

UNIVERSAL
PORTÃO®

CATÁLOGO TÉCNICO

PORTÕES DE ALUMÍNIO
VERSÁTEIS E SEGUROS



Kawneer. Infinitas Possibilidades.

Kawneer é uma divisão da Arconic presente em 36 países com obras emblemáticas. Fundada em 1906, é uma das maiores empresas globais de fachadas, portas e janelas, com mais de 140 sistemas disponíveis pelo mundo. Os sistemas de arquitetura da Kawneer atendem os segmentos residenciais e comerciais, e todos os padrões de obras.

A Kawneer tem desenvolvido centenas de produtos com inovações traduzidas em mais de 400 patentes, tornando a companhia uma referência mundial em sistemas de esquadrias.

Com soluções para diversos tipos de obras, desenvolve sistemas com flexibilidade de design, alto desempenho e facilidade de instalação.

Acesse www.kawneer.com.br e saiba mais.

Alumínio & Cia.

Rede de distribuidores exclusivos de produtos extrudados Kawneer, presente em todas as regiões do Brasil. Nas lojas da rede, o cliente encontra os melhores sistemas de esquadrias desenvolvidos pela Kawneer. São diversas linhas de produtos exclusivos para os segmentos residencial e comercial.



Produto Original da Kawneer você só encontra na Rede Alumínio & Cia.

Acesse www.aluminioecia.com.br e saiba mais.

UNIVERSAL PORTÃO

DURABILIDADE, BELEZA
E SEGURANÇA.

- Design arrojado;
- Várias opções de tipologias;
- Facilidade de automação;
- Deslizamento suave;
- Fechamento seguro;
- Simples manutenção;
- Acabamento anodizado ou pintura eletrostática a pó em diversas cores;
- Longa vida útil;
- 3 formas de aplicação dos perfis: horizontal, vertical ou diagonal;
- 3 versões: giro, correr e basculante.

Liga Sustentável

A preocupação constante com a sustentabilidade é parte fundamental dos Valores da Kawneer. Somado a isso, o mercado da construção civil está cada vez mais exigente na busca por projetos construídos e operados de forma sustentável.

Alumínio Verde para Construções *Green Building*

Através da sua divisão de produtos extrudados, a Arconic desenvolveu a Liga Sustentável, destinada às construções *Green Building*.

O material é produzido com pelo menos 80% de alumínio reciclado pré-consumo, ou seja, oriundo de outros processos industriais. Para produzi-lo, utiliza-se apenas 5% da energia necessária na fabricação do produto primário e, para cada quilo do produto reciclado, quatro quilos de bauxita (minério usado na produção de alumínio) são poupados.

VERT. 
— LIGA SUSTENTÁVEL

Certificação Verde

Existem diversas certificações que comprovam a sustentabilidade de edifícios, como o *Leadership in Energy and Environmental Design (LEED)*. Para avaliar uma obra, o sistema leva em consideração sete características principais do projeto como um todo: o uso racional da água; a eficiência energética; a redução, reutilização e reciclagem de materiais e recursos; a qualidade dos ambientes internos da edificação; o espaço sustentável; a inovação e tecnologia; e o atendimento a necessidades locais, definidas pelos próprios profissionais da GBC, que variam de empreendimento para empreendimento.

O uso de itens recicláveis em uma edificação, como o produto da Kawneer, permite ao projeto obter pontuação. Se 10% do custo total de uma obra for destinado a materiais reutilizados, o LEED atribui um ponto para o empreendimento. Caso sejam 20%, o edifício ganha dois pontos. Desta forma, a Liga Sustentável da Arconic ajuda o empreendimento a conseguir a certificação.

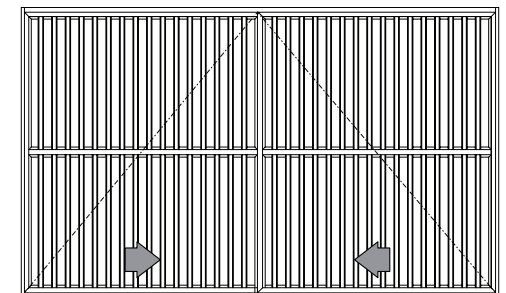


Índice

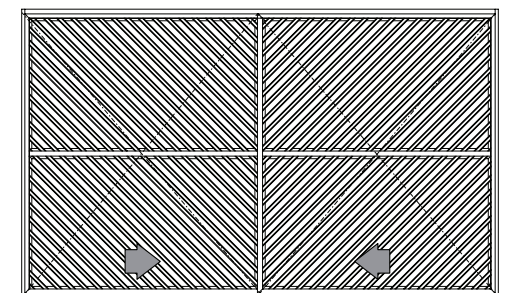
Tipologias	8
Diagramas	12
Perfis	15
Componentes	33
Usinagens	37
Instruções de Montagem	43
Desenhos de Montagem	49

Portões de Correr Universal e FIT

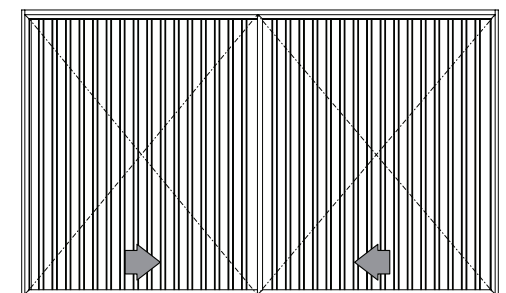
**Portão com barrotes verticais
2 folhas de correr**



**Portão com barrotes inclinados
2 folhas de correr**



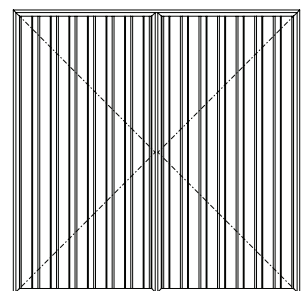
**Portão com lambris verticais
2 folhas de correr**



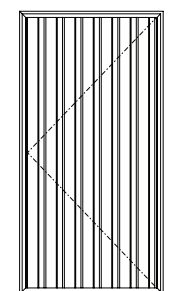
Nota: Estas tipologias poderão ser fabricadas com portão social

Portões de Giro Universal

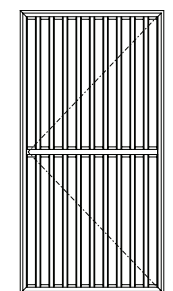
**Portão com lambris verticais
2 folhas de giro**



**Portão com lambris verticais
1 folha de giro**

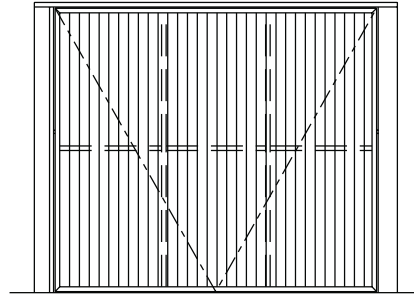
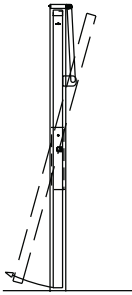


**Portão com barrotes verticais
1 folha de giro**

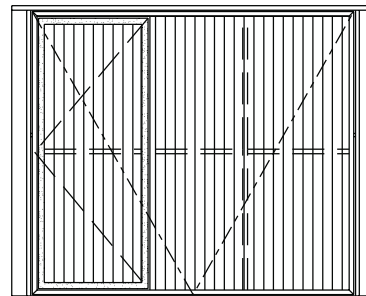
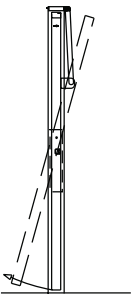


Portão Basculante

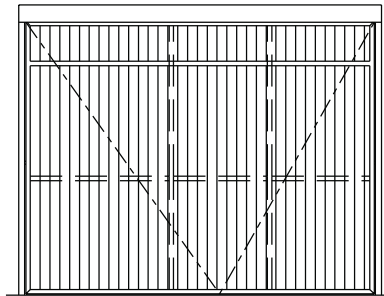
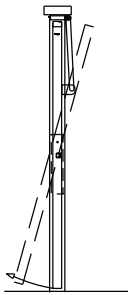
Basculante - Folha normal



Basculante - Folha com porta social

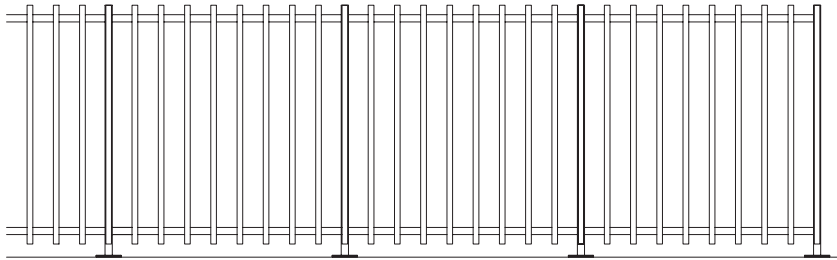


Basculante - Folha com bandeira

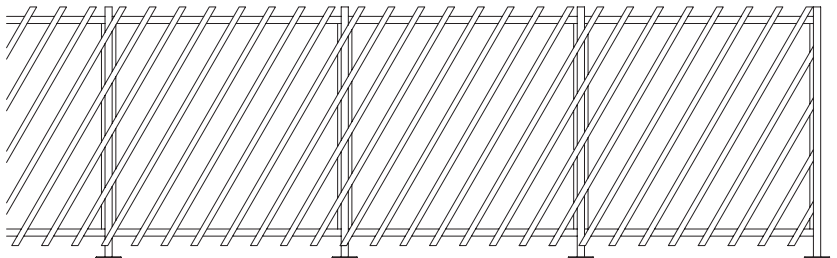


Grade Universal

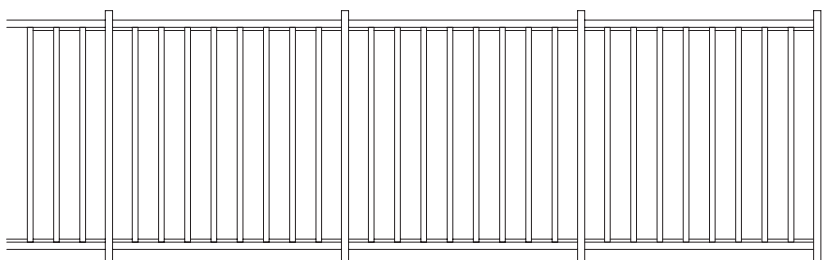
Grade com barrotes verticais



Grade com barrotes inclinados



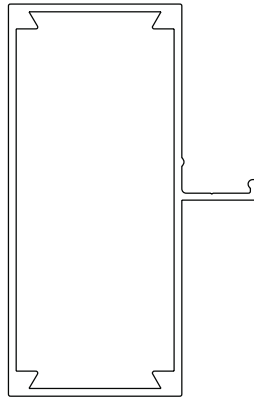
Grade com barrotes verticais entre travessas



Portão Basculante 3 Metros

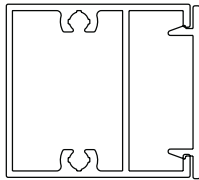
LU-019

Area = 501 mm²
 Peso = 1.36 kg/m
 Jx = 483918 mm⁴
 Jy = 146961 mm⁴
 Wx = 11207 mm³
 H = 86.4 mm
 B = 67.8 mm
 1:1



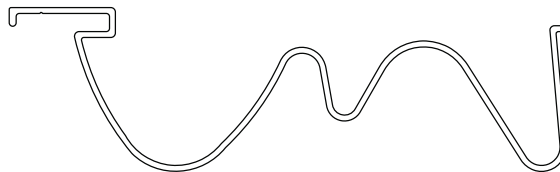
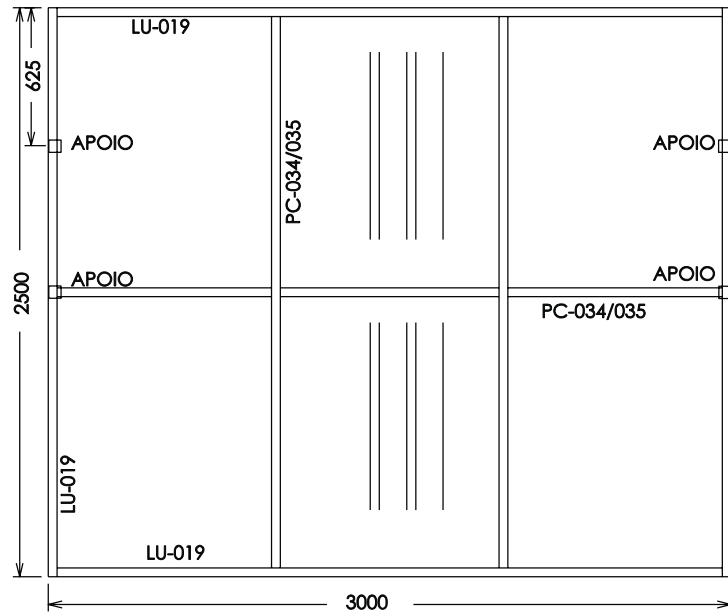
PC-034/035

Area = 265 mm²
 Peso = 0.918 kg/m
 Jx = 61046 mm⁴
 Jy = 39509 mm⁴
 Wy = 1745 mm³
 H = 38 mm
 B = 45.2 mm



LIGA 6060 T5 - TENSÃO ADM = 7 kg/mm²

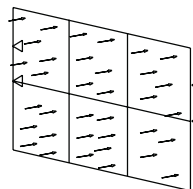
Lr = 15 kg/mm² Le = 11 kg/mm²



LAMBRI

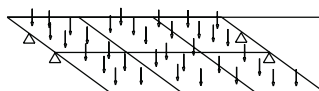
Area = 348 mm²
 Jx = 40412 mm⁴
 Wx = 2028 mm³
 H = 39.8 mm
 Peso = 0.94 kg/m

1) PRESSÃO DE ENSAIO = 50 kg/m² PORTÃO FECHADO



2) PESO PRÓPRIO - PORTÃO ABERTO

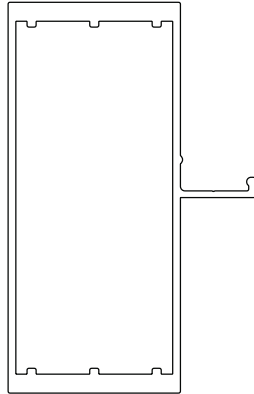
PESO PRÓPRIO = 13 kg/m²



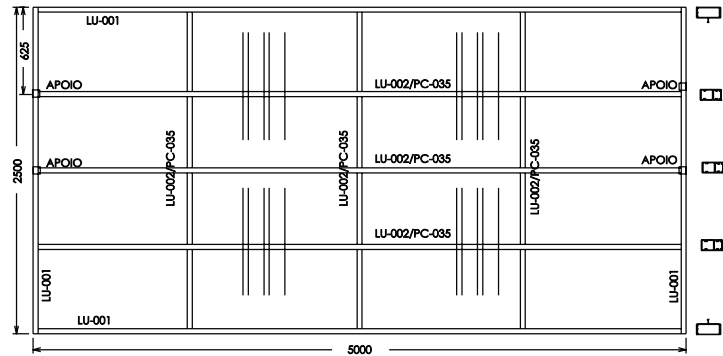
Portão Basculante 5 Metros

LU-001

Area = 629 mm²
 Peso = 1.7 kg/m
 Jx = 692255 mm⁴
 Jy = 151629 mm⁴
 Wx = 16042 mm³
 H = 86.3 mm
 B = 68.4 mm

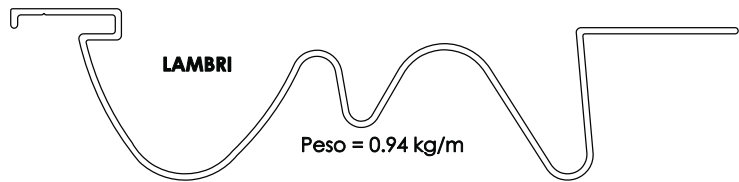
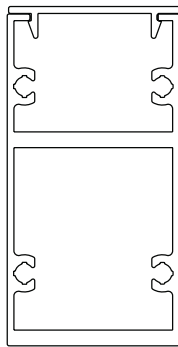


LIGA 6060 T5 - TENSÃO ADM = 7 kg/mm²
 Lr = 15 kg/mm² Le = 11 kg/mm²



LU-002/PC-035

Area = 558 mm²
 Peso = 1.71 kg/m
 Jx = 291303 mm⁴
 Jy = 120542 mm⁴
 Wx = 6994 mm³
 H = 83.3 mm
 B = 38 mm

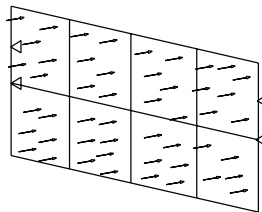


LAMBRI

Peso = 0.94 kg/m

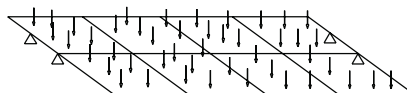
Area = 348 mm²
 Jx = 40412 mm⁴
 Wx = 2028 mm³
 H = 39.8 mm

1) PRESSÃO DE ENSAIO = 50 kg/m² PORTÃO FECHADO

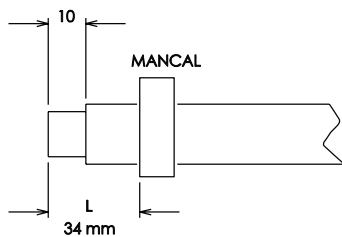
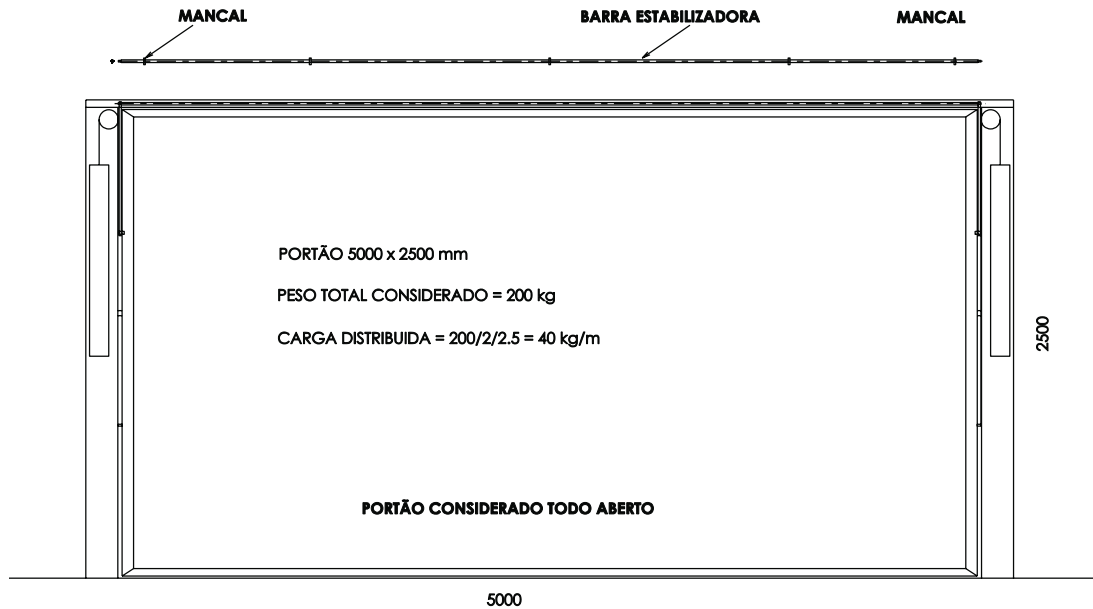


2) PESO PRÓPRIO - PORTÃO ABERTO

PESO PRÓPRIO = 13 kg/m²



Barra Estabilizadora



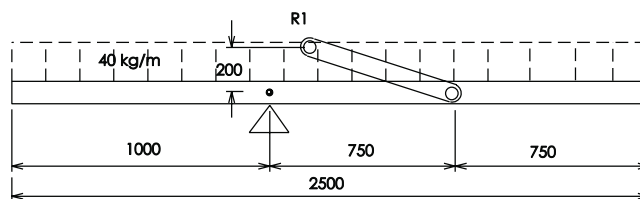
$$M = 115 \times L$$

$$W = 383 \text{ mm}^3$$

$$\text{TENSÃO} = \frac{115 \times L = 10}{383}$$

$$L \text{ MÁXIMO} = 34 \text{ mm}$$

$$\text{TENSÃO CIS} = 115/196 = 0.59 \text{ kg/mm}^2$$



REAÇÃO MÁXIMA EM R1 = 115 kg

BARRA ESTABILIZADORA



$$\text{Area} = 196 \text{ mm}^2$$

$$J = 3060 \text{ mm}^4$$

$$Jt = 6118 \text{ mm}^4$$

$$W = 383 \text{ mm}^3$$

LIGA 6063 T6

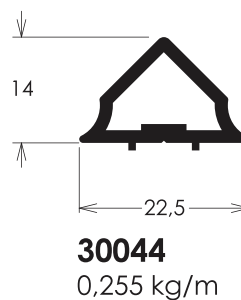
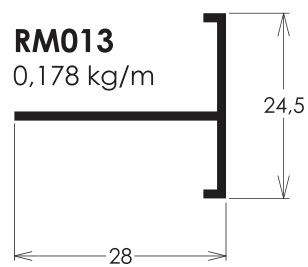
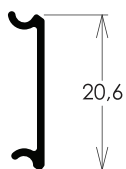
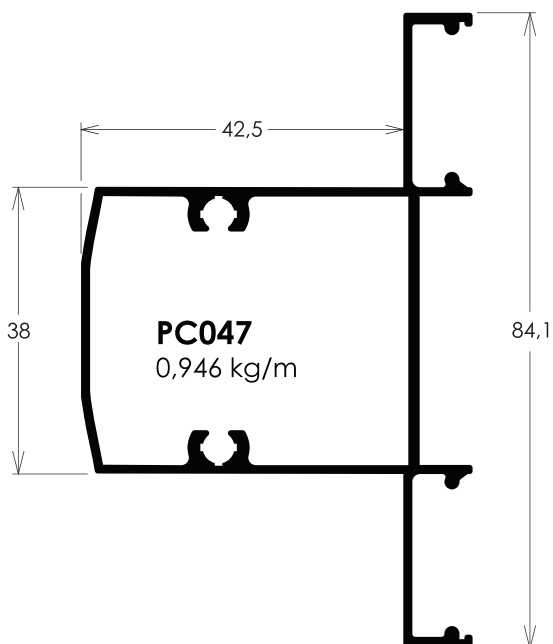
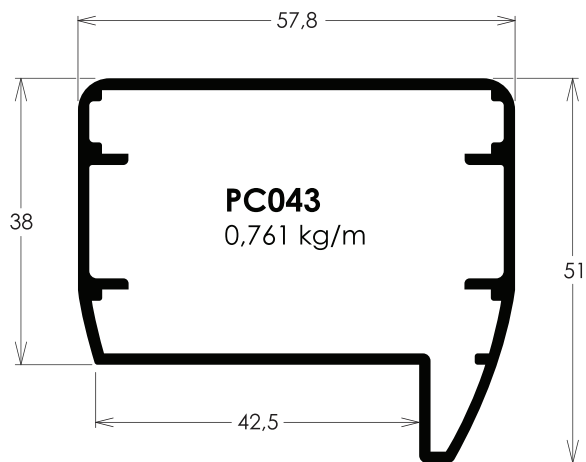
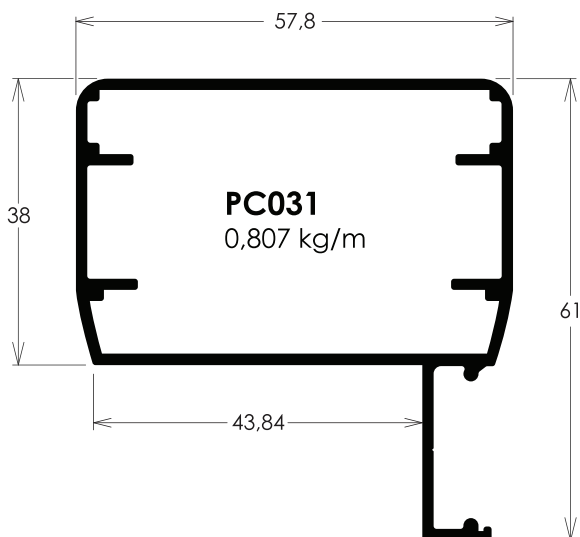
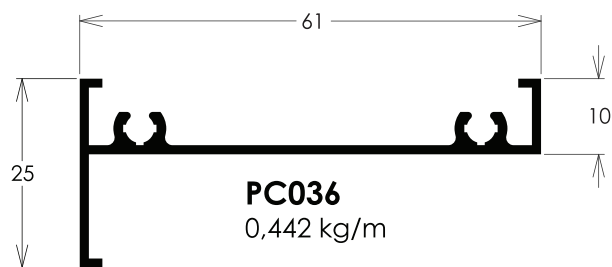
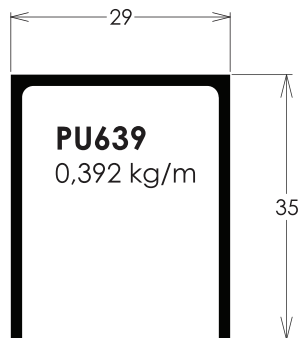
$$Lr = 205 \text{ MPa} \quad Le = 170 \text{ MPa} \quad Lcis = 125 \text{ MPa}$$

$$\text{TENSÃO ADM} = 10 \text{ kg/mm}^2$$

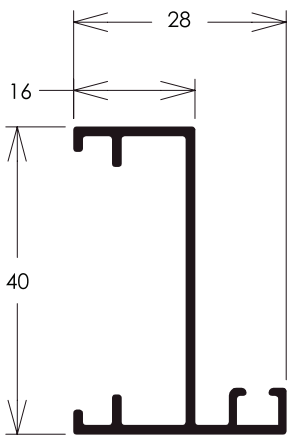
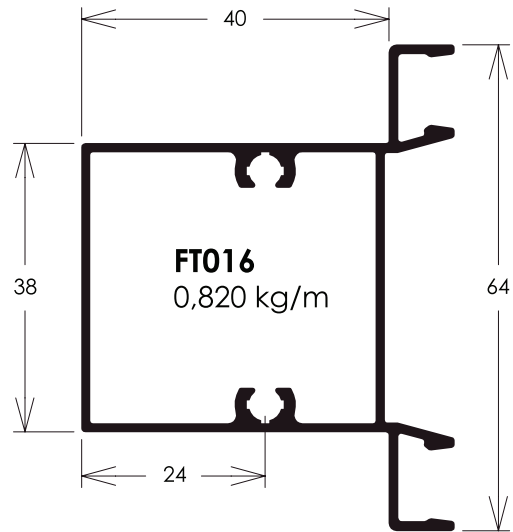
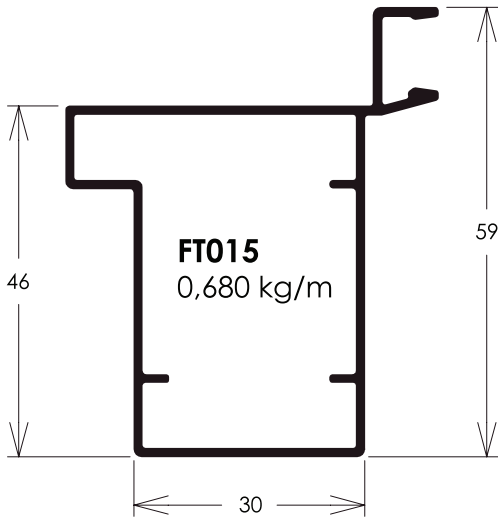
Cód.	Pág.
30044	16-17-18
CB296	17
CL006	31
CL009	31
CL010	31
CL011	31
CM175	21
FT013	17
FT014	17
FT015	17
FT016	17
FT017	17
IN044	18
IN205	30
LB038	23
LB050	23
LB071	23
LB072	24
LB073	24
LB074	24
LB075	25
LB076	25
LB077	25
LB079	26
LB080	26
LB081	26
LB082	27
LB088	27
LB089	27
LU001	20
LU002	22
LU011	21
LU012	21
LU017	20
LU018	22
LU019	20
LU020	20
LU021	22
LU022	22
LU023	22

Cód.	Pág.
LU027	22
LU028	20
LU029	20
LU030	28
LU031	28
LU032	28
LU033	29
LU035	22
LU067	29
LU072	29
LU073	30
LU074	30
LU083	30
PC027	18
PC031	16
PC032	16
PC032	19
PC033	31
PC034	19
PC034	22
PC035	19
PC035	22
PC036	16
PC037	19
PC039	19
PC040	19
PC041	31
PC042	31
PC043	16
PC044	31
PC045	19
PC047	16
PC063	18
PC064	18
PC065	18
PC639	18
PU639	16
PU639	17
RM013	16
RM013	18

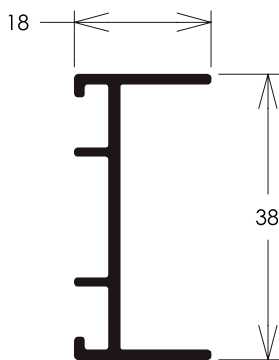
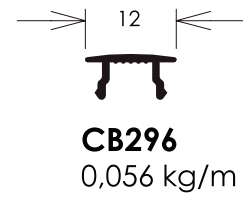
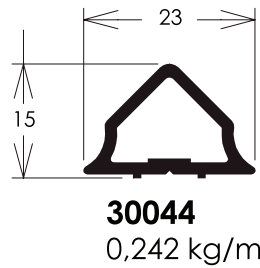
PORTÕES DE CORRER UNIVERSAL



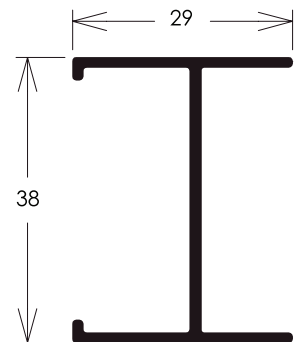
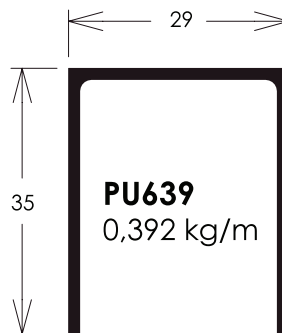
PORTÕES FIT



FT014
0,338 kg/m

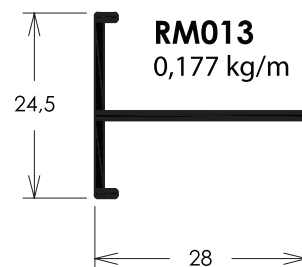
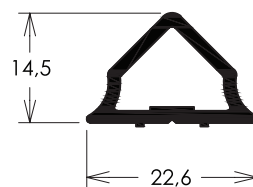
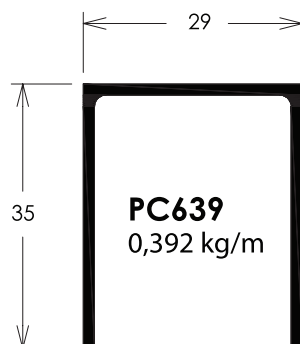
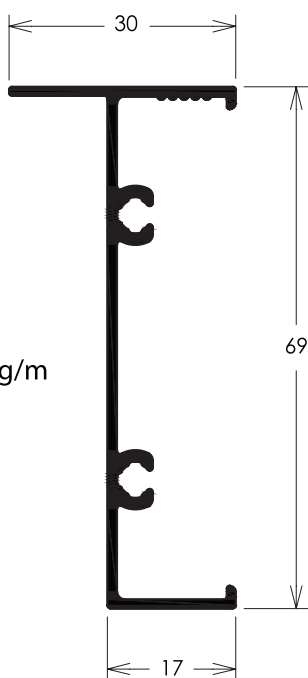
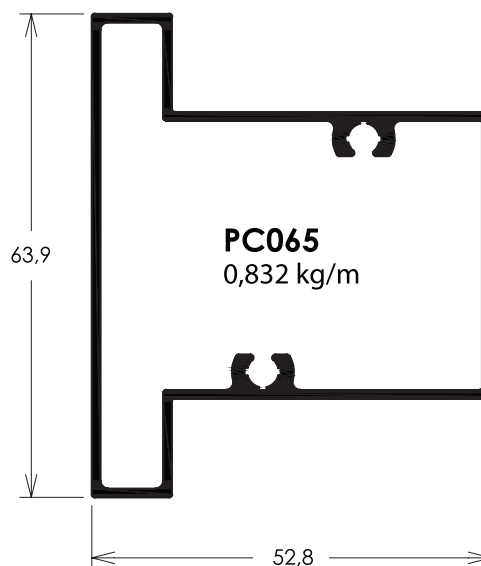
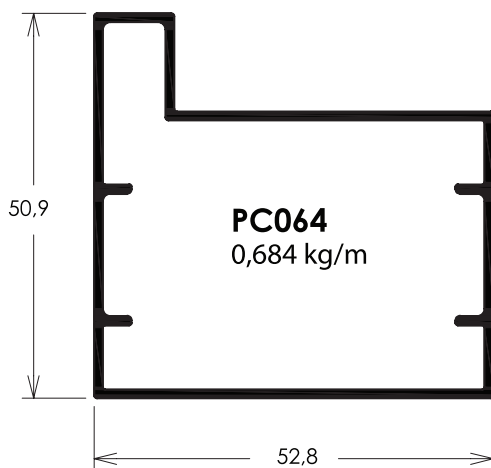
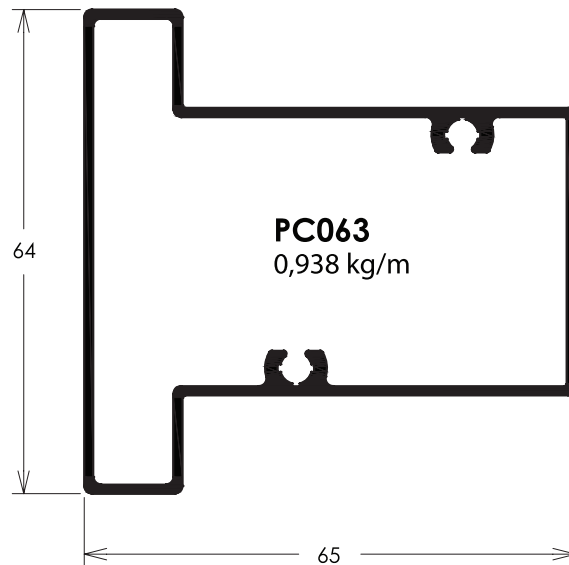
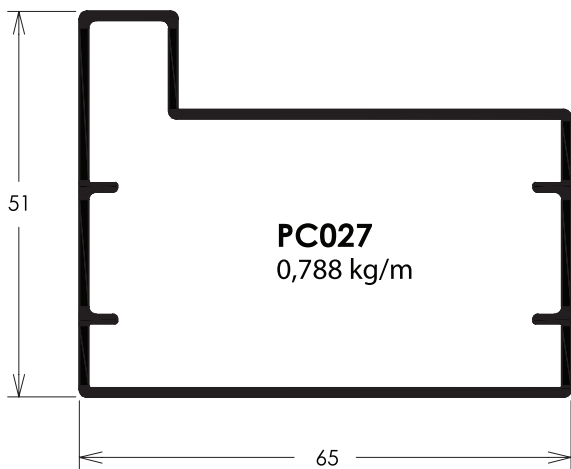


FT017
0,307 kg/m

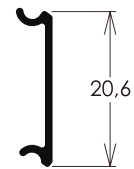
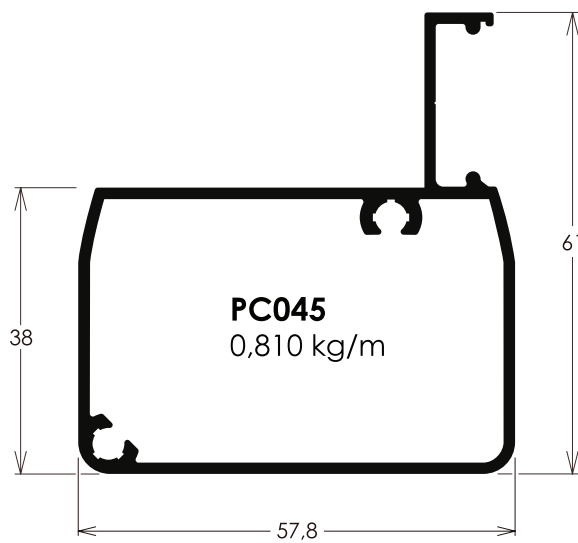
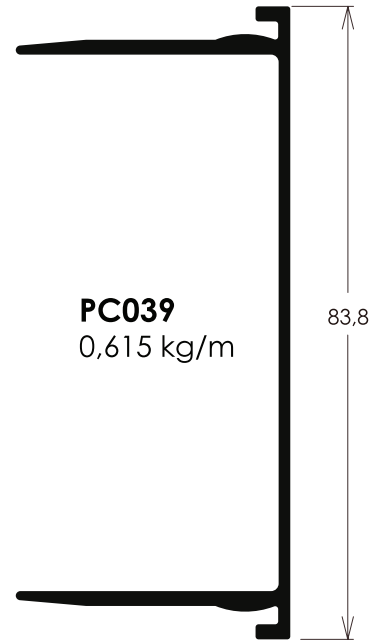
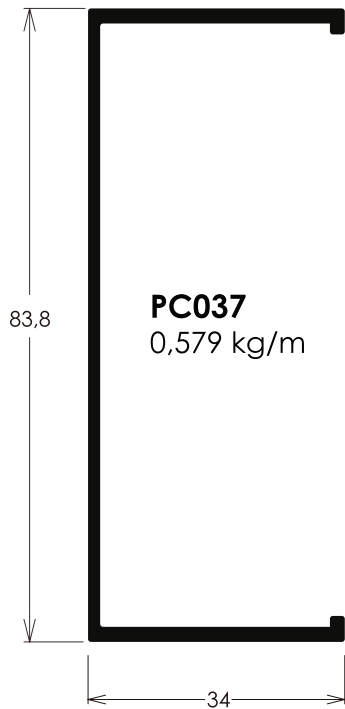


FT013
0,362 kg/m

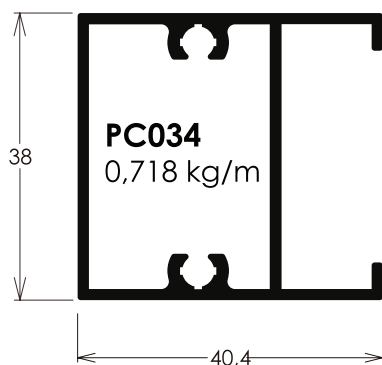
PORTÕES DIVERSOS



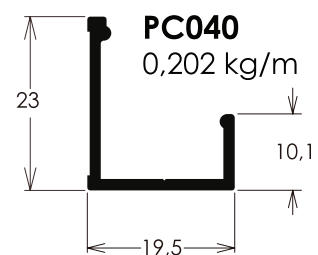
GRADES



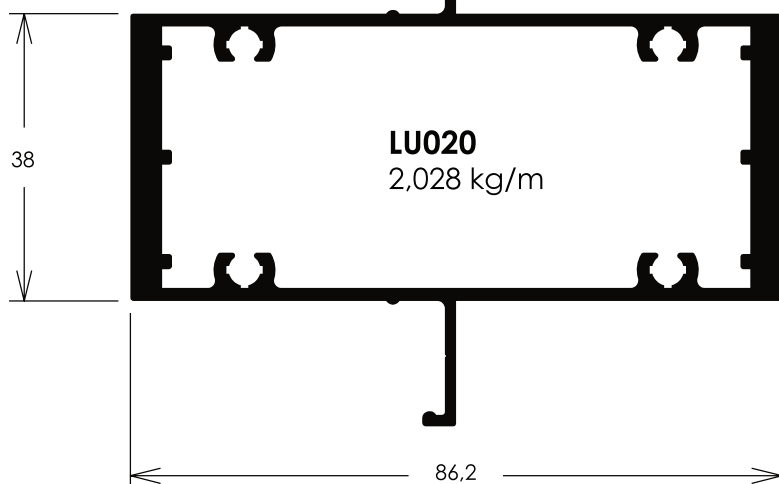
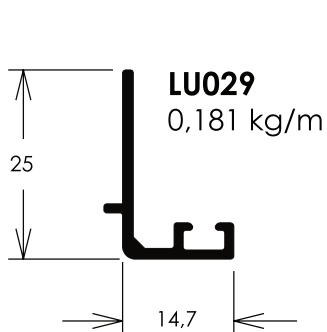
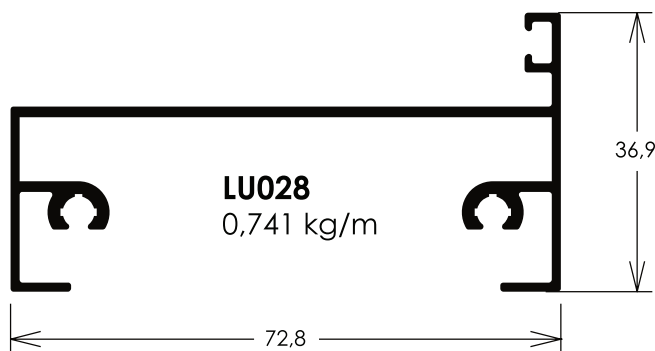
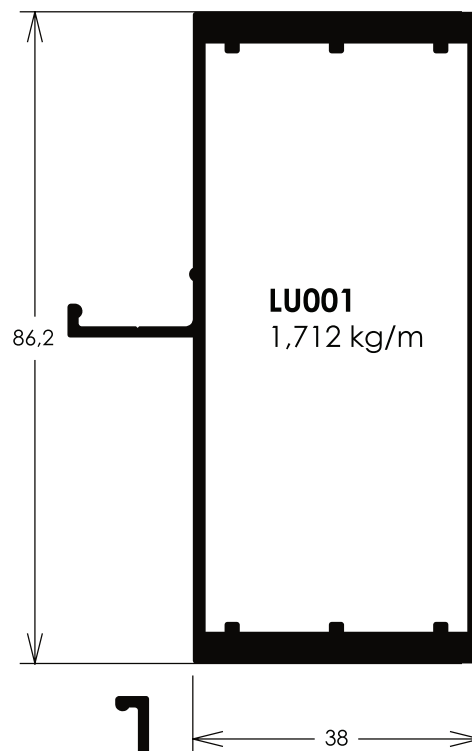
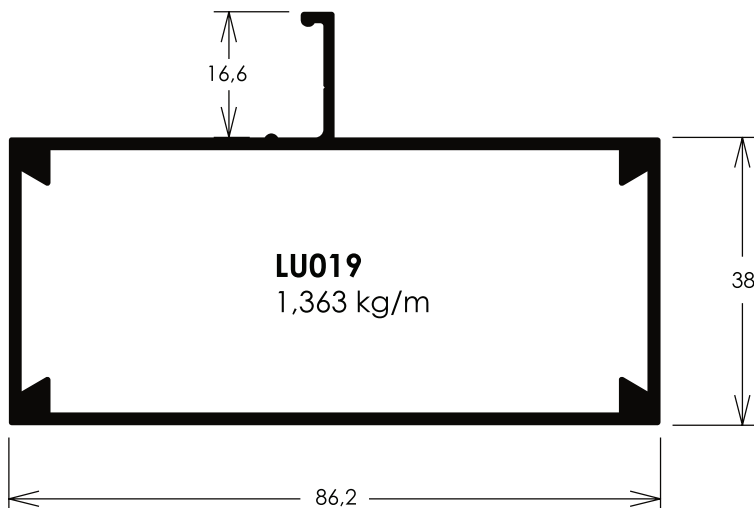
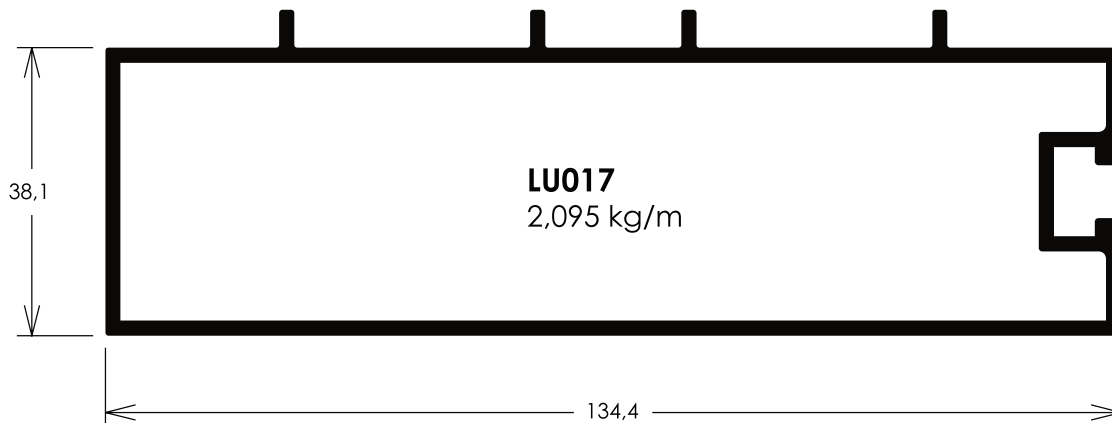
PC032
0,080 kg/m



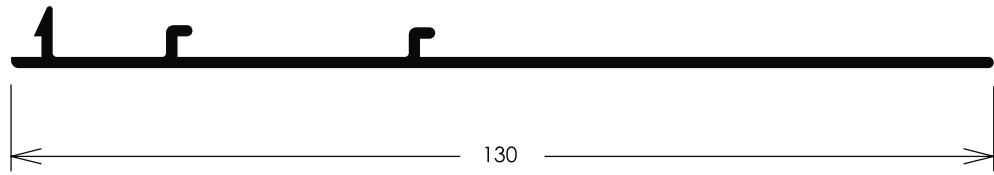
PC035
0,199 kg/m



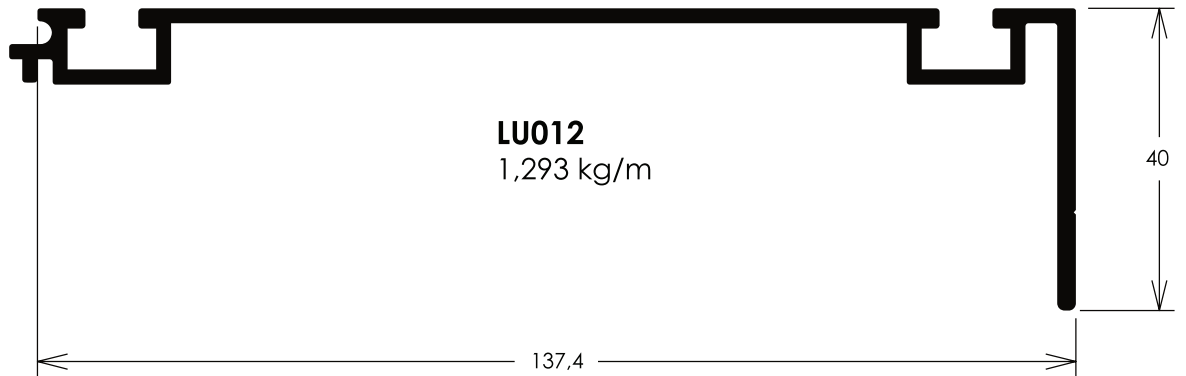
PORTÕES BASCULANTES



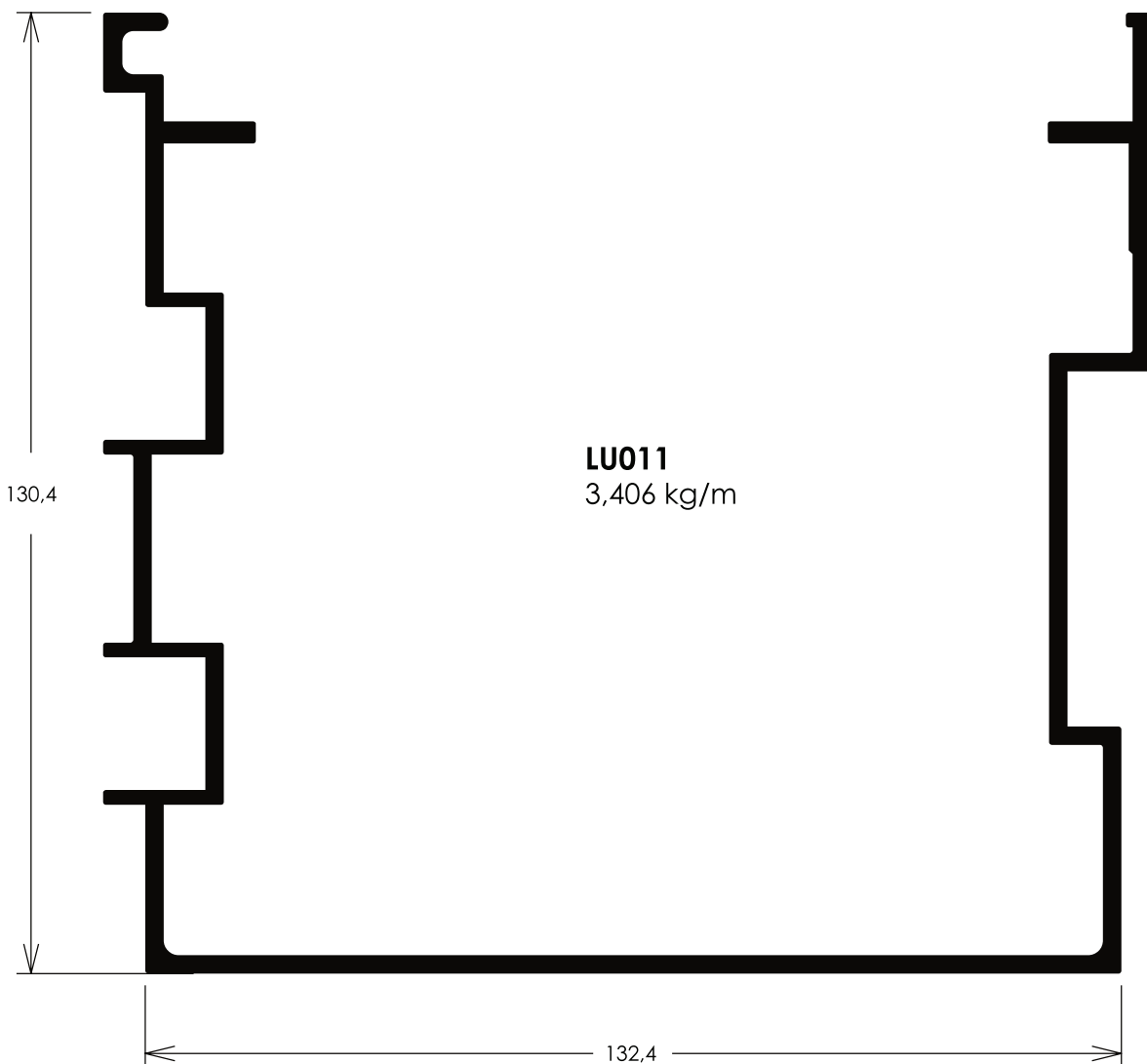
CM175
0,602 kg/m

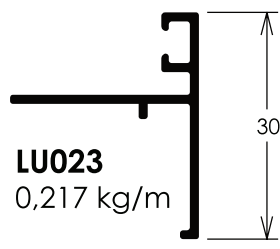
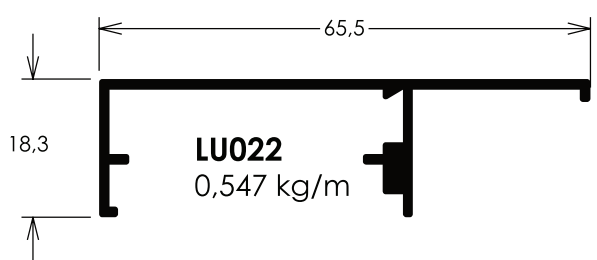
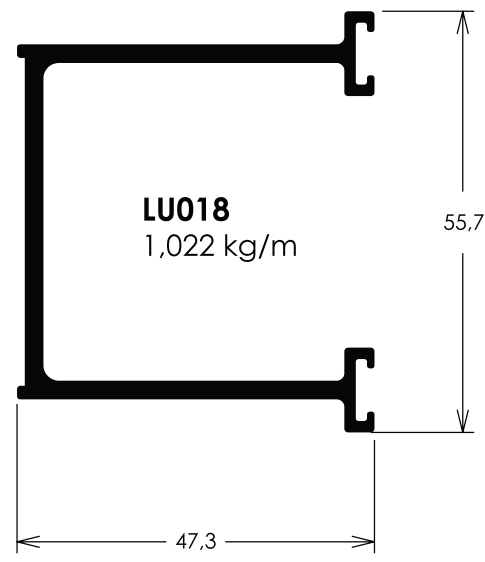
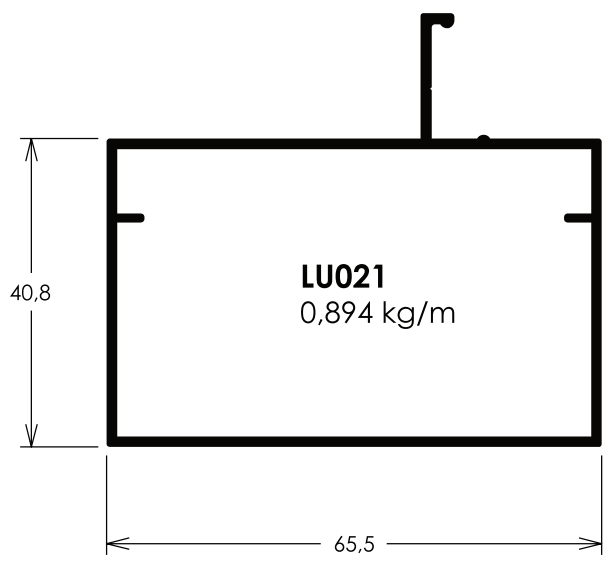
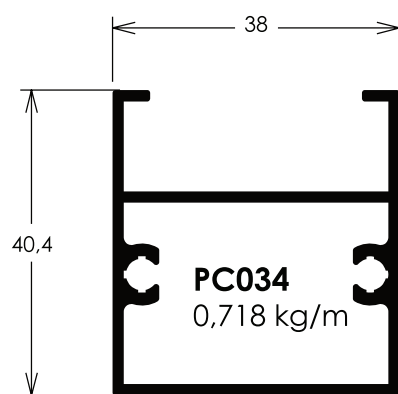
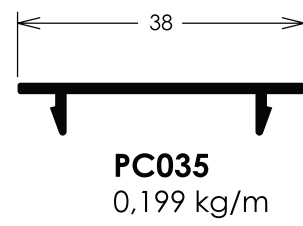
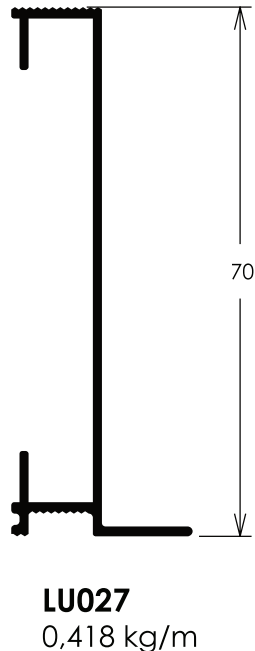
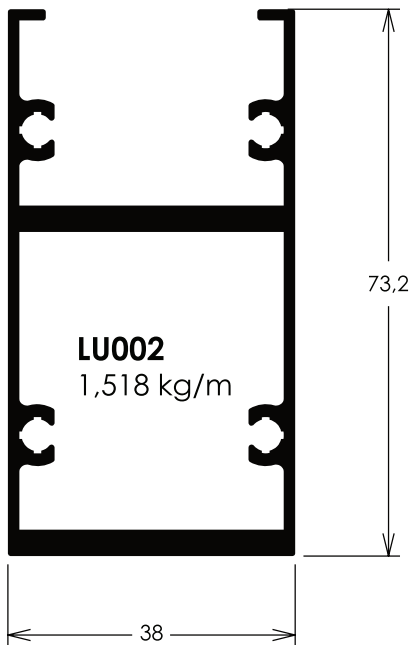


LU012
1,293 kg/m



LU011
3,406 kg/m

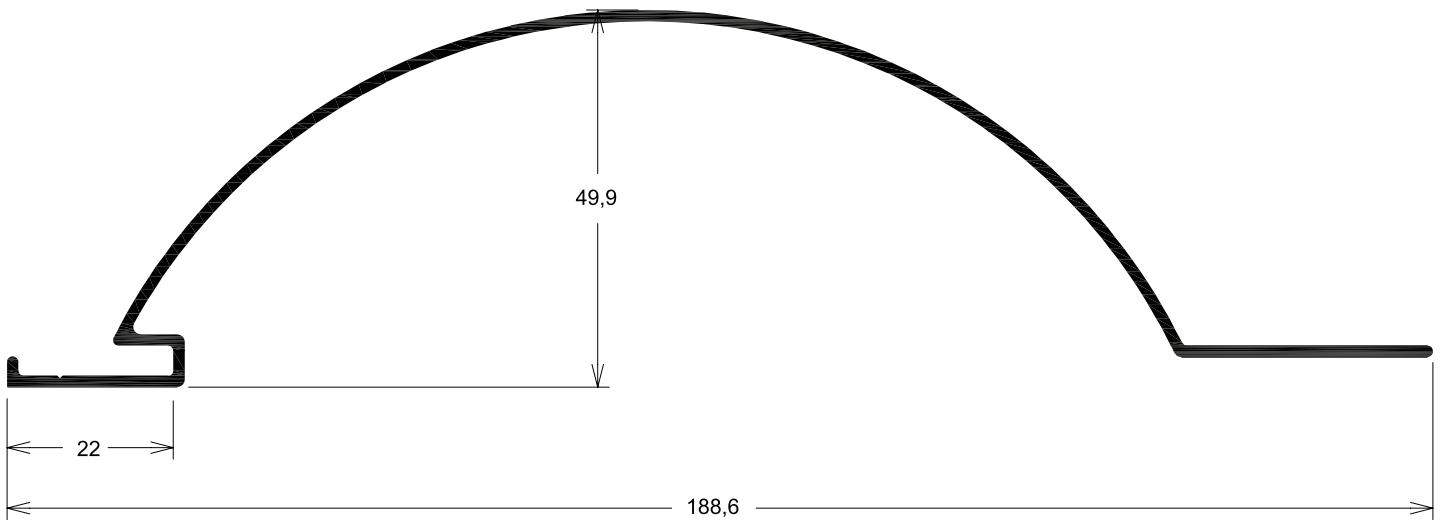




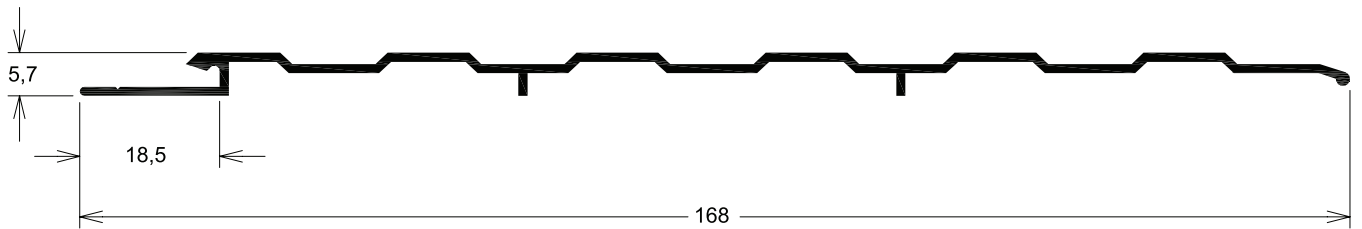
Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.

LAMBRIS

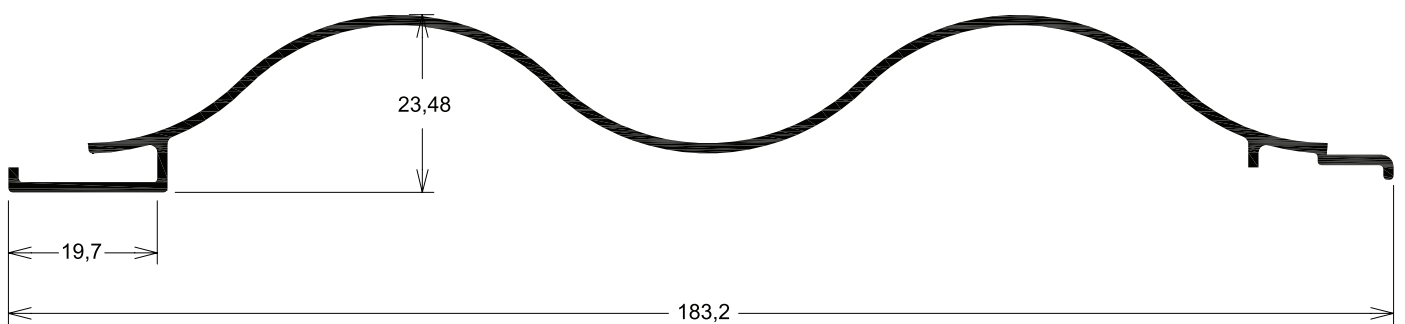
LB038
1,001 kg/m

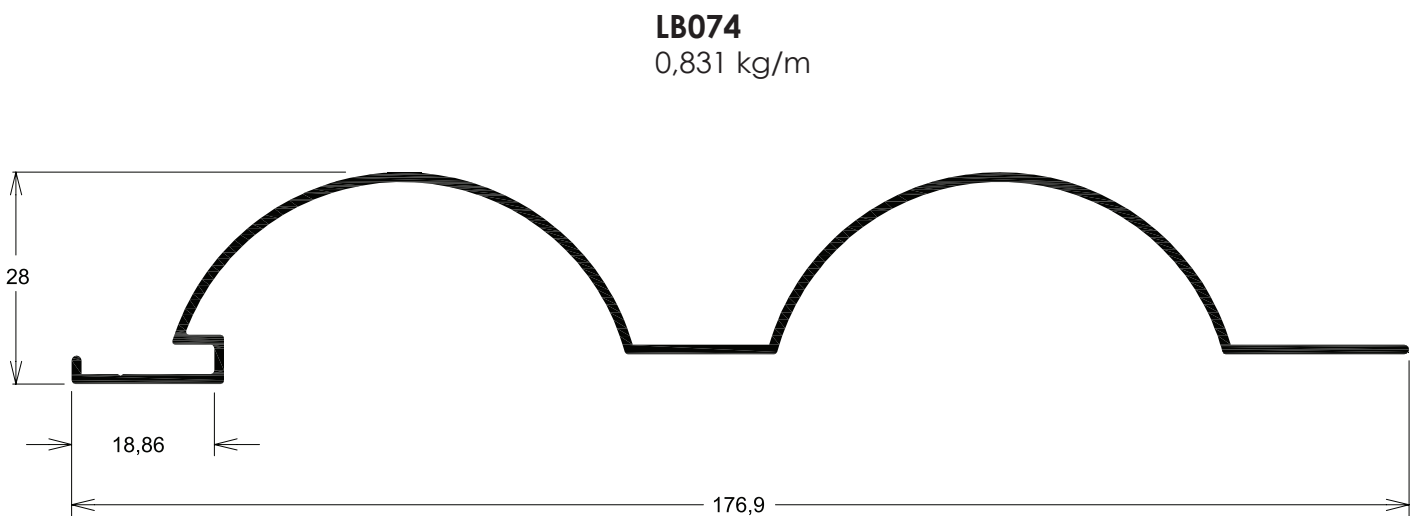
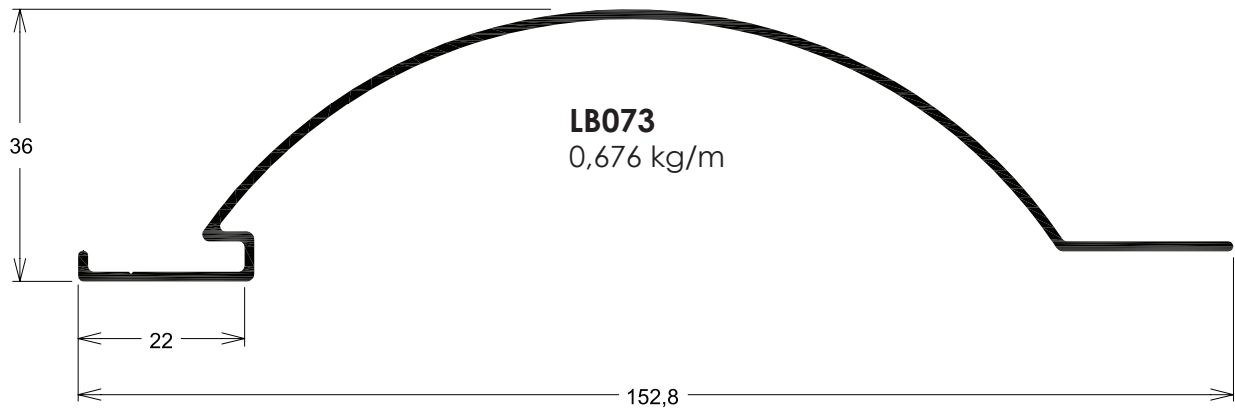
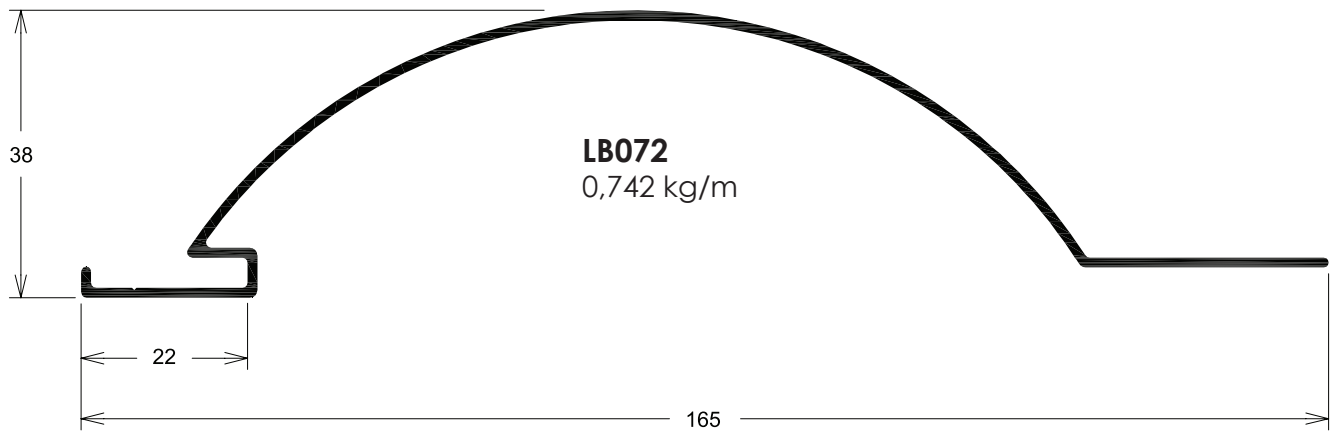


LB050
0,624 kg/m

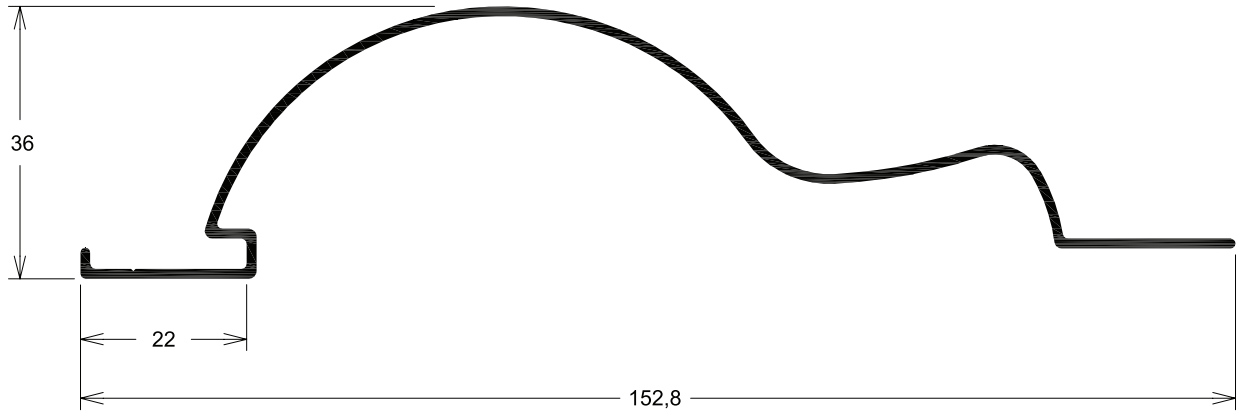


LB071
0,830 kg/m

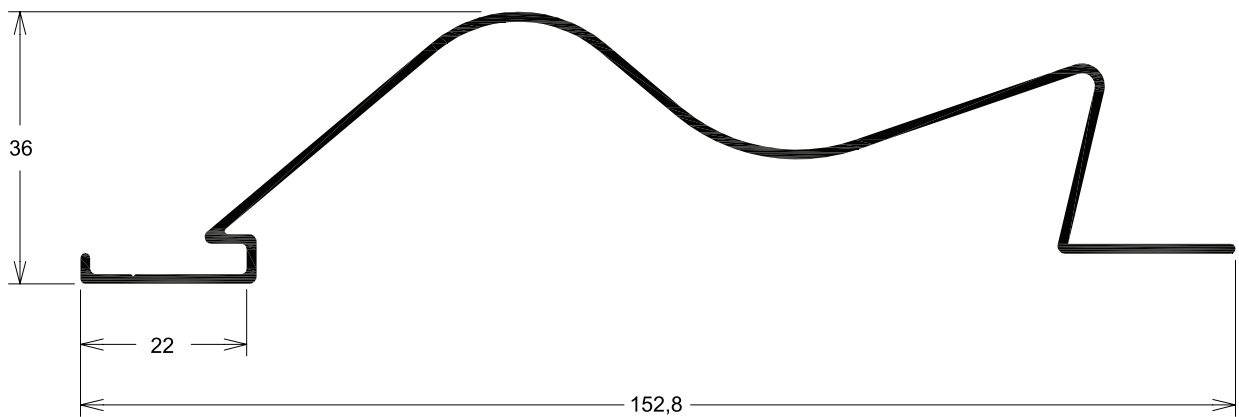




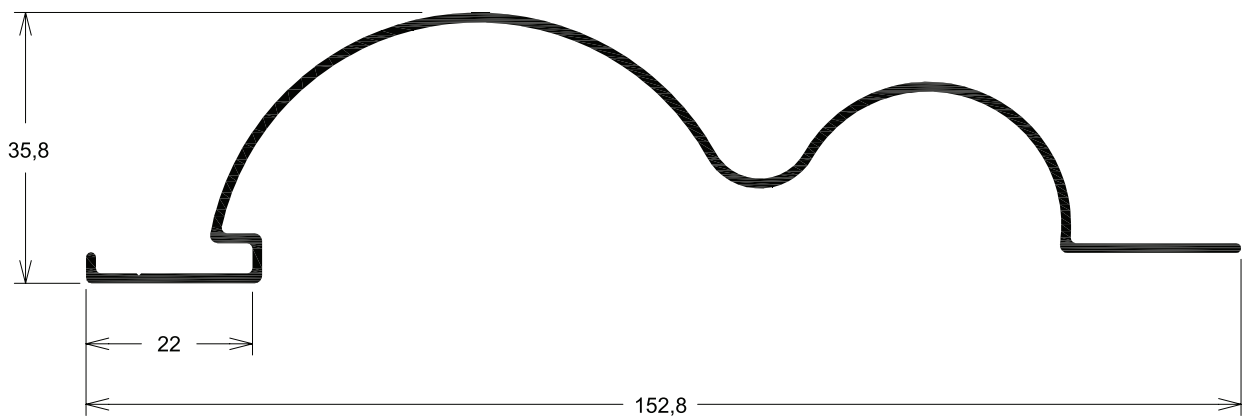
LB075
0,706 kg/m



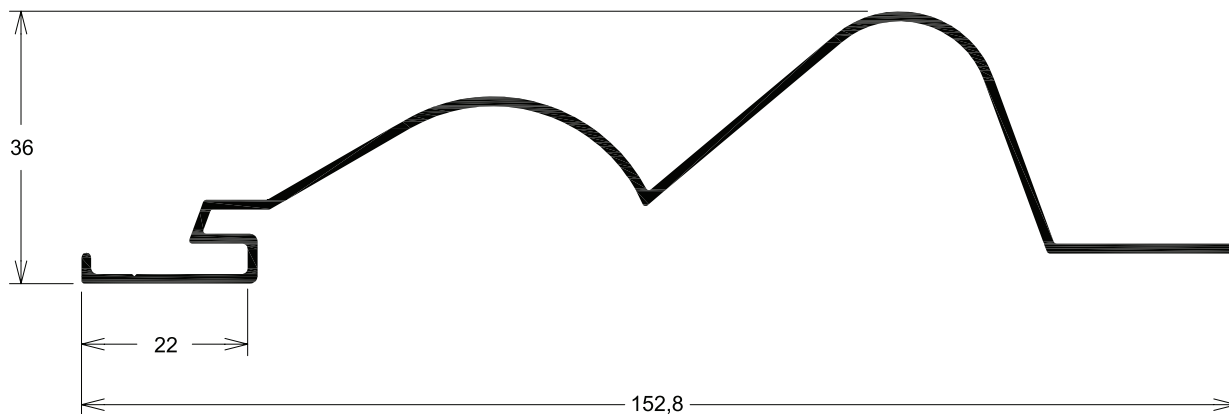
LB076
0,766 kg/m



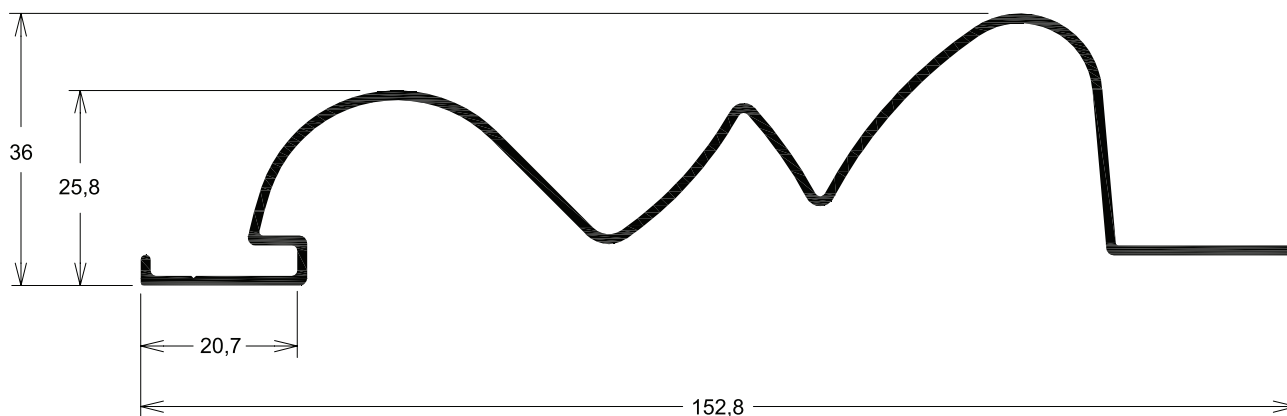
LB077
0,749 kg/m



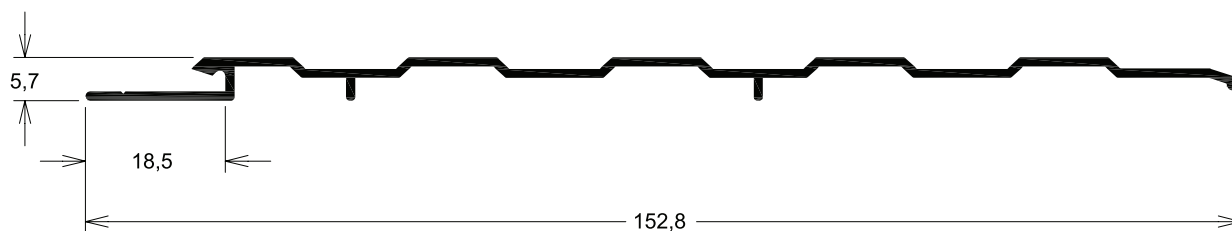
LB079
0,758 kg/m



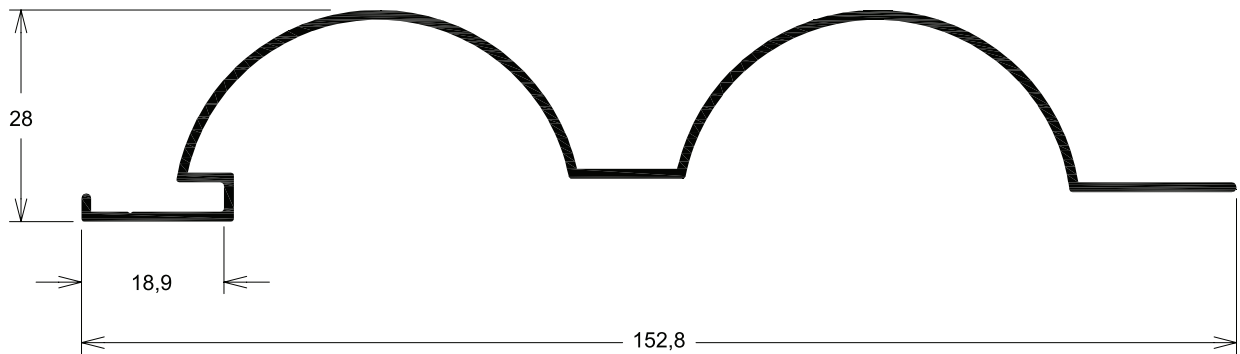
LB080
0,845 kg/m



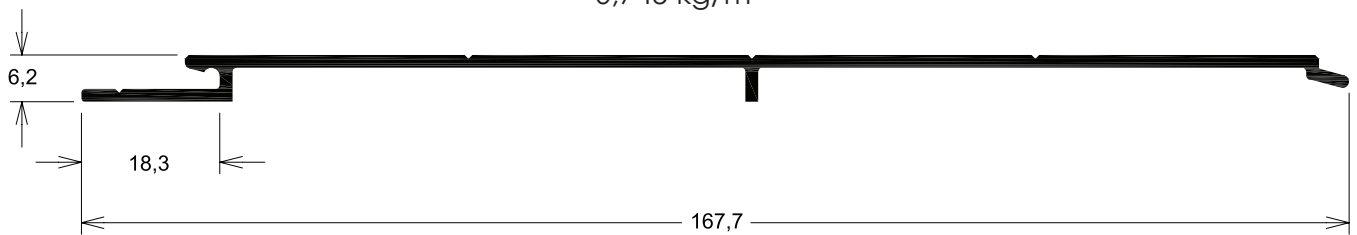
LB081
0,570 kg/m



LB082
0,758 kg/m



LB088
0,745 kg/m

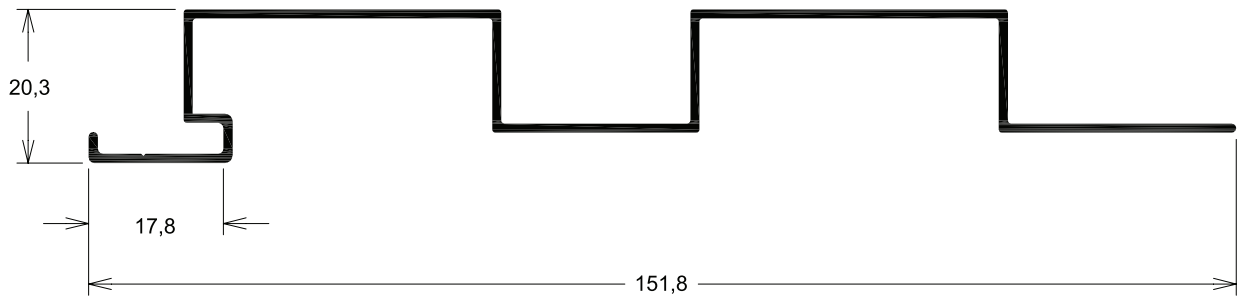


Nota: Este perfil substitui o LB036

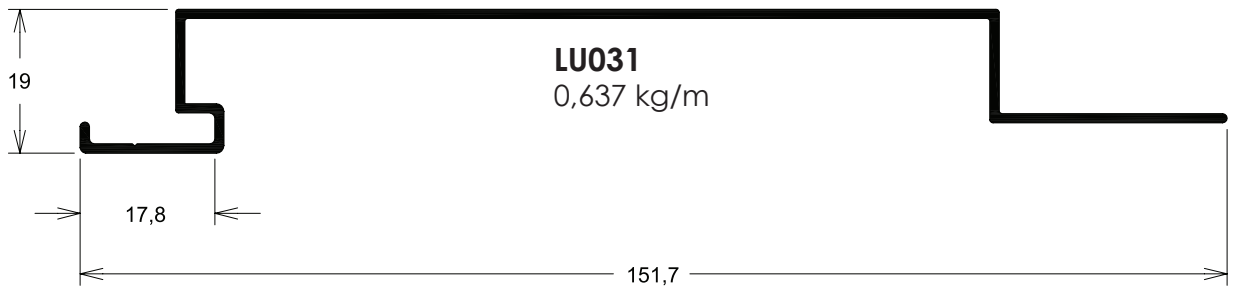
LB089
0,581 kg/m



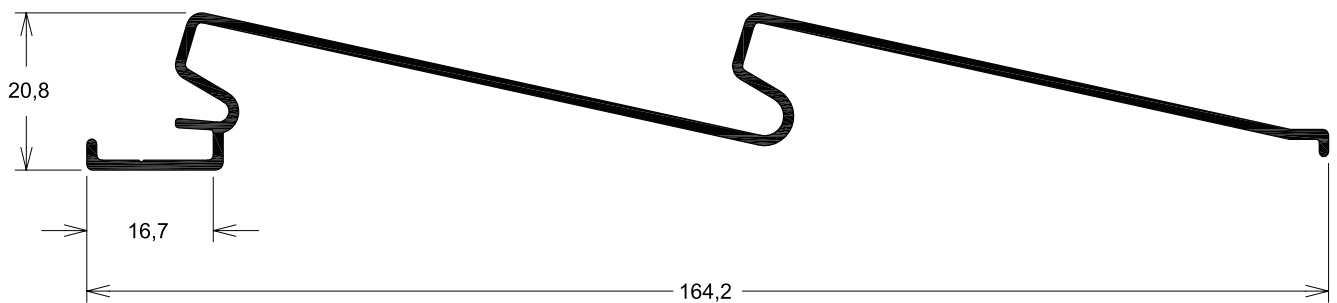
LU030
0,745 kg/m



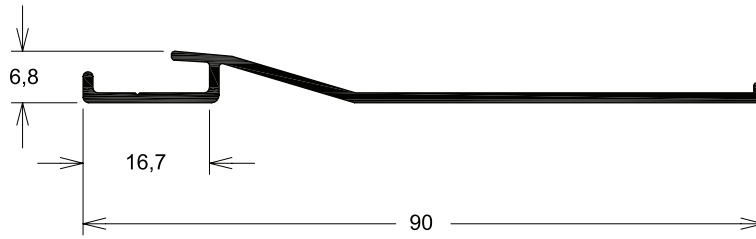
LU031
0,637 kg/m



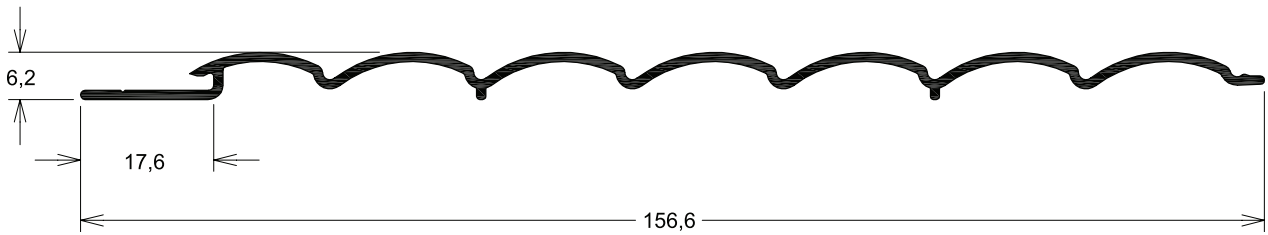
LU032
0,800 kg/m



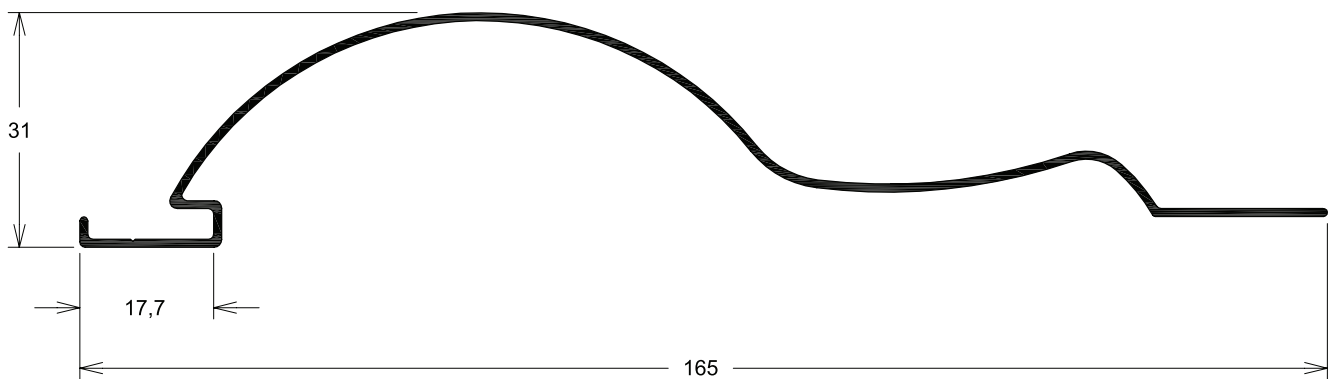
LU033
0,033 kg/m

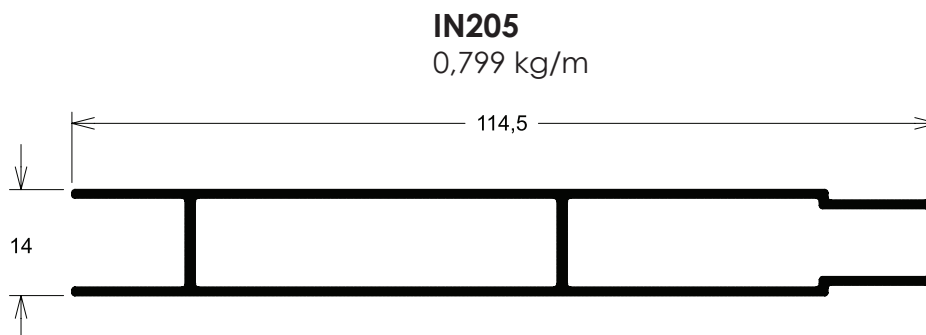
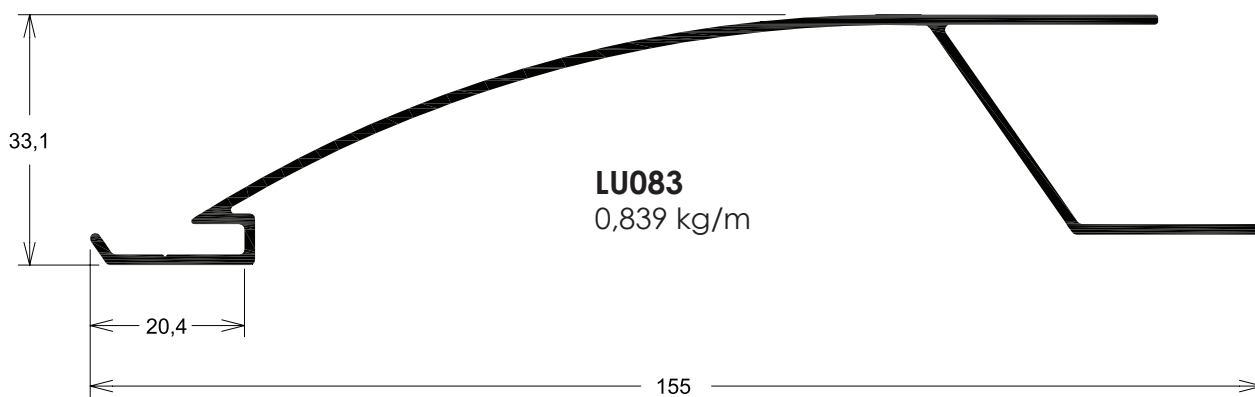
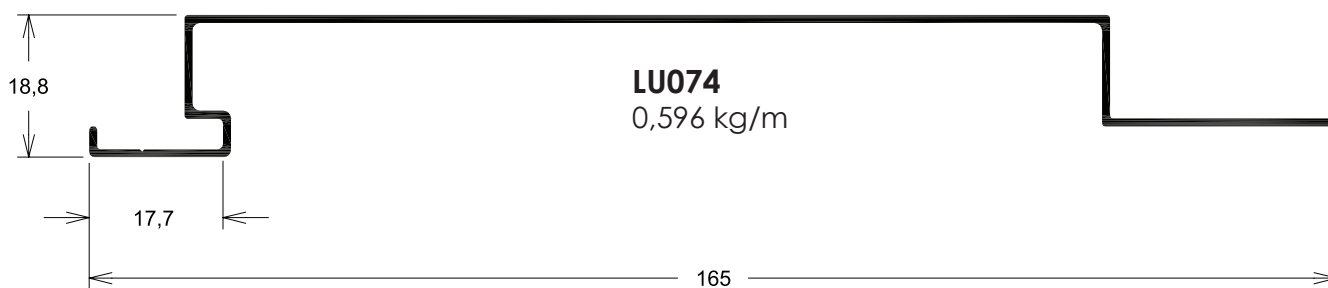
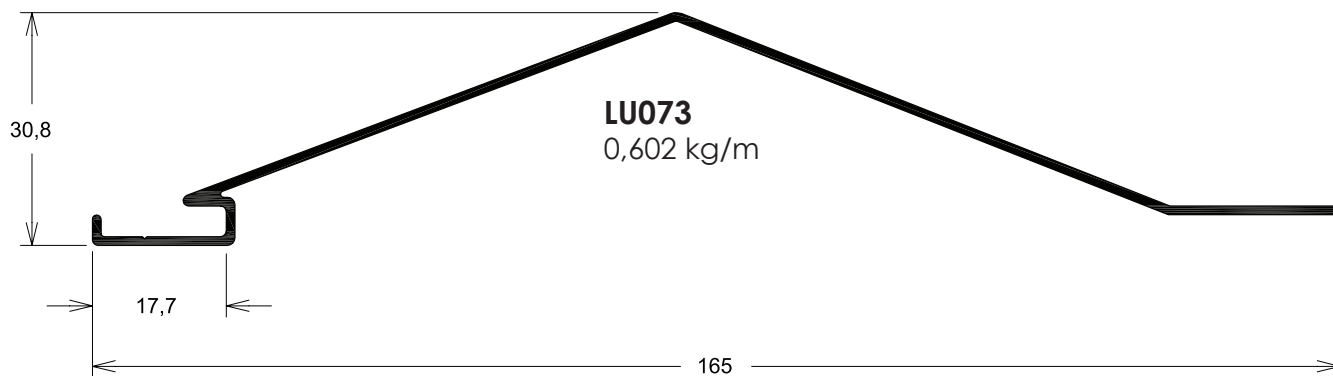


LU067
0,582 kg/m

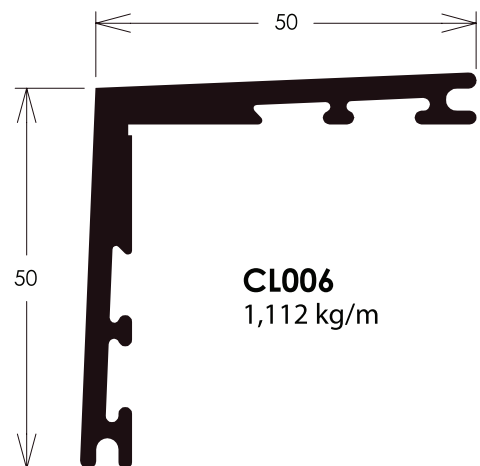
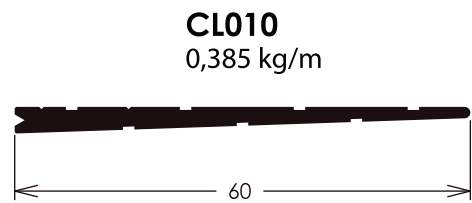
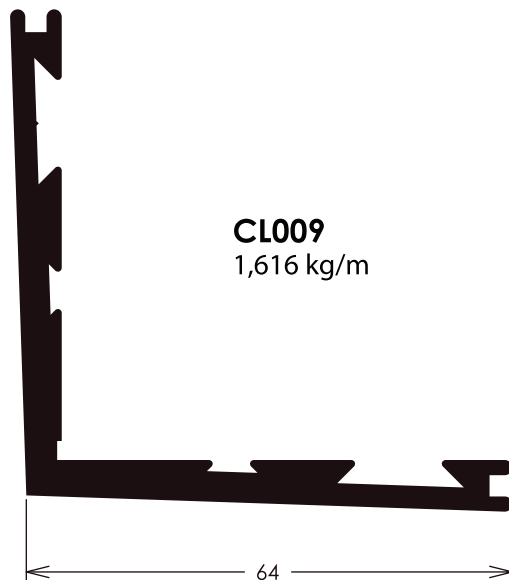
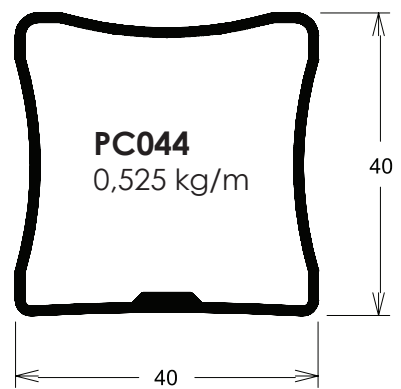
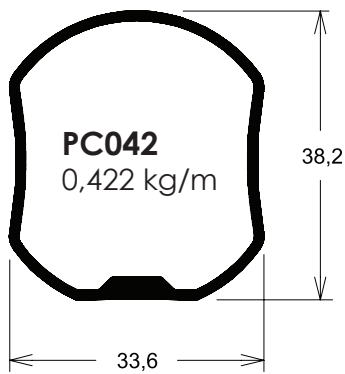
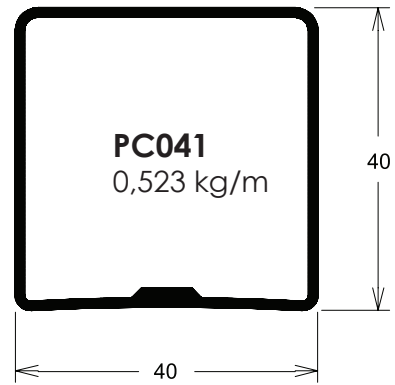
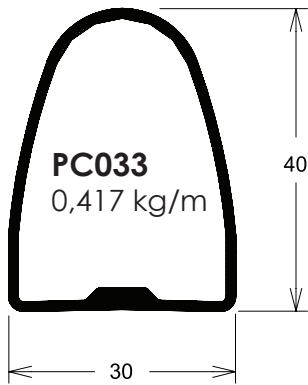


LU072
0,581 kg/m



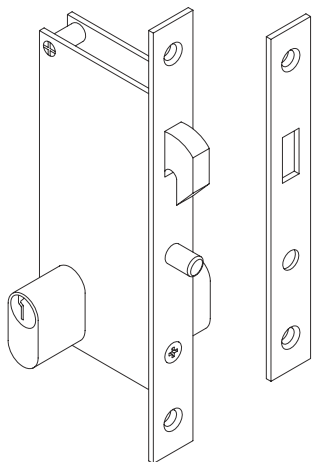


BARROTES E CONEXÕES

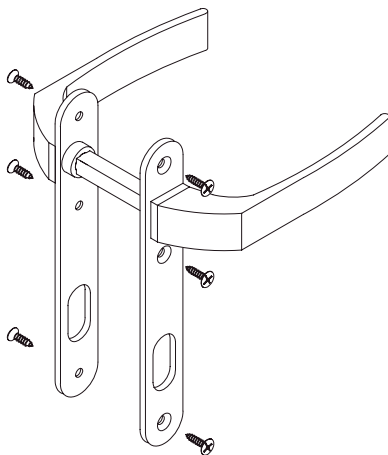




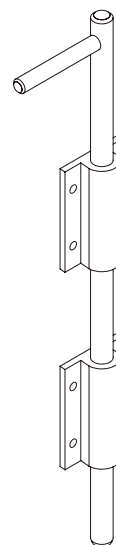
Cód.	Pág.
CHU795	36
DOB863	34
FEC980	34
FIT316	36
FRA2080	34
FRA2122	34
KITBAS001	35
KITBAS002	35
wKITBAS003	35
KITBAS004	36
MAC1001	34
NYL218	34
PAR1024	36
PAR1050	36
PAR1056	36
PAR1057	36
PAR1057	36
PAR1058	36
PAR1060	36
PAR428	34
PAR434	34
PAR436	36
PAR437	36
PAR691	34
PAR936	36
PUX006	34
REB115	34
ROL303	34
ROL318	34



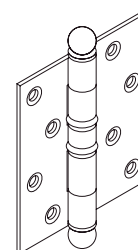
FRA2122
Fechadura - Cilindro 80 mm
Latão Fumê



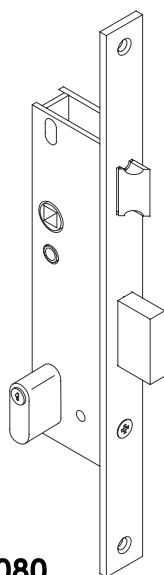
MAC1001
Maçaneta com Espelho
Alumínio Preto



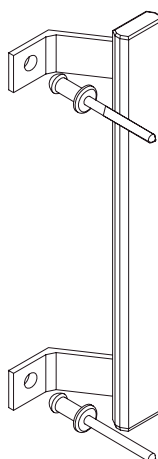
FEC980
Fecho tipo Ferrolho
Alumínio Preto



DOB863
Dobradiça
Latão Fumê



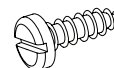
FRA2080
Fechadura - Cilindro 80 mm
Latão Fumê



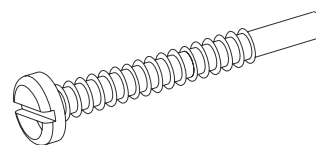
PUX006
Puxador - Porta de Carrer
Alumínio Branco ou Preto



PAR434
Parafuso AA Ø 3,9 x 9,5 mm
Aço Inox



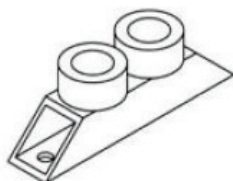
PAR691
Parafuso AA Ø 4,8 x 13 mm
Aço Inox



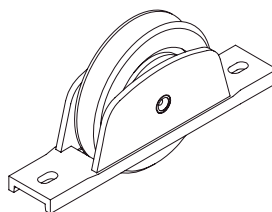
PAR428
Parafuso AA Ø 4,8 x 32 mm
Aço Inox



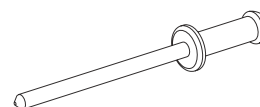
NYL218
Batente da Folha
Nylon Preto



ROL303
Rodízio com suporte
Alumínio Natural



ROL318
Rodízio com rolamento
Alumínio Natural



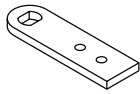
REB115
Rebite Ø4 x 10,2 mm
Alumínio Natural

KITBAS001 - Kit de acessórios para portão basculante 3 metros

KITBAS002 - Kit de acessórios para portão basculante 4 metros

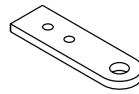
KITBAS003 - Kit de acessórios para portão basculante 5 metros

Cores: Preto, Branco e Fosco



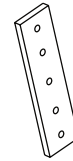
Ponteira Superior do Braço

02 peças
02 Paraf. c/ Porca (PAR690)



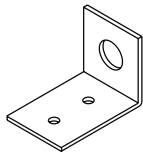
Ponteira Inferior do Braço

02 peças
02 Paraf. c/ Porca (PAR690)



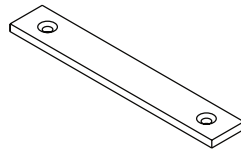
Barra de Fixação da Travessa

Portão até 3 mt = 02 peças
Portão até 4 mt = 04 peças
Portão até 5 mt = 09 peças
05 Paraf. c/ Porca (PAR690)



Mancal

Portão até 3 mt = 03 peças
Portão até 4 mt = 04 peças
Portão até 5 mt = 05 peças
02 Paraf. c/ Porca (PAR690)



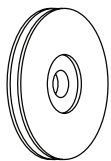
Trava da Caixa

06 peças
02 Parafusos (PAR1058)



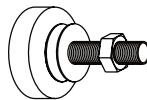
Complemento do Braço

02 peças



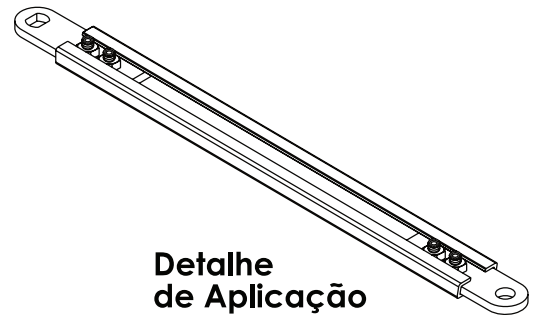
Roldana com Rolamento

02 peças



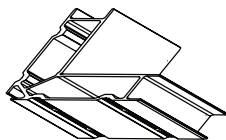
Roldana Guia Lateral com Rolamento

02 peças



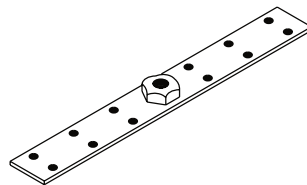
Detalhe de Aplicação

02 conjuntos



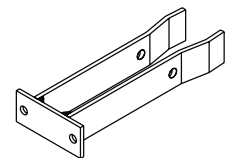
Conexão

04 peças
08 Parafusos (PAR1059)



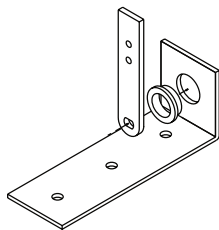
Suporte para Guia Lateral

02 peças
12 Parafusos (PAR691)



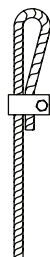
Suporte para Roldana

02 peças
02 Paraf. c/ Porca (PAR690)



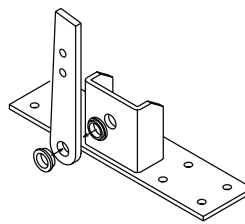
Suporte do Estabilizador

02 peças
03 Paraf. c/ Porca (PAR690)



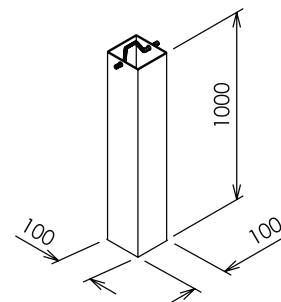
Cabo de Aço

02 conjuntos



Suporte do Braço Estabilizador

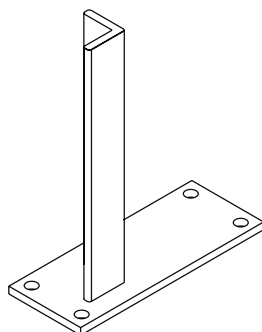
02 peças
08 Paraf. c/ Porca (PAR936)



Contrapeso

Caixa c/ Capacidade de até 70 Kg p/ Medida Máxima do Portão com 2500x5000 mm
02 peças

KITBAS004 - Kit Motorização Cores: Preto, Branco e Fosco



Suporte do Motor

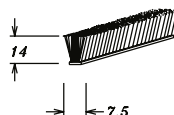
02 peças

04 Paraf. c/ Porca (PAR690)



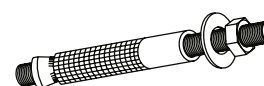
PAR1060

Paraf. Cab. Abaulada
c/ Sext. Interno
M6x15 Inox 304



FIT316

Fita Vedadora
Base 7,5x14 mm
Preta



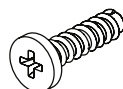
CHU795

Chumbador c/ Porca
Arruela e Prisioneiro
9,5x80 mm



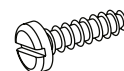
PAR437

Paraf. AA CP 3,5x9,5 mm
Aço Inox Natural



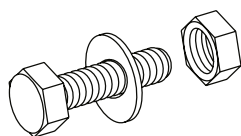
PAR1024

Paraf. AA CP Philips
4,2x13 mm
Aço Inox Natural



PAR936

Paraf. AA CP 4,2x16 mm
Aço Inox Natural



PAR1057

Paraf. Sext. 1/4" x 1,1/2"
Porca e Arruela
Aço Inox Natural



PAR1058

Paraf. AA CX Philips
4,2x13 mm
Aço Inox Natural



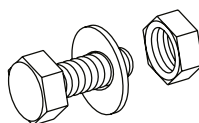
PAR1056

Paraf. AA CX Philips
4,8x19 mm
Aço Inox Natural



PAR436

Paraf. AA 3,9x28 mm
Aço Inox



PAR1057

Paraf. Sext. 1/4" x 5/8"
Porca e Arruela
Aço Inox Natural

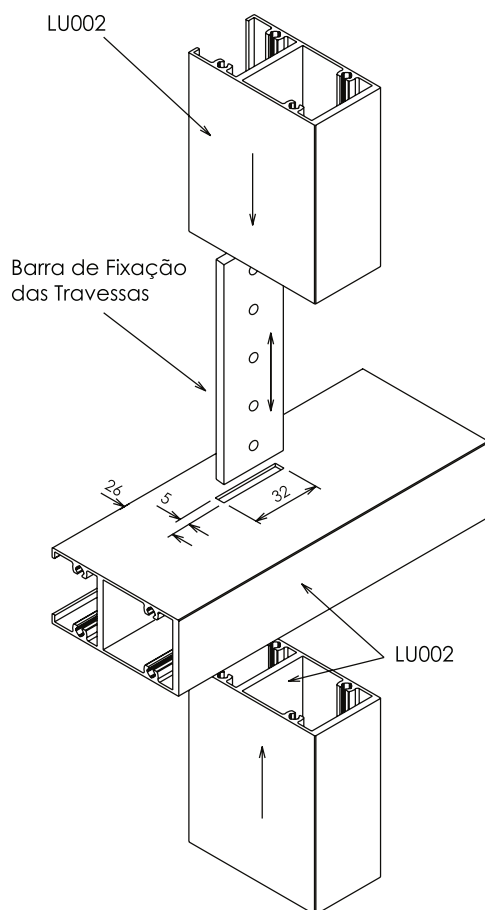


PAR1050

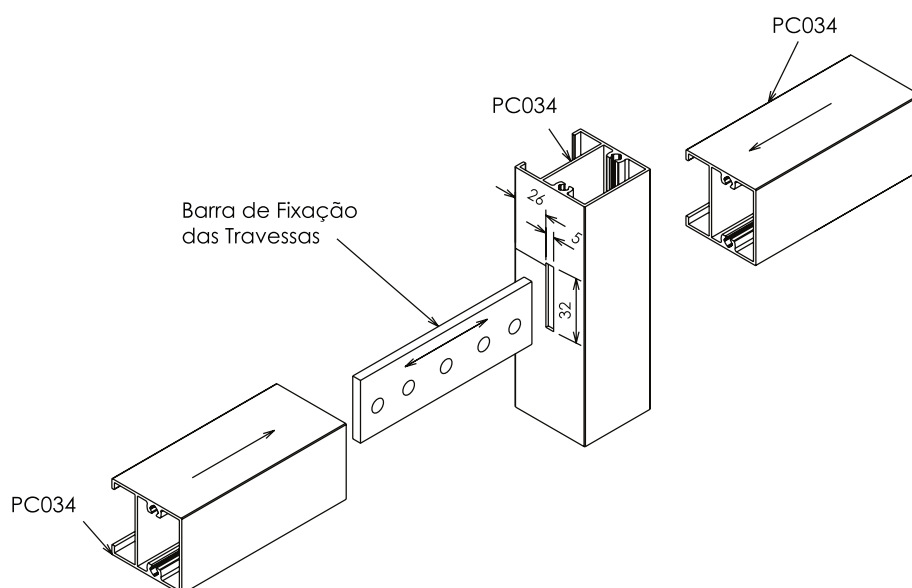
Paraf. AA 3,5x16 mm
Aço Inox Natural

Cód.	Pág.
INSTRUÇÕES DE USINAGEM E MONTAGEM PARA PORTÕES DE 5 METROS	38
INSTRUÇÕES DE USINAGEM E MONTAGEM PARA PORTÕES DE 3 METROS	38
BARRA ESTABILIZADORA	39
ENCAIXE SUPERIOR NA GUIA PARA APOIO DA ROLDANA	40
ENCAIXE PARA APOIO DA ROLDANA	41
USINAGEM DA TRAVESSA	42
DETALHE CONSTRUTIVO PORTÃO BASCULANTE	43
ESQUEMA PORTÃO MOTORIZADO	44
ESQUEMA PORTÃO MANUAL	45
DEFINIÇÃO DA MEDIDA DO BRAÇO	46
DETERMINAR O PONTO DE GIRO	47

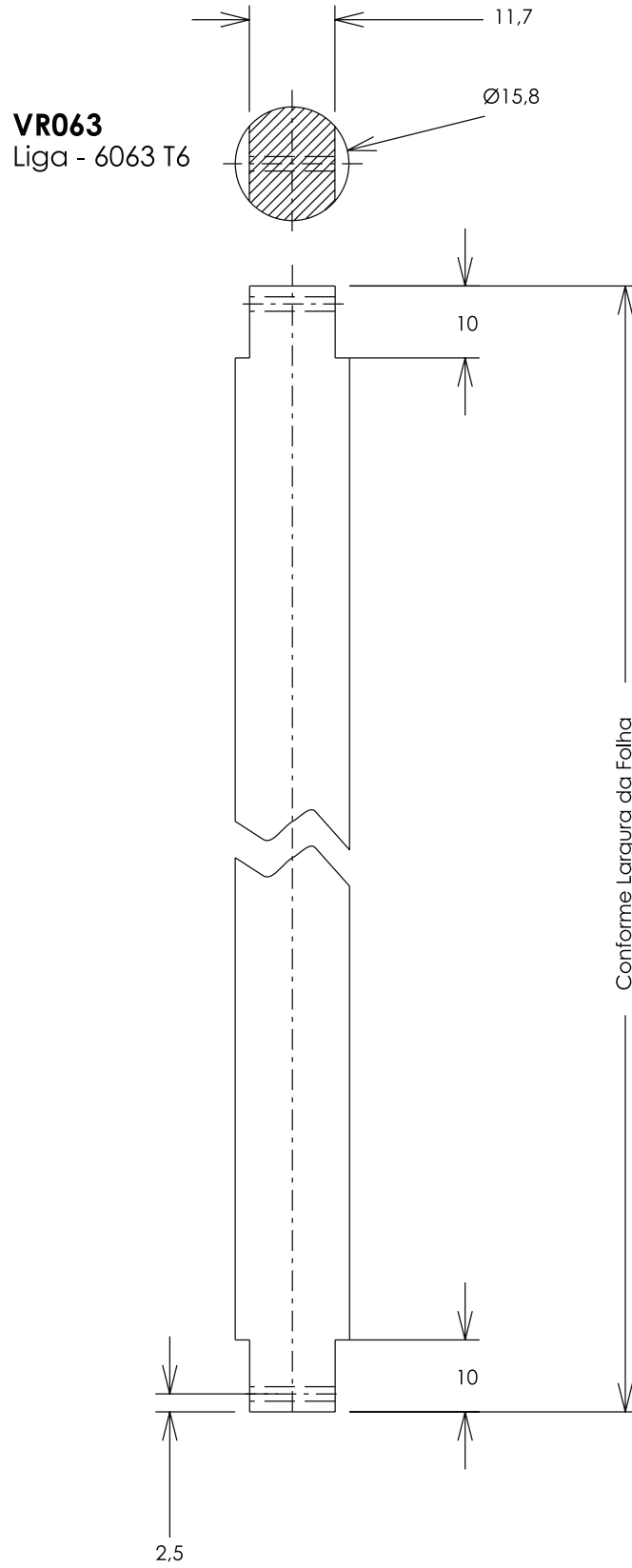
Instruções de Usinagem e Montagem para Portões de 5 metros



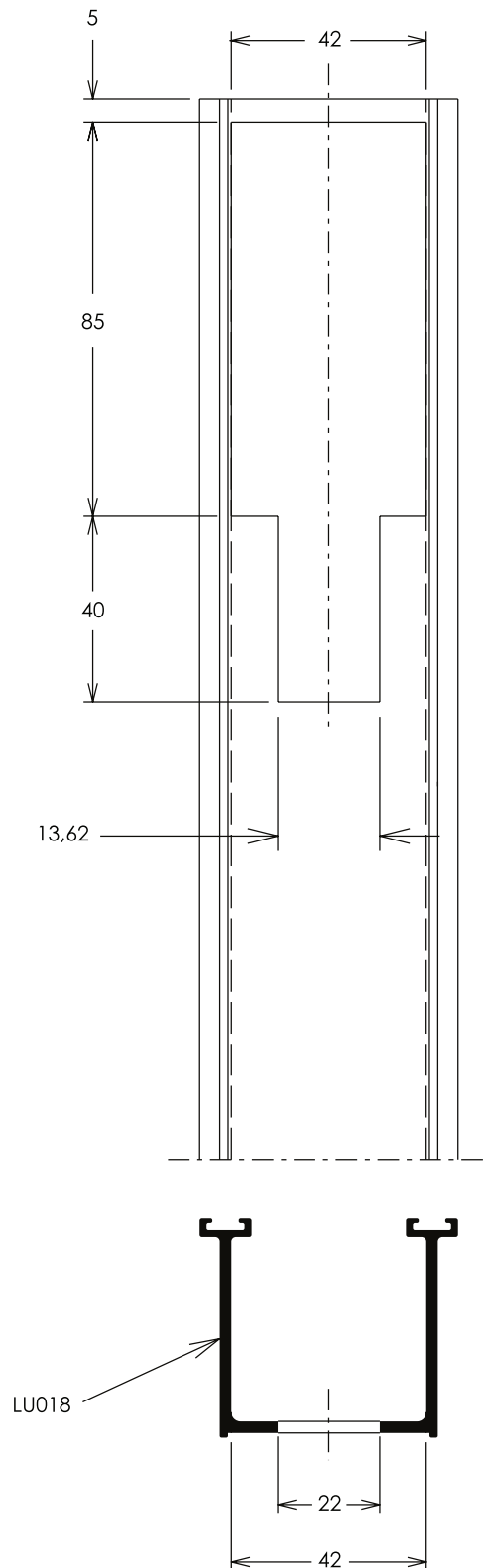
Instruções de Usinagem e Montagem para Portões de 3 metros



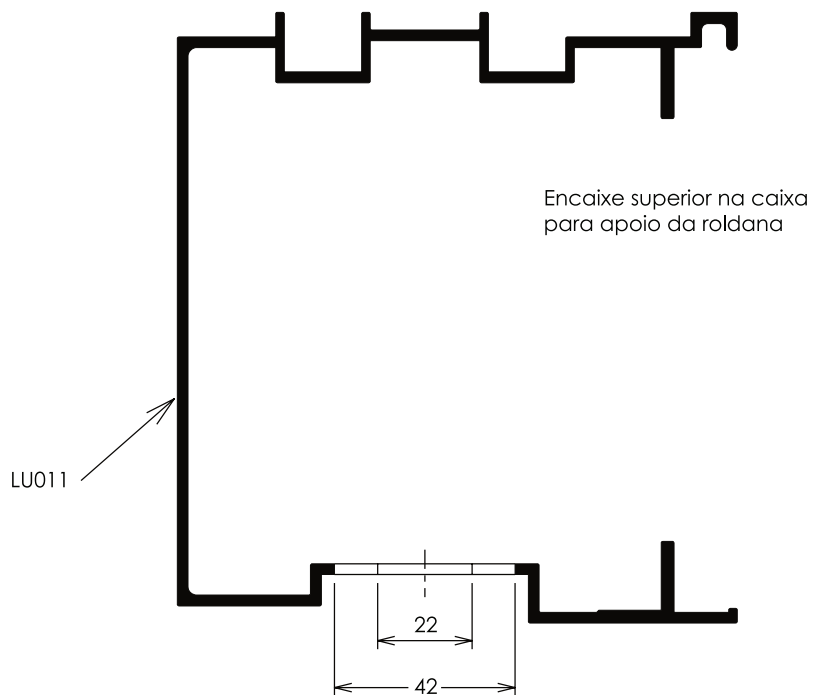
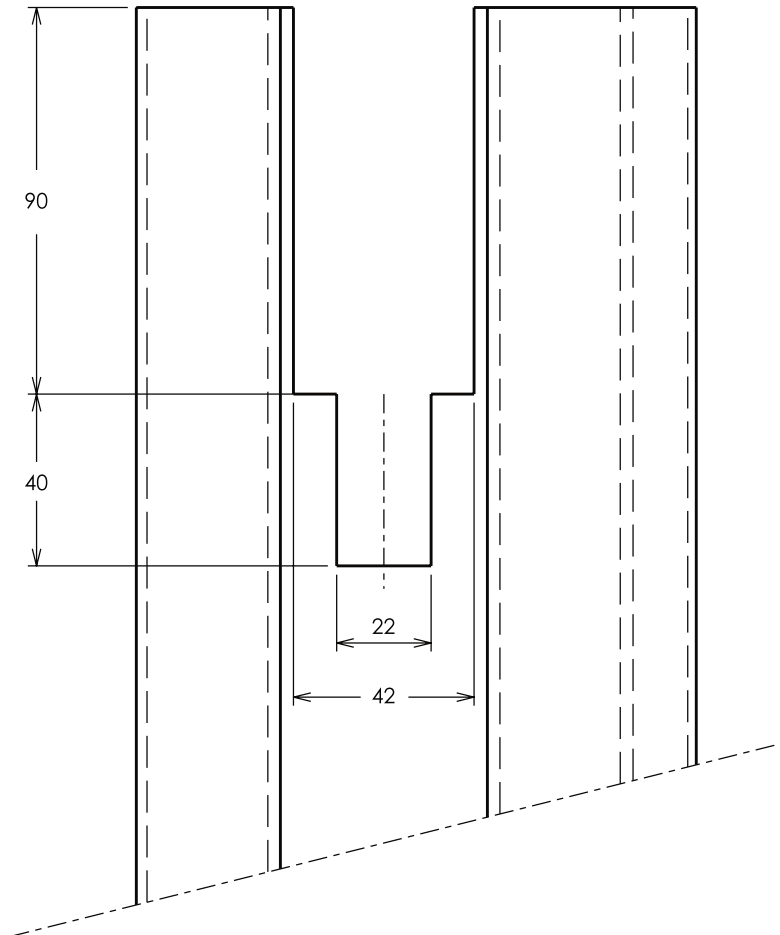
Barra Estabilizadora



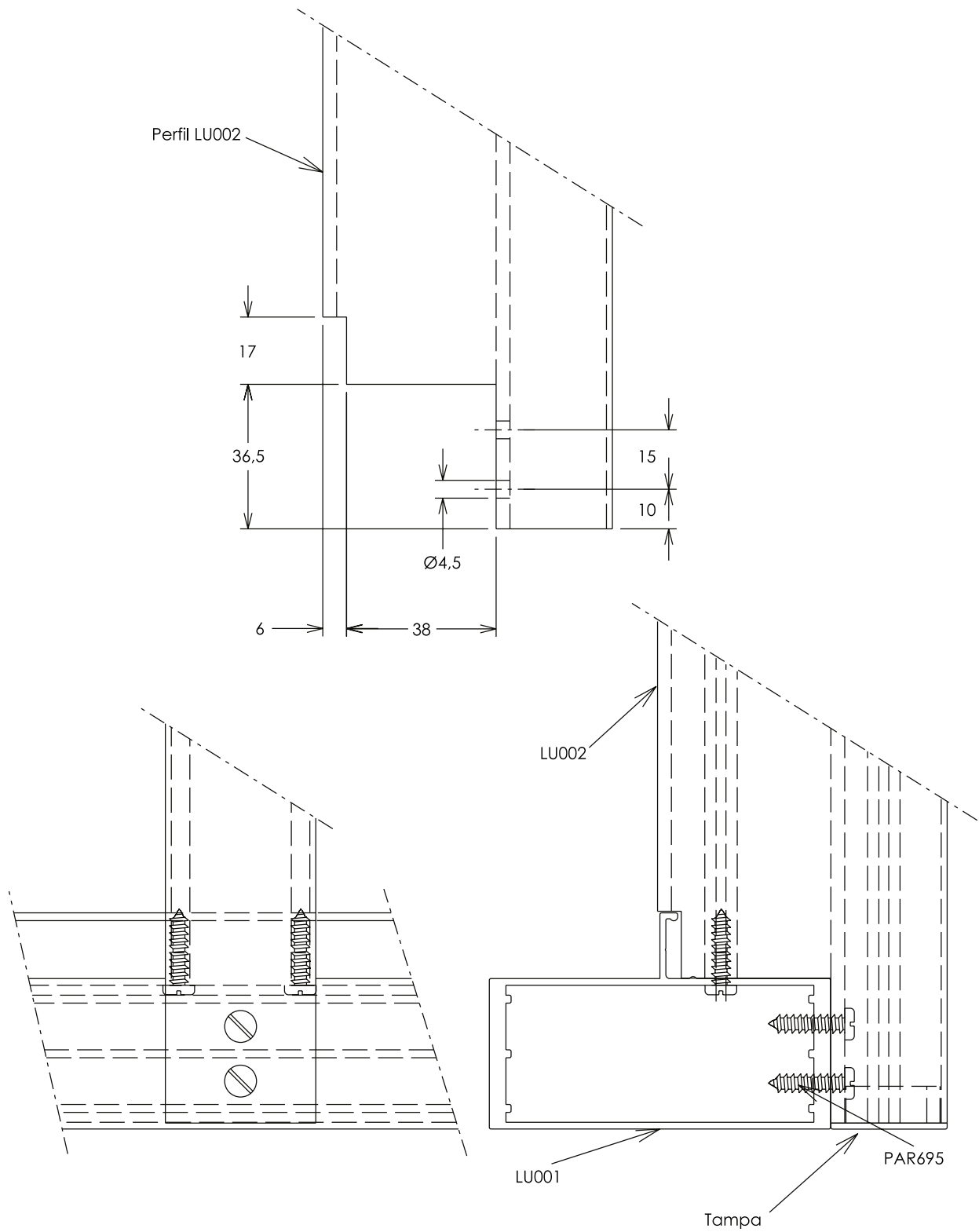
Encaixe Superior na Guia para Apoio da Roldana



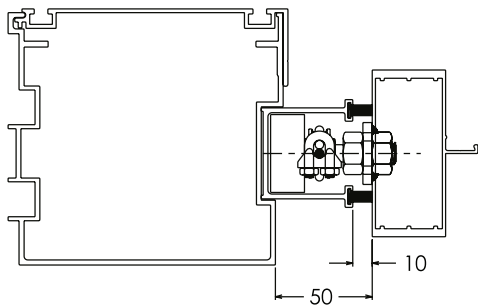
Encaixe para Apoio da Roldana



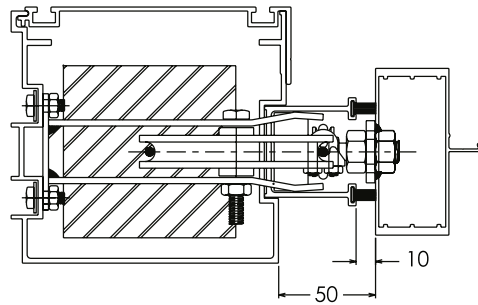
Usinagem da Travessa



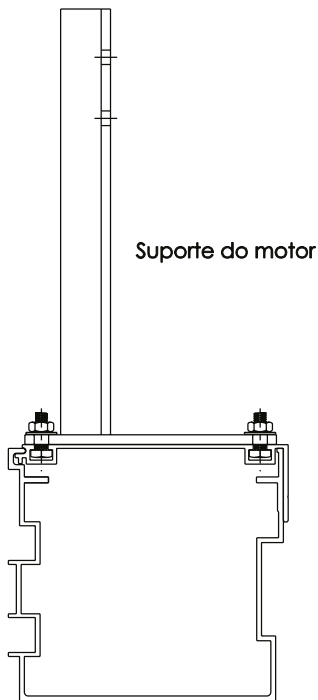
Detalhe Construtivo Portão Basculante



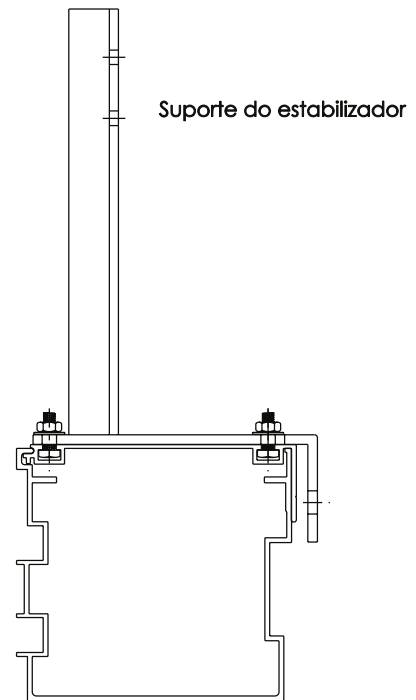
Guia lateral



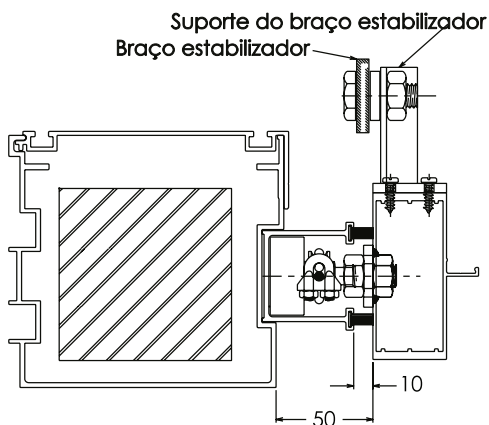
Conjunto da roldana



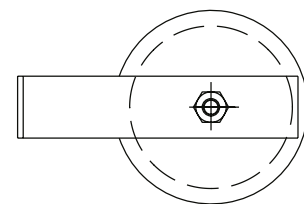
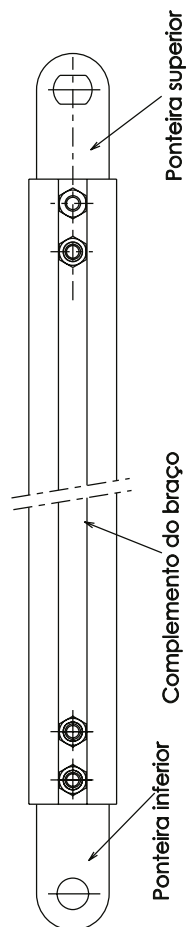
Suporte do motor



Suporte do estabilizador

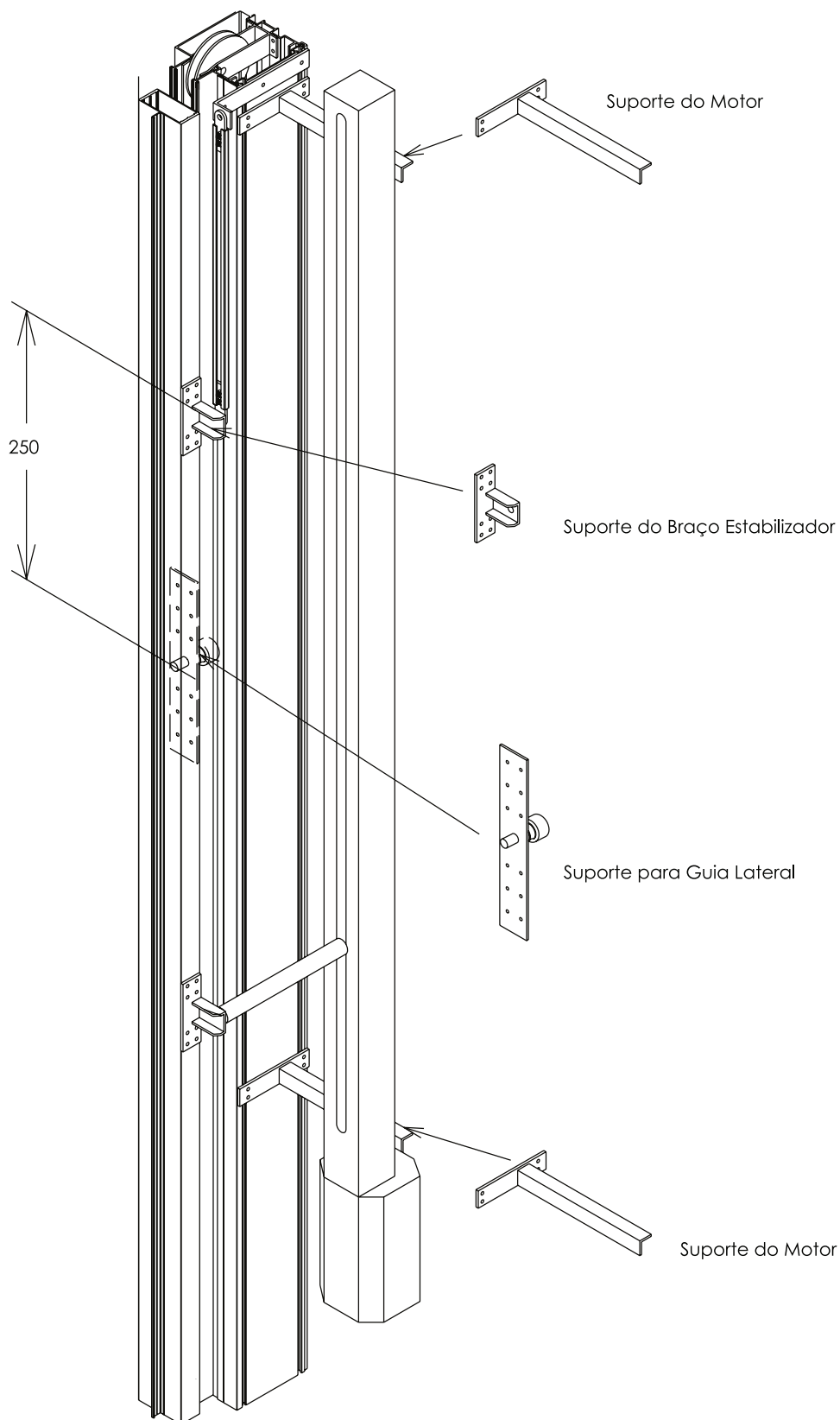


Conjunto do braço estabilizador

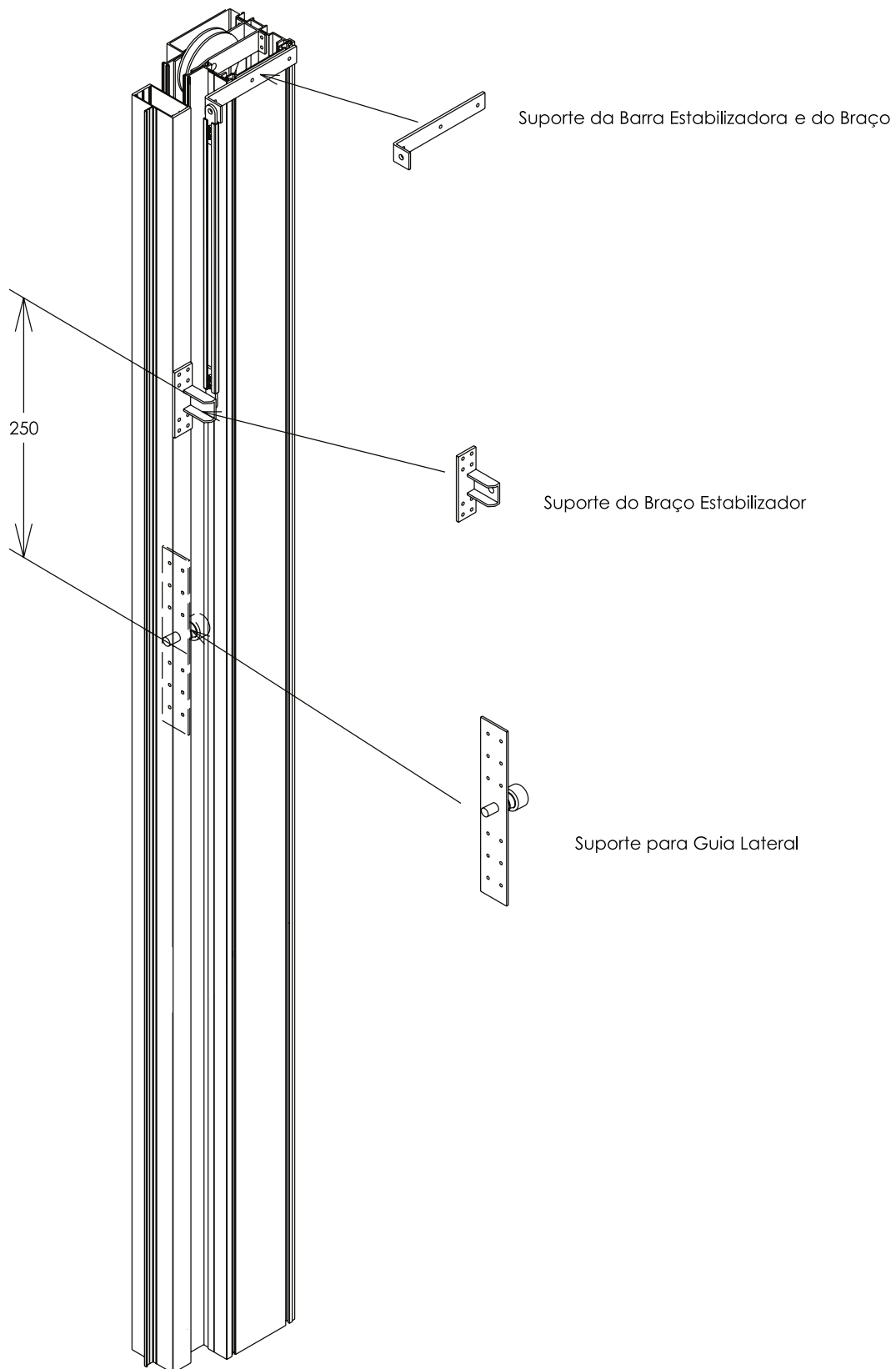


Suporte com roldana

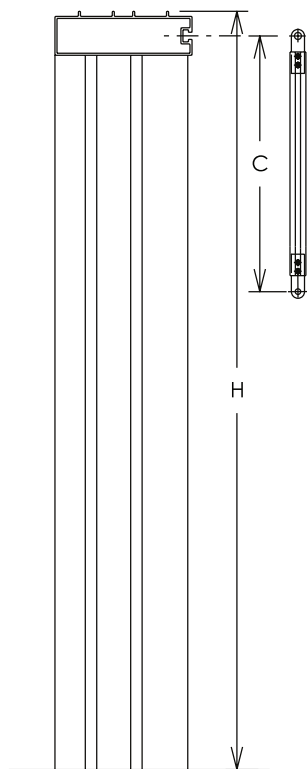
Esquema Portão Motorizado



Esquema Portão Manual



Definição da Medida do Braço



Fórmula

$$C = (H - 20) \times 0,27$$

Atenção:

A Medida "C" é Entre Eixo dos Furos

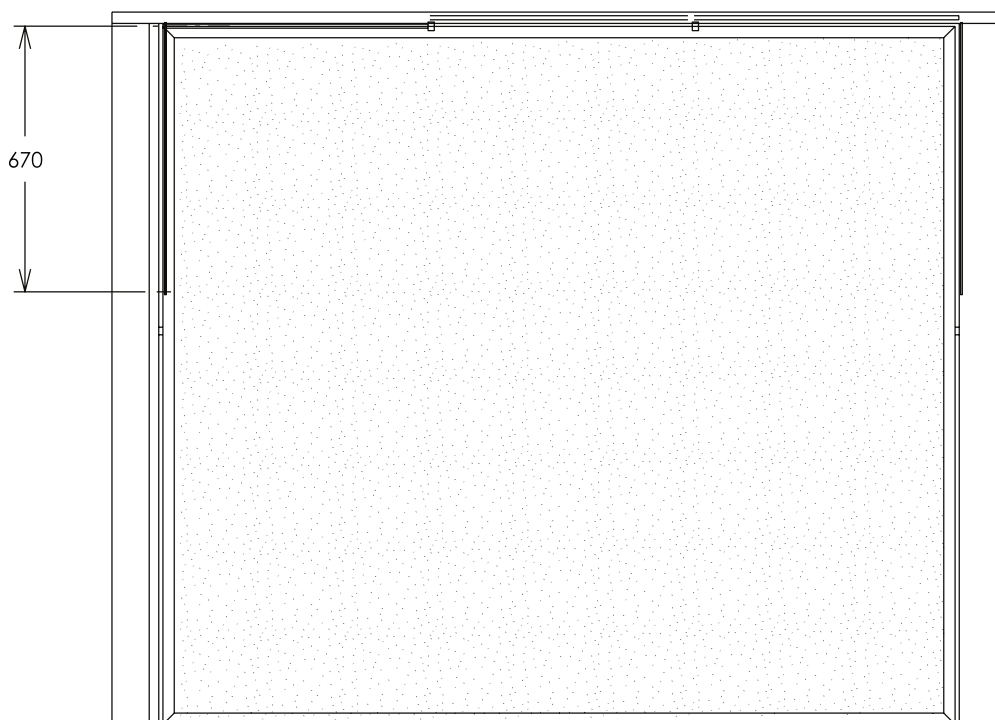
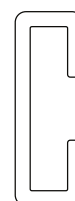
Exemplo

$$C = 2500 - 20 = 2480$$

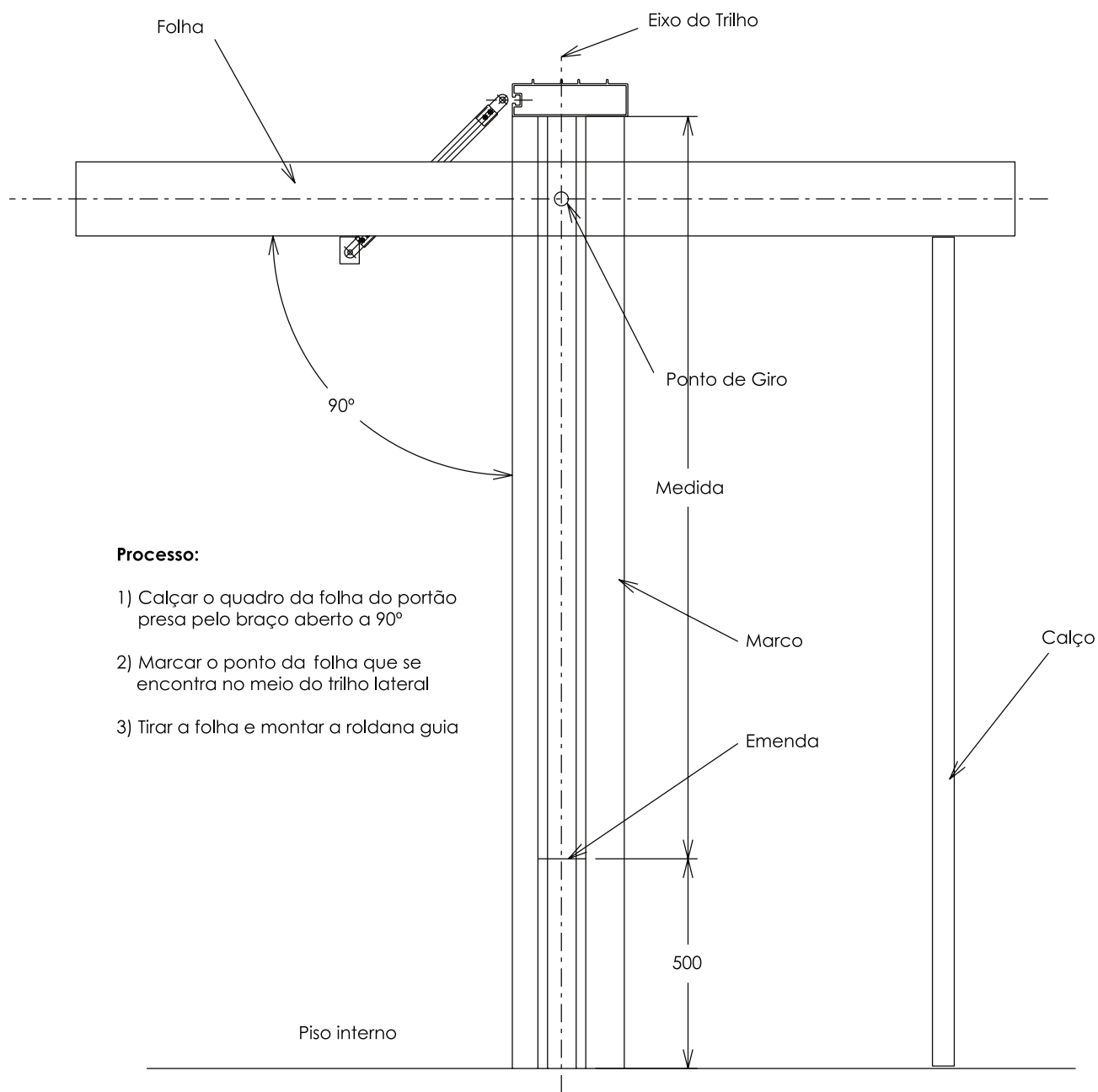
$$C = 2480 \times 0,27 = 670 \text{ (Arredondada)}$$

Medida de Corte do Complemento do Braço

$$670 - 74 = 596$$



Determinar o Ponto de Giro



Processo:

- 1) Calçar o quadro da folha do portão presa pelo braço aberto a 90°
- 2) Marcar o ponto da folha que se encontra no meio do trilho lateral
- 3) Tirar a folha e montar a roldana guia

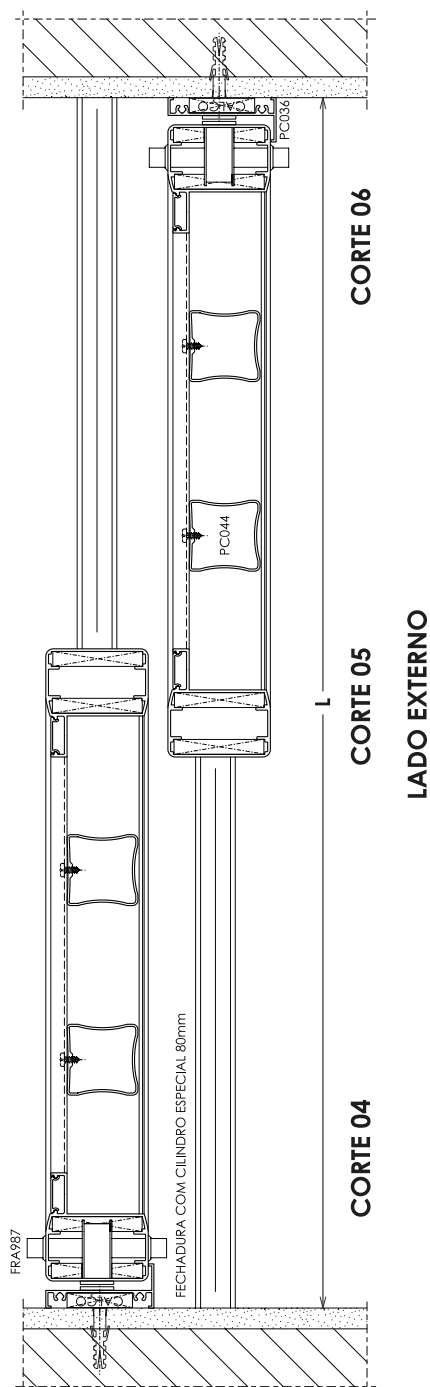
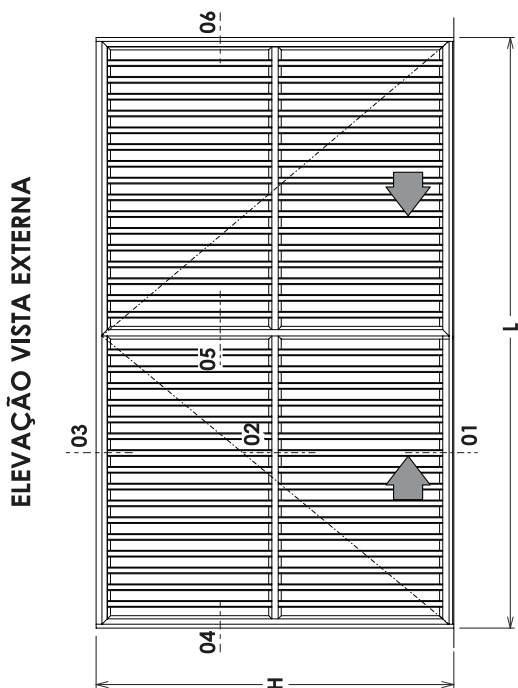
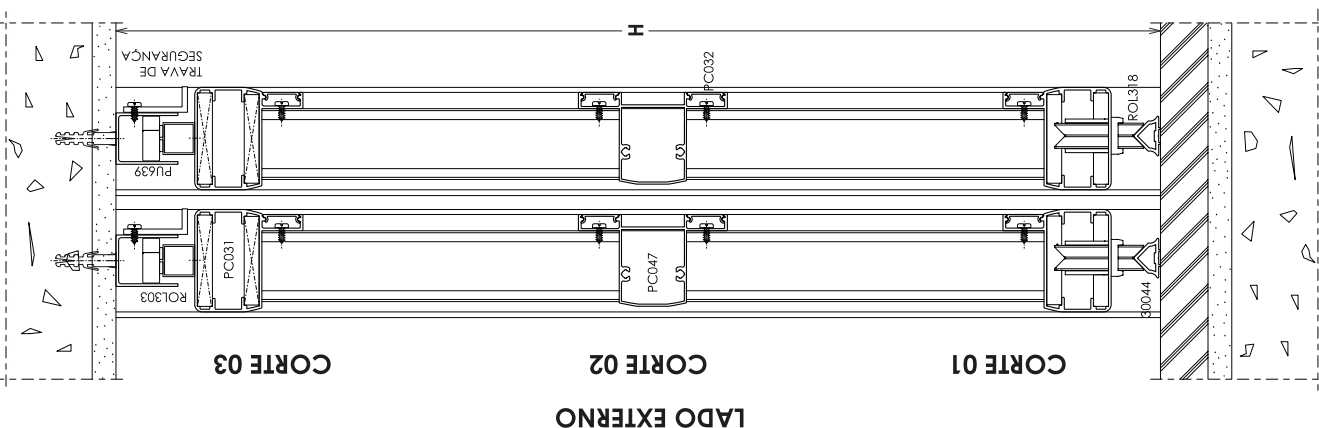
Atenção:

Para a colocação da folha já com as roldanas guia, o trilho (LU018) deverá ser cortado de acordo com as medidas acima.

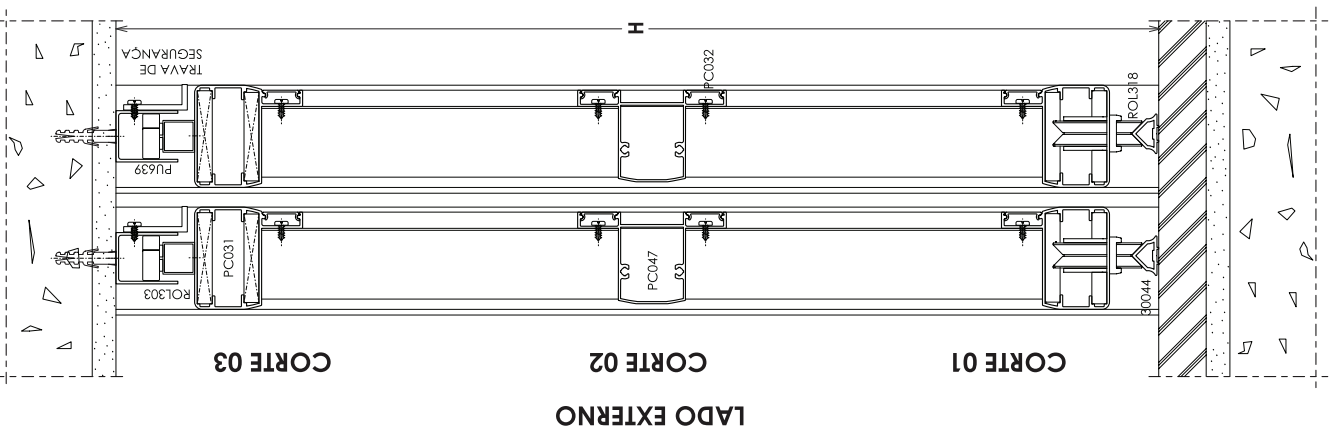
O trilho com 500 mm deverá ser fixado após a colocação da folha com as roldanas no trilho de espera no marco



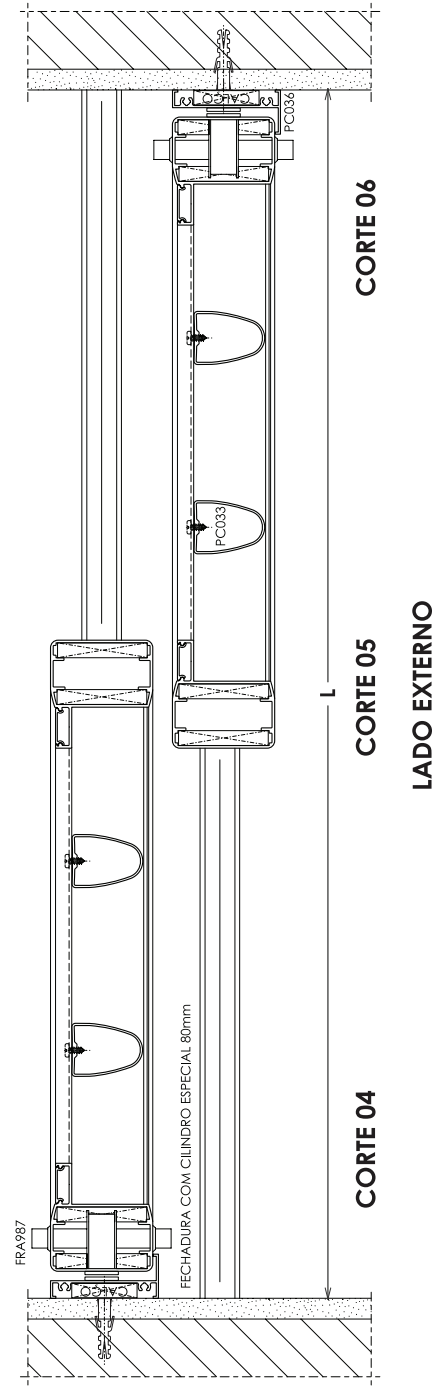
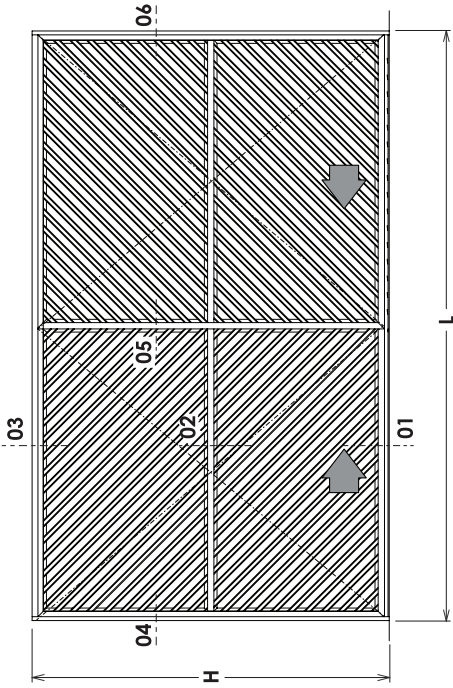
Cód.	Pág.
PORTÃO UNIVERSAL COM BARROTES VERTICAIS 2 FOLHAS DE CORRER	50
PORTÃO UNIVERSAL COM BARROTES INCLINADOS 2 FOLHAS DE CORRER	51
PORTÃO UNIVERSAL COM LAMBRIS VERTICAIS 2 FOLHAS DE CORRER	52
PORTÃO UNIVERSAL COM LAMBRIS VERTICAIS 1 FOLHA DE GIRO	53
PORTÃO UNIVERSAL COM BARROTES VERTICAIS 1 FOLHA DE GIRO	54
PORTÃO UNIVERSAL COM LAMBRIS VERTICAIS 2 FOLHAS DE GIRO	55
PORTÃO FIT DE CORRER 2 FOLHAS COM BARROTES E MARCO BAIXO	56
PORTÃO FIT DE CORRER 2 FOLHAS COM BARROTES/LAMBRIS E MARCO ALTO	57
PORTÃO FIT DE CORRER 2 FOLHAS COM BARROTES/LAMBRIS E MARCO BAIXO	58
PORTÃO FIT DE CORRER 2 FOLHAS COM BARROTES/LAMBRIS E MARCO ALTO	59
PORTÃO FIT DE CORRER 2 FOLHAS COM BARROTES/LAMBRIS, PORTÃO SOCIAL E MARCO ALTO	60
GRADE COM BARROTES VERTICAIS	61
GRADE COM BARROTES INCLINADOS	62
GRADE COM BARROTES VERTICAIS ENTRE TRAVESSAS	63
PORTÃO BASCULANTE DE 3 METROS	64
PORTÃO BASCULANTE DE 3 METROS – PORTA SOCIAL	65
PORTÃO BASCULANTE DE 3 METROS – BANDEIRA	66
PORTÃO BASCULANTE DE 5 METROS	67
PORTÃO BASCULANTE DE 5 METROS – PORTA SOCIAL	68
PORTÃO BASCULANTE DE 3 METROS – LAMBRIS NA HORIZONTAL	69
PORTÃO BASCULANTE DE 5 METROS – LAMBRIS NA HORIZONTAL	70
PORTÃO BASCULANTE DE 3 METROS – VENEZIANAS NA HORIZONTAL	71
PORTÃO BASCULANTE DE 5 METROS – VENEZIANAS NA HORIZONTAL	72
PORTA INDEPENDENTE	73



Portão Universal com barrotes verticais 2 folhas de correr



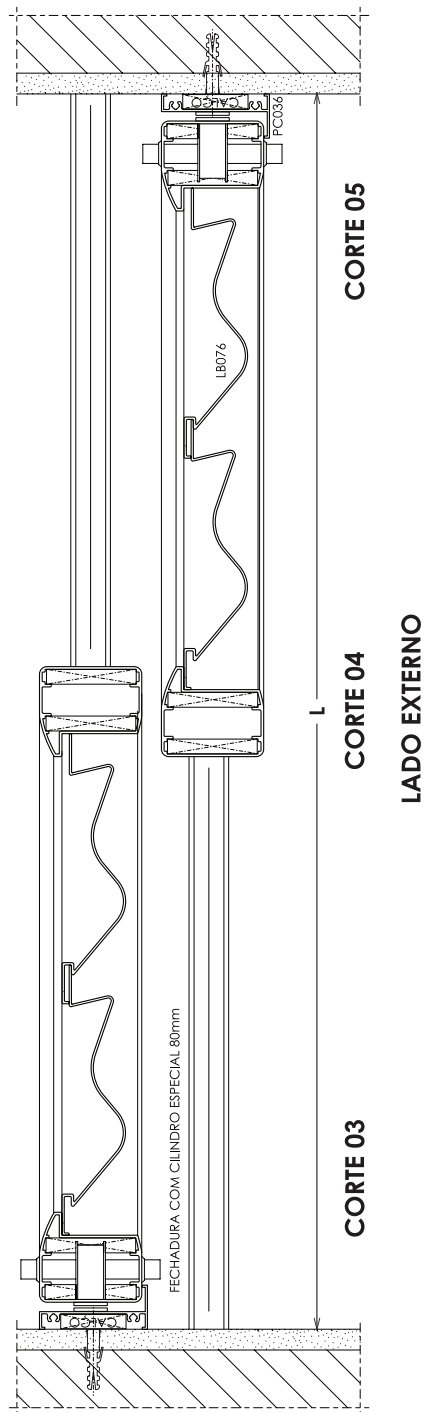
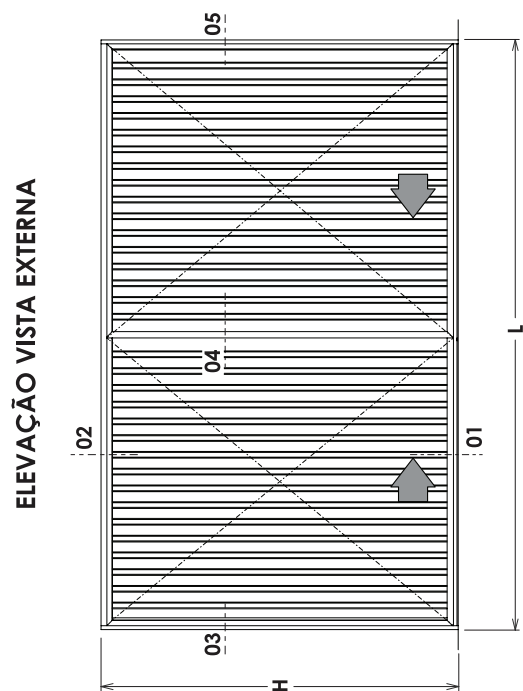
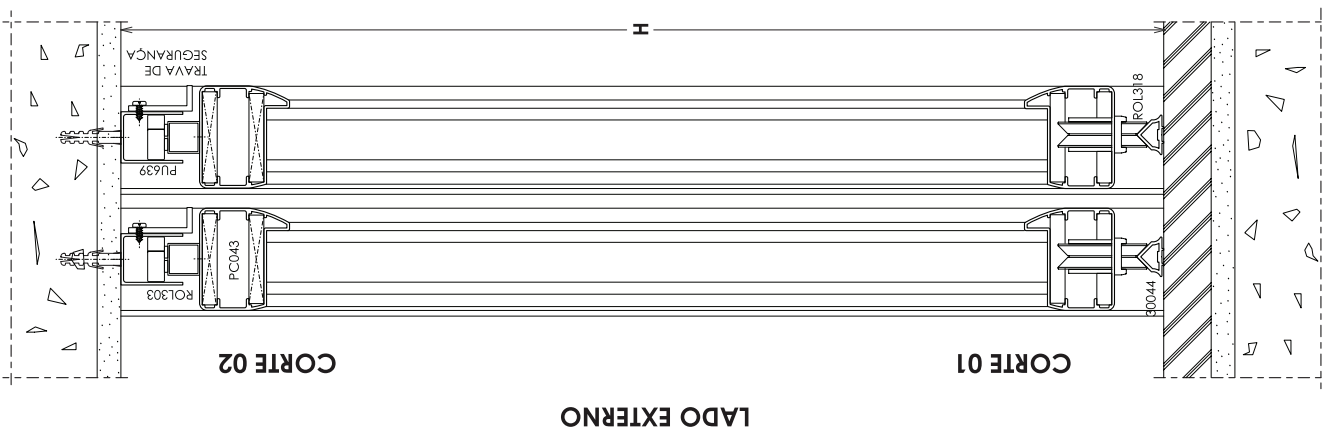
ELEVAÇÃO VISTA EXTERNA



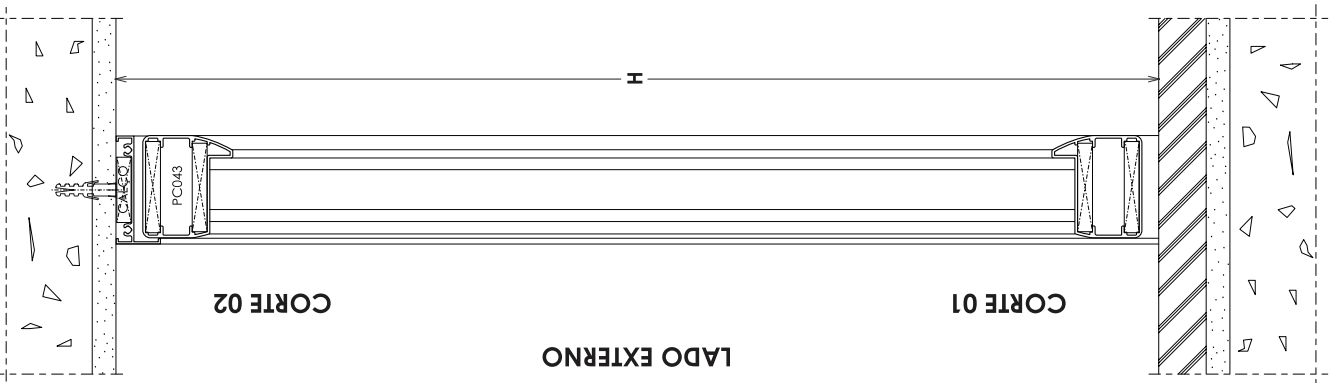
Portão Universal com barrotes inclinados 2 folhas de correr

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

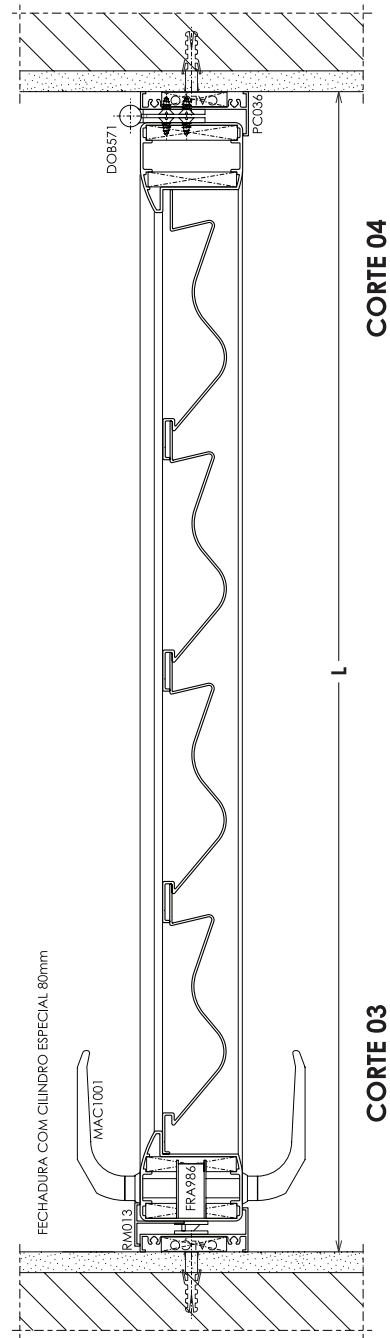
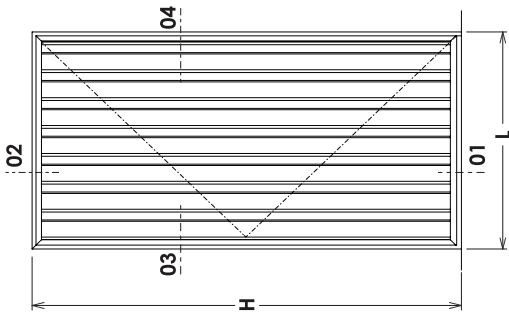
Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.



Portão Universal com lambris verticais 2 folhas de correr



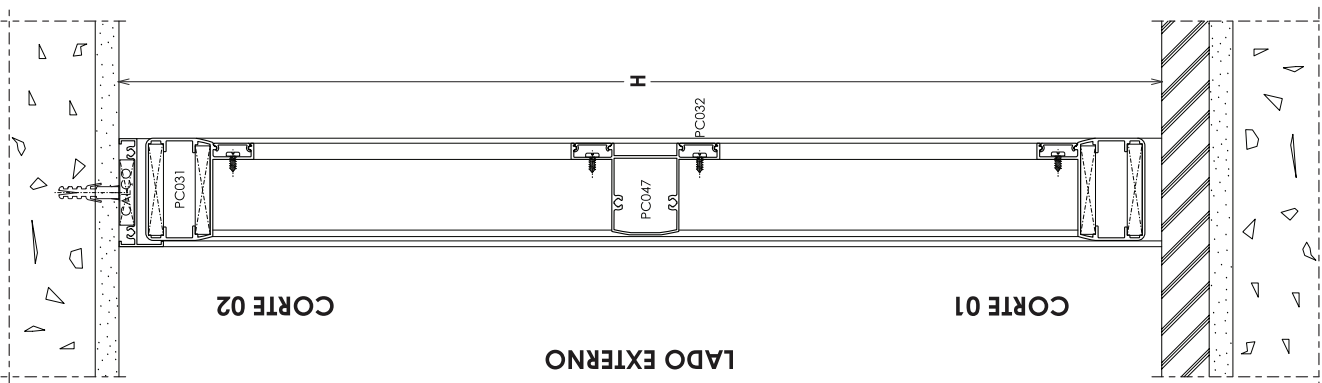
ELEVAÇÃO VISTA EXTERNA



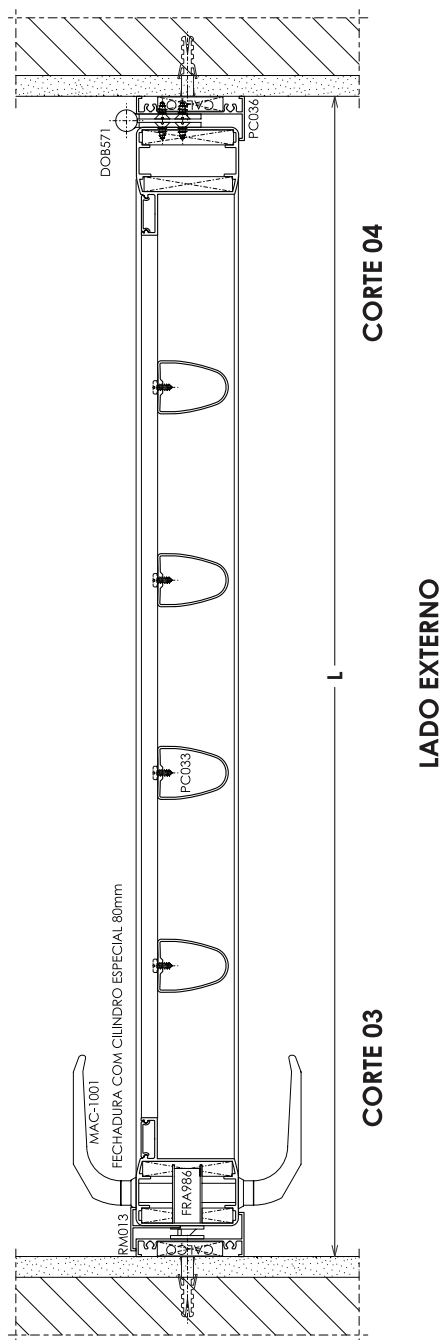
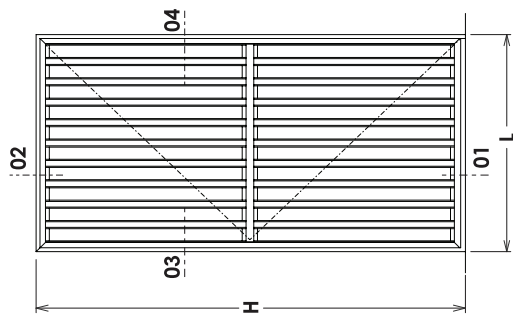
Portão Universal com lambris verticais 1 folha de giro

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

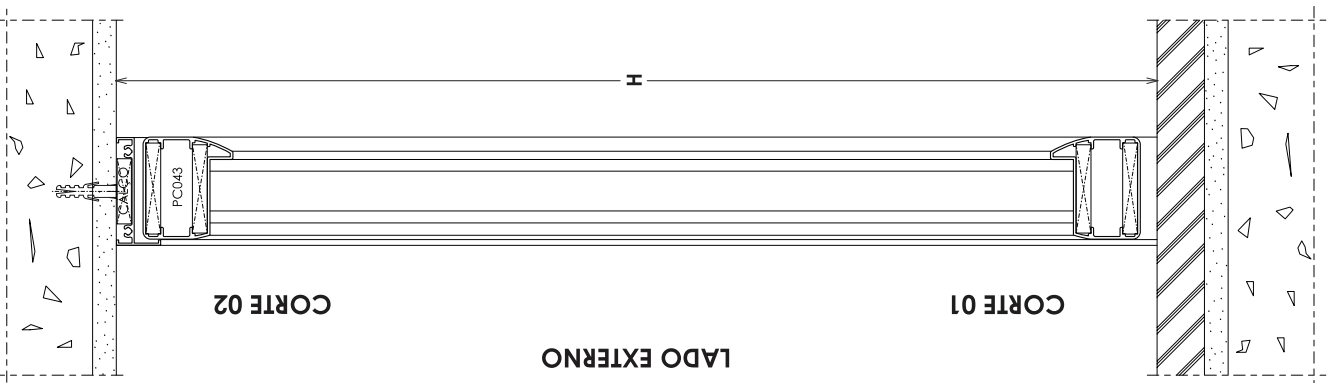
Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.



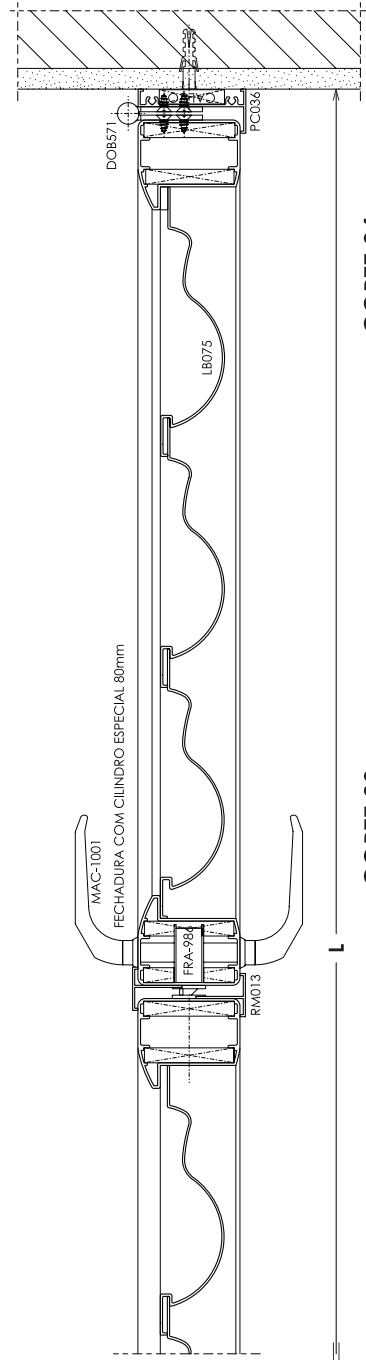
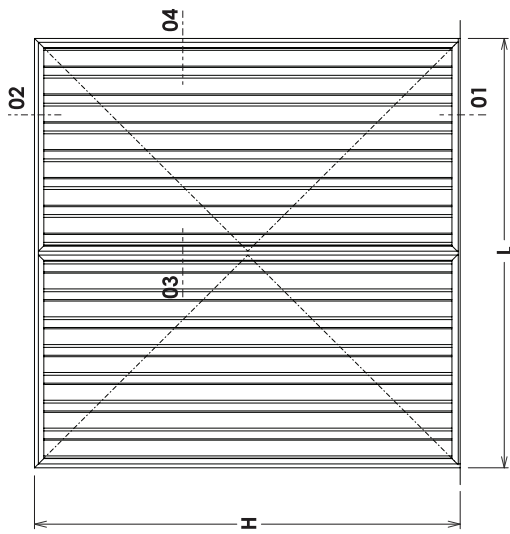
ELEVAÇÃO VISTA EXTERNA



Portão Universal com barrotes verticais 1 folha de giro



ELEVAÇÃO VISTA EXTERNA



CORTE 04

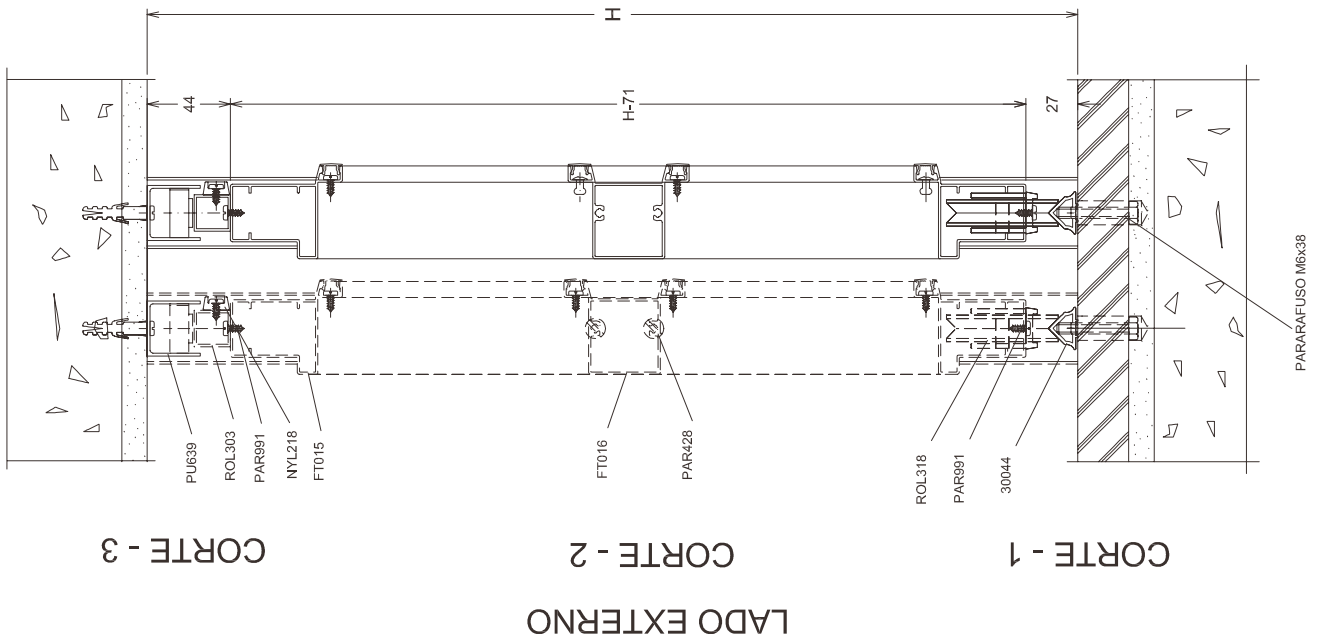
LADO EXTERNO

CORTE 03

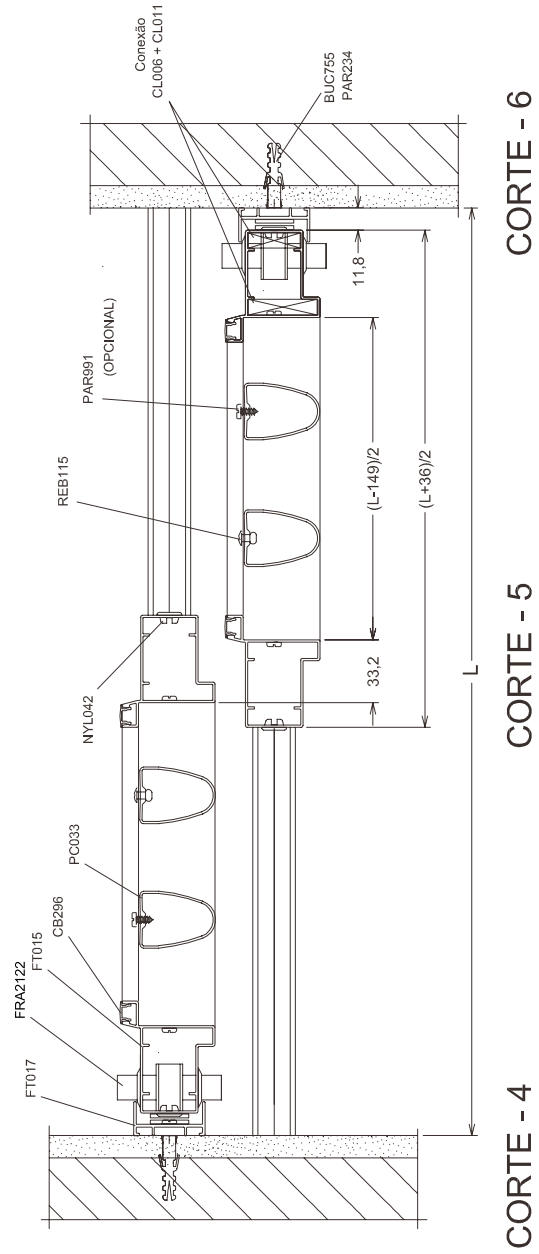
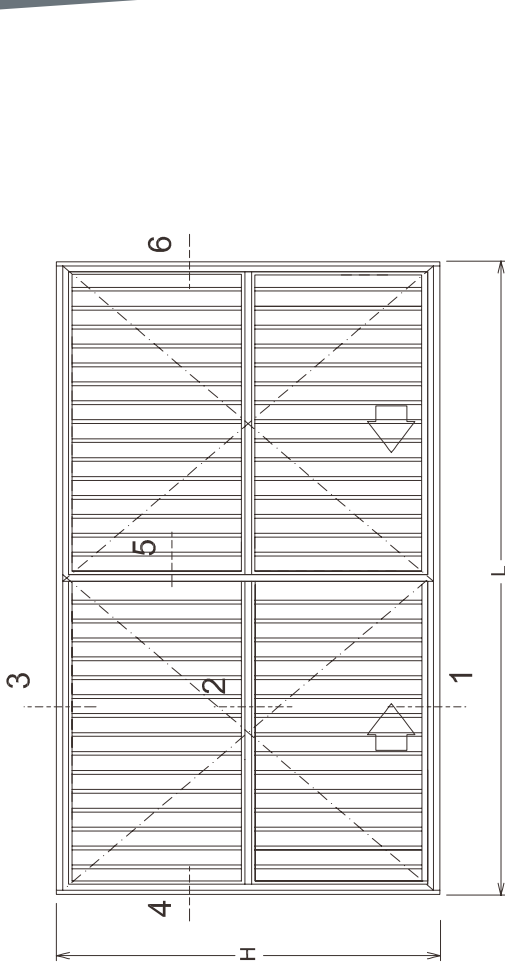
Portão Universal com lambris verticais 2 folhas de giro

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

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

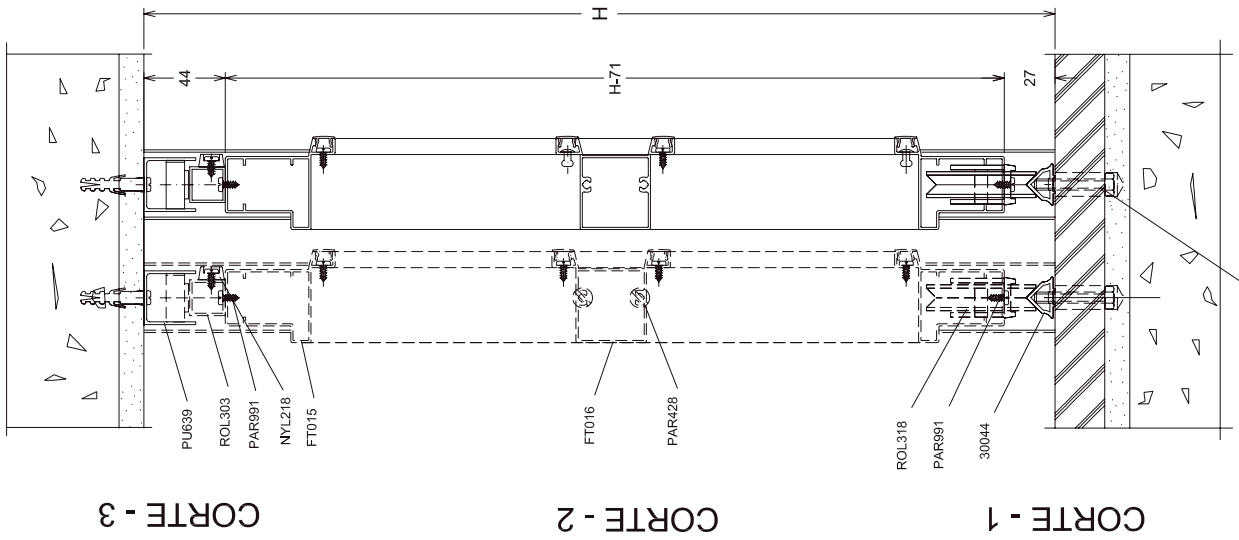
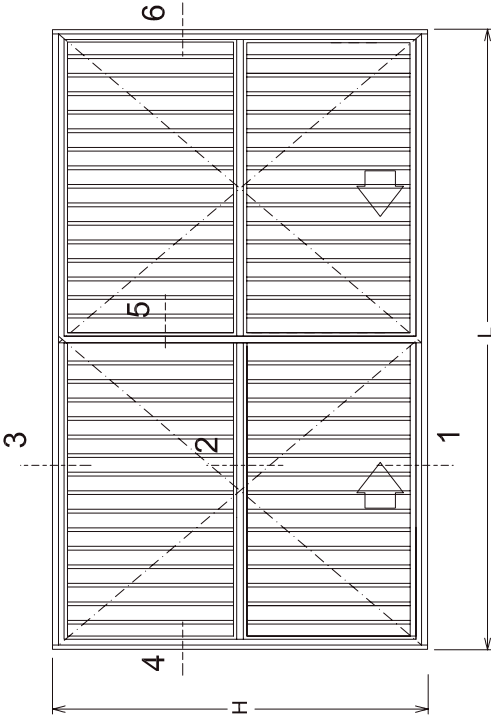


ELEVAÇÃO VISTA EXTERNA

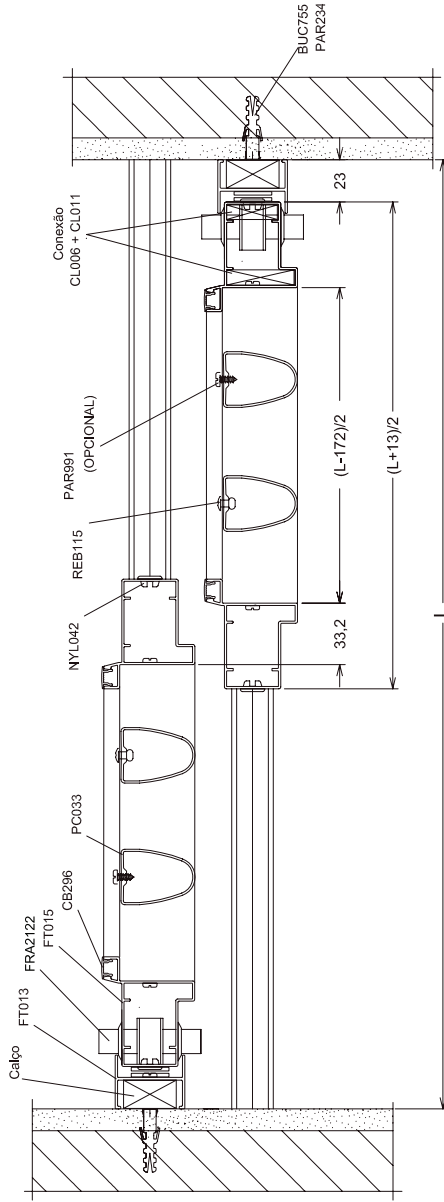


Portão Fit de correr 2 folhas com barrotes e marco baixo

ELEVAÇÃO VISTA EXTERNA



LADO EXTERNO



CORTE - 4

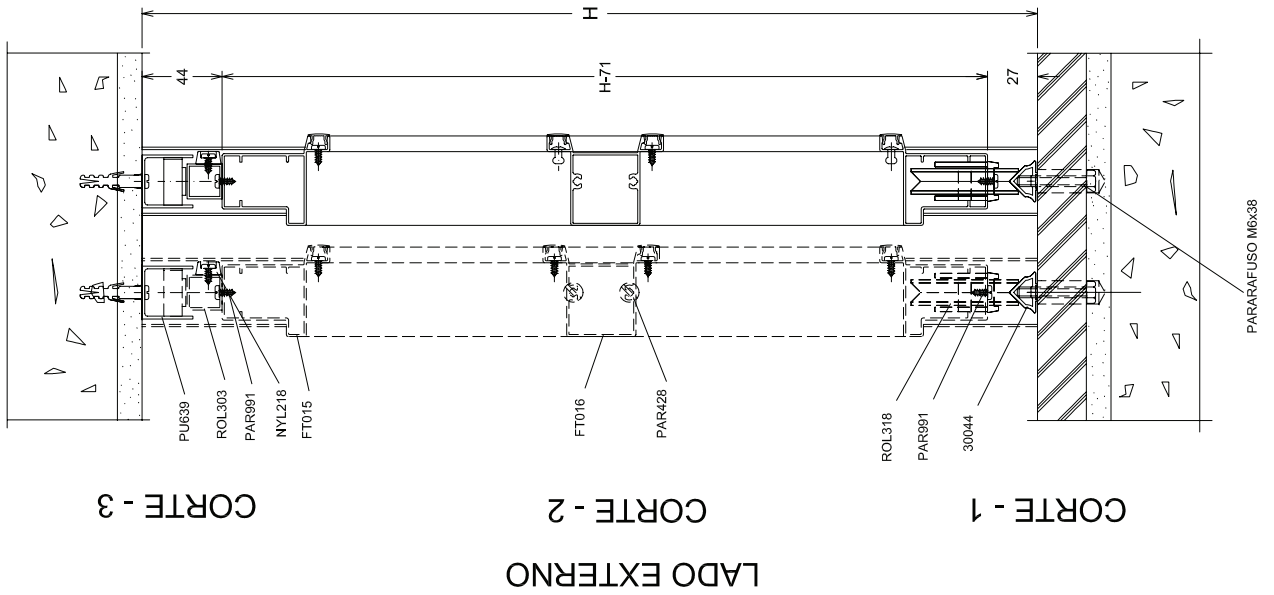
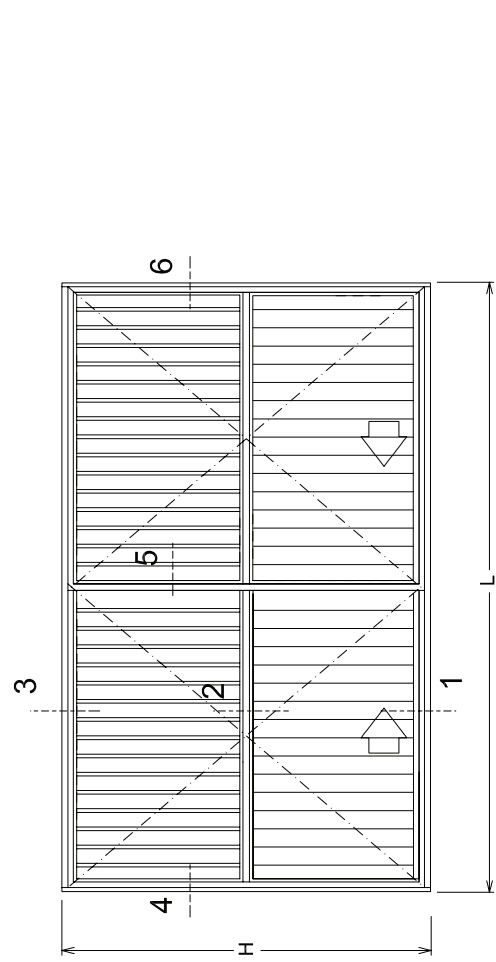
CORTE - 5

LADO EXTERNO

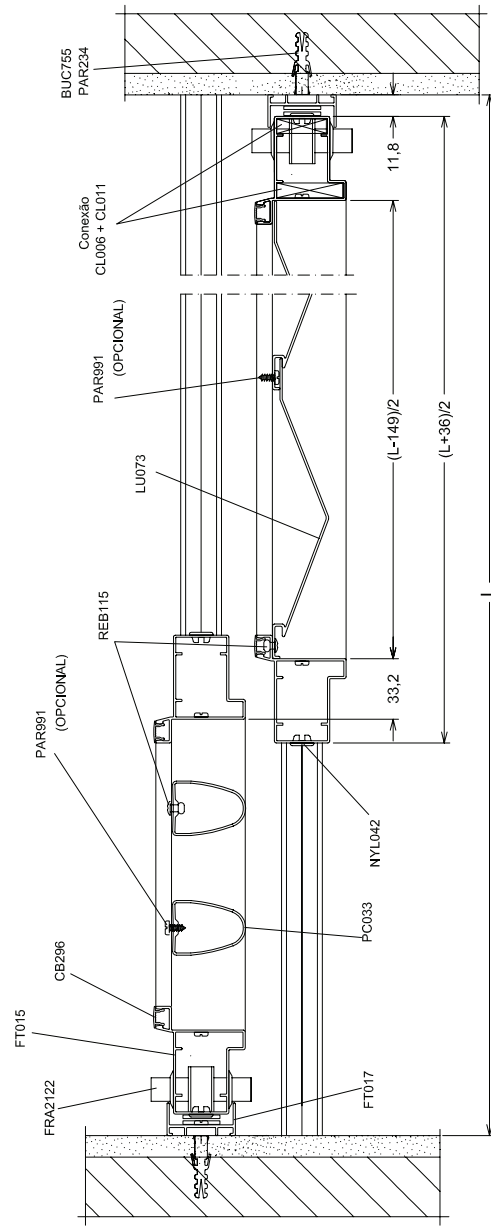
CORTE - 6

Portão Fit de correr 2 folhas com barrotes/lambris e marco alto

ELEVAÇÃO VISTA EXTERNA



LADO EXTERNO



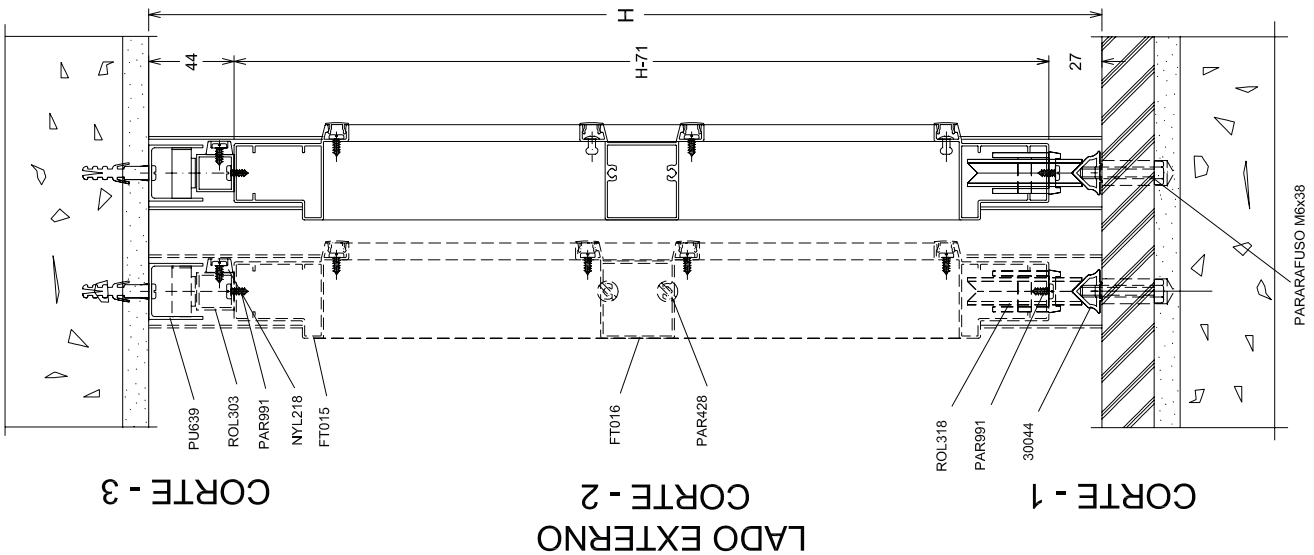
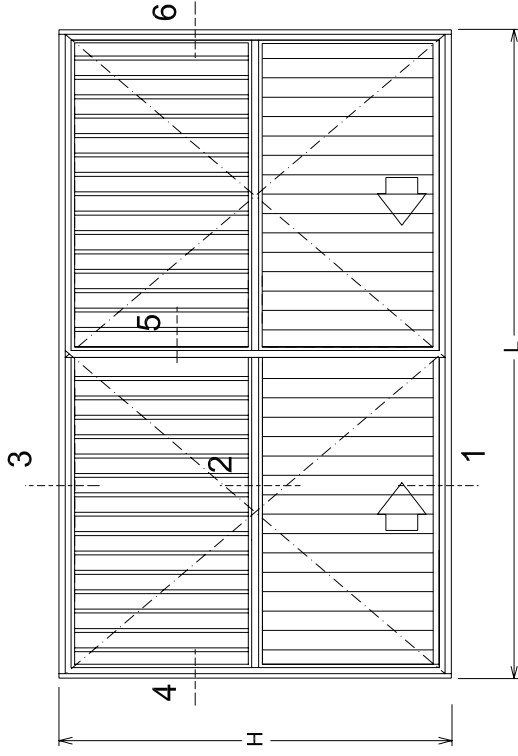
CORTE - 4

CORTE - 5 LADO EXTERNO

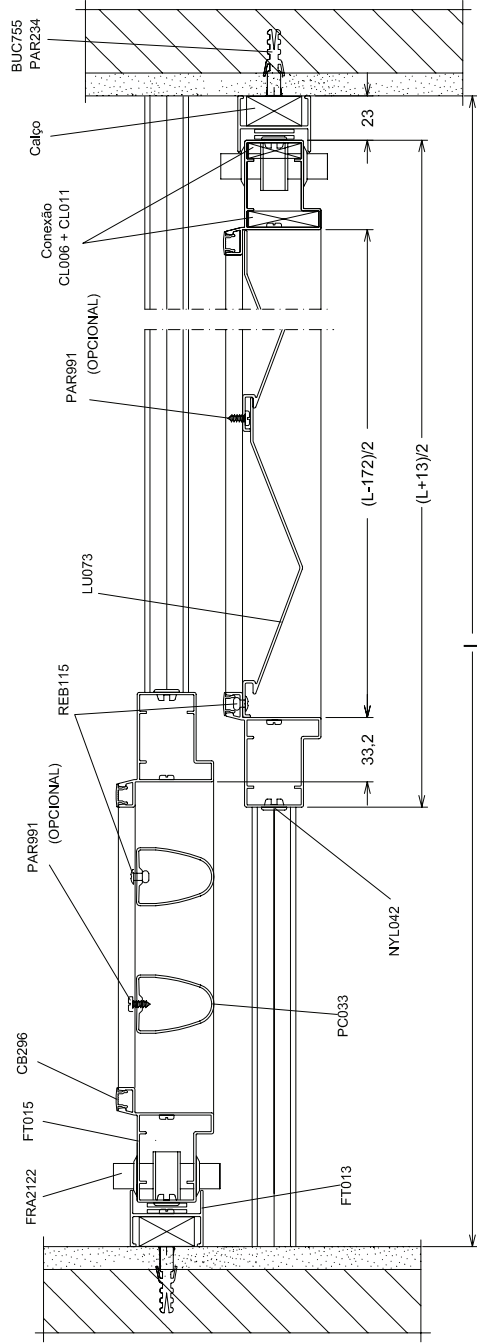
CORTE - 6

Portão Fit de correr 2 folhas com barrotes/lambris e marco baixo

ELEVAÇÃO VISTA EXTERNA



LADO EXTERNO



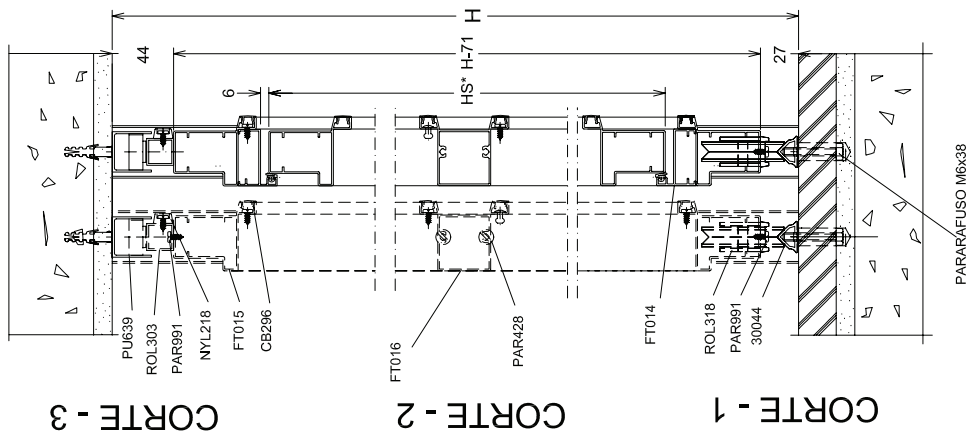
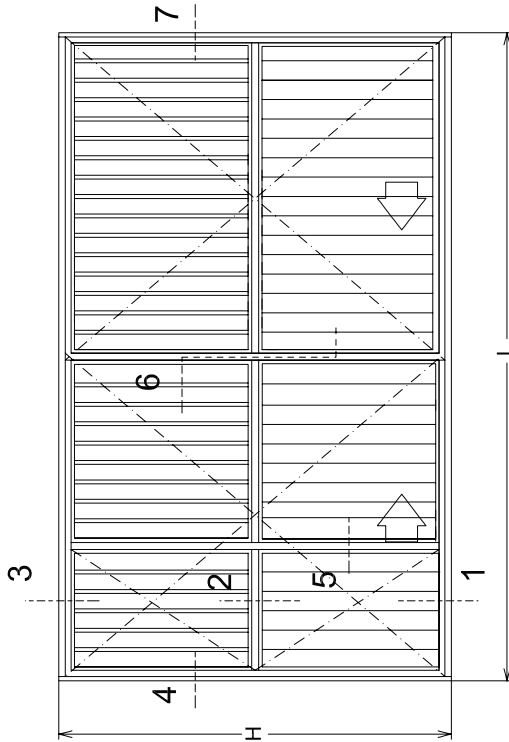
CORTE - 4

CORTE - 5
LADO EXTERNO

CORTE - 6

Portão Fit de correr 2 folhas com barrotes/lambris e marco alto

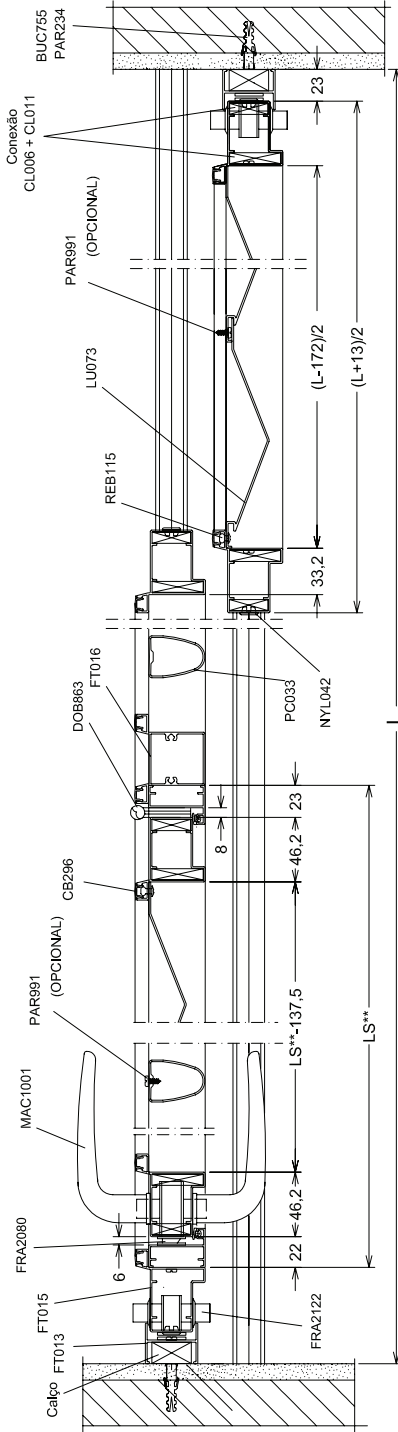
ELEVAÇÃO VISTA EXTERNA



CORTE - 3

LADO EXTERNO

CORTE - 2



CORTE - 4

CORTE - 5

CORTE - 6

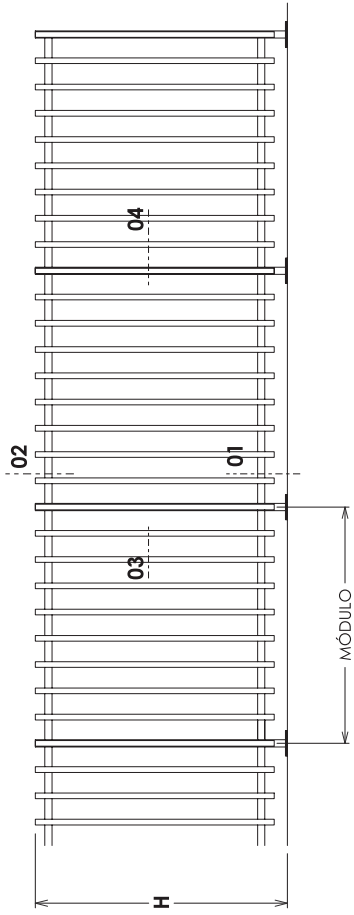
CORTE - 7

*HS: Altura do Portão Social
 **LS: Largura do Portão Social

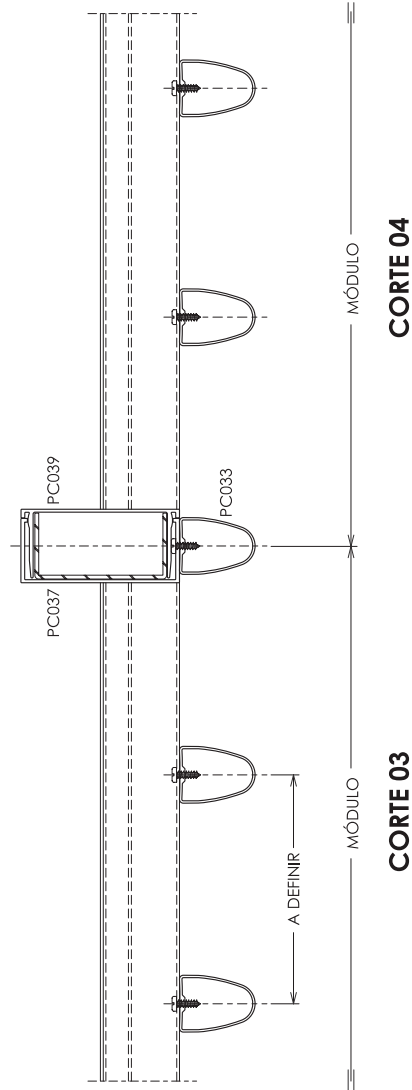
LADO EXTERNO

Portão Fit de correr 2 folhas com barrotes/lambris, portão social e marco alto

ELEVAÇÃO VISTA EXTERNA

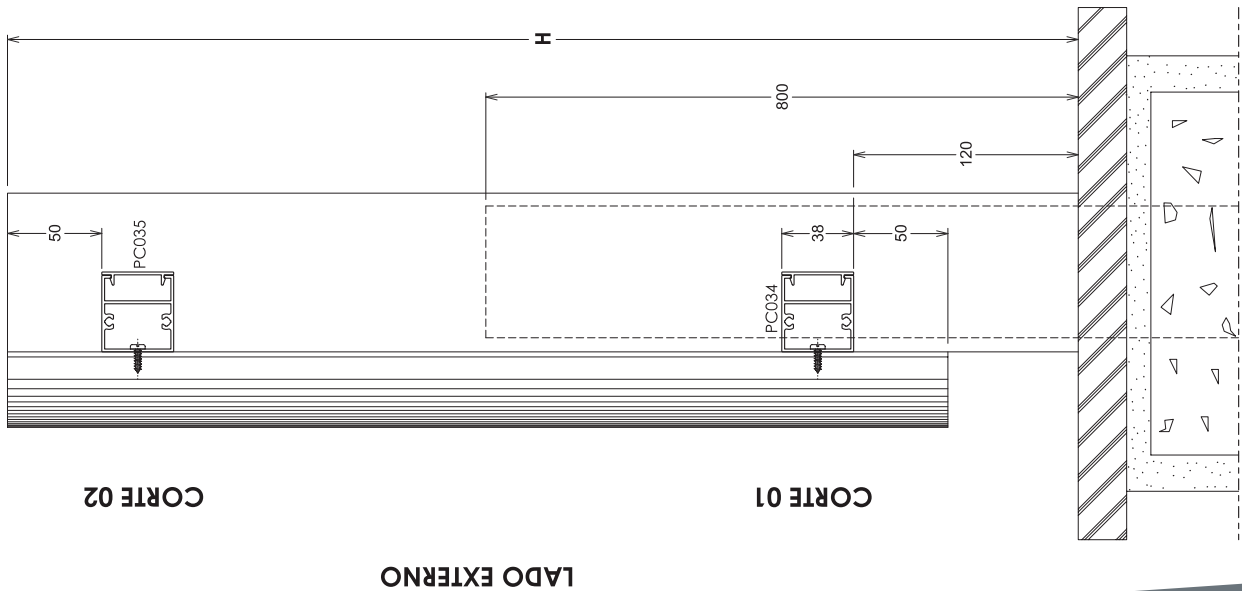


ATENÇÃO
Pontaletes em chapa de aço galvanizada a fogo.
Para utilizar pontaletes em alumínio, consultar a área técnica.



LADO EXTERNO

Grade com barrotes verticais

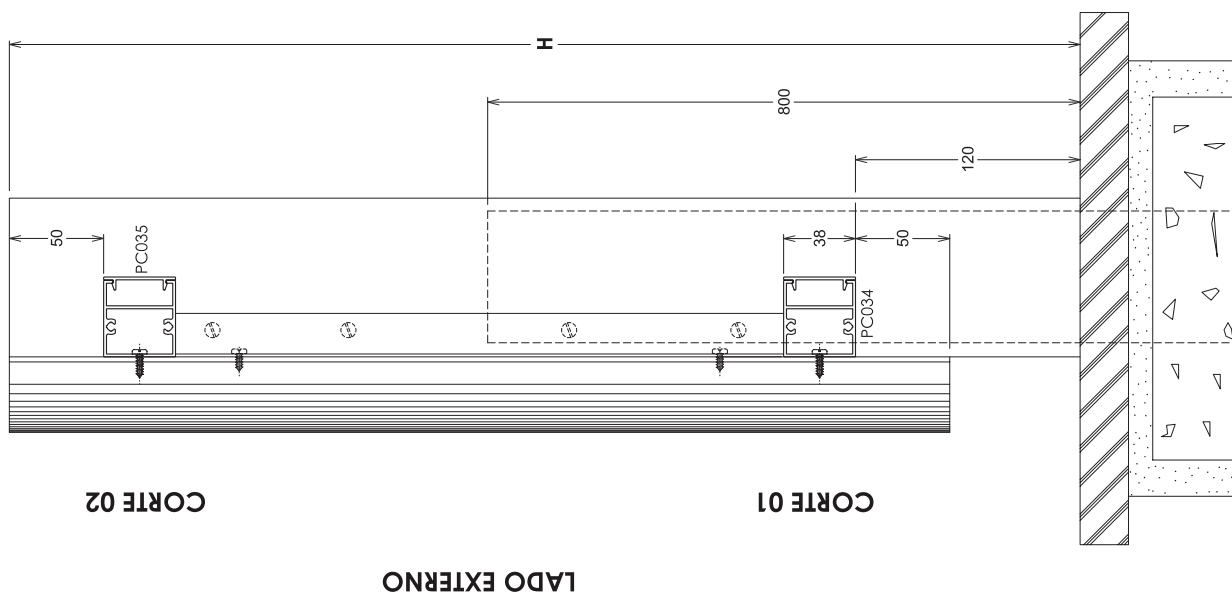


CORTE 02

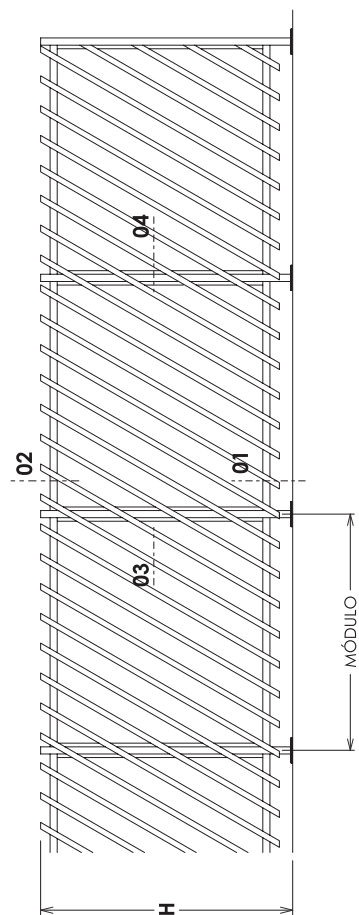
CORTE 01

CORTE 04

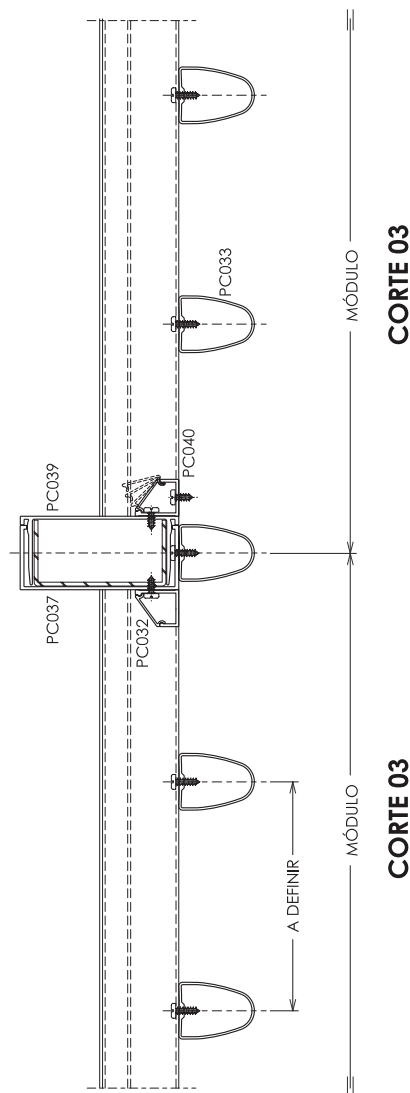
CORTE 03



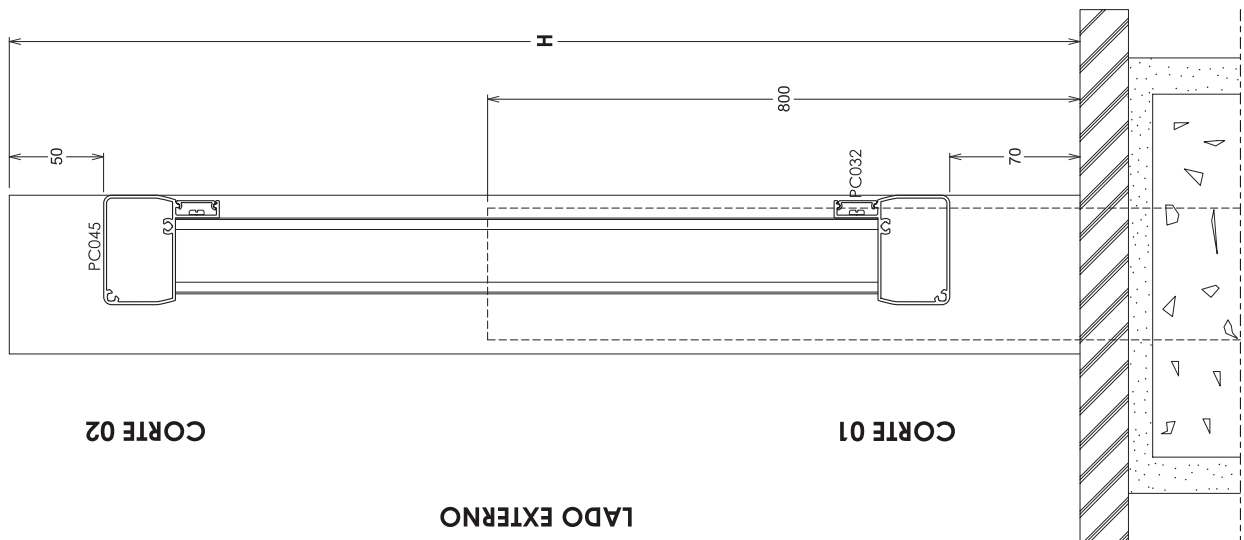
ELEVAÇÃO VISTA EXTERNA



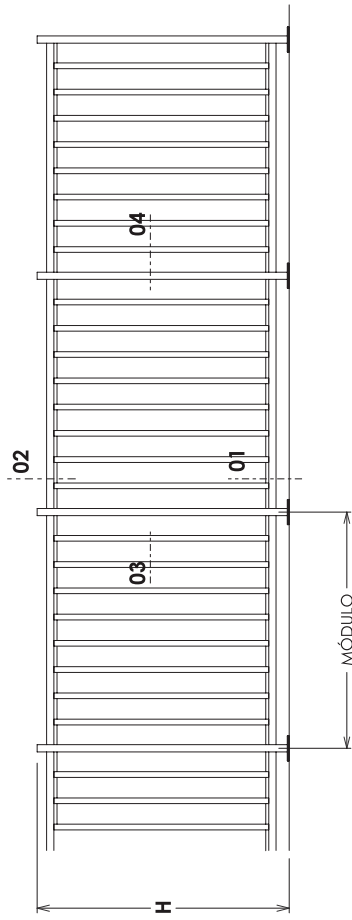
ATENÇÃO
 Pontalete em chapa de aço galvanizada a fogo.
 Para utilizar pontalete em alumínio, consultar a área técnica.



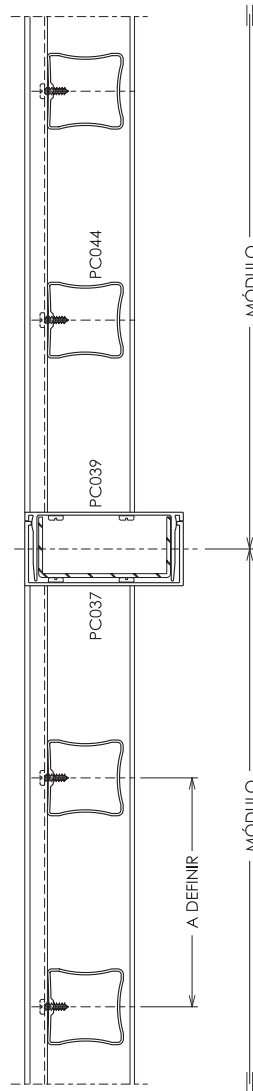
Grade com barrotes inclinados



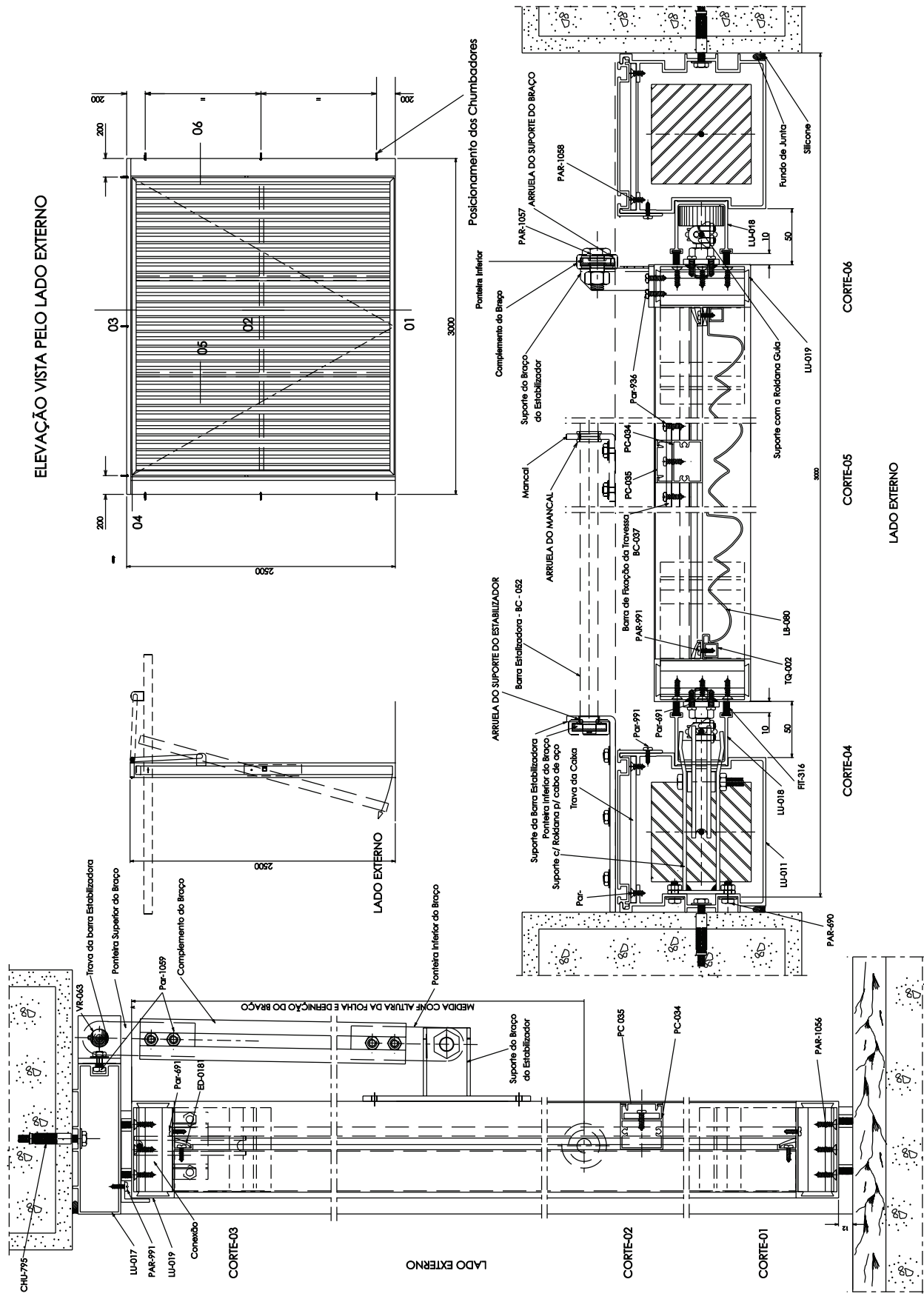
ELEVAÇÃO VISTA EXTERNA



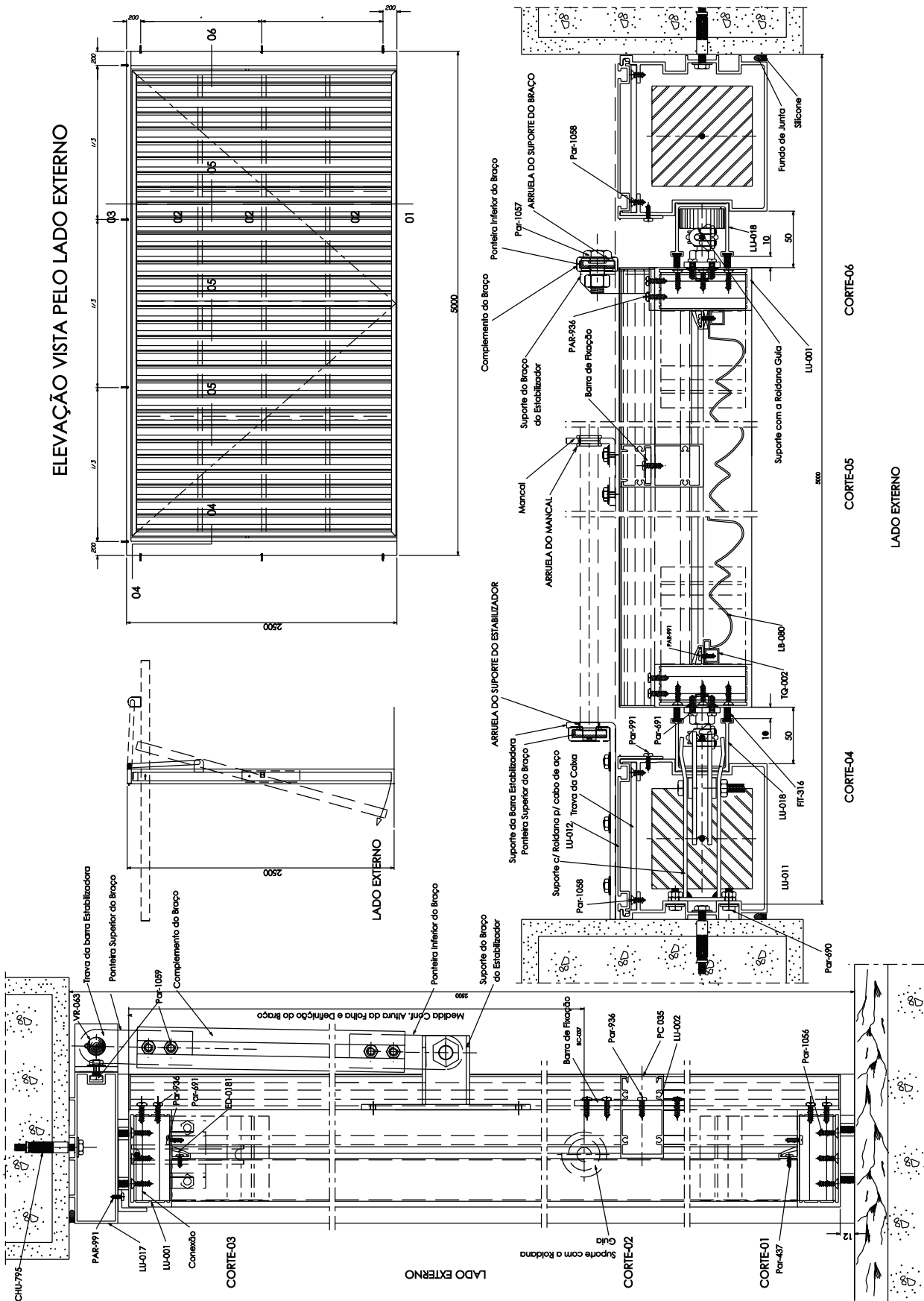
ATENÇÃO
Pontaletes em chapa de aço galvanizada a fogo.
Para utilizar pontaletes em alumínio, consultar a área técnica.



**Grade com barrotes verticais
entre travessas**

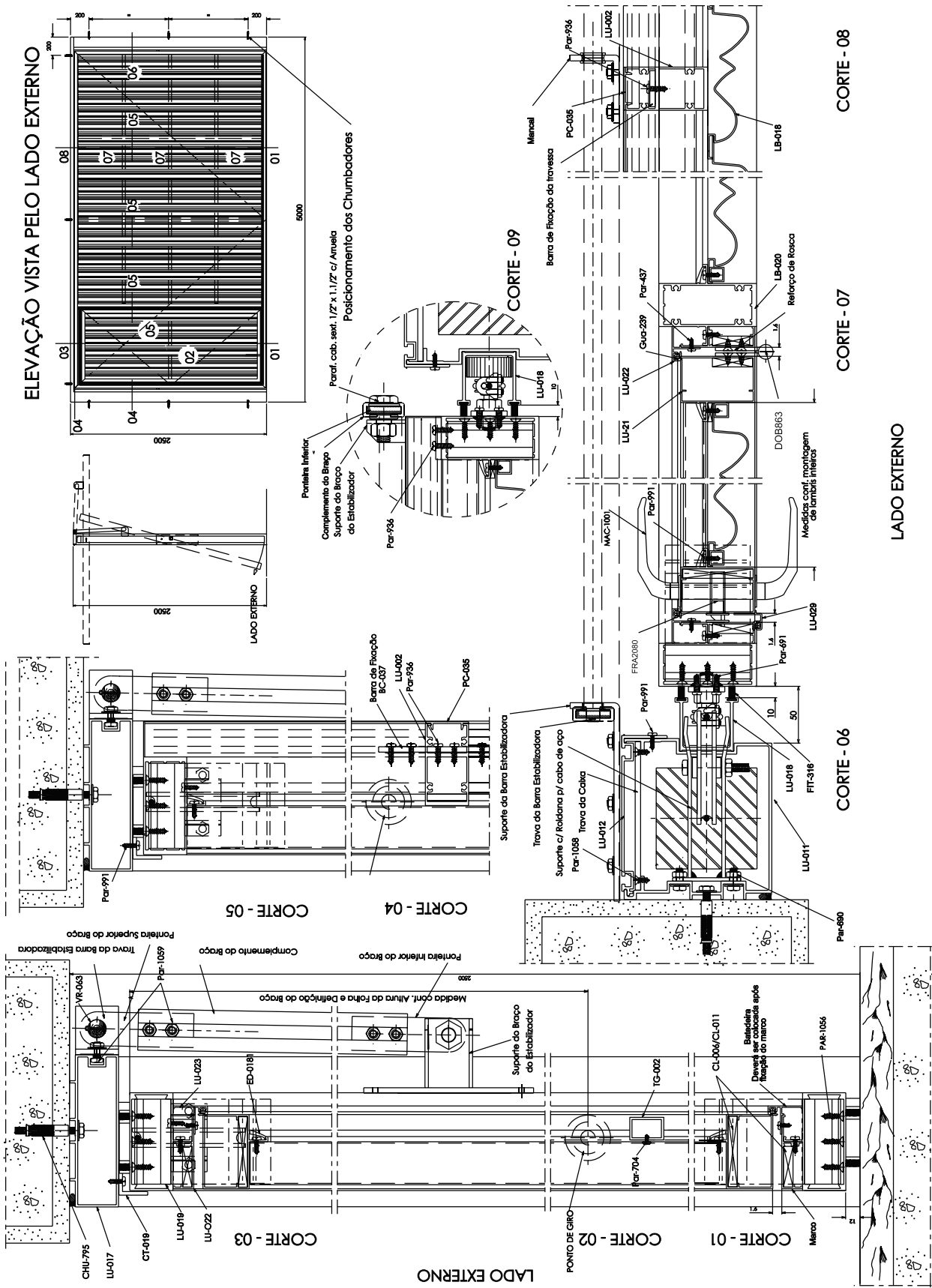


ELEVAÇÃO VISTA PELO LADO EXTERNO



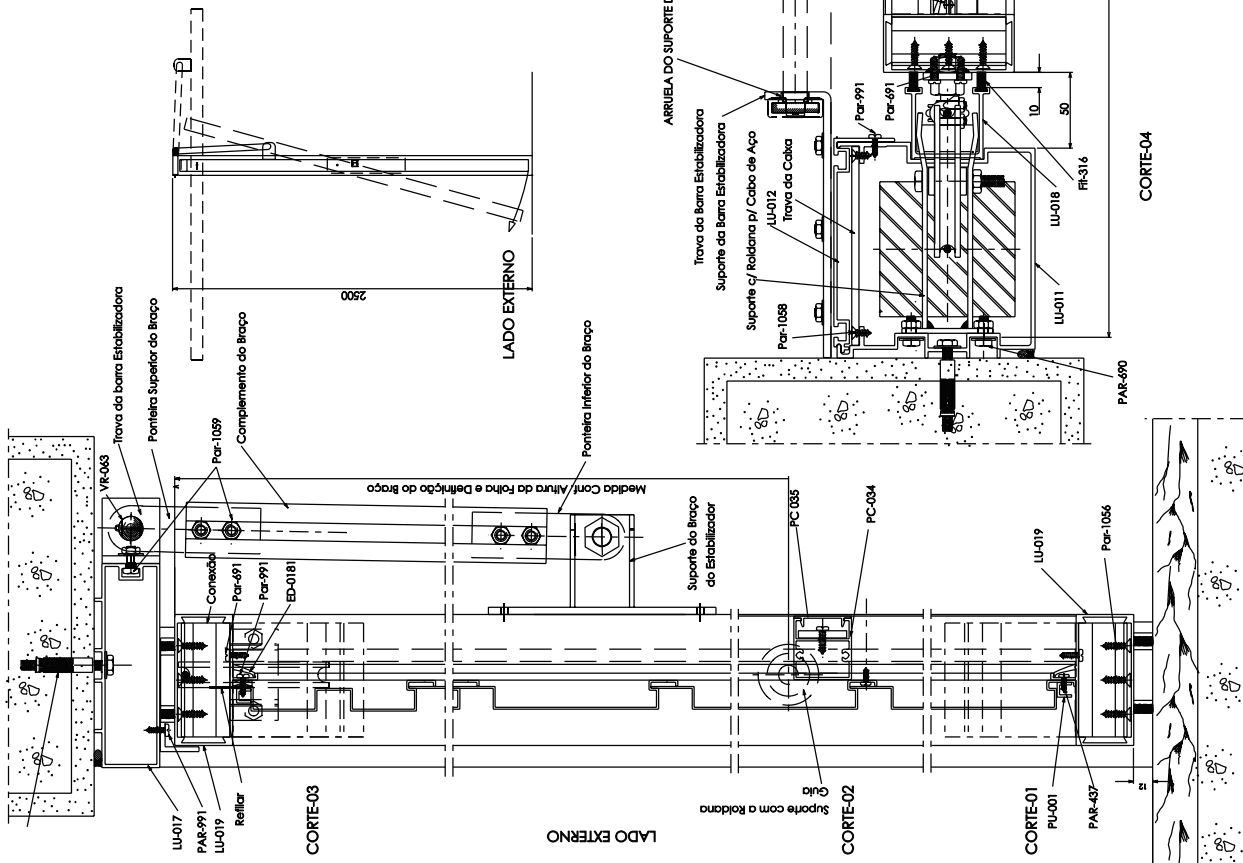
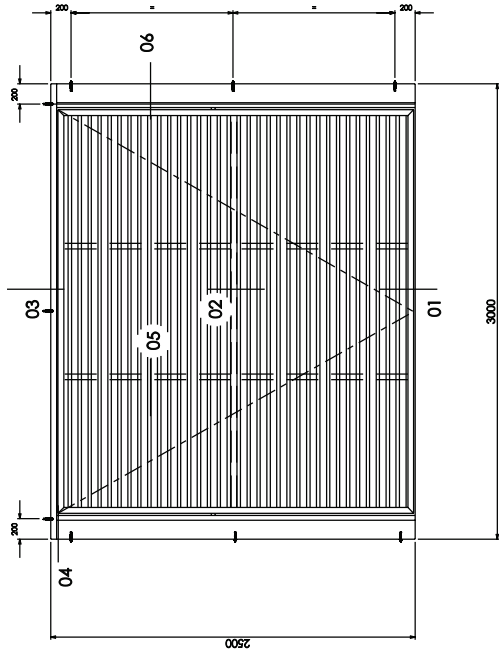
Portão Basculante de 5 MT

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



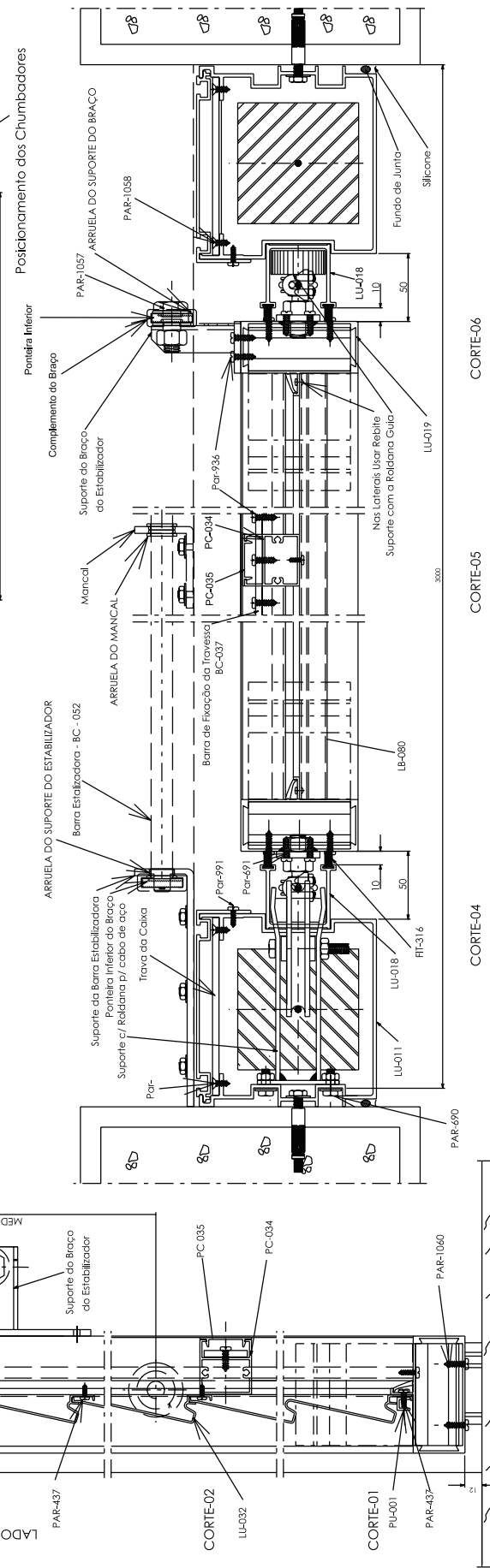
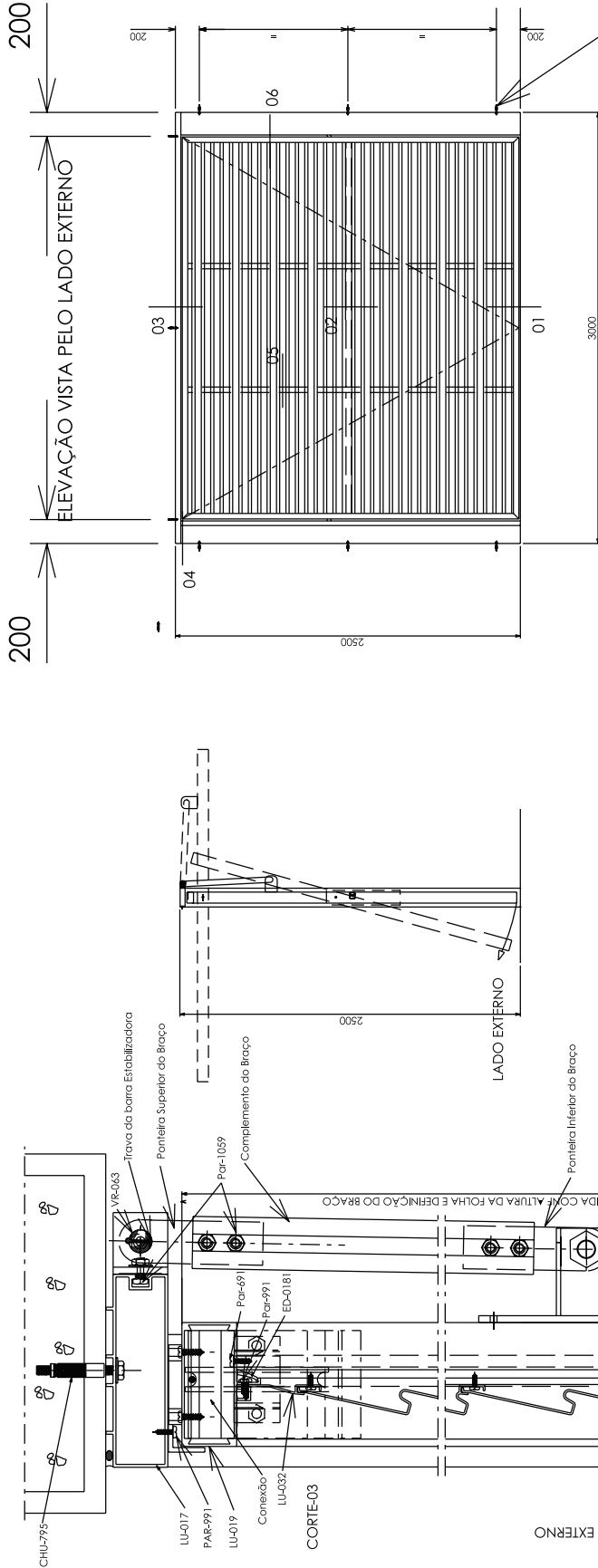
Portão Basculante de 5 MT - Porta Social

ELEVAÇÃO VISTA PELO LADO EXTERNO



Portão Basculante de 3 MT - Lambris na Horizontal

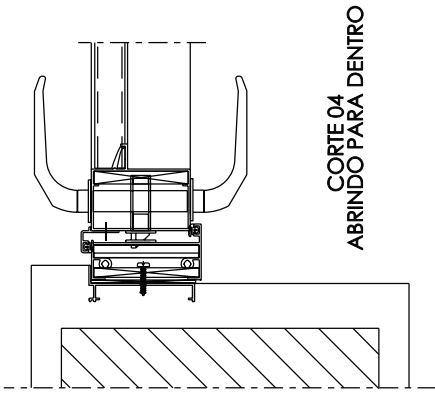
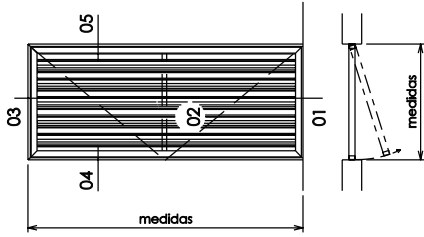
Projetos, perfis, componentes, códigos e sistemas estão sujeitos a alteração sem prévio aviso.



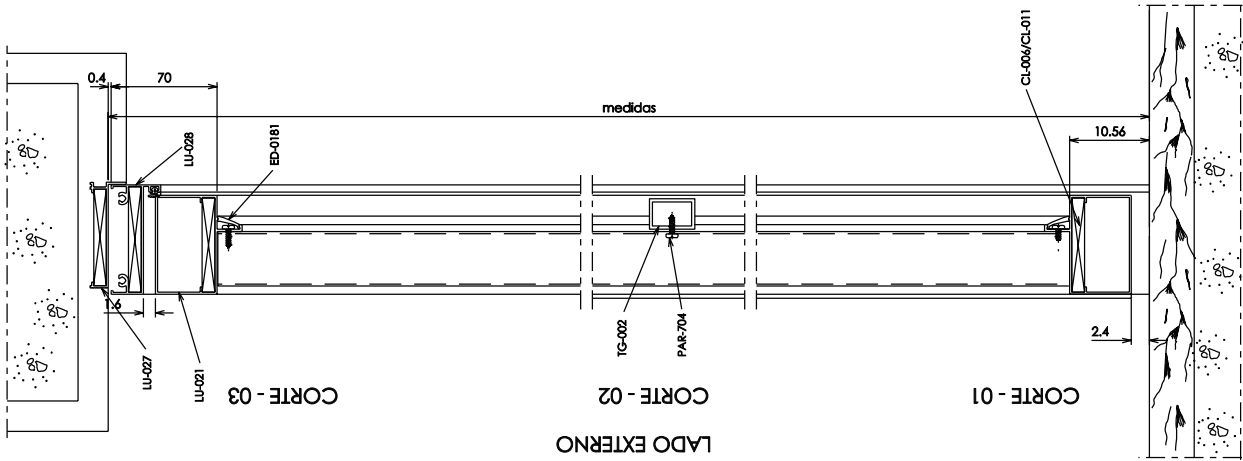
Portão Basculante 3 MT - Venezianas na Horizontal

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

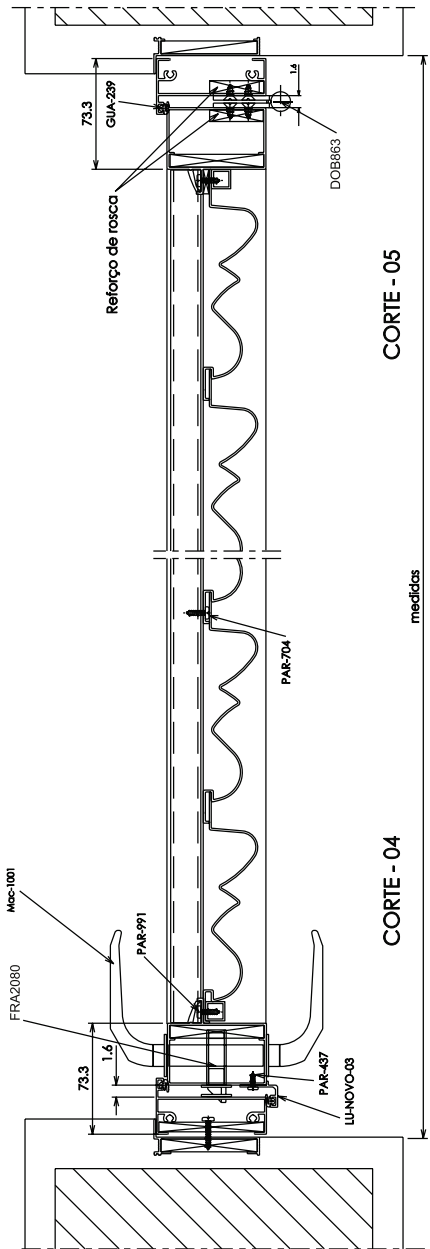
ELEVAÇÕES VISTAS PELO LADO EXTERNO



**CORTE 04
ABRINDO PARA DENTRO**



LADO EXTERNO



CORTE - 05

LADO EXTERNO

CORTE - 04

Porta Independente

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



Central de Atendimento: 0800 015 9888
Distribuidor exclusivo Rede Alumínio & Cia.
WWW.KAWNEER.COM.BR

© 2016 Kawneer Company, Inc.



Catálogo Técnico Universal Portão
Edição 01