

aluminorte Desde 1986
alumínio e acessórios

Soluções para
alumínio desde
1986

SP-EURO45  ®

Sistema
Aluminorte
Catálogo completo



Rw= 36 dB

NA JANELA INTEGRADA COM VIDRO DE 10 MM



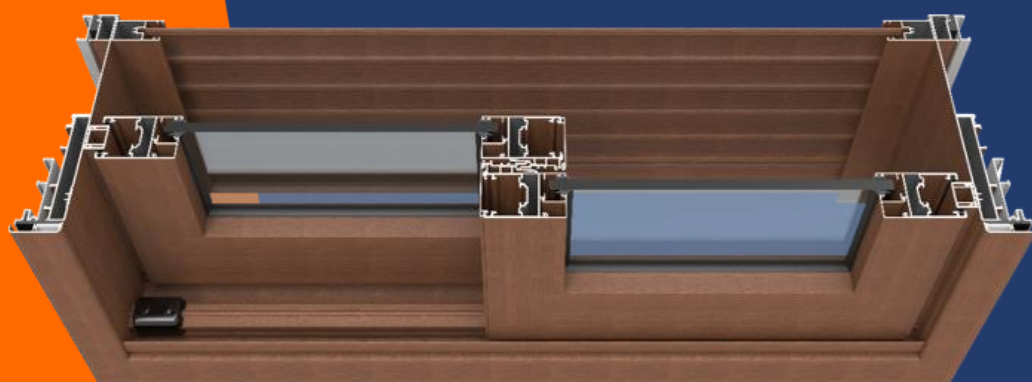
EXCELENTE PERFORMANCE
EM TERMOACÚSTICA



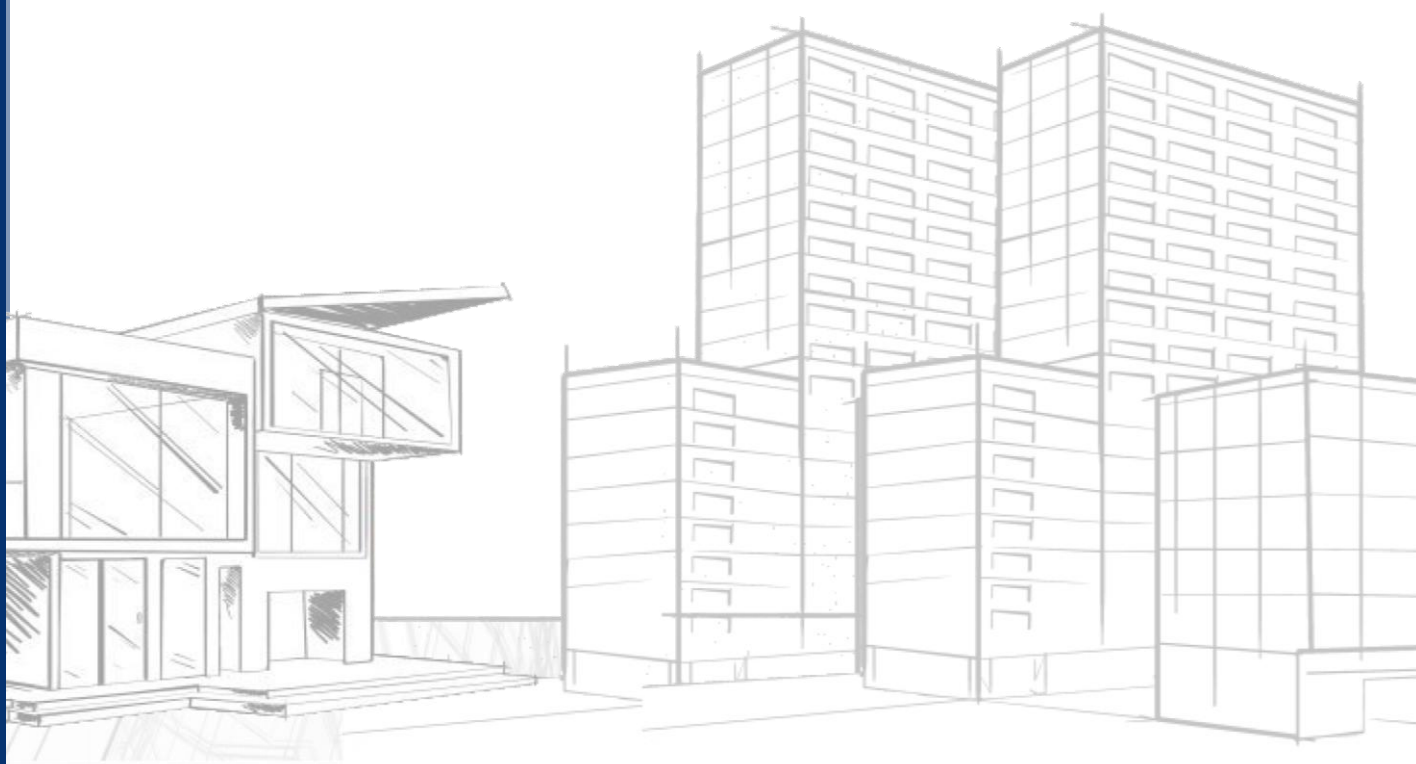
SISTEMA DE ALTO PADRÃO
IDEAL PARA GRANDES VÃOS



OPÇÃO **ELEVÁVEL**



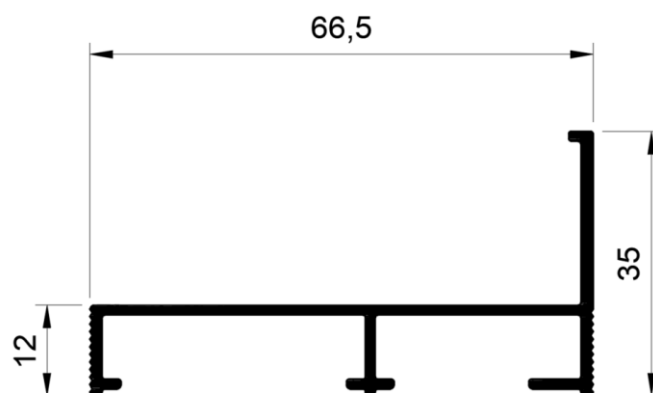
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CÓDIGO	PESO	PÁG	CÓDIGO	PESO	PÁG
45EC - 091	2,169 Kg/m	13	45EC - 248	1,099 Kg/m	19
45EC - 095	0,488 Kg/m	5	45EC - 249	0,785 Kg/m	19
45EC - 096	0,478 Kg/m	5	45EC - 250	1,545 Kg/m	20
45EC - 100	0,693 Kg/m	7	45EC - 251	0,140 Kg/m	18
45EC - 133	0,648 Kg/m	12	45EC - 252	1,255 Kg/m	18
45EC - 200	0,532 Kg/m	2	45EC - 253	2,247 Kg/m	21
45EC - 201	0,511 Kg/m	2	45EC - 254	1,076 Kg/m	17
45EC - 203	0,162 Kg/m	21	45EC - 255	0,657 Kg/m	17
45EC - 204	0,225 Kg/m	2	45EC - 258	0,574 Kg/m	16
45EC - 205	0,151 Kg/m	2	45EC - 263	1,151 Kg/m	3
45EC - 208	0,207 Kg/m	6	45EC - 267	1,010 Kg/m	15
45EC - 209	0,345 Kg/m	6	45EC - 268	0,846 Kg/m	15
45EC - 210	0,288 Kg/m	17	45EC - 269	1,117 Kg/m	16
45EC - 212	0,274 Kg/m	6	45EC - 270	1,737 Kg/m	9
45EC - 219	2,306 Kg/m	3	45EC - 271	2,235 Kg/m	9
45EC - 221	1,429 Kg/m	3	45EC - 272	2,235 Kg/m	11
45EC - 222	3,579 Kg/m	4	CPU - 401	1,220 Kg/m	24
45EC - 223	0,953 Kg/m	13	CPU - 402	1,508 Kg/m	23
45EC - 225	0,215 Kg/m	6	CPU - 403	1,279 Kg/m	23
45EC - 226	0,281 Kg/m	5	CPU - 404	1,242 Kg/m	24
45EC - 228	0,404 Kg/m	6	CPU - 405	0,963 Kg/m	24
45EC - 229	0,513 Kg/m	14	DS - 238	0,521 Kg/m	25
45EC - 231	1,386 Kg/m	7	ECBG - 213	0,278 Kg/m	25
45EC - 232	0,331 Kg/m	8	ECBG - 214	0,274 Kg/m	22
45EC - 233	0,833 Kg/m	11	ECBG - 215	0,261 Kg/m	22
45EC - 234	1,439 Kg/m	8	ECBG - 216	0,234 Kg/m	22
45EC - 235	1,942 Kg/m	10	ECBG - 217	0,227 Kg/m	22
45EC - 236	1,942 Kg/m	10	ECBG - 218	0,185 Kg/m	22
45EC - 237	0,524 Kg/m	12	MN - 015	0,881 Kg/m	25
45EC - 238	0,211 Kg/m	12	MN - 055	0,371 Kg/m	25
45EC - 239	1,000 Kg/m	14	PR - 003	0,171 Kg/m	5
45EC - 240	2,466 Kg/m	4	SPI - 104	0,687 Kg/m	25
45EC - 247	1,011 Kg/m	15	U - 491	0,093 Kg/m	17

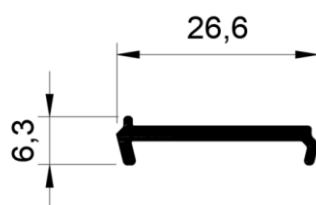
45EC - 201

Contramarco
0,511 Kg/m



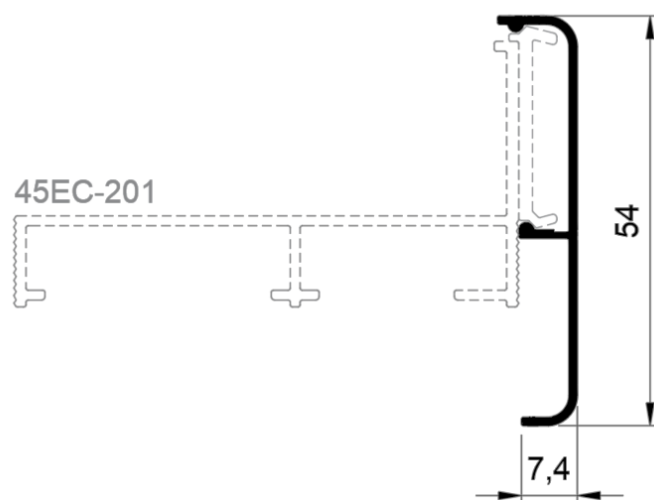
45EC - 205

Presilha do Arremate
0,151 Kg/m



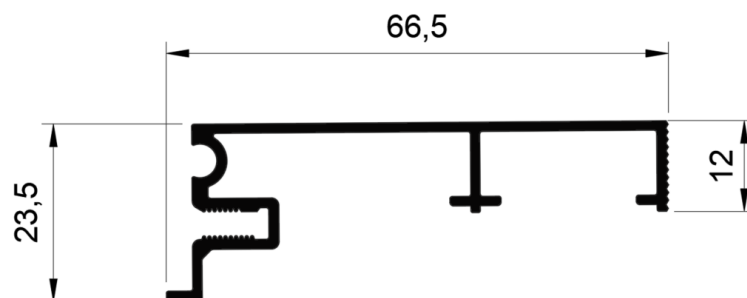
45EC - 204

Arremate
0,225 Kg/m



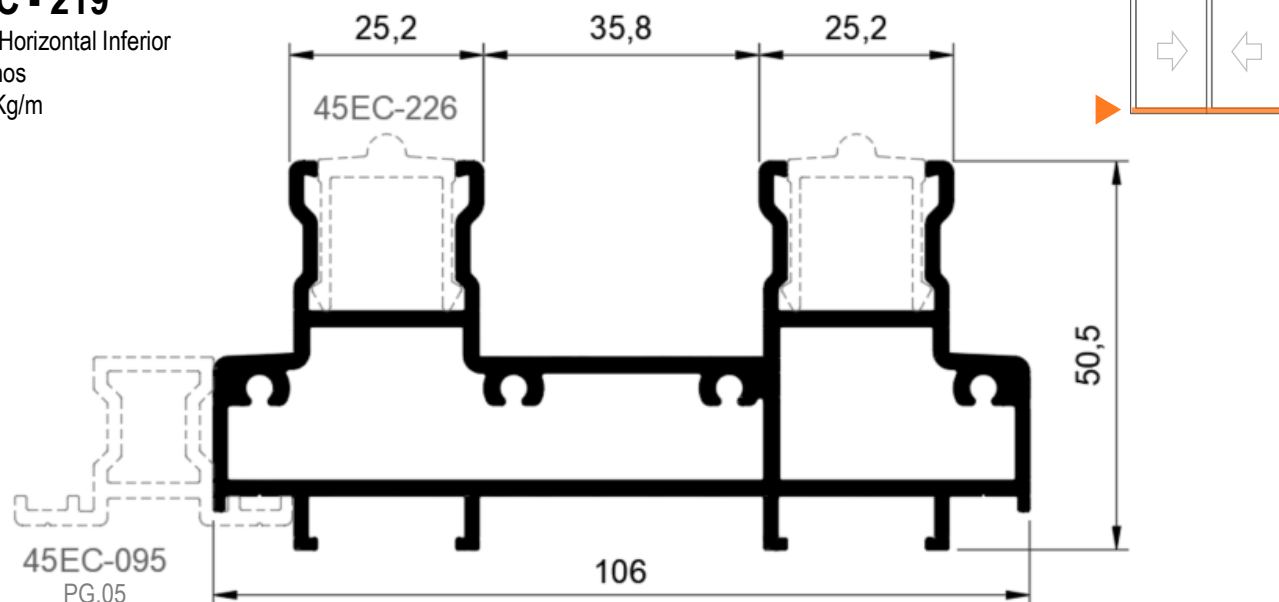
45EC - 200

Contramarco Bi-partido
0,532 Kg/m



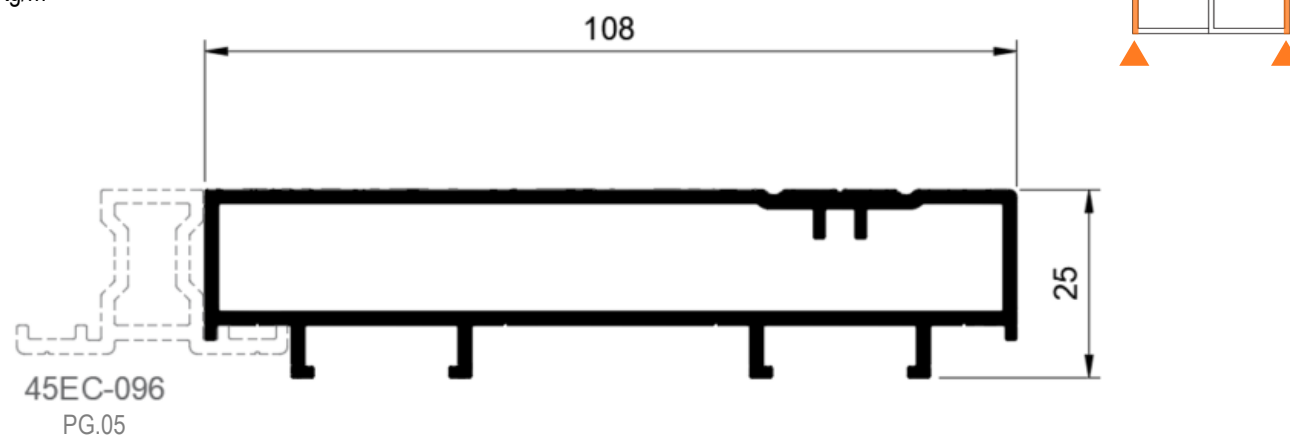
45EC - 219

Marco Horizontal Inferior
02 planos
2,306 Kg/m



45EC - 221

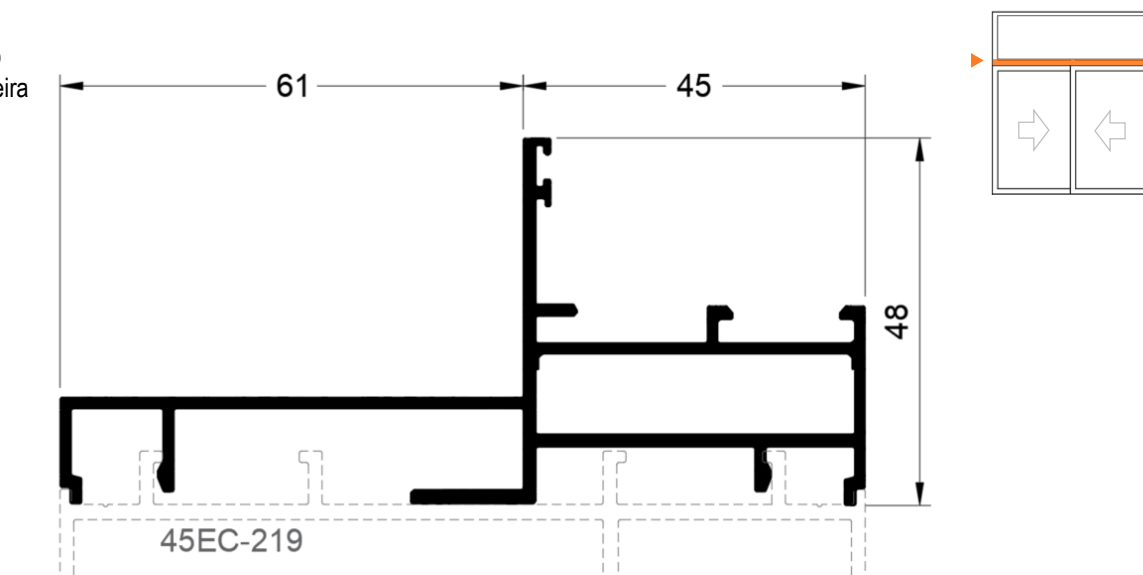
Marco Vertical 02 planos
1,429 Kg/m



Jx= 3,665 cm ⁴	Wx= 2,486 cm ³
Jy= 62,206 cm ⁴	Wy= 11,238 cm ³

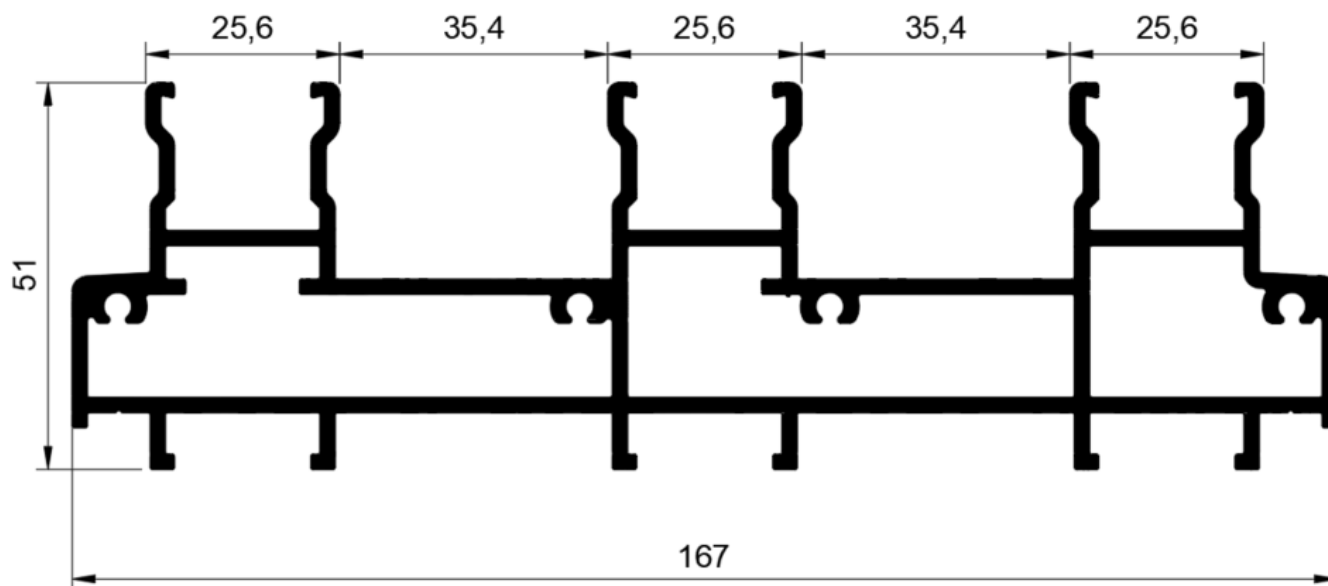
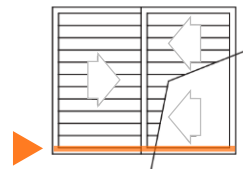
45EC - 263

Marco Intermediário
para peitoril e bandeira
1,151 Kg/m



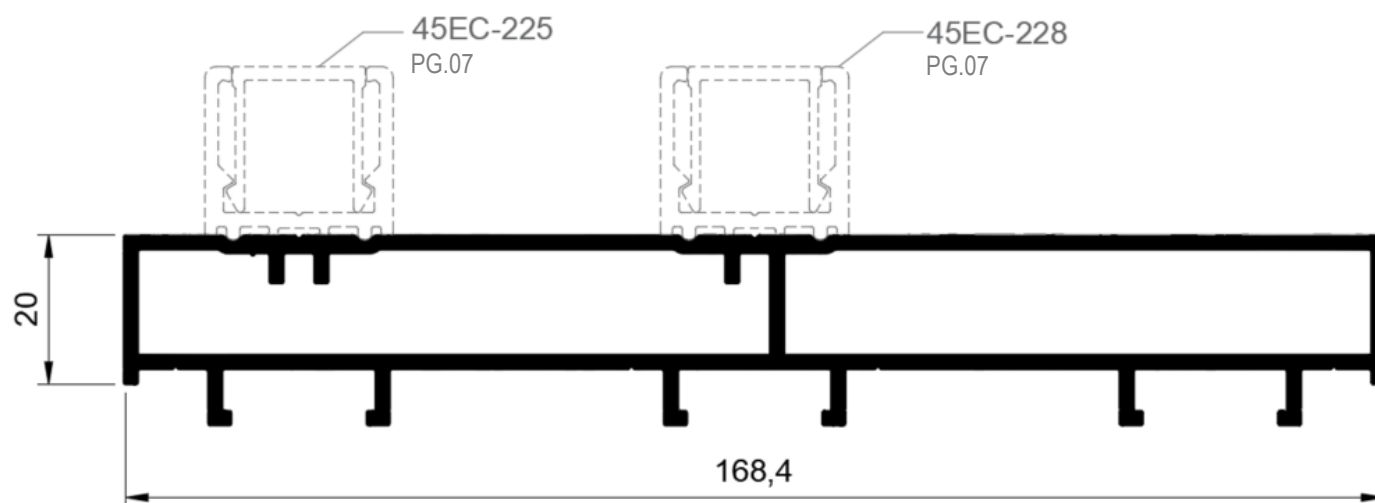
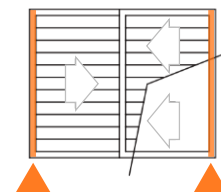
45EC - 222

Marco Horizontal Inferior 03 planos
3,579 Kg/m



45EC - 240

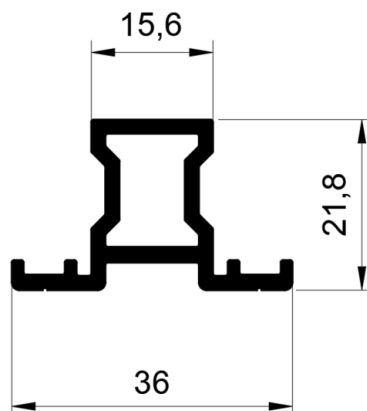
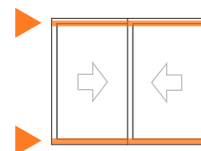
Marco Vertical Lateral 03 planos
2,466 Kg/m



$Jx = 6,330 \text{ cm}^4$	$Wx = 4,183 \text{ cm}^3$
$Jy = 241,096 \text{ cm}^4$	$Wy = 28,031 \text{ cm}^3$

45EC - 095

Complemento dos Marcos Horizontais
(Trilhos)
0,488 Kg/m

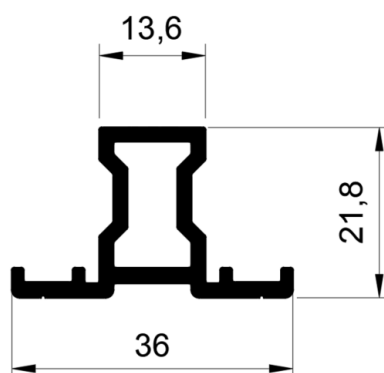
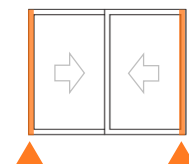


Configuração de planos "infinitos"
a partir de 02 planos, exemplos:

45EC-219 x 45EC-222
45EC-240 x 45EC-240
45EC-221 x 45EC-240

45EC - 096

Complemento dos Marcos Verticais
(Laterais)
0,478 Kg/m

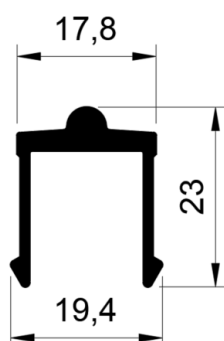
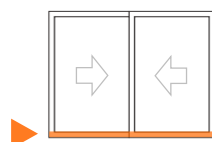


Configuração de planos "infinitos"
a partir de 02 planos, exemplos:

45EC-221 x 45EC-221
45EC-240 x 45EC-240
45EC-221 x 45EC-240

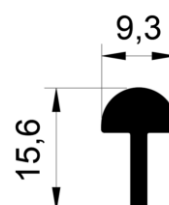
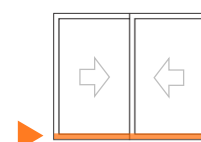
45EC - 226

Capa do Trilho
0,281 Kg/m



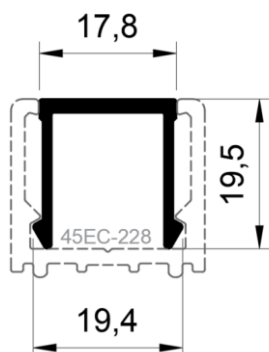
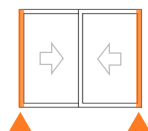
PR-003

Trilho "Macarrão"
0,171 Kg/m



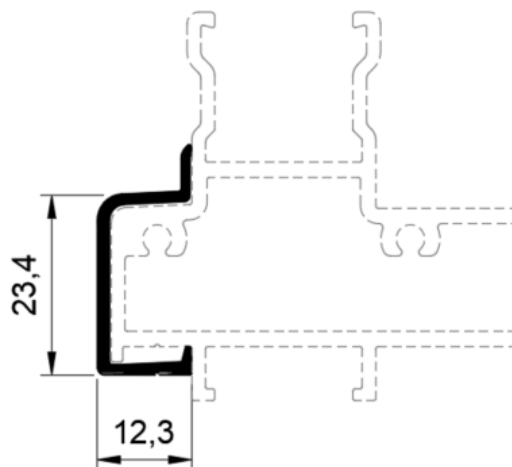
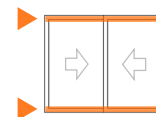
45EC - 225

Tampa do Mata Junta
0,215 Kg/m



45EC - 208

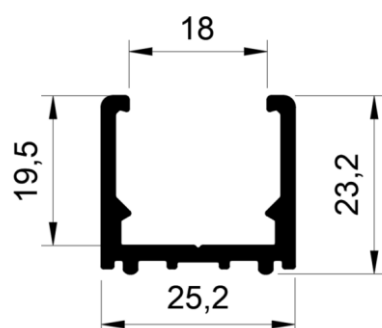
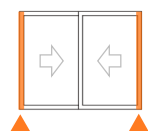
Arremate do Marco
0,206 Kg/m



OBS: Usar perfil quando o trilho for partido ao meio

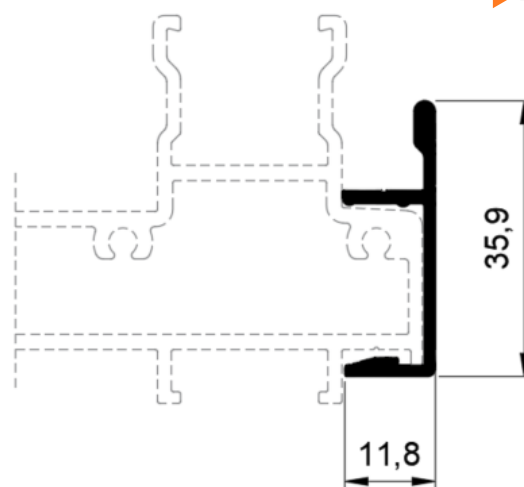
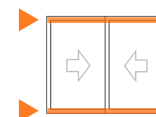
45EC - 228

Mata Junta Lateral
0,404 Kg/m



45EC - 212

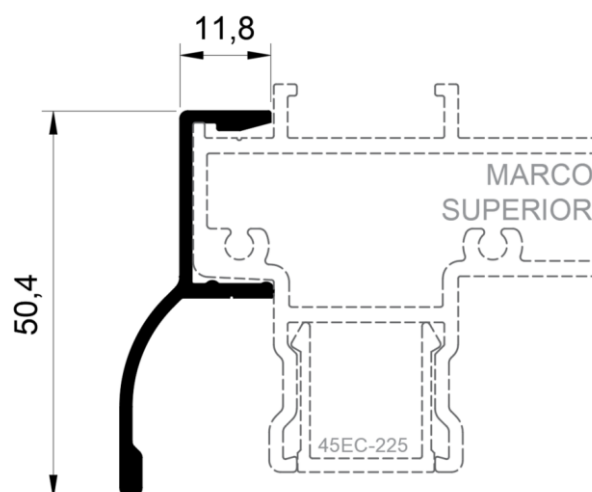
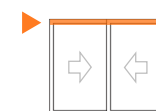
Arremate do Marco
0,274 Kg/m



OBS: Usar perfil quando o trilho for partido ao meio

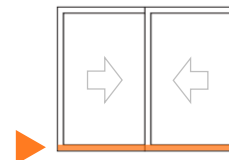
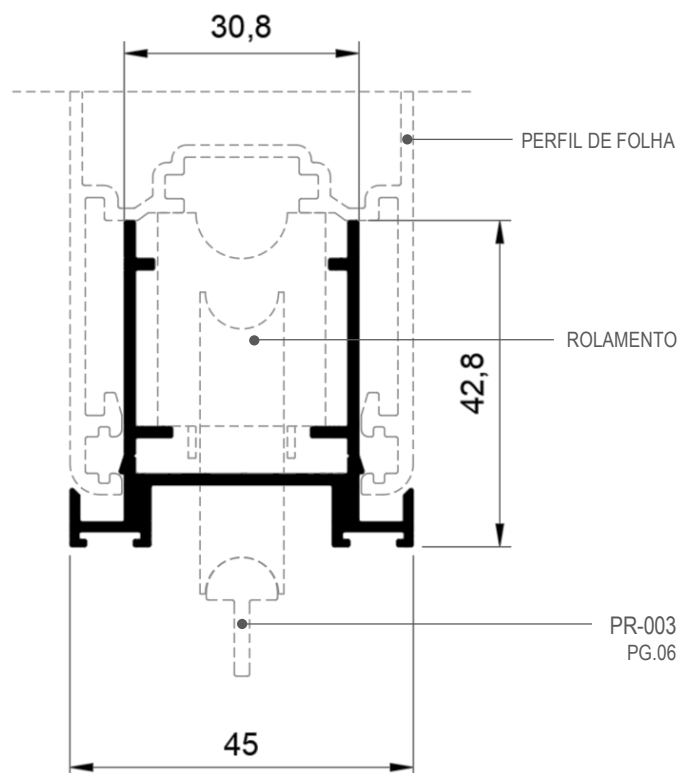
45EC - 209

Pingadeira
0,345 Kg/m



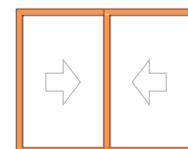
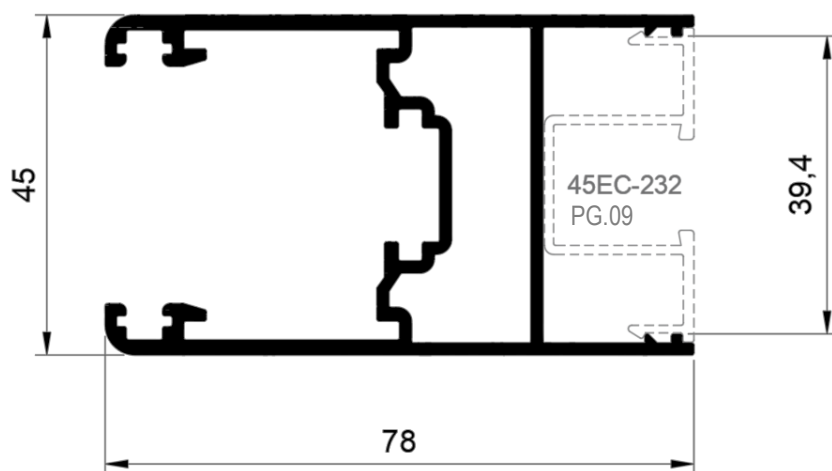
45EC - 100

Adaptador de Trilhos
0,693 Kg/m



45EC - 231

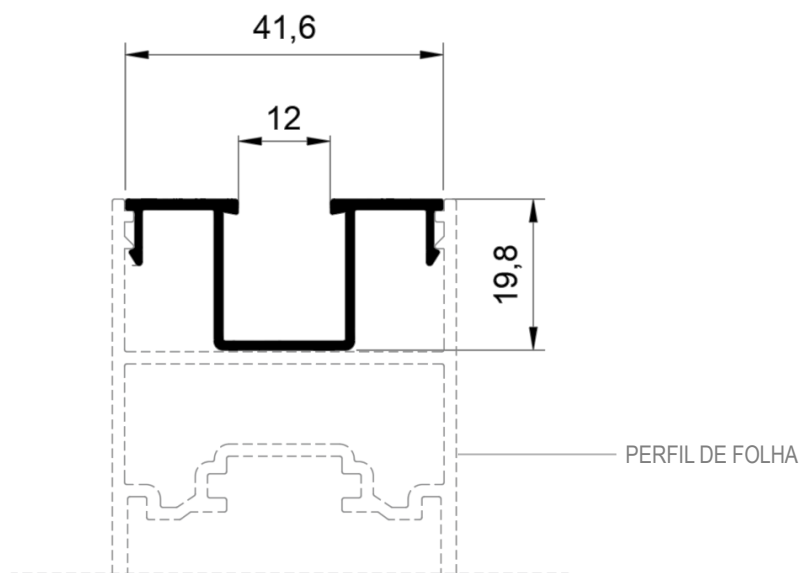
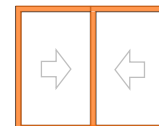
Folha Perimetral
1,383 Kg/m



Jx= 17,380 cm ⁴	Wx= 7,724 cm ³
Jy= 22,351 cm ⁴	Wy= 5,569 cm ³

45EC - 232

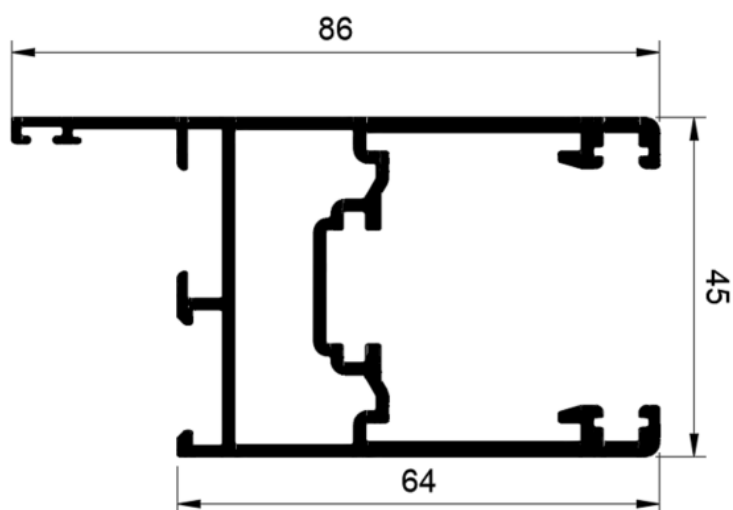
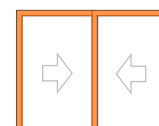
Porta Vidro
0,331 Kg/m



OBS: Usar com vidros de 4 a 8 milímetros

45EC - 234

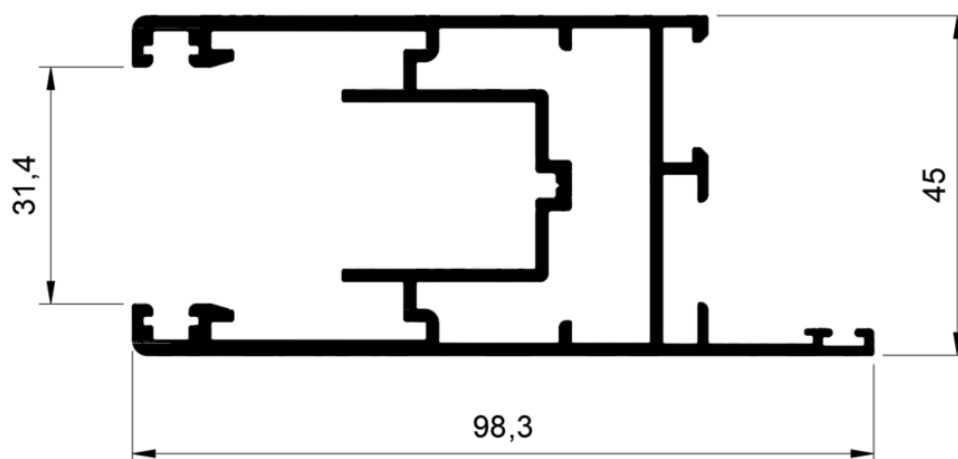
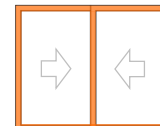
Folha Perimetral
1,439 Kg/m



$Jx = 17,262 \text{ cm}^4$	$Wx = 7,162 \text{ cm}^3$
$Jy = 24,806 \text{ cm}^4$	$Wy = 5,200 \text{ cm}^3$

45EC - 270

Folha Perimetral
1,737 Kg/m

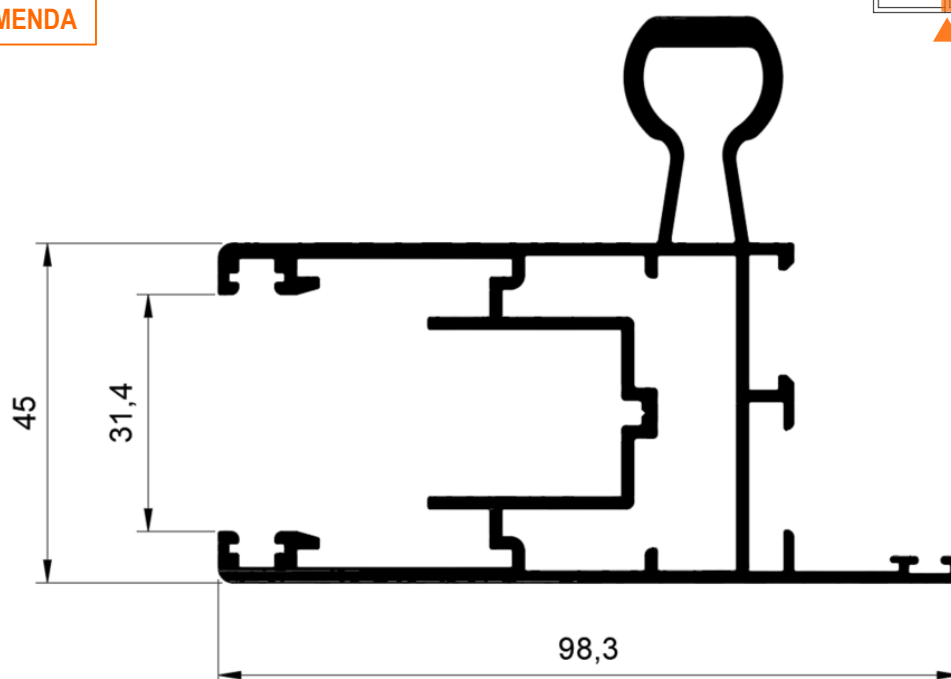
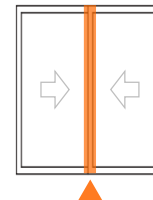
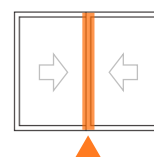


$J_x = 20,347 \text{ cm}^4$	$W_x = 8,513 \text{ cm}^3$
$J_y = 38,998 \text{ cm}^4$	$W_y = 7,221 \text{ cm}^3$

45EC - 271

Folha com Câmara Europeia com Reforço
2,235 Kg/m

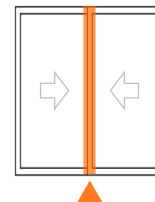
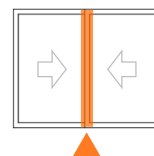
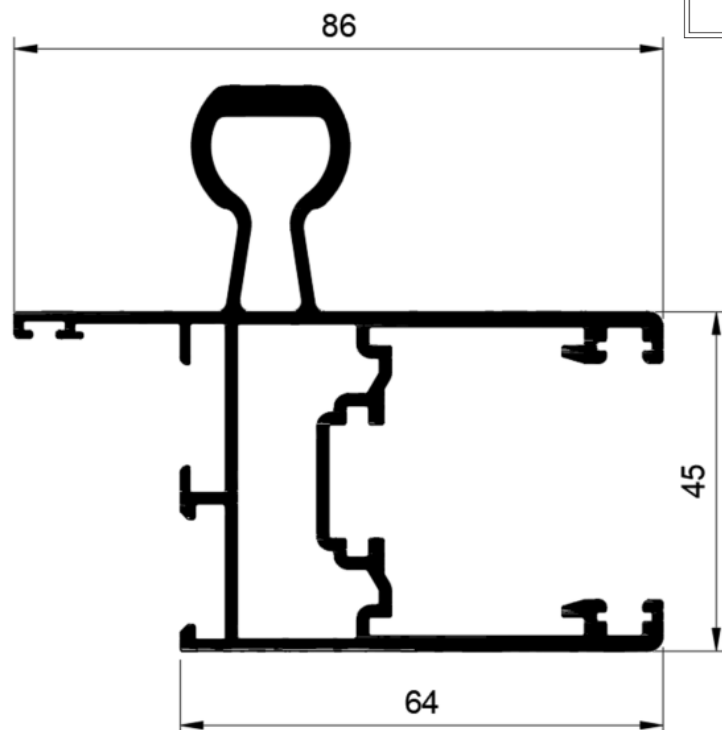
SOB ENCOMENDA



$J_x = 48,542 \text{ cm}^4$	$W_x = 10,984 \text{ cm}^3$
$J_y = 45,406 \text{ cm}^4$	$W_y = 9,173 \text{ cm}^3$

45EC - 235

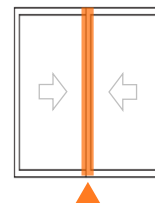
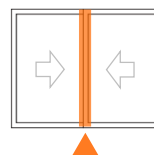
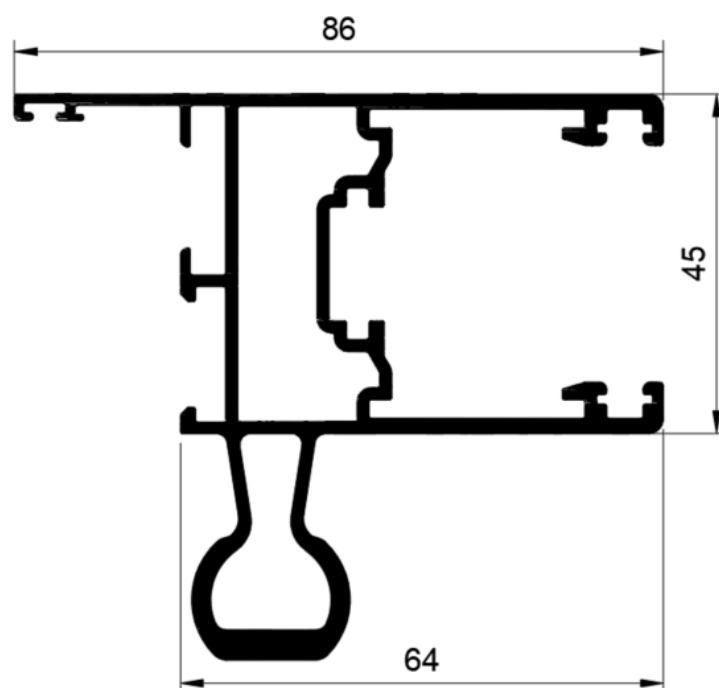
Folha com reforço
1,942 Kg/m



$Jx = 40,871 \text{ cm}^4$	$Wx = 10,091 \text{ cm}^3$
$Jy = 28,090 \text{ cm}^4$	$Wy = 6,369 \text{ cm}^3$

45EC - 236

Folha com reforço
1,942 Kg/m

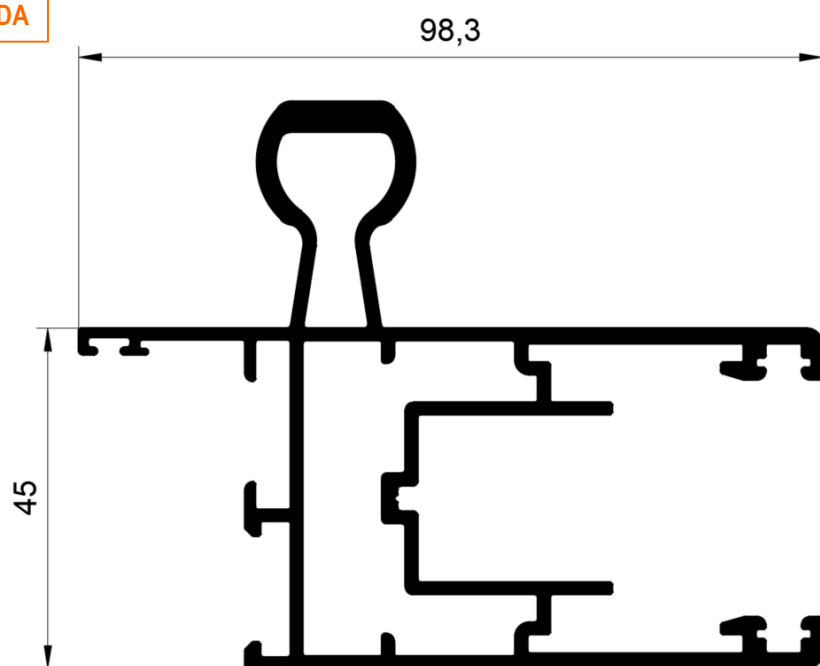


$Jx = 44,580 \text{ cm}^4$	$Wx = 13,602 \text{ cm}^3$
$Jy = 28,090 \text{ cm}^4$	$Wy = 6,396 \text{ cm}^3$

45EC - 272

Folha com Câmara Europeia com Reforço
2,235 Kg/m

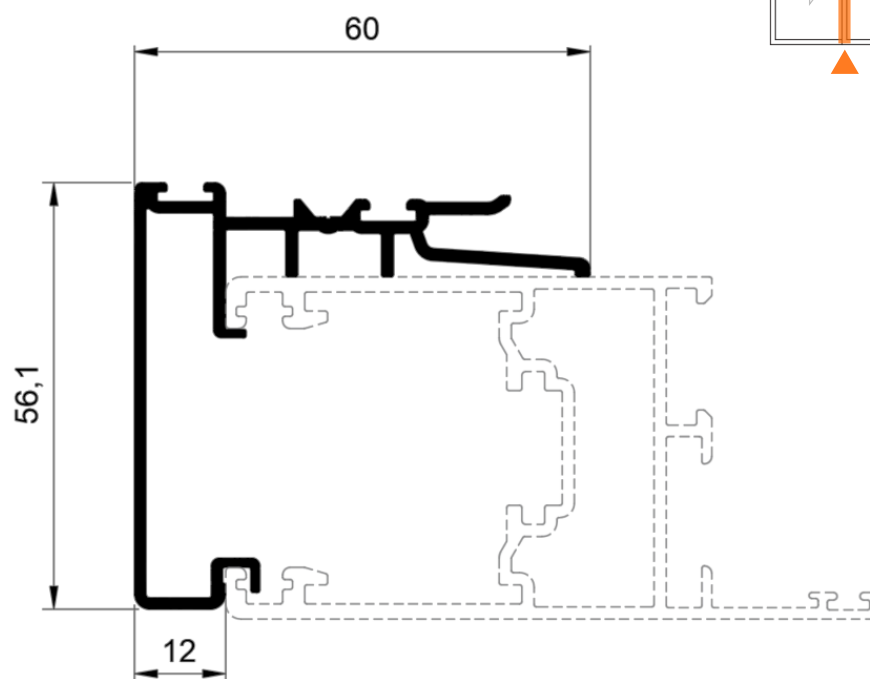
SOB ENCOMENDA



$J_x = 45,287 \text{ cm}^4$	$W_x = 10,759 \text{ cm}^3$
$J_y = 45,406 \text{ cm}^4$	$W_y = 9,173 \text{ cm}^3$

45EC - 233

Mão de Amigo
0,833 Kg/m

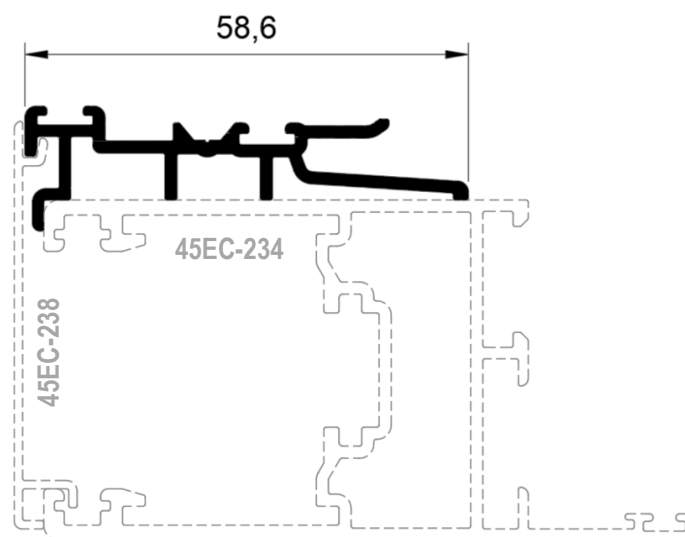
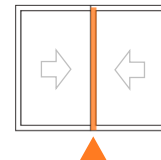


$J_x = 9,613 \text{ cm}^4$	$W_x = 2,503 \text{ cm}^3$
$J_y = 9,308 \text{ cm}^4$	$W_y = 2,248 \text{ cm}^3$

45EC - 237

Mão de Amigo
0,524 Kg/m

OBS: Usar somente nos perfis
45EC-231, 45EC-234, 45EC-235 e 45EC-236

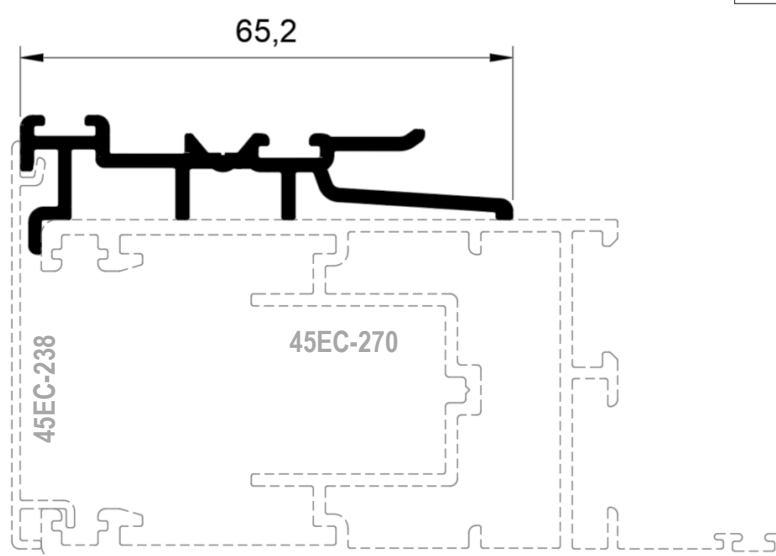
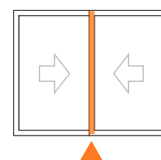


$J_x = 0,221 \text{ cm}^4$	$W_x = 0,233 \text{ cm}^3$
$J_y = 5,494 \text{ cm}^4$	$W_y = 1,650 \text{ cm}^3$

45EC - 133

Mão de Amigo
0,648 Kg/m

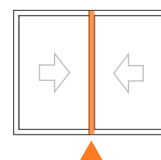
OBS: Usar somente nos perfis
45EC-270, 45EC-271 e 45EC-272



$J_x = 0,339 \text{ cm}^4$	$W_x = 0,308 \text{ cm}^3$
$J_y = 8,420 \text{ cm}^4$	$W_y = 2,275 \text{ cm}^3$

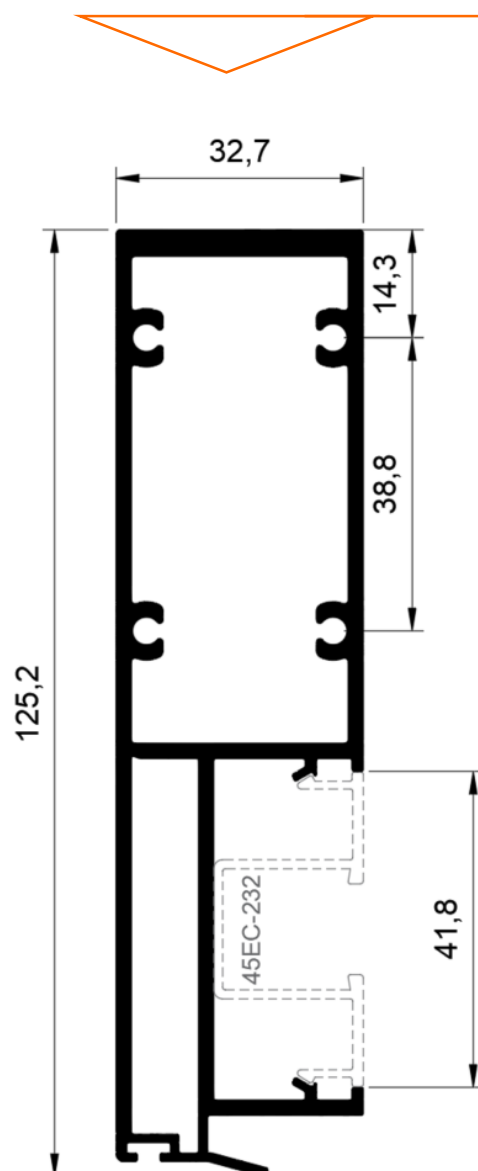
45EC - 238

Complemento da Mão de Amigo
0,211 Kg/m

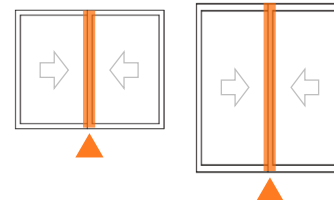


45EC - 091

Montante Central com Reforço SLIM
2,169 Kg/m



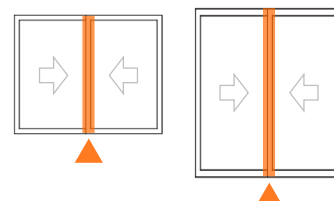
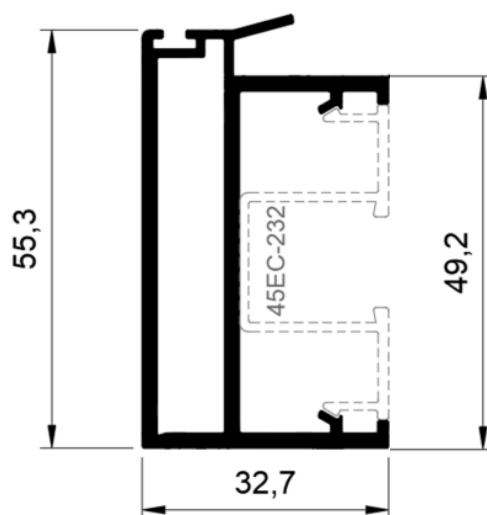
Perfis com vista frontal de **32 mm**



$Jx = 126,557 \text{ cm}^4$	$Wx = 18,456 \text{ cm}^3$
$Jy = 11,801 \text{ cm}^4$	$Wy = 6,341 \text{ cm}^3$

45EC - 223

Montante Central SLIM
0,953 Kg/m

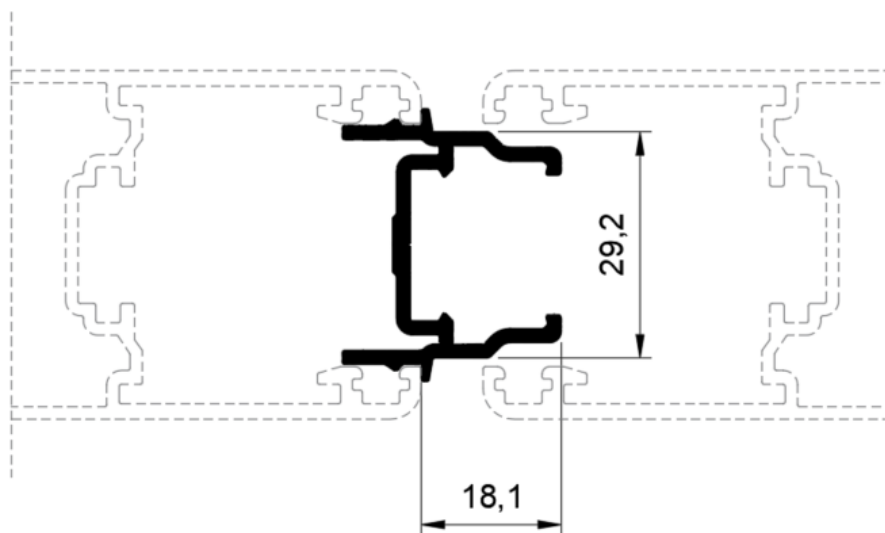
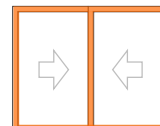


$Jx = 13,459 \text{ cm}^4$	$Wx = 4,427 \text{ cm}^3$
$Jy = 3,006 \text{ cm}^4$	$Wy = 1,398 \text{ cm}^3$

45EC - 229

Mata Junta Central
0,513 Kg/m

OBS: Aplicável aos perfis
45EC-231, 45EC-234, 45EC-235, 45EC-236, 45EC-270, 45EC-271 e 45EC-272

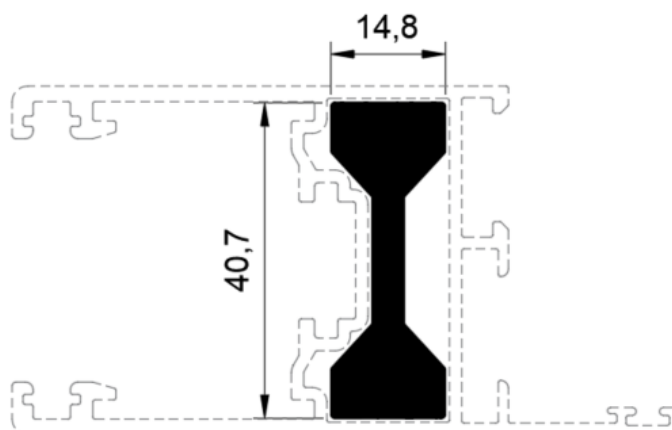
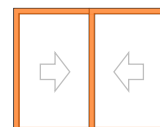


$J_x = 2,647 \text{ cm}^4$	$W_x = 1,504 \text{ cm}^3$
$J_y = 0,961 \text{ cm}^4$	$W_y = 0,616 \text{ cm}^3$

45EC - 239

Reforço da Folha
1,000 Kg/m

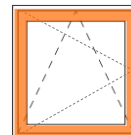
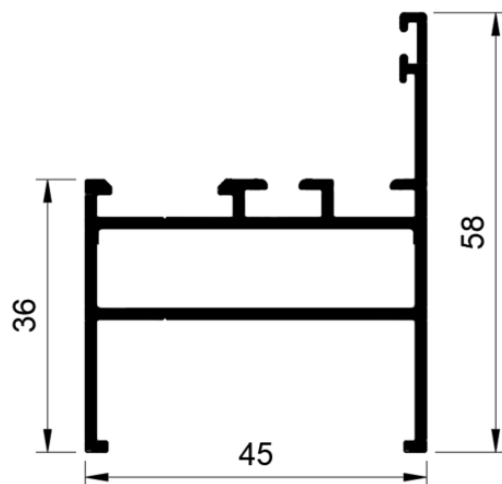
OBS: Aplicável aos perfis
45EC-231, 45EC-234, 45EC-235 e 45EC-236



$J_x = 7,345 \text{ cm}^4$	$W_x = 3,600 \text{ cm}^3$
$J_y = 0,465 \text{ cm}^4$	$W_y = 0,629 \text{ cm}^3$

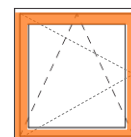
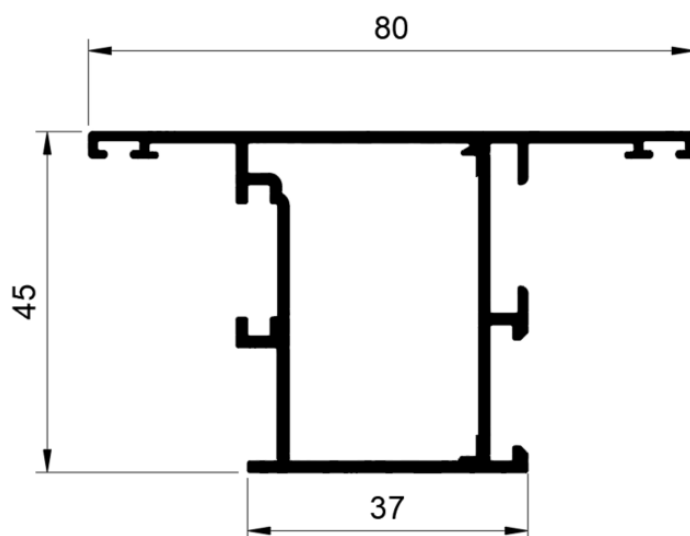
45EC - 268

Marco
0,846 Kg/m



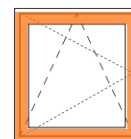
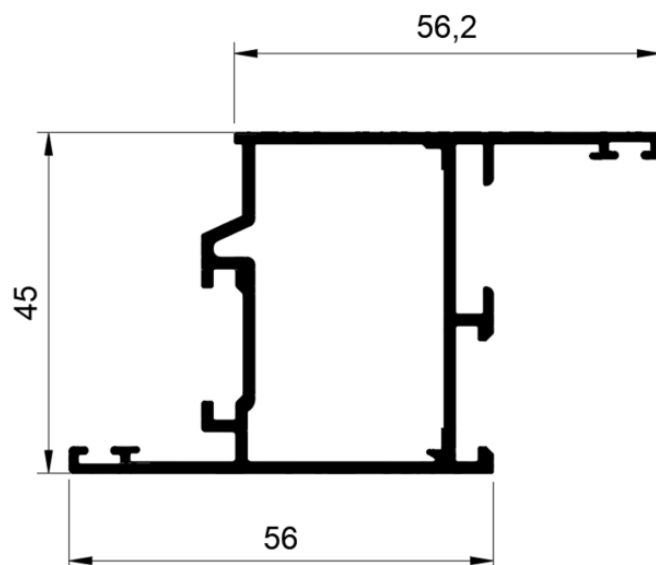
45EC - 247

Folha Maxim-ar
1,011 Kg/m



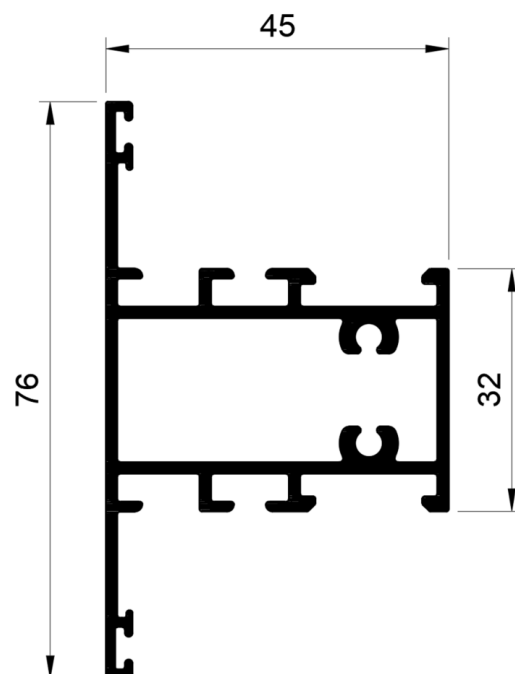
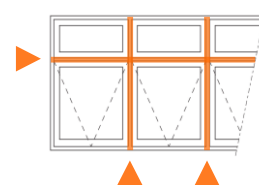
45EC - 267

Folha Oscilobatente
1,010 Kg/m



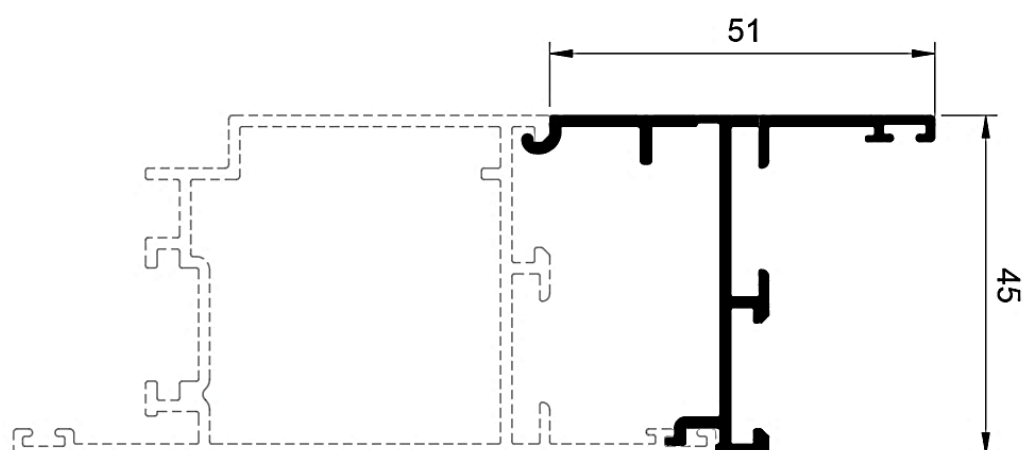
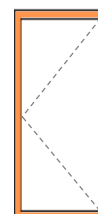
45EC - 269

Coluna / Travessa Maxim-ar e Oscilobatente
1,117 Kg/m



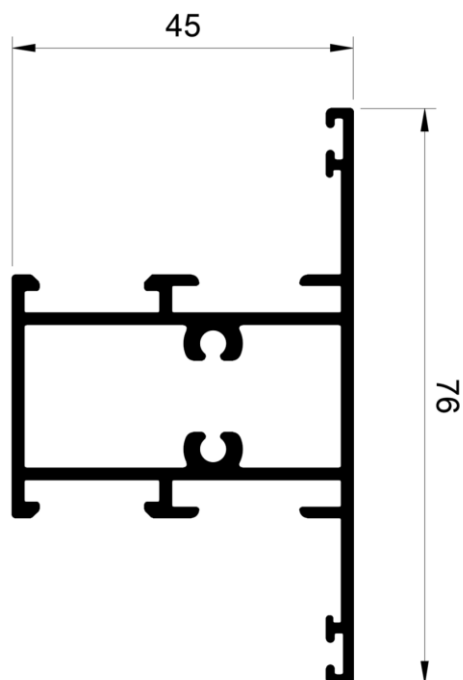
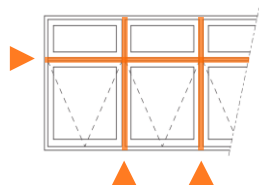
45EC - 258

Inversor de Baguete
0,574 Kg/m



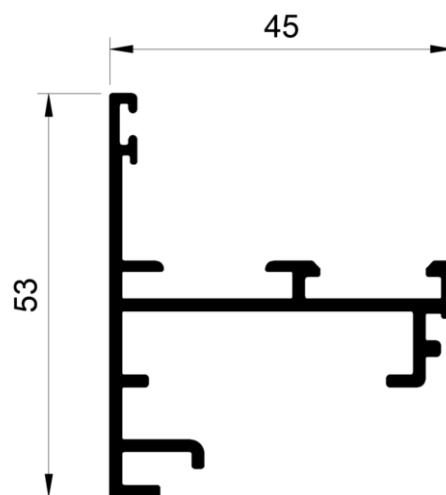
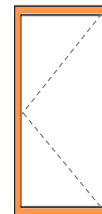
45EC - 254

Travessa e Folhas Maxim-ar
1,076 Kg/m



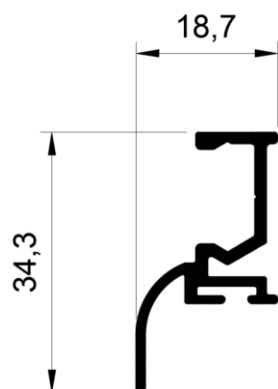
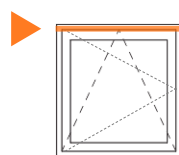
45EC - 255

Inversor Maxim-ar
0,657 Kg/m



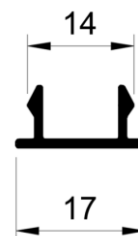
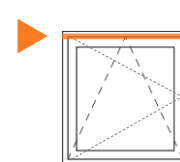
45EC - 210

Pingadeira Maxim-ar
0,288 Kg/m



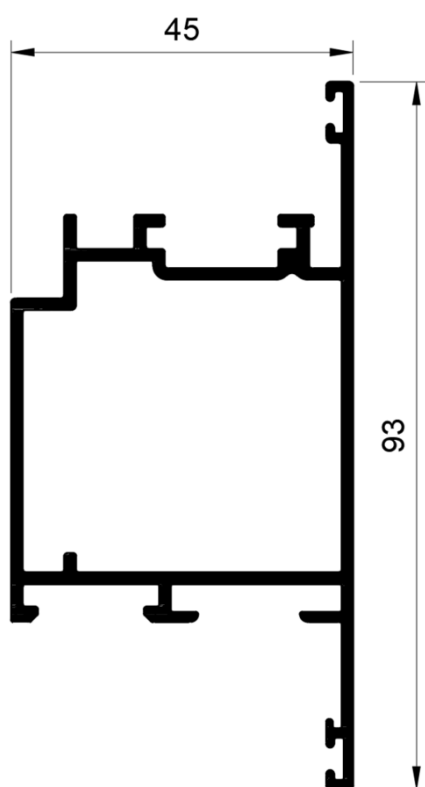
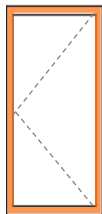
U - 491

Tampa da Pingadeira Maxim-ar
0,093 Kg/m



45EC - 251

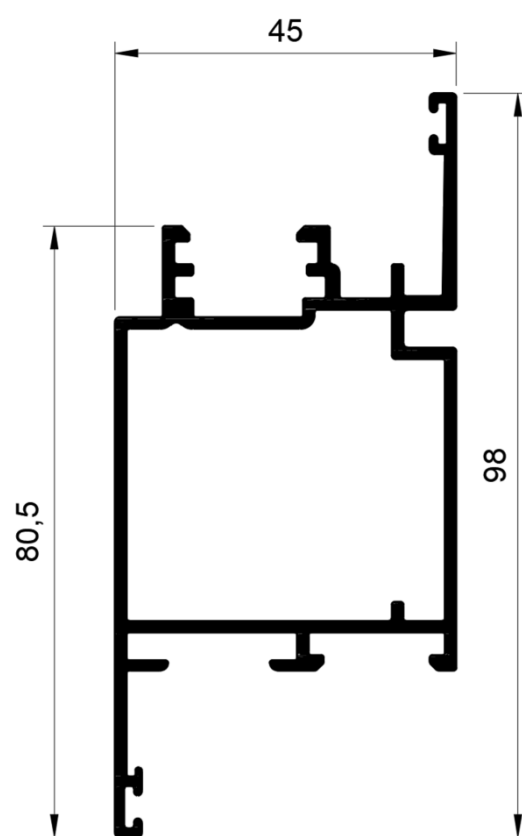
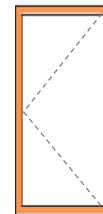
Folha da Porta de giro
1,140 Kg/m



$J_x = 12,424 \text{ cm}^4$	$W_x = 4,620 \text{ cm}^3$
$J_y = 22,902 \text{ cm}^4$	$W_y = 4,802 \text{ cm}^3$

45EC - 252

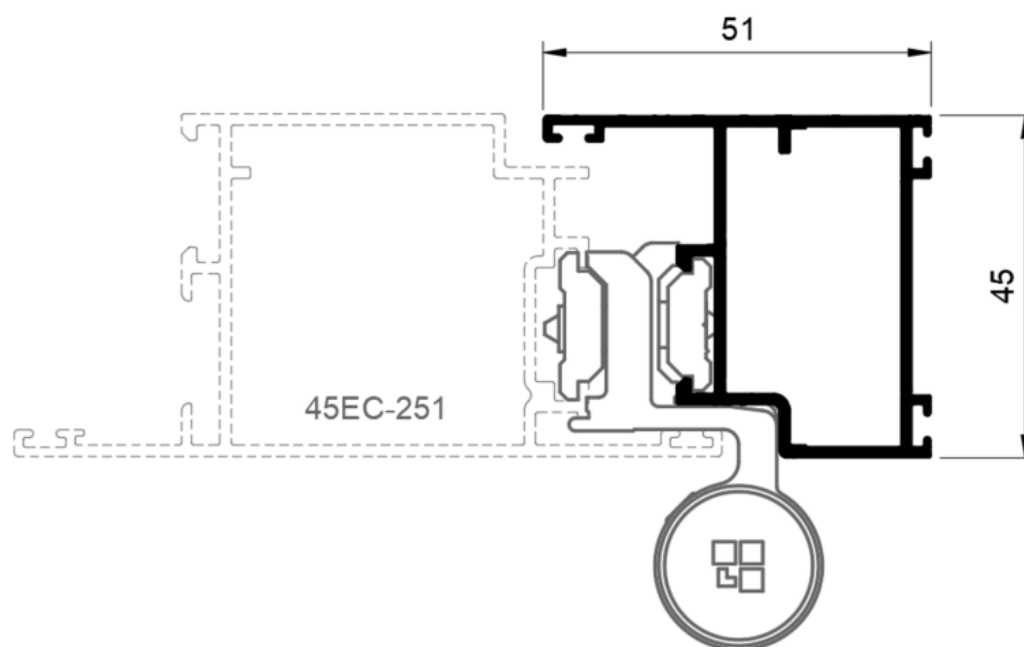
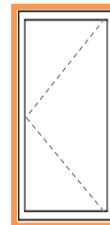
Folha da Porta de giro
1,255 Kg/m



$J_x = 14,181 \text{ cm}^4$	$W_x = 6,149 \text{ cm}^3$
$J_y = 27,386 \text{ cm}^4$	$W_y = 5,402 \text{ cm}^3$

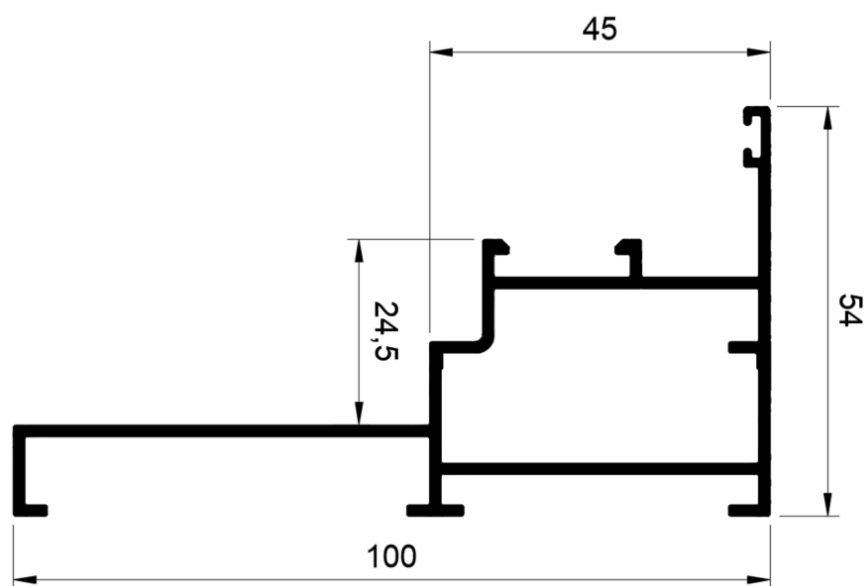
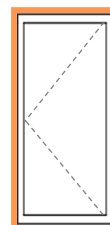
45EC - 249

Marco Perimetral Porta de Giro
0,785 Kg/m



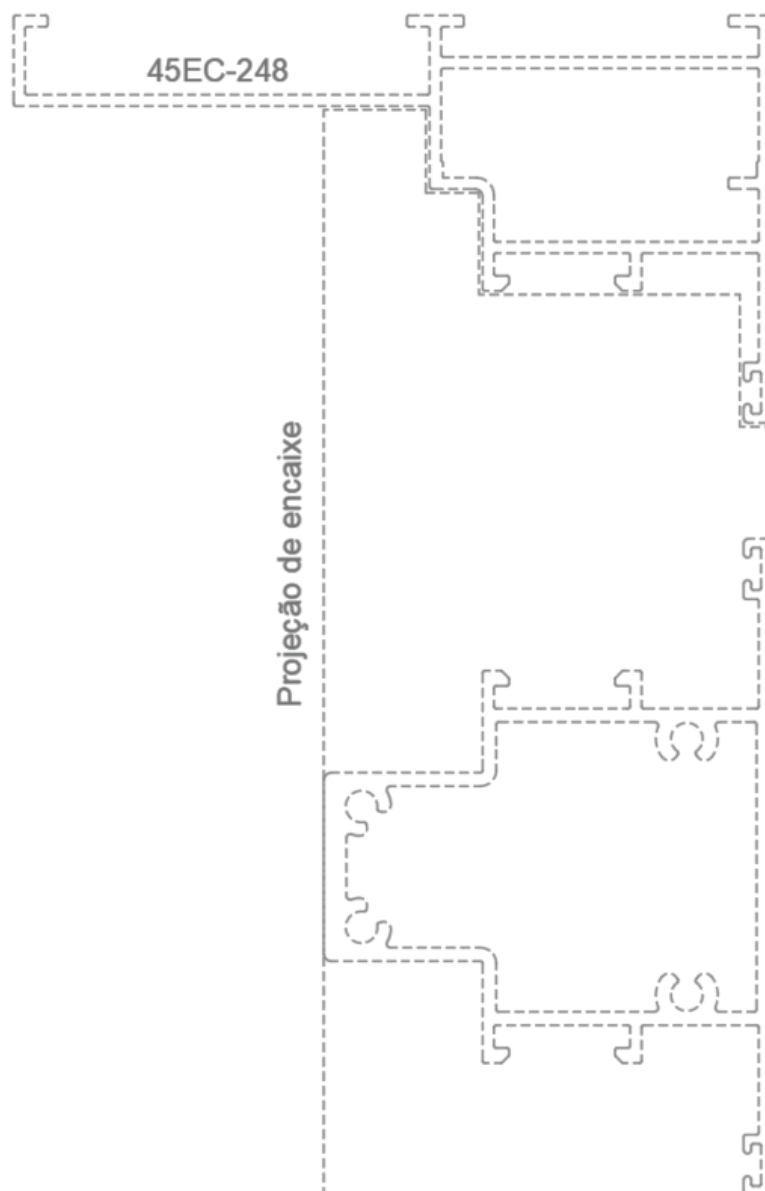
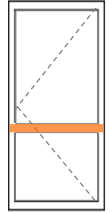
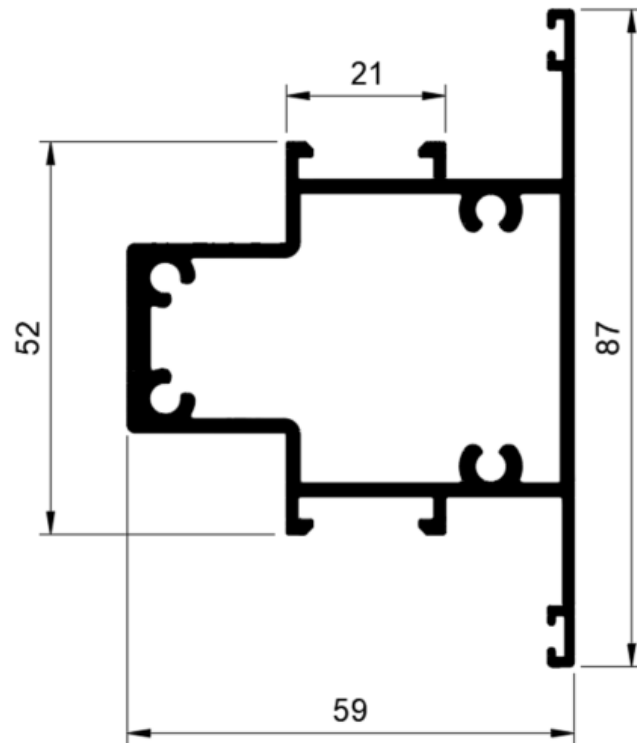
45EC - 248

Marco Perimetral Porta de Giro
1,099 Kg/m



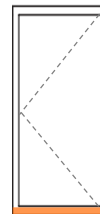
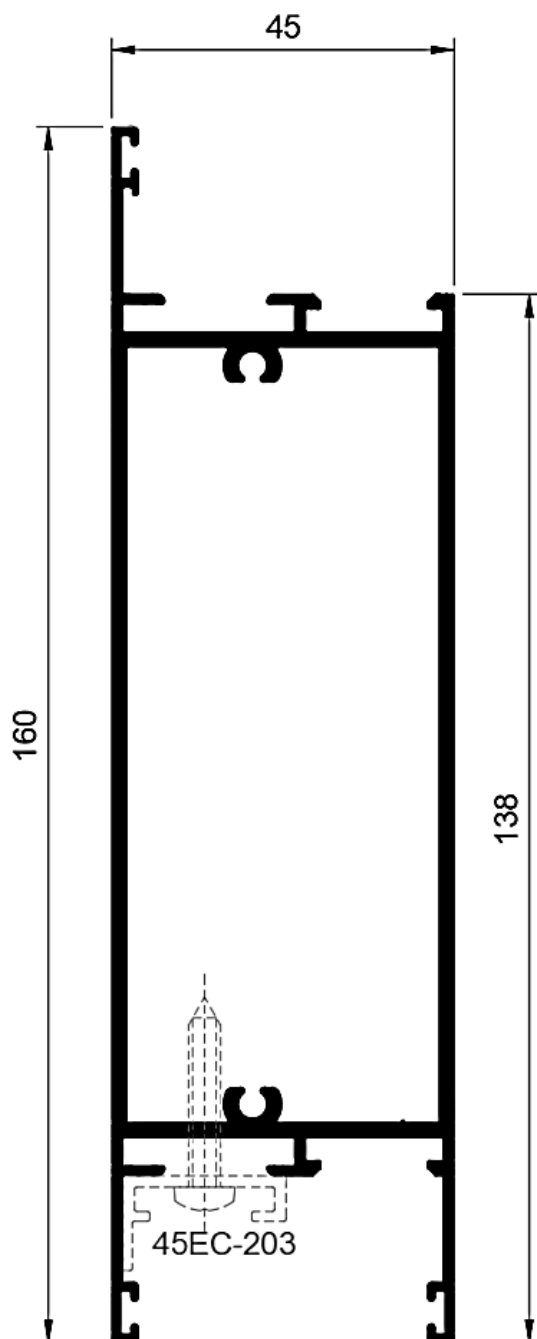
45EC - 250

Travessa para Porta de Giro
1,545 Kg/m



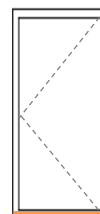
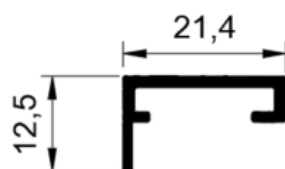
45EC - 253

Largura Inferior da Porta de Giro
2,247 Kg/m



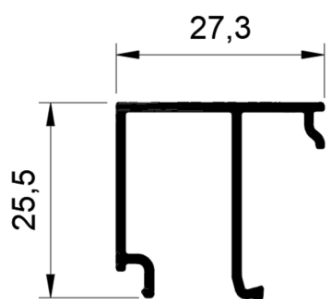
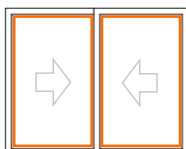
45EC - 203

Complemento Largura Inferior da Porta de Giro
0,162 Kg/m



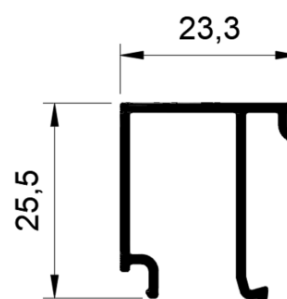
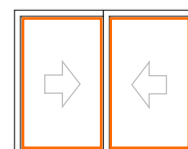
ECBG - 213

Baguete
0,278 Kg/m



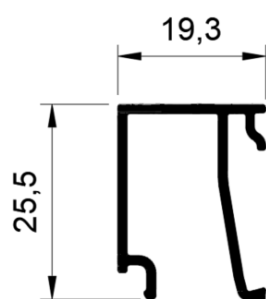
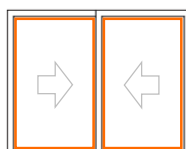
ECBG - 214

Baguete
0,274 Kg/m



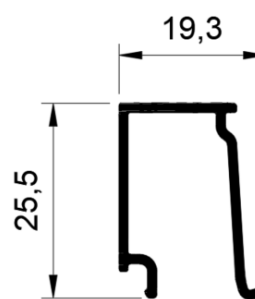
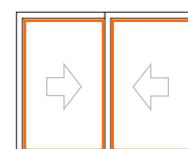
ECBG - 215

Baguete
0,261 Kg/m



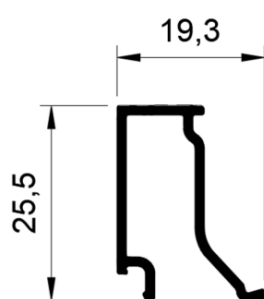
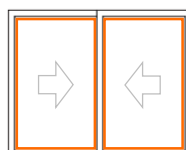
ECBG - 216

Baguete
0,234 Kg/m



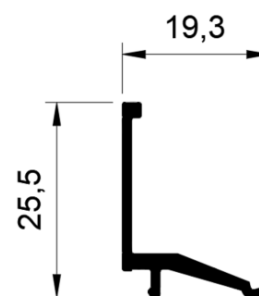
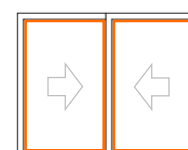
ECBG - 217

Baguete
0,227 Kg/m



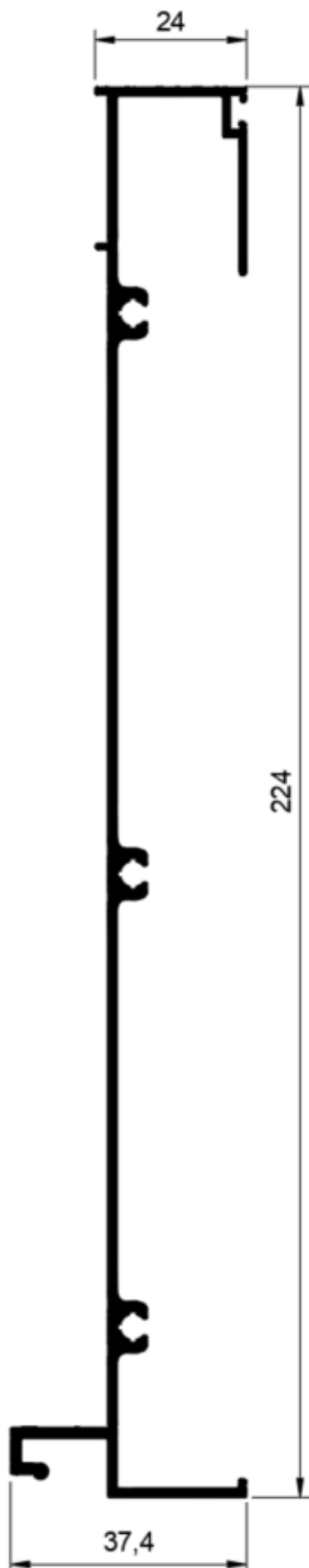
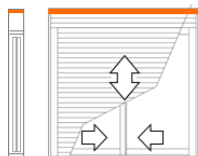
ECBG - 218

Baguete
0,185 Kg/m



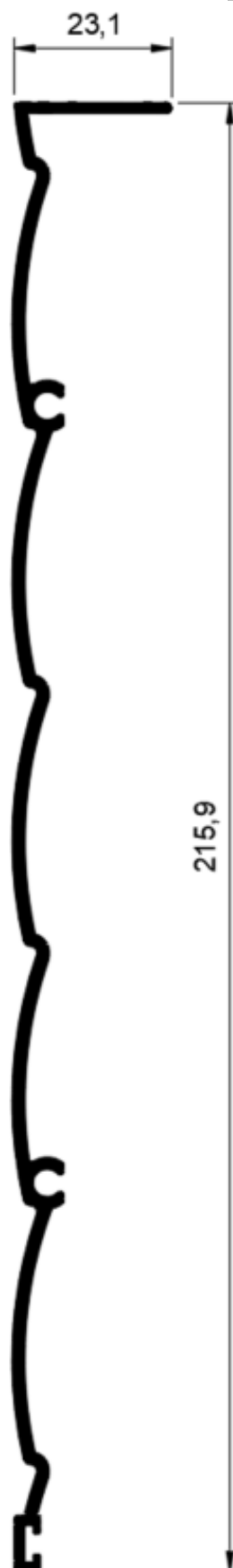
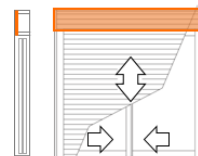
CPU - 402

Marco Superior da Integrada
1,508 Kg/m



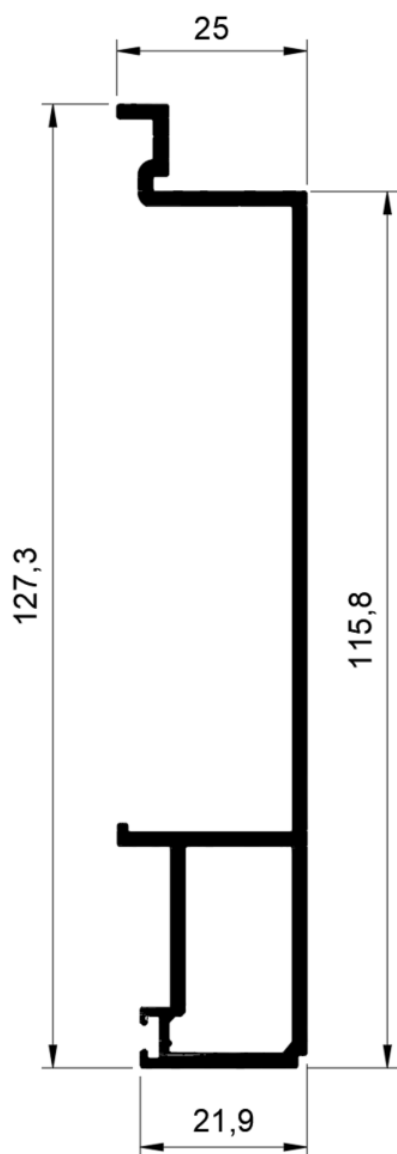
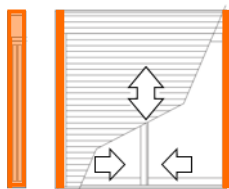
CPU - 403

Tampa Externa da Integrada
1,280 Kg/m



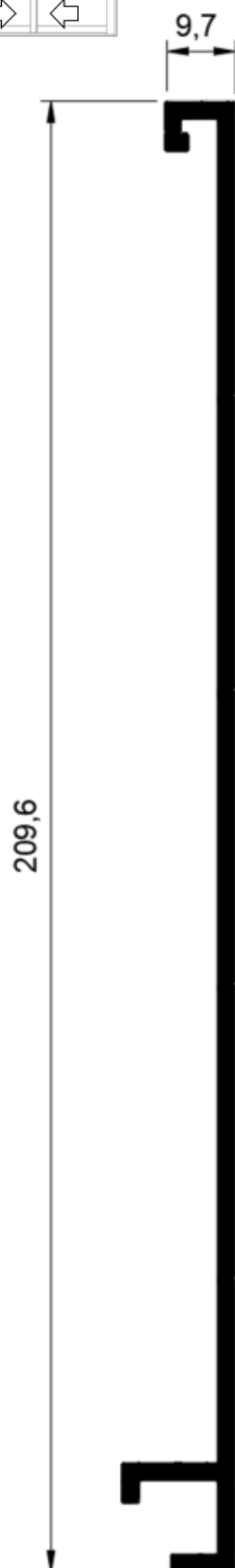
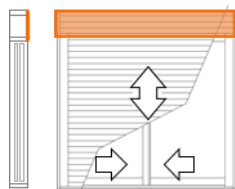
CPU - 401

Marco Lateral da Integrada
1,220 Kg/m



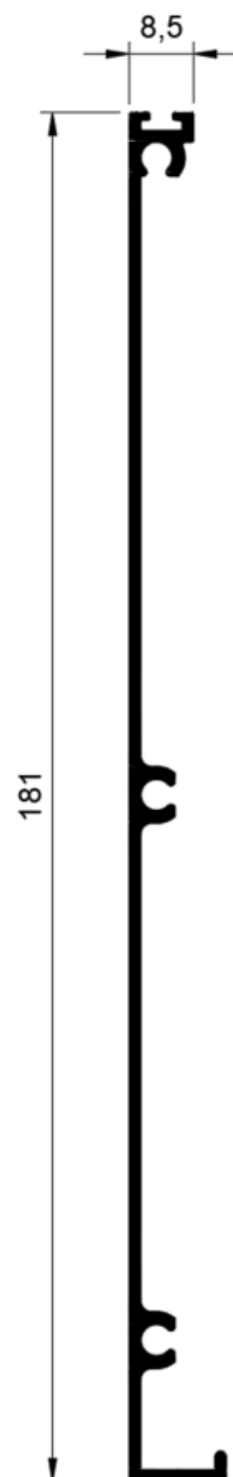
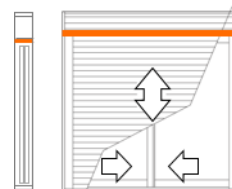
CPU - 404

Tampa Interna da Integrada
1,665 Kg/m



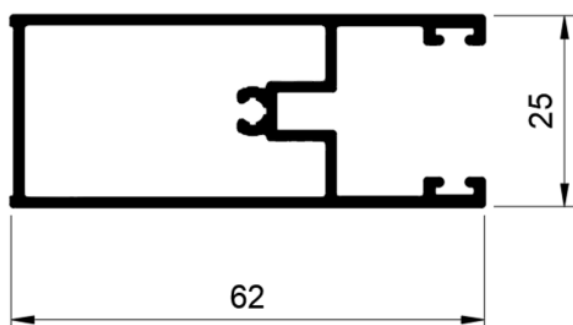
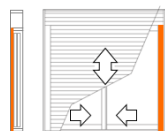
CPU - 405

Marco Intermediário da Integrada
0,963 Kg/m



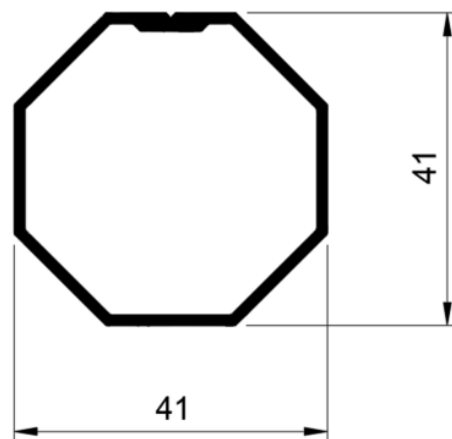
SPI - I04

Guia Lateral
0,687 Kg/m



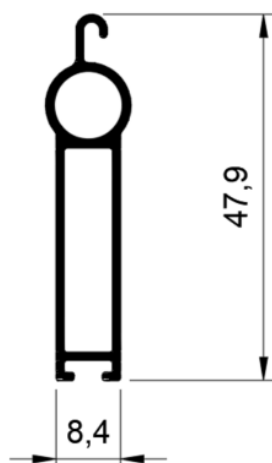
DS - 238

Tubo da Persiana
0,521 Kg/m



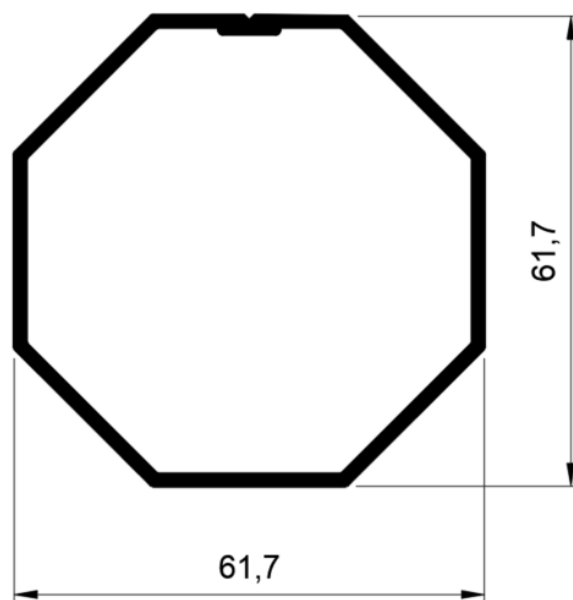
MN - 055

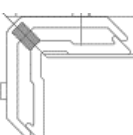
Terminal da Persiana
0,371 Kg/m

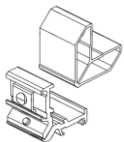
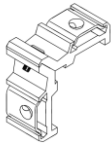
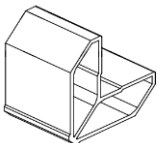
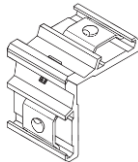
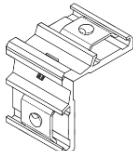
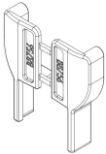


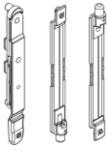
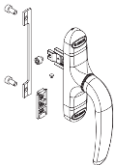
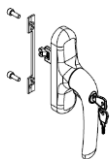
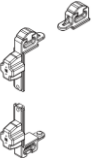
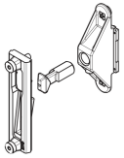
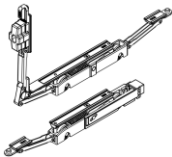
MN - 015

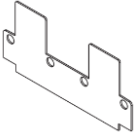
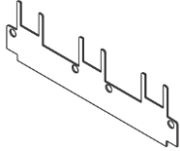
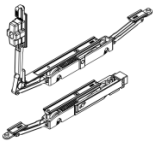
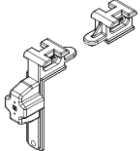
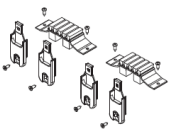
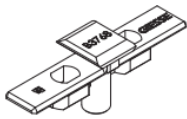
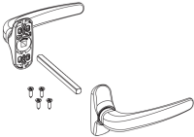
Tubo da Persiana
0,881 Kg/m

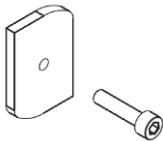
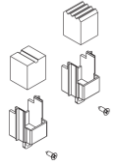
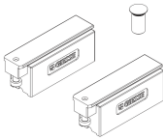


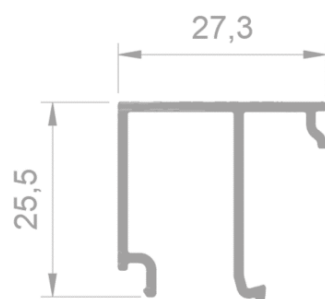
ACESSÓRIO	CÓDIGO	CÓDIGO UNIVERSAL	DESCRIÇÃO
	COS-03524	BARR10000	Vareta de Poliamida
	COS-02979	BATD10013	Batedeira
	COS-08349	BRAC10008NAT	Braço GS HD – 10
	COS-08350	BRAC10009NAT	Braço GS HD – 16
	COS-08351	BRAC10010NAT	Braço GS HD – 22
	COS-08352	BRAC10011NAT	Braço GS HD – 28
	COS-08194	BRAC10013INX	Braço GS HD – 24
	COS-01971	CALC10004PTO	Calço para Braço
	COS-07681	CILD10006NAT	Cilindro
	COS-04630	CONT10006NAT	Contra Fecho
	81.39025.135	81.39025.135	Conexão Anudal

ACESSÓRIO	CÓDIGO	CÓDIGO UNIVERSAL	DESCRIÇÃO
	COS-00340	CONX10012NAT	Conexão Kamel
	COS-00348	CONX10013NAT	Conexão Folha
	COS-00349	CONX10014NAT	Conexão Kamel
	COS-00350	CONX10015NAT	Conexão de Canto para a Folha
	COS-02921	CONX10016NAT	Conexão de Alinhamento
	COS-00357	CONX10038NAT	Conexão Kamel
	COS-00681	DOBR10006	Dobradiça Flash
	COS-02938	DREN10000	Par de Tampas para Pingadeira
	COS-07058N	ESPL00951	Roseta
	COS-04627	FDRA10011NAT	Fechadura
	COS-01164N	FECH01098	Cremona Única

ACESSÓRIO	CÓDIGO	CÓDIGO UNIVERSAL	DESCRIÇÃO
	COS-02191N	FECH01090NAT	Fecho unha 2° Folha
	COS-01039	FECH01089	Cremona Prima s/ chave
	COS-01091	FECH01089	Cremona Prima c/ chave
	GUA-410	GUAR00410PTO	Guarnição Folha e Marco
	GUA-412	GUAR00412PTO	Guarnição Vidro
	GUA-413	GUAR00413PTO	Guarnição Vidro
	COS-02970	GUAR10035PTO	Gaxeta
	COS-02933	KTTP10012	Kit de Adaptadores para Batedeira
	COS-02929	KTFC10000NAT	Kit para Fechamento GOS-S
	ROL-03913	KTRD10000NAT	Kit Roldana de 90 a 200 Kg

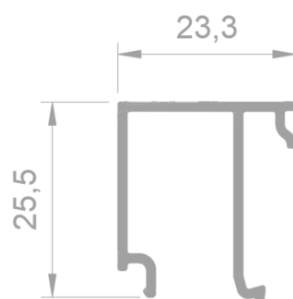
ACESSÓRIO	CÓDIGO	CÓDIGO UNIVERSAL	DESCRIÇÃO
	COS-02974	VEDA10017NAT	Espuma selante para trilhos planos
	COS-02975	VEDA10018NAT	Espuma selante para trilhos planos
	ROL-03916	KTRD10001NAT	Kit Roldana até 90 Kg
	COS-02939	KTTP10001NAT	Kit de Adaptadores para Batedeira
	COS-02945	COS-02945	Kit de Adaptadores GOS-S
	COS-04099	KTTR00625NAT	Dispositivo de Ligação
			Vareta-Cremona
	COS-02792	MACN10000	Maçaneta Prima Plus
	COS-02908	MACN10010	Cremona Martelina Longo
	COS-02942	MACN10011	Fecho de Embutir para Janelas
	COS-02948	MACN10012	Cremona Martelina Curto

ACESSÓRIO	CÓDIGO	CÓDIGO UNIVERSAL	DESCRIÇÃO
	COS-06745	NYLO00485PTO	Calço para Vidro de 5 mm
	COS-06746	NYLO00486PTO	Calço para Vidro de 2 mm
	COS-00645	SUPT10009NAT	Placa para perfil inversor
	COS-02947	TAMP10033PTO	Adaptadores para duas folhas
	COS-04027K	TRAV00015FCO	Botão para pontos de fechamento
	COS-02954	TRAV10010NAT	GOS-S Kit para folha fixa
	COS-01353K	TRAV00020NAT	Complemento do fecho
	COS-02951	TRAV10016NAT	Mecanismo da Cremona
	COS-04020K	TRAV10017NAT	Reenvio de ângulo

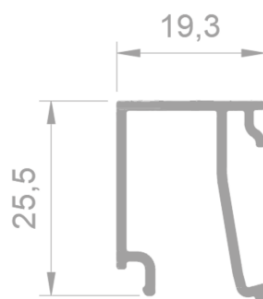
ECBG - 213


DETALHES		Espessura Vidro (mm)	Guarnição Interna	Guarnição Externa
45EC-247		4	GUA412	GUA414
		5	GUA411	GUA414
		6	GUA412	GUA413
		7	GUA411	GUA413
45EC-234		4	GUA412	GUA414
		5	GUA411	GUA414
		6	GUA412	GUA413
		7	GUA411	GUA413
45EC-251		4	GUA412	GUA414
		5	GUA411	GUA414
		6	GUA412	GUA413
		7	GUA411	GUA413
45EC-268		4	GUA412	GUA414
		5	GUA411	GUA414
		6	GUA412	GUA413
		7	GUA411	GUA413

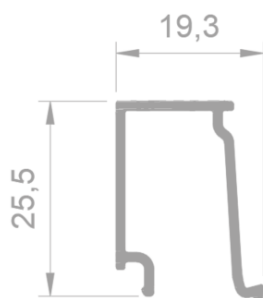
ECBG - 214



DETALHES		Espessura Vidro (mm)	Guarnição Interna	Guarnição Externa
45EC-247		8	GUA412	GUA414
		9	GUA411	GUA414
		10	GUA412	GUA413
		11	GUA411	GUA413
45EC-234		8	GUA412	GUA414
		9	GUA411	GUA414
		10	GUA412	GUA413
		11	GUA411	GUA413
45EC-251		8	GUA412	GUA414
		9	GUA411	GUA414
		10	GUA412	GUA413
		11	GUA411	GUA413
45EC-268		8	GUA412	GUA414
		9	GUA411	GUA414
		10	GUA412	GUA413
		11	GUA411	GUA413

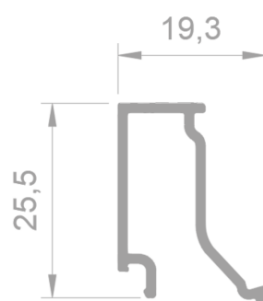
ECBG - 215


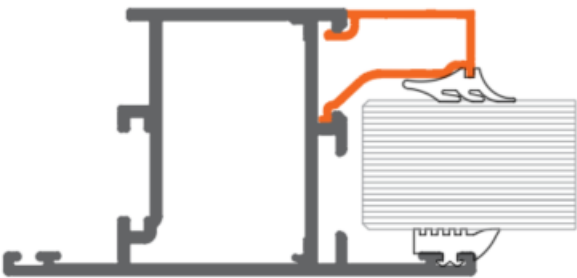
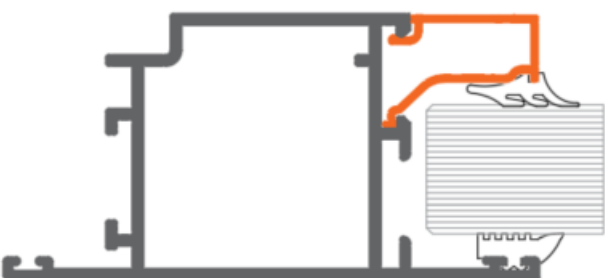
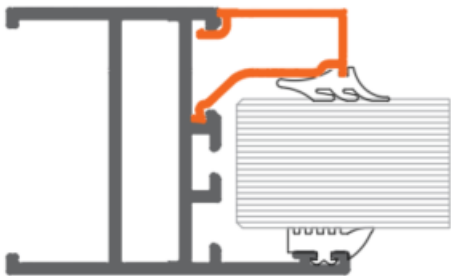
DETALHES		Espessura Vidro (mm)	Guarnição Interna	Guarnição Externa
45EC-247		12	GUA412	GUA414
		13	GUA411	GUA414
		14	GUA412	GUA413
		15	GUA411	GUA413
45EC-234		12	GUA412	GUA414
		13	GUA411	GUA414
		14	GUA412	GUA413
		15	GUA411	GUA413
45EC-251		12	GUA412	GUA414
		13	GUA411	GUA414
		14	GUA412	GUA413
		15	GUA411	GUA413
45EC-268		12	GUA412	GUA414
		13	GUA411	GUA414
		14	GUA412	GUA413
		15	GUA411	GUA413

ECBG - 216


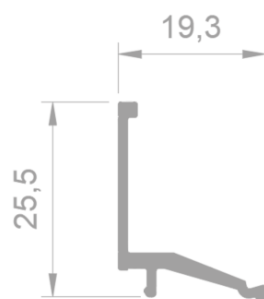
DETALHES		Espessura Vidro (mm)	Guarnição Interna	Guarnição Externa
45EC-247		16	GUA412	GUA414
		17	GUA411	GUA414
		18	GUA412	GUA413
		19	GUA411	GUA413
45EC-234		16	GUA412	GUA414
		17	GUA411	GUA414
		18	GUA412	GUA413
		19	GUA411	GUA413
45EC-251		16	GUA412	GUA414
		17	GUA411	GUA414
		18	GUA412	GUA413
		19	GUA411	GUA413
45EC-268		16	GUA412	GUA414
		17	GUA411	GUA414
		18	GUA412	GUA413
		19	GUA411	GUA413

ECBG - 217



DETALHES		Espessura Vidro (mm)	Guarnição Interna	Guarnição Externa
45EC-247		20	GUA412	GUA414
		21	GUA411	GUA414
		22	GUA412	GUA413
		23	GUA411	GUA413
45EC-234		20	GUA412	GUA414
		21	GUA411	GUA414
		22	GUA412	GUA413
		23	GUA411	GUA413
45EC-251		20	GUA412	GUA414
		21	GUA411	GUA414
		22	GUA412	GUA413
		23	GUA411	GUA413
45EC-268		20	GUA412	GUA414
		21	GUA411	GUA414
		22	GUA412	GUA413
		23	GUA411	GUA413

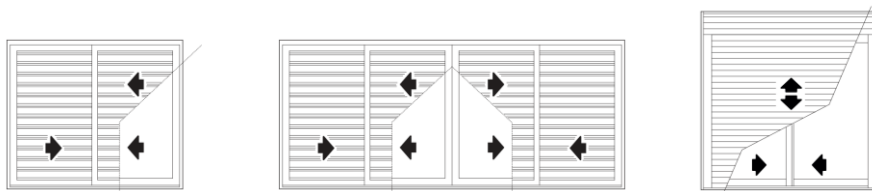
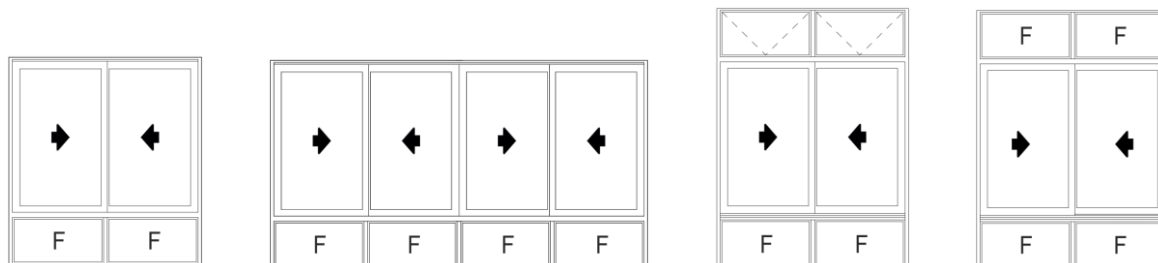
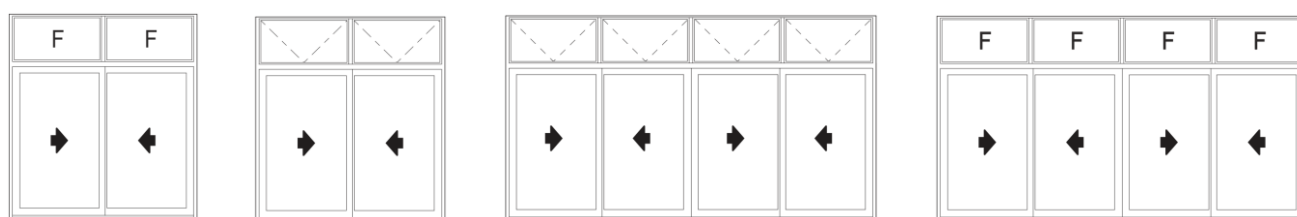
ECBG - 218



DETALHES		Espessura Vidro (mm)	Guarnição Interna	Guarnição Externa
45EC-247		28	GUA412	GUA414
		30	GUA412	GUA413
		32	GUA411	GUA413
45EC-234		28	GUA412	GUA414
		30	GUA412	GUA413
		32	GUA411	GUA413
45EC-251		28	GUA412	GUA414
		30	GUA412	GUA413
		32	GUA411	GUA413
45EC-268		28	GUA412	GUA414
		30	GUA412	GUA413
		32	GUA411	GUA413

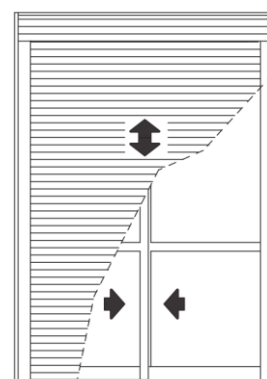
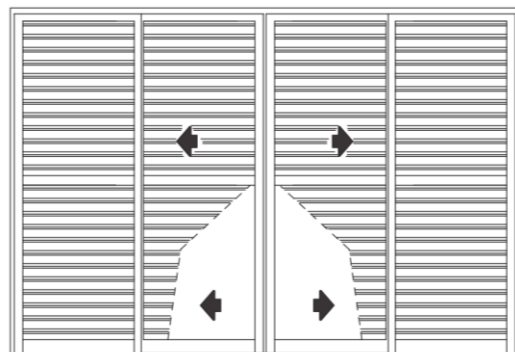
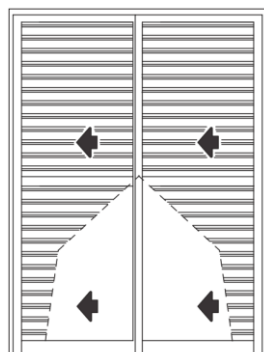
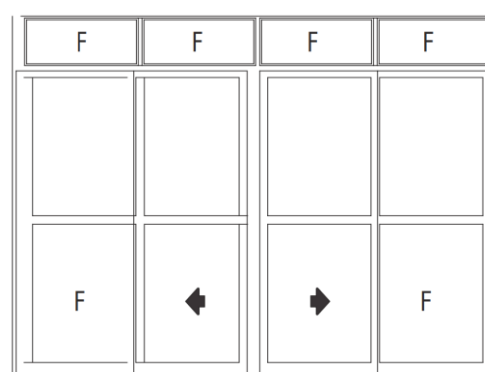
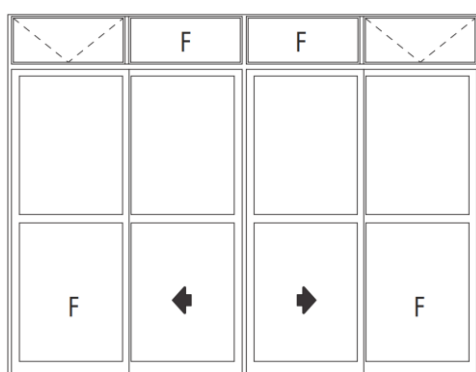
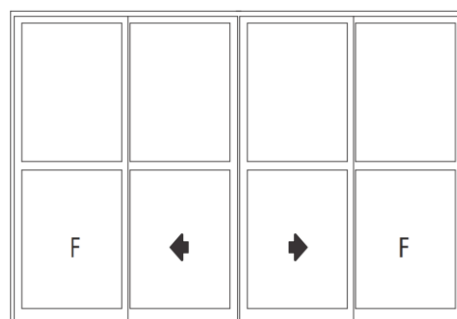
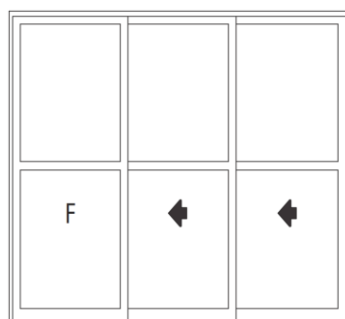
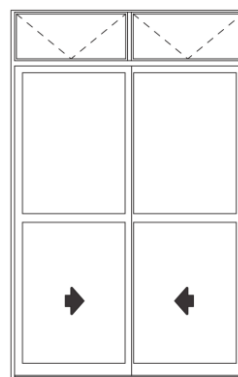
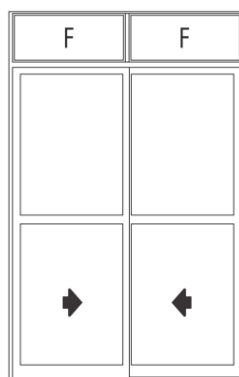
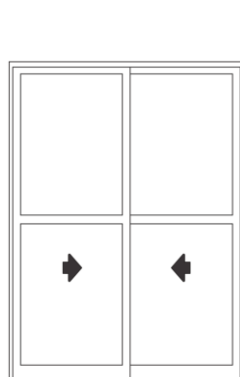
Janelas de 02, 03, 04 e 06 folhas de correr

Opcionais: Persiana Integrada, Basculante Superior e/ou Inferior, Venezianas



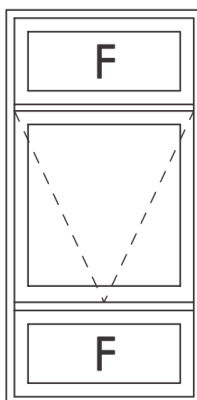
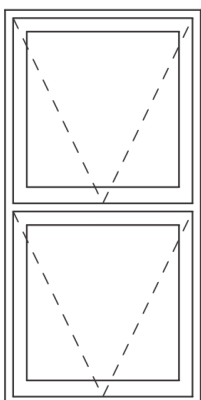
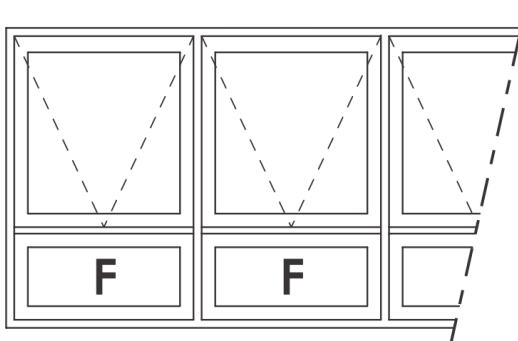
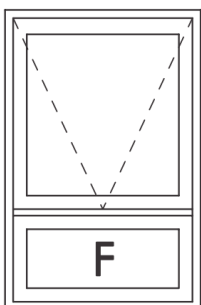
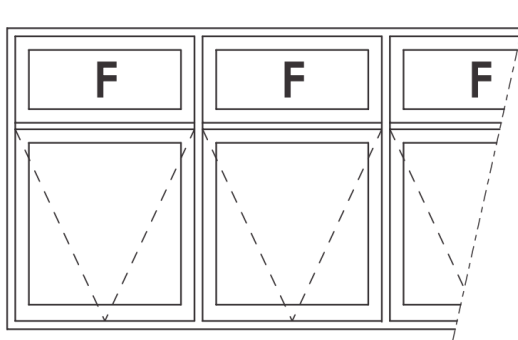
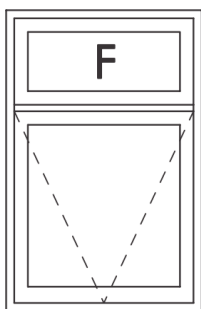
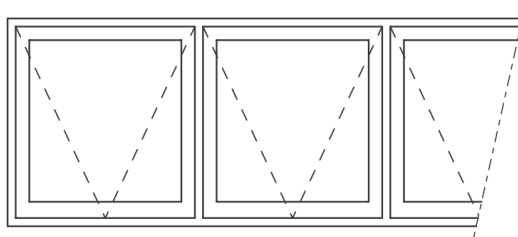
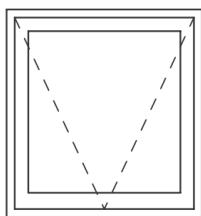
Portas de 02, 03, 04 e 06 folhas de correr

Opcionais: Persiana Integrada, Basculante Superior, Venezianas



Maxim-ar

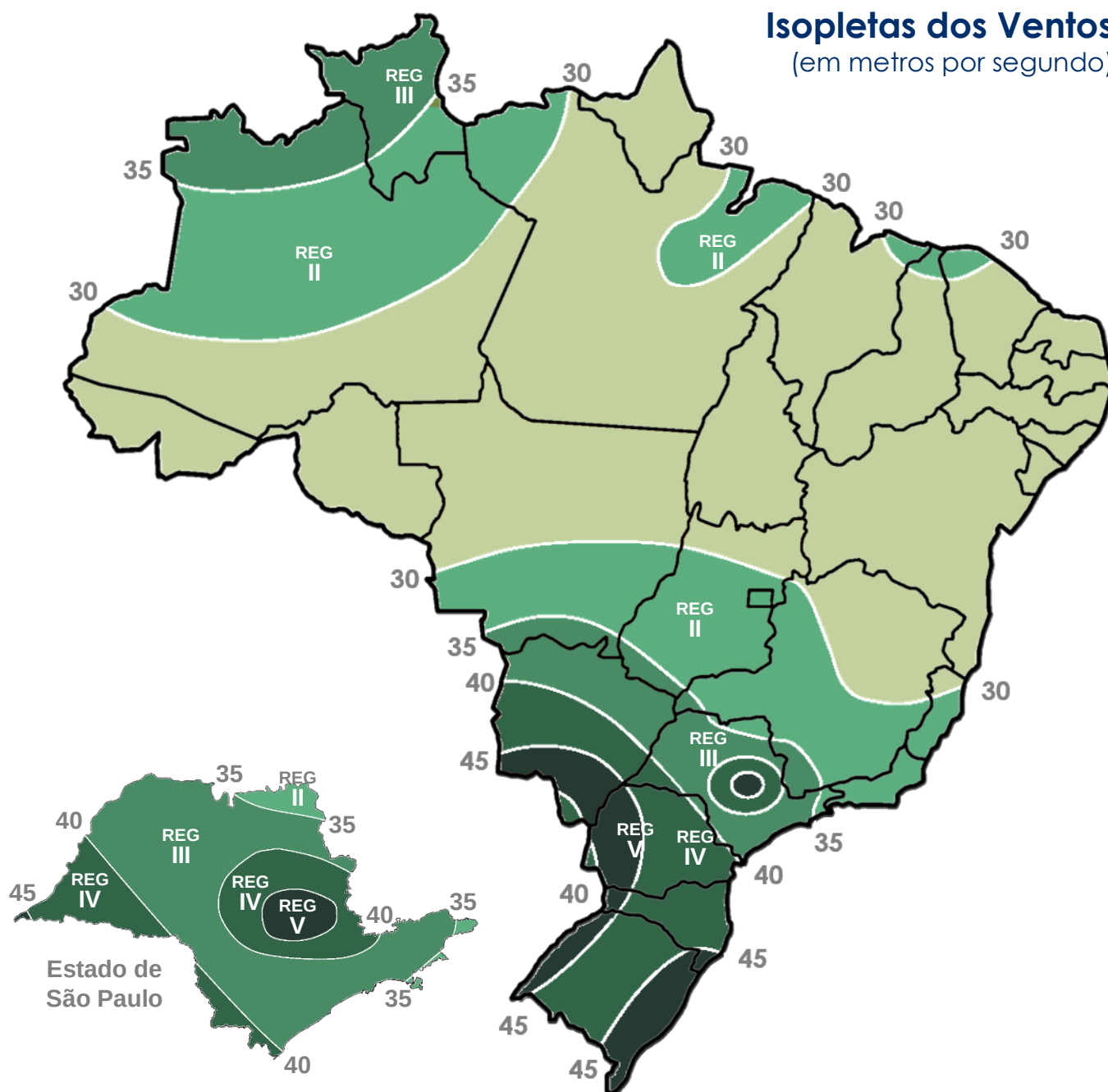
Fixo, Inferior, Superior e Múltiplo



No Brasil, o comportamento de uma esquadria está regulamentado pela Norma **ABNT NBR 10.821**. Esta norma determina os parâmetros de desempenho mínimos de caixilhos em edificações residenciais e comerciais.

A velocidade do vento é o fator inicial para calcular a pressão do vento no local desejado.

Isopletas dos Ventos (em metros por segundo)

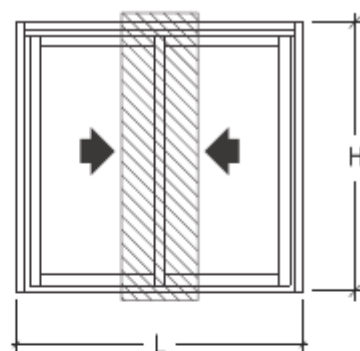
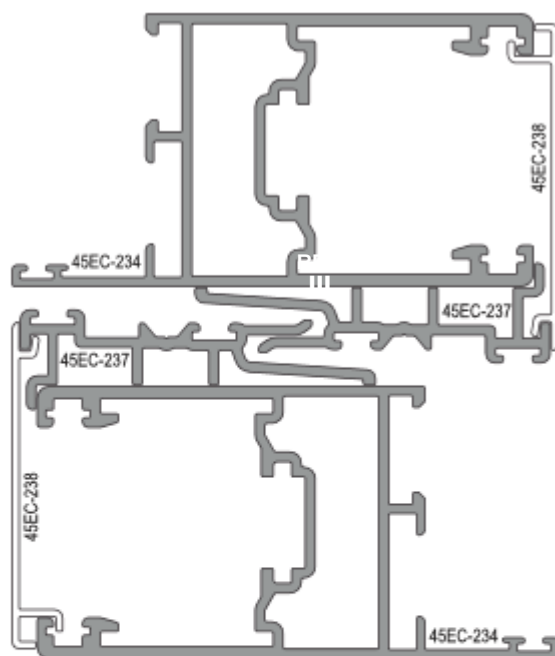


VELOCIDADE DO VENTO POR REGIÃO CONSIDERADA NA NORMA ABNT NBR 10.821

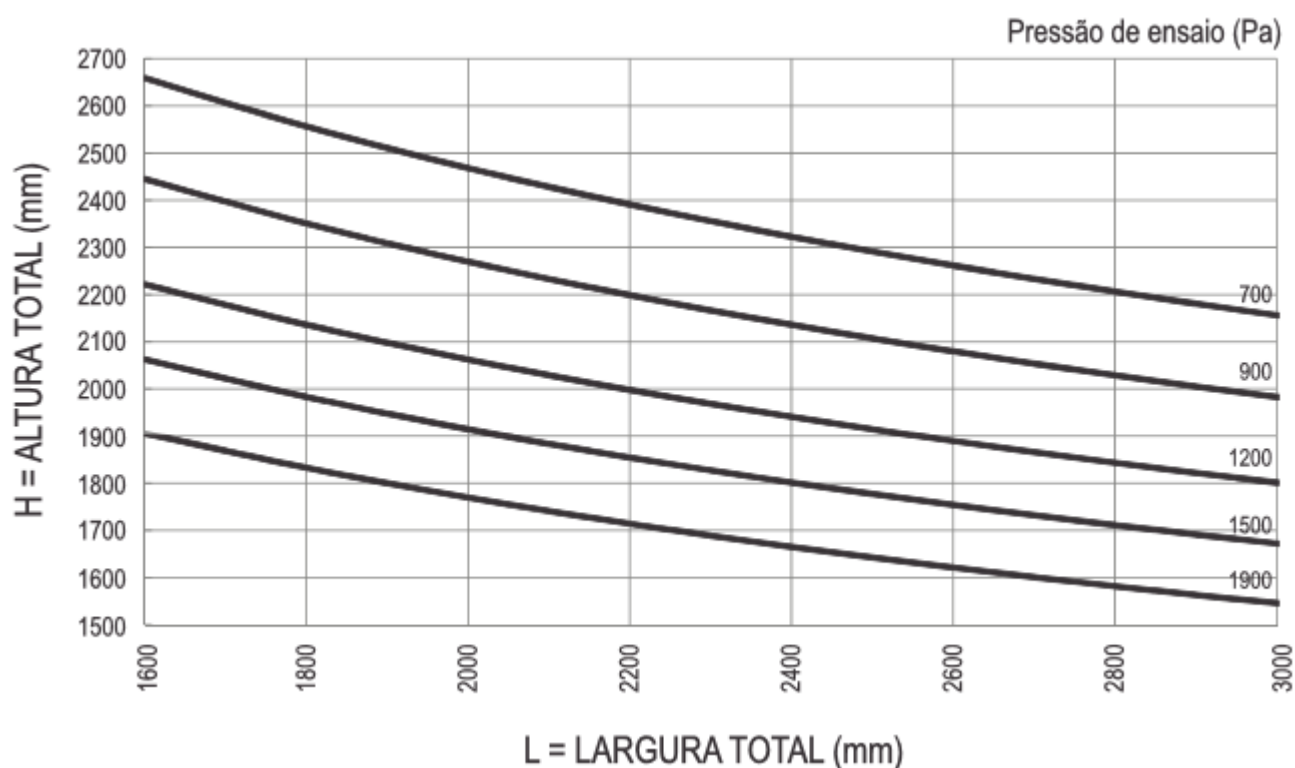
REGIÃO 1	REGIÃO 2	REGIÃO 3	REGIÃO 4	REGIÃO 5
até 30 m/s até 108 km/h	30 - 35 m/s 108 – 126 km/h	35 - 40 m/s 126 – 144 km/h	40 - 45 m/s 144 – 162 km/h	45 - 50 m/s 162 – 180 km/h

QUANTIDADE DE PAVIMENTOS	ALTURA MÁXIMA	REGIÕES DO PAÍS	PRESSÃO DO ENSAIO	PRESSÃO DE SEGURANÇA	PRESSÃO DE ÁGUA
			Pe em (Pa) Positiva e negativa Pe – Pp x 1,2	Ps em (Pa) Positiva e negativa Ps – Pp x 1,5	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

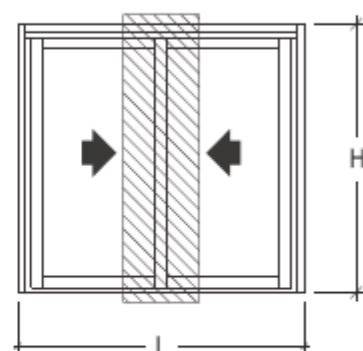
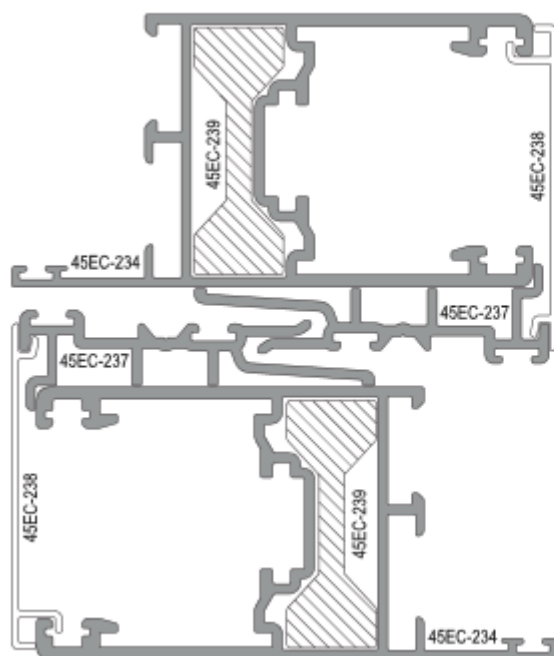
JANELAS DE CORRER 2 FOLHAS



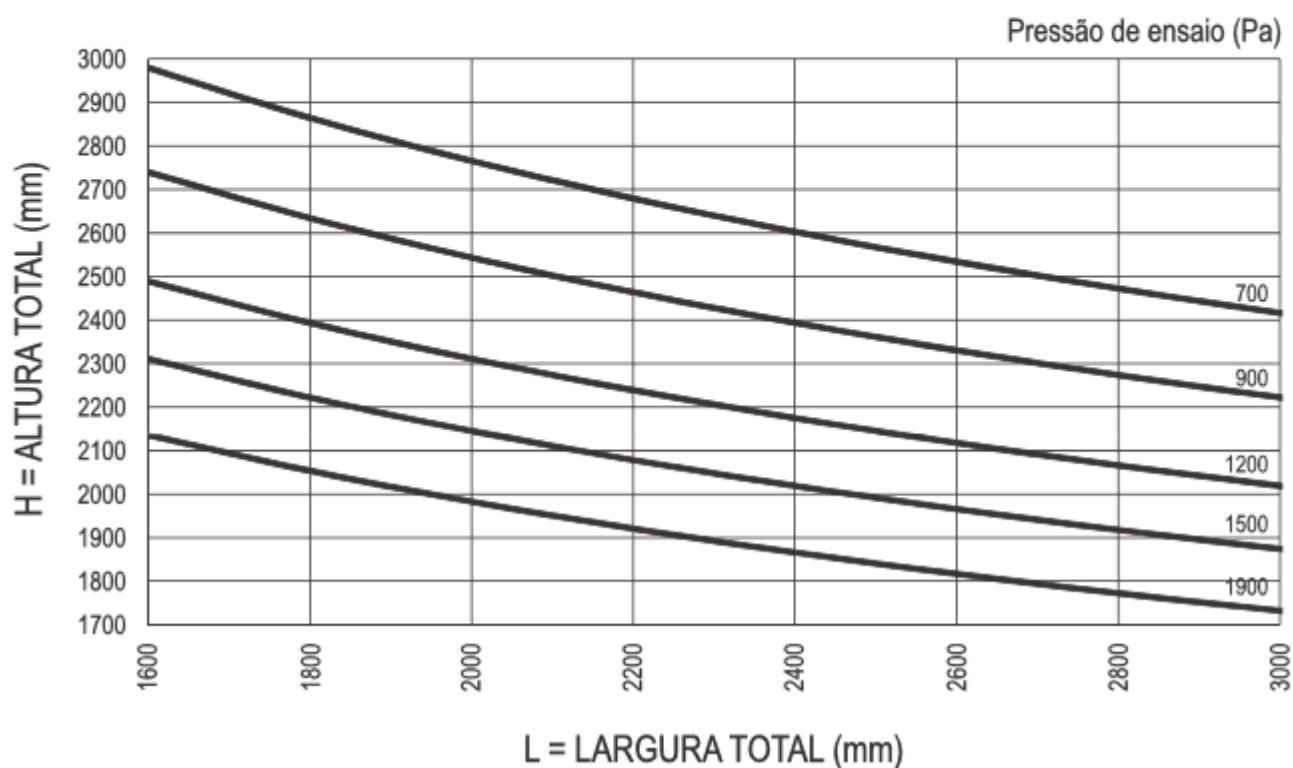
45EC-234	45EC-237	45EC-234	45EC-237
$Jx = 17,252 \text{ cm}^4$	$Jx = 0,218 \text{ cm}^4$	$Jx = 17,252 \text{ cm}^4$	$Jx = 0,218 \text{ cm}^4$
$Jy = 24,748 \text{ cm}^4$	$Jy = 5,461 \text{ cm}^4$	$Jy = 24,748 \text{ cm}^4$	$Jy = 5,461 \text{ cm}^4$
$Wx = 7,146 \text{ cm}^3$	$Wx = 0,221 \text{ cm}^3$	$Wx = 7,146 \text{ cm}^3$	$Wx = 0,221 \text{ cm}^3$
$Wy = 5,194 \text{ cm}^3$	$Wy = 1,640 \text{ cm}^3$	$Wy = 5,194 \text{ cm}^3$	$Wy = 1,640 \text{ cm}^3$
$Jx \text{ Total} = 34,940 \text{ cm}^4$ (perfil 45EC-238 não considerado no cálculo)			



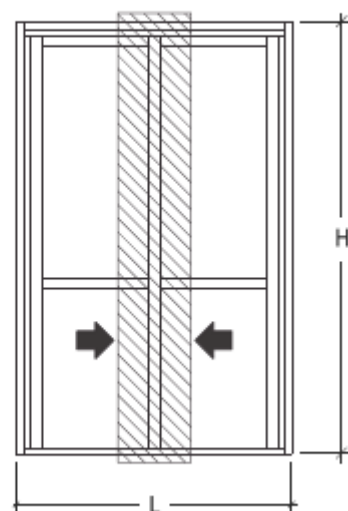
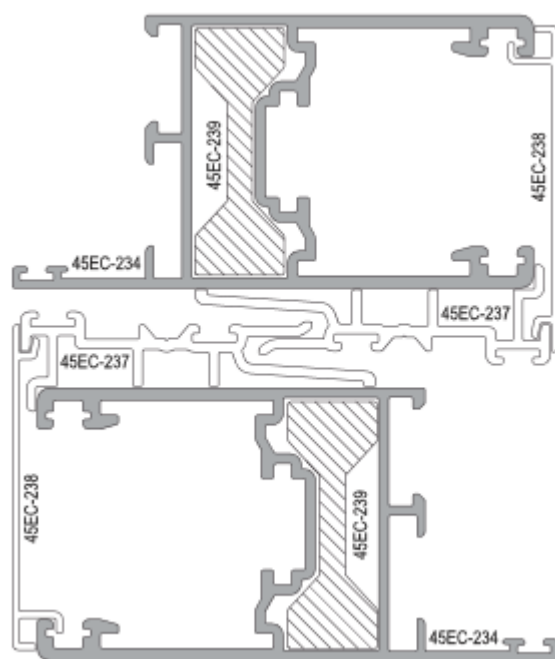
JANELAS DE CORRER 2 FOLHAS



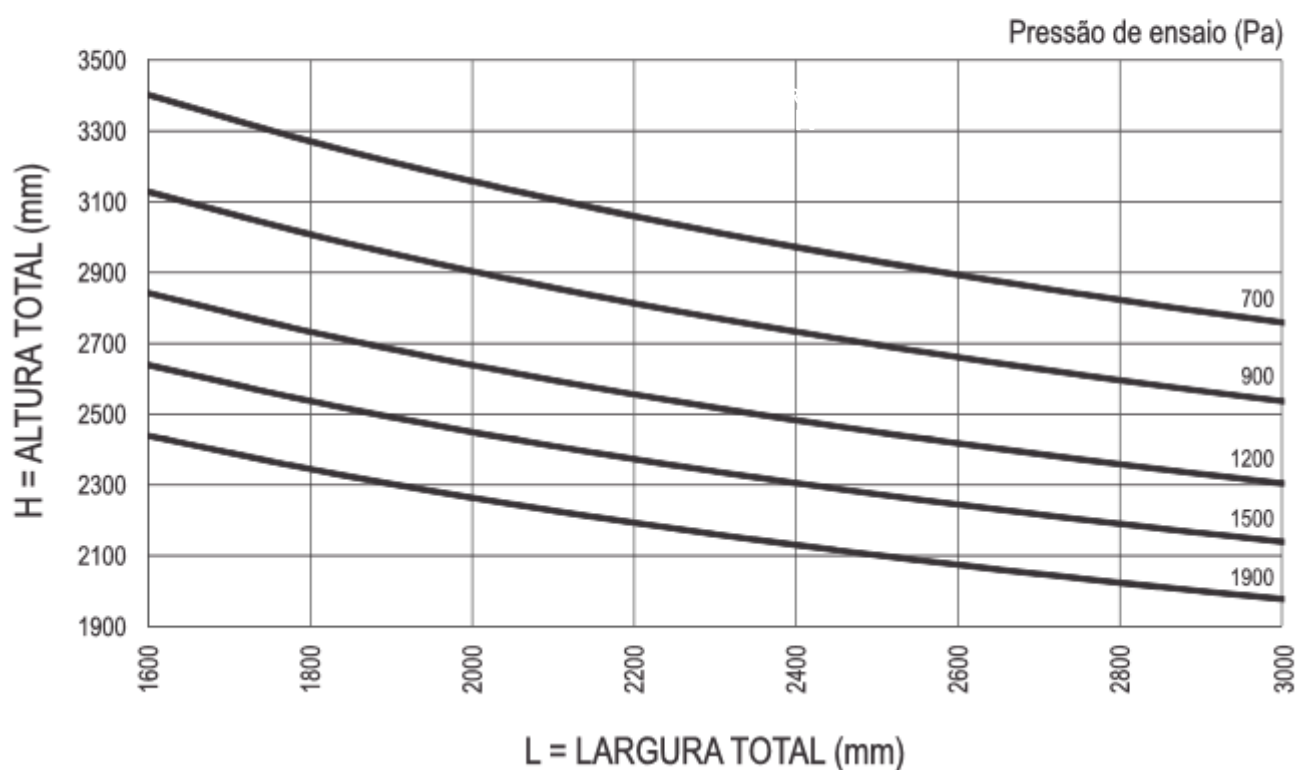
45EC-234	45EC-237	45EC-239	45EC-234	45EC-237	45EC-239
Jx = 17,252 cm ⁴	Jx = 0,218 cm ⁴	Jx = 7,341 cm ⁴	Jx = 17,252 cm ⁴	Jx = 0,218 cm ⁴	Jx = 7,341 cm ⁴
Jy = 24,748 cm ⁴	Jy = 5,461 cm ⁴	Jy = 0,465 cm ⁴	Jy = 24,748 cm ⁴	Jy = 5,461 cm ⁴	Jy = 0,465 cm ⁴
Wx = 7,146 cm ³	Wx = 0,221 cm ³	Wx = 3,598 cm ³	Wx = 7,146 cm ³	Wx = 0,221 cm ³	Wx = 3,598 cm ³
Wy = 5,194 cm ³	Wy = 1,640 cm ³	Wy = 0,628 cm ³	Wy = 5,194 cm ³	Wy = 1,640 cm ³	Wy = 0,628 cm ³
Jx Total = 49,622 cm ⁴			(perfil 45EC-238 não considerado no cálculo)		



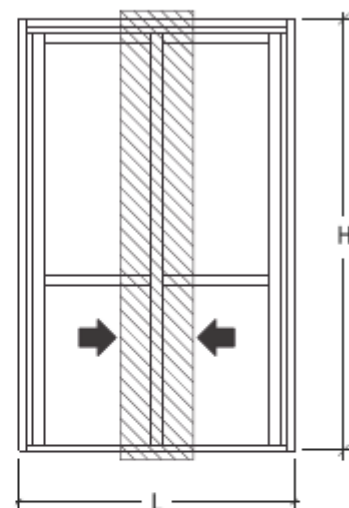
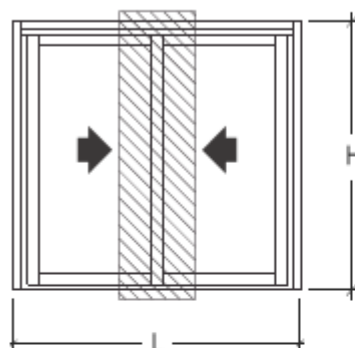
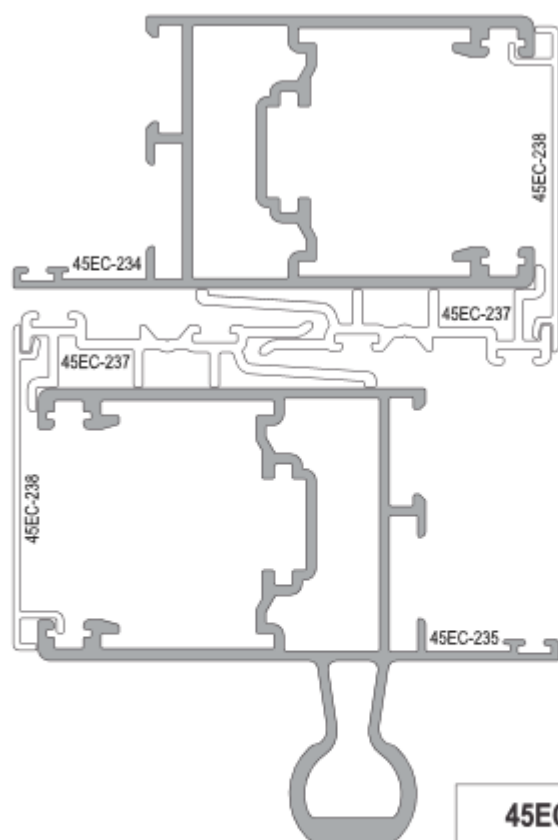
PORTA DE CORRER 2 FOLHAS



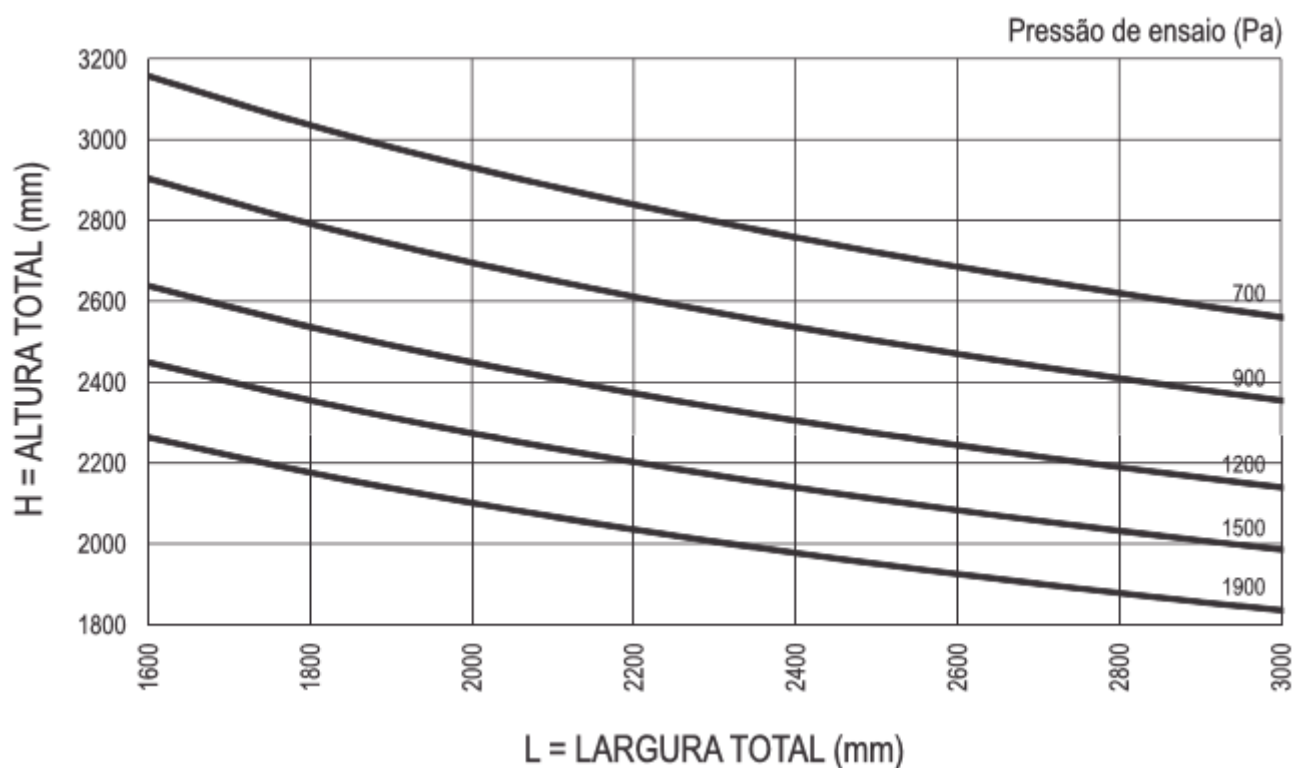
45EC-234	45EC-237	45EC-239	45EC-235	45EC-237	45EC-239
$J_x = 17,252 \text{ cm}^4$	$J_x = 0,218 \text{ cm}^4$	$J_x = 7,341 \text{ cm}^4$	$J_x = 40,823 \text{ cm}^4$	$J_x = 0,218 \text{ cm}^4$	$J_x = 7,341 \text{ cm}^4$
$J_y = 24,748 \text{ cm}^4$	$J_y = 5,461 \text{ cm}^4$	$J_y = 0,465 \text{ cm}^4$	$J_y = 28,022 \text{ cm}^4$	$J_y = 5,461 \text{ cm}^4$	$J_y = 0,465 \text{ cm}^4$
$W_x = 7,146 \text{ cm}^3$	$W_x = 0,221 \text{ cm}^3$	$W_x = 3,598 \text{ cm}^3$	$W_x = 10,089 \text{ cm}^3$	$W_x = 0,221 \text{ cm}^3$	$W_x = 3,598 \text{ cm}^3$
$W_y = 5,194 \text{ cm}^3$	$W_y = 1,640 \text{ cm}^3$	$W_y = 0,628 \text{ cm}^3$	$W_y = 6,354 \text{ cm}^3$	$W_y = 1,640 \text{ cm}^3$	$W_y = 0,628 \text{ cm}^3$
$J_x \text{ Total} = 73,193 \text{ cm}^4$			(perfil 45EC-235 não considerado no cálculo)		



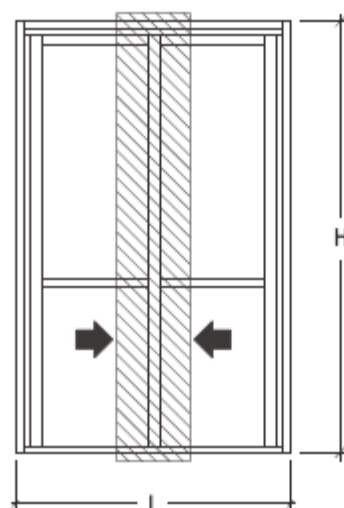
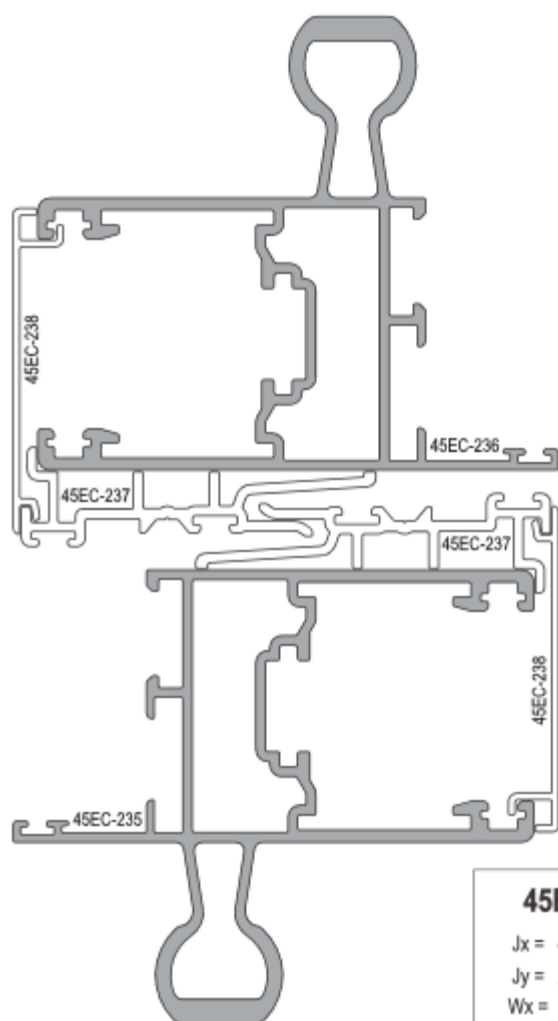
JANELA/PORTA DE CORRER 2 FOLHAS



45EC-234	45EC-237	45EC-235	45EC-237
$Jx = 17,252 \text{ cm}^4$	$Jx = 0,218 \text{ cm}^4$	$Jx = 40,823 \text{ cm}^4$	$Jx = 0,218 \text{ cm}^4$
$Jy = 24,748 \text{ cm}^4$	$Jy = 5,461 \text{ cm}^4$	$Jy = 28,022 \text{ cm}^4$	$Jy = 5,461 \text{ cm}^4$
$Wx = 7,146 \text{ cm}^3$	$Wx = 0,221 \text{ cm}^3$	$Wx = 10,089 \text{ cm}^3$	$Wx = 0,221 \text{ cm}^3$
$Wy = 5,194 \text{ cm}^3$	$Wy = 1,640 \text{ cm}^3$	$Wy = 6,354 \text{ cm}^3$	$Wy = 1,640 \text{ cm}^3$
$Jx \text{ Total} = 58,511 \text{ cm}^4$ (perfil 45EC-238 não considerado no cálculo)			

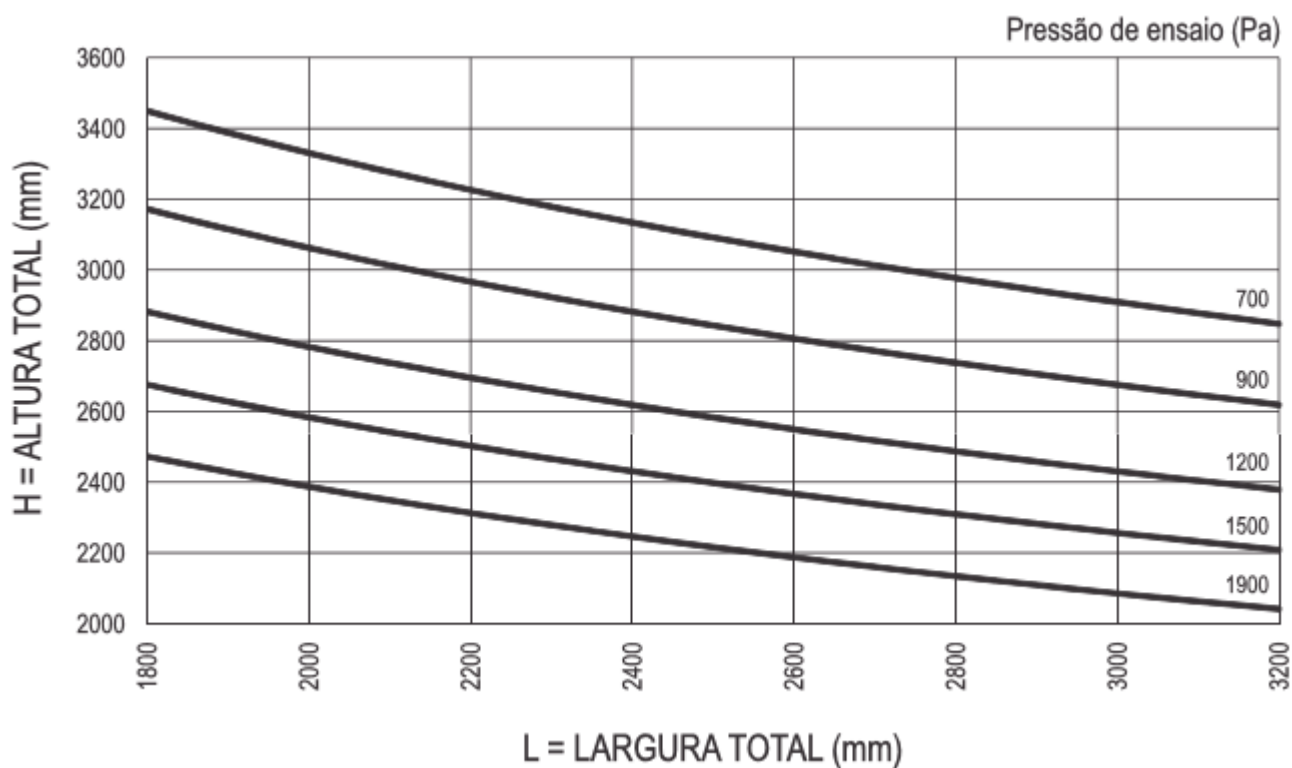


PORTA DE CORRER 2 FOLHAS

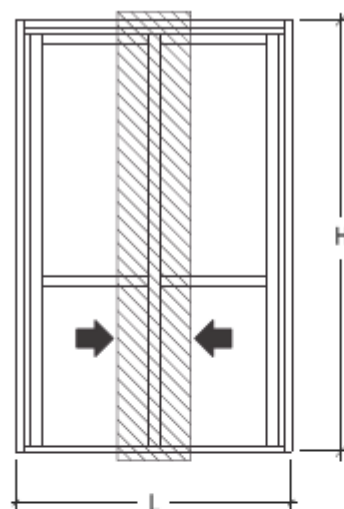
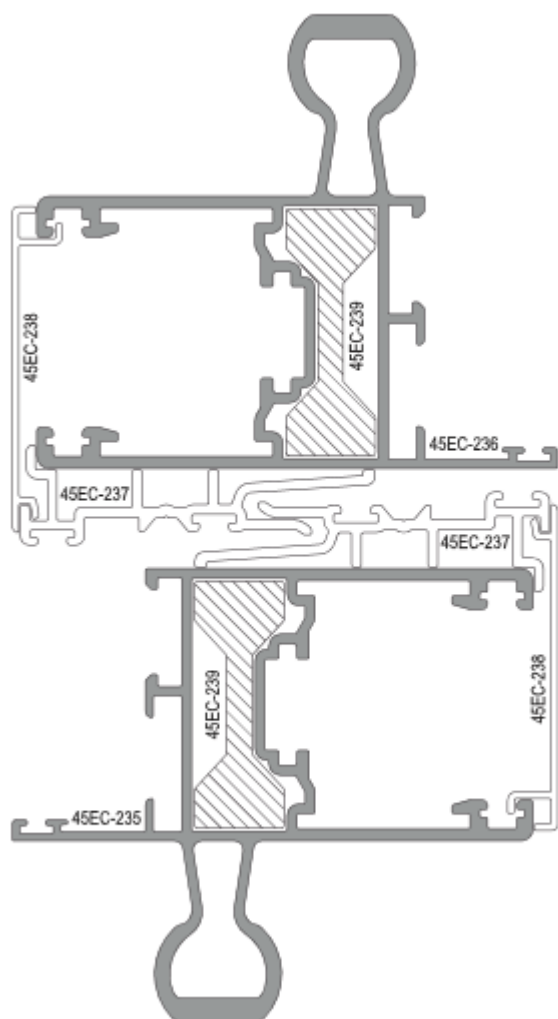


45EC-236	45EC-237	45EC-235	45EC-237
$J_x = 44,580 \text{ cm}^4$	$J_x = 0,218 \text{ cm}^4$	$J_x = 40,823 \text{ cm}^4$	$J_x = 0,218 \text{ cm}^4$
$J_y = 28,022 \text{ cm}^4$	$J_y = 5,461 \text{ cm}^4$	$J_y = 28,022 \text{ cm}^4$	$J_y = 5,461 \text{ cm}^4$
$W_x = 10,396 \text{ cm}^3$	$W_x = 0,221 \text{ cm}^3$	$W_x = 10,089 \text{ cm}^3$	$W_x = 0,221 \text{ cm}^3$
$W_y = 6,354 \text{ cm}^3$	$W_y = 1,640 \text{ cm}^3$	$W_y = 6,354 \text{ cm}^3$	$W_y = 1,640 \text{ cm}^3$
$J_x \text{ Total} = 85,839 \text{ cm}^4$			

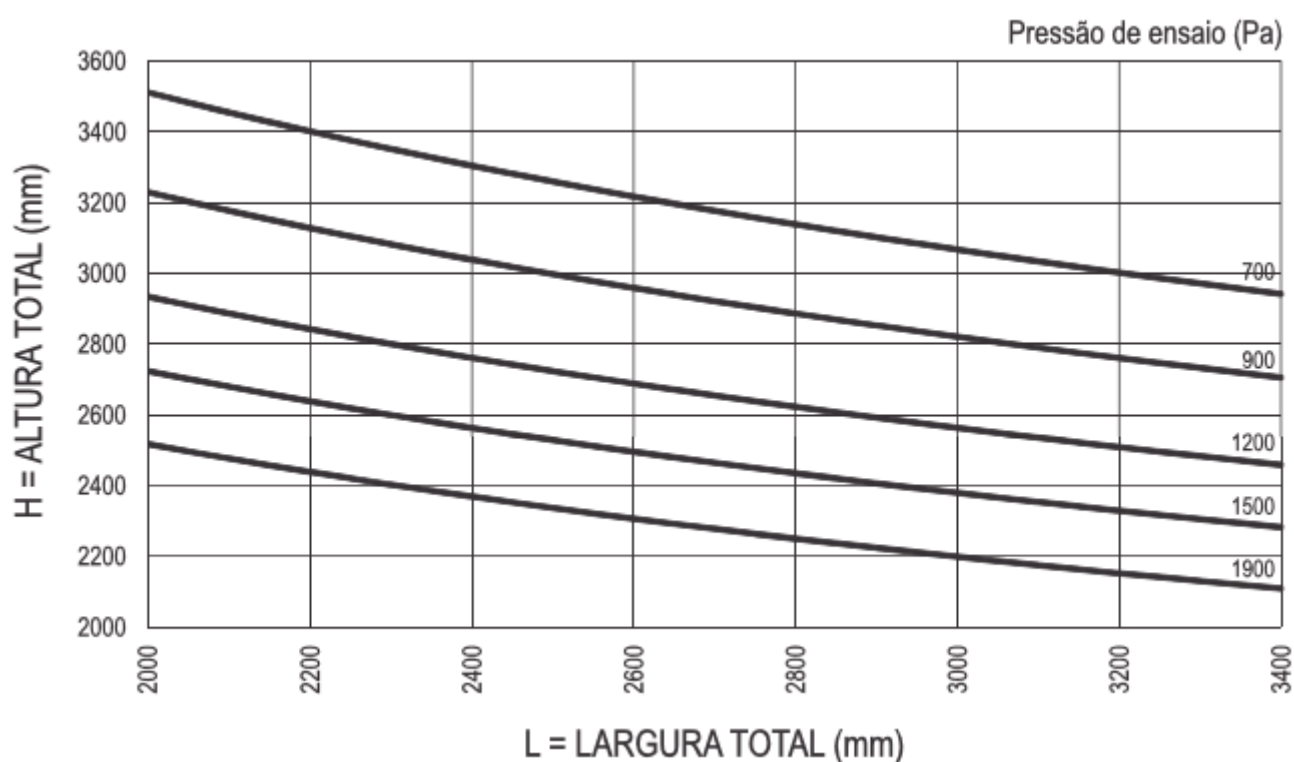
(perfil 45EC-238 não considerado no cálculo)



PORTA DE CORRER 2 FOLHAS

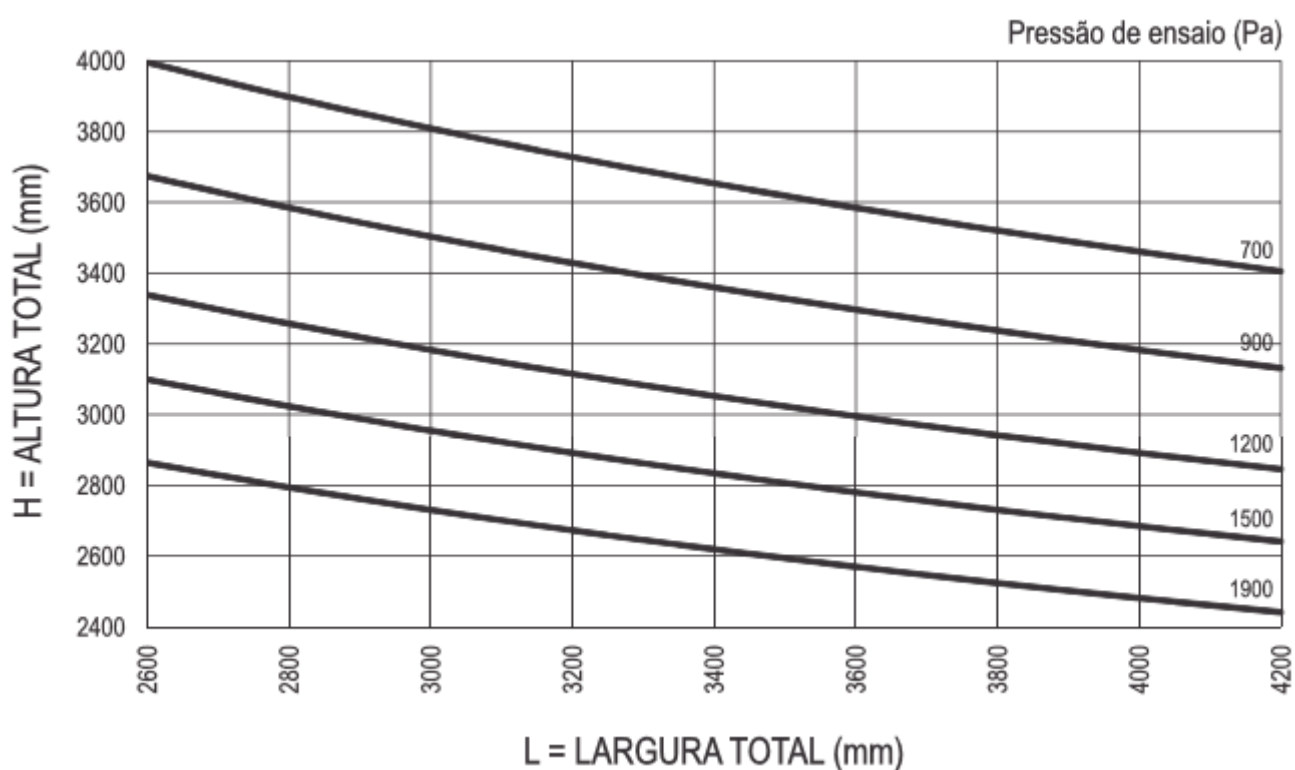
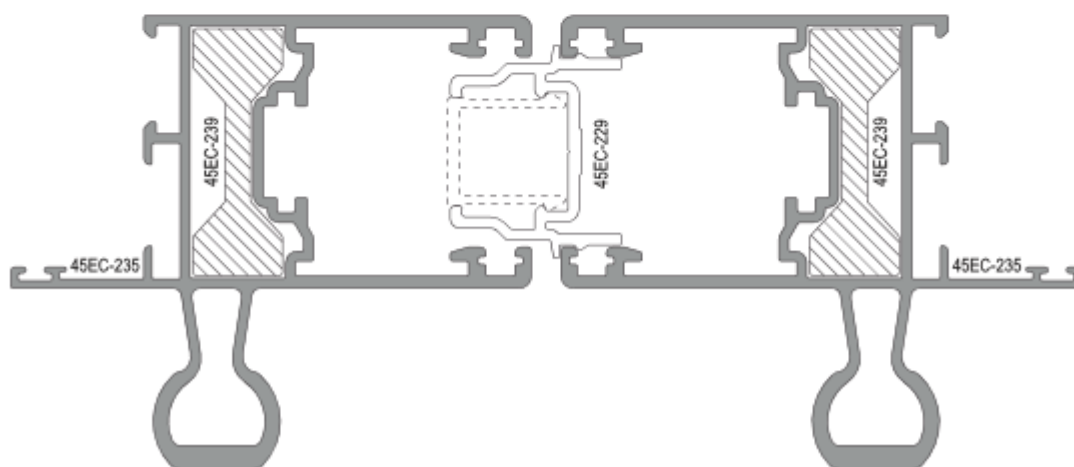
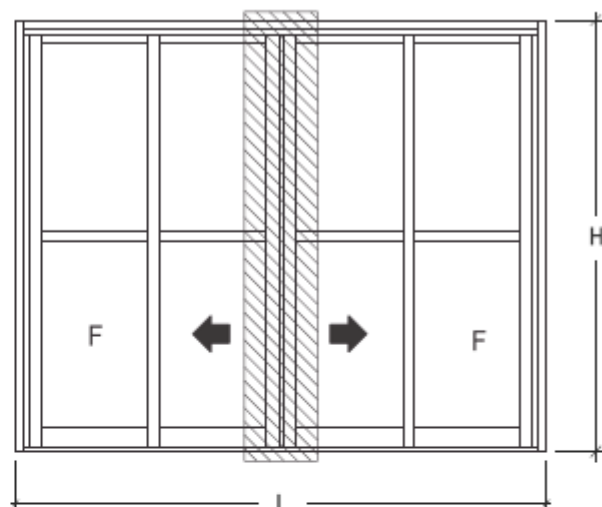


45EC-236 $J_x = 44,580 \text{ cm}^4$ $J_y = 28,022 \text{ cm}^4$ $W_x = 10,396 \text{ cm}^3$ $W_y = 6,354 \text{ cm}^3$	45EC-237 $J_x = 0,218 \text{ cm}^4$ $J_y = 5,461 \text{ cm}^4$ $W_x = 0,221 \text{ cm}^3$ $W_y = 1,640 \text{ cm}^3$	45EC-239 $J_x = 7,341 \text{ cm}^4$ $J_y = 0,465 \text{ cm}^4$ $W_x = 3,598 \text{ cm}^3$ $W_y = 0,628 \text{ cm}^3$
45EC-235 $J_x = 40,823 \text{ cm}^4$ $J_y = 28,022 \text{ cm}^4$ $W_x = 10,089 \text{ cm}^3$ $W_y = 6,354 \text{ cm}^3$	45EC-237 $J_x = 0,218 \text{ cm}^4$ $J_y = 5,461 \text{ cm}^4$ $W_x = 0,221 \text{ cm}^3$ $W_y = 1,640 \text{ cm}^3$	45EC-239 $J_x = 7,341 \text{ cm}^4$ $J_y = 0,465 \text{ cm}^4$ $W_x = 3,598 \text{ cm}^3$ $W_y = 0,628 \text{ cm}^3$
Jx Total = 100,521 cm⁴ (perfil 45EC-238 não considerado no cálculo)		

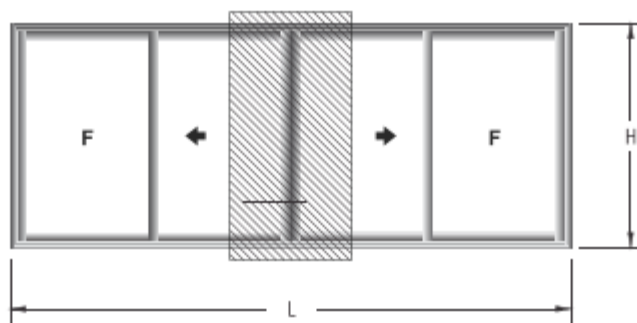


PORTA DE CORRER 4 FOLHAS

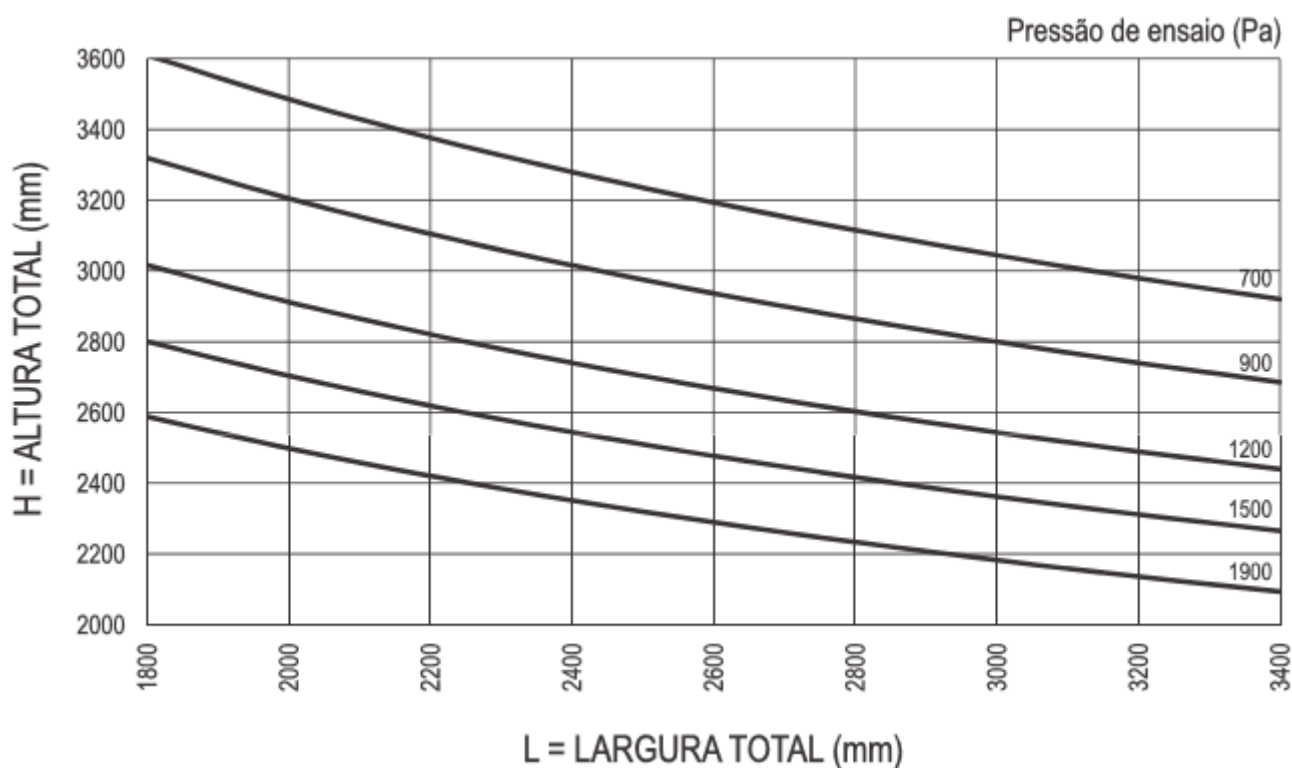
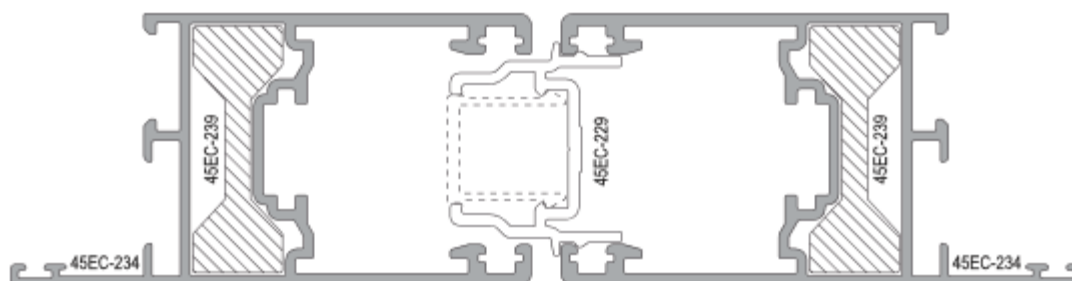
45EC-235 $J_x = 40,823 \text{ cm}^4$ $J_y = 28,022 \text{ cm}^4$ $W_x = 10,089 \text{ cm}^3$ $W_y = 6,354 \text{ cm}^3$	45EC-239 $J_x = 7,341 \text{ cm}^4$ $J_y = 0,465 \text{ cm}^4$ $W_x = 3,598 \text{ cm}^3$ $W_y = 0,628 \text{ cm}^3$
45EC-235 $J_x = 40,823 \text{ cm}^4$ $J_y = 28,022 \text{ cm}^4$ $W_x = 10,089 \text{ cm}^3$ $W_y = 6,354 \text{ cm}^3$	45EC-239 $J_x = 7,341 \text{ cm}^4$ $J_y = 0,465 \text{ cm}^4$ $W_x = 3,598 \text{ cm}^3$ $W_y = 0,628 \text{ cm}^3$
Jx Total = 96,328 cm⁴ (perfil 45EC-299 não considerado no cálculo)	



JANELA DE CORRER 4 FOLHAS

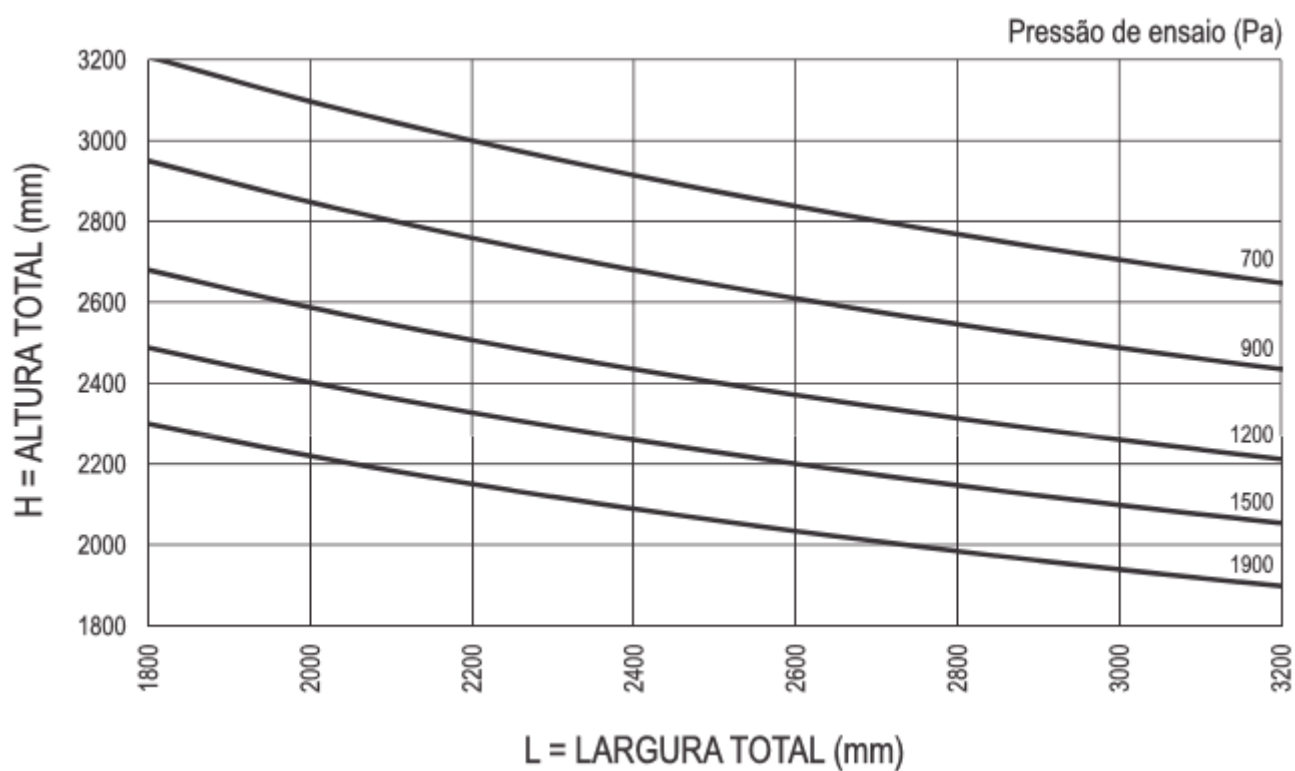
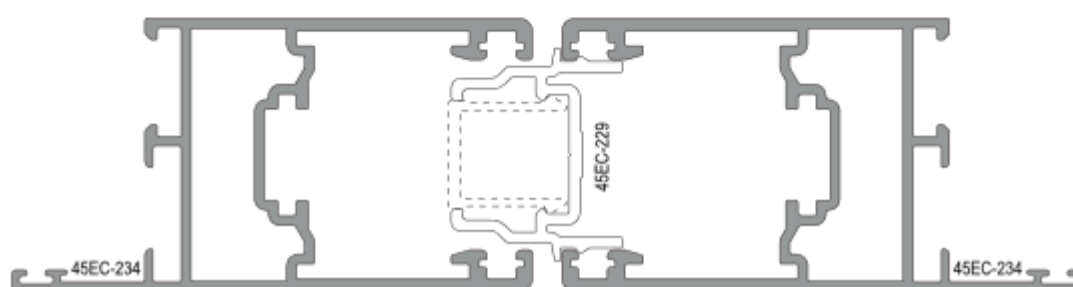
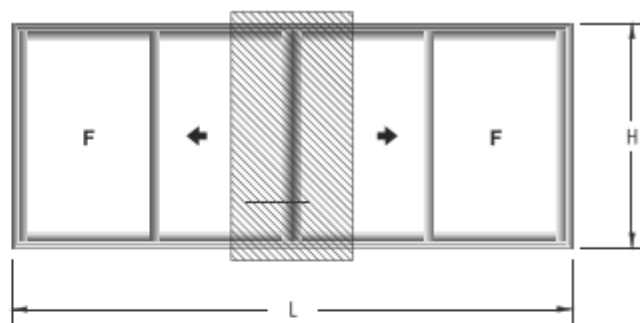


45EC-234	45EC-239	45EC-234	45EC-239
$Jx = 17,252 \text{ cm}^4$	$Jx = 7,341 \text{ cm}^4$	$Jx = 17,252 \text{ cm}^4$	$Jx = 7,341 \text{ cm}^4$
$Jy = 24,748 \text{ cm}^4$	$Jy = 0,465 \text{ cm}^4$	$Jy = 24,748 \text{ cm}^4$	$Jy = 0,465 \text{ cm}^4$
$Wx = 7,146 \text{ cm}^3$	$Wx = 3,598 \text{ cm}^3$	$Wx = 7,146 \text{ cm}^3$	$Wx = 3,598 \text{ cm}^3$
$Wy = 5,194 \text{ cm}^3$	$Wy = 0,628 \text{ cm}^3$	$Wy = 5,194 \text{ cm}^3$	$Wy = 0,628 \text{ cm}^3$
$Jx \text{ Total} = 49,186 \text{ cm}^4$ (perfil 45EC-229 não considerado no cálculo)			

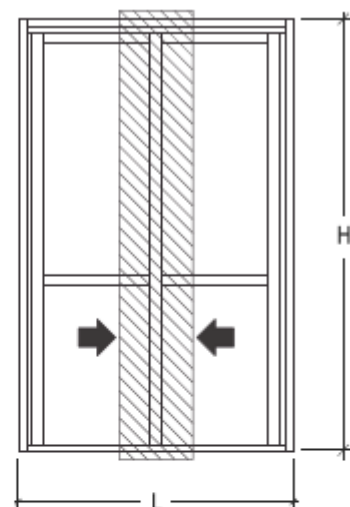
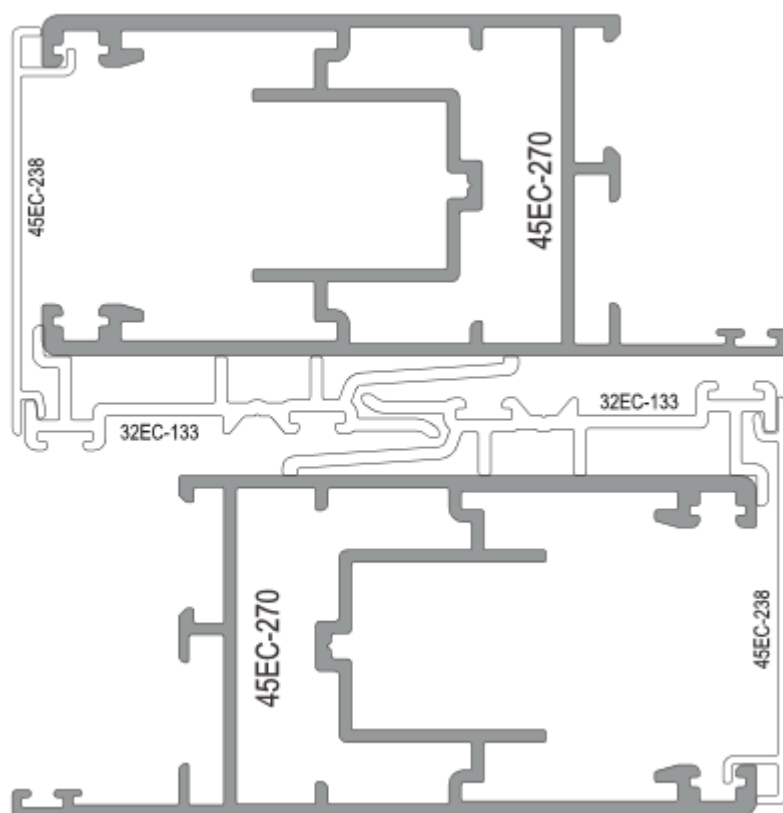


JANELA DE CORRER 4 FOLHAS

45EC-234	45EC-234
$Jx = 17,252 \text{ cm}^4$	$Jx = 17,252 \text{ cm}^4$
$Jy = 24,748 \text{ cm}^4$	$Jy = 24,748 \text{ cm}^4$
$Wx = 7,146 \text{ cm}^3$	$Wx = 7,146 \text{ cm}^3$
$Wy = 5,194 \text{ cm}^3$	$Wy = 5,194 \text{ cm}^3$
$Jx \text{ Total} = 34,504 \text{ cm}^4$ (perfil 45EC-229 não considerado no cálculo)	



PORTA DE CORRER 2 FOLHAS



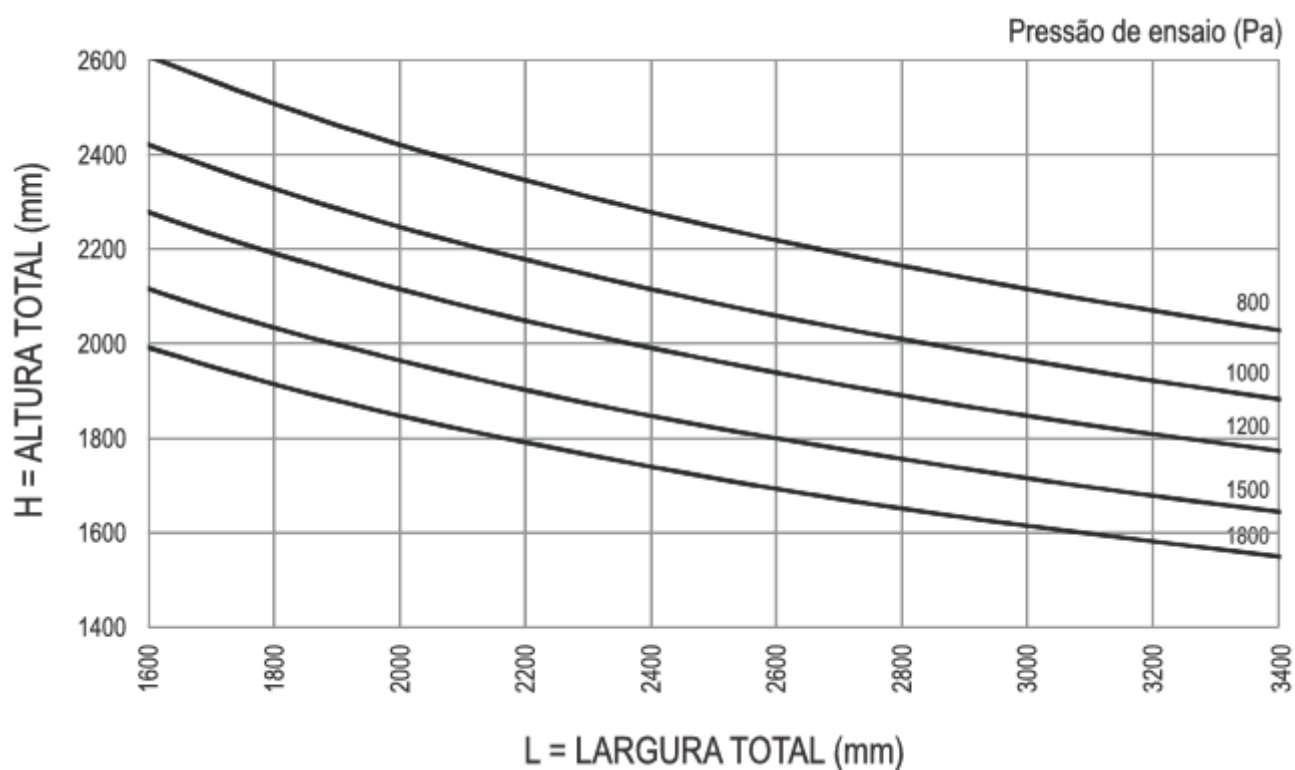
45EC-270

$J_x = 20,336 \text{ cm}^4$
 $J_y = 38,912 \text{ cm}^4$
 $W_x = 8,526 \text{ cm}^3$
 $W_y = 7,215 \text{ cm}^3$

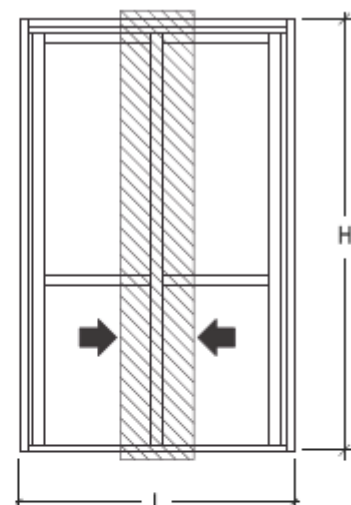
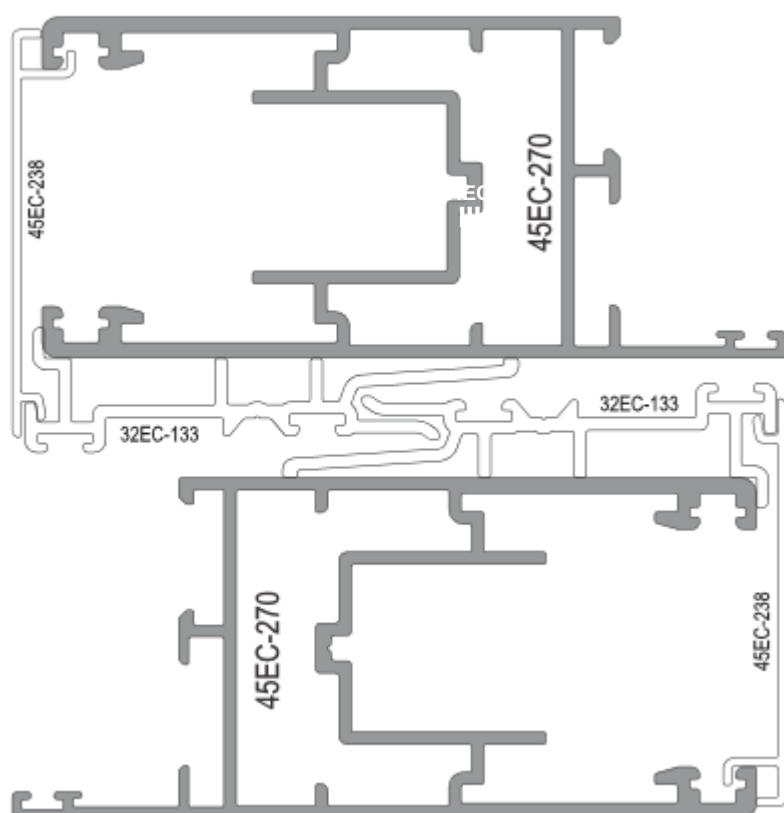
45EC-270

$J_x = 20,336 \text{ cm}^4$
 $J_y = 38,912 \text{ cm}^4$
 $W_x = 8,526 \text{ cm}^3$
 $W_y = 7,215 \text{ cm}^3$

$J_x \text{ Total} = 40,672 \text{ cm}^4$



PORTA DE CORRER 2 FOLHAS



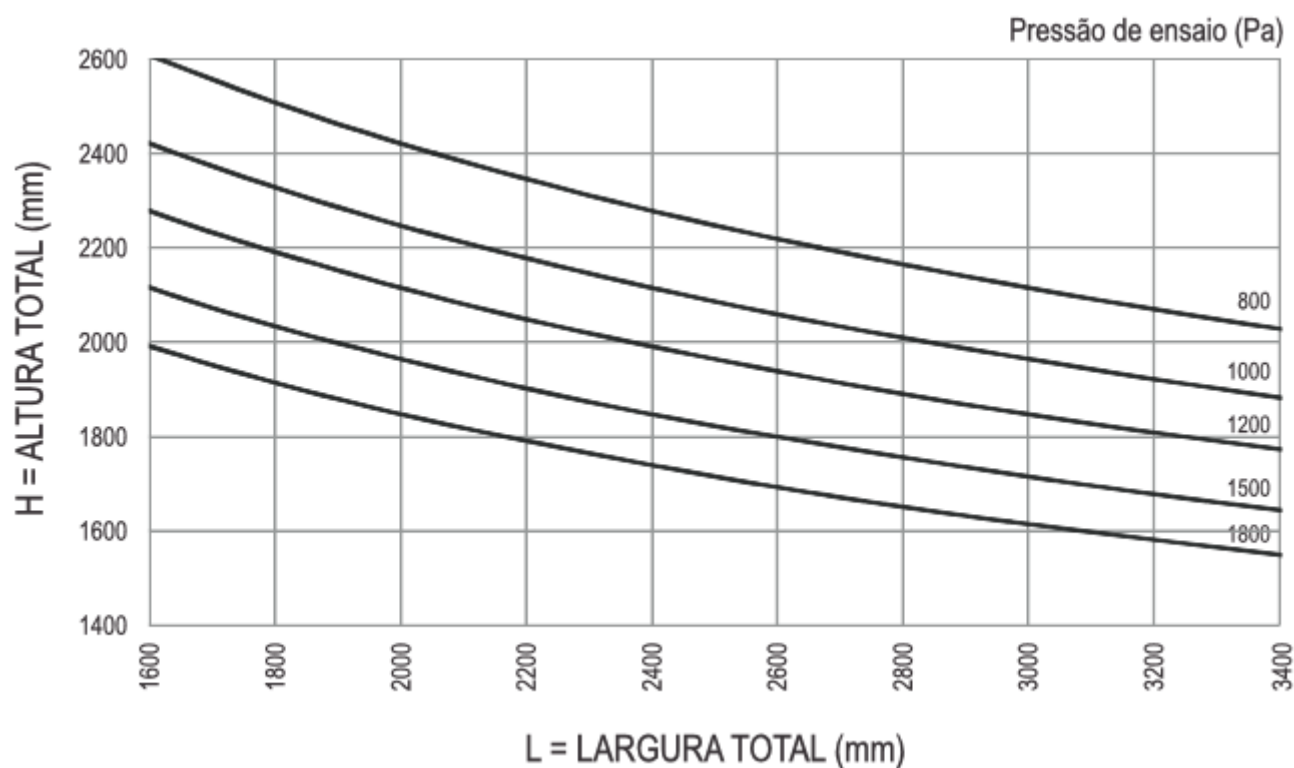
45EC-270

$Jx = 20,336 \text{ cm}^4$
 $Jy = 38,912 \text{ cm}^4$
 $Wx = 8,526 \text{ cm}^3$
 $Wy = 7,215 \text{ cm}^3$

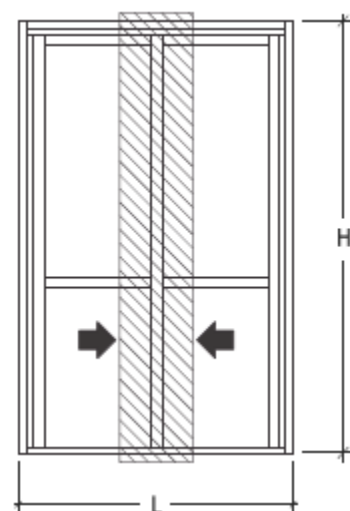
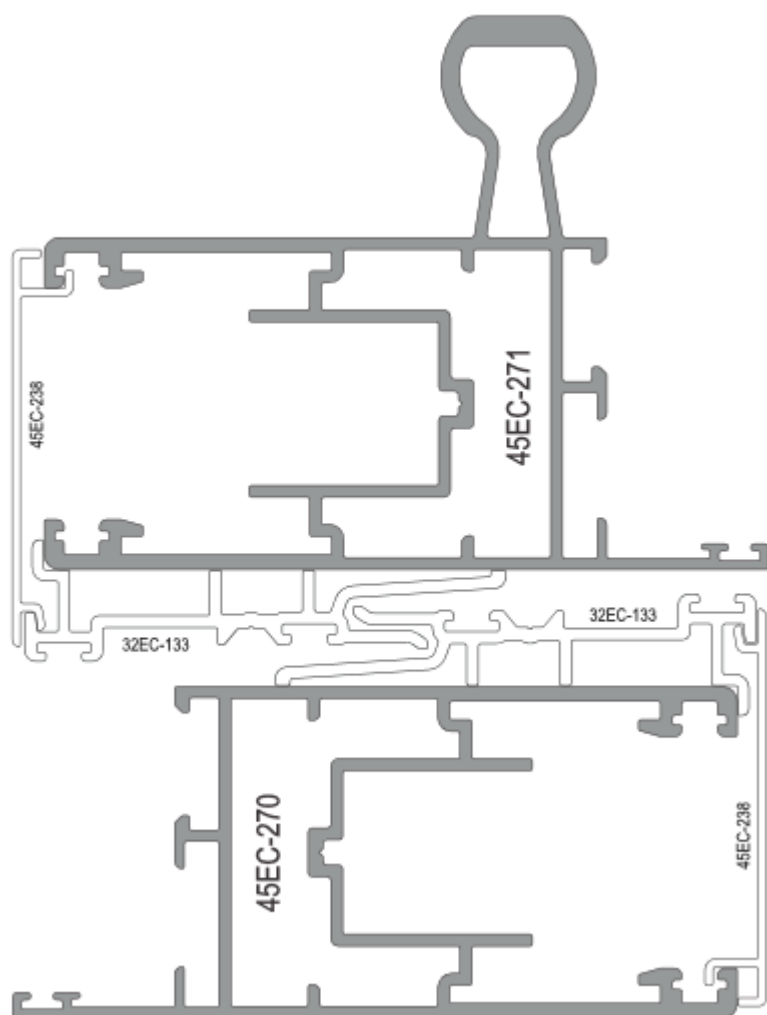
45EC-270

$Jx = 20,336 \text{ cm}^4$
 $Jy = 38,912 \text{ cm}^4$
 $Wx = 8,526 \text{ cm}^3$
 $Wy = 7,215 \text{ cm}^3$

$Jx \text{ Total} = 40,672 \text{ cm}^4$



PORTA DE CORRER 2 FOLHAS



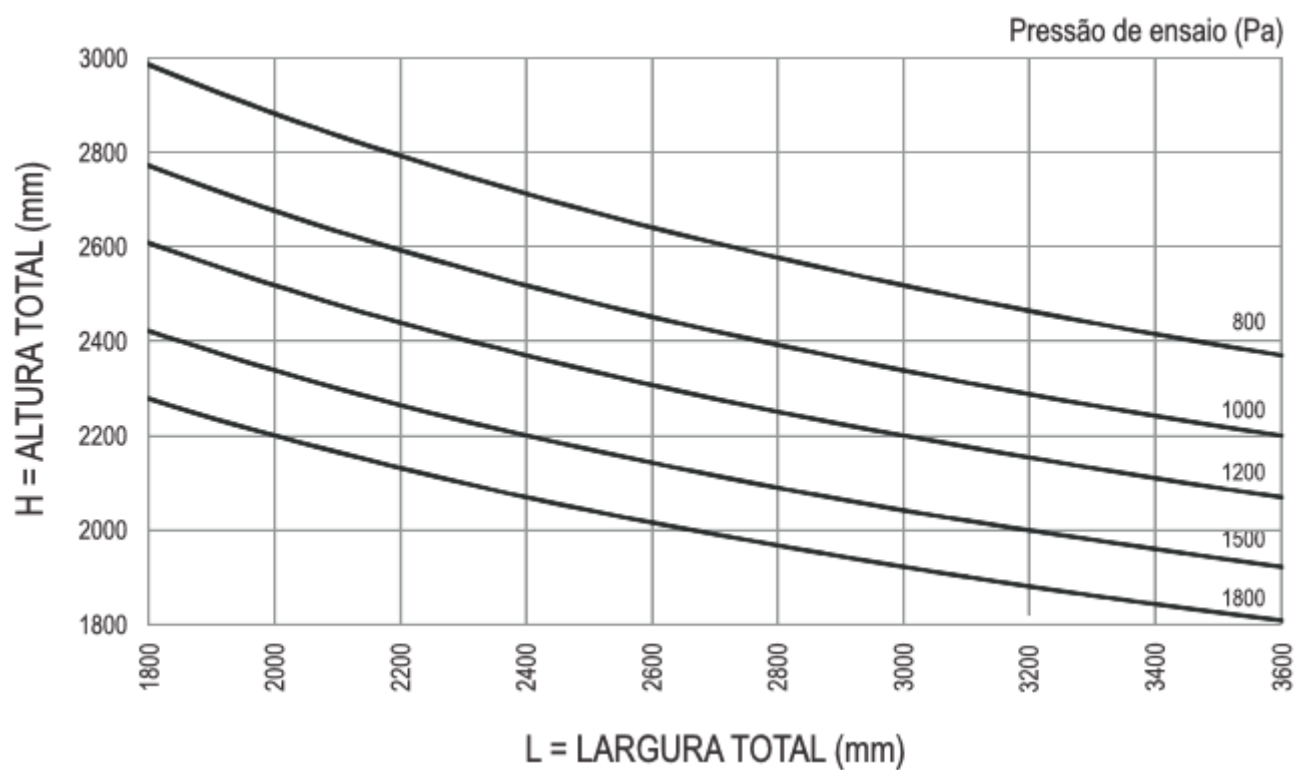
45EC-270

$J_x = 20,336 \text{ cm}^4$
 $J_y = 38,912 \text{ cm}^4$
 $W_x = 8,526 \text{ cm}^3$
 $W_y = 7,215 \text{ cm}^3$

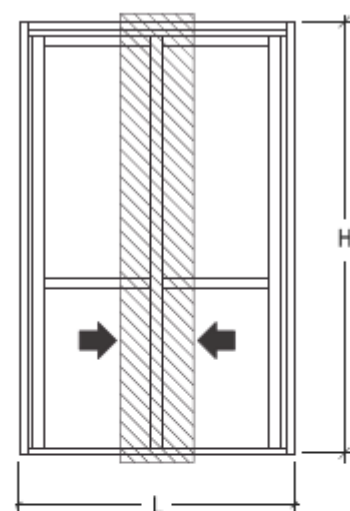
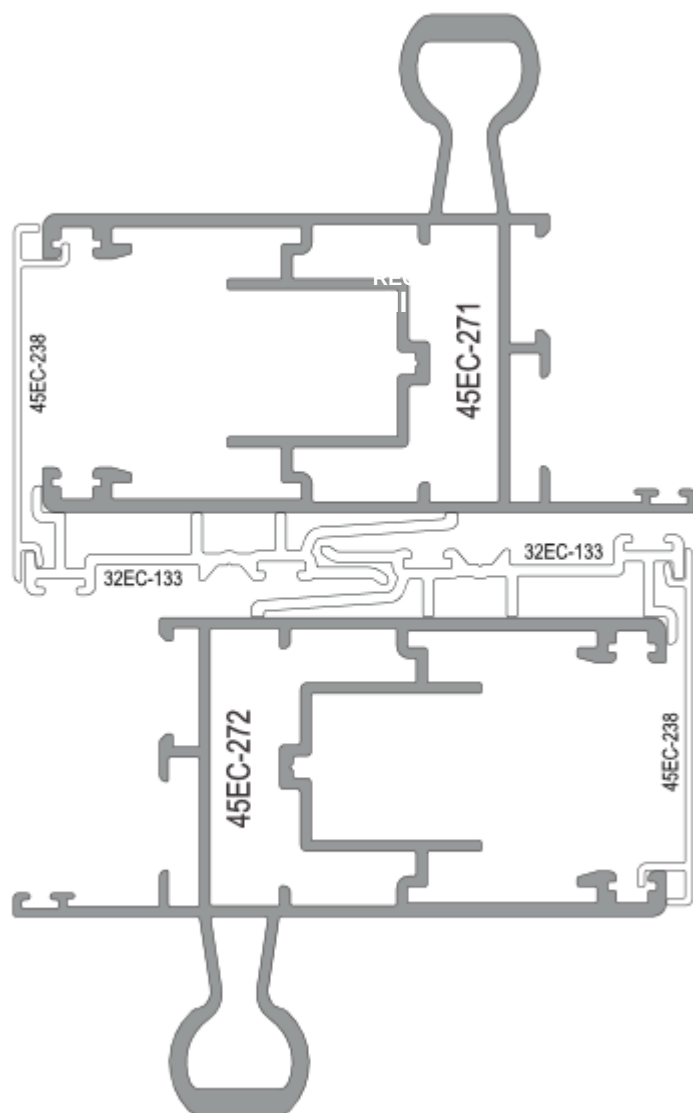
45EC-271

$J_x = 48,561 \text{ cm}^4$
 $J_y = 45,314 \text{ cm}^4$
 $W_x = 10,994 \text{ cm}^3$
 $W_y = 9,159 \text{ cm}^3$

$J_x \text{ Total} = 68,897 \text{ cm}^4$



PORTA DE CORRER 2 FOLHAS



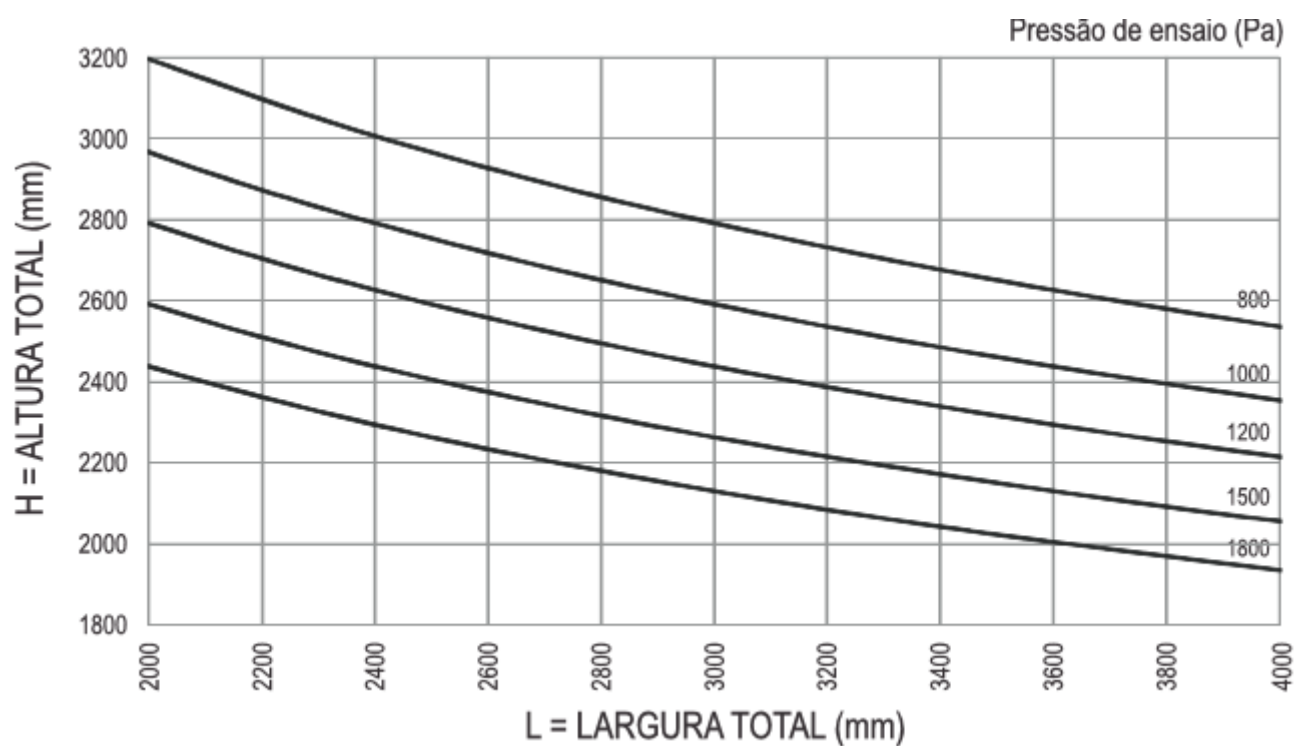
45EC-271

Jx = 48,561 cm⁴
 Jy = 45,314 cm⁴
 Wx = 10,994 cm³
 Wy = 9,159 cm³

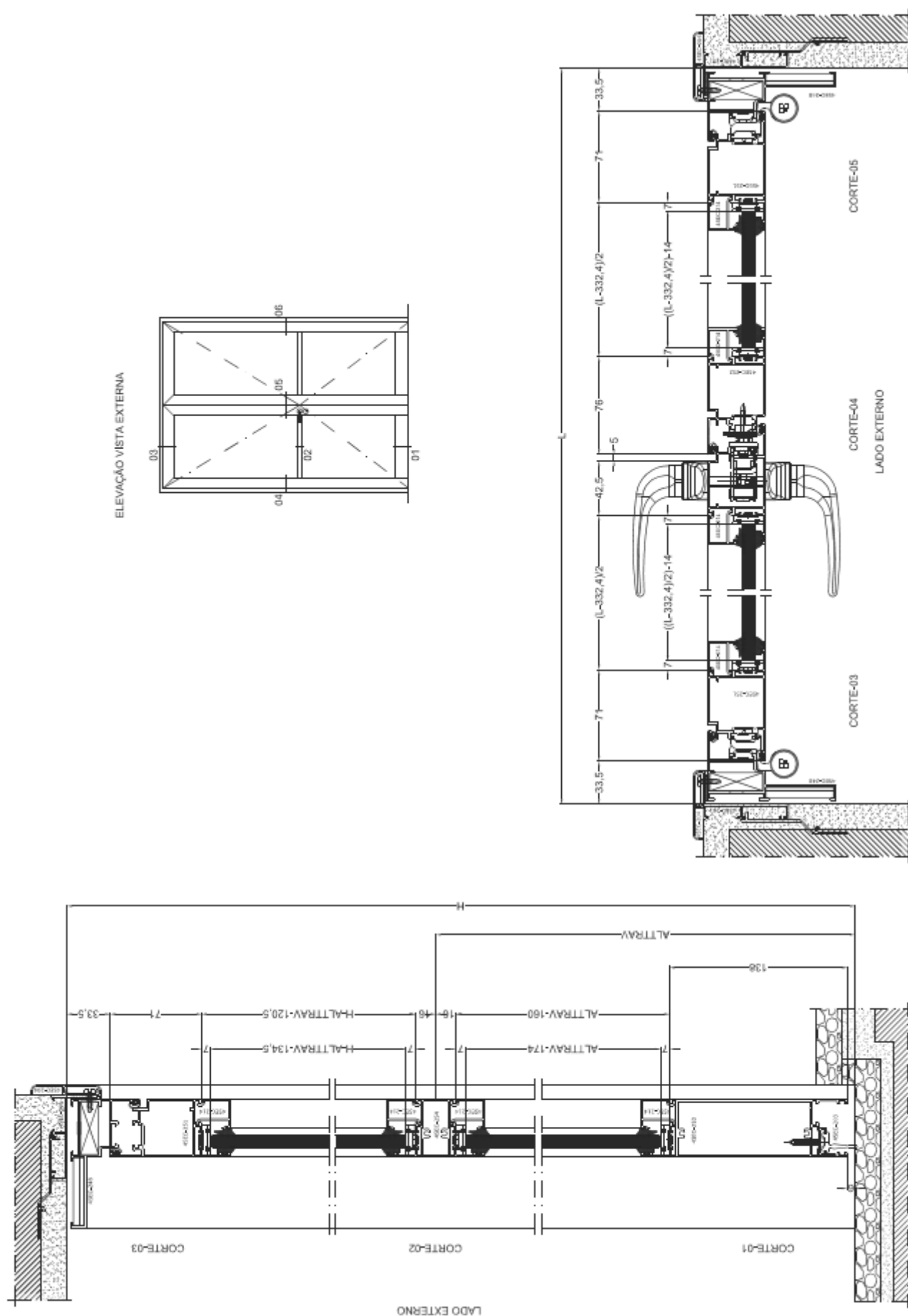
45EC-272

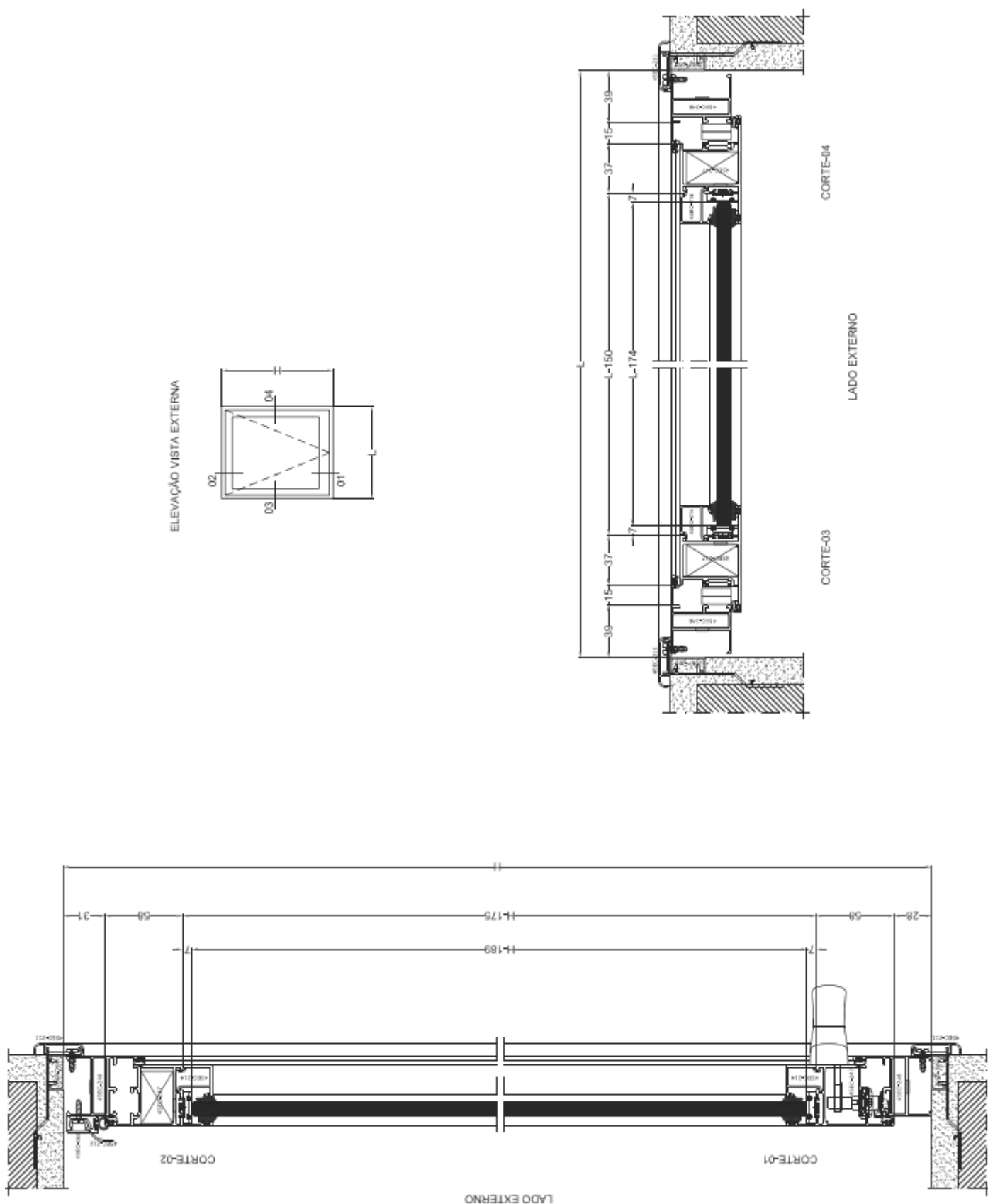
Jx = 45,302 cm⁴
 Jy = 45,314 cm⁴
 Wx = 10,740 cm³
 Wy = 9,159 cm³

Jx Total = 93,863 cm⁴



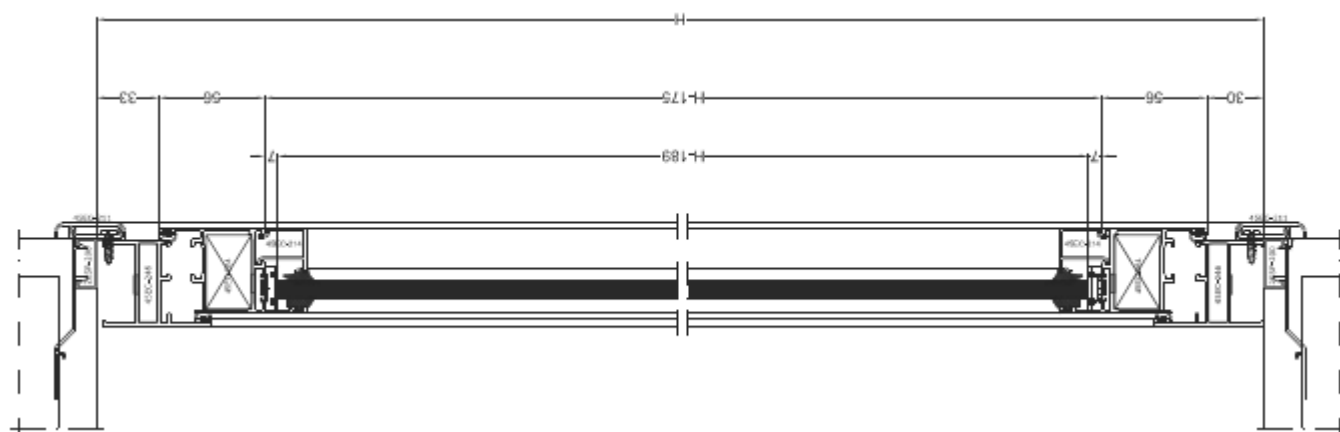
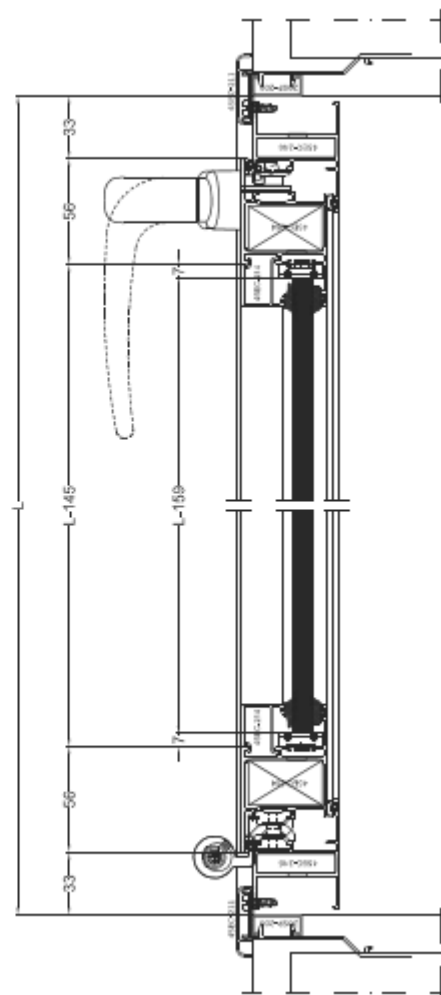
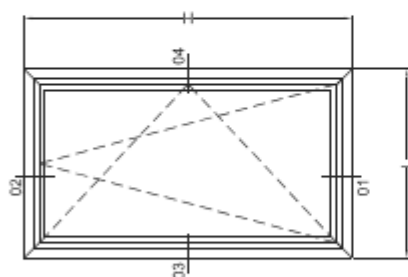
Porta de Giro 02 Folhas com Travessa



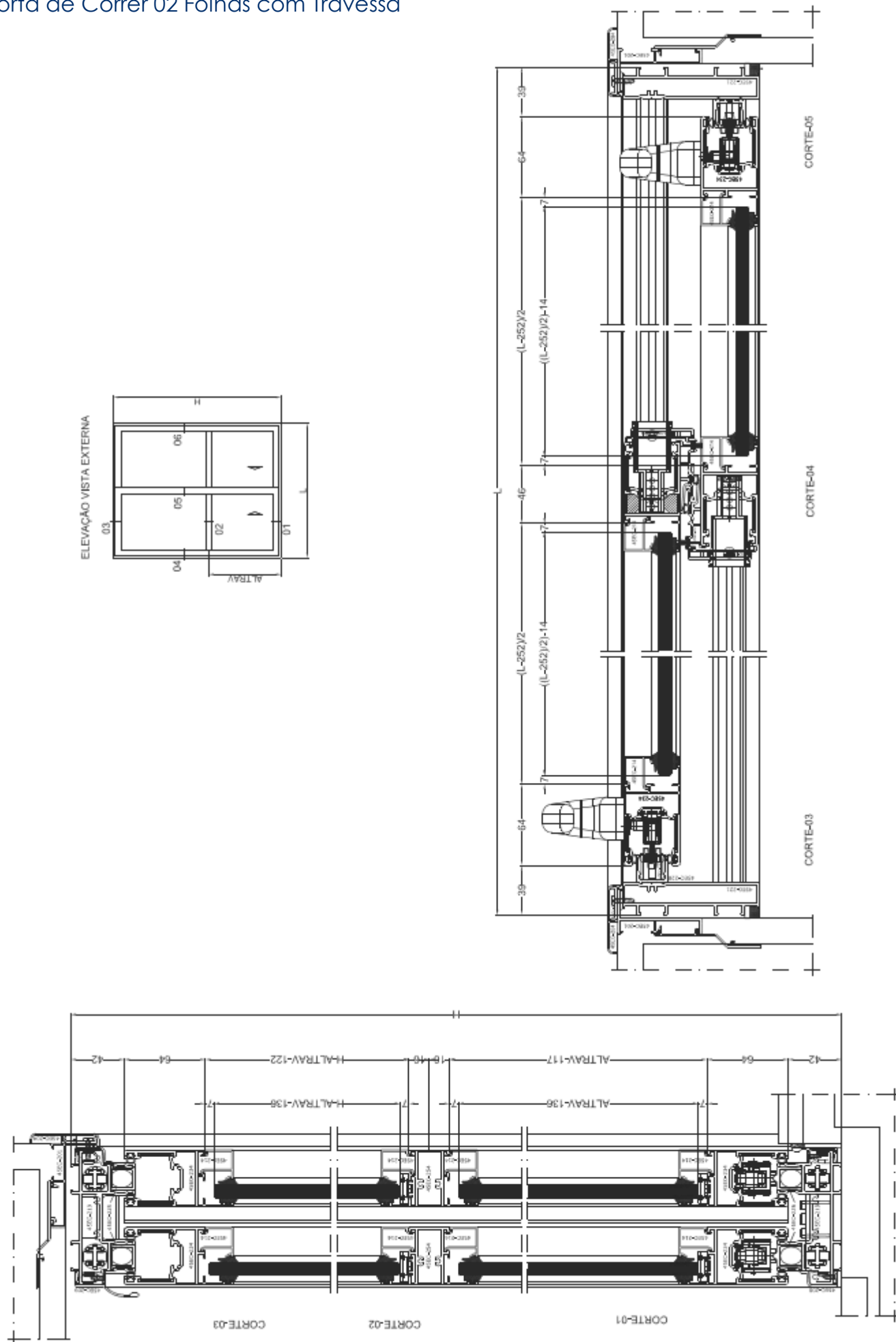


Janela de Oscilobatente 01 folha

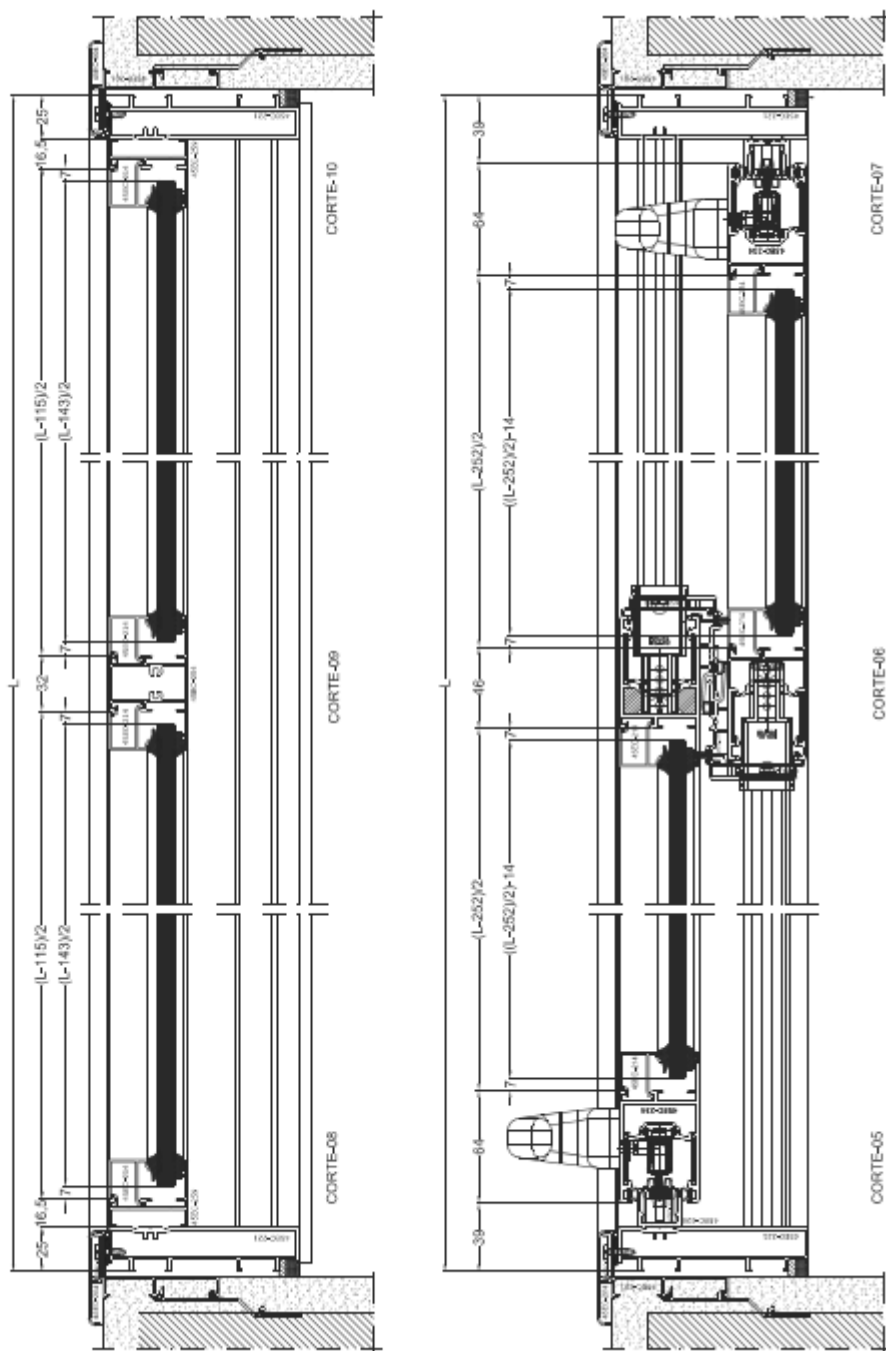
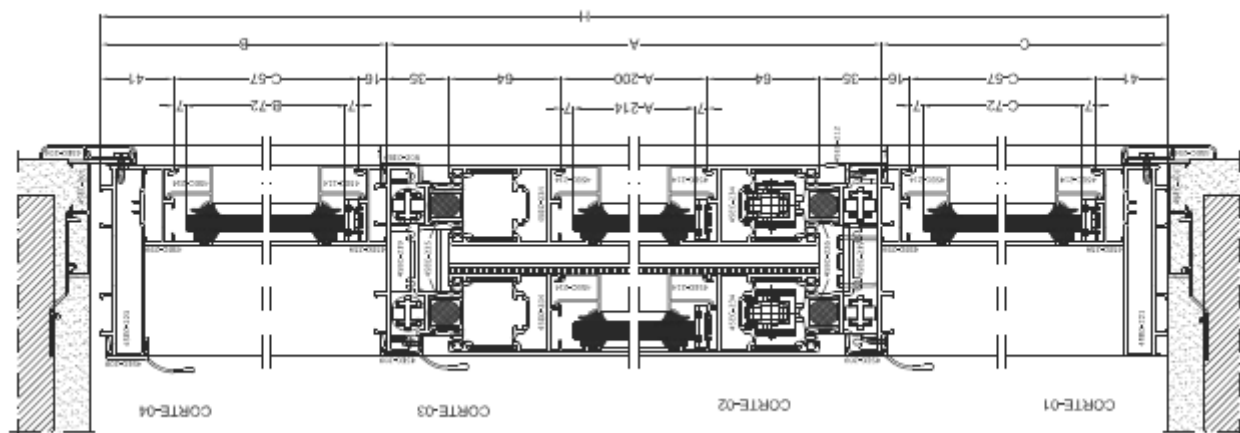
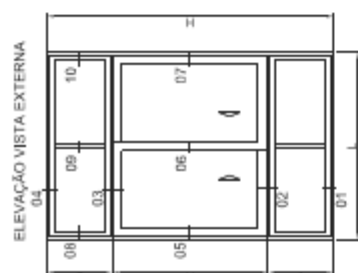
ELEVAÇÃO VISTA EXTERNA



Porta de Correr 02 Folhas com Travessa



Janela de Correr 02 Folhas com Bandeira e Peitoril



aluminorte		INFORMATIVO DE SISTEMAS ALUMINORTE				SP-EURO45		
TIPOLOGIA	CROQUI	NBR 10.821 / 2017				NBR. 15575 / 2021		
		RESISTÊNCIA	ESTANQUEIDADE	DIMENSÕES	ANO	ACÚSTICA	DIMENSÕES	ANO
Porta Integrada 02 folhas com travessa		Região IV - (30 pav = 90m)	300Pa	1595 x 2390	*2011	38dB		
Porta Integrada 02 folhas com travessa						31dB	1500 x 2300 ESTIMATIVA	
Porta Integrada 02 folhas com travessa						38dB	1500 x 2300 ESTIMATIVA	

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