

solene45



GRUPO PERFISUD

O Perfil de Alumínio do Futuro.

O Grupo Perfisud é formado por empresas que atuam de forma integrada no desenvolvimento, industrialização e distribuição de perfis de alumínio, entregando ao mercado soluções completas com qualidade, agilidade e inovação.

Atendemos com excelência os setores da construção civil e da indústria, oferecendo tecnologia, suporte técnico especializado e flexibilidade para clientes que buscam desempenho, durabilidade e atendimento diferenciado nos seus projetos.

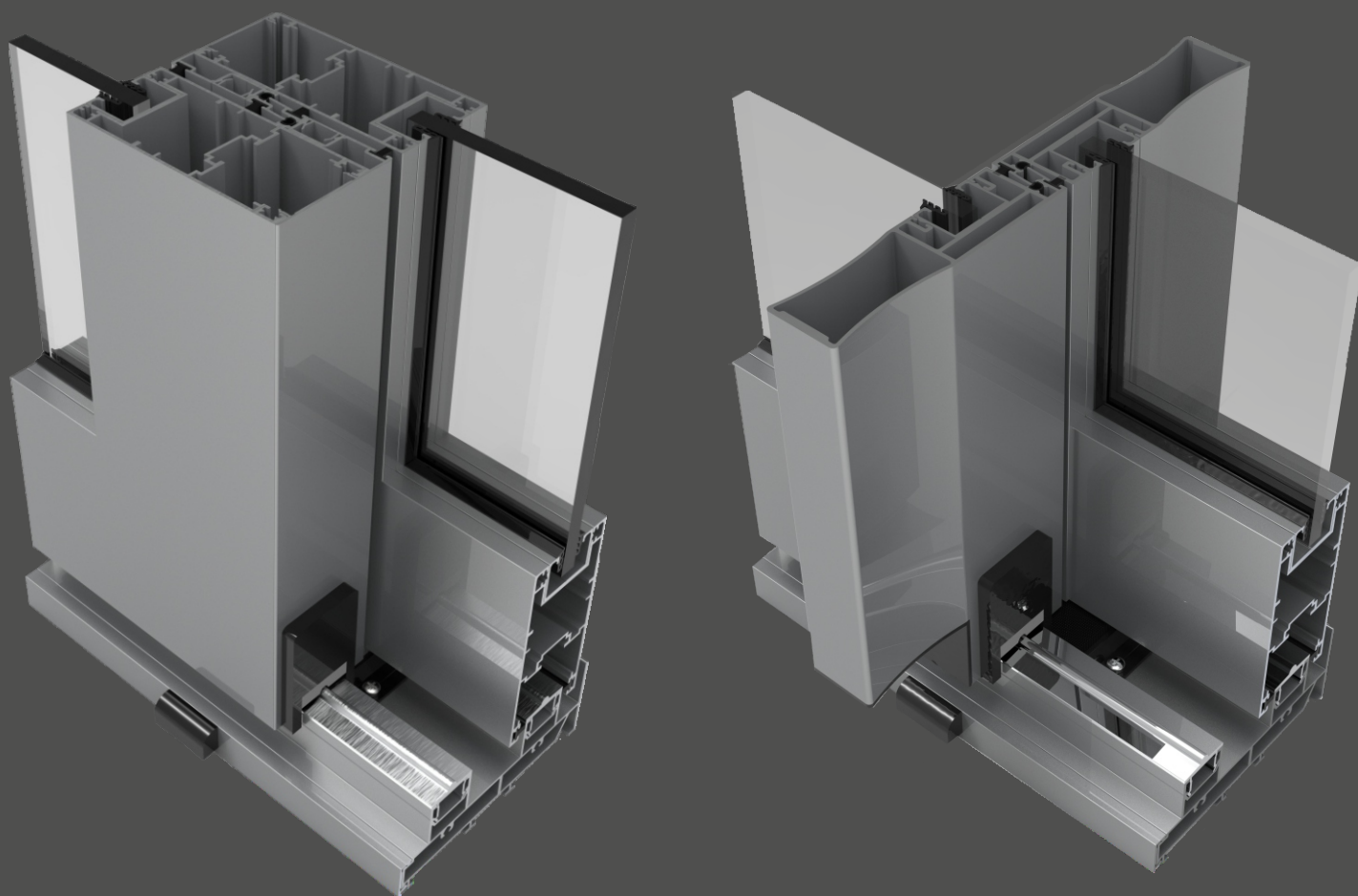
Nascemos com um propósito claro: sermos mais do que fornecedores. Somos parceiros estratégicos, comprometidos em impulsionar o

sucesso de cada cliente por meio de soluções que unem engenharia, inovação e profundo entendimento das necessidades do mercado.

Nossa atuação se destaca pela verticalização inteligente: da extrusão à pintura, da criação de sistemas próprios ao estoque à pronta entrega.

Somos a Perfisud e a Esquadrimax, marcas fortes, que juntas formam um grupo preparado para atender desde pequenos fabricantes até grandes indústrias, construtoras e especificadores.

Com uma cultura de excelência, inovação com propósito e relacionamentos duradouros, o Grupo Perfisud cresce de forma sustentável, valorizando o capital humano, respeitando o meio ambiente e se antecipando às transformações do mercado.



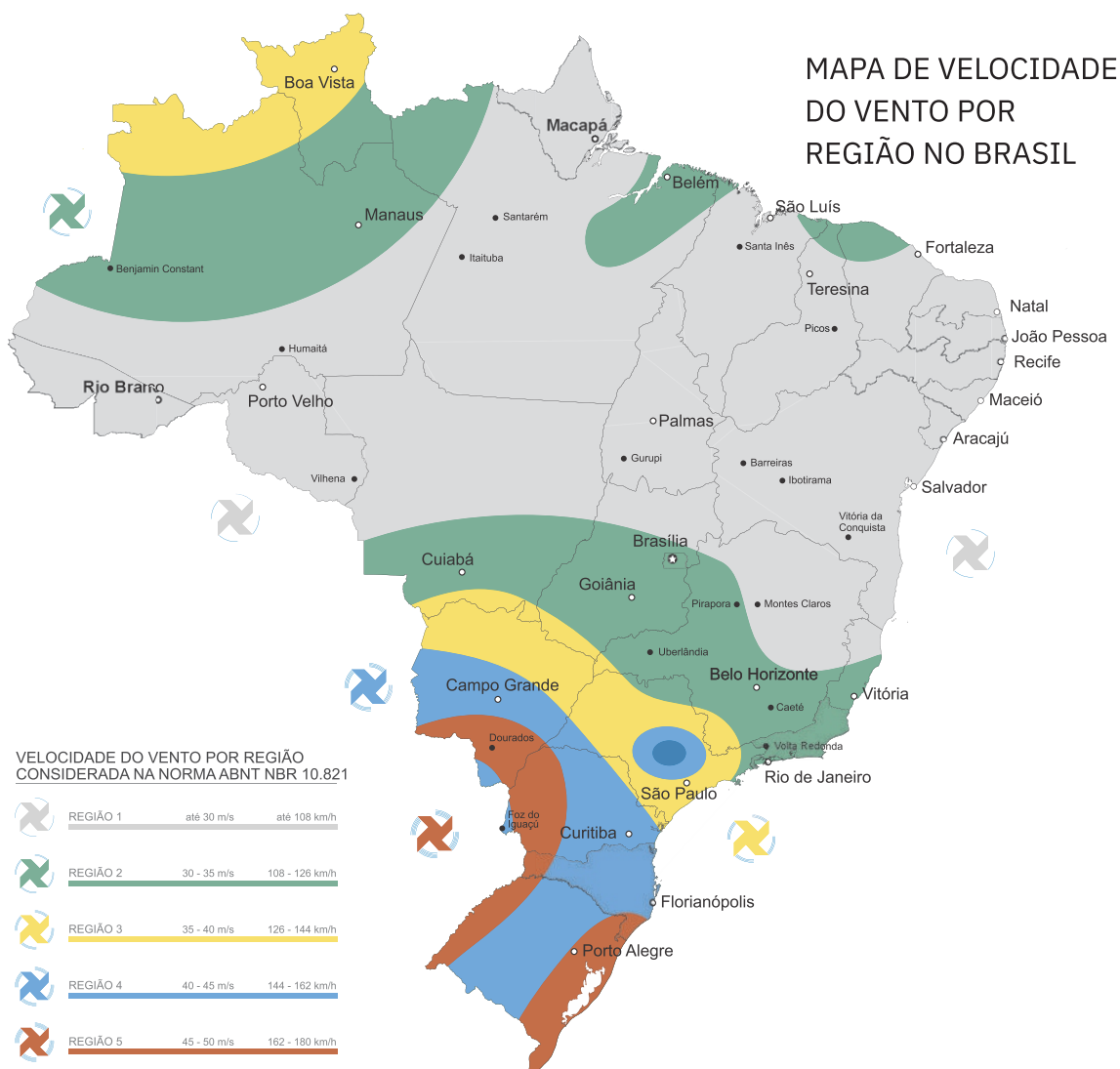
solene⁴⁵

Desenvolvido para atender ao alto padrão do mercado de esquadrias, este sistema deslizante, com bitola de 45 mm, oferece design refinado e isolamento acústico. Sua robustez garante elevados níveis de estanqueidade, sendo ideal para obras com grandes vãos, priorizando a sofisticação em cada detalhe e oferecendo soluções modernas e seguras para os projetos mais exigentes.

A determinação da pressão de ensaio que deve ser considerada nos cálculos e análises das esquadrias, são conforme a localização do empreendimento.

- Identifique no mapa de isopletras (figura 1) a região do País onde está localizada a sua edificação

Figura 1 - Isopletras da velocidade básica. Fonte: ABNT NBR 6123



- Após encontrada a região na figura 1, vamos analisar na tabela abaixo a pressão de ensaio, segurança e água de acordo com a altura ou quantidade de pavimentos da edificação.

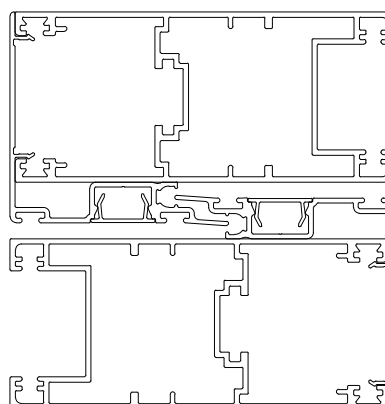
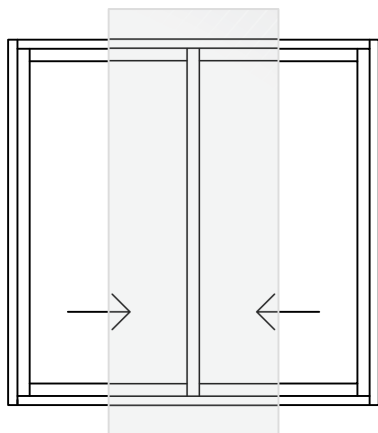
Quantidade de Pavimentos	Altura Máxima	Região do País	Pressão de ensaio Pe, em (Pa) Positiva e negativa $Pe = Pp \times 1,2$	Pressão de segurança Ps, em (Pa) Positiva e negativa $Pe = Pp \times 1,5$	Pressão de água Pa, em (Pa) $Pe = Pp \times 1,2$
02	6 m	I	350	520	60
		II	470	700	80
		III	610	920	100
		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	1760	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

- Com as pressões encontradas, é possível verificar nas páginas dos diagramas de dimensões, qual o perfil se encaixa melhor para aplicação em sua edificação. Para isso, ligue o eixo da largura e altura com a curva referente a pressão de ensaio do seu projeto.

Notas:

* Nos gráficos de desempenho, foram considerados as pressões de ensaio e segurança de acordo com a norma ABNT NBR 10.821. Para edificações com especificações, localização, necessidades e/ou exigências especiais de utilização, deve-se consultar a ABNT NBR 6123 para determinação da pressão de projeto (Pp) e pressão de ensaio (Pe), prevalecendo como mínimos os valores acima.

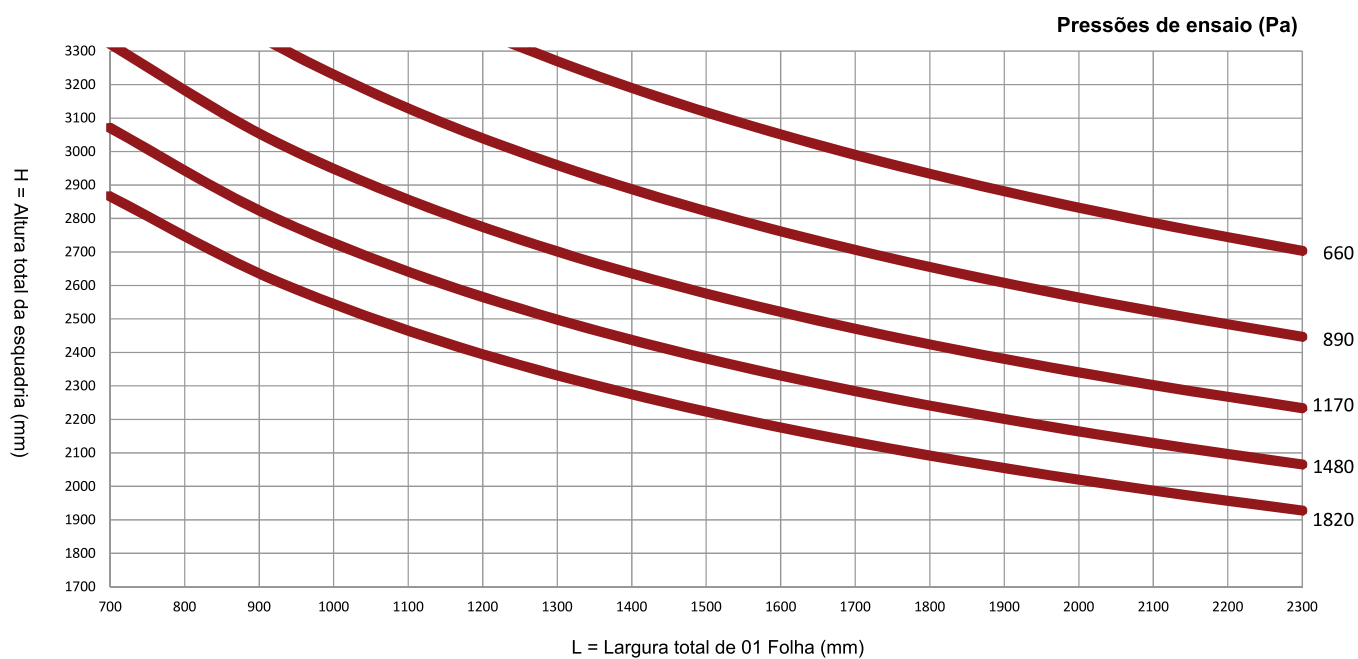
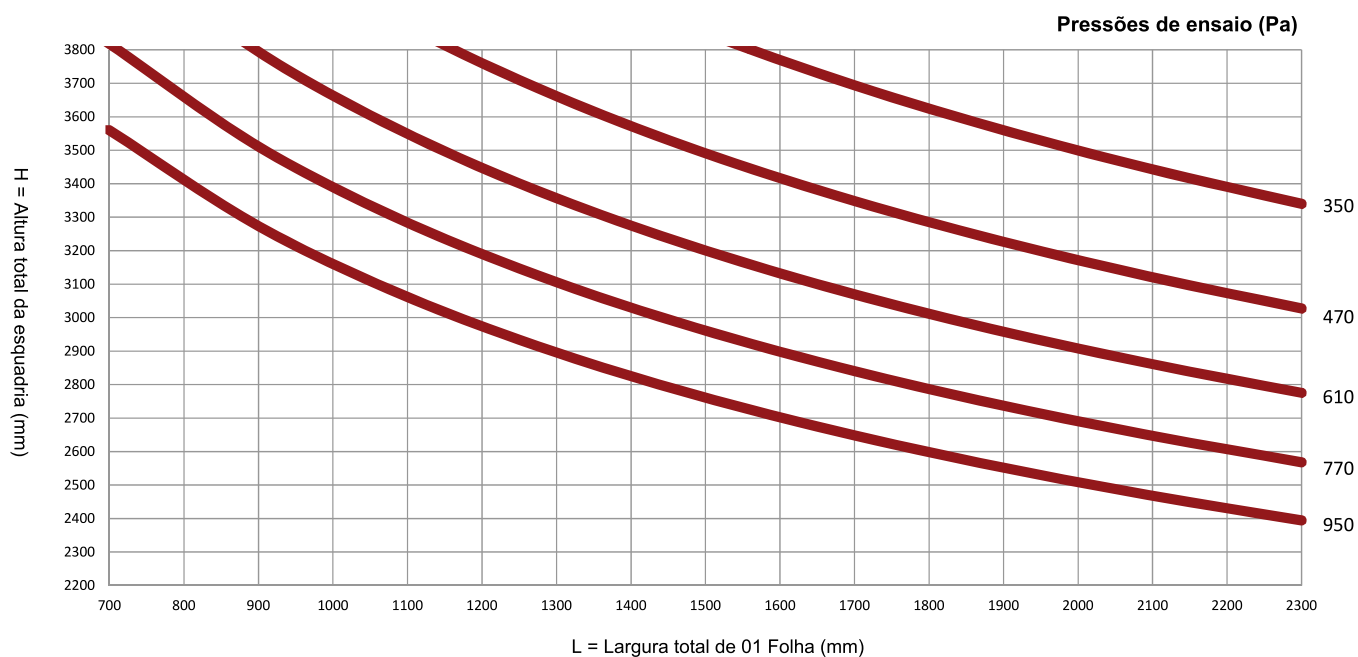
* Para cálculo dos vidros, devemos utilizar a pressão de segurança requerida para a esquadria, conforme orientado na ABNT NBR 7199 e ABNT NBR 10821.

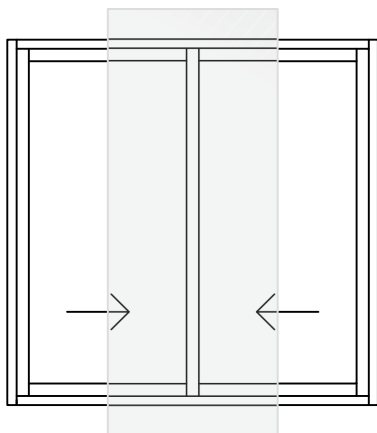


$J_x = 19,85 \text{ cm}^4$
 $J_y = 52,56 \text{ cm}^4$
 $W_x = 8,82 \text{ cm}^3$
 $W_y = 9,86 \text{ cm}^3$

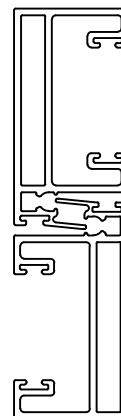
$J_x = 5,04 \text{ cm}^4$
 $J_y = 6,84 \text{ cm}^4$
 $W_x = 1,20 \text{ cm}^3$
 $W_y = 1,75 \text{ cm}^3$

$J_{xt} = 49,78 \text{ cm}^4$
 $W_{xt} = 20,04 \text{ cm}^3$

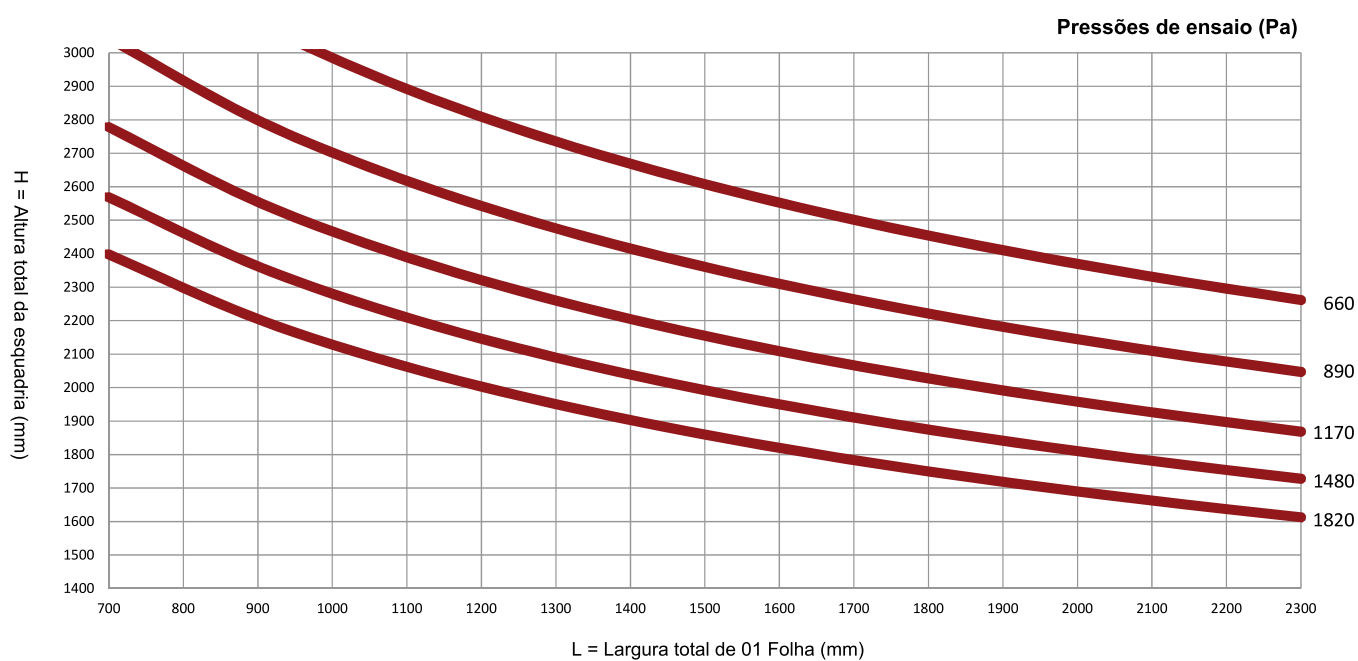
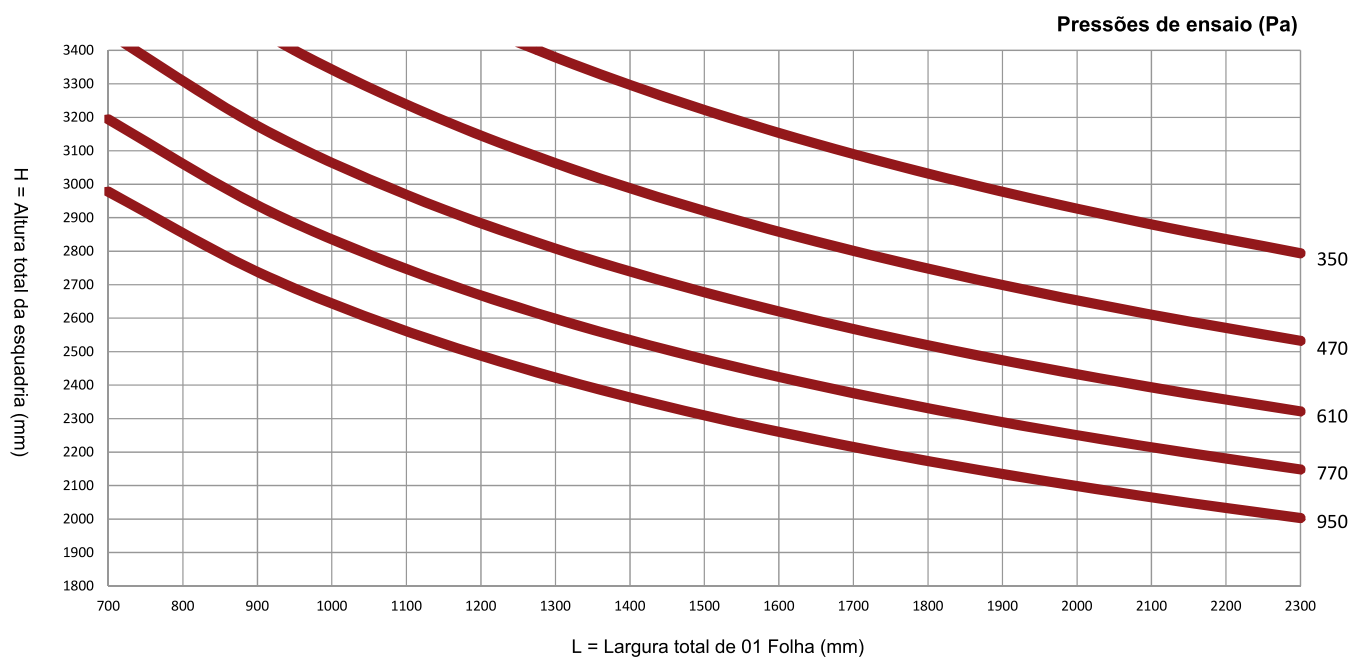


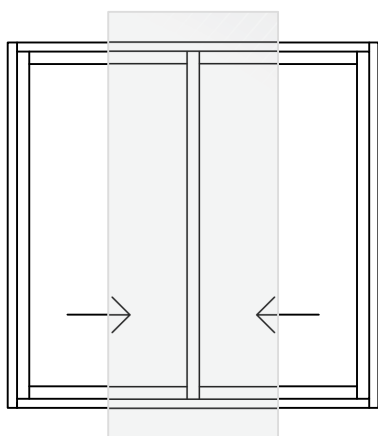


$J_x = 14,57 \text{ cm}^4$
 $J_y = 3,68 \text{ cm}^4$
 $W_x = 4,79 \text{ cm}^3$
 $W_y = 2,02 \text{ cm}^3$



$J_{xt} = 29,14 \text{ cm}^4$
 $W_{xt} = 9,58 \text{ cm}^3$

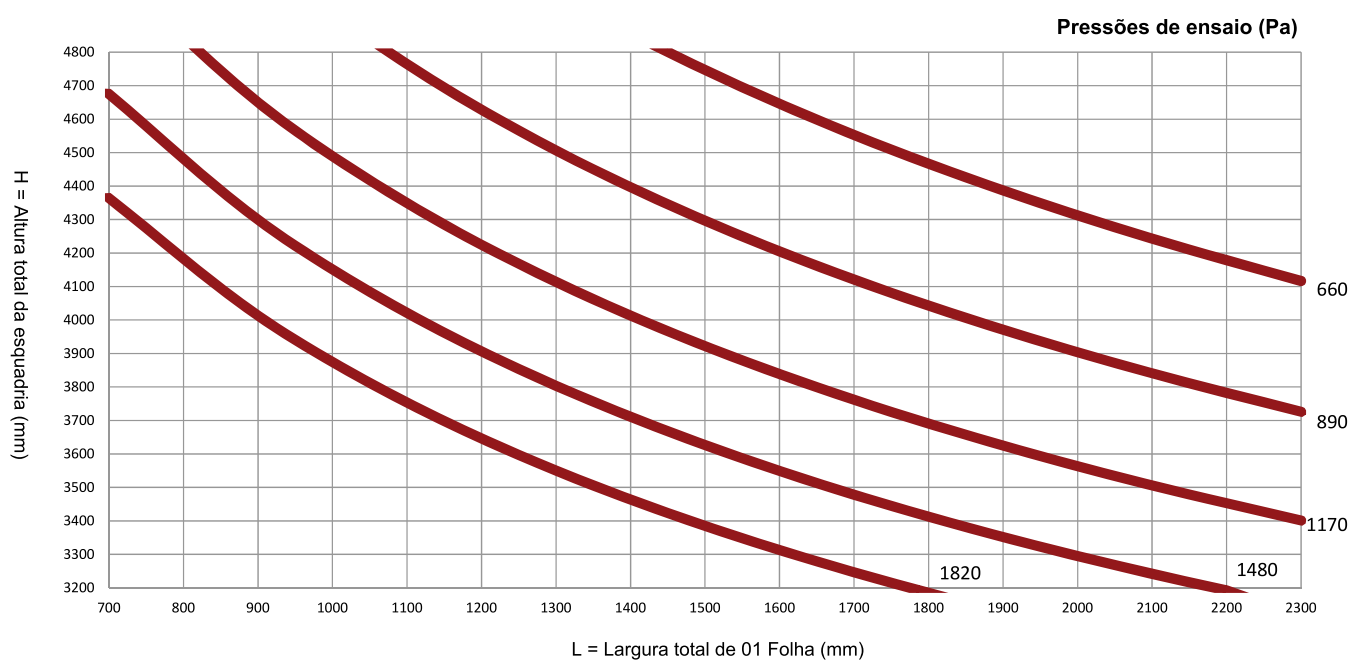
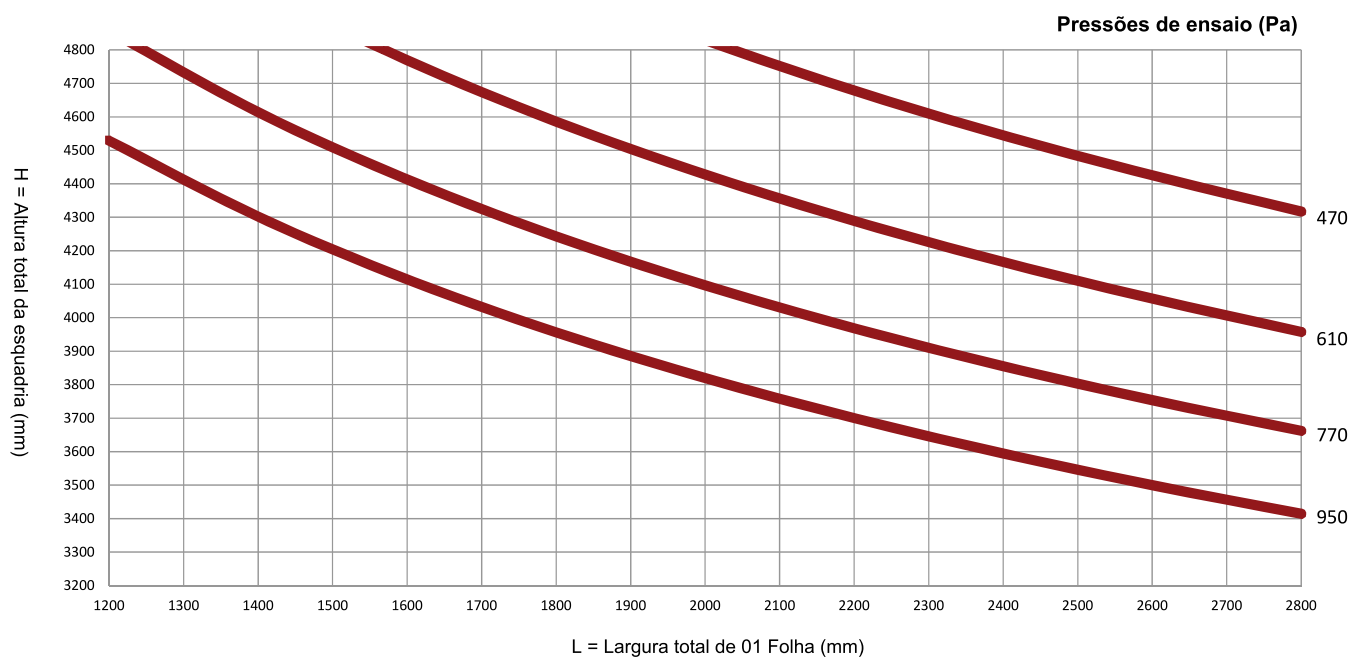


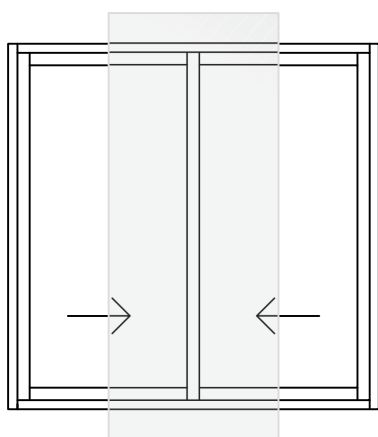


$J_x = 87,87 \text{ cm}^4$
 $J_y = 6,60 \text{ cm}^4$
 $W_x = 15,02 \text{ cm}^3$
 $W_y = 3,68 \text{ cm}^3$



$J_{xt} = 175,74 \text{ cm}^4$
 $W_{xt} = 30,04 \text{ cm}^3$



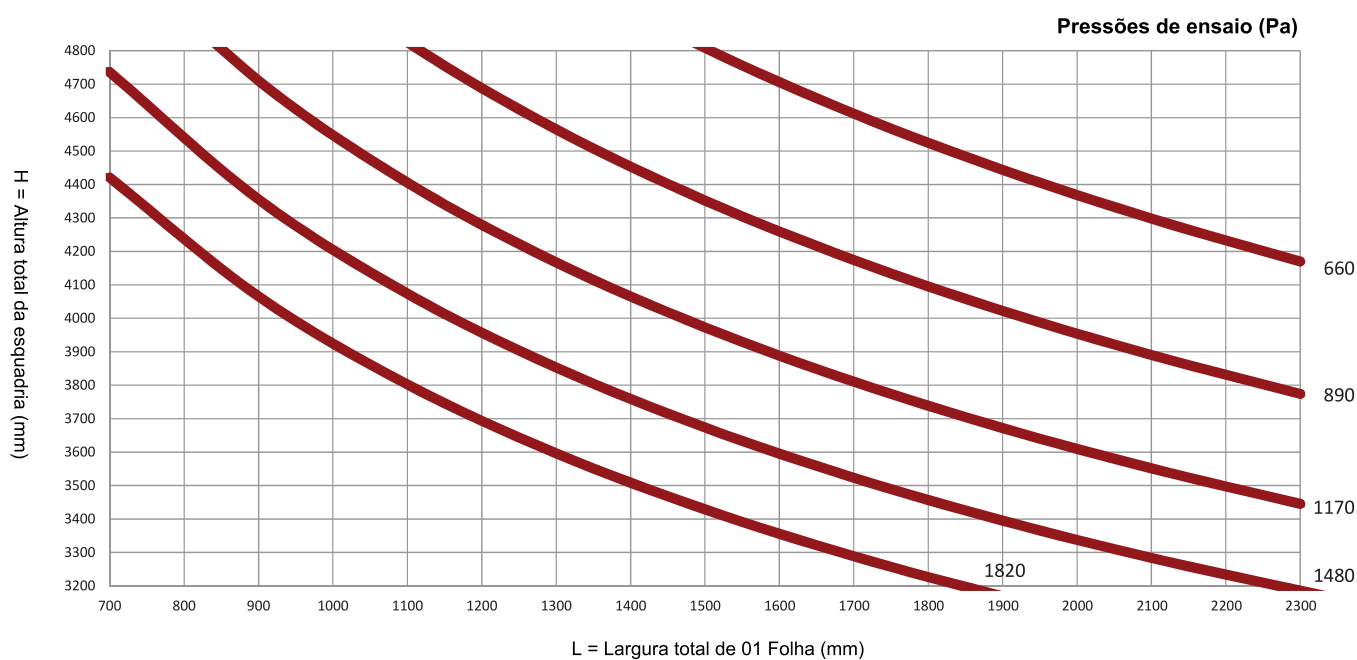
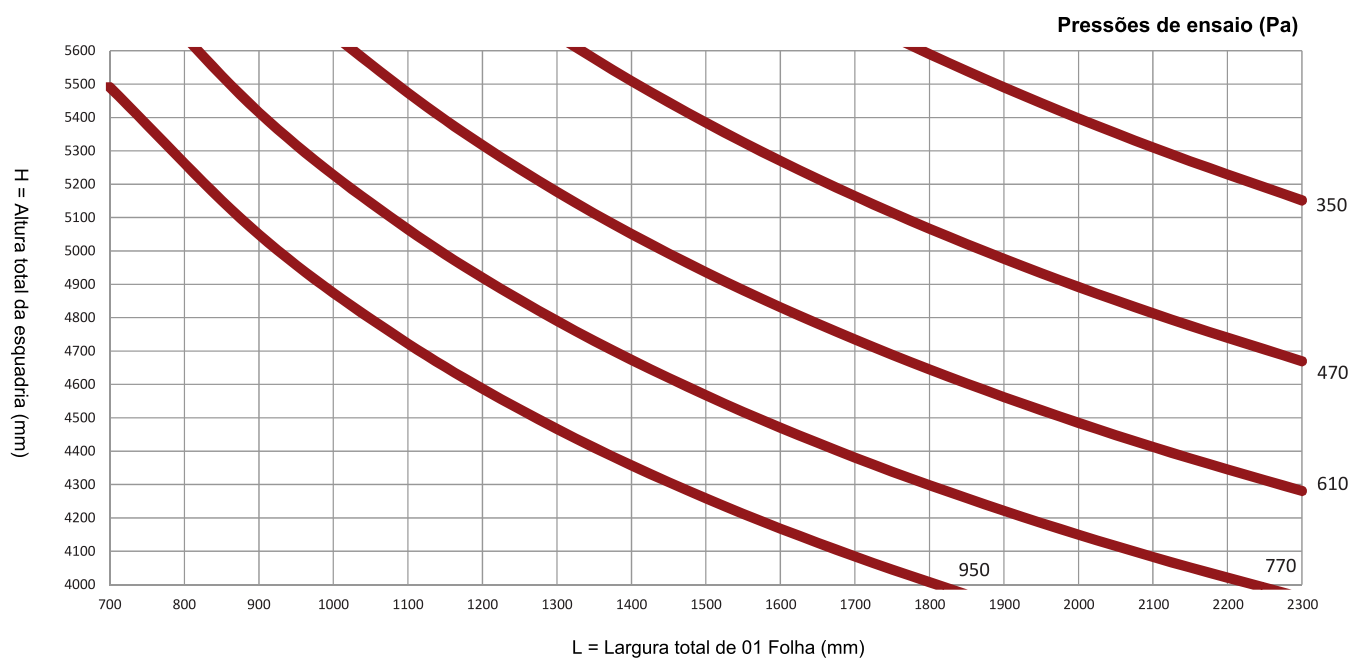


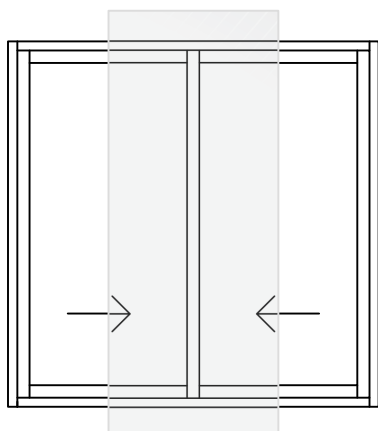
$J_x = 91,33 \text{ cm}^4$
 $J_y = 7,24 \text{ cm}^4$
 $W_x = 15,52 \text{ cm}^3$
 $W_y = 4,10 \text{ cm}^3$



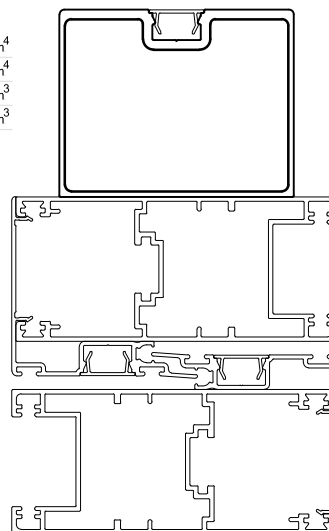
$J_x = 91,33 \text{ cm}^4$
 $J_y = 7,24 \text{ cm}^4$
 $W_x = 15,52 \text{ cm}^3$
 $W_y = 4,10 \text{ cm}^3$

$J_{xt} = 182,66 \text{ cm}^4$
 $W_{xt} = 31,04 \text{ cm}^3$





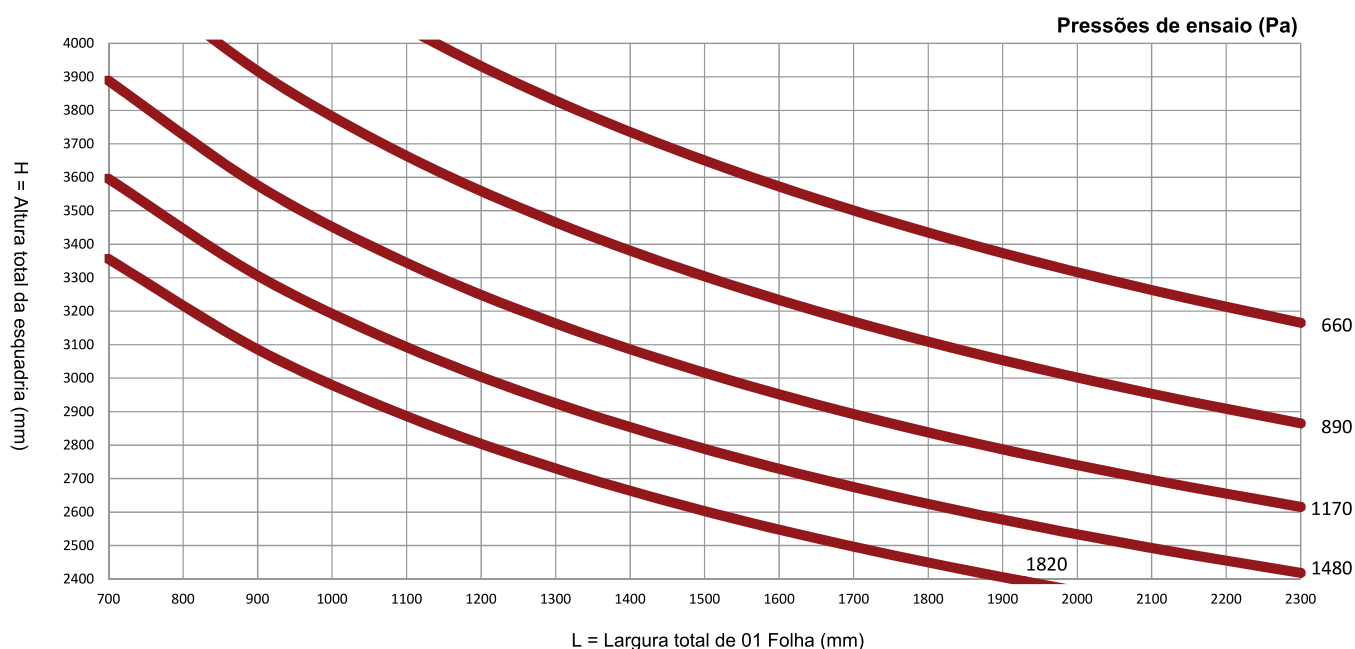
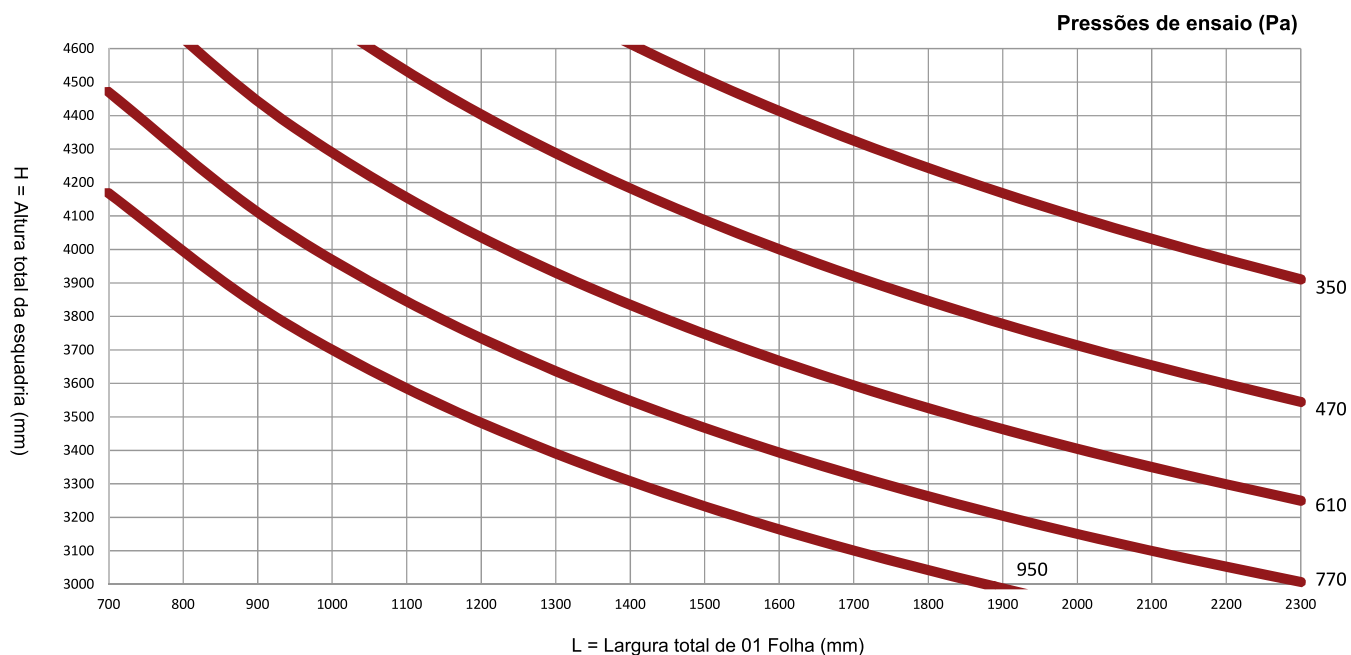
$Jx = 30,13 \text{ cm}^4$
 $Jy = 39,11 \text{ cm}^4$
 $Wx = 8,72 \text{ cm}^3$
 $Wy = 10,71 \text{ cm}^3$

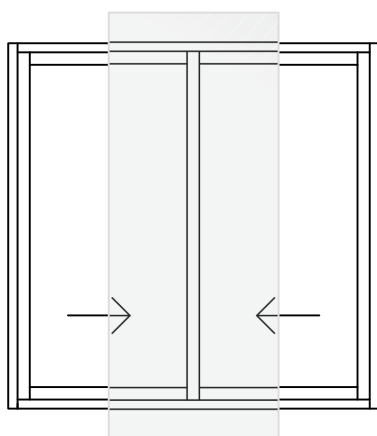


$Jx = 19,85 \text{ cm}^4$
 $Jy = 52,56 \text{ cm}^4$
 $Wx = 8,82 \text{ cm}^3$
 $Wy = 9,86 \text{ cm}^3$

$Jxt = 79,91 \text{ cm}^4$
 $Wxt = 28,76 \text{ cm}^3$

$Jx = 5,04 \text{ cm}^4$
 $Jy = 6,84 \text{ cm}^4$
 $Wx = 1,20 \text{ cm}^3$
 $Wy = 1,75 \text{ cm}^3$

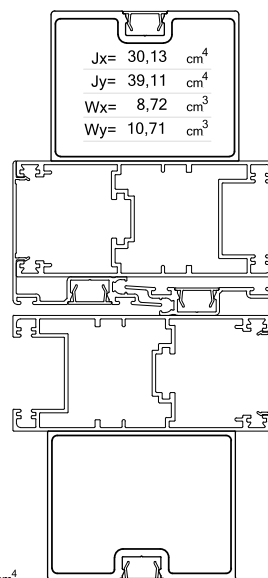




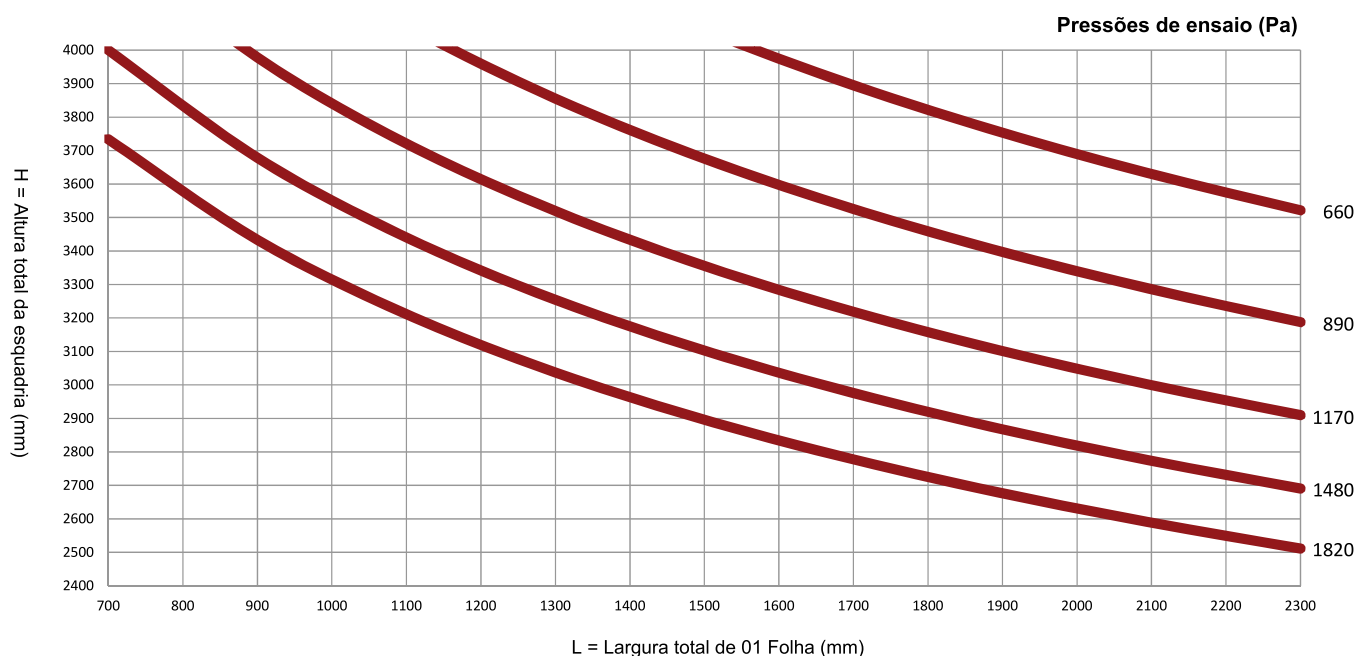
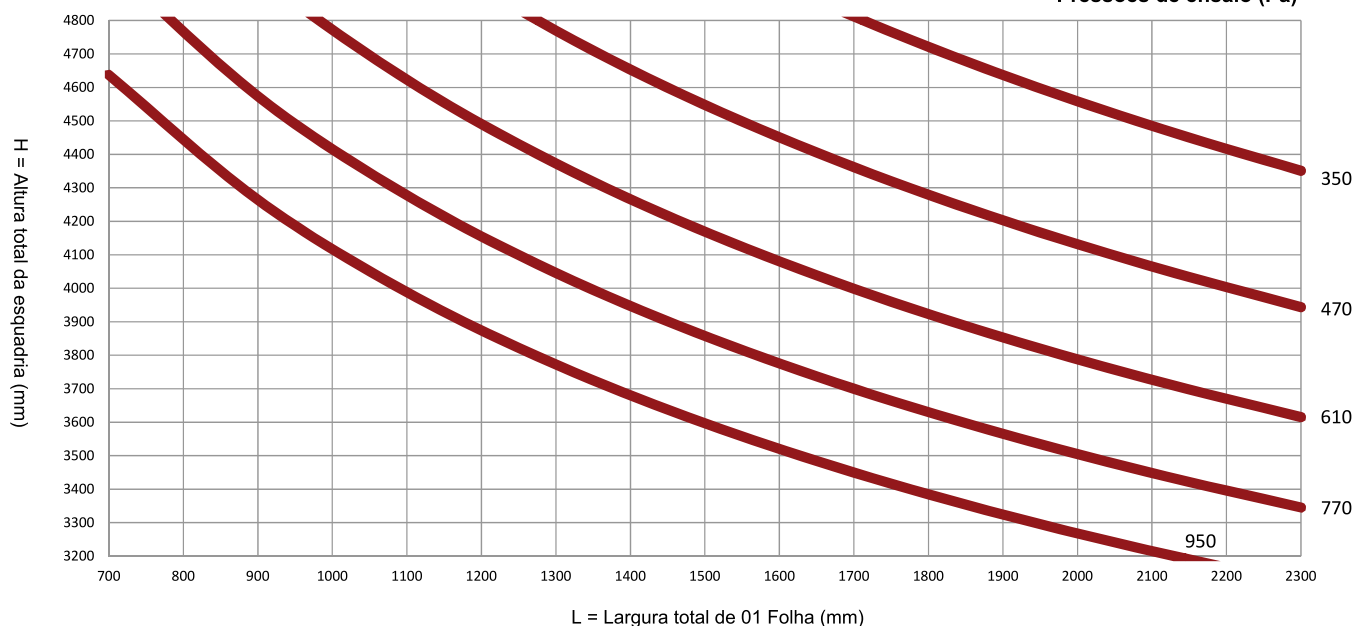
$$\begin{aligned} Jx &= 5,04 \text{ cm}^4 \\ Jy &= 6,84 \text{ cm}^4 \\ Wx &= 1,20 \text{ cm}^3 \\ Wy &= 1,75 \text{ cm}^3 \end{aligned}$$

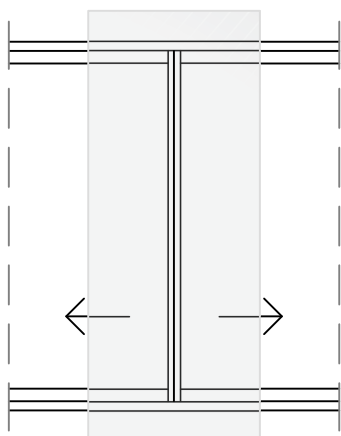
$$\begin{aligned} Jx &= 19,85 \text{ cm}^4 \\ Jy &= 52,56 \text{ cm}^4 \\ Wx &= 8,82 \text{ cm}^3 \\ Wy &= 9,86 \text{ cm}^3 \end{aligned}$$

$$\begin{aligned} Jxt &= 110,04 \text{ cm}^4 \\ Wxt &= 37,48 \text{ cm}^3 \end{aligned}$$



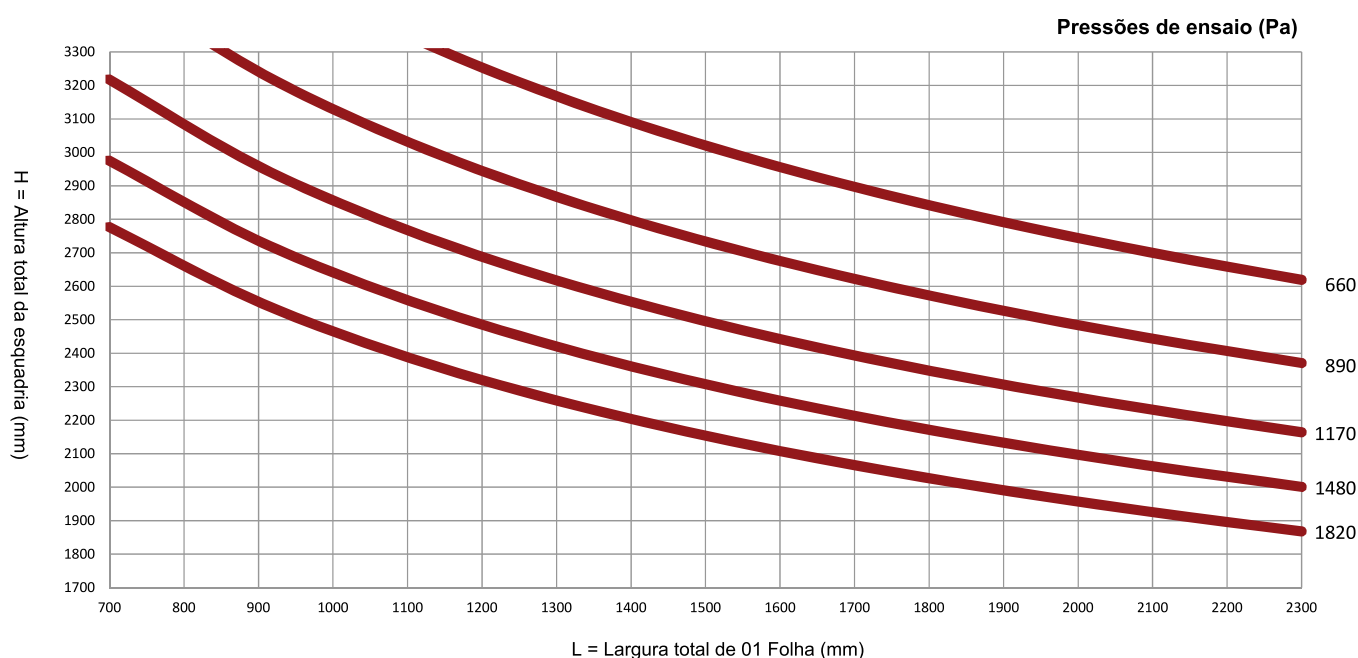
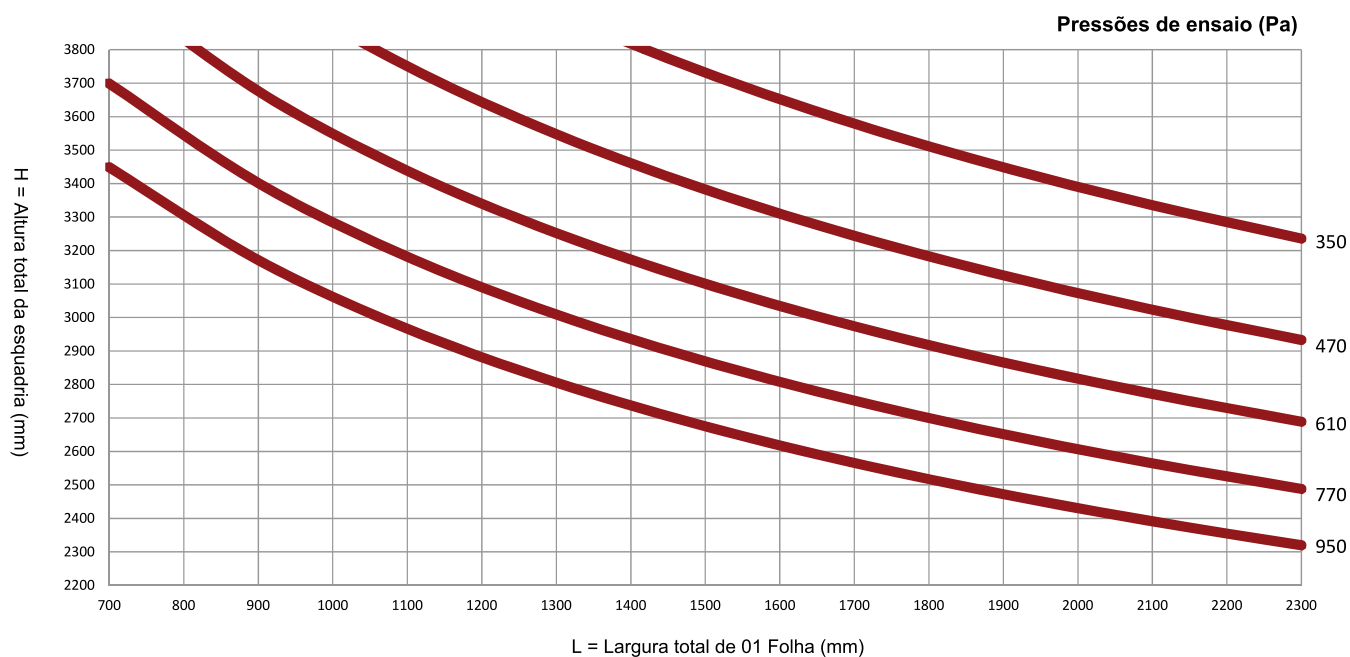
Pressões de ensaio (Pa)

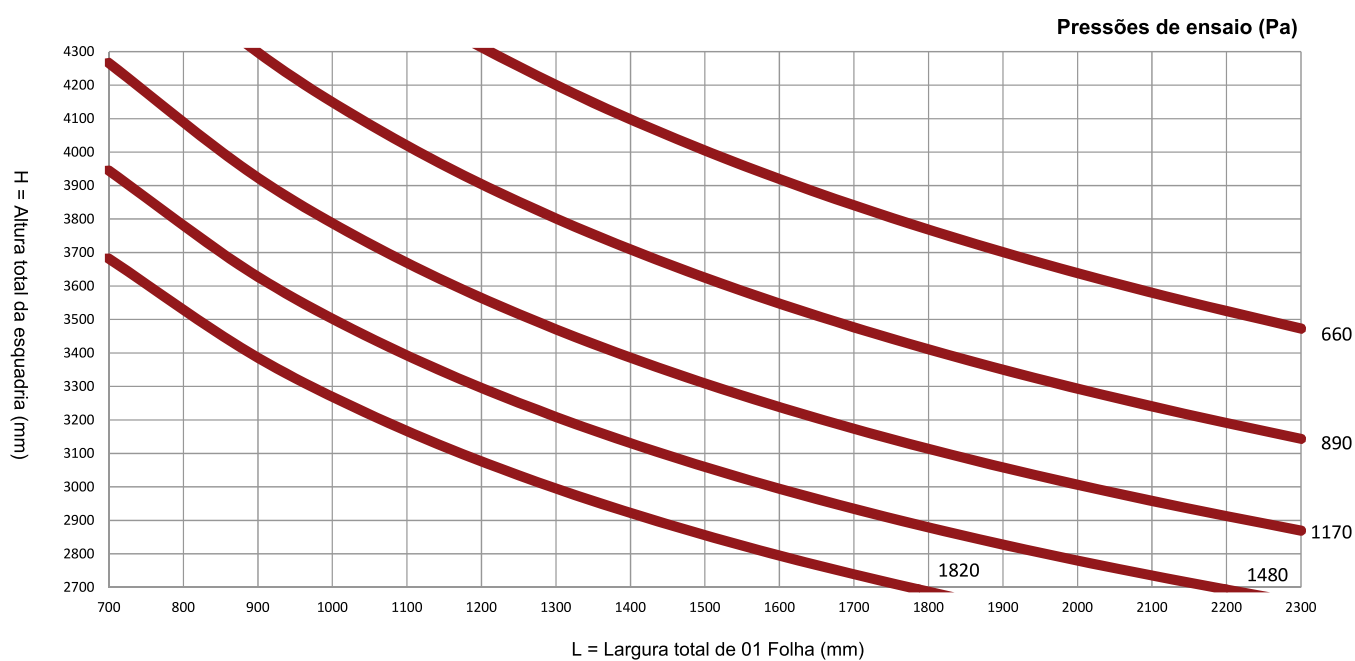
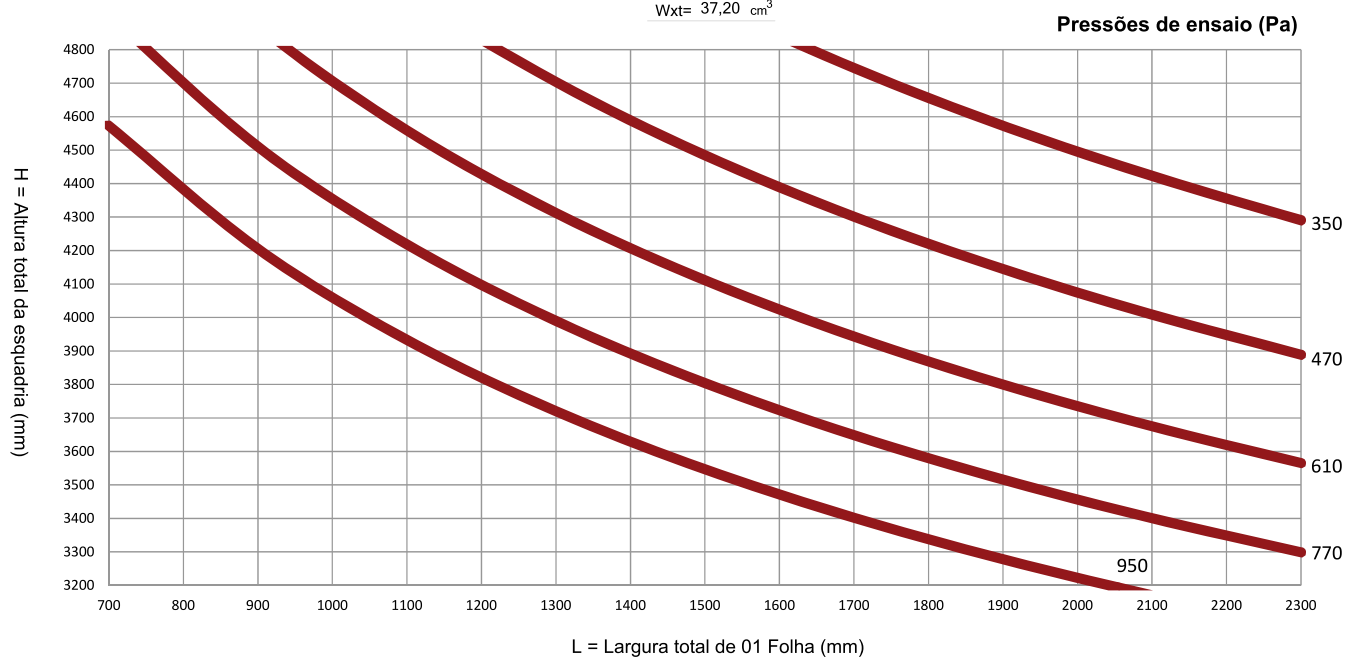
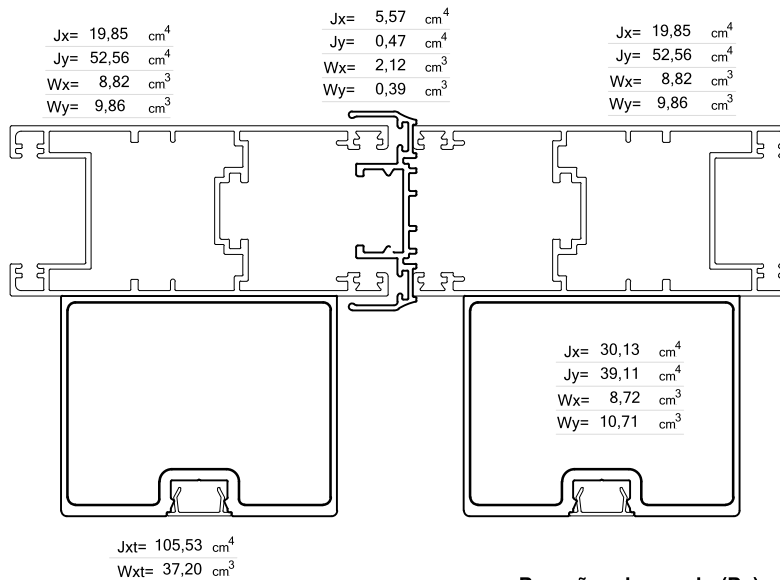
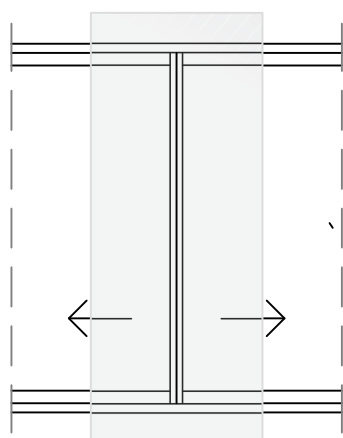


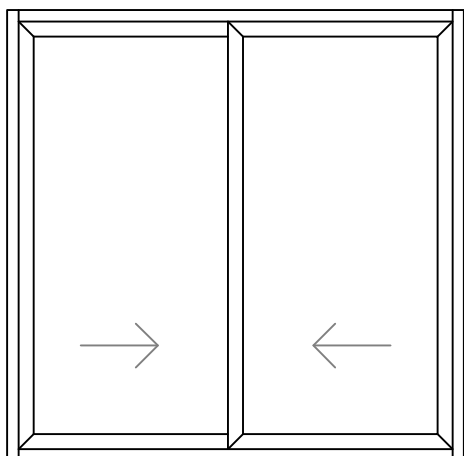
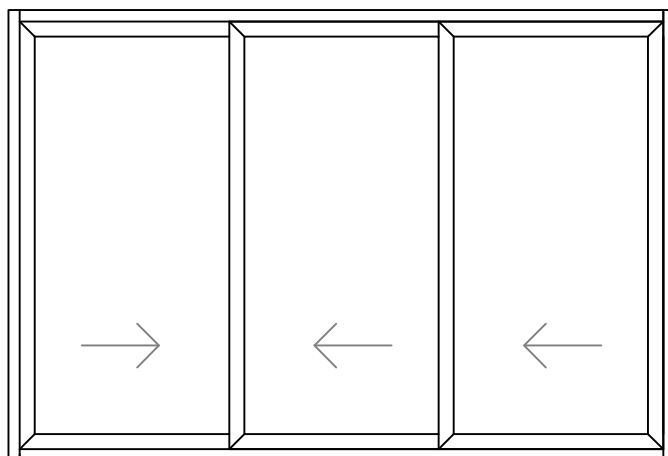
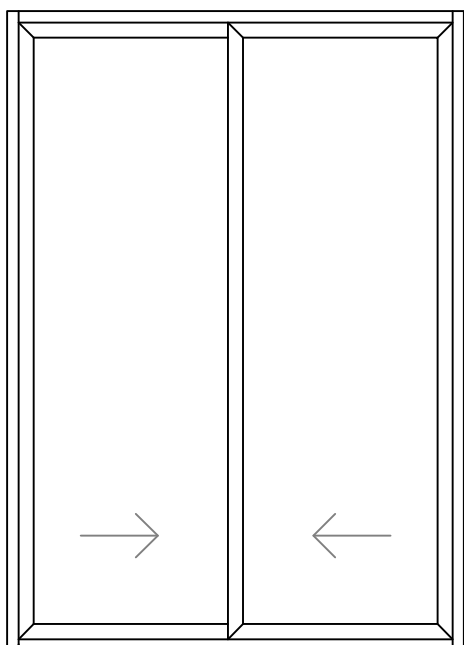
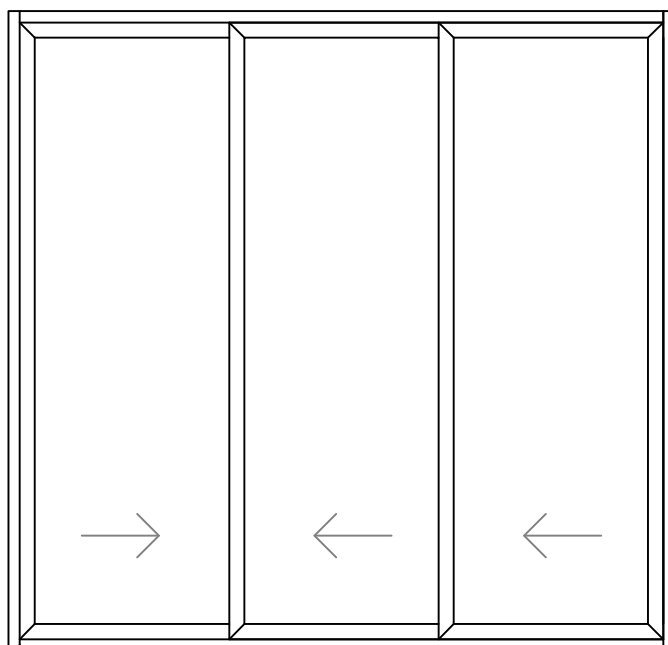


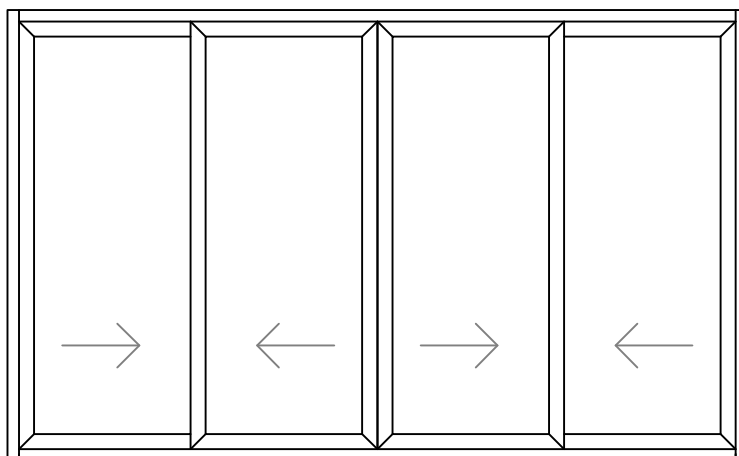
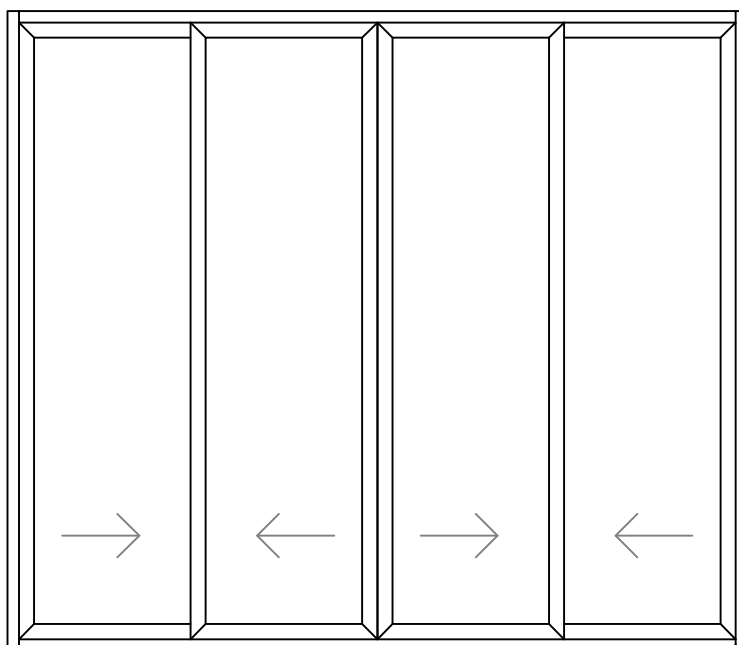
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$J_y = 52,56 \text{ cm}^4$	$J_y = 0,47 \text{ cm}^4$	$J_y = 52,56 \text{ cm}^4$
$W_x = 8,82 \text{ cm}^3$	$W_x = 2,12 \text{ cm}^3$	$W_x = 8,82 \text{ cm}^3$
$W_y = 9,86 \text{ cm}^3$	$W_y = 0,39 \text{ cm}^3$	$W_y = 9,86 \text{ cm}^3$

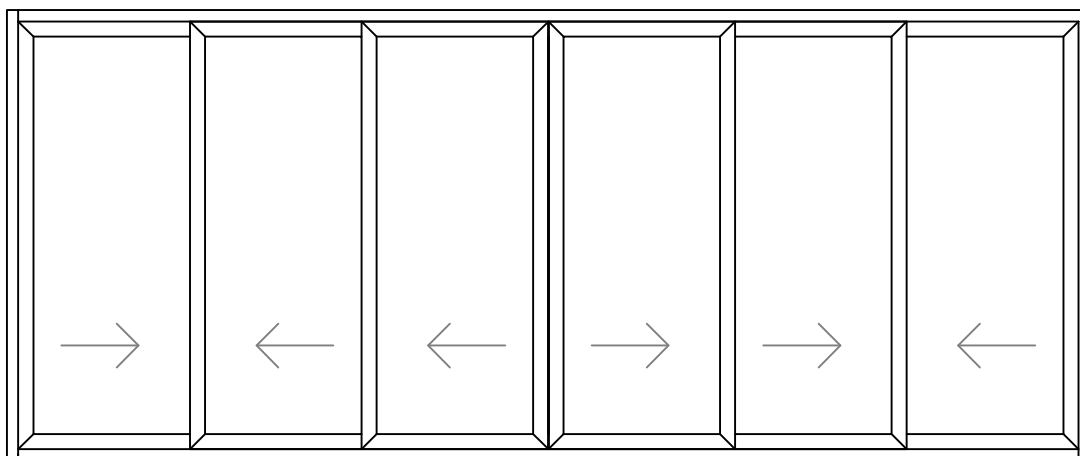
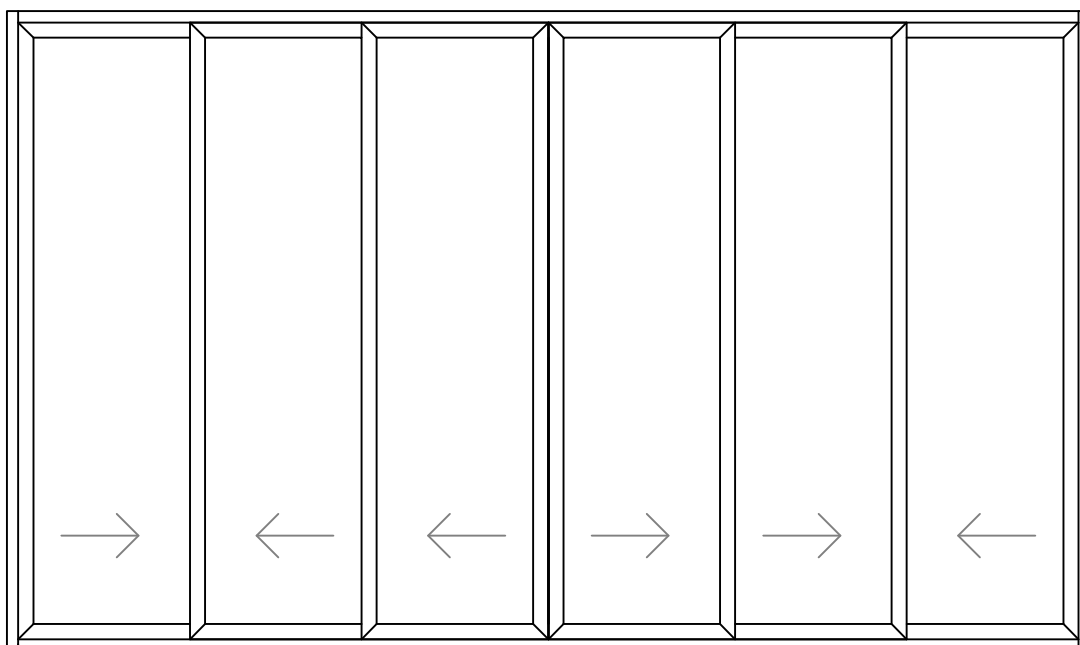
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$W_{xt} = 19,76 \text{ cm}^3$

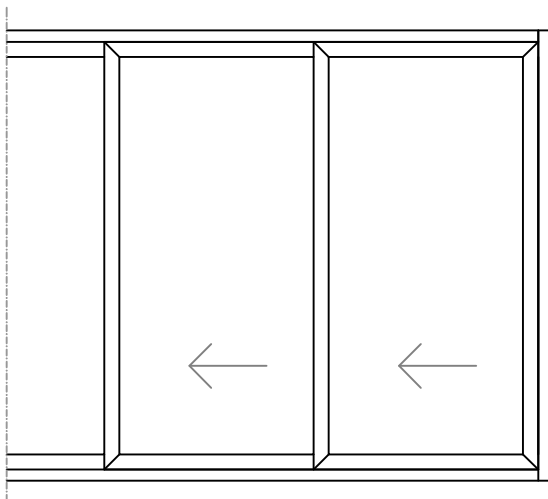
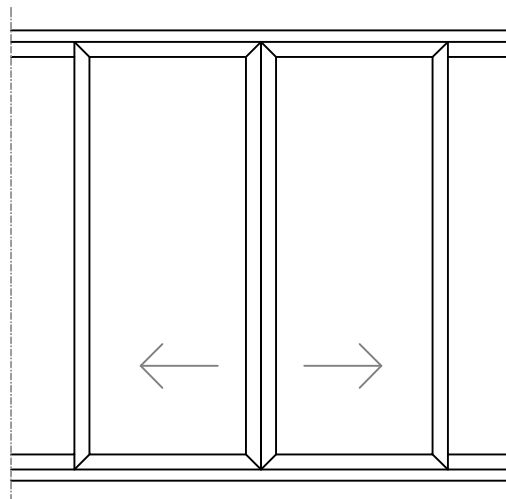
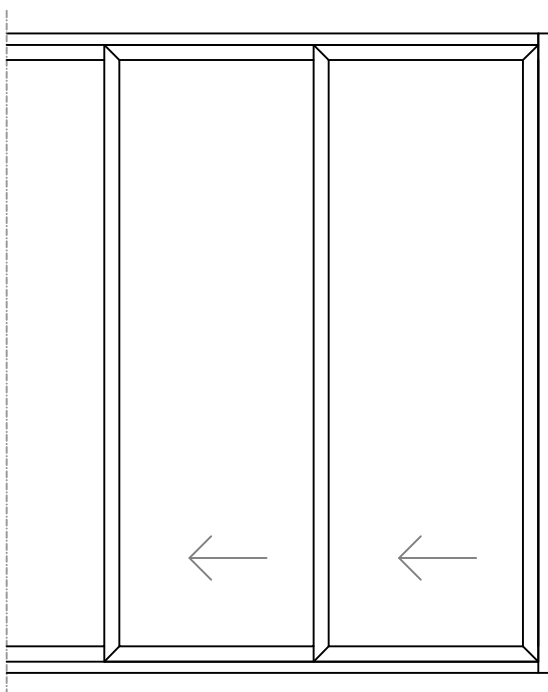
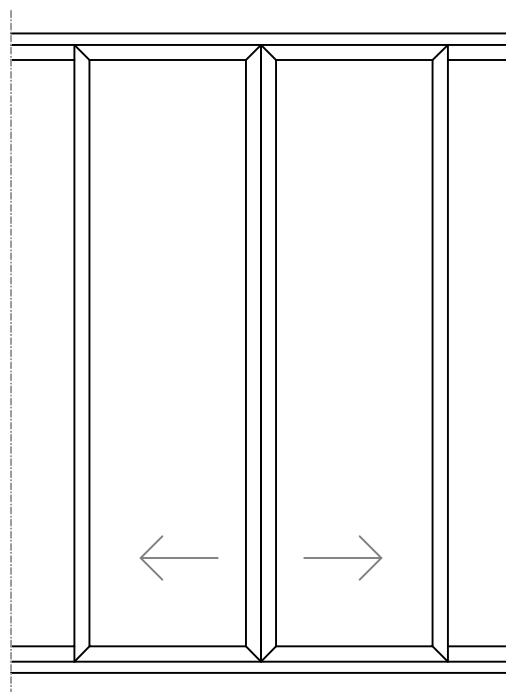




**Janela De Correr 02 Folhas****Janela De Correr 03 Folhas****Porta De Correr 02 Folhas****Porta De Correr 03 Folhas**

**Janela De Correr 04 Folhas****Porta De Correr 04 Folhas**

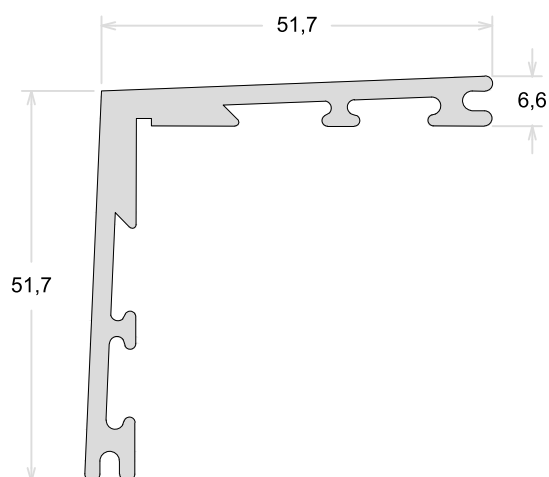
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**Janela De Correr "N" Folhas****Janela De Correr "N" Folhas****Porta De Correr "N" Folhas****Porta De Correr "N" Folhas**

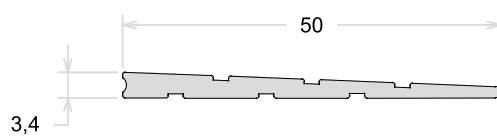
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80-041	30	S45-007	24
AL-013	28	S45-008	24
CL-006	19	S45-009	24
CL-011	19	S45-010	25
CM-060	20	S45-011	25
CM-098	20	S45-012	26
CM-173	20	S45-013	26
CM-175	20	S45-014	28
ME-013	21	S45-015	28
ME-015	21	S45-016	28
MP-347	21	S45-017	30
MP-349	21	S45-018	26
PIT-008	37	S45-019	29
PIT-009	37	S45-020	29
PIT-011	37	S45-021	27
PIT-023	33	S45-022	25
PIT-024	33	Y-1174	20
PIT-039	34		
PIT-116	36		
PIT-117	36		
PLG-230	32		
PMH-008	34		
PMN-007	36		
PMN-031	32		
PMN-039	35		
S45-001	22		
S45-002	22		
S45-003	23		
S45-004	23		
S45-005	23		

CL-006

PESO 1,113 kg/m
Cantoneira 45°

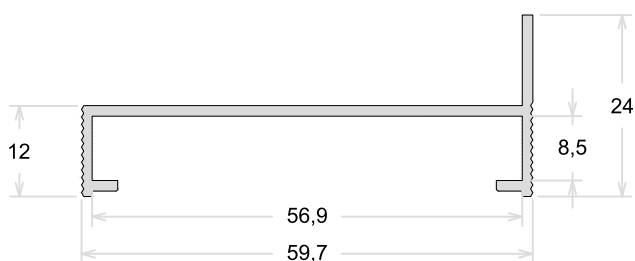
**CL-011**

PESO 0,329 kg/m
Cunha 45°

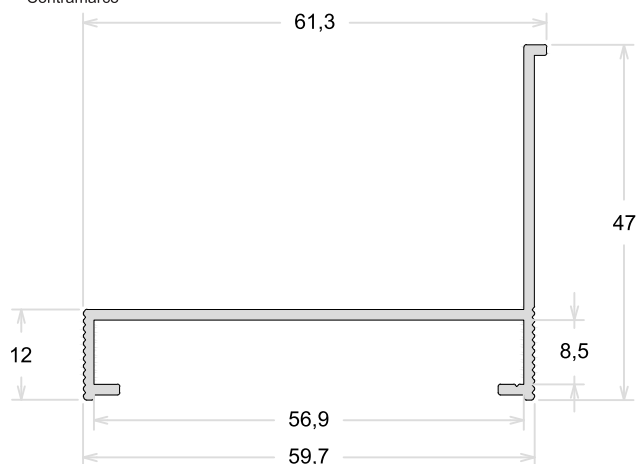


Y-1174 *

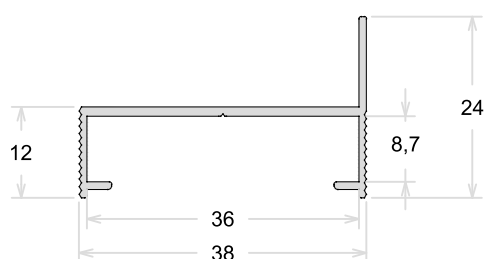
PESO 0,394kg/m
Contramarco

**CM-173 ***

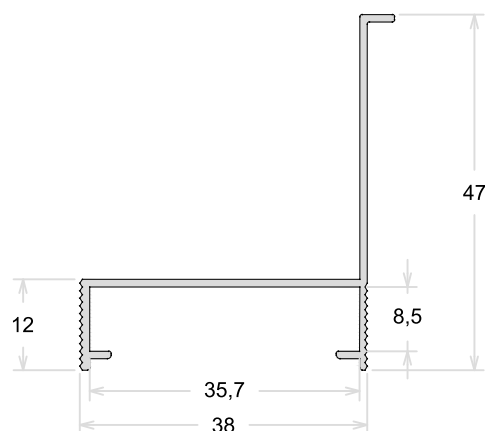
PESO 0,494 kg/m
Contramarco

**CM-060**

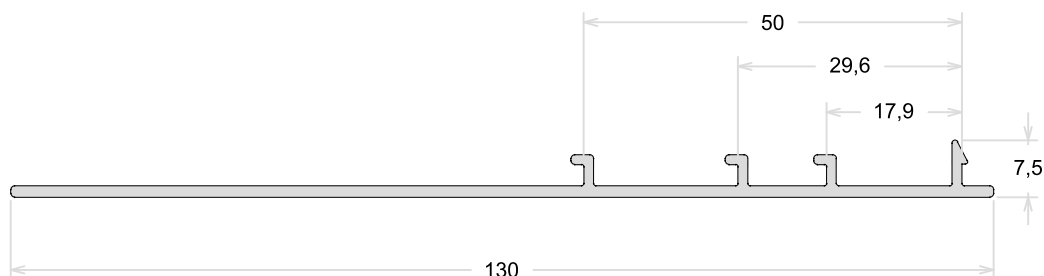
PESO 0,237 kg/m
Contramarco

**CM-098**

PESO 0,300 kg/m
Contramarco

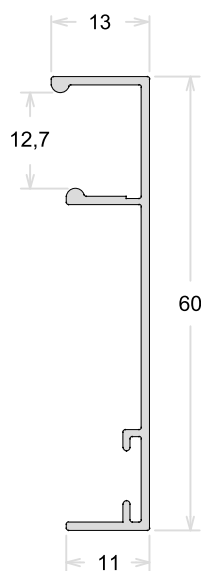
**CM-175**

PESO 0,652 kg/m
Chumbador Contramarco

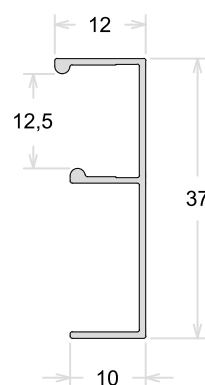


MP-349

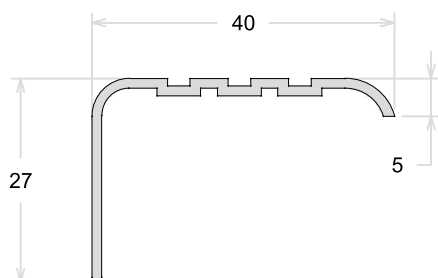
PESO 0,318 kg/m
Arremate

**MP-347**

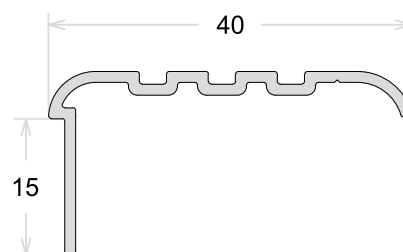
PESO 0,180 kg/m
Arremate

**ME-013**

PESO 0,270 kg/m
Arremate de Piso

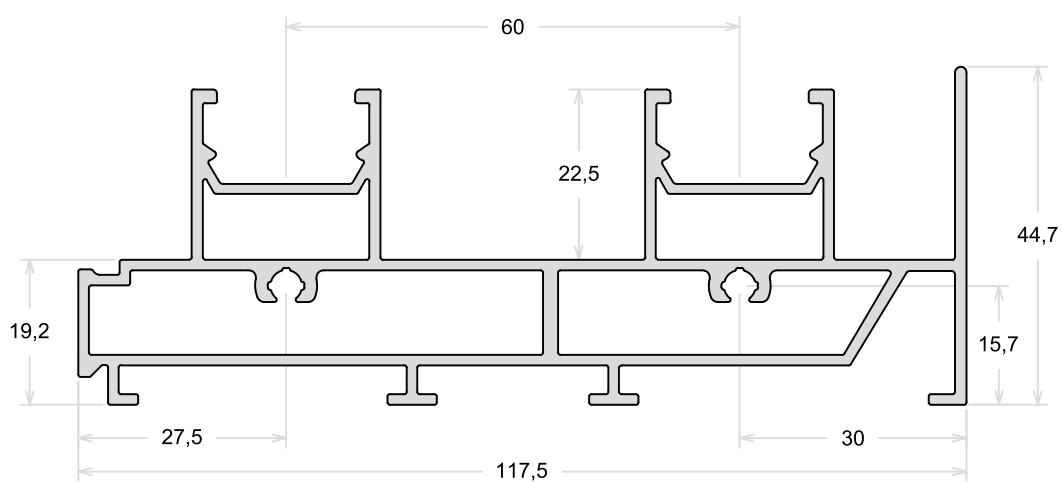
**ME-015**

PESO 0,235 kg/m
Acabamento Do Trilho

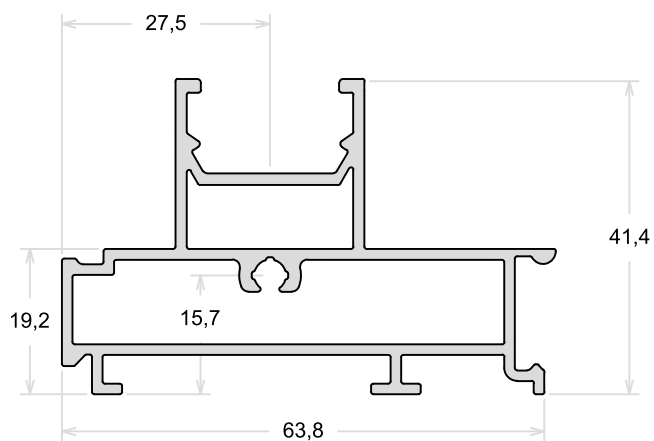


S45-001

PESO 2,081 kg/m
Marco Horizontal 02 Planos

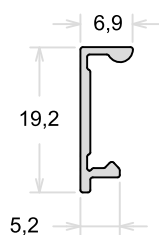
**S45-002**

PESO 1,082 kg/m
Marco Horizontal Acople

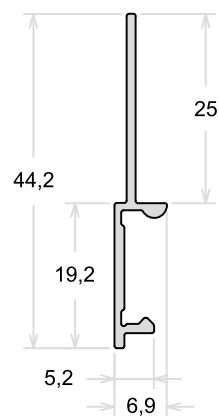


S45-003

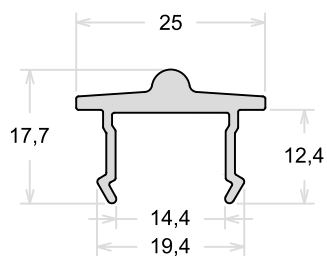
PESO 0,097 kg/m
Click Externo do Marco

**S45-004**

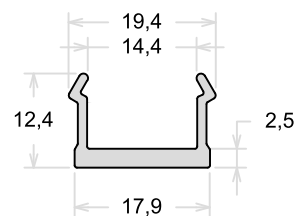
PESO 0,182 kg/m
Pingadeira Superior

**S45-005**

PESO 0,296 kg/m
Click do Trilho Inferior

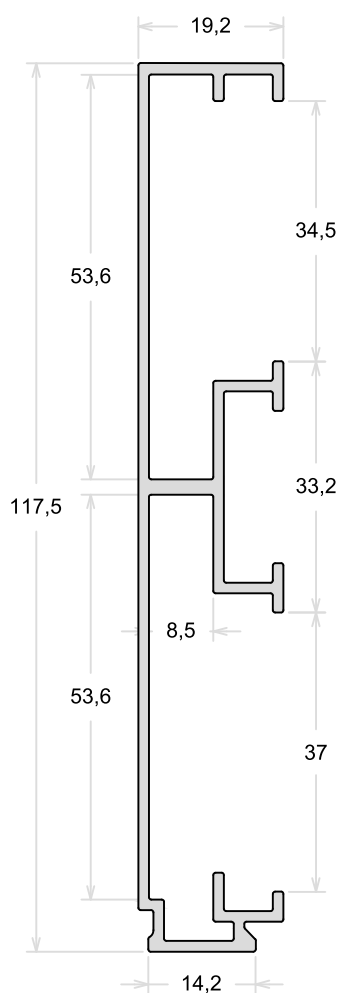
**S45-006**

PESO 0,201 kg/m
Click do Trilho e Mata Junta

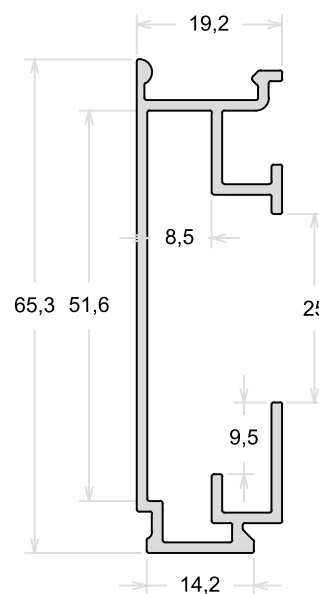


S45-007

PESO 0,942 kg/m
Marco Vertical 02 Planos

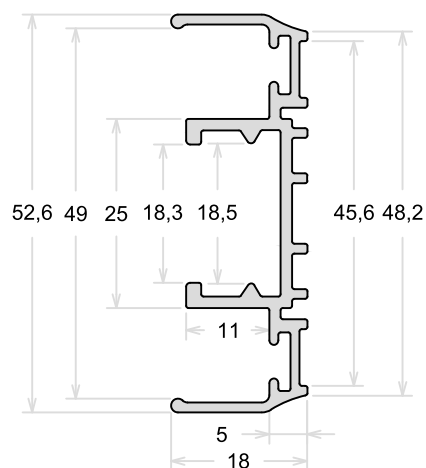
**S45-008**

PESO 0,605 kg/m
Marco Vertical Acople

**S45-009**

PESO 0,586 kg/m
Mata Junta Lateral e Central

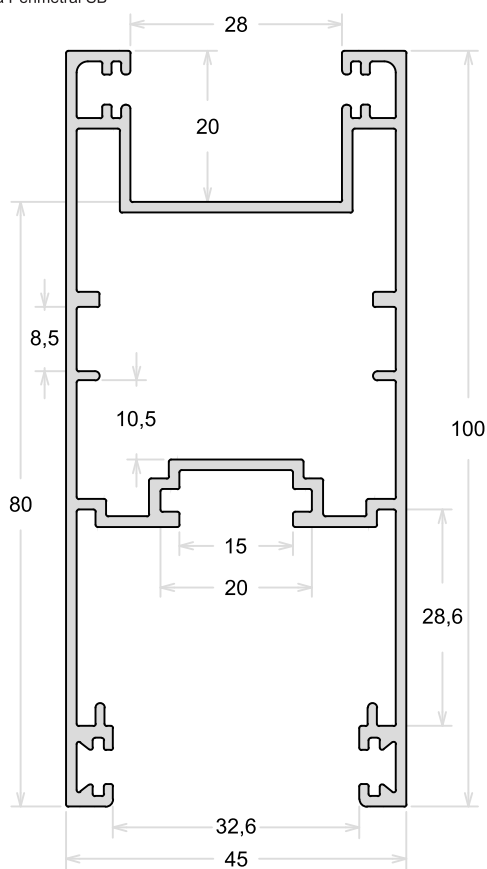
Jx=	5,57 cm ⁴
Jy=	0,47 cm ⁴
Wx=	2,12 cm ³
Wy=	0,39 cm ³



S45-010

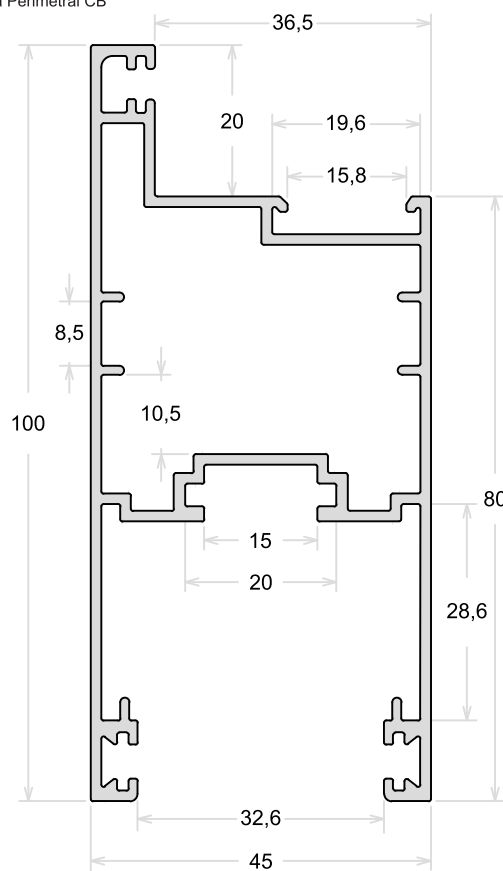
PESO 1,715 kg/m
Folha Perimetral SB

$$\begin{aligned} J_x &= 19,85 \text{ cm}^4 \\ J_y &= 52,56 \text{ cm}^4 \\ W_x &= 8,82 \text{ cm}^3 \\ W_y &= 9,86 \text{ cm}^3 \end{aligned}$$

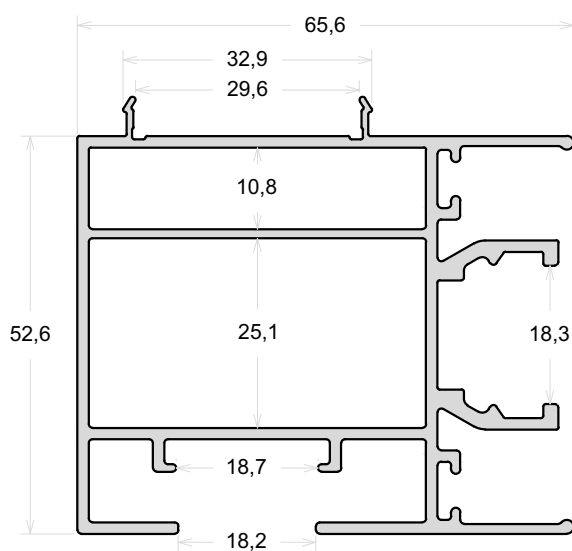
**S45-011**

PESO 1,568 kg/m
Folha Perimetral CB

$$\begin{aligned} J_x &= 17,35 \text{ cm}^4 \\ J_y &= 41,85 \text{ cm}^4 \\ W_x &= 7,06 \text{ cm}^3 \\ W_y &= 8,18 \text{ cm}^3 \end{aligned}$$

**S45-022**

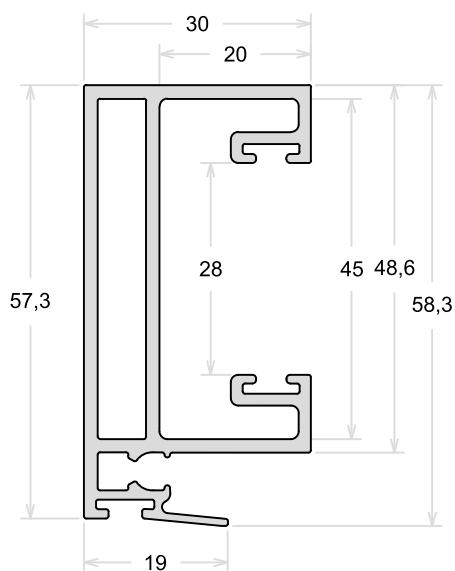
PESO 1,575 kg/m
Complemento Para Folha De Canto



S45-012

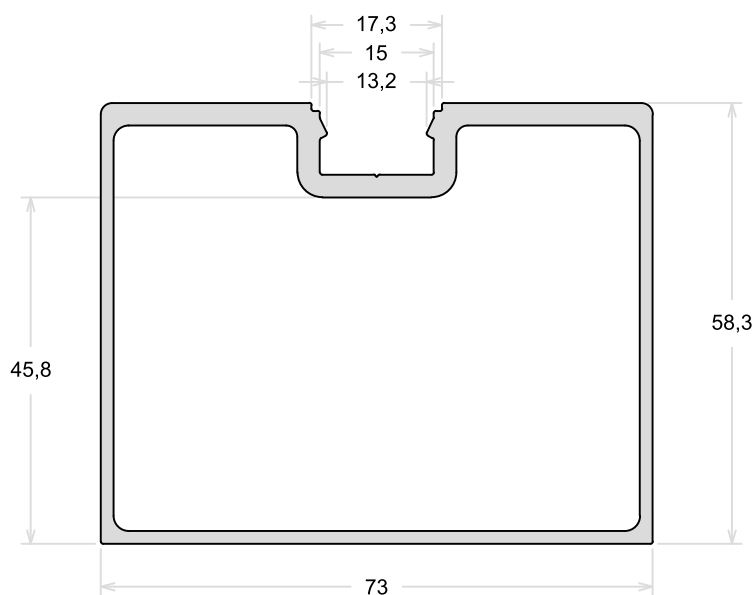
PESO 1,119 kg/m
Mão de Amigo Slim

$$\begin{aligned} J_x &= 14,57 \text{ cm}^4 \\ J_y &= 3,68 \text{ cm}^4 \\ W_x &= 4,79 \text{ cm}^3 \\ W_y &= 2,02 \text{ cm}^3 \end{aligned}$$

**S45-018**

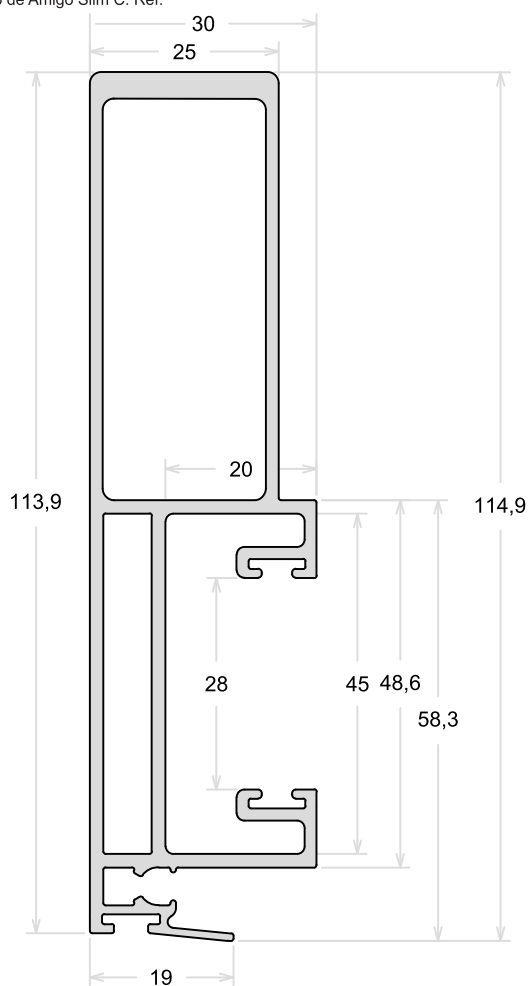
PESO 1,653 kg/m
Reforço Aparafusado

$$\begin{aligned} J_x &= 30,13 \text{ cm}^4 \\ J_y &= 39,11 \text{ cm}^4 \\ W_x &= 8,72 \text{ cm}^3 \\ W_y &= 10,71 \text{ cm}^3 \end{aligned}$$

**S45-013**

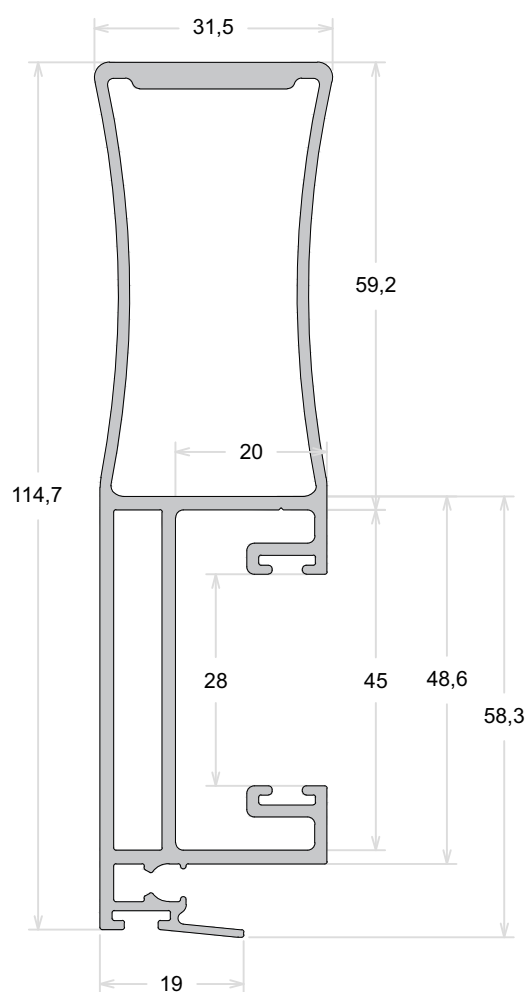
PESO 1,884 kg/m
Mão de Amigo Slim C. Ref.

$$\begin{aligned} J_x &= 87,87 \text{ cm}^4 \\ J_y &= 6,60 \text{ cm}^4 \\ W_x &= 15,02 \text{ cm}^3 \\ W_y &= 3,68 \text{ cm}^3 \end{aligned}$$



S45-021

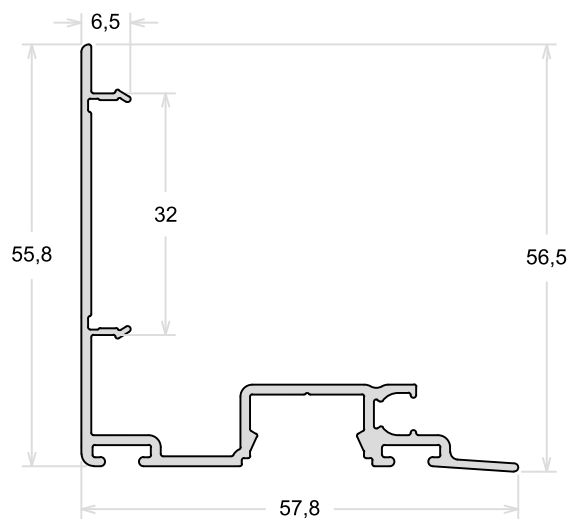
PESO 1,853 Kg/m
Mão de Amigo com Reforço Slim



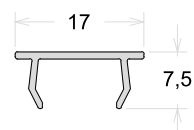
S45-014

PESO 0,580 kg/m
Mão de Amigo

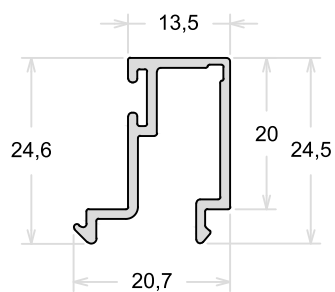
Jx= 5,04 cm⁴
Jy= 6,84 cm⁴
Wx= 1,20 cm³
Wy= 1,75 cm³

**AL-013**

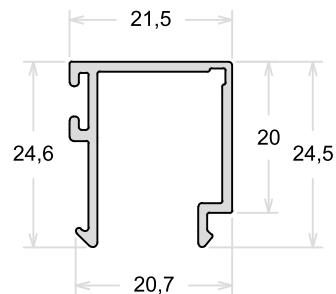
PESO 0,079 kg/m
Click de Acabamento

**S45-015**

PESO 0,266 kg/m
Baguete Perimetral

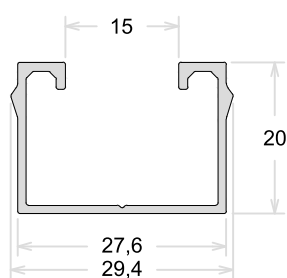
**S45-016**

PESO 0,278 kg/m
Baguete Perimetral



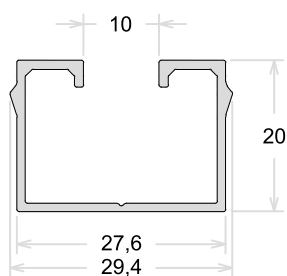
S45-019

PESO 0,250 kg/m
Redutor Para Vidro



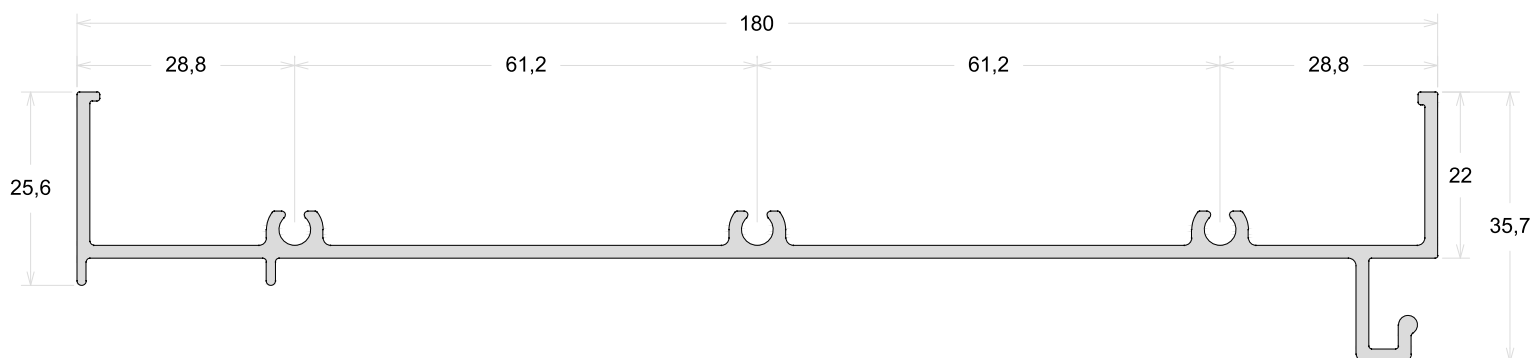
S45-020

PESO 0,268 kg/m
Redutor Para Vidro



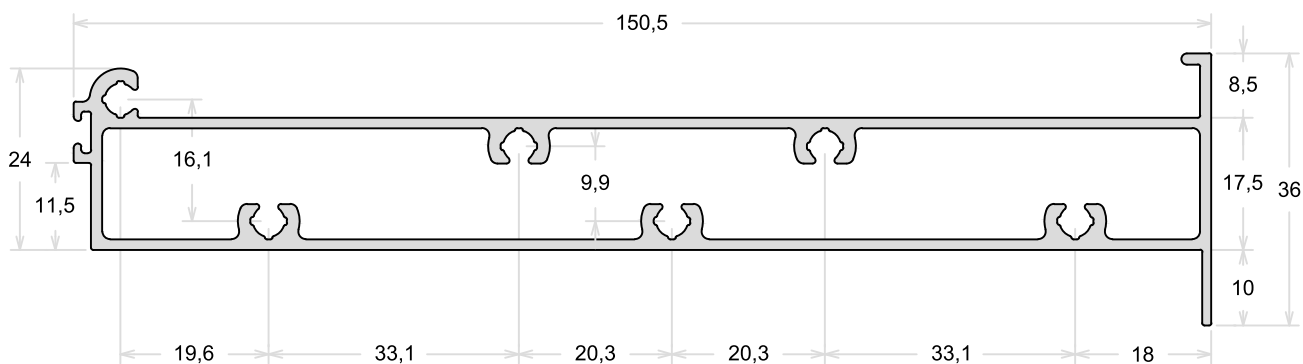
80-041

PESO 1,395 kg/m
Marco Superior Integrada

**S45-017**

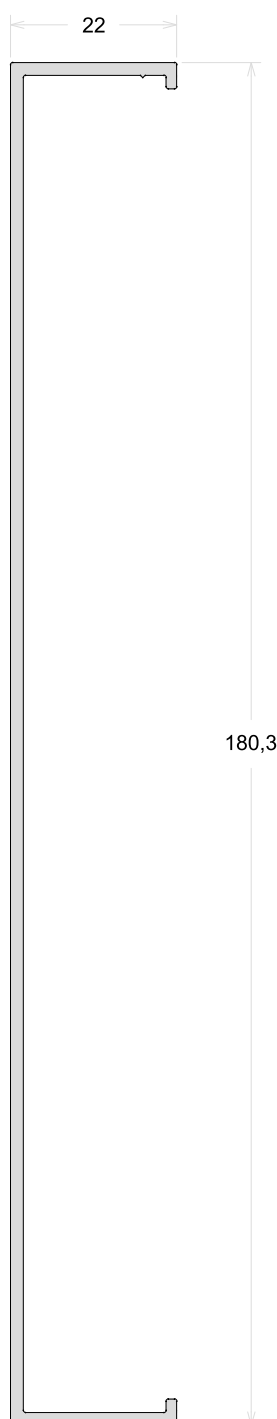
PESO 1,778 kg/m
Travessa Intermediária

Jx= 4,01 cm⁴
Jy= 145,10 cm⁴
Wx= 2,09 cm³
Wy= 18,91 cm³



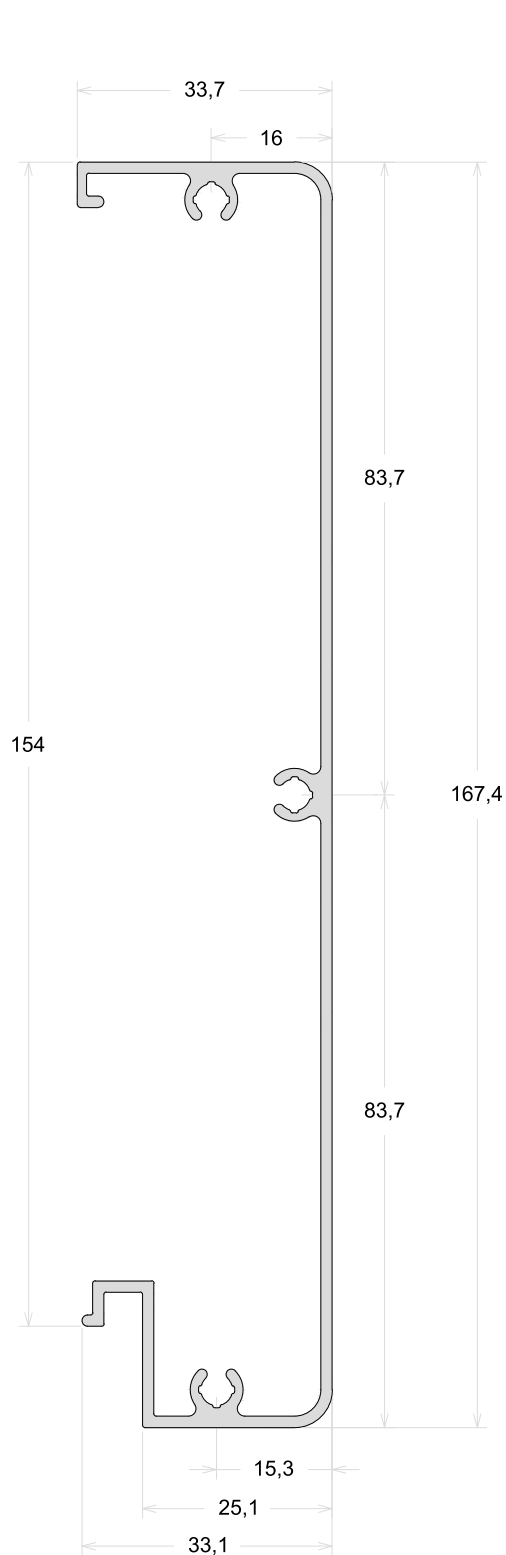
80-035

PESO 1,103 kg/m
Marco Lateral Integrada



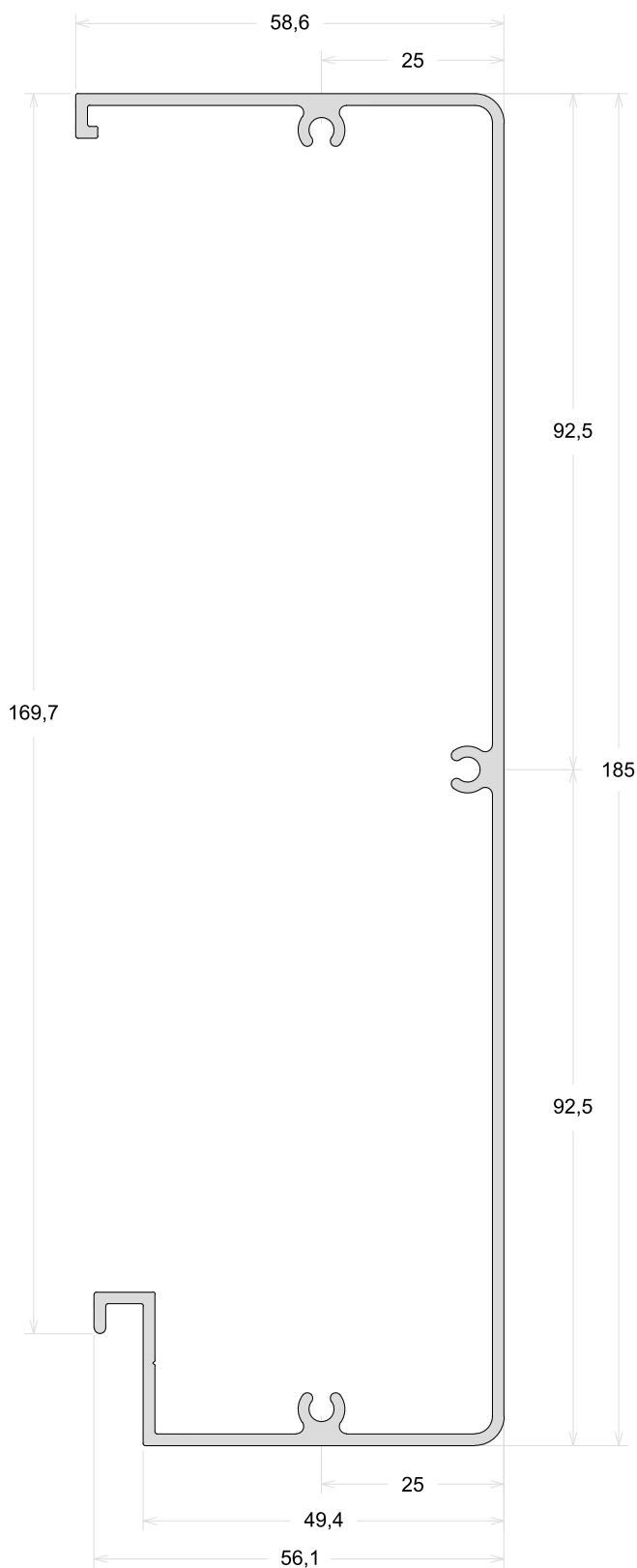
PMN-031

PESO 1,302 kg/m
Tampa Interna



PLG-230

PESO 1,683 kg/m
Tampa Interna



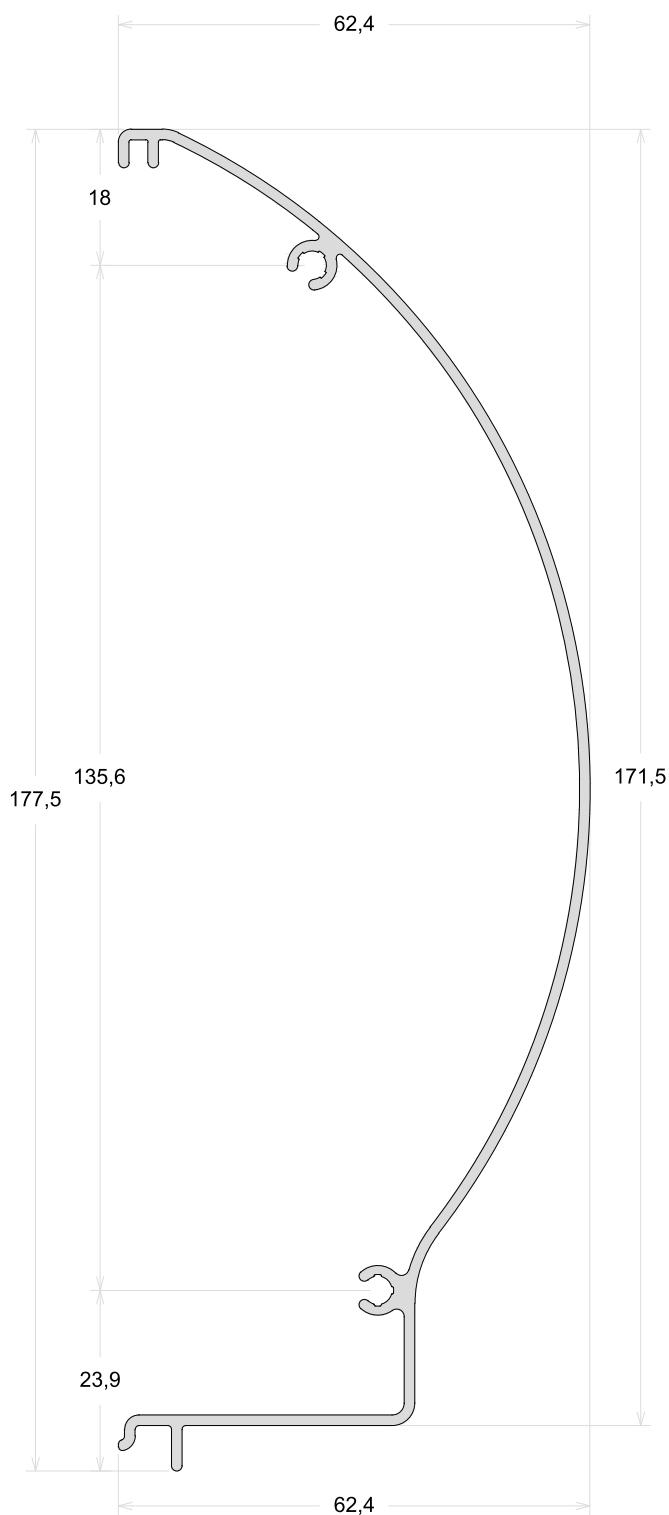
PIT-023

PESO 0,939 kg/m
Tampa Interna



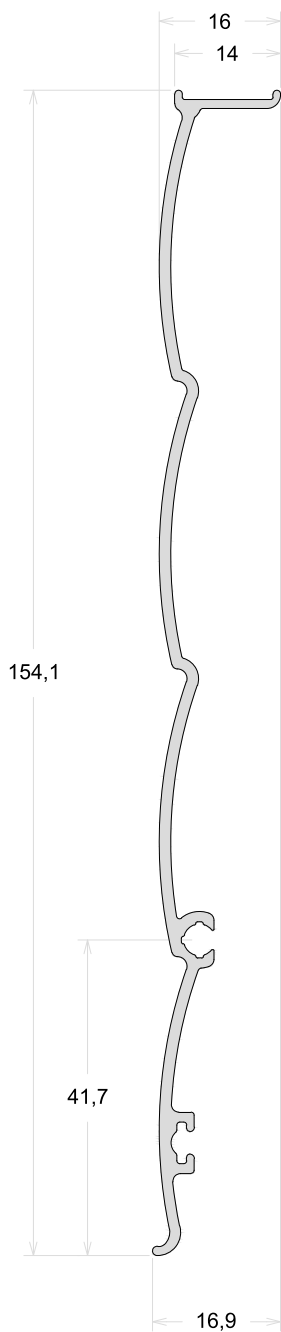
PIT-024

PESO 1,263 kg/m
Tampa Interna

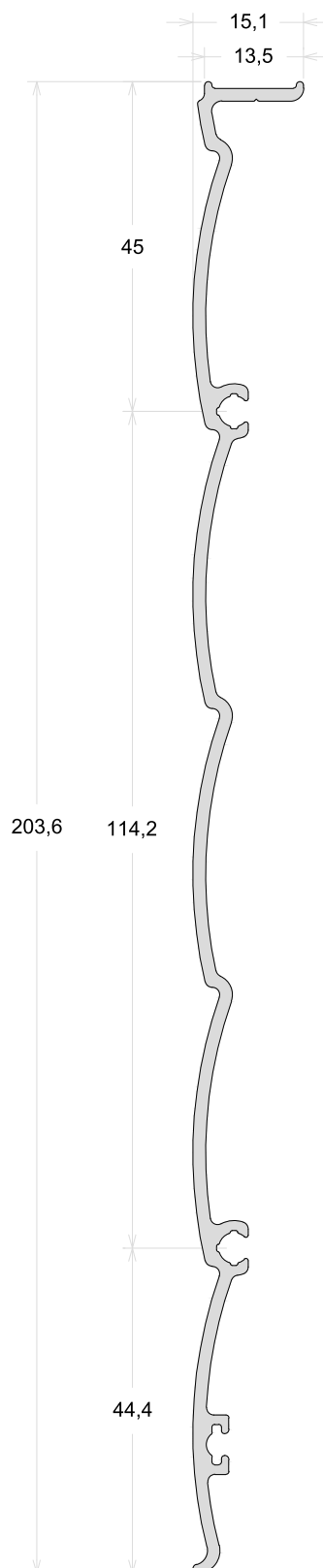


PMH-108

PESO 0,824 kg/m
Tampa Externa

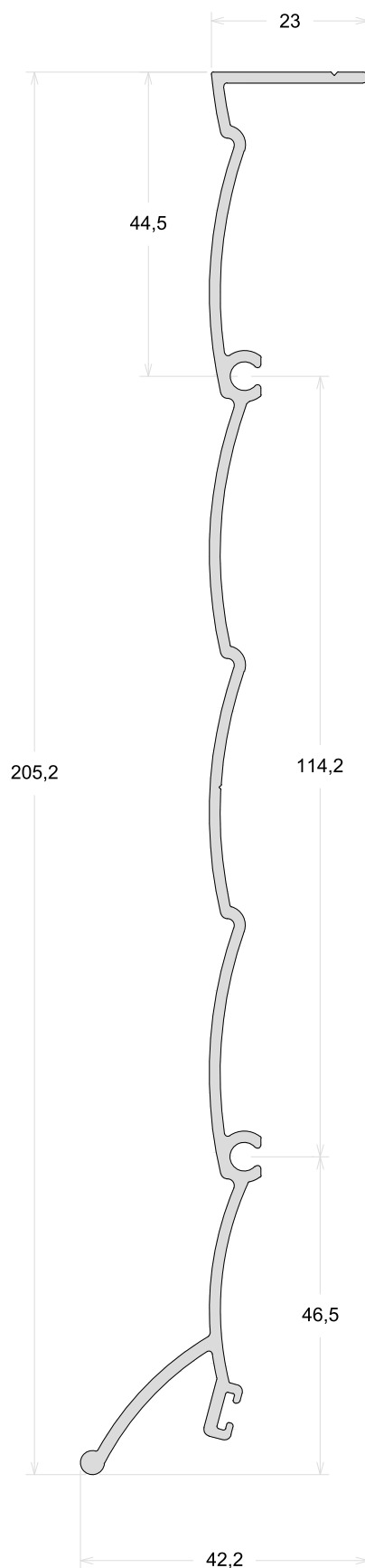
**PIT-039**

PESO 1,249 kg/m
Tampa Externa



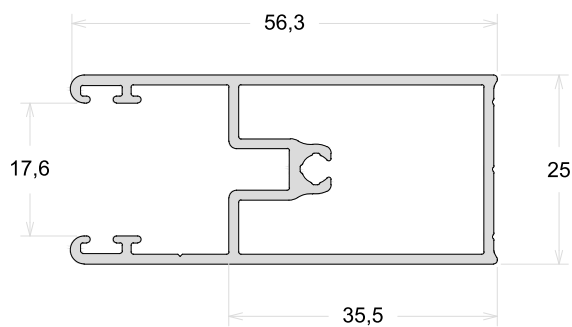
PMN-039

PESO 1,335 kg/m
Tampa Externa

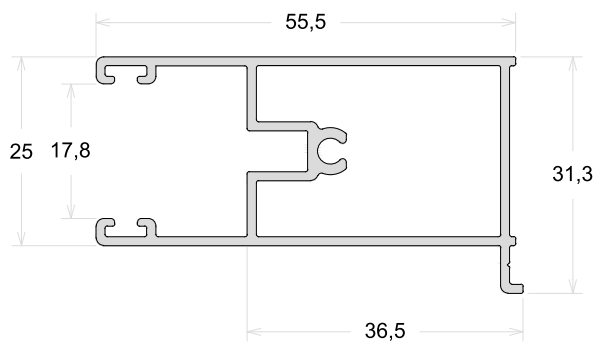


PIT-116

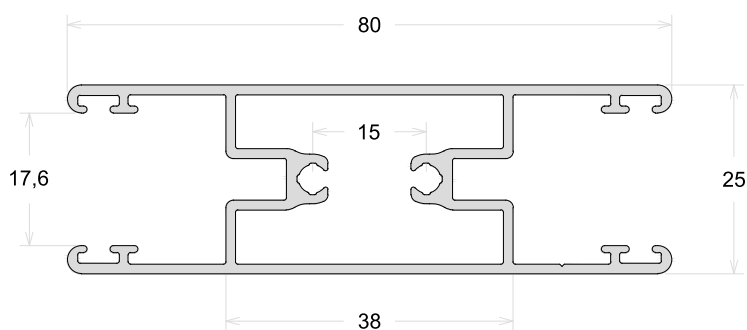
PESO 0,745 kg/m
Guia Da Persiana

**PMN-007**

PESO 0,706 kg/m
Guia Da Persiana

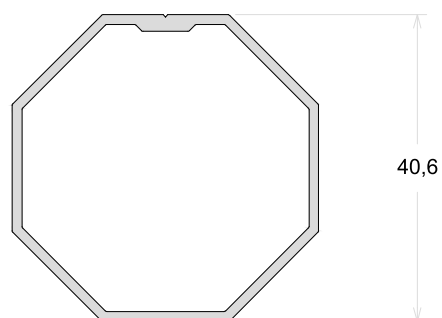
**PIT-117**

PESO 1,076 kg/m
Guia Duplo Da Persiana



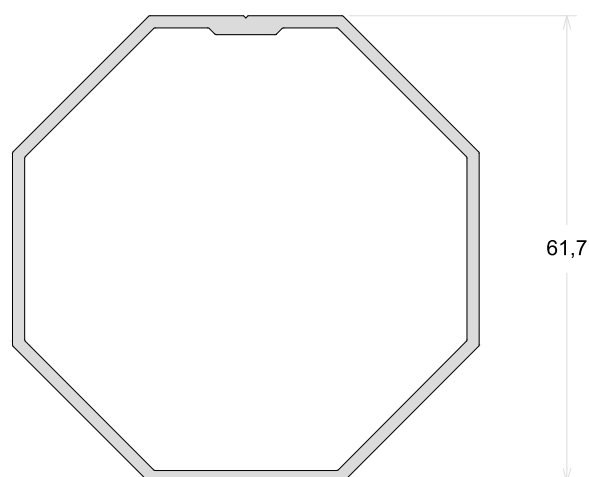
PIT-011

PESO 0,508 kg/m
Tubo Recolhedor 40mm



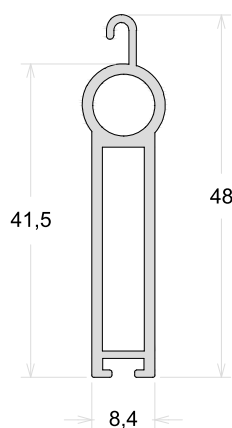
PIT-008

PESO 0,945 kg/m
Tubo Recolhedor 60mm

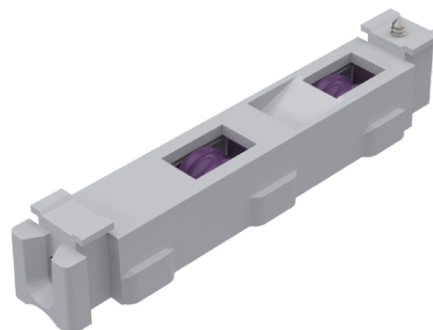


PIT-009

PESO 0,439 kg/m
Terminal Da Persiana



13388	46	9601876	45
13389	46	CONTROLE	46
9001892	42	DISC	45
9001980	46	GUA006	48
9002071	43	GUA038	48
9212158	42	GUA039	48
9212365	46	GUA051	48
9212647	42	GUA256	48
9212660	42	GUA259	48
9213410	43	GUINF	46
9301848	39	KIT HASTE	43
9301849	39	MOTOR INTEGRADA UDINESE	44
9302254	41	MOTOR INTEGRATOMAX	44
9302255	41	NYL369	45
9302526	39	NYL370	45
9302528	39	NYL382	47
9302558	42	NYL383	47
9302560	42	NYL900	40
9302586	40	PERSIANA INTEGRADA	45
9302635	41	RCE01GU	45
9302637	41	RCE06GU	43
9302687	40	TABELAS	49
9302771	41	TPA250	47
9302773	41	TPA350	47
9303099	41	TPP03A	45
9303100	41		
9303315	40		
9303316	40		
9500524	39		
9500525	39		
9500550	39		

9500524Roldana Dupla
80 kg por folha**9500525**Roldana Dupla
200 kg por folha**9500550**Roldana Dupla
300 kg por folha**9302528**

Calço Da Folha Fixa

**9302526**

Conexão De Alinhamento

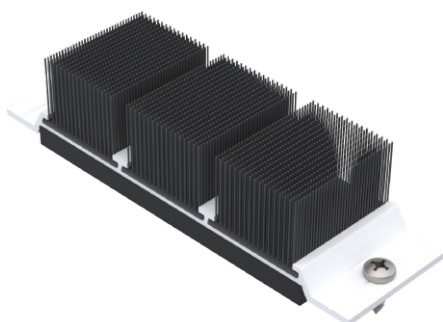
**9301848-BR**
9301849-PT

Batedeira Da folha Universal



9303315-BR
9303316-PT

Vedação Inferior e Superior 34mm



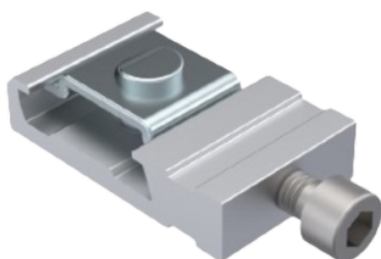
9302586

Conexão 45°



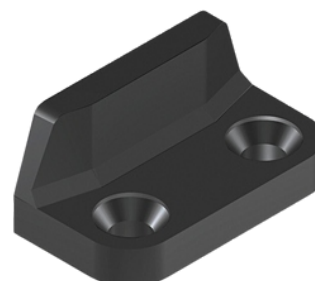
9302687

Conexão 90°



NYL 900-BR
NYL 900-PT

Limitador Da Persiana



9302255-BR
9302254-PT

Dreno Com Portinhola



9303099-BR
9303100-PT

Dreno Com Esfera



9302771-BR
9302773-PT

Kit Guia Deslizante



9302635-BR
9302637-PT

Kit Antielevação



9212647-BR
9212660-PT

Contra Fecho



9302558-BR
9302560-PT

Bulon Regulável - Fecho



9212158

Mecanismo Cremona



9001892

Barra De Comando



9213410-BR
9002071-PT

Maçaneta Cremona Square 45mm



KIT HASTE

Haste 35mm - 9211128U
Haste 40mm - 9211129



RCE01GU-BR
RCE01GU-PT

Recolhedor De Janela Tubo 40mm

**RCE06GU-BR**
RCE06GU-PT

Recolhedor Com Redução

**Motor Integratamax**Para tubo de 60 / 40
Esquadrimax**Motor Integrada**Para tubo de 60 / 40
Udinese

Persiana Integrada

Palheta cega / Ventilada

**NYL-369**

Guia e Limitador

**9301876**

Tampa Para Persiana 41mm

**NYL-370**

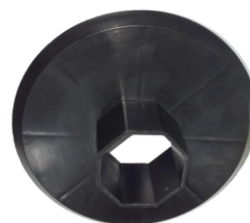
Guia Da Persiana

**TPP03A**

Tampa Para Persiana 45mm

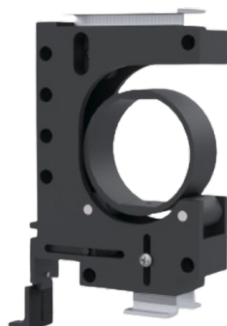
**DISC**

Disco Alinhador Discos 120x60, 158x60, 190x60



9212365

Mancal Smart Central Para Integrada

**9001980**

Fixador Esteira Anti-vandalismo

**GUINF-BR
GUINF-PT**

Passa Cinta Do Recolhedor

**CONTROLE-BR
CONTROLE-PT**

Controle Motor Integrada Udinese

**13388**Controle Motor Integrada Esquadrimax
1 Canal**13389**Controle Motor Integrada Esquadrimax
15 Canais

NYL382-BR
NYL382-PT

Tampa SOL-031



NYL383-BR
NYL383-PT

Tampa SOL-230



TPA250-BR
TPA250-PT

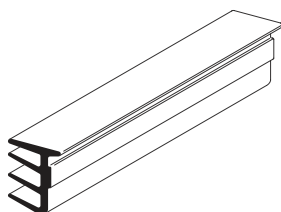
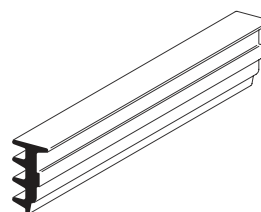
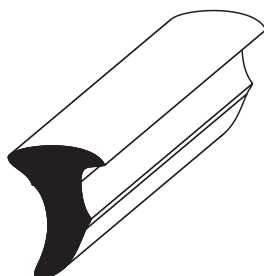
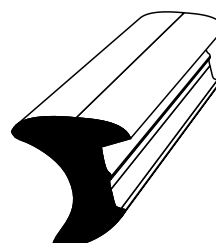
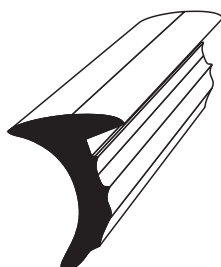
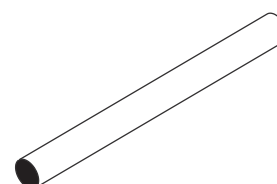
Tampa SOL-023



TPA350-BR
TPA350-PT

Tampa SOL-024

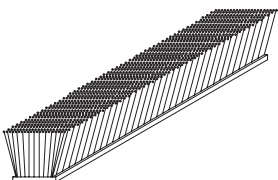


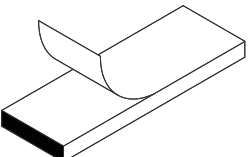
GUA256Guarnição Do Vidro
EPDM**GUA259**Guarnição Do Vidro
EPDM**GUA051**Guarnição Do Vidro
EPDM**GUA039**Guarnição Do Vidro
EPDM**GUA038**Guarnição Do Vidro
EPDM**GUA006**Guarnição Mão de Amigo
EPDM

Ø 5 mm

TABELAS DE COMPONENTES

	CÓDIGO	DIAMETRO	COMP.	PONTA
	PAR006	4,2 MM	16 MM	AUTO-ATARRAXANTE
	PAR016	4,2 MM	32 MM	AUTO-ATARRAXANTE
	PAR016	4,2 MM	32 MM	AUTO-ATARRAXANTE
	PAR026	4,8 MM	50 MM	PILOTO

	CÓDIGO	LARGURA ALTURA	COMP.	BARREIRA PLASTICA
	FIT208-PT	5 X 6	50 M	SIM
	FIT201-PT	5 X 5	50 M	SIM
	FIT203	5 X 8	50 M	SIM
	FIT223	7 X 8	50 M	SIM

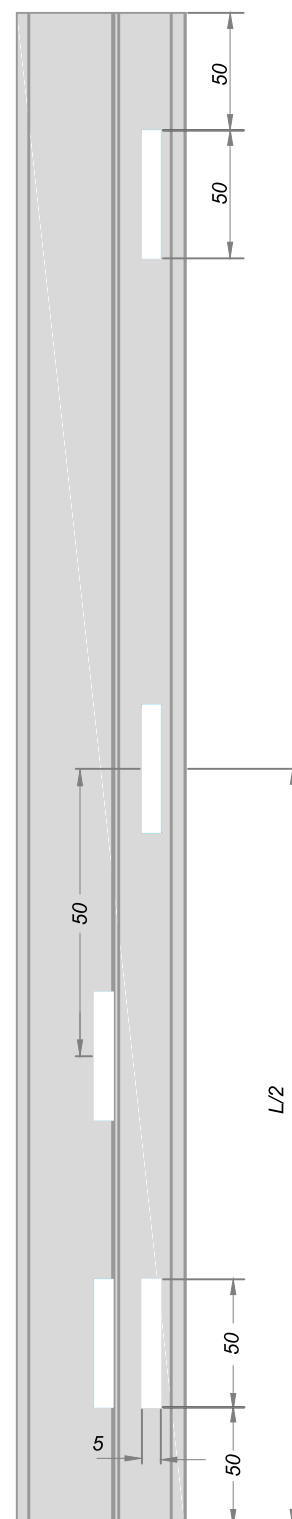
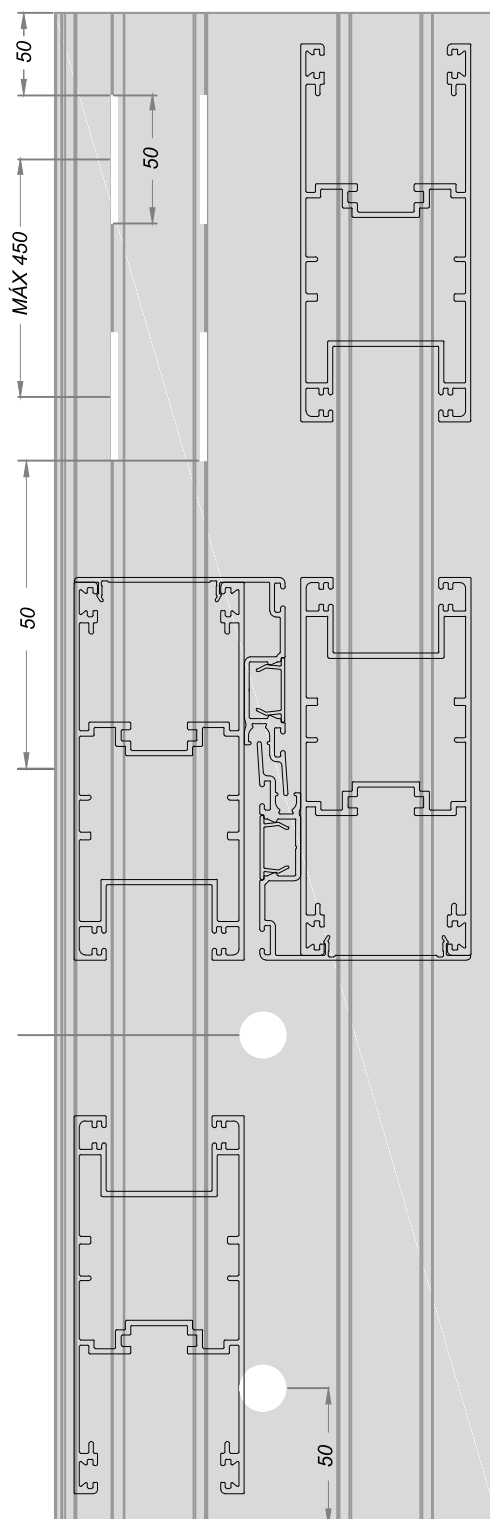
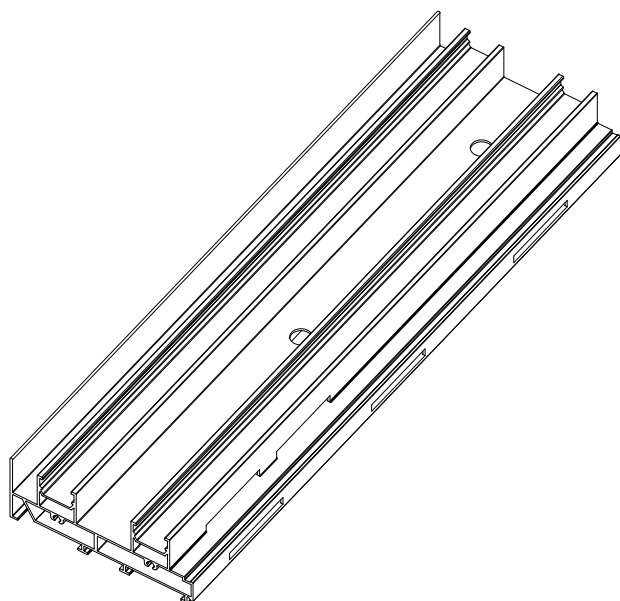
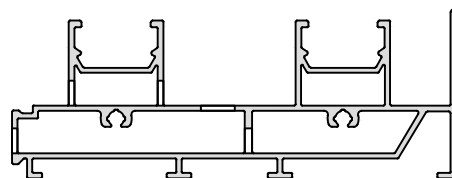
	CÓDIGO	LARGURA ALTURA	COMP.
	SWES1104	11 X 4	50 M
	SWES1106	11 X 6	50 M
	SWES1404	14 X 4	50 M
	SWES1406	14 X 6	50 M

DESABE DO MATA JUNTA	53
FURAÇÕES DOS MARCOS VERTICAIS	52
USINAGEM DE DRENO	51
USINAGEM DO GUIA	54

USINAGEM DE DRENO

S45-001

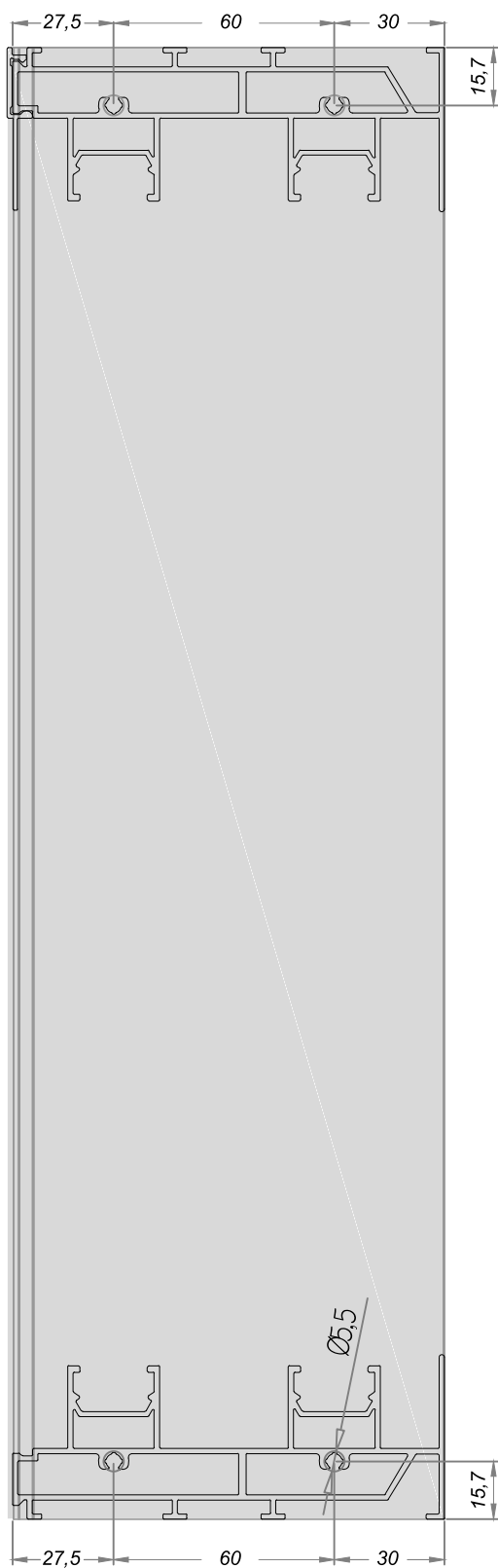
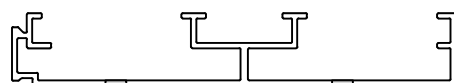
S45-002



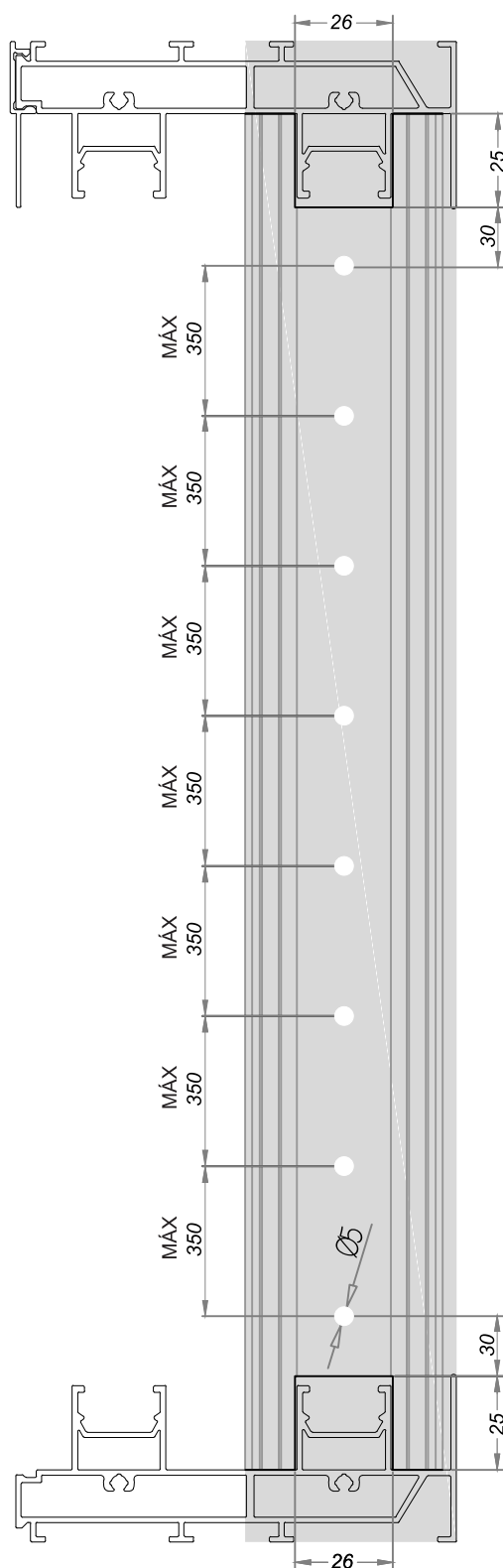
FURAÇÕES DO MARCO

S45-007

S45-008



DESABE MATA JUNTA
S45-009

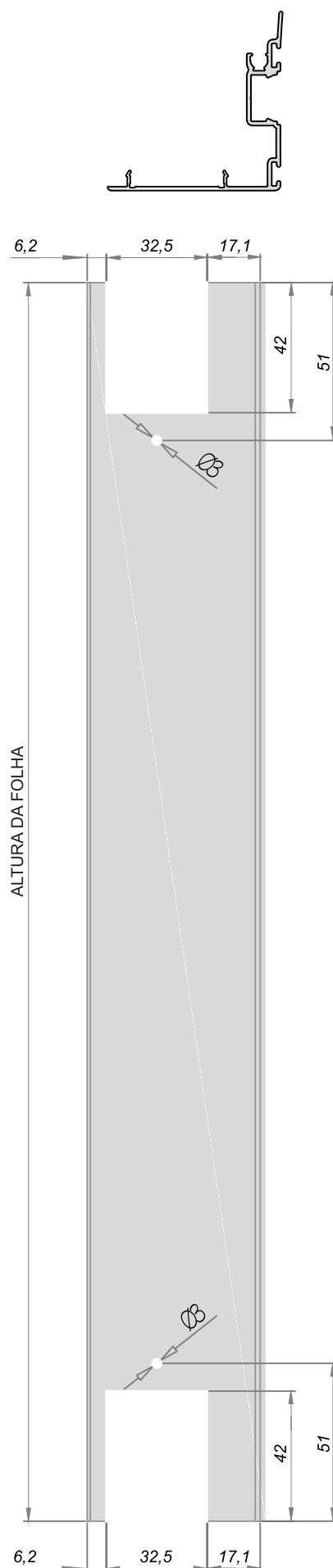


USINAGEM DE GUIA

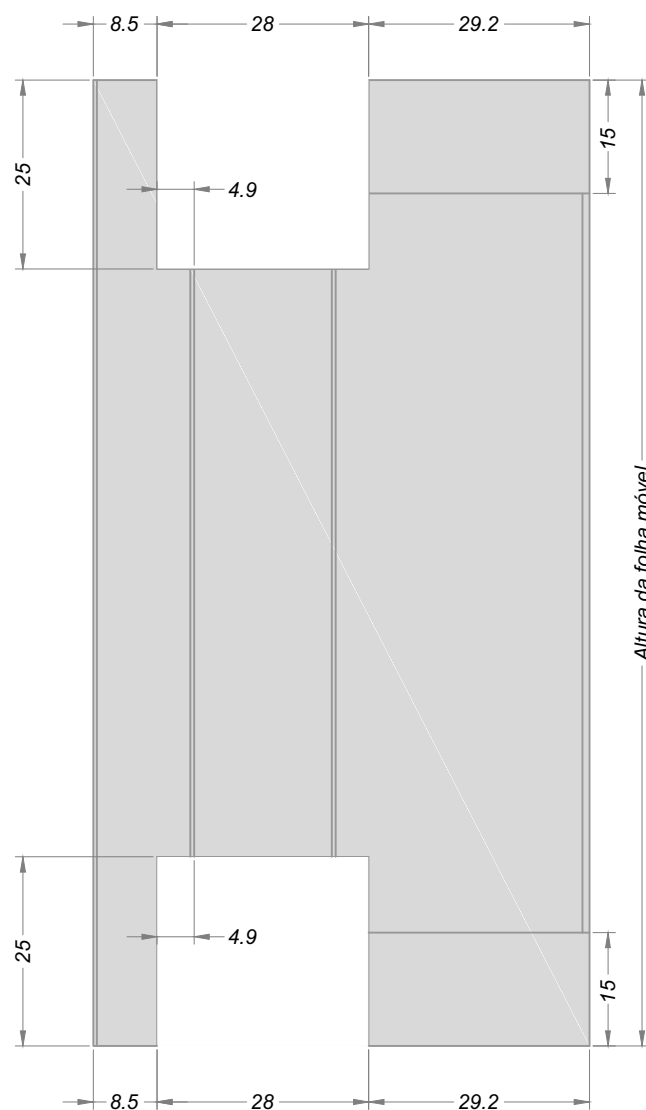
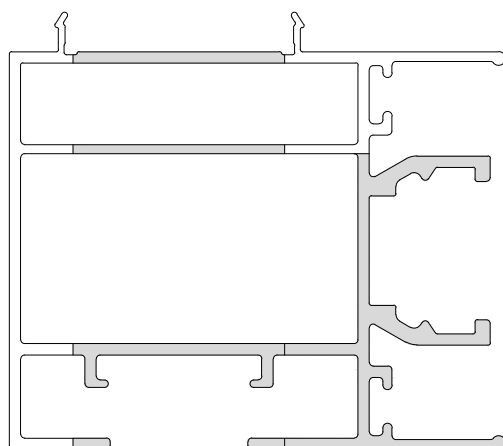
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S45-013

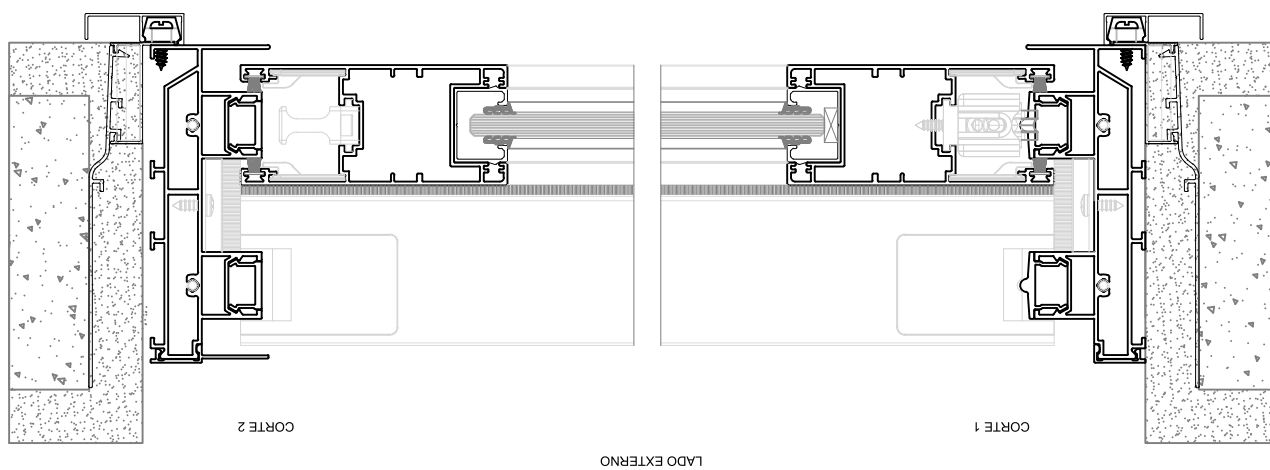
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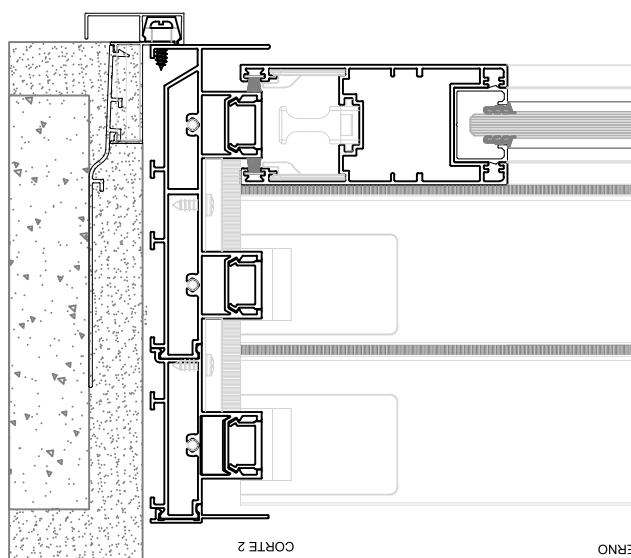
**Nota:**

Para os perfis slim, necessário analisar os desabes do reforço e usinagem passante.

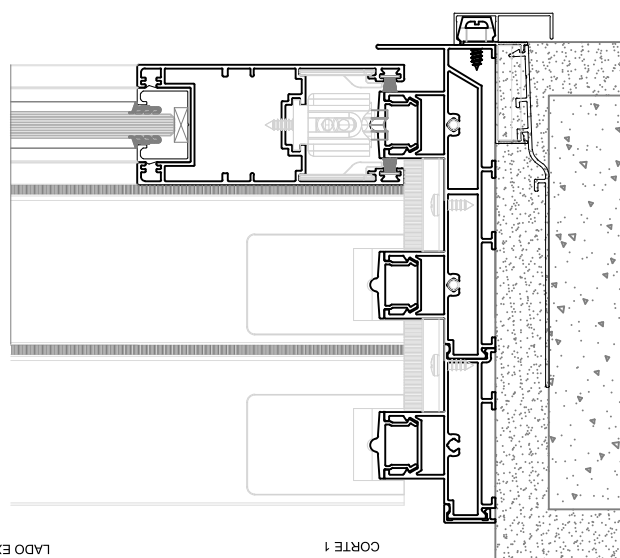


JANELA DE CORRER 02 FOLHAS COM VIDRO	57
JANELA DE CORRER 03 FOLHAS COM VIDRO	58
PORTA DE CORRER 02 FOLHAS COM VIDRO	59
PORTA DE CORRER 03 FOLHAS COM VIDRO	60

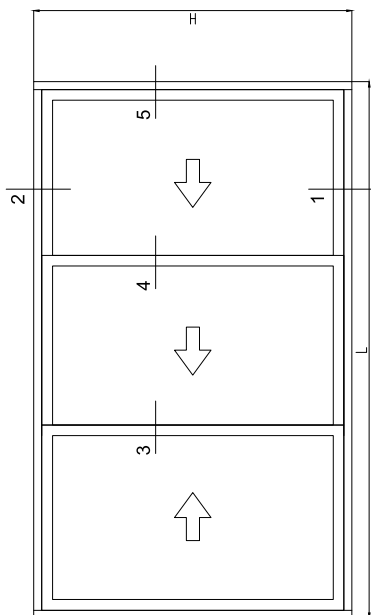




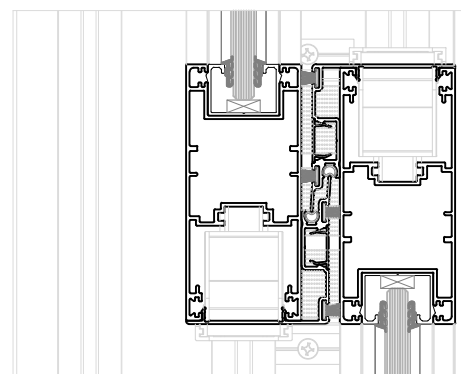
CORTE 2



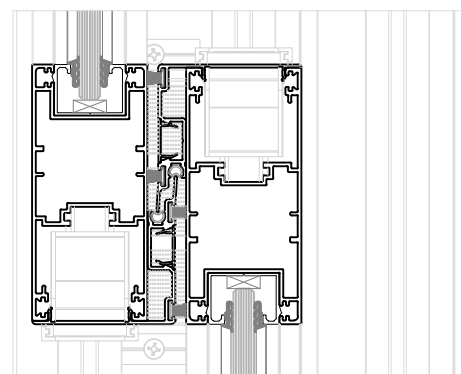
CORTE 1



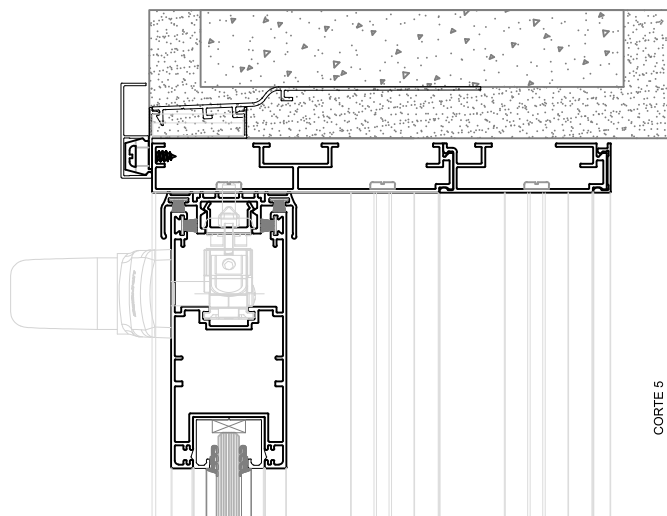
VISTA EXTERNA
SEM ESCALA



CORTE 3



CORTE 4
LADO EXTERNO

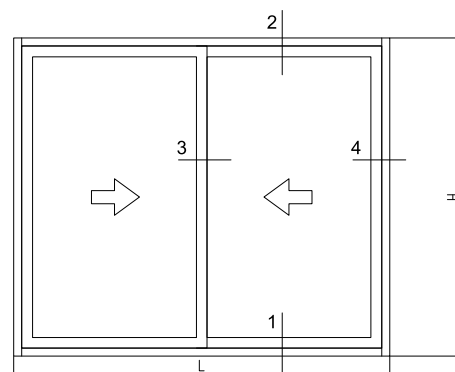


CORTE 5

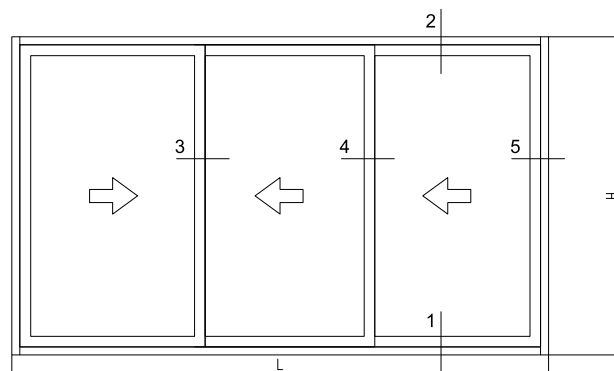
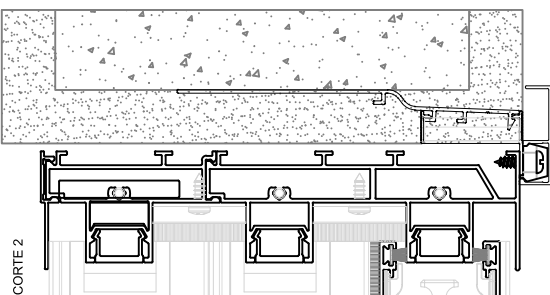
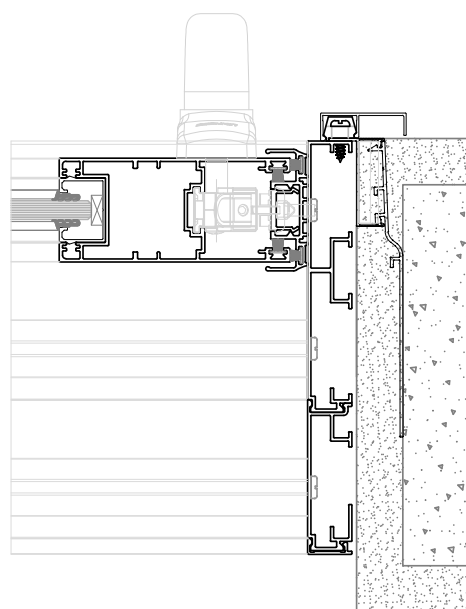
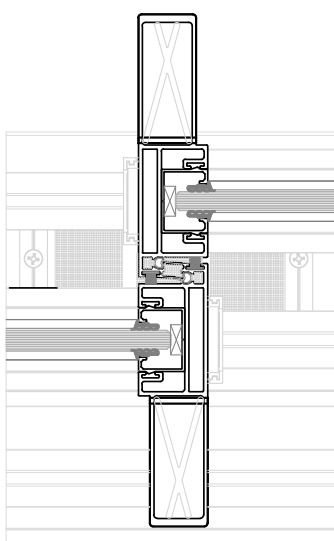
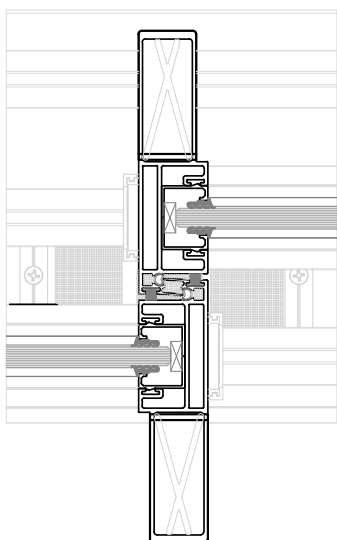
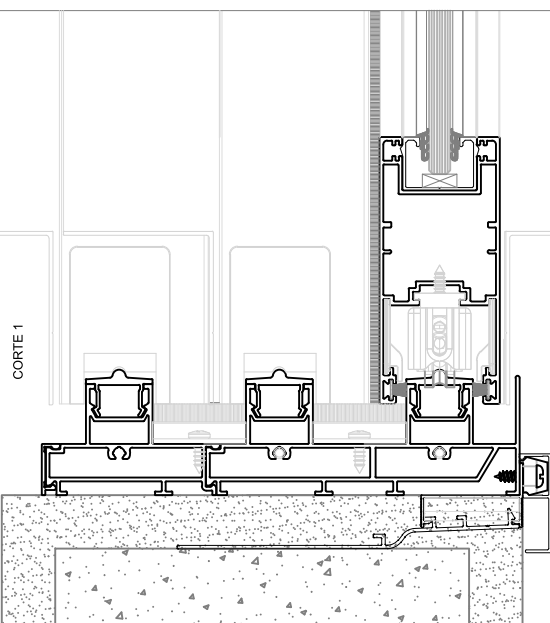
LADO EXTERNO

CORTE 2

CORTE 1

VISTA EXTERNA
SEM ESCALACORTE 3
LADO EXTERNO

CORTE 4

VISTA EXTERNA
SEM ESCALA



GRUPO
PERFISUD