

Desde 1986  
**aluminorte**  
alumínio e acessórios

Soluções para  
alumínio desde  
1986

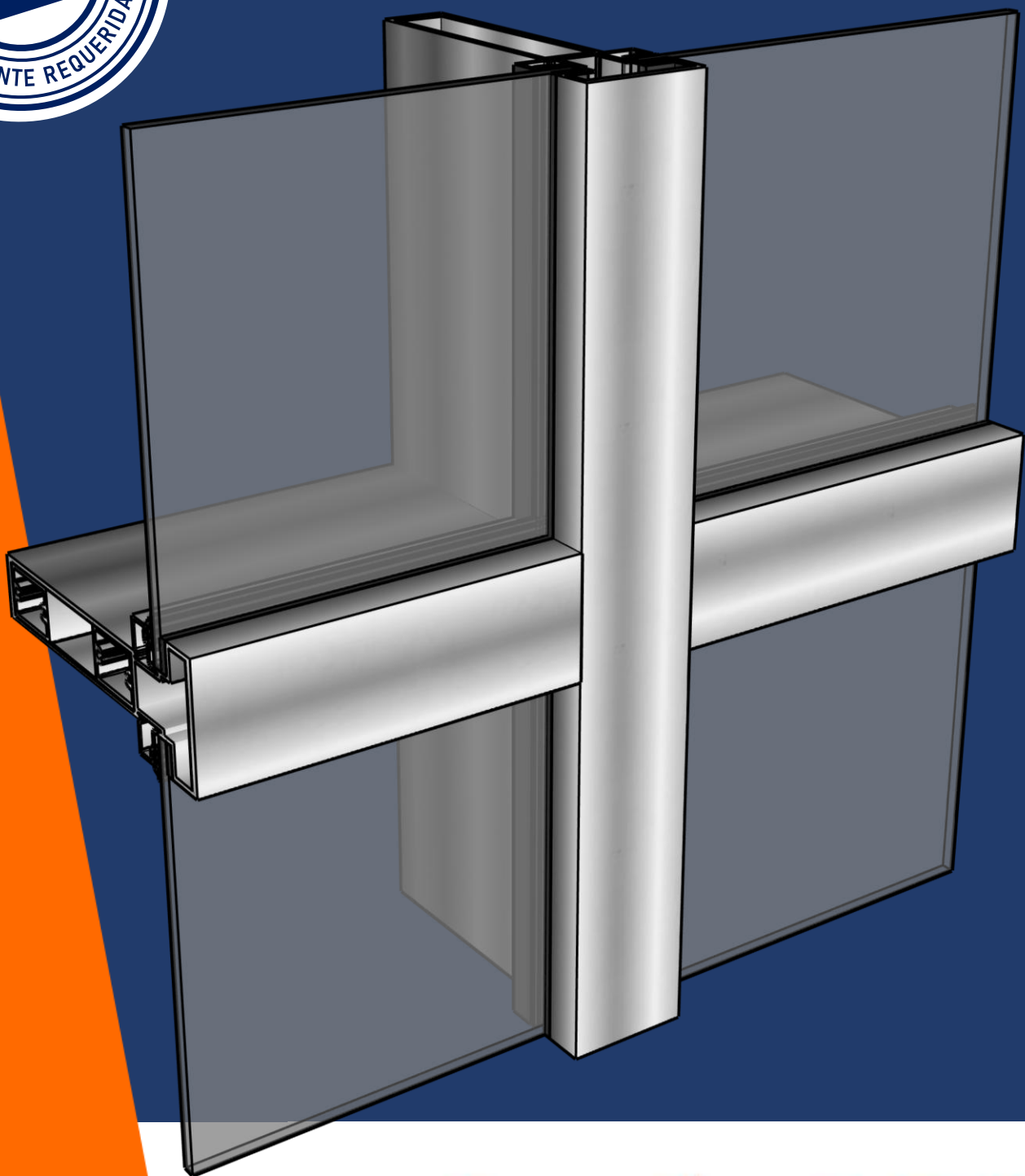
**SP | GRID**®  
FACHADA

Sistema  
**Aluminorte**  
Catálogo completo

VERSÃO VII – Outubro 2024

# SP | GRID

FACHADA



**INPI** INSTITUTO NACIONAL DA PROPRIEDADE INDUSTRIAL

Desde 1986  
**aluminorte**  
alumínio e acessórios

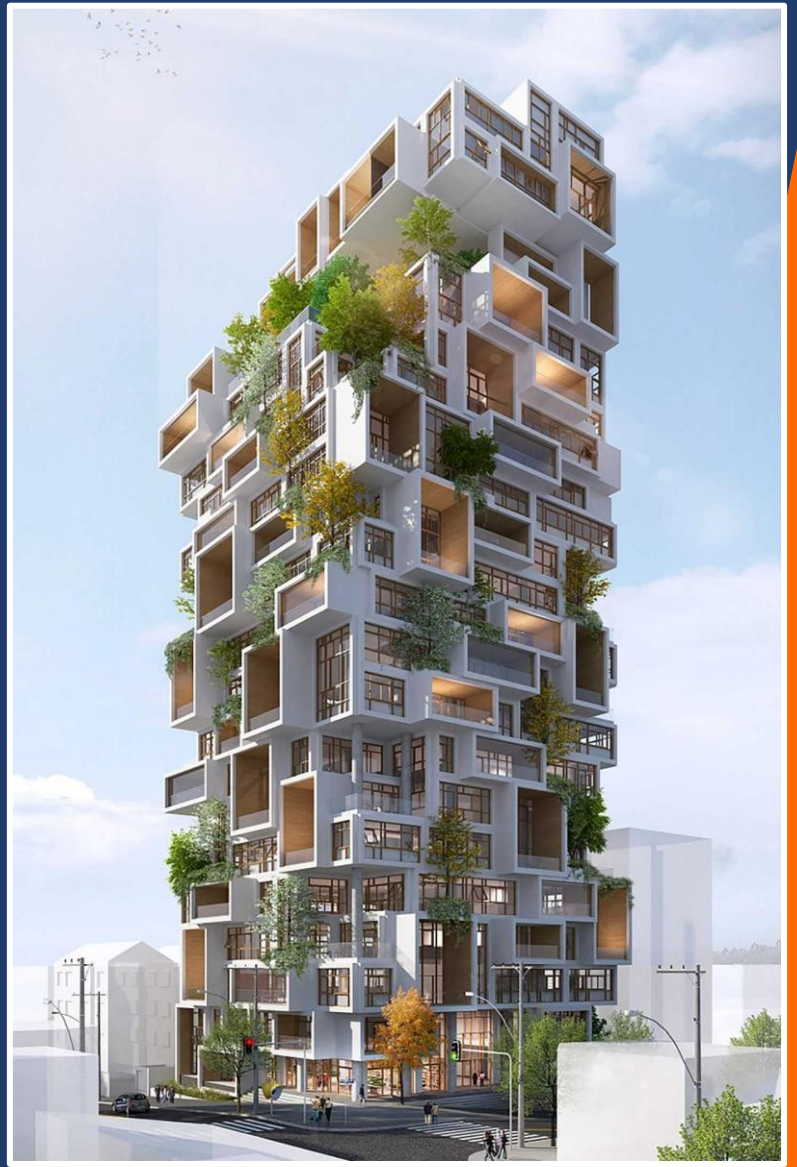
Edifício Valente  
Rua Capote Valente, Pinheiros – São Paulo

Arquitetura FGMF  
Idea Zarvos  
Esquadrias ABA

## Sistema Aluminorte

Sistemas utilizados:

SP | GRID  
FACHADA  
SP | ISIS



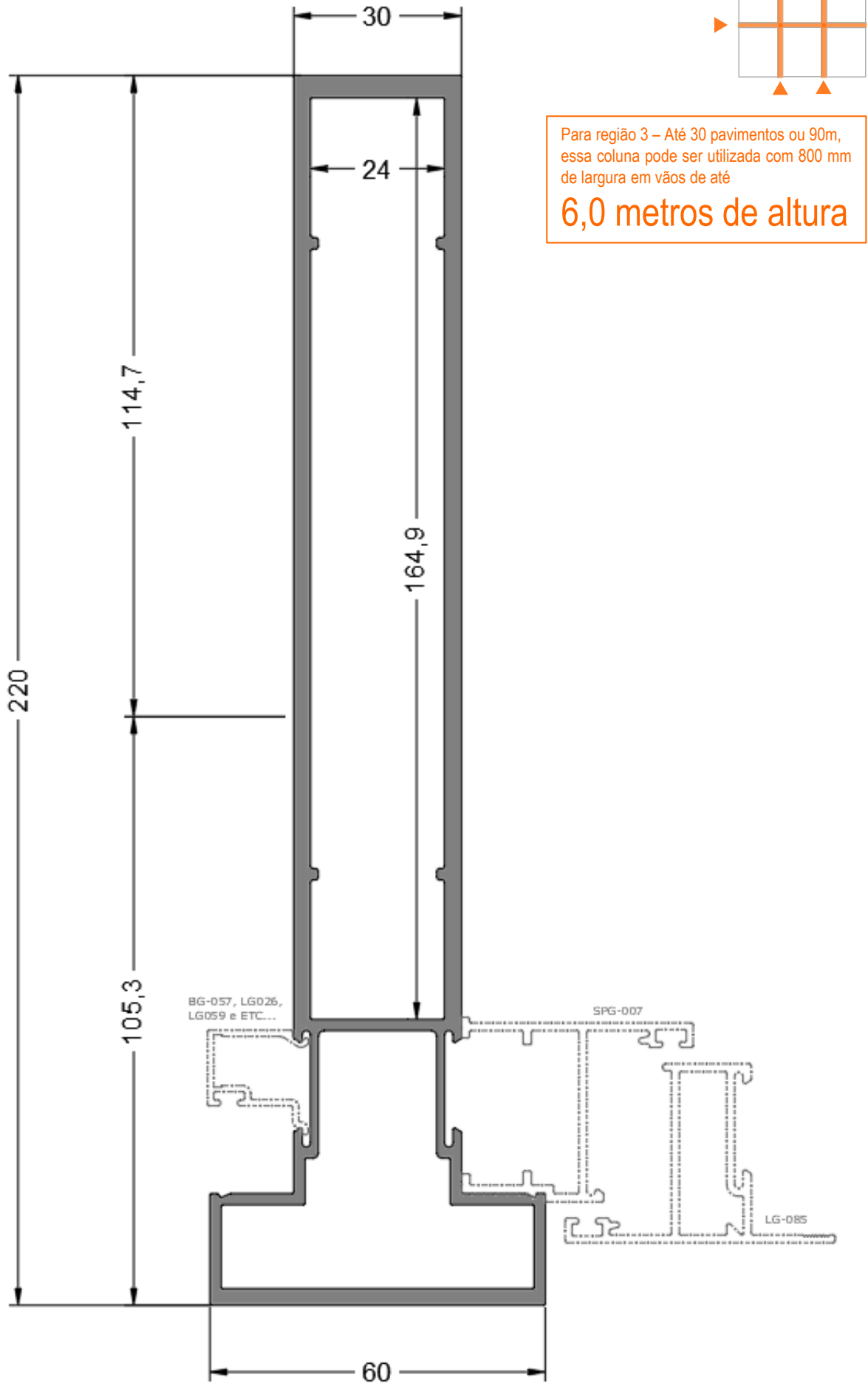
ÍNDICE DE PERFIS	01
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PROJETOS ORIENTATIVOS	30



	CÓDIGO	DESCRIÇÃO	PESO	PÁG	
	<b>BG-057</b>	Baguete	0,167 kg/m	<b>08</b>	
	<b>LG-015</b>	Baguete	0,147 kg/m	<b>08</b>	
	<b>LG-026</b>	Baguete	0,158 kg/m	<b>08</b>	
	<b>LG-027</b>	Baguete	0,149 kg/m	<b>08</b>	
	<b>LG-085</b>	Folha	0,529 kg/m	<b>07</b>	
	<b>SPG-003</b>	Marco Glazing	0,543 kg/m	<b>06</b>	
	<b>SPG-004</b>	Folha Glazing	0,250 kg/m	<b>07</b>	
	<b>SPG-005</b>	Coluna e Travessa	2,912 kg/m	<b>03</b>	
	<b>SPG-006</b>	Coluna e Travessa	2,221 kg/m	<b>04</b>	
	<b>SPG-007</b>	Marco	0,455 kg/m	<b>06</b>	
	<b>SPG-008</b>	Tubo Fixador	0,228 kg/m	<b>07</b>	
	<b>SPG-009</b>	Coluna e Travessa	4,365 kg/m	<b>02</b>	
	<b>SPG-010</b>	Complemento da coluna de canto	1,579 kg/m	<b>05</b>	
	<b>SPG – 6199</b>	Coluna e Travessa	3.049 Kg/m	<b>09</b>	
	<b>SPG – 6200</b>	Coluna e Travessa	2,143 kg/m	<b>10</b>	
	<b>SPG – 6201</b>	Coluna e Travessa	1,088 kg/m	<b>11</b>	
	<b>SPG – 6204</b>	Contra tampa	0,306 kg/m	<b>13</b>	
	<b>SPG – 6205</b>	Tampa 21 mm	0,262 kg/m	<b>13</b>	
	<b>SPG – 6206</b>	Tampa 15 mm	0,236 kg/m	<b>13</b>	
	<b>SPG – 6202</b>	Coluna e travessa	1,503 kg/m	<b>14</b>	
	<b>SPG – 6203</b>	Tampa SPG-6202	0,477 kg/m	<b>15</b>	
	<b>SPG – 011</b>	Luva e fixador de travessa	1,237 kg/m	<b>12</b>	

**SPG-009**

Coluna e Travessa  
4,626 Kg/m



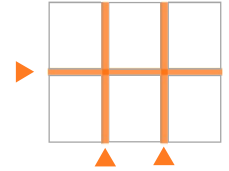
Para região 3 – Até 30 pavimentos ou 90m, essa coluna pode ser utilizada com 800 mm de largura em vãos de até **6,0 metros de altura**

Jx= 836.8494 cm <sup>4</sup>	Wx= 72.959 cm <sup>3</sup>
Jy= 35.0642 cm <sup>4</sup>	Wy= 23.376 cm <sup>3</sup>

\*dimensões em milímetros

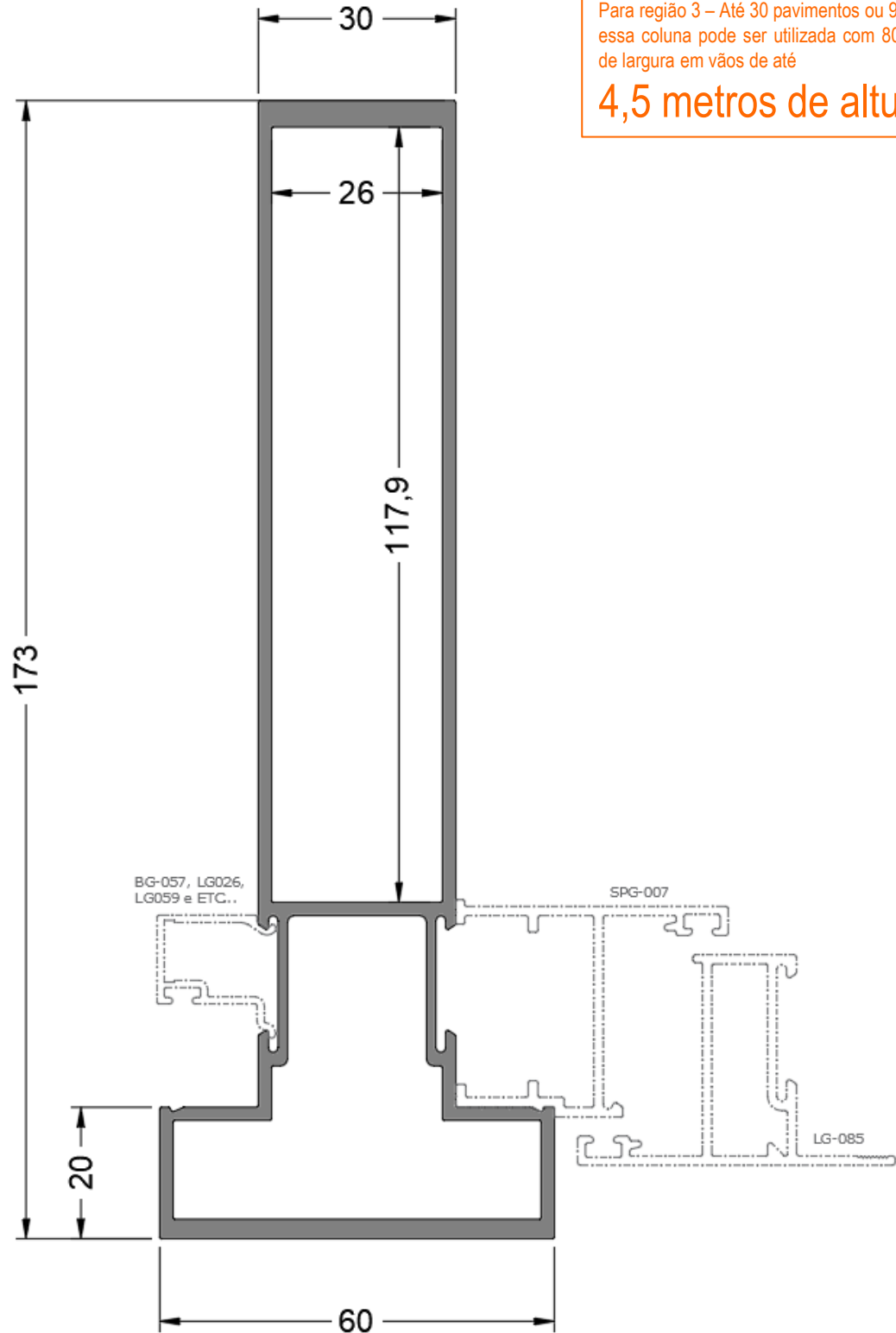
**SPG-005**

Coluna e Travessa  
2,912 Kg/m



Para região 3 – Até 30 pavimentos ou 90m,  
essa coluna pode ser utilizada com 800mm  
de largura em vãos de até

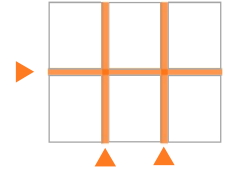
**4,5 metros de altura**



Jx= 390.972 cm <sup>4</sup>	Wx= 40.223 cm <sup>3</sup>
Jy= 26.073 cm <sup>4</sup>	Wy= 8.691 cm <sup>3</sup>

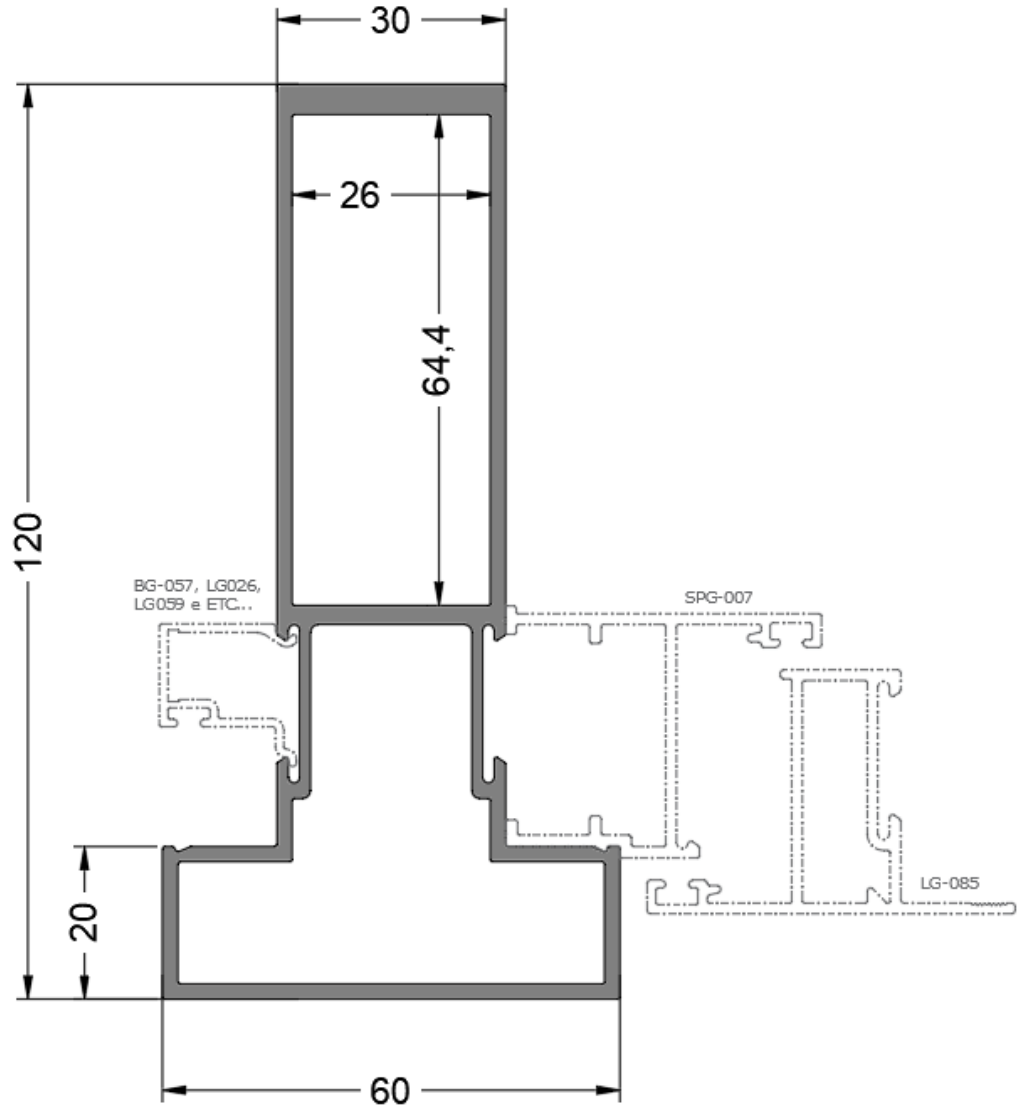
**SPG-006**

Coluna e Travessa  
2,221 Kg/m



Para região 3 – Até 30 pavimentos ou 90m,  
essa coluna pode ser utilizada com 800 mm  
de largura em vãos de até

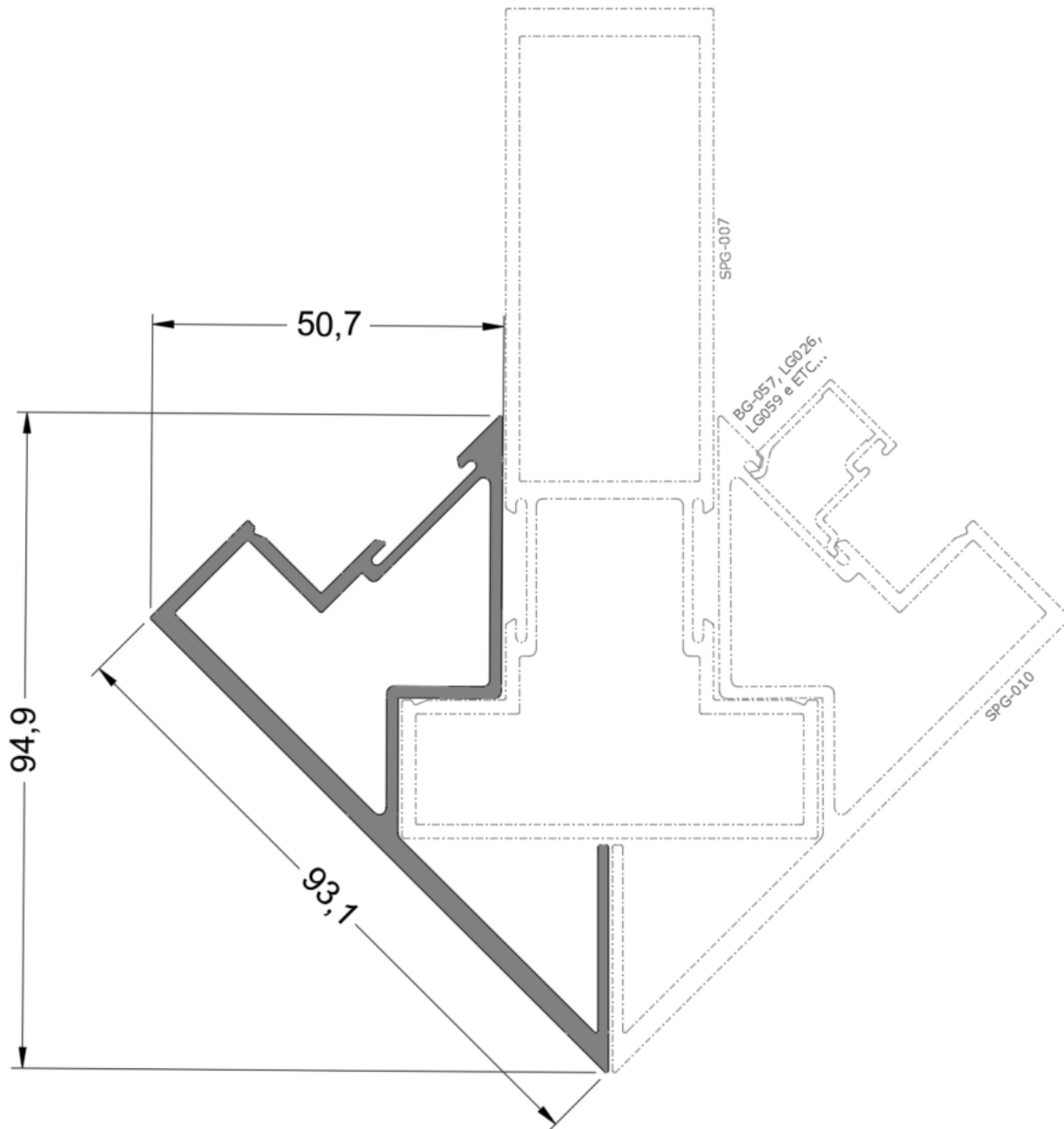
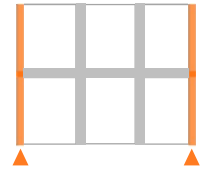
**3,5 metros de altura**



$J_x = 141,0403 \text{ cm}^4$	$W_x = 21,833 \text{ cm}^3$
$J_y = 20,521 \text{ cm}^4$	$W_y = 6,840 \text{ cm}^3$

**SPG-010**

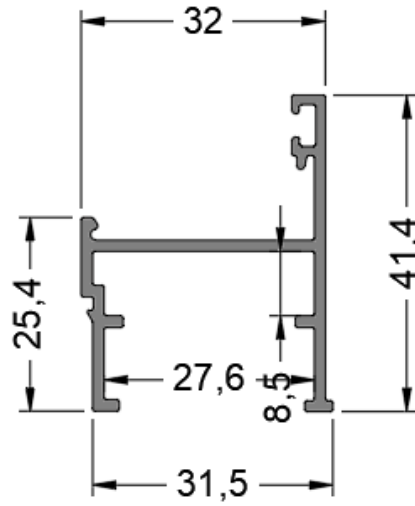
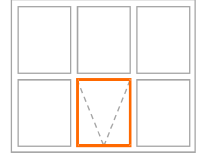
Complemento coluna de canto  
1,579 Kg/m



$Jx= 36,4823 \text{ cm}^4$	$Wx= 18,7930 \text{ cm}^4$
$Jy= 7,415 \text{ cm}^3$	$Wy= 5,120 \text{ cm}^3$

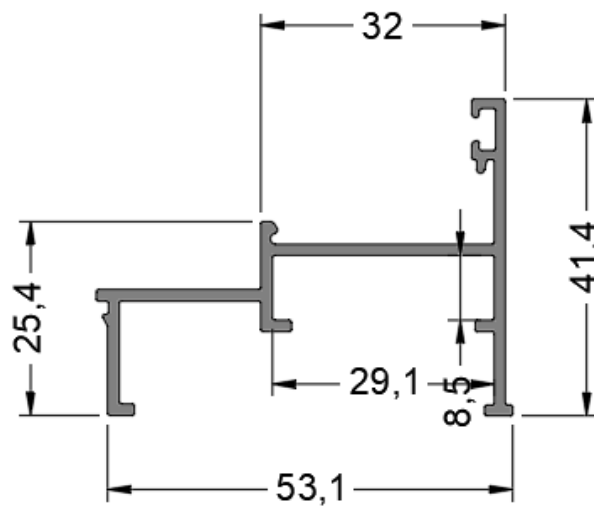
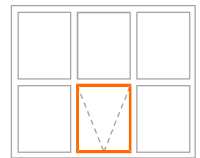
**SPG-007**

Marco  
0,445 Kg/m



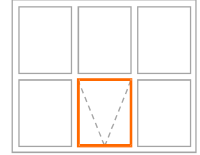
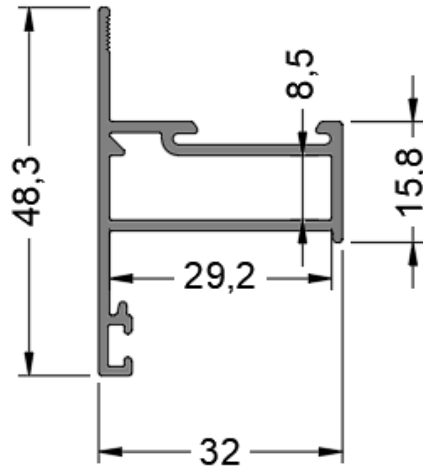
**SPG-003**

Marco Glazing  
0,543 Kg/m



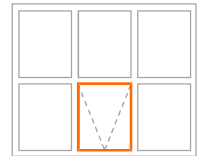
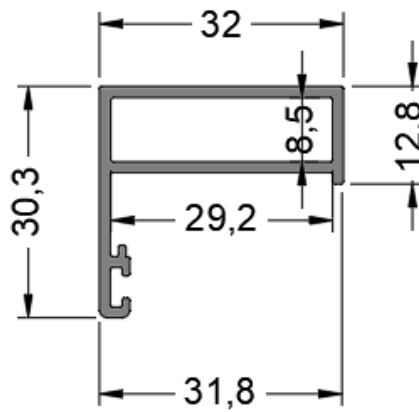
**LG-085**

Folha  
0,529 Kg/m



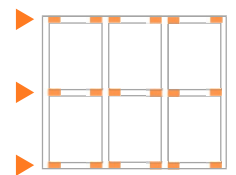
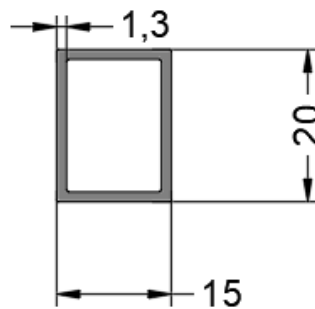
**SPG-004**

Folha Glazing  
0,250 Kg/m



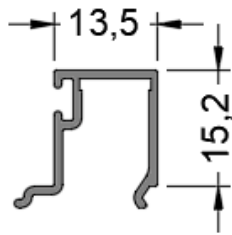
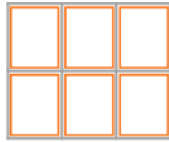
**SPG-008**

Fixador De Travessa  
0,228 Kg/m



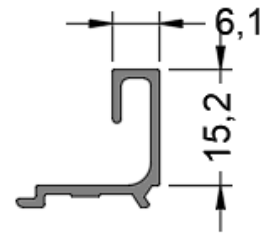
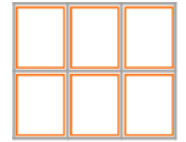
**BG-057**

Baguete  
0,167 Kg/m



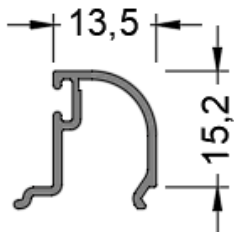
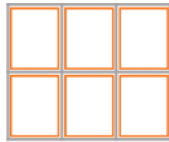
**LG-027**

Baguete  
0,149 Kg/m



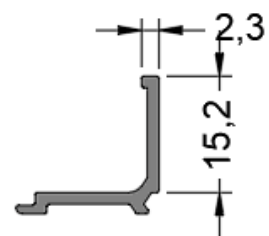
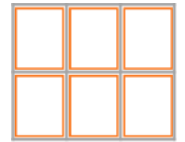
**LG-026**

Baguete  
0,158 Kg/m



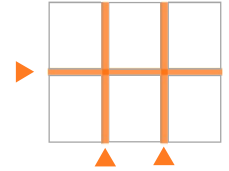
**LG-015**

Baguete  
0,147 Kg/m



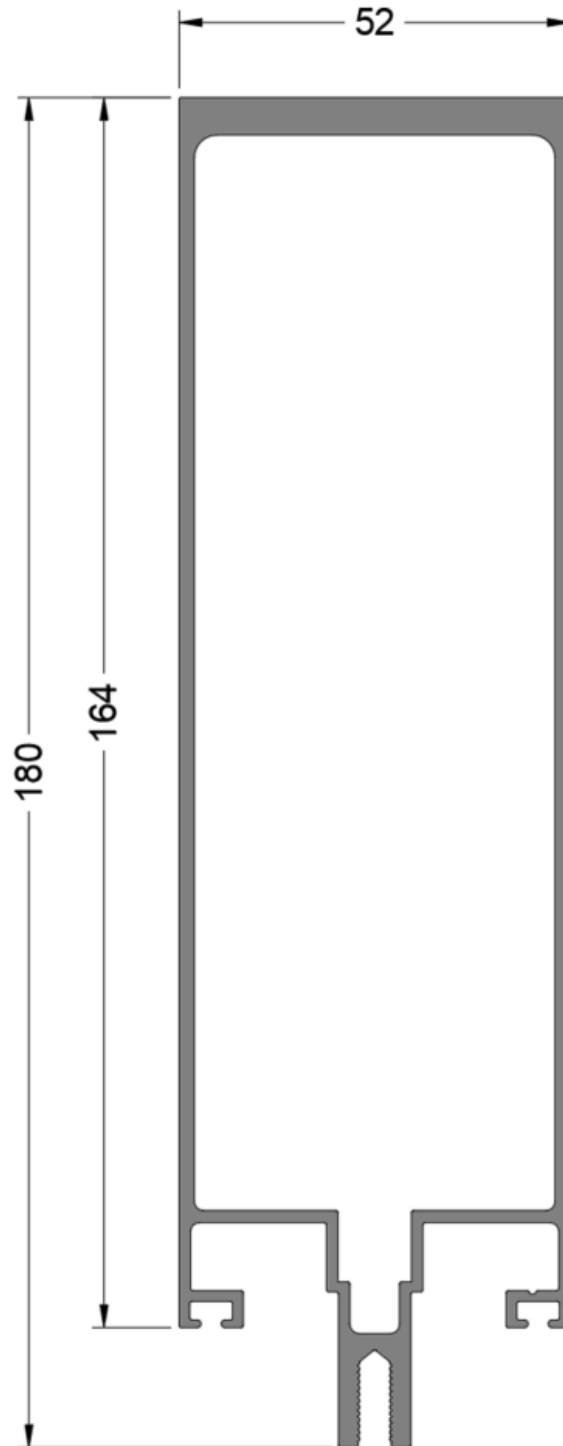
**SPG-6199**

Coluna e Travessa  
3,049 Kg/m



Para região 3 – Até 30 pavimentos ou 90m,  
essa coluna pode ser utilizada com 800mm  
de largura em vãos de até

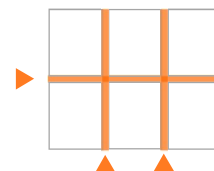
**5,2 metros de altura**



Jx= 446.0937 cm <sup>4</sup>	Wx= 44.923 cm <sup>3</sup>
Jy= 48.1838 cm <sup>4</sup>	Wy= 18.532 cm <sup>3</sup>

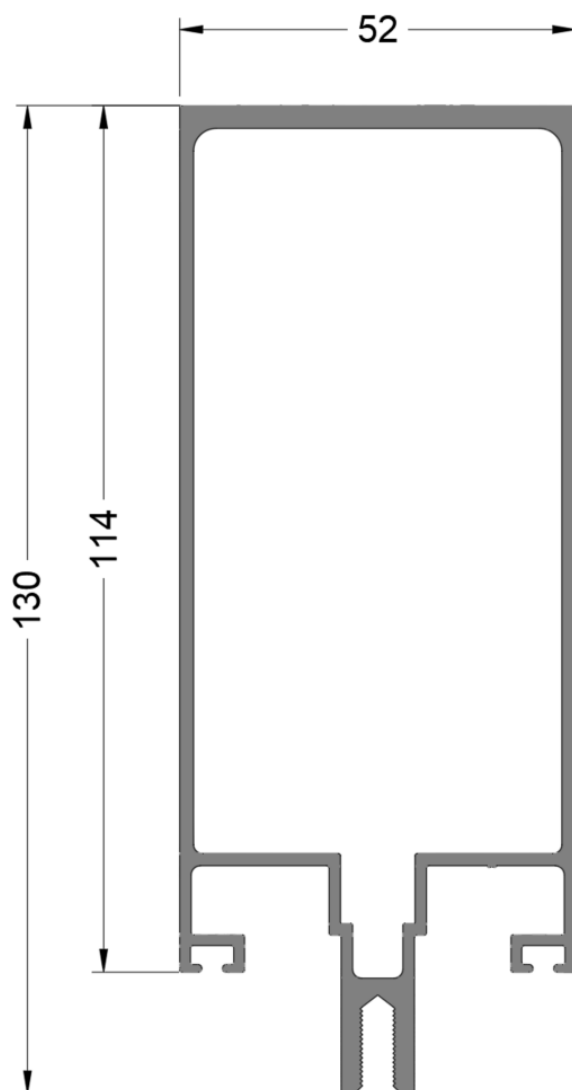
**SPG-6200**

Coluna e Travessa  
2.143 Kg/m



Para região 3 – Até 30 pavimentos ou 90m,  
essa coluna pode ser utilizada com 800 mm  
de largura em vãos de até

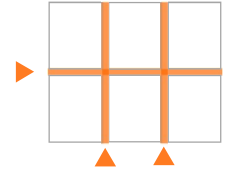
**3,7 metros de altura**



Jx= 158.6235 cm <sup>4</sup>	Wx= 25.379 cm <sup>3</sup>
Jy= 31.6437 cm <sup>4</sup>	Wy= 12.170 cm <sup>3</sup>

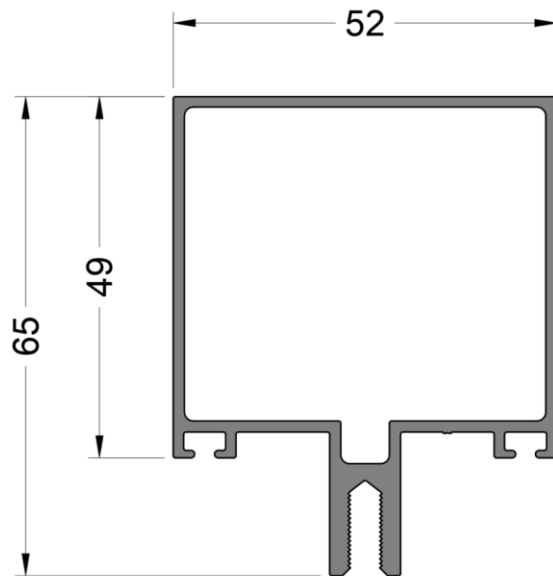
**SPG-6201**

Coluna e Travessa  
1,088 Kg/m



Para região 3 – Até 30 pavimentos ou 90m, essa coluna pode ser utilizada com 800 mm de largura em vãos de até

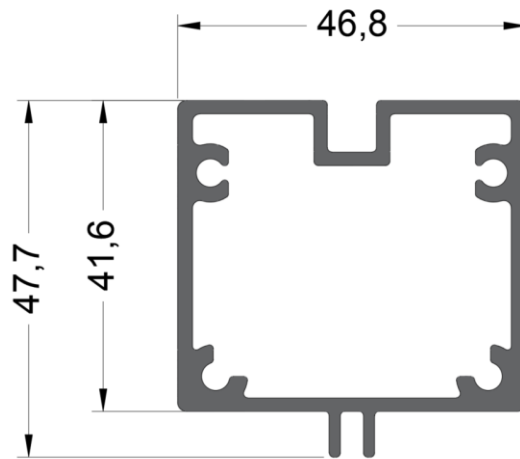
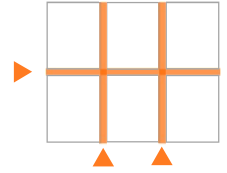
**1,8 metros de altura**



Jx= 18.0223 cm <sup>4</sup>	Wx= 12.9660 cm <sup>3</sup>
Jy= 5.511 cm <sup>4</sup>	Wy= 4.986 cm <sup>3</sup>

**SPG-011**

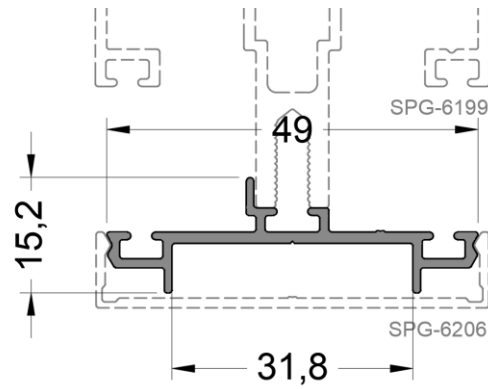
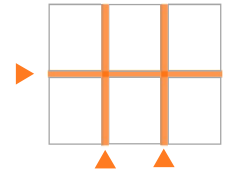
Luva e Travessa  
1,237 Kg/m



Jx= 11,6999 cm <sup>4</sup>	Wx= 4.481 cm <sup>3</sup>
Jy= 14.0892 cm <sup>4</sup>	Wy= 6.021 cm <sup>3</sup>

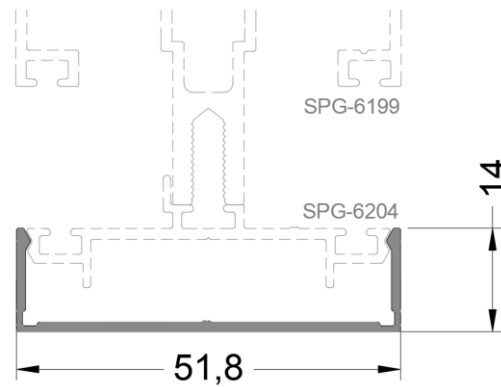
**SPG-6204**

Contra tampa  
0,306 Kg/m



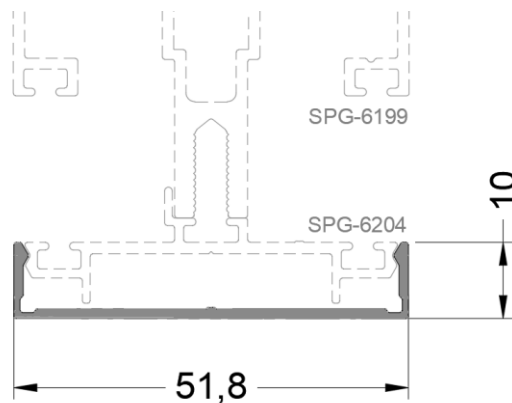
**SPG-6205**

Tampa 14mm  
0,262 Kg/m



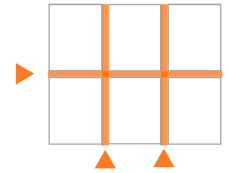
**SPG-6206**

Tampa 10mm  
0,236 Kg/m



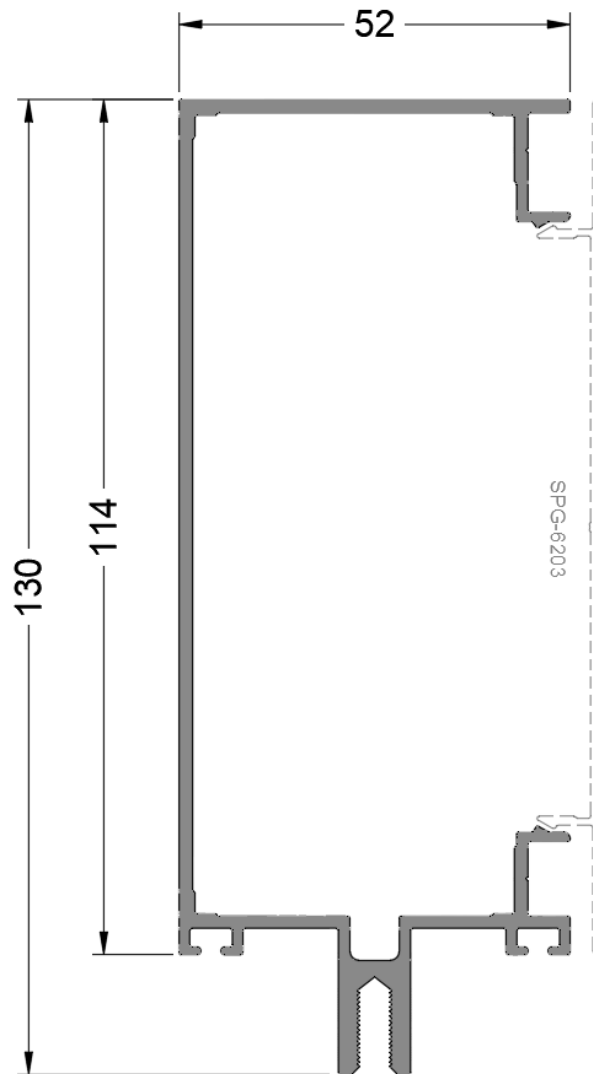
**SPG-6202**

Coluna e Travessa  
1,503 Kg/m



Para região 3 – Até 30 pavimentos ou 90m, essa coluna pode ser utilizada com 800 mm de largura em vãos de até

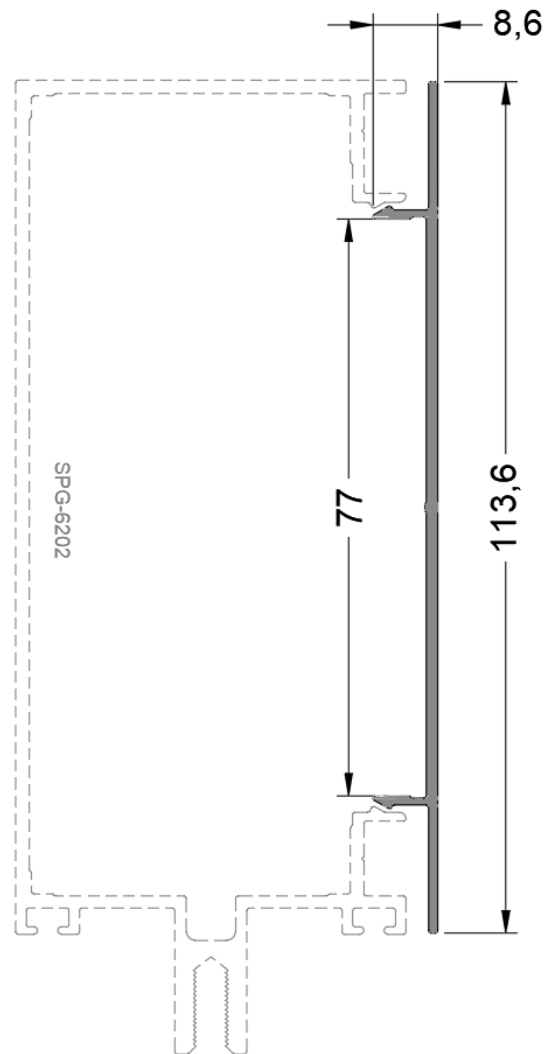
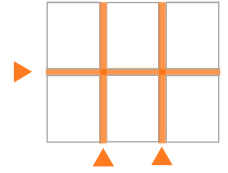
**3,4 metros de altura**



Jx= 390.972 cm <sup>4</sup>	Wx= 40.223 cm <sup>3</sup>
Jy= 26.073 cm <sup>4</sup>	Wy= 8.691 cm <sup>3</sup>

**SPG-6203**

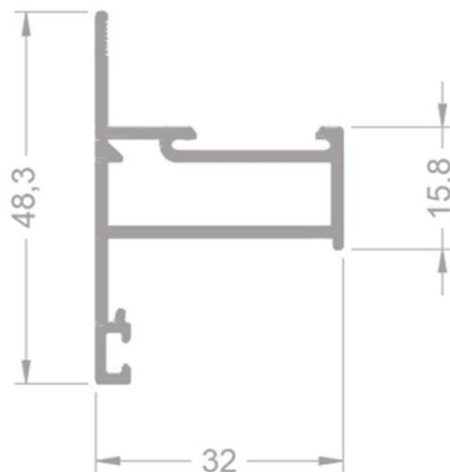
Tampa  
0,477 Kg/m



ACESSÓRIO	CÓDIGO	DESCRIÇÃO
	<b>BRAUDMAX 17PD</b>	Braço Projetante (Pág. 8)
	<b>CHUPRP380AINX</b>	Chumbador Expansivo com Prolongador 3/8" x 110 mm – aço Inox
	<b>CHUPFP3802INX</b>	Chumbador Expansivo com prolongador 3/8" x 114 mm – aço inox
	<b>GUA239</b>	Guarnição do Marco EPDM Preto (Pág. 07)
	<b>GUA259</b>	Guarnição do Vidro EPDM Preto (Pág. 07)
	<b>GUA 304</b>	Guarnição Adesiva Esponjosa 14 mm x 6,4 mm – Preta (Pág.07)
	<b>GUA306</b>	Guarnição Adesiva Esponjosa 14 mm x 4,8 mm – Preta (Pág.07)
	<b>FECHO 6735D</b>	Fecho Maxim-ar 6735dD Gold c/ CCTF B7 – Udinese (Pág.09)
	<b>FECHO 735D</b>	Fecho Maxim-ar 735D Gold c/ CCTF B7 – Udinese (Pág.10)
	<b>PAR4213</b>	Parafuso AA Ø 4,2 x 13 mm
	<b>PAR4216</b>	Parafuso AA Ø 4,2 x 13 mm (auto brocante)
	<b>PAR4219</b>	Parafuso AA Ø 4,2 x 19 mm

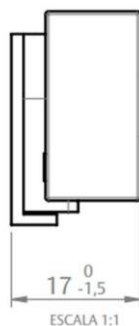
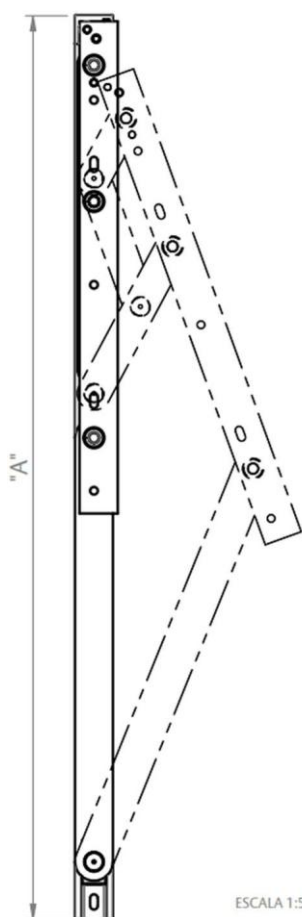
ACESSÓRIO	CÓDIGO	DESCRIÇÃO
	<p><b>GUA-2101-PRT</b></p>	<p>Vidro 10 mm</p>
	<p><b>GUA-2102-PRT</b></p>	<p>Vidro 8 mm</p>
	<p><b>GUA-2103-PRT</b></p>	<p>Vidro 6 mm</p>
	<p><b>PRX-PRM-5016-NAT</b></p>	<p>Parafuso INOX</p>

LG-085

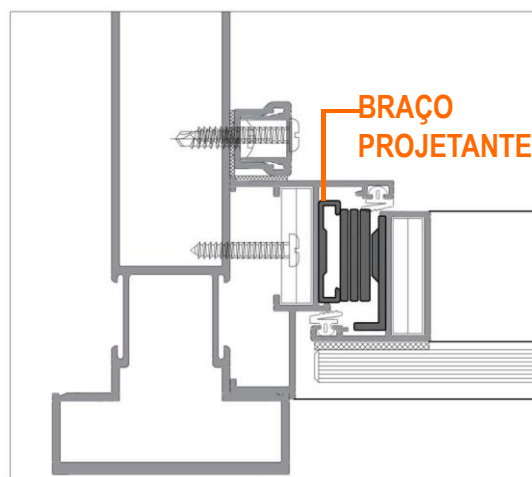


DETALHES		Espessura Vidro (mm)	Guarnição Interna	Guarnição Externa
BG-057 ou LG-056	<p>GUA 259 GUA 304 ou GUA 306</p> <p>8</p>	8	GUA259	GUA304
		10	GUA259	GUA306
LG-027	<p>GUA 259 GUA 306</p> <p>18</p>	18	GUA259	GUA306
LG-015	<p>GUA 259 GUA 306</p> <p>22</p>	22	GUA259	GUA306

VERSÃO	COR	CÓDIGO UDINESE	CÓDIGO UNIVERSAL	LARGURA MÁX. DA FOLHA (mm)	ALTURA MÁX. DA FOLHA (mm)	CARGA MÁX. (kg)
350	BCO	9103129	BRAUDMAX17PD350BCO	1500	600	22
	PRE	9103132	BRAUDMAX17PD350PTF			
600	BCO	9103134	BRAUDMAX17PD600BCO	1500	1000	35
	PRE	9103137	BRAUDMAX17PD600PTF			
950	BCO	9103139	BRAUDMAX17PD950BCO	1500	1200	42
	PRE	9103142	BRAUDMAX17PD950PTF			
1200	BCO	9103144	BRAUDMAX17PD12000BCO	1500	1500	74
	PRE	9103147	BRAUDMAX17PD12000PTF			



### APLICAÇÃO

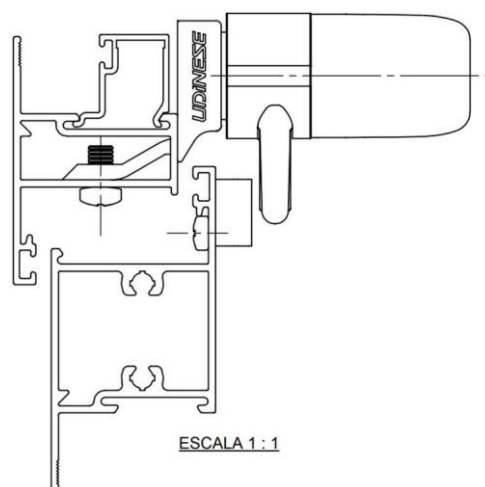
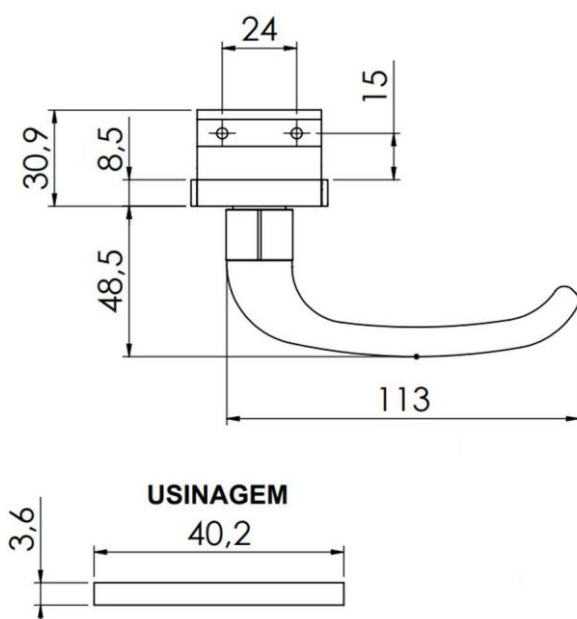


FECHO MAX-AR 6735D GOLD C/ CCTF B7



**UDINESE**  
**ASSA ABLOY**

POSIÇÃO	COR	CÓDIGO	CÓDIGO CATÁLOGO
<b>DIREITO</b>	<b>BCO</b>	<b>9210735</b>	FEC6735DGB7BCO
	<b>PRA</b>	<b>9210736</b>	FEC6735DGB7PRA
	<b>PTF</b>	<b>9210737</b>	FEC6735DGB7PTF
<b>ESQUERDO</b>	<b>BCO</b>	<b>9210738</b>	FEC6735EGB7BCO
	<b>PRA</b>	<b>9210739</b>	FEC6735EGB7PRA
	<b>PTF</b>	<b>9210740</b>	FEC6735EGB7PTF



FECHO MAX-AR 735D GOLD C/ CTF B7

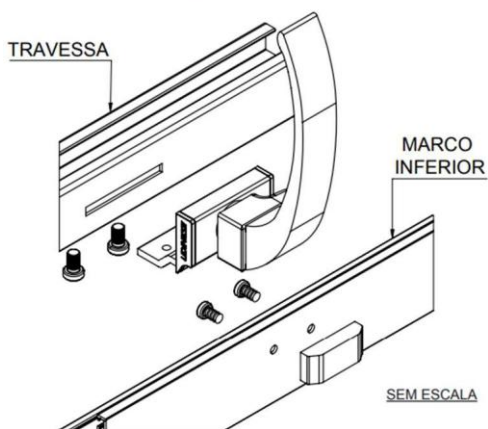


**UDINESE**  
**ASSA ABLOY**

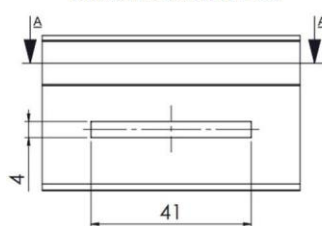
POSIÇÃO	COR	CÓDIGO	CÓDIGO CATÁLOGO
DIREITO	BCO	9210735	FEC735DGOLDBCO
	PRA	9210736	FEC735DGOLDPRA
	PTF	9209334	FEC735DGOLDPTF
ESQUERDO	BCO	9206789	FEC735EGOLDBCO
	PRA	9209657	FEC735EGOLDPRA
	PTF	9209362	FEC735EGOLDPTF

INSTRUÇÃO DE MONTAGEM E USINAGEM

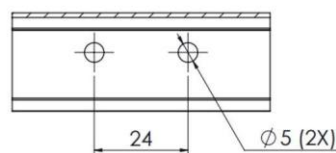
IMAGEM MERAMENTE ILUSTRATIVA



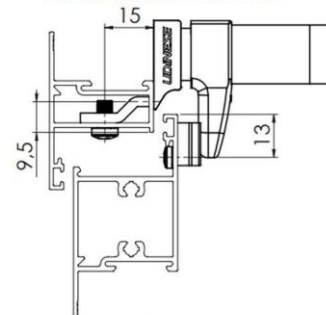
USINAGEM DA TRAVESSA



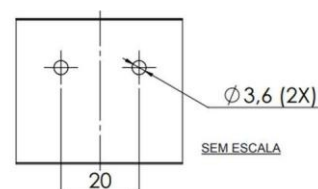
SEÇÃO A-A



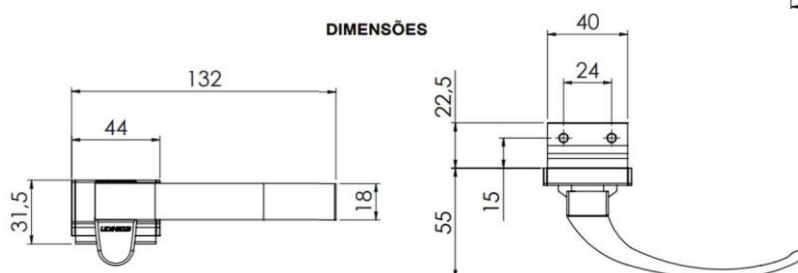
REFERÊNCIA DE USINAGEM



USINAGEM DO MARCO INFERIOR



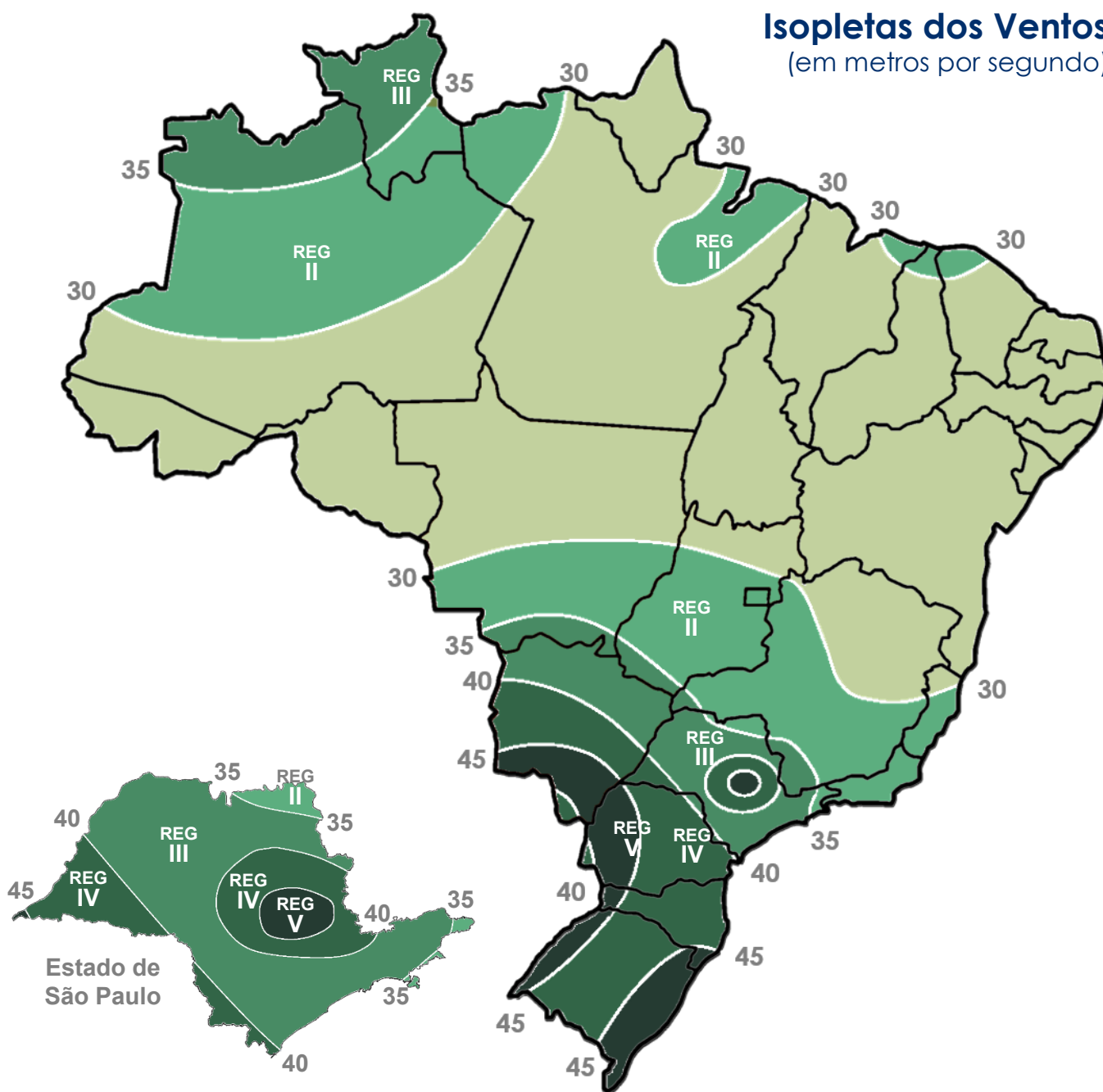
DIMENSÕES



No Brasil, o comportamento de uma esquadria está regulamentado pela Norma **ABNT NBR 10.821**. Esta norma determina os parâmetros de desempenho mínimas 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)



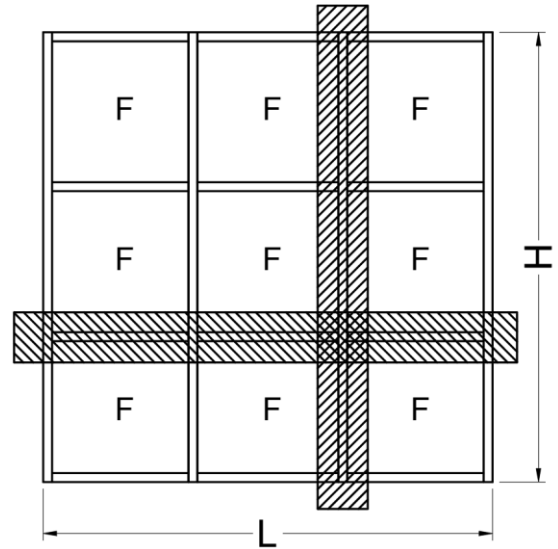
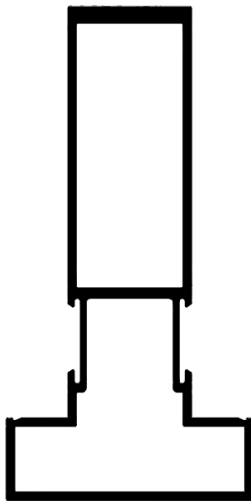
**VELOCIDADE DO VENTO POR REGIÃO CONSIDERADA NA NORMA ABNT NBR 10.821**

<p><b>REGIÃO 1</b> até 30 m/s até 108 km/h</p>	<p><b>REGIÃO 2</b> 30 - 35 m/s 108 – 126 km/h</p>	<p><b>REGIÃO 3</b> 35 - 40 m/s 126 – 144 km/h</p>	<p><b>REGIÃO 4</b> 40 - 45 m/s 144 – 162 km/h</p>	<p><b>REGIÃO 5</b> 45 - 50 m/s 162 – 180 km/h</p>
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QUANTIDADE DE PAVIMENTOS	ALTURA MÁXIMA	REGIÕES DO PAÍS	PRESSÃO DO ENSAIO	PRESSÃO DE SEGURANÇA	PRESSÃO DE ÁGUA
			Pe em (Pa) Positiva e negativa $Pe - Pp \times 1,2$	Ps em (Pa) Positiva e negativa $Ps - Pp \times 1,5$	Pa em (Pa) Positiva e negativa $Pa - Pp \times 0,2$
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

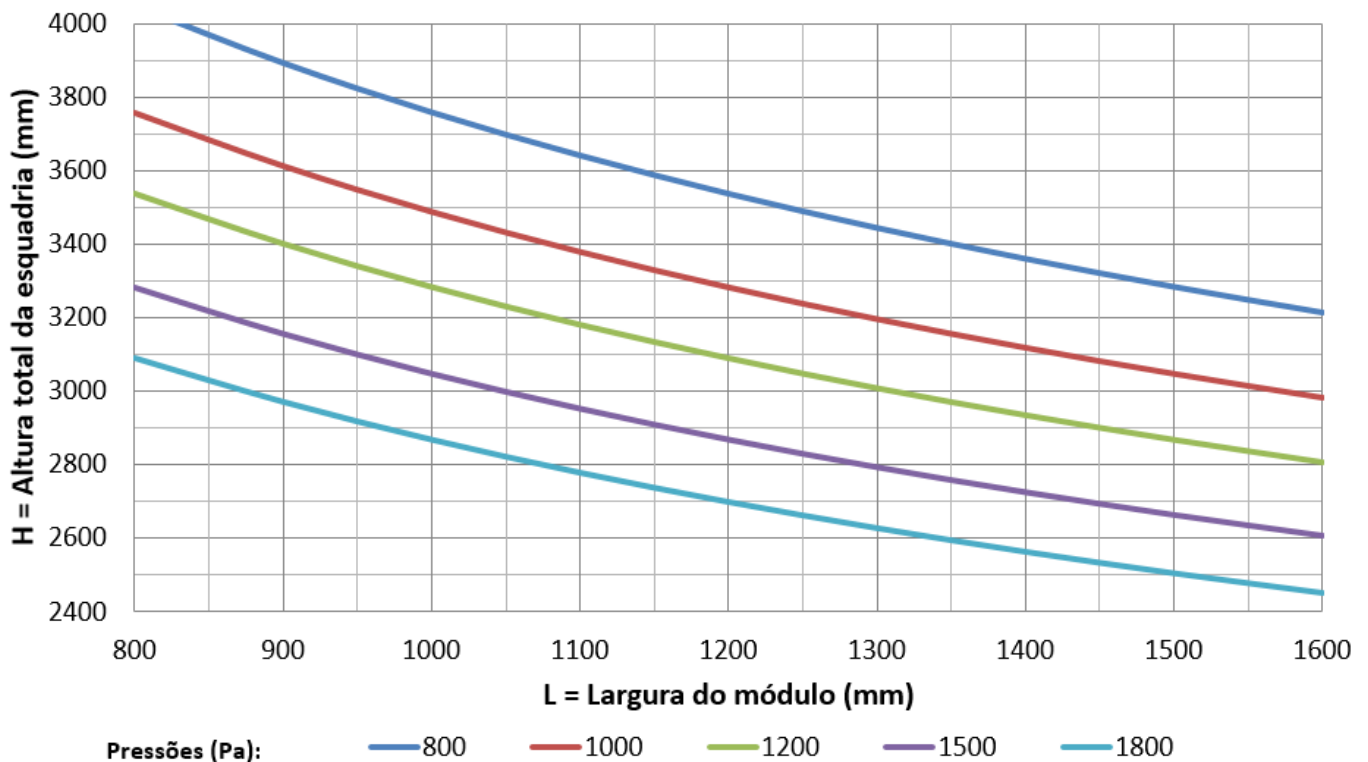
Coluna e travessa de 120mm

SPG-006

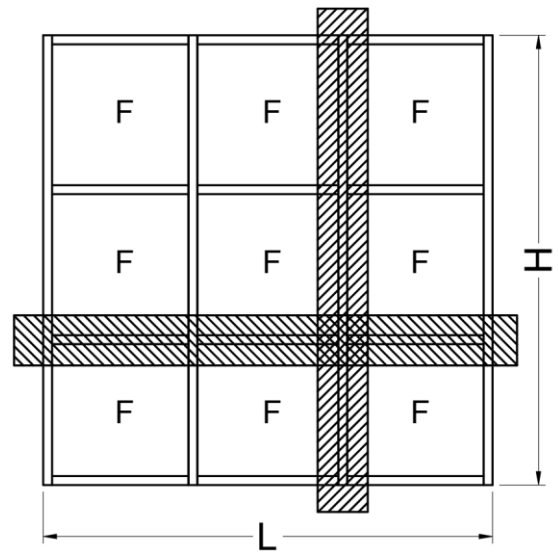
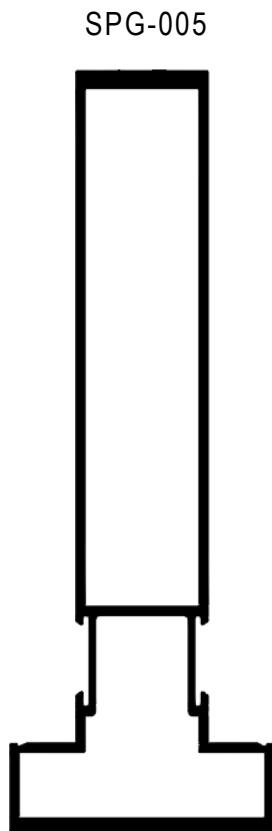


**SPG-006**

$J_x = 141,0434 \text{ cm}^4$   
 $W_x = 21,833 \text{ cm}^3$   
 $J_y = 20,5213 \text{ cm}^4$   
 $W_y = 6,840 \text{ cm}^3$

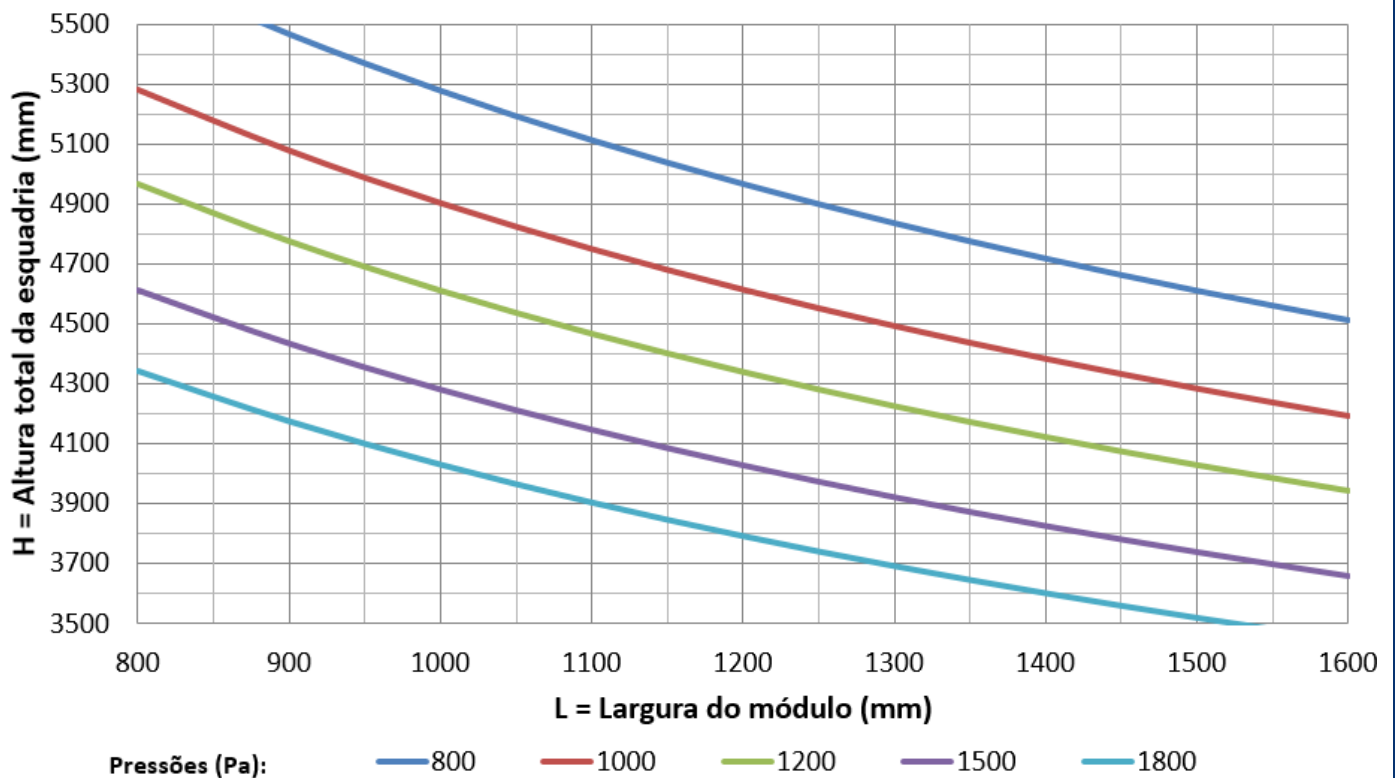


Coluna e travessa de 173mm

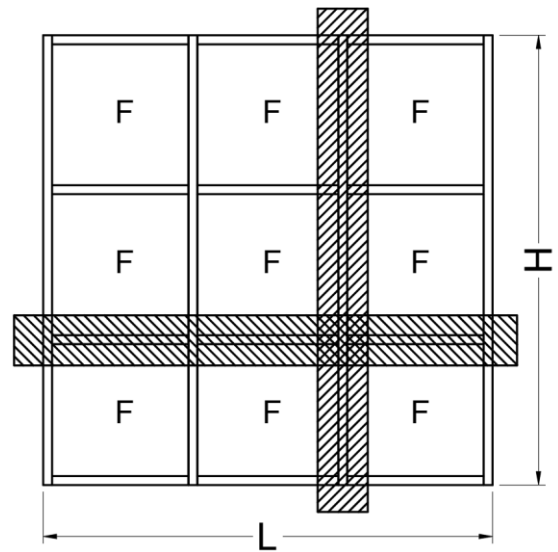
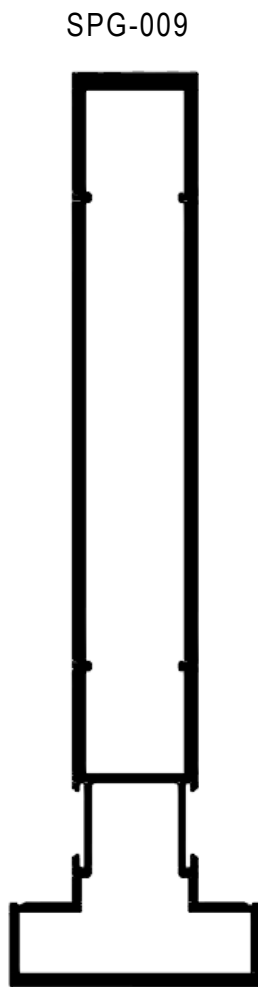


**SPG-005**

$Jx = 390,9729 \text{ cm}^4$   
 $Wx = 40,223 \text{ cm}^3$   
 $Jy = 26,0738 \text{ cm}^4$   
 $Wy = 8,691 \text{ cm}^3$

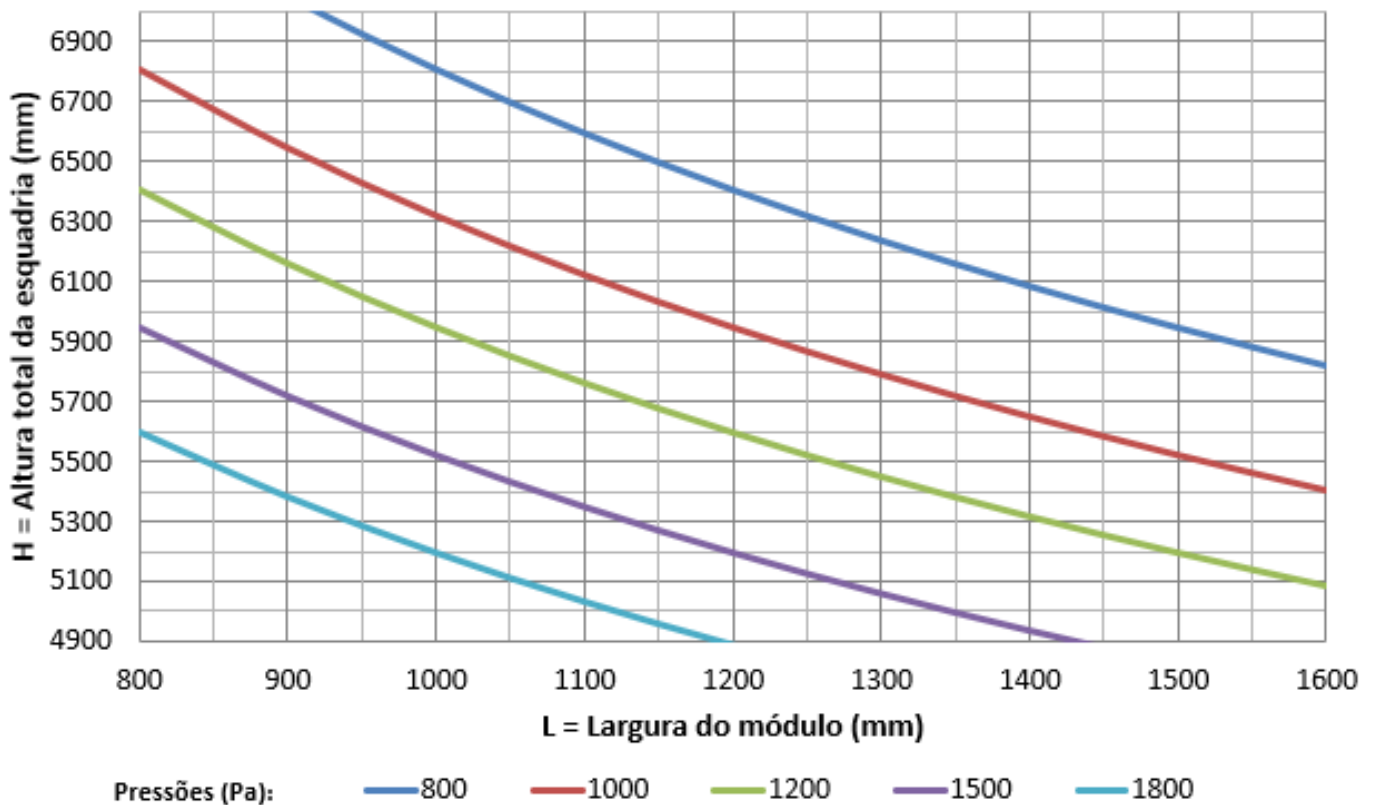


Coluna e travessa de 220mm



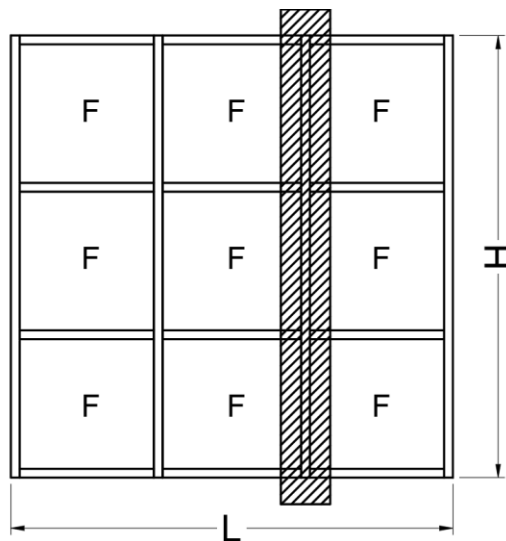
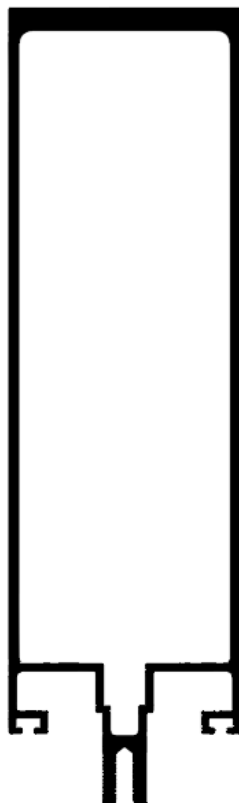
**SPG-009**

$Jx = 836,8494 \text{ cm}^4$   
 $Wx = 72,959 \text{ cm}^3$   
 $Jy = 35,0642 \text{ cm}^4$   
 $Wy = 23,376 \text{ cm}^3$



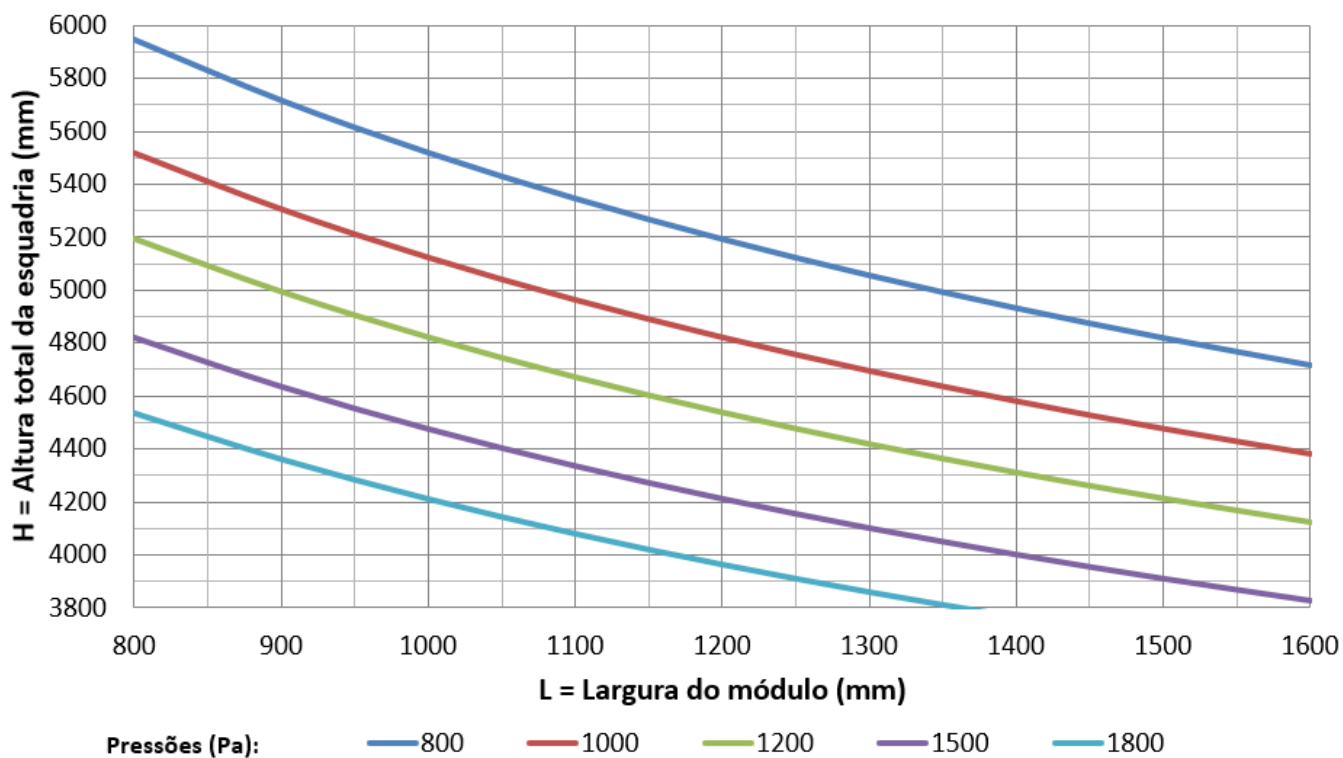
Coluna de 180mm

SPG-6199



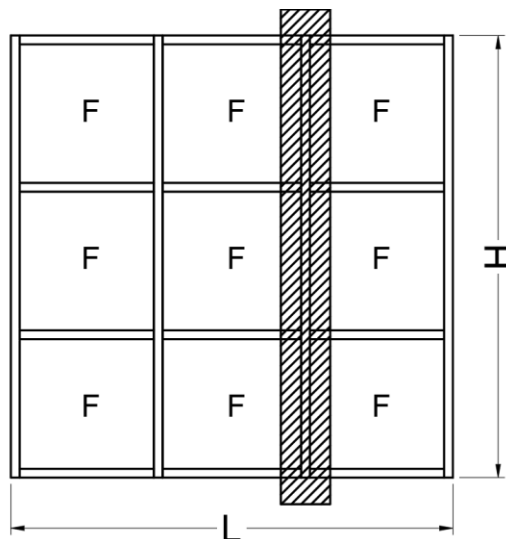
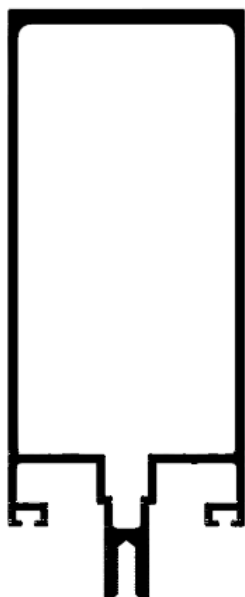
**SPG-6199**

$Jx = 446,0937 \text{ cm}^4$   
 $Wx = 44,923 \text{ cm}^3$



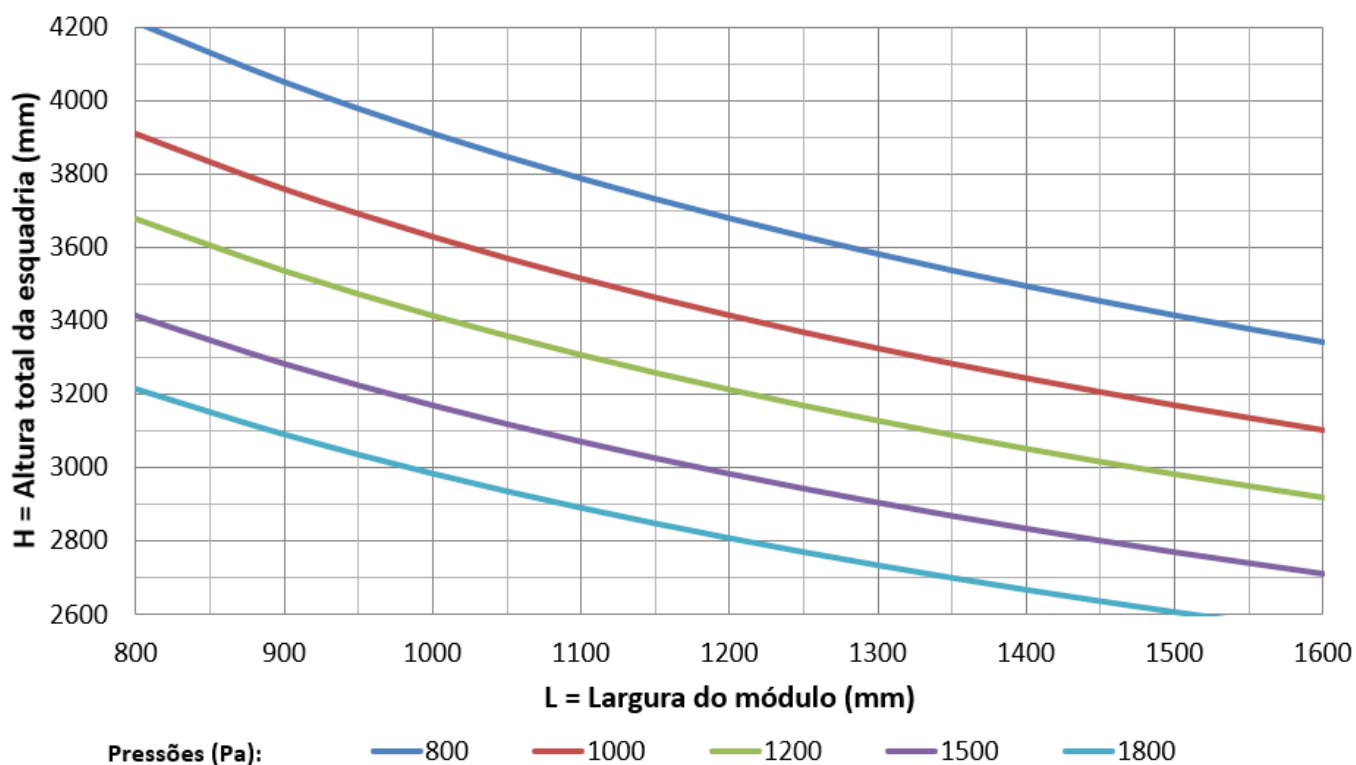
Coluna de 130mm

SPG-6200



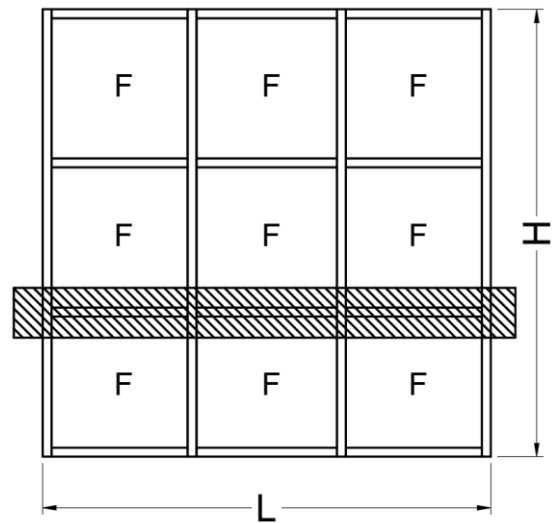
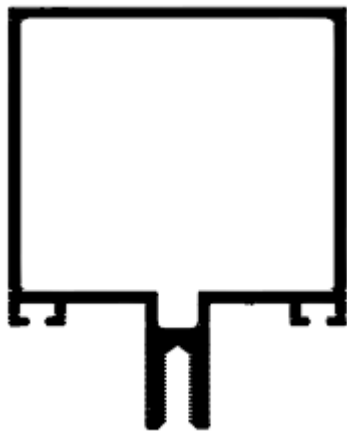
**SPG-6200**

$Jx = 158,6235 \text{ cm}^4$   
 $Wx = 25,379 \text{ cm}^3$



Travessa

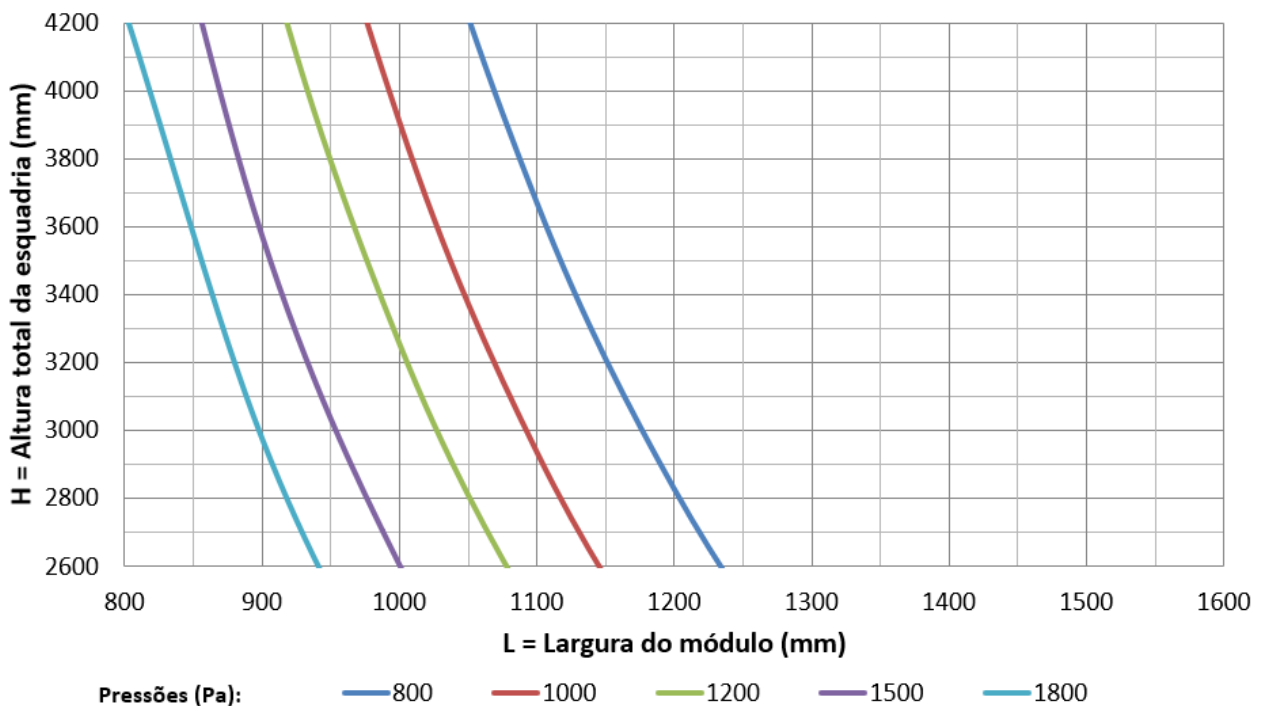
SPG-6201



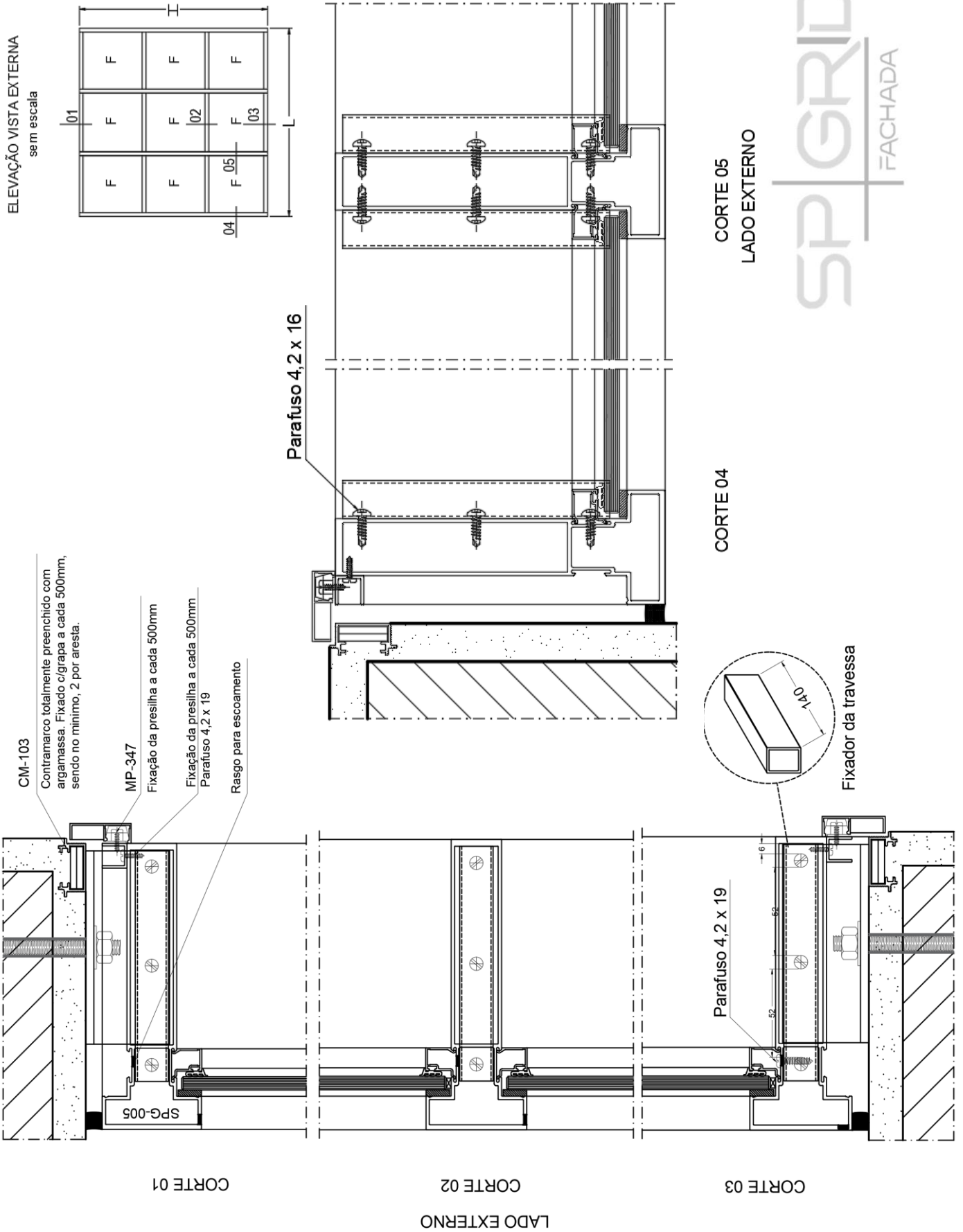
**SPG-6201**

$$J_y = 12,9660 \text{ cm}^4$$

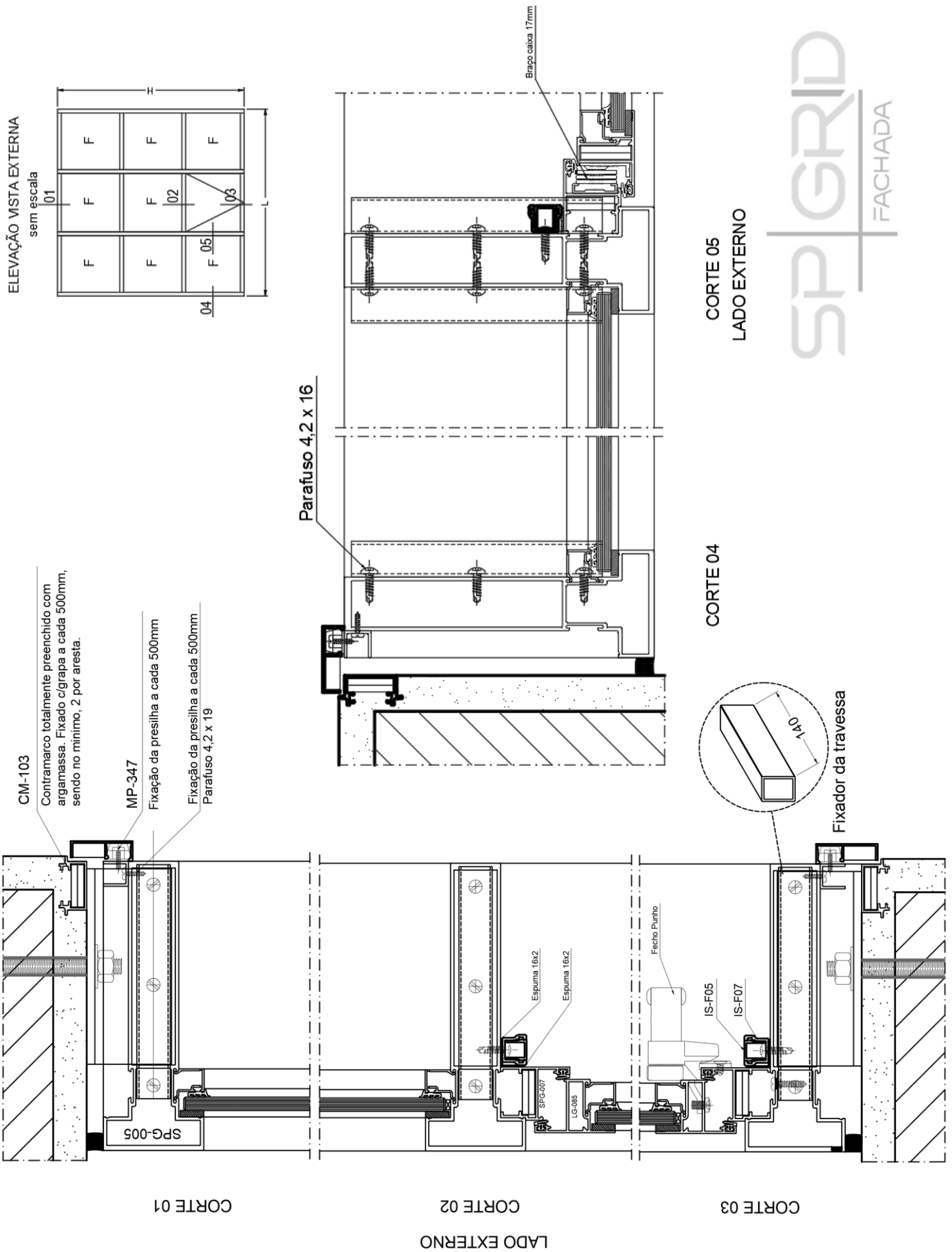
$$W_y = 4,986 \text{ cm}^3$$



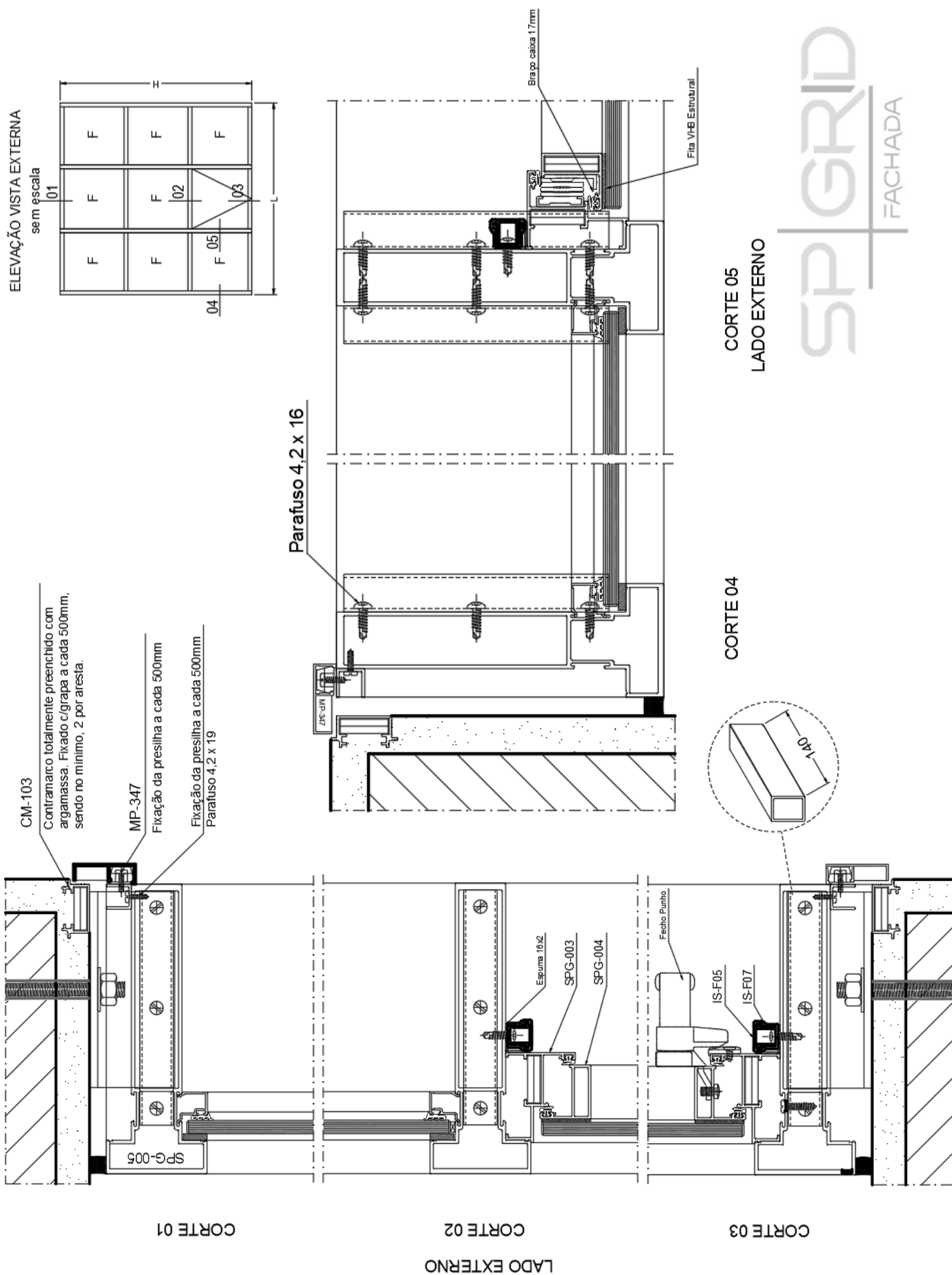
Fachada Simples com "n" módulos



Fachada Simples com Maxim-ar Inferior com Baguete



Fachada Simples com Maxim-ar Inferior com vidro colado sem Baguete



\*dimensões em milímetros

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