

Hydro

UNICA





## Hydro – A empresa de energia e alumínio

A Hydro é uma líder industrial que constrói negócios e parcerias para um futuro mais sustentável. Desenvolvemos indústrias que fazem a diferença para as pessoas e para a sociedade. Desde 1905, a Hydro transforma recursos naturais em produtos e negócios relevantes para as pessoas, criando um local de trabalho seguro e protegido para nossos 31.000 empregados\*, em mais de 140 unidades, em 40 países. Hoje, possuímos e operamos vários negócios, além de investirmos em indústrias sustentáveis.

A Hydro, por meio de seus negócios, está presente em uma ampla gama de segmentos do mercado de alumínio, energia, reciclagem de metais, energias renováveis e baterias, oferecendo conhecimentos e competências únicas.

A Hydro está comprometida em liderar o setor na criação de um futuro mais sustentável, criando sociedades mais viáveis ao desenvolver recursos naturais em produtos e soluções de maneiras inovadoras e eficientes.

\*Informação referente a data de fechamento do material.

## Hydro Bauxita & Alumina

A Hydro Bauxita & Alumina inclui uma das maiores minas de bauxita do mundo e a maior refinaria de alumina fora da China, ambas no Brasil, representando dois elos importantes na cadeia de produção do nosso alumínio. Nossos mais de 4.000 empregados\* trabalham nos escritórios do Brasil, na mina de Paragominas e na refinaria de alumina em Barcarena, no norte do país. Além disso, comercializamos alumina para clientes externos.

## Hydro Energia

A Hydro Energia tem mais de 100 anos de experiência em energia hidrelétrica, sendo uma das três maiores operadoras de produção de energia na Noruega e empregando 200 pessoas\*. Além disso, estamos envolvidos com energia eólica na Noruega e temos uma participação importante no mercado de energia na região nórdica e no Brasil.



# Hydro Extrusão


A Hydro Extrusão é uma empresa líder mundial em extrusão de alumínio, com cerca de 100 unidades de produção, em 40 países, e empregando 20.000 pessoas. Por meio de uma combinação exclusiva de

experiência local, rede global e recursos de P&D incomparáveis, podemos oferecer desde perfis padronizados até desenvolvimento e fabricação avançados para a maioria das indústrias.



# Portfólio Hydro

Para todos os tipos e padrões de obras.

<p>Sistemas Comerciais</p>	<p>ECO  FAÇADE</p> <p>UNIT</p> <p>CITTÀ</p> <p>ELEGANCE MIRROR</p> <p>WIND FAÇADE</p>
<p>Sistemas Residenciais</p>	<p>UNICA</p> <p>UNICA MINIMALIST</p> <p>INOVA</p> <p>PRODUTIVA25</p> <p>GOLD Slim</p> <p>NOVA GOLD</p> <p>MASTER</p>
<p>Complementos de Arquitetura</p>	<p>ESPLENDOOR</p> <p>UNIVERSAL VARANDA E GRADIL</p> <p>SKYLINE</p> <p>UNIVERSAL PORTÃO E GRADE</p> <p>UNIVERSAL BRISE</p>



UNICA

# Única

Voltada para o segmento residencial de altíssimo padrão, a Única é fruto da parceria com o renomado arquiteto Ruy Ohtake. Planejada para dar mais liberdade de criação, com ela é possível construir esquadrias nas mais variadas dimensões e configurações, sem abrir mão da sofistica-

ção e do design. O sistema apresenta um portfólio abrangente de tipologias e permite o uso de perfis bicolores, cores diferentes interna e externamente, assegurando mais versatilidade aos projetos de arquitetura.



Normas	B-01   B-04
Vantagens Única	C-01   C-04
Tipologias	D-01   D-03
Diagramas	E-01   E-36
Perfis	F-01   F-40
Componentes	G-01   G-44
Ferramentas de Usinagens	H-01   H-01
Usinagens	I-01   I-29
Detalhes Construtivos	J-01   J-13
Projetos de Montagem	K-01   K-39



## NORMA ABNT NBR 10821-2017

A norma ABNT NBR 10821/17 estabelece os parâmetros mínimos de desempenho bde esquadrias localizadas na face externa das edificações de uso comercial ou residencial, em todo o Brasil. Esta norma abrange os seguintes pontos:

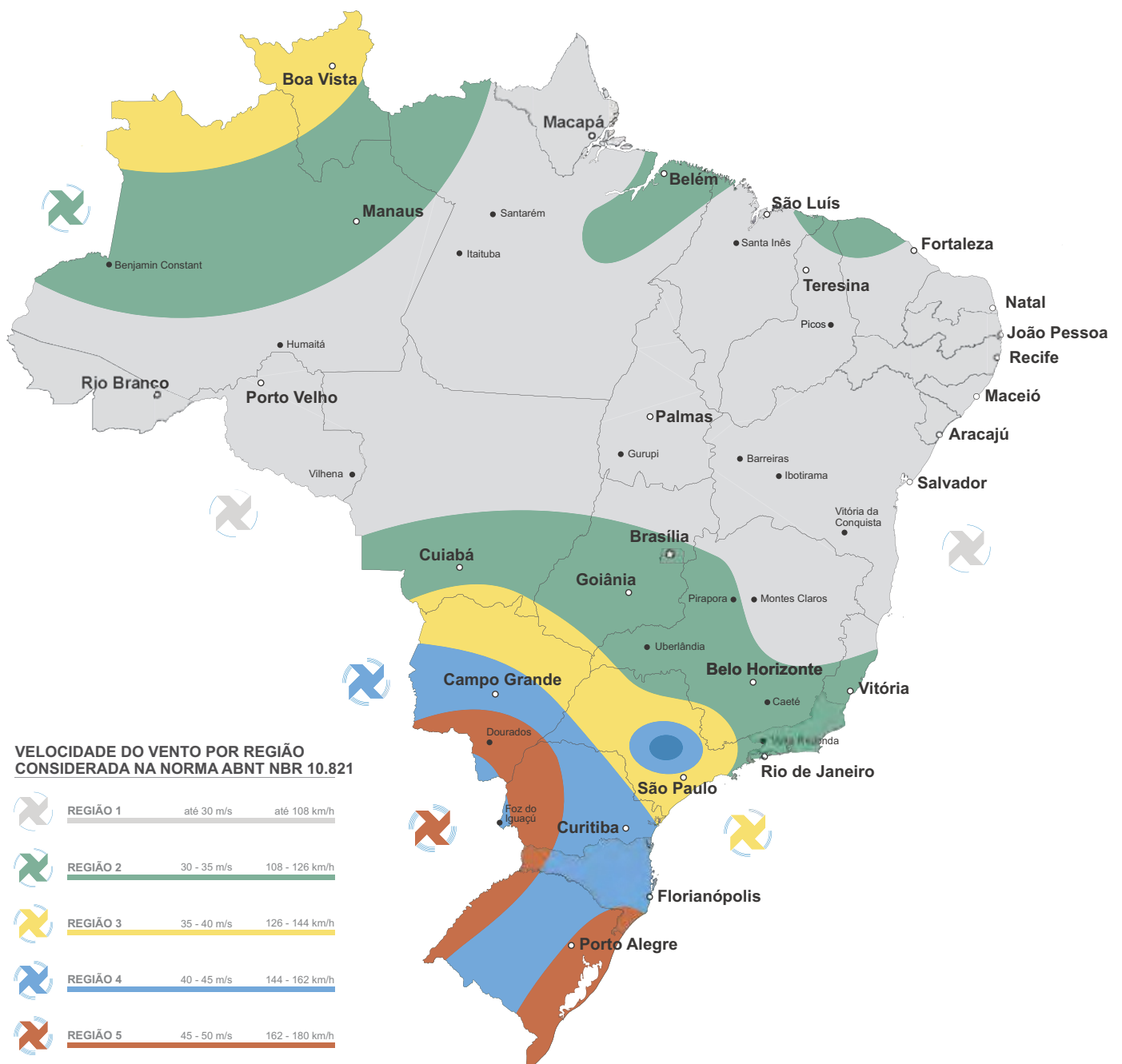
- Permeabilidade ao ar;
- Estanqueidade à água;
- Resistência às cargas uniformemente distribuídas (cargas de vento);
- Resistência às operações de manuseio

Quando falamos de resistência às cargas uniformemente distribuídas, esta norma nos traz um mapa de isopletras do Brasil, retirado da norma ABNT NBR 6123, em que encontramos a velocidade dos ventos, através da qual conseguimos calcular as forças devidas ao vento.

# MAPA DE VELOCIDADE DO VENTO POR REGIÃO NO BRASIL

A velocidade do vento é o parâmetro inicial para calcularmos a pressão do vento no local desejado, além disso deve-se levar em conta, ainda, a altura do edifício, rugosidade do terreno, densidade de construções no entorno, topografia, forma geométrica do

edifício, entre outras características. Para facilitar, a NBR 10821/17 já traz a seguinte tabela, que determina as pressões de ensaio, de segurança e de água em edifícios de até 30 pavimentos ou 90 metros de altura para todas as regiões do Brasil.



É importante destacar que esta tabela não é válida para:

- Edificações em que a esquadria não seja instalada na posição vertical;
- Edificações de formas não retangulares;
- Edificações com localização, especificação, necessidade e exigências especiais de utilização;
- Quando houver túnel de vento.

Para os três primeiros casos, as pressões devem ser calculadas de acordo com a norma NBR 6123 / 13. Caso seja encontrado um valor menor do que o que consta na tabela abaixo, deve-se prevalecer a maior pressão.

### Valores de pressão do vento conforme a região do país e o número de pavimentos da edificação

Quantidade de pavimentos	Altura Máxima	Regiões do País	Pressão do ensaio Pe em ( Pa ) Positiva e negativa Pe = pp x 1,2	Pressão de segurança Ps em ( Pa ) Positiva e negativa Ps = pe x 1,5	Pressão de água Pa em ( Pa ) Positiva e negativa Pa = Pp x 0,2
02	6 m	I	350	520	60
		II	470	700	80
		III	610	920	100
		IV	770	1160	130
		V	950	1430	160
05	15 m	I	420	640	70
		II	580	860	100
		III	750	1130	130
		IV	950	1430	160
		V	1180	1780	200
10	30 m	I	500	750	80
		II	680	1030	110
		III	890	1340	150
		IV	1130	1700	190
		V	1400	2090	230
20	60 m	I	600	900	100
		II	815	1220	140
		III	1060	1600	180
		IV	1350	2020	220
		V	1660	2500	280
30	90 m	I	660	980	110
		II	890	1340	150
		III	1170	1750	200
		IV	1480	2210	250
		V	1820	2730	300

Começando da esquerda para a direita temos, na primeira coluna, a quantidade de pavimentos; na segunda, a altura máxima da edificação; na terceira, a região definida pelo mapa de isopletras (velocidades do vento); na quarta, a pressão de ensaio dada em Pascal; na quinta, a pressão de segurança dada em Pascal; e na sexta a pressão de água dada em Pascal.

Com a pressão de ensaio, o calculista começa a definir quais os perfis devem ser utilizados nas esquadrias tendo como base as exigências que constam na norma, que define: a flecha máxima dos perfis não pode ultrapassar  $H/175$ , sendo  $H$  a altura da esquadria, ou 30 mm, o que for menor, tanto para o caso de pressão positiva, quanto negativa. Quando é realizado o teste em laboratório, além de ser verificada a flecha máxima, também se analisa se, após a retirada da pressão, a esquadria continua funcionando normalmente.

Já com a pressão de segurança, verifica-se casos extremos que a esquadria deve suportar. Por conta disso, não são medidas as flechas dos perfis, mas, sim, se houve, ou não, o colapso total ou parcial de qualquer componente da esquadria,

inclusive o vidro. Se houver colapso de algum componente, a esquadria é reprovada.

Entende-se colapso como qualquer alteração vital no funcionamento do conjunto, sua estrutura ou componentes que coloque em risco os usuários ou terceiros.

### Equipamentos

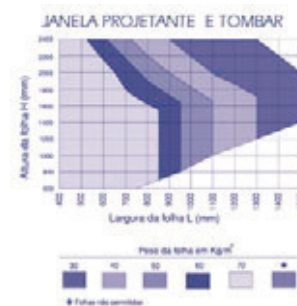
Os equipamentos fornecidos pela Hydro foram desenvolvidos por especialistas, gerando resultados impecáveis em termos dimensionais e de qualidade do corte. A aplicação desses equipamentos atende às recomendações técnicas da Hydro e a utilização de componentes originais.



### Cálculo das dimensões máximas

Na definição das dimensões máximas de cada tipo de esquadria deverá ser considerado todos os aspectos construtivos do produto final, como características geométricas dos perfis utilizados, método de ligação da esquadria com a alvenaria, componentes especificados, espessura e tipo do vidro empregado e esforços a resistir.

Recomenda-se que esse cálculo seja feito por profissional habilitado, sempre levando em conta as normas pertinentes. Alguns gráficos com o desempenho estrutural de configurações comuns são mostrados neste catálogo. Eles foram desenvolvidos de acordo com as recomendações das Normas Brasileiras.

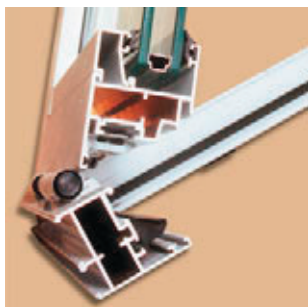


### Thermal break

Um perfil para esquadrias com "Thermal break" é um conjunto solidário de dois extrudados de alumínio ligados longitudinalmente por um terceiro perfil de material de baixa condutividade térmica, permitindo que a face do perfil exposta à temperatura externa esteja isolada da face interna, impedindo a troca de calor por meio do conjunto, melhorando as condições de conforto e economizando energia necessária para aquecer ou resfriar o ambiente.

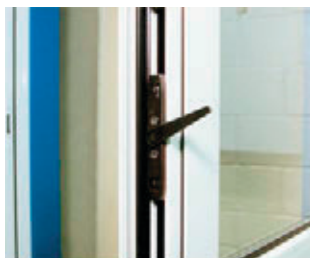
O sistema "Thermal break" utiliza ligação de poliamida reforçada, material utilizado nos melhores sistemas mundiais.





### Perfis

Os extrudados de alumínio da Linha Única são produzidos na liga Hydro 6060-T5, adequada para receber os acabamentos de superfície, tais como anodização de vários tons ou pintura em várias cores. Pode ter também uma combinação diferente de acabamentos, tanto no lado interno ou externo.



### Componentes

Os inúmeros componentes desenvolvidos especialmente para a Linha Única, como fechos perimetrais, roldanas, maçanetas, braços articulados, dobradiças e puxadores, constituem-se em um diferencial importantíssimo desse novo produto Hydro. Responsáveis pelo funcionamento impecável e pela longa vida, os componentes foram desenvolvidos e fabricados por empresas conceituadas internacionalmente, utilizando materiais e técnicas de última geração.

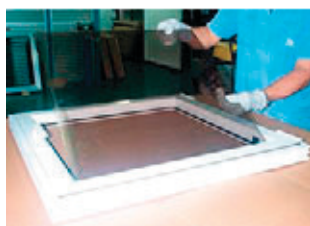


As esquadrias da Linha Única foram projetadas especialmente para seu funcionamento, vedação, durabilidade e aparência, características que dependem fundamentalmente de componentes adequados. Por isso os componentes são bem acabados, resistentes e oferecem todos os recursos necessários de posicionamento e regulação.



### Envidraçamento

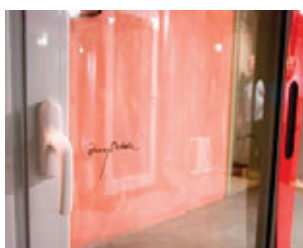
A especificação do tipo de vidro que será utilizado nas esquadrias da Linha Única deverá ser feita levando-se em conta a aplicação final, principalmente dimensões, pressões de vento a resistir e comportamentos térmicos e acústicos e a substituição dos vidros com a esquadria montada. Elas se apresentam em diferentes espessuras, garantindo a compressão necessária e o desempenho esperado.





### Tratamentos de superfície

Os tratamentos de superfície oferecidos pela Hydro - anodização fosca (natural ou colorida) e pinturas eletrostáticas em pó - atendem às exigências das Normas Brasileiras pertinentes e garantem longa vida útil às esquadrias em que são aplicados.



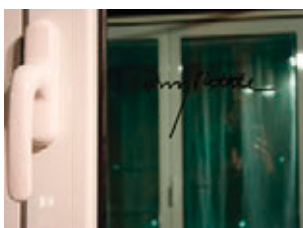
### Design

Os perfis desenvolvidos pelo renomado Ruy Ohtake têm design incomparável, com linhas curvas que conferem modernidade e ergonomia ao conjunto. Isso se aplica aos acessórios exclusivos da linha, como as cremonas e puxadores, com encaixe perfeito para as mãos.



### Bordas retas ou arredondadas

Os perfis que formam as folhas e os baguetes podem ter bordas retas ou arredondadas. Essas alternativas podem ajudar o arquiteto a especificar esquadrias que combinem melhor com o ambiente em que serão empregadas.



### Componentes visíveis

Os componentes visíveis, como dobradiças, fechos e maçanetas foram desenvolvidos para complementar os conjuntos de maneira harmoniosa. Suas formas e acabamentos sempre propiciam aos especificadores várias alternativas, possibilitando um toque pessoal no projeto.

### Possibilidade de dois acabamentos

O recurso "Thermal break", além de sua função básica de impedir troca térmica entre os ambientes interno e externo, propicia ao especificador a possibilidade de utilizar as esquadrias com o acabamento interno diferente do externo. Por exemplo: a esquadria pode ser branca por fora e prateada por dentro.



### Vedação acústica

O comportamento acústico de uma esquadria de alumínio depende, fundamentalmente, de sua tipologia, de seus recursos de projeto quanto à vedação das frestas, de cuidados quanto à fabricação e instalação dos vidros empregados.

Janelas de abrir, tombar ou maxim-ares apresentam melhores desempenhos em vedação acústica se comparado às janelas de correr convencionais de qualidade equivalente - com folhas em planos diferentes.

O alojamento de vidros de 4 a 33 milímetros permite ao especificador definir o vidro adequado às suas exigências, seja vidro comum monolítico, duplo, laminado, temperado ou especial. Apresentando desempenho excepcional com relação à vedação ao ar e a água, graças à utilização dos conceitos mais modernos de projeto e ao desenvolvimento de componentes específicos, as esquadrias da Linha Única asseguram que o desempenho acústico do vidro não será influenciado pelos perfis e componentes.

Recomenda-se que a especificação dos vidros seja feita por profissionais habilitados, que levarão em conta o tipo de esquadria, os efeitos desejados e os vidros disponíveis.



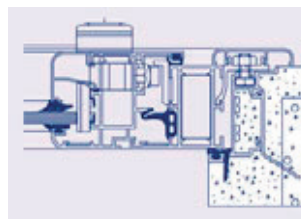
### Fixação na alvenaria

Em função das grandes dimensões possíveis e dos vários tipos e configurações de vidros que poderão ser utilizados, o peso total de uma esquadria da Linha Única pode atingir valores superiores aos quais estamos acostumados.

Essa constatação levou a Hydro ao inédito modo de ligação da esquadria com a alvenaria, que assegura a estabilidade dos conjuntos mais pesados e facilita o transporte e a colocação.

O sistema possibilita a instalação do conjunto de dentro para fora, privilegiando a segurança.

A fixação é feita com robustos parafusos de aço inoxidável, previamente alojados em canal apropriado no contramarco. Ajustes, regulagens e perfeita vedação são assegurados por detalhes exclusivos do conjunto.

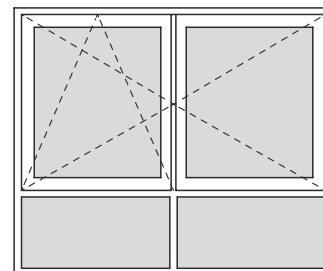
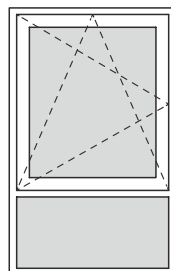
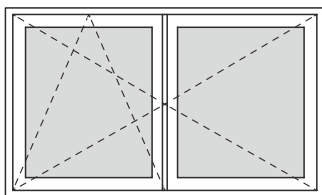
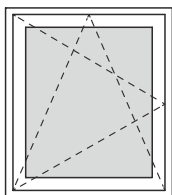






## Janelas Oscilo Batente

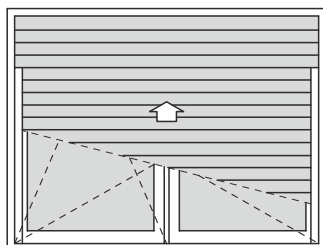
com e sem Thermal Break, 1 e 2 folhas



\*O peitoril destas tipologias não tem a função de guarda-corpo

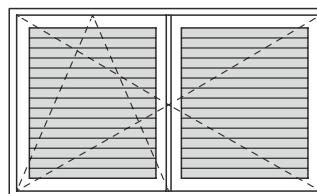
## Janelas Oscilo Batente com persiana externa

sem Thermal Break 2 folhas



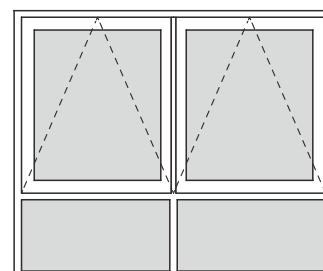
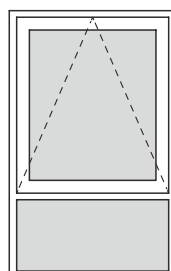
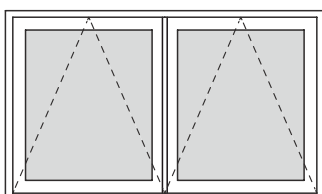
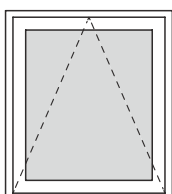
## Janelas Oscilo Batente com veneziana orientável

com e sem Thermal Break 2 folhas



## Janelas de Tombar

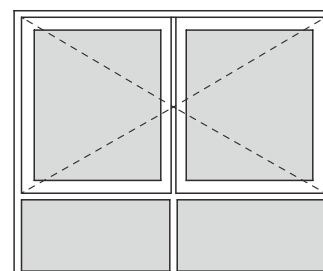
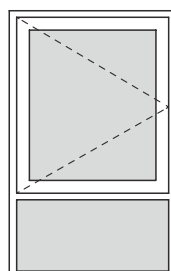
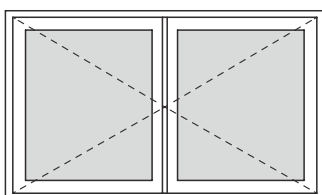
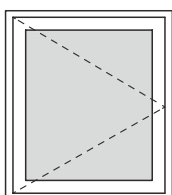
com e sem Thermal Break, 1 e 2 folhas



\*O peitoril destas tipologias não tem a função de guarda-corpo

## Janelas de Giro

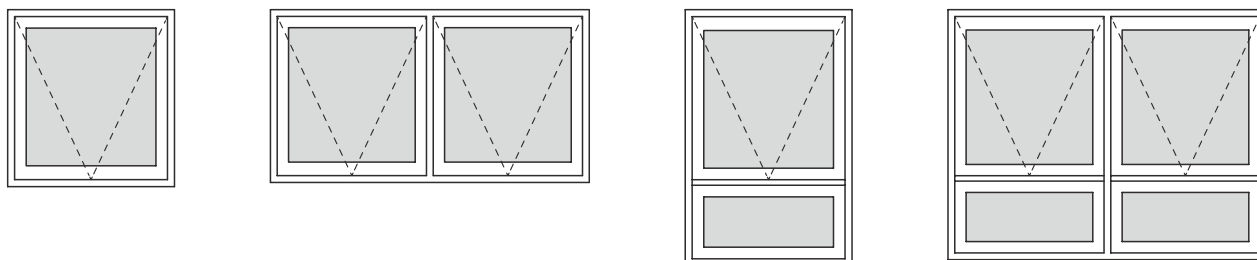
com e sem Thermal Break, 1 e 2 folhas



\*O peitoril destas tipologias não tem a função de guarda-corpo

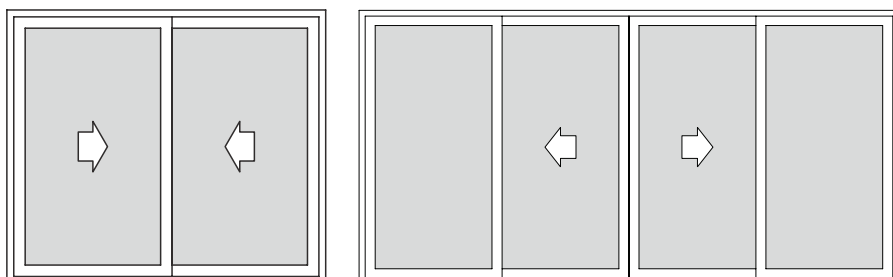
## Janelas Maxim-ar

com e sem Thermal Break, 1 e 2 folhas



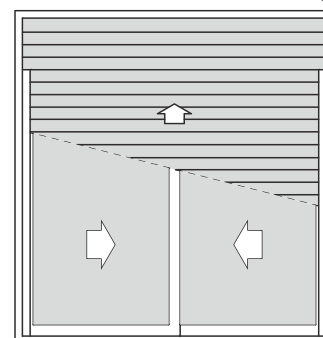
## Janelas de Correr

com e sem Thermal Break, 2 e 4 folhas



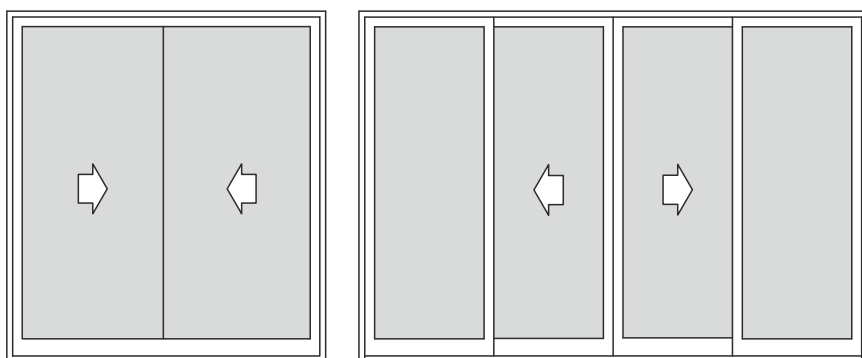
## Janelas de Correr

com persiana externa sem Thermal Break, 2 folhas



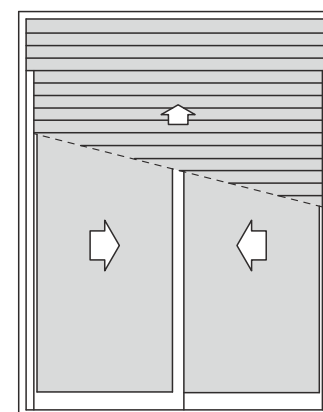
## Portas de Correr

com e sem Thermal Break, 2 e 4 folhas



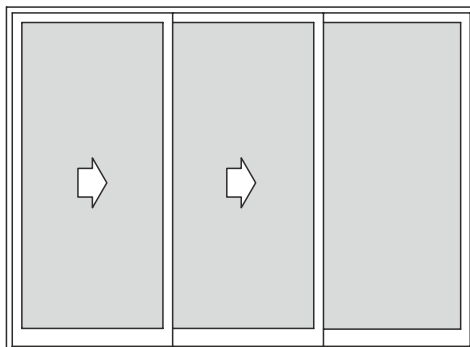
## Porta de Correr

com persiana externa sem Thermal Break, 2 folhas



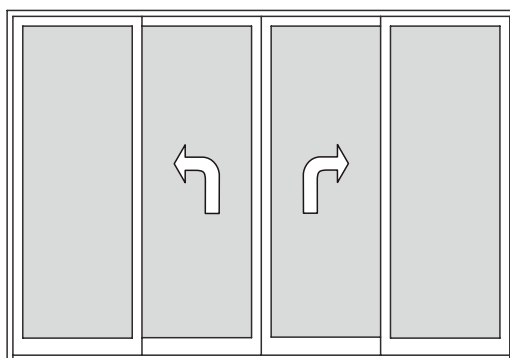
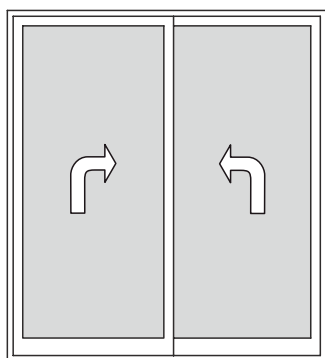
## Janela e Porta de Correr

sem Thermal Break, 3 folhas



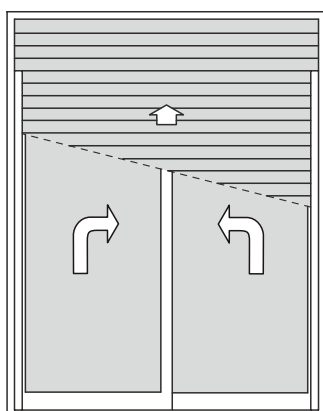
## Portas de Correr Elevável

sem Thermal Break, 2 e 4 folhas



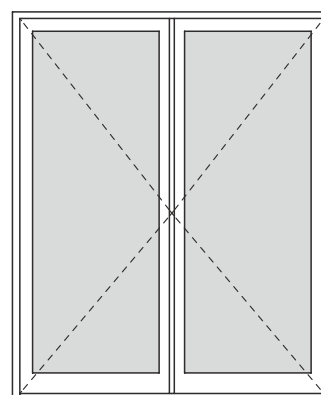
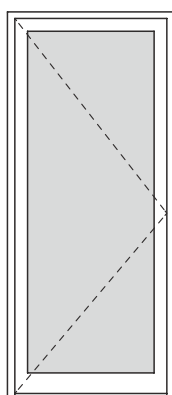
## Porta de Correr Elevável com persiana externa

sem Thermal Break, 2 folhas



## Portas de Giro

com e sem Thermal Break, 1 e 2 folhas

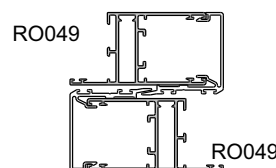
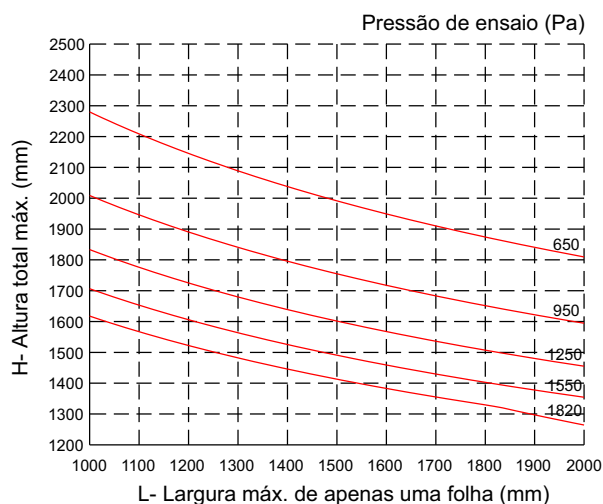
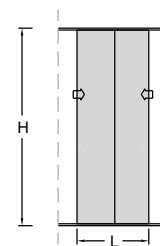


# Diagramas de Dimensões

## Janela e porta de correr - 2, 3 e 4 planos

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO049	RO049
Área = 425 mm <sup>2</sup>	Área = 425 mm <sup>2</sup>
Jx = 125346 mm <sup>4</sup>	Jx = 125346 mm <sup>4</sup>
Wx = 5454 mm <sup>3</sup>	Wx = 5454 mm <sup>3</sup>
<b>Jx total = 250692 mm<sup>4</sup></b>	

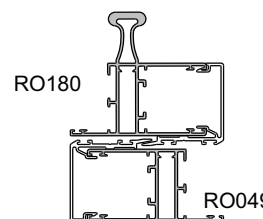
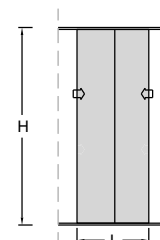
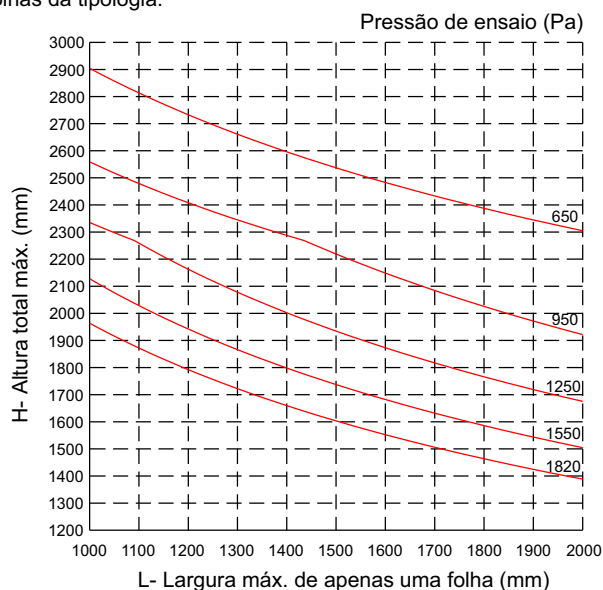
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Janela e porta de correr - 2, 3 e 4 planos

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO049	RO180
Área = 425 mm <sup>2</sup>	Área = 618 mm <sup>2</sup>
Jx = 125346 mm <sup>4</sup>	Jx = 392911 mm <sup>4</sup>
Wx = 5454 mm <sup>3</sup>	Wx = 9974 mm <sup>3</sup>
<b>Jx total = 518257 mm<sup>4</sup></b>	

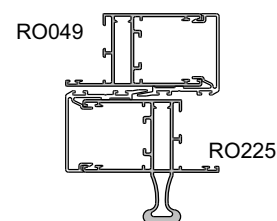
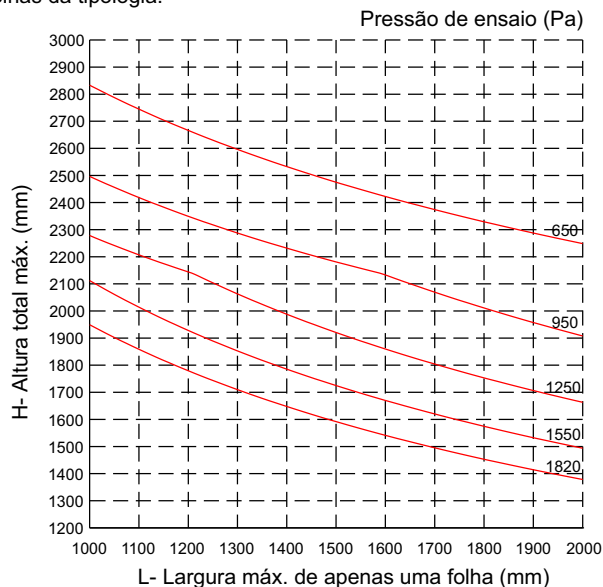
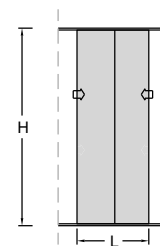
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Janela e porta de correr - 2, 3 e 4 planos

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO049	RO225
Área = 425 mm <sup>2</sup>	Área = 618 mm <sup>2</sup>
Jx = 125346 mm <sup>4</sup>	Jx = 355914 mm <sup>4</sup>
Wx = 5454 mm <sup>3</sup>	Wx = 9590 mm <sup>3</sup>
<b>Jx total = 481260 mm<sup>4</sup></b>	

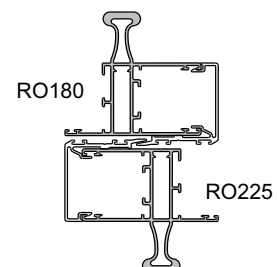
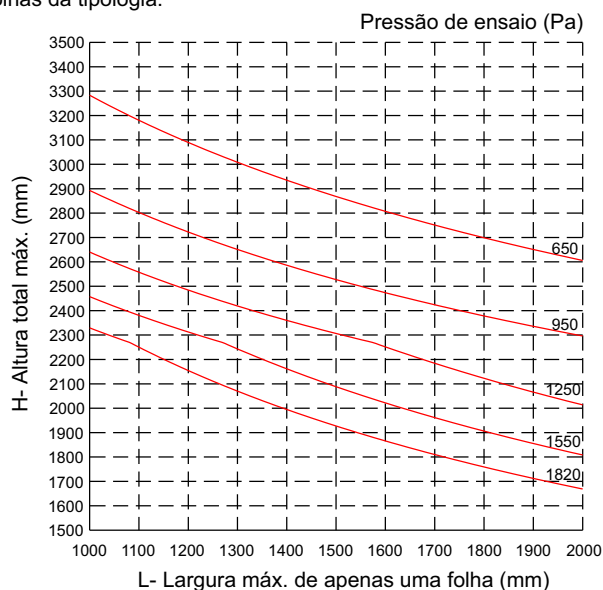
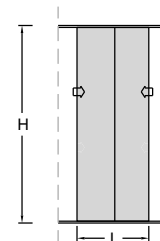
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Janela e porta de correr - 2, 3 e 4 planos

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO180	RO225
Área = 618 mm <sup>2</sup>	Área = 618 mm <sup>2</sup>
Jx = 392911 mm <sup>4</sup>	Jx = 355914 mm <sup>4</sup>
Wx = 9974 mm <sup>3</sup>	Wx = 9590 mm <sup>3</sup>
<b>Jx total = 748825 mm<sup>4</sup></b>	

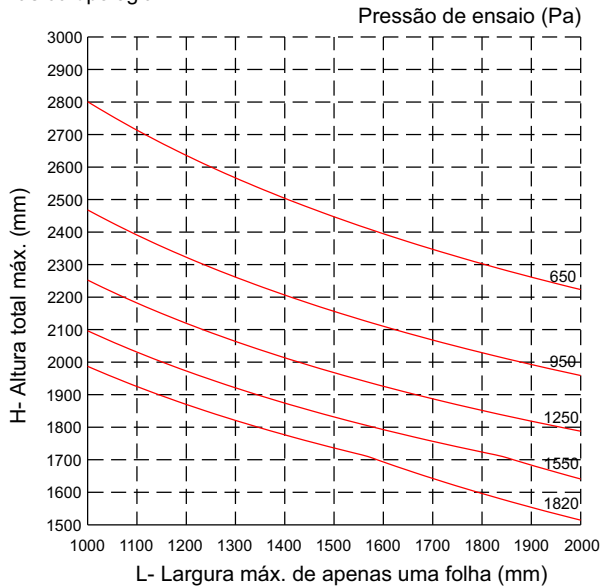
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Janela e porta de correr - 2, 3 e 4 planos

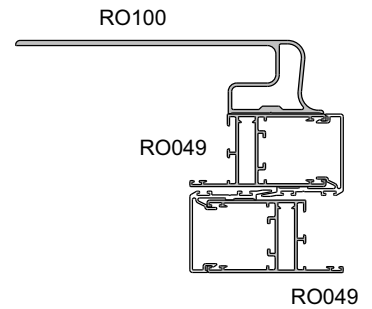
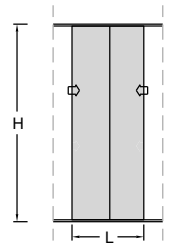
Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

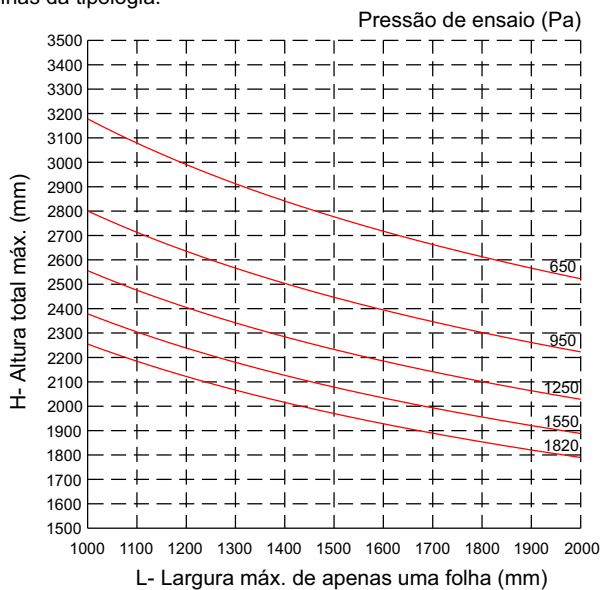


RO049	RO049	RO100
Área = 425 mm <sup>2</sup>	Área = 425 mm <sup>2</sup>	Área = 831 mm <sup>2</sup>
Jx = 125346 mm <sup>4</sup>	Jx = 125346 mm <sup>4</sup>	Jx = 214344 mm <sup>4</sup>
Wx = 5454 mm <sup>3</sup>	Wx = 5454 mm <sup>3</sup>	Wx = 10908 mm <sup>3</sup>
<b>Jx total = 465036 mm<sup>4</sup></b>		

## Janela e porta de correr - 2, 3 e 4 planos

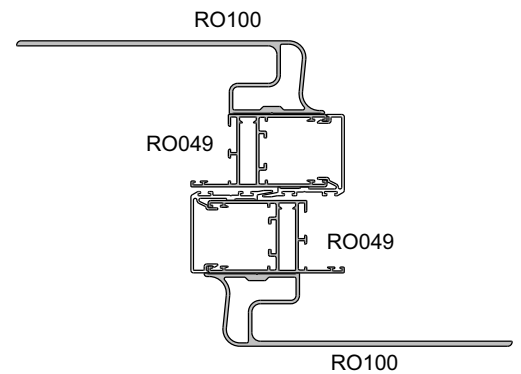
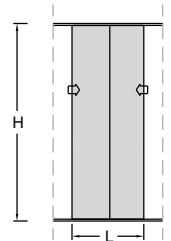
Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175



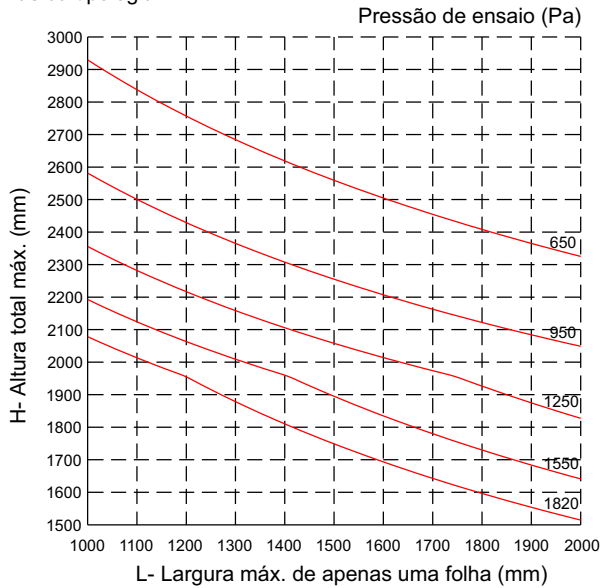
RO049	RO049	RO100	RO100
Área = 425 mm <sup>2</sup>	Área = 425 mm <sup>2</sup>	Área = 831 mm <sup>2</sup>	Área = 831 mm <sup>2</sup>
Jx = 125346 mm <sup>4</sup>	Jx = 125346 mm <sup>4</sup>	Jx = 214344 mm <sup>4</sup>	Jx = 214344 mm <sup>4</sup>
Wx = 5454 mm <sup>3</sup>	Wx = 5454 mm <sup>3</sup>	Wx = 10908 mm <sup>3</sup>	Wx = 10908 mm <sup>3</sup>
<b>Jx total = 679380 mm<sup>4</sup></b>			



## Janela e porta de correr - 2, 3 e 4 planos

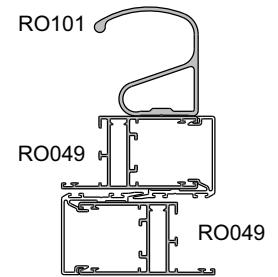
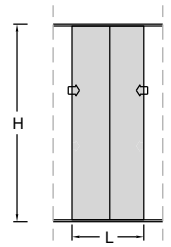
Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

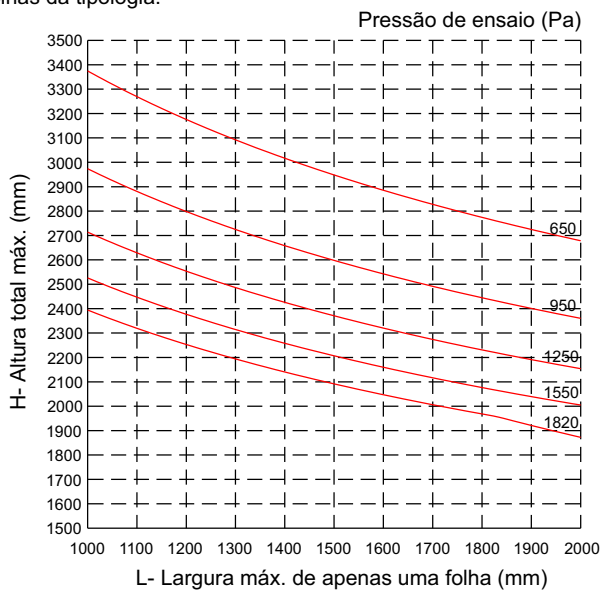


RO049	RO049	RO101
Área = 425 mm <sup>2</sup>	Área = 425 mm <sup>2</sup>	Área = 550 mm <sup>2</sup>
Jx = 125346 mm <sup>4</sup>	Jx = 125346 mm <sup>4</sup>	Jx = 281259 mm <sup>4</sup>
Wx = 5454 mm <sup>3</sup>	Wx = 5454 mm <sup>3</sup>	Wx = 8277 mm <sup>3</sup>
<b>Jx total = 531951 mm<sup>4</sup></b>		

## Janela e porta de correr - 2, 3 e 4 planos

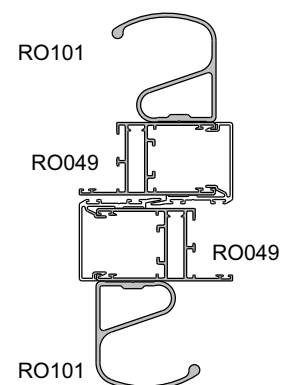
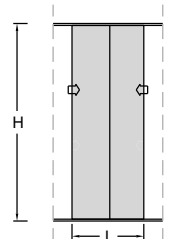
Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

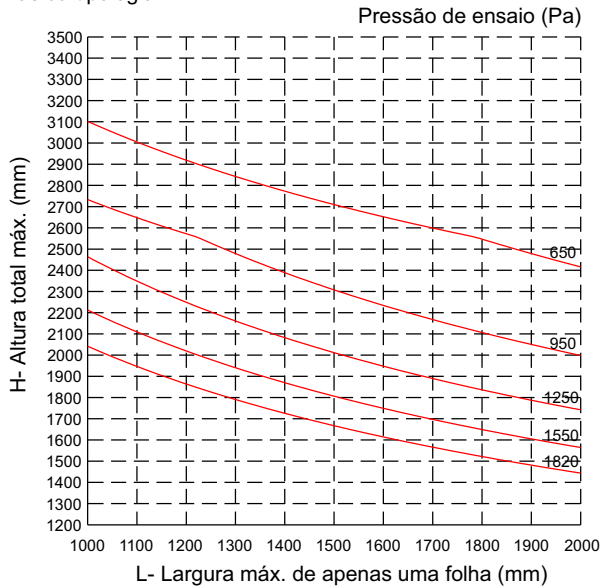


RO049	RO049	RO101	RO101
Área = 425 mm <sup>2</sup>	Área = 425 mm <sup>2</sup>	Área = 550 mm <sup>2</sup>	Área = 550 mm <sup>2</sup>
Jx = 125346 mm <sup>4</sup>	Jx = 125346 mm <sup>4</sup>	Jx = 281259 mm <sup>4</sup>	Jx = 281259 mm <sup>4</sup>
Wx = 5454 mm <sup>3</sup>	Wx = 5454 mm <sup>3</sup>	Wx = 8277 mm <sup>3</sup>	Wx = 8277 mm <sup>3</sup>
<b>Jx total = 813210 mm<sup>4</sup></b>			

## Janela e porta de correr - 2, 3 e 4 planos

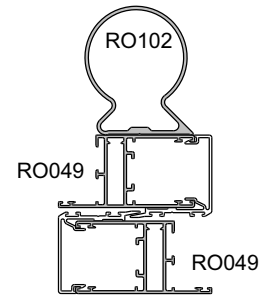
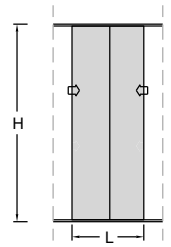
Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

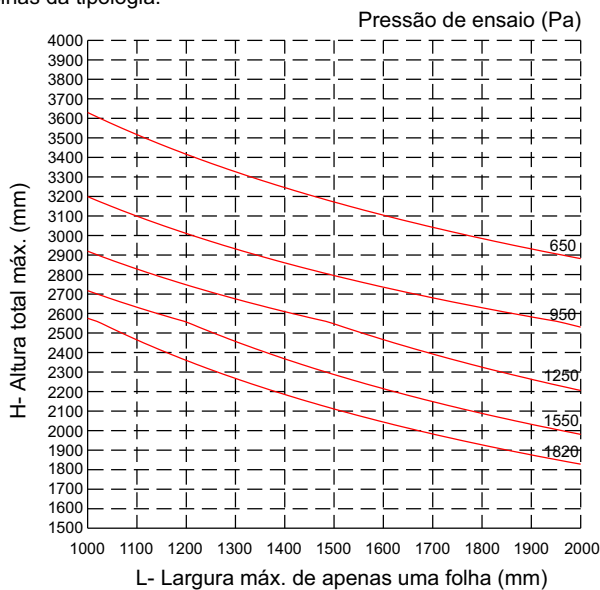


RO049	RO049	RO102
Área = 425 mm <sup>2</sup>	Área = 425 mm <sup>2</sup>	Área = 538 mm <sup>2</sup>
Jx = 125346 mm <sup>4</sup>	Jx = 125346 mm <sup>4</sup>	Jx = 380871 mm <sup>4</sup>
Wx = 5454 mm <sup>3</sup>	Wx = 5454 mm <sup>3</sup>	Wx = 8580 mm <sup>3</sup>
<b>Jx total = 631563 mm<sup>4</sup></b>		

## Janela e porta de correr - 2, 3 e 4 planos

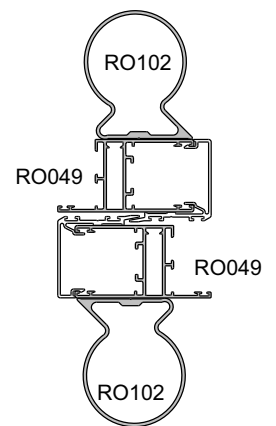
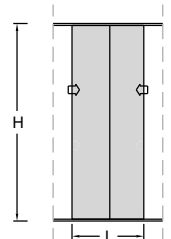
Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

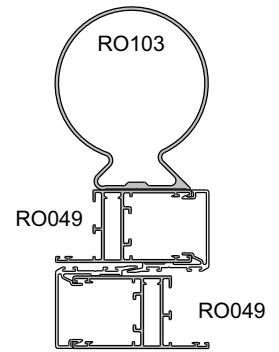
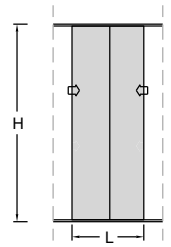
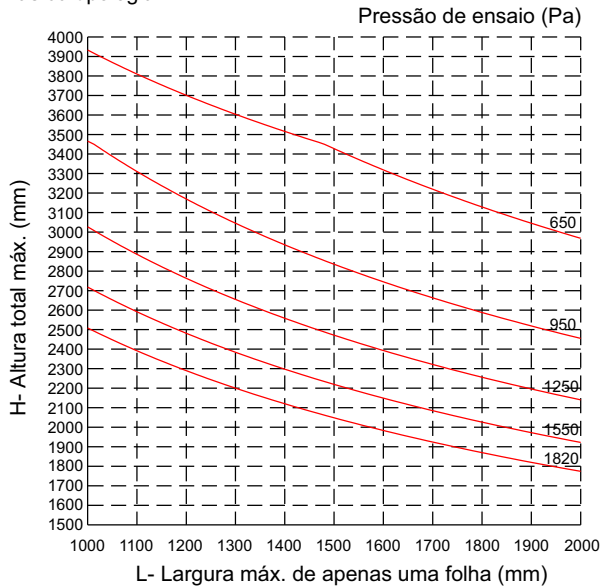


RO049	RO049	RO102	RO102
Área = 425 mm <sup>2</sup>	Área = 425 mm <sup>2</sup>	Área = 538 mm <sup>2</sup>	Área = 538 mm <sup>2</sup>
Jx = 125346 mm <sup>4</sup>	Jx = 125346 mm <sup>4</sup>	Jx = 380871 mm <sup>4</sup>	Jx = 380871 mm <sup>4</sup>
Wx = 5454 mm <sup>3</sup>	Wx = 5454 mm <sup>3</sup>	Wx = 8580 mm <sup>3</sup>	Wx = 8580 mm <sup>3</sup>
<b>Jx total = 1012434 mm<sup>4</sup></b>			

## Janela e porta de correr - 2, 3 e 4 planos

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO049	RO049	RO103
Área = 425 mm <sup>2</sup>	Área = 425 mm <sup>2</sup>	Área = 729 mm <sup>2</sup>
Jx = 125346 mm <sup>4</sup>	Jx = 125346 mm <sup>4</sup>	Jx = 1036646 mm <sup>4</sup>
Wx = 5454 mm <sup>3</sup>	Wx = 5454 mm <sup>3</sup>	Wx = 10908 mm <sup>3</sup>
<b>Jx total = 1287338 mm<sup>4</sup></b>		

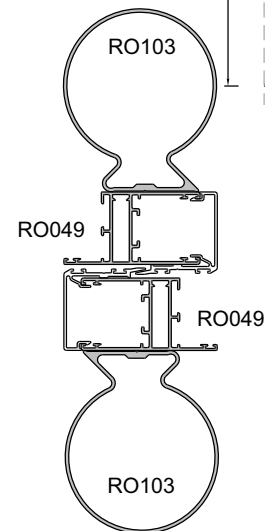
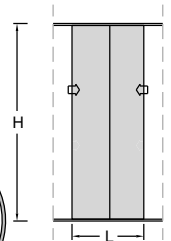
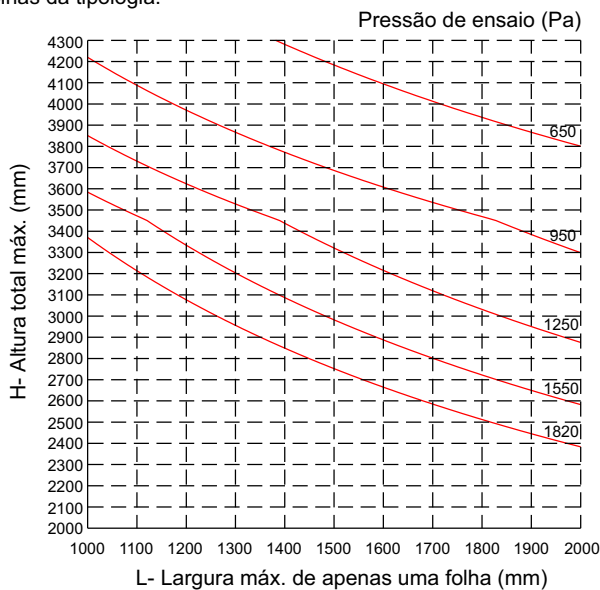
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Janela e porta de correr - 2, 3 e 4 planos

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO049	RO049	RO103	RO103
Área = 425 mm <sup>2</sup>	Área = 425 mm <sup>2</sup>	Área = 729 mm <sup>2</sup>	Área = 729 mm <sup>2</sup>
Jx = 125346 mm <sup>4</sup>	Jx = 125346 mm <sup>4</sup>	Jx = 1036646 mm <sup>4</sup>	Jx = 1036646 mm <sup>4</sup>
Wx = 5454 mm <sup>3</sup>	Wx = 5454 mm <sup>3</sup>	Wx = 10908 mm <sup>3</sup>	Wx = 10908 mm <sup>3</sup>
<b>Jx total = 2323984 mm<sup>4</sup></b>			

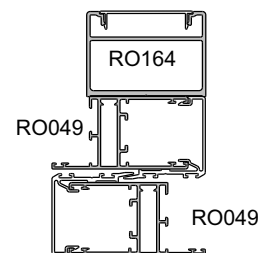
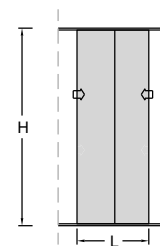
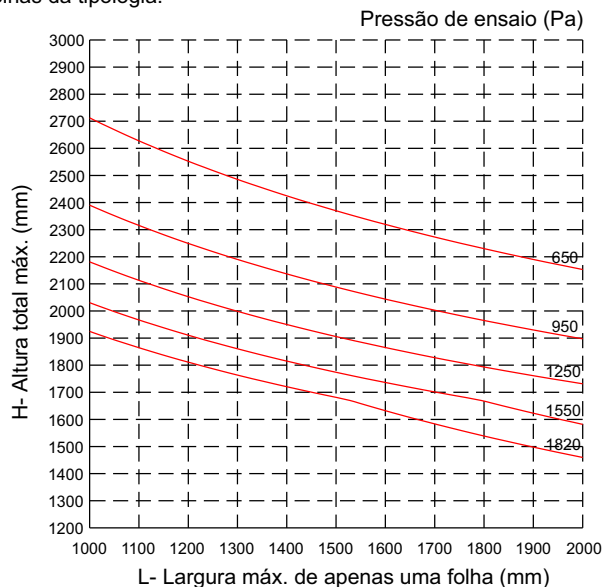
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Janela e porta de correr - 2, 3 e 4 planos

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO049	RO049	RO164
Área = 425 mm <sup>2</sup>	Área = 425 mm <sup>2</sup>	Área = 579 mm <sup>2</sup>
Jx = 125346 mm <sup>4</sup>	Jx = 125346 mm <sup>4</sup>	Jx = 171680 mm <sup>4</sup>
Wx = 5454 mm <sup>3</sup>	Wx = 5454 mm <sup>3</sup>	Wx = 5911 mm <sup>3</sup>
<b>Jx total = 422372 mm<sup>4</sup></b>		

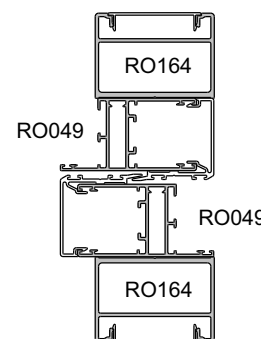
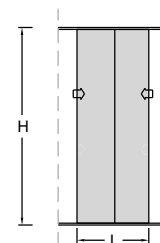
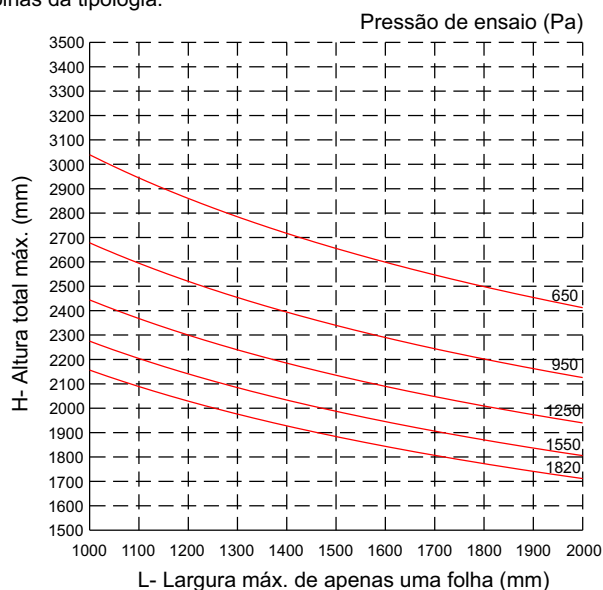
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Janela e porta de correr - 2, 3 e 4 planos

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO049	RO049	RO164	RO164
Área = 425 mm <sup>2</sup>	Área = 425 mm <sup>2</sup>	Área = 579 mm <sup>2</sup>	Área = 579 mm <sup>2</sup>
Jx = 125346 mm <sup>4</sup>	Jx = 125346 mm <sup>4</sup>	Jx = 171680 mm <sup>4</sup>	Jx = 171680 mm <sup>4</sup>
Wx = 5454 mm <sup>3</sup>	Wx = 5454 mm <sup>3</sup>	Wx = 5911 mm <sup>3</sup>	Wx = 5911 mm <sup>3</sup>
<b>Jx total = 594052 mm<sup>4</sup></b>			

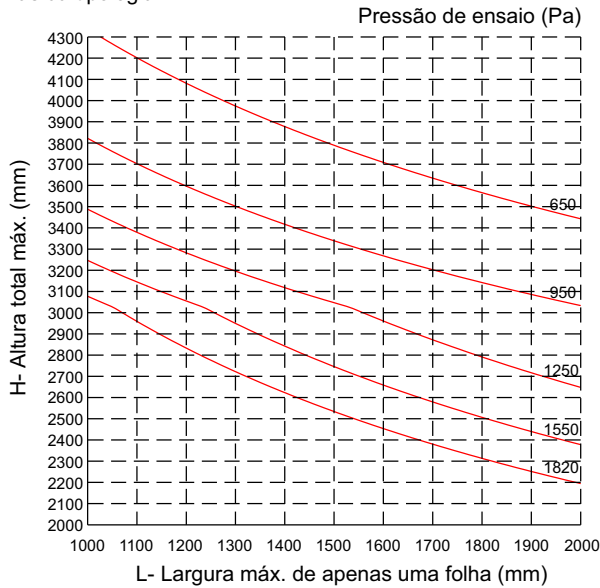
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Janela e porta de correr - 2, 3 e 4 planos

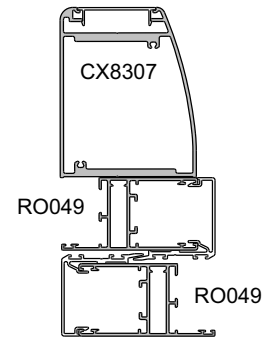
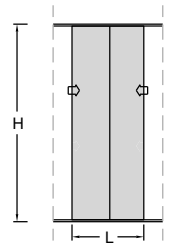
Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

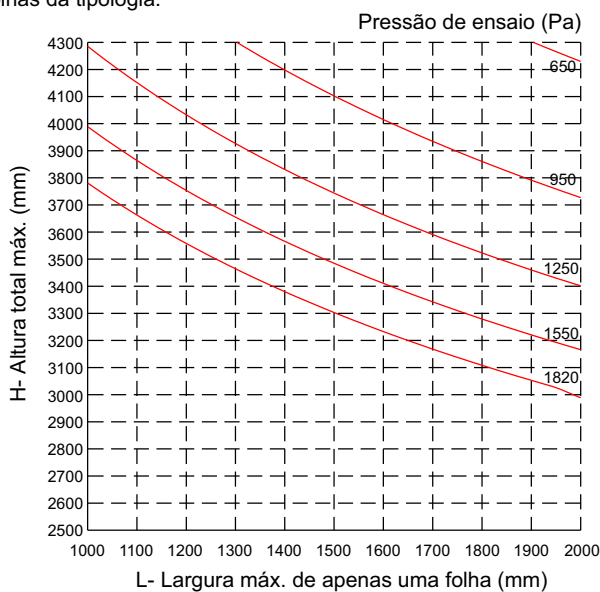


RO049	RO049	CX8307
Área = 425 mm <sup>2</sup>	Área = 425 mm <sup>2</sup>	Área = 1078 mm <sup>2</sup>
Jx = 125346 mm <sup>4</sup>	Jx = 125346 mm <sup>4</sup>	Jx = 1476021 mm <sup>4</sup>
Wx = 5454 mm <sup>3</sup>	Wx = 5454 mm <sup>3</sup>	Wx = 28098 mm <sup>3</sup>
<b>Jx total = 1726713 mm<sup>4</sup></b>		

## Janela e porta de correr - 2, 3 e 4 planos

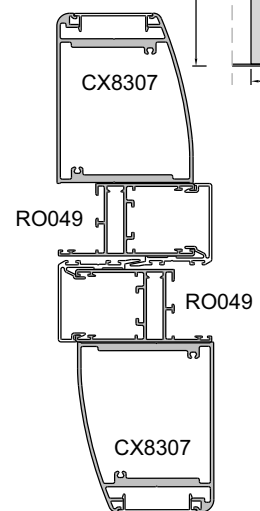
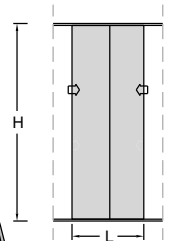
Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

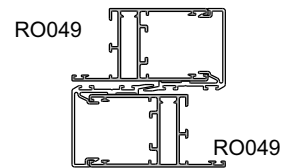
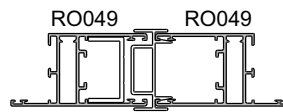
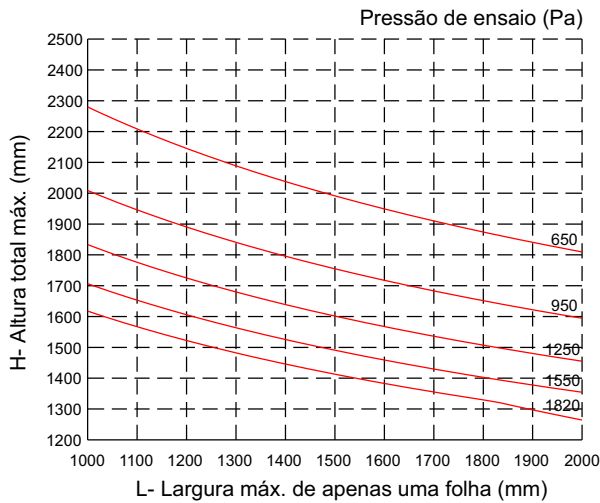
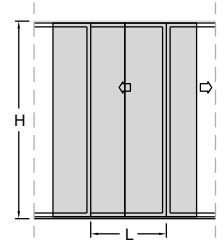


RO049	RO049	CX8307	CX8307
Área = 425 mm <sup>2</sup>	Área = 425 mm <sup>2</sup>	Área = 1078 mm <sup>2</sup>	Área = 1078 mm <sup>2</sup>
Jx = 125346 mm <sup>4</sup>	Jx = 125346 mm <sup>4</sup>	Jx = 1476021 mm <sup>4</sup>	Jx = 1476021 mm <sup>4</sup>
Wx = 5454 mm <sup>3</sup>	Wx = 5454 mm <sup>3</sup>	Wx = 28098 mm <sup>3</sup>	Wx = 28098 mm <sup>3</sup>
<b>Jx total = 3202734 mm<sup>4</sup></b>			

## Janela e porta de correr - 2 e 3 planos com encontro central

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

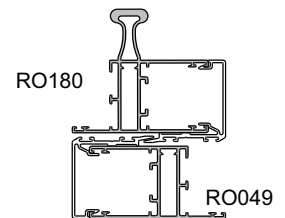
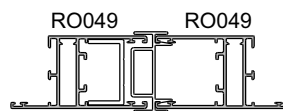
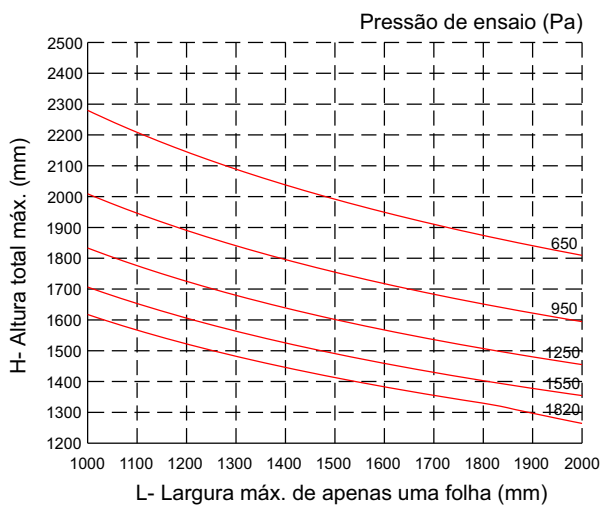
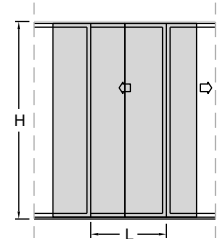
Flecha admissível = H / 175

RO049	RO049	RO049	RO049
Área = 425 mm <sup>2</sup>	Área = 425 mm <sup>2</sup>	Área = 425 mm <sup>2</sup>	Área = 425 mm <sup>2</sup>
Jx = 125346 mm <sup>4</sup>	Jx = 125346 mm <sup>4</sup>	Jx = 125346 mm <sup>4</sup>	Jx = 125346 mm <sup>4</sup>
Wx = 5454 mm <sup>3</sup>	Wx = 5454 mm <sup>3</sup>	Wx = 5454 mm <sup>3</sup>	Wx = 5454 mm <sup>3</sup>
<b>Jx total = 250692 mm<sup>4</sup></b>		<b>Jx total = 250692 mm<sup>4</sup></b>	

## Janela e porta de correr - 2 e 3 planos com encontro central

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

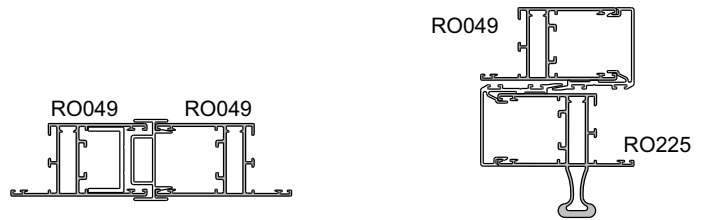
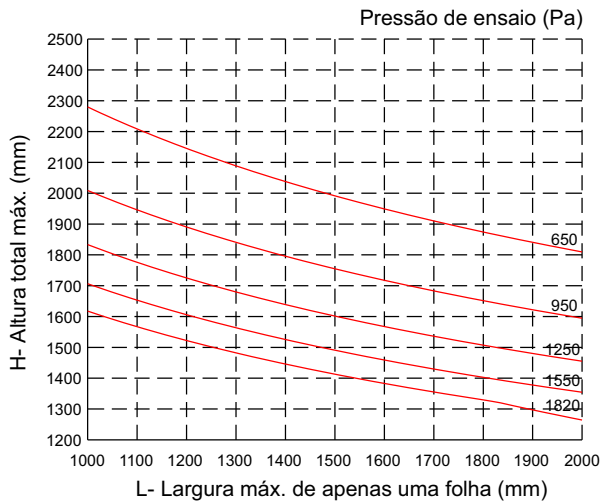
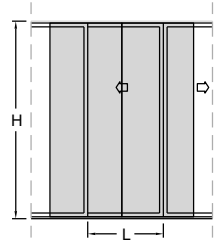
Flecha admissível = H / 175

RO049	RO049	RO049	RO180
Área = 425 mm <sup>2</sup>	Área = 425 mm <sup>2</sup>	Área = 425 mm <sup>2</sup>	Área = 618 mm <sup>2</sup>
Jx = 125346 mm <sup>4</sup>	Jx = 125346 mm <sup>4</sup>	Jx = 125346 mm <sup>4</sup>	Jx = 392911 mm <sup>4</sup>
Wx = 5454 mm <sup>3</sup>	Wx = 5454 mm <sup>3</sup>	Wx = 5454 mm <sup>3</sup>	Wx = 9974 mm <sup>3</sup>
<b>Jx total = 250692 mm<sup>4</sup></b>		<b>Jx total = 518257 mm<sup>4</sup></b>	

## Janela e porta de correr - 2 e 3 planos com encontro central

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO049	RO049	RO049	RO225
Área = 425 mm <sup>2</sup>	Área = 425 mm <sup>2</sup>	Área = 425 mm <sup>2</sup>	Área = 618 mm <sup>2</sup>
Jx = 125346 mm <sup>4</sup>	Jx = 125346 mm <sup>4</sup>	Jx = 125346 mm <sup>4</sup>	Jx = 355914 mm <sup>4</sup>
Wx = 5454 mm <sup>3</sup>	Wx = 5454 mm <sup>3</sup>	Wx = 5454 mm <sup>3</sup>	Wx = 9590 mm <sup>3</sup>
<b>Jx total = 250692 mm<sup>4</sup></b>		<b>Jx total = 481260 mm<sup>4</sup></b>	

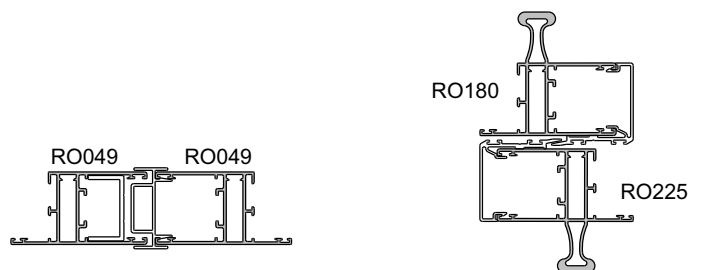
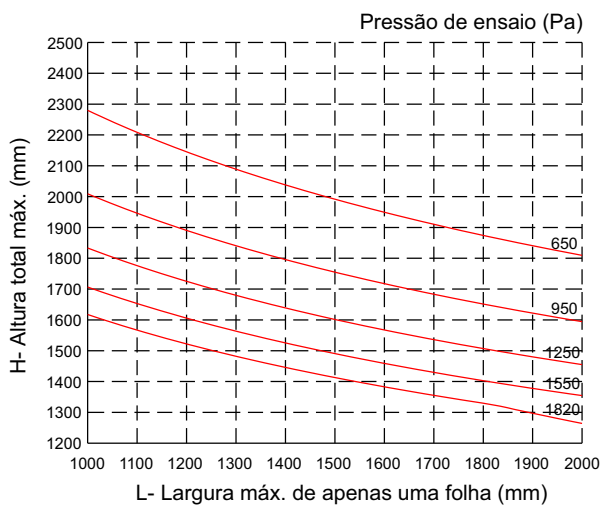
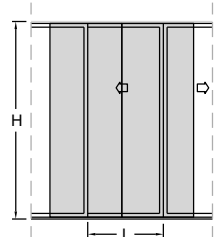
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Janela e porta de correr - 2 e 3 planos com encontro central

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO049	RO049	RO180	RO225
Área = 425 mm <sup>2</sup>	Área = 425 mm <sup>2</sup>	Área = 618 mm <sup>2</sup>	Área = 618 mm <sup>2</sup>
Jx = 125346 mm <sup>4</sup>	Jx = 125346 mm <sup>4</sup>	Jx = 392911 mm <sup>4</sup>	Jx = 355914 mm <sup>4</sup>
Wx = 5454 mm <sup>3</sup>	Wx = 5454 mm <sup>3</sup>	Wx = 9974 mm <sup>3</sup>	Wx = 9590 mm <sup>3</sup>
<b>Jx total = 250692 mm<sup>4</sup></b>		<b>Jx total = 748825 mm<sup>4</sup></b>	

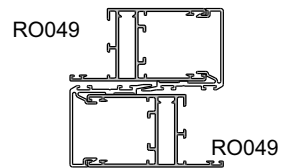
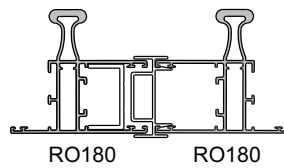
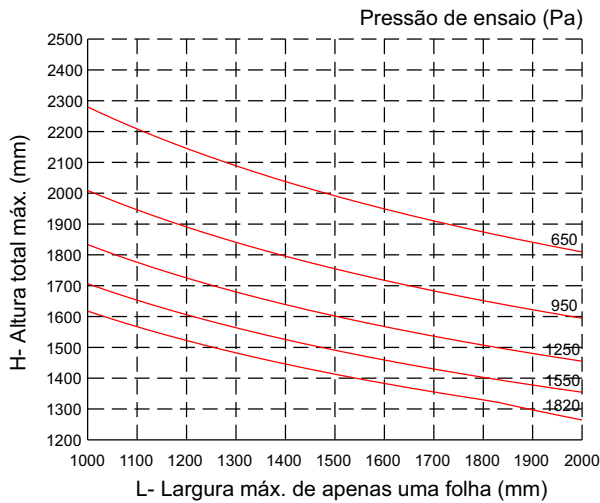
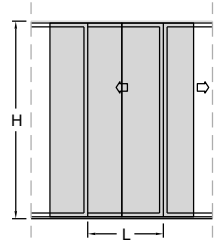
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Janela e porta de correr - 2 e 3 planos com encontro central

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

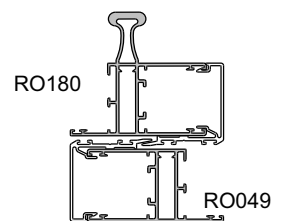
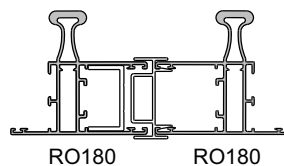
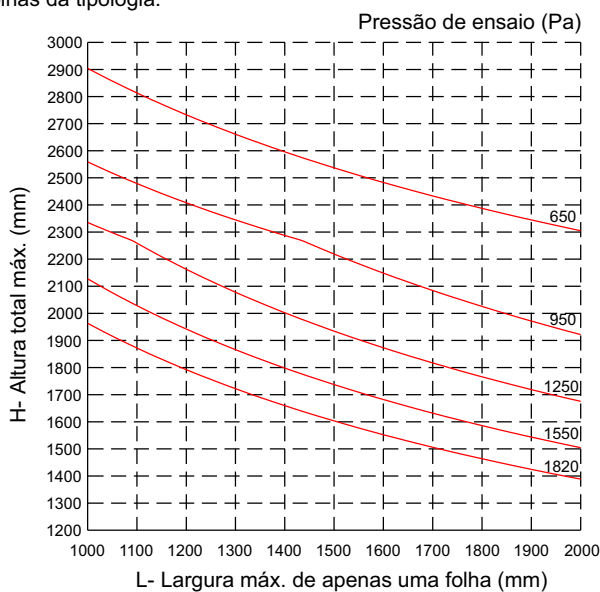
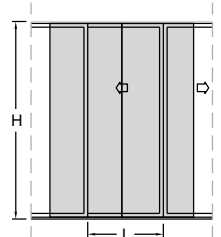
Flecha admissível = H / 175

RO180	RO180	RO049	RO049
Área = 618 mm <sup>2</sup>	Área = 618 mm <sup>2</sup>	Área = 425 mm <sup>2</sup>	Área = 425 mm <sup>2</sup>
Jx = 392911 mm <sup>4</sup>	Jx = 392911 mm <sup>4</sup>	Jx = 125346 mm <sup>4</sup>	Jx = 125346 mm <sup>4</sup>
Wx = 9974 mm <sup>3</sup>	Wx = 9974 mm <sup>3</sup>	Wx = 5454 mm <sup>3</sup>	Wx = 5454 mm <sup>3</sup>
<b>Jx total = 785822 mm<sup>4</sup></b>		<b>Jx total = 250692 mm<sup>4</sup></b>	

## Janela e porta de correr - 2 e 3 planos com encontro central

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

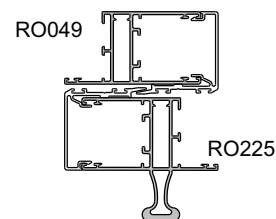
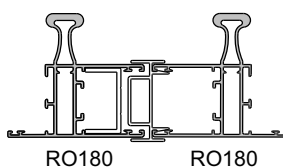
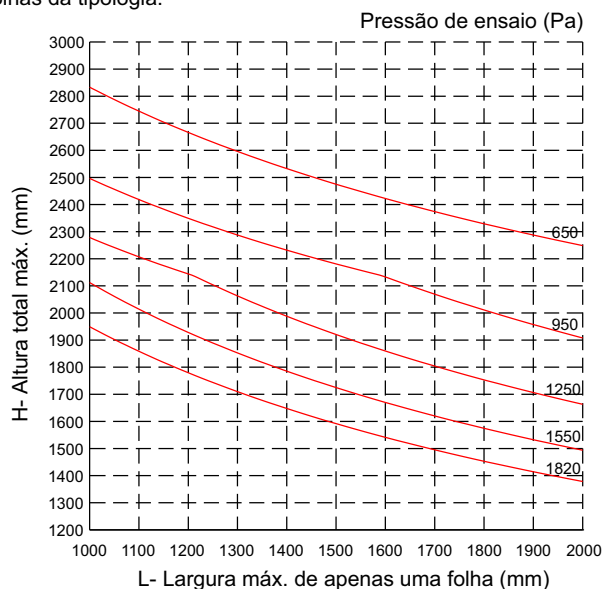
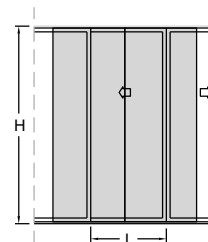
RO180	RO180	RO049	RO180
Área = 618 mm <sup>2</sup>	Área = 618 mm <sup>2</sup>	Área = 425 mm <sup>2</sup>	Área = 618 mm <sup>2</sup>
Jx = 392911 mm <sup>4</sup>	Jx = 392911 mm <sup>4</sup>	Jx = 125346 mm <sup>4</sup>	Jx = 392911 mm <sup>4</sup>
Wx = 9974 mm <sup>3</sup>	Wx = 9974 mm <sup>3</sup>	Wx = 5454 mm <sup>3</sup>	Wx = 9974 mm <sup>3</sup>
<b>Jx total = 785822 mm<sup>4</sup></b>		<b>Jx total = 518257 mm<sup>4</sup></b>	



## Janela e porta de correr - 2 e 3 planos com encontro central

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO180	RO180	RO049	RO225
Área = 618 mm <sup>2</sup>	Área = 618 mm <sup>2</sup>	Área = 425 mm <sup>2</sup>	Área = 618 mm <sup>2</sup>
Jx = 392911 mm <sup>4</sup>	Jx = 392911 mm <sup>4</sup>	Jx = 125346 mm <sup>4</sup>	Jx = 355914 mm <sup>4</sup>
Wx = 9974 mm <sup>3</sup>	Wx = 9974 mm <sup>3</sup>	Wx = 5454 mm <sup>3</sup>	Wx = 9590 mm <sup>3</sup>
<b>Jx total = 785822 mm<sup>4</sup></b>		<b>Jx total = 481260 mm<sup>4</sup></b>	

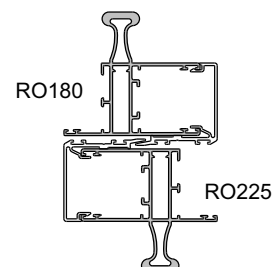
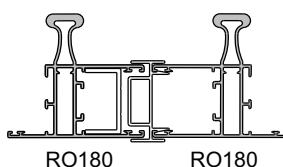
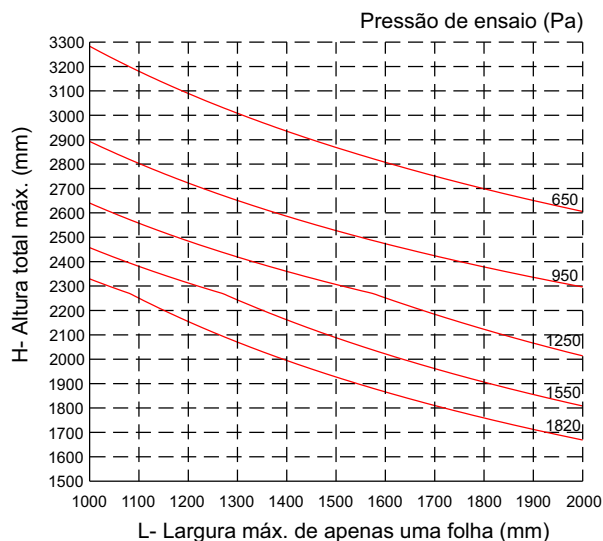
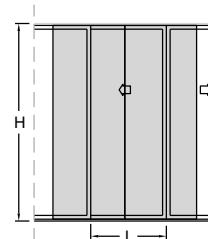
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Janela e porta de correr - 2 e 3 planos com encontro central

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO180	RO180	RO180	RO225
Área = 618 mm <sup>2</sup>	Área = 618 mm <sup>2</sup>	Área = 618 mm <sup>2</sup>	Área = 618 mm <sup>2</sup>
Jx = 392911 mm <sup>4</sup>	Jx = 392911 mm <sup>4</sup>	Jx = 392911 mm <sup>4</sup>	Jx = 355914 mm <sup>4</sup>
Wx = 9974 mm <sup>3</sup>	Wx = 9974 mm <sup>3</sup>	Wx = 9974 mm <sup>3</sup>	Wx = 9590 mm <sup>3</sup>
<b>Jx total = 785822 mm<sup>4</sup></b>		<b>Jx total = 748825 mm<sup>4</sup></b>	

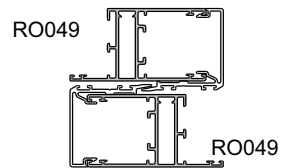
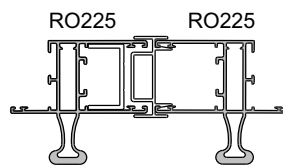
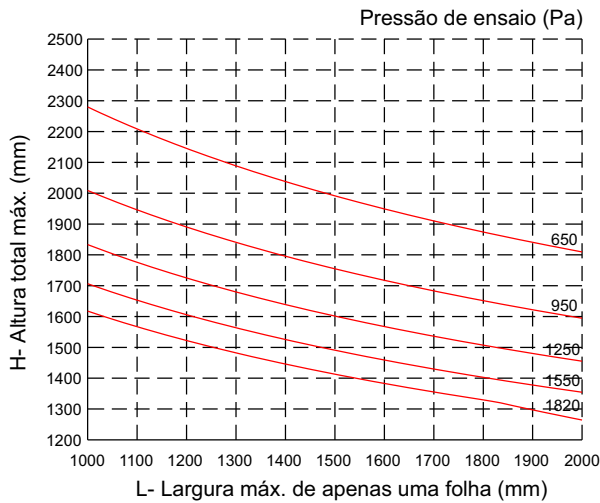
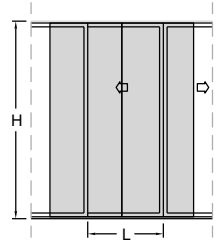
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Janela e porta de correr - 2 e 3 planos com encontro central

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO225	RO225	RO049	RO049
Área = 618 mm <sup>2</sup>	Área = 618 mm <sup>2</sup>	Área = 425 mm <sup>2</sup>	Área = 425 mm <sup>2</sup>
Jx = 355914 mm <sup>4</sup>	Jx = 355914 mm <sup>4</sup>	Jx = 125346 mm <sup>4</sup>	Jx = 125346 mm <sup>4</sup>
Wx = 9590 mm <sup>3</sup>	Wx = 9590 mm <sup>3</sup>	Wx = 5454 mm <sup>3</sup>	Wx = 5454 mm <sup>3</sup>
<b>Jx total = 711828 mm<sup>4</sup></b>		<b>Jx total = 250692 mm<sup>4</sup></b>	

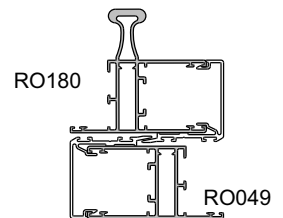
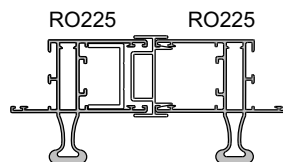
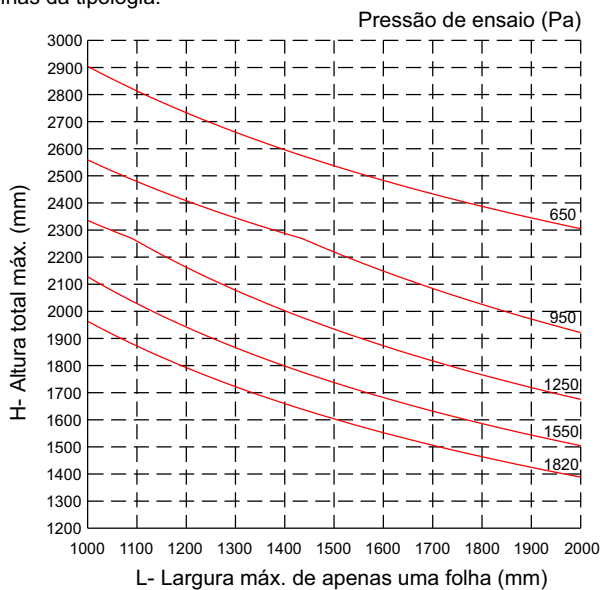
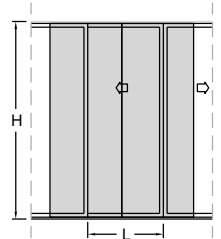
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Janela e porta de correr - 2 e 3 planos com encontro central

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO225	RO225	RO049	RO180
Área = 618 mm <sup>2</sup>	Área = 618 mm <sup>2</sup>	Área = 425 mm <sup>2</sup>	Área = 618 mm <sup>2</sup>
Jx = 355914 mm <sup>4</sup>	Jx = 355914 mm <sup>4</sup>	Jx = 125346 mm <sup>4</sup>	Jx = 392911 mm <sup>4</sup>
Wx = 9590 mm <sup>3</sup>	Wx = 9590 mm <sup>3</sup>	Wx = 5454 mm <sup>3</sup>	Wx = 9974 mm <sup>3</sup>
<b>Jx total = 711828 mm<sup>4</sup></b>		<b>Jx total = 518257 mm<sup>4</sup></b>	

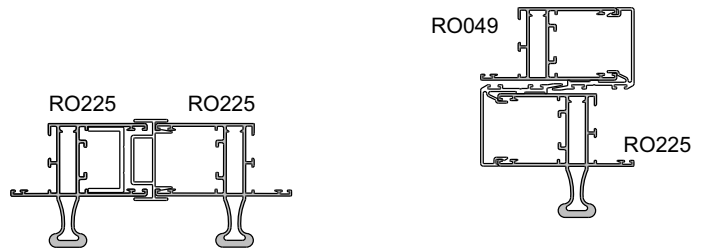
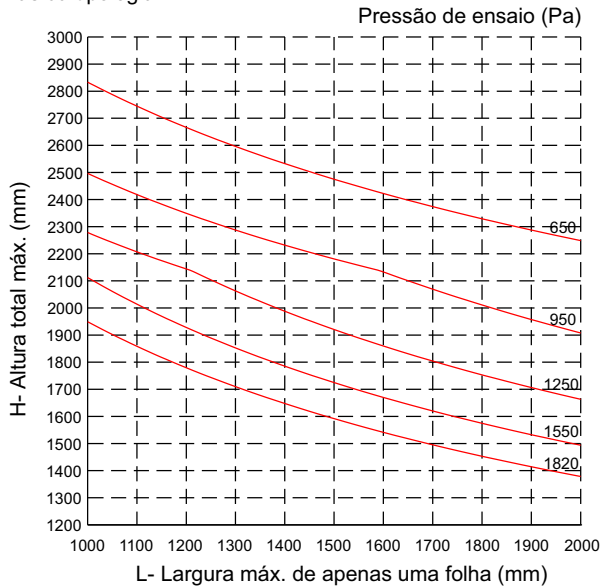
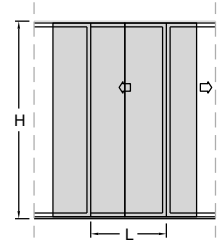
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Janela e porta de correr - 2 e 3 planos com encontro central

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO225	RO225	RO049	RO225
Área = 618 mm <sup>2</sup>	Área = 618 mm <sup>2</sup>	Área = 425 mm <sup>2</sup>	Área = 618 mm <sup>2</sup>
Jx = 355914 mm <sup>4</sup>	Jx = 355914 mm <sup>4</sup>	Jx = 125346 mm <sup>4</sup>	Jx = 355914 mm <sup>4</sup>
Wx = 9590 mm <sup>3</sup>	Wx = 9590 mm <sup>3</sup>	Wx = 5454 mm <sup>3</sup>	Wx = 9590 mm <sup>3</sup>
<b>Jx total = 711828 mm<sup>4</sup></b>		<b>Jx total = 481260 mm<sup>4</sup></b>	

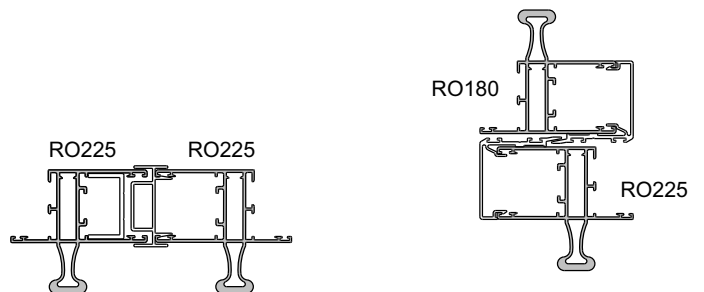
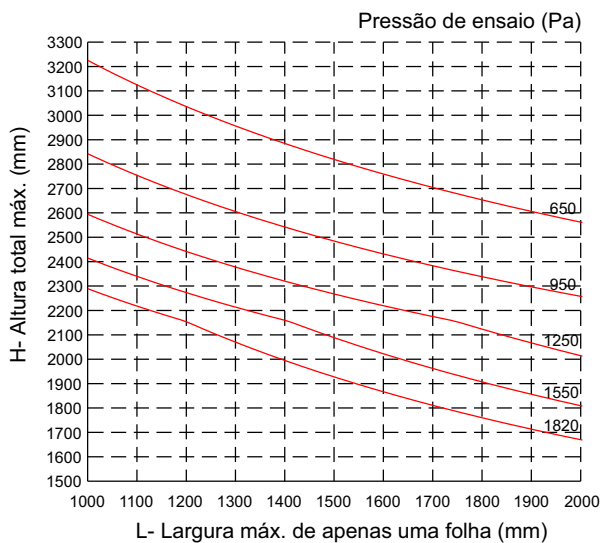
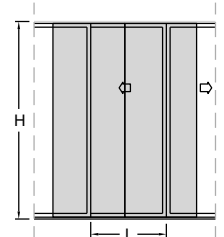
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Janela e porta de correr - 2 e 3 planos com encontro central

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO225	RO225	RO180	RO225
Área = 618 mm <sup>2</sup>	Área = 618 mm <sup>2</sup>	Área = 618 mm <sup>2</sup>	Área = 618 mm <sup>2</sup>
Jx = 355914 mm <sup>4</sup>	Jx = 355914 mm <sup>4</sup>	Jx = 392911 mm <sup>4</sup>	Jx = 355914 mm <sup>4</sup>
Wx = 9590 mm <sup>3</sup>	Wx = 9590 mm <sup>3</sup>	Wx = 9974 mm <sup>3</sup>	Wx = 9590 mm <sup>3</sup>
<b>Jx total = 711828 mm<sup>4</sup></b>		<b>Jx total = 748825 mm<sup>4</sup></b>	

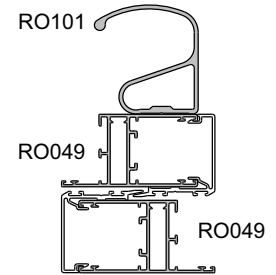
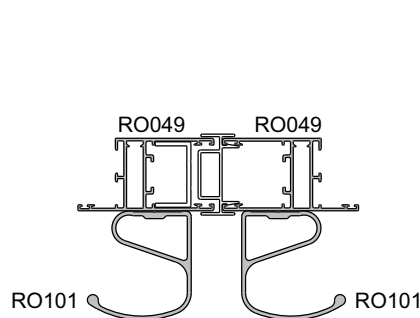
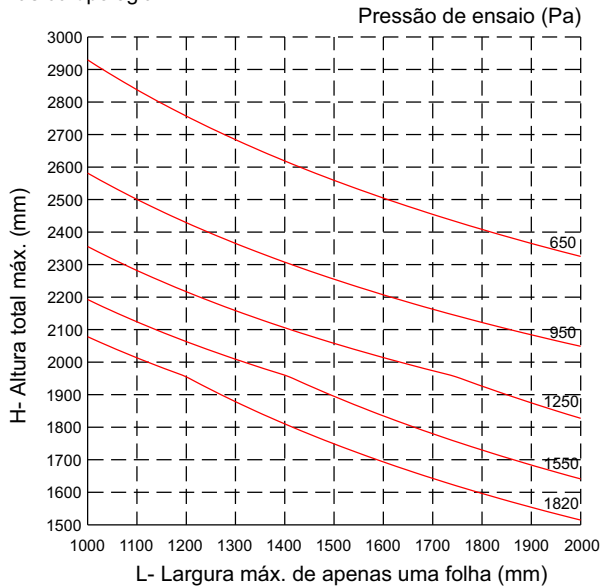
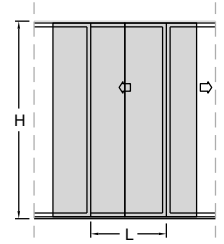
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Janela e porta de correr - 2 e 3 planos com encontro central

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

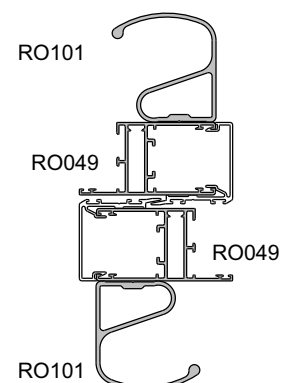
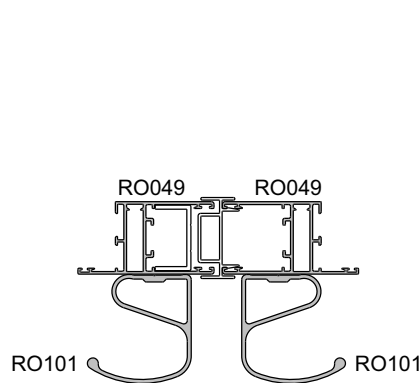
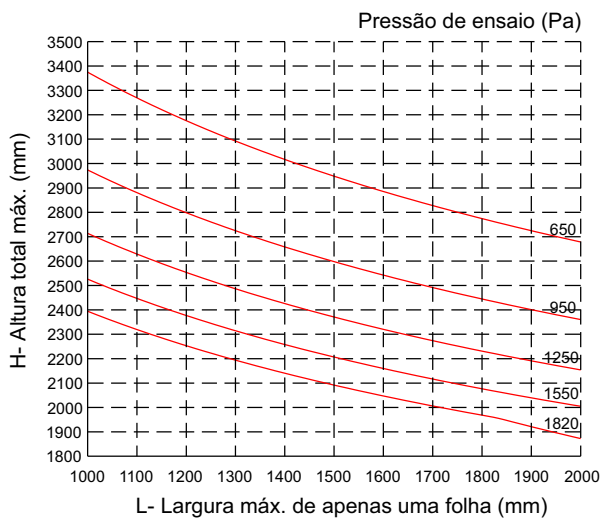
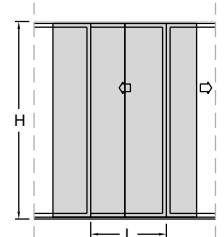
Flecha admissível = H / 175

RO049 (2x)	RO101 (2x)	RO049 (2x)	RO101 (1x)
Área = 850 mm <sup>2</sup>	Área = 1100 mm <sup>2</sup>	Área = 850 mm <sup>2</sup>	Área = 550 mm <sup>2</sup>
Jx = 250692 mm <sup>4</sup>	Jx = 562518 mm <sup>4</sup>	Jx = 250692 mm <sup>4</sup>	Jx = 281259 mm <sup>4</sup>
Wx = 10908 mm <sup>3</sup>	Wx = 16554 mm <sup>3</sup>	Wx = 10908 mm <sup>3</sup>	Wx = 8277 mm <sup>3</sup>
<b>Jx total = 813210 mm<sup>4</sup></b>		<b>Jx total = 531951 mm<sup>4</sup></b>	

## Janela e porta de correr - 2 e 3 planos com encontro central

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

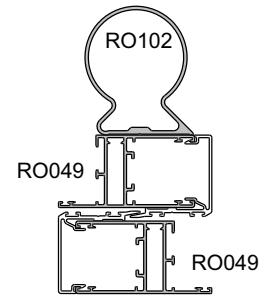
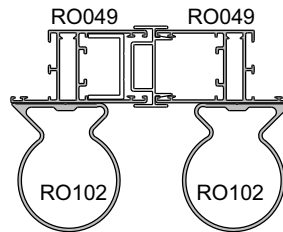
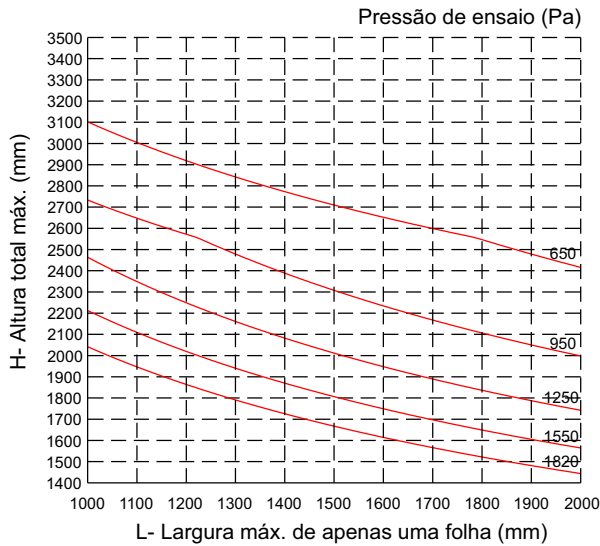
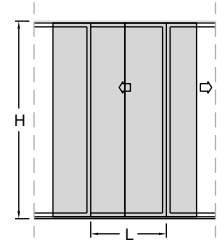
Flecha admissível = H / 175

RO049 (2x)	RO101 (2x)	RO049 (2x)	RO101 (2x)
Área = 850 mm <sup>2</sup>	Área = 1100 mm <sup>2</sup>	Área = 850 mm <sup>2</sup>	Área = 1100 mm <sup>2</sup>
Jx = 250692 mm <sup>4</sup>	Jx = 562518 mm <sup>4</sup>	Jx = 250692 mm <sup>4</sup>	Jx = 562518 mm <sup>4</sup>
Wx = 10908 mm <sup>3</sup>	Wx = 16554 mm <sup>3</sup>	Wx = 10908 mm <sup>3</sup>	Wx = 16554 mm <sup>3</sup>
<b>Jx total = 813210 mm<sup>4</sup></b>		<b>Jx total = 813210 mm<sup>4</sup></b>	

## Porta de correr - 2 e 3 planos com encontro central

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO049 (2x)	RO102 (2x)	RO049 (2x)	RO102 (1x)
Área = 850 mm <sup>2</sup>	Área = 1076 mm <sup>2</sup>	Área = 850 mm <sup>2</sup>	Área = 538 mm <sup>2</sup>
Jx = 250692 mm <sup>4</sup>	Jx = 761742 mm <sup>4</sup>	Jx = 250692 mm <sup>4</sup>	Jx = 380871 mm <sup>4</sup>
Wx = 10908 mm <sup>3</sup>	Wx = 17160 mm <sup>3</sup>	Wx = 10908 mm <sup>3</sup>	Wx = 8580 mm <sup>3</sup>
<b>Jx total = 1012434 mm<sup>4</sup></b>		<b>Jx total = 631563 mm<sup>4</sup></b>	

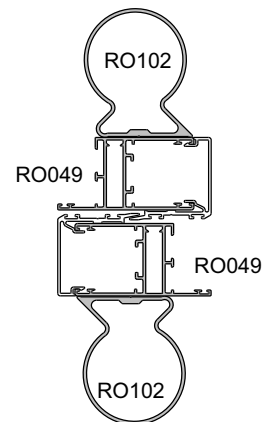
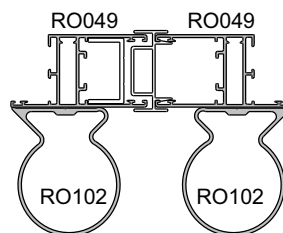
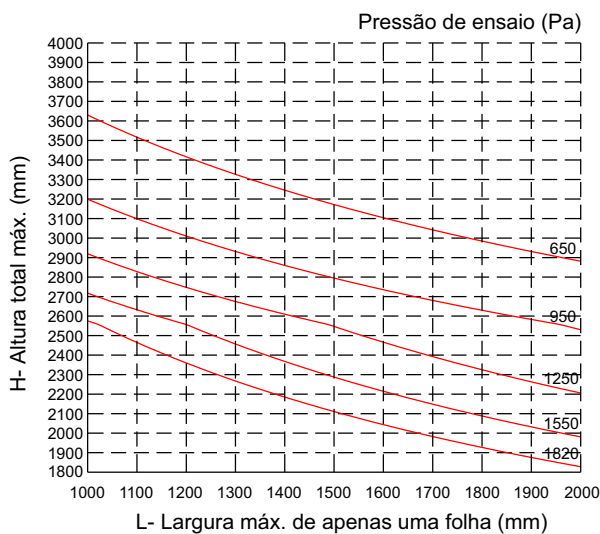
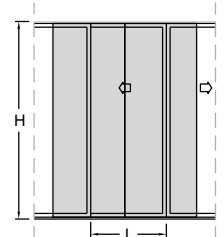
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Porta de correr - 2 e 3 planos com encontro central

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO049 (2x)	RO102 (2x)	RO049 (2x)	RO102 (2x)
Área = 850 mm <sup>2</sup>	Área = 1076 mm <sup>2</sup>	Área = 850 mm <sup>2</sup>	Área = 1076 mm <sup>2</sup>
Jx = 250692 mm <sup>4</sup>	Jx = 761742 mm <sup>4</sup>	Jx = 250692 mm <sup>4</sup>	Jx = 761742 mm <sup>4</sup>
Wx = 10908 mm <sup>3</sup>	Wx = 17160 mm <sup>3</sup>	Wx = 10908 mm <sup>3</sup>	Wx = 17160 mm <sup>3</sup>
<b>Jx total = 1012434 mm<sup>4</sup></b>		<b>Jx total = 1012434 mm<sup>4</sup></b>	

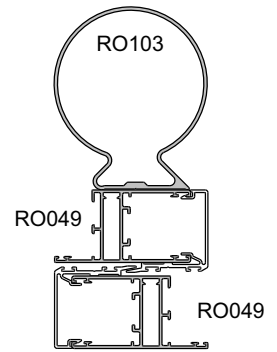
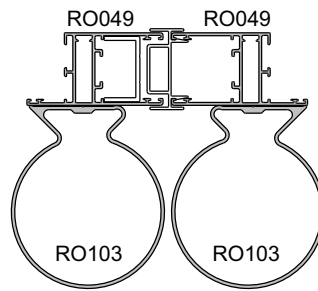
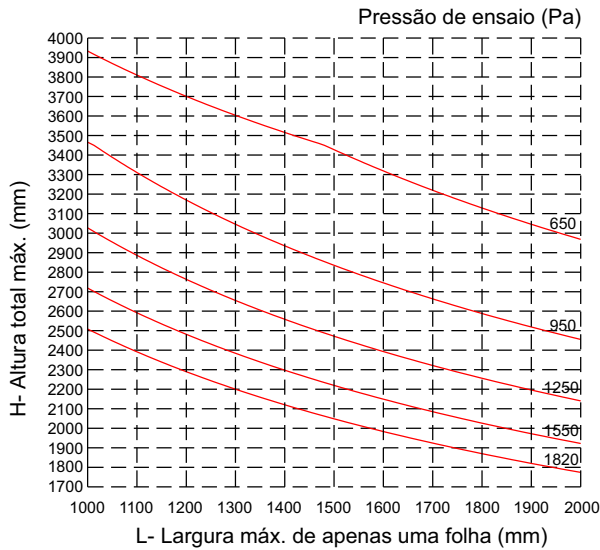
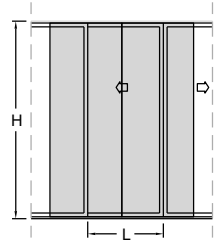
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Porta de correr - 2 e 3 planos com encontro central

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO049 (2x)	RO103 (2x)	RO049 (2x)	RO103 (1x)
Área = 850 mm <sup>2</sup>	Área = 1458 mm <sup>2</sup>	Área = 850 mm <sup>2</sup>	Área = 729 mm <sup>2</sup>
Jx = 250692 mm <sup>4</sup>	Jx = 2073292 mm <sup>4</sup>	Jx = 250692 mm <sup>4</sup>	Jx = 1036646 mm <sup>4</sup>
Wx = 10908 mm <sup>3</sup>	Wx = 21816 mm <sup>3</sup>	Wx = 10908 mm <sup>3</sup>	Wx = 10908 mm <sup>3</sup>
<b>Jx total = 2323984 mm<sup>4</sup></b>		<b>Jx total = 1287338 mm<sup>4</sup></b>	

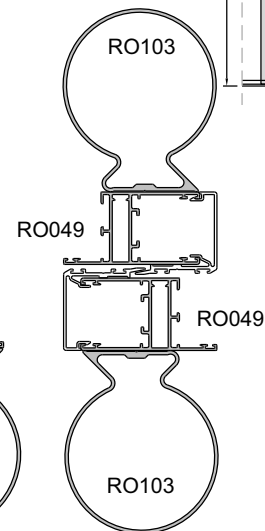
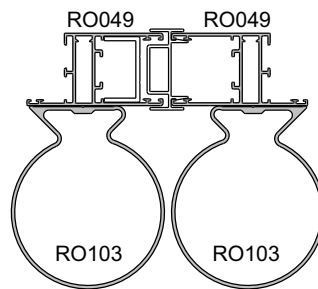
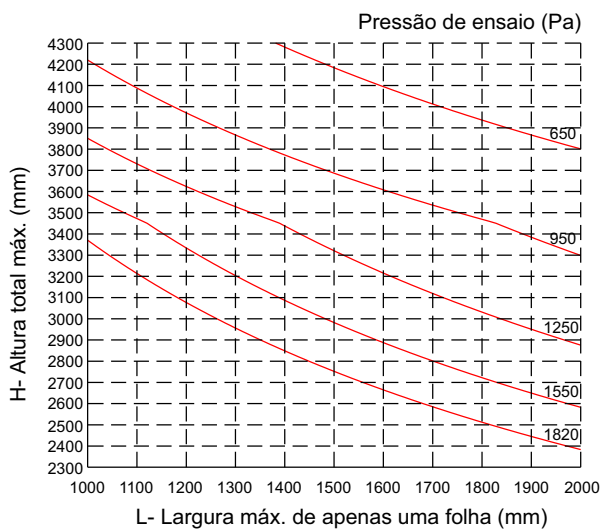
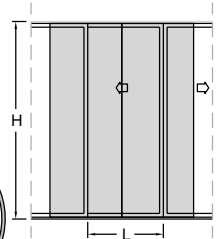
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Porta de correr - 2 e 3 planos com encontro central

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO049 (2x)	RO103 (2x)	RO049 (2x)	RO103 (2x)
Área = 850 mm <sup>2</sup>	Área = 1458 mm <sup>2</sup>	Área = 850 mm <sup>2</sup>	Área = 1458 mm <sup>2</sup>
Jx = 250692 mm <sup>4</sup>	Jx = 2073292 mm <sup>4</sup>	Jx = 250692 mm <sup>4</sup>	Jx = 2073292 mm <sup>4</sup>
Wx = 10908 mm <sup>3</sup>	Wx = 21816 mm <sup>3</sup>	Wx = 10908 mm <sup>3</sup>	Wx = 21816 mm <sup>3</sup>
<b>Jx total = 2323984 mm<sup>4</sup></b>		<b>Jx total = 2323984 mm<sup>4</sup></b>	

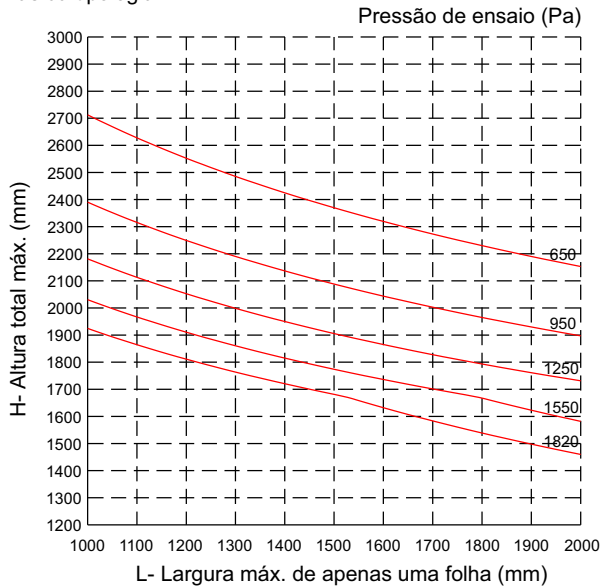
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Porta de correr - 2 e 3 planos com encontro central

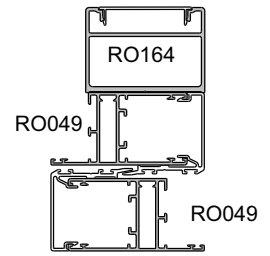
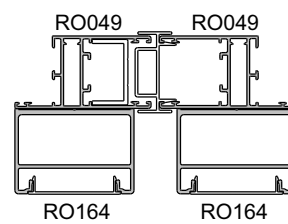
Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

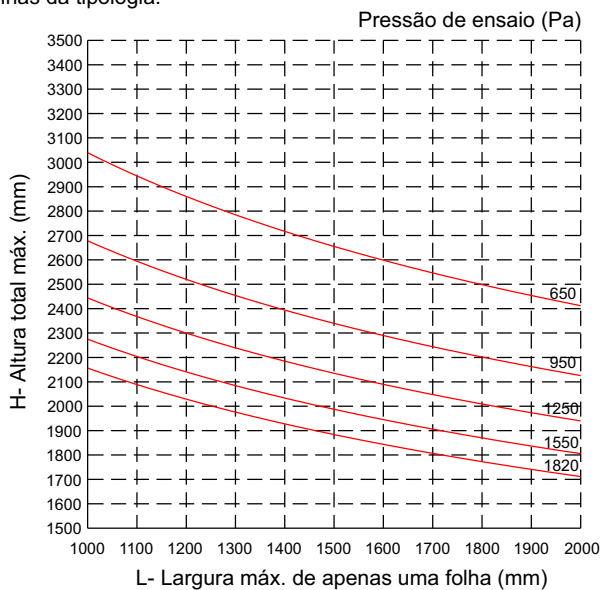


RO049 (2x)	RO164 (2x)	RO049 (2x)	RO164 (1x)
Área = 850 mm <sup>2</sup>	Área = 1158 mm <sup>2</sup>	Área = 850 mm <sup>2</sup>	Área = 579 mm <sup>2</sup>
Jx = 250692 mm <sup>4</sup>	Jx = 343360 mm <sup>4</sup>	Jx = 250692 mm <sup>4</sup>	Jx = 171680 mm <sup>4</sup>
Wx = 10908 mm <sup>3</sup>	Wx = 11822 mm <sup>3</sup>	Wx = 10908 mm <sup>3</sup>	Wx = 5911 mm <sup>3</sup>
<b>Jx total = 594052 mm<sup>4</sup></b>		<b>Jx total = 422372 mm<sup>4</sup></b>	

## Porta de correr - 2 e 3 planos com encontro central

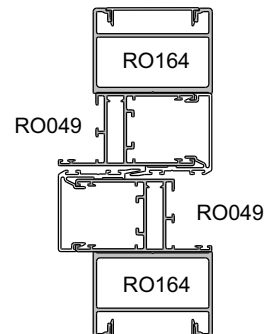
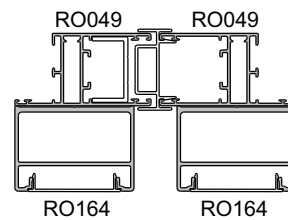
Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

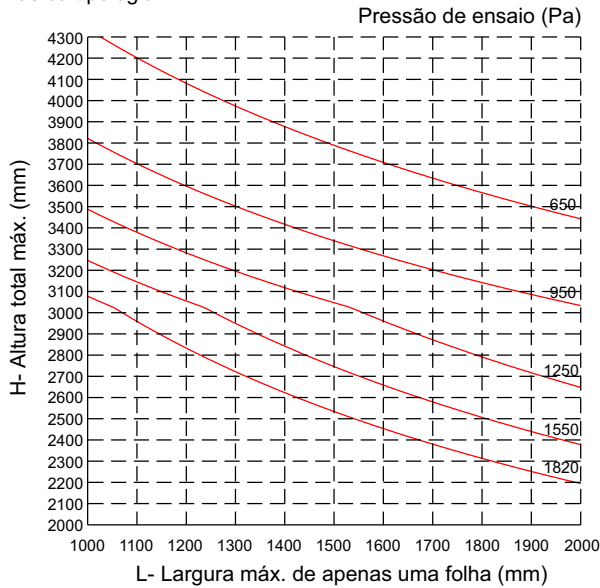


RO049 (2x)	RO164 (2x)	RO049 (2x)	RO164 (2x)
Área = 850 mm <sup>2</sup>	Área = 1158 mm <sup>2</sup>	Área = 850 mm <sup>2</sup>	Área = 1158 mm <sup>2</sup>
Jx = 250692 mm <sup>4</sup>	Jx = 343360 mm <sup>4</sup>	Jx = 250692 mm <sup>4</sup>	Jx = 343360 mm <sup>4</sup>
Wx = 10908 mm <sup>3</sup>	Wx = 11822 mm <sup>3</sup>	Wx = 10908 mm <sup>3</sup>	Wx = 11822 mm <sup>3</sup>
<b>Jx total = 594052 mm<sup>4</sup></b>		<b>Jx total = 594052 mm<sup>4</sup></b>	

## Porta de correr - 2 e 3 planos com encontro central

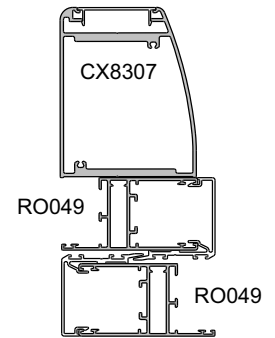
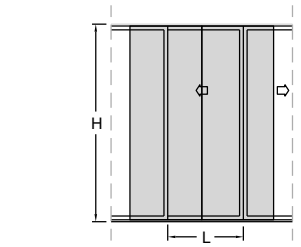
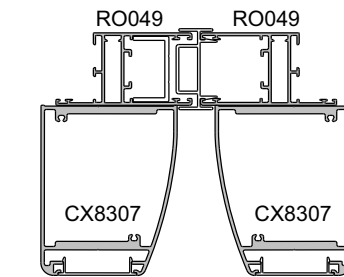
Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

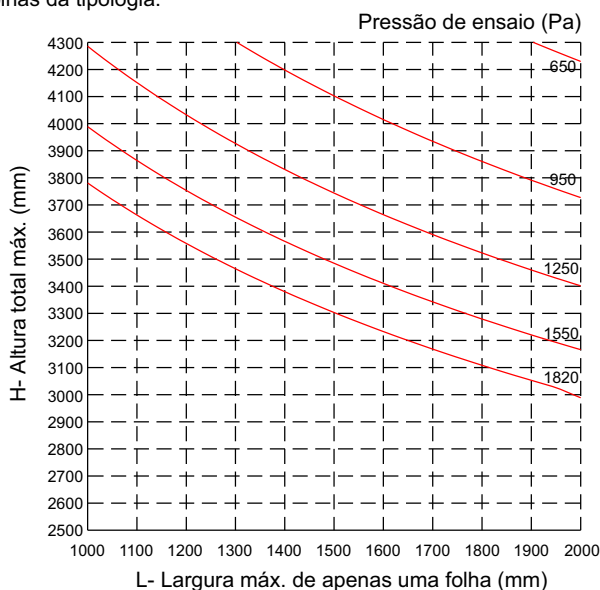


RO049 (2x)	CX8307 (2x)	RO049 (2x)	CX8307 (1x)
Área = 850 mm <sup>2</sup>	Área = 2156 mm <sup>2</sup>	Área = 850 mm <sup>2</sup>	Área = 1078 mm <sup>2</sup>
Jx = 250692 mm <sup>4</sup>	Jx = 2952042 mm <sup>4</sup>	Jx = 250692 mm <sup>4</sup>	Jx = 1476021 mm <sup>4</sup>
Wx = 10908 mm <sup>3</sup>	Wx = 56196 mm <sup>3</sup>	Wx = 10908 mm <sup>3</sup>	Wx = 28098 mm <sup>3</sup>
<b>Jx total = 3202734 mm<sup>4</sup></b>		<b>Jx total = 1726713 mm<sup>4</sup></b>	

## Porta de correr - 2 e 3 planos com encontro central

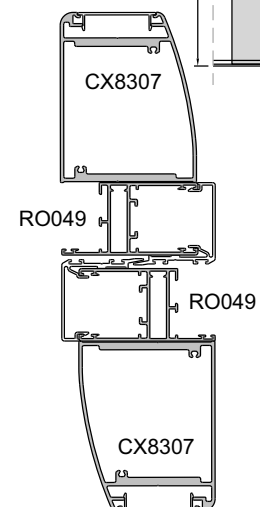
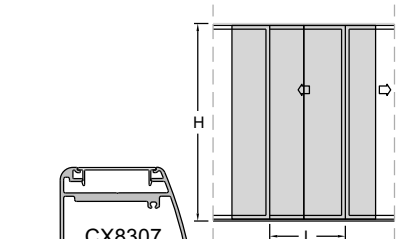
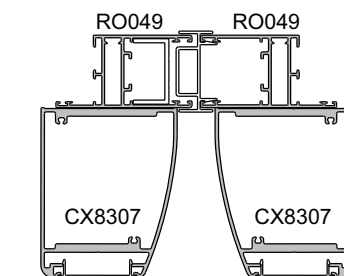
Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175



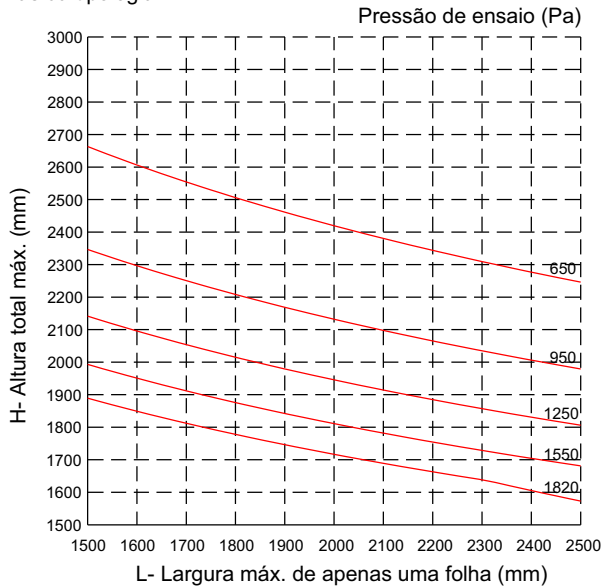
RO049 (2x)	CX8307 (2x)	RO049 (2x)	CX8307 (2x)
Área = 850 mm <sup>2</sup>	Área = 2156 mm <sup>2</sup>	Área = 850 mm <sup>2</sup>	Área = 2156 mm <sup>2</sup>
Jx = 250692 mm <sup>4</sup>	Jx = 2952042 mm <sup>4</sup>	Jx = 250692 mm <sup>4</sup>	Jx = 2952042 mm <sup>4</sup>
Wx = 10908 mm <sup>3</sup>	Wx = 56196 mm <sup>3</sup>	Wx = 10908 mm <sup>3</sup>	Wx = 56196 mm <sup>3</sup>
<b>Jx total = 3202734 mm<sup>4</sup></b>		<b>Jx total = 3202734 mm<sup>4</sup></b>	



## Janela e porta de correr - 2, 3 e 4 planos

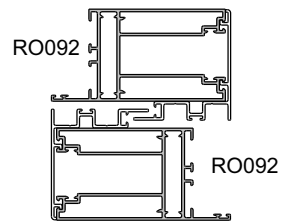
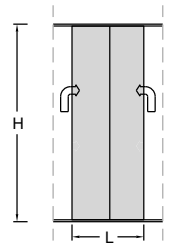
Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

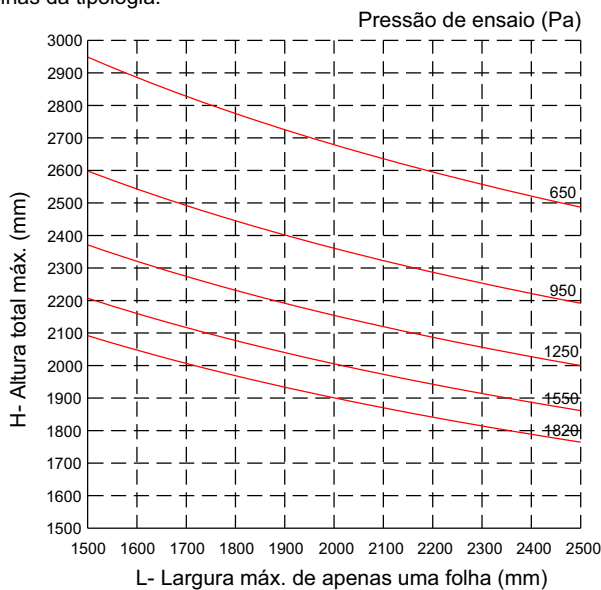


RO092	RO092
Área = 757 mm <sup>2</sup>	Área = 757 mm <sup>2</sup>
Jx = 299713 mm <sup>4</sup>	Jx = 299713 mm <sup>4</sup>
Wx = 10553 mm <sup>3</sup>	Wx = 10553 mm <sup>3</sup>
<b>Jx total = 599426 mm<sup>4</sup></b>	

## Janela e porta de correr - 2, 3 e 4 planos

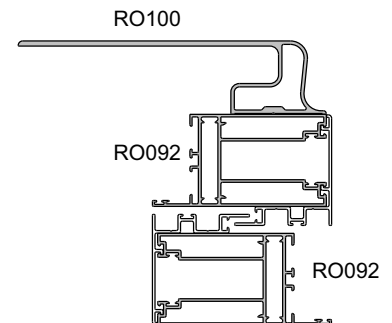
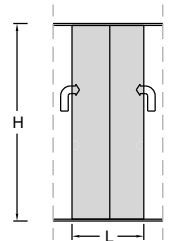
Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

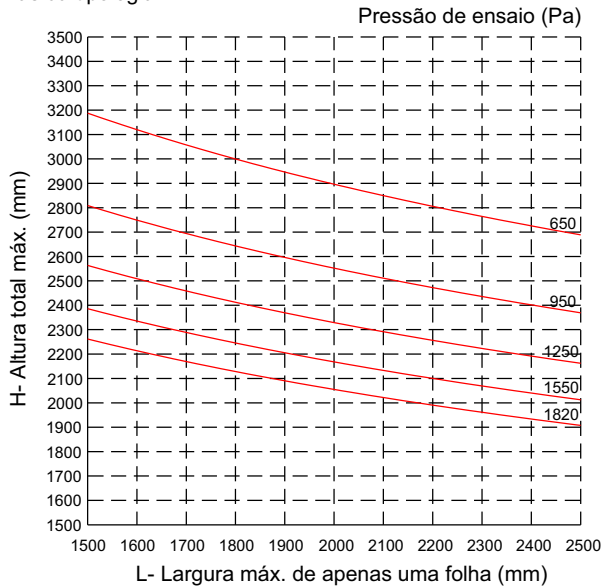


RO092	RO092	RO100
Área = 757 mm <sup>2</sup>	Área = 757 mm <sup>2</sup>	Área = 831 mm <sup>2</sup>
Jx = 299713 mm <sup>4</sup>	Jx = 299713 mm <sup>4</sup>	Jx = 214344 mm <sup>4</sup>
Wx = 10553 mm <sup>3</sup>	Wx = 10553 mm <sup>3</sup>	Wx = 10908 mm <sup>3</sup>
<b>Jx total = 813770 mm<sup>4</sup></b>		

## Janela e porta de correr - 2, 3 e 4 planos

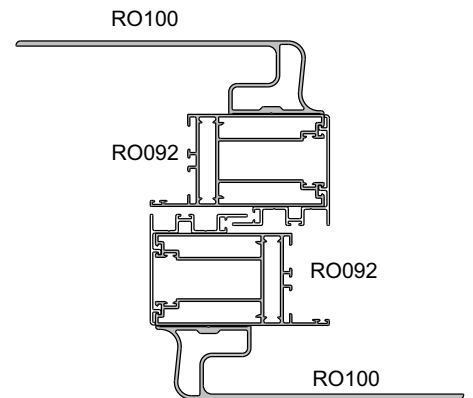
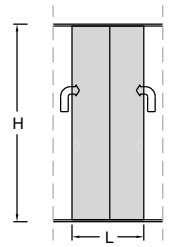
Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

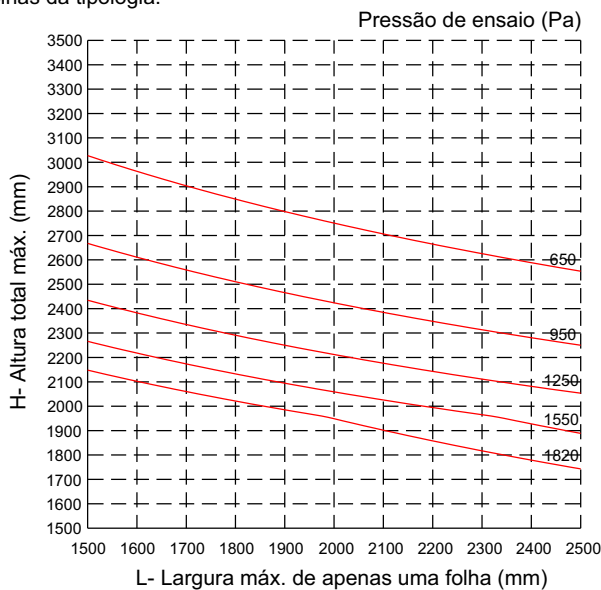


RO092	RO092	RO100	RO100
Área = 757 mm <sup>2</sup>	Área = 757 mm <sup>2</sup>	Área = 831 mm <sup>2</sup>	Área = 831 mm <sup>2</sup>
Jx = 299713 mm <sup>4</sup>	Jx = 299713 mm <sup>4</sup>	Jx = 214344 mm <sup>4</sup>	Jx = 214344 mm <sup>4</sup>
Wx = 10553 mm <sup>3</sup>	Wx = 10553 mm <sup>3</sup>	Wx = 10908 mm <sup>3</sup>	Wx = 10908 mm <sup>3</sup>
<b>Jx total = 1028114 mm<sup>4</sup></b>			

## Janela e porta de correr - 2, 3 e 4 planos

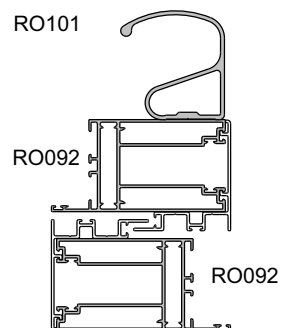
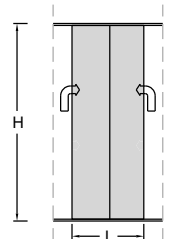
Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

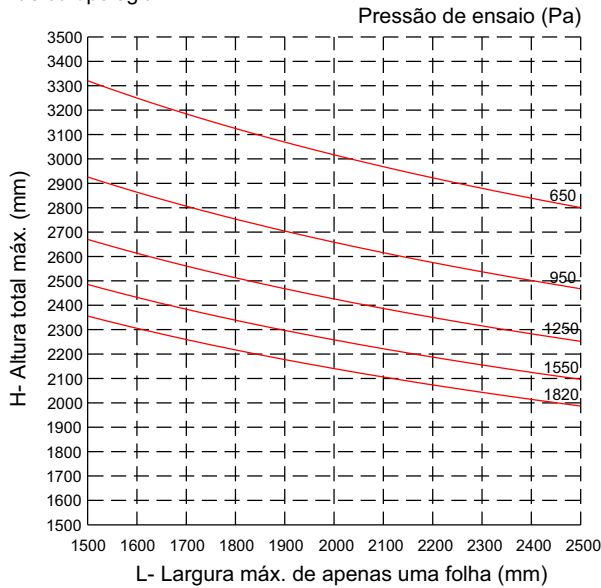


RO092	RO092	RO101
Área = 757 mm <sup>2</sup>	Área = 757 mm <sup>2</sup>	Área = 550 mm <sup>2</sup>
Jx = 299713 mm <sup>4</sup>	Jx = 299713 mm <sup>4</sup>	Jx = 281259 mm <sup>4</sup>
Wx = 10553 mm <sup>3</sup>	Wx = 10553 mm <sup>3</sup>	Wx = 8277 mm <sup>3</sup>
<b>Jx total = 880685 mm<sup>4</sup></b>		

## Janela e porta de correr - 2, 3 e 4 planos

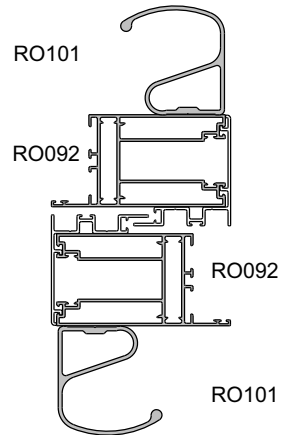
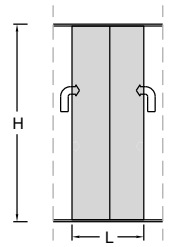
Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

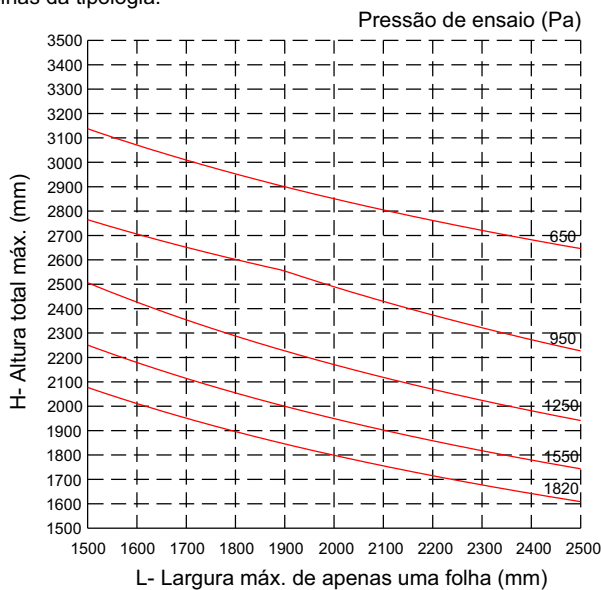


RO092	RO092	RO101	RO101
Área = 757 mm <sup>2</sup>	Área = 757 mm <sup>2</sup>	Área = 550 mm <sup>2</sup>	Área = 550 mm <sup>2</sup>
Jx = 299713 mm <sup>4</sup>	Jx = 299713 mm <sup>4</sup>	Jx = 281259 mm <sup>4</sup>	Jx = 281259 mm <sup>4</sup>
Wx = 10553 mm <sup>3</sup>	Wx = 10553 mm <sup>3</sup>	Wx = 8277 mm <sup>3</sup>	Wx = 8277 mm <sup>3</sup>
<b>Jx total = 1161944 mm<sup>4</sup></b>			

## Janela e porta de correr - 2, 3 e 4 planos

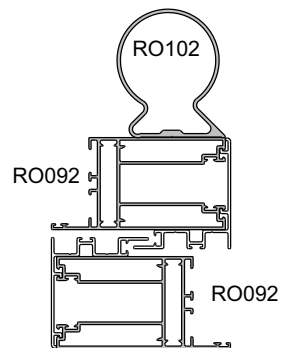
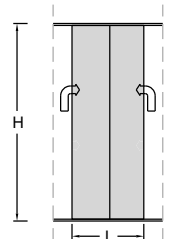
Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

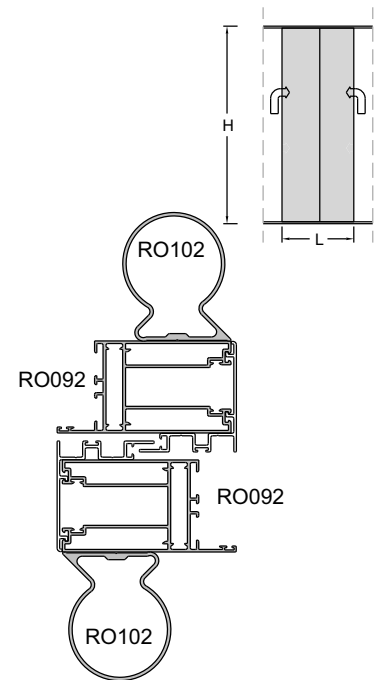
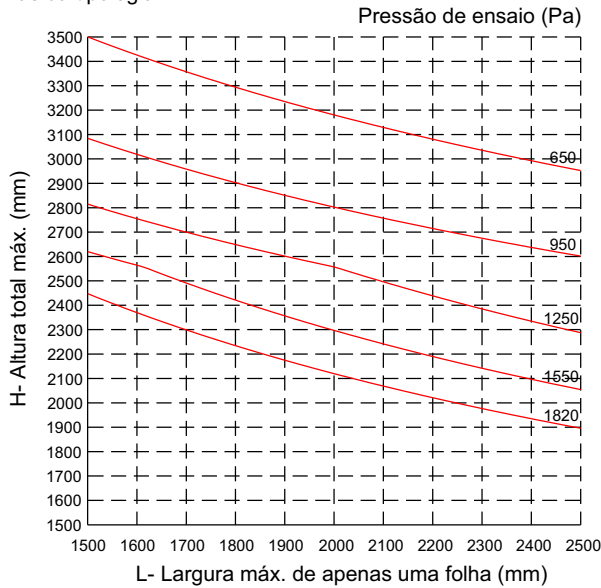


RO092	RO092	RO102
Área = 757 mm <sup>2</sup>	Área = 757 mm <sup>2</sup>	Área = 538 mm <sup>2</sup>
Jx = 299713 mm <sup>4</sup>	Jx = 299713 mm <sup>4</sup>	Jx = 380871 mm <sup>4</sup>
Wx = 10553 mm <sup>3</sup>	Wx = 10553 mm <sup>3</sup>	Wx = 8580 mm <sup>3</sup>
<b>Jx total = 980297 mm<sup>4</sup></b>		

## Janela e porta de correr - 2, 3 e 4 planos

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO092	RO092	RO102	RO102
Área = 757 mm <sup>2</sup>	Área = 757 mm <sup>2</sup>	Área = 538 mm <sup>2</sup>	Área = 538 mm <sup>2</sup>
Jx = 299713 mm <sup>4</sup>	Jx = 299713 mm <sup>4</sup>	Jx = 380871 mm <sup>4</sup>	Jx = 380871 mm <sup>4</sup>
Wx = 10553 mm <sup>3</sup>	Wx = 10553 mm <sup>3</sup>	Wx = 8580 mm <sup>3</sup>	Wx = 8580 mm <sup>3</sup>
<b>Jx total = 1361168 mm<sup>4</sup></b>			

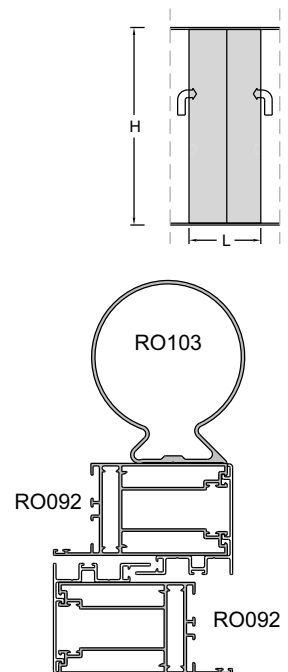
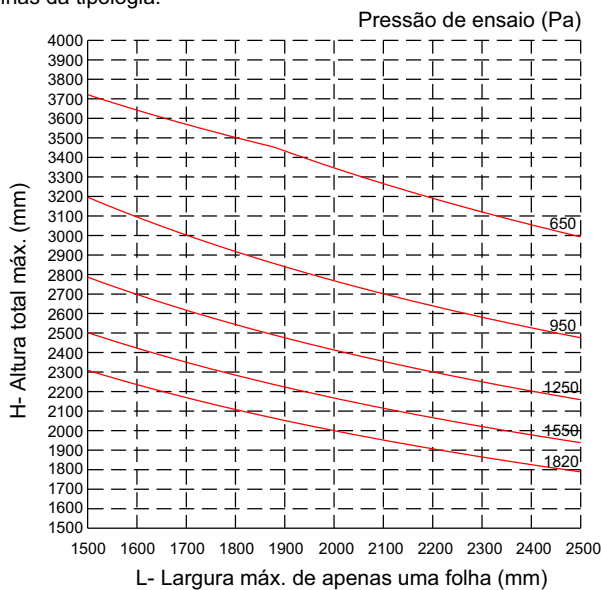
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Janela e porta de correr - 2, 3 e 4 planos

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO092	RO092	RO103
Área = 757 mm <sup>2</sup>	Área = 757 mm <sup>2</sup>	Área = 729 mm <sup>2</sup>
Jx = 299713 mm <sup>4</sup>	Jx = 299713 mm <sup>4</sup>	Jx = 1036646 mm <sup>4</sup>
Wx = 10553 mm <sup>3</sup>	Wx = 10553 mm <sup>3</sup>	Wx = 10908 mm <sup>3</sup>
<b>Jx total = 1636072 mm<sup>4</sup></b>		

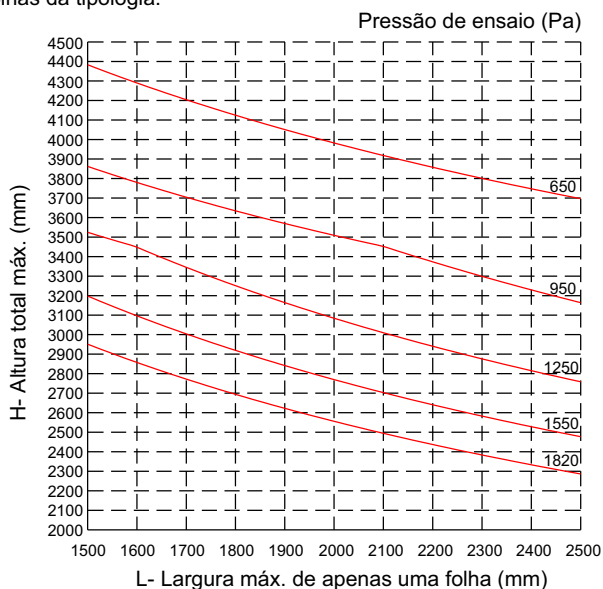
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Janela e porta de correr - 2, 3 e 4 planos

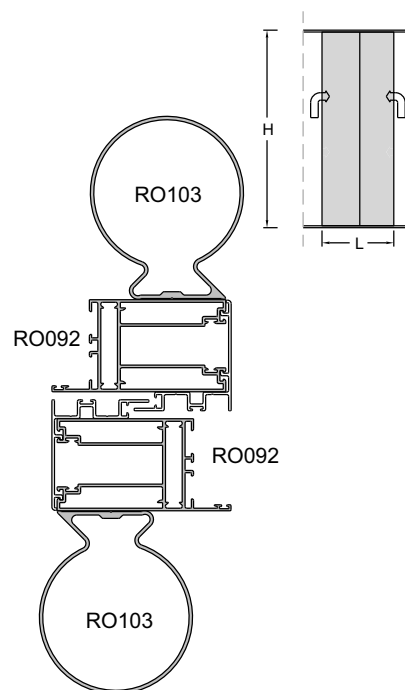
Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

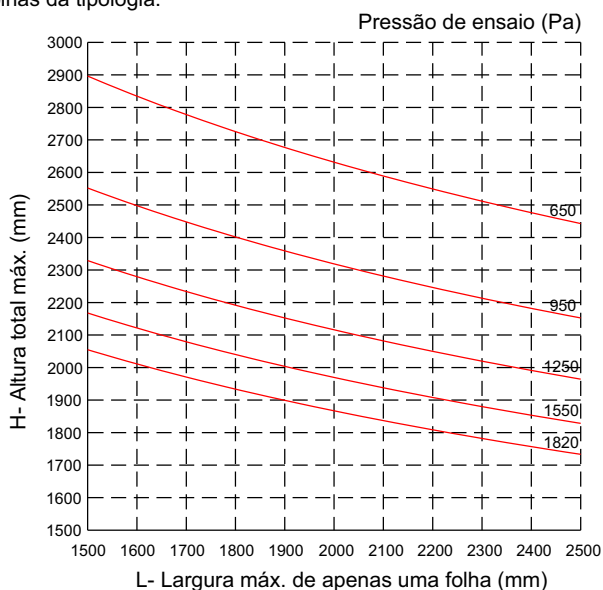


RO092	RO092	RO103	RO103
Área = 757 mm <sup>2</sup>	Área = 757 mm <sup>2</sup>	Área = 729 mm <sup>2</sup>	Área = 729 mm <sup>2</sup>
Jx = 299713 mm <sup>4</sup>	Jx = 299713 mm <sup>4</sup>	Jx = 1036646 mm <sup>4</sup>	Jx = 1036646 mm <sup>4</sup>
Wx = 10553 mm <sup>3</sup>	Wx = 10553 mm <sup>3</sup>	Wx = 10908 mm <sup>3</sup>	Wx = 10908 mm <sup>3</sup>
<b>Jx total = 2672718 mm<sup>4</sup></b>			

## Janela e porta de correr - 2, 3 e 4 planos

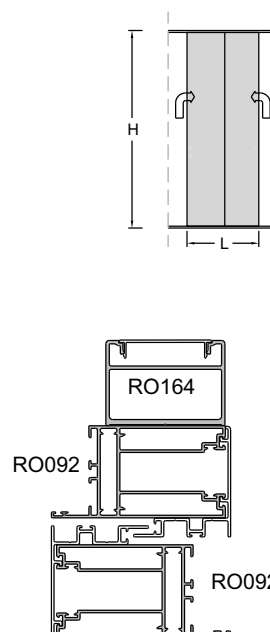
Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

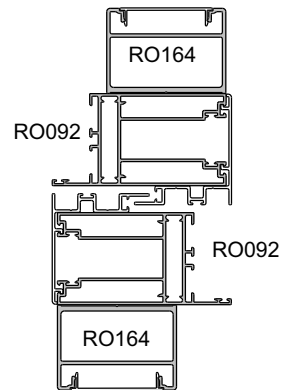
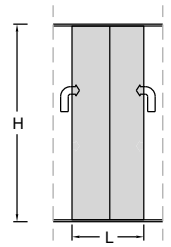
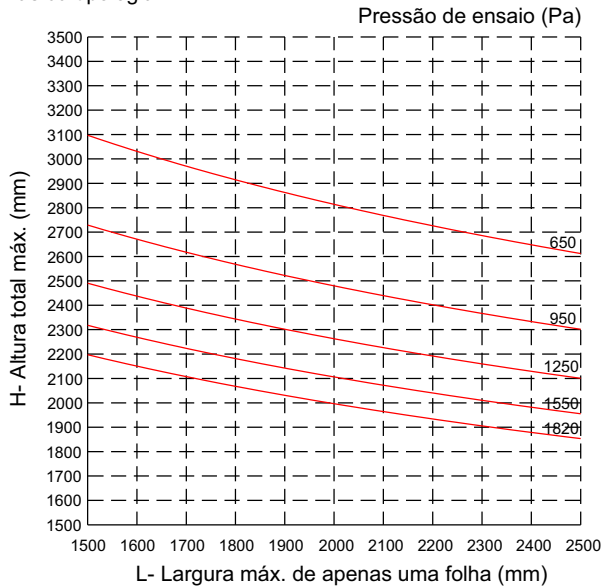


RO092	RO092	RO164
Área = 757 mm <sup>2</sup>	Área = 757 mm <sup>2</sup>	Área = 579 mm <sup>2</sup>
Jx = 299713 mm <sup>4</sup>	Jx = 299713 mm <sup>4</sup>	Jx = 171680 mm <sup>4</sup>
Wx = 10553 mm <sup>3</sup>	Wx = 10553 mm <sup>3</sup>	Wx = 5911 mm <sup>3</sup>
<b>Jx total = 771106 mm<sup>4</sup></b>		

## Janela e porta de correr - 2, 3 e 4 planos

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO092	RO092	RO164	RO164
Área = 757 mm <sup>2</sup>	Área = 757 mm <sup>2</sup>	Área = 579 mm <sup>2</sup>	Área = 579 mm <sup>2</sup>
Jx = 299713 mm <sup>4</sup>	Jx = 299713 mm <sup>4</sup>	Jx = 171680 mm <sup>4</sup>	Jx = 171680 mm <sup>4</sup>
Wx = 10553 mm <sup>3</sup>	Wx = 10553 mm <sup>3</sup>	Wx = 5911 mm <sup>3</sup>	Wx = 5911 mm <sup>3</sup>
<b>Jx total = 942786 mm<sup>4</sup></b>			

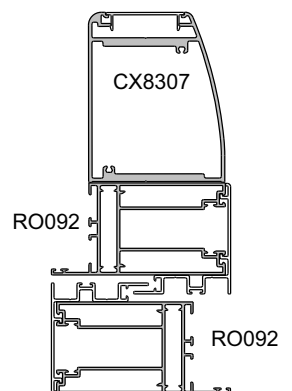
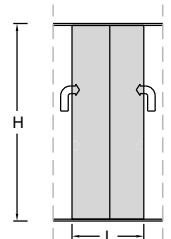
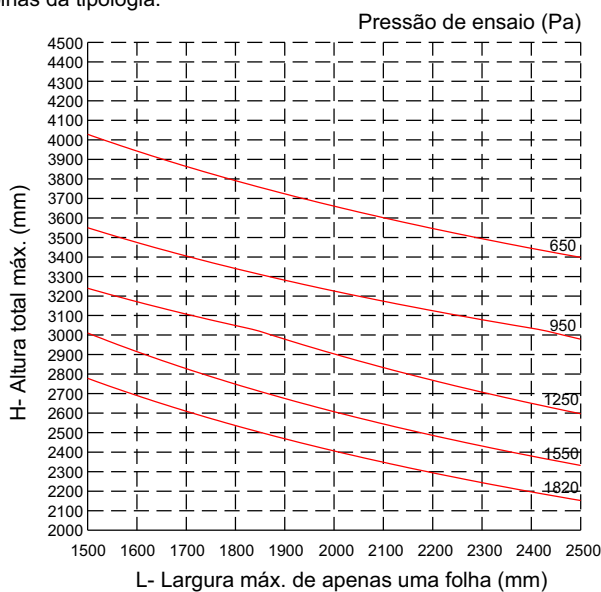
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Janela e porta de correr - 2, 3 e 4 planos

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO092	RO092	CX8307
Área = 757 mm <sup>2</sup>	Área = 757 mm <sup>2</sup>	Área = 1078 mm <sup>2</sup>
Jx = 299713 mm <sup>4</sup>	Jx = 299713 mm <sup>4</sup>	Jx = 1476021 mm <sup>4</sup>
Wx = 10553 mm <sup>3</sup>	Wx = 10553 mm <sup>3</sup>	Wx = 28098 mm <sup>3</sup>
<b>Jx total = 2075447 mm<sup>4</sup></b>		

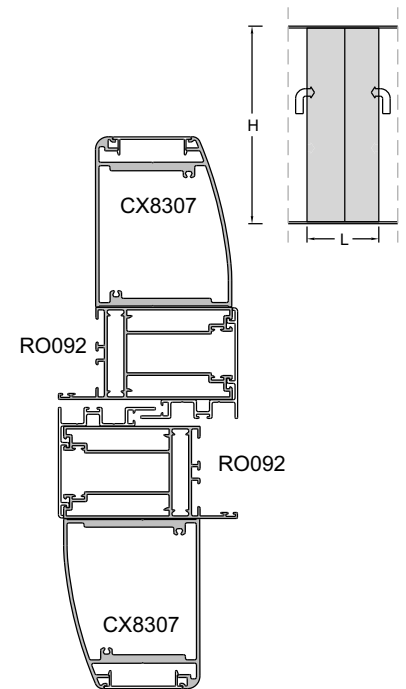
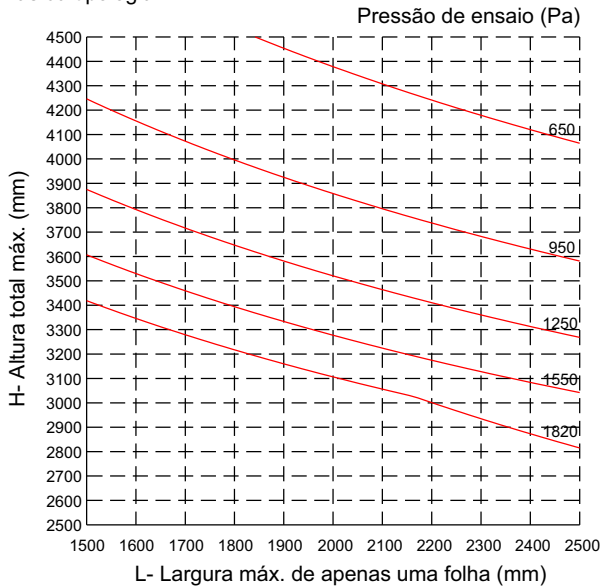
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Janela e porta de correr - 2, 3 e 4 planos

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO092	RO092	CX8307	CX8307
Área = 757 mm <sup>2</sup>	Área = 757 mm <sup>2</sup>	Área = 1078 mm <sup>2</sup>	Área = 1078 mm <sup>2</sup>
Jx = 299713 mm <sup>4</sup>	Jx = 299713 mm <sup>4</sup>	Jx = 1476021 mm <sup>4</sup>	Jx = 1476021 mm <sup>4</sup>
Wx = 10553 mm <sup>3</sup>	Wx = 10553 mm <sup>3</sup>	Wx = 28098 mm <sup>3</sup>	Wx = 28098 mm <sup>3</sup>
<b>Jx total = 3551468 mm<sup>4</sup></b>			

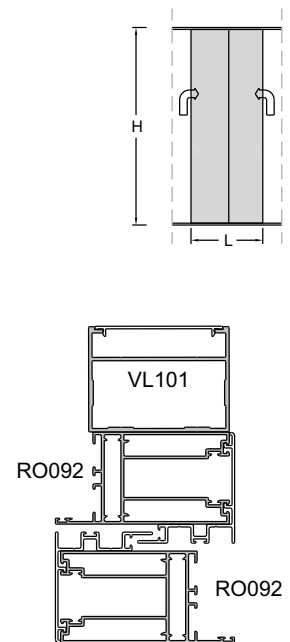
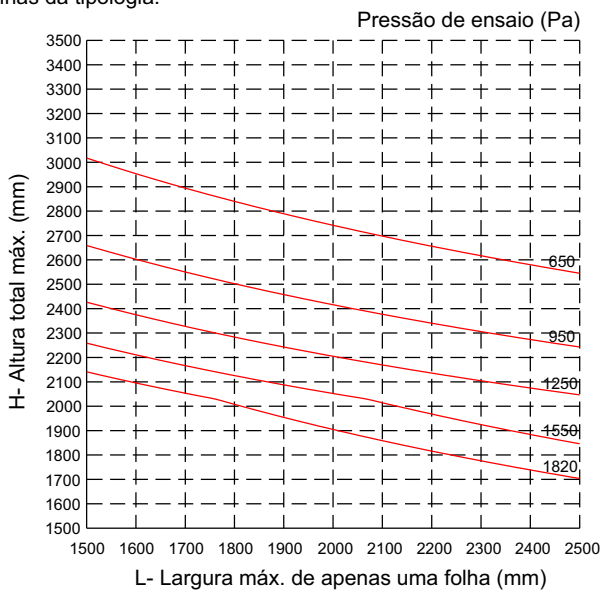
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Janela e porta de correr - 2, 3 e 4 planos

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO092	RO092	VL101
Área = 757 mm <sup>2</sup>	Área = 757 mm <sup>2</sup>	Área = 633 mm <sup>2</sup>
Jx = 299713 mm <sup>4</sup>	Jx = 299713 mm <sup>4</sup>	Jx = 272661 mm <sup>4</sup>
Wx = 10553 mm <sup>3</sup>	Wx = 10553 mm <sup>3</sup>	Wx = 7741 mm <sup>3</sup>
<b>Jx total = 872087 mm<sup>4</sup></b>		

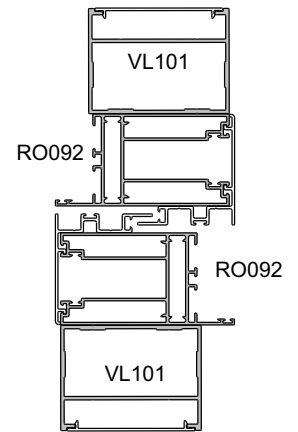
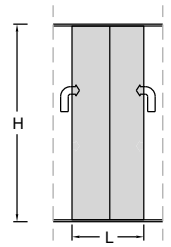
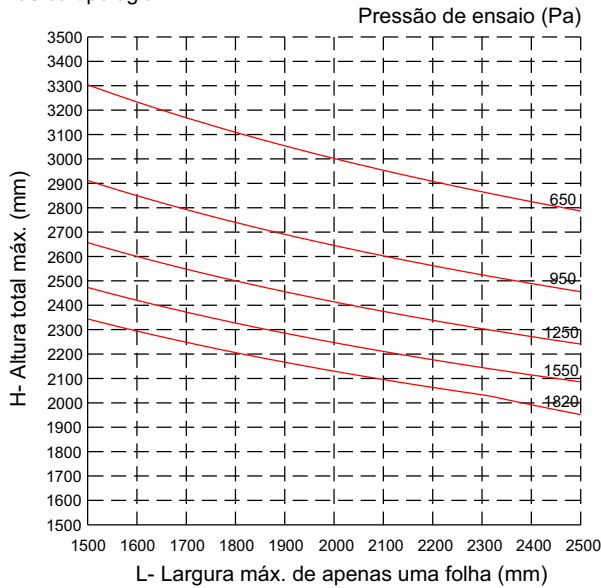
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Janela e porta de correr - 2, 3 e 4 planos

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO092	RO092	VL101	VL101
Área = 757 mm <sup>2</sup>	Área = 757 mm <sup>2</sup>	Área = 633 mm <sup>2</sup>	Área = 633 mm <sup>2</sup>
Jx = 299713 mm <sup>4</sup>	Jx = 299713 mm <sup>4</sup>	Jx = 272661 mm <sup>4</sup>	Jx = 272661 mm <sup>4</sup>
Wx = 10553 mm <sup>3</sup>	Wx = 10553 mm <sup>3</sup>	Wx = 7741 mm <sup>3</sup>	Wx = 7741 mm <sup>3</sup>
<b>Jx total = 1144748 mm<sup>4</sup></b>			

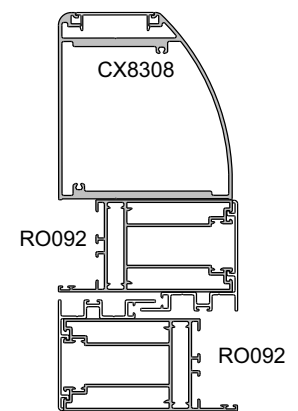
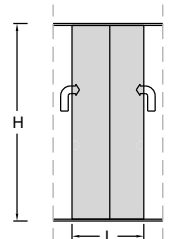
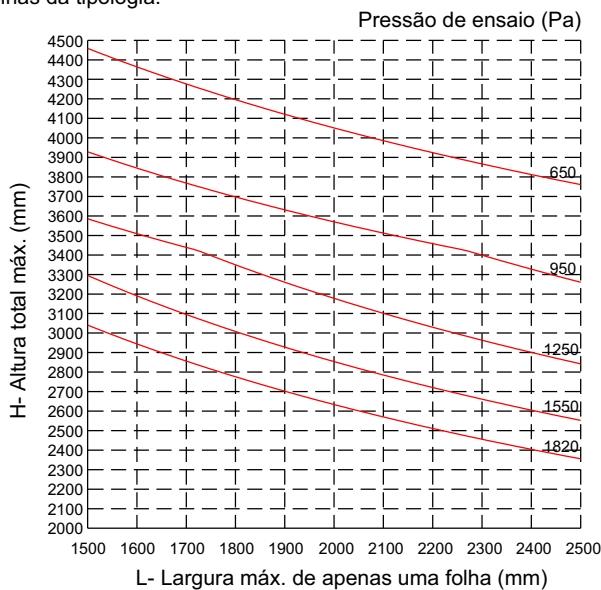
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Janela e porta de correr - 2, 3 e 4 planos

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO092	RO092	CX8308
Área = 757 mm <sup>2</sup>	Área = 757 mm <sup>2</sup>	Área = 1272 mm <sup>2</sup>
Jx = 299713 mm <sup>4</sup>	Jx = 299713 mm <sup>4</sup>	Jx = 2214125 mm <sup>4</sup>
Wx = 10553 mm <sup>3</sup>	Wx = 10553 mm <sup>3</sup>	Wx = 37249 mm <sup>3</sup>
<b>Jx total = 2813551 mm<sup>4</sup></b>		

Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

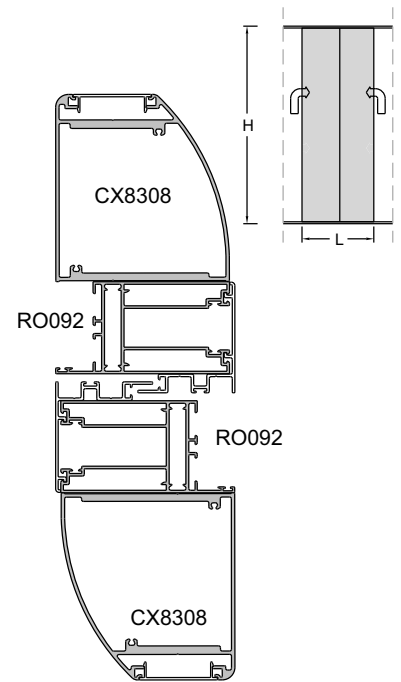
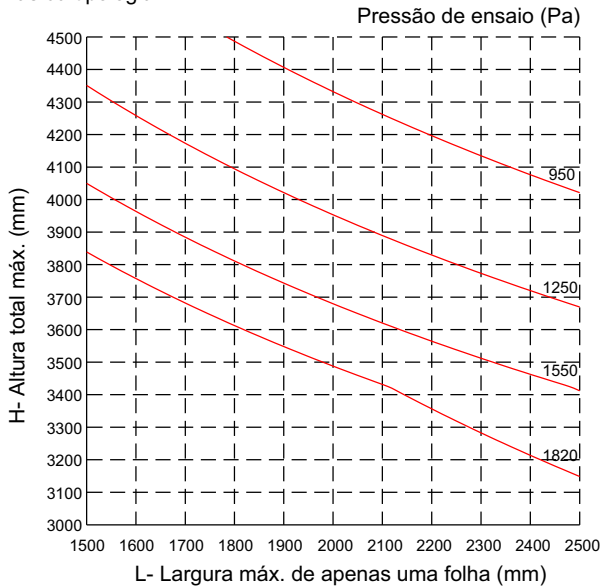
Flecha admissível = H / 175



## Janela e porta de correr - 2, 3 e 4 planos

**Notas:**

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO092	RO092	CX8308	CX8308
Área = 757 mm <sup>2</sup>	Área = 757 mm <sup>2</sup>	Área = 1272 mm <sup>2</sup>	Área = 1272 mm <sup>2</sup>
Jx = 299713 mm <sup>4</sup>	Jx = 299713 mm <sup>4</sup>	Jx = 2214125 mm <sup>4</sup>	Jx = 2214125 mm <sup>4</sup>
Wx = 10553 mm <sup>3</sup>	Wx = 10553 mm <sup>3</sup>	Wx = 37249 mm <sup>3</sup>	Wx = 37249 mm <sup>3</sup>
<b>Jx total = 5027676 mm<sup>4</sup></b>			

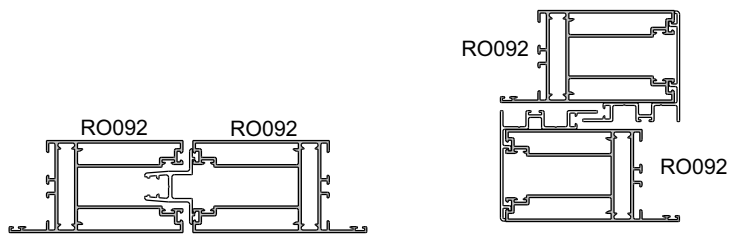
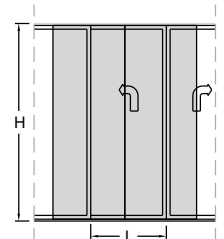
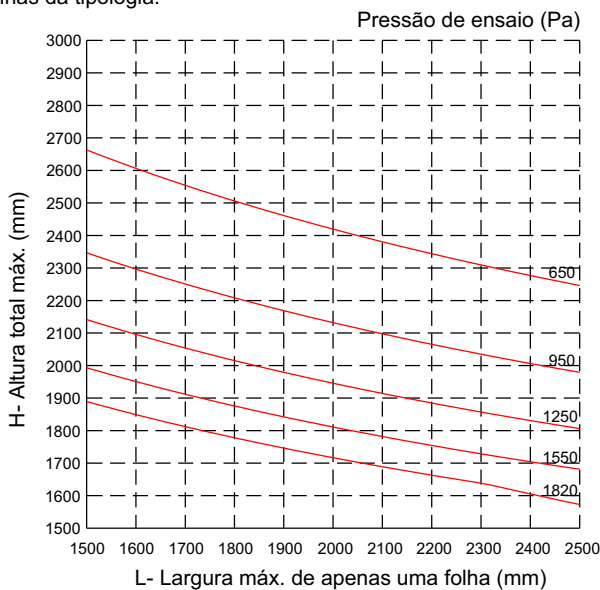
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Porta de correr - 2 e 3 planos com encontro central

**Notas:**

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO092	RO092	RO092	RO092
Área = 757 mm <sup>2</sup>	Área = 757 mm <sup>2</sup>	Área = 757 mm <sup>2</sup>	Área = 757 mm <sup>2</sup>
Jx = 299713 mm <sup>4</sup>	Jx = 299713 mm <sup>4</sup>	Jx = 299713 mm <sup>4</sup>	Jx = 299713 mm <sup>4</sup>
Wx = 10553 mm <sup>3</sup>	Wx = 10553 mm <sup>3</sup>	Wx = 10553 mm <sup>3</sup>	Wx = 10553 mm <sup>3</sup>
<b>Jx total = 599426 mm<sup>4</sup></b>		<b>Jx total = 599426 mm<sup>4</sup></b>	

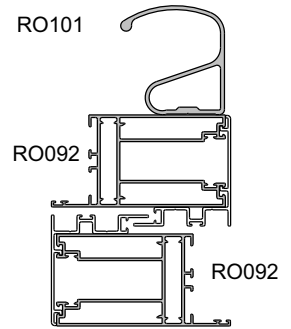
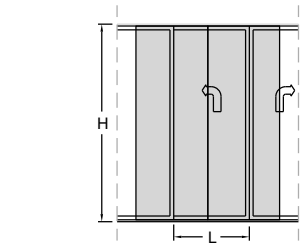
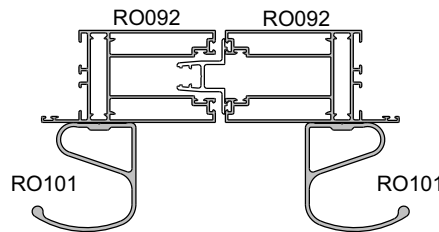
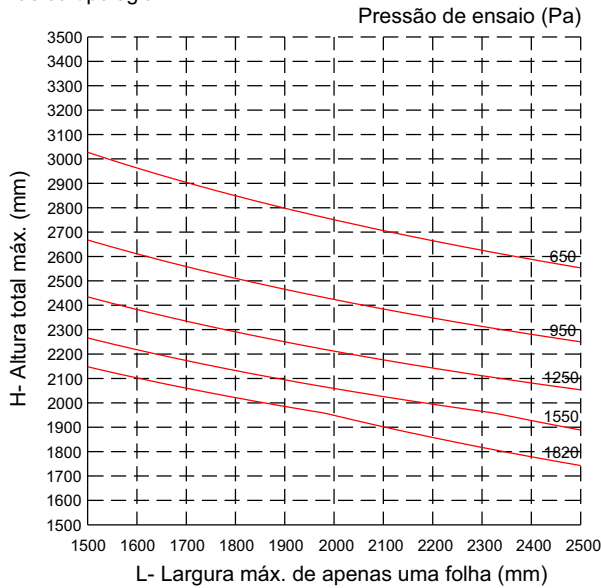
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Porta de correr - 2 e 3 planos com encontro central

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO092 (2x)	RO101 (2x)
Área = 1514 mm <sup>2</sup>	Área = 1100 mm <sup>2</sup>
Jx = 599426 mm <sup>4</sup>	Jx = 562518 mm <sup>4</sup>
Wx = 21106 mm <sup>3</sup>	Wx = 16554 mm <sup>3</sup>
<b>Jx total = 1161944 mm<sup>4</sup></b>	

RO092 (2x)	RO101 (1x)
Área = 1514 mm <sup>2</sup>	Área = 550 mm <sup>2</sup>
Jx = 599426 mm <sup>4</sup>	Jx = 281259 mm <sup>4</sup>
Wx = 21106 mm <sup>3</sup>	Wx = 8277 mm <sup>3</sup>
<b>Jx total = 880685 mm<sup>4</sup></b>	

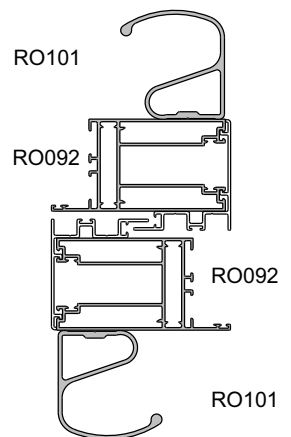
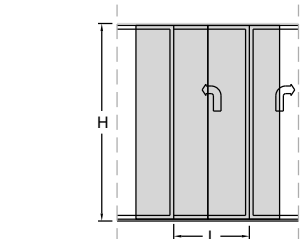
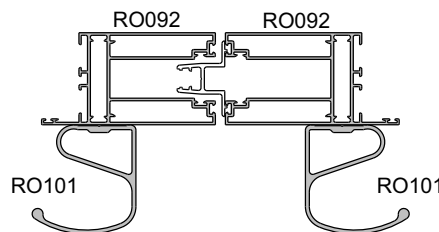
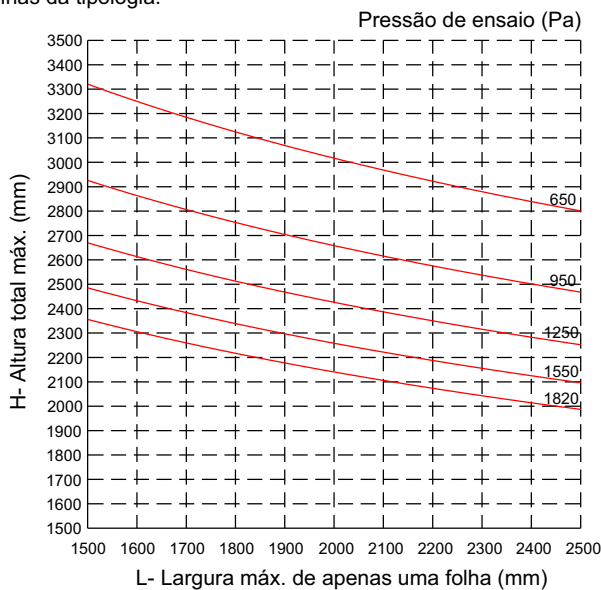
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Porta de correr - 2 e 3 planos com encontro central

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO092 (2x)	RO101 (2x)
Área = 1514 mm <sup>2</sup>	Área = 1100 mm <sup>2</sup>
Jx = 599426 mm <sup>4</sup>	Jx = 562518 mm <sup>4</sup>
Wx = 21106 mm <sup>3</sup>	Wx = 16554 mm <sup>3</sup>
<b>Jx total = 1161944 mm<sup>4</sup></b>	

RO092 (2x)	RO101 (2x)
Área = 1514 mm <sup>2</sup>	Área = 1100 mm <sup>2</sup>
Jx = 599426 mm <sup>4</sup>	Jx = 562518 mm <sup>4</sup>
Wx = 21106 mm <sup>3</sup>	Wx = 16554 mm <sup>3</sup>
<b>Jx total = 1161944 mm<sup>4</sup></b>	

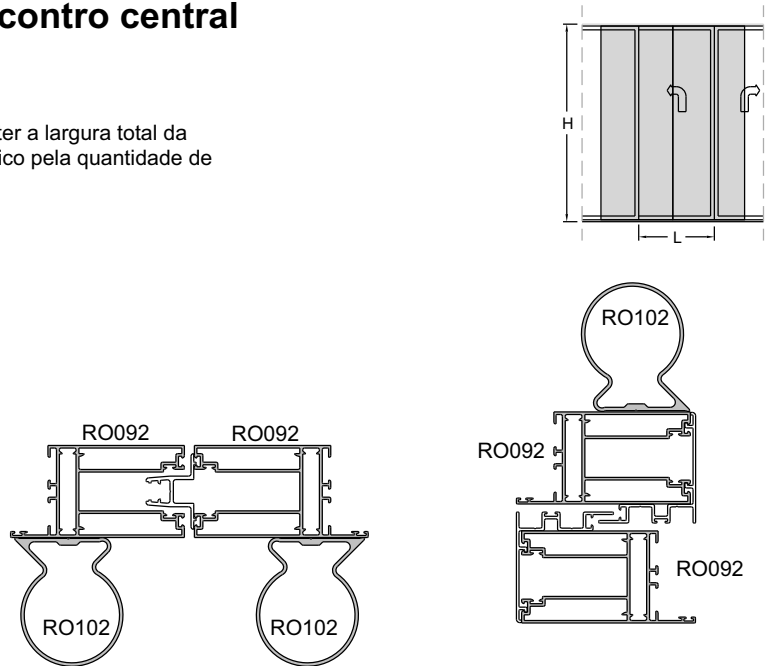
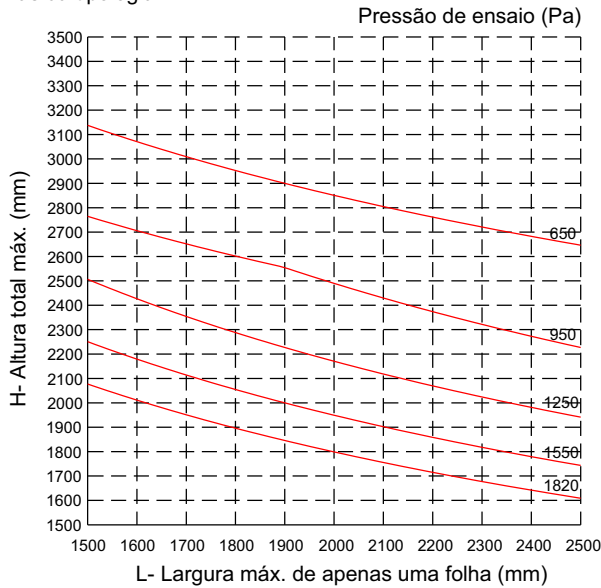
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Porta de correr - 2 e 3 planos com encontro central

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO092 (2x)	RO102 (2x)	RO092 (2x)	RO102 (1x)
Área = 1514 mm <sup>2</sup>	Área = 1076 mm <sup>2</sup>	Área = 1514 mm <sup>2</sup>	Área = 538 mm <sup>2</sup>
Jx = 599426 mm <sup>4</sup>	Jx = 761742 mm <sup>4</sup>	Jx = 599426 mm <sup>4</sup>	Jx = 380871 mm <sup>4</sup>
Wx = 21106 mm <sup>3</sup>	Wx = 17160 mm <sup>3</sup>	Wx = 21106 mm <sup>3</sup>	Wx = 8580 mm <sup>3</sup>
<b>Jx total = 1361168 mm<sup>4</sup></b>		<b>Jx total = 980297 mm<sup>4</sup></b>	

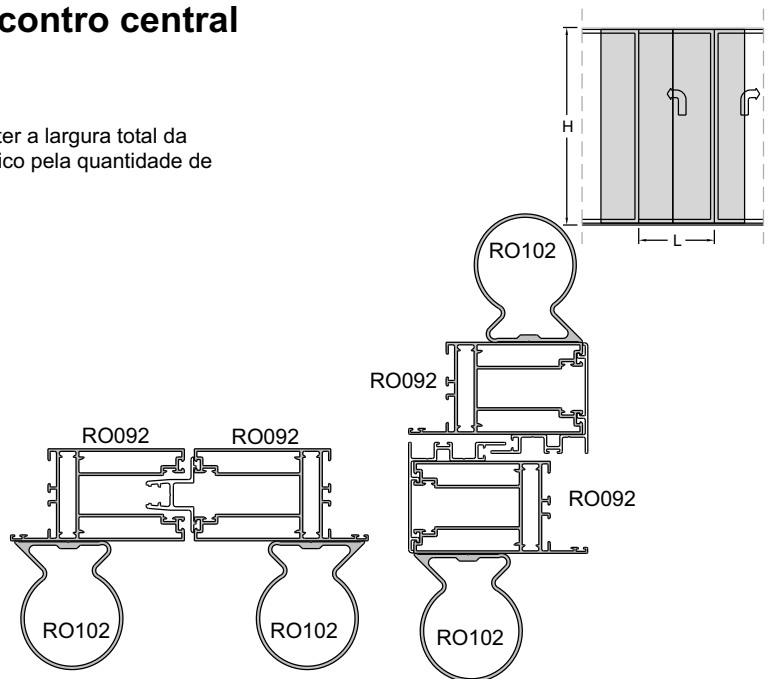
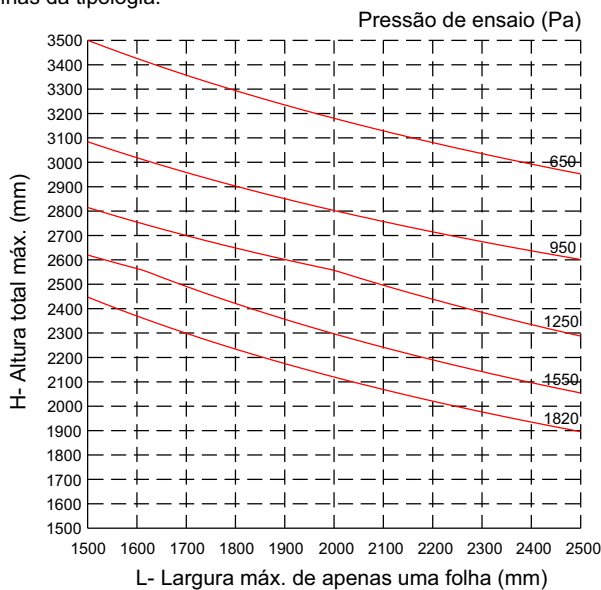
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Porta de correr - 2 e 3 planos com encontro central

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO092 (2x)	RO102 (2x)	RO092 (2x)	RO102 (2x)
Área = 1514 mm <sup>2</sup>	Área = 1076 mm <sup>2</sup>	Área = 1514 mm <sup>2</sup>	Área = 1076 mm <sup>2</sup>
Jx = 599426 mm <sup>4</sup>	Jx = 761742 mm <sup>4</sup>	Jx = 599426 mm <sup>4</sup>	Jx = 761742 mm <sup>4</sup>
Wx = 21106 mm <sup>3</sup>	Wx = 17160 mm <sup>3</sup>	Wx = 21106 mm <sup>3</sup>	Wx = 17160 mm <sup>3</sup>
<b>Jx total = 1361168 mm<sup>4</sup></b>		<b>Jx total = 1361168 mm<sup>4</sup></b>	

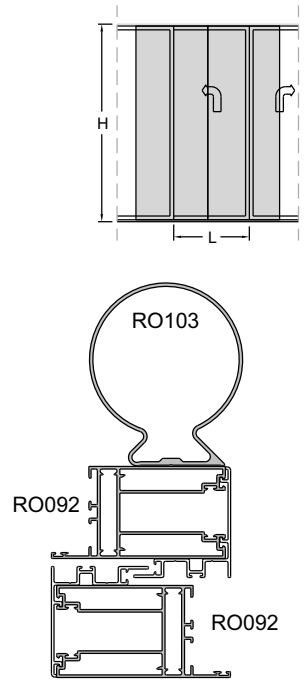
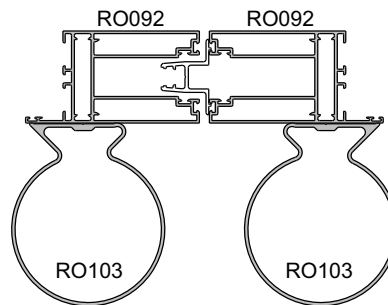
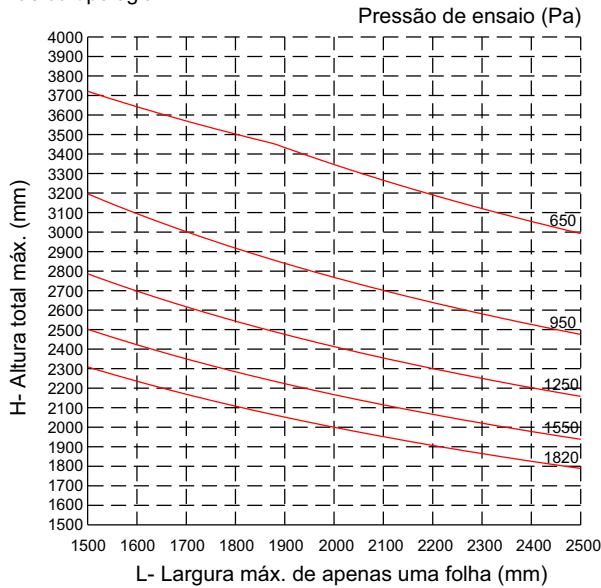
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Porta de correr - 2 e 3 planos com encontro central

**Notas:**

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO092 (2x)	RO103 (2x)	RO092 (2x)	RO103 (1x)
Área = 1514 mm <sup>2</sup>	Área = 1458 mm <sup>2</sup>	Área = 1514 mm <sup>2</sup>	Área = 729 mm <sup>2</sup>
Jx = 599426 mm <sup>4</sup>	Jx = 2073292 mm <sup>4</sup>	Jx = 599426 mm <sup>4</sup>	Jx = 1036646 mm <sup>4</sup>
Wx = 21106 mm <sup>3</sup>	Wx = 21816 mm <sup>3</sup>	Wx = 21106 mm <sup>3</sup>	Wx = 10908 mm <sup>3</sup>
<b>Jx total = 2672718 mm<sup>4</sup></b>		<b>Jx total = 1636072 mm<sup>4</sup></b>	

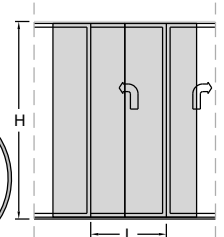
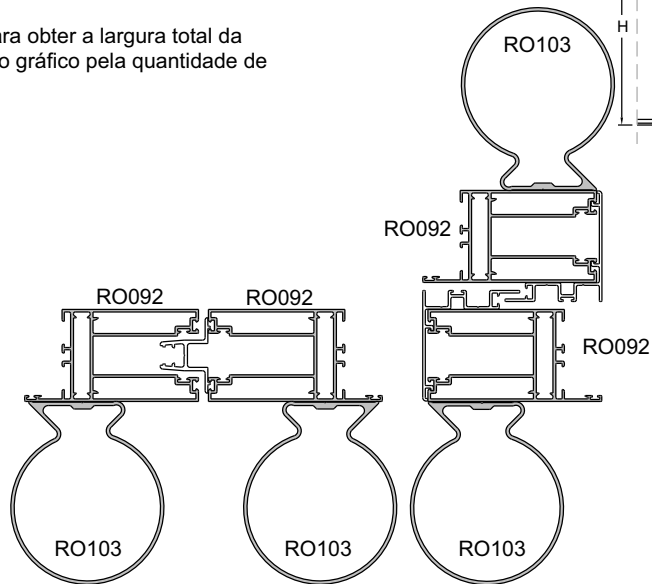
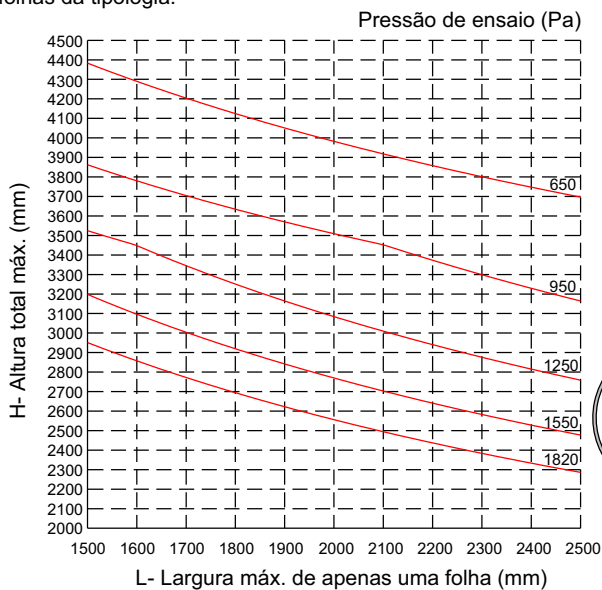
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Porta de correr - 2 e 3 planos com encontro central

**Notas:**

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO092 (2x)	RO103 (2x)	RO092 (2x)	RO103 (2x)
Área = 1514 mm <sup>2</sup>	Área = 1458 mm <sup>2</sup>	Área = 1514 mm <sup>2</sup>	Área = 1458 mm <sup>2</sup>
Jx = 599426 mm <sup>4</sup>	Jx = 2073292 mm <sup>4</sup>	Jx = 599426 mm <sup>4</sup>	Jx = 2073292 mm <sup>4</sup>
Wx = 21106 mm <sup>3</sup>	Wx = 21816 mm <sup>3</sup>	Wx = 21106 mm <sup>3</sup>	Wx = 21816 mm <sup>3</sup>
<b>Jx total = 2672718 mm<sup>4</sup></b>		<b>Jx total = 2672718 mm<sup>4</sup></b>	

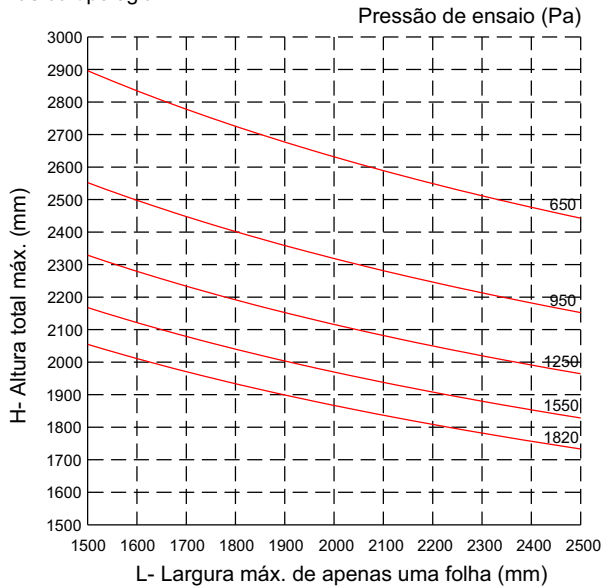
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Porta de correr - 2 e 3 planos com encontro central

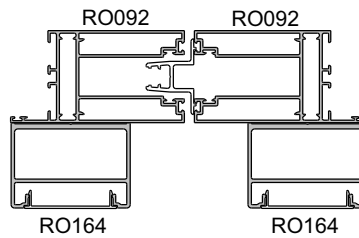
Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.

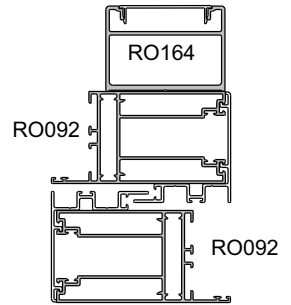
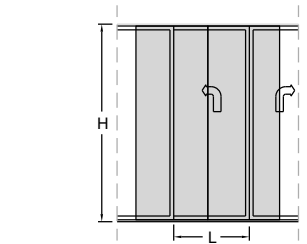


Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175



RO092 (2x)	RO164 (2x)
Área = 1514 mm <sup>2</sup>	Área = 1158 mm <sup>2</sup>
Jx = 599426 mm <sup>4</sup>	Jx = 343360 mm <sup>4</sup>
Wx = 21106 mm <sup>3</sup>	Wx = 11822 mm <sup>3</sup>
<b>Jx total = 942786 mm<sup>4</sup></b>	

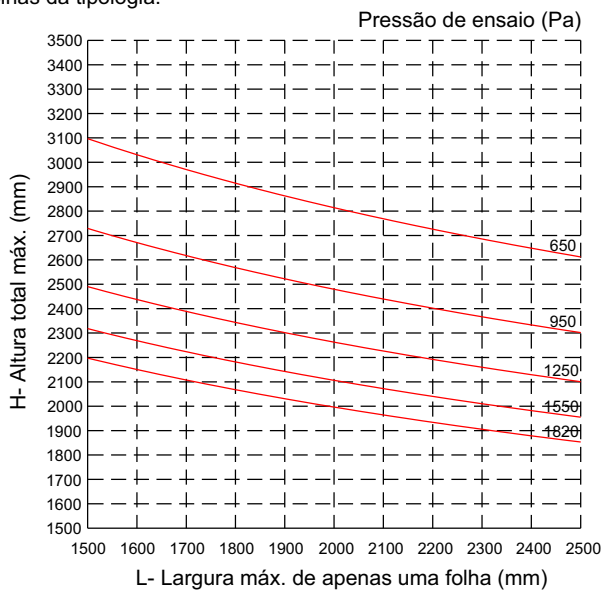


RO092 (2x)	RO164 (1x)
Área = 1514 mm <sup>2</sup>	Área = 579 mm <sup>2</sup>
Jx = 599426 mm <sup>4</sup>	Jx = 171680 mm <sup>4</sup>
Wx = 21106 mm <sup>3</sup>	Wx = 5911 mm <sup>3</sup>
<b>Jx total = 771106 mm<sup>4</sup></b>	

## Porta de correr - 2 e 3 planos com encontro central

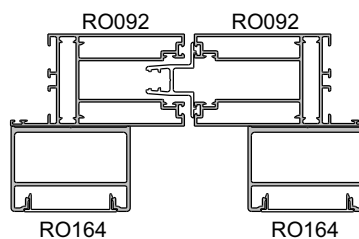
Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.

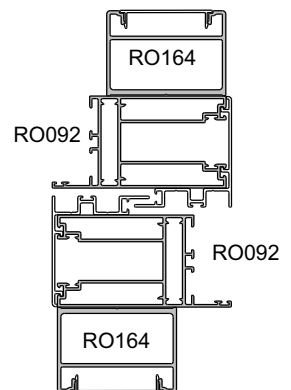
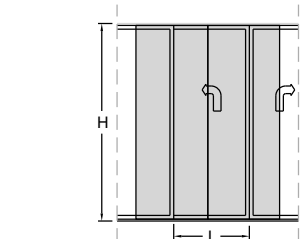


Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175



RO092 (2x)	RO164 (2x)
Área = 1514 mm <sup>2</sup>	Área = 1158 mm <sup>2</sup>
Jx = 599426 mm <sup>4</sup>	Jx = 343360 mm <sup>4</sup>
Wx = 21106 mm <sup>3</sup>	Wx = 11822 mm <sup>3</sup>
<b>Jx total = 942786 mm<sup>4</sup></b>	

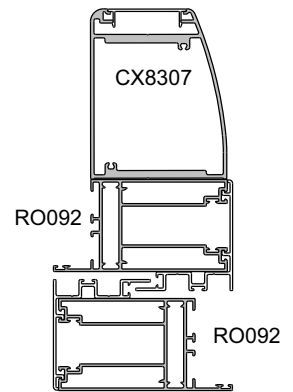
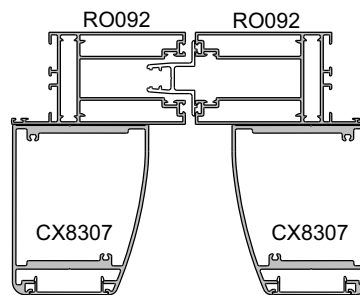
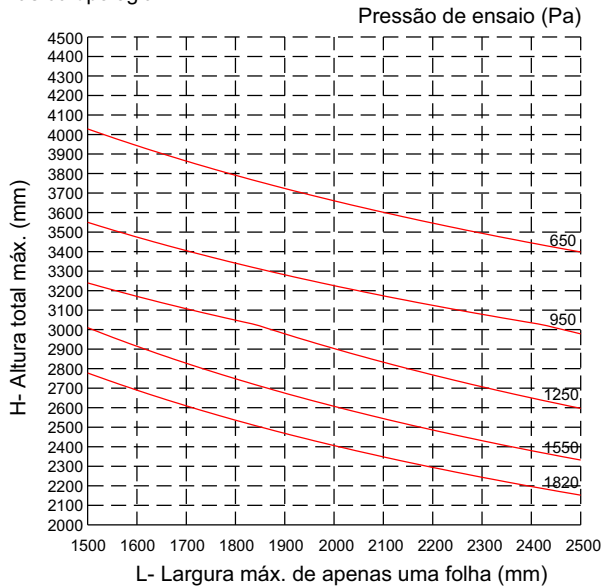


RO092 (2x)	RO164 (2x)
Área = 1514 mm <sup>2</sup>	Área = 1158 mm <sup>2</sup>
Jx = 599426 mm <sup>4</sup>	Jx = 343360 mm <sup>4</sup>
Wx = 21106 mm <sup>3</sup>	Wx = 11822 mm <sup>3</sup>
<b>Jx total = 942786 mm<sup>4</sup></b>	

## Porta de correr - 2 e 3 planos com encontro central

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO092 (2x)	CX8307 (2x)
Área = 1514 mm <sup>2</sup>	Área = 2156 mm <sup>2</sup>
Jx = 599426 mm <sup>4</sup>	Jx = 2952042 mm <sup>4</sup>
Wx = 21106 mm <sup>3</sup>	Wx = 56196 mm <sup>3</sup>
<b>Jx total = 3551468 mm<sup>4</sup></b>	

RO092 (2x)	CX8307 (1x)
Área = 1514 mm <sup>2</sup>	Área = 1078 mm <sup>2</sup>
Jx = 599426 mm <sup>4</sup>	Jx = 1476021 mm <sup>4</sup>
Wx = 21106 mm <sup>3</sup>	Wx = 28098 mm <sup>3</sup>
<b>Jx total = 2075447 mm<sup>4</sup></b>	

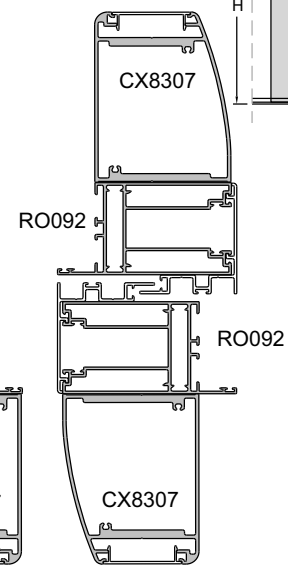
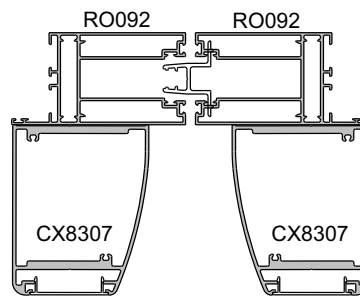
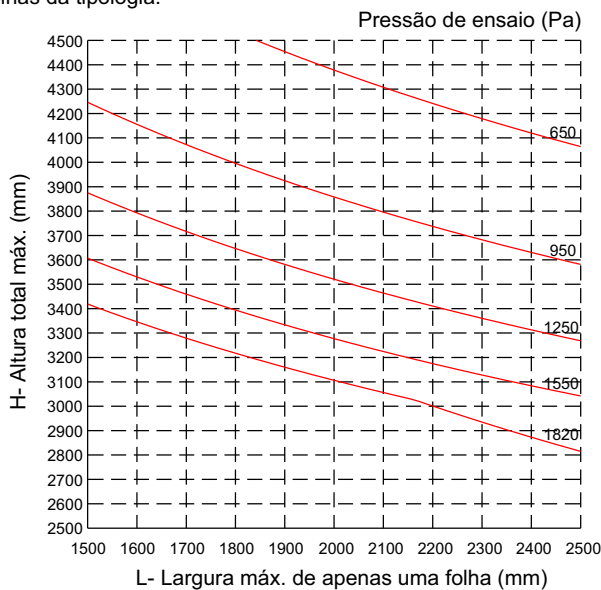
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Porta de correr - 2 e 3 planos com encontro central

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO092 (2x)	CX8307 (2x)
Área = 1514 mm <sup>2</sup>	Área = 2156 mm <sup>2</sup>
Jx = 599426 mm <sup>4</sup>	Jx = 2952042 mm <sup>4</sup>
Wx = 21106 mm <sup>3</sup>	Wx = 56196 mm <sup>3</sup>
<b>Jx total = 3551468 mm<sup>4</sup></b>	

RO092 (2x)	CX8307 (2x)
Área = 1514 mm <sup>2</sup>	Área = 2156 mm <sup>2</sup>
Jx = 599426 mm <sup>4</sup>	Jx = 2952042 mm <sup>4</sup>
Wx = 21106 mm <sup>3</sup>	Wx = 56196 mm <sup>3</sup>
<b>Jx total = 3551468 mm<sup>4</sup></b>	

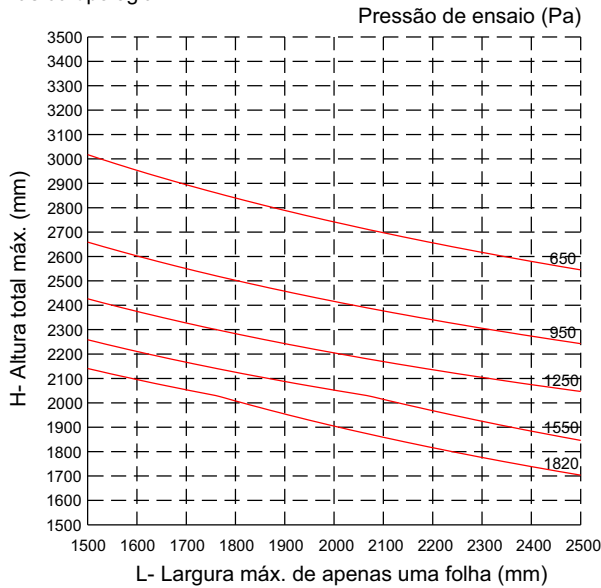
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Porta de correr - 2 e 3 planos com encontro central

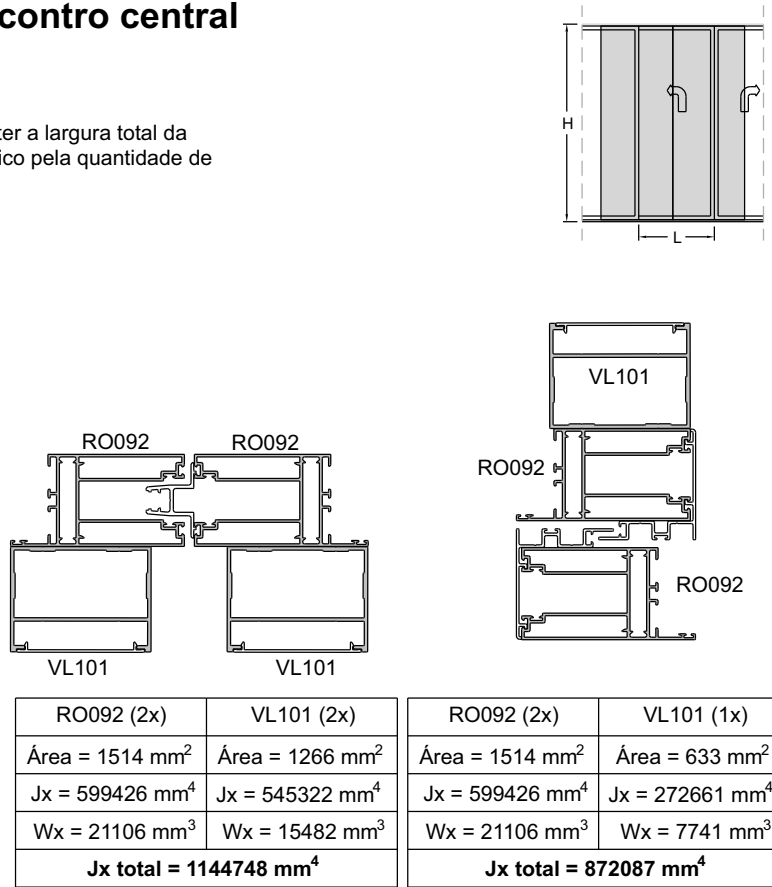
Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

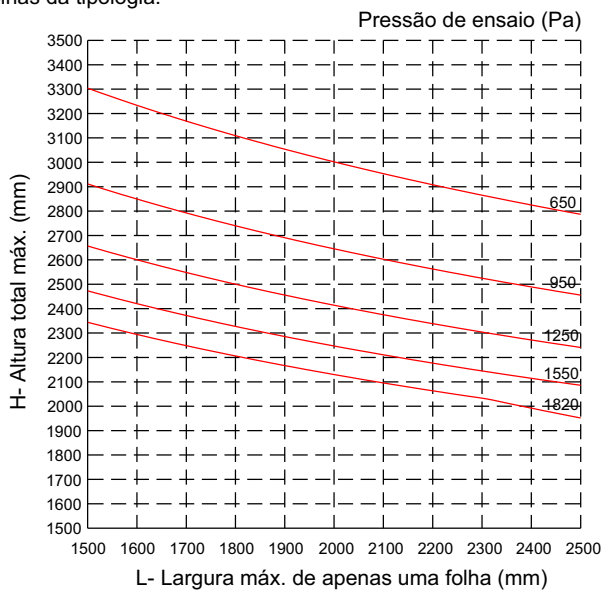
Flecha admissível = H / 175



## Porta de correr - 2 e 3 planos com encontro central

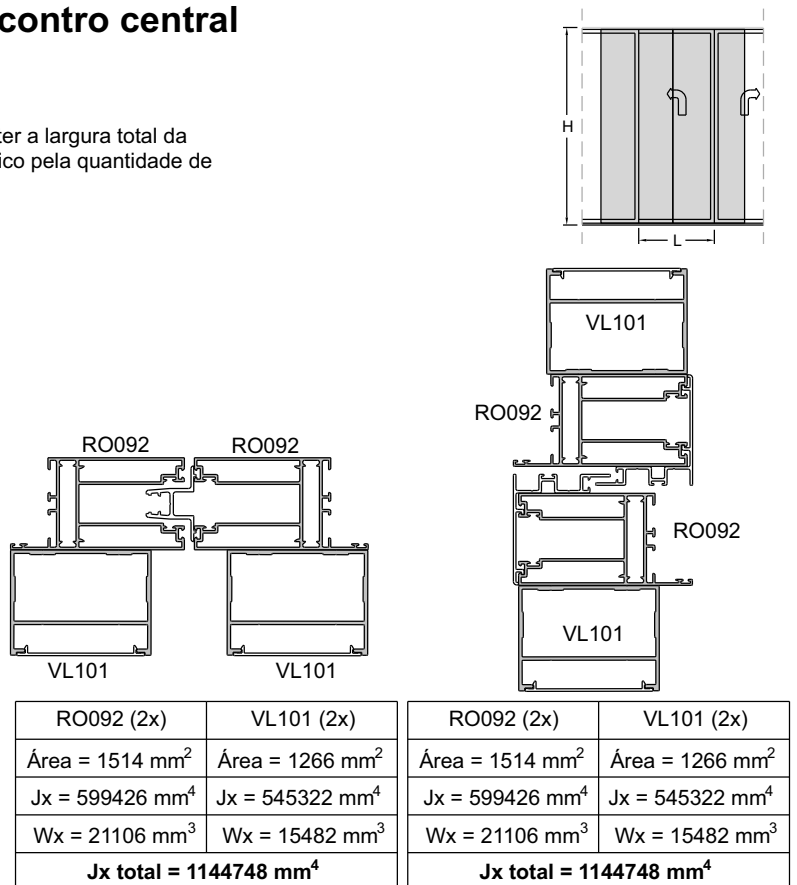
Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

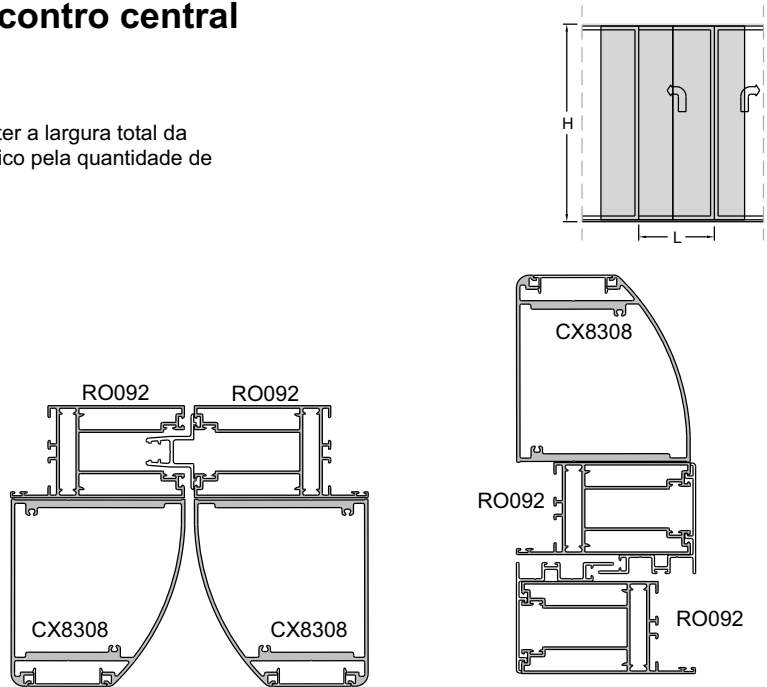
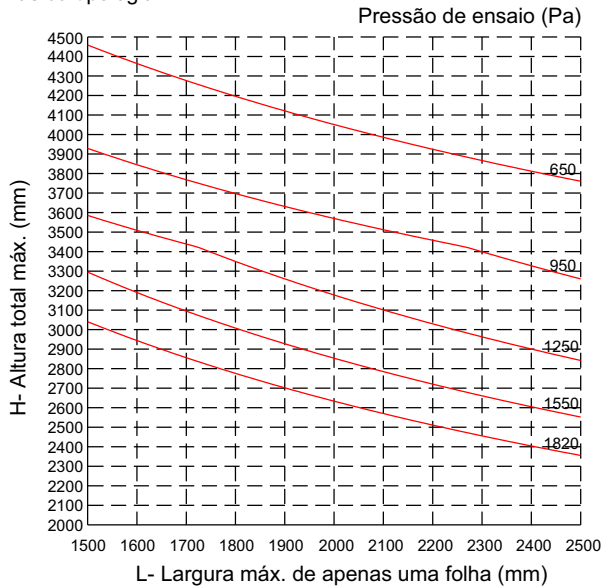
Flecha admissível = H / 175



## Porta de correr - 2 e 3 planos com encontro central

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



RO092 (2x)	CX8308 (2x)	RO092 (2x)	CX8308 (1x)
Área = 1514 mm <sup>2</sup>	Área = 2544 mm <sup>2</sup>	Área = 1514 mm <sup>2</sup>	Área = 1272 mm <sup>2</sup>
Jx = 599426 mm <sup>4</sup>	Jx = 4428250 mm <sup>4</sup>	Jx = 599426 mm <sup>4</sup>	Jx = 2214125 mm <sup>4</sup>
Wx = 21106 mm <sup>3</sup>	Wx = 74498 mm <sup>3</sup>	Wx = 21106 mm <sup>3</sup>	Wx = 37249 mm <sup>3</sup>
<b>Jx total = 5027676 mm<sup>4</sup></b>		<b>Jx total = 2813551 mm<sup>4</sup></b>	

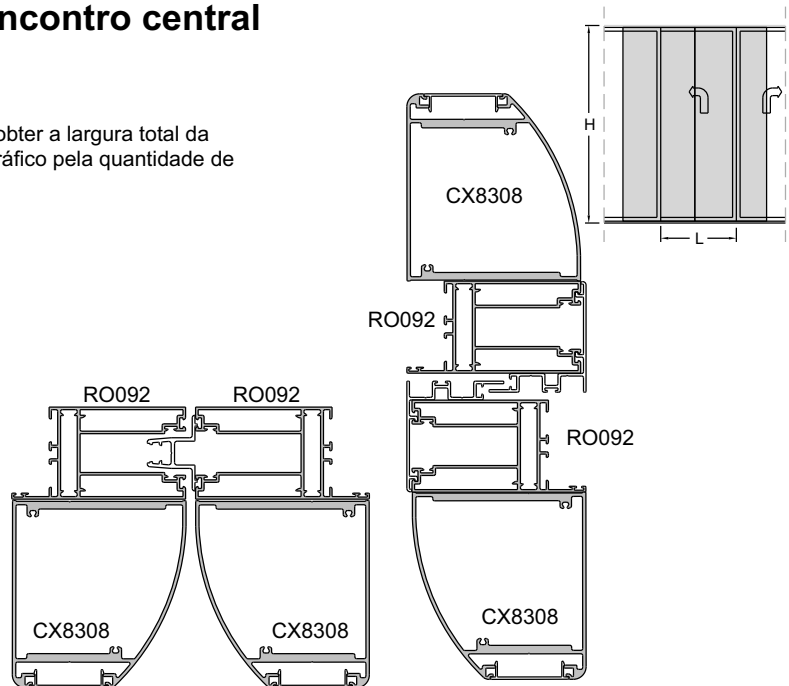
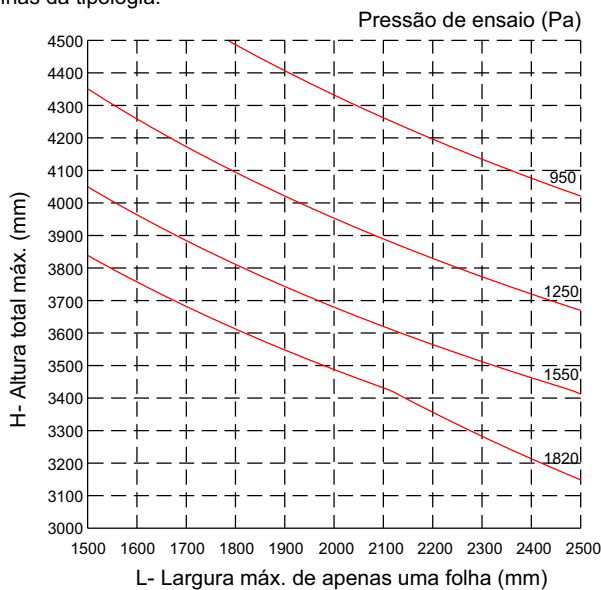
Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175

## Porta de correr - 2 e 3 planos com encontro central

Notas:

A largura do gráfico refere-se a apenas uma folha, ou seja, para obter a largura total da esquadria deve-se multiplicar a medida máxima encontrada no gráfico pela quantidade de folhas da tipologia.



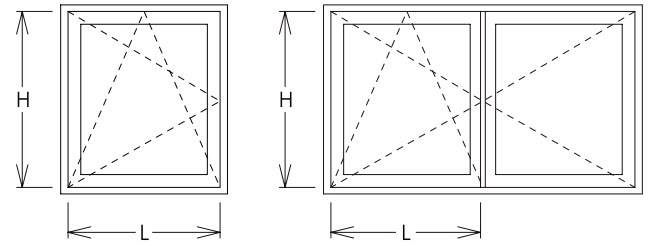
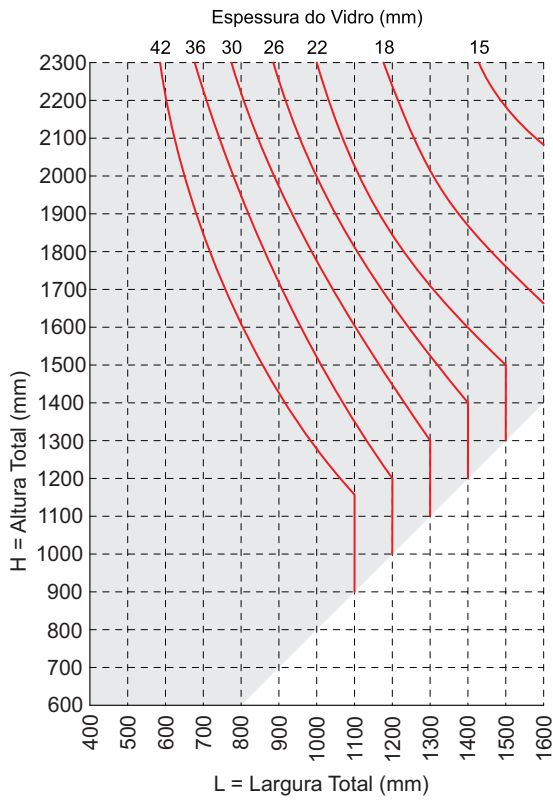
RO092 (2x)	CX8308 (2x)	RO092 (2x)	CX8308 (2x)
Área = 1514 mm <sup>2</sup>	Área = 2544 mm <sup>2</sup>	Área = 1514 mm <sup>2</sup>	Área = 2544 mm <sup>2</sup>
Jx = 599426 mm <sup>4</sup>	Jx = 4428250 mm <sup>4</sup>	Jx = 599426 mm <sup>4</sup>	Jx = 4428250 mm <sup>4</sup>
Wx = 21106 mm <sup>3</sup>	Wx = 74498 mm <sup>3</sup>	Wx = 21106 mm <sup>3</sup>	Wx = 74498 mm <sup>3</sup>
<b>Jx total = 5027676 mm<sup>4</sup></b>		<b>Jx total = 5027676 mm<sup>4</sup></b>	

Tensão admissível = 7 kg/mm<sup>2</sup> (liga 6060-T5)

Flecha admissível = H / 175



**Janela Oscilo Batente**



**OBS:** Tamanhos em função do peso e espessura do vidro

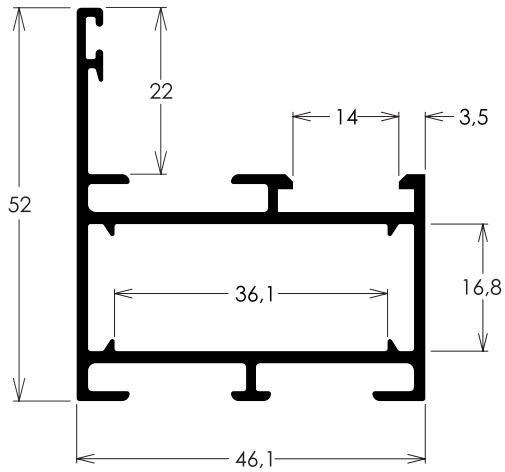
- Peso máximo da Folha = 120kg
- Dimensões permitidas (folha)
  - Dimensões não permitidas

# Perfis

Cód.	Pág.	Cód.	Pág.	Cód.	Pág.	Cód.	Pág.
CL006	F-37	RO028	F-40	RO092	F-28	T80	F-25
CL011	F-37	RO029	F-40	RO093	F-29	T81	F-25
CL022	F-33	RO030	F-40	RO094	F-29	T82	F-27
CM168	F-30	RO031	F-19	RO095	F-29	T83	F-27
CX8307	F-14	RO032	F-23	RO096	F-04	T84	F-03
CX8308	F-14	RO033	F-22	RO097	F-04	T88	F-06
FC234	F-10	RO034	F-22	RO098	F-04	T89	F-06
LC021	F-10	RO035	F-22	RO099	F-04	T90	F-06
LG167	F-36	RO036	F-22	RO100	F-12	T91	F-06
LG168	F-30	RO037	F-40	RO101	F-13	VL040	F-10
LG169	F-32	RO038	F-40	RO102	F-13	VL101	F-10
LG170	F-30	RO039	F-19	RO103	F-12		
LG179	F-34	RO040	F-22	RO105	F-40		
MH006	F-33	RO041	F-23	RO147	F-15		
MN015	F-35	RO042	F-23	RO150	F-29		
MN019	F-34	RO043	F-23	RO156	F-39		
MN022	F-34	RO044	F-21	RO157	F-39		
MN027	F-33	RO045	F-21	RO164	F-13		
MN031	F-36	RO046	F-22	RO165	F-31		
MN034	F-35	RO047	F-22	RO167	F-32		
MN038	F-34	RO048	F-07	RO168	F-31		
MN039	F-35	RO049	F-07	RO169	F-31		
MN055	F-35	RO050	F-08	RO170	F-31		
MN057	F-34	RO051	F-08	RO171	F-27		
MN058	F-33	RO052	F-10	RO172	F-26		
RM029	F-37	RO053	F-10	RO173	F-27		
RO001	F-38	RO054	F-11	RO174	F-32		
RO002	F-38	RO055	F-10	RO180	F-15		
RO003	F-38	RO056	F-09	RO216	F-38		
RO004	F-38	RO057	F-09	RO224	F-38		
RO005	F-37	RO058	F-09	RO225	F-15		
RO006	F-37	RO059	F-11	T60	F-02		
RO007	F-38	RO062	F-10	T61	F-02		
RO008	F-01	RO063	F-16	T62	F-02		
RO010	F-01	RO064	F-07	T63	F-02		
RO011	F-01	RO065	F-08	T64	F-17		
RO013	F-01	RO066	F-08	T65	F-17		
RO014	F-03	RO068	F-08	T66	F-18		
RO016	F-38	RO075	F-28	T67	F-18		
RO018	F-39	RO076	F-29	T69	F-18		
RO019	F-39	RO077	F-05	T70	F-16		
RO020	F-40	RO078	F-05	T71	F-24		
RO021	F-40	RO079	F-05	T72	F-24		
RO022	F-39	RO080	F-05	T73	F-24		
RO023	F-39	RO081	F-03	T74	F-24		
RO024	F-39	RO082	F-03	T75	F-26		
RO025	F-39	RO085	F-29	T76	F-26		
RO026	F-39	RO089	F-22	T77	F-26		
RO027	F-39	RO090	F-08	T78	F-25		
				T79	F-25		

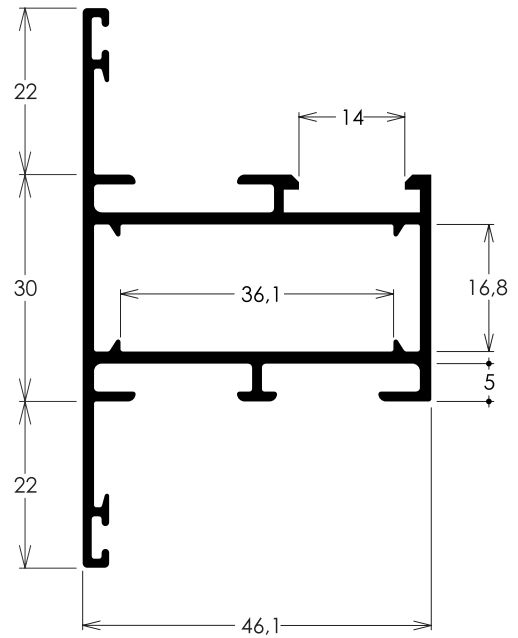
**RO008 0,886 kg/m**

Marco montante e travessa



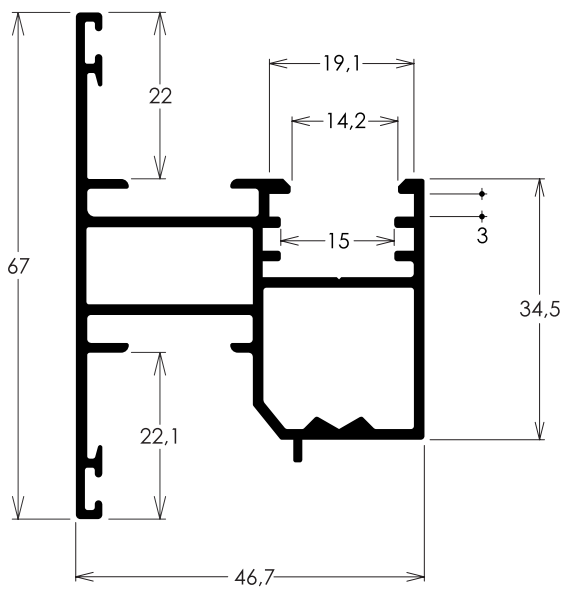
**RO013 0,993 kg/m**

Marco travessa inferior



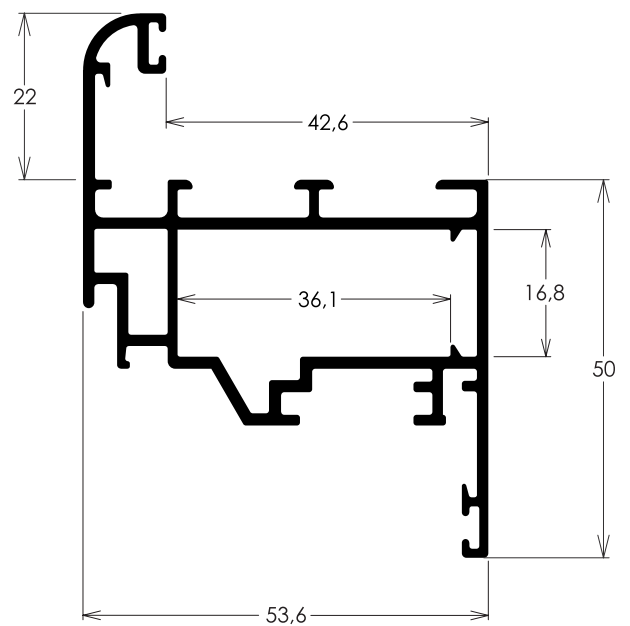
**RO011 1,065 kg/m**

Mata junta da folha



**RO010 1,208 kg/m**

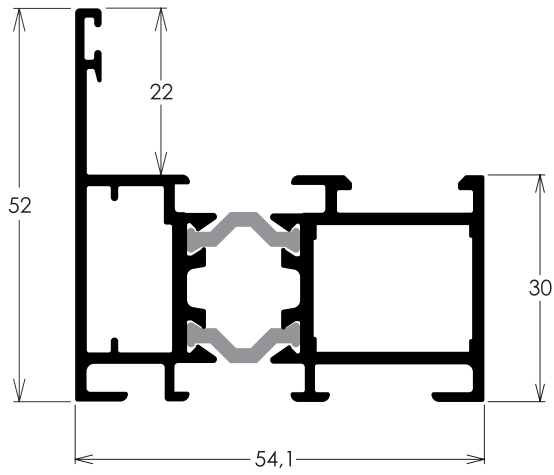
Folha montante e travessa



Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

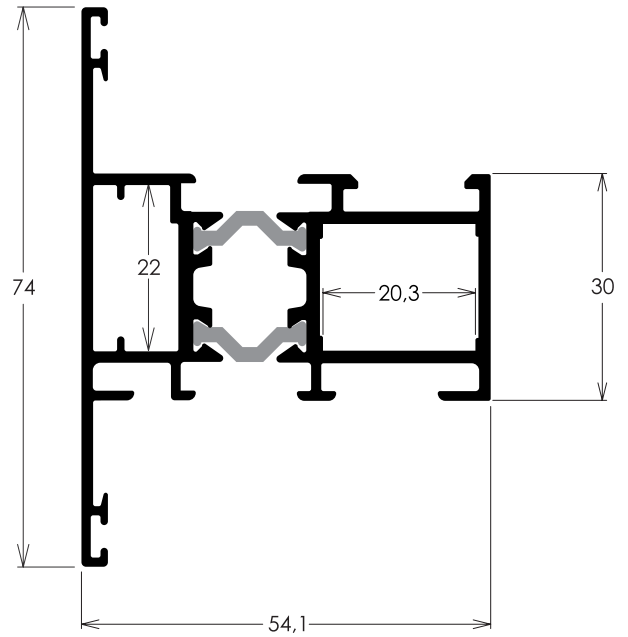
**T60**

Marco montante e travessa



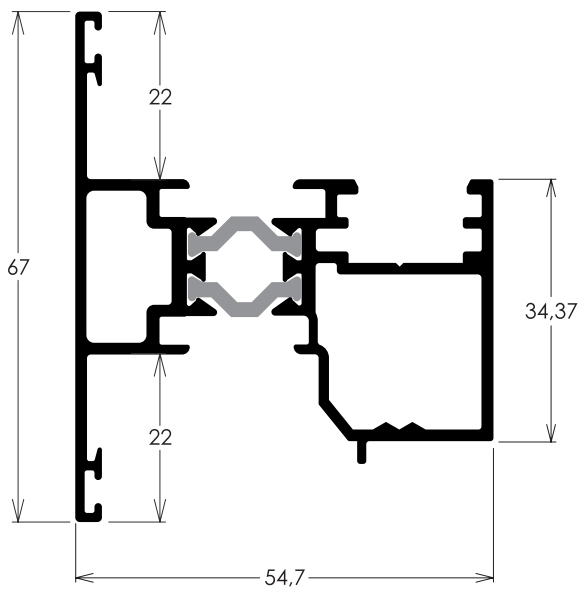
**T61**

Marco travessa inferior



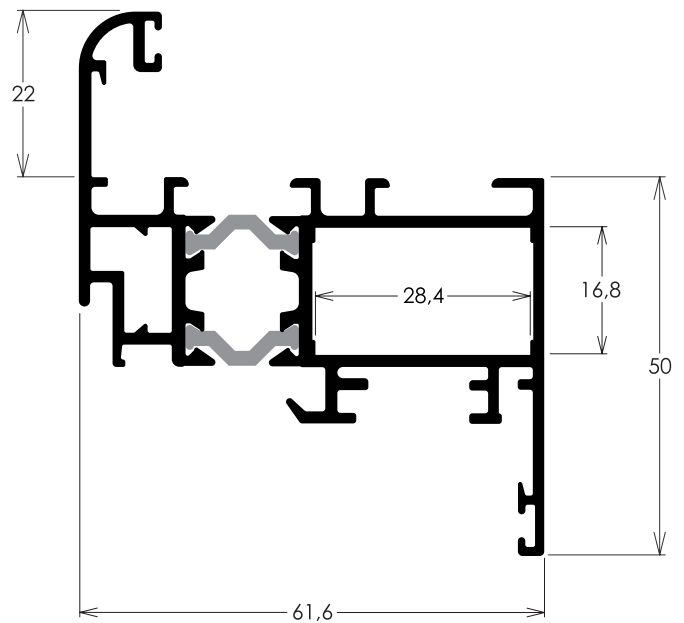
**T63**

Mata junta da folha



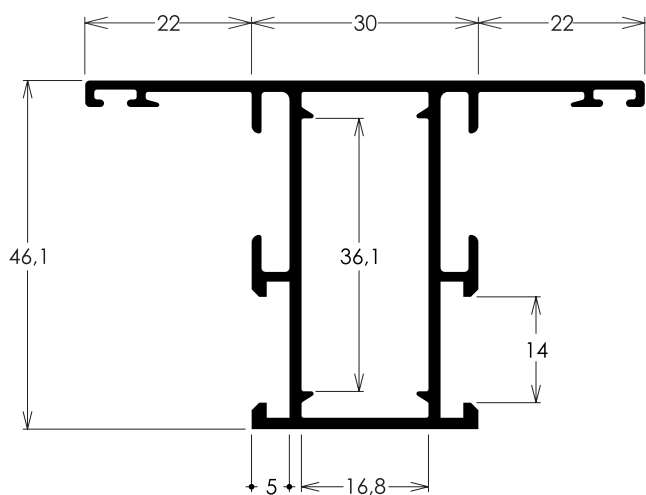
**T62**

Folha montante e travessa

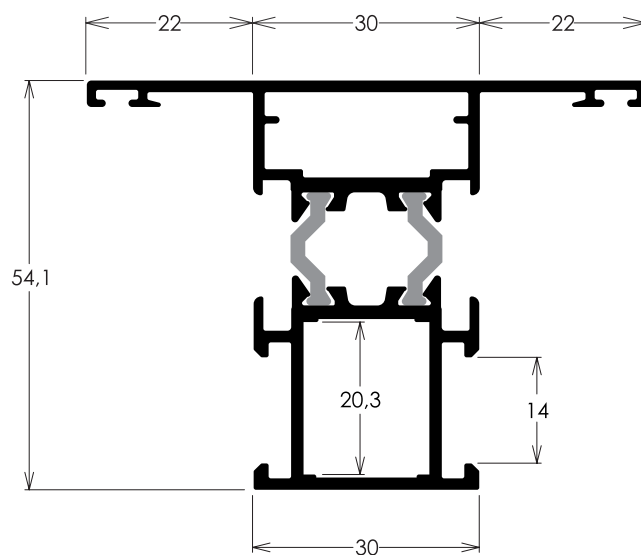


Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

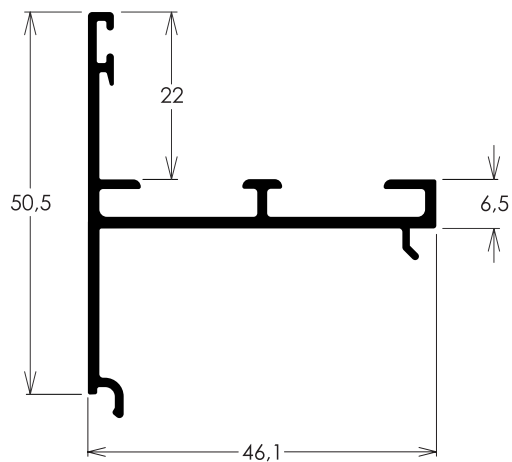
**RO082** 0,997 kg/m  
Marco travessa intermediária



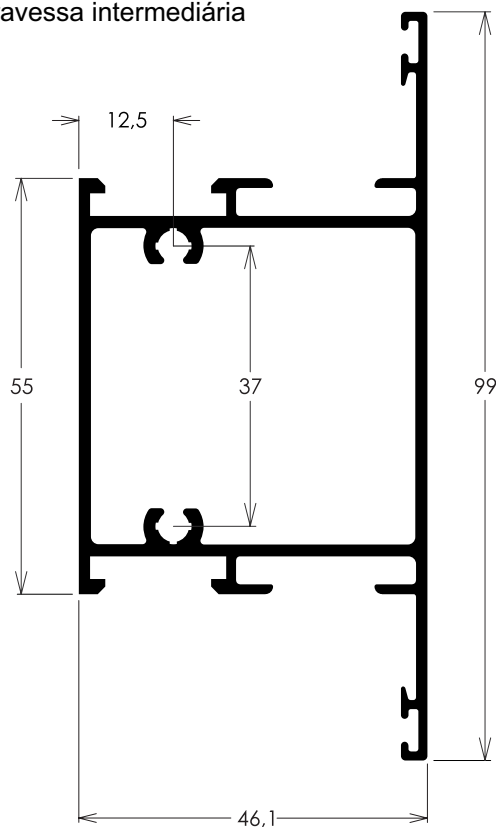
**T84**  
Marco travessa intermediária



**RO081** 0,528 kg/m  
Inversor



**RO014** 1,366 kg/m  
Marco travessa intermediária

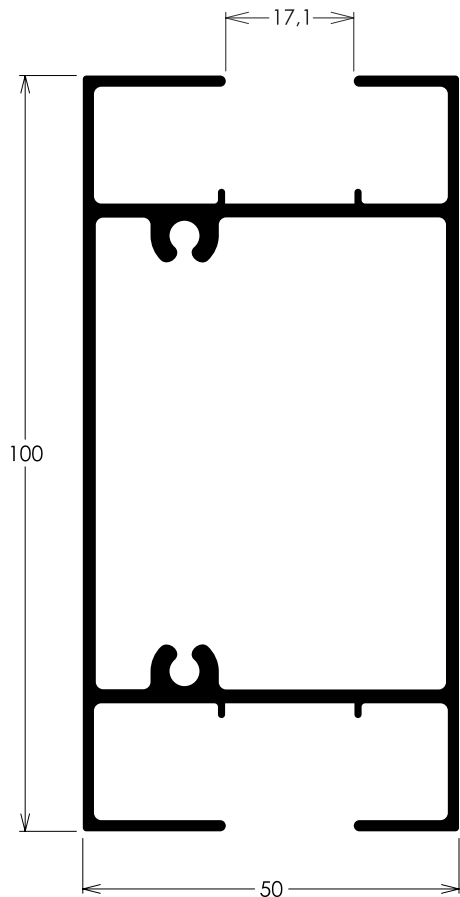


Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

Veneziana orientável

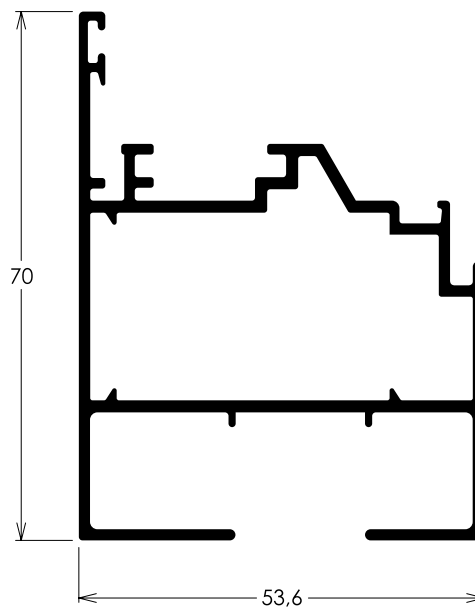
**RO097** 1,816 kg/m

Folha travessa intermediária



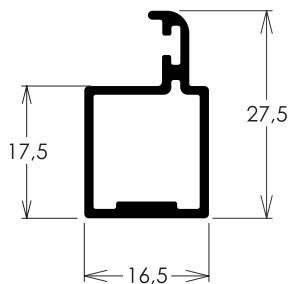
**RO096** 1,220 kg/m

Folha montante e travessa



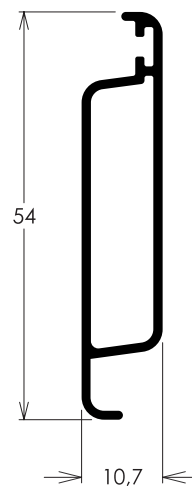
**RO098** 0,292 kg/m

Terminal da palheta



**RO099** 0,376 kg/m

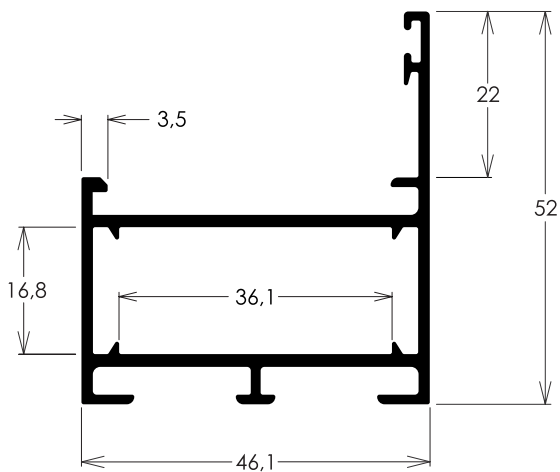
Palheta veneziana



Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

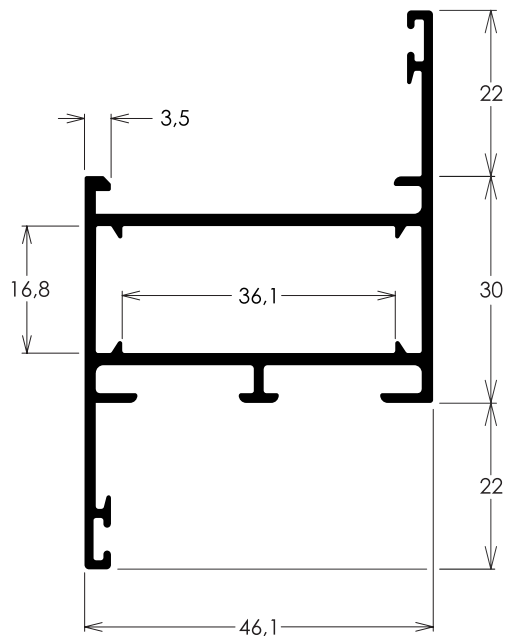
**RO077** 0,835 kg/m

Marco montante e travessa



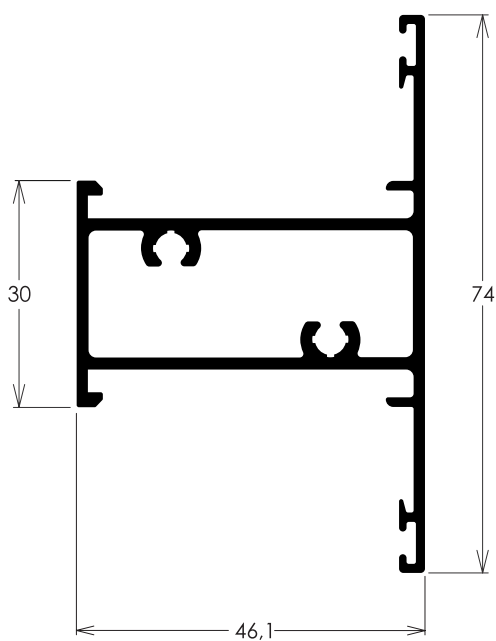
**RO078** 0,943 kg/m

Marco travessa inferior



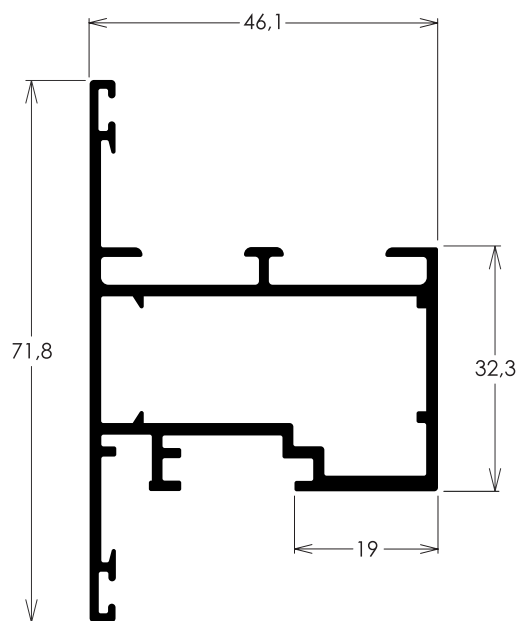
**RO079** 0,993 kg/m

Marco travessa intermediária



**RO080** 1,015 kg/m

Folha montante e travessa

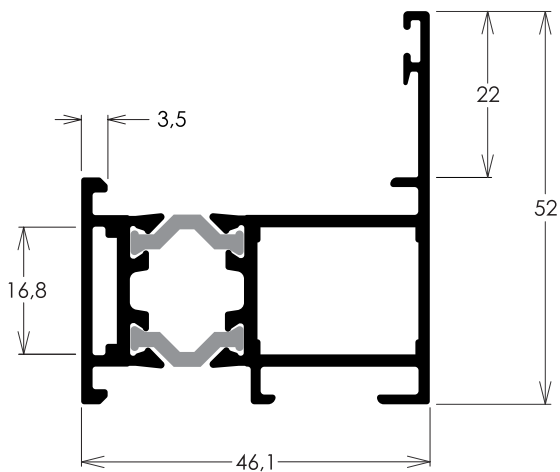


Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.



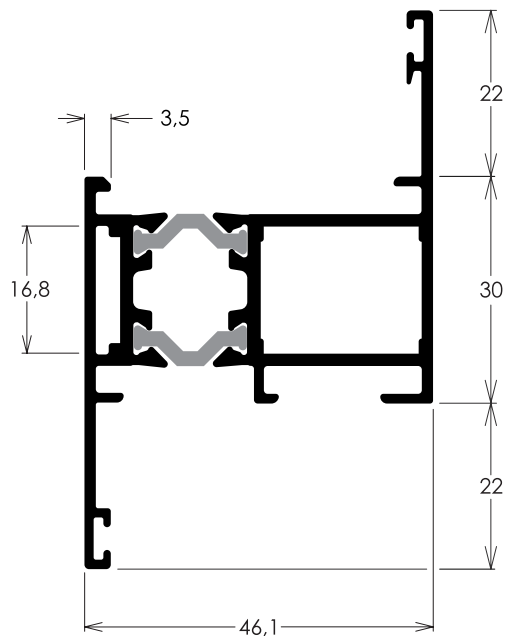
**T88**

Marco montante e travessa



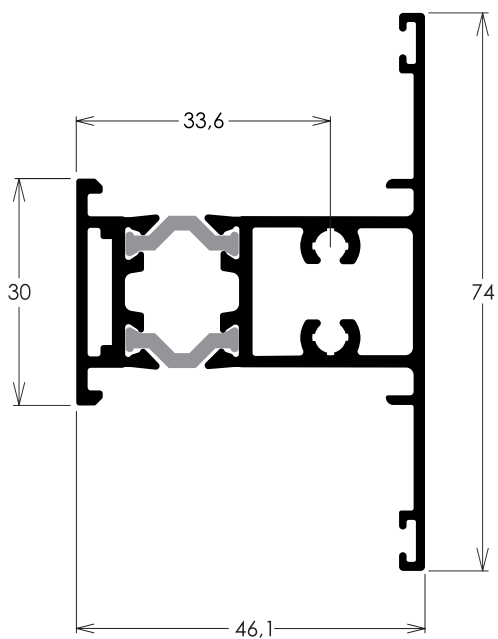
**T89**

Marco travessa inferior



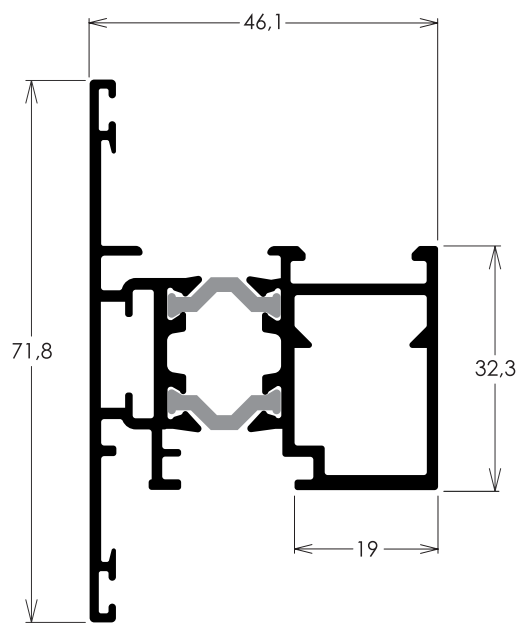
**T91**

Marco travessa intermediária



**T90**

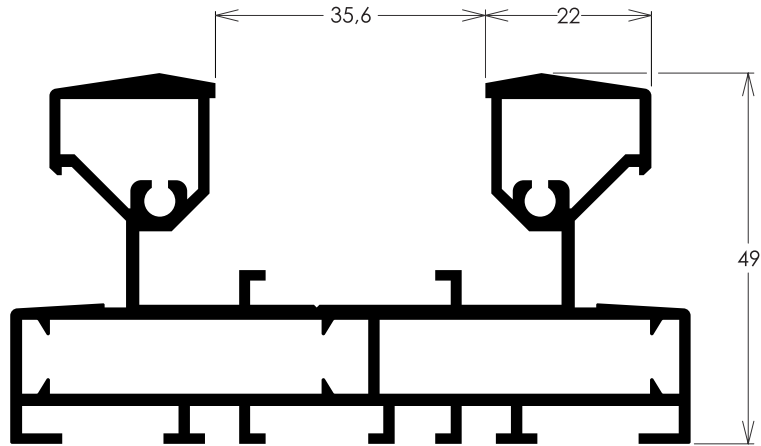
Folha montante e travessa



Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

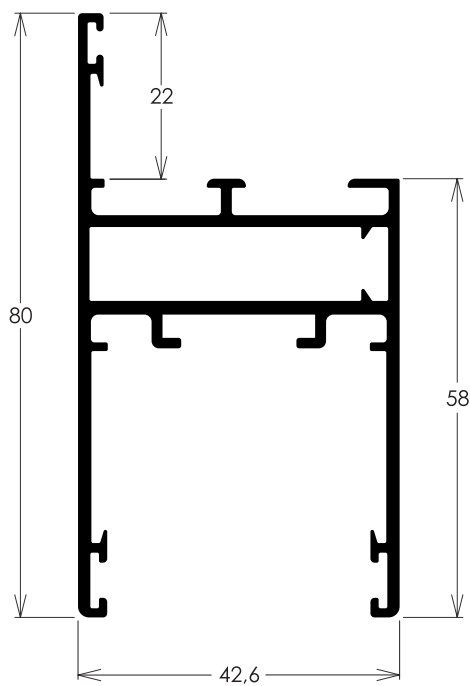
**RO048** 2,256 kg/m

Marco 2 planos travessa e montante



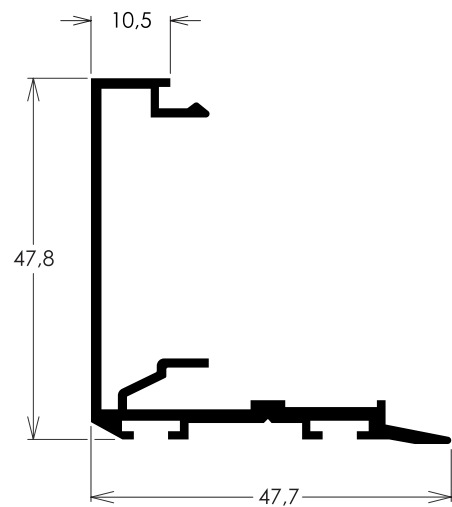
**RO049** 1,154 kg/m

Folha travessa e montante



**RO064** 0,666 kg/m

Complemento mão de amigo

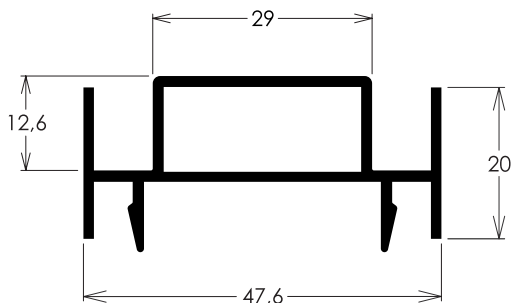


Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

Complementos

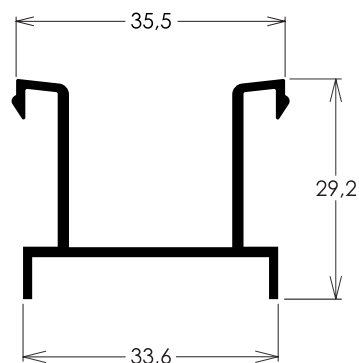
**RO066** 0,642 kg/m

Mata junta folha central



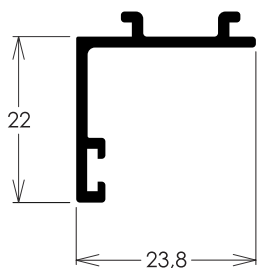
**RO050** 0,351 kg/m

Complemento vedação de trilho



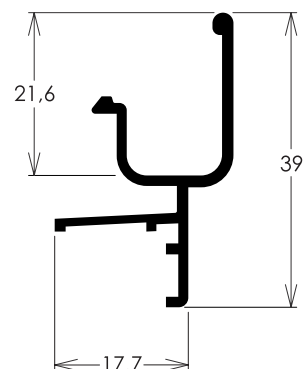
**RO068** 0,245 kg/m

Vedação inferior do marco



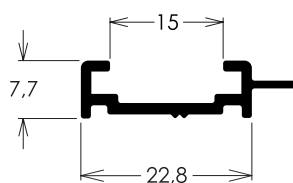
**RO051** 0,330 kg/m

Pingadeira do marco



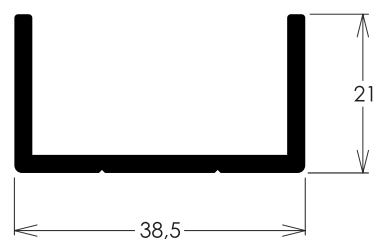
**RO090** 0,183 kg/m

Complemento



**RO065** 0,490 kg/m

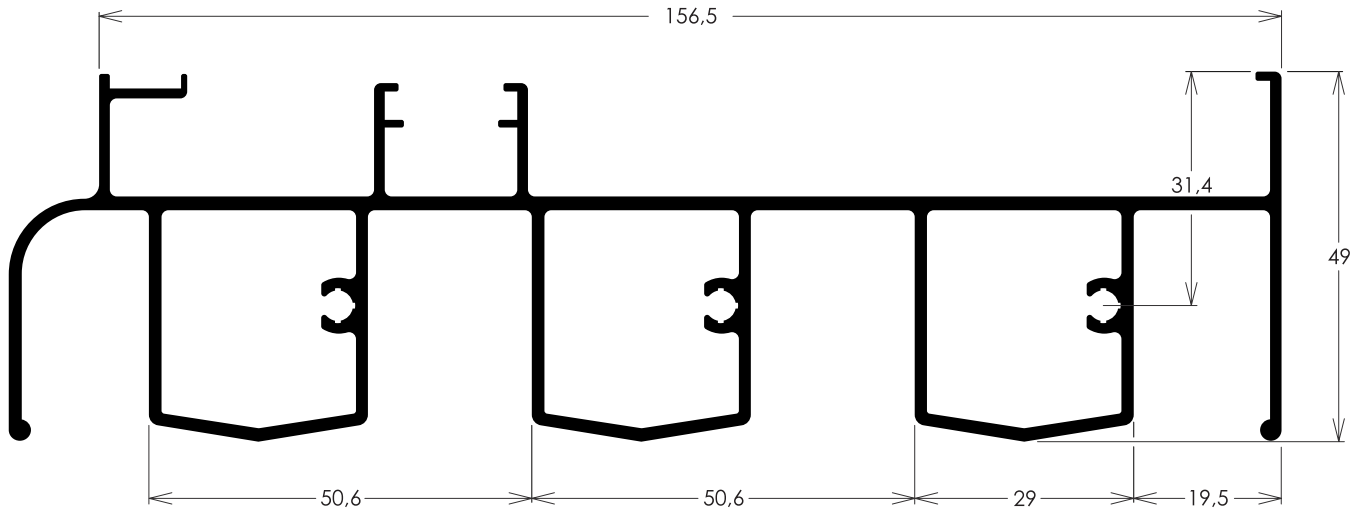
Complemento reforço



Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

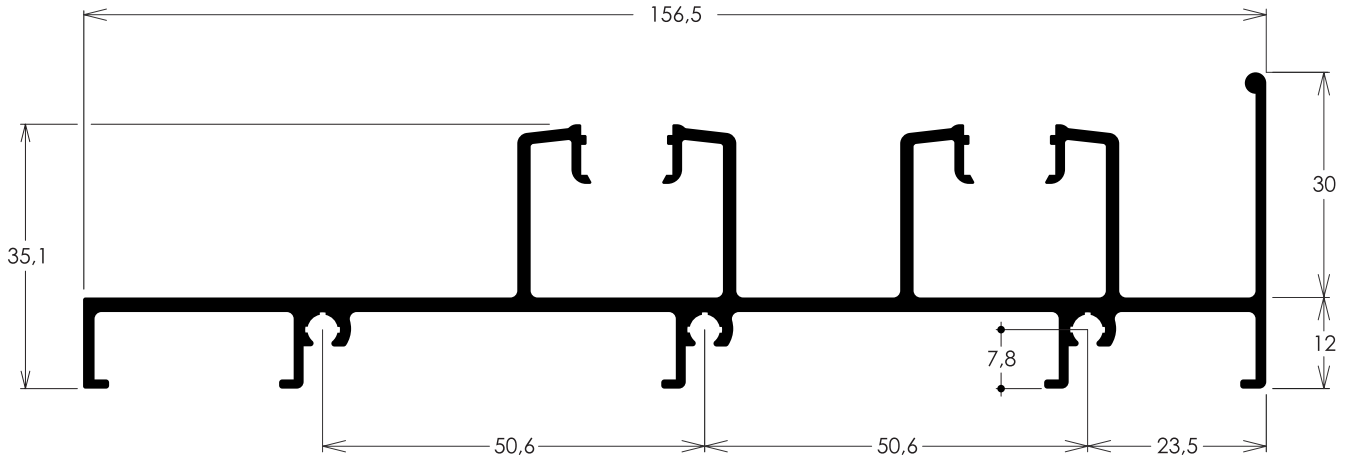
**RO057** 2,688 kg/m

Marco 3 planos travessa superior



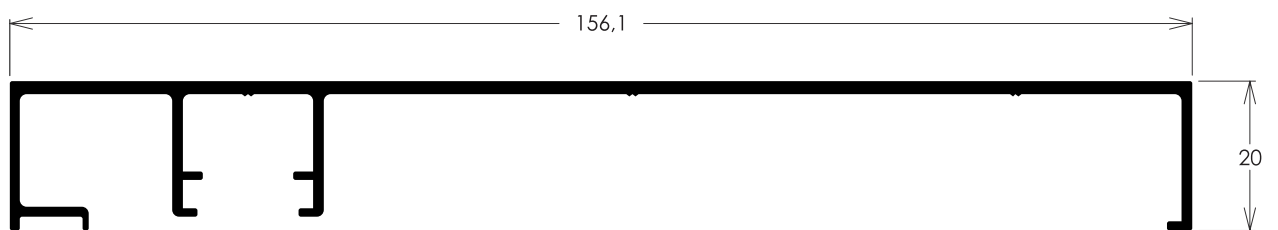
**RO056** 1,950 kg/m

Marco 3 planos travessa inferior



**RO058** 1,088 kg/m

Marco montante lateral 3 planos

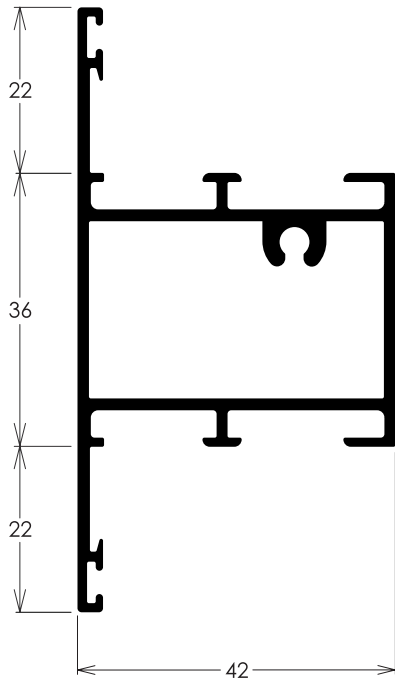


Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

Travessa e trilhos

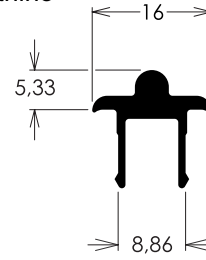
**RO062** 1,049 kg/m

Folha travessa intermediária



**RO053** 0,198 kg/m

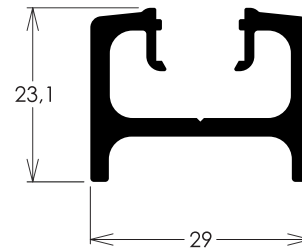
Complemento do trilho



NOTA:  
Quando usado no trilho inferior, anodizar fosco A23.

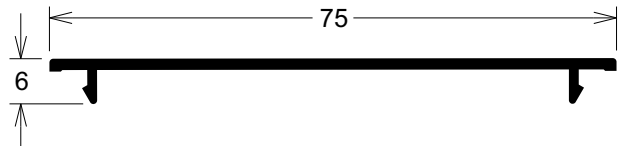
**RO052** 0,619 kg/m

Trilho único



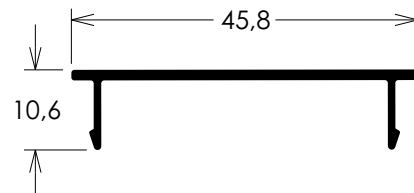
**FC234** 0,339 kg/m

Tampa de reforço



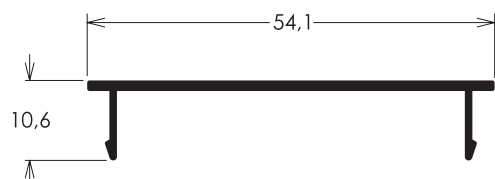
**VL040** 0,227 kg/m

Tampa de reforço



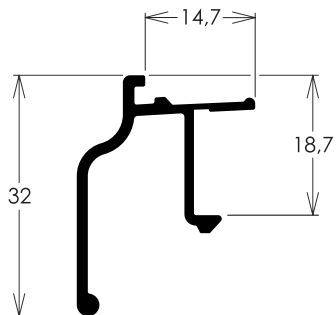
**LC021** 0,258 kg/m

Tampa do puxador



**RO055** 0,285 kg/m

Pingadeira do marco



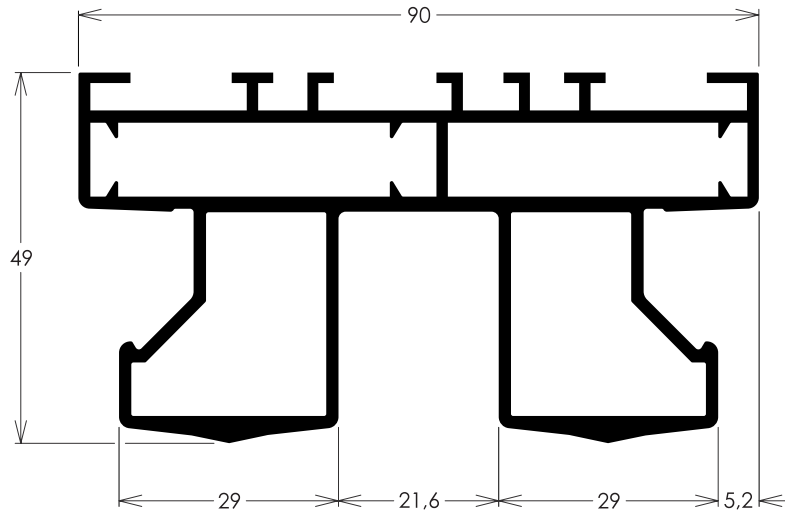
NOTA: Aplicação somente nos perfis RO054 e RO05

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

Marco 2 e 3 planos para portas

**RO054** 2,118 kg/m

Marco 2 planos travessa e montante

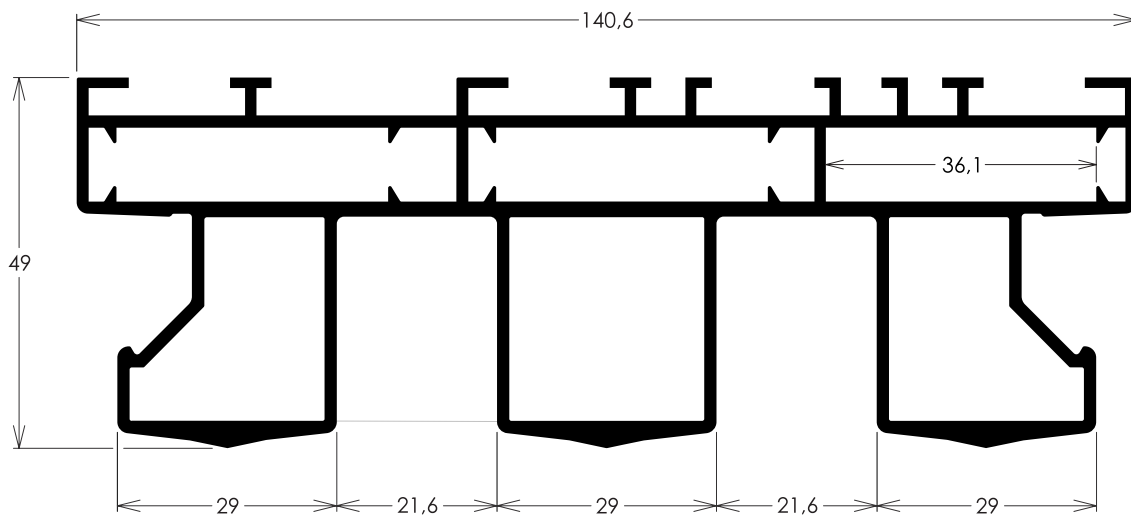


**NOTA:**

Aplicação somente em portas de correr, marcos superior e lateral.

**RO059** 3,683 kg/m

Marco 3 planos travessa e montante



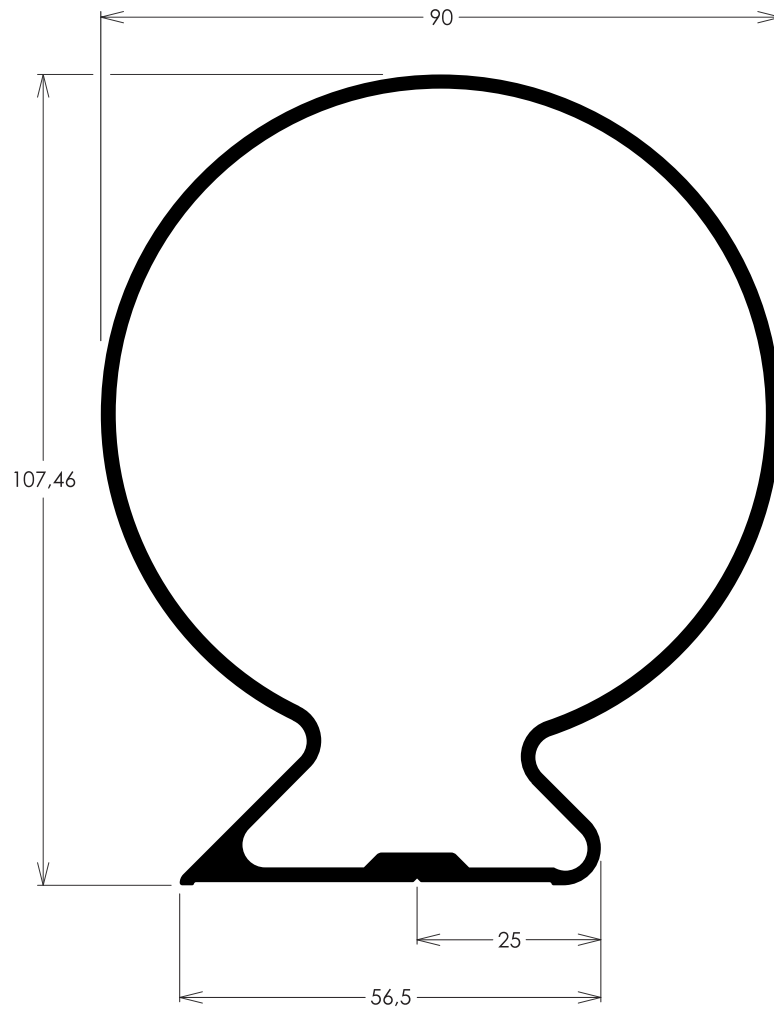
**NOTA:**

Aplicação somente em portas de correr, marcos superior.

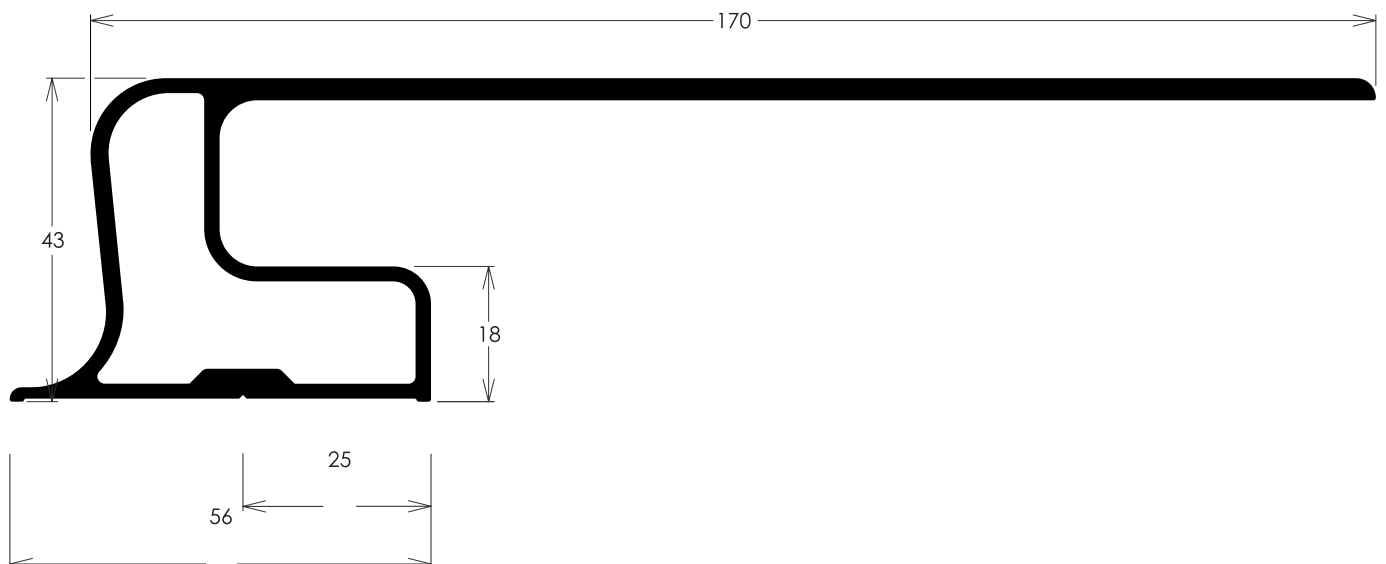
Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**RO103** 1,977 kg/m

Puxador bola

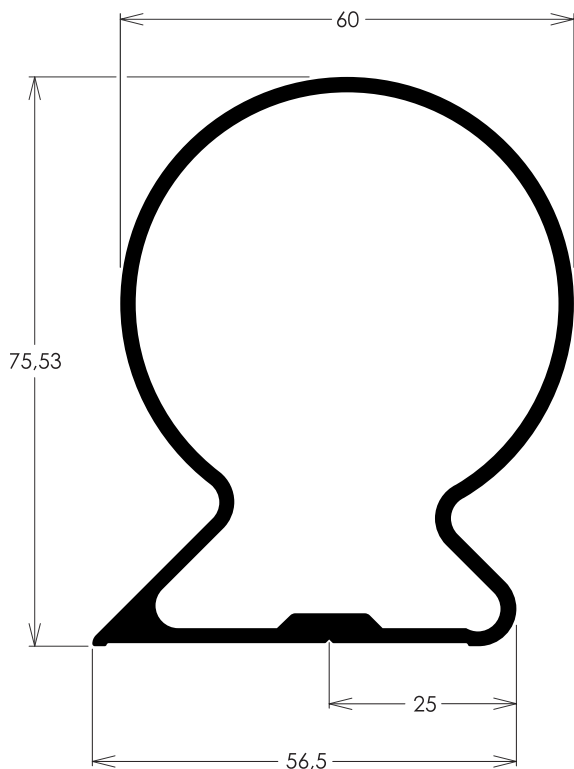
**RO100** 2,255 kg/m

Puxador

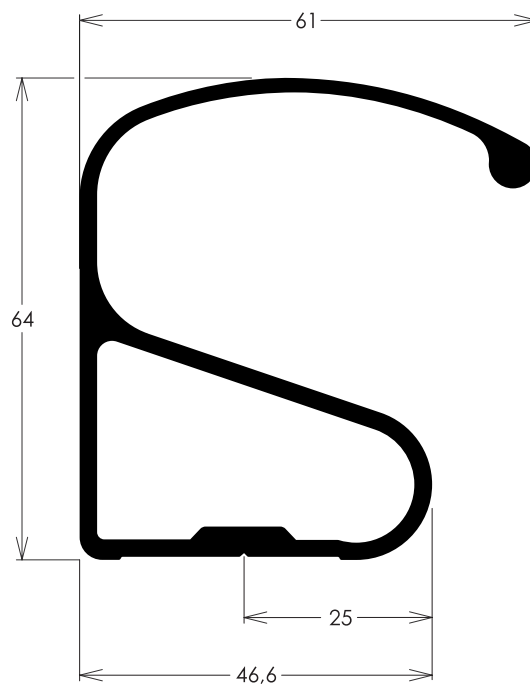


Puxadores

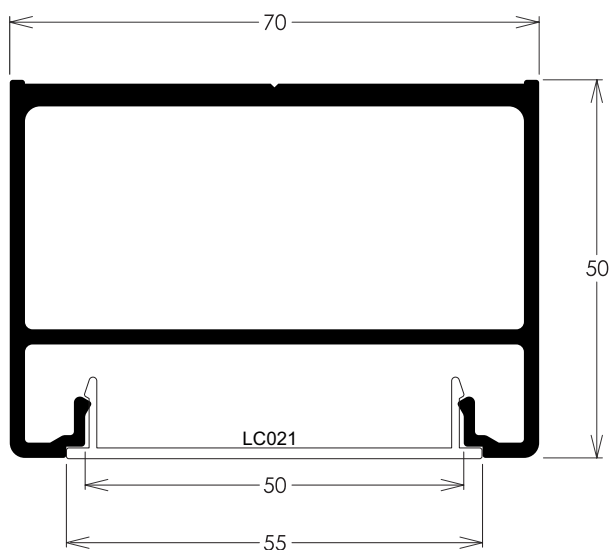
**RO102** 1,460 kg/m  
Puxador bola



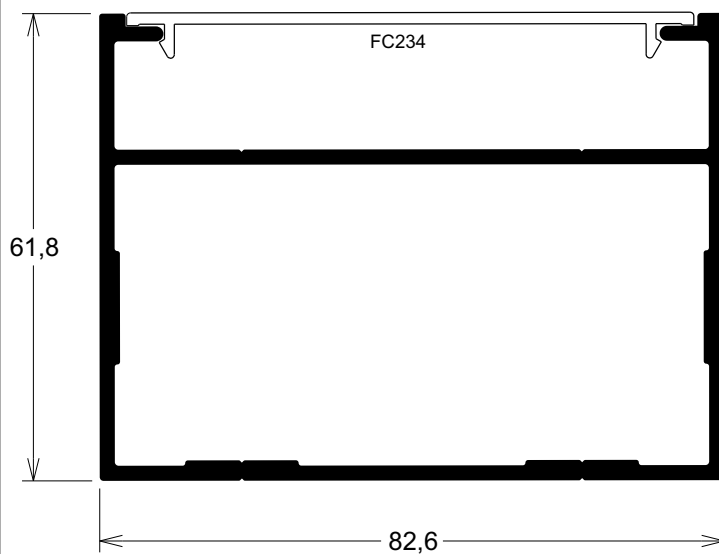
**RO101** 1,492 kg/m  
Puxador S



**RO164** 1,572 kg/m  
Puxador



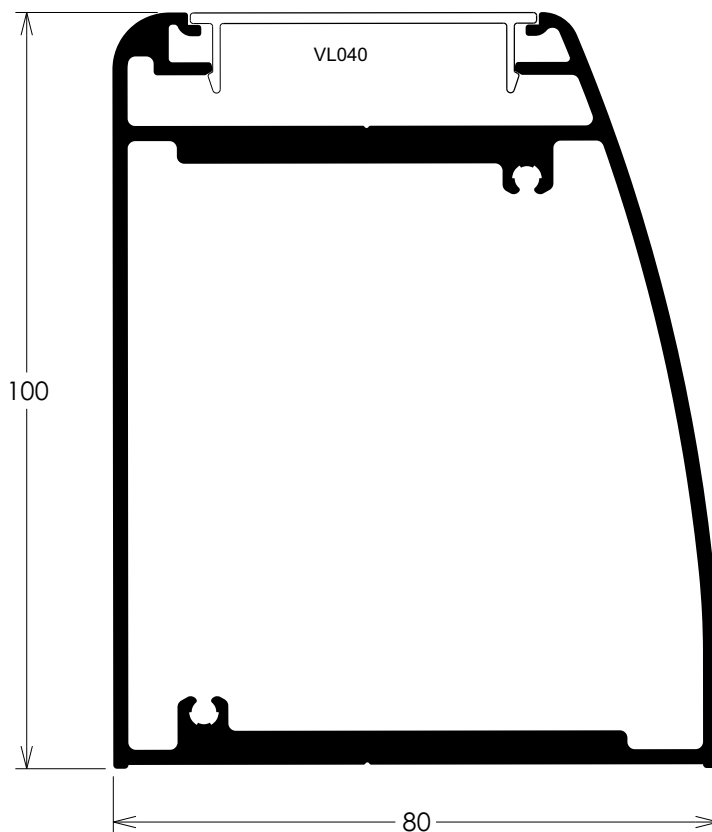
**VL101** 1,716 kg/m  
Puxador



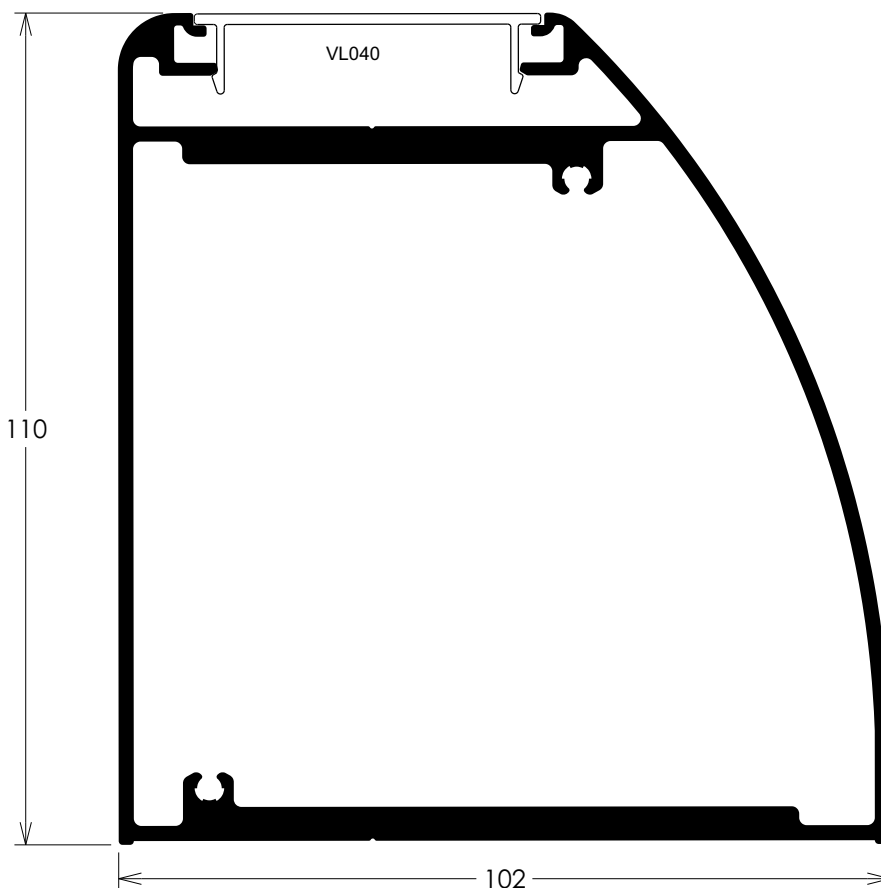
Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.



**CX8307** 2,922 kg/m  
Puxador



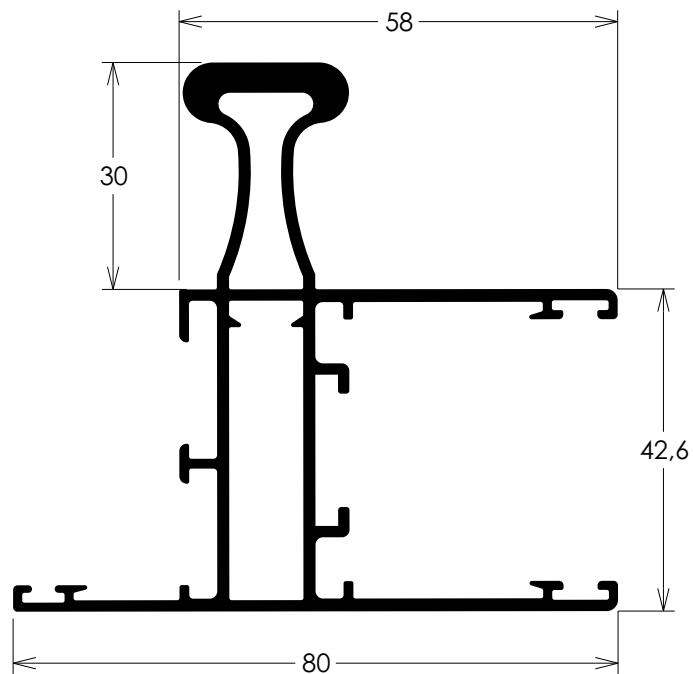
**CX8308** 3,488 kg/m  
Puxador



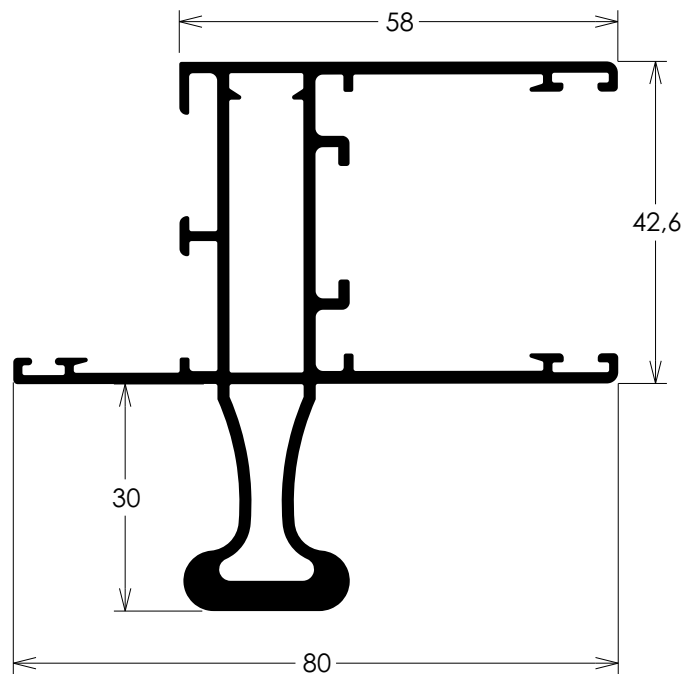
Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

Folha montante e travessa

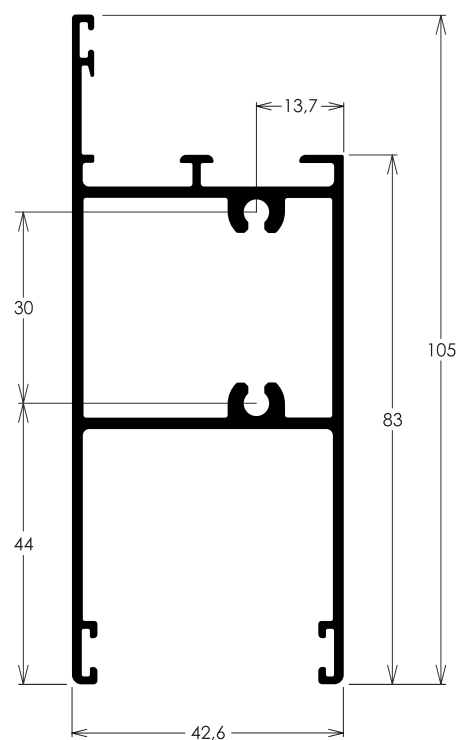
**RO180 1,675 kg/m**  
Montante com reforço interno



**RO225 1,677 kg/m**  
Montante com reforço externo



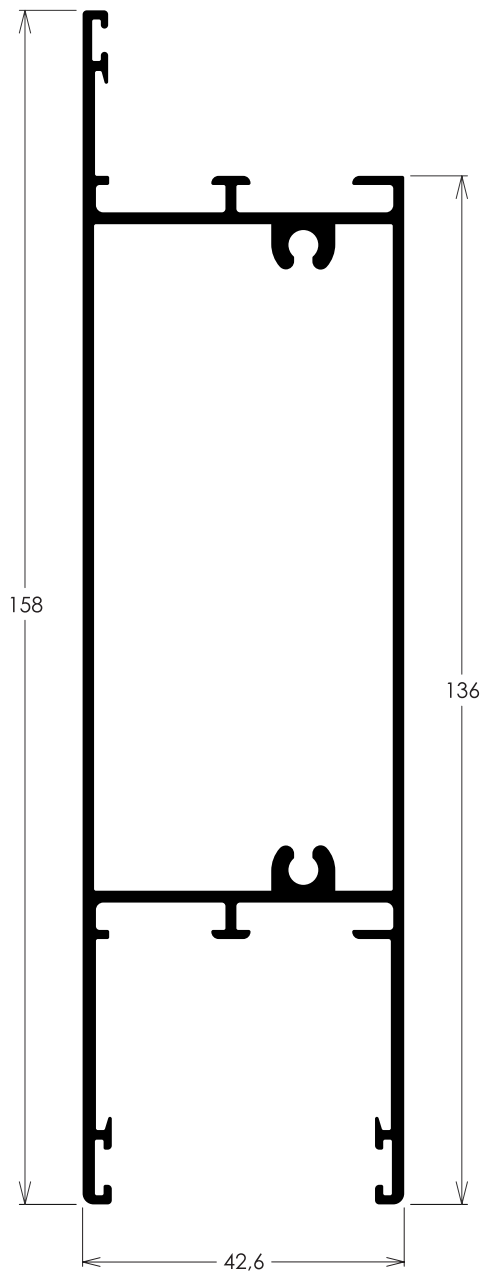
**RO147 1,531 kg/m**  
Folha travessa da porta



Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

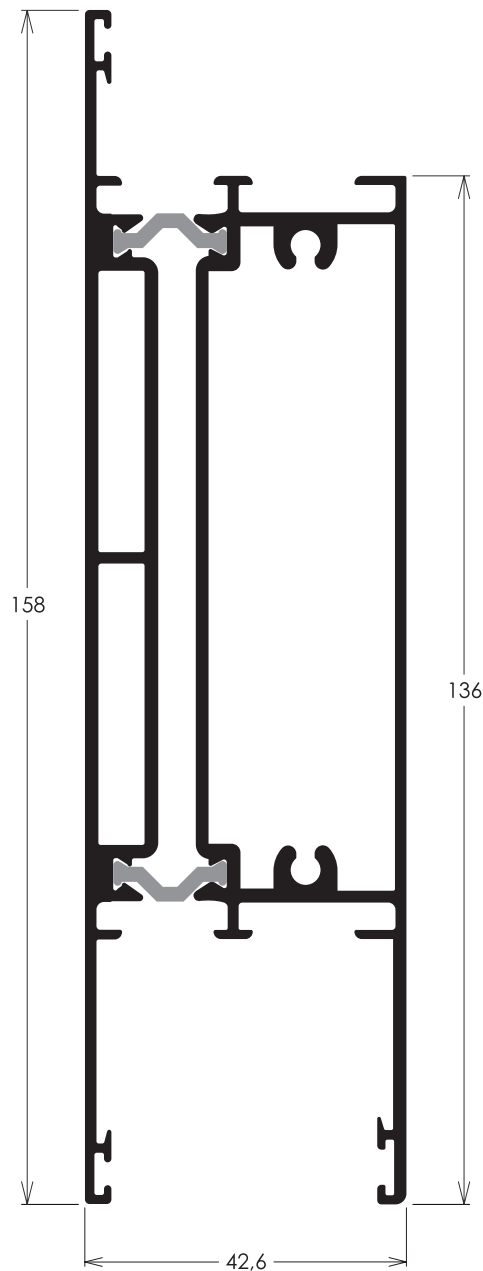
**RO063** 2,113 kg/m

Folha travessa inferior da porta



**T70**

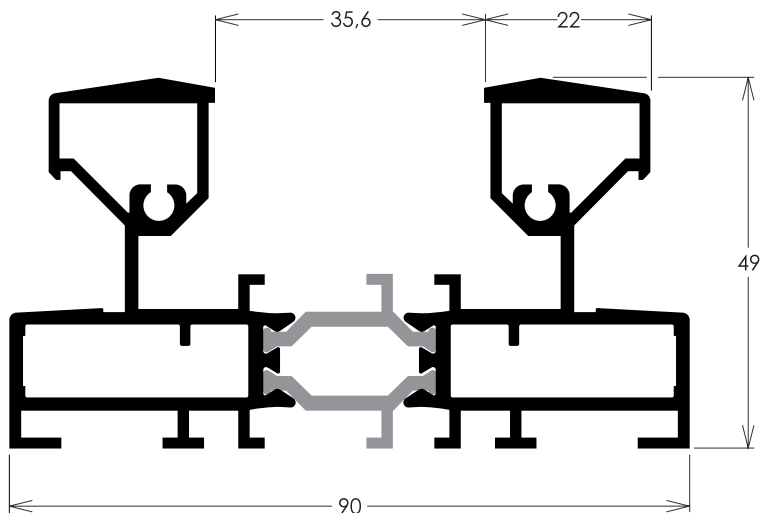
Folha travessa inferior da porta



Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

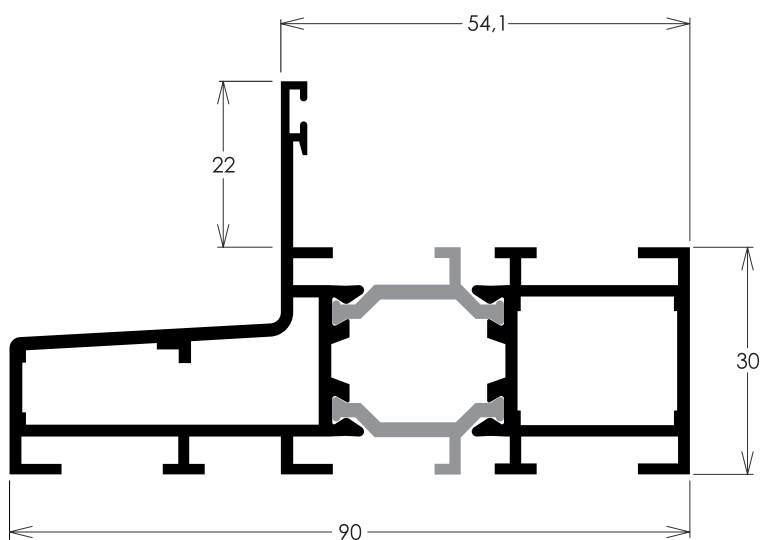
**T64**

Marco 2 planos travessa e montante



**T65**

Marco 2 planos travessa intermediária

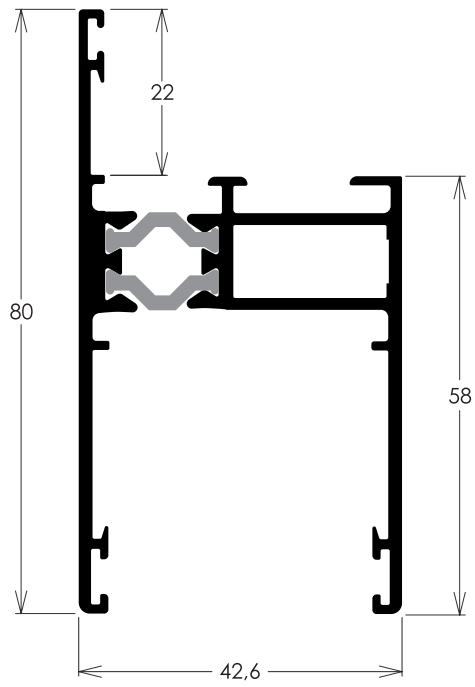


**NOTA:**  
 Perfil aplicada somente em janela ou porta com bandeira ou peitoril fixo.

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

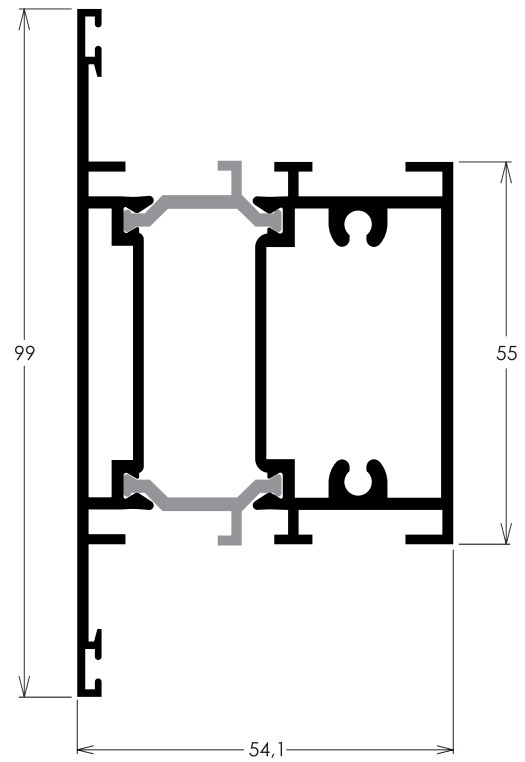
**T66**

Folha travessa montante da porta



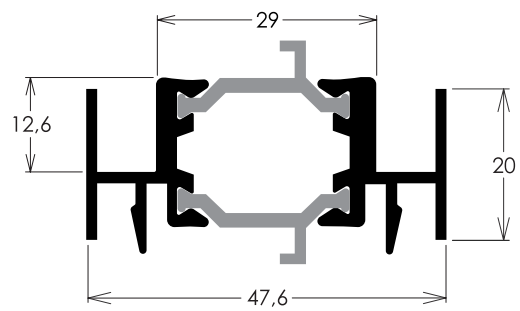
**T69**

Folha travessa da porta



**T67**

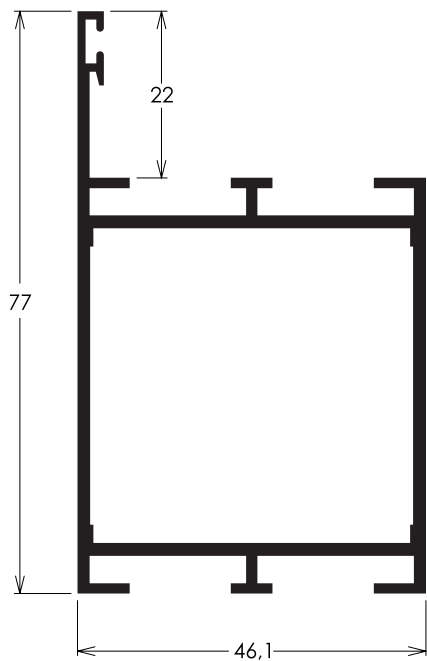
Mata junta folha central



Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

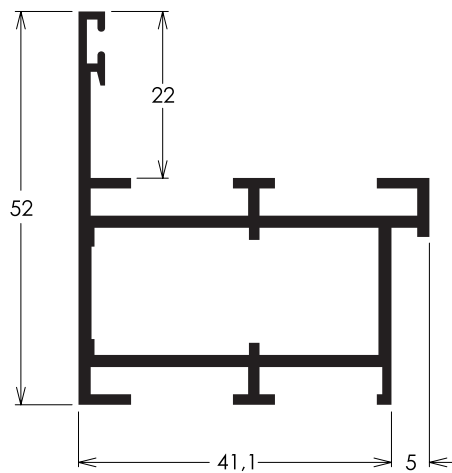
**RO031 1,143 kg/m**

Folha travessa montante



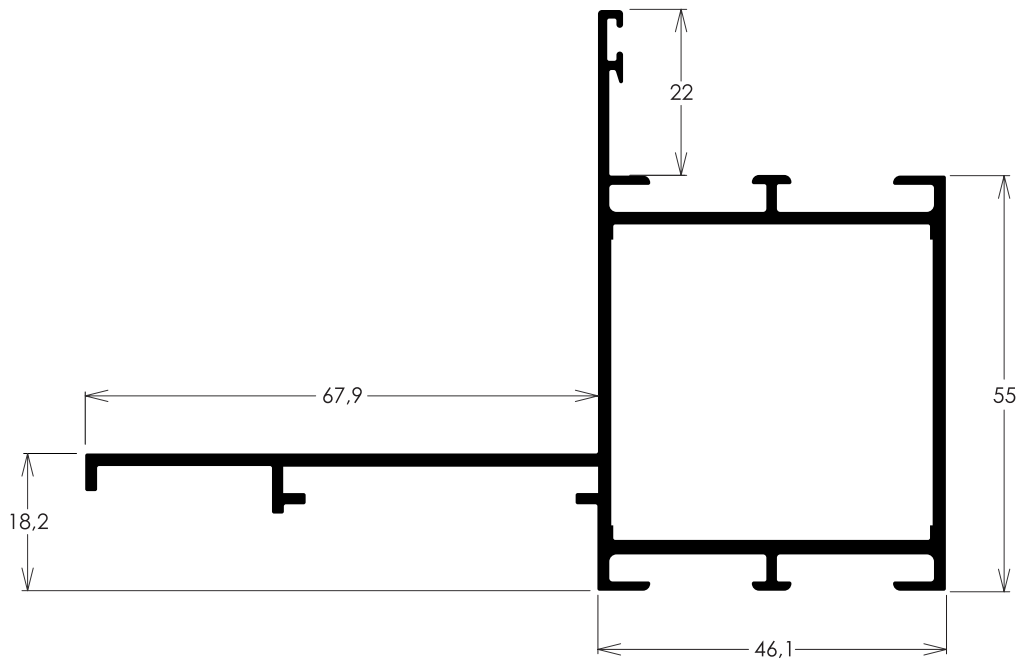
**RO039 0,814 kg/m**

Complemento

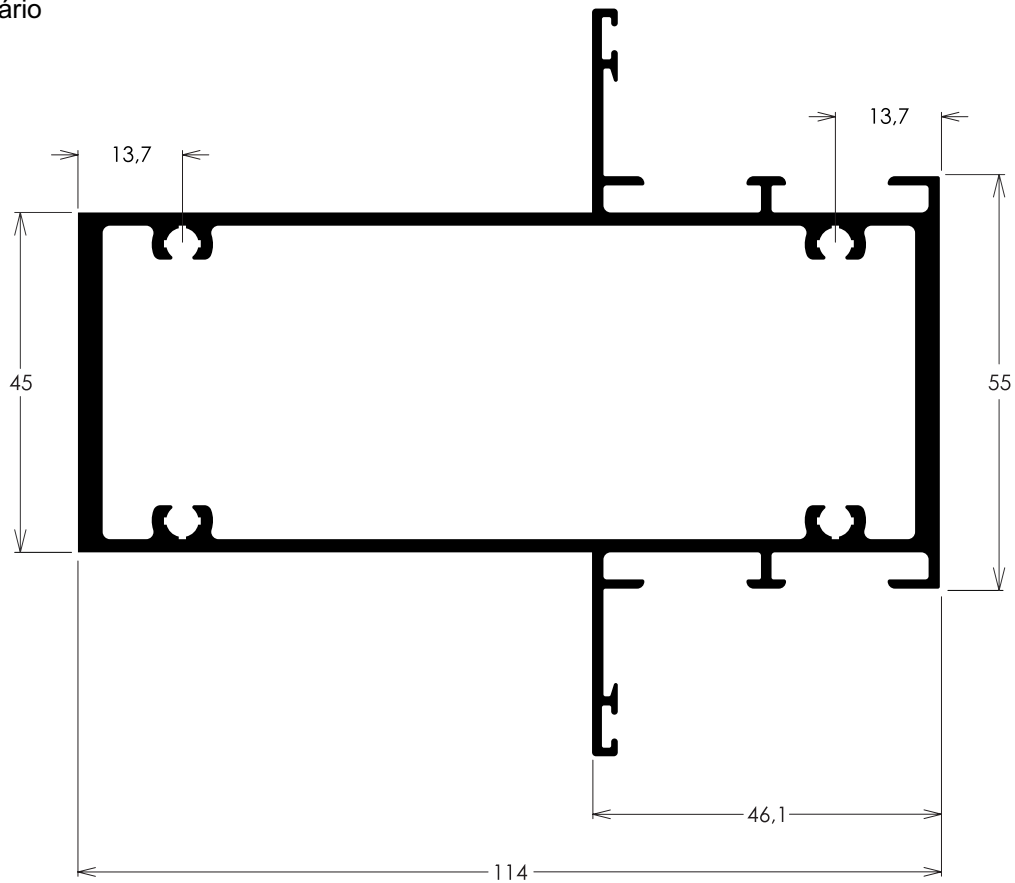


Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**RO046** 1,505 kg/m  
Marco



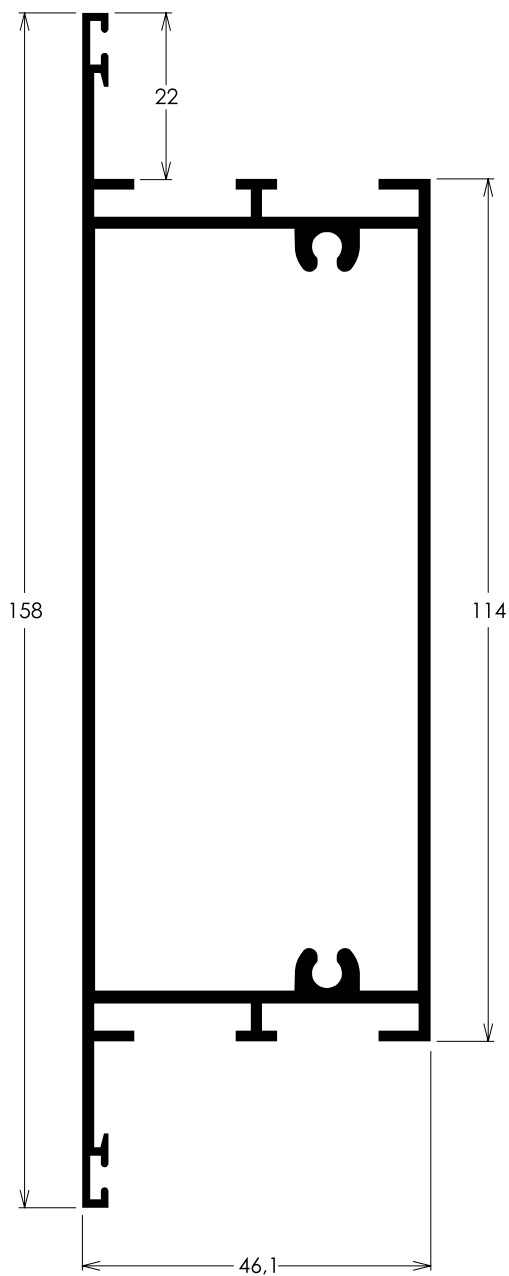
**RO047** 2,391 kg/m  
Marco intermediário



Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

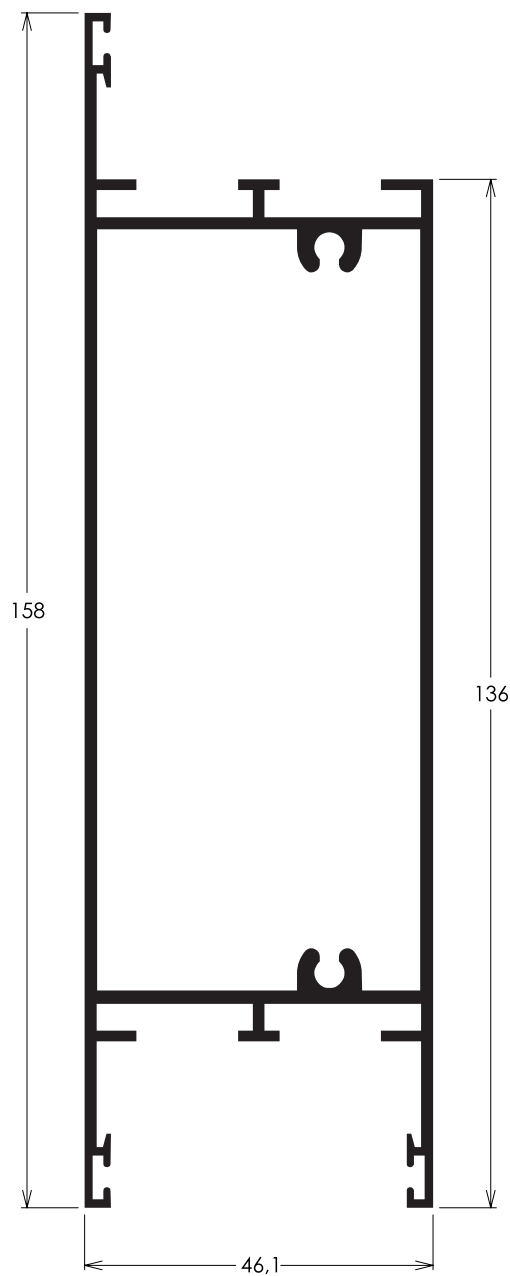
**RO044** 2,029 kg/m

Folha travessa intermediária



**RO045** 2,137 kg/m

Folha travessa inferior

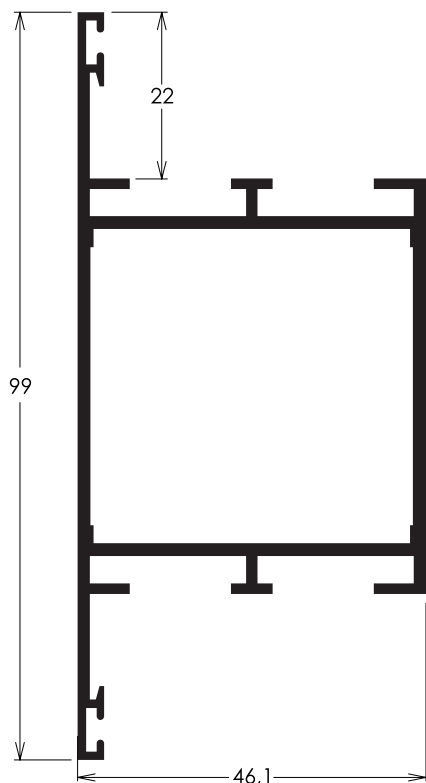


Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.



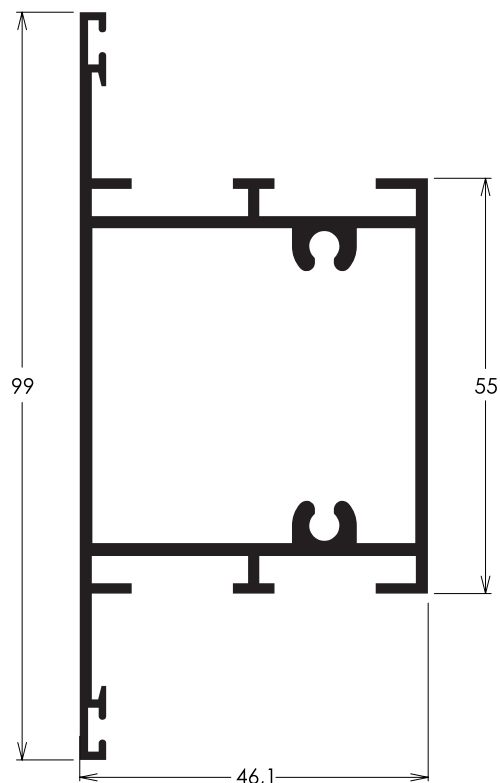
**RO033** 1,251 kg/m

Folha travessa intermediária



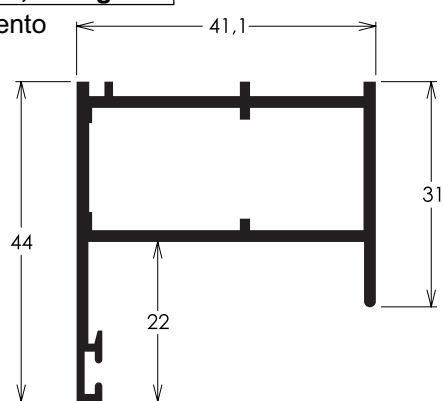
**RO034** 1,418 kg/m

Folha travessa intermediária



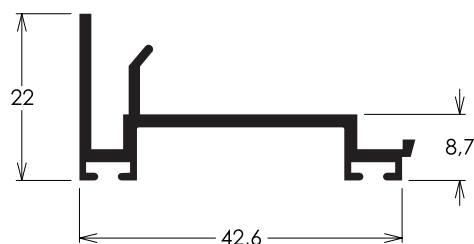
**RO035** 0,692 kg/m

Complemento



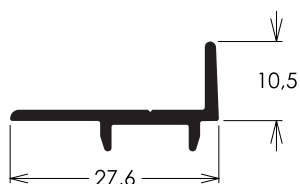
**RO040** 0,444 kg/m

Vedador inferior



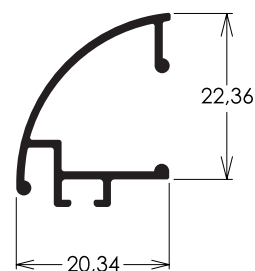
**RO036** 0,193 kg/m

Calço



**RO089** 0,230 kg/m

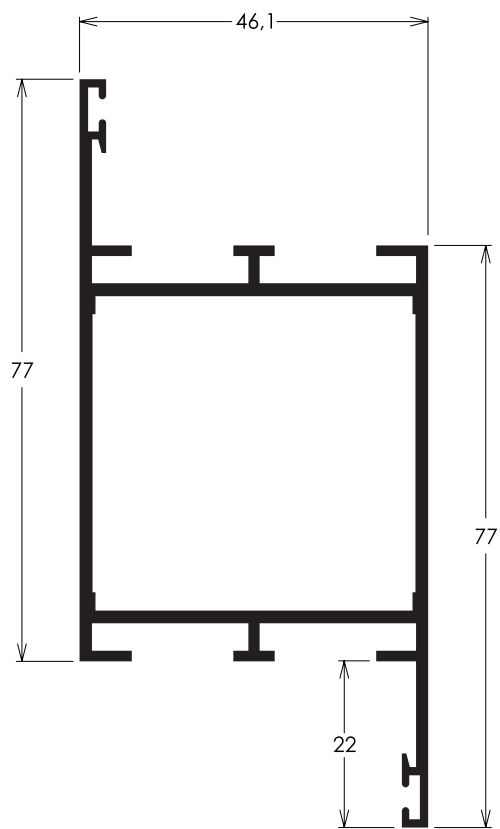
Vedador inferior



Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

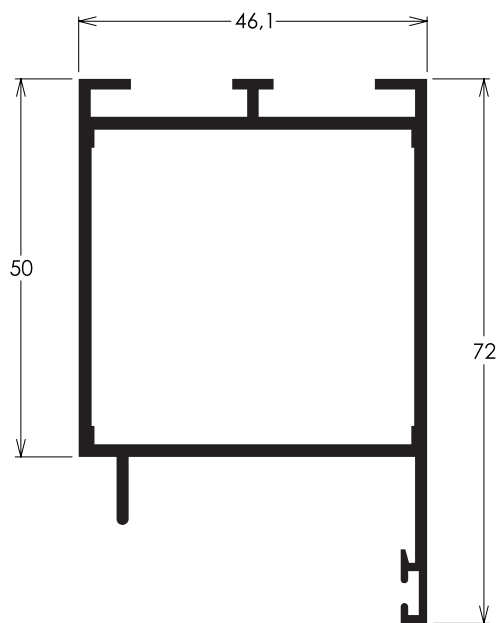
**RO041** 1,251 kg/m

Inversor



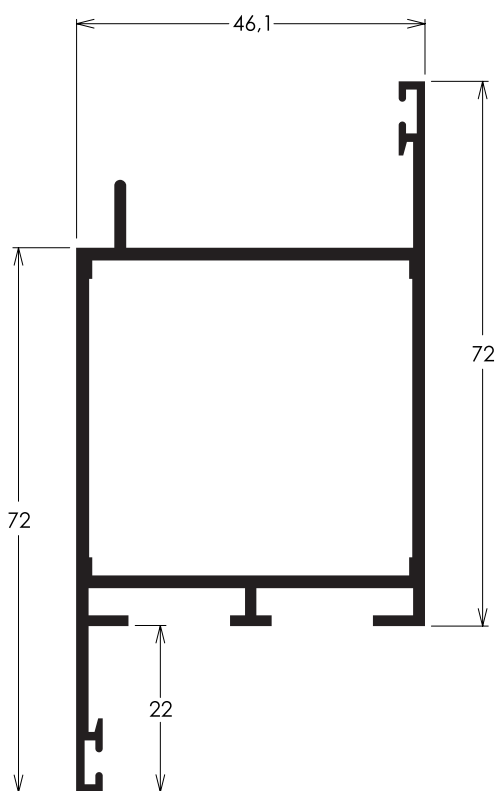
**RO032** 1,071 kg/m

Marco montante e travessa



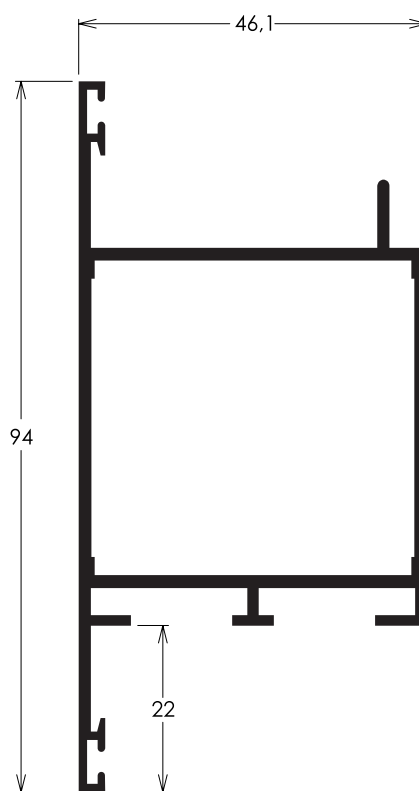
**RO042** 1,180 kg/m

Folha travessa e montante



**RO043** 1,180 kg/m

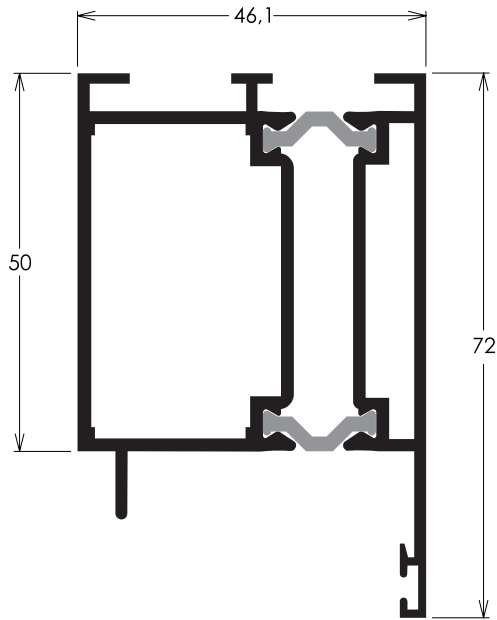
Folha travessa e montante



Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

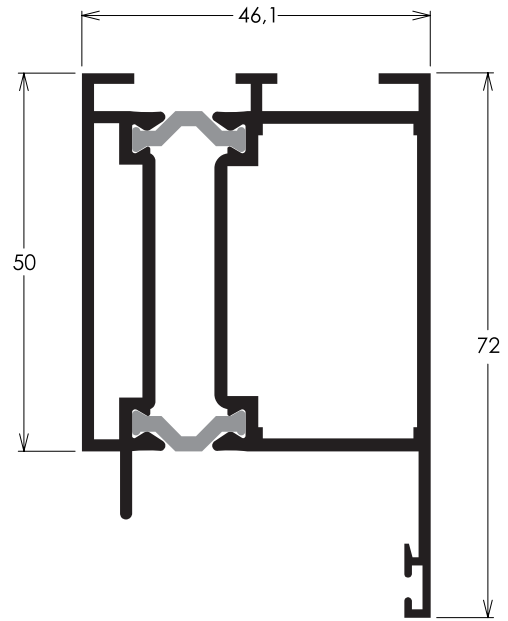
**T71**

Marco montante e travessa



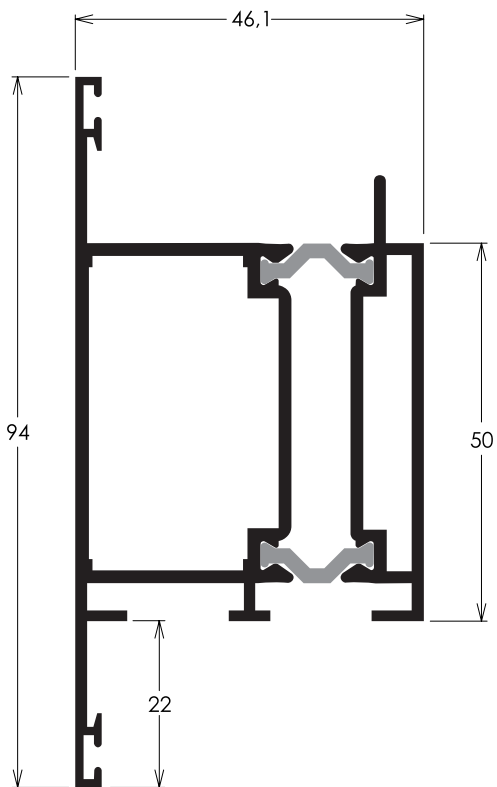
**T72**

Marco montante e travessa



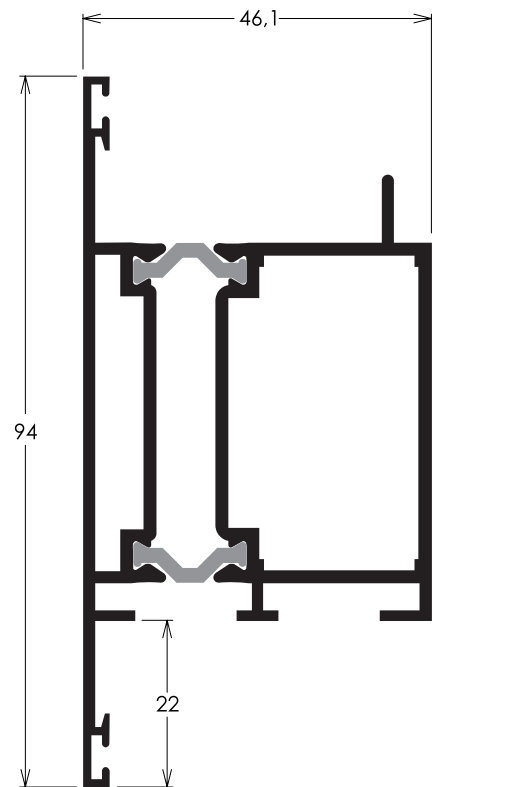
**T73**

Folha travessa e montante



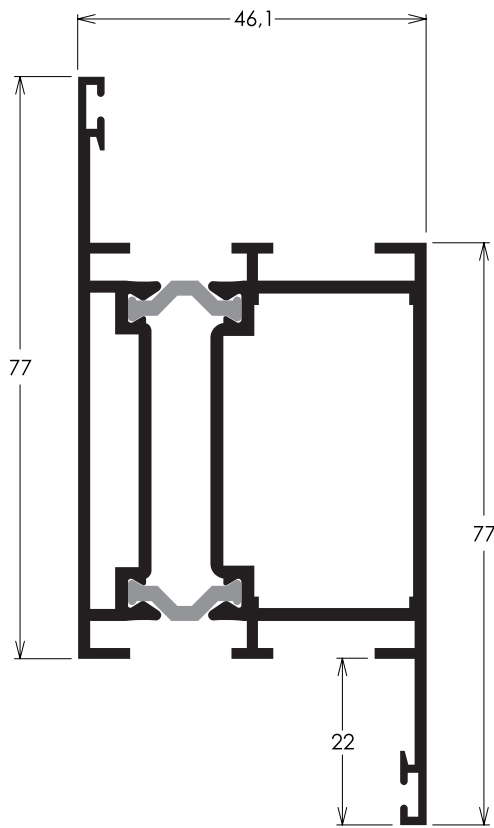
**T74**

Folha travessa e montante

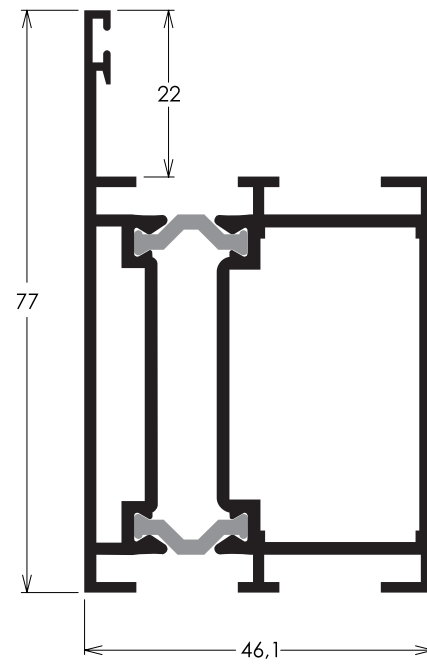


Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

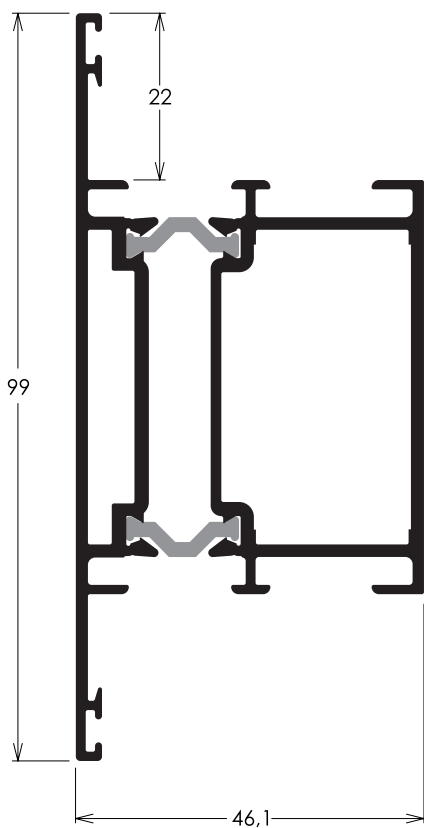
**T78**  
Inversor



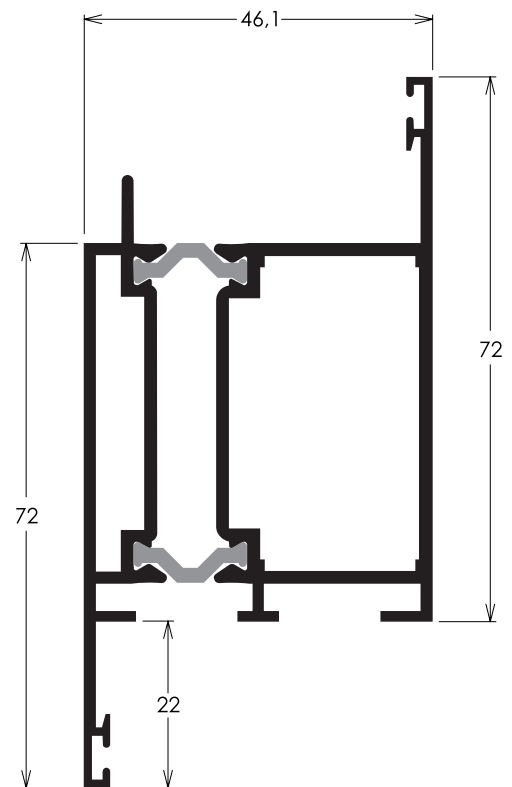
**T79**  
Marco montante e travessa



**T81**  
Travessa intermediária



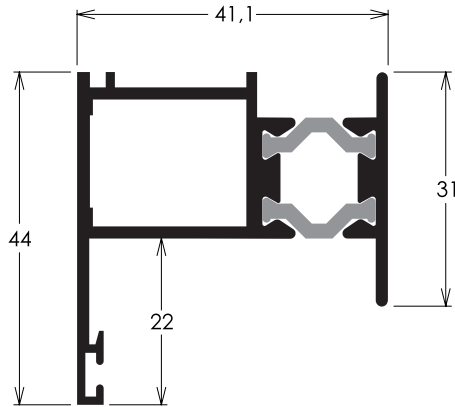
**T80**  
Folha travessa e montante



Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

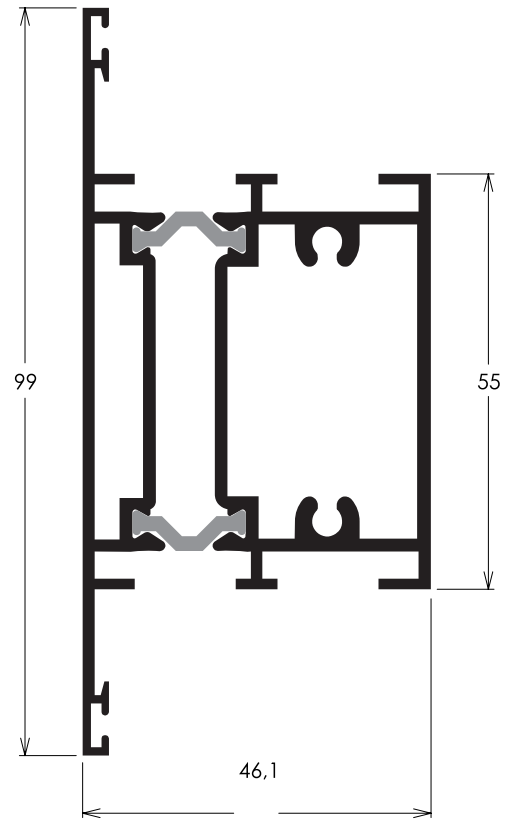
**T75**

Complemento



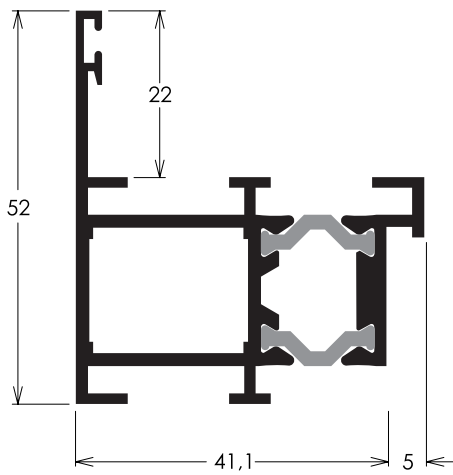
**T77**

Travessa intermediária



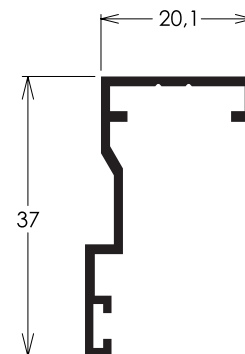
**T76**

Complemento



**RO172** 0,284 kg/m

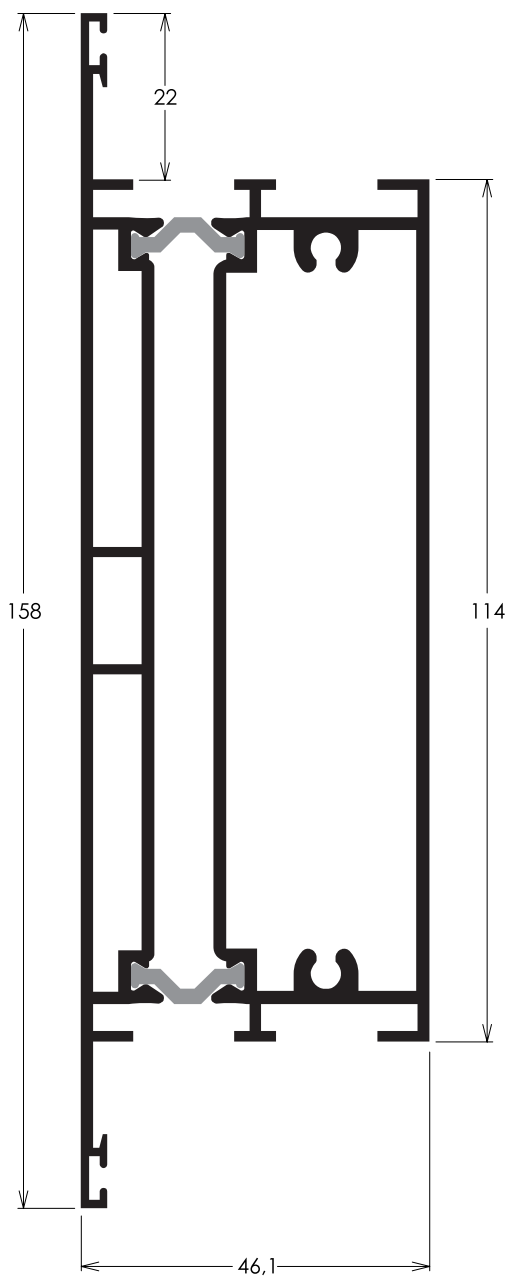
Vedação



Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

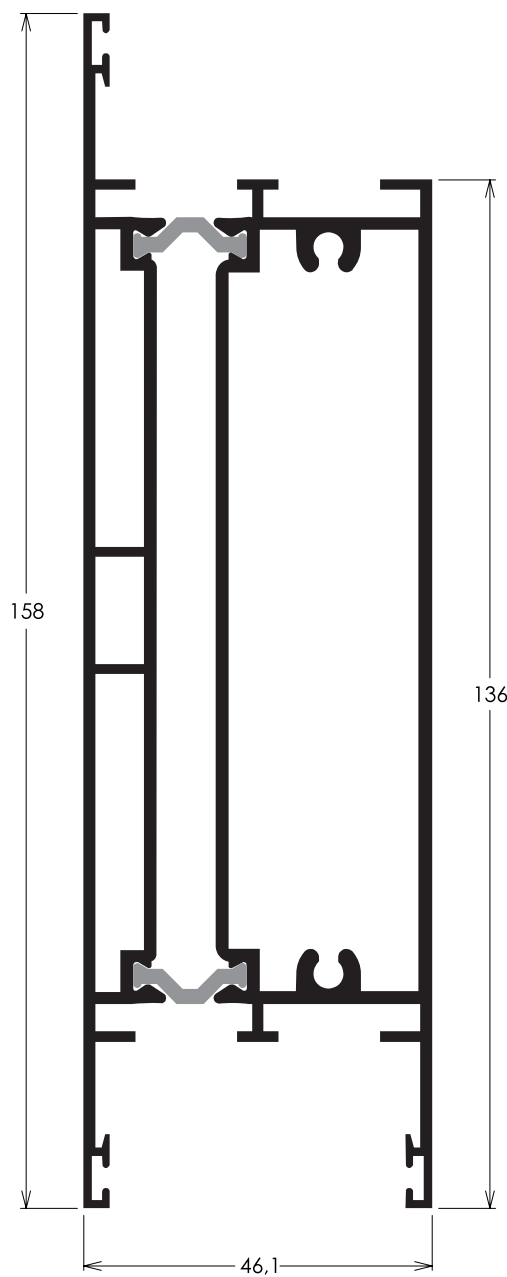
**T83**

Folha travessa intermediária



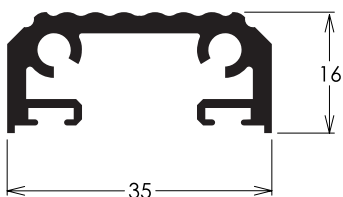
**T82**

Folha travessa inferior



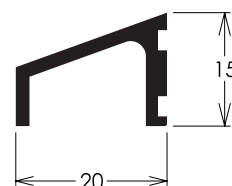
**RO171** 0,575 kg/m

Complemento de piso



**RO173** 0,273 kg/m

Pingadeira inferior

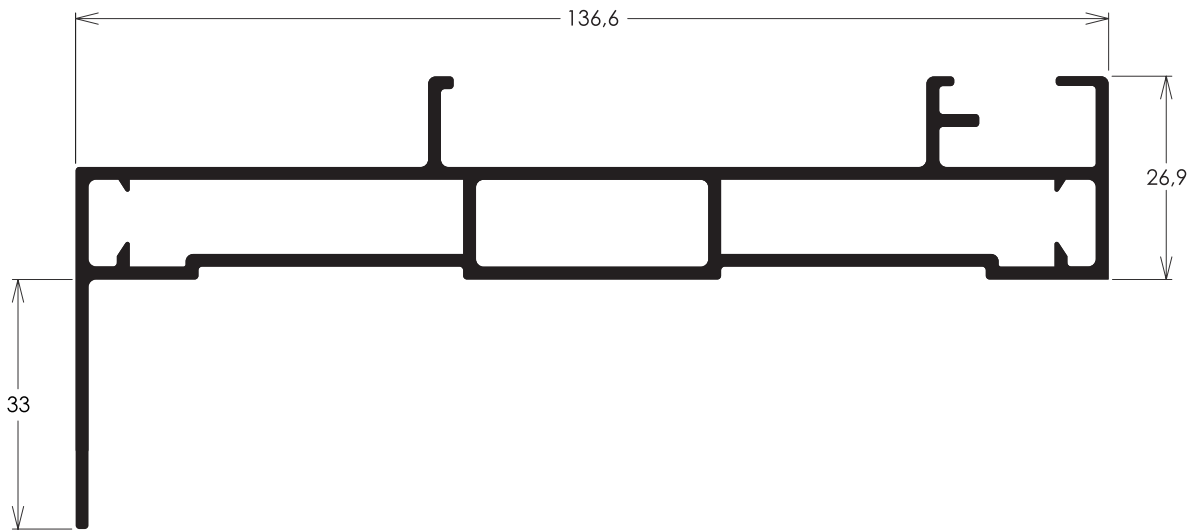


Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

Marco e folha elevável

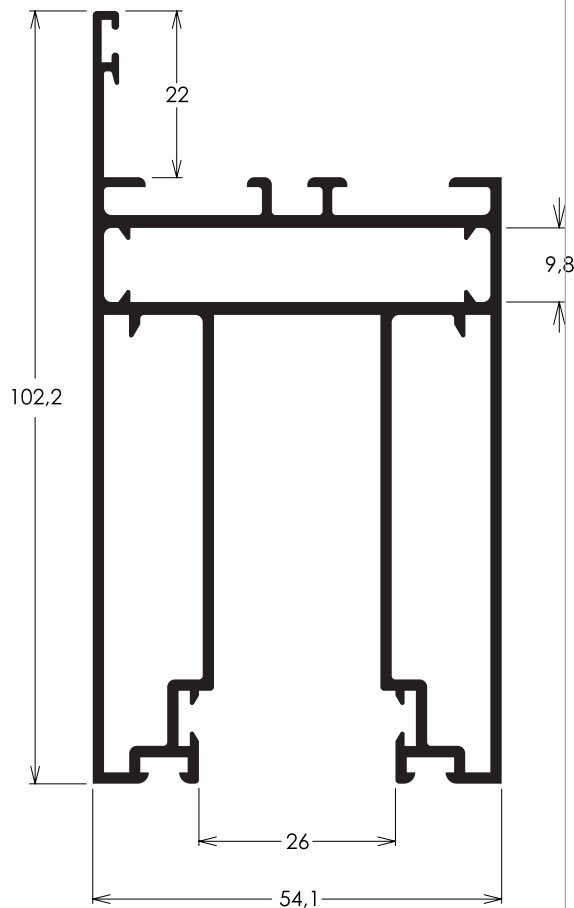
**RO075** 1,900 kg/m

Marco 2 planos travessa e montante



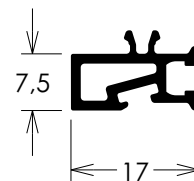
**RO092** 2,015 kg/m

Folha travessa e montante



**RO224** 0,188 kg/m

Complemento

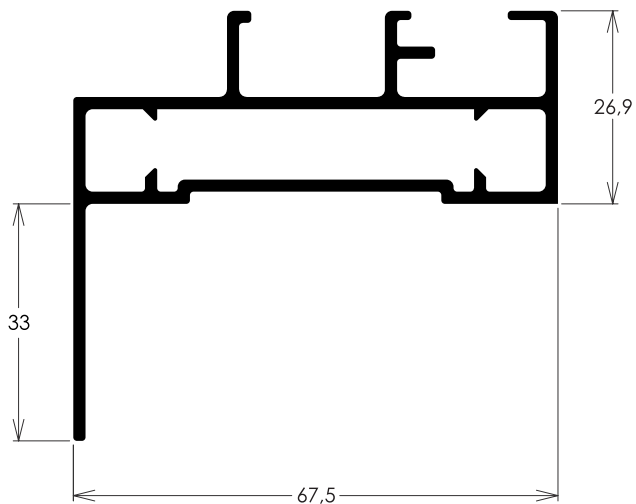


Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

Marco e complemento elevável

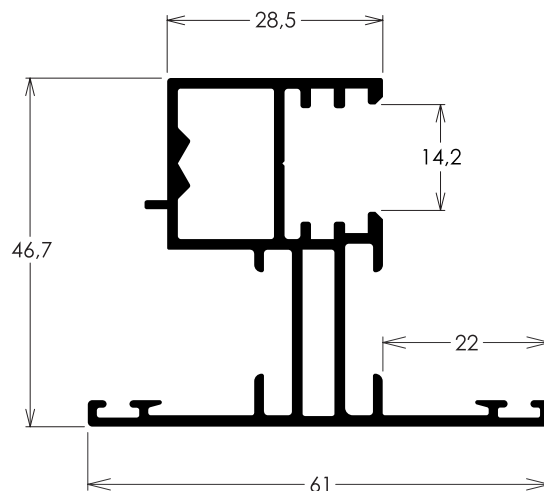
**RO076** 1,159 kg/m

Marco 1 plano travessa e montante



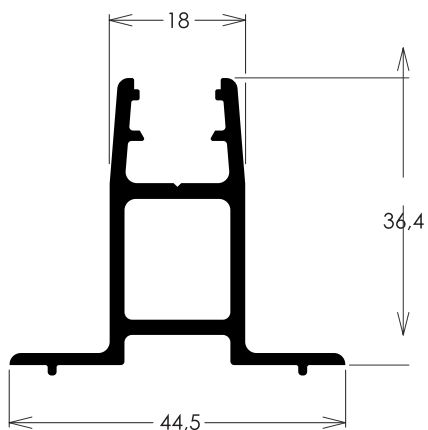
**RO085** 0,973 kg/m

Mata junta



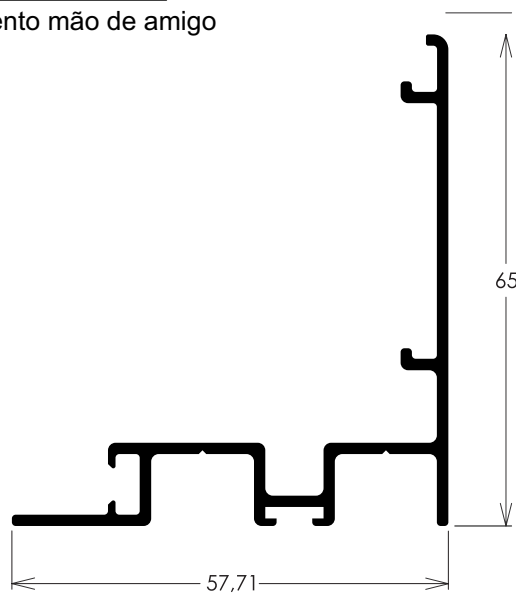
**RO093** 0,717 kg/m

Trilho



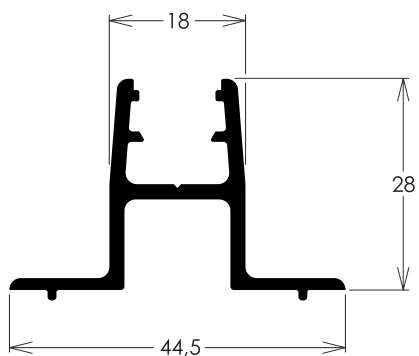
**RO094** 0,693 kg/m

Complemento mão de amigo



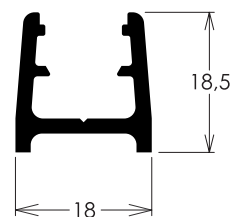
**RO150** 0,555 kg/m

Trilho



**RO095** 0,304 kg/m

Trilho

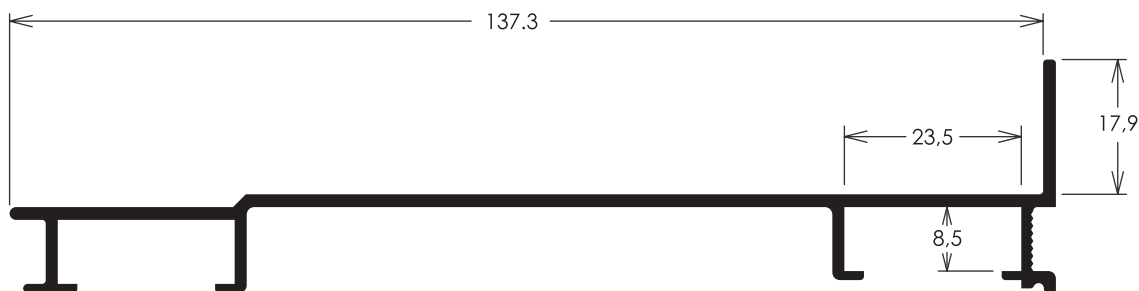


Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.



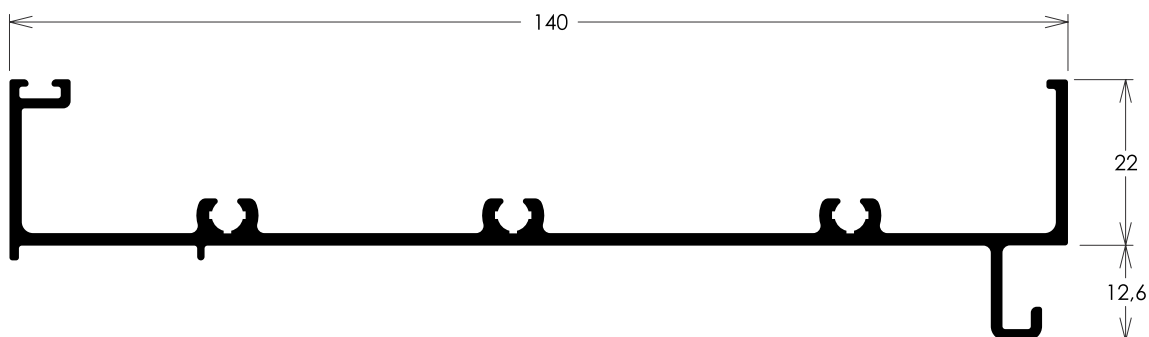
**CM168** 0,957 kg/m

Requadro em alumínio natural



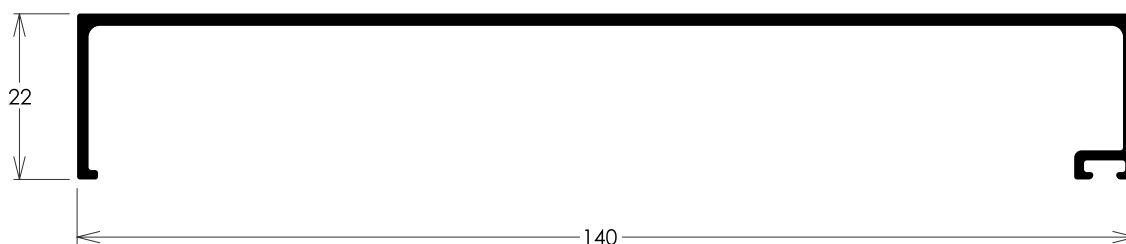
**LG168** 1,094 kg/m

Marco travessa superior integrada



**LG170** 0,827 kg/m

Marco lateral integrada

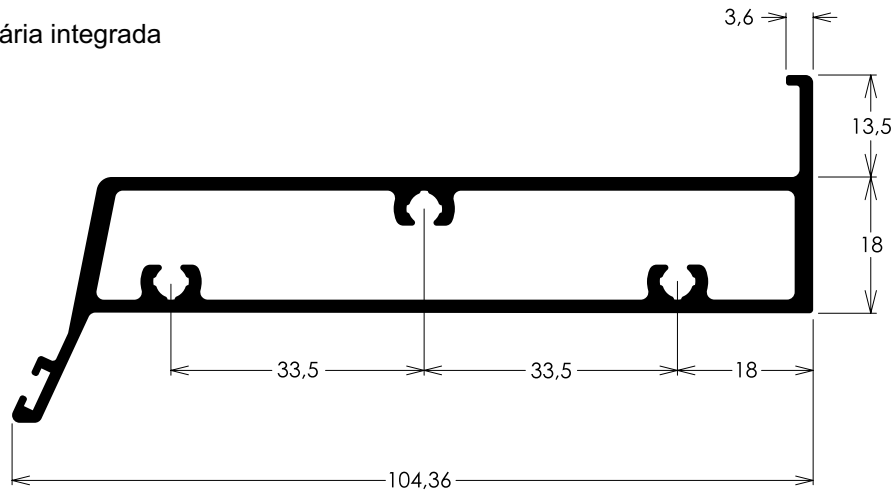


Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

Integrada

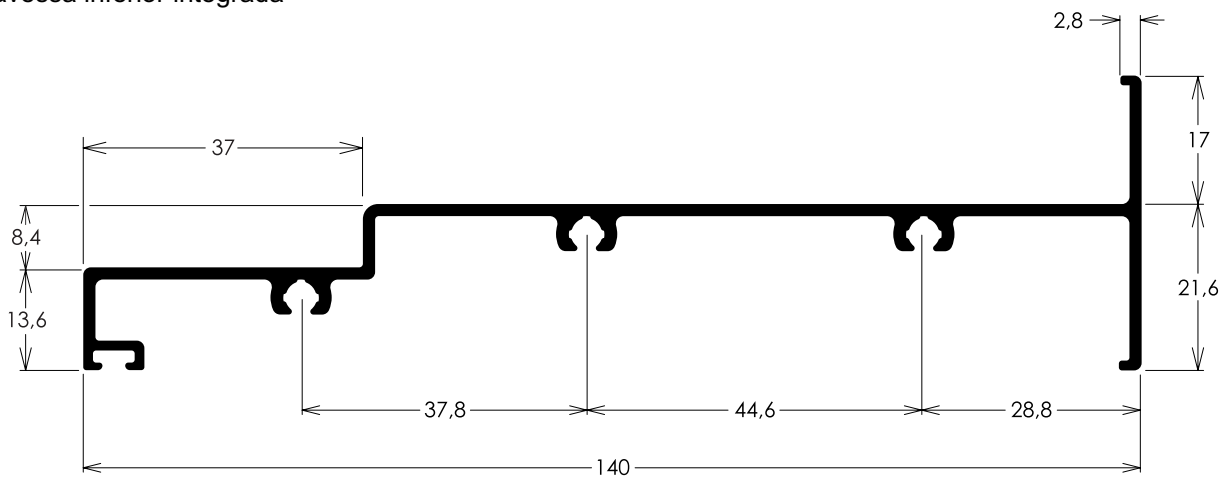
**RO168** 1,480 kg/m

Marco travessa intermediária integrada



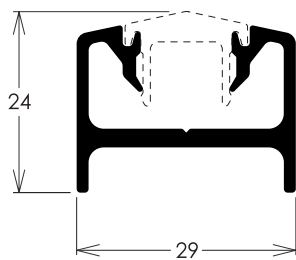
**RO165** 1,075 kg/m

Marco travessa inferior integrada



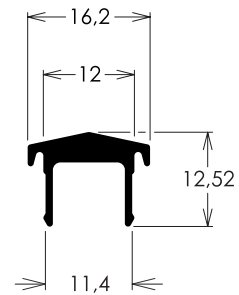
**RO169** 0,493 kg/m

Trilho integrada



**RO170** 0,183 kg/m

Trilho integrada

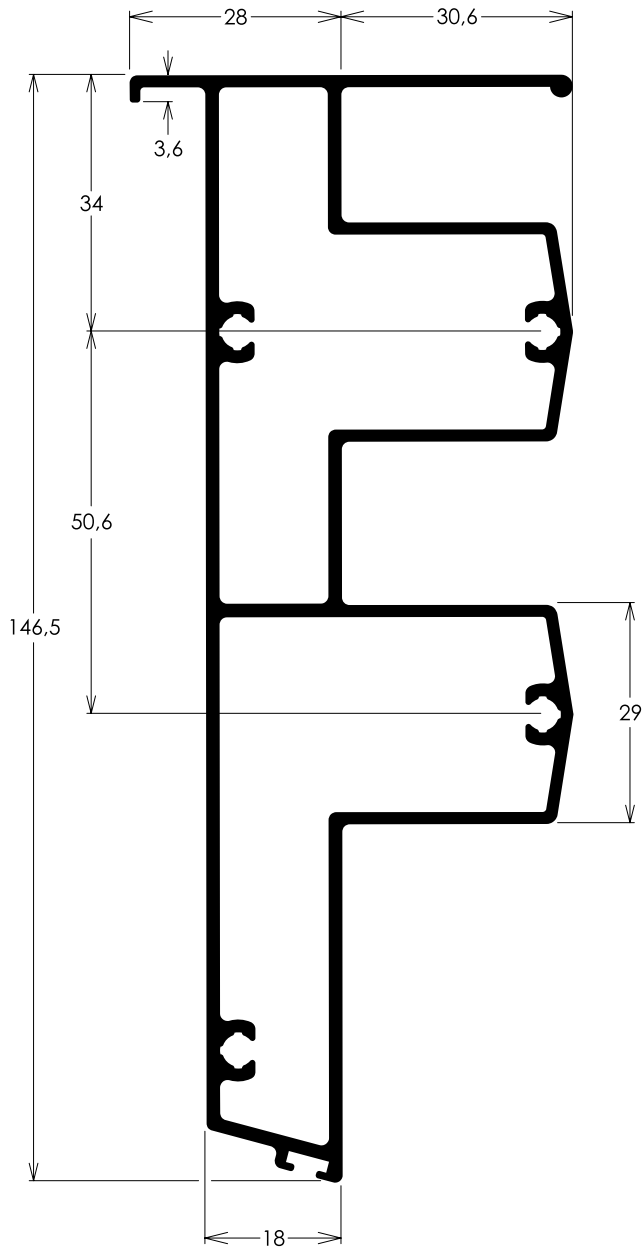


Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

Integrada

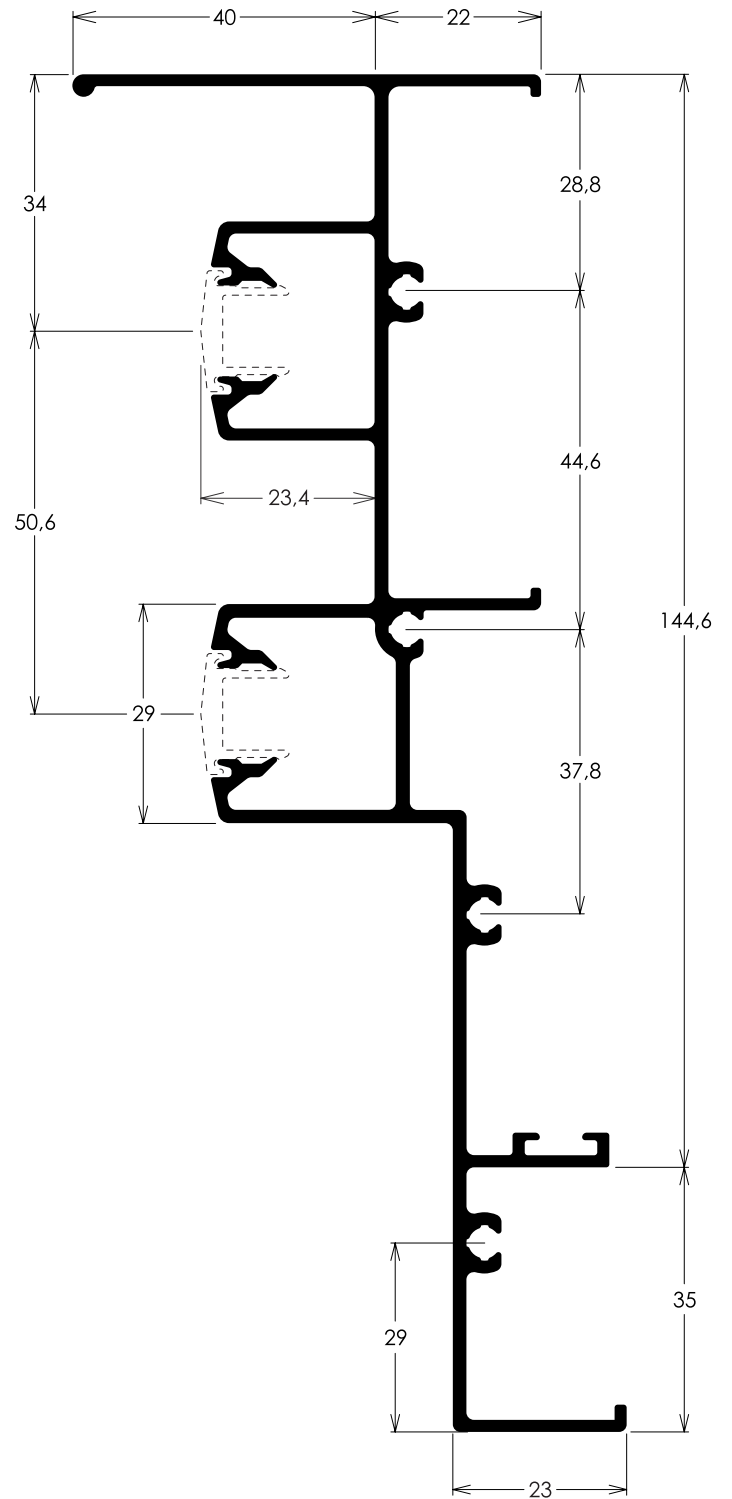
**RO174** 2,503 kg/m

Marco travessa intermediária integrada



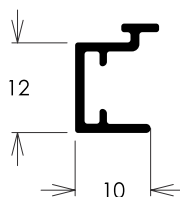
**RO167** 2,356 kg/m

Marco travessa inferior integrada



**LG169** 0,122 kg/m

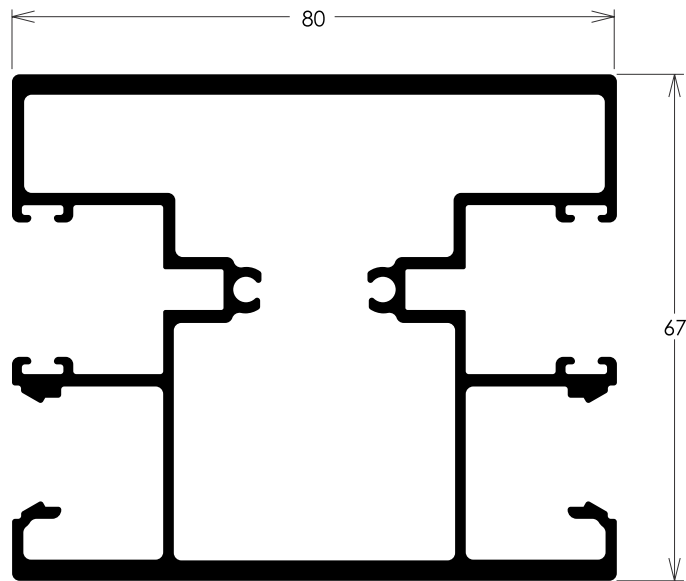
Complemento perimetral do marco integrada



Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

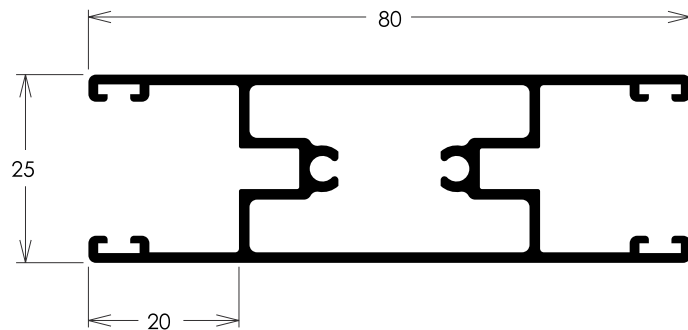
**MN058** 2,497 kg/m

Coluna guia da esteira integrada



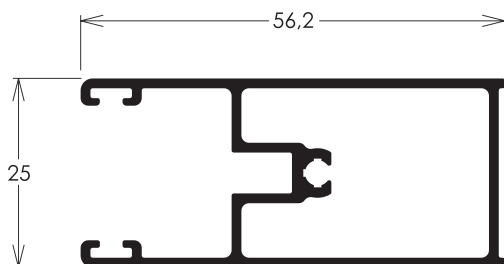
**MN027** 1,043 kg/m

Guia central da esteira integrada



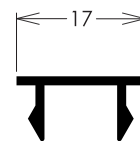
**MH006** 0,697 kg/m

Guia da esteira integrada



**CL022** 0,111 kg/m

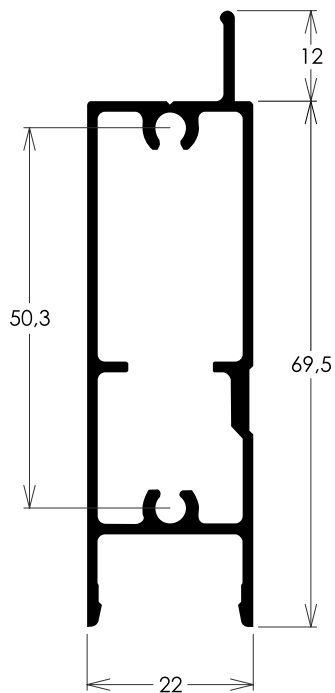
Tampa da coluna guia



Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

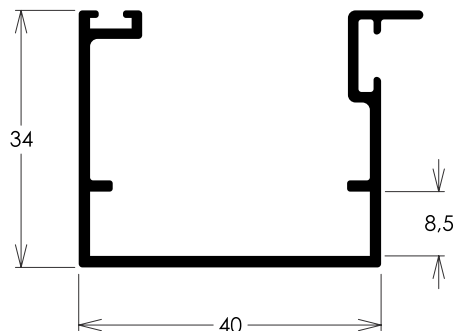
**MN038** 0,884 kg/m

Travessa inferior da folha integrada



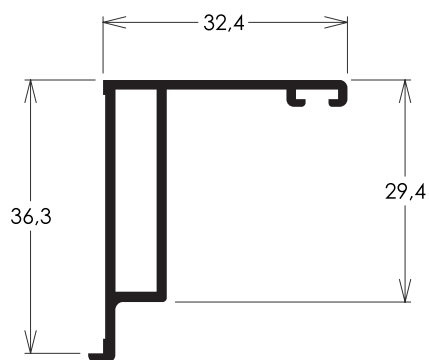
**LG179** 0,538 kg/m

Complemento integrada



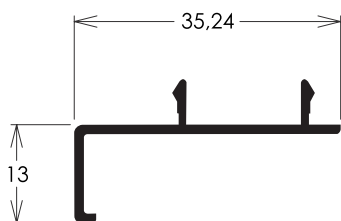
**MN019** 0,390 kg/m

Marco da folha integrada



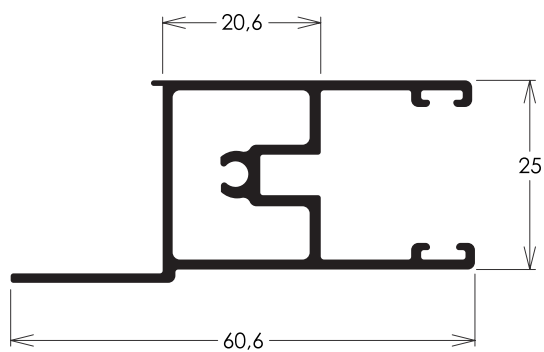
**MN022** 0,197 kg/m

Complemento inferior da folha integrada



**MN057** 0,659 kg/m

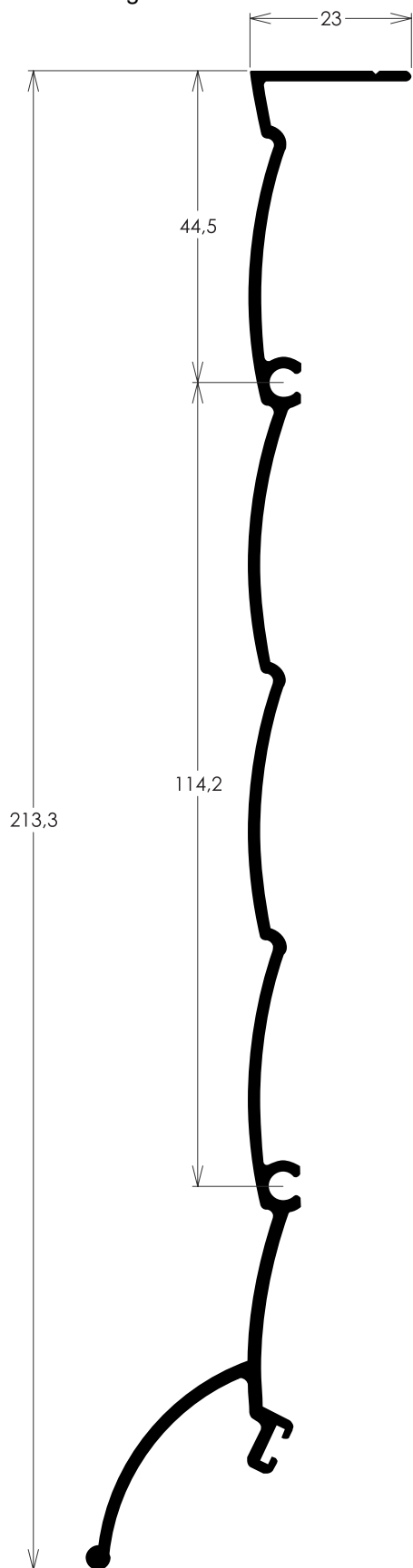
Lateral guia da folha integrada



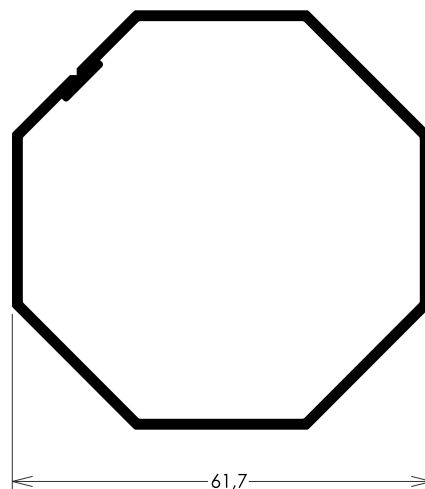
Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

Integrada

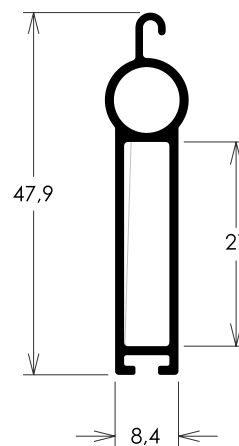
**MN039** 1,400 kg/m  
Tampa externa integrada



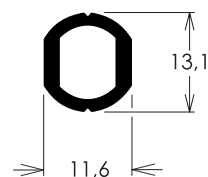
**MN015** 0,881 kg/m  
Tubo octogonal 60 integrada



**MN055** 0,371 kg/m  
Terminal da esteira da persiana integrada



**MN034** 0,185 kg/m  
Barra de comando da folha integrada

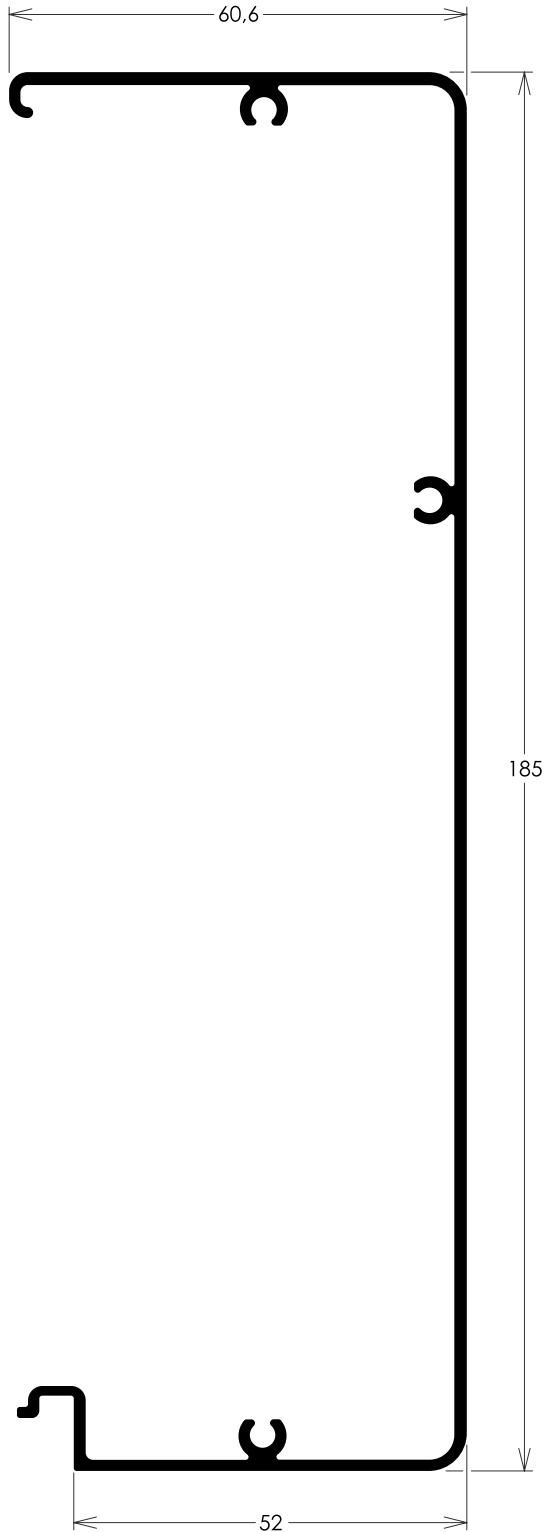


Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

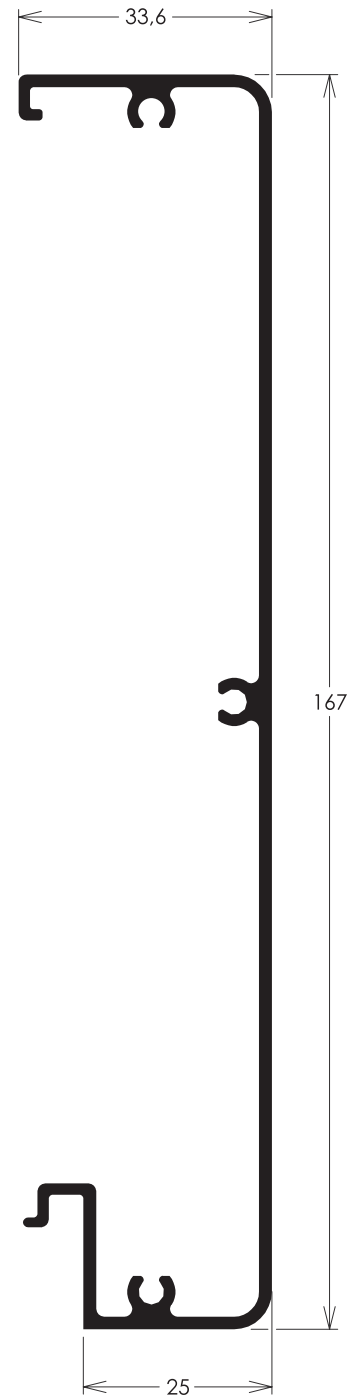
Integrada

**LG167** 1,598 kg/m

Tampa externa integrada

**MN031** 1,331 kg/m

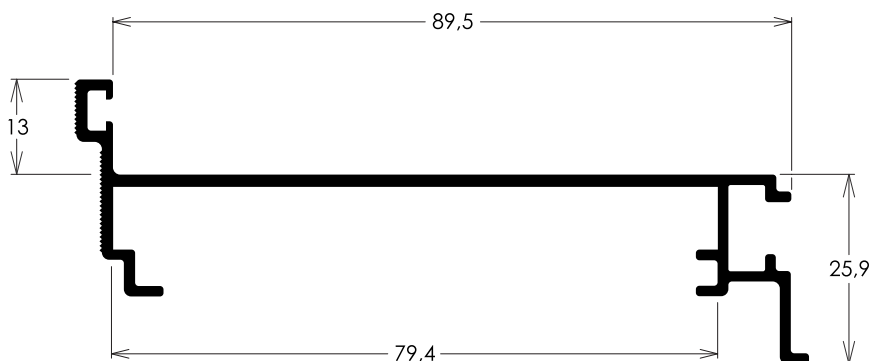
Tampa externa integrada



Contramarco, arremate e complementos

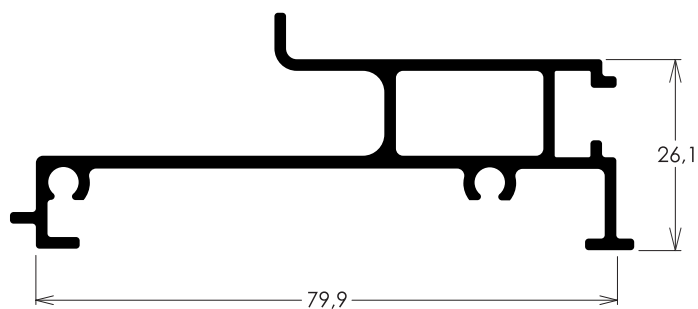
**RO005** 0,748 kg/m

Requadro em alumínio natural



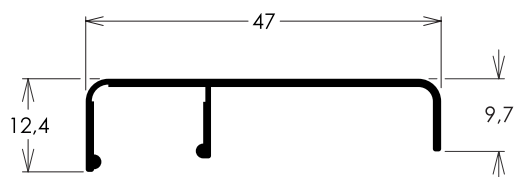
**RO006** 0,939 kg/m

Travessa inferior do requadro



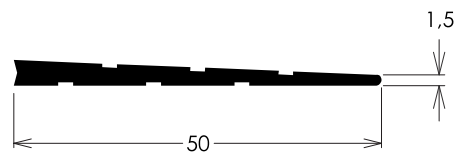
**RM029** 0,225 kg/m

Arremate de acabamento interno



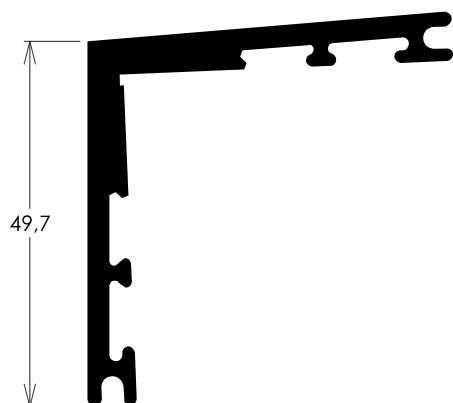
**CL011** 0,319 kg/m

Conexão cunha



**CL006** 1,112 kg/m

Conexão macho



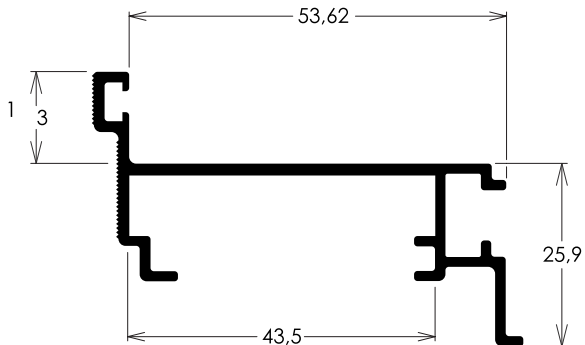
Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.



Contramarco, arremate e complementos

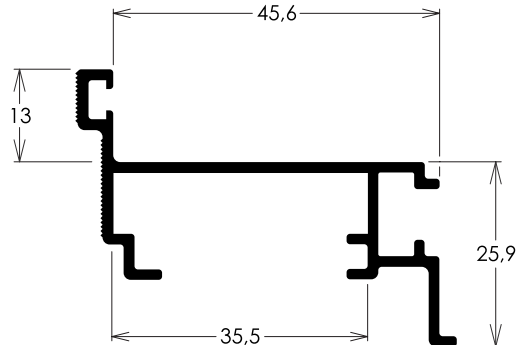
**RO003** 0,602 kg/m

Requadro em alumínio natural



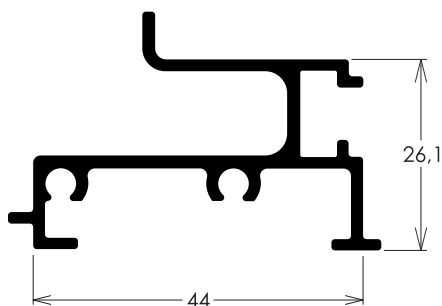
**RO001** 0,570 kg/m

Requadro em alumínio natural



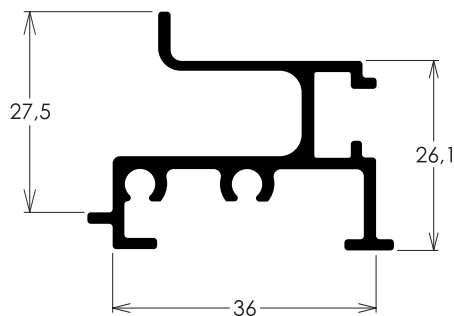
**RO004** 0,690 kg/m

Travessa inferior do requadro



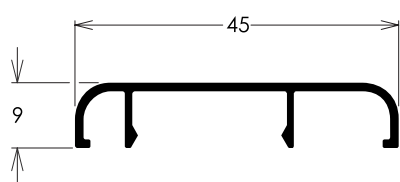
**RO002** 0,620 kg/m

Travessa inferior do requadro



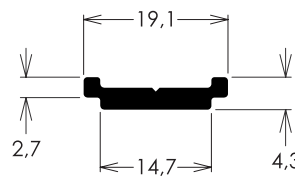
**RO007** 0,242 kg/m

Arremate de acabamento interno



**RO016** 0,146 kg/m

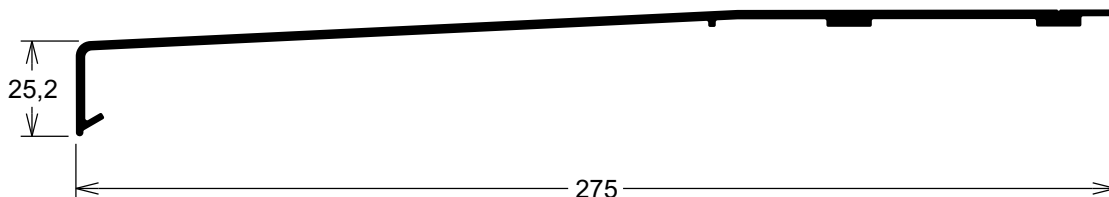
Barra de comando



**NOTA:**  
Fornecido anodizado Preto.

**RO216** 2,155 kg/m

Pingadeira de alvenaria



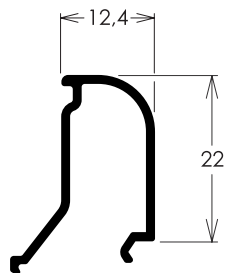
Escala 1:2

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

Baguetes

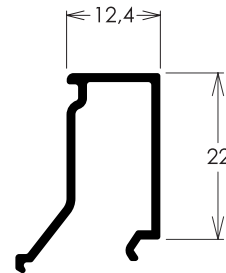
**RO156 0,210 kg/m**

Baguete montante



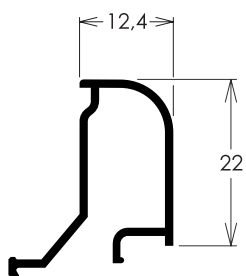
**RO157 0,219 kg/m**

Baguete travessa



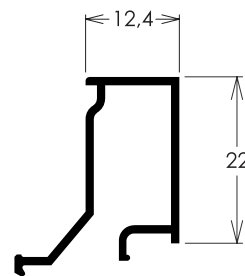
**RO022 0,238 kg/m**

Baguete montante



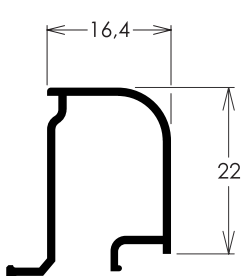
**RO023 0,247 kg/m**

Baguete travessa



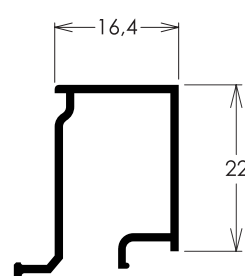
**RO024 0,246 kg/m**

Baguete montante



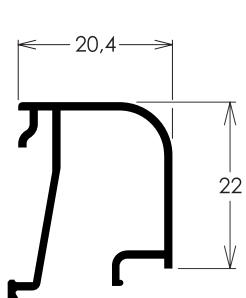
**RO025 0,255 kg/m**

Baguete travessa



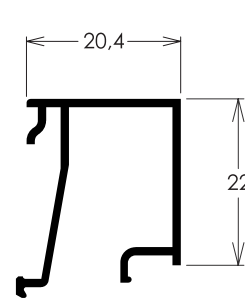
**RO026 0,275 kg/m**

Baguete montante



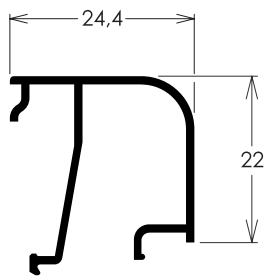
**RO027 0,284 kg/m**

Baguete travessa



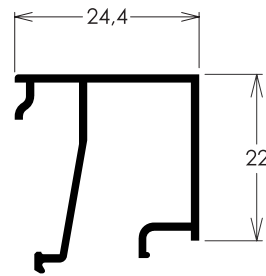
**RO018 0,291 kg/m**

Baguete montante



**RO019 0,300 kg/m**

Baguete travessa

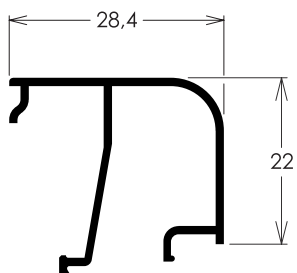


Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

Baguetes

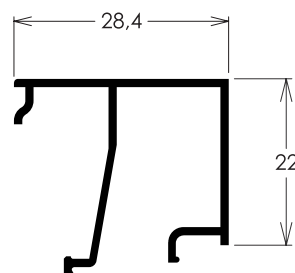
**RO020** 0,307 kg/m

Baguete montante



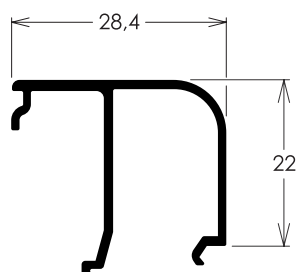
**RO021** 0,316 kg/m

Baguete travessa



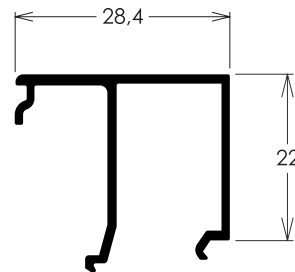
**RO037** 0,284 kg/m

Baguete montante



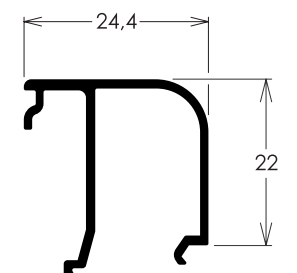
**RO038** 0,294 kg/m

Baguete travessa



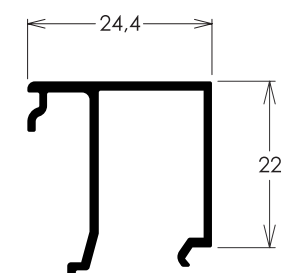
**RO029** 0,268 kg/m

Baguete montante



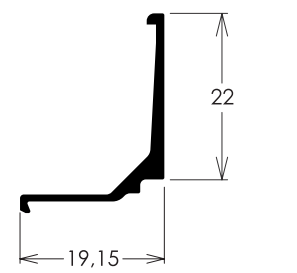
**RO030** 0,277 kg/m

Baguete travessa



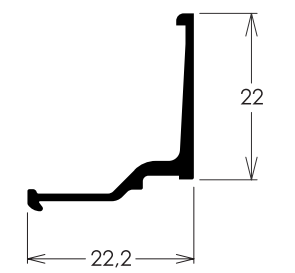
**RO105** 0,173 kg/m

Baguete



**RO028** 0,196 kg/m

Baguete



Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.



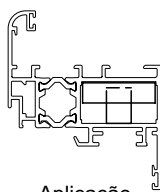
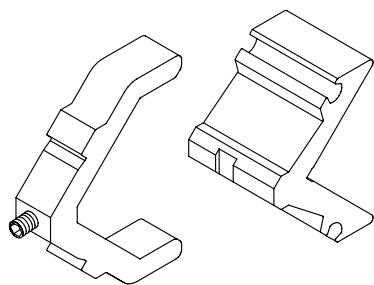
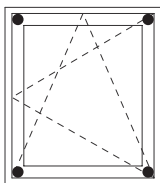
Cód.	Pág.	Cód.	Pág.	Cód.	Pág.
BAT949	G-34	CON488	G-24	GUA409	G-12
BRA761	G-22			GUA410	G-12
BRA795	G-08	CON489	G-01	GUA411	G-13
BRA796	G-09	CON491	G-26	GUA412	G-13
BRA798	G-09	CON492	G-38	GUA413	G-13
BRA799	G-09	CON494	G-35	GUA414	G-13
BRA800	G-22	CON535	G-19	GUA415	G-14
BRA801	G-22	CON538	G-03	GUA416	G-12
BRA830	G-08	CON540	G-06		
BRA831	G-08	CON540	G-27	GUA429	G-21
BUC779	G-21	DOB848	G-44	KIT621	G-05
CAL944	G-32	DOB857	G-21	KIT623	G-08
CAL965	G-19	DOB858	G-21	KIT624	G-06
CAL976	G-37	DOB868	G-10	KIT625	G-24
CHU840	G-14	DOB869+KITGN21	G-07	KIT627	G-28
CHU866	G-14	DOB869+KITGN22	G-10		
CHU867	G-15	ESP962	G-19	KIT631	G-28
CHU868	G-15	FEC1075	G-11	KIT648	G-34
CHU869	G-15	FEC1077	G-11	KIT650	G-34
CHU870	G-15	FEC1090	G-07	KIT651	G-34
CHU871	G-15	FEC1092	G-05	KIT652	G-36
CHU872	G-15	FEC1093	G-20	KIT653	G-36
CIL007	G-19	FEC1098	G-23	KIT654	G-36
CIL011	G-35	FEC1101	G-26	KIT655	G-36
CIL012	G-35			KITGN19	G-06
CON422	G-37	FEC1105	G-25	KITGN19	G-27
CON427	G-32	FEC1106	G-27	KITGN22+DOB869	G-07
CON465	G-03	FEC1108	G-41	KITGN25	G-26
CON466	G-01	FEC1211	G-11	MAC1007	G-20
CON468	G-01	FEC464	G-27	MAC1008	G-20
CON470	G-44	FIT206	G-40	MAC1009	G-35
CON472	G-02	FIT211	G-37	MAC1038	G-20
CON473	G-02	FIT214	G-40	MAC1039	G-35
CON474	G-04	FIT222	G-37	MAC1040	G-35
CON475	G-04	FIT260	G-28	NYL042	G-39
CON476	G-04	FRA819	G-18	NYL370	G-39
CON477	G-04	FRA823	G-30	NYL382	G-39
CON478	G-23	GUA005	G-40	NYL434	G-42
CON479	G-26	GUA132	G-14	NYL435	G-41
CON480	G-27	GUA157	G-12	NYL436	G-43
CON481	G-29	GUA209	G-40	NYL437	G-43
CON482	G-29	GUA289	G-40	NYL438	G-42
		GUA320	G-12	NYL446	G-25
CON483	G-35	GUA329	G-12	NYL481	G-39
CON484	G-17	GUA337	G-37	NYL482	G-02
CON485	G-17	GUA338	G-38	NYL482	G-25
CON486	G-29	GUA342	G-12	NYL484	G-03
CON487	G-29	GUA360	G-44	NYL489	G-25
CON488	G-01	GUA408	G-03	NYL491	G-17

Cód.	Pág.	Cód.	Pág.	Cód.	Pág.
NYL500	G-31				
NYL501	G-31				
NYL502	G-31				
NYL503	G-31				
NYL505	G-35				
NYL506	G-33				
NYL538	G-37				
NYL550	G-28				
NYL556	G-02				
PAR1005	G-26				
PAR1008	G-16				
PAR1014	G-37				
PAR1069	G-16				
PAR428	G-16				
PAR434	G-16				
PAR715	G-16				
PIV759	G-25				
PRE978	G-16				
PUX100	G-34				
PUX169	G-33				
ROL10	G-30				
ROL486	G-25				
SUP688	G-24				
SUP690	G-26				
SUP989	G-35				
TAR001	G-13				
TAR002	G-13				
TRA018	G-06				
TRA018	G-27				
TRA019	G-26				
TRA022	G-27				
TRA023	G-20				
TRA054	G-36				
TRA055	G-36				
TRA056	G-36				
TRA057	G-34				

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**CON489**

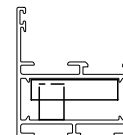
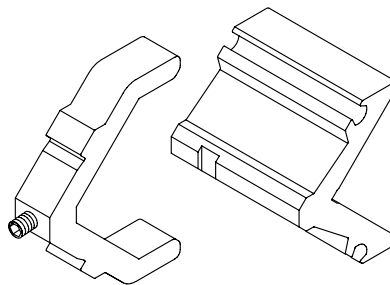
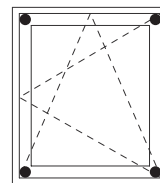
Conexão com parafuso 16,8mm x 29,9mm  
Alumínio Natural



Aplicação

**CON468**

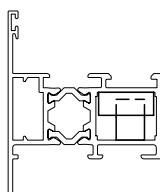
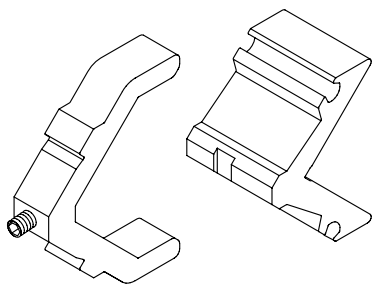
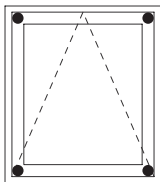
Conexão com parafuso 16,8mm x 36,1mm  
Alumínio Natural



Aplicação

**CON466**

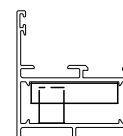
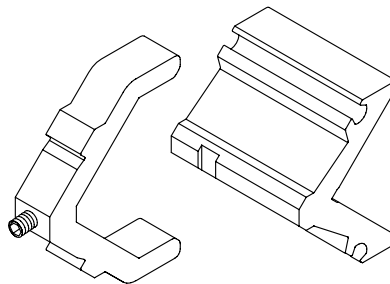
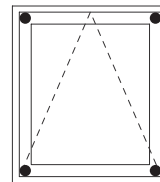
Conexão com parafuso 16,8mm x 20,3mm  
Alumínio Natural



Aplicação

**CON488**

Conexão com parafuso 16,8mm x 36,1mm  
Alumínio Natural

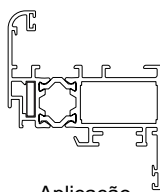
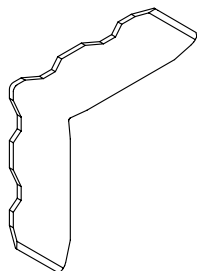
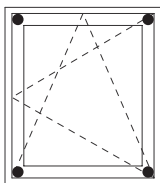


Aplicação

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**CON472**

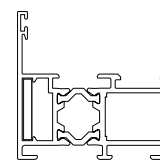
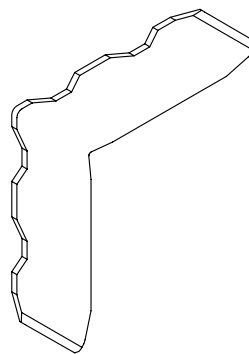
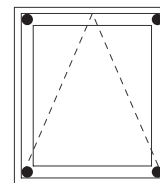
Conexão de alinhamento 14mm x 3mm  
Alumínio Natural



Aplicação

**CON473**

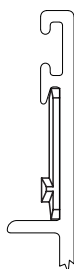
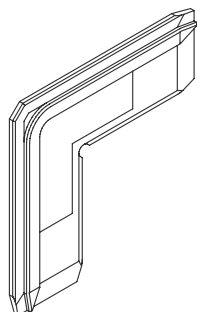
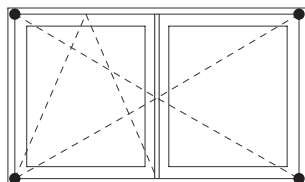
Conexão de alinhamento 22mm x 3mm  
Alumínio Natural



Aplicação

**NYL482**

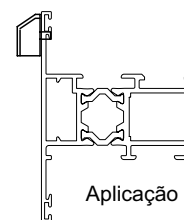
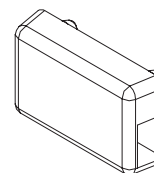
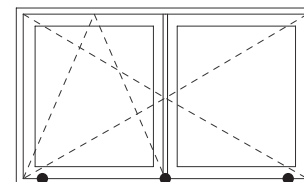
Conexão de alinhamento  
Nylon preto



Aplicação

**NYL556**

Protetor de saída d'água  
Nylon preto



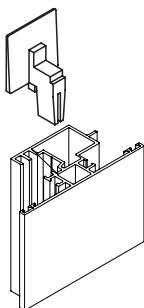
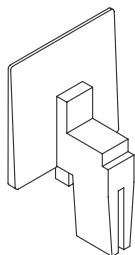
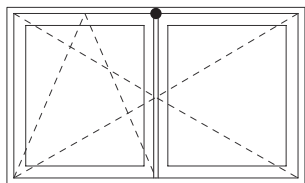
Aplicação

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.



**NYL484**

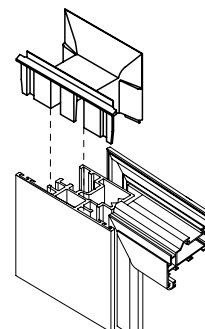
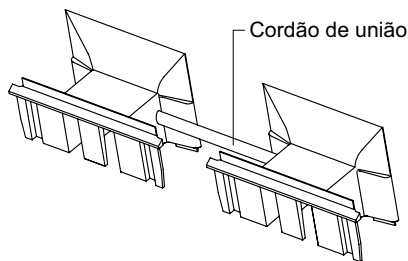
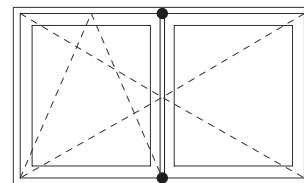
Tampa reversível interna  
Nylon Preto



Aplicação

**GUA408**

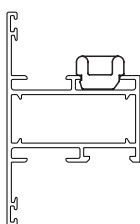
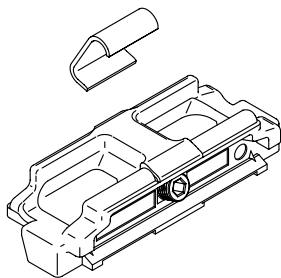
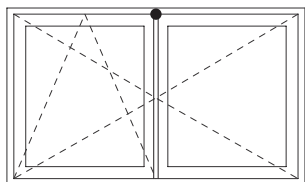
Tampa reversível externa  
EPDM Preto



Aplicação

**CON538**

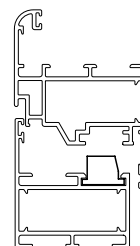
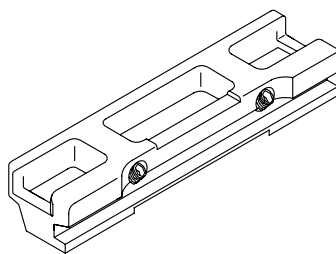
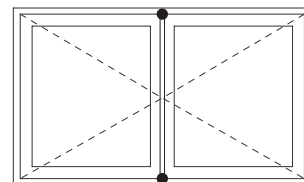
Contrafecho  
Zamak Natural



Aplicação

**CON465**

Trava central com regulamento  
Janela de Giro  
Zamak Natural

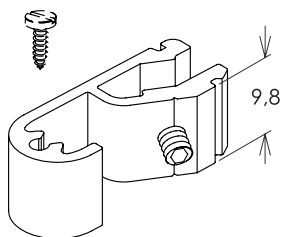
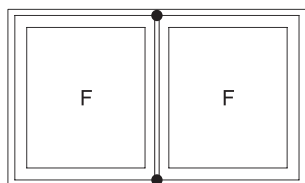


Aplicação

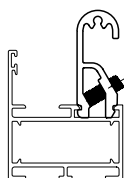
Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**CON474**

Fixador de montante 9,8 mm  
Alumínio Natural



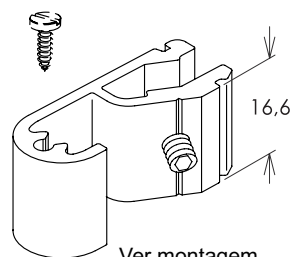
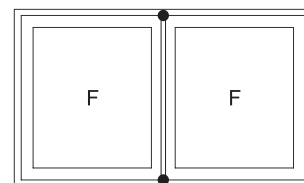
Ver montagem



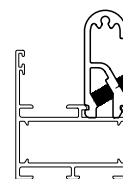
Aplicação

**CON475**

Fixador de montante 16,6 mm  
Alumínio Natural



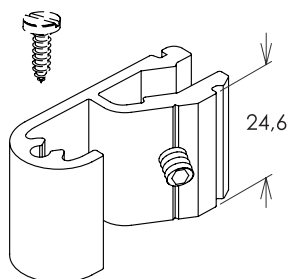
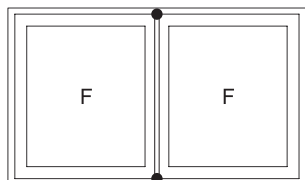
Ver montagem



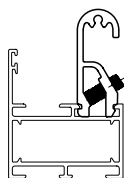
Aplicação

**CON476**

Fixador de montante 24,6 mm  
Alumínio Natural



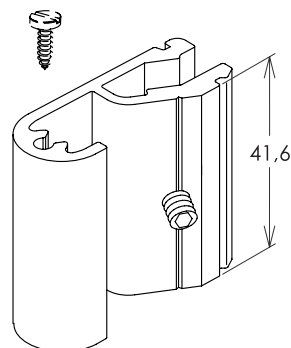
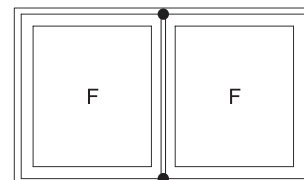
Ver montagem



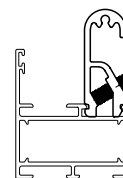
Aplicação

**CON477**

Fixador de montante 41,6 mm  
Alumínio Natural



Ver montagem

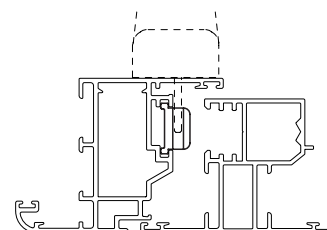
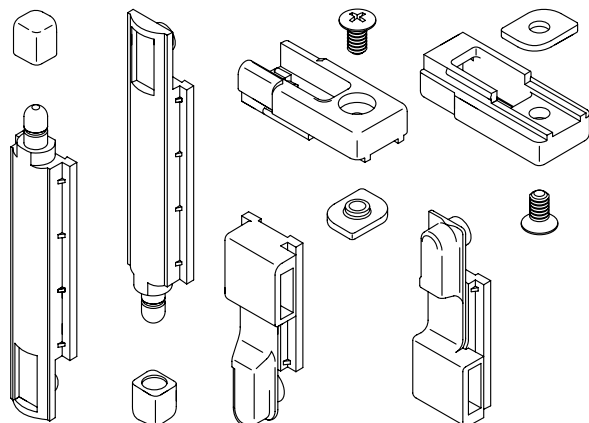
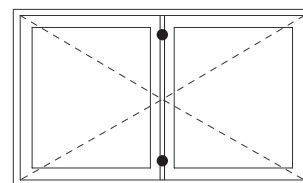


Aplicação

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**KIT621**

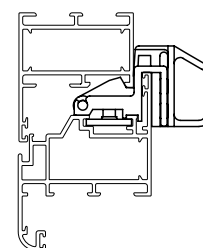
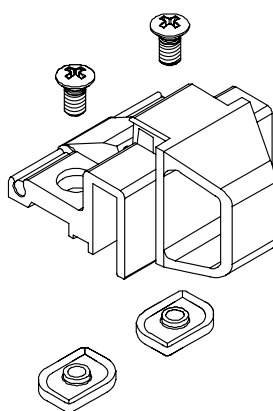
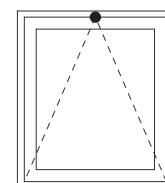
Sistema de Travamento  
 Janela de Giro  
 Zamak Natural



Aplicação

**FEC1092**

Fecho tipo gatilho  
 Janela de Tombar  
 Alumínio Branco ou Preto

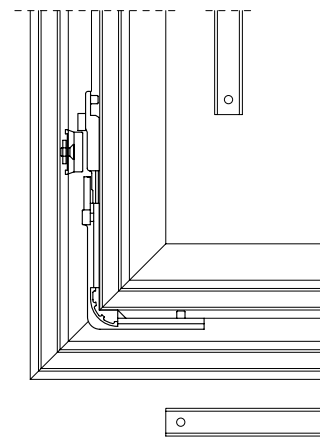
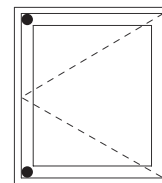
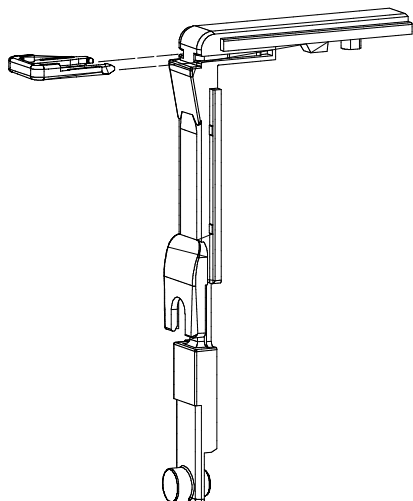


Aplicação

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**KIT624**

Comando de transmissão angular  
 Janela Reversível  
 Zamak Natural



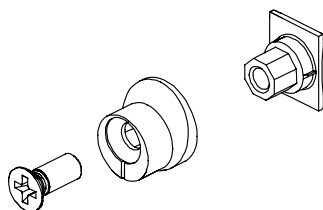
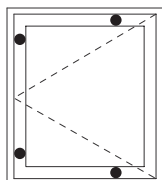
Aplicação

**NOTA:**

Kit aplicado quando L for maior que 1100mm e H maior que 1200mm.

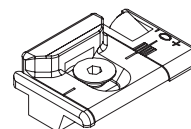
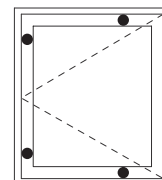
**TRA018**

Trava complementar ajustável  
 Zamak Natural



**CON540**

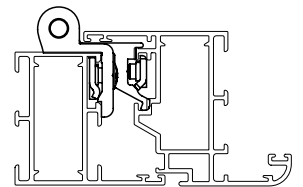
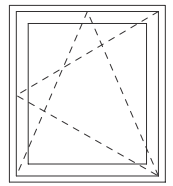
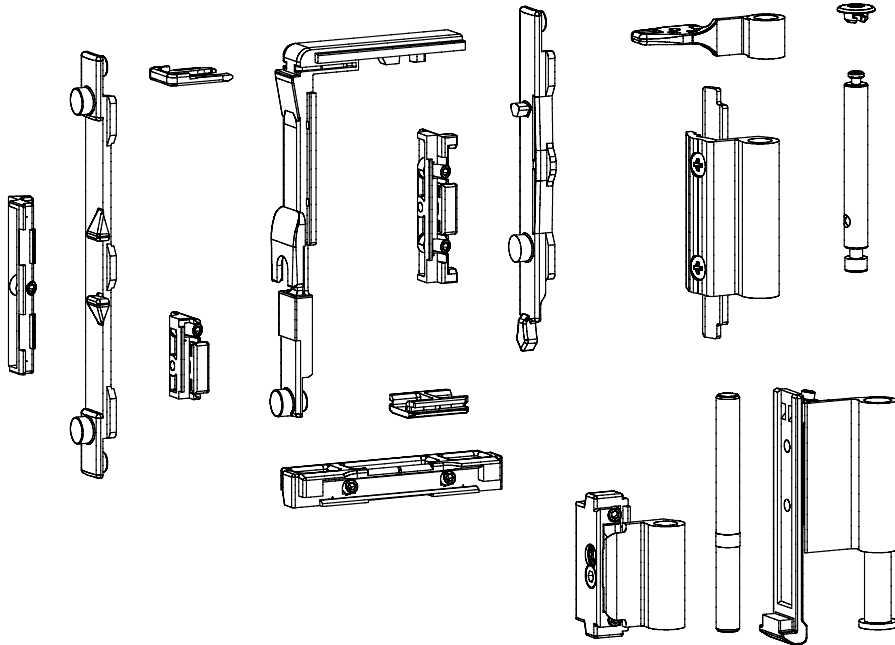
Trava Ajustável  
 Zamak Natural



Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**DOB869 + KITGN21**

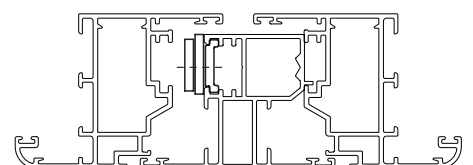
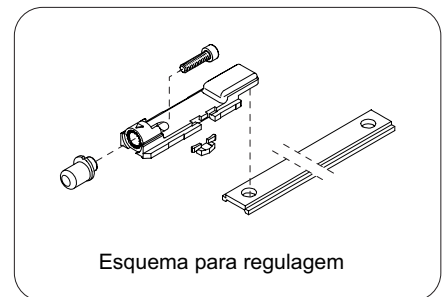
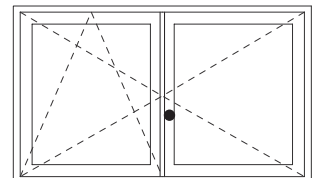
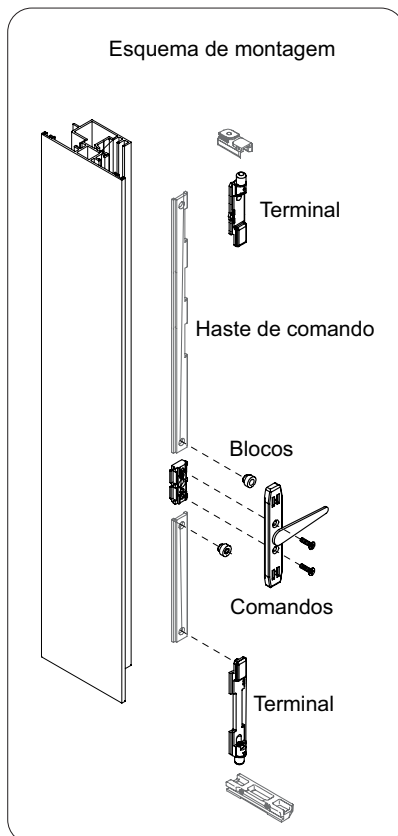
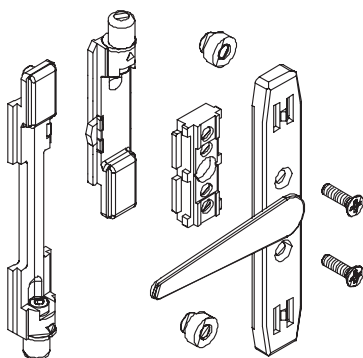
Kit abrir e tombar 1 folha  
 Capacidade: 80 kg  
 Alumínio Branco ou Preto  
 Zamak Natural



Aplicação

**FEC1090**

Kit do fecho central com haste  
 2ª Folha Oscilo Batente e folha de Giro  
 Zamak Natural

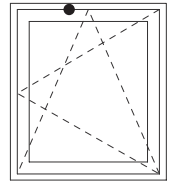
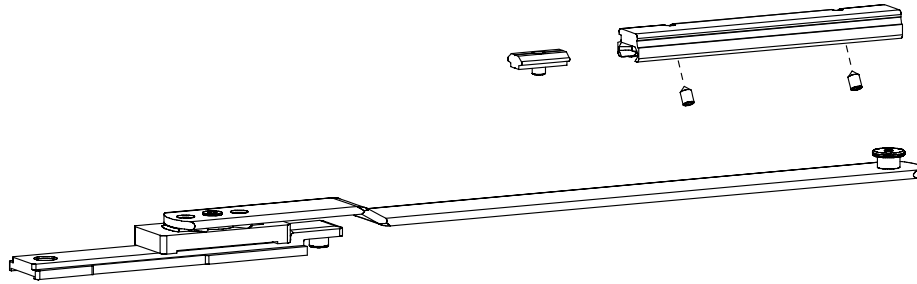


Aplicação

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**BRA795**

Braço complementar da folha  
Janela Oscilo Batente  
Zamak Natural

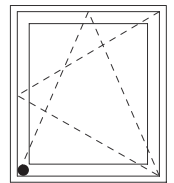
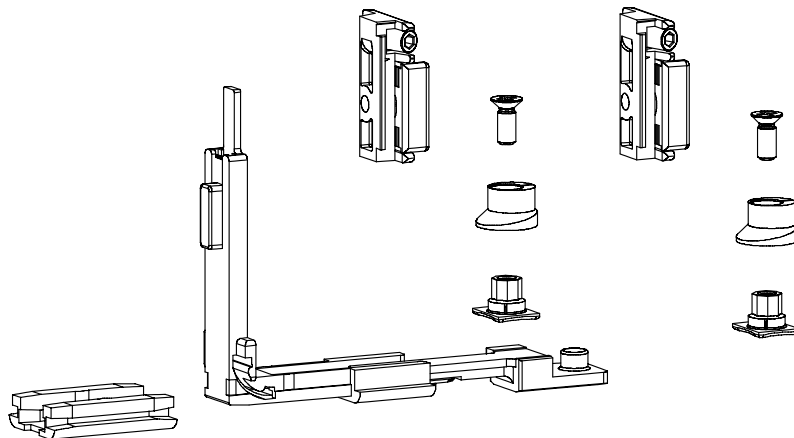


NOTA:  
Braço aplicado em folhas com largura acima de 1000 mm.

Aplicação: ver página 131

**KIT623**

Kit complementar do mecanismo base  
Janela Oscilo Batente  
Zamak Natural



NOTA:  
Kit aplicado quando L for maior que 1000mm e H maior que 1200mm.

Aplicação: ver página 131

	Dimensão	Largura da Folha
<b>BRA830</b>	<b>225</b>	Min: 390 Max: 544

**Braço Tipo 1**

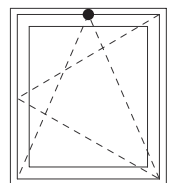
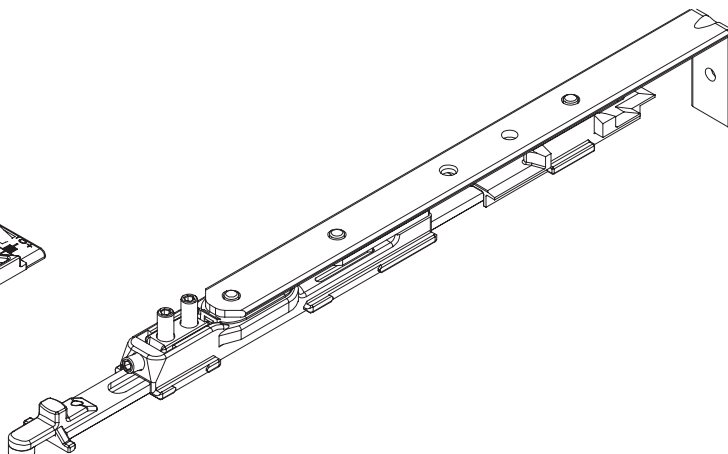
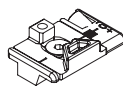
Zamak Natural

	Dimensão	Largura da Folha
<b>BRA831</b>	<b>365</b>	Min: 545 Max: 1700

**Braço Tipo 2**

Zamak Natural

Capacidade: 80 kg

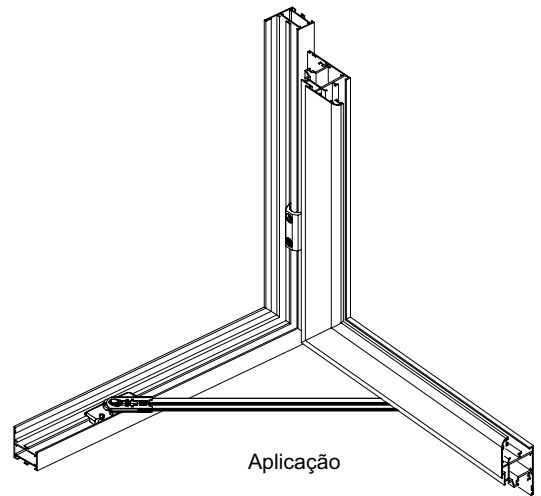
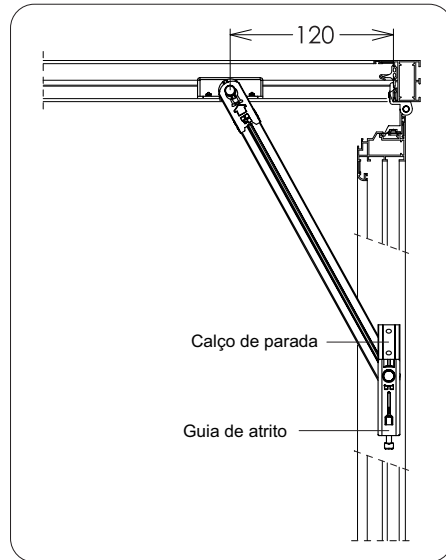
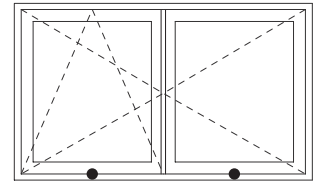
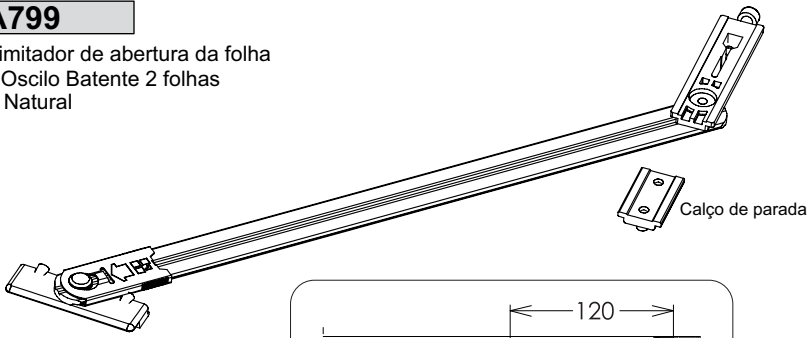


Aplicação: ver página 131

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**BRA799**

Braço limitador de abertura da folha  
 Janela Oscilo Batente 2 folhas  
 Zamak Natural

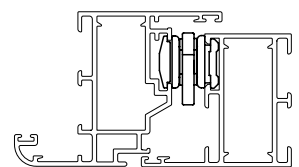
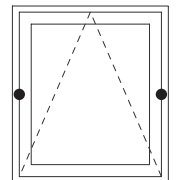
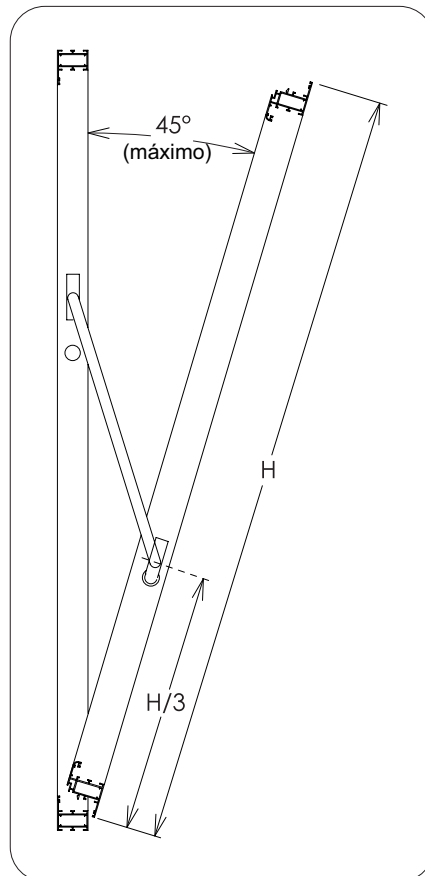
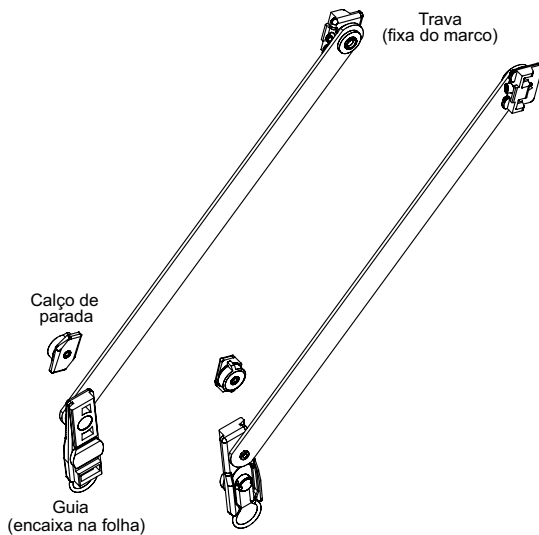


NOTA:  
 Braço aplicado em folhas com largura acima de 450mm.

	Dimensão mm	Altura da folha	Carga Máxima
<b>BRA798</b>	150	Min: 300 Max: 600	70kg
<b>BRA796</b>	250	Min: 601 Max: 1500	70kg

**Compasso**

Janela de Tombar  
 Alumínio Branco ou Preto

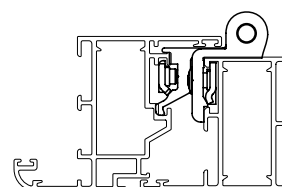
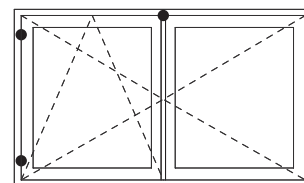
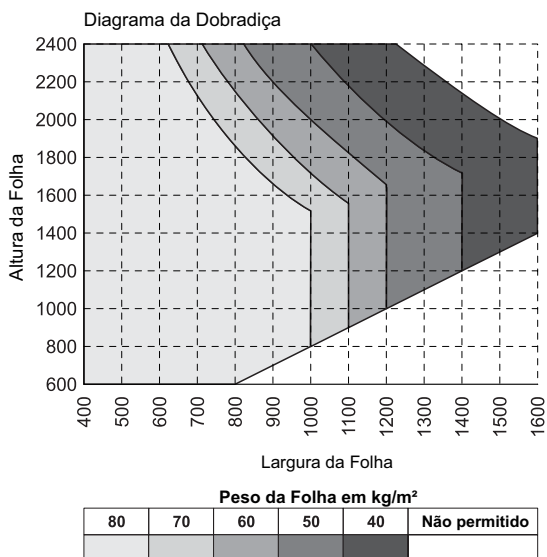
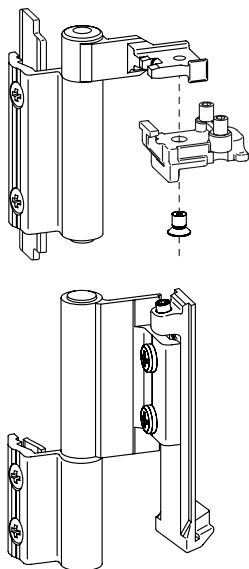


Aplicação

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**DOB869 + KITGN22**

Dobradiça Oscilo Batente  
Alumínio Branco ou Preto

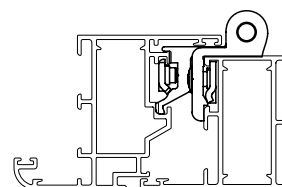
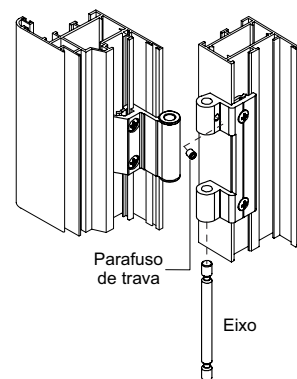
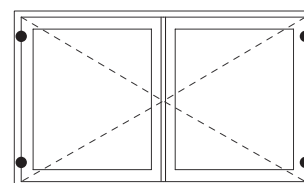
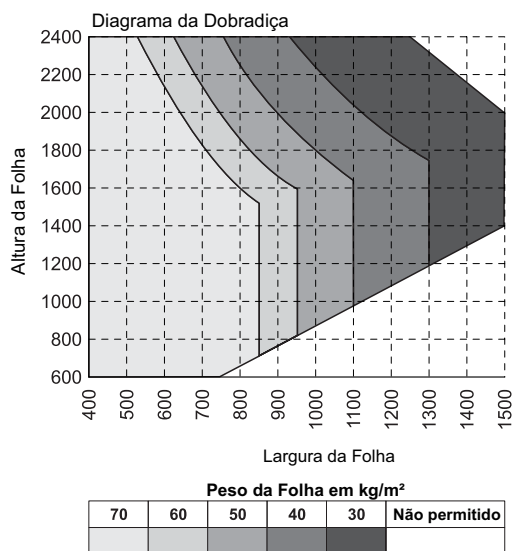
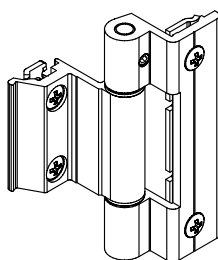


Aplicação

NOTA:  
Peso máximo da folha = 80kg.

**DOB868**

Dobradiça 3 abas  
Alumínio Branco ou Preto



Aplicação

NOTA:  
Aplicação em folhas maiores que 1000mm;  
Peso máximo da folha = 90kg.

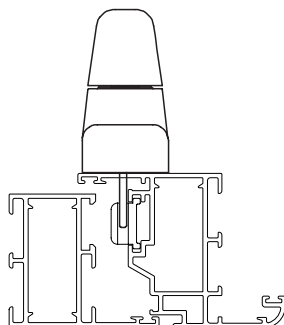
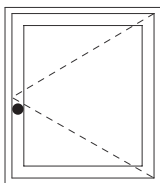
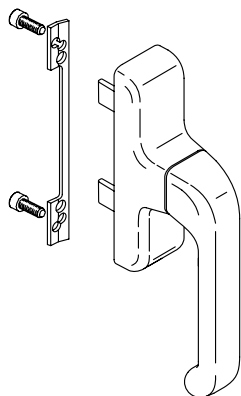
Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.



o

**FEC1075**

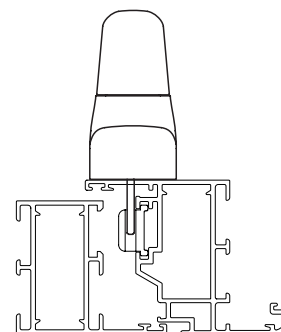
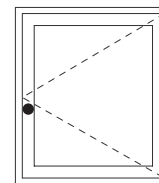
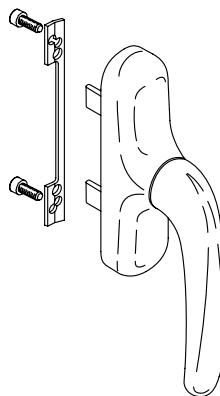
Fecho Cremona modelo Euro  
Janela de Giro  
Alumínio Branco ou Preto



Aplicação

**FEC1077**

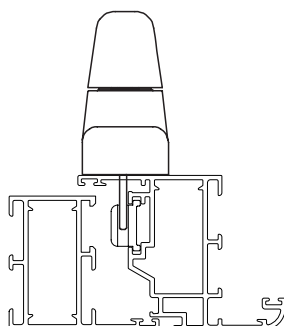
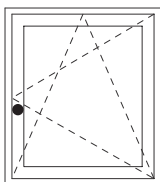
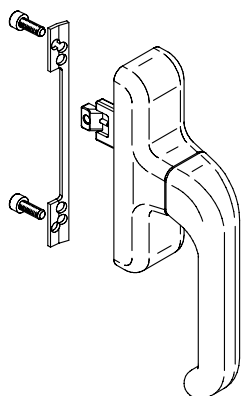
Fecho Cremona modelo Prima  
Janela de Giro  
Alumínio Branco ou Preto



Aplicação

**FEC1211**

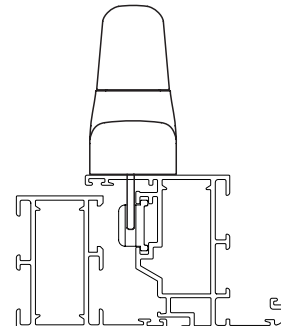
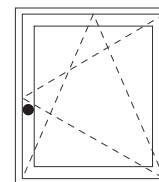
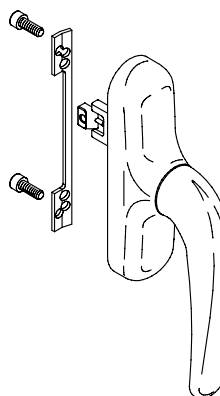
Fecho Cremona modelo Euro  
Janela Oscilo Batente  
Alumínio Branco ou Preto



Aplicação

**FEC1211**

Fecho Cremona modelo Prima  
Janela Oscilo Batente  
Alumínio Branco ou Preto

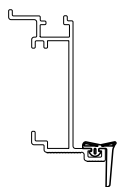
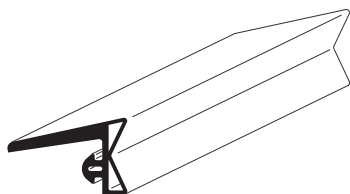


Aplicação

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**GUA320**

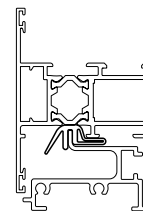
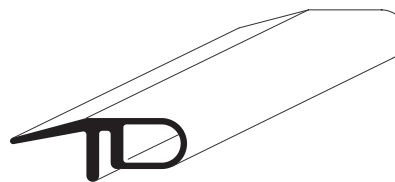
Guarnição do Contramarco  
EPDM Preto



Aplicação

**GUA329**

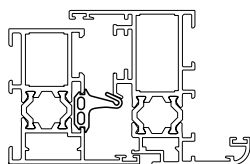
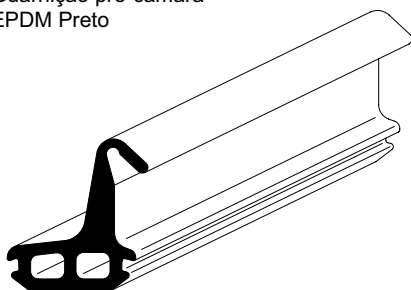
Guarnição Inferior do Marco  
EPDM Preto



Aplicação

**GUA409**

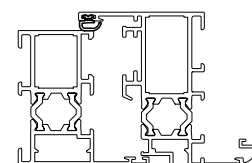
Guarnição pré-câmara  
EPDM Preto



Aplicação

**GUA416**

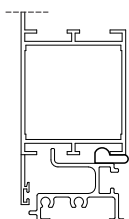
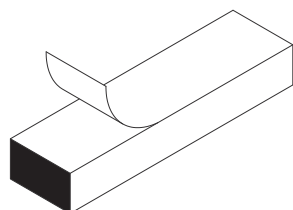
Guarnição da Folha  
EPDM Preto



Aplicação

**GUA157**

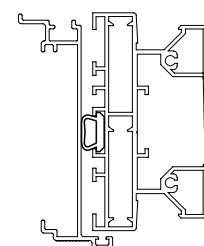
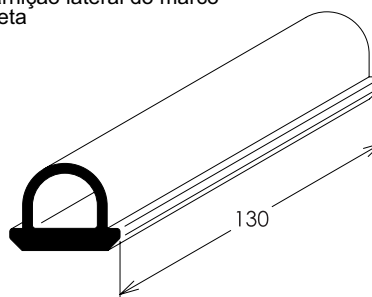
Guarn. ades. asponjosa 11 x 6,4 mm  
Preta



Aplicação

**GUA342**

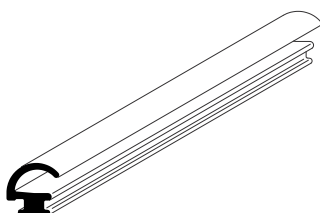
Garnição lateral do marco  
Preta



Aplicação

**GUA410**

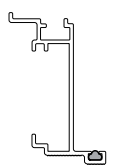
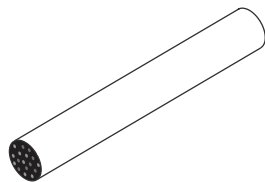
Guarnição da Folha  
EPDM Preto



Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**TAR001**

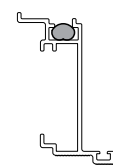
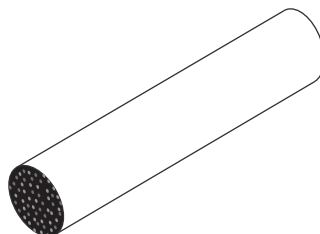
Tarucel diâmetro de 06 mm



Aplicação

**TAR002**

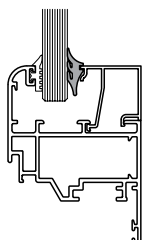
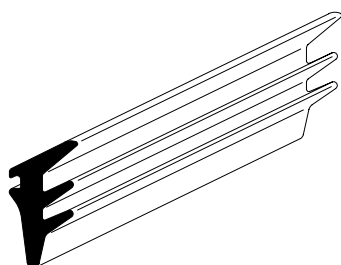
Tarucel diâmetro de 08 mm



Aplicação

**GUA411**

Guarnição interna para vidro  
EPDM Preto

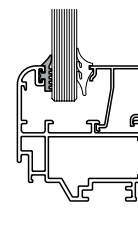
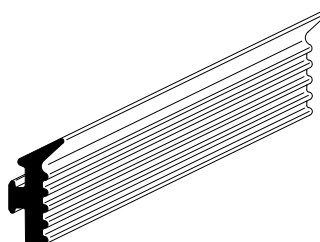


Aplicação

NOTA:  
Consultar página 82.

**GUA413**

Guarnição externa para vidro  
EPDM Preto

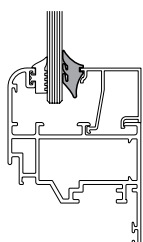
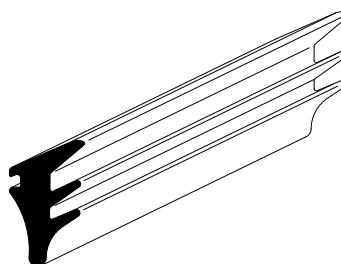


Aplicação

NOTA:  
Consultar página 82.

**GUA412**

Guarnição interna para vidro  
EPDM Preto

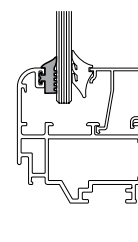
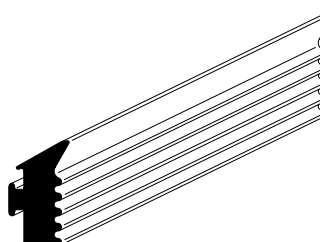


Aplicação

NOTA:  
Consultar página 82.

**GUA414**

Guarnição externa para vidro  
EPDM Preto



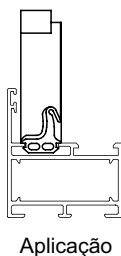
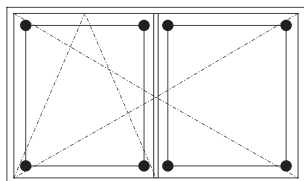
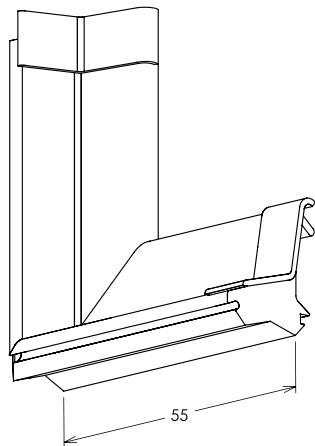
Aplicação

NOTA:  
Consultar página 82.

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

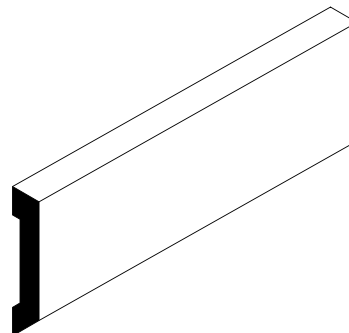
**GUA415**

Guarnição de ângulo  
pré-câmara  
EPDM Preto



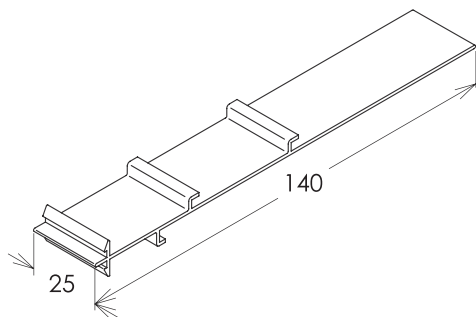
**GUA132**

Guarnição  
PVC



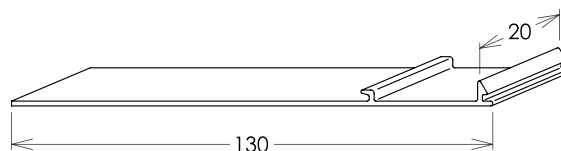
**CHU866**

Chumbador  
Alumínio Natural



**CHU840**

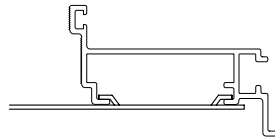
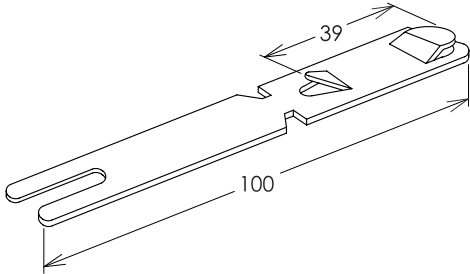
Chumbador  
Alumínio Natural



Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**CHU871**

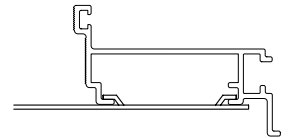
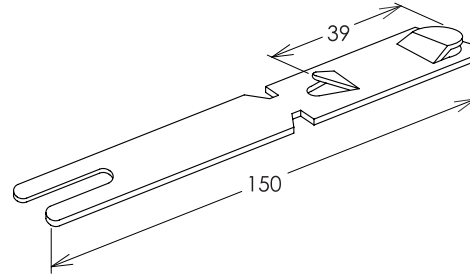
Chumbador  
Aço Zincado



Aplicação

**CHU872**

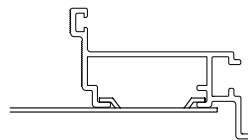
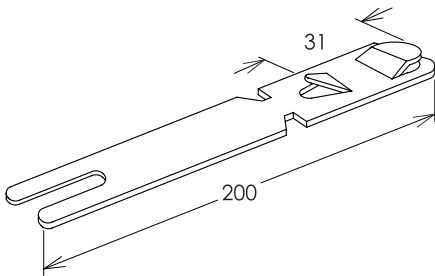
Chumbador  
Aço Zincado



Aplicação

**CHU867**

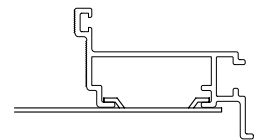
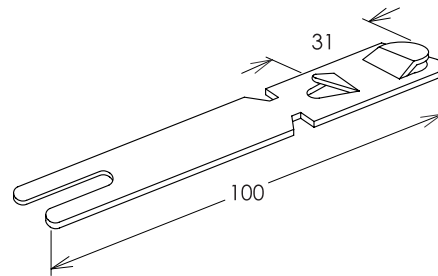
Chumbador  
Aço Zincado



Aplicação

**CHU868**

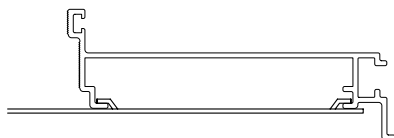
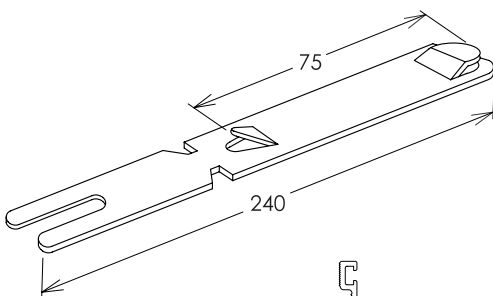
Chumbador  
Aço Zincado



Aplicação

**CHU869**

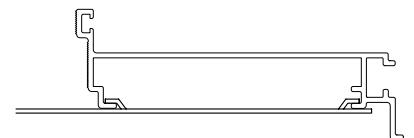
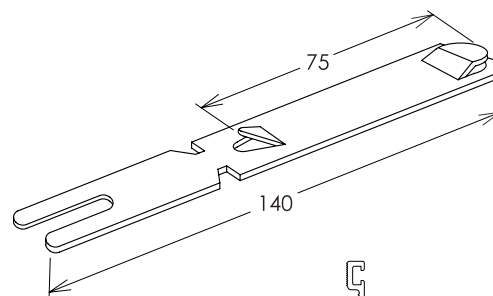
Chumbador  
Aço Zincado



Aplicação

**CHU870**

Chumbador  
Aço Zincado

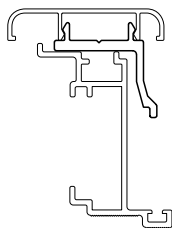
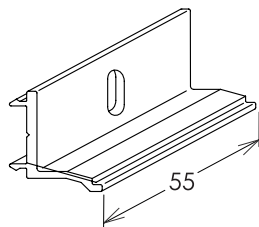


Aplicação

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**PRE978**

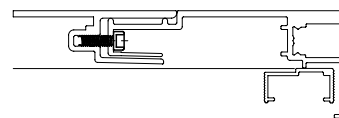
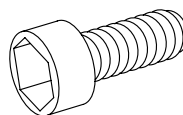
Presilha de fixação  
Alumínio Natural



Aplicação

**PAR1008**

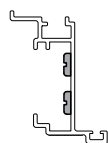
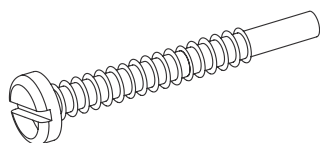
Parafuso Allen M4 x 10mm  
Aço Inox



Aplicação

**PAR428**

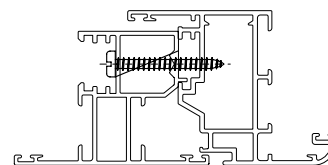
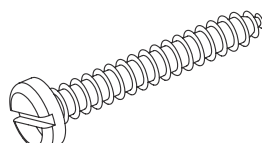
Par. A/A cab. panela ponta piloto 4,8 x 32 mm  
Fenta combinada  
Aço inox



Aplicação

**PAR1069**

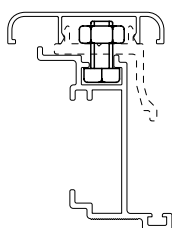
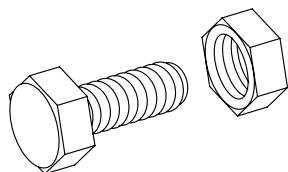
Par. A/A cab. panela 4,2 x 38 mm  
Fenta comum  
Aço inox



Aplicação

**PAR715**

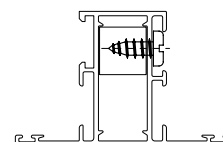
Parafuso sextavado com porca  
WW Ø 6,35 x 12,7mm  
Aço Inox



Aplicação

**PAR434**

Par. A/A cab. panela 3,9 x 9,5 mm  
Fenta comum  
Aço inox

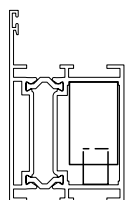
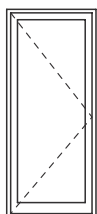
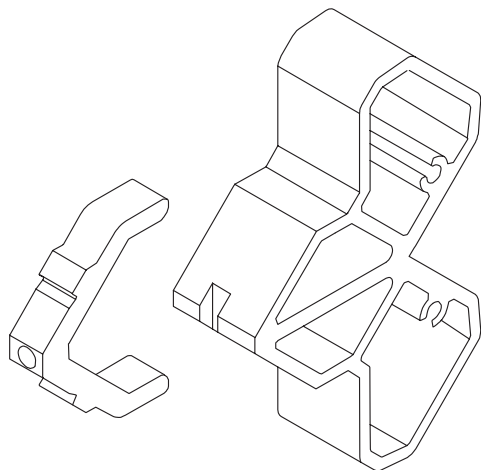


Aplicação

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**CON484**

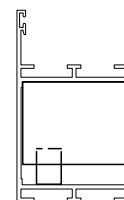
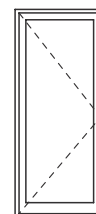
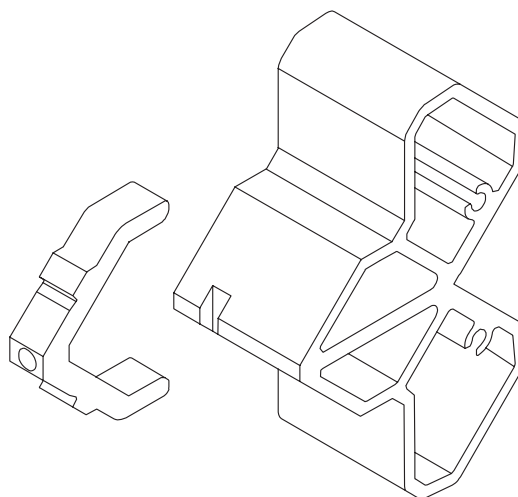
Conexão com parafuso 41,8mm x 20,3mm  
Alumínio Natural



Aplicação

**CON483**

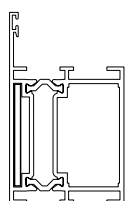
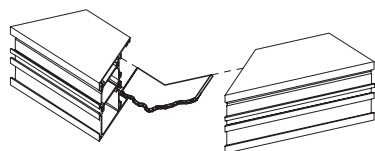
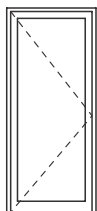
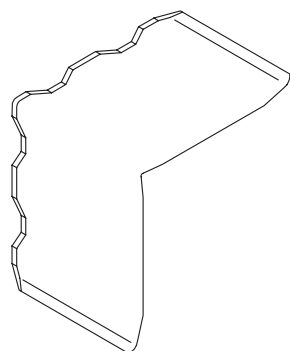
Conexão com parafuso 41,8mm x 41,9mm  
Alumínio Natural



Aplicação

**CON485**

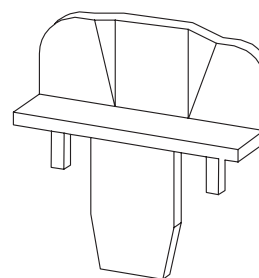
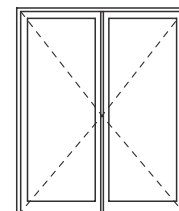
Conexão de alinhamento  
41,8mm x 3mm  
Alumínio Natural



Aplicação

**NYL491**

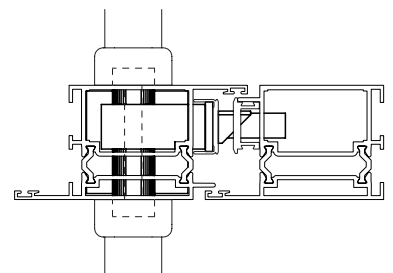
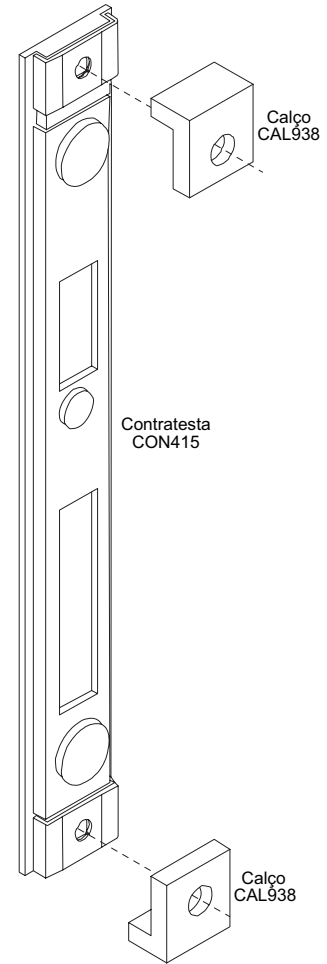
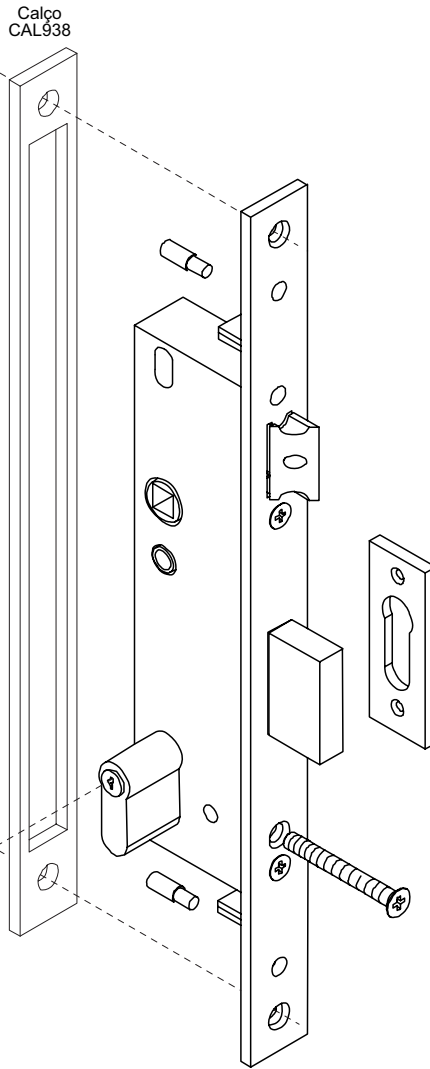
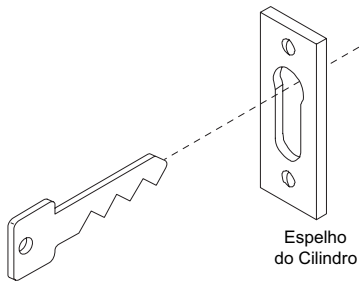
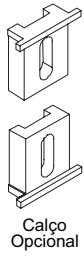
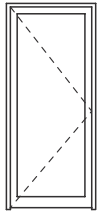
Tampa central reversível  
Porta de giro  
Nylon Preto



Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**FRA819**

Fechadura para porta de Giro  
Aço Inox



Aplicação

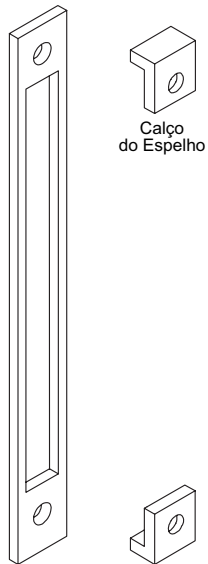
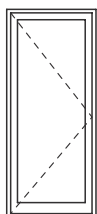
**NOTA:**  
Cilindro, contratesta e calços CAL938 não acompanham a fechadura.  
Ver página 74.

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

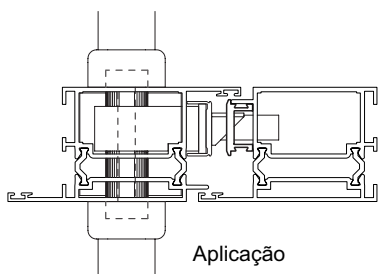


**CAL965**

Calço da fechadura  
Alumínio preto, branco e fosco



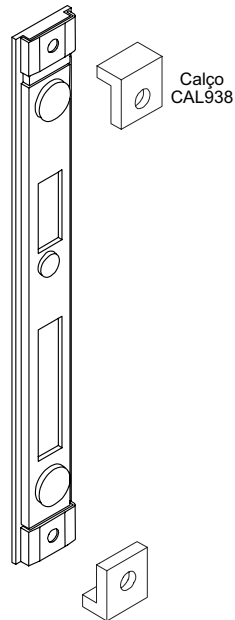
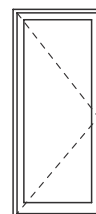
Calço do Espelho



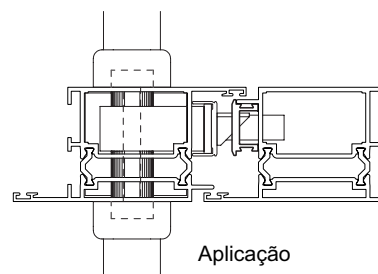
Aplicação

**CON535**

Contratesta para fechadura  
Aço inox



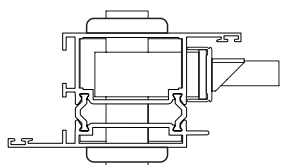
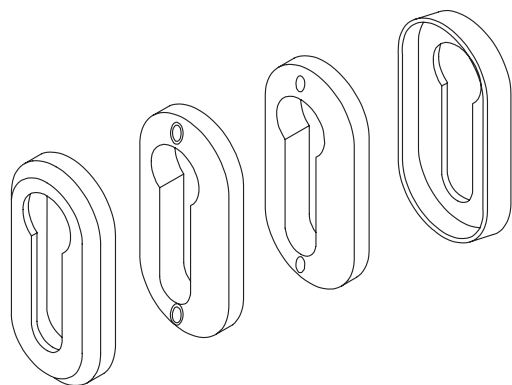
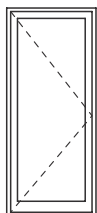
Calço CAL938



Aplicação

**ESP962**

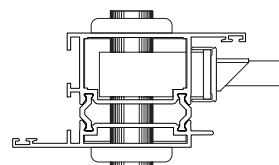
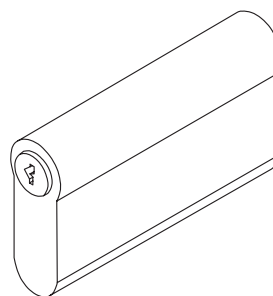
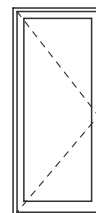
Espelho para cilindro  
Alumínio Pintado e Nylon



Aplicação

**CIL007**

Cilindro 72mm  
para fechadura FRA819  
Latão

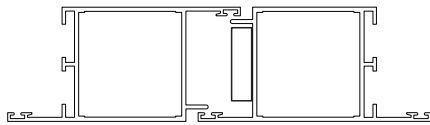
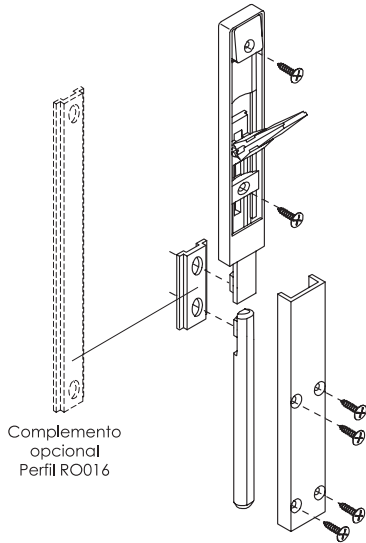
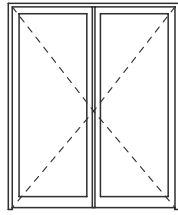


Aplicação

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**FEC1093**

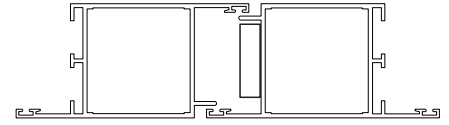
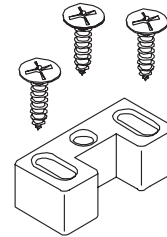
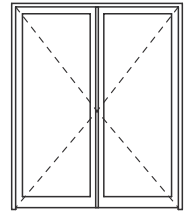
Fecho Unha - Porta de giro  
Nylon e Zamak Preto



Aplicação

**TRA023**

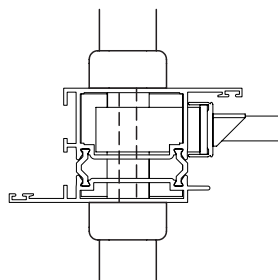
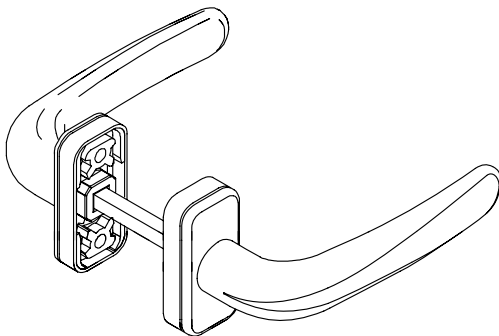
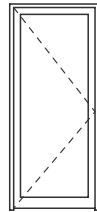
Contrafecho para FEC1093  
Zamak Preto



Aplicação

**MAC1007**

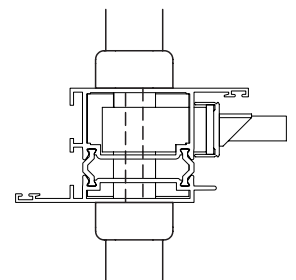
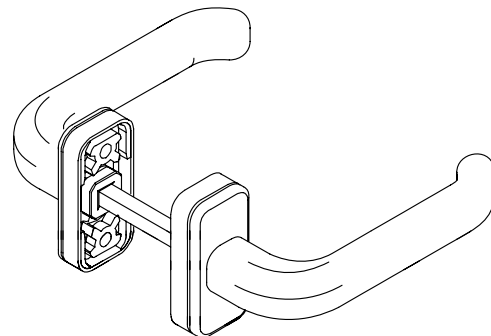
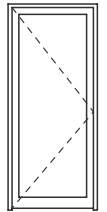
Maçaneta modelo Prima  
Alumínio Pintado



Aplicação

**MAC1008**

Maçaneta modelo Euro  
Alumínio Pintado

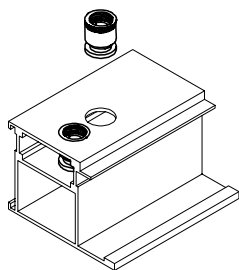
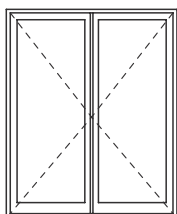
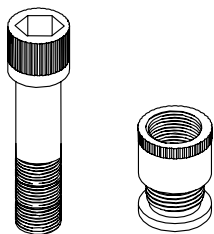


Aplicação

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**BUC779**

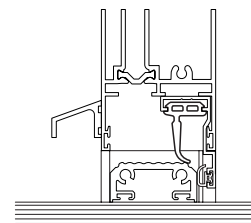
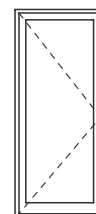
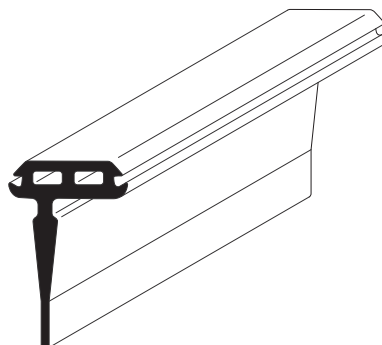
Bucha Distanciadora para dobradiça com parafuso  
Aço



Aplicação

**GUA429**

Guarnição do piso  
EPDM Preto

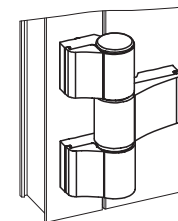
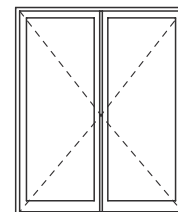
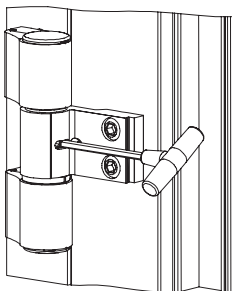
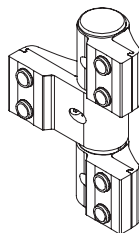
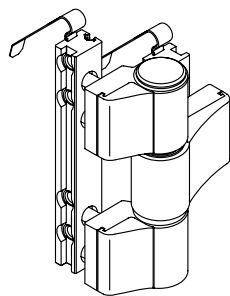


Aplicação

**NOTA:**  
Usar somente porta 40TT,  
abertura externa.

**DOB858**

Dobradiça com 3 abas  
para porta de giro  
Alumínio Branco ou Preto

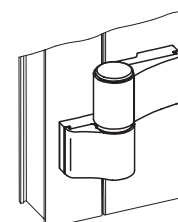
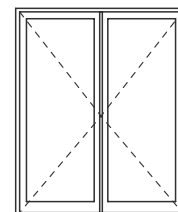
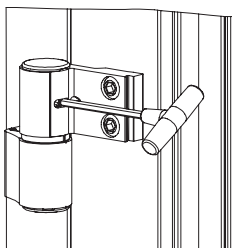
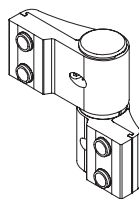
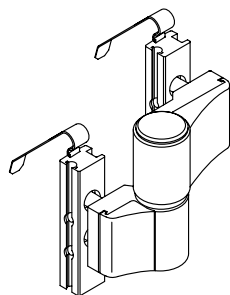


Aplicação

**NOTA:**  
Aplicação em folhas com 2 dobradiças. Folha até 140kg.

**DOB857**

Dobradiça com 2 abas  
para porta de giro  
Alumínio Branco ou Preto

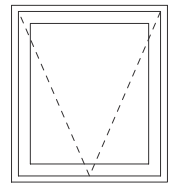


Aplicação

**NOTA:**  
Aplicação em folhas com 2 dobradiças. Folha até 120kg.

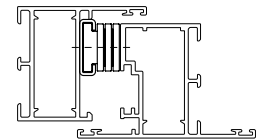
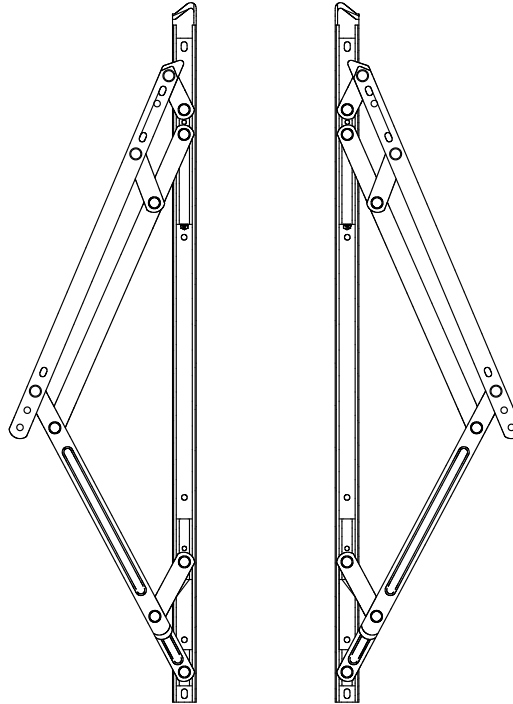
Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

	Dimensão	Dimensões Máximas da Folha	Carga Máxima	Grau de Abertura
<b>BRA800</b>	<b>414,5</b>	L = 1400 H = 1200	<b>88 kg</b>	<b>25°/30°</b>
<b>BRA801</b>	<b>707,5</b>	L = 1400 H = 1700	<b>120 kg</b>	<b>10°/15°/20°</b>



**Braço Maxim ar**

Aço Inox

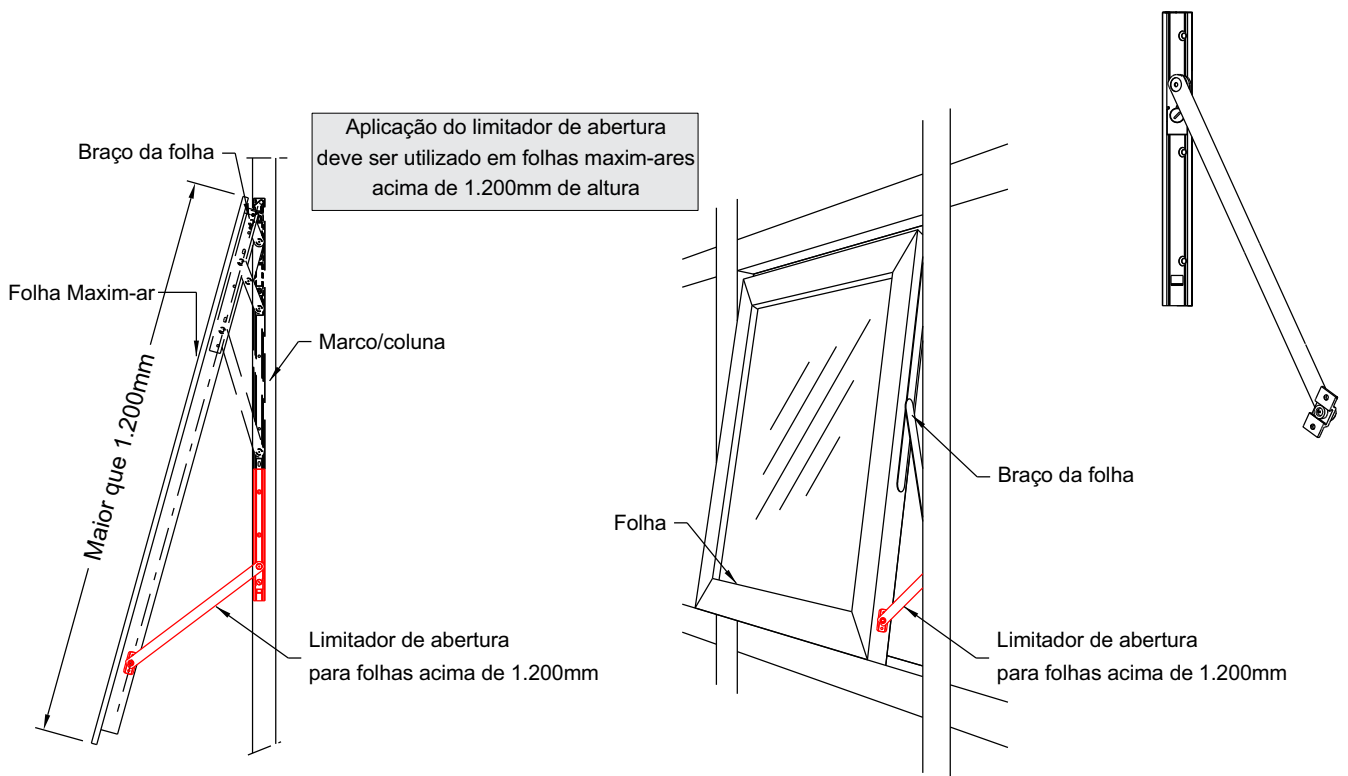


Aplicação

**BRA761**

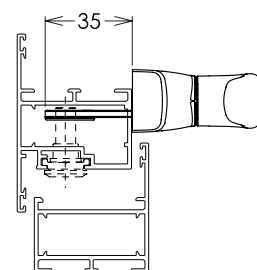
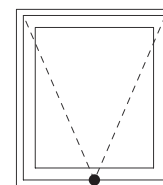
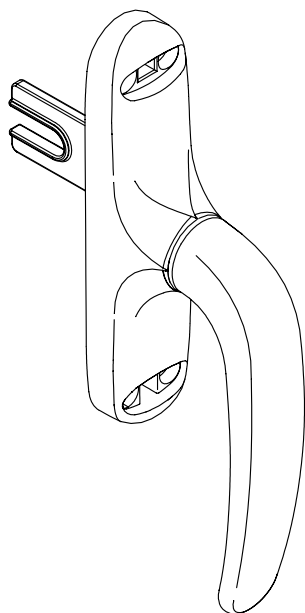
Limitador de Abertura para Folhas c/ Altura Acima de 120mm Alumínio Fosco, Branco ou Preto

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.



**FEC1098**

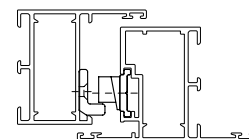
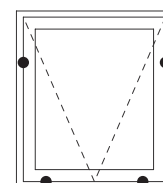
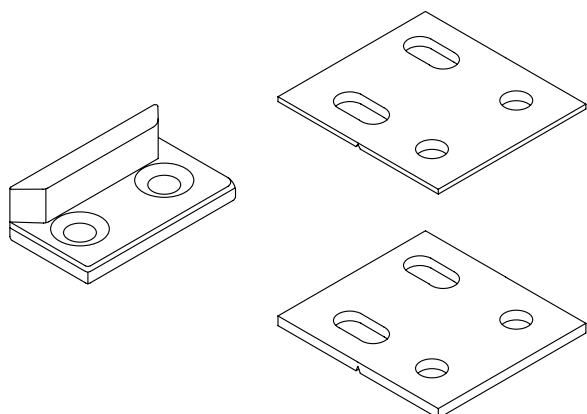
Fecho tipo cremona  
Alumínio Preto ou Branco



Aplicação

**CON478**

Trava complementar  
Nylon Preto

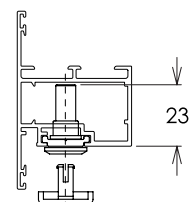
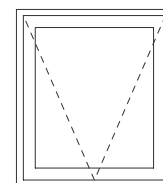
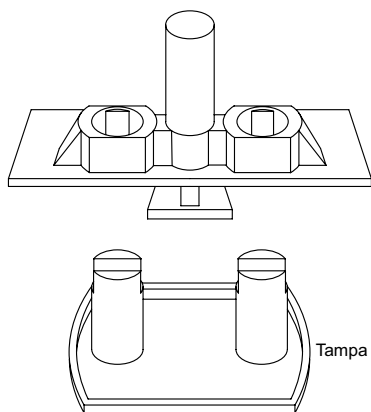


Aplicação

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**KIT625**

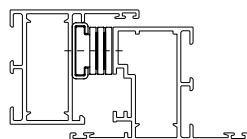
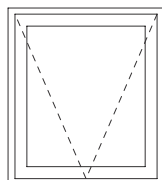
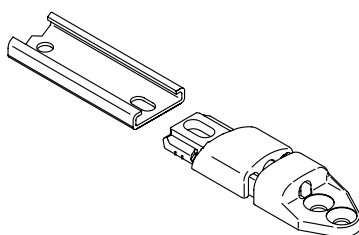
Comando de travamento  
Zamak



Aplicação

**SUP688**

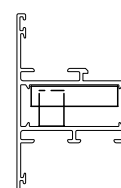
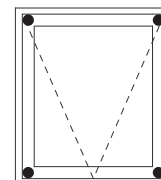
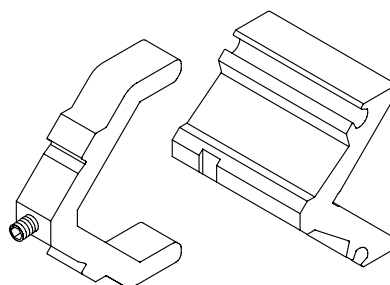
Regulador da altura do braço  
Zamak



Aplicação

**CON488**

Conexão com parafuso 16,8mm x 36,1mm  
Alumínio Natural

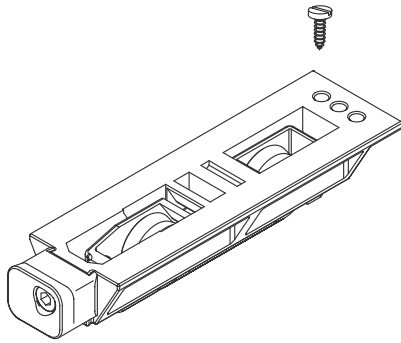
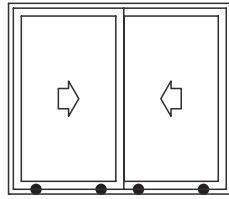


Aplicação

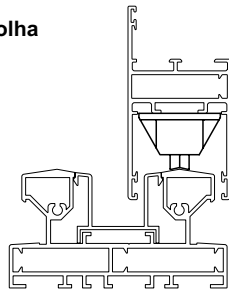
Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**ROL486**

Roldana dupla  
com regulamento e rolamento  
Nylon



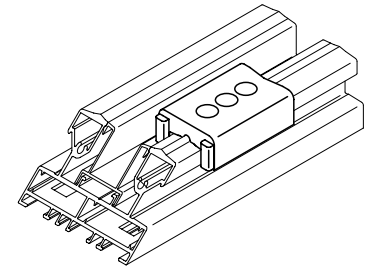
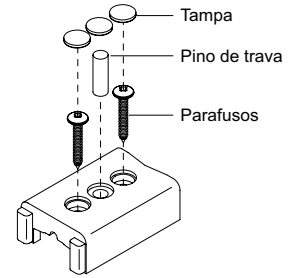
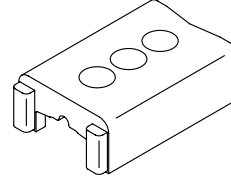
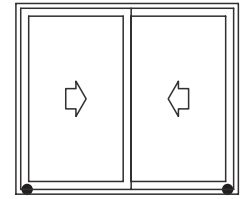
Carga máxima admissível = 80kg por folha



Aplicação

**NYL446**

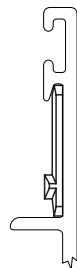
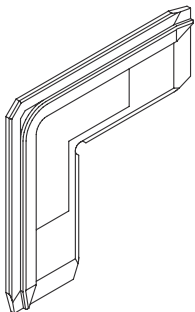
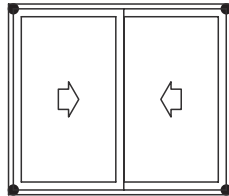
Batedeira da folha  
Nylon Branco ou Preto



Aplicação

**NYL482**

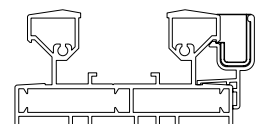
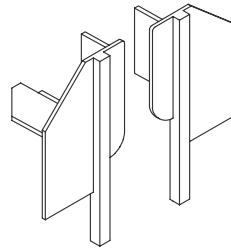
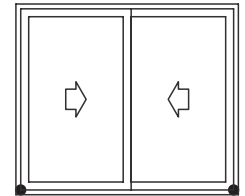
Conexão de alinhamento  
Nylon Preto



Aplicação

**NYL489**

Tampa lateral  
Nylon Preto ou Branco

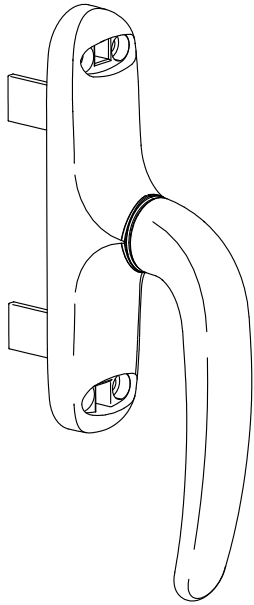
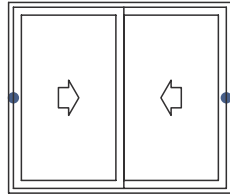
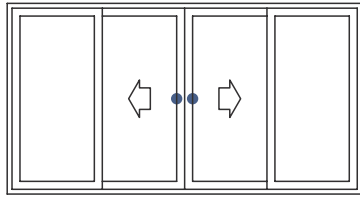


Aplicação

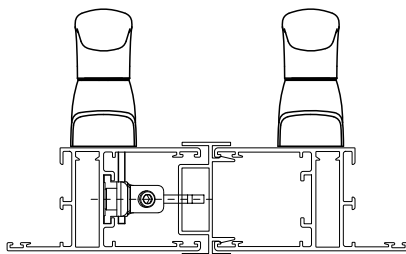
Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**FEC1101**

Fecho multiponto  
Alumínio Branco ou Preto



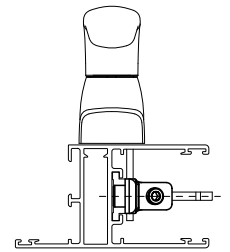
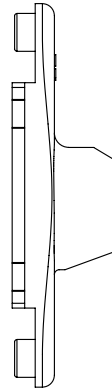
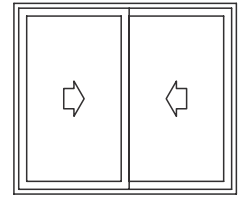
**NOTA:** Para cremona fixa, trava o acionamento eliminando as hastes.



Aplicação

**CON479**

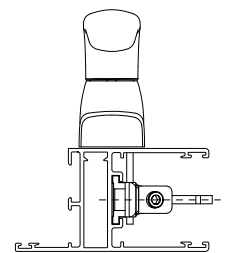
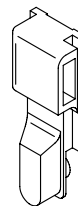
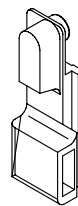
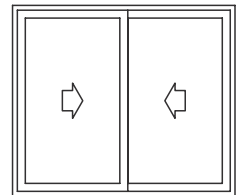
Contrafecho do multiponto  
Zamak Natural



Aplicação

**KITGN25**

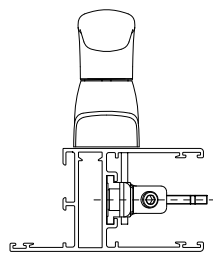
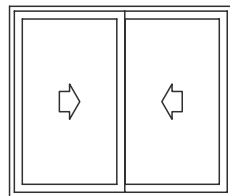
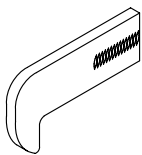
Kit de travamento  
Nylon Preto



Aplicação

**TRA019**

Lingueta do fecho multiponto  
Aço Inox



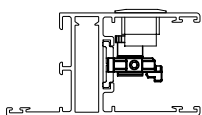
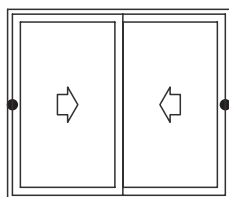
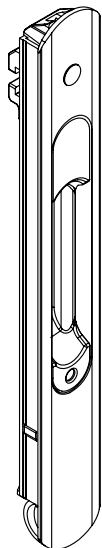
Aplicação

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.



**FEC1106**

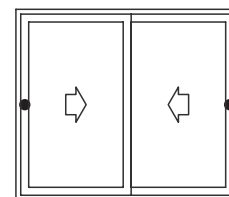
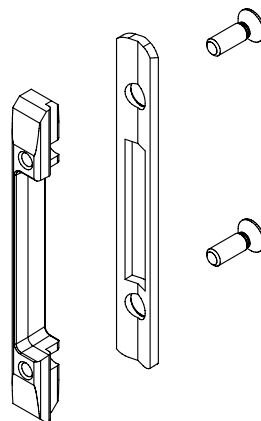
Fecho concha com multiponto  
Alumínio Branco ou Preto



Aplicação

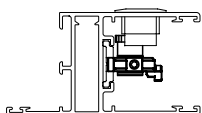
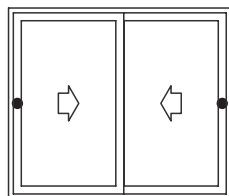
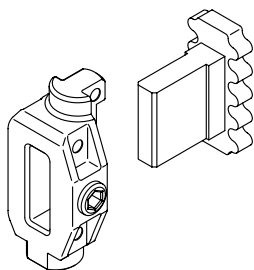
**FEC464**

Conjunto de trava do fecho  
Zamak e Aço Inox



**TRA022**

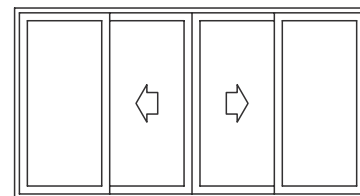
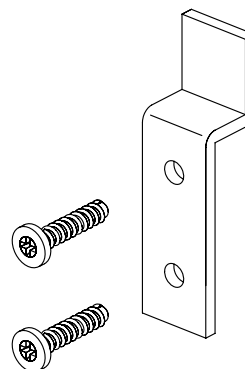
Trava do fecho concha  
Zamak Natural



Aplicação

**CON480**

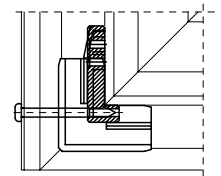
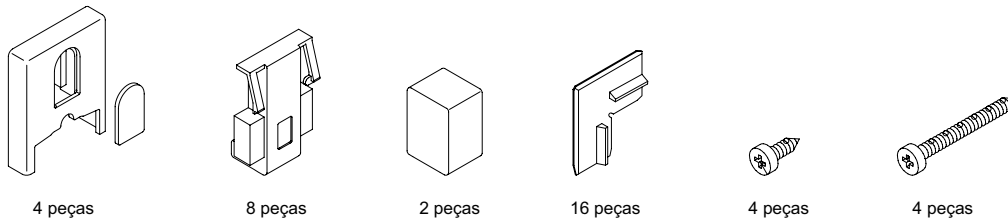
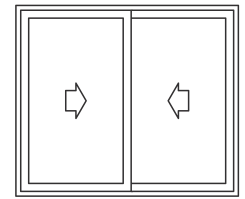
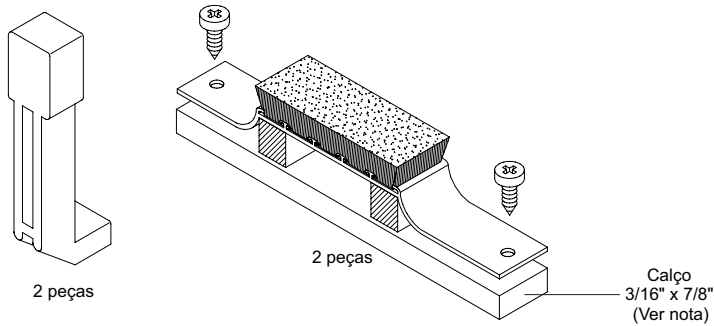
Calço de segurança da folha  
Alumínio Branco ou Preto



Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**KIT627**

Kit de tampas central  
Nylon

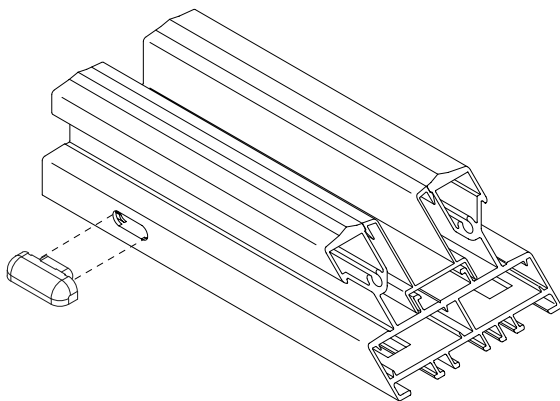
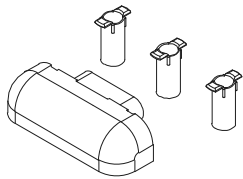
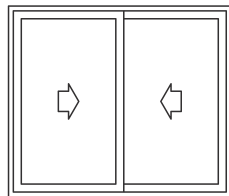


Aplicação

**NOTA:**  
Calço usado somente na parte superior, para portas com perfis RO054 e RO057.

**NYL550**

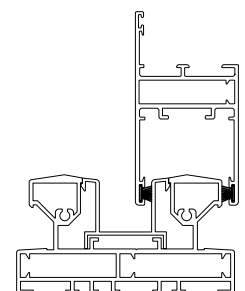
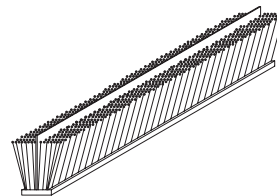
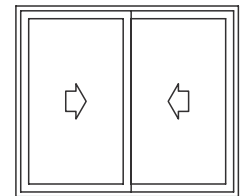
Tampa de Acabamento  
Saída da Água  
Branco ou Preto



Aplicação

**FIT260**

Fita vedadora com barreira plástica  
6,5 x 6,5 mm  
Preta

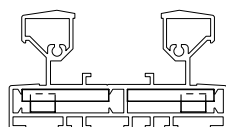
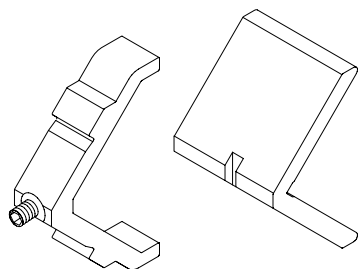
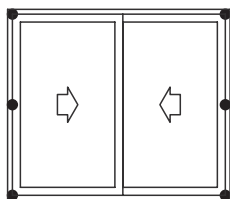


Aplicação

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**CON481**

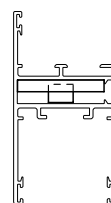
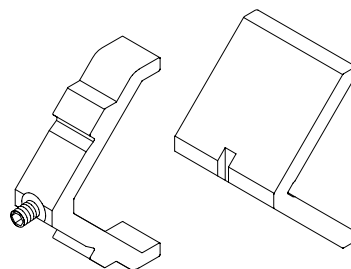
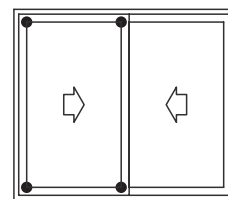
Conexão com parafuso 9,8mm x 36,1mm  
Alumínio Natural



Aplicação

**CON486**

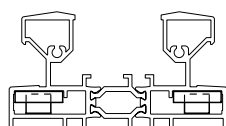
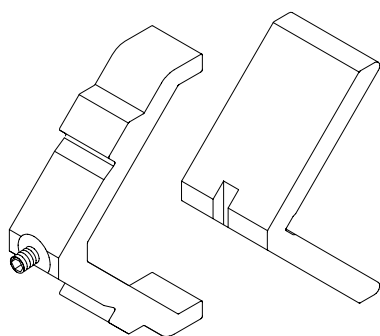
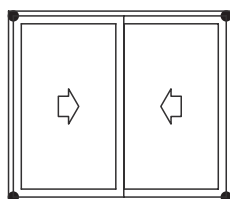
Conexão com parafuso 9,8mm x 36,1mm  
Alumínio Natural



Aplicação

**CON482**

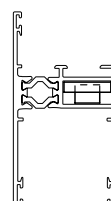
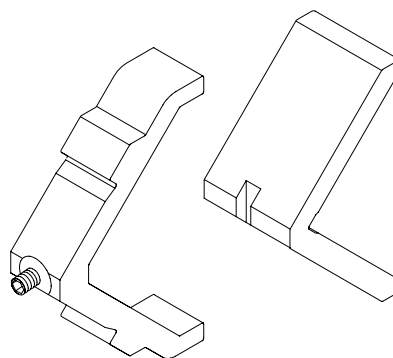
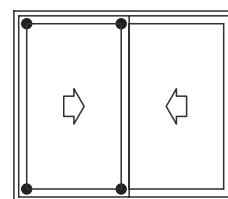
Conexão com parafuso 9,8mm x 20,3mm  
Alumínio Natural



Aplicação

**CON487**

Conexão com parafuso 9,8mm x 20,3mm  
Alumínio Natural

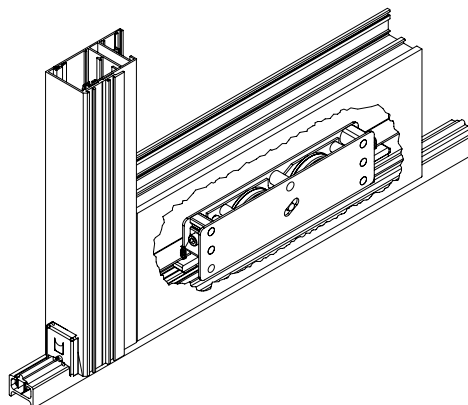
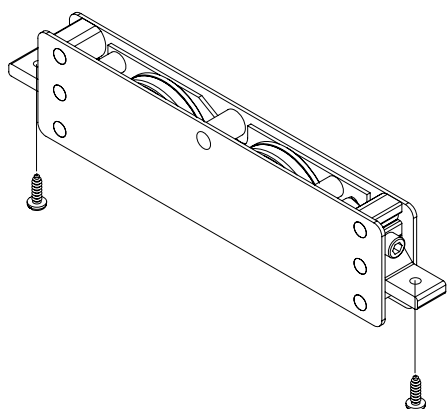
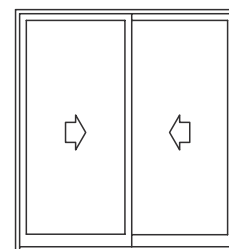


Aplicação

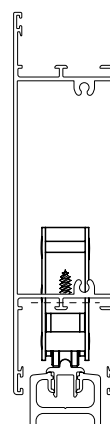
Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**ROL010**

Roldana dupla  
com regulamento e rolamento  
Aço Inox e Nylon



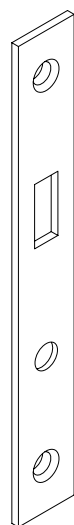
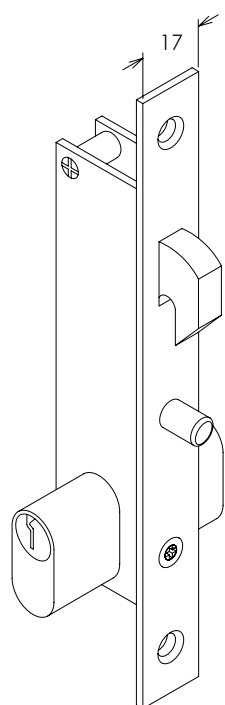
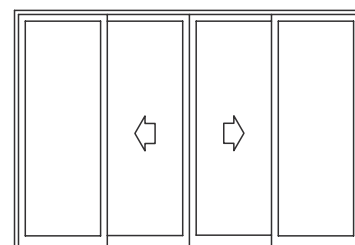
Carga máxima admissível = 240kg por folha



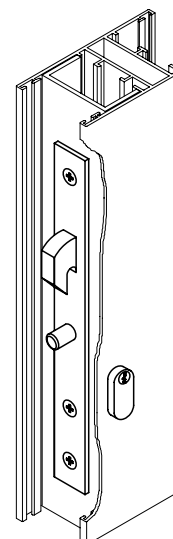
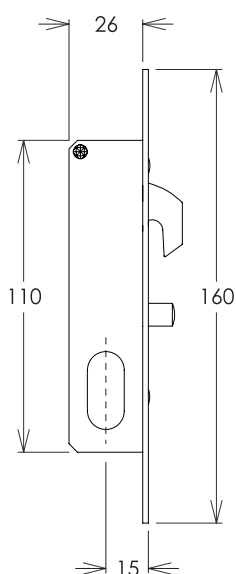
Aplicação

**FRA823**

Fechadura bico de papagaio  
Latão Branco, Preto, Cromado



Espelho

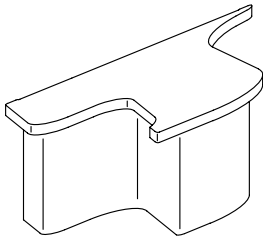
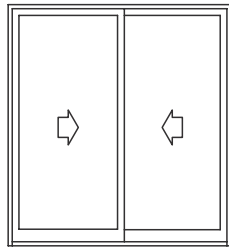


Aplicação

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**NYL500**

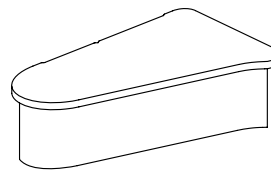
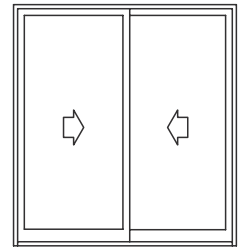
Tampa do puxador RO100  
Nylon Preto ou Branco



Aplicação

**NYL501**

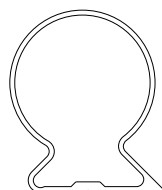
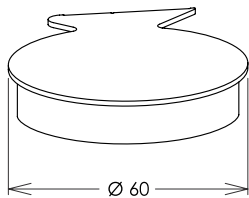
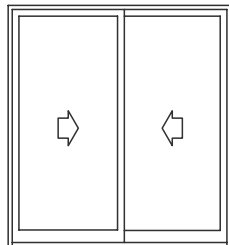
Tampa do puxador RO101  
Nylon Preto ou Branco



Aplicação

**NYL502**

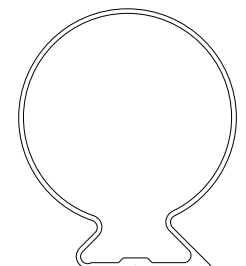
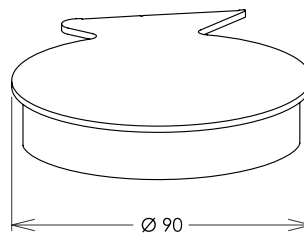
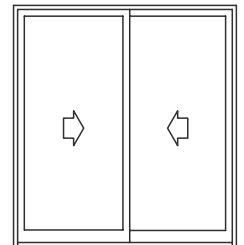
Tampa do puxador RO102  
Nylon Preto ou Branco



Aplicação

**NYL503**

Tampa do puxador RO103  
Nylon Preto ou Branco

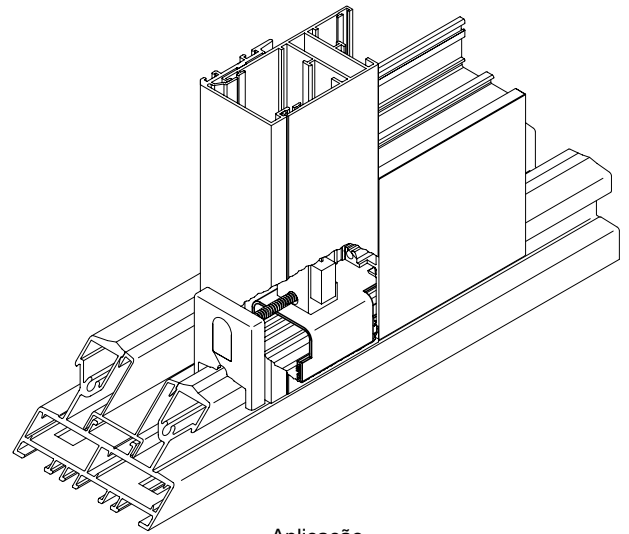
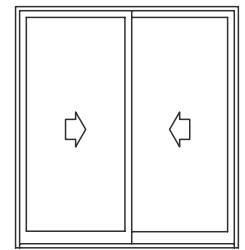
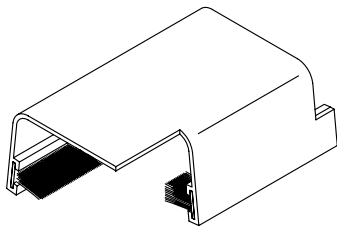


Aplicação

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**CAL944**

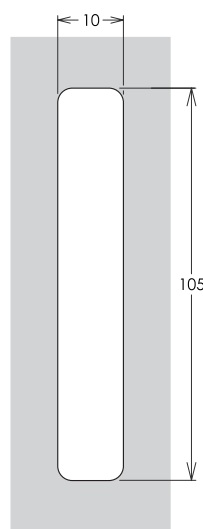
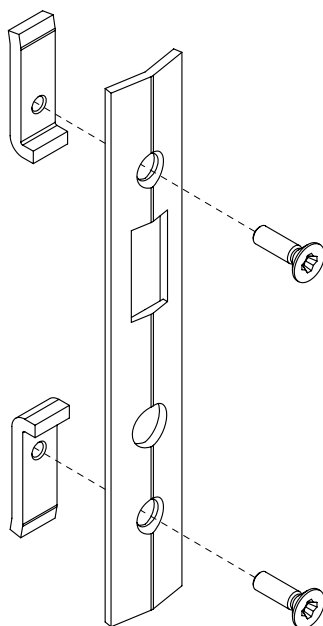
Calço de vedação da folha  
Alumínio Natural



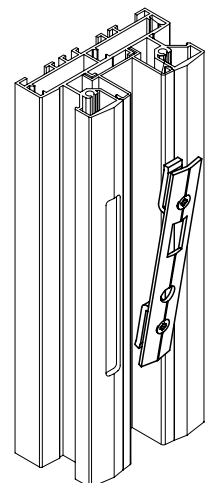
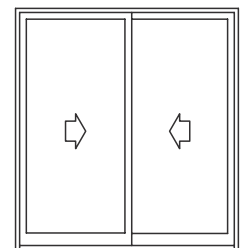
Aplicação

**CON427**

Contratesta da fechadura  
Aço Inox



Detalhe de Usinagem

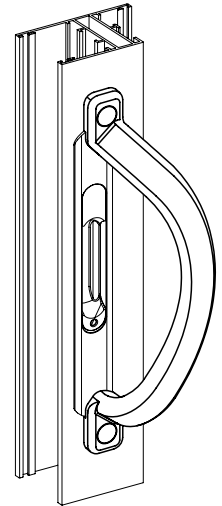
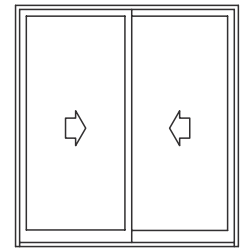
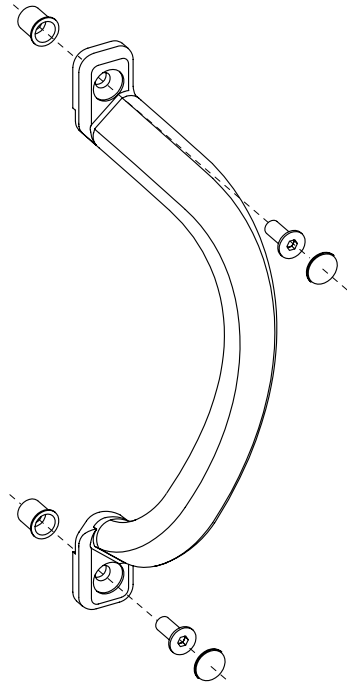


Aplicação

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**PUX169**

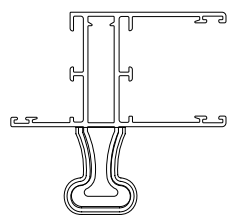
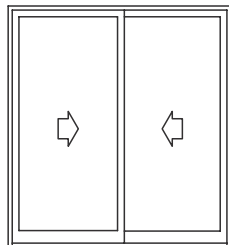
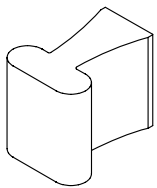
Puxador  
Alumínio Branco ou Preto



Aplicação

**NYL506**

Tampa para os perfis Ro180 e RO225  
Nylon Branco ou Preto

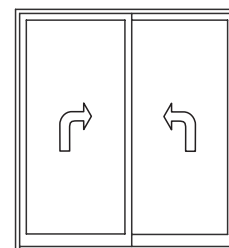
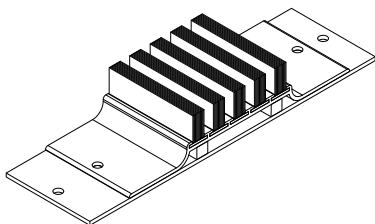


Aplicação

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

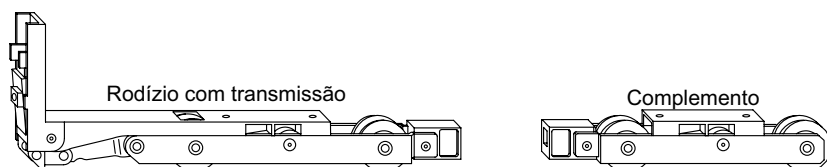
**KIT648**

Kit vedação superior  
Nylon

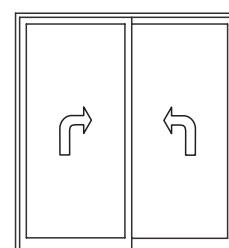


**KIT650**

Conjunto do rodízio  
Aço

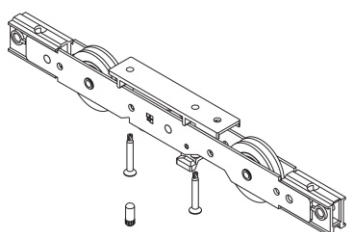


Capacidade máxima = 300 kg  
Largura máxima da folha = 2500 mm

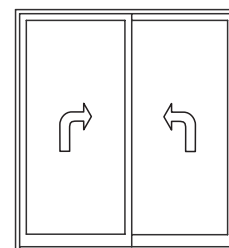


**KIT651**

Rodízio auxiliar  
Aço

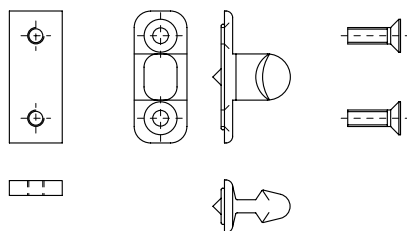
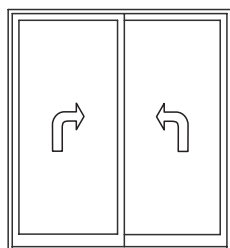


Para folha com largura acima de 2500 mm



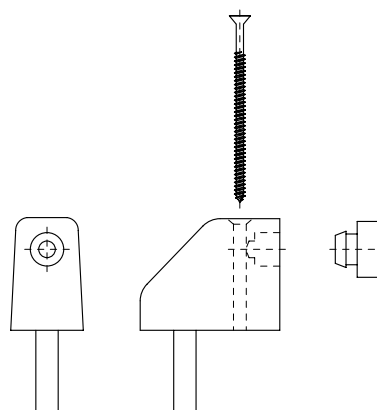
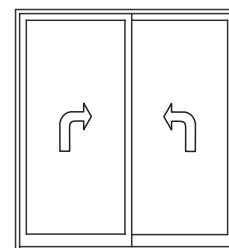
**TRA057**

Trava multiponto  
Zamak



**BAT949**

Batedeira da folha  
Alumínio Preto



Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.



**MAC1039**

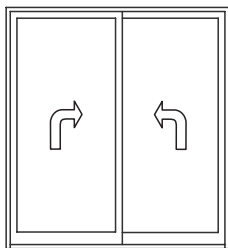
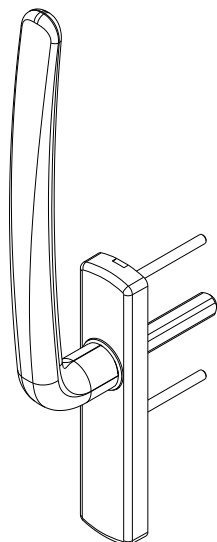
Maçaneta sem chave  
Alumínio

**MAC1040**

Maçaneta com chave  
Alumínio

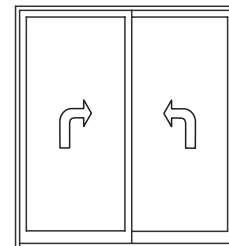
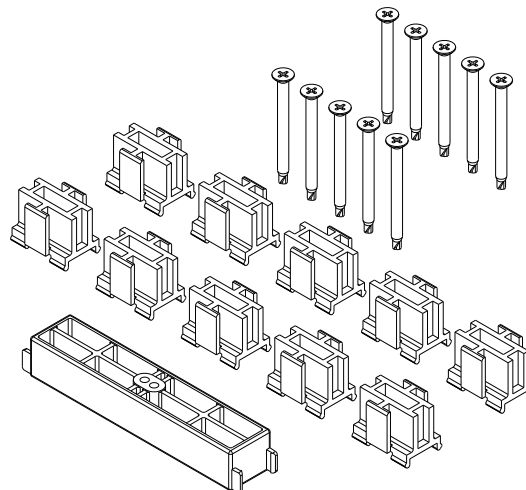
**MAC1040**

Maçaneta interna e externa com chave  
Alumínio



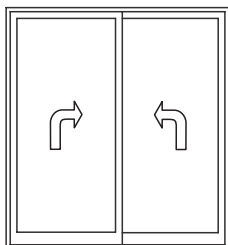
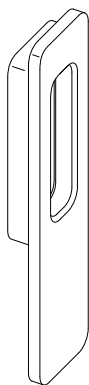
**SUP989**

Suporte e guia da folha  
Nylon Preto



**CON494**

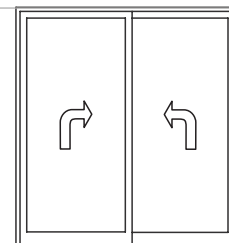
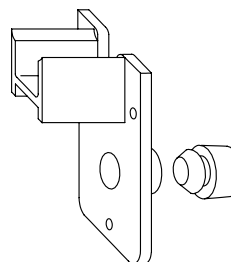
Puxador da folha  
Alumínio



Parafusos de fixação

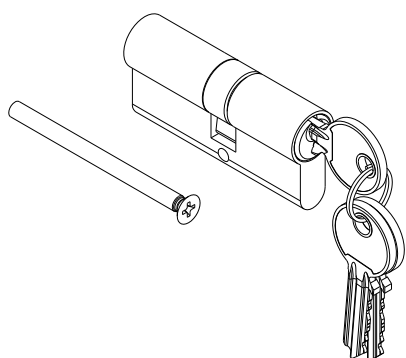
**NYL505**

Limitador e guia da folha  
Nylon Preto e branco



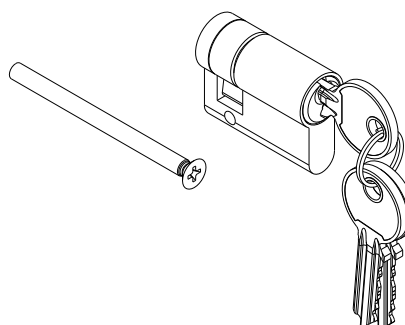
**CIL011**

Cilindro inteiro para MAC1041



**CIL012**

Maeio cilindro para MAC1040



Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**KIT652**

Barra de comando de 2000 mm

**KIT653**

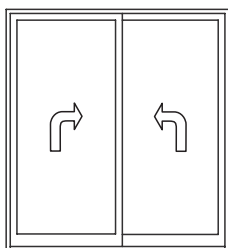
Barra de comando de 2300 mm

**KIT654**

Barra de comando de 2600 mm

**KIT655**

Barra de comando de 3000 mm



**TRA054**

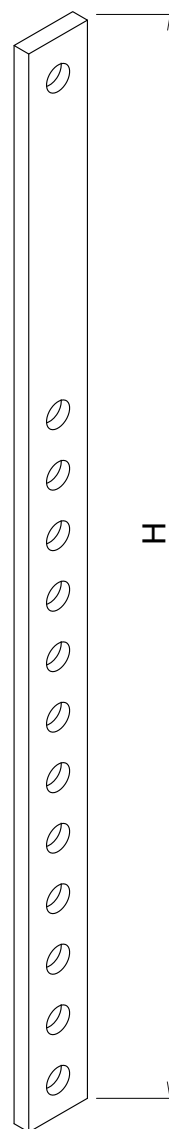
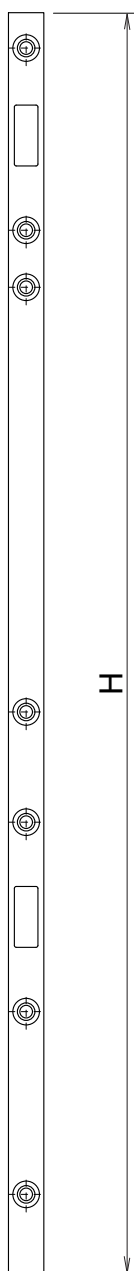
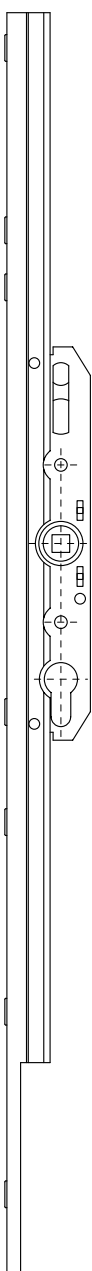
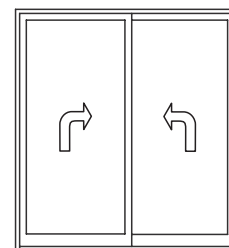
Barra de travamento entre roldanas  
Com 900 mm -  $600 < L < 1500$

**TRA055**

Barra de travamento entre roldanas  
Com 1400 mm -  $1501 < L < 2000$

**TRA056**

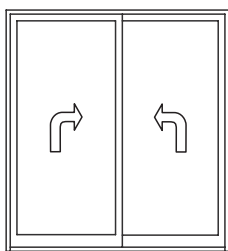
Barra de travamento entre roldanas  
Com 1400 mm -  $2001 < L < 2500$



Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

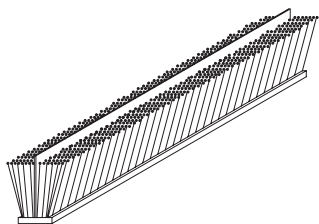
**FIT222**

Fita vedadora com barreira 7mm x 8mm  
Preta



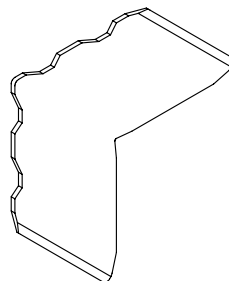
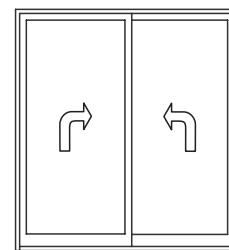
**FIT211**

Fita vedadora com barreira 5mm x 8mm  
Preta



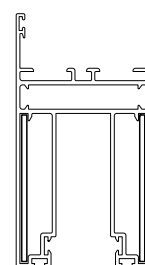
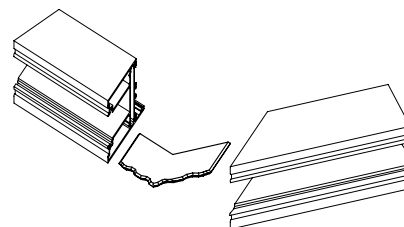
**CON422**

Conexão de alinhamento  
60,2mm x 3mm  
Alumínio Natural



**NYL538**

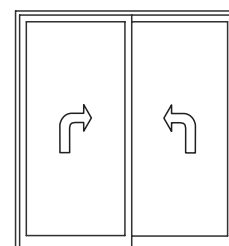
Guia de nylon  
Preto



Aplicação

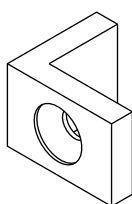
**GUA337**

Guarnição da matajunta  
EPDM Preto



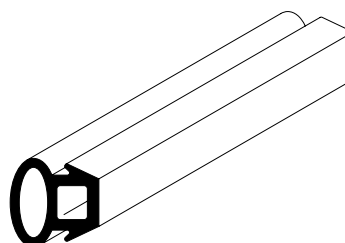
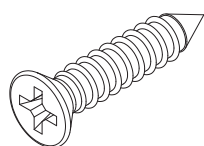
**CAL976**

Calço guia de Nylon  
Preto



**PAR1014**

Parafuso A/A cabeça chata fenda philips 4,2 x 16 mm  
Aço inox

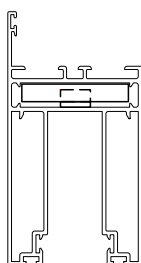
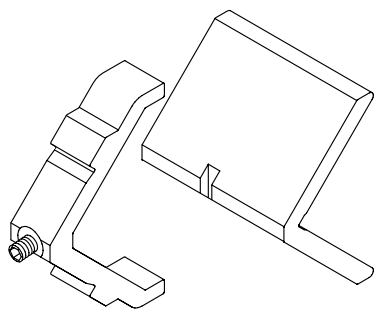
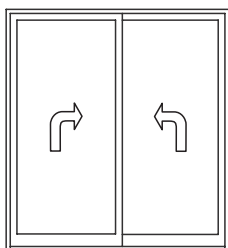


Aplicação

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**CON492**

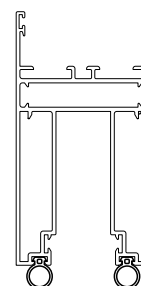
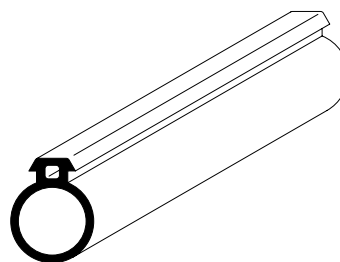
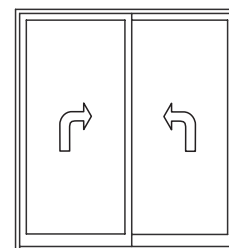
Conexão com parafuso 9,8mm x 44,1mm  
Alumínio Natural



Aplicação

**GUA338**

Guação inferior  
EPDM Preto

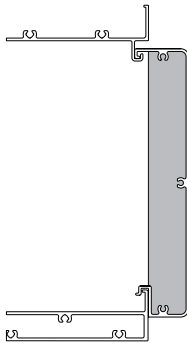
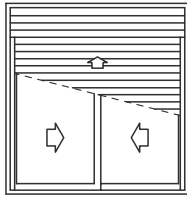
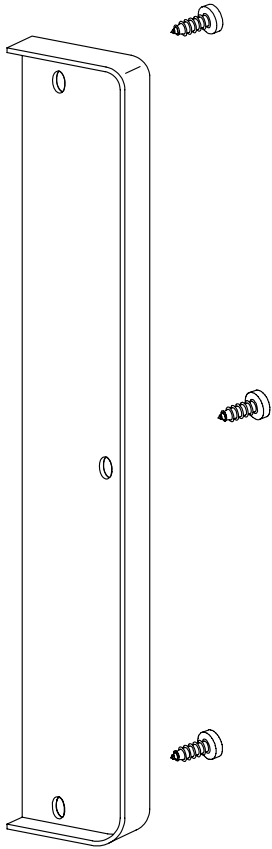


Aplicação

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**NYL382**

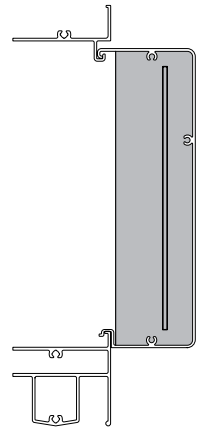
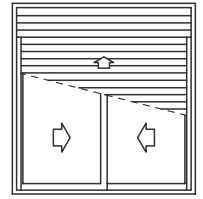
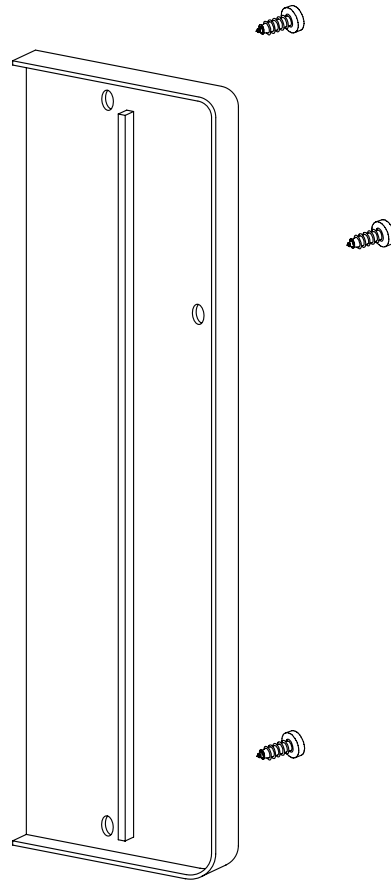
Fechamento lateral da tampa MN031  
ABS Branco ou Preto



Aplicação

**NYL481**

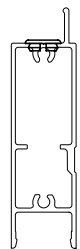
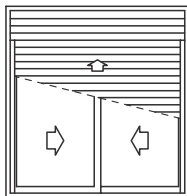
Fechamento lateral da tampa LG167  
ABS Branco ou Preto



Aplicação

**NYL042**

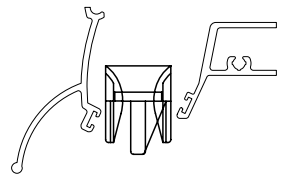
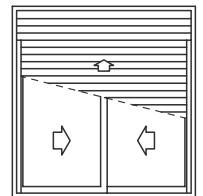
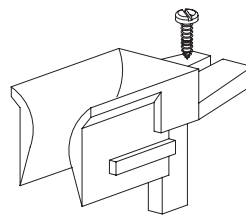
Botão Tampa furo 3/8"  
Nylon Preto ou Branco



Aplicação

**NYL370**

Guia da Persiana  
Nylon Preto

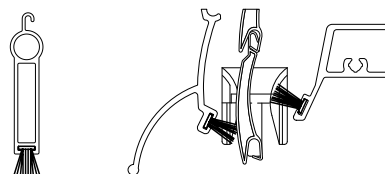
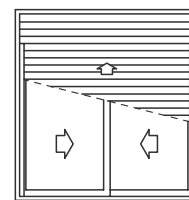
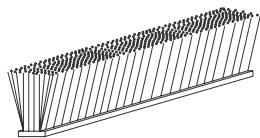


Aplicação

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**FIT214**

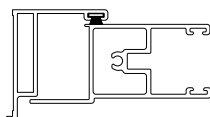
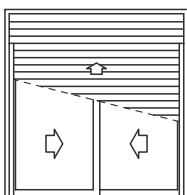
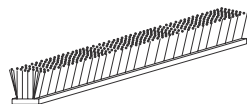
Fita Vedadora 5 x 10 mm  
Preta



Aplicações

**FIT206**

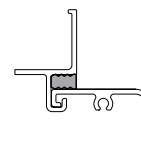
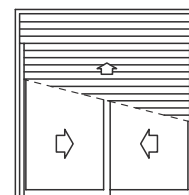
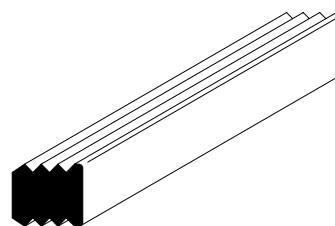
Fita Vedadora 5 x 6 mm  
Preta



Aplicação

**GUA209**

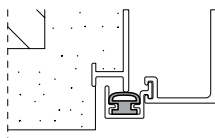
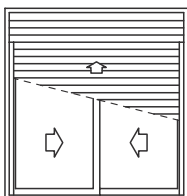
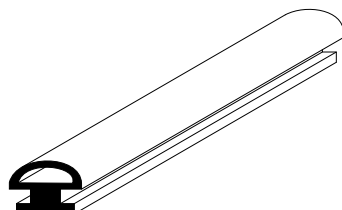
Guarnição interna  
EPDM Preto



Aplicação

**GUA289**

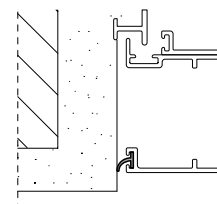
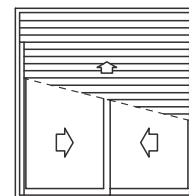
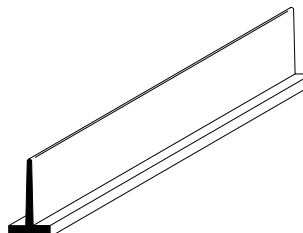
Guarnição externa  
EPDM Preto



Aplicação

**GUA005**

Guarnição externa  
EPDM Preto

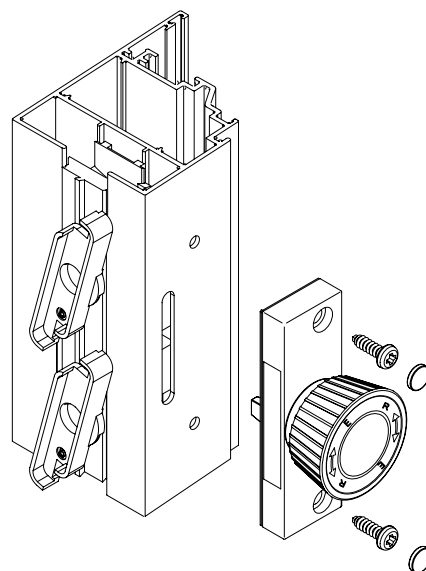
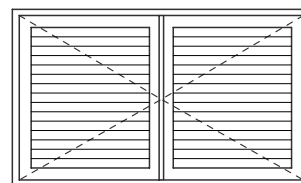
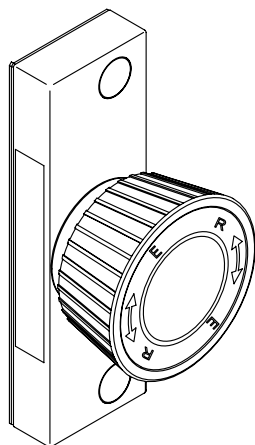


Aplicação

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**NYL435**

Fecho de acionamento giratório  
Nylon Preto

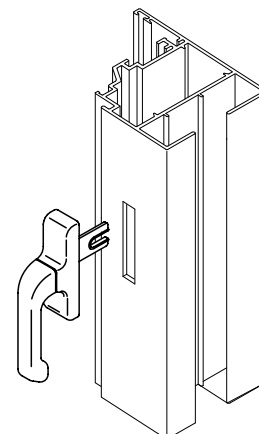
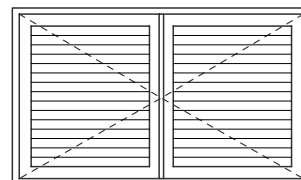
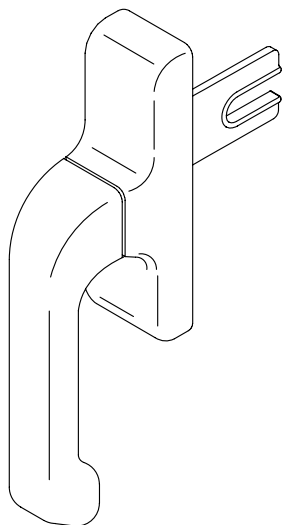


Sob consulta

Aplicação

**FEC1108**

Fecho tipo cremone  
Alumínio Preto ou Branco



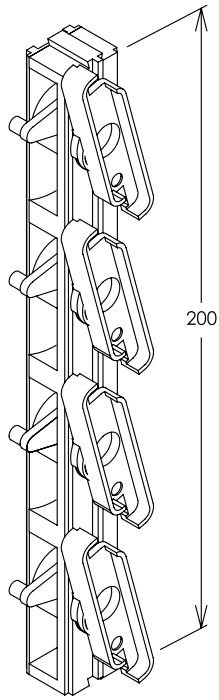
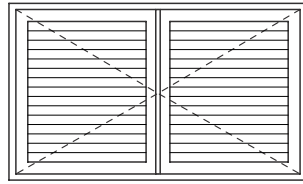
Sob consulta

Aplicação

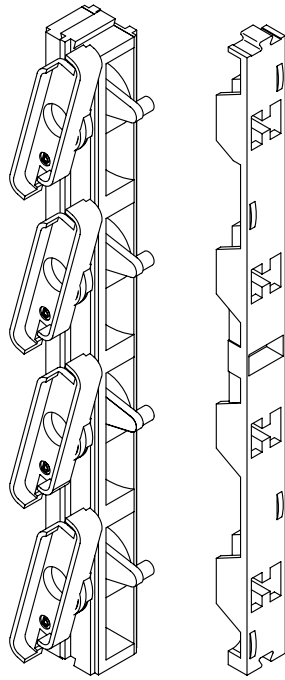
Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**NYL434**

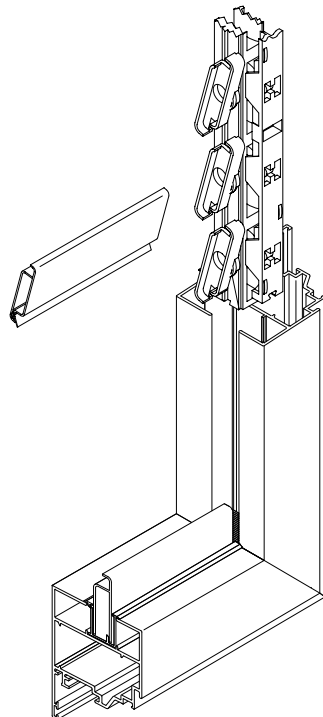
Conjunto de comando da veneziana  
Nylon Preto



Esquerdo



Direito

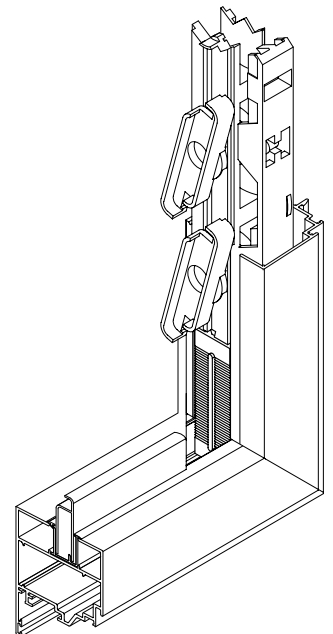
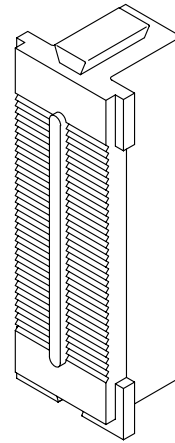
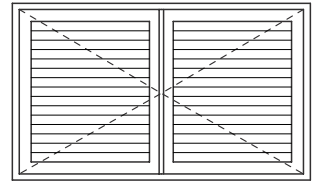


Aplicação

Sob consulta

**NYL438**

Calço inferior  
Nylon Preto



Aplicação

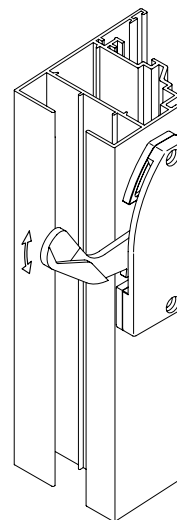
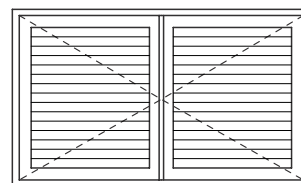
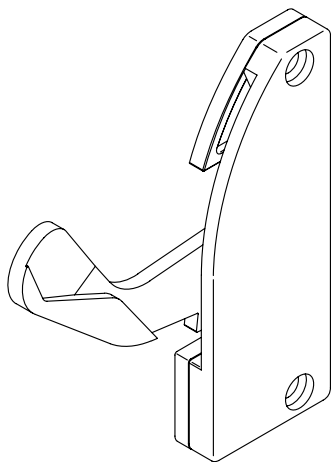
Sob consulta

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.



**NYL436**

Fecho de acionamento - Direito  
Nylon Preto

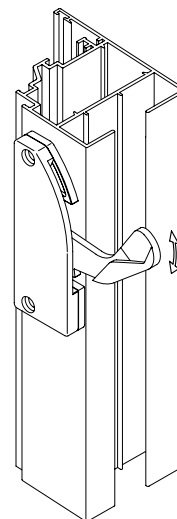
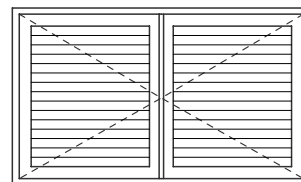
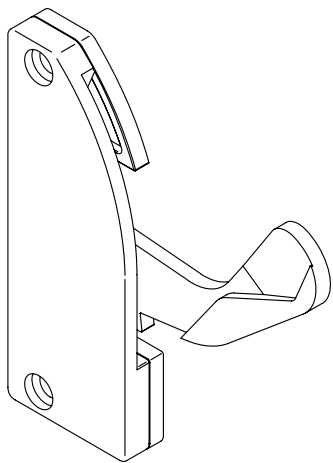


Sob consulta

Aplicação

**NYL437**

Fecho de acionamento - Esquerdo  
Nylon Preto



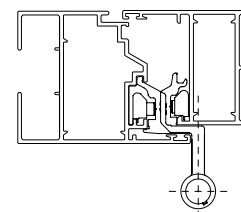
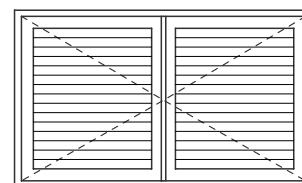
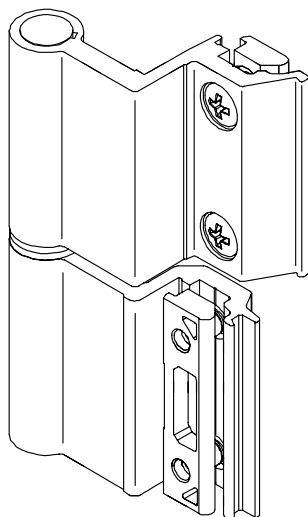
Sob consulta

Aplicação

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

**DOB848**

Dobradiça de 2 abas  
Branco e preto

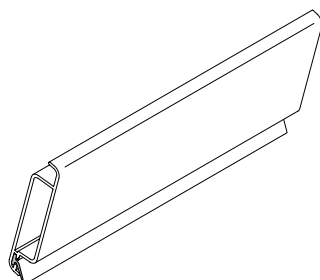
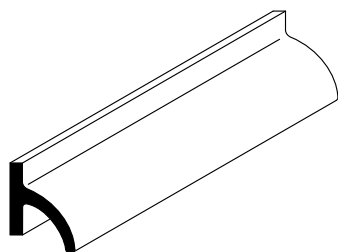
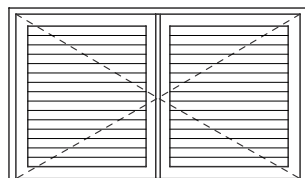


Aplicação

Sob consulta

**GUA360**

Guarnição da veneziana  
EPDM

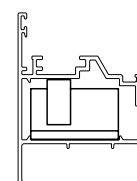
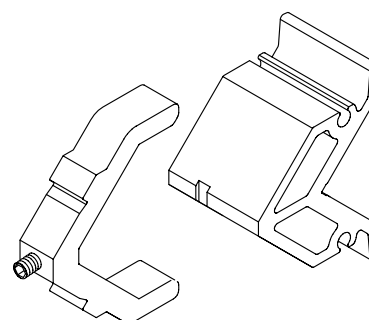
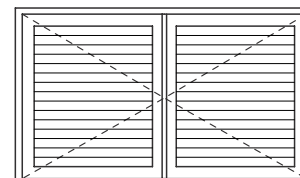


Sob consulta

Aplicação

**CON470**

Conexão com parafuso  
24,8mm x 36,1mm  
Alumínio Natural



Aplicação

Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.



Descrição	Pág.
EST682 ESTAMPO PNEUMÁTICO	H-01

**EST682**

Estampo Pneumático

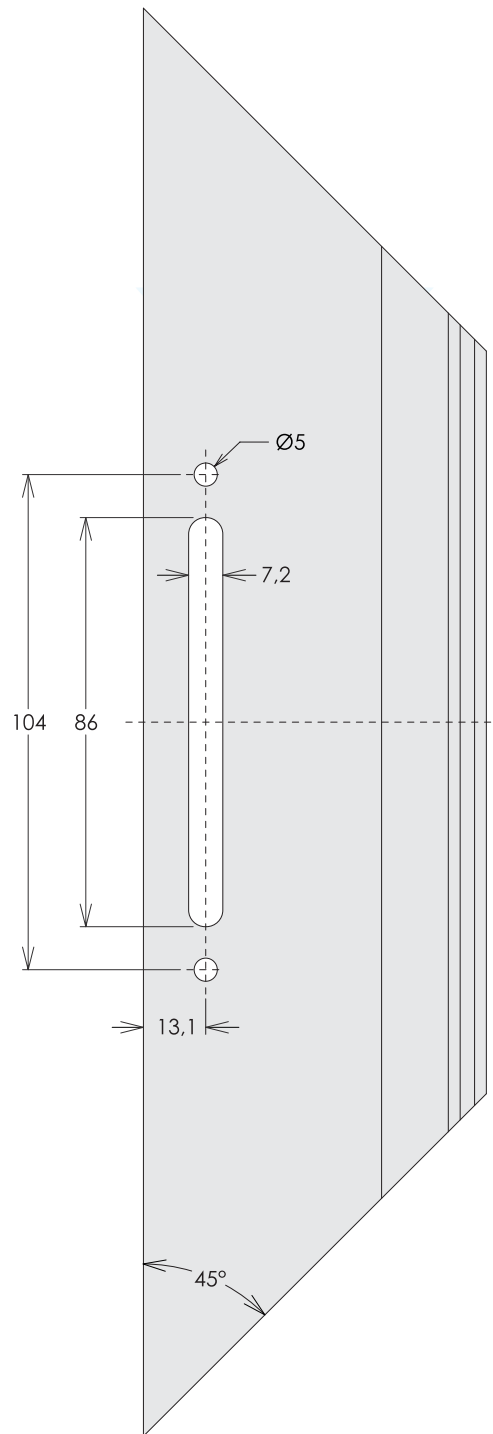
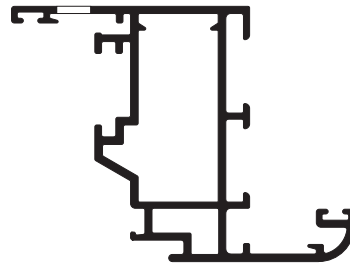




Descrição	Pág.
USINAGEM PARA CREMONA - OSCILO BATENTE E DOBRÁVEL	I-01
FOLHA DA PORTA OSCILO PARALELA	I-02
SAÍDA DE ÁGUA	I-03
MÃO-DE-AMIGO	I-04
USINAGEM PARA ENTRADA DA BARRA DE COMANDO, COMPONENTES E CONEXÃO	I-05
BARRA DE COMANDO	I-05
USINAGEM PARA ALOJAMENTO DA CONEXÃO	I-05
USINAGENS PARA CREMONA E FECHO CONCHA	I-06
USINAGENS PARA FIXAÇÃO DA TRAVESSA - PORTA	I-07
USINAGEM DA TAMPA SUPERIOR DO MONTANTE - PORTA	I-08
USINAGEM DA TAMPA INFERIOR DO MONTANTE - PORTA	I-09
USINAGEM DA TAMPA SUPERIOR DO MONTANTE - JANELA	I-10
USINAGEM DA TAMPA INFERIOR DO MONTANTE - JANELA	I-11
SAÍDA DE ÁGUA - JANELA DE CORRER 2 FOLHAS	I-12
SAÍDA DE ÁGUA - JANELA DE CORRER 3 FOLHAS	I-13
SAÍDA DE ÁGUA - JANELA DE CORRER 4 FOLHAS	I-14
SAÍDA DE ÁGUA - PORTA DE CORRER 2 FOLHAS	I-15
SAÍDA DE ÁGUA - PORTA DE CORRER 4 FOLHAS	I-16
USINAGENS PARA FECHO MULTIPONTO - JANELA MAXIM-AR	I-17
USINAGEM PARA CONTRAFECHO - CREMONA E CONCHA - PORTA	I-18
USINAGEM PARA CONTRAFECHO - CREMONA E CONCHA - JANELA	I-19
USINAGEM PARA FECHADURA - PORTA DE GIRO	I-20
USINAGENS PARA DOBRADIÇAS 2 E 3 ABAS - PORTA DE GIRO	I-21
USINAGEM DA TRAVESSA E ROLDANA	I-22
MÃO-DE-AMIGO - PORTA ELEVÁVEL	I-23
USINAGENS PARA CREMONA INTERNA - PORTA ELEVÁVEL	I-24
USINAGENS PARA CONCHA EXTERNA - PORTA ELEVÁVEL	I-25
USINAGENS PARA FECHADURA - PORTA ELEVÁVEL	I-26
USINAGEM DE TOPO - TRAVESSAS	I-27 a I-29

**USINAGEM PARA CREMONA - OSCILO BATENTE E DOBRÁVEL**

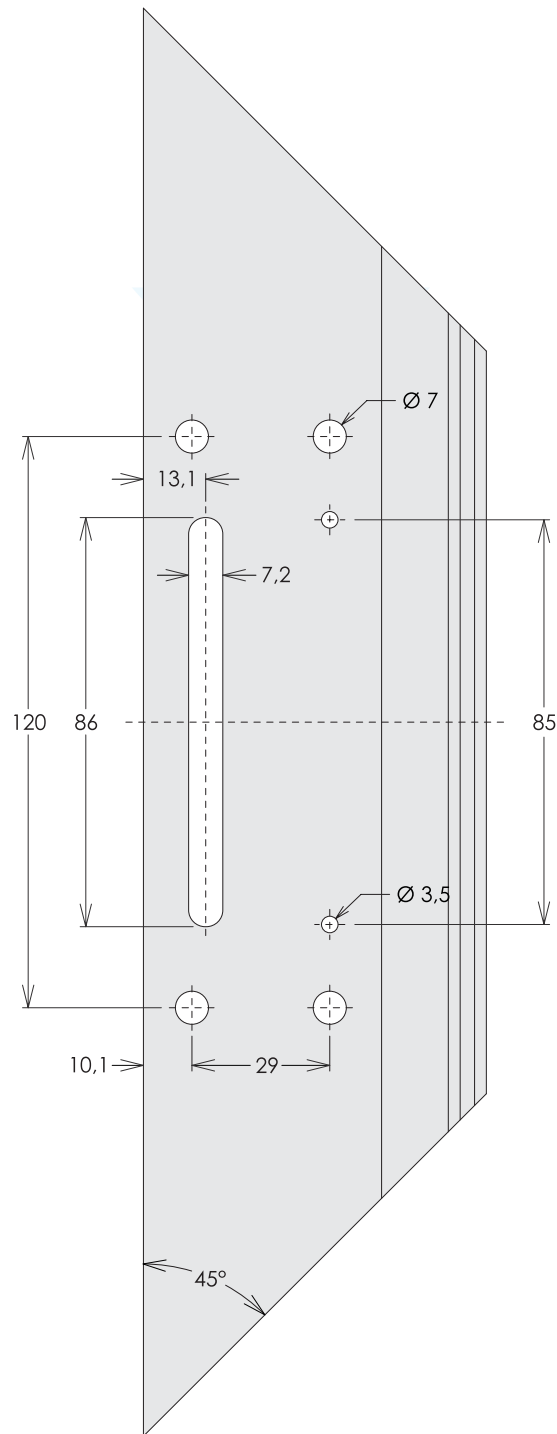
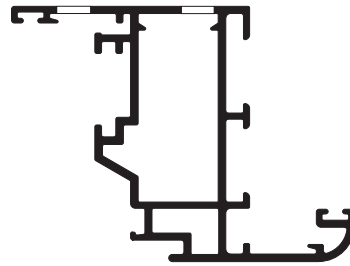
Usinar  
Perfis  
RO010





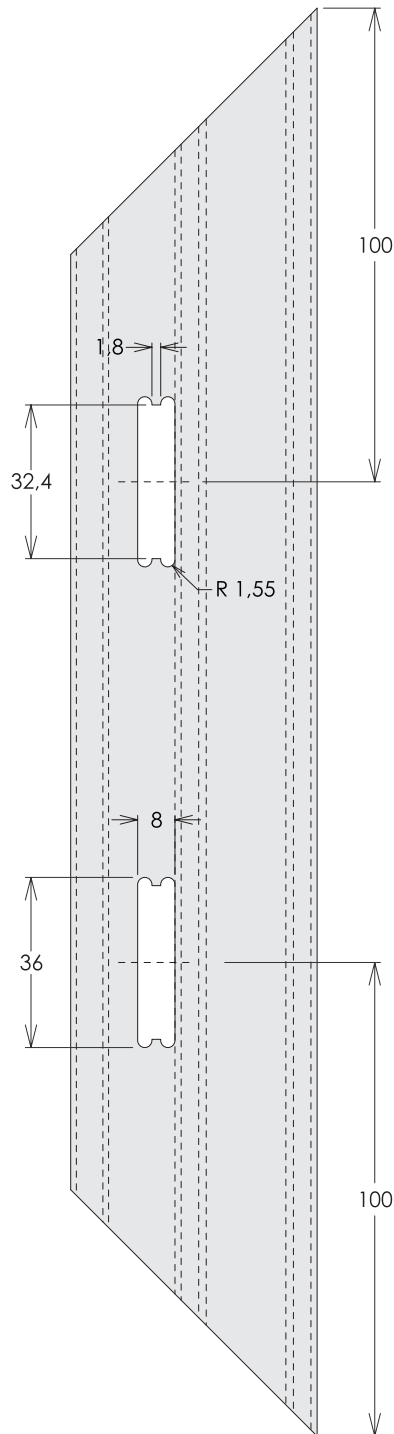
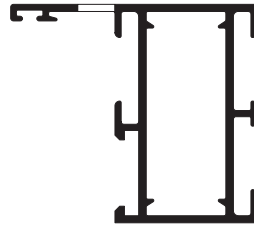
**FOLHA DA PORTA OSCILO PARALELA**

Usinar  
Perfis  
RO010



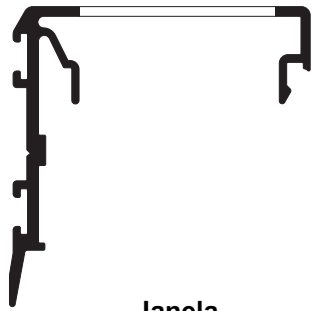
**SAÍDA DE ÁGUA**

Usinar  
Perfis  
RO008

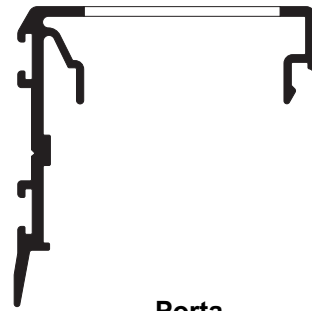
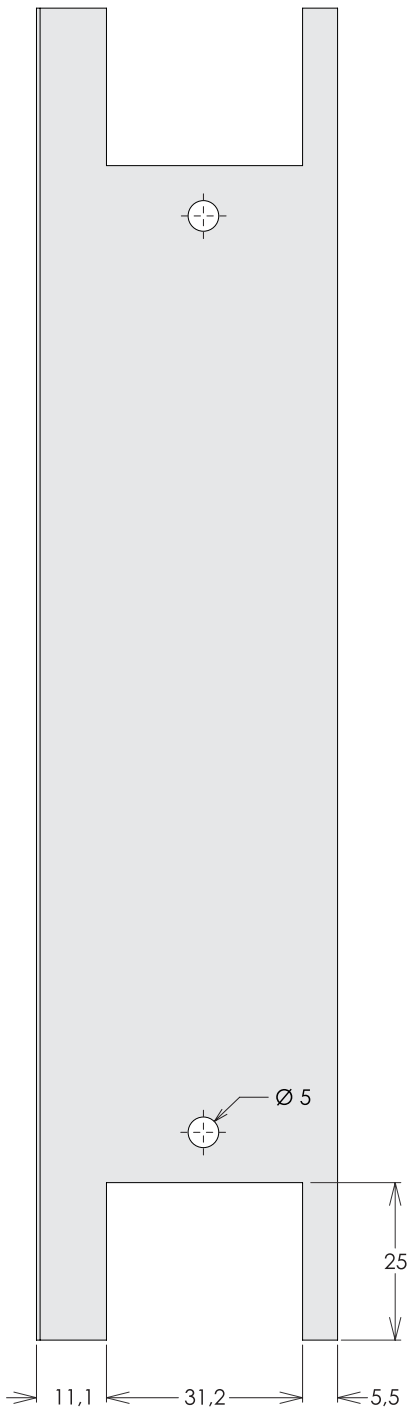


**MÃO-DE-AMIGO**

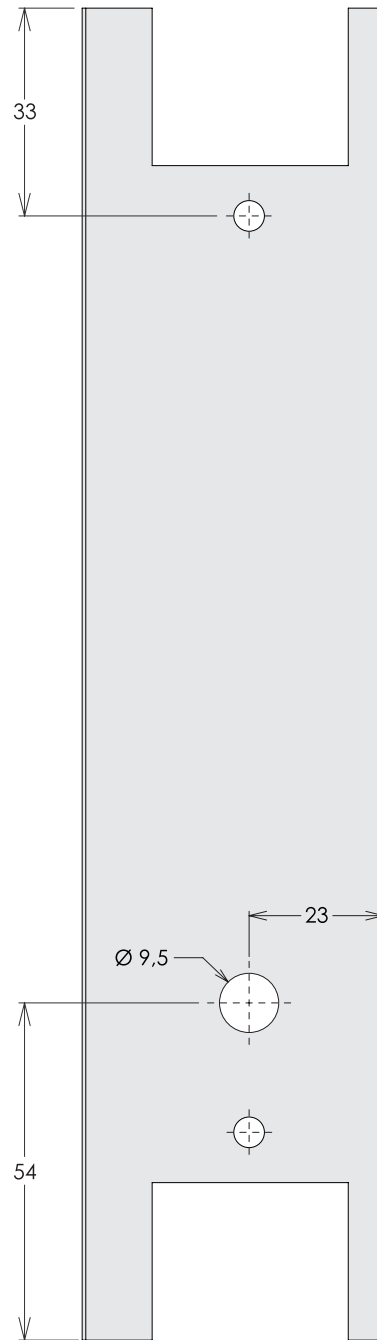
Usinar  
Perfis  
RO064



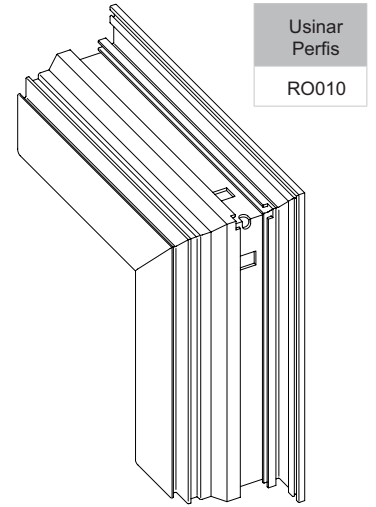
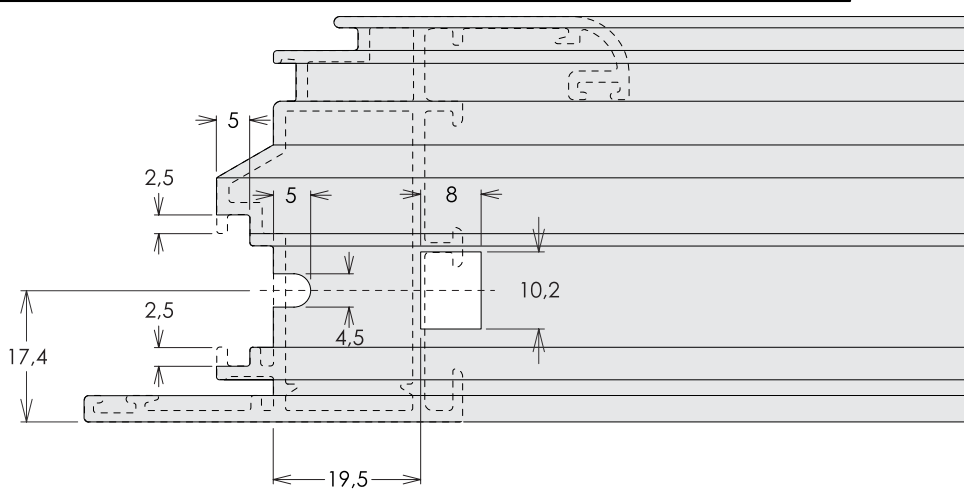
**Janela**



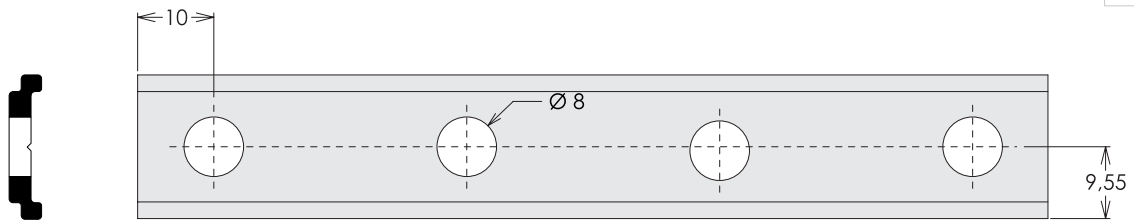
**Porta**



**USINAGEM PARA ENTRADA DA BARRA DE COMANDO, COMPONENTES E CONEXÃO**

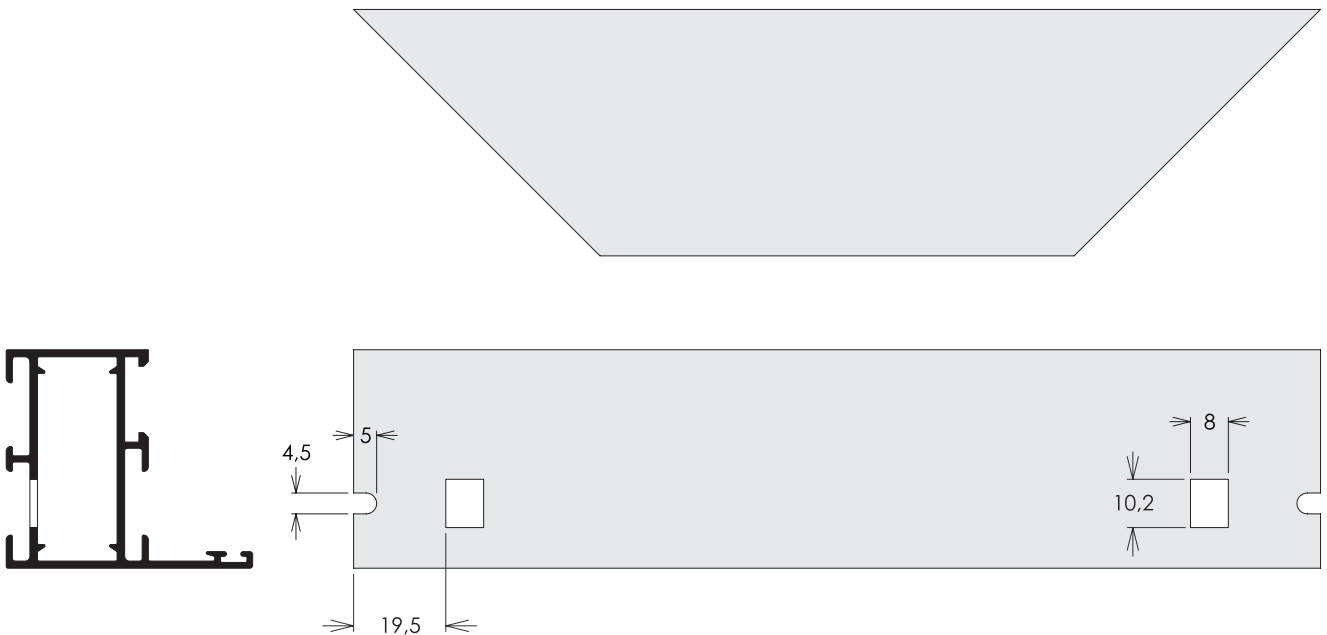


**BARRA DE COMANDO**



Usinar Perfis  
RO016

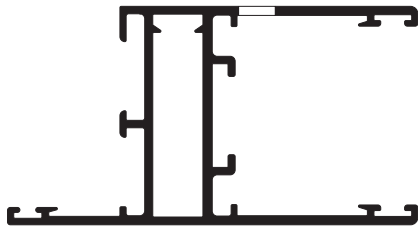
**USINAGEM PARA ALOJAMENTO DA CONEXÃO**



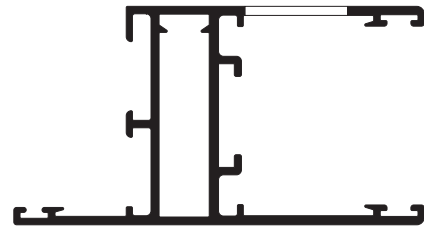
Usinar Perfis  
RO008

**USINAGENS PARA CREMONA E FECHO CONCHA**

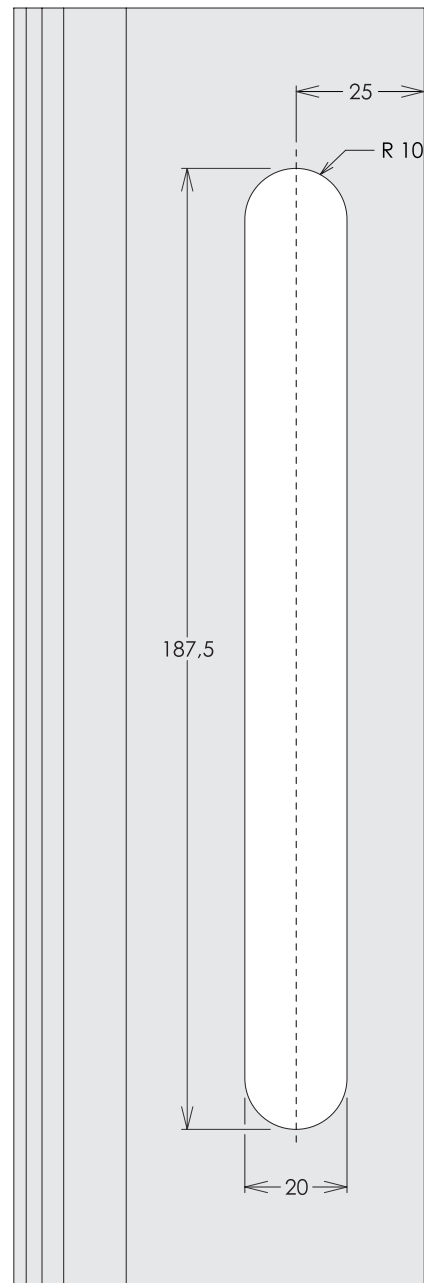
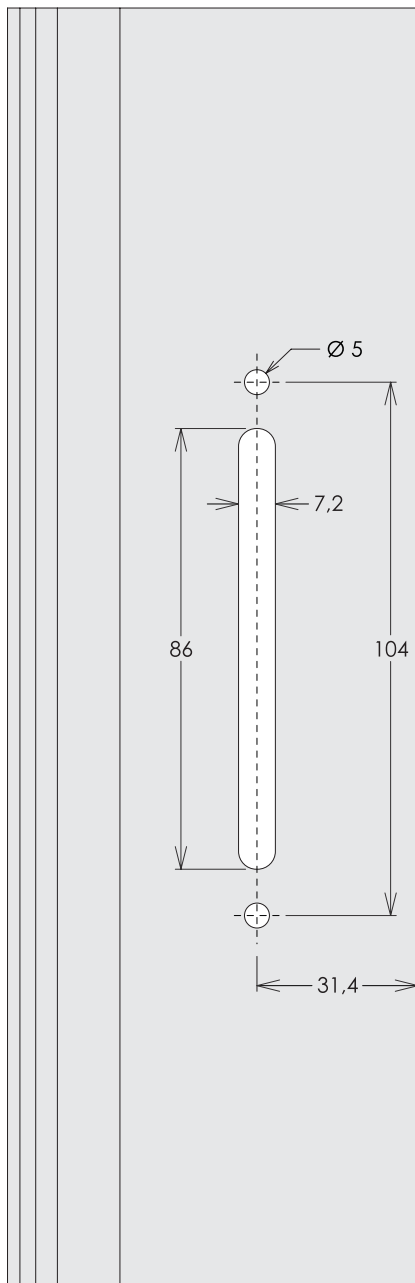
Usinar  
Perfis  
R0049



**Cremona**

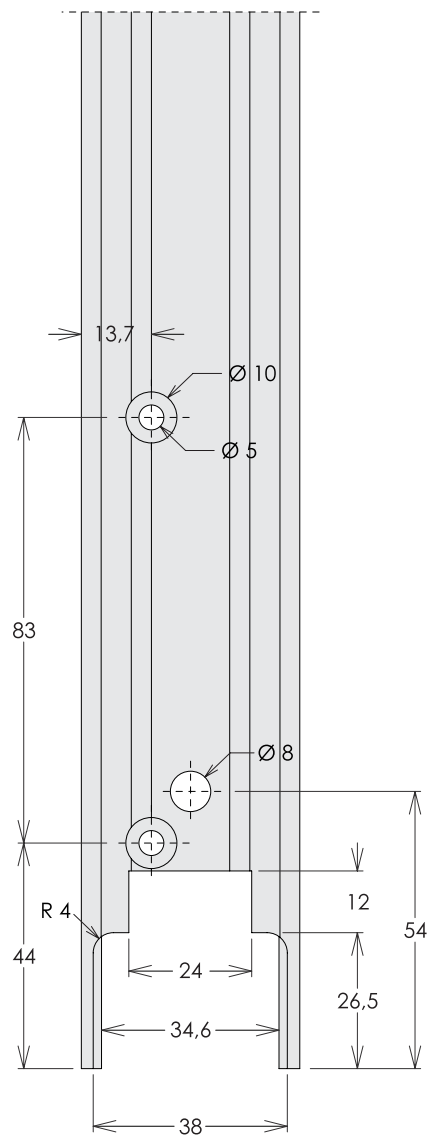
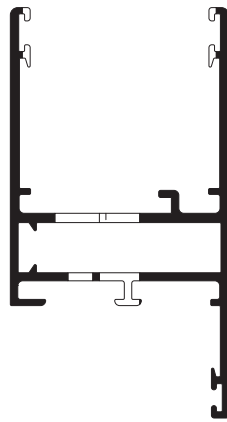


**Fecho Concha**



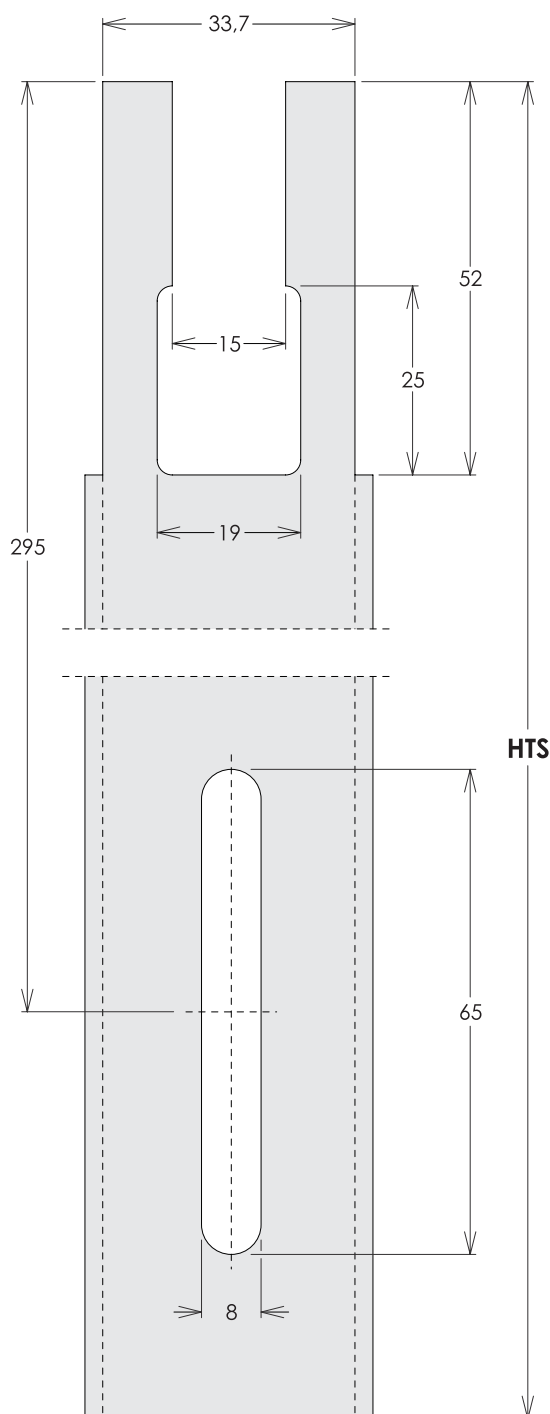
**USINAGENS PARA FIXAÇÃO DA TRAVESSA - PORTA**

Usinar  
Perfis  
RO049



**USINAGENS DA TAMPA SUPERIOR DE MONTANTE - PORTA**

Usinar  
Perfis  
RO065



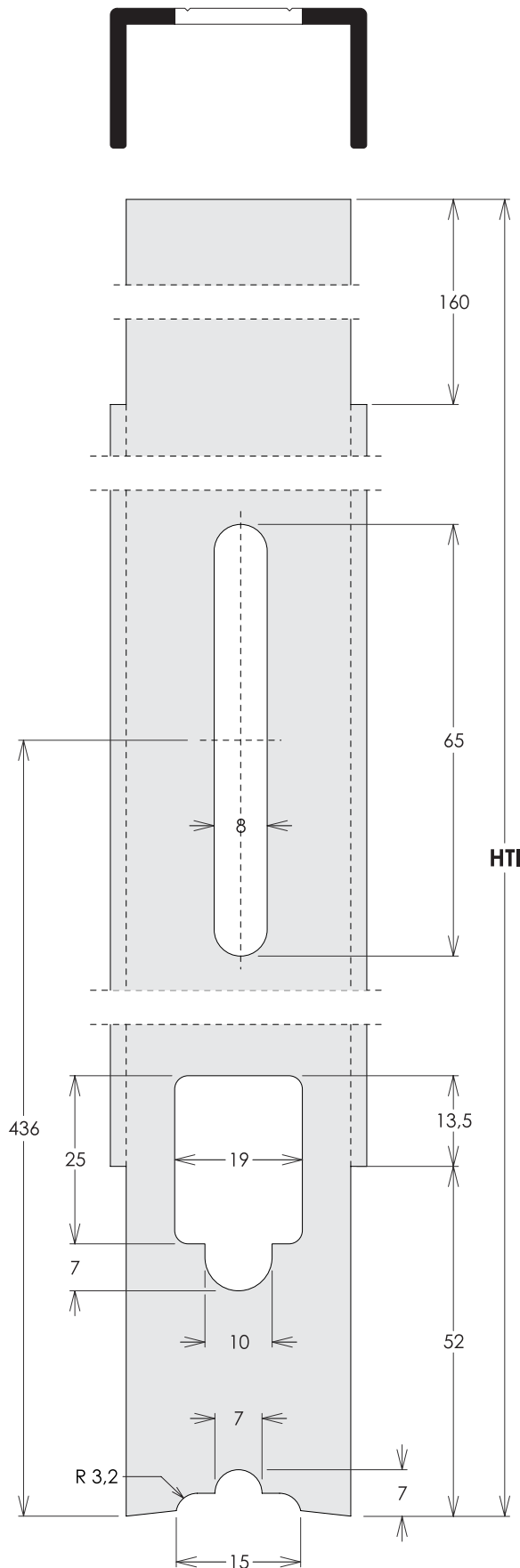
**Cálculo da Altura da Tampa Superior**

$$HTS = HF - HC - 126$$

**Onde:**  
 HTS = Altura da Tampa Superior  
 HF = Altura da Folha  
 HC = Altura da Cremona

**USINAGENS DA TAMPA SUPERIOR DE MONTANTE - PORTA**

Usinar  
Perfis  
R0065



**Cálculo da Altura da Tampa Superior**

$$HTI = HC + 89$$

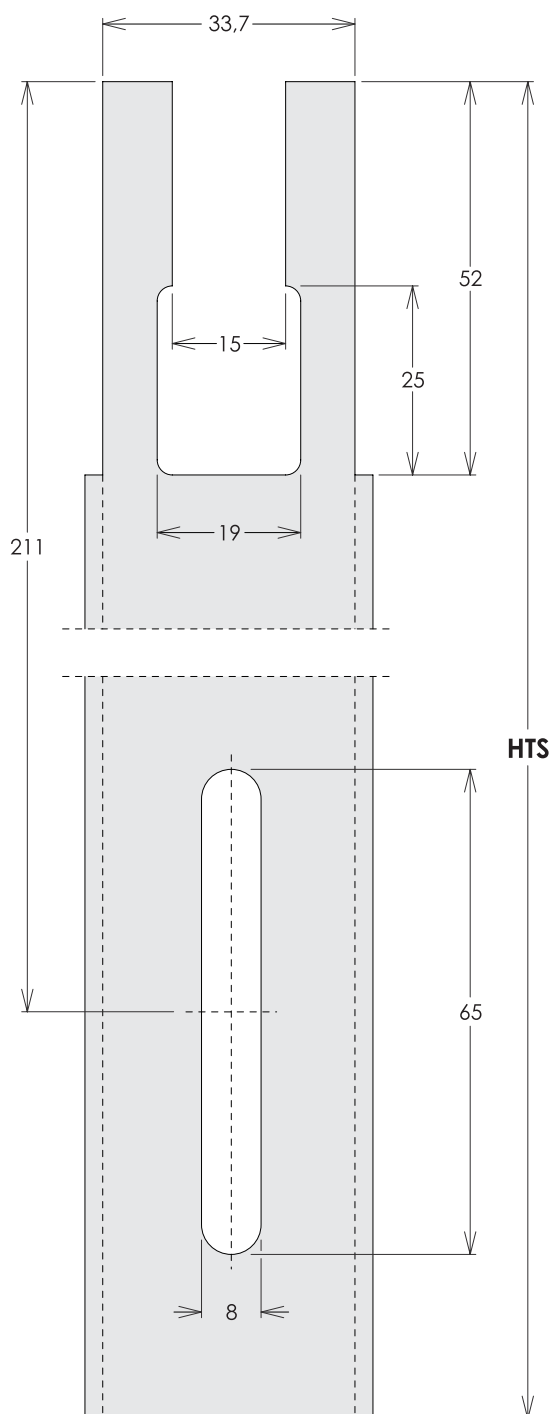
**Onde:**

HTI = Altura da Tampa Superior  
 HC = Altura da Cremona



**USINAGENS DA TAMPA SUPERIOR DE MONTANTE - JANELA**

Usinar  
Perfis  
RO065



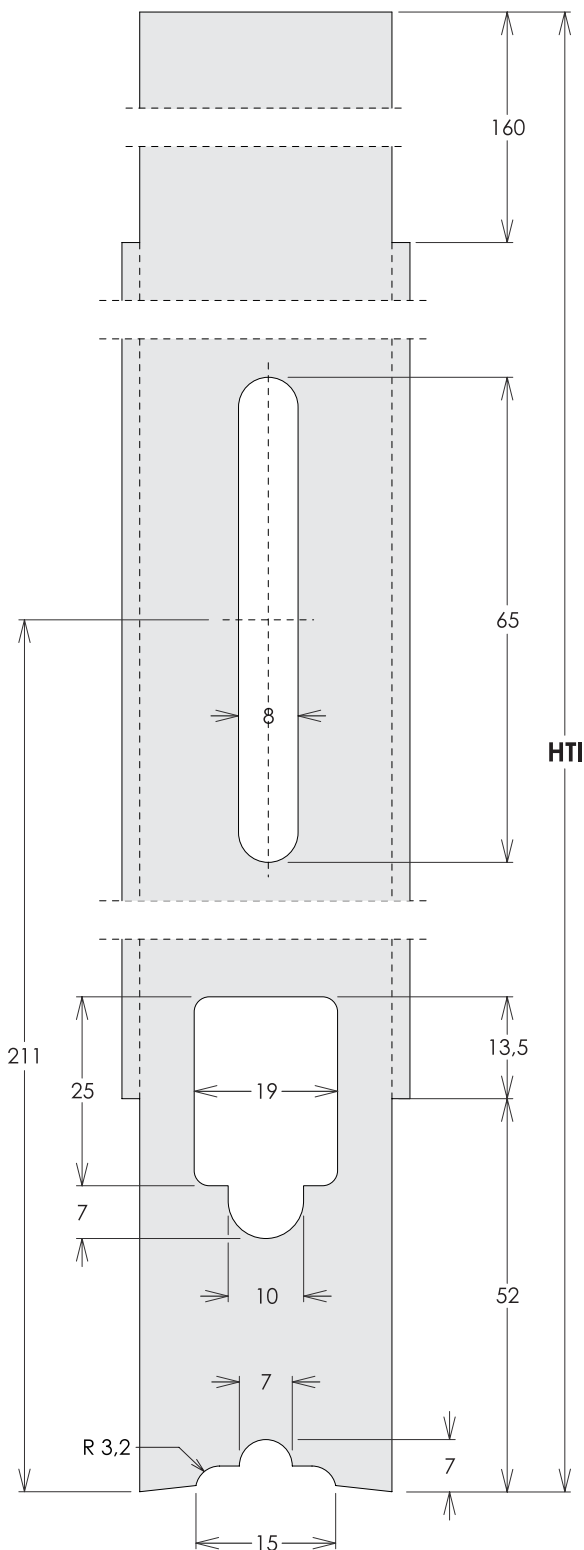
**Cálculo da Altura da Tampa Superior**

$$HTS = HF - HC - 126$$

**Onde:**  
 HTS = Altura da Tampa Superior  
 HF = Altura da Folha  
 HC = Altura da Cremona

**USINAGENS DA TAMPA SUPERIOR DE MONTANTE - JANELA**

Usinar  
Perfis  
R0065



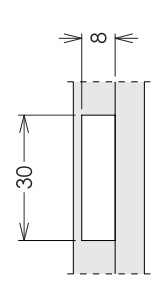
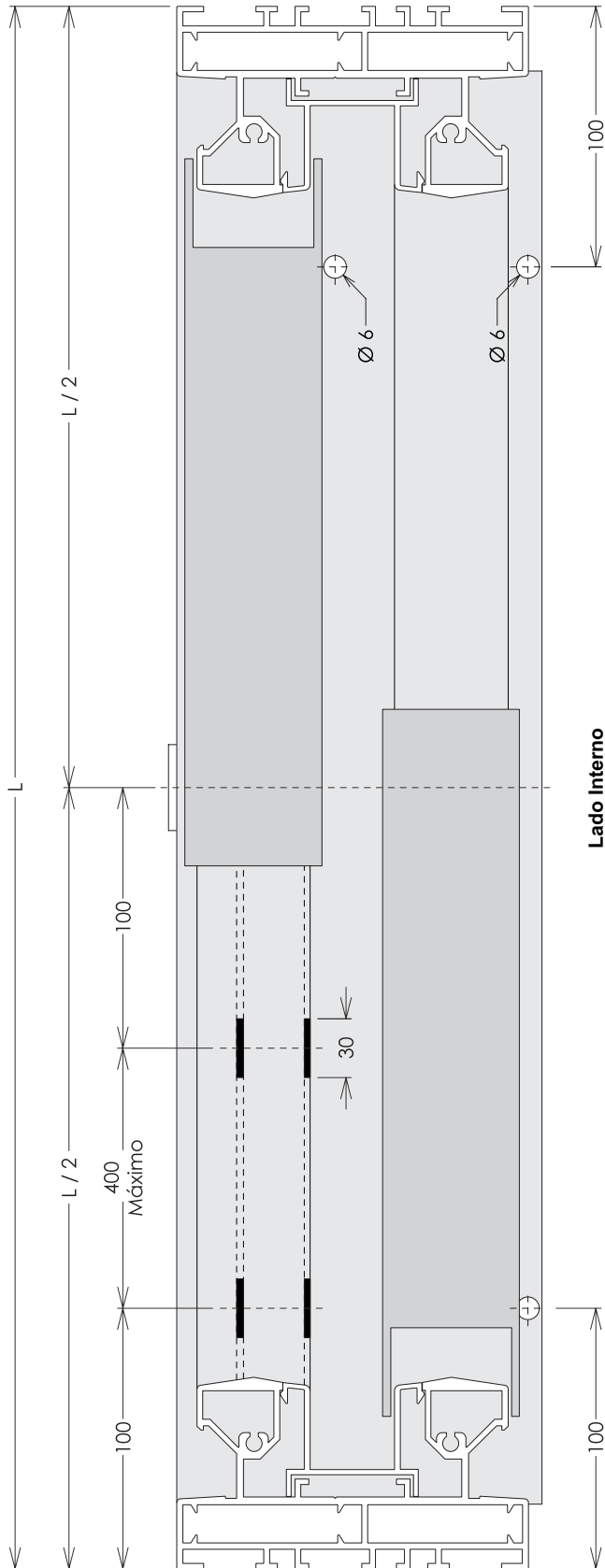
**Cálculo da Altura da Tampa Superior**

$$HTI = HC + 89$$

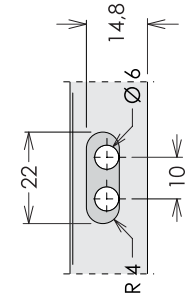
**Onde:**  
HTI = Altura da Tampa Superior  
HC = Altura da Cremona

**SAÍDA DE ÁGUA - JANELA DE CORRER 2 FOLHAS**

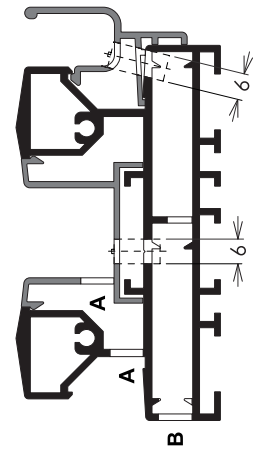
Usinar  
Perfis  
R0048  
R0050  
R0051



Detalhe A

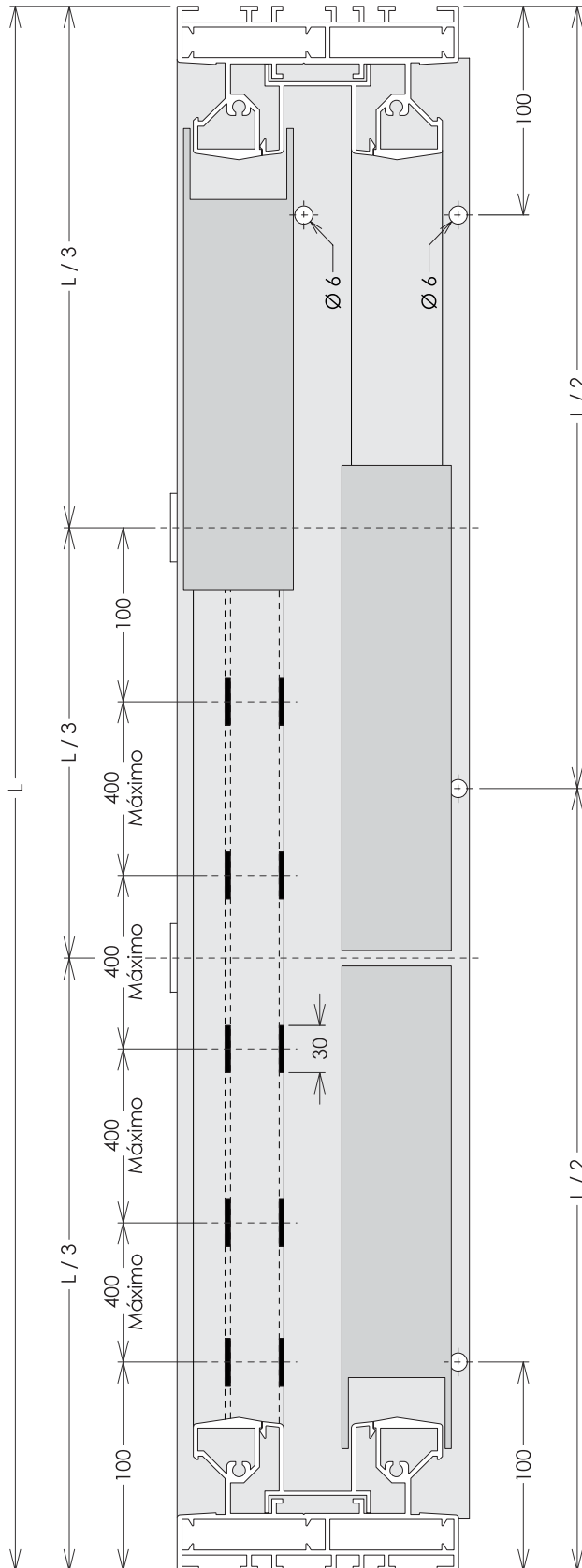


Detalhe B

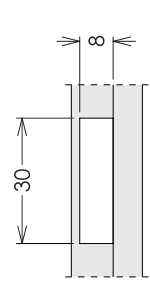


**SAÍDA DE ÁGUA - JANELA DE CORRER 3 FOLHAS**

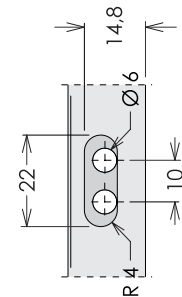
Usinar  
Perfis  
R0048  
R0050  
R0051



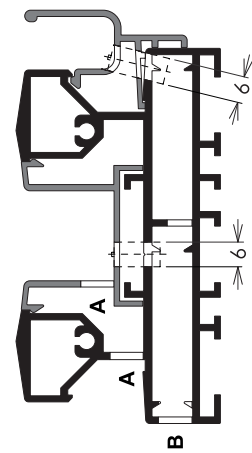
Lado Interno



Detalhe A

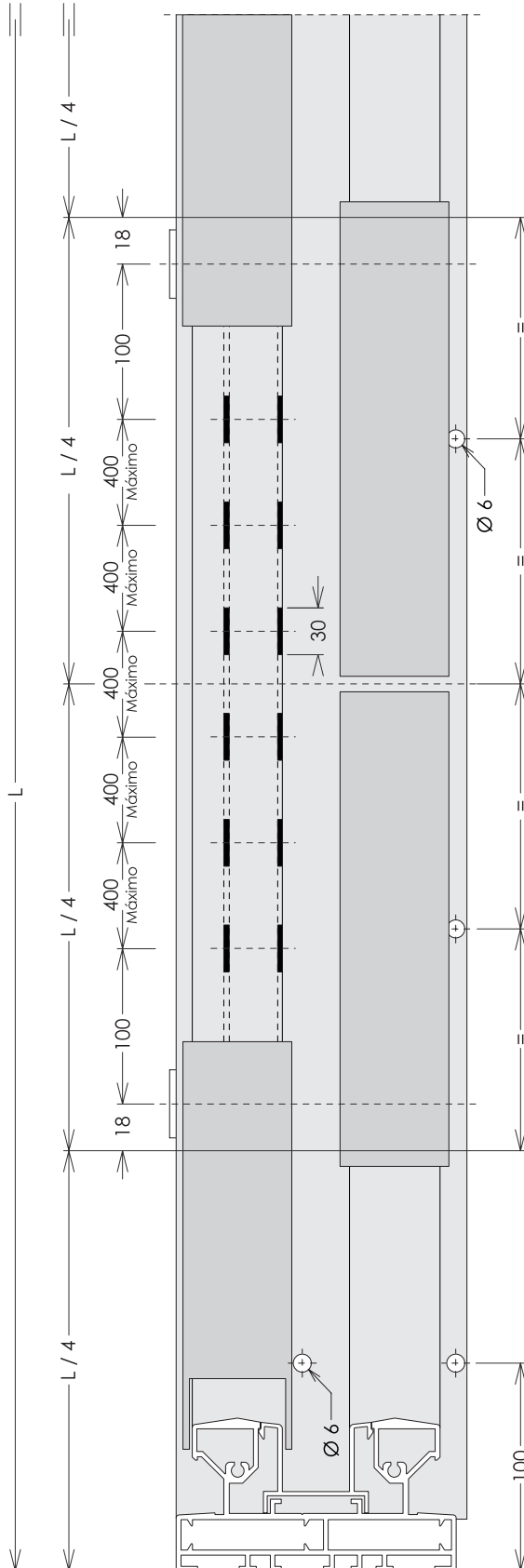


Detalhe B

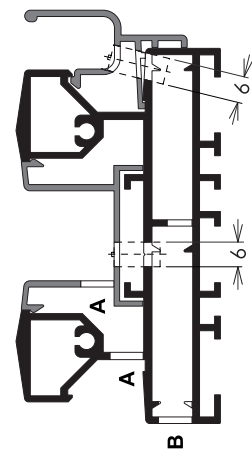
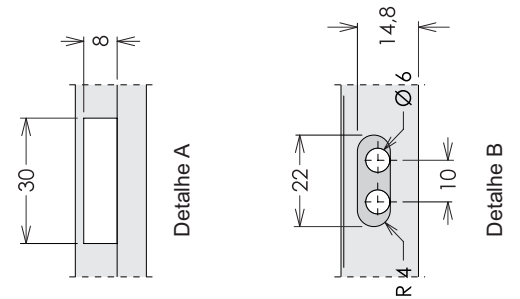


**SAÍDA DE ÁGUA - JANELA DE CORRER 4 FOLHAS**

Usinar  
Perfis  
R0048  
R0050  
R0051

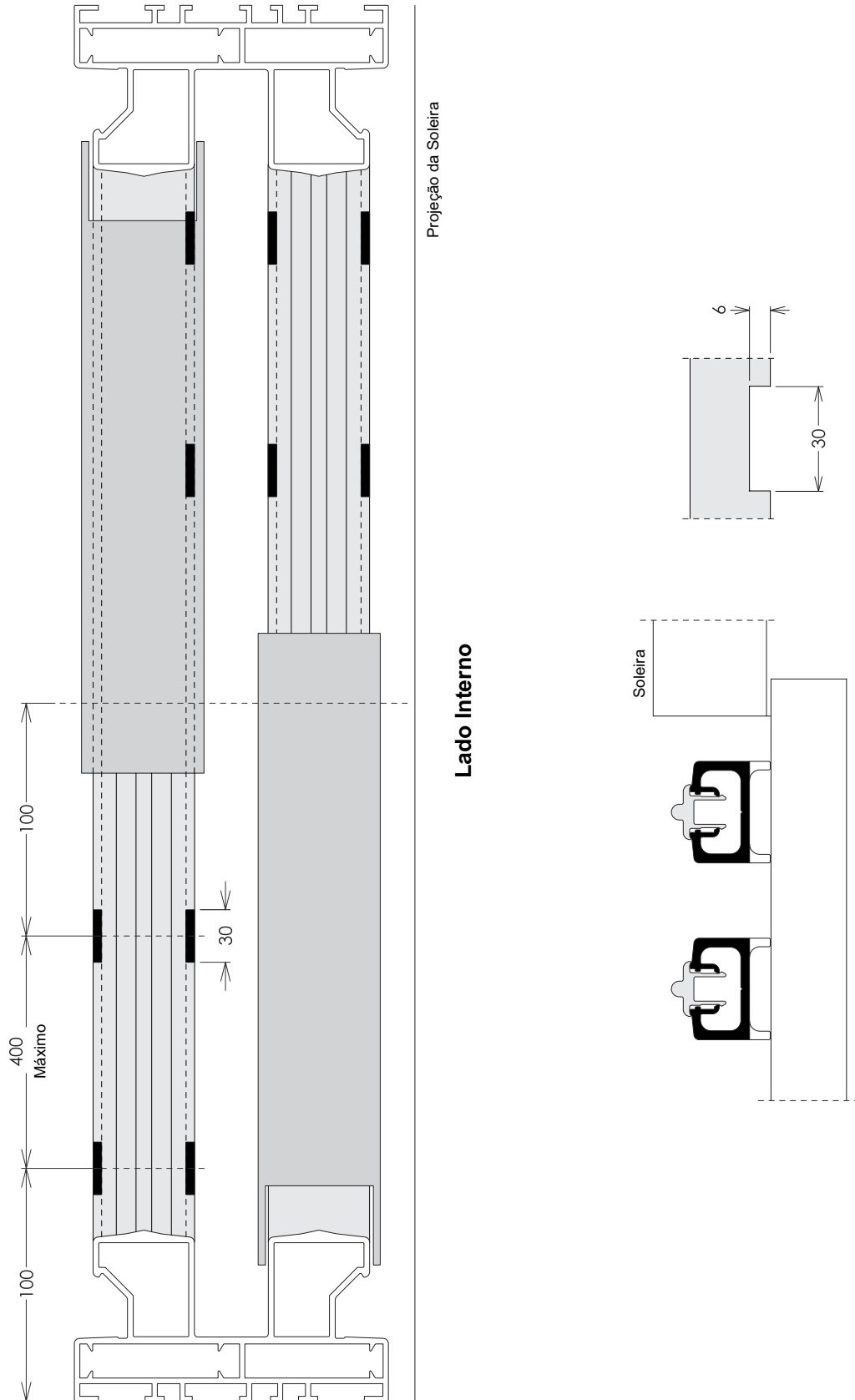


**Lado Interno**



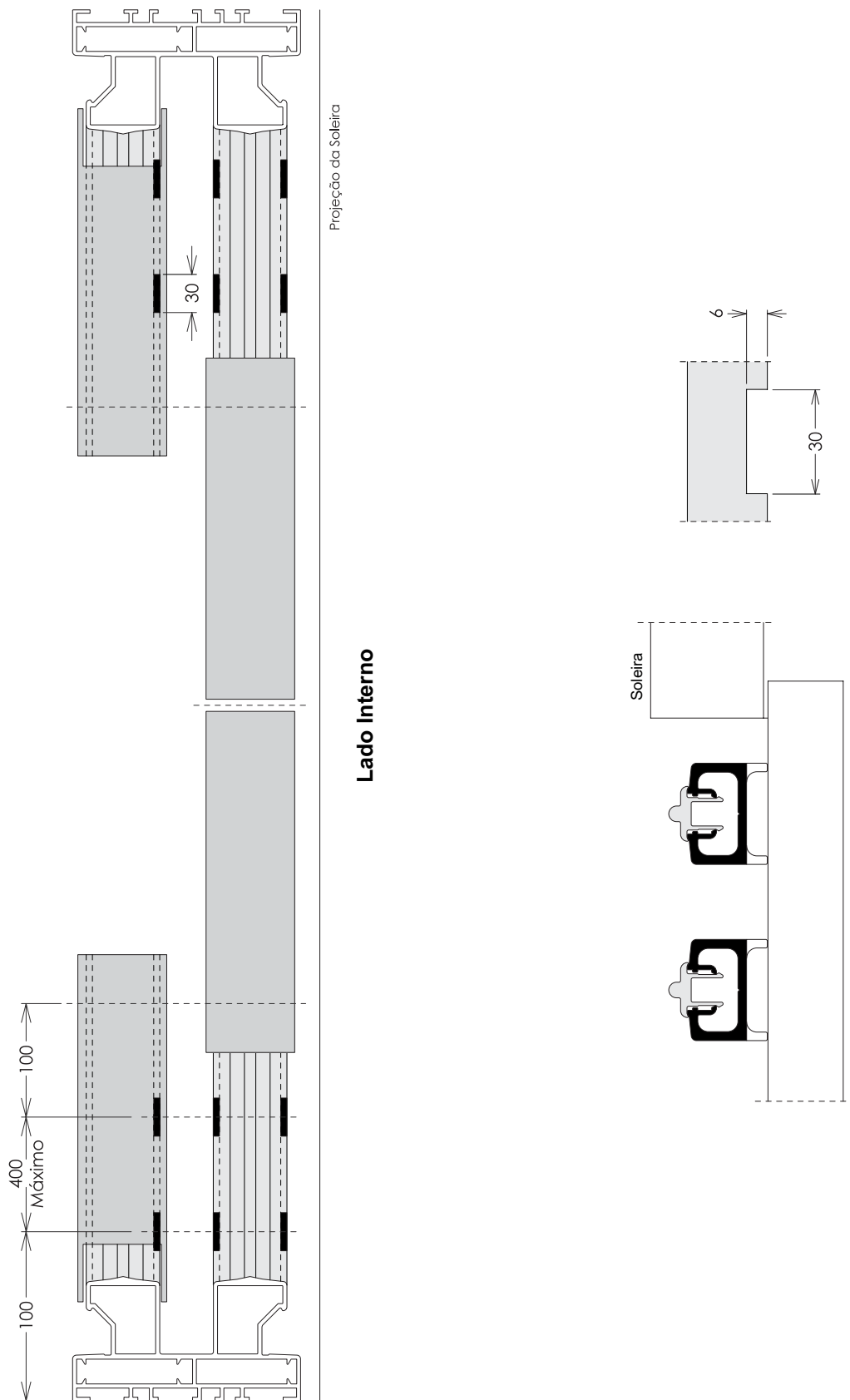
**SAÍDA DE ÁGUA - PORTA DE CORRER 2 FOLHAS**

Usinar  
Perfis  
R0052



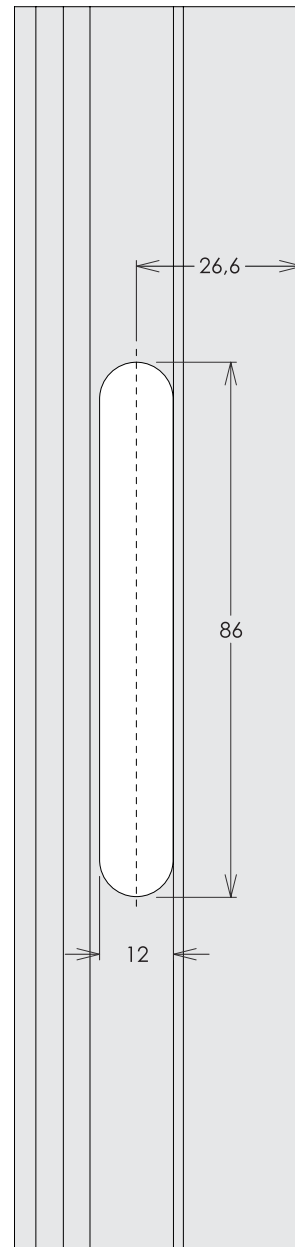
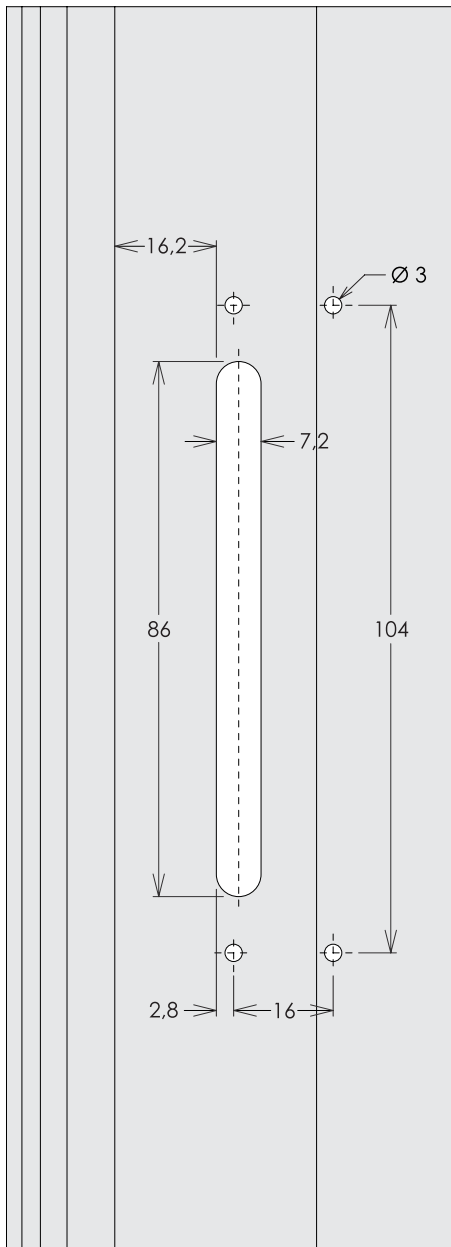
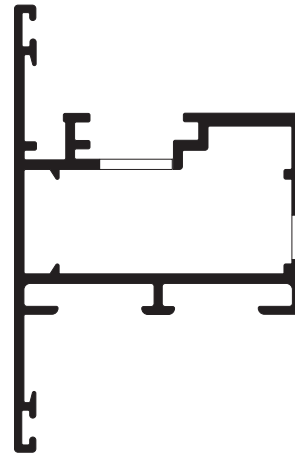
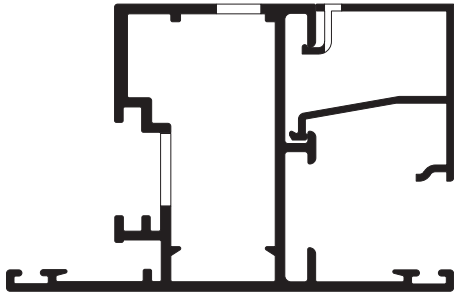
### SAÍDA DE ÁGUA - PORTA DE CORRER 4 FOLHAS

Usinar  
Perfis  
R0052



**USINAGENS PARA FECHO MULTIPONTO - JANELA MAXIM-AR**

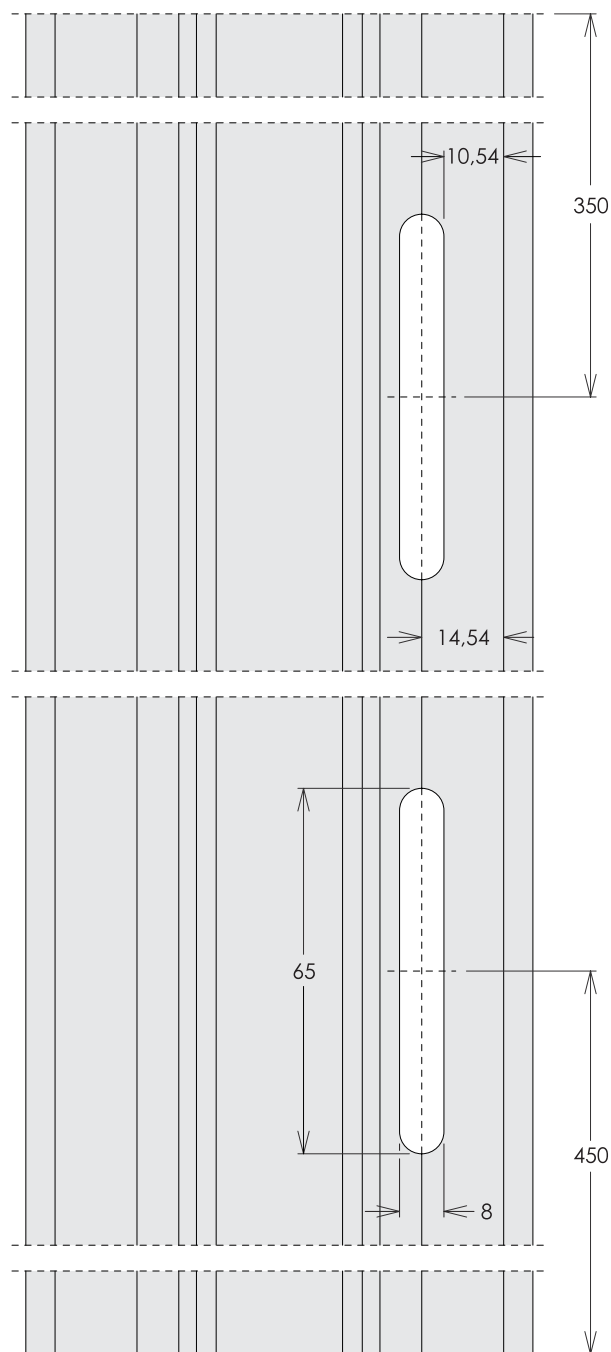
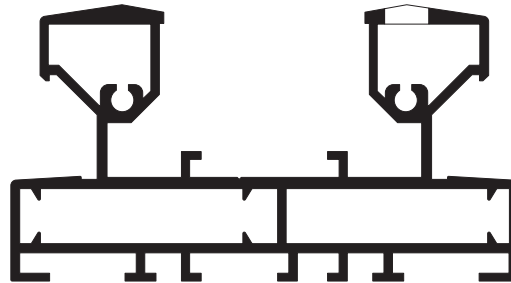
Usinar  
Perfis  
R0021  
R0080





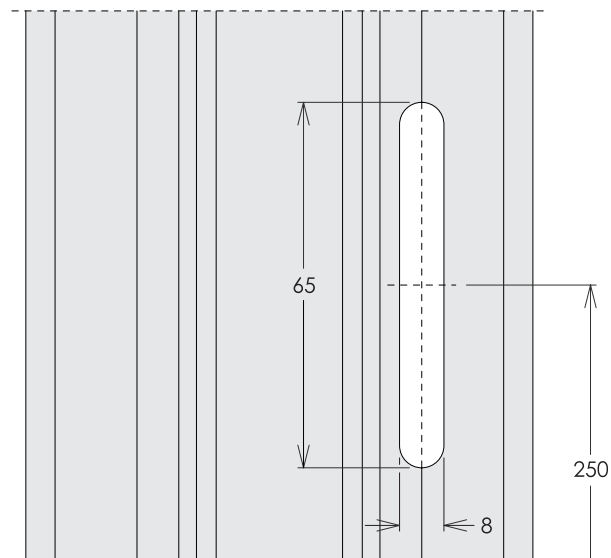
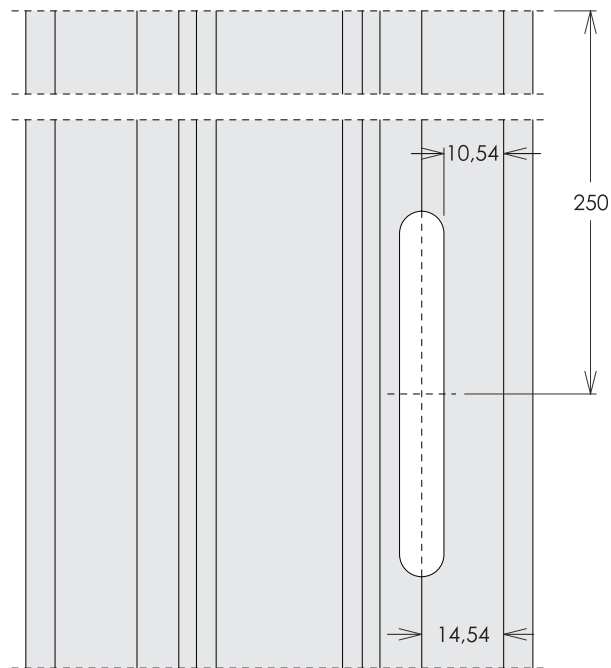
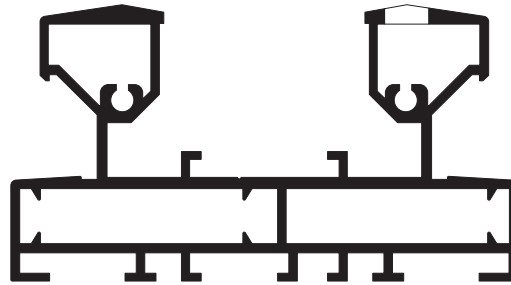
**USINAGEM PARA CONTRAFECHO - CREMONA E CONCHA - PORTA**

Usinar  
Perfis  
R0048



**USINAGEM PARA CONTRAFECHO - CREMONA E CONCHA - JANELA**

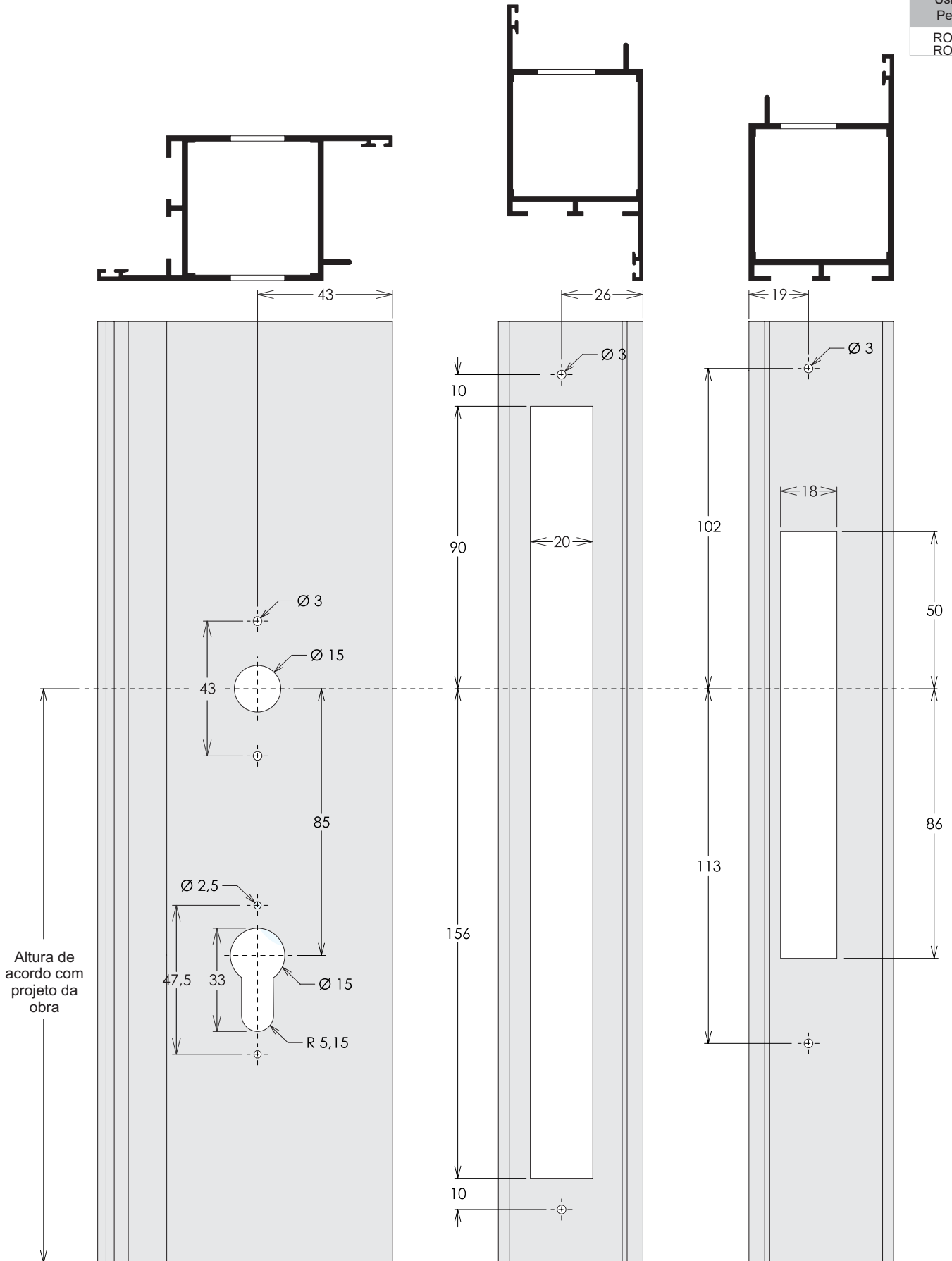
Usinar  
Perfis  
R0048



**Lado Inferior**

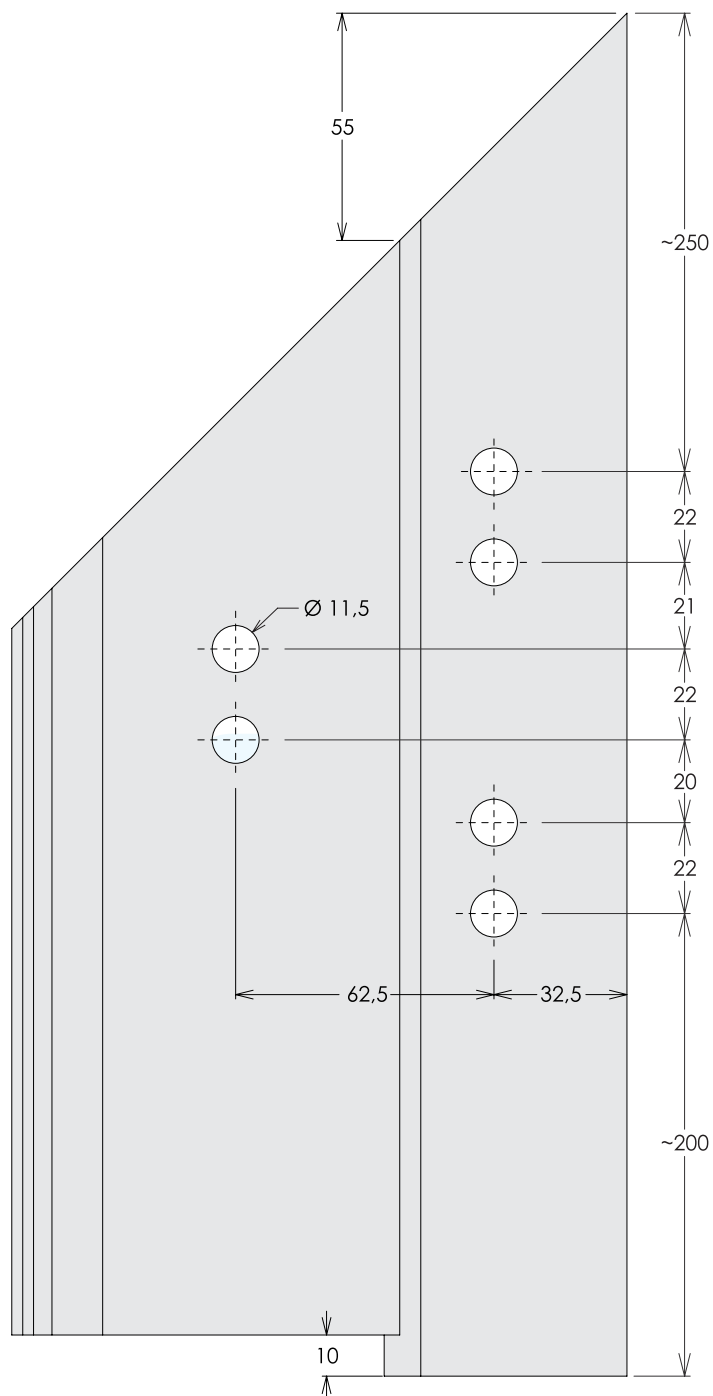
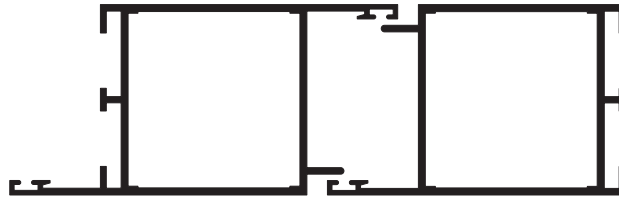
**USINAGENS PARA FECHADURA - PORTA DE GIRO**

Usinar  
Perfis  
RO032  
RO042



**USINAGENS PARA FECHADURA - PORTA DE GIRO**

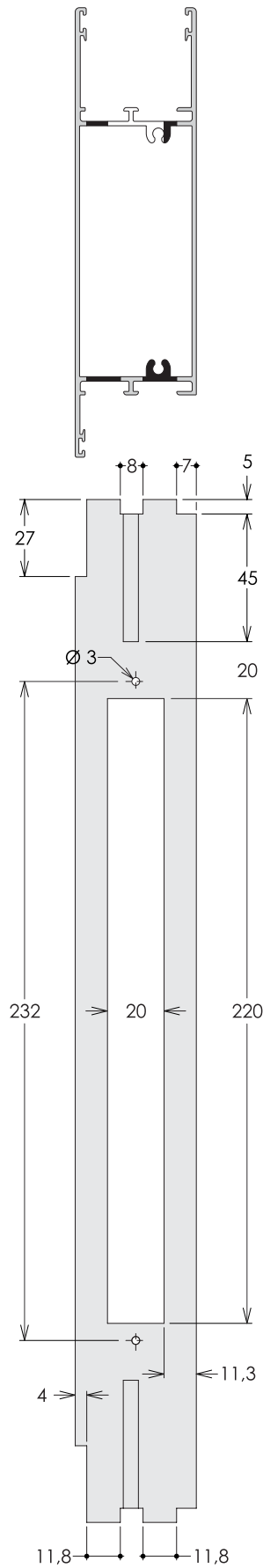
Usinar  
Perfis  
R0032  
R0042



Não fazer esta usinagem quando utilizar dobradiça de duas abas

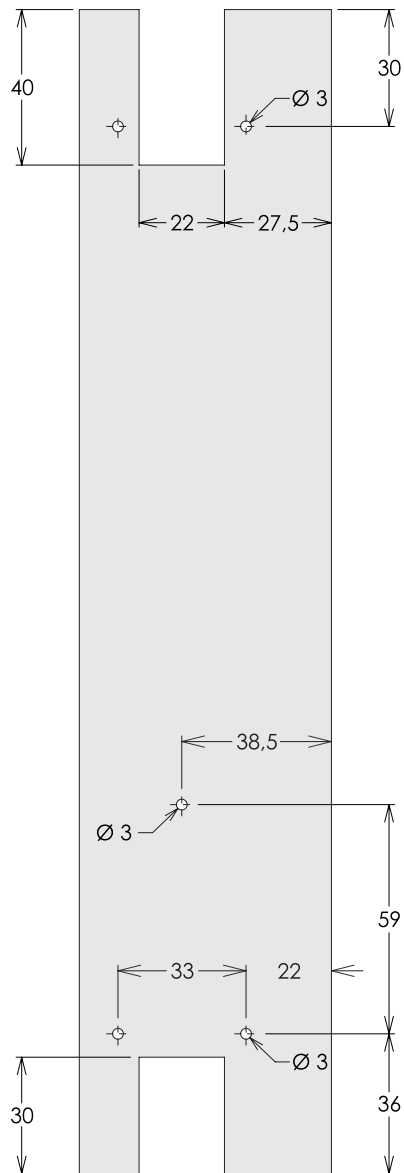
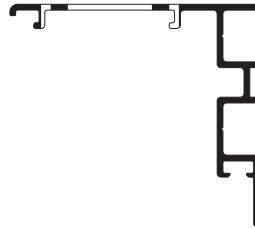
**USINAGEM DA TRAVESSA E ROLDANA**

Usinar  
Perfis  
R0063



**MÃO-DE-AMIGO - PORTA ELEVÁVEL**

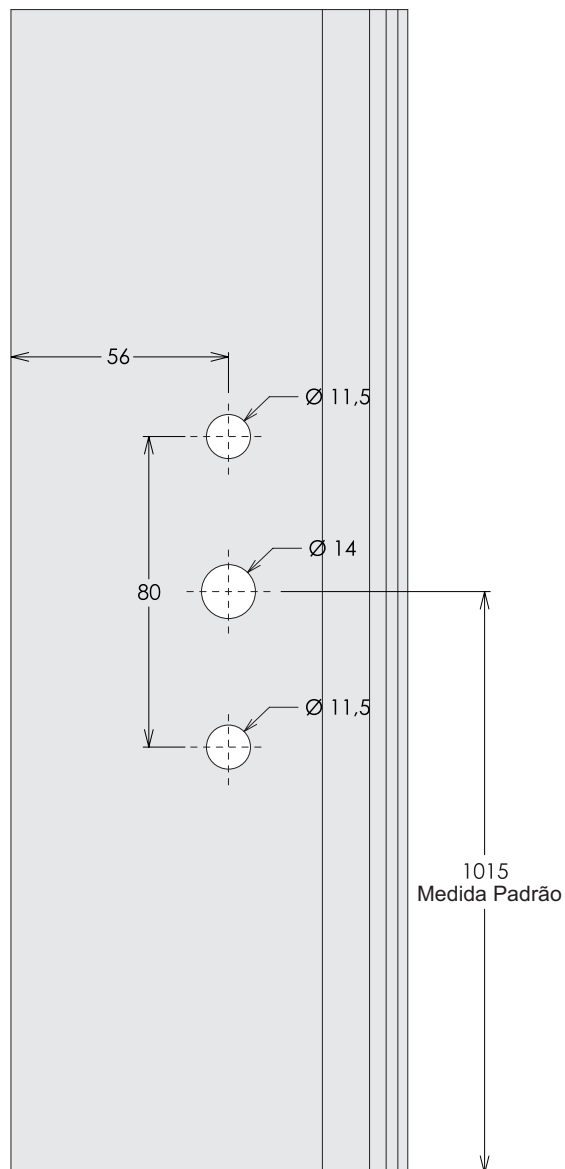
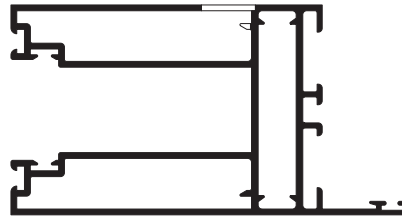
Usinar  
Perfis  
R0094



**Lado Inferior**

**USINAGENS PARA CREMONA INTERNA - PORTA ELEVÁVEL**

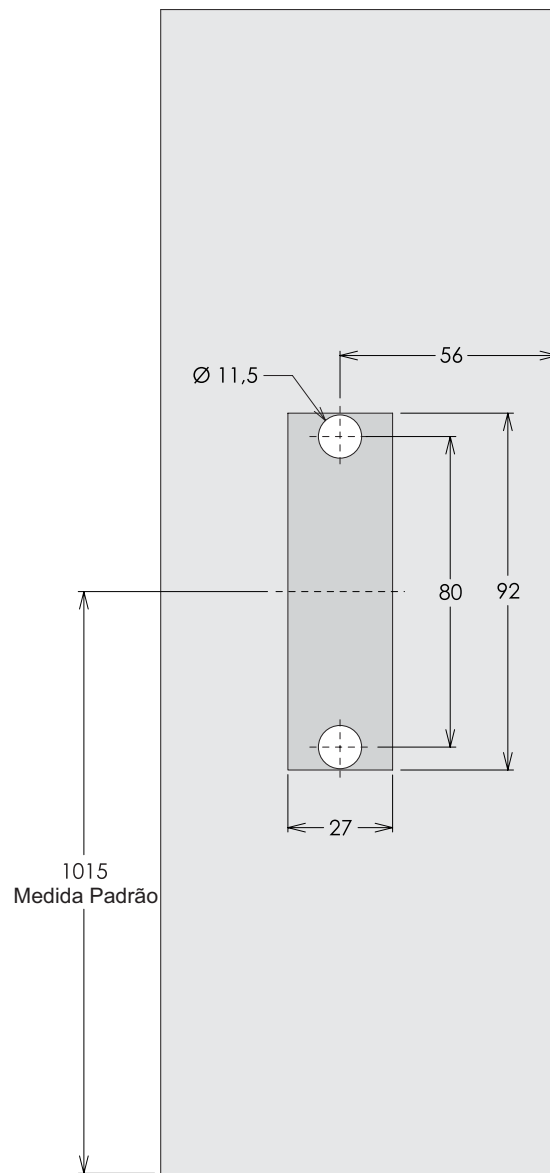
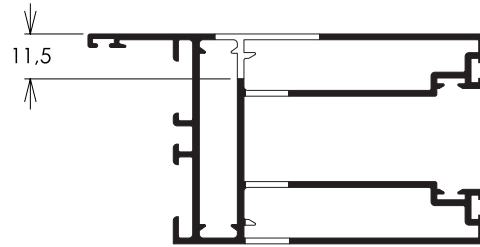
Usinar  
Perfis  
RO092



**Lado Inferior**

**USINAGENS PARA CONCHA EXTERNA - PORTA ELEVÁVEL**

Usinar  
Perfis  
RO092

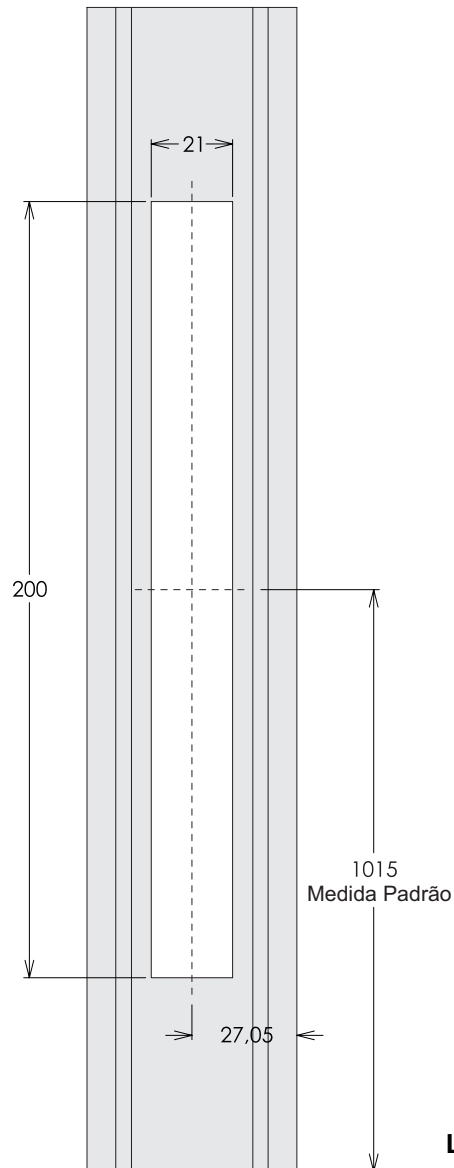
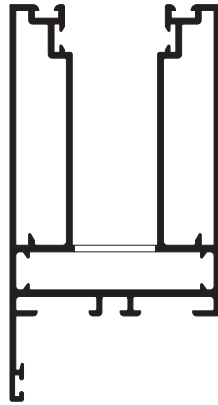


**Lado Inferior**



**USINAGENS PARA FECHADURA - PORTA ELEVÁVEL**

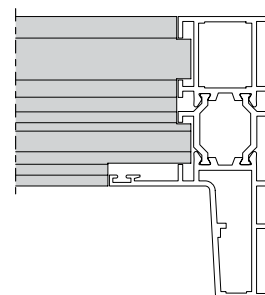
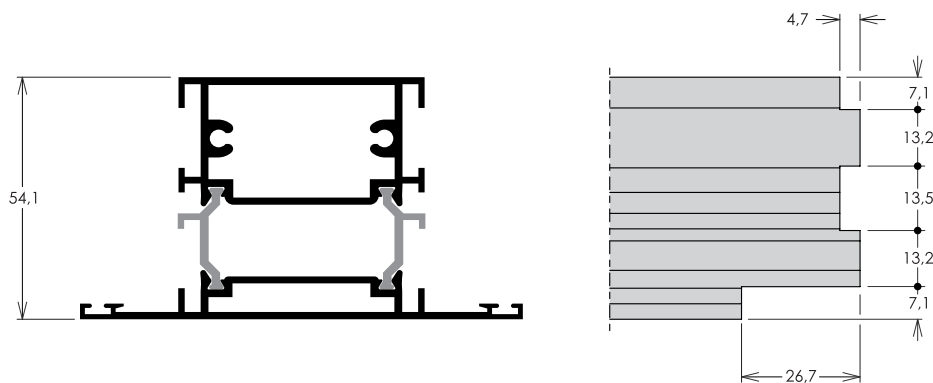
Usinar  
Perfis  
RO092



**Usinagem de topo - Travessa**

Fresa:  
**MAQ845**

Usina perfis:  
**T69**



Aplicação

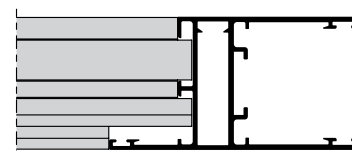
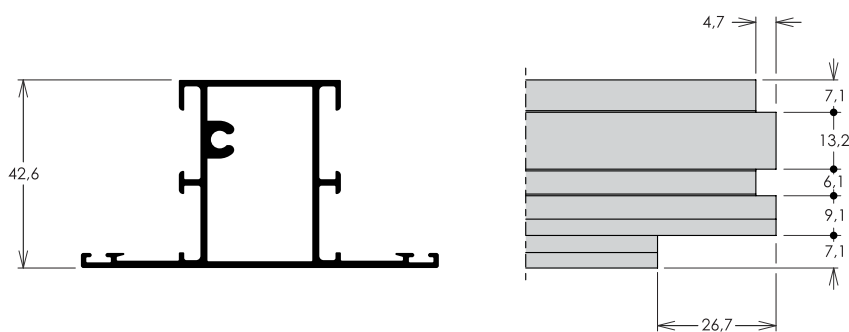
**NOTA:**

Perfil aplicado somente em janela ou porta com bandeira ou peitoril fixo.

**Usinagem de topo - Travessa**

Fresa:  
**MAQ846**

Usina perfis:  
**RO062**  
**RO063**  
**RO147**  
**T68**  
**T70**

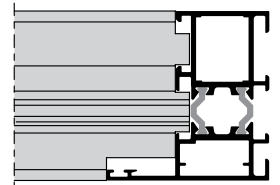
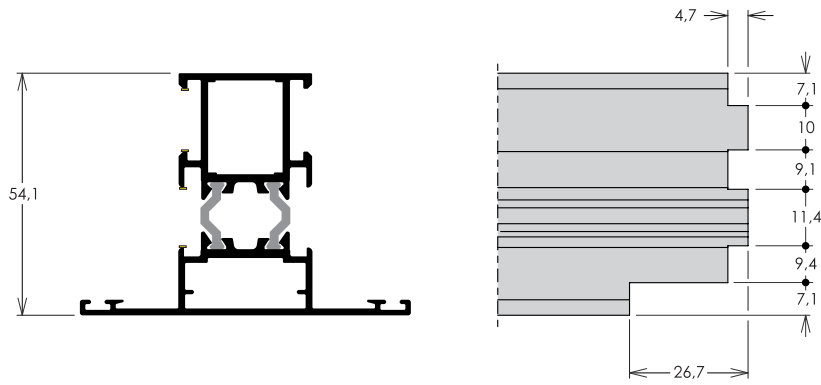


Aplicação

Usinagem de topo - Travessa

Fresa:  
**MAQ847**

Usina perfis:  
**T84**

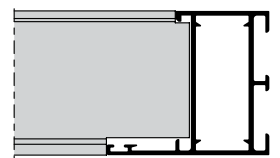
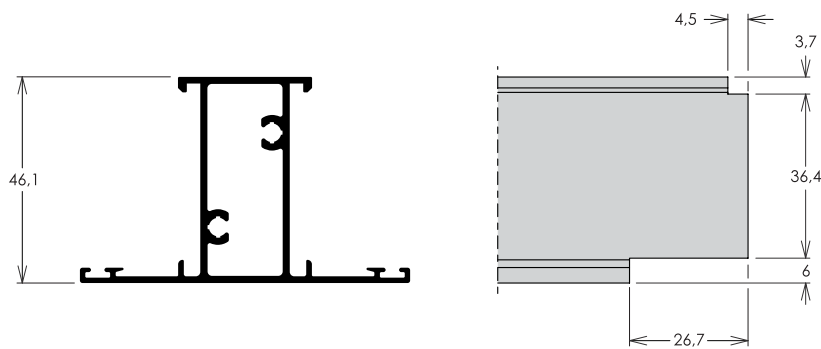


Aplicação

Usinagem de topo - Travessa

Fresa:  
**MAQ848**

Usina perfis:  
**RO079**  
**T91**

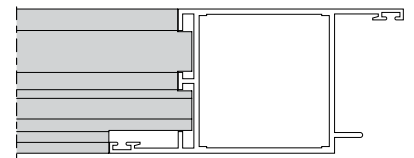
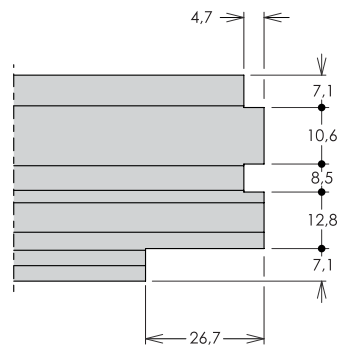
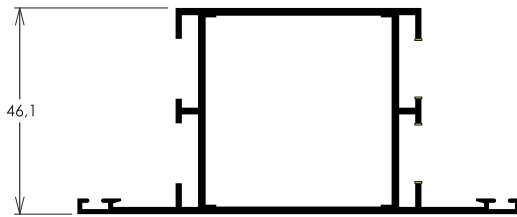


Aplicação

Usinagem de topo - Travessa

Fresa:  
**MAQ844**

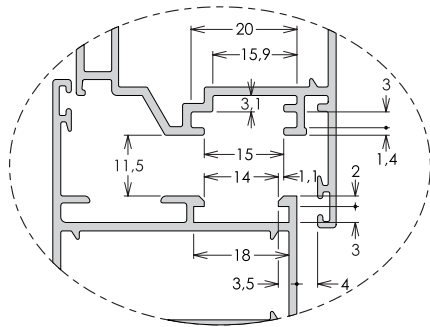
Usina perfis:  
**RO012**  
**RO013**  
**RO014**  
**RO033**  
**RO034**  
**RO044**  
**RO045**  
**RO125**  
**T77**  
**T82**  
**T83**



Aplicação

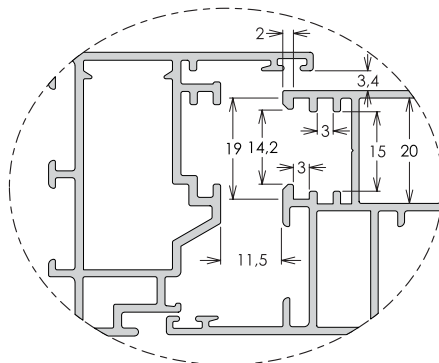
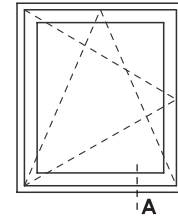


Descrição	Pág.
JANELA OSCILO BATENTE 1 FOLHA	J-01
JANELA OSCILO BATENTE 2 FOLHAS	J-01
JANELA MAXIM-AR 1 FOLHA	J-01
JANELA DE CORRER 2 FOLHAS	J-01
KIT PARA JANELA OSCILO BATENTE 1 FOLHA - CONJUNTO MECANISMO BASE	J-02
DETALHE DE MONTAGEM DO KIT COMPLEMENTAR DO FECHO - JANELA OSCILO BATENTE 2 FOLHAS	J-03
DETALHE DE MONTAGEM DO KIT COMPLEMENTAR DO FECHO - JANELA DE GIRO 1 FOLHA	J-04
DETALHE DE MONTAGEM DO KIT COMPLEMENTAR DO FECHO - JANELA DE GIRO 2 FOLHAS	J-05
POSIÇÕES DE MANOBRA - PORTA OSCILO PARALELA COM FOLHA FIXA	J-06
FEC1106 - FECHO CONCHA COM MULTIPONTO	J-07
POSIÇÕES DOS COMPONENTES - PORTA OSCILO PARALELA COM FOLHA FIXA E MÓVEL	J-08
DETALHE DE JUNÇÃO CENTRAL - ELEVÁVEL	J-09
DETALHE DE USINAGENS E MONTAGENS - ELEVÁVEL	J-10
VEDAÇÃO NO TRILHO DA JANELA - DETALHE PARA VEDAÇÃO DO TRILHO	J-11
POSICIONAMENTO DOS CALÇOS DOS VIDROS	J-12
ALTERNATIVAS CONSTRUTIVAS - GUARNIÇÕES PARA VIDRO	J-13



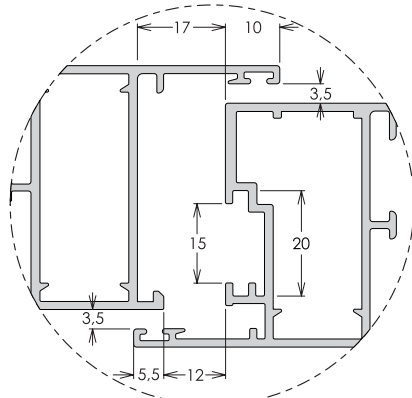
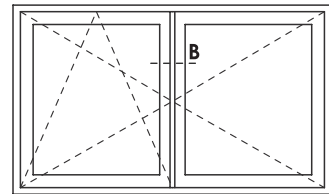
**Detalhe A**

**Janela Oscilo Batente  
01 Folha**



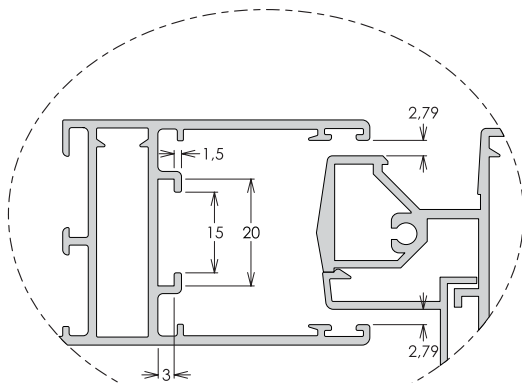
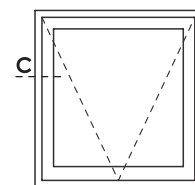
**Detalhe B**

**Janela Oscilo Batente  
02 Folhas**



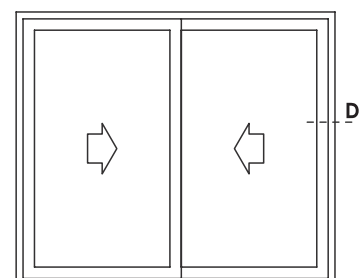
**Detalhe C**

**Janela Maxim-ar  
01 Folha**



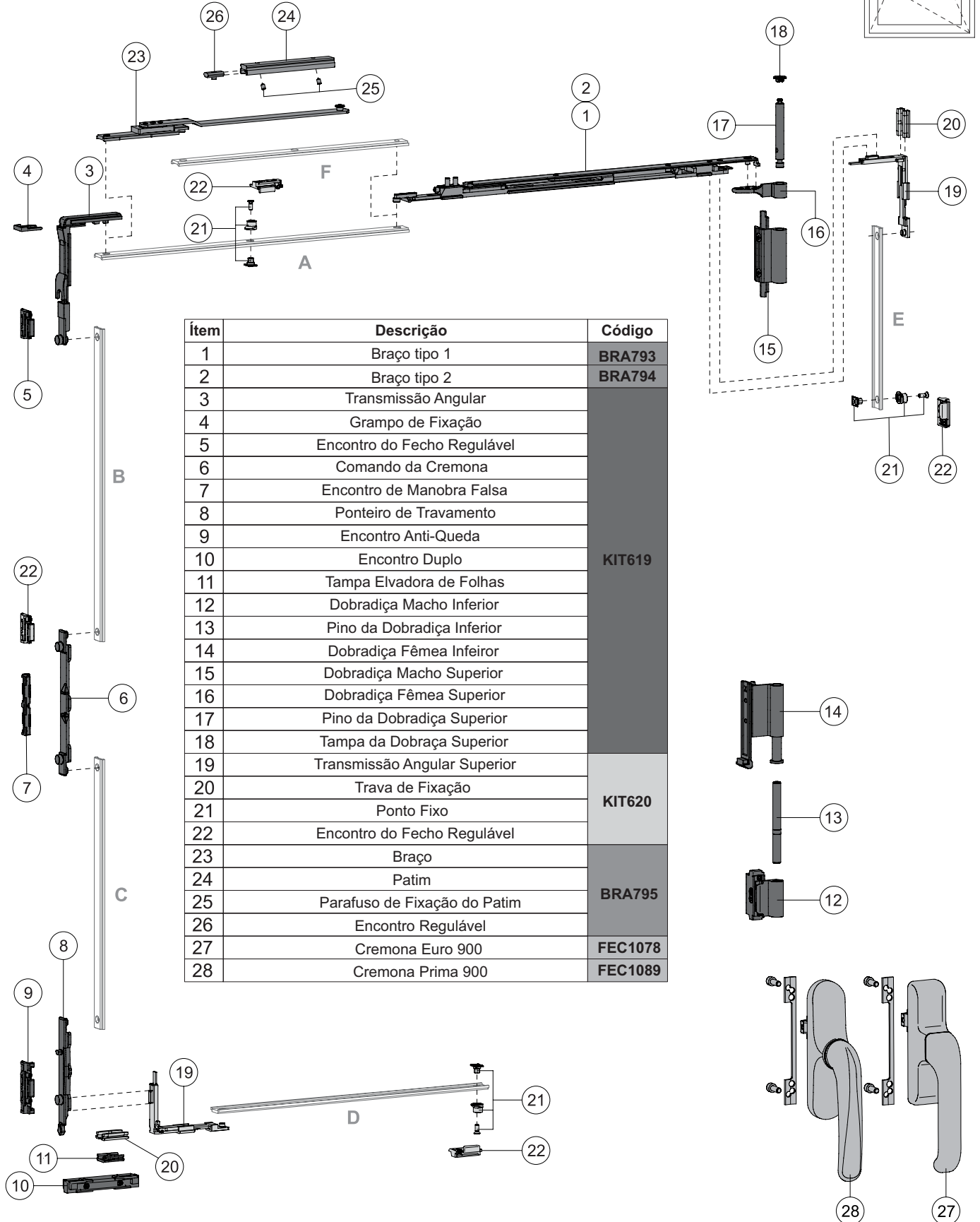
**Detalhe D**

**Janela de Correr  
02 Folhas**



### Kit para Janela Oscilo Batente

1 folha (com e sem Thermal Break)  
 Conjunto Macanismo Base  
 Materiais diversos - Branco ou Preto

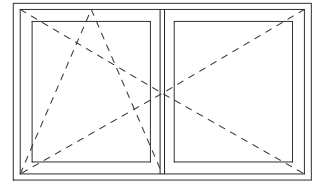


Ítem	Descrição	Código
1	Braço tipo 1	BRA793
2	Braço tipo 2	BRA794
3	Transmissão Angular	KIT619
4	Grampo de Fixação	
5	Encontro do Fecho Regulável	
6	Comando da Cremona	
7	Encontro de Manobra Falsa	
8	Ponteiro de Travamento	
9	Encontro Anti-Queda	
10	Encontro Duplo	
11	Tampa Elvadora de Folhas	
12	Dobradiça Macho Inferior	
13	Pino da Dobradiça Inferior	
14	Dobradiça Fêmea Inferior	
15	Dobradiça Macho Superior	
16	Dobradiça Fêmea Superior	KIT620
17	Pino da Dobradiça Superior	
18	Tampa da Dobraça Superior	
19	Transmissão Angular Superior	
20	Trava de Fixação	KIT620
21	Ponto Fixo	
22	Encontro do Fecho Regulável	BRA795
23	Braço	
24	Patim	
25	Parafuso de Fixação do Patim	BRA795
26	Encontro Regulável	
27	Cremona Euro 900	FEC1078
28	Cremona Prima 900	FEC1089

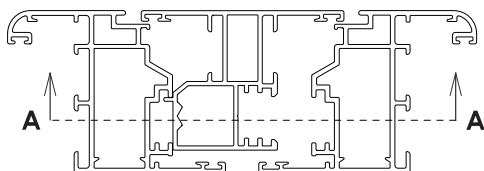
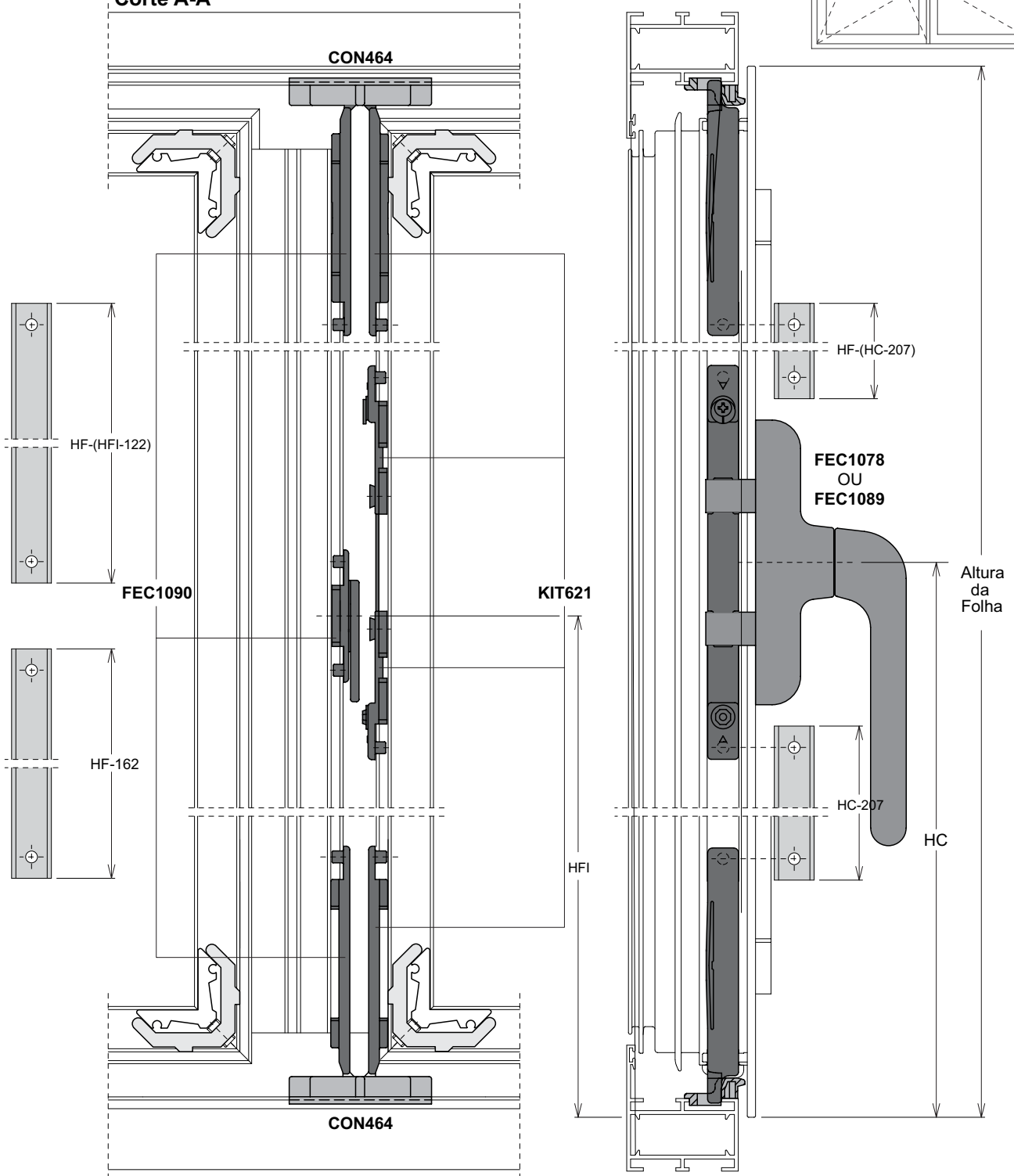


**Detalhe de montagem do Kit Complementar do Fecho**

Janela Oscilo Batente 2 folhas



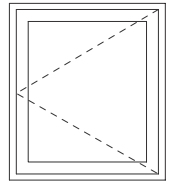
**Corte A-A**



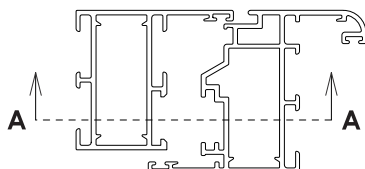
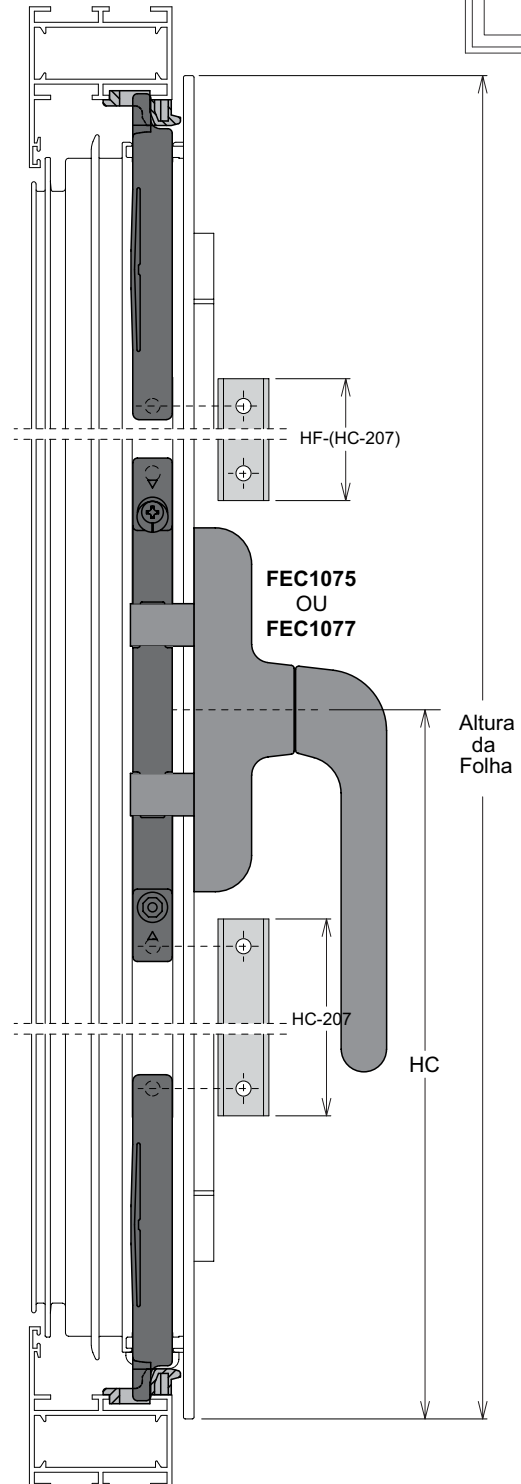
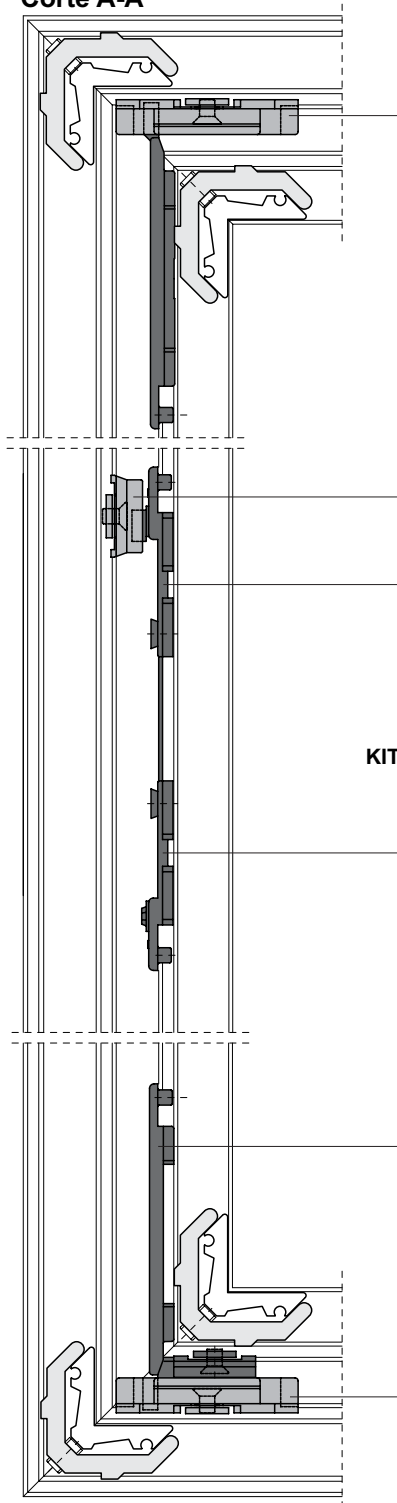
HF=Altura da Folha  
 HC=Altura da Cremona  
 HFI=Altura do Fecho Interno

**Detalhe de montagem do Kit Complementar do Fecho**

Janela de Giro 1 folha



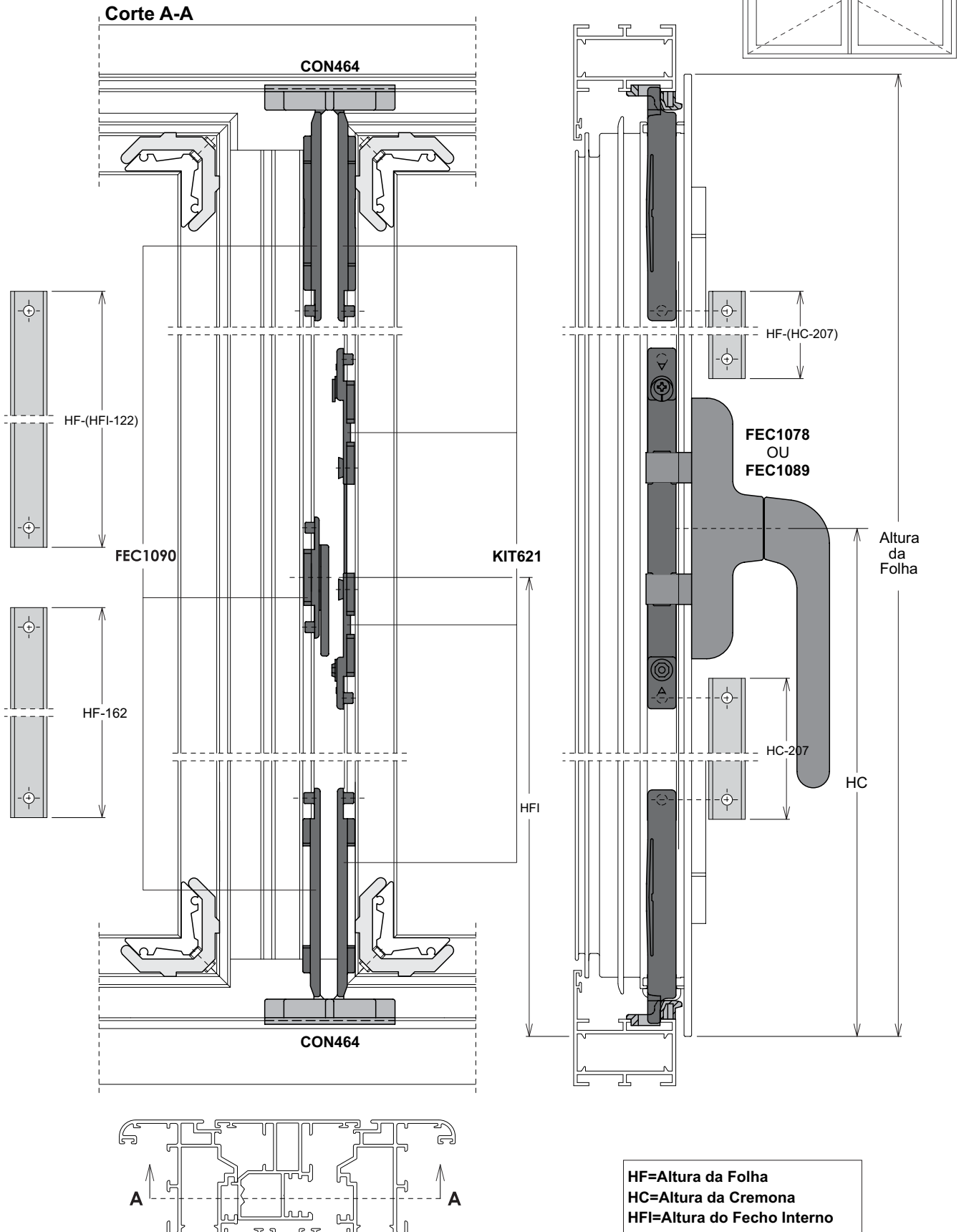
**Corte A-A**



HF=Altura da Folha  
HC=Altura da Cremona

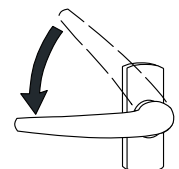
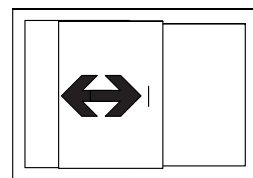
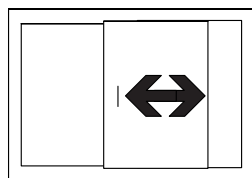
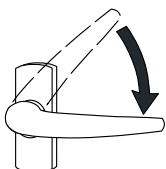
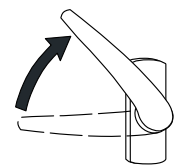
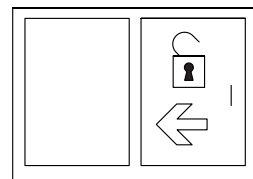
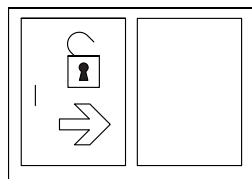
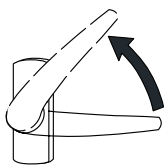
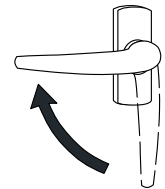
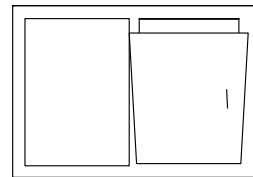
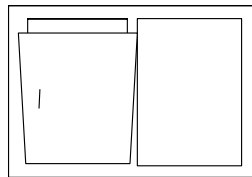
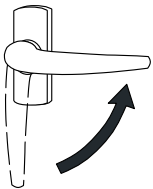
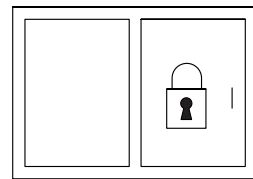
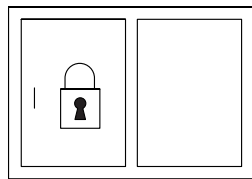
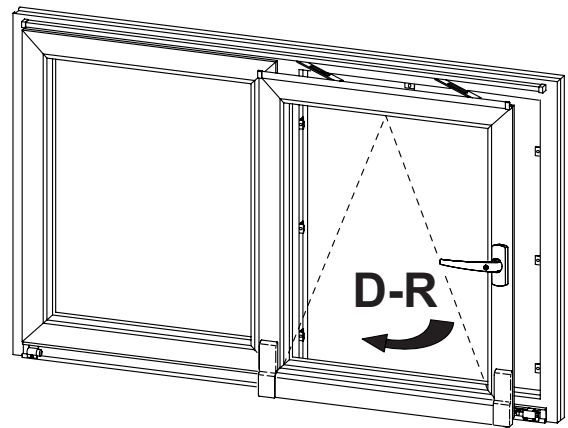
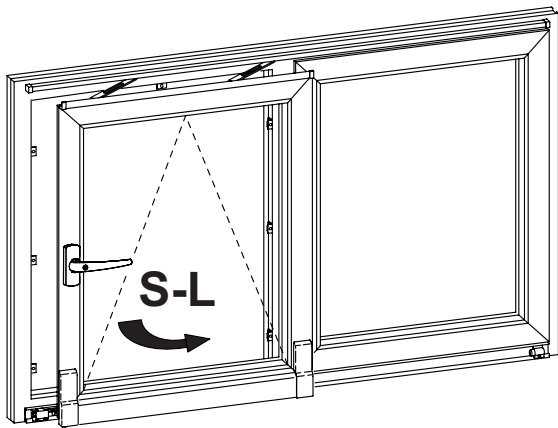
**Detalhe de montagem do Kit Complementar do Fecho**

Janela de Giro 2 folha



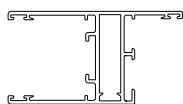
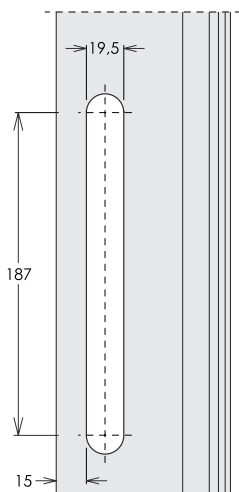
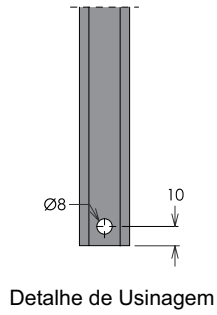
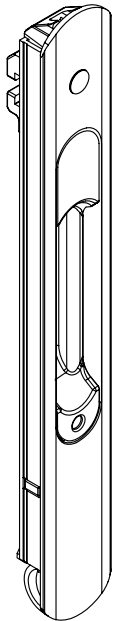
**Posições de manobra**

Porta Oscilo Paralela com Folha Fixa

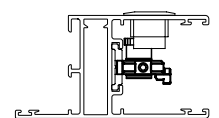
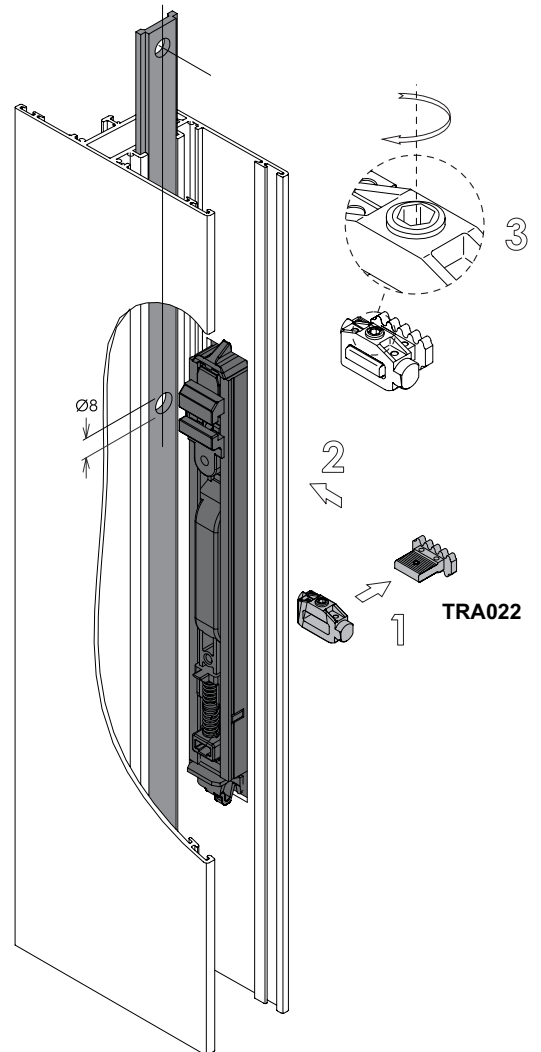
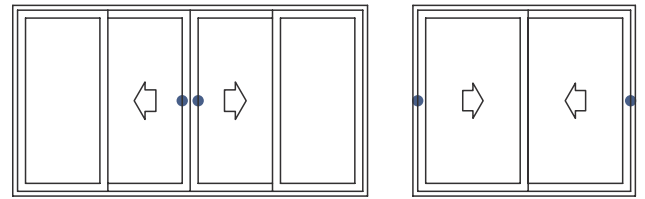


**FEC1106**

Fecho concha com multiponto  
Alumínio Branco ou Preto



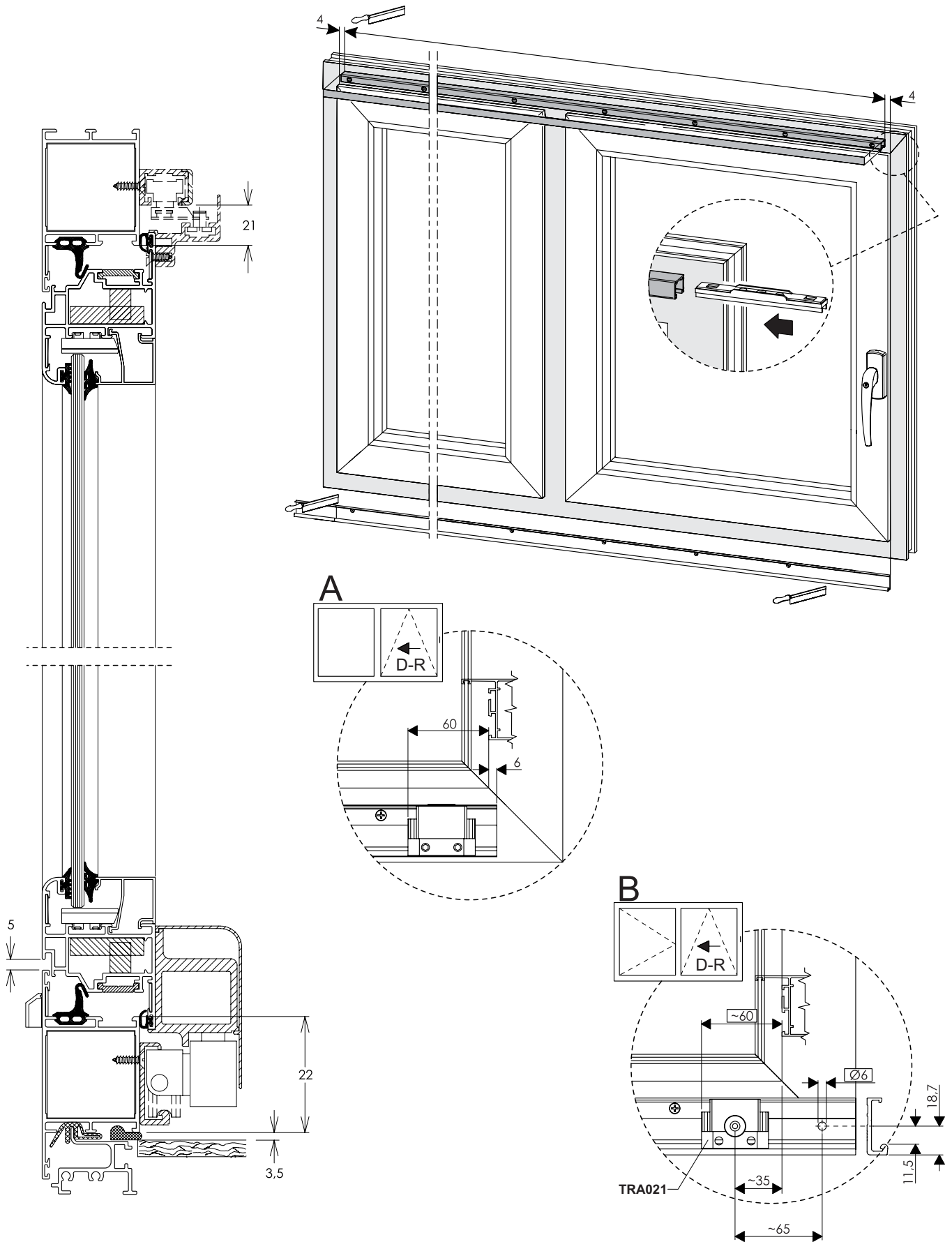
Detalhe de Usinagem



Aplicação

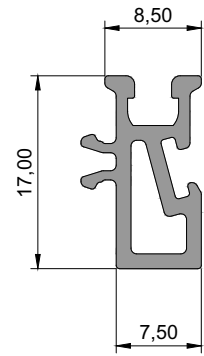
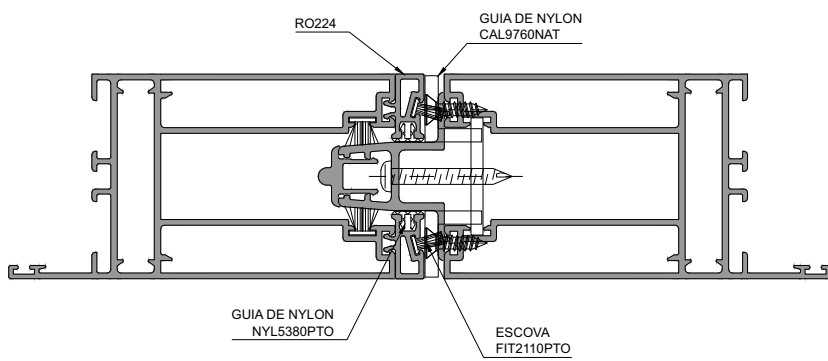
**Posições dos Componentes**

Porta Oscilo Paralela com Folha Fixa e Móvel

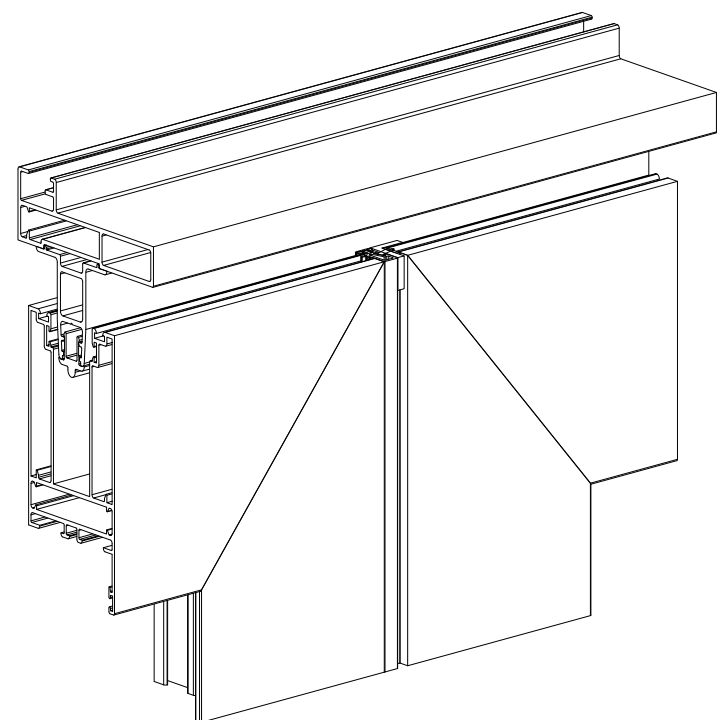
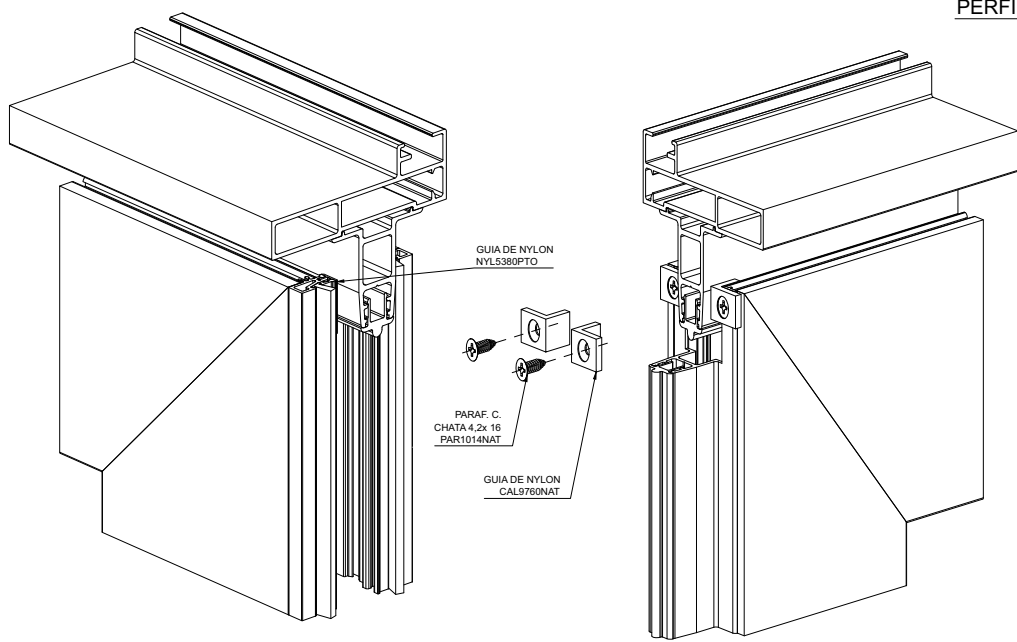


**Unica Elevável**

Detalhe de junção central



PERFIL - RO224

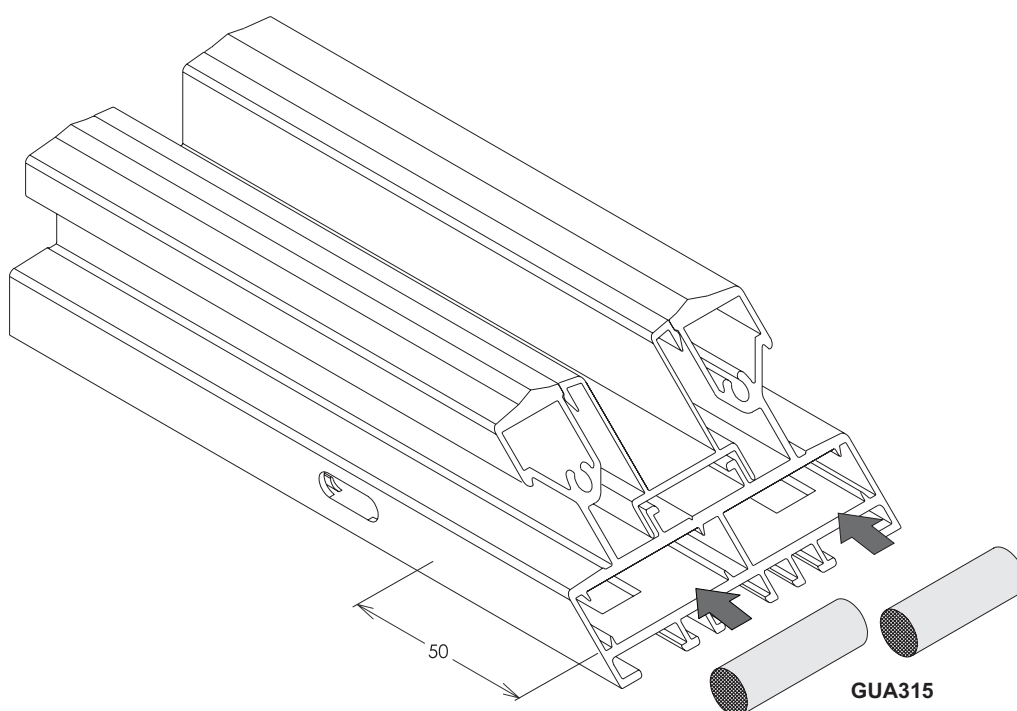
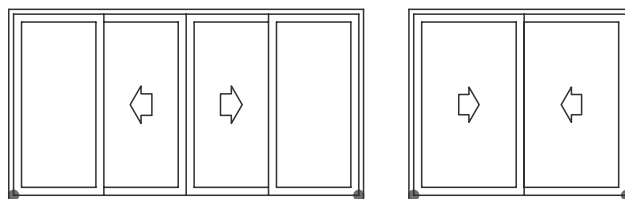






**Vedação no trilho da Janela**

Detalhe para vedação no trilho

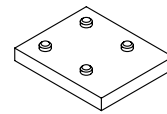
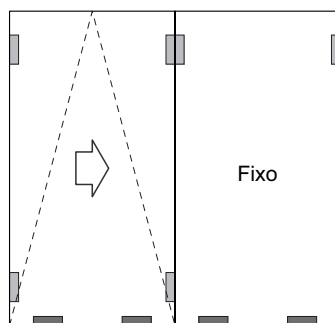
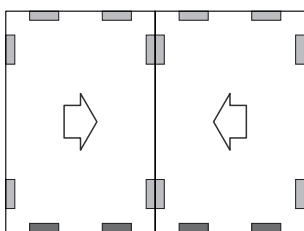
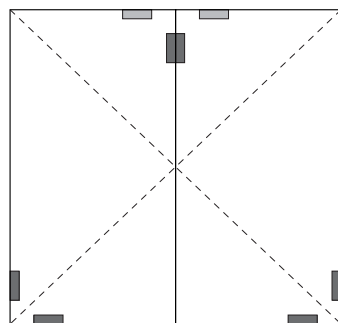
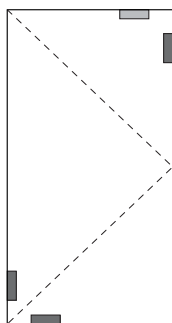
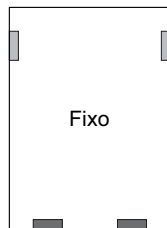
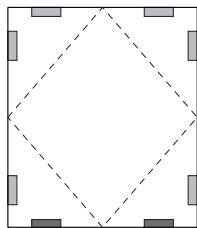
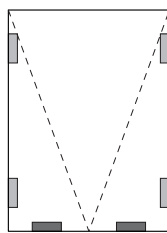
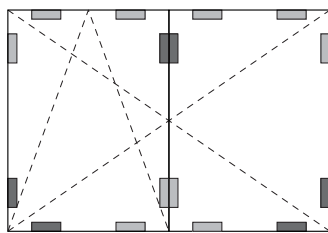
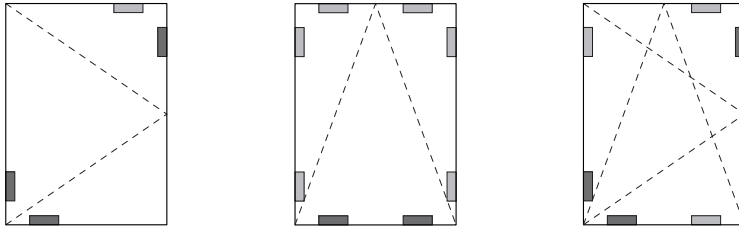


**Encaixar a GUA315 no interior do trilho, e aplicar para evitar infiltração pelo rasgo da trava da conexão.**

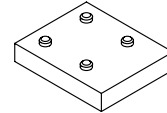
**Posicionamento dos calços dos vidros**

■ Calço de Apoio

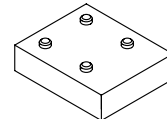
■ Calço Periférico



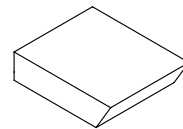
**NYL486**  
Calço do Vidro - 2mm  
Nylon Preto



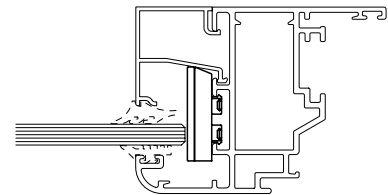
**NYL487**  
Calço do Vidro - 3mm  
Nylon Preto



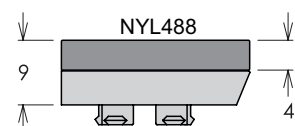
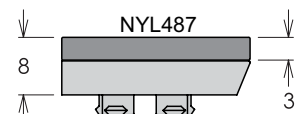
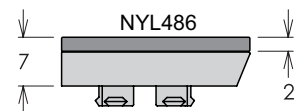
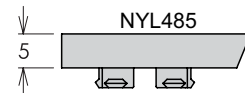
**NYL488**  
Calço do Vidro - 4mm  
Nylon Preto







**NYL485**  
Calço do Vidro - 5mm  
Nylon Preto

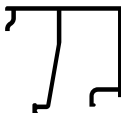
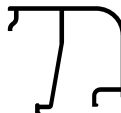
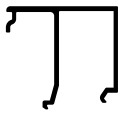
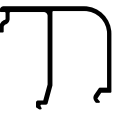
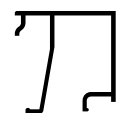
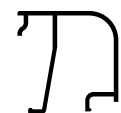
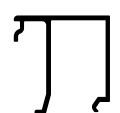
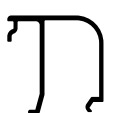
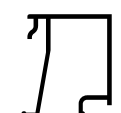
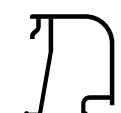
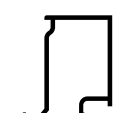
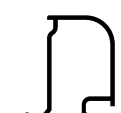
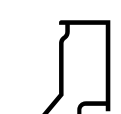
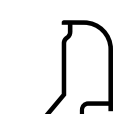






Aplicação



**Alternativas construtivas - Guarnições para vidro**

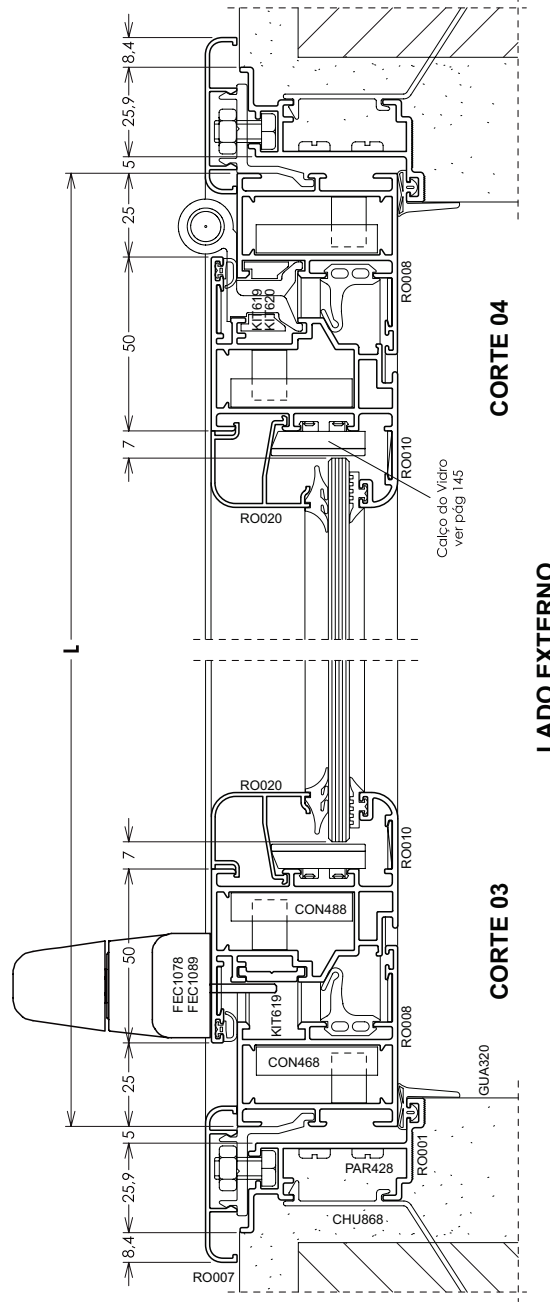
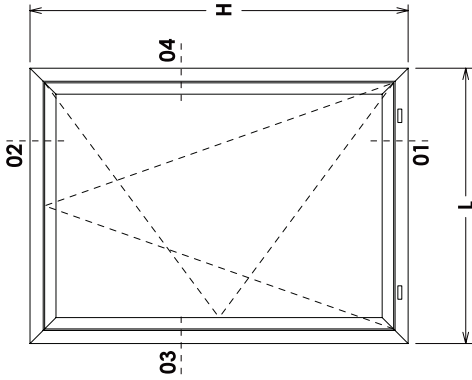
Guarnição Externa	Guarnição Interna
 <b>GUA413</b> A = 3mm	 <b>GUA414</b> B = 5mm
	 <b>GUA411</b> C = 5mm
	 <b>GUA412</b> D = 6mm

Tipologia/Espessura de Vidro			Guarnição	Baguetes			
Oscilo Batente, Maxim-ar, Giro, Tombar, Paralela, Reversível e Articulada	Linha Correr	Linha Elevável		Geral	Folhas Fixas		
4	- X -	12	B + D				
5	- X -	13	B + C				
6	- X -	14	A + D				
7	- X -	15	A + C				
8	4	16	B + D				
9	5	17	B + C				
10	6	18	A + D				
11	7	19	A + C				
12	8	20	B + D				
13	9	21	B + C				
14	10	22	A + D				
15	11	23	A + C				
16	12	24	B + D				
17	13	25	B + C				
18	14	26	A + D				
19	15	27	A + C				
20	16	28	B + D				
21	17	29	B + C				
22	18	30	A + D				
23	19	31	A + C				
30	26	38	B + D				
31	27	39	B + C				
32	28	40	A + D				
33	29	41	A + C				

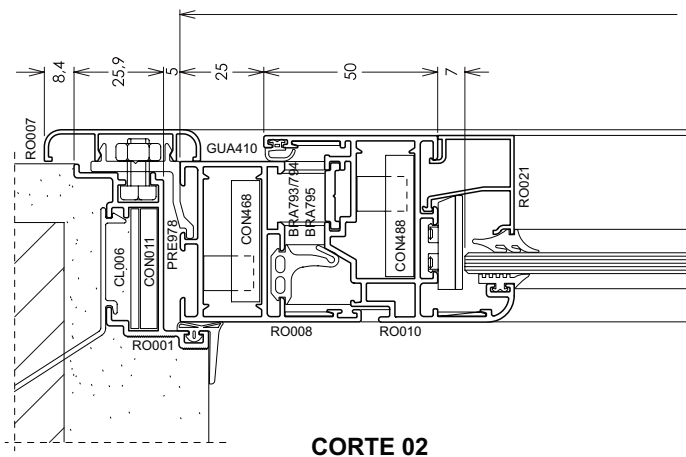


Descrição	Pág.
JANELA OSCILO BATENTE 1 FOLHA	K-01
JANELA OSCILO BATENTE 1 FOLHA – THERMAL BREAK	K-02
JANELA OSCILO BATENTE 2 FOLHAS	K-03
JANELA OSCILO BATENTE 2 FOLHAS – THERMAL BREAK	K-04
JANELA DE GIRO 1 FOLHA	K-05
JANELA DE GIRO 1 FOLHA – THERMAL BREAK	K-06
JANELA DE GIRO 2 FOLHAS	K-07
JANELA DE GIRO 2 FOLHAS – THERMAL BREAK	K-08
JANELA DE GIRO 2 FOLHAS COM VENEZIANAS ORIENTÁVEIS	K-09
JANELA DE TOMBAR 1 FOLHA	K-10
JANELA DE TOMBAR 1 FOLHA – THERMAL BREAK	K-11
JANELA DE TOMBAR 2 FOLHAS	K-12
JANELA DE TOMBAR 2 FOLHAS – THERMAL BREAK	K-13
JANELA MAXIM-AR 1 FOLHA	K-14
JANELA MAXIM-AR 2 FOLHAS	K-15
JANELA MAXIM-AR 2 FOLHAS – THERMAL BREAK	K-16
JANELA DE CORRER 2 FOLHAS	K-17
JANELA DE CORRER 2 FOLHAS – MULTIPONTO – THERMAL BREAK	K-18
JANELA DE CORRER 4 FOLHAS – MULTIPONTO	K-19
JANELA DE CORRER 4 FOLHAS – MULTIPONTO – THERMAL BREAK	K-20
PORTA DE CORRER 2 FOLHAS COM MULTIPONTO	K-21
PORTA DE CORRER 4 FOLHAS COM MULTIPONTO	K-22
PORTA DE CORRER 2 FOLHAS COM REFORÇO E MULTIPONTO	K-23
PORTA DE CORRER 4 FOLHAS COM REFORÇO E MULTIPONTO	K-24
PORTA DE CORRER 2 FOLHAS COM FECHADURA E PUXADOR	K-25
PORTA DE CORRER 4 FOLHAS COM FECHADURA E PUXADO	K-26
PORTA DE CORRER 2 FOLHAS COM REFORÇO COM FECHADURA E PUXADOR	K-27
PORTA DE CORRER 4 FOLHAS, COM REFORÇO COM FECHADURA E PUXADOR	K-28
PORTA DE CORRER 4 FOLHAS COM REFORÇO E FECHADURA	K-29
PORTA DE CORRER 3 FOLHAS COM MULTIPONTO	K-30
PORTA DE GIRO 1 FOLHA – 40S	K-31
PORTA DE GIRO 1 FOLHA – 40TT – THERMAL BREAK	K-32
PORTA DE GIRO 2 FOLHAS – 40S	K-33
PORTA DE GIRO 2 FOLHAS – 40TT – THERMAL BREAK	K-34
PORTA ELEVÁVEL 2 FOLHAS	K-35
PORTA DE ELEVÁVEL 4 FOLHAS	K-36
JANELA DE CORRER 2 FOLHAS COM PERSIANA INTEGRADA	K-37
JANELA OSCILO BATENTE 2 FOLHAS COM PERSIANA INTEGRADA PROJETANTE	K-38
PORTA DE CORRER 2 FOLHAS COM PERSIANA INTEGRADA	K-39

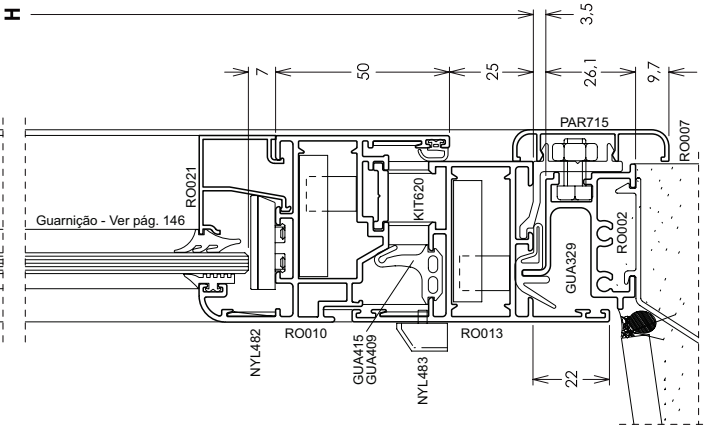
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LADO EXTERNO



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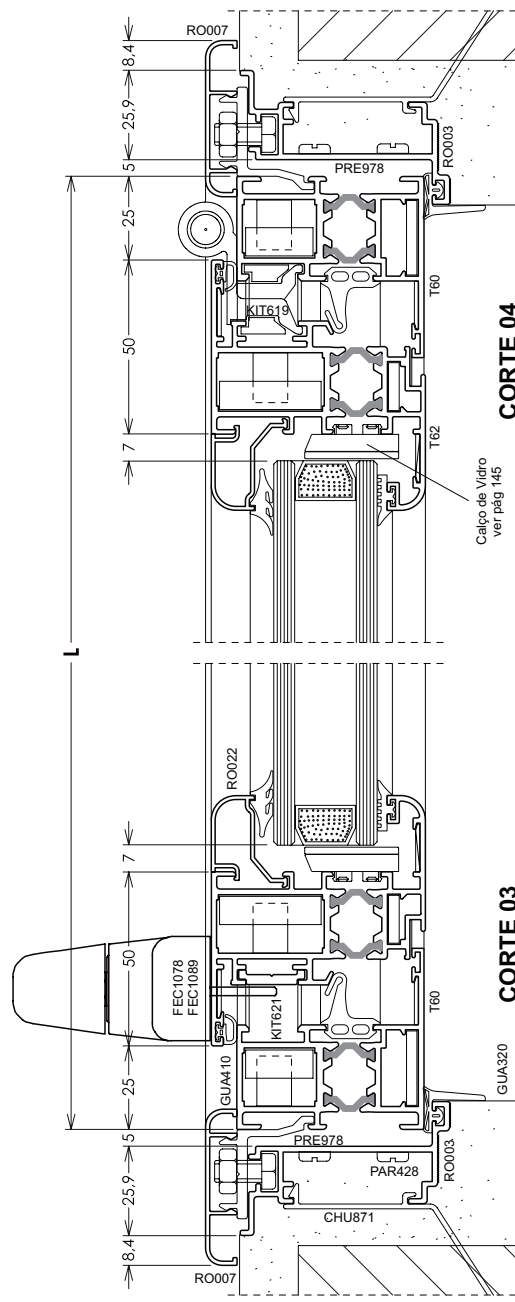
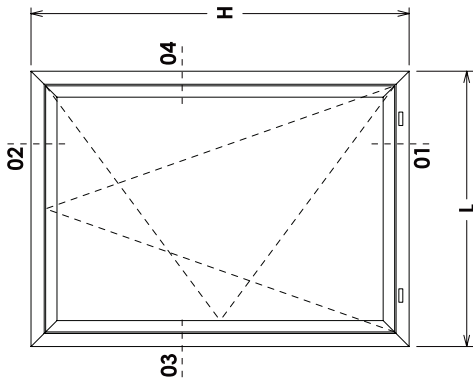


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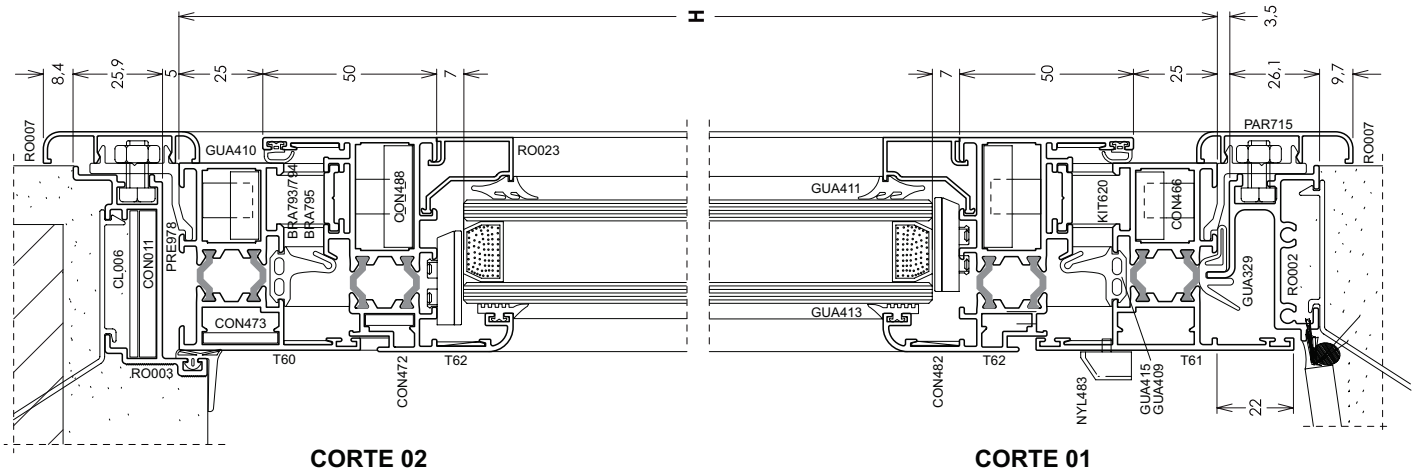
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Janela Oscilo Batente 1 Folha

**ELEVAÇÃO VISTA EXTERNA**



**LADO EXTERNO**



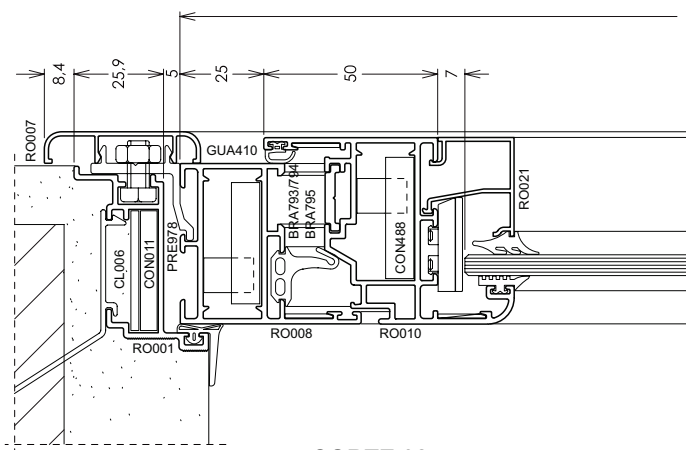
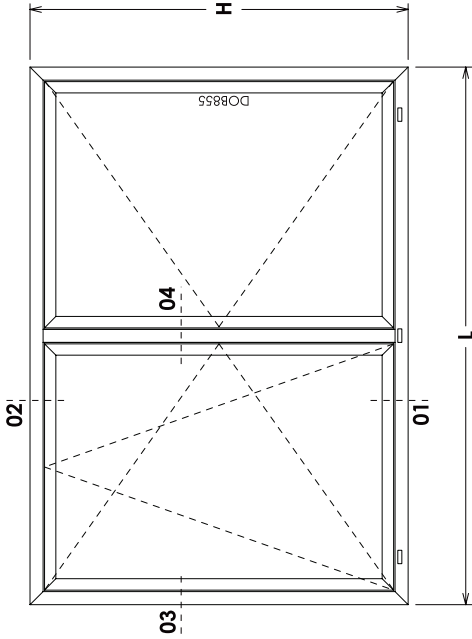
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**CORTE 01**

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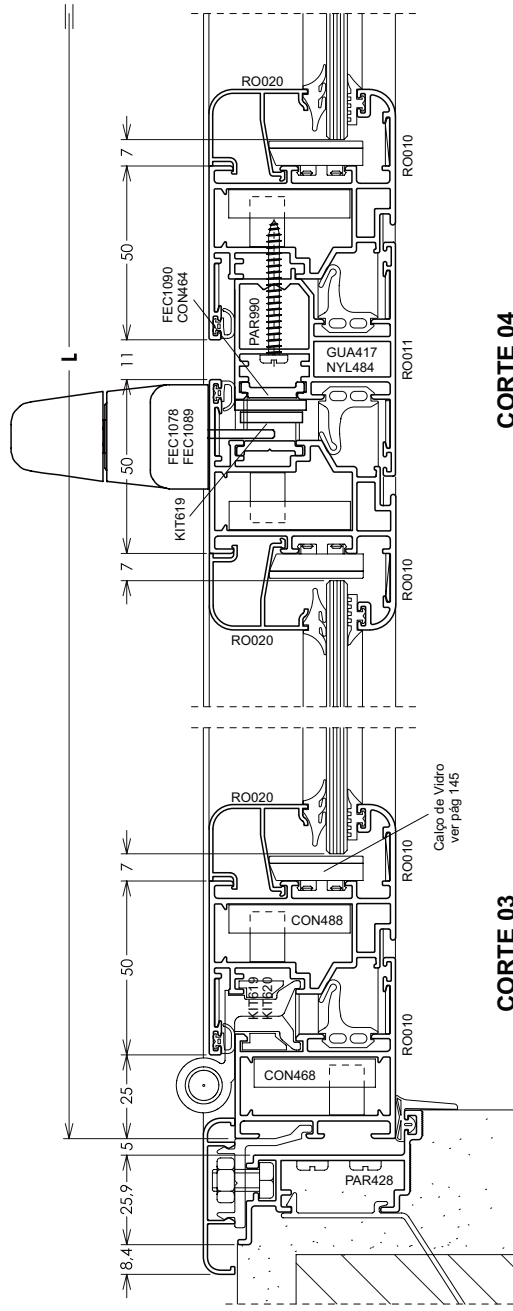
**Janela Oscilo Batente 1 Folha Thermal Break**

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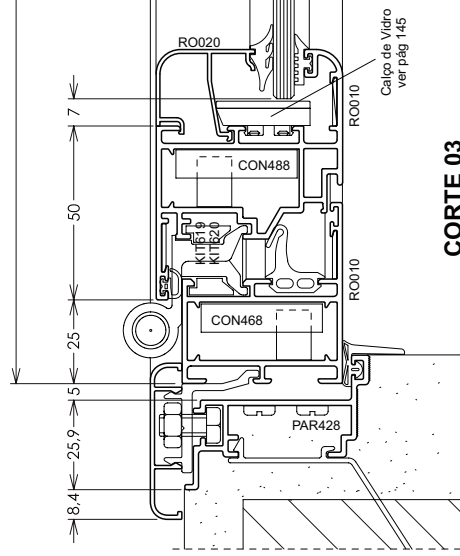
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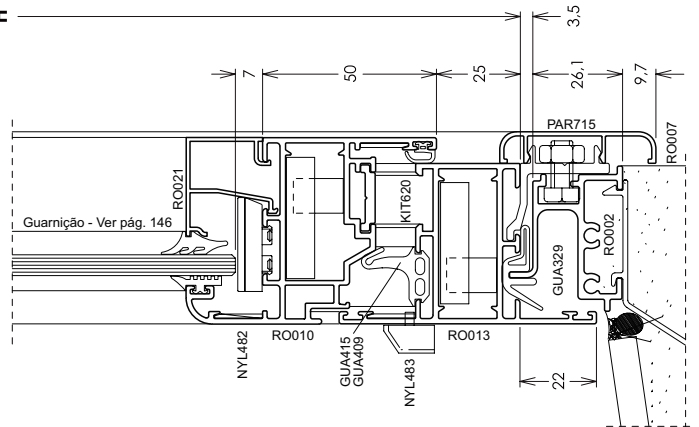


CORTE 04

LADO EXTERNO



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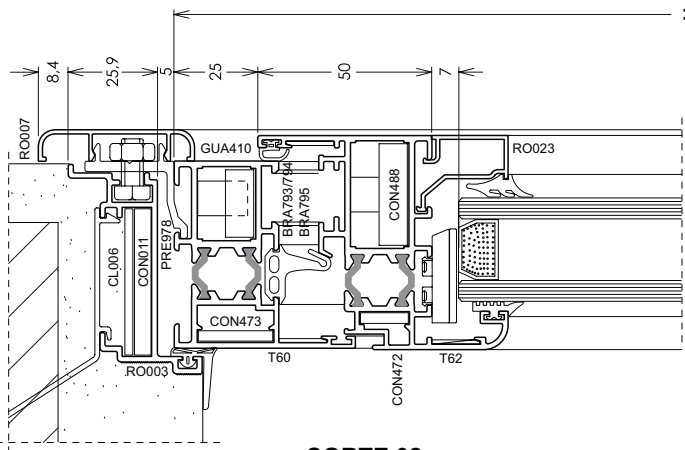
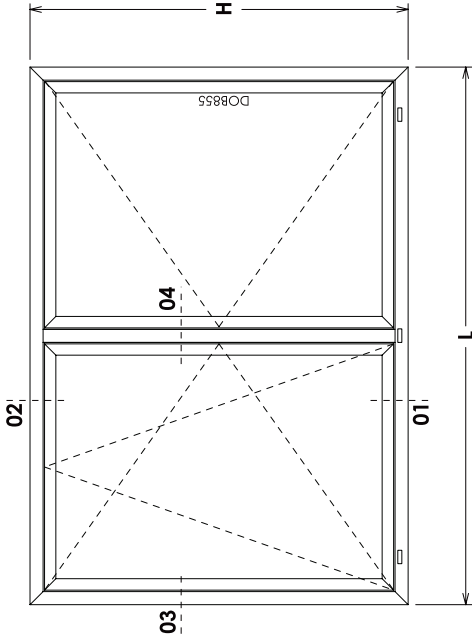


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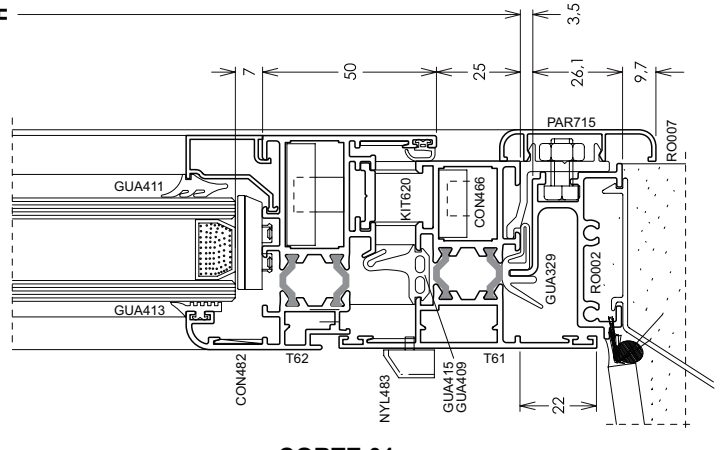
Janela Oscilo Batente 2 Folhas



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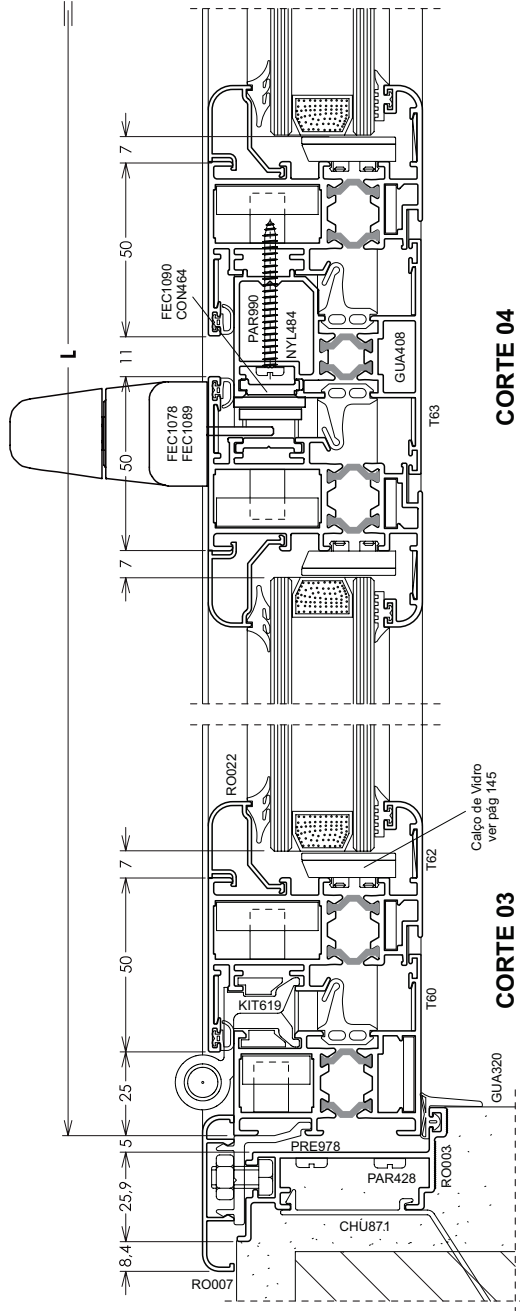


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**CORTE 01**

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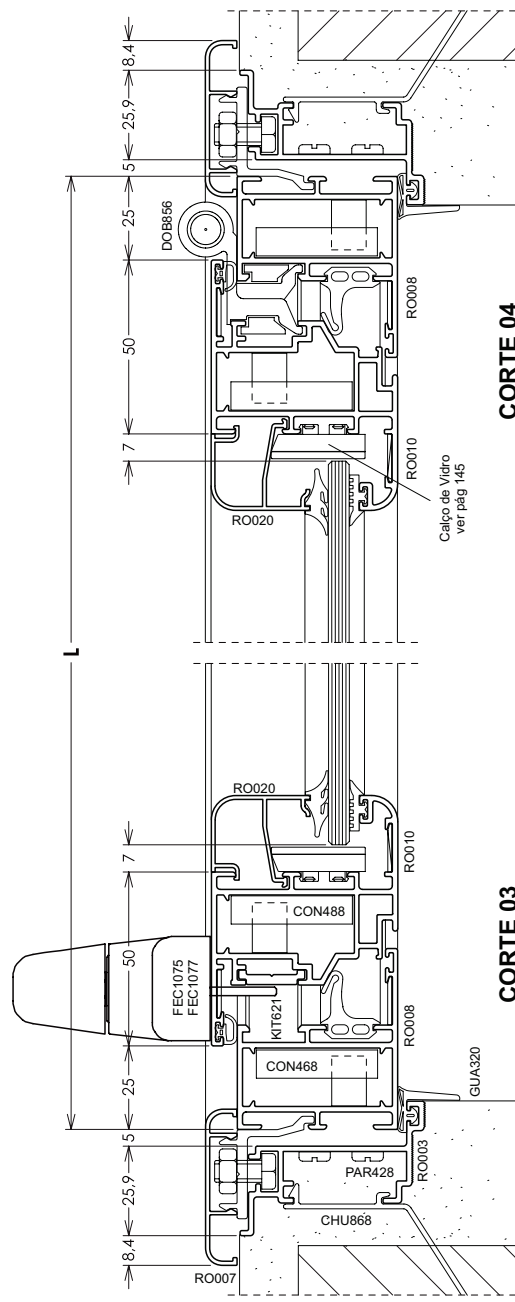
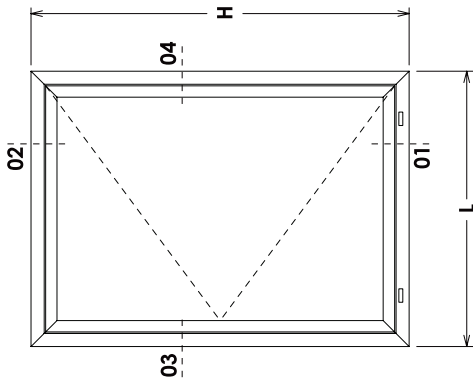
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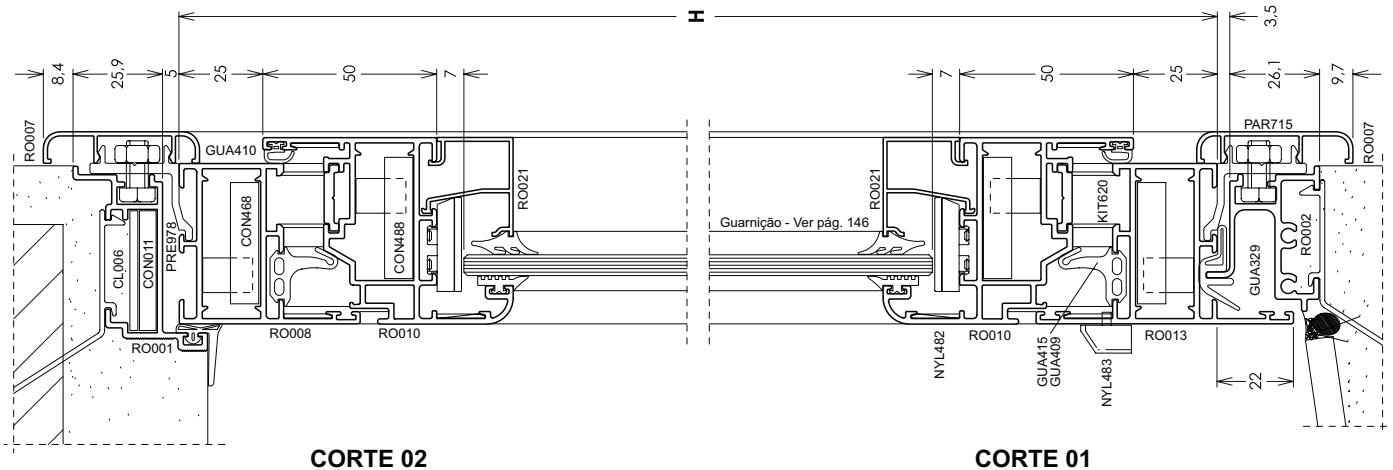
**Janela Oscilo Batente 2 Folhas Thermal Break**

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LADO EXTERNO

Janela De Giro 1 Folha

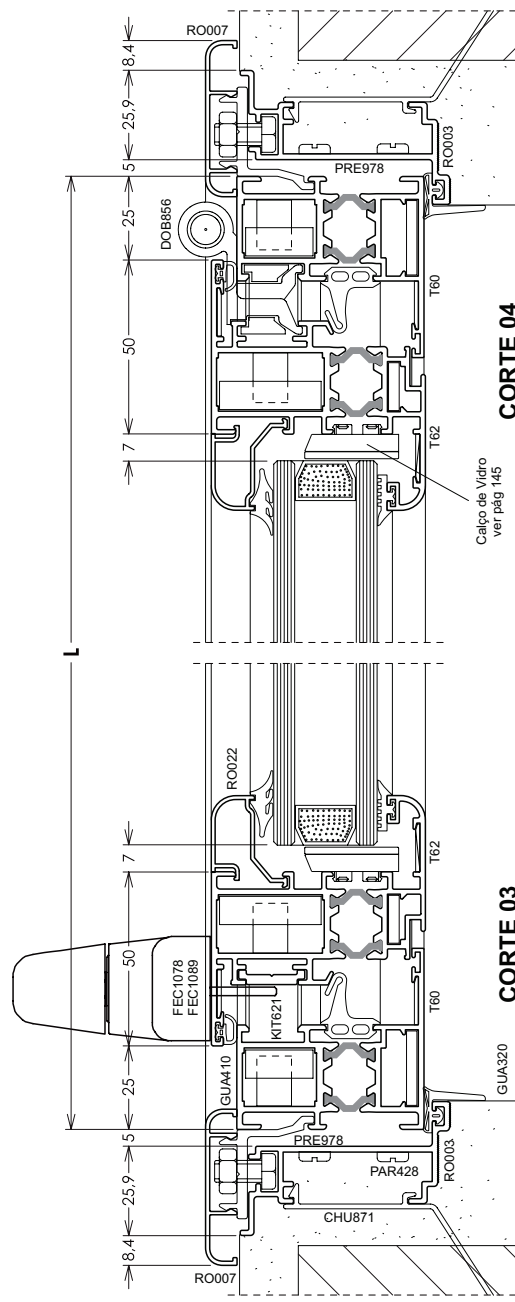
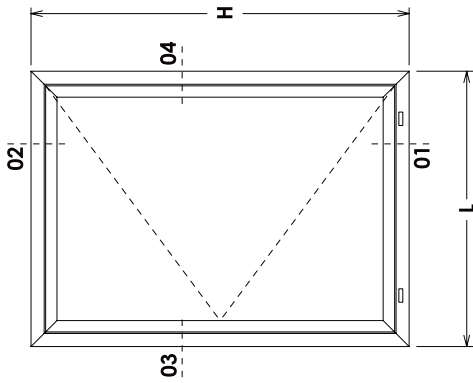


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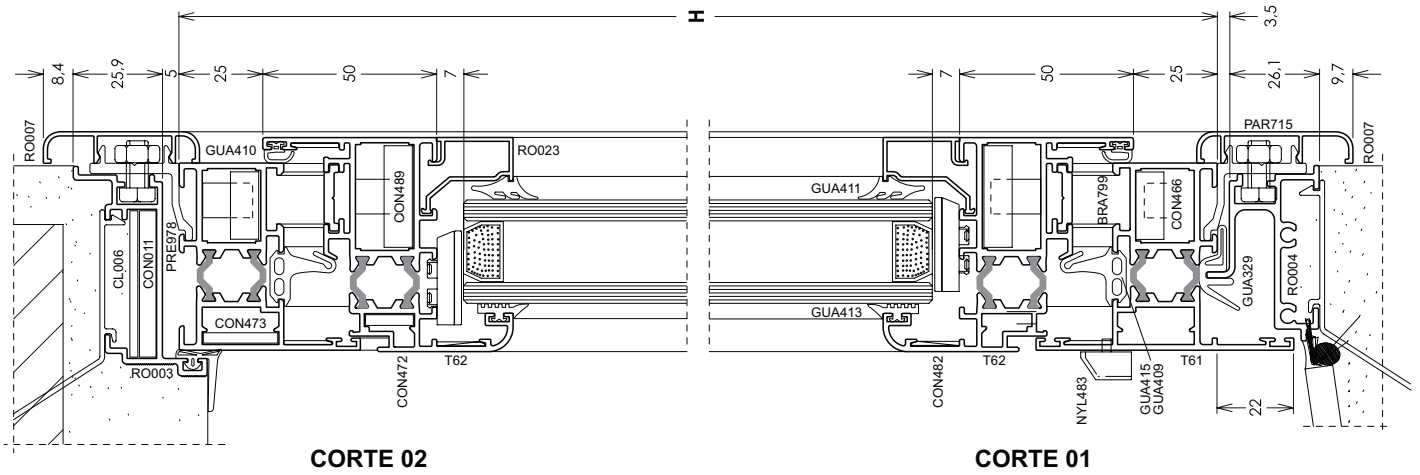
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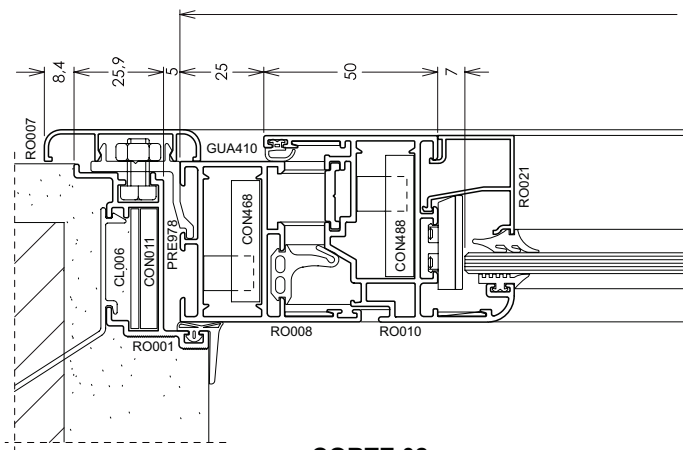
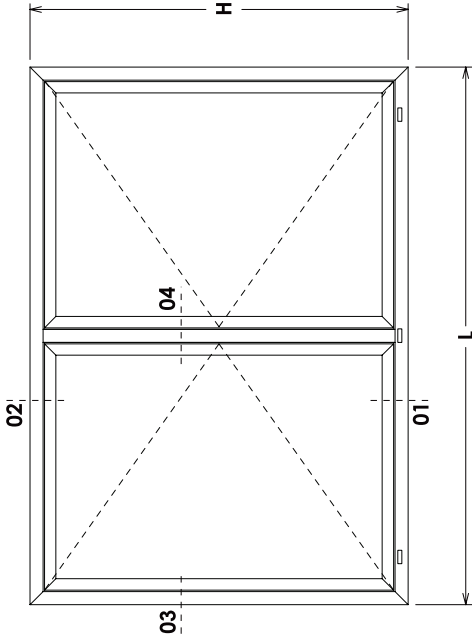
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**Janela De Giro 1 Folha Thermal Break**



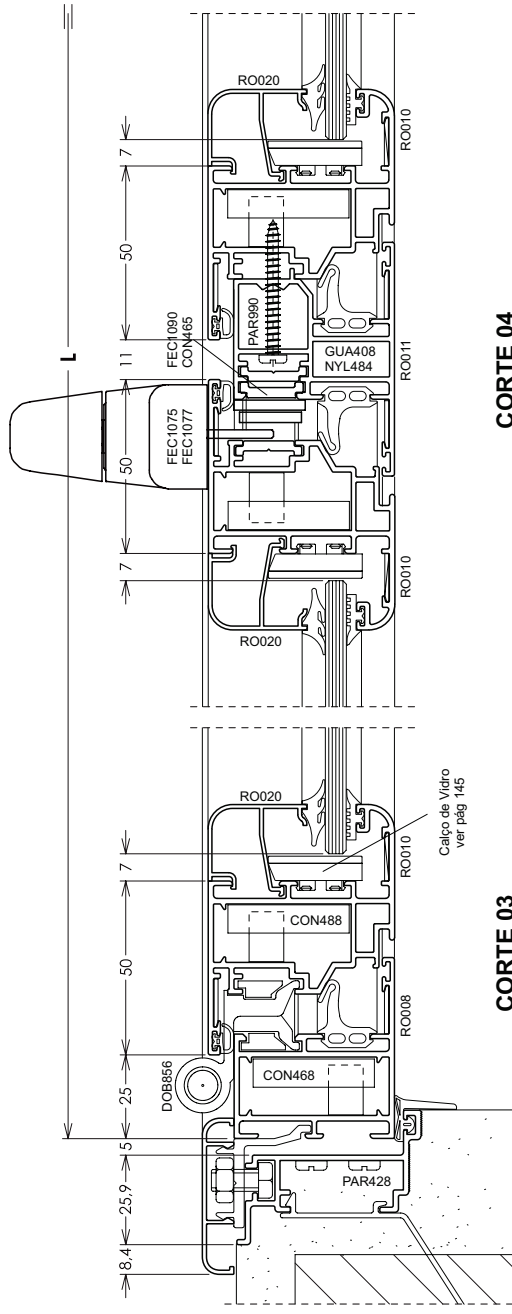
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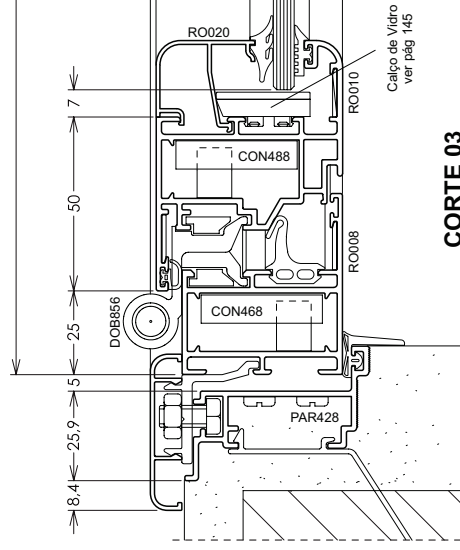
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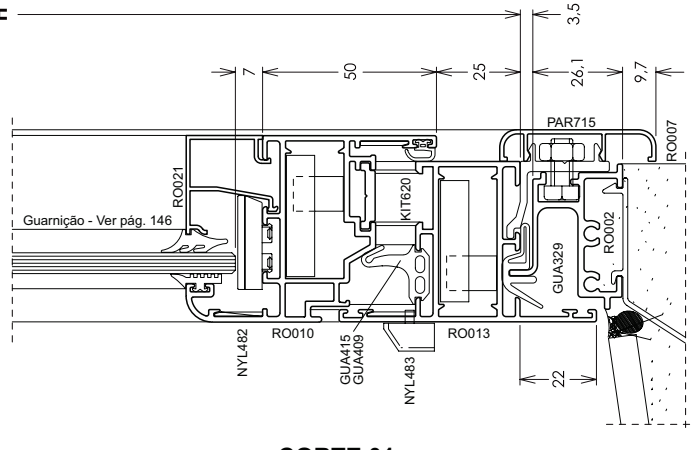


CORTE 04

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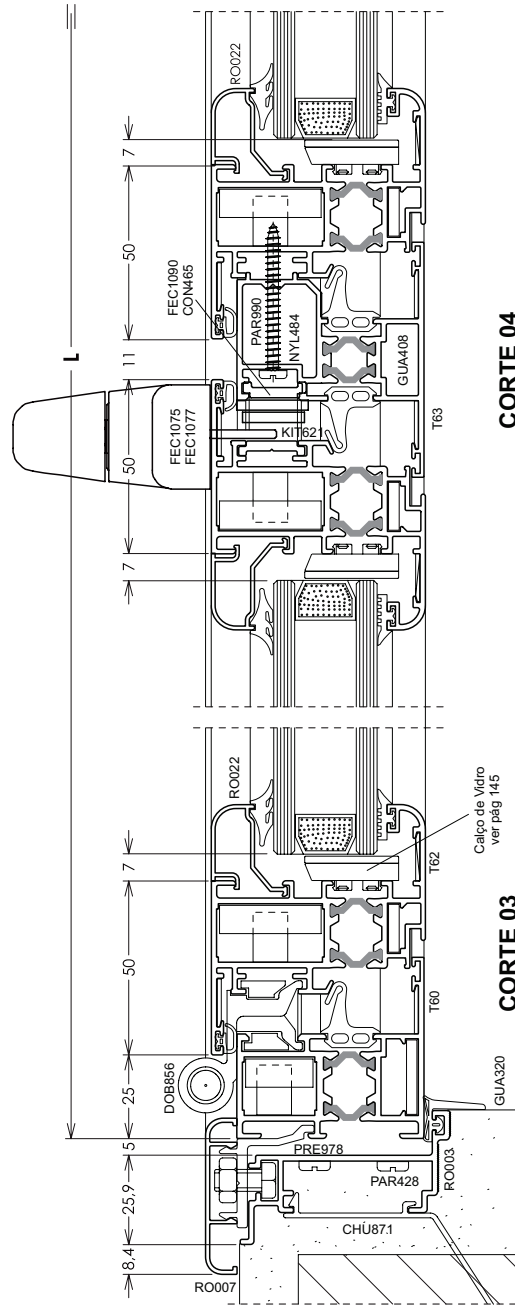
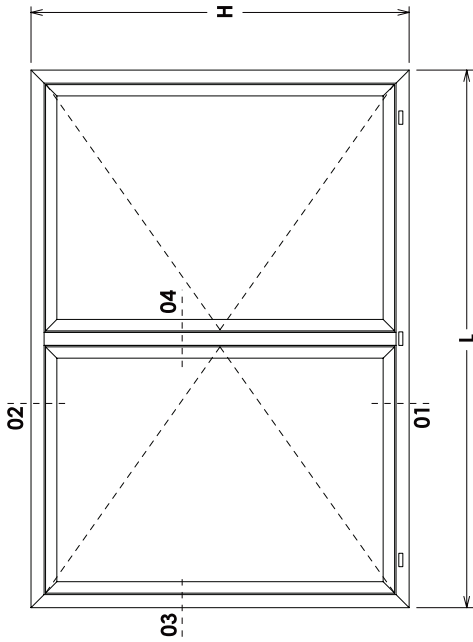
CORTE 03



CORTE 01

Janela De Giro 2 Folhas

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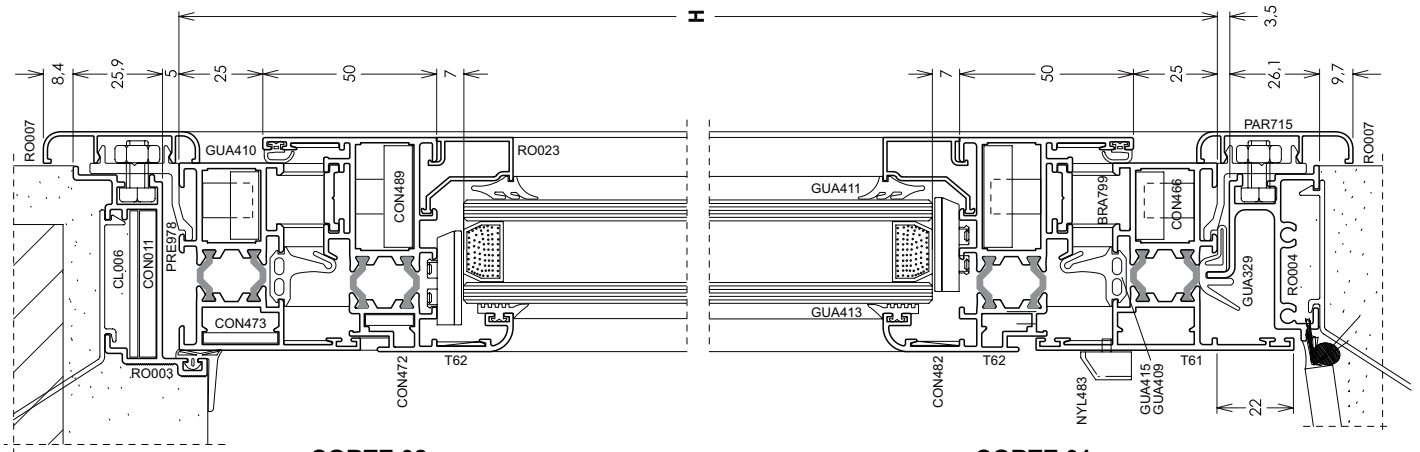


LADO EXTERNO

CORTE 04

CORTE 03

Janela De Giro 2 Folhas Thermal Break

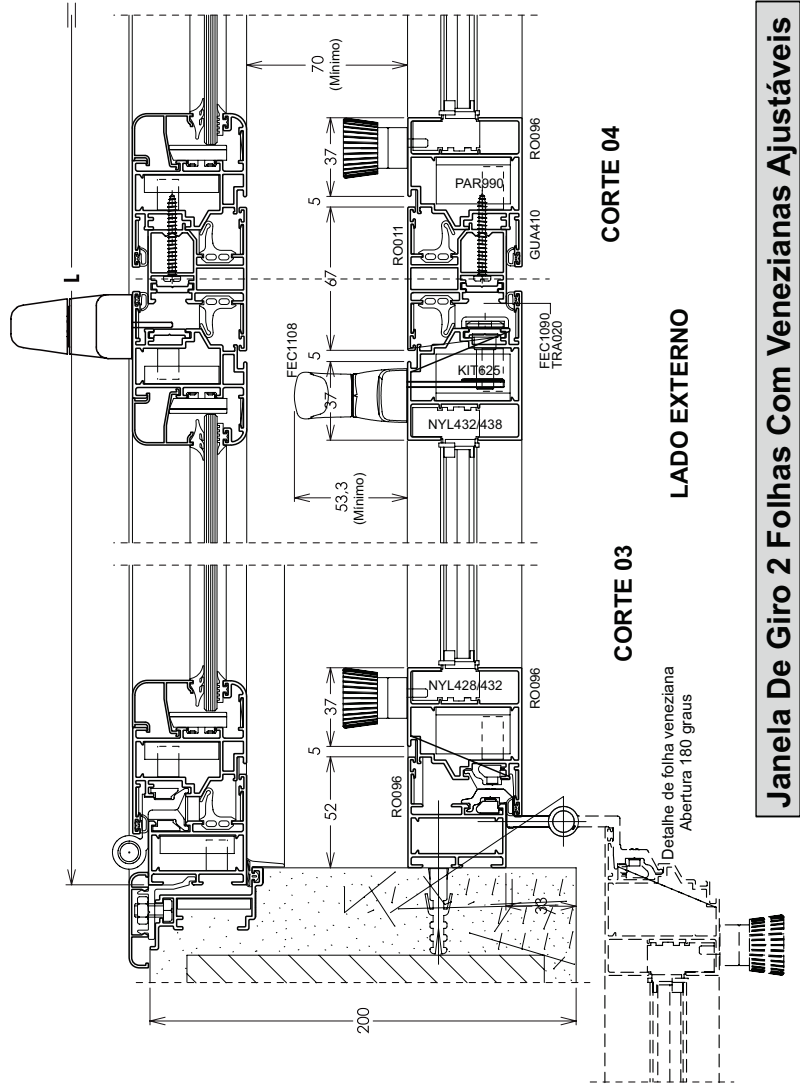
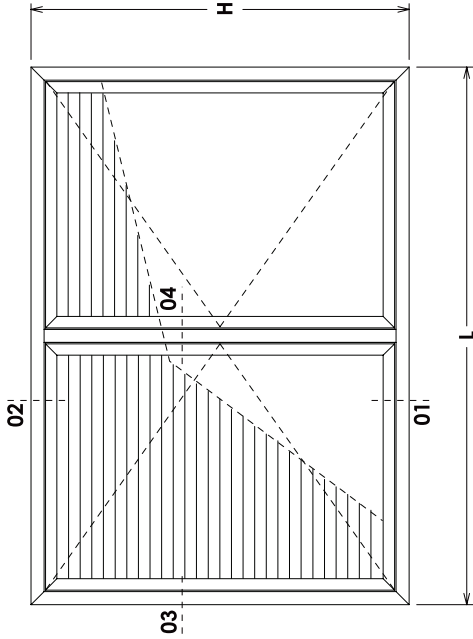


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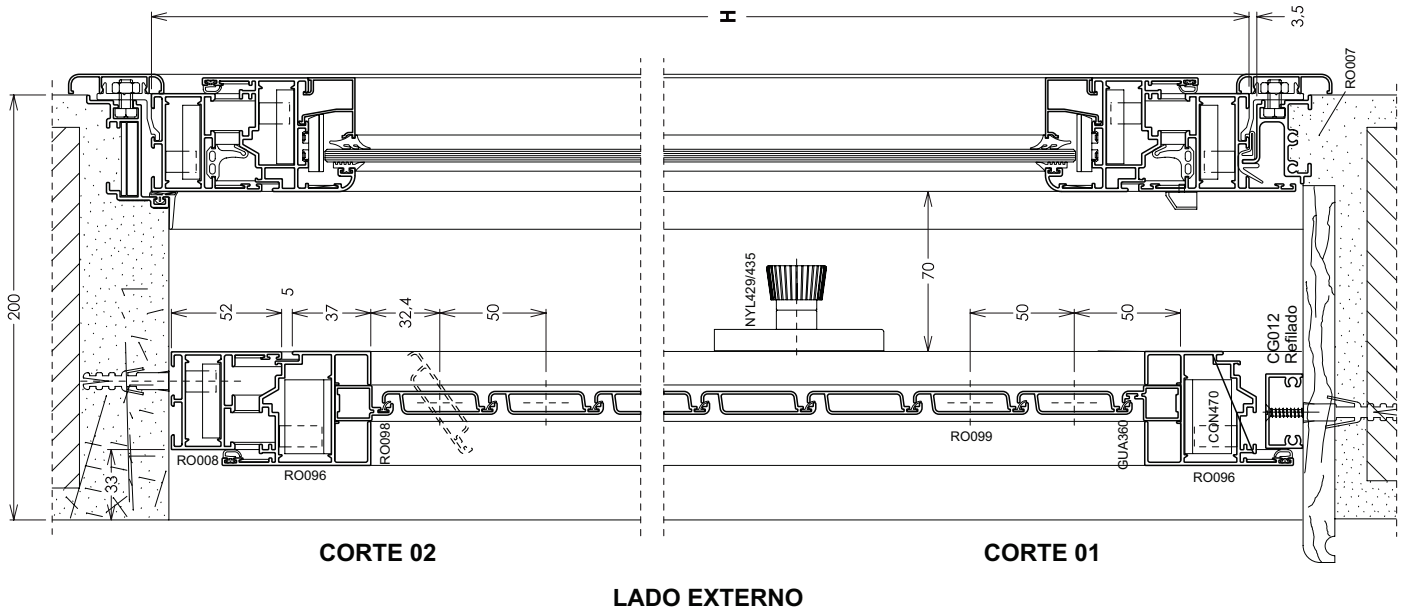
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ELEVAÇÃO VISTA EXTERNA

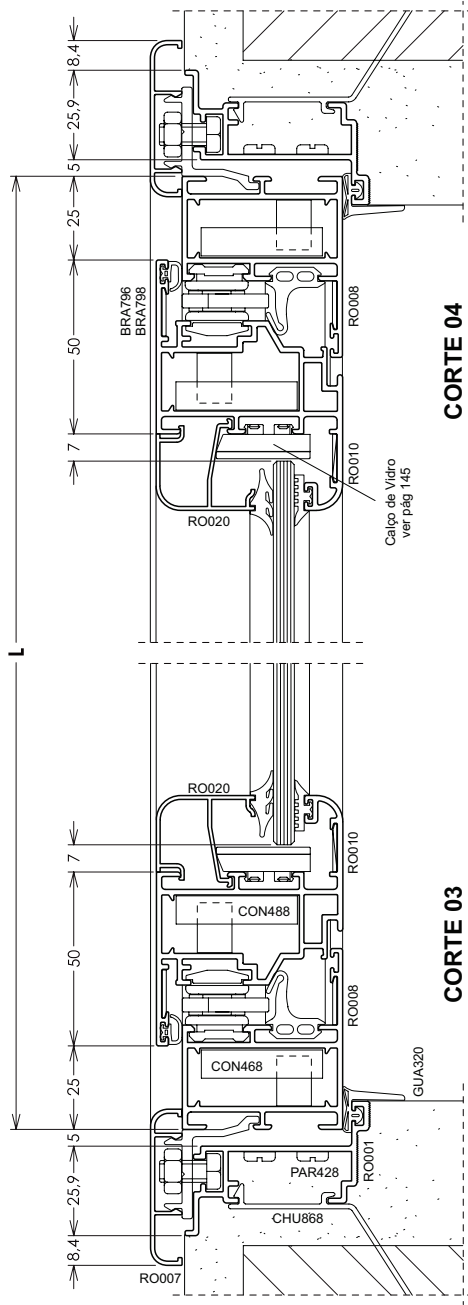
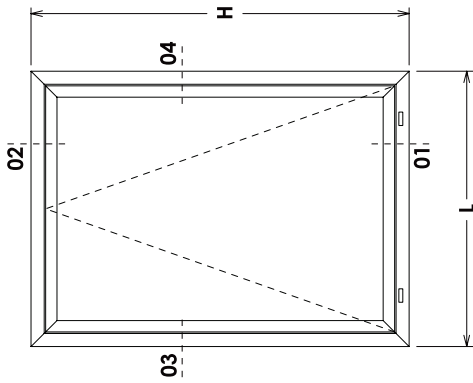


Janela De Giro 2 Folhas Com Venezianas Ajustáveis



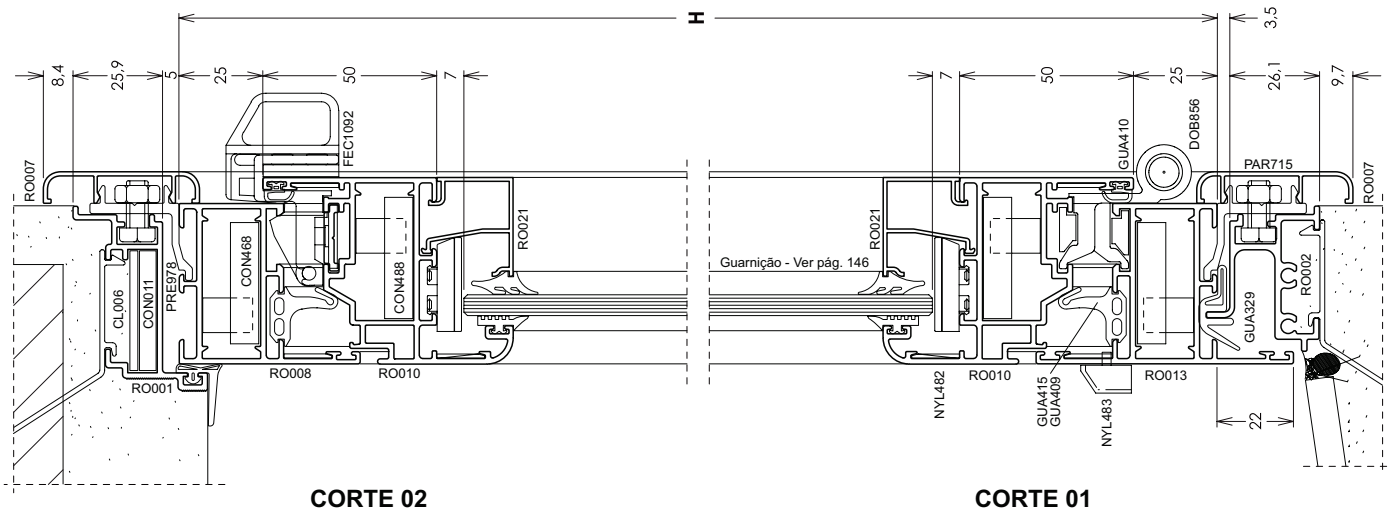
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LADO EXTERNO

Janela De Bombas 1 Folha

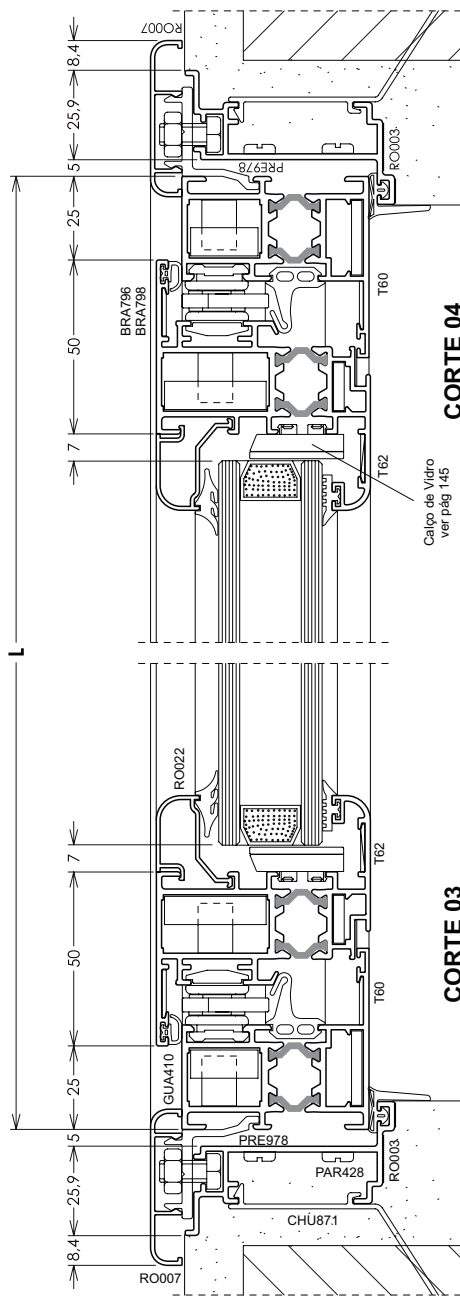
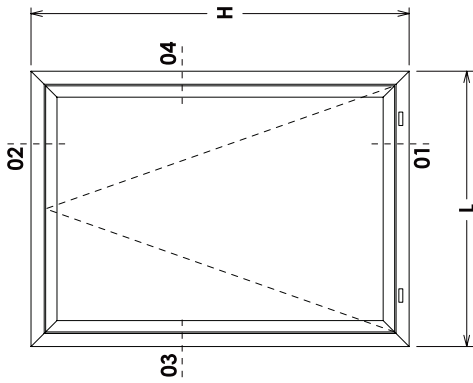


CORTE 02

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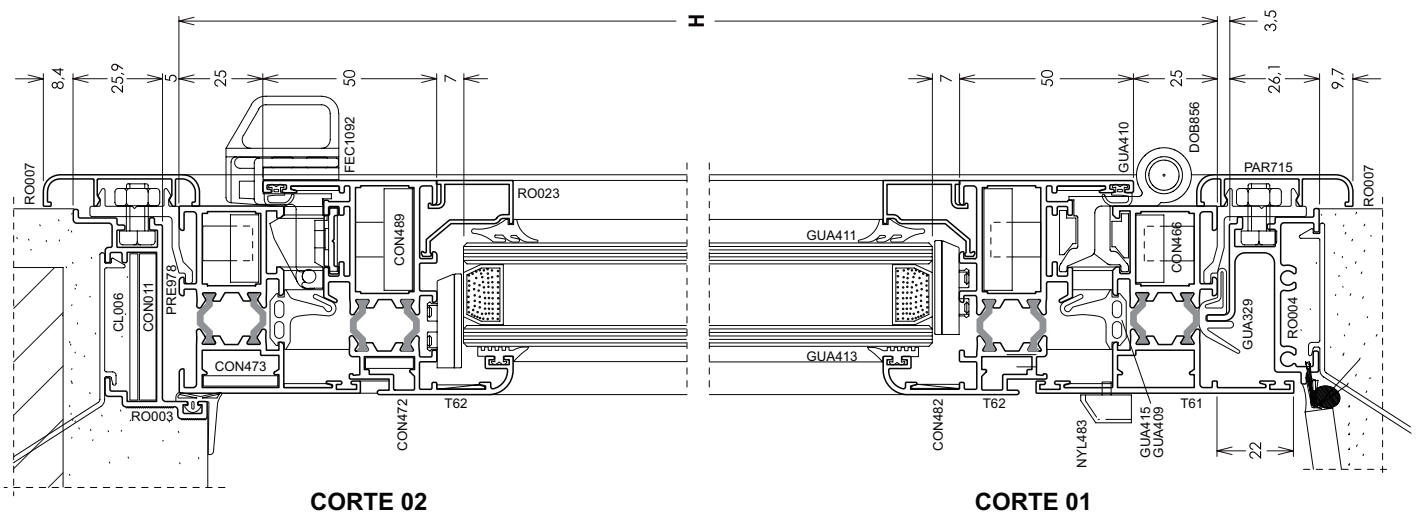
LADO EXTERNO

**ELEVAÇÃO VISTA EXTERNA**



**LADO EXTERNO**

**Janela De Tombar 1 Folha Thermal Break**



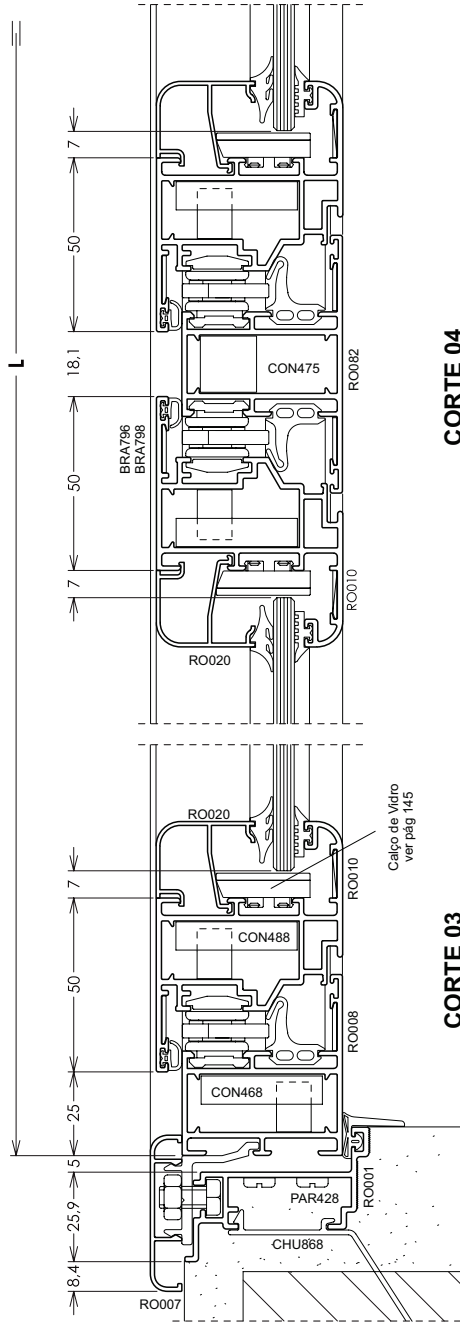
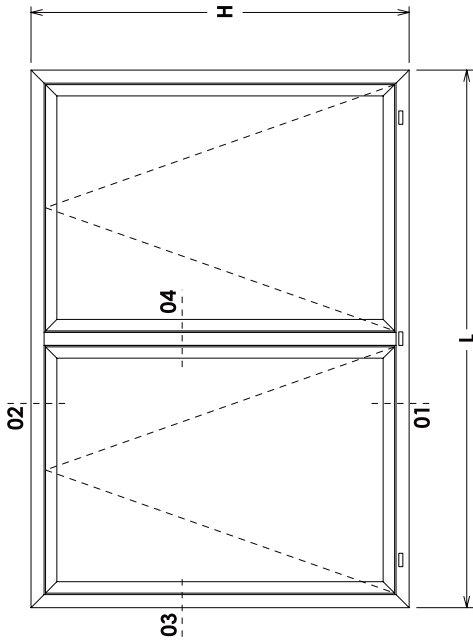
**CORTE 02**

**CORTE 01**

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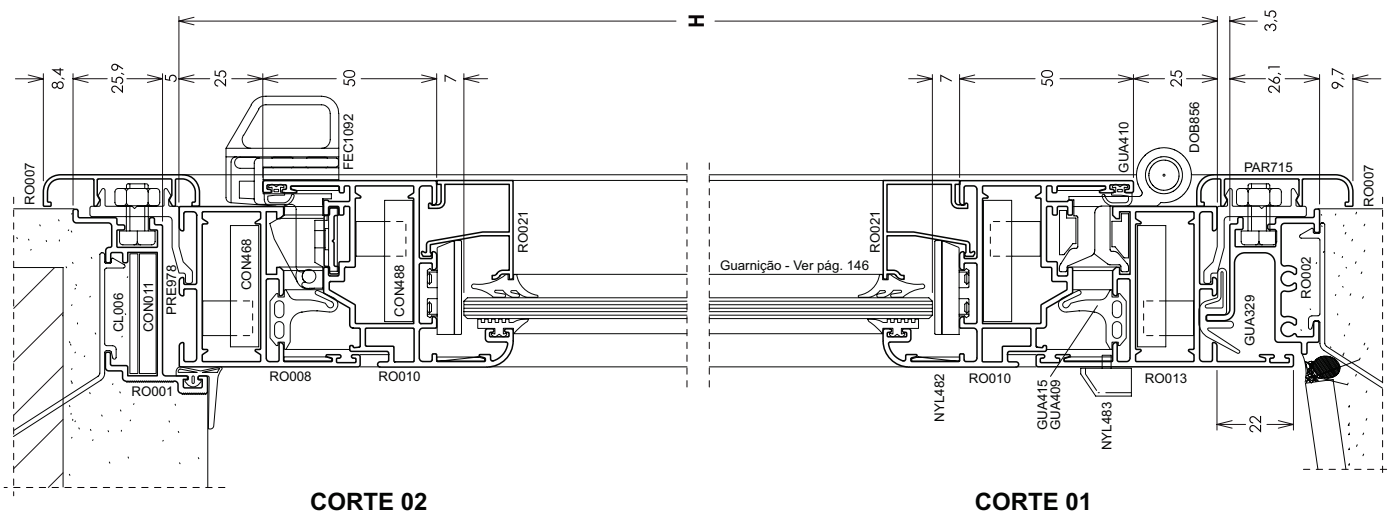


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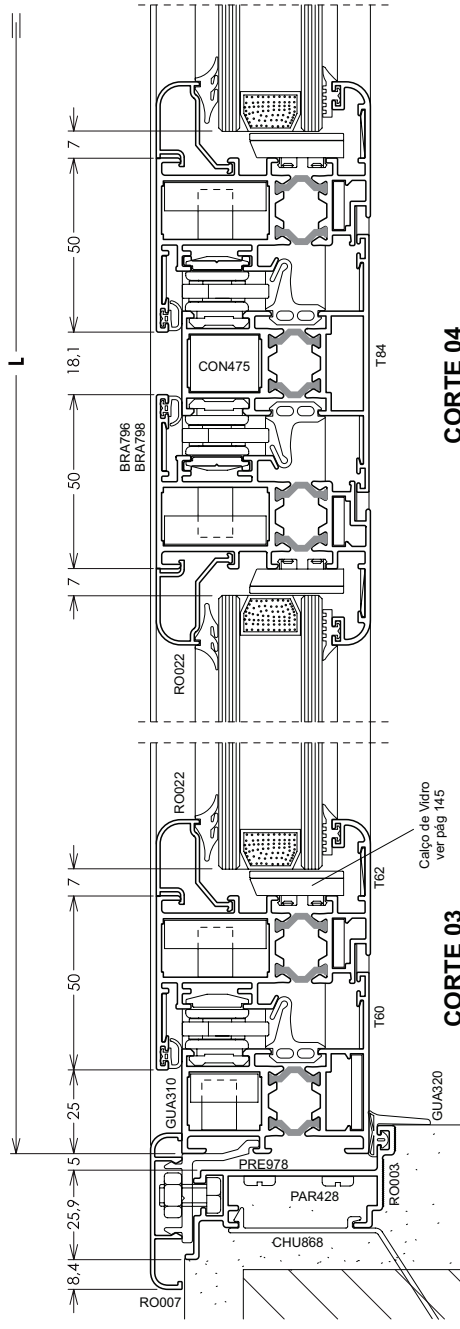
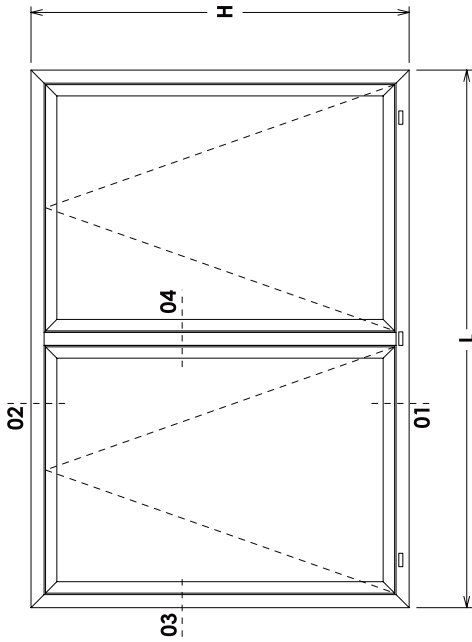
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**Janela De Bombas 2 Folhas**



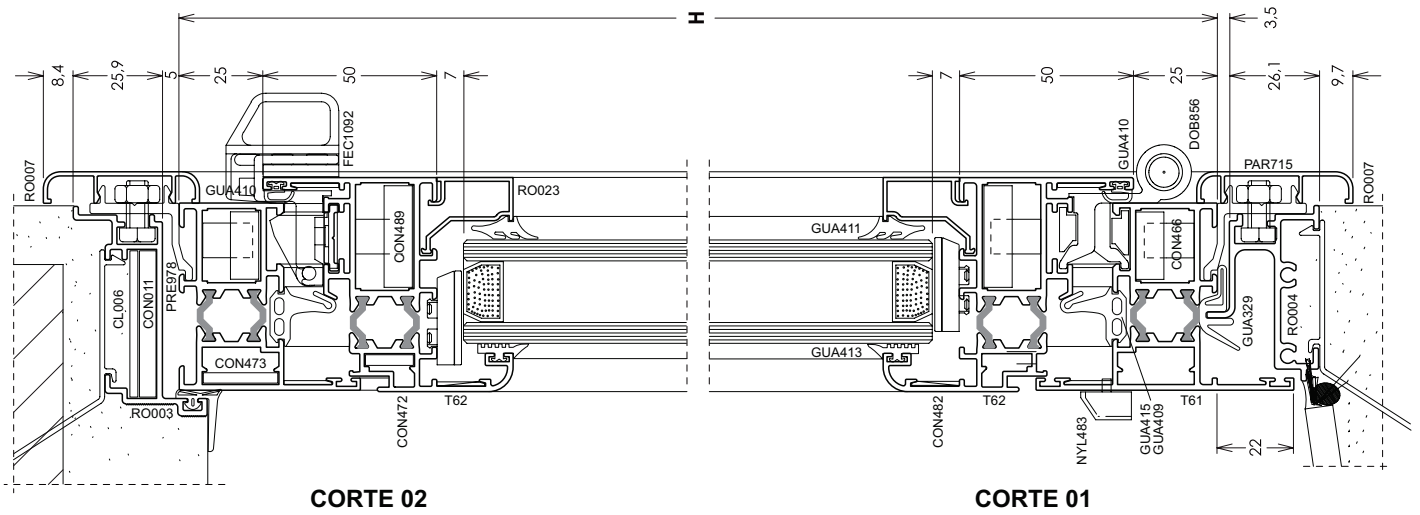
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**ELEVAÇÃO VISTA EXTERNA**



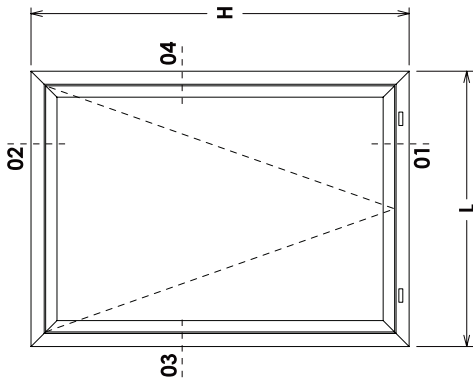
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**Janela De Tombar 2 Folhas Thermal Break**

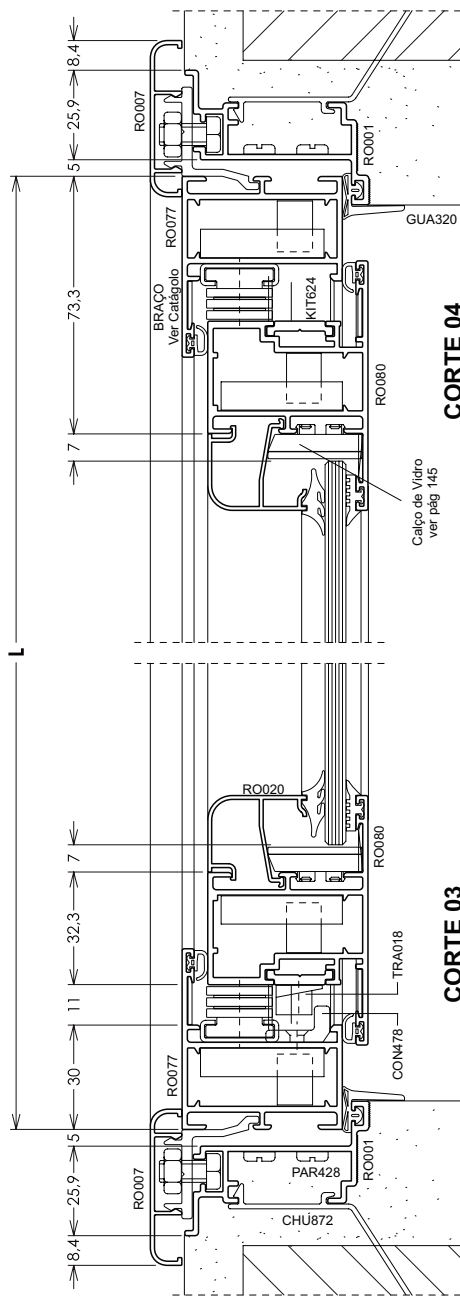


**LADO EXTERNO**

**ELEVAÇÃO VISTA EXTERNA**

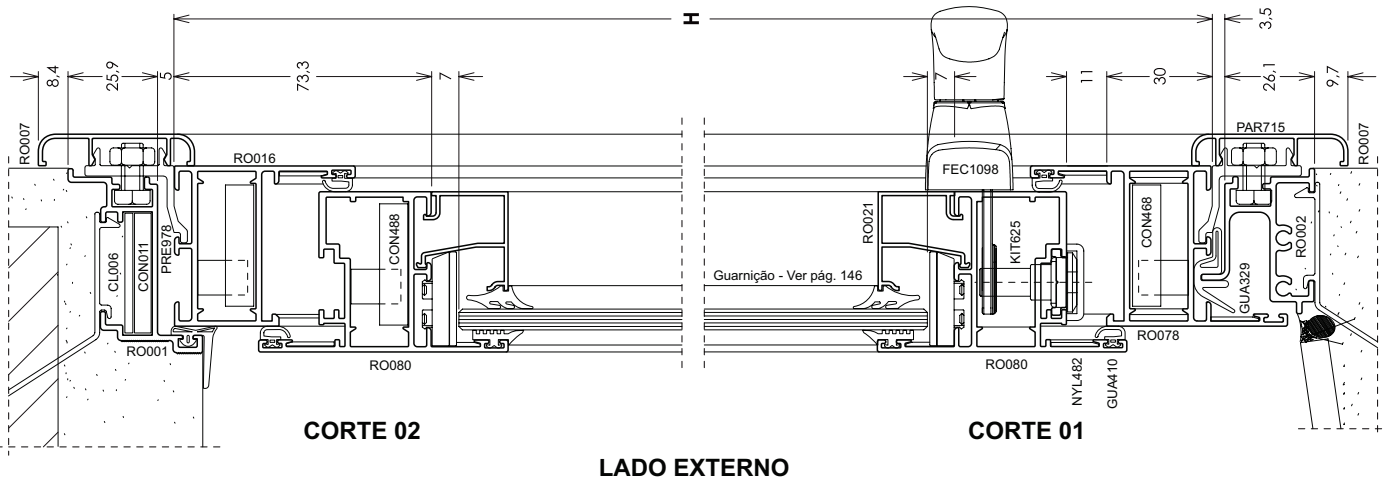


Utilizar limitador de abertura para folhas c/ altura acima de 1200 mm.



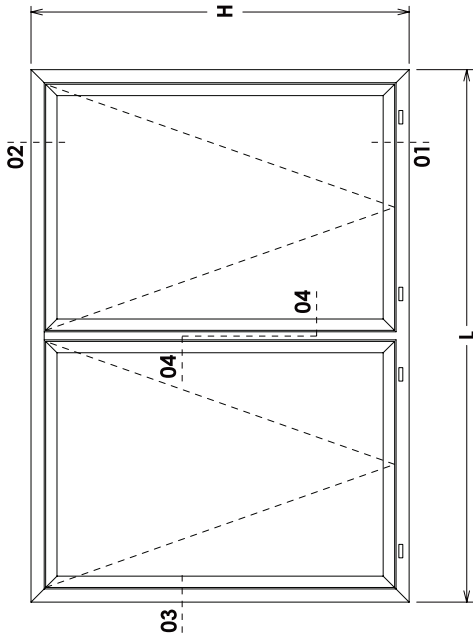
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**Janela Maxim-ar 1 Folha**

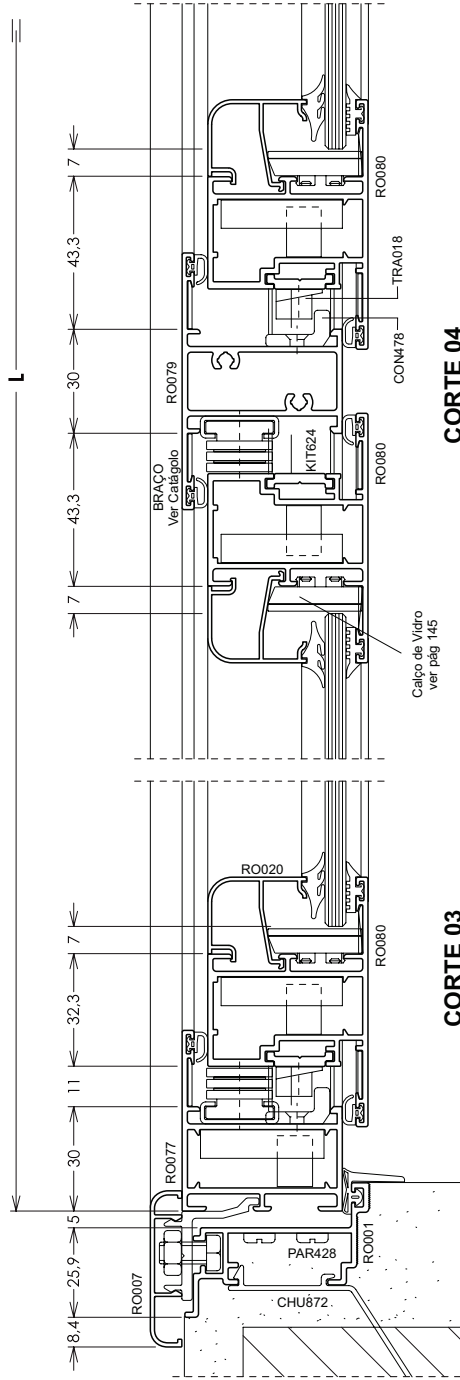


**LADO EXTERNO**

**ELEVAÇÃO VISTA EXTERNA**



Utilizar limitador de abertura para folhas c/ altura acima de 1200 mm.

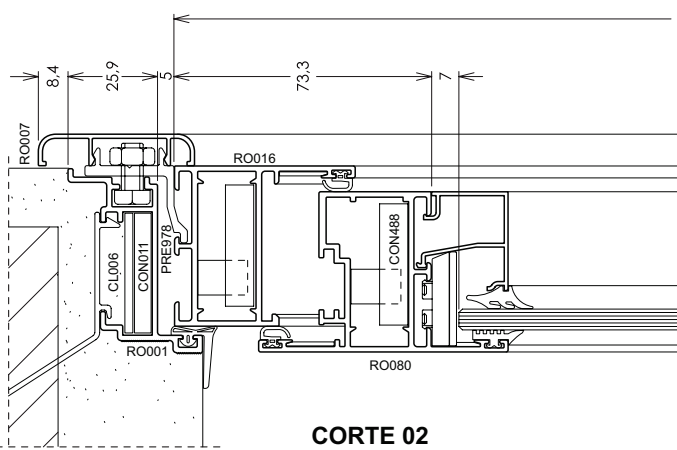


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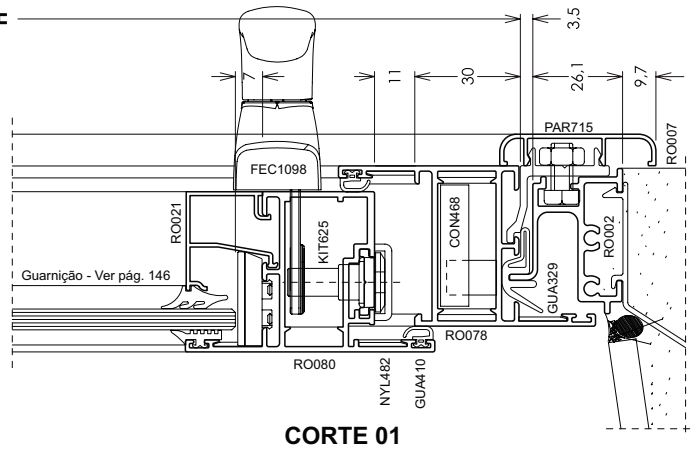
**CORTE 03**

**CORTE 04**

**Janela Maxim-ar 2 Folhas**



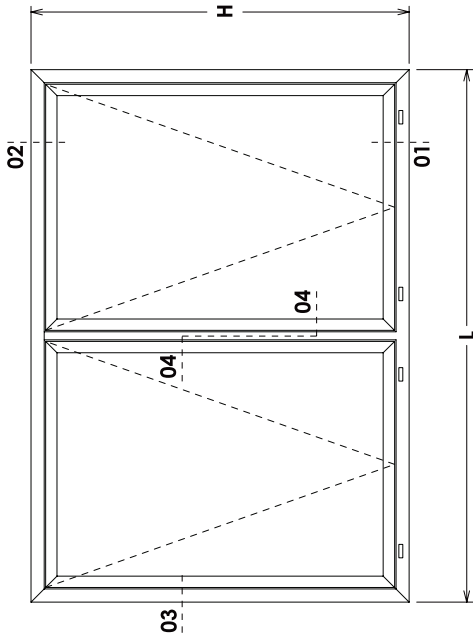
**CORTE 02**



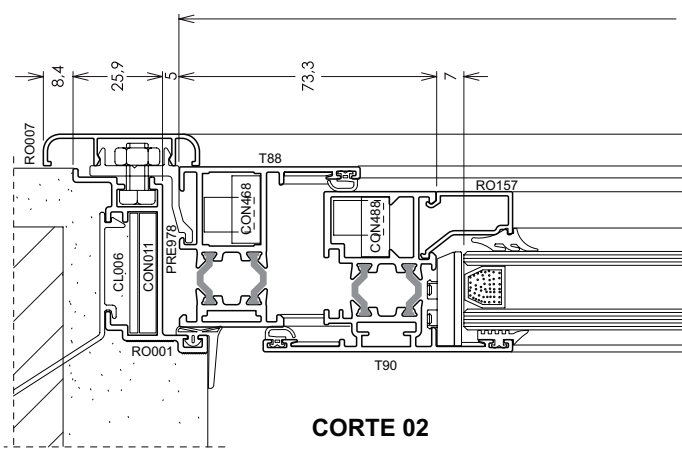
**CORTE 01**

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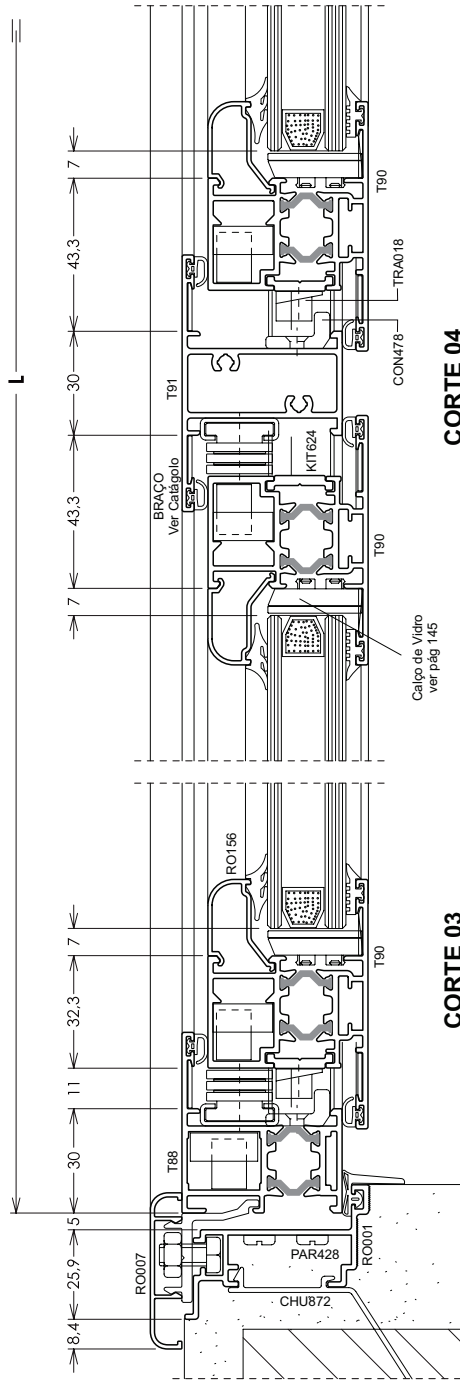
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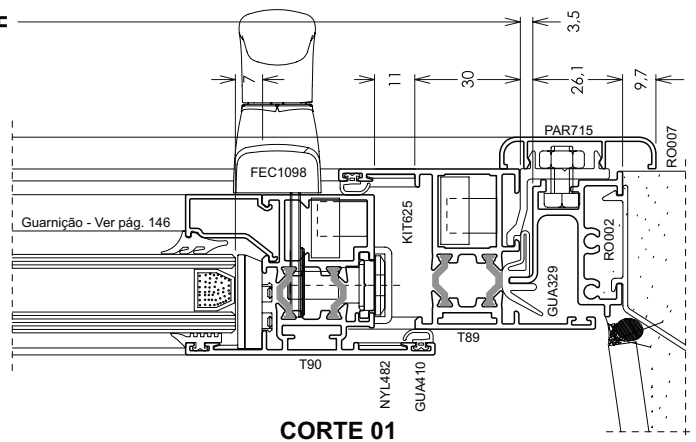
Utilizar limitador de abertura para folhas c/ altura acima de 1200 mm.



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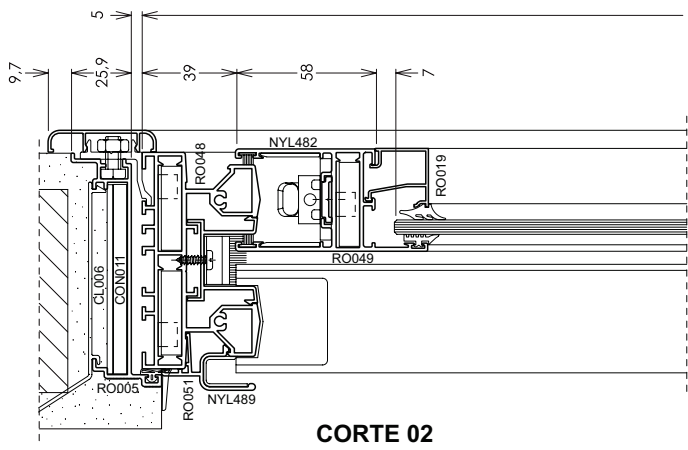
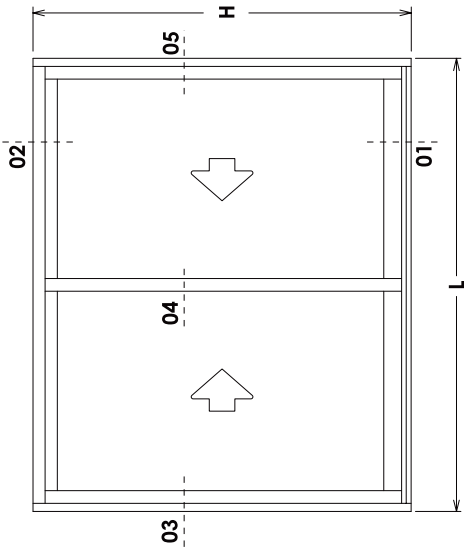


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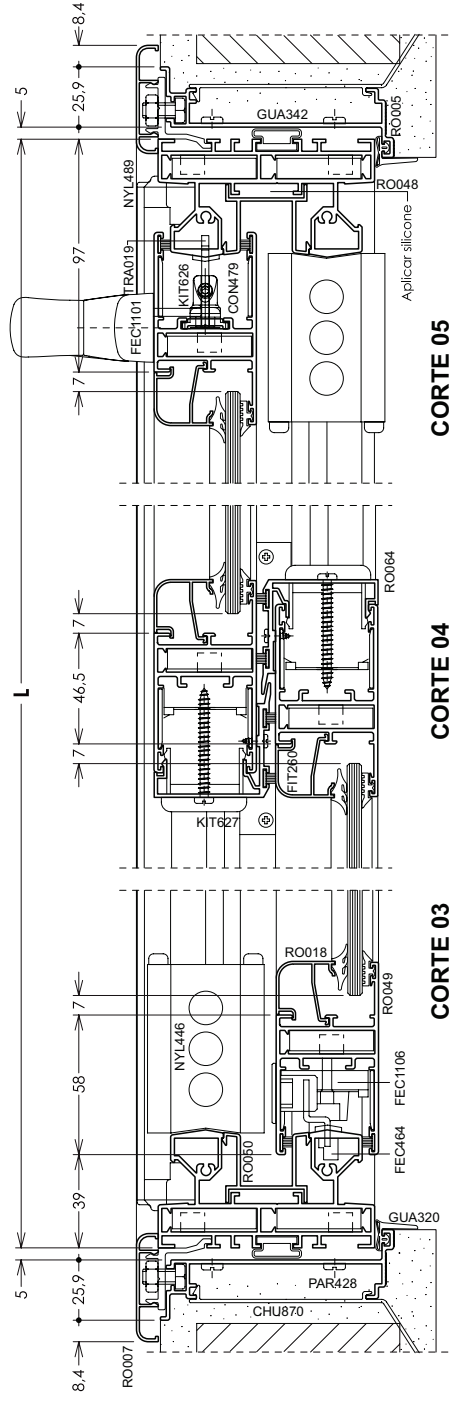
**Janela Maxim-ar 2 Folhas Thermal Break**

ELEVAÇÃO VISTA EXTERNA



CORTE 02

LADO EXTERNO

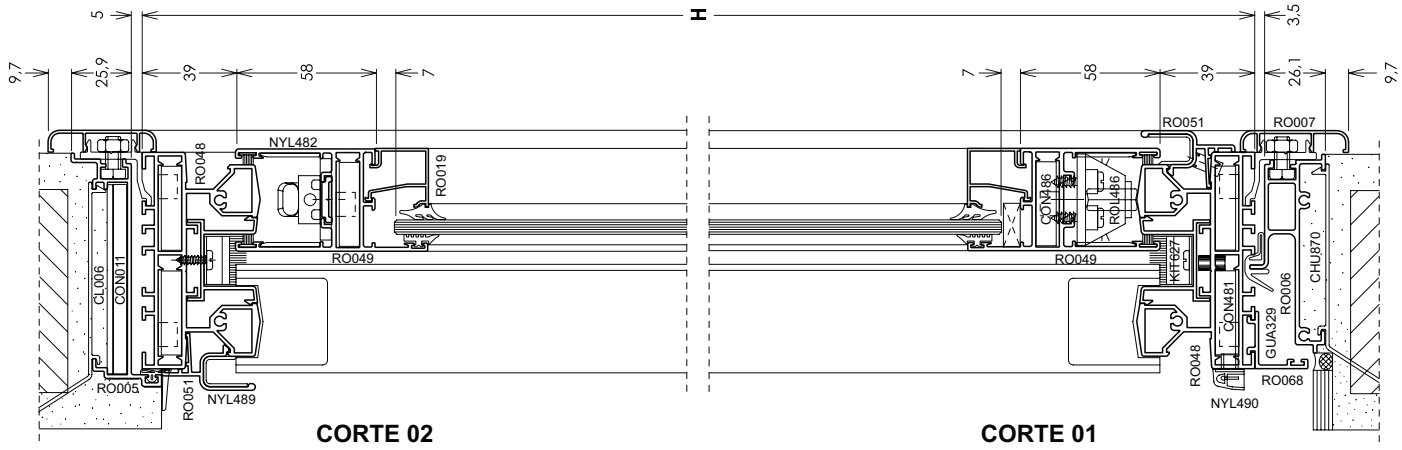


CORTE 03

CORTE 04

CORTE 05

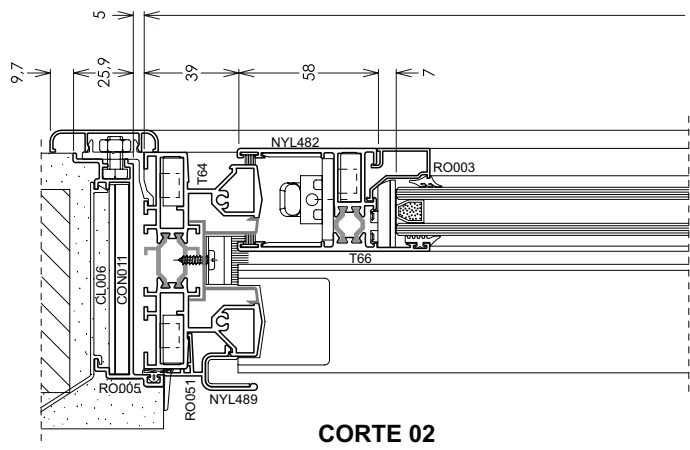
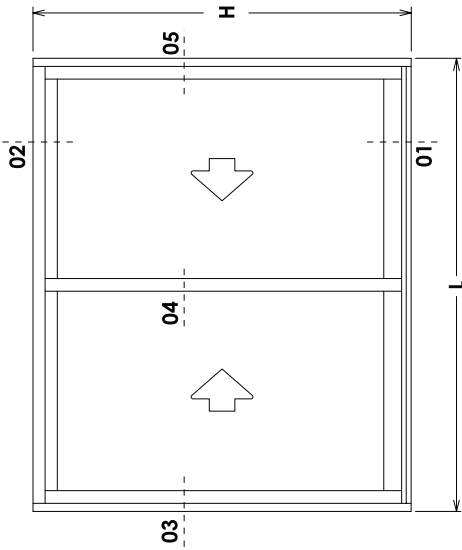
LADO EXTERNO



CORTE 01

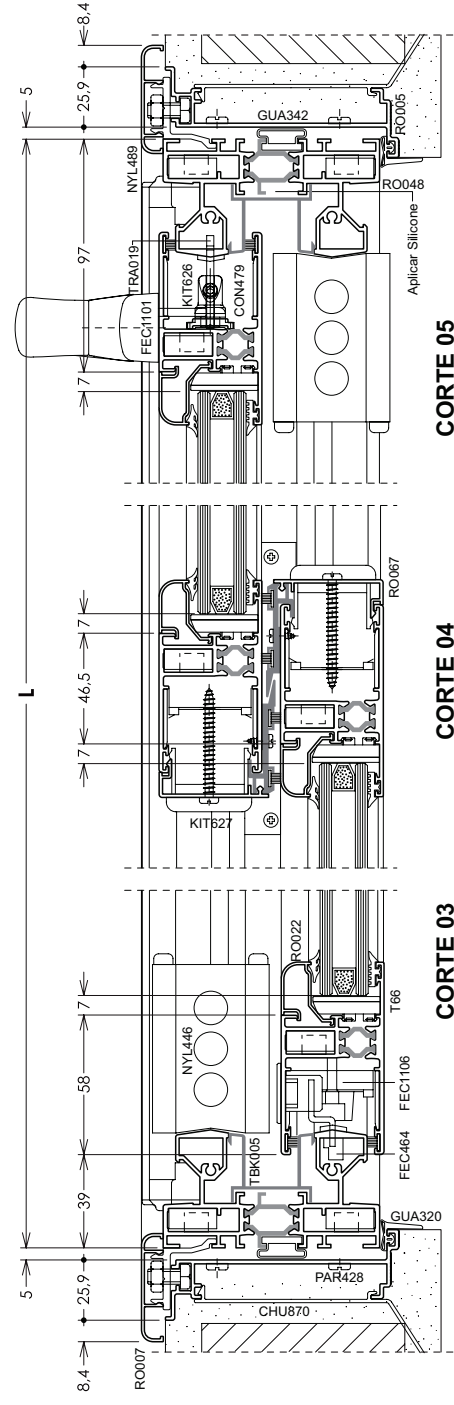
Janela De Correr 2 Folhas

**ELEVAÇÃO VISTA EXTERNA**



**CORTE 02**

**LADO EXTERNO**

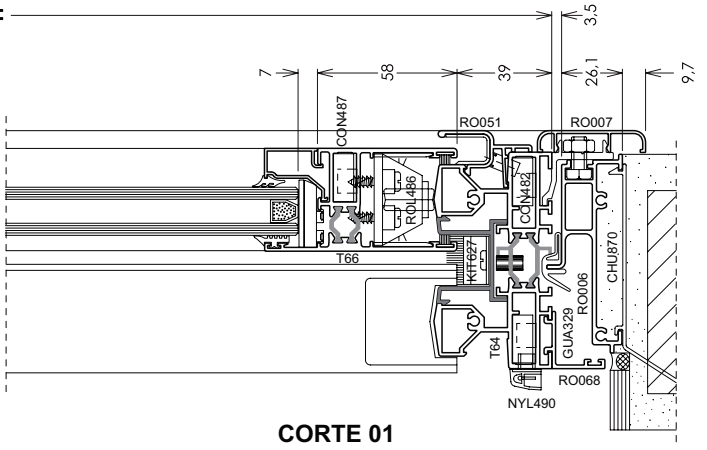


**CORTE 05**

**CORTE 04**

**CORTE 03**

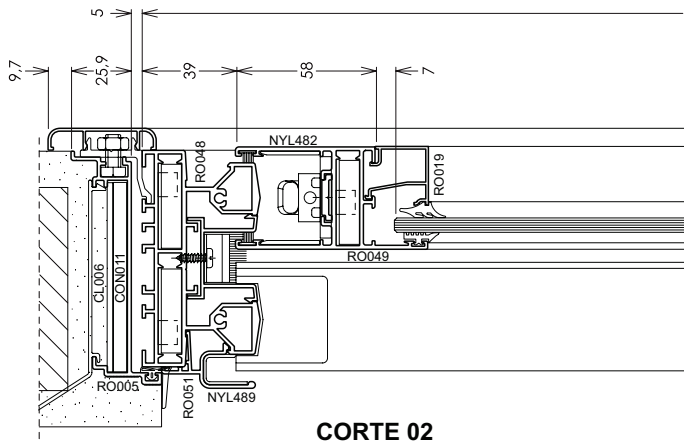
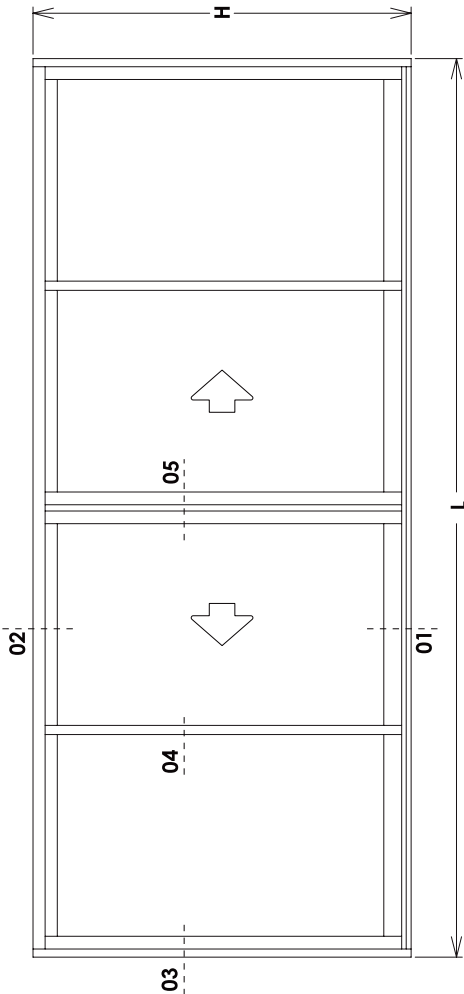
**LADO EXTERNO**



**CORTE 01**

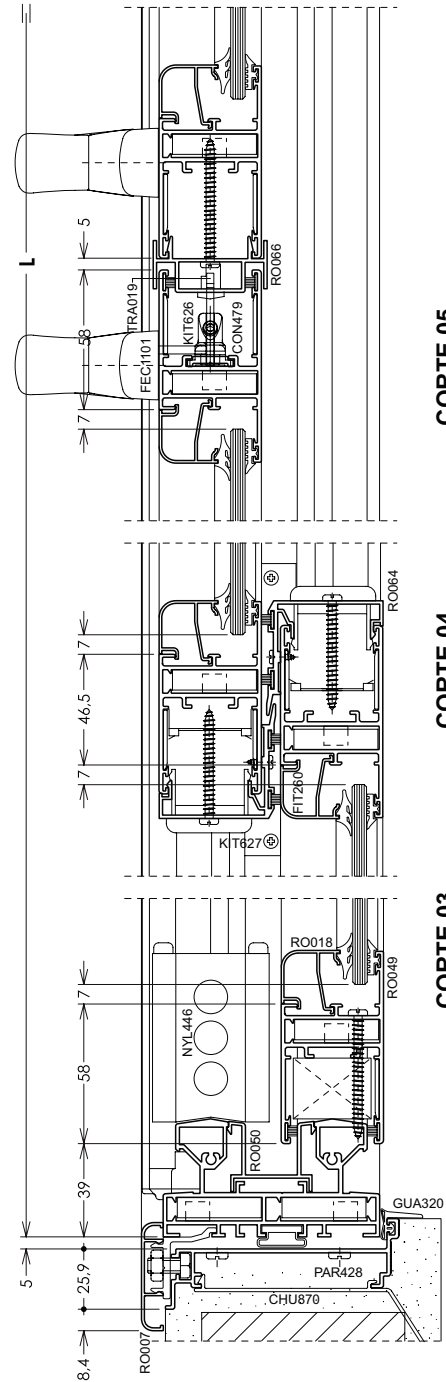
**Janela De Correr 2 Folhas - Multiponto Thermal Break**

ELEVAÇÃO VISTA EXTERNA



CORTE 02

LADO EXTERNO

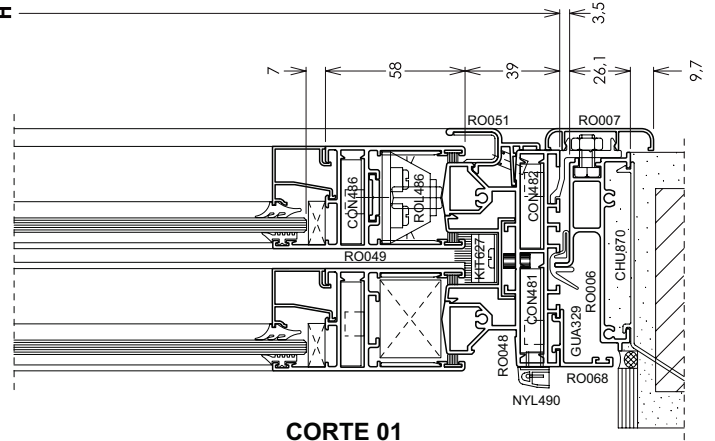


CORTE 03

CORTE 04

CORTE 05

LADO EXTERNO

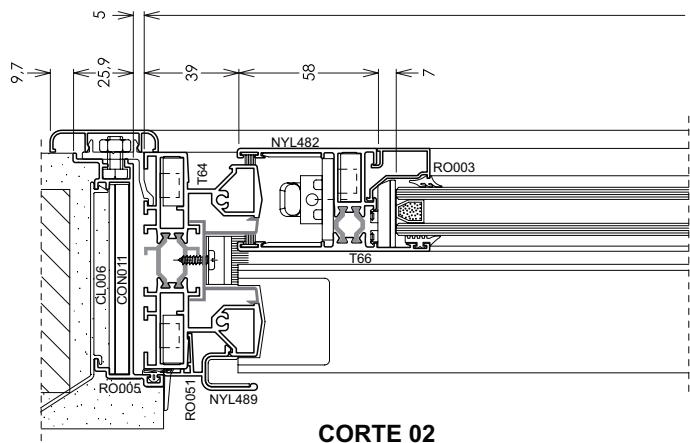
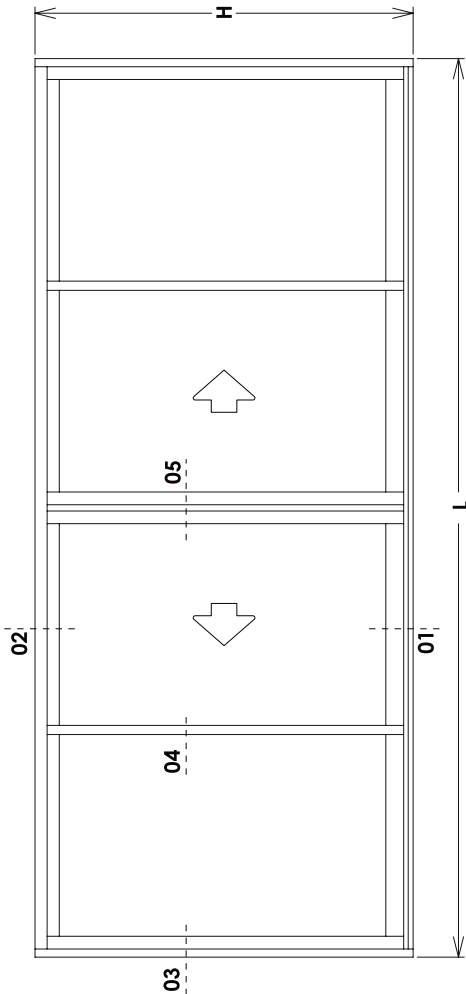


CORTE 01

Janela De Correr 4 Folhas - Multiponto

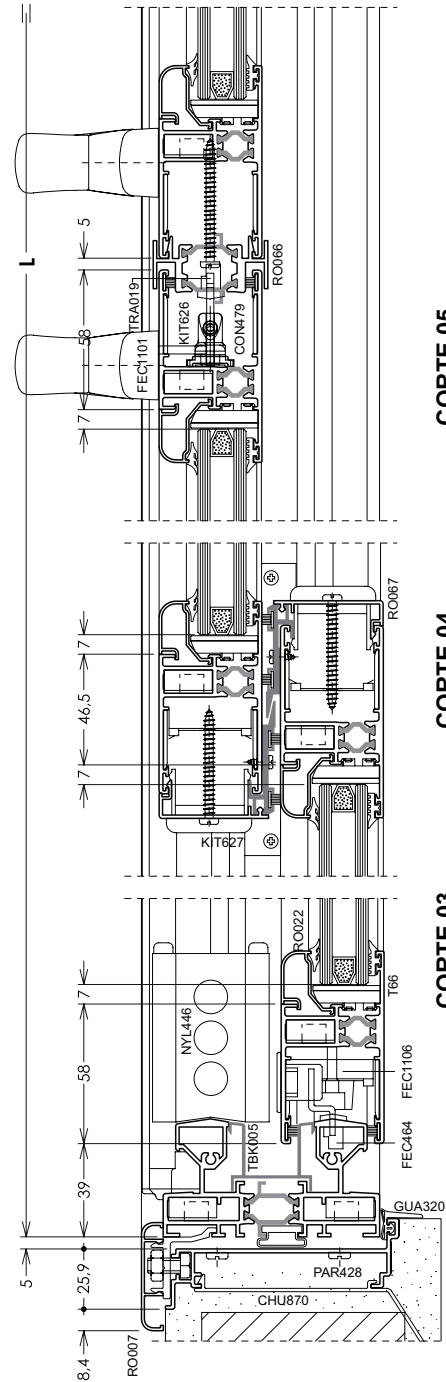


ELEVAÇÃO VISTA EXTERNA



CORTE 02

LADO EXTERNO

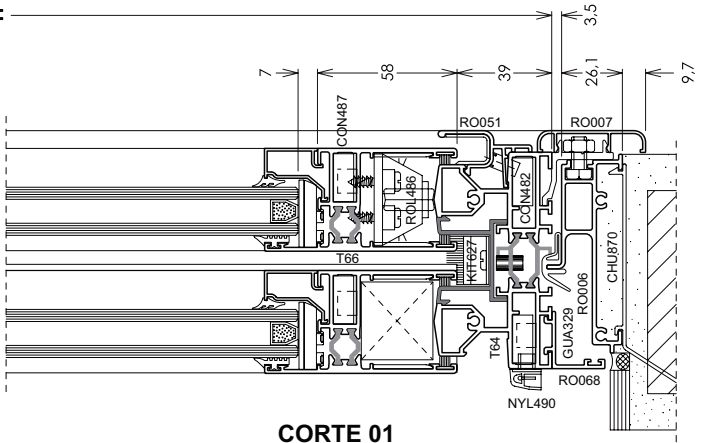


CORTE 03

CORTE 04

CORTE 05

LADO EXTERNO

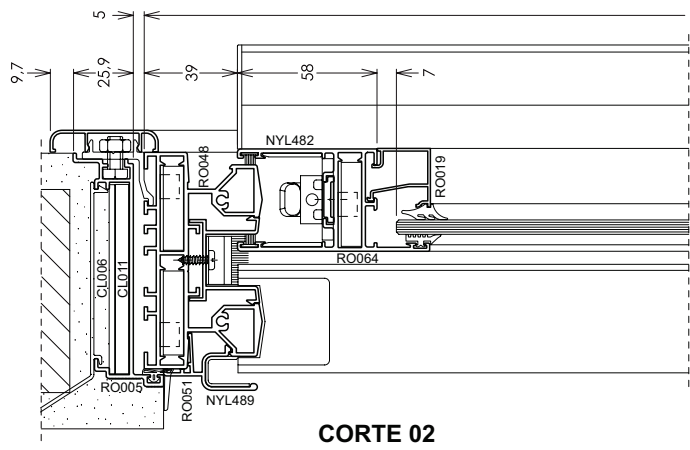
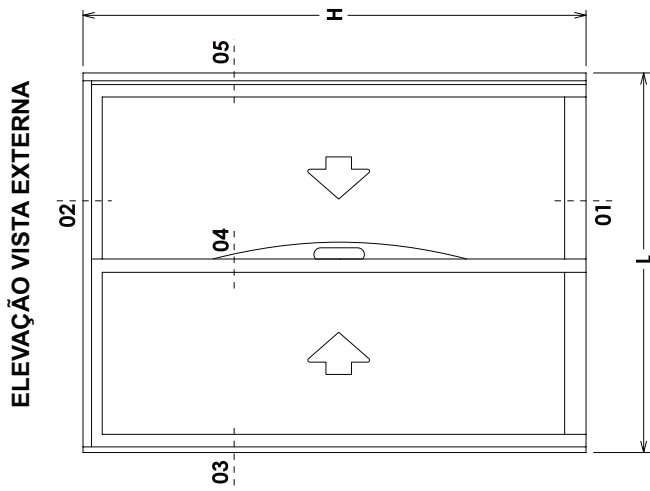


CORTE 01

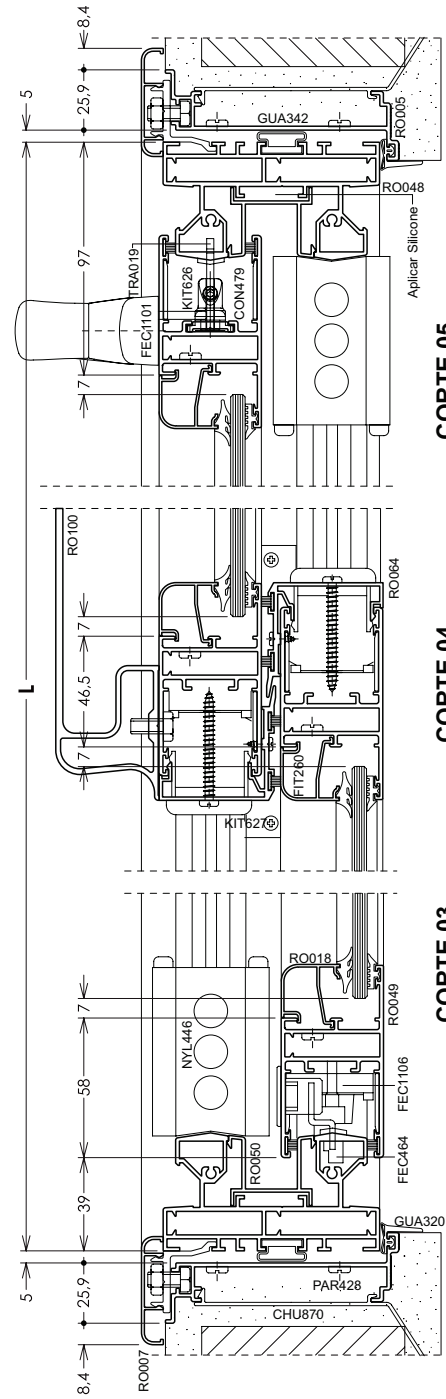
Janela De Correr 4 Folhas - Multiponto Thermal Break







**LADO EXTERNO**



**CORTE 05**

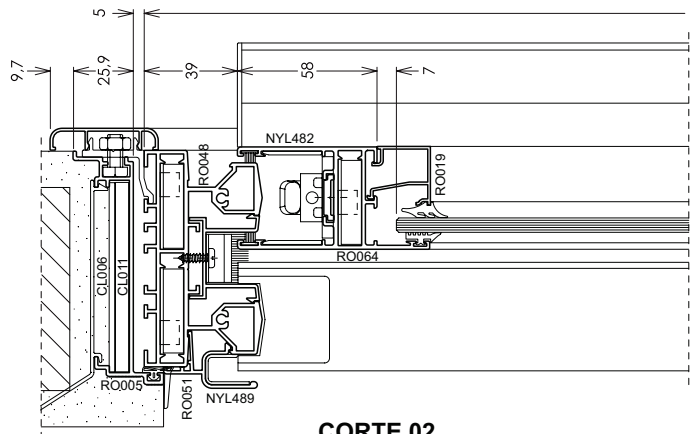
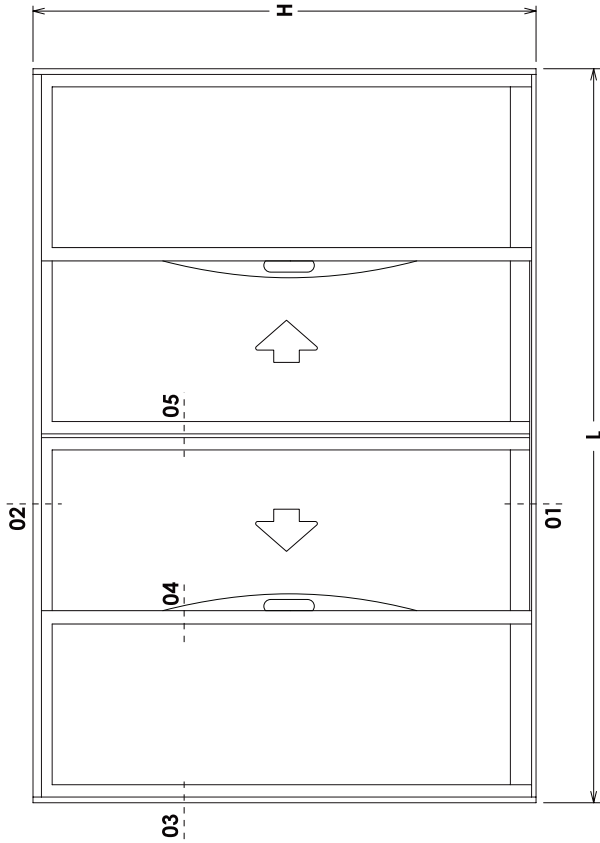
**CORTE 04**

**CORTE 03**

**LADO EXTERNO**

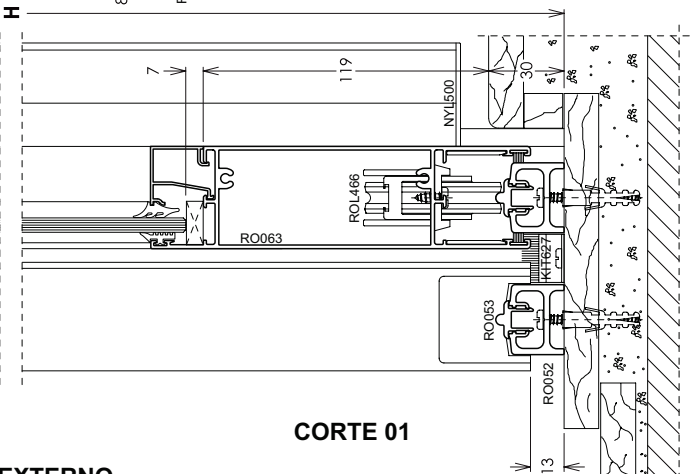
**Porta De Correr 2 Dolhas Com Reforço e Multiponto**

ELEVAÇÃO VISTA EXTERNA

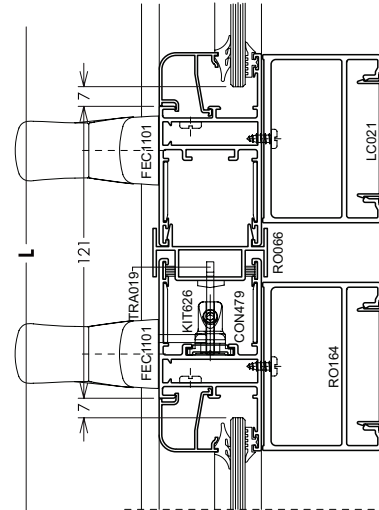


CORTE 02

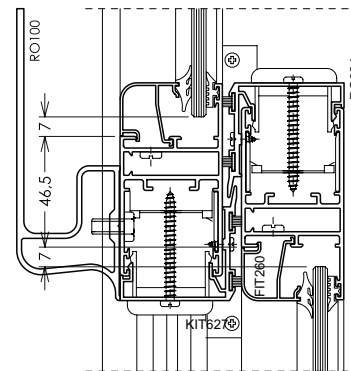
LADO EXTERNO



CORTE 01

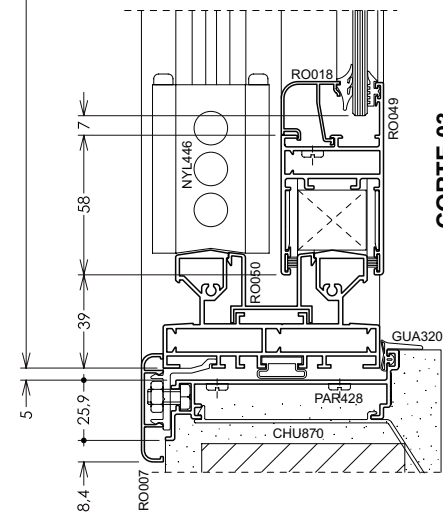


CORTE 05



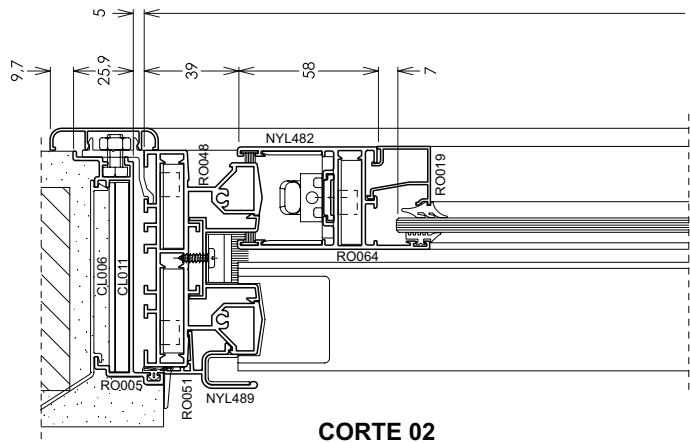
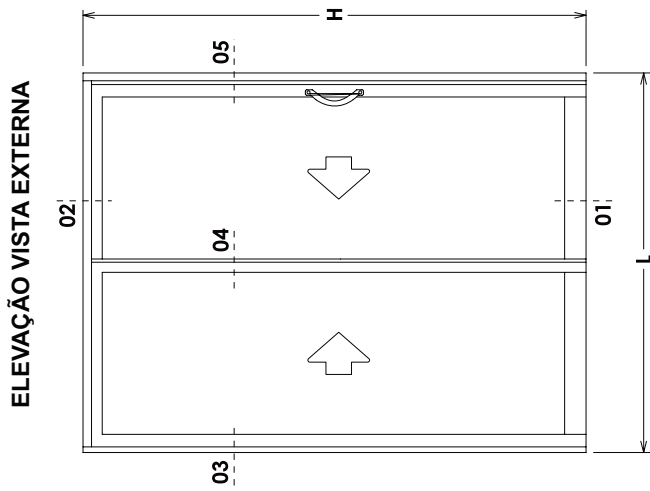
CORTE 04

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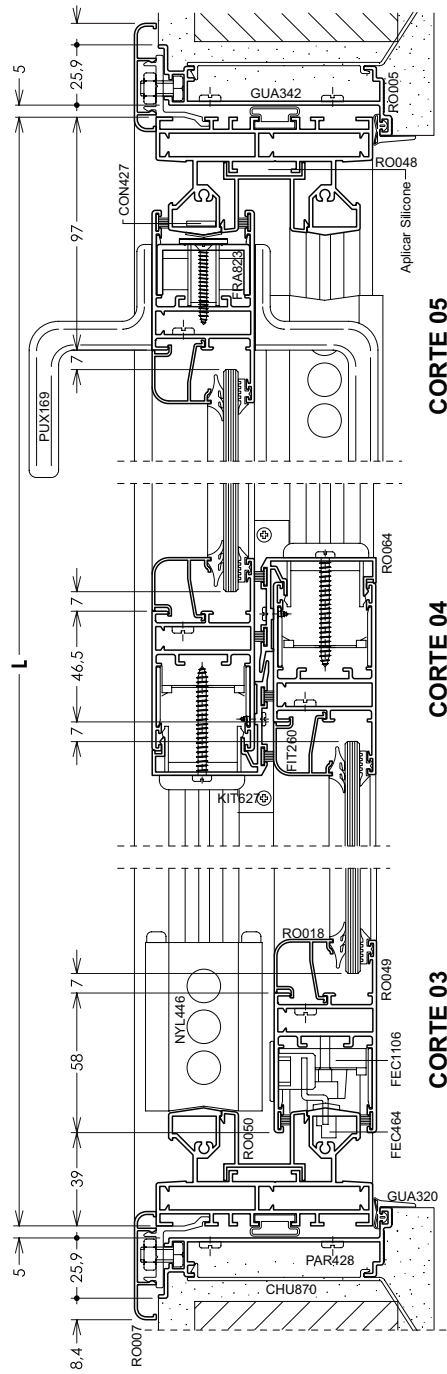


CORTE 03

Porta De Correr 4 Folhas Com Reforço e Multiponto



**LADO EXTERNO**



**LADO EXTERNO**

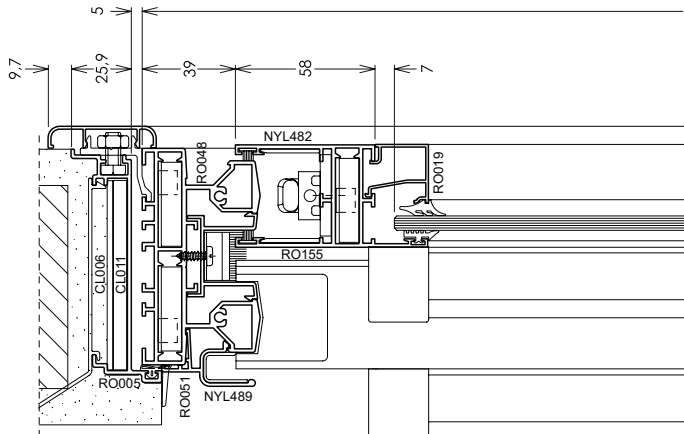
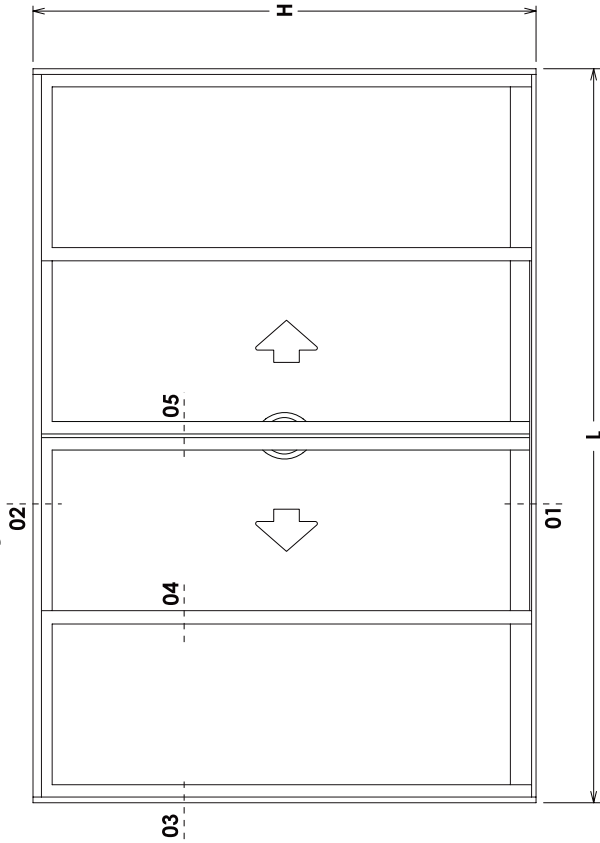
**Porta De Correr 2 Folhas Com Fechadura e Puxador**





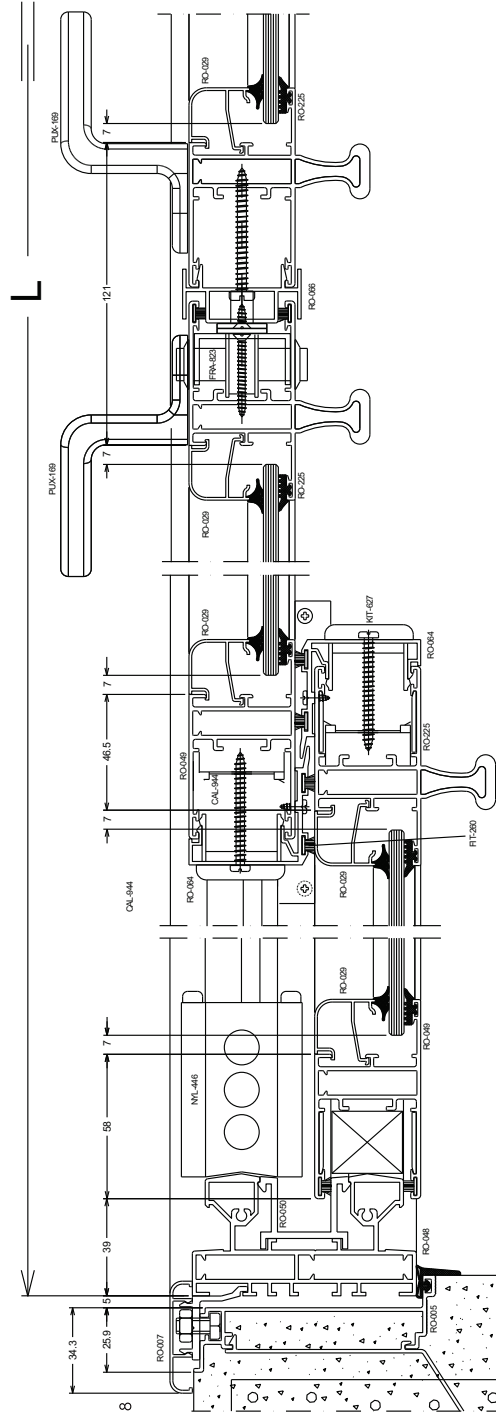


**ELEVAÇÃO VISTA EXTERNA**



**CORTE 02**

**LADO EXTERNO**

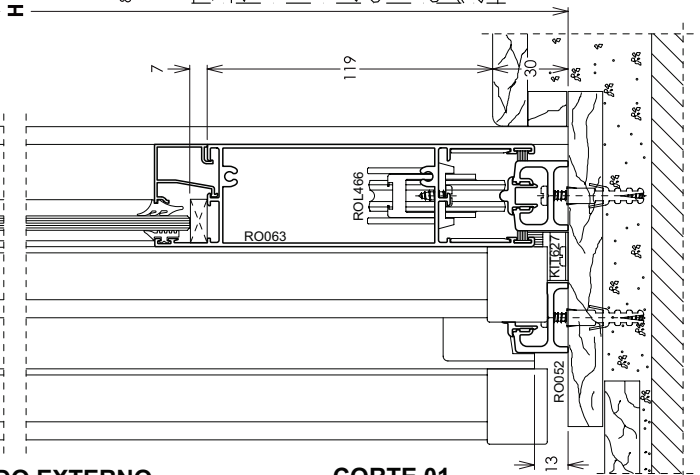


**CORTE 03**

**CORTE 04**

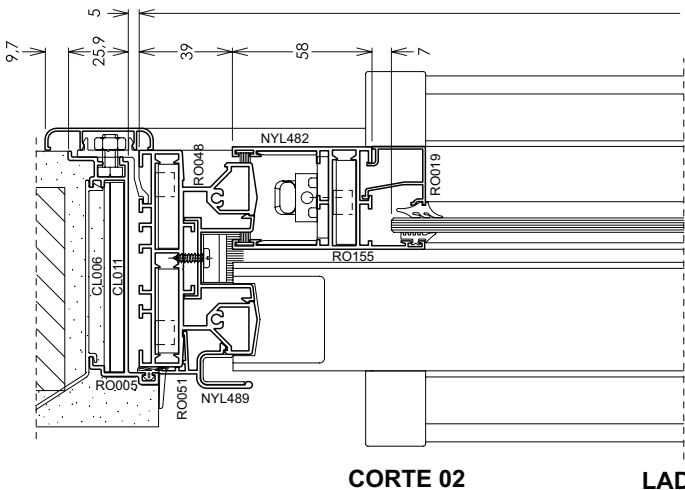
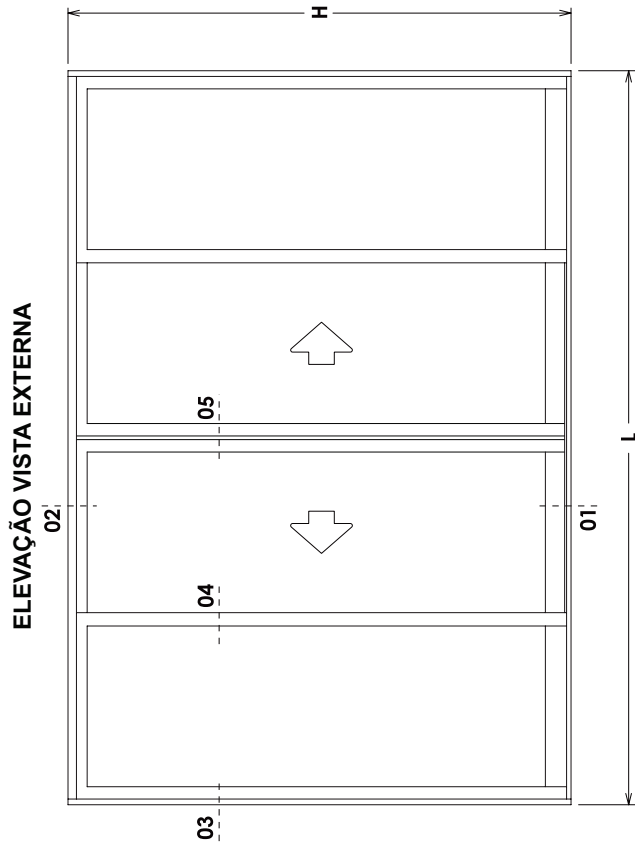
**CORTE 05**

**LADO EXTERNO**



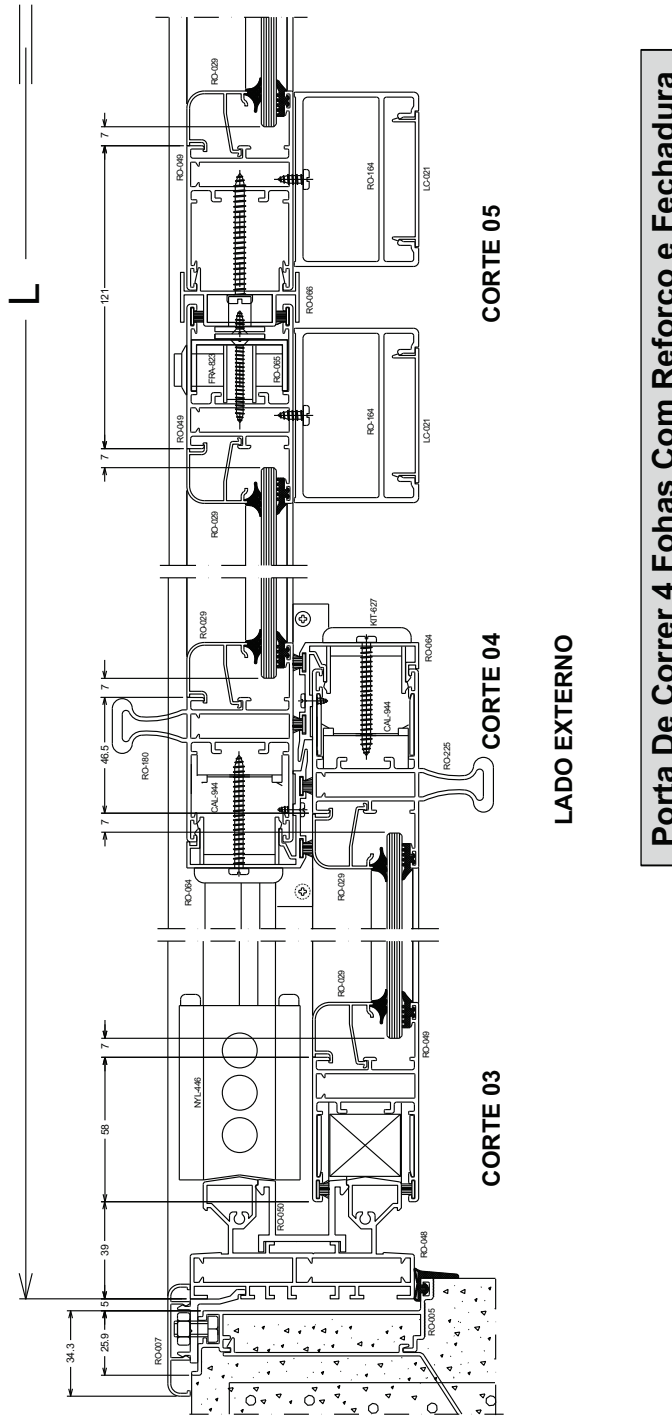
**CORTE 01**

**Porta De Correr 4 Folhas, Com Reforço Com Fechadura e Puxador**



CORTE 02

LADO EXTERNO



CORTE 03

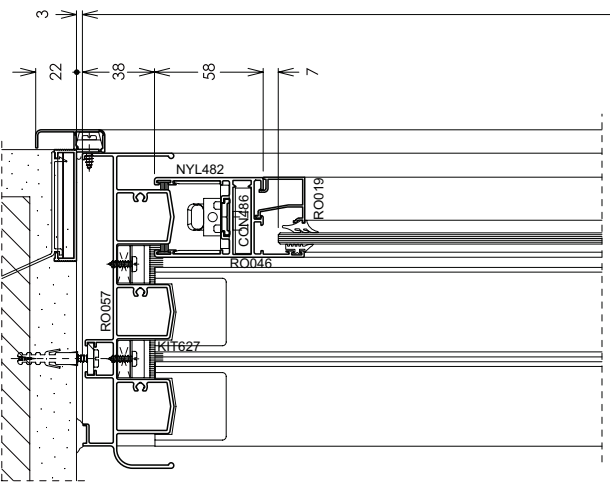
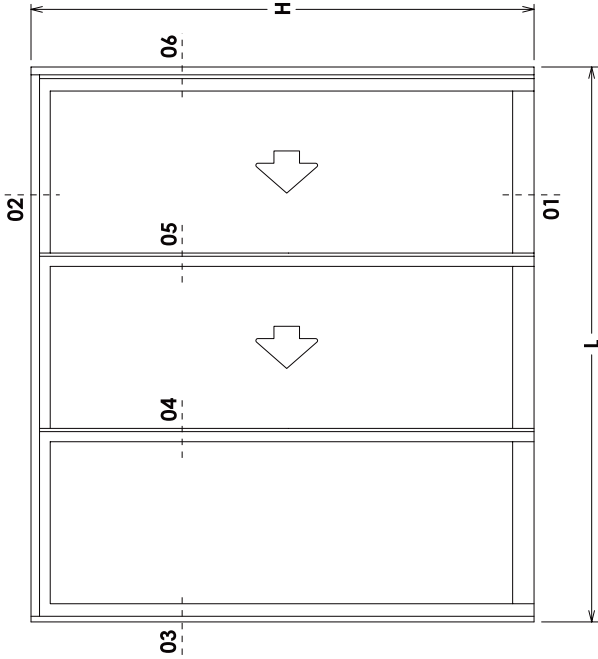
CORTE 04

CORTE 05

LADO EXTERNO

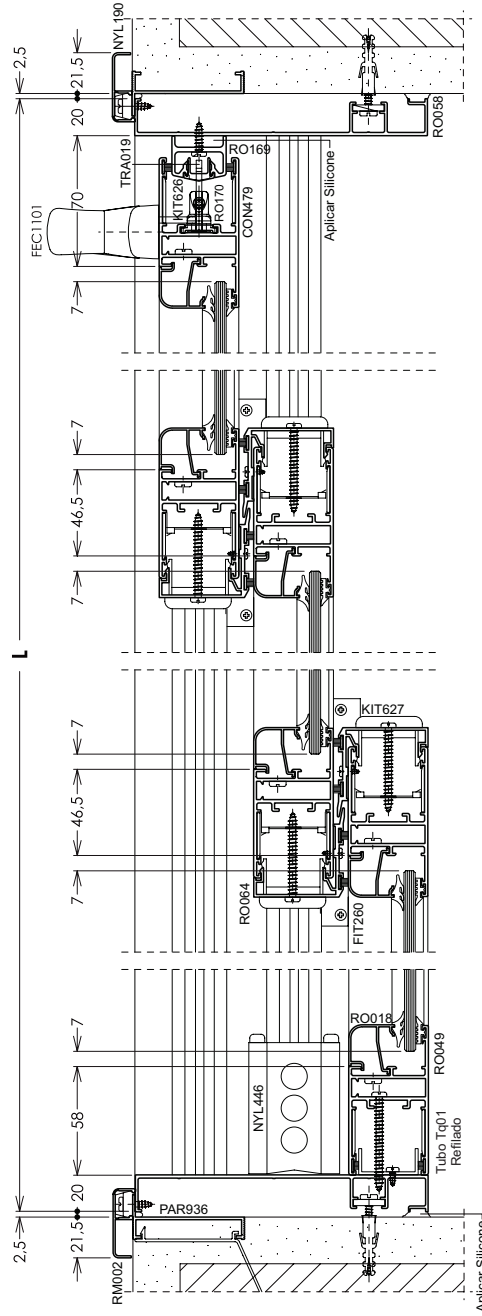
Porta De Correr 4 Fohas Com Reforço e Fechadura

ELEVAÇÃO VISTA EXTERNA



CORTE 02

LADO EXTERNO



CORTE 03

CORTE 04

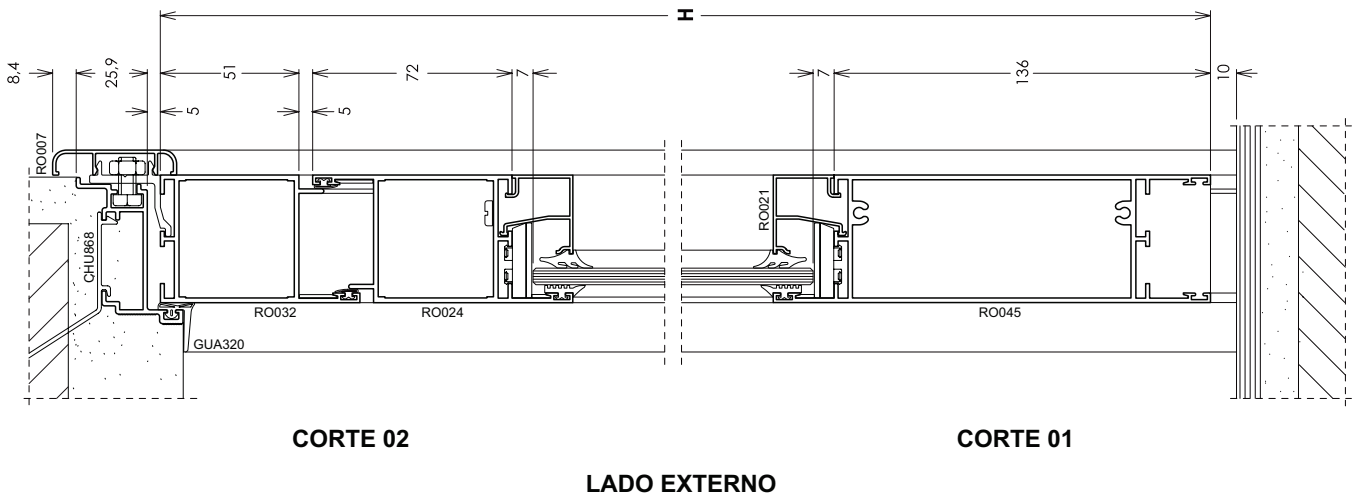
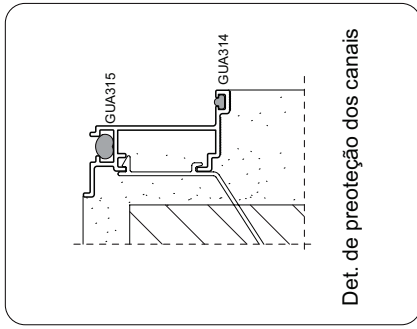
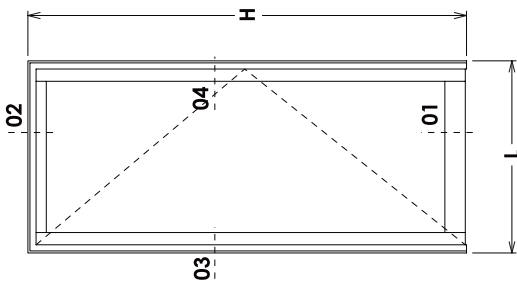
CORTE 05

CORTE 06

LADO EXTERNO

Porta De Correr 3 Folhas Com Multiponto

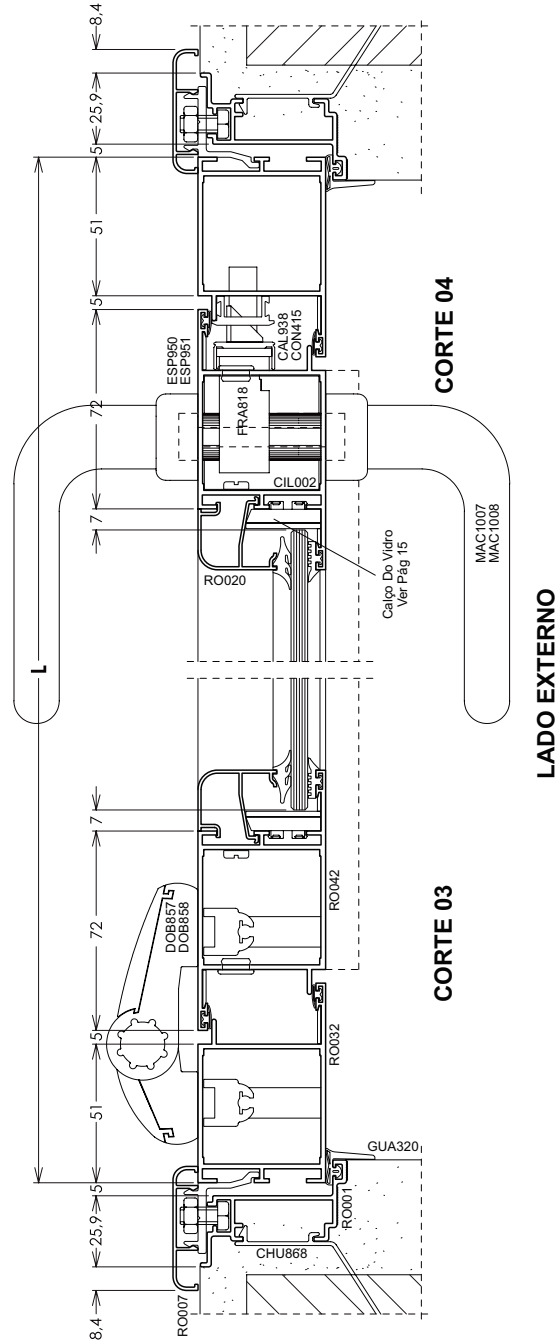
ELEVAÇÃO VISTA EXTERNA



CORTE 02

LADO EXTERNO

CORTE 01



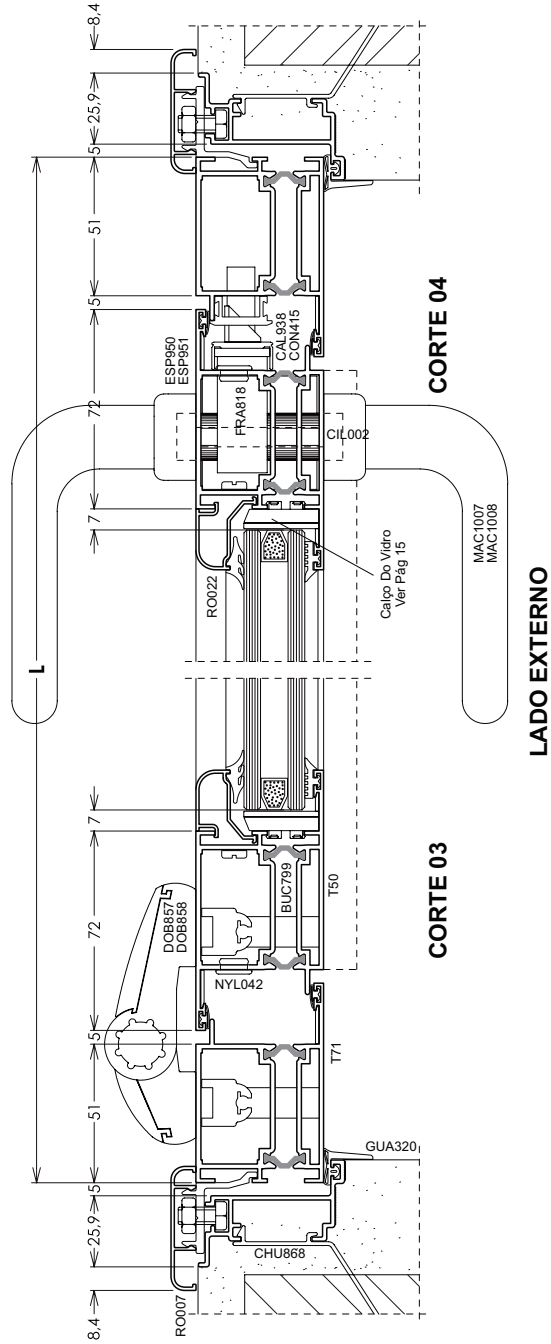
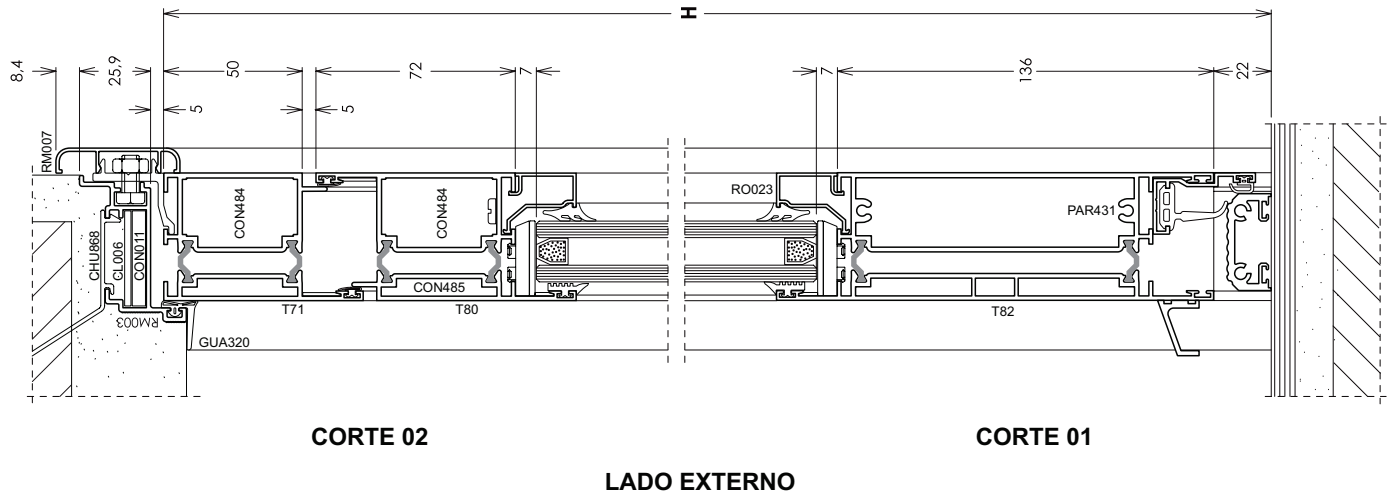
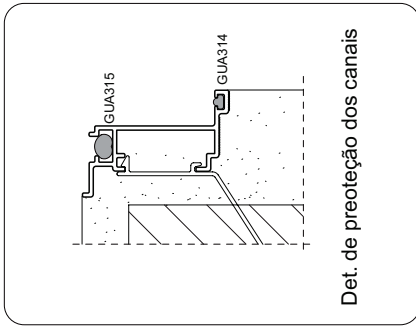
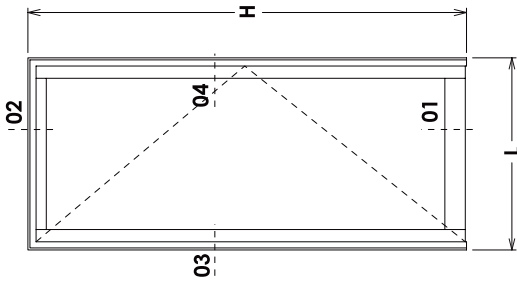
CORTE 03

CORTE 04

LADO EXTERNO

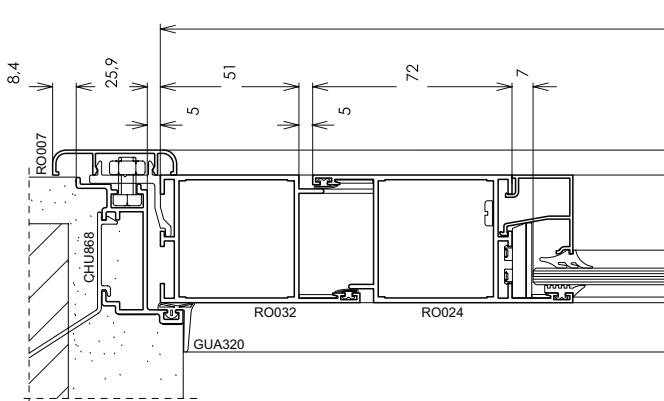
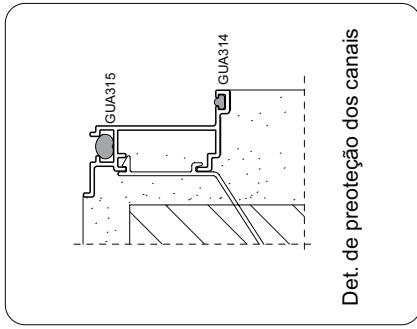
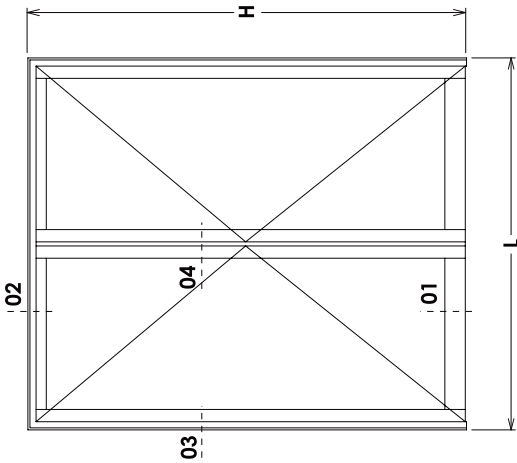
Porta De Giro 1 Folha - 40S

ELEVÇÃO VISTA EXTERNA

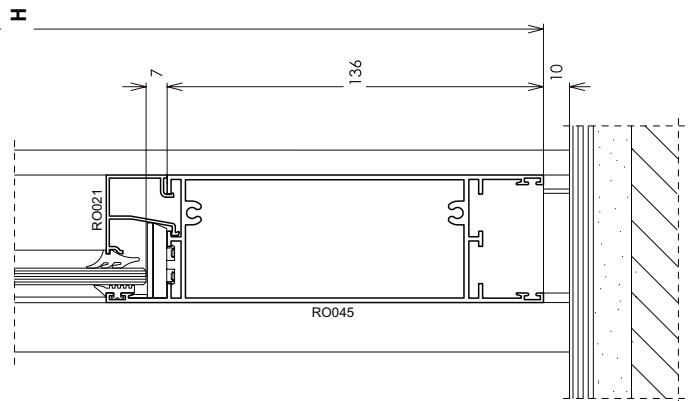


Porta De Giro 1 Folha - 40TT Thermal Break

**ELEVAÇÃO VISTA EXTERNA**

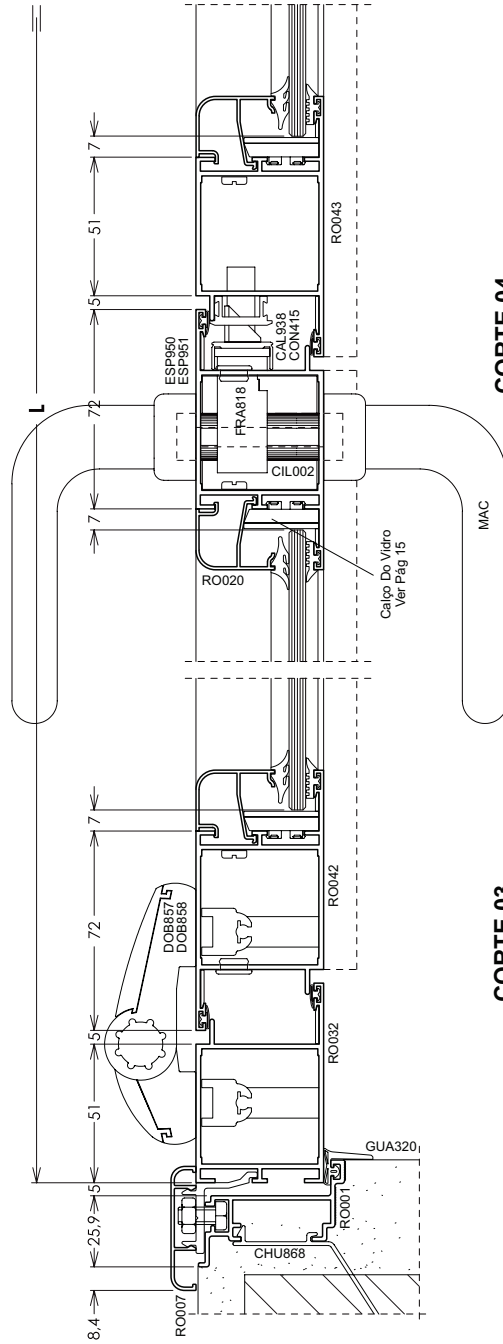


**CORTE 02**



**CORTE 01**

**LADO EXTERNO**



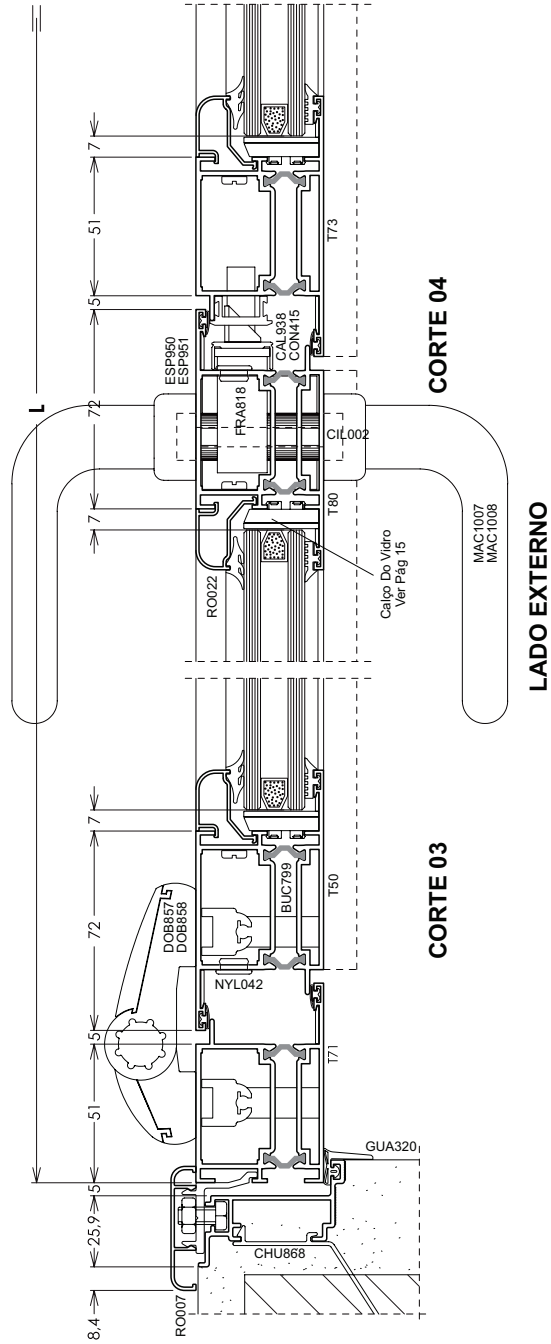
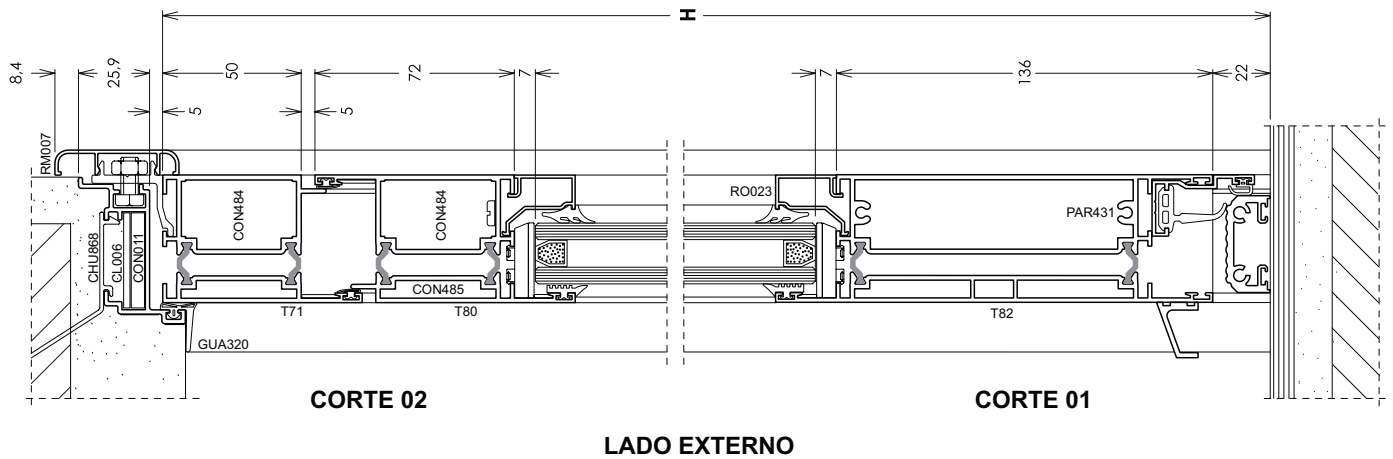
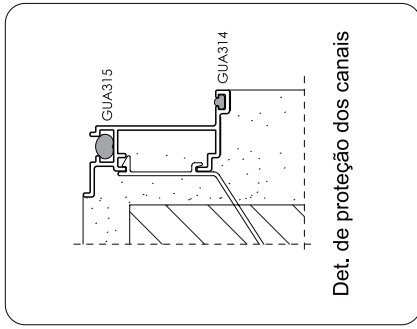
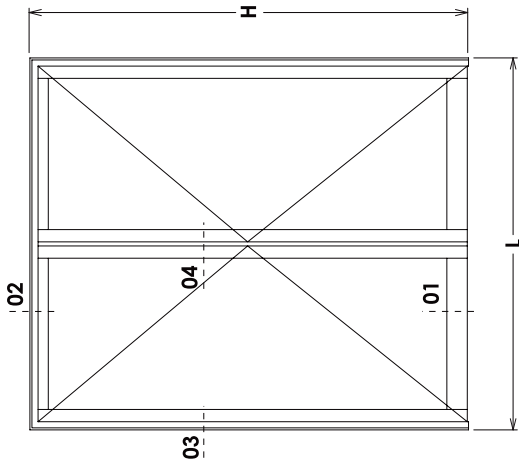
**CORTE 03**

**CORTE 04**

**LADO EXTERNO**

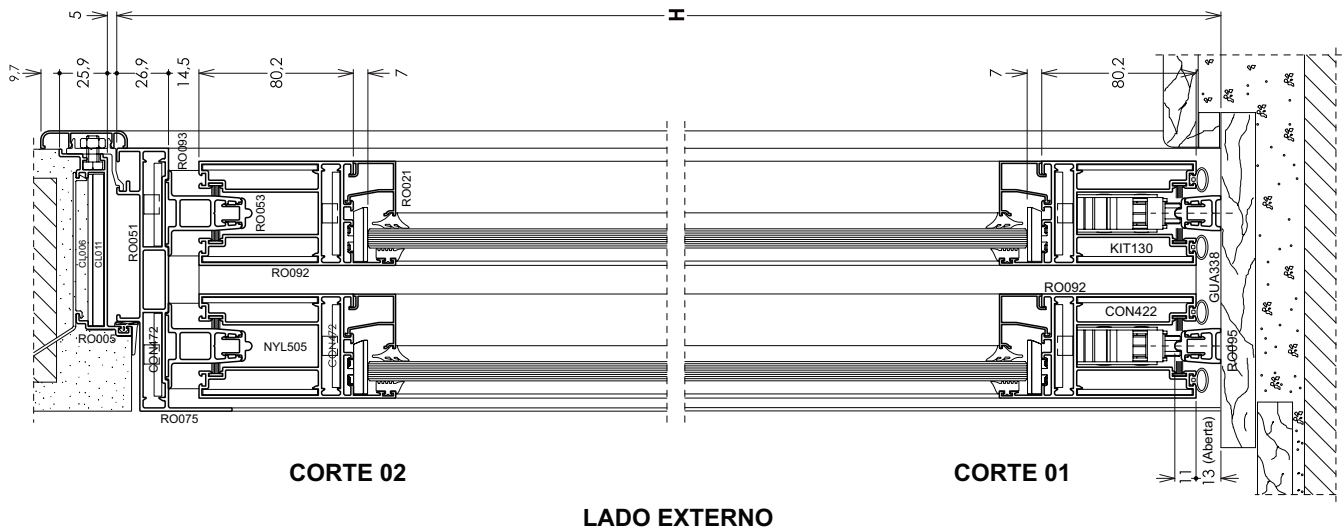
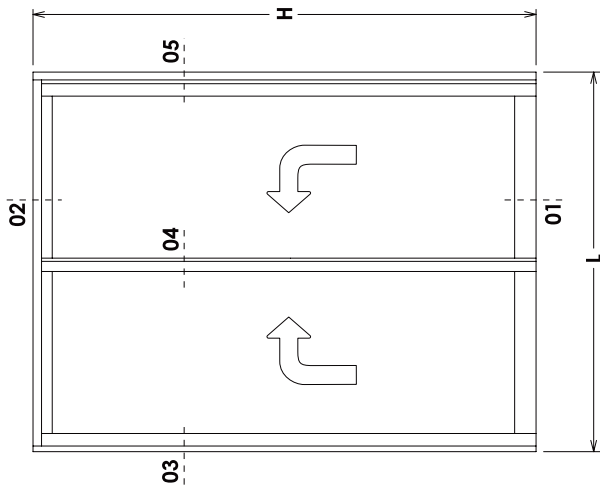
**Porta De Giro 2 Folhas - 40S**

**ELEVAÇÃO VISTA EXTERNA**



**Porta De Giro 2 Folhas - 40TT Thermal Break**

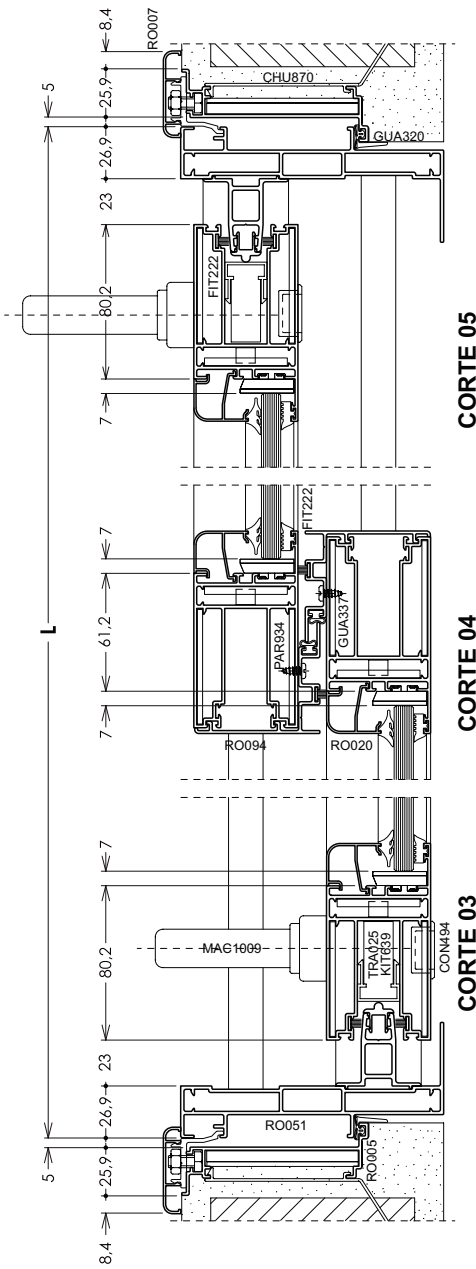
ELEVAÇÃO VISTA EXTERNA



CORTE 02

CORTE 01

LADO EXTERNO



CORTE 05

CORTE 04

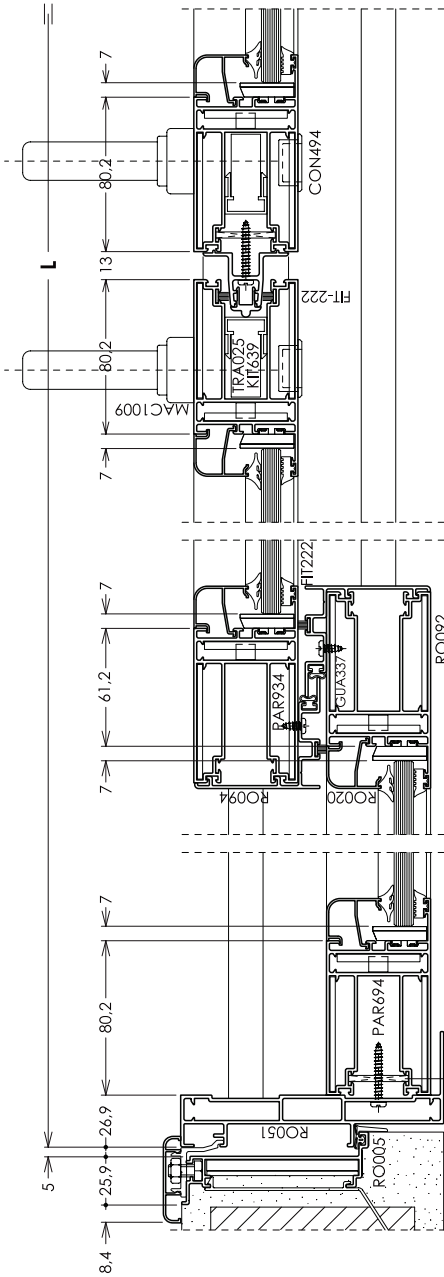
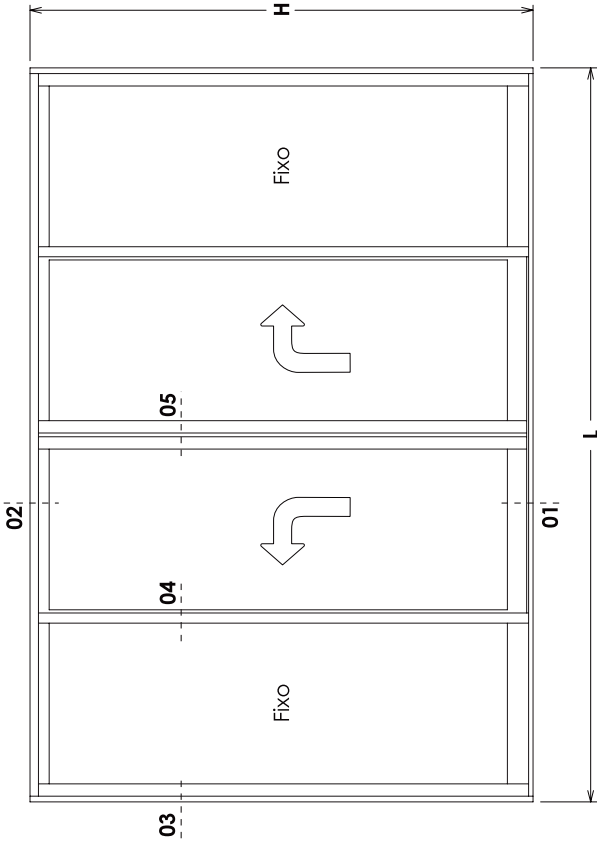
CORTE 03

LADO EXTERNO

Porta Elevável 2 Folhas



ELEVAÇÃO VISTA EXTERNA



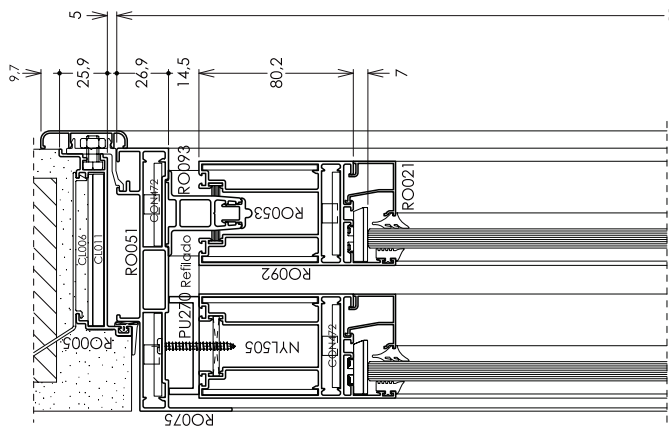
Porta Elevável 4 Folhas

CORTE 05

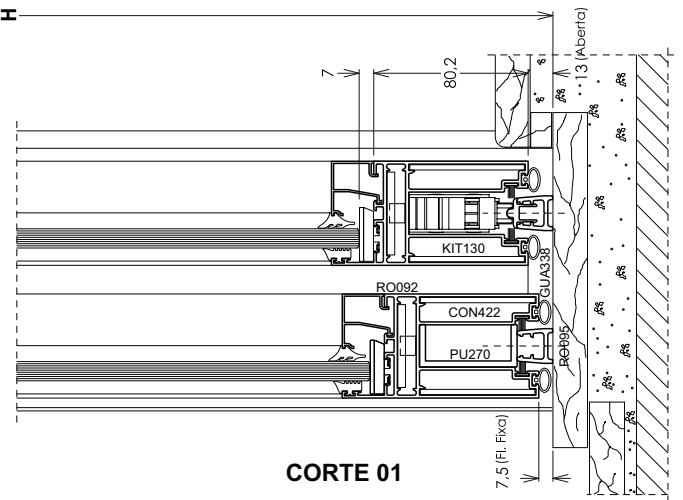
CORTE 04

CORTE 03

LADO EXTERNO



CORTE 02

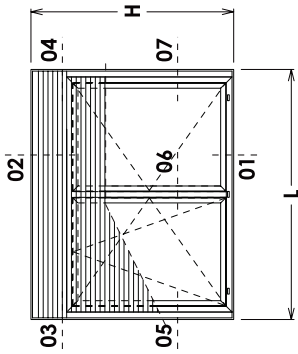


CORTE 01

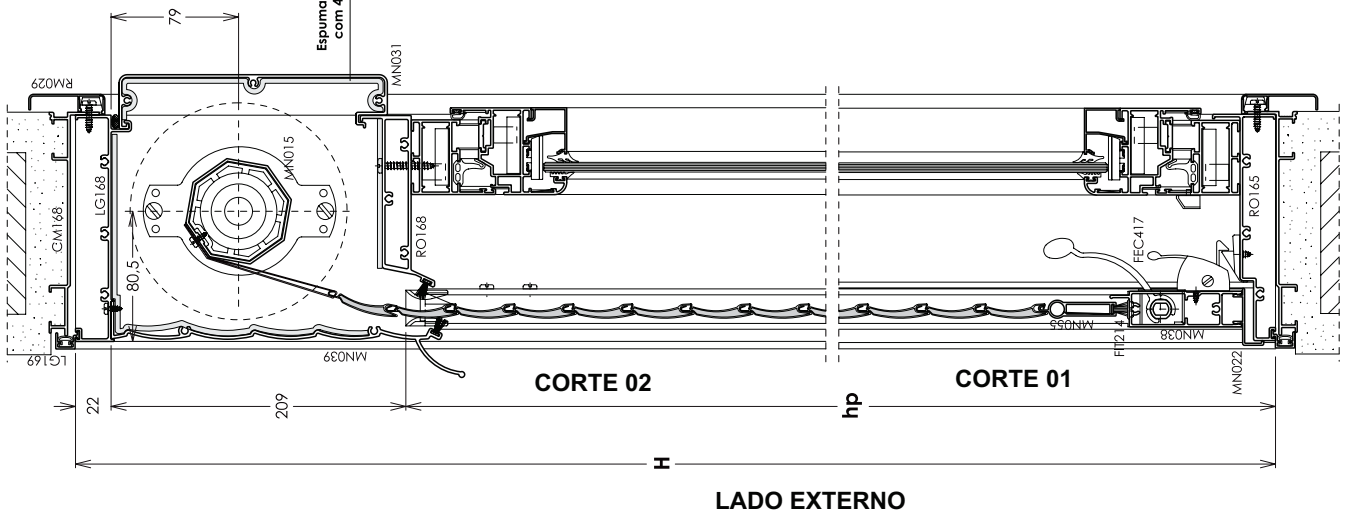
LADO EXTERNO



ELEVAÇÃO VISTA EXTERNA

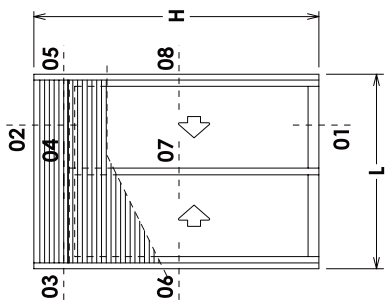


Espuma de Poliuretano Auto Adesiva com 448 Kg/m³ V2100, da Norton

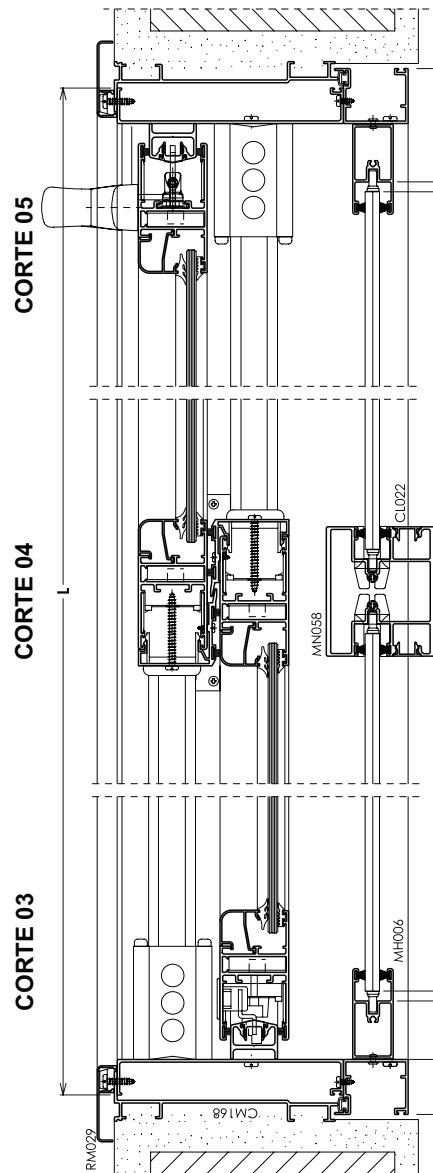
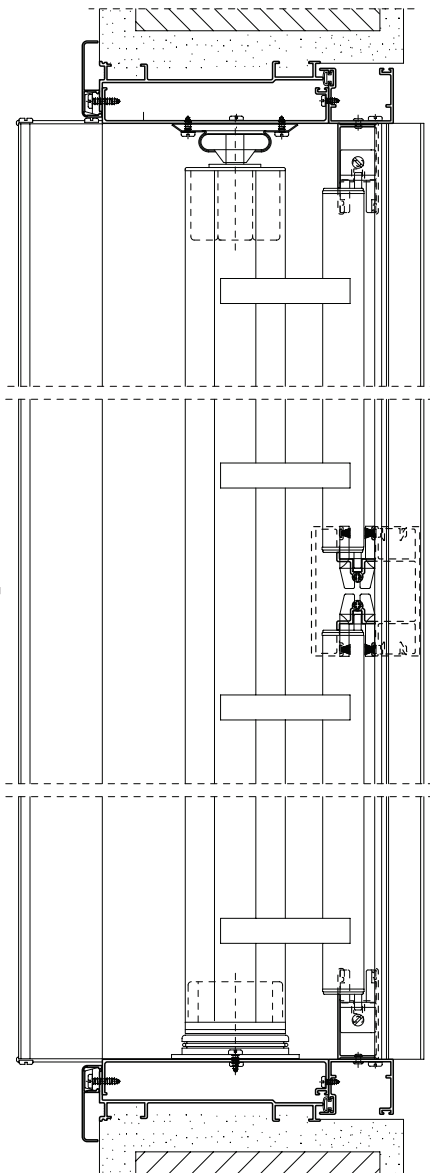
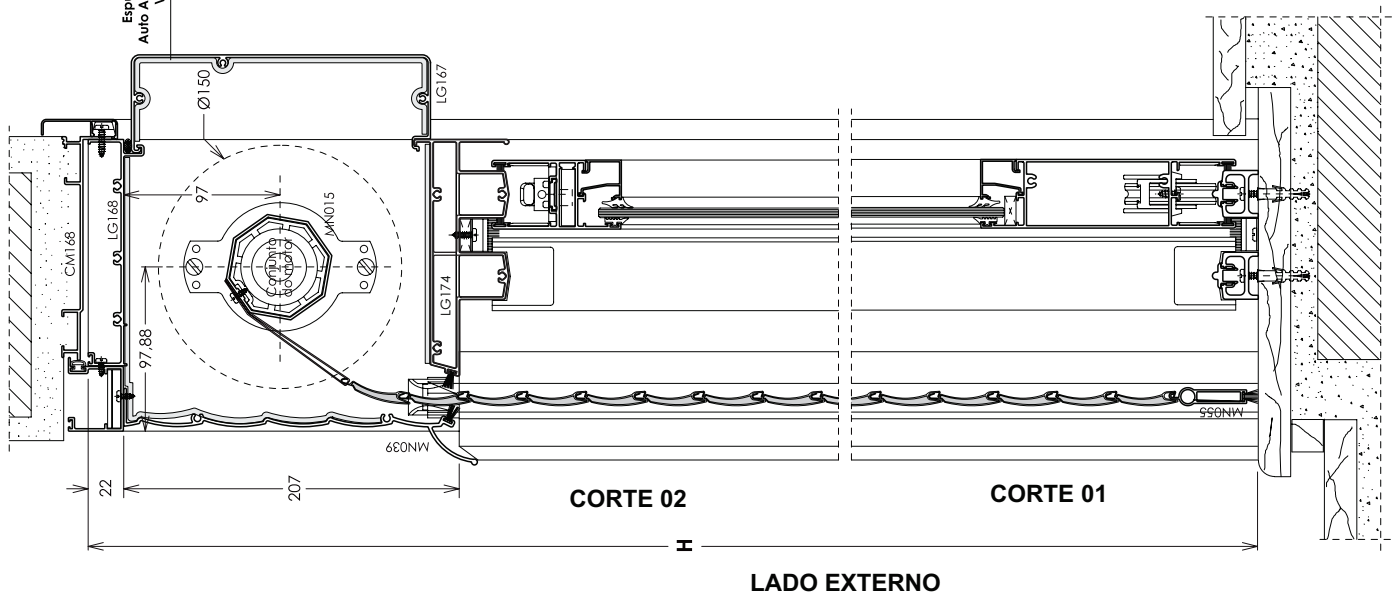


Janela Oscilo Batente 2 Folhas Com Persiana Integrada Projetante

ELEVAÇÃO VISTA EXTERNA



Esponja de Poliestireno  
Auto Adesiva com 448 Kg/m<sup>3</sup>  
V2100, da Noron



CORTE 08  
CORTE 07  
CORTE 06  
LADO EXTERNO

Porta De Correr 2 Folhas Com Persiana Integrada





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