24.42	3.51 3.56	-0.01 0.01	-0.10
VB25 - 1	1111.50	0.00 0.57	-4308.19 2488.18	2488.18	-161.21 157.84	157.84	4.61 -2.49	-0.17 0.17	-1.77
VB25 - 2	1111.50	0.00 0.56	2498.44 -3032.90	2509.28	157.84 -106.27	157.84	0.17 3.51	0.08 -0.08	-1.77
VB25 - 3	1111.50	0.00 0.27	-2654.40 -317.42	886.61	-212.94 188.87	188.87	2.81 1.64	-0.10 0.10	-7.69

CASO: 1.3G1+1.4G2+1.4Q									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	1062.75	0.00 0.19	-1180.76 63.04	730.02	333.29 -235.16	0.00	2.01 1.18	0.19 -0.19	28.34
VB1 - 2	6020.12	0.00 0.01	63.01 -10676.20	63.01	208.34 -121.17	0.00	-16.99 20.36	0.57 -0.57	28.39
VB1 - 3	8470.52	0.00 0.38	-11955.68 -3247.18	7748.59	-73.86 -190.26	0.00	19.06 12.50	0.03 -0.03	-3.10
VB1 - 4	7193.22	0.00 0.47	-3239.54 -13209.69	0.00	-329.89 -467.02	0.00	-17.31 21.16	0.27 -0.27	32.86
VB1 - 5	8998.03	0.00 0.21	-12537.51 -1661.26	5183.39	-424.15 467.31	0.00	18.27 11.09	-0.27 0.27	-13.96
VB2 - 1	1339.00	0.00 0.45	-1355.50 -773.67	3176.03	5.44 208.30	208.30	3.48 3.25	-0.04 0.04	38.25
VB2 - 2	1339.00	0.00 0.50	-1104.72 -1194.79	0.00	543.44 -284.58	0.00	1.49 1.57	0.36 -0.36	-47.75
VB2 - 3	1339.00	0.00 0.50	-1195.40 -3426.68	0.00	-284.58 -471.82	0.00	-2.53 3.52	0.25 -0.25	-47.75
VB2 - 4	6488.76	0.00 0.70	-3426.68 -15582.34	0.00	-120.30 -56.00	0.00	-20.32 23.81	-0.12 0.12	-47.75
VB2 - 5	7692.44	0.00 0.90	-16484.51 2155.50	2155.50	111.99 187.23	0.00	22.98 -15.25	-0.07 0.07	0.66
VB2 - 6	10883.45	0.00 0.90	2153.30 10298.56	10298.56	187.23 -99.48	0.00	14.28 -2.57	0.27 -0.27	0.66
VB2 - 7	7957.42	0.00 0.90	10296.62 1059.68	10565.10	-99.48 -396.22	0.00	1.61 11.65	0.18 -0.18	0.66
VB2 - 8	6726.45	0.00 0.83	1052.20 -9956.98	1052.20	-529.75 -489.78	0.00	-16.31 20.41	-0.07 0.07	0.66
VB2 - 9	9933.86	0.00 0.60	-9763.77 4627.18	4627.18	-357.94 95.64	0.00	17.61 -2.51	-0.30 0.30	-2.31
VB2 - 10	8710.99	0.00 0.60	4630.02 -6194.56	4924.28	95.64 208.90	0.00	1.50 13.66	-0.07 0.07	-2.31
VB2 - 11	1339.00	0.00 0.12	-5631.93 -278.24	0.00	-324.74 6.55	6.55	3.79 0.16	-0.11 0.11	-4.40
VB3 - 1	1062.75	0.00 0.20	-256.09 799.00	1056.89	59.78 9.34	59.78	1.67 0.75	0.02 -0.02	3.00
VB3 - 2	1062.75	0.00 0.20	799.61 -2307.35	799.61	9.34 -160.16	9.34	-1.71 3.09	0.13 -0.13	3.00
VB3 - 3	1062.75	0.00 0.09	-2614.02 528.21	528.21	222.17 -53.42	222.17	3.66 -2.59	0.27 -0.27	2.51
VB3 - 4	1062.75	0.00 0.09	530.41 1662.91	1662.91	-53.42 18.92	0.00	1.62 -0.48	-0.07 0.07	2.51
VB3 - 5	1062.75	0.00 0.09	1664.84 -2189.84	1664.84	18.92 -34.09	18.92	-0.49 2.90	0.02 -0.02	2.51
VB3 - 6	1062.75	0.00 0.22	-2097.35 984.51	984.51	109.01 -151.64	109.01	2.84 -1.22	0.17 -0.17	-18.08
VB3 - 7	1062.75	0.00 0.22	981.67 -197.78	1001.36	-151.64 -53.91	0.00	0.21 1.47	-0.06 0.06	-18.08
VB4 - 1	1428.38	0.00 0.18	-1569.60 -14188.88	6097.26	25.72 -75.45	25.72	4.68 7.61	0.01 -0.01	-0.45




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Plena**

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Rezende  
Rezende Engenharia**

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VB4 - 2	1428.37	0.00 0.64	-14866.57 6795.94	8788.45	174.97 -60.89	174.97	8.22 2.39	0.03 -0.03	-13.11
VB4 - 3	1428.38	0.00 0.84	6808.61 4761.46	6808.61	106.89 -0.99	0.00	-0.13 2.42	0.07 -0.07	27.34
VB4 - 4	1428.38	0.00 0.84	4770.13 -3321.18	4770.13	-0.99 8.23	8.23	-4.18 6.37	-0.01 0.01	27.34
VB5 - 1	1062.75	0.00 0.24	-763.69 2359.08	2359.08	-68.36 23.73	23.73	2.82 -1.15	-0.06 0.06	-10.45
VB5 - 2	1062.75	0.00 0.24	2350.42 0.00	2350.42	23.73 0.00	23.73	-0.61 2.32	0.01 -0.01	-10.45
VB6 - 1	1428.38	0.00 0.03	-1353.41 -15386.48	5787.39	-46.76 83.88	83.88	4.52 7.78	-0.02 0.02	1.11
VB6 - 2	1428.38	0.00 0.13	-16169.23 -2741.72	11026.14	62.31 -94.57	62.31	8.81 6.27	0.01 -0.01	1.67
VB7 - 1	1428.38	0.00 0.09	-1506.02 -15330.83	5712.27	-41.75 57.84	57.84	4.54 7.75	-0.01 0.01	-0.23
VB7 - 2	1428.38	0.00 0.26	-16224.19 -2587.84	11091.66	67.27 -61.81	67.27	8.83 6.25	0.01 -0.01	-0.14
VB8 - 1	1428.38	0.00 1.03	-2661.53 -14077.91	5473.60	-43.23 46.04	46.04	4.82 7.47	-0.01 0.01	-4.68
VB8 - 2	1428.38	0.00 1.71	-15748.88 -4439.38	10224.56	53.23 -9.01	53.23	8.61 6.47	0.01 -0.01	4.04
VB9 - 1	1111.50	0.00 0.51	-1447.93 -3929.87	2079.27	27.96 -28.92	27.96	2.80 3.66	0.01 -0.01	-0.29
VB9 - 2	1111.50	0.00 0.51	-3934.97 -3389.94	1971.05	-11.83 10.86	10.86	3.62 3.45	0.00 0.00	-0.08
VB10 - 1	1111.50	0.00 0.34	-3015.38 -2199.87	1191.49	60.33 -58.80	60.33	3.06 2.75	0.02 -0.02	-0.27
VB10 - 2	1111.50	0.00 0.28	-2041.30 -502.80	1012.76	-62.36 7.59	7.59	2.61 1.84	-0.02 0.02	2.02
VB11	1014.00	0.00 0.07	-88.76 -5319.62	0.00	-53.71 93.70	93.70	-1.73 3.69	-0.08 0.08	3.73
VB12	7165.34	0.00 0.98	-7045.97 -3720.34	9577.21	-248.47 276.48	0.00	16.43 13.09	-0.13 0.13	-0.92
VB13	1014.00	0.00 0.11	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.61
VB14	7972.04	-0.37 0.00	0.00 0.00	17865.34	-351.52 443.50	0.00	16.80 15.81	-0.19 0.19	-0.01
VB15 - 1	292.50	-0.15 0.00	-307.92 -1038.81	587.16	21.10 -18.67	21.10	0.72 0.98	0.01 -0.01	-0.39
VB15 - 2	292.50	-0.11 0.00	-1104.23 -847.59	508.42	-28.09 32.04	32.04	0.97 0.89	-0.01 0.01	0.01
VB15 - 3	292.50	-0.08 0.00	-892.67 -374.42	380.13	53.61 -76.81	53.61	0.86 0.66	0.02 -0.02	0.78
VB15 - 4	292.50	-0.06 0.00	-391.22 -1167.95	0.00	-327.23 343.69	343.69	-0.08 0.68	-0.33 0.33	1.88
VB15 - 5	292.50	0.00 0.08	-1193.33 1447.20	1447.20	-37.22 120.44	120.44	1.64 -1.08	-0.08 0.08	-2.74
VB16	1014.00	-0.34 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-2.20
VB17	1014.00	0.00 0.09	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-1.93
VB18	2421.31	-0.24 0.00	0.00 0.00	7095.08	133.53 -139.63	0.00	4.67 4.81	0.07 -0.07	7.48
VB19	1062.75	0.00 0.25	-469.38 1874.26	1874.26	-133.80 152.71	152.71	2.24 -0.19	-0.15 0.15	1.86
VB20	1062.75	-0.23 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	2.85
VB21 - 1	1062.75	0.00 0.43	-1300.06 5001.33	5001.33	63.69 -85.48	63.69	3.66 -0.17	0.05 -0.05	8.48
VB21 - 2	1062.75	0.00 0.47	5041.78 -1385.60	5041.78	-253.26 63.37	63.37	-2.09 4.24	-0.16 0.16	-4.19
VB22	1062.75	-0.04	-851.93	746.72	519.95	0.00	1.85	0.27	5.79

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		0.00	-1190.37		-471.73		2.03	-0.27	
VB23	1062.75	0.00 0.07	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.67
VB24 - 1	1111.50	0.00 0.47	-1407.03 -3882.42	2123.11	-11.02 1.28	1.28	2.80 3.65	0.00 0.00	1.23
VB24 - 2	1111.50	0.00 0.40	-3691.55 -4055.27	1757.17	-22.16 15.29	15.29	3.48 3.60	-0.01 0.01	-0.10
VB25 - 1	1111.50	0.00 0.42	-4183.26 2527.46	2527.46	-137.98 152.57	152.57	4.57 -2.44	-0.15 0.15	-1.77
VB25 - 2	1111.50	0.00 0.41	2537.91 -3128.59	2540.30	152.57 -126.15	152.57	0.13 3.55	0.08 -0.08	-1.77
VB25 - 3	1111.50	0.00 0.12	-2467.67 -566.85	797.87	-126.86 57.04	57.04	2.70 1.75	-0.05 0.05	-7.71

CASO: 1.3G1+1.4G2+1.4Q+0.84V1+0.84D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	1062.75	0.00 0.20	-773.50 -130.79	776.91	354.76 -257.96	0.00	1.81 1.38	0.20 -0.20	28.43
VB1 - 2	6020.12	-0.01 0.00	-130.73 -10986.53	0.00	234.05 -107.08	0.00	-17.19 20.56	0.59 -0.59	28.32
VB1 - 3	8470.52	0.00 0.38	-11757.51 -3394.51	7754.81	-59.98 -208.88	0.00	18.97 12.59	0.04 -0.04	-3.30
VB1 - 4	7193.22	0.00 0.45	-3386.97 -13404.52	0.00	-327.68 -468.94	0.00	-17.40 21.25	0.27 -0.27	34.31
VB1 - 5	8998.03	0.00 0.21	-12218.94 -2079.08	5087.75	-426.59 458.36	0.00	18.04 11.32	-0.27 0.27	-13.94
VB2 - 1	1339.00	0.00 0.35	-556.22 -1003.51	3458.05	-59.60 248.05	248.05	3.28 3.46	-0.06 0.06	38.27
VB2 - 2	1339.00	0.00 0.57	-1072.28 -1506.78	0.00	525.66 -243.18	0.00	1.34 1.72	0.34 -0.34	-47.82
VB2 - 3	1339.00	0.00 0.57	-1507.50 -3850.01	0.00	-243.18 -438.58	0.00	-2.69 3.67	0.27 -0.27	-47.82
VB2 - 4	6488.76	0.00 0.80	-3850.09 -16089.91	0.00	-11.79 48.55	0.00	-20.47 23.96	-0.11 0.11	-47.82
VB2 - 5	7692.44	0.00 0.97	-16008.80 2486.22	2486.22	79.44 65.40	0.00	22.84 -15.10	0.01 -0.01	0.73
VB2 - 6	10883.45	0.00 0.97	2484.06 10474.18	10474.18	65.40 -110.65	0.00	14.14 -2.43	0.16 -0.16	0.73
VB2 - 7	7957.42	0.00 0.97	10472.13 991.99	10710.20	-110.65 -359.29	0.00	1.46 11.79	0.15 -0.15	0.73
VB2 - 8	6726.45	0.00 0.91	984.61 -10109.42	984.61	-480.15 -424.08	0.00	-16.46 20.55	-0.10 0.10	0.73
VB2 - 9	9933.86	0.00 0.91	-9664.79 4551.23	4551.23	-404.79 99.73	0.00	17.50 -2.40	-0.33 0.33	-2.14
VB2 - 10	8710.99	0.00 0.91	4554.01 -6470.83	4823.23	99.73 215.24	0.00	1.38 13.77	-0.07 0.07	-2.14
VB2 - 11	1339.00	0.00 0.30	-5142.25 -1211.82	0.00	-308.28 60.29	60.29	3.31 0.64	-0.13 0.13	-4.46
VB3 - 1	1062.75	0.00 0.18	1.87 682.97	1071.87	8.25 11.47	11.47	1.51 0.91	0.00 0.00	2.97
VB3 - 2	1062.75	0.00 0.18	683.69 -2636.07	683.69	11.47 -79.58	11.47	-1.88 3.25	0.07 -0.07	2.97
VB3 - 3	1062.75	-0.01 0.00	-2369.47 683.48	683.48	105.57 -23.44	105.57	3.57 -2.50	0.13 -0.13	2.52
VB3 - 4	1062.75	-0.01 0.00	685.65 1722.63	1722.63	-23.44 -0.44	0.00	1.54 -0.39	-0.02 0.02	2.52
VB3 - 5	1062.75	-0.01 0.00	1724.68 -2332.02	1724.68	-0.44 11.30	11.30	-0.57 2.99	-0.01 0.01	2.52
VB3 - 6	1062.75	0.00 0.07	-1954.03 936.50	936.50	61.27 -161.13	61.27	2.71 -1.09	0.15 -0.15	-17.74

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VB3 - 7	1062.75	0.00 0.07	933.72 -266.85	933.72	-161.13 27.37	27.37	0.08 1.60	-0.12 0.12	-17.74
VB4 - 1	1428.38	0.00 0.30	-1052.22 -14502.99	6305.25	-125.10 52.95	52.95	4.58 7.71	-0.02 0.02	-0.42
VB4 - 2	1428.37	0.00 0.80	-14595.26 6588.02	8687.16	58.30 59.98	59.98	8.16 2.45	0.00 0.00	-12.75
VB4 - 3	1428.38	0.00 0.98	6601.99 4191.64	6601.99	15.08 -39.41	0.00	-0.36 2.65	0.03 -0.03	26.42
VB4 - 4	1428.38	0.00 0.98	4200.14 -4238.94	4200.14	-39.41 140.74	140.74	-4.41 6.60	-0.12 0.12	26.42
VB5 - 1	1062.75	0.00 0.21	-427.13 2529.25	2529.25	-156.36 41.32	41.32	2.72 -1.05	-0.13 0.13	-10.18
VB5 - 2	1062.75	0.00 0.21	2520.75 0.00	2520.75	41.32 0.00	41.32	-0.71 2.42	0.03 -0.03	-10.18
VB6 - 1	1428.38	0.00 0.05	-482.37 -15890.15	6161.83	-139.68 145.76	145.76	4.36 7.94	-0.03 0.03	1.10
VB6 - 2	1428.38	0.00 0.14	-15671.36 -3626.17	10726.52	3.26 18.06	18.06	8.68 6.40	0.00 0.00	1.85
VB7 - 1	1428.38	0.00 0.09	-637.57 -15838.44	6078.81	90.32 -29.08	90.32	4.38 7.91	0.01 -0.01	-0.24
VB7 - 2	1428.38	0.00 0.24	-15744.78 -3424.67	10811.70	162.40 -198.04	162.40	8.71 6.38	0.03 -0.03	-0.12
VB8 - 1	1428.38	0.00 1.04	-2122.66 -14453.69	5651.45	99.05 -34.63	99.05	4.71 7.58	0.02 -0.02	-4.71
VB8 - 2	1428.38	0.00 1.68	-15410.00 -4940.75	10083.62	140.78 -148.67	140.78	8.53 6.55	0.03 -0.03	4.13
VB9 - 1	1111.50	0.00 0.53	-1445.68 -3931.68	2079.70	-114.87 116.17	116.17	2.80 3.66	-0.04 0.04	-0.46
VB9 - 2	1111.50	0.00 0.56	-3937.22 -3387.00	1971.48	4.13 18.17	18.17	3.62 3.45	0.00 0.00	-0.08
VB10 - 1	1111.50	0.00 0.37	-3026.35 -2187.35	1193.17	160.38 -154.19	160.38	3.06 2.74	0.06 -0.06	-0.08
VB10 - 2	1111.50	0.00 0.29	-2046.62 -496.72	1014.05	-12.55 -52.40	0.00	2.61 1.83	0.01 -0.01	1.96
VB11	1014.00	0.00 0.06	-95.89 -5302.80	0.00	3.78 4.89	4.89	-1.72 3.67	0.00 0.00	4.12
VB12	7165.34	0.00 0.96	-7040.26 -3717.50	9581.48	-270.63 299.49	0.00	16.43 13.09	-0.14 0.14	-1.43
VB13	1014.00	0.00 0.07	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.72
VB14	7972.04	-0.37 0.00	0.00 0.00	17865.34	-426.80 492.02	0.00	16.80 15.81	-0.22 0.22	0.09
VB15 - 1	292.50	-0.15 0.00	-315.32 -1033.11	585.18	-165.04 165.53	165.53	0.73 0.97	-0.06 0.06	-0.37
VB15 - 2	292.50	-0.12 0.00	-1108.72 -842.29	508.98	-25.95 35.38	35.38	0.97 0.89	-0.01 0.01	0.01
VB15 - 3	292.50	-0.08 0.00	-896.71 -374.18	378.56	177.88 -193.97	177.88	0.86 0.66	0.07 -0.07	0.79
VB15 - 4	292.50	-0.06 0.00	-402.64 -1155.14	0.00	-199.32 233.67	233.67	-0.07 0.67	-0.21 0.21	1.11
VB15 - 5	292.50	0.00 0.00	-1182.58 1457.52	1457.52	56.55 -16.82	56.55	1.64 -1.08	0.04 -0.04	-2.21
VB16	1014.00	-0.15 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-2.17
VB17	1014.00	0.00 0.02	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-2.05
VB18	2421.31	-0.24 0.00	0.00 0.00	7095.08	120.87 -118.80	0.00	4.67 4.81	0.06 -0.06	7.37
VB19	1062.75	0.00 0.26	-471.97 1878.68	1878.68	-37.50 28.51	28.51	2.24 -0.19	-0.03 0.03	2.00
VB20	1062.75	-0.27 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	2.78
VB21 - 1	1062.75	0.00	-1267.89	4842.25	160.86	160.86	3.61	0.11	9.21



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		0.35	4842.25		-202.59		-0.11	-0.11	
VB21 - 2	1062.75	0.00 0.38	4881.42 -1334.58	4881.42	-157.70 -14.32	0.00	-1.98 4.14	-0.07 0.07	-4.76
VB22	1062.75	-0.05 0.00	-844.51 -1199.22	746.00	503.72 -462.62	0.00	1.84 2.04	0.26 -0.26	5.36
VB23	1062.75	0.00 0.15	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.50
VB24 - 1	1111.50	0.00 0.44	-1383.59 -3896.81	2129.60	-151.28 143.05	143.05	2.80 3.66	-0.05 0.05	1.02
VB24 - 2	1111.50	0.00 0.33	-3664.21 -4103.52	1747.94	-11.77 37.52	37.52	3.47 3.61	-0.01 0.01	-0.13
VB25 - 1	1111.50	0.00 0.36	-4209.20 2613.59	2613.59	-27.02 154.80	154.80	4.63 -2.50	-0.09 0.09	-1.64
VB25 - 2	1111.50	0.00 0.34	2623.77 -3199.34	2623.77	154.80 -213.91	154.80	0.08 3.60	0.11 -0.11	-1.64
VB25 - 3	1111.50	0.00 0.13	-2462.93 -590.84	784.46	-64.54 0.61	0.61	2.69 1.75	-0.02 0.02	-7.43

CASO: 1.3G1+1.4G2+1.4Q+0.84V2+0.84D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	1062.75	0.00 0.18	-1588.02 256.87	720.15	311.82 -212.35	0.00	2.21 0.98	0.17 -0.17	28.25
VB1 - 2	6020.12	0.00 0.03	256.74 -10365.87	256.74	182.62 -135.25	0.00	-16.79 20.16	0.55 -0.55	28.45
VB1 - 3	8470.52	0.00 0.39	-12153.85 -3099.84	7759.96	-87.75 -171.65	0.00	19.15 12.40	0.02 -0.02	-2.90
VB1 - 4	7193.22	0.00 0.48	-3092.11 -13014.86	0.00	-332.11 -465.10	0.00	-17.22 21.07	0.26 -0.26	31.41
VB1 - 5	8998.03	0.00 0.21	-12856.09 -1243.45	5307.38	-421.71 476.26	0.00	18.49 10.87	-0.28 0.28	-13.98
VB2 - 1	1339.00	0.00 0.56	-2154.78 -543.82	2922.11	70.49 168.55	168.55	3.69 3.05	-0.02 0.02	38.22
VB2 - 2	1339.00	0.00 0.43	-1137.15 -882.81	0.00	561.22 -325.99	0.00	1.64 1.42	0.39 -0.39	-47.67
VB2 - 3	1339.00	0.00 0.43	-883.30 -3003.36	0.00	-325.99 -505.06	0.00	-2.38 3.37	0.24 -0.24	-47.67
VB2 - 4	6488.76	0.00 0.59	-3003.26 -15074.77	0.00	-228.81 -160.56	0.00	-20.17 23.66	-0.12 0.12	-47.67
VB2 - 5	7692.44	0.00 0.84	-16960.23 1824.78	1824.78	144.53 309.05	0.00	23.13 -15.39	-0.16 0.16	0.59
VB2 - 6	10883.45	0.00 0.84	1822.54 10122.93	10122.93	309.05 -88.30	0.00	14.43 -2.72	0.37 -0.37	0.59
VB2 - 7	7957.42	0.00 0.84	10121.12 1127.37	10420.00	-88.30 -433.16	0.00	1.75 11.50	0.20 -0.20	0.59
VB2 - 8	6726.45	0.00 0.76	1119.78 -9804.53	1119.78	-579.34 -555.49	0.00	-16.17 20.26	-0.04 0.04	0.59
VB2 - 9	9933.86	0.00 0.29	-9862.75 4703.13	4703.13	-311.08 91.56	0.00	17.73 -2.63	-0.26 0.26	-2.47
VB2 - 10	8710.99	0.00 0.29	4706.04 -5918.30	5025.33	91.56 202.56	0.00	1.61 13.54	-0.06 0.06	-2.47
VB2 - 11	1339.00	-0.06 0.00	-6121.61 655.35	655.35	-341.20 -47.18	0.00	4.27 -0.33	-0.10 0.10	-4.34
VB3 - 1	1062.75	0.00 0.22	-514.06 915.03	1070.92	111.30 7.21	111.30	1.84 0.58	0.05 -0.05	3.03
VB3 - 2	1062.75	0.00 0.22	915.53 -1978.63	915.53	7.21 -240.74	7.21	-1.55 2.92	0.19 -0.19	3.03
VB3 - 3	1062.75	0.00 0.18	-2858.57 372.94	372.94	338.78 -83.40	338.78	3.75 -2.68	0.42 -0.42	2.51
VB3 - 4	1062.75	0.00 0.18	375.17 1603.19	1603.19	-83.40 38.28	0.00	1.71 -0.57	-0.11 0.11	2.51






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VB3 - 5	1062.75	0.00 0.18	1605.01 -2047.67	1605.01	38.28 -79.49	38.28	-0.40 2.81	0.05 -0.05	2.51
VB3 - 6	1062.75	0.00 0.37	-2240.67 1032.53	1032.53	156.75 -142.16	156.75	2.96 -1.35	0.20 -0.20	-18.41
VB3 - 7	1062.75	0.00 0.37	1029.61 227.30	1077.76	-142.16 -135.19	0.00	0.33 1.35	0.00 0.00	-18.41
VB4 - 1	1428.38	0.00 0.06	-2086.97 -13874.78	5901.31	176.55 -203.85	176.55	4.78 7.52	0.04 -0.04	-0.48
VB4 - 2	1428.37	0.00 0.49	-15137.87 7003.86	8892.75	291.65 -181.76	291.65	8.29 2.32	0.06 -0.06	-13.47
VB4 - 3	1428.38	0.00 0.71	7015.22 5331.29	7015.22	198.69 37.42	0.00	0.09 2.20	0.10 -0.10	28.27
VB4 - 4	1428.38	0.00 0.71	5340.12 -2403.43	5340.12	37.42 -124.29	37.42	-3.95 6.14	0.11 -0.11	28.27
VB5 - 1	1062.75	0.00 0.27	-1100.26 2188.91	2188.91	19.64 6.15	19.64	2.93 -1.26	0.01 -0.01	-10.73
VB5 - 2	1062.75	0.00 0.27	2180.08 0.00	2180.08	6.15 0.00	6.15	-0.50 2.21	0.00 0.00	-10.73
VB6 - 1	1428.38	0.00 0.01	-2224.46 -14882.82	5427.86	46.16 21.99	46.16	4.68 7.62	0.00 0.00	1.11
VB6 - 2	1428.38	0.00 0.11	-16667.10 -1857.28	11345.35	121.36 -207.19	121.36	8.95 6.14	0.03 -0.03	1.49
VB7 - 1	1428.38	0.00 0.09	-2374.47 -14823.21	5355.84	-173.82 144.77	144.77	4.70 7.59	-0.04 0.04	-0.23
VB7 - 2	1428.38	0.00 0.27	-16703.60 -1751.02	11393.96	-27.86 74.41	74.41	8.96 6.13	-0.01 0.01	-0.17
VB8 - 1	1428.38	0.00 1.01	-3200.39 -13702.12	5296.34	-185.52 126.71	126.71	4.93 7.37	-0.04 0.04	-4.66
VB8 - 2	1428.38	0.00 1.74	-16087.76 -3938.02	10370.43	-34.32 130.64	130.64	8.69 6.39	-0.02 0.02	3.94
VB9 - 1	1111.50	0.00 0.48	-1450.17 -3928.06	2078.85	170.78 -174.01	170.78	2.80 3.66	0.06 -0.06	-0.13
VB9 - 2	1111.50	0.00 0.46	-3932.72 -3392.88	1970.62	-27.80 3.55	3.55	3.62 3.45	0.00 0.00	-0.08
VB10 - 1	1111.50	0.00 0.30	-3004.41 -2212.40	1189.81	-39.71 36.58	36.58	3.05 2.75	-0.01 0.01	-0.45
VB10 - 2	1111.50	0.00 0.26	-2035.99 -508.88	1011.48	-112.17 67.59	67.59	2.60 1.84	-0.04 0.04	2.07
VB11	1014.00	0.00 0.09	-81.63 -5336.45	0.00	-111.19 182.51	182.51	-1.74 3.70	-0.15 0.15	3.34
VB12	7165.34	0.00 1.00	-7051.67 -3723.19	9572.93	-226.32 253.48	0.00	16.43 13.09	-0.12 0.12	-0.41
VB13	1014.00	0.00 0.15	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.49
VB14	7972.04	-0.37 0.00	0.00 0.00	17865.34	-276.25 394.98	0.00	16.80 15.81	-0.16 0.16	-0.10
VB15 - 1	292.50	-0.15 0.00	-300.53 -1044.51	589.14	207.25 -202.87	207.25	0.72 0.98	0.07 -0.07	-0.41
VB15 - 2	292.50	-0.11 0.00	-1099.75 -852.89	507.85	-30.23 28.70	28.70	0.97 0.89	-0.01 0.01	0.00
VB15 - 3	292.50	-0.07 0.00	-888.63 -374.65	381.70	-70.67 40.36	40.36	0.86 0.67	-0.02 0.02	0.77
VB15 - 4	292.50	-0.06 0.00	-379.79 -1180.77	0.00	-455.14 453.71	453.71	-0.09 0.69	-0.44 0.44	2.66
VB15 - 5	292.50	0.00 0.17	-1204.08 1436.88	1436.88	-130.98 257.71	257.71	1.64 -1.08	-0.20 0.20	-3.27
VB16	1014.00	-0.53 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-2.23
VB17	1014.00	0.00 0.16	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-1.81
VB18	2421.31	-0.25 0.00	0.00 0.00	7095.08	146.19 -160.47	0.00	4.67 4.81	0.08 -0.08	7.59
VB19	1062.75	0.00	-466.78	1869.83	-230.10	276.90	2.24	-0.26	1.72

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		0.25	1869.83		276.90		-0.18	0.26	
VB20	1062.75	-0.20 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	2.91
VB21 - 1	1062.75	0.00 0.51	-1332.23 5160.40	5160.40	-33.48 31.62	31.62	3.72 -0.23	-0.02 0.02	7.74
VB21 - 2	1062.75	0.00 0.55	5202.14 -1436.61	5202.14	-348.82 141.06	141.06	-2.19 4.35	-0.24 0.24	-3.62
VB22	1062.75	-0.03 0.00	-859.35 -1181.52	747.43	536.18 -480.83	0.00	1.85 2.03	0.28 -0.28	6.21
VB23	1062.75	0.00 0.00	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.84
VB24 - 1	1111.50	0.00 0.50	-1430.48 -3868.04	2116.62	129.24 -140.49	129.24	2.81 3.65	0.05 -0.05	1.44
VB24 - 2	1111.50	0.00 0.47	-3718.89 -4007.03	1766.40	-32.54 -6.94	0.00	3.49 3.58	0.00 0.00	-0.07
VB25 - 1	1111.50	0.00 0.49	-4157.33 2441.32	2441.32	-248.95 150.34	150.34	4.51 -2.38	-0.21 0.21	-1.91
VB25 - 2	1111.50	0.00 0.48	2452.04 -3057.83	2464.23	150.34 -38.38	150.34	0.17 3.50	0.06 -0.06	-1.91
VB25 - 3	1111.50	0.00 0.12	-2472.41 -542.85	811.28	-189.19 113.47	113.47	2.70 1.74	-0.08 0.08	-7.98

CASO: 1.3G1+1.4G2+1.4Q+0.84V3+0.84D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	1062.75	-0.04 0.00	-1129.31 40.46	737.06	698.74 -582.77	0.00	1.98 1.20	0.43 -0.43	29.32
VB1 - 2	6020.12	-0.34 0.00	40.37 -10713.20	40.37	115.30 -311.70	0.00	-17.01 20.39	0.73 -0.73	29.35
VB1 - 3	8470.52	0.00 0.00	-11939.39 -3255.27	7751.34	-266.14 -175.44	0.00	19.05 12.50	-0.02 0.02	-2.77
VB1 - 4	7193.22	0.00 0.25	-3247.73 -13221.23	0.00	-640.27 -759.81	0.00	-17.31 21.16	0.23 -0.23	33.28
VB1 - 5	8998.03	-0.04 0.00	-12490.66 -1730.74	5164.81	-722.06 902.86	0.00	18.23 11.13	-0.50 0.50	-15.94
VB2 - 1	1339.00	0.00 0.38	-1377.96 -763.72	3170.42	245.68 -254.84	245.68	3.49 3.25	0.10 -0.10	37.19
VB2 - 2	1339.00	0.00 0.66	-1095.09 -1209.88	0.00	573.38 -458.63	0.00	1.48 1.58	0.45 -0.45	-46.03
VB2 - 3	1339.00	0.00 0.66	-1210.47 -3449.73	0.00	-458.63 -707.99	0.00	-2.54 3.53	0.34 -0.34	-46.03
VB2 - 4	6488.76	0.00 0.97	-3449.66 -15611.36	0.00	-133.00 -157.46	0.00	-20.33 23.82	0.04 -0.04	-46.03
VB2 - 5	7692.44	0.00 1.23	-16521.84 2146.51	2146.51	-61.40 50.13	0.00	23.01 -15.28	-0.11 0.11	0.15
VB2 - 6	10883.45	0.00 1.23	2144.25 10319.82	10319.82	50.13 -156.03	0.00	14.31 -2.60	0.19 -0.19	0.15
VB2 - 7	7957.42	0.00 1.23	10317.84 1128.41	10592.25	-156.03 -368.90	0.00	1.64 11.62	0.13 -0.13	0.15
VB2 - 8	6726.45	0.00 1.00	1121.03 -9871.57	1121.03	-809.97 -725.93	0.00	-16.28 20.38	-0.14 0.14	0.15
VB2 - 9	9933.86	0.00 0.79	-9669.38 4625.20	4625.20	-625.68 121.67	0.00	17.55 -2.45	-0.49 0.49	-2.16
VB2 - 10	8710.99	0.00 0.79	4628.21 -6306.70	4908.68	121.67 342.58	0.00	1.44 13.72	-0.13 0.13	-2.16
VB2 - 11	1339.00	0.00 0.04	-5736.24 -277.89	0.00	-758.30 218.19	218.19	3.83 0.12	-0.33 0.33	-3.77
VB3 - 1	1062.75	0.00 0.19	-262.01 809.61	1062.99	42.49 13.36	42.49	1.68 0.74	0.01 -0.01	2.27
VB3 - 2	1062.75	0.00 0.19	810.20 -2287.36	810.20	13.36 -150.62	13.36	-1.70 3.08	0.13 -0.13	2.27




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VB3 - 3	1062.75	0.00 0.00	-2610.82 528.26	528.26	202.80 -46.92	202.80	3.66 -2.59	0.25 -0.25	2.80
VB3 - 4	1062.75	0.00 0.00	530.52 1659.67	1659.67	-46.92 11.36	0.00	1.62 -0.48	-0.05 0.05	2.80
VB3 - 5	1062.75	0.00 0.00	1661.65 -2200.14	1661.65	11.36 -14.18	11.36	-0.49 2.91	0.01 -0.01	2.80
VB3 - 6	1062.75	0.00 0.11	-2124.80 978.24	978.24	112.29 -207.51	112.29	2.85 -1.23	0.21 -0.21	-18.01
VB3 - 7	1062.75	0.00 0.11	975.23 -4.17	998.08	-207.51 36.50	36.50	0.22 1.46	-0.15 0.15	-18.01
VB4 - 1	1428.38	0.00 0.25	-1605.86 -14160.86	6084.92	230.62 -288.86	230.62	4.69 7.61	0.06 -0.06	-0.33
VB4 - 2	1428.37	0.00 0.74	-14868.62 6784.80	8779.27	46.87 -91.08	46.87	8.22 2.39	0.02 -0.02	-14.22
VB4 - 3	1428.38	0.00 0.89	6797.51 4783.66	6797.51	-127.92 -44.06	0.00	-0.11 2.40	-0.05 0.05	29.89
VB4 - 4	1428.38	0.00 0.89	4792.38 -3267.06	4792.38	-44.06 252.70	252.70	-4.16 6.35	-0.19 0.19	29.89
VB5 - 1	1062.75	0.00 0.20	-793.78 2343.89	2343.89	-147.69 37.49	37.49	2.83 -1.16	-0.12 0.12	-10.96
VB5 - 2	1062.75	0.00 0.20	2335.17 0.00	2335.17	37.49 0.00	37.49	-0.60 2.31	0.02 -0.02	-10.96
VB6 - 1	1428.38	0.00 0.05	-1392.51 -15363.56	5771.37	95.18 -124.32	95.18	4.52 7.77	0.03 -0.03	1.27
VB6 - 2	1428.38	0.00 0.16	-16191.59 -2702.37	11039.38	-120.12 44.19	44.19	8.82 6.27	-0.02 0.02	1.63
VB7 - 1	1428.38	0.00 0.08	-1513.03 -15326.40	5709.52	103.28 -142.56	103.28	4.54 7.75	0.03 -0.03	-0.19
VB7 - 2	1428.38	0.00 0.25	-16229.62 -2578.26	11094.89	-115.41 61.72	61.72	8.84 6.25	-0.02 0.02	-0.09
VB8 - 1	1428.38	0.00 1.04	-2644.52 -14088.22	5479.80	51.09 -129.47	51.09	4.82 7.48	0.02 -0.02	-4.17
VB8 - 2	1428.38	0.00 1.73	-15751.40 -4431.88	10227.82	-106.02 69.18	69.18	8.62 6.47	-0.02 0.02	3.78
VB9 - 1	1111.50	0.00 0.52	-1075.83 -4227.10	2170.77	-40.45 33.01	33.01	2.69 3.77	-0.01 0.01	-0.28
VB9 - 2	1111.50	0.00 0.49	-3715.20 -3622.15	1957.54	-58.38 58.47	58.47	3.55 3.52	-0.02 0.02	-0.06
VB10 - 1	1111.50	0.00 0.30	-2751.73 -2427.97	1200.32	-2.01 -7.84	0.00	2.96 2.84	0.00 0.00	-0.27
VB10 - 2	1111.50	0.00 0.19	-1706.69 -936.80	911.04	-182.31 186.86	186.86	2.41 2.03	-0.09 0.09	2.01
VB11	1014.00	0.00 0.03	259.53 -5456.59	259.53	-39.35 69.78	69.78	-1.98 3.94	-0.06 0.06	3.76
VB12	7165.34	0.00 0.86	-6746.02 -4352.64	9411.03	-758.27 651.02	0.00	16.21 13.32	-0.34 0.34	-1.02
VB13	1014.00	0.00 0.11	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.59
VB14	7972.04	-0.29 0.00	0.00 0.00	17865.34	-574.99 698.08	0.00	16.80 15.81	-0.31 0.31	-0.07
VB15 - 1	292.50	-0.12 0.00	204.05 -1413.73	761.53	8.67 -6.11	8.67	0.57 1.13	0.00 0.00	-0.39
VB15 - 2	292.50	-0.09 0.00	-855.63 -1123.10	495.14	-33.26 35.72	35.72	0.89 0.97	-0.01 0.01	0.01
VB15 - 3	292.50	-0.06 0.00	-566.48 -659.22	384.56	31.51 -49.65	31.51	0.75 0.78	0.02 -0.02	0.78
VB15 - 4	292.50	-0.04 0.00	-48.46 -1192.77	0.00	-385.37 356.84	356.84	-0.26 0.86	-0.36 0.36	1.90
VB15 - 5	292.50	0.00 0.20	-1110.32 804.44	804.44	0.37 76.38	76.38	1.27 -0.70	-0.04 0.04	-2.81
VB16	1014.00	-0.30 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-2.25
VB17	1014.00	0.00	0.00	455.11	0.00	0.00	0.97	0.00	-1.98


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		0.07	0.00		0.00		0.97	0.00	
VB18	2421.31	-0.27 0.00	0.00 0.00	7095.08	441.07 -464.83	0.00	4.67 4.81	0.23 -0.23	7.38
VB19	1062.75	0.00 0.31	-169.08 1569.06	1571.76	-116.06 122.29	122.29	1.93 0.13	-0.12 0.12	1.91
VB20	1062.75	-0.36 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	3.01
VB21 - 1	1062.75	0.00 0.41	-1075.92 4967.42	4967.42	136.37 -169.03	136.37	3.59 -0.09	0.09 -0.09	8.46
VB21 - 2	1062.75	0.00 0.34	5011.52 -1619.89	5011.52	-132.18 -17.85	0.00	-2.19 4.34	-0.06 0.06	-4.24
VB22	1062.75	-0.21 0.00	-465.08 -1704.90	733.34	1071.95 -896.74	0.00	1.60 2.28	0.54 -0.54	5.68
VB23	1062.75	0.00 0.14	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.72
VB24 - 1	1111.50	0.00 0.46	-967.76 -4233.43	2231.50	46.33 -49.07	46.33	2.67 3.79	0.02 -0.02	1.23
VB24 - 2	1111.50	0.00 0.30	-3432.45 -4327.99	1758.94	19.18 -23.09	19.18	3.40 3.68	0.01 -0.01	-0.08
VB25 - 1	1111.50	0.00 0.25	-3866.00 2619.03	2619.03	-60.27 139.09	139.09	4.45 -2.32	-0.10 0.10	-1.79
VB25 - 2	1111.50	0.00 0.23	2630.00 -3395.31	2630.00	139.09 -186.25	139.09	0.02 3.66	0.10 -0.10	-1.79
VB25 - 3	1111.50	-0.01 0.00	-2068.07 -1084.43	664.76	9.30 -100.46	9.30	2.47 1.97	0.03 -0.03	-7.76

CASO: 1.3G1+1.4G2+1.4Q+0.84V4+0.84D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	1062.75	0.00 0.42	-1232.21 85.61	724.59	-32.16 112.46	0.00	2.03 1.15	-0.05 0.05	27.37
VB1 - 2	6020.12	0.00 0.36	85.65 -10639.20	85.65	301.37 69.37	0.00	-16.96 20.34	0.40 -0.40	27.43
VB1 - 3	8470.52	0.00 0.76	-11971.97 -3239.08	7745.85	118.41 -205.08	0.00	19.07 12.49	0.09 -0.09	-3.43
VB1 - 4	7193.22	0.00 0.69	-3231.35 -13198.15	0.00	-19.52 -174.23	0.00	-17.30 21.15	0.30 -0.30	32.43
VB1 - 5	8998.03	0.00 0.46	-12584.37 -1591.78	5201.98	-126.25 31.77	0.00	18.30 11.06	-0.05 0.05	-11.98
VB2 - 1	1339.00	0.00 0.53	-1333.03 -783.62	3181.64	-234.80 671.44	671.44	3.48 3.26	-0.18 0.18	39.30
VB2 - 2	1339.00	0.00 0.34	-1114.34 -1179.71	0.00	513.50 -110.54	0.00	1.50 1.56	0.27 -0.27	-49.46
VB2 - 3	1339.00	0.00 0.34	-1180.33 -3403.64	0.00	-110.54 -235.66	0.00	-2.52 3.51	0.17 -0.17	-49.46
VB2 - 4	6488.76	0.00 0.42	-3403.69 -15553.32	0.00	-107.60 45.45	0.00	-20.31 23.80	-0.27 0.27	-49.46
VB2 - 5	7692.44	0.00 0.58	-16447.19 2164.49	2164.49	285.37 324.33	0.00	22.95 -15.22	-0.04 0.04	1.17
VB2 - 6	10883.45	0.00 0.58	2162.35 10277.29	10277.29	324.33 -42.92	0.00	14.25 -2.55	0.34 -0.34	1.17
VB2 - 7	7957.42	0.00 0.58	10275.41 990.95	10537.95	-42.92 -423.54	0.00	1.58 11.67	0.23 -0.23	1.17
VB2 - 8	6726.45	0.00 0.67	983.37 -10042.38	983.37	-249.52 -253.63	0.00	-16.34 20.43	0.01 -0.01	1.17
VB2 - 9	9933.86	0.00 0.41	-9858.16 4629.16	4629.16	-90.19 69.61	0.00	17.67 -2.58	-0.11 0.11	-2.46
VB2 - 10	8710.99	0.00 0.41	4631.84 -6082.43	4939.88	69.61 75.23	0.00	1.56 13.60	0.00 0.00	-2.46
VB2 - 11	1339.00	0.00 0.20	-5527.63 -278.58	0.00	108.82 -205.08	108.82	3.75 0.19	0.11 -0.11	-5.02

	<b>AltoQi Eberick 2018</b> <b>Plena</b>	
	<b>Leilson Campos</b> <b>Rezende</b> <b>Rezende Engenharia</b>	<b>11/5/2021</b> <b>12:23:34</b>

VB3 - 1	1062.75	0.00 0.21	-250.18 788.39	1050.78	77.06 5.32	77.06	1.67 0.75	0.03 -0.03	3.73
VB3 - 2	1062.75	0.00 0.21	789.02 -2327.34	789.02	5.32 -169.71	5.32	-1.72 3.10	0.14 -0.14	3.73
VB3 - 3	1062.75	0.00 0.17	-2617.21 528.15	528.15	241.54 -59.91	241.54	3.66 -2.59	0.30 -0.30	2.23
VB3 - 4	1062.75	0.00 0.17	530.30 1666.16	1666.16	-59.91 26.48	0.00	1.63 -0.48	-0.08 0.08	2.23
VB3 - 5	1062.75	0.00 0.17	1668.04 -2179.55	1668.04	26.48 -54.01	26.48	-0.48 2.90	0.04 -0.04	2.23
VB3 - 6	1062.75	0.00 0.32	-2069.91 990.78	990.78	105.73 -95.78	105.73	2.82 -1.21	0.13 -0.13	-18.14
VB3 - 7	1062.75	0.00 0.32	988.11 -35.38	1004.65	-95.78 -144.31	0.00	0.19 1.49	0.03 -0.03	-18.14
VB4 - 1	1428.38	0.00 0.11	-1533.33 -14216.91	6109.60	-179.17 137.95	137.95	4.67 7.62	-0.04 0.04	-0.57
VB4 - 2	1428.37	0.00 0.55	-14864.52 6807.07	8797.62	303.08 -30.70	303.08	8.22 2.39	0.04 -0.04	-12.00
VB4 - 3	1428.38	0.00 0.80	6819.70 4739.27	6819.70	341.69 42.07	0.00	-0.15 2.44	0.19 -0.19	24.80
VB4 - 4	1428.38	0.00 0.80	4747.88 -3375.30	4747.88	42.07 -236.25	42.07	-4.20 6.39	0.18 -0.18	24.80
VB5 - 1	1062.75	0.00 0.27	-733.60 2374.28	2374.28	10.96 9.98	10.96	2.81 -1.14	0.00 0.00	-9.94
VB5 - 2	1062.75	0.00 0.27	2365.66 0.00	2365.66	9.98 0.00	9.98	-0.62 2.33	0.01 -0.01	-9.94
VB6 - 1	1428.38	0.00 0.02	-1314.32 -15409.40	5803.40	-188.69 292.07	292.07	4.51 7.78	-0.06 0.06	0.95
VB6 - 2	1428.38	0.00 0.10	-16146.88 -2781.07	11012.89	244.73 -233.32	244.73	8.81 6.28	0.05 -0.05	1.71
VB7 - 1	1428.38	0.00 0.10	-1499.01 -15335.26	5715.03	-186.78 258.25	258.25	4.54 7.75	-0.05 0.05	-0.27
VB7 - 2	1428.38	0.00 0.27	-16218.76 -2597.43	11088.43	249.95 -185.34	249.95	8.83 6.25	0.04 -0.04	-0.20
VB8 - 1	1428.38	0.00 1.01	-2678.53 -14067.59	5467.39	-137.56 221.55	221.55	4.82 7.47	-0.04 0.04	-5.20
VB8 - 2	1428.38	0.00 1.69	-15746.35 -4446.89	10221.29	212.47 -87.21	212.47	8.61 6.47	0.03 -0.03	4.29
VB9 - 1	1111.50	0.00 0.49	-1820.03 -3632.64	2007.22	96.36 -90.85	96.36	2.92 3.54	0.03 -0.03	-0.30
VB9 - 2	1111.50	0.00 0.53	-4154.74 -3157.73	1984.56	34.71 -36.74	34.71	3.69 3.38	0.01 -0.01	-0.09
VB10 - 1	1111.50	0.00 0.38	-3279.03 -1971.78	1192.63	122.68 -109.76	122.68	3.15 2.65	0.04 -0.04	-0.26
VB10 - 2	1111.50	0.00 0.37	-2375.92 -68.79	1146.23	57.58 -171.68	57.58	2.80 1.64	0.06 -0.06	2.03
VB11	1014.00	0.00 0.12	-437.05 -5182.66	0.00	-68.06 117.62	117.62	-1.48 3.44	-0.10 0.10	3.70
VB12	7165.34	0.00 1.09	-7345.91 -3088.04	9765.89	261.32 -98.05	0.00	16.66 12.87	0.09 -0.09	-0.82
VB13	1014.00	0.00 0.10	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.62
VB14	7972.04	-0.44 0.00	0.00 0.00	17865.34	-128.06 188.92	0.00	16.80 15.81	-0.08 0.08	0.05
VB15 - 1	292.50	-0.18 0.00	-819.89 -663.88	493.54	33.54 -31.23	33.54	0.88 0.82	0.01 -0.01	-0.39
VB15 - 2	292.50	-0.14 0.00	-1352.84 -572.07	543.70	-22.93 28.36	28.36	1.05 0.81	-0.01 0.01	0.01
VB15 - 3	292.50	-0.10 0.00	-1218.86 -89.61	422.48	75.70 -103.96	75.70	0.98 0.55	0.03 -0.03	0.78
VB15 - 4	292.50	-0.07 0.00	-733.98 -1143.13	0.00	-269.09 330.53	330.53	0.10 0.50	-0.29 0.29	1.86
VB15 - 5	292.50	-0.03	-1276.33	2089.95	-74.81	164.51	2.02	-0.12	-2.67

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		0.00	2089.95		164.51		-1.45	0.12	
VB16	1014.00	-0.38 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-2.15
VB17	1014.00	0.00 0.12	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-1.88
VB18	2421.31	-0.22 0.00	0.00 0.00	7095.08	-174.02 185.56	0.00	4.67 4.81	-0.09 0.09	7.58
VB19	1062.75	0.00 0.19	-769.68 2179.46	2179.46	-151.55 183.13	183.13	2.55 -0.50	-0.17 0.17	1.81
VB20	1062.75	-0.10 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	2.68
VB21 - 1	1062.75	0.00 0.45	-1524.21 5035.23	5035.23	-8.99 -1.94	0.00	3.74 -0.25	0.00 0.00	8.49
VB21 - 2	1062.75	0.00 0.59	5072.03 -1151.30	5072.03	-374.34 144.59	144.59	-1.98 4.14	-0.26 0.26	-4.14
VB22	1062.75	0.00 0.13	-1238.79 -675.85	820.00	-32.06 -46.72	0.00	2.09 1.78	0.00 0.00	5.89
VB23	1062.75	0.00 0.01	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.62
VB24 - 1	1111.50	0.00 0.49	-1846.30 -3531.42	2038.10	-68.38 51.63	51.63	2.94 3.52	-0.02 0.02	1.23
VB24 - 2	1111.50	0.00 0.50	-3950.65 -3782.56	1760.82	-63.49 53.66	53.66	3.56 3.51	-0.02 0.02	-0.11
VB25 - 1	1111.50	0.00 0.59	-4500.53 2435.88	2435.88	-215.70 166.05	166.05	4.69 -2.56	-0.20 0.20	-1.76
VB25 - 2	1111.50	0.00 0.59	2445.82 -2861.86	2470.64	166.05 -66.04	166.05	0.23 3.44	0.07 -0.07	-1.76
VB25 - 3	1111.50	0.00 0.25	-2867.27 -49.26	978.36	-263.03 214.55	214.55	2.93 1.52	-0.12 0.12	-7.66

<b>CASO: 1.3G1+1.4G2+1.4Q+1.2D1</b>									
<b>Elemento</b>	<b>Carga (kgf/m)</b>	<b>Rd Nd (tf)</b>	<b>Mxi Mxf (kgf.m)</b>	<b>MxMáx (kgf.m)</b>	<b>Myi Myf (kgf.m)</b>	<b>MyMáx (kgf.m)</b>	<b>Vxi Vxf (tf)</b>	<b>Vyi Vyf (tf)</b>	<b>Mtd (kgf/m)</b>
VB1 - 1	1062.75	0.00 0.18	-1069.94 10.41	742.77	349.40 -242.76	0.00	1.95 1.23	0.20 -0.20	28.36
VB1 - 2	6020.12	-0.02 0.00	10.40 -10760.50	10.40	235.69 -102.30	0.00	-17.04 20.42	0.58 -0.58	28.37
VB1 - 3	8470.52	0.00 0.39	-11901.60 -3287.48	7750.24	-57.98 -210.72	0.00	19.04 12.52	0.04 -0.04	-3.19
VB1 - 4	7193.22	0.00 0.46	-3279.86 -13262.96	0.00	-308.20 -453.60	0.00	-17.33 21.18	0.28 -0.28	33.22
VB1 - 5	8998.03	0.00 0.24	-12451.01 -1774.48	5157.55	-413.55 437.55	0.00	18.20 11.15	-0.26 0.26	-13.95
VB2 - 1	1339.00	0.00 0.39	-1155.74 -831.20	3241.99	4.71 196.67	196.67	3.43 3.30	-0.04 0.04	38.24
VB2 - 2	1339.00	0.00 0.48	-1096.01 -1272.93	0.00	552.92 -282.72	0.00	1.45 1.61	0.37 -0.37	-47.74
VB2 - 3	1339.00	0.00 0.48	-1273.56 -3532.89	0.00	-282.72 -480.20	0.00	-2.57 3.56	0.27 -0.27	-47.74
VB2 - 4	6488.76	0.00 0.69	-3532.90 -15709.79	0.00	-93.25 -33.35	0.00	-20.36 23.85	-0.11 0.11	-47.74
VB2 - 5	7692.44	0.00 0.91	-16364.80 2238.56	2238.56	139.13 187.96	0.00	22.95 -15.21	-0.05 0.05	0.66
VB2 - 6	10883.45	0.00 0.91	2236.37 10342.41	10342.41	187.96 -107.37	0.00	14.24 -2.54	0.27 -0.27	0.66
VB2 - 7	7957.42	0.00 0.91	10340.45 1042.03	10601.25	-107.37 -422.04	0.00	1.57 11.68	0.19 -0.19	0.66
VB2 - 8	6726.45	0.00 0.86	1034.58 -9996.04	1034.58	-517.65 -480.73	0.00	-16.35 20.44	-0.06 0.06	0.66
VB2 - 9	9933.86	0.00 0.70	-9739.40 4608.13	4608.13	-345.30 97.27	0.00	17.58 -2.48	-0.29 0.29	-2.28




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VB2 - 10	8710.99	0.00 0.70	4610.97 -6263.32	4899.01	97.27 198.07	0.00	1.47 13.69	-0.06 0.06	-2.28
VB2 - 11	1339.00	0.00 0.21	-5507.48 -512.73	0.00	-295.49 5.18	5.18	3.67 0.28	-0.10 0.10	-4.43
VB3 - 1	1062.75	0.00 0.18	-203.49 775.57	1056.13	60.40 7.32	60.40	1.64 0.78	0.02 -0.02	2.98
VB3 - 2	1062.75	0.00 0.18	776.20 -2374.02	776.20	7.32 -150.03	7.32	-1.75 3.12	0.12 -0.12	2.98
VB3 - 3	1062.75	0.00 0.08	-2564.34 559.73	559.73	209.43 -50.61	209.43	3.64 -2.57	0.26 -0.26	2.51
VB3 - 4	1062.75	0.00 0.08	561.93 1675.01	1675.01	-50.61 18.74	0.00	1.61 -0.46	-0.06 0.06	2.51
VB3 - 5	1062.75	0.00 0.08	1676.96 -2218.81	1676.96	18.74 -34.65	18.74	-0.50 2.92	0.02 -0.02	2.51
VB3 - 6	1062.75	0.00 0.21	-2068.02 974.90	974.90	107.71 -147.14	107.71	2.81 -1.19	0.17 -0.17	-18.01
VB3 - 7	1062.75	0.00 0.21	972.07 -69.90	985.98	-147.14 -43.49	0.00	0.18 1.50	-0.07 0.07	-18.01
VB4 - 1	1428.38	0.00 0.20	-1465.50 -14256.00	6137.65	3.59 -53.32	3.59	4.66 7.63	0.01 -0.01	-0.44
VB4 - 2	1428.37	0.00 0.67	-14808.52 6754.53	8768.55	143.68 -33.15	143.68	8.21 2.40	0.02 -0.02	-13.05
VB4 - 3	1428.38	0.00 0.87	6767.46 4648.18	6767.46	94.24 -10.79	0.00	-0.18 2.47	0.07 -0.07	27.15
VB4 - 4	1428.38	0.00 0.87	4656.82 -3503.56	4656.82	-10.79 22.45	22.45	-4.23 6.42	-0.02 0.02	27.15
VB5 - 1	1062.75	0.00 0.22	-699.43 2391.58	2391.58	-84.82 26.45	26.45	2.80 -1.13	-0.07 0.07	-10.40
VB5 - 2	1062.75	0.00 0.22	2382.94 0.00	2382.94	26.45 0.00	26.45	-0.63 2.34	0.02 -0.02	-10.40
VB6 - 1	1428.38	0.00 0.03	-1177.36 -15493.53	5858.10	-65.96 93.27	93.27	4.48 7.81	-0.02 0.02	1.11
VB6 - 2	1428.38	0.00 0.13	-16065.49 -2918.12	10968.25	43.95 -61.50	43.95	8.79 6.30	0.01 -0.01	1.69
VB7 - 1	1428.38	0.00 0.09	-1323.65 -15442.35	5785.29	-11.79 36.48	36.48	4.51 7.79	-0.01 0.01	-0.23
VB7 - 2	1428.38	0.00 0.25	-16119.48 -2763.55	11034.59	83.91 -88.51	83.91	8.81 6.28	0.02 -0.02	-0.15
VB8 - 1	1428.38	0.00 1.02	-2560.20 -14149.36	5506.62	-10.52 25.03	25.03	4.80 7.49	0.00 0.00	-4.68
VB8 - 2	1428.38	0.00 1.71	-15684.80 -4533.19	10197.55	69.66 -38.10	69.66	8.60 6.49	0.01 -0.01	4.03
VB9 - 1	1111.50	0.00 0.51	-1443.88 -3933.16	2080.04	-4.83 4.36	4.36	2.80 3.66	0.00 0.00	-0.33
VB9 - 2	1111.50	0.00 0.52	-3933.41 -3391.48	1971.01	-7.39 11.64	11.64	3.62 3.45	0.00 0.00	-0.08
VB10 - 1	1111.50	0.00 0.34	-3015.24 -2199.22	1191.91	80.66 -79.77	80.66	3.06 2.75	0.03 -0.03	-0.23
VB10 - 2	1111.50	0.00 0.27	-2038.69 -506.34	1011.81	-62.64 8.18	8.18	2.60 1.84	-0.02 0.02	1.99
VB11	1014.00	0.00 0.07	-83.35 -5318.43	0.00	-55.04 94.81	94.81	-1.73 3.69	-0.08 0.08	3.81
VB12	7165.34	0.00 0.97	-7038.36 -3733.08	9574.65	-266.62 293.10	0.00	16.43 13.10	-0.14 0.14	-1.06
VB13	1014.00	0.00 0.10	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.63
VB14	7972.04	-0.38 0.00	0.00 0.00	17865.34	-386.96 478.46	0.00	16.80 15.81	-0.21 0.21	0.01
VB15 - 1	292.50	-0.15 0.00	-304.03 -1041.55	588.31	-19.91 22.05	22.05	0.72 0.98	-0.01 0.01	-0.39
VB15 - 2	292.50	-0.12 0.00	-1102.60 -849.34	508.30	-25.37 30.24	30.24	0.97 0.89	-0.01 0.01	0.01
VB15 - 3	292.50	-0.08	-890.09	379.52	79.56	79.56	0.86	0.03	0.78




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		0.00	-377.37		-100.61		0.67	-0.03	
VB15 - 4	292.50	-0.07 0.00	-389.98 -1165.52	0.00	-297.61 309.71	309.71	-0.08 0.68	-0.30 0.30	1.73
VB15 - 5	292.50	0.00 0.07	-1190.14 1442.20	1442.20	-48.00 126.36	126.36	1.64 -1.07	-0.09 0.09	-2.65
VB16	1014.00	-0.32 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-2.20
VB17	1014.00	0.00 0.09	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-1.95
VB18	2421.31	-0.25 0.00	0.00 0.00	7095.08	95.61 -97.48	0.00	4.67 4.81	0.05 -0.05	7.45
VB19	1062.75	0.00 0.25	-471.40 1876.78	1876.78	-133.58 152.99	152.99	2.24 -0.19	-0.15 0.15	1.89
VB20	1062.75	-0.23 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	2.83
VB21 - 1	1062.75	0.00 0.42	-1293.70 4970.54	4970.54	81.40 -107.16	81.40	3.65 -0.16	0.06 -0.06	8.62
VB21 - 2	1062.75	0.00 0.46	5010.74 -1375.30	5010.74	-234.55 52.52	52.52	-2.07 4.22	-0.14 0.14	-4.31
VB22	1062.75	-0.03 0.00	-857.05 -1183.74	747.48	478.08 -442.46	0.00	1.85 2.03	0.25 -0.25	5.67
VB23	1062.75	0.00 0.09	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.64
VB24 - 1	1111.50	0.00 0.47	-1408.44 -3880.47	2123.20	-40.88 31.66	31.66	2.80 3.65	-0.01 0.01	1.18
VB24 - 2	1111.50	0.00 0.39	-3689.68 -4060.79	1755.47	-17.87 19.02	19.02	3.48 3.60	-0.01 0.01	-0.10
VB25 - 1	1111.50	0.00 0.42	-4192.24 2542.44	2542.44	-104.69 143.96	143.96	4.58 -2.45	-0.13 0.13	-1.75
VB25 - 2	1111.50	0.00 0.41	2552.84 -3139.12	2553.65	143.96 -139.43	143.96	0.12 3.56	0.09 -0.09	-1.75
VB25 - 3	1111.50	0.00 0.13	-2472.83 -563.13	798.32	-124.06 58.54	58.54	2.70 1.74	-0.05 0.05	-7.67

CASO: 1.3G1+1.4G2+1.4Q+1.2D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	1062.75	0.00 0.21	-1291.58 115.66	724.83	317.18 -227.55	0.00	2.06 1.12	0.18 -0.18	28.32
VB1 - 2	6020.12	0.00 0.04	115.61 -10591.89	115.61	180.98 -140.04	0.00	-16.93 20.31	0.55 -0.55	28.41
VB1 - 3	8470.52	0.00 0.37	-12009.76 -3206.88	7750.58	-89.75 -169.80	0.00	19.09 12.47	0.02 -0.02	-3.01
VB1 - 4	7193.22	0.00 0.47	-3199.21 -13156.41	0.00	-351.58 -480.45	0.00	-17.28 21.13	0.25 -0.25	32.49
VB1 - 5	8998.03	0.00 0.18	-12624.01 -1548.05	5209.24	-434.76 497.07	0.00	18.33 11.03	-0.29 0.29	-13.97
VB2 - 1	1339.00	0.00 0.52	-1555.26 -716.13	3110.06	6.17 219.93	219.93	3.53 3.20	-0.04 0.04	38.26
VB2 - 2	1339.00	0.00 0.52	-1113.42 -1116.66	0.00	533.96 -286.44	0.00	1.53 1.53	0.36 -0.36	-47.75
VB2 - 3	1339.00	0.00 0.52	-1117.24 -3320.48	0.00	-286.44 -463.44	0.00	-2.50 3.48	0.24 -0.24	-47.75
VB2 - 4	6488.76	0.00 0.70	-3320.45 -15454.90	0.00	-147.35 -78.65	0.00	-20.28 23.77	-0.12 0.12	-47.75
VB2 - 5	7692.44	0.00 0.89	-16604.23 2072.43	2072.43	84.85 186.49	0.00	23.02 -15.28	-0.10 0.10	0.66
VB2 - 6	10883.45	0.00 0.89	2070.23 10254.70	10254.70	186.49 -91.58	0.00	14.32 -2.61	0.26 -0.26	0.66
VB2 - 7	7957.42	0.00 0.89	10252.79 1077.32	10528.95	-91.58 -370.41	0.00	1.64 11.61	0.17 -0.17	0.66



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VB2 - 8	6726.45	0.00 0.80	1069.81 -9917.91	1069.81	-541.85 -498.83	0.00	-16.28 20.37	-0.07 0.07	0.66
VB2 - 9	9933.86	0.00 0.50	-9788.14 4646.23	4646.23	-370.57 94.02	0.00	17.64 -2.54	-0.31 0.31	-2.33
VB2 - 10	8710.99	0.00 0.50	4649.08 -6125.80	4949.55	94.02 219.74	0.00	1.53 13.63	-0.07 0.07	-2.33
VB2 - 11	1339.00	0.00 0.03	-5756.38 -43.74	0.00	-354.00 7.93	7.93	3.91 0.03	-0.12 0.12	-4.37
VB3 - 1	1062.75	0.00 0.22	-308.70 822.43	1059.58	59.15 11.36	59.15	1.71 0.71	0.02 -0.02	3.02
VB3 - 2	1062.75	0.00 0.22	823.02 -2240.68	823.02	11.36 -170.30	11.36	-1.68 3.05	0.14 -0.14	3.02
VB3 - 3	1062.75	0.00 0.09	-2663.69 496.69	496.69	234.92 -56.22	234.92	3.68 -2.61	0.29 -0.29	2.51
VB3 - 4	1062.75	0.00 0.09	498.89 1650.82	1650.82	-56.22 19.10	0.00	1.64 -0.50	-0.07 0.07	2.51
VB3 - 5	1062.75	0.00 0.09	1652.73 -2160.88	1652.73	19.10 -33.54	19.10	-0.47 2.89	0.02 -0.02	2.51
VB3 - 6	1062.75	0.00 0.23	-2126.68 994.12	994.12	110.31 -156.15	110.31	2.86 -1.25	0.18 -0.18	-18.14
VB3 - 7	1062.75	0.00 0.23	991.27 30.35	1016.75	-156.15 -64.33	0.00	0.23 1.45	-0.06 0.06	-18.14
VB4 - 1	1428.38	0.00 0.16	-1673.69 -14121.77	6056.87	47.86 -97.59	47.86	4.70 7.59	0.02 -0.02	-0.46
VB4 - 2	1428.37	0.00 0.62	-14924.62 6837.34	8808.34	206.26 -88.63	206.26	8.23 2.37	0.04 -0.04	-13.17
VB4 - 3	1428.38	0.00 0.82	6849.75 4874.74	6849.75	119.53 8.81	0.00	-0.09 2.38	0.07 -0.07	27.54
VB4 - 4	1428.38	0.00 0.82	4883.44 -3138.80	4883.44	8.81 -6.00	8.81	-4.14 6.33	0.01 -0.01	27.54
VB5 - 1	1062.75	0.00 0.26	-827.96 2326.59	2326.59	-51.91 21.02	21.02	2.84 -1.17	-0.05 0.05	-10.50
VB5 - 2	1062.75	0.00 0.26	2317.89 0.00	2317.89	21.02 0.00	21.02	-0.59 2.30	0.01 -0.01	-10.50
VB6 - 1	1428.38	0.00 0.03	-1529.47 -15279.44	5716.67	-27.55 74.48	74.48	4.55 7.74	-0.01 0.01	1.11
VB6 - 2	1428.38	0.00 0.12	-16272.97 -2565.32	11084.02	80.67 -127.63	80.67	8.84 6.25	0.02 -0.02	1.65
VB7 - 1	1428.38	0.00 0.10	-1688.39 -15219.30	5639.26	-71.71 79.20	79.20	4.58 7.72	-0.02 0.02	-0.23
VB7 - 2	1428.38	0.00 0.26	-16328.89 -2412.13	11151.15	50.63 -35.11	50.63	8.86 6.23	0.01 -0.01	-0.14
VB8 - 1	1428.38	0.00 1.03	-2762.85 -14006.46	5440.57	-75.95 67.05	67.05	4.84 7.45	-0.02 0.02	-4.69
VB8 - 2	1428.38	0.00 1.71	-15812.95 -4345.58	10251.57	36.79 20.07	36.79	8.63 6.46	0.00 0.00	4.05
VB9 - 1	1111.50	0.00 0.50	-1451.98 -3926.59	2078.51	60.74 -62.21	60.74	2.80 3.65	0.02 -0.02	-0.25
VB9 - 2	1111.50	0.00 0.50	-3936.53 -3388.40	1971.09	-16.27 10.08	10.08	3.62 3.45	0.00 0.00	-0.08
VB10 - 1	1111.50	0.00 0.33	-3015.52 -2200.53	1191.07	40.01 -37.83	40.01	3.06 2.75	0.01 -0.01	-0.30
VB10 - 2	1111.50	0.00 0.28	-2043.92 -499.25	1013.72	-62.09 7.00	7.00	2.61 1.83	-0.02 0.02	2.05
VB11	1014.00	0.00 0.08	-94.17 -5320.81	0.00	-52.37 92.59	92.59	-1.73 3.69	-0.08 0.08	3.64
VB12	7165.34	0.00 0.98	-7053.58 -3707.61	9579.77	-230.33 259.87	0.00	16.44 13.09	-0.12 0.12	-0.78
VB13	1014.00	0.00 0.12	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.58
VB14	7972.04	-0.36 0.00	0.00 0.00	17865.34	-316.09 408.54	0.00	16.80 15.81	-0.18 0.18	-0.03
VB15 - 1	292.50	-0.15	-311.81	586.02	62.12	62.12	0.73	0.02	-0.39


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		0.00	-1036.07		-59.39		0.97	-0.02	
VB15 - 2	292.50	-0.11 0.00	-1105.87 -845.83	508.54	-30.81 33.84	33.84	0.97 0.89	-0.01 0.01	0.01
VB15 - 3	292.50	-0.07 0.00	-895.25 -371.47	380.74	27.65 -53.00	27.65	0.86 0.66	0.02 -0.02	0.78
VB15 - 4	292.50	-0.05 0.00	-392.45 -1170.38	0.00	-356.86 377.67	377.67	-0.08 0.68	-0.36 0.36	2.03
VB15 - 5	292.50	0.00 0.10	-1196.51 1452.20	1452.20	-26.44 114.53	114.53	1.65 -1.08	-0.07 0.07	-2.83
VB16	1014.00	-0.36 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-2.20
VB17	1014.00	0.00 0.09	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-1.91
VB18	2421.31	-0.24 0.00	0.00 0.00	7095.08	171.44 -181.78	0.00	4.67 4.81	0.09 -0.09	7.51
VB19	1062.75	0.00 0.25	-467.35 1871.73	1871.73	-134.02 152.42	152.42	2.24 -0.18	-0.15 0.15	1.83
VB20	1062.75	-0.23 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	2.86
VB21 - 1	1062.75	0.00 0.45	-1306.42 5032.11	5032.11	45.99 -63.81	45.99	3.67 -0.18	0.03 -0.03	8.34
VB21 - 2	1062.75	0.00 0.48	5072.81 -1395.89	5072.81	-271.97 74.22	74.22	-2.11 4.26	-0.17 0.17	-4.07
VB22	1062.75	-0.05 0.00	-846.82 -1197.00	745.96	561.81 -500.99	0.00	1.84 2.03	0.29 -0.29	5.90
VB23	1062.75	0.00 0.06	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.70
VB24 - 1	1111.50	0.00 0.48	-1405.63 -3884.38	2123.01	18.84 -29.09	18.84	2.80 3.66	0.01 -0.01	1.28
VB24 - 2	1111.50	0.00 0.41	-3693.42 -4049.76	1758.88	-26.45 11.56	11.56	3.48 3.59	-0.01 0.01	-0.10
VB25 - 1	1111.50	0.00 0.42	-4174.29 2512.47	2512.47	-171.27 161.18	161.18	4.56 -2.43	-0.17 0.17	-1.80
VB25 - 2	1111.50	0.00 0.41	2522.97 -3118.05	2526.96	161.18 -112.86	161.18	0.13 3.54	0.08 -0.08	-1.80
VB25 - 3	1111.50	0.00 0.11	-2462.51 -570.56	797.42	-129.67 55.54	55.54	2.69 1.75	-0.05 0.05	-7.75

CASO: 1.3G1+1.4G2+1.4Q+1.2D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	1062.75	0.00 0.09	-1162.66 55.01	732.45	493.10 -384.58	0.00	2.00 1.19	0.29 -0.29	28.63
VB1 - 2	6020.12	-0.14 0.00	54.96 -10689.31	54.96	183.10 -200.19	0.00	-17.00 20.37	0.66 -0.66	28.67
VB1 - 3	8470.52	0.00 0.22	-11949.85 -3250.38	7749.40	-153.89 -192.39	0.00	19.06 12.50	0.01 -0.01	-2.99
VB1 - 4	7193.22	0.00 0.37	-3242.77 -13214.16	0.00	-468.15 -605.78	0.00	-17.31 21.16	0.27 -0.27	33.00
VB1 - 5	8998.03	0.00 0.10	-12521.33 -1685.13	5177.05	-564.20 659.23	0.00	18.25 11.11	-0.37 0.37	-14.58
VB2 - 1	1339.00	0.00 0.43	-1362.64 -770.10	3174.45	95.76 37.88	95.76	3.49 3.25	0.01 -0.01	37.98
VB2 - 2	1339.00	0.00 0.57	-1101.28 -1199.74	0.00	579.77 -362.67	0.00	1.48 1.57	0.41 -0.41	-47.21
VB2 - 3	1339.00	0.00 0.57	-1200.34 -3434.33	0.00	-362.67 -585.10	0.00	-2.54 3.52	0.30 -0.30	-47.21
VB2 - 4	6488.76	0.00 0.83	-3434.31 -15592.02	0.00	-123.47 -93.01	0.00	-20.32 23.81	-0.05 0.05	-47.21
VB2 - 5	7692.44	0.00 1.05	-16497.10 2152.29	2152.29	47.05 133.10	0.00	22.99 -15.26	-0.09 0.09	0.51

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VB2 - 6	10883.45	0.00 1.05	2150.07 10305.35	10305.35	133.10 -128.71	0.00	14.29 -2.58	0.24 -0.24	0.51
VB2 - 7	7957.42	0.00 1.05	10303.40 1082.17	10573.84	-128.71 -406.55	0.00	1.62 11.64	0.16 -0.16	0.51
VB2 - 8	6726.45	0.00 0.91	1074.72 -9928.97	1074.72	-673.04 -612.67	0.00	-16.30 20.40	-0.10 0.10	0.51
VB2 - 9	9933.86	0.00 0.69	-9732.95 4626.76	4626.76	-491.66 130.65	0.00	17.59 -2.49	-0.41 0.41	-2.26
VB2 - 10	8710.99	0.00 0.69	4629.66 -6230.69	4919.44	130.65 272.79	0.00	1.48 13.68	-0.08 0.08	-2.26
VB2 - 11	1339.00	0.00 0.09	-5665.65 -277.74	0.00	-495.47 85.82	85.82	3.80 0.14	-0.20 0.20	-4.31
VB3 - 1	1062.75	0.00 0.19	-257.61 802.36	1058.92	53.45 10.77	53.45	1.67 0.74	0.02 -0.02	2.76
VB3 - 2	1062.75	0.00 0.19	802.96 -2301.22	802.96	10.77 -157.41	10.77	-1.71 3.09	0.13 -0.13	2.76
VB3 - 3	1062.75	0.00 0.05	-2612.33 528.66	528.66	217.14 -51.47	217.14	3.66 -2.59	0.27 -0.27	2.61
VB3 - 4	1062.75	0.00 0.05	530.88 1662.05	1662.05	-51.47 15.00	0.00	1.62 -0.48	-0.06 0.06	2.61
VB3 - 5	1062.75	0.00 0.05	1664.00 -2193.50	1664.00	15.00 -23.26	15.00	-0.49 2.90	0.02 -0.02	2.61
VB3 - 6	1062.75	0.00 0.17	-2105.95 982.37	982.37	117.33 -195.44	117.33	2.84 -1.22	0.21 -0.21	-18.07
VB3 - 7	1062.75	0.00 0.17	979.47 -15.26	1000.12	-195.44 -2.61	0.00	0.21 1.47	-0.12 0.12	-18.07
VB4 - 1	1428.38	0.00 0.21	-1585.69 -14177.77	6091.29	103.81 -163.73	103.81	4.68 7.61	0.03 -0.03	-0.37
VB4 - 2	1428.37	0.00 0.69	-14869.38 6794.59	8786.78	116.07 -47.84	116.07	8.22 2.39	0.02 -0.02	-13.46
VB4 - 3	1428.38	0.00 0.86	6807.27 4772.08	6807.27	48.11 -9.77	0.00	-0.13 2.41	0.04 -0.04	28.03
VB4 - 4	1428.38	0.00 0.86	4780.77 -3299.10	4780.77	-9.77 82.48	82.48	-4.17 6.36	-0.06 0.06	28.03
VB5 - 1	1062.75	0.00 0.22	-773.21 2354.28	2354.28	-93.60 29.19	29.19	2.83 -1.16	-0.08 0.08	-10.59
VB5 - 2	1062.75	0.00 0.22	2345.60 0.00	2345.60	29.19 0.00	29.19	-0.60 2.31	0.02 -0.02	-10.59
VB6 - 1	1428.38	0.00 0.04	-1367.27 -15378.37	5781.71	5.16 8.12	8.12	4.52 7.78	0.00 0.00	1.22
VB6 - 2	1428.38	0.00 0.14	-16177.16 -2727.85	11030.79	-5.57 -44.73	0.00	8.82 6.27	0.00 0.00	1.61
VB7 - 1	1428.38	0.00 0.09	-1508.39 -15329.29	5711.36	11.84 -16.57	11.84	4.54 7.75	0.00 0.00	-0.16
VB7 - 2	1428.38	0.00 0.25	-16226.20 -2584.25	11092.88	-0.26 -16.35	0.00	8.84 6.25	0.00 0.00	-0.18
VB8 - 1	1428.38	0.00 1.03	-2655.94 -14081.55	5475.54	-7.54 -19.44	0.00	4.82 7.47	0.00 0.00	-4.45
VB8 - 2	1428.38	0.00 1.72	-15749.59 -4437.34	10225.43	-6.15 20.40	20.40	8.61 6.47	0.00 0.00	3.91
VB9 - 1	1111.50	0.00 0.50	-1356.90 -4002.93	2098.76	2.64 -5.88	2.64	2.77 3.68	0.00 0.00	-0.29
VB9 - 2	1111.50	0.00 0.50	-3880.67 -3447.17	1967.78	-29.36 28.75	28.75	3.61 3.47	-0.01 0.01	-0.07
VB10 - 1	1111.50	0.00 0.33	-2950.37 -2256.29	1191.11	37.80 -40.02	37.80	3.04 2.77	0.01 -0.01	-0.27
VB10 - 2	1111.50	0.00 0.25	-1958.26 -610.33	985.48	-109.03 74.96	74.96	2.56 1.88	-0.05 0.05	2.01
VB11	1014.00	0.00 0.02	25.55 -5364.67	25.55	-47.41 83.82	83.82	-1.81 3.77	-0.07 0.07	3.74
VB12	7165.34	0.00 0.92	-6947.52 -3927.54	9522.83	-462.15 439.22	0.00	16.36 13.17	-0.22 0.22	-0.95
VB13	1014.00	0.00	0.00	455.11	0.00	0.00	0.97	0.00	-0.60

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		0.11	0.00		0.00		0.97	0.00	
VB14	7972.04	-0.36 0.00	0.00 0.00	17865.34	-461.63 567.68	0.00	16.80 15.81	-0.25 0.25	-0.03
VB15 - 1	292.50	-0.14 0.00	-147.07 -1161.75	630.58	16.46 -14.00	16.46	0.68 1.02	0.01 -0.01	-0.39
VB15 - 2	292.50	-0.12 0.00	-1017.84 -941.35	501.83	-30.31 33.91	33.91	0.94 0.92	-0.01 0.01	0.01
VB15 - 3	292.50	-0.09 0.00	-783.03 -470.71	376.66	47.59 -70.65	47.59	0.82 0.70	0.02 -0.02	0.78
VB15 - 4	292.50	-0.08 0.00	-275.59 -1177.06	0.00	-350.45 354.21	354.21	-0.14 0.74	-0.34 0.34	1.89
VB15 - 5	292.50	0.00 0.07	-1168.86 1246.49	1246.49	-20.52 101.95	101.95	1.53 -0.96	-0.06 0.06	-2.76
VB16	1014.00	-0.33 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-2.22
VB17	1014.00	0.00 0.08	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-1.95
VB18	2421.31	-0.27 0.00	0.00 0.00	7095.08	266.49 -275.76	0.00	4.67 4.81	0.14 -0.14	7.45
VB19	1062.75	0.00 0.27	-373.31 1776.57	1776.57	-130.40 142.35	142.35	2.14 -0.09	-0.14 0.14	1.88
VB20	1062.75	-0.33 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	2.90
VB21 - 1	1062.75	0.00 0.40	-1239.57 4993.37	4993.37	87.67 -113.67	87.67	3.64 -0.15	0.06 -0.06	8.47
VB21 - 2	1062.75	0.00 0.42	5034.85 -1449.54	5034.85	-209.62 17.65	17.65	-2.11 4.27	-0.11 0.11	-4.21
VB22	1062.75	-0.11 0.00	-726.45 -1357.38	739.19	748.68 -659.60	0.00	1.77 2.11	0.39 -0.39	5.75
VB23	1062.75	0.00 0.10	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.68
VB24 - 1	1111.50	0.00 0.46	-1291.49 -3975.14	2148.60	10.19 -17.44	10.19	2.77 3.69	0.00 0.00	1.23
VB24 - 2	1111.50	0.00 0.37	-3622.81 -4127.42	1757.74	-6.53 0.47	0.47	3.46 3.62	0.00 0.00	-0.09
VB25 - 1	1111.50	0.00 0.38	-4099.01 2551.34	2551.34	-110.97 149.08	149.08	4.54 -2.41	-0.14 0.14	-1.78
VB25 - 2	1111.50	0.00 0.36	2561.93 -3199.00	2561.93	149.08 -144.29	149.08	0.10 3.58	0.09 -0.09	-1.78
VB25 - 3	1111.50	0.00 0.09	-2361.62 -704.58	761.07	-84.18 0.68	0.68	2.64 1.81	-0.02 0.02	-7.73

CASO: 1.3G1+1.4G2+1.4Q+1.2D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	1062.75	0.00 0.29	-1198.86 71.06	727.60	173.48 -85.74	0.00	2.02 1.17	0.09 -0.09	28.05
VB1 - 2	6020.12	0.00 0.17	71.05 -10663.09	71.05	233.57 -42.15	0.00	-16.98 20.35	0.47 -0.47	28.11
VB1 - 3	8470.52	0.00 0.55	-11961.51 -3243.98	7747.78	6.16 -188.14	0.00	19.06 12.49	0.05 -0.05	-3.21
VB1 - 4	7193.22	0.00 0.56	-3236.31 -13205.22	0.00	-191.64 -328.27	0.00	-17.31 21.16	0.27 -0.27	32.71
VB1 - 5	8998.03	0.00 0.32	-12553.70 -1637.39	5189.74	-284.10 275.39	0.00	18.28 11.08	-0.17 0.17	-13.35
VB2 - 1	1339.00	0.00 0.48	-1348.36 -777.23	3177.60	-84.87 378.71	378.71	3.48 3.25	-0.09 0.09	38.51
VB2 - 2	1339.00	0.00 0.43	-1108.15 -1189.85	0.00	507.11 -206.50	0.00	1.49 1.56	0.31 -0.31	-48.28
VB2 - 3	1339.00	0.00 0.43	-1190.46 -3419.03	0.00	-206.50 -358.54	0.00	-2.53 3.52	0.21 -0.21	-48.28




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VB2 - 4	6488.76	0.00 0.57	-3419.04 -15572.66	0.00	-117.13 -18.99	0.00	-20.32 23.81	-0.18 0.18	-48.28
VB2 - 5	7692.44	0.00 0.75	-16471.93 2158.71	2158.71	176.93 241.35	0.00	22.97 -15.24	-0.06 0.06	0.81
VB2 - 6	10883.45	0.00 0.75	2156.53 10291.76	10291.76	241.35 -70.24	0.00	14.27 -2.56	0.29 -0.29	0.81
VB2 - 7	7957.42	0.00 0.75	10289.85 1037.19	10556.36	-70.24 -385.89	0.00	1.60 11.66	0.19 -0.19	0.81
VB2 - 8	6726.45	0.00 0.75	1029.68 -9984.98	1029.68	-386.45 -366.90	0.00	-16.32 20.41	-0.03 0.03	0.81
VB2 - 9	9933.86	0.00 0.51	-9794.58 4627.60	4627.60	-224.21 60.63	0.00	17.63 -2.53	-0.19 0.19	-2.36
VB2 - 10	8710.99	0.00 0.51	4630.39 -6158.44	4929.12	60.63 145.02	0.00	1.52 13.64	-0.05 0.05	-2.36
VB2 - 11	1339.00	0.00 0.15	-5598.22 -278.73	0.00	-154.02 -72.71	0.00	3.78 0.17	-0.03 0.03	-4.49
VB3 - 1	1062.75	0.00 0.21	-254.58 795.64	1054.85	66.10 7.91	66.10	1.67 0.75	0.03 -0.03	3.24
VB3 - 2	1062.75	0.00 0.21	796.25 -2313.48	796.25	7.91 -162.92	7.91	-1.71 3.09	0.13 -0.13	3.24
VB3 - 3	1062.75	0.00 0.13	-2615.71 527.76	527.76	227.21 -55.36	227.21	3.66 -2.59	0.28 -0.28	2.42
VB3 - 4	1062.75	0.00 0.13	529.94 1663.77	1663.77	-55.36 22.84	0.00	1.63 -0.48	-0.07 0.07	2.42
VB3 - 5	1062.75	0.00 0.13	1665.69 -2186.19	1665.69	22.84 -44.93	22.84	-0.48 2.90	0.03 -0.03	2.42
VB3 - 6	1062.75	0.00 0.26	-2088.75 986.66	986.66	100.69 -107.85	100.69	2.83 -1.22	0.14 -0.14	-18.08
VB3 - 7	1062.75	0.00 0.26	983.87 -24.29	1002.61	-107.85 -105.20	0.00	0.20 1.48	0.00 0.00	-18.08
VB4 - 1	1428.38	0.00 0.15	-1553.50 -14199.99	6103.24	-52.36 12.82	12.82	4.68 7.62	-0.01 0.01	-0.53
VB4 - 2	1428.37	0.00 0.60	-14863.75 6797.28	8790.11	233.88 -73.94	233.88	8.22 2.39	0.04 -0.04	-12.76
VB4 - 3	1428.38	0.00 0.83	6809.94 4750.84	6809.94	165.66 7.79	0.00	-0.14 2.43	0.10 -0.10	26.66
VB4 - 4	1428.38	0.00 0.83	4759.50 -3343.26	4759.50	7.79 -66.03	7.79	-4.19 6.38	0.05 -0.05	26.66
VB5 - 1	1062.75	0.00 0.25	-754.18 2363.89	2363.89	-43.12 18.28	18.28	2.82 -1.15	-0.04 0.04	-10.31
VB5 - 2	1062.75	0.00 0.25	2355.24 0.00	2355.24	18.28 0.00	18.28	-0.61 2.32	0.01 -0.01	-10.31
VB6 - 1	1428.38	0.00 0.03	-1339.56 -15394.60	5793.07	-98.67 159.64	159.64	4.51 7.78	-0.03 0.03	0.99
VB6 - 2	1428.38	0.00 0.12	-16161.30 -2755.60	11021.48	130.18 -144.40	130.18	8.81 6.27	0.03 -0.03	1.73
VB7 - 1	1428.38	0.00 0.09	-1503.65 -15332.36	5713.19	-95.34 132.26	132.26	4.54 7.75	-0.03 0.03	-0.31
VB7 - 2	1428.38	0.00 0.26	-16222.18 -2591.44	11090.44	134.80 -107.27	134.80	8.83 6.25	0.02 -0.02	-0.11
VB8 - 1	1428.38	0.00 1.02	-2667.11 -14074.27	5471.66	-78.92 111.52	111.52	4.82 7.47	-0.02 0.02	-4.92
VB8 - 2	1428.38	0.00 1.70	-15748.17 -4441.43	10223.68	112.60 -38.43	112.60	8.61 6.47	0.01 -0.01	4.16
VB9 - 1	1111.50	0.00 0.51	-1538.95 -3856.81	2061.80	53.27 -51.96	53.27	2.83 3.63	0.02 -0.02	-0.30
VB9 - 2	1111.50	0.00 0.52	-3989.27 -3332.71	1974.32	5.70 -7.02	5.70	3.64 3.43	0.00 0.00	-0.08
VB10 - 1	1111.50	0.00 0.35	-3080.39 -2143.46	1191.86	82.87 -77.58	82.87	3.08 2.72	0.03 -0.03	-0.27
VB10 - 2	1111.50	0.00 0.30	-2124.35 -395.27	1040.05	-15.70 -59.78	0.00	2.65 1.79	0.01 -0.01	2.02
VB11	1014.00	0.00	-203.07	0.00	-60.01	103.58	-1.65	-0.08	3.72

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		0.13	-5274.58		103.58		3.60	0.08	
VB12	7165.34	0.00 1.03	-7144.41 -3513.15	9631.58	-34.80 113.75	0.00	16.51 13.02	-0.04 0.04	-0.89
VB13	1014.00	0.00 0.11	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.61
VB14	7972.04	-0.38 0.00	0.00 0.00	17865.34	-241.41 319.31	0.00	16.80 15.81	-0.14 0.14	0.01
VB15 - 1	292.50	-0.16 0.00	-468.77 -915.87	551.80	25.75 -23.33	25.75	0.77 0.93	0.01 -0.01	-0.39
VB15 - 2	292.50	-0.11 0.00	-1190.62 -753.83	516.77	-25.88 30.17	30.17	1.00 0.86	-0.01 0.01	0.01
VB15 - 3	292.50	-0.07 0.00	-1002.31 -278.13	389.30	59.62 -82.96	59.62	0.90 0.63	0.03 -0.03	0.78
VB15 - 4	292.50	-0.03 0.00	-506.84 -1158.84	0.00	-304.02 333.17	333.17	-0.02 0.62	-0.31 0.31	1.87
VB15 - 5	292.50	0.00 0.10	-1217.79 1647.90	1647.90	-53.91 138.94	138.94	1.76 -1.19	-0.10 0.10	-2.72
VB16	1014.00	-0.35 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-2.18
VB17	1014.00	0.00 0.10	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-1.92
VB18	2421.31	-0.22 0.00	0.00 0.00	7095.08	0.56 -3.50	0.00	4.67 4.81	0.00 0.00	7.51
VB19	1062.75	0.00 0.23	-565.44 1971.94	1971.94	-137.21 163.07	163.07	2.34 -0.29	-0.16 0.16	1.85
VB20	1062.75	-0.14 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	2.79
VB21 - 1	1062.75	0.00 0.46	-1360.55 5009.28	5009.28	39.71 -57.30	39.71	3.68 -0.19	0.03 -0.03	8.48
VB21 - 2	1062.75	0.00 0.52	5048.70 -1321.65	5048.70	-296.90 109.09	109.09	-2.06 4.22	-0.20 0.20	-4.17
VB22	1062.75	0.00 0.03	-977.42 -1023.37	767.48	291.21 -283.85	0.00	1.93 1.95	0.16 -0.16	5.82
VB23	1062.75	0.00 0.05	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.65
VB24 - 1	1111.50	0.00 0.49	-1522.58 -3789.71	2100.92	-32.23 20.00	20.00	2.84 3.62	-0.01 0.01	1.23
VB24 - 2	1111.50	0.00 0.43	-3760.29 -3983.12	1756.61	-37.79 30.11	30.11	3.50 3.57	-0.01 0.01	-0.10
VB25 - 1	1111.50	0.00 0.47	-4267.52 2503.57	2503.57	-165.00 156.06	156.06	4.60 -2.47	-0.17 0.17	-1.77
VB25 - 2	1111.50	0.00 0.46	2513.88 -3058.17	2522.18	156.06 -108.01	156.06	0.16 3.52	0.08 -0.08	-1.77
VB25 - 3	1111.50	0.00 0.16	-2573.72 -429.11	845.79	-169.54 113.40	113.40	2.76 1.68	-0.07 0.07	-7.69

CASO: 1.3G1+1.4G2+1.4Q+D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	1062.75	0.00 0.18	-1088.41 19.18	740.65	346.71 -241.50	0.00	1.96 1.22	0.20 -0.20	28.36
VB1 - 2	6020.12	-0.01 0.00	19.17 -10746.45	19.17	231.14 -105.44	0.00	-17.03 20.41	0.58 -0.58	28.37
VB1 - 3	8470.52	0.00 0.39	-11910.61 -3280.76	7749.97	-60.63 -207.31	0.00	19.04 12.52	0.04 -0.04	-3.17
VB1 - 4	7193.22	0.00 0.46	-3273.14 -13254.08	0.00	-311.82 -455.83	0.00	-17.33 21.18	0.28 -0.28	33.16
VB1 - 5	8998.03	0.00 0.24	-12465.43 -1755.61	5161.86	-415.31 442.51	0.00	18.21 11.14	-0.26 0.26	-13.96
VB2 - 1	1339.00	0.00 0.40	-1189.03 -821.61	3231.00	4.83 198.61	198.61	3.44 3.29	-0.04 0.04	38.24

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VB2 - 2	1339.00	0.00 0.49	-1097.46 -1259.91	0.00	551.34 -283.03	0.00	1.46 1.60	0.37 -0.37	-47.74
VB2 - 3	1339.00	0.00 0.49	-1260.53 -3515.19	0.00	-283.03 -478.81	0.00	-2.57 3.55	0.27 -0.27	-47.74
VB2 - 4	6488.76	0.00 0.69	-3515.20 -15688.55	0.00	-97.76 -37.13	0.00	-20.35 23.84	-0.11 0.11	-47.74
VB2 - 5	7692.44	0.00 0.91	-16384.75 2224.72	2224.72	134.60 187.84	0.00	22.95 -15.22	-0.05 0.05	0.66
VB2 - 6	10883.45	0.00 0.91	2222.52 10335.10	10335.10	187.84 -106.05	0.00	14.25 -2.54	0.27 -0.27	0.66
VB2 - 7	7957.42	0.00 0.91	10333.15 1044.97	10595.22	-106.05 -417.74	0.00	1.58 11.68	0.18 -0.18	0.66
VB2 - 8	6726.45	0.00 0.86	1037.52 -9989.53	1037.52	-519.66 -482.24	0.00	-16.34 20.44	-0.06 0.06	0.66
VB2 - 9	9933.86	0.00 0.68	-9743.46 4611.31	4611.31	-347.40 97.00	0.00	17.59 -2.49	-0.29 0.29	-2.29
VB2 - 10	8710.99	0.00 0.68	4614.14 -6251.86	4903.22	97.00 199.87	0.00	1.47 13.68	-0.06 0.06	-2.29
VB2 - 11	1339.00	0.00 0.19	-5528.22 -473.65	0.00	-300.36 5.41	5.41	3.69 0.26	-0.10 0.10	-4.42
VB3 - 1	1062.75	0.00 0.18	-212.25 779.47	1055.42	60.30 7.66	60.30	1.64 0.77	0.02 -0.02	2.99
VB3 - 2	1062.75	0.00 0.18	780.10 -2362.91	780.10	7.66 -151.72	7.66	-1.74 3.12	0.12 -0.12	2.99
VB3 - 3	1062.75	0.00 0.08	-2572.62 554.48	554.48	211.56 -51.08	211.56	3.64 -2.58	0.26 -0.26	2.51
VB3 - 4	1062.75	0.00 0.08	556.67 1672.99	1672.99	-51.08 18.77	0.00	1.61 -0.47	-0.06 0.06	2.51
VB3 - 5	1062.75	0.00 0.08	1674.94 -2213.98	1674.94	18.77 -34.56	18.77	-0.50 2.92	0.02 -0.02	2.51
VB3 - 6	1062.75	0.00 0.21	-2072.91 976.51	976.51	107.93 -147.89	107.93	2.81 -1.20	0.17 -0.17	-18.02
VB3 - 7	1062.75	0.00 0.21	973.67 -61.55	988.54	-147.89 -45.22	0.00	0.19 1.49	-0.06 0.06	-18.02
VB4 - 1	1428.38	0.00 0.20	-1482.85 -14244.81	6130.92	7.28 -57.01	7.28	4.66 7.63	0.01 -0.01	-0.44
VB4 - 2	1428.37	0.00 0.67	-14818.19 6761.44	8771.86	148.90 -37.77	148.90	8.21 2.40	0.03 -0.03	-13.06
VB4 - 3	1428.38	0.00 0.87	6774.32 4667.06	6774.32	96.35 -9.16	0.00	-0.17 2.46	0.07 -0.07	27.18
VB4 - 4	1428.38	0.00 0.87	4675.70 -3473.17	4675.70	-9.16 20.08	20.08	-4.22 6.41	-0.02 0.02	27.18
VB5 - 1	1062.75	0.00 0.22	-710.14 2386.16	2386.16	-82.08 26.00	26.00	2.81 -1.14	-0.07 0.07	-10.41
VB5 - 2	1062.75	0.00 0.22	2377.52 0.00	2377.52	26.00 0.00	26.00	-0.62 2.33	0.02 -0.02	-10.41
VB6 - 1	1428.38	0.00 0.03	-1206.70 -15475.69	5846.31	-62.76 91.71	91.71	4.49 7.81	-0.02 0.02	1.11
VB6 - 2	1428.38	0.00 0.13	-16082.78 -2888.72	10977.90	47.01 -67.02	47.01	8.79 6.29	0.01 -0.01	1.68
VB7 - 1	1428.38	0.00 0.09	-1354.05 -15423.77	5773.12	-16.79 40.04	40.04	4.51 7.78	-0.01 0.01	-0.23
VB7 - 2	1428.38	0.00 0.25	-16136.94 -2734.27	11044.10	81.13 -84.06	81.13	8.81 6.27	0.02 -0.02	-0.15
VB8 - 1	1428.38	0.00 1.02	-2577.08 -14137.45	5501.11	-15.97 28.53	28.53	4.80 7.49	-0.01 0.01	-4.68
VB8 - 2	1428.38	0.00 1.71	-15695.48 -4517.56	10202.05	66.92 -33.25	66.92	8.60 6.49	0.01 -0.01	4.03
VB9 - 1	1111.50	0.00 0.51	-1444.55 -3932.61	2079.91	0.63 -1.18	0.63	2.80 3.66	0.00 0.00	-0.33
VB9 - 2	1111.50	0.00 0.51	-3933.67 -3391.23	1971.02	-8.13 11.51	11.51	3.62 3.45	0.00 0.00	-0.08
VB10 - 1	1111.50	0.00	-3015.26	1191.84	77.27	77.27	3.06	0.03	-0.24




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		0.34	-2199.33		-76.28		2.75	-0.03	
VB10 - 2	1111.50	0.00 0.27	-2039.12 -505.75	1011.97	-62.59 8.08	8.08	2.60 1.84	-0.02 0.02	1.99
VB11	1014.00	0.00 0.07	-84.25 -5318.63	0.00	-54.82 94.63	94.63	-1.73 3.69	-0.08 0.08	3.80
VB12	7165.34	0.00 0.97	-7039.62 -3730.96	9575.07	-263.60 290.33	0.00	16.43 13.10	-0.13 0.13	-1.03
VB13	1014.00	0.00 0.10	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.63
VB14	7972.04	-0.37 0.00	0.00 0.00	17865.34	-381.05 472.63	0.00	16.80 15.81	-0.21 0.21	0.01
VB15 - 1	292.50	-0.15 0.00	-304.68 -1041.09	588.12	-13.08 15.26	15.26	0.72 0.98	0.00 0.00	-0.39
VB15 - 2	292.50	-0.12 0.00	-1102.87 -849.05	508.32	-25.83 30.54	30.54	0.97 0.89	-0.01 0.01	0.01
VB15 - 3	292.50	-0.08 0.00	-890.52 -376.87	379.62	75.24 -96.64	75.24	0.86 0.67	0.03 -0.03	0.78
VB15 - 4	292.50	-0.07 0.00	-390.19 -1165.93	0.00	-302.55 315.37	315.37	-0.08 0.68	-0.30 0.30	1.75
VB15 - 5	292.50	0.00 0.07	-1190.67 1443.03	1443.03	-46.20 125.37	125.37	1.64 -1.07	-0.09 0.09	-2.67
VB16	1014.00	-0.33 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-2.20
VB17	1014.00	0.00 0.09	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-1.95
VB18	2421.31	-0.25 0.00	0.00 0.00	7095.08	101.93 -104.51	0.00	4.67 4.81	0.05 -0.05	7.46
VB19	1062.75	0.00 0.25	-471.07 1876.36	1876.36	-133.62 152.94	152.94	2.24 -0.19	-0.15 0.15	1.89
VB20	1062.75	-0.23 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	2.84
VB21 - 1	1062.75	0.00 0.42	-1294.76 4975.67	4975.67	78.45 -103.55	78.45	3.65 -0.16	0.06 -0.06	8.59
VB21 - 2	1062.75	0.00 0.46	5015.91 -1377.02	5015.91	-237.67 54.33	54.33	-2.07 4.23	-0.14 0.14	-4.29
VB22	1062.75	-0.03 0.00	-856.20 -1184.85	747.35	485.06 -447.34	0.00	1.85 2.03	0.26 -0.26	5.69
VB23	1062.75	0.00 0.08	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.64
VB24 - 1	1111.50	0.00 0.47	-1408.21 -3880.80	2123.19	-35.90 26.60	26.60	2.80 3.65	-0.01 0.01	1.19
VB24 - 2	1111.50	0.00 0.39	-3689.99 -4059.87	1755.75	-18.58 18.40	18.40	3.48 3.60	-0.01 0.01	-0.10
VB25 - 1	1111.50	0.00 0.42	-4190.74 2539.94	2539.94	-110.24 145.39	145.39	4.58 -2.45	-0.13 0.13	-1.75
VB25 - 2	1111.50	0.00 0.41	2550.35 -3137.36	2551.42	145.39 -137.21	145.39	0.12 3.56	0.09 -0.09	-1.75
VB25 - 3	1111.50	0.00 0.13	-2471.97 -563.75	798.24	-124.53 58.29	58.29	2.70 1.74	-0.05 0.05	-7.68

CASO: 1.3G1+1.4G2+1.4Q+D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	1062.75	0.00 0.20	-1273.11 106.89	725.14	319.86 -228.82	0.00	2.05 1.13	0.18 -0.18	28.32
VB1 - 2	6020.12	0.00 0.04	106.84 -10605.95	106.84	185.54 -136.89	0.00	-16.94 20.32	0.55 -0.55	28.40
VB1 - 3	8470.52	0.00 0.37	-12000.75 -3213.59	7749.99	-87.10 -173.21	0.00	19.08 12.47	0.02 -0.02	-3.03
VB1 - 4	7193.22	0.00 0.47	-3205.93 -13165.29	0.00	-347.97 -478.21	0.00	-17.29 21.14	0.25 -0.25	32.55



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VB1 - 5	8998.03	0.00 0.18	-12609.60 -1566.92	5204.93	-432.99 492.11	0.00	18.32 11.04	-0.28 0.28	-13.97
VB2 - 1	1339.00	0.00 0.51	-1521.96 -725.72	3121.05	6.05 217.99	217.99	3.53 3.21	-0.04 0.04	38.25
VB2 - 2	1339.00	0.00 0.52	-1111.97 -1129.68	0.00	535.54 -286.13	0.00	1.52 1.54	0.36 -0.36	-47.75
VB2 - 3	1339.00	0.00 0.52	-1130.27 -3338.18	0.00	-286.13 -464.84	0.00	-2.50 3.49	0.24 -0.24	-47.75
VB2 - 4	6488.76	0.00 0.70	-3338.15 -15476.14	0.00	-142.84 -74.87	0.00	-20.29 23.78	-0.12 0.12	-47.75
VB2 - 5	7692.44	0.00 0.90	-16584.28 2086.28	2086.28	89.37 186.61	0.00	23.01 -15.28	-0.10 0.10	0.66
VB2 - 6	10883.45	0.00 0.90	2084.08 10262.01	10262.01	186.61 -92.90	0.00	14.31 -2.60	0.26 -0.26	0.66
VB2 - 7	7957.42	0.00 0.90	10260.10 1074.38	10534.98	-92.90 -374.71	0.00	1.64 11.62	0.17 -0.17	0.66
VB2 - 8	6726.45	0.00 0.81	1066.88 -9924.42	1066.88	-539.83 -497.32	0.00	-16.28 20.38	-0.07 0.07	0.66
VB2 - 9	9933.86	0.00 0.52	-9784.08 4643.05	4643.05	-368.47 94.29	0.00	17.63 -2.54	-0.30 0.30	-2.33
VB2 - 10	8710.99	0.00 0.52	4645.91 -6137.26	4945.34	94.29 217.93	0.00	1.52 13.63	-0.07 0.07	-2.33
VB2 - 11	1339.00	0.00 0.05	-5735.64 -82.82	0.00	-349.12 7.70	7.70	3.89 0.05	-0.12 0.12	-4.38
VB3 - 1	1062.75	0.00 0.22	-299.93 818.53	1059.13	59.26 11.03	59.26	1.70 0.72	0.02 -0.02	3.02
VB3 - 2	1062.75	0.00 0.22	819.11 -2251.79	819.11	11.03 -168.61	11.03	-1.68 3.06	0.14 -0.14	3.02
VB3 - 3	1062.75	0.00 0.09	-2655.41 501.94	501.94	232.79 -55.76	232.79	3.67 -2.61	0.29 -0.29	2.51
VB3 - 4	1062.75	0.00 0.09	504.14 1652.83	1652.83	-55.76 19.07	0.00	1.64 -0.50	-0.07 0.07	2.51
VB3 - 5	1062.75	0.00 0.09	1654.75 -2165.71	1654.75	19.07 -33.63	19.07	-0.47 2.89	0.02 -0.02	2.51
VB3 - 6	1062.75	0.00 0.23	-2121.80 992.52	992.52	110.09 -155.40	110.09	2.86 -1.24	0.17 -0.17	-18.13
VB3 - 7	1062.75	0.00 0.23	989.67 22.00	1014.19	-155.40 -62.59	0.00	0.23 1.45	-0.06 0.06	-18.13
VB4 - 1	1428.38	0.00 0.16	-1656.34 -14132.96	6063.60	44.17 -93.90	44.17	4.70 7.60	0.02 -0.02	-0.46
VB4 - 2	1428.37	0.00 0.62	-14914.95 6830.44	8805.03	201.05 -84.01	201.05	8.23 2.38	0.04 -0.04	-13.16
VB4 - 3	1428.38	0.00 0.82	6842.89 4855.86	6842.89	117.42 7.18	0.00	-0.10 2.38	0.07 -0.07	27.50
VB4 - 4	1428.38	0.00 0.82	4864.56 -3169.20	4864.56	7.18 -3.63	7.18	-4.14 6.33	0.01 -0.01	27.50
VB5 - 1	1062.75	0.00 0.25	-817.25 2332.01	2332.01	-54.65 21.47	21.47	2.84 -1.17	-0.05 0.05	-10.50
VB5 - 2	1062.75	0.00 0.25	2323.31 0.00	2323.31	21.47 0.00	21.47	-0.59 2.30	0.01 -0.01	-10.50
VB6 - 1	1428.38	0.00 0.03	-1500.13 -15297.28	5728.46	-30.75 76.05	76.05	4.54 7.75	-0.01 0.01	1.11
VB6 - 2	1428.38	0.00 0.12	-16255.68 -2594.72	11074.37	77.61 -122.12	77.61	8.84 6.25	0.02 -0.02	1.66
VB7 - 1	1428.38	0.00 0.10	-1658.00 -15237.89	5651.43	-66.72 75.64	75.64	4.57 7.72	-0.02 0.02	-0.23
VB7 - 2	1428.38	0.00 0.26	-16311.44 -2441.42	11140.74	53.40 -39.56	53.40	8.86 6.23	0.01 -0.01	-0.14
VB8 - 1	1428.38	0.00 1.03	-2745.97 -14018.36	5446.08	-70.50 63.55	63.55	4.84 7.46	-0.02 0.02	-4.69
VB8 - 2	1428.38	0.00 1.71	-15802.27 -4361.21	10247.07	39.53 15.22	39.53	8.63 6.46	0.00 0.00	4.05
VB9 - 1	1111.50	0.00	-1451.31	2078.64	55.28	55.28	2.80	0.02	-0.26


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		0.50	-3927.14		-56.66		3.66	-0.02	
VB9 - 2	1111.50	0.00	-3936.27	1971.08	-15.53	10.21	3.62	0.00	-0.08
		0.50	-3388.66		10.21		3.45	0.00	
VB10 - 1	1111.50	0.00	-3015.50	1191.14	43.39	43.39	3.06	0.02	-0.30
		0.34	-2200.42		-41.33		2.75	-0.02	
VB10 - 2	1111.50	0.00	-2043.48	1013.56	-62.14	7.10	2.61	-0.02	2.04
		0.28	-499.84		7.10		1.83	0.02	
VB11	1014.00	0.00	-93.27	0.00	-52.59	92.77	-1.73	-0.08	3.66
		0.08	-5320.62		92.77		3.69	0.08	
VB12	7165.34	0.00	-7052.31	9579.34	-233.35	0.00	16.44	-0.12	-0.80
		0.98	-3709.73		262.64		13.09	0.12	
VB13	1014.00	0.00	0.00	455.11	0.00	0.00	0.97	0.00	-0.59
		0.12	0.00		0.00		0.97	0.00	
VB14	7972.04	-0.36	0.00	17865.34	-322.00	0.00	16.80	-0.18	-0.03
		0.00	0.00		414.36		15.81	0.18	
VB15 - 1	292.50	-0.15	-311.16	586.21	55.28	55.28	0.72	0.02	-0.39
		0.00	-1036.52		-52.60		0.97	-0.02	
VB15 - 2	292.50	-0.11	-1105.59	508.52	-30.36	33.54	0.97	-0.01	0.01
		0.00	-846.12		33.54		0.89	0.01	
VB15 - 3	292.50	-0.07	-894.82	380.64	31.98	31.98	0.86	0.02	0.78
		0.00	-371.96		-56.97		0.66	-0.02	
VB15 - 4	292.50	-0.05	-392.25	0.00	-351.92	372.01	-0.08	-0.35	2.01
		0.00	-1169.98		372.01		0.68	0.35	
VB15 - 5	292.50	0.00	-1195.98	1451.36	-28.24	115.52	1.65	-0.07	-2.82
		0.10	1451.36		115.52		-1.08	0.07	
VB16	1014.00	-0.36	0.00	455.11	0.00	0.00	0.97	0.00	-2.20
		0.00	0.00		0.00		0.97	0.00	
VB17	1014.00	0.00	0.00	455.11	0.00	0.00	0.97	0.00	-1.91
		0.09	0.00		0.00		0.97	0.00	
VB18	2421.31	-0.24	0.00	7095.08	165.12	0.00	4.67	0.09	7.50
		0.00	0.00		-174.76		4.81	-0.09	
VB19	1062.75	0.00	-467.69	1872.15	-133.99	152.47	2.24	-0.15	1.83
		0.25	1872.15		152.47		-0.18	0.15	
VB20	1062.75	-0.23	0.00	476.99	0.00	0.00	1.01	0.00	2.85
		0.00	0.00		0.00		1.01	0.00	
VB21 - 1	1062.75	0.00	-1305.36	5026.98	48.94	48.94	3.67	0.04	8.36
		0.44	5026.98		-67.42		-0.18	-0.04	
VB21 - 2	1062.75	0.00	5067.64	5067.64	-268.85	72.41	-2.10	-0.17	-4.09
		0.47	-1394.17		72.41		4.26	0.17	
VB22	1062.75	-0.05	-847.67	746.09	554.83	0.00	1.84	0.29	5.88
		0.00	-1195.90		-496.12		2.03	-0.29	
VB23	1062.75	0.00	0.00	1454.57	0.00	0.00	1.76	0.00	8.70
		0.06	0.00		0.00		1.76	0.00	
VB24 - 1	1111.50	0.00	-1405.86	2123.02	13.86	13.86	2.80	0.01	1.27
		0.48	-3884.05		-24.03		3.66	-0.01	
VB24 - 2	1111.50	0.00	-3693.11	1758.59	-25.73	12.18	3.48	-0.01	-0.10
		0.40	-4050.67		12.18		3.59	0.01	
VB25 - 1	1111.50	0.00	-4175.78	2514.97	-165.73	159.74	4.56	-0.17	-1.80
		0.42	2514.97		159.74		-2.43	0.17	
VB25 - 2	1111.50	0.00	2525.46	2529.19	159.74	159.74	0.13	0.08	-1.80
		0.41	-3119.81		-115.08		3.55	-0.08	
VB25 - 3	1111.50	0.00	-2463.37	797.50	-129.20	55.79	2.69	-0.05	-7.74
		0.11	-569.94		55.79		1.75	0.05	

CASO: 1.3G1+1.4G2+1.4Q+D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	1062.75	0.00	-1165.67	732.05	466.46	0.00	2.00	0.28	28.58
		0.11	56.35		-359.67		1.18	-0.28	
VB1 - 2	6020.12	-0.12	56.30	56.30	187.31	0.00	-16.99	0.64	28.62
		0.00	-10687.13		-187.02		20.37	-0.64	

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VB1 - 3	8470.52	0.00 0.24	-11950.82 -3249.84	7749.27	-140.55 -192.03	0.00	19.06 12.50	0.01 -0.01	-3.01
VB1 - 4	7193.22	0.00 0.38	-3242.23 -13213.41	0.00	-445.10 -582.65	0.00	-17.31 21.16	0.27 -0.27	32.98
VB1 - 5	8998.03	0.00 0.12	-12524.03 -1681.15	5178.11	-540.86 627.25	0.00	18.26 11.10	-0.36 0.36	-14.47
VB2 - 1	1339.00	0.00 0.43	-1361.45 -770.70	3174.72	80.70 66.29	80.70	3.49 3.25	0.00 0.00	38.03
VB2 - 2	1339.00	0.00 0.56	-1101.85 -1198.92	0.00	573.71 -349.66	0.00	1.49 1.57	0.40 -0.40	-47.30
VB2 - 3	1339.00	0.00 0.56	-1199.52 -3433.06	0.00	-349.66 -566.22	0.00	-2.54 3.52	0.29 -0.29	-47.30
VB2 - 4	6488.76	0.00 0.80	-3433.03 -15590.41	0.00	-122.94 -86.85	0.00	-20.32 23.81	-0.06 0.06	-47.30
VB2 - 5	7692.44	0.00 1.03	-16495.00 2152.82	2152.82	57.87 142.12	0.00	22.99 -15.26	-0.08 0.08	0.53
VB2 - 6	10883.45	0.00 1.03	2150.61 10304.22	10304.22	142.12 -123.84	0.00	14.29 -2.58	0.25 -0.25	0.53
VB2 - 7	7957.42	0.00 1.03	10302.27 1078.42	10572.38	-123.84 -404.83	0.00	1.61 11.64	0.17 -0.17	0.53
VB2 - 8	6726.45	0.00 0.90	1070.97 -9933.64	1070.97	-649.16 -592.18	0.00	-16.31 20.40	-0.10 0.10	0.53
VB2 - 9	9933.86	0.00 0.67	-9738.09 4626.83	4626.83	-469.37 124.82	0.00	17.59 -2.49	-0.39 0.39	-2.26
VB2 - 10	8710.99	0.00 0.67	4629.72 -6224.67	4920.25	124.82 262.14	0.00	1.48 13.68	-0.08 0.08	-2.26
VB2 - 11	1339.00	0.00 0.10	-5660.03 -277.83	0.00	-467.01 72.61	72.61	3.80 0.15	-0.18 0.18	-4.32
VB3 - 1	1062.75	0.00 0.19	-257.35 801.80	1058.58	54.51 10.53	54.51	1.67 0.74	0.02 -0.02	2.80
VB3 - 2	1062.75	0.00 0.19	802.40 -2302.24	802.40	10.53 -157.87	10.53	-1.71 3.09	0.13 -0.13	2.80
VB3 - 3	1062.75	0.00 0.05	-2612.61 528.58	528.58	217.98 -51.80	217.98	3.66 -2.59	0.27 -0.27	2.59
VB3 - 4	1062.75	0.00 0.05	530.80 1662.19	1662.19	-51.80 15.66	0.00	1.62 -0.48	-0.06 0.06	2.59
VB3 - 5	1062.75	0.00 0.05	1664.14 -2192.89	1664.14	15.66 -25.06	15.66	-0.49 2.90	0.02 -0.02	2.59
VB3 - 6	1062.75	0.00 0.18	-2104.52 982.72	982.72	115.95 -188.14	115.95	2.84 -1.22	0.20 -0.20	-18.07
VB3 - 7	1062.75	0.00 0.18	979.83 -16.01	1000.33	-188.14 -11.16	0.00	0.21 1.47	-0.11 0.11	-18.07
VB4 - 1	1428.38	0.00 0.20	-1583.01 -14179.63	6092.28	90.79 -149.01	90.79	4.68 7.61	0.03 -0.03	-0.38
VB4 - 2	1428.37	0.00 0.68	-14868.91 6794.82	8787.06	125.89 -50.02	125.89	8.22 2.39	0.02 -0.02	-13.40
VB4 - 3	1428.38	0.00 0.86	6807.49 4770.31	6807.49	57.91 -8.31	0.00	-0.13 2.42	0.04 -0.04	27.92
VB4 - 4	1428.38	0.00 0.86	4778.99 -3302.78	4778.99	-8.31 70.11	70.11	-4.17 6.36	-0.05 0.05	27.92
VB5 - 1	1062.75	0.00 0.23	-771.62 2355.08	2355.08	-89.40 28.28	28.28	2.82 -1.15	-0.07 0.07	-10.57
VB5 - 2	1062.75	0.00 0.23	2346.40 0.00	2346.40	28.28 0.00	28.28	-0.60 2.31	0.02 -0.02	-10.57
VB6 - 1	1428.38	0.00 0.04	-1364.96 -15379.72	5782.65	-3.50 20.74	20.74	4.52 7.78	0.00 0.00	1.20
VB6 - 2	1428.38	0.00 0.13	-16175.84 -2730.16	11030.01	5.74 -53.04	5.74	8.82 6.27	0.01 -0.01	1.62
VB7 - 1	1428.38	0.00 0.09	-1507.99 -15329.54	5711.51	2.91 -4.17	2.91	4.54 7.75	0.00 0.00	-0.17
VB7 - 2	1428.38	0.00 0.25	-16225.86 -2584.85	11092.68	10.99 -23.93	10.99	8.84 6.25	0.00 0.00	-0.17
VB8 - 1	1428.38	0.00	-2656.87	5475.21	-13.49	0.00	4.82	0.00	-4.49

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		1.03	-14080.94		-8.53		7.47	0.00	
VB8 - 2	1428.38	0.00 1.71	-15749.47 -4437.68	10225.29	3.75 15.50	15.50	8.61 6.47	0.00 0.00	3.93
VB9 - 1	1111.50	0.00 0.50	-1372.07 -3990.76	2094.90	6.86 -9.72	6.86	2.78 3.68	0.00 0.00	-0.29
VB9 - 2	1111.50	0.00 0.50	-3889.72 -3437.64	1968.33	-26.44 25.77	25.77	3.61 3.47	-0.01 0.01	-0.07
VB10 - 1	1111.50	0.00 0.33	-2961.21 -2246.89	1191.18	41.56 -43.15	41.56	3.04 2.77	0.02 -0.02	-0.27
VB10 - 2	1111.50	0.00 0.26	-1972.10 -592.41	990.02	-101.25 63.73	63.73	2.57 1.88	-0.04 0.04	2.01
VB11	1014.00	0.00 0.03	6.50 -5357.16	6.50	-48.46 85.47	85.47	-1.80 3.76	-0.07 0.07	3.74
VB12	7165.34	0.00 0.93	-6963.93 -3893.01	9531.90	-426.54 412.10	0.00	16.37 13.16	-0.20 0.20	-0.95
VB13	1014.00	0.00 0.11	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.60
VB14	7972.04	-0.36 0.00	0.00 0.00	17865.34	-443.28 546.98	0.00	16.80 15.81	-0.24 0.24	-0.03
VB15 - 1	292.50	-0.14 0.00	-173.88 -1141.26	623.35	17.23 -14.78	17.23	0.68 1.02	0.01 -0.01	-0.39
VB15 - 2	292.50	-0.11 0.00	-1032.24 -925.72	502.93	-29.94 33.60	33.60	0.95 0.91	-0.01 0.01	0.01
VB15 - 3	292.50	-0.08 0.00	-801.30 -454.66	376.87	48.59 -71.68	48.59	0.83 0.70	0.02 -0.02	0.78
VB15 - 4	292.50	-0.08 0.00	-294.86 -1175.54	0.00	-346.58 352.46	352.46	-0.13 0.73	-0.34 0.34	1.88
VB15 - 5	292.50	0.00 0.07	-1172.94 1279.94	1279.94	-23.31 105.03	105.03	1.55 -0.98	-0.07 0.07	-2.76
VB16	1014.00	-0.33 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-2.22
VB17	1014.00	0.00 0.08	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-1.95
VB18	2421.31	-0.26 0.00	0.00 0.00	7095.08	244.33 -253.07	0.00	4.67 4.81	0.13 -0.13	7.45
VB19	1062.75	0.00 0.27	-389.32 1792.85	1792.85	-130.96 144.07	144.07	2.16 -0.10	-0.14 0.14	1.87
VB20	1062.75	-0.31 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	2.89
VB21 - 1	1062.75	0.00 0.41	-1249.65 4994.69	4994.69	83.68 -108.97	83.68	3.65 -0.15	0.06 -0.06	8.47
VB21 - 2	1062.75	0.00 0.43	5036.01 -1438.88	5036.01	-216.90 25.27	25.27	-2.11 4.27	-0.12 0.12	-4.20
VB22	1062.75	-0.10 0.00	-747.36 -1329.54	739.94	710.56 -628.29	0.00	1.78 2.10	0.37 -0.37	5.76
VB23	1062.75	0.00 0.09	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.68
VB24 - 1	1111.50	0.00 0.46	-1310.75 -3959.69	2143.71	6.66 -14.32	6.66	2.77 3.68	0.00 0.00	1.23
VB24 - 2	1111.50	0.00 0.37	-3634.27 -4115.40	1757.64	-9.13 2.94	2.94	3.46 3.61	0.00 0.00	-0.09
VB25 - 1	1111.50	0.00 0.39	-4113.05 2547.36	2547.36	-115.47 149.66	149.66	4.54 -2.42	-0.14 0.14	-1.78
VB25 - 2	1111.50	0.00 0.37	2557.93 -3187.27	2557.93	149.66 -141.26	149.66	0.10 3.58	0.09 -0.09	-1.78
VB25 - 3	1111.50	0.00 0.09	-2379.30 -681.62	766.92	-91.30 10.07	10.07	2.65 1.80	-0.03 0.03	-7.72

**CASO: 1.3G1+1.4G2+1.4Q+D4**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
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VB1 - 1	1062.75	0.00 0.27	-1195.85 69.73	728.00	200.11 -110.64	0.00	2.01 1.17	0.10 -0.10	28.10
VB1 - 2	6020.12	0.00 0.14	69.71 -10665.27	69.71	229.37 -55.32	0.00	-16.98 20.36	0.49 -0.49	28.15
VB1 - 3	8470.52	0.00 0.52	-11960.54 -3244.51	7747.91	-7.18 -188.49	0.00	19.06 12.49	0.05 -0.05	-3.19
VB1 - 4	7193.22	0.00 0.55	-3236.85 -13205.96	0.00	-214.68 -351.40	0.00	-17.31 21.16	0.27 -0.27	32.74
VB1 - 5	8998.03	0.00 0.30	-12551.00 -1641.37	5188.68	-307.45 307.38	0.00	18.28 11.08	-0.19 0.19	-13.45
VB2 - 1	1339.00	0.00 0.48	-1349.55 -776.64	3177.34	-69.82 350.31	350.31	3.48 3.25	-0.08 0.08	38.47
VB2 - 2	1339.00	0.00 0.44	-1107.58 -1190.67	0.00	513.17 -219.51	0.00	1.49 1.56	0.32 -0.32	-48.19
VB2 - 3	1339.00	0.00 0.44	-1191.28 -3420.31	0.00	-219.51 -377.42	0.00	-2.53 3.52	0.21 -0.21	-48.19
VB2 - 4	6488.76	0.00 0.59	-3420.32 -15574.28	0.00	-117.66 -25.16	0.00	-20.32 23.81	-0.17 0.17	-48.19
VB2 - 5	7692.44	0.00 0.78	-16474.03 2158.18	2158.18	166.10 232.33	0.00	22.97 -15.24	-0.07 0.07	0.79
VB2 - 6	10883.45	0.00 0.78	2155.99 10292.89	10292.89	232.33 -75.12	0.00	14.27 -2.57	0.29 -0.29	0.79
VB2 - 7	7957.42	0.00 0.78	10290.98 1040.94	10557.82	-75.12 -387.62	0.00	1.60 11.65	0.19 -0.19	0.79
VB2 - 8	6726.45	0.00 0.77	1033.43 -9980.31	1033.43	-410.33 -387.38	0.00	-16.32 20.41	-0.04 0.04	0.79
VB2 - 9	9933.86	0.00 0.53	-9789.45 4627.53	4627.53	-246.50 66.47	0.00	17.63 -2.53	-0.21 0.21	-2.35
VB2 - 10	8710.99	0.00 0.53	4630.33 -6164.46	4928.31	66.47 155.67	0.00	1.52 13.64	-0.05 0.05	-2.35
VB2 - 11	1339.00	0.00 0.14	-5603.84 -278.65	0.00	-182.47 -59.50	0.00	3.78 0.17	-0.04 0.04	-4.47
VB3 - 1	1062.75	0.00 0.21	-254.83 796.20	1055.19	65.05 8.15	65.05	1.67 0.75	0.03 -0.03	3.20
VB3 - 2	1062.75	0.00 0.21	796.81 -2312.46	796.81	8.15 -162.46	8.15	-1.71 3.09	0.13 -0.13	3.20
VB3 - 3	1062.75	0.00 0.12	-2615.42 527.83	527.83	226.37 -55.04	226.37	3.66 -2.59	0.28 -0.28	2.44
VB3 - 4	1062.75	0.00 0.12	530.02 1663.63	1663.63	-55.04 22.18	0.00	1.63 -0.48	-0.07 0.07	2.44
VB3 - 5	1062.75	0.00 0.12	1665.55 -2186.80	1665.55	22.18 -43.13	22.18	-0.48 2.90	0.03 -0.03	2.44
VB3 - 6	1062.75	0.00 0.26	-2090.18 986.30	986.30	102.08 -115.15	102.08	2.83 -1.22	0.14 -0.14	-18.08
VB3 - 7	1062.75	0.00 0.26	983.50 -23.54	1002.40	-115.15 -96.65	0.00	0.20 1.48	-0.01 0.01	-18.08
VB4 - 1	1428.38	0.00 0.16	-1556.18 -14198.14	6102.24	-39.35 -1.89	0.00	4.68 7.62	0.00 0.00	-0.52
VB4 - 2	1428.37	0.00 0.61	-14864.22 6797.06	8789.83	224.06 -71.76	224.06	8.22 2.39	0.04 -0.04	-12.82
VB4 - 3	1428.38	0.00 0.83	6809.72 4752.61	6809.72	155.86 6.32	0.00	-0.14 2.43	0.09 -0.09	26.77
VB4 - 4	1428.38	0.00 0.83	4761.27 -3339.58	4761.27	6.32 -53.65	6.32	-4.19 6.38	0.04 -0.04	26.77
VB5 - 1	1062.75	0.00 0.25	-755.76 2363.09	2363.09	-47.33 19.19	19.19	2.82 -1.15	-0.04 0.04	-10.33
VB5 - 2	1062.75	0.00 0.25	2354.43 0.00	2354.43	19.19 0.00	19.19	-0.61 2.32	0.01 -0.01	-10.33
VB6 - 1	1428.38	0.00 0.03	-1341.87 -15393.25	5792.12	-90.02 147.01	147.01	4.51 7.78	-0.03 0.03	1.01
VB6 - 2	1428.38	0.00 0.12	-16162.62 -2753.29	11022.26	118.87 -136.09	118.87	8.81 6.27	0.02 -0.02	1.72
VB7 - 1	1428.38	0.00	-1504.05	5713.04	-86.41	119.86	4.54	-0.02	-0.30



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		0.09	-15332.11		119.86		7.75	0.02	
VB7 - 2	1428.38	0.00 0.26	-16222.51 -2590.84	11090.64	123.54 -99.69	123.54	8.83 6.25	0.02 -0.02	-0.12
VB8 - 1	1428.38	0.00 1.02	-2666.18 -14074.88	5471.98	-72.97 100.61	100.61	4.82 7.47	-0.02 0.02	-4.88
VB8 - 2	1428.38	0.00 1.70	-15748.28 -4441.09	10223.83	102.70 -33.53	102.70	8.61 6.47	0.01 -0.01	4.14
VB9 - 1	1111.50	0.00 0.51	-1523.78 -3868.99	2064.72	49.05 -48.12	49.05	2.83 3.63	0.02 -0.02	-0.30
VB9 - 2	1111.50	0.00 0.51	-3980.22 -3342.25	1973.77	2.77 -4.04	2.77	3.64 3.44	0.00 0.00	-0.08
VB10 - 1	1111.50	0.00 0.35	-3069.55 -2152.86	1191.80	79.11 -74.45	79.11	3.08 2.73	0.03 -0.03	-0.27
VB10 - 2	1111.50	0.00 0.30	-2110.51 -413.19	1035.51	-23.48 -48.55	0.00	2.65 1.80	0.01 -0.01	2.02
VB11	1014.00	0.00 0.12	-184.02 -5282.09	0.00	-58.96 101.93	101.93	-1.66 3.62	-0.08 0.08	3.72
VB12	7165.34	0.00 1.02	-7128.00 -3547.68	9622.52	-70.41 140.87	0.00	16.50 13.03	-0.05 0.05	-0.89
VB13	1014.00	0.00 0.11	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.61
VB14	7972.04	-0.38 0.00	0.00 0.00	17865.34	-259.76 340.01	0.00	16.80 15.81	-0.15 0.15	0.01
VB15 - 1	292.50	-0.16 0.00	-441.97 -936.36	557.41	24.98 -22.56	24.98	0.76 0.93	0.01 -0.01	-0.39
VB15 - 2	292.50	-0.11 0.00	-1176.22 -769.45	514.70	-26.25 30.48	30.48	0.99 0.87	-0.01 0.01	0.01
VB15 - 3	292.50	-0.07 0.00	-984.04 -294.18	387.77	58.62 -81.93	58.62	0.90 0.63	0.03 -0.03	0.78
VB15 - 4	292.50	-0.03 0.00	-487.57 -1160.36	0.00	-307.89 334.92	334.92	-0.03 0.63	-0.31 0.31	1.88
VB15 - 5	292.50	0.00 0.10	-1213.71 1614.45	1614.45	-51.13 135.86	135.86	1.74 -1.17	-0.10 0.10	-2.73
VB16	1014.00	-0.35 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-2.19
VB17	1014.00	0.00 0.10	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-1.92
VB18	2421.31	-0.22 0.00	0.00 0.00	7095.08	22.72 -26.19	0.00	4.67 4.81	0.01 -0.01	7.51
VB19	1062.75	0.00 0.23	-549.43 1955.66	1955.66	-136.64 161.34	161.34	2.32 -0.27	-0.15 0.15	1.85
VB20	1062.75	-0.15 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	2.80
VB21 - 1	1062.75	0.00 0.45	-1350.47 5007.96	5007.96	43.71 -62.00	43.71	3.68 -0.19	0.03 -0.03	8.48
VB21 - 2	1062.75	0.00 0.51	5047.55 -1332.31	5047.55	-289.62 101.47	101.47	-2.06 4.22	-0.19 0.19	-4.17
VB22	1062.75	0.00 0.02	-956.51 -1051.20	764.02	329.34 -315.17	0.00	1.91 1.96	0.18 -0.18	5.82
VB23	1062.75	0.00 0.05	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.66
VB24 - 1	1111.50	0.00 0.48	-1503.32 -3805.16	2104.62	-28.70 16.88	16.88	2.83 3.63	-0.01 0.01	1.23
VB24 - 2	1111.50	0.00 0.43	-3748.83 -3995.15	1756.70	-35.18 27.64	27.64	3.50 3.58	-0.01 0.01	-0.10
VB25 - 1	1111.50	0.00 0.46	-4253.47 2507.55	2507.55	-160.50 155.48	155.48	4.60 -2.47	-0.17 0.17	-1.77
VB25 - 2	1111.50	0.00 0.45	2517.88 -3069.91	2525.20	155.48 -111.03	155.48	0.15 3.53	0.08 -0.08	-1.77
VB25 - 3	1111.50	0.00 0.15	-2556.04 -452.07	837.80	-162.43 104.01	104.01	2.75 1.69	-0.07 0.07	-7.69



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CASO: 1.3G1+1.4G2+1.4V1+0.84D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	1062.75	0.00 0.26	-86.39 -286.20	1028.00	103.84 -64.65	0.00	1.53 1.66	0.06 -0.06	6.66
VB1 - 2	1834.82	0.00 0.17	-285.41 -3671.20	0.00	131.84 1.54	0.00	-5.33 6.38	0.22 -0.22	6.41
VB1 - 3	2043.74	0.00 0.17	-2996.55 -603.79	1825.61	13.53 -99.23	0.00	4.56 3.08	0.03 -0.03	-0.53
VB1 - 4	1810.95	0.00 0.16	-602.06 -3601.84	0.00	-67.49 -127.22	0.00	-5.34 6.29	0.12 -0.12	6.14
VB1 - 5	2031.22	0.00 0.05	-2543.33 -1069.99	923.78	-113.14 89.60	0.00	3.80 2.83	-0.06 0.06	-4.61
VB2 - 1	1339.00	0.00 0.21	122.90 -2111.78	3314.40	-46.49 145.11	145.11	2.92 3.81	-0.04 0.04	10.27
VB2 - 2	1339.00	0.00 0.45	-1767.71 -534.14	0.00	166.53 -52.61	0.00	2.07 0.99	0.10 -0.10	-12.04
VB2 - 3	1339.00	0.00 0.45	-534.96 -2338.79	0.00	-52.61 -101.70	0.00	-1.95 2.94	0.07 -0.07	-12.04
VB2 - 4	2145.48	0.00 0.54	-2339.58 -6396.53	0.00	84.64 138.97	0.00	-6.73 7.91	-0.10 0.10	-12.04
VB2 - 5	2215.49	0.00 0.48	-5127.10 839.03	839.03	23.05 -24.02	0.00	7.13 -4.91	0.05 -0.05	0.09
VB2 - 6	2522.88	0.00 0.48	840.51 3497.58	3497.58	-24.02 -38.49	0.00	3.94 -1.23	0.01 -0.01	0.09
VB2 - 7	2243.12	0.00 0.48	3496.82 723.73	3510.81	-38.49 -131.28	0.00	0.26 3.50	0.06 -0.06	0.09
VB2 - 8	1996.52	0.00 0.49	722.03 -3040.43	722.03	-106.62 -87.57	0.00	-5.76 6.95	-0.03 0.03	0.09
VB2 - 9	2387.97	0.00 0.68	-2541.10 1232.82	1232.82	-162.89 49.05	0.00	4.37 -0.74	-0.14 0.14	7.81
VB2 - 10	2238.72	0.00 0.68	1234.08 -2659.39	1234.08	49.05 83.55	0.00	-0.27 4.17	-0.02 0.02	7.81
VB2 - 11	1339.00	0.00 0.40	-1401.88 -1704.90	0.00	8.52 -5.99	8.52	1.87 2.08	0.00 0.00	-10.37
VB3 - 1	1062.75	0.00 0.15	114.27 575.06	1047.66	-38.42 11.78	0.00	1.41 1.01	-0.02 0.02	-0.44
VB3 - 2	1062.75	0.00 0.15	575.88 -2869.22	575.88	11.78 2.27	11.78	-1.97 3.35	0.01 -0.01	-0.44
VB3 - 3	1062.75	-0.02 0.00	-2283.79 738.83	738.83	-10.57 5.07	5.07	3.54 -2.47	-0.02 0.02	0.77
VB3 - 4	1062.75	-0.02 0.00	737.35 1741.87	1741.87	5.07 -14.10	0.00	1.51 -0.36	0.02 -0.02	0.77
VB3 - 5	1062.75	-0.02 0.00	1742.64 -2382.71	1742.64	-14.10 39.97	39.97	-0.60 3.02	-0.02 0.02	0.77
VB3 - 6	1062.75	-0.02 0.00	-1872.43 912.69	912.69	-7.84 -83.56	0.00	2.64 -1.03	0.05 -0.05	-14.19
VB3 - 7	1062.75	-0.02 0.00	911.42 -398.86	911.42	-83.56 26.79	26.79	0.01 1.67	-0.07 0.07	-14.19
VB4 - 1	1428.38	0.00 0.38	-758.53 -14672.83	6426.46	-200.92 117.06	117.06	4.53 7.76	-0.04 0.04	-0.08
VB4 - 2	1428.37	0.00 0.85	-14433.55 6466.40	8634.47	-73.35 196.91	196.91	8.12 2.49	-0.04 0.04	-12.90
VB4 - 3	1428.38	0.00 1.04	6481.17 3859.56	6481.17	31.00 -52.72	0.00	-0.49 2.78	0.05 -0.05	25.69
VB4 - 4	1428.38	0.00 1.04	3867.96 -4773.40	3867.96	-52.72 170.16	170.16	-4.54 6.73	-0.15 0.15	25.69
VB5 - 1	1062.75	0.00 0.20	-229.84 2629.00	2629.00	-205.19 53.28	53.28	2.65 -0.98	-0.16 0.16	-9.96
VB5 - 2	1062.75	0.00 0.20	2620.60 0.00	2620.60	53.28 0.00	53.28	-0.77 2.48	0.03 -0.03	-9.96
VB6 - 1	1428.38	0.00	16.73	6386.94	-189.53	173.36	4.27	-0.04	1.03






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		0.06	-16176.49		173.36		8.03	0.04	
VB6 - 2	1428.38	0.00 0.15	-15388.17 -4133.23	10553.79	-41.62 87.72	87.72	8.61 6.48	-0.01 0.01	1.89
VB7 - 1	1428.38	0.00 0.10	-143.50 -16124.93	6300.59	169.21 -87.10	169.21	4.29 8.00	0.03 -0.03	-0.24
VB7 - 2	1428.38	0.00 0.23	-15473.92 -3900.47	10651.80	203.22 -264.76	203.22	8.64 6.45	0.04 -0.04	-0.19
VB8 - 1	1428.38	0.00 1.05	-1811.61 -14670.09	5766.25	181.76 -87.91	181.76	4.65 7.64	0.03 -0.03	-4.73
VB8 - 2	1428.38	0.00 1.66	-15215.08 -5230.34	10008.33	178.78 -220.45	178.78	8.49 6.60	0.04 -0.04	4.02
VB9 - 1	1111.50	0.00 0.54	-1430.97 -3943.52	2082.51	-196.90 199.25	199.25	2.80 3.66	-0.07 0.07	-0.56
VB9 - 2	1111.50	0.00 0.57	-3930.74 -3393.16	1971.44	11.26 24.33	24.33	3.62 3.45	0.00 0.00	-0.08
VB10 - 1	1111.50	0.00 0.38	-3021.89 -2192.08	1192.68	217.35 -209.70	217.35	3.06 2.74	0.08 -0.08	0.02
VB10 - 2	1111.50	0.00 0.27	-2042.59 -498.49	1014.72	4.12 -59.18	4.12	2.61 1.83	0.02 -0.02	2.55
VB11	1014.00	0.00 0.04	-182.29 -1136.08	0.00	47.79 -67.99	47.79	0.49 1.47	0.06 -0.06	3.90
VB12	1807.55	0.00 0.32	-1827.41 -1099.40	2342.96	-80.78 97.85	0.00	4.01 3.44	-0.04 0.04	-2.20
VB13	1014.00	0.00 0.03	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.82
VB14	1824.09	-0.16 0.00	0.00 0.00	3794.88	-186.34 196.49	0.00	3.79 3.67	-0.09 0.09	0.79
VB15 - 1	292.50	-0.16 0.00	-308.89 -1040.01	586.10	-267.59 266.94	266.94	0.72 0.98	-0.09 0.09	-0.35
VB15 - 2	292.50	-0.13 0.00	-1110.43 -831.70	513.62	-23.37 36.00	36.00	0.97 0.89	-0.01 0.01	0.01
VB15 - 3	292.50	-0.10 0.00	-873.57 -457.20	342.14	250.98 -262.61	250.98	0.84 0.68	0.10 -0.10	0.79
VB15 - 4	292.50	-0.09 0.00	-512.70 -49.70	0.00	-72.21 105.91	105.91	0.53 0.08	-0.09 0.09	0.77
VB15 - 5	292.50	-0.11 0.00	-69.51 425.98	425.98	122.50 -126.41	122.50	0.54 0.03	0.13 -0.13	1.17
VB16	1014.00	0.00 0.03	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	1.48
VB17	1014.00	-0.04 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.76
VB18	1154.52	-0.09 0.00	0.00 0.00	2372.19	-24.66 31.74	0.00	2.25 2.26	-0.01 0.01	1.70
VB19	1062.75	0.00 0.12	-285.87 519.47	691.65	57.18 -83.03	57.18	1.44 0.61	0.07 -0.07	0.16
VB20	1062.75	-0.12 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	1.27
VB21 - 1	1062.75	0.00 0.32	-1280.74 4758.79	4758.79	215.47 -271.21	215.47	3.58 -0.09	0.15 -0.15	9.64
VB21 - 2	1062.75	0.00 0.41	4797.38 -1271.83	4797.38	-105.31 -22.46	0.00	-1.91 4.07	-0.04 0.04	-5.12
VB22	1062.75	0.00 0.14	-594.01 -703.04	1119.34	60.92 -86.30	0.00	1.91 1.97	0.04 -0.04	0.49
VB23	1062.75	0.00 0.20	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.40
VB24 - 1	1111.50	0.00 0.45	-1428.12 -3859.24	2121.87	-224.32 217.42	217.42	2.81 3.65	-0.08 0.08	0.91
VB24 - 2	1111.50	0.00 0.36	-3683.45 -4092.79	1743.20	-1.42 44.91	44.91	3.47 3.60	-0.01 0.01	-0.15
VB25 - 1	1111.50	0.00 0.43	-4262.98 2648.64	2648.64	35.21 162.09	162.09	4.67 -2.55	-0.07 0.07	-1.56
VB25 - 2	1111.50	0.00 0.39	2658.60 -3216.33	2658.60	162.09 -264.49	162.09	0.06 3.61	0.13 -0.13	-1.56



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VB25 - 3	1111.50	0.00 0.23	-2538.05 -496.88	816.13	-67.69 37.75	37.75	2.73 1.71	-0.03 0.03	-7.28
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CASO: 1.3G1+1.4G2+1.4V2+0.84D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	1062.75	0.00 0.22	-1340.50 310.79	838.61	47.31 4.27	0.00	2.14 1.04	0.01 -0.01	6.39
VB1 - 2	1834.82	0.00 0.22	311.28 -2715.46	311.28	71.65 -27.81	0.00	-4.71 5.76	0.17 -0.17	6.61
VB1 - 3	2043.74	0.00 0.21	-3606.63 -150.29	1865.49	-17.92 -56.28	0.00	4.84 2.79	0.01 -0.01	0.06
VB1 - 4	1810.95	0.00 0.21	-148.25 -3002.12	0.00	-54.64 -108.30	0.00	-5.06 6.01	0.10 -0.10	1.64
VB1 - 5	2031.22	0.00 0.09	-3524.52 217.06	1354.17	-95.11 91.65	0.00	4.49 2.14	-0.06 0.06	-4.67
VB2 - 1	1339.00	0.00 0.52	-2354.92 -1399.33	2370.96	169.64 1.75	169.64	3.56 3.18	0.03 -0.03	10.18
VB2 - 2	1339.00	0.00 0.19	-1867.70 432.88	533.33	234.66 -188.89	0.00	2.54 0.52	0.19 -0.19	-11.80
VB2 - 3	1339.00	0.00 0.19	432.42 -1026.83	432.42	-188.89 -220.32	0.00	-1.49 2.47	0.04 -0.04	-11.80
VB2 - 4	2145.48	0.00 0.20	-1027.33 -4823.58	0.00	-251.81 -188.41	0.00	-6.26 7.44	-0.11 0.11	-11.80
VB2 - 5	2215.49	0.00 0.28	-6601.10 -185.85	0.00	156.86 382.75	0.00	7.58 -5.35	-0.22 0.22	-0.15
VB2 - 6	2522.88	0.00 0.28	-184.48 2953.11	2953.11	382.75 -8.61	0.00	4.39 -1.67	0.36 -0.36	-0.15
VB2 - 7	2243.12	0.00 0.28	2952.72 932.90	3060.87	-8.61 -278.50	0.00	0.71 3.05	0.16 -0.16	-0.15
VB2 - 8	1996.52	0.00 0.28	930.87 -2568.76	930.87	-260.65 -298.14	0.00	-5.31 6.50	0.06 -0.06	-0.15
VB2 - 9	2387.97	-0.25 0.00	-2848.29 1468.20	1468.20	5.10 36.95	0.00	4.73 -1.10	-0.02 0.02	7.29
VB2 - 10	2238.72	-0.25 0.00	1469.69 -1802.68	1469.69	36.95 52.29	0.00	0.08 3.81	-0.01 0.01	7.29
VB2 - 11	1339.00	-0.13 0.00	-2918.00 1188.20	1313.48	-19.04 -186.38	0.00	3.37 0.58	0.06 -0.06	-10.20
VB3 - 1	1062.75	0.00 0.21	-696.52 939.97	1051.66	133.91 2.80	133.91	1.93 0.49	0.06 -0.06	-0.37
VB3 - 2	1062.75	0.00 0.21	940.43 -1835.72	940.43	2.80 -256.87	2.80	-1.46 2.83	0.20 -0.20	-0.37
VB3 - 3	1062.75	0.00 0.28	-3052.59 250.67	250.67	366.21 -92.25	366.21	3.82 -2.75	0.46 -0.46	0.76
VB3 - 4	1062.75	0.00 0.28	249.30 1554.09	1554.09	-92.25 50.28	0.00	1.78 -0.64	-0.13 0.13	0.76
VB3 - 5	1062.75	0.00 0.28	1554.48 -1935.82	1554.48	50.28 -111.88	50.28	-0.33 2.74	0.07 -0.07	0.76
VB3 - 6	1062.75	0.00 0.49	-2322.79 1063.76	1063.76	150.09 -47.73	150.09	3.04 -1.42	0.13 -0.13	-15.24
VB3 - 7	1062.75	0.00 0.49	1062.28 377.93	1138.02	-47.73 -234.41	0.00	0.41 1.27	0.12 -0.12	-15.24
VB4 - 1	1428.38	0.00 0.01	-2385.97 -13688.44	5794.19	281.17 -290.29	281.17	4.83 7.46	0.07 -0.07	-0.17
VB4 - 2	1428.37	0.00 0.35	-15283.71 7120.83	8952.90	286.36 -180.10	286.36	8.32 2.29	0.06 -0.06	-14.04
VB4 - 3	1428.38	0.00 0.60	7131.48 5653.24	7147.12	325.21 66.18	0.00	0.22 2.07	0.16 -0.16	28.60
VB4 - 4	1428.38	0.00 0.60	5662.16 -1884.43	5662.16	66.18 -258.28	66.18	-3.83 6.02	0.21 -0.21	28.60
VB5 - 1	1062.75	0.00	-1291.76	2092.09	72.79	72.79	2.99	0.05	-10.83




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		0.27	2092.09		-2.80		-1.32	-0.05	
VB5 - 2	1062.75	0.00 0.27	2083.16 0.00	2083.16	-2.80 0.00	0.00	-0.44 2.15	0.00 0.00	-10.83
VB6 - 1	1428.38	0.00 0.00	-2722.44 -14597.51	5231.34	102.28 -24.16	102.28	4.77 7.53	0.01 -0.01	1.05
VB6 - 2	1428.38	0.00 0.11	-16950.91 -1349.73	11533.31	138.07 -256.82	138.07	9.02 6.07	0.04 -0.04	1.32
VB7 - 1	1428.38	0.00 0.09	-2868.13 -14536.98	5167.18	-243.07 182.73	182.73	4.79 7.50	-0.05 0.05	-0.22
VB7 - 2	1428.38	0.00 0.28	-16974.22 -1275.05	11568.41	-98.35 164.40	164.40	9.03 6.06	-0.02 0.02	-0.29
VB8 - 1	1428.38	0.00 1.01	-3513.24 -13484.17	5193.34	-262.00 161.37	161.37	4.99 7.31	-0.05 0.05	-4.65
VB8 - 2	1428.38	0.00 1.76	-16284.87 -3646.68	10455.12	-97.72 217.92	217.92	8.74 6.35	-0.03 0.03	3.69
VB9 - 1	1111.50	0.00 0.46	-1434.68 -3940.55	2081.80	248.57 -253.32	248.57	2.80 3.66	0.09 -0.09	-0.03
VB9 - 2	1111.50	0.00 0.42	-3921.78 -3404.39	1969.97	-37.81 0.69	0.69	3.62 3.46	-0.01 0.01	-0.07
VB10 - 1	1111.50	0.00 0.26	-2985.18 -2233.22	1187.47	-97.15 88.68	88.68	3.05 2.76	-0.04 0.04	-0.56
VB10 - 2	1111.50	0.00 0.23	-2022.43 -522.07	1009.55	-162.17 141.36	141.36	2.60 1.85	-0.08 0.08	2.69
VB11	1014.00	0.00 0.10	-153.46 -1191.06	0.00	-145.07 229.09	229.09	0.44 1.52	-0.19 0.19	2.68
VB12	1807.55	0.00 0.39	-1839.32 -1120.78	2326.31	-23.87 36.67	0.00	4.00 3.44	-0.01 0.01	-0.63
VB13	1014.00	0.00 0.14	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.46
VB14	1824.09	-0.16 0.00	0.00 0.00	3794.88	31.49 67.39	0.00	3.79 3.67	-0.01 0.01	0.50
VB15 - 1	292.50	-0.15 0.00	-280.61 -1061.56	593.76	314.61 -309.04	314.61	0.72 0.98	0.11 -0.11	-0.42
VB15 - 2	292.50	-0.12 0.00	-1093.94 -851.01	511.63	-27.97 23.20	23.20	0.97 0.89	-0.01 0.01	0.00
VB15 - 3	292.50	-0.10 0.00	-857.69 -460.74	347.56	-139.04 105.73	105.73	0.84 0.69	-0.05 0.05	0.77
VB15 - 4	292.50	-0.10 0.00	-473.45 -90.15	0.00	-470.92 440.92	440.92	0.49 0.11	-0.44 0.44	3.22
VB15 - 5	292.50	0.00 0.16	-102.37 386.91	386.92	-200.12 336.65	336.65	0.54 0.03	-0.28 0.28	-0.51
VB16	1014.00	-0.59 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	1.37
VB17	1014.00	0.00 0.20	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.39
VB18	1154.52	-0.10 0.00	0.00 0.00	2372.19	-17.85 1.64	0.00	2.25 2.26	0.00 0.00	2.03
VB19	1062.75	0.00 0.11	-279.11 507.09	685.65	-263.63 331.23	331.23	1.43 0.62	-0.31 0.31	-0.28
VB20	1062.75	-0.01 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	1.48
VB21 - 1	1062.75	0.00 0.57	-1382.05 5260.32	5260.32	-91.90 98.92	98.92	3.77 -0.27	-0.06 0.06	7.32
VB21 - 2	1062.75	0.00 0.67	5302.95 -1432.28	5302.95	-406.39 226.39	226.39	-2.24 4.40	-0.31 0.31	-3.33
VB22	1062.75	0.00 0.17	-623.53 -667.36	1122.43	75.94 -89.34	0.00	1.93 1.95	0.05 -0.05	1.79
VB23	1062.75	-0.05 0.00	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.93
VB24 - 1	1111.50	0.00 0.55	-1507.60 -3809.47	2100.32	215.35 -226.79	215.35	2.83 3.63	0.08 -0.08	1.56
VB24 - 2	1111.50	0.00 0.57	-3772.85 -3937.13	1772.37	-32.04 -25.71	0.00	3.51 3.56	0.00 0.00	-0.05

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VB25 - 1	1111.50	0.00 0.63	-4184.90 2375.50	2375.50	-303.60 146.62	146.62	4.49 -2.36	-0.24 0.24	-1.99
VB25 - 2	1111.50	0.00 0.63	2386.33 -2990.31	2406.84	146.62 15.67	146.62	0.21 3.46	0.04 -0.04	-1.99
VB25 - 3	1111.50	0.00 0.23	-2558.67 -413.42	861.25	-272.84 227.26	227.26	2.76 1.68	-0.13 0.13	-8.15

CASO: 1.3G1+1.4G2+1.4V3+0.84D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	1062.75	-0.10 0.00	-636.15 -21.58	899.25	610.09 -539.82	0.00	1.80 1.39	0.38 -0.38	8.02
VB1 - 2	1834.82	-0.32 0.00	-21.04 -3248.87	0.00	-41.53 -293.82	0.00	-5.06 6.11	0.43 -0.43	7.98
VB1 - 3	2043.74	-0.37 0.00	-3277.15 -389.04	1847.72	-285.31 -52.06	0.00	4.69 2.94	-0.06 0.06	0.26
VB1 - 4	1810.95	-0.13 0.00	-387.30 -3319.12	0.00	-513.84 -540.99	0.00	-5.21 6.16	0.05 -0.05	4.53
VB1 - 5	2031.22	-0.30 0.00	-2963.38 -531.13	1051.81	-535.28 726.97	0.00	4.09 2.54	-0.39 0.39	-7.65
VB2 - 1	1339.00	0.00 0.26	-1150.12 -1740.64	2795.41	419.82 -618.95	419.82	3.25 3.49	0.21 -0.21	8.59
VB2 - 2	1339.00	0.00 0.56	-1803.26 -73.46	146.42	233.55 -374.39	0.00	2.29 0.77	0.27 -0.27	-9.31
VB2 - 3	1339.00	0.00 0.56	-74.07 -1717.65	0.00	-374.39 -501.75	0.00	-1.74 2.72	0.17 -0.17	-9.31
VB2 - 4	2145.48	0.00 0.78	-1718.20 -5653.90	0.00	-103.27 -176.54	0.00	-6.51 7.69	0.13 -0.13	-9.31
VB2 - 5	2215.49	0.00 0.85	-5920.43 313.10	313.10	-168.72 -23.88	0.00	7.40 -5.17	-0.14 0.14	-0.81
VB2 - 6	2522.88	0.00 0.85	314.45 3257.61	3257.61	-23.88 -104.17	0.00	4.21 -1.49	0.07 -0.07	-0.81
VB2 - 7	2243.12	0.00 0.85	3256.96 932.37	3327.01	-104.17 -154.54	0.00	0.52 3.24	0.03 -0.03	-0.81
VB2 - 8	1996.52	0.00 0.62	930.65 -2675.32	930.65	-583.81 -529.10	0.00	-5.49 6.68	-0.09 0.09	-0.81
VB2 - 9	2387.97	0.00 0.49	-2551.76 1347.41	1347.41	-462.73 70.04	0.00	4.45 -0.82	-0.35 0.35	7.78
VB2 - 10	2238.72	0.00 0.49	1349.04 -2401.06	1349.04	70.04 260.90	0.00	-0.19 4.09	-0.11 0.11	7.78
VB2 - 11	1339.00	0.00 0.02	-2318.04 -258.00	341.05	-648.19 219.55	219.55	2.67 1.27	-0.29 0.29	-9.29
VB3 - 1	1062.75	0.00 0.16	-300.28 773.63	1026.38	21.88 13.32	21.88	1.68 0.74	0.00 0.00	-1.51
VB3 - 2	1062.75	0.00 0.16	774.24 -2322.01	774.24	13.32 -112.68	13.32	-1.70 3.08	0.10 -0.10	-1.51
VB3 - 3	1062.75	0.00 0.01	-2663.65 494.63	494.63	147.89 -33.68	147.89	3.68 -2.61	0.18 -0.18	1.20
VB3 - 4	1062.75	0.00 0.01	493.29 1642.98	1642.98	-33.68 7.32	0.00	1.64 -0.50	-0.04 0.04	1.20
VB3 - 5	1062.75	0.00 0.01	1643.63 -2174.72	1643.63	7.32 -7.83	7.32	-0.47 2.89	0.01 -0.01	1.20
VB3 - 6	1062.75	0.00 0.08	-2139.34 978.78	978.78	72.71 -138.32	72.71	2.86 -1.24	0.14 -0.14	-14.60
VB3 - 7	1062.75	0.00 0.08	977.15 13.44	1002.24	-138.32 22.93	22.93	0.23 1.45	-0.10 0.10	-14.60
VB4 - 1	1428.38	0.00 0.29	-1625.18 -14139.11	6080.88	345.18 -401.09	345.18	4.69 7.60	0.09 -0.09	0.04
VB4 - 2	1428.37	0.00 0.74	-14860.74 6775.69	8773.83	-79.52 -47.99	0.00	8.22 2.39	0.00 0.00	-15.15
VB4 - 3	1428.38	0.00	6788.45	6788.45	-185.81	0.00	-0.10	-0.08	31.06



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		0.89	4788.43		-60.95		2.39	0.08	
VB4 - 4	1428.38	0.00 0.89	4797.17 -3249.02	4797.17	-60.95 328.74	328.74	-4.15 6.34	-0.25 0.25	31.06
VB5 - 1	1062.75	0.00 0.18	-806.51 2337.46	2337.46	-186.62 45.61	45.61	2.84 -1.17	-0.15 0.15	-11.18
VB5 - 2	1062.75	0.00 0.18	2328.72 0.00	2328.72	45.61 0.00	45.61	-0.59 2.30	0.03 -0.03	-11.18
VB6 - 1	1428.38	0.00 0.05	-1411.55 -15352.59	5763.50	168.71 -237.04	168.71	4.53 7.77	0.05 -0.05	1.26
VB6 - 2	1428.38	0.00 0.17	-16203.10 -2682.37	11046.05	-224.14 123.46	123.46	8.82 6.26	-0.03 0.03	1.57
VB7 - 1	1428.38	0.00 0.08	-1516.40 -15324.29	5708.19	179.78 -251.47	179.78	4.54 7.75	0.05 -0.05	-0.20
VB7 - 2	1428.38	0.00 0.24	-16232.18 -2573.47	11096.57	-220.52 134.48	134.48	8.84 6.25	-0.03 0.03	-0.14
VB8 - 1	1428.38	0.00 1.05	-2636.68 -14092.62	5482.80	100.43 -225.23	100.43	4.82 7.48	0.04 -0.04	-3.94
VB8 - 2	1428.38	0.00 1.74	-15753.85 -4426.95	10229.62	-197.17 115.33	115.33	8.62 6.47	-0.03 0.03	3.49
VB9 - 1	1111.50	0.00 0.53	-855.13 -4403.32	2227.22	-76.36 65.43	65.43	2.62 3.84	-0.02 0.02	-0.28
VB9 - 2	1111.50	0.00 0.47	-3585.31 -3759.08	1955.32	-82.67 83.51	83.51	3.51 3.57	-0.03 0.03	-0.06
VB10 - 1	1111.50	0.00 0.25	-2594.46 -2566.48	1209.71	-33.29 15.65	15.65	2.91 2.90	-0.01 0.01	-0.28
VB10 - 2	1111.50	0.00 0.11	-1513.57 -1183.44	872.70	-257.15 308.44	308.44	2.30 2.14	-0.14 0.14	2.60
VB11	1014.00	0.00 0.03	359.26 -1370.82	359.26	-27.66 45.29	45.29	0.08 1.88	-0.04 0.04	3.34
VB12	1807.55	0.00 0.19	-1379.40 -2067.23	2083.05	-802.27 615.54	0.00	3.66 3.79	-0.34 0.34	-1.56
VB13	1014.00	0.00 0.09	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.61
VB14	1824.09	-0.04 0.00	0.00 0.00	3794.88	-398.48 498.29	0.00	3.79 3.67	-0.22 0.22	0.55
VB15 - 1	292.50	-0.11 0.00	483.47 -1618.28	889.87	4.96 -2.29	4.96	0.49 1.21	0.00 0.00	-0.39
VB15 - 2	292.50	-0.09 0.00	-728.16 -1256.80	500.95	-33.24 34.86	34.86	0.85 1.01	-0.01 0.01	0.01
VB15 - 3	292.50	-0.06 0.00	-373.15 -888.71	382.54	21.96 -36.06	21.96	0.67 0.86	0.01 -0.01	0.79
VB15 - 4	292.50	-0.05 0.00	24.24 -107.04	120.10	-357.64 290.43	290.43	0.24 0.36	-0.32 0.32	2.03
VB15 - 5	292.50	0.00 0.22	40.98 -571.15	40.98	16.05 40.31	40.31	-0.03 0.60	-0.01 0.01	0.23
VB16	1014.00	-0.22 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	1.34
VB17	1014.00	0.00 0.04	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.65
VB18	1154.52	-0.12 0.00	0.00 0.00	2372.19	429.27 -461.78	0.00	2.25 2.26	0.23 -0.23	1.72
VB19	1062.75	0.00 0.20	173.18 50.20	608.10	-75.24 78.23	78.23	0.96 1.09	-0.08 0.08	0.02
VB20	1062.75	-0.24 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	1.63
VB21 - 1	1062.75	0.00 0.42	-986.05 4956.76	4956.76	171.73 -212.23	171.73	3.55 -0.06	0.12 -0.12	8.46
VB21 - 2	1062.75	0.00 0.35	5002.97 -1712.70	5002.97	-74.41 -12.07	0.00	-2.23 4.39	-0.03 0.03	-4.31
VB22	1062.75	-0.09 0.00	-22.58 -1464.80	1097.13	881.70 -708.50	0.00	1.54 2.33	0.44 -0.44	0.97
VB23	1062.75	0.00 0.18	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.74



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VB24 - 1	1111.50	0.00 0.48	-789.66 -4376.10	2276.87	81.21 -79.86	81.21	2.61 3.85	0.03 -0.03	1.23
VB24 - 2	1111.50	0.00 0.31	-3328.39 -4435.81	1760.48	44.86 -47.44	44.86	3.36 3.71	0.01 -0.01	-0.08
VB25 - 1	1111.50	0.00 0.27	-3734.48 2653.55	2653.55	-17.28 133.51	133.51	4.40 -2.27	-0.08 0.08	-1.79
VB25 - 2	1111.50	0.00 0.24	2664.73 -3515.00	2664.73	133.51 -216.12	133.51	-0.03 3.71	0.11 -0.11	-1.79
VB25 - 3	1111.50	0.00 0.03	-1931.84 -1253.52	637.69	36.76 -103.70	36.76	2.39 2.05	0.04 -0.04	-7.79

<b>CASO: 1.3G1+1.4G2+1.4V4+0.84D4</b>									
<b>Elemento</b>	<b>Carga (kgf/m)</b>	<b>Rd Nd (tf)</b>	<b>Mxi Mxf (kgf.m)</b>	<b>MxMáx (kgf.m)</b>	<b>Myi Myf (kgf.m)</b>	<b>MyMáx (kgf.m)</b>	<b>Vxi Vxf (tf)</b>	<b>Vyi Vyf (tf)</b>	<b>Mtd (kgf/m)</b>
VB1 - 1	1062.75	0.00 0.58	-790.74 46.18	875.92	-458.93 479.44	0.00	1.87 1.31	-0.31 0.31	5.04
VB1 - 2	1834.82	0.00 0.71	46.91 -3137.79	46.91	245.03 267.54	0.00	-4.99 6.03	-0.04 0.04	5.04
VB1 - 3	2043.74	0.00 0.75	-3326.03 -365.05	1843.38	280.92 -103.45	0.00	4.71 2.92	0.10 -0.10	-0.74
VB1 - 4	1810.95	0.00 0.51	-363.02 -3284.84	0.00	391.71 305.47	0.00	-5.19 6.14	0.17 -0.17	3.24
VB1 - 5	2031.22	0.00 0.44	-3104.47 -321.80	1129.73	327.02 -545.71	0.00	4.20 2.43	0.27 -0.27	-1.63
VB2 - 1	1339.00	0.00 0.47	-1081.90 -1770.48	2816.55	-296.67 765.80	765.80	3.23 3.50	-0.21 0.21	11.86
VB2 - 2	1339.00	0.00 0.08	-1832.14 -27.80	171.76	167.64 132.88	0.00	2.32 0.74	0.02 -0.02	-14.53
VB2 - 3	1339.00	0.00 0.08	-28.46 -1647.97	0.00	132.88 179.74	0.00	-1.70 2.69	-0.06 0.06	-14.53
VB2 - 4	2145.48	-0.03 0.00	-1648.71 -5566.20	0.00	-63.90 127.10	0.00	-6.48 7.66	-0.34 0.34	-14.53
VB2 - 5	2215.49	-0.09 0.00	-5807.77 340.08	340.08	348.62 382.60	0.00	7.31 -5.09	-0.03 0.03	0.75
VB2 - 6	2522.88	-0.09 0.00	341.59 3193.08	3193.08	382.60 57.06	0.00	4.12 -1.41	0.30 -0.30	0.75
VB2 - 7	2243.12	-0.09 0.00	3192.57 724.27	3244.66	57.06 -255.25	0.00	0.44 3.32	0.19 -0.19	0.75
VB2 - 8	1996.52	0.00 0.15	722.25 -2933.87	722.25	216.53 143.39	0.00	-5.58 6.77	0.12 -0.12	0.75
VB2 - 9	2387.97	-0.05 0.00	-2837.63 1353.62	1353.62	304.94 15.96	0.00	4.64 -1.02	0.19 -0.19	7.32
VB2 - 10	2238.72	-0.05 0.00	1354.73 -2061.01	1354.73	15.96 -125.06	0.00	0.00 3.89	0.08 -0.08	7.32
VB2 - 11	1339.00	0.00 0.26	-2001.83 -258.70	453.53	637.67 -411.92	637.67	2.56 1.38	0.36 -0.36	-11.28
VB3 - 1	1062.75	0.00 0.20	-281.98 741.41	1007.94	73.61 1.26	73.61	1.66 0.76	0.03 -0.03	0.70
VB3 - 2	1062.75	0.00 0.20	742.07 -2382.93	742.07	1.26 -141.92	1.26	-1.73 3.10	0.11 -0.11	0.70
VB3 - 3	1062.75	0.00 0.25	-2672.72 494.86	494.86	207.75 -53.51	207.75	3.68 -2.62	0.26 -0.26	0.33
VB3 - 4	1062.75	0.00 0.25	493.35 1652.99	1652.99	-53.51 28.86	0.00	1.65 -0.51	-0.08 0.08	0.33
VB3 - 5	1062.75	0.00 0.25	1653.50 -2143.81	1653.50	28.86 -64.09	28.86	-0.46 2.88	0.04 -0.04	0.33
VB3 - 6	1062.75	0.00 0.39	-2055.88 997.67	997.67	69.54 7.03	69.54	2.82 -1.20	0.04 -0.04	-14.83
VB3 - 7	1062.75	0.00 0.39	996.55 -34.36	1012.04	7.03 -230.55	7.03	0.19 1.49	0.15 -0.15	-14.83
VB4 - 1	1428.38	0.00	-1519.32	6116.45	-264.93	227.86	4.67	-0.06	-0.29

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		0.09	-14222.16		227.86		7.62	0.06	
VB4 - 2	1428.37	0.00 0.45	-14856.52 6811.55	8802.85	292.53 64.80	292.53	8.22 2.39	0.03 -0.03	-11.78
VB4 - 3	1428.38	0.00 0.75	6824.19 4724.36	6824.19	542.02 74.41	0.00	-0.17 2.45	0.29 -0.29	23.23
VB4 - 4	1428.38	0.00 0.75	4732.95 -3408.81	4732.95	74.41 -416.87	74.41	-4.21 6.40	0.32 -0.32	23.23
VB5 - 1	1062.75	0.00 0.29	-715.09 2383.63	2383.63	54.23 4.87	54.23	2.81 -1.14	0.03 -0.03	-9.61
VB5 - 2	1062.75	0.00 0.29	2375.05 0.00	2375.05	4.87 0.00	4.87	-0.62 2.33	0.00 0.00	-9.61
VB6 - 1	1428.38	0.00 0.01	-1294.17 -15421.41	5811.59	-255.96 386.24	386.24	4.51 7.79	-0.07 0.07	0.83
VB6 - 2	1428.38	0.00 0.08	-16135.98 -2800.59	11006.24	320.59 -292.55	320.59	8.81 6.28	0.06 -0.06	1.64
VB7 - 1	1428.38	0.00 0.10	-1495.23 -15337.62	5716.52	-253.64 347.10	347.10	4.54 7.76	-0.07 0.07	-0.26
VB7 - 2	1428.38	0.00 0.27	-16215.96 -2602.06	11086.94	325.39 -234.84	325.39	8.83 6.25	0.05 -0.05	-0.35
VB8 - 1	1428.38	0.00 1.00	-2688.17 -14061.64	5463.92	-180.67 298.69	298.69	4.83 7.47	-0.06 0.06	-5.45
VB8 - 2	1428.38	0.00 1.68	-15746.10 -4450.07	10219.57	278.23 -117.86	278.23	8.61 6.47	0.04 -0.04	4.22
VB9 - 1	1111.50	0.00 0.48	-2010.52 -3480.74	1970.21	128.03 -119.49	128.03	2.98 3.48	0.04 -0.04	-0.31
VB9 - 2	1111.50	0.00 0.52	-4267.20 -3038.47	1991.70	56.12 -58.49	56.12	3.73 3.34	0.02 -0.02	-0.10
VB10 - 1	1111.50	0.00 0.38	-3412.61 -1858.81	1191.80	153.49 -136.67	153.49	3.20 2.61	0.06 -0.06	-0.27
VB10 - 2	1111.50	0.00 0.39	-2551.45 162.88	1227.88	99.10 -226.26	99.10	2.90 1.54	0.08 -0.08	2.63
VB11	1014.00	0.00 0.11	-695.01 -956.32	0.00	-69.62 115.81	115.81	0.84 1.11	-0.10 0.10	3.24
VB12	1807.55	0.00 0.52	-2287.33 -152.95	2649.90	697.61 -481.02	0.00	4.35 3.10	0.29 -0.29	-1.26
VB13	1014.00	0.00 0.08	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.66
VB14	1824.09	-0.28 0.00	0.00 0.00	3794.88	243.64 -234.41	0.00	3.79 3.67	0.12 -0.12	0.74
VB15 - 1	292.50	-0.20 0.00	-1072.97 -483.28	473.38	42.06 -39.81	42.06	0.95 0.75	0.01 -0.01	-0.39
VB15 - 2	292.50	-0.17 0.00	-1476.21 -425.91	576.82	-18.10 24.34	24.34	1.10 0.77	-0.01 0.01	0.00
VB15 - 3	292.50	-0.13 0.00	-1358.11 -29.23	413.76	89.99 -120.83	89.99	1.02 0.51	0.04 -0.04	0.77
VB15 - 4	292.50	-0.13 0.00	-1010.38 -32.81	0.00	-185.50 256.40	256.40	0.78 -0.17	-0.21 0.21	1.96
VB15 - 5	292.50	-0.17 0.00	-212.86 1384.04	1384.04	-93.67 169.93	169.93	1.11 -0.54	-0.14 0.14	0.43
VB16	1014.00	-0.34 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	1.51
VB17	1014.00	0.00 0.12	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.50
VB18	1154.52	-0.06 0.00	0.00 0.00	2372.19	-471.78 495.16	0.00	2.25 2.26	-0.25 0.25	2.02
VB19	1062.75	0.00 0.03	-738.16 976.36	981.69	-131.21 169.97	169.97	1.91 0.14	-0.16 0.16	-0.14
VB20	1062.75	0.00 0.11	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	1.12
VB21 - 1	1062.75	0.00 0.47	-1676.74 5062.35	5062.35	-48.16 39.94	39.94	3.80 -0.30	-0.03 0.03	8.50
VB21 - 2	1062.75	0.00 0.73	5097.36 -991.41	5097.36	-437.28 216.00	216.00	-1.92 4.08	-0.32 0.32	-4.14



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VB22	1062.75	0.00 0.40	-1194.96 94.40	1273.55	-744.84 532.86	0.00	2.29 1.59	-0.35 0.35	1.30
VB23	1062.75	-0.03 0.00	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.58
VB24 - 1	1111.50	0.00 0.53	-2146.06 -3292.61	1984.84	-90.17 70.49	70.49	3.03 3.43	-0.03 0.03	1.23
VB24 - 2	1111.50	0.00 0.62	-4127.91 -3594.10	1772.32	-78.33 66.64	66.64	3.62 3.45	-0.02 0.02	-0.12
VB25 - 1	1111.50	0.00 0.79	-4713.40 2370.59	2370.59	-251.12 175.19	175.19	4.76 -2.64	-0.22 0.22	-1.75
VB25 - 2	1111.50	0.00 0.79	2380.19 -2691.64	2419.76	175.19 -32.70	175.19	0.31 3.37	0.06 -0.06	-1.75
VB25 - 3	1111.50	0.00 0.43	-3164.87 343.22	1152.92	-377.29 368.72	368.72	3.10 1.34	-0.19 0.19	-7.63

CASO: 1.3G1+1.4G2+D1										
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)	
VB1 - 1	1062.75	0.00 0.23	-621.10 -31.56	900.96	89.00 -36.53	0.00	1.79 1.40	0.04 -0.04	6.55	
VB1 - 2	1834.82	0.00 0.17	-30.90 -3263.59	0.00	124.54 2.59	0.00	-5.07 6.12	0.21 -0.21	6.50	
VB1 - 3	2043.74	0.00 0.20	-3256.52 -410.63	1842.56	11.04 -94.81	0.00	4.68 2.96	0.03 -0.03	-0.31	
VB1 - 4	1810.95	0.00 0.18	-408.76 -3346.38	0.00	-42.99 -106.57	0.00	-5.22 6.17	0.12 -0.12	4.19	
VB1 - 5	2031.22	0.00 0.10	-2961.85 -520.81	1058.84	-95.29 65.83	0.00	4.09 2.53	-0.05 0.05	-4.64	
VB2 - 1	1339.00	0.00 0.32	-949.54 -1803.50	2869.53	60.97 63.73	63.73	3.20 3.54	0.00 0.00	10.22	
VB2 - 2	1339.00	0.00 0.31	-1810.45 -115.74	113.71	208.50 -119.20	0.00	2.27 0.79	0.14 -0.14	-11.91	
VB2 - 3	1339.00	0.00 0.31	-116.40 -1771.31	0.00	-119.20 -167.99	0.00	-1.75 2.74	0.07 -0.07	-11.91	
VB2 - 4	2145.48	0.00 0.37	-1771.98 -5716.25	0.00	-61.04 -5.85	0.00	-6.53 7.70	-0.10 0.10	-11.91	
VB2 - 5	2215.49	0.00 0.38	-5764.34 395.81	395.81	112.57 179.98	0.00	7.33 -5.10	-0.07 0.07	-0.04	
VB2 - 6	2522.88	0.00 0.38	397.24 3261.89	3261.89	179.98 -30.13	0.00	4.13 -1.42	0.20 -0.20	-0.04	
VB2 - 7	2243.12	0.00 0.38	3261.29 813.62	3315.96	-30.13 -226.41	0.00	0.45 3.31	0.12 -0.12	-0.04	
VB2 - 8	1996.52	0.00 0.41	811.77 -2837.15	811.77	-173.56 -185.31	0.00	-5.56 6.75	0.02 -0.02	-0.04	
VB2 - 9	2387.97	0.00 0.30	-2674.39 1334.64	1334.64	-68.36 44.35	0.00	4.52 -0.90	-0.07 0.07	7.57	
VB2 - 10	2238.72	0.00 0.30	1336.00 -2288.34	1336.00	44.35 58.89	0.00	-0.12 4.01	-0.01 0.01	7.57	
VB2 - 11	1339.00	0.00 0.21	-2056.23 -453.76	308.70	19.12 -97.33	19.12	2.52 1.43	0.04 -0.04	-10.31	
VB3 - 1	1062.75	0.00 0.17	-247.29 737.99	1016.28	48.26 5.60	48.26	1.64 0.78	0.02 -0.02	-0.42	
VB3 - 2	1062.75	0.00 0.17	738.65 -2408.03	738.65	5.60 -118.86	5.60	-1.74 3.12	0.10 -0.10	-0.42	
VB3 - 3	1062.75	0.00 0.12	-2626.79 521.02	521.02	167.20 -41.25	167.20	3.67 -2.60	0.21 -0.21	0.77	
VB3 - 4	1062.75	0.00 0.12	519.59 1658.06	1658.06	-41.25 17.94	0.00	1.63 -0.49	-0.06 0.06	0.77	
VB3 - 5	1062.75	0.00 0.12	1658.66 -2183.40	1658.66	17.94 -36.42	17.94	-0.48 2.90	0.02 -0.02	0.77	
VB3 - 6	1062.75	0.00	-2073.17	980.22	70.05	70.05	2.82	0.09	-14.66	




		0.23	980.22		-61.89		-1.20	-0.09	
VB3 - 7	1062.75	0.00 0.23	978.85 -52.23	994.31	-61.89 -95.13	0.00	0.19 1.49	0.02 -0.02	-14.66
VB4 - 1	1428.38	0.00 0.21	-1485.50 -14236.56	6132.32	21.68 -68.17	21.68	4.67 7.63	0.01 -0.01	-0.12
VB4 - 2	1428.37	0.00 0.62	-14810.26 6759.12	8771.76	80.43 31.52	80.43	8.21 2.40	0.01 -0.01	-13.41
VB4 - 3	1428.38	0.00 0.84	6772.03 4662.00	6772.03	167.57 -1.44	0.00	-0.17 2.46	0.11 -0.11	26.98
VB4 - 4	1428.38	0.00 0.84	4670.63 -3480.90	4670.63	-1.44 -32.21	0.00	-4.22 6.41	0.02 -0.02	26.98
VB5 - 1	1062.75	0.00 0.22	-707.25 2387.62	2387.62	-79.91 27.50	27.50	2.80 -1.13	-0.07 0.07	-10.35
VB5 - 2	1062.75	0.00 0.22	2378.99 0.00	2378.99	27.50 0.00	27.50	-0.62 2.33	0.02 -0.02	-10.35
VB6 - 1	1428.38	0.00 0.03	-1206.15 -15476.20	5846.47	-59.63 82.43	82.43	4.49 7.81	-0.02 0.02	1.04
VB6 - 2	1428.38	0.00 0.13	-16083.09 -2888.48	10977.91	32.93 -57.00	32.93	8.79 6.29	0.01 -0.01	1.62
VB7 - 1	1428.38	0.00 0.09	-1353.84 -15423.90	5773.20	-11.97 30.01	30.01	4.51 7.78	0.00 0.00	-0.23
VB7 - 2	1428.38	0.00 0.25	-16136.82 -2734.19	11044.20	66.30 -72.43	66.30	8.81 6.27	0.01 -0.01	-0.25
VB8 - 1	1428.38	0.00 1.02	-2577.98 -14136.67	5500.88	-12.86 19.22	19.22	4.80 7.49	0.00 0.00	-4.69
VB8 - 2	1428.38	0.00 1.71	-15696.58 -4516.68	10202.09	54.23 -25.50	54.23	8.60 6.49	0.01 -0.01	3.84
VB9 - 1	1111.50	0.00 0.51	-1429.45 -3944.77	2082.79	-1.48 0.71	0.71	2.80 3.66	0.00 0.00	-0.33
VB9 - 2	1111.50	0.00 0.50	-3924.96 -3400.06	1970.67	-9.58 13.16	13.16	3.62 3.46	0.00 0.00	-0.08
VB10 - 1	1111.50	0.00 0.32	-3003.42 -2212.10	1190.43	77.04 -77.98	77.04	3.05 2.75	0.03 -0.03	-0.24
VB10 - 2	1111.50	0.00 0.25	-2030.33 -513.24	1011.34	-79.25 41.58	41.58	2.60 1.84	-0.03 0.03	2.59
VB11	1014.00	0.00 0.07	-163.36 -1162.58	0.00	-49.76 81.48	81.48	0.46 1.50	-0.07 0.07	3.36
VB12	1807.55	0.00 0.35	-1827.02 -1120.70	2332.50	-67.45 81.11	0.00	4.00 3.45	-0.04 0.04	-1.53
VB13	1014.00	0.00 0.08	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.66
VB14	1824.09	-0.17 0.00	0.00 0.00	3794.88	-106.95 161.07	0.00	3.79 3.67	-0.07 0.07	0.66
VB15 - 1	292.50	-0.16 0.00	-291.51 -1053.06	590.88	-10.67 12.88	12.88	0.72 0.98	0.00 0.00	-0.39
VB15 - 2	292.50	-0.13 0.00	-1100.83 -842.82	512.53	-23.40 28.10	28.10	0.97 0.89	-0.01 0.01	0.01
VB15 - 3	292.50	-0.10 0.00	-863.48 -461.43	344.52	77.60 -98.28	77.60	0.84 0.69	0.03 -0.03	0.78
VB15 - 4	292.50	-0.10 0.00	-492.04 -67.90	0.00	-246.88 245.10	245.10	0.51 0.09	-0.24 0.24	1.87
VB15 - 5	292.50	0.00 0.01	-83.28 402.28	402.70	-47.79 110.05	110.05	0.53 0.03	-0.08 0.08	0.40
VB16	1014.00	-0.26 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	1.43
VB17	1014.00	0.00 0.08	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.59
VB18	1154.52	-0.10 0.00	0.00 0.00	2372.19	-52.85 51.82	0.00	2.25 2.26	-0.03 0.03	1.84
VB19	1062.75	0.00 0.11	-284.18 515.39	689.49	-103.04 124.34	124.34	1.44 0.61	-0.12 0.12	-0.03
VB20	1062.75	-0.07 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	1.36




VB21 - 1	1062.75	0.00 0.43	-1326.09 4983.90	4983.90	76.54 -104.21	76.54	3.67 -0.17	0.05 -0.05	8.60
VB21 - 2	1062.75	0.00 0.53	5024.30 -1343.48	5024.30	-240.25 92.93	92.93	-2.06 4.21	-0.16 0.16	-4.32
VB22	1062.75	0.00 0.16	-613.03 -679.67	1121.52	33.54 -63.43	0.00	1.92 1.96	0.03 -0.03	1.04
VB23	1062.75	0.00 0.09	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.63
VB24 - 1	1111.50	0.00 0.50	-1469.03 -3832.73	2111.18	-29.36 20.63	20.63	2.82 3.64	-0.01 0.01	1.19
VB24 - 2	1111.50	0.00 0.46	-3726.60 -4019.55	1756.37	-13.16 12.71	12.71	3.49 3.58	0.00 0.00	-0.10
VB25 - 1	1111.50	0.00 0.53	-4231.42 2524.56	2524.56	-106.46 147.18	147.18	4.59 -2.47	-0.13 0.13	-1.75
VB25 - 2	1111.50	0.00 0.51	2534.91 -3112.10	2538.52	147.18 -135.48	147.18	0.13 3.55	0.09 -0.09	-1.75
VB25 - 3	1111.50	0.00 0.24	-2552.66 -452.05	839.06	-167.93 133.76	133.76	2.75 1.70	-0.08 0.08	-7.68

CASO: 1.3G1+1.4G2+D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	1062.75	0.00 0.25	-805.79 56.15	875.88	62.15 -23.86	0.00	1.88 1.30	0.03 -0.03	6.51
VB1 - 2	1834.82	0.00 0.22	56.77 -3123.08	56.77	78.95 -28.86	0.00	-4.98 6.03	0.19 -0.19	6.52
VB1 - 3	2043.74	0.00 0.18	-3346.66 -343.46	1848.55	-15.43 -60.70	0.00	4.72 2.91	0.01 -0.01	-0.16
VB1 - 4	1810.95	0.00 0.19	-341.55 -3257.59	0.00	-79.14 -128.95	0.00	-5.18 6.13	0.10 -0.10	3.58
VB1 - 5	2031.22	0.00 0.04	-3106.01 -332.12	1122.71	-112.97 115.43	0.00	4.19 2.43	-0.07 0.07	-4.65
VB2 - 1	1339.00	0.00 0.42	-1282.48 -1707.61	2742.43	62.19 83.12	83.12	3.28 3.45	0.00 0.00	10.23
VB2 - 2	1339.00	0.00 0.34	-1824.96 14.49	204.47	192.69 -122.30	0.00	2.33 0.72	0.14 -0.14	-11.93
VB2 - 3	1339.00	0.00 0.34	13.87 -1594.31	13.87	-122.30 -154.03	0.00	-1.69 2.68	0.04 -0.04	-11.93
VB2 - 4	2145.48	0.00 0.37	-1594.93 -5503.85	0.00	-106.13 -43.59	0.00	-6.46 7.64	-0.11 0.11	-11.93
VB2 - 5	2215.49	0.00 0.37	-5963.86 257.37	257.37	67.34 178.75	0.00	7.39 -5.16	-0.11 0.11	-0.03
VB2 - 6	2522.88	0.00 0.37	258.79 3188.80	3188.80	178.75 -16.98	0.00	4.19 -1.48	0.18 -0.18	-0.03
VB2 - 7	2243.12	0.00 0.37	3188.24 843.02	3255.72	-16.98 -183.38	0.00	0.51 3.25	0.10 -0.10	-0.03
VB2 - 8	1996.52	0.00 0.36	841.13 -2772.04	841.13	-193.72 -200.40	0.00	-5.50 6.69	0.01 -0.01	-0.03
VB2 - 9	2387.97	0.00 0.14	-2715.00 1366.38	1366.38	-89.43 41.64	0.00	4.57 -0.94	-0.09 0.09	7.53
VB2 - 10	2238.72	0.00 0.14	1367.77 -2173.73	1367.77	41.64 76.95	0.00	-0.07 3.97	-0.02 0.02	7.53
VB2 - 11	1339.00	0.00 0.07	-2263.64 -62.94	494.76	-29.64 -95.04	0.00	2.72 1.23	0.02 -0.02	-10.26
VB3 - 1	1062.75	0.00 0.20	-334.96 777.05	1019.41	47.22 8.97	47.22	1.70 0.72	0.02 -0.02	-0.39
VB3 - 2	1062.75	0.00 0.20	777.67 -2296.91	777.67	8.97 -135.75	8.97	-1.69 3.06	0.11 -0.11	-0.39
VB3 - 3	1062.75	0.00 0.13	-2709.58 468.48	468.48	188.44 -45.93	188.44	3.70 -2.63	0.23 -0.23	0.77
VB3 - 4	1062.75	0.00	467.06	1637.91	-45.93	0.00	1.66	-0.06	0.77

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		0.13	1637.91		18.24		-0.52	0.06	
VB3 - 5	1062.75	0.00 0.13	1638.46 -2135.13	1638.46	18.24 -35.49	18.24	-0.45 2.87	0.02 -0.02	0.77
VB3 - 6	1062.75	0.00 0.24	-2122.06 996.23	996.23	72.21 -69.40	72.21	2.86 -1.24	0.09 -0.09	-14.77
VB3 - 7	1062.75	0.00 0.24	994.85 31.31	1019.96	-69.40 -112.49	0.00	0.23 1.45	0.03 -0.03	-14.77
VB4 - 1	1428.38	0.00 0.17	-1659.00 -14124.71	6065.01	58.57 -105.06	58.57	4.70 7.60	0.02 -0.02	-0.13
VB4 - 2	1428.37	0.00 0.57	-14907.01 6828.12	8804.93	132.58 -14.71	132.58	8.23 2.38	0.02 -0.02	-13.52
VB4 - 3	1428.38	0.00 0.80	6840.61 4850.80	6840.61	188.64 14.90	0.00	-0.10 2.39	0.11 -0.11	27.30
VB4 - 4	1428.38	0.00 0.80	4859.49 -3176.93	4859.49	14.90 -55.91	14.90	-4.14 6.34	0.05 -0.05	27.30
VB5 - 1	1062.75	0.00 0.25	-814.35 2333.47	2333.47	-52.48 22.98	22.98	2.84 -1.17	-0.05 0.05	-10.44
VB5 - 2	1062.75	0.00 0.25	2324.78 0.00	2324.78	22.98 0.00	22.98	-0.59 2.30	0.01 -0.01	-10.44
VB6 - 1	1428.38	0.00 0.03	-1499.57 -15297.79	5728.61	-27.62 66.77	66.77	4.54 7.75	-0.01 0.01	1.04
VB6 - 2	1428.38	0.00 0.12	-16255.99 -2594.48	11074.38	63.53 -112.10	63.53	8.84 6.25	0.02 -0.02	1.59
VB7 - 1	1428.38	0.00 0.09	-1657.79 -15238.02	5651.51	-61.90 65.61	65.61	4.57 7.73	-0.01 0.01	-0.23
VB7 - 2	1428.38	0.00 0.26	-16311.32 -2441.34	11140.84	38.57 -27.93	38.57	8.86 6.23	0.01 -0.01	-0.24
VB8 - 1	1428.38	0.00 1.03	-2746.87 -14017.59	5445.84	-67.38 54.24	54.24	4.84 7.46	-0.01 0.01	-4.70
VB8 - 2	1428.38	0.00 1.71	-15803.37 -4360.34	10247.10	26.83 22.97	26.83	8.63 6.46	0.00 0.00	3.86
VB9 - 1	1111.50	0.00 0.50	-1436.20 -3939.30	2081.52	53.16 -54.77	53.16	2.80 3.66	0.02 -0.02	-0.26
VB9 - 2	1111.50	0.00 0.49	-3927.56 -3397.49	1970.74	-16.98 11.86	11.86	3.62 3.45	0.00 0.00	-0.08
VB10 - 1	1111.50	0.00 0.32	-3003.65 -2213.19	1189.73	43.16 -43.03	43.16	3.05 2.75	0.02 -0.02	-0.30
VB10 - 2	1111.50	0.00 0.25	-2034.69 -507.32	1012.93	-78.80 40.60	40.60	2.60 1.84	-0.03 0.03	2.64
VB11	1014.00	0.00 0.07	-172.38 -1164.56	0.00	-47.53 79.62	79.62	0.47 1.49	-0.07 0.07	3.22
VB12	1807.55	0.00 0.36	-1839.71 -1099.48	2336.77	-37.21 53.42	0.00	4.01 3.44	-0.02 0.02	-1.30
VB13	1014.00	0.00 0.09	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.62
VB14	1824.09	-0.16 0.00	0.00 0.00	3794.88	-47.90 102.80	0.00	3.79 3.67	-0.04 0.04	0.62
VB15 - 1	292.50	-0.15 0.00	-297.99 -1048.50	588.97	57.69 -54.98	57.69	0.72 0.98	0.02 -0.02	-0.39
VB15 - 2	292.50	-0.12 0.00	-1103.55 -839.89	512.72	-27.94 31.10	31.10	0.97 0.89	-0.01 0.01	0.01
VB15 - 3	292.50	-0.09 0.00	-867.78 -456.52	345.18	34.34 -58.61	34.34	0.84 0.69	0.02 -0.02	0.78
VB15 - 4	292.50	-0.09 0.00	-494.10 -71.95	0.00	-296.25 301.74	301.74	0.51 0.10	-0.29 0.29	2.12
VB15 - 5	292.50	0.00 0.04	-88.60 410.61	410.61	-29.83 100.19	100.19	0.54 0.03	-0.07 0.07	0.26
VB16	1014.00	-0.29 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	1.42
VB17	1014.00	0.00 0.08	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.56
VB18	1154.52	-0.09 0.00	0.00 0.00	2372.19	10.34 -18.44	0.00	2.25 2.26	0.01 -0.01	1.89

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VB19	1062.75	0.00 0.12	-280.80 511.18	687.81	-103.41 123.86	123.86	1.44 0.62	-0.12 0.12	-0.09
VB20	1062.75	-0.07 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	1.38
VB21 - 1	1062.75	0.00 0.46	-1336.70 5035.21	5035.21	47.03 -68.09	47.03	3.69 -0.19	0.04 -0.04	8.36
VB21 - 2	1062.75	0.00 0.55	5076.03 -1360.63	5076.03	-271.44 111.00	111.00	-2.09 4.25	-0.19 0.19	-4.13
VB22	1062.75	0.00 0.15	-604.50 -690.73	1120.26	103.31 -112.21	0.00	1.91 1.96	0.06 -0.06	1.23
VB23	1062.75	0.00 0.06	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.69
VB24 - 1	1111.50	0.00 0.51	-1466.69 -3835.98	2111.01	20.40 -30.00	20.40	2.82 3.64	0.01 -0.01	1.27
VB24 - 2	1111.50	0.00 0.47	-3729.71 -4010.36	1759.21	-20.31 6.49	6.49	3.49 3.58	0.00 0.00	-0.10
VB25 - 1	1111.50	0.00 0.53	-4216.46 2499.58	2499.58	-161.94 161.53	161.53	4.57 -2.45	-0.17 0.17	-1.80
VB25 - 2	1111.50	0.00 0.51	2510.02 -3094.54	2516.29	161.53 -113.34	161.53	0.15 3.53	0.08 -0.08	-1.80
VB25 - 3	1111.50	0.00 0.22	-2544.06 -458.25	838.32	-172.60 131.26	131.26	2.74 1.70	-0.08 0.08	-7.75

CASO: 1.3G1+1.4G2+D3										
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)	
VB1 - 1	1062.75	0.00 0.16	-698.36 5.61	888.53	208.75 -154.71	0.00	1.83 1.36	0.12 -0.12	6.77	
VB1 - 2	1834.82	0.00 0.07	6.23 -3204.26	6.23	80.72 -78.99	0.00	-5.03 6.08	0.27 -0.27	6.74	
VB1 - 3	2043.74	0.00 0.05	-3296.73 -379.71	1845.81	-68.88 -79.53	0.00	4.70 2.94	0.00 0.00	-0.15	
VB1 - 4	1810.95	0.00 0.11	-377.85 -3305.71	0.00	-176.28 -233.39	0.00	-5.20 6.15	0.11 -0.11	4.01	
VB1 - 5	2031.22	-0.02 0.00	-3020.44 -446.36	1083.40	-220.83 250.56	0.00	4.13 2.49	-0.14 0.14	-5.15	
VB2 - 1	1339.00	0.00 0.34	-1121.96 -1752.59	2804.31	136.84 -68.59	136.84	3.24 3.49	0.04 -0.04	10.00	
VB2 - 2	1339.00	0.00 0.38	-1814.84 -54.75	156.87	230.87 -185.82	0.00	2.30 0.76	0.18 -0.18	-11.47	
VB2 - 3	1339.00	0.00 0.38	-55.38 -1689.18	0.00	-185.82 -255.41	0.00	-1.72 2.71	0.09 -0.09	-11.47	
VB2 - 4	2145.48	0.00 0.48	-1689.81 -5618.12	0.00	-86.23 -55.56	0.00	-6.50 7.67	-0.05 0.05	-11.47	
VB2 - 5	2215.49	0.00 0.50	-5874.59 323.91	323.91	35.84 134.26	0.00	7.36 -5.14	-0.10 0.10	-0.16	
VB2 - 6	2522.88	0.00 0.50	325.33 3231.00	3231.00	134.26 -47.91	0.00	4.17 -1.46	0.17 -0.17	-0.16	
VB2 - 7	2243.12	0.00 0.50	3230.41 847.06	3293.12	-47.91 -213.50	0.00	0.49 3.27	0.10 -0.10	-0.16	
VB2 - 8	1996.52	0.00 0.45	845.22 -2781.26	845.22	-303.05 -295.26	0.00	-5.52 6.72	-0.01 0.01	-0.16	
VB2 - 9	2387.97	0.00 0.29	-2669.02 1350.16	1350.16	-190.33 72.17	0.00	4.53 -0.90	-0.17 0.17	7.59	
VB2 - 10	2238.72	0.00 0.29	1351.58 -2261.14	1351.58	72.17 121.16	0.00	-0.11 4.01	-0.03 0.03	7.59	
VB2 - 11	1339.00	0.00 0.12	-2188.03 -257.94	387.52	-147.53 -30.13	0.00	2.63 1.32	-0.04 0.04	-10.21	
VB3 - 1	1062.75	0.00 0.18	-292.39 760.32	1018.86	42.47 8.48	42.47	1.67 0.75	0.01 -0.01	-0.61	
VB3 - 2	1062.75	0.00	760.96	760.96	8.48	8.48	-1.71	0.10	-0.61	

		0.18	-2347.36		-125.01		3.09	-0.10	
VB3 - 3	1062.75	0.00 0.10	-2666.78 495.12	495.12	173.63 -41.97	173.63	3.68 -2.61	0.21 -0.21	0.84
VB3 - 4	1062.75	0.00 0.10	493.71 1647.27	1647.27	-41.97 14.83	0.00	1.64 -0.50	-0.05 0.05	0.84
VB3 - 5	1062.75	0.00 0.10	1647.86 -2162.31	1647.86	14.83 -26.93	14.83	-0.47 2.88	0.02 -0.02	0.84
VB3 - 6	1062.75	0.00 0.20	-2104.78 986.43	986.43	78.06 -102.14	78.06	2.84 -1.23	0.12 -0.12	-14.71
VB3 - 7	1062.75	0.00 0.20	985.02 -6.70	1006.10	-102.14 -61.06	0.00	0.21 1.47	-0.03 0.03	-14.71
VB4 - 1	1428.38	0.00 0.21	-1585.66 -14171.38	6093.69	105.20 -160.18	105.20	4.69 7.61	0.03 -0.03	-0.06
VB4 - 2	1428.37	0.00 0.63	-14860.98 6792.50	8786.96	57.42 19.28	57.42	8.22 2.39	0.01 -0.01	-13.76
VB4 - 3	1428.38	0.00 0.83	6805.21 4765.25	6805.21	129.13 -0.59	0.00	-0.13 2.42	0.08 -0.08	27.71
VB4 - 4	1428.38	0.00 0.83	4773.92 -3310.52	4773.92	-0.59 17.82	17.82	-4.18 6.37	-0.01 0.01	27.71
VB5 - 1	1062.75	0.00 0.23	-768.73 2356.54	2356.54	-87.23 29.79	29.79	2.82 -1.15	-0.07 0.07	-10.51
VB5 - 2	1062.75	0.00 0.23	2347.87 0.00	2347.87	29.79 0.00	29.79	-0.60 2.31	0.02 -0.02	-10.51
VB6 - 1	1428.38	0.00 0.03	-1364.41 -15380.23	5782.81	-0.36 11.47	11.47	4.52 7.78	0.00 0.00	1.14
VB6 - 2	1428.38	0.00 0.13	-16176.15 -2729.92	11030.02	-8.34 -43.02	0.00	8.82 6.27	0.00 0.00	1.55
VB7 - 1	1428.38	0.00 0.09	-1507.79 -15329.68	5711.59	7.73 -14.20	7.73	4.54 7.75	0.00 0.00	-0.17
VB7 - 2	1428.38	0.00 0.25	-16225.75 -2584.77	11092.78	-3.84 -12.30	0.00	8.84 6.25	0.00 0.00	-0.27
VB8 - 1	1428.38	0.00 1.03	-2657.77 -14080.16	5474.98	-10.38 -17.84	0.00	4.82 7.47	0.00 0.00	-4.50
VB8 - 2	1428.38	0.00 1.72	-15750.57 -4436.81	10225.33	-8.95 23.25	23.25	8.61 6.47	0.00 0.00	3.75
VB9 - 1	1111.50	0.00 0.50	-1356.97 -4002.92	2098.73	4.74 -7.83	4.74	2.77 3.68	0.00 0.00	-0.29
VB9 - 2	1111.50	0.00 0.49	-3881.01 -3446.47	1967.98	-27.88 27.42	27.42	3.61 3.47	-0.01 0.01	-0.07
VB10 - 1	1111.50	0.00 0.31	-2949.36 -2259.66	1189.77	41.32 -44.86	41.32	3.03 2.77	0.02 -0.02	-0.27
VB10 - 2	1111.50	0.00 0.23	-1963.31 -599.89	989.39	-117.91 97.23	97.23	2.56 1.88	-0.05 0.05	2.61
VB11	1014.00	0.00 0.03	-72.61 -1201.11	3.60	-43.39 72.32	72.32	0.40 1.56	-0.06 0.06	3.30
VB12	1807.55	0.00 0.31	-1751.33 -1282.75	2289.32	-230.39 202.88	0.00	3.94 3.51	-0.11 0.11	-1.44
VB13	1014.00	0.00 0.09	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.63
VB14	1824.09	-0.15 0.00	0.00 0.00	3794.88	-169.18 235.43	0.00	3.79 3.67	-0.10 0.10	0.63
VB15 - 1	292.50	-0.15 0.00	-160.70 -1153.23	626.11	19.64 -17.16	19.64	0.68 1.02	0.01 -0.01	-0.39
VB15 - 2	292.50	-0.13 0.00	-1030.19 -919.49	507.13	-27.52 31.16	31.16	0.95 0.91	-0.01 0.01	0.01
VB15 - 3	292.50	-0.10 0.00	-774.26 -539.21	343.81	50.96 -73.32	50.96	0.81 0.72	0.02 -0.02	0.78
VB15 - 4	292.50	-0.12 0.00	-396.72 -77.52	0.00	-290.91 282.19	282.19	0.46 0.15	-0.28 0.28	2.00
VB15 - 5	292.50	0.00 0.01	-65.55 239.19	266.62	-24.90 89.70	89.70	0.44 0.13	-0.06 0.06	0.31
VB16	1014.00	-0.27 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	1.41

VB17	1014.00	0.00 0.07	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.59
VB18	1154.52	-0.11 0.00	0.00 0.00	2372.19	89.55 -96.75	0.00	2.25 2.26	0.05 -0.05	1.84
VB19	1062.75	0.00 0.13	-202.44 431.88	661.06	-100.39 115.47	115.47	1.35 0.70	-0.11 0.11	-0.05
VB20	1062.75	-0.14 0.00	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	1.42
VB21 - 1	1062.75	0.00 0.42	-1280.99 5002.92	5002.92	81.77 -109.63	81.77	3.66 -0.16	0.06 -0.06	8.47
VB21 - 2	1062.75	0.00 0.50	5044.39 -1405.34	5044.39	-219.48 63.86	63.86	-2.10 4.25	-0.14 0.14	-4.24
VB22	1062.75	0.00 0.10	-504.20 -824.37	1103.59	259.04 -244.38	0.00	1.85 2.03	0.14 -0.14	1.11
VB23	1062.75	0.00 0.09	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.67
VB24 - 1	1111.50	0.00 0.49	-1371.58 -3911.62	2129.58	13.20 -20.28	13.20	2.79 3.67	0.01 -0.01	1.23
VB24 - 2	1111.50	0.00 0.44	-3670.87 -4075.08	1758.26	-3.71 -2.75	0.00	3.47 3.60	0.00 0.00	-0.09
VB25 - 1	1111.50	0.00 0.49	-4153.73 2531.98	2531.98	-111.68 151.45	151.45	4.56 -2.43	-0.14 0.14	-1.77
VB25 - 2	1111.50	0.00 0.47	2542.49 -3162.00	2542.51	151.45 -139.53	151.45	0.12 3.56	0.09 -0.09	-1.77
VB25 - 3	1111.50	0.00 0.20	-2459.98 -569.93	798.76	-134.70 85.54	85.54	2.69 1.75	-0.06 0.06	-7.73

**CASO: 1.3G1+1.4G2+D4**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	1062.75	0.00 0.32	-728.53 18.98	884.48	-57.60 94.32	0.00	1.84 1.34	-0.05 0.05	6.29
VB1 - 2	1834.82	0.00 0.33	19.64 -3182.40	19.64	122.77 52.71	0.00	-5.02 6.06	0.12 -0.12	6.28
VB1 - 3	2043.74	0.00 0.33	-3306.45 -374.38	1845.29	64.49 -75.99	0.00	4.70 2.93	0.04 -0.04	-0.33
VB1 - 4	1810.95	0.00 0.27	-372.47 -3298.26	0.00	54.15 -2.13	0.00	-5.20 6.15	0.11 -0.11	3.77
VB1 - 5	2031.22	0.00 0.16	-3047.42 -406.58	1098.15	12.58 -69.31	0.00	4.15 2.47	0.03 -0.03	-4.13
VB2 - 1	1339.00	0.00 0.39	-1110.06 -1758.53	2807.65	-13.68 215.44	215.44	3.24 3.50	-0.05 0.05	10.45
VB2 - 2	1339.00	0.00 0.26	-1820.57 -46.50	161.31	170.32 -55.68	0.00	2.31 0.75	0.10 -0.10	-12.37
VB2 - 3	1339.00	0.00 0.26	-47.15 -1676.43	0.00	-55.68 -66.61	0.00	-1.72 2.70	0.01 -0.01	-12.37
VB2 - 4	2145.48	0.00 0.26	-1677.09 -5601.99	0.00	-80.94 6.12	0.00	-6.49 7.67	-0.16 0.16	-12.37
VB2 - 5	2215.49	0.00 0.25	-5853.62 329.27	329.27	144.07 224.47	0.00	7.35 -5.12	-0.08 0.08	0.09
VB2 - 6	2522.88	0.00 0.25	330.71 3219.68	3219.68	224.47 0.81	0.00	4.15 -1.44	0.21 -0.21	0.09
VB2 - 7	2243.12	0.00 0.25	3219.12 809.58	3278.55	0.81 -196.29	0.00	0.47 3.29	0.12 -0.12	0.09
VB2 - 8	1996.52	0.00 0.32	807.68 -2827.93	807.68	-64.23 -90.45	0.00	-5.54 6.73	0.04 -0.04	0.09
VB2 - 9	2387.97	0.00 0.15	-2720.37 1350.86	1350.86	32.54 13.82	0.00	4.57 -0.94	0.01 -0.01	7.51
VB2 - 10	2238.72	0.00 0.15	1352.19 -2200.93	1352.19	13.82 14.68	0.00	-0.08 3.97	0.00 0.00	7.51
VB2 - 11	1339.00	0.00	-2131.84	407.06	137.01	137.01	2.61	0.10	-10.36




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		0.16	-258.76		-162.24		1.34	-0.10	
VB3 - 1	1062.75	0.00 0.19	-289.87 754.72	1015.47	53.01 6.10	53.01	1.67 0.75	0.02 -0.02	-0.21
VB3 - 2	1062.75	0.00 0.19	755.36 -2357.58	755.36	6.10 -129.60	6.10	-1.72 3.09	0.10 -0.10	-0.21
VB3 - 3	1062.75	0.00 0.16	-2669.60 494.37	494.37	182.02 -45.21	182.02	3.68 -2.61	0.23 -0.23	0.69
VB3 - 4	1062.75	0.00 0.16	492.93 1648.70	1648.70	-45.21 21.35	0.00	1.65 -0.50	-0.06 0.06	0.69
VB3 - 5	1062.75	0.00 0.16	1649.27 -2156.22	1649.27	21.35 -44.99	21.35	-0.46 2.88	0.03 -0.03	0.69
VB3 - 6	1062.75	0.00 0.27	-2090.44 990.01	990.01	64.19 -29.15	64.19	2.83 -1.22	0.06 -0.06	-14.71
VB3 - 7	1062.75	0.00 0.27	988.68 -14.22	1008.17	-29.15 -146.55	0.00	0.21 1.47	0.07 -0.07	-14.71
VB4 - 1	1428.38	0.00 0.17	-1558.84 -14189.89	6103.64	-24.95 -13.06	0.00	4.68 7.61	0.00 0.00	-0.19
VB4 - 2	1428.37	0.00 0.56	-14856.29 6794.74	8789.73	155.59 -2.47	155.59	8.22 2.39	0.02 -0.02	-13.17
VB4 - 3	1428.38	0.00 0.81	6807.44 4747.55	6807.44	227.08 14.04	0.00	-0.14 2.43	0.13 -0.13	26.57
VB4 - 4	1428.38	0.00 0.81	4756.20 -3347.32	4756.20	14.04 -105.94	14.04	-4.19 6.38	0.08 -0.08	26.57
VB5 - 1	1062.75	0.00 0.24	-752.87 2364.55	2364.55	-45.16 20.69	20.69	2.82 -1.15	-0.04 0.04	-10.28
VB5 - 2	1062.75	0.00 0.24	2355.90 0.00	2355.90	20.69 0.00	20.69	-0.61 2.32	0.01 -0.01	-10.28
VB6 - 1	1428.38	0.00 0.03	-1341.31 -15393.76	5792.28	-86.89 137.73	137.73	4.51 7.78	-0.03 0.03	0.95
VB6 - 2	1428.38	0.00 0.12	-16162.93 -2753.04	11022.27	104.79 -126.08	104.79	8.81 6.27	0.02 -0.02	1.65
VB7 - 1	1428.38	0.00 0.09	-1503.84 -15332.24	5713.12	-81.59 109.83	109.83	4.54 7.75	-0.02 0.02	-0.29
VB7 - 2	1428.38	0.00 0.26	-16222.39 -2590.76	11090.74	108.71 -88.06	108.71	8.83 6.25	0.02 -0.02	-0.22
VB8 - 1	1428.38	0.00 1.02	-2667.08 -14074.10	5471.74	-69.86 91.30	91.30	4.82 7.47	-0.02 0.02	-4.89
VB8 - 2	1428.38	0.00 1.70	-15749.38 -4440.21	10223.86	90.01 -25.78	90.01	8.61 6.47	0.01 -0.01	3.96
VB9 - 1	1111.50	0.00 0.50	-1508.68 -3881.15	2067.60	46.93 -46.23	46.93	2.82 3.64	0.02 -0.02	-0.30
VB9 - 2	1111.50	0.00 0.50	-3971.50 -3351.08	1973.43	1.33 -2.40	1.33	3.64 3.44	0.00 0.00	-0.08
VB10 - 1	1111.50	0.00 0.33	-3057.71 -2165.63	1190.39	78.87 -76.16	78.87	3.07 2.73	0.03 -0.03	-0.27
VB10 - 2	1111.50	0.00 0.27	-2101.71 -420.67	1034.88	-40.14 -15.05	0.00	2.64 1.80	-0.01 0.01	2.62
VB11	1014.00	0.00 0.11	-263.13 -1126.04	0.00	-53.89 88.78	88.78	0.53 1.43	-0.07 0.07	3.28
VB12	1807.55	0.00 0.40	-1915.40 -937.42	2385.80	125.74 -68.35	0.00	4.07 3.38	0.05 -0.05	-1.39
VB13	1014.00	0.00 0.08	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.64
VB14	1824.09	-0.17 0.00	0.00 0.00	3794.88	14.34 28.45	0.00	3.79 3.67	0.00 0.00	0.66
VB15 - 1	292.50	-0.16 0.00	-428.79 -948.33	559.31	27.38 -24.94	27.38	0.76 0.94	0.01 -0.01	-0.39
VB15 - 2	292.50	-0.13 0.00	-1174.18 -763.22	519.04	-23.82 28.04	28.04	1.00 0.87	-0.01 0.01	0.01
VB15 - 3	292.50	-0.09 0.00	-957.00 -378.73	350.43	60.98 -83.57	60.98	0.87 0.65	0.03 -0.03	0.78
VB15 - 4	292.50	-0.07 0.00	-589.42 -62.34	0.00	-252.22 264.65	264.65	0.56 0.04	-0.25 0.25	1.99

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VB15 - 5	292.50	0.00 0.04	-106.33 573.70	573.70	-52.72 120.53	120.53	0.63 -0.07	-0.09 0.09	0.35
VB16	1014.00	-0.29 0.00	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	1.44
VB17	1014.00	0.00 0.09	0.00 0.00	455.11	0.00 0.00	0.00	0.97 0.97	0.00 0.00	-0.56
VB18	1154.52	-0.07 0.00	0.00 0.00	2372.19	-132.06 130.13	0.00	2.25 2.26	-0.07 0.07	1.89
VB19	1062.75	0.00 0.10	-362.54 594.69	724.68	-106.06 132.73	132.73	1.52 0.53	-0.12 0.12	-0.07
VB20	1062.75	0.00 0.01	0.00 0.00	476.99	0.00 0.00	0.00	1.01 1.01	0.00 0.00	1.33
VB21 - 1	1062.75	0.00 0.47	-1381.81 5016.19	5016.19	41.80 -62.66	41.80	3.69 -0.20	0.03 -0.03	8.48
VB21 - 2	1062.75	0.00 0.58	5055.93 -1298.77	5055.93	-292.21 140.07	140.07	-2.05 4.21	-0.21 0.21	-4.21
VB22	1062.75	0.00 0.22	-713.34 -546.03	1138.18	-122.18 68.74	0.00	1.98 1.89	-0.05 0.05	1.17
VB23	1062.75	0.00 0.05	0.00 0.00	1454.57	0.00 0.00	0.00	1.76 1.76	0.00 0.00	8.65
VB24 - 1	1111.50	0.00 0.51	-1564.14 -3757.09	2092.61	-22.16 10.91	10.91	2.85 3.61	-0.01 0.01	1.23
VB24 - 2	1111.50	0.00 0.49	-3785.43 -3954.83	1757.32	-29.76 21.95	21.95	3.51 3.56	-0.01 0.01	-0.10
VB25 - 1	1111.50	0.00 0.57	-4294.15 2492.16	2492.16	-156.71 157.26	157.26	4.61 -2.48	-0.16 0.16	-1.77
VB25 - 2	1111.50	0.00 0.55	2502.44 -3044.64	2512.30	157.26 -109.29	157.26	0.16 3.52	0.08 -0.08	-1.77
VB25 - 3	1111.50	0.00 0.26	-2636.73 -340.37	878.62	-205.83 179.47	179.47	2.80 1.65	-0.10 0.10	-7.70


CASO: G1+G2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	0.00 0.18	-520.24 8.79	643.64	55.83 -22.54	0.00	1.33 0.98	0.03 -0.03	4.83
VB1 - 2	1349.50	0.00 0.14	9.25 -2349.41	9.25	74.47 -9.88	0.00	-3.70 4.47	0.15 -0.15	4.82
VB1 - 3	1509.93	0.00 0.14	-2432.58 -284.75	1364.04	-1.79 -57.08	0.00	3.47 2.17	0.01 -0.01	-0.18
VB1 - 4	1336.21	0.00 0.14	-283.36 -2437.45	0.00	-45.46 -86.95	0.00	-3.82 4.53	0.08 -0.08	2.93
VB1 - 5	1502.17	0.00 0.05	-2240.88 -314.50	807.74	-76.93 67.33	0.00	3.06 1.84	-0.04 0.04	-3.41
VB2 - 1	985.00	0.00 0.27	-817.86 -1293.24	2064.89	44.95 53.69	53.69	2.38 2.57	0.00 0.00	7.54
VB2 - 2	985.00	0.00 0.24	-1338.73 -43.32	112.18	147.10 -88.54	0.00	1.69 0.56	0.10 -0.10	-8.80
VB2 - 3	985.00	0.00 0.24	-43.78 -1237.76	0.00	-88.54 -118.25	0.00	-1.26 1.98	0.04 -0.04	-8.80
VB2 - 4	1587.61	0.00 0.27	-1238.22 -4131.58	0.00	-61.15 -18.17	0.00	-4.78 5.65	-0.08 0.08	-8.80
VB2 - 5	1642.85	0.00 0.28	-4319.40 245.96	245.96	65.73 130.94	0.00	5.43 -3.78	-0.06 0.06	-0.01
VB2 - 6	1877.23	0.00 0.28	246.98 2381.45	2381.45	130.94 -17.37	0.00	3.08 -1.06	0.14 -0.14	-0.01
VB2 - 7	1663.85	0.00 0.28	2381.02 602.62	2426.65	-17.37 -149.98	0.00	0.36 2.43	0.08 -0.08	-0.01
VB2 - 8	1480.39	0.00 0.28	601.25 -2077.50	601.25	-134.97 -141.67	0.00	-4.08 4.96	0.01 -0.01	-0.01
VB2 - 9	1775.32	0.00	-1997.19	997.91	-58.44	0.00	3.37	-0.06	5.42



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		0.16	997.91		31.44		-0.68	0.06	
VB2 - 10	1662.87	0.00	998.91	998.91	31.44	0.00	-0.06	-0.01	5.42
		0.16	-1646.44		49.99		2.95	0.01	
VB2 - 11	985.00	0.00	-1592.65	291.19	-4.97	0.00	1.93	0.02	-7.45
		0.10	-189.62		-69.68		0.98	-0.02	
VB3 - 1	772.50	0.00	-211.74	739.43	34.89	34.89	1.21	0.01	-0.29
		0.13	550.77		5.32		0.54	-0.01	
VB3 - 2	772.50	0.00	551.23	551.23	5.32	5.32	-1.24	0.08	-0.29
		0.13	-1707.16		-92.99		2.24	-0.08	
VB3 - 3	772.50	0.00	-1936.61	359.29	129.89	129.89	2.67	0.16	0.57
		0.09	359.29		-31.84		-1.90	-0.16	
VB3 - 4	772.50	0.00	358.28	1196.28	-31.84	0.00	1.19	-0.04	0.57
		0.09	1196.28		13.21		-0.36	0.04	
VB3 - 5	772.50	0.00	1196.71	1196.71	13.21	13.21	-0.34	0.02	0.57
		0.09	-1569.44		-26.26		2.09	-0.02	
VB3 - 6	772.50	0.00	-1524.82	718.73	52.00	52.00	2.06	0.07	-10.81
		0.17	718.73		-48.08		-0.89	-0.07	
VB3 - 7	772.50	0.00	717.72	732.54	-48.08	0.00	0.15	0.02	-10.81
		0.17	-6.69		-75.60		1.07	-0.02	
VB4 - 1	1053.75	0.00	-1157.56	4505.51	29.77	29.77	3.46	0.01	-0.13
		0.14	-10448.27		-63.53		5.61	-0.01	
VB4 - 2	1053.75	0.00	-10943.22	6457.60	78.11	78.11	6.06	0.01	-9.83
		0.44	4973.85		5.57		1.77	-0.01	
VB4 - 3	1053.75	0.00	4983.17	4983.17	129.87	0.00	-0.09	0.08	19.94
		0.60	3485.35		5.04		1.78	-0.08	
VB4 - 4	1053.75	0.00	3491.70	3491.70	5.04	5.04	-3.06	0.02	19.94
		0.60	-2436.37		-32.40		4.67	-0.02	
VB5 - 1	772.50	0.00	-554.88	1714.94	-47.88	18.32	2.05	-0.04	-7.63
		0.17	1714.94		18.32		-0.84	0.04	
VB5 - 2	772.50	0.00	1708.59	1708.59	18.32	18.32	-0.44	0.01	-7.63
		0.17	0.00		0.00		1.68	-0.01	
VB6 - 1	1053.75	0.00	-996.96	4270.59	-31.37	54.01	3.33	-0.01	0.75
		0.02	-11350.60		54.01		5.74	0.01	
VB6 - 2	1053.75	0.00	-11928.75	8135.89	35.32	35.32	6.50	0.01	1.17
		0.10	-2019.62		-61.79		4.63	-0.01	
VB7 - 1	1053.75	0.00	-1108.68	4215.65	-27.16	35.00	3.35	-0.01	-0.17
		0.07	-11309.73		35.00		5.72	0.01	
VB7 - 2	1053.75	0.00	-11968.64	8184.01	38.14	38.14	6.52	0.01	-0.17
		0.19	-1906.96		-36.53		4.61	-0.01	
VB8 - 1	1053.75	0.00	-1958.62	4039.55	-29.40	26.87	3.56	-0.01	-3.33
		0.75	-10389.19		26.87		5.51	0.01	
VB8 - 2	1053.75	0.00	-11620.85	7546.08	29.40	29.40	6.36	0.00	2.73
		1.26	-3267.76		-0.75		4.77	0.00	
VB9 - 1	810.00	0.00	-1044.73	1517.13	19.04	19.04	2.04	0.01	-0.22
		0.37	-2872.55		-19.90		2.67	-0.01	
VB9 - 2	810.00	0.00	-2861.24	1436.18	-9.73	9.11	2.64	0.00	-0.06
		0.36	-2476.77		9.11		2.52	0.00	
VB10 - 1	810.00	0.00	-2188.78	867.20	43.34	43.34	2.23	0.02	-0.21
		0.23	-1612.60		-43.66		2.00	-0.02	
VB10 - 2	810.00	0.00	-1481.42	737.77	-57.54	29.90	1.90	-0.02	1.94
		0.18	-371.38		29.90		1.34	0.02	
VB11	735.00	0.00	-122.36	0.00	-35.54	58.85	0.33	-0.05	2.40
		0.05	-857.24		58.85		1.09	0.05	
VB12	1333.65	0.00	-1350.70	1724.05	-38.74	0.00	2.96	-0.02	-1.03
		0.26	-817.08		49.59		2.54	0.02	
VB13	735.00	0.00	0.00	329.89	0.00	0.00	0.70	0.00	-0.46
		0.06	0.00		0.00		0.70	0.00	
VB14	1348.71	-0.12	0.00	2810.87	-57.10	0.00	2.80	-0.04	0.47
		0.00	0.00		97.01		2.71	0.04	
VB15 - 1	225.00	-0.11	-226.22	453.90	17.40	17.40	0.55	0.01	-0.28
		0.00	-808.75		-15.60		0.75	-0.01	
VB15 - 2	225.00	-0.09	-845.74	394.10	-18.74	21.57	0.75	-0.01	0.01
		0.00	-649.60		21.57		0.69	0.01	



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VB15 - 3	225.00	-0.07 0.00	-666.04 -349.44	267.14	40.26 -56.64	40.26	0.65 0.53	0.02 -0.02	0.58
VB15 - 4	225.00	-0.07 0.00	-370.66 -63.78	0.00	-198.28 199.66	199.66	0.38 0.08	-0.19 0.19	1.46
VB15 - 5	225.00	0.00 0.02	-75.41 300.45	300.51	-28.38 76.81	76.81	0.41 0.02	-0.05 0.05	0.22
VB16	735.00	-0.20 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	1.01
VB17	735.00	0.00 0.06	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.43
VB18	844.02	-0.07 0.00	0.00 0.00	1742.29	-15.01 11.62	0.00	1.65 1.66	-0.01 0.01	1.38
VB19	772.50	0.00 0.08	-206.64 380.59	505.13	-75.43 90.67	90.67	1.05 0.44	-0.09 0.09	-0.03
VB20	772.50	-0.05 0.00	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	1.01
VB21 - 1	772.50	0.00 0.33	-974.38 3685.46	3685.46	44.62 -62.28	44.62	2.69 -0.15	0.03 -0.03	6.20
VB21 - 2	772.50	0.00 0.39	3715.24 -990.52	3715.24	-186.58 74.35	74.35	-1.53 3.10	-0.13 0.13	-3.13
VB22	772.50	0.00 0.11	-444.77 -499.88	812.72	51.47 -65.31	0.00	1.39 1.42	0.03 -0.03	0.84
VB23	772.50	0.00 0.05	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.35
VB24 - 1	810.00	0.00 0.37	-1070.45 -2794.23	1538.05	-3.03 -3.67	0.00	2.06 2.65	0.00 0.00	0.91
VB24 - 2	810.00	0.00 0.34	-2717.23 -2924.71	1281.36	-12.20 6.99	6.99	2.55 2.61	0.00 0.00	-0.07
VB25 - 1	810.00	0.00 0.38	-3075.73 1826.98	1826.98	-98.63 112.58	112.58	3.34 -1.79	-0.11 0.11	-1.33
VB25 - 2	810.00	0.00 0.37	1834.62 -2259.49	1838.57	112.58 -90.34	112.58	0.10 2.58	0.06 -0.06	-1.33
VB25 - 3	810.00	0.00 0.17	-1856.17 -331.60	611.58	-124.03 96.43	96.43	2.00 1.24	-0.06 0.06	-5.66

CASO: G1+G2+0.84V1+1.4D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	0.00 0.18	-61.27 -209.60	747.32	84.81 -48.89	0.00	1.11 1.21	0.04 -0.04	4.92
VB1 - 2	1349.50	0.00 0.11	-209.03 -2699.08	0.00	112.95 13.01	0.00	-3.92 4.69	0.17 -0.17	4.74
VB1 - 3	1509.93	0.00 0.14	-2209.17 -450.89	1349.39	19.51 -85.24	0.00	3.37 2.27	0.03 -0.03	-0.43
VB1 - 4	1336.21	0.00 0.12	-449.61 -2657.14	0.00	-33.12 -82.60	0.00	-3.93 4.63	0.10 -0.10	4.55
VB1 - 5	1502.17	0.00 0.06	-1881.93 -785.15	685.86	-74.42 44.49	0.00	2.81 2.09	-0.04 0.04	-3.39
VB2 - 1	985.00	0.00 0.13	74.64 -1549.94	2430.88	-20.43 88.01	88.01	2.15 2.80	-0.02 0.02	7.57
VB2 - 2	985.00	0.00 0.30	-1302.23 -391.76	0.00	133.74 -46.27	0.00	1.52 0.73	0.08 -0.08	-8.87
VB2 - 3	985.00	0.00 0.30	-392.35 -1710.64	0.00	-46.27 -88.92	0.00	-1.43 2.15	0.06 -0.06	-8.87
VB2 - 4	1587.61	0.00 0.37	-1711.21 -4698.63	0.00	59.99 96.95	0.00	-4.95 5.82	-0.07 0.07	-8.87
VB2 - 5	1642.85	0.00 0.34	-3787.82 615.45	615.45	45.85 9.46	0.00	5.27 -3.62	0.04 -0.04	0.06
VB2 - 6	1877.23	0.00 0.34	616.50 2577.53	2577.53	9.46 -32.22	0.00	2.92 -0.90	0.04 -0.04	0.06
VB2 - 7	1663.85	0.00	2576.98	2588.62	-32.22	0.00	0.20	0.06	0.06

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		0.34	526.70		-125.09		2.59	-0.06	
VB2 - 8	1480.39	0.00 0.37	525.44 -2248.17	525.44	-79.73 -71.75	0.00	-4.24 5.12	-0.01 0.01	0.06
VB2 - 9	1775.32	0.00 0.51	-1886.83 913.07	913.07	-99.40 36.28	0.00	3.25 -0.55	-0.09 0.09	5.60
VB2 - 10	1662.87	0.00 0.51	914.00 -1954.79	914.00	36.28 51.27	0.00	-0.19 3.08	-0.01 0.01	5.60
VB2 - 11	985.00	0.00 0.33	-1044.89 -1232.64	0.00	25.14 -16.59	25.14	1.39 1.52	0.01 -0.01	-7.52
VB3 - 1	772.50	0.00 0.10	70.77 423.80	759.10	-16.35 6.50	0.00	1.03 0.72	-0.01 0.01	-0.33
VB3 - 2	772.50	0.00 0.10	424.38 -2066.99	424.38	6.50 -7.68	6.50	-1.42 2.42	0.01 -0.01	-0.33
VB3 - 3	772.50	0.00 0.00	-1668.87 529.28	529.28	7.34 -0.55	7.34	2.57 -1.80	0.01 -0.01	0.57
VB3 - 4	772.50	0.00 0.00	528.23 1261.65	1261.65	-0.55 -6.23	0.00	1.10 -0.27	0.01 -0.01	0.57
VB3 - 5	772.50	0.00 0.00	1262.20 -1725.13	1262.20	-6.23 18.88	18.88	-0.43 2.19	-0.01 0.01	0.57
VB3 - 6	772.50	0.00 0.01	-1367.81 666.23	666.23	3.66 -55.47	3.66	1.93 -0.75	0.04 -0.04	-10.45
VB3 - 7	772.50	0.00 0.01	665.30 -277.16	665.30	-55.47 10.54	10.54	0.02 1.21	-0.04 0.04	-10.45
VB4 - 1	1053.75	0.00 0.27	-591.61 -10793.69	4732.34	-131.39 75.20	75.20	3.35 5.72	-0.02 0.02	-0.09
VB4 - 2	1053.75	0.00 0.61	-10644.83 4746.60	6352.61	-53.17 139.39	139.39	5.99 1.84	-0.03 0.03	-9.44
VB4 - 3	1053.75	0.00 0.75	4757.35 2862.66	4757.35	32.17 -37.94	0.00	-0.34 2.03	0.04 -0.04	18.93
VB4 - 4	1053.75	0.00 0.75	2868.83 -3439.23	2868.83	-37.94 106.75	106.75	-3.30 4.92	-0.09 0.09	18.93
VB5 - 1	772.50	0.00 0.13	-188.32 1900.27	1900.27	-143.56 37.17	37.17	1.94 -0.72	-0.12 0.12	-7.34
VB5 - 2	772.50	0.00 0.13	1894.10 0.00	1894.10	37.17 0.00	37.17	-0.56 1.80	0.02 -0.02	-7.34
VB6 - 1	1053.75	0.00 0.04	-43.76 -11904.22	4685.61	-133.26 120.28	120.28	3.16 5.91	-0.03 0.03	0.74
VB6 - 2	1053.75	0.00 0.11	-11382.47 -2986.39	7809.26	-32.29 66.26	66.26	6.36 4.77	-0.01 0.01	1.36
VB7 - 1	1053.75	0.00 0.07	-155.12 -11869.39	4625.24	118.89 -61.90	118.89	3.17 5.90	0.02 -0.02	-0.18
VB7 - 2	1053.75	0.00 0.17	-11440.37 -2825.78	7877.42	141.03 -185.22	141.03	6.38 4.75	0.03 -0.03	-0.15
VB8 - 1	1053.75	0.00 0.76	-1372.47 -10798.31	4240.31	128.15 -63.61	128.15	3.44 5.63	0.02 -0.02	-3.35
VB8 - 2	1053.75	0.00 1.23	-11252.07 -3812.89	7396.72	124.62 -153.98	124.62	6.27 4.86	0.03 -0.03	2.82
VB9 - 1	810.00	0.00 0.39	-1040.60 -2875.90	1517.91	-139.08 140.72	140.72	2.04 2.67	-0.05 0.05	-0.40
VB9 - 2	810.00	0.00 0.41	-2862.76 -2474.56	1436.58	8.30 16.79	16.79	2.64 2.52	0.00 0.00	-0.06
VB10 - 1	810.00	0.00 0.27	-2199.68 -1599.76	869.08	152.87 -148.83	152.87	2.23 2.00	0.06 -0.06	0.00
VB10 - 2	810.00	0.00 0.20	-1485.51 -366.96	738.61	-7.86 -29.81	0.00	1.90 1.34	0.01 -0.01	1.88
VB11	735.00	0.00 0.03	-126.97 -839.86	0.00	21.32 -29.44	21.32	0.34 1.08	0.03 -0.03	2.83
VB12	1333.65	0.00 0.24	-1341.45 -820.17	1727.13	-69.37 80.35	0.00	2.95 2.54	-0.04 0.04	-1.60
VB13	735.00	0.00 0.02	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.59
VB14	1348.71	-0.12 0.00	0.00 0.00	2810.87	-148.91 161.84	0.00	2.80 2.71	-0.08 0.08	0.57


VB15 - 1	225.00	-0.12 0.00	-231.80 -804.33	452.46	-187.89 187.60	187.60	0.56 0.75	-0.06 0.06	-0.26
VB15 - 2	225.00	-0.10 0.00	-849.47 -645.12	394.61	-15.33 24.07	24.07	0.75 0.68	-0.01 0.01	0.01
VB15 - 3	225.00	-0.08 0.00	-668.88 -350.58	265.21	176.65 -184.92	176.65	0.65 0.53	0.07 -0.07	0.60
VB15 - 4	225.00	-0.07 0.00	-381.51 -49.83	0.00	-56.55 73.78	73.78	0.39 0.07	-0.06 0.06	0.62
VB15 - 5	225.00	-0.07 0.00	-63.17 308.44	308.97	60.36 -57.69	60.36	0.41 0.03	0.06 -0.06	0.79
VB16	735.00	0.00 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	1.05
VB17	735.00	-0.02 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.56
VB18	844.02	-0.07 0.00	0.00 0.00	1742.29	-45.36 52.12	0.00	1.65 1.66	-0.02 0.02	1.26
VB19	772.50	0.00 0.09	-210.19 386.19	507.68	20.98 -33.39	20.98	1.05 0.44	0.03 -0.03	0.13
VB20	772.50	-0.08 0.00	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	0.93
VB21 - 1	772.50	0.00 0.24	-939.24 3512.02	3512.02	150.05 -189.50	150.05	2.62 -0.08	0.10 -0.10	7.00
VB21 - 2	772.50	0.00 0.31	3540.39 -934.69	3540.39	-82.28 -8.40	0.00	-1.42 2.99	-0.04 0.04	-3.75
VB22	772.50	0.00 0.11	-439.74 -505.64	812.36	15.70 -42.55	0.00	1.39 1.43	0.02 -0.02	0.37
VB23	772.50	0.00 0.14	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.17
VB24 - 1	810.00	0.00 0.33	-1047.66 -2807.70	1544.58	-157.22 152.27	152.27	2.05 2.66	-0.05 0.05	0.68
VB24 - 2	810.00	0.00 0.27	-2689.02 -2975.53	1271.33	0.19 30.96	30.96	2.53 2.62	0.00 0.00	-0.10
VB25 - 1	810.00	0.00 0.32	-3105.86 1920.11	1920.11	27.87 110.79	110.79	3.40 -1.85	-0.04 0.04	-1.18
VB25 - 2	810.00	0.00 0.30	1927.45 -2335.16	1927.45	110.79 -184.31	110.79	0.05 2.63	0.09 -0.09	-1.18
VB25 - 3	810.00	0.00 0.18	-1853.84 -353.87	598.38	-60.39 40.70	40.70	1.99 1.24	-0.03 0.03	-5.37

CASO: G1+G2+0.84V2+1.4D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Yi Yf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	0.00 0.17	-979.22 227.18	608.81	26.84 3.81	0.00	1.56 0.75	0.01 -0.01	4.73
VB1 - 2	1349.50	0.00 0.18	227.53 -1999.74	227.53	35.99 -32.78	0.00	-3.47 4.24	0.12 -0.12	4.89
VB1 - 3	1509.93	0.00 0.14	-2655.99 -118.61	1378.69	-23.08 -28.91	0.00	3.57 2.07	0.00 0.00	0.06
VB1 - 4	1336.21	0.00 0.16	-117.10 -2217.76	0.00	-57.79 -91.29	0.00	-3.72 4.42	0.07 -0.07	1.31
VB1 - 5	1502.17	0.00 0.04	-2599.82 156.15	1000.32	-79.44 90.17	0.00	3.32 1.58	-0.05 0.05	-3.43
VB2 - 1	985.00	0.00 0.41	-1710.36 -1036.55	1750.95	110.34 19.36	110.34	2.61 2.34	0.02 -0.02	7.52
VB2 - 2	985.00	0.00 0.17	-1375.23 305.13	381.20	160.45 -130.81	0.00	1.86 0.39	0.13 -0.13	-8.73
VB2 - 3	985.00	0.00 0.17	304.79 -764.87	304.79	-130.81 -147.58	0.00	-1.09 1.81	0.02 -0.02	-8.73
VB2 - 4	1587.61	0.00 0.17	-765.23 -3564.54	0.00	-182.28 -133.29	0.00	-4.62 5.49	-0.09 0.09	-8.73
VB2 - 5	1642.85	0.00	-4850.99	0.00	85.61	0.00	5.59	-0.17	-0.08


		0.21	-123.52		252.42		-3.94	0.17	
VB2 - 6	1877.23	0.00 0.21	-122.55 2185.36	2185.36	252.42 -2.51	0.00	3.24 -1.22	0.24 -0.24	-0.08
VB2 - 7	1663.85	0.00 0.21	2185.06 678.55	2264.68	-2.51 -174.87	0.00	0.52 2.27	0.10 -0.10	-0.08
VB2 - 8	1480.39	0.00 0.20	677.05 -1906.82	677.05	-190.22 -211.60	0.00	-3.92 4.80	0.04 -0.04	-0.08
VB2 - 9	1775.32	-0.19 0.00	-2107.54 1082.74	1082.74	-17.48 26.59	0.00	3.50 -0.80	-0.03 0.03	5.25
VB2 - 10	1662.87	-0.19 0.00	1083.82 -1338.08	1083.82	26.59 48.70	0.00	0.07 2.83	-0.01 0.01	5.25
VB2 - 11	985.00	-0.12 0.00	-2140.41 853.40	949.39	-35.08 -122.77	0.00	2.47 0.44	0.03 -0.03	-7.37
VB3 - 1	772.50	0.00 0.17	-494.25 677.73	762.11	86.12 4.13	86.12	1.39 0.36	0.04 -0.04	-0.25
VB3 - 2	772.50	0.00 0.17	678.07 -1347.32	678.07	4.13 -178.30	4.13	-1.06 2.06	0.14 -0.14	-0.25
VB3 - 3	772.50	0.00 0.19	-2204.34 189.31	189.31	252.44 -63.13	252.44	2.77 -1.99	0.31 -0.31	0.56
VB3 - 4	772.50	0.00 0.19	188.33 1130.92	1130.92	-63.13 32.66	0.00	1.29 -0.46	-0.09 0.09	0.56
VB3 - 5	772.50	0.00 0.19	1131.22 -1413.75	1131.22	32.66 -71.39	32.66	-0.24 2.00	0.05 -0.05	0.56
VB3 - 6	772.50	0.00 0.33	-1681.83 771.23	771.23	100.35 -40.70	100.35	2.20 -1.03	0.09 -0.09	-11.18
VB3 - 7	772.50	0.00 0.33	770.15 263.77	822.65	-40.70 -161.74	0.00	0.29 0.93	0.08 -0.08	-11.18
VB4 - 1	1053.75	0.00 0.01	-1723.52 -10102.84	4294.91	190.93 -202.27	190.93	3.56 5.51	0.05 -0.05	-0.16
VB4 - 2	1053.75	0.00 0.27	-11241.62 5201.09	6571.19	209.38 -128.24	209.38	6.13 1.70	0.05 -0.05	-10.22
VB4 - 3	1053.75	0.00 0.45	5208.99 4108.04	5219.23	227.58 48.03	0.00	0.16 1.53	0.11 -0.11	20.96
VB4 - 4	1053.75	0.00 0.45	4114.57 -1433.50	4114.57	48.03 -171.55	48.03	-2.81 4.43	0.14 -0.14	20.96
VB5 - 1	772.50	0.00 0.21	-921.44 1529.60	1529.60	47.80 -0.53	47.80	2.17 -0.95	0.03 -0.03	-7.93
VB5 - 2	772.50	0.00 0.21	1523.07 0.00	1523.07	-0.53 0.00	0.00	-0.33 1.57	0.00 0.00	-7.93
VB6 - 1	1053.75	0.00 0.01	-1950.17 -10796.98	3883.44	70.51 -12.26	70.51	3.51 5.56	0.01 -0.01	0.75
VB6 - 2	1053.75	0.00 0.08	-12475.03 -1052.86	8486.53	102.94 -189.84	102.94	6.65 4.48	0.03 -0.03	0.99
VB7 - 1	1053.75	0.00 0.07	-2062.24 -10750.08	3834.22	-173.21 131.90	131.90	3.53 5.54	-0.04 0.04	-0.17
VB7 - 2	1053.75	0.00 0.21	-12496.91 -988.14	8516.28	-64.76 112.15	112.15	6.65 4.48	-0.02 0.02	-0.20
VB8 - 1	1053.75	0.00 0.75	-2544.77 -9980.06	3846.89	-186.96 117.34	117.34	3.67 5.40	-0.04 0.04	-3.31
VB8 - 2	1053.75	0.00 1.29	-11989.63 -2722.62	7704.56	-65.82 152.48	152.48	6.44 4.69	-0.02 0.02	2.64
VB9 - 1	810.00	0.00 0.34	-1048.87 -2869.21	1516.34	177.16 -180.53	177.16	2.04 2.67	0.06 -0.06	-0.03
VB9 - 2	810.00	0.00 0.31	-2859.72 -2478.99	1435.77	-27.77 1.44	1.44	2.64 2.52	0.00 0.00	-0.06
VB10 - 1	810.00	0.00 0.19	-2177.87 -1625.43	865.33	-66.19 61.52	61.52	2.22 2.01	-0.02 0.02	-0.41
VB10 - 2	810.00	0.00 0.17	-1477.32 -375.81	736.93	-107.22 89.62	89.62	1.89 1.34	-0.05 0.05	2.01
VB11	735.00	0.00 0.07	-117.75 -874.62	0.00	-92.40 147.14	147.14	0.32 1.10	-0.12 0.12	1.97
VB12	1333.65	0.00 0.28	-1359.96 -813.98	1720.97	-8.12 18.84	0.00	2.96 2.54	-0.01 0.01	-0.46

VB13	735.00	0.00 0.10	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.34
VB14	1348.71	-0.11 0.00	0.00 0.00	2810.87	34.71 32.17	0.00	2.80 2.71	0.00 0.00	0.36
VB15 - 1	225.00	-0.11 0.00	-220.64 -813.17	455.34	222.68 -218.80	222.68	0.55 0.76	0.08 -0.08	-0.31
VB15 - 2	225.00	-0.08 0.00	-842.01 -654.08	393.59	-22.15 19.07	19.07	0.75 0.69	-0.01 0.01	0.00
VB15 - 3	225.00	-0.06 0.00	-663.20 -348.30	269.06	-96.12 71.63	71.63	0.65 0.53	-0.03 0.03	0.57
VB15 - 4	225.00	-0.06 0.00	-359.81 -77.73	0.00	-340.01 325.54	325.54	0.37 0.09	-0.32 0.32	2.31
VB15 - 5	225.00	0.00 0.11	-87.65 292.46	292.46	-117.11 211.32	211.32	0.41 0.02	-0.17 0.17	-0.35
VB16	735.00	-0.40 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	0.98
VB17	735.00	0.00 0.13	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.30
VB18	844.02	-0.07 0.00	0.00 0.00	1742.29	15.34 -28.88	0.00	1.65 1.66	0.01 -0.01	1.50
VB19	772.50	0.00 0.08	-203.10 374.99	502.58	-171.84 214.74	214.74	1.05 0.45	-0.20 0.20	-0.19
VB20	772.50	-0.02 0.00	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	1.08
VB21 - 1	772.50	0.00 0.41	-1009.52 3858.90	3858.90	-60.81 64.94	64.94	2.75 -0.21	-0.04 0.04	5.39
VB21 - 2	772.50	0.00 0.48	3890.08 -1046.34	3890.08	-290.87 157.10	157.10	-1.65 3.22	-0.22 0.22	-2.50
VB22	772.50	0.00 0.12	-449.80 -494.13	813.08	87.23 -88.08	0.00	1.40 1.42	0.05 -0.05	1.32
VB23	772.50	-0.03 0.00	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.53
VB24 - 1	810.00	0.00 0.40	-1093.25 -2780.76	1531.51	151.17 -159.62	151.17	2.06 2.64	0.05 -0.05	1.14
VB24 - 2	810.00	0.00 0.41	-2745.45 -2873.89	1291.38	-24.59 -16.98	0.00	2.56 2.60	0.00 0.00	-0.04
VB25 - 1	810.00	0.00 0.45	-3045.60 1733.85	1733.85	-225.13 114.36	114.36	3.27 -1.72	-0.18 0.18	-1.48
VB25 - 2	810.00	0.00 0.45	1741.79 -2183.82	1756.27	114.36 3.62	114.36	0.15 2.53	0.03 -0.03	-1.48
VB25 - 3	810.00	0.00 0.16	-1858.51 -309.34	624.79	-187.66 152.16	152.16	2.01 1.23	-0.09 0.09	-5.95

CASO: G1+G2+0.84V3+1.4D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Yyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	-0.10 0.00	-460.35 -17.53	653.63	495.85 -439.88	0.00	1.31 1.01	0.31 -0.31	5.94
VB1 - 2	1349.50	-0.28 0.00	-17.14 -2392.52	0.00	-30.34 -237.29	0.00	-3.72 4.49	0.36 -0.36	5.91
VB1 - 3	1509.93	-0.32 0.00	-2413.57 -294.34	1365.57	-231.40 -43.25	0.00	3.46 2.18	-0.05 0.05	0.20
VB1 - 4	1336.21	-0.13 0.00	-293.05 -2451.07	0.00	-420.35 -444.49	0.00	-3.83 4.53	0.05 -0.05	3.43
VB1 - 5	1502.17	-0.25 0.00	-2186.47 -395.12	777.76	-440.19 592.44	0.00	3.02 1.88	-0.32 0.32	-5.67
VB2 - 1	985.00	0.00 0.18	-843.65 -1281.63	2057.05	327.34 -488.98	327.34	2.39 2.56	0.16 -0.16	6.36
VB2 - 2	985.00	0.00 0.43	-1327.50 -60.71	102.59	193.99 -299.03	0.00	1.68 0.57	0.22 -0.22	-6.83
VB2 - 3	985.00	0.00	-61.15	0.00	-299.03	0.00	-1.27	0.15	-6.83

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		0.43	-1264.37		-407.28		2.00	-0.15	
VB2 - 4	1587.61	0.00 0.61	-1264.77 -4165.12	0.00	-75.32 -136.90	0.00	-4.80 5.67	0.11 -0.11	-6.83
VB2 - 5	1642.85	0.00 0.67	-4362.59 235.47	235.47	-137.96 -31.42	0.00	5.46 -3.81	-0.11 0.11	-0.59
VB2 - 6	1877.23	0.00 0.67	236.42 2405.88	2405.88	-31.42 -87.56	0.00	3.11 -1.09	0.05 -0.05	-0.59
VB2 - 7	1663.85	0.00 0.67	2405.40 681.85	2457.88	-87.56 -127.48	0.00	0.39 2.40	0.02 -0.02	-0.59
VB2 - 8	1480.39	0.00 0.48	680.59 -1979.02	680.59	-482.07 -435.17	0.00	-4.05 4.93	-0.08 0.08	-0.59
VB2 - 9	1775.32	0.00 0.39	-1888.42 995.73	995.73	-388.58 73.80	0.00	3.30 -0.60	-0.30 0.30	5.60
VB2 - 10	1662.87	0.00 0.39	996.93 -1775.43	996.93	73.80 213.48	0.00	-0.13 3.03	-0.08 0.08	5.60
VB2 - 11	985.00	0.00 0.01	-1712.69 -189.04	248.69	-518.20 178.94	178.94	1.97 0.93	-0.24 0.24	-6.78
VB3 - 1	772.50	0.00 0.12	-218.36 562.94	746.48	14.65 10.00	14.65	1.22 0.54	0.00 0.00	-1.13
VB3 - 2	772.50	0.00 0.12	563.38 -1684.30	563.38	10.00 -82.16	10.00	-1.24 2.24	0.07 -0.07	-1.13
VB3 - 3	772.50	-0.01 0.00	-1932.62 359.56	359.56	108.17 -24.44	108.17	2.67 -1.89	0.13 -0.13	0.90
VB3 - 4	772.50	-0.01 0.00	358.61 1192.63	1192.63	-24.44 3.82	0.00	1.19 -0.36	-0.03 0.03	0.90
VB3 - 5	772.50	-0.01 0.00	1193.12 -1581.44	1193.12	3.82 -1.29	3.82	-0.34 2.10	0.00 0.00	0.90
VB3 - 6	772.50	0.00 0.05	-1556.28 711.46	711.46	59.17 -124.39	59.17	2.08 -0.91	0.12 -0.12	-10.74
VB3 - 7	772.50	0.00 0.05	710.26 11.02	728.68	-124.39 38.74	38.74	0.17 1.05	-0.10 0.10	-10.74
VB4 - 1	1053.75	0.00 0.22	-1201.34 -10415.06	4490.38	271.11 -318.13	271.11	3.46 5.61	0.07 -0.07	0.03
VB4 - 2	1053.75	0.00 0.55	-10946.59 4962.08	6447.65	-77.49 -18.52	0.00	6.06 1.77	-0.01 0.01	-11.10
VB4 - 3	1053.75	0.00 0.65	4971.45 3512.50	4971.45	-132.36 -42.12	0.00	-0.07 1.75	-0.06 0.06	22.81
VB4 - 4	1053.75	0.00 0.65	3518.91 -2371.94	3518.91	-42.12 246.72	246.72	-3.03 4.65	-0.19 0.19	22.81
VB5 - 1	772.50	0.00 0.13	-589.41 1697.50	1697.50	-138.99 34.62	34.62	2.06 -0.85	-0.11 0.11	-8.21
VB5 - 2	772.50	0.00 0.13	1691.09 0.00	1691.09	34.62 0.00	34.62	-0.43 1.67	0.02 -0.02	-8.21
VB6 - 1	1053.75	0.00 0.04	-1042.52 -11323.89	4251.92	134.79 -189.54	134.79	3.34 5.73	0.04 -0.04	0.96
VB6 - 2	1053.75	0.00 0.13	-11954.81 -1973.80	8151.31	-178.78 100.22	100.22	6.51 4.62	-0.03 0.03	1.11
VB7 - 1	1053.75	0.00 0.06	-1116.80 -11304.59	4212.47	142.88 -200.13	142.88	3.35 5.72	0.04 -0.04	-0.10
VB7 - 2	1053.75	0.00 0.18	-11975.01 -1895.70	8187.82	-176.06 108.21	108.21	6.52 4.61	-0.03 0.03	-0.13
VB8 - 1	1053.75	0.00 0.78	-1939.00 -10401.20	4046.67	81.57 -179.20	81.57	3.55 5.52	0.03 -0.03	-2.70
VB8 - 2	1053.75	0.00 1.28	-11623.71 -3259.29	7549.76	-157.55 91.17	91.17	6.36 4.77	-0.02 0.02	2.42
VB9 - 1	810.00	0.00 0.38	-630.15 -3203.88	1621.06	-61.18 52.78	52.78	1.91 2.80	-0.02 0.02	-0.21
VB9 - 2	810.00	0.00 0.34	-2616.13 -2735.69	1425.00	-64.46 65.07	65.07	2.56 2.60	-0.02 0.02	-0.04
VB10 - 1	810.00	0.00 0.18	-1894.79 -1867.02	881.16	-29.52 16.07	16.07	2.12 2.11	-0.01 0.01	-0.21
VB10 - 2	810.00	0.00 0.08	-1108.05 -855.57	637.20	-199.26 240.62	240.62	1.68 1.56	-0.11 0.11	1.93

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VB11	735.00	-0.01 0.00	279.28 -1015.22	279.28	-18.24 30.32	30.32	0.04 1.38	-0.03 0.03	2.44
VB12	1333.65	0.00 0.12	-1004.82 -1546.07	1532.49	-648.25 500.07	0.00	2.70 2.80	-0.28 0.28	-1.15
VB13	735.00	0.00 0.07	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.44
VB14	1348.71	-0.04 0.00	0.00 0.00	2810.87	-331.95 409.54	0.00	2.80 2.71	-0.18 0.18	0.39
VB15 - 1	225.00	-0.08 0.00	360.81 -1241.04	677.53	2.80 -0.86	2.80	0.38 0.93	0.00 0.00	-0.28
VB15 - 2	225.00	-0.07 0.00	-556.82 -968.88	386.21	-24.94 26.13	26.13	0.65 0.78	-0.01 0.01	0.01
VB15 - 3	225.00	-0.05 0.00	-288.69 -679.18	295.19	15.36 -26.62	15.36	0.51 0.66	0.01 -0.01	0.59
VB15 - 4	225.00	-0.06 0.00	26.06 -92.85	92.63	-267.26 217.72	217.72	0.17 0.29	-0.24 0.24	1.49
VB15 - 5	225.00	0.00 0.13	19.01 -435.97	19.01	17.00 24.12	24.12	-0.02 0.45	0.00 0.00	0.15
VB16	735.00	-0.16 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	0.95
VB17	735.00	0.00 0.03	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.48
VB18	844.02	-0.10 0.00	0.00 0.00	1742.29	354.59 -377.10	0.00	1.65 1.66	0.19 -0.19	1.26
VB19	772.50	0.00 0.15	138.48 29.80	446.05	-56.09 55.42	55.42	0.69 0.80	-0.06 0.06	0.03
VB20	772.50	-0.22 0.00	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	1.20
VB21 - 1	772.50	0.00 0.29	-722.01 3647.84	3647.84	128.50 -158.97	128.50	2.60 -0.06	0.09 -0.09	6.18
VB21 - 2	772.50	0.00 0.24	3681.75 -1254.65	3681.75	-45.14 -28.20	0.00	-1.65 3.22	-0.01 0.01	-3.19
VB22	772.50	-0.09 0.00	0.64 -1092.34	797.18	710.21 -578.00	0.00	1.11 1.71	0.35 -0.35	0.72
VB23	772.50	0.00 0.13	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.41
VB24 - 1	810.00	0.00 0.34	-577.26 -3188.50	1658.43	64.23 -62.76	64.23	1.90 2.80	0.02 -0.02	0.91
VB24 - 2	810.00	0.00 0.22	-2426.05 -3231.10	1283.39	36.43 -38.30	36.43	2.45 2.70	0.01 -0.01	-0.06
VB25 - 1	810.00	0.00 0.19	-2719.15 1929.71	1929.71	-8.31 97.47	97.47	3.20 -1.65	-0.06 0.06	-1.35
VB25 - 2	810.00	0.00 0.17	1937.92 -2559.08	1937.92	97.47 -158.92	97.47	-0.02 2.70	0.08 -0.08	-1.35
VB25 - 3	810.00	0.00 0.02	-1407.08 -913.47	465.08	32.05 -87.38	32.05	1.74 1.49	0.03 -0.03	-5.73

CASO: G1+G2+0.84V4+1.4D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Yyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	0.00 0.45	-580.14 35.11	635.47	-384.20 394.80	0.00	1.36 0.95	-0.26 0.26	3.72
VB1 - 2	1349.50	0.00 0.56	35.64 -2306.29	35.64	179.28 217.53	0.00	-3.67 4.44	-0.07 0.07	3.72
VB1 - 3	1509.93	0.00 0.60	-2451.60 -275.16	1362.50	227.83 -70.91	0.00	3.48 2.16	0.08 -0.08	-0.56
VB1 - 4	1336.21	0.00 0.40	-273.66 -2423.83	0.00	329.44 270.59	0.00	-3.82 4.52	0.11 -0.11	2.44
VB1 - 5	1502.17	0.00 0.36	-2295.29 -233.88	837.72	286.33 -457.78	0.00	3.11 1.80	0.23 -0.23	-1.15
VB2 - 1	985.00	0.00	-792.06	2072.73	-237.43	596.35	2.38	-0.17	8.72



		0.35	-1304.86		596.35		2.58	0.17	
VB2 - 2	985.00	0.00 0.04	-1349.96 -25.92	121.77	100.20 121.95	0.00	1.70 0.54	-0.01 0.01	-10.77
VB2 - 3	985.00	0.00 0.04	-26.40 -1211.14	0.00	121.95 170.78	0.00	-1.24 1.97	-0.07 0.07	-10.77
VB2 - 4	1587.61	-0.07 0.00	-1211.68 -4098.05	0.00	-46.97 100.56	0.00	-4.77 5.64	-0.26 0.26	-10.77
VB2 - 5	1642.85	-0.12 0.00	-4276.21 256.45	256.45	269.42 293.30	0.00	5.40 -3.75	-0.02 0.02	0.57
VB2 - 6	1877.23	-0.12 0.00	257.53 2357.02	2357.02	293.30 52.83	0.00	3.05 -1.03	0.22 -0.22	0.57
VB2 - 7	1663.85	-0.12 0.00	2356.64 523.40	2395.42	52.83 -172.48	0.00	0.33 2.46	0.13 -0.13	0.57
VB2 - 8	1480.39	0.00 0.08	521.91 -2175.97	521.91	212.12 151.82	0.00	-4.11 4.99	0.10 -0.10	0.57
VB2 - 9	1775.32	-0.07 0.00	-2105.96 1000.08	1000.08	271.70 -10.93	0.00	3.45 -0.75	0.19 -0.19	5.25
VB2 - 10	1662.87	-0.07 0.00	1000.90 -1517.45	1000.90	-10.93 -113.50	0.00	0.01 2.88	0.06 -0.06	5.25
VB2 - 11	985.00	0.00 0.19	-1472.61 -190.20	333.69	508.26 -318.31	508.26	1.89 1.02	0.28 -0.28	-8.11
VB3 - 1	772.50	0.00 0.15	-205.12 538.59	732.38	55.13 0.63	55.13	1.21 0.55	0.02 -0.02	0.55
VB3 - 2	772.50	0.00 0.15	539.07 -1730.01	539.07	0.63 -103.82	0.63	-1.25 2.25	0.08 -0.08	0.55
VB3 - 3	772.50	0.00 0.20	-1940.59 359.03	359.03	151.61 -39.24	151.61	2.68 -1.90	0.19 -0.19	0.24
VB3 - 4	772.50	0.00 0.20	357.95 1199.93	1199.93	-39.24 22.60	0.00	1.20 -0.37	-0.06 0.06	0.24
VB3 - 5	772.50	0.00 0.20	1200.30 -1557.44	1200.30	22.60 -51.23	22.60	-0.33 2.09	0.03 -0.03	0.24
VB3 - 6	772.50	0.00 0.30	-1493.37 726.00	726.00	44.84 28.22	44.84	2.05 -0.87	0.01 -0.01	-10.88
VB3 - 7	772.50	0.00 0.30	725.19 -24.40	736.41	28.22 -189.94	28.22	0.14 1.08	0.14 -0.14	-10.88
VB4 - 1	1053.75	0.00 0.06	-1113.79 -10481.47	4520.64	-211.57 191.06	191.06	3.45 5.62	-0.05 0.05	-0.29
VB4 - 2	1053.75	0.00 0.32	-10939.86 4985.61	6467.54	233.70 29.67	233.70	6.06 1.77	0.03 -0.03	-8.56
VB4 - 3	1053.75	0.00 0.55	4994.89 3458.20	4994.89	392.11 52.20	0.00	-0.12 1.80	0.21 -0.21	17.08
VB4 - 4	1053.75	0.00 0.55	3464.49 -2500.79	3464.49	52.20 -311.53	52.20	-3.08 4.70	0.24 -0.24	17.08
VB5 - 1	772.50	0.00 0.21	-520.35 1732.38	1732.38	43.22 2.02	43.22	2.04 -0.83	0.03 -0.03	-7.06
VB5 - 2	772.50	0.00 0.21	1726.08 0.00	1726.08	2.02 0.00	2.02	-0.45 1.69	0.00 0.00	-7.06
VB6 - 1	1053.75	0.00 0.01	-951.41 -11377.31	4289.26	-197.53 297.56	297.56	3.32 5.75	-0.06 0.06	0.53
VB6 - 2	1053.75	0.00 0.06	-11902.70 -2065.45	8120.48	249.42 -223.81	249.42	6.50 4.63	0.04 -0.04	1.24
VB7 - 1	1053.75	0.00 0.08	-1100.56 -11314.88	4218.84	-197.20 270.13	270.13	3.35 5.72	-0.05 0.05	-0.25
VB7 - 2	1053.75	0.00 0.20	-11962.27 -1918.22	8180.21	252.33 -181.28	252.33	6.52 4.61	0.04 -0.04	-0.21
VB8 - 1	1053.75	0.00 0.73	-1978.23 -10377.18	4032.44	-140.38 232.93	232.93	3.56 5.51	-0.04 0.04	-3.95
VB8 - 2	1053.75	0.00 1.24	-11617.99 -3276.22	7542.41	216.35 -92.67	216.35	6.35 4.78	0.03 -0.03	3.04
VB9 - 1	810.00	0.00 0.35	-1459.31 -2541.23	1436.92	99.26 -92.58	99.26	2.17 2.54	0.03 -0.03	-0.23
VB9 - 2	810.00	0.00 0.38	-3106.35 -2217.86	1451.21	44.99 -46.84	44.99	2.72 2.44	0.01 -0.01	-0.07



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VB10 - 1	810.00	0.00 0.28	-2482.76 -1358.17	868.52	116.20 -103.38	116.20	2.33 1.90	0.04 -0.04	-0.20
VB10 - 2	810.00	0.00 0.28	-1854.78 112.80	892.78	84.18 -180.81	84.18	2.11 1.13	0.07 -0.07	1.96
VB11	735.00	0.00 0.12	-524.00 -699.26	0.00	-52.83 87.38	87.38	0.62 0.80	-0.07 0.07	2.37
VB12	1333.65	0.00 0.40	-1696.59 -88.09	1964.20	570.77 -400.89	0.00	3.22 2.28	0.24 -0.24	-0.91
VB13	735.00	0.00 0.06	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.48
VB14	1348.71	-0.20 0.00	0.00 0.00	2810.87	217.75 -215.52	0.00	2.80 2.71	0.11 -0.11	0.54
VB15 - 1	225.00	-0.15 0.00	-813.26 -376.45	366.97	32.00 -30.34	32.00	0.73 0.58	0.01 -0.01	-0.29
VB15 - 2	225.00	-0.12 0.00	-1134.66 -330.33	442.51	-12.54 17.02	17.02	0.84 0.59	0.00 0.00	0.00
VB15 - 3	225.00	-0.09 0.00	-1043.39 -19.70	320.55	65.16 -86.67	65.16	0.78 0.39	0.03 -0.03	0.58
VB15 - 4	225.00	-0.07 0.00	-767.37 -34.71	0.00	-129.30 181.59	181.59	0.59 -0.13	-0.15 0.15	1.44
VB15 - 5	225.00	-0.09 0.00	-169.83 1036.87	1036.87	-73.76 129.51	129.51	0.84 -0.40	-0.10 0.10	0.30
VB16	735.00	-0.25 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	1.08
VB17	735.00	0.00 0.09	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.37
VB18	844.02	-0.03 0.00	0.00 0.00	1742.29	-384.61 400.34	0.00	1.65 1.66	-0.20 0.20	1.49
VB19	772.50	0.00 0.02	-551.77 731.38	731.38	-94.77 125.93	125.93	1.41 0.08	-0.11 0.11	-0.09
VB20	772.50	0.00 0.13	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	0.81
VB21 - 1	772.50	0.00 0.36	-1226.75 3723.08	3723.08	-39.25 34.42	34.42	2.78 -0.23	-0.02 0.02	6.21
VB21 - 2	772.50	0.00 0.54	3748.72 -726.38	3748.72	-328.02 176.91	176.91	-1.42 2.99	-0.25 0.25	-3.07
VB22	772.50	0.00 0.31	-890.18 92.58	931.98	-607.28 447.37	0.00	1.68 1.14	-0.29 0.29	0.97
VB23	772.50	-0.02 0.00	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.29
VB24 - 1	810.00	0.00 0.39	-1563.64 -2399.95	1446.36	-70.28 55.41	55.41	2.21 2.50	-0.02 0.02	0.91
VB24 - 2	810.00	0.00 0.45	-3008.42 -2618.33	1291.90	-60.83 52.28	52.28	2.64 2.52	-0.02 0.02	-0.09
VB25 - 1	810.00	0.00 0.58	-3432.32 1724.26	1724.26	-188.95 127.69	127.69	3.47 -1.92	-0.17 0.17	-1.32
VB25 - 2	810.00	0.00 0.57	1731.32 -1959.90	1760.45	127.69 -21.77	127.69	0.22 2.46	0.05 -0.05	-1.32
VB25 - 3	810.00	0.00 0.31	-2305.26 250.26	840.63	-280.11 280.24	280.24	2.26 0.98	-0.14 0.14	-5.60

CASO: G1+G2+0.98Q+0.84V1+1.4D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	0.00 0.14	-388.39 -174.08	603.72	265.21 -192.37	0.00	1.23 1.09	0.15 -0.15	20.19
VB1 - 2	4279.21	-0.02 0.00	-173.98 -7937.09	0.00	187.57 -62.61	0.00	-12.30 14.70	0.43 -0.43	20.06
VB1 - 3	6008.67	0.00 0.27	-8267.04 -2459.98	5502.13	-30.66 -164.00	0.00	13.42 8.97	0.04 -0.04	-2.43
VB1 - 4	5103.80	0.00	-2454.68	0.00	-221.30	0.00	-12.40	0.21	24.83




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		0.31	-9592.54		-327.09		15.14	-0.21	
VB1 - 5	6378.93	0.00 0.16	-8534.44 -1649.51	3564.45	-298.44 308.17	0.00	12.70 8.12	-0.19 0.19	-9.91
VB2 - 1	985.00	0.00 0.19	-93.00 -862.61	2648.52	-59.73 182.42	182.42	2.32 2.63	-0.05 0.05	27.18
VB2 - 2	985.00	0.00 0.42	-803.14 -1192.68	0.00	373.73 -160.95	0.00	0.95 1.29	0.23 -0.23	-33.95
VB2 - 3	985.00	0.00 0.42	-1193.25 -2931.35	0.00	-160.95 -306.49	0.00	-2.00 2.72	0.20 -0.20	-33.95
VB2 - 4	4627.90	0.00 0.60	-2931.47 -11679.23	0.00	34.29 75.06	0.00	-14.63 17.12	-0.07 0.07	-33.95
VB2 - 5	5476.71	0.00 0.71	-11222.10 1895.68	1895.68	61.27 14.97	0.00	16.21 -10.70	0.05 -0.05	0.54
VB2 - 6	7729.64	0.00 0.71	1894.19 7528.78	7528.78	14.97 -85.37	0.00	10.00 -1.69	0.09 -0.09	0.54
VB2 - 7	5663.87	0.00 0.71	7527.28 688.65	7684.10	-85.37 -259.03	0.00	0.98 8.45	0.10 -0.10	0.54
VB2 - 8	4791.34	0.00 0.68	683.47 -7254.84	683.47	-322.01 -279.59	0.00	-11.79 14.70	-0.07 0.07	0.54
VB2 - 9	7057.44	0.00 0.78	-6835.19 3206.73	3206.73	-294.73 73.13	0.00	12.39 -1.66	-0.24 0.24	-1.30
VB2 - 10	6193.45	0.00 0.78	3208.70 -4729.26	3386.78	73.13 149.96	0.00	0.93 9.85	-0.04 0.04	-1.30
VB2 - 11	985.00	0.00 0.31	-3475.29 -1246.56	0.00	-198.49 55.33	55.33	2.21 0.69	-0.09 0.09	-3.40
VB3 - 1	772.50	0.00 0.11	95.30 452.83	786.09	-7.92 7.94	0.00	1.04 0.72	-0.01 0.01	2.06
VB3 - 2	772.50	0.00 0.11	453.40 -2035.41	453.40	7.94 -30.68	7.94	-1.42 2.42	0.03 -0.03	2.06
VB3 - 3	772.50	-0.03 0.00	-1630.96 552.70	552.70	38.39 -7.43	38.39	2.56 -1.78	0.05 -0.05	1.80
VB3 - 4	772.50	-0.03 0.00	554.19 1272.10	1272.10	-7.43 -5.65	0.00	1.08 -0.25	0.00 0.00	1.80
VB3 - 5	772.50	-0.03 0.00	1273.60 -1746.53	1273.60	-5.65 20.18	20.18	-0.45 2.21	-0.01 0.01	1.80
VB3 - 6	772.50	0.00 0.00	-1367.63 663.64	663.64	30.18 -115.67	30.18	1.92 -0.75	0.10 -0.10	-12.81
VB3 - 7	772.50	0.00 0.00	661.67 -283.68	661.67	-115.67 45.47	45.47	0.01 1.21	-0.10 0.10	-12.81
VB4 - 1	1053.75	0.00 0.26	-589.75 -10799.47	4731.36	-141.47 83.01	83.01	3.35 5.72	-0.03 0.03	-0.32
VB4 - 2	1053.75	0.00 0.64	-10650.38 4748.23	6352.49	-5.24 90.88	90.88	5.99 1.84	-0.01 0.01	-9.19
VB4 - 3	1053.75	0.00 0.77	4758.95 2866.21	4758.95	-17.68 -43.35	0.00	-0.34 2.03	0.02 -0.02	19.07
VB4 - 4	1053.75	0.00 0.77	2872.38 -3433.82	2872.38	-43.35 143.35	143.35	-3.30 4.92	-0.12 0.12	19.07
VB5 - 1	772.50	0.00 0.13	-190.35 1899.25	1899.25	-145.08 36.12	36.12	1.94 -0.72	-0.12 0.12	-7.38
VB5 - 2	772.50	0.00 0.13	1893.08 0.00	1893.08	36.12 0.00	36.12	-0.56 1.80	0.02 -0.02	-7.38
VB6 - 1	1053.75	0.00 0.04	-44.15 -11903.86	4685.48	-135.45 126.78	126.78	3.16 5.91	-0.03 0.03	0.79
VB6 - 2	1053.75	0.00 0.11	-11382.25 -2986.56	7809.26	-22.44 59.24	59.24	6.36 4.77	-0.01 0.01	1.41
VB7 - 1	1053.75	0.00 0.07	-155.27 -11869.30	4625.18	115.52 -54.87	115.52	3.17 5.90	0.02 -0.02	-0.18
VB7 - 2	1053.75	0.00 0.17	-11440.45 -2825.84	7877.36	151.42 -193.36	151.42	6.38 4.75	0.03 -0.03	-0.08
VB8 - 1	1053.75	0.00 0.76	-1371.84 -10798.86	4240.51	125.97 -57.09	125.97	3.44 5.63	0.02 -0.02	-3.34
VB8 - 2	1053.75	0.00 1.23	-11251.30 -3813.50	7396.72	133.51 -159.40	133.51	6.27 4.86	0.03 -0.03	2.95

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VB9 - 1	810.00	0.00 0.39	-1051.17 -2867.38	1515.89	-137.60 139.40	139.40	2.04 2.67	-0.05 0.05	-0.40
VB9 - 2	810.00	0.00 0.42	-2868.86 -2468.37	1436.83	9.32 15.63	15.63	2.64 2.52	0.00 0.00	-0.06
VB10 - 1	810.00	0.00 0.28	-2207.97 -1590.82	870.07	153.03 -147.63	153.03	2.23 2.00	0.06 -0.06	0.00
VB10 - 2	810.00	0.00 0.21	-1491.67 -361.72	739.05	3.81 -53.26	3.81	1.90 1.34	0.01 -0.01	1.46
VB11	735.00	0.00 0.04	-71.59 -3749.09	0.00	17.78 -20.23	17.78	-1.19 2.61	0.02 -0.02	3.14
VB12	5084.10	0.00 0.67	-4990.27 -2647.35	6796.93	-206.67 226.81	0.00	11.65 9.30	-0.11 0.11	-1.26
VB13	735.00	0.00 0.04	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.56
VB14	5652.27	-0.27 0.00	0.00 0.00	12660.19	-340.78 379.94	0.00	11.91 11.21	-0.18 0.18	0.11
VB15 - 1	225.00	-0.11 0.00	-241.02 -795.95	450.52	-189.57 189.27	189.27	0.56 0.75	-0.07 0.07	-0.26
VB15 - 2	225.00	-0.09 0.00	-850.90 -649.49	391.66	-17.03 25.78	25.78	0.75 0.68	-0.01 0.01	0.01
VB15 - 3	225.00	-0.06 0.00	-687.81 -291.39	289.98	174.99 -183.77	174.99	0.66 0.51	0.07 -0.07	0.60
VB15 - 4	225.00	-0.05 0.00	-310.21 -818.45	0.00	-95.51 122.97	122.97	-0.02 0.48	-0.11 0.11	0.54
VB15 - 5	225.00	-0.03 0.00	-838.34 1036.96	1036.96	61.47 -46.96	61.47	1.18 -0.75	0.06 -0.06	-1.36
VB16	735.00	-0.05 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-1.49
VB17	735.00	-0.01 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-1.51
VB18	1730.78	-0.18 0.00	0.00 0.00	5048.30	62.98 -57.30	0.00	3.34 3.44	0.03 -0.03	5.19
VB19	772.50	0.00 0.18	-341.01 1338.87	1338.87	-0.43 -13.37	0.00	1.62 -0.12	0.01 -0.01	1.47
VB20	772.50	-0.20 0.00	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	1.96
VB21 - 1	772.50	0.00 0.23	-917.30 3506.26	3506.26	151.39 -189.03	151.39	2.62 -0.07	0.10 -0.10	6.99
VB21 - 2	772.50	0.00 0.26	3534.52 -958.17	3534.52	-80.47 -35.42	0.00	-1.43 3.00	-0.02 0.02	-3.73
VB22	772.50	-0.03 0.00	-609.95 -859.26	550.44	331.76 -311.28	0.00	1.34 1.48	0.18 -0.18	3.62
VB23	772.50	0.00 0.14	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.17
VB24 - 1	810.00	0.00 0.32	-1005.08 -2841.35	1552.99	-161.80 156.45	156.45	2.04 2.67	-0.05 0.05	0.68
VB24 - 2	810.00	0.00 0.22	-2663.40 -3003.75	1270.90	-3.61 34.94	34.94	2.52 2.63	-0.01 0.01	-0.10
VB25 - 1	810.00	0.00 0.25	-3077.39 1930.88	1930.88	25.21 109.54	109.54	3.39 -1.84	-0.04 0.04	-1.18
VB25 - 2	810.00	0.00 0.23	1938.26 -2352.85	1938.26	109.54 -185.52	109.54	0.04 2.64	0.09 -0.09	-1.18
VB25 - 3	810.00	0.00 0.10	-1797.36 -432.06	569.81	-30.01 -12.13	0.00	1.96 1.28	0.00 0.00	-5.37

CASO: G1+G2+0.98Q+0.84V2+1.4D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	0.00 0.14	-1306.34 262.70	534.00	207.23 -139.66	0.00	1.68 0.63	0.12 -0.12	20.00
VB1 - 2	4279.21	0.00	262.58	262.58	110.60	0.00	-11.84	0.38	20.20



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		0.05	-7237.74		-108.40		14.24	-0.38	
VB1 - 3	6008.67	0.00 0.28	-8713.85 -2127.70	5509.70	-73.25 -107.66	0.00	13.63 8.76	0.01 -0.01	-1.94
VB1 - 4	5103.80	0.00 0.35	-2122.17 -9153.15	0.00	-245.97 -335.78	0.00	-12.20 14.93	0.17 -0.17	21.59
VB1 - 5	6378.93	0.00 0.14	-9252.33 -708.21	3820.80	-303.46 353.85	0.00	13.20 7.61	-0.20 0.20	-9.96
VB2 - 1	985.00	0.00 0.47	-1878.00 -349.23	2049.16	71.04 113.77	113.77	2.78 2.17	-0.01 0.01	27.13
VB2 - 2	985.00	0.00 0.30	-876.14 -495.79	0.00	400.45 -245.50	0.00	1.29 0.96	0.28 -0.28	-33.81
VB2 - 3	985.00	0.00 0.30	-496.10 -1985.58	0.00	-245.50 -365.15	0.00	-1.66 2.38	0.16 -0.16	-33.81
VB2 - 4	4627.90	0.00 0.40	-1985.49 -10545.15	0.00	-207.98 -155.19	0.00	-14.29 16.78	-0.09 0.09	-33.81
VB2 - 5	5476.71	0.00 0.58	-12285.28 1156.71	1156.71	101.03 257.93	0.00	16.53 -11.02	-0.16 0.16	0.40
VB2 - 6	7729.64	0.00 0.58	1155.15 7136.61	7136.61	257.93 -55.66	0.00	10.32 -2.01	0.29 -0.29	0.40
VB2 - 7	5663.87	0.00 0.58	7135.36 840.50	7360.16	-55.66 -308.81	0.00	1.31 8.13	0.15 -0.15	0.40
VB2 - 8	4791.34	0.00 0.51	835.08 -6913.49	835.08	-432.49 -419.45	0.00	-11.46 14.38	-0.02 0.02	0.40
VB2 - 9	7057.44	0.00 0.08	-7055.89 3376.41	3376.41	-212.81 63.44	0.00	12.65 -1.92	-0.18 0.18	-1.65
VB2 - 10	6193.45	0.00 0.08	3378.52 -4112.56	3612.46	63.44 147.39	0.00	1.18 9.59	-0.05 0.05	-1.65
VB2 - 11	985.00	-0.14 0.00	-4570.80 839.48	839.48	-258.72 -50.85	0.00	3.29 -0.38	-0.07 0.07	-3.25
VB3 - 1	772.50	0.00 0.18	-469.73 706.77	790.33	94.55 5.57	94.55	1.40 0.36	0.04 -0.04	2.14
VB3 - 2	772.50	0.00 0.18	707.08 -1315.74	707.08	5.57 -201.30	5.57	-1.06 2.06	0.16 -0.16	2.14
VB3 - 3	772.50	0.00 0.16	-2166.42 212.73	212.73	283.48 -70.01	283.48	2.75 -1.98	0.35 -0.35	1.79
VB3 - 4	772.50	0.00 0.16	214.29 1141.37	1141.37	-70.01 33.24	0.00	1.28 -0.45	-0.10 0.10	1.79
VB3 - 5	772.50	0.00 0.16	1142.62 -1435.16	1142.62	33.24 -70.09	33.24	-0.25 2.01	0.05 -0.05	1.79
VB3 - 6	772.50	0.00 0.32	-1681.65 768.63	768.63	126.87 -100.90	126.87	2.20 -1.03	0.15 -0.15	-13.53
VB3 - 7	772.50	0.00 0.32	766.52 257.25	818.20	-100.90 -126.81	0.00	0.29 0.93	0.02 -0.02	-13.53
VB4 - 1	1053.75	0.00 0.00	-1721.66 -10108.61	4293.75	180.84 -194.45	180.84	3.56 5.51	0.04 -0.04	-0.39
VB4 - 2	1053.75	0.00 0.30	-11247.17 5202.71	6571.26	257.31 -176.75	257.31	6.13 1.70	0.06 -0.06	-9.97
VB4 - 3	1053.75	0.00 0.47	5210.59 4111.58	5221.07	177.72 42.63	0.00	0.16 1.53	0.08 -0.08	21.10
VB4 - 4	1053.75	0.00 0.47	4118.12 -1428.08	4118.12	42.63 -134.95	42.63	-2.81 4.42	0.12 -0.12	21.10
VB5 - 1	772.50	0.00 0.21	-923.46 1528.58	1528.58	46.28 -1.59	46.28	2.17 -0.95	0.03 -0.03	-7.97
VB5 - 2	772.50	0.00 0.21	1522.05 0.00	1522.05	-1.59 0.00	0.00	-0.32 1.57	0.00 0.00	-7.97
VB6 - 1	1053.75	0.00 0.01	-1950.56 -10796.62	3883.35	68.32 -5.77	68.32	3.51 5.56	0.01 -0.01	0.80
VB6 - 2	1053.75	0.00 0.08	-12474.81 -1053.03	8486.52	112.80 -196.85	112.80	6.65 4.48	0.03 -0.03	1.03
VB7 - 1	1053.75	0.00 0.07	-2062.39 -10749.98	3834.17	-176.59 138.92	138.92	3.53 5.54	-0.04 0.04	-0.17
VB7 - 2	1053.75	0.00 0.21	-12496.99 -988.19	8516.21	-54.37 104.01	104.01	6.65 4.48	-0.01 0.01	-0.13

VB8 - 1	1053.75	0.00 0.75	-2544.14 -9980.61	3847.05	-189.14 123.86	123.86	3.67 5.40	-0.04 0.04	-3.30
VB8 - 2	1053.75	0.00 1.29	-11988.86 -2723.23	7704.54	-56.93 147.05	147.05	6.44 4.69	-0.02 0.02	2.77
VB9 - 1	810.00	0.00 0.34	-1059.44 -2860.70	1514.33	178.65 -181.85	178.65	2.04 2.66	0.06 -0.06	-0.03
VB9 - 2	810.00	0.00 0.32	-2865.82 -2472.81	1436.01	-26.76 0.28	0.28	2.64 2.52	0.00 0.00	-0.06
VB10 - 1	810.00	0.00 0.21	-2186.16 -1616.49	866.31	-66.02 62.71	62.71	2.22 2.01	-0.02 0.02	-0.40
VB10 - 2	810.00	0.00 0.19	-1483.48 -370.57	737.37	-95.56 66.17	66.17	1.90 1.34	-0.04 0.04	1.59
VB11	735.00	0.00 0.07	-62.37 -3783.86	0.00	-95.95 156.35	156.35	-1.22 2.64	-0.13 0.13	2.28
VB12	5084.10	0.00 0.72	-5008.78 -2641.16	6790.77	-145.42 165.29	0.00	11.66 9.29	-0.08 0.08	-0.11
VB13	735.00	0.00 0.12	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.31
VB14	5652.27	-0.26 0.00	0.00 0.00	12660.19	-157.17 250.27	0.00	11.91 11.21	-0.10 0.10	-0.10
VB15 - 1	225.00	-0.10 0.00	-229.86 -804.78	453.41	221.00 -217.13	221.00	0.55 0.75	0.08 -0.08	-0.31
VB15 - 2	225.00	-0.07 0.00	-843.45 -658.44	390.64	-23.84 20.78	20.78	0.75 0.69	-0.01 0.01	0.00
VB15 - 3	225.00	-0.05 0.00	-682.13 -289.12	293.69	-97.78 72.78	72.78	0.66 0.51	-0.03 0.03	0.57
VB15 - 4	225.00	-0.04 0.00	-288.51 -846.35	0.00	-378.98 374.73	374.73	-0.04 0.50	-0.37 0.37	2.23
VB15 - 5	225.00	0.00 0.15	-862.82 1020.98	1020.98	-116.00 222.04	222.04	1.19 -0.75	-0.17 0.17	-2.50
VB16	735.00	-0.45 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-1.56
VB17	735.00	0.00 0.14	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-1.25
VB18	1730.78	-0.17 0.00	0.00 0.00	5048.30	123.69 -138.31	0.00	3.34 3.44	0.07 -0.07	5.43
VB19	772.50	0.00 0.18	-333.92 1327.67	1327.67	-193.24 234.76	234.76	1.61 -0.11	-0.22 0.22	1.16
VB20	772.50	-0.13 0.00	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	2.11
VB21 - 1	772.50	0.00 0.40	-987.59 3853.14	3853.14	-59.48 65.41	65.41	2.74 -0.20	-0.04 0.04	5.39
VB21 - 2	772.50	0.00 0.43	3884.21 -1069.82	3884.21	-289.06 130.09	130.09	-1.65 3.22	-0.21 0.21	-2.48
VB22	772.50	-0.02 0.00	-620.02 -847.75	551.16	403.29 -356.81	0.00	1.35 1.47	0.21 -0.21	4.57
VB23	772.50	-0.03 0.00	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.54
VB24 - 1	810.00	0.00 0.38	-1050.67 -2814.40	1539.92	146.59 -155.44	146.59	2.05 2.66	0.05 -0.05	1.14
VB24 - 2	810.00	0.00 0.36	-2719.83 -2902.12	1290.95	-28.39 -13.00	0.00	2.55 2.61	0.00 0.00	-0.04
VB25 - 1	810.00	0.00 0.37	-3017.13 1744.62	1744.62	-227.78 113.11	113.11	3.26 -1.71	-0.18 0.18	-1.48
VB25 - 2	810.00	0.00 0.37	1752.60 -2201.51	1765.30	113.11 2.41	113.11	0.15 2.54	0.03 -0.03	-1.48
VB25 - 3	810.00	0.00 0.08	-1802.03 -387.53	596.21	-157.28 99.34	99.34	1.97 1.26	-0.06 0.06	-5.95

**CASO: G1+G2+0.98Q+0.84V3+1.4D3**

Elemento	Carga (kgf/m)	Rd Nd	Mxi Mxf	MxMáx (kgf.m)	Myi Myf	MyMáx (kgf.m)	Vxi Vxf	Vyi Vyf	Mtd (kgf/m)
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		(tf)	(kgf.m)		(kgf.m)		(tf)	(tf)	
VB1 - 1	772.50	-0.14 0.00	-787.47 17.99	542.27	676.25 -583.36	0.00	1.43 0.89	0.42 -0.42	21.21
VB1 - 2	4279.21	-0.41 0.00	17.91 -7630.53	17.91	44.28 -312.91	0.00	-12.10 14.50	0.61 -0.61	21.22
VB1 - 3	6008.67	-0.19 0.00	-8471.43 -2303.43	5498.26	-281.57 -122.00	0.00	13.52 8.87	-0.04 0.04	-1.81
VB1 - 4	5103.80	0.00 0.07	-2298.12 -9386.47	0.00	-608.53 -688.97	0.00	-12.31 15.04	0.16 -0.16	23.71
VB1 - 5	6378.93	-0.16 0.00	-8838.98 -1259.48	3650.61	-664.21 856.12	0.00	12.91 7.91	-0.47 0.47	-12.20
VB2 - 1	985.00	0.00 0.25	-1011.29 -594.31	2316.47	288.04 -394.57	288.04	2.56 2.39	0.14 -0.14	25.98
VB2 - 2	985.00	0.00 0.56	-828.41 -861.63	0.00	433.98 -413.71	0.00	1.11 1.14	0.37 -0.37	-31.91
VB2 - 3	985.00	0.00 0.56	-862.05 -2485.09	0.00	-413.71 -624.85	0.00	-1.84 2.57	0.29 -0.29	-31.91
VB2 - 4	4627.90	0.00 0.84	-2485.02 -11145.73	0.00	-101.02 -158.80	0.00	-14.47 16.96	0.10 -0.10	-31.91
VB2 - 5	5476.71	0.00 1.04	-11796.88 1515.71	1515.71	-122.54 -25.91	0.00	16.40 -10.89	-0.10 0.10	-0.11
VB2 - 6	7729.64	0.00 1.04	1514.12 7357.13	7357.13	-25.91 -140.71	0.00	10.19 -1.88	0.11 -0.11	-0.11
VB2 - 7	5663.87	0.00 1.04	7355.70 843.80	7553.36	-140.71 -261.42	0.00	1.18 8.26	0.07 -0.07	-0.11
VB2 - 8	4791.34	0.00 0.80	838.61 -6985.69	838.61	-724.35 -643.02	0.00	-11.59 14.51	-0.14 0.14	-0.11
VB2 - 9	7057.44	0.00 0.66	-6836.77 3289.40	3289.40	-583.91 110.65	0.00	12.45 -1.72	-0.46 0.46	-1.30
VB2 - 10	6193.45	0.00 0.66	3291.63 -4549.90	3481.76	110.65 312.16	0.00	0.98 9.80	-0.12 0.12	-1.30
VB2 - 11	985.00	0.00 0.00	-4143.08 -202.96	0.00	-741.84 250.86	250.86	2.79 0.11	-0.34 0.34	-2.66
VB3 - 1	772.50	0.00 0.13	-193.84 591.98	774.28	23.07 11.44	23.07	1.22 0.53	0.01 -0.01	1.26
VB3 - 2	772.50	0.00 0.13	592.40 -1652.72	592.40	11.44 -105.16	11.44	-1.23 2.23	0.09 -0.09	1.26
VB3 - 3	772.50	-0.04 0.00	-1894.70 382.98	382.98	139.22 -31.32	139.22	2.65 -1.88	0.17 -0.17	2.12
VB3 - 4	772.50	-0.04 0.00	384.57 1203.08	1203.08	-31.32 4.41	0.00	1.18 -0.35	-0.03 0.03	2.12
VB3 - 5	772.50	-0.04 0.00	1204.52 -1602.85	1204.52	4.41 0.02	4.41	-0.36 2.11	0.00 0.00	2.12
VB3 - 6	772.50	0.00 0.03	-1556.10 708.86	708.86	85.69 -184.59	85.69	2.08 -0.90	0.18 -0.18	-13.10
VB3 - 7	772.50	0.00 0.03	706.63 4.50	724.63	-184.59 73.68	73.68	0.17 1.05	-0.16 0.16	-13.10
VB4 - 1	1053.75	0.00 0.21	-1199.48 -10420.83	4489.39	261.02 -310.32	261.02	3.46 5.61	0.07 -0.07	-0.20
VB4 - 2	1053.75	0.00 0.59	-10952.14 4963.71	6447.72	-29.56 -67.03	0.00	6.06 1.77	0.01 -0.01	-10.85
VB4 - 3	1053.75	0.00 0.67	4973.05 3516.04	4973.05	-182.22 -47.52	0.00	-0.07 1.75	-0.08 0.08	22.95
VB4 - 4	1053.75	0.00 0.67	3522.46 -2366.53	3522.46	-47.52 283.32	283.32	-3.03 4.65	-0.22 0.22	22.95
VB5 - 1	772.50	0.00 0.13	-591.43 1696.48	1696.48	-140.50 33.56	33.56	2.06 -0.85	-0.11 0.11	-8.25
VB5 - 2	772.50	0.00 0.13	1690.06 0.00	1690.06	33.56 0.00	33.56	-0.43 1.67	0.02 -0.02	-8.25
VB6 - 1	1053.75	0.00 0.04	-1042.91 -11323.53	4251.81	132.60 -183.05	132.60	3.34 5.73	0.04 -0.04	1.01
VB6 - 2	1053.75	0.00 0.13	-11954.59 -1973.96	8151.30	-168.92 93.21	93.21	6.51 4.62	-0.02 0.02	1.16



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VB7 - 1	1053.75	0.00 0.06	-1116.94 -11304.49	4212.41	139.51 -193.11	139.51	3.35 5.72	0.04 -0.04	-0.10
VB7 - 2	1053.75	0.00 0.18	-11975.09 -1895.75	8187.75	-165.67 100.06	100.06	6.52 4.61	-0.03 0.03	-0.06
VB8 - 1	1053.75	0.00 0.77	-1938.37 -10401.74	4046.83	79.40 -172.68	79.40	3.55 5.52	0.03 -0.03	-2.69
VB8 - 2	1053.75	0.00 1.28	-11622.94 -3259.91	7549.73	-148.66 85.75	85.75	6.36 4.77	-0.02 0.02	2.55
VB9 - 1	810.00	0.00 0.38	-640.73 -3195.37	1618.39	-59.70 51.45	51.45	1.91 2.79	-0.02 0.02	-0.21
VB9 - 2	810.00	0.00 0.35	-2622.23 -2729.51	1424.84	-63.45 63.91	63.91	2.56 2.60	-0.02 0.02	-0.04
VB10 - 1	810.00	0.00 0.20	-1903.09 -1858.08	881.49	-29.35 17.26	17.26	2.12 2.11	-0.01 0.01	-0.21
VB10 - 2	810.00	0.00 0.10	-1114.21 -850.33	637.04	-187.59 217.17	217.17	1.68 1.55	-0.10 0.10	1.51
VB11	735.00	-0.01 0.00	334.66 -3924.46	334.66	-21.79 39.53	39.53	-1.49 2.91	-0.03 0.03	2.74
VB12	5084.10	0.00 0.56	-4653.64 -3373.25	6602.30	-785.56 646.53	0.00	11.40 9.55	-0.35 0.35	-0.80
VB13	735.00	0.00 0.08	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.42
VB14	5652.27	-0.18 0.00	0.00 0.00	12660.19	-523.82 627.63	0.00	11.91 11.21	-0.28 0.28	-0.06
VB15 - 1	225.00	-0.08 0.00	351.59 -1232.66	673.17	1.11 0.80	1.11	0.38 0.93	0.00 0.00	-0.28
VB15 - 2	225.00	-0.06 0.00	-558.26 -973.24	383.45	-26.63 27.84	27.84	0.65 0.78	-0.01 0.01	0.01
VB15 - 3	225.00	-0.04 0.00	-307.61 -620.00	310.91	13.71 -25.47	13.71	0.53 0.65	0.01 -0.01	0.59
VB15 - 4	225.00	-0.04 0.00	97.36 -861.47	97.36	-306.22 266.91	266.91	-0.24 0.70	-0.28 0.28	1.41
VB15 - 5	225.00	0.00 0.17	-756.16 292.56	292.56	18.12 34.84	34.84	0.76 -0.32	-0.01 0.01	-2.01
VB16	735.00	-0.20 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-1.59
VB17	735.00	0.00 0.04	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-1.43
VB18	1730.78	-0.21 0.00	0.00 0.00	5048.30	462.93 -486.53	0.00	3.34 3.44	0.24 -0.24	5.19
VB19	772.50	0.00 0.25	7.66 982.48	1016.52	-77.50 75.44	75.44	1.25 0.24	-0.08 0.08	1.37
VB20	772.50	-0.34 0.00	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	2.23
VB21 - 1	772.50	0.00 0.28	-700.07 3642.08	3642.08	129.83 -158.51	129.83	2.59 -0.05	0.09 -0.09	6.18
VB21 - 2	772.50	0.00 0.19	3675.88 -1278.13	3675.88	-43.32 -55.22	0.00	-1.65 3.22	0.01 -0.01	-3.17
VB22	772.50	-0.22 0.00	-169.57 -1445.96	555.64	1026.28 -846.74	0.00	1.06 1.76	0.51 -0.51	3.97
VB23	772.50	0.00 0.13	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.41
VB24 - 1	810.00	0.00 0.32	-534.69 -3222.15	1669.47	59.65 -58.58	59.65	1.89 2.82	0.02 -0.02	0.91
VB24 - 2	810.00	0.00 0.18	-2400.43 -3259.32	1282.96	32.63 -34.32	32.63	2.44 2.71	0.01 -0.01	-0.05
VB25 - 1	810.00	0.00 0.12	-2690.67 1940.48	1940.48	-10.96 96.22	96.22	3.19 -1.64	-0.06 0.06	-1.35
VB25 - 2	810.00	0.00 0.10	1948.73 -2576.76	1948.73	96.22 -160.13	96.22	-0.03 2.71	0.08 -0.08	-1.35
VB25 - 3	810.00	-0.05 0.00	-1350.60 -991.66	450.68	62.44 -140.21	62.44	1.71 1.53	0.05 -0.05	-5.72





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**CASO: G1+G2+0.98Q+0.84V4+1.4D4**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	0.00 0.42	-907.26 70.63	528.43	-203.81 251.33	0.00	1.48 0.83	-0.15 0.15	18.99
VB1 - 2	4279.21	0.00 0.44	70.69 -7544.30	70.69	253.90 141.91	0.00	-12.04 14.44	0.19 -0.19	19.04
VB1 - 3	6008.67	0.00 0.73	-8509.46 -2284.25	5493.51	177.66 -149.66	0.00	13.53 8.85	0.09 -0.09	-2.57
VB1 - 4	5103.80	0.00 0.60	-2278.72 -9359.22	0.00	141.26 26.11	0.00	-12.29 15.03	0.22 -0.22	22.72
VB1 - 5	6378.93	0.00 0.45	-8947.80 -1098.24	3693.70	62.31 -194.10	0.00	12.99 7.82	0.08 -0.08	-7.67
VB2 - 1	985.00	0.00 0.41	-959.70 -617.53	2329.16	-276.73 690.76	690.76	2.55 2.41	-0.19 0.19	28.33
VB2 - 2	985.00	0.00 0.16	-850.87 -826.84	0.00	340.19 7.26	0.00	1.13 1.11	0.15 -0.15	-35.84
VB2 - 3	985.00	0.00 0.16	-827.30 -2431.85	0.00	7.26 -46.79	0.00	-1.81 2.54	0.07 -0.07	-35.84
VB2 - 4	4627.90	0.00 0.16	-2431.93 -11078.65	0.00	-72.67 78.66	0.00	-14.45 16.94	-0.27 0.27	-35.84
VB2 - 5	5476.71	0.00 0.25	-11710.50 1536.69	1536.69	284.84 298.81	0.00	16.34 -10.83	-0.01 0.01	1.06
VB2 - 6	7729.64	0.00 0.25	1535.23 7308.26	7308.26	298.81 -0.32	0.00	10.13 -1.81	0.28 -0.28	1.06
VB2 - 7	5663.87	0.00 0.25	7306.94 685.35	7490.90	-0.32 -306.42	0.00	1.11 8.32	0.18 -0.18	1.06
VB2 - 8	4791.34	0.00 0.40	679.93 -7182.64	679.93	-30.15 -56.03	0.00	-11.66 14.57	0.04 -0.04	1.06
VB2 - 9	7057.44	0.00 0.20	-7054.31 3293.75	3293.75	76.38 25.92	0.00	12.59 -1.86	0.03 -0.03	-1.65
VB2 - 10	6193.45	0.00 0.20	3295.59 -4291.92	3517.48	25.92 -14.81	0.00	1.13 9.65	0.02 -0.02	-1.65
VB2 - 11	985.00	0.00 0.18	-3903.01 -204.12	0.00	284.63 -246.39	284.63	2.71 0.20	0.18 -0.18	-3.99
VB3 - 1	772.50	0.00 0.16	-180.59 567.63	760.18	63.55 2.07	63.55	1.21 0.55	0.03 -0.03	2.94
VB3 - 2	772.50	0.00 0.16	568.08 -1698.43	568.08	2.07 -126.82	2.07	-1.25 2.25	0.10 -0.10	2.94
VB3 - 3	772.50	0.00 0.17	-1902.67 382.45	382.45	182.66 -46.12	182.66	2.66 -1.88	0.23 -0.23	1.46
VB3 - 4	772.50	0.00 0.17	383.91 1210.38	1210.38	-46.12 23.18	0.00	1.18 -0.35	-0.06 0.06	1.46
VB3 - 5	772.50	0.00 0.17	1211.70 -1578.84	1211.70	23.18 -49.92	23.18	-0.35 2.11	0.03 -0.03	1.46
VB3 - 6	772.50	0.00 0.29	-1493.18 723.40	723.40	71.36 -31.98	71.36	2.05 -0.87	0.07 -0.07	-13.24
VB3 - 7	772.50	0.00 0.29	721.56 -30.92	732.37	-31.98 -155.01	0.00	0.14 1.09	0.08 -0.08	-13.24
VB4 - 1	1053.75	0.00 0.05	-1111.93 -10487.25	4519.65	-221.65 198.88	198.88	3.45 5.62	-0.05 0.05	-0.52
VB4 - 2	1053.75	0.00 0.35	-10945.41 4987.23	6467.62	281.63 -18.84	281.63	6.06 1.77	0.04 -0.04	-8.31
VB4 - 3	1053.75	0.00 0.57	4996.49 3461.74	4996.49	342.26 46.80	0.00	-0.11 1.80	0.18 -0.18	17.22
VB4 - 4	1053.75	0.00 0.57	3468.04 -2495.38	3468.04	46.80 -274.93	46.80	-3.08 4.70	0.21 -0.21	17.22
VB5 - 1	772.50	0.00 0.21	-522.37 1731.35	1731.35	41.71 0.97	41.71	2.04 -0.83	0.03 -0.03	-7.10
VB5 - 2	772.50	0.00 0.21	1725.06 0.00	1725.06	0.97 0.00	0.97	-0.45 1.69	0.00 0.00	-7.10
VB6 - 1	1053.75	0.00	-951.79	4289.15	-199.73	304.06	3.32	-0.06	0.58






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		0.01	-11376.95		304.06		5.75	0.06	
VB6 - 2	1053.75	0.00 0.06	-11902.48 -2065.62	8120.47	259.28 -230.82	259.28	6.50 4.63	0.05 -0.05	1.29
VB7 - 1	1053.75	0.00 0.08	-1100.71 -11314.79	4218.78	-200.58 277.15	277.15	3.35 5.72	-0.06 0.06	-0.25
VB7 - 2	1053.75	0.00 0.20	-11962.36 -1918.28	8180.14	262.72 -189.42	262.72	6.52 4.61	0.04 -0.04	-0.14
VB8 - 1	1053.75	0.00 0.73	-1977.61 -10377.72	4032.61	-142.56 239.45	239.45	3.56 5.51	-0.04 0.04	-3.95
VB8 - 2	1053.75	0.00 1.24	-11617.22 -3276.83	7542.38	225.24 -98.10	225.24	6.35 4.78	0.03 -0.03	3.17
VB9 - 1	810.00	0.00 0.35	-1469.89 -2532.72	1434.90	100.74 -93.90	100.74	2.17 2.54	0.03 -0.03	-0.23
VB9 - 2	810.00	0.00 0.39	-3112.45 -2211.67	1451.45	46.00 -48.00	46.00	2.72 2.44	0.01 -0.01	-0.07
VB10 - 1	810.00	0.00 0.29	-2491.05 -1349.23	869.50	116.36 -102.18	116.36	2.33 1.90	0.04 -0.04	-0.20
VB10 - 2	810.00	0.00 0.30	-1860.94 118.04	893.82	95.84 -204.26	95.84	2.11 1.12	0.08 -0.08	1.54
VB11	735.00	0.00 0.12	-468.62 -3608.49	0.00	-56.38 96.59	96.59	-0.92 2.34	-0.08 0.08	2.67
VB12	5084.10	0.00 0.83	-5345.41 -1915.27	7021.93	433.47 -254.43	0.00	11.92 9.03	0.17 -0.17	-0.57
VB13	735.00	0.00 0.07	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.46
VB14	5652.27	-0.34 0.00	0.00 0.00	12660.19	25.88 2.57	0.00	11.91 11.21	0.01 -0.01	0.08
VB15 - 1	225.00	-0.14 0.00	-822.48 -368.07	367.46	30.31 -28.67	30.31	0.73 0.58	0.01 -0.01	-0.29
VB15 - 2	225.00	-0.11 0.00	-1136.09 -334.69	439.38	-14.24 18.73	18.73	0.84 0.59	-0.01 0.01	0.00
VB15 - 3	225.00	-0.07 0.00	-1062.32 39.49	354.21	63.51 -85.52	63.51	0.80 0.38	0.03 -0.03	0.58
VB15 - 4	225.00	-0.05 0.00	-696.07 -803.33	0.00	-168.27 230.78	230.78	0.18 0.28	-0.19 0.19	1.36
VB15 - 5	225.00	-0.05 0.00	-945.00 1765.39	1765.39	-72.64 140.24	140.24	1.62 -1.18	-0.11 0.11	-1.85
VB16	735.00	-0.29 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-1.46
VB17	735.00	0.00 0.10	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-1.32
VB18	1730.78	-0.14 0.00	0.00 0.00	5048.30	-276.26 290.92	0.00	3.34 3.44	-0.14 0.14	5.42
VB19	772.50	0.00 0.11	-682.59 1684.06	1684.06	-116.17 145.95	145.95	1.97 -0.48	-0.14 0.14	1.26
VB20	772.50	0.00 0.01	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	1.84
VB21 - 1	772.50	0.00 0.35	-1204.82 3717.32	3717.32	-37.92 34.88	34.88	2.77 -0.23	-0.02 0.02	6.21
VB21 - 2	772.50	0.00 0.49	3742.85 -749.86	3742.85	-326.21 149.89	149.89	-1.43 3.00	-0.23 0.23	-3.04
VB22	772.50	0.00 0.17	-1060.40 -261.05	652.87	-291.22 178.64	0.00	1.63 1.19	-0.13 0.13	4.22
VB23	772.50	-0.03 0.00	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.29
VB24 - 1	810.00	0.00 0.37	-1521.06 -2433.60	1452.14	-74.86 59.58	59.58	2.20 2.51	-0.02 0.02	0.91
VB24 - 2	810.00	0.00 0.41	-2982.79 -2646.55	1289.74	-64.63 56.26	56.26	2.63 2.53	-0.02 0.02	-0.09
VB25 - 1	810.00	0.00 0.50	-3403.84 1735.03	1735.03	-191.61 126.43	126.43	3.46 -1.91	-0.17 0.17	-1.32
VB25 - 2	810.00	0.00 0.50	1742.13 -1977.59	1769.48	126.43 -22.99	126.43	0.22 2.46	0.05 -0.05	-1.32

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VB25 - 3	810.00	0.00 0.24	-2248.79 172.07	804.97	-249.73 227.41	227.41	2.22 1.01	-0.12 0.12	-5.60
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CASO: G1+G2+0.98Q+1.4V1+0.84D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	0.00 0.16	-220.31 -254.19	641.69	264.49 -200.47	0.00	1.15 1.17	0.16 -0.16	20.23
VB1 - 2	4279.21	-0.01 0.00	-254.04 -8065.29	0.00	179.18 -70.83	0.00	-12.38 14.78	0.43 -0.43	20.03
VB1 - 3	6008.67	0.00 0.26	-8185.40 -2520.59	5504.74	-36.23 -157.31	0.00	13.38 9.00	0.03 -0.03	-2.48
VB1 - 4	5103.80	0.00 0.31	-2515.33 -9672.71	0.00	-240.06 -340.90	0.00	-12.44 15.17	0.20 -0.20	25.46
VB1 - 5	6378.93	0.00 0.13	-8402.79 -1822.39	3524.80	-309.97 329.98	0.00	12.60 8.21	-0.20 0.20	-9.91
VB2 - 1	985.00	0.00 0.18	253.41 -962.14	2789.62	-102.41 219.78	219.78	2.24 2.72	-0.06 0.06	27.21
VB2 - 2	985.00	0.00 0.49	-789.64 -1327.75	0.00	353.02 -135.08	0.00	0.89 1.36	0.21 -0.21	-34.00
VB2 - 3	985.00	0.00 0.49	-1328.36 -3114.45	0.00	-135.08 -276.51	0.00	-2.06 2.79	0.19 -0.19	-34.00
VB2 - 4	4627.90	0.00 0.67	-3114.60 -11898.66	0.00	81.38 123.62	0.00	-14.70 17.18	-0.08 0.08	-34.00
VB2 - 5	5476.71	0.00 0.75	-11016.70 2038.64	2038.64	14.24 -66.94	0.00	16.14 -10.64	0.08 -0.08	0.59
VB2 - 6	7729.64	0.00 0.75	2037.17 7604.93	7604.93	-66.94 -85.45	0.00	9.94 -1.62	0.02 -0.02	0.59
VB2 - 7	5663.87	0.00 0.75	7603.37 659.99	7747.10	-85.45 -210.31	0.00	0.92 8.51	0.07 -0.07	0.59
VB2 - 8	4791.34	0.00 0.70	654.85 -7320.00	654.85	-300.24 -244.24	0.00	-11.85 14.76	-0.10 0.10	0.59
VB2 - 9	7057.44	0.00 0.89	-6791.94 3173.88	3173.88	-337.76 74.34	0.00	12.34 -1.61	-0.27 0.27	-1.21
VB2 - 10	6193.45	0.00 0.89	3175.81 -4849.27	3343.00	74.34 164.30	0.00	0.88 9.90	-0.05 0.05	-1.21
VB2 - 11	985.00	0.00 0.35	-3264.99 -1650.09	0.00	-214.82 92.44	92.44	2.00 0.90	-0.10 0.10	-3.41
VB3 - 1	772.50	0.00 0.12	218.18 397.35	811.68	-42.85 11.25	0.00	0.96 0.80	-0.02 0.02	2.06
VB3 - 2	772.50	0.00 0.12	397.96 -2192.32	397.96	11.25 13.58	13.58	-1.50 2.50	0.00 0.00	2.06
VB3 - 3	772.50	-0.09 0.00	-1514.29 626.79	626.79	-27.45 9.94	9.94	2.52 -1.74	-0.04 0.04	1.80
VB3 - 4	772.50	-0.09 0.00	628.26 1300.62	1300.62	9.94 -18.40	0.00	1.04 -0.21	0.03 -0.03	1.80
VB3 - 5	772.50	-0.09 0.00	1302.19 -1814.29	1302.19	-18.40 50.97	50.97	-0.49 2.25	-0.03 0.03	1.80
VB3 - 6	772.50	-0.09 0.00	-1299.46 640.60	640.60	-0.44 -126.20	0.00	1.86 -0.69	0.08 -0.08	-12.65
VB3 - 7	772.50	-0.09 0.00	638.67 -401.61	638.67	-126.20 89.94	89.94	-0.05 1.27	-0.14 0.14	-12.65
VB4 - 1	1053.75	0.00 0.32	-341.99 -10946.23	4832.32	-221.36 147.95	147.95	3.30 5.77	-0.04 0.04	-0.31
VB4 - 2	1053.75	0.00 0.72	-10523.70 4648.26	6307.65	-53.82 145.57	145.57	5.96 1.87	-0.03 0.03	-9.01
VB4 - 3	1053.75	0.00 0.84	4659.61 2592.05	4659.61	-67.08 -59.81	0.00	-0.45 2.13	0.00 0.00	18.63
VB4 - 4	1053.75	0.00 0.84	2598.14 -3875.43	2598.14	-59.81 218.42	218.42	-3.41 5.03	-0.18 0.18	18.63
VB5 - 1	772.50	0.00	-25.94	1982.37	-188.39	45.30	1.88	-0.15	-7.24




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		0.13	1982.37		45.30		-0.67	0.15	
VB5 - 2	772.50	0.00 0.13	1976.28 0.00	1976.28	45.30 0.00	45.30	-0.61 1.85	0.03 -0.03	-7.24
VB6 - 1	1053.75	0.00 0.05	372.23 -12139.73	4874.33	-179.47 159.27	159.27	3.08 5.99	-0.04 0.04	0.78
VB6 - 2	1053.75	0.00 0.12	-11147.16 -3411.55	7666.95	-44.67 103.47	103.47	6.30 4.83	-0.01 0.01	1.51
VB7 - 1	1053.75	0.00 0.07	253.49 -12103.62	4809.61	175.60 -92.89	175.60	3.10 5.97	0.03 -0.03	-0.19
VB7 - 2	1053.75	0.00 0.17	-11218.57 -3219.73	7743.99	199.30 -259.26	199.30	6.32 4.81	0.04 -0.04	-0.05
VB8 - 1	1053.75	0.00 0.77	-1107.17 -10982.69	4338.29	190.30 -91.25	190.30	3.39 5.68	0.03 -0.03	-3.36
VB8 - 2	1053.75	0.00 1.21	-11085.18 -4060.19	7332.61	176.54 -225.36	176.54	6.23 4.90	0.04 -0.04	3.03
VB9 - 1	810.00	0.00 0.41	-1053.46 -2865.53	1515.47	-202.21 205.06	205.06	2.04 2.66	-0.07 0.07	-0.48
VB9 - 2	810.00	0.00 0.45	-2871.82 -2464.97	1437.15	15.81 19.78	19.78	2.64 2.51	0.00 0.00	-0.06
VB10 - 1	810.00	0.00 0.30	-2215.42 -1583.09	870.79	200.76 -191.65	200.76	2.24 1.99	0.08 -0.08	0.09
VB10 - 2	810.00	0.00 0.22	-1497.66 -354.35	740.79	37.27 -93.81	37.27	1.90 1.33	0.03 -0.03	1.45
VB11	735.00	0.00 0.02	-81.39 -3738.99	0.00	57.35 -80.48	57.35	-1.18 2.60	0.07 -0.07	3.32
VB12	5084.10	0.00 0.66	-4993.57 -2633.57	6802.17	-204.50 226.64	0.00	11.66 9.29	-0.10 0.10	-1.47
VB13	735.00	0.00 0.02	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.62
VB14	5652.27	-0.27 0.00	0.00 0.00	12660.19	-357.89 379.65	0.00	11.91 11.21	-0.18 0.18	0.16
VB15 - 1	225.00	-0.11 0.00	-249.58 -789.59	448.13	-275.39 274.06	274.06	0.56 0.75	-0.09 0.09	-0.25
VB15 - 2	225.00	-0.09 0.00	-855.41 -644.31	392.15	-18.14 29.68	29.68	0.75 0.68	-0.01 0.01	0.01
VB15 - 3	225.00	-0.06 0.00	-692.91 -288.48	289.50	233.62 -239.66	233.62	0.67 0.51	0.09 -0.09	0.60
VB15 - 4	225.00	-0.04 0.00	-318.98 -812.18	0.00	-37.89 81.34	81.34	-0.01 0.47	-0.06 0.06	0.16
VB15 - 5	225.00	-0.07 0.00	-834.15 1048.51	1048.51	134.04 -143.99	134.04	1.19 -0.75	0.14 -0.14	-1.09
VB16	735.00	0.00 0.06	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-1.47
VB17	735.00	-0.06 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-1.56
VB18	1730.78	-0.17 0.00	0.00 0.00	5048.30	89.93 -82.75	0.00	3.34 3.44	0.04 -0.04	5.14
VB19	772.50	0.00 0.19	-340.85 1339.46	1339.46	63.57 -96.43	63.57	1.62 -0.12	0.08 -0.08	1.54
VB20	772.50	-0.22 0.00	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	1.93
VB21 - 1	772.50	0.00 0.19	-901.79 3428.94	3428.94	199.64 -246.88	199.64	2.59 -0.05	0.14 -0.14	7.35
VB21 - 2	772.50	0.00 0.21	3456.58 -933.77	3456.58	-34.23 -77.09	0.00	-1.38 2.95	0.02 -0.02	-4.00
VB22	772.50	-0.04 0.00	-600.23 -871.35	549.26	360.02 -332.53	0.00	1.33 1.48	0.19 -0.19	3.45
VB23	772.50	0.00 0.18	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.09
VB24 - 1	810.00	0.00 0.30	-988.14 -2852.76	1557.23	-227.44 222.61	222.61	2.03 2.67	-0.08 0.08	0.58
VB24 - 2	810.00	0.00 0.18	-2646.91 -3030.76	1266.34	-0.69 46.28	46.28	2.52 2.64	-0.01 0.01	-0.12

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VB25 - 1	810.00	0.00 0.21	-3086.30 1974.32	1974.32	68.12 119.06	119.06	3.42 -1.87	-0.03 0.03	-1.12
VB25 - 2	810.00	0.00 0.18	1981.56 -2390.18	1981.56	119.06 -231.64	119.06	0.02 2.66	0.11 -0.11	-1.12
VB25 - 3	810.00	0.00 0.09	-1789.38 -451.52	561.70	8.93 -51.15	8.93	1.95 1.28	0.02 -0.02	-5.22

CASO: G1+G2+0.98Q+1.4V2+0.84D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	0.00 0.12	-1474.42 342.80	547.92	207.96 -131.56	0.00	1.76 0.55	0.11 -0.11	19.96
VB1 - 2	4279.21	0.00 0.04	342.65 -7109.54	342.65	118.99 -100.18	0.00	-11.76 14.16	0.38 -0.38	20.23
VB1 - 3	6008.67	0.00 0.29	-8795.49 -2067.09	5514.99	-67.68 -114.35	0.00	13.67 8.72	0.01 -0.01	-1.89
VB1 - 4	5103.80	0.00 0.35	-2061.52 -9072.98	0.00	-227.21 -321.97	0.00	-12.16 14.89	0.18 -0.18	20.96
VB1 - 5	6378.93	0.00 0.17	-9383.98 -535.33	3898.52	-291.94 332.04	0.00	13.30 7.52	-0.19 0.19	-9.96
VB2 - 1	985.00	0.00 0.48	-2224.41 -249.70	1952.48	113.72 76.42	113.72	2.87 2.09	0.01 -0.01	27.11
VB2 - 2	985.00	0.00 0.23	-889.64 -360.72	40.53	421.15 -271.37	0.00	1.36 0.89	0.30 -0.30	-33.75
VB2 - 3	985.00	0.00 0.23	-360.98 -1802.49	0.00	-271.37 -395.13	0.00	-1.59 2.32	0.17 -0.17	-33.75
VB2 - 4	4627.90	0.00 0.33	-1802.35 -10325.71	0.00	-255.07 -203.75	0.00	-14.23 16.72	-0.09 0.09	-33.75
VB2 - 5	5476.71	0.00 0.55	-12490.69 1013.76	1013.76	148.06 339.83	0.00	16.59 -11.09	-0.19 0.19	0.35
VB2 - 6	7729.64	0.00 0.55	1012.18 7060.46	7060.46	339.83 -55.57	0.00	10.38 -2.07	0.37 -0.37	0.35
VB2 - 7	5663.87	0.00 0.55	7059.27 869.16	7297.16	-55.57 -357.52	0.00	1.37 8.06	0.18 -0.18	0.35
VB2 - 8	4791.34	0.00 0.49	863.69 -6848.33	863.69	-454.27 -454.81	0.00	-11.40 14.32	0.00 0.00	0.35
VB2 - 9	7057.44	-0.04 0.00	-7099.13 3409.27	3409.27	-169.78 62.23	0.00	12.70 -1.97	-0.15 0.15	-1.74
VB2 - 10	6193.45	-0.04 0.00	3411.41 -3992.55	3656.24	62.23 133.05	0.00	1.23 9.54	-0.04 0.04	-1.74
VB2 - 11	985.00	-0.18 0.00	-4781.10 1243.01	1243.01	-242.39 -87.96	0.00	3.50 -0.59	-0.05 0.05	-3.24
VB3 - 1	772.50	0.00 0.17	-592.61 762.26	813.38	129.48 2.27	129.48	1.47 0.28	0.06 -0.06	2.14
VB3 - 2	772.50	0.00 0.17	762.52 -1158.83	762.52	2.27 -245.56	2.27	-0.98 1.98	0.19 -0.19	2.14
VB3 - 3	772.50	0.00 0.22	-2283.09 138.64	138.64	349.33 -87.37	349.33	2.80 -2.02	0.43 -0.43	1.78
VB3 - 4	772.50	0.00 0.22	140.22 1112.84	1112.84	-87.37 45.98	0.00	1.32 -0.49	-0.12 0.12	1.78
VB3 - 5	772.50	0.00 0.22	1114.03 -1367.40	1114.03	45.98 -100.87	45.98	-0.21 1.97	0.06 -0.06	1.78
VB3 - 6	772.50	0.00 0.41	-1749.82 791.67	791.67	157.49 -90.37	157.49	2.26 -1.09	0.16 -0.16	-13.69
VB3 - 7	772.50	0.00 0.41	789.53 375.18	868.32	-90.37 -171.27	0.00	0.35 0.87	0.05 -0.05	-13.69
VB4 - 1	1053.75	-0.05 0.00	-1969.42 -9961.85	4201.97	260.74 -259.39	260.74	3.61 5.46	0.06 -0.06	-0.40
VB4 - 2	1053.75	0.00 0.22	-11373.86 5302.69	6622.22	305.89 -231.43	305.89	6.16 1.67	0.07 -0.07	-10.15
VB4 - 3	1053.75	0.00	5309.93	5342.26	227.12	0.00	0.27	0.10	21.54



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		0.40	4385.73		59.09		1.42	-0.10	
VB4 - 4	1053.75	0.00	4392.35	4392.35	59.09	59.09	-2.70	0.18	21.54
		0.40	-986.47		-210.02		4.32	-0.18	
VB5 - 1	772.50	0.00	-1087.86	1445.46	89.59	89.59	2.22	0.06	-8.11
		0.21	1445.46		-10.77		-1.01	-0.06	
VB5 - 2	772.50	0.00	1438.84	1438.84	-10.77	0.00	-0.27	-0.01	-8.11
		0.21	0.00		0.00		1.52	0.01	
VB6 - 1	1053.75	-0.01	-2366.94	3724.83	112.34	112.34	3.58	0.02	0.81
		0.00	-10560.76		-38.26		5.49	-0.02	
VB6 - 2	1053.75	0.00	-12709.91	8644.93	135.03	135.03	6.71	0.04	0.93
		0.07	-628.04		-241.08		4.42	-0.04	
VB7 - 1	1053.75	0.00	-2471.14	3679.65	-236.67	176.93	3.60	-0.05	-0.17
		0.06	-10515.67		176.93		5.47	0.05	
VB7 - 2	1053.75	0.00	-12718.88	8661.42	-102.26	169.91	6.71	-0.03	-0.15
		0.22	-594.31		169.91		4.42	0.03	
VB8 - 1	1053.75	0.00	-2808.80	3766.08	-253.46	158.02	3.72	-0.05	-3.28
		0.73	-9796.77		158.02		5.35	0.05	
VB8 - 2	1053.75	0.00	-12154.98	7776.58	-99.96	213.01	6.48	-0.03	2.70
		1.31	-2476.54		213.01		4.65	0.03	
VB9 - 1	810.00	0.00	-1057.16	1514.76	243.26	243.26	2.04	0.08	0.05
		0.33	-2862.56		-247.51		2.66	-0.08	
VB9 - 2	810.00	0.00	-2862.86	1435.69	-33.26	0.00	2.64	0.00	-0.05
		0.29	-2476.21		-3.86		2.52	0.00	
VB10 - 1	810.00	0.00	-2178.71	865.58	-113.75	106.73	2.22	-0.04	-0.49
		0.19	-1624.23		106.73		2.01	0.04	
VB10 - 2	810.00	0.00	-1477.49	735.63	-129.02	106.72	1.89	-0.06	1.60
		0.18	-377.94		106.72		1.34	0.06	
VB11	735.00	0.00	-52.56	0.00	-135.52	216.59	-1.23	-0.18	2.10
		0.09	-3793.96		216.59		2.65	0.18	
VB12	5084.10	0.00	-5005.48	6785.53	-147.59	0.00	11.66	-0.08	0.10
		0.73	-2654.95		165.46		9.30	0.08	
VB13	735.00	0.00	0.00	329.89	0.00	0.00	0.70	0.00	-0.26
		0.14	0.00		0.00		0.70	0.00	
VB14	5652.27	-0.26	0.00	12660.19	-140.05	0.00	11.91	-0.10	-0.14
		0.00	0.00		250.55		11.21	0.10	
VB15 - 1	225.00	-0.10	-221.30	455.80	306.81	306.81	0.55	0.10	-0.32
		0.00	-811.14		-301.93		0.76	-0.10	
VB15 - 2	225.00	-0.08	-838.93	390.16	-22.73	16.88	0.74	-0.01	0.00
		0.00	-663.62		16.88		0.69	0.01	
VB15 - 3	225.00	-0.06	-677.03	294.17	-156.40	128.68	0.66	-0.05	0.57
		0.00	-292.02		128.68		0.51	0.05	
VB15 - 4	225.00	-0.05	-279.73	0.00	-436.60	416.35	-0.05	-0.41	2.61
		0.00	-852.62		416.35		0.51	0.41	
VB15 - 5	225.00	0.00	-867.01	1009.44	-188.57	319.07	1.19	-0.26	-2.77
		0.19	1009.44		319.07		-0.75	0.26	
VB16	735.00	-0.56	0.00	329.89	0.00	0.00	0.70	0.00	-1.58
		0.00	0.00		0.00		0.70	0.00	
VB17	735.00	0.00	0.00	329.89	0.00	0.00	0.70	0.00	-1.19
		0.19	0.00		0.00		0.70	0.00	
VB18	1730.78	-0.18	0.00	5048.30	96.74	0.00	3.34	0.05	5.47
		0.00	0.00		-112.86		3.44	-0.05	
VB19	772.50	0.00	-334.08	1327.08	-257.24	317.83	1.61	-0.30	1.09
		0.17	1327.08		317.83		-0.11	0.30	
VB20	772.50	-0.11	0.00	346.72	0.00	0.00	0.74	0.00	2.14
		0.00	0.00		0.00		0.74	0.00	
VB21 - 1	772.50	0.00	-1003.10	3930.46	-107.73	123.25	2.77	-0.07	5.04
		0.44	3930.46		123.25		-0.23	0.07	
VB21 - 2	772.50	0.00	3962.15	3962.15	-335.31	171.76	-1.71	-0.25	-2.21
		0.48	-1094.22		171.76		3.27	0.25	
VB22	772.50	-0.01	-629.74	552.34	375.04	0.00	1.35	0.19	4.75
		0.00	-835.66		-335.57		1.47	-0.19	
VB23	772.50	-0.07	0.00	1057.31	0.00	0.00	1.28	0.00	6.62
		0.00	0.00		0.00		1.28	0.00	

VB24 - 1	810.00	0.00 0.39	-1067.61 -2802.99	1535.69	212.23 -221.61	212.23	2.05 2.65	0.07 -0.07	1.23
VB24 - 2	810.00	0.00 0.40	-2736.32 -2875.10	1295.51	-31.31 -24.34	0.00	2.56 2.60	0.00 0.00	-0.03
VB25 - 1	810.00	0.00 0.41	-3008.22 1701.19	1701.19	-270.69 103.59	103.59	3.24 -1.69	-0.20 0.20	-1.55
VB25 - 2	810.00	0.00 0.42	1709.29 -2164.17	1727.04	103.59 48.52	103.59	0.17 2.51	0.02 -0.02	-1.55
VB25 - 3	810.00	0.00 0.09	-1810.00 -368.06	605.57	-196.22 138.36	138.36	1.98 1.26	-0.08 0.08	-6.10

CASO: G1+G2+0.98Q+1.4V3+0.84D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	-0.20 0.00	-770.07 10.43	544.69	770.73 -675.64	0.00	1.42 0.90	0.48 -0.48	21.59
VB1 - 2	4279.21	-0.50 0.00	10.32 -7642.96	10.32	5.81 -366.18	0.00	-12.11 14.51	0.64 -0.64	21.60
VB1 - 3	6008.67	-0.29 0.00	-8466.01 -2305.84	5499.33	-335.07 -110.14	0.00	13.51 8.87	-0.06 0.06	-1.69
VB1 - 4	5103.80	0.00 0.01	-2300.57 -9389.99	0.00	-686.41 -754.66	0.00	-12.31 15.04	0.13 -0.13	23.86
VB1 - 5	6378.93	-0.22 0.00	-8822.84 -1283.52	3644.14	-732.10 967.35	0.00	12.90 7.92	-0.52 0.52	-12.94
VB2 - 1	985.00	0.00 0.22	-1019.60 -591.00	2314.20	363.90 -544.27	363.90	2.56 2.39	0.18 -0.18	25.53
VB2 - 2	985.00	0.00 0.60	-825.20 -867.07	0.00	420.04 -456.86	0.00	1.11 1.14	0.38 -0.38	-31.27
VB2 - 3	985.00	0.00 0.60	-867.48 -2493.31	0.00	-456.86 -676.56	0.00	-1.84 2.57	0.30 -0.30	-31.27
VB2 - 4	4627.90	0.00 0.90	-2493.22 -11156.04	0.00	-106.53 -191.89	0.00	-14.48 16.97	0.15 -0.15	-31.27
VB2 - 5	5476.71	0.00 1.12	-11810.02 1512.71	1512.71	-177.52 -66.79	0.00	16.41 -10.90	-0.11 0.11	-0.31
VB2 - 6	7729.64	0.00 1.12	1511.10 7364.96	7364.96	-66.79 -151.13	0.00	10.20 -1.89	0.08 -0.08	-0.31
VB2 - 7	5663.87	0.00 1.12	7363.51 868.63	7563.31	-151.13 -233.56	0.00	1.19 8.25	0.05 -0.05	-0.31
VB2 - 8	4791.34	0.00 0.83	863.47 -6954.89	863.47	-777.42 -685.77	0.00	-11.58 14.50	-0.16 0.16	-0.31
VB2 - 9	7057.44	0.00 0.70	-6802.60 3288.47	3288.47	-637.60 95.33	0.00	12.42 -1.69	-0.48 0.48	-1.25
VB2 - 10	6193.45	0.00 0.70	3290.76 -4590.94	3475.87	95.33 341.66	0.00	0.96 9.82	-0.14 0.14	-1.25
VB2 - 11	985.00	-0.03 0.00	-4181.15 -203.19	0.00	-871.53 317.97	317.97	2.80 0.10	-0.40 0.40	-2.33
VB3 - 1	772.50	0.00 0.12	-196.37 595.91	776.45	17.45 12.79	17.45	1.23 0.53	0.00 0.00	0.99
VB3 - 2	772.50	0.00 0.12	596.33 -1645.11	596.33	12.79 -101.37	12.79	-1.23 2.23	0.09 -0.09	0.99
VB3 - 3	772.50	-0.06 0.00	-1894.15 382.60	382.60	131.00 -28.80	131.00	2.65 -1.88	0.16 -0.16	2.22
VB3 - 4	772.50	-0.06 0.00	384.21 1201.73	1201.73	-28.80 3.02	0.00	1.18 -0.34	-0.03 0.03	2.22
VB3 - 5	772.50	-0.06 0.00	1203.17 -1606.30	1203.17	3.02 3.18	3.18	-0.36 2.11	0.00 0.00	2.22
VB3 - 6	772.50	0.00 0.01	-1566.37 706.69	706.69	80.11 -180.95	80.11	2.08 -0.91	0.17 -0.17	-13.05
VB3 - 7	772.50	0.00 0.01	704.39 10.68	723.60	-180.95 86.07	86.07	0.17 1.05	-0.17 0.17	-13.05
VB4 - 1	1053.75	0.00	-1208.63	4486.74	324.74	324.74	3.47	0.08	-0.19



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		0.23	-10412.52		-370.20		5.60	-0.08	
VB4 - 2	1053.75	0.00 0.61	-10950.89 4957.54	6443.16	-59.99 -99.33	0.00	6.06 1.77	0.01 -0.01	-11.27
VB4 - 3	1053.75	0.00 0.68	4966.90 3520.93	4966.90	-283.90 -68.04	0.00	-0.06 1.75	-0.13 0.13	24.00
VB4 - 4	1053.75	0.00 0.68	3527.36 -2351.06	3527.36	-68.04 377.00	377.00	-3.02 4.64	-0.29 0.29	24.00
VB5 - 1	772.50	0.00 0.12	-602.61 1690.83	1690.83	-169.83 37.64	37.64	2.07 -0.85	-0.13 0.13	-8.46
VB5 - 2	772.50	0.00 0.12	1684.40 0.00	1684.40	37.64 0.00	37.64	-0.43 1.67	0.02 -0.02	-8.46
VB6 - 1	1053.75	0.00 0.05	-1056.04 -11315.83	4246.44	178.77 -251.13	178.77	3.34 5.73	0.05 -0.05	1.01
VB6 - 2	1053.75	0.00 0.14	-11962.09 -1960.68	8155.79	-227.18 139.20	139.20	6.51 4.62	-0.03 0.03	1.18
VB7 - 1	1053.75	0.00 0.06	-1119.41 -11302.98	4211.43	186.18 -257.26	186.18	3.35 5.72	0.05 -0.05	-0.15
VB7 - 2	1053.75	0.00 0.18	-11976.83 -1892.72	8188.76	-224.43 139.99	139.99	6.52 4.61	-0.03 0.03	0.00
VB8 - 1	1053.75	0.00 0.78	-1932.25 -10405.22	4049.16	108.97 -228.57	108.97	3.55 5.52	0.04 -0.04	-2.56
VB8 - 2	1053.75	0.00 1.28	-11623.96 -3256.80	7551.09	-199.41 110.42	110.42	6.36 4.77	-0.03 0.03	2.50
VB9 - 1	810.00	0.00 0.40	-477.61 -3325.33	1660.89	-81.67 71.24	71.24	1.86 2.84	-0.03 0.03	-0.20
VB9 - 2	810.00	0.00 0.34	-2526.39 -2830.90	1425.25	-78.12 78.96	78.96	2.53 2.63	-0.02 0.02	-0.04
VB10 - 1	810.00	0.00 0.18	-1787.99 -1957.49	889.33	-49.89 33.70	33.70	2.08 2.15	-0.02 0.02	-0.21
VB10 - 2	810.00	0.00 0.06	-968.64 -1039.31	610.25	-224.00 273.80	273.80	1.60 1.64	-0.12 0.12	1.51
VB11	735.00	0.00 0.01	460.16 -3973.73	460.16	-18.10 32.80	32.80	-1.59 3.01	-0.03 0.03	2.75
VB12	5084.10	0.00 0.53	-4545.56 -3601.40	6542.26	-925.99 744.33	0.00	11.31 9.64	-0.41 0.41	-0.83
VB13	735.00	0.00 0.09	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.41
VB14	5652.27	-0.15 0.00	0.00 0.00	12660.19	-570.03 681.45	0.00	11.91 11.21	-0.31 0.31	-0.09
VB15 - 1	225.00	-0.06 0.00	542.78 -1367.87	776.98	-2.84 4.82	4.82	0.32 0.98	0.00 0.00	-0.28
VB15 - 2	225.00	-0.04 0.00	-473.15 -1069.41	386.95	-28.00 28.54	28.54	0.62 0.81	-0.01 0.01	0.01
VB15 - 3	225.00	-0.02 0.00	-192.49 -720.00	333.42	4.59 -13.11	4.59	0.49 0.69	0.00 0.00	0.59
VB15 - 4	225.00	0.00 0.00	217.95 -869.51	217.95	-323.31 265.86	265.86	-0.30 0.76	-0.29 0.29	1.42
VB15 - 5	225.00	0.00 0.26	-723.66 51.38	51.38	27.60 22.73	27.60	0.62 -0.18	0.00 0.00	-2.03
VB16	735.00	-0.19 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-1.61
VB17	735.00	0.00 0.03	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-1.45
VB18	1730.78	-0.20 0.00	0.00 0.00	5048.30	543.86 -576.27	0.00	3.34 3.44	0.29 -0.29	5.15
VB19	772.50	0.00 0.27	118.20 870.19	952.19	-68.85 64.83	0.00	1.14 0.36	-0.07 0.07	1.39
VB20	772.50	-0.34 0.00	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	2.29
VB21 - 1	772.50	0.00 0.30	-607.10 3626.90	3626.90	155.90 -187.90	155.90	2.56 -0.02	0.10 -0.10	6.17
VB21 - 2	772.50	0.00 0.16	3662.17 -1374.64	3662.17	-3.33 -66.70	0.00	-1.70 3.26	0.03 -0.03	-3.18





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VB22	772.50	-0.27 0.00	-28.79 -1633.11	578.70	1180.80 -954.73	0.00	0.97 1.85	0.59 -0.59	3.93
VB23	772.50	0.00 0.16	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.43
VB24 - 1	810.00	0.00 0.32	-349.68 -3369.62	1723.50	78.09 -74.68	78.09	1.83 2.87	0.03 -0.03	0.91
VB24 - 2	810.00	0.00 0.14	-2291.85 -3373.79	1284.36	45.60 -46.07	45.60	2.41 2.75	0.01 -0.01	-0.05
VB25 - 1	810.00	0.00 0.05	-2557.80 1979.24	1979.24	15.64 90.49	90.49	3.15 -1.60	-0.04 0.04	-1.36
VB25 - 2	810.00	0.00 0.03	1987.70 -2688.86	1987.70	90.49 -183.27	90.49	-0.07 2.75	0.08 -0.08	-1.36
VB25 - 3	810.00	-0.11 0.00	-1183.18 -1208.16	417.35	113.38 -192.61	113.38	1.61 1.62	0.08 -0.08	-5.74

<b>CASO: G1+G2+0.98Q+1.4V4+0.84D4</b>									
<b>Elemento</b>	<b>Carga (kgf/m)</b>	<b>Rd Nd (tf)</b>	<b>Mxi Mxf (kgf.m)</b>	<b>MxMáx (kgf.m)</b>	<b>Myi Myf (kgf.m)</b>	<b>MyMáx (kgf.m)</b>	<b>Vxi Vxf (tf)</b>	<b>Vyi Vyf (tf)</b>	<b>Mtd (kgf/m)</b>
VB1 - 1	772.50	0.00 0.48	-924.66 78.19	527.67	-298.29 343.61	0.00	1.49 0.82	-0.21 0.21	18.61
VB1 - 2	4279.21	0.00 0.53	78.28 -7531.87	78.28	292.37 195.18	0.00	-12.03 14.43	0.17 -0.17	18.66
VB1 - 3	6008.67	0.00 0.83	-8514.88 -2281.84	5492.88	231.15 -161.53	0.00	13.53 8.85	0.10 -0.10	-2.69
VB1 - 4	5103.80	0.00 0.65	-2276.28 -9355.70	0.00	219.14 91.80	0.00	-12.29 15.02	0.25 -0.25	22.57
VB1 - 5	6378.93	0.00 0.52	-8963.93 -1074.20	3700.16	130.20 -305.33	0.00	13.00 7.81	0.13 -0.13	-6.92
VB2 - 1	985.00	0.00 0.44	-951.39 -620.84	2331.43	-352.59 840.47	840.47	2.54 2.41	-0.24 0.24	28.79
VB2 - 2	985.00	0.00 0.12	-854.08 -821.41	0.00	354.13 50.41	0.00	1.14 1.11	0.13 -0.13	-36.49
VB2 - 3	985.00	0.00 0.12	-821.87 -2423.63	0.00	50.41 4.93	0.00	-1.81 2.54	0.06 -0.06	-36.49
VB2 - 4	4627.90	0.00 0.09	-2423.73 -11068.34	0.00	-67.16 111.75	0.00	-14.45 16.93	-0.32 0.32	-36.49
VB2 - 5	5476.71	0.00 0.17	-11697.36 1539.69	1539.69	339.82 339.69	0.00	16.33 -10.82	0.00 0.00	1.26
VB2 - 6	7729.64	0.00 0.17	1538.24 7300.43	7300.43	339.69 10.10	0.00	10.12 -1.80	0.31 -0.31	1.26
VB2 - 7	5663.87	0.00 0.17	7299.12 660.52	7480.95	10.10 -334.27	0.00	1.10 8.33	0.20 -0.20	1.26
VB2 - 8	4791.34	0.00 0.36	655.07 -7213.44	655.07	22.92 -13.28	0.00	-11.67 14.58	0.06 -0.06	1.26
VB2 - 9	7057.44	0.00 0.16	-7088.47 3294.68	3294.68	130.06 41.25	0.00	12.61 -1.89	0.06 -0.06	-1.70
VB2 - 10	6193.45	0.00 0.16	3296.46 -4250.88	3523.37	41.25 -44.31	0.00	1.15 9.63	0.05 -0.05	-1.70
VB2 - 11	985.00	0.00 0.21	-3864.94 -203.89	0.00	414.32 -313.50	414.32	2.69 0.21	0.25 -0.25	-4.32
VB3 - 1	772.50	0.00 0.17	-178.06 563.69	758.01	69.17 0.73	69.17	1.20 0.55	0.03 -0.03	3.20
VB3 - 2	772.50	0.00 0.17	564.15 -1706.03	564.15	0.73 -130.61	0.73	-1.25 2.25	0.10 -0.10	3.20
VB3 - 3	772.50	0.00 0.19	-1903.22 382.83	382.83	190.87 -48.63	190.87	2.66 -1.89	0.24 -0.24	1.36
VB3 - 4	772.50	0.00 0.19	384.27 1211.74	1211.74	-48.63 24.56	0.00	1.18 -0.35	-0.07 0.07	1.36
VB3 - 5	772.50	0.00 0.19	1213.04 -1575.39	1213.04	24.56 -53.08	24.56	-0.35 2.10	0.03 -0.03	1.36
VB3 - 6	772.50	0.00	-1482.91	725.58	76.94	76.94	2.04	0.07	-13.28





**AltoQi Eberick 2018  
Plena**

**Leilson Campos  
Rezende  
Rezende Engenharia**


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		0.31	725.58		-35.61		-0.87	-0.07	
VB3 - 7	772.50	0.00	723.80	733.41	-35.61	0.00	0.13	0.08	-13.28
		0.31	-37.11		-167.40		1.09	-0.08	
VB4 - 1	1053.75	0.00	-1102.78	4522.31	-285.37	258.76	3.44	-0.06	-0.52
		0.03	-10495.56		258.76		5.63	0.06	
VB4 - 2	1053.75	0.00	-10946.67	6472.18	312.06	312.06	6.06	0.04	-7.90
		0.33	4993.40		13.46		1.77	-0.04	
VB4 - 3	1053.75	0.00	5002.64	5002.64	443.94	0.00	-0.12	0.24	16.17
		0.55	3456.86		67.32		1.81	-0.24	
VB4 - 4	1053.75	0.00	3463.13	3463.13	67.32	67.32	-3.09	0.28	16.17
		0.55	-2510.85		-368.61		4.70	-0.28	
VB5 - 1	772.50	0.00	-511.19	1737.00	71.03	71.03	2.04	0.05	-6.89
		0.22	1737.00		-3.11		-0.82	-0.05	
VB5 - 2	772.50	0.00	1730.72	1730.72	-3.11	0.00	-0.45	0.00	-6.89
		0.22	0.00		0.00		1.70	0.00	
VB6 - 1	1053.75	0.00	-938.66	4294.53	-245.90	372.15	3.32	-0.07	0.58
		0.00	-11384.66		372.15		5.75	0.07	
VB6 - 2	1053.75	0.00	-11894.97	8115.98	317.54	317.54	6.49	0.06	1.26
		0.05	-2078.90		-276.81		4.64	-0.06	
VB7 - 1	1053.75	0.00	-1098.24	4219.76	-247.24	341.30	3.35	-0.07	-0.20
		0.08	-11316.31		341.30		5.72	0.07	
VB7 - 2	1053.75	0.00	-11960.62	8179.13	321.47	321.47	6.52	0.05	-0.21
		0.21	-1921.31		-229.34		4.61	-0.05	
VB8 - 1	1053.75	0.00	-1983.73	4030.28	-172.13	295.34	3.56	-0.05	-4.08
		0.73	-10374.24		295.34		5.51	0.05	
VB8 - 2	1053.75	0.00	-11616.20	7541.03	275.99	275.99	6.35	0.04	3.22
		1.23	-3279.93		-122.77		4.78	-0.04	
VB9 - 1	810.00	0.00	-1633.00	1409.14	122.72	122.72	2.22	0.04	-0.23
		0.34	-2402.75		-113.69		2.49	-0.04	
VB9 - 2	810.00	0.00	-3208.29	1458.67	60.67	60.67	2.75	0.02	-0.08
		0.39	-2110.28		-63.04		2.41	-0.02	
VB10 - 1	810.00	0.00	-2606.14	873.05	136.90	136.90	2.37	0.05	-0.19
		0.31	-1249.82		-118.62		1.86	-0.05	
VB10 - 2	810.00	0.00	-2006.51	973.81	132.25	132.25	2.20	0.10	1.54
		0.34	307.02		-260.89		1.04	-0.10	
VB11	735.00	0.00	-594.12	0.00	-60.07	103.32	-0.83	-0.08	2.66
		0.10	-3559.22		103.32		2.24	0.08	
VB12	5084.10	0.00	-5453.49	7098.78	573.90	0.00	12.00	0.22	-0.53
		0.86	-1687.12		-352.23		8.95	-0.22	
VB13	735.00	0.00	0.00	329.89	0.00	0.00	0.70	0.00	-0.46
		0.07	0.00		0.00		0.70	0.00	
VB14	5652.27	-0.38	0.00	12660.19	72.09	0.00	11.91	0.03	0.10
		0.00	0.00		-51.25		11.21	-0.03	
VB15 - 1	225.00	-0.15	-1013.66	365.22	34.26	34.26	0.79	0.01	-0.29
		0.00	-232.86		-32.69		0.52	-0.01	
VB15 - 2	225.00	-0.12	-1221.20	462.76	-12.87	18.02	0.87	0.00	0.00
		0.00	-238.52		18.02		0.56	0.00	
VB15 - 3	225.00	-0.09	-1177.45	388.73	72.62	72.62	0.84	0.03	0.58
		0.00	139.49		-97.88		0.34	-0.03	
VB15 - 4	225.00	-0.08	-816.66	0.00	-151.18	231.83	0.24	-0.19	1.35
		0.00	-795.29		231.83		0.22	0.19	
VB15 - 5	225.00	-0.14	-977.50	2006.57	-82.12	152.35	1.76	-0.12	-1.83
		0.00	2006.57		152.35		-1.32	0.12	
VB16	735.00	-0.31	0.00	329.89	0.00	0.00	0.70	0.00	-1.44
		0.00	0.00		0.00		0.70	0.00	
VB17	735.00	0.00	0.00	329.89	0.00	0.00	0.70	0.00	-1.30
		0.10	0.00		0.00		0.70	0.00	
VB18	1730.78	-0.14	0.00	5048.30	-357.19	0.00	3.34	-0.19	5.46
		0.00	0.00		380.66		3.44	0.19	
VB19	772.50	0.00	-793.13	1796.35	-124.82	156.56	2.09	-0.15	1.24
		0.09	1796.35		156.56		-0.59	0.15	
VB20	772.50	0.00	0.00	346.72	0.00	0.00	0.74	0.00	1.78
		0.01	0.00		0.00		0.74	0.00	

VB21 - 1	772.50	0.00 0.34	-1297.79 3732.49	3732.49	-63.99 64.28	64.28	2.80 -0.26	-0.04 0.04	6.21
VB21 - 2	772.50	0.00 0.53	3756.56 -653.35	3756.56	-366.20 161.37	161.37	-1.39 2.96	-0.26 0.26	-3.02
VB22	772.50	0.00 0.22	-1201.17 -73.90	709.30	-445.74 286.63	0.00	1.72 1.10	-0.20 0.20	4.26
VB23	772.50	-0.05 0.00	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.27
VB24 - 1	810.00	0.00 0.37	-1706.07 -2286.13	1427.64	-93.30 75.68	75.68	2.25 2.45	-0.03 0.03	0.91
VB24 - 2	810.00	0.00 0.44	-3091.37 -2532.08	1296.28	-77.59 68.01	68.01	2.67 2.49	-0.02 0.02	-0.10
VB25 - 1	810.00	0.00 0.57	-3536.72 1696.27	1696.27	-218.20 132.17	132.17	3.51 -1.96	-0.18 0.18	-1.31
VB25 - 2	810.00	0.00 0.57	1703.16 -1865.49	1742.10	132.17 0.15	132.17	0.26 2.42	0.04 -0.04	-1.31
VB25 - 3	810.00	0.00 0.29	-2416.21 388.58	904.54	-300.67 279.81	279.81	2.32 0.92	-0.15 0.15	-5.58

CASO: G1+G2+1.2D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	0.00 0.16	-409.43 -43.84	663.37	71.94 -30.14	0.00	1.28 1.04	0.03 -0.03	4.85
VB1 - 2	1349.50	0.00 0.11	-43.35 -2433.71	0.00	101.83 8.99	0.00	-3.75 4.52	0.16 -0.16	4.80
VB1 - 3	1509.93	0.00 0.15	-2378.50 -325.05	1360.44	14.10 -77.54	0.00	3.45 2.19	0.02 -0.02	-0.27
VB1 - 4	1336.21	0.00 0.13	-323.68 -2490.72	0.00	-23.77 -73.52	0.00	-3.85 4.55	0.10 -0.10	3.30
VB1 - 5	1502.17	0.00 0.08	-2154.38 -427.72	769.42	-66.33 37.57	0.00	3.00 1.90	-0.03 0.03	-3.40
VB2 - 1	985.00	0.00 0.21	-618.10 -1350.78	2141.15	44.22 42.06	44.22	2.33 2.62	0.00 0.00	7.53
VB2 - 2	985.00	0.00 0.22	-1330.03 -121.45	57.73	156.58 -86.68	0.00	1.65 0.59	0.11 -0.11	-8.79
VB2 - 3	985.00	0.00 0.22	-121.94 -1343.96	0.00	-86.68 -126.63	0.00	-1.30 2.02	0.05 -0.05	-8.79
VB2 - 4	1587.61	0.00 0.27	-1344.45 -4259.03	0.00	-34.09 4.48	0.00	-4.82 5.69	-0.07 0.07	-8.79
VB2 - 5	1642.85	0.00 0.29	-4199.68 329.03	329.03	92.87 131.68	0.00	5.39 -3.74	-0.04 0.04	-0.01
VB2 - 6	1877.23	0.00 0.29	330.04 2425.30	2425.30	131.68 -25.26	0.00	3.04 -1.02	0.15 -0.15	-0.01
VB2 - 7	1663.85	0.00 0.29	2424.85 584.98	2462.80	-25.26 -175.80	0.00	0.32 2.47	0.09 -0.09	-0.01
VB2 - 8	1480.39	0.00 0.31	583.63 -2116.56	583.63	-122.87 -132.62	0.00	-4.12 5.00	0.02 -0.02	-0.01
VB2 - 9	1775.32	0.00 0.26	-1972.82 978.86	978.86	-45.80 33.06	0.00	3.35 -0.65	-0.05 0.05	5.45
VB2 - 10	1662.87	0.00 0.26	979.85 -1715.20	979.85	33.06 39.15	0.00	-0.09 2.98	0.00 0.00	5.45
VB2 - 11	985.00	0.00 0.19	-1468.20 -424.11	184.89	24.29 -71.06	24.29	1.81 1.10	0.03 -0.03	-7.47
VB3 - 1	772.50	0.00 0.11	-159.14 527.33	740.43	35.51 3.30	35.51	1.18 0.58	0.01 -0.01	-0.31
VB3 - 2	772.50	0.00 0.11	527.82 -1773.83	527.82	3.30 -82.85	3.30	-1.28 2.28	0.07 -0.07	-0.31
VB3 - 3	772.50	0.00 0.09	-1886.93 390.81	390.81	117.15 -29.03	117.15	2.65 -1.88	0.15 -0.15	0.57
VB3 - 4	772.50	0.00	389.80	1208.38	-29.03	0.00	1.18	-0.04	0.57

		0.09	1208.38		13.03		-0.35	0.04	
VB3 - 5	772.50	0.00 0.09	1208.83 -1598.40	1208.83	13.03 -26.82	13.03	-0.36 2.11	0.02 -0.02	0.57
VB3 - 6	772.50	0.00 0.16	-1495.49 709.12	709.12	50.71 -43.58	50.71	2.04 -0.86	0.06 -0.06	-10.75
VB3 - 7	772.50	0.00 0.16	708.13 -56.82	717.16	-43.58 -65.18	0.00	0.13 1.09	0.01 -0.01	-10.75
VB4 - 1	1053.75	0.00 0.17	-1053.47 -10515.38	4545.90	7.63 -41.40	7.63	3.44 5.63	0.01 -0.01	-0.12
VB4 - 2	1053.75	0.00 0.47	-10885.17 4932.44	6437.70	46.82 33.31	46.82	6.04 1.78	0.00 0.00	-9.77
VB4 - 3	1053.75	0.00 0.62	4942.03 3372.07	4942.03	117.23 -4.76	0.00	-0.14 1.82	0.08 -0.08	19.75
VB4 - 4	1053.75	0.00 0.62	3378.38 -2618.75	3378.38	-4.76 -18.18	0.00	-3.10 4.72	0.01 -0.01	19.75
VB5 - 1	772.50	0.00 0.15	-490.62 1747.43	1747.43	-64.34 21.04	21.04	2.03 -0.82	-0.05 0.05	-7.58
VB5 - 2	772.50	0.00 0.15	1741.11 0.00	1741.11	21.04 0.00	21.04	-0.46 1.70	0.01 -0.01	-7.58
VB6 - 1	1053.75	0.00 0.02	-820.91 -11457.65	4341.31	-50.58 63.41	63.41	3.30 5.77	-0.01 0.01	0.75
VB6 - 2	1053.75	0.00 0.10	-11825.01 -2196.02	8078.01	16.96 -28.73	16.96	6.48 4.65	0.00 0.00	1.19
VB7 - 1	1053.75	0.00 0.06	-926.31 -11421.26	4288.67	2.80 13.64	13.64	3.32 5.75	0.00 0.00	-0.17
VB7 - 2	1053.75	0.00 0.19	-11863.94 -2082.67	8126.94	54.78 -63.24	54.78	6.49 4.64	0.01 -0.01	-0.18
VB8 - 1	1053.75	0.00 0.75	-1857.29 -10460.64	4072.58	3.31 5.85	5.85	3.54 5.53	0.00 0.00	-3.33
VB8 - 2	1053.75	0.00 1.26	-11556.77 -3361.56	7519.07	45.84 -29.84	45.84	6.34 4.79	0.01 -0.01	2.72
VB9 - 1	810.00	0.00 0.37	-1040.68 -2875.84	1517.89	-13.75 13.38	13.38	2.04 2.67	0.00 0.00	-0.26
VB9 - 2	810.00	0.00 0.37	-2859.68 -2478.32	1436.14	-5.29 9.89	9.89	2.64 2.52	0.00 0.00	-0.05
VB10 - 1	810.00	0.00 0.24	-2188.63 -1611.94	867.62	63.67 -64.63	63.67	2.23 2.00	0.02 -0.02	-0.17
VB10 - 2	810.00	0.00 0.18	-1478.80 -374.93	736.82	-57.81 30.50	30.50	1.89 1.34	-0.02 0.02	1.91
VB11	735.00	0.00 0.05	-116.95 -856.05	0.00	-36.88 59.96	59.96	0.33 1.09	-0.05 0.05	2.49
VB12	1333.65	0.00 0.26	-1343.09 -829.81	1721.49	-56.89 66.21	0.00	2.95 2.54	-0.03 0.03	-1.17
VB13	735.00	0.00 0.05	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.48
VB14	1348.71	-0.12 0.00	0.00 0.00	2810.87	-92.53 131.97	0.00	2.80 2.71	-0.05 0.05	0.49
VB15 - 1	225.00	-0.11 0.00	-222.33 -811.49	455.05	-23.62 25.12	25.12	0.55 0.76	-0.01 0.01	-0.28
VB15 - 2	225.00	-0.10 0.00	-844.11 -651.36	393.98	-16.02 19.78	19.78	0.75 0.69	-0.01 0.01	0.01
VB15 - 3	225.00	-0.08 0.00	-663.46 -352.39	266.74	66.22 -80.44	66.22	0.65 0.53	0.03 -0.03	0.59
VB15 - 4	225.00	-0.08 0.00	-369.42 -61.35	0.00	-168.66 165.67	165.67	0.38 0.08	-0.16 0.16	1.31
VB15 - 5	225.00	0.00 0.00	-72.22 295.45	296.42	-39.16 82.73	82.73	0.41 0.03	-0.06 0.06	0.31
VB16	735.00	-0.18 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	1.02
VB17	735.00	0.00 0.06	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.45
VB18	844.02	-0.07 0.00	0.00 0.00	1742.29	-52.93 53.77	0.00	1.65 1.66	-0.03 0.03	1.35

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VB19	772.50	0.00 0.08	-208.67 383.11	506.14	-75.21 90.96	90.96	1.05 0.44	-0.09 0.09	0.00
VB20	772.50	-0.05 0.00	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	1.00
VB21 - 1	772.50	0.00 0.31	-968.02 3654.68	3654.68	62.33 -83.95	62.33	2.68 -0.14	0.04 -0.04	6.34
VB21 - 2	772.50	0.00 0.39	3684.20 -980.22	3684.20	-167.86 63.51	63.51	-1.51 3.08	-0.11 0.11	-3.25
VB22	772.50	0.00 0.12	-449.89 -493.25	813.48	9.60 -36.05	0.00	1.40 1.42	0.01 -0.01	0.73
VB23	772.50	0.00 0.07	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.32
VB24 - 1	810.00	0.00 0.36	-1071.86 -2792.28	1538.15	-32.89 26.70	26.70	2.06 2.65	-0.01 0.01	0.86
VB24 - 2	810.00	0.00 0.33	-2715.37 -2930.23	1279.65	-7.91 10.72	10.72	2.54 2.61	0.00 0.00	-0.07
VB25 - 1	810.00	0.00 0.38	-3084.71 1841.97	1841.97	-65.34 103.97	103.97	3.35 -1.80	-0.09 0.09	-1.31
VB25 - 2	810.00	0.00 0.37	1849.55 -2270.02	1851.92	103.97 -103.63	103.97	0.10 2.59	0.06 -0.06	-1.31
VB25 - 3	810.00	0.00 0.18	-1861.33 -327.89	612.03	-121.23 97.93	97.93	2.00 1.23	-0.05 0.05	-5.62

CASO: G1+G2+1.2D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	0.00 0.19	-631.06 61.41	630.89	39.72 -14.93	0.00	1.39 0.93	0.02 -0.02	4.80
VB1 - 2	1349.50	0.00 0.17	61.85 -2265.10	61.85	47.11 -28.75	0.00	-3.64 4.41	0.13 -0.13	4.83
VB1 - 3	1509.93	0.00 0.13	-2486.67 -244.45	1367.63	-17.67 -36.61	0.00	3.50 2.14	0.01 -0.01	-0.09
VB1 - 4	1336.21	0.00 0.15	-243.03 -2384.18	0.00	-67.15 -100.37	0.00	-3.80 4.50	0.06 -0.06	2.57
VB1 - 5	1502.17	0.00 0.02	-2327.38 -201.29	846.06	-87.54 97.09	0.00	3.13 1.78	-0.06 0.06	-3.42
VB2 - 1	985.00	0.00 0.33	-1017.62 -1235.71	1988.63	45.68 65.32	65.32	2.43 2.52	0.00 0.00	7.55
VB2 - 2	985.00	0.00 0.25	-1347.44 34.82	166.63	137.61 -90.40	0.00	1.73 0.52	0.10 -0.10	-8.81
VB2 - 3	985.00	0.00 0.25	34.38 -1131.55	34.38	-90.40 -109.87	0.00	-1.22 1.94	0.03 -0.03	-8.81
VB2 - 4	1587.61	0.00 0.27	-1132.00 -4004.14	0.00	-88.20 -40.82	0.00	-4.75 5.62	-0.08 0.08	-8.81
VB2 - 5	1642.85	0.00 0.27	-4439.12 162.90	162.90	38.59 130.21	0.00	5.47 -3.82	-0.09 0.09	-0.01
VB2 - 6	1877.23	0.00 0.27	163.91 2337.59	2337.59	130.21 -9.47	0.00	3.11 -1.10	0.13 -0.13	-0.01
VB2 - 7	1663.85	0.00 0.27	2337.19 620.27	2390.50	-9.47 -124.17	0.00	0.39 2.39	0.07 -0.07	-0.01
VB2 - 8	1480.39	0.00 0.25	618.86 -2038.43	618.86	-147.07 -150.73	0.00	-4.04 4.93	0.01 -0.01	-0.01
VB2 - 9	1775.32	0.00 0.06	-2021.56 1016.95	1016.95	-71.08 29.81	0.00	3.40 -0.70	-0.07 0.07	5.40
VB2 - 10	1662.87	0.00 0.06	1017.97 -1577.68	1017.97	29.81 60.82	0.00	-0.03 2.93	-0.02 0.02	5.40
VB2 - 11	985.00	0.00 0.01	-1717.10 44.88	414.25	-34.22 -68.31	0.00	2.05 0.85	0.01 -0.01	-7.42
VB3 - 1	772.50	0.00 0.15	-264.35 574.20	742.12	34.26 7.34	34.26	1.25 0.51	0.01 -0.01	-0.27
VB3 - 2	772.50	0.00	574.64	574.64	7.34	7.34	-1.21	0.09	-0.27




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**Leilson Campos  
Rezende  
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		0.15	-1640.48		-103.12		2.21	-0.09	
VB3 - 3	772.50	0.00 0.10	-1986.28 327.77	327.77	142.63 -34.65	142.63	2.69 -1.91	0.18 -0.18	0.57
VB3 - 4	772.50	0.00 0.10	326.76 1184.19	1184.19	-34.65 13.39	0.00	1.21 -0.38	-0.04 0.04	0.57
VB3 - 5	772.50	0.00 0.10	1184.59 -1540.48	1184.59	13.39 -25.70	13.39	-0.32 2.08	0.02 -0.02	0.57
VB3 - 6	772.50	0.00 0.18	-1554.16 728.34	728.34	53.30 -52.59	53.30	2.09 -0.91	0.07 -0.07	-10.88
VB3 - 7	772.50	0.00 0.18	727.32 43.44	747.93	-52.59 -86.02	0.00	0.18 1.04	0.02 -0.02	-10.88
VB4 - 1	1053.75	0.00 0.12	-1261.66 -10381.15	4465.11	51.90 -85.67	51.90	3.48 5.59	0.02 -0.02	-0.14
VB4 - 2	1053.75	0.00 0.41	-11001.27 5015.25	6477.50	109.40 -22.17	109.40	6.07 1.76	0.02 -0.02	-9.90
VB4 - 3	1053.75	0.00 0.57	5024.32 3598.63	5024.32	142.52 14.85	0.00	-0.05 1.73	0.08 -0.08	20.14
VB4 - 4	1053.75	0.00 0.57	3605.01 -2253.98	3605.01	14.85 -46.63	14.85	-3.01 4.63	0.04 -0.04	20.14
VB5 - 1	772.50	0.00 0.19	-619.14 1682.45	1682.45	-31.42 15.60	15.60	2.07 -0.86	-0.03 0.03	-7.69
VB5 - 2	772.50	0.00 0.19	1676.06 0.00	1676.06	15.60 0.00	15.60	-0.42 1.66	0.01 -0.01	-7.69
VB6 - 1	1053.75	0.00 0.02	-1173.02 -11243.56	4199.88	-12.17 44.62	44.62	3.37 5.71	-0.01 0.01	0.75
VB6 - 2	1053.75	0.00 0.09	-12032.49 -1843.22	8194.07	53.68 -94.85	53.68	6.53 4.60	0.01 -0.01	1.16
VB7 - 1	1053.75	0.00 0.07	-1291.05 -11198.21	4142.64	-57.12 56.36	56.36	3.38 5.69	-0.01 0.01	-0.17
VB7 - 2	1053.75	0.00 0.19	-12073.34 -1731.25	8244.32	21.50 -9.83	21.50	6.54 4.59	0.00 0.00	-0.16
VB8 - 1	1053.75	0.00 0.76	-2059.95 -10317.74	4006.53	-62.12 47.88	47.88	3.58 5.49	-0.01 0.01	-3.33
VB8 - 2	1053.75	0.00 1.26	-11684.92 -3173.95	7573.09	12.96 28.34	28.34	6.37 4.76	0.00 0.00	2.74
VB9 - 1	810.00	0.00 0.36	-1048.79 -2869.27	1516.36	51.83 -53.19	51.83	2.04 2.67	0.02 -0.02	-0.18
VB9 - 2	810.00	0.00 0.35	-2862.80 -2475.23	1436.22	-14.18 8.33	8.33	2.64 2.52	0.00 0.00	-0.06
VB10 - 1	810.00	0.00 0.23	-2188.92 -1613.26	866.78	23.01 -22.69	23.01	2.23 2.01	0.01 -0.01	-0.24
VB10 - 2	810.00	0.00 0.18	-1484.03 -367.84	738.72	-57.27 29.31	29.31	1.90 1.34	-0.02 0.02	1.98
VB11	735.00	0.00 0.05	-127.77 -858.43	0.00	-34.20 57.74	57.74	0.33 1.09	-0.05 0.05	2.32
VB12	1333.65	0.00 0.26	-1358.32 -804.34	1726.61	-20.59 32.98	0.00	2.96 2.53	-0.01 0.01	-0.89
VB13	735.00	0.00 0.07	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.44
VB14	1348.71	-0.11 0.00	0.00 0.00	2810.87	-21.67 62.05	0.00	2.80 2.71	-0.02 0.02	0.44
VB15 - 1	225.00	-0.11 0.00	-230.11 -806.01	452.76	58.41 -56.32	58.41	0.55 0.75	0.02 -0.02	-0.29
VB15 - 2	225.00	-0.09 0.00	-847.37 -647.85	394.22	-21.46 23.37	23.37	0.75 0.68	-0.01 0.01	0.00
VB15 - 3	225.00	-0.06 0.00	-668.62 -346.50	267.53	14.31 -32.84	14.31	0.65 0.53	0.01 -0.01	0.58
VB15 - 4	225.00	-0.06 0.00	-371.89 -66.21	0.00	-227.90 233.64	233.64	0.38 0.08	-0.22 0.22	1.62
VB15 - 5	225.00	0.00 0.04	-78.60 305.45	305.45	-17.60 70.90	70.90	0.42 0.02	-0.05 0.05	0.13
VB16	735.00	-0.22 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	1.01

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VB17	735.00	0.00 0.06	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.41
VB18	844.02	-0.06 0.00	0.00 0.00	1742.29	22.90 -30.53	0.00	1.65 1.66	0.01 -0.01	1.40
VB19	772.50	0.00 0.09	-204.62 378.07	504.12	-75.65 90.39	90.39	1.05 0.44	-0.09 0.09	-0.06
VB20	772.50	-0.05 0.00	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	1.02
VB21 - 1	772.50	0.00 0.34	-980.74 3716.24	3716.24	26.92 -40.60	26.92	2.70 -0.16	0.02 -0.02	6.05
VB21 - 2	772.50	0.00 0.40	3746.27 -1000.81	3746.27	-205.29 85.20	85.20	-1.55 3.12	-0.14 0.14	-3.01
VB22	772.50	0.00 0.11	-439.65 -506.51	811.96	93.33 -94.58	0.00	1.39 1.43	0.05 -0.05	0.96
VB23	772.50	0.00 0.04	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.38
VB24 - 1	810.00	0.00 0.37	-1069.05 -2796.18	1537.95	26.83 -34.05	26.83	2.06 2.65	0.01 -0.01	0.96
VB24 - 2	810.00	0.00 0.35	-2719.10 -2919.19	1283.06	-16.49 3.26	3.26	2.55 2.61	0.00 0.00	-0.07
VB25 - 1	810.00	0.00 0.38	-3066.75 1812.00	1812.00	-131.92 121.18	121.18	3.32 -1.77	-0.13 0.13	-1.36
VB25 - 2	810.00	0.00 0.38	1819.69 -2248.96	1825.23	121.18 -77.06	121.18	0.11 2.57	0.06 -0.06	-1.36
VB25 - 3	810.00	0.00 0.16	-1851.01 -335.32	611.14	-126.83 94.93	94.93	2.00 1.24	-0.06 0.06	-5.70

CASO: G1+G2+1.2D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	0.00 0.08	-502.14 0.76	646.07	215.63 -171.96	0.00	1.33 0.99	0.13 -0.13	5.11
VB1 - 2	1349.50	-0.01 0.00	1.20 -2362.52	1.20	49.24 -88.90	0.00	-3.70 4.47	0.24 -0.24	5.10
VB1 - 3	1509.93	-0.03 0.00	-2426.75 -287.95	1364.35	-81.81 -59.20	0.00	3.47 2.17	-0.01 0.01	-0.08
VB1 - 4	1336.21	0.00 0.04	-286.59 -2441.92	0.00	-183.71 -225.70	0.00	-3.83 4.53	0.08 -0.08	3.08
VB1 - 5	1502.17	-0.06 0.00	-2224.69 -338.37	798.89	-216.98 259.25	0.00	3.05 1.85	-0.15 0.15	-4.02
VB2 - 1	985.00	0.00 0.24	-824.99 -1289.68	2062.89	135.27 -116.73	135.27	2.39 2.57	0.05 -0.05	7.27
VB2 - 2	985.00	0.00 0.31	-1335.30 -48.27	109.52	183.42 -166.63	0.00	1.69 0.56	0.15 -0.15	-8.26
VB2 - 3	985.00	0.00 0.31	-48.72 -1245.41	0.00	-166.63 -231.53	0.00	-1.26 1.99	0.09 -0.09	-8.26
VB2 - 4	1587.61	0.00 0.40	-1245.85 -4141.26	0.00	-64.32 -55.18	0.00	-4.79 5.66	-0.02 0.02	-8.26
VB2 - 5	1642.85	0.00 0.43	-4331.98 242.75	242.75	0.79 76.82	0.00	5.44 -3.79	-0.08 0.08	-0.16
VB2 - 6	1877.23	0.00 0.43	243.75 2388.24	2388.24	76.82 -46.60	0.00	3.09 -1.07	0.11 -0.11	-0.16
VB2 - 7	1663.85	0.00 0.43	2387.80 625.11	2435.39	-46.60 -160.31	0.00	0.37 2.42	0.07 -0.07	-0.16
VB2 - 8	1480.39	0.00 0.36	623.77 -2049.49	623.77	-278.27 -264.56	0.00	-4.07 4.95	-0.02 0.02	-0.16
VB2 - 9	1775.32	0.00 0.25	-1966.37 997.48	997.48	-192.16 66.45	0.00	3.35 -0.66	-0.17 0.17	5.48
VB2 - 10	1662.87	0.00 0.25	998.55 -1682.57	998.55	66.45 113.87	0.00	-0.08 2.97	-0.03 0.03	5.48
VB2 - 11	985.00	0.00	-1626.36	279.47	-175.69	9.58	1.94	-0.06	-7.36

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		0.07	-189.12		9.58		0.96	0.06	
VB3 - 1	772.50	0.00 0.13	-213.25 554.13	741.46	28.57 6.75	28.57	1.22 0.54	0.01 -0.01	-0.53
VB3 - 2	772.50	0.00 0.13	554.58 -1701.02	554.58	6.75 -90.23	6.75	-1.24 2.24	0.07 -0.07	-0.53
VB3 - 3	772.50	0.00 0.05	-1934.91 359.74	359.74	124.85 -29.89	124.85	2.67 -1.89	0.15 -0.15	0.66
VB3 - 4	772.50	0.00 0.05	358.75 1195.42	1195.42	-29.89 9.29	0.00	1.19 -0.36	-0.04 0.04	0.66
VB3 - 5	772.50	0.00 0.05	1195.87 -1573.10	1195.87	9.29 -15.42	9.29	-0.34 2.10	0.01 -0.01	0.66
VB3 - 6	772.50	0.00 0.13	-1533.42 716.58	716.58	60.33 -91.88	60.33	2.07 -0.89	0.10 -0.10	-10.81
VB3 - 7	772.50	0.00 0.13	715.52 -2.18	731.30	-91.88 -24.30	0.00	0.16 1.06	-0.04 0.04	-10.81
VB4 - 1	1053.75	0.00 0.17	-1173.66 -10437.16	4499.53	107.85 -151.81	107.85	3.46 5.61	0.03 -0.03	-0.05
VB4 - 2	1053.75	0.00 0.48	-10946.04 4972.50	6455.93	19.20 18.62	19.20	6.06 1.77	0.00 0.00	-10.18
VB4 - 3	1053.75	0.00 0.61	4981.84 3495.97	4981.84	71.10 -3.73	0.00	-0.08 1.77	0.05 -0.05	20.63
VB4 - 4	1053.75	0.00 0.61	3502.33 -2414.29	3502.33	-3.73 41.85	41.85	-3.05 4.67	-0.03 0.03	20.63
VB5 - 1	772.50	0.00 0.16	-564.39 1710.13	1710.13	-73.12 23.78	23.78	2.05 -0.84	-0.06 0.06	-7.78
VB5 - 2	772.50	0.00 0.16	1703.77 0.00	1703.77	23.78 0.00	23.78	-0.44 1.68	0.01 -0.01	-7.78
VB6 - 1	1053.75	0.00 0.03	-1010.82 -11342.49	4264.91	20.54 -21.75	20.54	3.33 5.74	0.00 0.00	0.86
VB6 - 2	1053.75	0.00 0.10	-11936.68 -2005.75	8140.55	-32.55 -11.96	0.00	6.51 4.62	0.00 0.00	1.12
VB7 - 1	1053.75	0.00 0.07	-1111.05 -11308.20	4214.74	26.43 -39.41	26.43	3.35 5.72	0.01 -0.01	-0.10
VB7 - 2	1053.75	0.00 0.19	-11970.65 -1903.36	8185.24	-29.39 8.93	8.93	6.52 4.61	0.00 0.00	-0.20
VB8 - 1	1053.75	0.00 0.76	-1953.03 -10392.83	4041.49	6.28 -38.61	6.28	3.55 5.52	0.01 -0.01	-3.10
VB8 - 2	1053.75	0.00 1.26	-11621.56 -3265.71	7546.96	-29.97 28.67	28.67	6.36 4.77	-0.01 0.01	2.60
VB9 - 1	810.00	0.00 0.36	-953.71 -2945.61	1538.26	-6.27 3.14	3.14	2.01 2.70	0.00 0.00	-0.21
VB9 - 2	810.00	0.00 0.35	-2806.94 -2534.01	1432.91	-27.26 27.00	27.00	2.62 2.54	-0.01 0.01	-0.05
VB10 - 1	810.00	0.00 0.22	-2123.77 -1669.01	866.83	20.81 -24.87	20.81	2.20 2.03	0.01 -0.01	-0.21
VB10 - 2	810.00	0.00 0.16	-1398.38 -478.91	710.48	-104.20 97.27	97.27	1.85 1.39	-0.05 0.05	1.94
VB11	735.00	0.00 0.00	-8.04 -902.28	30.25	-29.24 48.97	48.97	0.25 1.17	-0.04 0.04	2.41
VB12	1333.65	0.00 0.21	-1252.26 -1024.27	1669.67	-252.42 212.33	0.00	2.88 2.61	-0.11 0.11	-1.06
VB13	735.00	0.00 0.07	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.46
VB14	1348.71	-0.10 0.00	0.00 0.00	2810.87	-167.21 221.19	0.00	2.80 2.71	-0.09 0.09	0.45
VB15 - 1	225.00	-0.10 0.00	-65.37 -931.69	500.10	12.75 -10.94	12.75	0.50 0.80	0.00 0.00	-0.28
VB15 - 2	225.00	-0.09 0.00	-759.35 -743.36	387.51	-20.96 23.44	23.44	0.72 0.71	-0.01 0.01	0.01
VB15 - 3	225.00	-0.08 0.00	-556.40 -445.73	266.18	34.25 -50.49	34.25	0.61 0.57	0.02 -0.02	0.59
VB15 - 4	225.00	-0.09 0.00	-255.03 -72.89	0.00	-221.50 210.18	210.18	0.32 0.14	-0.21 0.21	1.47



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VB15 - 5	225.00	0.00 0.01	-50.95 99.74	143.61	-11.68 58.32	58.32	0.30 0.14	-0.04 0.04	0.20
VB16	735.00	-0.19 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	1.00
VB17	735.00	0.00 0.05	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.44
VB18	844.02	-0.09 0.00	0.00 0.00	1742.29	117.96 -124.51	0.00	1.65 1.66	0.06 -0.06	1.34
VB19	772.50	0.00 0.10	-110.58 282.90	472.03	-72.02 80.31	80.31	0.95 0.54	-0.08 0.08	-0.02
VB20	772.50	-0.14 0.00	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	1.06
VB21 - 1	772.50	0.00 0.30	-913.89 3677.50	3677.50	68.60 -90.46	68.60	2.67 -0.13	0.05 -0.05	6.19
VB21 - 2	772.50	0.00 0.35	3708.31 -1054.46	3708.31	-142.94 28.63	28.63	-1.56 3.13	-0.08 0.08	-3.15
VB22	772.50	0.00 0.04	-319.28 -666.89	795.41	280.20 -253.19	0.00	1.31 1.50	0.15 -0.15	0.81
VB23	772.50	0.00 0.08	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.36
VB24 - 1	810.00	0.00 0.35	-954.91 -2886.95	1561.83	18.19 -22.39	18.19	2.02 2.69	0.01 -0.01	0.91
VB24 - 2	810.00	0.00 0.31	-2648.50 -2996.86	1281.92	3.43 -7.83	3.43	2.52 2.63	0.00 0.00	-0.07
VB25 - 1	810.00	0.00 0.34	-2991.48 1850.87	1850.87	-71.62 109.09	109.09	3.31 -1.75	-0.09 0.09	-1.34
VB25 - 2	810.00	0.00 0.32	1858.65 -2329.90	1858.65	109.09 -108.48	109.09	0.07 2.61	0.07 -0.07	-1.34
VB25 - 3	810.00	0.00 0.13	-1750.13 -469.34	567.92	-81.35 40.07	40.07	1.94 1.30	-0.03 0.03	-5.68

CASO: G1+G2+1.2D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	0.00 0.27	-538.35 16.81	641.21	-103.98 126.88	0.00	1.34 0.97	-0.08 0.08	4.54
VB1 - 2	1349.50	0.00 0.30	17.29 -2336.29	17.29	99.71 69.14	0.00	-3.69 4.46	0.05 -0.05	4.53
VB1 - 3	1509.93	0.00 0.31	-2438.41 -281.55	1363.73	78.23 -54.95	0.00	3.47 2.17	0.04 -0.04	-0.29
VB1 - 4	1336.21	0.00 0.23	-280.13 -2432.98	0.00	92.80 51.81	0.00	-3.82 4.52	0.08 -0.08	2.79
VB1 - 5	1502.17	0.00 0.16	-2257.06 -290.63	816.59	63.12 -124.59	0.00	3.08 1.82	0.06 -0.06	-2.80
VB2 - 1	985.00	0.00 0.30	-810.72 -1296.81	2066.89	-45.36 224.10	224.10	2.38 2.57	-0.05 0.05	7.81
VB2 - 2	985.00	0.00 0.16	-1342.17 -38.37	114.84	110.77 -10.45	0.00	1.70 0.55	0.05 -0.05	-9.34
VB2 - 3	985.00	0.00 0.16	-38.84 -1230.11	0.00	-10.45 -4.97	0.00	-1.25 1.98	-0.01 0.01	-9.34
VB2 - 4	1587.61	0.00 0.14	-1230.59 -4121.90	0.00	-57.98 18.84	0.00	-4.78 5.65	-0.14 0.14	-9.34
VB2 - 5	1642.85	0.00 0.13	-4306.82 249.18	249.18	130.66 185.07	0.00	5.42 -3.77	-0.05 0.05	0.14
VB2 - 6	1877.23	0.00 0.13	250.21 2374.65	2374.65	185.07 11.87	0.00	3.07 -1.05	0.16 -0.16	0.14
VB2 - 7	1663.85	0.00 0.13	2374.24 580.14	2417.91	11.87 -139.66	0.00	0.35 2.44	0.09 -0.09	0.14
VB2 - 8	1480.39	0.00 0.20	578.73 -2105.50	578.73	8.32 -18.79	0.00	-4.09 4.97	0.05 -0.05	0.14
VB2 - 9	1775.32	0.00	-2028.00	998.33	75.28	0.00	3.39	0.05	5.37



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		0.07	998.33		-3.58		-0.70	-0.05	
VB2 - 10	1662.87	0.00 0.07	999.28 -1610.31	999.28	-3.58 -13.90	0.00	-0.04 2.93	0.01 -0.01	5.37
VB2 - 11	985.00	0.00 0.13	-1558.93 -190.11	302.92	165.76 -148.95	165.76	1.92 0.99	0.11 -0.11	-7.53
VB3 - 1	772.50	0.00 0.14	-210.23 547.40	737.39	41.21 3.89	41.21	1.21 0.55	0.02 -0.02	-0.05
VB3 - 2	772.50	0.00 0.14	547.87 -1713.29	547.87	3.89 -95.74	3.89	-1.25 2.25	0.08 -0.08	-0.05
VB3 - 3	772.50	0.00 0.13	-1938.30 358.84	358.84	134.93 -33.78	134.93	2.67 -1.90	0.17 -0.17	0.48
VB3 - 4	772.50	0.00 0.13	357.81 1197.14	1197.14	-33.78 17.13	0.00	1.20 -0.36	-0.05 0.05	0.48
VB3 - 5	772.50	0.00 0.13	1197.56 -1565.79	1197.56	17.13 -37.09	17.13	-0.34 2.09	0.02 -0.02	0.48
VB3 - 6	772.50	0.00 0.22	-1516.22 720.88	720.88	43.68 -4.29	43.68	2.06 -0.89	0.03 -0.03	-10.82
VB3 - 7	772.50	0.00 0.22	719.92 -11.21	733.79	-4.29 -126.89	0.00	0.15 1.07	0.08 -0.08	-10.82
VB4 - 1	1053.75	0.00 0.12	-1141.47 -10459.38	4511.48	-48.31 24.74	24.74	3.45 5.62	-0.01 0.01	-0.21
VB4 - 2	1053.75	0.00 0.39	-10940.41 4975.19	6459.26	137.01 -7.47	137.01	6.06 1.77	0.02 -0.02	-9.48
VB4 - 3	1053.75	0.00 0.58	4984.51 3474.73	4984.51	188.65 13.82	0.00	-0.10 1.79	0.11 -0.11	19.26
VB4 - 4	1053.75	0.00 0.58	3481.06 -2458.45	3481.06	13.82 -106.66	13.82	-3.06 4.68	0.08 -0.08	19.26
VB5 - 1	772.50	0.00 0.18	-545.36 1719.74	1719.74	-22.64 12.86	12.86	2.05 -0.83	-0.02 0.02	-7.49
VB5 - 2	772.50	0.00 0.18	1713.41 0.00	1713.41	12.86 0.00	12.86	-0.44 1.69	0.01 -0.01	-7.49
VB6 - 1	1053.75	0.00 0.02	-983.11 -11358.72	4276.27	-83.29 129.77	129.77	3.33 5.74	-0.02 0.02	0.63
VB6 - 2	1053.75	0.00 0.09	-11920.82 -2033.50	8131.24	103.20 -111.63	103.20	6.50 4.63	0.02 -0.02	1.23
VB7 - 1	1053.75	0.00 0.07	-1106.31 -11311.27	4216.57	-80.75 109.42	109.42	3.35 5.72	-0.02 0.02	-0.25
VB7 - 2	1053.75	0.00 0.19	-11966.63 -1910.56	8182.79	105.67 -81.99	105.67	6.52 4.61	0.02 -0.02	-0.14
VB8 - 1	1053.75	0.00 0.75	-1964.20 -10385.55	4037.61	-65.09 92.35	92.35	3.56 5.51	-0.02 0.02	-3.56
VB8 - 2	1053.75	0.00 1.25	-11620.14 -3269.80	7545.21	88.77 -30.17	88.77	6.36 4.77	0.01 -0.01	2.86
VB9 - 1	810.00	0.00 0.37	-1135.76 -2799.49	1499.66	44.36 -42.94	44.36	2.07 2.64	0.02 -0.02	-0.22
VB9 - 2	810.00	0.00 0.37	-2915.54 -2419.54	1439.44	7.79 -8.78	7.79	2.66 2.50	0.00 0.00	-0.06
VB10 - 1	810.00	0.00 0.24	-2253.78 -1556.18	867.58	65.87 -62.44	65.87	2.25 1.98	0.02 -0.02	-0.21
VB10 - 2	810.00	0.00 0.21	-1564.46 -263.85	765.06	-10.88 -37.46	0.00	1.94 1.29	0.01 -0.01	1.95
VB11	735.00	0.00 0.10	-236.67 -812.19	0.00	-41.84 68.73	68.73	0.41 1.01	-0.06 0.06	2.39
VB12	1333.65	0.00 0.31	-1449.15 -609.88	1788.56	174.94 -113.14	0.00	3.03 2.46	0.07 -0.07	-1.00
VB13	735.00	0.00 0.06	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.47
VB14	1348.71	-0.13 0.00	0.00 0.00	2810.87	53.01 -27.17	0.00	2.80 2.71	0.02 -0.02	0.48
VB15 - 1	225.00	-0.12 0.00	-387.07 -685.81	418.24	22.04 -20.27	22.04	0.60 0.71	0.01 -0.01	-0.29
VB15 - 2	225.00	-0.09 0.00	-932.13 -555.84	403.34	-16.52 19.70	19.70	0.78 0.66	-0.01 0.01	0.00

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VB15 - 3	225.00	-0.06 0.00	-775.68 -253.16	274.86	46.28 -62.79	46.28	0.69 0.49	0.02 -0.02	0.58
VB15 - 4	225.00	-0.04 0.00	-486.28 -54.67	0.00	-175.06 189.13	189.13	0.44 0.02	-0.18 0.18	1.46
VB15 - 5	225.00	0.00 0.03	-99.88 501.15	501.15	-45.07 95.31	95.31	0.53 -0.09	-0.07 0.07	0.24
VB16	735.00	-0.22 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	1.03
VB17	735.00	0.00 0.07	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.41
VB18	844.02	-0.04 0.00	0.00 0.00	1742.29	-147.98 147.75	0.00	1.65 1.66	-0.08 0.08	1.41
VB19	772.50	0.00 0.06	-302.71 478.28	553.84	-78.84 101.03	101.03	1.15 0.34	-0.09 0.09	-0.05
VB20	772.50	0.00 0.05	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	0.95
VB21 - 1	772.50	0.00 0.35	-1034.87 3693.42	3693.42	20.64 -34.09	20.64	2.71 -0.17	0.02 -0.02	6.20
VB21 - 2	772.50	0.00 0.44	3722.16 -926.57	3722.16	-230.21 120.07	120.07	-1.50 3.07	-0.17 0.17	-3.11
VB22	772.50	0.00 0.18	-570.26 -332.88	833.48	-177.27 122.56	0.00	1.47 1.34	-0.08 0.08	0.88
VB23	772.50	0.00 0.03	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.33
VB24 - 1	810.00	0.00 0.38	-1185.99 -2701.51	1515.87	-24.24 15.04	15.04	2.09 2.61	-0.01 0.01	0.91
VB24 - 2	810.00	0.00 0.37	-2785.97 -2852.56	1280.79	-27.83 21.81	21.81	2.57 2.59	-0.01 0.01	-0.08
VB25 - 1	810.00	0.00 0.43	-3159.99 1803.10	1803.10	-125.65 116.07	116.07	3.37 -1.82	-0.13 0.13	-1.33
VB25 - 2	810.00	0.00 0.42	1810.59 -2189.07	1820.45	116.07 -72.20	116.07	0.13 2.55	0.06 -0.06	-1.33
VB25 - 3	810.00	0.00 0.20	-1962.22 -193.87	659.50	-166.71 152.79	152.79	2.06 1.18	-0.08 0.08	-5.64

CASO: G1+G2+1.4Q									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	0.00 0.12	-987.56 59.53	494.26	313.53 -227.50	0.00	1.51 0.81	0.18 -0.18	26.64
VB1 - 2	5534.80	-0.04 0.00	59.32 -9832.27	59.32	181.06 -117.91	0.00	-15.66 18.76	0.51 -0.51	26.69
VB1 - 3	7936.70	0.00 0.33	-11086.67 -3154.88	7279.43	-73.46 -169.58	0.00	17.83 11.73	0.03 -0.03	-3.05
VB1 - 4	6718.48	0.00 0.42	-3147.74 -12345.16	0.00	-314.28 -436.21	0.00	-15.93 19.54	0.24 -0.24	31.90
VB1 - 5	8468.97	0.00 0.19	-11744.46 -1549.30	4905.83	-396.96 444.01	0.00	17.19 10.45	-0.26 0.26	-12.73
VB2 - 1	985.00	0.00 0.36	-1057.34 -311.35	2441.50	-11.18 188.56	188.56	2.63 2.33	-0.04 0.04	35.56
VB2 - 2	985.00	0.00 0.42	-625.74 -1187.49	0.00	489.94 -252.37	0.00	0.88 1.37	0.33 -0.33	-44.62
VB2 - 3	985.00	0.00 0.42	-1187.91 -2981.63	0.00	-252.37 -429.06	0.00	-2.07 2.80	0.24 -0.24	-44.62
VB2 - 4	5930.89	0.00 0.60	-2981.44 -14103.88	0.00	-97.86 -49.45	0.00	-18.61 21.79	-0.09 0.09	-44.62
VB2 - 5	7119.79	0.00 0.80	-14939.82 2074.87	2074.87	87.76 138.81	0.00	21.06 -13.90	-0.05 0.05	0.68
VB2 - 6	10237.81	0.00 0.80	2072.26 9454.66	9454.66	138.81 -93.29	0.00	13.20 -2.18	0.22 -0.22	0.68
VB2 - 7	7378.16	0.00	9452.88	9705.91	-93.29	0.00	1.48	0.15	0.68




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		0.80	833.98		-341.31		10.80	-0.15	
VB2 - 8	6210.32	0.00 0.73	827.00 -9229.88	827.00	-481.08 -438.60	0.00	-14.86 18.64	-0.07 0.07	0.68
VB2 - 9	9321.20	0.00 0.54	-9066.26 4274.57	4274.57	-337.48 84.08	0.00	16.44 -2.27	-0.28 0.28	-4.43
VB2 - 10	8135.13	0.00 0.54	4277.05 -5609.97	4586.99	84.08 190.97	0.00	1.53 12.62	-0.06 0.06	-4.43
VB2 - 11	985.00	0.00 0.08	-5064.64 -209.50	0.00	-324.45 33.06	33.06	3.10 -0.20	-0.12 0.12	-1.56
VB3 - 1	772.50	0.00 0.15	-176.70 592.25	779.15	46.92 7.37	46.92	1.22 0.54	0.02 -0.02	3.12
VB3 - 2	772.50	0.00 0.15	592.67 -1662.04	592.67	7.37 -125.85	7.37	-1.24 2.24	0.10 -0.10	3.12
VB3 - 3	772.50	0.00 0.05	-1882.43 392.75	392.75	174.24 -41.67	174.24	2.65 -1.87	0.21 -0.21	2.32
VB3 - 4	772.50	0.00 0.05	395.37 1211.21	1211.21	-41.67 14.04	0.00	1.17 -0.34	-0.05 0.05	2.32
VB3 - 5	772.50	0.00 0.05	1212.99 -1600.02	1212.99	14.04 -24.39	14.04	-0.36 2.12	0.02 -0.02	2.32
VB3 - 6	772.50	0.00 0.16	-1524.56 715.02	715.02	89.89 -134.08	89.89	2.06 -0.89	0.15 -0.15	-14.18
VB3 - 7	772.50	0.00 0.16	712.54 -16.01	726.77	-134.08 -25.70	0.00	0.15 1.07	-0.07 0.07	-14.18
VB4 - 1	1053.75	0.00 0.13	-1154.91 -10456.51	4504.10	15.37 -52.37	15.37	3.45 5.62	0.01 -0.01	-0.45
VB4 - 2	1053.75	0.00 0.48	-10951.16 4976.17	6457.70	146.57 -63.72	146.57	6.06 1.77	0.03 -0.03	-9.48
VB4 - 3	1053.75	0.00 0.63	4985.45 3490.41	4985.45	58.65 -2.68	0.00	-0.09 1.78	0.04 -0.04	20.15
VB4 - 4	1053.75	0.00 0.63	3496.77 -2428.63	3496.77	-2.68 19.88	19.88	-3.06 4.67	-0.01 0.01	20.15
VB5 - 1	772.50	0.00 0.17	-557.77 1713.48	1713.48	-50.05 16.81	16.81	2.05 -0.84	-0.04 0.04	-7.69
VB5 - 2	772.50	0.00 0.17	1707.12 0.00	1707.12	16.81 0.00	16.81	-0.44 1.68	0.01 -0.01	-7.69
VB6 - 1	1053.75	0.00 0.02	-997.52 -11350.09	4270.44	-34.51 63.29	63.29	3.33 5.74	-0.01 0.01	0.81
VB6 - 2	1053.75	0.00 0.10	-11928.44 -2019.86	8135.89	49.40 -71.81	49.40	6.50 4.63	0.01 -0.01	1.24
VB7 - 1	1053.75	0.00 0.07	-1108.89 -11309.60	4215.57	-31.98 45.03	45.03	3.35 5.72	-0.01 0.01	-0.18
VB7 - 2	1053.75	0.00 0.19	-11968.76 -1907.04	8183.92	52.97 -48.17	52.97	6.52 4.61	0.01 -0.01	-0.07
VB8 - 1	1053.75	0.00 0.75	-1957.72 -10389.97	4039.79	-32.52 36.18	36.18	3.56 5.51	-0.01 0.01	-3.32
VB8 - 2	1053.75	0.00 1.26	-11619.75 -3268.63	7546.05	42.10 -8.50	42.10	6.36 4.77	0.00 0.00	2.92
VB9 - 1	810.00	0.00 0.37	-1059.84 -2860.39	1514.25	21.16 -21.79	21.16	2.04 2.66	0.01 -0.01	-0.22
VB9 - 2	810.00	0.00 0.37	-2869.95 -2467.94	1436.52	-8.29 7.46	7.46	2.64 2.52	0.00 0.00	-0.06
VB10 - 1	810.00	0.00 0.25	-2200.62 -1599.83	868.61	43.58 -41.95	43.58	2.23 2.00	0.02 -0.02	-0.20
VB10 - 2	810.00	0.00 0.21	-1490.21 -363.90	738.40	-40.88 -3.59	0.00	1.90 1.34	-0.01 0.01	1.34
VB11	735.00	0.00 0.06	-43.25 -5013.29	0.00	-40.60 72.00	72.00	-1.86 3.28	-0.06 0.06	2.84
VB12	6691.44	0.00 0.88	-6563.30 -3427.33	8966.62	-234.89 258.81	0.00	15.38 12.19	-0.12 0.12	-0.54
VB13	735.00	0.00 0.09	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.43
VB14	7496.66	-0.33 0.00	0.00 0.00	16881.33	-331.20 408.57	0.00	15.81 14.85	-0.18 0.18	-0.19


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VB15 - 1	225.00	-0.11 0.00	-239.40 -796.77	451.13	14.99 -13.22	14.99	0.56 0.75	0.00 0.00	-0.28
VB15 - 2	225.00	-0.08 0.00	-847.79 -655.83	389.89	-21.16 24.01	24.01	0.75 0.69	-0.01 0.01	0.01
VB15 - 3	225.00	-0.05 0.00	-693.08 -264.89	303.04	37.90 -55.00	37.90	0.67 0.51	0.02 -0.02	0.58
VB15 - 4	225.00	-0.03 0.00	-268.80 -1161.81	0.00	-253.95 269.93	269.93	-0.20 0.67	-0.25 0.25	1.35
VB15 - 5	225.00	0.00 0.08	-1182.80 1341.20	1341.20	-26.78 92.14	92.14	1.52 -1.08	-0.06 0.06	-2.85
VB16	735.00	-0.27 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-2.61
VB17	735.00	0.00 0.07	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-1.78
VB18	2110.81	-0.22 0.00	0.00 0.00	6465.17	139.77 -144.70	0.00	4.06 4.20	0.07 -0.07	6.99
VB19	772.50	0.00 0.22	-393.53 1741.56	1741.56	-106.01 119.28	119.28	1.85 -0.36	-0.12 0.12	1.89
VB20	772.50	-0.22 0.00	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	2.48
VB21 - 1	772.50	0.00 0.31	-943.05 3677.23	3677.23	46.53 -61.61	46.53	2.68 -0.13	0.03 -0.03	6.19
VB21 - 2	772.50	0.00 0.32	3706.85 -1024.06	3706.85	-183.99 35.76	35.76	-1.54 3.11	-0.11 0.11	-3.09
VB22	772.50	-0.08 0.00	-687.93 -1005.05	440.30	502.98 -449.22	0.00	1.32 1.50	0.26 -0.26	5.49
VB23	772.50	0.00 0.05	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.36
VB24 - 1	810.00	0.00 0.34	-1009.63 -2842.30	1550.06	-9.57 2.29	2.29	2.04 2.67	0.00 0.00	0.91
VB24 - 2	810.00	0.00 0.27	-2680.63 -2965.03	1280.74	-17.63 12.68	12.68	2.53 2.62	0.00 0.00	-0.07
VB25 - 1	810.00	0.00 0.28	-3035.06 1842.37	1842.37	-102.42 110.79	110.79	3.32 -1.77	-0.11 0.11	-1.33
VB25 - 2	810.00	0.00 0.27	1850.06 -2284.76	1851.47	110.79 -92.08	110.79	0.09 2.59	0.06 -0.06	-1.33
VB25 - 3	810.00	0.00 0.06	-1775.49 -443.30	572.31	-80.63 20.96	20.96	1.95 1.29	-0.03 0.03	-5.66

CASO: G1+G2+1.4Q+0.84V1+0.84D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	0.00 0.13	-580.30 -134.30	535.38	335.00 -250.31	0.00	1.31 1.01	0.20 -0.20	26.73
VB1 - 2	5534.80	-0.07 0.00	-134.41 -10142.60	0.00	206.78 -103.82	0.00	-15.86 18.96	0.53 -0.53	26.63
VB1 - 3	7936.70	0.00 0.32	-10888.50 -3302.21	7285.65	-59.57 -188.20	0.00	17.74 11.82	0.03 -0.03	-3.25
VB1 - 4	6718.48	0.00 0.40	-3295.17 -12539.99	0.00	-312.07 -438.13	0.00	-16.03 19.63	0.25 -0.25	33.36
VB1 - 5	8468.97	0.00 0.19	-11425.89 -1967.11	4810.19	-399.40 435.07	0.00	16.96 10.67	-0.26 0.26	-12.71
VB2 - 1	985.00	0.00 0.25	-258.06 -541.20	2716.96	-76.23 228.31	228.31	2.42 2.53	-0.06 0.06	35.59
VB2 - 2	985.00	0.00 0.49	-593.31 -1499.47	0.00	472.16 -210.97	0.00	0.73 1.52	0.30 -0.30	-44.70
VB2 - 3	985.00	0.00 0.49	-1500.01 -3404.95	0.00	-210.97 -395.82	0.00	-2.22 2.95	0.25 -0.25	-44.70
VB2 - 4	5930.89	0.00 0.70	-3404.86 -14611.45	0.00	10.65 55.10	0.00	-18.76 21.94	-0.08 0.08	-44.70
VB2 - 5	7119.79	0.00	-14464.10	2405.59	55.21	0.00	20.91	0.04	0.75


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		0.87	2405.59		16.98		-13.75	-0.04	
VB2 - 6	10237.81	0.00 0.87	2403.01 9630.28	9630.28	16.98 -104.46	0.00	13.05 -2.04	0.11 -0.11	0.75
VB2 - 7	7378.16	0.00 0.87	9628.38 766.29	9851.01	-104.46 -304.38	0.00	1.34 10.94	0.12 -0.12	0.75
VB2 - 8	6210.32	0.00 0.80	759.41 -9382.32	759.41	-431.49 -372.90	0.00	-15.00 18.79	-0.10 0.10	0.75
VB2 - 9	9321.20	0.00 0.85	-8967.28 4198.62	4198.62	-384.34 88.17	0.00	16.32 -2.15	-0.31 0.31	-4.27
VB2 - 10	8135.13	0.00 0.85	4201.04 -5886.23	4485.94	88.17 197.31	0.00	1.42 12.74	-0.06 0.06	-4.27
VB2 - 11	985.00	0.00 0.27	-4574.96 -1143.09	0.00	-307.99 86.79	86.79	2.62 0.29	-0.13 0.13	-1.62
VB3 - 1	772.50	0.00 0.13	81.26 476.21	795.31	-4.60 9.50	0.00	1.05 0.71	-0.01 0.01	3.09
VB3 - 2	772.50	0.00 0.13	476.75 -1990.76	476.75	9.50 -45.27	9.50	-1.41 2.41	0.04 -0.04	3.09
VB3 - 3	772.50	-0.04 0.00	-1637.89 548.03	548.03	57.64 -11.69	57.64	2.56 -1.79	0.07 -0.07	2.32
VB3 - 4	772.50	-0.04 0.00	550.61 1270.93	1270.93	-11.69 -5.32	0.00	1.09 -0.25	-0.01 0.01	2.32
VB3 - 5	772.50	-0.04 0.00	1272.83 -1742.19	1272.83	-5.32 21.00	21.00	-0.45 2.20	-0.01 0.01	2.32
VB3 - 6	772.50	0.00 0.00	-1381.24 667.01	667.01	42.15 -143.57	42.15	1.93 -0.76	0.12 -0.12	-13.85
VB3 - 7	772.50	0.00 0.00	664.60 -263.08	664.60	-143.57 55.58	55.58	0.02 1.20	-0.13 0.13	-13.85
VB4 - 1	1053.75	0.00 0.25	-637.53 -10770.62	4712.09	-135.46 76.03	76.03	3.36 5.71	-0.02 0.02	-0.42
VB4 - 2	1053.75	0.00 0.64	-10679.85 4768.25	6360.47	29.90 57.15	57.15	5.99 1.83	0.00 0.00	-9.12
VB4 - 3	1053.75	0.00 0.76	4778.84 2920.59	4778.84	-33.15 -41.09	0.00	-0.32 2.00	0.00 0.00	19.22
VB4 - 4	1053.75	0.00 0.76	2926.78 -3346.39	2926.78	-41.09 152.40	152.40	-3.28 4.90	-0.13 0.13	19.22
VB5 - 1	772.50	0.00 0.14	-221.20 1883.65	1883.65	-138.05 34.40	34.40	1.95 -0.73	-0.11 0.11	-7.42
VB5 - 2	772.50	0.00 0.14	1877.46 0.00	1877.46	34.40 0.00	34.40	-0.55 1.79	0.02 -0.02	-7.42
VB6 - 1	1053.75	0.00 0.04	-126.47 -11853.75	4649.35	-127.43 125.18	125.18	3.17 5.90	-0.03 0.03	0.81
VB6 - 2	1053.75	0.00 0.11	-11430.57 -2904.31	7836.27	-9.65 40.81	40.81	6.37 4.76	0.00 0.00	1.42
VB7 - 1	1053.75	0.00 0.07	-240.43 -11817.21	4587.89	100.09 -41.90	100.09	3.19 5.88	0.02 -0.02	-0.18
VB7 - 2	1053.75	0.00 0.17	-11489.35 -2743.87	7903.96	148.10 -184.39	148.10	6.39 4.74	0.03 -0.03	-0.05
VB8 - 1	1053.75	0.00 0.76	-1418.86 -10765.75	4223.30	109.77 -44.49	109.77	3.45 5.62	0.02 -0.02	-3.34
VB8 - 2	1053.75	0.00 1.23	-11280.87 -3769.99	7407.90	129.65 -148.16	129.65	6.28 4.85	0.03 -0.03	3.01
VB9 - 1	810.00	0.00 0.39	-1057.59 -2862.20	1514.67	-121.66 123.30	123.30	2.04 2.66	-0.04 0.04	-0.39
VB9 - 2	810.00	0.00 0.42	-2872.21 -2465.00	1436.95	7.68 14.78	14.78	2.64 2.51	0.00 0.00	-0.06
VB10 - 1	810.00	0.00 0.29	-2211.59 -1587.30	870.29	143.62 -137.33	143.62	2.23 2.00	0.05 -0.05	-0.02
VB10 - 2	810.00	0.00 0.22	-1495.53 -357.82	739.68	8.93 -63.59	8.93	1.90 1.33	0.02 -0.02	1.29
VB11	735.00	0.00 0.04	-50.38 -4996.46	0.00	16.88 -16.81	16.88	-1.85 3.27	0.02 -0.02	3.23
VB12	6691.44	0.00 0.86	-6557.60 -3424.49	8970.90	-257.04 281.82	0.00	15.38 12.19	-0.13 0.13	-1.04

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VB13	735.00	0.00 0.05	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.54
VB14	7496.66	-0.33 0.00	0.00 0.00	16881.33	-406.47 457.09	0.00	15.81 14.85	-0.21 0.21	-0.09
VB15 - 1	225.00	-0.11 0.00	-246.79 -791.07	449.16	-171.16 170.98	170.98	0.56 0.75	-0.06 0.06	-0.26
VB15 - 2	225.00	-0.09 0.00	-852.28 -650.54	390.46	-19.02 27.35	27.35	0.75 0.68	-0.01 0.01	0.01
VB15 - 3	225.00	-0.05 0.00	-697.12 -264.65	301.46	162.17 -172.17	162.17	0.67 0.50	0.06 -0.06	0.59
VB15 - 4	225.00	-0.03 0.00	-280.23 -1148.99	0.00	-126.04 159.91	159.91	-0.19 0.65	-0.14 0.14	0.57
VB15 - 5	225.00	-0.01 0.00	-1172.05 1351.52	1351.52	66.98 -45.12	66.98	1.52 -1.08	0.06 -0.06	-2.32
VB16	735.00	-0.07 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-2.58
VB17	735.00	-0.01 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-1.90
VB18	2110.81	-0.22 0.00	0.00 0.00	6465.17	127.11 -123.87	0.00	4.06 4.20	0.06 -0.06	6.88
VB19	772.50	0.00 0.22	-396.13 1745.99	1745.99	-9.71 -4.92	0.00	1.86 -0.36	0.00 0.00	2.03
VB20	772.50	-0.25 0.00	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	2.41
VB21 - 1	772.50	0.00 0.23	-910.87 3518.15	3518.15	143.69 -178.72	143.69	2.62 -0.08	0.10 -0.10	6.93
VB21 - 2	772.50	0.00 0.24	3546.49 -973.04	3546.49	-88.43 -41.93	0.00	-1.44 3.01	-0.02 0.02	-3.66
VB22	772.50	-0.09 0.00	-680.51 -1013.90	440.49	486.76 -440.11	0.00	1.32 1.50	0.25 -0.25	5.07
VB23	772.50	0.00 0.13	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.19
VB24 - 1	810.00	0.00 0.31	-986.18 -2856.68	1556.55	-149.83 144.06	144.06	2.03 2.67	-0.05 0.05	0.70
VB24 - 2	810.00	0.00 0.21	-2653.29 -3013.27	1271.51	-7.24 34.91	34.91	2.52 2.63	-0.01 0.01	-0.10
VB25 - 1	810.00	0.00 0.22	-3060.99 1928.51	1928.51	8.54 113.02	113.02	3.38 -1.83	-0.05 0.05	-1.20
VB25 - 2	810.00	0.00 0.20	1935.92 -2355.51	1935.92	113.02 -179.85	113.02	0.04 2.64	0.09 -0.09	-1.20
VB25 - 3	810.00	0.00 0.06	-1770.75 -467.30	560.41	-18.30 -35.47	0.00	1.94 1.29	0.00 0.00	-5.38

CASO: G1+G2+1.4Q+0.84V2+0.84D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	0.00 0.12	-1394.82 253.36	503.56	292.06 -204.70	0.00	1.71 0.61	0.17 -0.17	26.56
VB1 - 2	5534.80	-0.02 0.00	253.06 -9521.95	253.06	155.35 -132.00	0.00	-15.46 18.56	0.49 -0.49	26.76
VB1 - 3	7936.70	0.00 0.34	-11284.84 -3007.55	7278.45	-87.34 -150.97	0.00	17.92 11.64	0.02 -0.02	-2.84
VB1 - 4	6718.48	0.00 0.43	-3000.30 -12150.32	0.00	-316.50 -434.29	0.00	-15.84 19.44	0.23 -0.23	30.45
VB1 - 5	8468.97	0.00 0.19	-12063.04 -1131.48	5024.34	-394.52 452.96	0.00	17.41 10.22	-0.26 0.26	-12.75
VB2 - 1	985.00	0.00 0.47	-1856.62 -81.51	2208.49	53.86 148.81	148.81	2.83 2.12	-0.02 0.02	35.54
VB2 - 2	985.00	0.00 0.34	-658.18 -875.50	0.00	507.72 -293.78	0.00	1.03 1.22	0.35 -0.35	-44.55
VB2 - 3	985.00	0.00	-875.82	0.00	-293.78	0.00	-1.92	0.23	-44.55

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		0.34	-2558.31		-462.30		2.65	-0.23	
VB2 - 4	5930.89	0.00 0.49	-2558.02 -13596.31	0.00	-206.37 -154.01	0.00	-18.46 21.64	-0.09 0.09	-44.55
VB2 - 5	7119.79	0.00 0.74	-15415.53 1744.15	1744.15	120.31 260.63	0.00	21.20 -14.04	-0.14 0.14	0.61
VB2 - 6	10237.81	0.00 0.74	1741.50 9279.04	9279.04	260.63 -82.12	0.00	13.34 -2.33	0.32 -0.32	0.61
VB2 - 7	7378.16	0.00 0.74	9277.37 901.68	9560.81	-82.12 -378.25	0.00	1.63 10.65	0.18 -0.18	0.61
VB2 - 8	6210.32	0.00 0.66	894.58 -9077.44	894.58	-530.68 -504.31	0.00	-14.71 18.50	-0.04 0.04	0.61
VB2 - 9	9321.20	0.00 0.24	-9165.24 4350.52	4350.52	-290.62 79.99	0.00	16.55 -2.38	-0.24 0.24	-4.60
VB2 - 10	8135.13	0.00 0.24	4353.07 -5333.70	4688.04	79.99 184.63	0.00	1.65 12.51	-0.06 0.06	-4.60
VB2 - 11	985.00	-0.10 0.00	-5554.32 724.08	724.08	-340.91 -20.67	0.00	3.58 -0.68	-0.11 0.11	-1.50
VB3 - 1	772.50	0.00 0.17	-434.67 708.28	797.93	98.45 5.24	98.45	1.38 0.38	0.04 -0.04	3.15
VB3 - 2	772.50	0.00 0.17	708.59 -1333.32	708.59	5.24 -206.43	5.24	-1.08 2.08	0.16 -0.16	3.15
VB3 - 3	772.50	0.00 0.15	-2126.98 237.48	237.48	290.84 -71.65	290.84	2.74 -1.96	0.36 -0.36	2.31
VB3 - 4	772.50	0.00 0.15	240.13 1151.49	1151.49	-71.65 33.40	0.00	1.26 -0.43	-0.10 0.10	2.31
VB3 - 5	772.50	0.00 0.15	1153.16 -1457.85	1153.16	33.40 -69.79	33.40	-0.27 2.03	0.05 -0.05	2.31
VB3 - 6	772.50	0.00 0.31	-1667.88 763.03	763.03	137.63 -124.60	137.63	2.19 -1.01	0.17 -0.17	-14.51
VB3 - 7	772.50	0.00 0.31	760.49 231.07	806.40	-124.60 -106.98	0.00	0.28 0.95	-0.01 0.01	-14.51
VB4 - 1	1053.75	0.00 0.01	-1672.29 -10142.41	4310.25	166.20 -180.77	166.20	3.55 5.52	0.04 -0.04	-0.48
VB4 - 2	1053.75	0.00 0.33	-11222.46 5184.09	6562.00	263.24 -184.59	263.24	6.12 1.70	0.06 -0.06	-9.83
VB4 - 3	1053.75	0.00 0.49	5192.07 4060.24	5198.45	150.46 35.74	0.00	0.14 1.55	0.07 -0.07	21.07
VB4 - 4	1053.75	0.00 0.49	4066.76 -1510.88	4066.76	35.74 -112.63	35.74	-2.83 4.44	0.10 -0.10	21.07
VB5 - 1	772.50	0.00 0.20	-894.34 1543.31	1543.31	37.95 -0.77	37.95	2.16 -0.94	0.02 -0.02	-7.97
VB5 - 2	772.50	0.00 0.20	1536.78 0.00	1536.78	-0.77 0.00	0.00	-0.33 1.58	0.00 0.00	-7.97
VB6 - 1	1053.75	0.00 0.01	-1868.57 -10846.42	3913.24	58.41 1.40	58.41	3.49 5.58	0.01 -0.01	0.82
VB6 - 2	1053.75	0.00 0.08	-12426.31 -1135.42	8456.98	108.45 -184.43	108.45	6.63 4.50	0.03 -0.03	1.06
VB7 - 1	1053.75	0.00 0.07	-1977.34 -10801.99	3865.03	-164.05 131.96	131.96	3.51 5.56	-0.03 0.03	-0.17
VB7 - 2	1053.75	0.00 0.21	-12448.17 -1070.22	8487.03	-42.16 88.06	88.06	6.64 4.49	-0.01 0.01	-0.10
VB8 - 1	1053.75	0.00 0.74	-2496.58 -10014.18	3862.53	-174.80 116.84	116.84	3.66 5.41	-0.03 0.03	-3.30
VB8 - 2	1053.75	0.00 1.29	-11958.63 -2767.26	7691.92	-45.45 131.16	131.16	6.44 4.69	-0.02 0.02	2.82
VB9 - 1	810.00	0.00 0.35	-1062.08 -2858.58	1513.82	163.98 -166.88	163.98	2.04 2.66	0.06 -0.06	-0.05
VB9 - 2	810.00	0.00 0.33	-2867.70 -2470.88	1436.09	-24.25 0.15	0.15	2.64 2.52	0.00 0.00	-0.05
VB10 - 1	810.00	0.00 0.22	-2189.65 -1612.35	866.93	-56.47 53.44	53.44	2.23 2.00	-0.02 0.02	-0.38
VB10 - 2	810.00	0.00 0.19	-1484.89 -369.98	737.11	-90.68 56.40	56.40	1.90 1.34	-0.04 0.04	1.39




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VB11	735.00	0.00 0.07	-36.11 -5030.12	0.00	-98.09 160.81	160.81	-1.88 3.30	-0.13 0.13	2.45
VB12	6691.44	0.00 0.90	-6569.01 -3430.18	8962.34	-212.73 235.81	0.00	15.39 12.19	-0.11 0.11	-0.03
VB13	735.00	0.00 0.12	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.31
VB14	7496.66	-0.32 0.00	0.00 0.00	16881.33	-255.93 360.05	0.00	15.81 14.85	-0.15 0.15	-0.28
VB15 - 1	225.00	-0.10 0.00	-232.00 -802.47	453.11	201.13 -197.42	201.13	0.56 0.75	0.07 -0.07	-0.31
VB15 - 2	225.00	-0.07 0.00	-843.30 -661.13	389.33	-23.30 20.67	20.67	0.74 0.69	-0.01 0.01	0.00
VB15 - 3	225.00	-0.05 0.00	-689.04 -265.12	304.61	-86.38 62.16	62.16	0.67 0.51	-0.03 0.03	0.58
VB15 - 4	225.00	-0.03 0.00	-257.37 -1174.62	0.00	-381.85 379.95	379.95	-0.21 0.68	-0.37 0.37	2.12
VB15 - 5	225.00	0.00 0.16	-1193.55 1330.88	1330.88	-120.55 229.40	229.40	1.52 -1.08	-0.18 0.18	-3.38
VB16	735.00	-0.46 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-2.65
VB17	735.00	0.00 0.14	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-1.67
VB18	2110.81	-0.22 0.00	0.00 0.00	6465.17	152.43 -165.54	0.00	4.06 4.20	0.08 -0.08	7.10
VB19	772.50	0.00 0.21	-390.93 1737.14	1737.14	-202.31 243.48	243.48	1.85 -0.36	-0.23 0.23	1.75
VB20	772.50	-0.18 0.00	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	2.55
VB21 - 1	772.50	0.00 0.39	-975.22 3836.30	3836.30	-50.64 55.49	55.49	2.73 -0.19	-0.03 0.03	5.46
VB21 - 2	772.50	0.00 0.40	3867.21 -1075.08	3867.21	-279.55 113.45	113.45	-1.65 3.22	-0.19 0.19	-2.52
VB22	772.50	-0.08 0.00	-695.35 -996.21	440.11	519.21 -458.33	0.00	1.33 1.49	0.27 -0.27	5.91
VB23	772.50	-0.03 0.00	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.52
VB24 - 1	810.00	0.00 0.37	-1033.08 -2827.91	1543.57	130.69 -139.48	130.69	2.04 2.66	0.05 -0.05	1.11
VB24 - 2	810.00	0.00 0.34	-2707.98 -2916.79	1289.97	-28.02 -9.56	0.00	2.55 2.61	0.00 0.00	-0.04
VB25 - 1	810.00	0.00 0.34	-3009.12 1756.23	1756.23	-213.38 108.56	108.56	3.26 -1.71	-0.17 0.17	-1.47
VB25 - 2	810.00	0.00 0.34	1764.20 -2214.00	1775.40	108.56 -4.31	108.56	0.14 2.54	0.03 -0.03	-1.47
VB25 - 3	810.00	0.00 0.05	-1780.23 -419.30	584.21	-142.95 77.40	77.40	1.96 1.28	-0.06 0.06	-5.93

CASO: G1+G2+1.4Q+0.84V3+0.84D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	-0.11 0.00	-936.12 36.95	496.36	678.98 -575.12	0.00	1.48 0.83	0.42 -0.42	27.62
VB1 - 2	5534.80	-0.39 0.00	36.68 -9869.27	36.68	88.03 -308.44	0.00	-15.68 18.78	0.68 -0.68	27.65
VB1 - 3	7936.70	-0.05 0.00	-11070.38 -3162.98	7282.18	-265.73 -154.76	0.00	17.82 11.74	-0.03 0.03	-2.72
VB1 - 4	6718.48	0.00 0.20	-3155.93 -12356.69	0.00	-624.66 -729.00	0.00	-15.94 19.54	0.20 -0.20	32.33
VB1 - 5	8468.97	-0.06 0.00	-11697.60 -1618.78	4887.25	-694.86 879.56	0.00	17.15 10.48	-0.48 0.48	-14.71
VB2 - 1	985.00	0.00	-1079.81	2435.89	229.05	229.05	2.63	0.10	34.51



		0.29	-301.40		-274.58		2.32	-0.10	
VB2 - 2	985.00	0.00 0.58	-616.12 -1202.57	0.00	519.88 -426.42	0.00	0.87 1.38	0.41 -0.41	-42.91
VB2 - 3	985.00	0.00 0.58	-1202.98 -3004.68	0.00	-426.42 -665.23	0.00	-2.08 2.81	0.32 -0.32	-42.91
VB2 - 4	5930.89	0.00 0.88	-3004.43 -14132.90	0.00	-110.56 -150.91	0.00	-18.62 21.80	0.07 -0.07	-42.91
VB2 - 5	7119.79	0.00 1.13	-14977.14 2065.88	2065.88	-85.62 1.71	0.00	21.08 -13.93	-0.09 0.09	0.17
VB2 - 6	10237.81	0.00 1.13	2063.21 9475.92	9475.92	1.71 -149.84	0.00	13.22 -2.21	0.14 -0.14	0.17
VB2 - 7	7378.16	0.00 1.13	9474.09 902.71	9733.06	-149.84 -313.99	0.00	1.51 10.77	0.10 -0.10	0.17
VB2 - 8	6210.32	0.00 0.89	895.82 -9144.47	895.82	-761.31 -674.75	0.00	-14.83 18.62	-0.15 0.15	0.17
VB2 - 9	9321.20	0.00 0.73	-8971.87 4272.59	4272.59	-605.22 110.11	0.00	16.37 -2.21	-0.47 0.47	-4.28
VB2 - 10	8135.13	0.00 0.73	4275.24 -5722.10	4571.39	110.11 324.65	0.00	1.47 12.69	-0.12 0.12	-4.28
VB2 - 11	985.00	0.00 0.00	-5168.95 -209.15	0.00	-758.01 244.70	244.70	3.13 -0.23	-0.34 0.34	-0.93
VB3 - 1	772.50	0.00 0.14	-182.62 602.86	785.25	29.63 11.39	29.63	1.22 0.53	0.01 -0.01	2.39
VB3 - 2	772.50	0.00 0.14	603.27 -1642.05	603.27	11.39 -116.30	11.39	-1.23 2.23	0.10 -0.10	2.39
VB3 - 3	772.50	-0.03 0.00	-1879.24 392.81	392.81	154.87 -35.17	154.87	2.65 -1.87	0.19 -0.19	2.60
VB3 - 4	772.50	-0.03 0.00	395.48 1207.97	1207.97	-35.17 6.48	0.00	1.17 -0.34	-0.04 0.04	2.60
VB3 - 5	772.50	-0.03 0.00	1209.80 -1610.31	1209.80	6.48 -4.48	6.48	-0.36 2.12	0.00 0.00	2.60
VB3 - 6	772.50	0.00 0.05	-1552.01 708.75	708.75	93.17 -189.95	93.17	2.07 -0.90	0.19 -0.19	-14.11
VB3 - 7	772.50	0.00 0.05	706.10 -0.40	723.48	-189.95 64.71	64.71	0.16 1.06	-0.16 0.16	-14.11
VB4 - 1	1053.75	0.00 0.20	-1191.17 -10428.49	4491.76	220.27 -265.77	220.27	3.46 5.61	0.06 -0.06	-0.33
VB4 - 2	1053.75	0.00 0.58	-10953.21 4965.03	6448.53	18.46 -93.91	18.46	6.06 1.77	0.02 -0.02	-10.58
VB4 - 3	1053.75	0.00 0.67	4974.36 3512.61	4974.36	-176.15 -45.74	0.00	-0.07 1.76	-0.08 0.08	22.69
VB4 - 4	1053.75	0.00 0.67	3519.02 -2374.51	3519.02	-45.74 264.36	264.36	-3.03 4.65	-0.20 0.20	22.69
VB5 - 1	772.50	0.00 0.14	-587.86 1698.28	1698.28	-129.37 30.57	30.57	2.06 -0.85	-0.10 0.10	-8.20
VB5 - 2	772.50	0.00 0.14	1691.87 0.00	1691.87	30.57 0.00	30.57	-0.43 1.67	0.02 -0.02	-8.20
VB6 - 1	1053.75	0.00 0.04	-1036.61 -11327.17	4254.42	107.43 -144.91	107.43	3.34 5.73	0.03 -0.03	0.97
VB6 - 2	1053.75	0.00 0.13	-11950.80 -1980.51	8149.13	-133.02 66.95	66.95	6.51 4.62	-0.02 0.02	1.20
VB7 - 1	1053.75	0.00 0.06	-1115.90 -11305.17	4212.82	113.05 -155.37	113.05	3.35 5.72	0.03 -0.03	-0.14
VB7 - 2	1053.75	0.00 0.18	-11974.19 -1897.46	8187.15	-129.71 75.36	75.36	6.52 4.61	-0.02 0.02	-0.02
VB8 - 1	1053.75	0.00 0.77	-1940.71 -10400.28	4046.00	61.81 -139.33	61.81	3.55 5.52	0.02 -0.02	-2.80
VB8 - 2	1053.75	0.00 1.27	-11622.27 -3261.12	7549.31	-117.15 69.69	69.69	6.36 4.77	-0.02 0.02	2.66
VB9 - 1	810.00	0.00 0.39	-687.74 -3157.62	1606.45	-47.25 40.14	40.14	1.93 2.78	-0.02 0.02	-0.21
VB9 - 2	810.00	0.00 0.36	-2650.18 -2700.15	1424.62	-54.83 55.07	55.07	2.57 2.59	-0.02 0.02	-0.04

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VB10 - 1	810.00	0.00 0.21	-1936.98 -1827.92	879.62	-18.77 9.01	9.01	2.14 2.09	-0.01 0.01	-0.20
VB10 - 2	810.00	0.00 0.12	-1155.60 -797.90	645.03	-160.82 175.68	175.68	1.71 1.53	-0.08 0.08	1.33
VB11	735.00	0.00 0.02	305.04 -5150.25	305.04	-26.25 48.08	48.08	-2.11 3.53	-0.04 0.04	2.87
VB12	6691.44	0.00 0.77	-6263.36 -4059.64	8800.44	-744.68 633.35	0.00	15.16 12.42	-0.33 0.33	-0.64
VB13	735.00	0.00 0.09	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.41
VB14	7496.66	-0.25 0.00	0.00 0.00	16881.33	-554.67 663.15	0.00	15.81 14.85	-0.30 0.30	-0.25
VB15 - 1	225.00	-0.08 0.00	272.58 -1171.70	637.15	2.56 -0.66	2.56	0.41 0.90	0.00 0.00	-0.28
VB15 - 2	225.00	-0.06 0.00	-599.19 -931.35	379.92	-26.32 27.69	27.69	0.66 0.77	-0.01 0.01	0.01
VB15 - 3	225.00	-0.03 0.00	-366.89 -549.69	311.44	15.80 -27.85	15.80	0.55 0.62	0.01 -0.01	0.59
VB15 - 4	225.00	-0.01 0.00	73.96 -1186.63	73.96	-312.09 283.08	283.08	-0.38 0.84	-0.29 0.29	1.37
VB15 - 5	225.00	0.00 0.19	-1099.79 698.45	698.45	10.81 48.07	48.07	1.15 -0.71	-0.02 0.02	-2.92
VB16	735.00	-0.23 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-2.67
VB17	735.00	0.00 0.04	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-1.83
VB18	2110.81	-0.24 0.00	0.00 0.00	6465.17	447.31 -469.90	0.00	4.06 4.20	0.23 -0.23	6.89
VB19	772.50	0.00 0.28	-93.23 1436.36	1436.36	-88.26 88.86	88.86	1.54 -0.05	-0.09 0.09	1.94
VB20	772.50	-0.35 0.00	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	2.65
VB21 - 1	772.50	0.00 0.29	-718.90 3643.33	3643.33	119.21 -145.16	119.21	2.60 -0.06	0.08 -0.08	6.18
VB21 - 2	772.50	0.00 0.20	3676.60 -1258.35	3676.60	-62.91 -45.46	0.00	-1.65 3.21	-0.01 0.01	-3.15
VB22	772.50	-0.25 0.00	-301.08 -1519.58	446.64	1054.99 -874.23	0.00	1.08 1.74	0.53 -0.53	5.38
VB23	772.50	0.00 0.12	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.41
VB24 - 1	810.00	0.00 0.32	-570.36 -3193.30	1660.49	47.79 -48.06	47.79	1.90 2.80	0.02 -0.02	0.91
VB24 - 2	810.00	0.00 0.17	-2421.53 -3237.74	1282.51	23.71 -25.70	23.71	2.45 2.71	0.01 -0.01	-0.06
VB25 - 1	810.00	0.00 0.11	-2717.79 1933.95	1933.95	-24.70 97.31	97.31	3.21 -1.66	-0.06 0.06	-1.35
VB25 - 2	810.00	0.00 0.09	1942.15 -2551.48	1942.15	97.31 -152.19	97.31	-0.02 2.70	0.08 -0.08	-1.35
VB25 - 3	810.00	-0.07 0.00	-1375.89 -960.89	454.90	55.54 -136.54	55.54	1.72 1.51	0.05 -0.05	-5.71

CASO: G1+G2+1.4Q+0.84V4+0.84D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	0.00 0.36	-1039.01 82.11	492.16	-51.92 120.11	0.00	1.53 0.78	-0.06 0.06	25.67
VB1 - 2	5534.80	0.00 0.31	81.96 -9795.28	81.96	274.10 72.62	0.00	-15.63 18.73	0.35 -0.35	25.73
VB1 - 3	7936.70	0.00 0.71	-11102.97 -3146.78	7276.69	118.82 -184.40	0.00	17.84 11.72	0.08 -0.08	-3.38
VB1 - 4	6718.48	0.00	-3139.55	0.00	-3.91	0.00	-15.93	0.27	31.48




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		0.64	-12333.62		-143.42		19.53	-0.27	
VB1 - 5	8468.97	0.00 0.44	-11791.32 -1479.82	4924.41	-99.05 8.47	0.00	17.22 10.41	-0.03 0.03	-10.75
VB2 - 1	985.00	0.00 0.43	-1034.88 -321.30	2447.11	-251.42 651.70	651.70	2.62 2.34	-0.18 0.18	36.62
VB2 - 2	985.00	0.00 0.25	-635.37 -1172.40	0.00	460.00 -78.33	0.00	0.89 1.36	0.24 -0.24	-46.34
VB2 - 3	985.00	0.00 0.25	-1172.85 -2958.58	0.00	-78.33 -192.90	0.00	-2.06 2.79	0.16 -0.16	-46.34
VB2 - 4	5930.89	0.00 0.32	-2958.46 -14074.86	0.00	-85.16 52.00	0.00	-18.60 21.78	-0.25 0.25	-46.34
VB2 - 5	7119.79	0.00 0.48	-14902.49 2083.86	2083.86	261.14 275.91	0.00	21.03 -13.87	-0.01 0.01	1.19
VB2 - 6	10237.81	0.00 0.48	2081.30 9433.40	9433.40	275.91 -36.73	0.00	13.17 -2.16	0.29 -0.29	1.19
VB2 - 7	7378.16	0.00 0.48	9431.66 765.26	9678.76	-36.73 -368.63	0.00	1.45 10.83	0.20 -0.20	1.19
VB2 - 8	6210.32	0.00 0.57	758.17 -9315.29	758.17	-200.86 -202.45	0.00	-14.89 18.67	0.00 0.00	1.19
VB2 - 9	9321.20	0.00 0.36	-9160.65 4276.56	4276.56	-69.74 58.05	0.00	16.50 -2.33	-0.08 0.08	-4.58
VB2 - 10	8135.13	0.00 0.36	4278.87 -5497.84	4602.59	58.05 57.29	0.00	1.60 12.56	0.00 0.00	-4.58
VB2 - 11	985.00	0.00 0.16	-4960.34 -209.85	0.00	109.11 -178.58	109.11	3.06 -0.16	0.10 -0.10	-2.18
VB3 - 1	772.50	0.00 0.16	-170.79 581.64	773.05	64.21 3.35	64.21	1.21 0.55	0.03 -0.03	3.85
VB3 - 2	772.50	0.00 0.16	582.08 -1682.03	582.08	3.35 -135.39	3.35	-1.25 2.25	0.11 -0.11	3.85
VB3 - 3	772.50	0.00 0.14	-1885.63 392.70	392.70	193.61 -48.16	193.61	2.65 -1.88	0.24 -0.24	2.03
VB3 - 4	772.50	0.00 0.14	395.26 1214.46	1214.46	-48.16 21.60	0.00	1.18 -0.35	-0.06 0.06	2.03
VB3 - 5	772.50	0.00 0.14	1216.19 -1589.72	1216.19	21.60 -44.30	21.60	-0.35 2.11	0.03 -0.03	2.03
VB3 - 6	772.50	0.00 0.26	-1497.12 721.29	721.29	86.61 -78.22	86.61	2.05 -0.87	0.11 -0.11	-14.25
VB3 - 7	772.50	0.00 0.26	718.98 -31.61	730.06	-78.22 -116.10	0.00	0.14 1.09	0.02 -0.02	-14.25
VB4 - 1	1053.75	0.00 0.06	-1118.65 -10484.54	4516.44	-189.53 161.03	161.03	3.45 5.62	-0.04 0.04	-0.58
VB4 - 2	1053.75	0.00 0.39	-10949.10 4987.30	6466.87	274.68 -33.54	274.68	6.06 1.77	0.04 -0.04	-8.37
VB4 - 3	1053.75	0.00 0.58	4996.55 3468.22	4996.55	293.46 40.39	0.00	-0.11 1.80	0.16 -0.16	17.60
VB4 - 4	1053.75	0.00 0.58	3474.52 -2482.75	3474.52	40.39 -224.59	40.39	-3.08 4.69	0.17 -0.17	17.60
VB5 - 1	772.50	0.00 0.21	-527.68 1728.67	1728.67	29.28 3.06	29.28	2.04 -0.83	0.02 -0.02	-7.18
VB5 - 2	772.50	0.00 0.21	1722.37 0.00	1722.37	3.06 0.00	3.06	-0.45 1.69	0.00 0.00	-7.18
VB6 - 1	1053.75	0.00 0.01	-958.43 -11373.01	4286.45	-176.44 271.48	271.48	3.33 5.74	-0.05 0.05	0.65
VB6 - 2	1053.75	0.00 0.07	-11906.08 -2059.22	8122.64	231.83 -210.57	231.83	6.50 4.63	0.04 -0.04	1.28
VB7 - 1	1053.75	0.00 0.08	-1101.87 -11314.03	4218.33	-177.01 245.43	245.43	3.35 5.72	-0.05 0.05	-0.22
VB7 - 2	1053.75	0.00 0.20	-11963.33 -1916.63	8180.68	235.65 -171.69	235.65	6.52 4.61	0.04 -0.04	-0.13
VB8 - 1	1053.75	0.00 0.74	-1974.73 -10379.65	4033.58	-126.84 211.68	211.68	3.56 5.51	-0.04 0.04	-3.84
VB8 - 2	1053.75	0.00 1.24	-11617.22 -3276.14	7542.78	201.34 -86.69	201.34	6.35 4.78	0.03 -0.03	3.17


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VB9 - 1	810.00	0.00 0.36	-1431.94 -2563.16	1442.19	89.56 -83.72	89.56	2.16 2.55	0.03 -0.03	-0.23
VB9 - 2	810.00	0.00 0.39	-3089.73 -2235.73	1450.03	38.26 -40.14	38.26	2.71 2.44	0.01 -0.01	-0.07
VB10 - 1	810.00	0.00 0.29	-2464.27 -1371.73	869.75	105.92 -92.91	105.92	2.32 1.91	0.04 -0.04	-0.20
VB10 - 2	810.00	0.00 0.30	-1824.83 70.11	876.85	79.07 -182.87	79.07	2.09 1.14	0.07 -0.07	1.35
VB11	735.00	0.00 0.10	-391.54 -4876.33	0.00	-54.96 95.93	95.93	-1.61 3.03	-0.08 0.08	2.81
VB12	6691.44	0.00 1.00	-6863.25 -2795.03	9157.03	274.91 -115.72	0.00	15.61 11.96	0.09 -0.09	-0.44
VB13	735.00	0.00 0.08	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.44
VB14	7496.66	-0.40 0.00	0.00 0.00	16881.33	-107.73 153.99	0.00	15.81 14.85	-0.06 0.06	-0.12
VB15 - 1	225.00	-0.14 0.00	-751.37 -421.85	369.67	27.42 -25.78	27.42	0.71 0.60	0.01 -0.01	-0.29
VB15 - 2	225.00	-0.10 0.00	-1096.39 -380.32	429.54	-16.00 20.33	20.33	0.83 0.60	-0.01 0.01	0.00
VB15 - 3	225.00	-0.07 0.00	-1019.27 19.92	354.80	59.99 -82.16	59.99	0.79 0.39	0.03 -0.03	0.58
VB15 - 4	225.00	-0.05 0.00	-611.56 -1136.99	0.00	-195.80 256.77	256.77	-0.02 0.49	-0.22 0.22	1.33
VB15 - 5	225.00	-0.04 0.00	-1265.80 1983.95	1983.95	-64.38 136.20	136.20	1.89 -1.46	-0.10 0.10	-2.78
VB16	735.00	-0.31 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-2.56
VB17	735.00	0.00 0.09	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-1.74
VB18	2110.81	-0.19 0.00	0.00 0.00	6465.17	-167.78 180.49	0.00	4.06 4.20	-0.09 0.09	7.09
VB19	772.50	0.00 0.16	-693.83 2046.77	2046.77	-123.75 149.70	149.70	2.16 -0.67	-0.14 0.14	1.84
VB20	772.50	-0.08 0.00	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	2.31
VB21 - 1	772.50	0.00 0.33	-1167.19 3711.13	3711.13	-26.16 21.93	21.93	2.75 -0.21	-0.01 0.01	6.21
VB21 - 2	772.50	0.00 0.45	3737.10 -789.76	3737.10	-305.07 116.98	116.98	-1.44 3.01	-0.21 0.21	-3.04
VB22	772.50	0.00 0.08	-1074.78 -490.53	518.98	-49.02 -24.21	0.00	1.57 1.25	-0.01 0.01	5.60
VB23	772.50	-0.01 0.00	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.30
VB24 - 1	810.00	0.00 0.36	-1448.90 -2491.29	1465.05	-66.92 52.64	52.64	2.17 2.53	-0.02 0.02	0.91
VB24 - 2	810.00	0.00 0.37	-2939.74 -2692.31	1286.95	-58.96 51.05	51.05	2.62 2.54	-0.02 0.02	-0.09
VB25 - 1	810.00	0.00 0.45	-3352.32 1750.79	1750.79	-180.13 124.27	124.27	3.44 -1.89	-0.16 0.16	-1.32
VB25 - 2	810.00	0.00 0.45	1757.97 -2018.03	1781.81	124.27 -31.97	124.27	0.20 2.48	0.05 -0.05	-1.32
VB25 - 3	810.00	0.00 0.19	-2175.09 74.29	761.34	-216.79 178.47	178.47	2.18 1.06	-0.10 0.10	-5.60

CASO: G1+G2+1.4Q+1.2D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	0.00 0.11	-876.75 6.90	499.91	329.64 -235.11	0.00	1.45 0.86	0.19 -0.19	26.66
VB1 - 2	5534.80	-0.07	6.72	6.72	208.42	0.00	-15.71	0.53	26.68

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		0.00	-9916.58		-99.04		18.81	-0.53	
VB1 - 3	7936.70	0.00 0.34	-11032.59 -3195.18	7281.08	-57.57 -190.04	0.00	17.81 11.76	0.04 -0.04	-3.13
VB1 - 4	6718.48	0.00 0.41	-3188.06 -12398.43	0.00	-292.59 -422.79	0.00	-15.96 19.56	0.25 -0.25	32.27
VB1 - 5	8468.97	0.00 0.22	-11657.96 -1662.51	4879.99	-386.35 414.26	0.00	17.12 10.51	-0.25 0.25	-12.72
VB2 - 1	985.00	0.00 0.30	-857.58 -368.89	2507.47	-11.92 176.93	176.93	2.57 2.38	-0.04 0.04	35.56
VB2 - 2	985.00	0.00 0.40	-617.04 -1265.62	0.00	499.42 -250.51	0.00	0.84 1.41	0.33 -0.33	-44.62
VB2 - 3	985.00	0.00 0.40	-1266.07 -3087.83	0.00	-250.51 -437.44	0.00	-2.11 2.83	0.25 -0.25	-44.62
VB2 - 4	5930.89	0.00 0.60	-3087.67 -14231.32	0.00	-70.81 -26.80	0.00	-18.65 21.83	-0.08 0.08	-44.62
VB2 - 5	7119.79	0.00 0.81	-14820.10 2157.94	2157.94	114.90 139.54	0.00	21.02 -13.86	-0.02 0.02	0.68
VB2 - 6	10237.81	0.00 0.81	2155.33 9498.51	9498.51	139.54 -101.18	0.00	13.16 -2.15	0.22 -0.22	0.68
VB2 - 7	7378.16	0.00 0.81	9496.71 816.34	9742.06	-101.18 -367.13	0.00	1.45 10.84	0.16 -0.16	0.68
VB2 - 8	6210.32	0.00 0.76	809.38 -9268.95	809.38	-468.98 -429.55	0.00	-14.90 18.68	-0.07 0.07	0.68
VB2 - 9	9321.20	0.00 0.64	-9041.89 4255.53	4255.53	-324.84 85.71	0.00	16.41 -2.24	-0.27 0.27	-4.41
VB2 - 10	8135.13	0.00 0.64	4257.99 -5678.73	4561.72	85.71 180.13	0.00	1.50 12.65	-0.05 0.05	-4.41
VB2 - 11	985.00	0.00 0.17	-4940.19 -444.00	0.00	-295.19 31.68	31.68	2.98 -0.07	-0.11 0.11	-1.58
VB3 - 1	772.50	0.00 0.13	-124.10 568.81	779.57	47.55 5.35	47.55	1.18 0.57	0.02 -0.02	3.10
VB3 - 2	772.50	0.00 0.13	569.27 -1728.71	569.27	5.35 -115.71	5.35	-1.28 2.28	0.09 -0.09	3.10
VB3 - 3	772.50	0.00 0.05	-1832.76 424.27	424.27	161.50 -38.86	161.50	2.63 -1.86	0.20 -0.20	2.32
VB3 - 4	772.50	0.00 0.05	426.88 1223.31	1223.31	-38.86 13.86	0.00	1.16 -0.32	-0.05 0.05	2.32
VB3 - 5	772.50	0.00 0.05	1225.11 -1628.98	1225.11	13.86 -24.95	13.86	-0.38 2.13	0.02 -0.02	2.32
VB3 - 6	772.50	0.00 0.15	-1495.23 705.41	705.41	88.59 -129.57	88.59	2.04 -0.86	0.14 -0.14	-14.11
VB3 - 7	772.50	0.00 0.15	702.94 -66.13	711.38	-129.57 -15.28	0.00	0.12 1.10	-0.07 0.07	-14.11
VB4 - 1	1053.75	0.00 0.15	-1050.81 -10523.63	4544.49	-6.77 -30.23	0.00	3.43 5.64	0.00 0.00	-0.45
VB4 - 2	1053.75	0.00 0.51	-10893.11 4934.76	6437.80	115.28 -35.98	115.28	6.04 1.78	0.02 -0.02	-9.41
VB4 - 3	1053.75	0.00 0.65	4944.31 3377.13	4944.31	46.01 -12.48	0.00	-0.13 1.82	0.04 -0.04	19.95
VB4 - 4	1053.75	0.00 0.65	3383.46 -2611.01	3383.46	-12.48 34.11	34.11	-3.10 4.72	-0.03 0.03	19.95
VB5 - 1	772.50	0.00 0.15	-493.51 1745.97	1745.97	-66.50 19.53	19.53	2.03 -0.82	-0.05 0.05	-7.64
VB5 - 2	772.50	0.00 0.15	1739.64 0.00	1739.64	19.53 0.00	19.53	-0.46 1.70	0.01 -0.01	-7.64
VB6 - 1	1053.75	0.00 0.02	-821.47 -11457.13	4341.15	-53.71 72.68	72.68	3.30 5.77	-0.01 0.01	0.81
VB6 - 2	1053.75	0.00 0.10	-11824.70 -2196.27	8078.00	31.05 -38.75	31.05	6.48 4.65	0.01 -0.01	1.26
VB7 - 1	1053.75	0.00 0.06	-926.52 -11421.13	4288.58	-2.02 23.67	23.67	3.32 5.75	0.00 0.00	-0.18
VB7 - 2	1053.75	0.00 0.19	-11864.05 -2082.75	8126.84	69.61 -74.87	69.61	6.49 4.64	0.01 -0.01	-0.08

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VB8 - 1	1053.75	0.00 0.75	-1856.39 -10461.42	4072.81	0.20 15.16	15.16	3.54 5.53	0.00 0.00	-3.32
VB8 - 2	1053.75	0.00 1.26	-11555.68 -3362.43	7519.03	58.54 -37.59	58.54	6.34 4.79	0.01 -0.01	2.91
VB9 - 1	810.00	0.00 0.37	-1055.79 -2863.68	1515.01	-11.63 11.49	11.49	2.04 2.66	0.00 0.00	-0.26
VB9 - 2	810.00	0.00 0.38	-2868.39 -2469.48	1436.48	-3.85 8.25	8.25	2.64 2.52	0.00 0.00	-0.05
VB10 - 1	810.00	0.00 0.26	-2200.48 -1599.17	869.03	63.90 -62.92	63.90	2.23 2.00	0.02 -0.02	-0.16
VB10 - 2	810.00	0.00 0.21	-1487.59 -367.45	737.45	-41.15 -3.00	0.00	1.90 1.34	-0.01 0.01	1.31
VB11	735.00	0.00 0.06	-37.84 -5012.10	0.00	-41.94 73.12	73.12	-1.87 3.28	-0.06 0.06	2.92
VB12	6691.44	0.00 0.88	-6555.69 -3440.07	8964.06	-253.04 275.43	0.00	15.38 12.19	-0.13 0.13	-0.67
VB13	735.00	0.00 0.07	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.45
VB14	7496.66	-0.33 0.00	0.00 0.00	16881.33	-366.63 443.53	0.00	15.81 14.85	-0.20 0.20	-0.16
VB15 - 1	225.00	-0.11 0.00	-235.51 -799.51	452.28	-26.03 27.50	27.50	0.56 0.75	-0.01 0.01	-0.28
VB15 - 2	225.00	-0.08 0.00	-846.16 -657.59	389.77	-18.44 22.21	22.21	0.75 0.69	-0.01 0.01	0.01
VB15 - 3	225.00	-0.06 0.00	-690.50 -267.84	302.43	63.85 -78.81	63.85	0.67 0.51	0.03 -0.03	0.59
VB15 - 4	225.00	-0.04 0.00	-267.56 -1159.38	0.00	-224.32 235.95	235.95	-0.20 0.67	-0.22 0.22	1.20
VB15 - 5	225.00	0.00 0.06	-1179.61 1336.20	1336.20	-37.56 98.05	98.05	1.52 -1.08	-0.07 0.07	-2.76
VB16	735.00	-0.25 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-2.61
VB17	735.00	0.00 0.07	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-1.81
VB18	2110.81	-0.22 0.00	0.00 0.00	6465.17	101.85 -102.55	0.00	4.06 4.20	0.05 -0.05	6.96
VB19	772.50	0.00 0.22	-395.56 1744.09	1744.09	-105.79 119.56	119.56	1.85 -0.36	-0.12 0.12	1.92
VB20	772.50	-0.22 0.00	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	2.47
VB21 - 1	772.50	0.00 0.30	-936.68 3646.45	3646.45	64.23 -83.29	64.23	2.66 -0.12	0.04 -0.04	6.34
VB21 - 2	772.50	0.00 0.31	3675.81 -1013.76	3675.81	-165.28 24.91	24.91	-1.52 3.09	-0.09 0.09	-3.21
VB22	772.50	-0.08 0.00	-693.05 -998.42	440.41	461.12 -419.95	0.00	1.33 1.49	0.24 -0.24	5.38
VB23	772.50	0.00 0.07	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.32
VB24 - 1	810.00	0.00 0.33	-1011.04 -2840.34	1550.16	-39.43 32.67	32.67	2.04 2.67	-0.01 0.01	0.86
VB24 - 2	810.00	0.00 0.27	-2678.76 -2970.55	1279.03	-13.34 16.41	16.41	2.53 2.62	0.00 0.00	-0.07
VB25 - 1	810.00	0.00 0.28	-3044.03 1857.36	1857.36	-69.13 102.18	102.18	3.34 -1.79	-0.09 0.09	-1.31
VB25 - 2	810.00	0.00 0.27	1865.00 -2295.29	1865.00	102.18 -105.36	102.18	0.08 2.60	0.06 -0.06	-1.31
VB25 - 3	810.00	0.00 0.07	-1780.65 -439.59	572.29	-77.82 22.46	22.46	1.95 1.28	-0.03 0.03	-5.62

**CASO: G1+G2+1.4Q+1.2D2**

Elemento	Carga (kgf/m)	Rd Nd	Mxi Mxf	MxMáx (kgf.m)	Myi Myf	MyMáx (kgf.m)	Vxi Vxf	Vyi Vyf	Mtd (kgf/m)
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		(tf)	(kgf.m)		(kgf.m)		(tf)	(tf)	
VB1 - 1	772.50	0.00 0.14	-1098.38 112.16	492.41	297.42 -219.90	0.00	1.56 0.75	0.17 -0.17	26.62
VB1 - 2	5534.80	-0.01 0.00	111.92 -9747.97	111.92	153.71 -136.78	0.00	-15.60 18.70	0.50 -0.50	26.71
VB1 - 3	7936.70	0.00 0.32	-11140.76 -3114.58	7277.78	-89.34 -149.12	0.00	17.86 11.71	0.02 -0.02	-2.96
VB1 - 4	6718.48	0.00 0.42	-3107.41 -12291.88	0.00	-335.97 -449.64	0.00	-15.91 19.51	0.22 -0.22	31.54
VB1 - 5	8468.97	0.00 0.16	-11830.96 -1436.08	4931.67	-407.57 473.77	0.00	17.25 10.39	-0.27 0.27	-12.74
VB2 - 1	985.00	0.00 0.42	-1257.10 -253.82	2375.78	-10.45 200.19	200.19	2.68 2.28	-0.04 0.04	35.57
VB2 - 2	985.00	0.00 0.43	-634.45 -1109.35	0.00	480.46 -254.23	0.00	0.92 1.33	0.32 -0.32	-44.63
VB2 - 3	985.00	0.00 0.43	-1109.76 -2875.43	0.00	-254.23 -420.68	0.00	-2.03 2.76	0.23 -0.23	-44.63
VB2 - 4	5930.89	0.00 0.60	-2875.22 -13976.43	0.00	-124.91 -72.10	0.00	-18.57 21.75	-0.09 0.09	-44.63
VB2 - 5	7119.79	0.00 0.79	-15059.53 1991.81	1991.81	60.62 138.07	0.00	21.09 -13.93	-0.08 0.08	0.68
VB2 - 6	10237.81	0.00 0.79	1989.19 9410.81	9410.81	138.07 -85.40	0.00	13.23 -2.22	0.21 -0.21	0.68
VB2 - 7	7378.16	0.00 0.79	9409.04 851.63	9669.76	-85.40 -315.50	0.00	1.52 10.76	0.14 -0.14	0.68
VB2 - 8	6210.32	0.00 0.70	844.61 -9190.81	844.61	-493.18 -447.65	0.00	-14.82 18.61	-0.08 0.08	0.68
VB2 - 9	9321.20	0.00 0.44	-9090.63 4293.62	4293.62	-350.12 82.45	0.00	16.47 -2.30	-0.28 0.28	-4.46
VB2 - 10	8135.13	0.00 0.44	4296.11 -5541.21	4612.26	82.45 201.80	0.00	1.56 12.59	-0.07 0.07	-4.46
VB2 - 11	985.00	0.00 0.00	-5189.09 24.99	24.99	-353.71 34.44	34.44	3.22 -0.32	-0.13 0.13	-1.53
VB3 - 1	772.50	0.00 0.17	-229.31 615.68	781.85	46.30 9.39	46.30	1.25 0.51	0.02 -0.02	3.14
VB3 - 2	772.50	0.00 0.17	616.08 -1595.37	616.08	9.39 -135.98	9.39	-1.21 2.21	0.11 -0.11	3.14
VB3 - 3	772.50	0.00 0.06	-1932.11 361.23	361.23	186.98 -44.47	186.98	2.67 -1.89	0.23 -0.23	2.31
VB3 - 4	772.50	0.00 0.06	363.85 1199.12	1199.12	-44.47 14.22	0.00	1.19 -0.36	-0.05 0.05	2.31
VB3 - 5	772.50	0.00 0.06	1200.88 -1571.06	1200.88	14.22 -23.83	14.22	-0.34 2.10	0.02 -0.02	2.31
VB3 - 6	772.50	0.00 0.16	-1553.90 724.63	724.63	91.19 -138.59	91.19	2.09 -0.91	0.15 -0.15	-14.24
VB3 - 7	772.50	0.00 0.16	722.14 34.12	742.16	-138.59 -36.12	0.00	0.18 1.05	-0.06 0.06	-14.24
VB4 - 1	1053.75	0.00 0.11	-1259.01 -10389.40	4463.71	37.50 -74.51	37.50	3.47 5.60	0.01 -0.01	-0.46
VB4 - 2	1053.75	0.00 0.46	-11009.21 5017.57	6477.60	177.86 -91.46	177.86	6.07 1.76	0.04 -0.04	-9.54
VB4 - 3	1053.75	0.00 0.60	5026.60 3603.69	5026.60	71.30 7.13	0.00	-0.04 1.73	0.04 -0.04	20.34
VB4 - 4	1053.75	0.00 0.60	3610.08 -2246.25	3610.08	7.13 5.66	7.13	-3.01 4.63	0.00 0.00	20.34
VB5 - 1	772.50	0.00 0.19	-622.03 1680.99	1680.99	-33.59 14.10	14.10	2.07 -0.86	-0.03 0.03	-7.75
VB5 - 2	772.50	0.00 0.19	1674.60 0.00	1674.60	14.10 0.00	14.10	-0.42 1.66	0.01 -0.01	-7.75
VB6 - 1	1053.75	0.00 0.03	-1173.57 -11243.04	4199.72	-15.30 53.89	53.89	3.37 5.70	-0.01 0.01	0.81
VB6 - 2	1053.75	0.00 0.09	-12032.18 -1843.46	8194.05	67.76 -104.87	67.76	6.53 4.60	0.02 -0.02	1.22



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VB7 - 1	1053.75	0.00 0.07	-1291.26 -11198.07	4142.56	-61.94 66.39	66.39	3.38 5.69	-0.01 0.01	-0.18
VB7 - 2	1053.75	0.00 0.19	-12073.46 -1731.33	8244.23	36.33 -21.47	36.33	6.54 4.59	0.01 -0.01	-0.07
VB8 - 1	1053.75	0.00 0.76	-2059.05 -10318.51	4006.77	-65.23 57.19	57.19	3.58 5.49	-0.01 0.01	-3.32
VB8 - 2	1053.75	0.00 1.26	-11683.82 -3174.82	7573.06	25.66 20.59	25.66	6.37 4.76	0.00 0.00	2.93
VB9 - 1	810.00	0.00 0.37	-1063.89 -2857.11	1513.48	53.95 -55.08	53.95	2.04 2.66	0.02 -0.02	-0.18
VB9 - 2	810.00	0.00 0.37	-2871.52 -2466.40	1436.56	-12.73 6.68	6.68	2.64 2.51	0.00 0.00	-0.06
VB10 - 1	810.00	0.00 0.25	-2200.76 -1600.48	868.19	23.25 -20.98	23.25	2.23 2.00	0.01 -0.01	-0.24
VB10 - 2	810.00	0.00 0.21	-1492.83 -360.35	739.35	-40.60 -4.19	0.00	1.90 1.34	-0.01 0.01	1.37
VB11	735.00	0.00 0.06	-48.66 -5014.48	0.00	-39.27 70.89	70.89	-1.86 3.28	-0.06 0.06	2.75
VB12	6691.44	0.00 0.89	-6570.92 -3414.60	8969.18	-216.74 242.20	0.00	15.39 12.18	-0.11 0.11	-0.40
VB13	735.00	0.00 0.10	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.40
VB14	7496.66	-0.32 0.00	0.00 0.00	16881.33	-295.77 373.61	0.00	15.81 14.85	-0.16 0.16	-0.21
VB15 - 1	225.00	-0.10 0.00	-243.29 -794.03	449.99	56.00 -53.94	56.00	0.56 0.75	0.02 -0.02	-0.28
VB15 - 2	225.00	-0.07 0.00	-849.42 -654.08	390.01	-23.88 25.81	25.81	0.75 0.69	-0.01 0.01	0.00
VB15 - 3	225.00	-0.04 0.00	-695.66 -261.94	303.65	11.94 -31.20	11.94	0.67 0.50	0.01 -0.01	0.58
VB15 - 4	225.00	-0.02 0.00	-270.04 -1164.24	0.00	-283.57 303.91	303.91	-0.20 0.67	-0.29 0.29	1.50
VB15 - 5	225.00	0.00 0.09	-1185.98 1346.20	1346.20	-16.01 86.23	86.23	1.52 -1.09	-0.05 0.05	-2.94
VB16	735.00	-0.28 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-2.62
VB17	735.00	0.00 0.07	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-1.76
VB18	2110.81	-0.21 0.00	0.00 0.00	6465.17	177.68 -186.85	0.00	4.06 4.20	0.09 -0.09	7.02
VB19	772.50	0.00 0.22	-391.50 1739.04	1739.04	-106.23 119.00	119.00	1.85 -0.36	-0.12 0.12	1.86
VB20	772.50	-0.22 0.00	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	2.49
VB21 - 1	772.50	0.00 0.33	-949.41 3708.01	3708.01	28.82 -39.94	28.82	2.69 -0.15	0.02 -0.02	6.05
VB21 - 2	772.50	0.00 0.33	3737.89 -1034.35	3737.89	-202.70 46.60	46.60	-1.57 3.13	-0.12 0.12	-2.98
VB22	772.50	-0.09 0.00	-682.81 -1011.69	440.20	544.85 -478.49	0.00	1.32 1.50	0.28 -0.28	5.61
VB23	772.50	0.00 0.04	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.39
VB24 - 1	810.00	0.00 0.34	-1008.22 -2844.25	1549.96	20.29 -28.08	20.29	2.04 2.67	0.01 -0.01	0.95
VB24 - 2	810.00	0.00 0.28	-2682.50 -2959.51	1282.45	-21.92 8.94	8.94	2.53 2.62	0.00 0.00	-0.07
VB25 - 1	810.00	0.00 0.28	-3026.08 1827.38	1827.38	-135.71 119.40	119.40	3.31 -1.76	-0.13 0.13	-1.36
VB25 - 2	810.00	0.00 0.27	1835.13 -2274.22	1838.13	119.40 -78.80	119.40	0.10 2.58	0.06 -0.06	-1.36
VB25 - 3	810.00	0.00 0.05	-1770.33 -447.02	572.33	-83.43 19.46	19.46	1.95 1.29	-0.03 0.03	-5.70





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Rezende  
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CASO: G1+G2+1.4Q+1.2D3

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	0.00 0.03	-969.46 51.50	494.95	473.34 -376.92	0.00	1.50 0.82	0.28 -0.28	26.93
VB1 - 2	5534.80	-0.20 0.00	51.28 -9845.39	51.28	155.83 -196.93	0.00	-15.67 18.77	0.61 -0.61	26.98
VB1 - 3	7936.70	0.00 0.16	-11080.84 -3158.08	7280.24	-153.48 -171.71	0.00	17.83 11.73	0.00 0.00	-2.94
VB1 - 4	6718.48	0.00 0.32	-3150.97 -12349.63	0.00	-452.54 -574.96	0.00	-15.94 19.54	0.24 -0.24	32.05
VB1 - 5	8468.97	0.00 0.08	-11728.28 -1573.17	4899.49	-537.01 635.94	0.00	17.17 10.46	-0.36 0.36	-13.34
VB2 - 1	985.00	0.00 0.33	-1064.48 -307.79	2439.93	79.13 18.14	79.13	2.63 2.33	0.01 -0.01	35.30
VB2 - 2	985.00	0.00 0.49	-622.31 -1192.43	0.00	526.27 -330.46	0.00	0.87 1.37	0.38 -0.38	-44.09
VB2 - 3	985.00	0.00 0.49	-1192.86 -2989.28	0.00	-330.46 -542.34	0.00	-2.07 2.80	0.29 -0.29	-44.09
VB2 - 4	5930.89	0.00 0.73	-2989.07 -14113.56	0.00	-101.03 -86.46	0.00	-18.61 21.80	-0.03 0.03	-44.09
VB2 - 5	7119.79	0.00 0.95	-14952.40 2071.66	2071.66	22.82 84.68	0.00	21.06 -13.91	-0.06 0.06	0.53
VB2 - 6	10237.81	0.00 0.95	2069.03 9461.45	9461.45	84.68 -122.52	0.00	13.21 -2.19	0.19 -0.19	0.53
VB2 - 7	7378.16	0.00 0.95	9459.65 856.47	9714.65	-122.52 -351.64	0.00	1.49 10.79	0.14 -0.14	0.53
VB2 - 8	6210.32	0.00 0.81	849.52 -9201.87	849.52	-624.38 -561.49	0.00	-14.85 18.63	-0.11 0.11	0.53
VB2 - 9	9321.20	0.00 0.63	-9035.45 4274.15	4274.15	-471.20 119.09	0.00	16.42 -2.25	-0.39 0.39	-4.38
VB2 - 10	8135.13	0.00 0.63	4276.68 -5646.09	4582.15	119.09 254.85	0.00	1.51 12.64	-0.08 0.08	-4.38
VB2 - 11	985.00	0.00 0.06	-5098.36 -209.01	0.00	-495.17 112.32	112.32	3.11 -0.21	-0.21 0.21	-1.47
VB3 - 1	772.50	0.00 0.14	-178.22 595.61	781.18	40.60 8.80	40.60	1.22 0.54	0.01 -0.01	2.88
VB3 - 2	772.50	0.00 0.14	596.03 -1655.91	596.03	8.80 -123.09	8.80	-1.24 2.24	0.10 -0.10	2.88
VB3 - 3	772.50	0.00 0.01	-1880.74 393.20	393.20	169.21 -39.72	169.21	2.65 -1.87	0.21 -0.21	2.41
VB3 - 4	772.50	0.00 0.01	395.83 1210.35	1210.35	-39.72 10.12	0.00	1.17 -0.34	-0.05 0.05	2.41
VB3 - 5	772.50	0.00 0.01	1212.15 -1603.67	1212.15	10.12 -13.56	10.12	-0.36 2.12	0.01 -0.01	2.41
VB3 - 6	772.50	0.00 0.11	-1533.16 712.87	712.87	98.21 -177.88	98.21	2.06 -0.89	0.18 -0.18	-14.17
VB3 - 7	772.50	0.00 0.11	710.34 -11.49	725.53	-177.88 25.60	25.60	0.15 1.07	-0.13 0.13	-14.17
VB4 - 1	1053.75	0.00 0.15	-1171.01 -10445.40	4498.13	93.45 -140.64	93.45	3.46 5.61	0.03 -0.03	-0.37
VB4 - 2	1053.75	0.00 0.53	-10953.97 4974.82	6456.03	87.67 -50.68	87.67	6.06 1.77	0.02 -0.02	-9.82
VB4 - 3	1053.75	0.00 0.64	4984.12 3501.03	4984.12	-0.12 -11.45	0.00	-0.08 1.77	0.01 -0.01	20.83
VB4 - 4	1053.75	0.00 0.64	3507.40 -2406.55	3507.40	-11.45 94.14	94.14	-3.05 4.66	-0.07 0.07	20.83
VB5 - 1	772.50	0.00 0.16	-567.29 1708.67	1708.67	-75.29 22.27	22.27	2.06 -0.84	-0.06 0.06	-7.83
VB5 - 2	772.50	0.00 0.16	1702.30 0.00	1702.30	22.27 0.00	22.27	-0.44 1.68	0.01 -0.01	-7.83
VB6 - 1	1053.75	0.00	-1011.38	4264.76	17.41	17.41	3.33	0.00	0.93

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	<b>Leilson Campos</b> <b>Rezende</b> <b>Rezende Engenharia</b>	<b>11/5/2021</b> <b>12:23:34</b>

		0.03	-11341.97		-12.47		5.74	0.00	
VB6 - 2	1053.75	0.00 0.11	-11936.37 -2005.99	8140.54	-18.47 -21.97	0.00	6.51 4.63	0.00 0.00	1.18
VB7 - 1	1053.75	0.00 0.07	-1111.26 -11308.06	4214.66	21.61 -29.38	21.61	3.35 5.72	0.01 -0.01	-0.10
VB7 - 2	1053.75	0.00 0.19	-11970.77 -1903.44	8185.14	-14.56 -2.71	0.00	6.52 4.61	0.00 0.00	-0.11
VB8 - 1	1053.75	0.00 0.76	-1952.13 -10393.60	4041.73	3.17 -29.30	3.17	3.55 5.52	0.00 0.00	-3.09
VB8 - 2	1053.75	0.00 1.26	-11620.46 -3266.59	7546.92	-17.27 20.92	20.92	6.36 4.77	0.00 0.00	2.79
VB9 - 1	810.00	0.00 0.37	-968.81 -2933.45	1534.44	-4.16 1.25	1.25	2.01 2.69	0.00 0.00	-0.21
VB9 - 2	810.00	0.00 0.37	-2815.66 -2525.17	1433.25	-25.82 25.35	25.35	2.62 2.53	-0.01 0.01	-0.05
VB10 - 1	810.00	0.00 0.24	-2135.62 -1656.24	868.24	21.04 -23.17	21.04	2.21 2.02	0.01 -0.01	-0.20
VB10 - 2	810.00	0.00 0.18	-1407.17 -471.43	711.11	-87.54 63.77	63.77	1.85 1.38	-0.04 0.04	1.33
VB11	735.00	0.00 0.00	71.07 -5058.33	71.07	-34.30 62.13	62.13	-1.95 3.37	-0.05 0.05	2.85
VB12	6691.44	0.00 0.83	-6464.86 -3634.53	8912.24	-448.57 421.55	0.00	15.31 12.26	-0.21 0.21	-0.57
VB13	735.00	0.00 0.09	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.42
VB14	7496.66	-0.31 0.00	0.00 0.00	16881.33	-441.31 532.75	0.00	15.81 14.85	-0.24 0.24	-0.21
VB15 - 1	225.00	-0.10 0.00	-78.54 -919.71	496.47	10.34 -8.55	10.34	0.51 0.80	0.00 0.00	-0.28
VB15 - 2	225.00	-0.08 0.00	-761.40 -749.60	383.30	-23.38 25.88	25.88	0.72 0.71	-0.01 0.01	0.01
VB15 - 3	225.00	-0.06 0.00	-583.44 -361.18	298.94	31.88 -48.85	31.88	0.63 0.55	0.02 -0.02	0.59
VB15 - 4	225.00	-0.06 0.00	-153.18 -1170.92	0.00	-277.16 280.45	280.45	-0.26 0.73	-0.27 0.27	1.35
VB15 - 5	225.00	0.00 0.06	-1158.33 1140.49	1140.49	-10.09 73.64	73.64	1.40 -0.97	-0.04 0.04	-2.87
VB16	735.00	-0.25 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-2.63
VB17	735.00	0.00 0.06	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-1.80
VB18	2110.81	-0.24 0.00	0.00 0.00	6465.17	272.74 -280.83	0.00	4.06 4.20	0.14 -0.14	6.96
VB19	772.50	0.00 0.24	-297.47 1643.88	1643.88	-102.60 108.92	108.92	1.75 -0.26	-0.11 0.11	1.91
VB20	772.50	-0.31 0.00	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	2.53
VB21 - 1	772.50	0.00 0.28	-882.55 3669.27	3669.27	70.51 -89.80	70.51	2.65 -0.11	0.05 -0.05	6.19
VB21 - 2	772.50	0.00 0.27	3699.93 -1088.00	3699.93	-140.35 -9.96	0.00	-1.57 3.14	-0.06 0.06	-3.11
VB22	772.50	-0.16 0.00	-562.44 -1172.06	435.80	731.72 -637.09	0.00	1.24 1.58	0.38 -0.38	5.45
VB23	772.50	0.00 0.08	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.37
VB24 - 1	810.00	0.00 0.33	-894.09 -2935.01	1577.60	11.65 -16.43	11.65	2.00 2.70	0.00 0.00	0.91
VB24 - 2	810.00	0.00 0.24	-2611.89 -3037.18	1281.31	-2.00 -2.14	0.00	2.51 2.65	0.00 0.00	-0.07
VB25 - 1	810.00	0.00 0.23	-2950.80 1866.26	1866.26	-75.40 107.30	107.30	3.29 -1.74	-0.10 0.10	-1.34
VB25 - 2	810.00	0.00 0.22	1874.09 -2355.17	1874.09	107.30 -110.22	107.30	0.06 2.62	0.07 -0.07	-1.34


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VB25 - 3	810.00	0.00 0.02	-1669.44 -581.03	537.22	-37.95 -35.40	0.00	1.89 1.35	0.00 0.00	-5.68
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CASO: G1+G2+1.4Q+1.2D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	0.00 0.22	-1005.66 67.56	493.58	153.72 -78.09	0.00	1.52 0.80	0.08 -0.08	26.35
VB1 - 2	5534.80	0.00 0.11	67.37 -9819.16	67.37	206.30 -38.89	0.00	-15.65 18.75	0.42 -0.42	26.41
VB1 - 3	7936.70	0.00 0.50	-11092.50 -3151.68	7278.62	6.56 -167.46	0.00	17.83 11.73	0.05 -0.05	-3.15
VB1 - 4	6718.48	0.00 0.51	-3144.51 -12340.69	0.00	-176.03 -297.46	0.00	-15.93 19.53	0.24 -0.24	31.76
VB1 - 5	8468.97	0.00 0.30	-11760.65 -1525.43	4912.18	-256.91 252.09	0.00	17.20 10.43	-0.16 0.16	-12.12
VB2 - 1	985.00	0.00 0.38	-1050.20 -314.92	2443.08	-101.50 358.97	358.97	2.62 2.33	-0.09 0.09	35.83
VB2 - 2	985.00	0.00 0.34	-629.18 -1182.54	0.00	453.61 -174.29	0.00	0.88 1.37	0.28 -0.28	-45.16
VB2 - 3	985.00	0.00 0.34	-1182.97 -2973.98	0.00	-174.29 -315.78	0.00	-2.07 2.79	0.19 -0.19	-45.16
VB2 - 4	5930.89	0.00 0.47	-2973.81 -14094.20	0.00	-94.69 -12.44	0.00	-18.61 21.79	-0.15 0.15	-45.16
VB2 - 5	7119.79	0.00 0.65	-14927.23 2078.08	2078.08	152.70 192.93	0.00	21.05 -13.89	-0.04 0.04	0.83
VB2 - 6	10237.81	0.00 0.65	2075.49 9447.87	9447.87	192.93 -64.06	0.00	13.19 -2.17	0.24 -0.24	0.83
VB2 - 7	7378.16	0.00 0.65	9446.10 811.49	9697.17	-64.06 -330.99	0.00	1.47 10.81	0.16 -0.16	0.83
VB2 - 8	6210.32	0.00 0.65	804.47 -9257.88	804.47	-337.79 -315.72	0.00	-14.87 18.65	-0.04 0.04	0.83
VB2 - 9	9321.20	0.00 0.46	-9097.08 4275.00	4275.00	-203.76 49.07	0.00	16.46 -2.29	-0.17 0.17	-4.48
VB2 - 10	8135.13	0.00 0.46	4277.42 -5573.84	4591.83	49.07 127.09	0.00	1.55 12.60	-0.04 0.04	-4.48
VB2 - 11	985.00	0.00 0.11	-5030.93 -210.00	0.00	-153.73 -46.21	0.00	3.09 -0.18	-0.04 0.04	-1.65
VB3 - 1	772.50	0.00 0.16	-175.19 588.88	777.12	53.24 5.94	53.24	1.21 0.54	0.02 -0.02	3.36
VB3 - 2	772.50	0.00 0.16	589.32 -1668.17	589.32	5.94 -128.60	5.94	-1.24 2.24	0.10 -0.10	3.36
VB3 - 3	772.50	0.00 0.09	-1884.12 392.30	392.30	179.28 -43.61	179.28	2.65 -1.88	0.22 -0.22	2.22
VB3 - 4	772.50	0.00 0.09	394.90 1212.07	1212.07	-43.61 17.96	0.00	1.18 -0.34	-0.06 0.06	2.22
VB3 - 5	772.50	0.00 0.09	1213.84 -1596.36	1213.84	17.96 -35.23	17.96	-0.36 2.11	0.02 -0.02	2.22
VB3 - 6	772.50	0.00 0.20	-1515.96 717.17	717.17	81.57 -90.29	81.57	2.06 -0.88	0.11 -0.11	-14.18
VB3 - 7	772.50	0.00 0.20	714.74 -20.52	728.01	-90.29 -76.99	0.00	0.15 1.08	-0.01 0.01	-14.18
VB4 - 1	1053.75	0.00 0.10	-1138.81 -10467.62	4510.08	-62.72 35.90	35.90	3.45 5.62	-0.01 0.01	-0.54
VB4 - 2	1053.75	0.00 0.44	-10948.34 4977.51	6459.36	205.48 -76.77	205.48	6.06 1.77	0.04 -0.04	-9.13
VB4 - 3	1053.75	0.00 0.61	4986.79 3479.79	4986.79	117.43 6.10	0.00	-0.10 1.78	0.07 -0.07	19.46
VB4 - 4	1053.75	0.00 0.61	3486.13 -2450.71	3486.13	6.10 -54.37	6.10	-3.06 4.68	0.04 -0.04	19.46
VB5 - 1	772.50	0.00	-548.25	1718.28	-24.81	11.36	2.05	-0.02	-7.55

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		0.18	1718.28		11.36		-0.84	0.02	
VB5 - 2	772.50	0.00 0.18	1711.94 0.00	1711.94	11.36 0.00	11.36	-0.44 1.69	0.01 -0.01	-7.55
VB6 - 1	1053.75	0.00 0.02	-983.66 -11358.21	4276.12	-86.42 139.05	139.05	3.33 5.74	-0.03 0.03	0.70
VB6 - 2	1053.75	0.00 0.09	-11920.51 -2033.74	8131.23	117.28 -121.64	117.28	6.50 4.63	0.02 -0.02	1.30
VB7 - 1	1053.75	0.00 0.07	-1106.52 -11311.14	4216.49	-85.57 119.44	119.44	3.35 5.72	-0.02 0.02	-0.25
VB7 - 2	1053.75	0.00 0.19	-11966.75 -1910.64	8182.69	120.50 -93.63	120.50	6.52 4.61	0.02 -0.02	-0.04
VB8 - 1	1053.75	0.00 0.75	-1963.31 -10386.33	4037.85	-68.21 101.66	101.66	3.56 5.51	-0.02 0.02	-3.55
VB8 - 2	1053.75	0.00 1.25	-11619.04 -3270.67	7545.17	101.47 -37.92	101.47	6.36 4.77	0.01 -0.01	3.04
VB9 - 1	810.00	0.00 0.37	-1150.86 -2787.33	1496.78	46.47 -44.83	46.47	2.07 2.63	0.02 -0.02	-0.22
VB9 - 2	810.00	0.00 0.38	-2924.25 -2410.71	1439.79	9.24 -10.42	9.24	2.66 2.50	0.00 0.00	-0.06
VB10 - 1	810.00	0.00 0.26	-2265.63 -1543.41	868.99	66.11 -60.73	66.11	2.25 1.98	0.02 -0.02	-0.20
VB10 - 2	810.00	0.00 0.23	-1573.25 -256.37	765.69	5.79 -70.96	5.79	1.95 1.29	0.02 -0.02	1.35
VB11	735.00	0.00 0.11	-157.56 -4968.25	0.00	-46.91 81.88	81.88	-1.78 3.20	-0.07 0.07	2.83
VB12	6691.44	0.00 0.94	-6661.75 -3220.14	9021.00	-21.21 96.08	0.00	15.46 12.11	-0.03 0.03	-0.50
VB13	735.00	0.00 0.08	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.43
VB14	7496.66	-0.34 0.00	0.00 0.00	16881.33	-221.09 284.38	0.00	15.81 14.85	-0.12 0.12	-0.17
VB15 - 1	225.00	-0.11 0.00	-400.25 -673.83	416.34	19.64 -17.88	19.64	0.61 0.70	0.01 -0.01	-0.29
VB15 - 2	225.00	-0.08 0.00	-934.18 -562.07	399.00	-18.94 22.14	22.14	0.77 0.66	-0.01 0.01	0.00
VB15 - 3	225.00	-0.04 0.00	-802.72 -168.60	313.89	43.91 -61.16	43.91	0.71 0.47	0.02 -0.02	0.58
VB15 - 4	225.00	0.00 0.00	-384.43 -1152.70	0.00	-230.73 259.41	259.41	-0.14 0.60	-0.24 0.24	1.34
VB15 - 5	225.00	0.00 0.09	-1207.26 1541.90	1541.90	-43.48 110.64	110.64	1.64 -1.20	-0.08 0.08	-2.83
VB16	735.00	-0.28 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-2.60
VB17	735.00	0.00 0.08	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-1.77
VB18	2110.81	-0.20 0.00	0.00 0.00	6465.17	6.80 -8.57	0.00	4.06 4.20	0.00 0.00	7.02
VB19	772.50	0.00 0.20	-489.59 1839.25	1839.25	-109.41 129.64	129.64	1.95 -0.46	-0.12 0.12	1.87
VB20	772.50	-0.12 0.00	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	2.42
VB21 - 1	772.50	0.00 0.34	-1003.54 3685.19	3685.19	22.54 -33.43	22.54	2.70 -0.16	0.02 -0.02	6.20
VB21 - 2	772.50	0.00 0.37	3713.77 -960.11	3713.77	-227.63 81.48	81.48	-1.52 3.09	-0.15 0.15	-3.07
VB22	772.50	-0.01 0.00	-813.42 -838.05	459.31	274.25 -261.35	0.00	1.40 1.42	0.15 -0.15	5.53
VB23	772.50	0.00 0.03	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.34
VB24 - 1	810.00	0.00 0.35	-1125.17 -2749.58	1527.88	-30.78 21.01	21.01	2.07 2.63	-0.01 0.01	0.91
VB24 - 2	810.00	0.00 0.30	-2749.37 -2892.88	1280.17	-33.26 27.50	27.50	2.56 2.60	-0.01 0.01	-0.08

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VB25 - 1	810.00	0.00 0.33	-3119.31 1818.48	1818.48	-129.43 114.28	114.28	3.35 -1.80	-0.13 0.13	-1.33
VB25 - 2	810.00	0.00 0.32	1826.03 -2214.34	1833.35	114.28 -73.94	114.28	0.12 2.56	0.06 -0.06	-1.33
VB25 - 3	810.00	0.00 0.09	-1881.54 -305.57	618.68	-123.31 77.33	77.33	2.01 1.22	-0.05 0.05	-5.64

CASO: G1+G2+1.4Q+D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	0.00 0.11	-895.22 15.68	497.78	326.96 -233.84	0.00	1.46 0.85	0.19 -0.19	26.66
VB1 - 2	5534.80	-0.07 0.00	15.49 -9902.53	15.49	203.86 -102.18	0.00	-15.70 18.80	0.53 -0.53	26.68
VB1 - 3	7936.70	0.00 0.34	-11041.60 -3188.46	7280.81	-60.22 -186.63	0.00	17.81 11.75	0.03 -0.03	-3.12
VB1 - 4	6718.48	0.00 0.41	-3181.34 -12389.55	0.00	-296.21 -425.02	0.00	-15.95 19.56	0.25 -0.25	32.21
VB1 - 5	8468.97	0.00 0.22	-11672.38 -1643.65	4884.30	-388.12 419.22	0.00	17.13 10.50	-0.25 0.25	-12.72
VB2 - 1	985.00	0.00 0.31	-890.88 -359.30	2496.47	-11.79 178.87	178.87	2.58 2.37	-0.04 0.04	35.56
VB2 - 2	985.00	0.00 0.40	-618.49 -1252.60	0.00	497.84 -250.82	0.00	0.85 1.40	0.33 -0.33	-44.62
VB2 - 3	985.00	0.00 0.40	-1253.05 -3070.13	0.00	-250.82 -436.05	0.00	-2.10 2.83	0.25 -0.25	-44.62
VB2 - 4	5930.89	0.00 0.60	-3069.96 -14210.08	0.00	-75.32 -30.58	0.00	-18.64 21.82	-0.08 0.08	-44.62
VB2 - 5	7119.79	0.00 0.81	-14840.05 2144.09	2144.09	110.38 139.42	0.00	21.03 -13.87	-0.03 0.03	0.68
VB2 - 6	10237.81	0.00 0.81	2141.48 9491.20	9491.20	139.42 -99.87	0.00	13.17 -2.15	0.22 -0.22	0.68
VB2 - 7	7378.16	0.00 0.81	9489.40 819.28	9736.03	-99.87 -362.83	0.00	1.45 10.83	0.16 -0.16	0.68
VB2 - 8	6210.32	0.00 0.76	812.32 -9262.43	812.32	-471.00 -431.06	0.00	-14.89 18.67	-0.07 0.07	0.68
VB2 - 9	9321.20	0.00 0.63	-9045.95 4258.70	4258.70	-326.95 85.43	0.00	16.41 -2.24	-0.27 0.27	-4.41
VB2 - 10	8135.13	0.00 0.63	4261.17 -5667.27	4565.93	85.43 181.94	0.00	1.51 12.65	-0.06 0.06	-4.41
VB2 - 11	985.00	0.00 0.16	-4960.94 -404.91	0.00	-300.07 31.91	31.91	3.00 -0.09	-0.11 0.11	-1.58
VB3 - 1	772.50	0.00 0.13	-132.87 572.72	778.86	47.44 5.69	47.44	1.19 0.57	0.02 -0.02	3.10
VB3 - 2	772.50	0.00 0.13	573.17 -1717.60	573.17	5.69 -117.40	5.69	-1.27 2.27	0.10 -0.10	3.10
VB3 - 3	772.50	0.00 0.05	-1841.04 419.02	419.02	163.63 -39.33	163.63	2.64 -1.86	0.20 -0.20	2.32
VB3 - 4	772.50	0.00 0.05	421.63 1221.29	1221.29	-39.33 13.89	0.00	1.16 -0.33	-0.05 0.05	2.32
VB3 - 5	772.50	0.00 0.05	1223.09 -1624.15	1223.09	13.89 -24.86	13.89	-0.37 2.13	0.02 -0.02	2.32
VB3 - 6	772.50	0.00 0.15	-1500.12 707.01	707.01	88.81 -130.33	88.81	2.04 -0.87	0.14 -0.14	-14.12
VB3 - 7	772.50	0.00 0.15	704.54 -57.78	713.95	-130.33 -17.01	0.00	0.13 1.09	-0.07 0.07	-14.12
VB4 - 1	1053.75	0.00 0.15	-1068.16 -10512.44	4537.76	-3.08 -33.92	0.00	3.44 5.63	0.00 0.00	-0.45
VB4 - 2	1053.75	0.00 0.51	-10902.78 4941.66	6441.11	120.50 -40.60	120.50	6.05 1.78	0.02 -0.02	-9.42
VB4 - 3	1053.75	0.00	4951.17	4951.17	48.12	0.00	-0.13	0.04	19.99

		0.65	3396.01		-10.85		1.81	-0.04	
VB4 - 4	1053.75	0.00 0.65	3402.34 -2580.62	3402.34	-10.85 31.74	31.74	-3.09 4.71	-0.03 0.03	19.99
VB5 - 1	772.50	0.00 0.16	-504.22 1740.55	1740.55	-63.76 19.08	19.08	2.04 -0.82	-0.05 0.05	-7.65
VB5 - 2	772.50	0.00 0.16	1734.22 0.00	1734.22	19.08 0.00	19.08	-0.46 1.70	0.01 -0.01	-7.65
VB6 - 1	1053.75	0.00 0.02	-850.81 -11439.29	4329.37	-50.51 71.12	71.12	3.30 5.77	-0.01 0.01	0.81
VB6 - 2	1053.75	0.00 0.10	-11841.99 -2166.86	8087.65	34.11 -44.26	34.11	6.48 4.65	0.01 -0.01	1.26
VB7 - 1	1053.75	0.00 0.07	-956.91 -11402.54	4276.42	-7.02 27.23	27.23	3.32 5.75	0.00 0.00	-0.18
VB7 - 2	1053.75	0.00 0.19	-11881.51 -2053.47	8136.36	66.84 -70.42	66.84	6.50 4.63	0.01 -0.01	-0.08
VB8 - 1	1053.75	0.00 0.75	-1873.28 -10449.51	4067.31	-5.25 18.66	18.66	3.54 5.53	0.00 0.00	-3.32
VB8 - 2	1053.75	0.00 1.26	-11566.35 -3346.80	7523.54	55.80 -32.74	55.80	6.34 4.79	0.01 -0.01	2.91
VB9 - 1	810.00	0.00 0.37	-1056.46 -2863.13	1514.88	-6.16 5.95	5.95	2.04 2.66	0.00 0.00	-0.25
VB9 - 2	810.00	0.00 0.38	-2868.65 -2469.22	1436.49	-4.59 8.12	8.12	2.64 2.52	0.00 0.00	-0.05
VB10 - 1	810.00	0.00 0.26	-2200.50 -1599.28	868.96	60.52 -59.42	60.52	2.23 2.00	0.02 -0.02	-0.17
VB10 - 2	810.00	0.00 0.21	-1488.03 -366.86	737.60	-41.10 -3.10	0.00	1.90 1.34	-0.01 0.01	1.32
VB11	735.00	0.00 0.06	-38.74 -5012.30	0.00	-41.72 72.93	72.93	-1.86 3.28	-0.06 0.06	2.91
VB12	6691.44	0.00 0.88	-6556.96 -3437.95	8964.49	-250.01 272.66	0.00	15.38 12.19	-0.13 0.13	-0.65
VB13	735.00	0.00 0.08	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.45
VB14	7496.66	-0.33 0.00	0.00 0.00	16881.33	-360.73 437.70	0.00	15.81 14.85	-0.20 0.20	-0.17
VB15 - 1	225.00	-0.11 0.00	-236.15 -799.06	452.09	-19.19 20.71	20.71	0.56 0.75	-0.01 0.01	-0.28
VB15 - 2	225.00	-0.08 0.00	-846.43 -657.30	389.79	-18.89 22.51	22.51	0.75 0.69	-0.01 0.01	0.01
VB15 - 3	225.00	-0.06 0.00	-690.93 -267.35	302.53	59.53 -74.84	59.53	0.67 0.51	0.03 -0.03	0.59
VB15 - 4	225.00	-0.04 0.00	-267.77 -1159.78	0.00	-229.26 241.61	241.61	-0.20 0.67	-0.23 0.23	1.22
VB15 - 5	225.00	0.00 0.06	-1180.14 1337.04	1337.04	-35.77 97.07	97.07	1.52 -1.08	-0.07 0.07	-2.78
VB16	735.00	-0.25 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-2.61
VB17	735.00	0.00 0.07	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-1.80
VB18	2110.81	-0.22 0.00	0.00 0.00	6465.17	108.17 -109.58	0.00	4.06 4.20	0.06 -0.06	6.97
VB19	772.50	0.00 0.22	-395.22 1743.67	1743.67	-105.82 119.51	119.51	1.85 -0.36	-0.12 0.12	1.92
VB20	772.50	-0.22 0.00	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	2.47
VB21 - 1	772.50	0.00 0.30	-937.74 3651.58	3651.58	61.28 -79.67	61.28	2.67 -0.12	0.04 -0.04	6.31
VB21 - 2	772.50	0.00 0.31	3680.99 -1015.48	3680.99	-168.40 26.72	26.72	-1.53 3.10	-0.10 0.10	-3.19
VB22	772.50	-0.08 0.00	-692.20 -999.53	440.39	468.10 -424.83	0.00	1.32 1.49	0.24 -0.24	5.40
VB23	772.50	0.00 0.06	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.33

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VB24 - 1	810.00	0.00 0.34	-1010.80 -2840.67	1550.14	-34.45 27.61	27.61	2.04 2.67	-0.01 0.01	0.87
VB24 - 2	810.00	0.00 0.27	-2679.08 -2969.63	1279.32	-14.05 15.79	15.79	2.53 2.62	0.00 0.00	-0.07
VB25 - 1	810.00	0.00 0.28	-3042.54 1854.86	1854.86	-74.68 103.62	103.62	3.33 -1.78	-0.09 0.09	-1.31
VB25 - 2	810.00	0.00 0.27	1862.51 -2293.53	1862.59	103.62 -103.15	103.62	0.08 2.60	0.06 -0.06	-1.31
VB25 - 3	810.00	0.00 0.07	-1779.79 -440.20	572.29	-78.29 22.21	22.21	1.95 1.28	-0.03 0.03	-5.62

CASO: G1+G2+1.4Q+D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	0.00 0.14	-1079.91 103.39	492.72	300.11 -221.17	0.00	1.55 0.76	0.17 -0.17	26.62
VB1 - 2	5534.80	-0.02 0.00	103.16 -9762.02	103.16	158.27 -133.64	0.00	-15.61 18.71	0.50 -0.50	26.71
VB1 - 3	7936.70	0.00 0.32	-11131.74 -3121.30	7278.06	-86.69 -152.53	0.00	17.85 11.71	0.02 -0.02	-2.97
VB1 - 4	6718.48	0.00 0.42	-3114.13 -12300.76	0.00	-332.36 -447.40	0.00	-15.91 19.51	0.22 -0.22	31.60
VB1 - 5	8468.97	0.00 0.16	-11816.54 -1454.95	4927.37	-405.80 468.81	0.00	17.24 10.40	-0.27 0.27	-12.74
VB2 - 1	985.00	0.00 0.41	-1223.81 -263.41	2386.53	-10.57 198.25	198.25	2.67 2.29	-0.04 0.04	35.57
VB2 - 2	985.00	0.00 0.43	-633.00 -1122.37	0.00	482.04 -253.92	0.00	0.91 1.34	0.32 -0.32	-44.63
VB2 - 3	985.00	0.00 0.43	-1122.78 -2893.13	0.00	-253.92 -422.08	0.00	-2.04 2.77	0.23 -0.23	-44.63
VB2 - 4	5930.89	0.00 0.60	-2892.92 -13997.67	0.00	-120.41 -68.33	0.00	-18.58 21.76	-0.09 0.09	-44.63
VB2 - 5	7119.79	0.00 0.80	-15039.58 2005.65	2005.65	65.14 138.19	0.00	21.09 -13.93	-0.07 0.07	0.68
VB2 - 6	10237.81	0.00 0.80	2003.03 9418.11	9418.11	138.19 -86.71	0.00	13.23 -2.21	0.21 -0.21	0.68
VB2 - 7	7378.16	0.00 0.80	9416.35 848.69	9675.79	-86.71 -319.80	0.00	1.51 10.77	0.14 -0.14	0.68
VB2 - 8	6210.32	0.00 0.71	841.67 -9197.32	841.67	-491.17 -446.14	0.00	-14.83 18.61	-0.08 0.08	0.68
VB2 - 9	9321.20	0.00 0.46	-9086.57 4290.45	4290.45	-348.01 82.73	0.00	16.46 -2.29	-0.28 0.28	-4.45
VB2 - 10	8135.13	0.00 0.46	4292.94 -5552.67	4608.05	82.73 200.00	0.00	1.56 12.60	-0.07 0.07	-4.45
VB2 - 11	985.00	0.00 0.01	-5168.35 -14.09	0.00	-348.83 34.21	34.21	3.20 -0.30	-0.13 0.13	-1.53
VB3 - 1	772.50	0.00 0.17	-220.54 611.77	781.40	46.40 9.06	46.40	1.24 0.51	0.02 -0.02	3.14
VB3 - 2	772.50	0.00 0.17	612.18 -1606.48	612.18	9.06 -134.29	9.06	-1.21 2.21	0.11 -0.11	3.14
VB3 - 3	772.50	0.00 0.06	-1923.83 366.49	366.49	184.86 -44.00	184.86	2.67 -1.89	0.23 -0.23	2.31
VB3 - 4	772.50	0.00 0.06	369.10 1201.13	1201.13	-44.00 14.19	0.00	1.19 -0.36	-0.05 0.05	2.31
VB3 - 5	772.50	0.00 0.06	1202.90 -1575.88	1202.90	14.19 -23.93	14.19	-0.34 2.10	0.02 -0.02	2.31
VB3 - 6	772.50	0.00 0.16	-1549.01 723.03	723.03	90.97 -137.84	90.97	2.08 -0.91	0.15 -0.15	-14.23
VB3 - 7	772.50	0.00 0.16	720.54 25.77	739.59	-137.84 -34.38	0.00	0.17 1.05	-0.07 0.07	-14.23
VB4 - 1	1053.75	0.00	-1241.66	4470.44	33.82	33.82	3.47	0.01	-0.46



		0.11	-10400.59		-70.82		5.60	-0.01	
VB4 - 2	1053.75	0.00 0.46	-10999.54 5010.67	6474.28	172.65 -86.84	172.65	6.07 1.76	0.03 -0.03	-9.53
VB4 - 3	1053.75	0.00 0.60	5019.74 3584.81	5019.74	69.19 5.49	0.00	-0.05 1.74	0.04 -0.04	20.30
VB4 - 4	1053.75	0.00 0.60	3591.20 -2276.65	3591.20	5.49 8.03	8.03	-3.02 4.63	0.00 0.00	20.30
VB5 - 1	772.50	0.00 0.19	-611.32 1686.40	1686.40	-36.33 14.55	14.55	2.07 -0.86	-0.03 0.03	-7.74
VB5 - 2	772.50	0.00 0.19	1680.02 0.00	1680.02	14.55 0.00	14.55	-0.42 1.67	0.01 -0.01	-7.74
VB6 - 1	1053.75	0.00 0.03	-1144.23 -11260.88	4211.51	-18.50 55.46	55.46	3.36 5.71	-0.01 0.01	0.81
VB6 - 2	1053.75	0.00 0.09	-12014.89 -1872.86	8184.12	64.70 -99.36	64.70	6.53 4.60	0.02 -0.02	1.23
VB7 - 1	1053.75	0.00 0.07	-1260.86 -11216.66	4154.73	-56.95 62.83	62.83	3.38 5.69	-0.01 0.01	-0.18
VB7 - 2	1053.75	0.00 0.19	-12056.01 -1760.62	8233.82	39.11 -25.92	39.11	6.54 4.59	0.01 -0.01	-0.07
VB8 - 1	1053.75	0.00 0.76	-2042.16 -10330.42	4012.27	-59.78 53.69	53.69	3.57 5.50	-0.01 0.01	-3.32
VB8 - 2	1053.75	0.00 1.26	-11673.14 -3190.46	7568.55	28.40 15.74	28.40	6.37 4.76	0.00 0.00	2.93
VB9 - 1	810.00	0.00 0.37	-1063.22 -2857.66	1513.61	48.48 -49.53	48.48	2.04 2.66	0.02 -0.02	-0.18
VB9 - 2	810.00	0.00 0.37	-2871.26 -2466.65	1436.55	-11.99 6.81	6.81	2.64 2.51	0.00 0.00	-0.06
VB10 - 1	810.00	0.00 0.25	-2200.74 -1600.37	868.26	26.64 -24.47	26.64	2.23 2.00	0.01 -0.01	-0.23
VB10 - 2	810.00	0.00 0.21	-1492.39 -360.94	739.19	-40.65 -4.09	0.00	1.90 1.34	-0.01 0.01	1.37
VB11	735.00	0.00 0.06	-47.75 -5014.28	0.00	-39.49 71.08	71.08	-1.86 3.28	-0.06 0.06	2.77
VB12	6691.44	0.00 0.89	-6569.65 -3416.72	8968.76	-219.76 244.97	0.00	15.39 12.18	-0.11 0.11	-0.42
VB13	735.00	0.00 0.09	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.41
VB14	7496.66	-0.32 0.00	0.00 0.00	16881.33	-301.67 379.43	0.00	15.81 14.85	-0.17 0.17	-0.21
VB15 - 1	225.00	-0.10 0.00	-242.64 -794.49	450.18	49.17 -47.15	49.17	0.56 0.75	0.02 -0.02	-0.28
VB15 - 2	225.00	-0.07 0.00	-849.15 -654.37	389.99	-23.43 25.51	25.51	0.75 0.69	-0.01 0.01	0.00
VB15 - 3	225.00	-0.04 0.00	-695.23 -262.43	303.54	16.27 -35.17	16.27	0.67 0.50	0.01 -0.01	0.58
VB15 - 4	225.00	-0.02 0.00	-269.83 -1163.83	0.00	-278.63 298.25	298.25	-0.20 0.67	-0.28 0.28	1.47
VB15 - 5	225.00	0.00 0.09	-1185.45 1345.36	1345.36	-17.80 87.21	87.21	1.52 -1.09	-0.05 0.05	-2.92
VB16	735.00	-0.28 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-2.62
VB17	735.00	0.00 0.07	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-1.77
VB18	2110.81	-0.21 0.00	0.00 0.00	6465.17	171.36 -179.83	0.00	4.06 4.20	0.09 -0.09	7.01
VB19	772.50	0.00 0.22	-391.84 1739.46	1739.46	-106.19 119.04	119.04	1.85 -0.36	-0.12 0.12	1.86
VB20	772.50	-0.22 0.00	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	2.49
VB21 - 1	772.50	0.00 0.32	-948.35 3702.88	3702.88	31.77 -43.55	31.77	2.68 -0.14	0.02 -0.02	6.08
VB21 - 2	772.50	0.00 0.33	3732.71 -1032.63	3732.71	-199.59 44.79	44.79	-1.56 3.13	-0.12 0.12	-2.99



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VB22	772.50	-0.09 0.00	-683.67 -1010.58	440.22	537.87 -473.61	0.00	1.32 1.50	0.28 -0.28	5.59
VB23	772.50	0.00 0.04	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.38
VB24 - 1	810.00	0.00 0.34	-1008.45 -2843.92	1549.98	15.32 -23.02	15.32	2.04 2.67	0.01 -0.01	0.95
VB24 - 2	810.00	0.00 0.28	-2682.19 -2960.43	1282.16	-21.20 9.57	9.57	2.53 2.62	0.00 0.00	-0.07
VB25 - 1	810.00	0.00 0.28	-3027.57 1829.88	1829.88	-130.16 117.96	117.96	3.31 -1.76	-0.13 0.13	-1.36
VB25 - 2	810.00	0.00 0.27	1837.62 -2275.98	1840.35	117.96 -81.01	117.96	0.10 2.58	0.06 -0.06	-1.36
VB25 - 3	810.00	0.00 0.05	-1771.19 -446.40	572.33	-82.96 19.71	19.71	1.95 1.29	-0.03 0.03	-5.69

CASO: G1+G2+1.4Q+D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	0.00 0.04	-972.48 52.84	494.83	446.71 -352.02	0.00	1.50 0.82	0.27 -0.27	26.88
VB1 - 2	5534.80	-0.17 0.00	52.62 -9843.20	52.62	160.03 -183.76	0.00	-15.67 18.77	0.59 -0.59	26.93
VB1 - 3	7936.70	0.00 0.19	-11081.81 -3157.55	7280.11	-140.14 -171.35	0.00	17.83 11.73	0.01 -0.01	-2.96
VB1 - 4	6718.48	0.00 0.33	-3150.43 -12348.88	0.00	-429.49 -551.84	0.00	-15.94 19.54	0.24 -0.24	32.02
VB1 - 5	8468.97	0.00 0.10	-11730.97 -1569.19	4900.54	-513.67 603.95	0.00	17.18 10.46	-0.34 0.34	-13.24
VB2 - 1	985.00	0.00 0.33	-1063.29 -308.38	2440.19	64.08 46.55	64.08	2.63 2.33	0.00 0.00	35.34
VB2 - 2	985.00	0.00 0.48	-622.88 -1191.61	0.00	520.21 -317.45	0.00	0.87 1.37	0.37 -0.37	-44.18
VB2 - 3	985.00	0.00 0.48	-1192.03 -2988.01	0.00	-317.45 -523.46	0.00	-2.07 2.80	0.28 -0.28	-44.18
VB2 - 4	5930.89	0.00 0.70	-2987.80 -14111.94	0.00	-100.50 -80.30	0.00	-18.61 21.80	-0.04 0.04	-44.18
VB2 - 5	7119.79	0.00 0.93	-14950.30 2072.19	2072.19	33.64 93.70	0.00	21.06 -13.91	-0.06 0.06	0.55
VB2 - 6	10237.81	0.00 0.93	2069.57 9460.32	9460.32	93.70 -117.65	0.00	13.20 -2.19	0.20 -0.20	0.55
VB2 - 7	7378.16	0.00 0.93	9458.52 852.73	9713.19	-117.65 -349.92	0.00	1.49 10.79	0.14 -0.14	0.55
VB2 - 8	6210.32	0.00 0.80	845.76 -9206.54	845.76	-600.50 -541.01	0.00	-14.85 18.64	-0.10 0.10	0.55
VB2 - 9	9321.20	0.00 0.62	-9040.58 4274.22	4274.22	-448.91 113.26	0.00	16.42 -2.25	-0.37 0.37	-4.39
VB2 - 10	8135.13	0.00 0.62	4276.75 -5640.07	4582.96	113.26 244.21	0.00	1.51 12.64	-0.08 0.08	-4.39
VB2 - 11	985.00	0.00 0.06	-5092.74 -209.09	0.00	-466.72 99.11	99.11	3.11 -0.21	-0.19 0.19	-1.48
VB3 - 1	772.50	0.00 0.14	-177.97 595.05	780.84	41.65 8.56	41.65	1.22 0.54	0.01 -0.01	2.92
VB3 - 2	772.50	0.00 0.14	595.47 -1656.93	595.47	8.56 -123.55	8.56	-1.24 2.24	0.10 -0.10	2.92
VB3 - 3	772.50	0.00 0.02	-1881.03 393.13	393.13	170.05 -40.05	170.05	2.65 -1.87	0.21 -0.21	2.39
VB3 - 4	772.50	0.00 0.02	395.76 1210.49	1210.49	-40.05 10.78	0.00	1.17 -0.34	-0.05 0.05	2.39
VB3 - 5	772.50	0.00 0.02	1212.29 -1603.06	1212.29	10.78 -15.36	10.78	-0.36 2.12	0.01 -0.01	2.39
VB3 - 6	772.50	0.00	-1531.73	713.23	96.83	96.83	2.06	0.18	-14.18




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		0.12	713.23		-170.58		-0.89	-0.18	
VB3 - 7	772.50	0.00 0.12	710.71 -12.24	725.74	-170.58 17.05	17.05	0.15 1.07	-0.12 0.12	-14.18
VB4 - 1	1053.75	0.00 0.15	-1168.33 -10447.26	4499.12	80.44 -125.93	80.44	3.46 5.61	0.02 -0.02	-0.39
VB4 - 2	1053.75	0.00 0.52	-10953.50 4975.05	6456.31	97.49 -52.85	97.49	6.06 1.77	0.02 -0.02	-9.77
VB4 - 3	1053.75	0.00 0.64	4984.34 3499.26	4984.34	9.68 -9.99	0.00	-0.08 1.77	0.01 -0.01	20.72
VB4 - 4	1053.75	0.00 0.64	3505.63 -2410.23	3505.63	-9.99 81.76	81.76	-3.05 4.67	-0.06 0.06	20.72
VB5 - 1	772.50	0.00 0.16	-565.70 1709.47	1709.47	-71.08 21.36	21.36	2.05 -0.84	-0.06 0.06	-7.81
VB5 - 2	772.50	0.00 0.16	1703.10 0.00	1703.10	21.36 0.00	21.36	-0.44 1.68	0.01 -0.01	-7.81
VB6 - 1	1053.75	0.00 0.03	-1009.07 -11343.32	4265.70	8.76 0.15	8.76	3.33 5.74	0.00 0.00	0.91
VB6 - 2	1053.75	0.00 0.10	-11935.05 -2008.30	8139.76	-7.16 -30.28	0.00	6.50 4.63	0.00 0.00	1.19
VB7 - 1	1053.75	0.00 0.07	-1110.86 -11308.32	4214.81	12.68 -16.98	12.68	3.35 5.72	0.00 0.00	-0.11
VB7 - 2	1053.75	0.00 0.19	-11970.43 -1904.04	8184.94	-3.30 -10.28	0.00	6.52 4.61	0.00 0.00	-0.10
VB8 - 1	1053.75	0.00 0.76	-1953.06 -10393.00	4041.41	-2.78 -18.39	0.00	3.55 5.52	0.00 0.00	-3.13
VB8 - 2	1053.75	0.00 1.26	-11620.34 -3266.93	7546.78	-7.38 16.01	16.01	6.36 4.77	0.00 0.00	2.81
VB9 - 1	810.00	0.00 0.37	-983.98 -2921.28	1530.58	0.06 -2.59	0.06	2.02 2.69	0.00 0.00	-0.21
VB9 - 2	810.00	0.00 0.37	-2824.71 -2515.63	1433.80	-22.90 22.37	22.37	2.63 2.53	-0.01 0.01	-0.05
VB10 - 1	810.00	0.00 0.24	-2146.45 -1646.84	868.30	24.80 -26.30	24.80	2.21 2.02	0.01 -0.01	-0.20
VB10 - 2	810.00	0.00 0.19	-1421.01 -453.51	715.66	-79.76 52.55	52.55	1.86 1.38	-0.03 0.03	1.34
VB11	735.00	0.00 0.01	52.02 -5050.83	52.02	-35.35 63.77	63.77	-1.93 3.35	-0.05 0.05	2.85
VB12	6691.44	0.00 0.84	-6481.27 -3600.00	8921.31	-412.95 394.43	0.00	15.32 12.25	-0.20 0.20	-0.56
VB13	735.00	0.00 0.09	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.42
VB14	7496.66	-0.32 0.00	0.00 0.00	16881.33	-422.96 512.05	0.00	15.81 14.85	-0.23 0.23	-0.20
VB15 - 1	225.00	-0.10 0.00	-105.35 -899.22	487.60	11.12 -9.33	11.12	0.52 0.79	0.00 0.00	-0.28
VB15 - 2	225.00	-0.08 0.00	-775.80 -733.97	384.40	-23.01 25.57	25.57	0.72 0.71	-0.01 0.01	0.01
VB15 - 3	225.00	-0.06 0.00	-601.71 -345.13	299.15	32.89 -49.88	32.89	0.64 0.54	0.02 -0.02	0.59
VB15 - 4	225.00	-0.05 0.00	-172.45 -1169.40	0.00	-273.29 278.70	278.70	-0.25 0.72	-0.27 0.27	1.35
VB15 - 5	225.00	0.00 0.07	-1162.41 1173.95	1173.95	-12.87 76.73	76.73	1.42 -0.99	-0.05 0.05	-2.87
VB16	735.00	-0.26 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-2.63
VB17	735.00	0.00 0.06	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-1.80
VB18	2110.81	-0.24 0.00	0.00 0.00	6465.17	250.58 -258.14	0.00	4.06 4.20	0.13 -0.13	6.96
VB19	772.50	0.00 0.24	-313.48 1660.16	1660.16	-103.17 110.65	110.65	1.77 -0.28	-0.11 0.11	1.90
VB20	772.50	-0.29 0.00	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	2.52

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VB21 - 1	772.50	0.00 0.29	-892.63 3670.60	3670.60	66.51 -85.10	66.51	2.66 -0.12	0.05 -0.05	6.19
VB21 - 2	772.50	0.00 0.28	3701.08 -1077.34	3701.08	-147.63 -2.34	0.00	-1.57 3.14	-0.07 0.07	-3.11
VB22	772.50	-0.14 0.00	-583.36 -1144.22	436.55	693.60 -605.78	0.00	1.26 1.56	0.36 -0.36	5.46
VB23	772.50	0.00 0.07	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.37
VB24 - 1	810.00	0.00 0.33	-913.34 -2919.56	1572.70	8.11 -13.31	8.11	2.01 2.70	0.00 0.00	0.91
VB24 - 2	810.00	0.00 0.25	-2623.35 -3025.15	1281.21	-4.60 0.33	0.33	2.52 2.64	0.00 0.00	-0.07
VB25 - 1	810.00	0.00 0.24	-2964.84 1862.28	1862.28	-79.91 107.88	107.88	3.30 -1.75	-0.10 0.10	-1.34
VB25 - 2	810.00	0.00 0.23	1870.09 -2343.44	1870.09	107.88 -107.20	107.88	0.07 2.61	0.06 -0.06	-1.34
VB25 - 3	810.00	0.00 0.03	-1687.11 -558.08	543.07	-45.06 -26.00	0.00	1.90 1.34	0.00 0.00	-5.67

CASO: G1+G2+1.4Q+D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	0.00 0.20	-1002.65 66.22	493.69	180.36 -102.99	0.00	1.51 0.80	0.09 -0.09	26.40
VB1 - 2	5534.80	0.00 0.09	66.03 -9821.35	66.03	202.09 -52.06	0.00	-15.65 18.75	0.44 -0.44	26.46
VB1 - 3	7936.70	0.00 0.47	-11091.53 -3152.21	7278.75	-6.77 -167.81	0.00	17.83 11.73	0.04 -0.04	-3.13
VB1 - 4	6718.48	0.00 0.50	-3145.04 -12341.43	0.00	-199.07 -320.58	0.00	-15.93 19.53	0.24 -0.24	31.78
VB1 - 5	8468.97	0.00 0.28	-11757.95 -1529.41	4911.12	-280.25 284.08	0.00	17.20 10.44	-0.17 0.17	-12.22
VB2 - 1	985.00	0.00 0.38	-1051.39 -314.32	2442.81	-86.45 330.57	330.57	2.62 2.33	-0.08 0.08	35.79
VB2 - 2	985.00	0.00 0.35	-628.61 -1183.36	0.00	459.67 -187.30	0.00	0.88 1.37	0.28 -0.28	-45.07
VB2 - 3	985.00	0.00 0.35	-1183.80 -2975.26	0.00	-187.30 -334.66	0.00	-2.07 2.79	0.20 -0.20	-45.07
VB2 - 4	5930.89	0.00 0.49	-2975.08 -14095.81	0.00	-95.22 -18.61	0.00	-18.61 21.79	-0.14 0.14	-45.07
VB2 - 5	7119.79	0.00 0.68	-14929.33 2077.55	2077.55	141.88 183.91	0.00	21.05 -13.89	-0.04 0.04	0.81
VB2 - 6	10237.81	0.00 0.68	2074.95 9449.00	9449.00	183.91 -68.93	0.00	13.19 -2.18	0.24 -0.24	0.81
VB2 - 7	7378.16	0.00 0.68	9447.23 815.24	9698.63	-68.93 -332.71	0.00	1.48 10.81	0.16 -0.16	0.81
VB2 - 8	6210.32	0.00 0.66	808.23 -9253.22	808.23	-361.67 -336.20	0.00	-14.87 18.65	-0.04 0.04	0.81
VB2 - 9	9321.20	0.00 0.47	-9091.94 4274.93	4274.93	-226.05 54.90	0.00	16.45 -2.29	-0.18 0.18	-4.47
VB2 - 10	8135.13	0.00 0.47	4277.36 -5579.86	4591.02	54.90 137.73	0.00	1.55 12.61	-0.05 0.05	-4.47
VB2 - 11	985.00	0.00 0.11	-5036.55 -209.91	0.00	-182.18 -32.99	0.00	3.09 -0.19	-0.05 0.05	-1.63
VB3 - 1	772.50	0.00 0.16	-175.44 589.44	777.46	52.19 6.18	52.19	1.22 0.54	0.02 -0.02	3.32
VB3 - 2	772.50	0.00 0.16	589.88 -1667.15	589.88	6.18 -128.14	6.18	-1.24 2.24	0.10 -0.10	3.32
VB3 - 3	772.50	0.00 0.08	-1883.84 392.38	392.38	178.44 -43.29	178.44	2.65 -1.88	0.22 -0.22	2.24
VB3 - 4	772.50	0.00	394.98	1211.93	-43.29	0.00	1.17	-0.06	2.24

		0.08	1211.93		17.30		-0.34	0.06	
VB3 - 5	772.50	0.00 0.08	1213.70 -1596.97	1213.70	17.30 -33.42	17.30	-0.36 2.11	0.02 -0.02	2.24
VB3 - 6	772.50	0.00 0.19	-1517.40 716.81	716.81	82.96 -97.59	82.96	2.06 -0.88	0.12 -0.12	-14.18
VB3 - 7	772.50	0.00 0.19	714.37 -19.77	727.81	-97.59 -68.44	0.00	0.15 1.08	-0.02 0.02	-14.18
VB4 - 1	1053.75	0.00 0.11	-1141.50 -10465.77	4509.08	-49.70 21.19	21.19	3.45 5.62	-0.01 0.01	-0.52
VB4 - 2	1053.75	0.00 0.45	-10948.81 4977.29	6459.08	195.66 -74.59	195.66	6.06 1.77	0.04 -0.04	-9.18
VB4 - 3	1053.75	0.00 0.61	4986.57 3481.56	4986.57	107.63 4.64	0.00	-0.10 1.78	0.06 -0.06	19.57
VB4 - 4	1053.75	0.00 0.61	3487.91 -2447.03	3487.91	4.64 -42.00	4.64	-3.06 4.68	0.03 -0.03	19.57
VB5 - 1	772.50	0.00 0.18	-549.84 1717.48	1717.48	-29.01 12.27	12.27	2.05 -0.84	-0.03 0.03	-7.58
VB5 - 2	772.50	0.00 0.18	1711.14 0.00	1711.14	12.27 0.00	12.27	-0.44 1.69	0.01 -0.01	-7.58
VB6 - 1	1053.75	0.00 0.02	-985.97 -11356.85	4275.17	-77.77 126.42	126.42	3.33 5.74	-0.02 0.02	0.72
VB6 - 2	1053.75	0.00 0.09	-11921.83 -2031.43	8132.01	105.97 -113.34	105.97	6.50 4.63	0.02 -0.02	1.29
VB7 - 1	1053.75	0.00 0.07	-1106.92 -11310.88	4216.33	-76.64 107.04	107.04	3.35 5.72	-0.02 0.02	-0.24
VB7 - 2	1053.75	0.00 0.19	-11967.08 -1910.04	8182.90	109.25 -86.05	109.25	6.52 4.61	0.02 -0.02	-0.05
VB8 - 1	1053.75	0.00 0.75	-1962.37 -10386.93	4038.17	-62.26 90.74	90.74	3.56 5.51	-0.02 0.02	-3.51
VB8 - 2	1053.75	0.00 1.25	-11619.16 -3270.33	7545.31	91.58 -33.02	91.58	6.36 4.77	0.01 -0.01	3.02
VB9 - 1	810.00	0.00 0.37	-1135.69 -2799.51	1499.69	42.25 -40.99	42.25	2.07 2.64	0.01 -0.01	-0.22
VB9 - 2	810.00	0.00 0.38	-2915.20 -2420.25	1439.24	6.32 -7.44	6.32	2.66 2.50	0.00 0.00	-0.06
VB10 - 1	810.00	0.00 0.26	-2254.79 -1552.81	868.92	62.35 -57.60	62.35	2.25 1.98	0.02 -0.02	-0.20
VB10 - 2	810.00	0.00 0.23	-1559.41 -274.29	761.14	-1.99 -59.74	0.00	1.94 1.30	0.01 -0.01	1.35
VB11	735.00	0.00 0.10	-138.51 -4975.75	0.00	-45.86 80.24	80.24	-1.79 3.21	-0.07 0.07	2.83
VB12	6691.44	0.00 0.93	-6645.34 -3254.67	9011.93	-56.82 123.20	0.00	15.45 12.13	-0.04 0.04	-0.51
VB13	735.00	0.00 0.08	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.43
VB14	7496.66	-0.34 0.00	0.00 0.00	16881.33	-239.44 305.08	0.00	15.81 14.85	-0.13 0.13	-0.17
VB15 - 1	225.00	-0.11 0.00	-373.44 -694.32	421.95	18.86 -17.11	18.86	0.60 0.71	0.01 -0.01	-0.29
VB15 - 2	225.00	-0.08 0.00	-919.78 -577.70	396.93	-19.31 22.45	22.45	0.77 0.66	-0.01 0.01	0.00
VB15 - 3	225.00	-0.04 0.00	-784.45 -184.65	311.04	42.91 -60.13	42.91	0.70 0.47	0.02 -0.02	0.58
VB15 - 4	225.00	-0.01 0.00	-365.15 -1154.22	0.00	-234.60 261.16	261.16	-0.15 0.62	-0.24 0.24	1.34
VB15 - 5	225.00	0.00 0.09	-1203.18 1508.45	1508.45	-40.70 107.55	107.55	1.62 -1.18	-0.08 0.08	-2.83
VB16	735.00	-0.28 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-2.60
VB17	735.00	0.00 0.08	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-1.77
VB18	2110.81	-0.20 0.00	0.00 0.00	6465.17	28.96 -31.26	0.00	4.06 4.20	0.02 -0.02	7.02


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VB19	772.50	0.00 0.20	-473.58 1822.97	1822.97	-108.85 127.91	127.91	1.93 -0.44	-0.12 0.12	1.88
VB20	772.50	-0.14 0.00	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	2.43
VB21 - 1	772.50	0.00 0.33	-993.46 3683.86	3683.86	26.54 -38.13	26.54	2.69 -0.15	0.02 -0.02	6.20
VB21 - 2	772.50	0.00 0.36	3712.62 -970.77	3712.62	-220.35 73.86	73.86	-1.52 3.09	-0.14 0.14	-3.08
VB22	772.50	-0.02 0.00	-792.51 -865.89	455.85	312.37 -292.66	0.00	1.39 1.43	0.17 -0.17	5.52
VB23	772.50	0.00 0.03	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.34
VB24 - 1	810.00	0.00 0.35	-1105.91 -2765.03	1531.57	-27.24 17.89	17.89	2.07 2.64	-0.01 0.01	0.91
VB24 - 2	810.00	0.00 0.30	-2737.91 -2904.90	1280.27	-30.65 25.03	25.03	2.55 2.60	-0.01 0.01	-0.08
VB25 - 1	810.00	0.00 0.32	-3105.27 1822.46	1822.46	-124.93 113.70	113.70	3.35 -1.80	-0.12 0.12	-1.33
VB25 - 2	810.00	0.00 0.31	1830.04 -2226.08	1836.37	113.70 -76.96	113.70	0.11 2.57	0.06 -0.06	-1.33
VB25 - 3	810.00	0.00 0.09	-1863.86 -328.52	610.70	-116.19 67.93	67.93	2.00 1.23	-0.05 0.05	-5.64

CASO: G1+G2+1.4V1+0.84D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	0.00 0.20	106.81 -289.71	799.58	84.09 -57.00	0.00	1.03 1.29	0.05 -0.05	4.96
VB1 - 2	1349.50	0.00 0.12	-289.10 -2827.28	0.00	104.56 4.79	0.00	-4.00 4.77	0.17 -0.17	4.71
VB1 - 3	1509.93	0.00 0.12	-2127.54 -511.50	1344.10	13.94 -78.55	0.00	3.33 2.31	0.02 -0.02	-0.48
VB1 - 4	1336.21	0.00 0.11	-510.26 -2737.31	0.00	-51.88 -96.41	0.00	-3.97 4.67	0.09 -0.09	5.18
VB1 - 5	1502.17	0.00 0.03	-1750.28 -958.03	646.22	-85.95 66.30	0.00	2.72 2.18	-0.05 0.05	-3.38
VB2 - 1	985.00	0.00 0.12	421.05 -1649.47	2584.13	-63.11 125.37	125.37	2.07 2.89	-0.04 0.04	7.59
VB2 - 2	985.00	0.00 0.36	-1288.73 -526.83	0.00	113.03 -20.40	0.00	1.46 0.79	0.06 -0.06	-8.92
VB2 - 3	985.00	0.00 0.36	-527.47 -1893.73	0.00	-20.40 -58.94	0.00	-1.49 2.22	0.05 -0.05	-8.92
VB2 - 4	1587.61	0.00 0.44	-1894.35 -4918.06	0.00	107.08 145.52	0.00	-5.02 5.89	-0.07 0.07	-8.92
VB2 - 5	1642.85	0.00 0.38	-3582.41 758.40	758.40	-1.18 -72.44	0.00	5.21 -3.56	0.07 -0.07	0.11
VB2 - 6	1877.23	0.00 0.38	759.47 2653.68	2653.68	-72.44 -32.30	0.00	2.86 -0.84	-0.04 0.04	0.11
VB2 - 7	1663.85	0.00 0.38	2653.07 498.04	2653.07	-32.30 -76.38	0.00	0.14 2.65	0.03 -0.03	0.11
VB2 - 8	1480.39	0.00 0.39	496.83 -2313.34	496.83	-57.96 -36.39	0.00	-4.30 5.19	-0.04 0.04	0.11
VB2 - 9	1775.32	0.00 0.63	-1843.59 880.21	880.21	-142.43 37.49	0.00	3.20 -0.50	-0.12 0.12	5.69
VB2 - 10	1662.87	0.00 0.63	881.11 -2074.80	881.11	37.49 65.62	0.00	-0.24 3.13	-0.02 0.02	5.69
VB2 - 11	985.00	0.00 0.37	-834.59 -1636.17	0.00	8.81 20.52	20.52	1.18 1.72	0.00 0.00	-7.53
VB3 - 1	772.50	0.00 0.10	193.65 368.31	784.69	-51.28 9.81	0.00	0.96 0.80	-0.03 0.03	-0.33
VB3 - 2	772.50	0.00	368.95	368.95	9.81	36.58	-1.50	-0.02	-0.33

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		0.10	-2223.90		36.58		2.50	0.02	
VB3 - 3	772.50	-0.06 0.00	-1552.21 603.37	603.37	-58.50 16.82	16.82	2.53 -1.76	-0.07 0.07	0.58
VB3 - 4	772.50	-0.06 0.00	602.30 1290.17	1290.17	16.82 -18.98	0.00	1.05 -0.22	0.03 -0.03	0.58
VB3 - 5	772.50	-0.06 0.00	1290.79 -1792.88	1290.79	-18.98 49.67	49.67	-0.48 2.23	-0.03 0.03	0.58
VB3 - 6	772.50	-0.08 0.00	-1299.65 643.19	643.19	-26.96 -66.00	0.00	1.87 -0.69	0.03 -0.03	-10.29
VB3 - 7	772.50	-0.08 0.00	642.29 -395.09	642.29	-66.00 55.01	55.01	-0.05 1.27	-0.08 0.08	-10.29
VB4 - 1	1053.75	0.00 0.33	-343.85 -10940.46	4833.30	-211.28 140.14	140.14	3.30 5.77	-0.04 0.04	-0.08
VB4 - 2	1053.75	0.00 0.69	-10518.14 4646.63	6307.77	-101.75 194.07	194.07	5.95 1.87	-0.04 0.04	-9.26
VB4 - 3	1053.75	0.00 0.82	4658.01 2588.51	4658.01	-17.23 -54.41	0.00	-0.45 2.14	0.02 -0.02	18.49
VB4 - 4	1053.75	0.00 0.82	2594.59 -3880.85	2594.59	-54.41 181.81	181.81	-3.41 5.03	-0.15 0.15	18.49
VB5 - 1	772.50	0.00 0.13	-23.92 1983.39	1983.39	-186.87 46.36	46.36	1.88 -0.67	-0.15 0.15	-7.20
VB5 - 2	772.50	0.00 0.13	1977.31 0.00	1977.31	46.36 0.00	46.36	-0.61 1.85	0.03 -0.03	-7.20
VB6 - 1	1053.75	0.00 0.05	372.62 -12140.09	4874.46	-177.28 152.77	152.77	3.08 5.99	-0.04 0.04	0.73
VB6 - 2	1053.75	0.00 0.12	-11147.38 -3411.38	7666.94	-54.52 110.48	110.48	6.30 4.83	-0.02 0.02	1.46
VB7 - 1	1053.75	0.00 0.07	253.64 -12103.71	4809.67	178.98 -99.91	178.98	3.10 5.97	0.03 -0.03	-0.18
VB7 - 2	1053.75	0.00 0.16	-11218.49 -3219.67	7744.05	188.92 -251.12	188.92	6.32 4.81	0.04 -0.04	-0.12
VB8 - 1	1053.75	0.00 0.78	-1107.80 -10982.15	4338.10	192.47 -97.77	192.47	3.39 5.68	0.03 -0.03	-3.37
VB8 - 2	1053.75	0.00 1.21	-11085.95 -4059.58	7332.61	167.65 -219.94	167.65	6.23 4.90	0.04 -0.04	2.90
VB9 - 1	810.00	0.00 0.40	-1042.88 -2874.04	1517.48	-203.69 206.38	206.38	2.04 2.67	-0.07 0.07	-0.48
VB9 - 2	810.00	0.00 0.44	-2865.72 -2471.16	1436.91	14.80 20.93	20.93	2.64 2.52	0.00 0.00	-0.06
VB10 - 1	810.00	0.00 0.29	-2207.13 -1592.03	869.81	200.59 -192.85	200.59	2.23 2.00	0.08 -0.08	0.08
VB10 - 2	810.00	0.00 0.21	-1491.50 -359.59	740.35	25.60 -70.36	25.60	1.90 1.34	0.02 -0.02	1.87
VB11	735.00	0.00 0.02	-136.77 -829.75	0.00	60.89 -89.68	60.89	0.35 1.07	0.08 -0.08	3.01
VB12	1333.65	0.00 0.23	-1344.75 -806.39	1732.37	-67.20 80.18	0.00	2.96 2.54	-0.04 0.04	-1.81
VB13	735.00	0.00 0.01	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.64
VB14	1348.71	-0.12 0.00	0.00 0.00	2810.87	-166.02 161.56	0.00	2.80 2.71	-0.08 0.08	0.61
VB15 - 1	225.00	-0.12 0.00	-240.36 -797.97	450.07	-273.70 272.39	272.39	0.56 0.75	-0.09 0.09	-0.25
VB15 - 2	225.00	-0.10 0.00	-853.98 -639.95	395.09	-16.44 27.98	27.98	0.75 0.68	-0.01 0.01	0.01
VB15 - 3	225.00	-0.07 0.00	-673.98 -347.67	264.43	235.27 -240.81	235.27	0.65 0.53	0.09 -0.09	0.60
VB15 - 4	225.00	-0.06 0.00	-390.28 -43.56	0.00	1.08 32.15	32.15	0.40 0.06	-0.02 0.02	0.24
VB15 - 5	225.00	-0.11 0.00	-58.98 319.98	319.98	132.93 -154.72	132.93	0.41 0.02	0.15 -0.15	1.06
VB16	735.00	0.00 0.11	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	1.07

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VB17	735.00	-0.06 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.62
VB18	844.02	-0.06 0.00	0.00 0.00	1742.29	-18.42 26.67	0.00	1.65 1.66	-0.01 0.01	1.21
VB19	772.50	0.00 0.09	-210.03 386.78	508.13	84.97 -116.46	84.97	1.06 0.44	0.10 -0.10	0.19
VB20	772.50	-0.10 0.00	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	0.90
VB21 - 1	772.50	0.00 0.20	-923.73 3434.70	3434.70	198.31 -247.34	198.31	2.60 -0.05	0.14 -0.14	7.35
VB21 - 2	772.50	0.00 0.26	3462.45 -910.29	3462.45	-36.04 -50.07	0.00	-1.37 2.94	0.01 -0.01	-4.03
VB22	772.50	0.00 0.10	-430.01 -517.73	811.18	43.95 -63.79	0.00	1.38 1.43	0.03 -0.03	0.19
VB23	772.50	0.00 0.18	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.09
VB24 - 1	810.00	0.00 0.32	-1030.71 -2819.11	1548.82	-222.86 218.43	218.43	2.05 2.66	-0.08 0.08	0.58
VB24 - 2	810.00	0.00 0.23	-2672.53 -3002.54	1266.77	3.11 42.30	42.30	2.53 2.63	-0.01 0.01	-0.12
VB25 - 1	810.00	0.00 0.28	-3114.77 1963.55	1963.55	70.77 120.31	120.31	3.43 -1.88	-0.03 0.03	-1.12
VB25 - 2	810.00	0.00 0.25	1970.75 -2372.50	1970.75	120.31 -230.42	120.31	0.03 2.65	0.11 -0.11	-1.12
VB25 - 3	810.00	0.00 0.17	-1845.86 -373.34	589.03	-21.46 1.68	1.68	1.99 1.25	-0.01 0.01	-5.23

CASO: G1+G2+1.4V2+0.84D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	0.00 0.16	-1147.30 307.28	609.11	27.56 11.92	0.00	1.64 0.67	0.01 -0.01	4.70
VB1 - 2	1349.50	0.00 0.16	307.59 -1871.53	307.59	44.38 -24.56	0.00	-3.39 4.16	0.12 -0.12	4.92
VB1 - 3	1509.93	0.00 0.16	-2737.62 -58.00	1383.98	-17.52 -35.60	0.00	3.61 2.03	0.00 0.00	0.11
VB1 - 4	1336.21	0.00 0.16	-56.45 -2137.59	0.00	-39.03 -77.48	0.00	-3.68 4.38	0.07 -0.07	0.68
VB1 - 5	1502.17	0.00 0.07	-2731.47 329.02	1078.03	-67.92 68.36	0.00	3.41 1.49	-0.04 0.04	-3.44
VB2 - 1	985.00	0.00 0.42	-2056.77 -937.02	1641.34	153.02 -17.99	153.02	2.70 2.25	0.03 -0.03	7.49
VB2 - 2	985.00	0.00 0.11	-1388.73 440.19	489.26	181.16 -156.68	0.00	1.93 0.32	0.15 -0.15	-8.68
VB2 - 3	985.00	0.00 0.11	439.91 -581.78	439.91	-156.68 -177.56	0.00	-1.02 1.75	0.03 -0.03	-8.68
VB2 - 4	1587.61	0.00 0.10	-582.10 -3345.11	0.00	-229.37 -181.86	0.00	-4.55 5.42	-0.09 0.09	-8.68
VB2 - 5	1642.85	0.00 0.18	-5056.40 -266.48	0.00	132.63 334.33	0.00	5.65 -4.00	-0.20 0.20	-0.13
VB2 - 6	1877.23	0.00 0.18	-265.52 2109.21	2109.21	334.33 -2.43	0.00	3.30 -1.28	0.31 -0.31	-0.13
VB2 - 7	1663.85	0.00 0.18	2108.97 707.21	2201.68	-2.43 -223.59	0.00	0.58 2.21	0.13 -0.13	-0.13
VB2 - 8	1480.39	0.00 0.18	705.67 -1841.66	705.67	-211.99 -246.96	0.00	-3.86 4.74	0.06 -0.06	-0.13
VB2 - 9	1775.32	-0.30 0.00	-2150.78 1115.60	1115.60	25.55 25.38	0.00	3.55 -0.85	0.00 0.00	5.16
VB2 - 10	1662.87	-0.30 0.00	1116.71 -1218.08	1119.04	25.38 34.36	0.00	0.12 2.78	-0.01 0.01	5.16
VB2 - 11	985.00	-0.16	-2350.71	1282.90	-18.75	0.00	2.68	0.05	-7.36






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		0.00	1256.93		-159.88		0.23	-0.05	
VB3 - 1	772.50	0.00 0.16	-617.13 733.22	785.16	121.05 0.83	121.05	1.47 0.29	0.05 -0.05	-0.25
VB3 - 2	772.50	0.00 0.16	733.50 -1190.41	733.50	0.83 -222.56	0.83	-0.99 1.99	0.17 -0.17	-0.25
VB3 - 3	772.50	0.00 0.25	-2321.01 115.22	115.22	318.28 -80.50	318.28	2.81 -2.03	0.40 -0.40	0.56
VB3 - 4	772.50	0.00 0.25	114.26 1102.39	1102.39	-80.50 45.40	0.00	1.33 -0.50	-0.12 0.12	0.56
VB3 - 5	772.50	0.00 0.25	1102.63 -1346.00	1102.63	45.40 -102.18	45.40	-0.20 1.96	0.06 -0.06	0.56
VB3 - 6	772.50	0.00 0.42	-1750.00 794.27	794.27	130.97 -30.17	130.97	2.26 -1.09	0.11 -0.11	-11.34
VB3 - 7	772.50	0.00 0.42	793.15 381.70	872.78	-30.17 -206.20	0.00	0.35 0.87	0.11 -0.11	-11.34
VB4 - 1	1053.75	-0.04 0.00	-1971.28 -9956.07	4203.13	270.82 -267.21	270.82	3.61 5.46	0.06 -0.06	-0.17
VB4 - 2	1053.75	0.00 0.19	-11368.30 5301.06	6622.15	257.96 -182.93	257.96	6.16 1.67	0.06 -0.06	-10.40
VB4 - 3	1053.75	0.00 0.38	5308.33 4382.19	5340.42	276.98 64.49	0.00	0.27 1.42	0.13 -0.13	21.40
VB4 - 4	1053.75	0.00 0.38	4388.80 -991.89	4388.80	64.49 -246.62	64.49	-2.70 4.32	0.20 -0.20	21.40
VB5 - 1	772.50	0.00 0.21	-1085.84 1446.48	1446.48	91.11 -9.72	91.11	2.22 -1.00	0.06 -0.06	-8.07
VB5 - 2	772.50	0.00 0.21	1439.87 0.00	1439.87	-9.72 0.00	0.00	-0.27 1.52	-0.01 0.01	-8.07
VB6 - 1	1053.75	-0.01 0.00	-2366.55 -10561.12	3724.93	114.53 -44.75	114.53	3.58 5.49	0.02 -0.02	0.76
VB6 - 2	1053.75	0.00 0.07	-12710.12 -627.87	8644.95	125.17 -234.07	125.17	6.71 4.42	0.03 -0.03	0.89
VB7 - 1	1053.75	0.00 0.06	-2471.00 -10515.76	3679.70	-233.30 169.91	169.91	3.60 5.47	-0.05 0.05	-0.16
VB7 - 2	1053.75	0.00 0.22	-12718.79 -594.25	8661.49	-112.65 178.05	178.05	6.71 4.42	-0.03 0.03	-0.22
VB8 - 1	1053.75	0.00 0.73	-2809.43 -9796.23	3765.94	-251.28 151.50	151.50	3.72 5.35	-0.05 0.05	-3.29
VB8 - 2	1053.75	0.00 1.31	-12155.75 -2475.93	7776.60	-108.84 218.44	218.44	6.48 4.65	-0.03 0.03	2.57
VB9 - 1	810.00	0.00 0.33	-1046.58 -2871.07	1516.77	241.78 -246.19	241.78	2.04 2.67	0.08 -0.08	0.05
VB9 - 2	810.00	0.00 0.29	-2856.76 -2482.39	1435.45	-34.27 -2.71	0.00	2.64 2.52	0.00 0.00	-0.05
VB10 - 1	810.00	0.00 0.17	-2170.42 -1633.17	864.60	-113.91 105.54	105.54	2.22 2.01	-0.04 0.04	-0.50
VB10 - 2	810.00	0.00 0.16	-1471.33 -383.17	735.19	-140.68 130.17	130.17	1.89 1.35	-0.07 0.07	2.02
VB11	735.00	0.00 0.08	-107.94 -884.73	0.00	-131.97 207.39	207.39	0.31 1.11	-0.18 0.18	1.79
VB12	1333.65	0.00 0.29	-1356.66 -827.77	1715.73	-10.29 19.00	0.00	2.96 2.54	-0.01 0.01	-0.25
VB13	735.00	0.00 0.12	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.28
VB14	1348.71	-0.11 0.00	0.00 0.00	2810.87	51.82 32.46	0.00	2.80 2.71	0.00 0.00	0.32
VB15 - 1	225.00	-0.11 0.00	-212.08 -819.52	457.73	308.50 -303.59	308.50	0.55 0.76	0.11 -0.11	-0.32
VB15 - 2	225.00	-0.08 0.00	-837.50 -659.26	393.10	-21.03 15.17	15.17	0.74 0.69	-0.01 0.01	0.00
VB15 - 3	225.00	-0.07 0.00	-658.10 -351.21	269.85	-154.75 127.53	127.53	0.65 0.53	-0.05 0.05	0.57
VB15 - 4	225.00	-0.07 0.00	-351.03 -84.01	0.00	-397.64 367.16	367.16	0.36 0.10	-0.37 0.37	2.69




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VB15 - 5	225.00	0.00 0.15	-91.84 280.91	281.32	-189.69 308.34	308.34	0.41 0.03	-0.26 0.26	-0.62
VB16	735.00	-0.51 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	0.96
VB17	735.00	0.00 0.18	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.24
VB18	844.02	-0.07 0.00	0.00 0.00	1742.29	-11.61 -3.43	0.00	1.65 1.66	0.00 0.00	1.54
VB19	772.50	0.00 0.07	-203.26 374.40	502.13	-235.83 297.80	297.80	1.05 0.45	-0.28 0.28	-0.25
VB20	772.50	0.00 0.01	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	1.11
VB21 - 1	772.50	0.00 0.45	-1025.03 3936.22	3936.22	-109.06 122.79	122.79	2.78 -0.24	-0.07 0.07	5.04
VB21 - 2	772.50	0.00 0.53	3968.02 -1070.74	3968.02	-337.12 198.77	198.77	-1.70 3.27	-0.26 0.26	-2.23
VB22	772.50	0.00 0.13	-459.52 -482.04	814.26	58.98 -66.83	0.00	1.40 1.42	0.03 -0.03	1.49
VB23	772.50	-0.07 0.00	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.61
VB24 - 1	810.00	0.00 0.41	-1110.19 -2769.34	1527.28	216.81 -225.78	216.81	2.07 2.64	0.08 -0.08	1.23
VB24 - 2	810.00	0.00 0.45	-2761.94 -2846.88	1295.94	-27.52 -28.32	0.00	2.56 2.59	0.00 0.00	-0.03
VB25 - 1	810.00	0.00 0.49	-3036.69 1690.42	1690.42	-268.03 104.84	104.84	3.24 -1.69	-0.19 0.19	-1.55
VB25 - 2	810.00	0.00 0.49	1698.49 -2146.48	1718.01	104.84 49.74	104.84	0.18 2.50	0.02 -0.02	-1.55
VB25 - 3	810.00	0.00 0.16	-1866.48 -289.87	634.14	-226.60 191.18	191.18	2.01 1.22	-0.10 0.10	-6.10

CASO: G1+G2+1.4V3+0.84D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	-0.16 0.00	-442.95 -25.09	657.72	590.33 -532.17	0.00	1.30 1.02	0.37 -0.37	6.32
VB1 - 2	1349.50	-0.37 0.00	-24.73 -2404.95	0.00	-68.81 -290.56	0.00	-3.73 4.50	0.38 -0.38	6.28
VB1 - 3	1509.93	-0.42 0.00	-2408.15 -296.75	1366.21	-284.90 -31.38	0.00	3.46 2.18	-0.07 0.07	0.32
VB1 - 4	1336.21	-0.18 0.00	-295.50 -2454.59	0.00	-498.23 -510.18	0.00	-3.83 4.54	0.02 -0.02	3.58
VB1 - 5	1502.17	-0.32 0.00	-2170.33 -419.17	768.78	-508.08 703.67	0.00	3.01 1.89	-0.37 0.37	-6.42
VB2 - 1	985.00	0.00 0.16	-851.96 -1278.32	2054.31	403.20 -638.68	403.20	2.39 2.56	0.21 -0.21	5.91
VB2 - 2	985.00	0.00 0.47	-1324.29 -66.15	99.51	180.05 -342.17	0.00	1.68 0.57	0.23 -0.23	-6.19
VB2 - 3	985.00	0.00 0.47	-66.58 -1272.60	0.00	-342.17 -458.99	0.00	-1.27 2.00	0.16 -0.16	-6.19
VB2 - 4	1587.61	0.00 0.68	-1272.97 -4175.43	0.00	-80.83 -169.99	0.00	-4.80 5.67	0.16 -0.16	-6.19
VB2 - 5	1642.85	0.00 0.75	-4375.73 232.48	232.48	-192.94 -72.30	0.00	5.47 -3.82	-0.12 0.12	-0.79
VB2 - 6	1877.23	0.00 0.75	233.41 2413.71	2413.71	-72.30 -97.98	0.00	3.12 -1.10	0.02 -0.02	-0.79
VB2 - 7	1663.85	0.00 0.75	2413.21 706.68	2467.83	-97.98 -99.63	0.00	0.40 2.39	0.00 0.00	-0.79
VB2 - 8	1480.39	0.00 0.52	705.45 -1948.22	705.45	-535.15 -477.92	0.00	-4.04 4.92	-0.10 0.10	-0.79
VB2 - 9	1775.32	0.00	-1854.25	994.80	-442.27	0.00	3.28	-0.33	5.65

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		0.43	994.80		58.48		-0.58	0.33	
VB2 - 10	1662.87	0.00 0.43	996.06 -1816.47	996.06	58.48 242.97	0.00	-0.16 3.05	-0.11 0.11	5.65
VB2 - 11	985.00	-0.02 0.00	-1750.75 -189.26	237.39	-647.90 246.05	246.05	1.98 0.92	-0.30 0.30	-6.45
VB3 - 1	772.50	0.00 0.11	-220.89 566.88	748.65	9.03 11.35	11.35	1.23 0.53	0.00 0.00	-1.39
VB3 - 2	772.50	0.00 0.11	567.31 -1676.70	567.31	11.35 -78.37	11.35	-1.23 2.23	0.07 -0.07	-1.39
VB3 - 3	772.50	-0.03 0.00	-1932.07 359.18	359.18	99.96 -21.92	99.96	2.67 -1.89	0.12 -0.12	1.00
VB3 - 4	772.50	-0.03 0.00	358.25 1191.28	1191.28	-21.92 2.44	0.00	1.19 -0.36	-0.02 0.02	1.00
VB3 - 5	772.50	-0.03 0.00	1191.78 -1584.89	1191.78	2.44 1.87	2.44	-0.34 2.10	0.00 0.00	1.00
VB3 - 6	772.50	0.00 0.02	-1566.55 709.28	709.28	53.59 -120.75	53.59	2.08 -0.91	0.11 -0.11	-10.70
VB3 - 7	772.50	0.00 0.02	708.02 17.21	727.64	-120.75 51.14	51.14	0.17 1.05	-0.11 0.11	-10.70
VB4 - 1	1053.75	0.00 0.24	-1210.49 -10406.75	4487.72	334.82 -378.01	334.82	3.47 5.60	0.08 -0.08	0.03
VB4 - 2	1053.75	0.00 0.58	-10945.33 4955.92	6443.09	-107.92 -50.82	0.00	6.05 1.77	-0.01 0.01	-11.52
VB4 - 3	1053.75	0.00 0.67	4965.30 3517.38	4965.30	-234.04 -62.63	0.00	-0.06 1.75	-0.11 0.11	23.86
VB4 - 4	1053.75	0.00 0.67	3523.81 -2356.47	3523.81	-62.63 340.40	340.40	-3.03 4.64	-0.26 0.26	23.86
VB5 - 1	772.50	0.00 0.12	-600.59 1691.85	1691.85	-168.31 38.69	38.69	2.07 -0.85	-0.13 0.13	-8.42
VB5 - 2	772.50	0.00 0.12	1685.42 0.00	1685.42	38.69 0.00	38.69	-0.43 1.67	0.02 -0.02	-8.42
VB6 - 1	1053.75	0.00 0.05	-1055.65 -11316.19	4246.55	180.96 -257.63	180.96	3.34 5.73	0.05 -0.05	0.96
VB6 - 2	1053.75	0.00 0.14	-11962.31 -1960.51	8155.80	-237.04 146.21	146.21	6.51 4.62	-0.04 0.04	1.14
VB7 - 1	1053.75	0.00 0.05	-1119.27 -11303.07	4211.49	189.55 -264.28	189.55	3.35 5.72	0.05 -0.05	-0.14
VB7 - 2	1053.75	0.00 0.17	-11976.75 -1892.66	8188.83	-234.82 148.13	148.13	6.52 4.61	-0.04 0.04	-0.07
VB8 - 1	1053.75	0.00 0.78	-1932.87 -10404.68	4049.00	111.15 -235.09	111.15	3.55 5.52	0.04 -0.04	-2.57
VB8 - 2	1053.75	0.00 1.28	-11624.73 -3256.19	7551.11	-208.30 115.84	115.84	6.36 4.77	-0.03 0.03	2.37
VB9 - 1	810.00	0.00 0.39	-467.04 -3333.84	1664.22	-83.16 72.56	72.56	1.86 2.85	-0.03 0.03	-0.20
VB9 - 2	810.00	0.00 0.34	-2520.29 -2837.08	1425.41	-79.13 80.11	80.11	2.53 2.63	-0.03 0.03	-0.04
VB10 - 1	810.00	0.00 0.17	-1779.70 -1966.43	889.00	-50.05 32.51	32.51	2.08 2.15	-0.02 0.02	-0.21
VB10 - 2	810.00	0.00 0.04	-962.48 -1044.54	611.01	-235.67 297.25	297.25	1.60 1.64	-0.13 0.13	1.93
VB11	735.00	0.00 0.01	404.78 -1064.49	404.78	-14.56 23.59	23.59	-0.05 1.47	-0.02 0.02	2.45
VB12	1333.65	0.00 0.10	-896.74 -1774.22	1483.59	-788.68 597.88	0.00	2.61 2.88	-0.34 0.34	-1.18
VB13	735.00	0.00 0.07	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.44
VB14	1348.71	0.00 0.00	0.00 0.00	2810.87	-378.16 463.36	0.00	2.80 2.71	-0.21 0.21	0.37
VB15 - 1	225.00	-0.07 0.00	552.00 -1376.25	781.95	-1.16 3.16	3.16	0.32 0.99	0.00 0.00	-0.28
VB15 - 2	225.00	-0.05 0.00	-471.72 -1065.04	389.61	-26.31 26.84	26.84	0.62 0.81	-0.01 0.01	0.01

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VB15 - 3	225.00	-0.03 0.00	-173.56 -779.19	319.89	6.25 -14.26	6.25	0.47 0.70	0.00 0.00	0.59
VB15 - 4	225.00	-0.03 0.00	146.65 -100.90	173.23	-284.35 216.67	216.67	0.11 0.35	-0.24 0.24	1.50
VB15 - 5	225.00	0.00 0.21	51.51 -677.15	51.51	26.48 12.00	26.48	-0.16 0.59	0.01 -0.01	0.12
VB16	735.00	-0.14 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	0.93
VB17	735.00	0.00 0.02	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.50
VB18	844.02	-0.10 0.00	0.00 0.00	1742.29	435.51 -466.85	0.00	1.65 1.66	0.23 -0.23	1.22
VB19	772.50	0.00 0.17	249.02 -82.49	458.80	-47.44 44.81	44.81	0.57 0.92	-0.05 0.05	0.05
VB20	772.50	-0.22 0.00	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	1.26
VB21 - 1	772.50	0.00 0.31	-629.04 3632.67	3632.67	154.57 -188.36	154.57	2.57 -0.03	0.10 -0.10	6.18
VB21 - 2	772.50	0.00 0.21	3668.04 -1351.16	3668.04	-5.14 -39.68	0.00	-1.69 3.26	0.02 -0.02	-3.21
VB22	772.50	-0.13 0.00	141.42 -1279.49	810.43	864.74 -685.99	0.00	1.02 1.80	0.43 -0.43	0.68
VB23	772.50	0.00 0.16	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.43
VB24 - 1	810.00	0.00 0.34	-392.26 -3335.97	1709.83	82.67 -78.85	82.67	1.85 2.86	0.03 -0.03	0.91
VB24 - 2	810.00	0.00 0.19	-2317.47 -3345.57	1284.05	49.39 -50.05	49.39	2.42 2.74	0.02 -0.02	-0.05
VB25 - 1	810.00	0.00 0.12	-2586.27 1968.47	1968.47	18.29 91.74	91.74	3.15 -1.60	-0.04 0.04	-1.35
VB25 - 2	810.00	0.00 0.10	1976.89 -2671.17	1976.89	91.74 -182.06	91.74	-0.06 2.74	0.08 -0.08	-1.35
VB25 - 3	810.00	-0.03 0.00	-1239.66 -1129.98	430.43	83.00 -139.78	83.00	1.65 1.59	0.06 -0.06	-5.74

CASO: G1+G2+1.4V4+0.84D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	0.00 0.51	-597.54 42.67	633.05	-478.68 487.09	0.00	1.37 0.94	-0.32 0.32	3.34
VB1 - 2	1349.50	0.00 0.66	43.23 -2293.86	43.23	217.75 270.80	0.00	-3.66 4.43	-0.09 0.09	3.35
VB1 - 3	1509.93	0.00 0.70	-2457.02 -272.75	1361.87	281.32 -82.77	0.00	3.48 2.16	0.10 -0.10	-0.68
VB1 - 4	1336.21	0.00 0.46	-271.21 -2420.31	0.00	407.32 336.28	0.00	-3.82 4.52	0.14 -0.14	2.29
VB1 - 5	1502.17	0.00 0.42	-2311.42 -209.84	846.70	354.22 -569.01	0.00	3.12 1.78	0.28 -0.28	-0.40
VB2 - 1	985.00	0.00 0.38	-783.75 -1308.16	2075.46	-313.30 746.06	746.06	2.37 2.58	-0.21 0.21	9.17
VB2 - 2	985.00	0.00 0.00	-1353.17 -20.49	124.84	114.14 165.09	0.00	1.71 0.54	-0.02 0.02	-11.41
VB2 - 3	985.00	0.00 0.00	-20.97 -1202.92	0.00	165.09 222.50	0.00	-1.24 1.97	-0.08 0.08	-11.41
VB2 - 4	1587.61	-0.13 0.00	-1203.48 -4087.73	0.00	-41.46 133.65	0.00	-4.77 5.64	-0.31 0.31	-11.41
VB2 - 5	1642.85	-0.19 0.00	-4263.07 259.45	259.45	324.40 334.18	0.00	5.39 -3.74	-0.01 0.01	0.77
VB2 - 6	1877.23	-0.19 0.00	260.55 2349.18	2349.18	334.18 63.25	0.00	3.04 -1.02	0.25 -0.25	0.77
VB2 - 7	1663.85	-0.19	2348.82	2385.47	63.25	0.00	0.32	0.16	0.77




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Plena**

**Leilson Campos  
Rezende  
Rezende Engenharia**


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		0.00	498.57		-200.34		2.47	-0.16	
VB2 - 8	1480.39	0.00 0.05	497.04 -2206.77	497.04	265.20 194.57	0.00	-4.12 5.00	0.12 -0.12	0.77
VB2 - 9	1775.32	-0.11 0.00	-2140.12 1001.01	1001.01	325.39 4.39	0.00	3.47 -0.77	0.21 -0.21	5.20
VB2 - 10	1662.87	-0.11 0.00	1001.76 -1476.41	1001.76	4.39 -142.99	0.00	0.04 2.86	0.08 -0.08	5.20
VB2 - 11	985.00	0.00 0.22	-1434.54 -189.97	347.43	637.96 -385.42	637.96	1.87 1.03	0.35 -0.35	-8.44
VB3 - 1	772.50	0.00 0.16	-202.59 534.65	730.21	60.75 -0.71	60.75	1.20 0.55	0.03 -0.03	0.81
VB3 - 2	772.50	0.00 0.16	535.14 -1737.62	535.14	-0.71 -107.61	0.00	-1.26 2.26	0.08 -0.08	0.81
VB3 - 3	772.50	0.00 0.21	-1941.14 359.41	359.41	159.82 -41.75	159.82	2.68 -1.90	0.20 -0.20	0.14
VB3 - 4	772.50	0.00 0.21	358.31 1201.29	1201.29	-41.75 23.98	0.00	1.20 -0.37	-0.06 0.06	0.14
VB3 - 5	772.50	0.00 0.21	1201.64 -1553.99	1201.64	23.98 -54.39	23.98	-0.33 2.09	0.03 -0.03	0.14
VB3 - 6	772.50	0.00 0.33	-1483.10 728.18	728.18	50.42 24.59	50.42	2.04 -0.87	0.02 -0.02	-10.93
VB3 - 7	772.50	0.00 0.33	727.42 -30.59	737.45	24.59 -202.34	24.59	0.13 1.09	0.14 -0.14	-10.93
VB4 - 1	1053.75	0.00 0.04	-1104.64 -10489.79	4523.29	-275.28 250.94	250.94	3.44 5.63	-0.06 0.06	-0.29
VB4 - 2	1053.75	0.00 0.29	-10941.11 4991.78	6472.11	264.13 61.97	264.13	6.06 1.77	0.03 -0.03	-8.15
VB4 - 3	1053.75	0.00 0.53	5001.04 3453.31	5001.04	493.79 72.72	0.00	-0.12 1.81	0.26 -0.26	16.03
VB4 - 4	1053.75	0.00 0.53	3459.58 -2516.26	3459.58	72.72 -405.21	72.72	-3.09 4.70	0.31 -0.31	16.03
VB5 - 1	772.50	0.00 0.22	-509.17 1738.02	1738.02	72.55 -2.05	72.55	2.04 -0.82	0.05 -0.05	-6.85
VB5 - 2	772.50	0.00 0.22	1731.75 0.00	1731.75	-2.05 0.00	0.00	-0.46 1.70	0.00 0.00	-6.85
VB6 - 1	1053.75	0.00 0.00	-938.28 -11385.02	4294.64	-243.71 365.65	365.65	3.32 5.75	-0.07 0.07	0.53
VB6 - 2	1053.75	0.00 0.05	-11895.19 -2078.73	8115.99	307.69 -269.80	307.69	6.49 4.64	0.05 -0.05	1.21
VB7 - 1	1053.75	0.00 0.08	-1098.10 -11316.40	4219.82	-243.87 334.28	334.28	3.35 5.72	-0.07 0.07	-0.20
VB7 - 2	1053.75	0.00 0.21	-11960.53 -1921.26	8179.20	311.09 -221.20	311.09	6.52 4.61	0.05 -0.05	-0.28
VB8 - 1	1053.75	0.00 0.73	-1984.36 -10373.70	4030.11	-169.96 288.82	288.82	3.56 5.51	-0.05 0.05	-4.08
VB8 - 2	1053.75	0.00 1.23	-11616.97 -3279.32	7541.05	267.10 -117.34	267.10	6.35 4.78	0.04 -0.04	3.09
VB9 - 1	810.00	0.00 0.34	-1622.43 -2411.27	1410.50	121.24 -112.36	121.24	2.22 2.49	0.04 -0.04	-0.23
VB9 - 2	810.00	0.00 0.39	-3202.19 -2116.47	1458.03	59.66 -61.89	59.66	2.75 2.41	0.02 -0.02	-0.08
VB10 - 1	810.00	0.00 0.30	-2597.85 -1258.76	871.40	136.73 -119.82	136.73	2.37 1.86	0.05 -0.05	-0.20
VB10 - 2	810.00	0.00 0.32	-2000.36 301.78	972.17	120.59 -237.44	120.59	2.19 1.04	0.09 -0.09	1.96
VB11	735.00	0.00 0.09	-649.50 -649.99	0.00	-56.52 94.11	94.11	0.71 0.71	-0.08 0.08	2.36
VB12	1333.65	0.00 0.42	-1804.67 140.06	2057.79	711.20 -498.69	0.00	3.30 2.20	0.29 -0.29	-0.88
VB13	735.00	0.00 0.06	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.49
VB14	1348.71	-0.24 0.00	0.00 0.00	2810.87	263.96 -269.34	0.00	2.80 2.71	0.13 -0.13	0.56


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VB15 - 1	225.00	-0.16 0.00	-1004.44 -241.24	364.12	35.95 -34.36	35.95	0.78 0.52	0.01 -0.01	-0.29
VB15 - 2	225.00	-0.13 0.00	-1219.76 -234.16	465.99	-11.17 16.31	16.31	0.87 0.56	0.00 0.00	0.00
VB15 - 3	225.00	-0.11 0.00	-1158.52 80.30	352.87	74.28 -99.02	74.28	0.82 0.35	0.03 -0.03	0.58
VB15 - 4	225.00	-0.11 0.00	-887.96 -26.67	0.00	-112.21 182.64	182.64	0.65 -0.19	-0.14 0.14	1.43
VB15 - 5	225.00	-0.18 0.00	-202.33 1278.04	1278.04	-83.24 141.62	141.62	0.98 -0.54	-0.12 0.12	0.32
VB16	735.00	-0.26 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	1.10
VB17	735.00	0.00 0.10	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.36
VB18	844.02	-0.04 0.00	0.00 0.00	1742.29	-465.54 490.09	0.00	1.65 1.66	-0.24 0.24	1.53
VB19	772.50	0.00 0.00	-662.31 843.67	843.67	-103.42 136.54	136.54	1.53 -0.03	-0.12 0.12	-0.11
VB20	772.50	0.00 0.13	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	0.75
VB21 - 1	772.50	0.00 0.35	-1319.72 3738.25	3738.25	-65.32 63.81	63.81	2.81 -0.27	-0.04 0.04	6.21
VB21 - 2	772.50	0.00 0.58	3762.43 -629.87	3762.43	-368.01 188.38	188.38	-1.38 2.95	-0.27 0.27	-3.05
VB22	772.50	0.00 0.36	-1030.96 279.72	991.60	-761.80 555.37	0.00	1.77 1.05	-0.36 0.36	1.01
VB23	772.50	-0.05 0.00	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.27
VB24 - 1	810.00	0.00 0.39	-1748.65 -2252.49	1421.86	-88.72 71.50	71.50	2.27 2.44	-0.03 0.03	0.91
VB24 - 2	810.00	0.00 0.49	-3116.99 -2503.86	1298.45	-73.80 64.03	64.03	2.67 2.48	-0.02 0.02	-0.10
VB25 - 1	810.00	0.00 0.65	-3565.19 1685.50	1685.50	-215.55 133.42	133.42	3.52 -1.97	-0.18 0.18	-1.31
VB25 - 2	810.00	0.00 0.65	1692.35 -1847.81	1734.86	133.42 1.37	133.42	0.27 2.41	0.04 -0.04	-1.31
VB25 - 3	810.00	0.00 0.37	-2472.69 466.77	947.29	-331.05 332.64	332.64	2.35 0.88	-0.17 0.17	-5.58

CASO: G1+G2+D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Yyi Yyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	0.00 0.16	-427.90 -35.07	659.43	69.25 -28.88	0.00	1.29 1.03	0.03 -0.03	4.85
VB1 - 2	1349.50	0.00 0.12	-34.59 -2419.66	0.00	97.27 5.84	0.00	-3.74 4.51	0.16 -0.16	4.80
VB1 - 3	1509.93	0.00 0.15	-2387.51 -318.33	1361.04	11.45 -74.13	0.00	3.45 2.19	0.02 -0.02	-0.26
VB1 - 4	1336.21	0.00 0.13	-316.96 -2481.85	0.00	-27.38 -75.76	0.00	-3.85 4.55	0.09 -0.09	3.24
VB1 - 5	1502.17	0.00 0.08	-2168.79 -408.85	775.80	-68.09 42.53	0.00	3.01 1.89	-0.03 0.03	-3.40
VB2 - 1	985.00	0.00 0.22	-651.39 -1341.19	2128.44	44.34 44.00	44.34	2.34 2.61	0.00 0.00	7.54
VB2 - 2	985.00	0.00 0.22	-1331.48 -108.43	66.80	155.00 -86.99	0.00	1.66 0.59	0.11 -0.11	-8.79
VB2 - 3	985.00	0.00 0.22	-108.91 -1326.26	0.00	-86.99 -125.23	0.00	-1.29 2.01	0.05 -0.05	-8.79
VB2 - 4	1587.61	0.00 0.27	-1326.74 -4237.79	0.00	-38.60 0.70	0.00	-4.82 5.69	-0.07 0.07	-8.79
VB2 - 5	1642.85	0.00	-4219.64	315.18	88.34	0.00	5.40	-0.04	-0.01

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		0.28	315.18		131.56		-3.75	0.04	
VB2 - 6	1877.23	0.00 0.28	316.20 2417.99	2417.99	131.56 -23.94	0.00	3.05 -1.03	0.14 -0.14	-0.01
VB2 - 7	1663.85	0.00 0.28	2417.55 587.92	2456.77	-23.94 -171.50	0.00	0.33 2.46	0.09 -0.09	-0.01
VB2 - 8	1480.39	0.00 0.31	586.57 -2110.05	586.57	-124.89 -134.13	0.00	-4.11 4.99	0.02 -0.02	-0.01
VB2 - 9	1775.32	0.00 0.24	-1976.88 982.03	982.03	-47.91 32.79	0.00	3.35 -0.65	-0.05 0.05	5.45
VB2 - 10	1662.87	0.00 0.24	983.03 -1703.74	983.03	32.79 40.96	0.00	-0.08 2.98	0.00 0.00	5.45
VB2 - 11	985.00	0.00 0.17	-1488.94 -385.03	202.61	19.41 -70.83	19.41	1.83 1.08	0.03 -0.03	-7.47
VB3 - 1	772.50	0.00 0.12	-167.90 531.24	739.73	35.41 3.63	35.41	1.19 0.57	0.01 -0.01	-0.31
VB3 - 2	772.50	0.00 0.12	531.72 -1762.72	531.72	3.63 -84.54	3.63	-1.27 2.27	0.07 -0.07	-0.31
VB3 - 3	772.50	0.00 0.09	-1895.21 385.56	385.56	119.27 -29.50	119.27	2.66 -1.88	0.15 -0.15	0.57
VB3 - 4	772.50	0.00 0.09	384.54 1206.36	1206.36	-29.50 13.06	0.00	1.18 -0.35	-0.04 0.04	0.57
VB3 - 5	772.50	0.00 0.09	1206.81 -1593.57	1206.81	13.06 -26.72	13.06	-0.35 2.11	0.02 -0.02	0.57
VB3 - 6	772.50	0.00 0.16	-1500.38 710.72	710.72	50.92 -44.33	50.92	2.04 -0.87	0.06 -0.06	-10.76
VB3 - 7	772.50	0.00 0.16	709.72 -48.46	719.72	-44.33 -66.91	0.00	0.13 1.09	0.01 -0.01	-10.76
VB4 - 1	1053.75	0.00 0.16	-1070.82 -10504.19	4539.16	11.32 -45.09	11.32	3.44 5.63	0.01 -0.01	-0.12
VB4 - 2	1053.75	0.00 0.46	-10894.85 4939.34	6441.01	52.03 28.69	52.03	6.05 1.78	0.00 0.00	-9.78
VB4 - 3	1053.75	0.00 0.62	4948.88 3390.95	4948.88	119.34 -3.12	0.00	-0.13 1.82	0.08 -0.08	19.78
VB4 - 4	1053.75	0.00 0.62	3397.27 -2588.35	3397.27	-3.12 -20.55	0.00	-3.09 4.71	0.01 -0.01	19.78
VB5 - 1	772.50	0.00 0.15	-501.33 1742.01	1742.01	-61.60 20.58	20.58	2.03 -0.82	-0.05 0.05	-7.59
VB5 - 2	772.50	0.00 0.15	1735.69 0.00	1735.69	20.58 0.00	20.58	-0.46 1.70	0.01 -0.01	-7.59
VB6 - 1	1053.75	0.00 0.02	-850.25 -11439.81	4329.52	-47.38 61.84	61.84	3.30 5.77	-0.01 0.01	0.75
VB6 - 2	1053.75	0.00 0.10	-11842.30 -2166.62	8087.66	20.02 -34.24	20.02	6.48 4.65	0.01 -0.01	1.19
VB7 - 1	1053.75	0.00 0.06	-956.71 -11402.67	4276.50	-2.19 17.20	17.20	3.32 5.75	0.00 0.00	-0.17
VB7 - 2	1053.75	0.00 0.19	-11881.39 -2053.38	8136.45	52.00 -58.79	52.00	6.50 4.63	0.01 -0.01	-0.18
VB8 - 1	1053.75	0.00 0.75	-1874.18 -10448.73	4067.07	-2.14 9.35	9.35	3.54 5.53	0.00 0.00	-3.33
VB8 - 2	1053.75	0.00 1.26	-11567.45 -3345.93	7523.57	43.10 -24.99	43.10	6.34 4.79	0.01 -0.01	2.72
VB9 - 1	810.00	0.00 0.37	-1041.36 -2875.29	1517.76	-8.28 7.83	7.83	2.04 2.67	0.00 0.00	-0.25
VB9 - 2	810.00	0.00 0.37	-2859.94 -2478.06	1436.14	-6.03 9.76	9.76	2.64 2.52	0.00 0.00	-0.05
VB10 - 1	810.00	0.00 0.24	-2188.66 -1612.05	867.55	60.28 -61.13	60.28	2.23 2.00	0.02 -0.02	-0.18
VB10 - 2	810.00	0.00 0.18	-1479.24 -374.34	736.97	-57.76 30.40	30.40	1.89 1.34	-0.02 0.02	1.92
VB11	735.00	0.00 0.05	-117.85 -856.25	0.00	-36.65 59.78	59.78	0.33 1.09	-0.05 0.05	2.47
VB12	1333.65	0.00 0.26	-1344.36 -827.69	1721.91	-53.87 63.44	0.00	2.95 2.54	-0.03 0.03	-1.14

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VB13	735.00	0.00 0.05	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.48
VB14	1348.71	-0.12 0.00	0.00 0.00	2810.87	-86.63 126.14	0.00	2.80 2.71	-0.05 0.05	0.49
VB15 - 1	225.00	-0.11 0.00	-222.98 -811.03	454.86	-16.78 18.33	18.33	0.55 0.75	-0.01 0.01	-0.28
VB15 - 2	225.00	-0.10 0.00	-844.38 -651.07	394.00	-16.47 20.07	20.07	0.75 0.69	-0.01 0.01	0.01
VB15 - 3	225.00	-0.08 0.00	-663.89 -351.90	266.81	61.89 -76.48	61.89	0.65 0.53	0.03 -0.03	0.59
VB15 - 4	225.00	-0.08 0.00	-369.62 -61.76	0.00	-173.59 171.34	171.34	0.38 0.08	-0.17 0.17	1.34
VB15 - 5	225.00	0.00 0.00	-72.76 296.28	297.10	-37.36 81.74	81.74	0.41 0.03	-0.06 0.06	0.30
VB16	735.00	-0.19 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	1.02
VB17	735.00	0.00 0.06	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.45
VB18	844.02	-0.07 0.00	0.00 0.00	1742.29	-46.61 46.75	0.00	1.65 1.66	-0.02 0.02	1.35
VB19	772.50	0.00 0.08	-208.33 382.69	505.97	-75.25 90.91	90.91	1.05 0.44	-0.09 0.09	0.00
VB20	772.50	-0.05 0.00	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	1.00
VB21 - 1	772.50	0.00 0.31	-969.08 3659.81	3659.81	59.38 -80.34	59.38	2.68 -0.14	0.04 -0.04	6.31
VB21 - 2	772.50	0.00 0.39	3689.37 -981.94	3689.37	-170.98 65.31	65.31	-1.52 3.08	-0.12 0.12	-3.23
VB22	772.50	0.00 0.12	-449.03 -494.36	813.35	16.58 -40.92	0.00	1.40 1.42	0.02 -0.02	0.75
VB23	772.50	0.00 0.07	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.32
VB24 - 1	810.00	0.00 0.36	-1071.63 -2792.60	1538.13	-27.91 21.64	21.64	2.06 2.65	-0.01 0.01	0.87
VB24 - 2	810.00	0.00 0.33	-2715.68 -2929.31	1279.93	-8.63 10.10	10.10	2.54 2.61	0.00 0.00	-0.07
VB25 - 1	810.00	0.00 0.38	-3083.21 1839.47	1839.47	-70.89 105.40	105.40	3.35 -1.80	-0.09 0.09	-1.31
VB25 - 2	810.00	0.00 0.37	1847.06 -2268.27	1849.69	105.40 -101.41	105.40	0.10 2.58	0.06 -0.06	-1.31
VB25 - 3	810.00	0.00 0.18	-1860.47 -328.51	611.96	-121.69 97.68	97.68	2.00 1.24	-0.05 0.05	-5.63


**CASO: G1+G2+D2**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Yyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	0.00 0.19	-612.59 52.64	633.01	42.40 -16.20	0.00	1.38 0.94	0.02 -0.02	4.81
VB1 - 2	1349.50	0.00 0.17	53.09 -2279.15	53.09	51.67 -25.61	0.00	-3.65 4.42	0.13 -0.13	4.83
VB1 - 3	1509.93	0.00 0.13	-2477.65 -251.16	1367.03	-15.02 -40.02	0.00	3.49 2.15	0.01 -0.01	-0.11
VB1 - 4	1336.21	0.00 0.14	-249.75 -2393.06	0.00	-63.53 -98.14	0.00	-3.80 4.50	0.07 -0.07	2.63
VB1 - 5	1502.17	0.00 0.02	-2312.96 -220.16	839.68	-85.77 92.13	0.00	3.12 1.79	-0.05 0.05	-3.42
VB2 - 1	985.00	0.00 0.32	-984.32 -1245.30	2001.34	45.56 63.38	63.38	2.43 2.53	0.00 0.00	7.55
VB2 - 2	985.00	0.00 0.25	-1345.99 21.79	157.55	139.19 -90.09	0.00	1.72 0.52	0.10 -0.10	-8.81
VB2 - 3	985.00	0.00	21.35	21.35	-90.09	0.00	-1.23	0.03	-8.81



		0.25	-1149.25		-111.26		1.95	-0.03	
VB2 - 4	1587.61	0.00 0.27	-1149.70 -4025.38	0.00	-83.69 -37.04	0.00	-4.75 5.62	-0.08 0.08	-8.81
VB2 - 5	1642.85	0.00 0.27	-4419.17 176.74	176.74	43.11 130.33	0.00	5.46 -3.81	-0.09 0.09	-0.01
VB2 - 6	1877.23	0.00 0.27	177.75 2344.90	2344.90	130.33 -10.79	0.00	3.11 -1.09	0.13 -0.13	-0.01
VB2 - 7	1663.85	0.00 0.27	2344.49 617.33	2396.53	-10.79 -128.47	0.00	0.39 2.40	0.07 -0.07	-0.01
VB2 - 8	1480.39	0.00 0.26	615.93 -2044.94	615.93	-145.06 -149.22	0.00	-4.05 4.93	0.01 -0.01	-0.01
VB2 - 9	1775.32	0.00 0.08	-2017.49 1013.78	1013.78	-68.97 30.08	0.00	3.40 -0.70	-0.07 0.07	5.40
VB2 - 10	1662.87	0.00 0.08	1014.80 -1589.14	1014.80	30.08 59.02	0.00	-0.04 2.93	-0.02 0.02	5.40
VB2 - 11	985.00	0.00 0.03	-1696.36 5.79	392.26	-29.35 -68.54	0.00	2.03 0.87	0.01 -0.01	-7.42
VB3 - 1	772.50	0.00 0.15	-255.58 570.29	741.67	34.37 7.00	34.37	1.24 0.52	0.01 -0.01	-0.27
VB3 - 2	772.50	0.00 0.15	570.73 -1651.59	570.73	7.00 -101.43	7.00	-1.22 2.22	0.08 -0.08	-0.27
VB3 - 3	772.50	0.00 0.10	-1978.00 333.03	333.03	140.51 -34.18	140.51	2.69 -1.91	0.17 -0.17	0.57
VB3 - 4	772.50	0.00 0.10	332.02 1186.20	1186.20	-34.18 13.36	0.00	1.21 -0.38	-0.04 0.04	0.57
VB3 - 5	772.50	0.00 0.10	1186.61 -1545.31	1186.61	13.36 -25.79	13.36	-0.32 2.08	0.02 -0.02	0.57
VB3 - 6	772.50	0.00 0.18	-1549.27 726.74	726.74	53.09 -51.84	53.09	2.08 -0.91	0.07 -0.07	-10.87
VB3 - 7	772.50	0.00 0.18	725.72 35.08	745.37	-51.84 -84.28	0.00	0.17 1.05	0.02 -0.02	-10.87
VB4 - 1	1053.75	0.00 0.12	-1244.31 -10392.34	4471.85	48.22 -81.98	48.22	3.47 5.60	0.02 -0.02	-0.14
VB4 - 2	1053.75	0.00 0.41	-10991.60 5008.35	6474.18	104.18 -17.55	104.18	6.07 1.76	0.02 -0.02	-9.88
VB4 - 3	1053.75	0.00 0.58	5017.46 3579.75	5017.46	140.41 13.21	0.00	-0.05 1.74	0.08 -0.08	20.10
VB4 - 4	1053.75	0.00 0.58	3586.13 -2284.38	3586.13	13.21 -44.26	13.21	-3.02 4.64	0.04 -0.04	20.10
VB5 - 1	772.50	0.00 0.19	-608.43 1687.86	1687.86	-34.17 16.05	16.05	2.07 -0.85	-0.03 0.03	-7.68
VB5 - 2	772.50	0.00 0.19	1681.48 0.00	1681.48	16.05 0.00	16.05	-0.42 1.67	0.01 -0.01	-7.68
VB6 - 1	1053.75	0.00 0.02	-1143.68 -11261.40	4211.66	-15.37 46.18	46.18	3.36 5.71	-0.01 0.01	0.75
VB6 - 2	1053.75	0.00 0.09	-12015.20 -1872.62	8184.13	50.62 -89.34	50.62	6.53 4.60	0.01 -0.01	1.16
VB7 - 1	1053.75	0.00 0.07	-1260.66 -11216.79	4154.81	-52.13 52.80	52.80	3.38 5.69	-0.01 0.01	-0.17
VB7 - 2	1053.75	0.00 0.19	-12055.89 -1760.54	8233.91	24.27 -14.28	24.27	6.54 4.59	0.00 0.00	-0.17
VB8 - 1	1053.75	0.00 0.76	-2043.06 -10329.65	4012.04	-56.67 44.38	44.38	3.57 5.50	-0.01 0.01	-3.33
VB8 - 2	1053.75	0.00 1.26	-11674.24 -3189.58	7568.59	15.70 23.49	23.49	6.37 4.76	0.00 0.00	2.74
VB9 - 1	810.00	0.00 0.36	-1048.11 -2869.82	1516.49	46.36 -47.64	46.36	2.04 2.67	0.02 -0.02	-0.18
VB9 - 2	810.00	0.00 0.35	-2862.54 -2475.49	1436.21	-13.43 8.46	8.46	2.64 2.52	0.00 0.00	-0.06
VB10 - 1	810.00	0.00 0.23	-2188.89 -1613.15	866.85	26.40 -26.18	26.40	2.23 2.01	0.01 -0.01	-0.24
VB10 - 2	810.00	0.00 0.18	-1483.60 -368.43	738.56	-57.31 29.41	29.41	1.90 1.34	-0.02 0.02	1.97




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VB11	735.00	0.00 0.05	-126.87 -858.23	0.00	-34.42 57.93	57.93	0.33 1.09	-0.05 0.05	2.33
VB12	1333.65	0.00 0.26	-1357.05 -806.47	1726.18	-23.62 35.75	0.00	2.96 2.53	-0.01 0.01	-0.92
VB13	735.00	0.00 0.07	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.44
VB14	1348.71	-0.11 0.00	0.00 0.00	2810.87	-27.57 67.88	0.00	2.80 2.71	-0.02 0.02	0.45
VB15 - 1	225.00	-0.11 0.00	-229.46 -806.46	452.95	51.58 -49.54	51.58	0.55 0.75	0.02 -0.02	-0.29
VB15 - 2	225.00	-0.09 0.00	-847.10 -648.14	394.20	-21.00 23.07	23.07	0.75 0.68	-0.01 0.01	0.00
VB15 - 3	225.00	-0.06 0.00	-668.19 -346.99	267.47	18.63 -36.80	18.63	0.65 0.53	0.01 -0.01	0.58
VB15 - 4	225.00	-0.06 0.00	-371.69 -65.81	0.00	-222.97 227.98	227.98	0.38 0.08	-0.22 0.22	1.59
VB15 - 5	225.00	0.00 0.03	-78.07 304.61	304.61	-19.40 71.89	71.89	0.42 0.02	-0.05 0.05	0.15
VB16	735.00	-0.22 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	1.01
VB17	735.00	0.00 0.06	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.41
VB18	844.02	-0.06 0.00	0.00 0.00	1742.29	16.59 -23.51	0.00	1.65 1.66	0.01 -0.01	1.40
VB19	772.50	0.00 0.09	-204.95 378.49	504.29	-75.61 90.44	90.44	1.05 0.44	-0.09 0.09	-0.06
VB20	772.50	-0.05 0.00	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	1.02
VB21 - 1	772.50	0.00 0.34	-979.68 3711.11	3711.11	29.87 -44.22	29.87	2.70 -0.16	0.02 -0.02	6.08
VB21 - 2	772.50	0.00 0.40	3741.10 -999.09	3741.10	-202.17 83.39	83.39	-1.55 3.12	-0.14 0.14	-3.03
VB22	772.50	0.00 0.11	-440.50 -505.41	812.09	86.35 -89.70	0.00	1.39 1.43	0.05 -0.05	0.94
VB23	772.50	0.00 0.04	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.38
VB24 - 1	810.00	0.00 0.37	-1069.28 -2795.85	1537.97	21.86 -28.99	21.86	2.06 2.65	0.01 -0.01	0.95
VB24 - 2	810.00	0.00 0.35	-2718.79 -2920.11	1282.78	-15.78 3.88	3.88	2.55 2.61	0.00 0.00	-0.07
VB25 - 1	810.00	0.00 0.38	-3068.25 1814.49	1814.49	-126.37 119.75	119.75	3.33 -1.78	-0.13 0.13	-1.36
VB25 - 2	810.00	0.00 0.37	1822.17 -2250.71	1827.46	119.75 -79.28	119.75	0.11 2.57	0.06 -0.06	-1.36
VB25 - 3	810.00	0.00 0.16	-1851.87 -334.70	611.21	-126.36 95.18	95.18	2.00 1.24	-0.06 0.06	-5.70

CASO: G1+G2+D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Yyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	0.00 0.10	-505.16 2.10	645.66	189.00 -147.06	0.00	1.33 0.99	0.11 -0.11	5.07
VB1 - 2	1349.50	0.00 0.01	2.55 -2360.33	2.55	53.44 -75.73	0.00	-3.70 4.47	0.22 -0.22	5.05
VB1 - 3	1509.93	0.00 0.00	-2427.72 -287.41	1364.30	-68.47 -58.85	0.00	3.47 2.17	0.00 0.00	-0.09
VB1 - 4	1336.21	0.00 0.06	-286.05 -2441.17	0.00	-160.67 -202.57	0.00	-3.83 4.53	0.08 -0.08	3.05
VB1 - 5	1502.17	-0.04 0.00	-2227.39 -334.39	800.37	-193.64 227.27	0.00	3.05 1.85	-0.13 0.13	-3.92
VB2 - 1	985.00	0.00	-823.81	2063.22	120.21	120.21	2.38	0.04	7.32

		0.25	-1290.27		-88.33		2.57	-0.04	
VB2 - 2	985.00	0.00 0.30	-1335.87 -47.44	109.96	177.37 -153.61	0.00	1.69 0.56	0.15 -0.15	-8.35
VB2 - 3	985.00	0.00 0.30	-47.90 -1244.13	0.00	-153.61 -212.65	0.00	-1.26 1.99	0.08 -0.08	-8.35
VB2 - 4	1587.61	0.00 0.38	-1244.58 -4139.65	0.00	-63.79 -49.01	0.00	-4.79 5.66	-0.03 0.03	-8.35
VB2 - 5	1642.85	0.00 0.40	-4329.89 243.29	243.29	11.61 85.84	0.00	5.44 -3.79	-0.07 0.07	-0.14
VB2 - 6	1877.23	0.00 0.40	244.28 2387.11	2387.11	85.84 -41.73	0.00	3.09 -1.07	0.12 -0.12	-0.14
VB2 - 7	1663.85	0.00 0.40	2386.67 621.37	2433.93	-41.73 -158.59	0.00	0.37 2.42	0.07 -0.07	-0.14
VB2 - 8	1480.39	0.00 0.35	620.02 -2054.16	620.02	-254.39 -244.08	0.00	-4.07 4.95	-0.02 0.02	-0.14
VB2 - 9	1775.32	0.00 0.23	-1971.51 997.55	997.55	-169.87 60.61	0.00	3.36 -0.66	-0.15 0.15	5.47
VB2 - 10	1662.87	0.00 0.23	998.61 -1676.54	998.61	60.61 103.22	0.00	-0.08 2.97	-0.02 0.02	5.47
VB2 - 11	985.00	0.00 0.08	-1620.74 -189.21	281.42	-147.24 -3.63	0.00	1.94 0.97	-0.05 0.05	-7.37
VB3 - 1	772.50	0.00 0.13	-213.00 553.57	741.12	29.62 6.51	29.62	1.22 0.54	0.01 -0.01	-0.49
VB3 - 2	772.50	0.00 0.13	554.02 -1702.05	554.02	6.51 -90.69	6.51	-1.24 2.24	0.08 -0.08	-0.49
VB3 - 3	772.50	0.00 0.06	-1935.20 359.67	359.67	125.69 -30.22	125.69	2.67 -1.89	0.16 -0.16	0.65
VB3 - 4	772.50	0.00 0.06	358.67 1195.56	1195.56	-30.22 9.95	0.00	1.19 -0.36	-0.04 0.04	0.65
VB3 - 5	772.50	0.00 0.06	1196.01 -1572.49	1196.01	9.95 -17.22	9.95	-0.34 2.10	0.01 -0.01	0.65
VB3 - 6	772.50	0.00 0.13	-1531.99 716.94	716.94	58.94 -84.58	58.94	2.07 -0.89	0.09 -0.09	-10.81
VB3 - 7	772.50	0.00 0.13	715.89 -2.93	731.51	-84.58 -32.85	0.00	0.16 1.07	-0.03 0.03	-10.81
VB4 - 1	1053.75	0.00 0.16	-1170.98 -10439.01	4500.53	94.84 -137.09	94.84	3.46 5.61	0.03 -0.03	-0.06
VB4 - 2	1053.75	0.00 0.47	-10945.57 4972.73	6456.21	29.02 16.44	29.02	6.06 1.77	0.00 0.00	-10.12
VB4 - 3	1053.75	0.00 0.61	4982.06 3494.20	4982.06	80.90 -2.27	0.00	-0.08 1.77	0.05 -0.05	20.52
VB4 - 4	1053.75	0.00 0.61	3500.56 -2417.97	3500.56	-2.27 29.48	29.48	-3.05 4.67	-0.02 0.02	20.52
VB5 - 1	772.50	0.00 0.16	-562.81 1710.93	1710.93	-68.92 22.87	22.87	2.05 -0.84	-0.06 0.06	-7.75
VB5 - 2	772.50	0.00 0.16	1704.57 0.00	1704.57	22.87 0.00	22.87	-0.44 1.68	0.01 -0.01	-7.75
VB6 - 1	1053.75	0.00 0.03	-1008.51 -11343.84	4265.86	11.89 -9.12	11.89	3.33 5.74	0.00 0.00	0.84
VB6 - 2	1053.75	0.00 0.10	-11935.36 -2008.06	8139.77	-21.24 -20.26	0.00	6.51 4.63	0.00 0.00	1.13
VB7 - 1	1053.75	0.00 0.07	-1110.65 -11308.45	4214.89	17.50 -27.01	17.50	3.35 5.72	0.01 -0.01	-0.11
VB7 - 2	1053.75	0.00 0.19	-11970.32 -1903.96	8185.03	-18.14 1.35	1.35	6.52 4.61	0.00 0.00	-0.20
VB8 - 1	1053.75	0.00 0.76	-1953.96 -10392.22	4041.17	0.34 -27.70	0.34	3.55 5.52	0.00 0.00	-3.14
VB8 - 2	1053.75	0.00 1.26	-11621.44 -3266.05	7546.81	-20.07 23.76	23.76	6.36 4.77	0.00 0.00	2.63
VB9 - 1	810.00	0.00 0.36	-968.88 -2933.44	1534.41	-2.06 -0.70	0.00	2.01 2.69	0.00 0.00	-0.21
VB9 - 2	810.00	0.00 0.35	-2815.99 -2524.47	1433.45	-24.34 24.02	24.02	2.62 2.53	-0.01 0.01	-0.05

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VB10 - 1	810.00	0.00 0.22	-2134.60 -1659.61	866.89	24.56 -28.00	24.56	2.21 2.02	0.01 -0.01	-0.21
VB10 - 2	810.00	0.00 0.16	-1412.22 -460.99	715.03	-96.42 86.05	86.05	1.86 1.38	-0.05 0.05	1.94
VB11	735.00	0.00 0.01	-27.10 -894.78	17.10	-30.29 50.62	50.62	0.26 1.16	-0.04 0.04	2.41
VB12	1333.65	0.00 0.22	-1268.67 -989.74	1678.73	-216.81 185.21	0.00	2.89 2.60	-0.10 0.10	-1.06
VB13	735.00	0.00 0.06	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.46
VB14	1348.71	-0.11 0.00	0.00 0.00	2810.87	-148.86 200.50	0.00	2.80 2.71	-0.09 0.09	0.45
VB15 - 1	225.00	-0.11 0.00	-92.18 -911.20	491.23	13.53 -11.71	13.53	0.51 0.79	0.00 0.00	-0.28
VB15 - 2	225.00	-0.09 0.00	-773.75 -727.74	388.61	-20.59 23.13	23.13	0.72 0.71	-0.01 0.01	0.01
VB15 - 3	225.00	-0.08 0.00	-574.67 -429.68	266.10	35.25 -51.51	35.25	0.62 0.56	0.02 -0.02	0.59
VB15 - 4	225.00	-0.09 0.00	-274.30 -71.37	0.00	-217.63 208.43	208.43	0.33 0.13	-0.21 0.21	1.47
VB15 - 5	225.00	0.00 0.01	-55.02 133.19	164.56	-14.47 61.40	61.40	0.32 0.12	-0.04 0.04	0.21
VB16	735.00	-0.19 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	1.00
VB17	735.00	0.00 0.05	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.44
VB18	844.02	-0.09 0.00	0.00 0.00	1742.29	95.80 -101.82	0.00	1.65 1.66	0.05 -0.05	1.35
VB19	772.50	0.00 0.10	-126.59 299.18	477.54	-72.59 82.04	82.04	0.97 0.53	-0.08 0.08	-0.02
VB20	772.50	-0.13 0.00	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	1.05
VB21 - 1	772.50	0.00 0.30	-923.97 3678.83	3678.83	64.61 -85.76	64.61	2.67 -0.13	0.05 -0.05	6.19
VB21 - 2	772.50	0.00 0.35	3709.47 -1043.80	3709.47	-150.21 36.25	36.25	-1.56 3.12	-0.09 0.09	-3.14
VB22	772.50	0.00 0.05	-340.19 -639.05	796.16	242.08 -221.87	0.00	1.33 1.49	0.13 -0.13	0.81
VB23	772.50	0.00 0.07	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.36
VB24 - 1	810.00	0.00 0.36	-974.17 -2871.49	1556.94	14.65 -19.27	14.65	2.03 2.68	0.01 -0.01	0.91
VB24 - 2	810.00	0.00 0.31	-2659.95 -2984.84	1281.83	0.82 -5.36	0.82	2.53 2.63	0.00 0.00	-0.07
VB25 - 1	810.00	0.00 0.35	-3005.52 1846.89	1846.89	-76.12 109.67	109.67	3.31 -1.76	-0.10 0.10	-1.33
VB25 - 2	810.00	0.00 0.33	1854.64 -2318.17	1854.64	109.67 -105.46	109.67	0.08 2.60	0.07 -0.07	-1.33
VB25 - 3	810.00	0.00 0.14	-1767.80 -446.38	573.76	-88.46 49.46	49.46	1.95 1.29	-0.03 0.03	-5.68

CASO: G1+G2+D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VB1 - 1	772.50	0.00 0.26	-535.33 15.48	641.62	-77.35 101.98	0.00	1.34 0.97	-0.06 0.06	4.59
VB1 - 2	1349.50	0.00 0.27	15.95 -2338.48	15.95	95.50 55.97	0.00	-3.69 4.46	0.07 -0.07	4.58
VB1 - 3	1509.93	0.00 0.28	-2437.44 -282.08	1363.78	64.90 -55.31	0.00	3.47 2.17	0.03 -0.03	-0.27
VB1 - 4	1336.21	0.00	-280.66	0.00	69.75	0.00	-3.82	0.08	2.81



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		0.22	-2433.73		28.68		4.52	-0.08	
VB1 - 5	1502.17	0.00 0.14	-2254.36 -294.61	815.11	39.78 -92.60	0.00	3.07 1.83	0.04 -0.04	-2.90
VB2 - 1	985.00	0.00 0.29	-811.91 -1296.21	2066.56	-30.31 195.70	195.70	2.38 2.57	-0.04 0.04	7.76
VB2 - 2	985.00	0.00 0.17	-1341.59 -39.19	114.40	116.82 -23.47	0.00	1.69 0.55	0.06 -0.06	-9.25
VB2 - 3	985.00	0.00 0.17	-39.66 -1231.38	0.00	-23.47 -23.85	0.00	-1.25 1.98	0.00 0.00	-9.25
VB2 - 4	1587.61	0.00 0.16	-1231.86 -4123.52	0.00	-58.51 12.67	0.00	-4.78 5.65	-0.13 0.13	-9.25
VB2 - 5	1642.85	0.00 0.15	-4308.92 248.64	248.64	119.84 176.05	0.00	5.42 -3.77	-0.06 0.06	0.12
VB2 - 6	1877.23	0.00 0.15	249.67 2375.79	2375.79	176.05 6.99	0.00	3.07 -1.05	0.16 -0.16	0.12
VB2 - 7	1663.85	0.00 0.15	2375.37 583.88	2419.36	6.99 -141.38	0.00	0.35 2.44	0.09 -0.09	0.12
VB2 - 8	1480.39	0.00 0.22	582.48 -2100.83	582.48	-15.56 -39.27	0.00	-4.09 4.97	0.04 -0.04	0.12
VB2 - 9	1775.32	0.00 0.09	-2022.87 998.26	998.26	52.99 2.26	0.00	3.39 -0.69	0.03 -0.03	5.38
VB2 - 10	1662.87	0.00 0.09	999.22 -1616.33	999.22	2.26 -3.25	0.00	-0.04 2.94	0.00 0.00	5.38
VB2 - 11	985.00	0.00 0.12	-1564.55 -190.03	300.96	137.30 -135.74	137.30	1.92 0.98	0.09 -0.09	-7.52
VB3 - 1	772.50	0.00 0.14	-210.48 547.96	737.73	40.16 4.13	40.16	1.21 0.55	0.02 -0.02	-0.09
VB3 - 2	772.50	0.00 0.14	548.43 -1712.26	548.43	4.13 -95.28	4.13	-1.25 2.25	0.08 -0.08	-0.09
VB3 - 3	772.50	0.00 0.13	-1938.01 358.92	358.92	134.09 -33.46	134.09	2.67 -1.90	0.17 -0.17	0.49
VB3 - 4	772.50	0.00 0.13	357.89 1197.00	1197.00	-33.46 16.47	0.00	1.20 -0.36	-0.05 0.05	0.49
VB3 - 5	772.50	0.00 0.13	1197.41 -1566.39	1197.41	16.47 -35.29	16.47	-0.34 2.09	0.02 -0.02	0.49
VB3 - 6	772.50	0.00 0.21	-1517.66 720.52	720.52	45.07 -11.59	45.07	2.06 -0.89	0.04 -0.04	-10.82
VB3 - 7	772.50	0.00 0.21	719.56 -10.45	733.58	-11.59 -118.34	0.00	0.15 1.07	0.07 -0.07	-10.82
VB4 - 1	1053.75	0.00 0.12	-1144.15 -10457.52	4510.48	-35.30 10.03	10.03	3.45 5.62	-0.01 0.01	-0.20
VB4 - 2	1053.75	0.00 0.40	-10940.88 4974.97	6458.98	127.19 -5.30	127.19	6.06 1.77	0.02 -0.02	-9.54
VB4 - 3	1053.75	0.00 0.59	4984.28 3476.50	4984.28	178.85 12.36	0.00	-0.10 1.79	0.10 -0.10	19.37
VB4 - 4	1053.75	0.00 0.59	3482.84 -2454.77	3482.84	12.36 -94.28	12.36	-3.06 4.68	0.07 -0.07	19.37
VB5 - 1	772.50	0.00 0.18	-546.95 1718.94	1718.94	-26.85 13.77	13.77	2.05 -0.83	-0.03 0.03	-7.52
VB5 - 2	772.50	0.00 0.18	1712.61 0.00	1712.61	13.77 0.00	13.77	-0.44 1.69	0.01 -0.01	-7.52
VB6 - 1	1053.75	0.00 0.02	-985.42 -11357.37	4275.33	-74.63 117.15	117.15	3.33 5.74	-0.02 0.02	0.65
VB6 - 2	1053.75	0.00 0.09	-11922.14 -2031.19	8132.02	91.89 -103.32	91.89	6.50 4.63	0.02 -0.02	1.22
VB7 - 1	1053.75	0.00 0.07	-1106.71 -11311.02	4216.42	-71.82 97.01	97.01	3.35 5.72	-0.02 0.02	-0.24
VB7 - 2	1053.75	0.00 0.19	-11966.96 -1909.96	8182.99	94.41 -74.42	94.41	6.52 4.61	0.02 -0.02	-0.15
VB8 - 1	1053.75	0.00 0.75	-1963.27 -10386.16	4037.94	-59.15 81.43	81.43	3.56 5.51	-0.02 0.02	-3.52
VB8 - 2	1053.75	0.00 1.25	-11620.26 -3269.46	7545.35	78.88 -25.27	78.88	6.36 4.77	0.01 -0.01	2.84

	<b>AltoQi Eberick 2018</b> <b>Plena</b>	
	<b>Leilson Campos</b> <b>Rezende</b> <b>Rezende Engenharia</b>	<b>11/5/2021</b> <b>12:23:34</b>

VB9 - 1	810.00	0.00 0.37	-1120.59 -2811.67	1502.57	40.14 -39.10	40.14	2.06 2.64	0.01 -0.01	-0.22
VB9 - 2	810.00	0.00 0.37	-2906.49 -2429.08	1438.90	4.87 -5.80	4.87	2.65 2.50	0.00 0.00	-0.06
VB10 - 1	810.00	0.00 0.24	-2242.95 -1565.59	867.51	62.12 -59.31	62.12	2.25 1.99	0.02 -0.02	-0.21
VB10 - 2	810.00	0.00 0.20	-1550.62 -281.77	760.51	-18.65 -26.24	0.00	1.94 1.30	0.00 0.00	1.95
VB11	735.00	0.00 0.10	-217.62 -819.70	0.00	-40.79 67.08	67.08	0.40 1.02	-0.06 0.06	2.39
VB12	1333.65	0.00 0.30	-1432.74 -644.41	1776.95	139.32 -86.02	0.00	3.02 2.48	0.05 -0.05	-1.00
VB13	735.00	0.00 0.06	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.47
VB14	1348.71	-0.13 0.00	0.00 0.00	2810.87	34.66 -6.48	0.00	2.80 2.71	0.01 -0.01	0.48
VB15 - 1	225.00	-0.12 0.00	-360.26 -706.30	423.85	21.27 -19.49	21.27	0.59 0.71	0.01 -0.01	-0.29
VB15 - 2	225.00	-0.09 0.00	-917.73 -571.47	401.27	-16.89 20.01	20.01	0.77 0.66	-0.01 0.01	0.00
VB15 - 3	225.00	-0.06 0.00	-757.41 -269.20	273.33	45.27 -61.77	45.27	0.68 0.49	0.02 -0.02	0.58
VB15 - 4	225.00	-0.05 0.00	-467.01 -56.19	0.00	-178.93 190.89	190.89	0.43 0.03	-0.18 0.18	1.46
VB15 - 5	225.00	0.00 0.03	-95.80 467.70	467.70	-42.29 92.23	92.23	0.51 -0.07	-0.07 0.07	0.24
VB16	735.00	-0.21 0.00	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	1.03
VB17	735.00	0.00 0.07	0.00 0.00	329.89	0.00 0.00	0.00	0.70 0.70	0.00 0.00	-0.41
VB18	844.02	-0.05 0.00	0.00 0.00	1742.29	-125.82 125.06	0.00	1.65 1.66	-0.06 0.06	1.40
VB19	772.50	0.00 0.07	-286.70 462.00	544.73	-78.27 99.31	99.31	1.13 0.36	-0.09 0.09	-0.04
VB20	772.50	0.00 0.03	0.00 0.00	346.72	0.00 0.00	0.00	0.74 0.74	0.00 0.00	0.96
VB21 - 1	772.50	0.00 0.35	-1024.79 3692.09	3692.09	24.64 -38.79	24.64	2.70 -0.16	0.02 -0.02	6.20
VB21 - 2	772.50	0.00 0.43	3721.00 -937.23	3721.00	-222.94 112.45	112.45	-1.51 3.08	-0.17 0.17	-3.11
VB22	772.50	0.00 0.17	-549.34 -360.71	830.02	-139.15 91.25	0.00	1.46 1.36	-0.06 0.06	0.87
VB23	772.50	0.00 0.03	0.00 0.00	1057.31	0.00 0.00	0.00	1.28 1.28	0.00 0.00	6.34
VB24 - 1	810.00	0.00 0.38	-1166.74 -2716.96	1519.56	-20.70 11.92	11.92	2.09 2.62	-0.01 0.01	0.91
VB24 - 2	810.00	0.00 0.37	-2774.52 -2864.59	1280.88	-25.23 19.34	19.34	2.56 2.59	-0.01 0.01	-0.08
VB25 - 1	810.00	0.00 0.42	-3145.94 1807.08	1807.08	-121.14 115.48	115.48	3.36 -1.81	-0.12 0.12	-1.33
VB25 - 2	810.00	0.00 0.41	1814.60 -2200.81	1823.47	115.48 -75.23	115.48	0.13 2.55	0.06 -0.06	-1.33
VB25 - 3	810.00	0.00 0.20	-1944.55 -216.83	651.52	-159.59 143.40	143.40	2.05 1.19	-0.08 0.08	-5.65

	AltoQi Eberick 2018 Plena	
	Leilson Campos Rezende Rezende Engenharia	11/5/2021 12:14:59


## Relatório de Combinações

Térreo Lance 1

LEILSON CAMPOS  
REZENDE:  
34821520559


Assinado digitalmente por LEILSON CAMPOS  
REZENDE: 34821520559  
DN: C=BR, O=CIPBrasil, OU=AC SOLUTI Multipla vs,  
OU=REDES 12001010, CN=LEILSON CAMPOS REZENDE: 34821520559  
Razão: Eu sou o autor deste documento.  
Localização: sua localização de assinatura aqui  
Data: 2021.05.11 18:41:01  
Foxit Reader Versão: 10.0.1

CASO: Peso próprio (G1)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	187.50	0.00 0.07	-325.63 451.42	451.42	-4.97 0.14	0.14	0.58 -0.22	0.00 0.00	0.13
VA1 - 2	187.50	0.00 0.07	451.43 21.55	451.43	0.14 -7.47	0.00	-0.31 0.51	0.01 -0.01	-0.02
VA1 - 3	187.50	0.00 0.07	21.76 -574.27	21.76	-7.47 11.08	11.08	-0.97 1.08	-0.03 0.03	-0.01
VA1 - 4	187.50	-0.01 0.00	-491.25 64.92	174.53	10.40 -7.94	10.40	0.50 0.20	0.00 0.00	0.09
VA1 - 5	187.50	-0.02 0.00	65.29 -373.82	65.29	-7.94 10.41	10.41	-0.81 0.90	-0.04 0.04	-0.65
VA1 - 6	187.50	-0.02 0.00	-270.60 -94.44	74.11	8.30 -4.12	8.30	0.36 0.25	0.00 0.00	-0.01
VA2	187.50	0.00 0.00	0.00 0.00	91.42	0.00 0.00	0.00	0.19 0.19	0.00 0.00	-0.66
VA3 - 1	187.50	0.00 0.00	0.00 -378.09	269.52	0.00 1.34	1.34	0.32 0.49	0.00 0.00	0.17
VA3 - 2	187.50	0.00 0.00	-379.71 1.35	1.35	4.55 0.00	4.55	0.39 -0.10	0.00 0.00	0.00
VA4 - 1	225.00	0.00 0.02	-407.89 -477.50	269.32	14.31 -6.40	14.31	0.55 0.58	0.00 0.00	0.23
VA4 - 2	225.00	0.00 0.03	-488.04 390.63	390.63	-6.07 -2.92	0.00	0.67 -0.22	0.00 0.00	-0.21
VA4 - 3	225.00	0.00 0.03	390.62 315.52	390.62	-2.92 0.69	0.00	-0.20 0.28	-0.01 0.01	-0.21
VA4 - 4	225.00	0.00 0.03	315.55 -55.12	315.55	0.69 12.46	12.46	-0.42 0.59	-0.02 0.02	-0.21
VA4 - 5	225.00	0.00 0.03	-55.32 -761.09	0.00	12.46 -0.95	12.46	-1.20 1.33	0.02 -0.02	-1.04
VA4 - 6	225.00	0.00 0.00	-794.70 -47.17	0.00	-4.20 -0.07	0.00	0.86 -0.63	0.00 0.00	0.40
VA4 - 7	225.00	0.00 0.00	-47.16 344.91	344.91	-0.07 -0.25	0.00	0.49 -0.24	0.00 0.00	0.00
VA4 - 8	225.00	0.00 0.00	344.71 191.06	366.28	-0.25 8.70	0.00	0.10 0.28	-0.01 0.01	0.00
VA4 - 9	225.00	0.00 0.00	192.30 -606.02	192.30	8.70 -10.31	8.70	-1.29 1.42	0.03 -0.03	0.00
VA4 - 10	225.00	-0.02 0.00	-536.10 -28.76	0.00	-4.04 1.33	1.33	0.63 -0.41	-0.01 0.01	0.31
VA4 - 11	225.00	-0.02 0.00	-27.41 112.08	112.08	1.33 2.76	2.76	0.32 -0.19	0.00 0.00	0.31
VA4 - 12	225.00	-0.02 0.00	112.22 -208.12	112.22	2.76 -5.96	2.76	0.01 0.38	0.01 -0.01	0.31
VA4 - 13	225.00	0.00 0.00	-194.30 -102.78	97.24	-2.48 0.99	0.99	0.36 0.30	0.00 0.00	-0.43
VA5 - 1	187.50	0.00 0.01	-100.34 128.08	162.05	-3.39 2.07	2.07	0.31 0.11	0.00 0.00	-0.20

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VA5 - 2	187.50	0.00 0.01	128.05 -362.81	128.05	2.07 -0.60	2.07	-0.26 0.50	0.00 0.00	-0.20
VA5 - 3	187.50	0.00 0.01	-454.84 68.61	68.61	0.57 -0.35	0.57	0.61 -0.43	0.00 0.00	0.18
VA5 - 4	187.50	0.00 0.01	68.61 262.94	262.94	-0.35 3.28	0.00	0.28 -0.08	0.00 0.00	0.18
VA5 - 5	187.50	0.00 0.01	263.14 -370.09	263.14	3.28 -1.48	3.28	-0.07 0.49	0.00 0.00	0.18
VA5 - 6	187.50	0.00 0.01	-351.98 167.76	167.76	4.45 -3.65	4.45	0.48 -0.20	0.01 -0.01	-0.10
VA5 - 7	187.50	0.00 0.01	167.61 -39.34	167.61	-1.25 2.38	2.38	0.02 0.28	0.00 0.00	-2.06
VA6 - 1	187.50	0.00 0.00	1.71 118.27	134.23	-7.64 -2.12	0.00	0.22 0.08	0.00 0.00	0.32
VA6 - 2	187.50	0.00 0.00	119.39 -684.09	119.39	-2.12 6.21	6.21	-0.38 0.67	-0.01 0.01	0.32
VA7 - 1	187.50	-0.04 0.00	-184.77 384.72	384.72	-5.06 -0.98	0.00	0.51 -0.22	0.00 0.00	-0.60
VA7 - 2	187.50	-0.04 0.00	383.60 0.00	383.60	-0.98 0.00	0.00	-0.09 0.39	0.00 0.00	-0.60
VA8 - 1	281.25	0.00 0.09	-1251.30 -2103.09	944.48	-5.95 4.38	4.38	1.11 1.31	0.00 0.00	-0.51
VA8 - 2	281.25	0.00 0.11	-2849.37 -1906.02	1557.71	5.10 -4.66	5.10	1.57 1.40	0.00 0.00	0.41
VA9 - 1	225.00	0.00 0.03	-485.33 -718.64	350.30	12.38 -10.78	12.38	0.61 0.69	0.00 0.00	1.11
VA9 - 2	225.00	0.00 0.05	-751.86 -731.43	397.29	-5.68 3.03	3.03	0.72 0.71	0.00 0.00	-0.08
VA10 - 1	225.00	0.00 0.03	-583.69 -447.46	252.37	6.75 -10.87	6.75	0.61 0.56	0.00 0.00	0.04
VA10 - 2	225.00	0.00 0.01	-361.02 -206.59	168.13	-15.24 12.07	12.07	0.49 0.41	-0.01 0.01	-1.22
VA11 - 1	187.50	0.00 0.00	-56.35 -97.83	11.59	4.26 -1.39	4.26	0.16 0.20	0.00 0.00	0.41
VA11 - 2	187.50	-0.03 0.00	-238.53 139.24	215.50	-1.38 0.25	0.25	0.41 0.17	0.00 0.00	-0.29
VA11 - 3	187.50	-0.03 0.00	138.57 -318.61	138.57	0.25 1.13	1.13	-0.36 0.55	0.00 0.00	-0.29
VA12 - 1	187.50	-0.01 0.00	0.00 425.21	491.69	0.00 0.25	0.25	0.43 0.16	0.00 0.00	0.01
VA12 - 2	187.50	-0.01 0.00	425.87 0.00	425.87	0.25 0.00	0.25	-0.34 0.53	0.00 0.00	0.01
VA13	150.00	0.00 0.00	0.00 0.00	69.10	0.00 0.00	0.00	0.14 0.14	0.00 0.00	0.03
VA14 - 1	187.50	0.00 0.04	0.00 544.40	544.40	0.00 -0.74	0.00	0.62 -0.42	0.00 0.00	0.21
VA14 - 2	187.50	0.00 0.04	544.58 0.00	572.06	-0.74 0.00	0.00	0.10 0.46	0.00 0.00	0.21
VA15	150.00	0.00 0.00	0.00 0.00	69.10	0.00 0.00	0.00	0.14 0.14	0.00 0.00	0.01
VA16	150.00	0.00 0.01	0.00 0.00	69.10	0.00 0.00	0.00	0.14 0.14	0.00 0.00	-0.20
VA17 - 1	187.50	0.00 0.04	0.00 956.71	956.71	0.00 1.59	1.59	1.01 -0.81	0.00 0.00	-1.24
VA17 - 2	187.50	0.00 0.04	956.54 0.00	956.54	-1.62 0.00	0.00	-0.07 0.60	0.00 0.00	0.37
VA18	187.50	0.00 0.02	-97.87 66.29	90.27	-5.02 7.36	7.36	0.27 0.10	-0.01 0.01	0.29
VA19	187.50	0.00 0.00	0.00 0.00	24.80	0.00 0.00	0.00	0.10 0.10	0.00 0.00	-1.35
VA20	187.50	-0.01 0.00	-1.95 0.00	85.51	-2.39 0.00	0.00	0.18 0.18	0.00 0.00	0.14
VA21 - 1	187.50	-0.01	-393.39	520.09	3.86	3.86	0.59	0.00	1.24




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		0.00	520.09		-2.76		0.02	0.00	
VA21 - 2	187.50	-0.01 0.00	520.41 -402.20	520.41	4.88 -8.25	4.88	-0.24 0.63	0.01 -0.01	-0.47
VA22	187.50	0.00 0.02	-108.14 -184.51	165.97	-4.36 6.19	6.19	0.32 0.36	0.00 0.00	0.04
VA23	187.50	0.00 0.00	0.00 0.00	244.34	0.00 0.00	0.00	0.30 0.30	0.00 0.00	1.12
VA24 - 1	225.00	0.00 0.03	-495.59 -710.46	348.94	-15.99 11.25	11.25	0.62 0.69	0.00 0.00	-1.51
VA24 - 2	225.00	0.00 0.04	-727.83 -784.14	383.53	1.12 10.57	10.57	0.71 0.73	0.00 0.00	-0.07
VA25 - 1	225.00	0.00 0.05	-820.87 437.73	437.73	32.77 -23.25	32.77	0.87 -0.44	0.03 -0.03	1.00
VA25 - 2	225.00	0.00 0.05	438.33 -618.17	444.47	-23.25 5.65	5.65	0.05 0.69	-0.01 0.01	1.00
VA25 - 3	225.00	0.00 0.02	-442.13 -176.94	149.33	5.26 -6.71	5.26	0.52 0.38	0.00 0.00	-0.07

CASO: Adicional (G2)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	585.00	0.00 0.22	-981.41 1390.71	1390.71	-3.17 0.80	0.80	1.79 -0.65	0.00 0.00	1.21
VA1 - 2	585.00	0.00 0.23	1390.79 21.35	1390.79	0.80 -3.24	0.00	-1.00 1.61	0.00 0.00	0.74
VA1 - 3	585.00	0.00 0.22	22.02 -1853.20	22.02	-3.24 -0.52	0.00	-3.06 3.40	0.00 0.00	0.73
VA1 - 4	585.00	0.00 0.06	-1497.02 191.93	546.77	4.30 -4.71	4.30	1.55 0.65	0.00 0.00	0.30
VA1 - 5	585.00	0.00 0.06	193.04 -1183.33	193.04	-4.71 5.05	5.05	-2.53 2.83	-0.02 0.02	-1.91
VA1 - 6	585.00	0.00 0.01	-905.28 -210.69	258.68	4.23 -0.86	4.23	1.17 0.74	0.00 0.00	-0.62
VA2	585.00	0.00 0.00	0.00 0.00	285.23	0.00 0.00	0.00	0.58 0.58	0.00 0.00	-2.01
VA3 - 1	585.00	0.00 0.00	0.00 -1180.02	840.77	0.00 -0.07	0.00	0.99 1.54	0.00 0.00	0.59
VA3 - 2	585.00	0.00 0.00	-1184.93 3.97	3.97	1.19 0.00	1.19	1.22 -0.31	0.00 0.00	0.00
VA4 - 1	585.00	0.00 0.13	-970.92 -1333.73	702.55	22.47 -6.44	22.47	1.40 1.54	0.01 -0.01	0.68
VA4 - 2	585.00	0.00 0.14	-1390.72 1195.88	1195.88	0.04 -1.18	0.04	1.89 -0.74	0.00 0.00	-0.46
VA4 - 3	585.00	0.00 0.14	1195.80 978.66	1195.80	-1.18 0.52	0.00	-0.60 0.79	-0.01 0.01	-0.46
VA4 - 4	585.00	0.00 0.14	978.64 -175.43	978.64	0.52 2.92	2.92	-1.35 1.78	0.00 0.00	-0.46
VA4 - 5	585.00	0.00 0.14	-176.07 -2333.97	0.00	2.92 -1.29	2.92	-3.71 4.03	0.01 -0.01	-3.12
VA4 - 6	585.00	0.00 0.08	-2337.43 -82.97	0.00	-4.97 0.95	0.95	2.54 -1.95	-0.01 0.01	0.52
VA4 - 7	585.00	0.00 0.08	-82.68 1066.74	1066.74	0.95 -0.92	0.95	1.38 -0.75	0.00 0.00	-0.18
VA4 - 8	585.00	0.00 0.08	1066.25 552.98	1093.89	-0.92 3.61	0.00	0.19 0.80	0.00 0.00	-0.18
VA4 - 9	585.00	0.00 0.08	556.76 -1867.57	556.76	3.61 -6.56	3.61	-3.95 4.29	0.02 -0.02	-0.18
VA4 - 10	585.00	0.00 0.01	-1656.16 -158.09	0.00	-3.04 0.62	0.62	1.83 -1.26	0.00 0.00	1.12
VA4 - 11	585.00	0.00 0.01	-154.12 281.89	281.89	0.62 2.28	2.28	0.95 -0.63	0.00 0.00	1.12




VA4 - 12	585.00	0.00 0.02	282.14 -480.80	283.64	2.28 -0.92	2.28	0.07 0.95	0.00 0.00	1.12
VA4 - 13	585.00	0.00 0.05	-518.29 -234.37	265.99	0.74 -8.20	0.74	0.96 0.77	0.00 0.00	-1.21
VA5 - 1	585.00	0.00 0.05	-304.16 425.12	526.58	4.53 -1.11	4.53	0.99 0.35	0.00 0.00	-0.27
VA5 - 2	585.00	0.00 0.05	425.14 -1243.21	425.14	-1.11 -1.52	0.00	-0.91 1.67	0.00 0.00	-0.27
VA5 - 3	585.00	0.00 0.07	-1556.18 244.96	244.96	2.47 -1.58	2.47	2.09 -1.50	0.00 0.00	0.34
VA5 - 4	585.00	0.00 0.07	244.67 909.16	909.16	-1.58 1.53	0.00	0.93 -0.30	0.00 0.00	0.34
VA5 - 5	585.00	0.00 0.07	909.64 -1200.15	909.64	1.53 -1.97	1.53	-0.26 1.59	0.00 0.00	0.34
VA5 - 6	585.00	0.00 0.06	-1121.26 512.03	512.03	4.63 -7.68	4.63	1.52 -0.63	0.01 -0.01	-0.35
VA5 - 7	585.00	0.00 0.06	511.78 -122.51	511.78	-9.04 -14.17	0.00	0.06 0.86	0.00 0.00	-7.38
VA6 - 1	585.00	0.00 0.03	5.26 498.36	518.81	0.01 -9.00	0.00	0.78 0.16	0.01 -0.01	1.16
VA6 - 2	585.00	0.00 0.03	501.98 -1880.95	501.98	-9.00 17.59	17.59	-1.11 2.00	-0.02 0.02	1.16
VA7 - 1	585.00	-0.02 0.00	-590.79 1193.16	1193.16	-28.57 3.80	3.80	1.59 -0.68	-0.02 0.02	-2.45
VA7 - 2	585.00	-0.02 0.00	1189.54 0.00	1189.54	3.80 0.00	3.80	-0.27 1.21	0.00 0.00	-2.45
VA8 - 1	585.00	0.00 0.40	-2433.48 -4530.46	1984.33	1.28 -3.74	1.28	2.27 2.76	0.00 0.00	-0.83
VA8 - 2	585.00	0.00 0.62	-5960.51 -3811.21	3306.98	6.06 1.44	6.06	3.29 2.89	0.00 0.00	0.67
VA9 - 1	585.00	0.00 0.09	-1239.67 -1884.53	914.50	21.61 -17.10	21.61	1.59 1.81	0.01 -0.01	1.84
VA9 - 2	585.00	0.00 0.13	-1957.75 -1902.20	1031.30	-8.81 6.53	6.53	1.87 1.85	0.00 0.00	-0.19
VA10 - 1	585.00	0.00 0.08	-1512.82 -1172.76	653.31	15.14 -20.80	15.14	1.59 1.46	0.01 -0.01	0.38
VA10 - 2	585.00	0.00 0.04	-949.00 -526.70	437.75	-24.71 13.13	13.13	1.27 1.06	-0.01 0.01	-2.19
VA11 - 1	585.00	0.00 0.02	-148.54 -490.14	0.00	-1.91 5.45	5.45	0.39 0.74	0.00 0.00	1.21
VA11 - 2	585.00	0.00 0.07	-860.17 562.94	735.69	-2.33 1.35	1.35	1.37 0.45	0.00 0.00	-0.82
VA11 - 3	585.00	0.00 0.07	560.93 -785.76	560.93	1.35 5.05	5.05	-1.03 1.63	0.00 0.00	-0.82
VA12 - 1	585.00	-0.01 0.00	0.00 1326.70	1534.09	0.00 1.84	1.84	1.34 0.49	0.00 0.00	0.08
VA12 - 2	585.00	-0.01 0.00	1328.71 0.00	1328.71	1.84 0.00	1.84	-1.07 1.65	0.00 0.00	0.08
VA13	585.00	0.00 0.00	0.00 0.00	269.49	0.00 0.00	0.00	0.57 0.57	0.00 0.00	-0.02
VA14 - 1	585.00	0.00 0.01	0.00 1698.46	1698.46	0.00 -0.59	0.00	1.92 -1.31	0.00 0.00	0.67
VA14 - 2	585.00	0.00 0.01	1699.04 0.00	1784.80	-0.59 0.00	0.00	0.32 1.45	0.00 0.00	0.67
VA15	585.00	-0.01 0.00	0.00 0.00	269.49	0.00 0.00	0.00	0.57 0.57	0.00 0.00	0.29
VA16	585.00	0.00 0.00	0.00 0.00	269.49	0.00 0.00	0.00	0.57 0.57	0.00 0.00	-0.48
VA17 - 1	585.00	0.00 0.02	0.00 2985.01	2985.01	0.00 0.92	0.92	3.15 -2.54	0.00 0.00	-3.78
VA17 - 2	585.00	0.00 0.02	2984.43 0.00	2984.43	-0.34 0.00	0.00	-0.22 1.88	0.00 0.00	1.12
VA18	585.00	0.00	-187.36	246.48	-5.51	6.78	0.71	-0.01	0.76

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		0.03	99.58		6.78		0.42	0.01	
VA19	585.00	0.00 0.00	0.00 0.00	77.37	0.00 0.00	0.00	0.31 0.31	0.00 0.00	-3.97
VA20	585.00	0.00 0.00	-7.03 0.00	266.37	1.35 0.00	1.35	0.57 0.56	0.00 0.00	0.26
VA21 - 1	585.00	0.00 0.16	-1189.83 1794.26	1794.26	20.96 -27.70	20.96	1.87 0.01	0.02 -0.02	3.75
VA21 - 2	585.00	0.00 0.16	1795.42 -1165.53	1795.42	-27.71 -1.12	0.00	-0.78 2.02	-0.01 0.01	-1.51
VA22	585.00	0.00 0.06	-379.84 -543.70	511.37	-3.80 4.52	4.52	1.02 1.11	0.00 0.00	0.23
VA23	585.00	0.00 0.02	0.00 0.00	762.34	0.00 0.00	0.00	0.94 0.94	0.00 0.00	3.62
VA24 - 1	585.00	0.00 0.09	-1266.84 -1860.73	911.94	-35.08 20.41	20.41	1.60 1.80	-0.01 0.01	-2.78
VA24 - 2	585.00	0.00 0.12	-1880.29 -2075.72	985.52	4.40 10.32	10.32	1.83 1.89	0.00 0.00	-0.21
VA25 - 1	585.00	0.00 0.14	-2258.47 1269.46	1269.46	37.60 -6.90	37.60	2.40 -1.28	0.02 -0.02	2.27
VA25 - 2	585.00	0.00 0.14	1271.91 -1687.97	1274.57	-6.90 -16.79	0.00	0.07 1.86	0.00 0.00	2.27
VA25 - 3	585.00	0.00 0.05	-1191.98 -439.71	382.15	-18.14 8.28	8.28	1.36 0.98	-0.01 0.01	-1.01


CASO: Solo (S)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA1 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA1 - 3	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA1 - 4	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA1 - 5	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA1 - 6	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA3 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA3 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA4 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA4 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA4 - 3	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA4 - 4	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA4 - 5	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA4 - 6	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA4 - 7	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA4 - 8	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00




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		0.00	0.00		0.00		0.00	0.00	
VA17 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA17 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA18	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA19	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA20	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA21 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA21 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA22	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA23	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA24 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA24 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA25 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA25 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA25 - 3	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00

CASO: Acidental (Q)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	0.00	-0.01 0.00	-124.24 56.27	56.27	-47.19 2.55	2.55	0.09 -0.09	-0.03 0.03	-2.76
VA1 - 2	0.00	-0.01 0.00	56.16 153.55	153.55	2.55 -62.85	0.00	0.09 -0.09	0.06 -0.06	-2.77
VA1 - 3	0.00	-0.03 0.00	153.60 207.45	207.45	-62.85 117.52	0.00	0.09 -0.09	-0.31 0.31	-2.62
VA1 - 4	0.00	-0.35 0.00	-123.21 43.38	43.38	94.61 -69.98	94.61	0.04 -0.04	0.04 -0.04	0.07
VA1 - 5	0.00	-0.38 0.00	43.49 66.36	66.36	-69.98 93.40	93.40	0.04 -0.04	-0.32 0.32	-0.42
VA1 - 6	0.00	-0.29 0.00	193.49 -278.38	193.49	73.48 -39.60	73.48	-0.14 0.14	0.03 -0.03	1.93
VA2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.36
VA3 - 1	0.00	0.00 0.01	0.00 1.02	1.02	0.00 14.04	14.04	0.00 0.00	0.00 0.00	-0.09
VA3 - 2	0.00	0.00 0.00	0.88 0.88	0.88	45.42 0.00	45.42	0.00 0.00	0.03 -0.03	0.00
VA4 - 1	0.00	-0.03 0.00	-114.61 68.63	68.63	20.93 -23.22	20.93	0.04 -0.04	0.01 -0.01	-0.16
VA4 - 2	0.00	0.00 0.03	38.39 36.23	38.39	-55.85 -26.14	0.00	0.00 0.00	-0.02 0.02	-0.57
VA4 - 3	0.00	0.00 0.03	36.34 36.02	36.34	-26.14 6.05	0.00	0.00 0.00	-0.10 0.10	-0.57
VA4 - 4	0.00	0.00 0.03	36.09 35.35	36.09	6.05 120.70	120.70	0.00 0.00	-0.16 0.16	-0.57
VA4 - 5	0.00	0.00 0.02	35.31 34.64	35.31	120.70 -2.52	120.70	0.00 0.00	0.22 -0.22	-0.04

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VA4 - 6	0.00	-0.11 0.00	-204.39 -109.49	0.00	-24.81 -2.73	0.00	0.09 -0.09	-0.02 0.02	1.63
VA4 - 7	0.00	-0.11 0.00	-109.64 -8.11	0.00	-2.73 0.44	0.44	0.09 -0.09	0.00 0.00	0.72
VA4 - 8	0.00	-0.11 0.00	-8.35 150.81	150.81	0.44 78.60	78.60	0.09 -0.09	-0.05 0.05	0.72
VA4 - 9	0.00	-0.09 0.00	150.84 206.49	206.49	78.60 -90.70	0.00	0.09 -0.09	0.29 -0.29	0.72
VA4 - 10	0.00	-0.13 0.00	233.98 101.74	233.98	-22.65 6.46	0.00	-0.14 0.14	-0.03 0.03	-0.23
VA4 - 11	0.00	-0.13 0.00	102.63 27.65	102.63	6.46 6.93	0.00	-0.14 0.14	0.00 0.00	-0.23
VA4 - 12	0.00	-0.14 0.00	28.06 -208.53	28.06	6.93 -39.79	6.93	-0.14 0.14	0.03 -0.03	-0.23
VA4 - 13	0.00	-0.01 0.00	10.28 -32.20	10.28	-7.84 -8.94	0.00	-0.01 0.01	0.00 0.00	-0.14
VA5 - 1	0.00	-0.05 0.00	-5.38 1.01	1.01	-51.88 26.79	26.79	0.00 0.00	-0.03 0.03	-1.01
VA5 - 2	0.00	-0.05 0.00	0.94 4.58	4.58	26.79 3.27	26.79	0.00 0.00	0.02 -0.02	-1.01
VA5 - 3	0.00	-0.06 0.00	21.12 13.40	21.12	-2.83 2.57	0.00	-0.01 0.01	-0.01 0.01	0.61
VA5 - 4	0.00	-0.06 0.00	13.53 5.28	13.53	2.57 29.78	29.78	-0.01 0.01	-0.03 0.03	0.61
VA5 - 5	0.00	-0.06 0.00	5.51 -11.95	5.51	29.78 -11.42	29.78	-0.01 0.01	0.02 -0.02	0.61
VA5 - 6	0.00	0.00 0.00	14.16 -0.76	14.16	41.73 -27.84	41.73	-0.01 0.01	0.05 -0.05	0.10
VA5 - 7	0.00	0.00 0.02	-1.18 -17.28	0.00	3.37 -25.22	3.37	-0.01 0.01	0.02 -0.02	-0.59
VA6 - 1	0.00	0.00 0.01	0.01 -0.29	0.01	5.14 0.40	5.14	0.00 0.00	0.00 0.00	0.05
VA6 - 2	0.00	0.00 0.01	-0.28 -0.56	0.00	0.40 0.50	0.50	0.00 0.00	0.00 0.00	0.05
VA7 - 1	0.00	0.00 0.00	-3.14 -1.58	0.00	-0.77 2.02	2.02	0.00 0.00	0.00 0.00	-0.05
VA7 - 2	0.00	0.00 0.00	-1.59 0.00	0.00	2.02 0.00	2.02	0.00 0.00	0.00 0.00	-0.05
VA8 - 1	0.00	0.00 0.00	1.30 -0.76	1.30	-0.19 0.72	0.72	0.00 0.00	0.00 0.00	-0.03
VA8 - 2	0.00	0.00 0.00	1.42 -1.13	1.42	0.02 0.23	0.23	0.00 0.00	0.00 0.00	0.07
VA9 - 1	0.00	0.00 0.00	-14.71 12.85	12.85	0.69 -0.41	0.69	0.00 0.00	0.00 0.00	0.00
VA9 - 2	0.00	0.00 0.00	-10.37 10.68	10.68	0.28 -0.50	0.28	0.00 0.00	0.00 0.00	0.00
VA10 - 1	0.00	0.00 0.00	-11.59 9.83	9.83	0.04 0.72	0.72	0.00 0.00	0.00 0.00	0.00
VA10 - 2	0.00	0.00 0.00	-16.93 20.40	20.40	-0.08 1.38	1.38	0.01 -0.01	0.00 0.00	0.05
VA11 - 1	0.00	-0.10 0.00	37.29 410.56	410.56	48.25 -35.23	48.25	0.19 -0.19	0.04 -0.04	-0.07
VA11 - 2	0.00	-0.54 0.00	247.27 -402.87	247.27	3.10 -4.53	3.10	-0.21 0.21	0.00 0.00	-0.01
VA11 - 3	0.00	-0.54 0.00	-403.23 -615.31	0.00	-4.53 -10.78	0.00	-0.21 0.21	0.01 -0.01	-0.01
VA12 - 1	0.00	-0.09 0.00	0.00 -0.27	0.00	0.00 -2.76	0.00	0.00 0.00	0.00 0.00	-0.11
VA12 - 2	0.00	-0.09 0.00	0.09 0.00	0.09	-2.76 0.00	0.00	0.00 0.00	0.00 0.00	-0.11
VA13	0.00	0.00 0.05	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.07
VA14 - 1	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.01	0.05

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		0.38	0.21		-6.65		0.00	-0.01	
VA14 - 2	0.00	0.00 0.37	0.12 0.00	0.12	-6.65 0.00	0.00	0.00 0.00	0.00 0.00	0.05
VA15	0.00	-0.02 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.13
VA16	0.00	0.00 0.04	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.24
VA17 - 1	0.00	0.00 0.33	0.00 -0.21	0.00	0.00 15.01	15.01	0.00 0.00	-0.01 0.01	-0.03
VA17 - 2	0.00	0.00 0.37	-0.11 0.00	0.00	-16.37 0.00	0.00	0.00 0.00	-0.01 0.01	0.11
VA18	0.00	0.00 0.15	-280.55 236.87	236.87	-49.04 69.75	69.75	0.27 -0.27	-0.06 0.06	0.10
VA19	0.00	0.00 0.03	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.88
VA20	0.00	-0.03 0.00	-0.69 0.00	0.00	-31.21 0.00	0.00	0.00 0.00	-0.02 0.02	0.42
VA21 - 1	0.00	0.00 0.01	24.18 -5.37	24.18	1.05 -2.74	1.05	-0.01 0.01	0.00 0.00	0.00
VA21 - 2	0.00	0.00 0.01	-5.32 -24.37	0.00	-7.87 18.28	18.28	-0.01 0.01	-0.01 0.01	-0.01
VA22	0.00	0.00 0.04	139.87 -113.80	139.87	-34.10 50.02	50.02	-0.07 0.07	-0.02 0.02	-0.31
VA23	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.01
VA24 - 1	0.00	0.00 0.00	60.89 -53.87	60.89	-1.70 1.33	1.33	-0.02 0.02	0.00 0.00	0.00
VA24 - 2	0.00	0.00 0.00	43.40 -43.83	43.40	-1.04 1.17	1.17	-0.01 0.01	0.00 0.00	0.00
VA25 - 1	0.00	0.00 0.00	50.23 14.30	50.23	-1.30 -1.21	0.00	-0.02 0.02	0.00 0.00	0.00
VA25 - 2	0.00	0.00 0.00	14.35 -44.49	14.35	-1.21 3.49	3.49	-0.02 0.02	0.00 0.00	0.00
VA25 - 3	0.00	0.00 0.00	74.77 -89.11	74.77	7.62 -16.83	7.62	-0.04 0.04	0.01 -0.01	0.07

CASO: Água (A)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA1 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA1 - 3	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA1 - 4	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA1 - 5	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA1 - 6	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA3 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA3 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA4 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA4 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00



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		0.00	0.00		0.00		0.00	0.00	
VA12 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA13	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA14 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA14 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA15	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA16	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA17 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA17 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA18	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA19	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA20	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA21 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA21 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA22	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA23	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA24 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA24 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA25 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA25 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA25 - 3	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00

CASO: Subpressão (AS)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA1 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA1 - 3	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA1 - 4	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA1 - 5	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA1 - 6	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA3 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00





		0.00	0.00		0.00		0.00	0.00	
VA11 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA11 - 3	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA12 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA12 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA13	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA14 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA14 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA15	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA16	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA17 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA17 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA18	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA19	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA20	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA21 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA21 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA22	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA23	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA24 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA24 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA25 - 1	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA25 - 2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA25 - 3	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00

CASO: Vento X+ (V1)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	0.00	0.00 0.03	638.97 1.22	638.97	-2.86 -0.24	0.00	-0.33 0.33	0.00 0.00	0.08
VA1 - 2	0.00	0.00 0.03	1.38 -342.98	1.38	-0.24 1.56	1.56	-0.33 0.33	0.00 0.00	0.07
VA1 - 3	0.00	0.00 0.03	-342.66 -533.17	0.00	1.56 -0.84	1.56	-0.33 0.33	0.00 0.00	-0.28
VA1 - 4	0.00	0.00 0.00	362.81 -269.47	362.81	-0.86 1.68	1.68	-0.17 0.17	0.00 0.00	-0.36
VA1 - 5	0.00	0.00 0.01	-269.53 -356.25	0.00	1.68 -2.01	1.68	-0.17 0.17	0.01 -0.01	2.66




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**Leilson Campos  
Rezende  
Rezende Engenharia**

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VA1 - 6	0.00	-0.03 0.00	555.53 -665.93	555.53	-1.17 1.73	1.73	-0.37 0.37	0.00 0.00	0.08
VA2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.27
VA3 - 1	0.00	0.00 0.00	0.00 1.33	1.33	0.00 0.89	0.89	0.00 0.00	0.00 0.00	-0.09
VA3 - 2	0.00	0.00 0.00	0.61 0.61	0.61	-1.94 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA4 - 1	0.00	0.00 0.17	890.46 -341.18	890.46	-21.10 11.86	11.86	-0.24 0.24	-0.01 0.01	-0.01
VA4 - 2	0.00	0.00 0.12	247.68 -319.19	247.68	-0.81 -0.78	0.00	-0.29 0.29	0.00 0.00	1.36
VA4 - 3	0.00	0.00 0.12	-319.35 -409.48	0.00	-0.78 -0.88	0.00	-0.29 0.29	0.00 0.00	1.36
VA4 - 4	0.00	0.00 0.12	-409.71 -621.92	0.00	-0.88 -0.02	0.00	-0.29 0.29	0.00 0.00	1.36
VA4 - 5	0.00	0.00 0.12	-622.18 -782.89	0.00	-0.02 2.78	2.78	-0.29 0.29	-0.01 0.01	-8.02
VA4 - 6	0.00	0.00 0.11	718.02 473.55	718.02	-0.39 -0.19	0.00	-0.24 0.24	0.00 0.00	-2.98
VA4 - 7	0.00	0.00 0.11	473.46 211.91	473.46	-0.19 1.42	0.00	-0.24 0.24	0.00 0.00	0.98
VA4 - 8	0.00	0.00 0.11	211.86 -198.16	211.86	1.42 0.05	1.42	-0.24 0.24	0.00 0.00	0.98
VA4 - 9	0.00	0.00 0.11	-197.36 -340.28	0.00	0.05 3.64	3.64	-0.24 0.24	-0.01 0.01	0.98
VA4 - 10	0.00	0.00 0.08	200.11 12.64	200.11	-9.24 0.97	0.00	-0.19 0.19	-0.01 0.01	0.03
VA4 - 11	0.00	0.00 0.08	13.25 -93.05	13.25	0.97 7.45	7.45	-0.19 0.19	-0.01 0.01	0.03
VA4 - 12	0.00	0.00 0.09	-93.15 -430.34	0.00	7.45 -6.25	7.45	-0.19 0.19	0.01 -0.01	0.03
VA4 - 13	0.00	-0.04 0.00	1017.67 -1372.68	1017.67	-10.87 24.35	24.35	-0.81 0.81	-0.01 0.01	0.05
VA5 - 1	0.00	0.00 0.00	492.38 -197.44	492.38	-9.75 1.01	1.01	-0.30 0.30	0.00 0.00	-0.09
VA5 - 2	0.00	0.00 0.00	-197.21 -589.71	0.00	1.01 5.19	5.19	-0.30 0.30	0.00 0.00	-0.09
VA5 - 3	0.00	-0.01 0.00	421.77 261.90	421.77	-2.40 -0.28	0.00	-0.16 0.16	0.00 0.00	0.07
VA5 - 4	0.00	-0.01 0.00	262.00 90.94	262.00	-0.28 -0.40	0.00	-0.16 0.16	0.00 0.00	0.07
VA5 - 5	0.00	-0.01 0.00	90.99 -270.77	90.99	-0.40 4.59	4.59	-0.16 0.16	0.00 0.00	0.07
VA5 - 6	0.00	-0.04 0.00	308.25 -68.14	308.25	-11.63 4.81	4.81	-0.25 0.25	-0.01 0.01	0.00
VA5 - 7	0.00	-0.04 0.00	-68.04 -458.94	0.00	-7.22 40.97	40.97	-0.25 0.25	-0.03 0.03	1.00
VA6 - 1	0.00	-0.03 0.00	4.15 -533.49	4.15	-34.69 -6.95	0.00	-0.34 0.34	-0.02 0.02	-0.22
VA6 - 2	0.00	-0.03 0.00	-533.57 -1048.35	0.00	-6.95 23.74	23.74	-0.34 0.34	-0.02 0.02	-0.22
VA7 - 1	0.00	-0.09 0.00	730.96 369.71	730.96	-15.31 -5.60	0.00	-0.23 0.23	-0.01 0.01	0.34
VA7 - 2	0.00	-0.09 0.00	369.80 0.00	369.80	-5.60 0.00	0.00	-0.23 0.23	0.00 0.00	0.34
VA8 - 1	0.00	0.00 0.03	854.26 -708.60	854.26	25.85 -5.33	25.85	-0.18 0.18	0.00 0.00	-0.03
VA8 - 2	0.00	-0.05 0.00	605.25 -748.87	605.25	6.28 -23.13	6.28	-0.13 0.13	0.00 0.00	0.11
VA9 - 1	0.00	0.00 0.01	13.69 -15.89	13.69	-25.50 26.16	26.16	-0.01 0.01	-0.01 0.01	-3.58
VA9 - 2	0.00	0.00	-24.20	6.80	21.02	21.02	0.00	0.00	-0.09

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		0.02	6.80		4.68		0.00	0.00	
VA10 - 1	0.00	0.00 0.01	-20.01 12.57	12.57	6.32 2.72	6.32	0.01 -0.01	0.00 0.00	1.87
VA10 - 2	0.00	0.00 0.01	-26.09 34.77	34.77	10.43 -25.15	10.43	0.02 -0.02	0.01 -0.01	2.40
VA11 - 1	0.00	0.00 0.00	-22.68 24.60	24.60	2.30 -8.71	2.30	0.02 -0.02	0.01 -0.01	1.03
VA11 - 2	0.00	0.00 0.01	-1.66 11.97	11.97	2.08 -0.67	2.08	0.00 0.00	0.00 0.00	-0.78
VA11 - 3	0.00	0.00 0.01	12.24 16.68	16.68	-0.67 -1.19	0.00	0.00 0.00	0.00 0.00	-0.78
VA12 - 1	0.00	0.00 0.00	0.00 0.20	0.20	0.00 0.28	0.28	0.00 0.00	0.00 0.00	0.16
VA12 - 2	0.00	0.00 0.00	-0.06 0.00	0.00	0.28 0.00	0.28	0.00 0.00	0.00 0.00	0.16
VA13	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.23
VA14 - 1	0.00	-0.01 0.00	0.00 0.26	0.26	0.00 0.29	0.29	0.00 0.00	0.00 0.00	0.32
VA14 - 2	0.00	-0.01 0.00	0.18 0.00	0.18	0.29 0.00	0.29	0.00 0.00	0.00 0.00	0.32
VA15	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.10
VA16	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.04
VA17 - 1	0.00	-0.01 0.00	0.00 -0.26	0.00	0.00 -1.05	0.00	0.00 0.00	0.00 0.00	-0.80
VA17 - 2	0.00	-0.01 0.00	-0.17 0.00	0.00	1.77 0.00	1.77	0.00 0.00	0.00 0.00	-0.08
VA18	0.00	0.00 0.00	-11.66 14.13	14.13	9.67 -11.97	9.67	0.01 -0.01	0.01 -0.01	0.30
VA19	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.61
VA20	0.00	-0.02 0.00	1.00 0.00	1.00	12.03 0.00	12.03	0.00 0.00	0.01 -0.01	-0.11
VA21 - 1	0.00	-0.04 0.00	114.69 -298.67	114.69	7.10 -0.30	7.10	-0.13 0.13	0.00 0.00	2.26
VA21 - 2	0.00	-0.06 0.00	-298.89 137.76	137.76	34.39 -35.53	34.39	0.21 -0.21	0.03 -0.03	-1.89
VA22	0.00	-0.02 0.00	0.64 -9.00	0.64	1.22 -0.69	1.22	0.00 0.00	0.00 0.00	-0.37
VA23	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.08
VA24 - 1	0.00	-0.01 0.00	36.59 -26.96	36.59	-21.95 20.23	20.23	-0.01 0.01	-0.01 0.01	-3.51
VA24 - 2	0.00	-0.03 0.00	70.74 -68.28	70.74	10.14 35.94	35.94	-0.02 0.02	0.00 0.00	-0.02
VA25 - 1	0.00	0.00 0.01	-78.64 170.21	170.21	64.73 -62.65	64.73	0.13 -0.13	0.07 -0.07	2.80
VA25 - 2	0.00	0.00 0.01	169.87 -160.55	169.87	-62.65 13.21	13.21	-0.10 0.10	-0.02 0.02	2.80
VA25 - 3	0.00	-0.01 0.00	26.59 -68.96	26.59	24.34 -17.39	24.34	-0.02 0.02	0.01 -0.01	1.40

CASO: Vento X- (V2)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	0.00	-0.03 0.00	-638.97 -1.22	0.00	2.86 0.24	2.86	0.33 -0.33	0.00 0.00	-0.08
VA1 - 2	0.00	-0.03 0.00	-1.38 342.98	342.98	0.24 -1.56	0.24	0.33 -0.33	0.00 0.00	-0.07




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**Leilson Campos  
Rezende  
Rezende Engenharia**


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VA1 - 3	0.00	-0.03 0.00	342.66 533.17	533.17	-1.56 0.84	0.00	0.33 -0.33	0.00 0.00	0.28
VA1 - 4	0.00	0.00 0.00	-362.81 269.47	269.47	0.86 -1.68	0.86	0.17 -0.17	0.00 0.00	0.36
VA1 - 5	0.00	-0.01 0.00	269.53 356.25	356.25	-1.68 2.01	0.00	0.17 -0.17	-0.01 0.01	-2.66
VA1 - 6	0.00	0.00 0.03	-555.53 665.93	665.93	1.17 -1.73	1.17	0.37 -0.37	0.00 0.00	-0.08
VA2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.27
VA3 - 1	0.00	0.00 0.00	0.00 -1.33	0.00	0.00 -0.89	0.00	0.00 0.00	0.00 0.00	0.09
VA3 - 2	0.00	0.00 0.00	-0.61 -0.61	0.00	1.94 0.00	1.94	0.00 0.00	0.00 0.00	0.00
VA4 - 1	0.00	-0.17 0.00	-890.46 341.18	341.18	21.10 -11.86	21.10	0.24 -0.24	0.01 -0.01	0.01
VA4 - 2	0.00	-0.12 0.00	-247.68 319.19	319.19	0.81 0.78	0.81	0.29 -0.29	0.00 0.00	-1.36
VA4 - 3	0.00	-0.12 0.00	319.35 409.48	409.48	0.78 0.88	0.00	0.29 -0.29	0.00 0.00	-1.36
VA4 - 4	0.00	-0.12 0.00	409.71 621.92	621.92	0.88 0.02	0.00	0.29 -0.29	0.00 0.00	-1.36
VA4 - 5	0.00	-0.12 0.00	622.18 782.89	782.89	0.02 -2.78	0.00	0.29 -0.29	0.01 -0.01	8.02
VA4 - 6	0.00	-0.11 0.00	-718.02 -473.55	0.00	0.39 0.19	0.39	0.24 -0.24	0.00 0.00	2.98
VA4 - 7	0.00	-0.11 0.00	-473.46 -211.91	0.00	0.19 -1.42	0.19	0.24 -0.24	0.00 0.00	-0.98
VA4 - 8	0.00	-0.11 0.00	-211.86 198.16	198.16	-1.42 -0.05	0.00	0.24 -0.24	0.00 0.00	-0.98
VA4 - 9	0.00	-0.11 0.00	197.36 340.28	340.28	-0.05 -3.64	0.00	0.24 -0.24	0.01 -0.01	-0.98
VA4 - 10	0.00	-0.08 0.00	-200.11 -12.64	0.00	9.24 -0.97	9.24	0.19 -0.19	0.01 -0.01	-0.03
VA4 - 11	0.00	-0.08 0.00	-13.25 93.05	93.05	-0.97 -7.45	0.00	0.19 -0.19	0.01 -0.01	-0.03
VA4 - 12	0.00	-0.09 0.00	93.15 430.34	430.34	-7.45 6.25	0.00	0.19 -0.19	-0.01 0.01	-0.03
VA4 - 13	0.00	0.00 0.04	-1017.67 1372.68	1372.68	10.87 -24.35	10.87	0.81 -0.81	0.01 -0.01	-0.05
VA5 - 1	0.00	0.00 0.00	-492.38 197.44	197.44	9.75 -1.01	9.75	0.30 -0.30	0.00 0.00	0.09
VA5 - 2	0.00	0.00 0.00	197.21 589.71	589.71	-1.01 -5.19	0.00	0.30 -0.30	0.00 0.00	0.09
VA5 - 3	0.00	0.00 0.01	-421.77 -261.90	0.00	2.40 0.28	2.40	0.16 -0.16	0.00 0.00	-0.07
VA5 - 4	0.00	0.00 0.01	-262.00 -90.94	0.00	0.28 0.40	0.40	0.16 -0.16	0.00 0.00	-0.07
VA5 - 5	0.00	0.00 0.01	-90.99 270.77	270.77	0.40 -4.59	0.40	0.16 -0.16	0.00 0.00	-0.07
VA5 - 6	0.00	0.00 0.04	-308.25 68.14	68.14	11.63 -4.81	11.63	0.25 -0.25	0.01 -0.01	0.00
VA5 - 7	0.00	0.00 0.04	68.04 458.94	458.94	7.22 -40.97	0.00	0.25 -0.25	0.03 -0.03	-1.00
VA6 - 1	0.00	0.00 0.03	-4.15 533.49	533.49	34.69 6.95	34.69	0.34 -0.34	0.02 -0.02	0.22
VA6 - 2	0.00	0.00 0.03	533.57 1048.35	1048.35	6.95 -23.74	0.00	0.34 -0.34	0.02 -0.02	0.22
VA7 - 1	0.00	0.00 0.09	-730.96 -369.71	0.00	15.31 5.60	15.31	0.23 -0.23	0.01 -0.01	-0.34
VA7 - 2	0.00	0.00 0.09	-369.80 0.00	0.00	5.60 0.00	5.60	0.23 -0.23	0.00 0.00	-0.34
VA8 - 1	0.00	-0.03	-854.26	708.60	-25.85	5.33	0.18	0.00	0.03

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		0.00	708.60		5.33		-0.18	0.00	
VA8 - 2	0.00	0.00 0.05	-605.25 748.87	748.87	-6.28 23.13	23.13	0.13 -0.13	0.00 0.00	-0.11
VA9 - 1	0.00	-0.01 0.00	-13.69 15.89	15.89	25.50 -26.16	25.50	0.01 -0.01	0.01 -0.01	3.58
VA9 - 2	0.00	-0.02 0.00	24.20 -6.80	24.20	-21.02 -4.68	0.00	0.00 0.00	0.00 0.00	0.09
VA10 - 1	0.00	-0.01 0.00	20.01 -12.57	20.01	-6.32 -2.72	0.00	-0.01 0.01	0.00 0.00	-1.87
VA10 - 2	0.00	-0.01 0.00	26.09 -34.77	26.09	-10.43 25.15	25.15	-0.02 0.02	-0.01 0.01	-2.40
VA11 - 1	0.00	0.00 0.00	22.68 -24.60	22.68	-2.30 8.71	8.71	-0.02 0.02	-0.01 0.01	-1.03
VA11 - 2	0.00	-0.01 0.00	1.66 -11.97	1.66	-2.08 0.67	0.67	0.00 0.00	0.00 0.00	0.78
VA11 - 3	0.00	-0.01 0.00	-12.24 -16.68	0.00	0.67 1.19	1.19	0.00 0.00	0.00 0.00	0.78
VA12 - 1	0.00	0.00 0.00	0.00 -0.20	0.00	0.00 -0.28	0.00	0.00 0.00	0.00 0.00	-0.16
VA12 - 2	0.00	0.00 0.00	0.06 0.00	0.06	-0.28 0.00	0.00	0.00 0.00	0.00 0.00	-0.16
VA13	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.23
VA14 - 1	0.00	0.00 0.01	0.00 -0.26	0.00	0.00 -0.29	0.00	0.00 0.00	0.00 0.00	-0.32
VA14 - 2	0.00	0.00 0.01	-0.18 0.00	0.00	-0.29 0.00	0.00	0.00 0.00	0.00 0.00	-0.32
VA15	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.10
VA16	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.04
VA17 - 1	0.00	0.00 0.01	0.00 0.26	0.26	0.00 1.05	1.05	0.00 0.00	0.00 0.00	0.80
VA17 - 2	0.00	0.00 0.01	0.17 0.00	0.17	-1.77 0.00	0.00	0.00 0.00	0.00 0.00	0.08
VA18	0.00	0.00 0.00	11.66 -14.13	11.66	-9.67 11.97	11.97	-0.01 0.01	-0.01 0.01	-0.30
VA19	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.61
VA20	0.00	0.00 0.02	-1.00 0.00	0.00	-12.03 0.00	0.00	0.00 0.00	-0.01 0.01	0.11
VA21 - 1	0.00	0.00 0.04	-114.69 298.67	298.67	-7.10 0.30	0.30	0.13 -0.13	0.00 0.00	-2.26
VA21 - 2	0.00	0.00 0.06	298.89 -137.76	298.89	-34.39 35.53	35.53	-0.21 0.21	-0.03 0.03	1.89
VA22	0.00	0.00 0.02	-0.64 9.00	9.00	-1.22 0.69	0.69	0.00 0.00	0.00 0.00	0.37
VA23	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.08
VA24 - 1	0.00	0.00 0.01	-36.59 26.96	26.96	21.95 -20.23	21.95	0.01 -0.01	0.01 -0.01	3.51
VA24 - 2	0.00	0.00 0.03	-70.74 68.28	68.28	-10.14 -35.94	0.00	0.02 -0.02	0.00 0.00	0.02
VA25 - 1	0.00	-0.01 0.00	78.64 -170.21	78.64	-64.73 62.65	62.65	-0.13 0.13	-0.07 0.07	-2.80
VA25 - 2	0.00	-0.01 0.00	-169.87 160.55	160.55	62.65 -13.21	62.65	0.10 -0.10	0.02 -0.02	-2.80
VA25 - 3	0.00	0.00 0.01	-26.59 68.96	68.96	-24.34 17.39	17.39	0.02 -0.02	-0.01 0.01	-1.40


CASO: Vento Y+ (V3)									
Elemento	Carga	Rd	Mxi	MxMáx	Myi	MyMáx	Vxi	Vyi	Mtd

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	(kgf/m)	Nd (tf)	Mxf (kgf.m)	(kgf.m)	Myf (kgf.m)	(kgf.m)	Vxf (tf)	Vyf (tf)	(kgf/m)
VA1 - 1	0.00	-0.01 0.00	61.32 5.48	61.32	31.72 -3.22	31.72	-0.03 0.03	0.02 -0.02	1.41
VA1 - 2	0.00	0.00 0.00	5.40 -24.86	5.40	-3.22 -57.18	0.00	-0.03 0.03	0.05 -0.05	1.41
VA1 - 3	0.00	0.00 0.00	-24.97 -41.70	0.00	-57.18 -16.78	0.00	-0.03 0.03	-0.07 0.07	1.39
VA1 - 4	0.00	-0.01 0.00	38.36 -25.02	38.36	-14.30 18.42	18.42	-0.02 0.02	-0.01 0.01	-0.71
VA1 - 5	0.00	0.00 0.00	-25.12 -33.82	0.00	18.42 -12.12	18.42	-0.02 0.02	0.06 -0.06	-0.43
VA1 - 6	0.00	-0.01 0.00	62.65 -88.97	62.65	-5.46 3.52	3.52	-0.05 0.05	0.00 0.00	-1.25
VA2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.41
VA3 - 1	0.00	0.00 0.00	0.00 -0.02	0.00	0.00 6.64	6.64	0.00 0.00	0.00 0.00	-0.01
VA3 - 2	0.00	0.00 0.00	0.09 0.09	0.09	-11.11 0.00	0.00	0.00 0.00	-0.01 0.01	0.00
VA4 - 1	0.00	-0.03 0.00	-16.77 11.43	11.43	-13.05 -3.79	0.00	0.01 -0.01	0.00 0.00	-0.39
VA4 - 2	0.00	-0.05 0.00	8.57 -4.77	8.57	46.35 -15.67	46.35	-0.01 0.01	0.03 -0.03	3.92
VA4 - 3	0.00	-0.05 0.00	-4.69 -6.78	0.00	-15.67 -15.03	0.00	-0.01 0.01	0.00 0.00	3.92
VA4 - 4	0.00	-0.05 0.00	-6.76 -11.68	0.00	-15.03 -3.54	0.00	-0.01 0.01	-0.02 0.02	3.92
VA4 - 5	0.00	-0.05 0.00	-11.63 -15.35	0.00	-3.54 -62.75	0.00	-0.01 0.01	0.11 -0.11	3.74
VA4 - 6	0.00	-0.05 0.00	-19.51 -11.22	0.00	-36.18 -31.40	0.00	0.01 -0.01	0.00 0.00	-2.82
VA4 - 7	0.00	-0.05 0.00	-11.23 -2.36	0.00	-31.40 -3.95	0.00	0.01 -0.01	-0.03 0.03	-2.92
VA4 - 8	0.00	-0.05 0.00	-2.40 11.50	11.50	-3.95 10.46	10.46	0.01 -0.01	-0.01 0.01	-2.92
VA4 - 9	0.00	-0.05 0.00	11.49 16.34	16.34	10.46 52.39	52.39	0.01 -0.01	-0.07 0.07	-2.92
VA4 - 10	0.00	-0.02 0.00	33.33 14.29	33.33	15.74 5.52	15.74	-0.02 0.02	0.01 -0.01	0.26
VA4 - 11	0.00	-0.02 0.00	14.38 3.58	14.38	5.52 3.65	5.52	-0.02 0.02	0.00 0.00	0.26
VA4 - 12	0.00	-0.01 0.00	3.70 -32.28	3.70	3.65 -4.89	3.65	-0.02 0.02	0.00 0.00	0.26
VA4 - 13	0.00	-0.02 0.00	-15.98 -0.20	0.00	-6.09 -14.64	0.00	0.01 -0.01	0.00 0.00	0.06
VA5 - 1	0.00	0.00 0.03	-10.16 10.48	10.48	31.83 -5.37	31.83	0.01 -0.01	0.02 -0.02	2.74
VA5 - 2	0.00	0.00 0.03	10.45 22.20	22.20	-5.37 -44.05	0.00	0.01 -0.01	0.03 -0.03	2.74
VA5 - 3	0.00	0.00 0.03	-6.01 -4.33	0.00	-40.07 -15.82	0.00	0.00 0.00	-0.02 0.02	-2.39
VA5 - 4	0.00	0.00 0.03	-4.30 -2.49	0.00	-15.82 -11.80	0.00	0.00 0.00	0.00 0.00	-2.39
VA5 - 5	0.00	0.00 0.03	-2.46 1.36	1.36	-11.80 35.34	35.34	0.00 0.00	-0.02 0.02	-2.39
VA5 - 6	0.00	0.00 0.00	-30.48 -3.09	0.00	0.25 5.09	5.09	0.02 -0.02	0.00 0.00	-0.78
VA5 - 7	0.00	-0.01 0.00	-3.20 26.95	26.95	-2.68 4.72	4.72	0.02 -0.02	0.00 0.00	1.23
VA6 - 1	0.00	0.00 0.00	-0.26 33.98	33.98	-14.28 -3.23	0.00	0.02 -0.02	-0.01 0.01	0.71
VA6 - 2	0.00	0.00	34.02	66.80	-3.23	0.00	0.02	-0.01	0.71

		0.00	66.80		6.15		-0.02	0.01	
VA7 - 1	0.00	0.00 0.00	-59.39 -30.02	0.00	-5.89 -3.60	0.00	0.02 -0.02	0.00 0.00	-0.85
VA7 - 2	0.00	0.00 0.00	-30.06 0.00	0.00	-3.60 0.00	0.00	0.02 -0.02	0.00 0.00	-0.85
VA8 - 1	0.00	0.00 0.01	21.25 -26.28	21.25	2.38 -10.30	2.38	-0.01 0.01	0.00 0.00	1.78
VA8 - 2	0.00	0.00 0.01	-14.26 6.40	6.40	-13.63 4.33	4.33	0.00 0.00	0.00 0.00	-1.41
VA9 - 1	0.00	0.00 0.04	551.83 -482.37	551.83	-27.84 19.00	19.00	-0.18 0.18	-0.01 0.01	0.03
VA9 - 2	0.00	0.00 0.03	383.22 -388.82	383.22	-10.09 12.48	12.48	-0.12 0.12	0.00 0.00	0.11
VA10 - 1	0.00	0.00 0.02	445.03 -405.07	445.03	-13.26 3.01	3.01	-0.16 0.16	0.00 0.00	-0.09
VA10 - 2	0.00	-0.02 0.00	577.85 -685.90	577.85	-20.56 50.44	50.44	-0.32 0.32	-0.02 0.02	-0.10
VA11 - 1	0.00	-0.03 0.00	655.81 -361.86	655.81	-27.09 27.73	27.73	-0.53 0.53	-0.03 0.03	0.03
VA11 - 2	0.00	-0.07 0.00	463.82 -545.31	463.82	-16.93 8.43	8.43	-0.32 0.32	-0.01 0.01	-0.14
VA11 - 3	0.00	-0.07 0.00	-545.72 -874.91	0.00	8.43 20.87	20.87	-0.32 0.32	-0.01 0.01	-0.14
VA12 - 1	0.00	-0.03 0.00	0.00 -0.32	0.00	0.00 3.07	3.07	0.00 0.00	0.00 0.00	-0.08
VA12 - 2	0.00	-0.03 0.00	0.10 0.00	0.10	3.07 0.00	3.07	0.00 0.00	0.00 0.00	-0.08
VA13	0.00	0.00 0.01	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.03
VA14 - 1	0.00	0.00 0.12	0.00 0.00	0.00	0.00 3.65	3.65	0.00 0.00	0.00 0.00	-0.10
VA14 - 2	0.00	0.00 0.12	-0.01 0.00	0.00	3.65 0.00	3.65	0.00 0.00	0.00 0.00	-0.10
VA15	0.00	0.00 0.02	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.03
VA16	0.00	-0.02 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.03
VA17 - 1	0.00	-0.06 0.00	0.00 0.00	0.00	0.00 -8.38	0.00	0.00 0.00	0.01 -0.01	0.01
VA17 - 2	0.00	-0.07 0.00	0.01 0.00	0.01	9.36 0.00	9.36	0.00 0.00	0.00 0.00	-0.10
VA18	0.00	-0.03 0.00	583.00 -584.94	583.00	33.61 -39.24	33.61	-0.60 0.60	0.04 -0.04	-0.01
VA19	0.00	-0.01 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.09
VA20	0.00	0.00 0.00	2.01 0.00	2.01	7.77 0.00	7.77	0.00 0.00	0.00 0.00	0.11
VA21 - 1	0.00	0.00 0.00	392.68 -64.45	392.68	12.20 -9.36	12.20	-0.14 0.14	0.01 -0.01	-0.14
VA21 - 2	0.00	-0.01 0.00	-63.74 -409.63	0.00	4.92 -5.17	4.92	-0.16 0.16	0.00 0.00	0.12
VA22	0.00	-0.02 0.00	650.73 -770.82	650.73	6.97 -8.81	6.97	-0.39 0.39	0.00 0.00	-0.13
VA23	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.04
VA24 - 1	0.00	0.00 0.05	636.84 -557.33	636.84	23.44 -14.45	23.44	-0.21 0.21	0.01 -0.01	0.04
VA24 - 2	0.00	0.00 0.03	443.62 -447.36	443.62	6.95 -7.26	6.95	-0.14 0.14	0.00 0.00	0.13
VA25 - 1	0.00	0.00 0.02	525.43 138.23	525.43	6.67 2.75	0.00	-0.20 0.20	0.00 0.00	-0.10
VA25 - 2	0.00	0.00 0.02	139.07 -468.51	139.07	2.75 -17.54	2.75	-0.18 0.18	0.01 -0.01	-0.10




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VA25 - 3	0.00	-0.02 0.00	680.33 -792.72	680.33	35.01 -44.17	35.01	-0.37 0.37	0.02 -0.02	-0.13
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CASO: Vento Y- (V4)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	0.00	0.00 0.01	-61.32 -5.48	0.00	-31.72 3.22	3.22	0.03 -0.03	-0.02 0.02	-1.41
VA1 - 2	0.00	0.00 0.00	-5.40 24.86	24.86	3.22 57.18	57.18	0.03 -0.03	-0.05 0.05	-1.41
VA1 - 3	0.00	0.00 0.00	24.97 41.70	41.70	57.18 16.78	57.18	0.03 -0.03	0.07 -0.07	-1.39
VA1 - 4	0.00	0.00 0.01	-38.36 25.02	25.02	14.30 -18.42	14.30	0.02 -0.02	0.01 -0.01	0.71
VA1 - 5	0.00	0.00 0.00	25.12 33.82	33.82	-18.42 12.12	0.00	0.02 -0.02	-0.06 0.06	0.43
VA1 - 6	0.00	0.00 0.01	-62.65 88.97	88.97	5.46 -3.52	5.46	0.05 -0.05	0.00 0.00	1.25
VA2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.41
VA3 - 1	0.00	0.00 0.00	0.00 0.02	0.02	0.00 -6.64	0.00	0.00 0.00	0.00 0.00	0.01
VA3 - 2	0.00	0.00 0.00	-0.09 -0.09	0.00	11.11 0.00	11.11	0.00 0.00	0.01 -0.01	0.00
VA4 - 1	0.00	0.00 0.03	16.77 -11.43	16.77	13.05 3.79	13.05	-0.01 0.01	0.00 0.00	0.39
VA4 - 2	0.00	0.00 0.05	-8.57 4.77	4.77	-46.35 15.67	15.67	0.01 -0.01	-0.03 0.03	-3.92
VA4 - 3	0.00	0.00 0.05	4.69 6.78	6.78	15.67 15.03	15.67	0.01 -0.01	0.00 0.00	-3.92
VA4 - 4	0.00	0.00 0.05	6.76 11.68	11.68	15.03 3.54	15.03	0.01 -0.01	0.02 -0.02	-3.92
VA4 - 5	0.00	0.00 0.05	11.63 15.35	15.35	3.54 62.75	62.75	0.01 -0.01	-0.11 0.11	-3.74
VA4 - 6	0.00	0.00 0.05	19.51 11.22	19.51	36.18 31.40	36.18	-0.01 0.01	0.00 0.00	2.82
VA4 - 7	0.00	0.00 0.05	11.23 2.36	11.23	31.40 3.95	31.40	-0.01 0.01	0.03 -0.03	2.92
VA4 - 8	0.00	0.00 0.05	2.40 -11.50	2.40	3.95 -10.46	3.95	-0.01 0.01	0.01 -0.01	2.92
VA4 - 9	0.00	0.00 0.05	-11.49 -16.34	0.00	-10.46 -52.39	0.00	-0.01 0.01	0.07 -0.07	2.92
VA4 - 10	0.00	0.00 0.02	-33.33 -14.29	0.00	-15.74 -5.52	0.00	0.02 -0.02	-0.01 0.01	-0.26
VA4 - 11	0.00	0.00 0.02	-14.38 -3.58	0.00	-5.52 -3.65	0.00	0.02 -0.02	0.00 0.00	-0.26
VA4 - 12	0.00	0.00 0.01	-3.70 32.28	32.28	-3.65 4.89	4.89	0.02 -0.02	0.00 0.00	-0.26
VA4 - 13	0.00	0.00 0.02	15.98 0.20	15.98	6.09 14.64	14.64	-0.01 0.01	0.00 0.00	-0.06
VA5 - 1	0.00	-0.03 0.00	10.16 -10.48	10.16	-31.83 5.37	5.37	-0.01 0.01	-0.02 0.02	-2.74
VA5 - 2	0.00	-0.03 0.00	-10.45 -22.20	0.00	5.37 44.05	44.05	-0.01 0.01	-0.03 0.03	-2.74
VA5 - 3	0.00	-0.03 0.00	6.01 4.33	6.01	40.07 15.82	40.07	0.00 0.00	0.02 -0.02	2.39
VA5 - 4	0.00	-0.03 0.00	4.30 2.49	4.30	15.82 11.80	15.82	0.00 0.00	0.00 0.00	2.39
VA5 - 5	0.00	-0.03 0.00	2.46 -1.36	2.46	11.80 -35.34	11.80	0.00 0.00	0.02 -0.02	2.39
VA5 - 6	0.00	0.00	30.48	30.48	-0.25	0.00	-0.02	0.00	0.78


		0.00	3.09		-5.09		0.02	0.00	
VA5 - 7	0.00	0.00 0.01	3.20 -26.95	3.20	2.68 -4.72	2.68	-0.02 0.02	0.00 0.00	-1.23
VA6 - 1	0.00	0.00 0.00	0.26 -33.98	0.26	14.28 3.23	14.28	-0.02 0.02	0.01 -0.01	-0.71
VA6 - 2	0.00	0.00 0.00	-34.02 -66.80	0.00	3.23 -6.15	3.23	-0.02 0.02	0.01 -0.01	-0.71
VA7 - 1	0.00	0.00 0.00	59.39 30.02	59.39	5.89 3.60	0.00	-0.02 0.02	0.00 0.00	0.85
VA7 - 2	0.00	0.00 0.00	30.06 0.00	30.06	3.60 0.00	3.60	-0.02 0.02	0.00 0.00	0.85
VA8 - 1	0.00	-0.01 0.00	-21.25 26.28	26.28	-2.38 10.30	10.30	0.01 -0.01	0.00 0.00	-1.78
VA8 - 2	0.00	-0.01 0.00	14.26 -6.40	14.26	13.63 -4.33	13.63	0.00 0.00	0.00 0.00	1.41
VA9 - 1	0.00	-0.04 0.00	-551.83 482.37	482.37	27.84 -19.00	27.84	0.18 -0.18	0.01 -0.01	-0.03
VA9 - 2	0.00	-0.03 0.00	-383.22 388.82	388.82	10.09 -12.48	10.09	0.12 -0.12	0.00 0.00	-0.11
VA10 - 1	0.00	-0.02 0.00	-445.03 405.07	405.07	13.26 -3.01	13.26	0.16 -0.16	0.00 0.00	0.09
VA10 - 2	0.00	0.00 0.02	-577.85 685.90	685.90	20.56 -50.44	20.56	0.32 -0.32	0.02 -0.02	0.10
VA11 - 1	0.00	0.00 0.03	-655.81 361.86	361.86	27.09 -27.73	27.09	0.53 -0.53	0.03 -0.03	-0.03
VA11 - 2	0.00	0.00 0.07	-463.82 545.31	545.31	16.93 -8.43	16.93	0.32 -0.32	0.01 -0.01	0.14
VA11 - 3	0.00	0.00 0.07	545.72 874.91	874.91	-8.43 -20.87	0.00	0.32 -0.32	0.01 -0.01	0.14
VA12 - 1	0.00	0.00 0.03	0.00 0.32	0.32	0.00 -3.07	0.00	0.00 0.00	0.00 0.00	0.08
VA12 - 2	0.00	0.00 0.03	-0.10 0.00	0.00	-3.07 0.00	0.00	0.00 0.00	0.00 0.00	0.08
VA13	0.00	-0.01 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.03
VA14 - 1	0.00	-0.12 0.00	0.00 0.00	0.00	0.00 -3.65	0.00	0.00 0.00	0.00 0.00	0.10
VA14 - 2	0.00	-0.12 0.00	0.01 0.00	0.01	-3.65 0.00	0.00	0.00 0.00	0.00 0.00	0.10
VA15	0.00	-0.02 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.03
VA16	0.00	0.00 0.02	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.03
VA17 - 1	0.00	0.00 0.06	0.00 0.00	0.00	0.00 8.38	8.38	0.00 0.00	-0.01 0.01	-0.01
VA17 - 2	0.00	0.00 0.07	-0.01 0.00	0.00	-9.36 0.00	0.00	0.00 0.00	0.00 0.00	0.10
VA18	0.00	0.00 0.03	-583.00 584.94	584.94	-33.61 39.24	39.24	0.60 -0.60	-0.04 0.04	0.01
VA19	0.00	0.00 0.01	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.09
VA20	0.00	0.00 0.00	-2.01 0.00	0.00	-7.77 0.00	0.00	0.00 0.00	0.00 0.00	-0.11
VA21 - 1	0.00	0.00 0.00	-392.68 64.45	64.45	-12.20 9.36	9.36	0.14 -0.14	-0.01 0.01	0.14
VA21 - 2	0.00	0.00 0.01	63.74 409.63	409.63	-4.92 5.17	0.00	0.16 -0.16	0.00 0.00	-0.12
VA22	0.00	0.00 0.02	-650.73 770.82	770.82	-6.97 8.81	8.81	0.39 -0.39	0.00 0.00	0.13
VA23	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.04
VA24 - 1	0.00	-0.05 0.00	-636.84 557.33	557.33	-23.44 14.45	14.45	0.21 -0.21	-0.01 0.01	-0.04

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VA24 - 2	0.00	-0.03 0.00	-443.62 447.36	447.36	-6.95 7.26	7.26	0.14 -0.14	0.00 0.00	-0.13
VA25 - 1	0.00	-0.02 0.00	-525.43 -138.23	0.00	-6.67 -2.75	0.00	0.20 -0.20	0.00 0.00	0.10
VA25 - 2	0.00	-0.02 0.00	-139.07 468.51	468.51	-2.75 17.54	17.54	0.18 -0.18	-0.01 0.01	0.10
VA25 - 3	0.00	0.00 0.02	-680.33 792.72	792.72	-35.01 44.17	44.17	0.37 -0.37	-0.02 0.02	0.13


CASO: Desaprumo X+ (D1)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	0.00	0.00 0.01	154.93 0.41	154.93	-0.13 0.26	0.00	-0.08 0.08	0.00 0.00	0.02
VA1 - 2	0.00	0.00 0.01	0.45 -82.98	0.45	0.26 -0.48	0.26	-0.08 0.08	0.00 0.00	0.02
VA1 - 3	0.00	0.00 0.01	-82.91 -129.07	0.00	-0.48 -0.78	0.00	-0.08 0.08	0.00 0.00	-0.06
VA1 - 4	0.00	0.00 0.01	87.92 -65.27	87.92	0.04 -0.09	0.04	-0.04 0.04	0.00 0.00	-0.12
VA1 - 5	0.00	0.00 0.01	-65.29 -86.30	0.00	-0.09 -0.42	0.00	-0.04 0.04	0.00 0.00	0.61
VA1 - 6	0.00	0.00 0.00	134.21 -160.69	134.21	0.53 -0.31	0.53	-0.09 0.09	0.00 0.00	0.00
VA2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.05
VA3 - 1	0.00	0.00 0.00	0.00 0.29	0.29	0.00 0.08	0.08	0.00 0.00	0.00 0.00	-0.02
VA3 - 2	0.00	0.00 0.00	0.13 0.13	0.13	-0.97 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA4 - 1	0.00	0.00 0.03	196.58 -75.23	196.58	-2.79 0.58	0.58	-0.05 0.05	0.00 0.00	0.00
VA4 - 2	0.00	0.00 0.02	55.02 -70.72	55.02	1.01 -0.14	1.01	-0.06 0.06	0.00 0.00	0.35
VA4 - 3	0.00	0.00 0.02	-70.76 -90.75	0.00	-0.14 -0.04	0.00	-0.06 0.06	0.00 0.00	0.35
VA4 - 4	0.00	0.00 0.02	-90.79 -137.86	0.00	-0.04 -0.51	0.00	-0.06 0.06	0.00 0.00	0.35
VA4 - 5	0.00	0.00 0.02	-137.92 -173.56	0.00	-0.51 -1.17	0.00	-0.06 0.06	0.00 0.00	-1.73
VA4 - 6	0.00	0.00 0.03	158.95 104.80	158.95	0.28 -0.03	0.00	-0.05 0.05	0.00 0.00	-0.70
VA4 - 7	0.00	0.00 0.03	104.77 46.84	104.77	-0.03 -0.10	0.00	-0.05 0.05	0.00 0.00	0.18
VA4 - 8	0.00	0.00 0.03	46.84 -43.97	46.84	-0.10 -0.31	0.00	-0.05 0.05	0.00 0.00	0.18
VA4 - 9	0.00	0.00 0.03	-43.80 -75.46	0.00	-0.31 -0.34	0.00	-0.05 0.05	0.00 0.00	0.18
VA4 - 10	0.00	0.00 0.03	44.04 2.74	44.04	-0.16 0.57	0.00	-0.04 0.04	0.00 0.00	0.00
VA4 - 11	0.00	0.00 0.03	2.88 -20.54	2.88	0.57 1.32	1.32	-0.04 0.04	0.00 0.00	0.00
VA4 - 12	0.00	0.00 0.03	-20.55 -94.80	0.00	1.32 -0.80	1.32	-0.04 0.04	0.00 0.00	0.00
VA4 - 13	0.00	0.00 0.00	225.04 -302.95	225.04	-0.99 3.94	3.94	-0.18 0.18	0.00 0.00	0.01
VA5 - 1	0.00	0.00 0.00	88.08 -35.22	88.08	1.13 -0.41	1.13	-0.05 0.05	0.00 0.00	0.01
VA5 - 2	0.00	0.00 0.00	-35.18 -105.34	0.00	-0.41 -0.06	0.00	-0.05 0.05	0.00 0.00	0.01
VA5 - 3	0.00	-0.01	75.34	75.34	-0.33	0.00	-0.03	0.00	-0.02

		0.00	46.78		0.04		0.03	0.00	
VA5 - 4	0.00	-0.01 0.00	46.81 16.26	46.81	0.04 -0.11	0.00	-0.03 0.03	0.00 0.00	-0.02
VA5 - 5	0.00	-0.01 0.00	16.26 -48.36	16.26	-0.11 -0.27	0.00	-0.03 0.03	0.00 0.00	-0.02
VA5 - 6	0.00	-0.01 0.00	55.13 -12.14	55.13	-0.06 0.60	0.60	-0.04 0.04	0.00 0.00	-0.01
VA5 - 7	0.00	-0.01 0.00	-12.13 -81.98	0.00	1.13 5.92	5.92	-0.04 0.04	0.00 0.00	0.18
VA6 - 1	0.00	0.00 0.00	0.72 -93.45	0.72	-5.40 -1.15	0.00	-0.06 0.06	0.00 0.00	-0.04
VA6 - 2	0.00	0.00 0.00	-93.46 -183.63	0.00	-1.15 2.51	2.51	-0.06 0.06	0.00 0.00	-0.04
VA7 - 1	0.00	-0.01 0.00	122.46 61.94	122.46	-2.16 -1.30	0.00	-0.04 0.04	0.00 0.00	0.06
VA7 - 2	0.00	-0.01 0.00	61.95 0.00	61.95	-1.30 0.00	0.00	-0.04 0.04	0.00 0.00	0.06
VA8 - 1	0.00	0.00 0.00	146.08 -121.12	146.08	4.72 -1.33	4.72	-0.03 0.03	0.00 0.00	0.01
VA8 - 2	0.00	-0.01 0.00	103.16 -128.12	103.16	1.16 -4.24	1.16	-0.02 0.02	0.00 0.00	-0.01
VA9 - 1	0.00	0.00 0.00	7.67 -7.51	7.67	-5.12 5.17	5.17	0.00 0.00	0.00 0.00	-0.65
VA9 - 2	0.00	0.00 0.00	-1.02 -2.24	0.00	3.92 0.88	3.92	0.00 0.00	0.00 0.00	0.02
VA10 - 1	0.00	0.00 0.00	0.73 -0.99	0.73	0.93 -0.67	0.93	0.00 0.00	0.00 0.00	0.32
VA10 - 2	0.00	0.00 0.00	1.37 -1.26	1.37	0.96 -2.15	0.96	0.00 0.00	0.00 0.00	0.35
VA11 - 1	0.00	0.00 0.00	9.37 -2.82	9.37	-1.03 1.20	1.20	-0.01 0.01	0.00 0.00	0.20
VA11 - 2	0.00	0.00 0.00	9.83 -9.47	9.83	0.90 -0.28	0.90	-0.01 0.01	0.00 0.00	-0.19
VA11 - 3	0.00	0.00 0.00	-9.42 -15.72	0.00	-0.28 -0.62	0.00	-0.01 0.01	0.00 0.00	-0.19
VA12 - 1	0.00	0.00 0.00	0.00 0.04	0.04	0.00 0.04	0.04	0.00 0.00	0.00 0.00	0.04
VA12 - 2	0.00	0.00 0.00	-0.01 0.00	0.00	0.04 0.00	0.04	0.00 0.00	0.00 0.00	0.04
VA13	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.04
VA14 - 1	0.00	0.00 0.00	0.00 0.06	0.06	0.00 0.14	0.14	0.00 0.00	0.00 0.00	0.07
VA14 - 2	0.00	0.00 0.00	0.04 0.00	0.04	0.14 0.00	0.14	0.00 0.00	0.00 0.00	0.07
VA15	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.03
VA16	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA17 - 1	0.00	0.00 0.00	0.00 -0.06	0.00	0.00 -0.42	0.00	0.00 0.00	0.00 0.00	-0.18
VA17 - 2	0.00	0.00 0.00	-0.04 0.00	0.00	0.63 0.00	0.63	0.00 0.00	0.00 0.00	-0.02
VA18	0.00	0.00 0.00	-3.68 4.25	4.25	0.10 -0.12	0.10	0.00 0.00	0.00 0.00	0.06
VA19	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.13
VA20	0.00	0.00 0.00	0.19 0.00	0.19	-0.53 0.00	0.00	0.00 0.00	0.00 0.00	-0.01
VA21 - 1	0.00	-0.01 0.00	19.07 -52.26	19.07	1.07 0.00	1.07	-0.02 0.02	0.00 0.00	0.38
VA21 - 2	0.00	-0.01 0.00	-52.30 24.88	24.88	5.40 -4.71	5.40	0.04 -0.04	0.00 0.00	-0.33


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VA22	0.00	0.00 0.00	-11.31 11.03	11.03	0.28 -0.52	0.28	0.01 -0.01	0.00 0.00	-0.09
VA23	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.02
VA24 - 1	0.00	0.00 0.00	-2.74 3.49	3.49	-3.46 3.35	3.35	0.00 0.00	0.00 0.00	-0.63
VA24 - 2	0.00	-0.01 0.00	6.09 -5.27	6.09	2.36 5.98	5.98	0.00 0.00	0.00 0.00	0.02
VA25 - 1	0.00	0.00 0.00	-20.57 26.15	26.15	9.87 -10.55	9.87	0.02 -0.02	0.01 -0.01	0.48
VA25 - 2	0.00	0.00 0.00	26.08 -20.58	26.08	-10.55 1.41	1.41	-0.01 0.01	0.00 0.00	0.48
VA25 - 3	0.00	0.00 0.00	-5.74 0.62	0.62	3.21 -1.09	3.21	0.00 0.00	0.00 0.00	0.20

CASO: Desaprumo X- (D2)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	0.00	-0.01 0.00	-154.93 -0.41	0.00	0.13 -0.26	0.13	0.08 -0.08	0.00 0.00	-0.02
VA1 - 2	0.00	-0.01 0.00	-0.45 82.98	82.98	-0.26 0.48	0.48	0.08 -0.08	0.00 0.00	-0.02
VA1 - 3	0.00	-0.01 0.00	82.91 129.07	129.07	0.48 0.78	0.00	0.08 -0.08	0.00 0.00	0.06
VA1 - 4	0.00	-0.01 0.00	-87.92 65.27	65.27	-0.04 0.09	0.09	0.04 -0.04	0.00 0.00	0.12
VA1 - 5	0.00	-0.01 0.00	65.29 86.30	86.30	0.09 0.42	0.00	0.04 -0.04	0.00 0.00	-0.61
VA1 - 6	0.00	0.00 0.00	-134.21 160.69	160.69	-0.53 0.31	0.31	0.09 -0.09	0.00 0.00	0.00
VA2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.05
VA3 - 1	0.00	0.00 0.00	0.00 -0.29	0.00	0.00 -0.08	0.00	0.00 0.00	0.00 0.00	0.02
VA3 - 2	0.00	0.00 0.00	-0.13 -0.13	0.00	0.97 0.00	0.97	0.00 0.00	0.00 0.00	0.00
VA4 - 1	0.00	-0.03 0.00	-196.58 75.23	75.23	2.79 -0.58	2.79	0.05 -0.05	0.00 0.00	0.00
VA4 - 2	0.00	-0.02 0.00	-55.02 70.72	70.72	-1.01 0.14	0.14	0.06 -0.06	0.00 0.00	-0.35
VA4 - 3	0.00	-0.02 0.00	70.76 90.75	90.75	0.14 0.04	0.00	0.06 -0.06	0.00 0.00	-0.35
VA4 - 4	0.00	-0.02 0.00	90.79 137.86	137.86	0.04 0.51	0.00	0.06 -0.06	0.00 0.00	-0.35
VA4 - 5	0.00	-0.02 0.00	137.92 173.56	173.56	0.51 1.17	0.00	0.06 -0.06	0.00 0.00	1.73
VA4 - 6	0.00	-0.03 0.00	-158.95 -104.80	0.00	-0.28 0.03	0.03	0.05 -0.05	0.00 0.00	0.70
VA4 - 7	0.00	-0.03 0.00	-104.77 -46.84	0.00	0.03 0.10	0.10	0.05 -0.05	0.00 0.00	-0.18
VA4 - 8	0.00	-0.03 0.00	-46.84 43.97	43.97	0.10 0.31	0.31	0.05 -0.05	0.00 0.00	-0.18
VA4 - 9	0.00	-0.03 0.00	43.80 75.46	75.46	0.31 0.34	0.00	0.05 -0.05	0.00 0.00	-0.18
VA4 - 10	0.00	-0.03 0.00	-44.04 -2.74	0.00	0.16 -0.57	0.16	0.04 -0.04	0.00 0.00	0.00
VA4 - 11	0.00	-0.03 0.00	-2.88 20.54	20.54	-0.57 -1.32	0.00	0.04 -0.04	0.00 0.00	0.00
VA4 - 12	0.00	-0.03 0.00	20.55 94.80	94.80	-1.32 0.80	0.00	0.04 -0.04	0.00 0.00	0.00
VA4 - 13	0.00	0.00	-225.04	302.95	0.99	0.99	0.18	0.00	-0.01

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		0.00	302.95		-3.94		-0.18	0.00	
VA5 - 1	0.00	0.00 0.00	-88.08 35.22	35.22	-1.13 0.41	0.41	0.05 -0.05	0.00 0.00	-0.01
VA5 - 2	0.00	0.00 0.00	35.18 105.34	105.34	0.41 0.06	0.00	0.05 -0.05	0.00 0.00	-0.01
VA5 - 3	0.00	0.00 0.01	-75.34 -46.78	0.00	0.33 -0.04	0.33	0.03 -0.03	0.00 0.00	0.02
VA5 - 4	0.00	0.00 0.01	-46.81 -16.26	0.00	-0.04 0.11	0.11	0.03 -0.03	0.00 0.00	0.02
VA5 - 5	0.00	0.00 0.01	-16.26 48.36	48.36	0.11 0.27	0.27	0.03 -0.03	0.00 0.00	0.02
VA5 - 6	0.00	0.00 0.01	-55.13 12.14	12.14	0.06 -0.60	0.06	0.04 -0.04	0.00 0.00	0.01
VA5 - 7	0.00	0.00 0.01	12.13 81.98	81.98	-1.13 -5.92	0.00	0.04 -0.04	0.00 0.00	-0.18
VA6 - 1	0.00	0.00 0.00	-0.72 93.45	93.45	5.40 1.15	5.40	0.06 -0.06	0.00 0.00	0.04
VA6 - 2	0.00	0.00 0.00	93.46 183.63	183.63	1.15 -2.51	0.00	0.06 -0.06	0.00 0.00	0.04
VA7 - 1	0.00	0.00 0.01	-122.46 -61.94	0.00	2.16 1.30	2.16	0.04 -0.04	0.00 0.00	-0.06
VA7 - 2	0.00	0.00 0.01	-61.95 0.00	0.00	1.30 0.00	1.30	0.04 -0.04	0.00 0.00	-0.06
VA8 - 1	0.00	0.00 0.00	-146.08 121.12	121.12	-4.72 1.33	1.33	0.03 -0.03	0.00 0.00	-0.01
VA8 - 2	0.00	0.00 0.01	-103.16 128.12	128.12	-1.16 4.24	4.24	0.02 -0.02	0.00 0.00	0.01
VA9 - 1	0.00	0.00 0.00	-7.67 7.51	7.51	5.12 -5.17	5.12	0.00 0.00	0.00 0.00	0.65
VA9 - 2	0.00	0.00 0.00	1.02 2.24	2.24	-3.92 -0.88	0.00	0.00 0.00	0.00 0.00	-0.02
VA10 - 1	0.00	0.00 0.00	-0.73 0.99	0.99	-0.93 0.67	0.67	0.00 0.00	0.00 0.00	-0.32
VA10 - 2	0.00	0.00 0.00	-1.37 1.26	1.26	-0.96 2.15	2.15	0.00 0.00	0.00 0.00	-0.35
VA11 - 1	0.00	0.00 0.00	-9.37 2.82	2.82	1.03 -1.20	1.03	0.01 -0.01	0.00 0.00	-0.20
VA11 - 2	0.00	0.00 0.00	-9.83 9.47	9.47	-0.90 0.28	0.28	0.01 -0.01	0.00 0.00	0.19
VA11 - 3	0.00	0.00 0.00	9.42 15.72	15.72	0.28 0.62	0.00	0.01 -0.01	0.00 0.00	0.19
VA12 - 1	0.00	0.00 0.00	0.00 -0.04	0.00	0.00 -0.04	0.00	0.00 0.00	0.00 0.00	-0.04
VA12 - 2	0.00	0.00 0.00	0.01 0.00	0.01	-0.04 0.00	0.00	0.00 0.00	0.00 0.00	-0.04
VA13	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.04
VA14 - 1	0.00	0.00 0.00	0.00 -0.06	0.00	0.00 -0.14	0.00	0.00 0.00	0.00 0.00	-0.07
VA14 - 2	0.00	0.00 0.00	-0.04 0.00	0.00	-0.14 0.00	0.00	0.00 0.00	0.00 0.00	-0.07
VA15	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.03
VA16	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA17 - 1	0.00	0.00 0.00	0.00 0.06	0.06	0.00 0.42	0.42	0.00 0.00	0.00 0.00	0.18
VA17 - 2	0.00	0.00 0.00	0.04 0.00	0.04	-0.63 0.00	0.00	0.00 0.00	0.00 0.00	0.02
VA18	0.00	0.00 0.00	3.68 -4.25	3.68	-0.10 0.12	0.12	0.00 0.00	0.00 0.00	-0.06
VA19	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.13


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VA20	0.00	0.00 0.00	-0.19 0.00	0.00	0.53 0.00	0.53	0.00 0.00	0.00 0.00	0.01
VA21 - 1	0.00	0.00 0.01	-19.07 52.26	52.26	-1.07 0.00	0.00	0.02 -0.02	0.00 0.00	-0.38
VA21 - 2	0.00	0.00 0.01	52.30 -24.88	52.30	-5.40 4.71	4.71	-0.04 0.04	0.00 0.00	0.33
VA22	0.00	0.00 0.00	11.31 -11.03	11.31	-0.28 0.52	0.52	-0.01 0.01	0.00 0.00	0.09
VA23	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.02
VA24 - 1	0.00	0.00 0.00	2.74 -3.49	2.74	3.46 -3.35	3.46	0.00 0.00	0.00 0.00	0.63
VA24 - 2	0.00	0.00 0.01	-6.09 5.27	5.27	-2.36 -5.98	0.00	0.00 0.00	0.00 0.00	-0.02
VA25 - 1	0.00	0.00 0.00	20.57 -26.15	20.57	-9.87 10.55	10.55	-0.02 0.02	-0.01 0.01	-0.48
VA25 - 2	0.00	0.00 0.00	-26.08 20.58	20.58	10.55 -1.41	10.55	0.01 -0.01	0.00 0.00	-0.48
VA25 - 3	0.00	0.00 0.00	5.74 -0.62	5.74	-3.21 1.09	1.09	0.00 0.00	0.00 0.00	-0.20

CASO: Desaprumo Y+ (D3)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	0.00	0.00 0.00	20.02 1.66	20.02	10.17 -1.21	10.17	-0.01 0.01	0.01 -0.01	0.45
VA1 - 2	0.00	0.00 0.00	1.64 -8.30	1.64	-1.21 -16.52	0.00	-0.01 0.01	0.01 -0.01	0.45
VA1 - 3	0.00	0.00 0.00	-8.34 -13.84	0.00	-16.52 -5.77	0.00	-0.01 0.01	-0.02 0.02	0.44
VA1 - 4	0.00	0.00 0.00	12.55 -8.12	12.55	-4.52 4.81	4.81	-0.01 0.01	0.00 0.00	-0.22
VA1 - 5	0.00	0.00 0.00	-8.15 -10.99	0.00	4.81 -3.49	4.81	-0.01 0.01	0.02 -0.02	-0.13
VA1 - 6	0.00	0.00 0.00	20.25 -28.41	20.25	-1.85 1.79	1.79	-0.01 0.01	0.00 0.00	-0.41
VA2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.13
VA3 - 1	0.00	0.00 0.00	0.00 -0.01	0.00	0.00 1.71	1.71	0.00 0.00	0.00 0.00	0.00
VA3 - 2	0.00	0.00 0.00	0.03 0.03	0.03	-4.19 0.00	0.00	0.00 0.00	0.00 0.00	0.00
VA4 - 1	0.00	-0.01 0.00	-4.74 3.48	3.48	-3.65 -1.94	0.00	0.00 0.00	0.00 0.00	-0.08
VA4 - 2	0.00	-0.02 0.00	2.67 -1.51	2.67	14.12 -4.52	14.12	0.00 0.00	0.01 -0.01	1.20
VA4 - 3	0.00	-0.02 0.00	-1.49 -2.14	0.00	-4.52 -4.74	0.00	0.00 0.00	0.00 0.00	1.20
VA4 - 4	0.00	-0.02 0.00	-2.14 -3.68	0.00	-4.74 -2.07	0.00	0.00 0.00	0.00 0.00	1.20
VA4 - 5	0.00	-0.02 0.00	-3.66 -4.83	0.00	-2.07 -18.58	0.00	0.00 0.00	0.03 -0.03	1.15
VA4 - 6	0.00	-0.02 0.00	-5.88 -3.40	0.00	-10.19 -9.75	0.00	0.00 0.00	0.00 0.00	-0.87
VA4 - 7	0.00	-0.02 0.00	-3.40 -0.74	0.00	-9.75 -1.23	0.00	0.00 0.00	-0.01 0.01	-0.90
VA4 - 8	0.00	-0.02 0.00	-0.75 3.41	3.41	-1.23 3.11	3.11	0.00 0.00	0.00 0.00	-0.90
VA4 - 9	0.00	-0.02 0.00	3.41 4.86	4.86	3.11 14.26	14.26	0.00 0.00	-0.02 0.02	-0.90
VA4 - 10	0.00	-0.01	10.14	10.14	2.15	0.00	-0.01	0.00	0.07

		0.00	4.37		0.98		0.01	0.00	
VA4 - 11	0.00	-0.01 0.00	4.40 1.13	4.40	0.98 1.80	1.80	-0.01 0.01	0.00 0.00	0.07
VA4 - 12	0.00	0.00 0.00	1.16 -9.68	1.16	1.80 -0.48	1.80	-0.01 0.01	0.00 0.00	0.07
VA4 - 13	0.00	-0.01 0.00	-4.43 -0.19	0.00	-1.58 -6.52	0.00	0.00 0.00	0.00 0.00	-0.03
VA5 - 1	0.00	0.00 0.01	-2.25 2.86	2.86	10.08 -1.67	10.08	0.00 0.00	0.01 -0.01	0.84
VA5 - 2	0.00	0.00 0.01	2.85 5.76	5.76	-1.67 -13.96	0.00	0.00 0.00	0.01 -0.01	0.84
VA5 - 3	0.00	0.00 0.01	-1.05 -0.82	0.00	-12.61 -4.44	0.00	0.00 0.00	-0.01 0.01	-0.73
VA5 - 4	0.00	0.00 0.01	-0.81 -0.56	0.00	-4.44 -3.61	0.00	0.00 0.00	0.00 0.00	-0.73
VA5 - 5	0.00	0.00 0.01	-0.54 -0.01	0.00	-3.61 10.32	10.32	0.00 0.00	-0.01 0.01	-0.73
VA5 - 6	0.00	0.00 0.00	-8.59 -1.00	0.00	-1.91 1.16	1.16	0.00 0.00	0.00 0.00	-0.24
VA5 - 7	0.00	0.00 0.00	-1.04 7.31	7.31	-4.43 3.19	3.19	0.01 -0.01	0.00 0.00	0.30
VA6 - 1	0.00	0.00 0.00	-0.09 13.86	13.86	-4.90 -1.11	0.00	0.01 -0.01	0.00 0.00	0.18
VA6 - 2	0.00	0.00 0.00	13.87 27.23	27.23	-1.11 3.44	0.00	0.01 -0.01	0.00 0.00	0.18
VA7 - 1	0.00	0.00 0.00	-17.12 -8.65	0.00	-2.48 -0.78	0.00	0.01 -0.01	0.00 0.00	-0.22
VA7 - 2	0.00	0.00 0.00	-8.67 0.00	0.00	-0.78 0.00	0.00	0.01 -0.01	0.00 0.00	-0.22
VA8 - 1	0.00	0.00 0.00	6.57 -8.46	6.57	0.67 -3.33	0.67	0.00 0.00	0.00 0.00	0.58
VA8 - 2	0.00	0.00 0.00	-4.24 1.37	1.37	-4.54 1.36	1.36	0.00 0.00	0.00 0.00	-0.45
VA9 - 1	0.00	0.00 0.01	122.19 -106.35	122.19	-9.55 6.67	6.67	-0.04 0.04	0.00 0.00	0.01
VA9 - 2	0.00	0.00 0.01	84.05 -85.49	84.05	-3.75 4.57	4.57	-0.03 0.03	0.00 0.00	0.04
VA10 - 1	0.00	0.00 0.01	97.56 -88.10	97.56	-4.56 1.14	1.14	-0.04 0.04	0.00 0.00	-0.01
VA10 - 2	0.00	0.00 0.00	127.31 -152.41	127.31	-8.01 17.75	17.75	-0.07 0.07	-0.01 0.01	-0.05
VA11 - 1	0.00	-0.01 0.00	199.92 -110.17	199.92	-8.49 8.87	8.87	-0.16 0.16	-0.01 0.01	0.01
VA11 - 2	0.00	-0.02 0.00	141.51 -166.47	141.51	-5.55 2.70	2.70	-0.10 0.10	0.00 0.00	-0.04
VA11 - 3	0.00	-0.02 0.00	-166.59 -267.06	0.00	2.70 6.66	6.66	-0.10 0.10	0.00 0.00	-0.04
VA12 - 1	0.00	-0.01 0.00	0.00 -0.10	0.00	0.00 0.93	0.93	0.00 0.00	0.00 0.00	-0.02
VA12 - 2	0.00	-0.01 0.00	0.03 0.00	0.03	0.93 0.00	0.93	0.00 0.00	0.00 0.00	-0.02
VA13	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.01
VA14 - 1	0.00	0.00 0.03	0.00 0.00	0.00	0.00 1.23	1.23	0.00 0.00	0.00 0.00	-0.03
VA14 - 2	0.00	0.00 0.03	0.00 0.00	0.00	1.23 0.00	1.23	0.00 0.00	0.00 0.00	-0.03
VA15	0.00	0.00 0.01	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.01
VA16	0.00	-0.01 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.01
VA17 - 1	0.00	-0.02 0.00	0.00 0.00	0.00	0.00 -2.81	0.00	0.00 0.00	0.00 0.00	0.00




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VA17 - 2	0.00	-0.02 0.00	0.00 0.00	0.00	3.10 0.00	3.10	0.00 0.00	0.00 0.00	-0.03
VA18	0.00	-0.01 0.00	180.05 -180.67	180.05	11.18 -12.98	11.18	-0.19 0.19	0.01 -0.01	0.00
VA19	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.03
VA20	0.00	0.00 0.00	0.54 0.00	0.54	5.59 0.00	5.59	0.00 0.00	0.00 0.00	0.03
VA21 - 1	0.00	0.00 0.00	98.67 -13.34	98.67	4.05 -3.16	4.05	-0.03 0.03	0.00 0.00	-0.05
VA21 - 2	0.00	0.00 0.00	-13.17 -105.25	0.00	1.75 -5.47	1.75	-0.04 0.04	0.00 0.00	0.04
VA22	0.00	0.00 0.00	192.52 -228.18	192.52	2.72 -3.23	2.72	-0.12 0.12	0.00 0.00	-0.04
VA23	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.01
VA24 - 1	0.00	0.00 0.01	153.54 -133.91	153.54	8.03 -5.01	8.03	-0.05 0.05	0.00 0.00	0.01
VA24 - 2	0.00	0.00 0.01	106.25 -107.22	106.25	2.61 -2.87	2.61	-0.03 0.03	0.00 0.00	0.04
VA25 - 1	0.00	0.00 0.01	126.46 32.60	126.46	2.72 1.13	0.00	-0.05 0.05	0.00 0.00	-0.02
VA25 - 2	0.00	0.00 0.01	32.82 -111.62	32.82	1.13 -5.05	1.13	-0.04 0.04	0.00 0.00	-0.02
VA25 - 3	0.00	0.00 0.00	163.13 -191.40	163.13	10.32 -15.22	10.32	-0.09 0.09	0.01 -0.01	-0.06


CASO: Desaprumo Y- (D4)									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	0.00	0.00 0.00	-20.02 -1.66	0.00	-10.17 1.21	1.21	0.01 -0.01	-0.01 0.01	-0.45
VA1 - 2	0.00	0.00 0.00	-1.64 8.30	8.30	1.21 16.52	16.52	0.01 -0.01	-0.01 0.01	-0.45
VA1 - 3	0.00	0.00 0.00	8.34 13.84	13.84	16.52 5.77	16.52	0.01 -0.01	0.02 -0.02	-0.44
VA1 - 4	0.00	0.00 0.00	-12.55 8.12	8.12	4.52 -4.81	4.52	0.01 -0.01	0.00 0.00	0.22
VA1 - 5	0.00	0.00 0.00	8.15 10.99	10.99	-4.81 3.49	0.00	0.01 -0.01	-0.02 0.02	0.13
VA1 - 6	0.00	0.00 0.00	-20.25 28.41	28.41	1.85 -1.79	1.85	0.01 -0.01	0.00 0.00	0.41
VA2	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.13
VA3 - 1	0.00	0.00 0.00	0.00 0.01	0.01	0.00 -1.71	0.00	0.00 0.00	0.00 0.00	0.00
VA3 - 2	0.00	0.00 0.00	-0.03 -0.03	0.00	4.19 0.00	4.19	0.00 0.00	0.00 0.00	0.00
VA4 - 1	0.00	0.00 0.01	4.74 -3.48	4.74	3.65 1.94	3.65	0.00 0.00	0.00 0.00	0.08
VA4 - 2	0.00	0.00 0.02	-2.67 1.51	1.51	-14.12 4.52	4.52	0.00 0.00	-0.01 0.01	-1.20
VA4 - 3	0.00	0.00 0.02	1.49 2.14	2.14	4.52 4.74	4.74	0.00 0.00	0.00 0.00	-1.20
VA4 - 4	0.00	0.00 0.02	2.14 3.68	3.68	4.74 2.07	4.74	0.00 0.00	0.00 0.00	-1.20
VA4 - 5	0.00	0.00 0.02	3.66 4.83	4.83	2.07 18.58	18.58	0.00 0.00	-0.03 0.03	-1.15
VA4 - 6	0.00	0.00 0.02	5.88 3.40	5.88	10.19 9.75	10.19	0.00 0.00	0.00 0.00	0.87
VA4 - 7	0.00	0.00	3.40	3.40	9.75	9.75	0.00	0.01	0.90

		0.02	0.74		1.23		0.00	-0.01	
VA4 - 8	0.00	0.00 0.02	0.75 -3.41	0.75	1.23 -3.11	1.23	0.00 0.00	0.00 0.00	0.90
VA4 - 9	0.00	0.00 0.02	-3.41 -4.86	0.00	-3.11 -14.26	0.00	0.00 0.00	0.02 -0.02	0.90
VA4 - 10	0.00	0.00 0.01	-10.14 -4.37	0.00	-2.15 -0.98	0.00	0.01 -0.01	0.00 0.00	-0.07
VA4 - 11	0.00	0.00 0.01	-4.40 -1.13	0.00	-0.98 -1.80	0.00	0.01 -0.01	0.00 0.00	-0.07
VA4 - 12	0.00	0.00 0.00	-1.16 9.68	9.68	-1.80 0.48	0.48	0.01 -0.01	0.00 0.00	-0.07
VA4 - 13	0.00	0.00 0.01	4.43 0.19	4.43	1.58 6.52	6.52	0.00 0.00	0.00 0.00	0.03
VA5 - 1	0.00	-0.01 0.00	2.25 -2.86	2.25	-10.08 1.67	1.67	0.00 0.00	-0.01 0.01	-0.84
VA5 - 2	0.00	-0.01 0.00	-2.85 -5.76	0.00	1.67 13.96	13.96	0.00 0.00	-0.01 0.01	-0.84
VA5 - 3	0.00	-0.01 0.00	1.05 0.82	1.05	12.61 4.44	12.61	0.00 0.00	0.01 -0.01	0.73
VA5 - 4	0.00	-0.01 0.00	0.81 0.56	0.81	4.44 3.61	4.44	0.00 0.00	0.00 0.00	0.73
VA5 - 5	0.00	-0.01 0.00	0.54 0.01	0.54	3.61 -10.32	3.61	0.00 0.00	0.01 -0.01	0.73
VA5 - 6	0.00	0.00 0.00	8.59 1.00	8.59	1.91 -1.16	1.91	0.00 0.00	0.00 0.00	0.24
VA5 - 7	0.00	0.00 0.00	1.04 -7.31	1.04	4.43 -3.19	4.43	-0.01 0.01	0.00 0.00	-0.30
VA6 - 1	0.00	0.00 0.00	0.09 -13.86	0.09	4.90 1.11	4.90	-0.01 0.01	0.00 0.00	-0.18
VA6 - 2	0.00	0.00 0.00	-13.87 -27.23	0.00	1.11 -3.44	1.11	-0.01 0.01	0.00 0.00	-0.18
VA7 - 1	0.00	0.00 0.00	17.12 8.65	17.12	2.48 0.78	0.00	-0.01 0.01	0.00 0.00	0.22
VA7 - 2	0.00	0.00 0.00	8.67 0.00	8.67	0.78 0.00	0.78	-0.01 0.01	0.00 0.00	0.22
VA8 - 1	0.00	0.00 0.00	-6.57 8.46	8.46	-0.67 3.33	3.33	0.00 0.00	0.00 0.00	-0.58
VA8 - 2	0.00	0.00 0.00	4.24 -1.37	4.24	4.54 -1.36	4.54	0.00 0.00	0.00 0.00	0.45
VA9 - 1	0.00	-0.01 0.00	-122.19 106.35	106.35	9.55 -6.67	9.55	0.04 -0.04	0.00 0.00	-0.01
VA9 - 2	0.00	-0.01 0.00	-84.05 85.49	85.49	3.75 -4.57	3.75	0.03 -0.03	0.00 0.00	-0.04
VA10 - 1	0.00	-0.01 0.00	-97.56 88.10	88.10	4.56 -1.14	4.56	0.04 -0.04	0.00 0.00	0.01
VA10 - 2	0.00	0.00 0.00	-127.31 152.41	152.41	8.01 -17.75	8.01	0.07 -0.07	0.01 -0.01	0.05
VA11 - 1	0.00	0.00 0.01	-199.92 110.17	110.17	8.49 -8.87	8.49	0.16 -0.16	0.01 -0.01	-0.01
VA11 - 2	0.00	0.00 0.02	-141.51 166.47	166.47	5.55 -2.70	5.55	0.10 -0.10	0.00 0.00	0.04
VA11 - 3	0.00	0.00 0.02	166.59 267.06	267.06	-2.70 -6.66	0.00	0.10 -0.10	0.00 0.00	0.04
VA12 - 1	0.00	0.00 0.01	0.00 0.10	0.10	0.00 -0.93	0.00	0.00 0.00	0.00 0.00	0.02
VA12 - 2	0.00	0.00 0.01	-0.03 0.00	0.00	-0.93 0.00	0.00	0.00 0.00	0.00 0.00	0.02
VA13	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.01
VA14 - 1	0.00	-0.03 0.00	0.00 0.00	0.00	0.00 -1.23	0.00	0.00 0.00	0.00 0.00	0.03
VA14 - 2	0.00	-0.03 0.00	0.00 0.00	0.00	-1.23 0.00	0.00	0.00 0.00	0.00 0.00	0.03


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VA15	0.00	-0.01 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.01
VA16	0.00	0.00 0.01	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.01
VA17 - 1	0.00	0.00 0.02	0.00 0.00	0.00	0.00 2.81	2.81	0.00 0.00	0.00 0.00	0.00
VA17 - 2	0.00	0.00 0.02	0.00 0.00	0.00	-3.10 0.00	0.00	0.00 0.00	0.00 0.00	0.03
VA18	0.00	0.00 0.01	-180.05 180.67	180.67	-11.18 12.98	12.98	0.19 -0.19	-0.01 0.01	0.00
VA19	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.03
VA20	0.00	0.00 0.00	-0.54 0.00	0.00	-5.59 0.00	0.00	0.00 0.00	0.00 0.00	-0.03
VA21 - 1	0.00	0.00 0.00	-98.67 13.34	13.34	-4.05 3.16	3.16	0.03 -0.03	0.00 0.00	0.05
VA21 - 2	0.00	0.00 0.00	13.17 105.25	105.25	-1.75 5.47	0.00	0.04 -0.04	0.00 0.00	-0.04
VA22	0.00	0.00 0.00	-192.52 228.18	228.18	-2.72 3.23	3.23	0.12 -0.12	0.00 0.00	0.04
VA23	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	-0.01
VA24 - 1	0.00	-0.01 0.00	-153.54 133.91	133.91	-8.03 5.01	5.01	0.05 -0.05	0.00 0.00	-0.01
VA24 - 2	0.00	-0.01 0.00	-106.25 107.22	107.22	-2.61 2.87	2.87	0.03 -0.03	0.00 0.00	-0.04
VA25 - 1	0.00	-0.01 0.00	-126.46 -32.60	0.00	-2.72 -1.13	0.00	0.05 -0.05	0.00 0.00	0.02
VA25 - 2	0.00	-0.01 0.00	-32.82 111.62	111.62	-1.13 5.05	5.05	0.04 -0.04	0.00 0.00	0.02
VA25 - 3	0.00	0.00 0.00	-163.13 191.40	191.40	-10.32 15.22	15.22	0.09 -0.09	-0.01 0.01	0.06

CASO: 1.3G1+1.4G2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.40	-1797.29 2533.83	2533.83	-10.90 1.31	1.31	3.26 -1.19	-0.01 0.01	1.86
VA1 - 2	1062.75	0.00 0.41	2533.95 57.91	2533.95	1.31 -14.25	0.00	-1.80 2.91	0.01 -0.01	1.01
VA1 - 3	1062.75	0.00 0.41	59.12 -3341.02	59.12	-14.25 13.68	13.68	-5.54 6.16	-0.05 0.05	1.02
VA1 - 4	1062.75	0.00 0.07	-2734.46 353.09	992.37	19.54 -16.91	19.54	2.82 1.17	0.01 -0.01	0.54
VA1 - 5	1062.75	0.00 0.06	355.13 -2142.62	355.13	-16.91 20.61	20.61	-4.59 5.13	-0.07 0.07	-3.52
VA1 - 6	1062.75	-0.02 0.00	-1619.18 -417.73	457.60	16.71 -6.56	16.71	2.10 1.37	0.01 -0.01	-0.88
VA2	1062.75	0.00 0.00	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-3.68
VA3 - 1	1062.75	0.00 0.00	0.00 -2143.55	1527.46	0.00 1.65	1.65	1.80 2.79	0.00 0.00	1.05
VA3 - 2	1062.75	0.00 0.00	-2152.52 7.32	7.32	7.58 0.00	7.58	2.21 -0.56	0.00 0.00	0.00
VA4 - 1	1111.50	0.00 0.20	-1889.54 -2487.97	1333.68	50.06 -17.34	50.06	2.68 2.91	0.01 -0.01	1.25
VA4 - 2	1111.50	0.00 0.23	-2581.46 2182.05	2182.05	-7.83 -5.44	0.00	3.51 -1.32	0.00 0.00	-0.92
VA4 - 3	1111.50	0.00 0.23	2181.93 1780.30	2181.93	-5.44 1.62	0.00	-1.11 1.46	-0.02 0.02	-0.92
VA4 - 4	1111.50	0.00	1780.31	1780.31	1.62	20.29	-2.44	-0.03	-0.92


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		0.23	-317.25		20.29		3.26	0.03	
VA4 - 5	1111.50	0.00 0.23	-318.42 -4256.98	0.00	20.29 -3.05	20.29	-6.75 7.37	0.04 -0.04	-5.72
VA4 - 6	1111.50	0.00 0.11	-4305.51 -177.47	0.00	-12.42 1.23	1.23	4.66 -3.55	-0.01 0.01	1.24
VA4 - 7	1111.50	0.00 0.11	-177.06 1941.82	1941.82	1.23 -1.61	1.23	2.57 -1.37	0.00 0.00	-0.24
VA4 - 8	1111.50	0.00 0.11	1940.88 1022.54	2007.61	-1.61 16.36	0.00	0.39 1.48	-0.01 0.01	-0.24
VA4 - 9	1111.50	0.00 0.12	1029.45 -3402.43	1029.45	16.36 -22.59	16.36	-7.21 7.86	0.07 -0.07	-0.24
VA4 - 10	1111.50	-0.01 0.00	-3015.56 -258.72	0.00	-9.51 2.60	2.60	3.38 -2.30	-0.01 0.01	1.97
VA4 - 11	1111.50	-0.01 0.00	-251.40 540.34	540.34	2.60 6.79	6.79	1.75 -1.13	-0.01 0.01	1.97
VA4 - 12	1111.50	-0.01 0.00	540.89 -943.67	540.89	6.79 -9.04	6.79	0.11 1.82	0.01 -0.01	1.97
VA4 - 13	1111.50	0.00 0.06	-978.20 -461.73	498.80	-2.19 -10.20	0.00	1.81 1.46	0.00 0.00	-2.26
VA5 - 1	1062.75	0.00 0.07	-556.26 761.68	947.88	1.93 1.13	1.93	1.79 0.63	0.00 0.00	-0.63
VA5 - 2	1062.75	0.00 0.07	761.66 -2212.15	761.66	1.13 -2.91	1.13	-1.61 2.99	0.00 0.00	-0.63
VA5 - 3	1062.75	0.00 0.12	-2769.94 432.15	432.15	4.20 -2.67	4.20	3.72 -2.65	0.01 -0.01	0.71
VA5 - 4	1062.75	0.00 0.12	431.73 1614.64	1614.64	-2.67 6.39	0.00	1.67 -0.53	-0.01 0.01	0.71
VA5 - 5	1062.75	0.00 0.12	1615.58 -2161.33	1615.58	6.39 -4.69	6.39	-0.45 2.87	0.00 0.00	0.71
VA5 - 6	1062.75	0.00 0.09	-2027.34 934.93	934.93	12.27 -15.50	12.27	2.76 -1.14	0.02 -0.02	-0.63
VA5 - 7	1062.75	0.00 0.09	934.38 -222.66	934.38	-14.28 -16.75	0.00	0.11 1.57	0.00 0.00	-13.00
VA6 - 1	1062.75	0.00 0.03	9.58 851.46	896.62	-9.92 -15.35	0.00	1.38 0.33	0.00 0.00	2.04
VA6 - 2	1062.75	0.00 0.03	857.98 -3522.65	857.98	-15.35 32.70	32.70	-2.04 3.67	-0.03 0.03	2.04
VA7 - 1	1062.75	-0.08 0.00	-1067.31 2170.56	2170.56	-46.58 4.04	4.04	2.90 -1.23	-0.03 0.03	-4.21
VA7 - 2	1062.75	-0.08 0.00	2164.04 0.00	2164.04	4.04 0.00	4.04	-0.49 2.20	0.00 0.00	-4.21
VA8 - 1	1184.63	0.00 0.68	-5033.56 -9076.66	4003.24	-5.94 0.47	0.47	4.63 5.57	0.00 0.00	-1.81
VA8 - 2	1184.63	0.00 1.01	-12048.90 -7813.52	6654.79	15.12 -4.05	15.12	6.66 5.86	0.00 0.00	1.46
VA9 - 1	1111.50	0.00 0.17	-2366.47 -3572.58	1735.68	46.34 -37.95	46.34	3.02 3.44	0.01 -0.01	4.02
VA9 - 2	1111.50	0.00 0.24	-3718.26 -3613.94	1960.30	-19.72 13.08	13.08	3.55 3.52	-0.01 0.01	-0.36
VA10 - 1	1111.50	0.00 0.14	-2876.75 -2223.57	1242.72	29.96 -43.25	29.96	3.03 2.78	0.01 -0.01	0.58
VA10 - 2	1111.50	0.00 0.07	-1797.93 -1005.95	831.43	-54.40 34.08	34.08	2.42 2.02	-0.02 0.02	-4.65
VA11 - 1	1062.75	0.00 0.03	-281.21 -813.38	0.00	2.87 5.82	5.82	0.75 1.30	0.00 0.00	2.24
VA11 - 2	1062.75	0.00 0.05	-1514.33 969.12	1310.12	-5.05 2.21	2.21	2.45 0.85	0.00 0.00	-1.53
VA11 - 3	1062.75	0.00 0.05	965.45 -1514.26	965.45	2.21 8.54	8.54	-1.91 2.99	-0.01 0.01	-1.53
VA12 - 1	1062.75	-0.02 0.00	0.00 2410.16	2786.91	0.00 2.91	2.91	2.43 0.89	0.00 0.00	0.12
VA12 - 2	1062.75	-0.02 0.00	2413.84 0.00	2413.84	2.91 0.00	2.91	-1.95 2.99	0.00 0.00	0.12


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VA13	1014.00	0.00 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.01
VA14 - 1	1062.75	0.00 0.06	0.00 3085.57	3085.57	0.00 -1.78	0.00	3.50 -2.38	0.00 0.00	1.21
VA14 - 2	1062.75	0.00 0.06	3086.61 0.00	3242.40	-1.78 0.00	0.00	0.58 2.63	0.00 0.00	1.21
VA15	1014.00	-0.02 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.42
VA16	1014.00	0.00 0.01	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-0.94
VA17 - 1	1062.75	0.00 0.08	0.00 5422.74	5422.74	0.00 3.35	3.35	5.72 -4.61	0.00 0.00	-6.91
VA17 - 2	1062.75	0.00 0.08	5421.69 0.00	5421.69	-2.58 0.00	0.00	-0.40 3.42	0.00 0.00	2.06
VA18	1062.75	0.00 0.07	-389.54 225.58	461.17	-14.24 19.06	19.06	1.34 0.71	-0.02 0.02	1.44
VA19	1062.75	0.00 0.00	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-7.32
VA20	1062.75	-0.02 0.00	-12.37 0.00	484.08	-1.22 0.00	0.00	1.03 1.02	0.00 0.00	0.55
VA21 - 1	1062.75	0.00 0.21	-2177.17 3188.09	3188.09	34.36 -42.37	34.36	3.38 0.03	0.02 -0.02	6.85
VA21 - 2	1062.75	0.00 0.21	3190.12 -2154.60	3190.12	-32.45 -12.29	0.00	-1.41 3.65	-0.01 0.01	-2.73
VA22	1062.75	0.00 0.11	-672.36 -1001.04	931.17	-11.00 14.37	14.37	1.85 2.03	-0.01 0.01	0.37
VA23	1062.75	0.00 0.03	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.52
VA24 - 1	1111.50	0.00 0.16	-2417.85 -3528.61	1730.33	-69.89 43.20	43.20	3.04 3.42	-0.02 0.02	-5.85
VA24 - 2	1111.50	0.00 0.23	-3578.59 -3925.39	1878.32	7.62 28.18	28.18	3.48 3.59	0.00 0.00	-0.39
VA25 - 1	1111.50	0.00 0.27	-4229.00 2346.28	2346.28	95.24 -39.89	95.24	4.50 -2.37	0.07 -0.07	4.48
VA25 - 2	1111.50	0.00 0.27	2350.50 -3166.78	2362.22	-39.89 -16.15	0.00	0.17 3.51	-0.01 0.01	4.48
VA25 - 3	1111.50	0.00 0.10	-2243.54 -845.61	729.14	-18.56 2.87	2.87	2.57 1.87	-0.01 0.01	-1.51

CASO: 1.3G1+1.4G2+0.84V1+1.4D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Yyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.44	-1043.67 2535.44	2535.44	-13.48 1.46	1.46	2.87 -0.81	-0.01 0.01	1.95
VA1 - 2	1062.75	0.00 0.45	2535.75 -346.37	2535.75	1.46 -13.61	1.46	-2.18 3.30	0.01 -0.01	1.09
VA1 - 3	1062.75	0.00 0.44	-344.79 -3969.58	0.00	-13.61 11.90	11.90	-5.93 6.54	-0.04 0.04	0.69
VA1 - 4	1062.75	0.00 0.08	-2306.60 35.36	912.84	18.87 -15.63	18.87	2.62 1.37	0.01 -0.01	0.07
VA1 - 5	1062.75	0.00 0.08	37.31 -2562.69	37.31	-15.63 18.33	18.33	-4.78 5.33	-0.07 0.07	-0.42
VA1 - 6	1062.75	-0.05 0.00	-964.63 -1202.09	330.90	16.46 -5.54	16.46	1.66 1.81	0.01 -0.01	-0.81
VA2	1062.75	0.00 0.00	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-3.38
VA3 - 1	1062.75	0.00 0.00	0.00 -2142.03	1528.04	0.00 2.51	2.51	1.80 2.79	0.00 0.00	0.95
VA3 - 2	1062.75	0.00 0.00	-2151.81 8.02	8.02	4.60 0.00	4.60	2.21 -0.56	0.00 0.00	0.00
VA4 - 1	1111.50	0.00	-866.35	1713.15	28.43	28.43	2.40	0.01	1.24


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		0.38	-2879.89		-6.57		3.20	-0.01	
VA4 - 2	1111.50	0.00 0.36	-2296.38 1814.93	1814.93	-7.10 -6.30	0.00	3.18 -0.99	0.00 0.00	0.70
VA4 - 3	1111.50	0.00 0.36	1814.61 1309.29	1814.61	-6.30 0.82	0.00	-1.44 1.79	-0.02 0.02	0.70
VA4 - 4	1111.50	0.00 0.36	1309.05 -1032.66	1309.05	0.82 19.57	19.57	-2.77 3.59	-0.03 0.03	0.70
VA4 - 5	1111.50	0.00 0.36	-1034.13 -5157.60	0.00	19.57 -2.35	19.57	-7.08 7.70	0.04 -0.04	-14.87
VA4 - 6	1111.50	0.00 0.25	-3479.85 367.03	367.03	-12.35 1.02	1.02	4.38 -3.27	-0.01 0.01	-2.24
VA4 - 7	1111.50	0.00 0.25	367.33 2185.40	2185.40	1.02 -0.56	0.00	2.29 -1.09	0.00 0.00	0.83
VA4 - 8	1111.50	0.00 0.25	2184.43 794.53	2184.43	-0.56 15.96	0.00	0.11 1.76	-0.01 0.01	0.83
VA4 - 9	1111.50	0.00 0.25	802.35 -3793.90	802.35	15.96 -20.00	15.96	-7.48 8.14	0.06 -0.06	0.83
VA4 - 10	1111.50	0.00 0.11	-2785.80 -244.26	0.00	-17.49 4.21	4.21	3.16 -2.08	-0.02 0.02	1.99
VA4 - 11	1111.50	0.00 0.11	-236.24 433.43	433.43	4.21 14.90	14.90	1.52 -0.91	-0.02 0.02	1.99
VA4 - 12	1111.50	0.00 0.11	433.87 -1437.87	433.87	14.90 -15.42	14.90	-0.11 2.04	0.02 -0.02	1.99
VA4 - 13	1111.50	0.00 0.03	191.70 -2038.91	539.27	-12.70 15.77	15.77	0.88 2.39	-0.01 0.01	-2.21
VA5 - 1	1062.75	0.00 0.07	-19.35 546.51	977.32	-4.67 1.41	1.41	1.46 0.96	0.00 0.00	-0.70
VA5 - 2	1062.75	0.00 0.07	546.75 -2854.98	546.75	1.41 1.37	1.41	-1.94 3.32	0.00 0.00	-0.70
VA5 - 3	1062.75	0.00 0.10	-2310.17 717.64	717.64	1.71 -2.85	1.71	3.55 -2.48	0.00 0.00	0.74
VA5 - 4	1062.75	0.00 0.10	717.34 1713.80	1713.80	-2.85 5.91	0.00	1.50 -0.35	-0.01 0.01	0.74
VA5 - 5	1062.75	0.00 0.10	1714.77 -2456.48	1714.77	5.91 -1.20	5.91	-0.62 3.04	0.00 0.00	0.74
VA5 - 6	1062.75	0.00 0.05	-1691.23 860.70	860.70	2.42 -10.61	2.42	2.49 -0.87	0.01 -0.01	-0.64
VA5 - 7	1062.75	0.00 0.04	860.26 -722.95	860.26	-18.76 25.95	25.95	-0.16 1.84	-0.03 0.03	-11.91
VA6 - 1	1062.75	0.00 0.00	14.07 272.50	495.13	-46.62 -22.81	0.00	1.01 0.69	-0.01 0.01	1.79
VA6 - 2	1062.75	0.00 0.00	278.93 -4660.35	278.93	-22.81 56.16	56.16	-2.41 4.04	-0.05 0.05	1.79
VA7 - 1	1062.75	-0.17 0.00	-281.86 2567.84	2567.84	-62.46 -2.48	0.00	2.65 -0.98	-0.04 0.04	-3.83
VA7 - 2	1062.75	-0.17 0.00	2561.41 0.00	2561.41	-2.48 0.00	0.00	-0.74 2.45	0.00 0.00	-3.83
VA8 - 1	1184.63	0.00 0.70	-4111.48 -9841.46	4179.05	22.38 -5.88	22.38	4.43 5.76	0.00 0.00	-1.82
VA8 - 2	1184.63	0.00 0.96	-11396.08 -8621.94	6540.76	22.01 -29.41	22.01	6.52 5.99	0.00 0.00	1.54
VA9 - 1	1111.50	0.00 0.18	-2344.23 -3596.43	1735.67	17.76 -8.75	17.76	3.01 3.44	0.00 0.00	0.10
VA9 - 2	1111.50	0.00 0.26	-3740.02 -3611.36	1951.10	3.43 18.25	18.25	3.56 3.52	0.00 0.00	-0.41
VA10 - 1	1111.50	0.00 0.16	-2892.53 -2214.39	1240.37	36.57 -41.91	36.57	3.03 2.77	0.02 -0.02	2.60
VA10 - 2	1111.50	0.00 0.08	-1817.93 -978.51	836.40	-44.29 9.94	9.94	2.43 2.01	-0.01 0.01	-2.14
VA11 - 1	1062.75	0.00 0.03	-287.15 -796.67	0.00	3.37 0.18	3.37	0.76 1.29	0.00 0.00	3.38
VA11 - 2	1062.75	0.00 0.06	-1501.97 965.92	1311.06	-2.04 1.26	1.26	2.45 0.86	0.00 0.00	-2.44

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VA11 - 3	1062.75	0.00 0.06	962.53 -1522.25	962.53	1.26 6.68	6.68	-1.91 2.99	-0.01 0.01	-2.44
VA12 - 1	1062.75	-0.02 0.00	0.00 2410.39	2787.08	0.00 3.19	3.19	2.43 0.89	0.00 0.00	0.31
VA12 - 2	1062.75	-0.02 0.00	2413.77 0.00	2413.77	3.19 0.00	3.19	-1.95 2.99	0.00 0.00	0.31
VA13	1014.00	0.00 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-0.24
VA14 - 1	1062.75	0.00 0.06	0.00 3085.87	3085.87	0.00 -1.33	0.00	3.50 -2.38	0.00 0.00	1.58
VA14 - 2	1062.75	0.00 0.06	3086.81 0.00	3242.56	-1.33 0.00	0.00	0.58 2.63	0.00 0.00	1.58
VA15	1014.00	-0.01 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.30
VA16	1014.00	0.00 0.01	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-0.97
VA17 - 1	1062.75	0.00 0.07	0.00 5422.44	5422.44	0.00 1.87	1.87	5.72 -4.61	0.00 0.00	-7.83
VA17 - 2	1062.75	0.00 0.07	5421.50 0.00	5421.50	-0.21 0.00	0.00	-0.40 3.42	0.00 0.00	1.96
VA18	1062.75	0.00 0.07	-404.48 243.40	468.06	-5.98 8.84	8.84	1.36 0.69	-0.01 0.01	1.78
VA19	1062.75	0.00 0.00	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-8.02
VA20	1062.75	-0.04 0.00	-11.28 0.00	484.57	8.15 0.00	8.15	1.03 1.02	0.00 0.00	0.44
VA21 - 1	1062.75	0.00 0.16	-2054.14 2864.04	2877.23	41.82 -42.62	41.82	3.24 0.17	0.03 -0.03	9.29
VA21 - 2	1062.75	0.00 0.15	2865.83 -2004.06	2865.83	4.00 -48.72	4.00	-1.18 3.43	0.02 -0.02	-4.78
VA22	1062.75	0.00 0.09	-687.65 -993.15	927.47	-9.58 13.06	13.06	1.85 2.02	-0.01 0.01	-0.07
VA23	1062.75	0.00 0.04	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.43
VA24 - 1	1111.50	0.00 0.15	-2390.95 -3546.37	1735.67	-93.17 64.89	64.89	3.03 3.43	-0.03 0.03	-9.68
VA24 - 2	1111.50	0.00 0.19	-3510.64 -3990.12	1882.07	19.44 66.75	66.75	3.46 3.61	-0.01 0.01	-0.38
VA25 - 1	1111.50	0.00 0.28	-4323.86 2525.87	2525.87	163.43 -107.29	163.43	4.64 -2.52	0.14 -0.14	7.50
VA25 - 2	1111.50	0.00 0.28	2529.70 -3330.45	2529.70	-107.29 -3.09	0.00	0.07 3.61	-0.03 0.03	7.50
VA25 - 3	1111.50	0.00 0.08	-2229.23 -902.67	702.13	6.37 -13.25	6.37	2.55 1.89	0.00 0.00	-0.04

CASO: 1.3G1+1.4G2+0.84V2+1.4D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.37	-2550.92 2532.23	2532.23	-8.31 1.15	1.15	3.65 -1.58	0.00 0.00	1.77
VA1 - 2	1062.75	0.00 0.37	2532.16 462.19	2532.16	1.15 -14.88	0.00	-1.41 2.53	0.02 -0.02	0.93
VA1 - 3	1062.75	0.00 0.37	463.04 -2712.46	463.04	-14.88 15.47	15.47	-5.15 5.77	-0.05 0.05	1.34
VA1 - 4	1062.75	0.00 0.06	-3162.31 670.82	1108.67	20.21 -18.19	20.21	3.01 0.97	0.01 -0.01	1.00
VA1 - 5	1062.75	0.00 0.05	672.94 -1722.56	672.94	-18.19 22.88	22.88	-4.39 4.93	-0.08 0.08	-6.62
VA1 - 6	1062.75	0.00 0.00	-2273.72 366.62	767.23	16.95 -7.58	16.95	2.54 0.92	0.01 -0.01	-0.94
VA2	1062.75	0.00	0.00	518.17	0.00	0.00	1.06	0.00	-3.97

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		0.00	0.00		0.00		1.06	0.00	
VA3 - 1	1062.75	0.00 0.00	0.00 -2145.08	1526.88	0.00 0.79	0.79	1.80 2.79	0.00 0.00	1.15
VA3 - 2	1062.75	0.00 0.00	-2153.22 6.61	6.61	10.56 0.00	10.56	2.21 -0.56	0.01 -0.01	0.00
VA4 - 1	1111.50	0.00 0.02	-2912.74 -2096.05	1022.41	71.69 -28.12	71.69	2.96 2.63	0.02 -0.02	1.27
VA4 - 2	1111.50	0.00 0.10	-2866.54 2549.18	2549.18	-8.57 -4.59	0.00	3.84 -1.66	0.00 0.00	-2.55
VA4 - 3	1111.50	0.00 0.10	2549.25 2251.31	2549.25	-4.59 2.42	0.00	-0.78 1.13	-0.02 0.02	-2.55
VA4 - 4	1111.50	0.00 0.10	2251.57 398.16	2251.57	2.42 21.02	0.00	-2.11 2.92	-0.03 0.03	-2.55
VA4 - 5	1111.50	0.00 0.10	397.30 -3356.37	397.30	21.02 -3.74	21.02	-6.42 7.04	0.04 -0.04	3.44
VA4 - 6	1111.50	-0.02 0.00	-5131.18 -721.97	0.00	-12.49 1.43	1.43	4.94 -3.83	-0.01 0.01	4.72
VA4 - 7	1111.50	-0.02 0.00	-721.45 1698.24	1698.24	1.43 -2.67	1.43	2.85 -1.65	0.00 0.00	-1.31
VA4 - 8	1111.50	-0.02 0.00	1697.34 1250.56	1900.19	-2.67 16.75	0.00	0.67 1.20	-0.01 0.01	-1.31
VA4 - 9	1111.50	-0.02 0.00	1256.55 -3010.95	1256.55	16.75 -25.17	16.75	-6.93 7.58	0.07 -0.07	-1.31
VA4 - 10	1111.50	-0.12 0.00	-3245.31 -273.18	0.00	-1.53 0.98	0.98	3.60 -2.52	0.00 0.00	1.95
VA4 - 11	1111.50	-0.12 0.00	-266.56 647.25	647.25	0.98 -1.32	0.98	1.97 -1.36	0.00 0.00	1.95
VA4 - 12	1111.50	-0.13 0.00	647.90 -449.47	694.76	-1.32 -2.66	0.00	0.34 1.60	0.00 0.00	1.95
VA4 - 13	1111.50	0.00 0.09	-2148.09 1115.45	1240.16	8.33 -36.16	8.33	2.75 0.53	0.02 -0.02	-2.31
VA5 - 1	1062.75	0.00 0.08	-1093.18 976.84	1016.01	8.54 0.85	8.54	2.12 0.30	0.00 0.00	-0.57
VA5 - 2	1062.75	0.00 0.08	976.57 -1569.32	976.57	0.85 -7.18	0.85	-1.28 2.65	0.01 -0.01	-0.57
VA5 - 3	1062.75	0.00 0.13	-3229.70 146.66	146.66	6.68 -2.49	6.68	3.89 -2.82	0.01 -0.01	0.68
VA5 - 4	1062.75	0.00 0.13	146.12 1515.49	1515.49	-2.49 6.88	0.00	1.84 -0.70	-0.01 0.01	0.68
VA5 - 5	1062.75	0.00 0.13	1516.39 -1866.18	1516.39	6.88 -8.17	6.88	-0.28 2.70	0.01 -0.01	0.68
VA5 - 6	1062.75	0.00 0.13	-2363.45 1009.17	1009.17	22.12 -20.38	22.12	3.03 -1.41	0.03 -0.03	-0.62
VA5 - 7	1062.75	0.00 0.14	1008.51 277.62	1070.96	-9.79 -59.44	0.00	0.38 1.30	0.03 -0.03	-14.09
VA6 - 1	1062.75	0.00 0.07	5.09 1430.41	1430.41	26.77 -7.89	26.77	1.74 -0.04	0.02 -0.02	2.28
VA6 - 2	1062.75	0.00 0.07	1437.03 -2384.96	1437.03	-7.89 9.24	9.24	-1.68 3.31	-0.01 0.01	2.28
VA7 - 1	1062.75	0.00 0.02	-1852.76 1773.29	1773.29	-30.69 10.56	10.56	3.14 -1.47	-0.03 0.03	-4.59
VA7 - 2	1062.75	0.00 0.02	1766.68 0.00	1766.68	10.56 0.00	10.56	-0.24 1.95	0.01 -0.01	-4.59
VA8 - 1	1184.63	0.00 0.66	-5955.65 -8311.87	3865.75	-34.26 6.81	6.81	4.82 5.37	0.00 0.00	-1.81
VA8 - 2	1184.63	0.00 1.06	-12701.73 -7005.10	6788.79	8.22 21.31	21.31	6.80 5.72	0.00 0.00	1.38
VA9 - 1	1111.50	0.00 0.16	-2388.71 -3548.72	1735.70	74.93 -67.16	74.93	3.03 3.43	0.02 -0.02	7.93
VA9 - 2	1111.50	0.00 0.22	-3696.50 -3616.52	1969.50	-42.87 7.92	7.92	3.55 3.53	-0.01 0.01	-0.31
VA10 - 1	1111.50	0.00 0.13	-2860.96 -2232.75	1245.06	23.34 -44.59	23.34	3.02 2.78	0.01 -0.01	-1.43



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VA10 - 2	1111.50	0.00 0.07	-1777.93 -1033.39	826.46	-64.51 58.22	58.22	2.41 2.03	-0.03 0.03	-7.16
VA11 - 1	1062.75	0.00 0.03	-275.28 -830.08	0.00	2.38 11.46	11.46	0.74 1.31	0.00 0.00	1.10
VA11 - 2	1062.75	0.00 0.05	-1526.70 972.33	1309.17	-8.06 3.17	3.17	2.46 0.85	0.00 0.00	-0.61
VA11 - 3	1062.75	0.00 0.05	968.36 -1506.27	968.36	3.17 10.40	10.40	-1.90 2.98	-0.01 0.01	-0.61
VA12 - 1	1062.75	-0.02 0.00	0.00 2409.93	2786.74	0.00 2.62	2.62	2.43 0.89	0.00 0.00	-0.07
VA12 - 2	1062.75	-0.02 0.00	2413.91 0.00	2413.91	2.62 0.00	2.62	-1.95 2.99	0.00 0.00	-0.07
VA13	1014.00	0.00 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.27
VA14 - 1	1062.75	0.00 0.07	0.00 3085.27	3085.27	0.00 -2.22	0.00	3.50 -2.38	0.00 0.00	0.85
VA14 - 2	1062.75	0.00 0.07	3086.41 0.00	3242.24	-2.22 0.00	0.00	0.58 2.63	0.00 0.00	0.85
VA15	1014.00	-0.02 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.54
VA16	1014.00	0.00 0.02	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-0.90
VA17 - 1	1062.75	0.00 0.08	0.00 5423.04	5423.04	0.00 4.83	4.83	5.72 -4.61	0.00 0.00	-5.99
VA17 - 2	1062.75	0.00 0.09	5421.89 0.00	5421.89	-4.95 0.00	0.00	-0.40 3.42	0.00 0.00	2.15
VA18	1062.75	0.00 0.07	-374.60 207.77	454.27	-22.50 29.28	29.28	1.33 0.72	-0.03 0.03	1.11
VA19	1062.75	0.00 0.01	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-6.61
VA20	1062.75	0.00 0.00	-13.47 0.00	483.59	-10.59 0.00	0.00	1.03 1.02	-0.01 0.01	0.65
VA21 - 1	1062.75	0.00 0.25	-2300.20 3512.14	3512.14	26.90 -42.12	26.90	3.52 -0.11	0.02 -0.02	4.41
VA21 - 2	1062.75	0.00 0.27	3514.42 -2305.15	3514.42	-68.90 24.14	24.14	-1.63 3.88	-0.04 0.04	-0.68
VA22	1062.75	0.00 0.13	-657.06 -1008.92	934.88	-12.42 15.69	15.69	1.84 2.03	-0.01 0.01	0.81
VA23	1062.75	0.00 0.03	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.61
VA24 - 1	1111.50	0.00 0.17	-2444.74 -3510.85	1725.00	-46.61 21.51	21.51	3.05 3.41	-0.01 0.01	-2.02
VA24 - 2	1111.50	0.00 0.27	-3646.53 -3860.67	1874.57	-4.20 -10.38	0.00	3.50 3.57	0.00 0.00	-0.40
VA25 - 1	1111.50	0.00 0.26	-4134.14 2166.70	2166.70	27.05 27.51	27.51	4.36 -2.23	0.00 0.00	1.46
VA25 - 2	1111.50	0.00 0.26	2171.29 -3003.11	2204.44	27.51 -29.22	27.51	0.28 3.40	0.02 -0.02	1.46
VA25 - 3	1111.50	0.00 0.11	-2257.85 -788.55	756.15	-43.50 19.00	19.00	2.59 1.85	-0.02 0.02	-2.98

CASO: 1.3G1+1.4G2+0.84V3+1.4D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.40	-1717.76 2540.77	2540.77	29.99 -3.09	29.99	3.22 -1.15	0.02 -0.02	3.67
VA1 - 2	1062.75	0.00 0.41	2540.79 25.40	2540.79	-3.09 -85.40	0.00	-1.84 2.95	0.08 -0.08	2.82
VA1 - 3	1062.75	0.00 0.40	26.48 -3395.42	26.48	-85.40 -8.48	0.00	-5.58 6.20	-0.13 0.13	2.80
VA1 - 4	1062.75	0.00	-2684.67	982.81	1.20	5.29	2.79	0.00	-0.37

		0.06	320.71		5.29		1.19	0.00	
VA1 - 5	1062.75	0.00 0.06	322.61 -2186.42	322.61	5.29 5.54	5.54	-4.61 5.15	0.00 0.00	-4.06
VA1 - 6	1062.75	-0.04 0.00	-1538.20 -532.24	419.82	9.53 -1.09	9.53	2.04 1.43	0.00 0.00	-2.50
VA2	1062.75	0.00 0.01	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-4.20
VA3 - 1	1062.75	0.00 0.00	0.00 -2143.58	1527.46	0.00 9.62	9.62	1.80 2.79	0.00 0.00	1.03
VA3 - 2	1062.75	0.00 0.00	-2152.40 7.43	7.43	-7.62 0.00	0.00	2.21 -0.56	0.00 0.00	0.00
VA4 - 1	1111.50	0.00 0.16	-1910.27 -2473.50	1329.84	33.99 -23.24	33.99	2.68 2.91	0.01 -0.01	0.81
VA4 - 2	1111.50	0.00 0.17	-2570.53 2175.92	2175.92	50.86 -24.93	50.86	3.50 -1.32	0.04 -0.04	4.05
VA4 - 3	1111.50	0.00 0.17	2175.91 1771.60	2175.91	-24.93 -17.64	0.00	-1.12 1.47	-0.02 0.02	4.05
VA4 - 4	1111.50	0.00 0.17	1771.65 -332.21	1771.65	-17.64 14.43	14.43	-2.45 3.26	-0.04 0.04	4.05
VA4 - 5	1111.50	0.00 0.17	-333.31 -4276.64	0.00	14.43 -81.77	14.43	-6.76 7.38	0.17 -0.17	-0.97
VA4 - 6	1111.50	0.00 0.05	-4330.13 -191.65	0.00	-57.08 -38.80	0.00	4.67 -3.56	-0.02 0.02	-2.34
VA4 - 7	1111.50	0.00 0.05	-191.25 1938.79	1938.79	-38.80 -6.65	0.00	2.58 -1.38	-0.03 0.03	-3.94
VA4 - 8	1111.50	0.00 0.05	1937.82 1036.98	2008.92	-6.65 29.50	0.00	0.40 1.47	-0.02 0.02	-3.94
VA4 - 9	1111.50	0.00 0.05	1043.88 -3381.89	1043.88	29.50 41.39	41.39	-7.19 7.85	-0.02 0.02	-3.94
VA4 - 10	1111.50	-0.03 0.00	-2973.37 -240.60	0.00	6.72 8.61	8.61	3.36 -2.28	0.00 0.00	2.29
VA4 - 11	1111.50	-0.03 0.00	-233.17 544.92	544.92	8.61 12.37	12.37	1.72 -1.11	-0.01 0.01	2.29
VA4 - 12	1111.50	-0.03 0.00	545.61 -984.33	545.61	12.37 -13.82	12.37	0.09 1.85	0.02 -0.02	2.29
VA4 - 13	1111.50	0.00 0.04	-997.82 -462.15	490.14	-9.51 -31.62	0.00	1.82 1.46	0.01 -0.01	-2.25
VA5 - 1	1062.75	0.00 0.11	-567.95 774.49	954.00	42.79 -5.71	42.79	1.80 0.62	0.02 -0.02	2.85
VA5 - 2	1062.75	0.00 0.11	774.44 -2185.43	774.44	-5.71 -59.45	0.00	-1.60 2.97	0.04 -0.04	2.85
VA5 - 3	1062.75	0.00 0.16	-2776.46 427.37	427.37	-47.12 -22.18	0.00	3.72 -2.65	-0.02 0.02	-2.33
VA5 - 4	1062.75	0.00 0.16	426.99 1611.77	1611.77	-22.18 -8.56	0.00	1.67 -0.53	-0.01 0.01	-2.33
VA5 - 5	1062.75	0.00 0.16	1612.75 -2160.20	1612.75	-8.56 39.45	39.45	-0.45 2.87	-0.02 0.02	-2.33
VA5 - 6	1062.75	0.00 0.09	-2064.97 930.94	930.94	9.81 -9.60	9.81	2.78 -1.16	0.01 -0.01	-1.62
VA5 - 7	1062.75	0.00 0.08	930.24 -189.79	933.00	-22.74 -8.31	0.00	0.13 1.55	-0.01 0.01	-11.55
VA6 - 1	1062.75	0.00 0.03	9.25 899.41	937.26	-28.79 -19.62	0.00	1.41 0.30	-0.01 0.01	2.88
VA6 - 2	1062.75	0.00 0.03	905.98 -3428.42	905.98	-19.62 42.68	42.68	-2.01 3.64	-0.04 0.04	2.88
VA7 - 1	1062.75	-0.07 0.00	-1141.16 2133.23	2133.23	-55.00 -0.08	0.00	2.92 -1.25	-0.03 0.03	-5.23
VA7 - 2	1062.75	-0.07 0.00	2126.66 0.00	2126.66	-0.08 0.00	0.00	-0.47 2.18	0.00 0.00	-5.23
VA8 - 1	1184.63	0.00 0.70	-5006.52 -9110.59	4002.43	-3.00 -12.85	0.00	4.62 5.58	0.00 0.00	0.50
VA8 - 2	1184.63	0.00 1.03	-12066.81 -7806.23	6650.45	-2.70 1.50	1.50	6.66 5.85	0.00 0.00	-0.36



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**Leilson Campos  
Rezende  
Rezende Engenharia**

**11/5/2021  
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VA9 - 1	1111.50	0.00 0.23	-1731.86 -4126.66	1834.41	9.59 -12.65	9.59	2.82 3.64	0.00 0.00	4.06
VA9 - 2	1111.50	0.00 0.28	-3278.68 -4060.23	1967.87	-33.44 29.97	29.97	3.42 3.66	-0.01 0.01	-0.22
VA10 - 1	1111.50	0.00 0.17	-2366.34 -2687.17	1263.42	12.44 -39.12	12.44	2.84 2.96	0.01 -0.01	0.49
VA10 - 2	1111.50	0.00 0.06	-1134.31 -1795.49	765.02	-82.89 101.30	101.30	2.06 2.39	-0.05 0.05	-4.80
VA11 - 1	1062.75	-0.01 0.00	549.56 -1271.58	549.56	-31.77 41.53	41.53	0.08 1.97	-0.04 0.04	2.28
VA11 - 2	1062.75	-0.03 0.00	-926.61 278.01	1027.43	-27.04 13.07	13.07	2.04 1.26	-0.01 0.01	-1.71
VA11 - 3	1062.75	-0.03 0.00	273.81 -2623.06	273.81	13.07 35.39	35.39	-2.32 3.40	-0.02 0.02	-1.71
VA12 - 1	1062.75	-0.06 0.00	0.00 2409.76	2786.62	0.00 6.79	6.79	2.43 0.90	0.00 0.00	0.02
VA12 - 2	1062.75	-0.06 0.00	2413.96 0.00	2413.96	6.79 0.00	6.79	-1.95 2.99	0.01 -0.01	0.02
VA13	1014.00	0.00 0.02	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.05
VA14 - 1	1062.75	0.00 0.21	0.00 3085.57	3085.57	0.00 3.02	3.02	3.50 -2.38	0.00 0.00	1.08
VA14 - 2	1062.75	0.00 0.21	3086.60 0.00	3242.38	3.02 0.00	3.02	0.58 2.63	0.00 0.00	1.08
VA15	1014.00	0.00 0.01	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.38
VA16	1014.00	-0.01 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-0.98
VA17 - 1	1062.75	0.00 0.00	0.00 5422.74	5422.74	0.00 -7.62	0.00	5.72 -4.61	0.01 -0.01	-6.90
VA17 - 2	1062.75	0.00 0.00	5421.71 0.00	5421.71	9.62 0.00	9.62	-0.40 3.42	0.00 0.00	1.92
VA18	1062.75	0.00 0.02	352.25 -518.71	502.55	29.65 -32.08	29.65	0.58 1.48	0.03 -0.03	1.43
VA19	1062.75	0.00 0.00	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-7.43
VA20	1062.75	-0.02 0.00	-9.93 0.00	485.17	13.14 0.00	13.14	1.03 1.02	0.01 -0.01	0.69
VA21 - 1	1062.75	0.00 0.21	-1709.18 3115.26	3134.32	50.28 -54.66	50.28	3.21 0.20	0.03 -0.03	6.67
VA21 - 2	1062.75	0.00 0.20	3118.14 -2646.05	3118.14	-25.87 -24.29	0.00	-1.61 3.85	0.00 0.00	-2.58
VA22	1062.75	0.00 0.09	143.79 -1967.97	1011.31	-1.34 2.45	2.45	1.36 2.52	0.00 0.00	0.20
VA23	1062.75	0.00 0.03	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.57
VA24 - 1	1111.50	0.00 0.22	-1667.93 -4184.24	1843.86	-38.96 24.05	24.05	2.80 3.66	-0.01 0.01	-5.79
VA24 - 2	1111.50	0.00 0.27	-3057.20 -4451.28	1892.96	17.12 18.07	18.07	3.32 3.76	0.00 0.00	-0.23
VA25 - 1	1111.50	0.00 0.30	-3610.59 2508.04	2508.04	104.65 -35.99	104.65	4.26 -2.13	0.07 -0.07	4.36
VA25 - 2	1111.50	0.00 0.30	2513.26 -3716.60	2513.26	-35.99 -37.96	0.00	-0.04 3.72	0.00 0.00	4.36
VA25 - 3	1111.50	0.00 0.08	-1443.68 -1779.45	609.79	25.29 -55.54	25.29	2.14 2.30	0.02 -0.02	-1.69

**CASO: 1.3G1+1.4G2+0.84V4+1.4D4**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00	-1876.83	2526.90	-51.78	5.71	3.30	-0.03	0.05

		0.41	2526.90		5.71		-1.23	0.03	
VA1 - 2	1062.75	0.00 0.41	2527.12 90.42	2527.12	5.71 56.91	0.00	-1.76 2.88	-0.05 0.05	-0.80
VA1 - 3	1062.75	0.00 0.41	91.76 -3286.62	91.76	56.91 35.85	56.91	-5.50 6.12	0.04 -0.04	-0.77
VA1 - 4	1062.75	0.00 0.08	-2784.24 385.47	1001.92	37.88 -39.12	37.88	2.84 1.15	0.02 -0.02	1.45
VA1 - 5	1062.75	0.00 0.07	387.65 -2098.83	387.65	-39.12 35.67	35.67	-4.56 5.11	-0.15 0.15	-2.98
VA1 - 6	1062.75	-0.01 0.00	-1700.15 -303.23	498.80	23.88 -12.02	23.88	2.16 1.31	0.01 -0.01	0.74
VA2	1062.75	0.00 0.00	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-3.15
VA3 - 1	1062.75	0.00 0.01	0.00 -2143.53	1527.47	0.00 -6.32	0.00	1.80 2.79	0.00 0.00	1.06
VA3 - 2	1062.75	0.00 0.00	-2152.64 7.20	7.20	22.78 0.00	22.78	2.21 -0.56	0.01 -0.01	0.00
VA4 - 1	1111.50	0.00 0.24	-1868.82 -2502.43	1337.51	66.13 -11.45	66.13	2.67 2.92	0.02 -0.02	1.70
VA4 - 2	1111.50	0.00 0.29	-2592.39 2188.18	2188.18	-66.53 14.05	14.05	3.52 -1.33	-0.04 0.04	-5.89
VA4 - 3	1111.50	0.00 0.29	2187.96 1789.00	2187.96	14.05 20.88	0.00	-1.10 1.45	-0.02 0.02	-5.89
VA4 - 4	1111.50	0.00 0.29	1788.98 -302.30	1788.98	20.88 26.15	26.15	-2.43 3.25	-0.01 0.01	-5.89
VA4 - 5	1111.50	0.00 0.29	-303.52 -4237.33	0.00	26.15 75.68	75.68	-6.74 7.36	-0.09 0.09	-10.47
VA4 - 6	1111.50	0.00 0.18	-4280.90 -163.29	0.00	32.23 41.25	41.25	4.65 -3.54	-0.01 0.01	4.83
VA4 - 7	1111.50	0.00 0.18	-162.87 1944.84	1944.84	41.25 3.43	41.25	2.56 -1.36	0.04 -0.04	3.46
VA4 - 8	1111.50	0.00 0.18	1943.95 1008.11	2006.30	3.43 3.22	0.00	0.38 1.49	0.00 0.00	3.46
VA4 - 9	1111.50	0.00 0.19	1015.03 -3422.96	1015.03	3.22 -86.57	3.22	-7.22 7.87	0.15 -0.15	3.46
VA4 - 10	1111.50	0.00 0.02	-3057.74 -276.83	0.00	-25.74 -3.42	0.00	3.41 -2.33	-0.02 0.02	1.65
VA4 - 11	1111.50	0.00 0.02	-269.63 535.75	535.75	-3.42 1.20	1.20	1.77 -1.16	-0.01 0.01	1.65
VA4 - 12	1111.50	0.00 0.01	536.16 -903.01	540.30	1.20 -4.25	1.20	0.14 1.79	0.00 0.00	1.65
VA4 - 13	1111.50	0.00 0.09	-958.58 -461.30	507.45	5.14 11.23	11.23	1.81 1.47	0.00 0.00	-2.27
VA5 - 1	1062.75	0.00 0.03	-544.57 748.87	941.75	-38.92 7.98	7.98	1.78 0.64	-0.02 0.02	-4.11
VA5 - 2	1062.75	0.00 0.03	748.89 -2238.86	748.89	7.98 53.64	53.64	-1.62 3.00	-0.04 0.04	-4.11
VA5 - 3	1062.75	0.00 0.07	-2763.41 436.93	436.93	55.51 16.84	55.51	3.72 -2.65	0.04 -0.04	3.74
VA5 - 4	1062.75	0.00 0.07	436.47 1617.51	1617.51	16.84 21.35	0.00	1.67 -0.53	0.00 0.00	3.74
VA5 - 5	1062.75	0.00 0.07	1618.41 -2162.46	1618.41	21.35 -48.82	21.35	-0.45 2.87	0.03 -0.03	3.74
VA5 - 6	1062.75	0.00 0.10	-1989.71 938.93	938.93	14.73 -21.40	14.73	2.73 -1.12	0.02 -0.02	0.37
VA5 - 7	1062.75	0.00 0.10	938.52 -255.53	938.52	-5.82 -25.18	0.00	0.09 1.60	0.01 -0.01	-14.46
VA6 - 1	1062.75	0.00 0.03	9.92 803.50	860.74	8.94 -11.08	0.00	1.35 0.36	0.01 -0.01	1.20
VA6 - 2	1062.75	0.00 0.03	809.98 -3616.89	809.98	-11.08 22.72	22.72	-2.07 3.70	-0.02 0.02	1.20
VA7 - 1	1062.75	-0.08 0.00	-993.45 2207.90	2207.90	-38.15 8.15	8.15	2.87 -1.20	-0.03 0.03	-3.20



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**Leilson Campos  
Rezende  
Rezende Engenharia**

**11/5/2021  
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VA7 - 2	1062.75	-0.08 0.00	2201.43 0.00	2201.43	8.15 0.00	8.15	-0.51 2.22	0.01 -0.01	-3.20
VA8 - 1	1184.63	0.00 0.66	-5060.60 -9042.74	4004.56	-8.88 13.79	13.79	4.64 5.56	0.00 0.00	-4.12
VA8 - 2	1184.63	0.00 0.99	-12031.00 -7820.81	6659.13	32.93 -9.60	32.93	6.65 5.86	0.00 0.00	3.28
VA9 - 1	1111.50	0.00 0.12	-3001.08 -3018.49	1674.93	83.10 -63.25	83.10	3.23 3.23	0.03 -0.03	3.97
VA9 - 2	1111.50	0.00 0.21	-4157.84 -3167.65	1977.94	-5.99 -3.81	0.00	3.69 3.38	0.00 0.00	-0.50
VA10 - 1	1111.50	0.00 0.12	-3387.15 -1759.97	1256.78	47.48 -47.38	47.48	3.21 2.59	0.02 -0.02	0.68
VA10 - 2	1111.50	0.00 0.09	-2461.55 -216.41	1021.45	-25.91 -33.14	0.00	2.78 1.66	0.00 0.00	-4.49
VA11 - 1	1062.75	0.00 0.07	-1111.99 -355.17	0.00	37.52 -29.89	37.52	1.42 0.63	0.03 -0.03	2.19
VA11 - 2	1062.75	0.00 0.14	-2102.06 1660.23	1751.42	16.94 -8.64	16.94	2.86 0.44	0.01 -0.01	-1.35
VA11 - 3	1062.75	0.00 0.14	1657.08 -405.46	1657.08	-8.64 -18.32	0.00	-1.50 2.57	0.01 -0.01	-1.35
VA12 - 1	1062.75	0.00 0.02	0.00 2410.56	2787.20	0.00 -0.98	0.00	2.43 0.89	0.00 0.00	0.22
VA12 - 2	1062.75	0.00 0.02	2413.71 0.00	2413.71	-0.98 0.00	0.00	-1.95 2.99	0.00 0.00	0.22
VA13	1014.00	-0.01 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-0.02
VA14 - 1	1062.75	-0.09 0.00	0.00 3085.57	3085.57	0.00 -6.57	0.00	3.50 -2.38	0.01 -0.01	1.35
VA14 - 2	1062.75	-0.08 0.00	3086.63 0.00	3242.41	-6.57 0.00	0.00	0.58 2.63	0.00 0.00	1.35
VA15	1014.00	-0.04 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.46
VA16	1014.00	0.00 0.04	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-0.89
VA17 - 1	1062.75	0.00 0.15	0.00 5422.74	5422.74	0.00 14.32	14.32	5.72 -4.61	-0.01 0.01	-6.92
VA17 - 2	1062.75	0.00 0.17	5421.68 0.00	5421.68	-14.78 0.00	0.00	-0.40 3.42	-0.01 0.01	2.19
VA18	1062.75	0.00 0.11	-1131.32 969.88	969.88	-58.12 70.20	70.20	2.11 -0.06	-0.07 0.07	1.46
VA19	1062.75	0.00 0.01	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-7.20
VA20	1062.75	-0.01 0.00	-14.82 0.00	482.99	-15.58 0.00	0.00	1.03 1.02	-0.01 0.01	0.41
VA21 - 1	1062.75	0.00 0.21	-2645.16 3260.91	3260.91	18.44 -30.09	18.44	3.55 -0.14	0.02 -0.02	7.03
VA21 - 2	1062.75	0.00 0.22	3262.10 -1663.16	3262.10	-39.03 -0.28	0.00	-1.21 3.45	-0.02 0.02	-2.89
VA22	1062.75	0.00 0.13	-1488.50 -34.11	1080.86	-20.65 26.29	26.29	2.34 1.54	-0.01 0.01	0.53
VA23	1062.75	0.00 0.03	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.47
VA24 - 1	1111.50	0.00 0.10	-3167.76 -2872.98	1669.12	-100.82 62.36	62.36	3.28 3.18	-0.03 0.03	-5.90
VA24 - 2	1111.50	0.00 0.19	-4099.98 -3399.50	1886.27	-1.87 38.29	38.29	3.65 3.43	-0.01 0.01	-0.55
VA25 - 1	1111.50	0.00 0.25	-4847.41 2184.53	2184.53	85.83 -43.79	85.83	4.74 -2.61	0.07 -0.07	4.60
VA25 - 2	1111.50	0.00 0.24	2187.73 -2616.96	2252.71	-43.79 5.65	5.65	0.39 3.29	-0.01 0.01	4.60
VA25 - 3	1111.50	0.00 0.11	-3043.40 88.23	1016.81	-62.41 61.29	61.29	3.00 1.44	-0.03 0.03	-1.32



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Leilson Campos  
Rezende  
Rezende Engenharia


11/5/2021  
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**CASO: 1.3G1+1.4G2+0.98Q+0.84V1+1.4D1**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Yi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.43	-1165.42 2590.58	2590.58	-59.73 3.96	3.96	2.96 -0.90	-0.03 0.03	-0.75
VA1 - 2	1062.75	0.00 0.44	2590.78 -195.89	2590.78	3.96 -75.21	3.96	-2.09 3.21	0.08 -0.08	-1.62
VA1 - 3	1062.75	0.00 0.42	-194.27 -3766.29	0.00	-75.21 127.07	127.07	-5.84 6.45	-0.35 0.35	-1.88
VA1 - 4	1062.75	-0.27 0.00	-2427.35 77.88	900.94	111.59 -84.21	111.59	2.66 1.32	0.05 -0.05	0.14
VA1 - 5	1062.75	-0.29 0.00	79.93 -2497.65	79.93	-84.21 109.86	109.86	-4.74 5.29	-0.38 0.38	-0.84
VA1 - 6	1062.75	-0.33 0.00	-775.02 -1474.89	310.95	88.47 -44.35	88.47	1.52 1.95	0.04 -0.04	1.08
VA2	1062.75	0.00 0.00	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-3.73
VA3 - 1	1062.75	0.00 0.01	0.00 -2141.03	1528.43	0.00 16.27	16.27	1.80 2.79	0.00 0.00	0.86
VA3 - 2	1062.75	0.00 0.00	-2150.95 8.89	8.89	49.11 0.00	49.11	2.21 -0.56	0.03 -0.03	0.00
VA4 - 1	1111.50	0.00 0.36	-978.67 -2812.63	1679.85	48.94 -29.32	48.94	2.43 3.16	0.02 -0.02	1.09
VA4 - 2	1111.50	0.00 0.39	-2258.76 1850.43	1850.43	-61.83 -31.92	0.00	3.18 -0.99	-0.02 0.02	0.14
VA4 - 3	1111.50	0.00 0.39	1850.23 1344.59	1850.23	-31.92 6.74	0.00	-1.44 1.79	-0.12 0.12	0.14
VA4 - 4	1111.50	0.00 0.39	1344.42 -998.02	1344.42	6.74 137.85	137.85	-2.77 3.59	-0.18 0.18	0.14
VA4 - 5	1111.50	0.00 0.38	-999.53 -5123.66	0.00	137.85 -4.82	137.85	-7.09 7.71	0.26 -0.26	-14.91
VA4 - 6	1111.50	0.00 0.14	-3680.16 259.72	259.72	-36.67 -1.65	0.00	4.48 -3.36	-0.03 0.03	-0.64
VA4 - 7	1111.50	0.00 0.14	259.89 2177.45	2177.45	-1.65 -0.13	0.00	2.38 -1.18	0.00 0.00	1.53
VA4 - 8	1111.50	0.00 0.14	2176.25 942.33	2194.86	-0.13 92.99	0.00	0.21 1.67	-0.06 0.06	1.53
VA4 - 9	1111.50	0.00 0.16	950.18 -3591.54	950.18	92.99 -108.89	92.99	-7.39 8.05	0.34 -0.34	1.53
VA4 - 10	1111.50	-0.02 0.00	-2556.50 -144.55	0.00	-39.68 10.54	10.54	3.03 -1.95	-0.05 0.05	1.76
VA4 - 11	1111.50	-0.02 0.00	-135.66 460.52	460.52	10.54 21.68	21.68	1.39 -0.78	-0.02 0.02	1.76
VA4 - 12	1111.50	-0.03 0.00	461.37 -1642.23	461.37	21.68 -54.41	21.68	-0.24 2.18	0.04 -0.04	1.76
VA4 - 13	1111.50	0.00 0.02	201.77 -2070.46	537.45	-20.39 7.01	7.01	0.87 2.41	-0.01 0.01	-2.35
VA5 - 1	1062.75	0.00 0.02	-24.63 547.50	976.03	-55.51 27.66	27.66	1.46 0.96	-0.04 0.04	-1.69
VA5 - 2	1062.75	0.00 0.02	547.68 -2850.49	547.68	27.66 4.57	27.66	-1.94 3.31	0.02 -0.02	-1.69
VA5 - 3	1062.75	0.00 0.04	-2289.48 730.77	730.77	-1.05 -0.33	0.00	3.54 -2.47	0.00 0.00	1.34
VA5 - 4	1062.75	0.00 0.04	730.60 1718.97	1718.97	-0.33 35.09	0.00	1.49 -0.35	-0.03 0.03	1.34
VA5 - 5	1062.75	0.00 0.04	1720.17 -2468.19	1720.17	35.09 -12.40	35.09	-0.63 3.05	0.02 -0.02	1.34
VA5 - 6	1062.75	0.00 0.05	-1677.35 859.95	859.95	43.31 -37.90	43.31	2.48 -0.86	0.05 -0.05	-0.54
VA5 - 7	1062.75	0.00 0.06	859.10 -739.89	859.10	-15.46 1.23	1.23	-0.17 1.85	-0.01 0.01	-12.49
VA6 - 1	1062.75	0.00	14.08	494.96	-41.59	0.00	1.01	-0.01	1.85

		0.01	272.21		-22.42		0.69	0.01	
VA6 - 2	1062.75	0.00 0.01	278.65 -4660.90	278.65	-22.42 56.65	56.65	-2.41 4.04	-0.05 0.05	1.85
VA7 - 1	1062.75	-0.17 0.00	-284.94 2566.28	2566.28	-63.22 -0.51	0.00	2.65 -0.98	-0.04 0.04	-3.88
VA7 - 2	1062.75	-0.17 0.00	2559.85 0.00	2559.85	-0.51 0.00	0.00	-0.74 2.45	0.00 0.00	-3.88
VA8 - 1	1184.63	0.00 0.70	-4110.20 -9842.20	4179.44	22.19 -5.17	22.19	4.43 5.76	0.00 0.00	-1.85
VA8 - 2	1184.63	0.00 0.96	-11394.69 -8623.05	6540.85	22.04 -29.19	22.04	6.52 5.99	0.00 0.00	1.61
VA9 - 1	1111.50	0.00 0.18	-2358.64 -3583.84	1734.30	18.43 -9.16	18.43	3.02 3.44	0.00 0.00	0.11
VA9 - 2	1111.50	0.00 0.26	-3750.18 -3600.89	1951.59	3.71 17.76	17.76	3.56 3.51	0.00 0.00	-0.41
VA10 - 1	1111.50	0.00 0.15	-2903.89 -2204.75	1240.32	36.62 -41.20	36.62	3.04 2.77	0.01 -0.01	2.60
VA10 - 2	1111.50	0.00 0.08	-1834.52 -958.52	839.05	-44.36 11.30	11.30	2.44 2.00	-0.01 0.01	-2.09
VA11 - 1	1062.75	-0.07 0.00	-250.60 -394.32	175.11	50.65 -34.34	50.65	0.95 1.10	0.04 -0.04	3.31
VA11 - 2	1062.75	-0.47 0.00	-1259.64 571.10	1100.91	1.01 -3.18	1.01	2.24 1.06	0.00 0.00	-2.45
VA11 - 3	1062.75	-0.47 0.00	567.37 -2125.25	567.37	-3.18 -3.88	0.00	-2.12 3.20	0.00 0.00	-2.45
VA12 - 1	1062.75	-0.11 0.00	0.00 2410.12	2786.88	0.00 0.49	0.49	2.43 0.89	0.00 0.00	0.20
VA12 - 2	1062.75	-0.11 0.00	2413.85 0.00	2413.85	0.49 0.00	0.49	-1.95 2.99	0.00 0.00	0.20
VA13	1014.00	0.00 0.05	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-0.18
VA14 - 1	1062.75	0.00 0.43	0.00 3086.07	3086.07	0.00 -7.84	0.00	3.50 -2.38	0.01 -0.01	1.62
VA14 - 2	1062.75	0.00 0.42	3086.93 0.00	3242.65	-7.84 0.00	0.00	0.58 2.63	0.00 0.00	1.62
VA15	1014.00	-0.03 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.17
VA16	1014.00	0.00 0.05	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-1.20
VA17 - 1	1062.75	0.00 0.40	0.00 5422.24	5422.24	0.00 16.58	16.58	5.72 -4.61	-0.02 0.02	-7.85
VA17 - 2	1062.75	0.00 0.43	5421.39 0.00	5421.39	-16.26 0.00	0.00	-0.40 3.42	-0.01 0.01	2.06
VA18	1062.75	0.00 0.21	-679.42 475.53	561.58	-54.04 77.19	77.19	1.62 0.43	-0.07 0.07	1.87
VA19	1062.75	0.00 0.03	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-8.89
VA20	1062.75	-0.06 0.00	-11.95 0.00	484.27	-22.44 0.00	0.00	1.03 1.02	-0.01 0.01	0.85
VA21 - 1	1062.75	0.00 0.17	-2030.45 2858.77	2873.78	42.85 -45.31	42.85	3.23 0.18	0.03 -0.03	9.29
VA21 - 2	1062.75	0.00 0.16	2860.62 -2027.94	2860.62	-3.72 -30.80	0.00	-1.19 3.44	0.01 -0.01	-4.79
VA22	1062.75	0.00 0.14	-550.57 -1104.68	949.20	-43.00 62.07	62.07	1.79 2.09	-0.03 0.03	-0.37
VA23	1062.75	0.00 0.04	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.44
VA24 - 1	1111.50	0.00 0.15	-2331.28 -3599.16	1741.05	-94.84 66.20	66.20	3.01 3.45	-0.03 0.03	-9.68
VA24 - 2	1111.50	0.00 0.20	-3468.11 -4033.08	1883.23	18.43 67.89	67.89	3.45 3.63	-0.01 0.01	-0.38
VA25 - 1	1111.50	0.00 0.28	-4274.64 2539.88	2539.88	162.16 -108.48	162.16	4.62 -2.50	0.14 -0.14	7.50




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	Leilson Campos Rezende Rezende Engenharia	11/5/2021 12:14:59

VA25 - 2	1111.50	0.00 0.28	2543.77 -3374.05	2543.77	-108.48 0.34	0.34	0.05 3.63	-0.03 0.03	7.50
VA25 - 3	1111.50	0.00 0.08	-2155.95 -990.00	682.42	13.84 -29.74	13.84	2.51 1.93	0.01 -0.01	0.03

CASO: 1.3G1+1.4G2+0.98Q+0.84V2+1.4D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.36	-2672.68 2587.37	2587.37	-54.56 3.65	3.65	3.74 -1.67	-0.03 0.03	-0.94
VA1 - 2	1062.75	0.00 0.36	2587.19 612.66	2587.19	3.65 -76.48	0.00	-1.32 2.44	0.08 -0.08	-1.79
VA1 - 3	1062.75	0.00 0.34	613.56 -2509.16	613.56	-76.48 130.64	130.64	-5.06 5.68	-0.36 0.36	-1.23
VA1 - 4	1062.75	-0.29 0.00	-3283.05 713.34	1114.91	112.92 -86.77	112.92	3.06 0.92	0.05 -0.05	1.07
VA1 - 5	1062.75	-0.32 0.00	715.56 -1657.52	715.56	-86.77 114.41	114.41	-4.34 4.89	-0.39 0.39	-7.03
VA1 - 6	1062.75	-0.28 0.00	-2084.10 93.81	628.59	88.96 -46.39	88.96	2.40 1.07	0.04 -0.04	0.95
VA2	1062.75	0.00 0.00	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-4.33
VA3 - 1	1062.75	0.00 0.01	0.00 -2144.08	1527.26	0.00 14.55	14.55	1.80 2.79	0.00 0.00	1.06
VA3 - 2	1062.75	0.00 0.00	-2152.36 7.48	7.48	55.08 0.00	55.08	2.21 -0.56	0.04 -0.04	0.00
VA4 - 1	1111.50	-0.01 0.00	-3025.06 -2028.79	1003.47	92.20 -50.88	92.20	2.99 2.60	0.03 -0.03	1.12
VA4 - 2	1111.50	0.00 0.13	-2828.92 2584.68	2584.68	-63.31 -30.20	0.00	3.84 -1.65	-0.02 0.02	-3.11
VA4 - 3	1111.50	0.00 0.13	2584.87 2286.61	2584.87	-30.20 8.35	0.00	-0.78 1.13	-0.12 0.12	-3.11
VA4 - 4	1111.50	0.00 0.13	2286.94 432.80	2286.94	8.35 139.30	0.00	-2.11 2.93	-0.18 0.18	-3.11
VA4 - 5	1111.50	0.00 0.12	431.90 -3322.42	431.90	139.30 -6.21	139.30	-6.42 7.04	0.26 -0.26	3.40
VA4 - 6	1111.50	-0.13 0.00	-5331.48 -829.28	0.00	-36.81 -1.24	0.00	5.04 -3.92	-0.04 0.04	6.32
VA4 - 7	1111.50	-0.13 0.00	-828.89 1690.29	1690.29	-1.24 -2.24	0.00	2.94 -1.74	0.00 0.00	-0.61
VA4 - 8	1111.50	-0.13 0.00	1689.16 1398.35	1950.50	-2.24 93.77	0.00	0.76 1.11	-0.06 0.06	-0.61
VA4 - 9	1111.50	-0.11 0.00	1404.38 -2808.59	1404.38	93.77 -114.06	93.77	-6.83 7.49	0.35 -0.35	-0.61
VA4 - 10	1111.50	-0.25 0.00	-3016.01 -173.47	0.00	-23.72 7.31	7.31	3.47 -2.39	-0.03 0.03	1.72
VA4 - 11	1111.50	-0.25 0.00	-165.99 674.34	674.34	7.31 5.46	7.31	1.83 -1.22	0.00 0.00	1.72
VA4 - 12	1111.50	-0.27 0.00	675.40 -653.82	693.28	5.46 -41.66	5.46	0.20 1.73	0.03 -0.03	1.72
VA4 - 13	1111.50	0.00 0.08	-2138.02 1083.89	1214.56	0.64 -44.93	0.64	2.73 0.54	0.02 -0.02	-2.45
VA5 - 1	1062.75	0.00 0.03	-1098.45 977.83	1016.43	-42.30 27.10	27.10	2.12 0.30	-0.03 0.03	-1.56
VA5 - 2	1062.75	0.00 0.03	977.50 -1564.84	977.50	27.10 -3.97	27.10	-1.28 2.65	0.02 -0.02	-1.56
VA5 - 3	1062.75	0.00 0.08	-3209.00 159.79	159.79	3.91 0.03	3.91	3.88 -2.82	0.00 0.00	1.28
VA5 - 4	1062.75	0.00 0.08	159.38 1520.66	1520.66	0.03 36.07	0.00	1.84 -0.69	-0.03 0.03	1.28
VA5 - 5	1062.75	0.00	1521.79	1521.79	36.07	36.07	-0.29	0.02	1.28



		0.08	-1877.89		-19.37		2.70	-0.02	
VA5 - 6	1062.75	0.00 0.13	-2349.57 1008.42	1008.42	63.02 -47.67	63.02	3.02 -1.40	0.07 -0.07	-0.52
VA5 - 7	1062.75	0.00 0.15	1007.36 260.69	1065.29	-6.49 -84.16	0.00	0.37 1.31	0.05 -0.05	-14.67
VA6 - 1	1062.75	0.00 0.08	5.10 1430.13	1430.13	31.81 -7.51	31.81	1.74 -0.04	0.02 -0.02	2.33
VA6 - 2	1062.75	0.00 0.08	1436.75 -2385.51	1436.75	-7.51 9.73	9.73	-1.68 3.31	-0.01 0.01	2.33
VA7 - 1	1062.75	0.00 0.02	-1855.83 1771.74	1771.74	-31.45 12.54	12.54	3.14 -1.47	-0.03 0.03	-4.65
VA7 - 2	1062.75	0.00 0.02	1765.12 0.00	1765.12	12.54 0.00	12.54	-0.24 1.95	0.01 -0.01	-4.65
VA8 - 1	1184.63	0.00 0.66	-5954.37 -8312.61	3866.09	-34.45 7.52	7.52	4.82 5.37	0.00 0.00	-1.84
VA8 - 2	1184.63	0.00 1.06	-12700.34 -7006.20	6788.83	8.24 21.54	21.54	6.80 5.72	0.00 0.00	1.45
VA9 - 1	1111.50	0.00 0.16	-2403.13 -3536.13	1734.32	75.61 -67.56	75.61	3.03 3.42	0.02 -0.02	7.93
VA9 - 2	1111.50	0.00 0.22	-3706.66 -3606.05	1969.99	-42.59 7.43	7.43	3.55 3.52	-0.01 0.01	-0.31
VA10 - 1	1111.50	0.00 0.13	-2872.32 -2223.11	1245.00	23.39 -43.88	23.39	3.03 2.78	0.01 -0.01	-1.43
VA10 - 2	1111.50	0.00 0.07	-1794.52 -1013.40	829.11	-64.59 59.57	59.57	2.42 2.03	-0.03 0.03	-7.11
VA11 - 1	1062.75	-0.06 0.00	-238.73 -427.73	166.85	49.66 -23.06	49.66	0.93 1.12	0.04 -0.04	1.03
VA11 - 2	1062.75	-0.48 0.00	-1284.37 577.52	1096.95	-5.02 -1.27	0.00	2.25 1.05	0.00 0.00	-0.62
VA11 - 3	1062.75	-0.48 0.00	573.19 -2109.27	573.19	-1.27 -0.16	0.00	-2.11 3.19	0.00 0.00	-0.62
VA12 - 1	1062.75	-0.11 0.00	0.00 2409.66	2786.55	0.00 -0.09	0.00	2.43 0.90	0.00 0.00	-0.18
VA12 - 2	1062.75	-0.11 0.00	2413.99 0.00	2413.99	-0.09 0.00	0.00	-1.95 2.99	0.00 0.00	-0.18
VA13	1014.00	0.00 0.05	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.33
VA14 - 1	1062.75	0.00 0.44	0.00 3085.47	3085.47	0.00 -8.74	0.00	3.50 -2.38	0.01 -0.01	0.90
VA14 - 2	1062.75	0.00 0.43	3086.53 0.00	3242.33	-8.74 0.00	0.00	0.58 2.63	0.00 0.00	0.90
VA15	1014.00	-0.04 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.41
VA16	1014.00	0.00 0.06	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-1.14
VA17 - 1	1062.75	0.00 0.41	0.00 5422.84	5422.84	0.00 19.54	19.54	5.72 -4.61	-0.02 0.02	-6.02
VA17 - 2	1062.75	0.00 0.45	5421.78 0.00	5421.78	-20.99 0.00	0.00	-0.40 3.42	-0.01 0.01	2.26
VA18	1062.75	0.00 0.21	-649.54 439.90	540.51	-70.56 97.63	97.63	1.59 0.46	-0.09 0.09	1.21
VA19	1062.75	0.00 0.04	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-7.48
VA20	1062.75	-0.02 0.00	-14.15 0.00	483.29	-41.17 0.00	0.00	1.03 1.02	-0.02 0.02	1.06
VA21 - 1	1062.75	0.00 0.26	-2276.51 3506.87	3506.87	27.93 -44.81	27.93	3.51 -0.10	0.02 -0.02	4.41
VA21 - 2	1062.75	0.00 0.28	3509.21 -2329.03	3509.21	-76.61 42.06	42.06	-1.64 3.89	-0.06 0.06	-0.69
VA22	1062.75	0.00 0.17	-519.99 -1120.44	959.19	-45.84 64.70	64.70	1.77 2.10	-0.03 0.03	0.50
VA23	1062.75	0.00 0.04	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.62

	AltoQi Eberick 2018 Plena	
	Leilson Campos Rezende Rezende Engenharia	11/5/2021 12:14:59

VA24 - 1	1111.50	0.00 0.18	-2385.07 -3563.64	1730.38	-48.28 22.82	22.82	3.03 3.43	-0.01 0.01	-2.01
VA24 - 2	1111.50	0.00 0.27	-3604.00 -3903.62	1875.74	-5.21 -9.24	0.00	3.49 3.58	0.00 0.00	-0.40
VA25 - 1	1111.50	0.00 0.27	-4084.91 2180.71	2180.71	25.78 26.32	26.32	4.34 -2.21	0.00 0.00	1.46
VA25 - 2	1111.50	0.00 0.26	2185.36 -3046.71	2214.90	26.32 -25.80	26.32	0.26 3.42	0.02 -0.02	1.46
VA25 - 3	1111.50	0.00 0.11	-2184.57 -875.88	736.45	-36.03 2.51	2.51	2.55 1.89	-0.01 0.01	-2.90

CASO: 1.3G1+1.4G2+0.98Q+0.84V3+1.4D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.39	-1839.51 2595.91	2595.91	-16.26 -0.60	0.00	3.31 -1.25	-0.01 0.01	0.96
VA1 - 2	1062.75	0.00 0.40	2595.82 175.88	2595.82	-0.60 -147.00	0.00	-1.74 2.86	0.14 -0.14	0.10
VA1 - 3	1062.75	0.00 0.37	177.01 -3192.12	177.01	-147.00 106.69	106.69	-5.49 6.10	-0.44 0.44	0.23
VA1 - 4	1062.75	-0.29 0.00	-2805.41 363.22	979.97	93.92 -63.28	93.92	2.84 1.15	0.04 -0.04	-0.30
VA1 - 5	1062.75	-0.31 0.00	365.22 -2121.39	365.22	-63.28 97.07	97.07	-4.56 5.11	-0.31 0.31	-4.47
VA1 - 6	1062.75	-0.32 0.00	-1348.58 -805.05	349.32	81.54 -39.91	81.54	1.90 1.57	0.04 -0.04	-0.61
VA2	1062.75	0.00 0.01	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-4.55
VA3 - 1	1062.75	0.00 0.00	0.00 -2142.58	1527.84	0.00 23.38	23.38	1.80 2.79	-0.01 0.01	0.94
VA3 - 2	1062.75	0.00 0.00	-2151.54 8.30	8.30	36.90 0.00	36.90	2.21 -0.56	0.02 -0.02	0.00
VA4 - 1	1111.50	0.00 0.14	-2022.59 -2406.25	1303.72	54.50 -46.00	54.50	2.72 2.87	0.02 -0.02	0.66
VA4 - 2	1111.50	0.00 0.20	-2532.91 2211.43	2211.43	-3.87 -50.55	0.00	3.50 -1.31	0.02 -0.02	3.49
VA4 - 3	1111.50	0.00 0.20	2211.52 1806.90	2211.52	-50.55 -11.71	0.00	-1.12 1.47	-0.12 0.12	3.49
VA4 - 4	1111.50	0.00 0.20	1807.02 -297.57	1807.02	-11.71 132.72	132.72	-2.45 3.27	-0.20 0.20	3.49
VA4 - 5	1111.50	0.00 0.19	-298.71 -4242.70	0.00	132.72 -84.24	132.72	-6.76 7.38	0.39 -0.39	-1.01
VA4 - 6	1111.50	-0.05 0.00	-4530.44 -298.96	0.00	-81.39 -41.47	0.00	4.77 -3.65	-0.04 0.04	-0.74
VA4 - 7	1111.50	-0.05 0.00	-298.69 1930.85	1930.85	-41.47 -6.23	0.00	2.67 -1.47	-0.03 0.03	-3.24
VA4 - 8	1111.50	-0.05 0.00	1929.64 1184.78	2039.74	-6.23 106.52	0.00	0.50 1.38	-0.07 0.07	-3.24
VA4 - 9	1111.50	-0.05 0.00	1191.70 -3179.53	1191.70	106.52 -47.49	106.52	-7.10 7.76	0.26 -0.26	-3.24
VA4 - 10	1111.50	-0.16 0.00	-2744.07 -140.90	0.00	-15.47 14.94	14.94	3.22 -2.14	-0.03 0.03	2.06
VA4 - 11	1111.50	-0.16 0.00	-132.60 572.01	572.01	14.94 19.16	19.16	1.59 -0.98	-0.01 0.01	2.06
VA4 - 12	1111.50	-0.17 0.00	573.11 -1188.69	573.11	19.16 -52.82	19.16	-0.05 1.98	0.04 -0.04	2.06
VA4 - 13	1111.50	0.00 0.02	-987.75 -493.71	476.43	-17.20 -40.39	0.00	1.81 1.47	0.01 -0.01	-2.39
VA5 - 1	1062.75	0.00 0.06	-573.23 775.47	953.28	-8.05 20.54	20.54	1.80 0.62	-0.01 0.01	1.86
VA5 - 2	1062.75	0.00	775.36	775.36	20.54	20.54	-1.60	0.06	1.86


	<b>AltoQi Eberick 2018</b> <b>Plena</b>	
	<b>Leilson Campos</b> <b>Rezende</b> <b>Rezende Engenharia</b>	<b>11/5/2021</b> <b>12:14:59</b>

		0.06	-2180.95		-56.25		2.97	-0.06	
VA5 - 3	1062.75	0.00 0.10	-2755.77 440.50	440.50	-49.89 -19.66	0.00	3.71 -2.64	-0.03 0.03	-1.73
VA5 - 4	1062.75	0.00 0.10	440.25 1616.94	1616.94	-19.66 20.63	0.00	1.67 -0.52	-0.04 0.04	-1.73
VA5 - 5	1062.75	0.00 0.10	1618.16 -2171.91	1618.16	20.63 28.25	28.25	-0.46 2.87	0.00 0.00	-1.73
VA5 - 6	1062.75	0.00 0.09	-2051.09 930.19	930.19	50.71 -36.88	50.71	2.77 -1.15	0.06 -0.06	-1.52
VA5 - 7	1062.75	0.00 0.10	929.09 -206.73	929.59	-19.44 -33.03	0.00	0.12 1.56	0.01 -0.01	-12.13
VA6 - 1	1062.75	0.00 0.05	9.25 899.13	937.01	-23.76 -19.24	0.00	1.41 0.30	0.00 0.00	2.93
VA6 - 2	1062.75	0.00 0.05	905.70 -3428.97	905.70	-19.24 43.17	43.17	-2.01 3.64	-0.04 0.04	2.93
VA7 - 1	1062.75	-0.07 0.00	-1144.24 2131.68	2131.68	-55.76 1.90	1.90	2.92 -1.25	-0.04 0.04	-5.28
VA7 - 2	1062.75	-0.07 0.00	2125.10 0.00	2125.10	1.90 0.00	1.90	-0.47 2.18	0.00 0.00	-5.28
VA8 - 1	1184.63	0.00 0.70	-5005.24 -9111.33	4002.82	-3.19 -12.15	0.00	4.62 5.58	0.00 0.00	0.47
VA8 - 2	1184.63	0.00 1.03	-12065.42 -7807.33	6650.50	-2.67 1.72	1.72	6.66 5.85	0.00 0.00	-0.29
VA9 - 1	1111.50	0.00 0.22	-1746.27 -4114.07	1832.10	10.27 -13.06	10.27	2.82 3.64	0.00 0.00	4.06
VA9 - 2	1111.50	0.00 0.28	-3288.84 -4049.76	1967.69	-33.17 29.49	29.49	3.42 3.66	-0.01 0.01	-0.22
VA10 - 1	1111.50	0.00 0.17	-2377.70 -2677.53	1262.56	12.48 -38.41	12.48	2.85 2.96	0.01 -0.01	0.49
VA10 - 2	1111.50	0.00 0.06	-1150.90 -1775.50	765.76	-82.96 102.66	102.66	2.06 2.38	-0.05 0.05	-4.76
VA11 - 1	1062.75	-0.11 0.00	586.11 -869.23	620.24	15.51 7.01	15.51	0.27 1.78	0.00 0.00	2.21
VA11 - 2	1062.75	-0.56 0.00	-684.28 -116.80	895.24	-24.00 8.63	8.63	1.83 1.47	-0.01 0.01	-1.72
VA11 - 3	1062.75	-0.56 0.00	-121.35 -3226.07	0.00	8.63 24.83	24.83	-2.52 3.60	-0.02 0.02	-1.72
VA12 - 1	1062.75	-0.15 0.00	0.00 2409.49	2786.42	0.00 4.08	4.08	2.43 0.90	0.00 0.00	-0.09
VA12 - 2	1062.75	-0.15 0.00	2414.04 0.00	2414.04	4.08 0.00	4.08	-1.95 2.99	0.00 0.00	-0.09
VA13	1014.00	0.00 0.07	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.11
VA14 - 1	1062.75	0.00 0.58	0.00 3085.77	3085.77	0.00 -3.50	0.00	3.50 -2.38	0.00 0.00	1.13
VA14 - 2	1062.75	0.00 0.58	3086.71 0.00	3242.48	-3.50 0.00	0.00	0.58 2.63	0.00 0.00	1.13
VA15	1014.00	-0.01 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.25
VA16	1014.00	0.00 0.03	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-1.21
VA17 - 1	1062.75	0.00 0.33	0.00 5422.54	5422.54	0.00 7.09	7.09	5.72 -4.61	-0.01 0.01	-6.93
VA17 - 2	1062.75	0.00 0.36	5421.60 0.00	5421.60	-6.43 0.00	0.00	-0.40 3.42	0.00 0.00	2.03
VA18	1062.75	0.00 0.17	77.30 -286.58	405.16	-18.42 36.27	36.27	0.84 1.21	-0.03 0.03	1.53
VA19	1062.75	0.00 0.02	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-8.30
VA20	1062.75	-0.05 0.00	-10.60 0.00	484.87	-17.44 0.00	0.00	1.03 1.02	-0.01 0.01	1.10
VA21 - 1	1062.75	0.00 0.22	-1685.49 3110.00	3130.86	51.31 -57.34	51.31	3.20 0.21	0.03 -0.03	6.67

VA21 - 2	1062.75	0.00 0.21	3112.93 -2669.93	3112.93	-33.59 -6.38	0.00	-1.62 3.86	-0.01 0.01	-2.59
VA22	1062.75	0.00 0.13	280.86 -2079.49	1065.52	-34.76 51.47	51.47	1.29 2.59	-0.02 0.02	-0.10
VA23	1062.75	0.00 0.04	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.58
VA24 - 1	1111.50	0.00 0.22	-1608.27 -4237.03	1854.54	-40.63 25.35	25.35	2.78 3.68	-0.01 0.01	-5.79
VA24 - 2	1111.50	0.00 0.27	-3014.66 -4494.24	1894.98	16.10 19.22	19.22	3.31 3.77	0.00 0.00	-0.23
VA25 - 1	1111.50	0.00 0.30	-3561.37 2522.05	2522.05	103.38 -37.18	103.38	4.24 -2.11	0.07 -0.07	4.36
VA25 - 2	1111.50	0.00 0.30	2527.33 -3760.20	2527.33	-37.18 -34.54	0.00	-0.06 3.74	0.00 0.00	4.36
VA25 - 3	1111.50	0.00 0.08	-1370.40 -1866.78	606.99	32.76 -72.03	32.76	2.10 2.35	0.03 -0.03	-1.62

<b>CASO: 1.3G1+1.4G2+0.98Q+0.84V4+1.4D4</b>									
<b>Elemento</b>	<b>Carga (kgf/m)</b>	<b>Rd Nd (tf)</b>	<b>Mxi Mxf (kgf.m)</b>	<b>MxMáx (kgf.m)</b>	<b>Myi Myf (kgf.m)</b>	<b>MyMáx (kgf.m)</b>	<b>Vxi Vxf (tf)</b>	<b>Vyi Vyf (tf)</b>	<b>Mtd (kgf/m)</b>
VA1 - 1	1062.75	0.00 0.40	-1998.58 2582.04	2582.04	-98.03 8.20	8.20	3.39 -1.32	-0.05 0.05	-2.65
VA1 - 2	1062.75	0.00 0.40	2582.15 240.89	2582.15	8.20 -4.69	0.00	-1.67 2.79	0.01 -0.01	-3.51
VA1 - 3	1062.75	0.00 0.38	242.29 -3083.33	242.29	-4.69 151.02	151.02	-5.41 6.03	-0.27 0.27	-3.34
VA1 - 4	1062.75	-0.27 0.00	-2904.99 427.99	999.09	130.59 -107.70	130.59	2.88 1.10	0.06 -0.06	1.51
VA1 - 5	1062.75	-0.30 0.00	430.27 -2033.79	430.27	-107.70 127.20	127.20	-4.52 5.07	-0.46 0.46	-3.39
VA1 - 6	1062.75	-0.29 0.00	-1510.54 -576.03	407.28	95.89 -50.83	95.89	2.02 1.45	0.04 -0.04	2.63
VA2	1062.75	0.00 0.00	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-3.51
VA3 - 1	1062.75	0.00 0.02	0.00 -2142.53	1527.85	0.00 7.44	7.44	1.80 2.79	0.00 0.00	0.97
VA3 - 2	1062.75	0.00 0.00	-2151.77 8.07	8.07	67.30 0.00	67.30	2.21 -0.56	0.04 -0.04	0.00
VA4 - 1	1111.50	0.00 0.21	-1981.14 -2435.17	1311.39	86.64 -34.21	86.64	2.71 2.89	0.02 -0.02	1.55
VA4 - 2	1111.50	0.00 0.33	-2554.77 2223.69	2223.69	-121.27 -11.57	0.00	3.52 -1.33	-0.06 0.06	-6.45
VA4 - 3	1111.50	0.00 0.33	2223.57 1824.30	2223.57	-11.57 26.80	0.00	-1.10 1.45	-0.12 0.12	-6.45
VA4 - 4	1111.50	0.00 0.33	1824.35 -267.65	1824.35	26.80 144.44	144.44	-2.43 3.25	-0.16 0.16	-6.45
VA4 - 5	1111.50	0.00 0.31	-268.92 -4203.38	0.00	144.44 73.21	144.44	-6.75 7.37	0.13 -0.13	-10.51
VA4 - 6	1111.50	0.00 0.07	-4481.20 -270.59	0.00	7.92 38.58	38.58	4.75 -3.63	-0.03 0.03	6.43
VA4 - 7	1111.50	0.00 0.07	-270.31 1936.90	1936.90	38.58 3.85	38.58	2.65 -1.45	0.03 -0.03	4.17
VA4 - 8	1111.50	0.00 0.07	1935.77 1155.90	2037.12	3.85 80.24	0.00	0.47 1.40	-0.05 0.05	4.17
VA4 - 9	1111.50	0.00 0.10	1162.85 -3220.60	1162.85	80.24 -175.45	80.24	-7.12 7.78	0.43 -0.43	4.17
VA4 - 10	1111.50	-0.11 0.00	-2828.44 -177.13	0.00	-47.93 2.91	2.91	3.27 -2.19	-0.05 0.05	1.43
VA4 - 11	1111.50	-0.11 0.00	-169.06 562.85	562.85	2.91 7.99	7.99	1.64 -1.03	-0.01 0.01	1.43
VA4 - 12	1111.50	-0.13	563.66	563.66	7.99	7.99	0.01	0.03	1.43

		0.00	-1107.37		-43.25		1.93	-0.03	
VA4 - 13	1111.50	0.00 0.08	-948.51 -492.86	493.73	-2.55 2.47	2.47	1.79 1.48	0.00 0.00	-2.40
VA5 - 1	1062.75	-0.02 0.00	-549.85 749.85	941.03	-89.76 34.23	34.23	1.78 0.64	-0.05 0.05	-5.11
VA5 - 2	1062.75	-0.02 0.00	749.81 -2234.38	749.81	34.23 56.85	56.85	-1.62 2.99	-0.02 0.02	-5.11
VA5 - 3	1062.75	0.00 0.02	-2742.72 450.06	450.06	52.75 19.36	52.75	3.71 -2.64	0.03 -0.03	4.34
VA5 - 4	1062.75	0.00 0.02	449.73 1622.68	1622.68	19.36 50.54	0.00	1.66 -0.52	-0.03 0.03	4.34
VA5 - 5	1062.75	0.00 0.02	1623.81 -2174.17	1623.81	50.54 -60.02	50.54	-0.46 2.88	0.05 -0.05	4.34
VA5 - 6	1062.75	0.00 0.10	-1975.83 938.18	938.18	55.63 -48.68	55.63	2.73 -1.11	0.07 -0.07	0.47
VA5 - 7	1062.75	0.00 0.12	937.37 -272.47	937.37	-2.52 -49.90	0.00	0.08 1.61	0.03 -0.03	-15.03
VA6 - 1	1062.75	0.00 0.05	9.92 803.22	860.53	13.97 -10.69	13.97	1.35 0.36	0.02 -0.02	1.25
VA6 - 2	1062.75	0.00 0.05	809.70 -3617.44	809.70	-10.69 23.21	23.21	-2.07 3.70	-0.02 0.02	1.25
VA7 - 1	1062.75	-0.08 0.00	-996.53 2206.35	2206.35	-38.91 10.13	10.13	2.87 -1.20	-0.03 0.03	-3.25
VA7 - 2	1062.75	-0.08 0.00	2199.87 0.00	2199.87	10.13 0.00	10.13	-0.51 2.22	0.01 -0.01	-3.25
VA8 - 1	1184.63	0.00 0.66	-5059.33 -9043.48	4004.90	-9.07 14.50	14.50	4.64 5.56	0.00 0.00	-4.15
VA8 - 2	1184.63	0.00 0.99	-12029.61 -7821.91	6659.17	32.95 -9.37	32.95	6.65 5.86	0.00 0.00	3.35
VA9 - 1	1111.50	0.00 0.12	-3015.49 -3005.90	1673.88	83.77 -63.66	83.77	3.23 3.23	0.03 -0.03	3.98
VA9 - 2	1111.50	0.00 0.20	-4168.00 -3157.18	1978.43	-5.72 -4.30	0.00	3.70 3.38	0.00 0.00	-0.50
VA10 - 1	1111.50	0.00 0.11	-3398.51 -1750.33	1256.72	47.52 -46.67	47.52	3.22 2.59	0.02 -0.02	0.67
VA10 - 2	1111.50	0.00 0.09	-2478.15 -196.42	1027.97	-25.99 -31.79	0.00	2.79 1.65	0.00 0.00	-4.45
VA11 - 1	1062.75	-0.02 0.00	-1075.44 47.18	140.42	84.80 -64.41	84.80	1.61 0.45	0.08 -0.08	2.12
VA11 - 2	1062.75	-0.39 0.00	-1859.73 1265.42	1461.23	19.99 -13.08	19.99	2.66 0.65	0.01 -0.01	-1.35
VA11 - 3	1062.75	-0.39 0.00	1261.92 -1008.46	1261.92	-13.08 -28.88	0.00	-1.70 2.78	0.02 -0.02	-1.35
VA12 - 1	1062.75	-0.07 0.00	0.00 2410.29	2787.01	0.00 -3.68	0.00	2.43 0.89	0.00 0.00	0.11
VA12 - 2	1062.75	-0.07 0.00	2413.80 0.00	2413.80	-3.68 0.00	0.00	-1.95 2.99	0.00 0.00	0.11
VA13	1014.00	0.00 0.04	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.04
VA14 - 1	1062.75	0.00 0.28	0.00 3085.77	3085.77	0.00 -13.08	0.00	3.50 -2.38	0.01 -0.01	1.39
VA14 - 2	1062.75	0.00 0.28	3086.74 0.00	3242.50	-13.08 0.00	0.00	0.58 2.63	0.00 0.00	1.39
VA15	1014.00	-0.06 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.33
VA16	1014.00	0.00 0.08	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-1.13
VA17 - 1	1062.75	0.00 0.48	0.00 5422.54	5422.54	0.00 29.03	29.03	5.72 -4.61	-0.03 0.03	-6.95
VA17 - 2	1062.75	0.00 0.52	5421.56 0.00	5421.56	-30.82 0.00	0.00	-0.40 3.42	-0.01 0.01	2.29
VA18	1062.75	0.00 0.25	-1406.26 1202.01	1202.01	-106.18 138.55	138.55	2.38 -0.32	-0.13 0.13	1.56


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VA19	1062.75	0.00 0.04	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-8.07
VA20	1062.75	-0.04 0.00	-15.50 0.00	482.69	-46.16 0.00	0.00	1.03 1.02	-0.02 0.02	0.81
VA21 - 1	1062.75	0.00 0.21	-2621.47 3255.64	3255.64	19.47 -32.77	19.47	3.54 -0.13	0.02 -0.02	7.03
VA21 - 2	1062.75	0.00 0.23	3256.89 -1687.04	3256.89	-46.75 17.63	17.63	-1.22 3.46	-0.03 0.03	-2.90
VA22	1062.75	0.00 0.17	-1351.43 -145.63	1066.02	-54.07 75.31	75.31	2.27 1.61	-0.04 0.04	0.23
VA23	1062.75	0.00 0.04	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.48
VA24 - 1	1111.50	0.00 0.10	-3108.09 -2925.77	1670.63	-102.49 63.67	63.67	3.26 3.20	-0.03 0.03	-5.90
VA24 - 2	1111.50	0.00 0.19	-4057.45 -3442.46	1884.68	-2.89 39.44	39.44	3.63 3.44	-0.01 0.01	-0.55
VA25 - 1	1111.50	0.00 0.25	-4798.19 2198.54	2198.54	84.55 -44.98	84.55	4.72 -2.59	0.07 -0.07	4.59
VA25 - 2	1111.50	0.00 0.24	2201.79 -2660.56	2259.57	-44.98 9.08	9.08	0.37 3.31	-0.02 0.02	4.59
VA25 - 3	1111.50	0.00 0.11	-2970.12 0.90	980.20	-54.94 44.80	44.80	2.96 1.48	-0.02 0.02	-1.25

CASO: 1.3G1+1.4G2+0.98Q+1.4V1+0.84D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.45	-894.35 2591.03	2591.03	-61.25 3.68	3.68	2.83 -0.76	-0.03 0.03	-0.72
VA1 - 2	1062.75	0.00 0.45	2591.30 -341.49	2591.30	3.68 -74.07	3.68	-2.23 3.35	0.07 -0.07	-1.59
VA1 - 3	1062.75	0.00 0.43	-339.72 -3992.58	0.00	-74.07 127.03	127.03	-5.98 6.59	-0.35 0.35	-2.00
VA1 - 4	1062.75	-0.27 0.00	-2273.41 -36.47	876.02	111.09 -83.22	111.09	2.59 1.39	0.05 -0.05	0.01
VA1 - 5	1062.75	-0.29 0.00	-34.45 -2648.82	0.00	-83.22 108.97	108.97	-4.81 5.36	-0.37 0.37	0.31
VA1 - 6	1062.75	-0.34 0.00	-539.08 -1757.83	329.76	87.52 -43.20	87.52	1.36 2.11	0.04 -0.04	1.12
VA2	1062.75	0.00 0.00	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-3.61
VA3 - 1	1062.75	0.00 0.01	0.00 -2140.45	1528.65	0.00 16.72	16.72	1.80 2.79	0.00 0.00	0.82
VA3 - 2	1062.75	0.00 0.00	-2150.68 9.16	9.16	48.57 0.00	48.57	2.21 -0.56	0.03 -0.03	0.00
VA4 - 1	1111.50	0.00 0.43	-590.09 -2961.56	1836.77	38.69 -23.01	38.69	2.32 3.27	0.01 -0.01	1.08
VA4 - 2	1111.50	0.00 0.45	-2150.87 1711.29	1711.29	-62.85 -32.27	0.00	3.06 -0.87	-0.02 0.02	0.71
VA4 - 3	1111.50	0.00 0.45	1711.01 1166.11	1711.01	-32.27 6.27	0.00	-1.57 1.91	-0.12 0.12	0.71
VA4 - 4	1111.50	0.00 0.45	1165.82 -1269.09	1165.82	6.27 138.13	138.13	-2.89 3.71	-0.18 0.18	0.71
VA4 - 5	1111.50	0.00 0.44	-1270.72 -5464.88	0.00	138.13 -2.61	138.13	-7.21 7.83	0.25 -0.25	-18.43
VA4 - 6	1111.50	0.00 0.19	-3367.08 466.22	466.22	-37.05 -1.73	0.00	4.37 -3.25	-0.04 0.04	-1.91
VA4 - 7	1111.50	0.00 0.19	466.35 2269.89	2269.89	-1.73 0.72	0.00	2.27 -1.08	0.00 0.00	1.98
VA4 - 8	1111.50	0.00 0.19	2268.66 855.98	2268.66	0.72 93.19	0.00	0.10 1.77	-0.05 0.05	1.98
VA4 - 9	1111.50	0.00	864.19	864.19	93.19	93.19	-7.50	0.34	1.98

		0.20	-3739.84		-106.66		8.15	-0.34	
VA4 - 10	1111.50	0.00 0.01	-2469.11 -139.01	0.00	-44.77 10.77	10.77	2.94 -1.86	-0.06 0.06	1.79
VA4 - 11	1111.50	0.00 0.01	-129.86 419.91	419.91	10.77 25.11	25.11	1.31 -0.69	-0.03 0.03	1.79
VA4 - 12	1111.50	0.00 0.00	420.71 -1830.13	420.71	25.11 -57.46	25.11	-0.33 2.26	0.05 -0.05	1.79
VA4 - 13	1111.50	0.00 0.00	645.64 -2669.51	762.98	-25.92 18.44	18.44	0.51 2.76	-0.02 0.02	-2.33
VA5 - 1	1062.75	0.00 0.02	201.78 456.66	1022.85	-61.60 28.46	0.00	1.32 1.10	-0.04 0.04	-1.74
VA5 - 2	1062.75	0.00 0.02	456.94 -3121.73	456.94	28.46 7.51	28.46	-2.08 3.45	0.02 -0.02	-1.74
VA5 - 3	1062.75	0.00 0.04	-2095.47 851.24	851.24	-2.21 -0.51	0.00	3.47 -2.40	0.00 0.00	1.39
VA5 - 4	1062.75	0.00 0.04	851.11 1760.79	1760.79	-0.51 34.93	0.00	1.42 -0.27	-0.03 0.03	1.39
VA5 - 5	1062.75	0.00 0.04	1762.02 -2592.74	1762.02	34.93 -9.68	34.93	-0.71 3.12	0.02 -0.02	1.39
VA5 - 6	1062.75	0.00 0.03	-1535.60 828.59	828.59	36.83 -35.54	36.83	2.36 -0.75	0.05 -0.05	-0.53
VA5 - 7	1062.75	0.00 0.04	827.79 -950.98	827.79	-20.14 20.86	20.86	-0.28 1.97	-0.03 0.03	-12.03
VA6 - 1	1062.75	0.00 0.00	16.00 25.79	361.74	-57.99 -25.67	0.00	0.86 0.85	-0.02 0.02	1.75
VA6 - 2	1062.75	0.00 0.00	32.19 -5145.15	32.19	-25.67 68.54	68.54	-2.56 4.19	-0.06 0.06	1.75
VA7 - 1	1062.75	-0.22 0.00	55.82 2738.64	2738.64	-70.58 -2.91	0.00	2.54 -0.87	-0.04 0.04	-3.73
VA7 - 2	1062.75	-0.22 0.00	2732.24 0.00	2732.24	-2.91 0.00	0.00	-0.84 2.55	0.00 0.00	-3.73
VA8 - 1	1184.63	0.00 0.72	-3713.62 -10171.18	4263.19	34.03 -7.41	34.03	4.35 5.85	0.00 0.00	-1.87
VA8 - 2	1184.63	0.00 0.94	-11113.52 -8970.67	6495.54	24.90 -39.76	24.90	6.46 6.05	0.01 -0.01	1.67
VA9 - 1	1111.50	0.00 0.19	-2355.27 -3588.53	1733.77	7.02 2.60	7.02	3.02 3.44	0.00 0.00	-1.54
VA9 - 2	1111.50	0.00 0.27	-3763.16 -3595.82	1947.92	13.28 19.88	19.88	3.56 3.51	0.00 0.00	-0.47
VA10 - 1	1111.50	0.00 0.16	-2915.51 -2197.16	1239.05	39.63 -39.30	39.63	3.04 2.77	0.02 -0.02	3.46
VA10 - 2	1111.50	0.00 0.08	-1849.90 -938.34	842.39	-39.06 -1.58	0.00	2.45 1.99	-0.01 0.01	-0.94
VA11 - 1	1062.75	-0.07 0.00	-268.55 -378.96	171.96	52.52 -39.89	52.52	0.97 1.08	0.05 -0.05	3.77
VA11 - 2	1062.75	-0.47 0.00	-1266.07 583.11	1106.77	1.67 -3.40	1.67	2.25 1.06	0.00 0.00	-2.78
VA11 - 3	1062.75	-0.47 0.00	579.50 -2107.11	579.50	-3.40 -4.20	0.00	-2.11 3.19	0.00 0.00	-2.78
VA12 - 1	1062.75	-0.11 0.00	0.00 2410.21	2786.95	0.00 0.62	0.62	2.43 0.89	0.00 0.00	0.27
VA12 - 2	1062.75	-0.11 0.00	2413.82 0.00	2413.82	0.62 0.00	0.62	-1.95 2.99	0.00 0.00	0.27
VA13	1014.00	0.00 0.06	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-0.28
VA14 - 1	1062.75	0.00 0.42	0.00 3086.18	3086.18	0.00 -7.76	0.00	3.50 -2.38	0.01 -0.01	1.76
VA14 - 2	1062.75	0.00 0.42	3087.00 0.00	3242.71	-7.76 0.00	0.00	0.58 2.63	0.00 0.00	1.76
VA15	1014.00	-0.03 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.13
VA16	1014.00	0.00 0.05	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-1.23




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	<b>Leilson Campos</b> <b>Rezende</b> <b>Rezende Engenharia</b>	<b>11/5/2021</b> <b>12:14:59</b>


VA17 - 1	1062.75	0.00 0.39	0.00 5422.13	5422.13	0.00 16.23	16.23	5.72 -4.61	-0.02 0.02	-8.20
VA17 - 2	1062.75	0.00 0.43	5421.31 0.00	5421.31	-15.62 0.00	0.00	-0.40 3.42	-0.01 0.01	2.03
VA18	1062.75	0.00 0.21	-683.89 481.06	564.89	-48.68 70.56	70.56	1.63 0.42	-0.06 0.06	2.01
VA19	1062.75	0.00 0.03	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-9.16
VA20	1062.75	-0.07 0.00	-11.50 0.00	484.47	-15.40 0.00	0.00	1.03 1.02	-0.01 0.01	0.80
VA21 - 1	1062.75	0.00 0.15	-1976.90 2720.78	2747.76	46.23 -45.48	46.23	3.17 0.24	0.03 -0.03	10.34
VA21 - 2	1062.75	0.00 0.13	2722.53 -1964.72	2722.53	12.51 -48.06	12.51	-1.10 3.34	0.03 -0.03	-5.66
VA22	1062.75	0.00 0.13	-543.89 -1115.89	947.93	-42.47 61.98	61.98	1.78 2.10	-0.03 0.03	-0.53
VA23	1062.75	0.00 0.04	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.40
VA24 - 1	1111.50	0.00 0.15	-2309.26 -3616.21	1744.67	-105.20 75.66	75.66	3.00 3.45	-0.03 0.03	-11.29
VA24 - 2	1111.50	0.00 0.18	-3431.91 -4068.36	1884.85	22.78 84.67	84.67	3.44 3.64	-0.01 0.01	-0.40
VA25 - 1	1111.50	0.00 0.29	-4307.16 2620.56	2620.56	192.88 -137.66	192.88	4.68 -2.56	0.17 -0.17	8.80
VA25 - 2	1111.50	0.00 0.29	2624.29 -3452.43	2624.29	-137.66 6.95	6.95	0.00 3.68	-0.04 0.04	8.80
VA25 - 3	1111.50	0.00 0.08	-2137.85 -1028.97	667.49	25.68 -38.87	25.68	2.50 1.94	0.02 -0.02	0.70

CASO: 1.3G1+1.4G2+0.98Q+1.4V2+0.84D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.34	-2943.74 2586.92	2586.92	-53.03 3.93	3.93	3.88 -1.81	-0.03 0.03	-0.97
VA1 - 2	1062.75	0.00 0.35	2586.67 758.26	2586.67	3.93 -77.62	0.00	-1.18 2.30	0.08 -0.08	-1.82
VA1 - 3	1062.75	0.00 0.33	759.02 -2282.87	759.02	-77.62 130.68	130.68	-4.92 5.54	-0.36 0.36	-1.11
VA1 - 4	1062.75	-0.29 0.00	-3436.99 827.69	1169.64	113.42 -87.76	113.42	3.13 0.85	0.05 -0.05	1.21
VA1 - 5	1062.75	-0.32 0.00	829.94 -1506.35	829.94	-87.76 115.29	115.29	-4.27 4.82	-0.39 0.39	-8.17
VA1 - 6	1062.75	-0.27 0.00	-2320.04 376.75	763.25	89.91 -47.53	89.91	2.56 0.91	0.04 -0.04	0.90
VA2	1062.75	0.00 0.00	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-4.45
VA3 - 1	1062.75	0.00 0.01	0.00 -2144.66	1527.04	0.00 14.10	14.10	1.80 2.79	0.00 0.00	1.10
VA3 - 2	1062.75	0.00 0.00	-2152.63 7.21	7.21	55.62 0.00	55.62	2.21 -0.56	0.04 -0.04	0.00
VA4 - 1	1111.50	-0.08 0.00	-3413.64 -1879.86	910.74	102.46 -57.20	102.46	3.10 2.49	0.03 -0.03	1.12
VA4 - 2	1111.50	0.00 0.08	-2936.81 2723.83	2723.83	-62.29 -29.85	0.00	3.97 -1.78	-0.02 0.02	-3.67
VA4 - 3	1111.50	0.00 0.08	2724.08 2465.10	2724.08	-29.85 8.82	0.00	-0.65 1.00	-0.12 0.12	-3.67
VA4 - 4	1111.50	0.00 0.08	2465.54 703.88	2465.54	8.82 139.03	0.00	-1.98 2.80	-0.18 0.18	-3.67
VA4 - 5	1111.50	0.00 0.07	703.09 -2981.20	703.09	139.03 -8.42	139.03	-6.30 6.92	0.26 -0.26	6.92
VA4 - 6	1111.50	-0.17	-5644.56	0.00	-36.43	0.00	5.14	-0.04	7.60



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		0.00	-1035.78		-1.15		-4.03	0.04	
VA4 - 7	1111.50	-0.17 0.00	-1035.36 1597.86	1597.86	-1.15 -3.09	0.00	3.05 -1.85	0.00 0.00	-1.06
VA4 - 8	1111.50	-0.17 0.00	1596.75 1484.70	1935.81	-3.09 93.57	0.00	0.87 1.00	-0.06 0.06	-1.06
VA4 - 9	1111.50	-0.15 0.00	1490.37 -2660.29	1490.37	93.57 -116.28	93.57	-6.73 7.38	0.36 -0.36	-1.06
VA4 - 10	1111.50	-0.27 0.00	-3103.41 -179.01	0.00	-18.64 7.08	7.08	3.55 -2.48	-0.03 0.03	1.70
VA4 - 11	1111.50	-0.27 0.00	-171.80 714.95	714.95	7.08 2.03	7.08	1.92 -1.31	0.01 -0.01	1.70
VA4 - 12	1111.50	-0.30 0.00	716.06 -465.92	752.34	2.03 -38.61	2.03	0.29 1.65	0.02 -0.02	1.70
VA4 - 13	1111.50	0.00 0.10	-2581.90 1682.94	1698.40	6.17 -56.36	6.17	3.08 0.19	0.02 -0.02	-2.47
VA5 - 1	1062.75	0.00 0.03	-1324.86 1068.67	1078.43	-36.21 26.31	26.31	2.26 0.16	-0.03 0.03	-1.51
VA5 - 2	1062.75	0.00 0.03	1068.23 -1293.59	1068.23	26.31 -6.91	26.31	-1.14 2.51	0.03 -0.03	-1.51
VA5 - 3	1062.75	0.00 0.08	-3403.01 39.32	39.32	5.07 0.21	5.07	3.96 -2.89	0.00 0.00	1.23
VA5 - 4	1062.75	0.00 0.08	38.87 1478.83	1478.83	0.21 36.24	0.00	1.91 -0.77	-0.03 0.03	1.23
VA5 - 5	1062.75	0.00 0.08	1479.95 -1753.34	1479.95	36.24 -22.09	36.24	-0.21 2.63	0.03 -0.03	1.23
VA5 - 6	1062.75	0.00 0.15	-2491.32 1039.78	1039.78	69.51 -50.02	69.51	3.13 -1.52	0.08 -0.08	-0.52
VA5 - 7	1062.75	0.00 0.18	1038.67 471.79	1147.97	-1.82 -103.79	0.00	0.48 1.20	0.06 -0.06	-15.13
VA6 - 1	1062.75	0.00 0.09	3.18 1676.56	1676.56	48.21 -4.26	48.21	1.90 -0.19	0.03 -0.03	2.43
VA6 - 2	1062.75	0.00 0.09	1683.21 -1901.27	1683.21	-4.26 -2.16	0.00	-1.52 3.15	0.00 0.00	2.43
VA7 - 1	1062.75	0.00 0.06	-2196.59 1599.38	1599.38	-24.09 14.94	14.94	3.25 -1.58	-0.02 0.02	-4.80
VA7 - 2	1062.75	0.00 0.06	1592.73 0.00	1592.73	14.94 0.00	14.94	-0.14 1.84	0.01 -0.01	-4.80
VA8 - 1	1184.63	0.00 0.64	-6350.95 -7983.62	3816.48	-46.28 9.76	9.76	4.91 5.29	-0.01 0.01	-1.82
VA8 - 2	1184.63	0.00 1.08	-12981.51 -6658.58	6846.24	5.37 32.11	32.11	6.85 5.66	0.00 0.00	1.39
VA9 - 1	1111.50	0.00 0.16	-2406.50 -3531.43	1734.84	87.02 -79.31	87.02	3.04 3.42	0.03 -0.03	9.58
VA9 - 2	1111.50	0.00 0.21	-3693.68 -3611.11	1973.65	-52.17 5.30	5.30	3.55 3.52	-0.01 0.01	-0.25
VA10 - 1	1111.50	0.00 0.12	-2860.70 -2230.71	1246.28	20.37 -45.78	20.37	3.02 2.78	0.01 -0.01	-2.30
VA10 - 2	1111.50	0.00 0.06	-1779.14 -1033.58	825.78	-69.89 72.45	72.45	2.41 2.03	-0.04 0.04	-8.26
VA11 - 1	1062.75	-0.06 0.00	-220.79 -443.09	170.00	47.79 -17.51	47.79	0.91 1.14	0.03 -0.03	0.56
VA11 - 2	1062.75	-0.48 0.00	-1277.94 565.51	1091.09	-5.68 -1.05	0.00	2.24 1.06	0.00 0.00	-0.29
VA11 - 3	1062.75	-0.48 0.00	561.07 -2127.42	561.07	-1.05 0.15	0.15	-2.11 3.19	0.00 0.00	-0.29
VA12 - 1	1062.75	-0.11 0.00	0.00 2409.57	2786.48	0.00 -0.22	0.00	2.43 0.90	0.00 0.00	-0.25
VA12 - 2	1062.75	-0.11 0.00	2414.02 0.00	2414.02	-0.22 0.00	0.00	-1.95 2.99	0.00 0.00	-0.25
VA13	1014.00	0.00 0.05	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.44
VA14 - 1	1062.75	0.00 0.44	0.00 3085.35	3085.35	0.00 -8.82	0.00	3.50 -2.38	0.01 -0.01	0.76

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VA14 - 2	1062.75	0.00 0.44	3086.45 0.00	3242.27	-8.82 0.00	0.00	0.58 2.63	0.00 0.00	0.76
VA15	1014.00	-0.04 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.45
VA16	1014.00	0.00 0.06	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-1.11
VA17 - 1	1062.75	0.00 0.41	0.00 5422.95	5422.95	0.00 19.89	19.89	5.72 -4.61	-0.02 0.02	-5.68
VA17 - 2	1062.75	0.00 0.45	5421.85 0.00	5421.85	-21.64 0.00	0.00	-0.40 3.42	-0.01 0.01	2.29
VA18	1062.75	0.00 0.21	-645.07 434.37	537.20	-75.92 104.26	104.26	1.59 0.47	-0.09 0.09	1.07
VA19	1062.75	0.00 0.04	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-7.21
VA20	1062.75	-0.01 0.00	-14.60 0.00	483.09	-48.20 0.00	0.00	1.03 1.02	-0.02 0.02	1.11
VA21 - 1	1062.75	0.00 0.28	-2330.06 3644.86	3644.86	24.55 -44.64	24.55	3.57 -0.16	0.02 -0.02	3.36
VA21 - 2	1062.75	0.00 0.31	3647.29 -2392.25	3647.29	-92.85 59.32	59.32	-1.74 3.98	-0.07 0.07	0.18
VA22	1062.75	0.00 0.17	-526.68 -1109.23	960.46	-46.36 64.80	64.80	1.78 2.10	-0.03 0.03	0.66
VA23	1062.75	0.00 0.03	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.66
VA24 - 1	1111.50	0.00 0.18	-2407.10 -3546.59	1727.21	-37.92 13.37	13.37	3.03 3.43	-0.01 0.01	-0.40
VA24 - 2	1111.50	0.00 0.29	-3640.20 -3868.34	1874.13	-9.57 -26.02	0.00	3.50 3.57	0.00 0.00	-0.37
VA25 - 1	1111.50	0.00 0.26	-4052.39 2100.03	2100.03	-4.94 55.50	55.50	4.28 -2.15	-0.03 0.03	0.15
VA25 - 2	1111.50	0.00 0.25	2104.84 -2968.33	2144.32	55.50 -32.40	55.50	0.31 3.37	0.03 -0.03	0.15
VA25 - 3	1111.50	0.00 0.11	-2202.67 -836.92	751.38	-47.86 11.64	11.64	2.56 1.88	-0.01 0.01	-3.57

CASO: 1.3G1+1.4G2+0.98Q+1.4V3+0.84D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.38	-1816.38 2598.05	2598.05	-4.19 -1.72	0.00	3.30 -1.23	0.00 0.00	1.50
VA1 - 2	1062.75	0.00 0.40	2597.93 166.61	2597.93	-1.72 -169.77	0.00	-1.76 2.87	0.16 -0.16	0.64
VA1 - 3	1062.75	0.00 0.37	167.69 -3207.73	167.69	-169.77 100.52	100.52	-5.50 6.12	-0.46 0.46	0.76
VA1 - 4	1062.75	-0.29 0.00	-2790.96 353.76	977.15	88.44 -55.66	88.44	2.83 1.15	0.04 -0.04	-0.58
VA1 - 5	1062.75	-0.31 0.00	355.72 -2134.17	355.72	-55.66 92.23	92.23	-4.57 5.12	-0.29 0.29	-4.64
VA1 - 6	1062.75	-0.33 0.00	-1324.84 -838.97	340.63	79.52 -38.93	79.52	1.88 1.58	0.04 -0.04	-1.08
VA2	1062.75	0.00 0.01	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-4.72
VA3 - 1	1062.75	0.00 0.00	0.00 -2142.59	1527.83	0.00 26.14	26.14	1.80 2.79	-0.01 0.01	0.94
VA3 - 2	1062.75	0.00 0.00	-2151.50 8.34	8.34	33.03 0.00	33.03	2.21 -0.56	0.02 -0.02	0.00
VA4 - 1	1111.50	0.00 0.13	-2029.32 -2401.79	1302.36	49.24 -47.03	49.24	2.72 2.87	0.02 -0.02	0.48
VA4 - 2	1111.50	0.00 0.18	-2529.60 2209.60	2209.60	14.18 -56.80	14.18	3.50 -1.31	0.04 -0.04	5.01
VA4 - 3	1111.50	0.00	2209.72	2209.72	-56.80	0.00	-1.12	-0.13	5.01

		0.18	1804.31		-17.47		1.47	0.13	
VA4 - 4	1111.50	0.00	1804.43	1804.43	-17.47	131.89	-2.45	-0.20	5.01
		0.18	-302.04		131.89		3.27	0.20	
VA4 - 5	1111.50	0.00	-303.17	0.00	131.89	131.89	-6.76	0.43	0.45
		0.18	-4248.59		-108.97		7.38	-0.43	
VA4 - 6	1111.50	-0.07	-4538.07	0.00	-95.94	0.00	4.77	-0.04	-1.84
		0.00	-303.34		-53.59		-3.65	0.04	
VA4 - 7	1111.50	-0.07	-303.08	1929.94	-53.59	0.00	2.67	-0.04	-4.38
		0.00	1929.94		-7.75		-1.48	0.04	
VA4 - 8	1111.50	-0.07	1928.72	2040.18	-7.75	0.00	0.50	-0.07	-4.38
		0.00	1189.31		110.63		1.38	0.07	
VA4 - 9	1111.50	-0.07	1196.23	1196.23	110.63	110.63	-7.10	0.23	-4.38
		0.00	-3173.10		-26.14		7.75	-0.23	
VA4 - 10	1111.50	-0.16	-2731.08	0.00	-7.86	17.48	3.22	-0.03	2.16
		0.00	-135.34		17.48		-2.14	0.03	
VA4 - 11	1111.50	-0.16	-127.01	573.39	17.48	20.19	1.58	0.00	2.16
		0.00	573.39		20.19		-0.97	0.00	
VA4 - 12	1111.50	-0.17	574.53	574.53	20.19	20.19	-0.05	0.04	2.16
		0.00	-1201.34		-55.29		1.99	-0.04	
VA4 - 13	1111.50	0.00	-994.21	473.65	-19.73	0.00	1.81	0.01	-2.34
		0.01	-493.72		-44.93		1.47	-0.01	
VA5 - 1	1062.75	0.00	-577.66	955.18	4.13	18.47	1.81	-0.01	2.92
		0.08	779.74		18.47		0.61	0.01	
VA5 - 2	1062.75	0.00	779.62	779.62	18.47	18.47	-1.59	0.07	2.92
		0.08	-2171.74		-73.10		2.97	-0.07	
VA5 - 3	1062.75	0.00	-2758.54	438.54	-65.26	0.00	3.71	-0.04	-2.65
		0.11	438.54		-26.03		-2.65	0.04	
VA5 - 4	1062.75	0.00	438.30	1615.86	-26.03	0.00	1.67	-0.04	-2.65
		0.11	1615.86		16.04		-0.52	0.04	
VA5 - 5	1062.75	0.00	1617.08	1617.08	16.04	42.26	-0.46	-0.01	-2.65
		0.11	-2171.15		42.26		2.87	0.01	
VA5 - 6	1062.75	0.00	-2063.35	929.02	51.91	51.91	2.78	0.06	-1.83
		0.09	929.02		-34.68		-1.16	-0.06	
VA5 - 7	1062.75	0.00	927.87	930.12	-18.46	0.00	0.13	0.01	-11.60
		0.09	-195.73		-32.17		1.55	-0.01	
VA6 - 1	1062.75	0.00	9.16	946.86	-29.01	0.00	1.41	-0.01	3.23
		0.05	910.39		-20.42		0.29	0.01	
VA6 - 2	1062.75	0.00	916.98	916.98	-20.42	44.69	-2.00	-0.04	3.23
		0.05	-3406.81		44.69		3.63	0.04	
VA7 - 1	1062.75	-0.07	-1167.91	2119.71	-57.66	0.32	2.93	-0.04	-5.63
		0.00	2119.71		0.32		-1.26	0.04	
VA7 - 2	1062.75	-0.07	2113.12	2113.12	0.32	0.32	-0.46	0.00	-5.63
		0.00	0.00		0.00		2.17	0.00	
VA8 - 1	1184.63	0.00	-4997.02	4003.00	-2.23	0.00	4.62	0.00	1.14
		0.70	-9121.31		-16.05		5.58	0.00	
VA8 - 2	1184.63	0.00	-12071.03	6649.42	-7.76	3.39	6.66	0.00	-0.82
		1.04	-7804.52		3.39		5.85	0.00	
VA9 - 1	1111.50	0.00	-1505.67	1878.43	0.02	0.02	2.74	0.00	4.08
		0.24	-4324.64		-6.15		3.71	0.00	
VA9 - 2	1111.50	0.00	-3121.30	1971.97	-36.72	33.92	3.37	-0.01	-0.18
		0.29	-4219.63		33.92		3.71	0.01	
VA10 - 1	1111.50	0.00	-2183.12	1274.52	7.60	7.60	2.77	0.01	0.45
		0.17	-2855.03		-37.37		3.03	-0.01	
VA10 - 2	1111.50	0.00	-898.60	769.74	-89.98	120.97	1.93	-0.05	-4.78
		0.05	-2074.25		120.97		2.52	0.05	
VA11 - 1	1062.75	-0.11	841.41	841.41	5.09	17.57	0.07	-0.01	2.22
		0.00	-1010.18		17.57		1.98	0.01	
VA11 - 2	1062.75	-0.59	-503.78	866.33	-30.37	11.84	1.71	-0.01	-1.77
		0.00	-328.95		11.84		1.59	0.01	
VA11 - 3	1062.75	-0.59	-333.66	0.00	11.84	32.79	-2.65	-0.02	-1.77
		0.00	-3566.46		32.79		3.73	0.02	
VA12 - 1	1062.75	-0.16	0.00	2786.33	0.00	5.28	2.43	0.00	-0.12
		0.00	2409.37		5.28		0.90	0.00	

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VA12 - 2	1062.75	-0.16 0.00	2414.08 0.00	2414.08	5.28 0.00	5.28	-1.95 2.99	0.01 -0.01	-0.12
VA13	1014.00	0.00 0.08	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.12
VA14 - 1	1062.75	0.00 0.63	0.00 3085.77	3085.77	0.00 -2.14	0.00	3.50 -2.38	0.00 0.00	1.09
VA14 - 2	1062.75	0.00 0.63	3086.70 0.00	3242.47	-2.14 0.00	0.00	0.58 2.63	0.00 0.00	1.09
VA15	1014.00	0.00 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.24
VA16	1014.00	0.00 0.03	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-1.22
VA17 - 1	1062.75	0.00 0.30	0.00 5422.54	5422.54	0.00 3.97	3.97	5.72 -4.61	0.00 0.00	-6.93
VA17 - 2	1062.75	0.00 0.33	5421.60 0.00	5421.60	-2.92 0.00	0.00	-0.40 3.42	0.00 0.00	1.99
VA18	1062.75	0.00 0.16	302.96 -512.97	471.60	-5.86 21.56	21.56	0.60 1.45	-0.01 0.01	1.52
VA19	1062.75	0.00 0.02	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-8.34
VA20	1062.75	-0.05 0.00	-9.78 0.00	485.24	-16.22 0.00	0.00	1.03 1.02	-0.01 0.01	1.15
VA21 - 1	1062.75	0.00 0.22	-1520.85 3081.38	3114.32	55.87 -60.82	55.87	3.14 0.27	0.04 -0.04	6.62
VA21 - 2	1062.75	0.00 0.21	3084.61 -2840.38	3084.61	-31.81 -6.21	0.00	-1.68 3.93	-0.01 0.01	-2.54
VA22	1062.75	0.00 0.12	537.46 -2383.37	1144.78	-32.38 48.34	48.34	1.14 2.74	-0.02 0.02	-0.15
VA23	1062.75	0.00 0.04	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.59
VA24 - 1	1111.50	0.00 0.24	-1337.62 -4474.15	1915.08	-32.00 20.07	20.07	2.69 3.77	-0.01 0.01	-5.78
VA24 - 2	1111.50	0.00 0.28	-2825.74 -4684.72	1912.56	18.53 16.76	18.53	3.25 3.83	0.00 0.00	-0.18
VA25 - 1	1111.50	0.00 0.30	-3337.94 2581.20	2581.20	105.59 -36.27	105.59	4.16 -2.03	0.07 -0.07	4.32
VA25 - 2	1111.50	0.00 0.30	2586.83 -3960.06	2586.83	-36.27 -41.53	0.00	-0.14 3.82	0.00 0.00	4.32
VA25 - 3	1111.50	0.00 0.07	-1080.77 -2203.53	609.85	46.59 -88.24	46.59	1.94 2.50	0.03 -0.03	-1.66

CASO: 1.3G1+1.4G2+0.98Q+1.4V4+0.84D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.40	-2021.71 2579.90	2579.90	-110.09 9.32	9.32	3.40 -1.33	-0.06 0.06	-3.19
VA1 - 2	1062.75	0.00 0.40	2580.04 250.17	2580.04	9.32 18.09	0.00	-1.66 2.78	-0.01 0.01	-4.05
VA1 - 3	1062.75	0.00 0.39	251.60 -3067.72	251.60	18.09 157.19	157.19	-5.40 6.02	-0.24 0.24	-3.87
VA1 - 4	1062.75	-0.26 0.00	-2919.44 437.45	1001.91	136.07 -115.32	136.07	2.89 1.10	0.07 -0.07	1.79
VA1 - 5	1062.75	-0.30 0.00	439.77 -2021.01	439.77	-115.32 132.04	132.04	-4.51 5.06	-0.48 0.48	-3.23
VA1 - 6	1062.75	-0.29 0.00	-1534.28 -542.12	415.97	97.91 -51.80	97.91	2.04 1.43	0.05 -0.05	3.11
VA2	1062.75	-0.01 0.00	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-3.34
VA3 - 1	1062.75	0.00 0.02	0.00 -2142.52	1527.86	0.00 4.68	4.68	1.80 2.79	0.00 0.00	0.98
VA3 - 2	1062.75	0.00	-2151.80	8.03	71.17	71.17	2.21	0.05	0.00




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		0.00	8.03		0.00		-0.56	-0.05	
VA4 - 1	1111.50	0.00 0.22	-1974.40 -2439.63	1312.76	91.90 -33.17	91.90	2.70 2.89	0.02 -0.02	1.72
VA4 - 2	1111.50	0.00 0.35	-2558.08 2225.51	2225.51	-139.32 -5.32	0.00	3.52 -1.33	-0.07 0.07	-7.97
VA4 - 3	1111.50	0.00 0.34	2225.37 1826.90	2225.37	-5.32 32.56	0.00	-1.10 1.45	-0.12 0.12	-7.97
VA4 - 4	1111.50	0.00 0.34	1826.93 -263.17	1826.93	32.56 145.26	145.26	-2.43 3.25	-0.15 0.15	-7.97
VA4 - 5	1111.50	0.00 0.33	-264.46 -4197.49	0.00	145.26 97.94	145.26	-6.74 7.36	0.08 -0.08	-11.96
VA4 - 6	1111.50	0.00 0.09	-4473.57 -266.21	0.00	22.47 50.71	50.71	4.74 -3.63	-0.03 0.03	7.52
VA4 - 7	1111.50	0.00 0.09	-265.92 1937.81	1937.81	50.71 5.38	50.71	2.65 -1.45	0.04 -0.04	5.30
VA4 - 8	1111.50	0.00 0.09	1936.69 1151.38	2036.68	5.38 76.13	0.00	0.47 1.40	-0.04 0.04	5.30
VA4 - 9	1111.50	0.00 0.12	1158.33 -3227.03	1158.33	76.13 -196.81	76.13	-7.13 7.78	0.46 -0.46	5.30
VA4 - 10	1111.50	-0.10 0.00	-2841.43 -182.68	0.00	-55.54 0.37	0.37	3.28 -2.20	-0.06 0.06	1.32
VA4 - 11	1111.50	-0.10 0.00	-174.65 561.47	561.47	0.37 6.96	6.96	1.64 -1.03	-0.01 0.01	1.32
VA4 - 12	1111.50	-0.13 0.00	562.24 -1094.71	562.24	6.96 -40.78	6.96	0.01 1.92	0.03 -0.03	1.32
VA4 - 13	1111.50	0.00 0.09	-942.04 -492.85	496.51	-0.02 7.01	7.01	1.79 1.49	0.00 0.00	-2.45
VA5 - 1	1062.75	-0.03 0.00	-545.42 745.59	939.13	-101.94 36.30	36.30	1.78 0.64	-0.06 0.06	-6.17
VA5 - 2	1062.75	-0.03 0.00	745.55 -2243.58	745.55	36.30 73.70	73.70	-1.62 3.00	-0.03 0.03	-6.17
VA5 - 3	1062.75	0.00 0.01	-2739.94 452.02	452.02	68.12 25.73	68.12	3.71 -2.64	0.04 -0.04	5.27
VA5 - 4	1062.75	0.00 0.01	451.68 1623.77	1623.77	25.73 55.13	0.00	1.66 -0.52	-0.03 0.03	5.27
VA5 - 5	1062.75	0.00 0.01	1624.88 -2174.93	1624.88	55.13 -74.03	55.13	-0.46 2.88	0.06 -0.06	5.27
VA5 - 6	1062.75	0.00 0.10	-1963.57 939.35	939.35	54.42 -50.88	54.42	2.72 -1.10	0.07 -0.07	0.77
VA5 - 7	1062.75	0.00 0.12	938.58 -283.47	938.58	-3.50 -50.76	0.00	0.07 1.61	0.03 -0.03	-15.55
VA6 - 1	1062.75	0.00 0.05	10.02 791.95	852.10	19.23 -9.50	19.23	1.34 0.36	0.02 -0.02	0.95
VA6 - 2	1062.75	0.00 0.05	798.42 -3639.60	798.42	-9.50 21.69	21.69	-2.08 3.71	-0.02 0.02	0.95
VA7 - 1	1062.75	-0.09 0.00	-972.86 2218.31	2218.31	-37.00 11.71	11.71	2.87 -1.20	-0.03 0.03	-2.90
VA7 - 2	1062.75	-0.09 0.00	2211.85 0.00	2211.85	11.71 0.00	11.71	-0.52 2.23	0.01 -0.01	-2.90
VA8 - 1	1184.63	0.00 0.65	-5067.55 -9033.50	4005.14	-10.02 18.40	18.40	4.64 5.56	0.00 0.00	-4.83
VA8 - 2	1184.63	0.00 0.99	-12024.00 -7824.73	6660.25	38.04 -11.04	38.04	6.65 5.86	0.00 0.00	3.88
VA9 - 1	1111.50	0.00 0.10	-3256.09 -2795.33	1666.65	94.02 -70.57	94.02	3.31 3.15	0.03 -0.03	3.96
VA9 - 2	1111.50	0.00 0.19	-4335.54 -2987.31	1985.04	-2.17 -8.73	0.00	3.75 3.33	0.00 0.00	-0.54
VA10 - 1	1111.50	0.00 0.11	-3593.09 -1572.83	1272.91	52.40 -47.72	52.40	3.29 2.52	0.02 -0.02	0.72
VA10 - 2	1111.50	0.00 0.10	-2730.45 102.34	1125.29	-18.96 -50.09	0.00	2.93 1.51	0.01 -0.01	-4.42
VA11 - 1	1062.75	-0.01 0.00	-1330.74 188.13	215.20	95.22 -74.97	95.22	1.81 0.24	0.09 -0.09	2.11


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VA11 - 2	1062.75	-0.36 0.00	-2040.23 1477.57	1601.36	26.36 -16.29	26.36	2.78 0.52	0.01 -0.01	-1.30
VA11 - 3	1062.75	-0.36 0.00	1474.23 -668.06	1474.23	-16.29 -36.84	0.00	-1.57 2.65	0.02 -0.02	-1.30
VA12 - 1	1062.75	-0.05 0.00	0.00 2410.41	2787.10	0.00 -4.88	0.00	2.43 0.89	0.00 0.00	0.14
VA12 - 2	1062.75	-0.05 0.00	2413.76 0.00	2413.76	-4.88 0.00	0.00	-1.95 2.99	0.00 0.00	0.14
VA13	1014.00	0.00 0.03	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.03
VA14 - 1	1062.75	0.00 0.23	0.00 3085.77	3085.77	0.00 -14.44	0.00	3.50 -2.38	0.01 -0.01	1.43
VA14 - 2	1062.75	0.00 0.23	3086.75 0.00	3242.51	-14.44 0.00	0.00	0.58 2.63	0.00 0.00	1.43
VA15	1014.00	-0.07 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.34
VA16	1014.00	0.00 0.08	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-1.12
VA17 - 1	1062.75	0.00 0.51	0.00 5422.54	5422.54	0.00 32.15	32.15	5.72 -4.61	-0.03 0.03	-6.95
VA17 - 2	1062.75	0.00 0.55	5421.56 0.00	5421.56	-34.33 0.00	0.00	-0.40 3.42	-0.01 0.01	2.33
VA18	1062.75	0.00 0.27	-1631.91 1428.40	1428.40	-118.74 153.26	153.26	2.61 -0.56	-0.14 0.14	1.56
VA19	1062.75	0.00 0.05	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-8.03
VA20	1062.75	-0.04 0.00	-16.32 0.00	482.33	-47.38 0.00	0.00	1.03 1.02	-0.02 0.02	0.77
VA21 - 1	1062.75	0.00 0.21	-2786.11 3284.27	3284.27	14.91 -29.30	14.91	3.60 -0.19	0.01 -0.01	7.08
VA21 - 2	1062.75	0.00 0.23	3285.22 -1516.59	3285.22	-48.52 17.46	17.46	-1.15 3.40	-0.03 0.03	-2.94
VA22	1062.75	0.00 0.18	-1608.03 158.25	1151.93	-56.46 78.43	78.43	2.42 1.45	-0.04 0.04	0.28
VA23	1062.75	0.00 0.04	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.46
VA24 - 1	1111.50	0.00 0.08	-3378.74 -2688.65	1662.62	-111.12 68.95	68.95	3.35 3.11	-0.03 0.03	-5.92
VA24 - 2	1111.50	0.00 0.18	-4246.37 -3251.98	1891.58	-5.32 41.90	41.90	3.69 3.38	-0.01 0.01	-0.60
VA25 - 1	1111.50	0.00 0.24	-5021.61 2139.39	2139.39	82.35 -45.88	82.35	4.81 -2.68	0.07 -0.07	4.64
VA25 - 2	1111.50	0.00 0.24	2142.29 -2460.71	2232.48	-45.88 16.07	16.07	0.45 3.23	-0.02 0.02	4.64
VA25 - 3	1111.50	0.00 0.12	-3259.75 337.64	1119.14	-68.77 61.01	61.01	3.12 1.32	-0.03 0.03	-1.21

CASO: 1.3G1+1.4G2+1.2D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Yi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.41	-1611.38 2534.33	2534.33	-11.06 1.62	1.62	3.16 -1.10	-0.01 0.01	1.88
VA1 - 2	1062.75	0.00 0.42	2534.50 -41.67	2534.50	1.62 -14.82	1.62	-1.89 3.01	0.02 -0.02	1.03
VA1 - 3	1062.75	0.00 0.42	-40.38 -3495.91	0.00	-14.82 12.75	12.75	-5.64 6.25	-0.05 0.05	0.94
VA1 - 4	1062.75	0.00 0.08	-2628.95 274.77	965.10	19.59 -17.02	19.59	2.77 1.22	0.01 -0.01	0.40
VA1 - 5	1062.75	0.00 0.07	276.78 -2246.18	276.78	-17.02 20.10	20.10	-4.63 5.18	-0.07 0.07	-2.78
VA1 - 6	1062.75	-0.02	-1458.12	410.79	17.34	17.34	1.99	0.01	-0.88

		0.00	-610.56		-6.93		1.47	-0.01	
VA2	1062.75	0.00 0.00	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-3.62
VA3 - 1	1062.75	0.00 0.00	0.00 -2143.21	1527.60	0.00 1.75	1.75	1.80 2.79	0.00 0.00	1.02
VA3 - 2	1062.75	0.00 0.00	-2152.36 7.48	7.48	6.42 0.00	6.42	2.21 -0.56	0.00 0.00	0.00
VA4 - 1	1111.50	0.00 0.23	-1653.65 -2578.25	1413.01	46.71 -16.65	46.71	2.61 2.98	0.01 -0.01	1.25
VA4 - 2	1111.50	0.00 0.26	-2515.44 2097.19	2097.19	-6.62 -5.62	0.00	3.44 -1.25	0.00 0.00	-0.50
VA4 - 3	1111.50	0.00 0.26	2097.02 1671.40	2097.02	-5.62 1.57	0.00	-1.19 1.53	-0.02 0.02	-0.50
VA4 - 4	1111.50	0.00 0.26	1671.36 -482.68	1671.36	1.57 19.68	19.68	-2.51 3.33	-0.02 0.02	-0.50
VA4 - 5	1111.50	0.00 0.26	-483.92 -4465.26	0.00	19.68 -4.45	19.68	-6.83 7.45	0.04 -0.04	-7.79
VA4 - 6	1111.50	0.00 0.15	-4114.78 -51.71	0.00	-12.08 1.19	1.19	4.60 -3.48	-0.01 0.01	0.41
VA4 - 7	1111.50	0.00 0.15	-51.33 1998.03	1998.03	1.19 -1.73	1.19	2.50 -1.31	0.00 0.00	-0.03
VA4 - 8	1111.50	0.00 0.15	1997.10 969.77	2041.53	-1.73 15.98	0.00	0.33 1.55	-0.01 0.01	-0.03
VA4 - 9	1111.50	0.00 0.15	976.90 -3492.97	976.90	15.98 -22.99	15.98	-7.27 7.92	0.07 -0.07	-0.03
VA4 - 10	1111.50	0.00 0.03	-2962.71 -255.42	0.00	-9.70 3.28	3.28	3.33 -2.25	-0.01 0.01	1.96
VA4 - 11	1111.50	0.00 0.03	-247.95 515.69	515.69	3.28 8.37	8.37	1.69 -1.08	-0.01 0.01	1.96
VA4 - 12	1111.50	0.00 0.03	516.23 -1057.43	516.23	8.37 -10.00	8.37	0.06 1.87	0.01 -0.01	1.96
VA4 - 13	1111.50	0.00 0.07	-708.16 -825.27	439.78	-3.37 -5.47	0.00	1.60 1.68	0.00 0.00	-2.25
VA5 - 1	1062.75	0.00 0.07	-450.57 719.41	945.96	3.29 0.64	3.29	1.72 0.69	0.00 0.00	-0.62
VA5 - 2	1062.75	0.00 0.07	719.45 -2338.56	719.45	0.64 -2.98	0.64	-1.67 3.05	0.00 0.00	-0.62
VA5 - 3	1062.75	0.00 0.11	-2679.53 488.29	488.29	3.80 -2.62	3.80	3.69 -2.62	0.01 -0.01	0.69
VA5 - 4	1062.75	0.00 0.11	487.90 1634.15	1634.15	-2.62 6.27	0.00	1.64 -0.49	-0.01 0.01	0.69
VA5 - 5	1062.75	0.00 0.11	1635.09 -2219.36	1635.09	6.27 -5.01	6.27	-0.49 2.90	0.00 0.00	0.69
VA5 - 6	1062.75	0.00 0.08	-1961.18 920.37	920.37	12.20 -14.77	12.20	2.70 -1.09	0.02 -0.02	-0.63
VA5 - 7	1062.75	0.00 0.08	919.83 -321.04	919.83	-12.92 -9.65	0.00	0.06 1.62	0.00 0.00	-12.79
VA6 - 1	1062.75	0.00 0.03	10.44 739.32	812.73	-16.40 -16.74	0.00	1.31 0.40	0.00 0.00	1.99
VA6 - 2	1062.75	0.00 0.03	745.82 -3743.00	745.82	-16.74 35.71	35.71	-2.11 3.74	-0.03 0.03	1.99
VA7 - 1	1062.75	-0.09 0.00	-920.36 2244.89	2244.89	-49.17 2.48	2.48	2.85 -1.18	-0.03 0.03	-4.13
VA7 - 2	1062.75	-0.09 0.00	2238.39 0.00	2238.39	2.48 0.00	2.48	-0.54 2.25	0.00 0.00	-4.13
VA8 - 1	1184.63	0.00 0.68	-4858.27 -9222.01	4035.95	-0.28 -1.13	0.00	4.59 5.61	0.00 0.00	-1.80
VA8 - 2	1184.63	0.00 1.00	-11925.12 -7967.27	6629.13	16.51 -9.14	16.51	6.63 5.88	0.00 0.00	1.46
VA9 - 1	1111.50	0.00 0.17	-2357.26 -3581.58	1736.10	40.20 -31.75	40.20	3.02 3.44	0.01 -0.01	3.24
VA9 - 2	1111.50	0.00 0.25	-3719.49 -3616.63	1958.32	-15.01 14.14	14.14	3.55 3.52	0.00 0.00	-0.34



	<b>AltoQi Eberick 2018</b> <b>Plena</b>	
	<b>Leilson Campos</b> <b>Rezende</b> <b>Rezende Engenharia</b>	<b>11/5/2021</b> <b>12:14:59</b>

VA10 - 1	1111.50	0.00 0.15	-2875.86 -2224.75	1242.48	31.08 -44.06	31.08	3.03 2.78	0.01 -0.01	0.96
VA10 - 2	1111.50	0.00 0.07	-1796.28 -1007.46	831.41	-53.24 31.50	31.50	2.42 2.02	-0.02 0.02	-4.23
VA11 - 1	1062.75	0.00 0.03	-269.98 -816.77	0.00	1.64 7.26	7.26	0.74 1.31	0.00 0.00	2.47
VA11 - 2	1062.75	0.00 0.05	-1502.54 957.76	1304.93	-3.97 1.88	1.88	2.44 0.86	0.00 0.00	-1.75
VA11 - 3	1062.75	0.00 0.05	954.14 -1533.12	954.14	1.88 7.80	7.80	-1.92 2.99	-0.01 0.01	-1.75
VA12 - 1	1062.75	-0.02 0.00	0.00 2410.21	2786.94	0.00 2.95	2.95	2.43 0.89	0.00 0.00	0.17
VA12 - 2	1062.75	-0.02 0.00	2413.82 0.00	2413.82	2.95 0.00	2.95	-1.95 2.99	0.00 0.00	0.17
VA13	1014.00	0.00 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-0.04
VA14 - 1	1062.75	0.00 0.06	0.00 3085.63	3085.63	0.00 -1.61	0.00	3.50 -2.38	0.00 0.00	1.30
VA14 - 2	1062.75	0.00 0.06	3086.66 0.00	3242.43	-1.61 0.00	0.00	0.58 2.63	0.00 0.00	1.30
VA15	1014.00	-0.01 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.39
VA16	1014.00	0.00 0.01	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-0.93
VA17 - 1	1062.75	0.00 0.08	0.00 5422.67	5422.67	0.00 2.84	2.84	5.72 -4.61	0.00 0.00	-7.12
VA17 - 2	1062.75	0.00 0.08	5421.65 0.00	5421.65	-1.83 0.00	0.00	-0.40 3.42	0.00 0.00	2.03
VA18	1062.75	0.00 0.07	-393.95 230.68	463.09	-14.12 18.92	18.92	1.35 0.70	-0.02 0.02	1.51
VA19	1062.75	0.00 0.00	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-7.48
VA20	1062.75	-0.02 0.00	-12.15 0.00	484.18	-1.85 0.00	0.00	1.03 1.02	0.00 0.00	0.53
VA21 - 1	1062.75	0.00 0.20	-2154.29 3125.37	3125.37	35.65 -42.37	35.65	3.35 0.06	0.02 -0.02	7.31
VA21 - 2	1062.75	0.00 0.20	3127.36 -2124.75	3127.36	-25.97 -17.93	0.00	-1.37 3.61	0.00 0.00	-3.13
VA22	1062.75	0.00 0.11	-685.93 -987.80	931.01	-10.66 13.74	13.74	1.86 2.02	-0.01 0.01	0.25
VA23	1062.75	0.00 0.03	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.50
VA24 - 1	1111.50	0.00 0.16	-2421.14 -3524.42	1730.65	-74.05 47.23	47.23	3.04 3.42	-0.02 0.02	-6.61
VA24 - 2	1111.50	0.00 0.22	-3571.28 -3931.71	1879.03	10.45 35.36	35.36	3.48 3.59	0.00 0.00	-0.36
VA25 - 1	1111.50	0.00 0.27	-4253.69 2377.66	2377.66	107.09 -52.55	107.09	4.53 -2.40	0.08 -0.08	5.05
VA25 - 2	1111.50	0.00 0.27	2381.80 -3191.47	2390.02	-52.55 -14.46	0.00	0.15 3.52	-0.01 0.01	5.05
VA25 - 3	1111.50	0.00 0.09	-2250.42 -844.87	726.67	-14.71 1.57	1.57	2.57 1.87	0.00 0.00	-1.26

CASO: 1.3G1+1.4G2+1.2D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.39	-1983.21 2533.34	2533.34	-10.73 1.00	1.00	3.36 -1.29	-0.01 0.01	1.83
VA1 - 2	1062.75	0.00 0.40	2533.41 157.49	2533.41	1.00 -13.67	0.00	-1.70 2.82	0.01 -0.01	0.99
VA1 - 3	1062.75	0.00	158.62	158.62	-13.67	14.62	-5.45	-0.05	1.09



		0.39	-3186.14		14.62		6.06	0.05	
VA1 - 4	1062.75	0.00 0.06	-2839.96 431.42	1019.63	19.50 -16.80	19.50	2.86 1.12	0.01 -0.01	0.68
VA1 - 5	1062.75	0.00 0.06	433.47 -2039.07	433.47	-16.80 21.11	21.11	-4.54 5.08	-0.07 0.07	-4.26
VA1 - 6	1062.75	-0.02 0.00	-1780.23 -224.90	517.72	16.07 -6.18	16.07	2.21 1.26	0.01 -0.01	-0.88
VA2	1062.75	0.00 0.00	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-3.74
VA3 - 1	1062.75	0.00 0.00	0.00 -2143.90	1527.33	0.00 1.55	1.55	1.80 2.79	0.00 0.00	1.07
VA3 - 2	1062.75	0.00 0.00	-2152.68 7.16	7.16	8.74 0.00	8.74	2.21 -0.56	0.01 -0.01	0.00
VA4 - 1	1111.50	0.00 0.17	-2125.43 -2397.69	1254.35	53.41 -18.04	53.41	2.74 2.85	0.01 -0.01	1.26
VA4 - 2	1111.50	0.00 0.20	-2647.48 2266.91	2266.91	-9.05 -5.27	0.00	3.59 -1.40	0.00 0.00	-1.34
VA4 - 3	1111.50	0.00 0.20	2266.84 1889.20	2266.84	-5.27 1.67	0.00	-1.03 1.38	-0.02 0.02	-1.34
VA4 - 4	1111.50	0.00 0.20	1889.26 -151.82	1889.26	1.67 20.90	20.90	-2.36 3.18	-0.03 0.03	-1.34
VA4 - 5	1111.50	0.00 0.20	-152.92 -4048.71	0.00	20.90 -1.64	20.90	-6.68 7.30	0.04 -0.04	-3.64
VA4 - 6	1111.50	0.00 0.08	-4496.25 -303.23	0.00	-12.76 1.27	1.27	4.73 -3.61	-0.01 0.01	2.08
VA4 - 7	1111.50	0.00 0.08	-302.78 1885.61	1885.61	1.27 -1.50	1.27	2.63 -1.44	0.00 0.00	-0.45
VA4 - 8	1111.50	0.00 0.08	1884.67 1075.31	1978.65	-1.50 16.73	0.00	0.46 1.42	-0.01 0.01	-0.45
VA4 - 9	1111.50	0.00 0.08	1082.01 -3311.88	1082.01	16.73 -22.18	16.73	-7.14 7.79	0.07 -0.07	-0.45
VA4 - 10	1111.50	-0.05 0.00	-3068.41 -262.01	0.00	-9.32 1.91	1.91	3.43 -2.35	-0.01 0.01	1.98
VA4 - 11	1111.50	-0.05 0.00	-254.85 564.98	564.98	1.91 5.20	5.20	1.80 -1.18	-0.01 0.01	1.98
VA4 - 12	1111.50	-0.05 0.00	565.55 -829.91	575.15	5.20 -8.07	5.20	0.17 1.77	0.01 -0.01	1.98
VA4 - 13	1111.50	0.00 0.06	-1248.24 -98.19	599.08	-1.00 -14.92	0.00	2.03 1.25	0.00 0.00	-2.27
VA5 - 1	1062.75	0.00 0.08	-661.96 803.94	949.79	0.57 1.62	1.62	1.85 0.56	0.00 0.00	-0.64
VA5 - 2	1062.75	0.00 0.08	803.88 -2085.74	803.88	1.62 -2.83	1.62	-1.54 2.92	0.00 0.00	-0.64
VA5 - 3	1062.75	0.00 0.12	-2860.34 376.01	376.01	4.60 -2.72	4.60	3.75 -2.68	0.01 -0.01	0.73
VA5 - 4	1062.75	0.00 0.12	375.55 1595.13	1595.13	-2.72 6.52	0.00	1.71 -0.56	-0.01 0.01	0.73
VA5 - 5	1062.75	0.00 0.12	1596.07 -2103.30	1596.07	6.52 -4.37	6.52	-0.42 2.83	0.00 0.00	0.73
VA5 - 6	1062.75	0.00 0.10	-2093.50 949.50	949.50	12.34 -16.22	12.34	2.81 -1.19	0.02 -0.02	-0.62
VA5 - 7	1062.75	0.00 0.10	948.94 -124.28	958.38	-15.63 -23.85	0.00	0.16 1.52	0.01 -0.01	-13.22
VA6 - 1	1062.75	0.00 0.04	8.72 963.59	993.35	-3.45 -13.97	0.00	1.45 0.26	0.01 -0.01	2.09
VA6 - 2	1062.75	0.00 0.04	970.13 -3302.30	970.13	-13.97 29.68	29.68	-1.97 3.60	-0.03 0.03	2.09
VA7 - 1	1062.75	-0.06 0.00	-1214.26 2096.24	2096.24	-43.98 5.60	5.60	2.94 -1.27	-0.03 0.03	-4.29
VA7 - 2	1062.75	-0.06 0.00	2089.70 0.00	2089.70	5.60 0.00	5.60	-0.44 2.15	0.00 0.00	-4.29
VA8 - 1	1184.63	0.00 0.68	-5208.86 -8931.31	3977.08	-11.60 2.06	2.06	4.67 5.53	0.00 0.00	-1.83

VA8 - 2	1184.63	0.00 1.02	-12172.69 -7659.77	6680.44	13.72 1.04	13.72	6.68 5.83	0.00 0.00	1.47
VA9 - 1	1111.50	0.00 0.17	-2375.68 -3563.57	1735.27	52.49 -44.15	52.49	3.02 3.43	0.02 -0.02	4.79
VA9 - 2	1111.50	0.00 0.24	-3717.03 -3611.25	1962.28	-24.42 12.03	12.03	3.55 3.52	-0.01 0.01	-0.38
VA10 - 1	1111.50	0.00 0.14	-2877.63 -2222.38	1242.95	28.84 -42.44	28.84	3.03 2.78	0.01 -0.01	0.20
VA10 - 2	1111.50	0.00 0.07	-1799.57 -1004.44	831.44	-55.55 36.66	36.66	2.42 2.02	-0.02 0.02	-5.07
VA11 - 1	1062.75	0.00 0.03	-292.45 -809.99	0.00	4.11 4.39	4.39	0.76 1.29	0.00 0.00	2.00
VA11 - 2	1062.75	0.00 0.06	-1526.13 980.49	1315.31	-6.13 2.55	2.55	2.46 0.84	0.00 0.00	-1.30
VA11 - 3	1062.75	0.00 0.06	976.75 -1495.40	976.75	2.55 9.28	9.28	-1.90 2.98	-0.01 0.01	-1.30
VA12 - 1	1062.75	-0.02 0.00	0.00 2410.11	2786.88	0.00 2.86	2.86	2.43 0.89	0.00 0.00	0.07
VA12 - 2	1062.75	-0.02 0.00	2413.85 0.00	2413.85	2.86 0.00	2.86	-1.95 2.99	0.00 0.00	0.07
VA13	1014.00	0.00 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.06
VA14 - 1	1062.75	0.00 0.06	0.00 3085.50	3085.50	0.00 -1.95	0.00	3.50 -2.38	0.00 0.00	1.13
VA14 - 2	1062.75	0.00 0.06	3086.57 0.00	3242.36	-1.95 0.00	0.00	0.58 2.63	0.00 0.00	1.13
VA15	1014.00	-0.02 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.45
VA16	1014.00	0.00 0.01	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-0.94
VA17 - 1	1062.75	0.00 0.08	0.00 5422.81	5422.81	0.00 3.86	3.86	5.72 -4.61	0.00 0.00	-6.70
VA17 - 2	1062.75	0.00 0.08	5421.74 0.00	5421.74	-3.33 0.00	0.00	-0.40 3.42	0.00 0.00	2.08
VA18	1062.75	0.00 0.07	-385.12 220.49	459.24	-14.35 19.20	19.20	1.34 0.71	-0.02 0.02	1.38
VA19	1062.75	0.00 0.01	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-7.16
VA20	1062.75	-0.01 0.00	-12.60 0.00	483.98	-0.59 0.00	0.00	1.03 1.02	0.00 0.00	0.56
VA21 - 1	1062.75	0.00 0.21	-2200.05 3250.80	3250.80	33.08 -42.38	33.08	3.40 0.01	0.02 -0.02	6.39
VA21 - 2	1062.75	0.00 0.22	3252.89 -2184.46	3252.89	-38.93 -6.64	0.00	-1.45 3.70	-0.02 0.02	-2.33
VA22	1062.75	0.00 0.11	-658.79 -1014.28	931.34	-11.34 15.00	15.00	1.84 2.04	-0.01 0.01	0.48
VA23	1062.75	0.00 0.04	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.54
VA24 - 1	1111.50	0.00 0.16	-2414.56 -3532.80	1730.01	-65.74 39.18	39.18	3.04 3.42	-0.02 0.02	-5.09
VA24 - 2	1111.50	0.00 0.24	-3585.89 -3919.08	1877.61	4.79 21.00	21.00	3.49 3.59	0.00 0.00	-0.42
VA25 - 1	1111.50	0.00 0.27	-4204.31 2314.91	2314.91	83.40 -27.23	83.40	4.47 -2.34	0.06 -0.06	3.91
VA25 - 2	1111.50	0.00 0.27	2319.19 -3142.09	2334.42	-27.23 -17.84	0.00	0.19 3.49	0.00 0.00	3.91
VA25 - 3	1111.50	0.00 0.10	-2236.66 -846.35	731.61	-22.41 4.18	4.18	2.57 1.87	-0.01 0.01	-1.75


**CASO: 1.3G1+1.4G2+1.2D3**

Elemento	Carga (kgf/m)	Rd Nd	Mxi Mxf	MxMáx (kgf.m)	Myi Myf	MyMáx (kgf.m)	Vxi Vxf	Yi Yf	Mtd (kgf/m)
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		(tf)	(kgf.m)		(kgf.m)		(tf)	(tf)	
VA1 - 1	1062.75	0.00 0.40	-1773.27 2535.83	2535.83	1.31 -0.15	1.31	3.25 -1.18	0.00 0.00	2.39
VA1 - 2	1062.75	0.00 0.41	2535.92 47.94	2535.92	-0.15 -34.07	0.00	-1.81 2.93	0.03 -0.03	1.55
VA1 - 3	1062.75	0.00 0.40	49.12 -3357.63	49.12	-34.07 6.77	6.77	-5.55 6.17	-0.07 0.07	1.54
VA1 - 4	1062.75	0.00 0.07	-2719.40 343.35	989.51	14.12 -11.14	14.12	2.81 1.17	0.01 -0.01	0.27
VA1 - 5	1062.75	0.00 0.06	345.34 -2155.81	345.34	-11.14 16.42	16.42	-4.59 5.14	-0.05 0.05	-3.67
VA1 - 6	1062.75	-0.03 0.00	-1594.87 -451.82	445.40	14.49 -4.41	14.49	2.08 1.38	0.01 -0.01	-1.36
VA2	1062.75	0.00 0.01	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-3.83
VA3 - 1	1062.75	0.00 0.00	0.00 -2143.56	1527.46	0.00 3.70	3.70	1.80 2.79	0.00 0.00	1.04
VA3 - 2	1062.75	0.00 0.00	-2152.49 7.35	7.35	2.55 0.00	2.55	2.21 -0.56	0.00 0.00	0.00
VA4 - 1	1111.50	0.00 0.19	-1895.24 -2483.80	1332.72	45.68 -19.67	45.68	2.68 2.91	0.01 -0.01	1.15
VA4 - 2	1111.50	0.00 0.21	-2578.26 2180.24	2180.24	9.10 -10.87	9.10	3.51 -1.32	0.01 -0.01	0.52
VA4 - 3	1111.50	0.00 0.21	2180.15 1777.73	2180.15	-10.87 -4.07	0.00	-1.11 1.46	-0.02 0.02	0.52
VA4 - 4	1111.50	0.00 0.21	1777.75 -321.67	1777.75	-4.07 17.81	17.81	-2.44 3.26	-0.03 0.03	0.52
VA4 - 5	1111.50	0.00 0.21	-322.81 -4262.78	0.00	17.81 -25.35	17.81	-6.76 7.38	0.08 -0.08	-4.34
VA4 - 6	1111.50	0.00 0.10	-4312.57 -181.55	0.00	-24.65 -10.47	0.00	4.67 -3.55	-0.01 0.01	0.20
VA4 - 7	1111.50	0.00 0.10	-181.13 1940.93	1940.93	-10.47 -3.09	0.00	2.57 -1.37	-0.01 0.01	-1.31
VA4 - 8	1111.50	0.00 0.10	1939.98 1026.64	2007.96	-3.09 20.09	0.00	0.40 1.48	-0.01 0.01	-1.31
VA4 - 9	1111.50	0.00 0.10	1033.55 -3396.59	1033.55	20.09 -5.47	20.09	-7.20 7.86	0.04 -0.04	-1.31
VA4 - 10	1111.50	-0.02 0.00	-3003.39 -253.48	0.00	-6.93 3.78	3.78	3.37 -2.30	-0.01 0.01	2.06
VA4 - 11	1111.50	-0.02 0.00	-246.13 541.69	541.69	3.78 8.95	8.95	1.74 -1.13	-0.01 0.01	2.06
VA4 - 12	1111.50	-0.01 0.00	542.28 -955.28	542.28	8.95 -9.62	8.95	0.11 1.83	0.01 -0.01	2.06
VA4 - 13	1111.50	0.00 0.06	-983.51 -461.95	496.39	-4.08 -18.03	0.00	1.81 1.46	0.00 0.00	-2.29
VA5 - 1	1062.75	0.00 0.09	-558.97 765.11	949.64	14.03 -0.87	14.03	1.79 0.63	0.01 -0.01	0.38
VA5 - 2	1062.75	0.00 0.09	765.09 -2205.23	765.09	-0.87 -19.66	0.00	-1.61 2.98	0.01 -0.01	0.38
VA5 - 3	1062.75	0.00 0.13	-2771.20 431.17	431.17	-10.94 -8.00	0.00	3.72 -2.65	0.00 0.00	-0.17
VA5 - 4	1062.75	0.00 0.13	430.76 1613.98	1613.98	-8.00 2.07	0.00	1.67 -0.53	-0.01 0.01	-0.17
VA5 - 5	1062.75	0.00 0.13	1614.93 -2161.34	1614.93	2.07 7.70	7.70	-0.45 2.87	0.00 0.00	-0.17
VA5 - 6	1062.75	0.00 0.09	-2037.65 933.73	933.73	9.98 -14.10	9.98	2.76 -1.15	0.02 -0.02	-0.92
VA5 - 7	1062.75	0.00 0.09	933.14 -213.89	933.14	-19.60 -12.92	0.00	0.12 1.57	0.00 0.00	-12.64
VA6 - 1	1062.75	0.00 0.03	9.48 868.09	909.88	-15.81 -16.69	0.00	1.39 0.32	0.00 0.00	2.25
VA6 - 2	1062.75	0.00 0.03	874.63 -3489.98	874.63	-16.69 36.83	36.83	-2.03 3.66	-0.03 0.03	2.25

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VA7 - 1	1062.75	-0.08 0.00	-1087.85 2160.18	2160.18	-49.56 3.11	3.11	2.90 -1.23	-0.03 0.03	-4.47
VA7 - 2	1062.75	-0.08 0.00	2153.64 0.00	2153.64	3.11 0.00	3.11	-0.48 2.19	0.00 0.00	-4.47
VA8 - 1	1184.63	0.00 0.69	-5025.68 -9086.82	4002.73	-5.13 -3.53	0.00	4.63 5.57	0.00 0.00	-1.12
VA8 - 2	1184.63	0.00 1.02	-12053.99 -7811.88	6653.33	9.66 -2.42	9.66	6.66 5.85	0.00 0.00	0.92
VA9 - 1	1111.50	0.00 0.19	-2219.84 -3700.20	1756.35	34.89 -29.95	34.89	2.97 3.48	0.01 -0.01	4.03
VA9 - 2	1111.50	0.00 0.26	-3617.40 -3716.52	1959.36	-24.22 18.57	18.57	3.52 3.55	-0.01 0.01	-0.32
VA10 - 1	1111.50	0.00 0.15	-2759.68 -2329.29	1245.69	24.49 -41.88	24.49	2.99 2.82	0.01 -0.01	0.57
VA10 - 2	1111.50	0.00 0.07	-1645.16 -1188.85	807.53	-64.02 55.38	55.38	2.34 2.11	-0.03 0.03	-4.71
VA11 - 1	1062.75	0.00 0.01	-41.31 -945.58	100.45	-7.32 16.47	16.47	0.56 1.49	-0.01 0.01	2.25
VA11 - 2	1062.75	0.00 0.03	-1344.52 769.36	1208.91	-11.71 5.45	5.45	2.33 0.97	-0.01 0.01	-1.58
VA11 - 3	1062.75	0.00 0.03	765.53 -1834.73	765.53	5.45 16.53	16.53	-2.03 3.10	-0.01 0.01	-1.58
VA12 - 1	1062.75	-0.03 0.00	0.00 2410.04	2786.83	0.00 4.03	4.03	2.43 0.89	0.00 0.00	0.09
VA12 - 2	1062.75	-0.03 0.00	2413.87 0.00	2413.87	4.03 0.00	4.03	-1.95 2.99	0.00 0.00	0.09
VA13	1014.00	0.00 0.01	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.02
VA14 - 1	1062.75	0.00 0.10	0.00 3085.57	3085.57	0.00 -0.30	0.00	3.50 -2.38	0.00 0.00	1.18
VA14 - 2	1062.75	0.00 0.10	3086.61 0.00	3242.39	-0.30 0.00	0.00	0.58 2.63	0.00 0.00	1.18
VA15	1014.00	-0.01 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.41
VA16	1014.00	0.00 0.01	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-0.95
VA17 - 1	1062.75	0.00 0.06	0.00 5422.74	5422.74	0.00 -0.02	0.00	5.72 -4.61	0.00 0.00	-6.91
VA17 - 2	1062.75	0.00 0.06	5421.70 0.00	5421.70	1.13 0.00	1.13	-0.40 3.42	0.00 0.00	2.02
VA18	1062.75	0.00 0.05	-173.48 8.78	417.36	-0.82 3.48	3.48	1.12 0.93	0.00 0.00	1.44
VA19	1062.75	0.00 0.00	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-7.35
VA20	1062.75	-0.02 0.00	-11.73 0.00	484.37	5.50 0.00	5.50	1.03 1.02	0.00 0.00	0.59
VA21 - 1	1062.75	0.00 0.21	-2058.77 3172.07	3172.07	39.23 -46.16	39.23	3.34 0.07	0.03 -0.03	6.79
VA21 - 2	1062.75	0.00 0.21	3174.32 -2280.91	3174.32	-30.35 -18.85	0.00	-1.46 3.71	-0.01 0.01	-2.69
VA22	1062.75	0.00 0.11	-441.33 -1274.85	934.26	-7.74 10.50	10.50	1.71 2.17	0.00 0.00	0.32
VA23	1062.75	0.00 0.04	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.53
VA24 - 1	1111.50	0.00 0.18	-2233.59 -3689.30	1753.65	-60.26 37.18	37.18	2.98 3.48	-0.02 0.02	-5.83
VA24 - 2	1111.50	0.00 0.24	-3451.09 -4054.06	1881.87	10.75 24.74	24.74	3.44 3.63	0.00 0.00	-0.34
VA25 - 1	1111.50	0.00 0.28	-4077.24 2385.41	2385.41	98.51 -38.53	98.51	4.44 -2.31	0.07 -0.07	4.45
VA25 - 2	1111.50	0.00 0.28	2389.88 -3300.73	2390.77	-38.53 -22.21	0.00	0.12 3.56	0.00 0.00	4.45
VA25 - 3	1111.50	0.00	-2047.78	678.60	-6.18	0.00	2.46	0.00	-1.58

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		0.10	-1075.29		-15.39		1.98	0.00	
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CASO: 1.3G1+1.4G2+1.2D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.41	-1821.31 2531.84	2531.84	-23.11 2.76	2.76	3.27 -1.20	-0.01 0.01	1.32
VA1 - 2	1062.75	0.00 0.41	2531.98 67.87	2531.98	2.76 5.57	0.00	-1.79 2.90	0.00 0.00	0.48
VA1 - 3	1062.75	0.00 0.41	69.12 -3324.42	69.12	5.57 20.60	20.60	-5.53 6.15	-0.03 0.03	0.49
VA1 - 4	1062.75	0.00 0.07	-2749.51 362.84	995.22	24.96 -22.68	24.96	2.82 1.16	0.01 -0.01	0.80
VA1 - 5	1062.75	0.00 0.07	364.91 -2129.44	364.91	-22.68 24.79	24.79	-4.58 5.13	-0.09 0.09	-3.37
VA1 - 6	1062.75	-0.02 0.00	-1643.48 -383.64	469.79	18.93 -8.70	18.93	2.12 1.35	0.01 -0.01	-0.39
VA2	1062.75	0.00 0.00	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-3.53
VA3 - 1	1062.75	0.00 0.00	0.00 -2143.55	1527.47	0.00 -0.40	0.00	1.80 2.79	0.00 0.00	1.05
VA3 - 2	1062.75	0.00 0.00	-2152.55 7.28	7.28	12.61 0.00	12.61	2.21 -0.56	0.01 -0.01	0.00
VA4 - 1	1111.50	0.00 0.21	-1883.85 -2492.14	1334.64	54.43 -15.02	54.43	2.67 2.92	0.01 -0.01	1.35
VA4 - 2	1111.50	0.00 0.25	-2584.66 2183.87	2183.87	-24.77 -0.02	0.00	3.52 -1.33	-0.01 0.01	-2.36
VA4 - 3	1111.50	0.00 0.25	2183.72 1782.87	2183.72	-0.02 7.31	0.00	-1.11 1.45	-0.02 0.02	-2.36
VA4 - 4	1111.50	0.00 0.25	1782.88 -312.84	1782.88	7.31 22.77	22.77	-2.43 3.25	-0.02 0.02	-2.36
VA4 - 5	1111.50	0.00 0.25	-314.02 -4251.19	0.00	22.77 19.25	22.77	-6.75 7.37	0.01 -0.01	-7.09
VA4 - 6	1111.50	0.00 0.13	-4298.46 -173.40	0.00	-0.19 12.93	12.93	4.66 -3.54	-0.01 0.01	2.28
VA4 - 7	1111.50	0.00 0.13	-172.98 1942.71	1942.71	12.93 -0.14	12.93	2.56 -1.37	0.01 -0.01	0.83
VA4 - 8	1111.50	0.00 0.13	1941.79 1018.45	2007.27	-0.14 12.62	0.00	0.39 1.48	-0.01 0.01	0.83
VA4 - 9	1111.50	0.00 0.14	1025.36 -3408.26	1025.36	12.62 -39.70	12.62	-7.21 7.86	0.09 -0.09	0.83
VA4 - 10	1111.50	0.00 0.00	-3027.72 -263.96	0.00	-12.09 1.42	1.42	3.39 -2.31	-0.01 0.01	1.89
VA4 - 11	1111.50	0.00 0.00	-256.68 538.99	538.99	1.42 4.62	4.62	1.75 -1.14	-0.01 0.01	1.89
VA4 - 12	1111.50	-0.01 0.00	539.50 -932.06	539.58	4.62 -8.46	4.62	0.12 1.81	0.01 -0.01	1.89
VA4 - 13	1111.50	0.00 0.07	-972.88 -461.51	501.20	-0.30 -2.37	0.00	1.81 1.46	0.00 0.00	-2.22
VA5 - 1	1062.75	0.00 0.06	-553.56 758.24	946.12	-10.17 3.14	3.14	1.79 0.63	-0.01 0.01	-1.64
VA5 - 2	1062.75	0.00 0.06	758.24 -2219.07	758.24	3.14 13.85	13.85	-1.61 2.99	-0.01 0.01	-1.64
VA5 - 3	1062.75	0.00 0.10	-2768.67 433.13	433.13	19.33 2.66	19.33	3.72 -2.65	0.02 -0.02	1.59
VA5 - 4	1062.75	0.00 0.10	432.70 1615.31	1615.31	2.66 10.72	0.00	1.67 -0.53	-0.01 0.01	1.59
VA5 - 5	1062.75	0.00 0.10	1616.23 -2161.32	1616.23	10.72 -17.08	10.72	-0.45 2.87	0.01 -0.01	1.59
VA5 - 6	1062.75	0.00 0.09	-2017.03 936.13	936.13	14.56 -16.89	14.56	2.75 -1.14	0.02 -0.02	-0.34

VA5 - 7	1062.75	0.00 0.10	935.63 -231.43	935.63	-8.96 -20.58	0.00	0.10 1.58	0.01 -0.01	-13.36
VA6 - 1	1062.75	0.00 0.03	9.68 834.82	884.17	-4.04 -14.02	0.00	1.37 0.34	0.01 -0.01	1.83
VA6 - 2	1062.75	0.00 0.03	841.33 -3555.33	841.33	-14.02 28.57	28.57	-2.05 3.68	-0.03 0.03	1.83
VA7 - 1	1062.75	-0.08 0.00	-1046.76 2180.95	2180.95	-43.60 4.97	4.97	2.89 -1.22	-0.03 0.03	-3.95
VA7 - 2	1062.75	-0.08 0.00	2174.44 0.00	2174.44	4.97 0.00	4.97	-0.50 2.21	0.00 0.00	-3.95
VA8 - 1	1184.63	0.00 0.67	-5041.44 -9066.51	4003.75	-6.75 4.46	4.46	4.63 5.57	0.00 0.00	-2.51
VA8 - 2	1184.63	0.00 1.01	-12043.82 -7815.16	6656.25	20.57 -5.69	20.57	6.66 5.86	0.00 0.00	2.01
VA9 - 1	1111.50	0.00 0.16	-2513.10 -3444.95	1721.45	57.80 -45.95	57.80	3.07 3.39	0.02 -0.02	4.00
VA9 - 2	1111.50	0.00 0.23	-3819.12 -3511.36	1964.44	-15.22 7.59	7.59	3.59 3.49	0.00 0.00	-0.40
VA10 - 1	1111.50	0.00 0.13	-2993.81 -2117.84	1245.61	35.43 -44.62	35.43	3.07 2.73	0.02 -0.02	0.60
VA10 - 2	1111.50	0.00 0.07	-1950.70 -823.05	865.51	-44.78 12.78	12.78	2.50 1.94	-0.01 0.01	-4.58
VA11 - 1	1062.75	0.00 0.05	-521.12 -681.17	0.00	13.06 -4.82	13.06	0.94 1.11	0.01 -0.01	2.22
VA11 - 2	1062.75	0.00 0.08	-1684.15 1168.88	1419.12	1.61 -1.02	1.61	2.57 0.73	0.00 0.00	-1.47
VA11 - 3	1062.75	0.00 0.08	1165.36 -1193.79	1165.36	-1.02 0.55	0.55	-1.79 2.87	0.00 0.00	-1.47
VA12 - 1	1062.75	-0.01 0.00	0.00 2410.27	2786.99	0.00 1.79	1.79	2.43 0.89	0.00 0.00	0.15
VA12 - 2	1062.75	-0.01 0.00	2413.80 0.00	2413.80	1.79 0.00	1.79	-1.95 2.99	0.00 0.00	0.15
VA13	1014.00	0.00 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.00
VA14 - 1	1062.75	0.00 0.02	0.00 3085.57	3085.57	0.00 -3.26	0.00	3.50 -2.38	0.00 0.00	1.25
VA14 - 2	1062.75	0.00 0.02	3086.62 0.00	3242.40	-3.26 0.00	0.00	0.58 2.63	0.00 0.00	1.25
VA15	1014.00	-0.02 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.43
VA16	1014.00	0.00 0.02	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-0.92
VA17 - 1	1062.75	0.00 0.10	0.00 5422.74	5422.74	0.00 6.72	6.72	5.72 -4.61	-0.01 0.01	-6.91
VA17 - 2	1062.75	0.00 0.10	5421.69 0.00	5421.69	-6.29 0.00	0.00	-0.40 3.42	0.00 0.00	2.09
VA18	1062.75	0.00 0.08	-605.59 442.39	552.21	-27.65 34.64	34.64	1.57 0.48	-0.03 0.03	1.45
VA19	1062.75	0.00 0.01	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-7.28
VA20	1062.75	-0.01 0.00	-13.02 0.00	483.79	-7.93 0.00	0.00	1.03 1.02	0.00 0.00	0.51
VA21 - 1	1062.75	0.00 0.21	-2295.58 3204.10	3204.10	29.50 -38.58	29.50	3.42 -0.01	0.02 -0.02	6.91
VA21 - 2	1062.75	0.00 0.21	3205.92 -2028.30	3205.92	-34.55 -5.72	0.00	-1.36 3.60	-0.01 0.01	-2.78
VA22	1062.75	0.00 0.11	-903.38 -727.23	952.57	-14.26 18.25	18.25	1.99 1.89	-0.01 0.01	0.41
VA23	1062.75	0.00 0.03	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.51
VA24 - 1	1111.50	0.00 0.14	-2602.10 -3367.92	1712.60	-79.53 49.22	49.22	3.10 3.36	-0.02 0.02	-5.87
VA24 - 2	1111.50	0.00	-3706.09	1874.77	4.49	31.63	3.52	0.00	-0.44

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		0.22	-3796.73		31.63		3.55	0.00	
VA25 - 1	1111.50	0.00 0.26	-4380.75 2307.16	2307.16	91.97 -41.26	91.97	4.56 -2.43	0.07 -0.07	4.51
VA25 - 2	1111.50	0.00 0.26	2311.11 -3032.83	2333.67	-41.26 -10.09	0.00	0.22 3.45	-0.01 0.01	4.51
VA25 - 3	1111.50	0.00 0.09	-2439.30 -615.93	779.69	-30.94 21.14	21.14	2.68 1.76	-0.01 0.01	-1.44

CASO: 1.3G1+1.4G2+1.4Q									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.39	-1971.23 2612.61	2612.61	-76.96 4.87	4.87	3.39 -1.32	-0.04 0.04	-2.00
VA1 - 2	1062.75	0.00 0.39	2612.57 272.88	2612.57	4.87 -102.24	0.00	-1.67 2.78	0.10 -0.10	-2.87
VA1 - 3	1062.75	0.00 0.37	274.16 -3050.60	274.16	-102.24 178.21	178.21	-5.41 6.03	-0.48 0.48	-2.66
VA1 - 4	1062.75	-0.43 0.00	-2906.95 413.83	988.32	151.99 -114.88	151.99	2.88 1.11	0.07 -0.07	0.64
VA1 - 5	1062.75	-0.47 0.00	416.01 -2049.72	416.01	-114.88 151.36	151.36	-4.52 5.07	-0.52 0.52	-4.11
VA1 - 6	1062.75	-0.43 0.00	-1348.29 -807.46	348.09	119.58 -62.00	119.58	1.90 1.57	0.06 -0.06	1.82
VA2	1062.75	0.00 0.00	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-4.18
VA3 - 1	1062.75	0.00 0.01	0.00 -2142.13	1528.01	0.00 21.30	21.30	1.80 2.79	0.00 0.00	0.92
VA3 - 2	1062.75	0.00 0.00	-2151.28 8.56	8.56	71.17 0.00	71.17	2.21 -0.56	0.05 -0.05	0.00
VA4 - 1	1111.50	0.00 0.16	-2050.00 -2391.88	1296.36	79.36 -49.86	79.36	2.73 2.86	0.03 -0.03	1.04
VA4 - 2	1111.50	0.00 0.28	-2527.72 2232.77	2232.77	-86.03 -42.04	0.00	3.51 -1.32	-0.02 0.02	-1.72
VA4 - 3	1111.50	0.00 0.28	2232.81 1830.73	2232.81	-42.04 10.09	0.00	-1.11 1.46	-0.17 0.17	-1.72
VA4 - 4	1111.50	0.00 0.28	1830.84 -267.76	1830.84	10.09 189.27	189.27	-2.44 3.26	-0.24 0.24	-1.72
VA4 - 5	1111.50	0.00 0.26	-268.99 -4208.49	0.00	189.27 -6.58	189.27	-6.75 7.37	0.35 -0.35	-5.77
VA4 - 6	1111.50	-0.04 0.00	-4591.66 -330.76	0.00	-47.16 -2.59	0.00	4.80 -3.68	-0.04 0.04	3.53
VA4 - 7	1111.50	-0.04 0.00	-330.55 1930.47	1930.47	-2.59 -1.00	0.00	2.70 -1.50	0.00 0.00	0.76
VA4 - 8	1111.50	-0.04 0.00	1929.20 1233.68	2051.63	-1.00 126.39	0.00	0.52 1.35	-0.08 0.08	0.76
VA4 - 9	1111.50	-0.01 0.00	1240.63 -3113.34	1240.63	126.39 -149.57	126.39	-7.07 7.73	0.47 -0.47	0.76
VA4 - 10	1111.50	-0.19 0.00	-2687.99 -116.28	0.00	-41.21 11.64	11.64	3.19 -2.11	-0.05 0.05	1.65
VA4 - 11	1111.50	-0.19 0.00	-107.72 579.04	579.04	11.64 16.48	16.48	1.55 -0.94	-0.01 0.01	1.65
VA4 - 12	1111.50	-0.21 0.00	580.17 -1235.61	580.17	16.48 -64.75	16.48	-0.08 2.01	0.05 -0.05	1.65
VA4 - 13	1111.50	0.00 0.05	-963.81 -506.81	479.20	-13.17 -22.71	0.00	1.79 1.48	0.00 0.00	-2.46
VA5 - 1	1062.75	0.00 0.00	-563.80 763.09	946.85	-70.70 38.63	38.63	1.79 0.63	-0.05 0.05	-2.05
VA5 - 2	1062.75	0.00 0.00	762.98 -2205.74	762.98	38.63 1.67	38.63	-1.61 2.98	0.03 -0.03	-2.05
VA5 - 3	1062.75	0.00 0.04	-2740.37 450.91	450.91	0.24 0.93	0.93	3.71 -2.64	0.00 0.00	1.57



VA5 - 4	1062.75	0.00 0.04	450.67 1622.03	1622.03	0.93 48.09	0.00	1.66 -0.52	-0.04 0.04	1.57
VA5 - 5	1062.75	0.00 0.04	1623.30 -2178.06	1623.30	48.09 -20.68	48.09	-0.46 2.88	0.03 -0.03	1.57
VA5 - 6	1062.75	0.00 0.09	-2007.51 933.86	933.86	70.70 -54.48	70.70	2.74 -1.13	0.08 -0.08	-0.49
VA5 - 7	1062.75	0.00 0.11	932.73 -246.86	932.73	-9.56 -52.06	0.00	0.09 1.59	0.03 -0.03	-13.83
VA6 - 1	1062.75	0.00 0.05	9.59 851.05	896.32	-2.73 -14.80	0.00	1.38 0.33	0.01 -0.01	2.11
VA6 - 2	1062.75	0.00 0.05	857.58 -3523.44	857.58	-14.80 33.40	33.40	-2.04 3.67	-0.03 0.03	2.11
VA7 - 1	1062.75	-0.08 0.00	-1071.70 2168.35	2168.35	-47.66 6.86	6.86	2.90 -1.23	-0.03 0.03	-4.29
VA7 - 2	1062.75	-0.08 0.00	2161.82 0.00	2161.82	6.86 0.00	6.86	-0.49 2.20	0.00 0.00	-4.29
VA8 - 1	1184.63	0.00 0.68	-5031.74 -9077.72	4003.72	-6.21 1.48	1.48	4.63 5.57	0.00 0.00	-1.86
VA8 - 2	1184.63	0.00 1.01	-12046.92 -7815.10	6654.85	15.15 -3.73	15.15	6.66 5.86	0.00 0.00	1.56
VA9 - 1	1111.50	0.00 0.17	-2387.06 -3554.59	1733.72	47.31 -38.53	47.31	3.03 3.43	0.01 -0.01	4.02
VA9 - 2	1111.50	0.00 0.24	-3732.78 -3598.98	1961.00	-19.33 12.39	12.39	3.56 3.52	0.00 0.00	-0.36
VA10 - 1	1111.50	0.00 0.14	-2892.97 -2209.80	1242.64	30.02 -42.24	30.02	3.03 2.77	0.01 -0.01	0.58
VA10 - 2	1111.50	0.00 0.07	-1821.64 -977.39	835.22	-54.51 36.02	36.02	2.43 2.01	-0.02 0.02	-4.58
VA11 - 1	1062.75	-0.10 0.00	-229.00 -238.59	256.32	70.42 -43.50	70.42	1.02 1.03	0.06 -0.06	2.13
VA11 - 2	1062.75	-0.70 0.00	-1168.15 405.11	1020.75	-0.70 -4.13	0.00	2.16 1.14	0.00 0.00	-1.54
VA11 - 3	1062.75	-0.70 0.00	400.93 -2375.69	400.93	-4.13 -6.55	0.00	-2.20 3.28	0.00 0.00	-1.54
VA12 - 1	1062.75	-0.14 0.00	0.00 2409.78	2786.63	0.00 -0.96	0.00	2.43 0.90	0.00 0.00	-0.03
VA12 - 2	1062.75	-0.14 0.00	2413.96 0.00	2413.96	-0.96 0.00	0.00	-1.95 2.99	0.00 0.00	-0.03
VA13	1014.00	0.00 0.08	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.11
VA14 - 1	1062.75	0.00 0.59	0.00 3085.86	3085.86	0.00 -11.08	0.00	3.50 -2.38	0.01 -0.01	1.28
VA14 - 2	1062.75	0.00 0.59	3086.77 0.00	3242.53	-11.08 0.00	0.00	0.58 2.63	0.00 0.00	1.28
VA15	1014.00	-0.04 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.24
VA16	1014.00	0.00 0.07	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-1.27
VA17 - 1	1062.75	0.00 0.54	0.00 5422.45	5422.45	0.00 24.37	24.37	5.72 -4.61	-0.02 0.02	-6.95
VA17 - 2	1062.75	0.00 0.60	5421.53 0.00	5421.53	-25.50 0.00	0.00	-0.40 3.42	-0.01 0.01	2.20
VA18	1062.75	0.00 0.27	-782.31 557.20	604.20	-82.90 116.70	116.70	1.72 0.33	-0.10 0.10	1.58
VA19	1062.75	0.00 0.05	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-8.56
VA20	1062.75	-0.06 0.00	-13.34 0.00	483.65	-44.91 0.00	0.00	1.03 1.02	-0.02 0.02	1.13
VA21 - 1	1062.75	0.00 0.22	-2143.32 3180.57	3180.57	35.83 -46.21	35.83	3.36 0.05	0.03 -0.03	6.85
VA21 - 2	1062.75	0.00 0.22	3182.68 -2188.72	3182.68	-43.47 13.31	13.31	-1.42 3.67	-0.03 0.03	-2.74
VA22	1062.75	0.00	-476.53	965.59	-58.74	84.40	1.75	-0.04	-0.06




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		0.17	-1160.35		84.40		2.13	0.04	
VA23	1062.75	0.00 0.04	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.53
VA24 - 1	1111.50	0.00 0.17	-2332.60 -3604.02	1738.02	-72.27 45.07	45.07	3.01 3.45	-0.02 0.02	-5.85
VA24 - 2	1111.50	0.00 0.23	-3517.83 -3986.76	1879.99	6.17 29.82	29.82	3.46 3.61	0.00 0.00	-0.39
VA25 - 1	1111.50	0.00 0.27	-4158.68 2366.30	2366.30	93.42 -41.59	93.42	4.47 -2.35	0.07 -0.07	4.48
VA25 - 2	1111.50	0.00 0.27	2370.59 -3229.07	2377.16	-41.59 -11.26	0.00	0.15 3.53	-0.01 0.01	4.48
VA25 - 3	1111.50	0.00 0.10	-2138.86 -970.37	700.99	-7.89 -20.68	0.00	2.51 1.93	0.00 0.00	-1.41


CASO: 1.3G1+1.4G2+1.4Q+0.84V1+0.84D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.42	-1304.36 2613.98	2613.98	-79.48 4.88	4.88	3.05 -0.98	-0.04 0.04	-1.92
VA1 - 2	1062.75	0.00 0.43	2614.12 -84.93	2614.12	4.88 -101.34	4.88	-2.01 3.13	0.10 -0.10	-2.80
VA1 - 3	1062.75	0.00 0.40	-83.32 -3606.88	0.00	-101.34 176.86	176.86	-5.75 6.37	-0.48 0.48	-2.94
VA1 - 4	1062.75	-0.42 0.00	-2528.33 132.65	903.79	151.30 -113.55	151.30	2.70 1.28	0.07 -0.07	0.24
VA1 - 5	1062.75	-0.46 0.00	134.76 -2421.45	134.76	-113.55 149.32	149.32	-4.70 5.25	-0.51 0.51	-1.36
VA1 - 6	1062.75	-0.45 0.00	-768.91 -1501.83	302.60	119.03 -60.81	119.03	1.51 1.96	0.06 -0.06	1.89
VA2	1062.75	0.00 0.00	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-3.91
VA3 - 1	1062.75	0.00 0.01	0.00 -2140.77	1528.53	0.00 22.12	22.12	1.80 2.79	-0.01 0.01	0.83
VA3 - 2	1062.75	0.00 0.00	-2150.65 9.18	9.18	68.73 0.00	68.73	2.21 -0.56	0.04 -0.04	0.00
VA4 - 1	1111.50	0.00 0.33	-1136.89 -2741.68	1622.47	59.29 -39.40	59.29	2.48 3.11	0.02 -0.02	1.02
VA4 - 2	1111.50	0.00 0.40	-2273.45 1905.25	1905.25	-85.86 -42.81	0.00	3.22 -1.03	-0.02 0.02	-0.29
VA4 - 3	1111.50	0.00 0.39	1905.11 1410.54	1905.11	-42.81 9.31	0.00	-1.41 1.75	-0.17 0.17	-0.29
VA4 - 4	1111.50	0.00 0.39	1410.42 -905.97	1410.42	9.31 188.83	188.83	-2.73 3.55	-0.24 0.24	-0.29
VA4 - 5	1111.50	0.00 0.38	-907.47 -5011.92	0.00	188.83 -5.23	188.83	-7.05 7.67	0.35 -0.35	-13.96
VA4 - 6	1111.50	0.00 0.08	-3855.01 155.05	155.05	-47.25 -2.77	0.00	4.55 -3.43	-0.04 0.04	0.44
VA4 - 7	1111.50	0.00 0.08	155.17 2147.82	2147.82	-2.77 0.11	0.00	2.45 -1.25	0.00 0.00	1.73
VA4 - 8	1111.50	0.00 0.08	2146.51 1030.29	2179.83	0.11 126.17	0.00	0.28 1.60	-0.07 0.07	1.73
VA4 - 9	1111.50	0.00 0.10	1038.06 -3462.56	1038.06	126.17 -146.79	126.17	-7.32 7.98	0.46 -0.46	1.73
VA4 - 10	1111.50	-0.09 0.00	-2482.90 -103.36	0.00	-49.10 12.93	12.93	2.99 -1.91	-0.06 0.06	1.67
VA4 - 11	1111.50	-0.09 0.00	-94.17 483.63	483.63	12.93 23.85	23.85	1.36 -0.74	-0.02 0.02	1.67
VA4 - 12	1111.50	-0.11 0.00	484.66 -1676.73	484.66	23.85 -70.67	23.85	-0.28 2.21	0.05 -0.05	1.67
VA4 - 13	1111.50	0.00 0.02	80.06 -1914.34	495.13	-23.13 1.05	1.05	0.96 2.31	-0.01 0.01	-2.41

VA5 - 1	1062.75	0.00 0.00	-76.21 567.65	970.09	-77.93 39.14	39.14	1.49 0.93	-0.05 0.05	-2.12
VA5 - 2	1062.75	0.00 0.00	567.77 -2789.58	567.77	39.14 5.98	39.14	-1.91 3.28	0.03 -0.03	-2.12
VA5 - 3	1062.75	0.00 0.02	-2322.80 710.20	710.20	-2.05 0.72	0.72	3.55 -2.48	0.00 0.00	1.61
VA5 - 4	1062.75	0.00 0.02	710.07 1712.08	1712.08	0.72 47.66	0.00	1.50 -0.36	-0.04 0.04	1.61
VA5 - 5	1062.75	0.00 0.02	1713.38 -2446.13	1713.38	47.66 -17.05	47.66	-0.62 3.04	0.03 -0.03	1.61
VA5 - 6	1062.75	0.00 0.05	-1702.27 866.43	866.43	60.87 -49.93	60.87	2.50 -0.88	0.07 -0.07	-0.49
VA5 - 7	1062.75	0.00 0.07	865.39 -701.23	865.39	-14.68 -12.68	0.00	-0.15 1.83	0.00 0.00	-12.84
VA6 - 1	1062.75	0.00 0.02	13.68 324.42	527.44	-36.41 -21.61	0.00	1.05 0.66	-0.01 0.01	1.90
VA6 - 2	1062.75	0.00 0.02	330.87 -4558.31	330.87	-21.61 55.45	55.45	-2.37 4.00	-0.05 0.05	1.90
VA7 - 1	1062.75	-0.17 0.00	-354.83 2530.93	2530.93	-62.33 1.07	1.07	2.67 -1.00	-0.04 0.04	-3.94
VA7 - 2	1062.75	-0.17 0.00	2524.49 0.00	2524.49	1.07 0.00	1.07	-0.71 2.42	0.00 0.00	-3.94
VA8 - 1	1184.63	0.00 0.70	-4191.46 -9774.69	4163.91	19.47 -4.12	19.47	4.45 5.75	0.00 0.00	-1.87
VA8 - 2	1184.63	0.00 0.97	-11451.86 -8551.77	6550.37	21.39 -26.72	21.39	6.53 5.98	0.00 0.00	1.64
VA9 - 1	1111.50	0.00 0.18	-2369.11 -3574.24	1733.51	21.59 -12.22	21.59	3.02 3.44	0.01 -0.01	0.47
VA9 - 2	1111.50	0.00 0.26	-3753.96 -3595.15	1952.72	1.63 17.05	17.05	3.56 3.51	0.00 0.00	-0.42
VA10 - 1	1111.50	0.00 0.15	-2909.17 -2200.07	1240.40	36.11 -40.52	36.11	3.04 2.77	0.01 -0.01	2.42
VA10 - 2	1111.50	0.00 0.08	-1842.40 -949.24	840.20	-44.93 13.09	13.09	2.44 2.00	-0.01 0.01	-2.27
VA11 - 1	1062.75	-0.11 0.00	-240.18 -220.30	260.45	71.49 -49.81	71.49	1.04 1.02	0.06 -0.06	3.16
VA11 - 2	1062.75	-0.70 0.00	-1161.29 407.20	1024.43	1.81 -4.93	1.81	2.16 1.15	0.00 0.00	-2.35
VA11 - 3	1062.75	-0.70 0.00	403.29 -2374.88	403.29	-4.93 -8.07	0.00	-2.20 3.28	0.00 0.00	-2.35
VA12 - 1	1062.75	-0.14 0.00	0.00 2409.98	2786.78	0.00 -0.70	0.00	2.43 0.89	0.00 0.00	0.14
VA12 - 2	1062.75	-0.14 0.00	2413.89 0.00	2413.89	-0.70 0.00	0.00	-1.95 2.99	0.00 0.00	0.14
VA13	1014.00	0.00 0.08	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-0.12
VA14 - 1	1062.75	0.00 0.59	0.00 3086.12	3086.12	0.00 -10.71	0.00	3.50 -2.38	0.01 -0.01	1.60
VA14 - 2	1062.75	0.00 0.58	3086.95 0.00	3242.67	-10.71 0.00	0.00	0.58 2.63	0.00 0.00	1.60
VA15	1014.00	-0.04 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.13
VA16	1014.00	0.00 0.07	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-1.30
VA17 - 1	1062.75	0.00 0.54	0.00 5422.19	5422.19	0.00 23.13	23.13	5.72 -4.61	-0.02 0.02	-7.77
VA17 - 2	1062.75	0.00 0.59	5421.36 0.00	5421.36	-23.49 0.00	0.00	-0.40 3.42	-0.01 0.01	2.12
VA18	1062.75	0.00 0.27	-795.19 572.64	616.49	-74.69 106.55	106.55	1.73 0.32	-0.09 0.09	1.89
VA19	1062.75	0.00 0.04	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-9.18
VA20	1062.75	-0.07	-12.35	484.09	-35.25	0.00	1.03	-0.02	1.03

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		0.00	0.00		0.00		1.02	0.02	
VA21 - 1	1062.75	0.00 0.18	-2030.97 2885.78	2899.07	42.69 -46.46	42.69	3.24 0.17	0.03 -0.03	9.07
VA21 - 2	1062.75	0.00 0.17	2887.68 -2052.10	2887.68	-10.05 -20.49	0.00	-1.22 3.46	0.00 0.00	-4.61
VA22	1062.75	0.00 0.15	-485.50 -1158.65	961.37	-57.48 83.37	83.37	1.75 2.12	-0.04 0.04	-0.45
VA23	1062.75	0.00 0.04	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.45
VA24 - 1	1111.50	0.00 0.15	-2304.17 -3623.73	1744.10	-93.62 64.88	64.88	3.00 3.46	-0.03 0.03	-9.33
VA24 - 2	1111.50	0.00 0.20	-3453.29 -4048.54	1883.40	16.67 65.04	65.04	3.44 3.63	-0.01 0.01	-0.39
VA25 - 1	1111.50	0.00 0.28	-4242.02 2531.25	2531.25	156.08 -103.08	156.08	4.60 -2.48	0.14 -0.14	7.23
VA25 - 2	1111.50	0.00 0.28	2535.19 -3381.21	2535.19	-103.08 1.02	1.02	0.05 3.63	-0.03 0.03	7.23
VA25 - 3	1111.50	0.00 0.08	-2121.34 -1027.78	675.13	15.25 -36.20	15.25	2.49 1.95	0.01 -0.01	-0.05

CASO: 1.3G1+1.4G2+1.4Q+0.84V2+0.84D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.36	-2638.10 2611.23	2611.23	-74.45 4.86	4.86	3.73 -1.66	-0.04 0.04	-2.08
VA1 - 2	1062.75	0.00 0.36	2611.03 630.69	2611.03	4.86 -103.14	0.00	-1.33 2.44	0.10 -0.10	-2.94
VA1 - 3	1062.75	0.00 0.33	631.64 -2494.32	631.64	-103.14 179.57	179.57	-5.07 5.69	-0.49 0.49	-2.37
VA1 - 4	1062.75	-0.44 0.00	-3285.57 695.01	1100.10	152.68 -116.21	152.68	3.05 0.93	0.07 -0.07	1.04
VA1 - 5	1062.75	-0.48 0.00	697.26 -1677.98	697.26	-116.21 153.40	153.40	-4.35 4.89	-0.52 0.52	-6.86
VA1 - 6	1062.75	-0.41 0.00	-1927.68 -113.10	535.23	120.12 -63.19	120.12	2.29 1.18	0.06 -0.06	1.76
VA2	1062.75	0.00 0.00	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-4.45
VA3 - 1	1062.75	0.00 0.01	0.00 -2143.49	1527.49	0.00 20.49	20.49	1.80 2.79	0.00 0.00	1.01
VA3 - 2	1062.75	0.00 0.00	-2151.91 7.93	7.93	73.62 0.00	73.62	2.21 -0.56	0.05 -0.05	0.00
VA4 - 1	1111.50	0.00 0.00	-2963.11 -2042.09	1026.28	99.43 -60.31	99.43	2.98 2.61	0.03 -0.03	1.05
VA4 - 2	1111.50	0.00 0.16	-2781.99 2560.30	2560.30	-86.20 -41.26	0.00	3.81 -1.62	-0.02 0.02	-3.15
VA4 - 3	1111.50	0.00 0.16	2560.50 2250.92	2560.50	-41.26 10.87	0.00	-0.82 1.16	-0.17 0.17	-3.15
VA4 - 4	1111.50	0.00 0.16	2251.26 370.45	2251.26	10.87 189.72	0.00	-2.14 2.96	-0.24 0.24	-3.15
VA4 - 5	1111.50	0.00 0.14	369.50 -3405.07	369.50	189.72 -7.93	189.72	-6.46 7.08	0.35 -0.35	2.41
VA4 - 6	1111.50	-0.15 0.00	-5328.31 -816.58	0.00	-47.07 -2.40	0.00	5.05 -3.93	-0.04 0.04	6.61
VA4 - 7	1111.50	-0.15 0.00	-816.26 1713.12	1713.12	-2.40 -2.11	0.00	2.95 -1.75	0.00 0.00	-0.21
VA4 - 8	1111.50	-0.15 0.00	1711.88 1437.07	1979.22	-2.11 126.61	0.00	0.77 1.10	-0.08 0.08	-0.21
VA4 - 9	1111.50	-0.13 0.00	1443.20 -2764.12	1443.20	126.61 -152.34	126.61	-6.82 7.48	0.47 -0.47	-0.21
VA4 - 10	1111.50	-0.28 0.00	-2893.07 -129.20	0.00	-33.32 10.34	10.34	3.39 -2.31	-0.05 0.05	1.62

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VA4 - 11	1111.50	-0.28 0.00	-121.28 674.45	674.45	10.34 9.12	10.34	1.75 -1.14	0.00 0.00	1.62
VA4 - 12	1111.50	-0.31 0.00	675.68 -794.49	675.94	9.12 -58.82	9.12	0.12 1.81	0.04 -0.04	1.62
VA4 - 13	1111.50	0.00 0.08	-2007.68 900.72	1090.02	-3.21 -46.48	0.00	2.62 0.65	0.01 -0.01	-2.50
VA5 - 1	1062.75	0.00 0.01	-1051.39 958.53	1003.16	-63.46 38.12	38.12	2.09 0.33	-0.04 0.04	-1.98
VA5 - 2	1062.75	0.00 0.01	958.19 -1621.90	958.19	38.12 -2.63	38.12	-1.31 2.68	0.03 -0.03	-1.98
VA5 - 3	1062.75	0.00 0.05	-3157.94 191.62	191.62	2.54 1.13	2.54	3.87 -2.80	0.00 0.00	1.53
VA5 - 4	1062.75	0.00 0.05	191.28 1531.98	1531.98	1.13 48.52	0.00	1.82 -0.67	-0.04 0.04	1.53
VA5 - 5	1062.75	0.00 0.05	1533.21 -1909.99	1533.21	48.52 -24.31	48.52	-0.30 2.72	0.03 -0.03	1.53
VA5 - 6	1062.75	0.00 0.13	-2312.75 1001.30	1001.30	80.52 -59.02	80.52	2.99 -1.37	0.09 -0.09	-0.48
VA5 - 7	1062.75	0.00 0.16	1000.07 207.52	1049.61	-4.45 -91.44	0.00	0.34 1.34	0.06 -0.06	-14.82
VA6 - 1	1062.75	0.00 0.08	5.50 1377.68	1377.68	30.94 -7.99	30.94	1.71 -0.01	0.02 -0.02	2.33
VA6 - 2	1062.75	0.00 0.08	1384.29 -2488.58	1384.29	-7.99 11.34	11.34	-1.71 3.34	-0.01 0.01	2.33
VA7 - 1	1062.75	0.00 0.01	-1788.57 1805.76	1805.76	-32.98 12.65	12.65	3.12 -1.45	-0.03 0.03	-4.63
VA7 - 2	1062.75	0.00 0.01	1799.15 0.00	1799.15	12.65 0.00	12.65	-0.26 1.97	0.01 -0.01	-4.63
VA8 - 1	1184.63	0.00 0.66	-5872.02 -8380.75	3878.44	-31.89 7.08	7.08	4.81 5.39	0.00 0.00	-1.84
VA8 - 2	1184.63	0.00 1.06	-12641.98 -7078.42	6776.88	8.90 19.26	19.26	6.78 5.73	0.00 0.00	1.47
VA9 - 1	1111.50	0.00 0.16	-2405.01 -3534.94	1733.92	73.03 -64.84	73.03	3.03 3.42	0.02 -0.02	7.57
VA9 - 2	1111.50	0.00 0.22	-3711.59 -3602.81	1969.27	-40.28 7.72	7.72	3.55 3.52	-0.01 0.01	-0.30
VA10 - 1	1111.50	0.00 0.13	-2876.78 -2219.54	1244.87	23.93 -43.96	23.93	3.03 2.78	0.01 -0.01	-1.26
VA10 - 2	1111.50	0.00 0.06	-1800.87 -1005.54	830.25	-64.08 58.95	58.95	2.42 2.02	-0.03 0.03	-6.90
VA11 - 1	1062.75	-0.10 0.00	-217.82 -256.88	254.40	69.35 -37.18	69.35	1.01 1.05	0.06 -0.06	1.11
VA11 - 2	1062.75	-0.70 0.00	-1175.01 403.01	1017.06	-3.21 -3.33	0.00	2.16 1.14	0.00 0.00	-0.73
VA11 - 3	1062.75	-0.70 0.00	398.56 -2376.50	398.56	-3.33 -5.04	0.00	-2.20 3.28	0.00 0.00	-0.73
VA12 - 1	1062.75	-0.14 0.00	0.00 2409.57	2786.48	0.00 -1.23	0.00	2.43 0.90	0.00 0.00	-0.20
VA12 - 2	1062.75	-0.14 0.00	2414.02 0.00	2414.02	-1.23 0.00	0.00	-1.95 2.99	0.00 0.00	-0.20
VA13	1014.00	0.00 0.08	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.34
VA14 - 1	1062.75	0.00 0.59	0.00 3085.59	3085.59	0.00 -11.45	0.00	3.50 -2.38	0.01 -0.01	0.96
VA14 - 2	1062.75	0.00 0.59	3086.60 0.00	3242.38	-11.45 0.00	0.00	0.58 2.63	0.00 0.00	0.96
VA15	1014.00	-0.05 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.34
VA16	1014.00	0.00 0.08	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-1.24
VA17 - 1	1062.75	0.00 0.55	0.00 5422.72	5422.72	0.00 25.60	25.60	5.72 -4.61	-0.02 0.02	-6.13
VA17 - 2	1062.75	0.00	5421.71	5421.71	-27.52	0.00	-0.40	-0.01	2.29

		0.60	0.00		0.00		3.42	0.01	
VA18	1062.75	0.00 0.27	-769.43 541.77	593.10	-91.10 126.85	126.85	1.71 0.35	-0.11 0.11	1.28
VA19	1062.75	0.00 0.05	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-7.93
VA20	1062.75	-0.04 0.00	-14.34 0.00	483.21	-54.57 0.00	0.00	1.03 1.02	-0.03 0.03	1.23
VA21 - 1	1062.75	0.00 0.26	-2255.68 3475.35	3475.35	28.96 -45.96	28.96	3.49 -0.08	0.02 -0.02	4.62
VA21 - 2	1062.75	0.00 0.28	3477.68 -2325.34	3477.68	-76.90 47.10	47.10	-1.63 3.87	-0.06 0.06	-0.88
VA22	1062.75	0.00 0.18	-467.57 -1162.06	969.81	-60.00 85.42	85.42	1.75 2.13	-0.04 0.04	0.32
VA23	1062.75	0.00 0.04	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.61
VA24 - 1	1111.50	0.00 0.18	-2361.04 -3584.31	1732.83	-50.93 25.26	25.26	3.02 3.44	-0.01 0.01	-2.37
VA24 - 2	1111.50	0.00 0.27	-3582.36 -3924.98	1876.57	-4.33 -5.40	0.00	3.48 3.59	0.00 0.00	-0.39
VA25 - 1	1111.50	0.00 0.27	-4075.34 2201.36	2201.36	30.76 19.91	30.76	4.34 -2.22	0.01 -0.01	1.72
VA25 - 2	1111.50	0.00 0.26	2205.99 -3076.92	2232.36	19.91 -23.54	19.91	0.24 3.44	0.01 -0.01	1.72
VA25 - 3	1111.50	0.00 0.11	-2156.38 -912.96	726.85	-31.03 -5.16	0.00	2.53 1.91	-0.01 0.01	-2.76

CASO: 1.3G1+1.4G2+1.4Q+0.84V3+0.84D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.38	-1902.90 2618.61	2618.61	-41.78 1.15	1.15	3.36 -1.29	-0.02 0.02	-0.44
VA1 - 2	1062.75	0.00 0.39	2618.49 245.02	2618.49	1.15 -164.15	0.00	-1.70 2.82	0.16 -0.16	-1.31
VA1 - 3	1062.75	0.00 0.36	246.19 -3097.25	246.19	-164.15 159.28	159.28	-5.44 6.06	-0.56 0.56	-1.12
VA1 - 4	1062.75	-0.44 0.00	-2864.19 385.99	980.09	136.18 -95.37	136.18	2.86 1.12	0.06 -0.06	-0.15
VA1 - 5	1062.75	-0.47 0.00	388.06 -2087.36	388.06	-95.37 138.25	138.25	-4.54 5.09	-0.45 0.45	-4.58
VA1 - 6	1062.75	-0.44 0.00	-1278.66 -906.06	323.09	113.44 -57.54	113.44	1.85 1.62	0.05 -0.05	0.43
VA2	1062.75	0.00 0.00	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-4.63
VA3 - 1	1062.75	0.00 0.01	0.00 -2142.15	1528.00	0.00 28.32	28.32	1.80 2.79	-0.01 0.01	0.91
VA3 - 2	1062.75	0.00 0.00	-2151.18 8.66	8.66	58.32 0.00	58.32	2.21 -0.56	0.04 -0.04	0.00
VA4 - 1	1111.50	0.00 0.13	-2068.07 -2379.37	1292.97	65.34 -54.67	65.34	2.73 2.86	0.02 -0.02	0.64
VA4 - 2	1111.50	0.00 0.22	-2518.28 2227.49	2227.49	-35.24 -59.00	0.00	3.50 -1.32	0.01 -0.01	2.58
VA4 - 3	1111.50	0.00 0.23	2227.61 1823.23	2227.61	-59.00 -6.52	0.00	-1.12 1.47	-0.17 0.17	2.58
VA4 - 4	1111.50	0.00 0.23	1823.37 -280.66	1823.37	-6.52 184.57	184.57	-2.45 3.26	-0.26 0.26	2.58
VA4 - 5	1111.50	0.00 0.21	-281.83 -4225.45	0.00	184.57 -74.89	184.57	-6.76 7.38	0.47 -0.47	-1.67
VA4 - 6	1111.50	-0.09 0.00	-4612.99 -343.04	0.00	-86.11 -37.15	0.00	4.81 -3.69	-0.05 0.05	0.43
VA4 - 7	1111.50	-0.09 0.00	-342.83 1927.86	1927.86	-37.15 -5.35	0.00	2.71 -1.51	-0.03 0.03	-2.44




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VA4 - 8	1111.50	-0.09 0.00	1926.55 1246.21	2052.78	-5.35 137.79	0.00	0.53 1.34	-0.08 0.08	-2.44
VA4 - 9	1111.50	-0.07 0.00	1253.15 -3095.53	1253.15	137.79 -93.57	137.79	-7.06 7.72	0.39 -0.39	-2.44
VA4 - 10	1111.50	-0.21 0.00	-2651.48 -100.61	0.00	-26.19 17.10	17.10	3.17 -2.09	-0.04 0.04	1.92
VA4 - 11	1111.50	-0.21 0.00	-91.95 582.99	582.99	17.10 21.06	21.06	1.53 -0.92	-0.01 0.01	1.92
VA4 - 12	1111.50	-0.22 0.00	584.25 -1270.85	584.25	21.06 -69.26	21.06	-0.10 2.03	0.05 -0.05	1.92
VA4 - 13	1111.50	0.00 0.02	-980.95 -507.13	471.67	-19.61 -40.49	0.00	1.80 1.48	0.01 -0.01	-2.43
VA5 - 1	1062.75	0.00 0.04	-574.23 774.30	952.15	-35.49 32.72	32.72	1.80 0.62	-0.03 0.03	0.96
VA5 - 2	1062.75	0.00 0.04	774.16 -2182.25	774.16	32.72 -47.06	32.72	-1.60 2.97	0.06 -0.06	0.96
VA5 - 3	1062.75	0.00 0.07	-2746.31 446.59	446.59	-44.01 -16.09	0.00	3.71 -2.64	-0.03 0.03	-1.06
VA5 - 4	1062.75	0.00 0.07	446.39 1619.47	1619.47	-16.09 35.15	0.00	1.66 -0.52	-0.05 0.05	-1.06
VA5 - 5	1062.75	0.00 0.07	1620.78 -2176.93	1620.78	35.15 17.67	35.15	-0.46 2.88	0.01 -0.01	-1.06
VA5 - 6	1062.75	0.00 0.09	-2040.33 930.43	930.43	69.30 -49.23	69.30	2.76 -1.15	0.08 -0.08	-1.35
VA5 - 7	1062.75	0.00 0.10	929.17 -218.08	929.17	-15.54 -45.41	0.00	0.12 1.57	0.02 -0.02	-12.54
VA6 - 1	1062.75	0.00 0.05	9.31 891.24	930.12	-18.85 -18.45	0.00	1.40 0.30	0.00 0.00	2.86
VA6 - 2	1062.75	0.00 0.05	897.81 -3444.46	897.81	-18.45 41.45	41.45	-2.02 3.65	-0.04 0.04	2.86
VA7 - 1	1062.75	-0.08 0.00	-1135.97 2135.86	2135.86	-54.69 3.18	3.18	2.92 -1.25	-0.04 0.04	-5.18
VA7 - 2	1062.75	-0.08 0.00	2129.28 0.00	2129.28	3.18 0.00	3.18	-0.47 2.18	0.00 0.00	-5.18
VA8 - 1	1184.63	0.00 0.70	-5008.37 -9106.91	4003.03	-3.64 -9.98	0.00	4.62 5.57	0.00 0.00	0.13
VA8 - 2	1184.63	0.00 1.03	-12062.45 -7808.57	6651.20	-0.12 1.06	1.06	6.66 5.85	0.00 0.00	-0.01
VA9 - 1	1111.50	0.00 0.22	-1820.88 -4049.11	1820.06	15.90 -16.97	15.90	2.85 3.61	0.01 -0.01	4.06
VA9 - 2	1111.50	0.00 0.28	-3340.26 -3997.40	1966.48	-30.95 26.71	26.71	3.43 3.64	-0.01 0.01	-0.24
VA10 - 1	1111.50	0.00 0.16	-2437.20 -2624.07	1259.54	15.05 -38.75	15.05	2.87 2.94	0.01 -0.01	0.49
VA10 - 2	1111.50	0.00 0.06	-1229.31 -1681.58	768.98	-78.51 93.30	93.30	2.11 2.33	-0.04 0.04	-4.71
VA11 - 1	1062.75	-0.14 0.00	489.81 -635.10	582.54	40.53 -12.75	40.53	0.44 1.61	0.03 -0.03	2.17
VA11 - 2	1062.75	-0.77 0.00	-659.67 -192.78	866.20	-19.59 5.22	5.22	1.80 1.50	-0.01 0.01	-1.69
VA11 - 3	1062.75	-0.77 0.00	-197.42 -3334.94	0.00	5.22 16.57	16.57	-2.56 3.63	-0.01 0.01	-1.69
VA12 - 1	1062.75	-0.18 0.00	0.00 2409.43	2786.37	0.00 2.40	2.40	2.43 0.90	0.00 0.00	-0.12
VA12 - 2	1062.75	-0.18 0.00	2414.06 0.00	2414.06	2.40 0.00	2.40	-1.95 2.99	0.00 0.00	-0.12
VA13	1014.00	0.00 0.09	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.14
VA14 - 1	1062.75	0.00 0.72	0.00 3085.86	3085.86	0.00 -6.98	0.00	3.50 -2.38	0.01 -0.01	1.17
VA14 - 2	1062.75	0.00 0.71	3086.76 0.00	3242.52	-6.98 0.00	0.00	0.58 2.63	0.00 0.00	1.17
VA15	1014.00	-0.02	0.00	467.12	0.00	0.00	0.98	0.00	0.20

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		0.00	0.00		0.00		0.98	0.00	
VA16	1014.00	0.00 0.06	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-1.31
VA17 - 1	1062.75	0.00 0.48	0.00 5422.45	5422.45	0.00 14.97	14.97	5.72 -4.61	-0.01 0.01	-6.94
VA17 - 2	1062.75	0.00 0.52	5421.55 0.00	5421.55	-15.04 0.00	0.00	-0.40 3.42	-0.01 0.01	2.09
VA18	1062.75	0.00 0.24	-141.35 -85.92	379.03	-45.28 72.83	72.83	1.06 1.00	-0.06 0.06	1.57
VA19	1062.75	0.00 0.04	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-8.66
VA20	1062.75	-0.06 0.00	-11.20 0.00	484.61	-33.68 0.00	0.00	1.03 1.02	-0.02 0.02	1.26
VA21 - 1	1062.75	0.00 0.22	-1730.59 3115.22	3132.94	49.48 -56.72	49.48	3.22 0.19	0.03 -0.03	6.69
VA21 - 2	1062.75	0.00 0.22	3118.08 -2621.22	3118.08	-37.87 4.37	4.37	-1.60 3.84	-0.02 0.02	-2.61
VA22	1062.75	0.00 0.15	231.80 -1999.51	1059.47	-50.60 74.28	74.28	1.33 2.55	-0.03 0.03	-0.21
VA23	1062.75	0.00 0.04	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.57
VA24 - 1	1111.50	0.00 0.22	-1668.68 -4184.67	1843.26	-45.84 28.72	28.72	2.80 3.66	-0.01 0.01	-5.80
VA24 - 2	1111.50	0.00 0.27	-3055.94 -4452.61	1892.97	14.20 21.31	21.31	3.32 3.76	0.00 0.00	-0.25
VA25 - 1	1111.50	0.00 0.29	-3611.09 2509.80	2509.80	101.31 -38.32	101.31	4.26 -2.13	0.07 -0.07	4.37
VA25 - 2	1111.50	0.00 0.29	2514.98 -3716.38	2514.98	-38.32 -30.24	0.00	-0.04 3.72	0.00 0.00	4.37
VA25 - 3	1111.50	0.00 0.08	-1430.35 -1797.03	608.48	30.18 -70.57	30.18	2.13 2.31	0.03 -0.03	-1.56

CASO: 1.3G1+1.4G2+1.4Q+0.84V4+0.84D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.40	-2039.55 2606.60	2606.60	-112.15 8.59	8.59	3.42 -1.35	-0.06 0.06	-3.56
VA1 - 2	1062.75	0.00 0.40	2606.66 300.74	2606.66	8.59 -40.33	0.00	-1.64 2.75	0.05 -0.05	-4.43
VA1 - 3	1062.75	0.00 0.37	302.13 -3003.95	302.13	-40.33 197.15	197.15	-5.38 6.00	-0.41 0.41	-4.19
VA1 - 4	1062.75	-0.42 0.00	-2949.71 441.66	996.54	167.80 -134.39	167.80	2.90 1.09	0.08 -0.08	1.42
VA1 - 5	1062.75	-0.46 0.00	443.97 -2012.07	443.97	-134.39 164.47	164.47	-4.50 5.05	-0.58 0.58	-3.64
VA1 - 6	1062.75	-0.42 0.00	-1417.93 -708.86	373.08	125.71 -66.46	125.71	1.95 1.52	0.06 -0.06	3.22
VA2	1062.75	-0.01 0.00	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-3.73
VA3 - 1	1062.75	0.00 0.02	0.00 -2142.11	1528.02	0.00 14.29	14.29	1.80 2.79	0.00 0.00	0.93
VA3 - 2	1062.75	0.00 0.00	-2151.38 8.45	8.45	84.02 0.00	84.02	2.21 -0.56	0.05 -0.05	0.00
VA4 - 1	1111.50	0.00 0.20	-2031.93 -2404.40	1299.75	93.38 -45.05	93.38	2.72 2.87	0.03 -0.03	1.44
VA4 - 2	1111.50	0.00 0.33	-2537.16 2238.06	2238.06	-136.82 -25.08	0.00	3.52 -1.33	-0.06 0.06	-6.02
VA4 - 3	1111.50	0.00 0.33	2238.00 1838.23	2238.00	-25.08 26.69	0.00	-1.10 1.45	-0.17 0.17	-6.02
VA4 - 4	1111.50	0.00 0.33	1838.31 -254.87	1838.31	26.69 193.98	193.98	-2.43 3.25	-0.23 0.23	-6.02






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VA4 - 5	1111.50	0.00 0.31	-256.14 -4191.54	0.00	193.98 61.74	193.98	-6.75 7.37	0.24 -0.24	-9.88
VA4 - 6	1111.50	0.00 0.02	-4570.34 -318.48	0.00	-8.21 31.98	31.98	4.79 -3.67	-0.04 0.04	6.63
VA4 - 7	1111.50	0.00 0.02	-318.26 1933.08	1933.08	31.98 3.35	31.98	2.69 -1.50	0.03 -0.03	3.97
VA4 - 8	1111.50	0.00 0.02	1931.84 1221.16	2050.48	3.35 114.99	0.00	0.52 1.36	-0.07 0.07	3.97
VA4 - 9	1111.50	0.00 0.05	1228.12 -3131.15	1228.12	114.99 -205.56	114.99	-7.08 7.74	0.54 -0.54	3.97
VA4 - 10	1111.50	-0.17 0.00	-2724.49 -131.95	0.00	-56.24 6.17	6.17	3.21 -2.13	-0.06 0.06	1.37
VA4 - 11	1111.50	-0.17 0.00	-123.49 575.09	575.09	6.17 11.91	11.91	1.58 -0.96	-0.01 0.01	1.37
VA4 - 12	1111.50	-0.19 0.00	576.10 -1200.37	576.10	11.91 -60.23	11.91	-0.05 1.99	0.04 -0.04	1.37
VA4 - 13	1111.50	0.00 0.07	-946.67 -506.49	486.73	-6.72 -4.94	0.00	1.79 1.49	0.00 0.00	-2.48
VA5 - 1	1062.75	-0.03 0.00	-553.37 751.88	941.54	-105.90 44.54	44.54	1.78 0.64	-0.07 0.07	-5.06
VA5 - 2	1062.75	-0.03 0.00	751.80 -2229.23	751.80	44.54 50.40	50.40	-1.61 2.99	0.00 0.00	-5.06
VA5 - 3	1062.75	0.00 0.00	-2734.44 455.23	455.23	44.50 17.95	44.50	3.71 -2.64	0.03 -0.03	4.19
VA5 - 4	1062.75	0.00 0.00	454.96 1624.59	1624.59	17.95 61.03	0.00	1.66 -0.52	-0.04 0.04	4.19
VA5 - 5	1062.75	0.00 0.00	1625.82 -2179.19	1625.82	61.03 -59.03	61.03	-0.46 2.88	0.05 -0.05	4.19
VA5 - 6	1062.75	0.00 0.10	-1974.69 937.30	937.30	72.09 -59.73	72.09	2.72 -1.11	0.09 -0.09	0.37
VA5 - 7	1062.75	0.00 0.13	936.29 -275.64	936.29	-3.59 -58.71	0.00	0.07 1.61	0.03 -0.03	-15.11
VA6 - 1	1062.75	0.00 0.05	9.88 810.86	866.25	13.38 -11.15	13.38	1.35 0.35	0.02 -0.02	1.37
VA6 - 2	1062.75	0.00 0.05	817.35 -3602.43	817.35	-11.15 25.34	25.34	-2.07 3.70	-0.02 0.02	1.37
VA7 - 1	1062.75	-0.08 0.00	-1007.43 2200.84	2200.84	-40.62 10.54	10.54	2.88 -1.21	-0.03 0.03	-3.40
VA7 - 2	1062.75	-0.08 0.00	2194.35 0.00	2194.35	10.54 0.00	10.54	-0.51 2.22	0.01 -0.01	-3.40
VA8 - 1	1184.63	0.00 0.66	-5055.10 -9048.53	4004.80	-8.77 12.93	12.93	4.63 5.56	0.00 0.00	-3.84
VA8 - 2	1184.63	0.00 0.99	-12031.39 -7821.62	6658.51	30.41 -8.51	30.41	6.65 5.86	0.00 0.00	3.12
VA9 - 1	1111.50	0.00 0.12	-2953.24 -3060.06	1679.60	78.72 -60.10	78.72	3.21 3.25	0.02 -0.02	3.98
VA9 - 2	1111.50	0.00 0.21	-4125.29 -3200.56	1976.71	-7.70 -1.94	0.00	3.68 3.39	0.00 0.00	-0.48
VA10 - 1	1111.50	0.00 0.12	-3348.75 -1795.54	1255.34	44.99 -45.73	44.99	3.20 2.61	0.02 -0.02	0.67
VA10 - 2	1111.50	0.00 0.08	-2413.96 -273.20	1003.11	-30.51 -21.26	0.00	2.76 1.69	0.00 0.00	-4.46
VA11 - 1	1062.75	-0.07 0.00	-947.82 157.92	254.91	100.31 -74.24	100.31	1.60 0.45	0.09 -0.09	2.10
VA11 - 2	1062.75	-0.63 0.00	-1676.63 1003.00	1291.68	18.18 -13.47	18.18	2.51 0.79	0.01 -0.01	-1.38
VA11 - 3	1062.75	-0.63 0.00	999.27 -1416.44	999.27	-13.47 -29.68	0.00	-1.84 2.92	0.02 -0.02	-1.38
VA12 - 1	1062.75	-0.11 0.00	0.00 2410.12	2786.88	0.00 -4.32	0.00	2.43 0.89	0.00 0.00	0.05
VA12 - 2	1062.75	-0.11 0.00	2413.85 0.00	2413.85	-4.32 0.00	0.00	-1.95 2.99	0.00 0.00	0.05
VA13	1014.00	0.00	0.00	467.12	0.00	0.00	0.98	0.00	0.08



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		0.06	0.00		0.00		0.98	0.00	
VA14 - 1	1062.75	0.00 0.46	0.00 3085.86	3085.86	0.00 -15.18	0.00	3.50 -2.38	0.01 -0.01	1.39
VA14 - 2	1062.75	0.00 0.46	3086.79 0.00	3242.54	-15.18 0.00	0.00	0.58 2.63	-0.01 0.01	1.39
VA15	1014.00	-0.07 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.27
VA16	1014.00	0.00 0.09	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-1.23
VA17 - 1	1062.75	0.00 0.61	0.00 5422.45	5422.45	0.00 33.77	33.77	5.72 -4.61	-0.03 0.03	-6.96
VA17 - 2	1062.75	0.00 0.67	5421.52 0.00	5421.52	-35.97 0.00	0.00	-0.40 3.42	-0.01 0.01	2.32
VA18	1062.75	0.00 0.31	-1423.27 1200.32	1200.32	-120.52 160.57	160.57	2.38 -0.33	-0.15 0.15	1.60
VA19	1062.75	0.00 0.05	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-8.45
VA20	1062.75	-0.05 0.00	-15.49 0.00	482.70	-56.14 0.00	0.00	1.03 1.02	-0.03 0.03	1.01
VA21 - 1	1062.75	0.00 0.22	-2556.05 3245.92	3245.92	22.18 -35.69	22.18	3.51 -0.10	0.02 -0.02	7.00
VA21 - 2	1062.75	0.00 0.23	3247.29 -1756.22	3247.29	-49.07 22.25	22.25	-1.25 3.49	-0.03 0.03	-2.88
VA22	1062.75	0.00 0.19	-1184.87 -321.20	1040.99	-66.88 94.51	94.51	2.18 1.70	-0.04 0.04	0.08
VA23	1062.75	0.00 0.04	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.49
VA24 - 1	1111.50	0.00 0.11	-2996.53 -3023.38	1674.92	-98.71 61.42	61.42	3.22 3.23	-0.03 0.03	-5.89
VA24 - 2	1111.50	0.00 0.20	-3979.72 -3520.91	1881.80	-1.86 38.32	38.32	3.61 3.47	-0.01 0.01	-0.53
VA25 - 1	1111.50	0.00 0.25	-4706.27 2222.81	2222.81	85.53 -44.85	85.53	4.68 -2.56	0.07 -0.07	4.58
VA25 - 2	1111.50	0.00 0.25	2226.20 -2741.76	2272.26	-44.85 7.72	7.72	0.34 3.34	-0.02 0.02	4.58
VA25 - 3	1111.50	0.00 0.11	-2847.36 -143.71	925.23	-45.96 29.21	29.21	2.90 1.54	-0.02 0.02	-1.25

CASO: 1.3G1+1.4G2+1.4Q+1.2D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.40	-1785.32 2613.10	2613.10	-77.13 5.18	5.18	3.29 -1.23	-0.04 0.04	-1.98
VA1 - 2	1062.75	0.00 0.40	2613.12 173.30	2613.12	5.18 -102.82	0.00	-1.76 2.88	0.10 -0.10	-2.85
VA1 - 3	1062.75	0.00 0.38	174.66 -3205.48	174.66	-102.82 177.28	177.28	-5.51 6.12	-0.48 0.48	-2.73
VA1 - 4	1062.75	-0.42 0.00	-2801.44 335.50	961.06	152.03 -114.99	152.03	2.83 1.15	0.07 -0.07	0.50
VA1 - 5	1062.75	-0.46 0.00	337.66 -2153.27	337.66	-114.99 150.86	150.86	-4.57 5.12	-0.52 0.52	-3.37
VA1 - 6	1062.75	-0.43 0.00	-1187.24 -1000.29	320.50	120.21 -62.37	120.21	1.79 1.68	0.06 -0.06	1.82
VA2	1062.75	0.00 0.00	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-4.12
VA3 - 1	1062.75	0.00 0.01	0.00 -2141.78	1528.14	0.00 21.40	21.40	1.80 2.79	0.00 0.00	0.90
VA3 - 2	1062.75	0.00 0.00	-2151.12 8.72	8.72	70.01 0.00	70.01	2.21 -0.56	0.04 -0.04	0.00
VA4 - 1	1111.50	0.00 0.20	-1814.11 -2482.17	1375.69	76.01 -49.16	76.01	2.66 2.93	0.02 -0.02	1.03




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VA4 - 2	1111.50	0.00 0.31	-2461.70 2147.91	2147.91	-84.81 -42.21	0.00	3.44 -1.25	-0.02 0.02	-1.31
VA4 - 3	1111.50	0.00 0.31	2147.90 1721.84	2147.90	-42.21 10.03	0.00	-1.19 1.54	-0.17 0.17	-1.31
VA4 - 4	1111.50	0.00 0.31	1721.89 -433.19	1721.89	10.03 188.67	188.67	-2.51 3.33	-0.24 0.24	-1.31
VA4 - 5	1111.50	0.00 0.29	-434.49 -4416.77	0.00	188.67 -7.98	188.67	-6.83 7.45	0.35 -0.35	-7.85
VA4 - 6	1111.50	0.00 0.00	-4400.92 -205.01	0.00	-46.82 -2.63	0.00	4.73 -3.61	-0.04 0.04	2.69
VA4 - 7	1111.50	0.00 0.00	-204.82 1986.68	1986.68	-2.63 -1.12	0.00	2.64 -1.44	0.00 0.00	0.98
VA4 - 8	1111.50	0.00 0.00	1985.41 1180.91	2080.60	-1.12 126.02	0.00	0.46 1.41	-0.08 0.08	0.98
VA4 - 9	1111.50	0.00 0.02	1188.07 -3203.89	1188.07	126.02 -149.97	126.02	-7.14 7.79	0.47 -0.47	0.98
VA4 - 10	1111.50	-0.15 0.00	-2635.13 -112.99	0.00	-41.40 12.32	12.32	3.14 -2.06	-0.06 0.06	1.64
VA4 - 11	1111.50	-0.15 0.00	-104.27 554.40	554.40	12.32 18.07	18.07	1.50 -0.89	-0.01 0.01	1.64
VA4 - 12	1111.50	-0.17 0.00	555.51 -1349.37	555.51	18.07 -65.71	18.07	-0.13 2.06	0.05 -0.05	1.64
VA4 - 13	1111.50	0.00 0.05	-693.77 -870.35	424.43	-14.35 -17.99	0.00	1.58 1.70	0.00 0.00	-2.45
VA5 - 1	1062.75	0.00 0.00	-458.10 720.82	944.93	-69.34 38.14	38.14	1.73 0.69	-0.05 0.05	-2.04
VA5 - 2	1062.75	0.00 0.00	720.76 -2332.15	720.76	38.14 1.60	38.14	-1.67 3.05	0.03 -0.03	-2.04
VA5 - 3	1062.75	0.00 0.03	-2649.97 507.05	507.05	-0.16 0.98	0.98	3.67 -2.61	0.00 0.00	1.55
VA5 - 4	1062.75	0.00 0.03	506.85 1641.54	1641.54	0.98 47.96	0.00	1.63 -0.48	-0.04 0.04	1.55
VA5 - 5	1062.75	0.00 0.03	1642.81 -2236.09	1642.81	47.96 -21.00	47.96	-0.50 2.91	0.03 -0.03	1.55
VA5 - 6	1062.75	0.00 0.08	-1941.35 919.30	919.30	70.63 -53.75	70.63	2.69 -1.07	0.08 -0.08	-0.49
VA5 - 7	1062.75	0.00 0.11	918.18 -345.24	918.18	-8.21 -44.96	0.00	0.04 1.64	0.02 -0.02	-13.61
VA6 - 1	1062.75	0.00 0.05	10.45 738.91	812.43	-9.21 -16.18	0.00	1.31 0.40	0.00 0.00	2.06
VA6 - 2	1062.75	0.00 0.05	745.43 -3743.79	745.43	-16.18 36.41	36.41	-2.11 3.74	-0.03 0.03	2.06
VA7 - 1	1062.75	-0.10 0.00	-924.75 2242.67	2242.67	-50.25 5.30	5.30	2.85 -1.18	-0.04 0.04	-4.21
VA7 - 2	1062.75	-0.10 0.00	2236.16 0.00	2236.16	5.30 0.00	5.30	-0.54 2.24	0.00 0.00	-4.21
VA8 - 1	1184.63	0.00 0.68	-4856.44 -9223.07	4036.50	-0.54 -0.12	0.00	4.59 5.61	0.00 0.00	-1.84
VA8 - 2	1184.63	0.00 1.00	-11923.13 -7968.85	6629.20	16.54 -8.82	16.54	6.63 5.88	0.00 0.00	1.55
VA9 - 1	1111.50	0.00 0.17	-2377.85 -3563.59	1734.13	41.17 -32.33	41.17	3.02 3.43	0.01 -0.01	3.25
VA9 - 2	1111.50	0.00 0.25	-3734.00 -3601.67	1959.02	-14.62 13.44	13.44	3.56 3.52	0.00 0.00	-0.34
VA10 - 1	1111.50	0.00 0.14	-2892.09 -2210.99	1242.41	31.14 -43.05	31.14	3.03 2.77	0.01 -0.01	0.96
VA10 - 2	1111.50	0.00 0.07	-1819.99 -978.90	835.21	-53.35 33.44	33.44	2.43 2.01	-0.02 0.02	-4.16
VA11 - 1	1062.75	-0.10 0.00	-217.76 -241.98	261.06	69.18 -42.06	69.18	1.01 1.04	0.06 -0.06	2.37
VA11 - 2	1062.75	-0.70 0.00	-1156.36 393.74	1017.10	0.38 -4.46	0.38	2.15 1.15	0.00 0.00	-1.76
VA11 - 3	1062.75	-0.70	389.62	389.62	-4.46	0.00	-2.21	0.00	-1.76

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		0.00	-2394.55		-7.29		3.29	0.00	
VA12 - 1	1062.75	-0.15 0.00	0.00 2409.82	2786.66	0.00 -0.92	0.00	2.43 0.90	0.00 0.00	0.01
VA12 - 2	1062.75	-0.15 0.00	2413.94 0.00	2413.94	-0.92 0.00	0.00	-1.95 2.99	0.00 0.00	0.01
VA13	1014.00	0.00 0.08	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.06
VA14 - 1	1062.75	0.00 0.59	0.00 3085.92	3085.92	0.00 -10.91	0.00	3.50 -2.38	0.01 -0.01	1.36
VA14 - 2	1062.75	0.00 0.59	3086.82 0.00	3242.56	-10.91 0.00	0.00	0.58 2.63	0.00 0.00	1.36
VA15	1014.00	-0.04 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.20
VA16	1014.00	0.00 0.07	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-1.27
VA17 - 1	1062.75	0.00 0.54	0.00 5422.38	5422.38	0.00 23.86	23.86	5.72 -4.61	-0.02 0.02	-7.16
VA17 - 2	1062.75	0.00 0.59	5421.49 0.00	5421.49	-24.75 0.00	0.00	-0.40 3.42	-0.01 0.01	2.18
VA18	1062.75	0.00 0.27	-786.72 562.30	608.24	-82.78 116.56	116.56	1.72 0.33	-0.10 0.10	1.65
VA19	1062.75	0.00 0.04	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-8.72
VA20	1062.75	-0.06 0.00	-13.12 0.00	483.75	-45.54 0.00	0.00	1.03 1.02	-0.02 0.02	1.12
VA21 - 1	1062.75	0.00 0.21	-2120.44 3117.85	3117.85	37.11 -46.20	37.11	3.34 0.07	0.03 -0.03	7.31
VA21 - 2	1062.75	0.00 0.21	3119.92 -2158.87	3119.92	-36.99 7.66	7.66	-1.38 3.62	-0.02 0.02	-3.14
VA22	1062.75	0.00 0.17	-490.10 -1147.12	963.94	-58.40 83.77	83.77	1.76 2.12	-0.04 0.04	-0.18
VA23	1062.75	0.00 0.04	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.51
VA24 - 1	1111.50	0.00 0.16	-2335.89 -3599.84	1738.34	-76.43 49.09	49.09	3.01 3.45	-0.02 0.02	-6.61
VA24 - 2	1111.50	0.00 0.23	-3510.52 -3993.08	1880.70	9.00 37.00	37.00	3.46 3.61	0.00 0.00	-0.36
VA25 - 1	1111.50	0.00 0.28	-4183.37 2397.68	2397.68	105.27 -54.25	105.27	4.50 -2.37	0.08 -0.08	5.05
VA25 - 2	1111.50	0.00 0.27	2401.89 -3253.76	2404.97	-54.25 -9.57	0.00	0.13 3.55	-0.01 0.01	5.05
VA25 - 3	1111.50	0.00 0.09	-2145.74 -969.63	698.52	-4.04 -21.98	0.00	2.52 1.93	0.00 0.00	-1.16

CASO: 1.3G1+1.4G2+1.4Q+1.2D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.38	-2157.14 2612.11	2612.11	-76.80 4.56	4.56	3.48 -1.42	-0.04 0.04	-2.03
VA1 - 2	1062.75	0.00 0.38	2612.03 372.46	2612.03	4.56 -101.66	0.00	-1.57 2.69	0.10 -0.10	-2.89
VA1 - 3	1062.75	0.00 0.36	373.66 -2895.71	373.66	-101.66 179.14	179.14	-5.32 5.93	-0.48 0.48	-2.58
VA1 - 4	1062.75	-0.43 0.00	-3012.45 492.15	1015.58	151.94 -114.77	151.94	2.93 1.06	0.07 -0.07	0.78
VA1 - 5	1062.75	-0.47 0.00	494.36 -1946.16	494.36	-114.77 151.86	151.86	-4.47 5.02	-0.52 0.52	-4.85
VA1 - 6	1062.75	-0.43 0.00	-1509.35 -614.63	386.09	118.94 -61.63	118.94	2.01 1.46	0.06 -0.06	1.82
VA2	1062.75	0.00 0.00	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-4.24



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VA3 - 1	1062.75	0.00 0.01	0.00 -2142.47	1527.88	0.00 21.21	21.21	1.80 2.79	0.00 0.00	0.94
VA3 - 2	1062.75	0.00 0.00	-2151.44 8.39	8.39	72.33 0.00	72.33	2.21 -0.56	0.05 -0.05	0.00
VA4 - 1	1111.50	0.00 0.13	-2285.89 -2301.60	1217.03	82.71 -50.55	82.71	2.79 2.80	0.03 -0.03	1.04
VA4 - 2	1111.50	0.00 0.25	-2593.74 2317.64	2317.64	-87.24 -41.87	0.00	3.59 -1.40	-0.02 0.02	-2.14
VA4 - 3	1111.50	0.00 0.25	2317.72 1939.63	2317.72	-41.87 10.14	0.00	-1.03 1.38	-0.17 0.17	-2.14
VA4 - 4	1111.50	0.00 0.25	1939.79 -102.33	1939.79	10.14 189.88	189.88	-2.36 3.18	-0.24 0.24	-2.14
VA4 - 5	1111.50	0.00 0.23	-103.49 -4000.22	0.00	189.88 -5.17	189.88	-6.68 7.30	0.35 -0.35	-3.70
VA4 - 6	1111.50	-0.07 0.00	-4782.40 -456.52	0.00	-47.50 -2.55	0.00	4.86 -3.74	-0.04 0.04	4.36
VA4 - 7	1111.50	-0.07 0.00	-456.28 1874.26	1874.26	-2.55 -0.89	0.00	2.76 -1.57	0.00 0.00	0.55
VA4 - 8	1111.50	-0.07 0.00	1872.99 1286.45	2023.43	-0.89 126.76	0.00	0.59 1.28	-0.08 0.08	0.55
VA4 - 9	1111.50	-0.05 0.00	1293.19 -3022.79	1293.19	126.76 -149.16	126.76	-7.01 7.66	0.47 -0.47	0.55
VA4 - 10	1111.50	-0.23 0.00	-2740.84 -119.57	0.00	-41.03 10.95	10.95	3.24 -2.16	-0.05 0.05	1.65
VA4 - 11	1111.50	-0.23 0.00	-111.18 603.69	603.69	10.95 14.90	14.90	1.61 -0.99	-0.01 0.01	1.65
VA4 - 12	1111.50	-0.25 0.00	604.83 -1121.85	604.83	14.90 -63.78	14.90	-0.03 1.96	0.05 -0.05	1.65
VA4 - 13	1111.50	0.00 0.04	-1233.85 -143.27	575.24	-11.98 -27.44	0.00	2.01 1.27	0.01 -0.01	-2.47
VA5 - 1	1062.75	0.00 0.01	-669.50 805.36	948.76	-72.05 39.12	39.12	1.86 0.56	-0.05 0.05	-2.06
VA5 - 2	1062.75	0.00 0.01	805.20 -2079.33	805.20	39.12 1.74	39.12	-1.54 2.92	0.03 -0.03	-2.06
VA5 - 3	1062.75	0.00 0.04	-2830.78 394.77	394.77	0.64 0.88	0.88	3.74 -2.67	0.00 0.00	1.59
VA5 - 4	1062.75	0.00 0.04	394.50 1602.52	1602.52	0.88 48.22	0.00	1.69 -0.55	-0.04 0.04	1.59
VA5 - 5	1062.75	0.00 0.04	1603.79 -2120.03	1603.79	48.22 -20.36	48.22	-0.43 2.85	0.03 -0.03	1.59
VA5 - 6	1062.75	0.00 0.10	-2073.67 948.43	948.43	70.77 -55.20	70.77	2.80 -1.18	0.08 -0.08	-0.48
VA5 - 7	1062.75	0.00 0.12	947.28 -148.48	953.51	-10.92 -59.16	0.00	0.15 1.53	0.03 -0.03	-14.04
VA6 - 1	1062.75	0.00 0.06	8.73 963.19	993.00	3.74 -13.41	0.00	1.45 0.26	0.01 -0.01	2.17
VA6 - 2	1062.75	0.00 0.06	969.74 -3303.09	969.74	-13.41 30.38	30.38	-1.97 3.60	-0.03 0.03	2.17
VA7 - 1	1062.75	-0.06 0.00	-1218.65 2094.02	2094.02	-45.06 8.42	8.42	2.94 -1.27	-0.03 0.03	-4.37
VA7 - 2	1062.75	-0.06 0.00	2087.47 0.00	2087.47	8.42 0.00	8.42	-0.44 2.15	0.01 -0.01	-4.37
VA8 - 1	1184.63	0.00 0.68	-5207.03 -8932.37	3977.57	-11.87 3.08	3.08	4.67 5.53	0.00 0.00	-1.87
VA8 - 2	1184.63	0.00 1.02	-12170.71 -7661.35	6680.51	13.75 1.36	13.75	6.68 5.83	0.00 0.00	1.56
VA9 - 1	1111.50	0.00 0.17	-2396.27 -3545.58	1733.30	53.45 -44.73	53.45	3.03 3.43	0.02 -0.02	4.79
VA9 - 2	1111.50	0.00 0.24	-3731.55 -3596.29	1962.98	-24.03 11.33	11.33	3.56 3.52	-0.01 0.01	-0.38
VA10 - 1	1111.50	0.00 0.14	-2893.85 -2208.62	1242.87	28.90 -41.43	28.90	3.03 2.77	0.01 -0.01	0.20
VA10 - 2	1111.50	0.00	-1823.28	835.24	-55.66	38.60	2.43	-0.02	-5.00

		0.07	-975.88		38.60		2.01	0.02	
VA11 - 1	1062.75	-0.10 0.00	-240.24 -235.20	252.14	71.65 -44.93	71.65	1.03 1.02	0.06 -0.06	1.90
VA11 - 2	1062.75	-0.70 0.00	-1179.94 416.47	1024.39	-1.79 -3.79	0.00	2.16 1.14	0.00 0.00	-1.31
VA11 - 3	1062.75	-0.70 0.00	412.23 -2356.83	412.23	-3.79 -5.81	0.00	-2.19 3.27	0.00 0.00	-1.31
VA12 - 1	1062.75	-0.14 0.00	0.00 2409.73	2786.59	0.00 -1.00	0.00	2.43 0.90	0.00 0.00	-0.08
VA12 - 2	1062.75	-0.14 0.00	2413.97 0.00	2413.97	-1.00 0.00	0.00	-1.95 2.99	0.00 0.00	-0.08
VA13	1014.00	0.00 0.08	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.16
VA14 - 1	1062.75	0.00 0.59	0.00 3085.79	3085.79	0.00 -11.25	0.00	3.50 -2.38	0.01 -0.01	1.20
VA14 - 2	1062.75	0.00 0.59	3086.73 0.00	3242.49	-11.25 0.00	0.00	0.58 2.63	0.00 0.00	1.20
VA15	1014.00	-0.04 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.27
VA16	1014.00	0.00 0.07	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-1.27
VA17 - 1	1062.75	0.00 0.54	0.00 5422.52	5422.52	0.00 24.87	24.87	5.72 -4.61	-0.02 0.02	-6.74
VA17 - 2	1062.75	0.00 0.60	5421.58 0.00	5421.58	-26.26 0.00	0.00	-0.40 3.42	-0.01 0.01	2.23
VA18	1062.75	0.00 0.27	-777.90 552.11	600.16	-83.01 116.84	116.84	1.71 0.34	-0.10 0.10	1.52
VA19	1062.75	0.00 0.05	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-8.39
VA20	1062.75	-0.05 0.00	-13.56 0.00	483.55	-44.28 0.00	0.00	1.03 1.02	-0.02 0.02	1.15
VA21 - 1	1062.75	0.00 0.22	-2166.20 3243.28	3243.28	34.54 -46.21	34.54	3.39 0.02	0.03 -0.03	6.39
VA21 - 2	1062.75	0.00 0.24	3245.45 -2218.57	3245.45	-49.96 18.95	18.95	-1.47 3.71	-0.03 0.03	-2.34
VA22	1062.75	0.00 0.17	-462.97 -1173.59	967.25	-59.08 85.03	85.03	1.74 2.13	-0.04 0.04	0.05
VA23	1062.75	0.00 0.04	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.55
VA24 - 1	1111.50	0.00 0.17	-2329.31 -3608.21	1737.70	-68.12 41.05	41.05	3.01 3.45	-0.02 0.02	-5.09
VA24 - 2	1111.50	0.00 0.24	-3525.13 -3980.44	1879.27	3.34 22.64	22.64	3.47 3.61	0.00 0.00	-0.41
VA25 - 1	1111.50	0.00 0.27	-4133.99 2334.92	2334.92	81.58 -28.93	81.58	4.44 -2.32	0.06 -0.06	3.90
VA25 - 2	1111.50	0.00 0.27	2339.29 -3204.38	2349.36	-28.93 -12.95	0.00	0.16 3.51	0.00 0.00	3.90
VA25 - 3	1111.50	0.00 0.10	-2131.97 -971.11	703.46	-11.74 -19.38	0.00	2.51 1.93	0.00 0.00	-1.65

CASO: 1.3G1+1.4G2+1.4Q+1.2D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.39	-1947.21 2614.60	2614.60	-64.76 3.42	3.42	3.38 -1.31	-0.04 0.04	-1.47
VA1 - 2	1062.75	0.00 0.39	2614.54 262.91	2614.54	3.42 -122.06	0.00	-1.68 2.80	0.12 -0.12	-2.33
VA1 - 3	1062.75	0.00 0.36	264.16 -3067.20	264.16	-122.06 171.29	171.29	-5.42 6.04	-0.50 0.50	-2.13
VA1 - 4	1062.75	-0.43 0.00	-2891.89 404.08	985.46	146.57 -109.11	146.57	2.87 1.11	0.07 -0.07	0.37



**AltoQi Eberick 2018  
Plena**

**Leilson Campos  
Rezende  
Rezende Engenharia**

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VA1 - 5	1062.75	-0.47 0.00	406.22 -2062.90	406.22	-109.11 147.17	147.17	-4.53 5.08	-0.50 0.50	-4.26
VA1 - 6	1062.75	-0.43 0.00	-1323.99 -841.55	339.55	117.36 -59.86	117.36	1.88 1.59	0.05 -0.05	1.34
VA2	1062.75	0.00 0.00	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-4.33
VA3 - 1	1062.75	0.00 0.01	0.00 -2142.14	1528.00	0.00 23.35	23.35	1.80 2.79	-0.01 0.01	0.91
VA3 - 2	1062.75	0.00 0.00	-2151.25 8.59	8.59	66.14 0.00	66.14	2.21 -0.56	0.04 -0.04	0.00
VA4 - 1	1111.50	0.00 0.15	-2055.69 -2387.71	1295.40	74.99 -52.19	74.99	2.73 2.86	0.03 -0.03	0.94
VA4 - 2	1111.50	0.00 0.26	-2524.52 2230.96	2230.96	-69.09 -47.46	0.00	3.51 -1.32	-0.01 0.01	-0.28
VA4 - 3	1111.50	0.00 0.26	2231.02 1828.16	2231.02	-47.46 4.40	0.00	-1.11 1.46	-0.17 0.17	-0.28
VA4 - 4	1111.50	0.00 0.26	1828.28 -272.18	1828.28	4.40 186.79	186.79	-2.44 3.26	-0.25 0.25	-0.28
VA4 - 5	1111.50	0.00 0.24	-273.38 -4214.29	0.00	186.79 -28.88	186.79	-6.76 7.38	0.39 -0.39	-4.40
VA4 - 6	1111.50	-0.06 0.00	-4598.72 -334.84	0.00	-59.39 -14.29	0.00	4.80 -3.68	-0.04 0.04	2.49
VA4 - 7	1111.50	-0.06 0.00	-334.63 1929.58	1929.58	-14.29 -2.48	0.00	2.70 -1.51	-0.01 0.01	-0.31
VA4 - 8	1111.50	-0.06 0.00	1928.30 1237.78	2051.98	-2.48 130.13	0.00	0.53 1.35	-0.08 0.08	-0.31
VA4 - 9	1111.50	-0.04 0.00	1244.72 -3107.50	1244.72	130.13 -132.45	130.13	-7.07 7.72	0.45 -0.45	-0.31
VA4 - 10	1111.50	-0.19 0.00	-2675.82 -111.04	0.00	-38.63 12.82	12.82	3.18 -2.11	-0.05 0.05	1.73
VA4 - 11	1111.50	-0.19 0.00	-102.45 580.39	580.39	12.82 18.65	18.65	1.55 -0.94	-0.01 0.01	1.73
VA4 - 12	1111.50	-0.21 0.00	581.56 -1247.22	581.56	18.65 -65.33	18.65	-0.08 2.02	0.05 -0.05	1.73
VA4 - 13	1111.50	0.00 0.04	-969.13 -507.03	476.80	-15.06 -30.54	0.00	1.79 1.48	0.01 -0.01	-2.49
VA5 - 1	1062.75	0.00 0.01	-566.51 766.52	948.61	-58.60 36.63	36.63	1.79 0.62	-0.04 0.04	-1.04
VA5 - 2	1062.75	0.00 0.01	766.40 -2198.82	766.40	36.63 -15.08	36.63	-1.60 2.98	0.04 -0.04	-1.04
VA5 - 3	1062.75	0.00 0.05	-2741.63 449.93	449.93	-14.89 -4.40	0.00	3.71 -2.64	-0.01 0.01	0.69
VA5 - 4	1062.75	0.00 0.05	449.71 1621.36	1621.36	-4.40 43.76	0.00	1.66 -0.52	-0.04 0.04	0.69
VA5 - 5	1062.75	0.00 0.05	1622.65 -2178.07	1622.65	43.76 -8.29	43.76	-0.46 2.88	0.02 -0.02	0.69
VA5 - 6	1062.75	0.00 0.09	-2017.82 932.66	932.66	68.41 -53.08	68.41	2.75 -1.13	0.08 -0.08	-0.77
VA5 - 7	1062.75	0.00 0.11	931.49 -238.09	931.49	-14.88 -48.23	0.00	0.10 1.58	0.02 -0.02	-13.47
VA6 - 1	1062.75	0.00 0.05	9.49 867.69	909.53	-8.62 -16.13	0.00	1.39 0.32	0.00 0.00	2.32
VA6 - 2	1062.75	0.00 0.05	874.23 -3490.77	874.23	-16.13 37.53	37.53	-2.03 3.66	-0.03 0.03	2.32
VA7 - 1	1062.75	-0.08 0.00	-1092.24 2157.96	2157.96	-50.64 5.93	5.93	2.90 -1.23	-0.04 0.04	-4.55
VA7 - 2	1062.75	-0.08 0.00	2151.42 0.00	2151.42	5.93 0.00	5.93	-0.48 2.19	0.00 0.00	-4.55
VA8 - 1	1184.63	0.00 0.69	-5023.86 -9087.88	4003.21	-5.40 -2.52	0.00	4.63 5.57	0.00 0.00	-1.16
VA8 - 2	1184.63	0.00 1.02	-12052.00 -7813.45	6653.39	9.69 -2.09	9.69	6.66 5.86	0.00 0.00	1.01
VA9 - 1	1111.50	0.00	-2240.43	1753.05	35.85	35.85	2.98	0.01	4.03


		0.18	-3682.21		-30.53		3.48	-0.01	
VA9 - 2	1111.50	0.00 0.25	-3631.91 -3701.56	1959.10	-23.83 17.87	17.87	3.53 3.55	-0.01 0.01	-0.32
VA10 - 1	1111.50	0.00 0.15	-2775.90 -2315.53	1244.46	24.55 -40.87	24.55	2.99 2.81	0.01 -0.01	0.56
VA10 - 2	1111.50	0.00 0.07	-1668.87 -1160.29	811.33	-64.12 57.32	57.32	2.35 2.09	-0.03 0.03	-4.65
VA11 - 1	1062.75	-0.12 0.00	10.91 -370.80	330.84	60.23 -32.85	60.23	0.83 1.22	0.05 -0.05	2.15
VA11 - 2	1062.75	-0.72 0.00	-998.34 205.35	955.14	-7.36 -0.89	0.00	2.04 1.26	0.00 0.00	-1.59
VA11 - 3	1062.75	-0.72 0.00	201.02 -2696.16	201.02	-0.89 1.44	1.44	-2.32 3.40	0.00 0.00	-1.59
VA12 - 1	1062.75	-0.15 0.00	0.00 2409.66	2786.54	0.00 0.16	0.16	2.43 0.90	0.00 0.00	-0.06
VA12 - 2	1062.75	-0.15 0.00	2413.99 0.00	2413.99	0.16 0.00	0.16	-1.95 2.99	0.00 0.00	-0.06
VA13	1014.00	0.00 0.08	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.12
VA14 - 1	1062.75	0.00 0.63	0.00 3085.86	3085.86	0.00 -9.60	0.00	3.50 -2.38	0.01 -0.01	1.24
VA14 - 2	1062.75	0.00 0.63	3086.77 0.00	3242.52	-9.60 0.00	0.00	0.58 2.63	0.00 0.00	1.24
VA15	1014.00	-0.03 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.22
VA16	1014.00	0.00 0.07	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-1.28
VA17 - 1	1062.75	0.00 0.52	0.00 5422.45	5422.45	0.00 21.00	21.00	5.72 -4.61	-0.02 0.02	-6.95
VA17 - 2	1062.75	0.00 0.57	5421.54 0.00	5421.54	-21.79 0.00	0.00	-0.40 3.42	-0.01 0.01	2.17
VA18	1062.75	0.00 0.26	-566.26 340.40	481.62	-69.48 101.12	101.12	1.50 0.56	-0.09 0.09	1.58
VA19	1062.75	0.00 0.04	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-8.59
VA20	1062.75	-0.06 0.00	-12.69 0.00	483.94	-38.20 0.00	0.00	1.03 1.02	-0.02 0.02	1.17
VA21 - 1	1062.75	0.00 0.22	-2024.92 3164.56	3164.56	40.69 -50.00	40.69	3.32 0.09	0.03 -0.03	6.79
VA21 - 2	1062.75	0.00 0.22	3166.88 -2315.02	3166.88	-41.38 6.74	6.74	-1.47 3.72	-0.02 0.02	-2.70
VA22	1062.75	0.00 0.16	-245.51 -1434.17	972.80	-55.48 80.52	80.52	1.61 2.26	-0.04 0.04	-0.11
VA23	1062.75	0.00 0.04	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.54
VA24 - 1	1111.50	0.00 0.18	-2148.35 -3764.71	1766.87	-62.64 39.05	39.05	2.95 3.51	-0.02 0.02	-5.83
VA24 - 2	1111.50	0.00 0.25	-3390.33 -4115.42	1883.54	9.30 26.38	26.38	3.42 3.65	0.00 0.00	-0.34
VA25 - 1	1111.50	0.00 0.28	-4006.93 2405.43	2405.43	96.69 -40.22	96.69	4.41 -2.29	0.07 -0.07	4.45
VA25 - 2	1111.50	0.00 0.28	2409.97 -3363.02	2409.97	-40.22 -17.32	0.00	0.09 3.58	-0.01 0.01	4.45
VA25 - 3	1111.50	0.00 0.10	-1943.10 -1200.05	660.50	4.49 -38.95	4.49	2.41 2.03	0.01 -0.01	-1.47

CASO: 1.3G1+1.4G2+1.4Q+1.2D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.39	-1995.25 2610.61	2610.61	-89.17 6.33	6.33	3.40 -1.33	-0.05 0.05	-2.54



VA1 - 2	1062.75	0.00 0.40	2610.60 282.84	2610.60	6.33 -82.42	0.00	-1.66 2.77	0.08 -0.08	-3.40
VA1 - 3	1062.75	0.00 0.37	284.16 -3034.00	284.16	-82.42 185.13	185.13	-5.40 6.02	-0.46 0.46	-3.18
VA1 - 4	1062.75	-0.42 0.00	-2922.00 423.57	991.17	157.41 -120.65	157.41	2.88 1.10	0.07 -0.07	0.90
VA1 - 5	1062.75	-0.46 0.00	425.80 -2036.53	425.80	-120.65 155.55	155.55	-4.52 5.06	-0.54 0.54	-3.96
VA1 - 6	1062.75	-0.42 0.00	-1372.60 -773.37	356.63	121.80 -64.14	121.80	1.92 1.55	0.06 -0.06	2.31
VA2	1062.75	0.00 0.00	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-4.03
VA3 - 1	1062.75	0.00 0.02	0.00 -2142.12	1528.01	0.00 19.25	19.25	1.80 2.79	0.00 0.00	0.92
VA3 - 2	1062.75	0.00 0.00	-2151.31 8.52	8.52	76.21 0.00	76.21	2.21 -0.56	0.05 -0.05	0.00
VA4 - 1	1111.50	0.00 0.18	-2044.31 -2396.05	1297.32	83.74 -47.53	83.74	2.73 2.87	0.03 -0.03	1.14
VA4 - 2	1111.50	0.00 0.30	-2530.92 2234.59	2234.59	-102.97 -36.62	0.00	3.51 -1.33	-0.03 0.03	-3.16
VA4 - 3	1111.50	0.00 0.30	2234.60 1833.31	2234.60	-36.62 15.77	0.00	-1.11 1.46	-0.17 0.17	-3.16
VA4 - 4	1111.50	0.00 0.30	1833.40 -263.35	1833.40	15.77 191.75	191.75	-2.44 3.25	-0.24 0.24	-3.16
VA4 - 5	1111.50	0.00 0.28	-264.59 -4202.70	0.00	191.75 15.72	191.75	-6.75 7.37	0.32 -0.32	-7.15
VA4 - 6	1111.50	-0.02 0.00	-4584.61 -326.69	0.00	-34.93 9.11	9.11	4.79 -3.68	-0.04 0.04	4.57
VA4 - 7	1111.50	-0.02 0.00	-326.47 1931.36	1931.36	9.11 0.47	9.11	2.70 -1.50	0.01 -0.01	1.84
VA4 - 8	1111.50	-0.02 0.00	1930.10 1229.59	2051.29	0.47 122.66	0.00	0.52 1.35	-0.07 0.07	1.84
VA4 - 9	1111.50	0.00 0.01	1236.54 -3119.17	1236.54	122.66 -166.68	122.66	-7.08 7.73	0.49 -0.49	1.84
VA4 - 10	1111.50	-0.18 0.00	-2700.15 -121.52	0.00	-43.80 10.46	10.46	3.20 -2.12	-0.06 0.06	1.56
VA4 - 11	1111.50	-0.18 0.00	-113.00 577.69	577.69	10.46 14.32	14.32	1.56 -0.95	-0.01 0.01	1.56
VA4 - 12	1111.50	-0.20 0.00	578.78 -1224.00	578.78	14.32 -64.17	14.32	-0.07 2.00	0.05 -0.05	1.56
VA4 - 13	1111.50	0.00 0.05	-958.50 -506.59	481.61	-11.28 -14.89	0.00	1.79 1.48	0.00 0.00	-2.42
VA5 - 1	1062.75	-0.01 0.00	-561.10 759.65	945.09	-82.80 40.64	40.64	1.79 0.63	-0.05 0.05	-3.06
VA5 - 2	1062.75	-0.01 0.00	759.56 -2212.66	759.56	40.64 18.43	40.64	-1.61 2.98	0.02 -0.02	-3.06
VA5 - 3	1062.75	0.00 0.02	-2739.11 451.89	451.89	15.38 6.26	15.38	3.71 -2.64	0.01 -0.01	2.45
VA5 - 4	1062.75	0.00 0.02	451.64 1622.70	1622.70	6.26 52.42	0.00	1.66 -0.52	-0.04 0.04	2.45
VA5 - 5	1062.75	0.00 0.02	1623.95 -2178.05	1623.95	52.42 -33.07	52.42	-0.46 2.88	0.04 -0.04	2.45
VA5 - 6	1062.75	0.00 0.09	-1997.20 935.07	935.07	72.98 -55.87	72.98	2.74 -1.12	0.08 -0.08	-0.20
VA5 - 7	1062.75	0.00 0.12	933.97 -255.63	933.97	-4.25 -55.89	0.00	0.09 1.59	0.03 -0.03	-14.19
VA6 - 1	1062.75	0.00 0.05	9.70 834.42	883.87	3.15 -13.46	0.00	1.37 0.34	0.01 -0.01	1.90
VA6 - 2	1062.75	0.00 0.05	840.94 -3556.12	840.94	-13.46 29.27	29.27	-2.05 3.68	-0.03 0.03	1.90
VA7 - 1	1062.75	-0.08 0.00	-1051.16 2178.73	2178.73	-44.67 7.79	7.79	2.89 -1.22	-0.03 0.03	-4.03
VA7 - 2	1062.75	-0.08	2172.21	2172.21	7.79	7.79	-0.50	0.00	-4.03



	<b>AltoQi Eberick 2018</b> <b>Plena</b>	
	<b>Leilson Campos</b> <b>Rezende</b> <b>Rezende Engenharia</b>	<b>11/5/2021</b> <b>12:14:59</b>

		0.00	0.00		0.00		2.21	0.00	
VA8 - 1	1184.63	0.00 0.67	-5039.62 -9067.56	4004.23	-7.02 5.48	5.48	4.63 5.57	0.00 0.00	-2.55
VA8 - 2	1184.63	0.00 1.01	-12041.84 -7816.74	6656.32	20.60 -5.36	20.60	6.66 5.86	0.00 0.00	2.10
VA9 - 1	1111.50	0.00 0.16	-2533.69 -3426.96	1719.48	58.77 -46.53	58.77	3.08 3.38	0.02 -0.02	4.01
VA9 - 2	1111.50	0.00 0.23	-3833.64 -3496.40	1965.14	-14.82 6.90	6.90	3.59 3.48	0.00 0.00	-0.40
VA10 - 1	1111.50	0.00 0.13	-3010.04 -2104.08	1245.53	35.49 -43.61	35.49	3.08 2.73	0.02 -0.02	0.60
VA10 - 2	1111.50	0.00 0.07	-1974.41 -794.49	872.06	-44.89 14.72	14.72	2.52 1.93	-0.01 0.01	-4.52
VA11 - 1	1062.75	-0.09 0.00	-468.91 -106.38	222.08	80.61 -54.14	80.61	1.21 0.84	0.07 -0.07	2.12
VA11 - 2	1062.75	-0.68 0.00	-1337.97 604.87	1097.31	5.96 -7.37	5.96	2.28 1.03	0.00 0.00	-1.49
VA11 - 3	1062.75	-0.68 0.00	600.84 -2055.22	600.84	-7.37 -14.54	0.00	-2.08 3.16	0.01 -0.01	-1.49
VA12 - 1	1062.75	-0.13 0.00	0.00 2409.89	2786.71	0.00 -2.08	0.00	2.43 0.89	0.00 0.00	0.00
VA12 - 2	1062.75	-0.13 0.00	2413.92 0.00	2413.92	-2.08 0.00	0.00	-1.95 2.99	0.00 0.00	0.00
VA13	1014.00	0.00 0.07	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.10
VA14 - 1	1062.75	0.00 0.55	0.00 3085.86	3085.86	0.00 -12.56	0.00	3.50 -2.38	0.01 -0.01	1.32
VA14 - 2	1062.75	0.00 0.55	3086.78 0.00	3242.53	-12.56 0.00	0.00	0.58 2.63	0.00 0.00	1.32
VA15	1014.00	-0.05 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.25
VA16	1014.00	0.00 0.08	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-1.26
VA17 - 1	1062.75	0.00 0.56	0.00 5422.45	5422.45	0.00 27.73	27.73	5.72 -4.61	-0.03 0.03	-6.95
VA17 - 2	1062.75	0.00 0.62	5421.53 0.00	5421.53	-29.22 0.00	0.00	-0.40 3.42	-0.01 0.01	2.24
VA18	1062.75	0.00 0.29	-998.37 774.01	774.01	-96.32 132.28	132.28	1.94 0.11	-0.12 0.12	1.59
VA19	1062.75	0.00 0.05	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-8.52
VA20	1062.75	-0.05 0.00	-13.99 0.00	483.36	-51.62 0.00	0.00	1.03 1.02	-0.03 0.03	1.09
VA21 - 1	1062.75	0.00 0.22	-2261.73 3196.58	3196.58	30.96 -42.42	30.96	3.41 0.00	0.02 -0.02	6.90
VA21 - 2	1062.75	0.00 0.23	3198.48 -2062.42	3198.48	-45.57 19.87	19.87	-1.37 3.61	-0.03 0.03	-2.79
VA22	1062.75	0.00 0.17	-707.56 -886.54	970.82	-62.00 88.27	88.27	1.89 1.99	-0.04 0.04	-0.02
VA23	1062.75	0.00 0.04	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.52
VA24 - 1	1111.50	0.00 0.15	-2516.86 -3443.33	1720.29	-81.91 51.09	51.09	3.07 3.39	-0.02 0.02	-5.87
VA24 - 2	1111.50	0.00 0.22	-3645.33 -3858.10	1876.43	3.04 33.26	33.26	3.50 3.57	0.00 0.00	-0.44
VA25 - 1	1111.50	0.00 0.27	-4310.44 2327.18	2327.18	90.15 -42.95	90.15	4.53 -2.40	0.07 -0.07	4.50
VA25 - 2	1111.50	0.00 0.26	2331.21 -3095.12	2348.61	-42.95 -5.20	0.00	0.20 3.48	-0.01 0.01	4.50
VA25 - 3	1111.50	0.00 0.09	-2334.62 -740.69	751.54	-20.27 -2.41	0.00	2.62 1.82	0.00 0.00	-1.34



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Rezende  
Rezende Engenharia

11/5/2021  
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**CASO: 1.3G1+1.4G2+1.4Q+D1**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Yyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.40	-1816.30 2613.02	2613.02	-77.10 5.13	5.13	3.31 -1.24	-0.04 0.04	-1.98
VA1 - 2	1062.75	0.00 0.40	2613.03 189.90	2613.03	5.13 -102.72	0.00	-1.75 2.86	0.10 -0.10	-2.85
VA1 - 3	1062.75	0.00 0.38	191.25 -3179.67	191.25	-102.72 177.44	177.44	-5.49 6.11	-0.48 0.48	-2.72
VA1 - 4	1062.75	-0.42 0.00	-2819.03 348.56	965.60	152.03 -114.97	152.03	2.84 1.15	0.07 -0.07	0.52
VA1 - 5	1062.75	-0.46 0.00	350.72 -2136.01	350.72	-114.97 150.94	150.94	-4.56 5.11	-0.52 0.52	-3.49
VA1 - 6	1062.75	-0.43 0.00	-1214.08 -968.15	323.14	120.10 -62.31	120.10	1.81 1.66	0.06 -0.06	1.82
VA2	1062.75	0.00 0.00	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-4.13
VA3 - 1	1062.75	0.00 0.01	0.00 -2141.84	1528.12	0.00 21.39	21.39	1.80 2.79	0.00 0.00	0.90
VA3 - 2	1062.75	0.00 0.00	-2151.15 8.69	8.69	70.21 0.00	70.21	2.21 -0.56	0.05 -0.05	0.00
VA4 - 1	1111.50	0.00 0.19	-1853.42 -2467.12	1362.47	76.57 -49.28	76.57	2.67 2.92	0.03 -0.03	1.03
VA4 - 2	1111.50	0.00 0.30	-2472.70 2162.06	2162.06	-85.02 -42.18	0.00	3.45 -1.26	-0.02 0.02	-1.37
VA4 - 3	1111.50	0.00 0.30	2162.05 1739.98	2162.05	-42.18 10.04	0.00	-1.17 1.52	-0.17 0.17	-1.37
VA4 - 4	1111.50	0.00 0.30	1740.05 -405.62	1740.05	10.04 188.77	188.77	-2.50 3.32	-0.24 0.24	-1.37
VA4 - 5	1111.50	0.00 0.29	-406.90 -4382.06	0.00	188.77 -7.75	188.77	-6.82 7.44	0.35 -0.35	-7.50
VA4 - 6	1111.50	-0.01 0.00	-4432.71 -225.97	0.00	-46.88 -2.62	0.00	4.74 -3.63	-0.04 0.04	2.83
VA4 - 7	1111.50	-0.01 0.00	-225.77 1977.31	1977.31	-2.62 -1.10	0.00	2.65 -1.45	0.00 0.00	0.94
VA4 - 8	1111.50	-0.01 0.00	1976.04 1189.71	2075.77	-1.10 126.08	0.00	0.47 1.40	-0.08 0.08	0.94
VA4 - 9	1111.50	0.00 0.02	1196.83 -3188.79	1196.83	126.08 -149.90	126.08	-7.13 7.78	0.47 -0.47	0.94
VA4 - 10	1111.50	-0.15 0.00	-2643.94 -113.54	0.00	-41.37 12.21	12.21	3.15 -2.07	-0.06 0.06	1.64
VA4 - 11	1111.50	-0.15 0.00	-104.85 558.50	558.50	12.21 17.81	17.81	1.51 -0.90	-0.01 0.01	1.64
VA4 - 12	1111.50	-0.18 0.00	559.62 -1330.41	559.62	17.81 -65.55	17.81	-0.12 2.05	0.05 -0.05	1.64
VA4 - 13	1111.50	0.00 0.05	-738.77 -809.76	432.22	-14.16 -18.78	0.00	1.61 1.66	0.00 0.00	-2.45
VA5 - 1	1062.75	0.00 0.00	-475.72 727.87	945.25	-69.56 38.23	38.23	1.74 0.68	-0.05 0.05	-2.04
VA5 - 2	1062.75	0.00 0.00	727.80 -2311.08	727.80	38.23 1.61	38.23	-1.66 3.04	0.03 -0.03	-2.04
VA5 - 3	1062.75	0.00 0.03	-2665.03 497.69	497.69	-0.09 0.97	0.97	3.68 -2.61	0.00 0.00	1.55
VA5 - 4	1062.75	0.00 0.03	497.49 1638.29	1638.29	0.97 47.98	0.00	1.63 -0.49	-0.04 0.04	1.55
VA5 - 5	1062.75	0.00 0.03	1639.56 -2226.41	1639.56	47.98 -20.95	47.98	-0.49 2.91	0.03 -0.03	1.55
VA5 - 6	1062.75	0.00 0.08	-1952.38 921.73	921.73	70.64 -53.87	70.64	2.70 -1.08	0.08 -0.08	-0.49
VA5 - 7	1062.75	0.00 0.11	920.61 -328.84	920.61	-8.43 -46.14	0.00	0.05 1.63	0.02 -0.02	-13.65
VA6 - 1	1062.75	0.00	10.31	826.41	-8.13	0.00	1.32	0.00	2.07


		0.05	757.60		-15.95		0.38	0.00	
VA6 - 2	1062.75	0.00 0.05	764.12 -3707.07	764.12	-15.95 35.91	35.91	-2.10 3.73	-0.03 0.03	2.07
VA7 - 1	1062.75	-0.09 0.00	-949.24 2230.28	2230.28	-49.82 5.56	5.56	2.86 -1.19	-0.04 0.04	-4.22
VA7 - 2	1062.75	-0.09 0.00	2223.77 0.00	2223.77	5.56 0.00	5.56	-0.53 2.24	0.00 0.00	-4.22
VA8 - 1	1184.63	0.00 0.68	-4885.66 -9198.84	4030.90	-1.49 0.15	0.15	4.60 5.60	0.00 0.00	-1.84
VA8 - 2	1184.63	0.00 1.00	-11943.76 -7943.22	6633.48	16.31 -7.97	16.31	6.64 5.88	0.00 0.00	1.55
VA9 - 1	1111.50	0.00 0.17	-2379.39 -3562.09	1734.06	42.19 -33.37	42.19	3.03 3.43	0.01 -0.01	3.37
VA9 - 2	1111.50	0.00 0.25	-3733.80 -3601.22	1959.35	-15.40 13.27	13.27	3.56 3.52	0.00 0.00	-0.35
VA10 - 1	1111.50	0.00 0.14	-2892.24 -2210.79	1242.44	30.95 -42.91	30.95	3.03 2.77	0.01 -0.01	0.90
VA10 - 2	1111.50	0.00 0.07	-1820.26 -978.65	835.21	-53.54 33.87	33.87	2.43 2.01	-0.02 0.02	-4.23
VA11 - 1	1062.75	-0.10 0.00	-219.64 -241.41	260.27	69.39 -42.30	69.39	1.02 1.04	0.06 -0.06	2.33
VA11 - 2	1062.75	-0.70 0.00	-1158.32 395.64	1017.71	0.20 -4.41	0.20	2.15 1.15	0.00 0.00	-1.72
VA11 - 3	1062.75	-0.70 0.00	391.51 -2391.41	391.51	-4.41 -7.17	0.00	-2.21 3.28	0.00 0.00	-1.72
VA12 - 1	1062.75	-0.15 0.00	0.00 2409.81	2786.66	0.00 -0.92	0.00	2.43 0.90	0.00 0.00	0.01
VA12 - 2	1062.75	-0.15 0.00	2413.94 0.00	2413.94	-0.92 0.00	0.00	-1.95 2.99	0.00 0.00	0.01
VA13	1014.00	0.00 0.08	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.07
VA14 - 1	1062.75	0.00 0.59	0.00 3085.91	3085.91	0.00 -10.94	0.00	3.50 -2.38	0.01 -0.01	1.35
VA14 - 2	1062.75	0.00 0.59	3086.81 0.00	3242.56	-10.94 0.00	0.00	0.58 2.63	0.00 0.00	1.35
VA15	1014.00	-0.04 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.21
VA16	1014.00	0.00 0.07	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-1.27
VA17 - 1	1062.75	0.00 0.54	0.00 5422.40	5422.40	0.00 23.94	23.94	5.72 -4.61	-0.02 0.02	-7.13
VA17 - 2	1062.75	0.00 0.59	5421.50 0.00	5421.50	-24.88 0.00	0.00	-0.40 3.42	-0.01 0.01	2.18
VA18	1062.75	0.00 0.27	-785.99 561.45	607.57	-82.80 116.58	116.58	1.72 0.33	-0.10 0.10	1.64
VA19	1062.75	0.00 0.05	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-8.69
VA20	1062.75	-0.06 0.00	-13.16 0.00	483.74	-45.44 0.00	0.00	1.03 1.02	-0.02 0.02	1.12
VA21 - 1	1062.75	0.00 0.21	-2124.26 3128.31	3128.31	36.90 -46.20	36.90	3.34 0.07	0.03 -0.03	7.23
VA21 - 2	1062.75	0.00 0.22	3130.38 -2163.84	3130.38	-38.07 8.60	8.60	-1.39 3.63	-0.02 0.02	-3.08
VA22	1062.75	0.00 0.17	-487.84 -1149.32	964.21	-58.46 83.87	83.87	1.76 2.12	-0.04 0.04	-0.16
VA23	1062.75	0.00 0.04	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.51
VA24 - 1	1111.50	0.00 0.16	-2335.35 -3600.53	1738.29	-75.73 48.42	48.42	3.01 3.45	-0.02 0.02	-6.48
VA24 - 2	1111.50	0.00 0.23	-3511.74 -3992.03	1880.58	8.53 35.80	35.80	3.46 3.61	0.00 0.00	-0.36
VA25 - 1	1111.50	0.00 0.28	-4179.25 2392.45	2392.45	103.29 -52.14	103.29	4.50 -2.37	0.08 -0.08	4.95

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VA25 - 2	1111.50	0.00 0.27	2396.67 -3249.64	2400.33	-52.14 -9.85	0.00	0.13 3.55	-0.01 0.01	4.95
VA25 - 3	1111.50	0.00 0.09	-2144.59 -969.75	698.93	-4.68 -21.77	0.00	2.51 1.93	0.00 0.00	-1.20


CASO: 1.3G1+1.4G2+1.4Q+D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.38	-2126.15 2612.19	2612.19	-76.83 4.62	4.62	3.47 -1.40	-0.04 0.04	-2.02
VA1 - 2	1062.75	0.00 0.39	2612.12 355.86	2612.12	4.62 -101.76	0.00	-1.59 2.71	0.10 -0.10	-2.89
VA1 - 3	1062.75	0.00 0.36	357.07 -2921.53	357.07	-101.76 178.99	178.99	-5.33 5.95	-0.48 0.48	-2.59
VA1 - 4	1062.75	-0.43 0.00	-2994.87 479.10	1011.03	151.95 -114.79	151.95	2.92 1.06	0.07 -0.07	0.75
VA1 - 5	1062.75	-0.47 0.00	481.30 -1963.42	481.30	-114.79 151.78	151.78	-4.48 5.03	-0.52 0.52	-4.72
VA1 - 6	1062.75	-0.43 0.00	-1482.51 -646.77	379.76	119.05 -61.69	119.05	1.99 1.48	0.06 -0.06	1.82
VA2	1062.75	0.00 0.00	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-4.23
VA3 - 1	1062.75	0.00 0.01	0.00 -2142.42	1527.90	0.00 21.22	21.22	1.80 2.79	0.00 0.00	0.94
VA3 - 2	1062.75	0.00 0.00	-2151.42 8.42	8.42	72.14 0.00	72.14	2.21 -0.56	0.05 -0.05	0.00
VA4 - 1	1111.50	0.00 0.14	-2246.58 -2316.65	1230.25	82.15 -50.44	82.15	2.78 2.81	0.03 -0.03	1.04
VA4 - 2	1111.50	0.00 0.25	-2582.74 2303.49	2303.49	-87.04 -41.89	0.00	3.58 -1.39	-0.02 0.02	-2.07
VA4 - 3	1111.50	0.00 0.25	2303.57 1921.48	2303.57	-41.89 10.13	0.00	-1.05 1.39	-0.17 0.17	-2.07
VA4 - 4	1111.50	0.00 0.25	1921.63 -129.90	1921.63	10.13 189.78	189.78	-2.37 3.19	-0.24 0.24	-2.07
VA4 - 5	1111.50	0.00 0.24	-131.07 -4034.93	0.00	189.78 -5.40	189.78	-6.69 7.31	0.35 -0.35	-4.04
VA4 - 6	1111.50	-0.07 0.00	-4750.61 -435.56	0.00	-47.44 -2.56	0.00	4.85 -3.73	-0.04 0.04	4.22
VA4 - 7	1111.50	-0.07 0.00	-435.32 1883.63	1883.63	-2.56 -0.91	0.00	2.75 -1.56	0.00 0.00	0.59
VA4 - 8	1111.50	-0.07 0.00	1882.36 1277.66	2027.49	-0.91 126.70	0.00	0.58 1.30	-0.08 0.08	0.59
VA4 - 9	1111.50	-0.04 0.00	1284.43 -3037.88	1284.43	126.70 -149.23	126.70	-7.02 7.67	0.47 -0.47	0.59
VA4 - 10	1111.50	-0.22 0.00	-2732.03 -119.02	0.00	-41.06 11.07	11.07	3.23 -2.15	-0.05 0.05	1.65
VA4 - 11	1111.50	-0.22 0.00	-110.60 599.58	599.58	11.07 15.16	15.16	1.60 -0.99	-0.01 0.01	1.65
VA4 - 12	1111.50	-0.24 0.00	600.72 -1140.81	600.72	15.16 -63.94	15.16	-0.03 1.97	0.05 -0.05	1.65
VA4 - 13	1111.50	0.00 0.04	-1188.85 -203.86	555.87	-12.18 -26.65	0.00	1.97 1.30	0.00 0.00	-2.46
VA5 - 1	1062.75	0.00 0.01	-651.88 798.31	948.44	-71.83 39.04	39.04	1.85 0.57	-0.05 0.05	-2.06
VA5 - 2	1062.75	0.00 0.01	798.16 -2100.40	798.16	39.04 1.73	39.04	-1.55 2.93	0.03 -0.03	-2.06
VA5 - 3	1062.75	0.00 0.04	-2815.71 404.13	404.13	0.58 0.89	0.89	3.74 -2.67	0.00 0.00	1.59
VA5 - 4	1062.75	0.00 0.04	403.86 1605.77	1605.77	0.89 48.20	0.00	1.69 -0.55	-0.04 0.04	1.59
VA5 - 5	1062.75	0.00	1607.04	1607.04	48.20	48.20	-0.43	0.03	1.59

		0.04	-2129.70		-20.42		2.85	-0.03	
VA5 - 6	1062.75	0.00 0.10	-2062.64 946.00	946.00	70.75 -55.08	70.75	2.79 -1.17	0.08 -0.08	-0.48
VA5 - 7	1062.75	0.00 0.12	944.86 -164.87	949.09	-10.69 -57.98	0.00	0.14 1.54	0.03 -0.03	-14.01
VA6 - 1	1062.75	0.00 0.06	8.88 944.50	976.67	2.66 -13.64	0.00	1.44 0.27	0.01 -0.01	2.16
VA6 - 2	1062.75	0.00 0.06	951.05 -3339.82	951.05	-13.64 30.89	30.89	-1.98 3.61	-0.03 0.03	2.16
VA7 - 1	1062.75	-0.07 0.00	-1194.16 2106.41	2106.41	-45.49 8.16	8.16	2.94 -1.27	-0.03 0.03	-4.35
VA7 - 2	1062.75	-0.07 0.00	2099.86 0.00	2099.86	8.16 0.00	8.16	-0.45 2.16	0.01 -0.01	-4.35
VA8 - 1	1184.63	0.00 0.68	-5177.81 -8956.60	3981.93	-10.93 2.81	2.81	4.66 5.54	0.00 0.00	-1.87
VA8 - 2	1184.63	0.00 1.02	-12150.08 -7686.97	6676.23	13.99 0.51	13.99	6.68 5.83	0.00 0.00	1.56
VA9 - 1	1111.50	0.00 0.17	-2394.73 -3547.08	1733.37	52.43 -43.70	52.43	3.03 3.43	0.02 -0.02	4.67
VA9 - 2	1111.50	0.00 0.24	-3731.75 -3596.74	1962.65	-23.25 11.51	11.51	3.56 3.52	-0.01 0.01	-0.38
VA10 - 1	1111.50	0.00 0.14	-2893.71 -2208.82	1242.83	29.09 -41.57	29.09	3.03 2.77	0.01 -0.01	0.26
VA10 - 2	1111.50	0.00 0.07	-1823.01 -976.13	835.24	-55.47 38.17	38.17	2.43 2.01	-0.02 0.02	-4.93
VA11 - 1	1062.75	-0.10 0.00	-238.37 -235.76	252.66	71.45 -44.69	71.45	1.03 1.03	0.06 -0.06	1.94
VA11 - 2	1062.75	-0.70 0.00	-1177.98 414.58	1023.79	-1.61 -3.85	0.00	2.16 1.14	0.00 0.00	-1.35
VA11 - 3	1062.75	-0.70 0.00	410.35 -2359.98	410.35	-3.85 -5.93	0.00	-2.19 3.27	0.00 0.00	-1.35
VA12 - 1	1062.75	-0.14 0.00	0.00 2409.74	2786.60	0.00 -1.00	0.00	2.43 0.90	0.00 0.00	-0.07
VA12 - 2	1062.75	-0.14 0.00	2413.97 0.00	2413.97	-1.00 0.00	0.00	-1.95 2.99	0.00 0.00	-0.07
VA13	1014.00	0.00 0.08	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.15
VA14 - 1	1062.75	0.00 0.59	0.00 3085.80	3085.80	0.00 -11.22	0.00	3.50 -2.38	0.01 -0.01	1.21
VA14 - 2	1062.75	0.00 0.59	3086.74 0.00	3242.50	-11.22 0.00	0.00	0.58 2.63	0.00 0.00	1.21
VA15	1014.00	-0.04 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.26
VA16	1014.00	0.00 0.07	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-1.27
VA17 - 1	1062.75	0.00 0.54	0.00 5422.51	5422.51	0.00 24.79	24.79	5.72 -4.61	-0.02 0.02	-6.78
VA17 - 2	1062.75	0.00 0.60	5421.57 0.00	5421.57	-26.13 0.00	0.00	-0.40 3.42	-0.01 0.01	2.22
VA18	1062.75	0.00 0.27	-778.63 552.95	600.83	-83.00 116.82	116.82	1.72 0.34	-0.10 0.10	1.53
VA19	1062.75	0.00 0.05	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-8.42
VA20	1062.75	-0.05 0.00	-13.53 0.00	483.57	-44.38 0.00	0.00	1.03 1.02	-0.02 0.02	1.14
VA21 - 1	1062.75	0.00 0.22	-2162.39 3232.83	3232.83	34.76 -46.21	34.76	3.39 0.02	0.03 -0.03	6.46
VA21 - 2	1062.75	0.00 0.23	3234.99 -2213.60	3234.99	-48.88 18.01	18.01	-1.46 3.70	-0.03 0.03	-2.41
VA22	1062.75	0.00 0.17	-465.23 -1171.39	966.97	-59.02 84.92	84.92	1.74 2.13	-0.04 0.04	0.03
VA23	1062.75	0.00 0.04	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.55

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VA24 - 1	1111.50	0.00 0.17	-2329.86 -3607.51	1737.75	-68.81 41.72	41.72	3.01 3.45	-0.02 0.02	-5.22
VA24 - 2	1111.50	0.00 0.24	-3523.92 -3981.50	1879.39	3.81 23.84	23.84	3.47 3.61	0.00 0.00	-0.41
VA25 - 1	1111.50	0.00 0.27	-4138.11 2340.15	2340.15	83.55 -31.04	83.55	4.45 -2.32	0.06 -0.06	4.00
VA25 - 2	1111.50	0.00 0.27	2344.51 -3208.49	2354.00	-31.04 -12.67	0.00	0.16 3.52	-0.01 0.01	4.00
VA25 - 3	1111.50	0.00 0.10	-2133.12 -970.99	703.05	-11.10 -19.60	0.00	2.51 1.93	0.00 0.00	-1.61

CASO: 1.3G1+1.4G2+1.4Q+D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.39	-1951.21 2614.27	2614.27	-66.79 3.66	3.66	3.38 -1.31	-0.04 0.04	-1.56
VA1 - 2	1062.75	0.00 0.39	2614.21 264.57	2614.21	3.66 -118.76	0.00	-1.68 2.79	0.12 -0.12	-2.42
VA1 - 3	1062.75	0.00 0.37	265.82 -3064.43	265.82	-118.76 172.45	172.45	-5.42 6.04	-0.50 0.50	-2.22
VA1 - 4	1062.75	-0.43 0.00	-2894.40 405.71	985.94	147.47 -110.07	147.47	2.87 1.11	0.07 -0.07	0.42
VA1 - 5	1062.75	-0.47 0.00	407.86 -2060.71	407.86	-110.07 147.87	147.87	-4.53 5.08	-0.50 0.50	-4.24
VA1 - 6	1062.75	-0.43 0.00	-1328.04 -835.87	340.97	117.73 -60.21	117.73	1.88 1.58	0.05 -0.05	1.42
VA2	1062.75	0.00 0.00	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-4.31
VA3 - 1	1062.75	0.00 0.01	0.00 -2142.13	1528.01	0.00 23.01	23.01	1.80 2.79	-0.01 0.01	0.92
VA3 - 2	1062.75	0.00 0.00	-2151.25 8.58	8.58	66.98 0.00	66.98	2.21 -0.56	0.04 -0.04	0.00
VA4 - 1	1111.50	0.00 0.15	-2054.74 -2388.41	1295.56	75.71 -51.80	75.71	2.73 2.86	0.03 -0.03	0.95
VA4 - 2	1111.50	0.00 0.26	-2525.05 2231.26	2231.26	-71.91 -46.56	0.00	3.51 -1.32	-0.01 0.01	-0.52
VA4 - 3	1111.50	0.00 0.26	2231.32 1828.59	2231.32	-46.56 5.35	0.00	-1.11 1.46	-0.17 0.17	-0.52
VA4 - 4	1111.50	0.00 0.26	1828.70 -271.44	1828.70	5.35 187.21	187.21	-2.44 3.26	-0.25 0.25	-0.52
VA4 - 5	1111.50	0.00 0.25	-272.65 -4213.32	0.00	187.21 -25.16	187.21	-6.76 7.38	0.38 -0.38	-4.63
VA4 - 6	1111.50	-0.05 0.00	-4597.54 -334.16	0.00	-57.35 -12.34	0.00	4.80 -3.68	-0.04 0.04	2.66
VA4 - 7	1111.50	-0.05 0.00	-333.95 1929.73	1929.73	-12.34 -2.23	0.00	2.70 -1.51	-0.01 0.01	-0.13
VA4 - 8	1111.50	-0.05 0.00	1928.45 1237.09	2051.92	-2.23 129.50	0.00	0.53 1.35	-0.08 0.08	-0.13
VA4 - 9	1111.50	-0.03 0.00	1244.04 -3108.48	1244.04	129.50 -135.30	129.50	-7.07 7.72	0.45 -0.45	-0.13
VA4 - 10	1111.50	-0.19 0.00	-2677.85 -111.91	0.00	-39.06 12.62	12.62	3.18 -2.11	-0.05 0.05	1.72
VA4 - 11	1111.50	-0.19 0.00	-103.33 580.17	580.17	12.62 18.29	18.29	1.55 -0.94	-0.01 0.01	1.72
VA4 - 12	1111.50	-0.21 0.00	581.33 -1245.29	581.33	18.29 -65.23	18.29	-0.08 2.02	0.05 -0.05	1.72
VA4 - 13	1111.50	0.00 0.04	-968.24 -506.99	477.20	-14.74 -29.24	0.00	1.79 1.48	0.00 0.00	-2.49
VA5 - 1	1062.75	0.00 0.01	-566.06 765.95	948.31	-60.61 36.96	36.96	1.79 0.62	-0.04 0.04	-1.21
VA5 - 2	1062.75	0.00	765.83	765.83	36.96	36.96	-1.60	0.04	-1.21

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		0.01	-2199.98		-12.29		2.98	-0.04	
VA5 - 3	1062.75	0.00 0.05	-2741.42 450.09	450.09	-12.37 -3.51	0.00	3.71 -2.64	-0.01 0.01	0.83
VA5 - 4	1062.75	0.00 0.05	449.87 1621.47	1621.47	-3.51 44.49	0.00	1.66 -0.52	-0.04 0.04	0.83
VA5 - 5	1062.75	0.00 0.05	1622.75 -2178.07	1622.75	44.49 -10.36	44.49	-0.46 2.88	0.02 -0.02	0.83
VA5 - 6	1062.75	0.00 0.09	-2016.11 932.86	932.86	68.79 -53.31	68.79	2.75 -1.13	0.08 -0.08	-0.73
VA5 - 7	1062.75	0.00 0.11	931.70 -239.55	931.70	-14.00 -48.87	0.00	0.10 1.58	0.02 -0.02	-13.53
VA6 - 1	1062.75	0.00 0.05	9.51 864.92	907.11	-7.64 -15.91	0.00	1.39 0.32	0.01 -0.01	2.29
VA6 - 2	1062.75	0.00 0.05	871.46 -3496.21	871.46	-15.91 36.84	36.84	-2.03 3.66	-0.03 0.03	2.29
VA7 - 1	1062.75	-0.08 0.00	-1088.82 2159.69	2159.69	-50.14 6.08	6.08	2.90 -1.23	-0.04 0.04	-4.50
VA7 - 2	1062.75	-0.08 0.00	2153.15 0.00	2153.15	6.08 0.00	6.08	-0.48 2.19	0.00 0.00	-4.50
VA8 - 1	1184.63	0.00 0.68	-5025.17 -9086.18	4003.30	-5.53 -1.85	0.00	4.63 5.57	0.00 0.00	-1.28
VA8 - 2	1184.63	0.00 1.02	-12051.16 -7813.73	6653.64	10.60 -2.36	10.60	6.66 5.86	0.00 0.00	1.10
VA9 - 1	1111.50	0.00 0.18	-2264.87 -3660.94	1749.11	37.76 -31.86	37.76	2.99 3.47	0.01 -0.01	4.03
VA9 - 2	1111.50	0.00 0.25	-3648.72 -3684.47	1958.70	-23.08 16.96	16.96	3.53 3.54	-0.01 0.01	-0.33
VA10 - 1	1111.50	0.00 0.15	-2795.42 -2297.91	1243.52	25.46 -41.09	25.46	3.00 2.81	0.01 -0.01	0.57
VA10 - 2	1111.50	0.00 0.07	-1694.33 -1129.81	815.31	-62.52 53.77	53.77	2.36 2.08	-0.03 0.03	-4.64
VA11 - 1	1062.75	-0.12 0.00	-29.08 -348.76	318.42	61.93 -34.62	61.93	0.86 1.19	0.05 -0.05	2.15
VA11 - 2	1062.75	-0.72 0.00	-1026.64 238.64	963.79	-6.25 -1.43	0.00	2.06 1.24	0.00 0.00	-1.58
VA11 - 3	1062.75	-0.72 0.00	234.33 -2642.75	234.33	-1.43 0.11	0.11	-2.30 3.38	0.00 0.00	-1.58
VA12 - 1	1062.75	-0.15 0.00	0.00 2409.68	2786.56	0.00 -0.03	0.00	2.43 0.90	0.00 0.00	-0.06
VA12 - 2	1062.75	-0.15 0.00	2413.99 0.00	2413.99	-0.03 0.00	0.00	-1.95 2.99	0.00 0.00	-0.06
VA13	1014.00	0.00 0.08	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.12
VA14 - 1	1062.75	0.00 0.62	0.00 3085.86	3085.86	0.00 -9.85	0.00	3.50 -2.38	0.01 -0.01	1.25
VA14 - 2	1062.75	0.00 0.62	3086.77 0.00	3242.52	-9.85 0.00	0.00	0.58 2.63	0.00 0.00	1.25
VA15	1014.00	-0.04 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.23
VA16	1014.00	0.00 0.07	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-1.28
VA17 - 1	1062.75	0.00 0.53	0.00 5422.45	5422.45	0.00 21.56	21.56	5.72 -4.61	-0.02 0.02	-6.95
VA17 - 2	1062.75	0.00 0.58	5421.54 0.00	5421.54	-22.41 0.00	0.00	-0.40 3.42	-0.01 0.01	2.17
VA18	1062.75	0.00 0.26	-602.26 376.53	501.73	-71.72 103.72	103.72	1.53 0.52	-0.09 0.09	1.58
VA19	1062.75	0.00 0.04	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-8.58
VA20	1062.75	-0.06 0.00	-12.80 0.00	483.89	-39.32 0.00	0.00	1.03 1.02	-0.02 0.02	1.16
VA21 - 1	1062.75	0.00 0.22	-2044.65 3167.22	3167.22	39.88 -49.37	39.88	3.33 0.08	0.03 -0.03	6.80




VA21 - 2	1062.75	0.00 0.22	3169.51 -2293.97	3169.51	-41.73 7.84	7.84	-1.47 3.71	-0.02 0.02	-2.71
VA22	1062.75	0.00 0.17	-284.01 -1388.53	971.14	-56.02 81.17	81.17	1.64 2.24	-0.04 0.04	-0.10
VA23	1062.75	0.00 0.04	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.54
VA24 - 1	1111.50	0.00 0.18	-2179.06 -3737.93	1761.93	-64.25 40.06	40.06	2.96 3.50	-0.02 0.02	-5.83
VA24 - 2	1111.50	0.00 0.24	-3411.58 -4093.98	1882.95	8.78 26.95	26.95	3.43 3.65	0.00 0.00	-0.35
VA25 - 1	1111.50	0.00 0.28	-4032.22 2398.91	2398.91	96.15 -40.45	96.15	4.42 -2.30	0.07 -0.07	4.45
VA25 - 2	1111.50	0.00 0.28	2403.41 -3340.69	2403.41	-40.45 -16.31	0.00	0.10 3.57	-0.01 0.01	4.45
VA25 - 3	1111.50	0.00 0.10	-1975.72 -1161.77	665.20	2.43 -35.91	2.43	2.42 2.02	0.01 -0.01	-1.46

<b>CASO: 1.3G1+1.4G2+1.4Q+D4</b>									
<b>Elemento</b>	<b>Carga (kgf/m)</b>	<b>Rd Nd (tf)</b>	<b>Mxi Mxf (kgf.m)</b>	<b>MxMáx (kgf.m)</b>	<b>Myi Myf (kgf.m)</b>	<b>MyMáx (kgf.m)</b>	<b>Vxi Vxf (tf)</b>	<b>Vyi Vyf (tf)</b>	<b>Mtd (kgf/m)</b>
VA1 - 1	1062.75	0.00 0.39	-1991.24 2610.94	2610.94	-87.14 6.08	6.08	3.40 -1.33	-0.05 0.05	-2.45
VA1 - 2	1062.75	0.00 0.39	2610.93 281.18	2610.93	6.08 -85.72	0.00	-1.66 2.78	0.09 -0.09	-3.31
VA1 - 3	1062.75	0.00 0.37	282.50 -3036.76	282.50	-85.72 183.98	183.98	-5.40 6.02	-0.46 0.46	-3.09
VA1 - 4	1062.75	-0.42 0.00	-2919.49 421.95	990.70	156.51 -119.69	156.51	2.88 1.10	0.07 -0.07	0.86
VA1 - 5	1062.75	-0.47 0.00	424.17 -2038.72	424.17	-119.69 154.85	154.85	-4.52 5.06	-0.53 0.53	-3.98
VA1 - 6	1062.75	-0.43 0.00	-1368.55 -779.05	355.21	121.43 -63.79	121.43	1.91 1.55	0.06 -0.06	2.23
VA2	1062.75	0.00 0.00	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-4.06
VA3 - 1	1062.75	0.00 0.02	0.00 -2142.12	1528.01	0.00 19.60	19.60	1.80 2.79	0.00 0.00	0.92
VA3 - 2	1062.75	0.00 0.00	-2151.31 8.53	8.53	75.37 0.00	75.37	2.21 -0.56	0.05 -0.05	0.00
VA4 - 1	1111.50	0.00 0.17	-2045.26 -2395.36	1297.16	83.01 -47.92	83.01	2.73 2.87	0.03 -0.03	1.12
VA4 - 2	1111.50	0.00 0.29	-2530.39 2234.29	2234.29	-100.14 -37.52	0.00	3.51 -1.33	-0.03 0.03	-2.92
VA4 - 3	1111.50	0.00 0.29	2234.30 1832.88	2234.30	-37.52 14.83	0.00	-1.11 1.46	-0.17 0.17	-2.92
VA4 - 4	1111.50	0.00 0.29	1832.98 -264.08	1832.98	14.83 191.34	191.34	-2.44 3.25	-0.24 0.24	-2.92
VA4 - 5	1111.50	0.00 0.28	-265.32 -4203.66	0.00	191.34 12.01	191.34	-6.75 7.37	0.32 -0.32	-6.92
VA4 - 6	1111.50	-0.02 0.00	-4585.78 -327.37	0.00	-36.97 7.16	7.16	4.79 -3.68	-0.04 0.04	4.39
VA4 - 7	1111.50	-0.02 0.00	-327.15 1931.21	1931.21	7.16 0.23	7.16	2.70 -1.50	0.01 -0.01	1.66
VA4 - 8	1111.50	-0.02 0.00	1929.95 1230.27	2051.34	0.23 123.28	0.00	0.52 1.35	-0.07 0.07	1.66
VA4 - 9	1111.50	0.00 0.01	1237.22 -3118.20	1237.22	123.28 -163.83	123.28	-7.08 7.73	0.49 -0.49	1.66
VA4 - 10	1111.50	-0.18 0.00	-2698.12 -120.65	0.00	-43.37 10.65	10.65	3.20 -2.12	-0.06 0.06	1.57
VA4 - 11	1111.50	-0.18 0.00	-112.12 577.92	577.92	10.65 14.68	14.68	1.56 -0.95	-0.01 0.01	1.57
VA4 - 12	1111.50	-0.21	579.01	579.01	14.68	14.68	-0.07	0.05	1.57



		0.00	-1225.93		-64.26		2.00	-0.05	
VA4 - 13	1111.50	0.00 0.05	-959.38 -506.62	481.21	-11.59 -16.19	0.00	1.79 1.48	0.00 0.00	-2.43
VA5 - 1	1062.75	-0.01 0.00	-561.55 760.23	945.38	-80.78 40.30	40.30	1.79 0.63	-0.05 0.05	-2.89
VA5 - 2	1062.75	-0.01 0.00	760.13 -2211.50	760.13	40.30 15.63	40.30	-1.61 2.98	0.02 -0.02	-2.89
VA5 - 3	1062.75	0.00 0.03	-2739.32 451.73	451.73	12.86 5.37	12.86	3.71 -2.64	0.01 -0.01	2.30
VA5 - 4	1062.75	0.00 0.03	451.48 1622.58	1622.58	5.37 51.70	0.00	1.66 -0.52	-0.04 0.04	2.30
VA5 - 5	1062.75	0.00 0.03	1623.84 -2178.05	1623.84	51.70 -31.00	51.70	-0.46 2.88	0.04 -0.04	2.30
VA5 - 6	1062.75	0.00 0.09	-1998.92 934.87	934.87	72.60 -55.64	72.60	2.74 -1.12	0.08 -0.08	-0.25
VA5 - 7	1062.75	0.00 0.12	933.77 -254.17	933.77	-5.13 -55.25	0.00	0.09 1.59	0.03 -0.03	-14.13
VA6 - 1	1062.75	0.00 0.05	9.68 837.19	885.95	2.17 -13.68	0.00	1.37 0.33	0.01 -0.01	1.94
VA6 - 2	1062.75	0.00 0.05	843.71 -3550.67	843.71	-13.68 29.96	29.96	-2.05 3.68	-0.03 0.03	1.94
VA7 - 1	1062.75	-0.08 0.00	-1054.58 2177.00	2177.00	-45.17 7.64	7.64	2.89 -1.22	-0.03 0.03	-4.07
VA7 - 2	1062.75	-0.08 0.00	2170.48 0.00	2170.48	7.64 0.00	7.64	-0.49 2.20	0.00 0.00	-4.07
VA8 - 1	1184.63	0.00 0.67	-5038.30 -9069.26	4004.15	-6.88 4.81	4.81	4.63 5.57	0.00 0.00	-2.43
VA8 - 2	1184.63	0.00 1.01	-12042.68 -7816.47	6656.07	19.69 -5.09	19.69	6.66 5.86	0.00 0.00	2.01
VA9 - 1	1111.50	0.00 0.16	-2509.25 -3448.24	1721.86	56.86 -45.20	56.86	3.07 3.39	0.02 -0.02	4.01
VA9 - 2	1111.50	0.00 0.23	-3816.83 -3513.49	1964.45	-15.57 7.81	7.81	3.59 3.49	0.00 0.00	-0.40
VA10 - 1	1111.50	0.00 0.13	-2990.53 -2121.70	1245.05	34.58 -43.38	34.58	3.07 2.74	0.01 -0.01	0.59
VA10 - 2	1111.50	0.00 0.07	-1948.94 -824.98	865.13	-46.49 18.27	18.27	2.50 1.94	-0.02 0.02	-4.53
VA11 - 1	1062.75	-0.09 0.00	-428.93 -128.41	227.61	78.91 -52.37	78.91	1.18 0.87	0.07 -0.07	2.12
VA11 - 2	1062.75	-0.68 0.00	-1309.66 571.57	1084.55	4.85 -6.83	4.85	2.26 1.05	0.00 0.00	-1.49
VA11 - 3	1062.75	-0.68 0.00	567.52 -2108.64	567.52	-6.83 -13.21	0.00	-2.10 3.18	0.01 -0.01	-1.49
VA12 - 1	1062.75	-0.14 0.00	0.00 2409.87	2786.70	0.00 -1.89	0.00	2.43 0.89	0.00 0.00	-0.01
VA12 - 2	1062.75	-0.14 0.00	2413.93 0.00	2413.93	-1.89 0.00	0.00	-1.95 2.99	0.00 0.00	-0.01
VA13	1014.00	0.00 0.07	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.10
VA14 - 1	1062.75	0.00 0.56	0.00 3085.86	3085.86	0.00 -12.31	0.00	3.50 -2.38	0.01 -0.01	1.31
VA14 - 2	1062.75	0.00 0.55	3086.78 0.00	3242.53	-12.31 0.00	0.00	0.58 2.63	0.00 0.00	1.31
VA15	1014.00	-0.05 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.24
VA16	1014.00	0.00 0.08	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-1.26
VA17 - 1	1062.75	0.00 0.56	0.00 5422.45	5422.45	0.00 27.17	27.17	5.72 -4.61	-0.03 0.03	-6.95
VA17 - 2	1062.75	0.00 0.61	5421.53 0.00	5421.53	-28.60 0.00	0.00	-0.40 3.42	-0.01 0.01	2.23
VA18	1062.75	0.00 0.29	-962.36 737.87	744.79	-94.08 129.69	129.69	1.91 0.15	-0.12 0.12	1.59

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VA19	1062.75	0.00 0.05	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-8.53
VA20	1062.75	-0.05 0.00	-13.88 0.00	483.41	-50.51 0.00	0.00	1.03 1.02	-0.03 0.03	1.10
VA21 - 1	1062.75	0.00 0.22	-2241.99 3193.91	3193.91	31.77 -43.05	31.77	3.40 0.01	0.02 -0.02	6.89
VA21 - 2	1062.75	0.00 0.23	3195.85 -2083.47	3195.85	-45.22 18.78	18.78	-1.38 3.62	-0.03 0.03	-2.78
VA22	1062.75	0.00 0.17	-669.05 -932.18	967.26	-61.46 87.62	87.62	1.87 2.01	-0.04 0.04	-0.02
VA23	1062.75	0.00 0.04	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.52
VA24 - 1	1111.50	0.00 0.15	-2486.15 -3470.12	1723.24	-80.30 50.09	50.09	3.06 3.40	-0.02 0.02	-5.86
VA24 - 2	1111.50	0.00 0.23	-3624.08 -3879.54	1877.03	3.56 32.69	32.69	3.50 3.58	0.00 0.00	-0.43
VA25 - 1	1111.50	0.00 0.27	-4285.14 2333.70	2333.70	90.70 -42.72	90.70	4.52 -2.39	0.07 -0.07	4.50
VA25 - 2	1111.50	0.00 0.26	2337.77 -3117.44	2353.37	-42.72 -6.21	0.00	0.19 3.49	-0.01 0.01	4.50
VA25 - 3	1111.50	0.00 0.09	-2301.99 -778.97	743.11	-18.21 -5.46	0.00	2.60 1.84	0.00 0.00	-1.35

CASO: 1.3G1+1.4G2+1.4V1+0.84D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.46	-772.60 2535.89	2535.89	-15.01 1.18	1.18	2.73 -0.67	-0.01 0.01	1.98
VA1 - 2	1062.75	0.00 0.46	2536.27 -491.97	2536.27	1.18 -12.47	1.18	-2.32 3.44	0.01 -0.01	1.12
VA1 - 3	1062.75	0.00 0.46	-490.25 -4195.88	0.00	-12.47 11.86	11.86	-6.07 6.68	-0.04 0.04	0.57
VA1 - 4	1062.75	0.00 0.08	-2152.66 -78.99	887.92	18.37 -14.64	18.37	2.54 1.44	0.01 -0.01	-0.06
VA1 - 5	1062.75	0.00 0.08	-77.06 -2713.86	0.00	-14.64 17.44	17.44	-4.86 5.40	-0.06 0.06	0.72
VA1 - 6	1062.75	-0.06 0.00	-728.70 -1485.02	332.57	15.51 -4.39	15.51	1.50 1.97	0.01 -0.01	-0.77
VA2	1062.75	0.00 0.00	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-3.26
VA3 - 1	1062.75	0.00 0.00	0.00 -2141.45	1528.27	0.00 2.96	2.96	1.80 2.79	0.00 0.00	0.91
VA3 - 2	1062.75	0.00 0.00	-2151.55 8.29	8.29	4.05 0.00	4.05	2.21 -0.56	0.00 0.00	0.00
VA4 - 1	1111.50	0.00 0.46	-477.77 -3028.82	1877.26	18.17 -0.25	18.17	2.29 3.30	0.00 0.00	1.24
VA4 - 2	1111.50	0.00 0.41	-2188.49 1675.78	1675.78	-8.11 -6.65	0.00	3.06 -0.87	0.00 0.00	1.27
VA4 - 3	1111.50	0.00 0.41	1675.40 1130.80	1675.40	-6.65 0.35	0.00	-1.57 1.91	-0.02 0.02	1.27
VA4 - 4	1111.50	0.00 0.41	1130.45 -1303.74	1130.45	0.35 19.84	19.84	-2.89 3.71	-0.03 0.03	1.27
VA4 - 5	1111.50	0.00 0.41	-1305.32 -5498.83	0.00	19.84 -0.14	19.84	-7.21 7.83	0.04 -0.04	-18.39
VA4 - 6	1111.50	0.00 0.30	-3166.77 573.53	573.53	-12.73 0.94	0.94	4.28 -3.16	-0.01 0.01	-3.51
VA4 - 7	1111.50	0.00 0.30	573.80 2277.84	2277.84	0.94 0.29	0.00	2.18 -0.99	0.00 0.00	1.28
VA4 - 8	1111.50	0.00 0.30	2276.84 708.19	2276.84	0.29 16.17	0.00	0.01 1.87	-0.01 0.01	1.28
VA4 - 9	1111.50	0.00	716.36	716.36	16.17	16.17	-7.59	0.06	1.28



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Plena**

**Leilson Campos  
Rezende  
Rezende Engenharia**

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		0.30	-3942.20		-17.78		8.24	-0.06	
VA4 - 10	1111.50	0.00 0.13	-2698.41 -238.72	0.00	-22.57 4.44	4.44	3.07 -2.00	-0.03 0.03	2.01
VA4 - 11	1111.50	0.00 0.13	-230.43 392.82	392.82	4.44 18.33	18.33	1.44 -0.83	-0.03 0.03	2.01
VA4 - 12	1111.50	0.00 0.14	393.21 -1625.78	393.21	18.33 -18.47	18.33	-0.19 2.13	0.02 -0.02	2.01
VA4 - 13	1111.50	0.00 0.01	635.57 -2637.95	758.86	-18.23 27.20	27.20	0.53 2.75	-0.02 0.02	-2.19
VA5 - 1	1062.75	0.00 0.07	207.06 455.67	1024.71	-10.76 2.21	0.00	1.32 1.10	-0.01 0.01	-0.75
VA5 - 2	1062.75	0.00 0.07	456.02 -3126.22	456.02	2.21 4.31	4.31	-2.08 3.45	0.00 0.00	-0.75
VA5 - 3	1062.75	0.00 0.10	-2116.17 838.10	838.10	0.56 -3.04	0.56	3.47 -2.40	0.00 0.00	0.79
VA5 - 4	1062.75	0.00 0.10	837.84 1755.62	1755.62	-3.04 5.74	0.00	1.42 -0.28	-0.01 0.01	0.79
VA5 - 5	1062.75	0.00 0.10	1756.62 -2581.03	1756.62	5.74 1.51	5.74	-0.70 3.12	0.00 0.00	0.79
VA5 - 6	1062.75	0.00 0.03	-1549.49 829.34	829.34	-4.07 -8.26	0.00	2.37 -0.76	0.00 0.00	-0.63
VA5 - 7	1062.75	0.00 0.02	828.94 -934.05	828.94	-23.44 45.58	45.58	-0.27 1.96	-0.04 0.04	-11.45
VA6 - 1	1062.75	-0.01 0.00	15.99 26.07	361.88	-63.02 -26.06	0.00	0.86 0.84	-0.02 0.02	1.70
VA6 - 2	1062.75	-0.01 0.00	32.47 -5144.59	32.47	-26.06 68.05	68.05	-2.56 4.19	-0.06 0.06	1.70
VA7 - 1	1062.75	-0.22 0.00	58.90 2740.19	2740.19	-69.82 -4.89	0.00	2.54 -0.87	-0.04 0.04	-3.67
VA7 - 2	1062.75	-0.22 0.00	2733.80 0.00	2733.80	-4.89 0.00	0.00	-0.84 2.55	0.00 0.00	-3.67
VA8 - 1	1184.63	0.00 0.72	-3714.90 -10170.44	4262.76	34.22 -8.12	34.22	4.35 5.85	0.00 0.00	-1.84
VA8 - 2	1184.63	0.00 0.94	-11114.91 -8969.56	6495.44	24.88 -39.99	24.88	6.46 6.05	0.01 -0.01	1.61
VA9 - 1	1111.50	0.00 0.19	-2340.86 -3601.13	1735.15	6.34 3.00	6.34	3.01 3.45	0.00 0.00	-1.54
VA9 - 2	1111.50	0.00 0.27	-3753.00 -3606.29	1947.43	13.01 20.37	20.37	3.56 3.51	0.00 0.00	-0.47
VA10 - 1	1111.50	0.00 0.16	-2904.15 -2206.79	1239.10	39.59 -40.01	39.59	3.04 2.77	0.02 -0.02	3.47
VA10 - 2	1111.50	0.00 0.08	-1833.31 -958.33	839.73	-38.98 -2.93	0.00	2.44 2.00	-0.01 0.01	-0.99
VA11 - 1	1062.75	0.00 0.03	-305.09 -781.31	0.00	5.24 -5.37	5.24	0.78 1.27	0.01 -0.01	3.84
VA11 - 2	1062.75	0.00 0.06	-1508.40 977.92	1318.15	-1.37 1.04	1.04	2.45 0.85	0.00 0.00	-2.77
VA11 - 3	1062.75	0.00 0.06	974.66 -1504.11	974.66	1.04 6.36	6.36	-1.91 2.98	-0.01 0.01	-2.77
VA12 - 1	1062.75	-0.02 0.00	0.00 2410.48	2787.14	0.00 3.33	3.33	2.43 0.89	0.00 0.00	0.38
VA12 - 2	1062.75	-0.02 0.00	2413.74 0.00	2413.74	3.33 0.00	3.33	-1.95 2.99	0.00 0.00	0.38
VA13	1014.00	0.00 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-0.35
VA14 - 1	1062.75	0.00 0.06	0.00 3085.98	3085.98	0.00 -1.25	0.00	3.50 -2.38	0.00 0.00	1.72
VA14 - 2	1062.75	0.00 0.06	3086.89 0.00	3242.62	-1.25 0.00	0.00	0.58 2.63	0.00 0.00	1.72
VA15	1014.00	-0.01 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.26
VA16	1014.00	0.00 0.01	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-0.99

VA17 - 1	1062.75	0.00 0.07	0.00 5422.33	5422.33	0.00 1.52	1.52	5.72 -4.61	0.00 0.00	-8.17
VA17 - 2	1062.75	0.00 0.07	5421.42 0.00	5421.42	0.43 0.00	0.43	-0.40 3.42	0.00 0.00	1.92
VA18	1062.75	0.00 0.06	-408.94 248.93	470.26	-0.61 2.21	2.21	1.37 0.69	0.00 0.00	1.92
VA19	1062.75	0.00 0.00	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-8.29
VA20	1062.75	-0.05 0.00	-10.82 0.00	484.77	15.18 0.00	15.18	1.03 1.02	0.01 -0.01	0.39
VA21 - 1	1062.75	0.00 0.14	-2000.59 2726.05	2751.21	45.20 -42.80	45.20	3.18 0.23	0.03 -0.03	10.34
VA21 - 2	1062.75	0.00 0.12	2727.74 -1940.84	2727.74	20.23 -65.98	20.23	-1.09 3.33	0.04 -0.04	-5.65
VA22	1062.75	0.00 0.09	-680.96 -1004.37	925.20	-9.05 12.96	12.96	1.85 2.03	-0.01 0.01	-0.23
VA23	1062.75	0.00 0.04	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.40
VA24 - 1	1111.50	0.00 0.14	-2368.93 -3563.42	1738.83	-103.53 74.35	74.35	3.02 3.43	-0.03 0.03	-11.29
VA24 - 2	1111.50	0.00 0.18	-3474.44 -4025.41	1883.68	23.80 83.53	83.53	3.45 3.62	-0.01 0.01	-0.40
VA25 - 1	1111.50	0.00 0.28	-4356.38 2606.55	2606.55	194.15 -136.47	194.15	4.70 -2.57	0.17 -0.17	8.81
VA25 - 2	1111.50	0.00 0.29	2610.22 -3408.83	2610.22	-136.47 3.52	3.52	0.02 3.66	-0.04 0.04	8.81
VA25 - 3	1111.50	0.00 0.08	-2211.13 -941.64	687.20	18.21 -22.38	18.21	2.54 1.90	0.01 -0.01	0.63

CASO: 1.3G1+1.4G2+1.4V2+0.84D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.35	-2821.99 2531.78	2531.78	-6.79 1.43	1.43	3.79 -1.72	0.00 0.00	1.74
VA1 - 2	1062.75	0.00 0.36	2531.63 607.78	2531.63	1.43 -16.02	0.00	-1.27 2.39	0.02 -0.02	0.90
VA1 - 3	1062.75	0.00 0.35	608.49 -2486.17	608.49	-16.02 15.51	15.51	-5.01 5.63	-0.05 0.05	1.46
VA1 - 4	1062.75	0.00 0.06	-3316.25 785.17	1163.40	20.71 -19.18	20.71	3.09 0.90	0.01 -0.01	1.14
VA1 - 5	1062.75	0.00 0.05	787.32 -1571.39	787.32	-19.18 23.77	23.77	-4.31 4.86	-0.08 0.08	-7.76
VA1 - 6	1062.75	0.00 0.01	-2509.65 649.55	920.45	17.91 -8.72	17.91	2.70 0.77	0.01 -0.01	-0.99
VA2	1062.75	0.00 0.00	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-4.10
VA3 - 1	1062.75	0.00 0.00	0.00 -2145.66	1526.66	0.00 0.34	0.34	1.80 2.79	0.00 0.00	1.19
VA3 - 2	1062.75	0.00 0.00	-2153.49 6.34	6.34	11.11 0.00	11.11	2.21 -0.56	0.01 -0.01	0.00
VA4 - 1	1111.50	-0.06 0.00	-3301.32 -1947.11	922.50	81.94 -34.44	81.94	3.06 2.53	0.02 -0.02	1.27
VA4 - 2	1111.50	0.00 0.05	-2974.43 2688.32	2688.32	-7.55 -4.23	0.00	3.97 -1.78	0.00 0.00	-3.11
VA4 - 3	1111.50	0.00 0.05	2688.47 2429.80	2688.47	-4.23 2.89	0.00	-0.65 1.00	-0.02 0.02	-3.11
VA4 - 4	1111.50	0.00 0.05	2430.17 669.23	2430.17	2.89 20.74	0.00	-1.98 2.80	-0.02 0.02	-3.11
VA4 - 5	1111.50	0.00 0.05	668.49 -3015.14	668.49	20.74 -5.95	20.74	-6.30 6.92	0.05 -0.05	6.96
VA4 - 6	1111.50	-0.07	-5444.26	0.00	-12.11	1.52	5.05	-0.01	6.00


		0.00	-928.47		1.52		-3.93	0.01	
VA4 - 7	1111.50	-0.07 0.00	-927.91 1605.80	1605.80	1.52 -3.52	1.52	2.95 -1.76	0.00 0.00	-1.76
VA4 - 8	1111.50	-0.07 0.00	1604.93 1336.90	1874.81	-3.52 16.54	0.00	0.78 1.10	-0.01 0.01	-1.76
VA4 - 9	1111.50	-0.06 0.00	1342.55 -2862.65	1342.55	16.54 -27.40	16.54	-6.82 7.47	0.07 -0.07	-1.76
VA4 - 10	1111.50	-0.15 0.00	-3332.71 -278.72	0.00	3.56 0.75	3.56	3.69 -2.61	0.00 0.00	1.93
VA4 - 11	1111.50	-0.15 0.00	-272.37 687.85	687.85	0.75 -4.75	0.75	2.05 -1.44	0.01 -0.01	1.93
VA4 - 12	1111.50	-0.16 0.00	688.56 -261.56	766.51	-4.75 0.39	0.39	0.42 1.51	0.00 0.00	1.93
VA4 - 13	1111.50	0.00 0.12	-2591.97 1714.50	1726.98	13.86 -47.60	13.86	3.10 0.18	0.02 -0.02	-2.33
VA5 - 1	1062.75	0.00 0.08	-1319.58 1067.68	1078.01	14.63 0.06	14.63	2.26 0.16	0.01 -0.01	-0.52
VA5 - 2	1062.75	0.00 0.08	1067.31 -1298.08	1067.31	0.06 -10.12	0.06	-1.14 2.52	0.01 -0.01	-0.52
VA5 - 3	1062.75	0.00 0.13	-3423.70 26.19	26.19	7.84 -2.31	7.84	3.97 -2.90	0.01 -0.01	0.63
VA5 - 4	1062.75	0.00 0.13	25.61 1473.66	1473.66	-2.31 7.05	0.00	1.92 -0.77	-0.01 0.01	0.63
VA5 - 5	1062.75	0.00 0.13	1474.54 -1741.63	1474.54	7.05 -10.89	7.05	-0.20 2.62	0.01 -0.01	0.63
VA5 - 6	1062.75	0.00 0.15	-2505.20 1040.53	1040.53	28.61 -22.74	28.61	3.14 -1.53	0.03 -0.03	-0.62
VA5 - 7	1062.75	0.00 0.16	1039.82 488.72	1153.63	-5.12 -79.07	0.00	0.49 1.19	0.05 -0.05	-14.55
VA6 - 1	1062.75	0.00 0.08	3.17 1676.84	1676.84	43.18 -4.65	43.18	1.90 -0.19	0.03 -0.03	2.38
VA6 - 2	1062.75	0.00 0.08	1683.49 -1900.71	1683.49	-4.65 -2.65	0.00	-1.52 3.15	0.00 0.00	2.38
VA7 - 1	1062.75	0.00 0.06	-2193.52 1600.94	1600.94	-23.33 12.97	12.97	3.25 -1.58	-0.02 0.02	-4.75
VA7 - 2	1062.75	0.00 0.06	1594.29 0.00	1594.29	12.97 0.00	12.97	-0.14 1.85	0.01 -0.01	-4.75
VA8 - 1	1184.63	0.00 0.64	-6352.22 -7982.88	3816.19	-46.09 9.05	9.05	4.91 5.29	-0.01 0.01	-1.79
VA8 - 2	1184.63	0.00 1.08	-12982.90 -6657.48	6846.20	5.35 31.89	31.89	6.86 5.66	0.00 0.00	1.32
VA9 - 1	1111.50	0.00 0.16	-2392.08 -3544.03	1736.22	86.34 -78.91	86.34	3.03 3.43	0.03 -0.03	9.57
VA9 - 2	1111.50	0.00 0.22	-3683.52 -3621.58	1973.16	-52.44 5.79	5.79	3.55 3.53	-0.01 0.01	-0.25
VA10 - 1	1111.50	0.00 0.12	-2849.34 -2240.34	1246.33	20.33 -46.49	20.33	3.02 2.79	0.01 -0.01	-2.30
VA10 - 2	1111.50	0.00 0.06	-1762.55 -1053.57	823.12	-69.81 71.09	71.09	2.40 2.04	-0.04 0.04	-8.31
VA11 - 1	1062.75	0.00 0.04	-257.33 -845.44	0.00	0.51 17.01	17.01	0.72 1.33	-0.01 0.01	0.63
VA11 - 2	1062.75	0.00 0.05	-1520.27 960.32	1302.08	-8.73 3.39	3.39	2.45 0.85	0.00 0.00	-0.28
VA11 - 3	1062.75	0.00 0.05	956.23 -1524.41	956.23	3.39 10.72	10.72	-1.91 2.99	-0.01 0.01	-0.28
VA12 - 1	1062.75	-0.02 0.00	0.00 2409.84	2786.68	0.00 2.48	2.48	2.43 0.89	0.00 0.00	-0.14
VA12 - 2	1062.75	-0.02 0.00	2413.94 0.00	2413.94	2.48 0.00	2.48	-1.95 2.99	0.00 0.00	-0.14
VA13	1014.00	0.00 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.37
VA14 - 1	1062.75	0.00 0.07	0.00 3085.15	3085.15	0.00 -2.31	0.00	3.50 -2.38	0.00 0.00	0.71

VA14 - 2	1062.75	0.00 0.07	3086.34 0.00	3242.18	-2.31 0.00	0.00	0.58 2.63	0.00 0.00	0.71
VA15	1014.00	-0.02 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.58
VA16	1014.00	0.00 0.02	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-0.88
VA17 - 1	1062.75	0.00 0.09	0.00 5423.15	5423.15	0.00 5.18	5.18	5.72 -4.61	0.00 0.00	-5.65
VA17 - 2	1062.75	0.00 0.09	5421.96 0.00	5421.96	-5.59 0.00	0.00	-0.40 3.42	0.00 0.00	2.19
VA18	1062.75	0.00 0.07	-370.13 202.24	452.07	-27.86 35.91	35.91	1.32 0.73	-0.03 0.03	0.97
VA19	1062.75	0.00 0.01	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-6.34
VA20	1062.75	0.00 0.01	-13.93 0.00	483.39	-17.62 0.00	0.00	1.03 1.02	-0.01 0.01	0.71
VA21 - 1	1062.75	0.00 0.27	-2353.75 3650.12	3650.12	23.52 -41.95	23.52	3.58 -0.17	0.02 -0.02	3.36
VA21 - 2	1062.75	0.00 0.30	3652.50 -2368.37	3652.50	-85.13 41.40	41.40	-1.73 3.97	-0.06 0.06	0.19
VA22	1062.75	0.00 0.13	-663.75 -997.70	937.14	-12.94 15.78	15.78	1.85 2.03	-0.01 0.01	0.96
VA23	1062.75	0.00 0.03	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.65
VA24 - 1	1111.50	0.00 0.18	-2466.77 -3493.80	1721.83	-36.26 12.06	12.06	3.05 3.41	-0.01 0.01	-0.40
VA24 - 2	1111.50	0.00 0.28	-3682.74 -3825.38	1872.96	-8.56 -27.16	0.00	3.52 3.56	0.00 0.00	-0.37
VA25 - 1	1111.50	0.00 0.26	-4101.62 2086.02	2086.02	-3.67 56.69	56.69	4.30 -2.17	-0.03 0.03	0.16
VA25 - 2	1111.50	0.00 0.25	2090.77 -2924.73	2133.86	56.69 -35.83	56.69	0.32 3.35	0.03 -0.03	0.16
VA25 - 3	1111.50	0.00 0.11	-2275.95 -749.59	771.09	-55.33 28.13	28.13	2.60 1.84	-0.02 0.02	-3.65

CASO: 1.3G1+1.4G2+1.4V3+0.84D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.39	-1694.63 2542.91	2542.91	42.05 -4.21	42.05	3.21 -1.14	0.02 -0.02	4.21
VA1 - 2	1062.75	0.00 0.41	2542.89 16.13	2542.89	-4.21 -108.18	0.00	-1.85 2.96	0.10 -0.10	3.36
VA1 - 3	1062.75	0.00 0.40	17.17 -3411.03	17.17	-108.18 -14.65	0.00	-5.59 6.21	-0.16 0.16	3.33
VA1 - 4	1062.75	0.00 0.06	-2670.22 311.25	979.99	-4.27 12.92	12.92	2.79 1.20	0.00 0.00	-0.64
VA1 - 5	1062.75	0.00 0.06	313.10 -2199.21	313.10	12.92 0.70	12.92	-4.61 5.16	0.02 -0.02	-4.23
VA1 - 6	1062.75	-0.04 0.00	-1514.46 -566.16	411.12	7.51 -0.12	7.51	2.02 1.44	0.00 0.00	-2.98
VA2	1062.75	0.00 0.01	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-4.36
VA3 - 1	1062.75	-0.01 0.00	0.00 -2143.59	1527.45	0.00 12.38	12.38	1.80 2.79	0.00 0.00	1.03
VA3 - 2	1062.75	0.00 0.00	-2152.37 7.47	7.47	-11.49 0.00	0.00	2.21 -0.56	-0.01 0.01	0.00
VA4 - 1	1111.50	0.00 0.15	-1917.00 -2469.05	1328.48	28.73 -24.28	28.73	2.69 2.91	0.01 -0.01	0.63
VA4 - 2	1111.50	0.00 0.15	-2567.22 2174.10	2174.10	68.92 -31.18	68.92	3.50 -1.31	0.05 -0.05	5.57
VA4 - 3	1111.50	0.00	2174.11	2174.11	-31.18	0.00	-1.12	-0.02	5.57

		0.15	1769.00		-23.40		1.47	0.02	
VA4 - 4	1111.50	0.00 0.15	1769.06 -336.69	1769.06	-23.40 13.60	13.60	-2.45 3.27	-0.05 0.05	5.57
VA4 - 5	1111.50	0.00 0.15	-337.78 -4282.53	0.00	13.60 -106.50	13.60	-6.76 7.38	0.22 -0.22	0.48
VA4 - 6	1111.50	0.00 0.04	-4337.76 -196.04	0.00	-71.63 -50.92	0.00	4.68 -3.56	-0.02 0.02	-3.44
VA4 - 7	1111.50	0.00 0.04	-195.63 1937.89	1937.89	-50.92 -8.18	0.00	2.58 -1.39	-0.04 0.04	-5.08
VA4 - 8	1111.50	0.00 0.04	1936.90 1041.51	2009.36	-8.18 33.61	0.00	0.41 1.47	-0.02 0.02	-5.08
VA4 - 9	1111.50	0.00 0.03	1048.41 -3375.47	1048.41	33.61 62.75	62.75	-7.19 7.85	-0.05 0.05	-5.08
VA4 - 10	1111.50	-0.04 0.00	-2960.38 -235.05	0.00	14.33 11.15	14.33	3.35 -2.27	0.00 0.00	2.39
VA4 - 11	1111.50	-0.04 0.00	-227.58 546.30	546.30	11.15 13.40	13.40	1.71 -1.10	0.00 0.00	2.39
VA4 - 12	1111.50	-0.03 0.00	547.03 -996.98	547.03	13.40 -16.29	13.40	0.08 1.85	0.02 -0.02	2.39
VA4 - 13	1111.50	0.00 0.03	-1004.29 -462.16	487.37	-12.04 -36.17	0.00	1.82 1.45	0.01 -0.01	-2.20
VA5 - 1	1062.75	0.00 0.13	-572.38 778.75	955.90	54.97 -7.78	54.97	1.80 0.62	0.03 -0.03	3.91
VA5 - 2	1062.75	0.00 0.13	778.70 -2176.23	778.70	-7.78 -76.30	0.00	-1.59 2.97	0.05 -0.05	3.91
VA5 - 3	1062.75	0.00 0.17	-2779.24 425.40	425.40	-62.49 -28.55	0.00	3.72 -2.65	-0.03 0.03	-3.26
VA5 - 4	1062.75	0.00 0.17	425.04 1610.69	1610.69	-28.55 -13.15	0.00	1.67 -0.53	-0.01 0.01	-3.26
VA5 - 5	1062.75	0.00 0.17	1611.68 -2159.44	1611.68	-13.15 53.45	53.45	-0.45 2.87	-0.03 0.03	-3.26
VA5 - 6	1062.75	0.00 0.08	-2077.23 929.77	929.77	11.01 -7.40	11.01	2.79 -1.17	0.01 -0.01	-1.93
VA5 - 7	1062.75	0.00 0.08	929.03 -178.79	933.53	-21.76 -7.45	0.00	0.14 1.54	-0.01 0.01	-11.03
VA6 - 1	1062.75	0.00 0.04	9.15 910.67	947.10	-34.04 -20.81	0.00	1.41 0.29	-0.01 0.01	3.18
VA6 - 2	1062.75	0.00 0.04	917.26 -3406.26	917.26	-20.81 44.20	44.20	-2.00 3.63	-0.04 0.04	3.18
VA7 - 1	1062.75	-0.07 0.00	-1164.84 2121.26	2121.26	-56.91 -1.66	0.00	2.93 -1.26	-0.04 0.04	-5.58
VA7 - 2	1062.75	-0.07 0.00	2114.68 0.00	2114.68	-1.66 0.00	0.00	-0.46 2.17	0.00 0.00	-5.58
VA8 - 1	1184.63	0.00 0.71	-4998.30 -9120.57	4002.61	-2.04 -16.76	0.00	4.62 5.58	0.00 0.00	1.17
VA8 - 2	1184.63	0.00 1.04	-12072.42 -7803.41	6649.38	-7.78 3.16	3.16	6.66 5.85	0.00 0.00	-0.89
VA9 - 1	1111.50	0.00 0.24	-1491.26 -4337.23	1881.67	-0.65 -5.75	0.00	2.74 3.72	0.00 0.00	4.07
VA9 - 2	1111.50	0.00 0.29	-3111.14 -4230.10	1972.14	-36.99 34.40	34.40	3.36 3.71	-0.01 0.01	-0.18
VA10 - 1	1111.50	0.00 0.18	-2171.76 -2864.66	1276.19	7.56 -38.07	7.56	2.77 3.04	0.01 -0.01	0.45
VA10 - 2	1111.50	0.00 0.05	-882.01 -2094.24	770.93	-89.91 119.61	119.61	1.92 2.52	-0.05 0.05	-4.83
VA11 - 1	1062.75	-0.02 0.00	804.86 -1412.53	804.86	-42.19 52.09	52.09	-0.12 2.17	-0.05 0.05	2.30
VA11 - 2	1062.75	-0.06 0.00	-746.11 65.86	972.34	-33.42 16.28	16.28	1.91 1.39	-0.02 0.02	-1.76
VA11 - 3	1062.75	-0.06 0.00	61.50 -2963.46	61.50	16.28 43.35	43.35	-2.45 3.52	-0.03 0.03	-1.76
VA12 - 1	1062.75	-0.08 0.00	0.00 2409.64	2786.53	0.00 7.99	7.99	2.43 0.90	0.00 0.00	-0.01



	AltoQi Eberick 2018 Plena	
	Leilson Campos Rezende Rezende Engenharia	11/5/2021 12:14:59

VA12 - 2	1062.75	-0.08 0.00	2414.00 0.00	2414.00	7.99 0.00	7.99	-1.95 2.99	0.01 -0.01	-0.01
VA13	1014.00	0.00 0.03	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.06
VA14 - 1	1062.75	0.00 0.26	0.00 3085.57	3085.57	0.00 4.37	4.37	3.50 -2.38	0.00 0.00	1.04
VA14 - 2	1062.75	0.00 0.26	3086.59 0.00	3242.38	4.37 0.00	4.37	0.58 2.63	0.00 0.00	1.04
VA15	1014.00	0.00 0.02	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.37
VA16	1014.00	-0.01 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-0.99
VA17 - 1	1062.75	-0.02 0.00	0.00 5422.74	5422.74	0.00 -10.74	0.00	5.72 -4.61	0.01 -0.01	-6.90
VA17 - 2	1062.75	-0.03 0.00	5421.71 0.00	5421.71	13.13 0.00	13.13	-0.40 3.42	0.00 0.00	1.89
VA18	1062.75	0.00 0.01	577.90 -745.10	626.73	42.20 -46.79	42.20	0.34 1.71	0.05 -0.05	1.42
VA19	1062.75	-0.01 0.00	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-7.47
VA20	1062.75	-0.02 0.00	-9.10 0.00	485.54	14.36 0.00	14.36	1.03 1.02	0.01 -0.01	0.74
VA21 - 1	1062.75	0.00 0.21	-1544.54 3086.64	3117.77	54.84 -58.13	54.84	3.15 0.26	0.04 -0.04	6.62
VA21 - 2	1062.75	0.00 0.20	3089.82 -2816.50	3089.82	-24.09 -24.12	0.00	-1.68 3.92	0.00 0.00	-2.53
VA22	1062.75	0.00 0.08	400.39 -2271.85	1081.08	1.04 -0.67	1.04	1.21 2.67	0.00 0.00	0.15
VA23	1062.75	0.00 0.03	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.59
VA24 - 1	1111.50	0.00 0.24	-1397.29 -4421.36	1901.94	-30.33 18.76	18.76	2.71 3.75	-0.01 0.01	-5.78
VA24 - 2	1111.50	0.00 0.28	-2868.27 -4641.77	1908.64	19.55 15.62	19.55	3.26 3.82	0.00 0.00	-0.18
VA25 - 1	1111.50	0.00 0.30	-3387.17 2567.19	2567.19	106.86 -35.09	106.86	4.17 -2.05	0.07 -0.07	4.32
VA25 - 2	1111.50	0.00 0.30	2572.76 -3916.46	2572.76	-35.09 -44.96	0.00	-0.12 3.80	0.00 0.00	4.32
VA25 - 3	1111.50	0.00 0.07	-1154.05 -2116.19	604.19	39.12 -71.75	39.12	1.98 2.46	0.03 -0.03	-1.74

CASO: 1.3G1+1.4G2+1.4V4+0.84D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.41	-1899.96 2524.76	2524.76	-63.85 6.83	6.83	3.31 -1.24	-0.04 0.04	-0.49
VA1 - 2	1062.75	0.00 0.41	2525.01 99.69	2525.01	6.83 79.68	0.00	-1.75 2.87	-0.07 0.07	-1.34
VA1 - 3	1062.75	0.00 0.41	101.07 -3271.02	101.07	79.68 42.02	79.68	-5.49 6.11	0.06 -0.06	-1.30
VA1 - 4	1062.75	0.00 0.08	-2798.70 394.94	1004.74	43.35 -46.74	43.35	2.84 1.14	0.02 -0.02	1.72
VA1 - 5	1062.75	0.00 0.07	397.15 -2086.04	397.15	-46.74 40.51	40.51	-4.56 5.10	-0.17 0.17	-2.81
VA1 - 6	1062.75	0.00 0.00	-1723.89 -269.31	511.09	25.90 -12.99	25.90	2.18 1.29	0.01 -0.01	1.22
VA2	1062.75	0.00 0.00	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-2.99
VA3 - 1	1062.75	0.00 0.01	0.00 -2143.52	1527.48	0.00 -9.08	0.00	1.80 2.79	0.00 0.00	1.07
VA3 - 2	1062.75	0.00	-2152.67	7.17	26.65	26.65	2.21	0.02	0.00




		0.00	7.17		0.00		-0.56	-0.02	
VA4 - 1	1111.50	0.00 0.25	-1862.08 -2506.89	1338.88	71.39 -10.41	71.39	2.67 2.92	0.02 -0.02	1.87
VA4 - 2	1111.50	0.00 0.31	-2595.70 2190.01	2190.01	-84.58 20.29	20.29	3.52 -1.34	-0.05 0.05	-7.41
VA4 - 3	1111.50	0.00 0.31	2189.76 1791.60	2189.76	20.29 26.64	0.00	-1.10 1.45	-0.02 0.02	-7.41
VA4 - 4	1111.50	0.00 0.31	1791.56 -297.82	1791.56	26.64 26.98	26.98	-2.43 3.24	0.00 0.00	-7.41
VA4 - 5	1111.50	0.00 0.31	-299.06 -4231.43	0.00	26.98 100.41	100.41	-6.74 7.36	-0.13 0.13	-11.92
VA4 - 6	1111.50	0.00 0.19	-4273.27 -158.91	0.00	46.78 53.38	53.38	4.65 -3.53	-0.01 0.01	5.93
VA4 - 7	1111.50	0.00 0.19	-158.48 1945.75	1945.75	53.38 4.95	53.38	2.55 -1.36	0.05 -0.05	4.60
VA4 - 8	1111.50	0.00 0.19	1944.87 1003.58	2005.86	4.95 -0.90	0.00	0.38 1.50	0.00 0.00	4.60
VA4 - 9	1111.50	0.00 0.21	1010.50 -3429.39	1010.50	-0.90 -107.92	0.00	-7.22 7.87	0.18 -0.18	4.60
VA4 - 10	1111.50	0.00 0.02	-3070.73 -282.39	0.00	-33.35 -5.96	0.00	3.41 -2.34	-0.03 0.03	1.55
VA4 - 11	1111.50	0.00 0.02	-275.22 534.38	534.38	-5.96 0.17	0.17	1.78 -1.17	-0.01 0.01	1.55
VA4 - 12	1111.50	0.00 0.01	534.74 -890.36	540.64	0.17 -1.79	0.17	0.15 1.79	0.00 0.00	1.55
VA4 - 13	1111.50	0.00 0.10	-952.11 -461.30	510.22	7.67 15.77	15.77	1.80 1.47	0.00 0.00	-2.31
VA5 - 1	1062.75	0.00 0.02	-540.14 744.60	939.85	-51.10 10.05	10.05	1.77 0.64	-0.03 0.03	-5.18
VA5 - 2	1062.75	0.00 0.02	744.63 -2248.07	744.63	10.05 70.49	70.49	-1.62 3.00	-0.05 0.05	-5.18
VA5 - 3	1062.75	0.00 0.06	-2760.64 438.89	438.89	70.89 23.21	70.89	3.72 -2.65	0.05 -0.05	4.67
VA5 - 4	1062.75	0.00 0.06	438.42 1618.60	1618.60	23.21 25.94	0.00	1.67 -0.53	0.00 0.00	4.67
VA5 - 5	1062.75	0.00 0.06	1619.48 -2163.22	1619.48	25.94 -62.83	25.94	-0.45 2.87	0.04 -0.04	4.67
VA5 - 6	1062.75	0.00 0.10	-1977.45 940.10	940.10	13.53 -23.60	13.53	2.73 -1.11	0.02 -0.02	0.67
VA5 - 7	1062.75	0.00 0.11	939.74 -266.53	939.74	-6.80 -26.04	0.00	0.08 1.60	0.01 -0.01	-14.98
VA6 - 1	1062.75	0.00 0.03	10.01 792.24	852.31	14.19 -9.89	14.19	1.34 0.36	0.02 -0.02	0.90
VA6 - 2	1062.75	0.00 0.03	798.69 -3639.05	798.69	-9.89 21.20	21.20	-2.08 3.71	-0.02 0.02	0.90
VA7 - 1	1062.75	-0.08 0.00	-969.78 2219.87	2219.87	-36.24 9.74	9.74	2.86 -1.19	-0.03 0.03	-2.84
VA7 - 2	1062.75	-0.08 0.00	2213.41 0.00	2213.41	9.74 0.00	9.74	-0.52 2.23	0.01 -0.01	-2.84
VA8 - 1	1184.63	0.00 0.66	-5068.83 -9032.76	4004.80	-9.84 17.69	17.69	4.64 5.56	0.00 0.00	-4.80
VA8 - 2	1184.63	0.00 0.99	-12025.39 -7823.63	6660.20	38.01 -11.26	38.01	6.65 5.86	0.00 0.00	3.81
VA9 - 1	1111.50	0.00 0.10	-3241.68 -2807.92	1667.09	93.34 -70.16	93.34	3.30 3.15	0.03 -0.03	3.96
VA9 - 2	1111.50	0.00 0.19	-4325.38 -2997.78	1984.55	-2.44 -8.24	0.00	3.75 3.33	0.00 0.00	-0.54
VA10 - 1	1111.50	0.00 0.11	-3581.73 -1582.47	1272.16	52.36 -48.43	52.36	3.29 2.52	0.02 -0.02	0.72
VA10 - 2	1111.50	0.00 0.10	-2713.85 82.35	1117.19	-18.89 -51.45	0.00	2.92 1.52	0.01 -0.01	-4.47
VA11 - 1	1062.75	0.00 0.08	-1367.29 -214.22	0.00	47.94 -40.44	47.94	1.62 0.43	0.05 -0.05	2.18

VA11 - 2	1062.75	0.00 0.17	-2282.55 1872.38	1914.60	23.32 -11.85	23.32	2.99 0.31	0.01 -0.01	-1.29
VA11 - 3	1062.75	0.00 0.17	1869.39 -65.06	1869.39	-11.85 -26.28	0.00	-1.37 2.45	0.01 -0.01	-1.29
VA12 - 1	1062.75	0.00 0.03	0.00 2410.68	2787.29	0.00 -2.17	0.00	2.43 0.89	0.00 0.00	0.25
VA12 - 2	1062.75	0.00 0.03	2413.67 0.00	2413.67	-2.17 0.00	0.00	-1.95 2.99	0.00 0.00	0.25
VA13	1014.00	-0.02 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-0.03
VA14 - 1	1062.75	-0.14 0.00	0.00 3085.57	3085.57	0.00 -7.92	0.00	3.50 -2.38	0.01 -0.01	1.39
VA14 - 2	1062.75	-0.13 0.00	3086.63 0.00	3242.42	-7.92 0.00	0.00	0.58 2.63	0.00 0.00	1.39
VA15	1014.00	-0.05 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.47
VA16	1014.00	0.00 0.04	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-0.88
VA17 - 1	1062.75	0.00 0.18	0.00 5422.74	5422.74	0.00 17.44	17.44	5.72 -4.61	-0.02 0.02	-6.92
VA17 - 2	1062.75	0.00 0.19	5421.67 0.00	5421.67	-18.29 0.00	0.00	-0.40 3.42	-0.01 0.01	2.22
VA18	1062.75	0.00 0.12	-1356.97 1196.27	1196.27	-70.68 84.91	84.91	2.35 -0.30	-0.08 0.08	1.46
VA19	1062.75	0.00 0.02	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-7.17
VA20	1062.75	-0.01 0.00	-15.65 0.00	482.63	-16.80 0.00	0.00	1.03 1.02	-0.01 0.01	0.36
VA21 - 1	1062.75	0.00 0.20	-2809.80 3289.53	3289.53	13.88 -26.61	13.88	3.61 -0.20	0.01 -0.01	7.08
VA21 - 2	1062.75	0.00 0.22	3290.42 -1492.71	3290.42	-40.81 -0.45	0.00	-1.14 3.39	-0.02 0.02	-2.93
VA22	1062.75	0.00 0.14	-1745.10 269.77	1169.59	-23.04 29.42	29.42	2.49 1.39	-0.01 0.01	0.58
VA23	1062.75	0.00 0.04	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.46
VA24 - 1	1111.50	0.00 0.08	-3438.41 -2635.86	1661.11	-109.45 67.64	67.64	3.37 3.09	-0.03 0.03	-5.92
VA24 - 2	1111.50	0.00 0.18	-4288.90 -3209.02	1893.17	-4.30 40.75	40.75	3.71 3.37	-0.01 0.01	-0.60
VA25 - 1	1111.50	0.00 0.24	-5070.83 2125.38	2125.38	83.62 -44.70	83.62	4.82 -2.70	0.07 -0.07	4.64
VA25 - 2	1111.50	0.00 0.24	2128.23 -2417.10	2225.63	-44.70 12.65	12.65	0.47 3.21	-0.02 0.02	4.64
VA25 - 3	1111.50	0.00 0.12	-3333.03 424.97	1156.87	-76.24 77.50	77.50	3.16 1.28	-0.04 0.04	-1.28


CASO: 1.3G1+1.4G2+D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Yi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.41	-1642.37 2534.25	2534.25	-11.03 1.56	1.56	3.18 -1.11	-0.01 0.01	1.88
VA1 - 2	1062.75	0.00 0.42	2534.41 -25.07	2534.41	1.56 -14.73	1.56	-1.88 2.99	0.02 -0.02	1.03
VA1 - 3	1062.75	0.00 0.41	-23.79 -3470.09	0.00	-14.73 12.91	12.91	-5.62 6.24	-0.05 0.05	0.95
VA1 - 4	1062.75	0.00 0.08	-2646.54 287.82	969.65	19.58 -17.00	19.58	2.77 1.21	0.01 -0.01	0.42
VA1 - 5	1062.75	0.00 0.07	289.84 -2228.92	289.84	-17.00 20.19	20.19	-4.63 5.17	-0.07 0.07	-2.91
VA1 - 6	1062.75	-0.02	-1484.96	417.13	17.24	17.24	2.01	0.01	-0.88

		0.00	-578.43		-6.87		1.46	-0.01	
VA2	1062.75	0.00 0.00	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-3.63
VA3 - 1	1062.75	0.00 0.00	0.00 -2143.27	1527.57	0.00 1.73	1.73	1.80 2.79	0.00 0.00	1.03
VA3 - 2	1062.75	0.00 0.00	-2152.38 7.45	7.45	6.61 0.00	6.61	2.21 -0.56	0.00 0.00	0.00
VA4 - 1	1111.50	0.00 0.23	-1692.97 -2563.20	1399.79	47.27 -16.76	47.27	2.62 2.97	0.01 -0.01	1.25
VA4 - 2	1111.50	0.00 0.26	-2526.44 2111.33	2111.33	-6.82 -5.59	0.00	3.45 -1.26	0.00 0.00	-0.57
VA4 - 3	1111.50	0.00 0.26	2111.17 1689.55	2111.17	-5.59 1.57	0.00	-1.17 1.52	-0.02 0.02	-0.57
VA4 - 4	1111.50	0.00 0.26	1689.52 -455.11	1689.52	1.57 19.78	19.78	-2.50 3.32	-0.02 0.02	-0.57
VA4 - 5	1111.50	0.00 0.25	-456.33 -4430.55	0.00	19.78 -4.22	19.78	-6.82 7.44	0.04 -0.04	-7.45
VA4 - 6	1111.50	0.00 0.15	-4146.57 -72.67	0.00	-12.14 1.20	1.20	4.61 -3.49	-0.01 0.01	0.54
VA4 - 7	1111.50	0.00 0.15	-72.28 1988.66	1988.66	1.20 -1.71	1.20	2.51 -1.32	0.00 0.00	-0.06
VA4 - 8	1111.50	0.00 0.15	1987.73 978.57	2034.43	-1.71 16.04	0.00	0.34 1.54	-0.01 0.01	-0.06
VA4 - 9	1111.50	0.00 0.15	985.66 -3477.88	985.66	16.04 -22.92	16.04	-7.26 7.91	0.07 -0.07	-0.06
VA4 - 10	1111.50	0.00 0.02	-2971.51 -255.97	0.00	-9.66 3.17	3.17	3.34 -2.26	-0.01 0.01	1.97
VA4 - 11	1111.50	0.00 0.02	-248.52 519.80	519.80	3.17 8.11	8.11	1.70 -1.09	-0.01 0.01	1.97
VA4 - 12	1111.50	0.00 0.02	520.34 -1038.47	520.34	8.11 -9.84	8.11	0.07 1.86	0.01 -0.01	1.97
VA4 - 13	1111.50	0.00 0.07	-753.16 -764.68	447.57	-3.18 -6.26	0.00	1.63 1.64	0.00 0.00	-2.25
VA5 - 1	1062.75	0.00 0.07	-468.18 726.45	946.28	3.06 0.73	3.06	1.73 0.68	0.00 0.00	-0.62
VA5 - 2	1062.75	0.00 0.07	726.48 -2317.49	726.48	0.73 -2.97	0.73	-1.66 3.04	0.00 0.00	-0.62
VA5 - 3	1062.75	0.00 0.11	-2694.60 478.93	478.93	3.87 -2.63	3.87	3.69 -2.62	0.01 -0.01	0.69
VA5 - 4	1062.75	0.00 0.11	478.54 1630.90	1630.90	-2.63 6.29	0.00	1.64 -0.50	-0.01 0.01	0.69
VA5 - 5	1062.75	0.00 0.11	1631.84 -2209.69	1631.84	6.29 -4.95	6.29	-0.48 2.90	0.00 0.00	0.69
VA5 - 6	1062.75	0.00 0.08	-1972.21 922.79	922.79	12.21 -14.89	12.21	2.71 -1.10	0.02 -0.02	-0.63
VA5 - 7	1062.75	0.00 0.08	922.26 -304.65	922.26	-13.15 -10.83	0.00	0.06 1.62	0.00 0.00	-12.82
VA6 - 1	1062.75	0.00 0.03	10.30 758.01	826.71	-15.32 -16.51	0.00	1.32 0.38	0.00 0.00	1.99
VA6 - 2	1062.75	0.00 0.03	764.51 -3706.28	764.51	-16.51 35.21	35.21	-2.10 3.73	-0.03 0.03	1.99
VA7 - 1	1062.75	-0.09 0.00	-944.85 2232.50	2232.50	-48.74 2.74	2.74	2.86 -1.19	-0.03 0.03	-4.15
VA7 - 2	1062.75	-0.09 0.00	2226.00 0.00	2226.00	2.74 0.00	2.74	-0.53 2.24	0.00 0.00	-4.15
VA8 - 1	1184.63	0.00 0.68	-4887.48 -9197.79	4030.34	-1.22 -0.86	0.00	4.60 5.60	0.00 0.00	-1.80
VA8 - 2	1184.63	0.00 1.01	-11945.75 -7941.64	6633.41	16.28 -8.29	16.28	6.64 5.88	0.00 0.00	1.46
VA9 - 1	1111.50	0.00 0.17	-2358.80 -3580.08	1736.03	41.23 -32.79	41.23	3.02 3.44	0.01 -0.01	3.37
VA9 - 2	1111.50	0.00 0.25	-3719.28 -3616.18	1958.65	-15.80 13.96	13.96	3.55 3.52	0.00 0.00	-0.35

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VA10 - 1	1111.50	0.00 0.15	-2876.01 -2224.55	1242.52	30.89 -43.92	30.89	3.03 2.78	0.01 -0.01	0.90
VA10 - 2	1111.50	0.00 0.07	-1796.56 -1007.21	831.41	-53.44 31.93	31.93	2.42 2.02	-0.02 0.02	-4.30
VA11 - 1	1062.75	0.00 0.03	-271.85 -816.20	0.00	1.84 7.02	7.02	0.74 1.31	0.00 0.00	2.44
VA11 - 2	1062.75	0.00 0.05	-1504.51 959.65	1305.79	-4.15 1.93	1.93	2.44 0.86	0.00 0.00	-1.71
VA11 - 3	1062.75	0.00 0.05	956.02 -1529.98	956.02	1.93 7.92	7.92	-1.91 2.99	-0.01 0.01	-1.71
VA12 - 1	1062.75	-0.02 0.00	0.00 2410.20	2786.94	0.00 2.94	2.94	2.43 0.89	0.00 0.00	0.16
VA12 - 2	1062.75	-0.02 0.00	2413.82 0.00	2413.82	2.94 0.00	2.94	-1.95 2.99	0.00 0.00	0.16
VA13	1014.00	0.00 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-0.03
VA14 - 1	1062.75	0.00 0.06	0.00 3085.62	3085.62	0.00 -1.63	0.00	3.50 -2.38	0.00 0.00	1.28
VA14 - 2	1062.75	0.00 0.06	3086.65 0.00	3242.43	-1.63 0.00	0.00	0.58 2.63	0.00 0.00	1.28
VA15	1014.00	-0.01 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.39
VA16	1014.00	0.00 0.01	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-0.93
VA17 - 1	1062.75	0.00 0.08	0.00 5422.68	5422.68	0.00 2.93	2.93	5.72 -4.61	0.00 0.00	-7.09
VA17 - 2	1062.75	0.00 0.08	5421.66 0.00	5421.66	-1.95 0.00	0.00	-0.40 3.42	0.00 0.00	2.03
VA18	1062.75	0.00 0.07	-393.21 229.83	462.77	-14.14 18.94	18.94	1.35 0.70	-0.02 0.02	1.50
VA19	1062.75	0.00 0.00	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-7.45
VA20	1062.75	-0.02 0.00	-12.19 0.00	484.16	-1.74 0.00	0.00	1.03 1.02	0.00 0.00	0.54
VA21 - 1	1062.75	0.00 0.20	-2158.11 3135.82	3135.82	35.43 -42.37	35.43	3.35 0.06	0.02 -0.02	7.23
VA21 - 2	1062.75	0.00 0.20	3137.82 -2129.73	3137.82	-27.05 -16.99	0.00	-1.37 3.62	0.00 0.00	-3.07
VA22	1062.75	0.00 0.11	-683.66 -990.01	931.04	-10.71 13.85	13.85	1.85 2.02	-0.01 0.01	0.27
VA23	1062.75	0.00 0.03	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.51
VA24 - 1	1111.50	0.00 0.16	-2420.59 -3525.12	1730.60	-73.35 46.56	46.56	3.04 3.42	-0.02 0.02	-6.48
VA24 - 2	1111.50	0.00 0.22	-3572.50 -3930.66	1878.91	9.98 34.17	34.17	3.48 3.59	0.00 0.00	-0.37
VA25 - 1	1111.50	0.00 0.27	-4249.57 2372.43	2372.43	105.11 -50.44	105.11	4.52 -2.40	0.08 -0.08	4.96
VA25 - 2	1111.50	0.00 0.27	2376.58 -3187.36	2385.39	-50.44 -14.75	0.00	0.16 3.52	-0.01 0.01	4.96
VA25 - 3	1111.50	0.00 0.09	-2249.27 -844.99	727.09	-15.36 1.79	1.79	2.57 1.87	0.00 0.00	-1.30

CASO: 1.3G1+1.4G2+D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.40	-1952.22 2533.42	2533.42	-10.76 1.05	1.05	3.34 -1.27	-0.01 0.01	1.84
VA1 - 2	1062.75	0.00 0.40	2533.50 140.89	2533.50	1.05 -13.77	0.00	-1.72 2.84	0.01 -0.01	0.99
VA1 - 3	1062.75	0.00	142.03	142.03	-13.77	14.46	-5.46	-0.05	1.08


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		0.40	-3211.95		14.46		6.08	0.05	
VA1 - 4	1062.75	0.00 0.06	-2822.38 418.36	1015.08	19.50 -16.82	19.50	2.86 1.13	0.01 -0.01	0.65
VA1 - 5	1062.75	0.00 0.06	420.42 -2056.33	420.42	-16.82 21.03	21.03	-4.54 5.09	-0.07 0.07	-4.14
VA1 - 6	1062.75	-0.02 0.00	-1753.39 -257.04	507.70	16.18 -6.25	16.18	2.19 1.28	0.01 -0.01	-0.88
VA2	1062.75	0.00 0.00	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-3.73
VA3 - 1	1062.75	0.00 0.00	0.00 -2143.84	1527.35	0.00 1.57	1.57	1.80 2.79	0.00 0.00	1.07
VA3 - 2	1062.75	0.00 0.00	-2152.65 7.18	7.18	8.55 0.00	8.55	2.21 -0.56	0.01 -0.01	0.00
VA4 - 1	1111.50	0.00 0.17	-2086.12 -2412.73	1267.57	52.85 -17.93	52.85	2.73 2.86	0.01 -0.01	1.26
VA4 - 2	1111.50	0.00 0.21	-2636.48 2252.77	2252.77	-8.85 -5.30	0.00	3.58 -1.39	0.00 0.00	-1.27
VA4 - 3	1111.50	0.00 0.21	2252.69 1871.05	2252.69	-5.30 1.66	0.00	-1.05 1.39	-0.02 0.02	-1.27
VA4 - 4	1111.50	0.00 0.21	1871.10 -179.39	1871.10	1.66 20.80	20.80	-2.37 3.19	-0.03 0.03	-1.27
VA4 - 5	1111.50	0.00 0.21	-180.50 -4083.42	0.00	20.80 -1.88	20.80	-6.69 7.31	0.04 -0.04	-3.99
VA4 - 6	1111.50	0.00 0.08	-4464.46 -282.27	0.00	-12.71 1.26	1.26	4.72 -3.60	-0.01 0.01	1.94
VA4 - 7	1111.50	0.00 0.08	-281.83 1894.98	1894.98	1.26 -1.52	1.26	2.62 -1.43	0.00 0.00	-0.42
VA4 - 8	1111.50	0.00 0.08	1894.04 1066.52	1983.47	-1.52 16.67	0.00	0.45 1.43	-0.01 0.01	-0.42
VA4 - 9	1111.50	0.00 0.09	1073.25 -3326.97	1073.25	16.67 -22.25	16.67	-7.15 7.81	0.07 -0.07	-0.42
VA4 - 10	1111.50	-0.04 0.00	-3059.60 -261.46	0.00	-9.35 2.03	2.03	3.42 -2.35	-0.01 0.01	1.98
VA4 - 11	1111.50	-0.04 0.00	-254.28 560.88	560.88	2.03 5.46	5.46	1.79 -1.18	-0.01 0.01	1.98
VA4 - 12	1111.50	-0.04 0.00	561.44 -848.87	569.18	5.46 -8.23	5.46	0.16 1.78	0.01 -0.01	1.98
VA4 - 13	1111.50	0.00 0.06	-1203.23 -158.78	576.20	-1.20 -14.14	0.00	1.99 1.28	0.00 0.00	-2.27
VA5 - 1	1062.75	0.00 0.08	-644.34 796.90	949.47	0.80 1.54	1.54	1.84 0.58	0.00 0.00	-0.64
VA5 - 2	1062.75	0.00 0.08	796.84 -2106.81	796.84	1.54 -2.85	1.54	-1.55 2.93	0.00 0.00	-0.64
VA5 - 3	1062.75	0.00 0.12	-2845.28 385.36	385.36	4.53 -2.71	4.53	3.75 -2.68	0.01 -0.01	0.73
VA5 - 4	1062.75	0.00 0.12	384.92 1598.38	1598.38	-2.71 6.50	0.00	1.70 -0.56	-0.01 0.01	0.73
VA5 - 5	1062.75	0.00 0.12	1599.32 -2112.97	1599.32	6.50 -4.42	6.50	-0.42 2.84	0.00 0.00	0.73
VA5 - 6	1062.75	0.00 0.10	-2082.47 947.07	947.07	12.33 -16.10	12.33	2.80 -1.19	0.02 -0.02	-0.62
VA5 - 7	1062.75	0.00 0.10	946.51 -140.68	953.96	-15.41 -22.66	0.00	0.15 1.53	0.00 0.00	-13.18
VA6 - 1	1062.75	0.00 0.04	8.87 944.90	977.02	-4.53 -14.20	0.00	1.44 0.27	0.01 -0.01	2.08
VA6 - 2	1062.75	0.00 0.04	951.44 -3339.03	951.44	-14.20 30.19	30.19	-1.98 3.61	-0.03 0.03	2.08
VA7 - 1	1062.75	-0.06 0.00	-1189.77 2108.63	2108.63	-44.41 5.34	5.34	2.93 -1.26	-0.03 0.03	-4.28
VA7 - 2	1062.75	-0.06 0.00	2102.09 0.00	2102.09	5.34 0.00	5.34	-0.45 2.16	0.00 0.00	-4.28
VA8 - 1	1184.63	0.00 0.68	-5179.64 -8955.54	3981.44	-10.66 1.80	1.80	4.66 5.54	0.00 0.00	-1.83

VA8 - 2	1184.63	0.00 1.02	-12152.06 -7685.40	6676.17	13.95 0.19	13.95	6.68 5.83	0.00 0.00	1.47
VA9 - 1	1111.50	0.00 0.17	-2374.14 -3565.07	1735.34	51.46 -43.12	51.46	3.02 3.43	0.02 -0.02	4.66
VA9 - 2	1111.50	0.00 0.24	-3717.24 -3611.70	1961.95	-23.64 12.20	12.20	3.55 3.52	-0.01 0.01	-0.38
VA10 - 1	1111.50	0.00 0.14	-2877.48 -2222.58	1242.91	29.03 -42.58	29.03	3.03 2.78	0.01 -0.01	0.27
VA10 - 2	1111.50	0.00 0.07	-1799.30 -1004.69	831.44	-55.36 36.23	36.23	2.42 2.02	-0.02 0.02	-5.00
VA11 - 1	1062.75	0.00 0.03	-290.58 -810.55	0.00	3.90 4.62	4.62	0.76 1.30	0.00 0.00	2.04
VA11 - 2	1062.75	0.00 0.06	-1524.16 978.59	1314.44	-5.95 2.49	2.49	2.46 0.85	0.00 0.00	-1.34
VA11 - 3	1062.75	0.00 0.06	974.87 -1498.54	974.87	2.49 9.16	9.16	-1.90 2.98	-0.01 0.01	-1.34
VA12 - 1	1062.75	-0.02 0.00	0.00 2410.12	2786.88	0.00 2.87	2.87	2.43 0.89	0.00 0.00	0.08
VA12 - 2	1062.75	-0.02 0.00	2413.85 0.00	2413.85	2.87 0.00	2.87	-1.95 2.99	0.00 0.00	0.08
VA13	1014.00	0.00 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.05
VA14 - 1	1062.75	0.00 0.06	0.00 3085.51	3085.51	0.00 -1.92	0.00	3.50 -2.38	0.00 0.00	1.15
VA14 - 2	1062.75	0.00 0.06	3086.58 0.00	3242.37	-1.92 0.00	0.00	0.58 2.63	0.00 0.00	1.15
VA15	1014.00	-0.02 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.45
VA16	1014.00	0.00 0.01	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-0.94
VA17 - 1	1062.75	0.00 0.08	0.00 5422.80	5422.80	0.00 3.77	3.77	5.72 -4.61	0.00 0.00	-6.73
VA17 - 2	1062.75	0.00 0.08	5421.73 0.00	5421.73	-3.21 0.00	0.00	-0.40 3.42	0.00 0.00	2.08
VA18	1062.75	0.00 0.07	-385.86 221.34	459.56	-14.33 19.18	19.18	1.34 0.71	-0.02 0.02	1.39
VA19	1062.75	0.00 0.01	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-7.18
VA20	1062.75	-0.01 0.00	-12.56 0.00	484.00	-0.69 0.00	0.00	1.03 1.02	0.00 0.00	0.56
VA21 - 1	1062.75	0.00 0.21	-2196.24 3240.35	3240.35	33.29 -42.38	33.29	3.40 0.01	0.02 -0.02	6.47
VA21 - 2	1062.75	0.00 0.22	3242.43 -2179.48	3242.43	-37.85 -7.58	0.00	-1.45 3.69	-0.01 0.01	-2.40
VA22	1062.75	0.00 0.11	-661.05 -1012.07	931.31	-11.28 14.90	14.90	1.84 2.03	-0.01 0.01	0.46
VA23	1062.75	0.00 0.03	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.54
VA24 - 1	1111.50	0.00 0.16	-2415.10 -3532.10	1730.07	-66.43 39.85	39.85	3.04 3.42	-0.02 0.02	-5.22
VA24 - 2	1111.50	0.00 0.24	-3584.68 -3920.13	1877.72	5.27 22.20	22.20	3.49 3.59	0.00 0.00	-0.41
VA25 - 1	1111.50	0.00 0.27	-4208.43 2320.13	2320.13	85.37 -29.34	85.37	4.47 -2.35	0.06 -0.06	4.01
VA25 - 2	1111.50	0.00 0.27	2324.41 -3146.20	2339.05	-29.34 -17.56	0.00	0.19 3.49	0.00 0.00	4.01
VA25 - 3	1111.50	0.00 0.10	-2237.80 -846.23	731.20	-21.77 3.96	3.96	2.57 1.87	-0.01 0.01	-1.71


**CASO: 1.3G1+1.4G2+D3**

Elemento	Carga (kgf/m)	Rd Nd	Mxi Mxf	MxMáx (kgf.m)	Myi Myf	MyMáx (kgf.m)	Vxi Vxf	Yi Yf	Mtd (kgf/m)
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	AltoQi Eberick 2018 Plena	
	Leilson Campos Rezende Rezende Engenharia	11/5/2021 12:14:59


		(tf)	(kgf.m)		(kgf.m)		(tf)	(tf)	
VA1 - 1	1062.75	0.00 0.40	-1777.28 2535.50	2535.50	-0.72 0.10	0.10	3.25 -1.18	0.00 0.00	2.30
VA1 - 2	1062.75	0.00 0.41	2535.59 49.61	2535.59	0.10 -30.76	0.00	-1.81 2.92	0.03 -0.03	1.46
VA1 - 3	1062.75	0.00 0.40	50.78 -3354.86	50.78	-30.76 7.92	7.92	-5.55 6.17	-0.07 0.07	1.46
VA1 - 4	1062.75	0.00 0.07	-2721.91 344.97	989.99	15.02 -12.10	15.02	2.81 1.17	0.01 -0.01	0.32
VA1 - 5	1062.75	0.00 0.06	346.97 -2153.62	346.97	-12.10 17.12	17.12	-4.59 5.14	-0.06 0.06	-3.65
VA1 - 6	1062.75	-0.03 0.00	-1598.92 -446.14	447.44	14.86 -4.77	14.86	2.09 1.38	0.01 -0.01	-1.28
VA2	1062.75	0.00 0.01	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-3.80
VA3 - 1	1062.75	0.00 0.00	0.00 -2143.56	1527.46	0.00 3.36	3.36	1.80 2.79	0.00 0.00	1.04
VA3 - 2	1062.75	0.00 0.00	-2152.49 7.34	7.34	3.39 0.00	3.39	2.21 -0.56	0.00 0.00	0.00
VA4 - 1	1111.50	0.00 0.19	-1894.29 -2484.49	1332.88	46.41 -19.29	46.41	2.68 2.91	0.01 -0.01	1.17
VA4 - 2	1111.50	0.00 0.22	-2578.79 2180.54	2180.54	6.28 -9.96	6.28	3.51 -1.32	0.01 -0.01	0.28
VA4 - 3	1111.50	0.00 0.22	2180.44 1778.16	2180.44	-9.96 -3.12	0.00	-1.11 1.46	-0.02 0.02	0.28
VA4 - 4	1111.50	0.00 0.22	1778.18 -320.93	1778.18	-3.12 18.22	18.22	-2.44 3.26	-0.03 0.03	0.28
VA4 - 5	1111.50	0.00 0.22	-322.08 -4261.81	0.00	18.22 -21.63	18.22	-6.75 7.37	0.07 -0.07	-4.57
VA4 - 6	1111.50	0.00 0.10	-4311.39 -180.87	0.00	-22.61 -8.52	0.00	4.67 -3.55	-0.01 0.01	0.38
VA4 - 7	1111.50	0.00 0.10	-180.46 1941.08	1941.08	-8.52 -2.85	0.00	2.57 -1.37	-0.01 0.01	-1.13
VA4 - 8	1111.50	0.00 0.10	1940.13 1025.96	2007.90	-2.85 19.47	0.00	0.40 1.48	-0.01 0.01	-1.13
VA4 - 9	1111.50	0.00 0.10	1032.86 -3397.56	1032.86	19.47 -8.32	19.47	-7.20 7.86	0.05 -0.05	-1.13
VA4 - 10	1111.50	-0.02 0.00	-3005.42 -254.35	0.00	-7.36 3.58	3.58	3.38 -2.30	-0.01 0.01	2.04
VA4 - 11	1111.50	-0.02 0.00	-247.00 541.46	541.46	3.58 8.59	8.59	1.74 -1.13	-0.01 0.01	2.04
VA4 - 12	1111.50	-0.01 0.00	542.05 -953.35	542.05	8.59 -9.52	8.59	0.11 1.83	0.01 -0.01	2.04
VA4 - 13	1111.50	0.00 0.06	-982.63 -461.91	496.79	-3.76 -16.72	0.00	1.81 1.46	0.00 0.00	-2.29
VA5 - 1	1062.75	0.00 0.08	-558.52 764.54	949.34	12.02 -0.54	12.02	1.79 0.63	0.01 -0.01	0.21
VA5 - 2	1062.75	0.00 0.08	764.52 -2206.39	764.52	-0.54 -16.87	0.00	-1.61 2.98	0.01 -0.01	0.21
VA5 - 3	1062.75	0.00 0.13	-2770.99 431.33	431.33	-8.41 -7.12	0.00	3.72 -2.65	0.00 0.00	-0.02
VA5 - 4	1062.75	0.00 0.13	430.92 1614.09	1614.09	-7.12 2.79	0.00	1.67 -0.53	-0.01 0.01	-0.02
VA5 - 5	1062.75	0.00 0.13	1615.03 -2161.34	1615.03	2.79 5.63	5.63	-0.45 2.87	0.00 0.00	-0.02
VA5 - 6	1062.75	0.00 0.09	-2035.94 933.93	933.93	10.36 -14.33	10.36	2.76 -1.15	0.02 -0.02	-0.87
VA5 - 7	1062.75	0.00 0.09	933.35 -215.35	933.35	-18.71 -13.56	0.00	0.11 1.57	0.00 0.00	-12.70
VA6 - 1	1062.75	0.00 0.03	9.50 865.32	907.46	-14.83 -16.47	0.00	1.39 0.32	0.00 0.00	2.21
VA6 - 2	1062.75	0.00 0.03	871.85 -3495.42	871.85	-16.47 36.14	36.14	-2.03 3.66	-0.03 0.03	2.21



	<b>AltoQi Eberick 2018</b> <b>Plena</b>	
	<b>Leilson Campos</b> <b>Rezende</b> <b>Rezende Engenharia</b>	<b>11/5/2021</b> <b>12:14:59</b>

VA7 - 1	1062.75	-0.08 0.00	-1084.43 2161.91	2161.91	-49.06 3.26	3.26	2.90 -1.23	-0.03 0.03	-4.43
VA7 - 2	1062.75	-0.08 0.00	2155.38 0.00	2155.38	3.26 0.00	3.26	-0.49 2.19	0.00 0.00	-4.43
VA8 - 1	1184.63	0.00 0.69	-5027.00 -9085.13	4002.82	-5.27 -2.87	0.00	4.63 5.57	0.00 0.00	-1.24
VA8 - 2	1184.63	0.00 1.02	-12053.14 -7812.15	6653.57	10.57 -2.69	10.57	6.66 5.85	0.00 0.00	1.01
VA9 - 1	1111.50	0.00 0.18	-2244.28 -3678.93	1752.40	36.80 -31.28	36.80	2.98 3.48	0.01 -0.01	4.03
VA9 - 2	1111.50	0.00 0.25	-3634.21 -3699.42	1958.95	-23.47 17.66	17.66	3.53 3.55	-0.01 0.01	-0.33
VA10 - 1	1111.50	0.00 0.15	-2779.19 -2311.67	1244.75	25.40 -42.11	25.40	2.99 2.81	0.01 -0.01	0.57
VA10 - 2	1111.50	0.00 0.07	-1670.62 -1158.36	811.51	-62.41 51.83	51.83	2.35 2.09	-0.03 0.03	-4.70
VA11 - 1	1062.75	0.00 0.02	-81.29 -923.55	78.58	-5.62 14.69	14.69	0.59 1.46	-0.01 0.01	2.25
VA11 - 2	1062.75	0.00 0.03	-1372.82 802.66	1225.78	-10.60 4.91	4.91	2.35 0.95	0.00 0.00	-1.57
VA11 - 3	1062.75	0.00 0.03	798.85 -1781.32	798.85	4.91 15.20	15.20	-2.01 3.08	-0.01 0.01	-1.57
VA12 - 1	1062.75	-0.03 0.00	0.00 2410.06	2786.84	0.00 3.84	3.84	2.43 0.89	0.00 0.00	0.09
VA12 - 2	1062.75	-0.03 0.00	2413.87 0.00	2413.87	3.84 0.00	3.84	-1.95 2.99	0.00 0.00	0.09
VA13	1014.00	0.00 0.01	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.02
VA14 - 1	1062.75	0.00 0.10	0.00 3085.57	3085.57	0.00 -0.54	0.00	3.50 -2.38	0.00 0.00	1.18
VA14 - 2	1062.75	0.00 0.10	3086.61 0.00	3242.39	-0.54 0.00	0.00	0.58 2.63	0.00 0.00	1.18
VA15	1014.00	-0.01 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.41
VA16	1014.00	0.00 0.01	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-0.95
VA17 - 1	1062.75	0.00 0.06	0.00 5422.74	5422.74	0.00 0.54	0.54	5.72 -4.61	0.00 0.00	-6.91
VA17 - 2	1062.75	0.00 0.06	5421.70 0.00	5421.70	0.51 0.00	0.51	-0.40 3.42	0.00 0.00	2.02
VA18	1062.75	0.00 0.05	-209.49 44.91	421.43	-3.05 6.08	6.08	1.16 0.89	0.00 0.00	1.44
VA19	1062.75	0.00 0.00	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-7.34
VA20	1062.75	-0.02 0.00	-11.83 0.00	484.32	4.38 0.00	4.38	1.03 1.02	0.00 0.00	0.58
VA21 - 1	1062.75	0.00 0.21	-2078.50 3174.74	3174.74	38.42 -45.53	38.42	3.34 0.07	0.03 -0.03	6.80
VA21 - 2	1062.75	0.00 0.21	3176.96 -2259.86	3176.96	-30.70 -17.76	0.00	-1.45 3.70	-0.01 0.01	-2.69
VA22	1062.75	0.00 0.11	-479.84 -1229.21	933.15	-8.28 11.14	11.14	1.73 2.14	-0.01 0.01	0.33
VA23	1062.75	0.00 0.04	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.53
VA24 - 1	1111.50	0.00 0.17	-2264.30 -3662.52	1748.71	-61.87 38.19	38.19	2.99 3.47	-0.02 0.02	-5.83
VA24 - 2	1111.50	0.00 0.24	-3472.34 -4032.61	1881.28	10.23 25.31	25.31	3.45 3.63	0.00 0.00	-0.35
VA25 - 1	1111.50	0.00 0.28	-4102.54 2378.89	2378.89	97.97 -38.76	97.97	4.45 -2.32	0.07 -0.07	4.46
VA25 - 2	1111.50	0.00 0.28	2383.32 -3278.40	2386.01	-38.76 -21.20	0.00	0.13 3.55	-0.01 0.01	4.46
VA25 - 3	1111.50	0.00	-2080.40	687.02	-8.25	0.00	2.48	0.00	-1.56




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		0.10	-1037.01		-12.35		1.96	0.00	
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CASO: 1.3G1+1.4G2+D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	1062.75	0.00 0.41	-1817.31 2532.17	2532.17	-21.07 2.52	2.52	3.27 -1.20	-0.01 0.01	1.41
VA1 - 2	1062.75	0.00 0.41	2532.31 66.21	2532.31	2.52 2.27	0.00	-1.79 2.91	0.00 0.00	0.57
VA1 - 3	1062.75	0.00 0.41	67.46 -3327.19	67.46	2.27 19.45	19.45	-5.53 6.15	-0.03 0.03	0.58
VA1 - 4	1062.75	0.00 0.07	-2747.00 361.21	994.75	24.06 -21.72	24.06	2.82 1.16	0.01 -0.01	0.76
VA1 - 5	1062.75	0.00 0.07	363.28 -2131.63	363.28	-21.72 24.09	24.09	-4.58 5.13	-0.09 0.09	-3.39
VA1 - 6	1062.75	-0.02 0.00	-1639.43 -389.33	467.76	18.56 -8.34	18.56	2.12 1.35	0.01 -0.01	-0.47
VA2	1062.75	0.00 0.00	0.00 0.00	518.17	0.00 0.00	0.00	1.06 1.06	0.00 0.00	-3.55
VA3 - 1	1062.75	0.00 0.00	0.00 -2143.55	1527.47	0.00 -0.06	0.00	1.80 2.79	0.00 0.00	1.05
VA3 - 2	1062.75	0.00 0.00	-2152.55 7.29	7.29	11.77 0.00	11.77	2.21 -0.56	0.01 -0.01	0.00
VA4 - 1	1111.50	0.00 0.21	-1884.80 -2491.44	1334.48	53.71 -15.40	53.71	2.68 2.92	0.01 -0.01	1.34
VA4 - 2	1111.50	0.00 0.25	-2584.13 2183.57	2183.57	-21.95 -0.92	0.00	3.52 -1.33	-0.01 0.01	-2.12
VA4 - 3	1111.50	0.00 0.25	2183.42 1782.44	2183.42	-0.92 6.36	0.00	-1.11 1.46	-0.02 0.02	-2.12
VA4 - 4	1111.50	0.00 0.25	1782.45 -313.57	1782.45	6.36 22.36	22.36	-2.43 3.25	-0.02 0.02	-2.12
VA4 - 5	1111.50	0.00 0.25	-314.75 -4252.15	0.00	22.36 15.54	22.36	-6.75 7.37	0.01 -0.01	-6.87
VA4 - 6	1111.50	0.00 0.13	-4299.63 -174.08	0.00	-2.23 10.98	10.98	4.66 -3.54	-0.01 0.01	2.11
VA4 - 7	1111.50	0.00 0.13	-173.66 1942.56	1942.56	10.98 -0.38	10.98	2.57 -1.37	0.01 -0.01	0.66
VA4 - 8	1111.50	0.00 0.13	1941.64 1019.13	2007.32	-0.38 13.24	0.00	0.39 1.48	-0.01 0.01	0.66
VA4 - 9	1111.50	0.00 0.14	1026.04 -3407.29	1026.04	13.24 -36.85	13.24	-7.21 7.86	0.09 -0.09	0.66
VA4 - 10	1111.50	0.00 0.00	-3025.69 -263.09	0.00	-11.66 1.61	1.61	3.39 -2.31	-0.01 0.01	1.90
VA4 - 11	1111.50	0.00 0.00	-255.80 539.21	539.21	1.61 4.98	4.98	1.75 -1.14	-0.01 0.01	1.90
VA4 - 12	1111.50	-0.01 0.00	539.73 -933.99	539.73	4.98 -8.56	4.98	0.12 1.81	0.01 -0.01	1.90
VA4 - 13	1111.50	0.00 0.07	-973.77 -461.54	500.80	-0.61 -3.67	0.00	1.81 1.46	0.00 0.00	-2.23
VA5 - 1	1062.75	0.00 0.06	-554.01 758.82	946.41	-8.15 2.80	2.80	1.79 0.63	0.00 0.00	-1.48
VA5 - 2	1062.75	0.00 0.06	758.81 -2217.91	758.81	2.80 11.06	11.06	-1.61 2.99	-0.01 0.01	-1.48
VA5 - 3	1062.75	0.00 0.10	-2768.88 432.96	432.96	16.81 1.77	16.81	3.72 -2.65	0.01 -0.01	1.44
VA5 - 4	1062.75	0.00 0.10	432.54 1615.20	1615.20	1.77 10.00	0.00	1.67 -0.53	-0.01 0.01	1.44
VA5 - 5	1062.75	0.00 0.10	1616.12 -2161.32	1616.12	10.00 -15.01	10.00	-0.45 2.87	0.01 -0.01	1.44
VA5 - 6	1062.75	0.00 0.09	-2018.75 935.93	935.93	14.18 -16.66	14.18	2.75 -1.14	0.02 -0.02	-0.39


VA5 - 7	1062.75	0.00 0.10	935.42 -229.97	935.42	-9.85 -19.94	0.00	0.10 1.58	0.01 -0.01	-13.30
VA6 - 1	1062.75	0.00 0.03	9.67 837.59	886.25	-5.02 -14.24	0.00	1.37 0.33	0.01 -0.01	1.86
VA6 - 2	1062.75	0.00 0.03	844.10 -3549.88	844.10	-14.24 29.26	29.26	-2.05 3.68	-0.03 0.03	1.86
VA7 - 1	1062.75	-0.08 0.00	-1050.19 2179.22	2179.22	-44.09 4.82	4.82	2.89 -1.22	-0.03 0.03	-3.99
VA7 - 2	1062.75	-0.08 0.00	2172.71 0.00	2172.71	4.82 0.00	4.82	-0.50 2.21	0.00 0.00	-3.99
VA8 - 1	1184.63	0.00 0.68	-5040.13 -9068.20	4003.66	-6.61 3.80	3.80	4.63 5.57	0.00 0.00	-2.39
VA8 - 2	1184.63	0.00 1.01	-12044.67 -7814.89	6656.01	19.66 -5.42	19.66	6.66 5.86	0.00 0.00	1.92
VA9 - 1	1111.50	0.00 0.16	-2488.66 -3466.22	1723.82	55.89 -44.62	55.89	3.06 3.40	0.02 -0.02	4.01
VA9 - 2	1111.50	0.00 0.23	-3802.31 -3528.45	1963.75	-15.97 8.51	8.51	3.58 3.49	0.00 0.00	-0.40
VA10 - 1	1111.50	0.00 0.14	-2974.30 -2135.46	1245.13	34.52 -44.40	34.52	3.06 2.74	0.02 -0.02	0.60
VA10 - 2	1111.50	0.00 0.07	-1925.24 -853.53	858.58	-46.38 16.33	16.33	2.49 1.95	-0.02 0.02	-4.59
VA11 - 1	1062.75	0.00 0.05	-481.14 -703.20	0.00	11.37 -3.05	11.37	0.91 1.14	0.01 -0.01	2.23
VA11 - 2	1062.75	0.00 0.07	-1655.85 1135.59	1398.14	0.50 -0.48	0.50	2.55 0.75	0.00 0.00	-1.48
VA11 - 3	1062.75	0.00 0.07	1132.04 -1247.20	1132.04	-0.48 1.88	1.88	-1.81 2.89	0.00 0.00	-1.48
VA12 - 1	1062.75	-0.01 0.00	0.00 2410.26	2786.98	0.00 1.97	1.97	2.43 0.89	0.00 0.00	0.14
VA12 - 2	1062.75	-0.01 0.00	2413.81 0.00	2413.81	1.97 0.00	1.97	-1.95 2.99	0.00 0.00	0.14
VA13	1014.00	0.00 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.00
VA14 - 1	1062.75	0.00 0.03	0.00 3085.57	3085.57	0.00 -3.01	0.00	3.50 -2.38	0.00 0.00	1.25
VA14 - 2	1062.75	0.00 0.03	3086.62 0.00	3242.40	-3.01 0.00	0.00	0.58 2.63	0.00 0.00	1.25
VA15	1014.00	-0.02 0.00	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	0.43
VA16	1014.00	0.00 0.02	0.00 0.00	467.12	0.00 0.00	0.00	0.98 0.98	0.00 0.00	-0.93
VA17 - 1	1062.75	0.00 0.09	0.00 5422.74	5422.74	0.00 6.16	6.16	5.72 -4.61	-0.01 0.01	-6.91
VA17 - 2	1062.75	0.00 0.10	5421.69 0.00	5421.69	-5.68 0.00	0.00	-0.40 3.42	0.00 0.00	2.09
VA18	1062.75	0.00 0.08	-569.58 406.26	532.11	-25.42 32.04	32.04	1.53 0.52	-0.03 0.03	1.45
VA19	1062.75	0.00 0.01	0.00 0.00	140.55	0.00 0.00	0.00	0.56 0.56	0.00 0.00	-7.29
VA20	1062.75	-0.01 0.00	-12.91 0.00	483.84	-6.81 0.00	0.00	1.03 1.02	0.00 0.00	0.52
VA21 - 1	1062.75	0.00 0.21	-2275.85 3201.43	3201.43	30.31 -39.22	30.31	3.41 0.00	0.02 -0.02	6.90
VA21 - 2	1062.75	0.00 0.21	3203.29 -2049.35	3203.29	-34.20 -6.82	0.00	-1.37 3.61	-0.01 0.01	-2.77
VA22	1062.75	0.00 0.11	-864.88 -772.86	949.00	-13.71 17.60	17.60	1.96 1.91	-0.01 0.01	0.41
VA23	1062.75	0.00 0.03	0.00 0.00	1384.92	0.00 0.00	0.00	1.72 1.72	0.00 0.00	6.51
VA24 - 1	1111.50	0.00 0.14	-2571.39 -3394.70	1715.56	-77.92 48.22	48.22	3.09 3.37	-0.02 0.02	-5.86
VA24 - 2	1111.50	0.00	-3684.84	1875.36	5.01	31.05	3.52	0.00	-0.43

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		0.22	-3818.18		31.05		3.56	0.00	
VA25 - 1	1111.50	0.00 0.26	-4355.46 2313.68	2313.68	92.52 -41.03	92.52	4.55 -2.42	0.07 -0.07	4.50
VA25 - 2	1111.50	0.00 0.26	2317.68 -3055.16	2338.43	-41.03 -11.10	0.00	0.22 3.46	-0.01 0.01	4.50
VA25 - 3	1111.50	0.00 0.09	-2406.67 -654.21	771.26	-28.88 18.10	18.10	2.66 1.78	-0.01 0.01	-1.45

CASO: G1+G2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.29	-1307.04 1842.13	1842.13	-8.14 0.94	0.94	2.37 -0.87	0.00 0.00	1.34
VA1 - 2	772.50	0.00 0.30	1842.21 42.90	1842.21	0.94 -10.71	0.00	-1.31 2.12	0.01 -0.01	0.72
VA1 - 3	772.50	0.00 0.29	43.78 -2427.46	43.78	-10.71 10.57	10.57	-4.03 4.48	-0.04 0.04	0.73
VA1 - 4	772.50	0.00 0.05	-1988.27 256.84	721.30	14.70 -12.65	14.70	2.05 0.85	0.01 -0.01	0.39
VA1 - 5	772.50	0.00 0.04	258.33 -1557.15	258.33	-12.65 15.46	15.46	-3.33 3.73	-0.05 0.05	-2.56
VA1 - 6	772.50	-0.02 0.00	-1175.88 -305.13	332.10	12.53 -4.98	12.53	1.53 0.99	0.01 -0.01	-0.63
VA2	772.50	0.00 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-2.67
VA3 - 1	772.50	0.00 0.00	0.00 -1558.12	1110.30	0.00 1.27	1.27	1.31 2.03	0.00 0.00	0.76
VA3 - 2	772.50	0.00 0.00	-1564.64 5.32	5.32	5.74 0.00	5.74	1.61 -0.41	0.00 0.00	0.00
VA4 - 1	810.00	0.00 0.14	-1378.81 -1811.23	971.87	36.78 -12.85	36.78	1.95 2.12	0.01 -0.01	0.91
VA4 - 2	810.00	0.00 0.17	-1878.76 1586.51	1586.51	-6.03 -4.10	0.00	2.56 -0.96	0.00 0.00	-0.67
VA4 - 3	810.00	0.00 0.17	1586.43 1294.18	1586.43	-4.10 1.21	0.00	-0.81 1.06	-0.02 0.02	-0.67
VA4 - 4	810.00	0.00 0.17	1294.19 -230.55	1294.19	1.21 15.38	15.38	-1.77 2.37	-0.02 0.02	-0.67
VA4 - 5	810.00	0.00 0.17	-231.39 -3095.07	0.00	15.38 -2.24	15.38	-4.91 5.36	0.03 -0.03	-4.16
VA4 - 6	810.00	0.00 0.08	-3132.13 -130.14	0.00	-9.17 0.87	0.87	3.39 -2.58	-0.01 0.01	0.92
VA4 - 7	810.00	0.00 0.08	-129.84 1411.65	1411.65	0.87 -1.17	0.87	1.87 -1.00	0.00 0.00	-0.17
VA4 - 8	810.00	0.00 0.08	1410.97 744.04	1460.17	-1.17 12.30	0.00	0.29 1.08	-0.01 0.01	-0.17
VA4 - 9	810.00	0.00 0.08	749.06 -2473.59	749.06	12.30 -16.87	12.30	-5.24 5.72	0.05 -0.05	-0.17
VA4 - 10	810.00	-0.01 0.00	-2192.26 -186.85	0.00	-7.08 1.95	1.95	2.46 -1.67	-0.01 0.01	1.43
VA4 - 11	810.00	-0.01 0.00	-181.53 393.96	393.96	1.95 5.04	5.04	1.27 -0.82	-0.01 0.01	1.43
VA4 - 12	810.00	-0.01 0.00	394.36 -688.92	394.36	5.04 -6.88	5.04	0.08 1.33	0.01 -0.01	1.43
VA4 - 13	810.00	0.00 0.05	-712.59 -337.15	363.23	-1.74 -7.21	0.00	1.32 1.07	0.00 0.00	-1.64
VA5 - 1	772.50	0.00 0.05	-404.50 553.20	688.63	1.14 0.96	1.14	1.30 0.46	0.00 0.00	-0.47
VA5 - 2	772.50	0.00 0.05	553.19 -1606.02	553.19	0.96 -2.12	0.96	-1.17 2.17	0.00 0.00	-0.47
VA5 - 3	772.50	0.00 0.08	-2011.02 313.58	313.58	3.04 -1.93	3.04	2.70 -1.92	0.00 0.00	0.52


VA5 - 4	772.50	0.00 0.08	313.28 1172.10	1172.10	-1.93 4.80	0.00	1.21 -0.38	-0.01 0.01	0.52
VA5 - 5	772.50	0.00 0.08	1172.78 -1570.24	1172.78	4.80 -3.46	4.80	-0.33 2.08	0.00 0.00	0.52
VA5 - 6	772.50	0.00 0.07	-1473.24 679.79	679.79	9.08 -11.33	9.08	2.00 -0.83	0.01 -0.01	-0.46
VA5 - 7	772.50	0.00 0.07	679.39 -161.86	679.39	-10.29 -11.79	0.00	0.08 1.14	0.00 0.00	-9.43
VA6 - 1	772.50	0.00 0.02	6.97 616.63	650.03	-7.63 -11.12	0.00	1.00 0.24	0.00 0.00	1.48
VA6 - 2	772.50	0.00 0.02	621.37 -2565.04	621.37	-11.12 23.80	23.80	-1.49 2.67	-0.02 0.02	1.48
VA7 - 1	772.50	-0.06 0.00	-775.56 1577.88	1577.88	-33.63 2.81	2.81	2.10 -0.89	-0.02 0.02	-3.05
VA7 - 2	772.50	-0.06 0.00	1573.14 0.00	1573.14	2.81 0.00	2.81	-0.36 1.60	0.00 0.00	-3.05
VA8 - 1	866.25	0.00 0.49	-3684.78 -6633.55	2926.92	-4.67 0.65	0.65	3.39 4.07	0.00 0.00	-1.33
VA8 - 2	866.25	0.00 0.73	-8809.89 -5717.23	4864.68	11.16 -3.23	11.16	4.87 4.28	0.00 0.00	1.07
VA9 - 1	810.00	0.00 0.13	-1725.00 -2603.17	1264.80	33.99 -27.88	33.99	2.20 2.50	0.01 -0.01	2.95
VA9 - 2	810.00	0.00 0.18	-2709.60 -2633.63	1428.59	-14.49 9.56	9.56	2.59 2.57	0.00 0.00	-0.26
VA10 - 1	810.00	0.00 0.10	-2096.51 -1620.22	905.68	21.88 -31.67	21.88	2.21 2.02	0.01 -0.01	0.42
VA10 - 2	810.00	0.00 0.05	-1310.02 -733.29	605.88	-39.94 25.21	25.21	1.76 1.47	-0.02 0.02	-3.41
VA11 - 1	772.50	0.00 0.02	-204.89 -587.97	0.00	2.36 4.06	4.06	0.55 0.94	0.00 0.00	1.63
VA11 - 2	772.50	0.00 0.04	-1098.71 702.18	951.19	-3.71 1.60	1.60	1.78 0.62	0.00 0.00	-1.11
VA11 - 3	772.50	0.00 0.04	699.50 -1104.37	699.50	1.60 6.18	6.18	-1.39 2.17	0.00 0.00	-1.11
VA12 - 1	772.50	-0.02 0.00	0.00 1751.91	2025.77	0.00 2.09	2.09	1.77 0.65	0.00 0.00	0.09
VA12 - 2	772.50	-0.02 0.00	1754.59 0.00	1754.59	2.09 0.00	2.09	-1.42 2.17	0.00 0.00	0.09
VA13	735.00	0.00 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.01
VA14 - 1	772.50	0.00 0.05	0.00 2242.86	2242.86	0.00 -1.32	0.00	2.54 -1.73	0.00 0.00	0.88
VA14 - 2	772.50	0.00 0.05	2243.62 0.00	2356.86	-1.32 0.00	0.00	0.42 1.91	0.00 0.00	0.88
VA15	735.00	-0.01 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.30
VA16	735.00	0.00 0.01	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.68
VA17 - 1	772.50	0.00 0.06	0.00 3941.72	3941.72	0.00 2.51	2.51	4.16 -3.35	0.00 0.00	-5.02
VA17 - 2	772.50	0.00 0.06	3940.96 0.00	3940.96	-1.96 0.00	0.00	-0.29 2.48	0.00 0.00	1.49
VA18	772.50	0.00 0.05	-285.23 165.87	335.79	-10.53 14.14	14.14	0.98 0.51	-0.01 0.01	1.05
VA19	772.50	0.00 0.00	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-5.32
VA20	772.50	-0.01 0.00	-8.98 0.00	351.88	-1.04 0.00	0.00	0.75 0.74	0.00 0.00	0.40
VA21 - 1	772.50	0.00 0.15	-1583.22 2314.35	2314.35	24.82 -30.46	24.82	2.45 0.02	0.02 -0.02	4.98
VA21 - 2	772.50	0.00 0.15	2315.83 -1567.73	2315.83	-22.83 -9.37	0.00	-1.02 2.65	-0.01 0.01	-1.99
VA22	772.50	0.00	-487.98	676.95	-8.17	10.71	1.34	-0.01	0.26

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		0.08	-728.21		10.71		1.47	0.01	
VA23	772.50	0.00 0.02	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.74
VA24 - 1	810.00	0.00 0.12	-1762.43 -2571.18	1260.88	-51.07 31.66	31.66	2.21 2.49	-0.01 0.01	-4.28
VA24 - 2	810.00	0.00 0.17	-2608.12 -2859.86	1369.05	5.53 20.89	20.89	2.54 2.62	0.00 0.00	-0.28
VA25 - 1	810.00	0.00 0.20	-3079.35 1707.18	1707.18	70.37 -30.16	70.37	3.28 -1.73	0.05 -0.05	3.27
VA25 - 2	810.00	0.00 0.20	1710.23 -2306.14	1719.05	-30.16 -11.13	0.00	0.13 2.55	-0.01 0.01	3.27
VA25 - 3	810.00	0.00 0.07	-1634.11 -616.65	531.48	-12.88 1.57	1.57	1.87 1.36	0.00 0.00	-1.08

CASO: G1+G2+0.84V1+1.4D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.33	-553.41 1843.73	1843.73	-10.72 1.10	1.10	1.98 -0.48	-0.01 0.01	1.43
VA1 - 2	772.50	0.00 0.34	1844.01 -361.37	1844.01	1.10 -10.07	1.10	-1.69 2.50	0.01 -0.01	0.80
VA1 - 3	772.50	0.00 0.33	-360.13 -3056.03	0.00	-10.07 8.78	8.78	-4.41 4.86	-0.03 0.03	0.40
VA1 - 4	772.50	0.00 0.06	-1560.42 -60.89	644.94	14.03 -11.37	14.03	1.85 1.05	0.01 -0.01	-0.07
VA1 - 5	772.50	0.00 0.06	-59.49 -1977.21	0.00	-11.37 13.19	13.19	-3.53 3.93	-0.05 0.05	0.54
VA1 - 6	772.50	-0.04 0.00	-521.34 -1089.48	242.05	12.28 -3.96	12.28	1.09 1.43	0.00 0.00	-0.56
VA2	772.50	0.00 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-2.38
VA3 - 1	772.50	0.00 0.00	0.00 -1556.59	1110.88	0.00 2.13	2.13	1.31 2.03	0.00 0.00	0.66
VA3 - 2	772.50	0.00 0.00	-1563.93 6.03	6.03	2.76 0.00	2.76	1.61 -0.41	0.00 0.00	0.00
VA4 - 1	810.00	0.00 0.33	-355.61 -2203.15	1365.21	15.15 -2.07	15.15	1.67 2.40	0.00 0.00	0.90
VA4 - 2	810.00	0.00 0.30	-1593.68 1219.38	1219.38	-5.29 -4.95	0.00	2.23 -0.63	0.00 0.00	0.95
VA4 - 3	810.00	0.00 0.30	1219.11 823.17	1219.11	-4.95 0.40	0.00	-1.14 1.39	-0.02 0.02	0.95
VA4 - 4	810.00	0.00 0.30	822.93 -945.96	822.93	0.40 14.66	14.66	-2.10 2.70	-0.02 0.02	0.95
VA4 - 5	810.00	0.00 0.30	-947.11 -3995.68	0.00	14.66 -1.55	14.66	-5.24 5.69	0.03 -0.03	-13.31
VA4 - 6	810.00	0.00 0.22	-2306.47 414.37	414.37	-9.10 0.67	0.67	3.11 -2.30	-0.01 0.01	-2.56
VA4 - 7	810.00	0.00 0.22	414.55 1655.23	1655.23	0.67 -0.11	0.00	1.59 -0.72	0.00 0.00	0.90
VA4 - 8	810.00	0.00 0.22	1654.51 516.02	1654.51	-0.11 11.91	0.00	0.01 1.36	-0.01 0.01	0.90
VA4 - 9	810.00	0.00 0.22	521.96 -2865.07	521.96	11.91 -14.29	11.91	-5.52 5.99	0.04 -0.04	0.90
VA4 - 10	810.00	0.00 0.11	-1962.51 -172.39	0.00	-15.06 3.57	3.57	2.24 -1.45	-0.02 0.02	1.45
VA4 - 11	810.00	0.00 0.11	-166.37 287.05	287.05	3.57 13.15	13.15	1.05 -0.60	-0.02 0.02	1.45
VA4 - 12	810.00	0.00 0.11	287.35 -1183.12	287.35	13.15 -13.26	13.15	-0.14 1.55	0.02 -0.02	1.45
VA4 - 13	810.00	0.00 0.02	457.30 -1914.33	549.14	-12.25 18.75	18.75	0.39 2.00	-0.01 0.01	-1.59

VA5 - 1	772.50	0.00 0.04	132.41 338.04	740.34	-5.47 1.24	0.00	0.97 0.79	0.00 0.00	-0.53
VA5 - 2	772.50	0.00 0.04	338.28 -2248.85	338.28	1.24 2.16	2.16	-1.50 2.50	0.00 0.00	-0.53
VA5 - 3	772.50	0.00 0.07	-1551.25 599.07	599.07	0.55 -2.12	0.55	2.53 -1.75	0.00 0.00	0.55
VA5 - 4	772.50	0.00 0.07	598.89 1271.25	1271.25	-2.12 4.31	0.00	1.04 -0.21	-0.01 0.01	0.55
VA5 - 5	772.50	0.00 0.07	1271.97 -1865.39	1271.97	4.31 0.03	4.31	-0.50 2.26	0.00 0.00	0.55
VA5 - 6	772.50	0.00 0.02	-1137.13 605.56	605.56	-0.77 -6.45	0.00	1.73 -0.56	0.00 0.00	-0.46
VA5 - 7	772.50	0.00 0.02	605.26 -662.14	605.26	-14.77 30.90	30.90	-0.19 1.41	-0.03 0.03	-8.34
VA6 - 1	772.50	-0.01 0.00	11.45 37.67	272.32	-44.33 -18.58	0.00	0.64 0.60	-0.02 0.02	1.24
VA6 - 2	772.50	-0.01 0.00	42.32 -3702.74	42.32	-18.58 47.26	47.26	-1.85 3.03	-0.04 0.04	1.24
VA7 - 1	772.50	-0.15 0.00	9.89 1975.16	1975.16	-49.52 -3.71	0.00	1.86 -0.64	-0.03 0.03	-2.67
VA7 - 2	772.50	-0.15 0.00	1970.51 0.00	1970.51	-3.71 0.00	0.00	-0.60 1.85	0.00 0.00	-2.67
VA8 - 1	866.25	0.00 0.51	-2762.70 -7398.35	3106.47	23.65 -5.70	23.65	3.19 4.27	0.00 0.00	-1.33
VA8 - 2	866.25	0.00 0.68	-8157.06 -6525.65	4752.92	18.06 -28.59	18.06	4.73 4.42	0.00 0.00	1.16
VA9 - 1	810.00	0.00 0.14	-1702.76 -2627.03	1264.78	5.40 1.32	5.40	2.19 2.51	0.00 0.00	-0.96
VA9 - 2	810.00	0.00 0.20	-2731.36 -2631.05	1419.39	8.66 14.72	14.72	2.59 2.56	0.00 0.00	-0.32
VA10 - 1	810.00	0.00 0.12	-2112.29 -1611.04	903.34	28.50 -30.33	28.50	2.21 2.02	0.01 -0.01	2.43
VA10 - 2	810.00	0.00 0.06	-1330.02 -705.85	610.85	-29.83 1.07	1.07	1.77 1.46	-0.01 0.01	-0.90
VA11 - 1	772.50	0.00 0.02	-210.83 -571.26	0.00	2.85 -1.58	2.85	0.56 0.93	0.00 0.00	2.77
VA11 - 2	772.50	0.00 0.04	-1086.34 698.97	952.14	-0.69 0.65	0.65	1.77 0.63	0.00 0.00	-2.02
VA11 - 3	772.50	0.00 0.04	696.59 -1112.36	696.59	0.65 4.32	4.32	-1.39 2.18	0.00 0.00	-2.02
VA12 - 1	772.50	-0.02 0.00	0.00 1752.14	2025.94	0.00 2.38	2.38	1.77 0.65	0.00 0.00	0.28
VA12 - 2	772.50	-0.02 0.00	1754.52 0.00	1754.52	2.38 0.00	2.38	-1.42 2.17	0.00 0.00	0.28
VA13	735.00	0.00 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.24
VA14 - 1	772.50	0.00 0.04	0.00 2243.16	2243.16	0.00 -0.88	0.00	2.54 -1.73	0.00 0.00	1.25
VA14 - 2	772.50	0.00 0.04	2243.82 0.00	2357.02	-0.88 0.00	0.00	0.42 1.91	0.00 0.00	1.25
VA15	735.00	-0.01 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.18
VA16	735.00	0.00 0.01	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.72
VA17 - 1	772.50	0.00 0.05	0.00 3941.43	3941.43	0.00 1.03	1.03	4.16 -3.35	0.00 0.00	-5.94
VA17 - 2	772.50	0.00 0.05	3940.77 0.00	3940.77	0.41 0.00	0.41	-0.29 2.48	0.00 0.00	1.40
VA18	772.50	0.00 0.05	-300.17 183.68	342.68	-2.27 3.92	3.92	1.00 0.50	0.00 0.00	1.39
VA19	772.50	0.00 0.00	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-6.03
VA20	772.50	-0.03	-7.88	352.37	8.33	8.33	0.75	0.00	0.30


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		0.00	0.00		0.00		0.74	0.00	
VA21 - 1	772.50	0.00 0.10	-1460.19 1990.30	2007.67	32.28 -30.71	32.28	2.31 0.16	0.02 -0.02	7.42
VA21 - 2	772.50	0.00 0.09	1991.54 -1417.18	1991.54	13.62 -45.80	13.62	-0.80 2.43	0.03 -0.03	-4.04
VA22	772.50	0.00 0.06	-503.27 -720.32	673.25	-6.75 9.39	9.39	1.35 1.47	0.00 0.00	-0.17
VA23	772.50	0.00 0.03	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.65
VA24 - 1	810.00	0.00 0.10	-1735.54 -2588.94	1266.22	-74.35 53.35	53.35	2.21 2.50	-0.02 0.02	-8.12
VA24 - 2	810.00	0.00 0.13	-2540.18 -2924.59	1372.80	17.35 59.45	59.45	2.52 2.64	-0.01 0.01	-0.27
VA25 - 1	810.00	0.00 0.21	-3174.21 1886.77	1886.77	138.56 -97.56	138.56	3.42 -1.87	0.12 -0.12	6.29
VA25 - 2	810.00	0.00 0.21	1889.44 -2469.81	1889.44	-97.56 1.93	1.93	0.02 2.66	-0.03 0.03	6.29
VA25 - 3	810.00	0.00 0.06	-1619.80 -673.71	504.47	12.05 -14.55	12.05	1.86 1.38	0.01 -0.01	0.38

**CASO: G1+G2+0.84V2+1.4D2**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.26	-2060.67 1840.52	1840.52	-5.55 0.79	0.79	2.76 -1.25	0.00 0.00	1.24
VA1 - 2	772.50	0.00 0.26	1840.41 447.18	1840.41	0.79 -11.35	0.00	-0.92 1.73	0.01 -0.01	0.64
VA1 - 3	772.50	0.00 0.26	447.70 -1798.90	447.70	-11.35 12.35	12.35	-3.64 4.09	-0.04 0.04	1.05
VA1 - 4	772.50	0.00 0.04	-2416.13 574.58	847.41	15.37 -13.93	15.37	2.25 0.65	0.01 -0.01	0.86
VA1 - 5	772.50	0.00 0.03	576.14 -1137.08	576.14	-13.93 17.73	17.73	-3.13 3.53	-0.06 0.06	-5.66
VA1 - 6	772.50	0.00 0.00	-1830.43 479.23	672.82	12.77 -6.00	12.77	1.97 0.55	0.01 -0.01	-0.69
VA2	772.50	0.00 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-2.97
VA3 - 1	772.50	0.00 0.00	0.00 -1559.64	1109.72	0.00 0.42	0.42	1.31 2.03	0.00 0.00	0.86
VA3 - 2	772.50	0.00 0.00	-1565.34 4.62	4.62	8.72 0.00	8.72	1.61 -0.41	0.01 -0.01	0.00
VA4 - 1	810.00	-0.04 0.00	-2402.00 -1419.30	673.74	58.41 -23.63	58.41	2.23 1.84	0.02 -0.02	0.93
VA4 - 2	810.00	0.00 0.04	-2163.84 1953.64	1953.64	-6.77 -3.24	0.00	2.89 -1.29	0.00 0.00	-2.30
VA4 - 3	810.00	0.00 0.04	1953.74 1765.19	1953.74	-3.24 2.01	0.00	-0.48 0.73	-0.02 0.02	-2.30
VA4 - 4	810.00	0.00 0.04	1765.45 484.87	1765.45	2.01 16.11	0.00	-1.44 2.04	-0.02 0.02	-2.30
VA4 - 5	810.00	0.00 0.04	484.33 -2194.45	484.33	16.11 -2.94	16.11	-4.58 5.03	0.03 -0.03	5.00
VA4 - 6	810.00	-0.05 0.00	-3957.79 -674.64	0.00	-9.24 1.08	1.08	3.67 -2.86	-0.01 0.01	4.40
VA4 - 7	810.00	-0.05 0.00	-674.23 1168.07	1168.07	1.08 -2.23	1.08	2.15 -1.28	0.00 0.00	-1.24
VA4 - 8	810.00	-0.05 0.00	1167.42 972.05	1364.08	-2.23 12.69	0.00	0.57 0.80	-0.01 0.01	-1.24
VA4 - 9	810.00	-0.05 0.00	976.16 -2082.12	976.16	12.69 -19.45	12.69	-4.96 5.44	0.05 -0.05	-1.24
VA4 - 10	810.00	-0.12 0.00	-2422.01 -201.31	0.00	0.90 0.33	0.90	2.68 -1.90	0.00 0.00	1.41



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VA4 - 11	810.00	-0.12 0.00	-196.69 500.87	500.87	0.33 -3.07	0.33	1.49 -1.05	0.01 -0.01	1.41
VA4 - 12	810.00	-0.13 0.00	501.38 -194.71	557.26	-3.07 -0.50	0.00	0.30 1.10	0.00 0.00	1.41
VA4 - 13	810.00	0.00 0.07	-1882.49 1240.03	1250.26	8.77 -33.18	8.77	2.25 0.13	0.01 -0.01	-1.70
VA5 - 1	772.50	0.00 0.06	-941.41 768.37	778.19	7.74 0.68	7.74	1.63 0.13	0.00 0.00	-0.41
VA5 - 2	772.50	0.00 0.06	768.10 -963.19	768.10	0.68 -6.39	0.68	-0.84 1.84	0.01 -0.01	-0.41
VA5 - 3	772.50	0.00 0.10	-2470.78 28.09	28.09	5.52 -1.75	5.52	2.87 -2.10	0.01 -0.01	0.49
VA5 - 4	772.50	0.00 0.10	27.66 1072.94	1072.94	-1.75 5.29	0.00	1.39 -0.56	-0.01 0.01	0.49
VA5 - 5	772.50	0.00 0.10	1073.59 -1275.09	1073.59	5.29 -6.94	5.29	-0.15 1.91	0.01 -0.01	0.49
VA5 - 6	772.50	0.00 0.11	-1809.35 754.03	754.03	18.94 -16.21	18.94	2.27 -1.10	0.02 -0.02	-0.45
VA5 - 7	772.50	0.00 0.11	753.52 338.43	832.10	-5.80 -54.49	0.00	0.35 0.87	0.03 -0.03	-10.52
VA6 - 1	772.50	0.00 0.06	2.48 1195.59	1195.59	29.06 -3.66	29.06	1.36 -0.13	0.02 -0.02	1.72
VA6 - 2	772.50	0.00 0.06	1200.42 -1427.35	1200.42	-3.66 0.34	0.34	-1.12 2.31	0.00 0.00	1.72
VA7 - 1	772.50	0.00 0.04	-1561.01 1180.61	1180.61	-17.74 9.34	9.34	2.35 -1.14	-0.02 0.02	-3.43
VA7 - 2	772.50	0.00 0.04	1175.78 0.00	1175.78	9.34 0.00	9.34	-0.11 1.35	0.01 -0.01	-3.43
VA8 - 1	866.25	0.00 0.47	-4606.86 -5868.76	2794.79	-32.99 6.99	6.99	3.58 3.87	0.00 0.00	-1.33
VA8 - 2	866.25	0.00 0.78	-9462.71 -4908.81	4998.68	4.26 22.13	22.13	5.01 4.14	0.00 0.00	0.99
VA9 - 1	810.00	0.00 0.12	-1747.24 -2579.32	1264.81	62.57 -57.08	62.57	2.21 2.50	0.02 -0.02	6.86
VA9 - 2	810.00	0.00 0.16	-2687.84 -2636.21	1437.79	-37.64 4.40	4.40	2.59 2.57	-0.01 0.01	-0.21
VA10 - 1	810.00	0.00 0.09	-2080.73 -1629.40	908.02	15.27 -33.01	15.27	2.20 2.03	0.01 -0.01	-1.60
VA10 - 2	810.00	0.00 0.05	-1290.02 -760.73	600.91	-50.06 49.34	49.34	1.75 1.49	-0.02 0.02	-5.92
VA11 - 1	772.50	0.00 0.03	-198.96 -604.68	0.00	1.86 9.70	9.70	0.54 0.96	0.00 0.00	0.49
VA11 - 2	772.50	0.00 0.03	-1111.07 705.38	950.25	-6.72 2.55	2.55	1.78 0.62	0.00 0.00	-0.20
VA11 - 3	772.50	0.00 0.03	702.41 -1096.38	702.41	2.55 8.04	8.04	-1.38 2.17	-0.01 0.01	-0.20
VA12 - 1	772.50	-0.01 0.00	0.00 1751.69	2025.60	0.00 1.81	1.81	1.77 0.65	0.00 0.00	-0.11
VA12 - 2	772.50	-0.01 0.00	1754.66 0.00	1754.66	1.81 0.00	1.81	-1.42 2.17	0.00 0.00	-0.11
VA13	735.00	0.00 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.27
VA14 - 1	772.50	0.00 0.05	0.00 2242.56	2242.56	0.00 -1.77	0.00	2.54 -1.73	0.00 0.00	0.52
VA14 - 2	772.50	0.00 0.05	2243.42 0.00	2356.70	-1.77 0.00	0.00	0.42 1.91	0.00 0.00	0.52
VA15	735.00	-0.01 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.42
VA16	735.00	0.00 0.01	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.65
VA17 - 1	772.50	0.00 0.06	0.00 3942.02	3942.02	0.00 3.98	3.98	4.16 -3.35	0.00 0.00	-4.11
VA17 - 2	772.50	0.00	3941.16	3941.16	-4.33	0.00	-0.29	0.00	1.59



		0.07	0.00		0.00		2.48	0.00	
VA18	772.50	0.00 0.05	-270.29 148.05	328.89	-18.79 24.36	24.36	0.96 0.53	-0.02 0.02	0.72
VA19	772.50	0.00 0.01	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-4.62
VA20	772.50	0.00 0.01	-10.08 0.00	351.39	-10.41 0.00	0.00	0.75 0.74	-0.01 0.01	0.51
VA21 - 1	772.50	0.00 0.19	-1706.25 2638.40	2638.40	17.36 -30.21	17.36	2.59 -0.11	0.01 -0.01	2.54
VA21 - 2	772.50	0.00 0.21	2640.12 -1718.28	2640.12	-59.28 27.06	27.06	-1.25 2.88	-0.04 0.04	0.07
VA22	772.50	0.00 0.10	-472.69 -736.09	680.66	-9.59 12.02	12.02	1.34 1.48	-0.01 0.01	0.70
VA23	772.50	0.00 0.02	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.83
VA24 - 1	810.00	0.00 0.13	-1789.33 -2553.42	1255.54	-27.78 9.97	9.97	2.22 2.48	-0.01 0.01	-0.45
VA24 - 2	810.00	0.00 0.20	-2676.07 -2795.14	1365.30	-6.29 -17.68	0.00	2.56 2.60	0.00 0.00	-0.29
VA25 - 1	810.00	0.00 0.19	-2984.48 1527.60	1527.60	2.18 37.24	37.24	3.13 -1.58	-0.02 0.02	0.25
VA25 - 2	810.00	0.00 0.18	1531.03 -2142.47	1561.27	37.24 -24.20	37.24	0.23 2.45	0.02 -0.02	0.25
VA25 - 3	810.00	0.00 0.08	-1648.42 -559.59	558.49	-37.82 17.70	17.70	1.89 1.35	-0.01 0.01	-2.55

CASO: G1+G2+0.84V3+1.4D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.29	-1227.51 1849.06	1849.06	32.75 -3.45	32.75	2.33 -0.83	0.02 -0.02	3.14
VA1 - 2	772.50	0.00 0.29	1849.05 10.40	1849.05	-3.45 -81.87	0.00	-1.34 2.16	0.07 -0.07	2.53
VA1 - 3	772.50	0.00 0.29	11.14 -2481.86	11.14	-81.87 -11.60	0.00	-4.06 4.51	-0.12 0.12	2.51
VA1 - 4	772.50	0.00 0.04	-1938.49 224.46	711.74	-3.64 9.56	9.56	2.02 0.87	0.00 0.00	-0.52
VA1 - 5	772.50	0.00 0.04	225.80 -1600.94	225.80	9.56 0.39	9.56	-3.35 3.75	0.02 -0.02	-3.10
VA1 - 6	772.50	-0.03 0.00	-1094.90 -419.63	296.88	5.35 0.48	5.35	1.47 1.05	0.00 0.00	-2.25
VA2	772.50	0.00 0.01	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-3.20
VA3 - 1	772.50	0.00 0.00	0.00 -1558.14	1110.29	0.00 9.24	9.24	1.31 2.03	0.00 0.00	0.74
VA3 - 2	772.50	0.00 0.00	-1564.52 5.44	5.44	-9.46 0.00	0.00	1.61 -0.41	-0.01 0.01	0.00
VA4 - 1	810.00	0.00 0.11	-1399.53 -1796.76	968.03	20.71 -18.74	20.71	1.96 2.12	0.01 -0.01	0.47
VA4 - 2	810.00	0.00 0.10	-1867.83 1580.38	1580.38	52.67 -23.59	52.67	2.55 -0.95	0.04 -0.04	4.30
VA4 - 3	810.00	0.00 0.11	1580.40 1285.48	1580.40	-23.59 -18.05	0.00	-0.82 1.07	-0.02 0.02	4.30
VA4 - 4	810.00	0.00 0.11	1285.53 -245.50	1285.53	-18.05 9.52	9.52	-1.78 2.38	-0.04 0.04	4.30
VA4 - 5	810.00	0.00 0.11	-246.29 -3114.72	0.00	9.52 -80.97	9.52	-4.92 5.37	0.16 -0.16	0.59
VA4 - 6	810.00	0.00 0.02	-3156.75 -144.32	0.00	-53.83 -39.15	0.00	3.40 -2.59	-0.01 0.01	-2.67
VA4 - 7	810.00	0.00 0.02	-144.03 1408.63	1408.63	-39.15 -6.21	0.00	1.88 -1.01	-0.03 0.03	-3.88

VA4 - 8	810.00	0.00 0.02	1407.90 758.47	1461.48	-6.21 25.44	0.00	0.30 1.07	-0.02 0.02	-3.88
VA4 - 9	810.00	0.00 0.01	763.49 -2453.06	763.49	25.44 47.11	47.11	-5.23 5.70	-0.04 0.04	-3.88
VA4 - 10	810.00	-0.03 0.00	-2150.08 -168.74	0.00	9.15 7.96	9.15	2.44 -1.65	0.00 0.00	1.75
VA4 - 11	810.00	-0.03 0.00	-163.30 398.54	398.54	7.96 10.63	10.63	1.24 -0.80	0.00 0.00	1.75
VA4 - 12	810.00	-0.02 0.00	399.09 -729.57	399.09	10.63 -11.67	10.63	0.06 1.35	0.01 -0.01	1.75
VA4 - 13	810.00	0.00 0.02	-732.21 -337.57	354.58	-9.06 -28.64	0.00	1.33 1.06	0.01 -0.01	-1.64
VA5 - 1	772.50	0.00 0.09	-416.19 566.01	694.76	41.99 -5.89	41.99	1.31 0.45	0.02 -0.02	3.01
VA5 - 2	772.50	0.00 0.09	565.97 -1579.31	565.97	-5.89 -58.67	0.00	-1.16 2.16	0.04 -0.04	3.01
VA5 - 3	772.50	0.00 0.13	-2017.54 308.80	308.80	-48.28 -21.44	0.00	2.70 -1.93	-0.03 0.03	-2.52
VA5 - 4	772.50	0.00 0.13	308.54 1169.23	1169.23	-21.44 -10.16	0.00	1.22 -0.38	-0.01 0.01	-2.52
VA5 - 5	772.50	0.00 0.13	1169.95 -1569.12	1169.95	-10.16 40.68	40.68	-0.33 2.08	-0.02 0.02	-2.52
VA5 - 6	772.50	0.00 0.06	-1510.88 675.79	675.79	6.62 -5.43	6.62	2.03 -0.85	0.01 -0.01	-1.45
VA5 - 7	772.50	0.00 0.05	675.25 -128.98	678.67	-18.75 -3.36	0.00	0.10 1.12	-0.01 0.01	-7.98
VA6 - 1	772.50	0.00 0.02	6.63 664.58	690.73	-26.50 -15.39	0.00	1.03 0.21	-0.01 0.01	2.32
VA6 - 2	772.50	0.00 0.02	669.37 -2470.81	669.37	-15.39 33.78	33.78	-1.46 2.64	-0.03 0.03	2.32
VA7 - 1	772.50	-0.05 0.00	-849.42 1540.55	1540.55	-42.06 -1.30	0.00	2.13 -0.91	-0.03 0.03	-4.07
VA7 - 2	772.50	-0.05 0.00	1535.76 0.00	1535.76	-1.30 0.00	0.00	-0.33 1.58	0.00 0.00	-4.07
VA8 - 1	866.25	0.00 0.51	-3657.74 -6667.48	2926.18	-1.73 -12.67	0.00	3.38 4.08	0.00 0.00	0.98
VA8 - 2	866.25	0.00 0.75	-8827.79 -5709.94	4860.35	-6.65 2.32	2.32	4.87 4.28	0.00 0.00	-0.74
VA9 - 1	810.00	0.00 0.18	-1090.39 -3157.26	1370.56	-2.77 -2.58	0.00	2.00 2.71	0.00 0.00	2.99
VA9 - 2	810.00	0.00 0.22	-2270.02 -3079.92	1437.08	-28.22 26.45	26.45	2.45 2.71	-0.01 0.01	-0.13
VA10 - 1	810.00	0.00 0.13	-1586.11 -2083.82	929.91	4.36 -27.54	4.36	2.02 2.21	0.01 -0.01	0.33
VA10 - 2	810.00	0.00 0.04	-646.40 -1522.83	561.11	-68.43 92.43	92.43	1.40 1.84	-0.04 0.04	-3.56
VA11 - 1	772.50	-0.02 0.00	625.88 -1046.18	625.88	-32.29 39.77	39.77	-0.12 1.61	-0.04 0.04	1.67
VA11 - 2	772.50	-0.05 0.00	-510.98 11.07	697.24	-25.70 12.45	12.45	1.37 1.03	-0.01 0.01	-1.29
VA11 - 3	772.50	-0.05 0.00	7.87 -2213.18	7.87	12.45 33.03	33.03	-1.80 2.58	-0.02 0.02	-1.29
VA12 - 1	772.50	-0.06 0.00	0.00 1751.52	2025.48	0.00 5.98	5.98	1.77 0.65	0.00 0.00	-0.02
VA12 - 2	772.50	-0.06 0.00	1754.71 0.00	1754.71	5.98 0.00	5.98	-1.42 2.17	0.01 -0.01	-0.02
VA13	735.00	0.00 0.02	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.05
VA14 - 1	772.50	0.00 0.20	0.00 2242.86	2242.86	0.00 3.47	3.47	2.54 -1.73	0.00 0.00	0.75
VA14 - 2	772.50	0.00 0.20	2243.61 0.00	2356.85	3.47 0.00	3.47	0.42 1.91	0.00 0.00	0.75
VA15	735.00	0.00	0.00	338.60	0.00	0.00	0.71	0.00	0.26



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		0.02	0.00		0.00		0.71	0.00	
VA16	735.00	-0.01 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.72
VA17 - 1	772.50	-0.02 0.00	0.00 3941.72	3941.72	0.00 -8.47	0.00	4.16 -3.35	0.01 -0.01	-5.01
VA17 - 2	772.50	-0.02 0.00	3940.98 0.00	3940.98	10.24 0.00	10.24	-0.29 2.48	0.00 0.00	1.36
VA18	772.50	0.00 0.01	456.55 -578.43	483.90	33.36 -37.00	33.36	0.21 1.28	0.04 -0.04	1.04
VA19	772.50	-0.01 0.00	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-5.44
VA20	772.50	-0.02 0.00	-6.53 0.00	352.97	13.32 0.00	13.32	0.75 0.74	0.01 -0.01	0.54
VA21 - 1	772.50	0.00 0.15	-1115.23 2241.53	2264.76	40.74 -42.75	40.74	2.29 0.19	0.03 -0.03	4.80
VA21 - 2	772.50	0.00 0.14	2243.85 -2059.17	2243.85	-16.25 -21.37	0.00	-1.22 2.85	0.00 0.00	-1.83
VA22	772.50	0.00 0.06	328.17 -1695.14	797.34	1.49 -1.21	1.49	0.85 1.96	0.00 0.00	0.10
VA23	772.50	0.00 0.03	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.79
VA24 - 1	810.00	0.00 0.18	-1012.52 -3226.81	1387.43	-20.14 12.51	12.51	1.97 2.73	-0.01 0.01	-4.23
VA24 - 2	810.00	0.00 0.21	-2086.73 -3385.75	1391.44	15.02 10.78	15.02	2.37 2.78	0.00 0.00	-0.12
VA25 - 1	810.00	0.00 0.22	-2460.94 1868.94	1868.94	79.78 -26.26	79.78	3.04 -1.49	0.06 -0.06	3.16
VA25 - 2	810.00	0.00 0.22	1873.00 -2855.96	1873.00	-26.26 -32.94	0.00	-0.09 2.77	0.00 0.00	3.16
VA25 - 3	810.00	0.00 0.06	-834.25 -1550.49	440.71	30.97 -56.84	30.97	1.44 1.80	0.02 -0.02	-1.27

<b>CASO: G1+G2+0.84V4+1.4D4</b>									
<b>Elemento</b>	<b>Carga (kgf/m)</b>	<b>Rd Nd (tf)</b>	<b>Mxi Mxf (kgf.m)</b>	<b>MxMáx (kgf.m)</b>	<b>Myi Myf (kgf.m)</b>	<b>MyMáx (kgf.m)</b>	<b>Vxi Vxf (tf)</b>	<b>Vyi Vyf (tf)</b>	<b>Mtd (kgf/m)</b>
VA1 - 1	772.50	0.00 0.30	-1386.57 1835.19	1835.19	-49.02 5.34	5.34	2.41 -0.90	-0.03 0.03	-0.47
VA1 - 2	772.50	0.00 0.30	1835.38 75.41	1835.38	5.34 60.45	0.00	-1.27 2.08	-0.05 0.05	-1.09
VA1 - 3	772.50	0.00 0.30	76.43 -2373.07	76.43	60.45 32.73	60.45	-3.99 4.44	0.05 -0.05	-1.06
VA1 - 4	772.50	0.00 0.06	-2038.06 289.23	730.86	33.04 -34.85	33.04	2.07 0.83	0.02 -0.02	1.30
VA1 - 5	772.50	0.00 0.05	290.85 -1513.35	290.85	-34.85 30.53	30.53	-3.31 3.71	-0.13 0.13	-2.02
VA1 - 6	772.50	0.00 0.00	-1256.86 -190.62	373.30	19.70 -10.44	19.70	1.59 0.93	0.01 -0.01	0.99
VA2	772.50	0.00 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-2.15
VA3 - 1	772.50	0.00 0.01	0.00 -1558.09	1110.31	0.00 -6.69	0.00	1.31 2.03	0.00 0.00	0.78
VA3 - 2	772.50	0.00 0.00	-1564.75 5.21	5.21	20.94 0.00	20.94	1.61 -0.41	0.01 -0.01	0.00
VA4 - 1	810.00	0.00 0.18	-1358.08 -1825.69	975.70	52.84 -6.95	52.84	1.94 2.13	0.01 -0.01	1.36
VA4 - 2	810.00	0.00 0.23	-1889.69 1592.64	1592.64	-64.73 15.39	15.39	2.57 -0.97	-0.04 0.04	-5.65
VA4 - 3	810.00	0.00 0.23	1592.45 1302.88	1592.45	15.39 20.46	0.00	-0.80 1.05	-0.02 0.02	-5.65
VA4 - 4	810.00	0.00 0.23	1302.86 -215.59	1302.86	20.46 21.25	21.25	-1.76 2.36	0.00 0.00	-5.65




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VA4 - 5	810.00	0.00 0.23	-216.49 -3075.41	0.00	21.25 76.48	76.48	-4.90 5.35	-0.10 0.10	-8.91
VA4 - 6	810.00	0.00 0.14	-3107.51 -115.95	0.00	35.48 40.90	40.90	3.38 -2.57	-0.01 0.01	4.50
VA4 - 7	810.00	0.00 0.14	-115.65 1414.68	1414.68	40.90 3.87	40.90	1.86 -0.99	0.03 -0.03	3.53
VA4 - 8	810.00	0.00 0.14	1414.03 729.60	1458.86	3.87 -0.84	0.00	0.28 1.09	0.00 0.00	3.53
VA4 - 9	810.00	0.00 0.16	734.63 -2494.13	734.63	-0.84 -80.85	0.00	-5.25 5.73	0.14 -0.14	3.53
VA4 - 10	810.00	0.00 0.02	-2234.45 -204.97	0.00	-23.31 -4.07	0.00	2.49 -1.70	-0.02 0.02	1.11
VA4 - 11	810.00	0.00 0.02	-199.76 389.38	389.38	-4.07 -0.54	0.00	1.29 -0.85	-0.01 0.01	1.11
VA4 - 12	810.00	0.00 0.01	389.64 -648.26	394.01	-0.54 -2.10	0.00	0.11 1.30	0.00 0.00	1.11
VA4 - 13	810.00	0.00 0.07	-692.97 -336.72	371.88	5.59 14.21	14.21	1.31 1.07	0.00 0.00	-1.65
VA5 - 1	772.50	0.00 0.01	-392.81 540.39	682.50	-39.72 7.80	7.80	1.29 0.47	-0.02 0.02	-3.95
VA5 - 2	772.50	0.00 0.01	540.42 -1632.74	540.42	7.80 54.43	54.43	-1.18 2.18	-0.04 0.04	-3.95
VA5 - 3	772.50	0.00 0.04	-2004.49 318.36	318.36	54.35 17.58	54.35	2.70 -1.92	0.04 -0.04	3.55
VA5 - 4	772.50	0.00 0.04	318.02 1174.97	1174.97	17.58 19.76	0.00	1.21 -0.38	0.00 0.00	3.55
VA5 - 5	772.50	0.00 0.04	1175.61 -1571.37	1175.61	19.76 -47.59	19.76	-0.33 2.09	0.03 -0.03	3.55
VA5 - 6	772.50	0.00 0.07	-1435.61 683.79	683.79	11.54 -17.23	11.54	1.98 -0.81	0.02 -0.02	0.54
VA5 - 7	772.50	0.00 0.08	683.53 -194.73	683.53	-1.83 -20.23	0.00	0.06 1.17	0.01 -0.01	-10.89
VA6 - 1	772.50	0.00 0.02	7.30 568.68	614.15	11.23 -6.85	11.23	0.97 0.27	0.01 -0.01	0.64
VA6 - 2	772.50	0.00 0.02	573.37 -2659.28	573.37	-6.85 13.82	13.82	-1.52 2.70	-0.01 0.01	0.64
VA7 - 1	772.50	-0.06 0.00	-701.71 1615.22	1615.22	-25.21 6.93	6.93	2.08 -0.87	-0.02 0.02	-2.04
VA7 - 2	772.50	-0.06 0.00	1610.53 0.00	1610.53	6.93 0.00	6.93	-0.38 1.62	0.00 0.00	-2.04
VA8 - 1	866.25	0.00 0.47	-3711.82 -6599.62	2928.24	-7.61 13.97	13.97	3.39 4.06	0.00 0.00	-3.64
VA8 - 2	866.25	0.00 0.71	-8791.98 -5724.52	4869.02	28.97 -8.78	28.97	4.87 4.28	0.00 0.00	2.89
VA9 - 1	810.00	0.00 0.07	-2359.61 -2049.09	1214.75	70.74 -53.18	70.74	2.41 2.30	0.02 -0.02	2.91
VA9 - 2	810.00	0.00 0.14	-3149.19 -2187.34	1446.23	-0.77 -7.33	0.00	2.73 2.43	0.00 0.00	-0.40
VA10 - 1	810.00	0.00 0.08	-2606.91 -1156.62	926.49	39.40 -35.80	39.40	2.39 1.84	0.01 -0.01	0.51
VA10 - 2	810.00	0.00 0.07	-1973.64 56.25	813.27	-11.46 -42.02	0.00	2.13 1.11	0.01 -0.01	-3.25
VA11 - 1	772.50	0.00 0.07	-1035.67 -129.76	0.00	37.00 -31.65	37.00	1.22 0.28	0.04 -0.04	1.58
VA11 - 2	772.50	0.00 0.12	-1686.43 1393.29	1420.01	18.29 -9.26	18.29	2.19 0.21	0.01 -0.01	-0.93
VA11 - 3	772.50	0.00 0.12	1391.14 4.43	1391.14	-9.26 -20.68	0.00	-0.98 1.76	0.01 -0.01	-0.93
VA12 - 1	772.50	0.00 0.02	0.00 1752.31	2026.06	0.00 -1.79	0.00	1.77 0.65	0.00 0.00	0.19
VA12 - 2	772.50	0.00 0.02	1754.46 0.00	1754.46	-1.79 0.00	0.00	-1.42 2.17	0.00 0.00	0.19
VA13	735.00	-0.02	0.00	338.60	0.00	0.00	0.71	0.00	-0.02

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		0.00	0.00		0.00		0.71	0.00	
VA14 - 1	772.50	-0.10 0.00	0.00 2242.86	2242.86	0.00 -6.12	0.00	2.54 -1.73	0.01 -0.01	1.01
VA14 - 2	772.50	-0.10 0.00	2243.64 0.00	2356.87	-6.12 0.00	0.00	0.42 1.91	0.00 0.00	1.01
VA15	735.00	-0.04 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.34
VA16	735.00	0.00 0.03	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.64
VA17 - 1	772.50	0.00 0.13	0.00 3941.72	3941.72	0.00 13.48	13.48	4.16 -3.35	-0.01 0.01	-5.04
VA17 - 2	772.50	0.00 0.15	3940.95 0.00	3940.95	-14.16 0.00	0.00	-0.29 2.48	0.00 0.00	1.62
VA18	772.50	0.00 0.09	-1027.01 910.16	910.16	-54.41 65.28	65.28	1.75 -0.26	-0.06 0.06	1.07
VA19	772.50	0.00 0.01	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-5.21
VA20	772.50	-0.01 0.00	-11.43 0.00	350.79	-15.40 0.00	0.00	0.75 0.74	-0.01 0.01	0.26
VA21 - 1	772.50	0.00 0.15	-2051.21 2387.17	2387.17	8.90 -18.18	8.90	2.62 -0.14	0.01 -0.01	5.16
VA21 - 2	772.50	0.00 0.16	2387.81 -1076.29	2387.81	-29.41 2.64	2.64	-0.83 2.46	-0.02 0.02	-2.14
VA22	772.50	0.00 0.10	-1304.12 238.73	866.70	-17.82 22.63	22.63	1.83 0.99	-0.01 0.01	0.43
VA23	772.50	0.00 0.02	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.69
VA24 - 1	810.00	0.00 0.05	-2512.34 -1915.55	1210.08	-81.99 50.82	50.82	2.46 2.25	-0.02 0.02	-4.34
VA24 - 2	810.00	0.00 0.13	-3129.51 -2333.97	1380.07	-3.97 31.00	31.00	2.70 2.45	-0.01 0.01	-0.44
VA25 - 1	810.00	0.00 0.17	-3697.76 1545.43	1545.43	60.96 -34.06	60.96	3.51 -1.96	0.05 -0.05	3.39
VA25 - 2	810.00	0.00 0.17	1547.47 -1756.32	1619.52	-34.06 10.67	10.67	0.34 2.34	-0.01 0.01	3.39
VA25 - 3	810.00	0.00 0.08	-2433.97 317.20	847.27	-56.73 59.99	59.99	2.31 0.93	-0.03 0.03	-0.90

CASO: G1+G2+0.98Q+0.84V1+1.4D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.32	-675.16 1898.87	1898.87	-56.97 3.59	3.59	2.07 -0.57	-0.03 0.03	-1.27
VA1 - 2	772.50	0.00 0.33	1899.04 -210.90	1899.04	3.59 -71.67	3.59	-1.60 2.41	0.07 -0.07	-1.91
VA1 - 3	772.50	0.00 0.31	-209.60 -2852.73	0.00	-71.67 123.95	123.95	-4.32 4.77	-0.34 0.34	-2.17
VA1 - 4	772.50	-0.29 0.00	-1681.16 -18.37	632.64	106.75 -79.94	106.75	1.89 1.00	0.05 -0.05	-0.01
VA1 - 5	772.50	-0.31 0.00	-16.87 -1912.18	0.00	-79.94 104.72	104.72	-3.49 3.89	-0.36 0.36	0.12
VA1 - 6	772.50	-0.33 0.00	-331.72 -1362.29	245.57	84.29 -42.77	84.29	0.94 1.58	0.04 -0.04	1.33
VA2	772.50	0.00 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-2.73
VA3 - 1	772.50	0.00 0.01	0.00 -1555.59	1111.26	0.00 15.89	15.89	1.31 2.03	0.00 0.00	0.57
VA3 - 2	772.50	0.00 0.00	-1563.06 6.89	6.89	47.27 0.00	47.27	1.61 -0.41	0.03 -0.03	0.00
VA4 - 1	810.00	0.00 0.30	-467.93 -2135.89	1324.72	35.66 -24.83	35.66	1.71 2.37	0.01 -0.01	0.75

VA4 - 2	810.00	0.00 0.33	-1556.06 1254.89	1254.89	-60.03 -30.57	0.00	2.22 -0.63	-0.01 0.01	0.39
VA4 - 3	810.00	0.00 0.33	1254.72 858.48	1254.72	-30.57 6.33	0.00	-1.14 1.39	-0.12 0.12	0.39
VA4 - 4	810.00	0.00 0.33	858.30 -911.32	858.30	6.33 132.95	132.95	-2.10 2.70	-0.17 0.17	0.39
VA4 - 5	810.00	0.00 0.32	-912.51 -3961.74	0.00	132.95 -4.02	132.95	-5.24 5.69	0.25 -0.25	-13.35
VA4 - 6	810.00	0.00 0.11	-2506.77 307.06	307.06	-33.42 -2.00	0.00	3.21 -2.39	-0.03 0.03	-0.96
VA4 - 7	810.00	0.00 0.11	307.11 1647.28	1647.28	-2.00 0.31	0.00	1.68 -0.81	0.00 0.00	1.60
VA4 - 8	810.00	0.00 0.11	1646.33 663.82	1649.48	0.31 88.94	0.00	0.10 1.27	-0.05 0.05	1.60
VA4 - 9	810.00	0.00 0.13	669.79 -2662.70	669.79	88.94 -103.17	88.94	-5.43 5.90	0.33 -0.33	1.60
VA4 - 10	810.00	-0.02 0.00	-1733.21 -72.69	0.00	-37.25 9.89	9.89	2.10 -1.32	-0.05 0.05	1.22
VA4 - 11	810.00	-0.02 0.00	-65.79 314.14	314.14	9.89 19.94	19.94	0.91 -0.47	-0.02 0.02	1.22
VA4 - 12	810.00	-0.03 0.00	314.85 -1387.48	314.85	19.94 -52.26	19.94	-0.27 1.68	0.04 -0.04	1.22
VA4 - 13	810.00	0.00 0.00	467.37 -1945.88	553.26	-19.94 9.99	9.99	0.37 2.01	-0.01 0.01	-1.73
VA5 - 1	772.50	0.00 0.00	127.14 339.03	738.49	-56.31 27.49	0.00	0.97 0.79	-0.04 0.04	-1.52
VA5 - 2	772.50	0.00 0.00	339.20 -2244.36	339.20	27.49 5.36	27.49	-1.50 2.50	0.02 -0.02	-1.52
VA5 - 3	772.50	0.00 0.01	-1530.56 612.20	612.20	-2.21 0.41	0.41	2.52 -1.74	0.00 0.00	1.15
VA5 - 4	772.50	0.00 0.01	612.15 1276.43	1276.43	0.41 33.50	0.00	1.03 -0.20	-0.03 0.03	1.15
VA5 - 5	772.50	0.00 0.01	1277.37 -1877.10	1277.37	33.50 -11.17	33.50	-0.51 2.27	0.02 -0.02	1.15
VA5 - 6	772.50	0.00 0.02	-1123.25 604.81	604.81	40.13 -33.73	40.13	1.72 -0.55	0.05 -0.05	-0.37
VA5 - 7	772.50	0.00 0.04	604.10 -679.08	604.10	-11.47 6.19	6.19	-0.20 1.42	-0.01 0.01	-8.92
VA6 - 1	772.50	0.00 0.00	11.46 37.39	272.18	-39.30 -18.19	0.00	0.63 0.60	-0.01 0.01	1.29
VA6 - 2	772.50	0.00 0.00	42.04 -3703.29	42.04	-18.19 47.75	47.75	-1.85 3.03	-0.04 0.04	1.29
VA7 - 1	772.50	-0.15 0.00	6.81 1973.60	1973.60	-50.27 -1.73	0.00	1.86 -0.64	-0.03 0.03	-2.72
VA7 - 2	772.50	-0.15 0.00	1968.95 0.00	1968.95	-1.73 0.00	0.00	-0.60 1.85	0.00 0.00	-2.72
VA8 - 1	866.25	0.00 0.51	-2761.42 -7399.09	3106.90	23.47 -4.99	23.47	3.19 4.27	0.00 0.00	-1.36
VA8 - 2	866.25	0.00 0.68	-8155.67 -6526.76	4753.02	18.08 -28.36	18.08	4.73 4.42	0.00 0.00	1.22
VA9 - 1	810.00	0.00 0.13	-1717.17 -2614.43	1263.41	6.08 0.92	6.08	2.20 2.51	0.00 0.00	-0.96
VA9 - 2	810.00	0.00 0.20	-2741.53 -2620.58	1419.88	8.93 14.23	14.23	2.60 2.56	0.00 0.00	-0.32
VA10 - 1	810.00	0.00 0.12	-2123.65 -1601.41	903.28	28.54 -29.62	28.54	2.22 2.02	0.01 -0.01	2.43
VA10 - 2	810.00	0.00 0.06	-1346.62 -685.86	613.51	-29.91 2.43	2.43	1.78 1.45	-0.01 0.01	-0.85
VA11 - 1	772.50	-0.08 0.00	-174.28 -168.91	184.57	50.13 -36.10	50.13	0.75 0.74	0.04 -0.04	2.70
VA11 - 2	772.50	-0.49 0.00	-844.01 304.16	750.13	2.35 -3.79	2.35	1.57 0.83	0.00 0.00	-2.03
VA11 - 3	772.50	-0.49	301.43	301.43	-3.79	0.00	-1.60	0.00	-2.03

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		0.00	-1715.37		-6.24		2.38	0.00	
VA12 - 1	772.50	-0.10 0.00	0.00 1751.87	2025.74	0.00 -0.33	0.00	1.77 0.65	0.00 0.00	0.17
VA12 - 2	772.50	-0.10 0.00	1754.60 0.00	1754.60	-0.33 0.00	0.00	-1.42 2.17	0.00 0.00	0.17
VA13	735.00	0.00 0.05	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.18
VA14 - 1	772.50	0.00 0.41	0.00 2243.36	2243.36	0.00 -7.39	0.00	2.54 -1.73	0.01 -0.01	1.29
VA14 - 2	772.50	0.00 0.41	2243.93 0.00	2357.11	-7.39 0.00	0.00	0.42 1.91	0.00 0.00	1.29
VA15	735.00	-0.03 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.05
VA16	735.00	0.00 0.05	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.95
VA17 - 1	772.50	0.00 0.38	0.00 3941.22	3941.22	0.00 15.74	15.74	4.16 -3.35	-0.01 0.01	-5.97
VA17 - 2	772.50	0.00 0.41	3940.65 0.00	3940.65	-15.64 0.00	0.00	-0.29 2.48	-0.01 0.01	1.50
VA18	772.50	0.00 0.19	-575.11 415.81	448.06	-50.33 72.27	72.27	1.26 0.23	-0.06 0.06	1.48
VA19	772.50	0.00 0.03	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-6.89
VA20	772.50	-0.06 0.00	-8.56 0.00	352.07	-22.26 0.00	0.00	0.75 0.74	-0.01 0.01	0.71
VA21 - 1	772.50	0.00 0.11	-1436.50 1985.04	2004.22	33.31 -33.40	33.31	2.31 0.17	0.02 -0.02	7.42
VA21 - 2	772.50	0.00 0.10	1986.33 -1441.06	1986.33	5.90 -27.88	5.90	-0.81 2.44	0.02 -0.02	-4.04
VA22	772.50	0.00 0.11	-366.20 -831.84	696.03	-40.17 58.41	58.41	1.28 1.54	-0.03 0.03	-0.48
VA23	772.50	0.00 0.03	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.65
VA24 - 1	810.00	0.00 0.11	-1675.87 -2641.73	1272.39	-76.01 54.66	54.66	2.19 2.52	-0.02 0.02	-8.12
VA24 - 2	810.00	0.00 0.13	-2497.64 -2967.55	1373.97	16.33 60.60	60.60	2.50 2.65	-0.01 0.01	-0.27
VA25 - 1	810.00	0.00 0.21	-3124.99 1900.78	1900.78	137.29 -98.74	137.29	3.40 -1.85	0.12 -0.12	6.29
VA25 - 2	810.00	0.00 0.21	1903.51 -2513.41	1903.51	-98.74 5.36	5.36	0.01 2.67	-0.03 0.03	6.29
VA25 - 3	810.00	0.00 0.06	-1546.52 -761.04	484.76	19.52 -31.04	19.52	1.81 1.42	0.01 -0.01	0.46

CASO: G1+G2+0.98Q+0.84V2+1.4D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.24	-2182.42 1895.66	1895.66	-51.80 3.28	3.28	2.85 -1.34	-0.03 0.03	-1.46
VA1 - 2	772.50	0.00 0.25	1895.45 597.66	1895.45	3.28 -72.94	0.00	-0.83 1.64	0.07 -0.07	-2.08
VA1 - 3	772.50	0.00 0.23	598.23 -1595.61	598.23	-72.94 127.52	127.52	-3.55 4.00	-0.34 0.34	-1.52
VA1 - 4	772.50	-0.31 0.00	-2536.87 617.09	853.65	108.08 -82.50	108.08	2.29 0.61	0.05 -0.05	0.93
VA1 - 5	772.50	-0.34 0.00	618.76 -1072.05	618.76	-82.50 109.26	109.26	-3.09 3.49	-0.37 0.37	-6.07
VA1 - 6	772.50	-0.28 0.00	-1640.81 206.42	515.62	84.78 -44.81	84.78	1.83 0.69	0.04 -0.04	1.20
VA2	772.50	0.00 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-3.32






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Rezende  
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VA3 - 1	772.50	0.00 0.01	0.00 -1558.64	1110.10	0.00 14.17	14.17	1.31 2.03	0.00 0.00	0.77
VA3 - 2	772.50	0.00 0.00	-1564.47 5.48	5.48	53.24 0.00	53.24	1.61 -0.41	0.03 -0.03	0.00
VA4 - 1	810.00	-0.06 0.00	-2514.32 -1352.05	661.99	78.92 -46.38	78.92	2.27 1.81	0.02 -0.02	0.77
VA4 - 2	810.00	0.00 0.07	-2126.22 1989.14	1989.14	-61.50 -28.86	0.00	2.89 -1.29	-0.02 0.02	-2.86
VA4 - 3	810.00	0.00 0.07	1989.36 1800.49	1989.36	-28.86 7.94	0.00	-0.48 0.73	-0.12 0.12	-2.86
VA4 - 4	810.00	0.00 0.07	1800.82 519.51	1800.82	7.94 134.40	0.00	-1.44 2.04	-0.17 0.17	-2.86
VA4 - 5	810.00	0.00 0.06	518.93 -2160.51	518.93	134.40 -5.41	134.40	-4.58 5.03	0.25 -0.25	4.96
VA4 - 6	810.00	-0.16 0.00	-4158.10 -781.94	0.00	-33.56 -1.60	0.00	3.77 -2.95	-0.03 0.03	5.99
VA4 - 7	810.00	-0.16 0.00	-781.67 1160.13	1160.13	-1.60 -1.80	0.00	2.24 -1.37	0.00 0.00	-0.54
VA4 - 8	810.00	-0.16 0.00	1159.24 1119.85	1427.46	-1.80 89.72	0.00	0.66 0.71	-0.05 0.05	-0.54
VA4 - 9	810.00	-0.14 0.00	1123.98 -1879.76	1123.98	89.72 -108.34	89.72	-4.87 5.34	0.34 -0.34	-0.54
VA4 - 10	810.00	-0.25 0.00	-2192.71 -101.60	0.00	-21.30 6.66	6.66	2.55 -1.76	-0.03 0.03	1.18
VA4 - 11	810.00	-0.25 0.00	-96.12 527.97	527.97	6.66 3.72	6.66	1.36 -0.91	0.01 -0.01	1.18
VA4 - 12	810.00	-0.27 0.00	528.88 -399.07	547.00	3.72 -39.50	3.72	0.17 1.24	0.02 -0.02	1.18
VA4 - 13	810.00	0.00 0.06	-1872.41 1208.47	1221.68	1.09 -41.94	1.09	2.24 0.15	0.01 -0.01	-1.83
VA5 - 1	772.50	0.00 0.01	-946.69 769.36	778.61	-43.10 26.93	26.93	1.63 0.12	-0.03 0.03	-1.40
VA5 - 2	772.50	0.00 0.01	769.02 -958.71	769.02	26.93 -3.19	26.93	-0.83 1.83	0.02 -0.02	-1.40
VA5 - 3	772.50	0.00 0.04	-2450.08 41.22	41.22	2.76 0.77	2.76	2.87 -2.09	0.00 0.00	1.09
VA5 - 4	772.50	0.00 0.04	40.93 1078.11	1078.11	0.77 34.48	0.00	1.38 -0.55	-0.03 0.03	1.09
VA5 - 5	772.50	0.00 0.04	1079.00 -1286.80	1079.00	34.48 -18.13	34.48	-0.16 1.92	0.02 -0.02	1.09
VA5 - 6	772.50	0.00 0.11	-1795.47 753.28	753.28	59.83 -43.50	59.83	2.26 -1.09	0.07 -0.07	-0.35
VA5 - 7	772.50	0.00 0.13	752.36 321.50	826.44	-2.50 -79.21	0.00	0.34 0.88	0.05 -0.05	-11.10
VA6 - 1	772.50	0.00 0.07	2.48 1195.31	1195.31	34.10 -3.27	34.10	1.36 -0.13	0.02 -0.02	1.77
VA6 - 2	772.50	0.00 0.07	1200.14 -1427.91	1200.14	-3.27 0.83	0.83	-1.12 2.31	0.00 0.00	1.77
VA7 - 1	772.50	0.00 0.04	-1564.08 1179.06	1179.06	-18.50 11.31	11.31	2.35 -1.14	-0.02 0.02	-3.49
VA7 - 2	772.50	0.00 0.04	1174.22 0.00	1174.22	11.31 0.00	11.31	-0.11 1.35	0.01 -0.01	-3.49
VA8 - 1	866.25	0.00 0.47	-4605.59 -5869.50	2795.09	-33.18 7.70	7.70	3.58 3.87	0.00 0.00	-1.36
VA8 - 2	866.25	0.00 0.78	-9461.33 -4909.91	4998.73	4.29 22.36	22.36	5.01 4.14	0.00 0.00	1.06
VA9 - 1	810.00	0.00 0.11	-1761.66 -2566.72	1263.43	63.25 -57.49	63.25	2.21 2.49	0.02 -0.02	6.86
VA9 - 2	810.00	0.00 0.16	-2698.00 -2625.74	1438.28	-37.37 3.91	3.91	2.59 2.57	-0.01 0.01	-0.21
VA10 - 1	810.00	0.00 0.09	-2092.09 -1619.77	907.97	15.31 -32.30	15.31	2.21 2.02	0.01 -0.01	-1.60
VA10 - 2	810.00	0.00	-1306.62	603.57	-50.13	50.70	1.76	-0.03	-5.87



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		0.05	-740.74		50.70		1.48	0.03	
VA11 - 1	772.50	-0.07 0.00	-162.41 -202.33	175.72	49.14 -24.82	49.14	0.73 0.77	0.04 -0.04	0.42
VA11 - 2	772.50	-0.49 0.00	-868.74 310.57	746.16	-3.68 -1.89	0.00	1.58 0.82	0.00 0.00	-0.21
VA11 - 3	772.50	-0.49 0.00	307.25 -1699.39	307.25	-1.89 -2.52	0.00	-1.59 2.37	0.00 0.00	-0.21
VA12 - 1	772.50	-0.10 0.00	0.00 1751.42	2025.41	0.00 -0.90	0.00	1.77 0.65	0.00 0.00	-0.21
VA12 - 2	772.50	-0.10 0.00	1754.74 0.00	1754.74	-0.90 0.00	0.00	-1.42 2.17	0.00 0.00	-0.21
VA13	735.00	0.00 0.05	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.33
VA14 - 1	772.50	0.00 0.42	0.00 2242.76	2242.76	0.00 -8.28	0.00	2.54 -1.73	0.01 -0.01	0.57
VA14 - 2	772.50	0.00 0.42	2243.54 0.00	2356.79	-8.28 0.00	0.00	0.42 1.91	0.00 0.00	0.57
VA15	735.00	-0.03 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.29
VA16	735.00	0.00 0.05	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.88
VA17 - 1	772.50	0.00 0.39	0.00 3941.82	3941.82	0.00 18.69	18.69	4.16 -3.35	-0.02 0.02	-4.14
VA17 - 2	772.50	0.00 0.43	3941.05 0.00	3941.05	-20.37 0.00	0.00	-0.29 2.48	-0.01 0.01	1.70
VA18	772.50	0.00 0.20	-545.23 380.19	423.65	-66.85 92.71	92.71	1.23 0.27	-0.08 0.08	0.81
VA19	772.50	0.00 0.03	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-5.48
VA20	772.50	-0.02 0.00	-10.75 0.00	351.09	-40.99 0.00	0.00	0.75 0.74	-0.02 0.02	0.91
VA21 - 1	772.50	0.00 0.20	-1682.56 2633.14	2633.14	18.38 -32.90	18.38	2.58 -0.11	0.02 -0.02	2.54
VA21 - 2	772.50	0.00 0.22	2634.91 -1742.16	2634.91	-66.99 44.98	44.98	-1.26 2.89	-0.05 0.05	0.06
VA22	772.50	0.00 0.14	-335.61 -847.61	706.01	-43.01 61.04	61.04	1.27 1.55	-0.03 0.03	0.40
VA23	772.50	0.00 0.03	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.84
VA24 - 1	810.00	0.00 0.13	-1729.66 -2606.21	1260.92	-29.45 11.28	11.28	2.20 2.50	-0.01 0.01	-0.45
VA24 - 2	810.00	0.00 0.21	-2633.53 -2838.09	1366.47	-7.31 -16.53	0.00	2.55 2.61	0.00 0.00	-0.29
VA25 - 1	810.00	0.00 0.19	-2935.26 1541.61	1541.61	0.91 36.06	36.06	3.11 -1.56	-0.02 0.02	0.25
VA25 - 2	810.00	0.00 0.18	1545.09 -2186.08	1571.73	36.06 -20.78	36.06	0.21 2.47	0.02 -0.02	0.25
VA25 - 3	810.00	0.00 0.08	-1575.14 -646.92	538.79	-30.35 1.21	1.21	1.85 1.39	-0.01 0.01	-2.48

CASO: G1+G2+0.98Q+0.84V3+1.4D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.28	-1349.26 1904.20	1904.20	-13.50 -0.96	0.00	2.42 -0.92	-0.01 0.01	0.44
VA1 - 2	772.50	0.00 0.29	1904.08 160.87	1904.08	-0.96 -143.46	0.00	-1.25 2.06	0.14 -0.14	-0.19
VA1 - 3	772.50	0.00 0.26	161.67 -2278.57	161.67	-143.46 103.57	103.57	-3.97 4.42	-0.42 0.42	-0.06
VA1 - 4	772.50	-0.31 0.00	-2059.23 266.98	708.91	89.08 -59.02	89.08	2.07 0.83	0.04 -0.04	-0.45

VA1 - 5	772.50	-0.33 0.00	268.42 -1535.91	268.42	-59.02 91.92	91.92	-3.31 3.71	-0.29 0.29	-3.51
VA1 - 6	772.50	-0.32 0.00	-905.29 -692.44	229.14	77.36 -38.33	77.36	1.33 1.20	0.04 -0.04	-0.36
VA2	772.50	0.00 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-3.55
VA3 - 1	772.50	0.00 0.00	0.00 -1557.14	1110.67	0.00 23.00	23.00	1.31 2.03	-0.01 0.01	0.65
VA3 - 2	772.50	0.00 0.00	-1563.65 6.31	6.31	35.05 0.00	35.05	1.61 -0.41	0.02 -0.02	0.00
VA4 - 1	810.00	0.00 0.08	-1511.86 -1729.50	941.91	41.22 -41.50	41.22	1.99 2.08	0.02 -0.02	0.31
VA4 - 2	810.00	0.00 0.14	-1830.21 1615.89	1615.89	-2.07 -49.20	0.00	2.55 -0.95	0.02 -0.02	3.74
VA4 - 3	810.00	0.00 0.14	1616.01 1320.78	1616.01	-49.20 -12.13	0.00	-0.82 1.07	-0.12 0.12	3.74
VA4 - 4	810.00	0.00 0.14	1320.90 -210.86	1320.90	-12.13 127.81	127.81	-1.78 2.38	-0.19 0.19	3.74
VA4 - 5	810.00	0.00 0.13	-211.69 -3080.78	0.00	127.81 -83.44	127.81	-4.92 5.37	0.38 -0.38	0.55
VA4 - 6	810.00	-0.09 0.00	-3357.05 -251.62	0.00	-78.14 -41.82	0.00	3.50 -2.68	-0.04 0.04	-1.07
VA4 - 7	810.00	-0.09 0.00	-251.47 1400.68	1400.68	-41.82 -5.78	0.00	1.97 -1.10	-0.03 0.03	-3.17
VA4 - 8	810.00	-0.09 0.00	1399.72 906.27	1492.29	-5.78 102.47	0.00	0.39 0.98	-0.06 0.06	-3.17
VA4 - 9	810.00	-0.08 0.00	911.31 -2250.70	911.31	102.47 -41.77	102.47	-5.14 5.61	0.25 -0.25	-3.17
VA4 - 10	810.00	-0.16 0.00	-1920.77 -69.03	0.00	-13.04 14.29	14.29	2.30 -1.52	-0.03 0.03	1.52
VA4 - 11	810.00	-0.16 0.00	-62.72 425.64	425.64	14.29 17.42	17.42	1.11 -0.67	-0.01 0.01	1.52
VA4 - 12	810.00	-0.16 0.00	426.59 -933.93	426.59	17.42 -50.66	17.42	-0.08 1.49	0.04 -0.04	1.52
VA4 - 13	810.00	0.00 0.01	-722.14 -369.13	340.86	-16.75 -37.40	0.00	1.31 1.07	0.01 -0.01	-1.77
VA5 - 1	772.50	0.00 0.04	-421.47 567.00	694.04	-8.85 20.36	20.36	1.31 0.44	-0.01 0.01	2.02
VA5 - 2	772.50	0.00 0.04	566.89 -1574.82	566.89	20.36 -55.46	20.36	-1.15 2.15	0.06 -0.06	2.02
VA5 - 3	772.50	0.00 0.07	-1996.84 321.93	321.93	-51.04 -18.92	0.00	2.69 -1.92	-0.03 0.03	-1.92
VA5 - 4	772.50	0.00 0.07	321.80 1174.40	1174.40	-18.92 19.03	0.00	1.21 -0.38	-0.04 0.04	-1.92
VA5 - 5	772.50	0.00 0.07	1175.36 -1580.83	1175.36	19.03 29.48	29.48	-0.33 2.09	0.00 0.00	-1.92
VA5 - 6	772.50	0.00 0.06	-1496.99 675.05	675.05	47.52 -32.71	47.52	2.02 -0.84	0.05 -0.05	-1.35
VA5 - 7	772.50	0.00 0.07	674.09 -145.92	675.26	-15.45 -28.08	0.00	0.09 1.13	0.01 -0.01	-8.56
VA6 - 1	772.50	0.00 0.04	6.64 664.30	690.49	-21.47 -15.00	0.00	1.03 0.21	0.00 0.00	2.37
VA6 - 2	772.50	0.00 0.04	669.09 -2471.36	669.09	-15.00 34.27	34.27	-1.46 2.64	-0.03 0.03	2.37
VA7 - 1	772.50	-0.05 0.00	-852.49 1538.99	1538.99	-42.81 0.67	0.67	2.13 -0.91	-0.03 0.03	-4.12
VA7 - 2	772.50	-0.05 0.00	1534.20 0.00	1534.20	0.67 0.00	0.67	-0.33 1.58	0.00 0.00	-4.12
VA8 - 1	866.25	0.00 0.51	-3656.46 -6668.22	2926.56	-1.91 -11.97	0.00	3.38 4.08	0.00 0.00	0.95
VA8 - 2	866.25	0.00 0.75	-8826.40 -5711.04	4860.39	-6.63 2.55	2.55	4.87 4.28	0.00 0.00	-0.68
VA9 - 1	810.00	0.00	-1104.80	1367.32	-2.09	0.00	2.00	0.00	2.99

		0.18	-3144.66		-2.98		2.70	0.00	
VA9 - 2	810.00	0.00 0.22	-2280.18 -3069.45	1436.90	-27.94 25.96	25.96	2.45 2.70	-0.01 0.01	-0.13
VA10 - 1	810.00	0.00 0.13	-1597.47 -2074.19	928.24	4.40 -26.83	4.40	2.02 2.21	0.01 -0.01	0.32
VA10 - 2	810.00	0.00 0.04	-662.99 -1502.84	559.92	-68.51 93.79	93.79	1.41 1.83	-0.04 0.04	-3.52
VA11 - 1	772.50	-0.12 0.00	662.43 -643.83	662.43	14.99 5.25	14.99	0.07 1.42	0.01 -0.01	1.60
VA11 - 2	772.50	-0.58 0.00	-268.65 -383.74	605.78	-22.66 8.02	8.02	1.16 1.24	-0.01 0.01	-1.30
VA11 - 3	772.50	-0.58 0.00	-387.30 -2816.18	0.00	8.02 22.47	22.47	-2.00 2.79	-0.01 0.01	-1.30
VA12 - 1	772.50	-0.14 0.00	0.00 1751.25	2025.28	0.00 3.27	3.27	1.77 0.65	0.00 0.00	-0.12
VA12 - 2	772.50	-0.14 0.00	1754.80 0.00	1754.80	3.27 0.00	3.27	-1.42 2.17	0.00 0.00	-0.12
VA13	735.00	0.00 0.07	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.11
VA14 - 1	772.50	0.00 0.57	0.00 2243.06	2243.06	0.00 -3.04	0.00	2.54 -1.73	0.00 0.00	0.80
VA14 - 2	772.50	0.00 0.56	2243.72 0.00	2356.94	-3.04 0.00	0.00	0.42 1.91	0.00 0.00	0.80
VA15	735.00	0.00 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.13
VA16	735.00	0.00 0.03	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.96
VA17 - 1	772.50	0.00 0.31	0.00 3941.52	3941.52	0.00 6.25	6.25	4.16 -3.35	-0.01 0.01	-5.04
VA17 - 2	772.50	0.00 0.34	3940.87 0.00	3940.87	-5.81 0.00	0.00	-0.29 2.48	0.00 0.00	1.47
VA18	772.50	0.00 0.15	181.61 -346.30	325.92	-14.71 31.35	31.35	0.47 1.02	-0.02 0.02	1.13
VA19	772.50	0.00 0.02	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-6.31
VA20	772.50	-0.04 0.00	-7.21 0.00	352.67	-17.27 0.00	0.00	0.75 0.74	-0.01 0.01	0.95
VA21 - 1	772.50	0.00 0.16	-1091.54 2236.27	2261.31	41.77 -45.43	41.77	2.28 0.20	0.03 -0.03	4.80
VA21 - 2	772.50	0.00 0.15	2238.64 -2083.06	2238.64	-23.97 -3.45	0.00	-1.23 2.86	-0.01 0.01	-1.84
VA22	772.50	0.00 0.10	465.24 -1806.66	865.37	-31.93 47.80	47.80	0.79 2.03	-0.02 0.02	-0.20
VA23	772.50	0.00 0.03	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.79
VA24 - 1	810.00	0.00 0.18	-952.85 -3279.60	1400.56	-21.80 13.81	13.81	1.95 2.75	-0.01 0.01	-4.23
VA24 - 2	810.00	0.00 0.21	-2044.20 -3428.71	1395.36	14.00 11.92	14.00	2.36 2.80	0.00 0.00	-0.12
VA25 - 1	810.00	0.00 0.22	-2411.72 1882.95	1882.95	78.51 -27.44	78.51	3.02 -1.47	0.06 -0.06	3.15
VA25 - 2	810.00	0.00 0.22	1887.07 -2899.56	1887.07	-27.44 -29.52	0.00	-0.11 2.79	0.00 0.00	3.15
VA25 - 3	810.00	0.00 0.06	-760.97 -1637.82	446.36	38.44 -73.33	38.44	1.40 1.84	0.03 -0.03	-1.20

CASO: G1+G2+0.98Q+0.84V4+1.4D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.29	-1508.33 1890.33	1890.33	-95.27 7.84	7.84	2.50 -0.99	-0.05 0.05	-3.17

VA1 - 2	772.50	0.00 0.29	1890.41 225.89	1890.41	7.84 -1.15	0.00	-1.18 1.99	0.01 -0.01	-3.80
VA1 - 3	772.50	0.00 0.27	226.95 -2169.77	226.95	-1.15 147.90	147.90	-3.90 4.35	-0.26 0.26	-3.63
VA1 - 4	772.50	-0.29 0.00	-2158.80 331.75	728.02	125.75 -103.43	125.75	2.11 0.78	0.06 -0.06	1.37
VA1 - 5	772.50	-0.32 0.00	333.47 -1448.31	333.47	-103.43 122.06	122.06	-3.27 3.66	-0.44 0.44	-2.44
VA1 - 6	772.50	-0.29 0.00	-1067.24 -463.43	284.35	91.71 -49.25	91.71	1.45 1.08	0.04 -0.04	2.88
VA2	772.50	-0.01 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-2.50
VA3 - 1	772.50	0.00 0.02	0.00 -1557.09	1110.69	0.00 7.06	7.06	1.31 2.03	0.00 0.00	0.69
VA3 - 2	772.50	0.00 0.00	-1563.89 6.07	6.07	65.45 0.00	65.45	1.61 -0.41	0.04 -0.04	0.00
VA4 - 1	810.00	0.00 0.16	-1470.40 -1758.43	949.58	73.36 -29.71	73.36	1.98 2.09	0.02 -0.02	1.21
VA4 - 2	810.00	0.00 0.26	-1852.07 1628.15	1628.15	-119.46 -10.22	0.00	2.56 -0.97	-0.06 0.06	-6.21
VA4 - 3	810.00	0.00 0.26	1628.07 1338.18	1628.07	-10.22 26.39	0.00	-0.80 1.05	-0.12 0.12	-6.21
VA4 - 4	810.00	0.00 0.26	1338.23 -180.95	1338.23	26.39 139.54	139.54	-1.76 2.36	-0.15 0.15	-6.21
VA4 - 5	810.00	0.00 0.25	-181.89 -3041.47	0.00	139.54 74.01	139.54	-4.90 5.35	0.12 -0.12	-8.95
VA4 - 6	810.00	0.00 0.04	-3307.82 -223.26	0.00	11.16 38.23	38.23	3.48 -2.66	-0.03 0.03	6.10
VA4 - 7	810.00	0.00 0.04	-223.09 1406.73	1406.73	38.23 4.30	38.23	1.95 -1.08	0.03 -0.03	4.24
VA4 - 8	810.00	0.00 0.04	1405.86 877.40	1489.68	4.30 76.19	0.00	0.37 1.00	-0.04 0.04	4.24
VA4 - 9	810.00	0.00 0.06	882.46 -2291.76	882.46	76.19 -169.74	76.19	-5.16 5.63	0.42 -0.42	4.24
VA4 - 10	810.00	-0.11 0.00	-2005.15 -105.26	0.00	-45.51 2.26	2.26	2.35 -1.57	-0.05 0.05	0.89
VA4 - 11	810.00	-0.11 0.00	-99.19 416.47	416.47	2.26 6.25	6.25	1.16 -0.71	-0.01 0.01	0.89
VA4 - 12	810.00	-0.13 0.00	417.14 -852.62	417.14	6.25 -41.09	6.25	-0.03 1.43	0.03 -0.03	0.89
VA4 - 13	810.00	0.00 0.06	-682.90 -368.28	358.17	-2.10 5.45	5.45	1.30 1.09	0.00 0.00	-1.79
VA5 - 1	772.50	-0.04 0.00	-398.08 541.38	681.78	-90.56 34.05	34.05	1.29 0.47	-0.05 0.05	-4.94
VA5 - 2	772.50	-0.04 0.00	541.34 -1628.25	541.34	34.05 57.64	57.64	-1.18 2.18	-0.02 0.02	-4.94
VA5 - 3	772.50	-0.01 0.00	-1983.79 331.49	331.49	51.59 20.10	51.59	2.69 -1.91	0.03 -0.03	4.15
VA5 - 4	772.50	-0.01 0.00	331.28 1180.14	1180.14	20.10 48.95	0.00	1.20 -0.37	-0.03 0.03	4.15
VA5 - 5	772.50	-0.01 0.00	1181.01 -1583.08	1181.01	48.95 -58.78	48.95	-0.34 2.09	0.05 -0.05	4.15
VA5 - 6	772.50	0.00 0.07	-1421.73 683.04	683.04	52.44 -44.52	52.44	1.97 -0.80	0.06 -0.06	0.64
VA5 - 7	772.50	0.00 0.09	682.37 -211.66	682.37	1.47 -44.95	1.47	0.05 1.18	0.03 -0.03	-11.47
VA6 - 1	772.50	0.00 0.04	7.31 568.40	613.94	16.26 -6.46	16.26	0.97 0.27	0.01 -0.01	0.69
VA6 - 2	772.50	0.00 0.04	573.09 -2659.83	573.09	-6.46 14.31	14.31	-1.52 2.70	-0.01 0.01	0.69
VA7 - 1	772.50	-0.06 0.00	-704.78 1613.67	1613.67	-25.96 8.91	8.91	2.08 -0.87	-0.02 0.02	-2.09
VA7 - 2	772.50	-0.06	1608.97	1608.97	8.91	8.91	-0.38	0.01	-2.09



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Plena**

**Leilson Campos  
Rezende  
Rezende Engenharia**

**11/5/2021  
12:14:59**

		0.00	0.00		0.00		1.62	-0.01	
VA8 - 1	866.25	0.00 0.47	-3710.54 -6600.36	2928.57	-7.80 14.68	14.68	3.39 4.06	0.00 0.00	-3.67
VA8 - 2	866.25	0.00 0.71	-8790.59 -5725.62	4869.07	28.99 -8.55	28.99	4.87 4.28	0.00 0.00	2.96
VA9 - 1	810.00	0.00 0.07	-2374.03 -2036.49	1214.30	71.42 -53.58	71.42	2.41 2.29	0.02 -0.02	2.91
VA9 - 2	810.00	0.00 0.14	-3159.35 -2176.87	1446.72	-0.49 -7.82	0.00	2.73 2.42	0.00 0.00	-0.40
VA10 - 1	810.00	0.00 0.07	-2618.27 -1146.99	927.24	39.45 -35.09	39.45	2.40 1.83	0.01 -0.01	0.51
VA10 - 2	810.00	0.00 0.07	-1990.24 76.24	821.05	-11.53 -40.66	0.00	2.14 1.10	0.01 -0.01	-3.21
VA11 - 1	772.50	-0.03 0.00	-999.12 272.59	273.64	84.29 -66.17	84.29	1.40 0.09	0.08 -0.08	1.51
VA11 - 2	772.50	-0.41 0.00	-1444.10 998.48	1106.62	21.33 -13.70	21.33	1.99 0.41	0.01 -0.01	-0.94
VA11 - 3	772.50	-0.41 0.00	995.97 -598.57	995.97	-13.70 -31.24	0.00	-1.18 1.96	0.02 -0.02	-0.94
VA12 - 1	772.50	-0.06 0.00	0.00 1752.05	2025.87	0.00 -4.50	0.00	1.77 0.65	0.00 0.00	0.08
VA12 - 2	772.50	-0.06 0.00	1754.55 0.00	1754.55	-4.50 0.00	0.00	-1.42 2.17	0.00 0.00	0.08
VA13	735.00	0.00 0.04	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.04
VA14 - 1	772.50	0.00 0.27	0.00 2243.06	2243.06	0.00 -12.63	0.00	2.54 -1.73	0.01 -0.01	1.06
VA14 - 2	772.50	0.00 0.27	2243.75 0.00	2356.96	-12.63 0.00	0.00	0.42 1.91	0.00 0.00	1.06
VA15	735.00	-0.06 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.21
VA16	735.00	0.00 0.07	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.87
VA17 - 1	772.50	0.00 0.46	0.00 3941.52	3941.52	0.00 28.19	28.19	4.16 -3.35	-0.03 0.03	-5.06
VA17 - 2	772.50	0.00 0.50	3940.83 0.00	3940.83	-30.20 0.00	0.00	-0.29 2.48	-0.01 0.01	1.73
VA18	772.50	0.00 0.24	-1301.95 1142.29	1142.29	-102.47 133.63	133.63	2.01 -0.52	-0.12 0.12	1.16
VA19	772.50	0.00 0.04	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-6.07
VA20	772.50	-0.03 0.00	-12.10 0.00	350.49	-45.99 0.00	0.00	0.75 0.74	-0.02 0.02	0.67
VA21 - 1	772.50	0.00 0.15	-2027.52 2381.91	2381.91	9.93 -20.86	9.93	2.61 -0.13	0.01 -0.01	5.16
VA21 - 2	772.50	0.00 0.17	2382.60 -1100.17	2382.60	-37.13 20.55	20.55	-0.83 2.47	-0.03 0.03	-2.15
VA22	772.50	0.00 0.14	-1167.05 127.20	845.47	-51.24 71.64	71.64	1.76 1.05	-0.03 0.03	0.13
VA23	772.50	0.00 0.03	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.70
VA24 - 1	810.00	0.00 0.06	-2452.67 -1968.34	1211.58	-83.66 52.13	52.13	2.44 2.27	-0.02 0.02	-4.34
VA24 - 2	810.00	0.00 0.13	-3086.98 -2376.93	1378.48	-4.99 32.14	32.14	2.69 2.47	-0.01 0.01	-0.44
VA25 - 1	810.00	0.00 0.18	-3648.53 1559.44	1559.44	59.68 -35.24	59.68	3.50 -1.95	0.05 -0.05	3.38
VA25 - 2	810.00	0.00 0.17	1561.53 -1799.92	1626.38	-35.24 14.10	14.10	0.32 2.36	-0.01 0.01	3.38
VA25 - 3	810.00	0.00 0.08	-2360.69 229.86	809.18	-49.26 43.50	43.50	2.27 0.97	-0.02 0.02	-0.83



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Leilson Campos  
Rezende  
Rezende Engenharia


11/5/2021  
12:14:59

**CASO: G1+G2+0.98Q+1.4V1+0.84D1**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.34	-404.10 1899.32	1899.32	-58.50 3.31	3.31	1.94 -0.43	-0.03 0.03	-1.24
VA1 - 2	772.50	0.00 0.34	1899.56 -356.49	1899.56	3.31 -70.53	3.31	-1.74 2.55	0.07 -0.07	-1.88
VA1 - 3	772.50	0.00 0.32	-355.06 -3079.02	0.00	-70.53 123.92	123.92	-4.46 4.91	-0.33 0.33	-2.29
VA1 - 4	772.50	-0.29 0.00	-1527.22 -132.72	613.95	106.25 -78.95	106.25	1.82 1.08	0.05 -0.05	-0.14
VA1 - 5	772.50	-0.31 0.00	-131.25 -2063.35	0.00	-78.95 103.83	103.83	-3.56 3.96	-0.36 0.36	1.27
VA1 - 6	772.50	-0.34 0.00	-95.79 -1645.22	303.46	83.34 -41.63	83.34	0.79 1.74	0.04 -0.04	1.37
VA2	772.50	0.00 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-2.61
VA3 - 1	772.50	0.00 0.01	0.00 -1555.01	1111.48	0.00 16.34	16.34	1.31 2.03	0.00 0.00	0.53
VA3 - 2	772.50	0.00 0.00	-1562.80 7.16	7.16	46.73 0.00	46.73	1.61 -0.41	0.03 -0.03	0.00
VA4 - 1	810.00	0.00 0.38	-79.36 -2284.82	1498.30	25.40 -18.51	25.40	1.60 2.48	0.01 -0.01	0.74
VA4 - 2	810.00	0.00 0.38	-1448.17 1115.75	1115.75	-61.05 -30.92	0.00	2.10 -0.50	-0.02 0.02	0.96
VA4 - 3	810.00	0.00 0.38	1115.51 679.99	1115.51	-30.92 5.86	0.00	-1.26 1.52	-0.12 0.12	0.96
VA4 - 4	810.00	0.00 0.38	679.70 -1182.39	679.70	5.86 133.22	133.22	-2.23 2.83	-0.17 0.17	0.96
VA4 - 5	810.00	0.00 0.37	-1183.70 -4302.97	0.00	133.22 -1.81	133.22	-5.37 5.82	0.24 -0.24	-16.87
VA4 - 6	810.00	0.00 0.16	-2193.69 513.56	513.56	-33.80 -2.09	0.00	3.10 -2.29	-0.03 0.03	-2.24
VA4 - 7	810.00	0.00 0.16	513.57 1739.72	1739.72	-2.09 1.16	0.00	1.58 -0.70	0.00 0.00	2.05
VA4 - 8	810.00	0.00 0.16	1738.75 577.48	1738.75	1.16 89.14	0.00	-0.01 1.37	-0.05 0.05	2.05
VA4 - 9	810.00	0.00 0.17	583.79 -2811.01	583.79	89.14 -100.95	89.14	-5.53 6.01	0.32 -0.32	2.05
VA4 - 10	810.00	0.00 0.01	-1645.81 -67.15	0.00	-42.34 10.12	10.12	2.02 -1.23	-0.05 0.05	1.24
VA4 - 11	810.00	0.00 0.01	-59.98 273.54	273.54	10.12 23.37	23.37	0.83 -0.38	-0.02 0.02	1.24
VA4 - 12	810.00	0.00 0.00	274.19 -1575.38	274.19	23.37 -55.31	23.37	-0.36 1.77	0.05 -0.05	1.24
VA4 - 13	810.00	-0.02 0.00	911.25 -2544.93	911.25	-25.47 21.42	21.42	0.02 2.37	-0.02 0.02	-1.71
VA5 - 1	772.50	0.00 0.00	353.54 248.18	801.42	-62.40 28.28	0.00	0.83 0.93	-0.04 0.04	-1.58
VA5 - 2	772.50	0.00 0.00	248.47 -2515.61	248.47	28.28 8.30	28.28	-1.64 2.64	0.02 -0.02	-1.58
VA5 - 3	772.50	0.00 0.01	-1336.55 732.67	732.67	-3.37 0.22	0.22	2.45 -1.67	0.00 0.00	1.20
VA5 - 4	772.50	0.00 0.01	732.66 1318.25	1318.25	0.22 33.34	0.00	0.96 -0.13	-0.03 0.03	1.20
VA5 - 5	772.50	0.00 0.01	1319.22 -2001.65	1319.22	33.34 -8.45	33.34	-0.58 2.34	0.02 -0.02	1.20
VA5 - 6	772.50	0.00 0.01	-981.51 573.45	573.45	33.64 -31.38	33.64	1.61 -0.44	0.04 -0.04	-0.36
VA5 - 7	772.50	0.00 0.01	572.79 -890.18	572.79	-16.15 25.81	25.81	-0.31 1.54	-0.03 0.03	-8.46
VA6 - 1	772.50	-0.01	13.38	162.25	-55.70	0.00	0.48	-0.02	1.19

		0.00	-209.03		-21.43		0.76	0.02	
VA6 - 2	772.50	-0.01 0.00	-204.42 -4187.54	0.00	-21.43 59.64	59.64	-2.00 3.19	-0.05 0.05	1.19
VA7 - 1	772.50	-0.20 0.00	347.57 2145.96	2145.96	-57.63 -4.14	0.00	1.75 -0.54	-0.03 0.03	-2.57
VA7 - 2	772.50	-0.20 0.00	2141.34 0.00	2141.34	-4.14 0.00	0.00	-0.71 1.95	0.00 0.00	-2.57
VA8 - 1	866.25	0.00 0.53	-2364.84 -7728.07	3199.76	35.30 -7.23	35.30	3.10 4.35	0.00 0.00	-1.39
VA8 - 2	866.25	0.00 0.66	-7874.50 -6874.38	4707.70	20.95 -38.94	20.95	4.67 4.48	0.01 -0.01	1.28
VA9 - 1	810.00	0.00 0.14	-1713.80 -2619.13	1262.88	-5.34 12.67	12.67	2.20 2.51	0.00 0.00	-2.61
VA9 - 2	810.00	0.00 0.20	-2754.51 -2615.51	1416.22	18.51 16.36	18.51	2.60 2.56	0.00 0.00	-0.37
VA10 - 1	810.00	0.00 0.12	-2135.27 -1593.81	902.01	31.55 -27.72	31.55	2.22 2.01	0.01 -0.01	3.30
VA10 - 2	810.00	0.00 0.06	-1362.00 -665.68	617.67	-24.60 -10.45	0.00	1.79 1.44	0.00 0.00	0.30
VA11 - 1	772.50	-0.08 0.00	-192.22 -153.55	185.13	52.00 -41.65	52.00	0.77 0.73	0.05 -0.05	3.16
VA11 - 2	772.50	-0.48 0.00	-850.44 316.16	755.99	3.01 -4.01	3.01	1.58 0.82	0.00 0.00	-2.36
VA11 - 3	772.50	-0.48 0.00	313.56 -1697.22	313.56	-4.01 -6.56	0.00	-1.59 2.38	0.00 0.00	-2.36
VA12 - 1	772.50	-0.10 0.00	0.00 1751.96	2025.81	0.00 -0.19	0.00	1.77 0.65	0.00 0.00	0.24
VA12 - 2	772.50	-0.10 0.00	1754.57 0.00	1754.57	-0.19 0.00	0.00	-1.42 2.17	0.00 0.00	0.24
VA13	735.00	0.00 0.06	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.28
VA14 - 1	772.50	0.00 0.41	0.00 2243.48	2243.48	0.00 -7.30	0.00	2.54 -1.73	0.01 -0.01	1.43
VA14 - 2	772.50	0.00 0.41	2244.01 0.00	2357.17	-7.30 0.00	0.00	0.42 1.91	0.00 0.00	1.43
VA15	735.00	-0.03 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.01
VA16	735.00	0.00 0.05	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.98
VA17 - 1	772.50	0.00 0.38	0.00 3941.11	3941.11	0.00 15.39	15.39	4.16 -3.35	-0.01 0.01	-6.32
VA17 - 2	772.50	0.00 0.41	3940.58 0.00	3940.58	-15.00 0.00	0.00	-0.29 2.48	-0.01 0.01	1.47
VA18	772.50	0.00 0.19	-579.58 421.34	452.48	-44.97 65.64	65.64	1.26 0.23	-0.06 0.06	1.62
VA19	772.50	0.00 0.03	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-7.16
VA20	772.50	-0.07 0.00	-8.10 0.00	352.27	-15.23 0.00	0.00	0.75 0.74	-0.01 0.01	0.65
VA21 - 1	772.50	0.00 0.09	-1382.95 1847.05	1878.28	36.69 -33.57	36.69	2.25 0.23	0.02 -0.02	8.47
VA21 - 2	772.50	0.00 0.07	1848.24 -1377.85	1848.24	22.13 -45.14	22.13	-0.71 2.34	0.03 -0.03	-4.91
VA22	772.50	0.00 0.10	-359.51 -843.06	694.76	-39.64 58.32	58.32	1.28 1.54	-0.03 0.03	-0.63
VA23	772.50	0.00 0.03	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.62
VA24 - 1	810.00	0.00 0.10	-1653.84 -2658.78	1276.90	-86.37 64.12	64.12	2.18 2.53	-0.03 0.03	-9.73
VA24 - 2	810.00	0.00 0.12	-2461.44 -3002.83	1375.58	20.69 77.37	77.37	2.49 2.66	-0.01 0.01	-0.29
VA25 - 1	810.00	0.00 0.21	-3157.51 1981.46	1981.46	168.00 -127.92	168.00	3.46 -1.91	0.15 -0.15	7.59



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VA25 - 2	810.00	0.00 0.21	1984.03 -2591.79	1984.03	-127.92 11.97	11.97	-0.04 2.72	-0.04 0.04	7.59
VA25 - 3	810.00	0.00 0.05	-1528.42 -800.00	469.83	31.36 -40.17	31.36	1.80 1.44	0.02 -0.02	1.13

CASO: G1+G2+0.98Q+1.4V2+0.84D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.23	-2453.49 1895.21	1895.21	-50.28 3.56	3.56	2.99 -1.48	-0.03 0.03	-1.49
VA1 - 2	772.50	0.00 0.23	1894.93 743.26	1894.93	3.56 -74.08	0.00	-0.69 1.50	0.07 -0.07	-2.11
VA1 - 3	772.50	0.00 0.21	743.68 -1369.31	743.68	-74.08 127.56	127.56	-3.41 3.86	-0.35 0.35	-1.40
VA1 - 4	772.50	-0.31 0.00	-2690.81 731.44	914.37	108.58 -83.50	108.58	2.36 0.53	0.05 -0.05	1.06
VA1 - 5	772.50	-0.34 0.00	733.14 -920.88	733.14	-83.50 110.15	110.15	-3.02 3.42	-0.38 0.38	-7.22
VA1 - 6	772.50	-0.27 0.00	-1876.74 489.35	672.15	85.73 -45.95	85.73	1.99 0.54	0.04 -0.04	1.15
VA2	772.50	0.00 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-3.45
VA3 - 1	772.50	0.00 0.01	0.00 -1559.22	1109.88	0.00 13.72	13.72	1.31 2.03	0.00 0.00	0.81
VA3 - 2	772.50	0.00 0.00	-1564.74 5.22	5.22	53.78 0.00	53.78	1.61 -0.41	0.03 -0.03	0.00
VA4 - 1	810.00	-0.14 0.00	-2902.90 -1203.11	576.81	89.17 -52.70	89.17	2.38 1.70	0.03 -0.03	0.78
VA4 - 2	810.00	0.00 0.02	-2234.11 2128.29	2128.29	-60.49 -28.50	0.00	3.01 -1.42	-0.02 0.02	-3.42
VA4 - 3	810.00	0.00 0.02	2128.57 1978.98	2128.57	-28.50 8.41	0.00	-0.35 0.60	-0.12 0.12	-3.42
VA4 - 4	810.00	0.00 0.02	1979.42 790.58	1979.42	8.41 134.12	0.00	-1.31 1.91	-0.17 0.17	-3.42
VA4 - 5	810.00	0.00 0.01	790.12 -1819.28	790.12	134.12 -7.62	134.12	-4.45 4.91	0.25 -0.25	8.48
VA4 - 6	810.00	-0.20 0.00	-4471.18 -988.44	0.00	-33.18 -1.51	0.00	3.87 -3.06	-0.03 0.03	7.27
VA4 - 7	810.00	-0.20 0.00	-988.14 1067.69	1067.69	-1.51 -2.65	0.00	2.35 -1.48	0.00 0.00	-0.99
VA4 - 8	810.00	-0.20 0.00	1066.83 1206.19	1424.42	-2.65 89.52	0.00	0.77 0.60	-0.05 0.05	-0.99
VA4 - 9	810.00	-0.19 0.00	1209.98 -1731.45	1209.98	89.52 -110.56	89.52	-4.76 5.24	0.34 -0.34	-0.99
VA4 - 10	810.00	-0.27 0.00	-2280.11 -107.14	0.00	-16.21 6.44	6.44	2.63 -1.85	-0.02 0.02	1.16
VA4 - 11	810.00	-0.27 0.00	-101.93 568.57	568.57	6.44 0.29	6.44	1.44 -1.00	0.01 -0.01	1.16
VA4 - 12	810.00	-0.30 0.00	569.54 -211.17	606.06	0.29 -36.45	0.29	0.26 1.15	0.02 -0.02	1.16
VA4 - 13	810.00	0.00 0.09	-2316.29 1807.52	1807.52	6.62 -53.37	6.62	2.59 -0.21	0.02 -0.02	-1.85
VA5 - 1	772.50	0.00 0.01	-1173.09 860.20	860.20	-37.01 26.13	26.13	1.77 -0.01	-0.03 0.03	-1.34
VA5 - 2	772.50	0.00 0.01	859.76 -687.46	859.76	26.13 -6.13	26.13	-0.70 1.70	0.02 -0.02	-1.34
VA5 - 3	772.50	0.00 0.04	-2644.09 -79.25	0.00	3.91 0.95	3.91	2.94 -2.16	0.00 0.00	1.04
VA5 - 4	772.50	0.00 0.04	-79.58 1036.29	1036.29	0.95 34.64	34.64	1.45 -0.62	-0.03 0.03	1.04
VA5 - 5	772.50	0.00	1037.15	1037.15	34.64	34.64	-0.09	0.02	1.04






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**Leilson Campos  
Rezende  
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		0.04	-1162.25		-20.85		1.85	-0.02	
VA5 - 6	772.50	0.00 0.13	-1937.22 784.64	784.64	66.32 -45.85	66.32	2.38 -1.20	0.07 -0.07	-0.35
VA5 - 7	772.50	0.00 0.15	783.67 532.59	912.68	2.17 -98.83	0.00	0.45 0.77	0.06 -0.06	-11.56
VA6 - 1	772.50	0.00 0.08	0.56 1441.73	1441.73	50.50 -0.02	50.50	1.52 -0.28	0.03 -0.03	1.87
VA6 - 2	772.50	0.00 0.08	1446.60 -943.66	1446.60	-0.02 -11.06	0.00	-0.97 2.15	0.01 -0.01	1.87
VA7 - 1	772.50	0.00 0.08	-1904.84 1006.70	1006.70	-11.14 13.72	13.72	2.46 -1.25	-0.02 0.02	-3.64
VA7 - 2	772.50	0.00 0.08	1001.83 0.00	1001.83	13.72 0.00	13.72	0.00 1.24	0.01 -0.01	-3.64
VA8 - 1	866.25	0.00 0.46	-5002.17 -5540.51	2752.85	-45.01 9.94	9.94	3.67 3.79	-0.01 0.01	-1.33
VA8 - 2	866.25	0.00 0.80	-9742.50 -4562.29	5066.40	1.42 32.94	32.94	5.07 4.08	0.00 0.00	1.00
VA9 - 1	810.00	0.00 0.11	-1765.03 -2562.03	1263.95	74.66 -69.24	74.66	2.22 2.49	0.02 -0.02	8.51
VA9 - 2	810.00	0.00 0.15	-2685.02 -2630.80	1441.94	-46.94 1.78	1.78	2.59 2.57	-0.01 0.01	-0.16
VA10 - 1	810.00	0.00 0.08	-2080.47 -1627.36	909.24	12.29 -34.20	12.29	2.20 2.03	0.01 -0.01	-2.47
VA10 - 2	810.00	0.00 0.04	-1291.24 -760.92	600.24	-55.44 63.58	63.58	1.75 1.49	-0.03 0.03	-7.02
VA11 - 1	772.50	-0.07 0.00	-144.46 -217.68	178.87	47.28 -19.27	47.28	0.71 0.78	0.03 -0.03	-0.05
VA11 - 2	772.50	-0.50 0.00	-862.31 298.57	740.30	-4.34 -1.67	0.00	1.57 0.83	0.00 0.00	0.12
VA11 - 3	772.50	-0.50 0.00	295.12 -1717.53	295.12	-1.67 -2.21	0.00	-1.59 2.38	0.00 0.00	0.12
VA12 - 1	772.50	-0.10 0.00	0.00 1751.33	2025.34	0.00 -1.04	0.00	1.77 0.65	0.00 0.00	-0.28
VA12 - 2	772.50	-0.10 0.00	1754.77 0.00	1754.77	-1.04 0.00	0.00	-1.42 2.17	0.00 0.00	-0.28
VA13	735.00	0.00 0.05	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.44
VA14 - 1	772.50	0.00 0.42	0.00 2242.65	2242.65	0.00 -8.36	0.00	2.54 -1.73	0.01 -0.01	0.43
VA14 - 2	772.50	0.00 0.42	2243.46 0.00	2356.73	-8.36 0.00	0.00	0.42 1.91	0.00 0.00	0.43
VA15	735.00	-0.03 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.33
VA16	735.00	0.00 0.06	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.86
VA17 - 1	772.50	0.00 0.39	0.00 3941.93	3941.93	0.00 19.05	19.05	4.16 -3.35	-0.02 0.02	-3.79
VA17 - 2	772.50	0.00 0.43	3941.12 0.00	3941.12	-21.01 0.00	0.00	-0.29 2.48	-0.01 0.01	1.73
VA18	772.50	0.00 0.20	-540.76 374.65	420.34	-72.21 99.34	99.34	1.22 0.27	-0.09 0.09	0.68
VA19	772.50	0.00 0.03	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-5.22
VA20	772.50	-0.01 0.00	-11.21 0.00	350.89	-48.03 0.00	0.00	0.75 0.74	-0.02 0.02	0.97
VA21 - 1	772.50	0.00 0.22	-1736.11 2771.13	2771.13	15.01 -32.73	15.01	2.64 -0.17	0.01 -0.01	1.49
VA21 - 2	772.50	0.00 0.25	2773.00 -1805.38	2773.00	-83.23 62.24	62.24	-1.35 2.98	-0.07 0.07	0.93
VA22	772.50	0.00 0.14	-342.30 -836.39	707.28	-43.53 61.13	61.13	1.27 1.54	-0.03 0.03	0.56
VA23	772.50	0.00 0.02	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.87

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VA24 - 1	810.00	0.00 0.14	-1751.68 -2589.16	1257.76	-19.10 1.83	1.83	2.21 2.50	0.00 0.00	1.16
VA24 - 2	810.00	0.00 0.22	-2669.74 -2802.81	1364.86	-11.67 -33.31	0.00	2.56 2.60	0.00 0.00	-0.27
VA25 - 1	810.00	0.00 0.19	-2902.74 1460.93	1460.93	-29.81 65.24	65.24	3.06 -1.50	-0.05 0.05	-1.06
VA25 - 2	810.00	0.00 0.18	1464.58 -2107.69	1503.07	65.24 -27.39	65.24	0.26 2.42	0.03 -0.03	-1.06
VA25 - 3	810.00	0.00 0.09	-1593.24 -607.95	553.72	-42.18 10.34	10.34	1.86 1.37	-0.01 0.01	-3.15

CASO: G1+G2+0.98Q+1.4V3+0.84D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.27	-1326.13 1906.34	1906.34	-1.44 -2.08	0.00	2.41 -0.91	0.00 0.00	0.98
VA1 - 2	772.50	0.00 0.28	1906.19 151.60	1906.19	-2.08 -166.23	0.00	-1.26 2.08	0.16 -0.16	0.35
VA1 - 3	772.50	0.00 0.26	152.36 -2294.17	152.36	-166.23 97.40	97.40	-3.98 4.43	-0.45 0.45	0.47
VA1 - 4	772.50	-0.31 0.00	-2044.78 257.52	706.09	83.60 -51.39	83.60	2.06 0.83	0.04 -0.04	-0.72
VA1 - 5	772.50	-0.33 0.00	258.92 -1548.69	258.92	-51.39 87.09	87.09	-3.32 3.71	-0.27 0.27	-3.68
VA1 - 6	772.50	-0.32 0.00	-881.55 -726.36	224.06	75.34 -37.35	75.34	1.31 1.21	0.03 -0.03	-0.83
VA2	772.50	0.00 0.01	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-3.71
VA3 - 1	772.50	0.00 0.00	0.00 -1557.15	1110.67	0.00 25.76	25.76	1.31 2.03	-0.01 0.01	0.65
VA3 - 2	772.50	0.00 0.00	-1563.62 6.34	6.34	31.18 0.00	31.18	1.61 -0.41	0.02 -0.02	0.00
VA4 - 1	810.00	0.00 0.07	-1518.59 -1725.05	940.54	35.96 -42.54	35.96	2.00 2.08	0.02 -0.02	0.14
VA4 - 2	810.00	0.00 0.12	-1826.90 1614.06	1614.06	15.98 -55.45	15.98	2.54 -0.95	0.04 -0.04	5.26
VA4 - 3	810.00	0.00 0.12	1614.22 1318.19	1614.22	-55.45 -17.89	0.00	-0.82 1.07	-0.12 0.12	5.26
VA4 - 4	810.00	0.00 0.12	1318.31 -215.34	1318.31	-17.89 126.99	126.99	-1.78 2.38	-0.20 0.20	5.26
VA4 - 5	810.00	0.00 0.11	-216.15 -3086.67	0.00	126.99 -108.17	126.99	-4.92 5.37	0.42 -0.42	2.00
VA4 - 6	810.00	-0.10 0.00	-3364.68 -256.00	0.00	-92.70 -53.95	0.00	3.50 -2.68	-0.04 0.04	-2.17
VA4 - 7	810.00	-0.10 0.00	-255.86 1399.77	1399.77	-53.95 -7.30	0.00	1.97 -1.10	-0.04 0.04	-4.31
VA4 - 8	810.00	-0.10 0.00	1398.80 910.80	1492.74	-7.30 106.58	0.00	0.39 0.97	-0.07 0.07	-4.31
VA4 - 9	810.00	-0.10 0.00	915.84 -2244.27	915.84	106.58 -20.42	106.58	-5.13 5.61	0.22 -0.22	-4.31
VA4 - 10	810.00	-0.16 0.00	-1907.79 -63.48	0.00	-5.43 16.83	16.83	2.29 -1.51	-0.02 0.02	1.62
VA4 - 11	810.00	-0.16 0.00	-57.14 427.01	427.01	16.83 18.45	18.45	1.10 -0.66	0.00 0.00	1.62
VA4 - 12	810.00	-0.17 0.00	428.01 -946.59	428.01	18.45 -53.13	18.45	-0.09 1.49	0.04 -0.04	1.62
VA4 - 13	810.00	0.00 0.00	-728.61 -369.14	338.09	-19.28 -41.95	0.00	1.32 1.07	0.01 -0.01	-1.73
VA5 - 1	772.50	0.00 0.06	-425.89 571.27	695.93	3.33 18.29	18.29	1.32 0.44	-0.01 0.01	3.09
VA5 - 2	772.50	0.00	571.15	571.15	18.29	18.29	-1.15	0.07	3.09

		0.06	-1565.62		-72.31		2.15	-0.07	
VA5 - 3	772.50	0.00 0.08	-1999.62 319.97	319.97	-66.42 -25.29	0.00	2.70 -1.92	-0.04 0.04	-2.84
VA5 - 4	772.50	0.00 0.08	319.85 1173.32	1173.32	-25.29 14.45	0.00	1.21 -0.38	-0.04 0.04	-2.84
VA5 - 5	772.50	0.00 0.08	1174.29 -1580.06	1174.29	14.45 43.49	43.49	-0.33 2.09	-0.01 0.01	-2.84
VA5 - 6	772.50	0.00 0.06	-1509.25 673.88	673.88	48.72 -30.52	48.72	2.02 -0.85	0.05 -0.05	-1.65
VA5 - 7	772.50	0.00 0.07	672.88 -134.92	675.79	-14.47 -27.22	0.00	0.10 1.12	0.01 -0.01	-8.04
VA6 - 1	772.50	0.00 0.04	6.54 675.57	700.33	-26.72 -16.19	0.00	1.04 0.20	-0.01 0.01	2.67
VA6 - 2	772.50	0.00 0.04	680.38 -2449.20	680.38	-16.19 35.79	35.79	-1.45 2.63	-0.03 0.03	2.67
VA7 - 1	772.50	-0.05 0.00	-876.16 1527.03	1527.03	-44.72 -0.91	0.00	2.14 -0.92	-0.03 0.03	-4.47
VA7 - 2	772.50	-0.05 0.00	1522.22 0.00	1522.22	-0.91 0.00	0.00	-0.32 1.57	0.00 0.00	-4.47
VA8 - 1	866.25	0.00 0.52	-3648.24 -6678.20	2926.74	-0.96 -15.87	0.00	3.38 4.08	0.00 0.00	1.62
VA8 - 2	866.25	0.00 0.76	-8832.02 -5708.23	4859.32	-11.72 4.21	4.21	4.87 4.28	0.00 0.00	-1.21
VA9 - 1	810.00	0.00 0.19	-864.21 -3355.24	1421.23	-12.33 3.92	3.92	1.92 2.78	0.00 0.00	3.01
VA9 - 2	810.00	0.00 0.23	-2112.65 -3239.32	1443.36	-31.49 30.39	30.39	2.40 2.76	-0.01 0.01	-0.09
VA10 - 1	810.00	0.00 0.14	-1402.88 -2251.69	951.09	-0.47 -25.78	0.00	1.95 2.28	0.00 0.00	0.28
VA10 - 2	810.00	0.00 0.03	-410.69 -1801.60	581.74	-75.53 112.09	112.09	1.27 1.97	-0.05 0.05	-3.54
VA11 - 1	772.50	-0.12 0.00	917.73 -784.77	917.73	4.57 15.80	15.80	-0.14 1.63	-0.01 0.01	1.61
VA11 - 2	772.50	-0.60 0.00	-88.16 -595.89	603.74	-29.03 11.22	11.22	1.04 1.36	-0.01 0.01	-1.35
VA11 - 3	772.50	-0.60 0.00	-599.61 -3156.57	0.00	11.22 30.43	30.43	-2.13 2.91	-0.02 0.02	-1.35
VA12 - 1	772.50	-0.16 0.00	0.00 1751.12	2025.19	0.00 4.47	4.47	1.77 0.65	0.00 0.00	-0.15
VA12 - 2	772.50	-0.16 0.00	1754.84 0.00	1754.84	4.47 0.00	4.47	-1.42 2.17	0.00 0.00	-0.15
VA13	735.00	0.00 0.08	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.12
VA14 - 1	772.50	0.00 0.62	0.00 2243.06	2243.06	0.00 -1.69	0.00	2.54 -1.73	0.00 0.00	0.76
VA14 - 2	772.50	0.00 0.61	2243.71 0.00	2356.93	-1.69 0.00	0.00	0.42 1.91	0.00 0.00	0.76
VA15	735.00	0.00 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.12
VA16	735.00	0.00 0.02	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.97
VA17 - 1	772.50	0.00 0.28	0.00 3941.52	3941.52	0.00 3.12	3.12	4.16 -3.35	0.00 0.00	-5.04
VA17 - 2	772.50	0.00 0.31	3940.87 0.00	3940.87	-2.30 0.00	0.00	-0.29 2.48	0.00 0.00	1.43
VA18	772.50	0.00 0.14	407.26 -572.69	440.73	-2.15 16.64	16.64	0.24 1.25	-0.01 0.01	1.13
VA19	772.50	0.00 0.02	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-6.34
VA20	772.50	-0.04 0.00	-6.38 0.00	353.03	-16.05 0.00	0.00	0.75 0.74	-0.01 0.01	1.00
VA21 - 1	772.50	0.00 0.16	-926.90 2207.65	2250.81	46.32 -48.91	46.32	2.22 0.26	0.03 -0.03	4.75

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VA21 - 2	772.50	0.00 0.15	2210.32 -2253.51	2210.32	-22.19 -3.29	0.00	-1.30 2.93	-0.01 0.01	-1.79
VA22	772.50	0.00 0.09	721.84 -2110.54	980.85	-29.55 44.68	44.68	0.63 2.19	-0.02 0.02	-0.25
VA23	772.50	0.00 0.03	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.81
VA24 - 1	810.00	0.00 0.20	-682.20 -3516.72	1461.30	-13.17 8.53	8.53	1.87 2.84	0.00 0.00	-4.21
VA24 - 2	810.00	0.00 0.22	-1855.27 -3619.19	1412.94	16.43 9.46	16.43	2.30 2.86	0.00 0.00	-0.07
VA25 - 1	810.00	0.00 0.23	-2188.29 1942.10	1942.10	80.72 -26.54	80.72	2.93 -1.38	0.06 -0.06	3.11
VA25 - 2	810.00	0.00 0.23	1946.57 -3099.42	1946.57	-26.54 -36.51	0.00	-0.18 2.87	0.00 0.00	3.11
VA25 - 3	810.00	0.00 0.04	-471.34 -1974.56	479.71	52.27 -89.54	52.27	1.24 1.99	0.04 -0.04	-1.24

CASO: G1+G2+0.98Q+1.4V4+0.84D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.29	-1531.46 1888.19	1888.19	-107.34 8.96	8.96	2.51 -1.01	-0.06 0.06	-3.71
VA1 - 2	772.50	0.00 0.29	1888.30 235.16	1888.30	8.96 21.62	0.00	-1.17 1.98	-0.01 0.01	-4.34
VA1 - 3	772.50	0.00 0.28	236.26 -2154.16	236.26	21.62 154.07	154.07	-3.89 4.34	-0.23 0.23	-4.16
VA1 - 4	772.50	-0.28 0.00	-2173.26 341.21	730.84	131.23 -111.06	131.23	2.12 0.78	0.06 -0.06	1.64
VA1 - 5	772.50	-0.32 0.00	342.97 -1435.53	342.97	-111.06 126.89	126.89	-3.26 3.66	-0.46 0.46	-2.27
VA1 - 6	772.50	-0.28 0.00	-1090.98 -429.51	293.04	93.73 -50.22	93.73	1.46 1.06	0.04 -0.04	3.36
VA2	772.50	-0.01 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-2.34
VA3 - 1	772.50	0.00 0.02	0.00 -1557.09	1110.69	0.00 4.30	4.30	1.31 2.03	0.00 0.00	0.69
VA3 - 2	772.50	0.00 0.00	-1563.92 6.04	6.04	69.32 0.00	69.32	1.61 -0.41	0.04 -0.04	0.00
VA4 - 1	810.00	0.00 0.17	-1463.67 -1762.89	950.94	78.62 -28.67	78.62	1.98 2.10	0.02 -0.02	1.38
VA4 - 2	810.00	0.00 0.28	-1855.38 1629.97	1629.97	-137.52 -3.98	0.00	2.57 -0.97	-0.07 0.07	-7.73
VA4 - 3	810.00	0.00 0.28	1629.86 1340.78	1629.86	-3.98 32.15	0.00	-0.80 1.05	-0.12 0.12	-7.73
VA4 - 4	810.00	0.00 0.28	1340.81 -176.47	1340.81	32.15 140.36	140.36	-1.76 2.36	-0.15 0.15	-7.73
VA4 - 5	810.00	0.00 0.27	-177.43 -3035.57	0.00	140.36 98.74	140.36	-4.90 5.35	0.07 -0.07	-10.40
VA4 - 6	810.00	0.00 0.06	-3300.19 -218.88	0.00	25.72 50.35	50.35	3.47 -2.66	-0.02 0.02	7.20
VA4 - 7	810.00	0.00 0.06	-218.71 1407.64	1407.64	50.35 5.82	50.35	1.95 -1.08	0.04 -0.04	5.37
VA4 - 8	810.00	0.00 0.06	1406.78 872.87	1489.24	5.82 72.08	0.00	0.37 1.00	-0.04 0.04	5.37
VA4 - 9	810.00	0.00 0.09	877.93 -2298.19	877.93	72.08 -191.09	72.08	-5.16 5.64	0.45 -0.45	5.37
VA4 - 10	810.00	-0.10 0.00	-2018.13 -110.82	0.00	-53.11 -0.28	0.00	2.36 -1.57	-0.05 0.05	0.78
VA4 - 11	810.00	-0.10 0.00	-104.78 415.10	415.10	-0.28 5.21	5.21	1.17 -0.72	-0.01 0.01	0.78
VA4 - 12	810.00	-0.13	415.72	415.72	5.21	5.21	-0.02	0.03	0.78



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Plena**

**Leilson Campos  
Rezende  
Rezende Engenharia**

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		0.00	-839.96		-38.63		1.43	-0.03	
VA4 - 13	810.00	0.00 0.07	-676.43 -368.27	360.94	0.43 9.99	9.99	1.30 1.09	0.00 0.00	-1.84
VA5 - 1	772.50	-0.05 0.00	-393.66 537.11	679.89	-102.74 36.12	36.12	1.29 0.47	-0.06 0.06	-6.00
VA5 - 2	772.50	-0.05 0.00	537.08 -1637.45	537.08	36.12 74.48	74.48	-1.18 2.18	-0.03 0.03	-6.00
VA5 - 3	772.50	-0.03 0.00	-1981.02 333.45	333.45	66.96 26.47	66.96	2.69 -1.91	0.04 -0.04	5.08
VA5 - 4	772.50	-0.03 0.00	333.23 1181.22	1181.22	26.47 53.53	0.00	1.20 -0.37	-0.03 0.03	5.08
VA5 - 5	772.50	-0.03 0.00	1182.08 -1583.84	1182.08	53.53 -72.79	53.53	-0.34 2.09	0.06 -0.06	5.08
VA5 - 6	772.50	0.00 0.07	-1409.47 684.21	684.21	51.24 -46.71	51.24	1.96 -0.79	0.06 -0.06	0.94
VA5 - 7	772.50	0.00 0.10	683.59 -222.66	683.59	0.49 -45.80	0.49	0.04 1.18	0.03 -0.03	-11.99
VA6 - 1	772.50	0.00 0.04	7.40 557.13	605.52	21.52 -5.27	21.52	0.96 0.28	0.02 -0.02	0.39
VA6 - 2	772.50	0.00 0.04	561.81 -2681.99	561.81	-5.27 12.79	12.79	-1.52 2.71	-0.01 0.01	0.39
VA7 - 1	772.50	-0.07 0.00	-681.11 1625.63	1625.63	-24.05 10.49	10.49	2.07 -0.86	-0.02 0.02	-1.74
VA7 - 2	772.50	-0.07 0.00	1620.95 0.00	1620.95	10.49 0.00	10.49	-0.39 1.63	0.01 -0.01	-1.74
VA8 - 1	866.25	0.00 0.47	-3718.77 -6590.38	2928.82	-8.75 18.58	18.58	3.39 4.06	0.00 0.00	-4.35
VA8 - 2	866.25	0.00 0.71	-8784.98 -5728.44	4870.14	34.08 -10.21	34.08	4.86 4.29	0.00 0.00	3.49
VA9 - 1	810.00	0.00 0.05	-2614.63 -1825.92	1207.07	81.66 -60.49	81.66	2.49 2.22	0.02 -0.02	2.89
VA9 - 2	810.00	0.00 0.13	-3326.88 -2007.00	1461.75	3.06 -12.25	3.06	2.79 2.37	0.00 0.00	-0.44
VA10 - 1	810.00	0.00 0.07	-2812.86 -969.49	947.32	44.32 -36.14	44.32	2.47 1.76	0.02 -0.02	0.55
VA10 - 2	810.00	0.00 0.08	-2242.54 374.99	945.79	-4.51 -58.97	0.00	2.27 0.96	0.01 -0.01	-3.18
VA11 - 1	772.50	-0.02 0.00	-1254.42 413.54	413.54	94.70 -76.73	94.70	1.61 -0.12	0.09 -0.09	1.50
VA11 - 2	772.50	-0.38 0.00	-1624.60 1210.63	1263.52	27.70 -16.90	27.70	2.11 0.29	0.01 -0.01	-0.88
VA11 - 3	772.50	-0.38 0.00	1208.28 -258.18	1208.28	-16.90 -39.20	0.00	-1.06 1.84	0.02 -0.02	-0.88
VA12 - 1	772.50	-0.05 0.00	0.00 1752.17	2025.96	0.00 -5.69	0.00	1.77 0.65	0.00 0.00	0.11
VA12 - 2	772.50	-0.05 0.00	1754.51 0.00	1754.51	-5.69 0.00	0.00	-1.42 2.17	-0.01 0.01	0.11
VA13	735.00	0.00 0.03	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.03
VA14 - 1	772.50	0.00 0.22	0.00 2243.06	2243.06	0.00 -13.98	0.00	2.54 -1.73	0.01 -0.01	1.10
VA14 - 2	772.50	0.00 0.22	2243.76 0.00	2356.97	-13.98 0.00	0.00	0.42 1.91	0.00 0.00	1.10
VA15	735.00	-0.07 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.22
VA16	735.00	0.00 0.08	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.86
VA17 - 1	772.50	0.00 0.49	0.00 3941.52	3941.52	0.00 31.31	31.31	4.16 -3.35	-0.03 0.03	-5.07
VA17 - 2	772.50	0.00 0.53	3940.83 0.00	3940.83	-33.71 0.00	0.00	-0.29 2.48	-0.01 0.01	1.77
VA18	772.50	0.00 0.25	-1527.61 1368.69	1368.69	-115.03 148.34	148.34	2.25 -0.75	-0.14 0.14	1.17

VA19	772.50	0.00 0.04	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-6.04
VA20	772.50	-0.04 0.00	-12.93 0.00	350.13	-47.21 0.00	0.00	0.75 0.74	-0.02 0.02	0.62
VA21 - 1	772.50	0.00 0.15	-2192.16 2410.53	2410.53	5.37 -17.39	5.37	2.67 -0.19	0.01 -0.01	5.21
VA21 - 2	772.50	0.00 0.17	2410.92 -929.72	2410.92	-38.90 20.39	20.39	-0.77 2.40	-0.03 0.03	-2.19
VA22	772.50	0.00 0.15	-1423.65 431.08	955.10	-53.63 74.77	74.77	1.92 0.90	-0.04 0.04	0.18
VA23	772.50	0.00 0.03	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.68
VA24 - 1	810.00	0.00 0.04	-2723.32 -1731.22	1205.27	-92.29 57.41	57.41	2.52 2.18	-0.03 0.03	-4.36
VA24 - 2	810.00	0.00 0.12	-3275.91 -2186.45	1386.36	-7.42 34.60	34.60	2.75 2.41	-0.01 0.01	-0.49
VA25 - 1	810.00	0.00 0.17	-3871.96 1500.29	1500.29	57.48 -36.15	57.48	3.58 -2.03	0.05 -0.05	3.43
VA25 - 2	810.00	0.00 0.16	1502.03 -1600.07	1599.30	-36.15 21.09	21.09	0.40 2.28	-0.02 0.02	3.43
VA25 - 3	810.00	0.00 0.10	-2650.32 566.61	974.11	-63.09 59.71	59.71	2.42 0.81	-0.03 0.03	-0.78

CASO: G1+G2+1.2D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.30	-1121.13 1842.62	1842.62	-8.30 1.25	1.25	2.27 -0.77	0.00 0.00	1.36
VA1 - 2	772.50	0.00 0.31	1842.75 -56.68	1842.75	1.25 -11.29	1.25	-1.40 2.21	0.01 -0.01	0.74
VA1 - 3	772.50	0.00 0.30	-55.71 -2582.35	0.00	-11.29 9.64	9.64	-4.12 4.57	-0.04 0.04	0.65
VA1 - 4	772.50	0.00 0.06	-1882.77 178.52	696.70	14.75 -12.76	14.75	2.00 0.90	0.01 -0.01	0.25
VA1 - 5	772.50	0.00 0.05	179.98 -1660.71	179.98	-12.76 14.96	14.96	-3.38 3.78	-0.05 0.05	-1.82
VA1 - 6	772.50	-0.02 0.00	-1014.83 -497.96	287.86	13.16 -5.35	13.16	1.42 1.10	0.01 -0.01	-0.63
VA2	772.50	0.00 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-2.61
VA3 - 1	772.50	0.00 0.00	0.00 -1557.77	1110.43	0.00 1.37	1.37	1.31 2.03	0.00 0.00	0.74
VA3 - 2	772.50	0.00 0.00	-1564.47 5.48	5.48	4.58 0.00	4.58	1.61 -0.41	0.00 0.00	0.00
VA4 - 1	810.00	0.00 0.18	-1142.92 -1901.51	1051.19	33.43 -12.15	33.43	1.89 2.19	0.01 -0.01	0.91
VA4 - 2	810.00	0.00 0.20	-1812.74 1501.65	1501.65	-4.81 -4.27	0.00	2.48 -0.89	0.00 0.00	-0.26
VA4 - 3	810.00	0.00 0.20	1501.52 1185.28	1501.52	-4.27 1.15	0.00	-0.88 1.14	-0.02 0.02	-0.26
VA4 - 4	810.00	0.00 0.20	1185.24 -395.98	1185.24	1.15 14.78	14.78	-1.85 2.44	-0.02 0.02	-0.26
VA4 - 5	810.00	0.00 0.19	-396.89 -3303.34	0.00	14.78 -3.65	14.78	-4.99 5.44	0.03 -0.03	-6.24
VA4 - 6	810.00	0.00 0.12	-2941.39 -4.38	0.00	-8.83 0.83	0.83	3.33 -2.51	-0.01 0.01	0.08
VA4 - 7	810.00	0.00 0.12	-4.11 1467.86	1467.86	0.83 -1.29	0.83	1.80 -0.93	0.00 0.00	0.04
VA4 - 8	810.00	0.00 0.12	1467.18 691.27	1496.15	-1.29 11.93	0.00	0.22 1.14	-0.01 0.01	0.04
VA4 - 9	810.00	0.00	696.50	696.50	11.93	11.93	-5.30	0.05	0.04




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Rezende  
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		0.12	-2564.14		-17.27		5.78	-0.05	
VA4 - 10	810.00	0.00 0.03	-2139.41 -183.56	0.00	-7.27 2.63	2.63	2.41 -1.62	-0.01 0.01	1.42
VA4 - 11	810.00	0.00 0.03	-178.08 369.32	369.32	2.63 6.63	6.63	1.22 -0.77	-0.01 0.01	1.42
VA4 - 12	810.00	0.00 0.03	369.70 -802.68	369.70	6.63 -7.85	6.63	0.03 1.38	0.01 -0.01	1.42
VA4 - 13	810.00	0.00 0.05	-442.55 -700.69	308.10	-2.93 -2.49	0.00	1.11 1.28	0.00 0.00	-1.63
VA5 - 1	772.50	0.00 0.05	-298.80 510.94	686.72	2.50 0.47	2.50	1.23 0.52	0.00 0.00	-0.46
VA5 - 2	772.50	0.00 0.05	510.97 -1732.43	510.97	0.47 -2.19	0.47	-1.23 2.23	0.00 0.00	-0.46
VA5 - 3	772.50	0.00 0.07	-1920.61 369.72	369.72	2.64 -1.88	2.64	2.67 -1.89	0.00 0.00	0.50
VA5 - 4	772.50	0.00 0.07	369.45 1191.61	1191.61	-1.88 4.67	0.00	1.18 -0.35	-0.01 0.01	0.50
VA5 - 5	772.50	0.00 0.07	1192.29 -1628.27	1192.29	4.67 -3.77	4.67	-0.36 2.12	0.00 0.00	0.50
VA5 - 6	772.50	0.00 0.06	-1407.08 665.23	665.23	9.01 -10.61	9.01	1.95 -0.78	0.01 -0.01	-0.46
VA5 - 7	772.50	0.00 0.06	664.84 -260.24	664.84	-8.93 -4.69	0.00	0.03 1.20	0.00 0.00	-9.22
VA6 - 1	772.50	0.00 0.02	7.83 504.49	566.14	-14.11 -12.50	0.00	0.93 0.31	0.00 0.00	1.43
VA6 - 2	772.50	0.00 0.02	509.21 -2785.39	509.21	-12.50 26.81	26.81	-1.56 2.74	-0.03 0.03	1.43
VA7 - 1	772.50	-0.08 0.00	-628.61 1652.21	1652.21	-36.23 1.25	1.25	2.06 -0.84	-0.02 0.02	-2.97
VA7 - 2	772.50	-0.08 0.00	1647.49 0.00	1647.49	1.25 0.00	1.25	-0.40 1.65	0.00 0.00	-2.97
VA8 - 1	866.25	0.00 0.49	-3509.49 -6778.90	2959.69	1.00 -0.95	1.00	3.35 4.11	0.00 0.00	-1.31
VA8 - 2	866.25	0.00 0.72	-8686.10 -5870.98	4839.03	12.55 -8.32	12.55	4.84 4.31	0.00 0.00	1.07
VA9 - 1	810.00	0.00 0.13	-1715.79 -2612.18	1265.21	27.85 -21.68	27.85	2.20 2.51	0.01 -0.01	2.17
VA9 - 2	810.00	0.00 0.18	-2710.83 -2636.32	1426.61	-9.78 10.62	10.62	2.59 2.57	0.00 0.00	-0.25
VA10 - 1	810.00	0.00 0.11	-2095.63 -1621.41	905.45	23.00 -32.48	23.00	2.21 2.02	0.01 -0.01	0.80
VA10 - 2	810.00	0.00 0.05	-1308.38 -734.80	605.87	-38.79 22.62	22.62	1.76 1.47	-0.02 0.02	-2.99
VA11 - 1	772.50	0.00 0.02	-193.65 -591.36	0.00	1.12 5.50	5.50	0.54 0.95	0.00 0.00	1.86
VA11 - 2	772.50	0.00 0.04	-1086.91 690.81	946.00	-2.62 1.26	1.26	1.77 0.63	0.00 0.00	-1.33
VA11 - 3	772.50	0.00 0.04	688.20 -1123.23	688.20	1.26 5.44	5.44	-1.40 2.18	0.00 0.00	-1.33
VA12 - 1	772.50	-0.02 0.00	0.00 1751.96	2025.80	0.00 2.14	2.14	1.77 0.65	0.00 0.00	0.13
VA12 - 2	772.50	-0.02 0.00	1754.57 0.00	1754.57	2.14 0.00	2.14	-1.42 2.17	0.00 0.00	0.13
VA13	735.00	0.00 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.04
VA14 - 1	772.50	0.00 0.05	0.00 2242.93	2242.93	0.00 -1.15	0.00	2.54 -1.73	0.00 0.00	0.97
VA14 - 2	772.50	0.00 0.05	2243.67 0.00	2356.90	-1.15 0.00	0.00	0.42 1.91	0.00 0.00	0.97
VA15	735.00	-0.01 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.27
VA16	735.00	0.00 0.01	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.68



	<b>AltoQi Eberick 2018</b> <b>Plena</b>	
	<b>Leilson Campos</b> <b>Rezende</b> <b>Rezende Engenharia</b>	<b>11/5/2021</b> <b>12:14:59</b>

VA17 - 1	772.50	0.00 0.06	0.00 3941.65	3941.65	0.00 2.00	2.00	4.16 -3.35	0.00 0.00	-5.24
VA17 - 2	772.50	0.00 0.06	3940.92 0.00	3940.92	-1.21 0.00	0.00	-0.29 2.48	0.00 0.00	1.47
VA18	772.50	0.00 0.05	-289.64 170.96	337.71	-10.41 14.00	14.00	0.98 0.51	-0.01 0.01	1.12
VA19	772.50	0.00 0.00	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-5.48
VA20	772.50	-0.02 0.00	-8.76 0.00	351.98	-1.67 0.00	0.00	0.75 0.74	0.00 0.00	0.39
VA21 - 1	772.50	0.00 0.14	-1560.34 2251.64	2251.64	26.10 -30.46	26.10	2.43 0.05	0.02 -0.02	5.44
VA21 - 2	772.50	0.00 0.14	2253.07 -1537.88	2253.07	-16.35 -15.01	0.00	-0.98 2.61	0.00 0.00	-2.39
VA22	772.50	0.00 0.08	-501.55 -714.97	676.79	-7.83 10.08	10.08	1.35 1.47	0.00 0.00	0.15
VA23	772.50	0.00 0.02	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.72
VA24 - 1	810.00	0.00 0.11	-1765.72 -2567.00	1261.20	-55.22 35.69	35.69	2.22 2.49	-0.02 0.02	-5.04
VA24 - 2	810.00	0.00 0.16	-2600.81 -2866.18	1369.77	8.35 28.06	28.06	2.54 2.62	0.00 0.00	-0.26
VA25 - 1	810.00	0.00 0.20	-3104.04 1738.56	1738.56	82.22 -42.82	82.22	3.31 -1.75	0.07 -0.07	3.84
VA25 - 2	810.00	0.00 0.20	1741.54 -2330.83	1746.85	-42.82 -9.45	0.00	0.11 2.57	-0.01 0.01	3.84
VA25 - 3	810.00	0.00 0.07	-1640.99 -615.90	529.01	-9.03 0.27	0.27	1.87 1.36	0.00 0.00	-0.84

CASO: G1+G2+1.2D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.28	-1492.95 1841.63	1841.63	-7.98 0.64	0.64	2.47 -0.96	0.00 0.00	1.31
VA1 - 2	772.50	0.00 0.29	1841.67 142.48	1841.67	0.64 -10.13	0.00	-1.21 2.02	0.01 -0.01	0.70
VA1 - 3	772.50	0.00 0.28	143.28 -2272.58	143.28	-10.13 11.50	11.50	-3.93 4.38	-0.04 0.04	0.80
VA1 - 4	772.50	0.00 0.04	-2093.78 335.17	748.56	14.65 -12.53	14.65	2.10 0.80	0.01 -0.01	0.53
VA1 - 5	772.50	0.00 0.04	336.67 -1453.59	336.67	-12.53 15.97	15.97	-3.28 3.68	-0.06 0.06	-3.30
VA1 - 6	772.50	-0.02 0.00	-1336.94 -112.30	392.22	11.89 -4.60	11.89	1.64 0.88	0.01 -0.01	-0.63
VA2	772.50	0.00 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-2.73
VA3 - 1	772.50	0.00 0.00	0.00 -1558.46	1110.17	0.00 1.18	1.18	1.31 2.03	0.00 0.00	0.78
VA3 - 2	772.50	0.00 0.00	-1564.80 5.16	5.16	6.90 0.00	6.90	1.61 -0.41	0.00 0.00	0.00
VA4 - 1	810.00	0.00 0.11	-1614.70 -1720.95	892.54	40.13 -13.54	40.13	2.02 2.06	0.01 -0.01	0.92
VA4 - 2	810.00	0.00 0.14	-1944.78 1671.37	1671.37	-7.24 -3.92	0.00	2.63 -1.04	0.00 0.00	-1.09
VA4 - 3	810.00	0.00 0.14	1671.34 1403.08	1671.34	-3.92 1.26	0.00	-0.73 0.98	-0.02 0.02	-1.09
VA4 - 4	810.00	0.00 0.14	1403.14 -65.12	1403.14	1.26 15.99	15.99	-1.69 2.29	-0.02 0.02	-1.09
VA4 - 5	810.00	0.00 0.14	-65.89 -2886.79	0.00	15.99 -0.84	15.99	-4.83 5.28	0.03 -0.03	-2.08
VA4 - 6	810.00	0.00	-3322.87	0.00	-9.51	0.91	3.46	-0.01	1.75





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**Leilson Campos  
Rezende  
Rezende Engenharia**

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		0.05	-255.89		0.91		-2.64	0.01	
VA4 - 7	810.00	0.00 0.05	-255.57 1355.44	1355.44	0.91 -1.05	0.91	1.93 -1.06	0.00 0.00	-0.38
VA4 - 8	810.00	0.00 0.05	1354.76 796.80	1431.20	-1.05 12.68	0.00	0.35 1.01	-0.01 0.01	-0.38
VA4 - 9	810.00	0.00 0.05	801.62 -2383.05	801.62	12.68 -16.46	12.68	-5.17 5.65	0.05 -0.05	-0.38
VA4 - 10	810.00	-0.05 0.00	-2245.11 -190.15	0.00	-6.89 1.26	1.26	2.51 -1.73	-0.01 0.01	1.44
VA4 - 11	810.00	-0.05 0.00	-184.98 418.61	418.61	1.26 3.46	3.46	1.32 -0.87	0.00 0.00	1.44
VA4 - 12	810.00	-0.05 0.00	419.02 -575.16	428.86	3.46 -5.92	3.46	0.13 1.28	0.01 -0.01	1.44
VA4 - 13	810.00	0.00 0.04	-982.64 26.39	473.48	-0.55 -11.94	0.00	1.54 0.85	0.00 0.00	-1.65
VA5 - 1	772.50	0.00 0.06	-510.20 595.47	691.90	-0.22 1.45	1.45	1.36 0.39	0.00 0.00	-0.48
VA5 - 2	772.50	0.00 0.06	595.41 -1479.61	595.41	1.45 -2.05	1.45	-1.10 2.10	0.00 0.00	-0.48
VA5 - 3	772.50	0.00 0.09	-2101.42 257.44	257.44	3.44 -1.98	3.44	2.73 -1.96	0.01 -0.01	0.54
VA5 - 4	772.50	0.00 0.09	257.10 1152.59	1152.59	-1.98 4.93	0.00	1.25 -0.42	-0.01 0.01	0.54
VA5 - 5	772.50	0.00 0.09	1153.27 -1512.22	1153.27	4.93 -3.14	4.93	-0.29 2.05	0.00 0.00	0.54
VA5 - 6	772.50	0.00 0.07	-1539.40 694.36	694.36	9.15 -12.05	9.15	2.06 -0.88	0.01 -0.01	-0.45
VA5 - 7	772.50	0.00 0.07	693.94 -63.47	704.05	-11.64 -18.89	0.00	0.13 1.09	0.00 0.00	-9.65
VA6 - 1	772.50	0.00 0.03	6.11 728.77	746.83	-1.16 -9.73	0.00	1.07 0.17	0.01 -0.01	1.53
VA6 - 2	772.50	0.00 0.03	733.53 -2344.69	733.53	-9.73 20.78	20.78	-1.41 2.60	-0.02 0.02	1.53
VA7 - 1	772.50	-0.04 0.00	-922.51 1503.56	1503.56	-31.03 4.38	4.38	2.15 -0.94	-0.02 0.02	-3.13
VA7 - 2	772.50	-0.04 0.00	1498.80 0.00	1498.80	4.38 0.00	4.38	-0.31 1.55	0.00 0.00	-3.13
VA8 - 1	866.25	0.00 0.49	-3860.07 -6488.20	2900.76	-10.33 2.24	2.24	3.42 4.03	0.00 0.00	-1.35
VA8 - 2	866.25	0.00 0.74	-8933.68 -5563.48	4890.34	9.77 1.86	9.77	4.89 4.26	0.00 0.00	1.08
VA9 - 1	810.00	0.00 0.12	-1734.21 -2594.16	1264.38	40.13 -34.08	40.13	2.21 2.50	0.01 -0.01	3.72
VA9 - 2	810.00	0.00 0.17	-2708.38 -2630.94	1430.57	-19.20 8.51	8.51	2.59 2.57	0.00 0.00	-0.28
VA10 - 1	810.00	0.00 0.10	-2097.39 -1619.04	905.91	20.76 -30.86	20.76	2.21 2.02	0.01 -0.01	0.04
VA10 - 2	810.00	0.00 0.05	-1311.67 -731.78	605.90	-41.10 27.79	27.79	1.76 1.47	-0.02 0.02	-3.83
VA11 - 1	772.50	0.00 0.02	-216.13 -584.58	0.00	3.59 2.62	3.59	0.56 0.94	0.00 0.00	1.39
VA11 - 2	772.50	0.00 0.04	-1110.50 713.54	956.38	-4.79 1.93	1.93	1.79 0.61	0.00 0.00	-0.89
VA11 - 3	772.50	0.00 0.04	710.81 -1085.51	710.81	1.93 6.92	6.92	-1.38 2.16	0.00 0.00	-0.89
VA12 - 1	772.50	-0.01 0.00	0.00 1751.87	2025.74	0.00 2.05	2.05	1.77 0.65	0.00 0.00	0.04
VA12 - 2	772.50	-0.01 0.00	1754.60 0.00	1754.60	2.05 0.00	2.05	-1.42 2.17	0.00 0.00	0.04
VA13	735.00	0.00 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.06
VA14 - 1	772.50	0.00 0.05	0.00 2242.79	2242.79	0.00 -1.49	0.00	2.54 -1.73	0.00 0.00	0.80

VA14 - 2	772.50	0.00 0.05	2243.58 0.00	2356.82	-1.49 0.00	0.00	0.42 1.91	0.00 0.00	0.80
VA15	735.00	-0.01 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.33
VA16	735.00	0.00 0.01	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.69
VA17 - 1	772.50	0.00 0.06	0.00 3941.79	3941.79	0.00 3.01	3.01	4.16 -3.35	0.00 0.00	-4.81
VA17 - 2	772.50	0.00 0.06	3941.01 0.00	3941.01	-2.71 0.00	0.00	-0.29 2.48	0.00 0.00	1.52
VA18	772.50	0.00 0.05	-280.82 160.77	333.86	-10.64 14.28	14.28	0.97 0.52	-0.01 0.01	0.98
VA19	772.50	0.00 0.00	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-5.16
VA20	772.50	-0.01 0.00	-9.20 0.00	351.78	-0.41 0.00	0.00	0.75 0.74	0.00 0.00	0.42
VA21 - 1	772.50	0.00 0.15	-1606.10 2377.07	2377.07	23.54 -30.47	23.54	2.48 0.00	0.02 -0.02	4.52
VA21 - 2	772.50	0.00 0.16	2378.60 -1597.58	2378.60	-29.31 -3.72	0.00	-1.07 2.70	-0.01 0.01	-1.59
VA22	772.50	0.00 0.08	-474.41 -741.44	677.12	-8.51 11.34	11.34	1.34 1.48	-0.01 0.01	0.38
VA23	772.50	0.00 0.03	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.76
VA24 - 1	810.00	0.00 0.12	-1759.14 -2575.37	1260.56	-46.91 27.64	27.64	2.21 2.49	-0.01 0.01	-3.53
VA24 - 2	810.00	0.00 0.17	-2615.43 -2853.54	1368.34	2.70 13.71	13.71	2.54 2.62	0.00 0.00	-0.31
VA25 - 1	810.00	0.00 0.20	-3054.66 1675.80	1675.80	58.52 -17.50	58.52	3.25 -1.70	0.04 -0.04	2.70
VA25 - 2	810.00	0.00 0.19	1678.93 -2281.45	1691.25	-17.50 -12.82	0.00	0.14 2.54	0.00 0.00	2.70
VA25 - 3	810.00	0.00 0.07	-1627.23 -617.39	533.95	-16.73 2.88	2.88	1.87 1.37	0.00 0.00	-1.33

CASO: G1+G2+1.2D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.29	-1283.02 1844.12	1844.12	4.07 -0.51	4.07	2.36 -0.86	0.00 0.00	1.87
VA1 - 2	772.50	0.00 0.30	1844.18 32.94	1844.18	-0.51 -30.53	0.00	-1.32 2.13	0.03 -0.03	1.26
VA1 - 3	772.50	0.00 0.29	33.78 -2444.07	33.78	-30.53 3.65	3.65	-4.04 4.49	-0.06 0.06	1.25
VA1 - 4	772.50	0.00 0.05	-1973.22 247.10	718.44	9.28 -6.88	9.28	2.04 0.85	0.00 0.00	0.13
VA1 - 5	772.50	0.00 0.04	248.54 -1570.34	248.54	-6.88 11.28	11.28	-3.34 3.74	-0.04 0.04	-2.71
VA1 - 6	772.50	-0.02 0.00	-1151.58 -339.22	319.91	10.31 -2.83	10.31	1.51 1.01	0.00 0.00	-1.11
VA2	772.50	0.00 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-2.82
VA3 - 1	772.50	0.00 0.00	0.00 -1558.12	1110.29	0.00 3.33	3.33	1.31 2.03	0.00 0.00	0.76
VA3 - 2	772.50	0.00 0.00	-1564.60 5.36	5.36	0.71 0.00	0.71	1.61 -0.41	0.00 0.00	0.00
VA4 - 1	810.00	0.00 0.13	-1384.50 -1807.06	970.91	32.40 -15.18	32.40	1.95 2.12	0.01 -0.01	0.81
VA4 - 2	810.00	0.00 0.15	-1875.56 1584.69	1584.69	10.91 -9.52	10.91	2.55 -0.96	0.01 -0.01	0.77
VA4 - 3	810.00	0.00	1584.64	1584.64	-9.52	0.00	-0.81	-0.02	0.77




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		0.15	1291.61		-4.48		1.06	0.02	
VA4 - 4	810.00	0.00 0.15	1291.63 -234.96	1291.63	-4.48 12.90	12.90	-1.77 2.37	-0.02 0.02	0.77
VA4 - 5	810.00	0.00 0.15	-235.79 -3100.86	0.00	12.90 -24.54	12.90	-4.91 5.36	0.07 -0.07	-2.78
VA4 - 6	810.00	0.00 0.06	-3139.19 -134.21	0.00	-21.40 -10.83	0.00	3.40 -2.58	-0.01 0.01	-0.12
VA4 - 7	810.00	0.00 0.06	-133.92 1410.76	1410.76	-10.83 -2.65	0.00	1.87 -1.00	-0.01 0.01	-1.25
VA4 - 8	810.00	0.00 0.06	1410.07 748.13	1460.52	-2.65 16.04	0.00	0.29 1.08	-0.01 0.01	-1.25
VA4 - 9	810.00	0.00 0.06	753.15 -2467.76	753.15	16.04 0.25	16.04	-5.24 5.71	0.03 -0.03	-1.25
VA4 - 10	810.00	-0.02 0.00	-2180.10 -181.61	0.00	-4.50 3.13	3.13	2.45 -1.67	-0.01 0.01	1.51
VA4 - 11	810.00	-0.02 0.00	-176.25 395.31	395.31	3.13 7.21	7.21	1.26 -0.82	-0.01 0.01	1.51
VA4 - 12	810.00	-0.01 0.00	395.75 -700.53	395.75	7.21 -7.46	7.21	0.07 1.33	0.01 -0.01	1.51
VA4 - 13	810.00	0.00 0.04	-717.91 -337.37	360.82	-3.63 -15.04	0.00	1.32 1.06	0.00 0.00	-1.68
VA5 - 1	772.50	0.00 0.07	-407.20 556.64	690.39	13.24 -1.05	13.24	1.30 0.46	0.01 -0.01	0.54
VA5 - 2	772.50	0.00 0.07	556.62 -1599.10	556.62	-1.05 -18.87	0.00	-1.17 2.17	0.01 -0.01	0.54
VA5 - 3	772.50	0.00 0.10	-2012.28 312.60	312.60	-12.10 -7.27	0.00	2.70 -1.92	0.00 0.00	-0.36
VA5 - 4	772.50	0.00 0.10	312.31 1171.43	1171.43	-7.27 0.47	0.00	1.21 -0.38	-0.01 0.01	-0.36
VA5 - 5	772.50	0.00 0.10	1172.13 -1570.25	1172.13	0.47 8.93	8.93	-0.33 2.08	0.00 0.00	-0.36
VA5 - 6	772.50	0.00 0.06	-1483.56 678.59	678.59	6.80 -9.93	6.80	2.01 -0.84	0.01 -0.01	-0.74
VA5 - 7	772.50	0.00 0.06	678.15 -153.08	678.15	-15.61 -7.96	0.00	0.09 1.14	0.00 0.00	-9.07
VA6 - 1	772.50	0.00 0.02	6.86 633.27	663.36	-13.52 -12.45	0.00	1.01 0.23	0.00 0.00	1.69
VA6 - 2	772.50	0.00 0.02	638.02 -2532.37	638.02	-12.45 27.93	27.93	-1.47 2.66	-0.03 0.03	1.69
VA7 - 1	772.50	-0.06 0.00	-796.10 1567.50	1567.50	-36.61 1.88	1.88	2.11 -0.90	-0.02 0.02	-3.31
VA7 - 2	772.50	-0.06 0.00	1562.75 0.00	1562.75	1.88 0.00	1.88	-0.35 1.59	0.00 0.00	-3.31
VA8 - 1	866.25	0.00 0.50	-3676.90 -6643.71	2926.41	-3.86 -3.35	0.00	3.38 4.07	0.00 0.00	-0.64
VA8 - 2	866.25	0.00 0.74	-8814.97 -5715.59	4863.22	5.71 -1.59	5.71	4.87 4.28	0.00 0.00	0.53
VA9 - 1	810.00	0.00 0.14	-1578.37 -2730.79	1286.26	22.53 -19.88	22.53	2.15 2.55	0.01 -0.01	2.96
VA9 - 2	810.00	0.00 0.19	-2608.74 -2736.21	1428.56	-18.99 15.05	15.05	2.56 2.60	-0.01 0.01	-0.22
VA10 - 1	810.00	0.00 0.11	-1979.44 -1725.95	909.38	16.41 -30.30	16.41	2.16 2.07	0.01 -0.01	0.40
VA10 - 2	810.00	0.00 0.05	-1157.25 -916.19	581.99	-49.56 46.51	46.51	1.68 1.56	-0.02 0.02	-3.47
VA11 - 1	772.50	0.00 0.00	35.02 -720.18	116.30	-7.83 14.70	14.70	0.36 1.14	-0.01 0.01	1.64
VA11 - 2	772.50	0.00 0.01	-928.89 502.42	854.01	-10.37 4.84	4.84	1.66 0.74	0.00 0.00	-1.16
VA11 - 3	772.50	0.00 0.01	499.59 -1424.84	499.59	4.84 14.17	14.17	-1.51 2.29	-0.01 0.01	-1.16
VA12 - 1	772.50	-0.03 0.00	0.00 1751.80	2025.69	0.00 3.21	3.21	1.77 0.65	0.00 0.00	0.06

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VA12 - 2	772.50	-0.03 0.00	1754.62 0.00	1754.62	3.21 0.00	3.21	-1.42 2.17	0.00 0.00	0.06
VA13	735.00	0.00 0.01	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.02
VA14 - 1	772.50	0.00 0.09	0.00 2242.86	2242.86	0.00 0.16	0.16	2.54 -1.73	0.00 0.00	0.84
VA14 - 2	772.50	0.00 0.09	2243.62 0.00	2356.86	0.16 0.00	0.16	0.42 1.91	0.00 0.00	0.84
VA15	735.00	0.00 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.29
VA16	735.00	0.00 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.70
VA17 - 1	772.50	0.00 0.04	0.00 3941.72	3941.72	0.00 -0.86	0.00	4.16 -3.35	0.00 0.00	-5.02
VA17 - 2	772.50	0.00 0.04	3940.97 0.00	3940.97	1.76 0.00	1.76	-0.29 2.48	0.00 0.00	1.46
VA18	772.50	0.00 0.03	-69.18 -50.94	296.83	2.89 -1.44	2.89	0.76 0.74	0.00 0.00	1.05
VA19	772.50	0.00 0.00	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-5.36
VA20	772.50	-0.02 0.00	-8.33 0.00	352.17	5.67 0.00	5.67	0.75 0.74	0.00 0.00	0.44
VA21 - 1	772.50	0.00 0.15	-1464.82 2298.34	2298.34	29.68 -34.25	29.68	2.41 0.07	0.02 -0.02	4.92
VA21 - 2	772.50	0.00 0.15	2300.03 -1694.03	2300.03	-20.73 -15.93	0.00	-1.08 2.71	0.00 0.00	-1.94
VA22	772.50	0.00 0.08	-256.96 -1002.02	681.08	-4.91 6.83	6.83	1.20 1.61	0.00 0.00	0.22
VA23	772.50	0.00 0.03	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.75
VA24 - 1	810.00	0.00 0.13	-1578.18 -2731.87	1285.88	-41.43 25.65	25.65	2.15 2.55	-0.01 0.01	-4.27
VA24 - 2	810.00	0.00 0.18	-2480.62 -2988.52	1372.60	8.66 17.44	17.44	2.50 2.66	0.00 0.00	-0.23
VA25 - 1	810.00	0.00 0.21	-2927.59 1746.31	1746.31	73.64 -28.79	73.64	3.22 -1.67	0.05 -0.05	3.25
VA25 - 2	810.00	0.00 0.21	1749.62 -2440.09	1749.62	-28.79 -17.19	0.00	0.07 2.61	0.00 0.00	3.25
VA25 - 3	810.00	0.00 0.07	-1438.35 -846.32	485.61	-0.50 -16.69	0.00	1.77 1.47	0.00 0.00	-1.15

CASO: G1+G2+1.2D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.30	-1331.06 1840.13	1840.13	-20.35 2.40	2.40	2.38 -0.88	-0.01 0.01	0.80
VA1 - 2	772.50	0.00 0.30	1840.24 52.87	1840.24	2.40 9.11	0.00	-1.29 2.11	-0.01 0.01	0.19
VA1 - 3	772.50	0.00 0.30	53.79 -2410.86	53.79	9.11 17.48	17.48	-4.02 4.46	-0.01 0.01	0.20
VA1 - 4	772.50	0.00 0.05	-2003.33 266.59	724.15	20.12 -18.42	20.12	2.05 0.84	0.01 -0.01	0.66
VA1 - 5	772.50	0.00 0.05	268.11 -1543.96	268.11	-18.42 19.65	19.65	-3.33 3.72	-0.07 0.07	-2.41
VA1 - 6	772.50	-0.01 0.00	-1200.19 -271.04	344.29	14.75 -7.12	14.75	1.55 0.98	0.01 -0.01	-0.14
VA2	772.50	0.00 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-2.52
VA3 - 1	772.50	0.00 0.00	0.00 -1558.11	1110.30	0.00 -0.78	0.00	1.31 2.03	0.00 0.00	0.77
VA3 - 2	772.50	0.00	-1564.67	5.29	10.77	10.77	1.61	0.01	0.00



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		0.00	5.29		0.00		-0.41	-0.01	
VA4 - 1	810.00	0.00 0.16	-1373.12 -1815.40	972.82	41.15 -10.52	41.15	1.95 2.13	0.01 -0.01	1.01
VA4 - 2	810.00	0.00 0.19	-1881.96 1588.33	1588.33	-22.97 1.33	1.33	2.56 -0.96	-0.01 0.01	-2.12
VA4 - 3	810.00	0.00 0.19	1588.21 1296.75	1588.21	1.33 6.89	0.00	-0.80 1.06	-0.02 0.02	-2.12
VA4 - 4	810.00	0.00 0.19	1296.75 -226.13	1296.75	6.89 17.86	17.86	-1.77 2.36	-0.01 0.01	-2.12
VA4 - 5	810.00	0.00 0.18	-227.00 -3089.27	0.00	17.86 20.06	20.06	-4.91 5.36	0.00 0.00	-5.54
VA4 - 6	810.00	0.00 0.10	-3125.08 -126.06	0.00	3.06 12.57	12.57	3.39 -2.58	-0.01 0.01	1.96
VA4 - 7	810.00	0.00 0.10	-125.76 1412.54	1412.54	12.57 0.31	12.57	1.87 -0.99	0.01 -0.01	0.90
VA4 - 8	810.00	0.00 0.10	1411.87 739.94	1459.82	0.31 8.57	0.00	0.28 1.08	0.00 0.00	0.90
VA4 - 9	810.00	0.00 0.11	744.97 -2479.43	744.97	8.57 -33.99	8.57	-5.24 5.72	0.07 -0.07	0.90
VA4 - 10	810.00	0.00 0.00	-2204.43 -192.10	0.00	-9.66 0.77	0.77	2.47 -1.68	-0.01 0.01	1.34
VA4 - 11	810.00	0.00 0.00	-186.81 392.61	392.61	0.77 2.88	2.88	1.28 -0.83	0.00 0.00	1.34
VA4 - 12	810.00	0.00 0.00	392.97 -677.30	393.30	2.88 -6.30	2.88	0.09 1.32	0.01 -0.01	1.34
VA4 - 13	810.00	0.00 0.05	-707.28 -336.92	365.63	0.15 0.61	0.61	1.32 1.07	0.00 0.00	-1.61
VA5 - 1	772.50	0.00 0.04	-401.79 549.77	686.87	-10.96 2.96	2.96	1.30 0.46	-0.01 0.01	-1.48
VA5 - 2	772.50	0.00 0.04	549.77 -1612.94	549.77	2.96 14.64	14.64	-1.17 2.17	-0.01 0.01	-1.48
VA5 - 3	772.50	0.00 0.07	-2009.75 314.56	314.56	18.17 3.40	18.17	2.70 -1.92	0.01 -0.01	1.40
VA5 - 4	772.50	0.00 0.07	314.25 1172.76	1172.76	3.40 9.13	0.00	1.21 -0.38	-0.01 0.01	1.40
VA5 - 5	772.50	0.00 0.07	1173.43 -1570.23	1173.43	9.13 -15.84	9.13	-0.33 2.08	0.01 -0.01	1.40
VA5 - 6	772.50	0.00 0.07	-1462.93 680.99	680.99	11.37 -12.72	11.37	2.00 -0.82	0.02 -0.02	-0.17
VA5 - 7	772.50	0.00 0.07	680.63 -170.63	680.63	-4.97 -15.62	0.00	0.07 1.15	0.01 -0.01	-9.79
VA6 - 1	772.50	0.00 0.03	7.07 599.99	637.58	-1.75 -9.78	0.00	0.99 0.25	0.01 -0.01	1.27
VA6 - 2	772.50	0.00 0.03	604.72 -2597.72	604.72	-9.78 19.67	19.67	-1.50 2.68	-0.02 0.02	1.27
VA7 - 1	772.50	-0.06 0.00	-755.02 1588.27	1588.27	-30.65 3.75	3.75	2.10 -0.88	-0.02 0.02	-2.79
VA7 - 2	772.50	-0.06 0.00	1583.54 0.00	1583.54	3.75 0.00	3.75	-0.36 1.61	0.00 0.00	-2.79
VA8 - 1	866.25	0.00 0.49	-3692.66 -6623.39	2927.43	-5.48 4.64	4.64	3.39 4.07	0.00 0.00	-2.03
VA8 - 2	866.25	0.00 0.72	-8804.80 -5718.87	4866.15	16.61 -4.86	16.61	4.87 4.28	0.00 0.00	1.62
VA9 - 1	810.00	0.00 0.11	-1871.63 -2475.55	1250.56	45.45 -35.88	45.45	2.25 2.46	0.01 -0.01	2.94
VA9 - 2	810.00	0.00 0.17	-2810.47 -2531.05	1432.73	-9.99 4.07	4.07	2.62 2.53	0.00 0.00	-0.31
VA10 - 1	810.00	0.00 0.09	-2213.58 -1514.50	908.58	27.35 -33.04	27.35	2.25 1.98	0.01 -0.01	0.44
VA10 - 2	810.00	0.00 0.05	-1462.79 -550.39	641.97	-30.33 3.91	3.91	1.85 1.39	-0.01 0.01	-3.34
VA11 - 1	772.50	0.00 0.04	-444.80 -455.76	0.00	12.55 -6.59	12.55	0.74 0.75	0.01 -0.01	1.61

VA11 - 2	772.50	0.00 0.06	-1268.52 901.94	1064.50	2.96 -1.64	2.96	1.90 0.50	0.00 0.00	-1.06
VA11 - 3	772.50	0.00 0.06	899.41 -783.90	899.41	-1.64 -1.81	0.00	-1.27 2.05	0.00 0.00	-1.06
VA12 - 1	772.50	-0.01 0.00	0.00 1752.03	2025.86	0.00 0.97	0.97	1.77 0.65	0.00 0.00	0.11
VA12 - 2	772.50	-0.01 0.00	1754.55 0.00	1754.55	0.97 0.00	0.97	-1.42 2.17	0.00 0.00	0.11
VA13	735.00	0.00 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.00
VA14 - 1	772.50	0.00 0.01	0.00 2242.86	2242.86	0.00 -2.80	0.00	2.54 -1.73	0.00 0.00	0.92
VA14 - 2	772.50	0.00 0.01	2243.63 0.00	2356.86	-2.80 0.00	0.00	0.42 1.91	0.00 0.00	0.92
VA15	735.00	-0.02 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.31
VA16	735.00	0.00 0.02	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.67
VA17 - 1	772.50	0.00 0.08	0.00 3941.72	3941.72	0.00 5.87	5.87	4.16 -3.35	-0.01 0.01	-5.03
VA17 - 2	772.50	0.00 0.08	3940.96 0.00	3940.96	-5.67 0.00	0.00	-0.29 2.48	0.00 0.00	1.53
VA18	772.50	0.00 0.06	-501.29 382.67	435.35	-23.95 29.72	29.72	1.20 0.29	-0.03 0.03	1.06
VA19	772.50	0.00 0.01	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-5.29
VA20	772.50	-0.01 0.00	-9.63 0.00	351.59	-7.75 0.00	0.00	0.75 0.74	0.00 0.00	0.36
VA21 - 1	772.50	0.00 0.15	-1701.63 2330.36	2330.36	19.96 -26.67	19.96	2.50 -0.02	0.01 -0.01	5.04
VA21 - 2	772.50	0.00 0.15	2331.63 -1441.43	2331.63	-24.93 -2.80	0.00	-0.97 2.60	-0.01 0.01	-2.03
VA22	772.50	0.00 0.08	-719.00 -454.39	698.35	-11.43 14.58	14.58	1.48 1.34	-0.01 0.01	0.31
VA23	772.50	0.00 0.02	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.73
VA24 - 1	810.00	0.00 0.10	-1946.69 -2410.49	1243.15	-60.70 37.68	37.68	2.27 2.43	-0.02 0.02	-4.30
VA24 - 2	810.00	0.00 0.16	-2735.62 -2731.20	1365.64	2.39 24.33	24.33	2.58 2.58	0.00 0.00	-0.33
VA25 - 1	810.00	0.00 0.19	-3231.10 1668.06	1668.06	67.10 -31.52	67.10	3.33 -1.78	0.05 -0.05	3.30
VA25 - 2	810.00	0.00 0.19	1670.85 -2172.19	1690.50	-31.52 -5.07	0.00	0.18 2.50	-0.01 0.01	3.30
VA25 - 3	810.00	0.00 0.06	-1829.87 -386.97	586.31	-25.26 19.84	19.84	1.98 1.26	-0.01 0.01	-1.02

CASO: G1+G2+1.4Q									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.28	-1480.97 1920.90	1920.90	-74.21 4.51	4.51	2.50 -1.00	-0.04 0.04	-2.52
VA1 - 2	772.50	0.00 0.28	1920.83 257.87	1920.83	4.51 -98.70	0.00	-1.18 1.99	0.10 -0.10	-3.16
VA1 - 3	772.50	0.00 0.26	258.82 -2137.04	258.82	-98.70 175.10	175.10	-3.90 4.35	-0.47 0.47	-2.95
VA1 - 4	772.50	-0.45 0.00	-2160.76 317.58	717.25	147.15 -110.62	147.15	2.11 0.79	0.07 -0.07	0.49
VA1 - 5	772.50	-0.49 0.00	319.21 -1464.24	319.21	-110.62 146.22	146.22	-3.27 3.67	-0.50 0.50	-3.15
VA1 - 6	772.50	-0.42	-905.00	228.08	115.40	115.40	1.32	0.05	2.07



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**Leilson Campos  
Rezende  
Rezende Engenharia**

**11/5/2021  
12:14:59**

		0.00	-694.85		-60.42		1.20	-0.05	
VA2	772.50	0.00 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-3.18
VA3 - 1	772.50	0.00 0.01	0.00 -1556.69	1110.84	0.00 20.93	20.93	1.31 2.03	0.00 0.00	0.63
VA3 - 2	772.50	0.00 0.00	-1563.40 6.56	6.56	69.33 0.00	69.33	1.61 -0.41	0.04 -0.04	0.00
VA4 - 1	810.00	0.00 0.11	-1539.27 -1715.14	934.55	66.08 -45.36	66.08	2.00 2.07	0.02 -0.02	0.69
VA4 - 2	810.00	0.00 0.21	-1825.02 1637.23	1637.23	-84.22 -40.69	0.00	2.56 -0.96	-0.02 0.02	-1.47
VA4 - 3	810.00	0.00 0.21	1637.30 1344.61	1637.30	-40.69 9.67	0.00	-0.81 1.06	-0.16 0.16	-1.47
VA4 - 4	810.00	0.00 0.21	1344.72 -181.06	1344.72	9.67 184.37	184.37	-1.77 2.37	-0.24 0.24	-1.47
VA4 - 5	810.00	0.00 0.20	-181.96 -3046.58	0.00	184.37 -5.77	184.37	-4.91 5.36	0.34 -0.34	-4.21
VA4 - 6	810.00	-0.07 0.00	-3418.28 -283.43	0.00	-43.91 -2.94	0.00	3.53 -2.71	-0.04 0.04	3.20
VA4 - 7	810.00	-0.07 0.00	-283.33 1400.30	1400.30	-2.94 -0.56	0.00	2.00 -1.13	0.00 0.00	0.83
VA4 - 8	810.00	-0.07 0.00	1399.28 955.17	1504.19	-0.56 122.34	0.00	0.42 0.95	-0.07 0.07	0.83
VA4 - 9	810.00	-0.05 0.00	960.24 -2184.50	960.24	122.34 -143.85	122.34	-5.11 5.58	0.45 -0.45	0.83
VA4 - 10	810.00	-0.19 0.00	-1864.69 -44.41	0.00	-38.78 10.99	10.99	2.27 -1.48	-0.05 0.05	1.10
VA4 - 11	810.00	-0.19 0.00	-37.85 432.66	432.66	10.99 14.74	14.74	1.08 -0.63	-0.01 0.01	1.10
VA4 - 12	810.00	-0.21 0.00	433.65 -980.85	433.65	14.74 -62.59	14.74	-0.11 1.52	0.04 -0.04	1.10
VA4 - 13	810.00	0.00 0.03	-698.20 -382.23	343.64	-12.72 -19.73	0.00	1.30 1.09	0.00 0.00	-1.84
VA5 - 1	772.50	-0.02 0.00	-412.04 554.62	687.60	-71.49 38.46	38.46	1.30 0.45	-0.05 0.05	-1.88
VA5 - 2	772.50	-0.02 0.00	554.51 -1599.61	554.51	38.46 2.46	38.46	-1.16 2.16	0.03 -0.03	-1.88
VA5 - 3	772.50	0.00 0.00	-1981.45 332.34	332.34	-0.92 1.67	1.67	2.69 -1.91	0.00 0.00	1.38
VA5 - 4	772.50	0.00 0.00	332.22 1179.48	1179.48	1.67 46.50	0.00	1.20 -0.37	-0.04 0.04	1.38
VA5 - 5	772.50	0.00 0.00	1180.50 -1586.97	1180.50	46.50 -19.45	46.50	-0.34 2.10	0.03 -0.03	1.38
VA5 - 6	772.50	0.00 0.07	-1453.41 678.72	678.72	67.51 -50.31	67.51	1.99 -0.82	0.08 -0.08	-0.31
VA5 - 7	772.50	0.00 0.09	677.74 -186.05	677.74	-5.57 -47.10	0.00	0.06 1.16	0.03 -0.03	-10.26
VA6 - 1	772.50	0.00 0.04	6.98 616.23	649.73	-0.44 -10.56	0.00	1.00 0.24	0.01 -0.01	1.55
VA6 - 2	772.50	0.00 0.04	620.97 -2565.83	620.97	-10.56 24.50	24.50	-1.49 2.67	-0.02 0.02	1.55
VA7 - 1	772.50	-0.06 0.00	-779.95 1575.67	1575.67	-34.71 5.64	5.64	2.11 -0.89	-0.03 0.03	-3.13
VA7 - 2	772.50	-0.06 0.00	1570.92 0.00	1570.92	5.64 0.00	5.64	-0.36 1.60	0.00 0.00	-3.13
VA8 - 1	866.25	0.00 0.49	-3682.96 -6634.61	2927.40	-4.94 1.66	1.66	3.39 4.07	0.00 0.00	-1.37
VA8 - 2	866.25	0.00 0.73	-8807.90 -5718.81	4864.75	11.19 -2.90	11.19	4.87 4.28	0.00 0.00	1.17
VA9 - 1	810.00	0.00 0.12	-1745.59 -2585.18	1262.83	34.95 -28.46	34.95	2.21 2.50	0.01 -0.01	2.95
VA9 - 2	810.00	0.00 0.18	-2724.12 -2618.67	1429.29	-14.10 8.86	8.86	2.59 2.56	0.00 0.00	-0.26



VA10 - 1	810.00	0.00 0.10	-2112.74 -1606.46	905.60	21.94 -30.66	21.94	2.21 2.02	0.01 -0.01	0.42
VA10 - 2	810.00	0.00 0.05	-1333.73 -704.73	609.68	-40.05 27.14	27.14	1.78 1.46	-0.02 0.02	-3.34
VA11 - 1	772.50	-0.11 0.00	-152.68 -13.18	280.69	69.90 -45.26	69.90	0.82 0.67	0.06 -0.06	1.52
VA11 - 2	772.50	-0.72 0.00	-752.52 138.16	676.88	0.64 -4.74	0.64	1.49 0.91	0.00 0.00	-1.12
VA11 - 3	772.50	-0.72 0.00	134.98 -1965.81	134.98	-4.74 -8.91	0.00	-1.68 2.46	0.00 0.00	-1.12
VA12 - 1	772.50	-0.14 0.00	0.00 1751.53	2025.49	0.00 -1.77	0.00	1.77 0.65	0.00 0.00	-0.07
VA12 - 2	772.50	-0.14 0.00	1754.71 0.00	1754.71	-1.77 0.00	0.00	-1.42 2.17	0.00 0.00	-0.07
VA13	735.00	0.00 0.08	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.11
VA14 - 1	772.50	0.00 0.57	0.00 2243.15	2243.15	0.00 -10.63	0.00	2.54 -1.73	0.01 -0.01	0.95
VA14 - 2	772.50	0.00 0.57	2243.78 0.00	2356.99	-10.63 0.00	0.00	0.42 1.91	0.00 0.00	0.95
VA15	735.00	-0.04 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.12
VA16	735.00	0.00 0.07	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-1.02
VA17 - 1	772.50	0.00 0.53	0.00 3941.43	3941.43	0.00 23.52	23.52	4.16 -3.35	-0.02 0.02	-5.07
VA17 - 2	772.50	0.00 0.57	3940.80 0.00	3940.80	-24.88 0.00	0.00	-0.29 2.48	-0.01 0.01	1.64
VA18	772.50	0.00 0.26	-678.01 497.48	509.22	-79.19 111.78	111.78	1.35 0.14	-0.10 0.10	1.19
VA19	772.50	0.00 0.04	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-6.56
VA20	772.50	-0.05 0.00	-9.95 0.00	351.45	-44.73 0.00	0.00	0.75 0.74	-0.02 0.02	0.98
VA21 - 1	772.50	0.00 0.16	-1549.37 2306.84	2306.84	26.29 -34.30	26.29	2.44 0.04	0.02 -0.02	4.98
VA21 - 2	772.50	0.00 0.16	2308.39 -1601.85	2308.39	-33.85 16.23	16.23	-1.04 2.67	-0.02 0.02	-2.00
VA22	772.50	0.00 0.14	-292.16 -887.52	712.42	-55.91 80.73	80.73	1.25 1.57	-0.04 0.04	-0.17
VA23	772.50	0.00 0.03	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.75
VA24 - 1	810.00	0.00 0.12	-1677.19 -2646.59	1269.48	-53.45 33.53	33.53	2.19 2.52	-0.01 0.01	-4.28
VA24 - 2	810.00	0.00 0.17	-2547.36 -2921.23	1370.72	4.07 22.52	22.52	2.52 2.64	0.00 0.00	-0.28
VA25 - 1	810.00	0.00 0.20	-3009.03 1727.20	1727.20	68.55 -31.85	68.55	3.25 -1.70	0.05 -0.05	3.27
VA25 - 2	810.00	0.00 0.20	1730.33 -2368.43	1733.99	-31.85 -6.24	0.00	0.10 2.58	-0.01 0.01	3.27
VA25 - 3	810.00	0.00 0.07	-1529.43 -741.40	503.33	-2.21 -21.98	0.00	1.82 1.42	0.00 0.00	-0.98

CASO: G1+G2+1.4Q+0.84V1+0.84D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.31	-814.10 1922.27	1922.27	-76.72 4.52	4.52	2.16 -0.65	-0.04 0.04	-2.44
VA1 - 2	772.50	0.00 0.32	1922.37 -99.94	1922.37	4.52 -97.80	4.52	-1.52 2.33	0.10 -0.10	-3.09
VA1 - 3	772.50	0.00	-98.66	0.00	-97.80	173.74	-4.24	-0.47	-3.23





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		0.29	-2693.32		173.74		4.69	0.47	
VA1 - 4	772.50	-0.44 0.00	-1782.14 36.40	635.50	146.46 -109.28	146.46	1.93 0.96	0.07 -0.07	0.09
VA1 - 5	772.50	-0.48 0.00	37.96 -1835.98	37.96	-109.28 144.18	144.18	-3.45 3.84	-0.49 0.49	-0.40
VA1 - 6	772.50	-0.45 0.00	-325.62 -1389.22	239.29	114.85 -59.23	114.85	0.93 1.59	0.05 -0.05	2.14
VA2	772.50	0.00 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-2.91
VA3 - 1	772.50	0.00 0.01	0.00 -1555.33	1111.36	0.00 21.74	21.74	1.31 2.03	-0.01 0.01	0.54
VA3 - 2	772.50	0.00 0.00	-1562.77 7.19	7.19	66.89 0.00	66.89	1.61 -0.41	0.04 -0.04	0.00
VA4 - 1	810.00	0.00 0.27	-626.15 -2064.93	1266.22	46.01 -34.90	46.01	1.75 2.32	0.02 -0.02	0.68
VA4 - 2	810.00	0.00 0.33	-1570.75 1309.71	1309.71	-84.05 -41.47	0.00	2.26 -0.67	-0.02 0.02	-0.04
VA4 - 3	810.00	0.00 0.33	1309.61 924.42	1309.61	-41.47 8.89	0.00	-1.10 1.36	-0.16 0.16	-0.04
VA4 - 4	810.00	0.00 0.33	924.30 -819.27	924.30	8.89 183.92	183.92	-2.07 2.66	-0.24 0.24	-0.04
VA4 - 5	810.00	0.00 0.32	-820.45 -3850.00	0.00	183.92 -4.42	183.92	-5.21 5.66	0.34 -0.34	-12.40
VA4 - 6	810.00	0.00 0.05	-2681.63 202.39	202.39	-44.00 -3.13	0.00	3.28 -2.46	-0.04 0.04	0.11
VA4 - 7	810.00	0.00 0.05	202.39 1617.65	1617.65	-3.13 0.55	0.00	1.75 -0.88	0.00 0.00	1.80
VA4 - 8	810.00	0.00 0.05	1616.60 751.78	1634.46	0.55 122.12	0.00	0.17 1.20	-0.07 0.07	1.80
VA4 - 9	810.00	0.00 0.07	757.67 -2533.72	757.67	122.12 -141.08	122.12	-5.36 5.83	0.45 -0.45	1.80
VA4 - 10	810.00	-0.09 0.00	-1659.60 -31.49	0.00	-46.68 12.29	12.29	2.07 -1.29	-0.06 0.06	1.13
VA4 - 11	810.00	-0.09 0.00	-24.30 337.25	337.25	12.29 22.11	22.11	0.88 -0.43	-0.02 0.02	1.13
VA4 - 12	810.00	-0.11 0.00	338.14 -1421.97	338.14	22.11 -68.52	22.11	-0.31 1.72	0.05 -0.05	1.13
VA4 - 13	810.00	0.00 0.00	345.67 -1789.75	480.21	-22.68 4.03	4.03	0.47 1.92	-0.01 0.01	-1.80
VA5 - 1	772.50	-0.02 0.00	75.55 359.18	726.03	-78.73 38.96	0.00	1.00 0.75	-0.05 0.05	-1.95
VA5 - 2	772.50	-0.02 0.00	359.30 -2183.45	359.30	38.96 6.77	38.96	-1.46 2.46	0.02 -0.02	-1.95
VA5 - 3	772.50	-0.01 0.00	-1563.87 591.63	591.63	-3.21 1.46	1.46	2.53 -1.76	0.00 0.00	1.42
VA5 - 4	772.50	-0.01 0.00	591.62 1269.54	1269.54	1.46 46.07	0.00	1.05 -0.21	-0.04 0.04	1.42
VA5 - 5	772.50	-0.01 0.00	1270.59 -1855.04	1270.59	46.07 -15.81	46.07	-0.50 2.25	0.03 -0.03	1.42
VA5 - 6	772.50	0.00 0.03	-1148.17 611.29	611.29	57.69 -45.76	57.69	1.74 -0.57	0.07 -0.07	-0.32
VA5 - 7	772.50	0.00 0.05	610.40 -640.43	610.40	-10.69 -7.72	0.00	-0.18 1.40	0.00 0.00	-9.27
VA6 - 1	772.50	0.00 0.01	11.06 89.60	298.09	-34.12 -17.37	0.00	0.67 0.57	-0.01 0.01	1.34
VA6 - 2	772.50	0.00 0.01	94.26 -3600.70	94.26	-17.37 46.56	46.56	-1.82 3.00	-0.04 0.04	1.34
VA7 - 1	772.50	-0.15 0.00	-63.08 1938.25	1938.25	-49.39 -0.16	0.00	1.88 -0.67	-0.03 0.03	-2.78
VA7 - 2	772.50	-0.15 0.00	1933.59 0.00	1933.59	-0.16 0.00	0.00	-0.58 1.82	0.00 0.00	-2.78
VA8 - 1	866.25	0.00 0.51	-2842.68 -7331.57	3087.92	20.74 -3.94	20.74	3.21 4.25	0.00 0.00	-1.38



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VA8 - 2	866.25	0.00 0.68	-8212.84 -6455.48	4762.54	17.44 -25.89	17.44	4.74 4.41	0.00 0.00	1.25
VA9 - 1	810.00	0.00 0.13	-1727.65 -2604.83	1262.62	9.23 -2.15	9.23	2.20 2.50	0.00 0.00	-0.60
VA9 - 2	810.00	0.00 0.19	-2745.31 -2614.84	1421.02	6.86 13.53	13.53	2.60 2.56	0.00 0.00	-0.32
VA10 - 1	810.00	0.00 0.11	-2128.93 -1596.73	903.37	28.03 -28.94	28.03	2.22 2.01	0.01 -0.01	2.25
VA10 - 2	810.00	0.00 0.06	-1354.50 -676.59	614.66	-30.48 4.21	4.21	1.79 1.45	-0.01 0.01	-1.03
VA11 - 1	772.50	-0.12 0.00	-163.86 5.11	285.88	70.97 -51.57	70.97	0.83 0.66	0.06 -0.06	2.55
VA11 - 2	772.50	-0.71 0.00	-745.66 140.26	680.88	3.15 -5.54	3.15	1.49 0.92	0.00 0.00	-1.93
VA11 - 3	772.50	-0.71 0.00	137.35 -1965.00	137.35	-5.54 -10.43	0.00	-1.68 2.47	0.00 0.00	-1.93
VA12 - 1	772.50	-0.14 0.00	0.00 1751.73	2025.64	0.00 -1.51	0.00	1.77 0.65	0.00 0.00	0.10
VA12 - 2	772.50	-0.14 0.00	1754.64 0.00	1754.64	-1.51 0.00	0.00	-1.42 2.17	0.00 0.00	0.10
VA13	735.00	0.00 0.08	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.13
VA14 - 1	772.50	0.00 0.57	0.00 2243.42	2243.42	0.00 -10.26	0.00	2.54 -1.73	0.01 -0.01	1.27
VA14 - 2	772.50	0.00 0.57	2243.96 0.00	2357.13	-10.26 0.00	0.00	0.42 1.91	0.00 0.00	1.27
VA15	735.00	-0.04 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.01
VA16	735.00	0.00 0.07	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-1.05
VA17 - 1	772.50	0.00 0.52	0.00 3941.17	3941.17	0.00 22.28	22.28	4.16 -3.35	-0.02 0.02	-5.88
VA17 - 2	772.50	0.00 0.57	3940.63 0.00	3940.63	-22.87 0.00	0.00	-0.29 2.48	-0.01 0.01	1.56
VA18	772.50	0.00 0.25	-690.89 512.92	521.51	-70.98 101.63	101.63	1.37 0.12	-0.09 0.09	1.49
VA19	772.50	0.00 0.04	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-7.19
VA20	772.50	-0.07 0.00	-8.95 0.00	351.89	-35.07 0.00	0.00	0.75 0.74	-0.02 0.02	0.89
VA21 - 1	772.50	0.00 0.12	-1437.02 2012.05	2029.51	33.15 -34.55	33.15	2.31 0.16	0.02 -0.02	7.20
VA21 - 2	772.50	0.00 0.11	2013.39 -1465.23	2013.39	-0.43 -17.57	0.00	-0.83 2.46	0.01 -0.01	-3.86
VA22	772.50	0.00 0.12	-301.12 -885.82	708.20	-54.65 79.71	79.71	1.25 1.57	-0.04 0.04	-0.55
VA23	772.50	0.00 0.03	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.67
VA24 - 1	810.00	0.00 0.11	-1648.76 -2666.31	1276.33	-74.79 53.34	53.34	2.18 2.53	-0.02 0.02	-7.76
VA24 - 2	810.00	0.00 0.14	-2482.83 -2983.01	1374.13	14.57 57.74	57.74	2.50 2.66	-0.01 0.01	-0.28
VA25 - 1	810.00	0.00 0.21	-3092.37 1892.14	1892.14	131.21 -93.34	131.21	3.38 -1.83	0.12 -0.12	6.02
VA25 - 2	810.00	0.00 0.21	1894.93 -2520.57	1894.93	-93.34 6.04	6.04	0.01 2.67	-0.03 0.03	6.02
VA25 - 3	810.00	0.00 0.06	-1511.91 -798.81	477.47	20.93 -37.50	20.93	1.80 1.44	0.01 -0.01	0.37

**CASO: G1+G2+1.4Q+0.84V2+0.84D2**

Elemento	Carga (kgf/m)	Rd Nd	Mxi Mxf	MxMáx (kgf.m)	Myi Myf	MyMáx (kgf.m)	Vxi Vxf	Vyi Vyf	Mtd (kgf/m)
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**Leilson Campos  
Rezende  
Rezende Engenharia**

**11/5/2021  
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		(tf)	(kgf.m)		(kgf.m)		(tf)	(tf)	
VA1 - 1	772.50	0.00 0.25	-2147.84 1919.53	1919.53	-71.69 4.50	4.50	2.84 -1.34	-0.04 0.04	-2.60
VA1 - 2	772.50	0.00 0.25	1919.29 615.68	1919.29	4.50 -99.61	0.00	-0.83 1.65	0.10 -0.10	-3.23
VA1 - 3	772.50	0.00 0.22	616.31 -1580.76	616.31	-99.61 176.45	176.45	-3.56 4.00	-0.47 0.47	-2.66
VA1 - 4	772.50	-0.46 0.00	-2539.38 598.76	838.84	147.84 -111.95	147.84	2.28 0.61	0.07 -0.07	0.89
VA1 - 5	772.50	-0.50 0.00	600.46 -1092.50	600.46	-111.95 148.25	148.25	-3.09 3.49	-0.51 0.51	-5.90
VA1 - 6	772.50	-0.40 0.00	-1484.39 -0.49	419.24	115.94 -61.62	115.94	1.72 0.81	0.05 -0.05	2.01
VA2	772.50	0.00 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-3.45
VA3 - 1	772.50	0.00 0.01	0.00 -1558.05	1110.32	0.00 20.11	20.11	1.31 2.03	0.00 0.00	0.72
VA3 - 2	772.50	0.00 0.00	-1564.03 5.93	5.93	71.77 0.00	71.77	1.61 -0.41	0.05 -0.05	0.00
VA4 - 1	810.00	-0.06 0.00	-2452.38 -1365.35	681.79	86.15 -55.81	86.15	2.25 1.82	0.03 -0.03	0.71
VA4 - 2	810.00	0.00 0.10	-2079.29 1964.76	1964.76	-84.40 -39.92	0.00	2.85 -1.26	-0.02 0.02	-2.90
VA4 - 3	810.00	0.00 0.10	1964.99 1764.80	1964.99	-39.92 10.45	0.00	-0.51 0.77	-0.16 0.16	-2.90
VA4 - 4	810.00	0.00 0.10	1765.14 457.16	1765.14	10.45 184.81	0.00	-1.48 2.07	-0.24 0.24	-2.90
VA4 - 5	810.00	0.00 0.08	456.52 -2243.15	456.52	184.81 -7.12	184.81	-4.62 5.07	0.34 -0.34	3.97
VA4 - 6	810.00	-0.19 0.00	-4154.93 -769.24	0.00	-43.82 -2.76	0.00	3.77 -2.96	-0.04 0.04	6.29
VA4 - 7	810.00	-0.19 0.00	-769.05 1182.95	1182.95	-2.76 -1.67	0.00	2.25 -1.38	0.00 0.00	-0.14
VA4 - 8	810.00	-0.19 0.00	1181.97 1158.56	1458.18	-1.67 122.56	0.00	0.67 0.70	-0.07 0.07	-0.14
VA4 - 9	810.00	-0.16 0.00	1162.81 -1835.28	1162.81	122.56 -146.62	122.56	-4.86 5.33	0.46 -0.46	-0.14
VA4 - 10	810.00	-0.28 0.00	-2069.78 -57.34	0.00	-30.89 9.69	9.69	2.47 -1.68	-0.04 0.04	1.08
VA4 - 11	810.00	-0.28 0.00	-51.40 528.07	528.07	9.69 7.37	9.69	1.28 -0.83	0.00 0.00	1.08
VA4 - 12	810.00	-0.31 0.00	529.16 -539.74	529.66	7.37 -56.66	7.37	0.09 1.32	0.04 -0.04	1.08
VA4 - 13	810.00	0.00 0.06	-1742.08 1025.30	1060.89	-2.76 -43.49	0.00	2.13 0.25	0.01 -0.01	-1.89
VA5 - 1	772.50	-0.01 0.00	-899.62 750.05	765.34	-64.25 37.95	37.95	1.60 0.15	-0.04 0.04	-1.82
VA5 - 2	772.50	-0.01 0.00	749.72 -1015.78	749.72	37.95 -1.85	37.95	-0.86 1.86	0.03 -0.03	-1.82
VA5 - 3	772.50	0.00 0.02	-2399.02 73.05	73.05	1.38 1.87	1.87	2.85 -2.07	0.00 0.00	1.34
VA5 - 4	772.50	0.00 0.02	72.83 1089.43	1089.43	1.87 46.93	0.00	1.36 -0.53	-0.04 0.04	1.34
VA5 - 5	772.50	0.00 0.02	1090.42 -1318.90	1090.42	46.93 -23.08	46.93	-0.18 1.94	0.03 -0.03	1.34
VA5 - 6	772.50	0.00 0.10	-1758.65 746.16	746.16	77.33 -54.85	77.33	2.24 -1.06	0.09 -0.09	-0.31
VA5 - 7	772.50	0.00 0.13	745.08 268.33	806.04	-0.46 -86.49	0.00	0.31 0.91	0.05 -0.05	-11.25
VA6 - 1	772.50	0.00 0.07	2.89 1142.86	1142.86	33.23 -3.75	33.23	1.33 -0.09	0.02 -0.02	1.77
VA6 - 2	772.50	0.00 0.07	1147.68 -1530.97	1147.68	-3.75 2.45	2.45	-1.15 2.34	0.00 0.00	1.77

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VA7 - 1	772.50	0.00 0.03	-1496.82 1213.08	1213.08	-20.04 11.43	11.43	2.33 -1.12	-0.02 0.02	-3.47
VA7 - 2	772.50	0.00 0.03	1208.25 0.00	1208.25	11.43 0.00	11.43	-0.13 1.37	0.01 -0.01	-3.47
VA8 - 1	866.25	0.00 0.47	-4523.24 -5937.64	2803.94	-30.61 7.26	7.26	3.56 3.89	0.00 0.00	-1.36
VA8 - 2	866.25	0.00 0.78	-9402.96 -4982.13	4986.78	4.95 20.08	20.08	4.99 4.16	0.00 0.00	1.08
VA9 - 1	810.00	0.00 0.11	-1763.54 -2565.53	1263.03	60.67 -54.77	60.67	2.22 2.49	0.02 -0.02	6.50
VA9 - 2	810.00	0.00 0.16	-2702.93 -2622.50	1437.56	-35.05 4.19	4.19	2.59 2.57	-0.01 0.01	-0.20
VA10 - 1	810.00	0.00 0.09	-2096.54 -1616.19	907.84	15.85 -32.37	15.85	2.21 2.02	0.01 -0.01	-1.42
VA10 - 2	810.00	0.00 0.05	-1312.96 -732.88	604.71	-49.62 50.08	50.08	1.76 1.47	-0.02 0.02	-5.66
VA11 - 1	772.50	-0.11 0.00	-141.50 -31.47	275.50	68.83 -38.95	68.83	0.80 0.69	0.06 -0.06	0.50
VA11 - 2	772.50	-0.72 0.00	-759.38 136.06	672.88	-1.87 -3.95	0.00	1.49 0.91	0.00 0.00	-0.31
VA11 - 3	772.50	-0.72 0.00	132.62 -1966.62	132.62	-3.95 -7.40	0.00	-1.68 2.46	0.00 0.00	-0.31
VA12 - 1	772.50	-0.14 0.00	0.00 1751.33	2025.34	0.00 -2.04	0.00	1.77 0.65	0.00 0.00	-0.24
VA12 - 2	772.50	-0.14 0.00	1754.77 0.00	1754.77	-2.04 0.00	0.00	-1.42 2.17	0.00 0.00	-0.24
VA13	735.00	0.00 0.08	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.34
VA14 - 1	772.50	0.00 0.58	0.00 2242.88	2242.88	0.00 -10.99	0.00	2.54 -1.73	0.01 -0.01	0.62
VA14 - 2	772.50	0.00 0.57	2243.61 0.00	2356.85	-10.99 0.00	0.00	0.42 1.91	0.00 0.00	0.62
VA15	735.00	-0.04 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.22
VA16	735.00	0.00 0.07	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.98
VA17 - 1	772.50	0.00 0.53	0.00 3941.70	3941.70	0.00 24.76	24.76	4.16 -3.35	-0.02 0.02	-4.25
VA17 - 2	772.50	0.00 0.58	3940.98 0.00	3940.98	-26.90 0.00	0.00	-0.29 2.48	-0.01 0.01	1.73
VA18	772.50	0.00 0.26	-665.12 482.05	496.93	-87.40 121.93	121.93	1.34 0.15	-0.11 0.11	0.89
VA19	772.50	0.00 0.05	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-5.93
VA20	772.50	-0.03 0.00	-10.94 0.00	351.01	-54.40 0.00	0.00	0.75 0.74	-0.03 0.03	1.08
VA21 - 1	772.50	0.00 0.20	-1661.73 2601.62	2601.62	19.42 -34.05	19.42	2.57 -0.09	0.02 -0.02	2.76
VA21 - 2	772.50	0.00 0.22	2603.39 -1738.47	2603.39	-67.28 50.02	50.02	-1.24 2.87	-0.06 0.06	-0.13
VA22	772.50	0.00 0.15	-283.20 -889.23	716.64	-57.17 81.75	81.75	1.24 1.58	-0.04 0.04	0.22
VA23	772.50	0.00 0.03	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.83
VA24 - 1	810.00	0.00 0.13	-1705.62 -2626.88	1263.37	-32.10 13.72	13.72	2.19 2.51	-0.01 0.01	-0.81
VA24 - 2	810.00	0.00 0.21	-2611.90 -2859.45	1367.30	-6.43 -12.69	0.00	2.54 2.62	0.00 0.00	-0.28
VA25 - 1	810.00	0.00 0.19	-2925.69 1562.26	1562.26	5.89 29.64	29.64	3.12 -1.57	-0.01 0.01	0.51
VA25 - 2	810.00	0.00 0.19	1565.73 -2216.28	1589.19	29.64 -18.52	29.64	0.20 2.48	0.01 -0.01	0.51
VA25 - 3	810.00	0.00	-1546.95	529.19	-25.35	0.00	1.83	0.00	-2.33


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		0.08	-684.00		-6.46		1.40	0.00	
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CASO: G1+G2+1.4Q+0.84V3+0.84D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.27	-1412.65 1926.90	1926.90	-39.02 0.79	0.79	2.47 -0.96	-0.02 0.02	-0.96
VA1 - 2	772.50	0.00 0.28	1926.75 230.01	1926.75	0.79 -160.61	0.00	-1.21 2.02	0.15 -0.15	-1.60
VA1 - 3	772.50	0.00 0.25	230.85 -2183.69	230.85	-160.61 156.16	156.16	-3.93 4.38	-0.54 0.54	-1.41
VA1 - 4	772.50	-0.46 0.00	-2118.00 289.75	709.03	131.34 -91.10	131.34	2.09 0.80	0.06 -0.06	-0.29
VA1 - 5	772.50	-0.49 0.00	291.25 -1501.88	291.25	-91.10 133.10	133.10	-3.29 3.69	-0.44 0.44	-3.62
VA1 - 6	772.50	-0.44 0.00	-835.37 -793.45	213.60	109.26 -55.96	109.26	1.27 1.25	0.05 -0.05	0.68
VA2	772.50	0.00 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-3.63
VA3 - 1	772.50	0.00 0.01	0.00 -1556.71	1110.83	0.00 27.94	27.94	1.31 2.03	-0.01 0.01	0.62
VA3 - 2	772.50	0.00 0.00	-1563.30 6.66	6.66	56.48 0.00	56.48	1.61 -0.41	0.04 -0.04	0.00
VA4 - 1	810.00	0.00 0.08	-1557.34 -1702.63	931.16	52.06 -50.17	52.06	2.01 2.07	0.02 -0.02	0.29
VA4 - 2	810.00	0.00 0.16	-1815.58 1631.95	1631.95	-33.43 -57.65	0.00	2.55 -0.95	0.01 -0.01	2.83
VA4 - 3	810.00	0.00 0.16	1632.11 1337.11	1632.11	-57.65 -6.93	0.00	-0.82 1.07	-0.16 0.16	2.83
VA4 - 4	810.00	0.00 0.16	1337.25 -193.95	1337.25	-6.93 179.66	179.66	-1.78 2.38	-0.25 0.25	2.83
VA4 - 5	810.00	0.00 0.15	-194.81 -3063.53	0.00	179.66 -74.09	179.66	-4.92 5.37	0.46 -0.46	-0.11
VA4 - 6	810.00	-0.12 0.00	-3439.60 -295.71	0.00	-82.86 -37.51	0.00	3.53 -2.72	-0.05 0.05	0.10
VA4 - 7	810.00	-0.12 0.00	-295.62 1397.69	1397.69	-37.51 -4.91	0.00	2.01 -1.14	-0.03 0.03	-2.37
VA4 - 8	810.00	-0.12 0.00	1396.64 967.70	1505.71	-4.91 133.74	0.00	0.43 0.94	-0.08 0.08	-2.37
VA4 - 9	810.00	-0.11 0.00	972.76 -2166.69	972.76	133.74 -87.86	133.74	-5.10 5.57	0.38 -0.38	-2.37
VA4 - 10	810.00	-0.21 0.00	-1828.18 -28.75	0.00	-23.76 16.45	16.45	2.25 -1.46	-0.04 0.04	1.38
VA4 - 11	810.00	-0.21 0.00	-22.08 436.62	436.62	16.45 19.32	19.32	1.06 -0.61	-0.01 0.01	1.38
VA4 - 12	810.00	-0.22 0.00	437.73 -1016.09	437.73	19.32 -67.10	19.32	-0.13 1.54	0.05 -0.05	1.38
VA4 - 13	810.00	0.00 0.00	-715.34 -382.55	336.11	-19.16 -37.50	0.00	1.31 1.08	0.01 -0.01	-1.82
VA5 - 1	772.50	0.00 0.02	-422.46 565.82	692.91	-36.28 32.55	32.55	1.31 0.44	-0.03 0.03	1.13
VA5 - 2	772.50	0.00 0.02	565.69 -1576.12	565.69	32.55 -46.27	32.55	-1.15 2.15	0.06 -0.06	1.13
VA5 - 3	772.50	0.00 0.04	-1987.38 328.02	328.02	-45.17 -15.35	0.00	2.69 -1.91	-0.03 0.03	-1.25
VA5 - 4	772.50	0.00 0.04	327.94 1176.93	1176.93	-15.35 33.56	0.00	1.20 -0.37	-0.05 0.05	-1.25
VA5 - 5	772.50	0.00 0.04	1177.98 -1585.84	1177.98	33.56 18.91	33.56	-0.34 2.09	0.01 -0.01	-1.25
VA5 - 6	772.50	0.00 0.06	-1486.23 675.29	675.29	66.11 -45.06	66.11	2.01 -0.84	0.07 -0.07	-1.17

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VA5 - 7	772.50	0.00 0.08	674.18 -157.27	674.18	-11.55 -40.45	0.00	0.09 1.14	0.02 -0.02	-8.97
VA6 - 1	772.50	0.00 0.04	6.69 656.42	683.59	-16.56 -14.21	0.00	1.02 0.21	0.00 0.00	2.30
VA6 - 2	772.50	0.00 0.04	661.21 -2486.85	661.21	-14.21 32.56	32.56	-1.46 2.64	-0.03 0.03	2.30
VA7 - 1	772.50	-0.06 0.00	-844.22 1543.18	1543.18	-41.74 1.96	1.96	2.13 -0.91	-0.03 0.03	-4.02
VA7 - 2	772.50	-0.06 0.00	1538.39 0.00	1538.39	1.96 0.00	1.96	-0.33 1.58	0.00 0.00	-4.02
VA8 - 1	866.25	0.00 0.51	-3659.59 -6663.80	2926.77	-2.37 -9.80	0.00	3.38 4.08	0.00 0.00	0.61
VA8 - 2	866.25	0.00 0.75	-8823.44 -5712.28	4861.09	-4.07 1.88	1.88	4.87 4.28	0.00 0.00	-0.40
VA9 - 1	810.00	0.00 0.17	-1179.41 -3079.71	1350.46	3.55 -6.89	3.55	2.03 2.68	0.00 0.00	2.99
VA9 - 2	810.00	0.00 0.21	-2331.61 -3017.09	1435.69	-25.72 23.19	23.19	2.47 2.69	-0.01 0.01	-0.15
VA10 - 1	810.00	0.00 0.12	-1656.97 -2020.72	923.23	6.97 -27.17	6.97	2.05 2.18	0.01 -0.01	0.33
VA10 - 2	810.00	0.00 0.04	-741.40 -1408.92	554.77	-64.05 84.43	84.43	1.45 1.79	-0.04 0.04	-3.47
VA11 - 1	772.50	-0.15 0.00	566.14 -409.69	600.06	40.01 -14.52	40.01	0.24 1.25	0.03 -0.03	1.56
VA11 - 2	772.50	-0.79 0.00	-244.04 -459.73	583.44	-18.24 4.60	4.60	1.13 1.27	-0.01 0.01	-1.28
VA11 - 3	772.50	-0.79 0.00	-463.36 -2925.06	0.00	4.60 14.22	14.22	-2.04 2.82	-0.01 0.01	-1.28
VA12 - 1	772.50	-0.17 0.00	0.00 1751.18	2025.24	0.00 1.59	1.59	1.77 0.65	0.00 0.00	-0.15
VA12 - 2	772.50	-0.17 0.00	1754.82 0.00	1754.82	1.59 0.00	1.59	-1.42 2.17	0.00 0.00	-0.15
VA13	735.00	0.00 0.09	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.14
VA14 - 1	772.50	0.00 0.71	0.00 2243.15	2243.15	0.00 -6.52	0.00	2.54 -1.73	0.01 -0.01	0.83
VA14 - 2	772.50	0.00 0.70	2243.77 0.00	2356.98	-6.52 0.00	0.00	0.42 1.91	0.00 0.00	0.83
VA15	735.00	-0.02 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.08
VA16	735.00	0.00 0.05	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-1.05
VA17 - 1	772.50	0.00 0.46	0.00 3941.43	3941.43	0.00 14.12	14.12	4.16 -3.35	-0.01 0.01	-5.06
VA17 - 2	772.50	0.00 0.50	3940.82 0.00	3940.82	-14.42 0.00	0.00	-0.29 2.48	-0.01 0.01	1.53
VA18	772.50	0.00 0.22	-37.05 -145.63	270.56	-41.57 67.91	67.91	0.69 0.80	-0.06 0.06	1.18
VA19	772.50	0.00 0.04	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-6.66
VA20	772.50	-0.05 0.00	-7.80 0.00	352.40	-33.51 0.00	0.00	0.75 0.74	-0.02 0.02	1.11
VA21 - 1	772.50	0.00 0.16	-1136.64 2241.49	2263.38	39.94 -44.81	39.94	2.29 0.19	0.03 -0.03	4.83
VA21 - 2	772.50	0.00 0.16	2243.78 -2034.35	2243.78	-28.25 7.29	7.29	-1.21 2.84	-0.02 0.02	-1.86
VA22	772.50	0.00 0.12	416.18 -1726.68	852.15	-47.77 70.62	70.62	0.82 2.00	-0.03 0.03	-0.31
VA23	772.50	0.00 0.03	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.79
VA24 - 1	810.00	0.00 0.18	-1013.26 -3227.24	1386.81	-27.01 17.18	17.18	1.97 2.73	-0.01 0.01	-4.24
VA24 - 2	810.00	0.00	-2085.47	1391.53	12.10	14.02	2.37	0.00	-0.14

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		0.21	-3387.08		14.02		2.78	0.00	
VA25 - 1	810.00	0.00 0.22	-2461.44 1870.70	1870.70	76.44 -28.58	76.44	3.04 -1.49	0.05 -0.05	3.16
VA25 - 2	810.00	0.00 0.22	1874.72 -2855.74	1874.72	-28.58 -25.22	0.00	-0.09 2.77	0.00 0.00	3.16
VA25 - 3	810.00	0.00 0.05	-820.92 -1568.06	441.03	35.86 -71.87	35.86	1.43 1.81	0.03 -0.03	-1.13


CASO: G1+G2+1.4Q+0.84V4+0.84D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.29	-1549.30 1914.89	1914.89	-109.40 8.23	8.23	2.53 -1.03	-0.06 0.06	-4.08
VA1 - 2	772.50	0.00 0.28	1914.91 285.73	1914.91	8.23 -36.80	0.00	-1.14 1.96	0.04 -0.04	-4.72
VA1 - 3	772.50	0.00 0.26	286.80 -2090.39	286.80	-36.80 194.03	194.03	-3.86 4.31	-0.40 0.40	-4.48
VA1 - 4	772.50	-0.44 0.00	-2203.52 345.42	725.48	162.95 -130.13	162.95	2.13 0.77	0.08 -0.08	1.27
VA1 - 5	772.50	-0.48 0.00	347.16 -1426.60	347.16	-130.13 159.33	159.33	-3.25 3.65	-0.56 0.56	-2.68
VA1 - 6	772.50	-0.41 0.00	-974.64 -596.25	250.15	121.53 -64.88	121.53	1.38 1.14	0.06 -0.06	3.47
VA2	772.50	-0.01 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-2.72
VA3 - 1	772.50	0.00 0.02	0.00 -1556.67	1110.85	0.00 13.92	13.92	1.31 2.03	0.00 0.00	0.65
VA3 - 2	772.50	0.00 0.00	-1563.50 6.46	6.46	82.18 0.00	82.18	1.61 -0.41	0.05 -0.05	0.00
VA4 - 1	810.00	0.00 0.14	-1521.20 -1727.66	937.93	80.10 -40.55	80.10	2.00 2.08	0.02 -0.02	1.09
VA4 - 2	810.00	0.00 0.27	-1834.46 1642.52	1642.52	-135.02 -23.73	0.00	2.56 -0.97	-0.06 0.06	-5.77
VA4 - 3	810.00	0.00 0.27	1642.49 1352.11	1642.49	-23.73 26.28	0.00	-0.80 1.05	-0.16 0.16	-5.77
VA4 - 4	810.00	0.00 0.27	1352.19 -168.16	1352.19	26.28 189.07	189.07	-1.76 2.36	-0.22 0.22	-5.77
VA4 - 5	810.00	0.00 0.25	-169.12 -3029.62	0.00	189.07 62.54	189.07	-4.90 5.36	0.23 -0.23	-8.32
VA4 - 6	810.00	-0.02 0.00	-3396.95 -271.15	0.00	-4.96 31.62	31.62	3.52 -2.70	-0.04 0.04	6.30
VA4 - 7	810.00	-0.02 0.00	-271.04 1402.91	1402.91	31.62 3.79	31.62	1.99 -1.12	0.03 -0.03	4.03
VA4 - 8	810.00	-0.02 0.00	1401.93 942.65	1503.04	3.79 110.94	0.00	0.41 0.96	-0.06 0.06	4.03
VA4 - 9	810.00	0.00 0.02	947.72 -2202.31	947.72	110.94 -199.84	110.94	-5.12 5.59	0.53 -0.53	4.03
VA4 - 10	810.00	-0.16 0.00	-1901.20 -60.08	0.00	-53.81 5.53	5.53	2.29 -1.51	-0.06 0.06	0.83
VA4 - 11	810.00	-0.16 0.00	-53.62 428.71	428.71	5.53 10.17	10.17	1.10 -0.65	-0.01 0.01	0.83
VA4 - 12	810.00	-0.19 0.00	429.57 -945.62	429.57	10.17 -58.08	10.17	-0.09 1.50	0.04 -0.04	0.83
VA4 - 13	810.00	0.00 0.05	-681.06 -381.91	351.17	-6.27 -1.96	0.00	1.29 1.09	0.00 0.00	-1.87
VA5 - 1	772.50	-0.05 0.00	-401.61 543.41	682.29	-106.70 44.37	44.37	1.29 0.46	-0.07 0.07	-4.89
VA5 - 2	772.50	-0.05 0.00	543.33 -1623.10	543.33	44.37 51.19	51.19	-1.17 2.17	-0.01 0.01	-4.89
VA5 - 3	772.50	-0.03 0.00	-1975.51 336.66	336.66	43.34 18.69	43.34	2.69 -1.91	0.02 -0.02	4.00



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VA5 - 4	772.50	-0.03 0.00	336.51 1182.04	1182.04	18.69 59.44	0.00	1.20 -0.37	-0.04 0.04	4.00
VA5 - 5	772.50	-0.03 0.00	1183.02 -1588.10	1183.02	59.44 -57.80	59.44	-0.34 2.10	0.05 -0.05	4.00
VA5 - 6	772.50	0.00 0.07	-1420.59 682.16	682.16	68.90 -55.56	68.90	1.97 -0.80	0.08 -0.08	0.55
VA5 - 7	772.50	0.00 0.10	681.30 -214.83	681.30	0.40 -53.75	0.40	0.04 1.18	0.03 -0.03	-11.55
VA6 - 1	772.50	0.00 0.04	7.26 576.04	619.66	15.67 -6.91	15.67	0.97 0.26	0.01 -0.01	0.81
VA6 - 2	772.50	0.00 0.04	580.74 -2644.82	580.74	-6.91 16.45	16.45	-1.51 2.70	-0.02 0.02	0.81
VA7 - 1	772.50	-0.06 0.00	-715.69 1608.15	1608.15	-27.68 9.32	9.32	2.09 -0.87	-0.02 0.02	-2.23
VA7 - 2	772.50	-0.06 0.00	1603.45 0.00	1603.45	9.32 0.00	9.32	-0.38 1.62	0.01 -0.01	-2.23
VA8 - 1	866.25	0.00 0.47	-3706.32 -6605.42	2928.48	-7.50 13.11	13.11	3.39 4.06	0.00 0.00	-3.36
VA8 - 2	866.25	0.00 0.71	-8792.37 -5725.33	4868.41	26.46 -7.69	26.46	4.87 4.28	0.00 0.00	2.73
VA9 - 1	810.00	0.00 0.08	-2311.78 -2090.65	1216.34	66.36 -50.02	66.36	2.39 2.31	0.02 -0.02	2.91
VA9 - 2	810.00	0.00 0.14	-3116.63 -2220.25	1445.00	-2.47 -5.47	0.00	2.72 2.44	0.00 0.00	-0.38
VA10 - 1	810.00	0.00 0.08	-2568.51 -1192.20	922.21	36.91 -34.15	36.91	2.38 1.85	0.01 -0.01	0.50
VA10 - 2	810.00	0.00 0.07	-1926.06 -0.55	794.93	-16.05 -30.14	0.00	2.10 1.14	0.00 0.00	-3.22
VA11 - 1	772.50	-0.08 0.00	-871.50 383.33	386.25	99.79 -76.00	99.79	1.40 0.10	0.09 -0.09	1.49
VA11 - 2	772.50	-0.64 0.00	-1261.00 736.05	933.30	19.53 -14.09	19.53	1.84 0.56	0.01 -0.01	-0.97
VA11 - 3	772.50	-0.64 0.00	733.33 -1006.56	733.33	-14.09 -32.04	0.00	-1.33 2.11	0.02 -0.02	-0.97
VA12 - 1	772.50	-0.10 0.00	0.00 1751.88	2025.74	0.00 -5.13	0.00	1.77 0.65	0.00 0.00	0.02
VA12 - 2	772.50	-0.10 0.00	1754.60 0.00	1754.60	-5.13 0.00	0.00	-1.42 2.17	-0.01 0.01	0.02
VA13	735.00	0.00 0.06	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.08
VA14 - 1	772.50	0.00 0.44	0.00 2243.15	2243.15	0.00 -14.73	0.00	2.54 -1.73	0.01 -0.01	1.06
VA14 - 2	772.50	0.00 0.44	2243.80 0.00	2357.00	-14.73 0.00	0.00	0.42 1.91	0.00 0.00	1.06
VA15	735.00	-0.06 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.15
VA16	735.00	0.00 0.09	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.98
VA17 - 1	772.50	0.00 0.59	0.00 3941.43	3941.43	0.00 32.92	32.92	4.16 -3.35	-0.03 0.03	-5.07
VA17 - 2	772.50	0.00 0.65	3940.79 0.00	3940.79	-35.35 0.00	0.00	-0.29 2.48	-0.01 0.01	1.75
VA18	772.50	0.00 0.29	-1318.96 1140.60	1140.60	-116.81 155.65	155.65	2.02 -0.53	-0.14 0.14	1.20
VA19	772.50	0.00 0.05	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-6.46
VA20	772.50	-0.05 0.00	-12.09 0.00	350.50	-55.96 0.00	0.00	0.75 0.74	-0.03 0.03	0.86
VA21 - 1	772.50	0.00 0.16	-1962.10 2372.18	2372.18	12.64 -23.78	12.64	2.59 -0.11	0.01 -0.01	5.13
VA21 - 2	772.50	0.00 0.17	2372.99 -1169.34	2372.99	-39.45 25.17	25.17	-0.86 2.49	-0.03 0.03	-2.13
VA22	772.50	0.00	-1000.49	802.95	-64.05	90.84	1.67	-0.04	-0.02




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		0.16	-48.37		90.84		1.15	0.04	
VA23	772.50	0.00 0.03	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.70
VA24 - 1	810.00	0.00 0.07	-2341.12 -2065.95	1214.95	-79.88 49.88	49.88	2.40 2.31	-0.02 0.02	-4.33
VA24 - 2	810.00	0.00 0.14	-3009.25 -2455.38	1375.60	-3.96 31.03	31.03	2.67 2.49	-0.01 0.01	-0.42
VA25 - 1	810.00	0.00 0.18	-3556.62 1583.71	1583.71	60.66 -35.11	60.66	3.46 -1.91	0.05 -0.05	3.37
VA25 - 2	810.00	0.00 0.18	1585.94 -1881.12	1637.59	-35.11 12.74	12.74	0.29 2.39	-0.01 0.01	3.37
VA25 - 3	810.00	0.00 0.08	-2237.93 85.25	749.00	-40.28 27.91	27.91	2.20 1.04	-0.02 0.02	-0.83

CASO: G1+G2+1.4Q+1.2D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.29	-1295.06 1921.39	1921.39	-74.37 4.82	4.82	2.40 -0.90	-0.04 0.04	-2.50
VA1 - 2	772.50	0.00 0.29	1921.37 158.29	1921.37	4.82 -99.28	0.00	-1.27 2.08	0.10 -0.10	-3.14
VA1 - 3	772.50	0.00 0.27	159.33 -2291.92	159.33	-99.28 174.16	174.16	-3.99 4.44	-0.47 0.47	-3.02
VA1 - 4	772.50	-0.44 0.00	-2055.26 239.26	689.99	147.19 -110.73	147.19	2.06 0.84	0.07 -0.07	0.35
VA1 - 5	772.50	-0.48 0.00	240.86 -1567.80	240.86	-110.73 145.71	145.71	-3.32 3.72	-0.50 0.50	-2.41
VA1 - 6	772.50	-0.42 0.00	-743.94 -887.68	212.19	116.03 -60.79	116.03	1.22 1.30	0.05 -0.05	2.07
VA2	772.50	0.00 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-3.12
VA3 - 1	772.50	0.00 0.01	0.00 -1556.34	1110.97	0.00 21.03	21.03	1.31 2.03	0.00 0.00	0.61
VA3 - 2	772.50	0.00 0.00	-1563.24 6.72	6.72	68.17 0.00	68.17	1.61 -0.41	0.04 -0.04	0.00
VA4 - 1	810.00	0.00 0.14	-1303.38 -1805.42	1013.88	62.73 -44.66	62.73	1.94 2.14	0.02 -0.02	0.69
VA4 - 2	810.00	0.00 0.24	-1759.00 1552.37	1552.37	-83.01 -40.86	0.00	2.48 -0.88	-0.02 0.02	-1.06
VA4 - 3	810.00	0.00 0.24	1552.39 1235.72	1552.39	-40.86 9.62	0.00	-0.88 1.14	-0.16 0.16	-1.06
VA4 - 4	810.00	0.00 0.24	1235.77 -346.49	1235.77	9.62 183.76	183.76	-1.85 2.45	-0.24 0.24	-1.06
VA4 - 5	810.00	0.00 0.23	-347.46 -3254.85	0.00	183.76 -7.18	183.76	-4.99 5.44	0.34 -0.34	-6.29
VA4 - 6	810.00	-0.03 0.00	-3227.54 -157.67	0.00	-43.57 -2.98	0.00	3.46 -2.65	-0.04 0.04	2.36
VA4 - 7	810.00	-0.03 0.00	-157.60 1456.51	1456.51	-2.98 -0.68	0.00	1.94 -1.06	0.00 0.00	1.04
VA4 - 8	810.00	-0.03 0.00	1455.49 902.40	1533.16	-0.68 121.97	0.00	0.35 1.01	-0.07 0.07	1.04
VA4 - 9	810.00	-0.01 0.00	907.68 -2275.05	907.68	121.97 -144.25	121.97	-5.17 5.65	0.45 -0.45	1.04
VA4 - 10	810.00	-0.14 0.00	-1811.84 -41.12	0.00	-38.97 11.67	11.67	2.22 -1.43	-0.05 0.05	1.10
VA4 - 11	810.00	-0.14 0.00	-34.40 408.02	408.02	11.67 16.33	16.33	1.03 -0.58	-0.01 0.01	1.10
VA4 - 12	810.00	-0.17 0.00	408.99 -1094.61	408.99	16.33 -63.56	16.33	-0.16 1.57	0.05 -0.05	1.10
VA4 - 13	810.00	0.00 0.03	-428.16 -745.77	297.00	-13.91 -15.01	0.00	1.09 1.30	0.00 0.00	-1.83

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VA5 - 1	772.50	-0.02 0.00	-306.34 512.35	685.69	-70.13 37.97	37.97	1.24 0.52	-0.05 0.05	-1.87
VA5 - 2	772.50	-0.02 0.00	512.29 -1726.02	512.29	37.97 2.39	37.97	-1.23 2.23	0.03 -0.03	-1.87
VA5 - 3	772.50	0.00 0.00	-1891.04 388.48	388.48	-1.32 1.72	1.72	2.66 -1.88	0.00 0.00	1.36
VA5 - 4	772.50	0.00 0.00	388.40 1199.00	1199.00	1.72 46.37	0.00	1.17 -0.34	-0.04 0.04	1.36
VA5 - 5	772.50	0.00 0.00	1200.01 -1645.00	1200.01	46.37 -19.77	46.37	-0.37 2.13	0.03 -0.03	1.36
VA5 - 6	772.50	0.00 0.06	-1387.25 664.16	664.16	67.44 -49.58	67.44	1.94 -0.76	0.08 -0.08	-0.32
VA5 - 7	772.50	0.00 0.08	663.19 -284.43	663.19	-4.22 -40.00	0.00	0.01 1.21	0.02 -0.02	-10.04
VA6 - 1	772.50	0.00 0.04	7.84 504.09	565.84	-6.92 -11.95	0.00	0.93 0.31	0.00 0.00	1.50
VA6 - 2	772.50	0.00 0.04	508.82 -2786.18	508.82	-11.95 27.51	27.51	-1.56 2.74	-0.03 0.03	1.50
VA7 - 1	772.50	-0.08 0.00	-633.00 1649.99	1649.99	-37.31 4.08	4.08	2.06 -0.85	-0.03 0.03	-3.05
VA7 - 2	772.50	-0.08 0.00	1645.26 0.00	1645.26	4.08 0.00	4.08	-0.40 1.64	0.00 0.00	-3.05
VA8 - 1	866.25	0.00 0.49	-3507.66 -6779.96	2960.24	0.73 0.06	0.73	3.35 4.11	0.00 0.00	-1.36
VA8 - 2	866.25	0.00 0.72	-8684.11 -5872.55	4839.10	12.59 -7.99	12.59	4.84 4.31	0.00 0.00	1.16
VA9 - 1	810.00	0.00 0.13	-1736.39 -2594.19	1263.24	28.81 -22.26	28.81	2.21 2.50	0.01 -0.01	2.18
VA9 - 2	810.00	0.00 0.18	-2725.35 -2621.36	1427.31	-9.39 9.92	9.92	2.59 2.56	0.00 0.00	-0.25
VA10 - 1	810.00	0.00 0.10	-2111.86 -1607.65	905.37	23.06 -31.46	23.06	2.21 2.02	0.01 -0.01	0.80
VA10 - 2	810.00	0.00 0.05	-1332.08 -706.25	609.67	-38.90 24.56	24.56	1.78 1.46	-0.02 0.02	-2.92
VA11 - 1	772.50	-0.11 0.00	-141.44 -16.57	283.80	68.67 -43.82	68.67	0.81 0.68	0.06 -0.06	1.76
VA11 - 2	772.50	-0.72 0.00	-740.73 126.79	674.78	1.72 -5.08	1.72	1.48 0.92	0.00 0.00	-1.35
VA11 - 3	772.50	-0.72 0.00	123.68 -1984.67	123.68	-5.08 -9.65	0.00	-1.69 2.47	0.00 0.00	-1.35
VA12 - 1	772.50	-0.14 0.00	0.00 1751.58	2025.52	0.00 -1.73	0.00	1.77 0.65	0.00 0.00	-0.02
VA12 - 2	772.50	-0.14 0.00	1754.69 0.00	1754.69	-1.73 0.00	0.00	-1.42 2.17	0.00 0.00	-0.02
VA13	735.00	0.00 0.07	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.06
VA14 - 1	772.50	0.00 0.58	0.00 2243.22	2243.22	0.00 -10.45	0.00	2.54 -1.73	0.01 -0.01	1.03
VA14 - 2	772.50	0.00 0.57	2243.83 0.00	2357.03	-10.45 0.00	0.00	0.42 1.91	0.00 0.00	1.03
VA15	735.00	-0.04 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.08
VA16	735.00	0.00 0.07	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-1.01
VA17 - 1	772.50	0.00 0.53	0.00 3941.37	3941.37	0.00 23.01	23.01	4.16 -3.35	-0.02 0.02	-5.28
VA17 - 2	772.50	0.00 0.57	3940.76 0.00	3940.76	-24.13 0.00	0.00	-0.29 2.48	-0.01 0.01	1.62
VA18	772.50	0.00 0.26	-682.42 502.58	513.26	-79.07 111.64	111.64	1.36 0.13	-0.10 0.10	1.26
VA19	772.50	0.00 0.04	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-6.72
VA20	772.50	-0.05	-9.72	351.55	-45.37	0.00	0.75	-0.02	0.97

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		0.00	0.00		0.00		0.74	0.02	
VA21 - 1	772.50	0.00 0.15	-1526.49 2244.12	2244.12	27.57 -34.29	27.57	2.41 0.06	0.02 -0.02	5.44
VA21 - 2	772.50	0.00 0.15	2245.62 -1572.00	2245.62	-27.37 10.58	10.58	-0.99 2.62	-0.02 0.02	-2.40
VA22	772.50	0.00 0.14	-305.72 -874.29	710.76	-55.57 80.10	80.10	1.25 1.56	-0.04 0.04	-0.28
VA23	772.50	0.00 0.03	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.73
VA24 - 1	810.00	0.00 0.12	-1680.48 -2642.41	1269.54	-57.60 37.55	37.55	2.19 2.52	-0.02 0.02	-5.04
VA24 - 2	810.00	0.00 0.16	-2540.05 -2927.55	1371.43	6.90 29.70	29.70	2.52 2.64	0.00 0.00	-0.25
VA25 - 1	810.00	0.00 0.20	-3033.72 1758.58	1758.58	80.40 -44.51	80.40	3.28 -1.73	0.07 -0.07	3.84
VA25 - 2	810.00	0.00 0.20	1761.63 -2393.12	1761.79	-44.51 -4.55	0.00	0.08 2.60	-0.01 0.01	3.84
VA25 - 3	810.00	0.00 0.07	-1536.31 -740.66	500.86	1.64 -23.28	1.64	1.82 1.42	0.01 -0.01	-0.73

**CASO: G1+G2+1.4Q+1.2D2**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.27	-1666.88 1920.40	1920.40	-74.05 4.20	4.20	2.60 -1.09	-0.04 0.04	-2.55
VA1 - 2	772.50	0.00 0.27	1920.29 357.45	1920.29	4.20 -98.13	0.00	-1.08 1.89	0.10 -0.10	-3.18
VA1 - 3	772.50	0.00 0.25	358.32 -1982.15	358.32	-98.13 176.03	176.03	-3.80 4.25	-0.47 0.47	-2.87
VA1 - 4	772.50	-0.46 0.00	-2266.27 395.91	744.51	147.10 -110.50	147.10	2.16 0.74	0.07 -0.07	0.63
VA1 - 5	772.50	-0.49 0.00	397.56 -1360.68	397.56	-110.50 146.72	146.72	-3.22 3.62	-0.50 0.50	-3.89
VA1 - 6	772.50	-0.42 0.00	-1066.06 -502.02	263.16	114.76 -60.05	114.76	1.43 1.09	0.05 -0.05	2.07
VA2	772.50	0.00 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-3.24
VA3 - 1	772.50	0.00 0.01	0.00 -1557.04	1110.71	0.00 20.83	20.83	1.31 2.03	0.00 0.00	0.66
VA3 - 2	772.50	0.00 0.00	-1563.56 6.40	6.40	70.49 0.00	70.49	1.61 -0.41	0.05 -0.05	0.00
VA4 - 1	810.00	0.00 0.07	-1775.16 -1624.86	861.23	69.43 -46.06	69.43	2.07 2.01	0.02 -0.02	0.70
VA4 - 2	810.00	0.00 0.19	-1891.04 1722.10	1722.10	-85.44 -40.52	0.00	2.63 -1.04	-0.02 0.02	-1.89
VA4 - 3	810.00	0.00 0.19	1722.21 1453.51	1722.21	-40.52 9.73	0.00	-0.73 0.99	-0.16 0.16	-1.89
VA4 - 4	810.00	0.00 0.19	1453.67 -15.63	1453.67	9.73 184.97	184.97	-1.70 2.29	-0.24 0.24	-1.89
VA4 - 5	810.00	0.00 0.17	-16.46 -2838.30	0.00	184.97 -4.37	184.97	-4.83 5.29	0.34 -0.34	-2.14
VA4 - 6	810.00	-0.11 0.00	-3609.02 -409.19	0.00	-44.25 -2.90	0.00	3.59 -2.78	-0.04 0.04	4.04
VA4 - 7	810.00	-0.11 0.00	-409.06 1344.09	1344.09	-2.90 -0.44	0.00	2.07 -1.19	0.00 0.00	0.62
VA4 - 8	810.00	-0.11 0.00	1343.07 1007.94	1487.32	-0.44 122.71	0.00	0.48 0.88	-0.07 0.07	0.62
VA4 - 9	810.00	-0.08 0.00	1012.80 -2093.96	1012.80	122.71 -143.44	122.71	-5.04 5.52	0.45 -0.45	0.62
VA4 - 10	810.00	-0.23 0.00	-1917.54 -47.71	0.00	-38.60 10.30	10.30	2.32 -1.53	-0.05 0.05	1.11



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VA4 - 11	810.00	-0.23 0.00	-41.31 457.31	457.31	10.30 13.15	13.15	1.13 -0.68	-0.01 0.01	1.11
VA4 - 12	810.00	-0.25 0.00	458.31 -867.10	458.31	13.15 -61.63	13.15	-0.06 1.47	0.04 -0.04	1.11
VA4 - 13	810.00	0.00 0.03	-968.25 -18.69	449.64	-11.53 -24.46	0.00	1.52 0.87	0.00 0.00	-1.85
VA5 - 1	772.50	-0.01 0.00	-517.73 596.88	691.69	-72.85 38.95	38.95	1.37 0.39	-0.05 0.05	-1.89
VA5 - 2	772.50	-0.01 0.00	596.73 -1473.21	596.73	38.95 2.53	38.95	-1.10 2.10	0.03 -0.03	-1.89
VA5 - 3	772.50	0.00 0.01	-2071.85 276.20	276.20	-0.52 1.62	1.62	2.72 -1.95	0.00 0.00	1.40
VA5 - 4	772.50	0.00 0.01	276.05 1159.97	1159.97	1.62 46.63	0.00	1.24 -0.41	-0.04 0.04	1.40
VA5 - 5	772.50	0.00 0.01	1160.99 -1528.94	1160.99	46.63 -19.13	46.63	-0.30 2.06	0.03 -0.03	1.40
VA5 - 6	772.50	0.00 0.07	-1519.57 693.29	693.29	67.58 -51.03	67.58	2.04 -0.87	0.08 -0.08	-0.31
VA5 - 7	772.50	0.00 0.10	692.29 -87.67	699.18	-6.93 -54.20	0.00	0.12 1.10	0.03 -0.03	-10.48
VA6 - 1	772.50	0.00 0.05	6.12 728.37	746.48	6.03 -9.18	0.00	1.07 0.17	0.01 -0.01	1.61
VA6 - 2	772.50	0.00 0.05	733.13 -2345.48	733.13	-9.18 21.49	21.49	-1.41 2.60	-0.02 0.02	1.61
VA7 - 1	772.50	-0.04 0.00	-926.91 1501.34	1501.34	-32.11 7.20	7.20	2.15 -0.94	-0.03 0.03	-3.21
VA7 - 2	772.50	-0.04 0.00	1496.57 0.00	1496.57	7.20 0.00	7.20	-0.31 1.55	0.00 0.00	-3.21
VA8 - 1	866.25	0.00 0.49	-3858.25 -6489.26	2901.25	-10.60 3.26	3.26	3.42 4.03	0.00 0.00	-1.39
VA8 - 2	866.25	0.00 0.74	-8931.69 -5565.06	4890.41	9.80 2.18	9.80	4.89 4.26	0.00 0.00	1.17
VA9 - 1	810.00	0.00 0.12	-1754.80 -2576.18	1262.42	41.09 -34.66	41.09	2.21 2.49	0.01 -0.01	3.73
VA9 - 2	810.00	0.00 0.17	-2722.89 -2615.98	1431.27	-18.80 7.81	7.81	2.60 2.56	0.00 0.00	-0.28
VA10 - 1	810.00	0.00 0.10	-2113.62 -1605.28	905.83	20.82 -29.85	20.82	2.21 2.02	0.01 -0.01	0.03
VA10 - 2	810.00	0.00 0.05	-1335.37 -703.22	609.70	-41.21 29.73	29.73	1.78 1.46	-0.02 0.02	-3.76
VA11 - 1	772.50	-0.11 0.00	-163.92 -9.79	277.58	71.14 -46.69	71.14	0.83 0.67	0.06 -0.06	1.29
VA11 - 2	772.50	-0.72 0.00	-764.31 149.53	678.98	-0.44 -4.41	0.00	1.49 0.91	0.00 0.00	-0.90
VA11 - 3	772.50	-0.72 0.00	146.29 -1946.95	146.29	-4.41 -8.17	0.00	-1.67 2.46	0.00 0.00	-0.90
VA12 - 1	772.50	-0.14 0.00	0.00 1751.48	2025.45	0.00 -1.82	0.00	1.77 0.65	0.00 0.00	-0.11
VA12 - 2	772.50	-0.14 0.00	1754.72 0.00	1754.72	-1.82 0.00	0.00	-1.42 2.17	0.00 0.00	-0.11
VA13	735.00	0.00 0.08	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.16
VA14 - 1	772.50	0.00 0.57	0.00 2243.08	2243.08	0.00 -10.80	0.00	2.54 -1.73	0.01 -0.01	0.87
VA14 - 2	772.50	0.00 0.57	2243.74 0.00	2356.95	-10.80 0.00	0.00	0.42 1.91	0.00 0.00	0.87
VA15	735.00	-0.04 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.15
VA16	735.00	0.00 0.07	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-1.02
VA17 - 1	772.50	0.00 0.53	0.00 3941.50	3941.50	0.00 24.03	24.03	4.16 -3.35	-0.02 0.02	-4.85
VA17 - 2	772.50	0.00	3940.85	3940.85	-25.63	0.00	-0.29	-0.01	1.67

		0.58	0.00		0.00		2.48	0.01	
VA18	772.50	0.00 0.26	-673.59 492.39	505.18	-79.31 111.93	111.93	1.35 0.14	-0.10 0.10	1.12
VA19	772.50	0.00 0.05	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-6.40
VA20	772.50	-0.05 0.00	-10.17 0.00	351.35	-44.10 0.00	0.00	0.75 0.74	-0.02 0.02	1.00
VA21 - 1	772.50	0.00 0.16	-1572.25 2369.55	2369.55	25.00 -34.30	25.00	2.47 0.01	0.02 -0.02	4.52
VA21 - 2	772.50	0.00 0.17	2371.16 -1631.70	2371.16	-40.34 21.87	21.87	-1.08 2.71	-0.03 0.03	-1.60
VA22	772.50	0.00 0.14	-278.59 -900.76	714.07	-56.25 81.36	81.36	1.24 1.58	-0.04 0.04	-0.05
VA23	772.50	0.00 0.03	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.77
VA24 - 1	810.00	0.00 0.13	-1673.90 -2650.78	1269.42	-49.29 29.51	29.51	2.18 2.52	-0.01 0.01	-3.53
VA24 - 2	810.00	0.00 0.18	-2554.67 -2914.91	1370.00	1.24 15.34	15.34	2.52 2.63	0.00 0.00	-0.31
VA25 - 1	810.00	0.00 0.20	-2984.34 1695.82	1695.82	56.70 -19.19	56.70	3.22 -1.67	0.04 -0.04	2.70
VA25 - 2	810.00	0.00 0.19	1699.03 -2343.74	1706.19	-19.19 -7.93	0.00	0.12 2.56	0.00 0.00	2.70
VA25 - 3	810.00	0.00 0.07	-1522.54 -742.15	505.80	-6.06 -20.68	0.00	1.81 1.42	0.00 0.00	-1.23

CASO: G1+G2+1.4Q+1.2D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.28	-1456.95 1922.90	1922.90	-62.00 3.05	3.05	2.49 -0.99	-0.03 0.03	-1.99
VA1 - 2	772.50	0.00 0.28	1922.80 247.91	1922.80	3.05 -118.52	0.00	-1.19 2.00	0.12 -0.12	-2.62
VA1 - 3	772.50	0.00 0.25	248.82 -2153.64	248.82	-118.52 168.18	168.18	-3.91 4.36	-0.49 0.49	-2.42
VA1 - 4	772.50	-0.45 0.00	-2145.71 307.84	714.39	141.73 -104.85	141.73	2.10 0.79	0.07 -0.07	0.22
VA1 - 5	772.50	-0.49 0.00	309.42 -1477.43	309.42	-104.85 142.03	142.03	-3.28 3.67	-0.48 0.48	-3.30
VA1 - 6	772.50	-0.43 0.00	-880.70 -728.94	223.19	113.18 -58.28	113.18	1.31 1.21	0.05 -0.05	1.59
VA2	772.50	0.00 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-3.33
VA3 - 1	772.50	0.00 0.01	0.00 -1556.70	1110.84	0.00 22.98	22.98	1.31 2.03	-0.01 0.01	0.63
VA3 - 2	772.50	0.00 0.00	-1563.37 6.59	6.59	64.30 0.00	64.30	1.61 -0.41	0.04 -0.04	0.00
VA4 - 1	810.00	0.00 0.10	-1544.96 -1710.97	933.59	61.71 -47.69	61.71	2.00 2.07	0.02 -0.02	0.59
VA4 - 2	810.00	0.00 0.19	-1821.82 1635.42	1635.42	-67.29 -46.11	0.00	2.55 -0.96	-0.01 0.01	-0.03
VA4 - 3	810.00	0.00 0.19	1635.51 1342.04	1635.51	-46.11 3.99	0.00	-0.81 1.06	-0.16 0.16	-0.03
VA4 - 4	810.00	0.00 0.19	1342.16 -185.47	1342.16	3.99 181.89	181.89	-1.77 2.37	-0.24 0.24	-0.03
VA4 - 5	810.00	0.00 0.18	-186.36 -3052.37	0.00	181.89 -28.07	181.89	-4.91 5.37	0.38 -0.38	-2.84
VA4 - 6	810.00	-0.09 0.00	-3425.34 -287.50	0.00	-56.14 -14.64	0.00	3.53 -2.71	-0.04 0.04	2.16
VA4 - 7	810.00	-0.09 0.00	-287.41 1399.41	1399.41	-14.64 -2.04	0.00	2.00 -1.13	-0.01 0.01	-0.24



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VA4 - 8	810.00	-0.09 0.00	1398.38 959.27	1504.54	-2.04 126.07	0.00	0.42 0.94	-0.08 0.08	-0.24
VA4 - 9	810.00	-0.07 0.00	964.33 -2178.67	964.33	126.07 -126.73	126.07	-5.10 5.58	0.43 -0.43	-0.24
VA4 - 10	810.00	-0.19 0.00	-1852.53 -39.17	0.00	-36.20 12.17	12.17	2.26 -1.48	-0.05 0.05	1.19
VA4 - 11	810.00	-0.19 0.00	-32.58 434.01	434.01	12.17 16.91	16.91	1.07 -0.63	-0.01 0.01	1.19
VA4 - 12	810.00	-0.21 0.00	435.04 -992.47	435.04	16.91 -63.17	16.91	-0.12 1.53	0.05 -0.05	1.19
VA4 - 13	810.00	0.00 0.02	-703.52 -382.45	341.23	-14.61 -27.56	0.00	1.30 1.08	0.00 0.00	-1.88
VA5 - 1	772.50	-0.01 0.00	-414.74 558.05	689.36	-59.39 36.45	36.45	1.31 0.45	-0.04 0.04	-0.87
VA5 - 2	772.50	-0.01 0.00	557.93 -1592.70	557.93	36.45 -14.29	36.45	-1.16 2.16	0.04 -0.04	-0.87
VA5 - 3	772.50	0.00 0.02	-1982.71 331.36	331.36	-16.05 -3.66	0.00	2.69 -1.91	-0.01 0.01	0.50
VA5 - 4	772.50	0.00 0.02	331.26 1178.82	1178.82	-3.66 42.17	0.00	1.20 -0.37	-0.04 0.04	0.50
VA5 - 5	772.50	0.00 0.02	1179.85 -1586.98	1179.85	42.17 -7.06	42.17	-0.34 2.09	0.02 -0.02	0.50
VA5 - 6	772.50	0.00 0.06	-1463.73 677.52	677.52	65.22 -48.91	65.22	2.00 -0.82	0.08 -0.08	-0.60
VA5 - 7	772.50	0.00 0.08	676.50 -177.28	676.50	-10.89 -43.28	0.00	0.07 1.15	0.02 -0.02	-9.90
VA6 - 1	772.50	0.00 0.04	6.87 632.86	663.01	-6.33 -11.90	0.00	1.01 0.23	0.00 0.00	1.77
VA6 - 2	772.50	0.00 0.04	637.62 -2533.16	637.62	-11.90 28.63	28.63	-1.48 2.66	-0.03 0.03	1.77
VA7 - 1	772.50	-0.06 0.00	-800.50 1565.28	1565.28	-37.69 4.70	4.70	2.11 -0.90	-0.03 0.03	-3.39
VA7 - 2	772.50	-0.06 0.00	1560.52 0.00	1560.52	4.70 0.00	4.70	-0.35 1.59	0.00 0.00	-3.39
VA8 - 1	866.25	0.00 0.50	-3675.08 -6644.76	2926.89	-4.13 -2.34	0.00	3.38 4.07	0.00 0.00	-0.68
VA8 - 2	866.25	0.00 0.74	-8812.99 -5717.16	4863.29	5.74 -1.27	5.74	4.87 4.28	0.00 0.00	0.62
VA9 - 1	810.00	0.00 0.14	-1598.96 -2712.80	1282.96	23.49 -20.46	23.49	2.16 2.54	0.01 -0.01	2.96
VA9 - 2	810.00	0.00 0.19	-2623.26 -2721.25	1428.31	-18.60 14.35	14.35	2.56 2.59	-0.01 0.01	-0.22
VA10 - 1	810.00	0.00 0.11	-1995.67 -1712.18	908.15	16.47 -29.28	16.47	2.17 2.06	0.01 -0.01	0.40
VA10 - 2	810.00	0.00 0.05	-1180.96 -887.63	585.79	-49.67 48.44	48.44	1.69 1.55	-0.02 0.02	-3.41
VA11 - 1	772.50	-0.13 0.00	87.23 -145.39	339.71	59.71 -34.61	59.71	0.63 0.87	0.05 -0.05	1.54
VA11 - 2	772.50	-0.74 0.00	-582.71 -61.60	624.95	-6.02 -1.50	0.00	1.37 1.03	0.00 0.00	-1.18
VA11 - 3	772.50	-0.74 0.00	-64.93 -2286.28	0.00	-1.50 -0.92	0.00	-1.80 2.58	0.00 0.00	-1.18
VA12 - 1	772.50	-0.15 0.00	0.00 1751.42	2025.40	0.00 -0.65	0.00	1.77 0.65	0.00 0.00	-0.10
VA12 - 2	772.50	-0.15 0.00	1754.74 0.00	1754.74	-0.65 0.00	0.00	-1.42 2.17	0.00 0.00	-0.10
VA13	735.00	0.00 0.08	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.12
VA14 - 1	772.50	0.00 0.62	0.00 2243.15	2243.15	0.00 -9.14	0.00	2.54 -1.73	0.01 -0.01	0.91
VA14 - 2	772.50	0.00 0.61	2243.78 0.00	2356.99	-9.14 0.00	0.00	0.42 1.91	0.00 0.00	0.91
VA15	735.00	-0.03	0.00	338.60	0.00	0.00	0.71	0.00	0.10



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		0.00	0.00		0.00		0.71	0.00	
VA16	735.00	0.00 0.06	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-1.03
VA17 - 1	772.50	0.00 0.51	0.00 3941.43	3941.43	0.00 20.15	20.15	4.16 -3.35	-0.02 0.02	-5.06
VA17 - 2	772.50	0.00 0.55	3940.81 0.00	3940.81	-21.17 0.00	0.00	-0.29 2.48	-0.01 0.01	1.60
VA18	772.50	0.00 0.24	-461.95 280.68	364.76	-65.77 96.20	96.20	1.13 0.36	-0.08 0.08	1.19
VA19	772.50	0.00 0.04	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-6.59
VA20	772.50	-0.05 0.00	-9.30 0.00	351.74	-38.02 0.00	0.00	0.75 0.74	-0.02 0.02	1.02
VA21 - 1	772.50	0.00 0.16	-1430.96 2290.82	2291.24	31.15 -38.09	31.15	2.40 0.08	0.02 -0.02	4.92
VA21 - 2	772.50	0.00 0.16	2292.59 -1728.15	2292.59	-31.76 9.66	9.66	-1.09 2.72	-0.02 0.02	-1.95
VA22	772.50	0.00 0.14	-61.13 -1161.33	732.60	-52.65 76.86	76.86	1.11 1.71	-0.04 0.04	-0.21
VA23	772.50	0.00 0.03	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.76
VA24 - 1	810.00	0.00 0.14	-1492.94 -2807.28	1299.10	-43.81 27.51	27.51	2.13 2.58	-0.01 0.01	-4.27
VA24 - 2	810.00	0.00 0.18	-2419.86 -3049.89	1374.27	7.20 19.08	19.08	2.48 2.68	0.00 0.00	-0.23
VA25 - 1	810.00	0.00 0.21	-2857.28 1766.33	1766.33	71.82 -30.49	71.82	3.19 -1.64	0.05 -0.05	3.24
VA25 - 2	810.00	0.00 0.21	1769.71 -2502.38	1769.71	-30.49 -12.30	0.00	0.05 2.63	-0.01 0.01	3.24
VA25 - 3	810.00	0.00 0.07	-1333.67 -971.08	469.53	10.17 -40.25	10.17	1.71 1.53	0.01 -0.01	-1.05

<b>CASO: G1+G2+1.4Q+1.2D4</b>									
<b>Elemento</b>	<b>Carga (kgf/m)</b>	<b>Rd Nd (tf)</b>	<b>Mxi Mxf (kgf.m)</b>	<b>MxMáx (kgf.m)</b>	<b>Myi Myf (kgf.m)</b>	<b>MyMáx (kgf.m)</b>	<b>Vxi Vxf (tf)</b>	<b>Vyi Vyf (tf)</b>	<b>Mtd (kgf/m)</b>
VA1 - 1	772.50	0.00 0.28	-1504.99 1918.90	1918.90	-86.42 5.96	5.96	2.51 -1.01	-0.05 0.05	-3.06
VA1 - 2	772.50	0.00 0.28	1918.86 267.84	1918.86	5.96 -78.88	0.00	-1.17 1.98	0.08 -0.08	-3.69
VA1 - 3	772.50	0.00 0.26	268.83 -2120.44	268.83	-78.88 182.01	182.01	-3.89 4.33	-0.45 0.45	-3.47
VA1 - 4	772.50	-0.44 0.00	-2175.82 327.33	720.11	152.57 -116.38	152.57	2.12 0.78	0.07 -0.07	0.75
VA1 - 5	772.50	-0.48 0.00	329.00 -1451.05	329.00	-116.38 150.40	150.40	-3.26 3.66	-0.52 0.52	-3.00
VA1 - 6	772.50	-0.42 0.00	-929.31 -660.76	233.70	117.62 -62.57	117.62	1.34 1.18	0.06 -0.06	2.56
VA2	772.50	0.00 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-3.03
VA3 - 1	772.50	0.00 0.02	0.00 -1556.68	1110.84	0.00 18.88	18.88	1.31 2.03	0.00 0.00	0.64
VA3 - 2	772.50	0.00 0.00	-1563.43 6.53	6.53	74.37 0.00	74.37	1.61 -0.41	0.05 -0.05	0.00
VA4 - 1	810.00	0.00 0.12	-1533.57 -1719.31	935.51	70.45 -43.03	70.45	2.00 2.07	0.02 -0.02	0.79
VA4 - 2	810.00	0.00 0.23	-1828.22 1639.05	1639.05	-101.16 -35.27	0.00	2.56 -0.96	-0.03 0.03	-2.92
VA4 - 3	810.00	0.00 0.23	1639.09 1347.19	1639.09	-35.27 15.36	0.00	-0.81 1.06	-0.16 0.16	-2.92
VA4 - 4	810.00	0.00 0.23	1347.28 -176.64	1347.28	15.36 186.85	186.85	-1.77 2.37	-0.23 0.23	-2.92






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VA4 - 5	810.00	0.00 0.22	-177.57 -3040.78	0.00	186.85 16.53	186.85	-4.91 5.36	0.31 -0.31	-5.59
VA4 - 6	810.00	-0.05 0.00	-3411.22 -279.35	0.00	-31.68 8.75	8.75	3.52 -2.71	-0.04 0.04	4.24
VA4 - 7	810.00	-0.05 0.00	-279.25 1401.19	1401.19	8.75 0.92	8.75	2.00 -1.13	0.01 -0.01	1.91
VA4 - 8	810.00	-0.05 0.00	1400.19 951.08	1503.85	0.92 118.61	0.00	0.42 0.95	-0.07 0.07	1.91
VA4 - 9	810.00	-0.02 0.00	956.15 -2190.34	956.15	118.61 -160.96	118.61	-5.11 5.59	0.48 -0.48	1.91
VA4 - 10	810.00	-0.18 0.00	-1876.85 -49.66	0.00	-41.37 9.81	9.81	2.28 -1.49	-0.05 0.05	1.02
VA4 - 11	810.00	-0.18 0.00	-43.13 431.31	431.31	9.81 12.58	12.58	1.09 -0.64	-0.01 0.01	1.02
VA4 - 12	810.00	-0.20 0.00	432.26 -969.24	432.26	12.58 -62.01	12.58	-0.10 1.51	0.04 -0.04	1.02
VA4 - 13	810.00	0.00 0.04	-692.89 -382.01	346.04	-10.83 -11.90	0.00	1.30 1.09	0.00 0.00	-1.81
VA5 - 1	772.50	-0.03 0.00	-409.33 551.18	685.84	-83.59 40.46	40.46	1.30 0.46	-0.05 0.05	-2.89
VA5 - 2	772.50	-0.03 0.00	551.09 -1606.53	551.09	40.46 19.21	40.46	-1.17 2.17	0.02 -0.02	-2.89
VA5 - 3	772.50	-0.01 0.00	-1980.18 333.32	333.32	14.22 7.00	14.22	2.69 -1.91	0.01 -0.01	2.26
VA5 - 4	772.50	-0.01 0.00	333.19 1180.15	1180.15	7.00 50.83	0.00	1.20 -0.37	-0.04 0.04	2.26
VA5 - 5	772.50	-0.01 0.00	1181.16 -1586.96	1181.16	50.83 -31.83	50.83	-0.34 2.10	0.04 -0.04	2.26
VA5 - 6	772.50	0.00 0.07	-1443.10 679.92	679.92	69.80 -51.70	69.80	1.98 -0.81	0.08 -0.08	-0.03
VA5 - 7	772.50	0.00 0.09	678.98 -194.82	678.98	-0.26 -50.93	0.00	0.06 1.16	0.03 -0.03	-10.62
VA6 - 1	772.50	0.00 0.04	7.08 599.59	637.28	5.44 -9.23	0.00	0.99 0.25	0.01 -0.01	1.34
VA6 - 2	772.50	0.00 0.04	604.33 -2598.51	604.33	-9.23 20.37	20.37	-1.50 2.68	-0.02 0.02	1.34
VA7 - 1	772.50	-0.06 0.00	-759.41 1586.05	1586.05	-31.73 6.57	6.57	2.10 -0.89	-0.02 0.02	-2.87
VA7 - 2	772.50	-0.06 0.00	1581.32 0.00	1581.32	6.57 0.00	6.57	-0.36 1.60	0.00 0.00	-2.87
VA8 - 1	866.25	0.00 0.49	-3690.83 -6624.45	2927.91	-5.74 5.66	5.66	3.39 4.07	0.00 0.00	-2.07
VA8 - 2	866.25	0.00 0.72	-8802.82 -5720.45	4866.21	16.65 -4.54	16.65	4.87 4.28	0.00 0.00	1.71
VA9 - 1	810.00	0.00 0.11	-1892.22 -2457.56	1248.60	46.41 -36.46	46.41	2.26 2.45	0.01 -0.01	2.94
VA9 - 2	810.00	0.00 0.16	-2824.98 -2516.09	1433.43	-9.60 3.37	3.37	2.63 2.53	0.00 0.00	-0.31
VA10 - 1	810.00	0.00 0.09	-2229.81 -1500.74	908.50	27.41 -32.03	27.41	2.25 1.98	0.01 -0.01	0.43
VA10 - 2	810.00	0.00 0.05	-1486.50 -521.84	648.52	-30.43 5.84	5.84	1.86 1.38	-0.01 0.01	-3.28
VA11 - 1	772.50	-0.10 0.00	-392.59 119.03	268.77	80.09 -55.90	80.09	1.01 0.48	0.07 -0.07	1.51
VA11 - 2	772.50	-0.69 0.00	-922.34 337.92	746.53	7.30 -7.98	7.30	1.61 0.79	0.00 0.00	-1.07
VA11 - 3	772.50	-0.69 0.00	334.89 -1645.34	334.89	-7.98 -16.90	0.00	-1.56 2.35	0.01 -0.01	-1.07
VA12 - 1	772.50	-0.13 0.00	0.00 1751.65	2025.57	0.00 -2.89	0.00	1.77 0.65	0.00 0.00	-0.04
VA12 - 2	772.50	-0.13 0.00	1754.67 0.00	1754.67	-2.89 0.00	0.00	-1.42 2.17	0.00 0.00	-0.04
VA13	735.00	0.00	0.00	338.60	0.00	0.00	0.71	0.00	0.10



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		0.07	0.00		0.00		0.71	0.00	
VA14 - 1	772.50	0.00 0.53	0.00 2243.15	2243.15	0.00 -12.11	0.00	2.54 -1.73	0.01 -0.01	0.99
VA14 - 2	772.50	0.00 0.53	2243.79 0.00	2356.99	-12.11 0.00	0.00	0.42 1.91	0.00 0.00	0.99
VA15	735.00	-0.05 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.13
VA16	735.00	0.00 0.08	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-1.00
VA17 - 1	772.50	0.00 0.54	0.00 3941.43	3941.43	0.00 26.89	26.89	4.16 -3.35	-0.03 0.03	-5.07
VA17 - 2	772.50	0.00 0.60	3940.80 0.00	3940.80	-28.60 0.00	0.00	-0.29 2.48	-0.01 0.01	1.68
VA18	772.50	0.00 0.27	-894.06 714.29	714.29	-92.61 127.36	127.36	1.58 -0.09	-0.11 0.11	1.20
VA19	772.50	0.00 0.05	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-6.53
VA20	772.50	-0.05 0.00	-10.59 0.00	351.16	-51.45 0.00	0.00	0.75 0.74	-0.03 0.03	0.94
VA21 - 1	772.50	0.00 0.16	-1667.78 2322.85	2322.85	21.42 -30.51	21.42	2.48 0.00	0.02 -0.02	5.04
VA21 - 2	772.50	0.00 0.17	2324.19 -1475.54	2324.19	-35.95 22.79	22.79	-0.98 2.62	-0.03 0.03	-2.04
VA22	772.50	0.00 0.14	-523.18 -613.71	716.60	-59.17 84.61	84.61	1.38 1.43	-0.04 0.04	-0.12
VA23	772.50	0.00 0.03	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.73
VA24 - 1	810.00	0.00 0.11	-1861.44 -2485.91	1250.83	-63.08 39.55	39.55	2.25 2.46	-0.02 0.02	-4.30
VA24 - 2	810.00	0.00 0.16	-2674.86 -2792.57	1367.17	0.94 25.96	25.96	2.56 2.60	0.00 0.00	-0.33
VA25 - 1	810.00	0.00 0.19	-3160.78 1688.08	1688.08	65.28 -33.21	65.28	3.31 -1.76	0.05 -0.05	3.29
VA25 - 2	810.00	0.00 0.19	1690.95 -2234.48	1705.44	-33.21 -0.18	0.00	0.15 2.53	-0.01 0.01	3.29
VA25 - 3	810.00	0.00 0.06	-1725.19 -511.73	553.88	-14.59 -3.71	0.00	1.92 1.31	0.00 0.00	-0.91

CASO: G1+G2+1.4Q+D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.29	-1326.05 1921.31	1921.31	-74.34 4.76	4.76	2.42 -0.92	-0.04 0.04	-2.50
VA1 - 2	772.50	0.00 0.29	1921.28 174.89	1921.28	4.76 -99.18	0.00	-1.26 2.07	0.10 -0.10	-3.14
VA1 - 3	772.50	0.00 0.26	175.91 -2266.11	175.91	-99.18 174.32	174.32	-3.98 4.43	-0.47 0.47	-3.01
VA1 - 4	772.50	-0.44 0.00	-2072.84 252.31	694.53	147.19 -110.71	147.19	2.07 0.83	0.07 -0.07	0.37
VA1 - 5	772.50	-0.48 0.00	253.92 -1550.54	253.92	-110.71 145.80	145.80	-3.31 3.71	-0.50 0.50	-2.54
VA1 - 6	772.50	-0.42 0.00	-770.79 -855.55	214.84	115.92 -60.73	115.92	1.23 1.29	0.05 -0.05	2.07
VA2	772.50	0.00 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-3.13
VA3 - 1	772.50	0.00 0.01	0.00 -1556.40	1110.95	0.00 21.01	21.01	1.31 2.03	0.00 0.00	0.61
VA3 - 2	772.50	0.00 0.00	-1563.26 6.70	6.70	68.37 0.00	68.37	1.61 -0.41	0.04 -0.04	0.00
VA4 - 1	810.00	0.00 0.14	-1342.69 -1790.38	1000.65	63.29 -44.78	63.29	1.95 2.13	0.02 -0.02	0.69




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VA4 - 2	810.00	0.00 0.24	-1770.00 1566.51	1566.51	-83.21 -40.84	0.00	2.49 -0.90	-0.02 0.02	-1.13
VA4 - 3	810.00	0.00 0.24	1566.54 1253.87	1566.54	-40.84 9.63	0.00	-0.87 1.13	-0.16 0.16	-1.13
VA4 - 4	810.00	0.00 0.24	1253.93 -318.91	1253.93	9.63 183.86	183.86	-1.84 2.43	-0.24 0.24	-1.13
VA4 - 5	810.00	0.00 0.22	-319.88 -3220.14	0.00	183.86 -6.95	183.86	-4.97 5.43	0.34 -0.34	-5.95
VA4 - 6	810.00	-0.04 0.00	-3259.33 -178.63	0.00	-43.63 -2.98	0.00	3.47 -2.66	-0.04 0.04	2.50
VA4 - 7	810.00	-0.04 0.00	-178.55 1447.14	1447.14	-2.98 -0.66	0.00	1.95 -1.08	0.00 0.00	1.01
VA4 - 8	810.00	-0.04 0.00	1446.13 911.20	1528.33	-0.66 122.03	0.00	0.37 1.00	-0.07 0.07	1.01
VA4 - 9	810.00	-0.02 0.00	916.44 -2259.96	916.44	122.03 -144.19	122.03	-5.16 5.64	0.45 -0.45	1.01
VA4 - 10	810.00	-0.15 0.00	-1820.65 -41.67	0.00	-38.94 11.56	11.56	2.23 -1.44	-0.05 0.05	1.10
VA4 - 11	810.00	-0.15 0.00	-34.97 412.13	412.13	11.56 16.07	16.07	1.04 -0.59	-0.01 0.01	1.10
VA4 - 12	810.00	-0.18 0.00	413.10 -1075.65	413.10	16.07 -63.39	16.07	-0.15 1.56	0.05 -0.05	1.10
VA4 - 13	810.00	0.00 0.03	-473.17 -685.18	300.05	-13.71 -15.79	0.00	1.12 1.27	0.00 0.00	-1.83
VA5 - 1	772.50	-0.02 0.00	-323.95 519.39	686.01	-70.36 38.05	38.05	1.25 0.51	-0.05 0.05	-1.87
VA5 - 2	772.50	-0.02 0.00	519.33 -1704.95	519.33	38.05 2.40	38.05	-1.22 2.22	0.03 -0.03	-1.87
VA5 - 3	772.50	0.00 0.00	-1906.11 379.12	379.12	-1.25 1.71	1.71	2.66 -1.88	0.00 0.00	1.36
VA5 - 4	772.50	0.00 0.00	379.04 1195.74	1195.74	1.71 46.39	0.00	1.17 -0.34	-0.04 0.04	1.36
VA5 - 5	772.50	0.00 0.00	1196.76 -1635.33	1196.76	46.39 -19.71	46.39	-0.37 2.12	0.03 -0.03	1.36
VA5 - 6	772.50	0.00 0.06	-1398.28 666.58	666.58	67.45 -49.71	67.45	1.95 -0.77	0.08 -0.08	-0.32
VA5 - 7	772.50	0.00 0.08	665.61 -268.03	665.61	-4.44 -41.19	0.00	0.02 1.20	0.02 -0.02	-10.08
VA6 - 1	772.50	0.00 0.04	7.69 522.78	579.83	-5.84 -11.72	0.00	0.94 0.30	0.00 0.00	1.51
VA6 - 2	772.50	0.00 0.04	527.51 -2749.46	527.51	-11.72 27.01	27.01	-1.54 2.73	-0.03 0.03	1.51
VA7 - 1	772.50	-0.07 0.00	-657.49 1637.60	1637.60	-36.88 4.34	4.34	2.07 -0.85	-0.03 0.03	-3.06
VA7 - 2	772.50	-0.07 0.00	1632.87 0.00	1632.87	4.34 0.00	4.34	-0.39 1.64	0.00 0.00	-3.06
VA8 - 1	866.25	0.00 0.49	-3536.88 -6755.73	2954.64	-0.22 0.33	0.33	3.35 4.10	0.00 0.00	-1.36
VA8 - 2	866.25	0.00 0.72	-8704.75 -5846.93	4843.37	12.35 -7.14	12.35	4.85 4.30	0.00 0.00	1.16
VA9 - 1	810.00	0.00 0.13	-1737.92 -2592.69	1263.17	29.83 -23.29	29.83	2.21 2.50	0.01 -0.01	2.31
VA9 - 2	810.00	0.00 0.18	-2725.14 -2620.91	1427.64	-10.18 9.74	9.74	2.59 2.56	0.00 0.00	-0.25
VA10 - 1	810.00	0.00 0.10	-2112.00 -1607.45	905.41	22.88 -31.33	22.88	2.21 2.02	0.01 -0.01	0.73
VA10 - 2	810.00	0.00 0.05	-1332.36 -705.99	609.67	-39.09 24.99	24.99	1.78 1.46	-0.02 0.02	-2.99
VA11 - 1	772.50	-0.11 0.00	-143.32 -16.01	283.28	68.87 -44.06	68.87	0.81 0.68	0.06 -0.06	1.72
VA11 - 2	772.50	-0.72 0.00	-742.69 128.69	675.13	1.54 -5.02	1.54	1.48 0.92	0.00 0.00	-1.31
VA11 - 3	772.50	-0.72	125.56	125.56	-5.02	0.00	-1.69	0.00	-1.31

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		0.00	-1981.52		-9.53		2.47	0.00	
VA12 - 1	772.50	-0.14 0.00	0.00 1751.57	2025.52	0.00 -1.74	0.00	1.77 0.65	0.00 0.00	-0.03
VA12 - 2	772.50	-0.14 0.00	1754.70 0.00	1754.70	-1.74 0.00	0.00	-1.42 2.17	0.00 0.00	-0.03
VA13	735.00	0.00 0.08	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.06
VA14 - 1	772.50	0.00 0.58	0.00 2243.21	2243.21	0.00 -10.48	0.00	2.54 -1.73	0.01 -0.01	1.02
VA14 - 2	772.50	0.00 0.57	2243.82 0.00	2357.02	-10.48 0.00	0.00	0.42 1.91	0.00 0.00	1.02
VA15	735.00	-0.04 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.09
VA16	735.00	0.00 0.07	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-1.01
VA17 - 1	772.50	0.00 0.53	0.00 3941.38	3941.38	0.00 23.10	23.10	4.16 -3.35	-0.02 0.02	-5.24
VA17 - 2	772.50	0.00 0.57	3940.77 0.00	3940.77	-24.26 0.00	0.00	-0.29 2.48	-0.01 0.01	1.62
VA18	772.50	0.00 0.26	-681.68 501.73	512.59	-79.09 111.66	111.66	1.36 0.13	-0.10 0.10	1.25
VA19	772.50	0.00 0.04	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-6.70
VA20	772.50	-0.05 0.00	-9.76 0.00	351.53	-45.26 0.00	0.00	0.75 0.74	-0.02 0.02	0.97
VA21 - 1	772.50	0.00 0.15	-1530.31 2254.57	2254.57	27.36 -34.29	27.36	2.42 0.06	0.02 -0.02	5.36
VA21 - 2	772.50	0.00 0.15	2256.08 -1576.97	2256.08	-28.45 11.52	11.52	-1.00 2.63	-0.02 0.02	-2.33
VA22	772.50	0.00 0.14	-303.46 -876.49	711.04	-55.63 80.21	80.21	1.25 1.57	-0.04 0.04	-0.26
VA23	772.50	0.00 0.03	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.73
VA24 - 1	810.00	0.00 0.12	-1679.93 -2643.11	1269.53	-56.91 36.88	36.88	2.19 2.52	-0.02 0.02	-4.92
VA24 - 2	810.00	0.00 0.17	-2541.27 -2926.50	1371.31	6.43 28.50	28.50	2.52 2.64	0.00 0.00	-0.26
VA25 - 1	810.00	0.00 0.20	-3029.60 1753.35	1753.35	78.42 -42.40	78.42	3.27 -1.72	0.06 -0.06	3.74
VA25 - 2	810.00	0.00 0.20	1756.41 -2389.00	1757.16	-42.40 -4.83	0.00	0.09 2.59	-0.01 0.01	3.74
VA25 - 3	810.00	0.00 0.07	-1535.16 -740.79	501.27	1.00 -23.07	1.00	1.82 1.42	0.01 -0.01	-0.77

CASO: G1+G2+1.4Q+D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.27	-1635.90 1920.48	1920.48	-74.07 4.25	4.25	2.58 -1.08	-0.04 0.04	-2.54
VA1 - 2	772.50	0.00 0.27	1920.38 340.85	1920.38	4.25 -98.22	0.00	-1.10 1.91	0.10 -0.10	-3.18
VA1 - 3	772.50	0.00 0.25	341.74 -2007.97	341.74	-98.22 175.87	175.87	-3.82 4.27	-0.47 0.47	-2.88
VA1 - 4	772.50	-0.45 0.00	-2248.68 382.85	739.97	147.11 -110.52	147.11	2.15 0.75	0.07 -0.07	0.61
VA1 - 5	772.50	-0.49 0.00	384.50 -1377.94	384.50	-110.52 146.64	146.64	-3.23 3.63	-0.50 0.50	-3.77
VA1 - 6	772.50	-0.42 0.00	-1039.22 -534.16	256.82	114.87 -60.11	114.87	1.42 1.11	0.05 -0.05	2.07
VA2	772.50	0.00 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-3.23



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VA3 - 1	772.50	0.00 0.01	0.00 -1556.98	1110.73	0.00 20.85	20.85	1.31 2.03	0.00 0.00	0.65
VA3 - 2	772.50	0.00 0.00	-1563.53 6.43	6.43	70.30 0.00	70.30	1.61 -0.41	0.05 -0.05	0.00
VA4 - 1	810.00	0.00 0.08	-1735.84 -1639.91	872.28	68.87 -45.94	68.87	2.06 2.02	0.02 -0.02	0.70
VA4 - 2	810.00	0.00 0.19	-1880.04 1707.95	1707.95	-85.24 -40.55	0.00	2.62 -1.02	-0.02 0.02	-1.82
VA4 - 3	810.00	0.00 0.19	1708.06 1435.36	1708.06	-40.55 9.72	0.00	-0.74 1.00	-0.16 0.16	-1.82
VA4 - 4	810.00	0.00 0.19	1435.51 -43.20	1435.51	9.72 184.87	184.87	-1.71 2.30	-0.24 0.24	-1.82
VA4 - 5	810.00	0.00 0.17	-44.04 -2873.01	0.00	184.87 -4.60	184.87	-4.85 5.30	0.34 -0.34	-2.48
VA4 - 6	810.00	-0.10 0.00	-3577.23 -388.23	0.00	-44.19 -2.91	0.00	3.58 -2.76	-0.04 0.04	3.90
VA4 - 7	810.00	-0.10 0.00	-388.10 1353.46	1353.46	-2.91 -0.46	0.00	2.05 -1.18	0.00 0.00	0.65
VA4 - 8	810.00	-0.10 0.00	1352.44 999.15	1489.88	-0.46 122.65	0.00	0.47 0.89	-0.07 0.07	0.65
VA4 - 9	810.00	-0.08 0.00	1004.04 -2109.05	1004.04	122.65 -143.51	122.65	-5.05 5.53	0.45 -0.45	0.65
VA4 - 10	810.00	-0.22 0.00	-1908.73 -47.16	0.00	-38.63 10.42	10.42	2.31 -1.53	-0.05 0.05	1.11
VA4 - 11	810.00	-0.22 0.00	-40.73 453.20	453.20	10.42 13.42	13.42	1.12 -0.68	-0.01 0.01	1.11
VA4 - 12	810.00	-0.24 0.00	454.20 -886.06	454.20	13.42 -61.79	13.42	-0.07 1.47	0.04 -0.04	1.11
VA4 - 13	810.00	0.00 0.03	-923.24 -79.28	426.76	-11.73 -23.67	0.00	1.48 0.91	0.00 0.00	-1.85
VA5 - 1	772.50	-0.01 0.00	-500.12 589.84	689.19	-72.62 38.86	38.86	1.36 0.40	-0.05 0.05	-1.89
VA5 - 2	772.50	-0.01 0.00	589.69 -1494.27	589.69	38.86 2.52	38.86	-1.11 2.11	0.03 -0.03	-1.89
VA5 - 3	772.50	0.00 0.01	-2056.79 285.56	285.56	-0.58 1.63	1.63	2.72 -1.94	0.00 0.00	1.40
VA5 - 4	772.50	0.00 0.01	285.41 1163.23	1163.23	1.63 46.61	0.00	1.23 -0.40	-0.04 0.04	1.40
VA5 - 5	772.50	0.00 0.01	1164.24 -1538.61	1164.24	46.61 -19.18	46.61	-0.31 2.07	0.03 -0.03	1.40
VA5 - 6	772.50	0.00 0.07	-1508.54 690.86	690.86	67.57 -50.91	67.57	2.03 -0.86	0.08 -0.08	-0.31
VA5 - 7	772.50	0.00 0.10	689.86 -104.07	694.75	-6.70 -53.02	0.00	0.11 1.11	0.03 -0.03	-10.44
VA6 - 1	772.50	0.00 0.05	6.26 709.68	730.14	4.95 -9.41	0.00	1.06 0.18	0.01 -0.01	1.60
VA6 - 2	772.50	0.00 0.05	714.44 -2382.21	714.44	-9.41 21.99	21.99	-1.43 2.61	-0.02 0.02	1.60
VA7 - 1	772.50	-0.05 0.00	-902.41 1513.73	1513.73	-32.55 6.94	6.94	2.14 -0.93	-0.03 0.03	-3.19
VA7 - 2	772.50	-0.05 0.00	1508.96 0.00	1508.96	6.94 0.00	6.94	-0.32 1.56	0.00 0.00	-3.19
VA8 - 1	866.25	0.00 0.49	-3829.03 -6513.48	2905.61	-9.66 2.99	2.99	3.42 4.04	0.00 0.00	-1.39
VA8 - 2	866.25	0.00 0.74	-8911.06 -5590.68	4886.13	10.03 1.34	10.03	4.89 4.26	0.00 0.00	1.17
VA9 - 1	810.00	0.00 0.12	-1753.27 -2577.68	1262.48	40.07 -33.62	40.07	2.21 2.49	0.01 -0.01	3.60
VA9 - 2	810.00	0.00 0.17	-2723.10 -2616.43	1430.94	-18.02 7.98	7.98	2.59 2.56	0.00 0.00	-0.28
VA10 - 1	810.00	0.00 0.10	-2113.47 -1605.47	905.80	21.01 -29.98	21.01	2.21 2.02	0.01 -0.01	0.10
VA10 - 2	810.00	0.00	-1335.10	609.70	-41.01	29.30	1.78	-0.02	-3.69



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		0.05	-703.47		29.30		1.46	0.02	
VA11 - 1	772.50	-0.11 0.00	-162.05 -10.36	278.10	70.93 -46.46	70.93	0.82 0.67	0.06 -0.06	1.33
VA11 - 2	772.50	-0.72 0.00	-762.35 147.63	678.63	-0.26 -4.46	0.00	1.49 0.91	0.00 0.00	-0.94
VA11 - 3	772.50	-0.72 0.00	144.40 -1950.09	144.40	-4.46 -8.29	0.00	-1.67 2.46	0.00 0.00	-0.94
VA12 - 1	772.50	-0.14 0.00	0.00 1751.49	2025.46	0.00 -1.81	0.00	1.77 0.65	0.00 0.00	-0.11
VA12 - 2	772.50	-0.14 0.00	1754.72 0.00	1754.72	-1.81 0.00	0.00	-1.42 2.17	0.00 0.00	-0.11
VA13	735.00	0.00 0.08	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.15
VA14 - 1	772.50	0.00 0.57	0.00 2243.09	2243.09	0.00 -10.77	0.00	2.54 -1.73	0.01 -0.01	0.88
VA14 - 2	772.50	0.00 0.57	2243.75 0.00	2356.96	-10.77 0.00	0.00	0.42 1.91	0.00 0.00	0.88
VA15	735.00	-0.04 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.14
VA16	735.00	0.00 0.07	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-1.02
VA17 - 1	772.50	0.00 0.53	0.00 3941.49	3941.49	0.00 23.95	23.95	4.16 -3.35	-0.02 0.02	-4.89
VA17 - 2	772.50	0.00 0.58	3940.84 0.00	3940.84	-25.51 0.00	0.00	-0.29 2.48	-0.01 0.01	1.66
VA18	772.50	0.00 0.26	-674.33 493.24	505.86	-79.29 111.90	111.90	1.35 0.14	-0.10 0.10	1.13
VA19	772.50	0.00 0.05	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-6.43
VA20	772.50	-0.05 0.00	-10.13 0.00	351.37	-44.21 0.00	0.00	0.75 0.74	-0.02 0.02	1.00
VA21 - 1	772.50	0.00 0.16	-1568.44 2359.10	2359.10	25.22 -34.30	25.22	2.46 0.02	0.02 -0.02	4.60
VA21 - 2	772.50	0.00 0.17	2360.69 -1626.72	2360.69	-39.26 20.93	20.93	-1.07 2.70	-0.03 0.03	-1.66
VA22	772.50	0.00 0.14	-280.85 -898.55	713.79	-56.19 81.26	81.26	1.24 1.58	-0.04 0.04	-0.07
VA23	772.50	0.00 0.03	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.76
VA24 - 1	810.00	0.00 0.13	-1674.45 -2650.08	1269.43	-49.99 30.18	30.18	2.19 2.52	-0.01 0.01	-3.65
VA24 - 2	810.00	0.00 0.18	-2553.45 -2915.96	1370.12	1.71 16.54	16.54	2.52 2.64	0.00 0.00	-0.30
VA25 - 1	810.00	0.00 0.20	-2988.46 1701.05	1701.05	58.68 -21.30	58.68	3.23 -1.67	0.04 -0.04	2.79
VA25 - 2	810.00	0.00 0.19	1704.24 -2347.85	1710.82	-21.30 -7.65	0.00	0.12 2.56	0.00 0.00	2.79
VA25 - 3	810.00	0.00 0.07	-1523.69 -742.02	505.39	-5.42 -20.90	0.00	1.81 1.42	0.00 0.00	-1.18

**CASO: G1+G2+1.4Q+D3**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.28	-1460.96 1922.56	1922.56	-64.03 3.30	3.30	2.49 -0.99	-0.03 0.03	-2.08
VA1 - 2	772.50	0.00 0.28	1922.47 249.57	1922.47	3.30 -115.22	0.00	-1.19 2.00	0.11 -0.11	-2.71
VA1 - 3	772.50	0.00 0.25	250.49 -2150.87	250.49	-115.22 169.33	169.33	-3.91 4.36	-0.49 0.49	-2.51
VA1 - 4	772.50	-0.45 0.00	-2148.22 309.46	714.87	142.63 -105.81	142.63	2.10 0.79	0.07 -0.07	0.27



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VA1 - 5	772.50	-0.49 0.00	311.05 -1475.23	311.05	-105.81 142.73	142.73	-3.28 3.67	-0.48 0.48	-3.28
VA1 - 6	772.50	-0.43 0.00	-884.75 -723.26	224.00	113.55 -58.64	113.55	1.31 1.21	0.05 -0.05	1.67
VA2	772.50	0.00 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-3.30
VA3 - 1	772.50	0.00 0.01	0.00 -1556.70	1110.84	0.00 22.64	22.64	1.31 2.03	-0.01 0.01	0.63
VA3 - 2	772.50	0.00 0.00	-1563.37 6.59	6.59	65.14 0.00	65.14	1.61 -0.41	0.04 -0.04	0.00
VA4 - 1	810.00	0.00 0.10	-1544.01 -1711.67	933.75	62.43 -47.30	62.43	2.00 2.07	0.02 -0.02	0.61
VA4 - 2	810.00	0.00 0.20	-1822.35 1635.72	1635.72	-70.11 -45.21	0.00	2.55 -0.96	-0.01 0.01	-0.27
VA4 - 3	810.00	0.00 0.20	1635.81 1342.47	1635.81	-45.21 4.93	0.00	-0.81 1.06	-0.16 0.16	-0.27
VA4 - 4	810.00	0.00 0.20	1342.58 -184.73	1342.58	4.93 182.30	182.30	-1.77 2.37	-0.24 0.24	-0.27
VA4 - 5	810.00	0.00 0.18	-185.63 -3051.41	0.00	182.30 -24.36	182.30	-4.91 5.36	0.37 -0.37	-3.07
VA4 - 6	810.00	-0.09 0.00	-3424.16 -286.82	0.00	-54.10 -12.69	0.00	3.53 -2.71	-0.04 0.04	2.33
VA4 - 7	810.00	-0.08 0.00	-286.73 1399.56	1399.56	-12.69 -1.79	0.00	2.00 -1.13	-0.01 0.01	-0.06
VA4 - 8	810.00	-0.08 0.00	1398.53 958.59	1504.48	-1.79 125.45	0.00	0.42 0.94	-0.08 0.08	-0.06
VA4 - 9	810.00	-0.07 0.00	963.65 -2179.64	963.65	125.45 -129.59	125.45	-5.10 5.58	0.43 -0.43	-0.06
VA4 - 10	810.00	-0.19 0.00	-1854.55 -40.05	0.00	-36.63 11.97	11.97	2.26 -1.48	-0.05 0.05	1.17
VA4 - 11	810.00	-0.19 0.00	-33.46 433.79	433.79	11.97 16.55	16.55	1.07 -0.63	-0.01 0.01	1.17
VA4 - 12	810.00	-0.21 0.00	434.81 -990.53	434.81	16.55 -63.07	16.55	-0.11 1.52	0.05 -0.05	1.17
VA4 - 13	810.00	0.00 0.02	-702.63 -382.41	341.63	-14.29 -26.25	0.00	1.30 1.08	0.00 0.00	-1.87
VA5 - 1	772.50	-0.01 0.00	-414.29 557.48	689.07	-61.41 36.79	36.79	1.31 0.45	-0.04 0.04	-1.04
VA5 - 2	772.50	-0.01 0.00	557.36 -1593.85	557.36	36.79 -11.50	36.79	-1.16 2.16	0.04 -0.04	-1.04
VA5 - 3	772.50	0.00 0.01	-1982.50 331.52	331.52	-13.53 -2.78	0.00	2.69 -1.91	-0.01 0.01	0.64
VA5 - 4	772.50	0.00 0.01	331.42 1178.93	1178.93	-2.78 42.89	0.00	1.20 -0.37	-0.04 0.04	0.64
VA5 - 5	772.50	0.00 0.01	1179.96 -1586.98	1179.96	42.89 -9.13	42.89	-0.34 2.09	0.02 -0.02	0.64
VA5 - 6	772.50	0.00 0.07	-1462.01 677.72	677.72	65.60 -49.15	65.60	1.99 -0.82	0.08 -0.08	-0.55
VA5 - 7	772.50	0.00 0.09	676.70 -178.74	676.70	-10.01 -43.91	0.00	0.07 1.15	0.02 -0.02	-9.96
VA6 - 1	772.50	0.00 0.04	6.89 630.09	660.58	-5.35 -11.67	0.00	1.01 0.23	0.00 0.00	1.73
VA6 - 2	772.50	0.00 0.04	634.85 -2538.61	634.85	-11.67 27.94	27.94	-1.48 2.66	-0.03 0.03	1.73
VA7 - 1	772.50	-0.06 0.00	-797.07 1567.01	1567.01	-37.19 4.86	4.86	2.11 -0.90	-0.03 0.03	-3.34
VA7 - 2	772.50	-0.06 0.00	1562.25 0.00	1562.25	4.86 0.00	4.86	-0.35 1.59	0.00 0.00	-3.34
VA8 - 1	866.25	0.00 0.50	-3676.39 -6643.07	2926.98	-4.26 -1.67	0.00	3.38 4.07	0.00 0.00	-0.79
VA8 - 2	866.25	0.00 0.73	-8812.14 -5717.44	4863.53	6.65 -1.54	6.65	4.87 4.28	0.00 0.00	0.71
VA9 - 1	810.00	0.00	-1623.40	1279.01	25.40	25.40	2.17	0.01	2.96



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		0.14	-2691.53		-21.79		2.54	-0.01	
VA9 - 2	810.00	0.00 0.19	-2640.07 -2704.16	1427.91	-17.85 13.44	13.44	2.57 2.59	0.00 0.00	-0.23
VA10 - 1	810.00	0.00 0.11	-2015.18 -1694.56	907.20	17.39 -29.51	17.39	2.18 2.05	0.01 -0.01	0.40
VA10 - 2	810.00	0.00 0.05	-1206.42 -857.15	589.77	-48.07 44.89	44.89	1.71 1.53	-0.02 0.02	-3.40
VA11 - 1	772.50	-0.13 0.00	47.24 -123.36	327.29	61.41 -36.39	61.41	0.66 0.83	0.05 -0.05	1.54
VA11 - 2	772.50	-0.74 0.00	-611.01 -28.31	633.60	-4.91 -2.04	0.00	1.39 1.01	0.00 0.00	-1.17
VA11 - 3	772.50	-0.74 0.00	-31.61 -2232.86	0.00	-2.04 -2.25	0.00	-1.78 2.56	0.00 0.00	-1.17
VA12 - 1	772.50	-0.15 0.00	0.00 1751.43	2025.42	0.00 -0.84	0.00	1.77 0.65	0.00 0.00	-0.09
VA12 - 2	772.50	-0.15 0.00	1754.74 0.00	1754.74	-0.84 0.00	0.00	-1.42 2.17	0.00 0.00	-0.09
VA13	735.00	0.00 0.08	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.11
VA14 - 1	772.50	0.00 0.61	0.00 2243.15	2243.15	0.00 -9.39	0.00	2.54 -1.73	0.01 -0.01	0.92
VA14 - 2	772.50	0.00 0.60	2243.78 0.00	2356.99	-9.39 0.00	0.00	0.42 1.91	0.00 0.00	0.92
VA15	735.00	-0.03 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.11
VA16	735.00	0.00 0.07	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-1.03
VA17 - 1	772.50	0.00 0.51	0.00 3941.43	3941.43	0.00 20.71	20.71	4.16 -3.35	-0.02 0.02	-5.06
VA17 - 2	772.50	0.00 0.56	3940.81 0.00	3940.81	-21.79 0.00	0.00	-0.29 2.48	-0.01 0.01	1.61
VA18	772.50	0.00 0.24	-497.96 316.81	384.86	-68.01 98.80	98.80	1.17 0.32	-0.09 0.09	1.19
VA19	772.50	0.00 0.04	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-6.59
VA20	772.50	-0.05 0.00	-9.41 0.00	351.69	-39.14 0.00	0.00	0.75 0.74	-0.02 0.02	1.02
VA21 - 1	772.50	0.00 0.16	-1450.70 2293.49	2293.49	30.34 -37.46	30.34	2.41 0.07	0.02 -0.02	4.93
VA21 - 2	772.50	0.00 0.16	2295.22 -1707.10	2295.22	-32.11 10.76	10.76	-1.08 2.71	-0.02 0.02	-1.96
VA22	772.50	0.00 0.14	-99.64 -1115.70	726.81	-53.19 77.50	77.50	1.13 1.69	-0.04 0.04	-0.21
VA23	772.50	0.00 0.03	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.76
VA24 - 1	810.00	0.00 0.14	-1523.65 -2780.50	1294.17	-45.42 28.52	28.52	2.14 2.57	-0.01 0.01	-4.27
VA24 - 2	810.00	0.00 0.18	-2441.11 -3028.45	1373.68	6.68 19.65	19.65	2.49 2.67	0.00 0.00	-0.24
VA25 - 1	810.00	0.00 0.21	-2882.57 1759.80	1759.80	71.27 -30.71	71.27	3.20 -1.65	0.05 -0.05	3.24
VA25 - 2	810.00	0.00 0.20	1763.15 -2480.05	1763.15	-30.71 -11.29	0.00	0.06 2.62	-0.01 0.01	3.24
VA25 - 3	810.00	0.00 0.07	-1366.29 -932.80	474.22	8.11 -37.21	8.11	1.73 1.51	0.01 -0.01	-1.04

**CASO: G1+G2+1.4Q+D4**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.28	-1500.99 1919.23	1919.23	-84.38 5.72	5.72	2.51 -1.01	-0.05 0.05	-2.97



VA1 - 2	772.50	0.00 0.28	1919.19 266.18	1919.19	5.72 -82.19	0.00	-1.17 1.98	0.08 -0.08	-3.60
VA1 - 3	772.50	0.00 0.26	267.16 -2123.20	267.16	-82.19 180.86	180.86	-3.89 4.34	-0.45 0.45	-3.39
VA1 - 4	772.50	-0.44 0.00	-2173.31 325.70	719.63	151.67 -115.42	151.67	2.11 0.78	0.07 -0.07	0.71
VA1 - 5	772.50	-0.48 0.00	327.36 -1453.25	327.36	-115.42 149.70	149.70	-3.27 3.66	-0.52 0.52	-3.02
VA1 - 6	772.50	-0.42 0.00	-925.26 -666.45	232.27	117.25 -62.21	117.25	1.34 1.18	0.05 -0.05	2.48
VA2	772.50	0.00 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-3.05
VA3 - 1	772.50	0.00 0.02	0.00 -1556.68	1110.84	0.00 19.22	19.22	1.31 2.03	0.00 0.00	0.64
VA3 - 2	772.50	0.00 0.00	-1563.43 6.53	6.53	73.53 0.00	73.53	1.61 -0.41	0.05 -0.05	0.00
VA4 - 1	810.00	0.00 0.12	-1534.52 -1718.62	935.35	69.73 -43.42	69.73	2.00 2.07	0.02 -0.02	0.78
VA4 - 2	810.00	0.00 0.23	-1827.69 1638.75	1638.75	-98.34 -36.17	0.00	2.56 -0.96	-0.03 0.03	-2.68
VA4 - 3	810.00	0.00 0.23	1638.79 1346.76	1638.79	-36.17 14.41	0.00	-0.81 1.06	-0.16 0.16	-2.68
VA4 - 4	810.00	0.00 0.23	1346.86 -177.38	1346.86	14.41 186.43	186.43	-1.77 2.37	-0.23 0.23	-2.68
VA4 - 5	810.00	0.00 0.21	-178.30 -3041.75	0.00	186.43 12.81	186.43	-4.91 5.36	0.31 -0.31	-5.36
VA4 - 6	810.00	-0.05 0.00	-3412.40 -280.03	0.00	-33.72 6.80	6.80	3.52 -2.71	-0.04 0.04	4.07
VA4 - 7	810.00	-0.05 0.00	-279.93 1401.04	1401.04	6.80 0.67	6.80	2.00 -1.13	0.01 -0.01	1.73
VA4 - 8	810.00	-0.05 0.00	1400.04 951.76	1503.90	0.67 119.23	0.00	0.42 0.95	-0.07 0.07	1.73
VA4 - 9	810.00	-0.03 0.00	956.83 -2189.37	956.83	119.23 -158.11	119.23	-5.11 5.59	0.47 -0.47	1.73
VA4 - 10	810.00	-0.18 0.00	-1874.83 -48.78	0.00	-40.94 10.01	10.01	2.28 -1.49	-0.05 0.05	1.03
VA4 - 11	810.00	-0.18 0.00	-42.25 431.54	431.54	10.01 12.94	12.94	1.08 -0.64	-0.01 0.01	1.03
VA4 - 12	810.00	-0.20 0.00	432.49 -971.18	432.49	12.94 -62.11	12.94	-0.10 1.51	0.04 -0.04	1.03
VA4 - 13	810.00	0.00 0.03	-693.77 -382.04	345.64	-11.14 -13.21	0.00	1.30 1.09	0.00 0.00	-1.81
VA5 - 1	772.50	-0.03 0.00	-409.78 551.75	686.13	-81.57 40.13	40.13	1.30 0.46	-0.05 0.05	-2.73
VA5 - 2	772.50	-0.03 0.00	551.66 -1605.38	551.66	40.13 16.42	40.13	-1.17 2.17	0.02 -0.02	-2.73
VA5 - 3	772.50	-0.01 0.00	-1980.40 333.16	333.16	11.70 6.11	11.70	2.69 -1.91	0.01 -0.01	2.11
VA5 - 4	772.50	-0.01 0.00	333.03 1180.04	1180.04	6.11 50.10	0.00	1.20 -0.37	-0.04 0.04	2.11
VA5 - 5	772.50	-0.01 0.00	1181.05 -1586.96	1181.05	50.10 -29.77	50.10	-0.34 2.10	0.04 -0.04	2.11
VA5 - 6	772.50	0.00 0.07	-1444.82 679.72	679.72	69.41 -51.47	69.41	1.98 -0.81	0.08 -0.08	-0.07
VA5 - 7	772.50	0.00 0.09	678.77 -193.36	678.77	-1.14 -50.29	0.00	0.06 1.16	0.03 -0.03	-10.56
VA6 - 1	772.50	0.00 0.04	7.06 602.36	639.36	4.46 -9.45	0.00	0.99 0.25	0.01 -0.01	1.38
VA6 - 2	772.50	0.00 0.04	607.10 -2593.06	607.10	-9.45 21.06	21.06	-1.49 2.68	-0.02 0.02	1.38
VA7 - 1	772.50	-0.06 0.00	-762.83 1584.32	1584.32	-32.23 6.41	6.41	2.10 -0.89	-0.02 0.02	-2.91
VA7 - 2	772.50	-0.06	1579.58	1579.58	6.41	6.41	-0.36	0.00	-2.91





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**11/5/2021  
12:14:59**

		0.00	0.00		0.00		1.60	0.00	
VA8 - 1	866.25	0.00 0.49	-3689.52 -6626.15	2927.83	-5.61 4.99	4.99	3.39 4.07	0.00 0.00	-1.95
VA8 - 2	866.25	0.00 0.72	-8803.67 -5720.18	4865.97	15.74 -4.27	15.74	4.87 4.28	0.00 0.00	1.62
VA9 - 1	810.00	0.00 0.11	-1867.79 -2478.83	1250.97	44.50 -35.13	44.50	2.25 2.46	0.01 -0.01	2.94
VA9 - 2	810.00	0.00 0.17	-2808.17 -2533.19	1432.74	-10.35 4.29	4.29	2.62 2.54	0.00 0.00	-0.30
VA10 - 1	810.00	0.00 0.09	-2210.29 -1518.36	908.02	26.50 -31.80	26.50	2.25 1.98	0.01 -0.01	0.43
VA10 - 2	810.00	0.00 0.05	-1461.04 -552.32	641.60	-32.04 9.39	9.39	1.85 1.39	-0.01 0.01	-3.29
VA11 - 1	772.50	-0.10 0.00	-352.60 96.99	267.41	78.39 -54.13	78.39	0.98 0.51	0.07 -0.07	1.51
VA11 - 2	772.50	-0.70 0.00	-894.03 304.63	733.77	6.19 -7.44	6.19	1.59 0.81	0.00 0.00	-1.08
VA11 - 3	772.50	-0.70 0.00	301.58 -1698.75	301.58	-7.44 -15.57	0.00	-1.58 2.36	0.01 -0.01	-1.08
VA12 - 1	772.50	-0.13 0.00	0.00 1751.63	2025.56	0.00 -2.71	0.00	1.77 0.65	0.00 0.00	-0.04
VA12 - 2	772.50	-0.13 0.00	1754.68 0.00	1754.68	-2.71 0.00	0.00	-1.42 2.17	0.00 0.00	-0.04
VA13	735.00	0.00 0.07	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.10
VA14 - 1	772.50	0.00 0.54	0.00 2243.15	2243.15	0.00 -11.86	0.00	2.54 -1.73	0.01 -0.01	0.98
VA14 - 2	772.50	0.00 0.54	2243.79 0.00	2356.99	-11.86 0.00	0.00	0.42 1.91	0.00 0.00	0.98
VA15	735.00	-0.05 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.12
VA16	735.00	0.00 0.08	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-1.01
VA17 - 1	772.50	0.00 0.54	0.00 3941.43	3941.43	0.00 26.33	26.33	4.16 -3.35	-0.03 0.03	-5.07
VA17 - 2	772.50	0.00 0.59	3940.80 0.00	3940.80	-27.98 0.00	0.00	-0.29 2.48	-0.01 0.01	1.67
VA18	772.50	0.00 0.27	-858.05 678.16	678.16	-90.37 124.77	124.77	1.54 -0.05	-0.11 0.11	1.19
VA19	772.50	0.00 0.05	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-6.53
VA20	772.50	-0.05 0.00	-10.49 0.00	351.21	-50.33 0.00	0.00	0.75 0.74	-0.03 0.03	0.95
VA21 - 1	772.50	0.00 0.16	-1648.04 2320.18	2320.18	22.23 -31.14	22.23	2.48 0.00	0.02 -0.02	5.03
VA21 - 2	772.50	0.00 0.17	2321.56 -1496.60	2321.56	-35.60 21.70	21.70	-0.99 2.62	-0.03 0.03	-2.04
VA22	772.50	0.00 0.14	-484.68 -659.35	713.03	-58.63 83.96	83.96	1.36 1.46	-0.04 0.04	-0.13
VA23	772.50	0.00 0.03	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.74
VA24 - 1	810.00	0.00 0.11	-1830.73 -2512.69	1253.79	-61.47 38.55	38.55	2.24 2.47	-0.02 0.02	-4.30
VA24 - 2	810.00	0.00 0.16	-2653.61 -2814.01	1367.76	1.46 25.39	25.39	2.55 2.60	0.00 0.00	-0.32
VA25 - 1	810.00	0.00 0.19	-3135.49 1694.60	1694.60	65.83 -32.98	65.83	3.30 -1.75	0.05 -0.05	3.29
VA25 - 2	810.00	0.00 0.19	1697.51 -2256.81	1710.20	-32.98 -1.19	0.00	0.15 2.54	-0.01 0.01	3.29
VA25 - 3	810.00	0.00 0.07	-1692.56 -550.01	545.45	-12.53 -6.76	0.00	1.90 1.33	0.00 0.00	-0.92



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12:14:59

CASO: G1+G2+1.4V1+0.84D1


Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.35	-282.35 1844.18	1844.18	-12.25 0.82	0.82	1.84 -0.34	-0.01 0.01	1.46
VA1 - 2	772.50	0.00 0.35	1844.53 -506.97	1844.53	0.82 -8.93	0.82	-1.83 2.64	0.01 -0.01	0.83
VA1 - 3	772.50	0.00 0.35	-505.59 -3282.32	0.00	-8.93 8.74	8.74	-4.55 5.00	-0.03 0.03	0.28
VA1 - 4	772.50	0.00 0.06	-1406.48 -175.24	634.92	13.53 -10.37	13.53	1.78 1.12	0.01 -0.01	-0.21
VA1 - 5	772.50	0.00 0.06	-173.87 -2128.38	0.00	-10.37 12.30	12.30	-3.60 4.00	-0.04 0.04	1.68
VA1 - 6	772.50	-0.06 0.00	-285.40 -1372.41	270.73	11.33 -2.81	11.33	0.93 1.59	0.00 0.00	-0.52
VA2	772.50	0.00 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-2.26
VA3 - 1	772.50	0.00 0.00	0.00 -1556.01	1111.10	0.00 2.58	2.58	1.31 2.03	0.00 0.00	0.62
VA3 - 2	772.50	0.00 0.00	-1563.66 6.30	6.30	2.21 0.00	2.21	1.61 -0.41	0.00 0.00	0.00
VA4 - 1	810.00	0.00 0.40	32.96 -2352.08	1538.79	4.89 4.25	4.89	1.56 2.51	0.00 0.00	0.90
VA4 - 2	810.00	0.00 0.35	-1485.79 1080.24	1080.24	-6.31 -5.31	0.00	2.10 -0.51	0.00 0.00	1.52
VA4 - 3	810.00	0.00 0.35	1079.89 644.68	1079.89	-5.31 -0.07	0.00	-1.26 1.52	-0.02 0.02	1.52
VA4 - 4	810.00	0.00 0.35	644.33 -1217.03	644.33	-0.07 14.93	14.93	-2.23 2.82	-0.02 0.02	1.52
VA4 - 5	810.00	0.00 0.35	-1218.30 -4336.91	0.00	14.93 0.66	14.93	-5.37 5.82	0.03 -0.03	-16.83
VA4 - 6	810.00	0.00 0.26	-1993.39 620.87	620.87	-9.48 0.58	0.58	3.01 -2.19	-0.01 0.01	-3.84
VA4 - 7	810.00	0.00 0.26	621.02 1747.67	1747.67	0.58 0.73	0.00	1.48 -0.61	0.00 0.00	1.35
VA4 - 8	810.00	0.00 0.26	1746.93 429.68	1746.93	0.73 12.12	0.00	-0.10 1.46	-0.01 0.01	1.35
VA4 - 9	810.00	0.00 0.26	435.97 -3013.37	435.97	12.12 -12.06	12.12	-5.62 6.10	0.04 -0.04	1.35
VA4 - 10	810.00	0.00 0.13	-1875.11 -166.85	0.00	-20.15 3.79	3.79	2.15 -1.37	-0.02 0.02	1.47
VA4 - 11	810.00	0.00 0.13	-160.56 246.45	246.45	3.79 16.58	16.58	0.96 -0.52	-0.02 0.02	1.47
VA4 - 12	810.00	0.00 0.14	246.69 -1371.02	246.69	16.58 -16.31	16.58	-0.23 1.63	0.02 -0.02	1.47
VA4 - 13	810.00	-0.01 0.00	901.18 -2513.37	901.18	-17.78 30.19	30.19	0.03 2.35	-0.02 0.02	-1.57
VA5 - 1	772.50	0.00 0.05	358.82 247.19	803.85	-11.56 2.03	0.00	0.83 0.93	-0.01 0.01	-0.58
VA5 - 2	772.50	0.00 0.05	247.55 -2520.09	247.55	2.03 5.09	5.09	-1.64 2.64	0.00 0.00	-0.58
VA5 - 3	772.50	0.00 0.07	-1357.25 719.54	719.54	-0.60 -2.30	0.00	2.45 -1.68	0.00 0.00	0.60
VA5 - 4	772.50	0.00 0.07	719.39 1313.08	1313.08	-2.30 4.15	0.00	0.97 -0.14	-0.01 0.01	0.60
VA5 - 5	772.50	0.00 0.07	1313.82 -1989.94	1313.82	4.15 2.75	4.15	-0.57 2.33	0.00 0.00	0.60
VA5 - 6	772.50	0.00 0.01	-995.39 574.20	574.20	-7.25 -4.09	0.00	1.62 -0.45	0.00 0.00	-0.46
VA5 - 7	772.50	0.00 0.00	573.95 -873.24	573.95	-19.45 50.53	50.53	-0.30 1.53	-0.04 0.04	-7.89
VA6 - 1	772.50	-0.02	13.38	162.35	-60.74	0.00	0.48	-0.02	1.14

		0.00	-208.75		-21.82		0.76	0.02	
VA6 - 2	772.50	-0.02 0.00	-204.14 -4186.99	0.00	-21.82 59.15	59.15	-2.00 3.19	-0.05 0.05	1.14
VA7 - 1	772.50	-0.20 0.00	350.65 2147.51	2147.51	-56.88 -6.11	0.00	1.75 -0.54	-0.03 0.03	-2.51
VA7 - 2	772.50	-0.20 0.00	2142.90 0.00	2142.90	-6.11 0.00	0.00	-0.71 1.95	0.00 0.00	-2.51
VA8 - 1	866.25	0.00 0.53	-2366.12 -7727.33	3199.33	35.49 -7.94	35.49	3.11 4.35	0.01 -0.01	-1.36
VA8 - 2	866.25	0.00 0.66	-7875.89 -6873.27	4707.61	20.92 -39.17	20.92	4.67 4.48	0.01 -0.01	1.22
VA9 - 1	810.00	0.00 0.14	-1699.39 -2631.72	1264.26	-6.01 13.08	13.08	2.19 2.51	0.00 0.00	-2.61
VA9 - 2	810.00	0.00 0.21	-2744.35 -2625.99	1415.73	18.24 16.85	18.24	2.60 2.56	0.00 0.00	-0.37
VA10 - 1	810.00	0.00 0.12	-2123.91 -1603.45	902.07	31.51 -28.43	31.51	2.21 2.02	0.01 -0.01	3.30
VA10 - 2	810.00	0.00 0.06	-1345.40 -685.67	614.19	-24.53 -11.81	0.00	1.78 1.45	0.00 0.00	0.25
VA11 - 1	772.50	0.00 0.02	-228.77 -555.91	0.00	4.72 -7.13	4.72	0.58 0.92	0.01 -0.01	3.23
VA11 - 2	772.50	0.00 0.04	-1092.77 710.97	959.23	-0.03 0.43	0.43	1.78 0.62	0.00 0.00	-2.35
VA11 - 3	772.50	0.00 0.04	708.72 -1094.22	708.72	0.43 4.00	4.00	-1.39 2.17	0.00 0.00	-2.35
VA12 - 1	772.50	-0.02 0.00	0.00 1752.23	2026.00	0.00 2.52	2.52	1.77 0.65	0.00 0.00	0.35
VA12 - 2	772.50	-0.02 0.00	1754.49 0.00	1754.49	2.52 0.00	2.52	-1.42 2.17	0.00 0.00	0.35
VA13	735.00	0.00 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.35
VA14 - 1	772.50	0.00 0.04	0.00 2243.28	2243.28	0.00 -0.79	0.00	2.54 -1.73	0.00 0.00	1.38
VA14 - 2	772.50	0.00 0.04	2243.90 0.00	2357.08	-0.79 0.00	0.00	0.42 1.91	0.00 0.00	1.38
VA15	735.00	-0.01 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.14
VA16	735.00	0.00 0.01	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.74
VA17 - 1	772.50	0.00 0.05	0.00 3941.31	3941.31	0.00 0.68	0.68	4.16 -3.35	0.00 0.00	-6.29
VA17 - 2	772.50	0.00 0.05	3940.69 0.00	3940.69	1.05 0.00	1.05	-0.29 2.48	0.00 0.00	1.36
VA18	772.50	0.00 0.05	-304.64 189.21	344.88	3.09 -2.71	3.09	1.00 0.49	0.00 0.00	1.52
VA19	772.50	0.00 0.00	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-6.30
VA20	772.50	-0.04 0.00	-7.42 0.00	352.57	15.36 0.00	15.36	0.75 0.74	0.01 -0.01	0.25
VA21 - 1	772.50	0.00 0.08	-1406.64 1852.31	1881.66	35.66 -30.89	35.66	2.26 0.22	0.02 -0.02	8.47
VA21 - 2	772.50	0.00 0.06	1853.45 -1353.97	1853.45	29.85 -63.06	29.85	-0.70 2.33	0.04 -0.04	-4.91
VA22	772.50	0.00 0.06	-496.58 -731.54	670.98	-6.22 9.30	9.30	1.34 1.47	0.00 0.00	-0.33
VA23	772.50	0.00 0.03	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.61
VA24 - 1	810.00	0.00 0.10	-1713.51 -2605.99	1269.38	-84.70 62.81	62.81	2.20 2.51	-0.03 0.03	-9.73
VA24 - 2	810.00	0.00 0.11	-2503.97 -2959.88	1374.41	21.70 76.23	76.23	2.51 2.65	-0.01 0.01	-0.30
VA25 - 1	810.00	0.00 0.21	-3206.73 1967.45	1967.45	169.28 -126.73	169.28	3.48 -1.93	0.15 -0.15	7.60


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VA25 - 2	810.00	0.00 0.21	1969.96 -2548.19	1969.96	-126.73 8.54	8.54	-0.03 2.71	-0.04 0.04	7.60
VA25 - 3	810.00	0.00 0.05	-1601.70 -712.67	489.54	23.88 -23.68	23.88	1.84 1.40	0.01 -0.01	1.06

CASO: G1+G2+1.4V2+0.84D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.24	-2331.73 1840.07	1840.07	-4.03 1.07	1.07	2.90 -1.39	0.00 0.00	1.21
VA1 - 2	772.50	0.00 0.24	1839.89 592.78	1839.89	1.07 -12.49	0.00	-0.78 1.59	0.01 -0.01	0.61
VA1 - 3	772.50	0.00 0.24	593.16 -1572.61	593.16	-12.49 12.39	12.39	-3.50 3.95	-0.04 0.04	1.17
VA1 - 4	772.50	0.00 0.04	-2570.07 688.93	902.14	15.87 -14.92	15.87	2.32 0.58	0.01 -0.01	0.99
VA1 - 5	772.50	0.00 0.03	690.52 -985.91	690.52	-14.92 18.62	18.62	-3.06 3.46	-0.07 0.07	-6.80
VA1 - 6	772.50	0.00 0.02	-2066.36 762.16	858.35	13.72 -7.14	13.72	2.13 0.39	0.01 -0.01	-0.74
VA2	772.50	0.00 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-3.09
VA3 - 1	772.50	0.00 0.00	0.00 -1560.22	1109.50	0.00 -0.03	0.00	1.31 2.03	0.00 0.00	0.90
VA3 - 2	772.50	0.00 0.00	-1565.61 4.35	4.35	9.27 0.00	9.27	1.61 -0.41	0.01 -0.01	0.00
VA4 - 1	810.00	-0.12 0.00	-2790.58 -1270.37	586.17	68.66 -29.94	68.66	2.34 1.74	0.02 -0.02	0.93
VA4 - 2	810.00	-0.01 0.00	-2271.73 2092.78	2092.78	-5.75 -2.89	0.00	3.01 -1.42	0.00 0.00	-2.86
VA4 - 3	810.00	-0.01 0.00	2092.96 1943.68	2092.96	-2.89 2.48	0.00	-0.35 0.60	-0.02 0.02	-2.86
VA4 - 4	810.00	-0.01 0.00	1944.05 755.94	1944.05	2.48 15.84	0.00	-1.31 1.91	-0.02 0.02	-2.86
VA4 - 5	810.00	-0.02 0.00	755.52 -1853.22	755.52	15.84 -5.15	15.84	-4.45 4.90	0.04 -0.04	8.52
VA4 - 6	810.00	-0.10 0.00	-4270.87 -881.14	0.00	-8.87 1.16	1.16	3.78 -2.96	-0.01 0.01	5.67
VA4 - 7	810.00	-0.10 0.00	-880.69 1075.63	1075.63	1.16 -3.08	1.16	2.25 -1.38	0.00 0.00	-1.69
VA4 - 8	810.00	-0.10 0.00	1075.01 1058.39	1354.62	-3.08 12.49	0.00	0.67 0.69	-0.01 0.01	-1.69
VA4 - 9	810.00	-0.09 0.00	1062.15 -1933.82	1062.15	12.49 -21.68	12.49	-4.85 5.33	0.06 -0.06	-1.69
VA4 - 10	810.00	-0.15 0.00	-2509.41 -206.85	0.00	5.98 0.11	5.98	2.77 -1.98	0.01 -0.01	1.39
VA4 - 11	810.00	-0.15 0.00	-202.50 541.48	541.48	0.11 -6.50	0.11	1.58 -1.13	0.01 -0.01	1.39
VA4 - 12	810.00	-0.16 0.00	542.04 -6.81	634.73	-6.50 2.55	2.55	0.39 1.02	-0.01 0.01	1.39
VA4 - 13	810.00	0.00 0.10	-2326.36 1839.08	1839.08	14.31 -44.61	14.31	2.61 -0.22	0.02 -0.02	-1.72
VA5 - 1	772.50	0.00 0.06	-1167.82 859.21	859.21	13.83 -0.12	13.83	1.77 -0.01	0.01 -0.01	-0.35
VA5 - 2	772.50	0.00 0.06	858.84 -691.95	858.84	-0.12 -9.33	0.00	-0.70 1.70	0.01 -0.01	-0.35
VA5 - 3	772.50	0.00 0.10	-2664.78 -92.38	0.00	6.68 -1.57	6.68	2.95 -2.17	0.01 -0.01	0.44
VA5 - 4	772.50	0.00 0.10	-92.84 1031.12	1031.12	-1.57 5.45	5.45	1.46 -0.63	-0.01 0.01	0.44
VA5 - 5	772.50	0.00	1031.74	1031.74	5.45	5.45	-0.08	0.01	0.44

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		0.10	-1150.54		-9.66		1.84	-0.01	
VA5 - 6	772.50	0.00 0.12	-1951.10 785.39	785.39	25.42 -18.57	25.42	2.39 -1.21	0.03 -0.03	-0.45
VA5 - 7	772.50	0.00 0.13	784.83 549.53	920.60	-1.13 -74.12	0.00	0.46 0.76	0.05 -0.05	-10.98
VA6 - 1	772.50	0.00 0.07	0.55 1442.01	1442.01	45.47 -0.41	45.47	1.52 -0.28	0.03 -0.03	1.82
VA6 - 2	772.50	0.00 0.07	1446.88 -943.10	1446.88	-0.41 -11.55	0.00	-0.97 2.15	0.01 -0.01	1.82
VA7 - 1	772.50	0.00 0.08	-1901.77 1008.26	1008.26	-10.38 11.74	11.74	2.46 -1.24	-0.01 0.01	-3.59
VA7 - 2	772.50	0.00 0.08	1003.39 0.00	1003.39	11.74 0.00	11.74	0.00 1.25	0.01 -0.01	-3.59
VA8 - 1	866.25	0.00 0.46	-5003.44 -5539.77	2752.56	-44.82 9.23	9.23	3.67 3.79	-0.01 0.01	-1.30
VA8 - 2	866.25	0.00 0.80	-9743.89 -4561.19	5066.40	1.40 32.71	32.71	5.07 4.08	0.00 0.00	0.93
VA9 - 1	810.00	0.00 0.11	-1750.61 -2574.62	1265.33	73.99 -68.84	73.99	2.21 2.49	0.02 -0.02	8.51
VA9 - 2	810.00	0.00 0.15	-2674.86 -2641.27	1441.46	-47.22 2.27	2.27	2.58 2.57	-0.01 0.01	-0.16
VA10 - 1	810.00	0.00 0.09	-2069.11 -1637.00	909.30	12.25 -34.91	12.25	2.20 2.03	0.01 -0.01	-2.46
VA10 - 2	810.00	0.00 0.04	-1274.64 -780.91	597.58	-55.36 62.22	62.22	1.74 1.49	-0.03 0.03	-7.07
VA11 - 1	772.50	0.00 0.03	-181.01 -620.03	0.00	0.00 15.25	15.25	0.52 0.97	-0.01 0.01	0.02
VA11 - 2	772.50	0.00 0.03	-1104.64 693.38	943.16	-7.38 2.77	2.77	1.78 0.62	0.00 0.00	0.13
VA11 - 3	772.50	0.00 0.03	690.28 -1114.52	690.28	2.77 8.36	8.36	-1.39 2.17	-0.01 0.01	0.13
VA12 - 1	772.50	-0.02 0.00	0.00 1751.60	2025.54	0.00 1.67	1.67	1.77 0.65	0.00 0.00	-0.18
VA12 - 2	772.50	-0.02 0.00	1754.69 0.00	1754.69	1.67 0.00	1.67	-1.42 2.17	0.00 0.00	-0.18
VA13	735.00	0.00 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.37
VA14 - 1	772.50	0.00 0.06	0.00 2242.45	2242.45	0.00 -1.85	0.00	2.54 -1.73	0.00 0.00	0.38
VA14 - 2	772.50	0.00 0.06	2243.35 0.00	2356.64	-1.85 0.00	0.00	0.42 1.91	0.00 0.00	0.38
VA15	735.00	-0.01 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.46
VA16	735.00	0.00 0.01	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.62
VA17 - 1	772.50	0.00 0.07	0.00 3942.13	3942.13	0.00 4.33	4.33	4.16 -3.35	0.00 0.00	-3.76
VA17 - 2	772.50	0.00 0.07	3941.23 0.00	3941.23	-4.97 0.00	0.00	-0.29 2.48	0.00 0.00	1.62
VA18	772.50	0.00 0.05	-265.82 142.52	326.69	-24.15 30.99	30.99	0.96 0.53	-0.03 0.03	0.58
VA19	772.50	0.00 0.01	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-4.35
VA20	772.50	0.00 0.02	-10.53 0.00	351.19	-17.44 0.00	0.00	0.75 0.74	-0.01 0.01	0.56
VA21 - 1	772.50	0.00 0.21	-1759.80 2776.39	2776.39	13.98 -30.04	13.98	2.65 -0.17	0.01 -0.01	1.49
VA21 - 2	772.50	0.00 0.24	2778.21 -1781.50	2778.21	-75.51 44.32	44.32	-1.34 2.98	-0.06 0.06	0.94
VA22	772.50	0.00 0.10	-479.38 -724.87	682.92	-10.11 12.12	12.12	1.34 1.48	-0.01 0.01	0.86
VA23	772.50	0.00 0.02	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.87


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VA24 - 1	810.00	0.00 0.13	-1811.35 -2536.38	1252.38	-17.43 0.52	0.52	2.23 2.48	0.00 0.00	1.16
VA24 - 2	810.00	0.00 0.22	-2712.27 -2759.85	1363.69	-10.65 -34.46	0.00	2.57 2.59	0.00 0.00	-0.27
VA25 - 1	810.00	0.00 0.19	-2951.97 1446.92	1446.92	-28.54 66.42	66.42	3.07 -1.52	-0.05 0.05	-1.05
VA25 - 2	810.00	0.00 0.18	1450.51 -2064.09	1496.21	66.42 -30.81	66.42	0.28 2.40	0.03 -0.03	-1.05
VA25 - 3	810.00	0.00 0.09	-1666.52 -520.62	573.43	-49.65 26.83	26.83	1.91 1.33	-0.02 0.02	-3.22

CASO: G1+G2+1.4V3+0.84D3									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.28	-1204.38 1851.20	1851.20	44.81 -4.58	44.81	2.32 -0.82	0.03 -0.03	3.68
VA1 - 2	772.50	0.00 0.29	1851.15 1.12	1851.15	-4.58 -104.64	0.00	-1.35 2.17	0.10 -0.10	3.07
VA1 - 3	772.50	0.00 0.29	1.83 -2497.47	1.83	-104.64 -17.77	0.00	-4.08 4.52	-0.15 0.15	3.04
VA1 - 4	772.50	0.00 0.03	-1924.03 215.00	708.92	-9.11 17.19	17.19	2.02 0.88	-0.01 0.01	-0.79
VA1 - 5	772.50	0.00 0.04	216.30 -1613.73	216.30	17.19 -4.44	17.19	-3.36 3.76	0.04 -0.04	-3.27
VA1 - 6	772.50	-0.04 0.00	-1071.16 -453.55	288.19	3.33 1.46	3.33	1.45 1.07	0.00 0.00	-2.73
VA2	772.50	0.00 0.01	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-3.36
VA3 - 1	772.50	-0.01 0.00	0.00 -1558.15	1110.29	0.00 12.00	12.00	1.31 2.03	0.00 0.00	0.74
VA3 - 2	772.50	0.00 0.00	-1564.48 5.47	5.47	-13.33 0.00	0.00	1.61 -0.41	-0.01 0.01	0.00
VA4 - 1	810.00	0.00 0.10	-1406.27 -1792.31	966.67	15.45 -19.78	15.45	1.96 2.11	0.01 -0.01	0.29
VA4 - 2	810.00	0.00 0.09	-1864.52 1578.56	1578.56	70.72 -29.83	70.72	2.55 -0.95	0.05 -0.05	5.82
VA4 - 3	810.00	0.00 0.09	1578.60 1282.88	1578.60	-29.83 -23.81	0.00	-0.82 1.07	-0.02 0.02	5.82
VA4 - 4	810.00	0.00 0.09	1282.94 -249.98	1282.94	-23.81 8.70	8.70	-1.78 2.38	-0.04 0.04	5.82
VA4 - 5	810.00	0.00 0.09	-250.75 -3120.62	0.00	8.70 -105.70	8.70	-4.92 5.37	0.21 -0.21	2.04
VA4 - 6	810.00	0.00 0.00	-3164.38 -148.70	0.00	-68.38 -51.28	0.00	3.41 -2.59	-0.02 0.02	-3.77
VA4 - 7	810.00	0.00 0.00	-148.41 1407.72	1407.72	-51.28 -7.73	0.00	1.88 -1.01	-0.04 0.04	-5.01
VA4 - 8	810.00	0.00 0.00	1406.98 763.00	1461.92	-7.73 29.56	0.00	0.30 1.06	-0.02 0.02	-5.01
VA4 - 9	810.00	-0.01 0.00	768.01 -2446.63	768.01	29.56 68.46	68.46	-5.23 5.70	-0.07 0.07	-5.01
VA4 - 10	810.00	-0.04 0.00	-2137.09 -163.18	0.00	16.76 10.50	16.76	2.43 -1.64	0.01 -0.01	1.85
VA4 - 11	810.00	-0.04 0.00	-157.71 399.92	399.92	10.50 11.66	11.66	1.24 -0.79	0.00 0.00	1.85
VA4 - 12	810.00	-0.03 0.00	400.51 -742.23	400.51	11.66 -14.13	11.66	0.05 1.36	0.01 -0.01	1.85
VA4 - 13	810.00	0.00 0.01	-738.68 -337.58	351.80	-11.59 -33.18	0.00	1.33 1.06	0.01 -0.01	-1.59
VA5 - 1	772.50	0.00 0.11	-420.62 570.28	696.65	54.17 -7.96	54.17	1.31 0.44	0.03 -0.03	4.08
VA5 - 2	772.50	0.00	570.22	570.22	-7.96	0.00	-1.15	0.05	4.08

		0.11	-1570.10		-75.52		2.15	-0.05	
VA5 - 3	772.50	0.00 0.14	-2020.32 306.83	306.83	-63.65 -27.81	0.00	2.70 -1.93	-0.04 0.04	-3.45
VA5 - 4	772.50	0.00 0.14	306.59 1168.14	1168.14	-27.81 -14.74	0.00	1.22 -0.39	-0.01 0.01	-3.45
VA5 - 5	772.50	0.00 0.14	1168.88 -1568.35	1168.88	-14.74 54.69	54.69	-0.32 2.08	-0.03 0.03	-3.45
VA5 - 6	772.50	0.00 0.06	-1523.13 674.63	674.63	7.83 -3.23	7.83	2.03 -0.86	0.01 -0.01	-1.75
VA5 - 7	772.50	0.00 0.05	674.04 -117.99	679.20	-17.77 -2.50	0.00	0.11 1.11	-0.01 0.01	-7.46
VA6 - 1	772.50	0.00 0.03	6.54 675.85	700.58	-31.75 -16.58	0.00	1.04 0.20	-0.01 0.01	2.62
VA6 - 2	772.50	0.00 0.03	680.65 -2448.65	680.65	-16.58 35.30	35.30	-1.45 2.63	-0.03 0.03	2.62
VA7 - 1	772.50	-0.05 0.00	-873.09 1528.58	1528.58	-43.96 -2.88	0.00	2.14 -0.92	-0.03 0.03	-4.42
VA7 - 2	772.50	-0.05 0.00	1523.78 0.00	1523.78	-2.88 0.00	0.00	-0.33 1.57	0.00 0.00	-4.42
VA8 - 1	866.25	0.00 0.52	-3649.52 -6677.46	2926.36	-0.77 -16.58	0.00	3.38 4.08	0.00 0.00	1.65
VA8 - 2	866.25	0.00 0.76	-8833.40 -5707.12	4859.27	-11.74 3.98	3.98	4.87 4.28	0.00 0.00	-1.28
VA9 - 1	810.00	0.00 0.20	-849.79 -3367.83	1424.47	-13.01 4.33	4.33	1.92 2.79	0.00 0.00	3.01
VA9 - 2	810.00	0.00 0.23	-2102.49 -3249.79	1444.20	-31.76 30.88	30.88	2.40 2.76	-0.01 0.01	-0.09
VA10 - 1	810.00	0.00 0.14	-1391.52 -2261.32	952.76	-0.52 -26.49	0.00	1.95 2.28	0.00 0.00	0.28
VA10 - 2	810.00	0.00 0.03	-394.10 -1821.58	584.86	-75.45 110.74	110.74	1.26 1.98	-0.05 0.05	-3.59
VA11 - 1	772.50	-0.03 0.00	881.18 -1187.12	881.18	-42.71 50.33	50.33	-0.32 1.82	-0.05 0.05	1.69
VA11 - 2	772.50	-0.08 0.00	-330.48 -201.08	666.67	-32.07 15.66	15.66	1.24 1.16	-0.02 0.02	-1.35
VA11 - 3	772.50	-0.08 0.00	-204.44 -2553.57	0.00	15.66 40.99	40.99	-1.93 2.71	-0.02 0.02	-1.35
VA12 - 1	772.50	-0.07 0.00	0.00 1751.39	2025.39	0.00 7.17	7.17	1.77 0.65	0.00 0.00	-0.05
VA12 - 2	772.50	-0.07 0.00	1754.75 0.00	1754.75	7.17 0.00	7.17	-1.42 2.17	0.01 -0.01	-0.05
VA13	735.00	0.00 0.02	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.06
VA14 - 1	772.50	0.00 0.25	0.00 2242.86	2242.86	0.00 4.83	4.83	2.54 -1.73	0.00 0.00	0.71
VA14 - 2	772.50	0.00 0.25	2243.60 0.00	2356.84	4.83 0.00	4.83	0.42 1.91	0.00 0.00	0.71
VA15	735.00	0.00 0.02	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.25
VA16	735.00	-0.02 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.74
VA17 - 1	772.50	-0.04 0.00	0.00 3941.72	3941.72	0.00 -11.59	0.00	4.16 -3.35	0.01 -0.01	-5.01
VA17 - 2	772.50	-0.05 0.00	3940.98 0.00	3940.98	13.75 0.00	13.75	-0.29 2.48	0.00 0.00	1.33
VA18	772.50	-0.01 0.00	682.20 -804.82	682.20	45.91 -51.71	45.91	-0.02 1.52	0.05 -0.05	1.03
VA19	772.50	-0.01 0.00	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-5.47
VA20	772.50	-0.02 0.00	-5.70 0.00	353.34	14.54 0.00	14.54	0.75 0.74	0.01 -0.01	0.59
VA21 - 1	772.50	0.00 0.15	-950.59 2212.91	2252.46	45.30 -46.22	45.30	2.23 0.25	0.03 -0.03	4.75



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VA21 - 2	772.50	0.00 0.14	2215.53 -2229.63	2215.53	-14.47 -21.20	0.00	-1.29 2.92	0.00 0.00	-1.79
VA22	772.50	0.00 0.05	584.77 -1999.02	899.02	3.87 -4.34	3.87	0.70 2.12	0.00 0.00	0.05
VA23	772.50	0.00 0.02	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.80
VA24 - 1	810.00	0.00 0.20	-741.87 -3463.93	1447.96	-11.50 7.22	7.22	1.88 2.82	0.00 0.00	-4.21
VA24 - 2	810.00	0.00 0.22	-1897.80 -3576.24	1409.02	17.45 8.32	17.45	2.31 2.84	0.00 0.00	-0.07
VA25 - 1	810.00	0.00 0.23	-2237.51 1928.09	1928.09	81.99 -25.35	81.99	2.95 -1.40	0.06 -0.06	3.11
VA25 - 2	810.00	0.00 0.23	1932.50 -3055.82	1932.50	-25.35 -39.94	0.00	-0.17 2.85	0.00 0.00	3.11
VA25 - 3	810.00	0.00 0.04	-544.62 -1887.23	466.61	44.79 -73.05	44.79	1.28 1.95	0.03 -0.03	-1.31

CASO: G1+G2+1.4V4+0.84D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.30	-1409.70 1833.05	1833.05	-61.09 6.46	6.46	2.42 -0.91	-0.03 0.03	-1.01
VA1 - 2	772.50	0.00 0.30	1833.27 84.68	1833.27	6.46 83.22	0.00	-1.26 2.07	-0.07 0.07	-1.63
VA1 - 3	772.50	0.00 0.30	85.74 -2357.46	85.74	83.22 38.90	83.22	-3.98 4.43	0.08 -0.08	-1.59
VA1 - 4	772.50	0.00 0.06	-2052.51 298.69	733.68	38.51 -42.48	38.51	2.07 0.82	0.02 -0.02	1.57
VA1 - 5	772.50	0.00 0.05	300.35 -1500.56	300.35	-42.48 35.36	35.36	-3.30 3.70	-0.15 0.15	-1.86
VA1 - 6	772.50	0.00 0.00	-1280.60 -156.70	385.59	21.72 -11.41	21.72	1.60 0.92	0.01 -0.01	1.47
VA2	772.50	0.00 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-1.99
VA3 - 1	772.50	0.00 0.01	0.00 -1558.09	1110.31	0.00 -9.45	0.00	1.31 2.03	0.00 0.00	0.78
VA3 - 2	772.50	0.00 0.00	-1564.79 5.17	5.17	24.81 0.00	24.81	1.61 -0.41	0.02 -0.02	0.00
VA4 - 1	810.00	0.00 0.19	-1351.35 -1830.14	977.06	58.11 -5.92	58.11	1.94 2.13	0.01 -0.01	1.53
VA4 - 2	810.00	0.00 0.25	-1893.00 1594.47	1594.47	-82.78 21.64	21.64	2.57 -0.97	-0.05 0.05	-7.17
VA4 - 3	810.00	0.00 0.25	1594.25 1305.48	1594.25	21.64 26.22	0.00	-0.80 1.05	-0.01 0.01	-7.17
VA4 - 4	810.00	0.00 0.25	1305.44 -211.11	1305.44	26.22 22.07	26.22	-1.76 2.36	0.01 -0.01	-7.17
VA4 - 5	810.00	0.00 0.24	-212.03 -3069.52	0.00	22.07 101.21	101.21	-4.90 5.35	-0.14 0.14	-10.36
VA4 - 6	810.00	0.00 0.16	-3099.88 -111.57	0.00	50.03 53.02	53.02	3.38 -2.56	0.00 0.00	5.60
VA4 - 7	810.00	0.00 0.16	-111.26 1415.58	1415.58	53.02 5.39	53.02	1.86 -0.98	0.04 -0.04	4.67
VA4 - 8	810.00	0.00 0.16	1414.96 725.07	1458.42	5.39 -4.95	0.00	0.27 1.09	0.01 -0.01	4.67
VA4 - 9	810.00	0.00 0.18	730.11 -2500.55	730.11	-4.95 -102.20	0.00	-5.25 5.73	0.17 -0.17	4.67
VA4 - 10	810.00	0.00 0.02	-2247.44 -210.52	0.00	-30.92 -6.61	0.00	2.49 -1.71	-0.03 0.03	1.01
VA4 - 11	810.00	0.00 0.02	-205.35 388.00	388.00	-6.61 -1.57	0.00	1.30 -0.86	-0.01 0.01	1.01
VA4 - 12	810.00	0.00	388.22	394.35	-1.57	0.37	0.12	0.00	1.01



		0.01	-635.60		0.37		1.29	0.00	
VA4 - 13	810.00	0.00 0.08	-686.51 -336.71	374.66	8.12 18.76	18.76	1.31 1.07	0.00 0.00	-1.70
VA5 - 1	772.50	0.00 0.00	-388.38 536.13	680.61	-51.90 9.87	9.87	1.29 0.47	-0.03 0.03	-5.01
VA5 - 2	772.50	0.00 0.00	536.16 -1641.94	536.16	9.87 71.28	71.28	-1.18 2.18	-0.05 0.05	-5.01
VA5 - 3	772.50	0.00 0.03	-2001.71 320.32	320.32	69.73 23.95	69.73	2.70 -1.92	0.05 -0.05	4.48
VA5 - 4	772.50	0.00 0.03	319.97 1176.05	1176.05	23.95 24.34	0.00	1.21 -0.38	0.00 0.00	4.48
VA5 - 5	772.50	0.00 0.03	1176.68 -1572.13	1176.68	24.34 -61.60	24.34	-0.33 2.09	0.04 -0.04	4.48
VA5 - 6	772.50	0.00 0.07	-1423.35 684.96	684.96	10.34 -19.43	10.34	1.97 -0.80	0.02 -0.02	0.84
VA5 - 7	772.50	0.00 0.08	684.74 -205.73	684.74	-2.81 -21.09	0.00	0.05 1.17	0.01 -0.01	-11.41
VA6 - 1	772.50	0.00 0.02	7.40 557.41	605.72	16.48 -5.66	16.48	0.96 0.28	0.01 -0.01	0.34
VA6 - 2	772.50	0.00 0.02	562.09 -2681.44	562.09	-5.66 12.30	12.30	-1.52 2.71	-0.01 0.01	0.34
VA7 - 1	772.50	-0.06 0.00	-678.03 1627.19	1627.19	-23.30 8.51	8.51	2.07 -0.86	-0.02 0.02	-1.68
VA7 - 2	772.50	-0.06 0.00	1622.51 0.00	1622.51	8.51 0.00	8.51	-0.39 1.63	0.01 -0.01	-1.68
VA8 - 1	866.25	0.00 0.47	-3720.04 -6589.64	2928.48	-8.56 17.87	17.87	3.39 4.06	0.00 0.00	-4.32
VA8 - 2	866.25	0.00 0.71	-8786.37 -5727.34	4870.10	34.06 -10.44	34.06	4.86 4.29	0.00 0.00	3.43
VA9 - 1	810.00	0.00 0.06	-2600.21 -1838.52	1207.51	80.99 -60.09	80.99	2.48 2.22	0.02 -0.02	2.89
VA9 - 2	810.00	0.00 0.13	-3316.72 -2017.47	1460.60	2.78 -11.76	2.78	2.78 2.37	0.00 0.00	-0.44
VA10 - 1	810.00	0.00 0.07	-2801.50 -979.13	946.57	44.28 -36.85	44.28	2.46 1.77	0.02 -0.02	0.55
VA10 - 2	810.00	0.00 0.08	-2225.94 355.00	937.35	-4.43 -60.33	0.00	2.26 0.97	0.01 -0.01	-3.23
VA11 - 1	772.50	0.00 0.07	-1290.96 11.18	11.18	47.42 -42.21	47.42	1.42 0.07	0.05 -0.05	1.57
VA11 - 2	772.50	0.00 0.15	-1866.93 1605.44	1605.98	24.66 -12.46	24.66	2.32 0.08	0.01 -0.01	-0.88
VA11 - 3	772.50	0.00 0.15	1603.45 344.83	1603.45	-12.46 -28.64	0.00	-0.85 1.63	0.02 -0.02	-0.88
VA12 - 1	772.50	0.00 0.04	0.00 1752.44	2026.15	0.00 -2.98	0.00	1.77 0.65	0.00 0.00	0.22
VA12 - 2	772.50	0.00 0.04	1754.43 0.00	1754.43	-2.98 0.00	0.00	-1.42 2.17	0.00 0.00	0.22
VA13	735.00	-0.02 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.03
VA14 - 1	772.50	-0.15 0.00	0.00 2242.86	2242.86	0.00 -7.47	0.00	2.54 -1.73	0.01 -0.01	1.05
VA14 - 2	772.50	-0.15 0.00	2243.64 0.00	2356.88	-7.47 0.00	0.00	0.42 1.91	0.00 0.00	1.05
VA15	735.00	-0.05 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.35
VA16	735.00	0.00 0.04	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.63
VA17 - 1	772.50	0.00 0.16	0.00 3941.72	3941.72	0.00 16.60	16.60	4.16 -3.35	-0.02 0.02	-5.04
VA17 - 2	772.50	0.00 0.17	3940.94 0.00	3940.94	-17.67 0.00	0.00	-0.29 2.48	-0.01 0.01	1.66
VA18	772.50	0.00 0.10	-1252.66 1136.55	1136.55	-66.97 79.99	79.99	1.98 -0.49	-0.08 0.08	1.07

VA19	772.50	0.00 0.02	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-5.17
VA20	772.50	-0.01 0.00	-12.25 0.00	350.43	-16.62 0.00	0.00	0.75 0.74	-0.01 0.01	0.21
VA21 - 1	772.50	0.00 0.15	-2215.85 2415.80	2415.80	4.34 -14.71	4.34	2.68 -0.20	0.01 -0.01	5.21
VA21 - 2	772.50	0.00 0.16	2416.13 -905.84	2416.13	-31.19 2.47	2.47	-0.76 2.39	-0.02 0.02	-2.18
VA22	772.50	0.00 0.11	-1560.72 542.60	989.55	-20.21 25.75	25.75	1.99 0.83	-0.01 0.01	0.48
VA23	772.50	0.00 0.03	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.67
VA24 - 1	810.00	0.00 0.04	-2782.99 -1678.43	1207.65	-90.63 56.10	56.10	2.54 2.16	-0.03 0.03	-4.36
VA24 - 2	810.00	0.00 0.12	-3318.44 -2143.49	1390.71	-6.40 33.45	33.45	2.76 2.39	-0.01 0.01	-0.49
VA25 - 1	810.00	0.00 0.17	-3921.18 1486.28	1486.28	58.75 -34.96	58.75	3.60 -2.05	0.05 -0.05	3.43
VA25 - 2	810.00	0.00 0.16	1487.97 -1556.46	1592.71	-34.96 17.67	17.67	0.42 2.26	-0.02 0.02	3.43
VA25 - 3	810.00	0.00 0.10	-2723.60 653.94	1019.17	-70.56 76.20	76.20	2.46 0.77	-0.04 0.04	-0.86

CASO: G1+G2+D1									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.30	-1152.12 1842.54	1842.54	-8.27 1.20	1.20	2.29 -0.79	0.00 0.00	1.36
VA1 - 2	772.50	0.00 0.31	1842.66 -40.08	1842.66	1.20 -11.19	1.20	-1.39 2.20	0.01 -0.01	0.74
VA1 - 3	772.50	0.00 0.30	-39.13 -2556.53	0.00	-11.19 9.79	9.79	-4.11 4.56	-0.04 0.04	0.66
VA1 - 4	772.50	0.00 0.05	-1900.35 191.57	699.54	14.74 -12.74	14.74	2.01 0.89	0.01 -0.01	0.27
VA1 - 5	772.50	0.00 0.05	193.04 -1643.45	193.04	-12.74 15.04	15.04	-3.37 3.77	-0.05 0.05	-1.95
VA1 - 6	772.50	-0.02 0.00	-1041.67 -465.82	294.19	13.05 -5.29	13.05	1.44 1.08	0.01 -0.01	-0.63
VA2	772.50	0.00 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-2.62
VA3 - 1	772.50	0.00 0.00	0.00 -1557.83	1110.41	0.00 1.36	1.36	1.31 2.03	0.00 0.00	0.74
VA3 - 2	772.50	0.00 0.00	-1564.50 5.46	5.46	4.77 0.00	4.77	1.61 -0.41	0.00 0.00	0.00
VA4 - 1	810.00	0.00 0.17	-1182.23 -1886.46	1037.97	33.99 -12.27	33.99	1.90 2.18	0.01 -0.01	0.91
VA4 - 2	810.00	0.00 0.19	-1823.74 1515.79	1515.79	-5.02 -4.24	0.00	2.49 -0.90	0.00 0.00	-0.33
VA4 - 3	810.00	0.00 0.19	1515.67 1203.43	1515.67	-4.24 1.16	0.00	-0.87 1.12	-0.02 0.02	-0.33
VA4 - 4	810.00	0.00 0.19	1203.40 -368.40	1203.40	1.16 14.88	14.88	-1.83 2.43	-0.02 0.02	-0.33
VA4 - 5	810.00	0.00 0.19	-369.31 -3268.63	0.00	14.88 -3.42	14.88	-4.97 5.42	0.03 -0.03	-5.89
VA4 - 6	810.00	0.00 0.11	-2973.18 -25.34	0.00	-8.89 0.84	0.84	3.34 -2.52	-0.01 0.01	0.22
VA4 - 7	810.00	0.00 0.11	-25.06 1458.49	1458.49	0.84 -1.27	0.84	1.81 -0.94	0.00 0.00	0.01
VA4 - 8	810.00	0.00 0.11	1457.81 700.06	1489.06	-1.27 11.99	0.00	0.23 1.13	-0.01 0.01	0.01
VA4 - 9	810.00	0.00	705.26	705.26	11.99	11.99	-5.29	0.05	0.01




**AltoQi Eberick 2018  
Plena**

**Leilson Campos  
Rezende  
Rezende Engenharia**

**11/5/2021  
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		0.11	-2549.05		-17.21		5.77	-0.05	
VA4 - 10	810.00	0.00 0.03	-2148.22 -184.11	0.00	-7.24 2.52	2.52	2.42 -1.63	-0.01 0.01	1.42
VA4 - 11	810.00	0.00 0.03	-178.65 373.42	373.42	2.52 6.37	6.37	1.23 -0.78	-0.01 0.01	1.42
VA4 - 12	810.00	0.00 0.02	373.81 -783.72	373.81	6.37 -7.69	6.37	0.04 1.37	0.01 -0.01	1.42
VA4 - 13	810.00	0.00 0.05	-487.56 -640.10	315.40	-2.73 -3.28	0.00	1.14 1.25	0.00 0.00	-1.64
VA5 - 1	772.50	0.00 0.05	-316.42 517.98	687.03	2.27 0.55	2.27	1.25 0.51	0.00 0.00	-0.46
VA5 - 2	772.50	0.00 0.05	518.01 -1711.36	518.01	0.55 -2.18	0.55	-1.22 2.22	0.00 0.00	-0.46
VA5 - 3	772.50	0.00 0.08	-1935.68 360.36	360.36	2.71 -1.89	2.71	2.67 -1.90	0.00 0.00	0.50
VA5 - 4	772.50	0.00 0.08	360.09 1188.36	1188.36	-1.89 4.69	0.00	1.19 -0.35	-0.01 0.01	0.50
VA5 - 5	772.50	0.00 0.08	1189.04 -1618.60	1189.04	4.69 -3.72	4.69	-0.36 2.11	0.00 0.00	0.50
VA5 - 6	772.50	0.00 0.06	-1418.11 667.65	667.65	9.03 -10.73	9.03	1.96 -0.79	0.01 -0.01	-0.46
VA5 - 7	772.50	0.00 0.06	667.26 -243.84	667.26	-9.16 -5.88	0.00	0.03 1.19	0.00 0.00	-9.25
VA6 - 1	772.50	0.00 0.02	7.68 523.18	580.12	-13.03 -12.27	0.00	0.94 0.30	0.00 0.00	1.43
VA6 - 2	772.50	0.00 0.02	527.91 -2748.67	527.91	-12.27 26.31	26.31	-1.54 2.73	-0.03 0.03	1.43
VA7 - 1	772.50	-0.07 0.00	-653.10 1639.82	1639.82	-35.80 1.51	1.51	2.07 -0.85	-0.02 0.02	-2.99
VA7 - 2	772.50	-0.07 0.00	1635.10 0.00	1635.10	1.51 0.00	1.51	-0.40 1.64	0.00 0.00	-2.99
VA8 - 1	866.25	0.00 0.49	-3538.70 -6754.67	2954.09	0.05 -0.68	0.05	3.35 4.10	0.00 0.00	-1.32
VA8 - 2	866.25	0.00 0.72	-8706.73 -5845.35	4843.31	12.32 -7.47	12.32	4.85 4.30	0.00 0.00	1.07
VA9 - 1	810.00	0.00 0.13	-1717.33 -2610.68	1265.14	28.87 -22.71	28.87	2.20 2.51	0.01 -0.01	2.30
VA9 - 2	810.00	0.00 0.18	-2710.63 -2635.87	1426.94	-10.57 10.44	10.44	2.59 2.57	0.00 0.00	-0.25
VA10 - 1	810.00	0.00 0.11	-2095.78 -1621.21	905.49	22.81 -32.34	22.81	2.21 2.02	0.01 -0.01	0.74
VA10 - 2	810.00	0.00 0.05	-1308.65 -734.55	605.87	-38.98 23.05	23.05	1.76 1.47	-0.02 0.02	-3.06
VA11 - 1	772.50	0.00 0.02	-195.53 -590.80	0.00	1.33 5.26	5.26	0.54 0.95	0.00 0.00	1.83
VA11 - 2	772.50	0.00 0.04	-1088.88 692.70	946.87	-2.80 1.32	1.32	1.77 0.63	0.00 0.00	-1.30
VA11 - 3	772.50	0.00 0.04	690.08 -1120.09	690.08	1.32 5.56	5.56	-1.39 2.18	0.00 0.00	-1.30
VA12 - 1	772.50	-0.02 0.00	0.00 1751.95	2025.80	0.00 2.13	2.13	1.77 0.65	0.00 0.00	0.13
VA12 - 2	772.50	-0.02 0.00	1754.58 0.00	1754.58	2.13 0.00	2.13	-1.42 2.17	0.00 0.00	0.13
VA13	735.00	0.00 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.03
VA14 - 1	772.50	0.00 0.05	0.00 2242.92	2242.92	0.00 -1.18	0.00	2.54 -1.73	0.00 0.00	0.95
VA14 - 2	772.50	0.00 0.05	2243.66 0.00	2356.89	-1.18 0.00	0.00	0.42 1.91	0.00 0.00	0.95
VA15	735.00	-0.01 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.27
VA16	735.00	0.00 0.01	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.68

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VA17 - 1	772.50	0.00 0.06	0.00 3941.67	3941.67	0.00 2.08	2.08	4.16 -3.35	0.00 0.00	-5.20
VA17 - 2	772.50	0.00 0.06	3940.92 0.00	3940.92	-1.33 0.00	0.00	-0.29 2.48	0.00 0.00	1.47
VA18	772.50	0.00 0.05	-288.91 170.11	337.39	-10.43 14.02	14.02	0.98 0.51	-0.01 0.01	1.11
VA19	772.50	0.00 0.00	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-5.46
VA20	772.50	-0.02 0.00	-8.79 0.00	351.96	-1.57 0.00	0.00	0.75 0.74	0.00 0.00	0.39
VA21 - 1	772.50	0.00 0.14	-1564.16 2262.09	2262.09	25.89 -30.46	25.89	2.43 0.05	0.02 -0.02	5.36
VA21 - 2	772.50	0.00 0.14	2263.53 -1542.86	2263.53	-17.43 -14.07	0.00	-0.99 2.62	0.00 0.00	-2.32
VA22	772.50	0.00 0.08	-499.29 -717.18	676.81	-7.88 10.18	10.18	1.35 1.47	0.00 0.00	0.17
VA23	772.50	0.00 0.02	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.72
VA24 - 1	810.00	0.00 0.11	-1765.17 -2567.69	1261.14	-54.53 35.02	35.02	2.21 2.49	-0.02 0.02	-4.92
VA24 - 2	810.00	0.00 0.16	-2602.03 -2865.13	1369.65	7.88 26.87	26.87	2.54 2.62	0.00 0.00	-0.26
VA25 - 1	810.00	0.00 0.20	-3099.92 1733.33	1733.33	80.24 -40.71	80.24	3.30 -1.75	0.06 -0.06	3.75
VA25 - 2	810.00	0.00 0.20	1736.32 -2326.72	1742.22	-40.71 -9.73	0.00	0.11 2.57	-0.01 0.01	3.75
VA25 - 3	810.00	0.00 0.07	-1639.84 -616.03	529.43	-9.68 0.49	0.49	1.87 1.36	0.00 0.00	-0.88

CASO: G1+G2+D2									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.29	-1461.97 1841.71	1841.71	-8.00 0.69	0.69	2.45 -0.95	0.00 0.00	1.32
VA1 - 2	772.50	0.00 0.29	1841.76 125.89	1841.76	0.69 -10.23	0.00	-1.23 2.04	0.01 -0.01	0.70
VA1 - 3	772.50	0.00 0.29	126.70 -2298.39	126.70	-10.23 11.34	11.34	-3.95 4.40	-0.04 0.04	0.79
VA1 - 4	772.50	0.00 0.04	-2076.19 322.12	744.02	14.66 -12.55	14.66	2.09 0.81	0.01 -0.01	0.51
VA1 - 5	772.50	0.00 0.04	323.61 -1470.85	323.61	-12.55 15.88	15.88	-3.29 3.69	-0.06 0.06	-3.18
VA1 - 6	772.50	-0.02 0.00	-1310.10 -144.44	382.20	12.00 -4.67	12.00	1.62 0.90	0.01 -0.01	-0.63
VA2	772.50	0.00 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-2.72
VA3 - 1	772.50	0.00 0.00	0.00 -1558.41	1110.19	0.00 1.19	1.19	1.31 2.03	0.00 0.00	0.78
VA3 - 2	772.50	0.00 0.00	-1564.77 5.19	5.19	6.71 0.00	6.71	1.61 -0.41	0.00 0.00	0.00
VA4 - 1	810.00	0.00 0.12	-1575.38 -1735.99	905.76	39.57 -13.43	39.57	2.01 2.07	0.01 -0.01	0.92
VA4 - 2	810.00	0.00 0.14	-1933.78 1657.23	1657.23	-7.04 -3.95	0.00	2.62 -1.03	0.00 0.00	-1.02
VA4 - 3	810.00	0.00 0.15	1657.18 1384.93	1657.18	-3.95 1.25	0.00	-0.74 1.00	-0.02 0.02	-1.02
VA4 - 4	810.00	0.00 0.15	1384.98 -92.69	1384.98	1.25 15.89	15.89	-1.71 2.30	-0.02 0.02	-1.02
VA4 - 5	810.00	0.00 0.14	-93.47 -2921.50	0.00	15.89 -1.07	15.89	-4.85 5.30	0.03 -0.03	-2.43
VA4 - 6	810.00	0.00	-3291.08	0.00	-9.46	0.91	3.45	-0.01	1.61

		0.05	-234.93		0.91		-2.63	0.01	
VA4 - 7	810.00	0.00 0.05	-234.61 1364.81	1364.81	0.91 -1.07	0.91	1.92 -1.05	0.00 0.00	-0.35
VA4 - 8	810.00	0.00 0.05	1364.13 788.01	1436.03	-1.07 12.61	0.00	0.34 1.02	-0.01 0.01	-0.35
VA4 - 9	810.00	0.00 0.05	792.86 -2398.14	792.86	12.61 -16.53	12.61	-5.18 5.66	0.05 -0.05	-0.35
VA4 - 10	810.00	-0.04 0.00	-2236.31 -189.60	0.00	-6.93 1.38	1.38	2.50 -1.72	-0.01 0.01	1.43
VA4 - 11	810.00	-0.04 0.00	-184.41 414.50	414.50	1.38 3.72	3.72	1.31 -0.87	0.00 0.00	1.43
VA4 - 12	810.00	-0.04 0.00	414.91 -594.12	422.90	3.72 -6.08	3.72	0.12 1.28	0.01 -0.01	1.43
VA4 - 13	810.00	0.00 0.04	-937.63 -34.20	450.60	-0.75 -11.15	0.00	1.50 0.89	0.00 0.00	-1.65
VA5 - 1	772.50	0.00 0.06	-492.58 588.43	690.22	0.01 1.36	1.36	1.35 0.40	0.00 0.00	-0.48
VA5 - 2	772.50	0.00 0.06	588.37 -1500.68	588.37	1.36 -2.06	1.36	-1.11 2.11	0.00 0.00	-0.48
VA5 - 3	772.50	0.00 0.09	-2086.35 266.80	266.80	3.37 -1.97	3.37	2.73 -1.95	0.01 -0.01	0.54
VA5 - 4	772.50	0.00 0.09	266.47 1155.84	1155.84	-1.97 4.91	0.00	1.24 -0.41	-0.01 0.01	0.54
VA5 - 5	772.50	0.00 0.09	1156.52 -1521.89	1156.52	4.91 -3.19	4.91	-0.30 2.06	0.00 0.00	0.54
VA5 - 6	772.50	0.00 0.07	-1528.37 691.93	691.93	9.14 -11.93	9.14	2.05 -0.87	0.01 -0.01	-0.45
VA5 - 7	772.50	0.00 0.07	691.52 -79.87	699.63	-11.42 -17.71	0.00	0.12 1.10	0.00 0.00	-9.61
VA6 - 1	772.50	0.00 0.03	6.25 710.08	730.49	-2.24 -9.96	0.00	1.06 0.18	0.00 0.00	1.52
VA6 - 2	772.50	0.00 0.03	714.83 -2381.42	714.83	-9.96 21.29	21.29	-1.43 2.61	-0.02 0.02	1.52
VA7 - 1	772.50	-0.04 0.00	-898.02 1515.94	1515.94	-31.47 4.12	4.12	2.14 -0.93	-0.02 0.02	-3.12
VA7 - 2	772.50	-0.04 0.00	1511.19 0.00	1511.19	4.12 0.00	4.12	-0.32 1.56	0.00 0.00	-3.12
VA8 - 1	866.25	0.00 0.49	-3830.86 -6512.43	2905.12	-9.39 1.98	1.98	3.42 4.04	0.00 0.00	-1.35
VA8 - 2	866.25	0.00 0.74	-8913.04 -5589.11	4886.06	10.00 1.01	10.00	4.89 4.26	0.00 0.00	1.08
VA9 - 1	810.00	0.00 0.12	-1732.67 -2595.67	1264.45	39.11 -33.04	39.11	2.20 2.50	0.01 -0.01	3.59
VA9 - 2	810.00	0.00 0.17	-2708.58 -2631.39	1430.24	-18.41 8.68	8.68	2.59 2.57	0.00 0.00	-0.28
VA10 - 1	810.00	0.00 0.10	-2097.24 -1619.24	905.87	20.95 -31.00	20.95	2.21 2.02	0.01 -0.01	0.10
VA10 - 2	810.00	0.00 0.05	-1311.39 -732.03	605.90	-40.91 27.36	27.36	1.76 1.47	-0.02 0.02	-3.76
VA11 - 1	772.50	0.00 0.02	-214.26 -585.15	0.00	3.39 2.86	3.39	0.55 0.94	0.00 0.00	1.43
VA11 - 2	772.50	0.00 0.04	-1108.53 711.65	955.52	-4.61 1.88	1.88	1.79 0.61	0.00 0.00	-0.92
VA11 - 3	772.50	0.00 0.04	708.92 -1088.66	708.92	1.88 6.80	6.80	-1.38 2.16	0.00 0.00	-0.92
VA12 - 1	772.50	-0.02 0.00	0.00 1751.88	2025.74	0.00 2.06	2.06	1.77 0.65	0.00 0.00	0.05
VA12 - 2	772.50	-0.02 0.00	1754.60 0.00	1754.60	2.06 0.00	2.06	-1.42 2.17	0.00 0.00	0.05
VA13	735.00	0.00 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.05
VA14 - 1	772.50	0.00 0.05	0.00 2242.80	2242.80	0.00 -1.46	0.00	2.54 -1.73	0.00 0.00	0.81



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Plena**

**Leilson Campos  
Rezende  
Rezende Engenharia**

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VA14 - 2	772.50	0.00 0.05	2243.58 0.00	2356.83	-1.46 0.00	0.00	0.42 1.91	0.00 0.00	0.81
VA15	735.00	-0.01 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.33
VA16	735.00	0.00 0.01	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.68
VA17 - 1	772.50	0.00 0.06	0.00 3941.78	3941.78	0.00 2.93	2.93	4.16 -3.35	0.00 0.00	-4.85
VA17 - 2	772.50	0.00 0.06	3941.00 0.00	3941.00	-2.58 0.00	0.00	-0.29 2.48	0.00 0.00	1.52
VA18	772.50	0.00 0.05	-281.55 161.62	334.18	-10.62 14.26	14.26	0.98 0.52	-0.01 0.01	1.00
VA19	772.50	0.00 0.00	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-5.19
VA20	772.50	-0.01 0.00	-9.16 0.00	351.80	-0.51 0.00	0.00	0.75 0.74	0.00 0.00	0.41
VA21 - 1	772.50	0.00 0.15	-1602.29 2366.61	2366.61	23.75 -30.47	23.75	2.48 0.00	0.02 -0.02	4.60
VA21 - 2	772.50	0.00 0.16	2368.14 -1592.61	2368.14	-28.23 -4.66	0.00	-1.06 2.69	-0.01 0.01	-1.65
VA22	772.50	0.00 0.08	-476.67 -739.24	677.09	-8.45 11.23	11.23	1.34 1.48	-0.01 0.01	0.36
VA23	772.50	0.00 0.03	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.75
VA24 - 1	810.00	0.00 0.12	-1759.69 -2574.67	1260.61	-47.61 28.31	28.31	2.21 2.49	-0.01 0.01	-3.65
VA24 - 2	810.00	0.00 0.17	-2614.21 -2854.60	1368.46	3.17 14.90	14.90	2.54 2.62	0.00 0.00	-0.30
VA25 - 1	810.00	0.00 0.20	-3058.77 1681.03	1681.03	60.50 -19.61	60.50	3.25 -1.70	0.04 -0.04	2.80
VA25 - 2	810.00	0.00 0.19	1684.15 -2285.57	1695.88	-19.61 -12.54	0.00	0.14 2.54	0.00 0.00	2.80
VA25 - 3	810.00	0.00 0.07	-1628.37 -617.27	533.54	-16.09 2.66	2.66	1.87 1.37	0.00 0.00	-1.29

**CASO: G1+G2+D3**

Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.29	-1287.02 1843.79	1843.79	2.04 -0.27	2.04	2.36 -0.86	0.00 0.00	1.78
VA1 - 2	772.50	0.00 0.30	1843.85 34.60	1843.85	-0.27 -27.23	0.00	-1.32 2.13	0.03 -0.03	1.17
VA1 - 3	772.50	0.00 0.29	35.45 -2441.30	35.45	-27.23 4.80	4.80	-4.04 4.49	-0.06 0.06	1.17
VA1 - 4	772.50	0.00 0.05	-1975.73 248.72	718.92	10.18 -7.84	10.18	2.04 0.85	0.00 0.00	0.17
VA1 - 5	772.50	0.00 0.04	250.17 -1568.14	250.17	-7.84 11.97	11.97	-3.34 3.74	-0.04 0.04	-2.69
VA1 - 6	772.50	-0.02 0.00	-1155.63 -333.54	321.94	10.68 -3.19	10.68	1.51 1.01	0.00 0.00	-1.03
VA2	772.50	0.00 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-2.80
VA3 - 1	772.50	0.00 0.00	0.00 -1558.12	1110.30	0.00 2.98	2.98	1.31 2.03	0.00 0.00	0.76
VA3 - 2	772.50	0.00 0.00	-1564.61 5.35	5.35	1.55 0.00	1.55	1.61 -0.41	0.00 0.00	0.00
VA4 - 1	810.00	0.00 0.13	-1383.55 -1807.75	971.07	33.13 -14.79	33.13	1.95 2.12	0.01 -0.01	0.83
VA4 - 2	810.00	0.00 0.15	-1876.09 1585.00	1585.00	8.09 -8.62	8.09	2.56 -0.96	0.01 -0.01	0.53
VA4 - 3	810.00	0.00	1584.94	1584.94	-8.62	0.00	-0.81	-0.02	0.53

		0.15	1292.04		-3.53		1.06	0.02	
VA4 - 4	810.00	0.00 0.15	1292.06 -234.22	1292.06	-3.53 13.32	13.32	-1.77 2.37	-0.02 0.02	0.53
VA4 - 5	810.00	0.00 0.15	-235.06 -3099.90	0.00	13.32 -20.83	13.32	-4.91 5.36	0.06 -0.06	-3.01
VA4 - 6	810.00	0.00 0.07	-3138.01 -133.53	0.00	-19.36 -8.88	0.00	3.40 -2.58	-0.01 0.01	0.05
VA4 - 7	810.00	0.00 0.07	-133.24 1410.91	1410.91	-8.88 -2.40	0.00	1.87 -1.00	-0.01 0.01	-1.07
VA4 - 8	810.00	0.00 0.07	1410.22 747.45	1460.46	-2.40 15.42	0.00	0.29 1.08	-0.01 0.01	-1.07
VA4 - 9	810.00	0.00 0.07	752.47 -2468.73	752.47	15.42 -2.61	15.42	-5.24 5.71	0.03 -0.03	-1.07
VA4 - 10	810.00	-0.01 0.00	-2182.12 -182.48	0.00	-4.93 2.93	2.93	2.45 -1.67	-0.01 0.01	1.50
VA4 - 11	810.00	-0.01 0.00	-177.13 395.09	395.09	2.93 6.85	6.85	1.26 -0.82	-0.01 0.01	1.50
VA4 - 12	810.00	-0.01 0.00	395.52 -698.59	395.52	6.85 -7.36	6.85	0.08 1.33	0.01 -0.01	1.50
VA4 - 13	810.00	0.00 0.04	-717.02 -337.33	361.22	-3.31 -13.74	0.00	1.32 1.06	0.00 0.00	-1.67
VA5 - 1	772.50	0.00 0.06	-406.75 556.06	690.10	11.22 -0.71	11.22	1.30 0.46	0.01 -0.01	0.37
VA5 - 2	772.50	0.00 0.06	556.05 -1600.26	556.05	-0.71 -16.08	0.00	-1.17 2.17	0.01 -0.01	0.37
VA5 - 3	772.50	0.00 0.09	-2012.07 312.76	312.76	-9.57 -6.38	0.00	2.70 -1.92	0.00 0.00	-0.21
VA5 - 4	772.50	0.00 0.09	312.47 1171.54	1171.54	-6.38 1.20	0.00	1.21 -0.38	-0.01 0.01	-0.21
VA5 - 5	772.50	0.00 0.09	1172.24 -1570.25	1172.24	1.20 6.87	6.87	-0.33 2.08	0.00 0.00	-0.21
VA5 - 6	772.50	0.00 0.06	-1481.84 678.79	678.79	7.18 -10.17	7.18	2.01 -0.83	0.01 -0.01	-0.70
VA5 - 7	772.50	0.00 0.06	678.35 -154.55	678.35	-14.72 -8.60	0.00	0.08 1.14	0.00 0.00	-9.13
VA6 - 1	772.50	0.00 0.02	6.88 630.49	660.93	-12.54 -12.23	0.00	1.01 0.23	0.00 0.00	1.65
VA6 - 2	772.50	0.00 0.02	635.24 -2537.82	635.24	-12.23 27.24	27.24	-1.48 2.66	-0.03 0.03	1.65
VA7 - 1	772.50	-0.06 0.00	-792.68 1569.23	1569.23	-36.12 2.04	2.04	2.11 -0.90	-0.02 0.02	-3.27
VA7 - 2	772.50	-0.06 0.00	1564.48 0.00	1564.48	2.04 0.00	2.04	-0.35 1.59	0.00 0.00	-3.27
VA8 - 1	866.25	0.00 0.50	-3678.21 -6642.01	2926.50	-3.99 -2.69	0.00	3.38 4.07	0.00 0.00	-0.75
VA8 - 2	866.25	0.00 0.74	-8814.12 -5715.86	4863.47	6.62 -1.86	6.62	4.87 4.28	0.00 0.00	0.62
VA9 - 1	810.00	0.00 0.14	-1602.81 -2709.52	1282.31	24.44 -21.21	24.44	2.16 2.54	0.01 -0.01	2.96
VA9 - 2	810.00	0.00 0.19	-2625.55 -2719.12	1428.16	-18.24 14.14	14.14	2.56 2.59	-0.01 0.01	-0.23
VA10 - 1	810.00	0.00 0.11	-1998.95 -1708.33	908.43	17.32 -30.53	17.32	2.17 2.06	0.01 -0.01	0.41
VA10 - 2	810.00	0.00 0.05	-1182.71 -885.71	585.97	-47.96 42.96	42.96	1.69 1.54	-0.02 0.02	-3.46
VA11 - 1	772.50	0.00 0.01	-4.97 -698.14	90.10	-6.13 12.93	12.93	0.39 1.10	-0.01 0.01	1.64
VA11 - 2	772.50	0.00 0.02	-957.19 535.71	866.85	-9.26 4.30	4.30	1.68 0.72	0.00 0.00	-1.16
VA11 - 3	772.50	0.00 0.02	532.91 -1371.43	532.91	4.30 12.84	12.84	-1.49 2.27	-0.01 0.01	-1.16
VA12 - 1	772.50	-0.02 0.00	0.00 1751.82	2025.70	0.00 3.03	3.03	1.77 0.65	0.00 0.00	0.06



VA12 - 2	772.50	-0.02 0.00	1754.62 0.00	1754.62	3.03 0.00	3.03	-1.42 2.17	0.00 0.00	0.06
VA13	735.00	0.00 0.01	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.02
VA14 - 1	772.50	0.00 0.08	0.00 2242.86	2242.86	0.00 -0.09	0.00	2.54 -1.73	0.00 0.00	0.85
VA14 - 2	772.50	0.00 0.08	2243.62 0.00	2356.86	-0.09 0.00	0.00	0.42 1.91	0.00 0.00	0.85
VA15	735.00	0.00 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.29
VA16	735.00	0.00 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.69
VA17 - 1	772.50	0.00 0.04	0.00 3941.72	3941.72	0.00 -0.30	0.00	4.16 -3.35	0.00 0.00	-5.02
VA17 - 2	772.50	0.00 0.04	3940.97 0.00	3940.97	1.14 0.00	1.14	-0.29 2.48	0.00 0.00	1.46
VA18	772.50	0.00 0.04	-105.18 -14.80	300.90	0.65 1.16	1.16	0.79 0.70	0.00 0.00	1.05
VA19	772.50	0.00 0.00	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-5.35
VA20	772.50	-0.02 0.00	-8.44 0.00	352.12	4.55 0.00	4.55	0.75 0.74	0.00 0.00	0.44
VA21 - 1	772.50	0.00 0.15	-1484.55 2301.01	2301.01	28.87 -33.62	28.87	2.42 0.06	0.02 -0.02	4.93
VA21 - 2	772.50	0.00 0.15	2302.66 -1672.98	2302.66	-21.08 -14.84	0.00	-1.07 2.70	0.00 0.00	-1.95
VA22	772.50	0.00 0.08	-295.46 -956.38	679.98	-5.45 7.48	7.48	1.23 1.59	0.00 0.00	0.22
VA23	772.50	0.00 0.03	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.75
VA24 - 1	810.00	0.00 0.13	-1608.89 -2705.09	1280.94	-43.04 26.65	26.65	2.16 2.54	-0.01 0.01	-4.27
VA24 - 2	810.00	0.00 0.18	-2501.87 -2967.08	1372.01	8.13 18.02	18.02	2.51 2.65	0.00 0.00	-0.24
VA25 - 1	810.00	0.00 0.20	-2952.89 1739.79	1739.79	73.09 -29.02	73.09	3.23 -1.68	0.05 -0.05	3.25
VA25 - 2	810.00	0.00 0.20	1743.05 -2417.76	1743.05	-29.02 -16.18	0.00	0.08 2.60	0.00 0.00	3.25
VA25 - 3	810.00	0.00 0.07	-1470.97 -808.04	490.30	-2.57 -13.65	0.00	1.78 1.45	0.00 0.00	-1.14

CASO: G1+G2+D4									
Elemento	Carga (kgf/m)	Rd Nd (tf)	Mxi Mxf (kgf.m)	MxMáx (kgf.m)	Myi Myf (kgf.m)	MyMáx (kgf.m)	Vxi Vxf (tf)	Vyi Vyf (tf)	Mtd (kgf/m)
VA1 - 1	772.50	0.00 0.30	-1327.06 1840.46	1840.46	-18.31 2.16	2.16	2.38 -0.88	-0.01 0.01	0.89
VA1 - 2	772.50	0.00 0.30	1840.57 51.21	1840.57	2.16 5.81	0.00	-1.30 2.11	0.00 0.00	0.28
VA1 - 3	772.50	0.00 0.30	52.12 -2413.63	52.12	5.81 16.33	16.33	-4.02 4.47	-0.02 0.02	0.29
VA1 - 4	772.50	0.00 0.05	-2000.82 264.97	723.68	19.22 -17.45	19.22	2.05 0.84	0.01 -0.01	0.61
VA1 - 5	772.50	0.00 0.05	266.48 -1546.16	266.48	-17.45 18.95	18.95	-3.33 3.72	-0.07 0.07	-2.43
VA1 - 6	772.50	-0.01 0.00	-1196.14 -276.72	342.26	14.38 -6.76	14.38	1.54 0.98	0.01 -0.01	-0.22
VA2	772.50	0.00 0.00	0.00 0.00	376.65	0.00 0.00	0.00	0.77 0.77	0.00 0.00	-2.55
VA3 - 1	772.50	0.00 0.00	0.00 -1558.11	1110.30	0.00 -0.43	0.00	1.31 2.03	0.00 0.00	0.76
VA3 - 2	772.50	0.00	-1564.66	5.30	9.93	9.93	1.61	0.01	0.00





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		0.00	5.30		0.00		-0.41	-0.01	
VA4 - 1	810.00	0.00 0.15	-1374.07 -1814.70	972.66	40.42 -10.91	40.42	1.95 2.12	0.01 -0.01	1.00
VA4 - 2	810.00	0.00 0.18	-1881.43 1588.02	1588.02	-20.14 0.42	0.42	2.56 -0.96	-0.01 0.01	-1.88
VA4 - 3	810.00	0.00 0.18	1587.91 1296.32	1587.91	0.42 5.94	0.00	-0.80 1.06	-0.02 0.02	-1.88
VA4 - 4	810.00	0.00 0.18	1296.33 -226.87	1296.33	5.94 17.45	17.45	-1.77 2.37	-0.02 0.02	-1.88
VA4 - 5	810.00	0.00 0.18	-227.73 -3090.24	0.00	17.45 16.34	17.45	-4.91 5.36	0.00 0.00	-5.31
VA4 - 6	810.00	0.00 0.10	-3126.25 -126.74	0.00	1.02 10.62	10.62	3.39 -2.58	-0.01 0.01	1.78
VA4 - 7	810.00	0.00 0.10	-126.44 1412.39	1412.39	10.62 0.06	10.62	1.87 -0.99	0.01 -0.01	0.72
VA4 - 8	810.00	0.00 0.10	1411.72 740.62	1459.88	0.06 9.19	0.00	0.28 1.08	-0.01 0.01	0.72
VA4 - 9	810.00	0.00 0.10	745.65 -2478.45	745.65	9.19 -31.13	9.19	-5.24 5.72	0.07 -0.07	0.72
VA4 - 10	810.00	0.00 0.00	-2202.40 -191.22	0.00	-9.23 0.97	0.97	2.47 -1.68	-0.01 0.01	1.36
VA4 - 11	810.00	0.00 0.00	-185.93 392.84	392.84	0.97 3.24	3.24	1.28 -0.83	0.00 0.00	1.36
VA4 - 12	810.00	0.00 0.00	393.20 -679.24	393.26	3.24 -6.40	3.24	0.09 1.32	0.01 -0.01	1.36
VA4 - 13	810.00	0.00 0.05	-708.16 -336.96	365.23	-0.16 -0.69	0.00	1.32 1.07	0.00 0.00	-1.62
VA5 - 1	772.50	0.00 0.04	-402.24 550.34	687.16	-8.95 2.63	2.63	1.30 0.46	-0.01 0.01	-1.31
VA5 - 2	772.50	0.00 0.04	550.34 -1611.78	550.34	2.63 11.84	11.84	-1.17 2.17	-0.01 0.01	-1.31
VA5 - 3	772.50	0.00 0.07	-2009.96 314.39	314.39	15.65 2.51	15.65	2.70 -1.92	0.01 -0.01	1.25
VA5 - 4	772.50	0.00 0.07	314.08 1172.65	1172.65	2.51 8.41	0.00	1.21 -0.38	-0.01 0.01	1.25
VA5 - 5	772.50	0.00 0.07	1173.33 -1570.23	1173.33	8.41 -13.78	8.41	-0.33 2.08	0.01 -0.01	1.25
VA5 - 6	772.50	0.00 0.07	-1464.65 680.79	680.79	10.99 -12.49	10.99	2.00 -0.82	0.02 -0.02	-0.21
VA5 - 7	772.50	0.00 0.07	680.42 -169.16	680.42	-5.86 -14.98	0.00	0.07 1.15	0.01 -0.01	-9.73
VA6 - 1	772.50	0.00 0.02	7.05 602.77	639.66	-2.73 -10.01	0.00	0.99 0.25	0.00 0.00	1.30
VA6 - 2	772.50	0.00 0.02	607.50 -2592.27	607.50	-10.01 20.36	20.36	-1.49 2.68	-0.02 0.02	1.30
VA7 - 1	772.50	-0.06 0.00	-758.44 1586.54	1586.54	-31.15 3.59	3.59	2.10 -0.89	-0.02 0.02	-2.83
VA7 - 2	772.50	-0.06 0.00	1581.81 0.00	1581.81	3.59 0.00	3.59	-0.36 1.60	0.00 0.00	-2.83
VA8 - 1	866.25	0.00 0.49	-3691.35 -6625.09	2927.34	-5.34 3.98	3.98	3.39 4.07	0.00 0.00	-1.91
VA8 - 2	866.25	0.00 0.73	-8805.65 -5718.60	4865.90	15.70 -4.59	15.70	4.87 4.28	0.00 0.00	1.53
VA9 - 1	810.00	0.00 0.11	-1847.19 -2496.82	1252.93	43.54 -34.55	43.54	2.24 2.46	0.01 -0.01	2.94
VA9 - 2	810.00	0.00 0.17	-2793.66 -2548.14	1432.04	-10.74 4.99	4.99	2.62 2.54	0.00 0.00	-0.30
VA10 - 1	810.00	0.00 0.10	-2194.07 -1532.12	908.09	26.44 -32.81	26.44	2.24 1.99	0.01 -0.01	0.43
VA10 - 2	810.00	0.00 0.05	-1437.33 -580.88	635.05	-31.93 7.46	7.46	1.83 1.40	-0.01 0.01	-3.35
VA11 - 1	772.50	0.00 0.04	-404.82 -477.80	0.00	10.85 -4.81	10.85	0.71 0.78	0.01 -0.01	1.62



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Rezende  
Rezende Engenharia**

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VA11 - 2	772.50	0.00 0.06	-1240.22 868.64	1043.53	1.84 -1.10	1.84	1.88 0.52	0.00 0.00	-1.07
VA11 - 3	772.50	0.00 0.06	866.09 -837.31	866.09	-1.10 -0.48	0.00	-1.29 2.07	0.00 0.00	-1.07
VA12 - 1	772.50	-0.01 0.00	0.00 1752.01	2025.84	0.00 1.16	1.16	1.77 0.65	0.00 0.00	0.11
VA12 - 2	772.50	-0.01 0.00	1754.56 0.00	1754.56	1.16 0.00	1.16	-1.42 2.17	0.00 0.00	0.11
VA13	735.00	0.00 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.00
VA14 - 1	772.50	0.00 0.01	0.00 2242.86	2242.86	0.00 -2.56	0.00	2.54 -1.73	0.00 0.00	0.91
VA14 - 2	772.50	0.00 0.01	2243.63 0.00	2356.86	-2.56 0.00	0.00	0.42 1.91	0.00 0.00	0.91
VA15	735.00	-0.02 0.00	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	0.31
VA16	735.00	0.00 0.02	0.00 0.00	338.60	0.00 0.00	0.00	0.71 0.71	0.00 0.00	-0.67
VA17 - 1	772.50	0.00 0.07	0.00 3941.72	3941.72	0.00 5.31	5.31	4.16 -3.35	-0.01 0.01	-5.03
VA17 - 2	772.50	0.00 0.08	3940.96 0.00	3940.96	-5.05 0.00	0.00	-0.29 2.48	0.00 0.00	1.53
VA18	772.50	0.00 0.06	-465.28 346.54	415.24	-21.71 27.12	27.12	1.17 0.33	-0.03 0.03	1.06
VA19	772.50	0.00 0.01	0.00 0.00	102.16	0.00 0.00	0.00	0.41 0.41	0.00 0.00	-5.30
VA20	772.50	-0.01 0.00	-9.52 0.00	351.64	-6.63 0.00	0.00	0.75 0.74	0.00 0.00	0.37
VA21 - 1	772.50	0.00 0.15	-1681.90 2327.70	2327.70	20.77 -27.31	20.77	2.49 -0.01	0.01 -0.01	5.03
VA21 - 2	772.50	0.00 0.15	2329.00 -1462.48	2329.00	-24.58 -3.90	0.00	-0.98 2.61	-0.01 0.01	-2.02
VA22	772.50	0.00 0.08	-680.50 -500.03	694.78	-10.88 13.94	13.94	1.46 1.36	-0.01 0.01	0.30
VA23	772.50	0.00 0.02	0.00 0.00	1006.68	0.00 0.00	0.00	1.25 1.25	0.00 0.00	4.73
VA24 - 1	810.00	0.00 0.10	-1915.98 -2437.28	1246.10	-59.09 36.68	36.68	2.26 2.44	-0.02 0.02	-4.30
VA24 - 2	810.00	0.00 0.16	-2714.37 -2752.64	1366.09	2.92 23.75	23.75	2.57 2.58	0.00 0.00	-0.32
VA25 - 1	810.00	0.00 0.19	-3205.81 1674.58	1674.58	67.65 -31.29	67.65	3.33 -1.77	0.05 -0.05	3.29
VA25 - 2	810.00	0.00 0.19	1677.41 -2194.52	1695.26	-31.29 -6.08	0.00	0.17 2.51	-0.01 0.01	3.29
VA25 - 3	810.00	0.00 0.07	-1797.24 -425.25	574.15	-23.20 16.80	16.80	1.96 1.28	-0.01 0.01	-1.03