

Catálogo Geral

**asa**  
alumínio

PERFIS EXTRUDADOS  
DE ALUMÍNIO

Inclui perfis das Linhas:

**Mega**<sup>®</sup>



[www.asaaluminio.com.br](http://www.asaaluminio.com.br)







## ► Nossa **Empresa**

A Asa Alumínio possui completa estrutura com recursos técnicos e profissionais prontos para atender os mercados mais exigentes do Brasil e do mundo. A Empresa é genuinamente nacional e opera com as instalações mais modernas do setor, ocupando posição de reconhecido destaque no desenvolvimento de sistemas construtivos para Arquitetura e Engenharia.

São duas plantas integradas. A sede administrativa e centro de desenvolvimento de extrusão (complexo 1) e a novíssima unidade industrial "red company" (complexo 2), compondo um notável parque fabril com 5 prensas de alta performance, com capacidade instalada para 60 mil ton. anuais de perfis extrudados.









## ► Fábrica Planejada

O ambiente industrial da Asa Alumínio é uma extensão do conceito de tecnologia empreendido pela empresa.

Espaços planejados e as áreas livres para circulação facilitam a logística e movimentação interna de materiais.





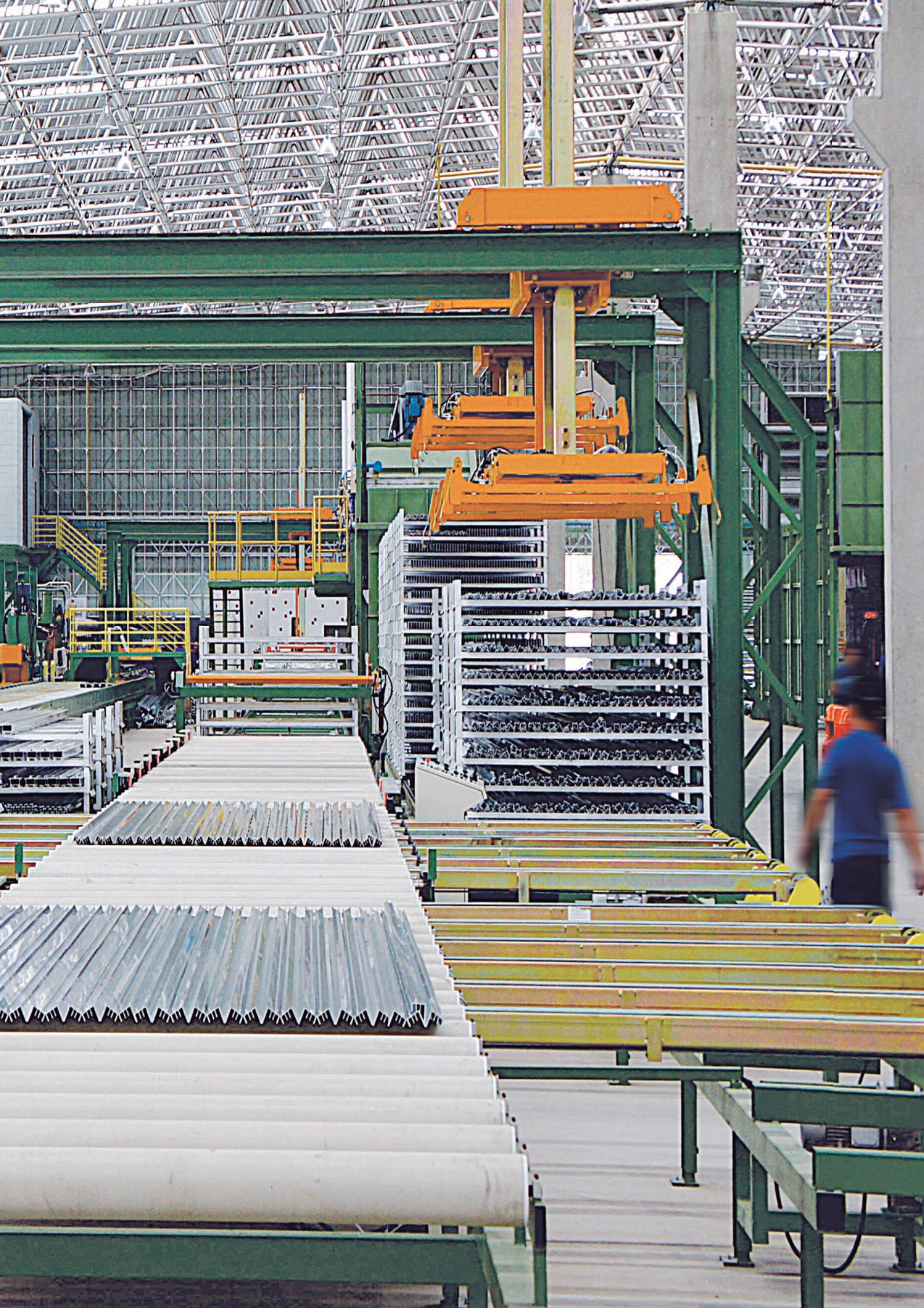




## ► Versatilidade do Alumínio

Os perfis extrudados de alumínio são materiais que podem ser empregados em praticamente tudo que existe no universo dos produtos manufaturados. Seja como matéria-prima básica, acessório, componentes e peças, os perfis de alumínio tem e terão espaço garantido nos produtos atualmente existentes, e em boa parte de “coisas” que ainda serão inventadas.









## ► Indústria de Grande Porte

Somos uma grande indústria de extrusão de alumínio no Brasil, com destacada atuação entre as principais empresas do setor. Produtos e serviços que incorporam duas décadas de conhecimento, pesquisa e muita dedicação.









## ► Estoque para pronta entrega

São mais de 1.500 toneladas em estoque com os perfis de maior consumo, embalados e armazenados, disponíveis para entregas imediatas. Cerca de 2.500 itens nos tamanhos mais usuais do mercado estão adequadamente organizados em racks e devidamente etiquetados com código de barras.





RU 1  
CE

LADO 01

LADO 02

TUB-430

028  
ELA 02

RUA  
CELA 02

TUB-430

LADO 02

TUB-434

LADO 01

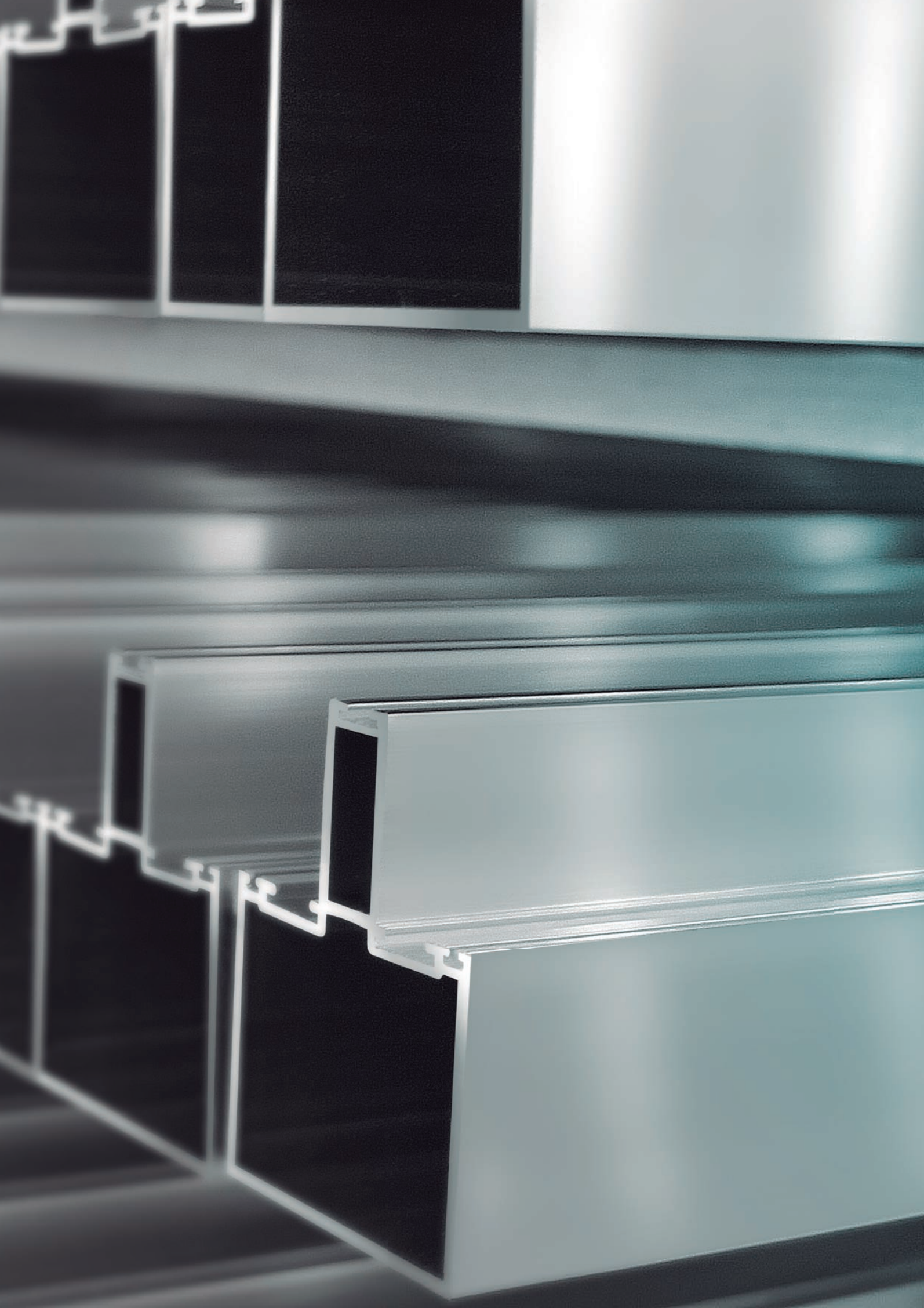




## ► Unidade de Construção Civil

A Divisão de Construção Civil é uma unidade própria da Asa Alumínio, equipada com estrutura técnica e pessoal para oferecer total suporte, o que permite a rápida assimilação das demandas do mercado. A gestão de projetos é um diferencial altamente competitivo e que traduz-se numa sensível redução nos custos dos levantamentos e orçamentos técnicos.









## ► Acabamento de Superfície

A Asa Alumínio assegura a qualidade da superfície dos perfis extrudados em função do resultado oferecido pela operação de equipamentos de última geração, prensas novas e processos totalmente automatizados.











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P-574	49	U-685	55	Y-120	24	Z-172	36		



## Propriedades Físicas Típicas

Liga	Peso Específico (g/cm <sup>3</sup> )	Módulo de Elasticidade MPa	Módulo de Rigidez MPa	Temperatura de Fusão (°C)	Calor Específico (0-100°C) (Cal./g°C)	Coefficiente de Expansão Linear (L/°C)	Condutibilidade Térmica (25°) (Cal./cm°C)	Condutibilidade Elétrica (ACS)%
1050	2.70	70000	26500	650-660	0.22	24x10 <sup>-6</sup>	0.50	60.0
3003	2.73	70000	26500	640-655	0.22	23x10 <sup>-6</sup>	0.38	43.0
5052	2.68	72000	27500	595-650	0.23	23x10 <sup>-6</sup>	0.33	34.0
6005	2.71	70000	26500	580-650	0.22	24x10 <sup>-6</sup>	0.37	40.0
6060	2.71	70000	26500	600-650	0.21	23x10 <sup>-6</sup>	0.48	52.0
6061	2.71	70000	26500	580-650	0.22	24x10 <sup>-6</sup>	0.37	40.0
6063	2.71	70000	26500	600-650	0.21	23x10 <sup>-6</sup>	0.48	52.0
6082	2.71	70000	26500	555-650	0.21	24x10 <sup>-6</sup>	0.44	45.5
6101	2.71	70000	26500	605-655	0.22	23x10 <sup>-6</sup>	0.49	55.0
6261	2.71	70000	26000	570-655	0.22	23x10 <sup>-6</sup>	0.44	47.0
6262	2.71	70000	26700	582-652	0.21	23x10 <sup>-6</sup>	0.37	44.0
6351	2.71	70000	26500	555-650	0.21	24x10 <sup>-6</sup>	0.44	45.5
6463	2.71	70000	26500	600-650	0.21	23x10 <sup>-6</sup>	0.48	52.0
7075	2.80	73000	27500	475-630	0.23	24x10 <sup>-6</sup>	0.29	30.0

## Características Específicas

Liga	Resistência à corrosão	Anodização Decorativa	Anodização Protetora	Solda MIG	Solda TIG	Usinagem	Deform. à frio	Brasagem	Outras
1050	A	A	A	A	A	E	A	A	
3003	A	D	B	A	A	D	A	A	
5052	A	A	A	A	A	C	A	B	
6005	A	D	A	A	A	D	B	A	
6060	A	A	A	A	A	D	B	A	
6061	A	D	A	A	A	D	B	A	
6063	A	A	A	A	A	D	B	A	
6082	A	D	A	A	A	C	C	C	
6101	A	A	A	A	A	D	B	A	
6261	A	C	A	A	A	C	C	B	
6262	B	C	A	A	A	A	C	A	
6351	A	D	A	A	A	C	C	C	
6463	A	A	A	A	A	D	B	A	
7075	C	E	B	N	N	D	B	N	Solda por resistênci

## Limites de Composição Química (% em peso)

Liga	Al	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Outros	
										CADA	TOTAL
1050	99.50	0.25	0.40	0.05	0.05	0.05	-	0,05	0.03	0.03	-
3003	-	-	-	0.05	1.0	-	-	-	-	-	-
		0.6	0.7	0.20	1.5	-	-	0.10	-	0.05	0.15
5052	-	-	-	-	-	2.2	0.15	-	-	-	-
		0.25	0.40	0.10	0.10	2.8	0.35	0.10	-	0.05	0.15
6005	-	0.6	-	-	-	0.4	-	-	-	-	-
		0.9	0.35	0.10	0.10	0.6	0.10	0.10	0.10	0.05	0.15
6005 A	-	0.5	-	-	-	0.4	-	-	-	-	-
		0.9	0.35	0.30	0.50	0.7	0.30	0.20	0.10	0.05	0.15
6060	-	0.30	0.10	-	-	0.35	-	-	-	-	-
		0.60	0.30	0.10	0.10	0.60	0.05	0.10	0.10	0.05	0.15
6061	-	0.40	-	0.15	-	0.8	0.04	-	-	-	-
		0.8	0.7	0.40	0.15	1.2	0.35	0.25	0.15	0.05	0.15
6063	-	0.20	-	-	-	0.45	-	-	-	-	-
		0.60	0.35	0.10	0.10	0.9	0.10	0.10	0.10	0.05	0.15
6082	-	0.7	-	-	0.4	0.6	-	-	-	-	-
		1.3	0.5	0.10	1.0	1.2	0.25	0.20	0.10	0.05	0.15
6261	-	0.40	-	0.15	1.0	0.6	-	-	-	-	-
		0.7	0.40	0.40	0.35	1.2	0.25	0.20	0.10	0.05	0.15
6262	-	0.40	-	0.15	-	0.8	0.04	-	-	-	-
		0.8	0.7	0.40	0.15	1.2	0.14	0.25	0.15	0.05	0.15
6351	-	0.7	-	-	0.40	0.40	-	-	-	-	-
		1.3	0.50	0.10	0.8	0.8	-	0.20	0.20	0.05	0.15
6463	-	0.30	-	0.05	-	0.35	-	-	0.01	-	-
		0.60	0.15	0.20	0.05	0.65	-	0.03	0.03	0.05	0.15
7075	-	-	-	1.2	-	2.1	0.18	5.1	-	-	-
		0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.15

\* Apresenta em sua composição Pb = 0.20-0.60% e Bi = 0.20-0.60%

\*\* Boro 0.05% máximo

\*\*\* Apresenta em sua composição Pb = 0.40-0.70% e Bi = 0.40-0.70%



## Propriedades Físicas Típicas

Liga	Características	Aplicações Típicas
1050	Baixa resistência mecânica, alta resistência à corrosão, boa conformabilidade, fácil de soldar, apropriada para anodização decorativa.	Indústria química, farmacêutica e alimentícia; utensílios domésticos. Refrigeração (trocadores de calor em geral).
3003	Média resistência mecânica, alta resistência à corrosão, boa conformabilidade, boa soldabilidade.	Tubos para trocadores de calor (radiadores automotivos). Antenas.
5052	Boa resistência mecânica, alta resistência à corrosão, boa conformabilidade.	Vergalhões para rebites, transporte e equipamentos.
6005 A	Boa resistência mecânica, alta resistência à corrosão, boa conformabilidade e média usinabilidade.	Rodas e acessórios de bicicletas esportivas e motocicletas, náutica e transporte em geral.
6060	Média resistência mecânica, alta resistência à corrosão, boa conformabilidade.	Perfis para construção civil, caixilharia em geral, tubos de irrigação, móveis e iluminação.
6061	Boa resistência mecânica, boa resistência à corrosão, boa conformabilidade. Média usinabilidade.	Estruturas, construção naval, veículos e rebites. Indústria moveleira.
6063	Apropriada para anodização decorativa fosca.	Móveis e Iluminação.
6101	Alta condutividade elétrica, média resistência mecânica, boa resistência à corrosão.	Liga especial para fins elétricos e barramentos (estruturas).
6261	Boa resistência mecânica, boa resistência à corrosão, boa conformabilidade. Média usinabilidade.	Carrocerias de veículos, estruturas e equipamentos.
6262	Ótima usinabilidade, alta resistência mecânica, alta resistência à corrosão, apropriada para anodização decorativa.	Peças usinadas em torno automático. Excelente alternativa para o latão de corte livre.
6351	Boa resistência mecânica, alta resistência à corrosão, boa conformabilidade, média usinabilidade.	Engenharia estrutural, construção de navios, veículos e equipamentos. Peças usinadas em tornos não automáticos. Forjamento a frio.
6463	Média resistência mecânica, boa resistência à corrosão, boa conformabilidade apropriada para anodização decorativa de alto brilho.	Painéis e frisos para eletrodomésticos, automóveis e armários.
7075	Os mais altos valores de resistência mecânica, média resistência à corrosão, boa forjabilidade e usinabilidade.	Peças sujeitas aos mais altos esforços mecânicos em indústria aeronáutica, militar, máquinas e equipamentos. Moldes para injeção de plástico.

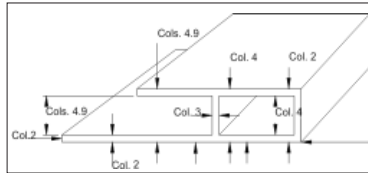
## Propriedades Mecânicas

Liga	Têmpera	Limite de Resistência à Tração MPa	Limite Convencional de Escoamento MPa	Limite de Resistência ao Cizalhamento (MPa)	% de Alongamento em 50mm	Dureza Brinell 2,5/62,5
1050	O	95 (80)	- (30)	(62)	25	-
	H14	85 (100)	70 (80)	(72)	-	-
	H18	110 (130)	90 (100)	(76)	-	-
3003	O	130 (120)	- -	(76)	25	-
	H12	115 (140)	- -	-	-	-
	H14	140 (151)	- -	(97)	-	-
	H16	165 -	- -	(103)	-	-
	H18	185 -	- -	(110)	-	-
5052	O	220 (209)	- -	(123)	25	-
	H32	215 (227)	160 (183)	-	-	-
	H34	233 (260)	180 (235)	(144)	-	-
	H36	255 -	200 (250)	(165)	-	-
	H38	270 -	- -	(165)	-	-
6005 A	T6F	260 (270)	215 (230)	-	10	82
6060	O	130 (125)	- -	(76)	18	-
6061	O	150 -	110 -	(82)	16	-
	T4	180 (211)	110 (129)	(165)	16	-
	T6	260 (309)	240 (280)	(206)	8	(102)
	T6*	290 (351)	240 (332)	-	10	(105)
	T8	- (368)	- (348)	(100)	-	-
	T89	370 -	325 -	-	-	-
	T4A	110 (145)	60 (79)	(98)	-	-
6101	O	- (137)	- (82)	-	-	-
	T6	200 (230)	172 (213)	-	-	-
6261	T4A	157 (186)	83 (108)	-	-	-
	T4	181 (199)	98 (123)	-	-	-
	T6C	229 (280)	199 (248)	-	10	(90)
	T6	260 (309)	240 (280)	-	8	(102)
6262	T6	260 -	- -	-	10	-
	T9	360 (390)	330 (370)	-	5	(111)
6351	T4	220 (227)	130 (121)	(152)	16	(64)
	T6	290 (315)	255 (288)	(201)	8	(106)
6463	T5	150 (219)	110 (189)	(118)	8	66
	T6C	180 (226)	150 (197)	(135)	-	-
	T^	205 (235)	170 (213)	-	8	-
7075	O	275 -	165 -	-	-	-
	T6	560 (630)	495 (608)	(329)	-	(150)

Dados de tensão expressos na Unidade MEGAPASCAL (MPa) equivalentes a 1N/mm<sup>2</sup>. A medida da unidade kgf/mm<sup>2</sup> é obtida dividindo-se o valor indicado por 9,807. Para a conversão de MPa em KSI divide-se por 6,894. Os valores sem parênteses são os mínimos especificados, com excessão da tempera O (recozido) onde são indicadas as máximas propriedades resistentes. Os valores entre parênteses são os típicos esperados. Todas as ligas podem ser fornecidas na tempera F, sem garantia de propriedades mecânicas. Os valores mínimos e típicos mostrados referem-se aos produtos mais utilizados nas ligas/temperas indicadas. Diferentes espessuras de parede e/ou diâmetros podem levar as alterações nos mínimos especificados e típicos esperados. Para maiores informações consultar a área comercial da Divisão de Extrudados. •Tempera T6 para material trefilado com passo da calibragem.



## Extrusão



Para os produtos extrudados são adotadas as tolerâncias contidas na norma ABNT NBR 8116 - alumínio e suas ligas - que é baseada na ASTM (ANSI H35.2 - M). Dadas as necessidades de constante atualização da norma NBR 8116, devido aos avanços das indústrias produtoras de alumínio e as necessidades cada vez maiores das indústrias usuárias de perfis extrudados, os valores constantes desta tabela estão sujeitos à mudanças. Neste trabalho, apresentamos apenas a tabela mais usual, sendo que informações complementares poderão ser obtidas com os técnicos da ASA. A tabela apresenta as tolerâncias padronizadas. Quando nenhuma tolerância é mostrada deve ser estabelecida de comum acordo entre o comprador e fornecedor.

## Tolerância na Seção Transversal do Perfil

Dimensão nominal (mm)	Tolerâncias - para mais e para menos (mm) (C) (D)								
	Dimensões do metal				Dimensões entre superfícies metálicas				
	Dimensão nominal onde 75% ou mais é metal (E) (F)				Desvio permissível da dimensão nominal quando mais de 25% da dimensão for vazio (G) (H)				
	Todas as dimensões exceto aquelas incluídas na coluna 3	Espessuras de parede, circundando um vazio de 70mm ou mais (I) (J)	Nas dimensões medidas a uma distância "A" da base da aba						
5 a 15			15 a 30	30 a 60	60 a 100	100 a 150	150 a 200		
	Coluna								
	1	2	3	4	5	6	7	8	9
Até 3,2	0,15			0,25	0,30	-	-	-	-
32,2 a 6,3	0,18			0,30	0,36	0,41	-	-	-
6,3 a 12,5	0,20		± 10% da espessura especificada	0,36	0,41	0,46	0,50	0,56	-
12,5 a 20	0,23			0,41	0,46	0,50	0,56	-	-
20 a 25	0,25			0,46	0,50	0,56	0,64	0,76	-
25 a 40	0,30			0,54	0,58	0,66	0,76	0,88	-
40 a 50	0,36			0,60	0,66	0,78	0,92	1,05	1,25
50 a 100	0,60		Máximo ± 1,50 Mínimo ± 0,25	0,86	0,96	1,20	1,45	1,70	2,05
100 a 150	0,86			1,10	1,25	1,65	2,00	2,40	2,80
150 a 200	1,10			1,35	1,55	2,40	2,50	3,05	3,55
200 a 250	1,35			1,65	1,90	2,50	3,05	3,70	4,30

Vergalhões, barras e perfis extrudados. Tolerâncias na seção transversal em milímetros para mais ou para menos. Essas tolerâncias aplicam-se a perfis extrudados exceto na tempera 0 (estado cozido) e tempera F (como fabricado). **(A)** Estas tolerâncias-padrão aplicam-se a perfis comuns; podem ser necessárias tolerâncias mais amplas para alguns perfis e podem ser possíveis tolerâncias mais estreitas para outros, dependendo do acordo prévio entre o comprador e o fornecedor. **(B)** As tolerâncias para perfis extrudados nas ligas e temperas especiais devem ser negociadas entre o comprador e o fornecedor **(C)** A tolerância aplicável a uma dimensão composta de dois ou mais componentes é a soma das tolerâncias das dimensões componentes, se todas elas forem indicadas. **(D)** Se uma tolerância dimensional especificada não for simétrica, então o valor da tolerância-padrão a ser aplicado é aquele que seria aplicado à média das dimensões máxima e mínima permissíveis pela tolerância inicialmente especificada.

## Retilinearidade

	Diâmetro do menor círculo circunscrito (mm) <sup>1</sup>	Espessura mínima (mm)	Desvio (D) permissível por metro de comprimento (mm) <sup>2</sup>
	Até 38,09	Até 2,4	4,0
	Até 38,09	Acima de 2,4	1,0
	Acima de 38,10	Qualquer	1,0

## Torção

	Diâmetro do menor círculo circunscrito (mm) <sup>1</sup>	Desvio (Y) permissível (graus)		
		Por metro de comprimento	Comprimento total	Torção máxima
	Até 38,09	3,3	3,3xL (metros)	7%
	De 38,09 a 76,19	1,6	1,6xL (metros)	5%
	Acima de 76,20	0,8	0,8xL (metros)	3%

## Comprimento

Diâmetro do menor círculo circunscrito (mm) <sup>1</sup>	Desvio permissível em relação ao comprimento nominal (somente a mais) (mm)		
	Comprimento nominal (mm)		
	Até 3600	3661 a 9150	9151 a 15250
Até 76,19	3,2	6,4	9,5
76,20 a 203,19	4,8	7,9	11,1
Acima de 203,20	6,4	9,5	12,7

## Angularidade

Diâmetro do menor círculo circunscrito (mm) <sup>1</sup>	Desvio permissível em relação ao ângulo nominal (graus) <sup>4</sup>
Até 4,75	± 2,0
De 4,76 a 19,04	± 1,5
Acima de 19,05	± 1,0

## Corte Final

Desvio permissível do quadro ± 1°

- (1) Para vergalhões diâmetro nominal, para barras largura nominal.
- (2) Para obter o desvio permissível em barras de mais de um metro de comprimento multiplica-se o valor em metros pelo valor do desvio por metro.
- (3) Quando houver duas abas adjacentes considera-se a de menor espessura.
- (4) Quando o espaço limitado pelo ângulo é todo metal, considera-se a menor espessura de metal no vértice do ângulo.

## Diâmetros Tubos redondos

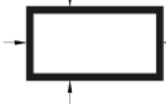
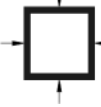
Diâmetro Nominal (mm)	Desvio permissível do diâmetro médio AA+BB em relação ao diâmetro nominal (± mm)		Desvio permissível do diâmetro em qualquer ponto em relação ao diâmetro nominal (± mm) <sup>(1)</sup>	
TUBOS EXTRUDADOS				
6,35 a 25,39	0,25		0,51	
25,40 a 50,79	0,30		0,64	
50,80 a 101,59	0,38		0,76	
101,60 a 152,39	0,64		1,27	
152,40 a 203,19	0,89		1,90	
203,20 a 253,99	1,14		2,54	

(1) Não aplicável na tempera 0, tubos em rolos ou tubos cuja espessura da parede for inferior a 0,5mm ou 2,5% do diâmetro externo ou diâmetro da circunferência equivalente (diâmetro do círculo cuja circunferência mede o perímetro do tubo).



## Altura e Largura

### Tubos quadrados, retangulares, sextavados e oitavados

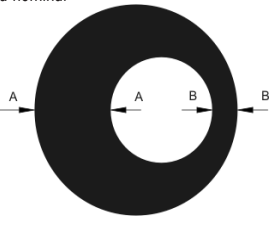
Espessura nominal da parede (mm)	DESVIO PERMISSÍVEL DA ALTURA OU LARGURA EM RELAÇÃO À DIMENSÃO NOMINAL ( $\pm$ mm)			
	NOS CANTOS		EM LADOS OPOSTOS <sup>(1)</sup>	
		Tubos quadrados e retangulares		Tubos quadrados, sextavados e oitavados
				Tubos retangulares
TUBOS EXTRUDADOS				
12,70 a 19,5	0,30		0,51	A tolerância para a largura é o valor da tolerância para um dimensão igual à altura, e inversamente, mas em nenhum caso esta tolerância é menor do que nos cantos <sup>(2)</sup>
19,06 a 25,40	0,36		0,51	
25,41 a 50,80	0,46		0,63	
50,81 a 101,60	0,63		0,89	
101,61 a 126,70	0,89		1,14	
126,71 a 152,40	1,14		1,40	

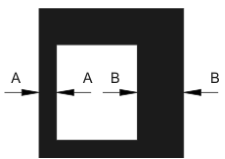
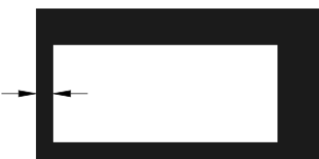
(1) Não aplicável na tempera 0, tubos em rolos ou tubos cuja espessura da parede for inferior a 0,5mm ou 2,5% do diâmetro externo ou diâmetro da circunferência equivalente (diâmetro do círculo cuja circunferência mede o perímetro do tubo).

(2) Exemplo: Em um tubo retangular extrudado de 76,20x34,10mm a tolerância da largura (76,20) é de  $\pm 0,63$ mm e na altura (38,10) é de  $\pm 0,89$ mm.

## Espessura da Parede

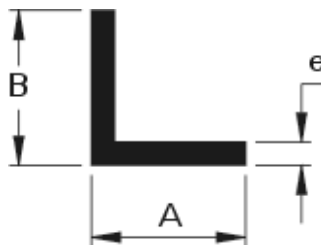
### Tubos extrudados

TUBOS REDONDOS EXTRUDADOS					
Espessura nominal da parede (mm)	Desvio permissível da espessura média $\frac{AA+BB}{2}$ em relação à espessura nominal ( $\pm$ mm)				Desvio permissível da espessura em qualquer ponto em relação à espessura média (excentricidade) ( $\pm$ mm)
					
	DIÂMETRO EXTERNO (mm)				
	Até 31,75	31,75 a 76,19	76,20 a 126,99	acima de 127,0	
Até 1,19	0,15	-	-	-	10% da espessura média da parede.  Máximo: 1,52 Mínimo: 0,25
1,20 a 1,55	0,18	0,20	0,20	0,25	
1,56 a 1,95	0,20	0,20	0,23	0,30	
1,96 a 3,15	0,23	0,23	0,25	0,38	
3,16 a 6,34	0,23	0,23	0,33	0,51	
6,35 a 9,51	0,28	0,28	0,41	0,63	
9,52 a 12,69	-	0,38	0,53	0,89	
12,70 a 19,04	-	0,51	0,71	1,14	

TUBOS QUADRADOS, RETANGULARES, SEXTAVADOS E OITAVADOS - EXTRUDADOS					
Espessura nominal da parede (mm)	Desvio permissível da espessura média $\frac{AA+BB}{2}$ em relação à espessura nominal ( $\pm$ mm)			Desvio permissível da espessura em qualquer ponto em relação à espessura média (excentricidade) ( $\pm$ mm)	
					
	DIÂMETRO DO CÍRCULO CIRCUNSCRITO				
	menor que 127,0		maior que 127,0		menor que 127,0
					maior que 127,0
Até 1,19	0,13	0,20	0,13	10% da espessura média da parede.  Máximo: 1,52 Mínimo: 0,25	
1,20 a 1,55	0,15	0,23	0,18		
1,56 a 1,95	0,18	0,25	0,25		
1,96 a 3,15	0,18	0,25	0,25		
3,16 a 6,34	0,20	0,38	0,36		
6,35 a 9,51	0,28	0,51	0,63		
9,52 a 12,69	0,36	0,76	0,76		
12,70 a 19,04	0,63	1,02	1,02		



## Cantoneiras de Abas Iguais



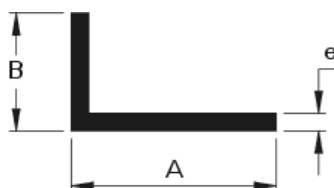
Nº Perfil	Peso Linear kg/m	A = B (mm)	e (espessura)
L-002	0,100	12,70	1,60
L-405	0,130	15,90	1,60
L-009	0,150	19,05	1,60
L-010	0,230	19,05	2,40
L-011	0,300	19,05	3,20
L-012	0,350	22,20	3,20
L-249	0,273	22,23	2,38
L-741	0,160	25,40	1,20
L-013	0,210	25,40	1,60
L-014	0,410	25,40	3,20
L-015	0,598	25,40	4,80
L-018	0,522	31,75	3,20
L-019	0,757	31,75	4,75
L-744	0,317	38,10	1,57
L-022	0,629	38,10	3,20
L-023	0,921	38,10	4,75
L-612	0,539	50,80	2,00
L-025	0,850	50,80	3,20
L-026	1,240	50,80	4,75

Nº Perfil	Peso Linear kg/m	A = B (mm)	e (espessura)
L-027	1,620	50,80	6,35
L-457	1,065	63,50	3,20
L-029	2,075	63,50	6,35
L-748	1,900	76,20	4,77
L-749	2,512	76,20	6,35

### Perfis com código exclusivo ASA (matrizes disponíveis)

Nº Perfil	Peso Linear kg/m	A = B (mm)	e (espessura)
20-006	0,264	31,75	1,58
20-005	0,745	70,00	2,00
20-003	1,429	70,00	4,00
20-004	1,344	76,00	3,35
20-011	2,907	76,20	7,40
20-010	3,426	102,00	6,40

## Cantoneiras de Abas Desiguais



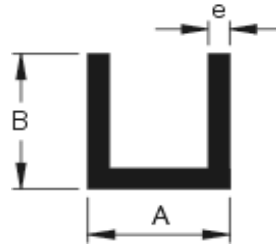
Nº Perfil	Peso Linear kg/m	A (mm)	B (mm)	e (espessura)
L-090	0,275	19,00	15,90	3,20
L-093	0,300	25,40	12,70	3,20
L-434	0,210	30,00	20,00	1,60
L-768	0,194	32,00	6,00	2,00
L-377	0,284	37,50	17,00	2,00
L-100	0,521	38,10	25,40	3,20
L-040	0,921	44,45	31,75	4,76
L-104	0,628	50,80	25,40	3,20
L-105	0,921	50,80	25,40	4,80
L-668	0,436	50,80	31,75	2,00

### Perfis com código exclusivo ASA (matrizes disponíveis)

Nº Perfil	Peso Linear kg/m	A (mm)	B (mm)	e (espessura)
23-013	0,183	19,00	18,00	1,50
23-015	0,173	21,00	13,00	2,00
23-028	0,180	25,00	12,70	1,60
23-027	0,260	25,00	17,50	2,40
23-003	0,106	25,40	11,00	1,40
23-014	0,297	35,00	22,00	2,00
23-001	0,331	38,10	15,80	2,38
23-016	0,335	50,00	14,00	2,00
23-004	0,400	60,00	35,00	1,58
23-002	0,530	94,30	30,00	1,60
23-010	0,933	125,00	50,00	2,00
23-023	4,437	150,00	60,00	7,94



**Perfis "U" Abas Iguais**

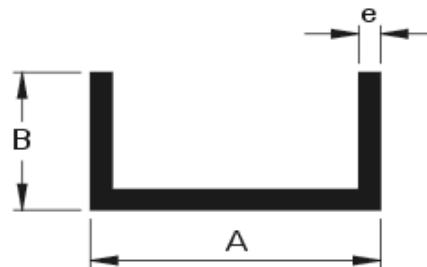


Nº Perfil	Peso Linear kg/m	A = B (mm)	e (espessura)
U-841	0,084	9,50	1,20
U-036	0,108	9,50	1,60
U-044	0,151	12,70	1,60
U-306	0,274	12,70	3,20
U-049	0,278	15,88	2,40
U-509	0,192	15,90	1,60
U-1168	0,320	22,00	1,90
U-064	0,398	22,20	2,40
U-070	0,604	25,40	3,20

**Perfis com código exclusivo ASA  
(matrizes disponíveis)**

Nº Perfil	Peso Linear kg/m	A = B (mm)	e (espessura)
31-001	0,068	6,35	1,60
31-041	0,128	13,00	1,30
31-002	0,492	31,75	2,00
31-029	0,596	38,00	2,00

**Perfis "U" Abas Desiguais**



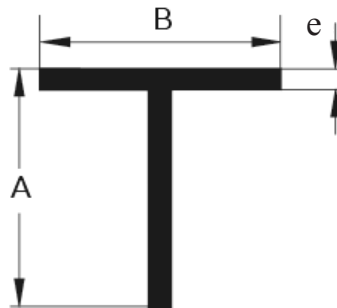
Nº Perfil	Peso Linear kg/m	A	B	e (espessura)
U-037	0,137	9,50	12,70	1,60
U-555A	0,200	14,20	25,00	1,20
U-555	0,268	15,00	25,00	1,60
U-048	0,194	15,88	9,52	2,40
U-061	0,190	20,00	15,00	1,50
U-1216	0,246	38,10	12,70	1,50
U-082	0,378	38,10	12,70	2,38
U-1217	0,458	38,10	25,40	2,00
U-1184	0,520	50,00	25,00	2,00
U-732	0,813	50,80	25,40	3,15
U-092	0,758	80,00	32,00	2,00
U-093	1,680	101,60	50,80	3,15

**Perfis com código exclusivo ASA  
(matrizes disponíveis)**

Nº Perfil	Peso Linear kg/m	A	B	e (espessura)
31-020	0,116	11,02	15,00	1,10
31-016	0,258	20,20	23,40	1,40
31-035	1,950	20,80	40,00	2,50
31-018	0,388	29,00	35,00	1,50
31-006	0,194	36,00	11,00	1,30
31-009	0,787	40,00	25,00	3,50
31-010	0,603	50,00	33,00	2,00
31-015	1,354	85,00	60,00	2,50
31-008	1,329	107,00	47,50	2,50



**Perfis "T"**

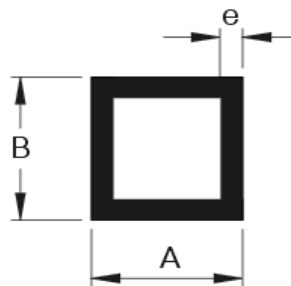


Nº Perfil	Peso Linear kg/m	A	B	e (espessura)
T-123	0,162	25,40	25,40	1,20
T-018	0,518	31,75	31,75	3,20
T-021	0,633	38,10	38,10	3,20

**Perfis com código exclusivo ASA  
(matrizes disponíveis)**

Nº Perfil	Peso Linear kg/m	A	B	e (espessura)
50-025	0,155	19,00	19,00	1,58
50-005	0,195	25,00	25,00	1,50
50-016	0,471	35,00	26,00	3,00
50-001	0,531	50,00	50,00	2,00

**Tubos Quadrados**



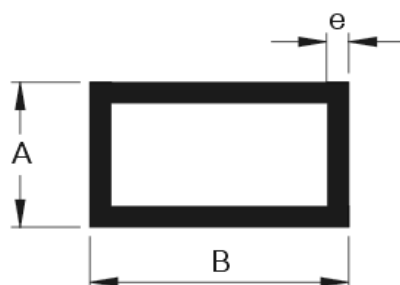
Nº Perfil	Peso Linear kg/m	A = B	e (espessura)
TUB-4001	0,200	12,70	1,65
TUB-4002	0,233	15,90	1,50
TUB-4038	0,232	19,00	1,20
TUB-4003	0,284	19,05	1,50
TUB-4007	0,314	25,40	1,20
TUB-4008	0,386	25,40	1,50
TUB-4046	1,127	30,00	4,00
TUB-4011	0,491	31,75	1,50
TUB-4014	0,595	38,10	1,50
TUB-4020	1,055	50,80	2,00
TUB-4048	1,635	50,80	3,18
TUB-4030	1,365	65,00	2,00
TUB-4067	2,509	76,20	3,17
TUB-4034	1,525	80,00	1,80
TUB-4054	2,686	101,60	2,50

**Perfis com código exclusivo ASA  
(matrizes disponíveis)**

Nº Perfil	Peso Linear kg/m	A = B	e (espessura)
73-003	0,293	19,62	1,30
73-015C	0,264	25,40	1,00
73-008	1,211	44,45	2,68
73-006	1,554	50,80	3,00
73-001	3,050	50,80	6,35
73-010	0,842	50,80	1,58
73-002	1,977	76,00	2,50
73-016C	1,608	76,20	2,00
73-013	2,639	101,50	2,50
73-012	3,341	101,60	3,20
73-014D	1,840	101,60	1,70



## Tubos Retangulares



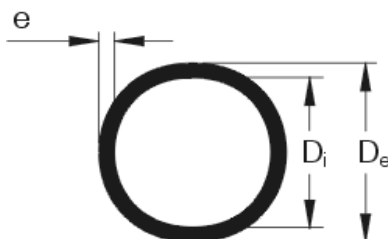
### Perfis com código exclusivo ASA (matrizes disponíveis)

Nº Perfil	Peso Linear kg/m	A	B	e (espessura)
TUB-4584	0,300	12,70	25,40	1,58
TUB-4536	0,492	12,70	50,80	1,60
TUB-4501	0,310	12,70	25,40	1,65
TUB-4509	0,497	20,00	30,00	2,00
TUB-4545	0,645	25,40	38,10	2,00
TUB-4563	0,479	25,40	50,80	1,20
TUB-4569	0,633	25,40	50,80	1,60
TUB-4504	0,782	25,40	50,80	2,00
TUB-4543	0,875	38,10	60,30	1,70
TUB-4517	1,195	38,10	76,20	2,00
TUB-4537	1,754	38,10	101,60	2,40
TUB-4520	3,181	38,10	152,40	3,20
TUB-4573	2,079	50,80	76,20	3,17
TUB-4530	2,418	50,80	101,60	3,05
TUB-4600	3,417	50,80	127,00	3,17
TUB-4559	3,206	50,80	152,40	3,00

Nº Perfil	Peso Linear kg/m	A	B	e (espessura)
74-009	0,258	9,00	28,00	1,40
74-022	0,452	9,50	50,20	1,40
74-021	0,235	12,00	20,00	1,50
74-032	0,195	12,70	25,40	1,00
74-045C	0,333	12,70	50,80	1,00
73-009	0,215	17,60	19,10	1,20
74-028	0,463	20,00	40,00	1,50
74-025	0,604	20,00	40,00	2,00
74-010	0,324	22,50	30,00	1,30
74-043C	0,746	22,70	76,30	1,40
74-005	0,362	23,00	46,00	1,00
74-016	0,397	25,40	38,10	1,20
74-001	0,401	25,40	50,80	1,00
74-013	0,478	25,40	50,80	1,20
74-042C	0,502	25,40	50,80	1,30
74-023	0,842	25,40	76,20	1,58
74-008	0,821	30,00	50,00	2,00
74-006	0,787	35,00	72,00	1,40
74-020	0,734	38,10	50,80	1,58
74-026	0,920	38,10	50,80	2,00
74-002	0,904	38,10	76,20	1,50
74-036C	2,021	38,10	152,40	2,00
74-027	2,981	40,00	80,00	5,00
74-035C	2,552	45,00	112,00	3,00
74-003	1,608	50,80	101,60	2,00
74-053C	1,919	50,80	101,60	2,40
74-014	3,570	50,80	101,60	4,60
74-017	2,043	50,80	130,00	2,00
74-047C	1,474	60,00	80,00	2,00
74-015	0,725	60,30	38,10	1,40
74-004	2,314	57,15	83,90	3,17
74-048C	2,178	80,00	125,00	2,00
74-024	1,293	101,60	50,80	1,60



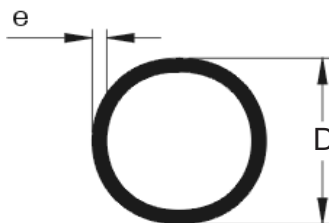
## Tubos Redondos



Nº Perfil	Peso Linear kg/m	De	Di	e (espessura)
TUB-001	0,072	9,52	7,52	1,00
TUB-003	0,108	9,52	6,36	1,58
TUB-008	0,100	12,70	10,70	1,00
TUB-009	0,120	12,70	10,22	1,24
TUB-010	0,150	12,70	9,54	1,58
TUB-017	0,124	15,88	13,88	1,00
TUB-018	0,154	15,88	13,40	1,24
TUB-019	0,192	15,88	12,72	1,58
TUB-020	0,270	15,88	11,12	2,38
TUB-021	0,344	15,88	9,52	3,18
TUB-026	0,153	19,05	17,05	1,00
TUB-027	0,188	19,05	16,57	1,24
TUB-028	0,234	19,05	15,89	1,58
TUB-544	0,351	19,05	14,05	2,50
TUB-030	0,426	19,05	12,69	3,18
TUB-036	0,180	22,22	20,22	1,00
TUB-037	0,224	22,22	19,74	1,24
TUB-038	0,278	22,22	19,06	1,58
TUB-041	0,514	22,22	15,86	3,18
TUB-044	0,205	25,40	23,40	1,00
TUB-045	0,254	25,40	22,92	1,24

Nº Perfil	Peso Linear kg/m	De	Di	e (espessura)
TUB-046	0,320	25,40	22,24	1,58
TUB-047	0,469	25,40	20,64	2,38
TUB-048	0,600	25,40	19,04	3,18
TUB-050	0,580	26,67	20,93	2,87
TUB-053	0,364	28,58	25,42	1,58
TUB-461	0,287	31,75	29,75	1,00
TUB-059	0,505	31,75	27,75	2,00
TUB-060	0,595	31,75	26,99	2,38
TUB-580	0,742	31,75	25,65	3,05
TUB-061	0,770	31,75	25,39	3,18
TUB-066	0,860	33,40	26,64	3,38
TUB-407	0,561	35,00	31,00	2,00
TUB-069	0,467	38,10	35,10	1,50
TUB-070	0,942	38,10	31,76	3,17
TUB-471	1,444	42,20	33,20	4,50
TUB-081	0,573	44,45	41,29	1,58
TUB-091	0,826	50,80	46,80	2,00
TUB-092	1,285	50,80	44,44	3,18
TUB-369	0,902	55,00	51,00	2,00
TUB-324	0,807	76,20	73,66	1,27
TUB-337	1,084	101,60	99,06	1,27

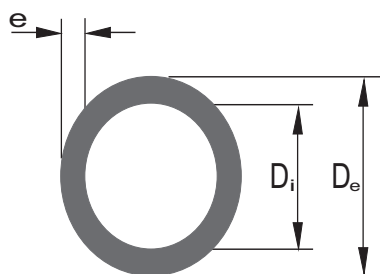
## Tubos de Irrigação



Nº Perfil	D	(e) ESPESSURA	PESO LINEAR Kg/m
72-169	2" - 50,8	1,27	0,553
TUB-324	3" - 76,2	1,27	0,807
TUB-337	4" - 101,6	1,27	1,085
72-317D	6" - 152,4	1,58	2,054



Disponos de outras medidas. Consultar Depto. Comercial.



Nº Perfil	Peso Linear kg/m	Ø nom. pol.	Asa Schedule	mm		
				D <sub>e</sub>	D <sub>i</sub>	e
TUB-581	0,162	1/8	80	10,29	5,46	2,41
TUB-583	0,275	1/4	80	13,72	7,67	3,02
TUB-582	0,219	1/4	40	13,72	9,25	2,24
TUB-585	0,381	3/8	80	17,15	10,74	3,20
TUB-584	0,292	3/8	40	17,15	12,52	2,31
TUB-588	0,671	1/2	160	21,34	11,84	4,75
TUB-035	0,560	1/2	80	21,34	13,86	3,74
TUB-034	0,438	1/2	40	21,34	15,80	2,77
TUB-587	0,345	1/2	10	21,34	17,12	2,11
TUB-586	0,277	1/2	5	21,34	18,03	1,65
TUB-591	0,997	3/4	160	26,67	15,60	5,54
TUB-051	0,749	3/4	80	26,67	18,85	3,91
TUB-050	0,580	3/4	40	26,67	20,93	2,87
TUB-590	0,442	3/4	10	26,67	22,45	2,11
TUB-594	1,464	1	160	33,40	20,70	6,35
TUB-067	1,110	1	80	33,40	24,30	4,55
TUB-593	0,723	1	10	33,40	27,86	2,77
TUB-592	0,446	1	5	33,40	30,10	1,65
TUB-597	1,937	1 1/4	160	42,16	29,46	6,35
TUB-596	0,930	1 1/4	10	42,16	36,63	2,77
TUB-595	0,570	1 1/4	5	42,16	38,86	1,65
TUB-076	1,536	1 1/4	80	42,17	32,47	4,85
TUB-075	1,170	1 1/4	40	42,17	35,05	3,56
TUB-599	2,501	1 1/2	160	48,26	33,99	7,14
TUB-089	1,860	1 1/2	80	48,26	38,10	5,08
TUB-088	1,399	1 1/2	40	48,26	40,90	3,68
TUB-232	1,085	1 1/2	10	48,30	42,70	2,80
TUB-602	3,832	2	160	60,33	42,90	8,71
TUB-101	2,565	2	80	60,33	49,25	5,54
TUB-100	1,865	2	40	60,33	52,51	3,91
TUB-601	1,359	2	10	60,33	54,79	2,77

Nº Perfil	Peso Linear kg/m	Ø nom. pol.	Asa Schedule	mm		
				D <sub>e</sub>	D <sub>i</sub>	e
TUB-600	0,826	2	5	60,33	57,02	1,65
TUB-604	5,154	2 1/2	160	73,03	53,98	9,53
TUB-110	3,930	2 1/2	80	73,03	59,01	7,01
TUB-109	2,975	2 1/2	40	73,03	62,71	5,16
TUB-178	2,070	2 1/2	10	73,03	66,03	3,50
TUB-603	1,274	2 1/2	5	73,03	68,81	2,11
TUB-606	7,358	3	160	88,90	66,70	11,10
TUB-118	5,280	3	80	88,90	73,66	7,62
TUB-117	3,890	3	40	88,90	77,92	5,49
TUB-202	2,230	3	10	88,90	82,80	3,05
TUB-605	1,559	3	5	88,90	84,68	2,11
TUB-123	6,380	3 1/2	80	101,60	85,44	8,08
TUB-122	4,670	3 1/2	40	101,60	90,12	5,74
TUB-608	2,559	3 1/2	10	101,60	95,50	3,05
TUB-607	1,787	3 1/2	5	101,60	97,38	2,11
TUB-611	11,586	4	80	114,30	87,33	13,49
TUB-610	9,761	4	120	114,30	92,10	11,10
TUB-127	7,706	4	80	114,30	97,18	8,56
TUB-125	5,600	4	40	114,30	102,26	6,02
TUB-187	2,830	4	10	114,30	108,20	3,05
TUB-131	9,010	4 1/2	160	127,00	108,96	9,01
TUB-129	6,490	4 1/2	40	127,00	114,46	6,27
TUB-615	16,963	5	160	141,30	108,55	15,88
TUB-614	13,917	5	120	141,30	115,90	12,70
TUB-133	10,800	5	80	141,30	122,26	9,52
TUB-132	7,560	5	40	141,30	128,20	6,55
TUB-613	4,000	5	10	141,30	134,49	3,40
TUB-612	3,268	5	5	141,30	135,76	2,77
TUB-618	23,317	6	160	168,28	131,80	18,24
TUB-617	18,734	6	120	168,28	139,73	14,27



## Tubos Redondos em Geral



Cód. Perfil	mm D <sub>e</sub>	mm e	Peso por m linear	Cód. Perfil	mm D <sub>e</sub>	mm e	Peso por m linear	Cód. Perfil	mm D <sub>e</sub>	mm e	Peso por m linear	Cód. Perfil	mm D <sub>e</sub>	mm e	Peso por m linear
72-151	8,00	1,50	0,083	TUB-0045	25,40	1,24	0,255	72-207	44,45	3,17	1,114	72-159	76,20	2,50	1,569
TUB-0001	9,52	1,00	0,072	72-288C	25,40	1,40	0,286	TUB-0257	45,00	2,00	0,732	TUB-0167	76,20	3,00	1,869
TUB-0003	9,52	1,58	0,107	72-241	25,40	1,50	0,305	TUB-0088	48,26	3,68	0,140	72-117	76,20	3,18	1,966
72-076	10,00	1,50	0,108	TUB-0222	25,40	2,00	0,398	72-261	48,50	8,25	2,827	72-302C	76,20	5,60	3,365
72-289C	12,50	1,15	0,110	TUB-0047	25,40	2,40	0,466	72-257	50,00	2,00	0,817	72-248	77,00	2,00	1,277
TUB-0008	12,70	1,00	0,100	72-127	25,40	6,55	1,047	72-169	50,80	1,27	0,533	TUB-0157	80,00	1,60	1,067
TUB-0009	12,70	1,24	0,120	72-291C	25,50	3,10	0,588	TUB-0609	50,80	1,45	0,609	TUB-0112	80,00	2,00	1,323
TUB-0010	12,70	1,58	0,150	TUB-0050	26,67	2,87	0,579	72-185	50,80	1,60	0,670	72-090	80,00	8,00	4,885
TUB-0011	12,70	2,00	0,182	72-028	28,00	1,10	0,250	72-213	50,80	1,65	0,690	72-219	82,00	2,00	1,362
72-255	15,00	1,00	0,119	72-276C	28,58	1,00	0,232	TUB-0091	50,80	2,00	0,827	TUB-0248	84,60	4,00	2,734
TUB-0017	15,88	1,00	0,126	72-160	30,00	3,50	0,790	72-264	50,80	3,00	1,220	72-281C	88,90	2,00	1,479
TUB-0018	15,88	1,24	0,153	72-161	30,00	4,50	0,977	TUB-0092	50,80	3,18	1,289	TUB-0117	88,90	5,50	3,898
TUB-0019	15,88	1,59	0,192	72-098	30,00	5,10	1,077	72-236	50,80	4,00	1,593	72-137	90,00	3,00	2,213
TUB-0020	15,88	2,38	0,270	TUB-0461	31,75	1,00	0,287	72-252	50,80	6,35	2,403	72-250	91,00	5,50	4,003
TUB-0021	15,88	3,20	0,343	72-029	31,75	1,10	0,286	72-271	50,80	8,05	2,929	72-296C	95,00	4,00	3,098
72-293C	15,90	1,20	0,150	TUB-0058	31,75	1,59	0,408	72-182	55,00	2,00	0,902	72-299C	100,00	1,50	1,257
72-274	17,00	2,00	0,255	TUB-0060	31,75	2,38	0,592	72-180	55,00	6,00	2,503	72-200	100,00	2,00	1,668
72-254	18,50	1,58	0,227	TUB-0580	31,75	3,05	0,745	72-099	55,50	9,90	3,830	TUB-0337	101,60	1,20	1,025
TUB-0026	19,05	1,00	0,153	TUB-0061	31,75	3,17	0,770	72-183	57,20	2,38	1,110	72-303C	101,60	2,38	2,010
TUB-0027	19,05	1,24	0,188	72-091	33,30	6,75	1,520	72-232	60,00	1,50	0,747	TUB-0182	101,60	2,60	2,191
72-321C	19,05	1,50	0,224	72-126	33,40	2,60	0,679	72-105	60,00	4,50	2,118	TUB-0649	101,60	3,17	2,656
TUB-0028	19,05	1,58	0,236	TUB-0066	33,40	3,38	0,860	72-186	60,30	2,50	1,230	TUB-0122	101,60	5,74	4,791
TUB-0544	19,05	2,50	0,352	72-072	34,70	1,85	0,515	TUB-0100	60,33	3,91	1,878	72-238	101,60	6,35	5,149
TUB-0030	19,05	3,18	0,429	72-073	34,70	2,85	0,770	TUB-0101	60,33	5,54	2,584	72-237	101,60	8,07	6,426
72-269	19,90	1,20	0,191	72-338C	34,92	4,15	1,086	72-253	60,69	1,82	0,912	72-218	107,90	3,00	2,679
72-286C	20,00	1,80	0,278	72-133	35,00	1,50	0,426	72-189	63,50	1,60	0,843	72-171	110,00	1,70	1,567
72-146	20,00	5,50	0,679	72-295C	38,10	1,10	0,346	72-081	63,50	1,65	0,865	72-176	110,00	2,50	2,288
72-165	20,50	2,40	0,370	72-265	38,10	1,30	0,407	72-198	63,50	1,70	0,894	72-259	110,00	3,50	3,173
72-251	20,70	5,00	0,668	TUB-0069	38,10	1,50	0,467	72-158	63,50	2,50	1,298	72-284C	114,30	3,85	3,620
TUB-0366	21,00	1,50	0,249	72-055	38,10	2,00	0,612	72-148	63,50	3,18	1,633	TUB-0125	114,30	6,02	5,549
TUB-0034	21,34	2,77	0,436	TUB-0215	38,10	2,38	0,721	72-101	63,50	11,25	4,985	TUB-0127	114,30	8,56	7,706
72-326C	21,60	1,23	0,213	72-233	38,10	2,60	0,785	72-040	64,00	2,00	1,051	TUB-0610	114,30	11,10	9,752
72-260	21,60	1,58	0,269	TUB-0070	38,10	3,18	0,940	72-194	64,00	8,50	4,016	72-249	120,00	1,70	1,712
72-004	22,10	1,67	0,290	72-292C	38,10	7,10	1,863	72-118	65,00	10,85	4,984	72-217	120,00	3,50	3,471
72-298C	22,20	1,23	0,218	72-285C	38,20	1,55	0,483	72-211	66,00	1,50	0,823	72-202	127,00	3,00	3,167
72-064	22,20	2,20	0,373	72-156	39,20	1,60	0,512	72-093	69,85	3,17	1,792	TUB-0129	127,00	6,27	6,444
TUB-0036	22,22	1,00	0,180	72-267	40,00	2,60	0,827	72-120	70,00	3,50	1,974	72-278C	130,00	3,00	3,243
TUB-0037	22,22	1,24	0,221	72-263	41,50	7,40	2,148	72-104	70,00	11,75	5,805	TUB-0132	141,30	6,55	7,514
TUB-0041	22,22	3,18	0,512	72-205	42,00	7,00	2,085	72-277C	73,00	2,00	1,208	72-258	144,00	3,10	3,718
72-270	22,40	1,00	0,182	TUB-0075	42,17	3,56	1,165	TUB-0109	73,03	5,16	2,981	72-294D	152,40	3,18	4,033
72-272	24,00	1,58	0,301	TUB-0471	42,20	4,50	1,444	TUB-0110	73,03	7,01	3,925				
72-227	24,50	6,00	0,945	72-102	42,80	7,90	2,338	TUB-0324	76,20	1,27	0,807				
72-283C	25,20	1,00	0,206	72-142	43,00	1,80	0,630	72-163	76,20	1,58	1,004				
72-290C	25,25	1,90	0,382	TUB-0081	44,45	1,58	0,576	72-206	76,20	2,00	1,263				



## Barra Chata (Retangulares)



Nº Perfil	Peso Linear kg/m	B (mm)	A (mm)
BAR-084	0,163	9,52	6,35
BAR-012	0,109	12,70	3,18
BAR-047	0,163	12,70	4,76
BAR-086	0,217	12,70	6,35
BAR-049	0,204	15,88	4,76
BAR-088	0,272	15,88	6,35
BAR-013	0,136	15,88	3,17
BAR-014	0,164	19,05	3,18
BAR-050	0,245	19,05	4,76
BAR-089	0,326	19,05	6,35
BAR-158	0,655	19,05	12,70
BAR-015	0,191	22,22	3,18
BAR-052	0,286	22,22	4,76
BAR-090	0,382	22,22	6,35
BAR-214	0,135	25,00	2,00
BAR-002	0,109	25,40	1,50
BAR-016	0,218	25,40	3,17
BAR-053	0,326	25,40	4,76
BAR-091	0,435	25,40	6,35
BAR-129	0,655	25,40	9,52
BAR-160	0,873	25,40	12,70
BAR-320	1,409	31,50	16,50
BAR-019	0,273	31,75	3,18
BAR-054	0,408	31,75	4,76
BAR-093	0,544	31,75	6,35
BAR-132	0,815	31,75	9,52
BAR-162	1,088	31,75	12,70
BAR-022	0,327	38,10	3,18
BAR-057	0,490	38,10	4,76
BAR-096	0,653	38,10	6,35
BAR-134	0,980	38,10	9,52
BAR-164	1,306	38,10	12,70
BAR-387	0,206	50,80	1,50
BAR-027	0,437	50,80	3,18
BAR-061	0,653	50,80	4,76
BAR-100	0,870	50,80	6,35
BAR-137	1,304	50,80	9,53
BAR-168	1,741	50,80	12,70
BAR-198	2,184	50,80	15,87
BAR-189	2,622	50,80	19,05
BAR-030	0,546	63,50	3,20
BAR-064	0,816	63,50	4,76
BAR-104	1,088	63,50	6,35
BAR-141	1,630	63,50	9,52
BAR-172	2,185	63,50	12,70
BAR-032	0,654	76,20	3,18
BAR-106	1,306	76,20	6,35
BAR-144	1,966	76,20	9,52
BAR-175	2,622	76,20	12,70
BAR-330	3,284	76,20	15,90
BAR-191	5,244	76,20	25,40
BAR-397	6,555	76,20	31,75
BAR-193	7,867	76,20	38,10
BAR-186	4,050	100,00	15,00
BAR-110	1,741	101,60	6,35
BAR-149	2,620	101,60	9,52

Nº Perfil	Peso Linear kg/m	B (mm)	A (mm)
BAR-403	4,371	101,60	15,88
BAR-405	6,992	101,60	25,40
BAR-180	3,483	101,60	12,70
BAR-404	5,248	101,60	19,05
BAR-413	1,616	125,00	4,76
BAR-151	3,275	127,00	9,52
BAR-182	4,370	127,00	12,70
BAR-414	5,464	127,00	15,88
BAR-183	4,790	139,70	12,70
BAR-184	5,244	152,00	12,70
BAR-196	8,741	203,20	15,88

### Perfis com código exclusivo ASA (matrizes disponíveis)

Nº Perfil	Peso Linear kg/m	B (mm)	A (mm)
12-025	0,085	15,88	2,00
12-001	0,086	17,80	1,80
19-013	0,415	44,00	3,50
12-041	0,360	44,40	3,00
12-030	3,226	46,00	26,00
12-031	0,612	47,62	4,76
12-021	3,240	60,00	20,00
12-010	0,473	60,50	2,00
12-027	9,300	65,00	53,00
12-008	0,486	72,00	2,50
12-002	0,836	88,50	3,50
12-016	1,142	88,90	4,76
12-020	12,670	92,00	51,00
12-019	0,810	100,00	3,00
12-012	2,160	100,00	8,00
12-009	0,891	110,00	3,00
12-011	1,782	110,00	6,00
12-017	1,296	120,00	4,00
12-014	2,177	127,00	6,35
12-044	5,506	127,00	16,00
12-004	1,713	133,35	4,76
12-018	1,620	150,00	4,00
12-100D	10,490	152,40	25,40
12-037	6,993	203,20	12,70
12-032	10,490	203,20	19,05



## Vergalhão Redondo



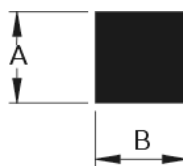
Perfis com código exclusivo ASA (matrizes disponíveis)

Nº Perfil	Peso Linear kg/m	D (mm)
VER-001	0,076	6,00
VER-002	0,086	6,35
VER-004	0,133	7,93
VER-005	0,136	8,00
VER-007	0,193	9,52
VER-009	0,262	11,11
VER-011	0,342	12,70
VER-012	0,433	14,28
VER-014	0,536	15,87
VER-016	0,772	19,05
VER-018	1,050	22,22
VER-020	1,205	23,81
VER-021	1,371	25,40
VER-024	1,735	28,57

Nº Perfil	Peso Linear kg/m	D (mm)
VER-027	2,145	31,75
VER-030	2,585	34,92
VER-032	3,089	38,10
VER-034	3,611	41,27
VER-036	4,200	44,45
VER-038	4,830	47,62
VER-040	5,490	50,80
VER-049	6,201	53,98
VER-050	6,951	57,15
VER-042	8,580	63,50
VER-043	12,358	76,20
VER-044	16,821	88,90
VER-045	21,970	101,60

Nº Perfil	Peso Linear kg/m	D (mm)
10-001	0,064	6,40
10-002	0,098	6,80
10-009	0,116	7,40
10-010	0,116	7,40
10-012	0,165	8,80
10-007	0,953	21,20
10-011	1,330	25,00
10-004	1,758	28,80
10-003	3,645	41,46
10-013	3,763	42,00
10-005	4,565	46,40
10-006	5,778	52,20
10-014	8,142	61,85
10-016	11,033	72,00

## Vergalhão Quadrado

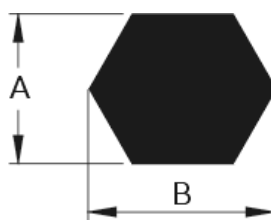


Nº Perfil	Peso Linear kg/m	A = B (mm)
VER-4002	0,108	6,35
VER-4003	0,170	7,93
VER-4006	0,245	9,52
VER-4007	0,332	11,11
VER-4008	0,435	12,70

Nº Perfil	Peso Linear kg/m	A = B (mm)
VER-4011	0,680	15,87
VER-4013	0,980	19,05
VER-4015	1,334	22,22
VER-4017	1,742	25,40

Nº Perfil	Peso Linear kg/m	A = B (mm)
VER-4019	2,762	31,75
VER-4022	3,933	38,10
VER-4026	6,993	50,80
VER-4046	10,927	63,50

## Vergalhão Sextavado



Nº Perfil	Peso Linear kg/m	A (mm)	B (mm)
VER-6003	0,212	9,52	11,00
VER-6004	0,290	11,11	12,83
VER-6005	0,378	12,70	14,66
VER-6006	0,492	14,28	16,50
VER-6007	0,590	15,87	18,33

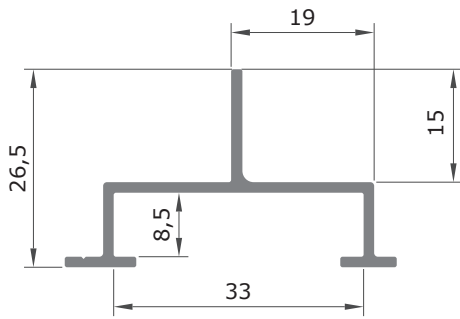
Nº Perfil	Peso Linear kg/m	A (mm)	B (mm)
VER-6008	0,714	17,46	20,16
VER-6009	0,851	19,05	22,00
VER-6011	1,166	22,22	25,66
VER-6012	1,331	23,81	27,50
VER-6013	1,527	25,40	29,33

Nº Perfil	Peso Linear kg/m	A (mm)	B (mm)
VER-6015	1,906	28,57	33,00
VER-6017	2,363	31,75	36,66
VER-6019	2,863	34,92	40,33
VER-6021	3,388	38,10	44,00



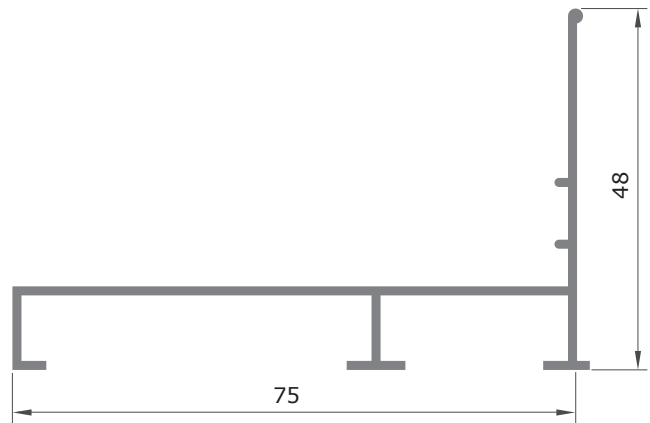






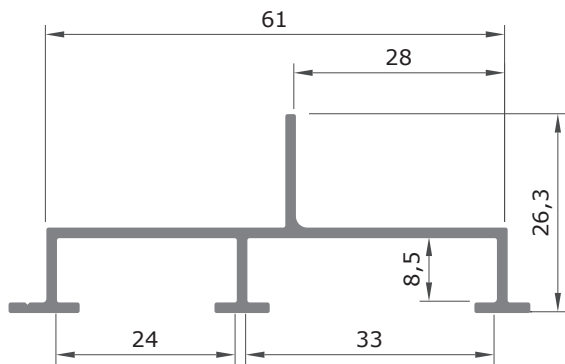
**CA-204**

0,327 Kg/m



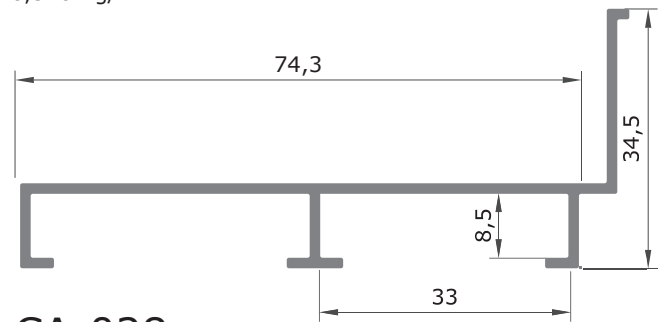
**CA-709**

0,520 Kg/m



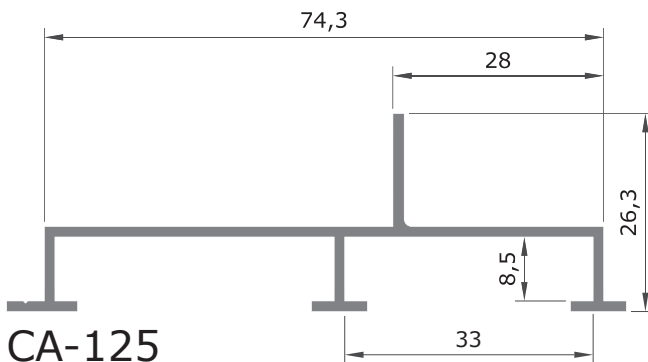
**CA-126**

0,477 Kg/m



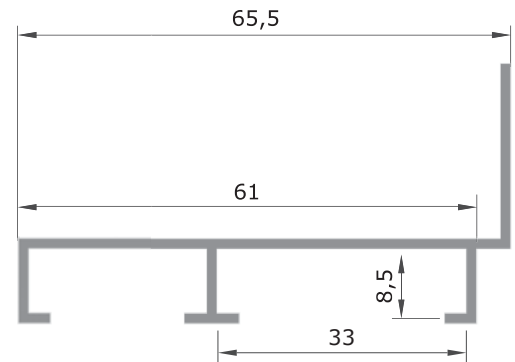
**CA-028**

0,554 Kg/m



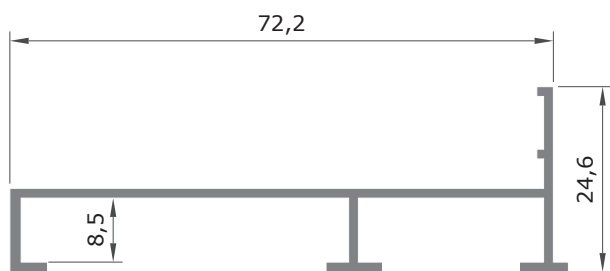
**CA-125**

0,531 Kg/m



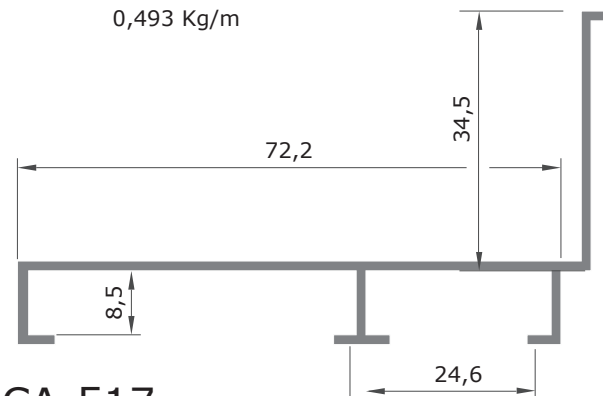
**CA-129**

0,493 Kg/m



**CA-113**

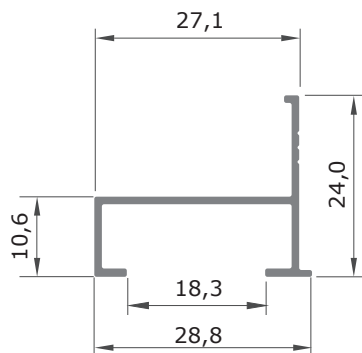
0,468 Kg/m



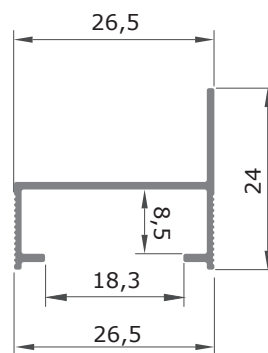
**CA-517**

0,531 Kg/m

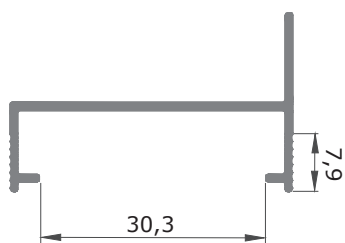




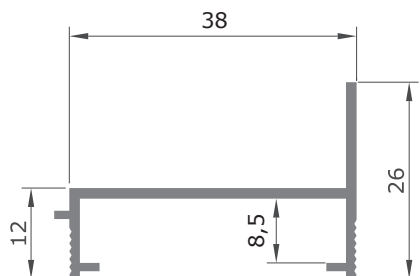
**CA-721A**  
0,188 Kg/m



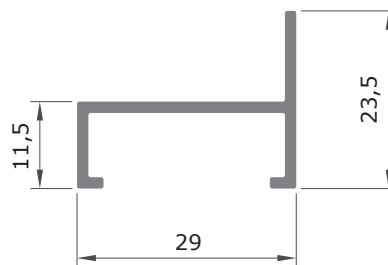
**CA-063A**  
0,175 Kg/m



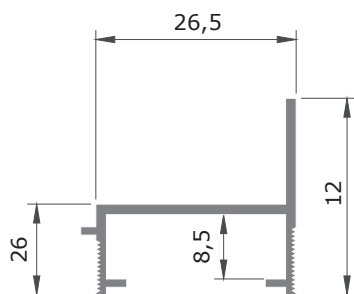
**CA-060A**  
0,223 Kg/m



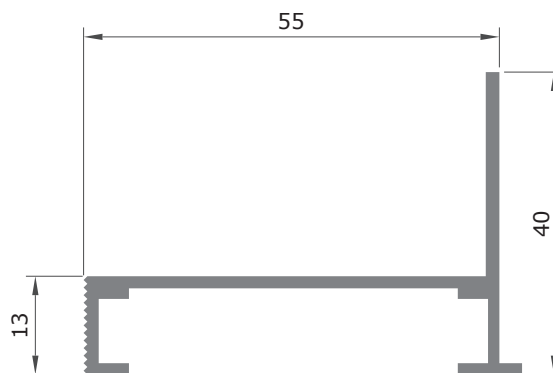
**39-126**  
0,245 Kg/m



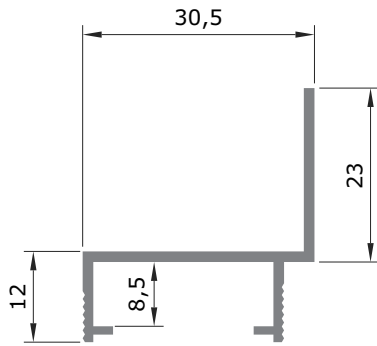
**Y-120 (25-557)**  
0,263 Kg/m



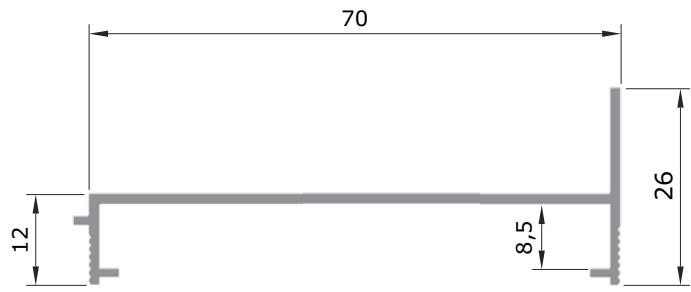
**39-118**  
0,293 Kg/m



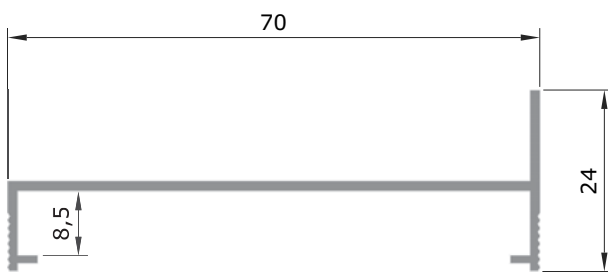
**39-161**  
0,544 Kg/m



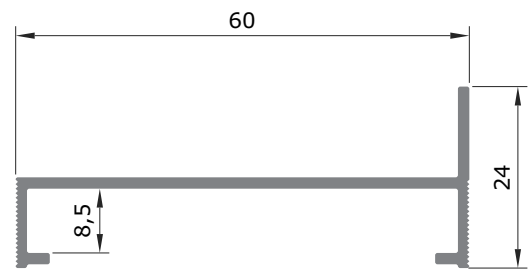
**39-500**  
0,287 Kg/m



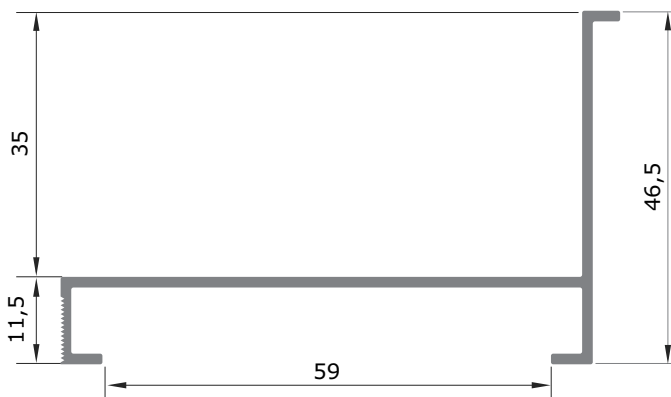
**39-119**  
0,414 Kg/m



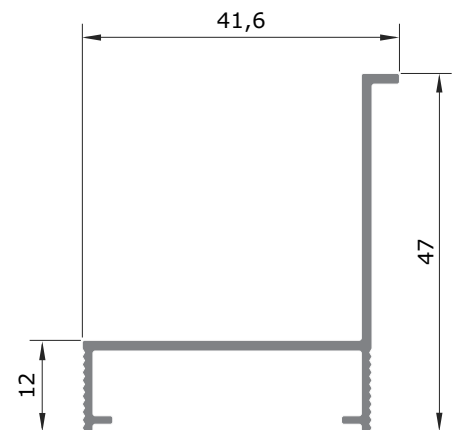
**CA-096**  
0,394 Kg/m



**39-341**  
0,391 Kg/m

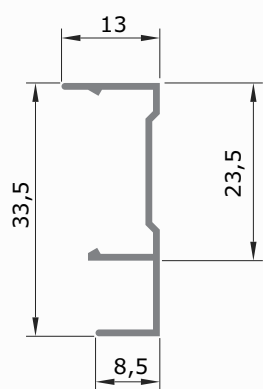


**CA-032**  
0,513 Kg/m

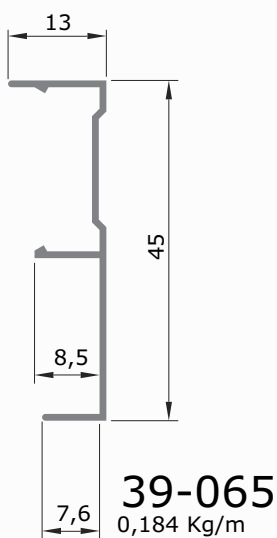


**CA-098**  
0,377 Kg/m

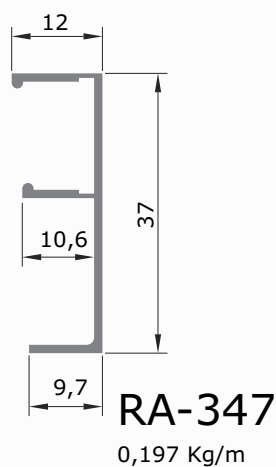




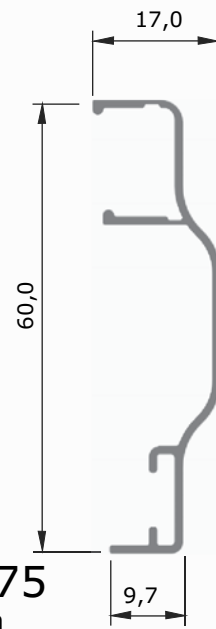
**E-504 (CM-111)**  
0,156 Kg/m



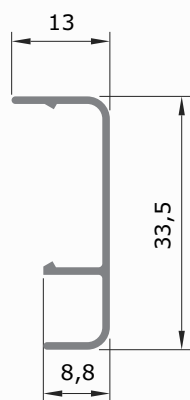
**39-065**  
0,184 Kg/m



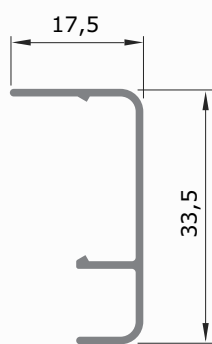
**RA-347**  
0,197 Kg/m



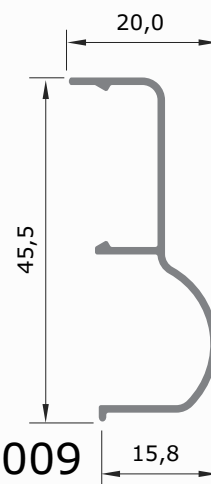
**RA-1175**  
0,297 kg/m



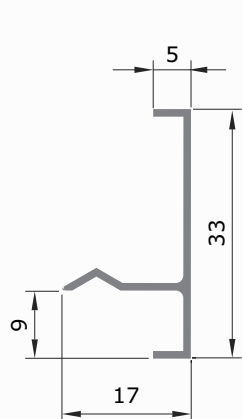
**RA-613**  
0,162 Kg/m



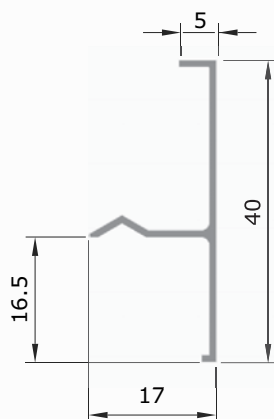
**39-816**  
0,175 Kg/m



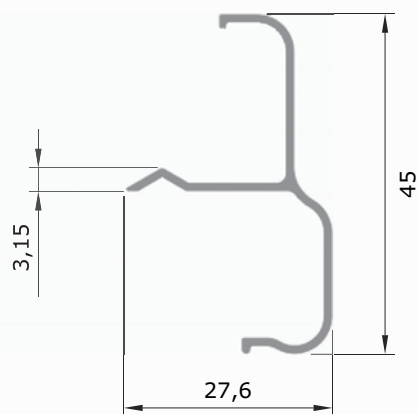
**39-1009**  
0,209 Kg/m



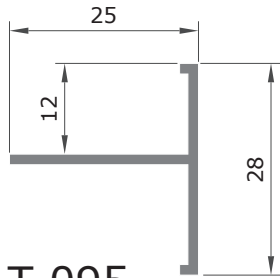
**RA-007**  
0,157 Kg/m



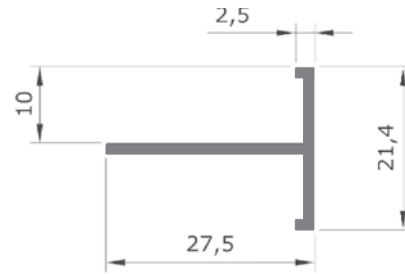
**RA-006**  
0,168 Kg/m



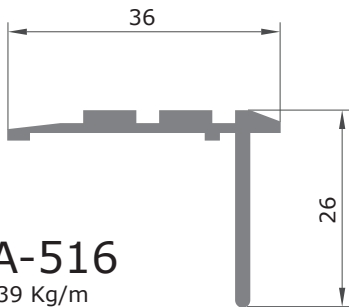
**39-448**  
0,283 Kg/m



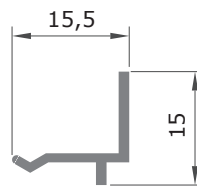
**T-095**  
0,203 Kg/m



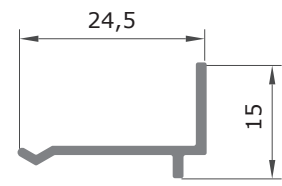
**T-155**  
0,183 Kg/m



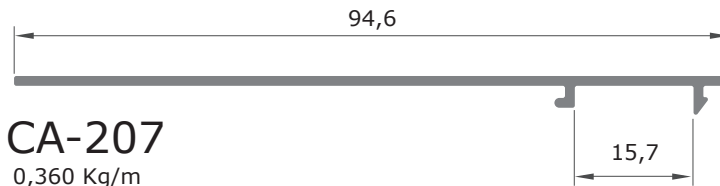
**RA-516**  
0,339 Kg/m



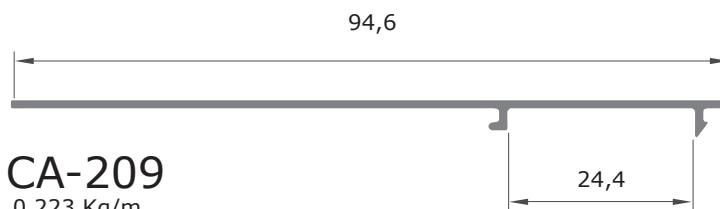
**CA-014**  
0,104 Kg/m



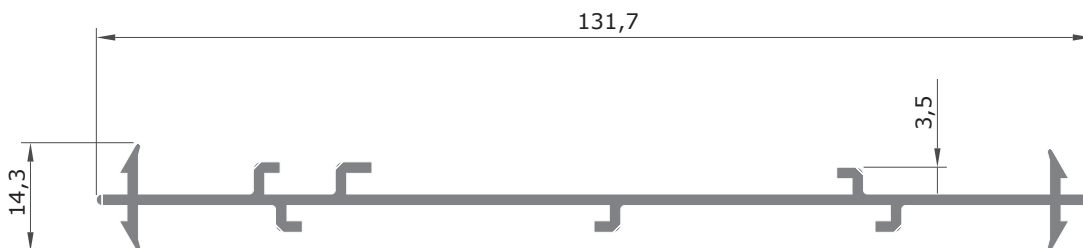
**CA-013**  
0,133 Kg/m



**CA-207**  
0,360 Kg/m

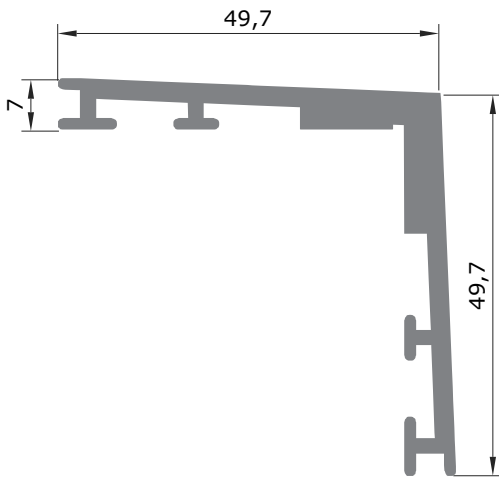


**CA-209**  
0,223 Kg/m

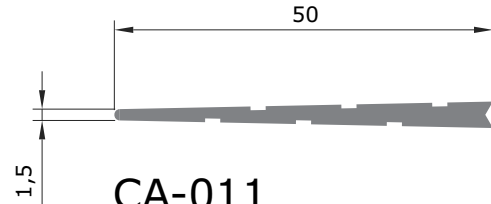


**CA-093**  
0,766 Kg/m

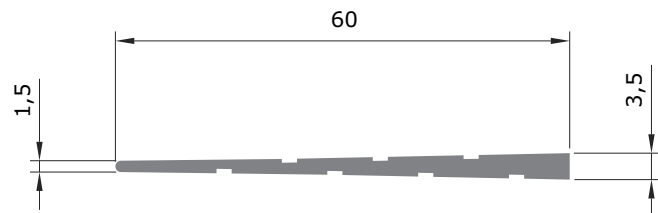




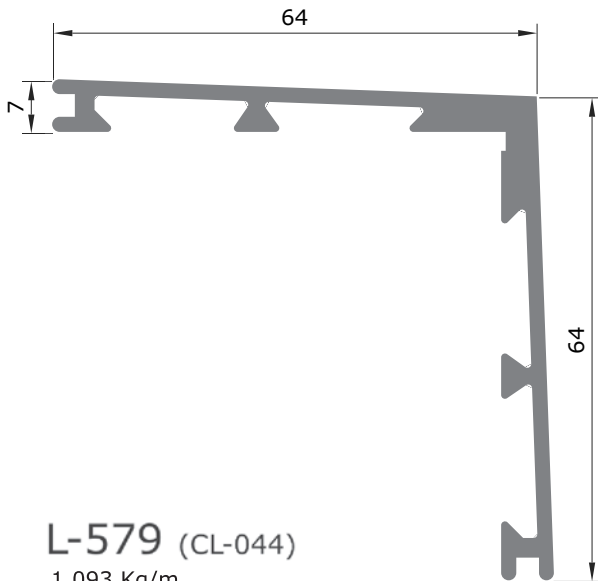
**CA-006**  
1,006 Kg/m



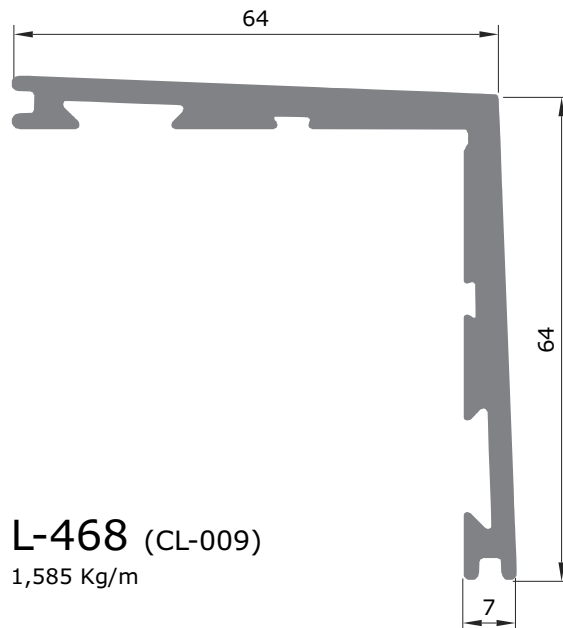
**CA-011**  
0,315 Kg/m



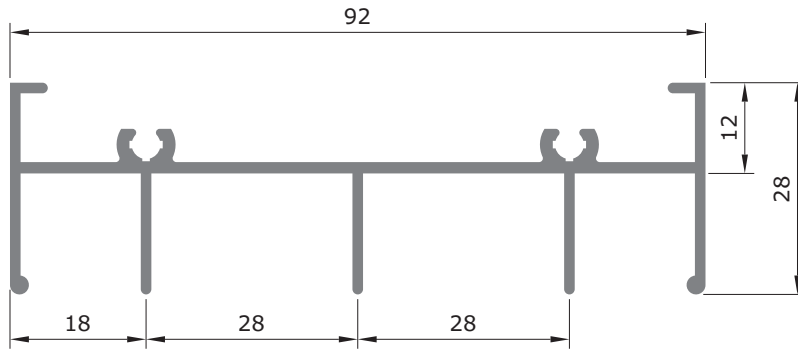
**BAR-4037**  
0,389 Kg/m



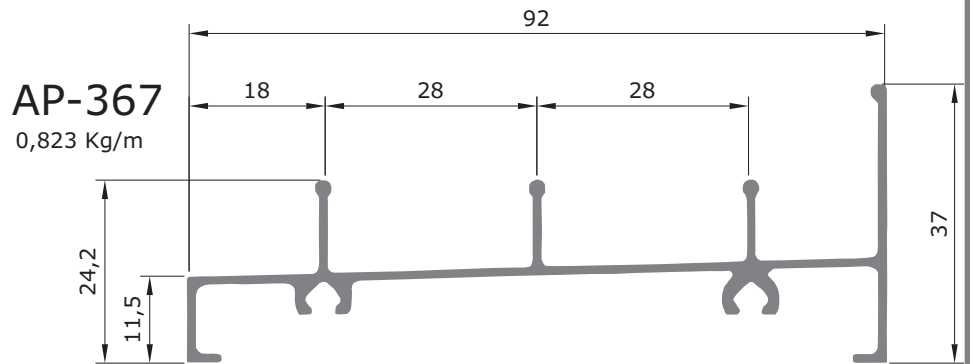
**L-579 (CL-044)**  
1,093 Kg/m



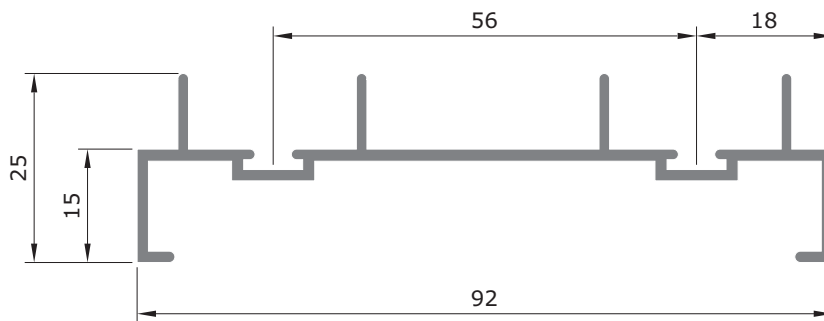
**L-468 (CL-009)**  
1,585 Kg/m



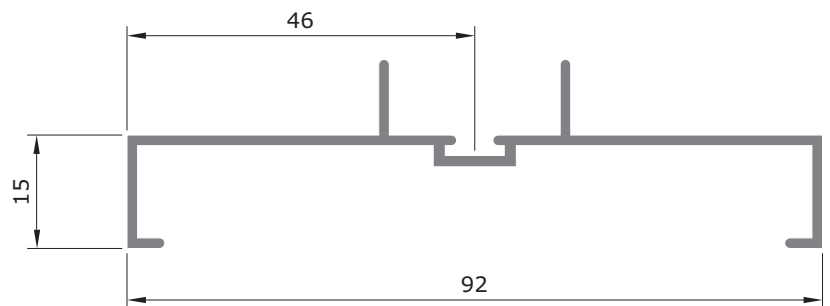
**AP-366**  
0,897 Kg/m



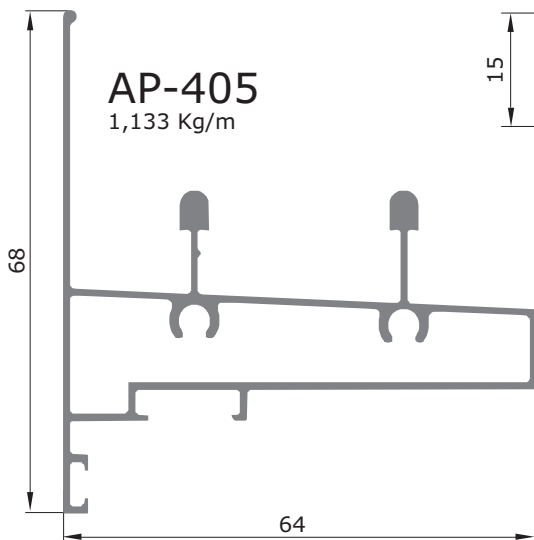
**AP-367**  
0,823 Kg/m



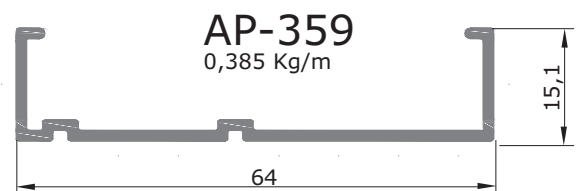
**AP-368**  
0,746 Kg/m



**AP-369**  
0,590 Kg/m

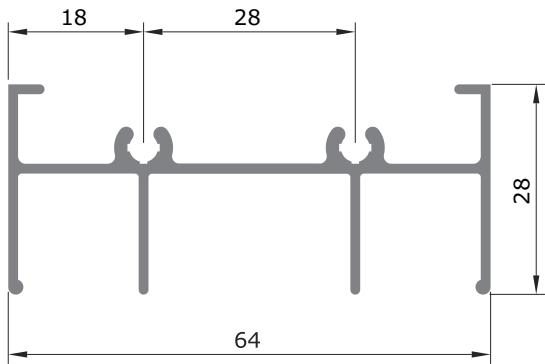


**AP-405**  
1,133 Kg/m

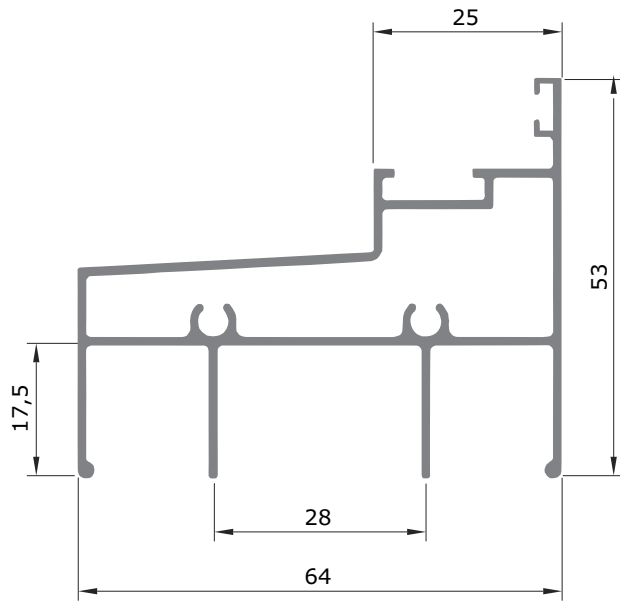


**AP-359**  
0,385 Kg/m

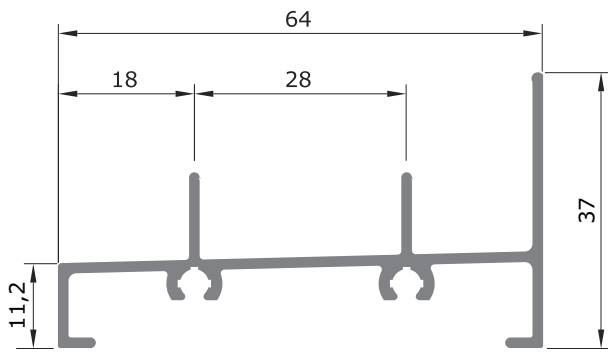




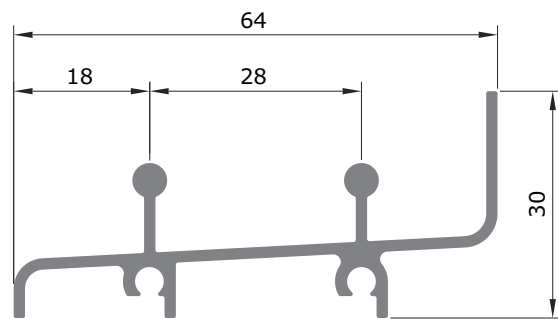
**AP-357**  
0,652 Kg/m



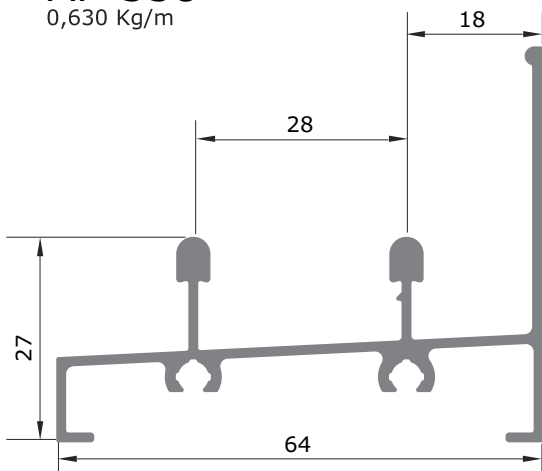
**AP-361**  
1,074 Kg/m



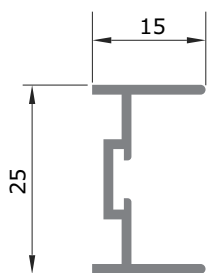
**AP-358**  
0,630 Kg/m



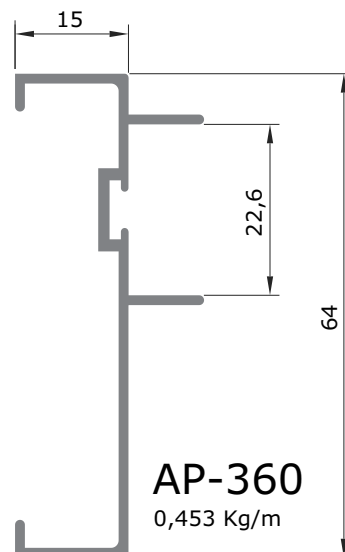
**AP-370**  
0,633 Kg/m



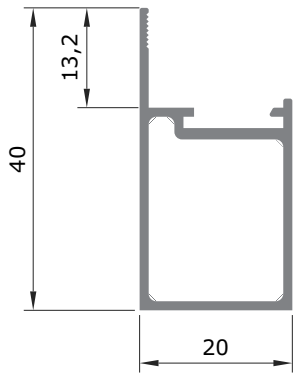
**AP-404**  
0,795 Kg/m



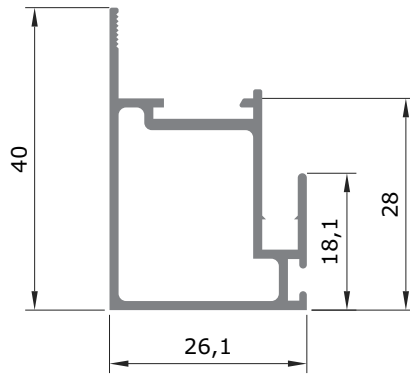
**AP-352 (39-123)**  
0,208 Kg/m



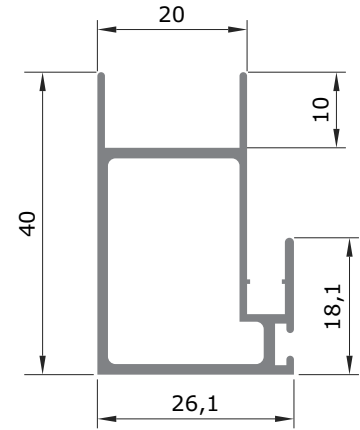
**AP-360**  
0,453 Kg/m



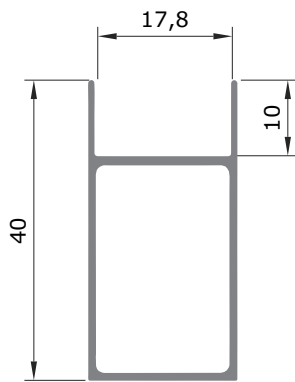
**AP-300**  
0,367 Kg/m



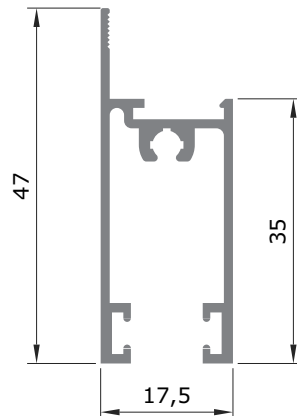
**AP-302**  
0,450 Kg/m



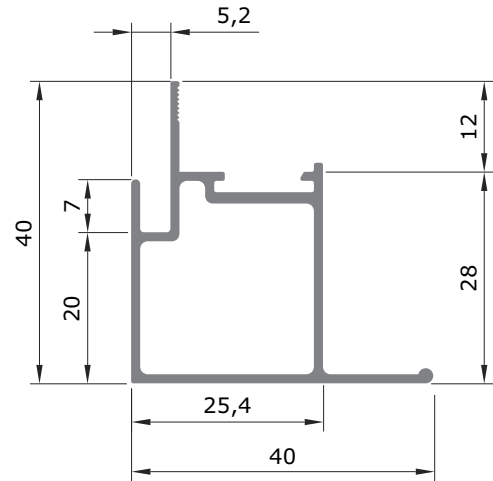
**AP-303**  
0,474 Kg/m



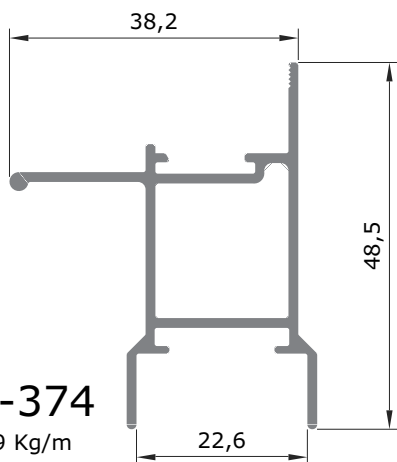
**AP-305**  
0,371 Kg



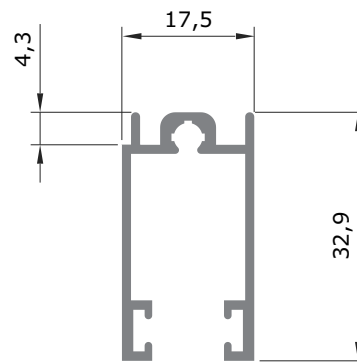
**AP-309**  
0,437 Kg/m



**AP-321**  
0,478 Kg/m

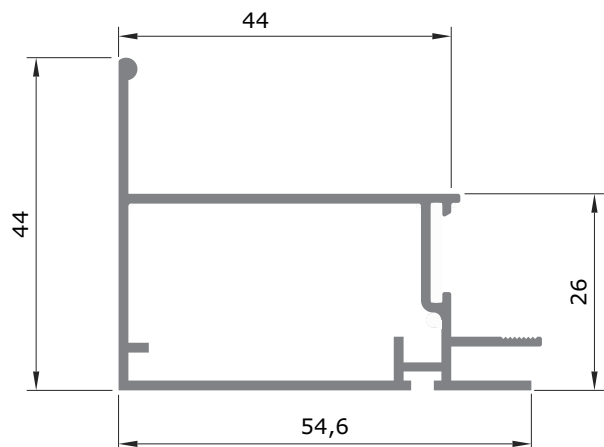


**AP-374**  
0,539 Kg/m

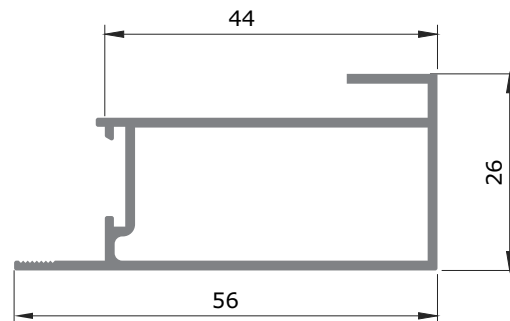


**AP-378**  
0,367 Kg/m





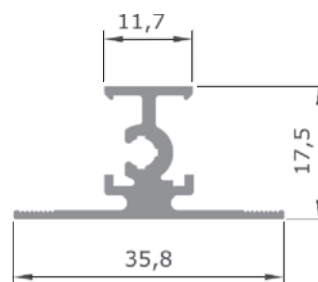
**AP-069**  
0,681 Kg/m



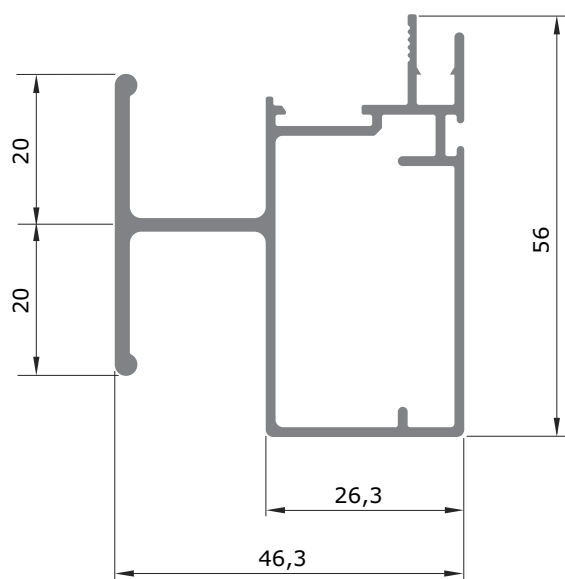
**AP-070**  
0,551 Kg/m



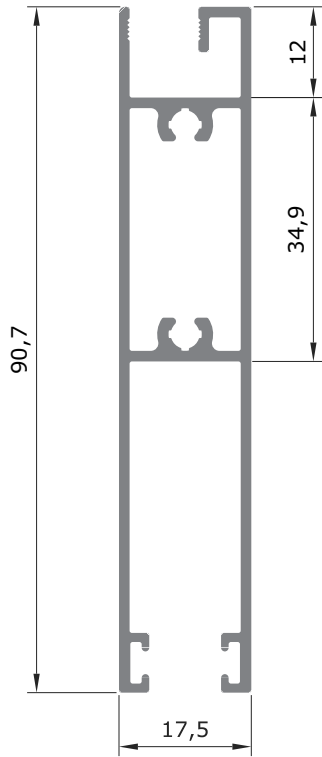
**AP-336**  
0,496 Kg/m



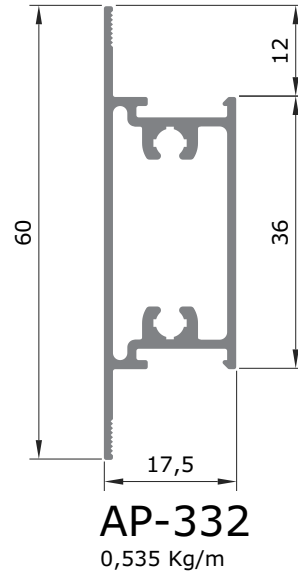
**T-153**  
0,337 Kg/m



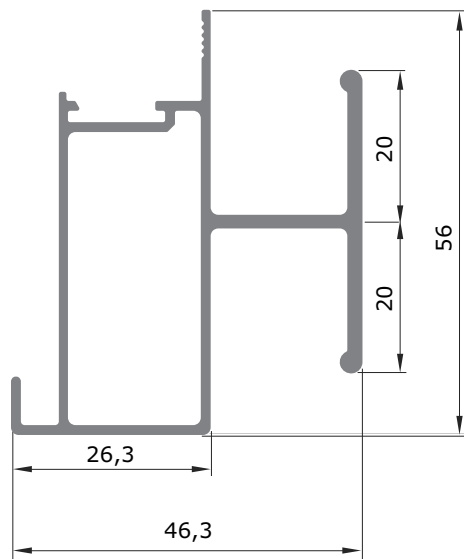
**AP-379**  
0,929 Kg/m



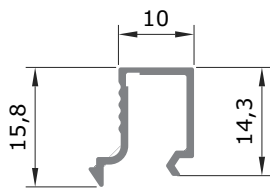
**AP-354**  
0,982 Kg/m



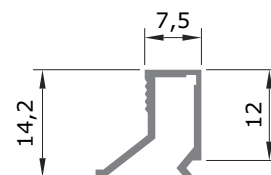
**AP-332**  
0,535 Kg/m



**AP-380**  
0,840 Kg/m

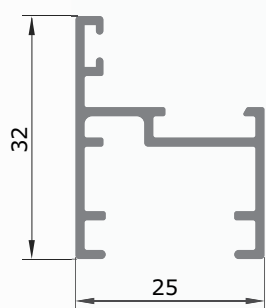


**BG-035**  
0,118 Kg/m



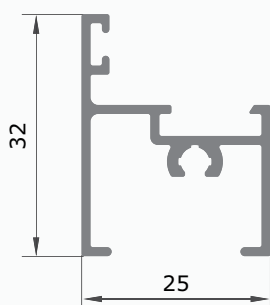
**BG-202**  
0,108 Kg/m





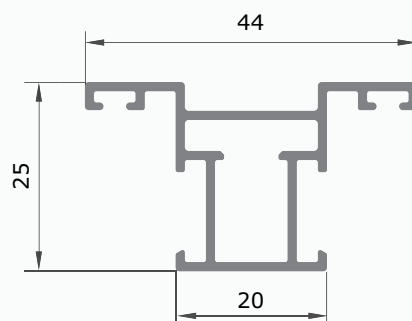
**25-311**

0,332 Kg/m



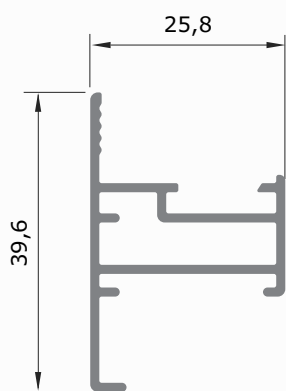
**AP-312**

0,351 Kg/m



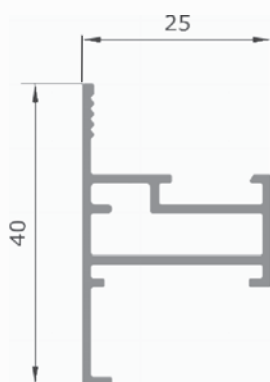
**25-308**

0,453 Kg/m



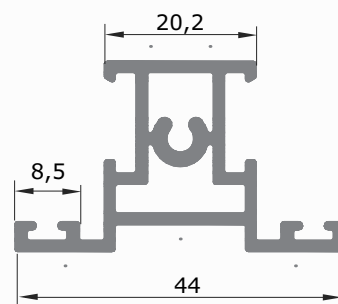
**MM-375**

0,394 Kg/m



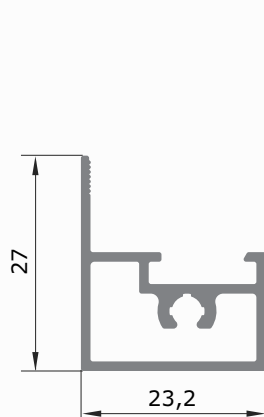
**25-313**

0,383 Kg/m



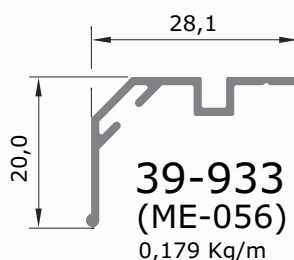
**MM-376**

0,590 Kg/m



**25-301**

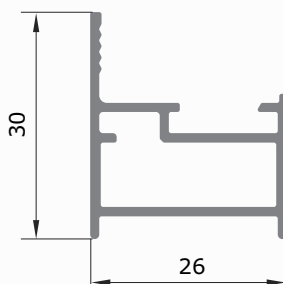
0,343 Kg/m



**39-933**

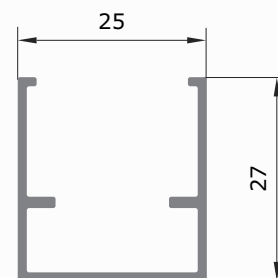
(ME-056)

0,179 Kg/m



**25-314**

0,364 Kg/m

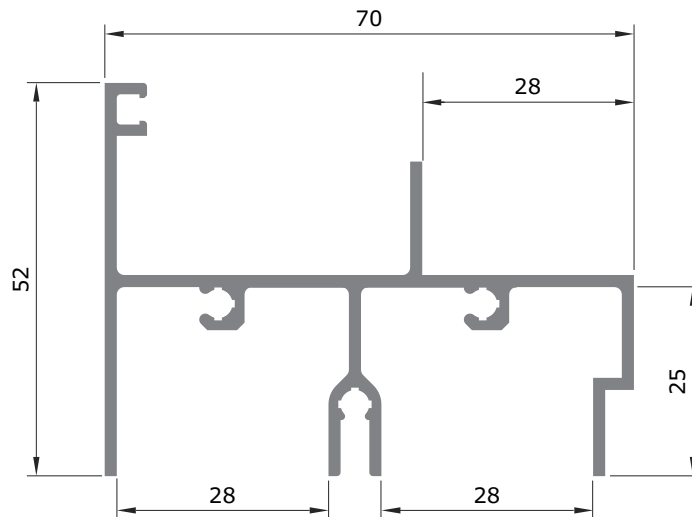


**U-1233**

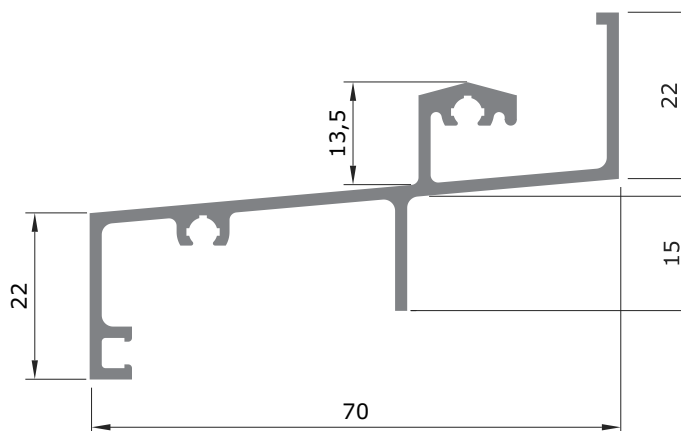
0,282 Kg/m

CATÁLOGO GERAL DE PERFIS

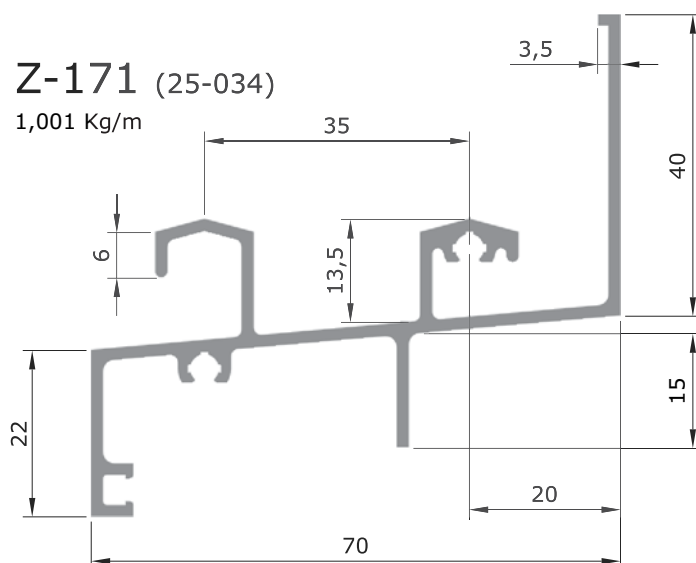
**E-186** (25-010)  
1,026 Kg/m



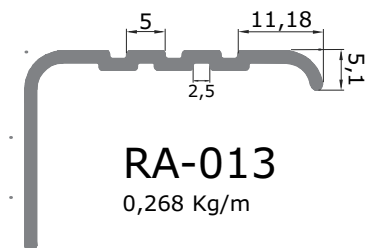
**Z-170** (25-033)  
0,794 Kg/m



**Z-171** (25-034)  
1,001 Kg/m

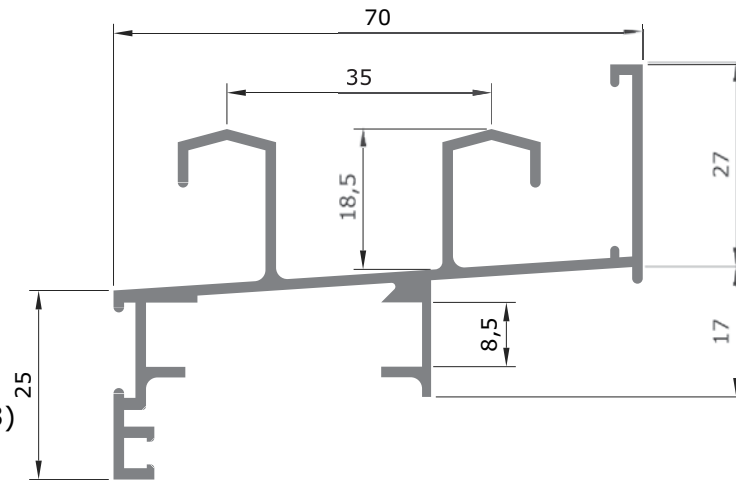


**RA-013**  
0,268 Kg/m

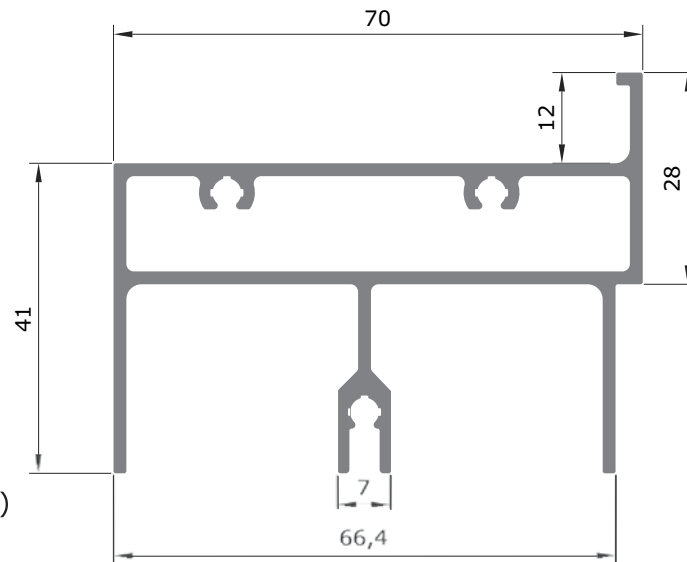




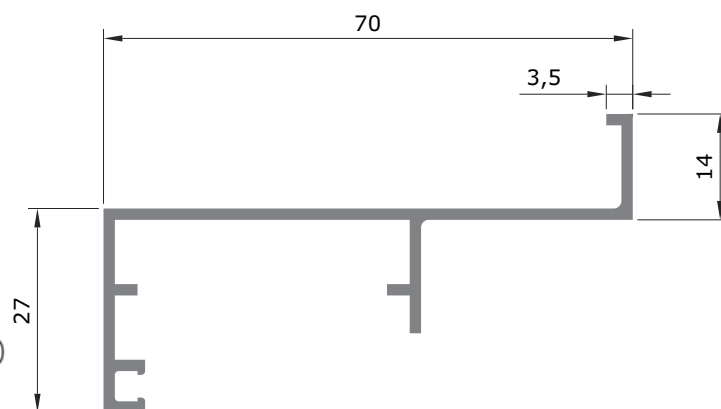
**Z-172** (25-513)  
0,989 Kg/m



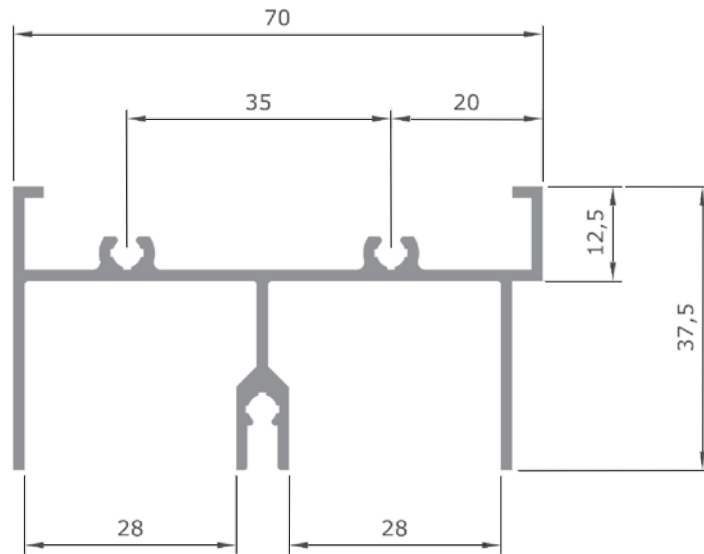
**P-157** (25-024)  
1,354 Kg/m



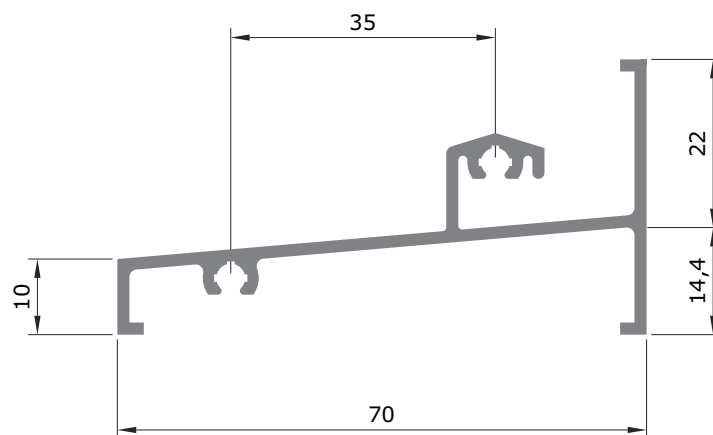
**Z-114** (25-560)  
0,568 Kg/m



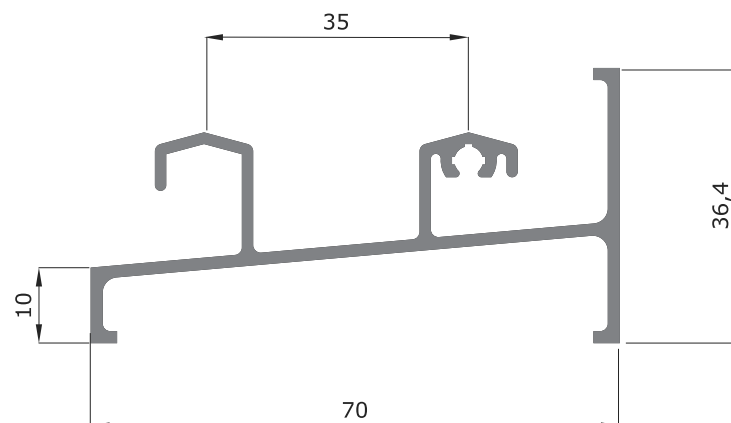
**E-482 (E-290)**  
0,880 Kg/m



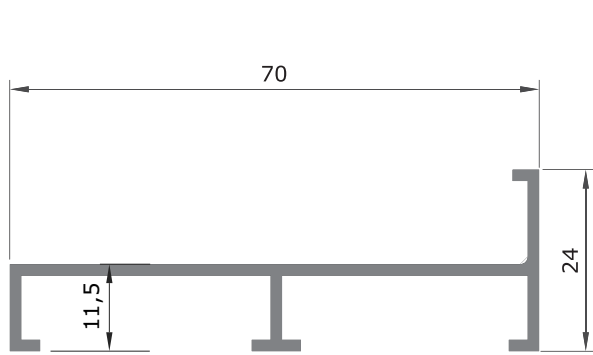
**Z-174 (25-515)**  
0,716 Kg/m



**Z-176 (25-516)**  
0,802 Kg/m

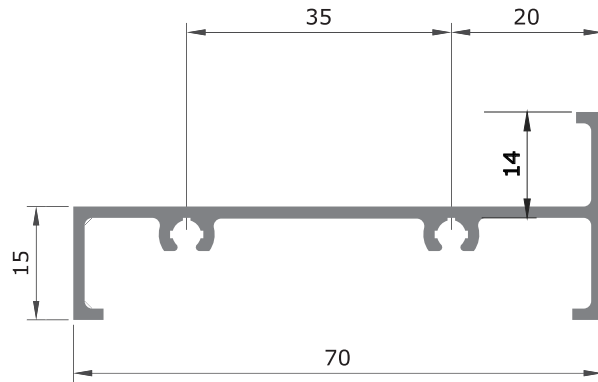






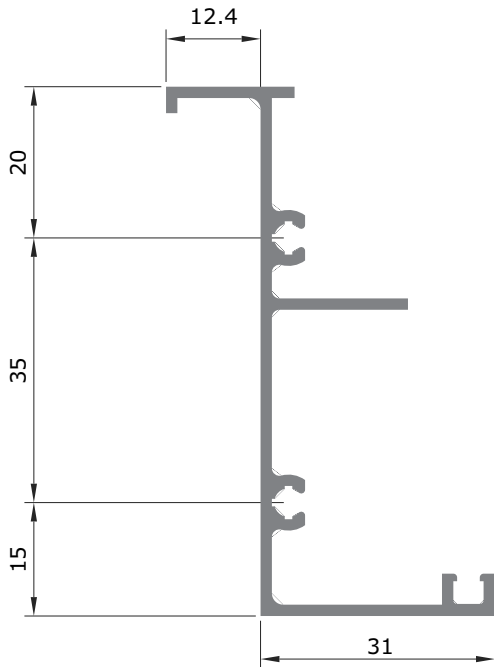
**E-277 (25-514)**

0,506 Kg/m



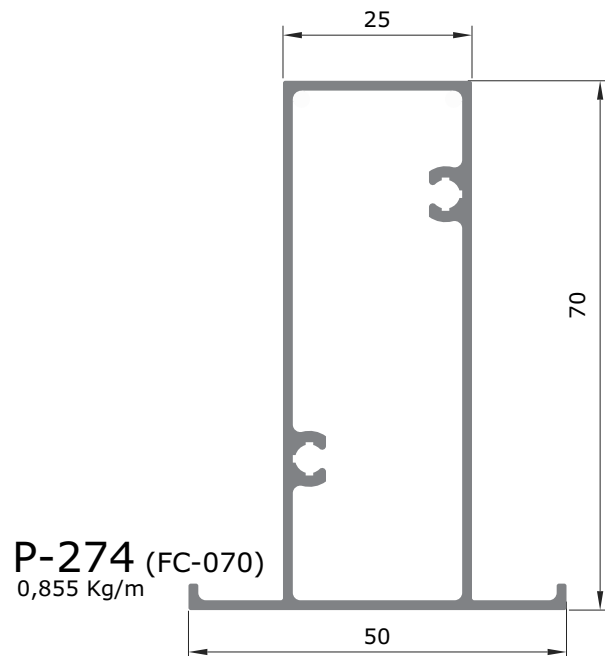
**Z-175 (25-517)**

0,572 Kg/m



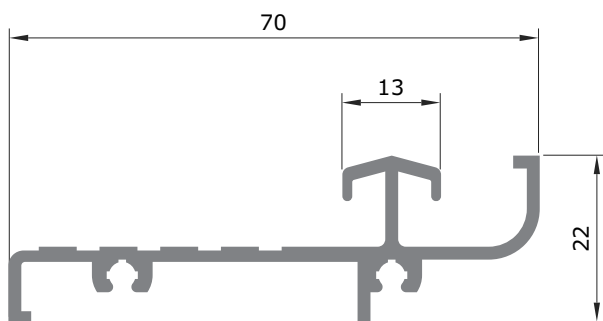
**Z-115 (25-009)**

0,689 Kg/m



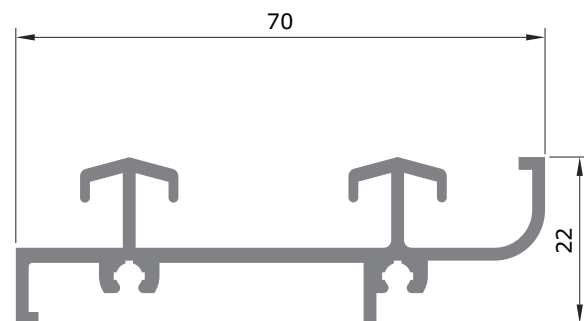
**P-274 (FC-070)**

0,855 Kg/m



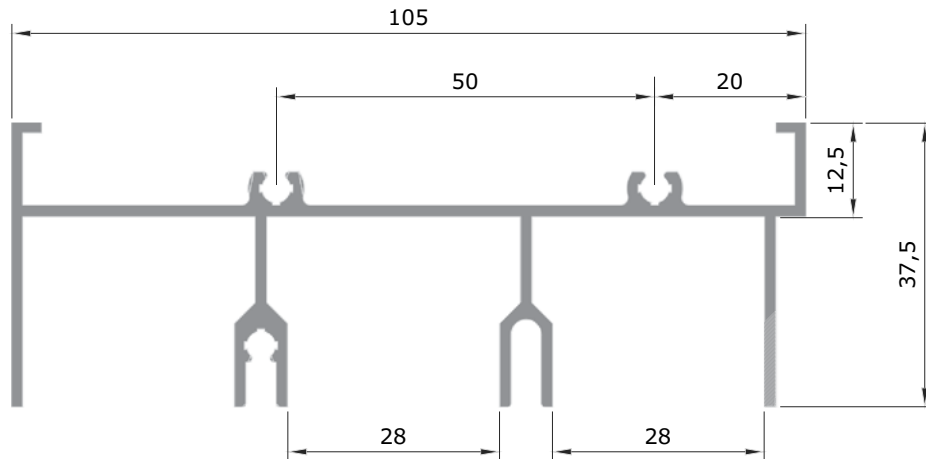
**Z-259**

0,692 Kg/m

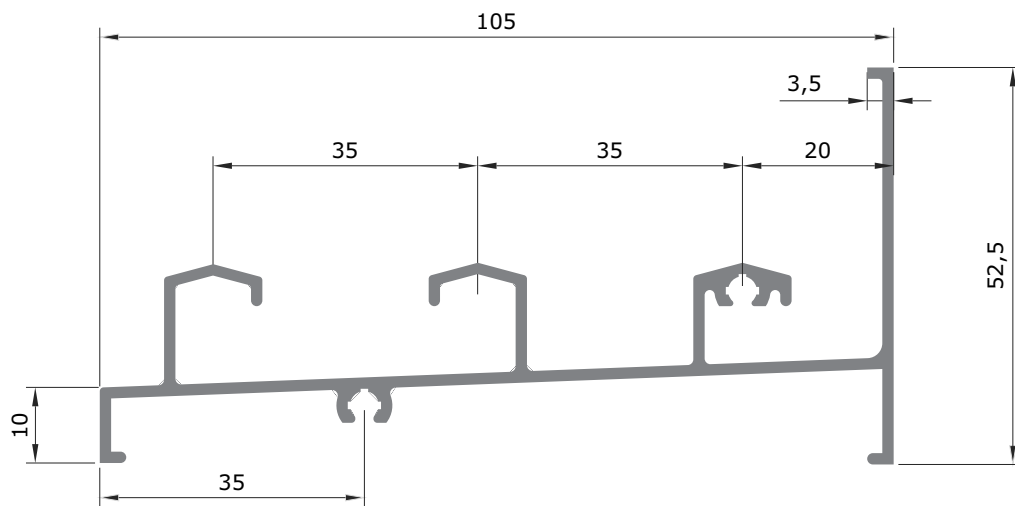


**Z-267 (25-670)**

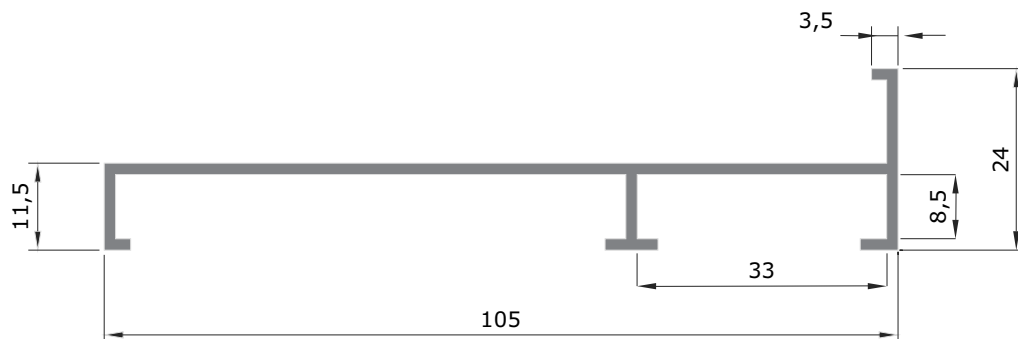
0,752 Kg/m



**E-483** (25-661)  
1,187 Kg/m

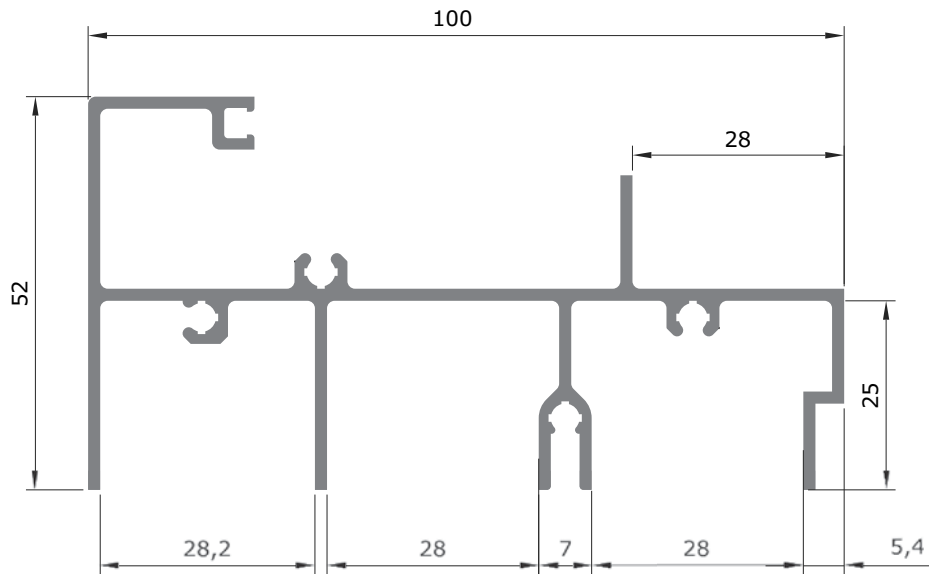


**Z-258** (25-671)  
1,120 Kg/m

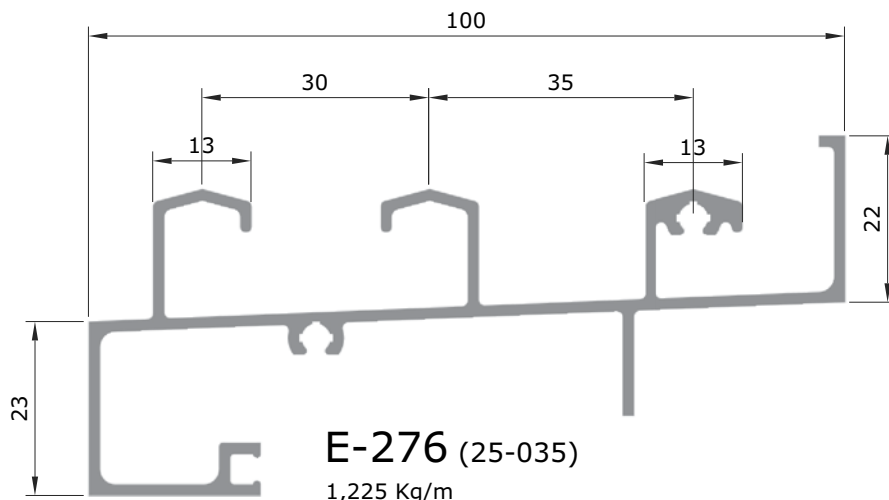


**E-484**  
0,652 Kg/m

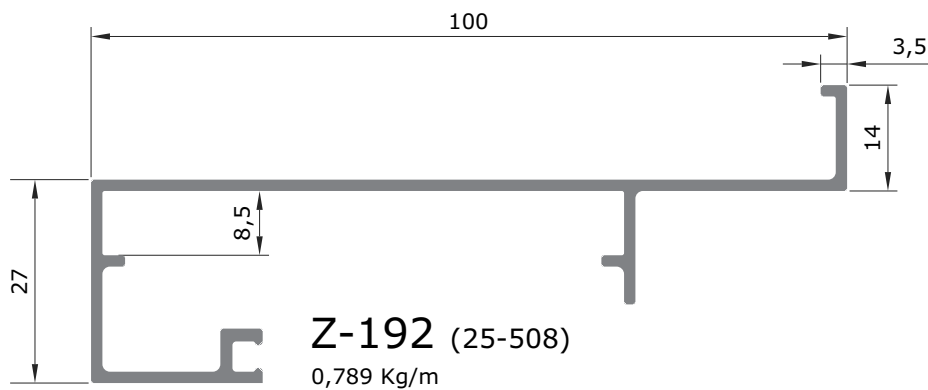




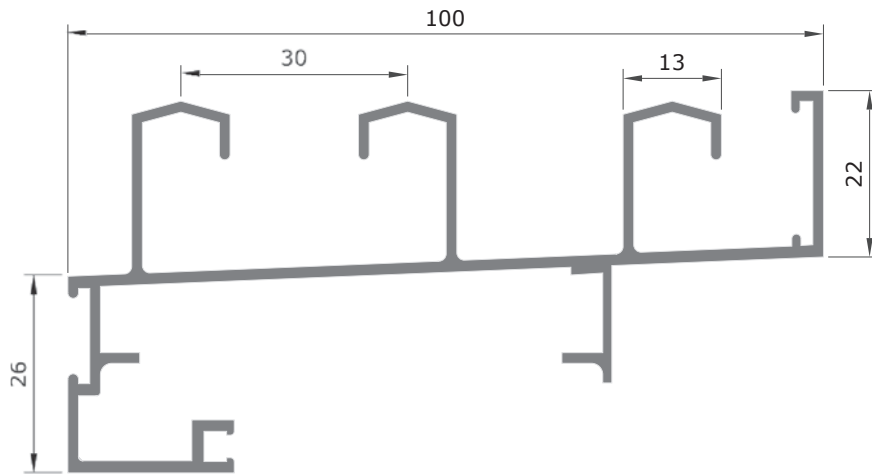
**E-293 (25-511)**  
1,450 Kg/m



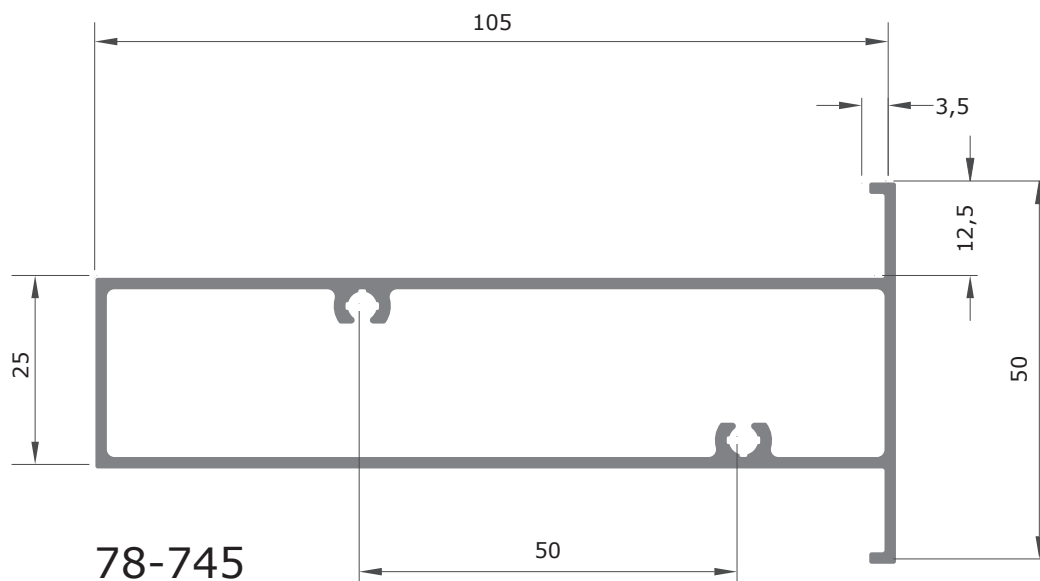
**E-276 (25-035)**  
1,225 Kg/m



**Z-192 (25-508)**  
0,789 Kg/m



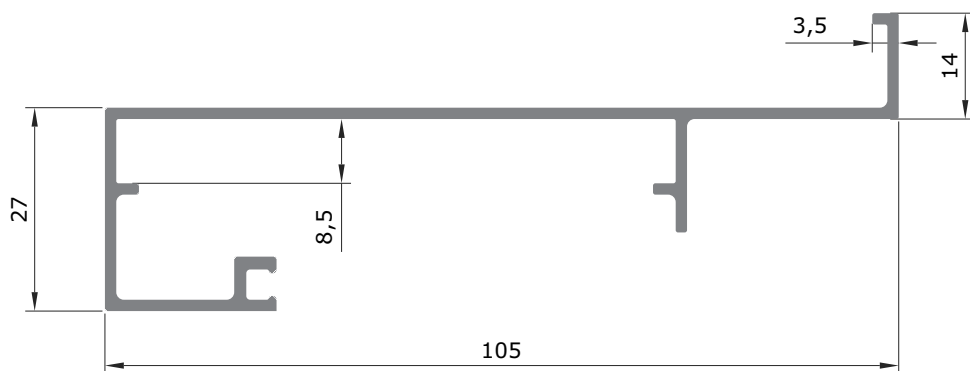
**Z-173 (25-512)**  
1,311 Kg/m



**78-745**  
1,256 Kg/m



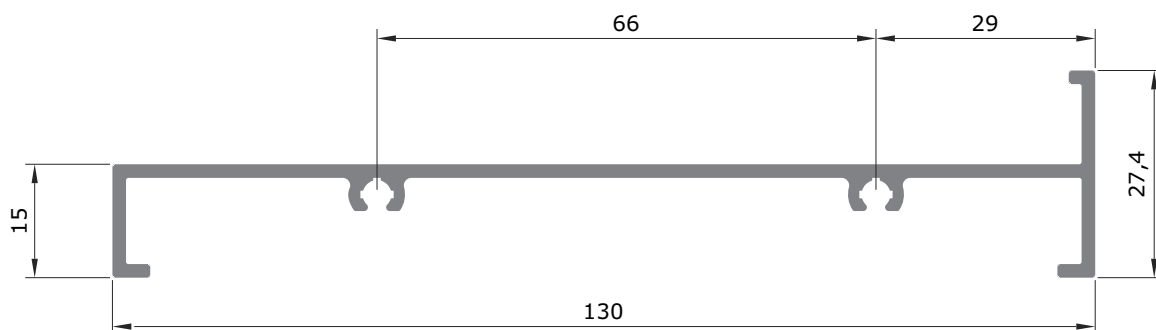
**Z-254** (25-672)  
0,822 Kg/m

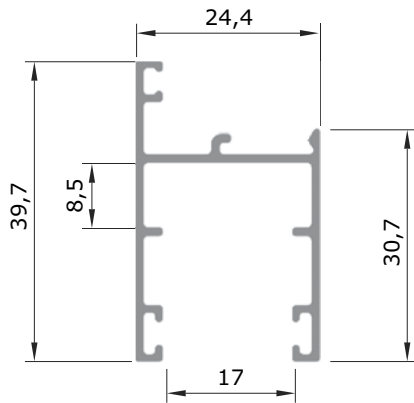


**Y-260**  
0,746 Kg/m

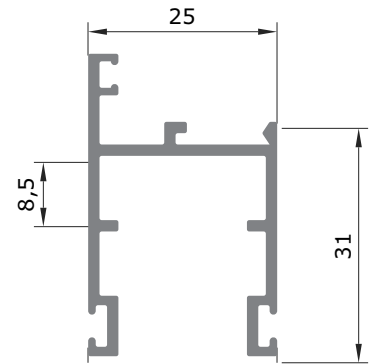


**Y-350** (CL-016)  
0,965 Kg/m

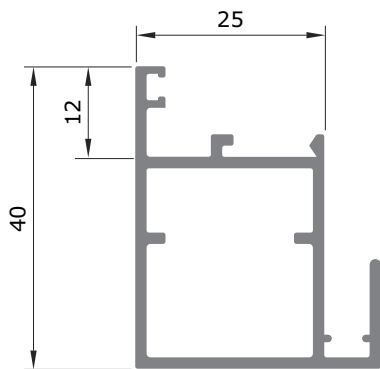




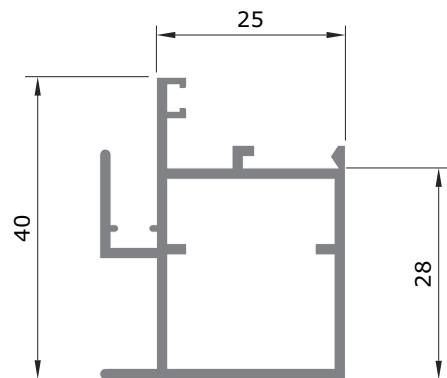
**Y-195A** (25-565)  
0,385 Kg/m



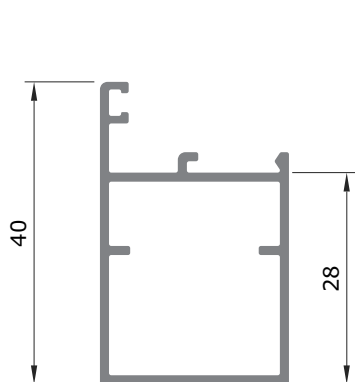
**Y-196** (25-500)  
0,478 Kg/m



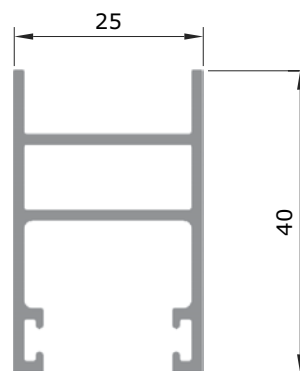
**P-151 A** (25-568)  
0,497 Kg/m



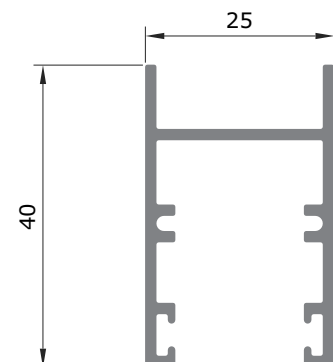
**P-152 A** (25-569)  
0,522 Kg/m



**P-140A** (25-570)  
0,426 Kg/m

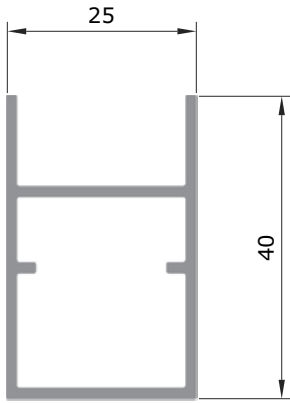


**A-097** (25-031)  
0,558 Kg/m

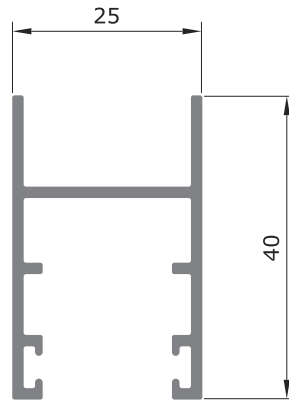


**I-122** (25-019)  
0,510 Kg/m

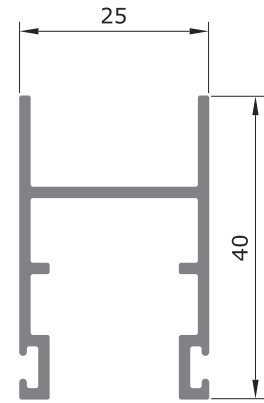




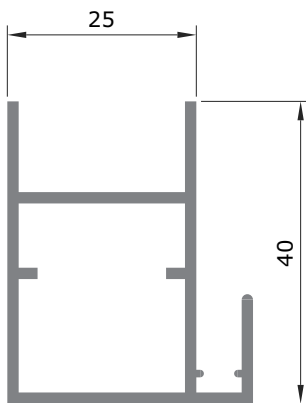
**A-201**  
0,524 Kg/m



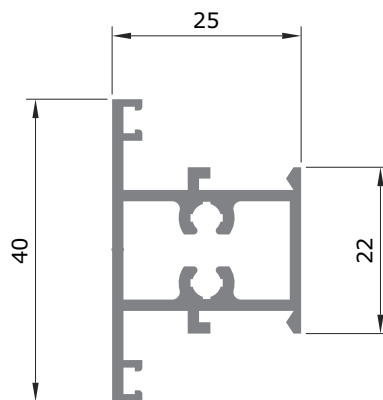
**I-307**  
0,488 Kg/m



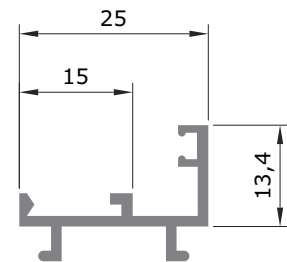
**I-308**  
0,488 Kg/m



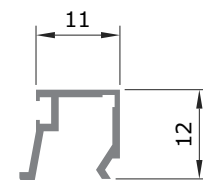
**A-202 (25-680)**  
0,612 Kg/m



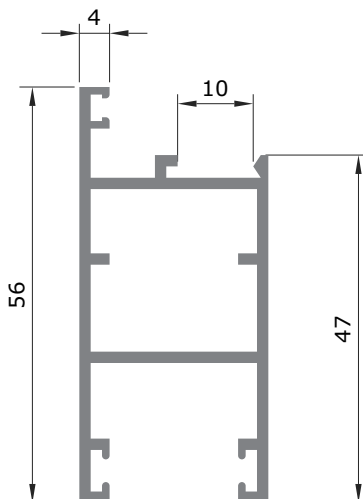
**P-153 (25-026)**  
0,598 Kg/m



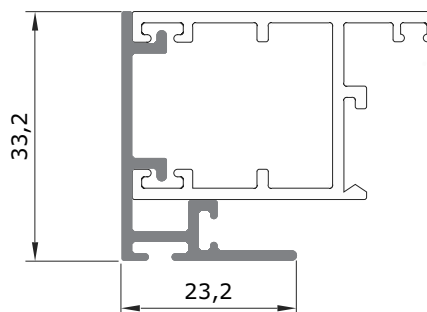
**L-418 (25-528)**  
0,234 Kg/m



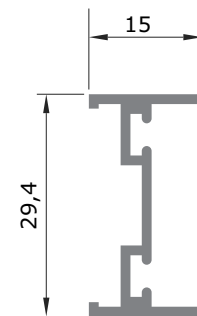
**U-522 (BG-001)**  
0,101 Kg/m



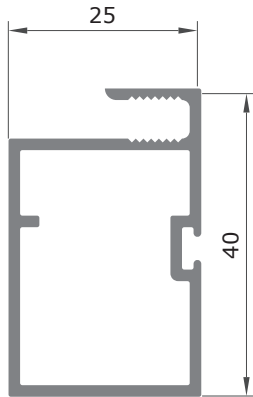
**A-048 (25-502)**  
0,705 Kg/m



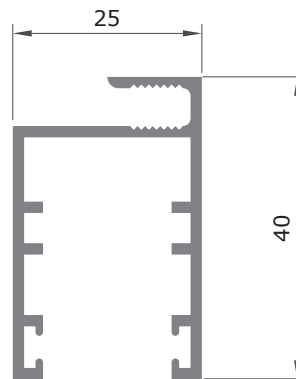
**L-498 (25-043)**  
0,305 Kg/m



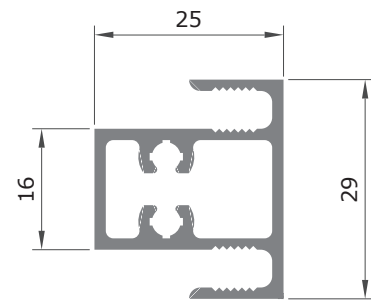
**I-105 (25-021)**  
0,259 Kg/m



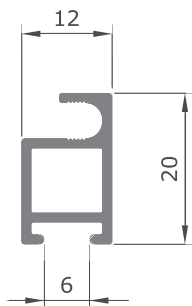
**P-227** (25-549)  
0,489 Kg/m



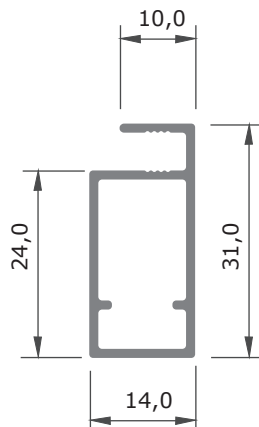
**Y-312** (25-551)  
0,550 Kg/m



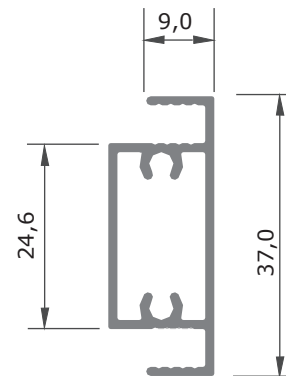
**P-256** (25-550)  
0,537 Kg/m



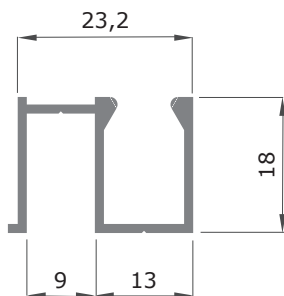
**A-058**  
0,222 Kg/m



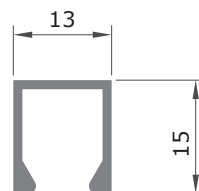
**78-1154 C**  
0,295 kg/m



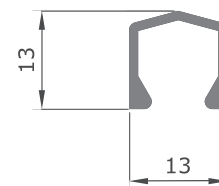
**78-1153 C**  
0,377 kg/m



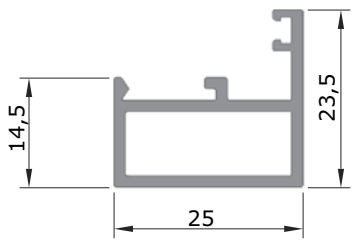
**Z-074** (25-552)  
0,269 Kg/m



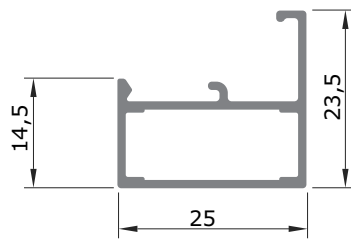
**U-425** (25-510)  
0,157 Kg/m



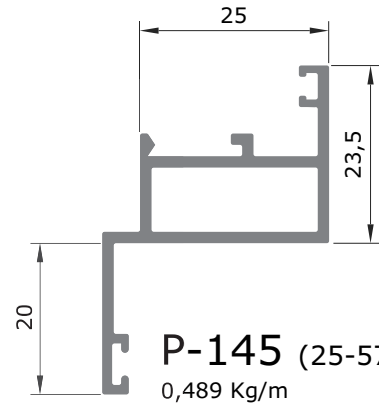
**U-681** (25-032)  
0,135 Kg/m



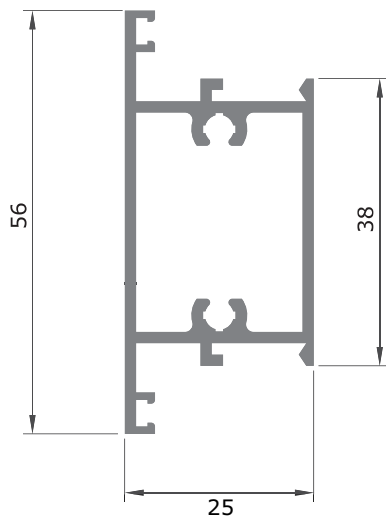
**P-147 A (25-555)**  
0,300 Kg/m



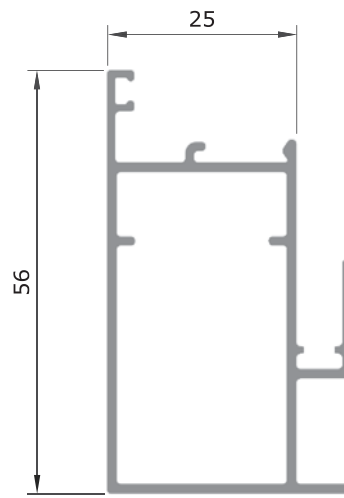
**P-525A**  
0,283 Kg/m



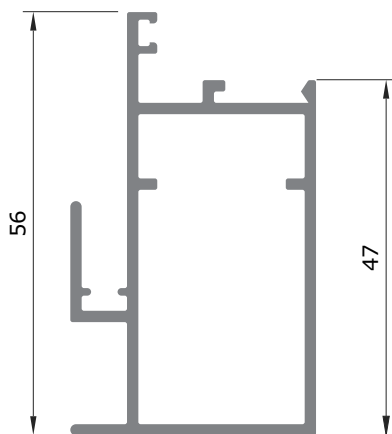
**P-145 (25-572)**  
0,489 Kg/m



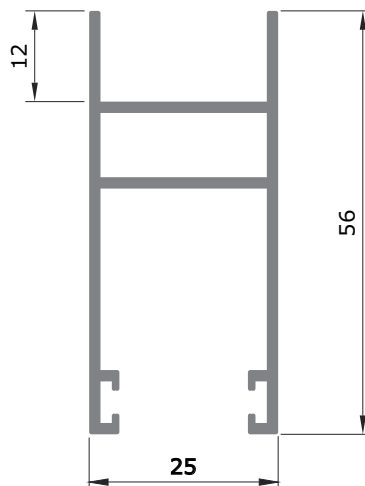
**P-319 A (25-508)**  
0,657 Kg/m



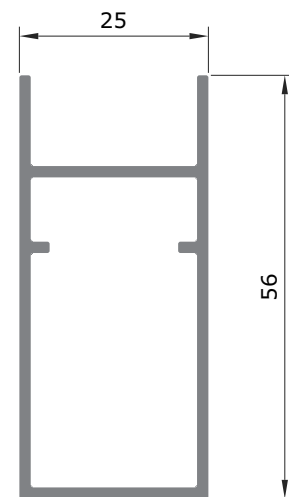
**P-370A**  
0,666 Kg/m



**P-371 A**  
0,777 Kg/m

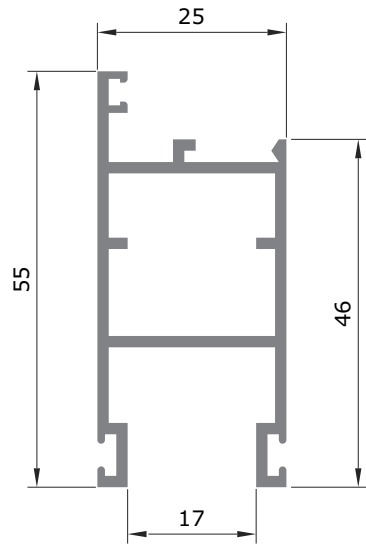


**A-195**  
0,576 Kg/m



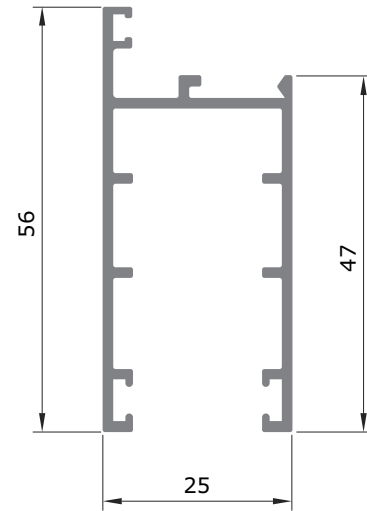
**A-194**  
0,654 Kg/m





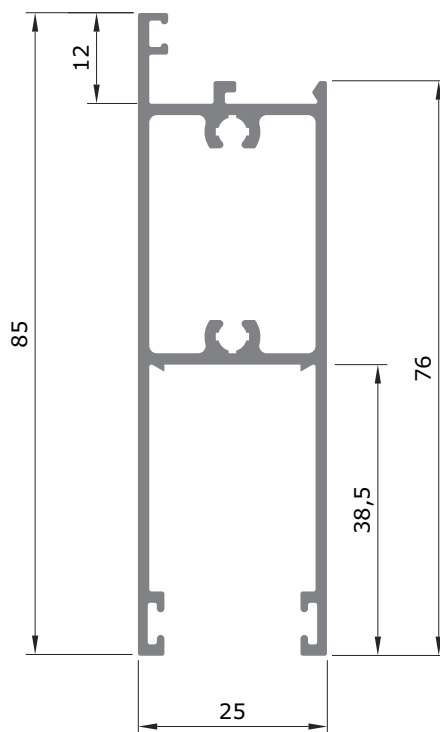
**N-1278**

0,698 Kg/m



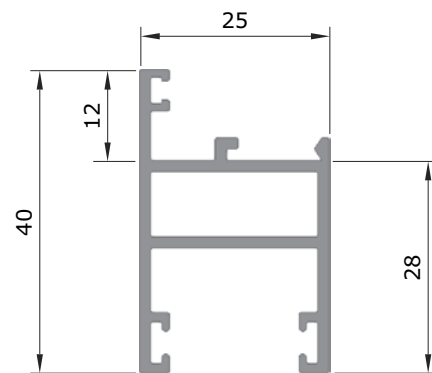
**25-503**

0,598 Kg/m



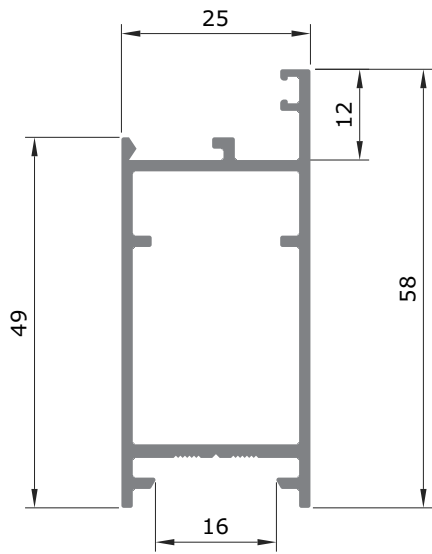
**A-139 (25-538)**

1,010 Kg/m

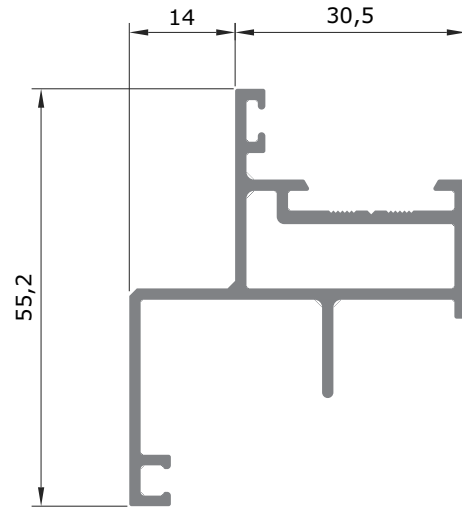


**A-047 (25-567)**

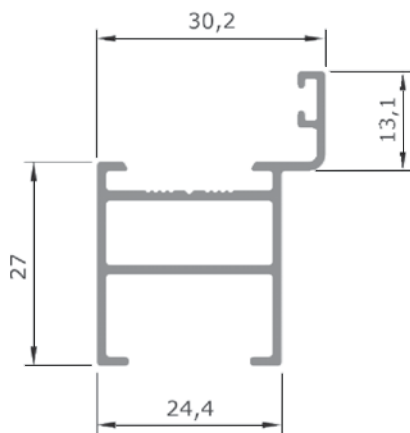
0,555 Kg/m



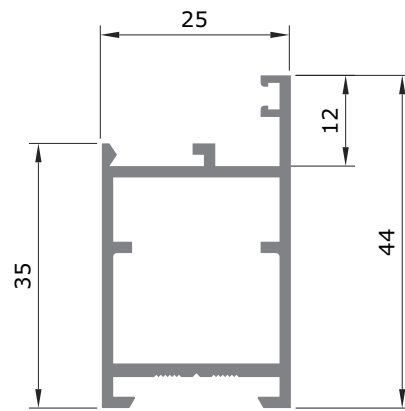
**P-414A (25-542)**  
0,578 Kg/m



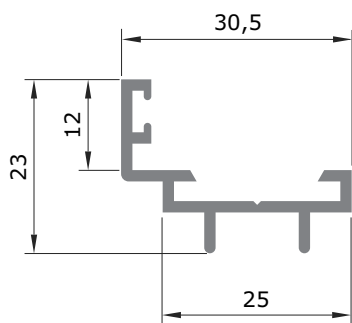
**P-411 (25-539)**  
0,743 Kg/m



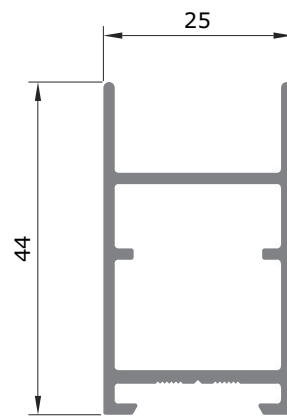
**P-412A (25-540)**  
0,453 Kg/m



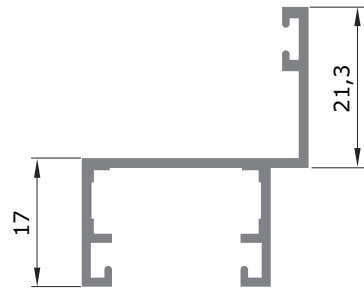
**P-416 (25-546)**  
0,589 Kg/m



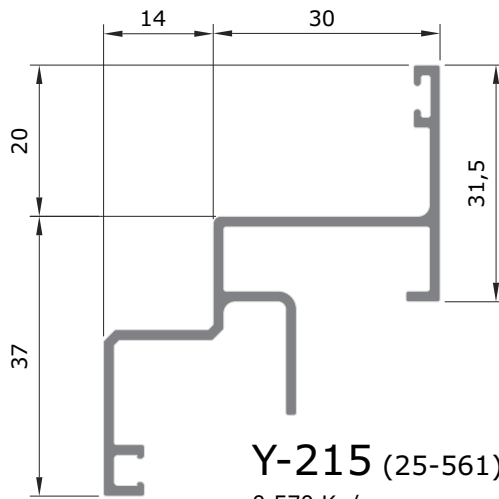
**L-715 (25-548)**  
0,294 Kg/m



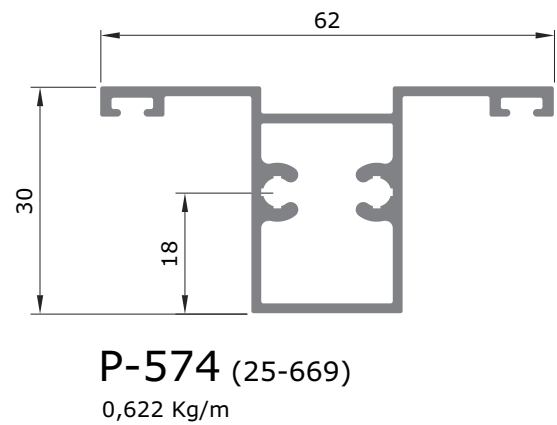
**A-207**  
0,592 kg/m



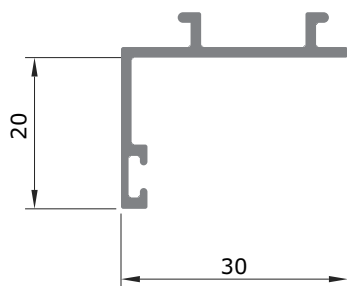
**Y-126 / Y-630 (25-556)**  
0,360 Kg/m



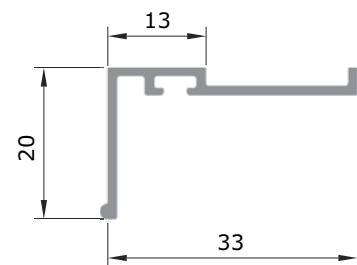
**Y-215 (25-561)**  
0,570 Kg/m



**P-574 (25-669)**  
0,622 Kg/m

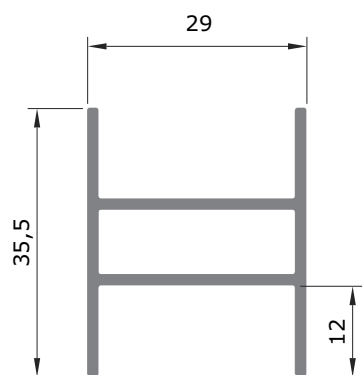


**L-383 (25-020)**  
0,253 Kg/m

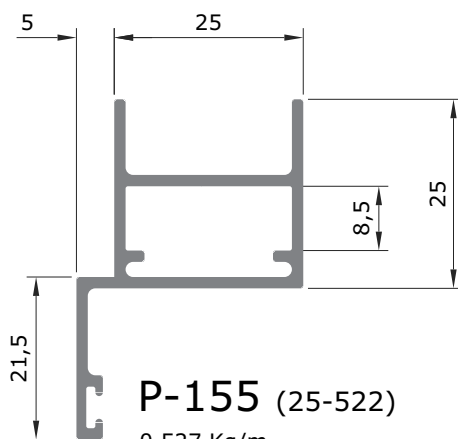


**L-387 (CL-015)**  
0,219 Kg/m

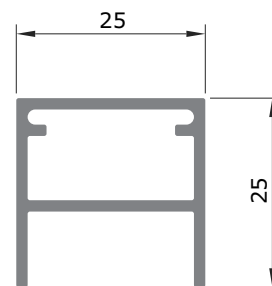




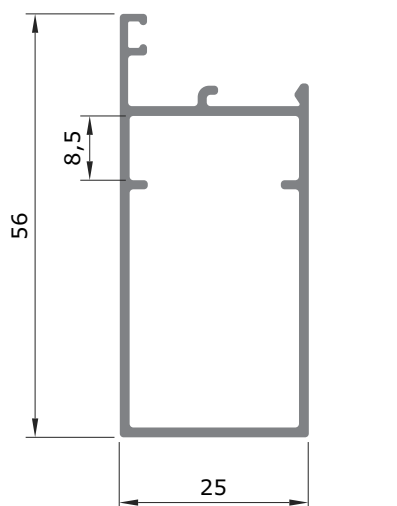
**A-034**  
0,499 Kg/m



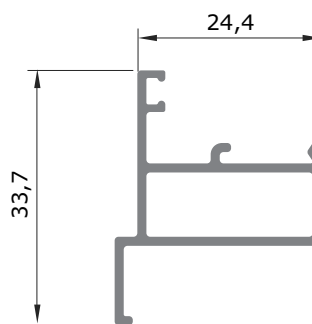
**P-155 (25-522)**  
0,527 Kg/m



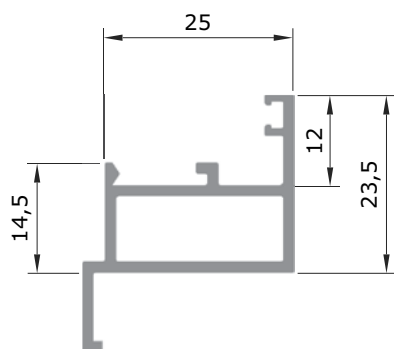
**A-056 (25-017)**  
0,404 Kg/m



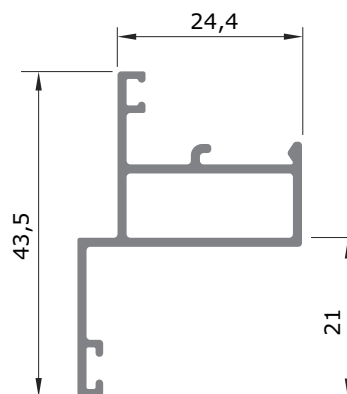
**P-318A (25-504)**  
0,558 Kg/m



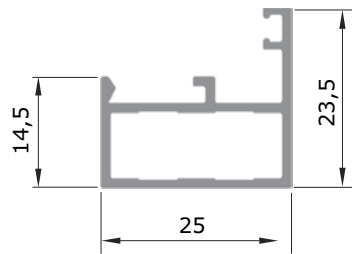
**P-167A (25-523)**  
0,342 Kg/m



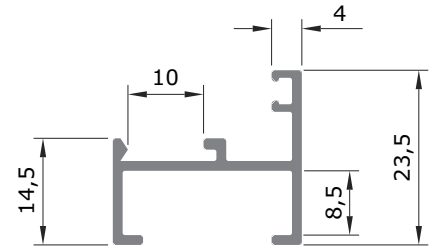
**P-166 (25-524)**  
0,427 Kg/m



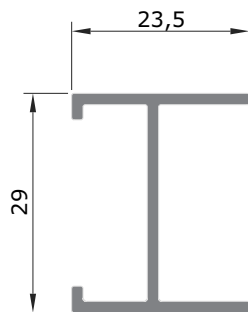
**78-635 / P-146A (25-559)**  
0,394 Kg/m



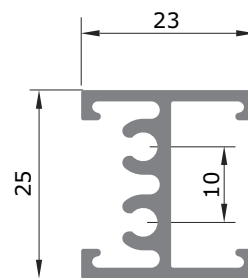
**78-634** (25-001)  
0,316 Kg/m



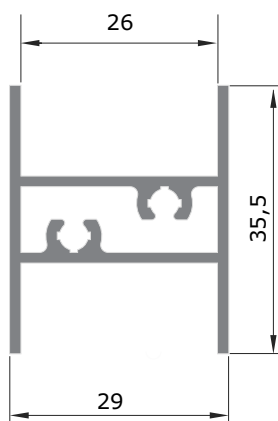
**Y-197** (25-027)  
0,268 Kg/m



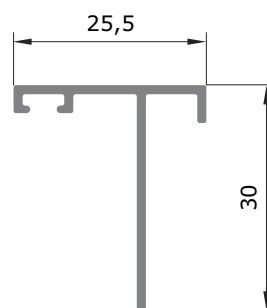
**I-090V** (25-520)  
0,310 Kg/m



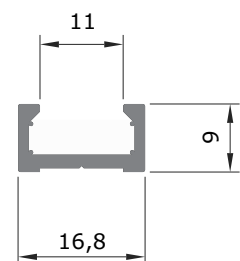
**I-117**  
0,446 Kg/m



**A-084**  
0,580 Kg/m

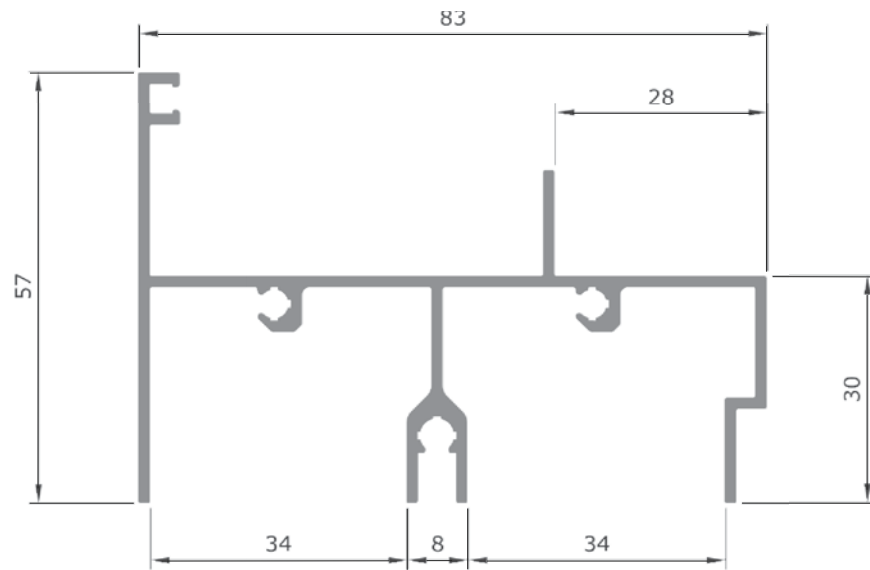


**T-214**  
0,210 Kg/m

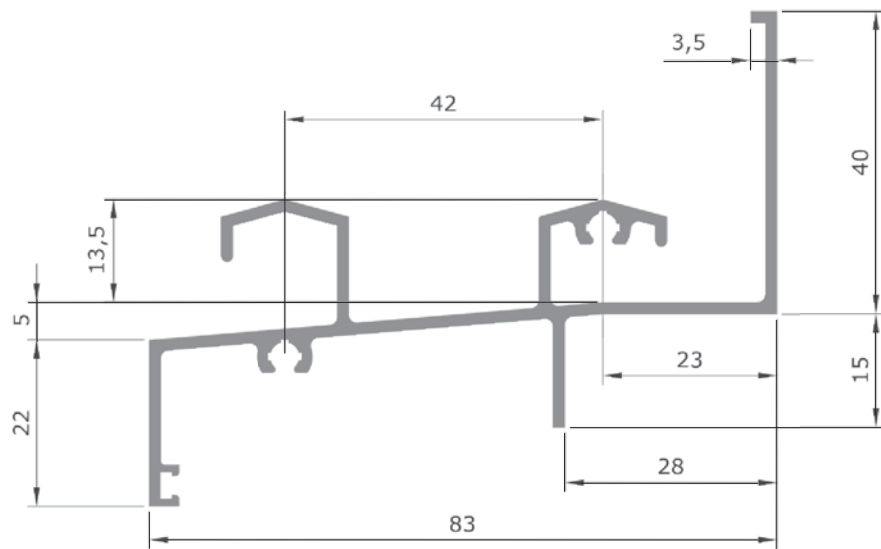


**U-683** (CL-050)  
0,154 Kg/m

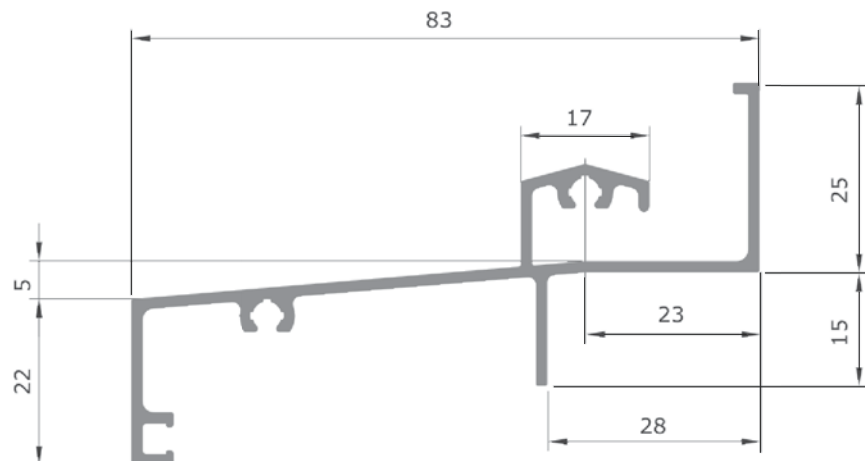
**E-294** (30-042)  
1,160 Kg/m



**Z-178** (30-038)  
1,074 Kg/m

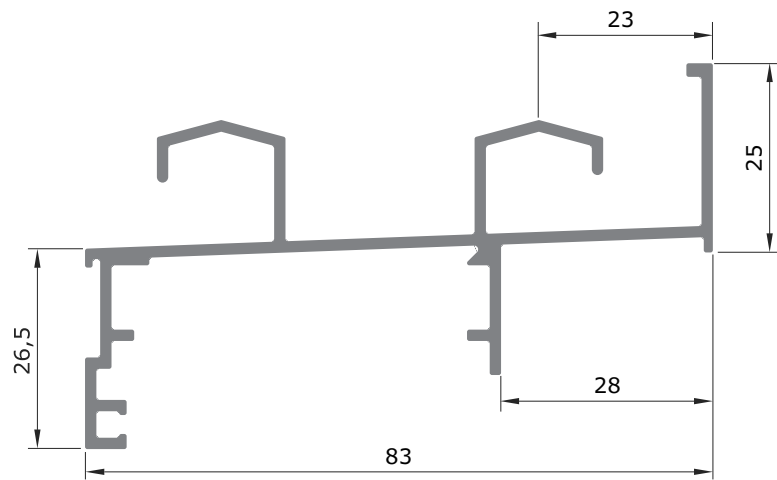


**Z-167**  
0,836 Kg/m

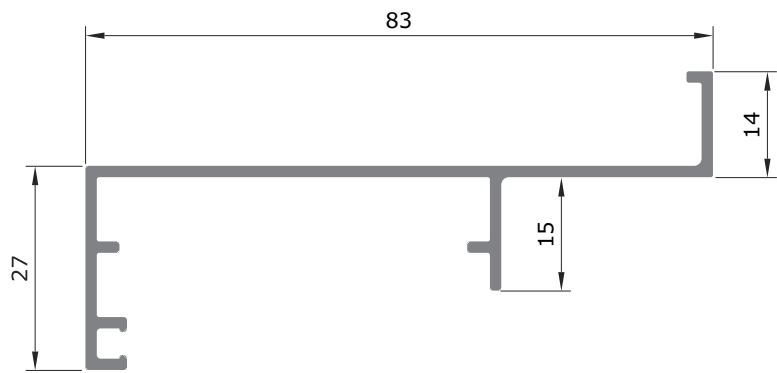




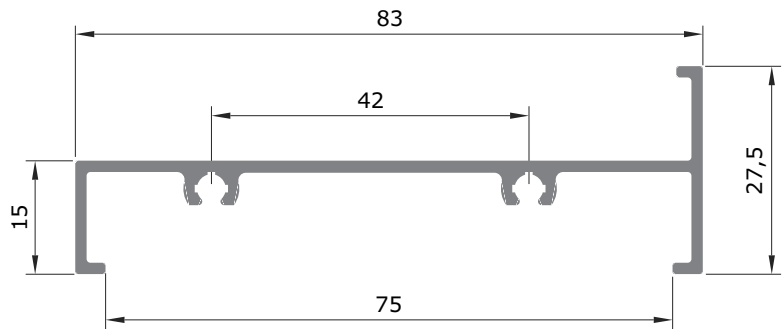
**Z-231**  
0,984 Kg/m



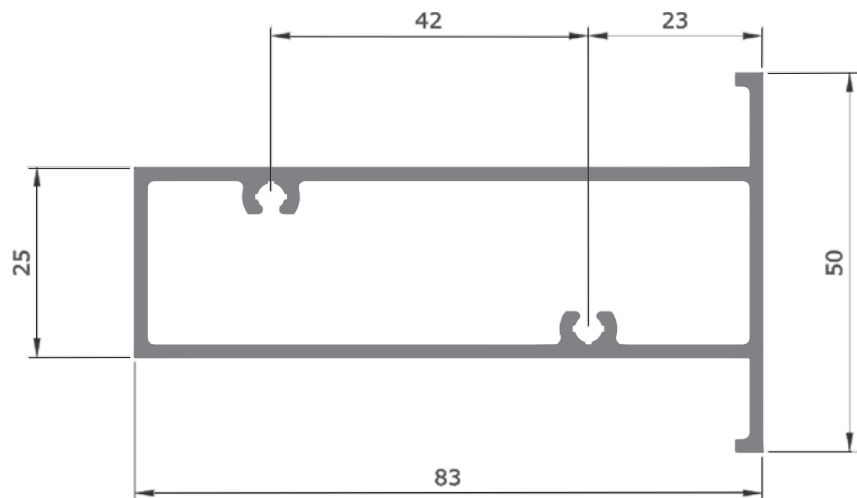
**Z-118 (30-039)**  
0,666 Kg/m



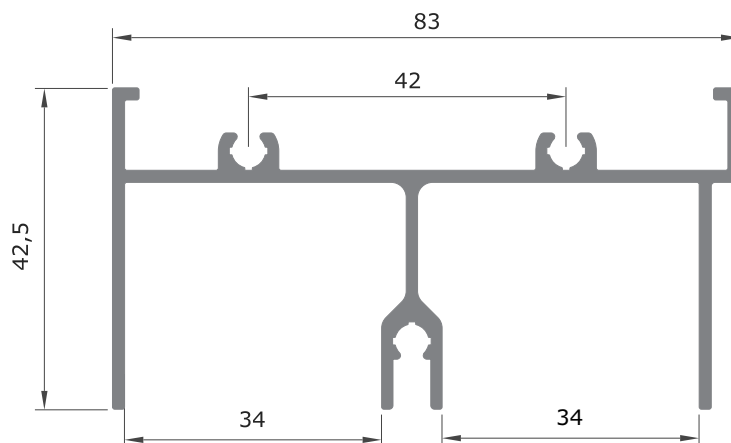
**Z-182 (30-068)**  
0,633 Kg/m



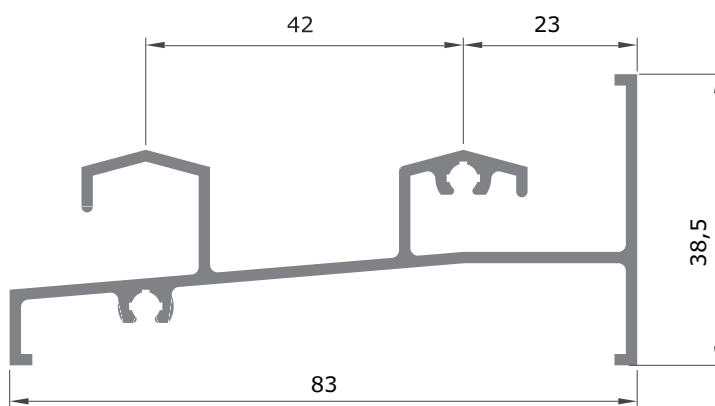
**P-258 (30-067)**  
1,134 Kg/m



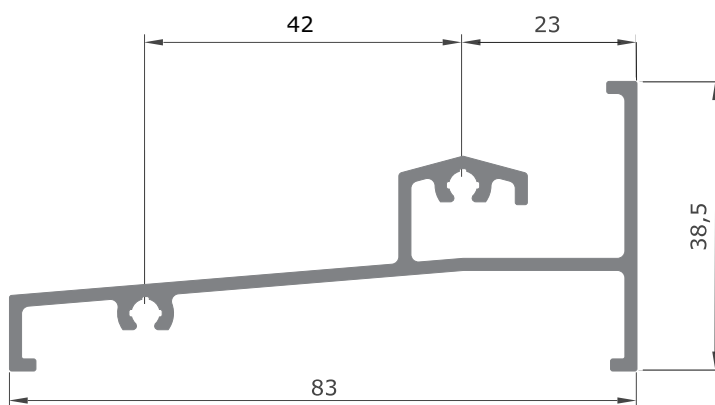
**E-491** (30-066)  
1,061 Kg/m



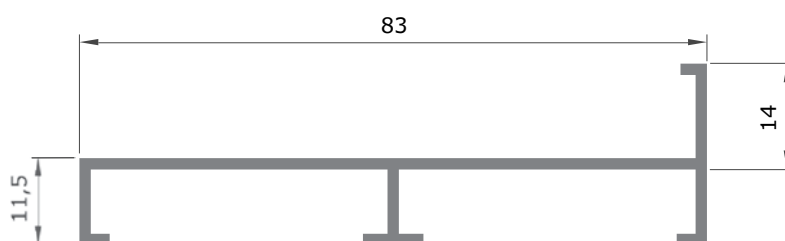
**Z-183** (30-069)  
0,947 Kg/m

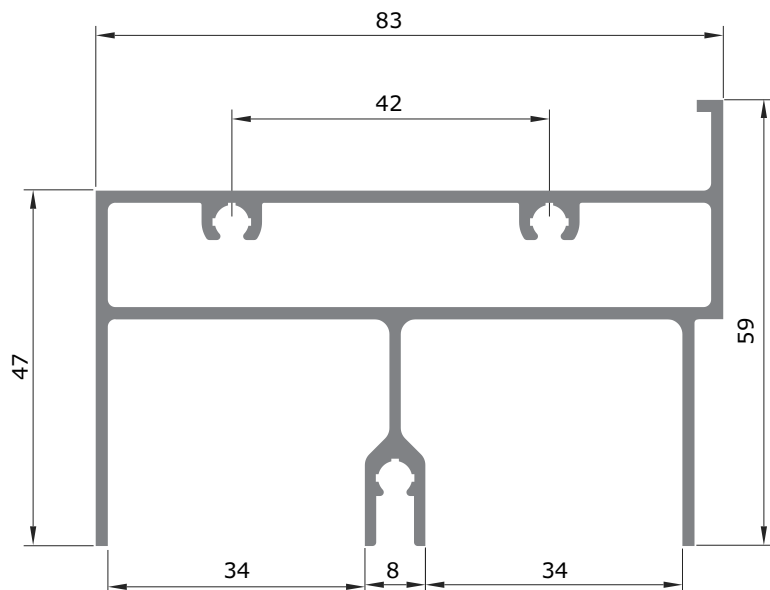


**Z-180**  
0,810 Kg/m

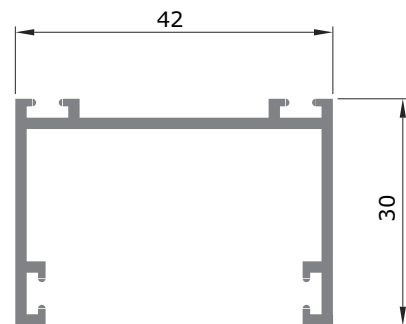


**Z-181** (30-089)  
0,564 Kg/m

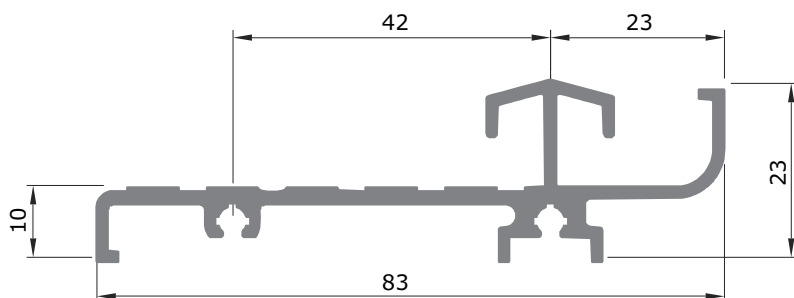




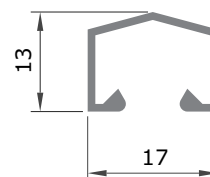
**P-287** (30-041)  
1,498 Kg/m



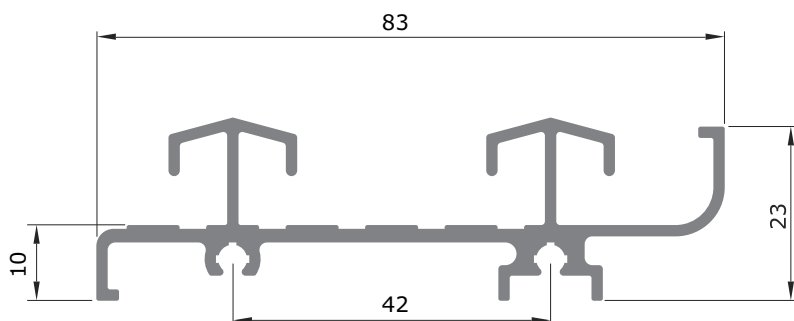
**U-659**  
0,490 Kg/m



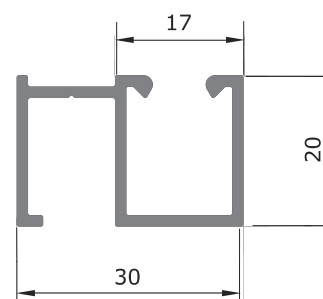
**Z-263**  
0,838 Kg/m



**U-685** (30-076)  
0,140 Kg/m



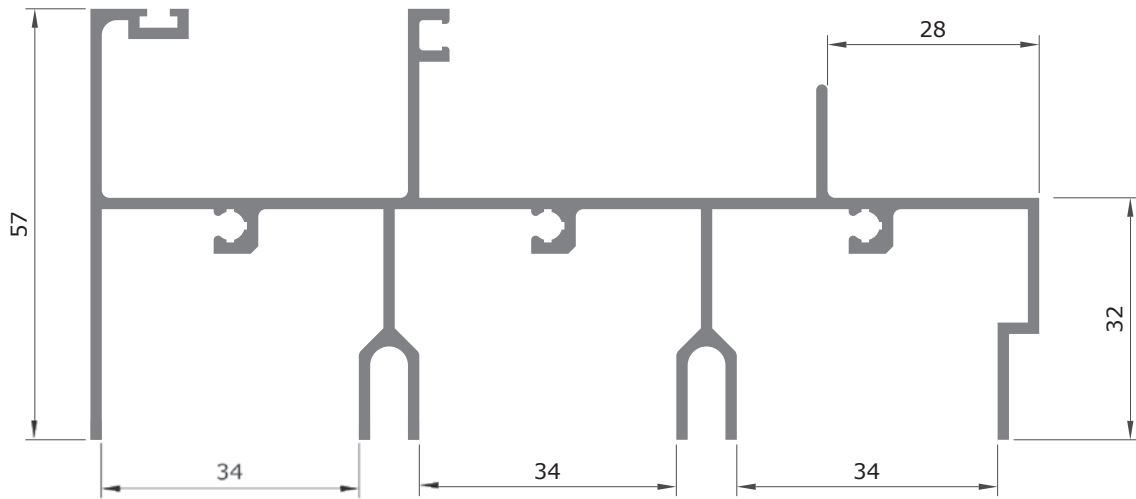
**Z-268**  
1,011 Kg/m



**Z-082**  
0,393 Kg/m

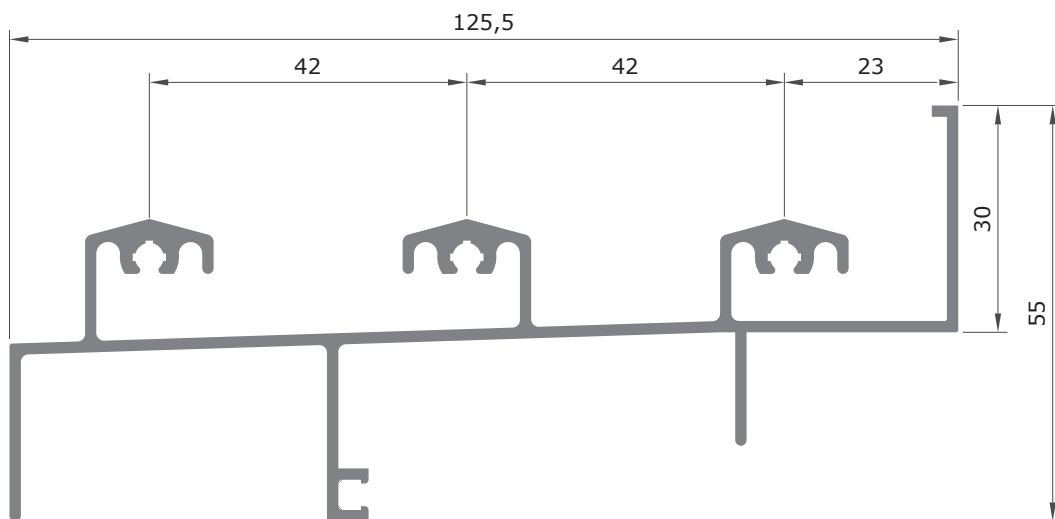


CATÁLOGO GERAL DE PERFIS



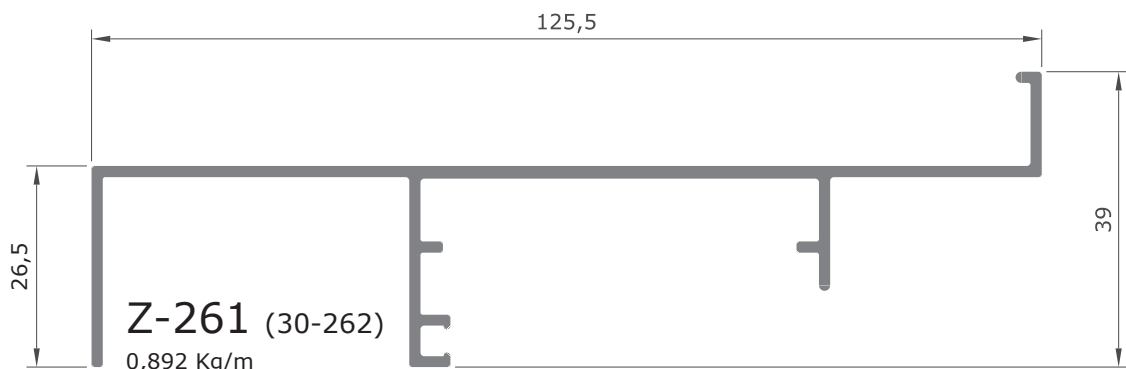
**E-485 (30-260)**

1,708 Kg/m



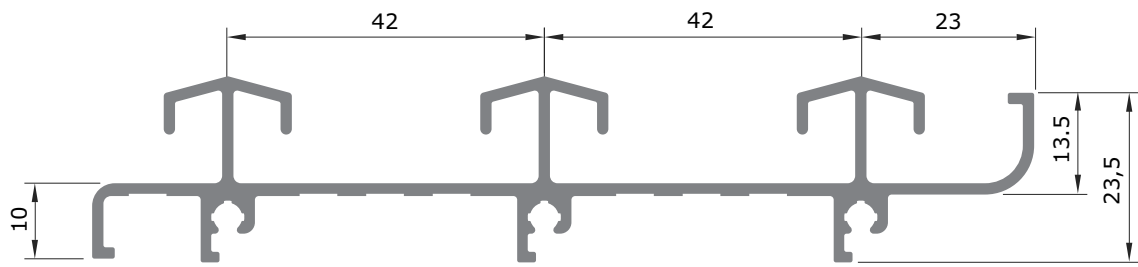
**E-486**

1,538 Kg/m

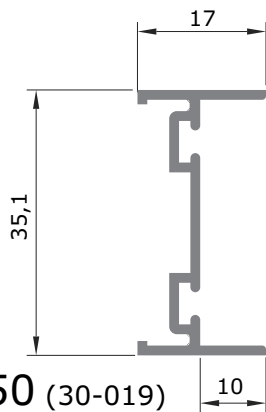


**Z-261 (30-262)**

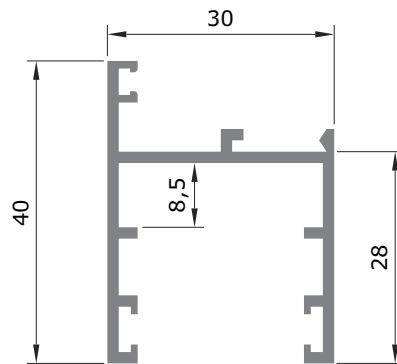
0,892 Kg/m



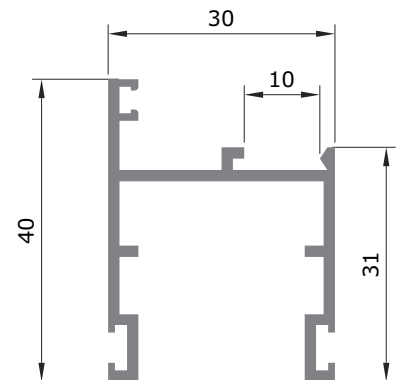
**Z-260** (30-254)  
1,323 Kg/m



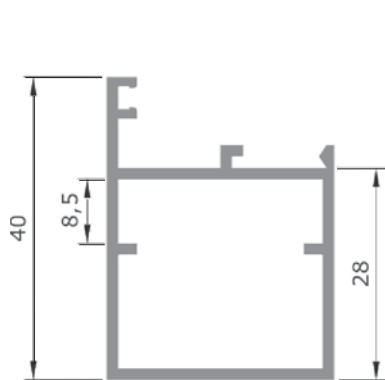
**E-150** (30-019)  
0,273 Kg/m



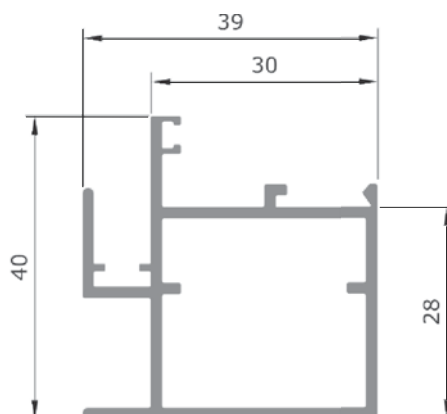
**Y-131** (30-001)  
0,491 Kg/m



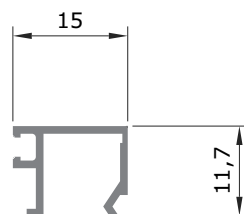
**Y-153** (30-002)  
0,506 Kg/m



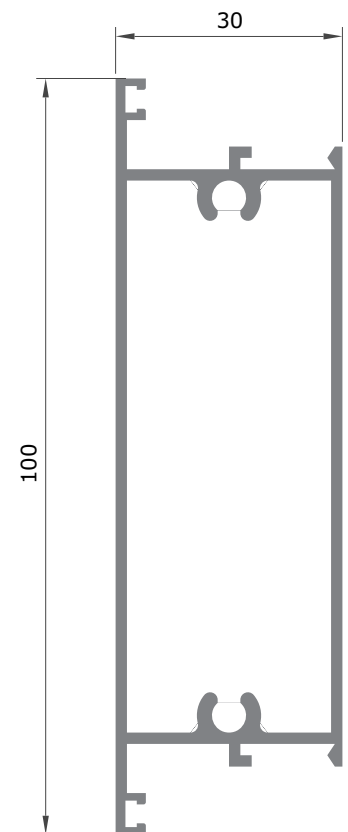
**P-084A** (30-003)  
0,486 Kg/m



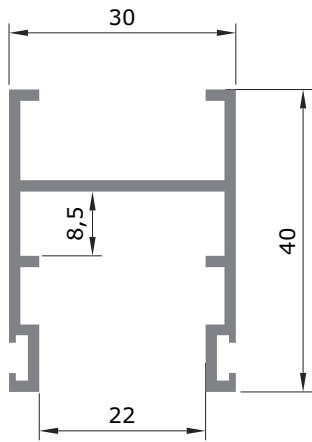
**P-148** (30-005)  
0,691 Kg/m



**U-482** (BG-010)  
0,118 Kg/m

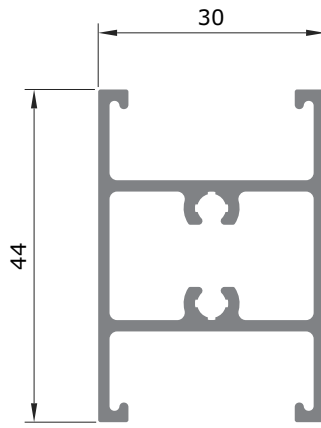


**P-165** (30-030)  
1,152 Kg/m



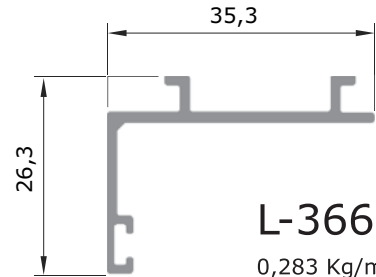
**Y-719**

0,521 Kg/m



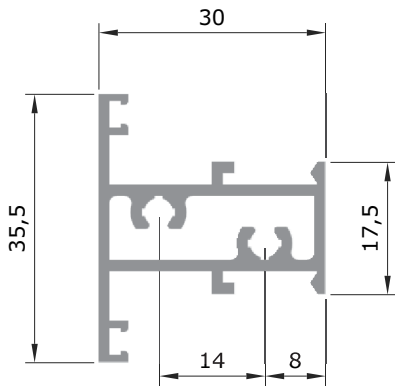
**P-417 (30-079)**

0,734 Kg/m



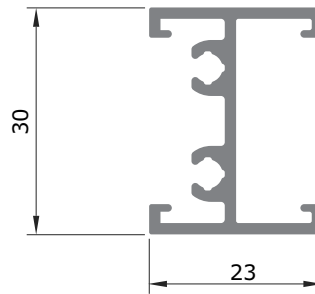
**L-366**

0,283 Kg/m



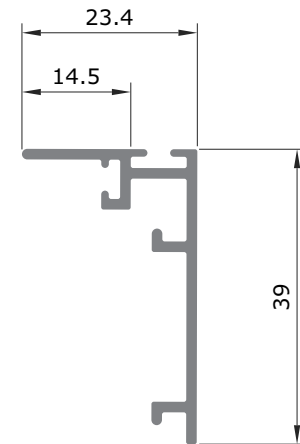
**P-075 (30-086)**

0,602 Kg/m



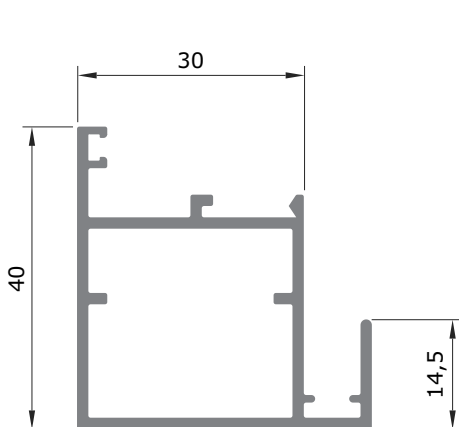
**I-102**

0,448 Kg/m



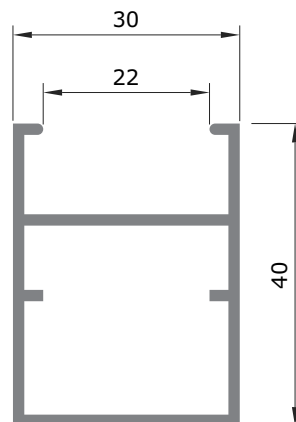
**L-518 (30-295)**

0,355 Kg/m



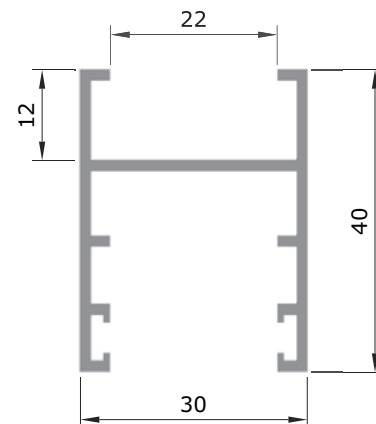
**P-149 (30-006)**

0,659 Kg/m



**A-210**

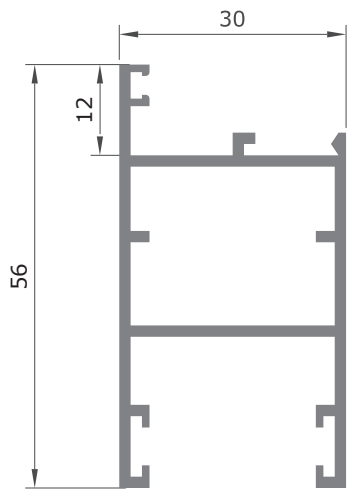
0,584 Kg/m



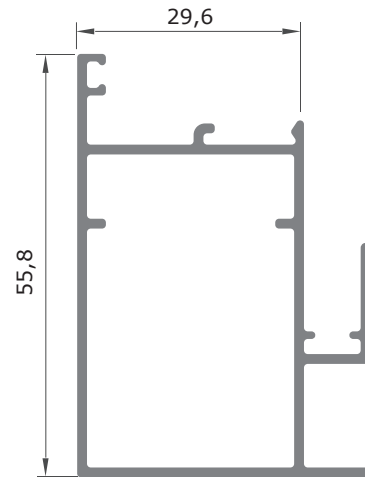
**Y-718**

0,521 Kg/m

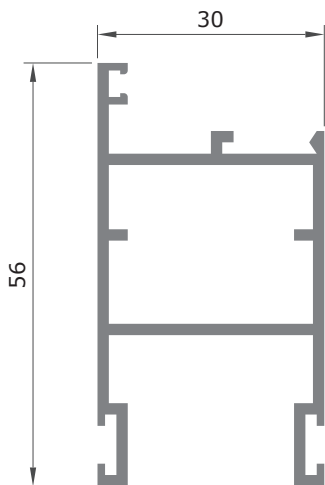




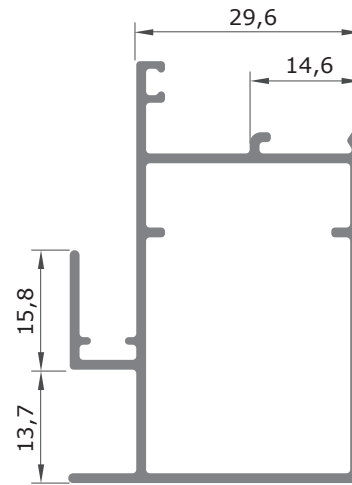
**A-026** (30-009)  
0,479 Kg/m



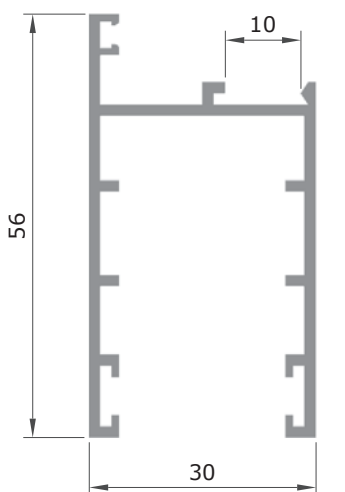
**P-281A** (30-011)  
0,721 Kg/m



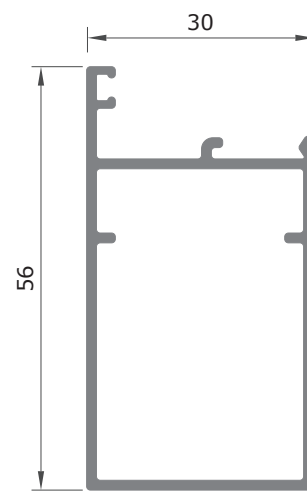
**A-054** (30-010)  
0,746 Kg/m



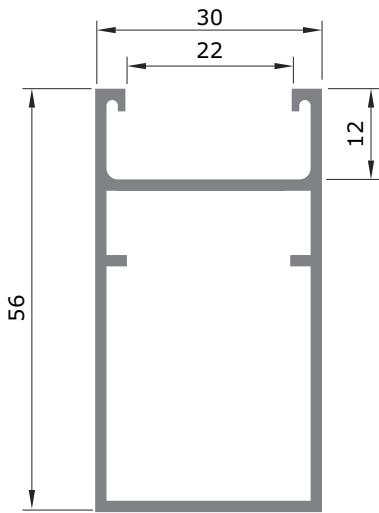
**P-282A** (30-012)  
0,721 Kg/m



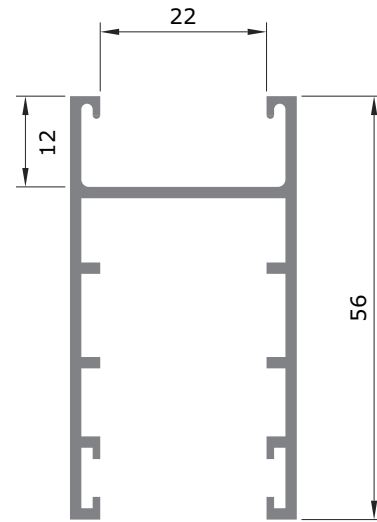
**Y-110** (30-007)  
0,659 Kg/m



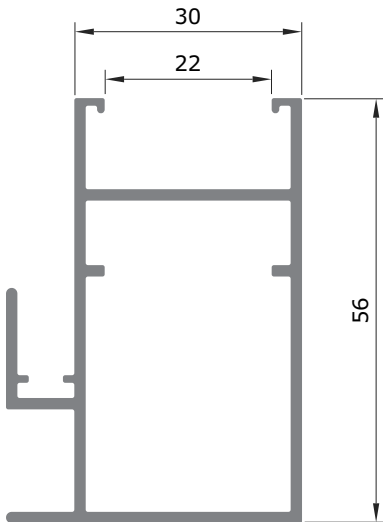
**P-068A** (30-008)  
0,604 Kg/m



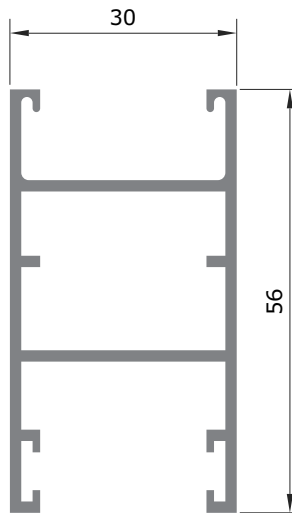
**A-041A** (30-014)  
0,618 Kg/m



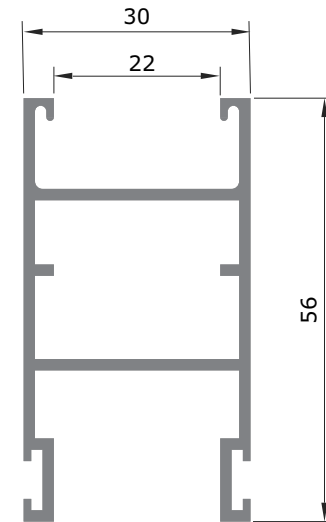
**Y-168** (30-013)  
0,690 Kg/m



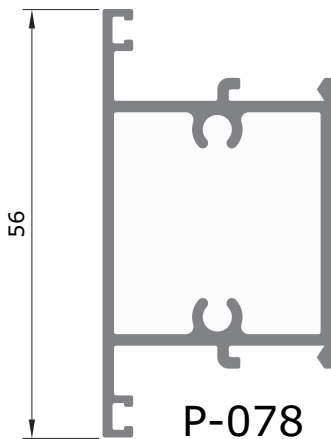
**A-211** (30-259)  
0,852 Kg/m



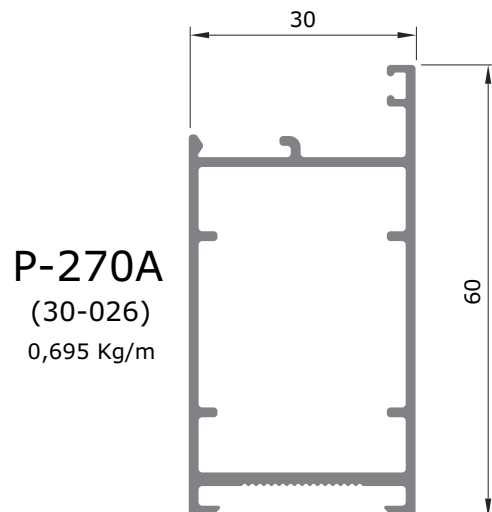
**A-090** (30-015)  
0,782 Kg/m



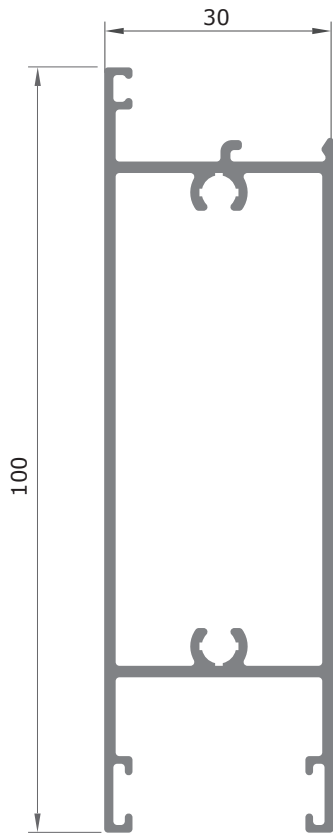
**A-212** (30-272)  
0,761 Kg/m



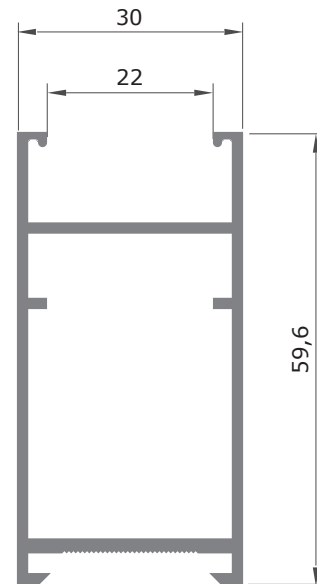
**P-078**  
0,794 Kg/m



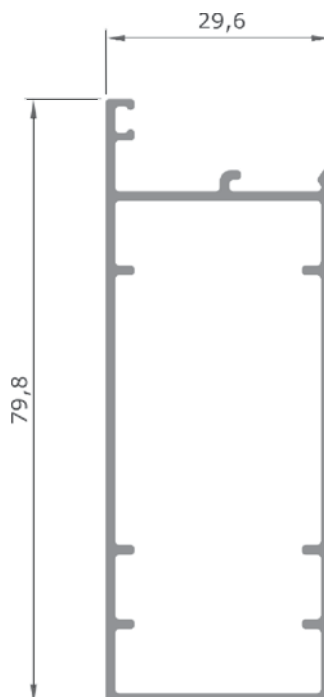
**P-270A**  
(30-026)  
0,695 Kg/m



**A-081A**  
(30-028)  
1,128 Kg/m

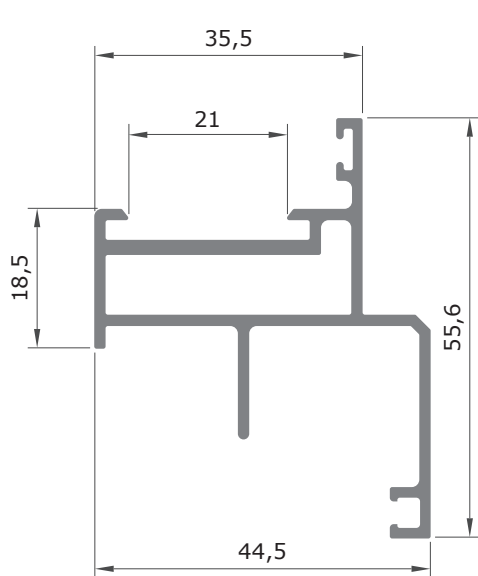


**A-144A**  
(30-077)  
0,686 Kg/m

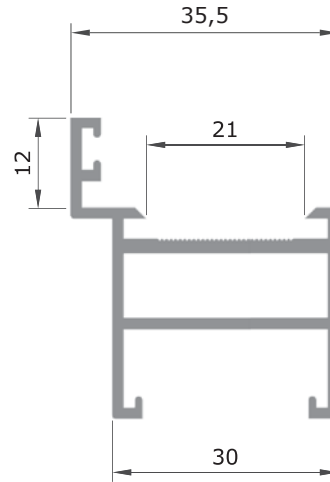


**P-358A**  
0,803 Kg/m

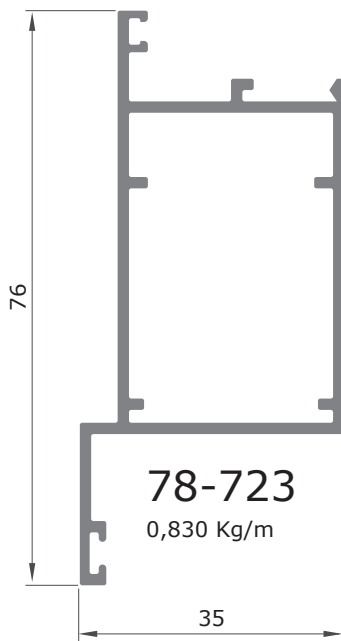




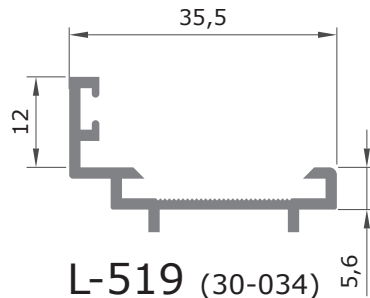
**P-272 (30-027)**  
0,788 Kg/m



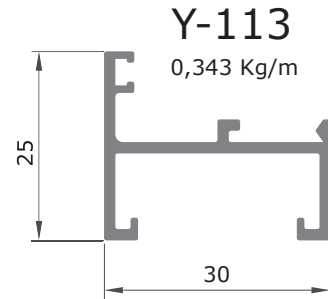
**P-273A**  
0,538 Kg/m  
(30-023)



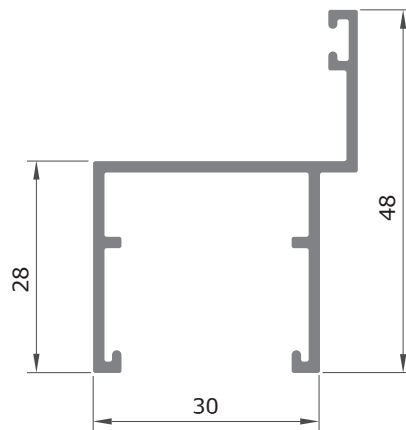
**78-723**  
0,830 Kg/m



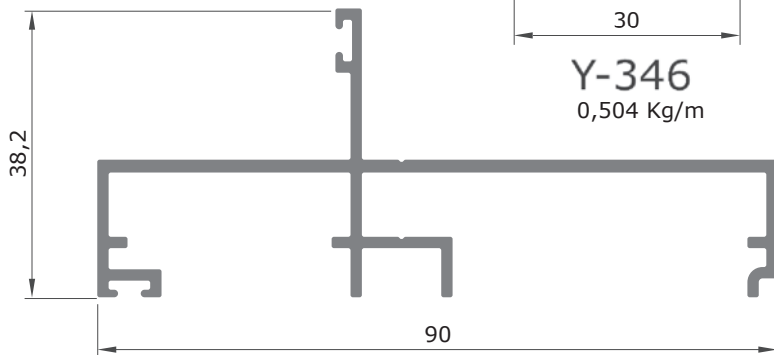
**L-519 (30-034)**  
0,291 Kg/m



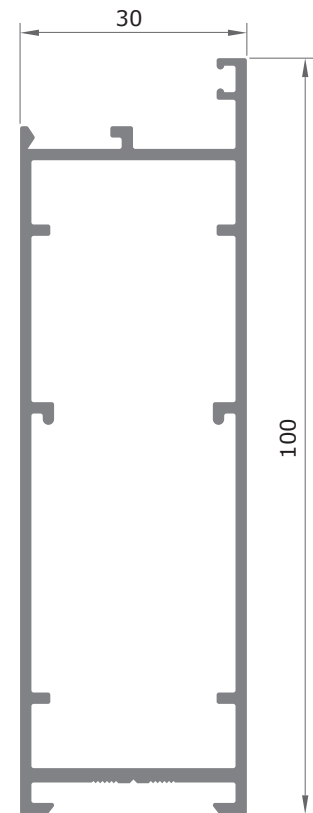
**Y-113**  
0,343 Kg/m



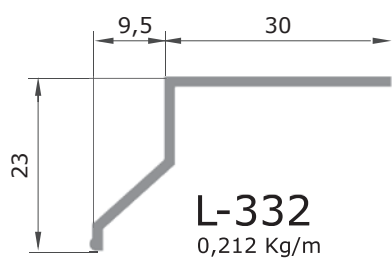
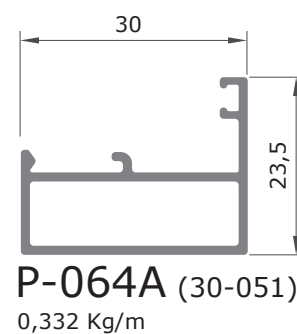
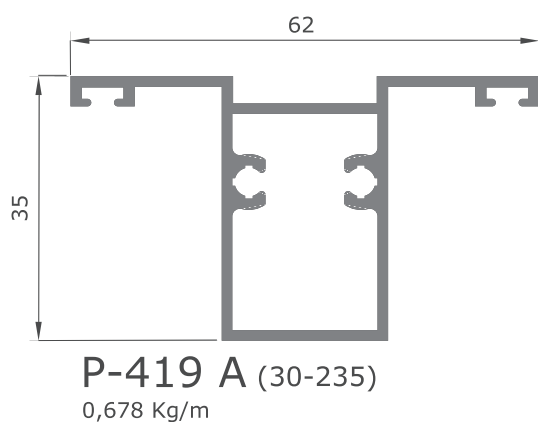
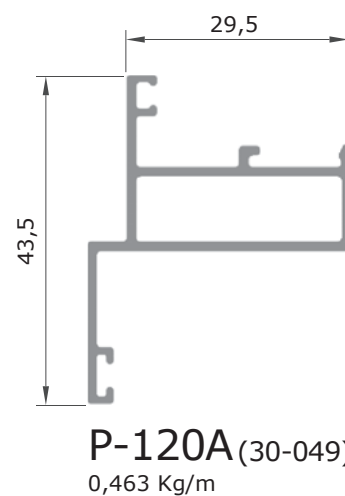
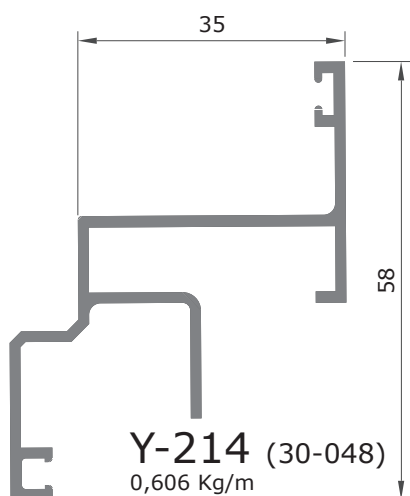
**Y-346**  
0,504 Kg/m



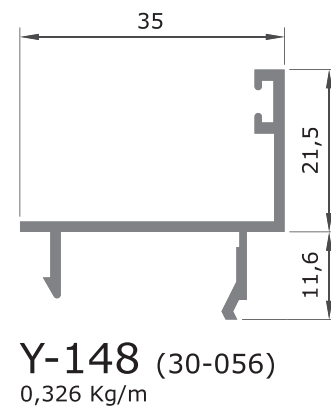
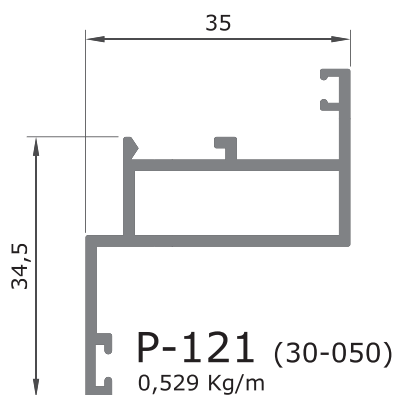
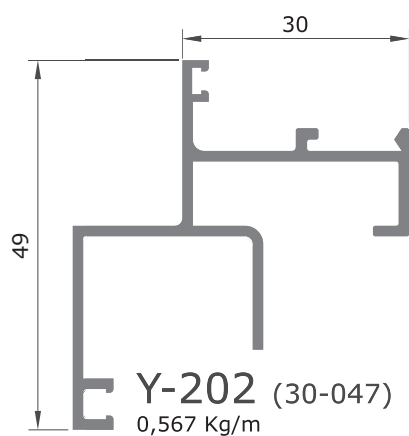
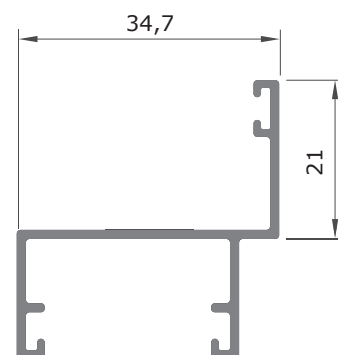
**39-837**  
0,873 Kg/m

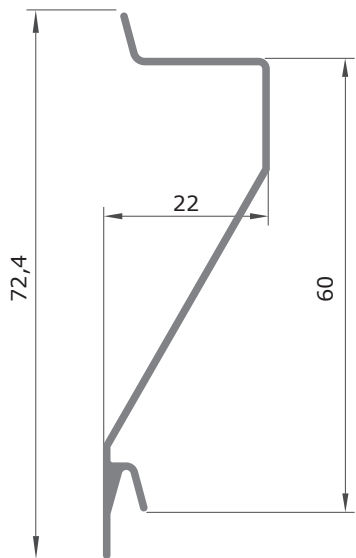


**P-264 (30-082)**  
1,156 Kg/m



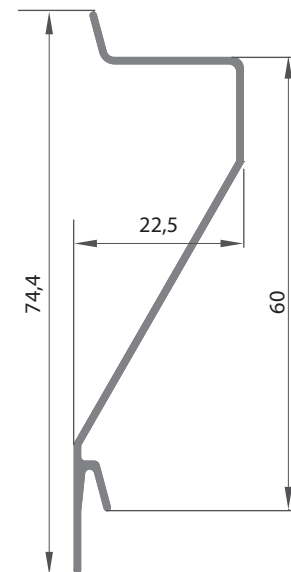
**Y-140A**  
(30-054)  
0,338 Kg/m





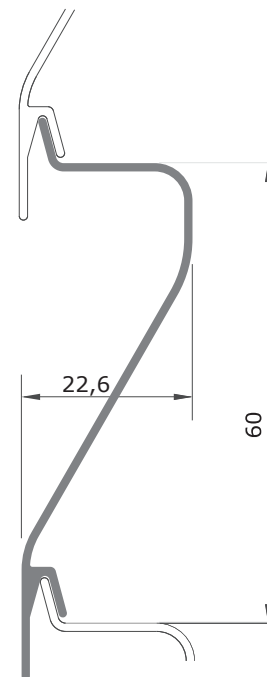
**VA-203A**

0,292 Kg/m



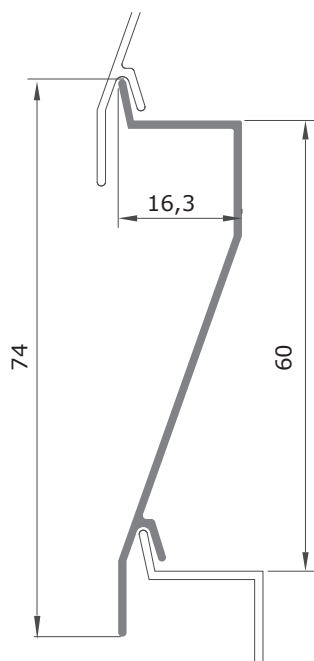
**19-920C**

0,291 Kg/m



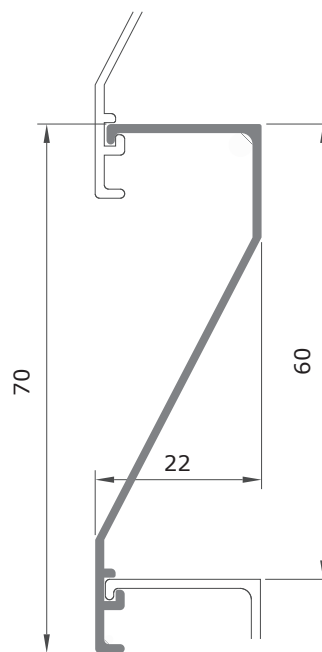
**39-528**

0,323 Kg/m



**VZ-023**

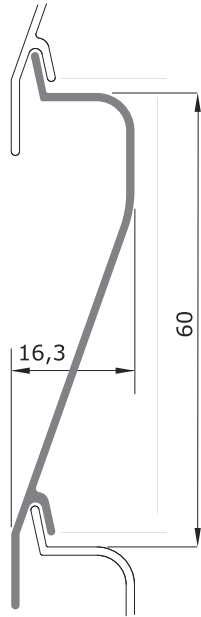
0,293 Kg/m



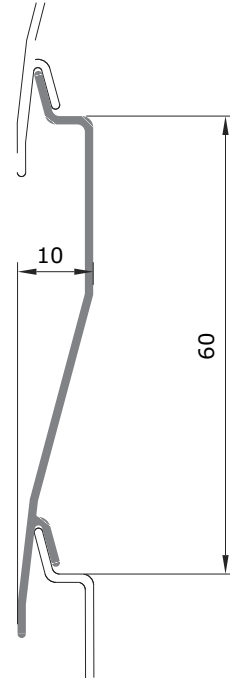
**Z-148**

0,338 Kg/m

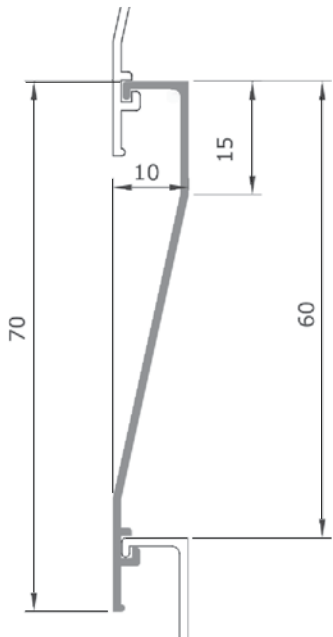




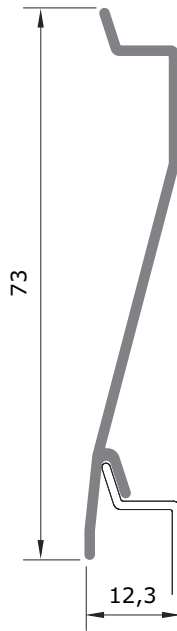
**39-463**  
0,266 Kg/m



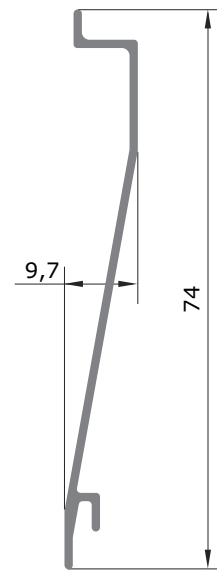
**VA-201**  
0,261 Kg/m



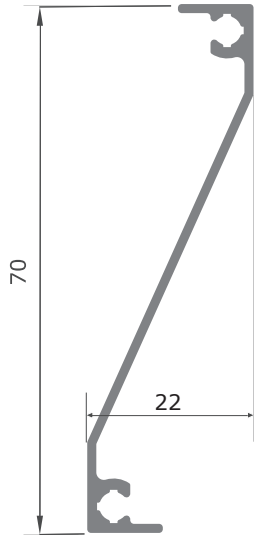
**Z-163 (VZ-004)**  
0,255 Kg/m



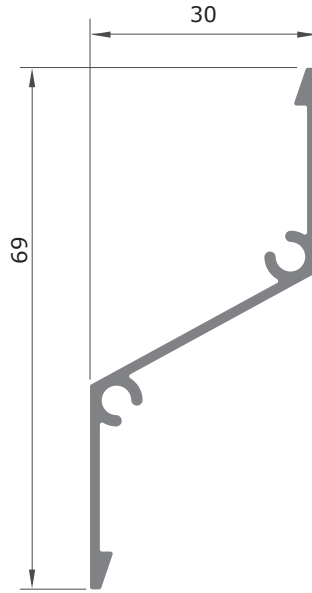
**Z-284**  
0,266 Kg/m



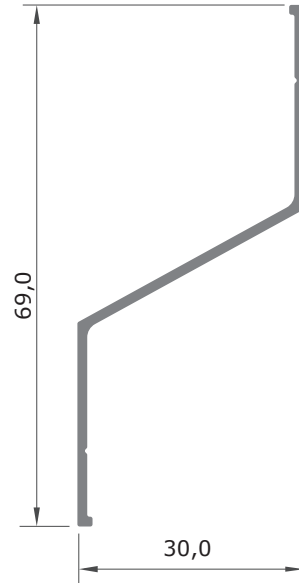
**VA-024**  
0,271 Kg/m



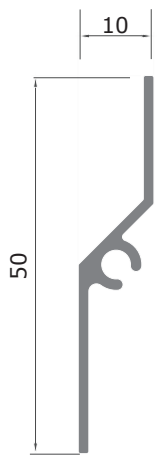
**Z-194**  
0,368 Kg/m



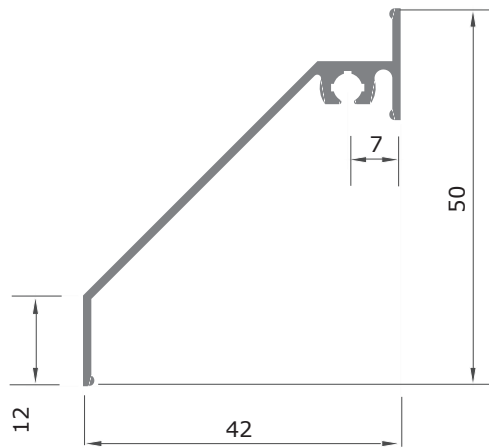
**VZ-060**  
0,397 Kg/m



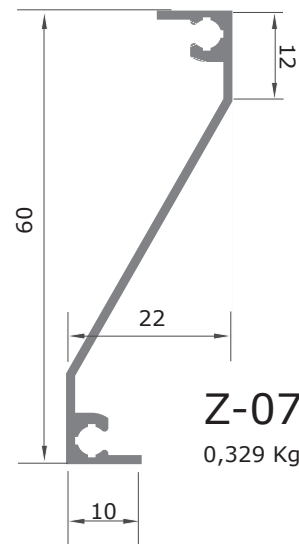
**29-202**  
0,302 Kg/m



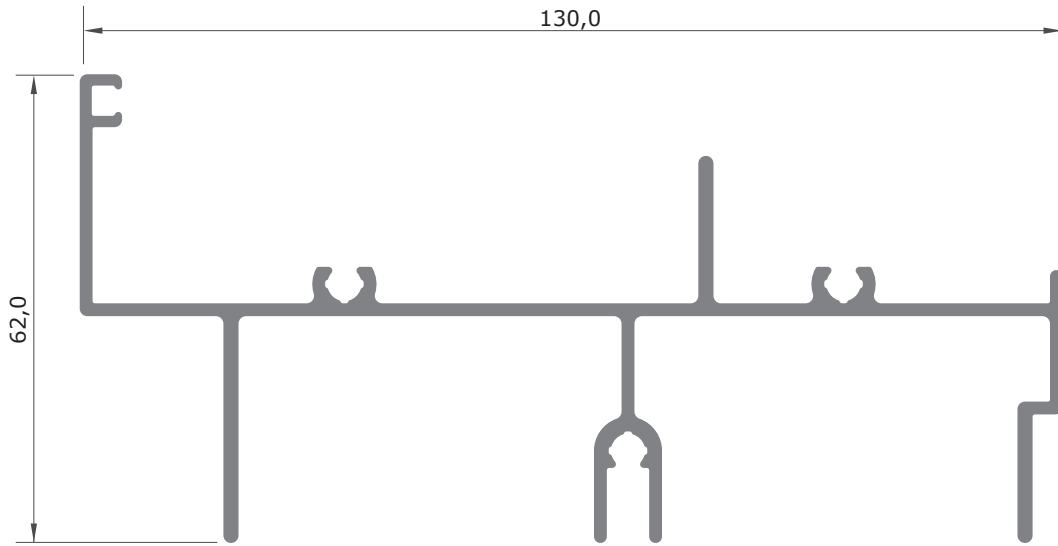
**19-552**  
0,252 Kg/m



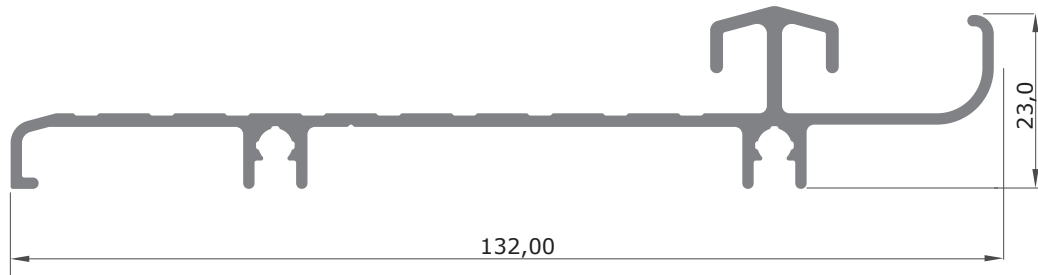
**Z-248**  
0,350 Kg/m



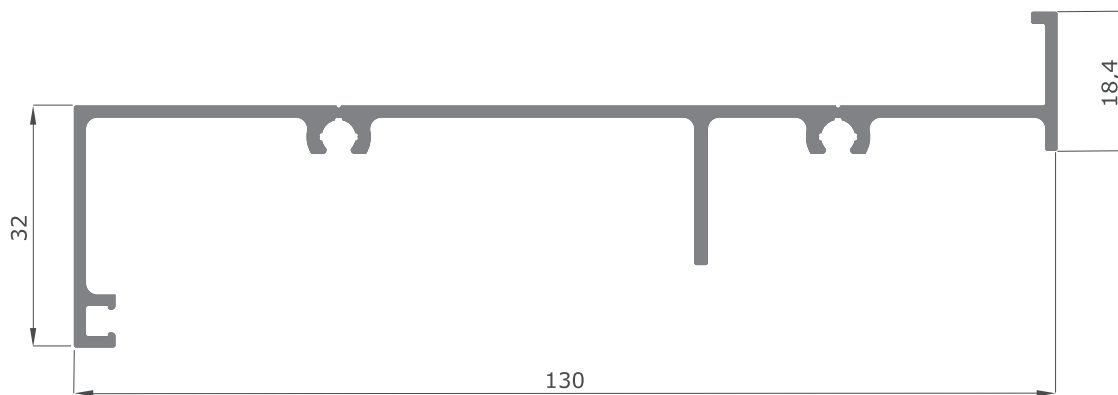
**Z-073**  
0,329 Kg/m



**42-040**  
1,553 Kg/m

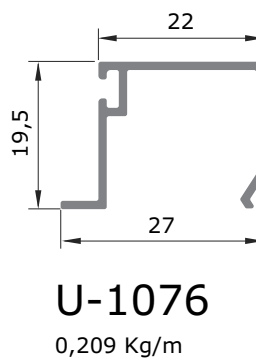
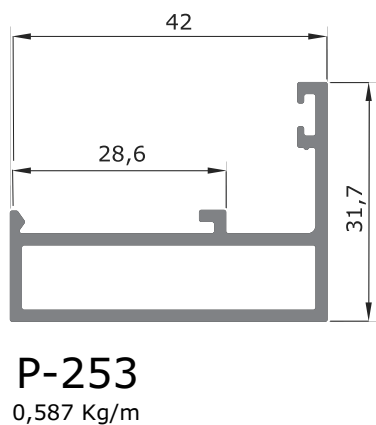
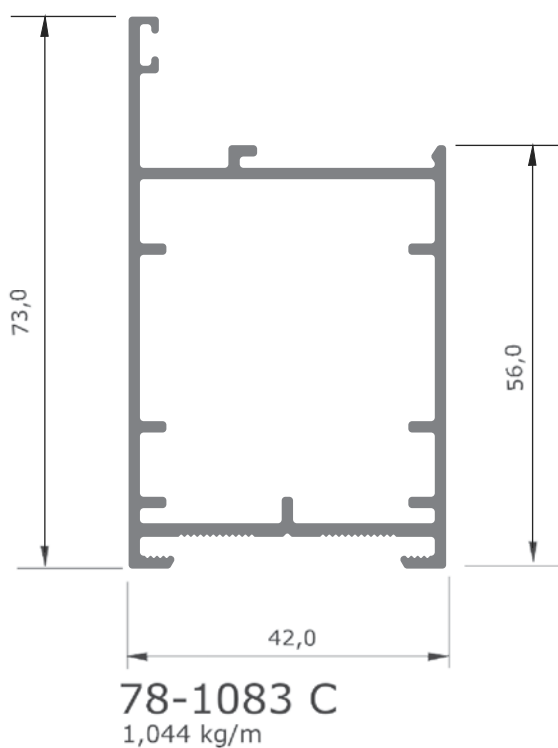
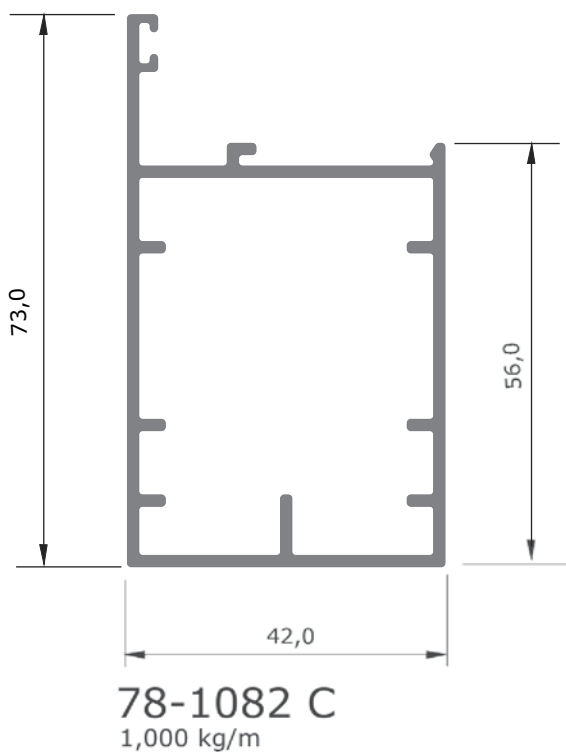
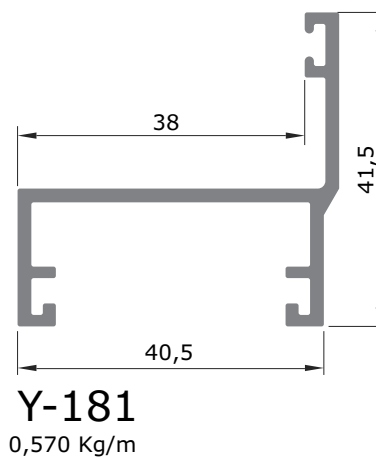
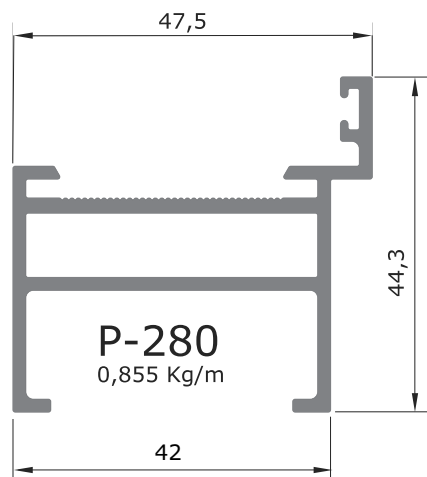


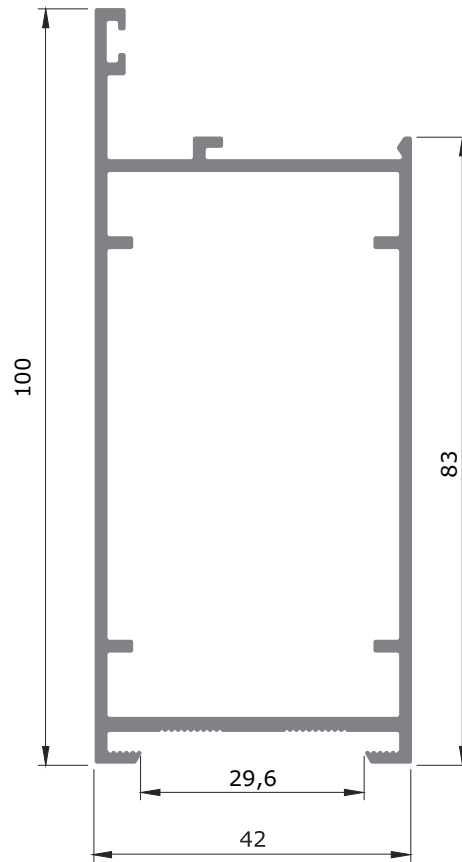
**42-002**  
1,014 Kg/m



**Z-186**  
1,035 Kg/m

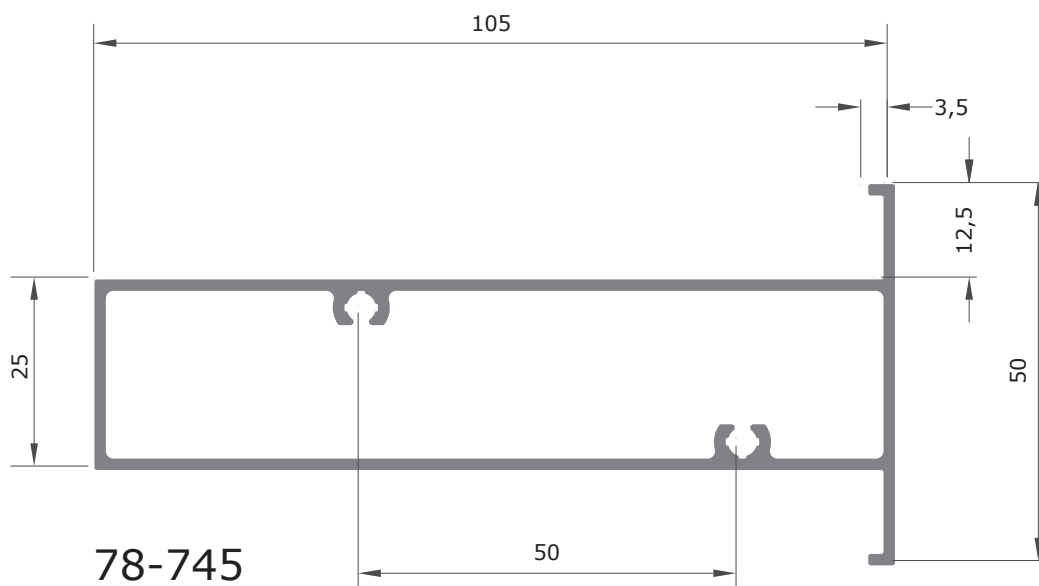






**P-268A**

1,373 Kg/m



**78-745**

1,256 Kg/m









## ► Portões e Grades

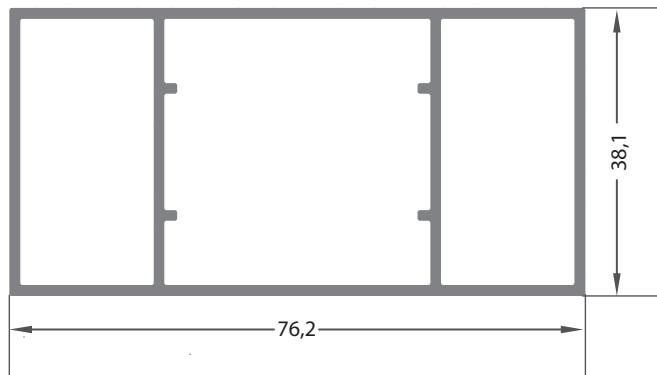
Muito mais segurança, todo o conforto e o requinte estético exclusivo do alumínio estão presentes no Sistema Construtivo Roma para Gradis e Portões. Agora, um conjunto completo de perfis possibilita que os portões sejam fabricados 100% em alumínio, incluindo as caixas laterais (para os portões basculantes).

  
GRADIS E PORTÕES

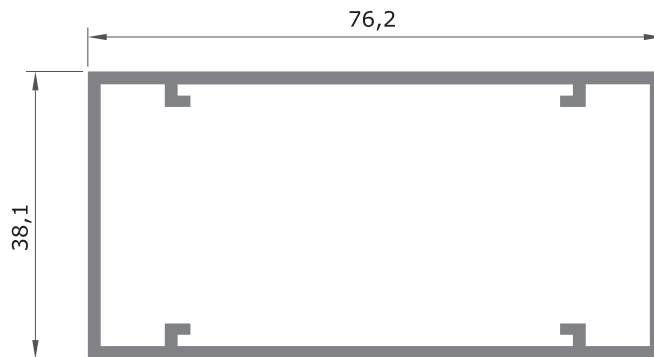




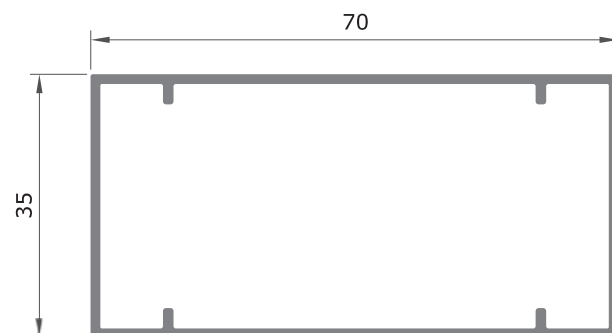




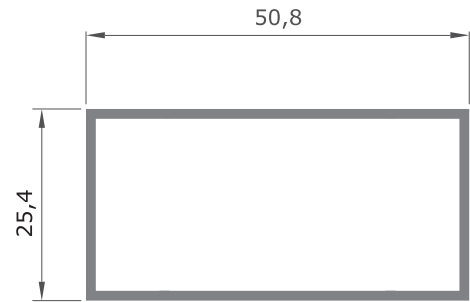
**79-007C**  
1,168 Kg/m



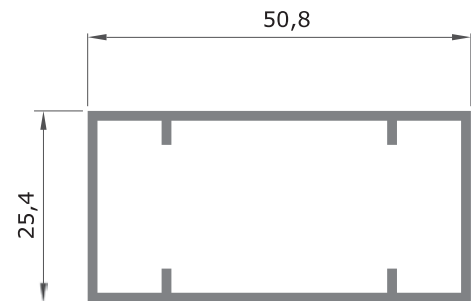
**D-069 (PC-003)**  
0,945 Kg/m



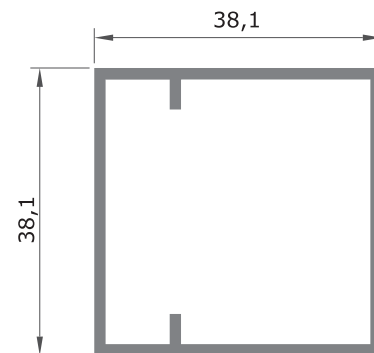
**74-029**  
0,761 Kg/m



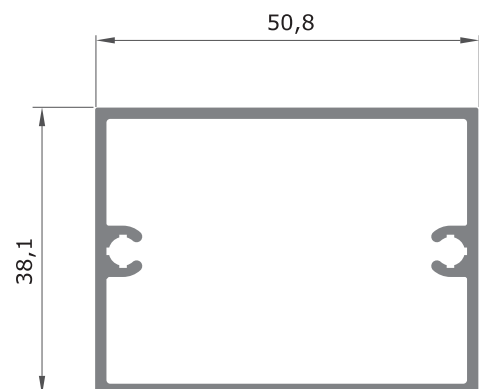
**74-001**  
0,401 Kg/m



**D-079 (PC-002)**  
0,563 Kg/m

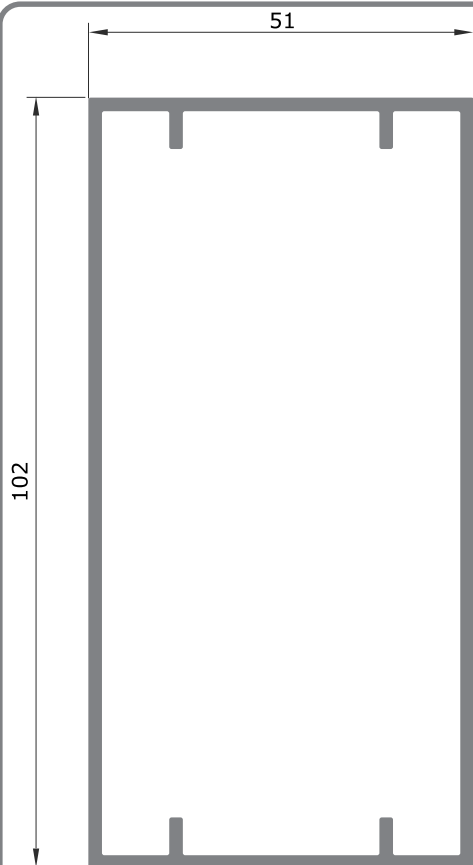


**D-102**  
0,627 Kg/m

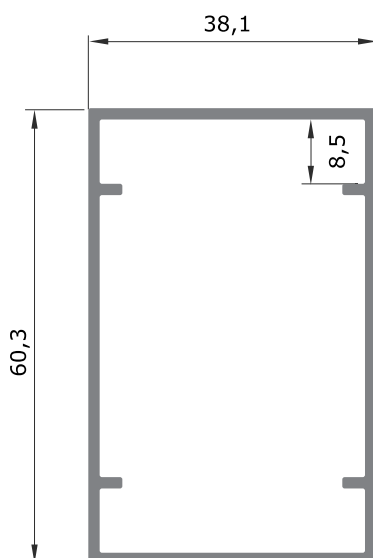


**D-103 (CG-104)**  
0,786 Kg/m

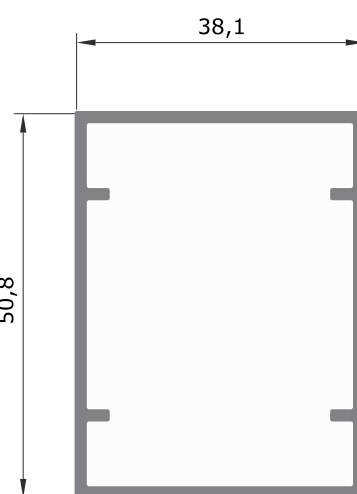




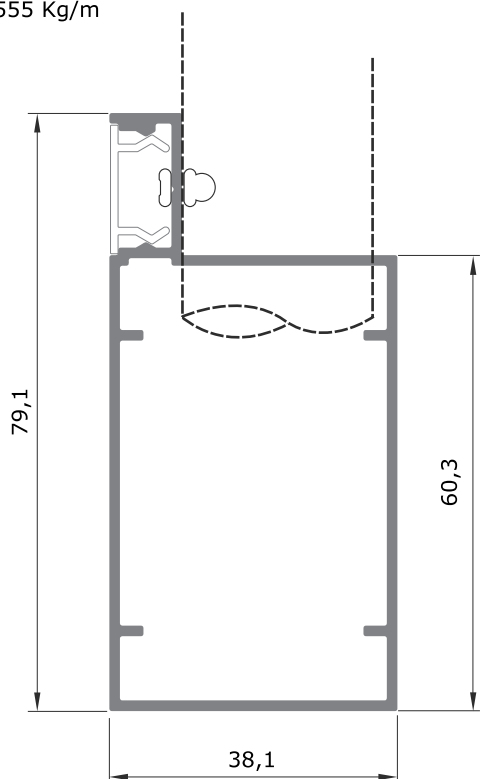
**78-719**  
1,555 Kg/m



**78-001**  
0,824 Kg/m



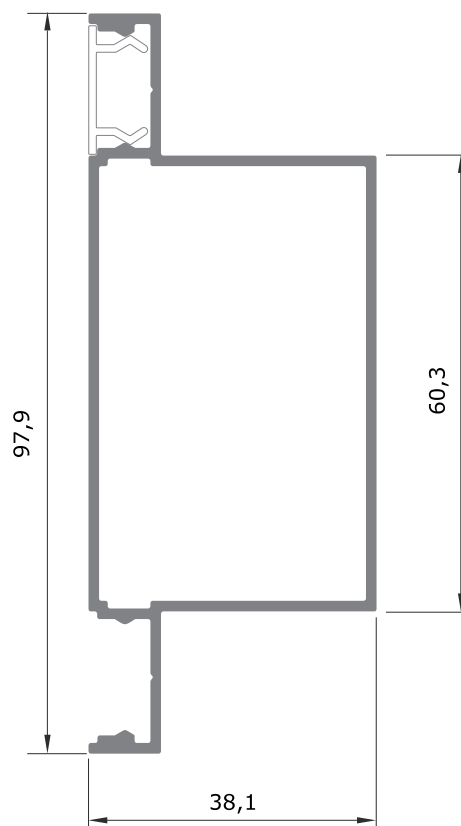
**D-078 (PC-004)**  
0,795 Kg/m



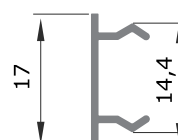
**78-778**  
0,897 Kg/m



**78-1651C**  
0,758 Kg/m

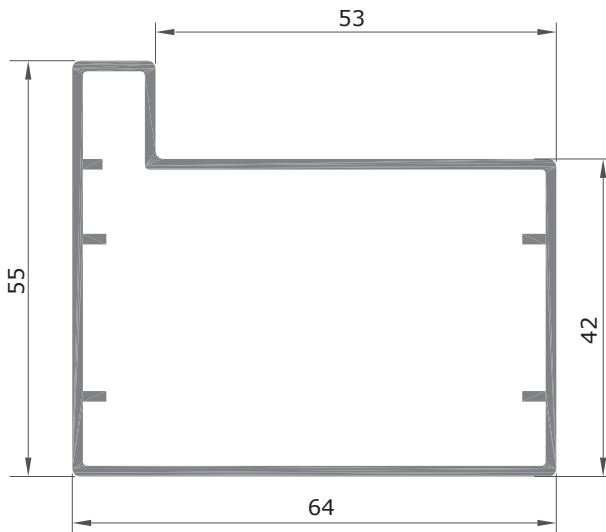


**78-777**

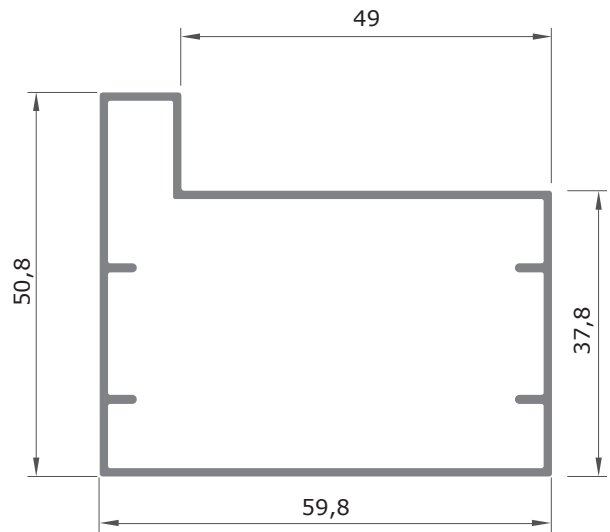


**39-1058**  
0,085 Kg/m

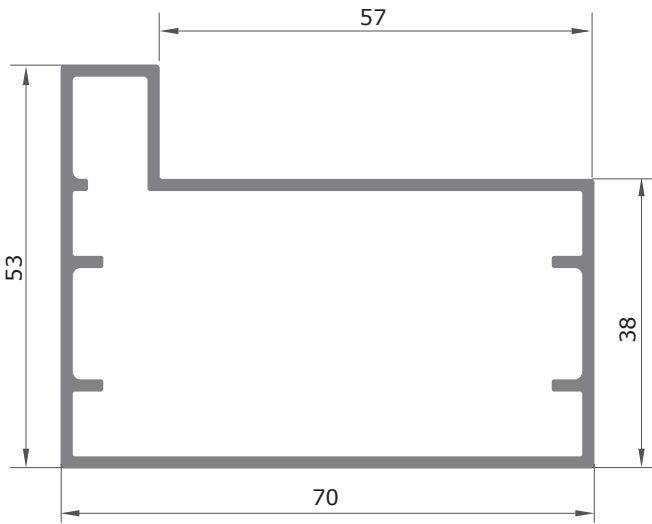
CATÁLOGO GERAL DE PERFIS



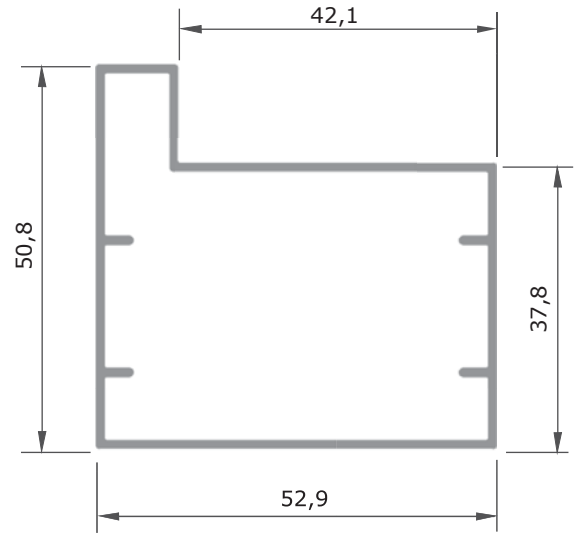
**78-137**  
0,937 Kg/m



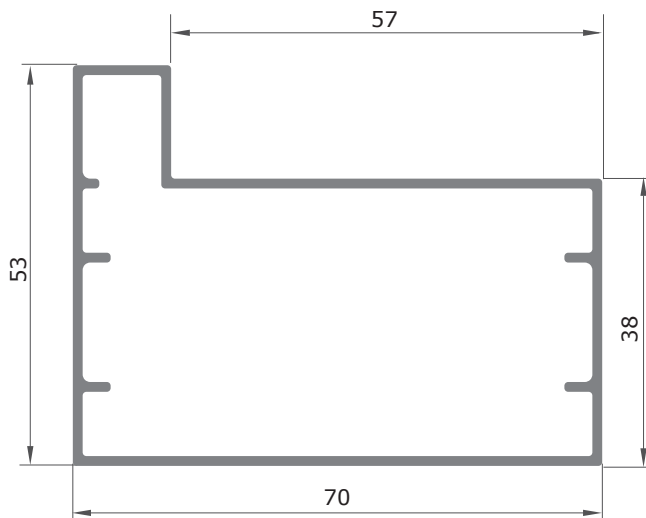
**78-947**  
0,694 Kg/m



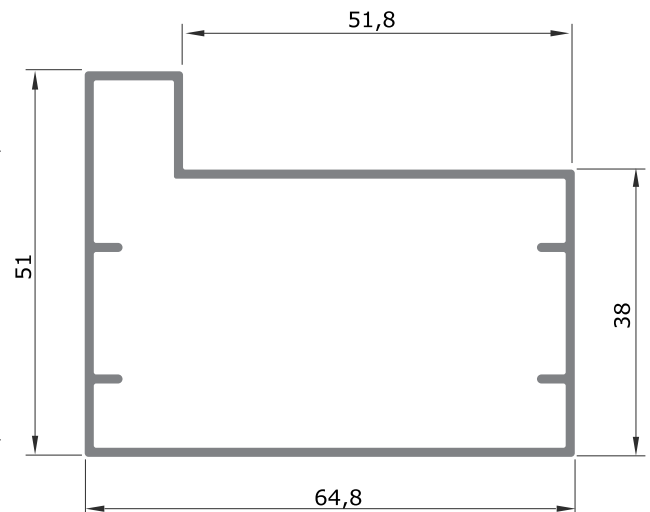
**78-484 (PC-010)**  
1,119 Kg/m



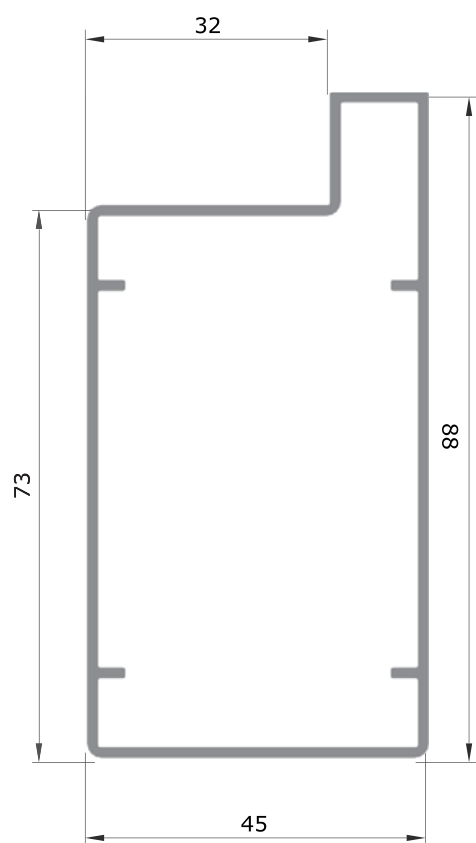
**78-1097 C**  
0,653 Kg/m



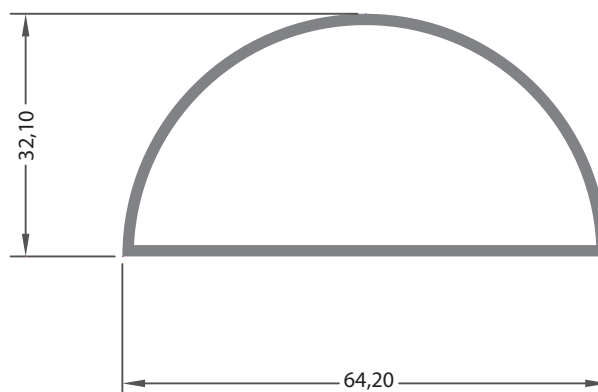
**78-1043D**  
0,910 Kg/m



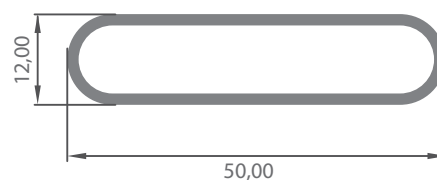
**78-889**  
0,785 Kg/m



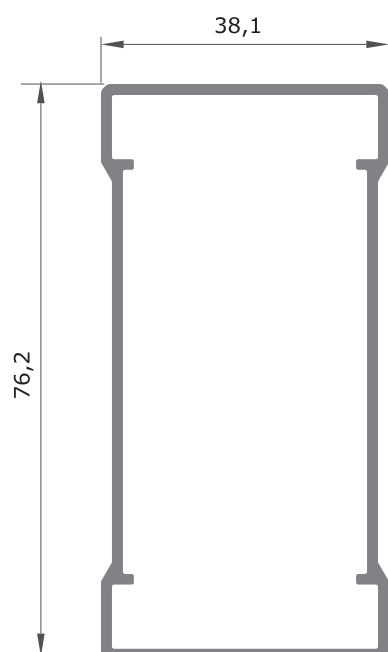
**78-140**  
1,034 Kg/m



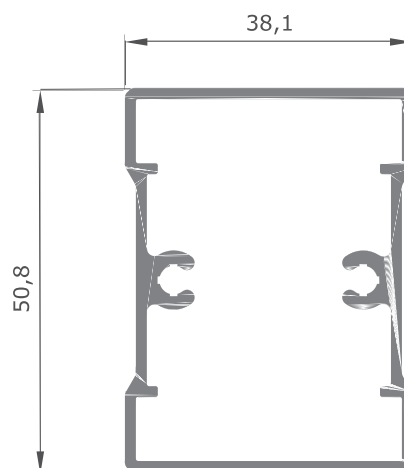
**78-081**  
0,646 Kg/m



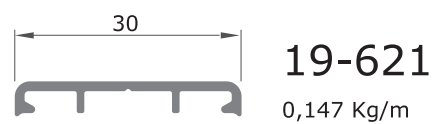
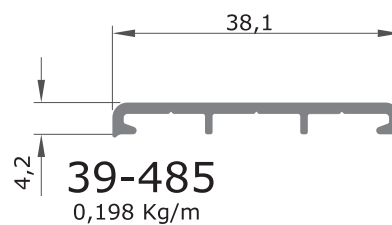
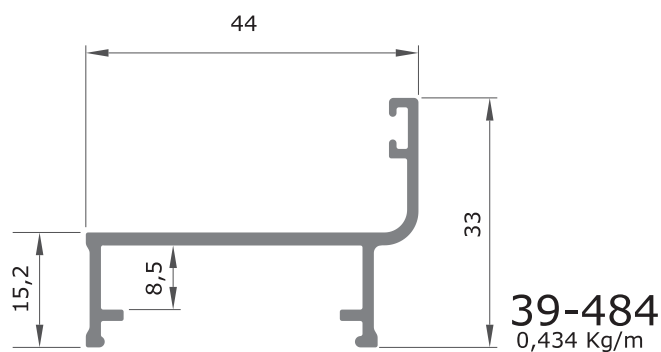
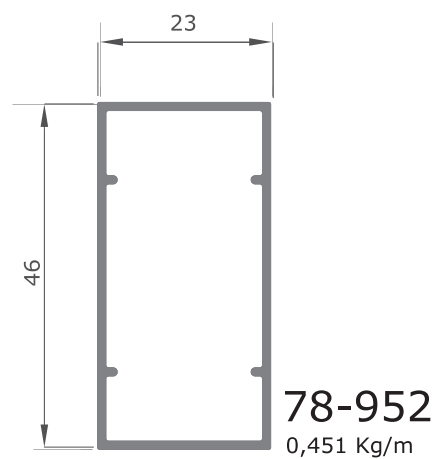
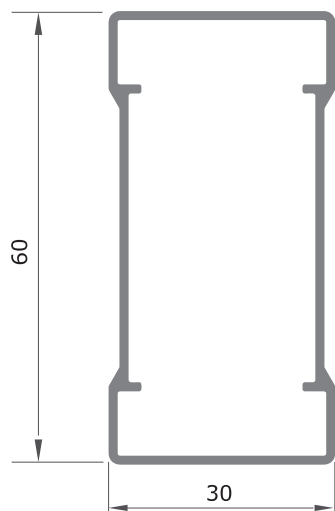
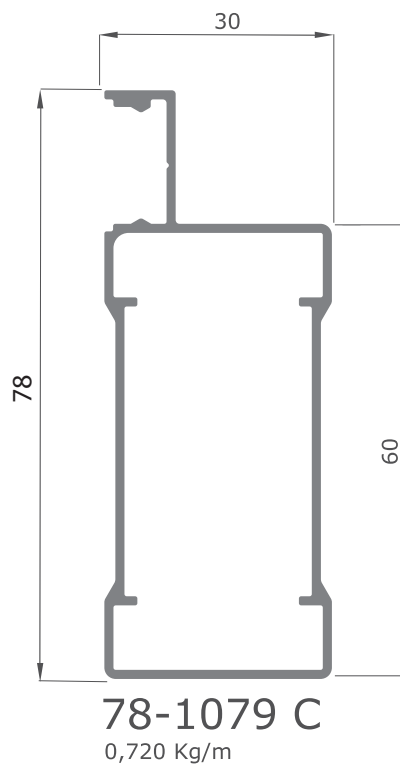
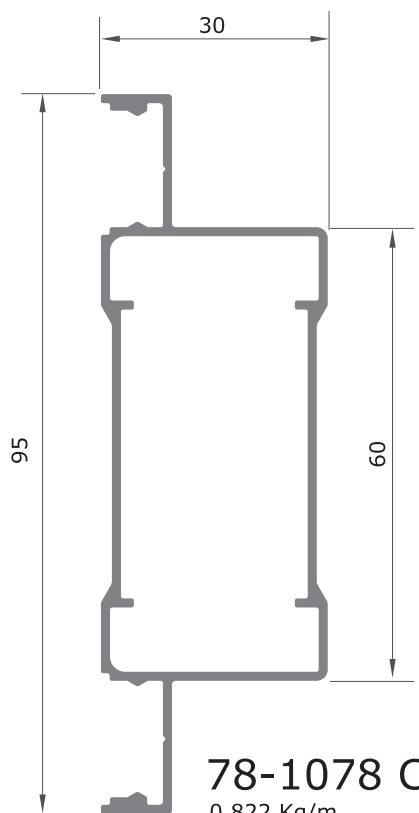
**75-008**  
0,443 kg/m



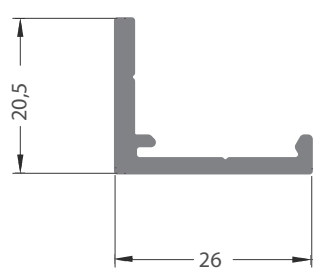
**78-383**  
0,919 Kg/m



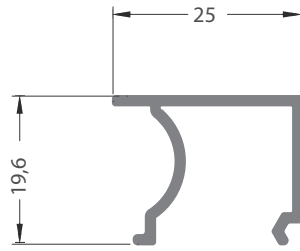
**78-384**  
0,881 Kg/m



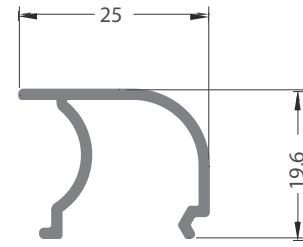




**29-317C**  
0,290 Kg/m

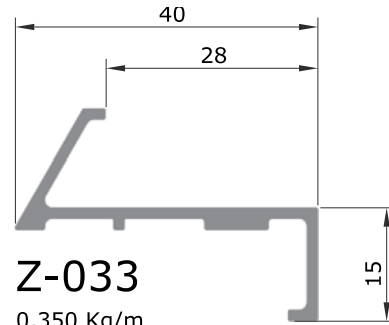
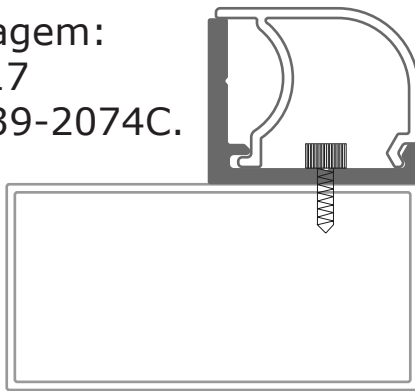


**39-2073C**  
0,219 Kg/m

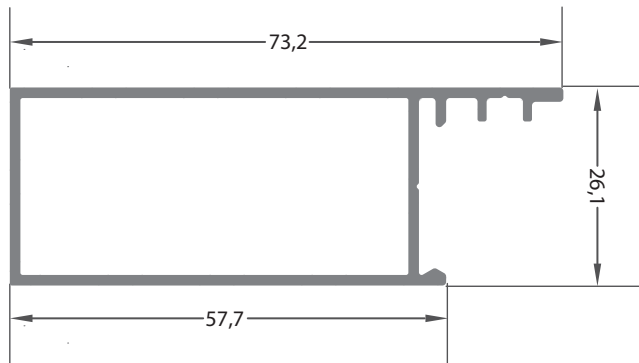


**39-2074C**  
0,206 Kg/m

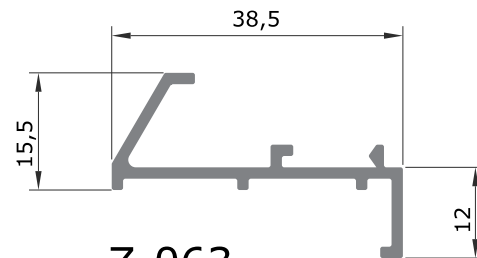
Montagem:  
29-317  
com 39-2074C.



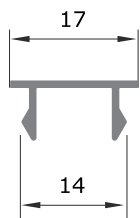
**Z-033**  
0,350 Kg/m



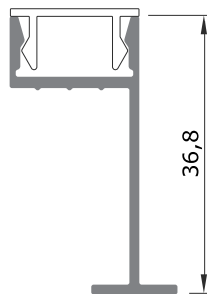
**78-2070C**  
0,717 Kg/m



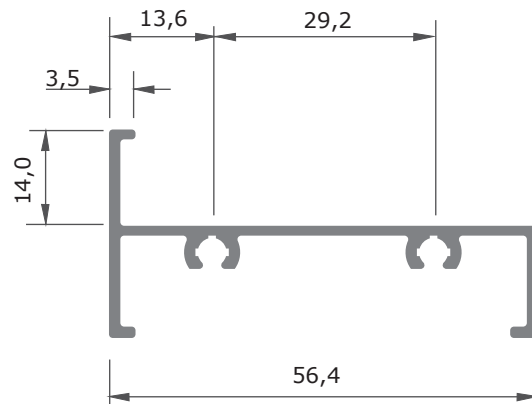
**Z-063**  
0,325 Kg/m



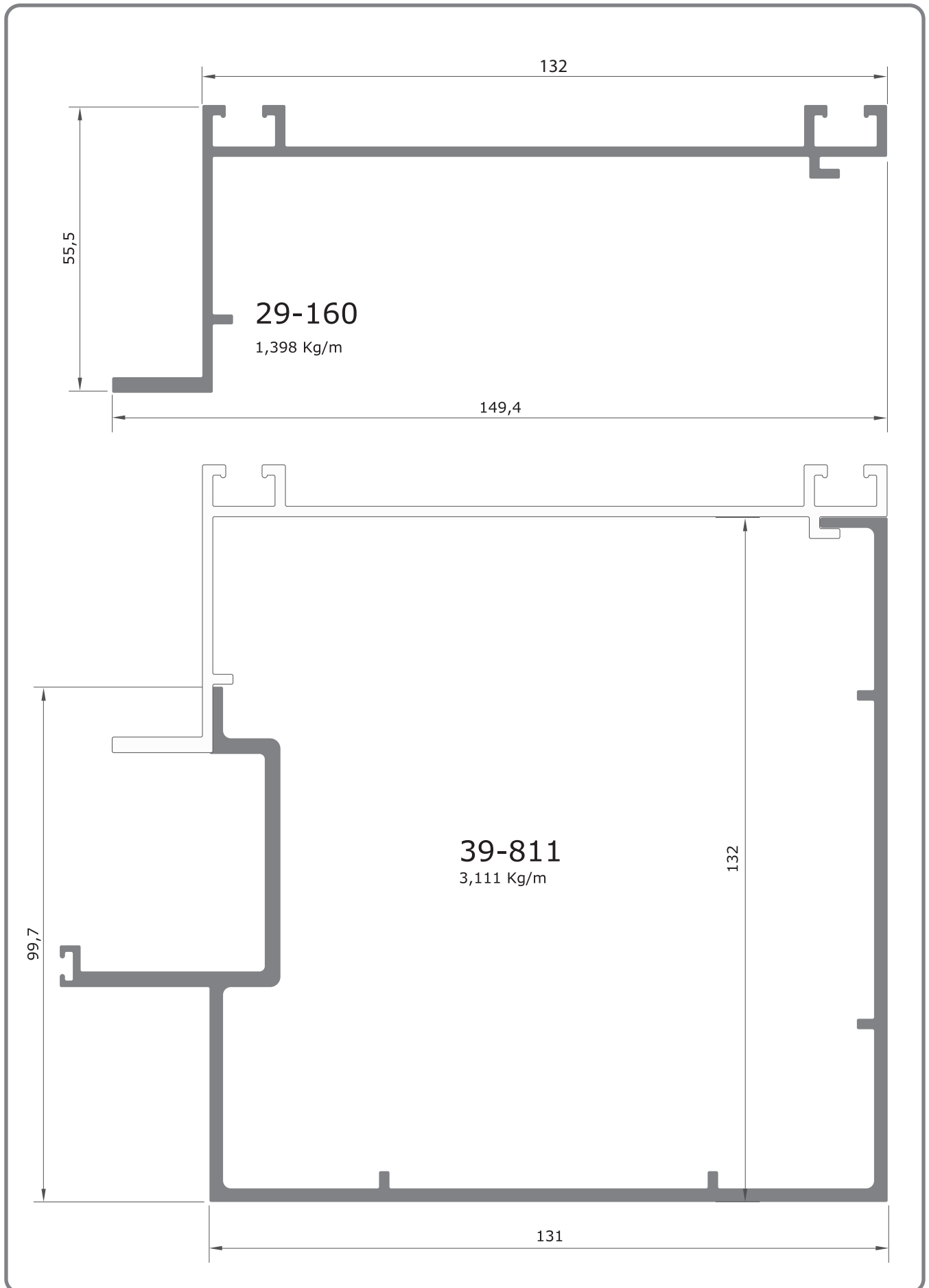
**U-491**  
0,093 Kg/m

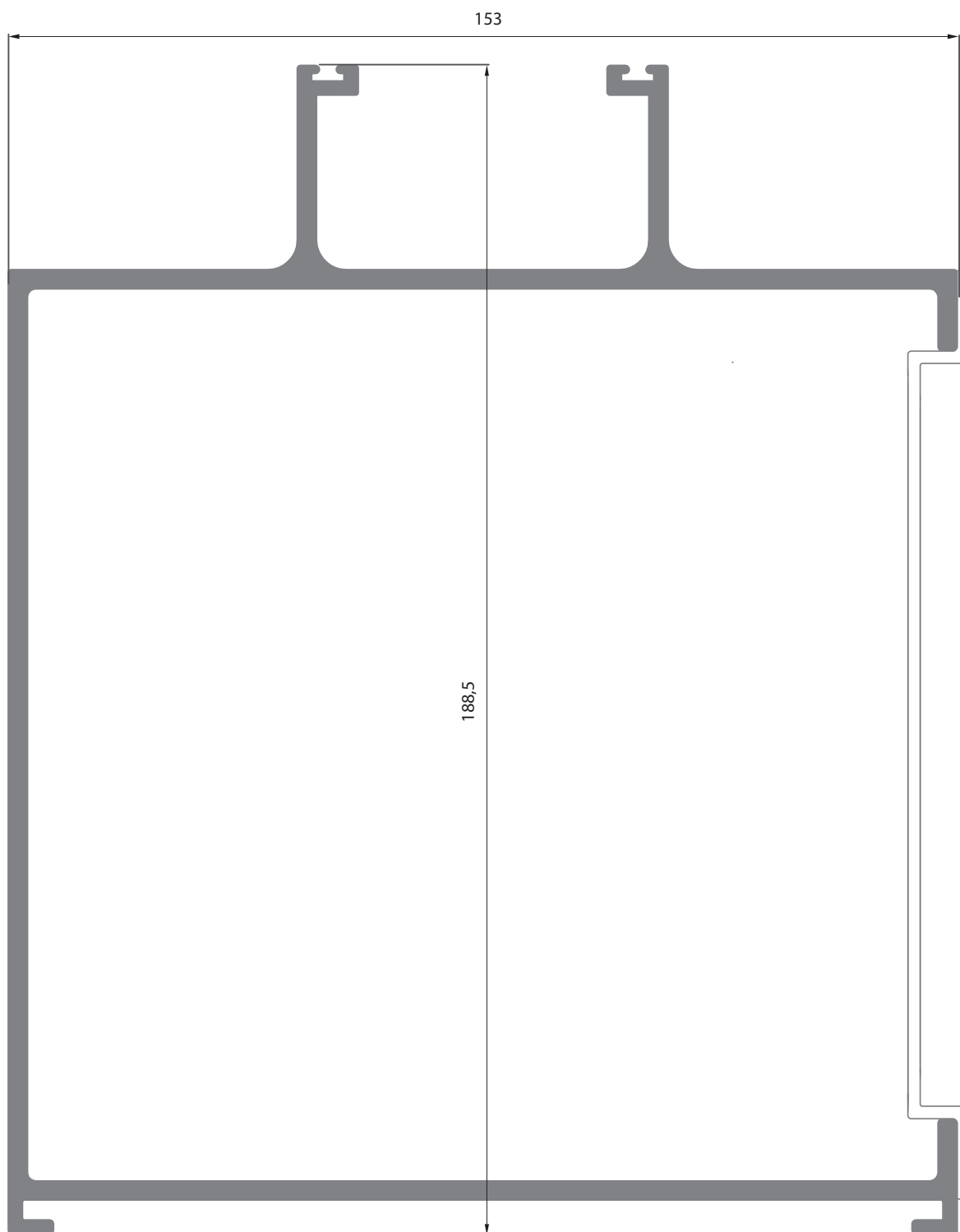


**50-018**  
0,263 Kg/m

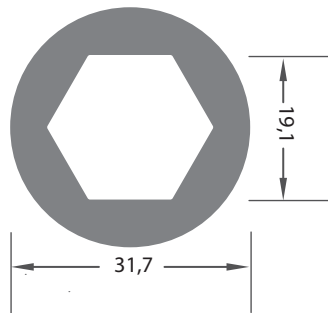


**39-1134 C**  
0,470 kg/m

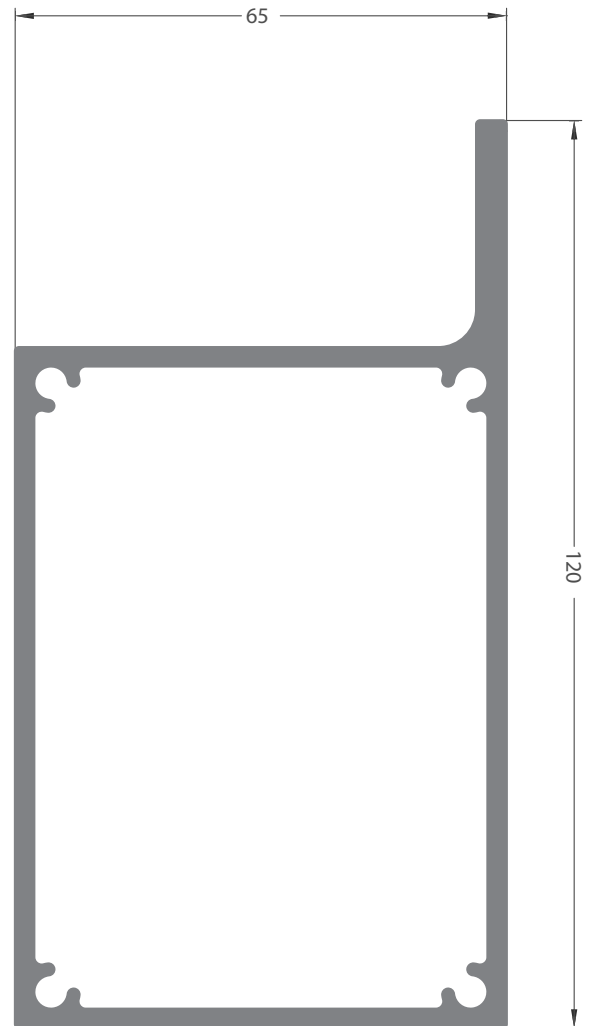




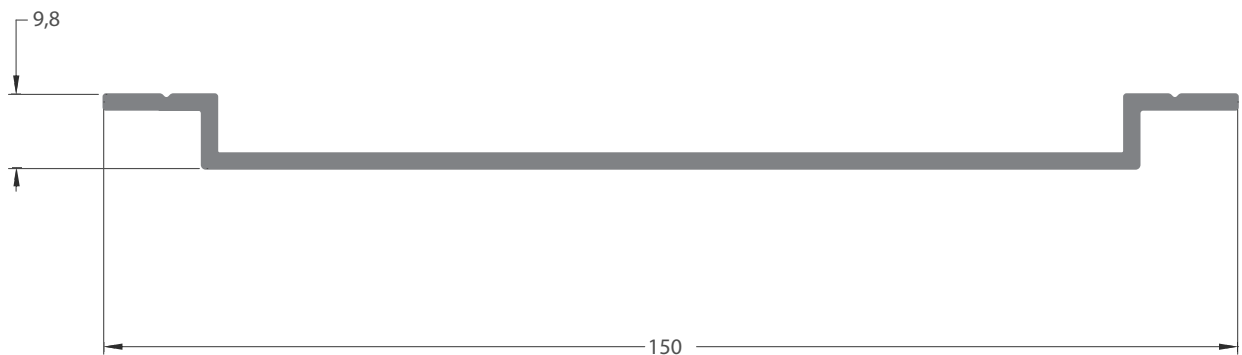
**39-1822E**  
4,349 kg/m



**78-1962C**  
1,287 Kg/m

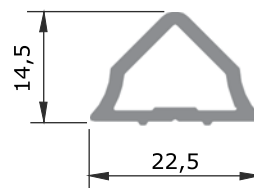
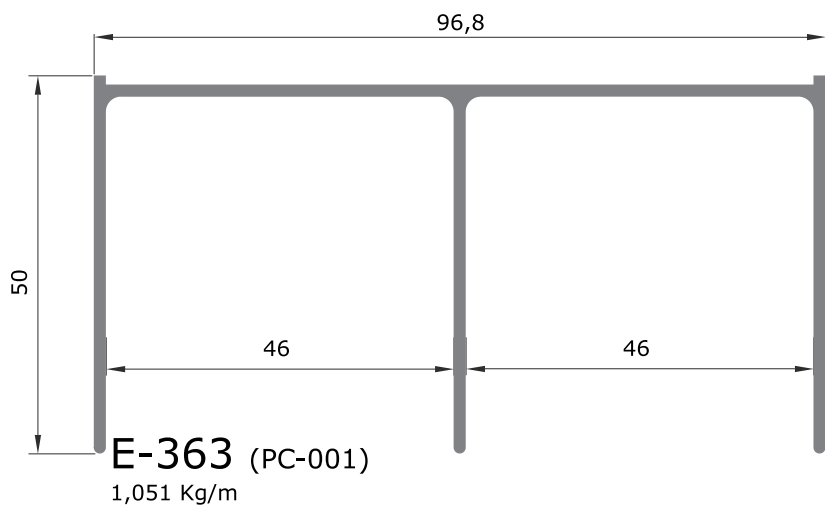


**78-1653D**  
2,487 Kg/m

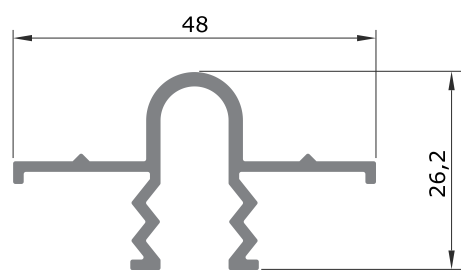


**31-085C**  
0,894 Kg/m

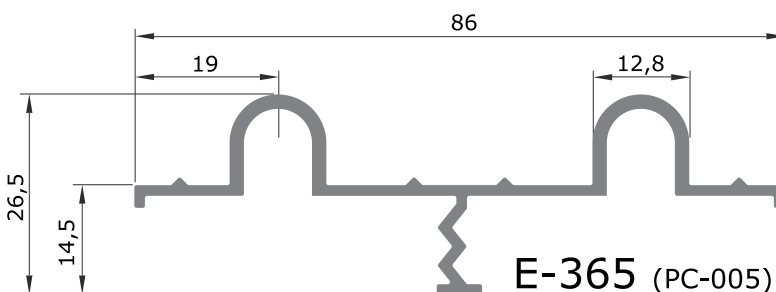




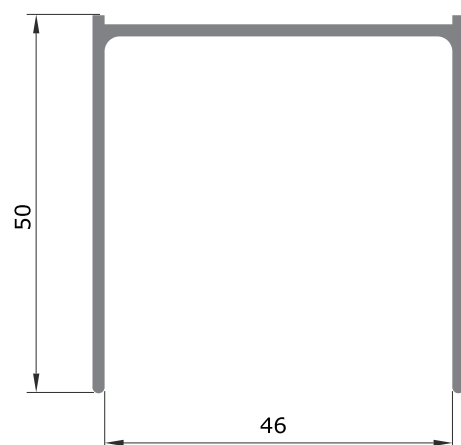
**78-871**  
0,249 kg/m



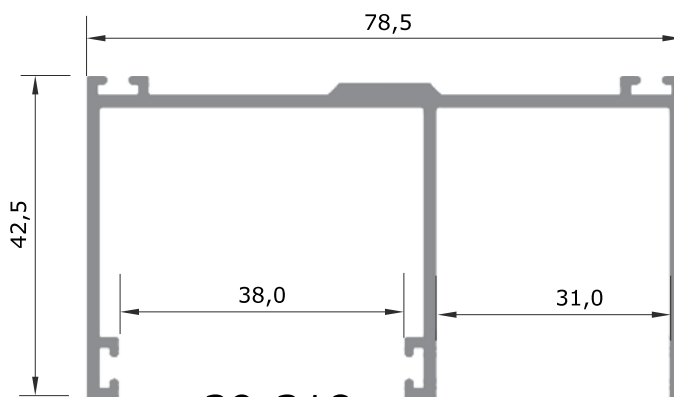
**E-364 (PC-006)**  
0,458 Kg/m



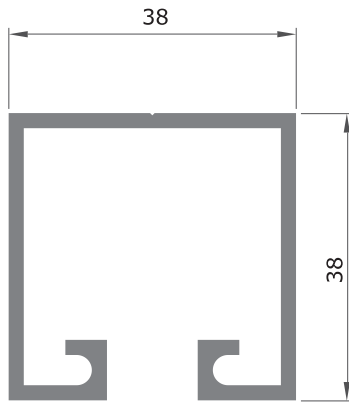
**E-365 (PC-005)**  
0,656 Kg/m



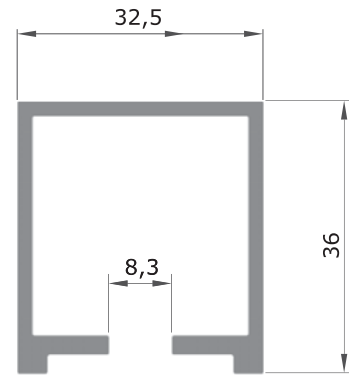
**39-498**  
0,636 Kg/m



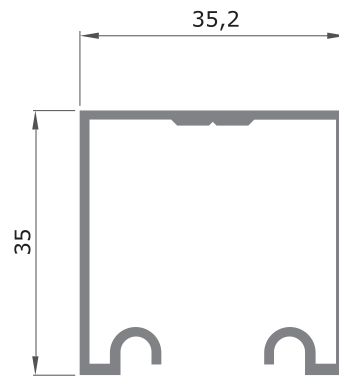
**39-318**  
0,909 Kg/m



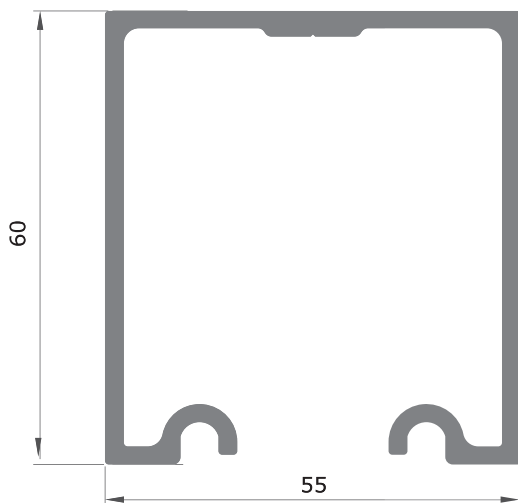
**U-990 A** (DS-152)  
0,635 Kg/m



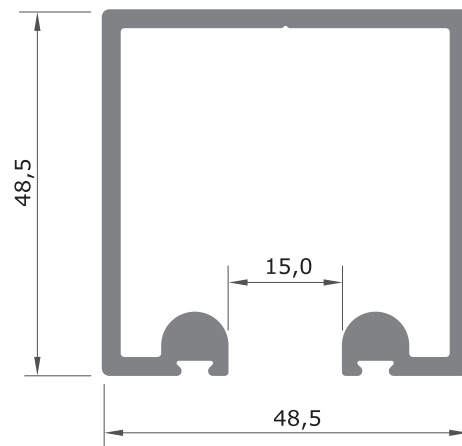
**U-164** (DS-009)  
0,708 Kg/m



**U-1098** (DS-266)  
0,494 Kg/m



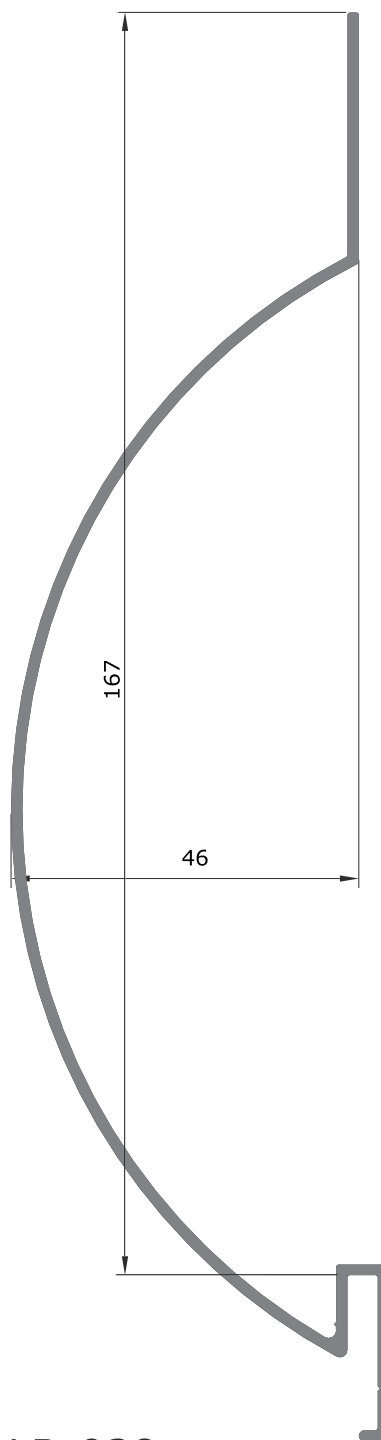
**U-1048**  
1,453 Kg/m



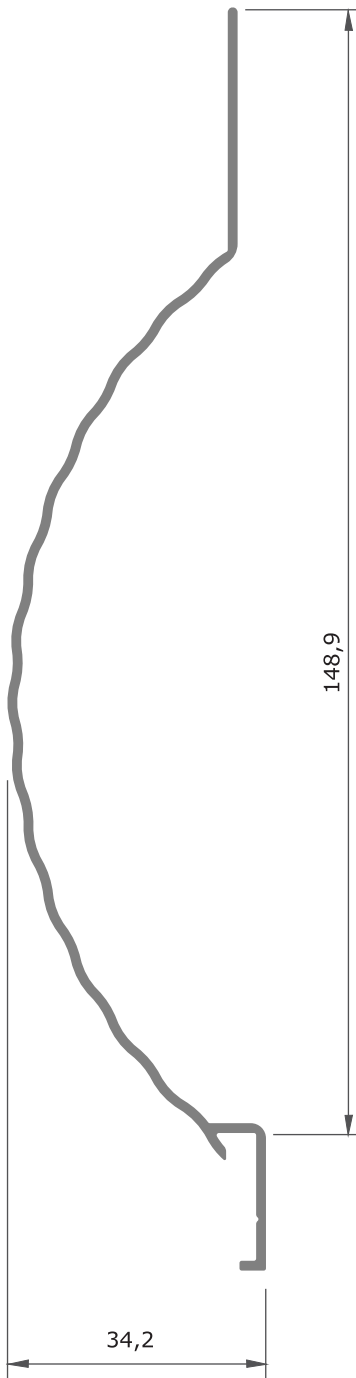
**65-241D**  
1,308 Kg/m



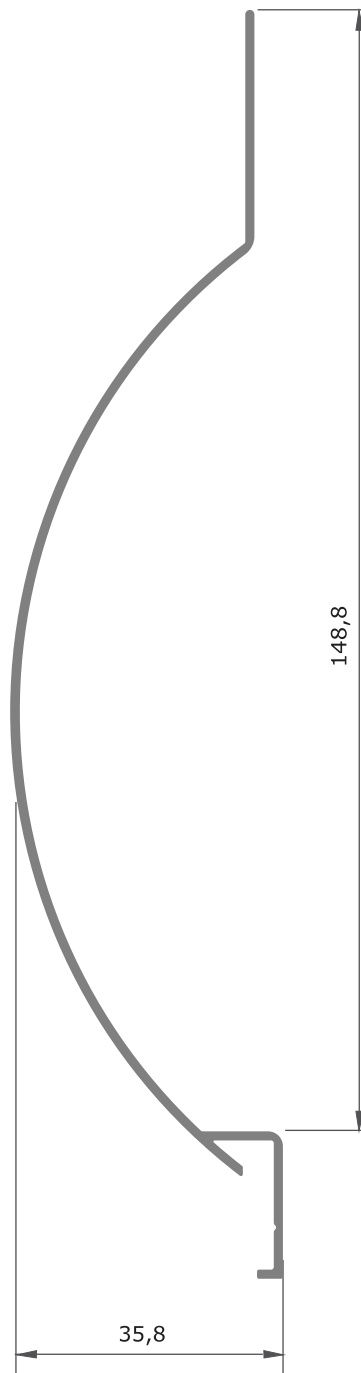
**19-186**  
0,890 Kg/m



**LB-038**  
1,022 Kg/m



**19-650 C**  
0,692 kg/m

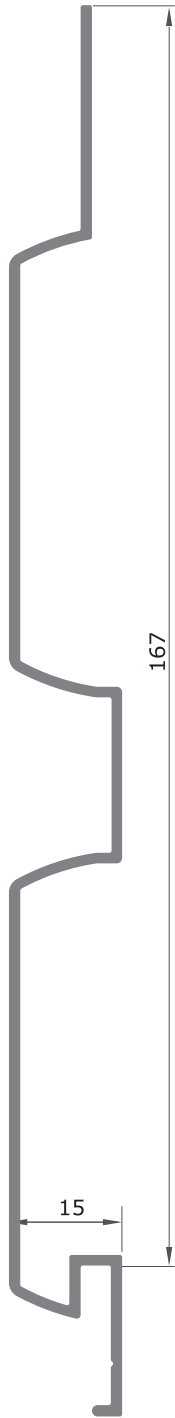


**19-652 C**  
0,655 kg/m

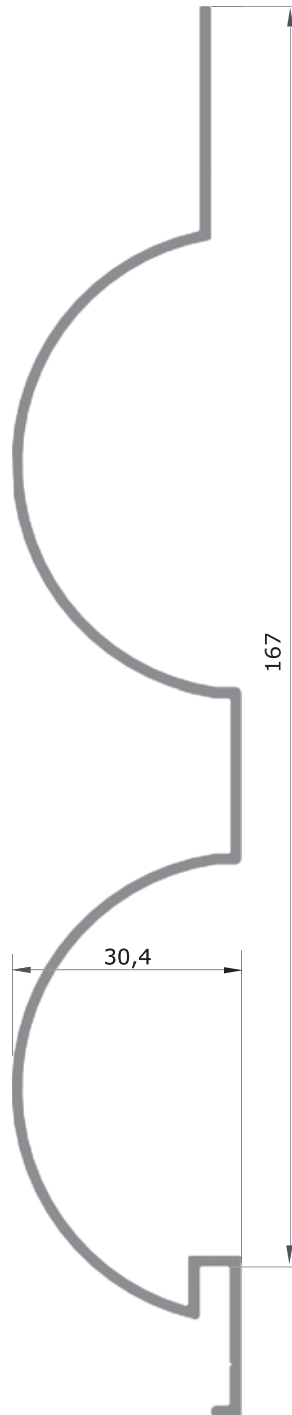


**19-505**  
0,731 Kg/m

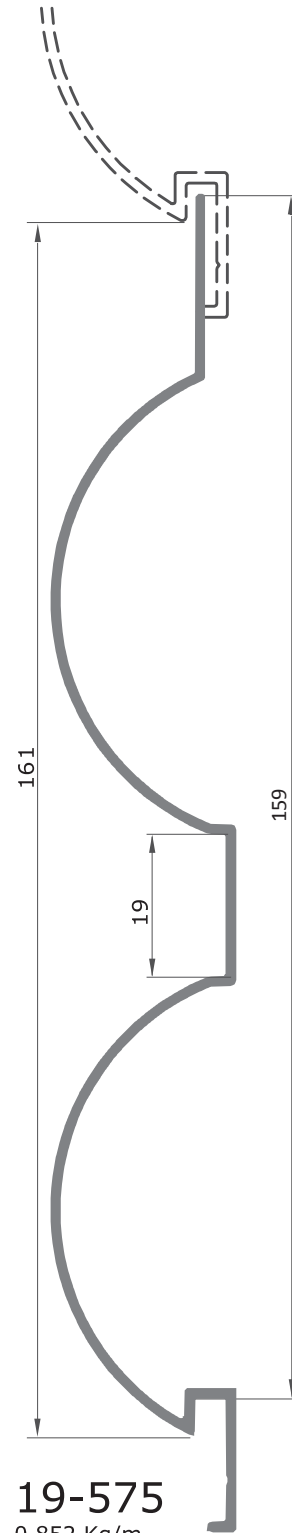




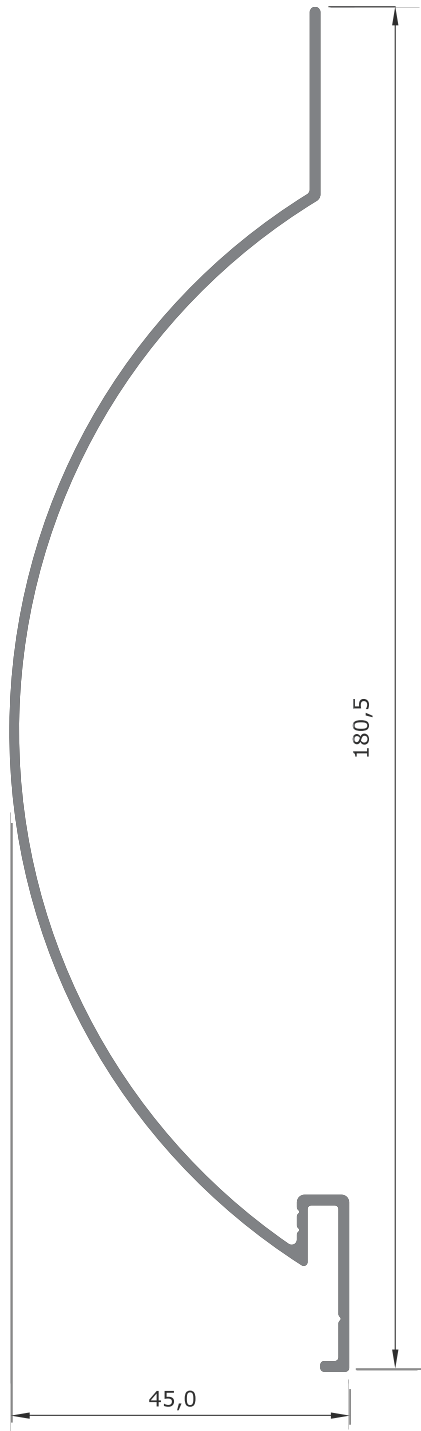
**19-375**  
0,959 Kg/m



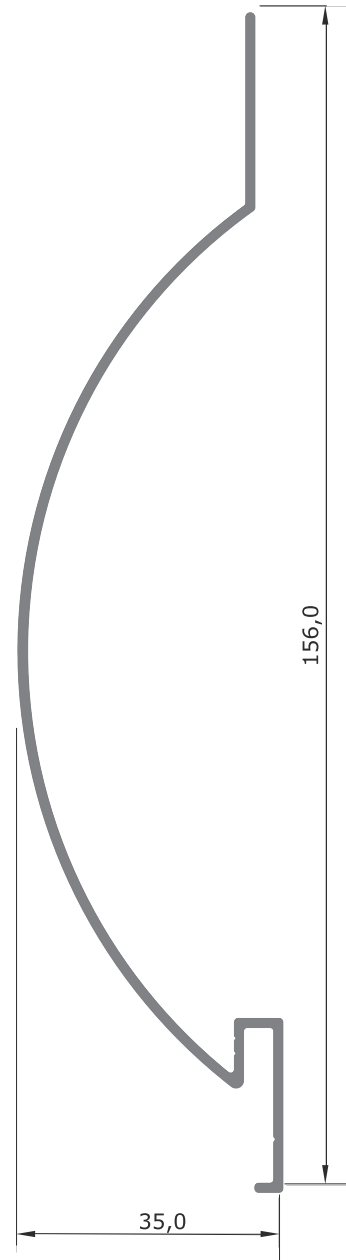
**19-248**  
1,018 Kg/m



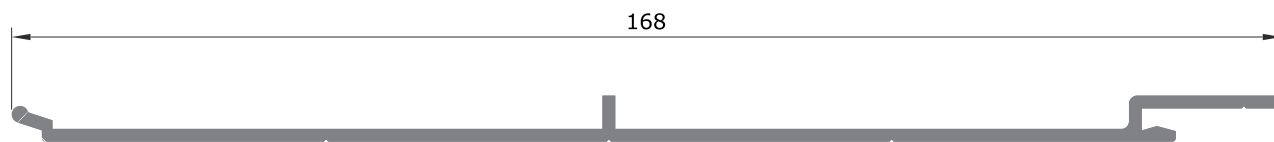
**19-575**  
0,852 Kg/m



**19-702C**  
0,856 Kg/m



**19-703C**  
0,630 Kg/m



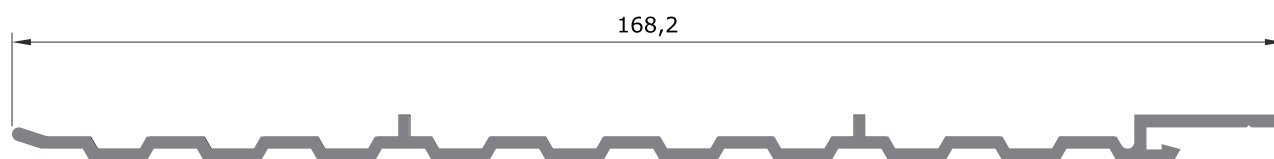
**Y-335** (LB-036)

0,841 Kg/m



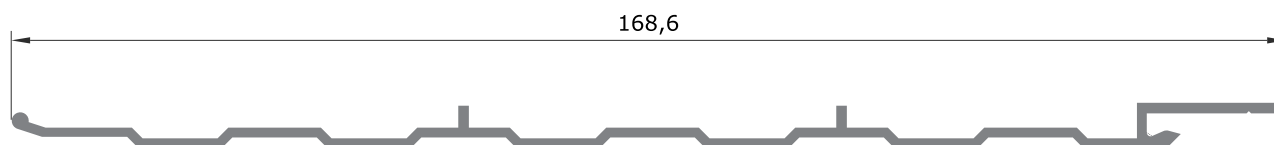
**Y-354**

0,866 Kg/m



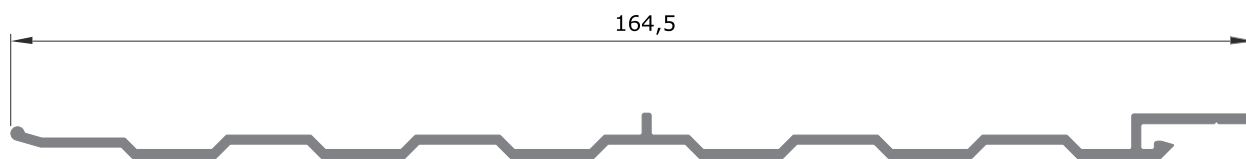
**Y-355**

0,871 Kg/m



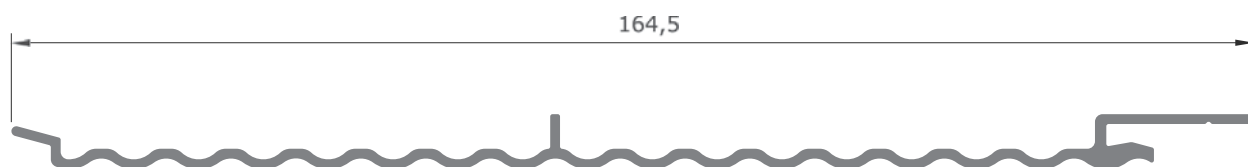
**Y-429** (LB-050)

0,685 Kg/m



**Y-429 A**

0,609 Kg/m



**19-541**

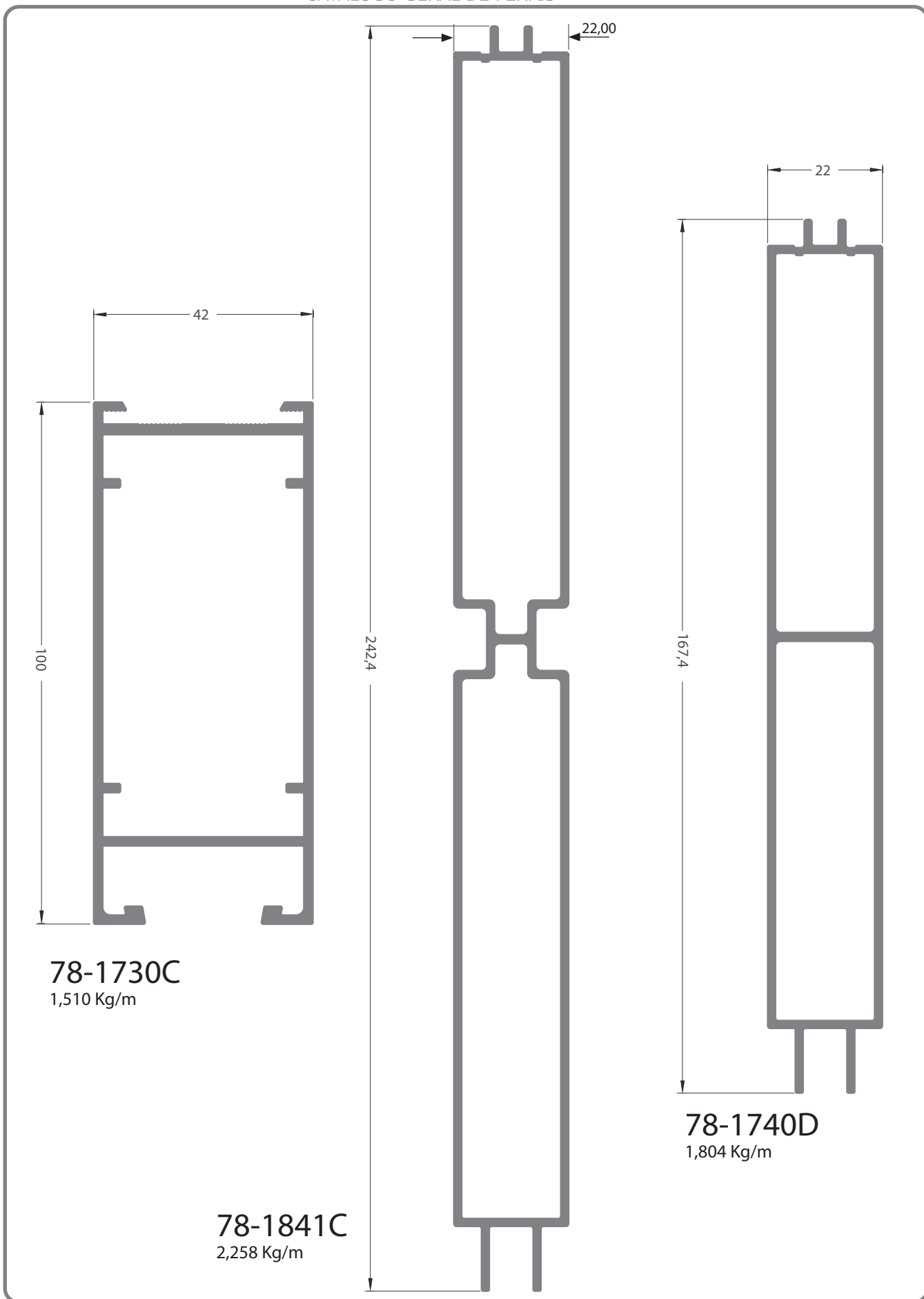
0,720 Kg/m

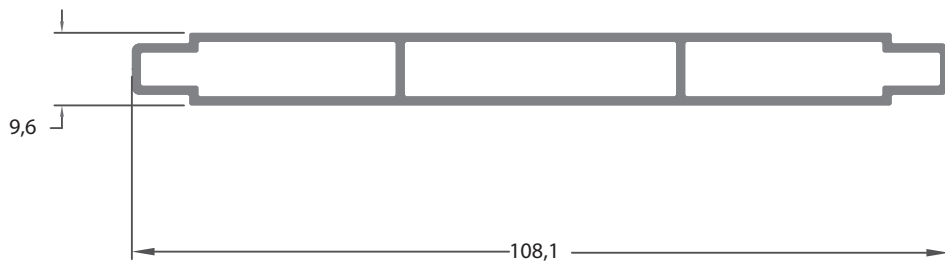


**19-704C**

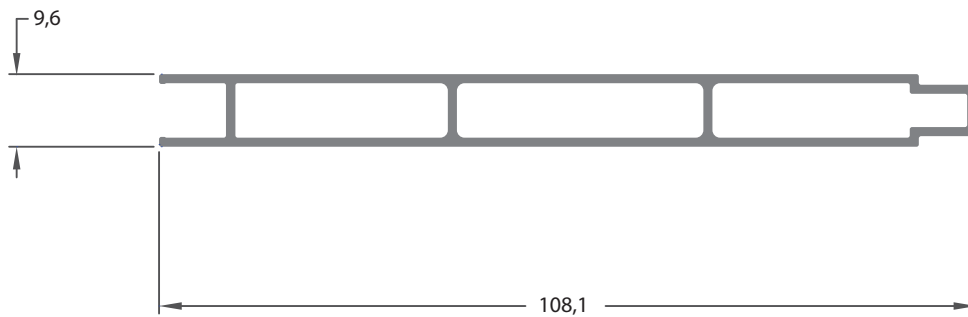
0,620 Kg/m



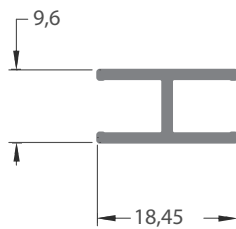




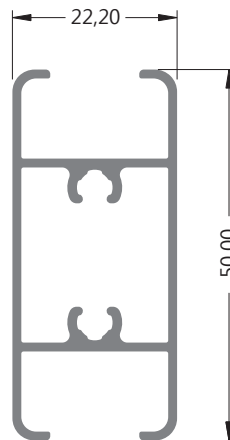
**78-1958D**  
0,795 Kg/m



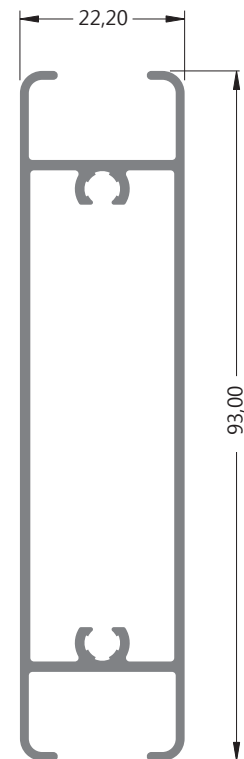
**78-1873C**  
0,805 Kg/m



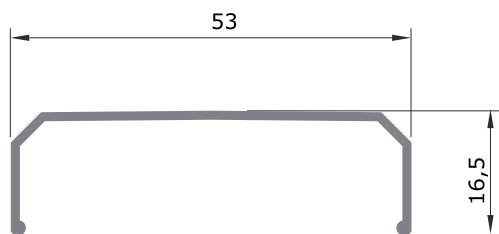
**39-2072C**  
0,145 Kg/m



**MG25-188**  
0,586 Kg/m

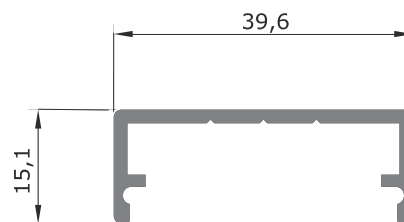


**MG25-790**  
0,871 Kg/m



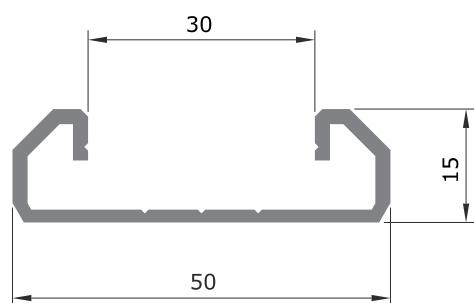
**U-498** (CG-004)

0,262 Kg/m



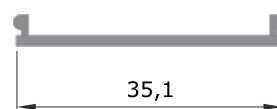
**U-496** (CG-017)

0,338 Kg/m



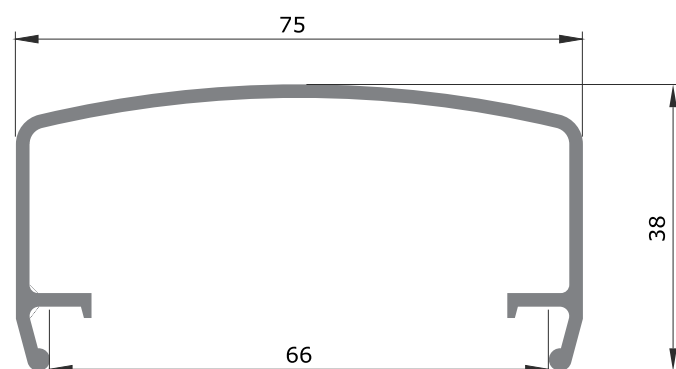
**U-497** (CG-006)

0,464 Kg/m



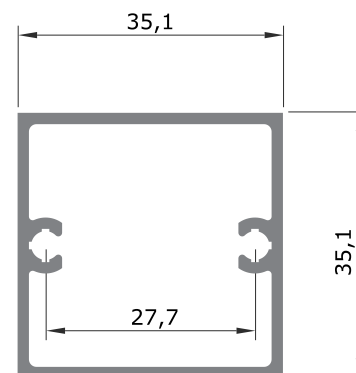
**U-495** (CG-019)

0,163 Kg/m



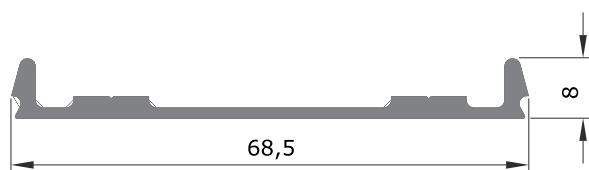
**39-081**

0,788 Kg/m



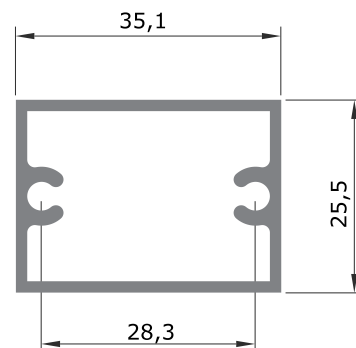
**D-081**

0,643 Kg/m



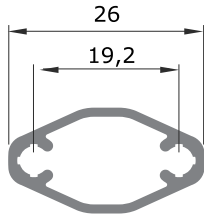
**U-1092**

0,442 Kg/m



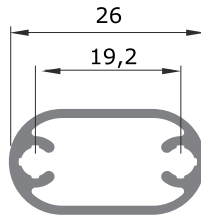
**D-055** (CG-012)

0,580 Kg/m



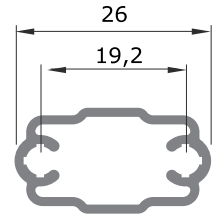
**78-1021**

0,248 Kg/m



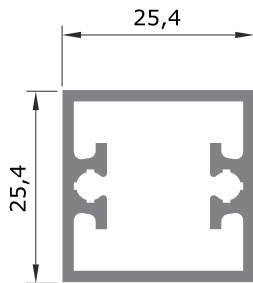
**78-1017**

0,286 Kg/m



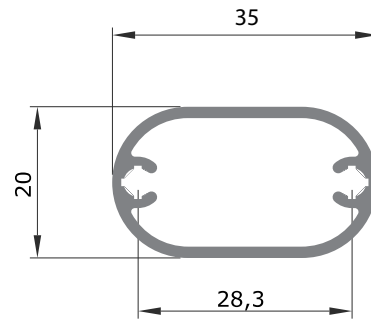
**78-1016**

0,270 Kg/m



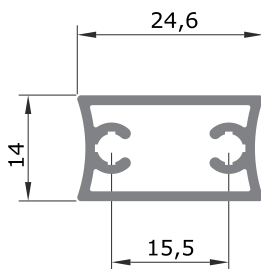
**D-080**

0,524 Kg/m



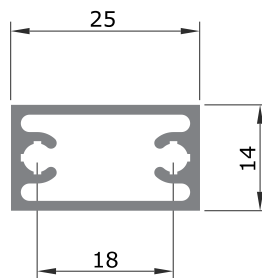
**78-366**

0,427 Kg/m



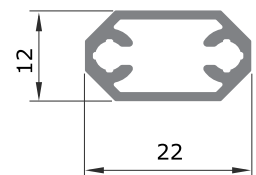
**D-056**

0,343 Kg/m



**D-082 (CG-021)**

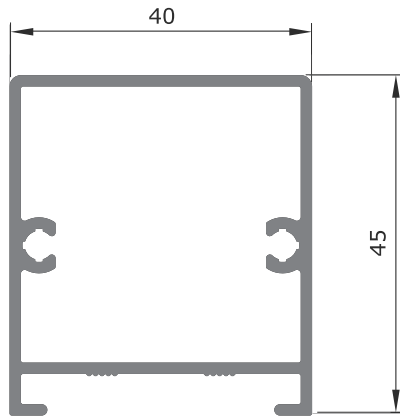
0,349 Kg/m



**D-070**

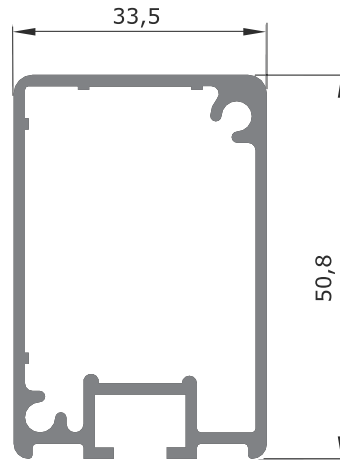
0,256 Kg/m





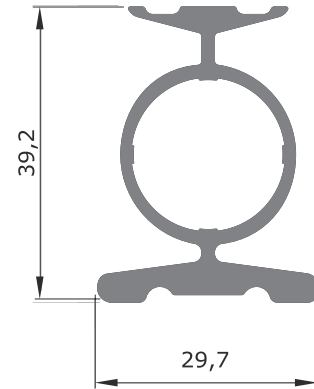
**D-199** (CG-097)

0,796 Kg/m



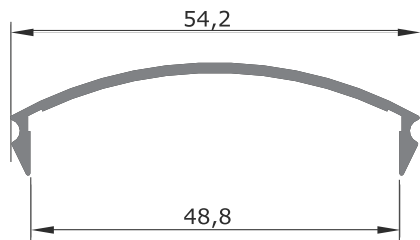
**78-088** (CG-077)

0,859 Kg/m



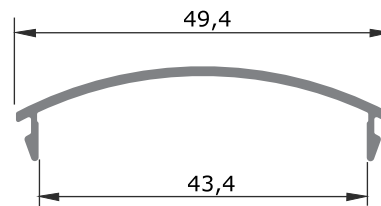
**78-1031**

0,802 Kg/m



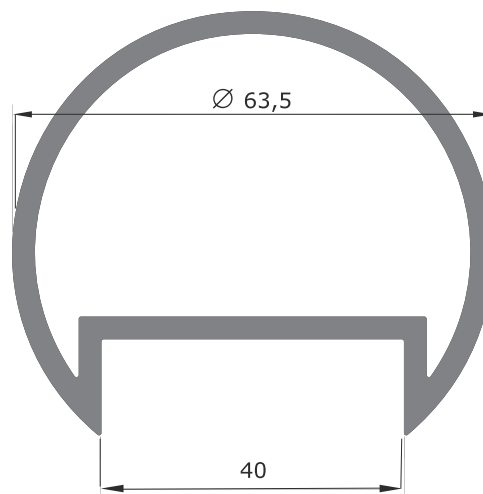
**19-002** (CG-074)

0,267 Kg/m



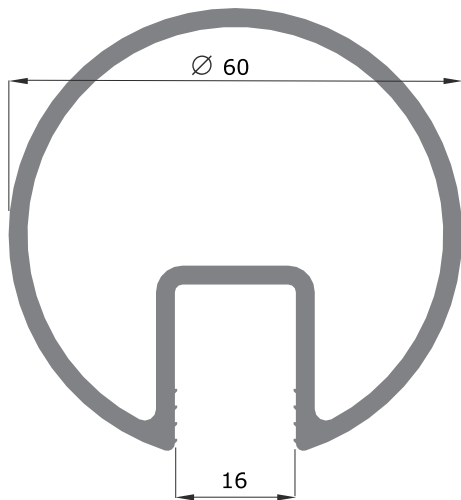
**19-629**

0,221 kg/m



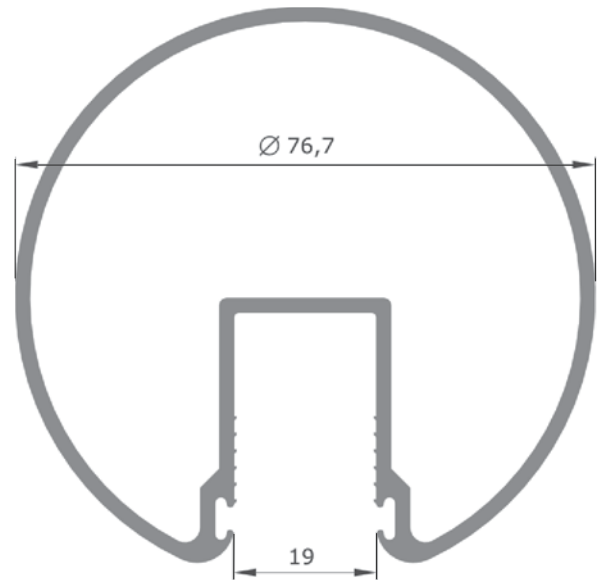
**78-433**

1,684 Kg/m



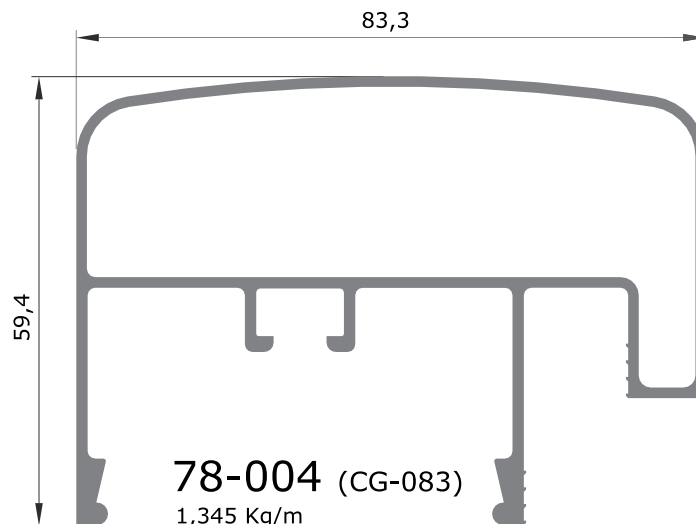
**78-101**

1,512 Kg/m



**78-124**

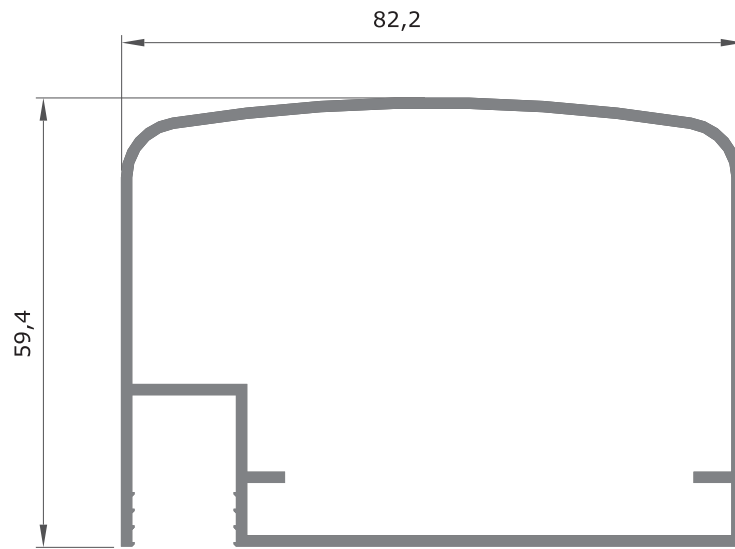
1,676 Kg/m



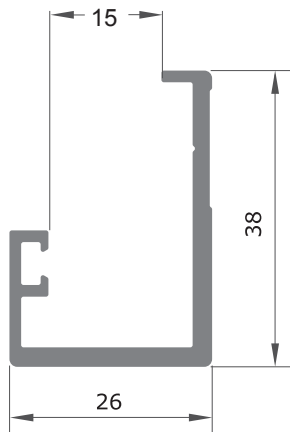
**78-004 (CG-083)**

1,345 Kg/m

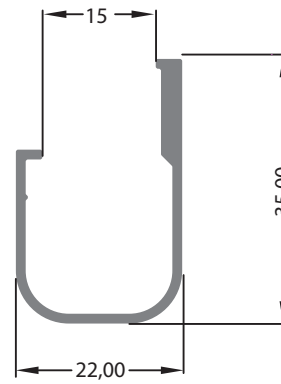
CATÁLOGO GERAL DE PERFIS



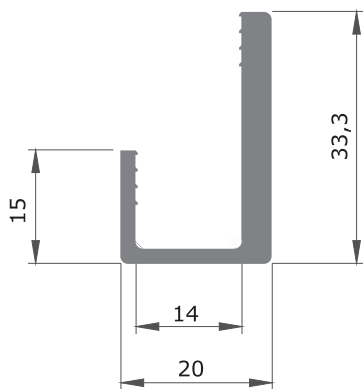
**78-054**  
1,206 Kg/m



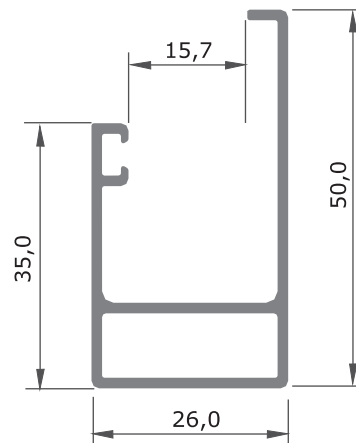
**29-145**  
0,514 Kg/m



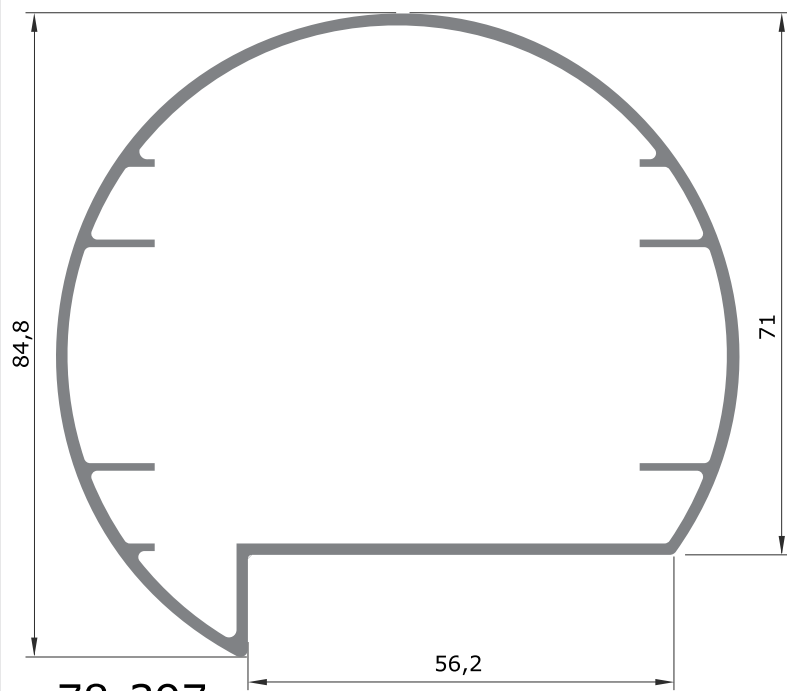
**39-2107C**  
0,318 Kg/m



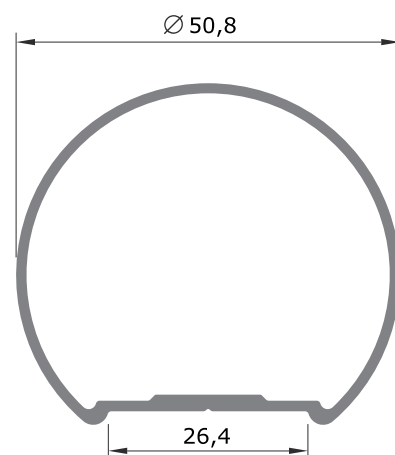
**39-133**  
0,520 Kg/m



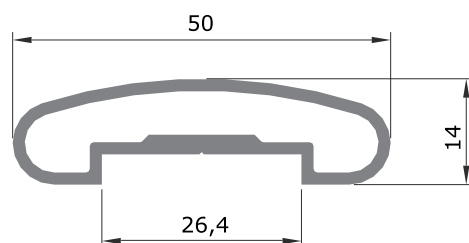
**78-1112**  
0,549 kg/m



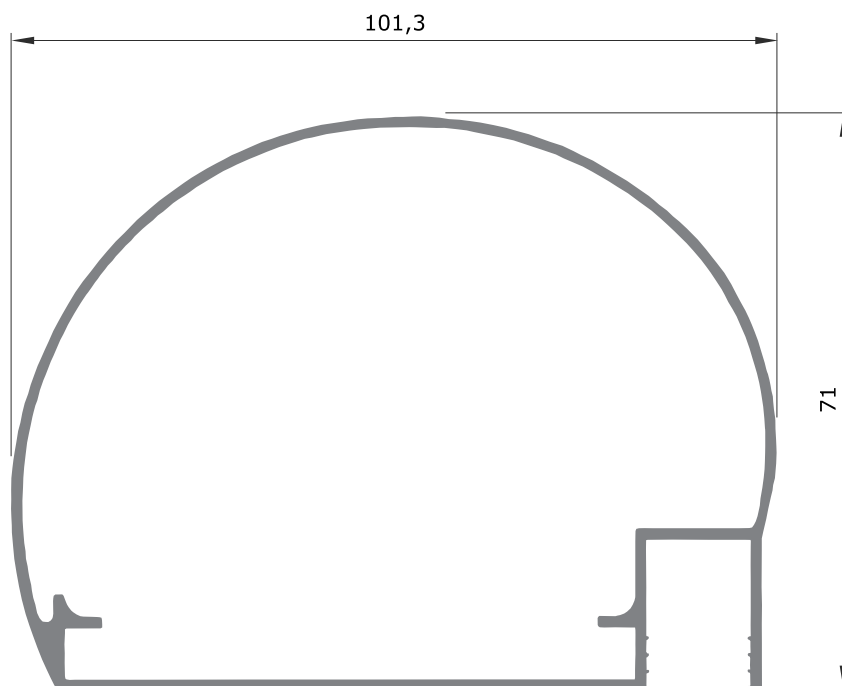
**78-397**  
1,291 Kg/m



**78-260**  
0,664 Kg/m

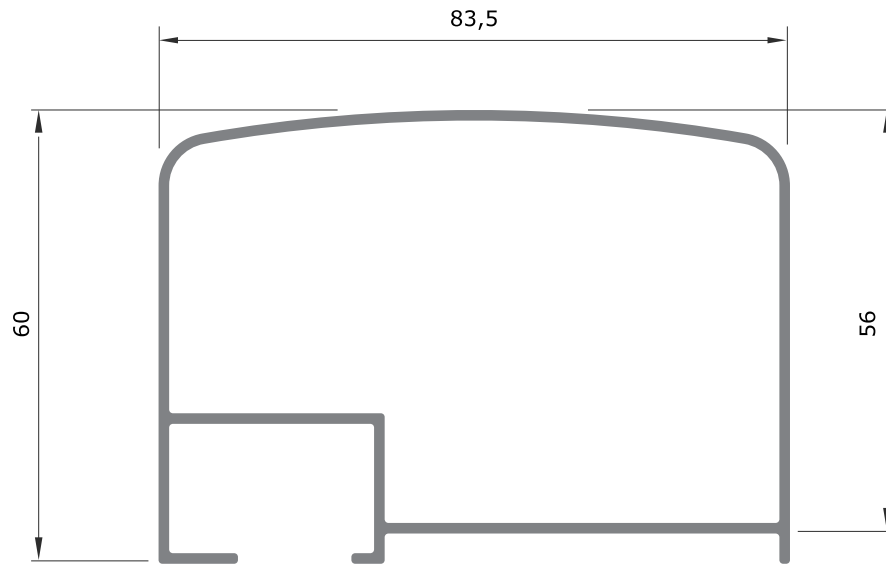


**D-095 (CG-003)**  
0,544 Kg/m



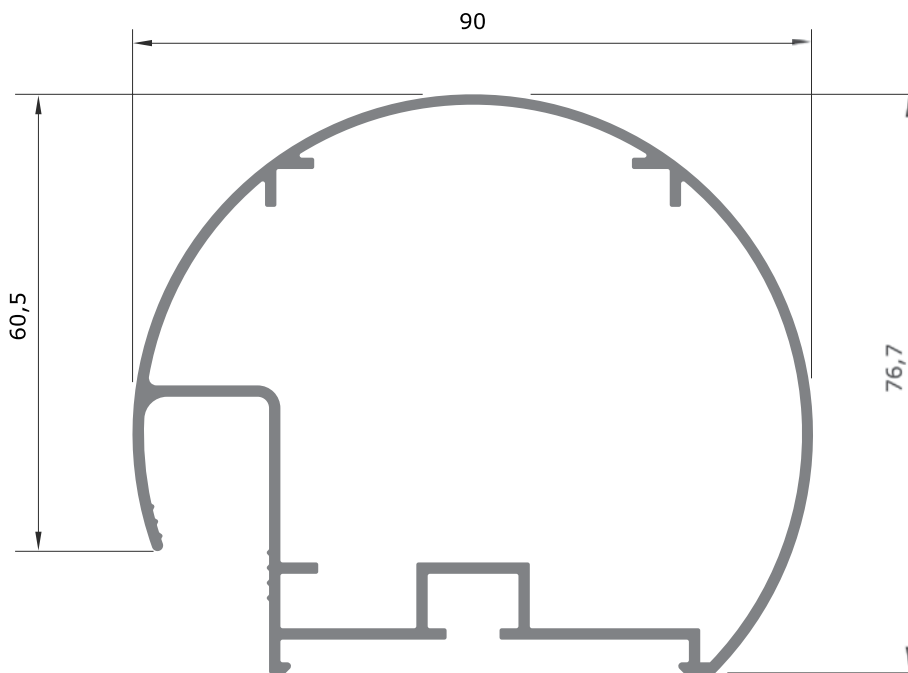
**78-690**  
1,412 Kg/m





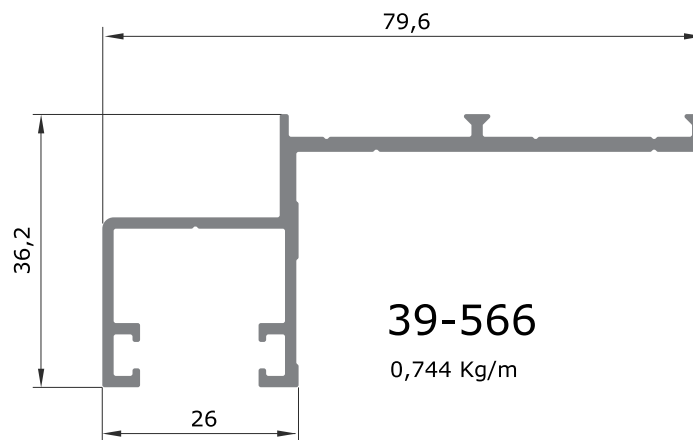
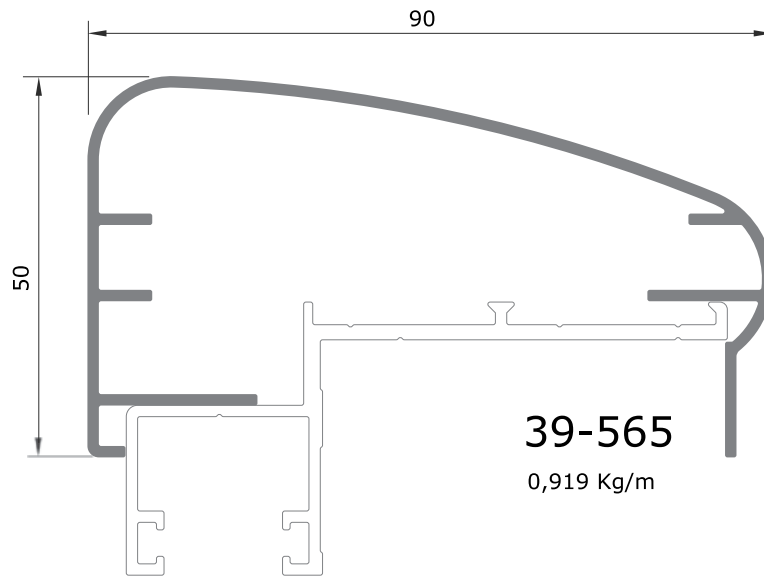
**78-1054C**

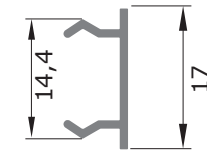
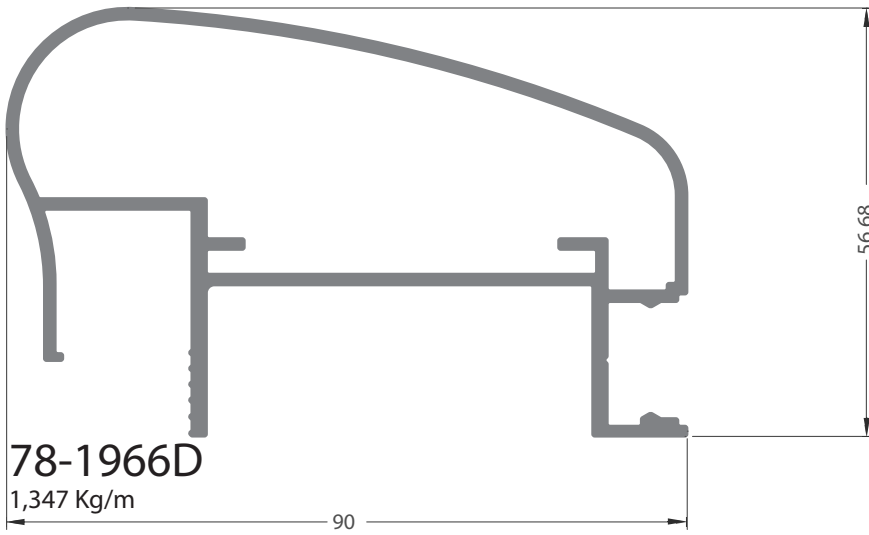
1,141 Kg/m



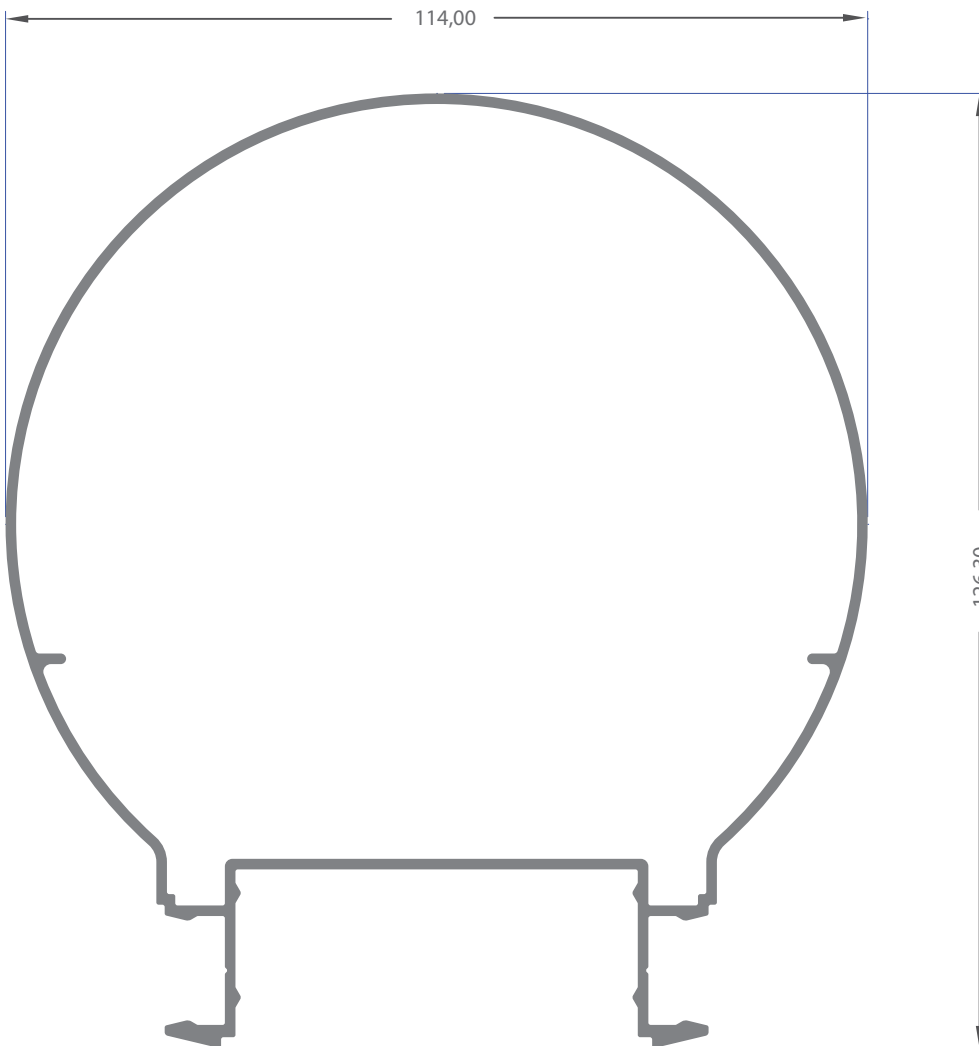
**78-946**

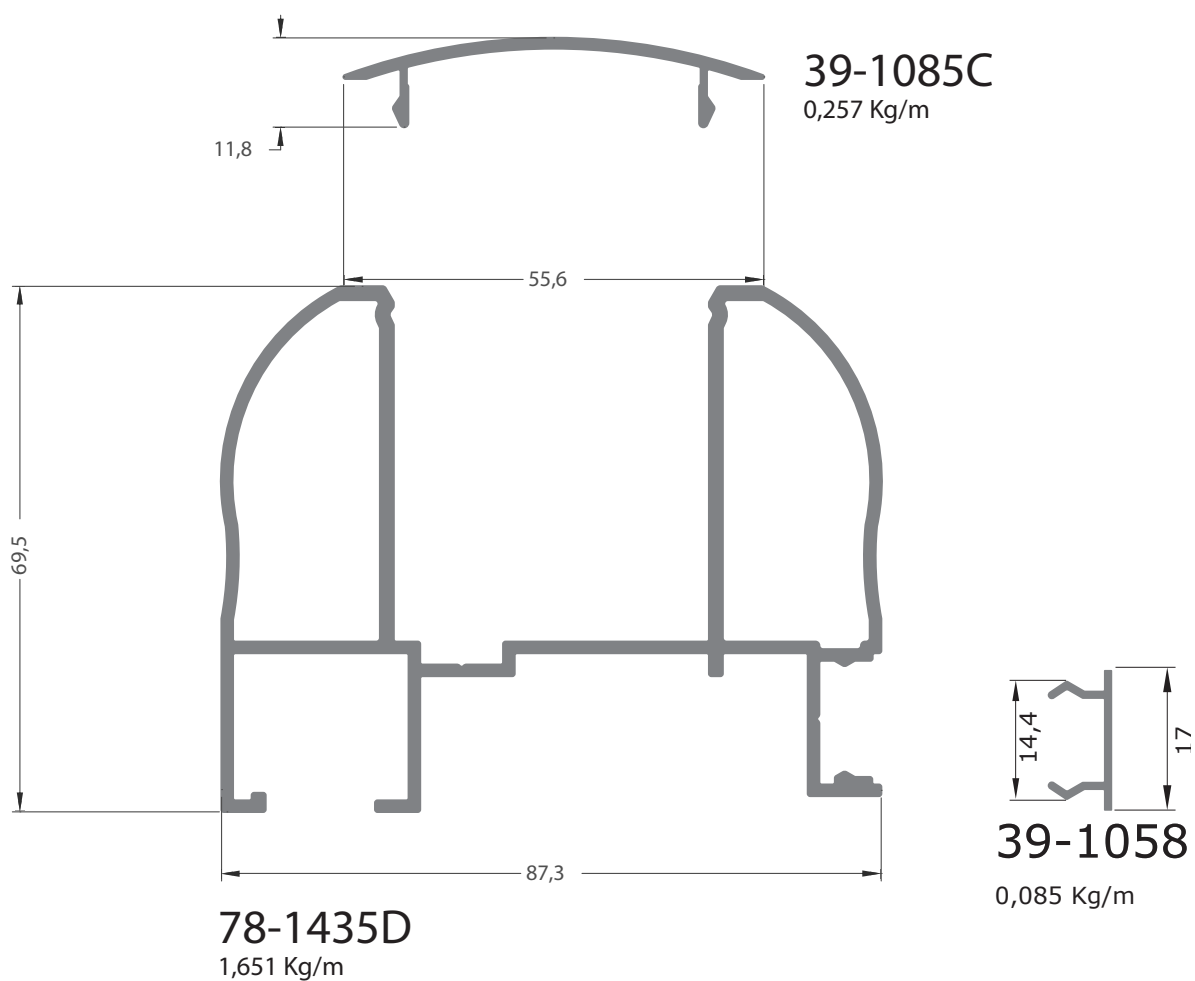
1,431 Kg/m



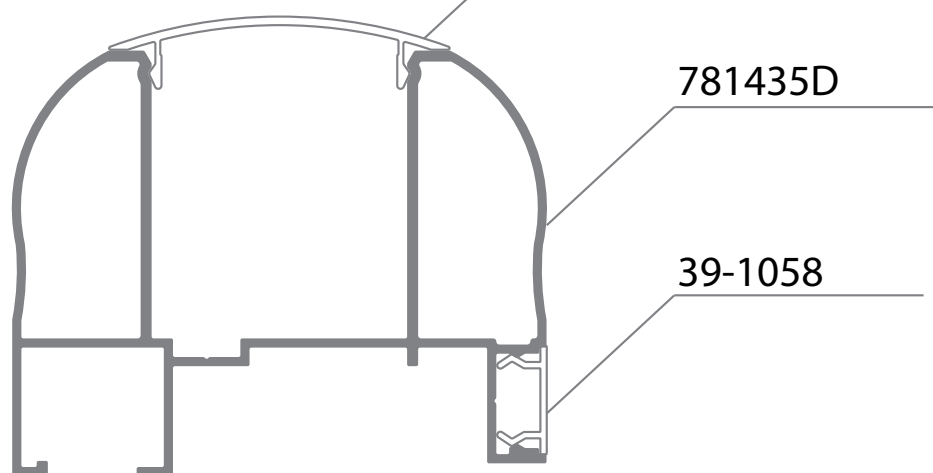


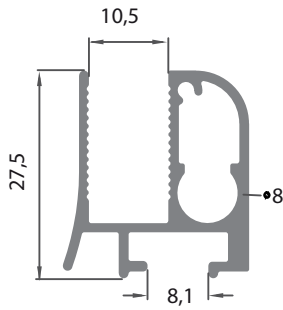
**39-1058**  
0,085 Kg/m



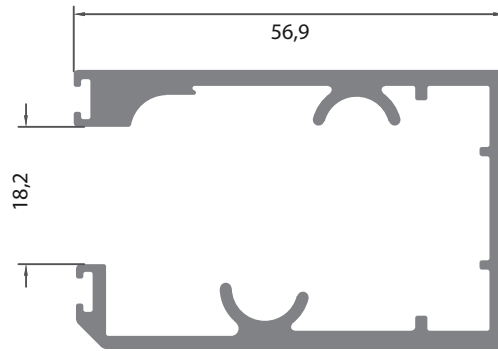


**391085C**  
Perfil para montagem de sacadas.  
Encaixe recebe o perfil 39-1058C.

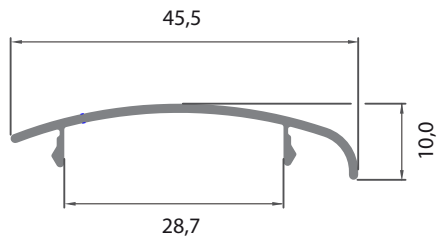




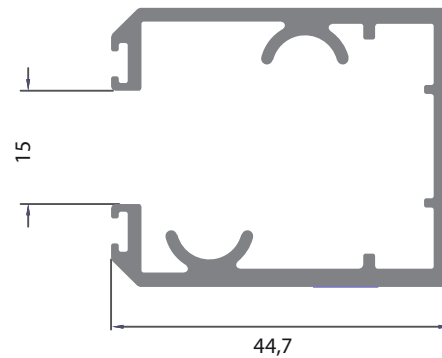
**78-1659D**  
0,443 Kg/m



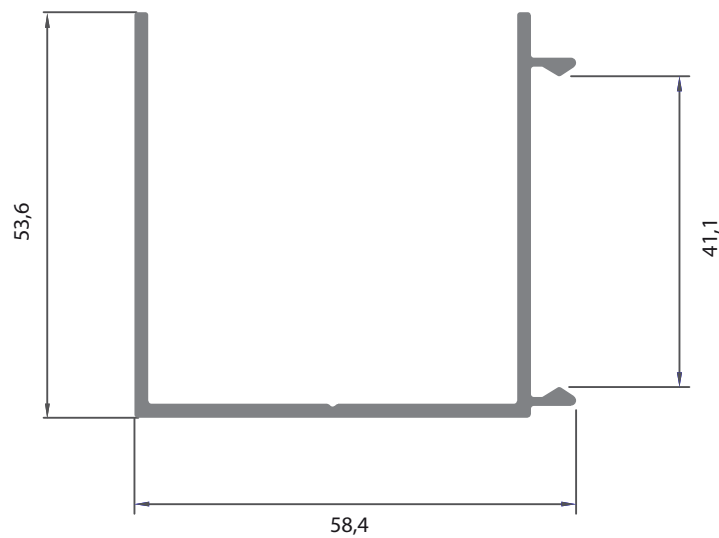
**65-300D**  
1,175 Kg/m



**19-829C**  
0,191 Kg/m

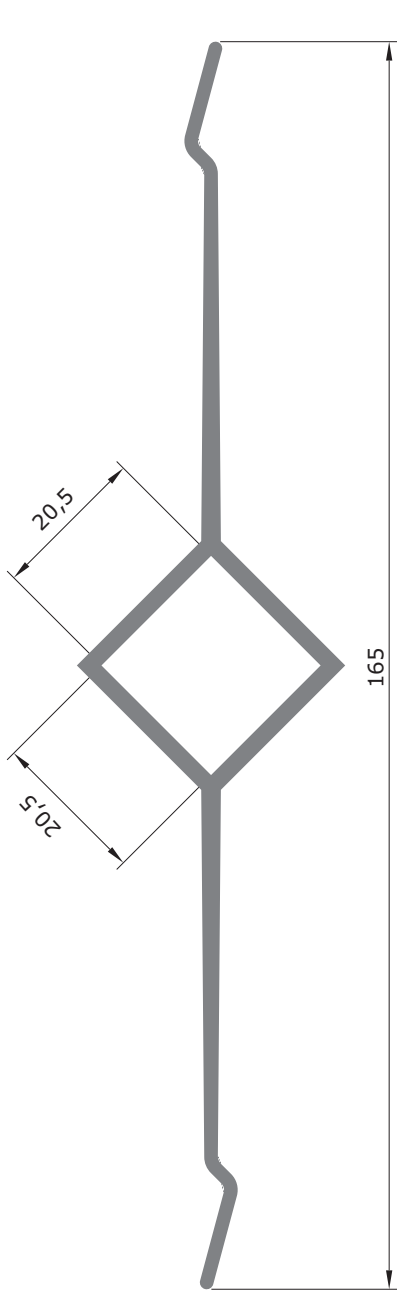


**65-301D**  
0,954 Kg/m



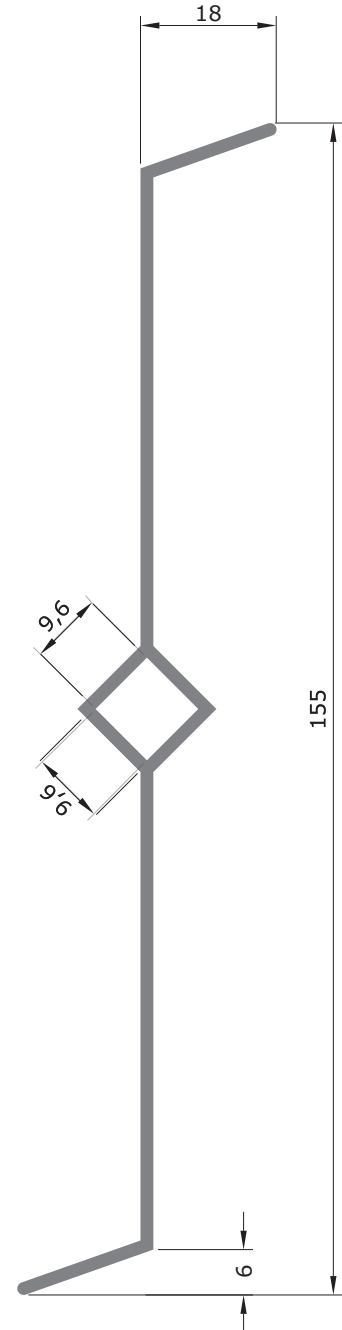
**39-1817C**  
0,484 Kg/m





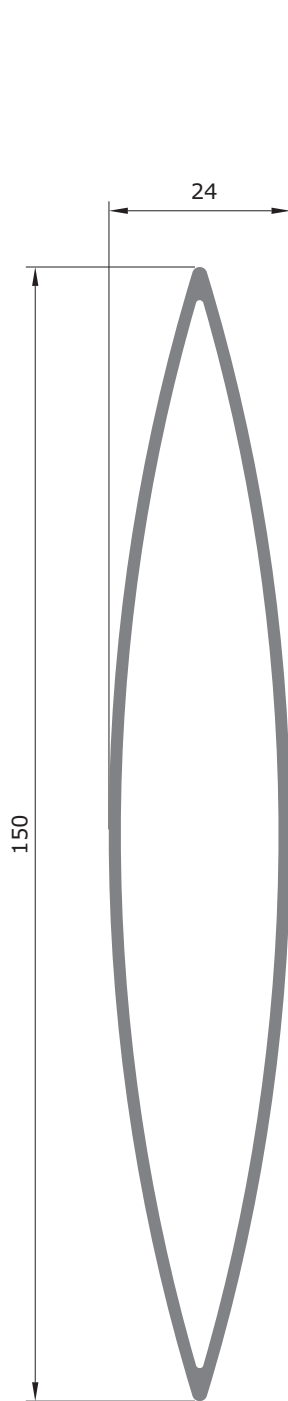
**78-126**

1,319 Kg/m

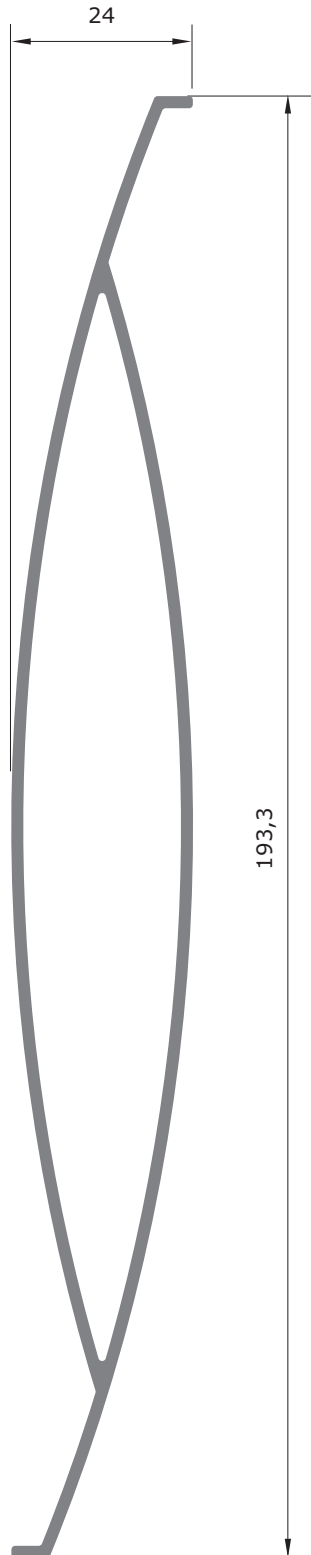


**D-054 (DC-006)**

0,835 Kg/m

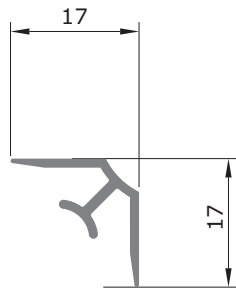


**D-053 (DC-004)**  
1,300 Kg/m

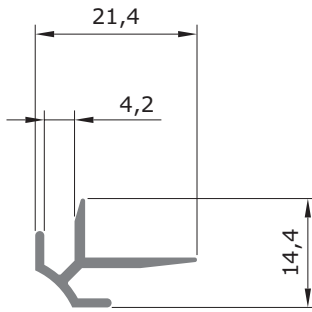


**78-344**  
1,538 Kg/m

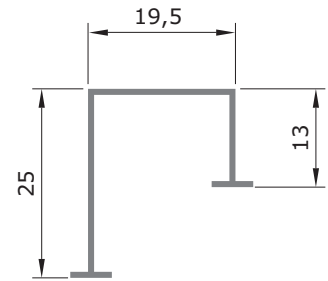
**BRISE EXTENSIVO**  
Cobre 30 % a mais  
que o similar.



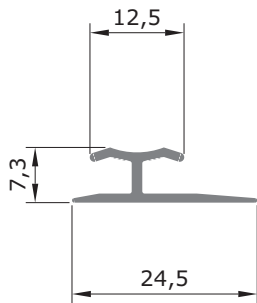
**Y-165**  
0,133 Kg/m



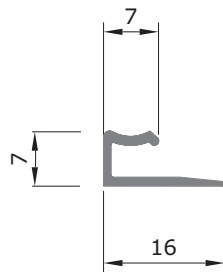
**Y-166**  
0,140 Kg/m



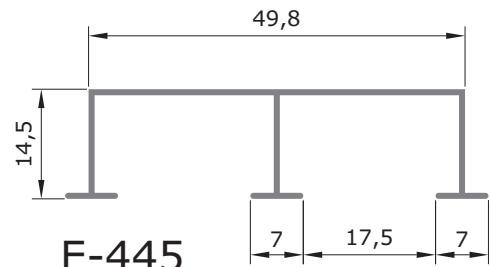
**L-690**  
0,141 Kg/m



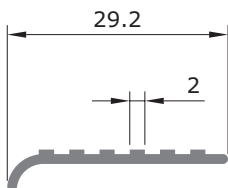
**I-103**  
0,125 Kg/m



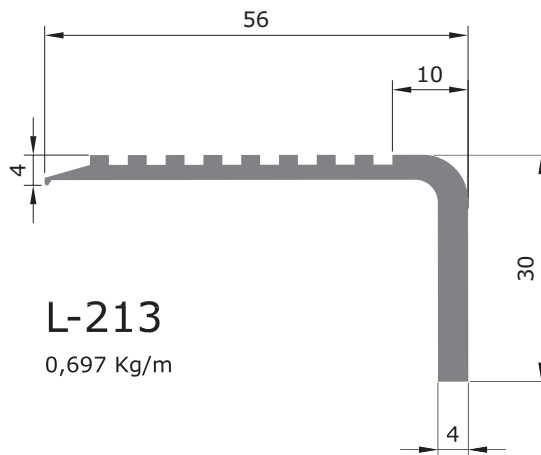
**L-392**  
0,085 Kg/m



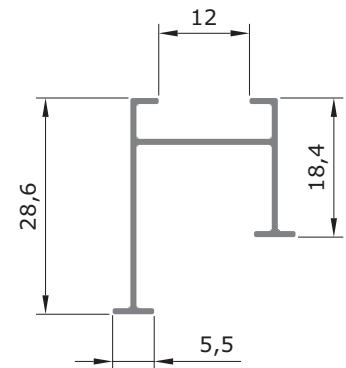
**E-445**  
0,235 Kg/m



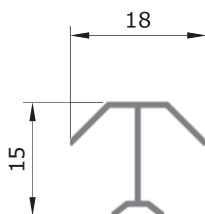
**L-460**  
0,124 Kg/m



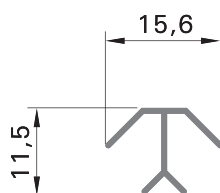
**L-213**  
0,697 Kg/m



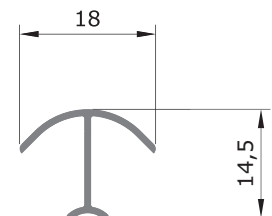
**39-307**  
0,174 Kg/m



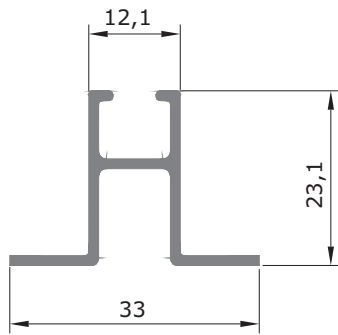
**I-186**  
0,091 Kg/m



**I-313**  
0,074 Kg/m

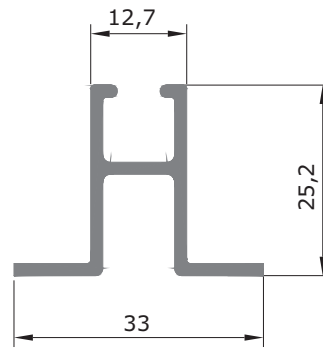


**I-185**  
0,093 Kg/m



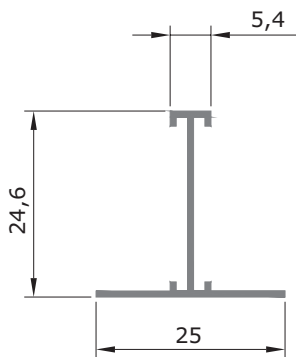
**39-158**

0,282 Kg/m



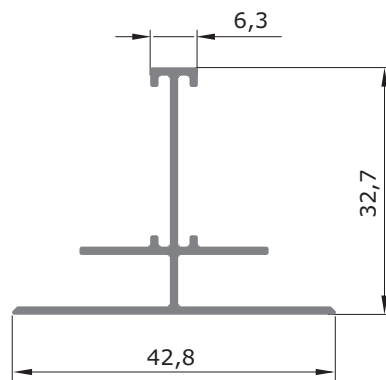
**39-139**

0,362 Kg/m



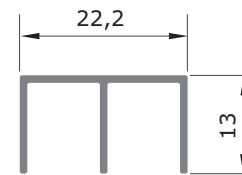
**T-180**

0,125 Kg/m



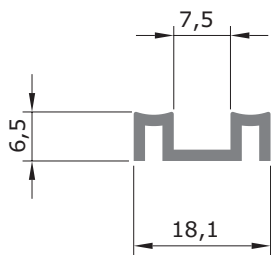
**54-012**

0,331 Kg/m



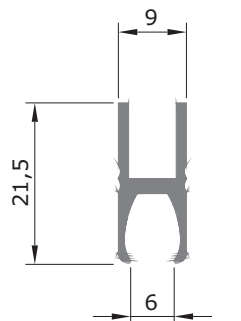
**E-463**

0,157 Kg/m



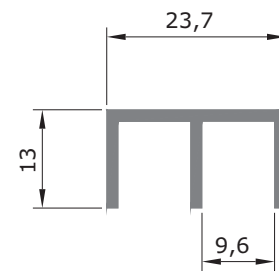
**E-252**

0,152 Kg/m



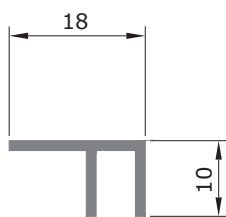
**I-151**

0,180 Kg/m



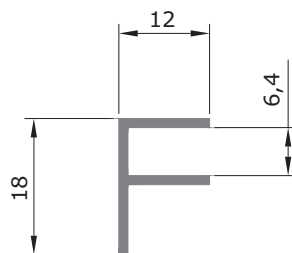
**E-168**

0,236 Kg/m



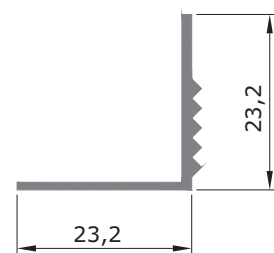
**F-043**

0,124 Kg/m



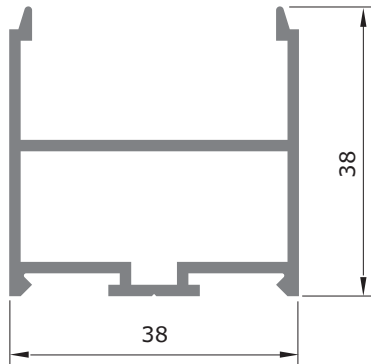
**F-049**

0,129 Kg/m



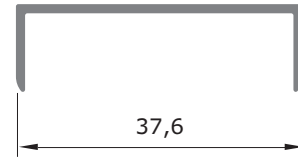
**L-488**

0,163 Kg/m



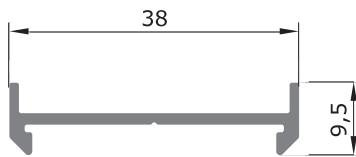
**78-095**

0,651 Kg/m



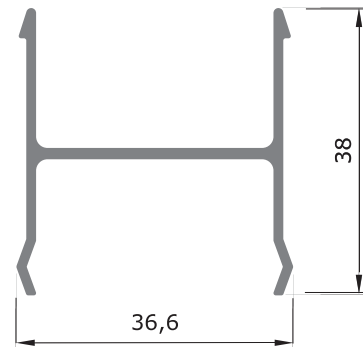
**31-042**

0,186 Kg/m



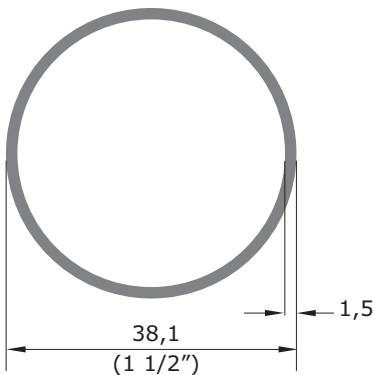
**19-344**

0,226 Kg/m



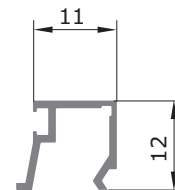
**44-026**

0,412 Kg/m



**TUB-069**

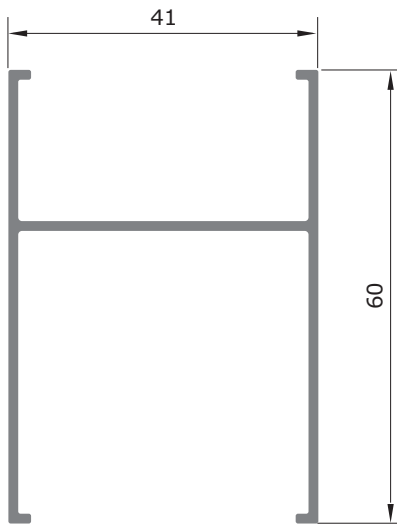
0,467 Kg/m



**U-522**

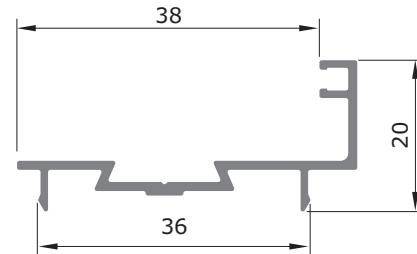
0,100 Kg/m





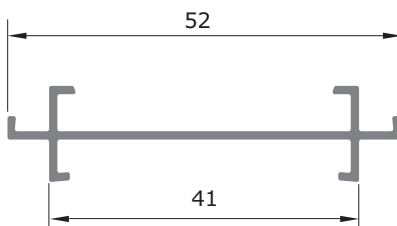
**44-025**

0,582 Kg/m



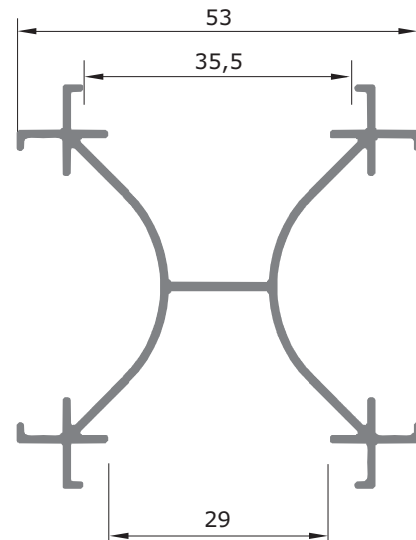
**19-424**

0,277 Kg/m



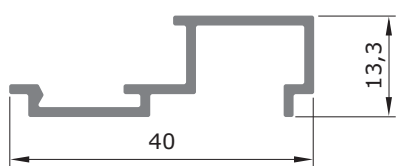
**19-425**

0,258 Kg/m



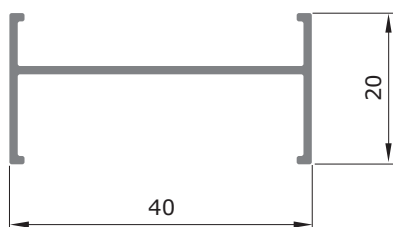
**44-031**

0,636 Kg/m



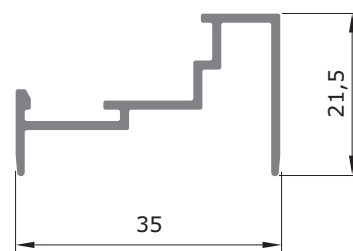
**39-844**

0,260 Kg/m



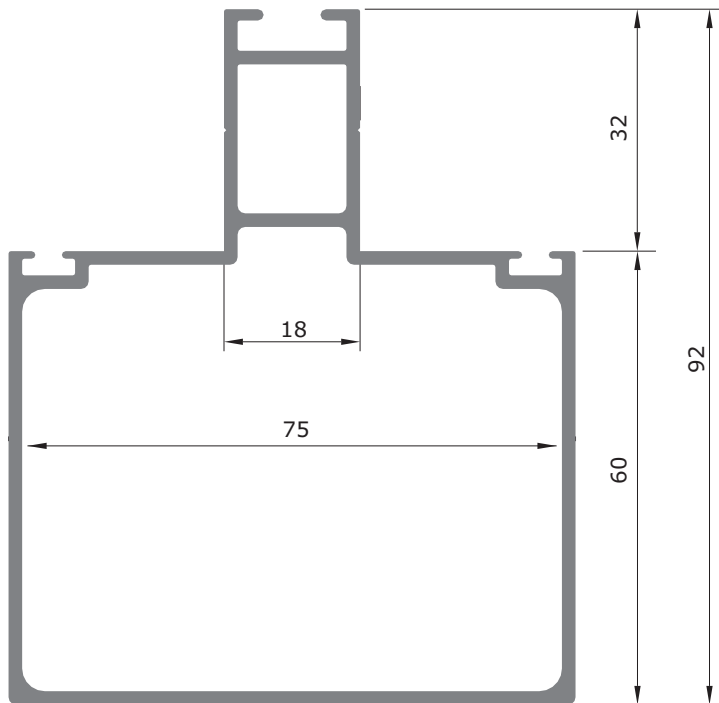
**44-024**

0,242 Kg/m



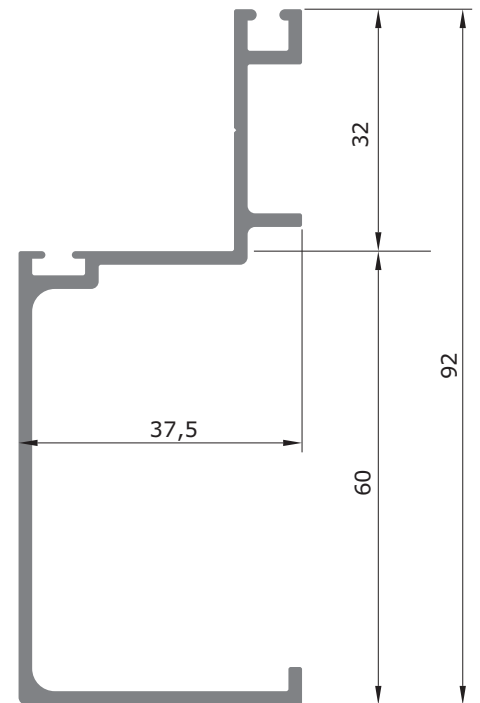
**39-778**

0,273 Kg/m



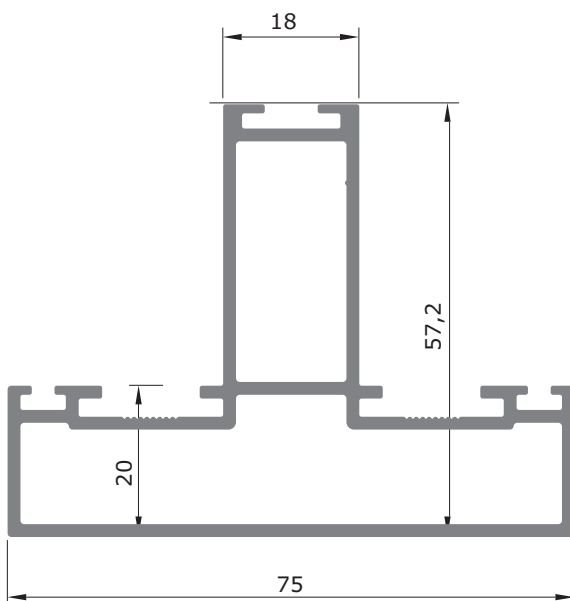
**FC-075**

1,760 Kg/m



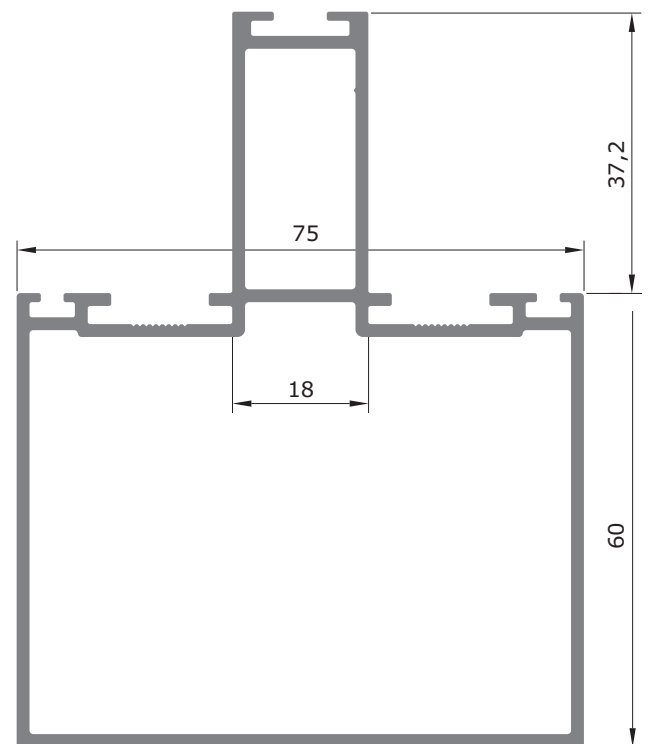
**39-473**

0,917 Kg/m



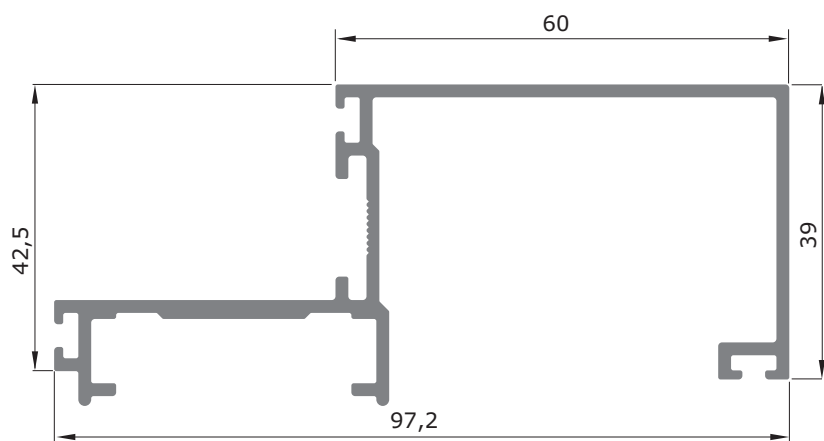
**FC-232**

1,433 Kg/m



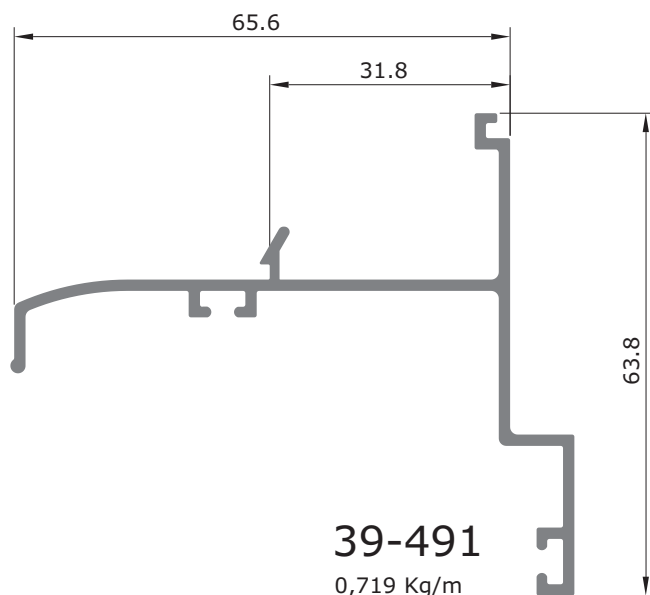
**FC-202**

1,801 Kg/m



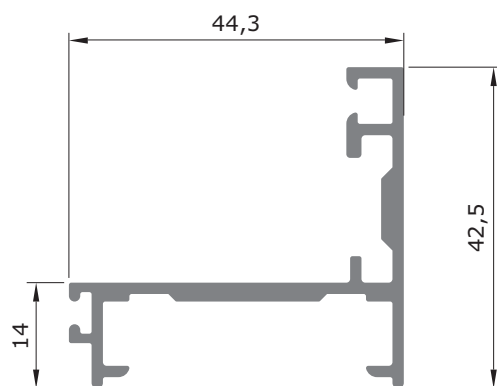
**FC-243**

1,109 Kg/m



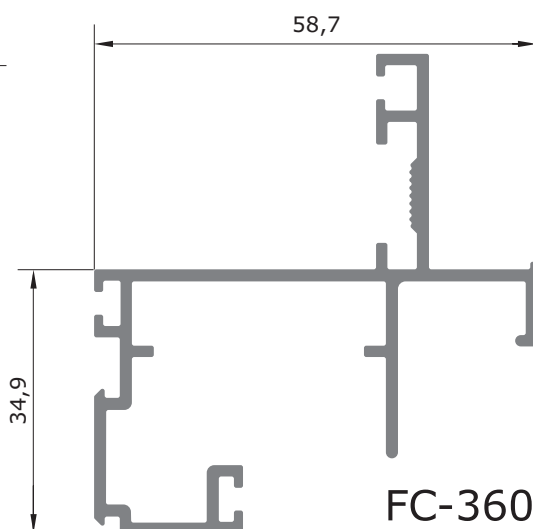
**39-491**

0,719 Kg/m



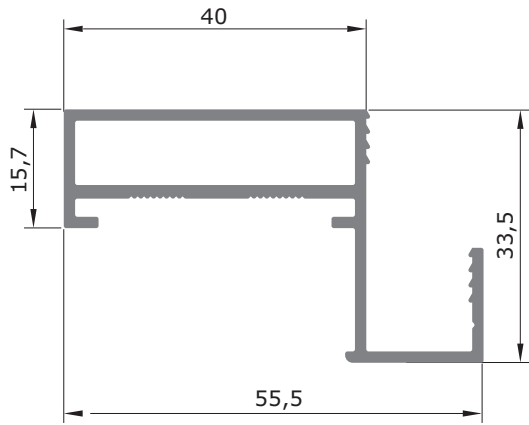
**FC-225**

0,642 Kg/m



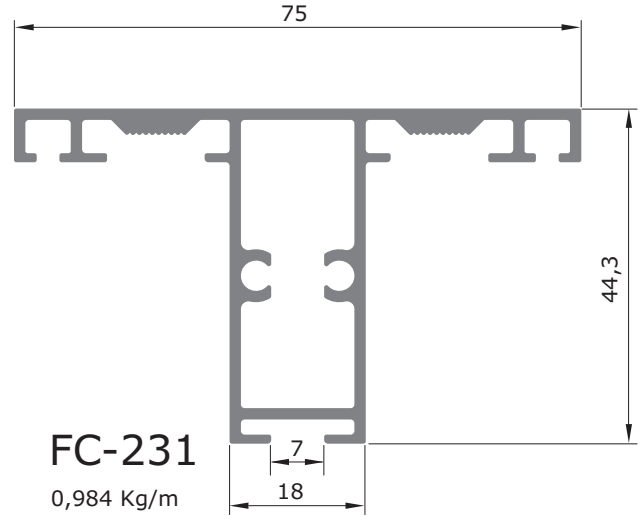
**FC-360**

0,960 Kg/m



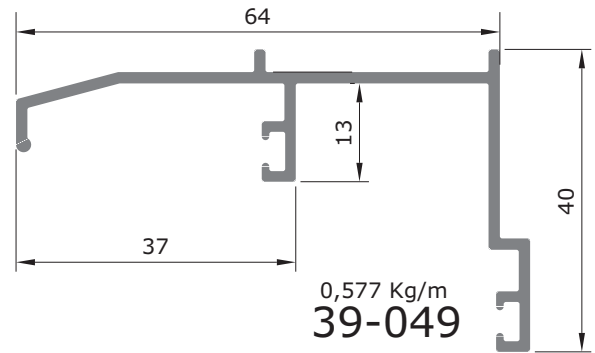
**FC-293**

0,683 Kg/m

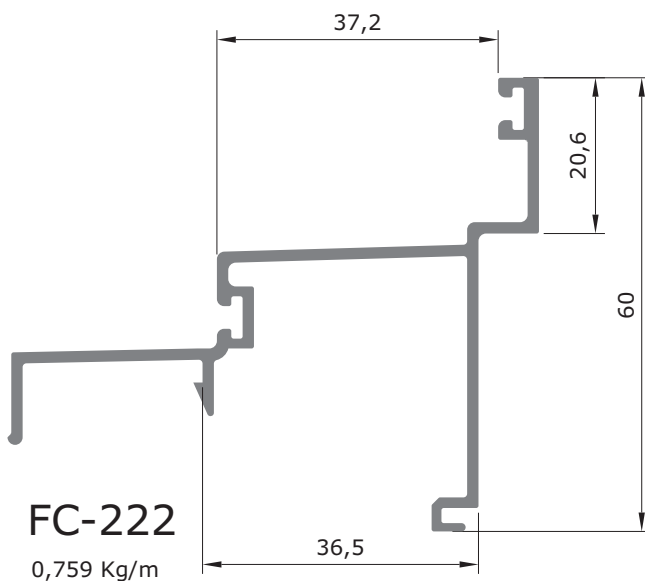


**FC-231**

0,984 Kg/m

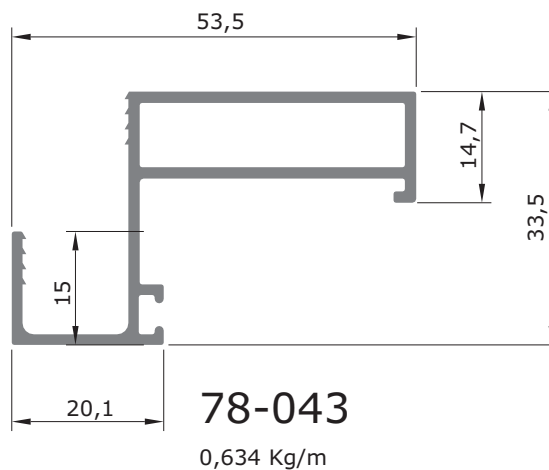
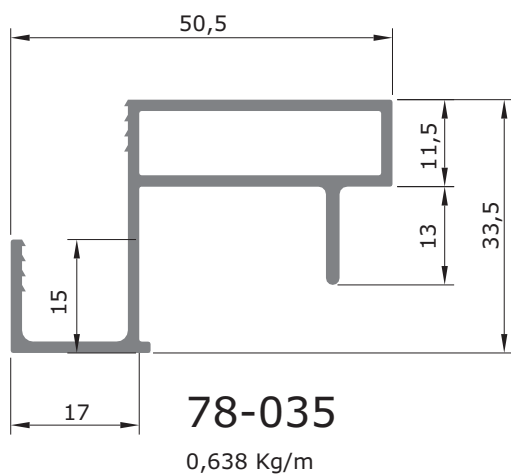
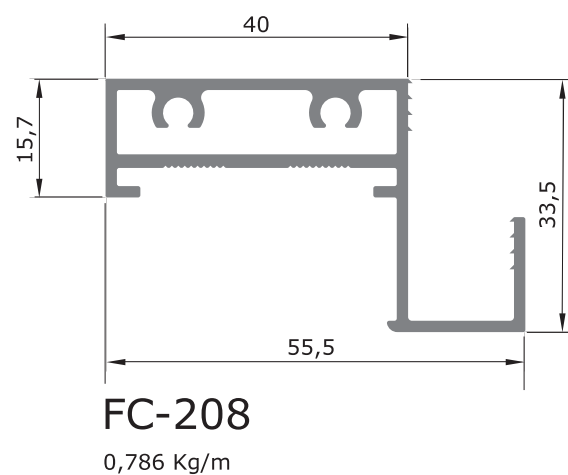
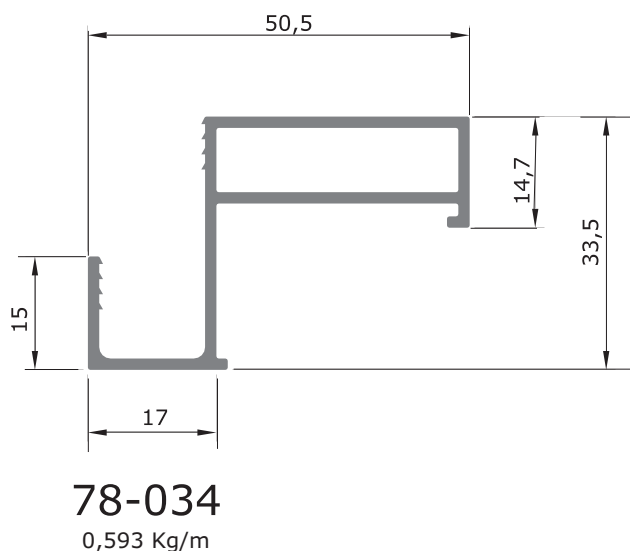
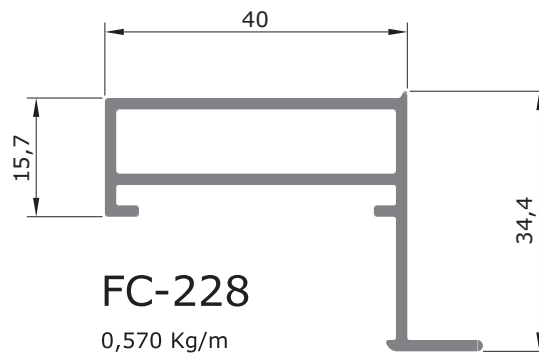
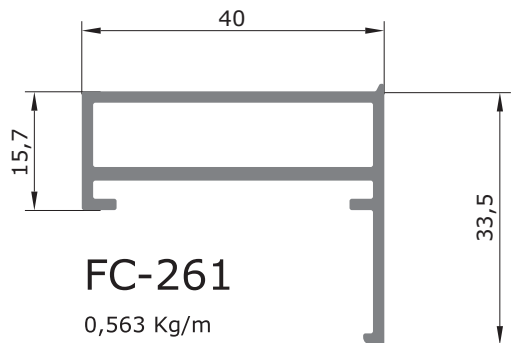


0,577 Kg/m  
**39-049**

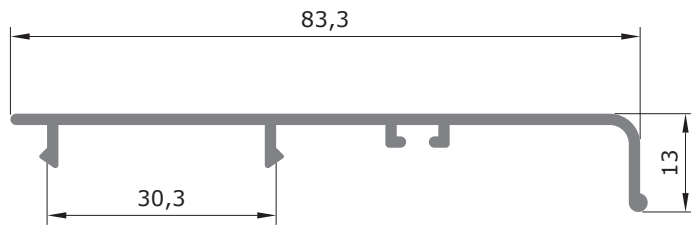


**FC-222**

0,759 Kg/m

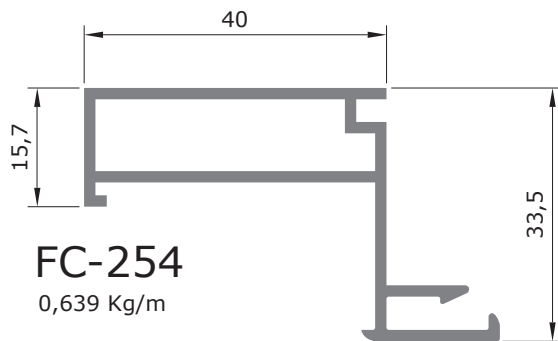






**FC-229**

0,467 Kg/m



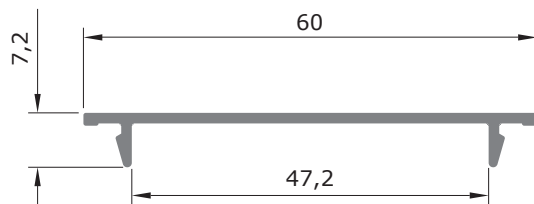
**FC-254**

0,639 Kg/m



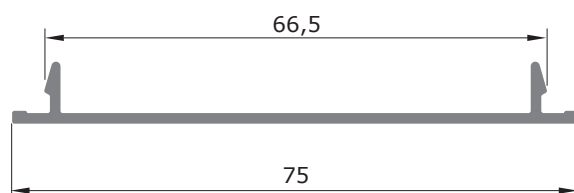
**FC-301**

0,101 Kg/m



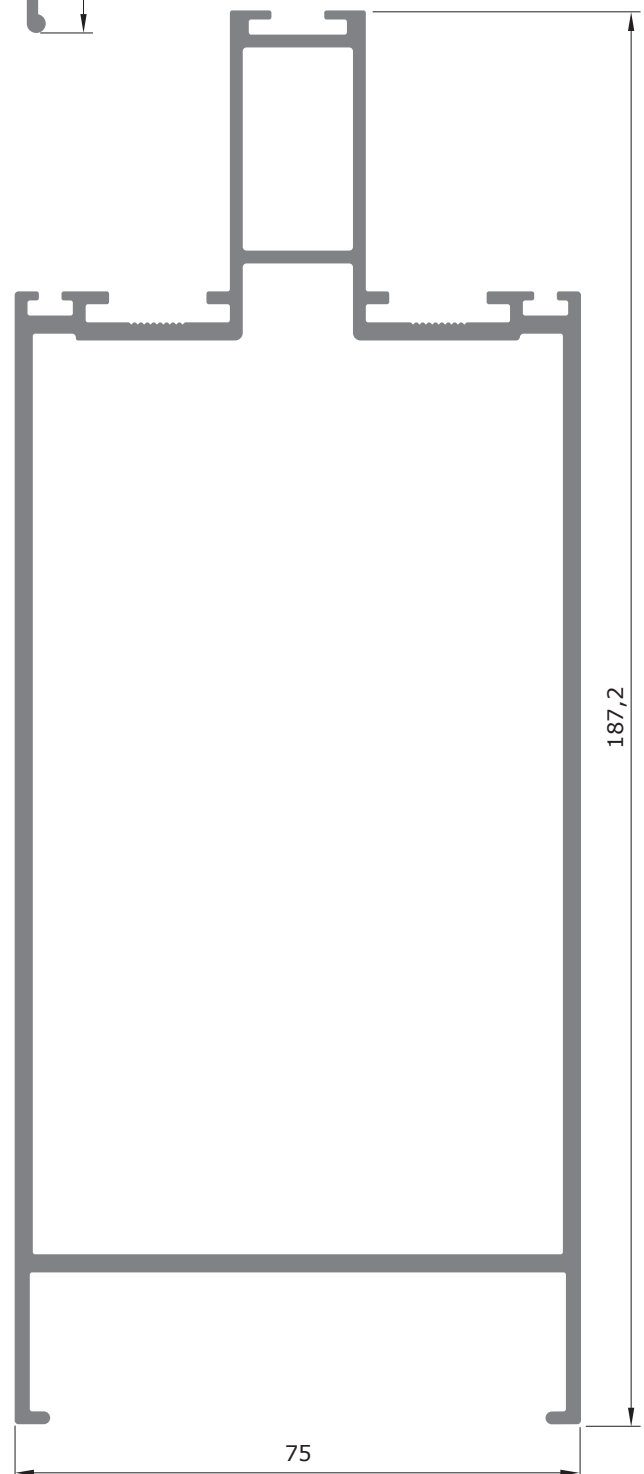
**FC-085**

0,280 Kg/m



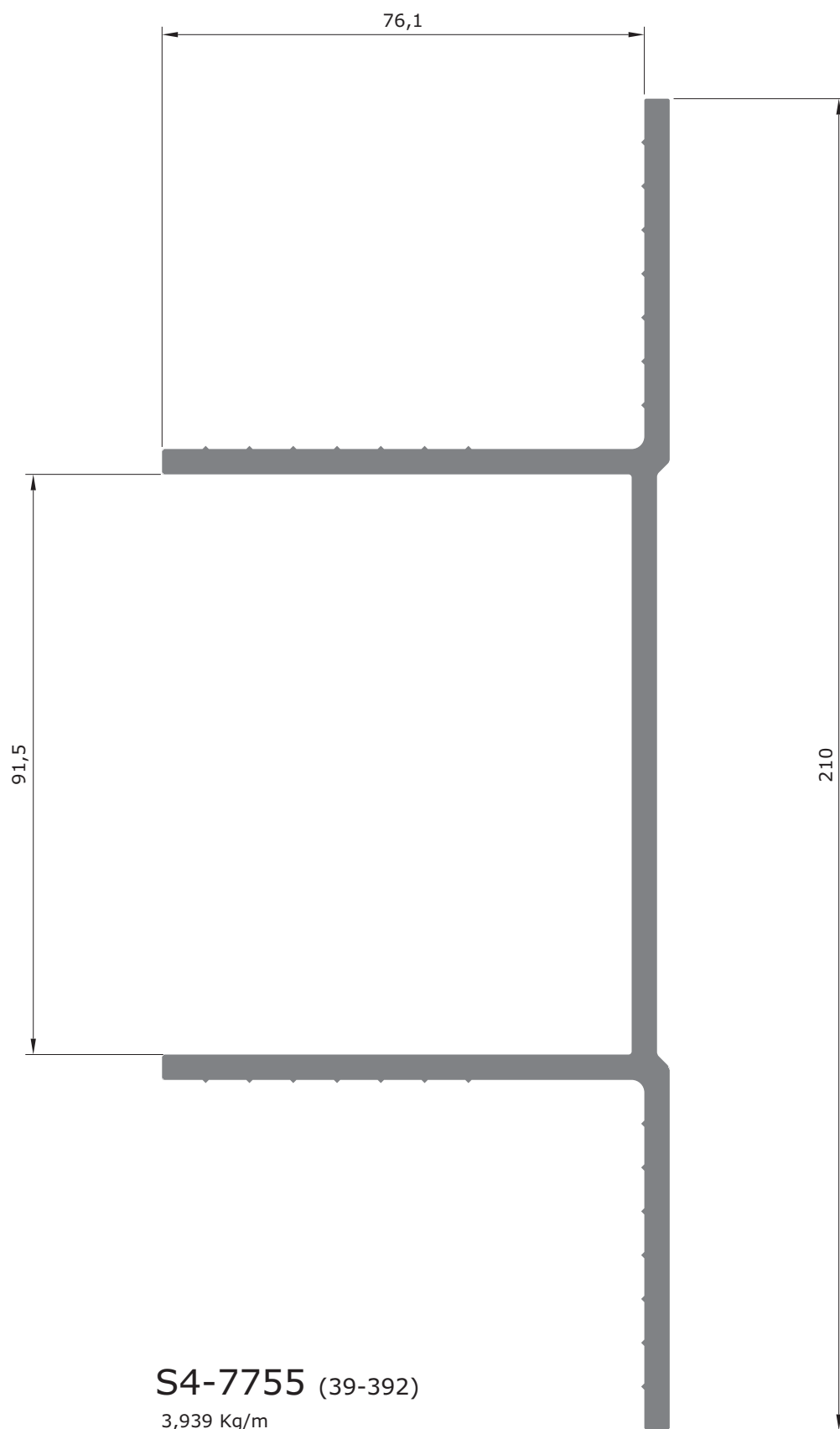
**FC-234**

0,344 Kg/m

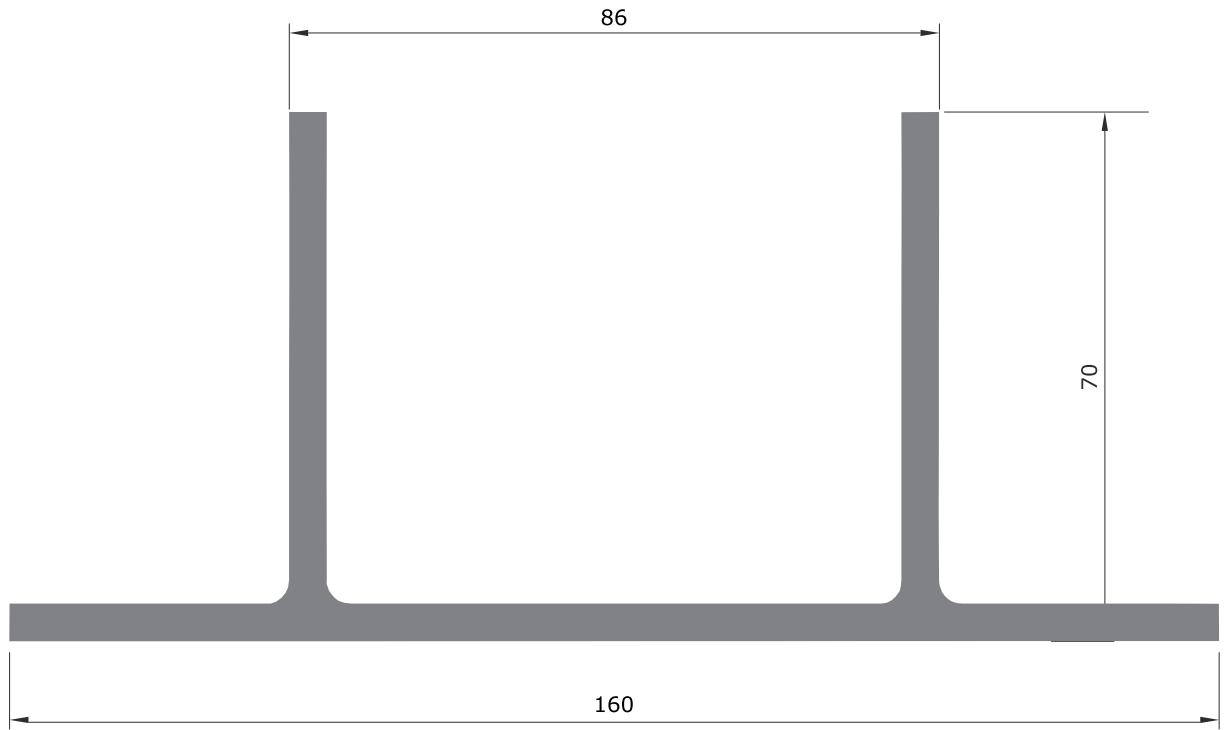


**FC-233**

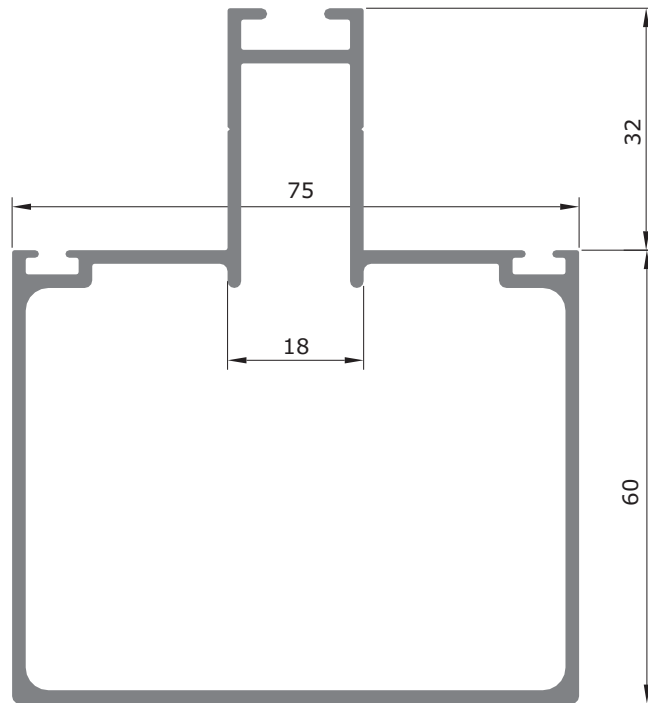
3,392 Kg/m



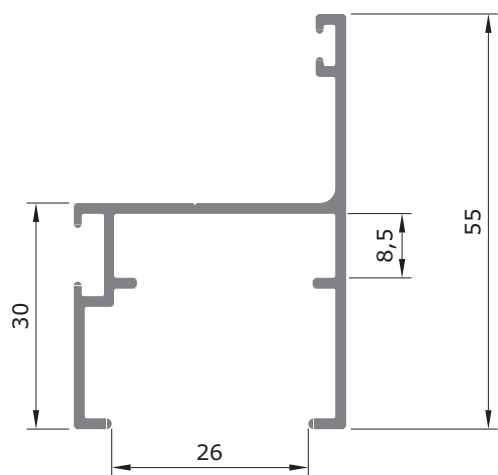
**S4-7755 (39-392)**  
3,939 Kg/m



**PV-021**  
3,950 Kg/m

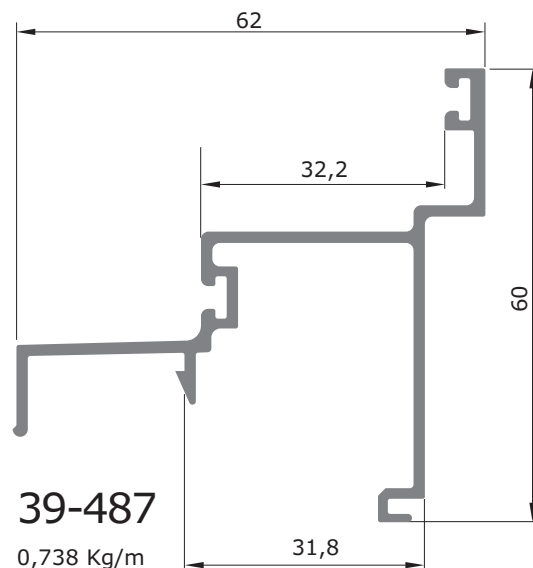


**78-032**  
1,760 Kg/m



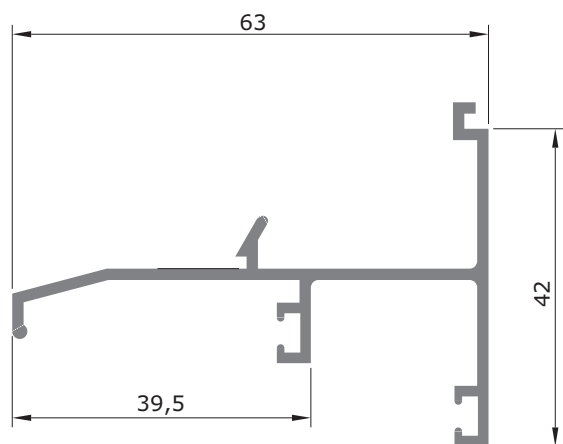
**FC-170**

0,546 Kg/m



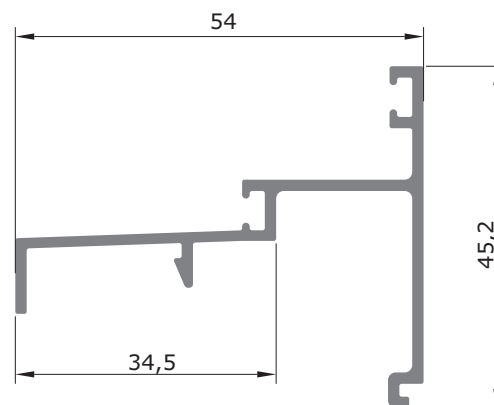
**39-487**

0,738 Kg/m



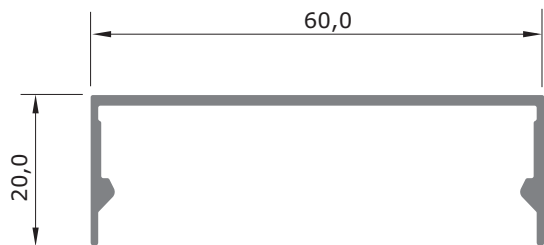
**39-050**

0,610 Kg/m

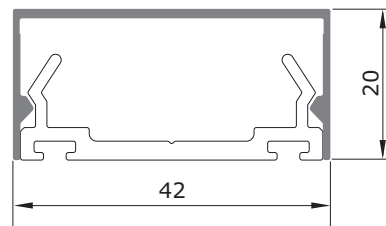


**39-051**

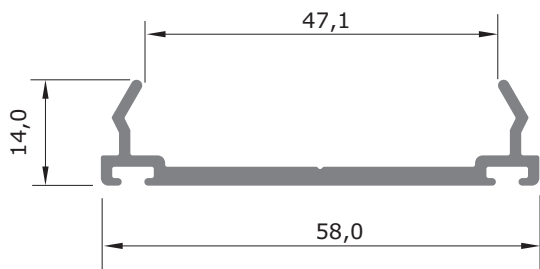
0,543 Kg/m



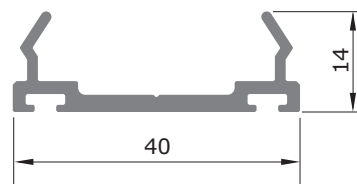
**FC-544**  
0,380 Kg/m



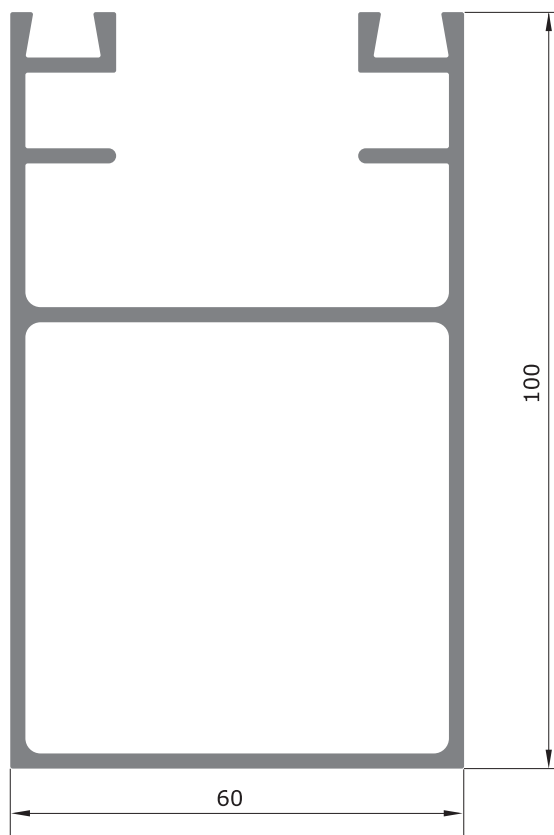
**U-621**  
0,264 Kg/m



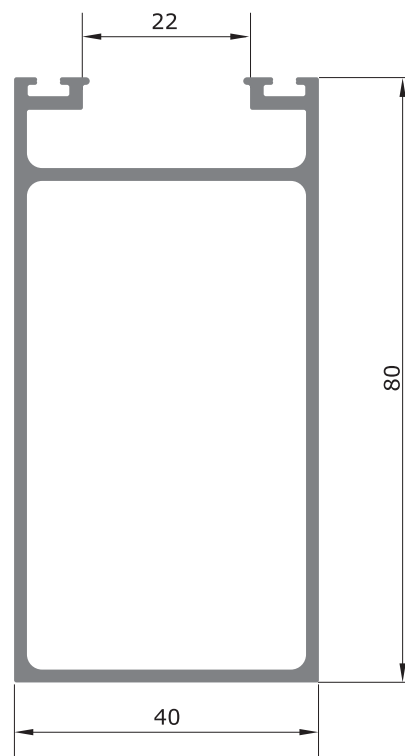
**FC-419**  
0,484 Kg/m



**U-615**  
0,379 Kg/m



**A-025**  
2,061 Kg/m

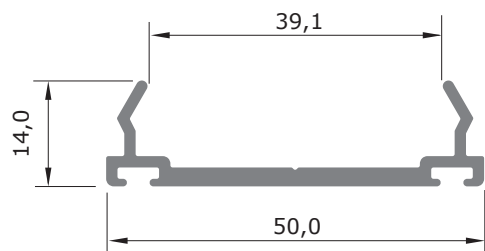


**A-072**  
1,206 Kg/m

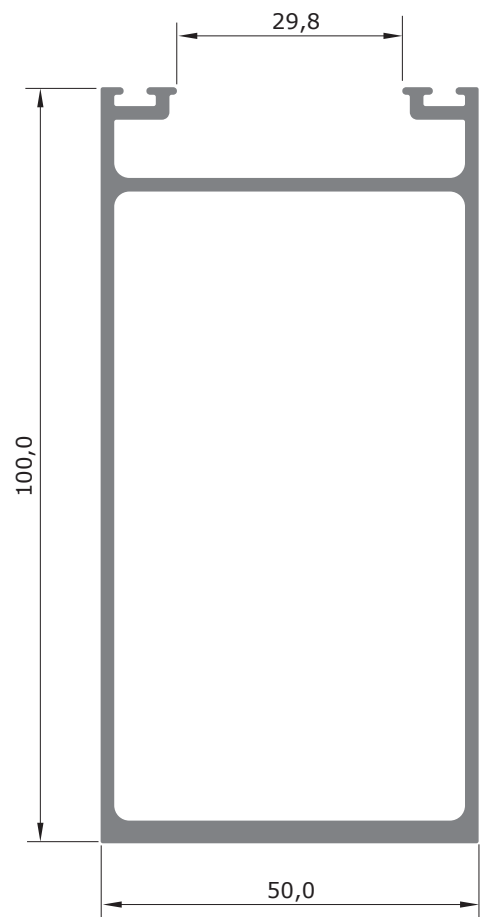




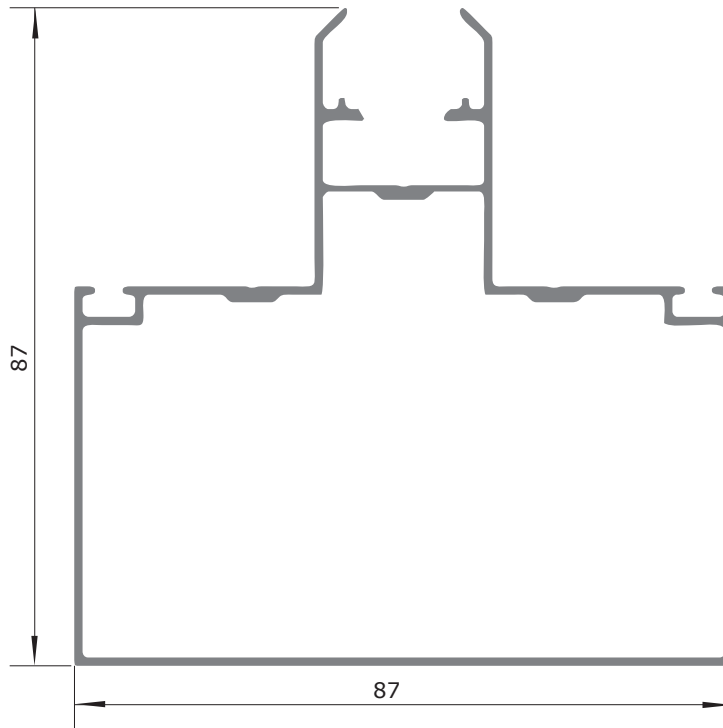
**FC-542**  
0,350 Kg/m



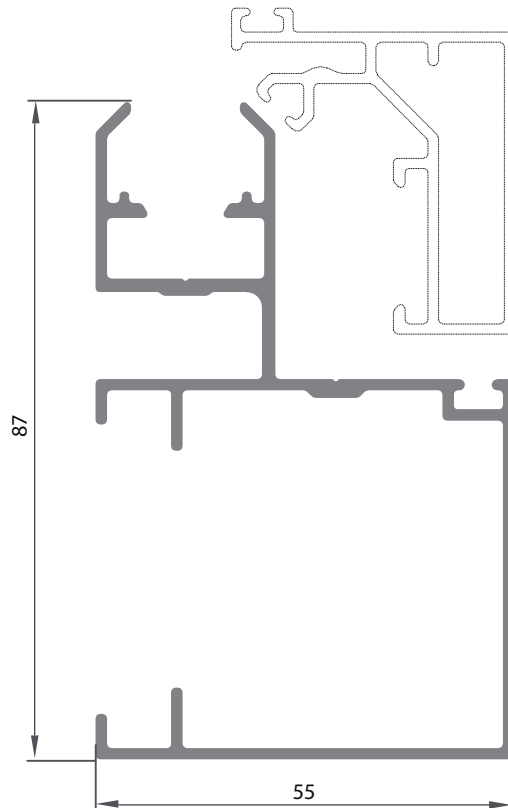
**FC-543**  
0,430 Kg/m



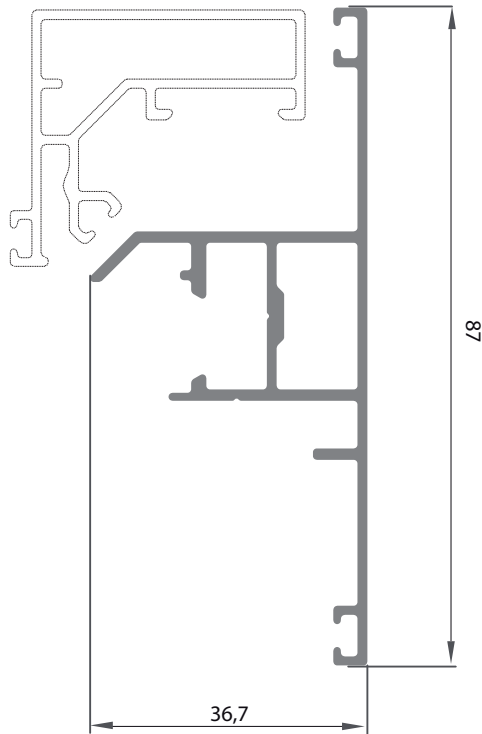
**FC-017**  
1,705 Kg/m



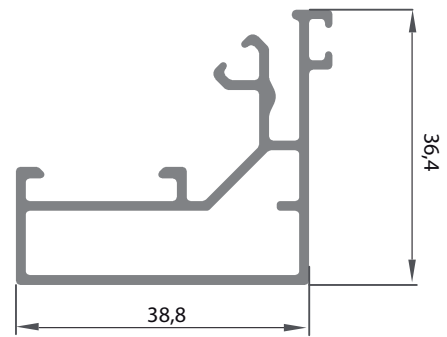
**SK-001**  
1,569 Kg/m



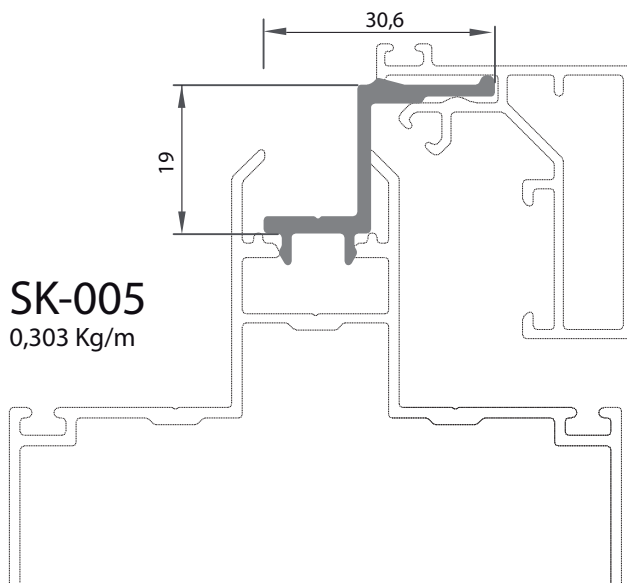
**SK-002**  
1,238 Kg/m



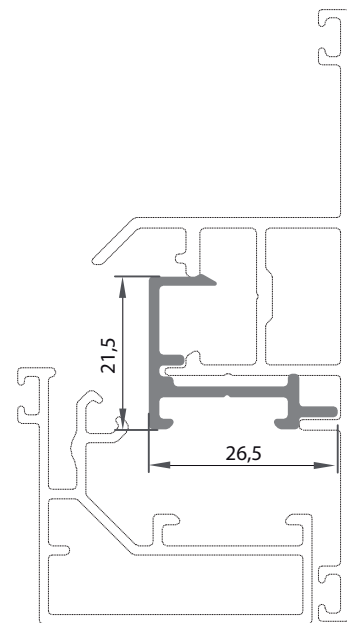
**SK-003**  
0,775 Kg/m



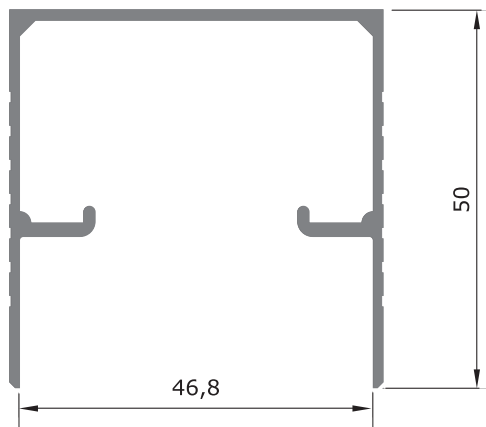
**SK-004**  
0,615 Kg/m



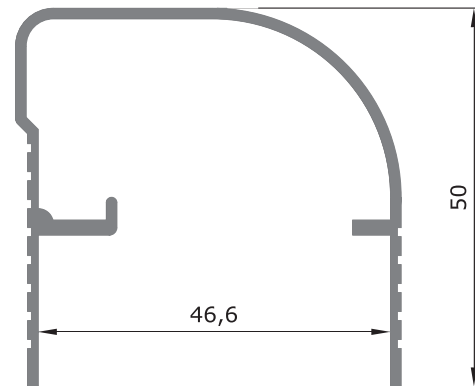
**SK-005**  
0,303 Kg/m



**SK-006**  
0,279 Kg/m



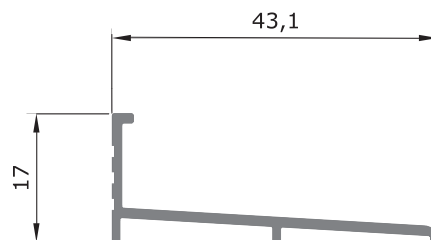
**U-655**  
0,645 Kg/m



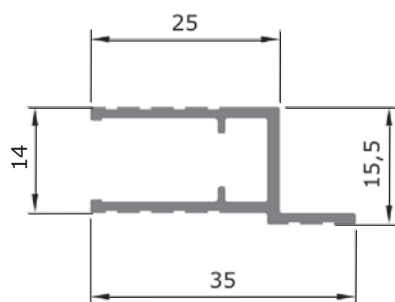
**39-206**  
0,596 Kg/m



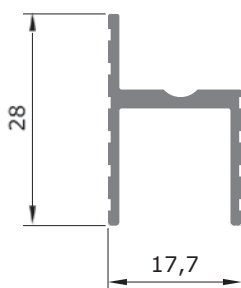
**U-653**  
0,246 Kg/m



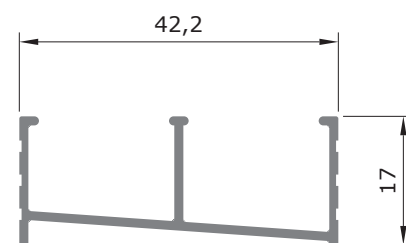
**29-040**  
0,204 Kg/m



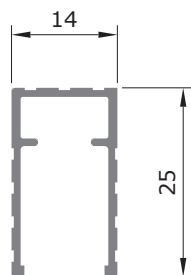
**Y-310**  
0,302 Kg/m



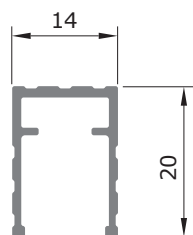
**Y-311**  
0,264 Kg/m



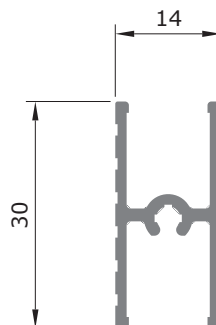
**E-256**  
0,290 Kg/m



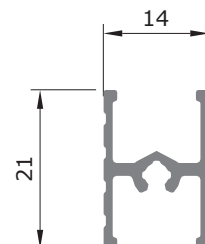
**U-1002**  
0,203 Kg/m



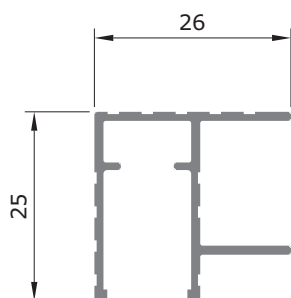
**U-1002 A**  
0,182 Kg/m



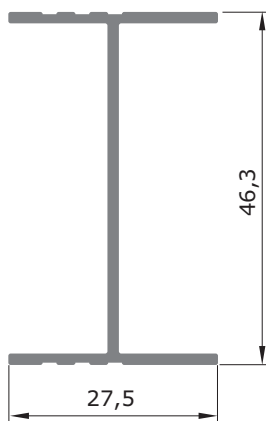
**I-154**  
0,307 Kg/m



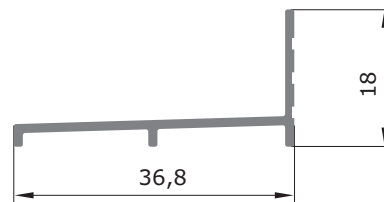
**I-154 A**  
0,212 Kg/m



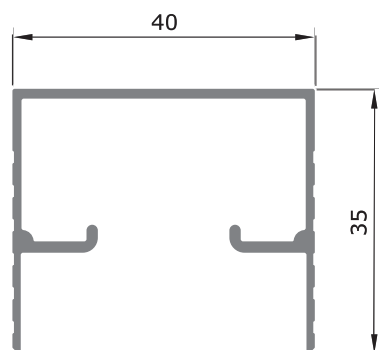
**Y-308**  
0,280 Kg/m



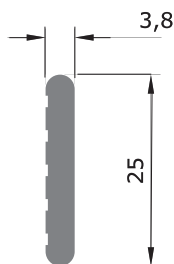
**44-018 (I-155)**  
0,389 Kg/m



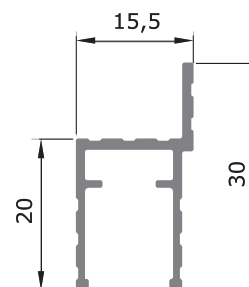
**29-122**  
0,183 Kg/m



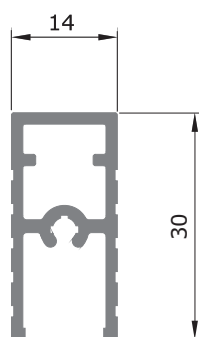
**39-558**  
0,445 Kg/m



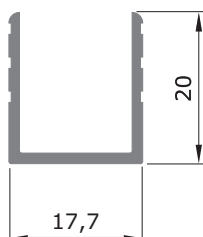
**BAR-4024**  
0,249 Kg/m



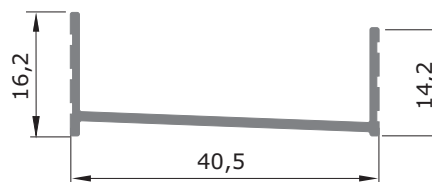
**60-012**  
0,227 Kg/m



**A-087**  
0,366 Kg/m

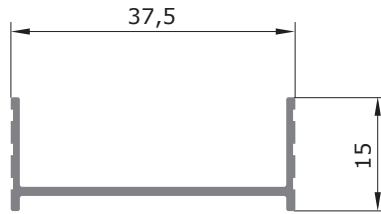


**U-654**  
0,198 Kg/m



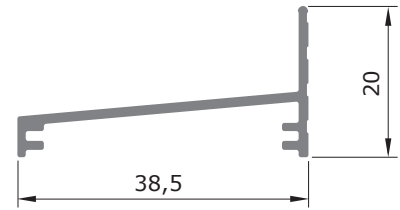
**39-564**  
0,215 Kg/m





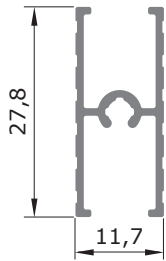
**39-563**

0,204 Kg/m



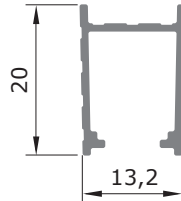
**29-173**

0,228 Kg/m



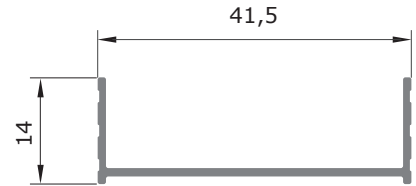
**44-032**

0,213 Kg/m



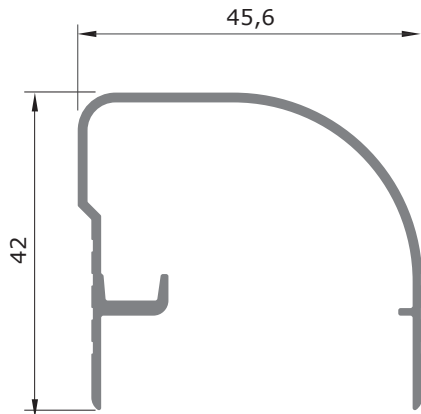
**39-849**

0,161 Kg/m



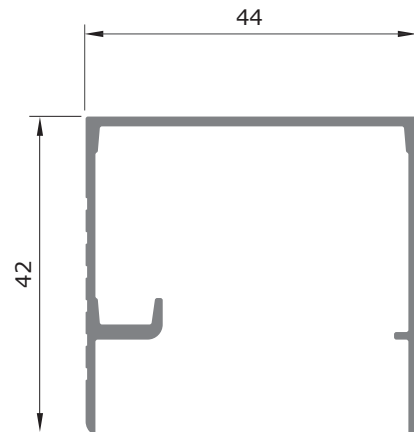
**39-848**

0,195 Kg/m



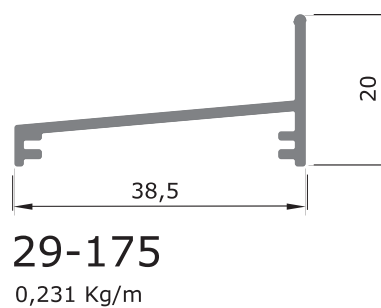
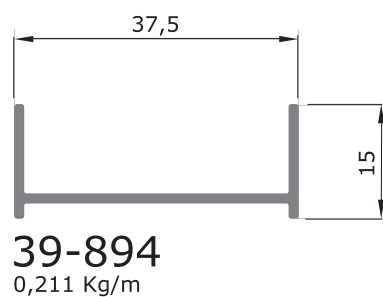
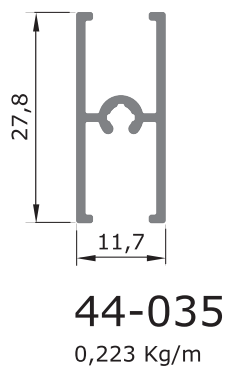
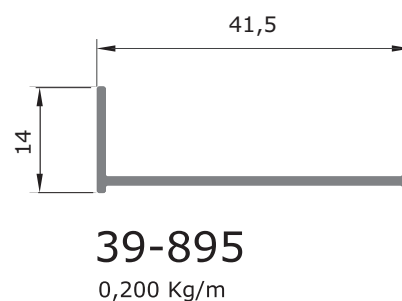
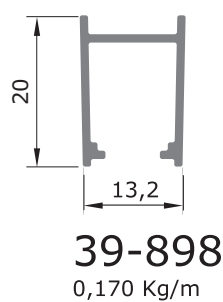
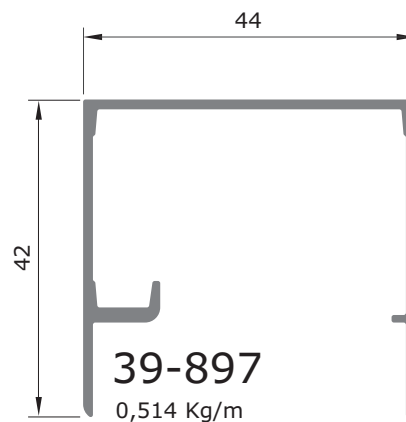
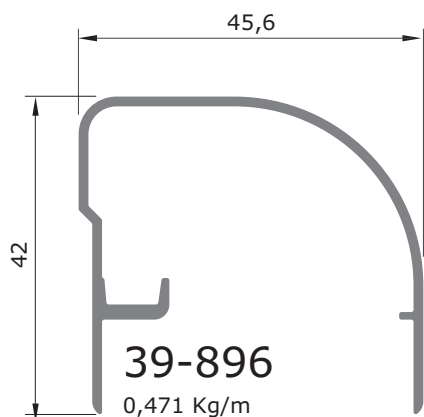
**39-850**

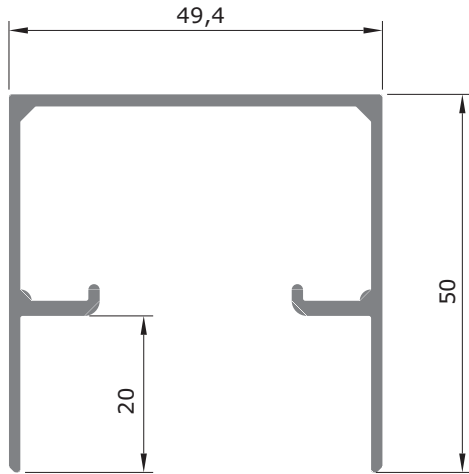
0,465 Kg/m



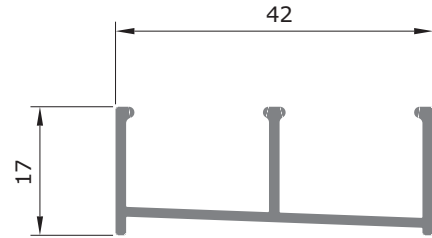
**39-851**

0,504 Kg/m

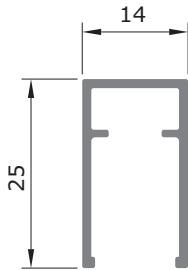




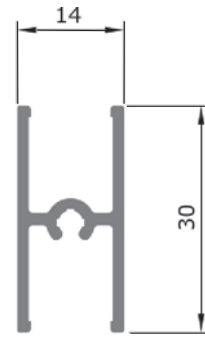
**U-397**  
0,617 Kg/m



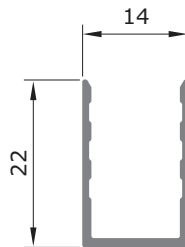
**E-117**  
0,334 Kg/m



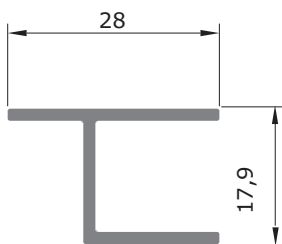
**U-1056**  
0,217 Kg/m



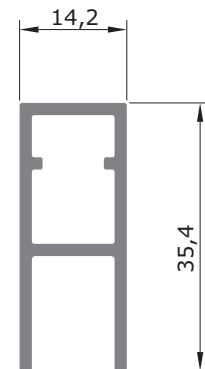
**I-083**  
0,321 Kg/m



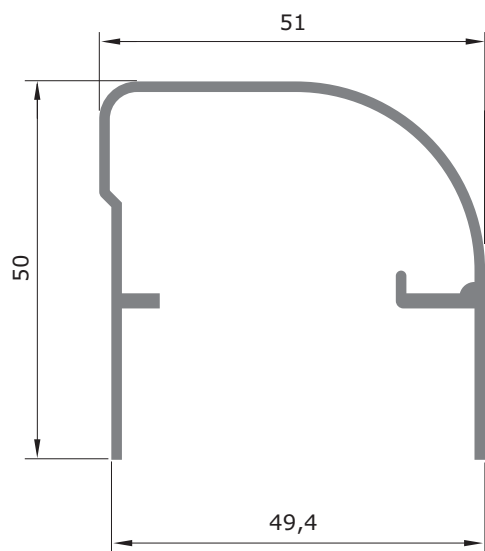
**39-956**  
0,166 Kg/m



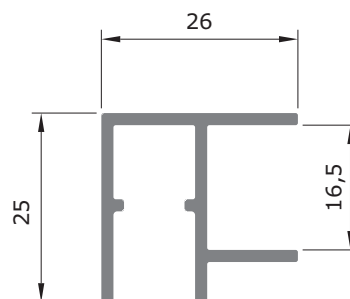
**Y-107**  
0,263 Kg/m



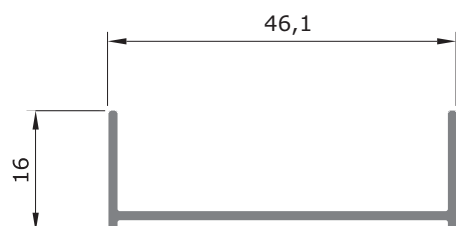
**A-022**  
0,420 Kg/m



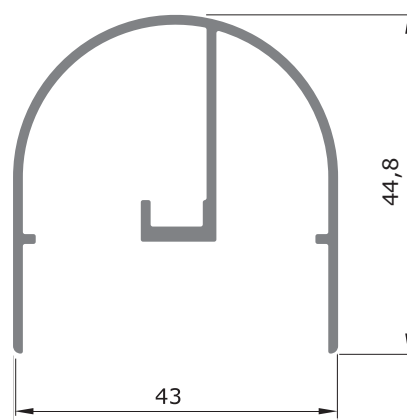
**39-255**  
0,615 Kg/m



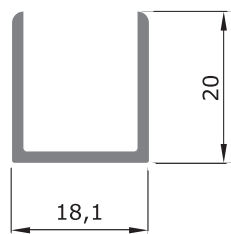
**Y-105**  
0,380 Kg/m



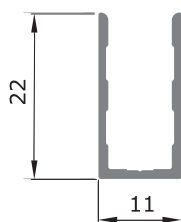
**U-399**  
0,245 Kg/m



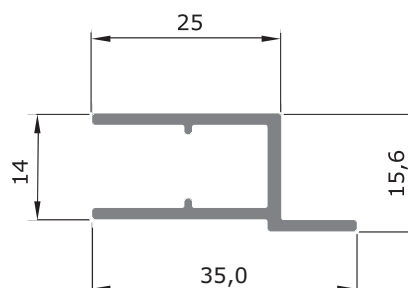
**39-1006**  
0,568 Kg/m



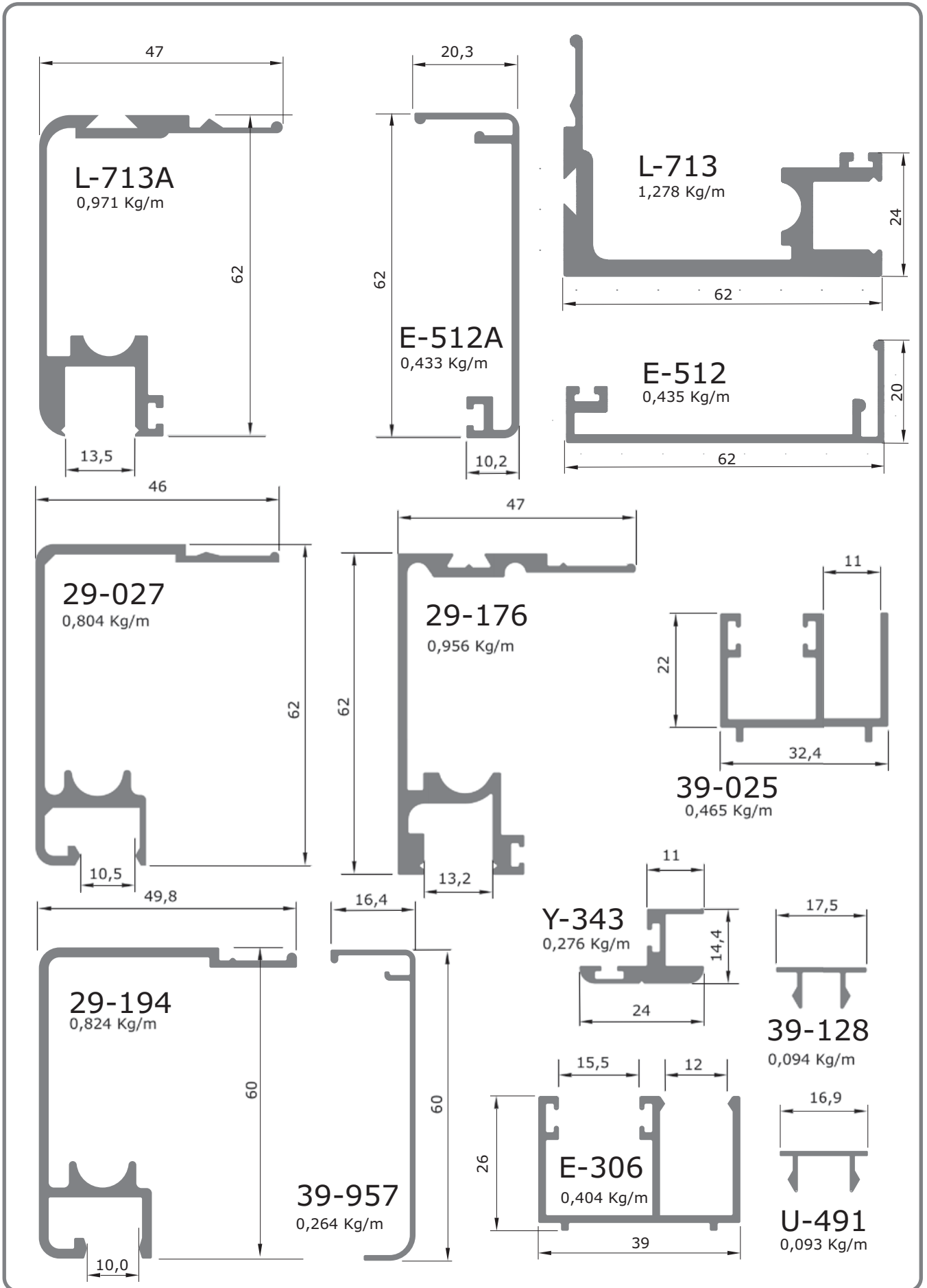
**U-398**  
0,221 Kg/m



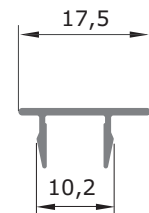
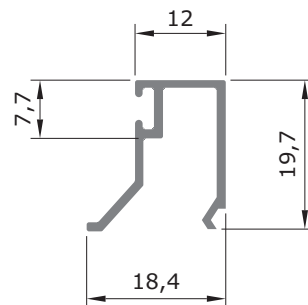
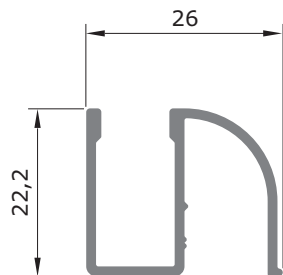
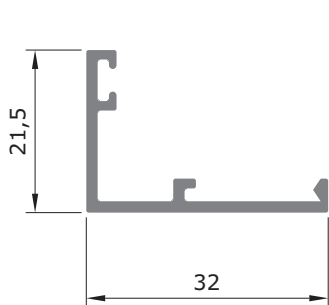
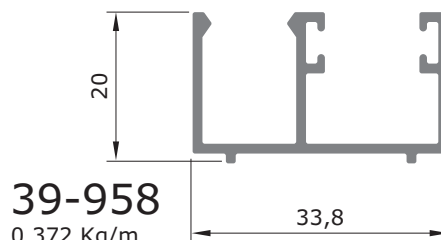
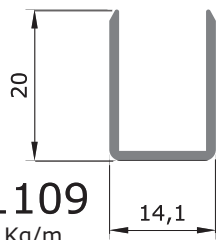
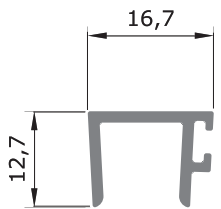
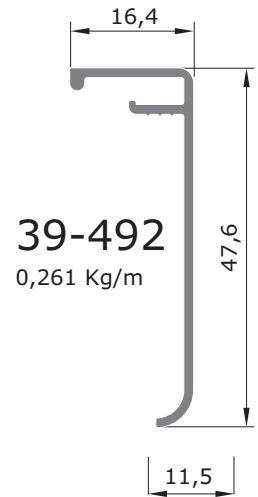
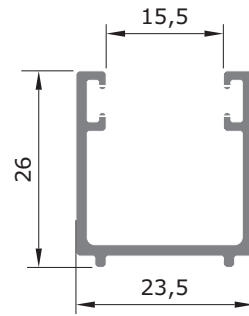
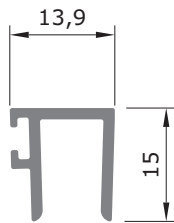
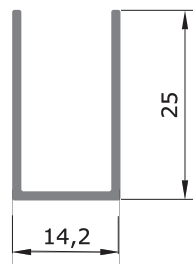
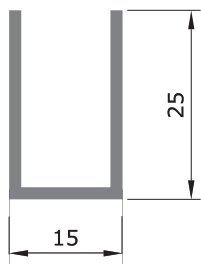
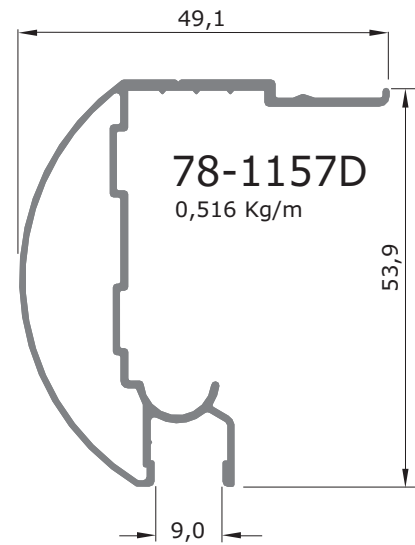
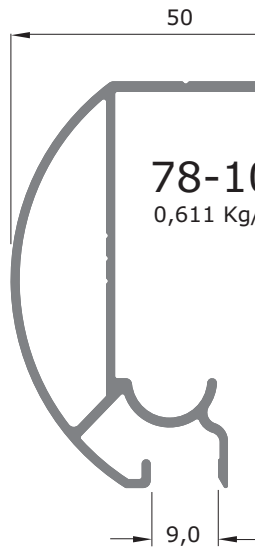
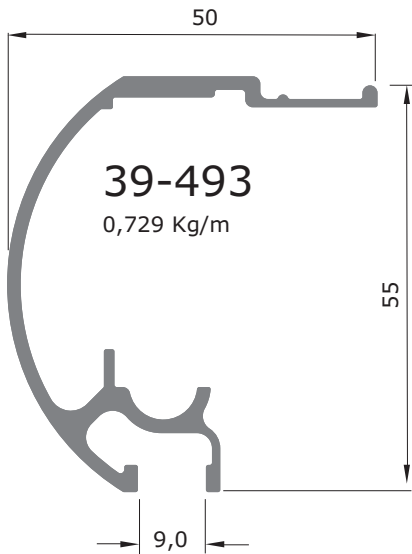
**39-639**  
0,167 Kg/m

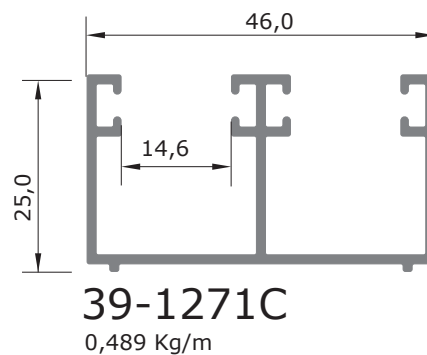
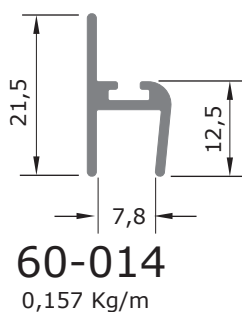
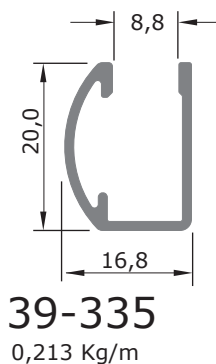
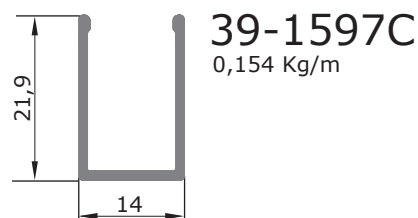
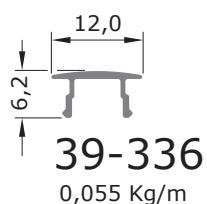
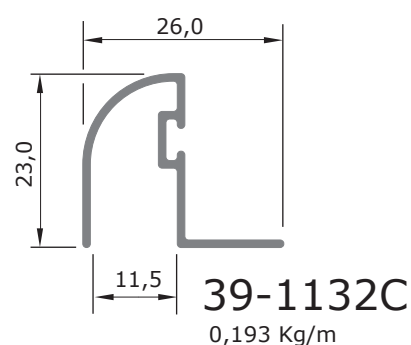
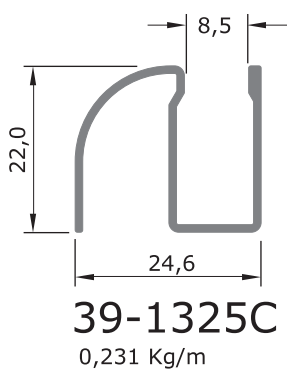
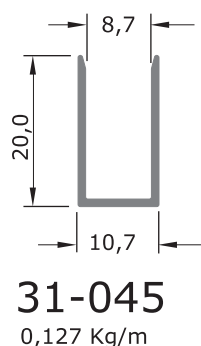
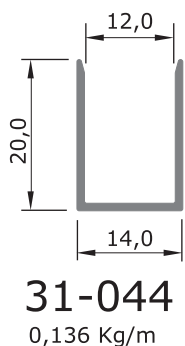
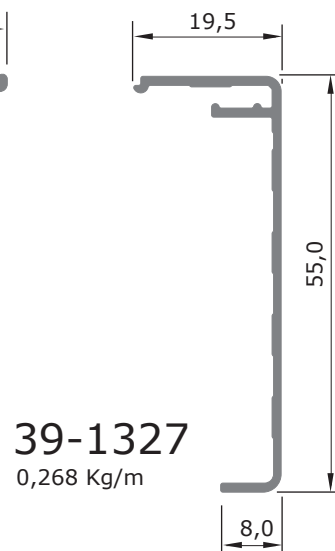
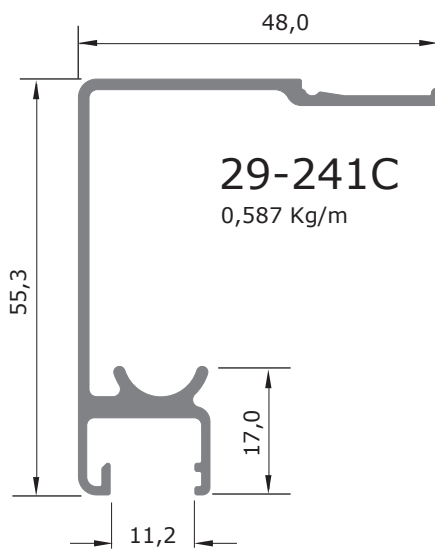
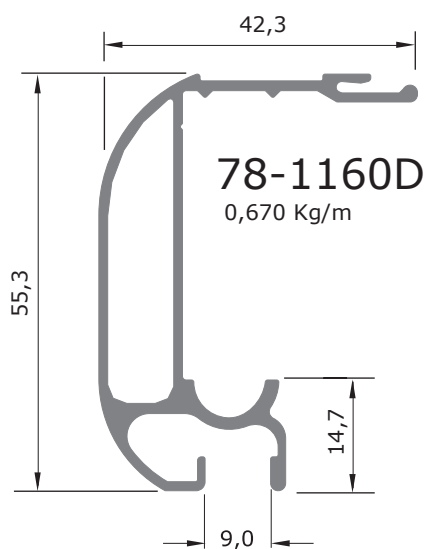


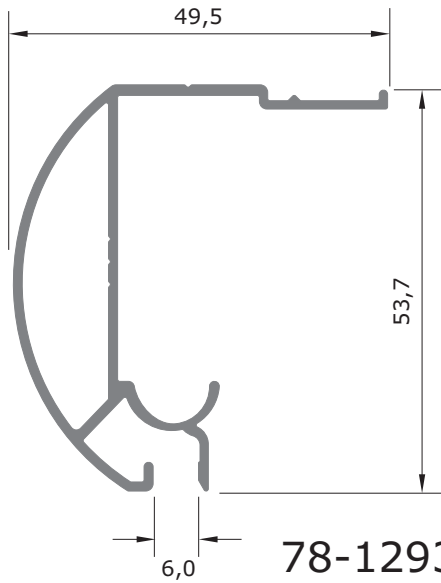
**Y-106**  
0,217 Kg/m



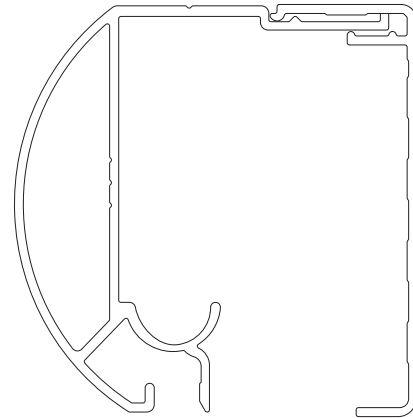




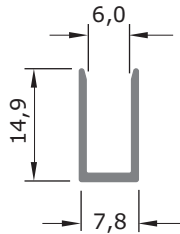




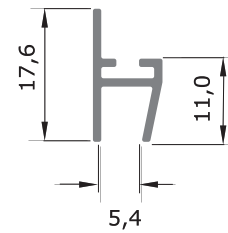
**78-1293D**  
0,590 Kg/m



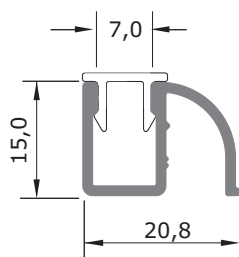
Esquema  
de Montagem



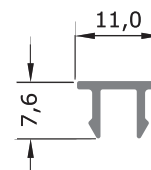
**31-066C**  
0,089 Kg/m



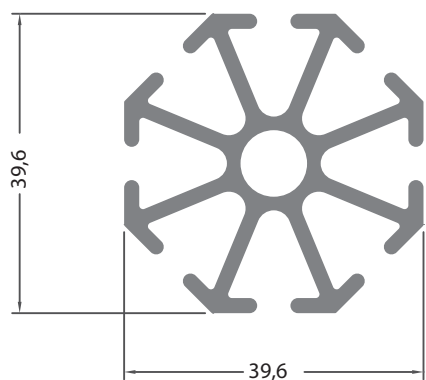
**39-1383C**  
0,115 Kg/m



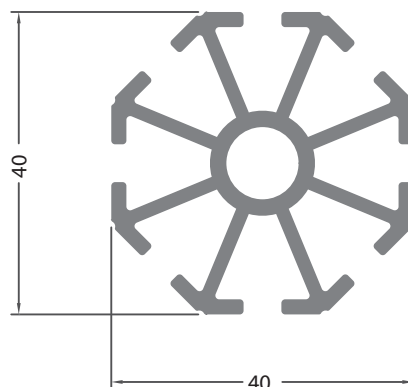
**39-1382C**  
0,213 Kg/m



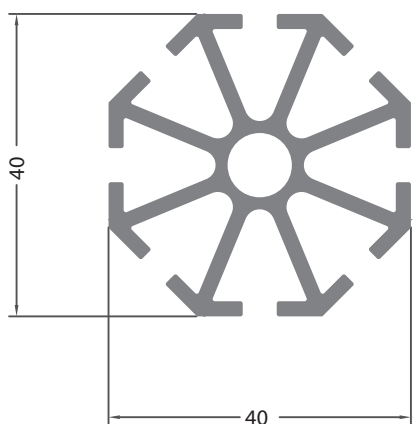
**39-1381C**  
0,072 Kg/m



**78-078**  
1,213 Kg/m



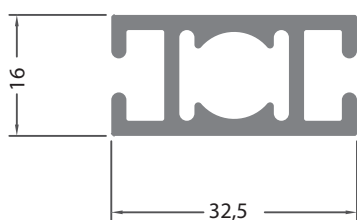
**78-064**  
1,114 Kg/m



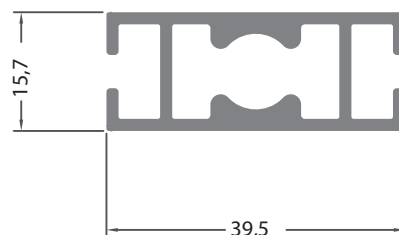
**78-233**  
1,224 Kg/m



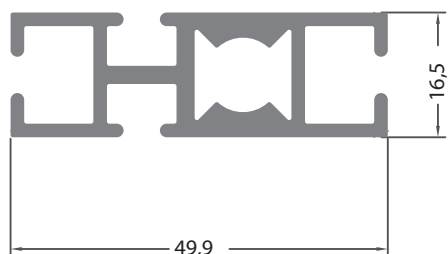
**78-063**  
0,939 Kg/m



**78-477**  
0,627 Kg/m



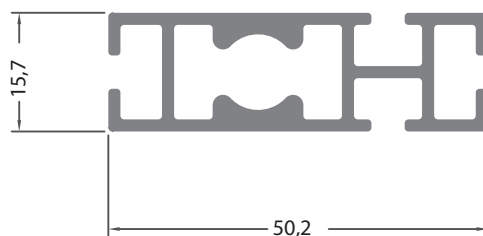
**78-076**  
0,666 Kg/m



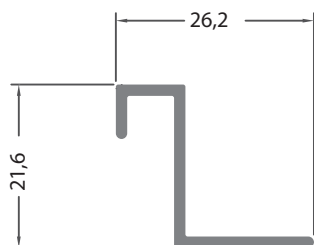
**78-254**  
0,905 Kg/m



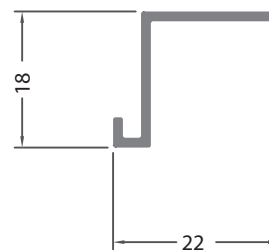
**78-139**  
0,920 Kg/m



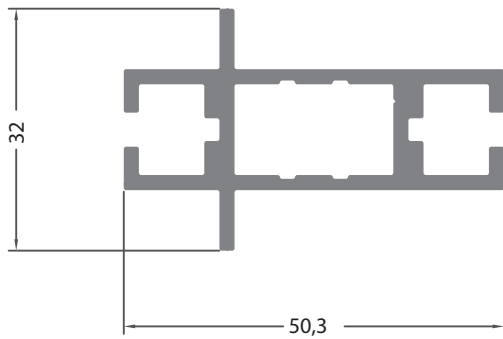
**78-077**  
0,815 Kg/m



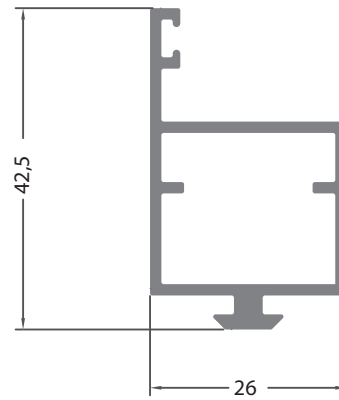
**40-010**  
0,209 Kg/m



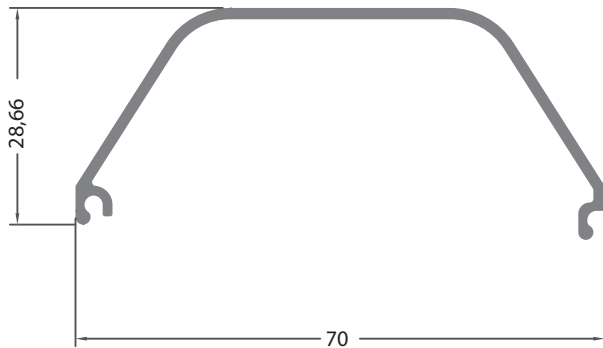
**29-043**  
0,146 Kg/m



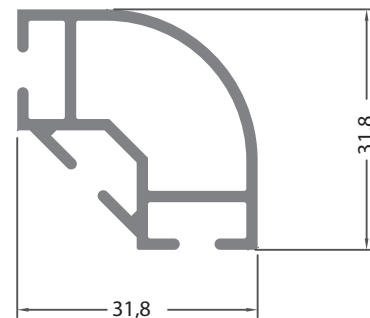
**78-198**  
0,929 Kg/m



**78-162**  
0,554 Kg/m

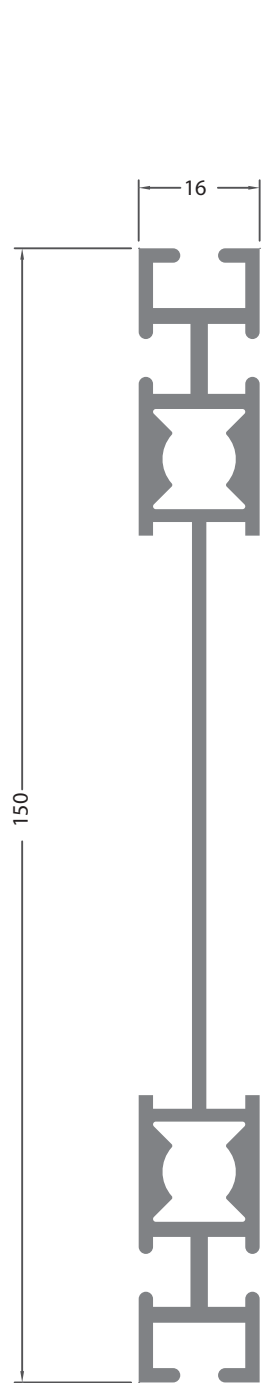


**39-323**  
0,446 Kg/m

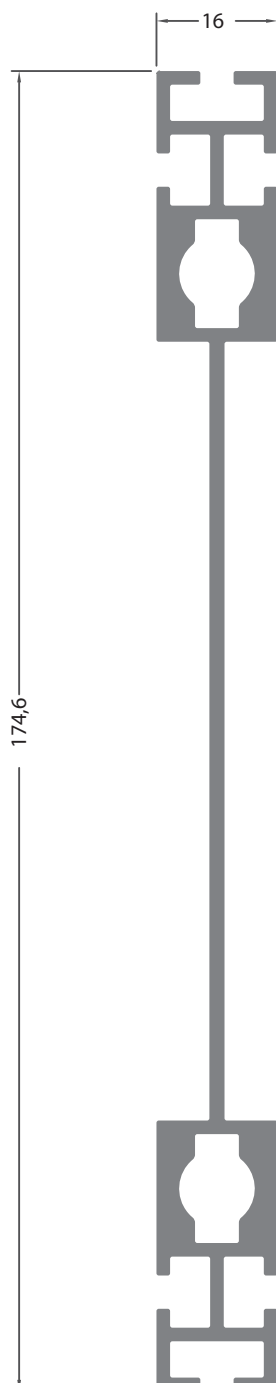


**78-107**  
0,572 Kg/m

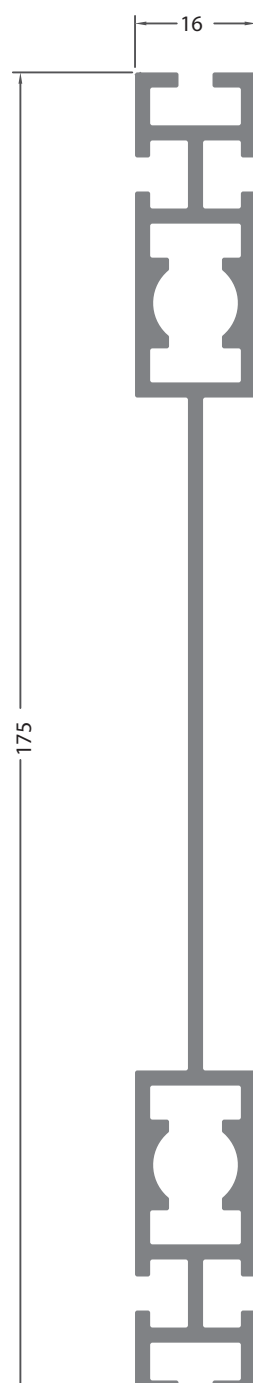




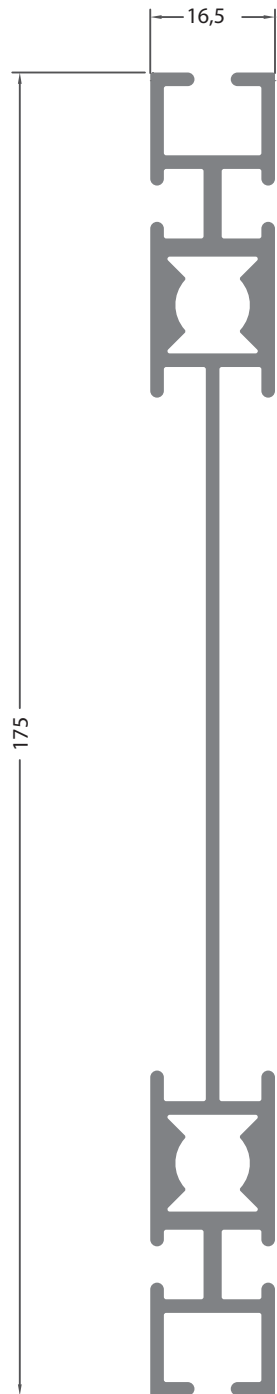
**78-056**  
1,843 Kg/m



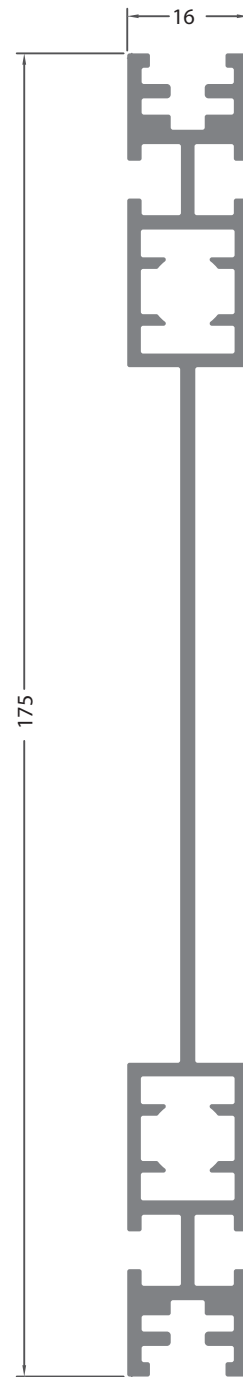
**78-079**  
2,088 Kg/m



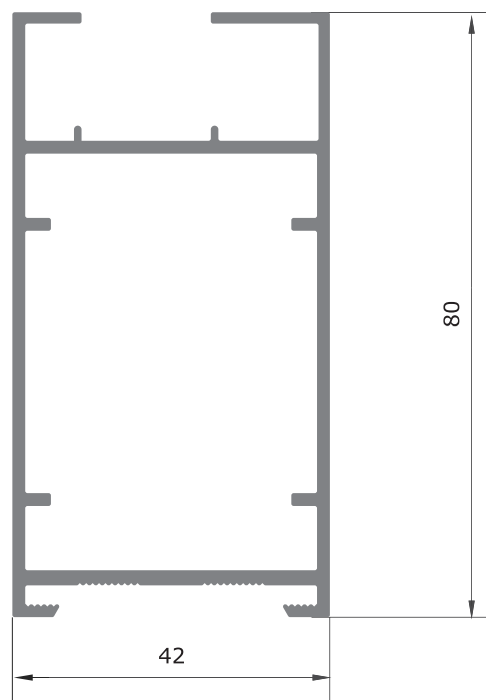
**78-143**  
2,083 Kg/m



**78-255**  
2,070 Kg/m

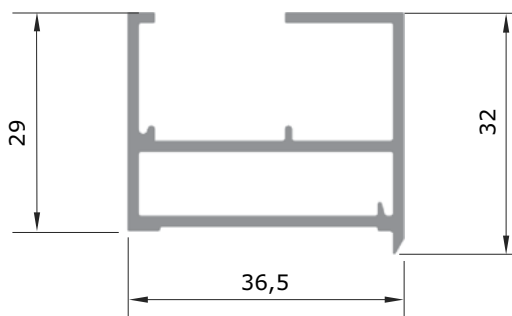


**78-823**  
1,974 Kg/m



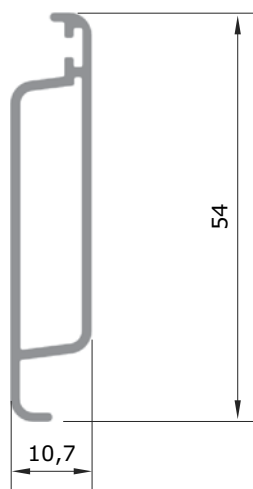
**78-572**

1,307 Kg/m



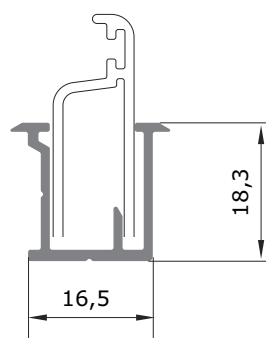
**78-519**

0,608 Kg/m



**78-518**

0,399 Kg/m



**39-588**

0,217 Kg/m



## ▶ Tudo foi pensado

▶ **MEGA 20**, ideal para projetos econômicos, prédios multi-pavimentos que requerem qualidade, bom desempenho e precisam ajustar-se a orçamentos específicos.

▶ **MEGA 25**, acompanha o tradicional e consagrado padrão 25mm para atender as necessidades de vãos usuais da moderna arquitetura e engenharia, com forte apelo estético.

▶ **MEGA 32**, desenvolvida para um nível de sofisticação mais elevado. Perfis mais robustos apresentam-se como soluções adequadas para fechamento de grandes vãos.

The logo for Mega is displayed in a bold, red, sans-serif font. The letter 'M' is stylized with a thick, rounded top bar. A registered trademark symbol (®) is positioned to the upper right of the 'M'. The word 'Mega' follows in a similar font style.

**Mega**<sup>®</sup>

**ITEC**  
Instituto  
Tecnológico da  
Construção Civil

Interessado:

Ensaio:

Relatório de Ensaio RE-071111

ASA ALUMÍNIO S/A  
Rua da Cerâmica, 100 - São João  
13050-291 - Campinas - S.P.

(0095)

**1. MATERIAL ENSAIADO**

Uma porta em alumínio, constituída por 02 (duas) folhas em vidro móvel do tipo de correr, com dimensão total de 1775 mm X 2075 mm, entregue pelo interessado em nosso laboratório em 23/02/2011, conforme caracterizada a seguir e apresentada no projeto em anexo.

**Dimensões**

- Contramarco
- Marco
- Folhas móveis
- Vidros (04 unidades)
- Raizos: 05 (cinco) raizos de drenagem com dimensões aproximadas de 42 x 6 mm.
- Altura da Aba aproximadamente 31 mm de altura.

**2. CARACTERÍSTICAS DO PROTÓTIPO**

Contramarco previamente chumbado em alvenaria de

mesmo em anexo:   
marcação do protótipo   
capim do

**ITEC**  
Instituto  
Tecnológico da  
Construção Civil

RE-071111  
Folha 1/11





## ► Elegância e Praticidade

Um conceito de sistema construtivo que supera em muito os modelos convencionais. A Linha Mega é uma solução completa, com uma incrível combinação para definir modelos e tipologias capaz de atender todos os níveis de obras. O aspecto de inovação está presente nos detalhes e a sofisticação é visível no design.

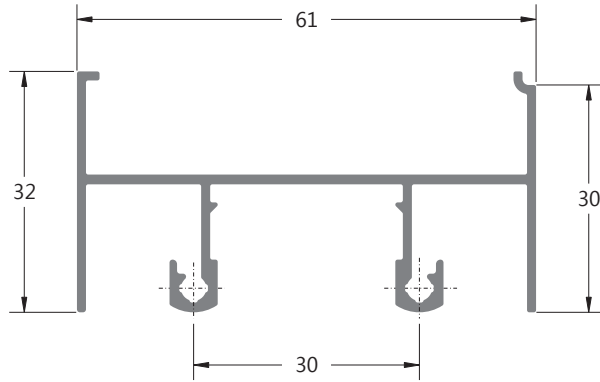
Desde a concepção do desenho dos perfis até o sistema de corte em 90 Graus, tudo foi cuidadosamente planejado para garantir que o fabricante de esquadrias ganhe mais tempo e produtividade.



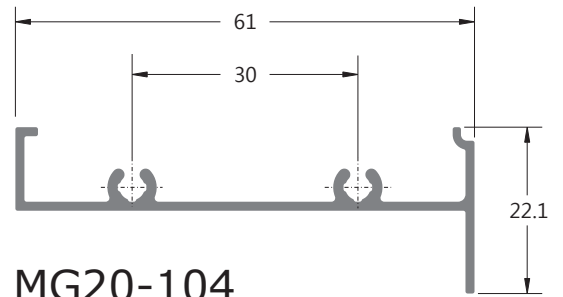




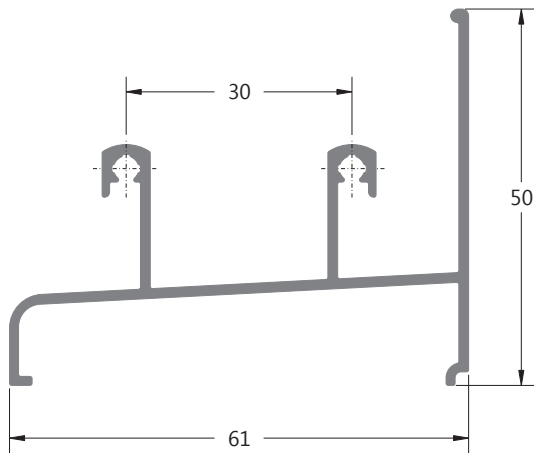
CATÁLOGO GERAL DE PERFIS



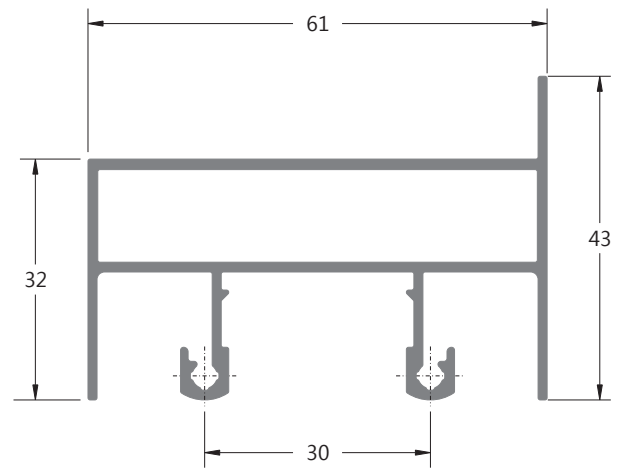
**MG20-101**  
0,637 kg/m



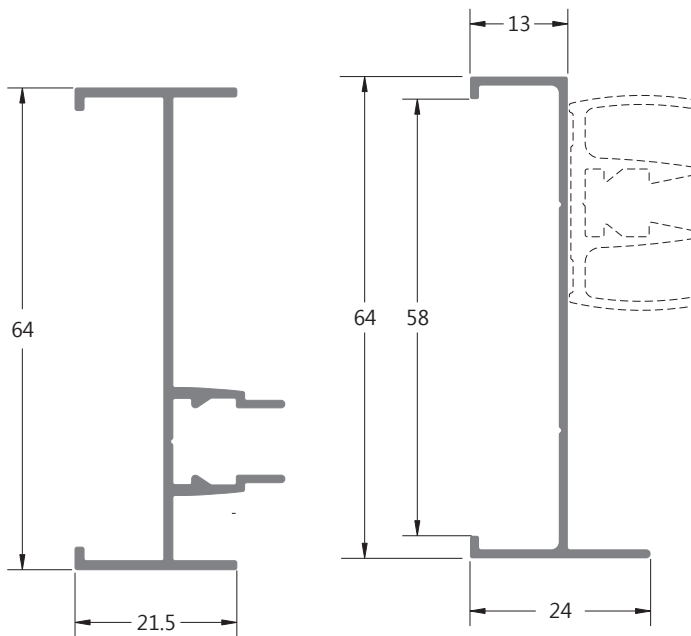
**MG20-104**  
0,388 kg/m



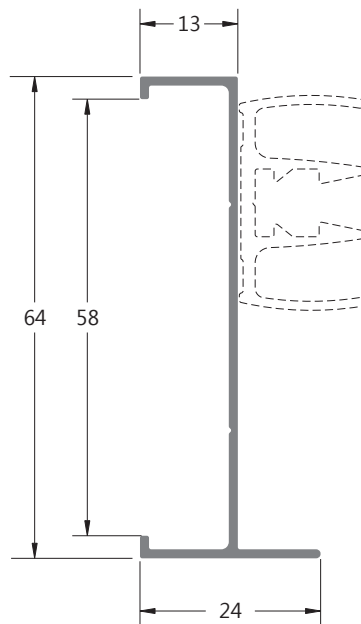
**MG20-102**  
0,641 kg/m



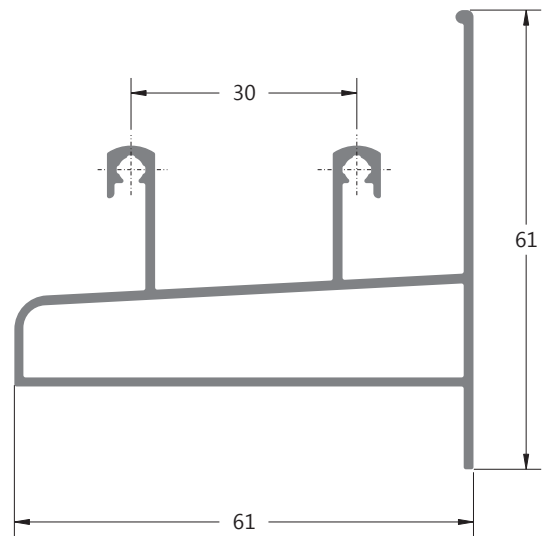
**MG20-105**  
0,893 kg/m



**MG20-103**  
0,462 kg/m

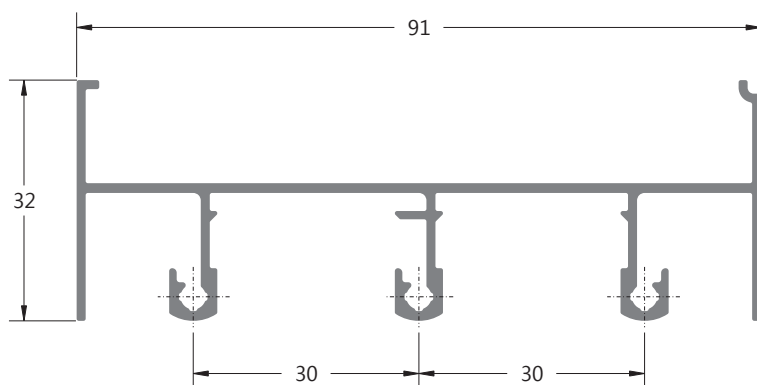


**MG20-107**  
0,332 kg/m



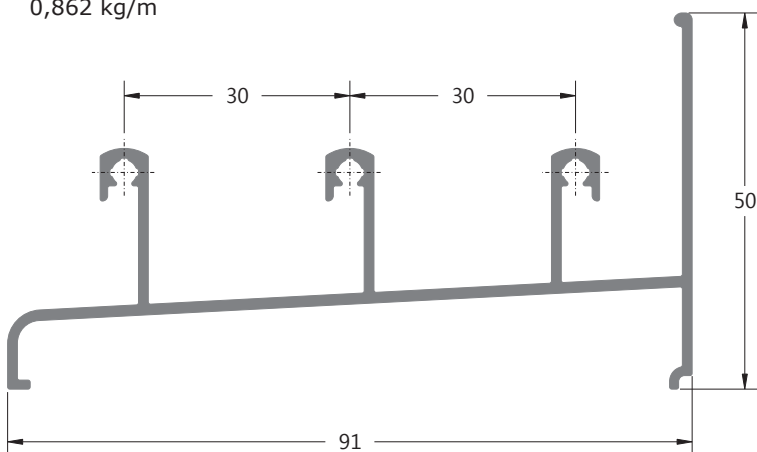
**MG20-106**  
0,861 kg/m

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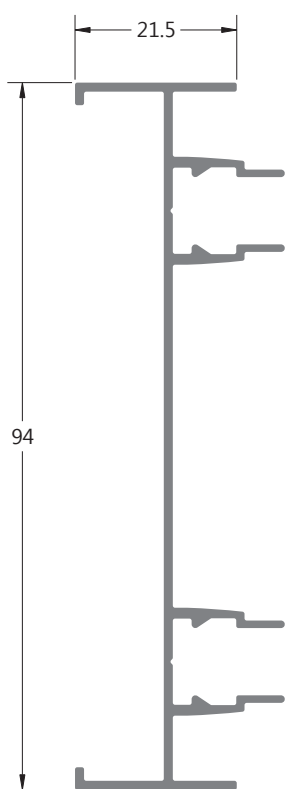
**MG20-110**

0,862 kg/m



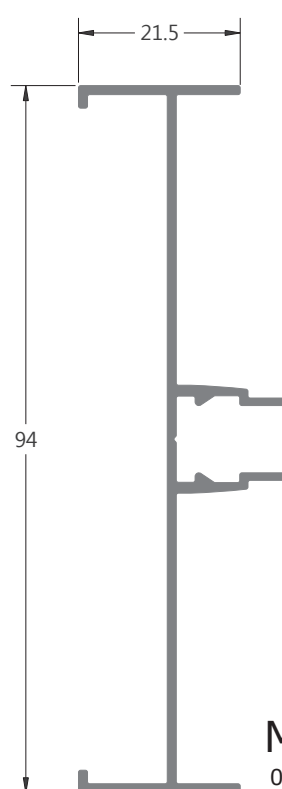
**MG20-111**

0,883 kg/m



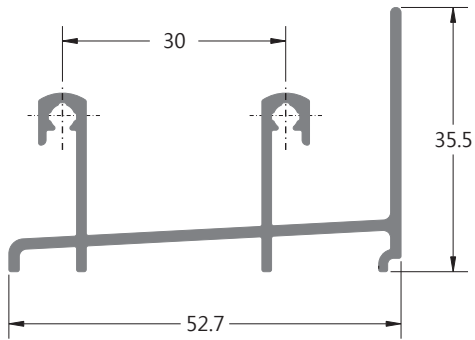
**MG20-113**

0,670 kg/m

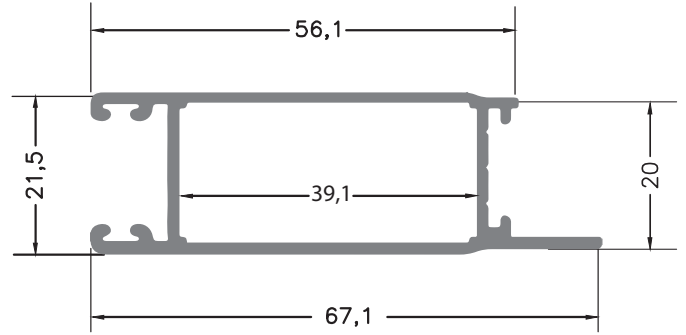


**MG20-114**

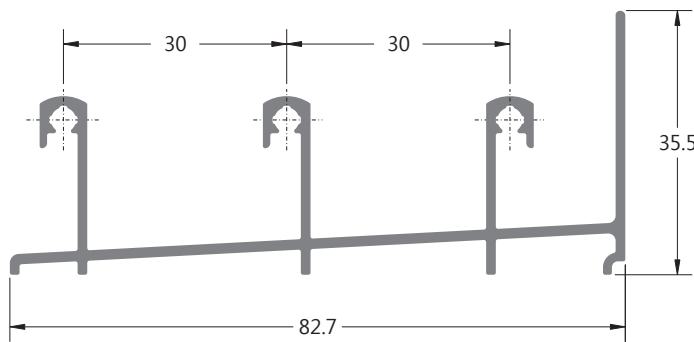
0,559 kg/m



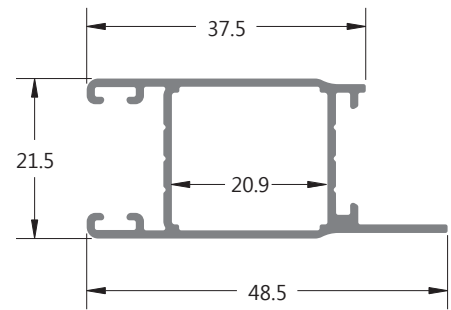
**MG20-115**  
0,584 kg/m



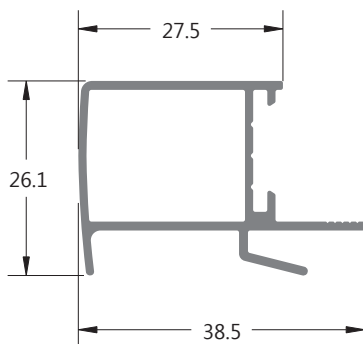
**MG20-154**  
0,547 kg/m



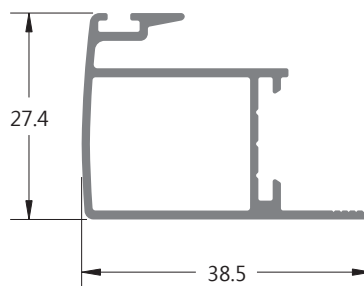
**MG20-116**  
0,805 kg/m



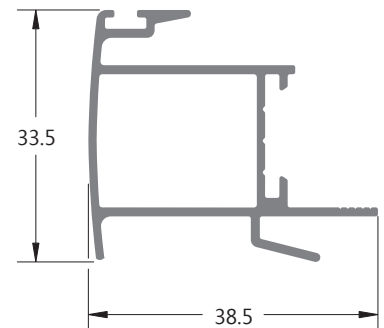
**MG20-122**  
0,436 kg/m



**MG20-123**  
0,397 kg/m

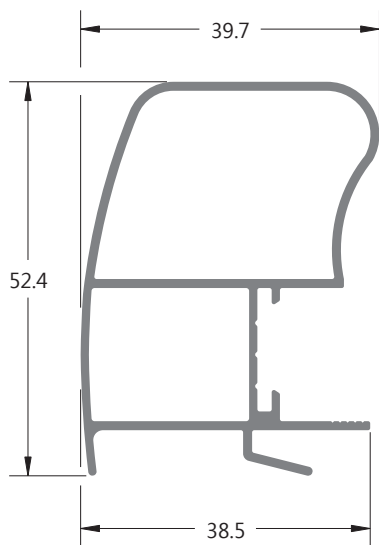


**MG20-124**  
0,415 kg/m

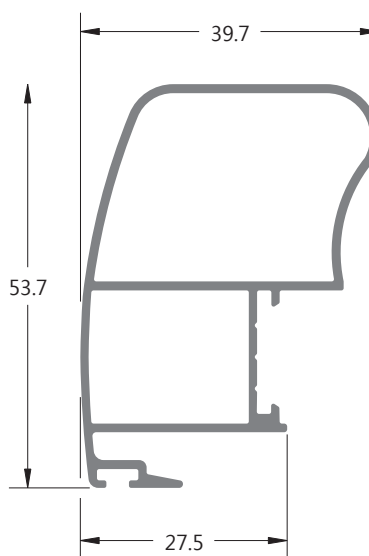


**MG20-125**  
0,474 kg/m

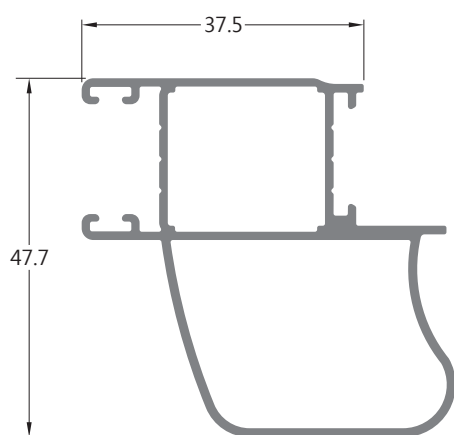




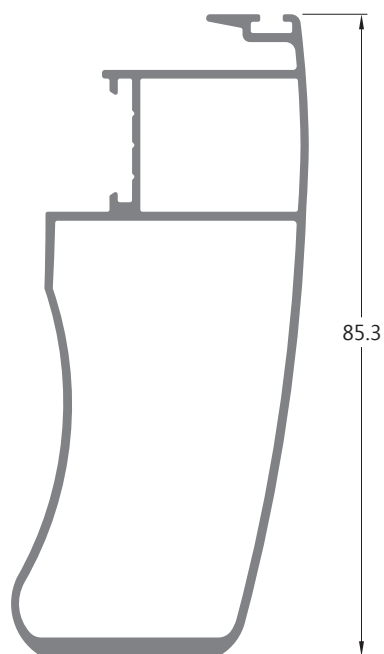
**MG20-126**  
0,684 kg/m



**MG20-127**  
0,659 kg/m

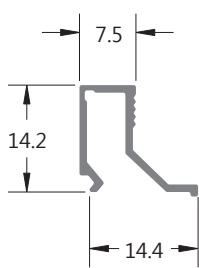


**MG20-144**  
0,732 kg/m

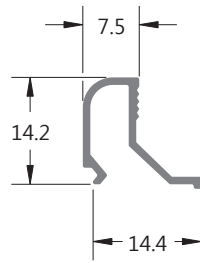


**MG20-150**  
0,944 kg/m

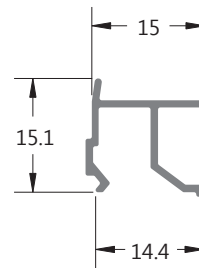
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**MG20-140**  
0,114 kg/m

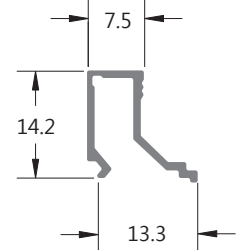


**MG20-141**  
0,112 kg/m

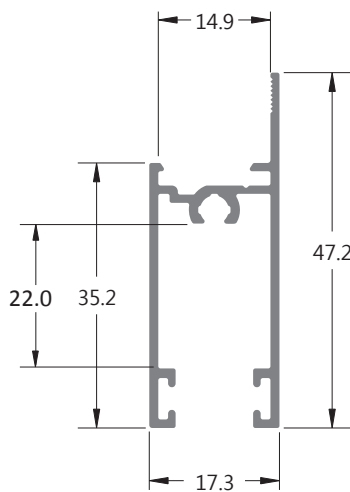


**MG20-142**  
0,125 kg/m

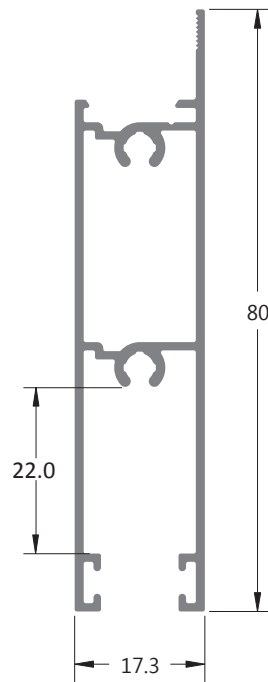
\* Alternativo



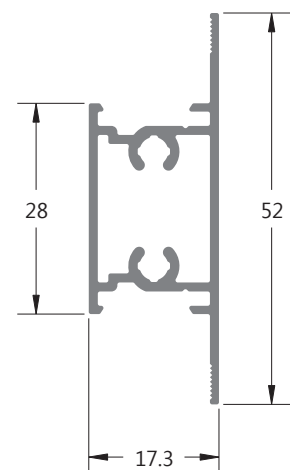
**MG20-155**  
0,113 kg/m



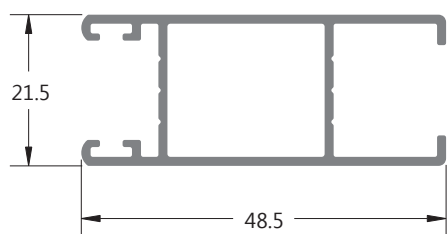
**MG20-130**  
0,402 kg/m



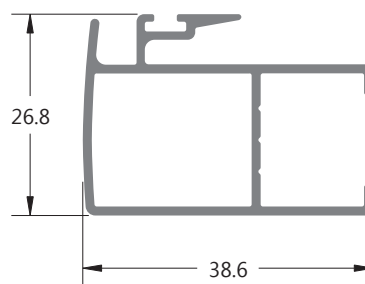
**MG20-131**  
0,702 kg/m



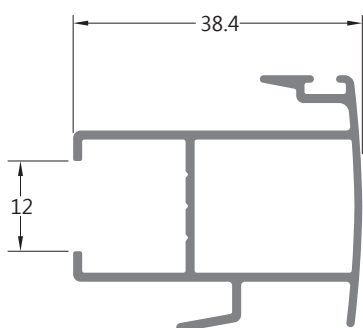
**MG20-132**  
0,454 kg/m



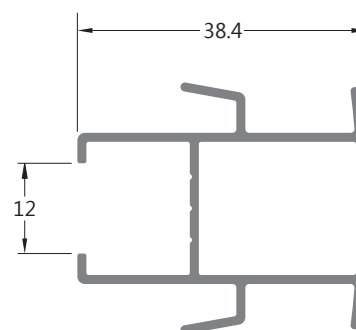
**MG20-133**  
0,483 kg/m



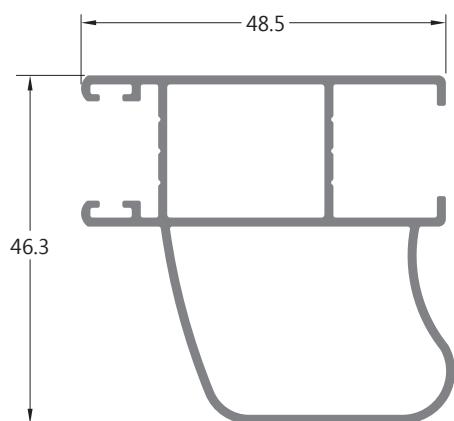
**MG20-134**  
0,473 kg/m



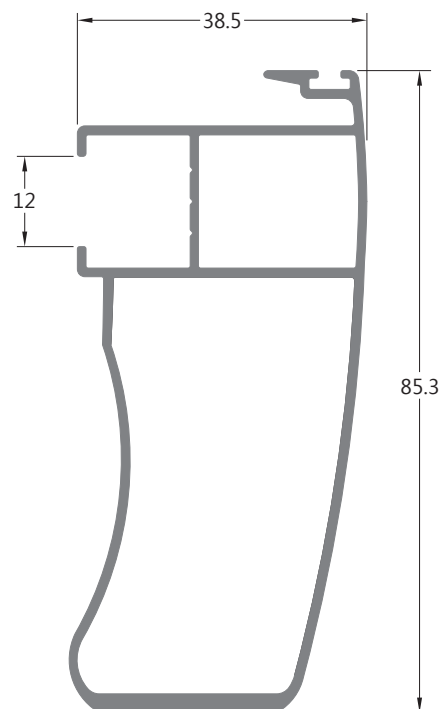
**MG20-149**  
0,506 kg/m



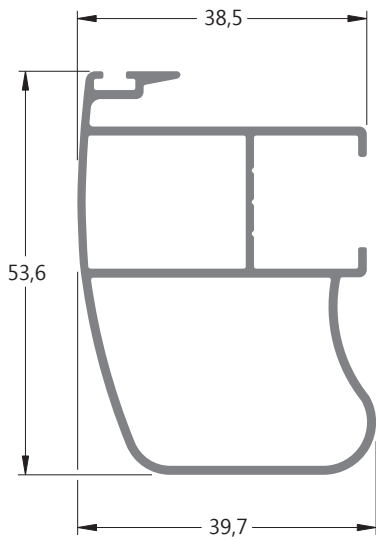
**MG20-147**  
0,490 kg/m



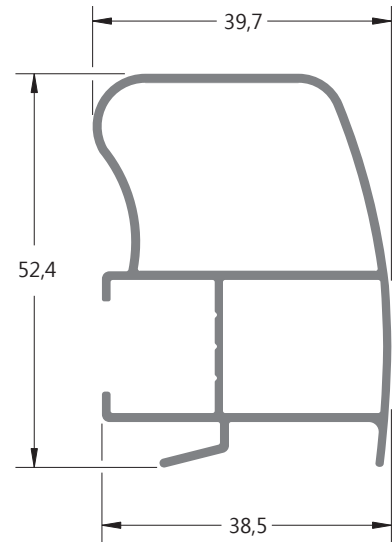
**MG20-145**  
0,748 kg/m



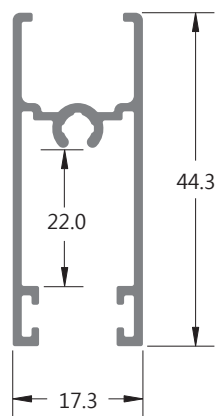
**MG20-151**  
0,991 kg/m



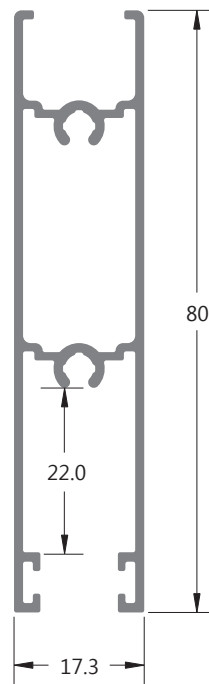
**MG20-135**  
0,705 kg/m



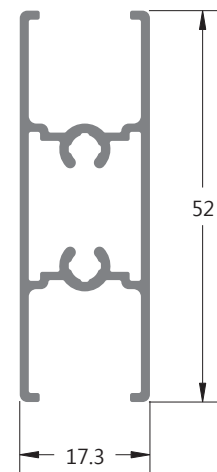
**MG20-136**  
0,688 kg/m



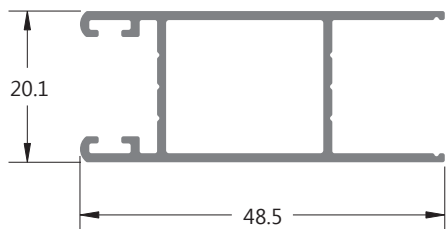
**MG20-137**  
0,427 kg/m



**MG20-138**  
0,747 kg/m

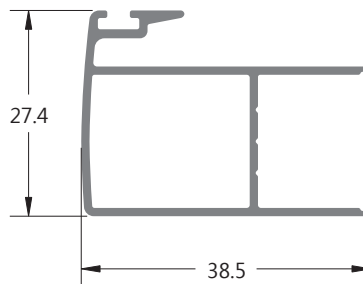


**MG20-139**  
0,527 kg/m



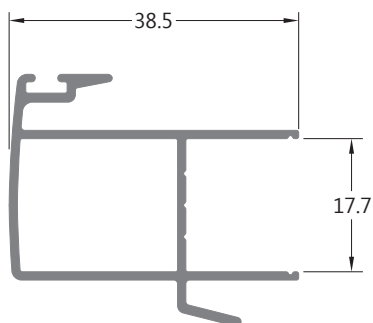
**MG20-128**

0,464 kg/m



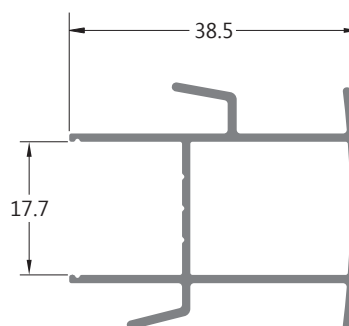
**MG20-129**

0,405 kg/m



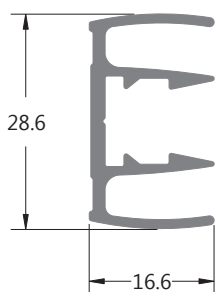
**MG20-148**

0,442 kg/m



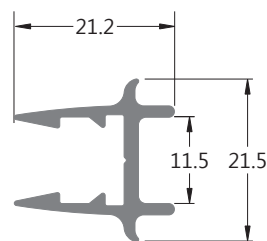
**MG20-146**

0,445 kg/m



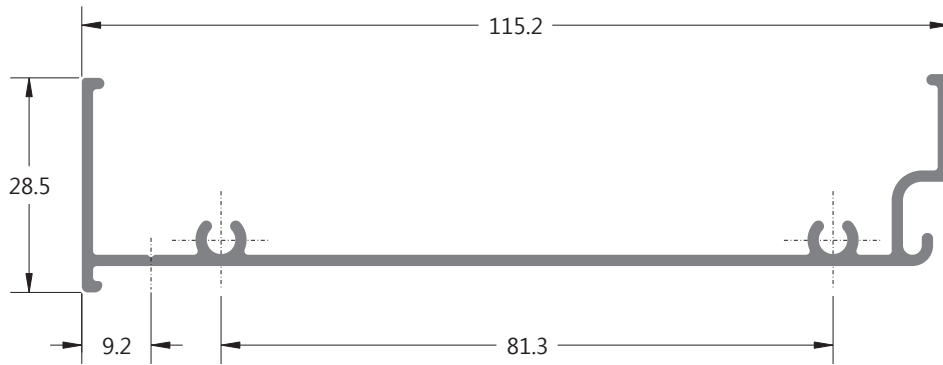
**MG20-153**

0,346 kg/m



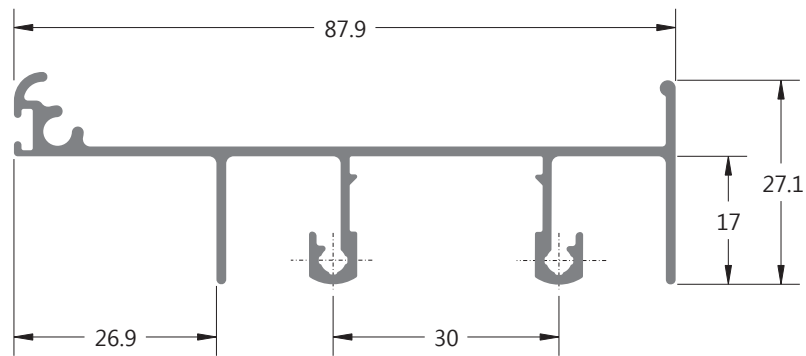
**MG20-152**

0,258 kg/m



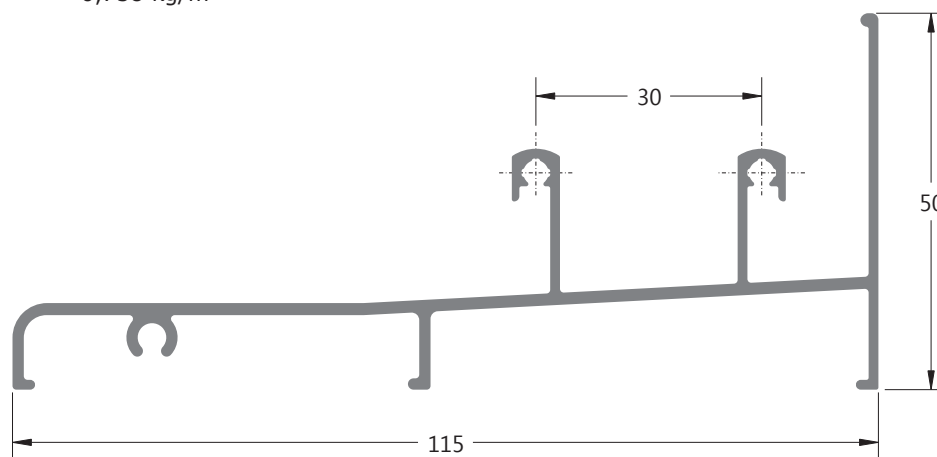
**MG20-117**

0,791 kg/m



**MG20-118**

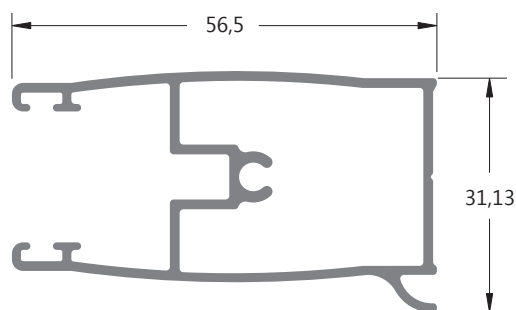
0,758 kg/m



**MG20-119**

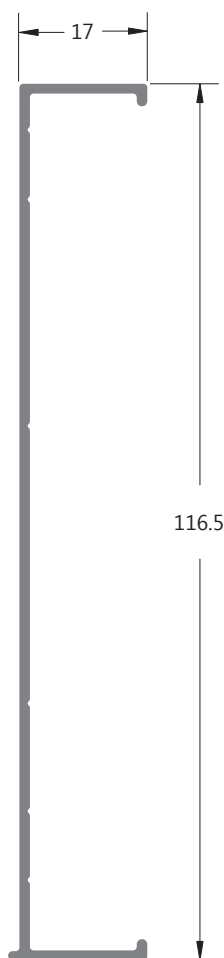
1,033 kg/m





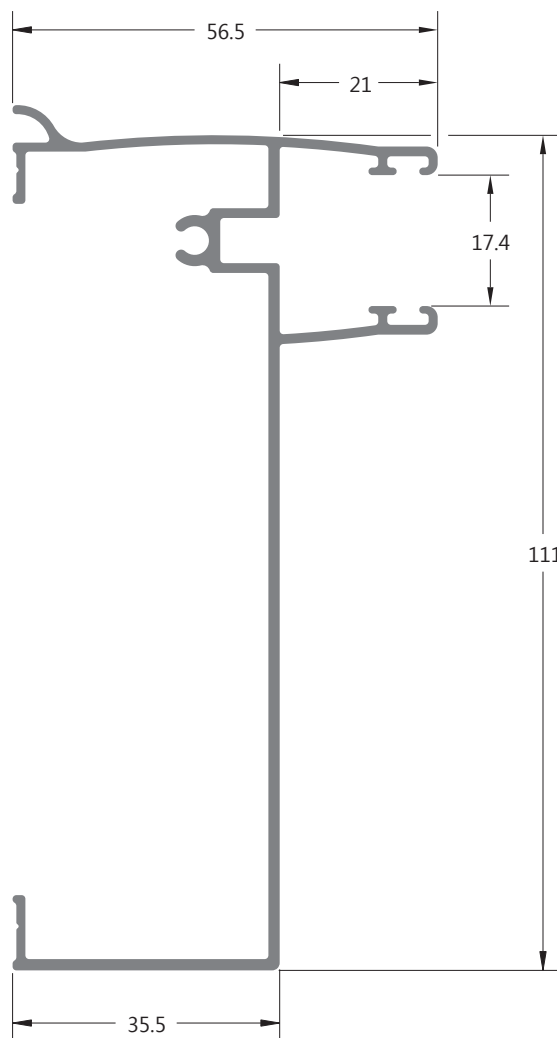
**MG25-514**

0,741 kg/m



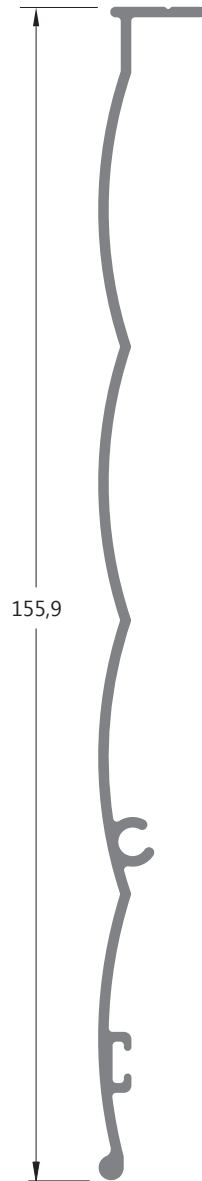
**MG20-120**

0,564 kg/m

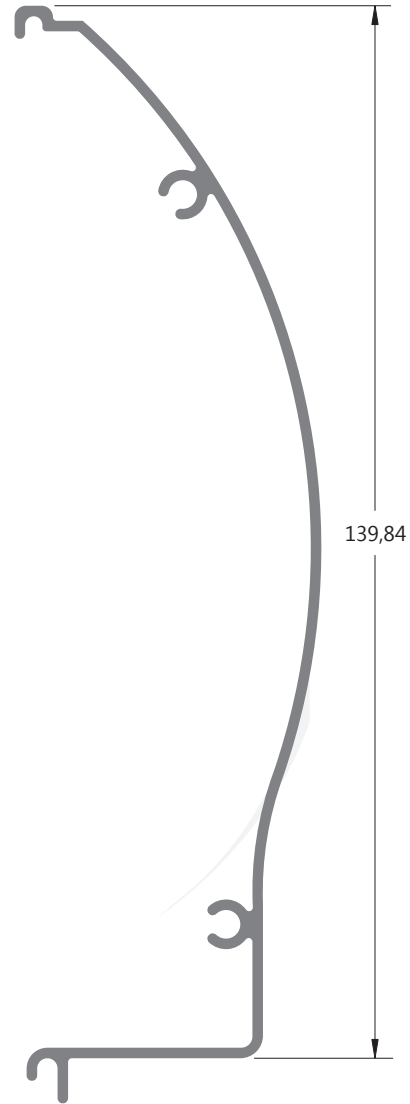


**MG20-121**

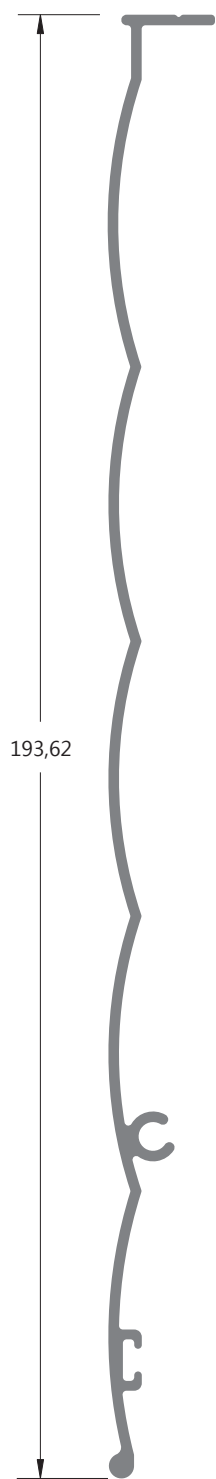
1,072 kg/m



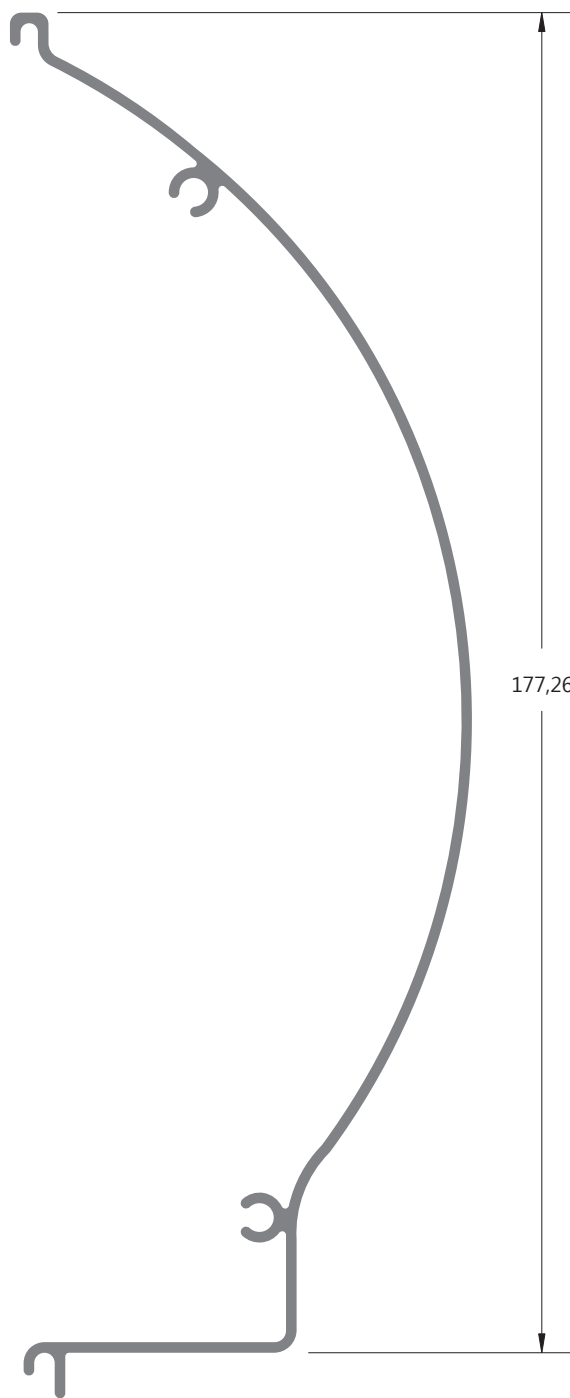
**MG25-516**  
0,724 kg/m



**MG25-515**  
0,857 kg/m

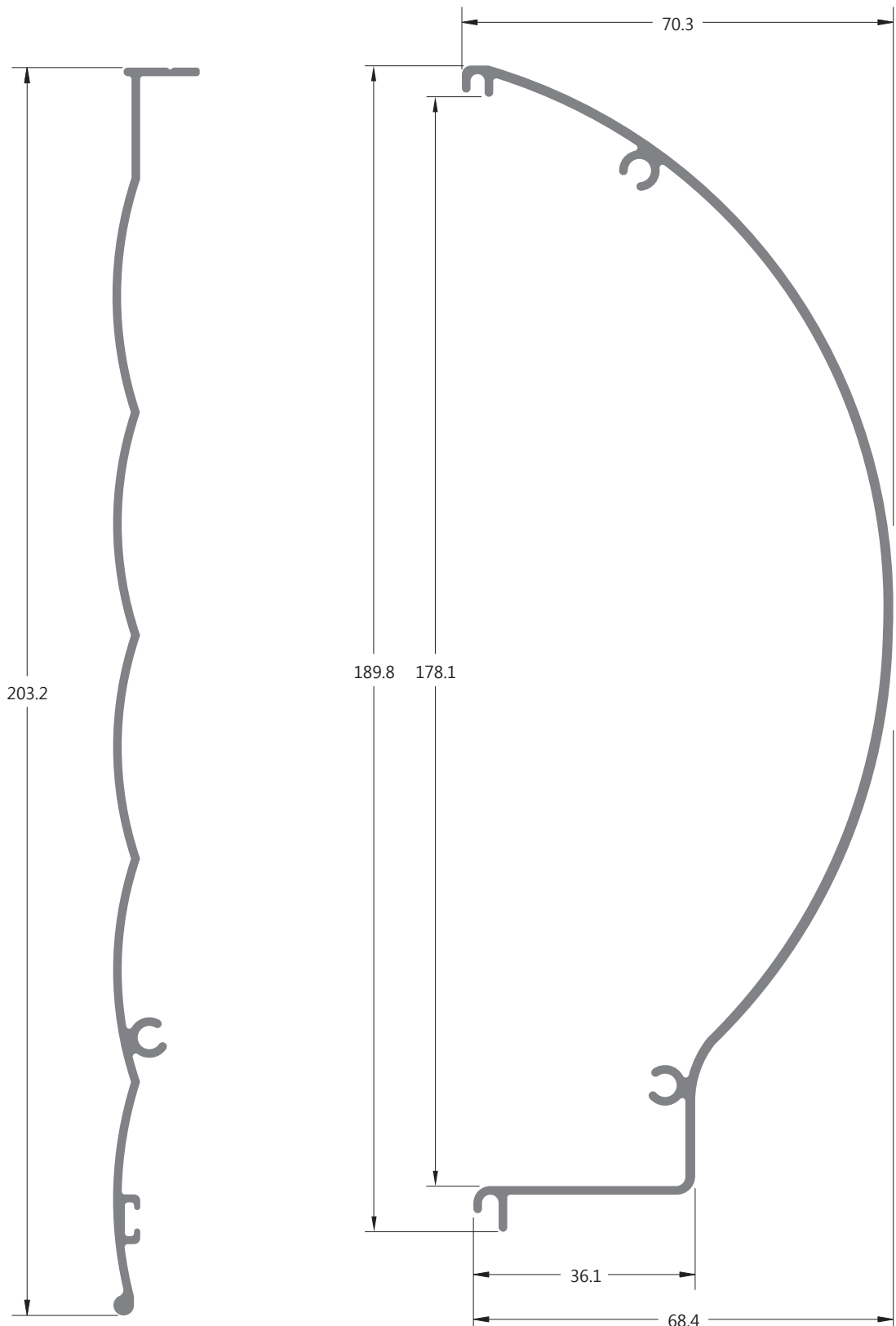


**MG25-518**  
0,885 kg/m



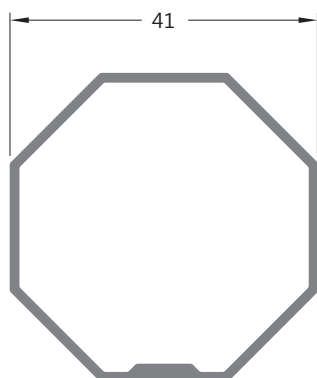
**MG25-517**  
1,052 kg/m

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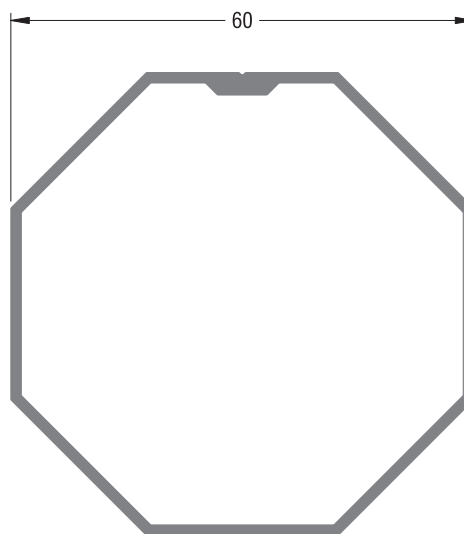


**MG32-109**  
0,922 kg/m

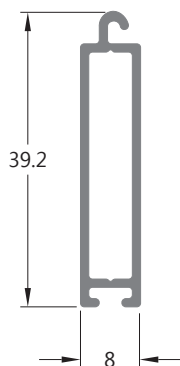
**MG32-110**  
1,274 kg/m



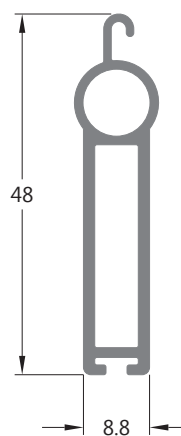
**MG32-063**  
0,489 kg/m



**MG32-032**  
0,792 kg/m

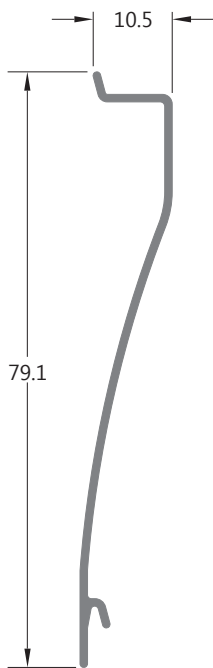


**MG32-062**  
0,270 kg/m

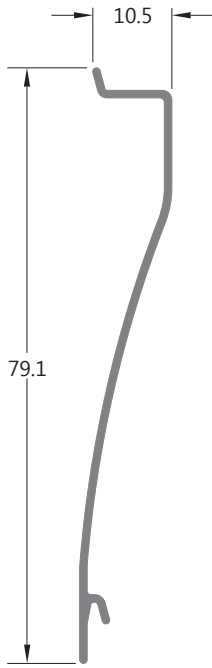


**MG32-046**  
0,430 kg/m

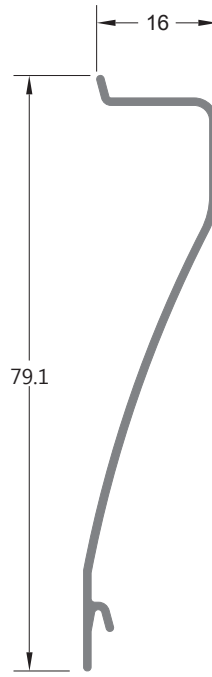
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**VA-012**  
0,255 kg/m



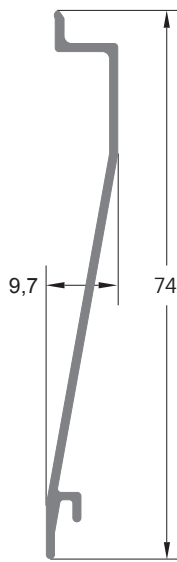
**VA-012F**  
0,255 kg/m



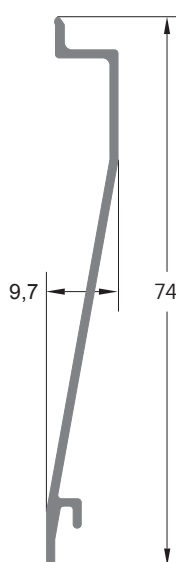
**VA-017**  
0,274 kg/m



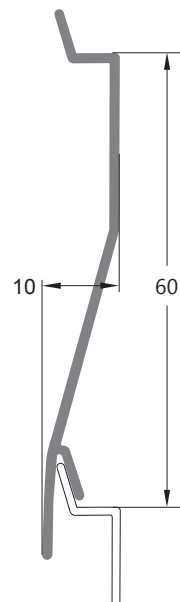
**VA-017F**  
0,274 kg/m



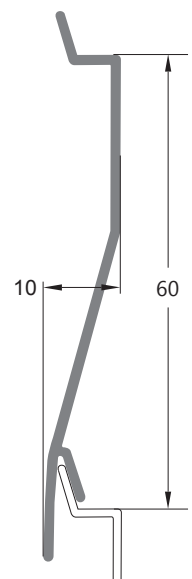
**VA-024**  
0,271 kg/m



**VA-024F**  
0,271 kg/m



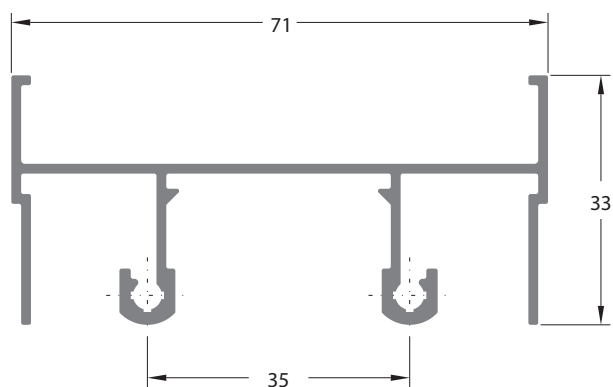
**VA-201**  
0,261 kg/m



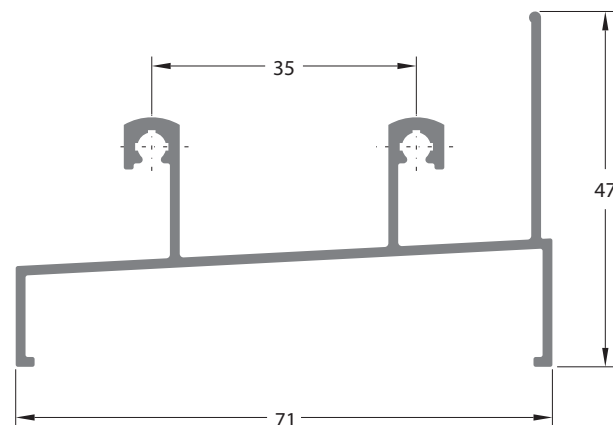
**VA-201F**  
0,261 kg/m



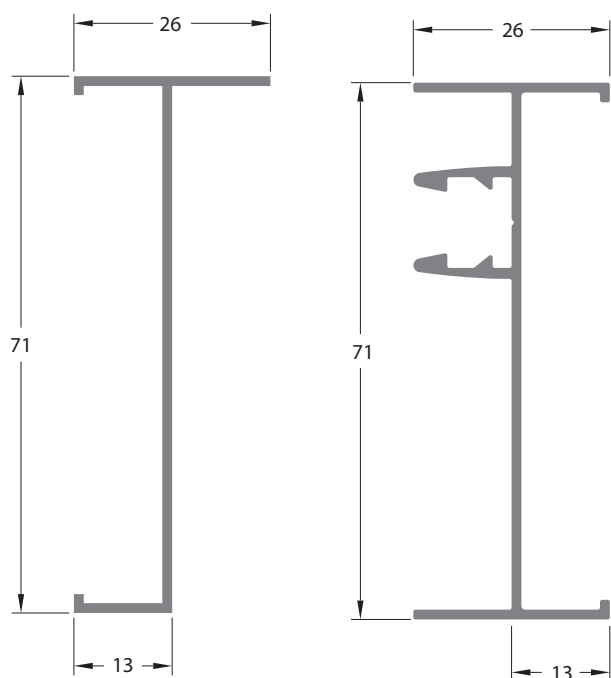
CATÁLOGO GERAL DE PERFIS



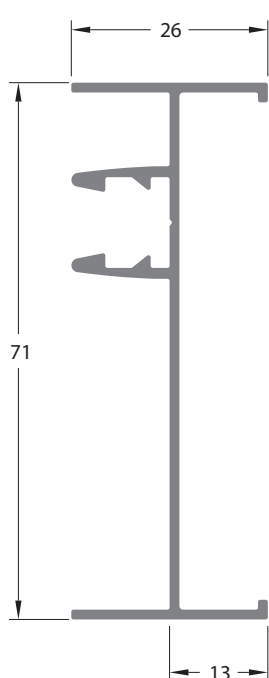
**MG25-001 (88-001)**  
0,773 kg/m



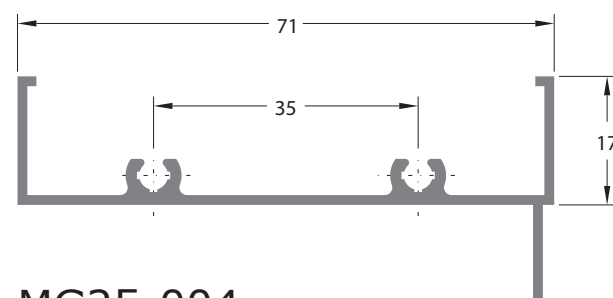
**MG25-002 (88-002)**  
0,711 kg/m



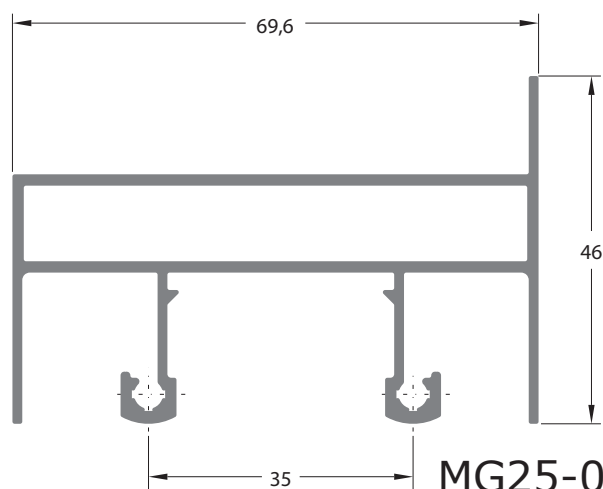
**MG25-007 (88-007)**  
0,386 kg/m



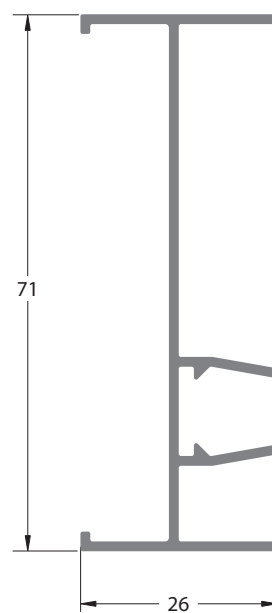
**MG25-791**  
0,561 kg/m



**MG25-004 (88-004)**  
0,526 kg/m

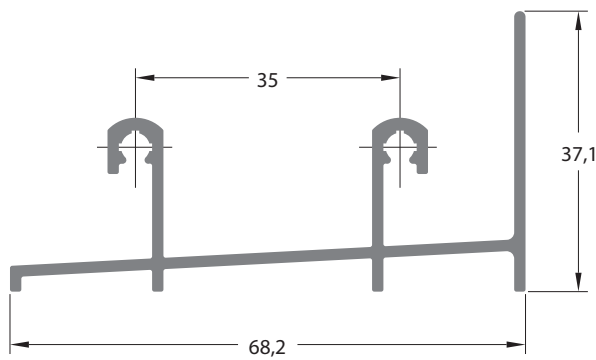


**MG25-005 (88-005)**  
1,106 kg/m

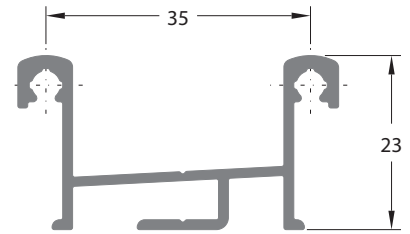


**MG25-003 (88-003)**  
0,537 kg/m

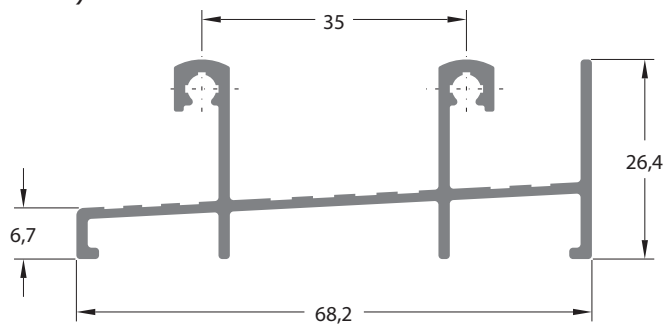
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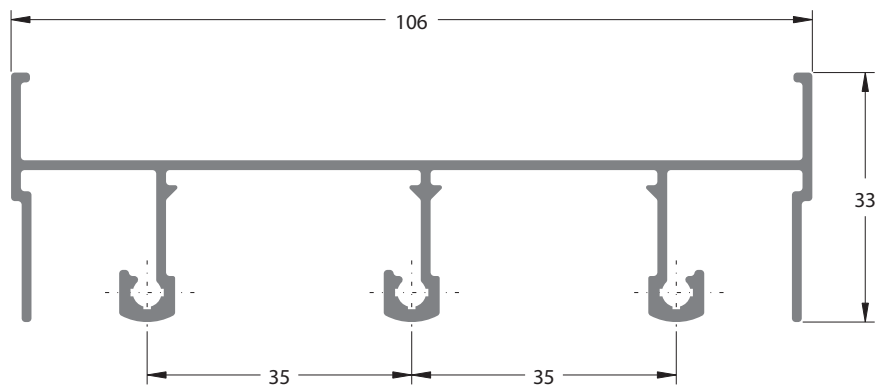
**MG25-228 (88-228)**  
0,791 kg/m



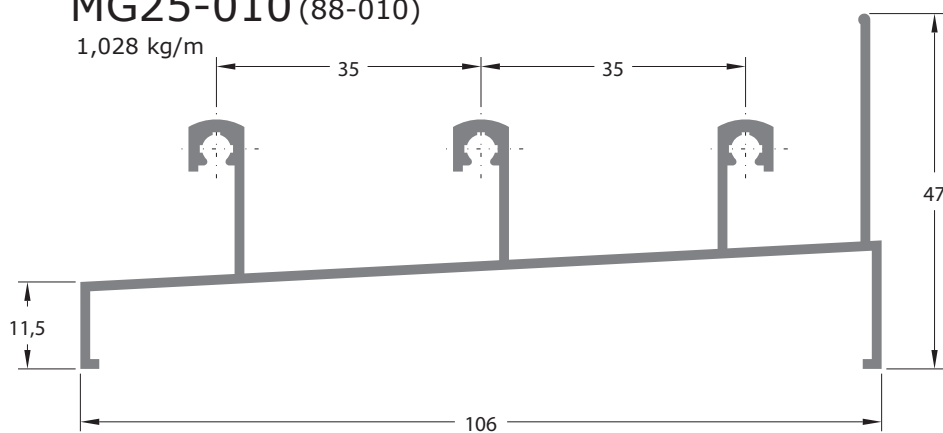
**MG25-272 (88-272)**  
0,430 kg/m



**MG25-578**  
0,707 kg/m

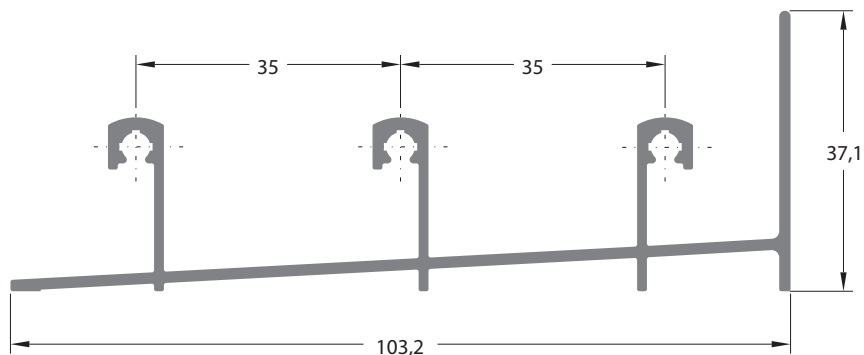


**MG25-010 (88-010)**  
1,028 kg/m



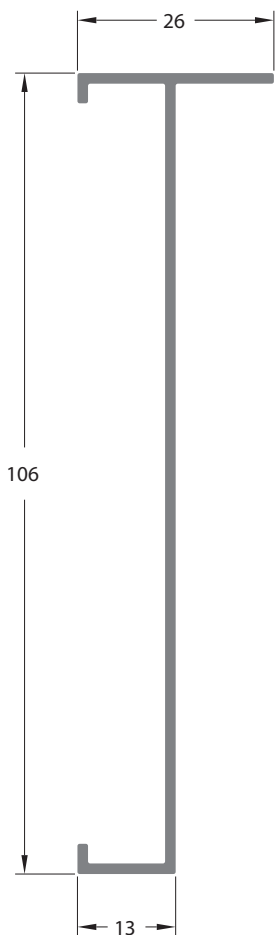
**MG25-011 (88-011)**  
0,960 kg/m

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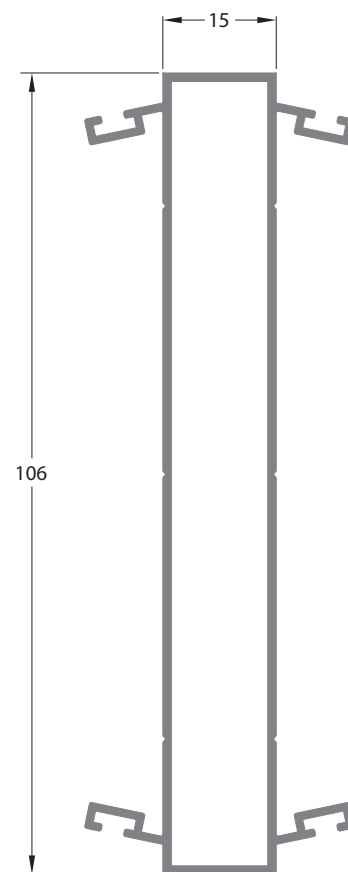
**MG25-230** (88-230)

0,976 kg/m



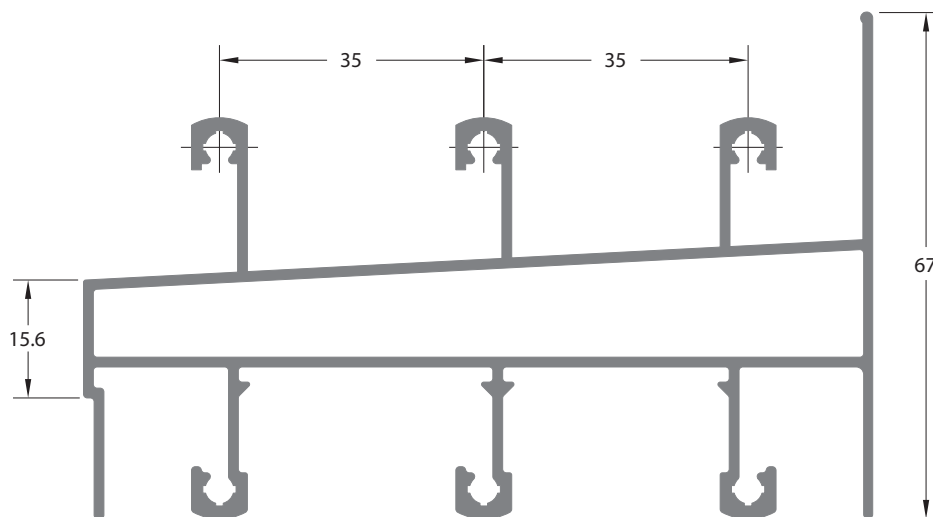
**MG25-012** (88-012)

0,559 kg/m

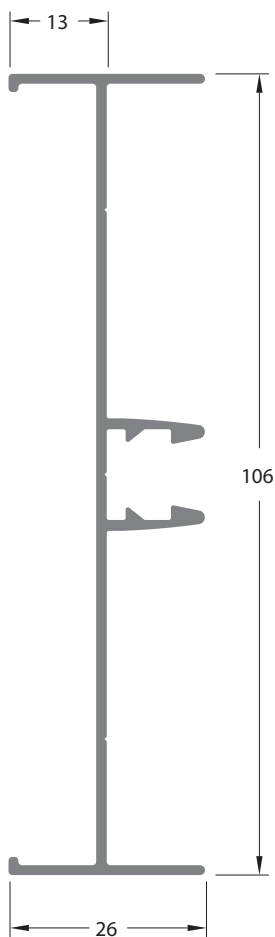


**MG25-519**

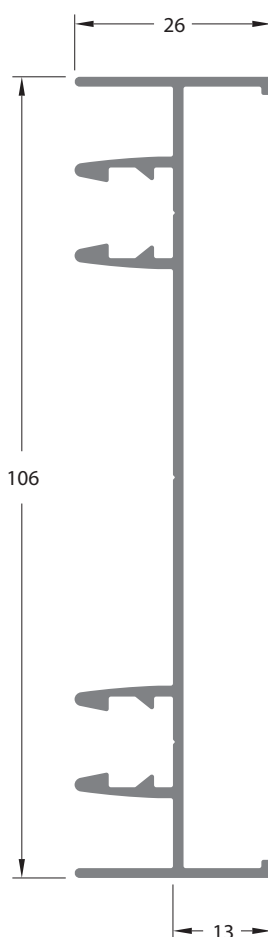
0,963 kg/m



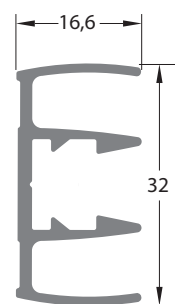
**MG25-520**  
1,856 kg/m



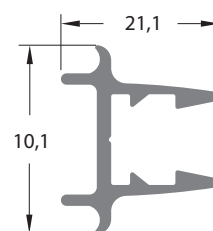
**MG25-792**  
0,710 kg/m



**MG25-793**  
0,840 kg/m

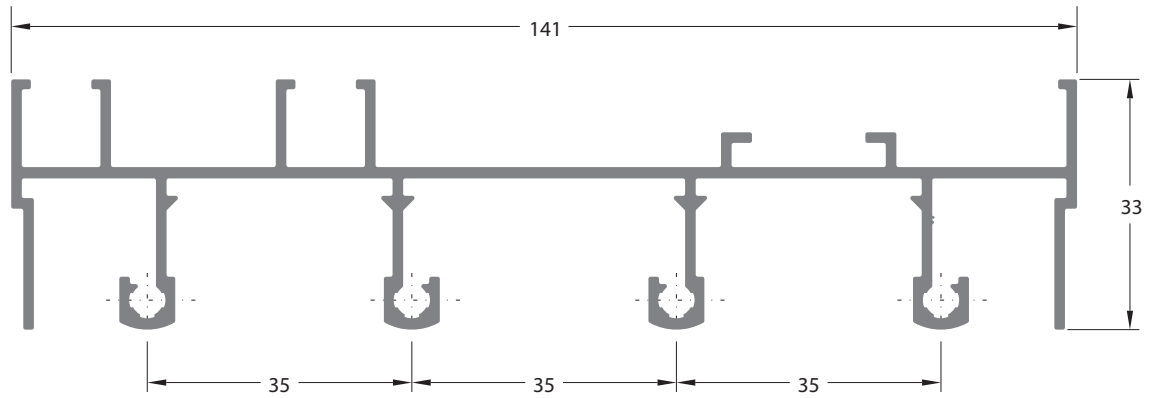


**MG25-507**  
0,383 kg/m



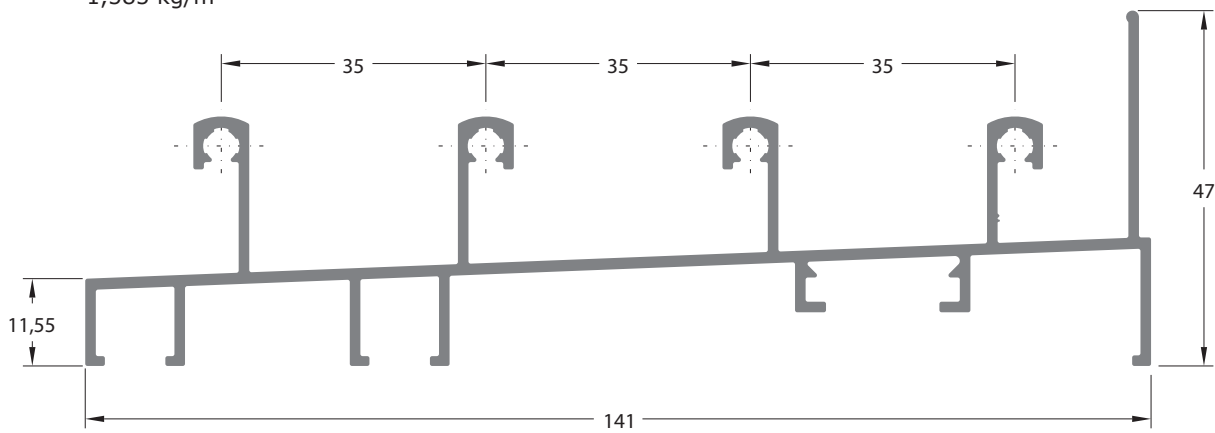
**MG25-506**  
0,303 kg/m

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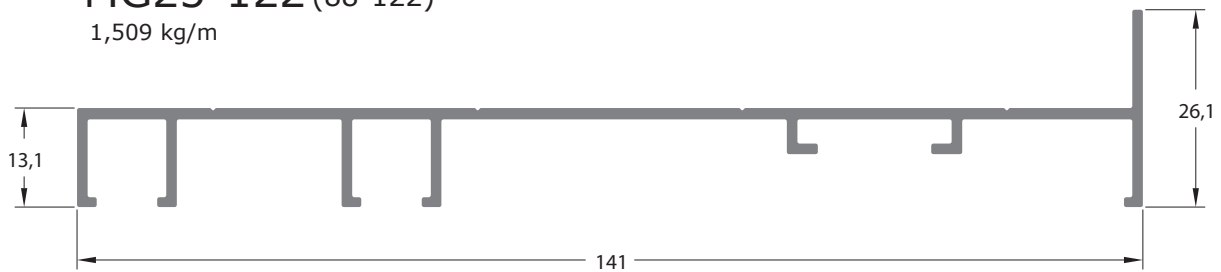
**MG25-121 (88-121)**

1,585 kg/m



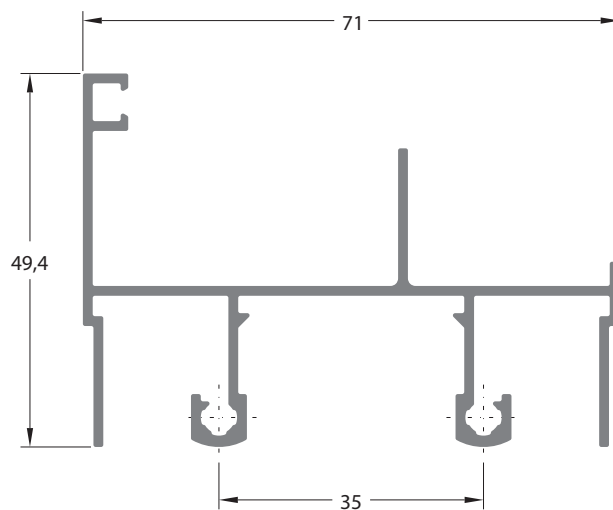
**MG25-122 (88-122)**

1,509 kg/m



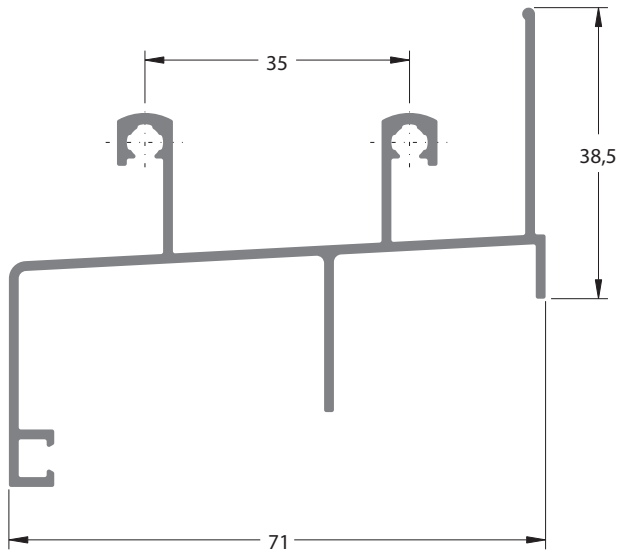
**MG25-123 (88-123)**

0,917 kg/m

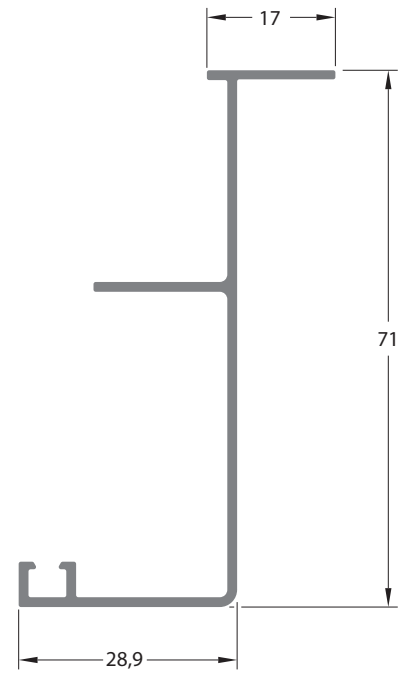


**MG25-026 (88-026)**

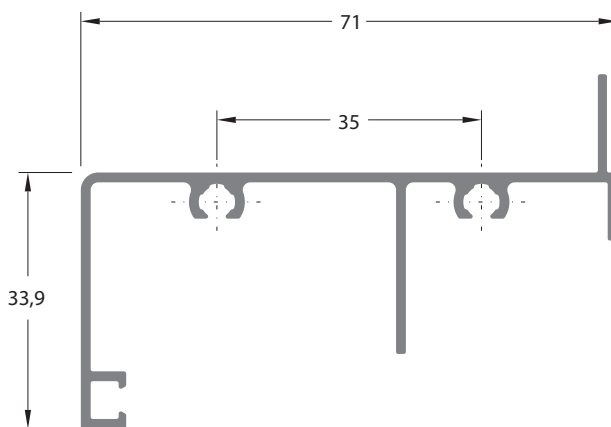
0,855 kg/m



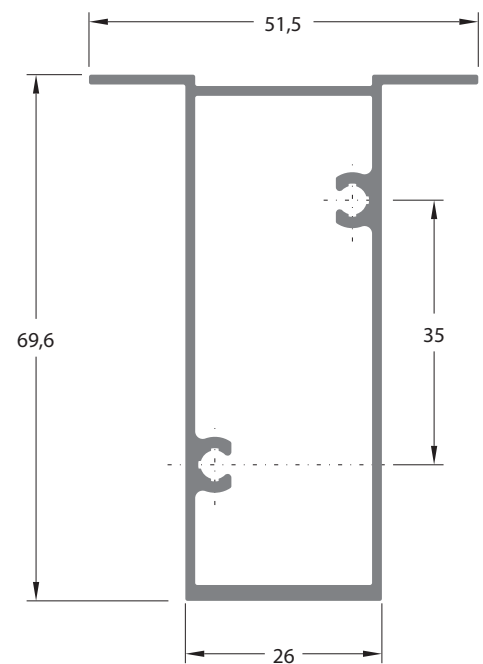
**MG25-027 (88-027)**  
0,803 kg/m



**MG25-028 (88-028)**  
0,487 kg/m



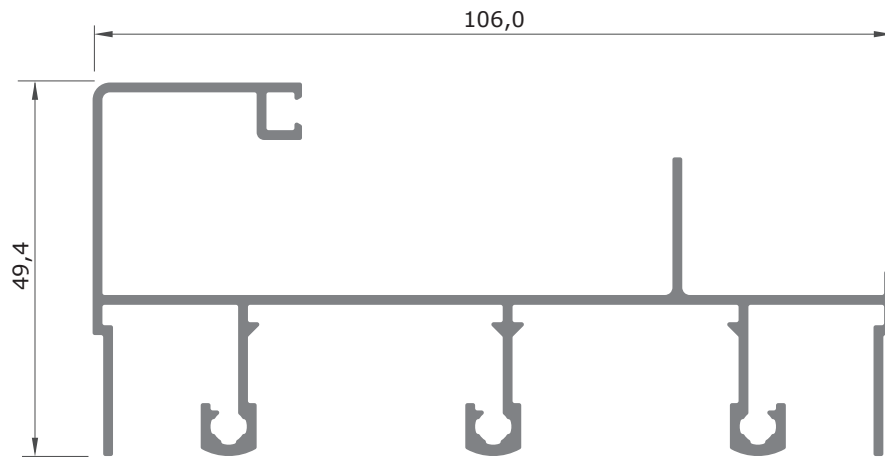
**MG25-029 (88-029)**  
0,630 kg/m



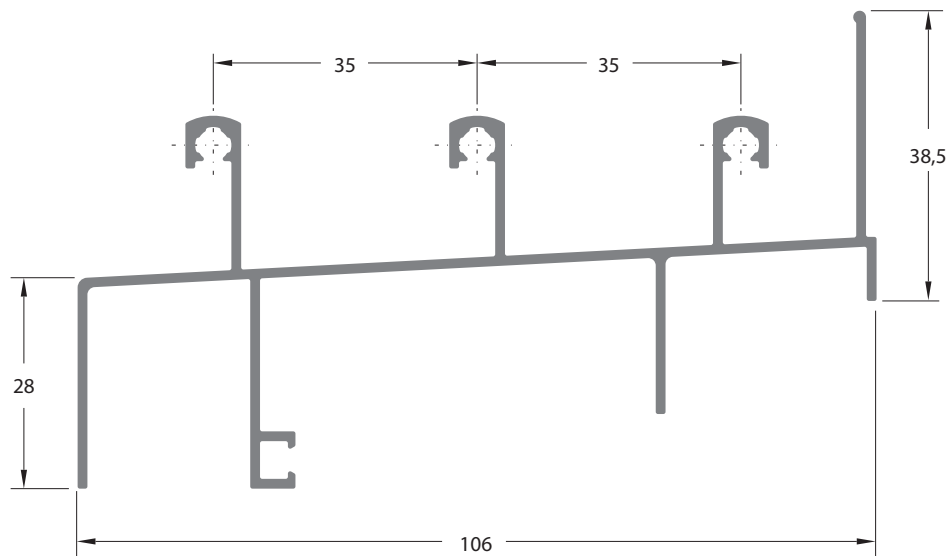
**MG25-009 (88-009)**  
0,907 kg/m



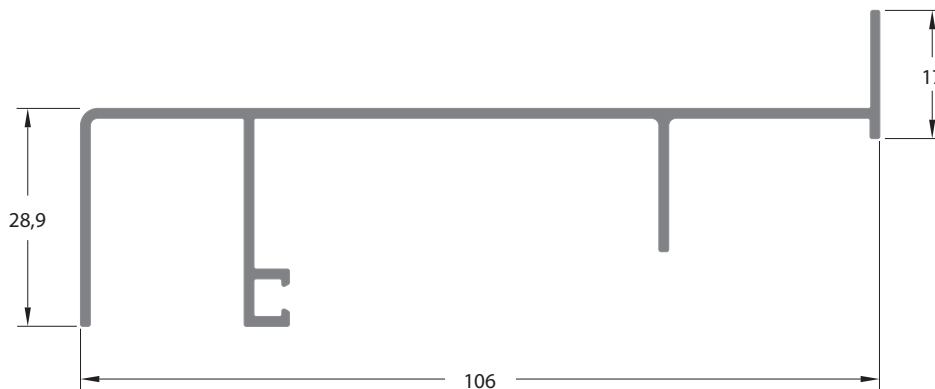
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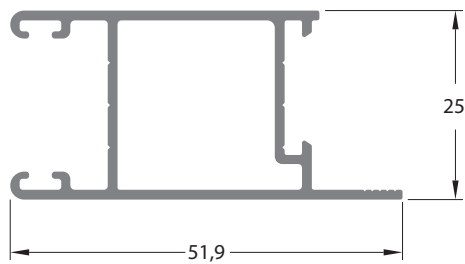
**MG25-031 (88-031)**  
1,200 Kg/m



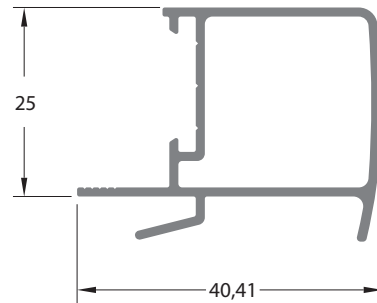
**MG25-032 (88-032)**  
1,137 kg/m



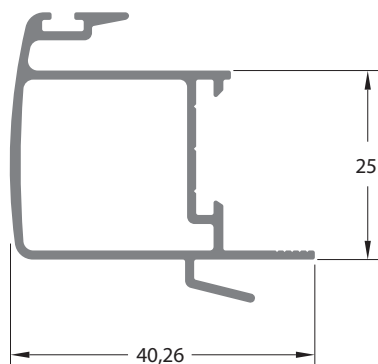
**MG25-033 (88-033)**  
0,703 kg/m



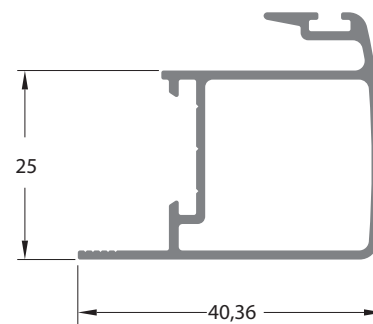
**MG25-500**  
0,542 kg/m



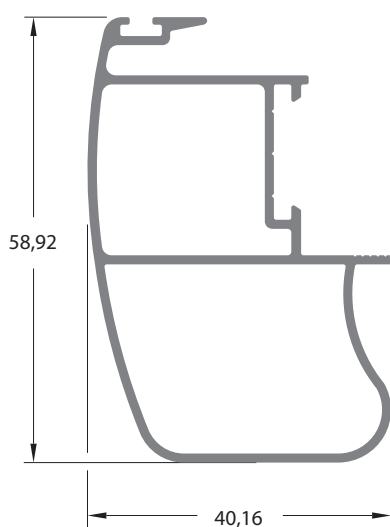
**MG25-501**  
0,458 kg/m



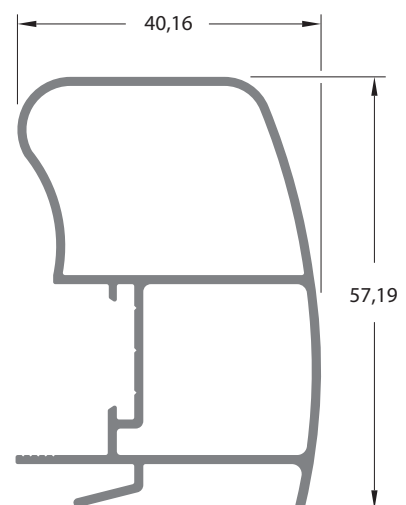
**MG25-503**  
0,523 kg/m



**MG25-502**  
0,490 kg/m

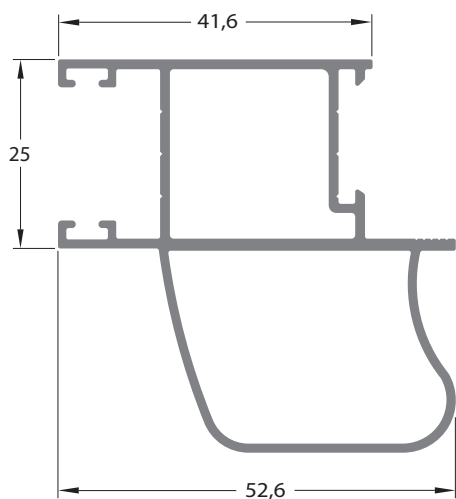


**MG25-505**  
0,745 kg/m

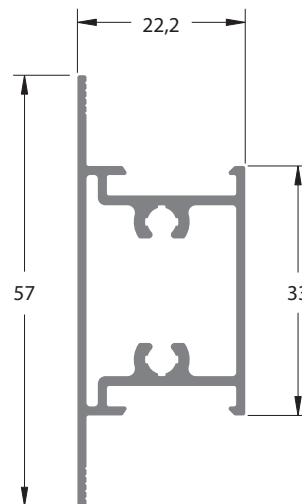


**MG25-504**  
0,757 kg/m

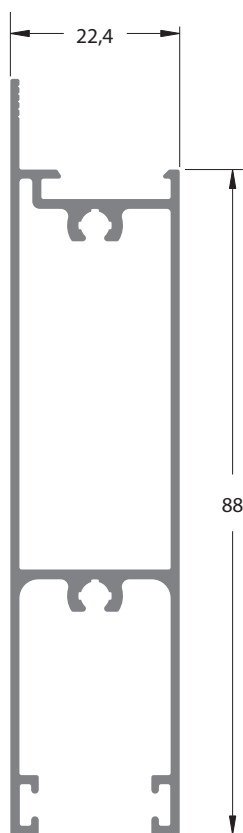
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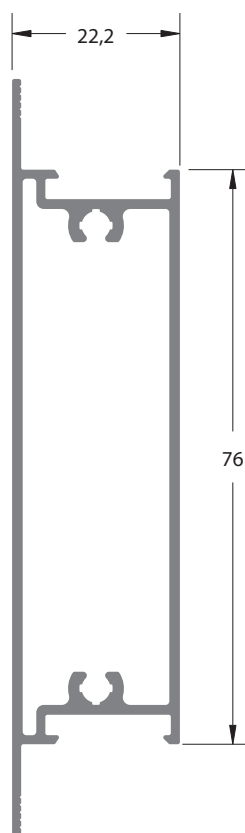
**MG25-796**  
0,847 kg/m



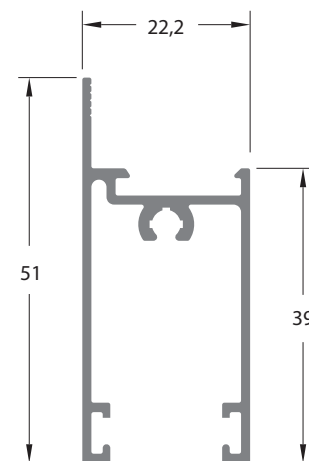
**MG25-227 (88-227)**  
0,574 kg/m



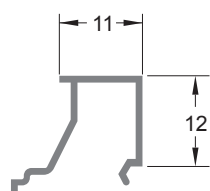
**MG25-225 (88-225)**  
0,926 kg/m



**MG25-050 (88-050)**  
0,926 kg/m

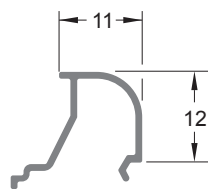


**MG25-053 (88-053)**  
0,542 kg/m



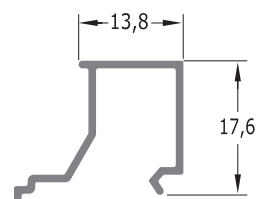
**MG25-1230**

0,110 kg/m



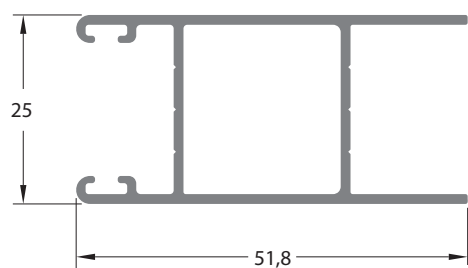
**AF-018**

0,104 kg/m



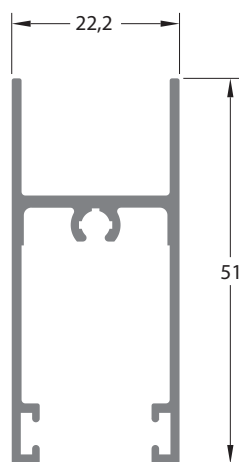
**MG25-103 (88-103)**

0,156 kg/m



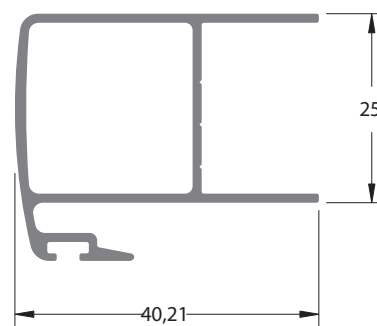
**MG25-784**

0,555 kg/m



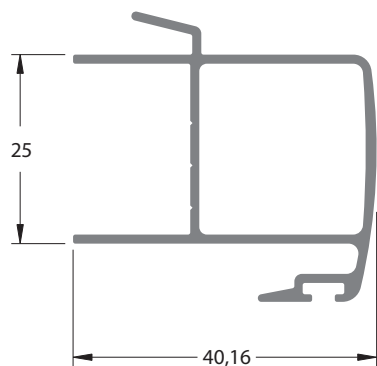
**MG25-187 (88-187)**

0,534 kg/m



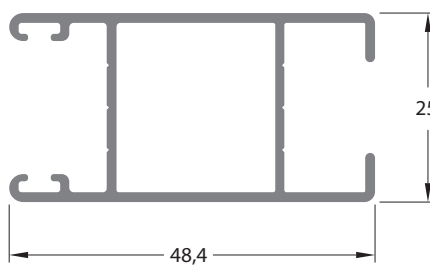
**MG25-785**

0,500 kg/m



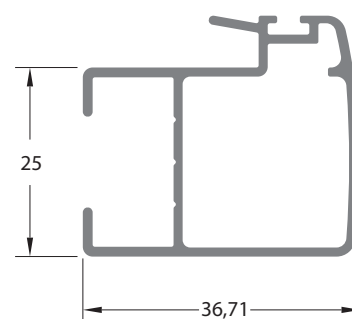
**MG25-786**

0,535 kg/m



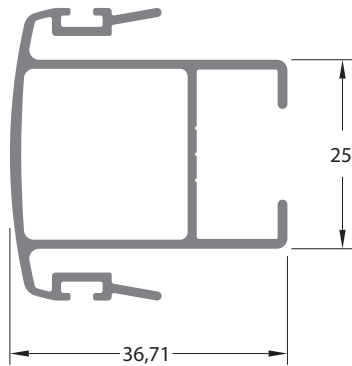
**MG25-783**

0,565 kg/m

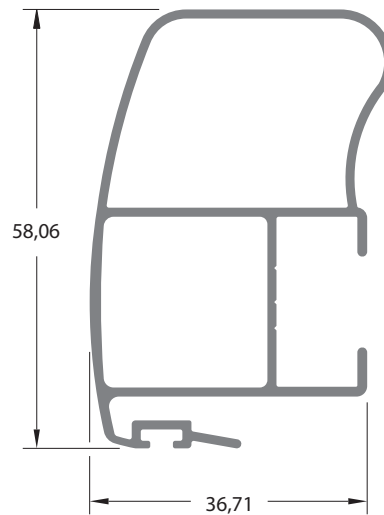


**MG25-787**

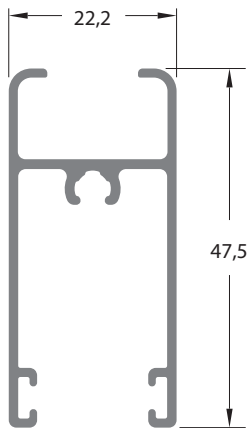
0,513 kg/m



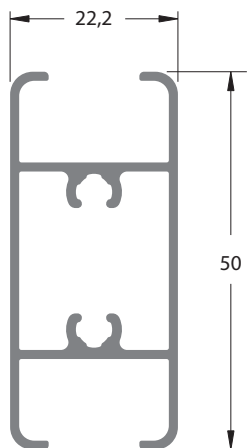
**MG25-788**  
0,599 kg/m



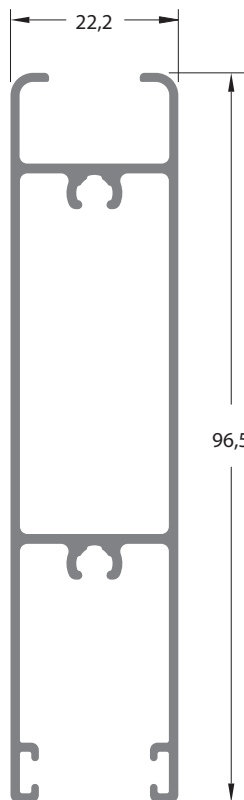
**MG25-789**  
0,774 kg/m



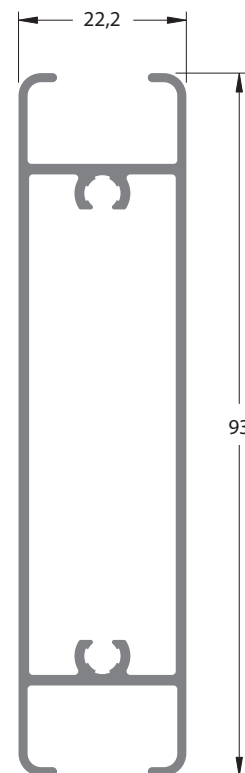
**MG25-186**  
0,496 kg/m



**MG25-188 (88-188)**  
0,586 kg/m

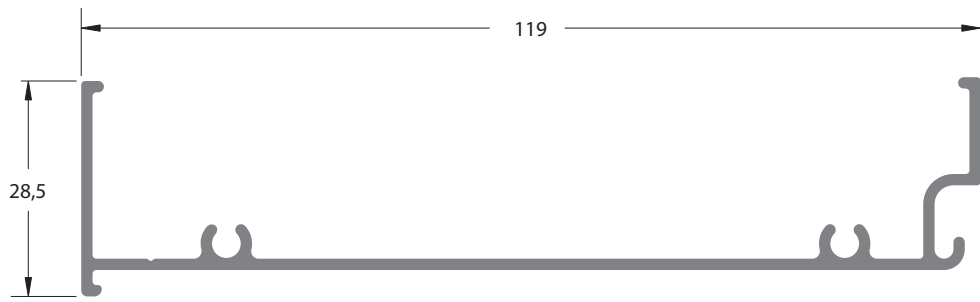


**MG25-266**  
0,945 kg/m



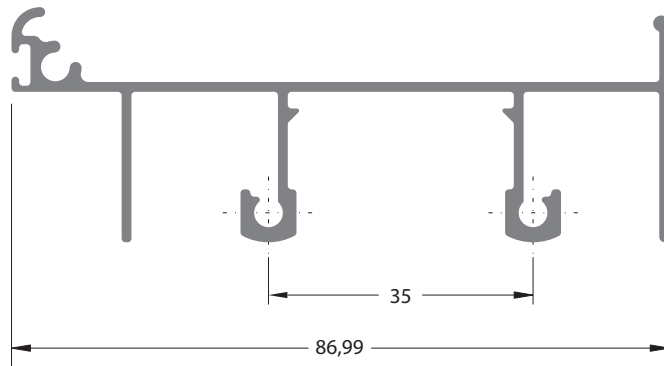
**MG25-790 (88-790)**  
0,871 kg/m

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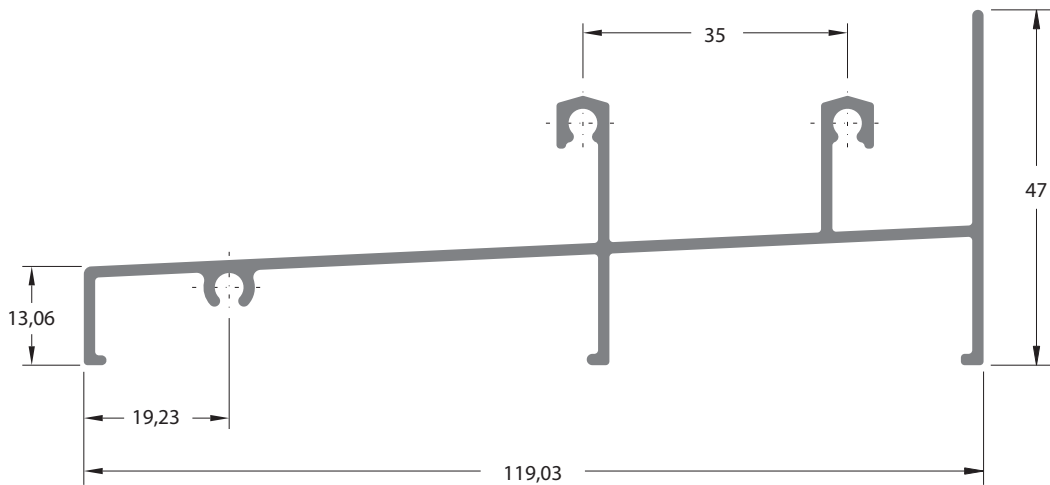
**MG25-508**

0,810 kg/m



**MG25-509**

0,843 kg/m

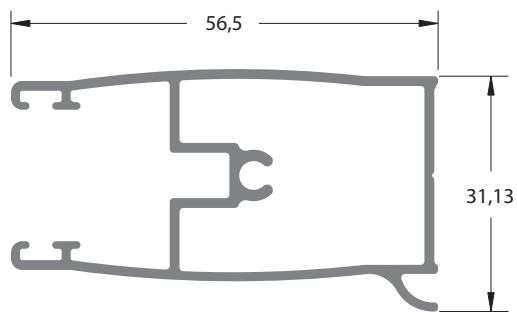


**MG25-510**

1,085 kg/m

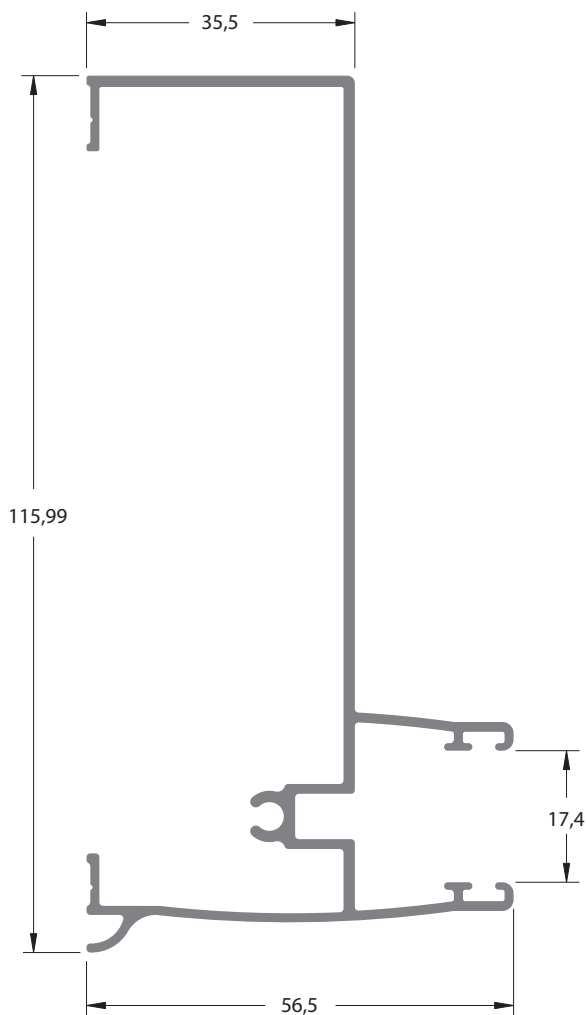


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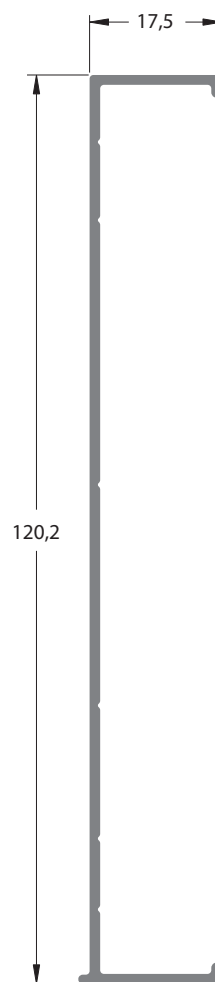
**MG25-514**

0,741 kg/m



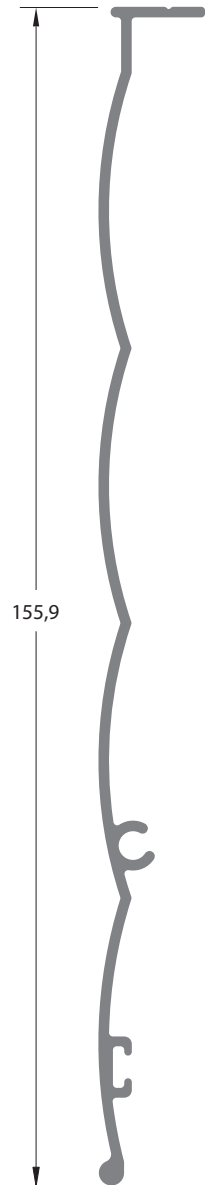
**MG25-513**

1,075 kg/m

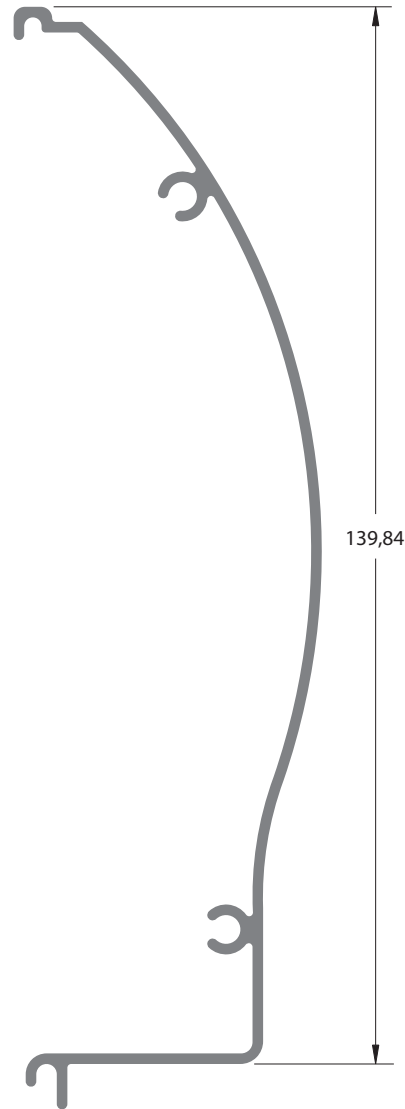


**MG25-511**

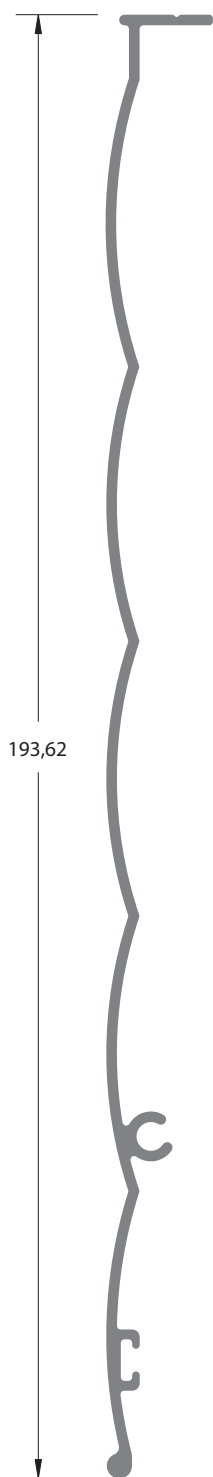
0,578 kg/m



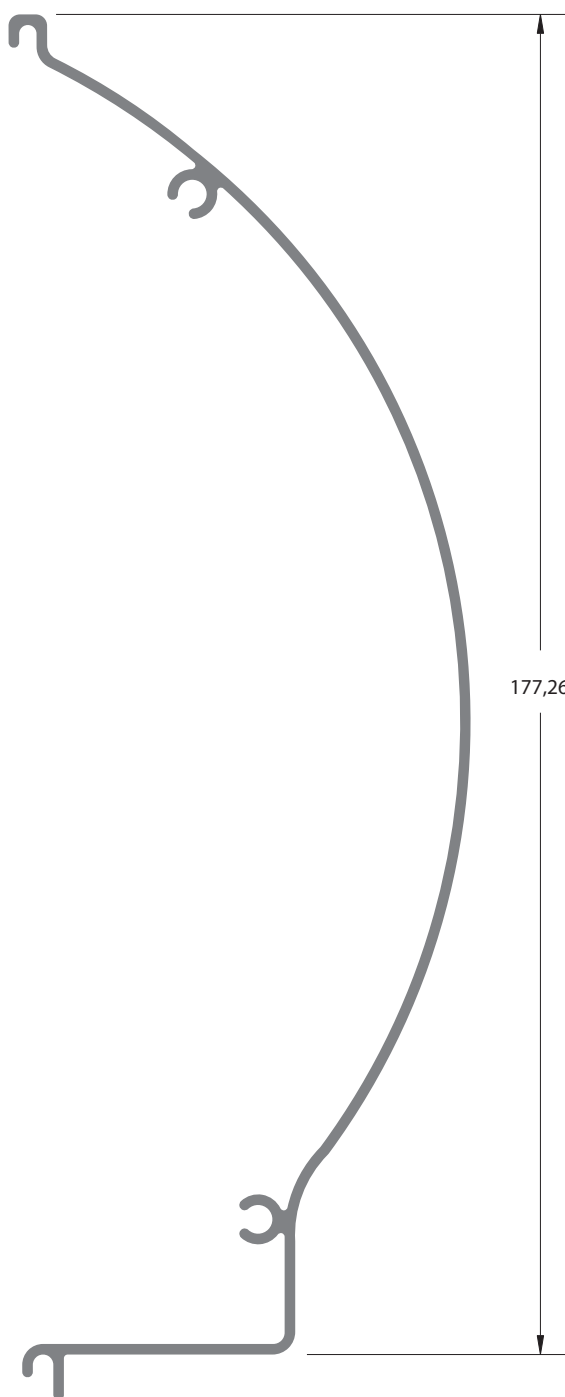
**MG25-516**  
0,724 kg/m



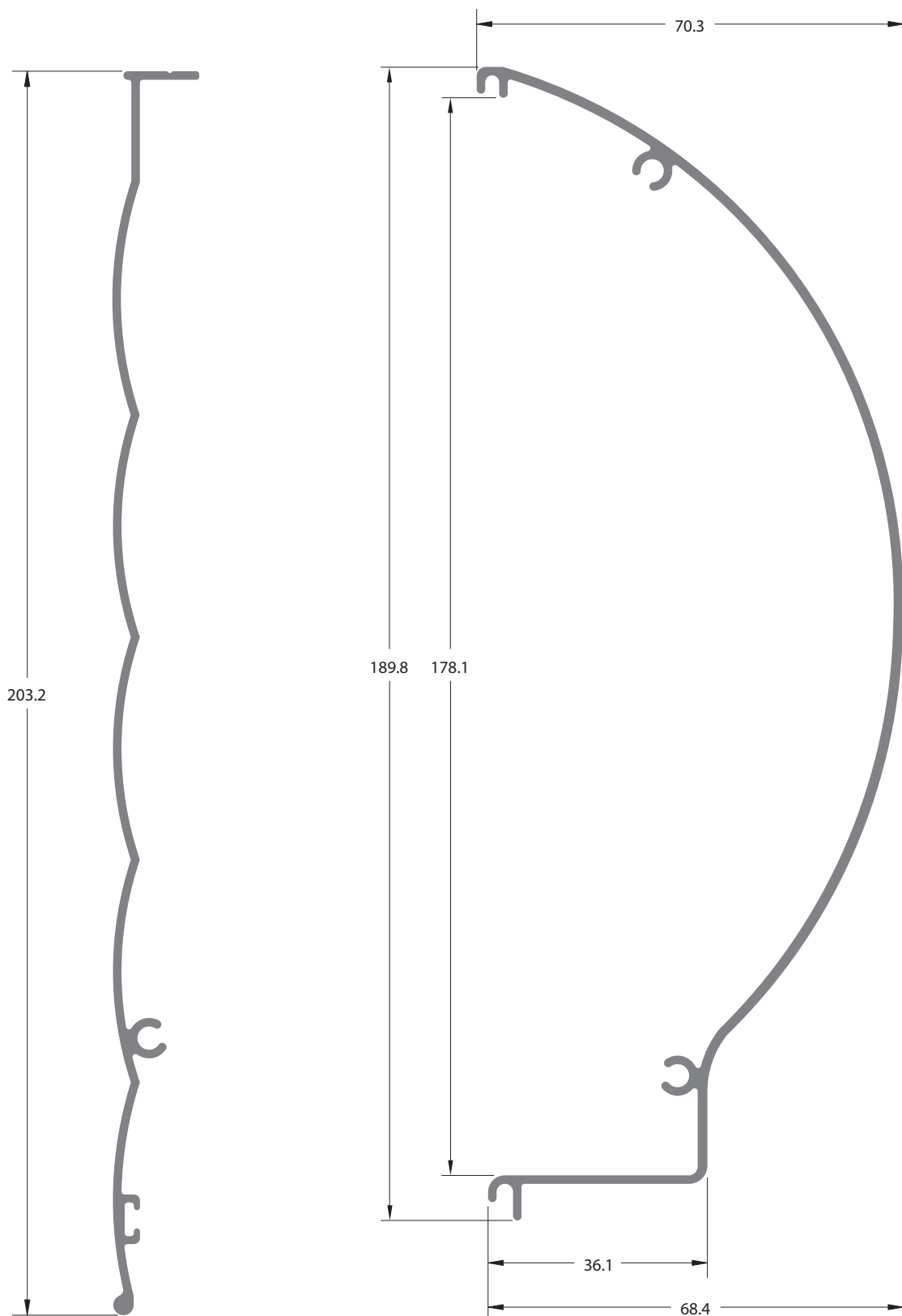
**MG25-515**  
0,857 kg/m



**MG25-518**  
0,885 kg/m

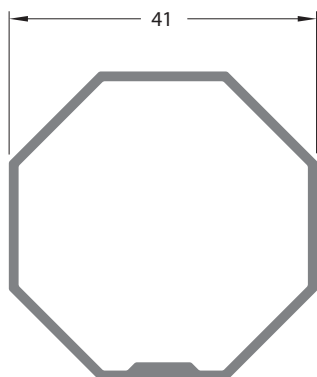


**MG25-517**  
1,052 kg/m



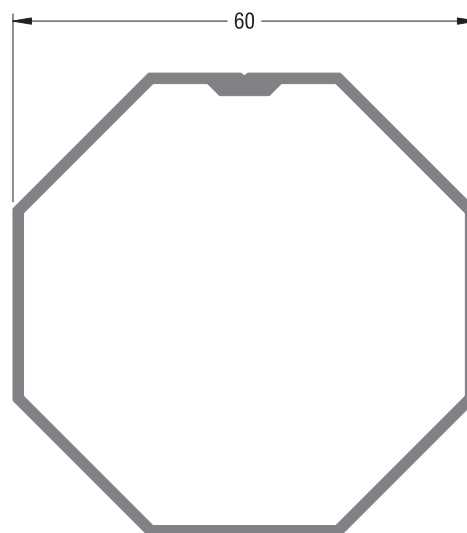
**MG32-109**  
0,922 kg/m

**MG32-110**  
1,274 kg/m



**MG32-063**

0,489 kg/m



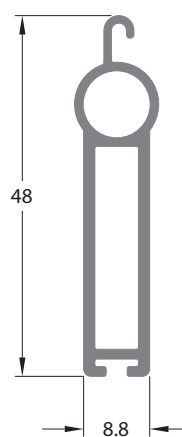
**MG32-032**

0,792 kg/m



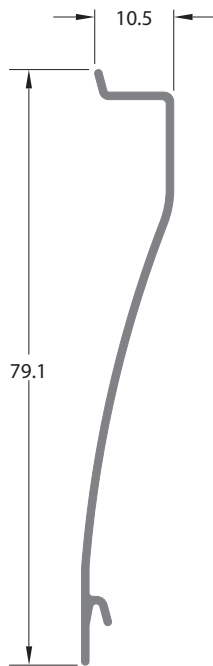
**MG32-062**

0,270 kg/m

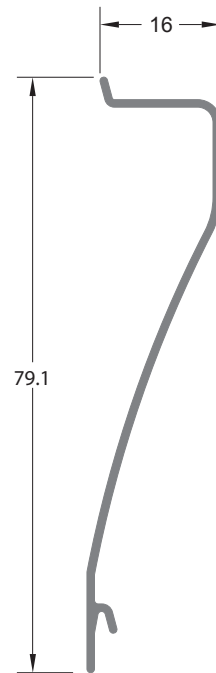


**MG32-046**

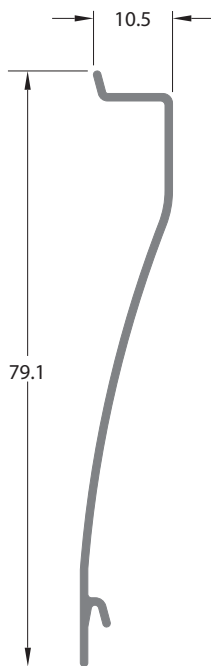
0,430 kg/m



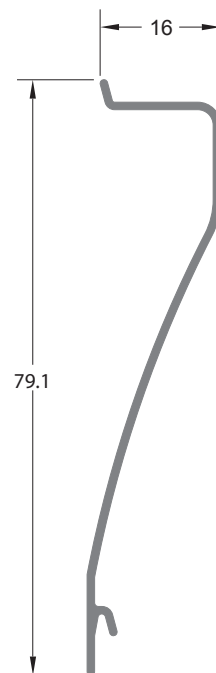
**VA-012**  
0,255 kg/m



**VA-017**  
0,274 kg/m



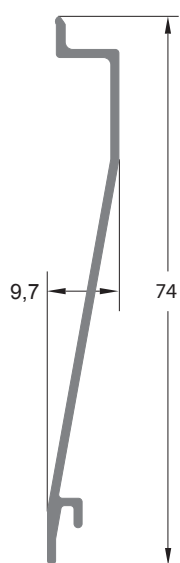
**VA-012F**  
0,255 kg/m



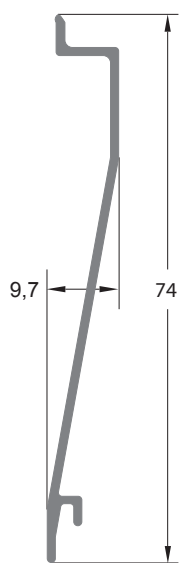
**VA-017F**  
0,274 kg/m



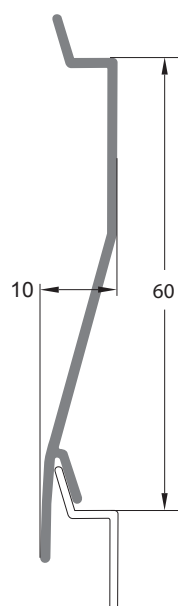
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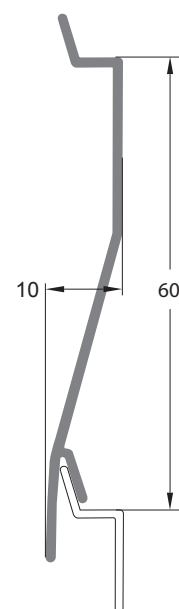
**VA-024**  
0,271 kg/m



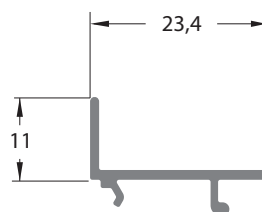
**VA-024F**  
0,271 kg/m



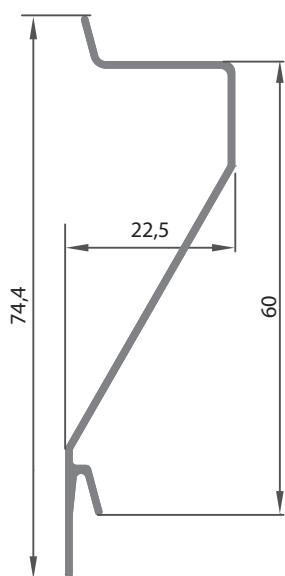
**VA-201**  
0,261 kg/m



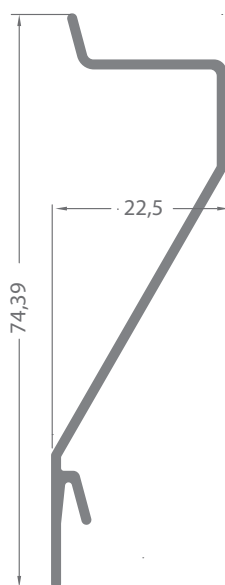
**VA-201F**  
0,261 kg/m



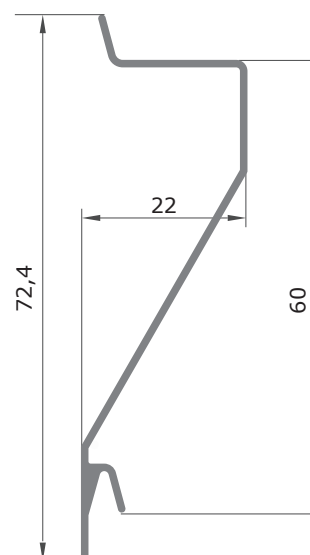
**MG25-108 (88-108)**  
0,142 kg/m



**19-920C**  
0,291 Kg/m

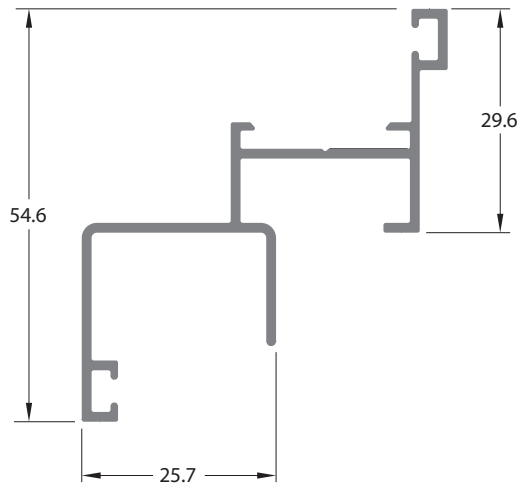


**VA-203**  
0,329 kg/m

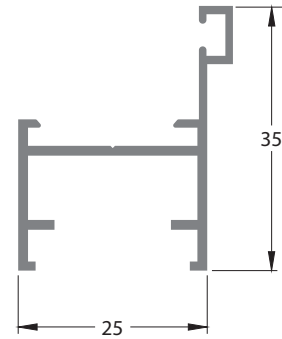


**VA-203A**  
0,292 Kg/m

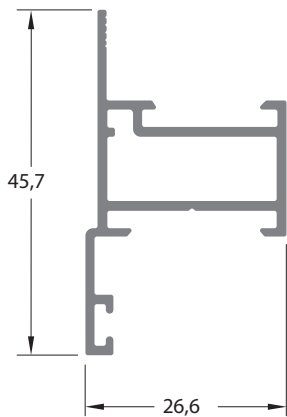
CATÁLOGO GERAL DE PERFIS



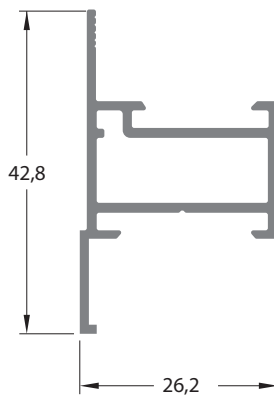
**MG25-030** (88-030)  
0,541 kg/m



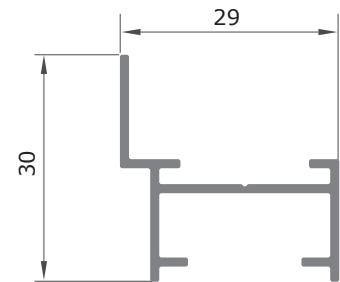
**MG25-079** (88-079)  
0,333 kg/m



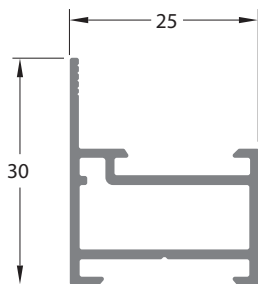
**MG25-200** (88-200)  
0,440 kg/m



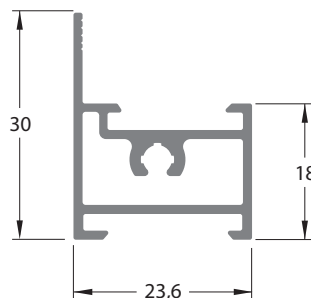
**MG25-081** (88-081)  
0,420 kg/m



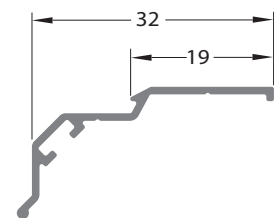
**Y-782**  
0,278 Kg/m



**MG25-080** (88-080)  
0,362 kg/m

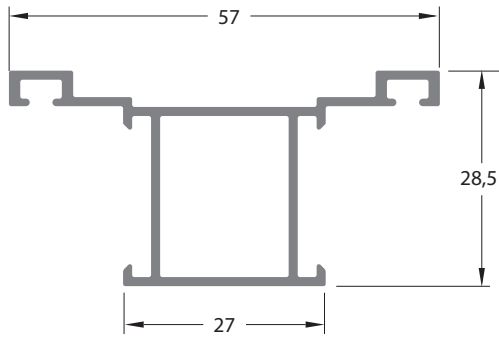


**MG25-082** (88-082)  
0,389 kg/m

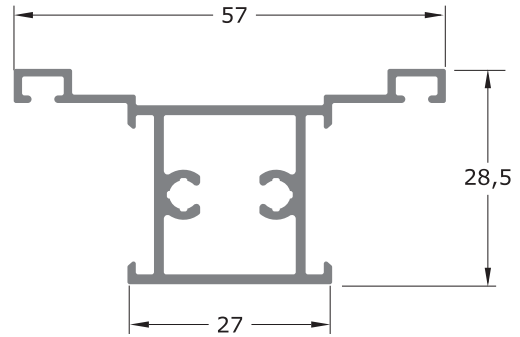


**MG25-083** (88-083)  
0,144 kg/m

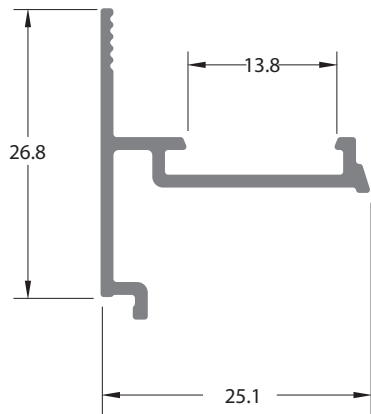
CATÁLOGO GERAL DE PERFIS



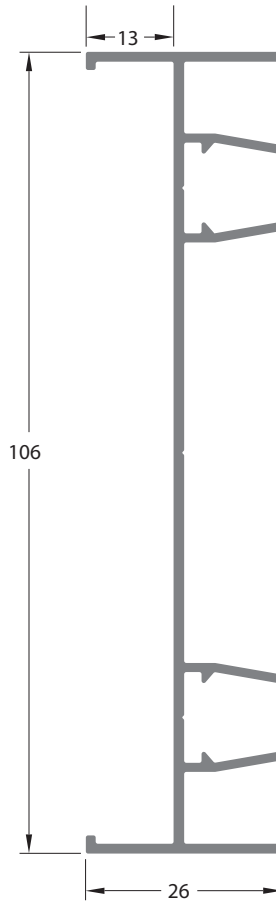
**MG25-085** (88-085)  
0,506 kg/m



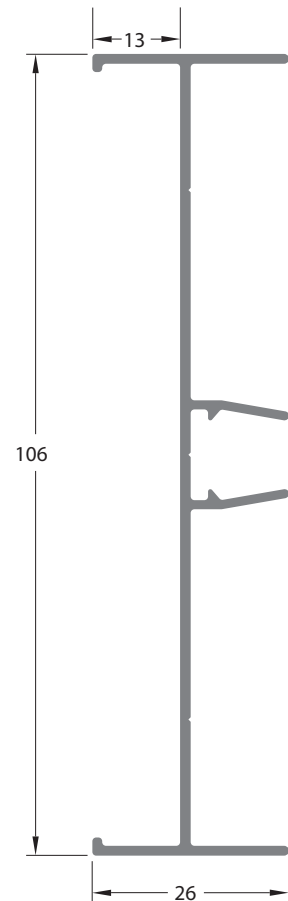
**MG25-086** (88-086)  
0,589 kg/m



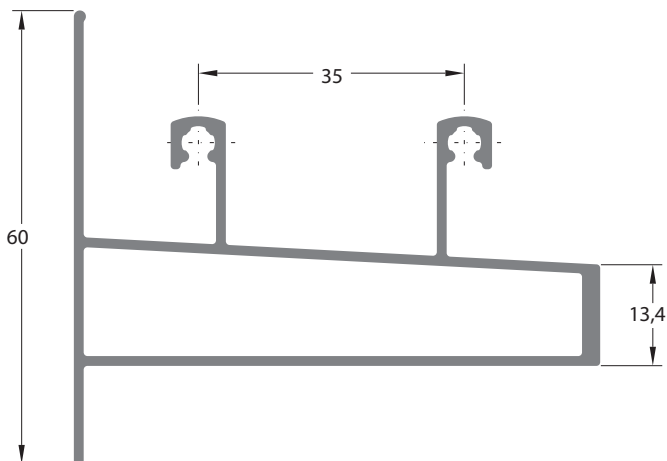
**MG25-292**  
0,214 kg/m



**MG25-013**  
(88-013)  
0,767 kg/m

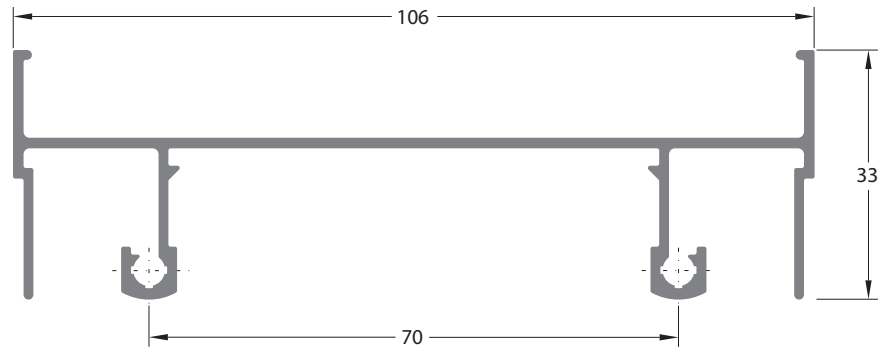


**MG25-014**  
(88-014)  
0,671 kg/m

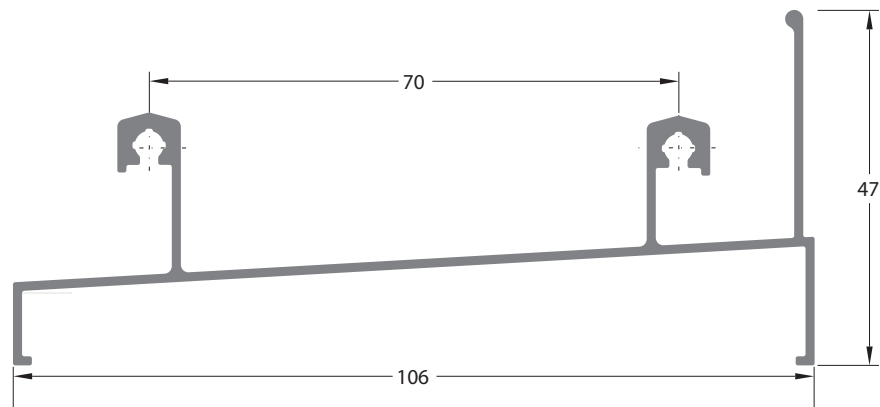


**MG25-006** (88-006)  
0,999 kg/m

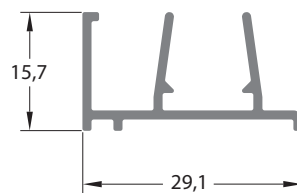
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**MG25-015** (88-015)  
0,918 kg/m

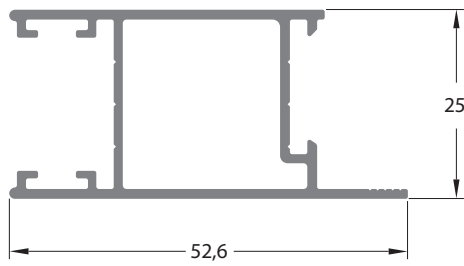


**MG25-016** (88-016)  
0,841 kg/m

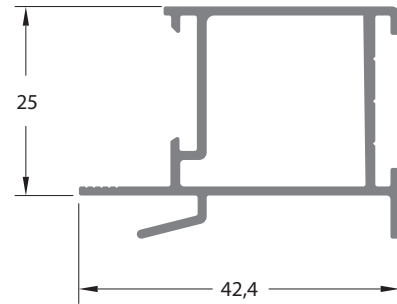


**MG25-008** (88-008)  
0,245 kg/m

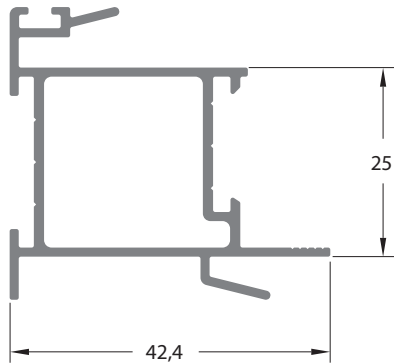
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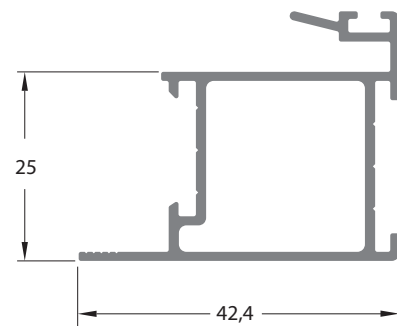
**MG25-039** (88-039)  
0,554 kg/m



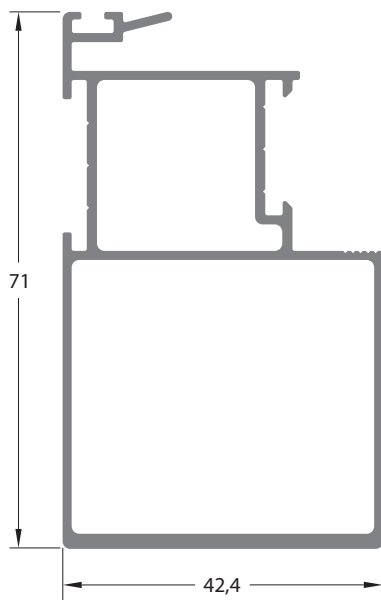
**MG25-040** (88-040)  
0,482 kg/m



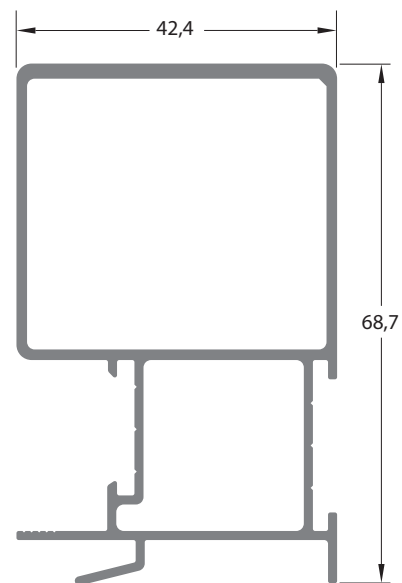
**MG25-042** (88-042)  
0,589 kg/m



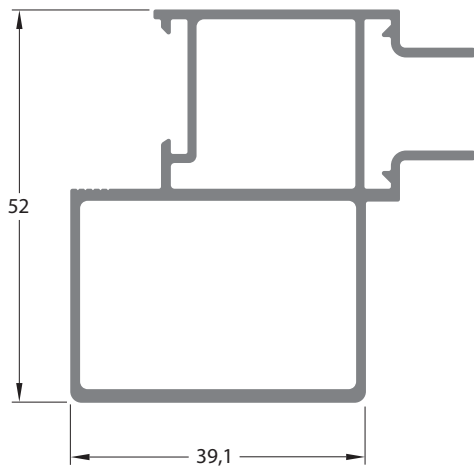
**MG25-041** (88-041)  
0,532 kg/m



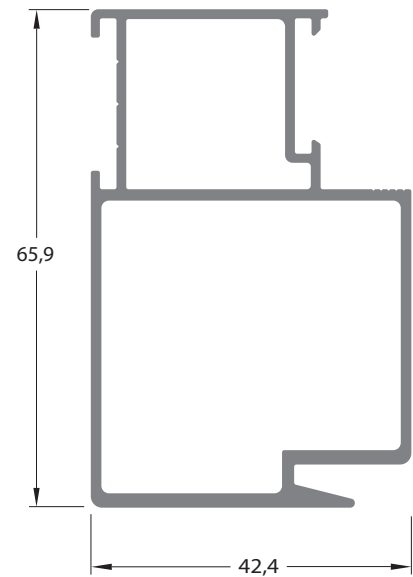
**MG25-049** (88-049)  
0,907 kg/m



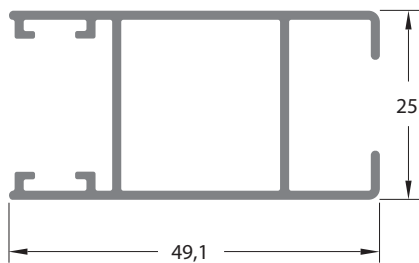
**MG25-047** (88-047)  
1,040 kg/m



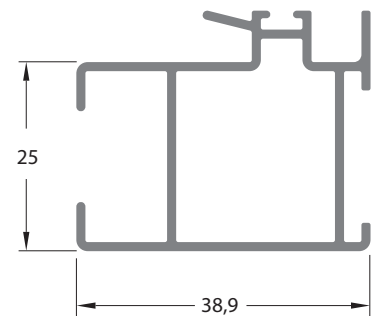
**MG25-043** (88-043)  
0,947 kg/m



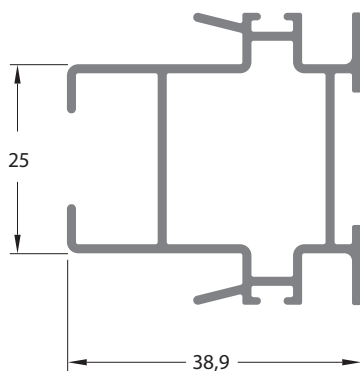
**MG25-048** (88-048)  
1,037 kg/m



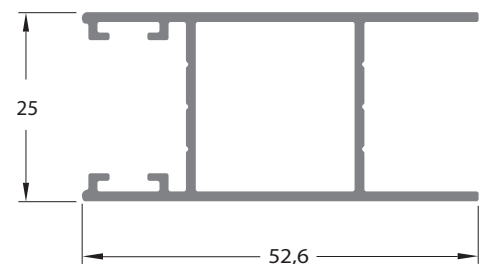
**MG25-055**  
0,545 kg/m



**MG25-056**  
0,538 kg/m

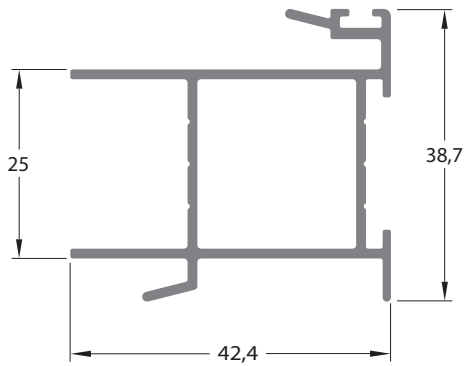


**MG25-057**  
0,632 kg/m

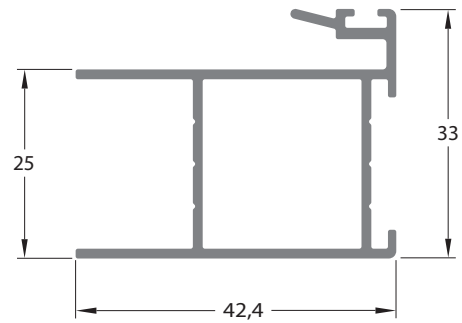


**MG25-068** (88-068)  
0,574 kg/m

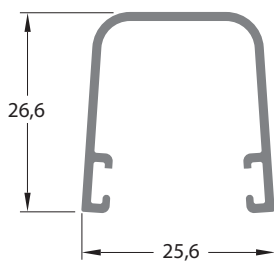
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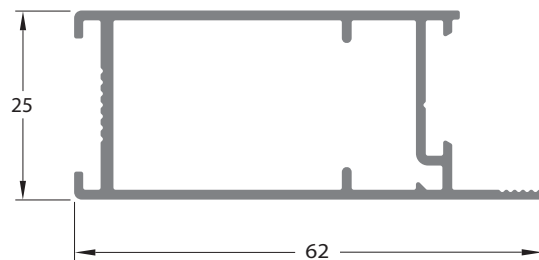
**MG25-069** (88-069)  
0,613 kg/m



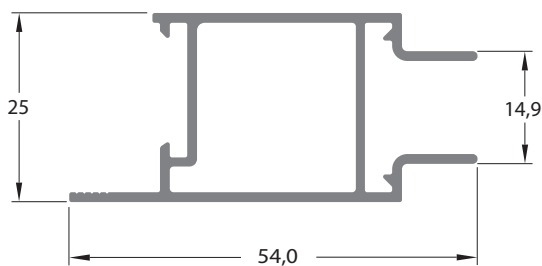
**MG25-070** (88-070)  
0,559 kg/m



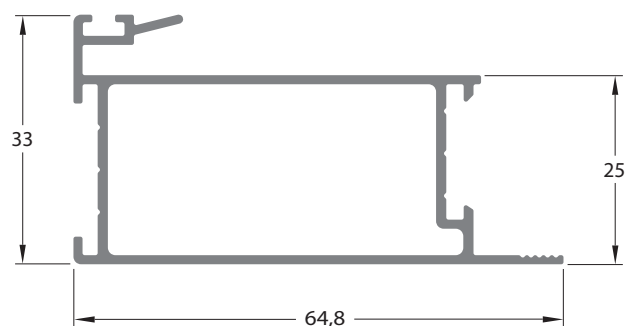
**MG25-107** (88-107)  
0,269 kg/m



**MG25-111** (88-111)  
0,634 kg/m



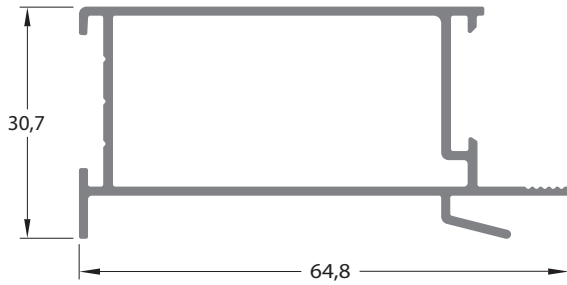
**MG25-192** (88-192)  
0,554 kg/m



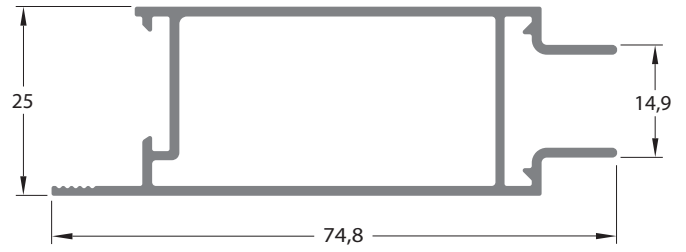
**MG25-242** (88-242)  
0,674 kg/m



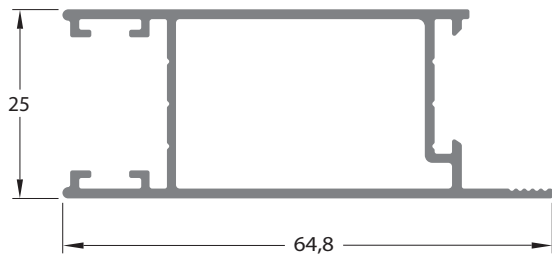
CATÁLOGO GERAL DE PERFIS



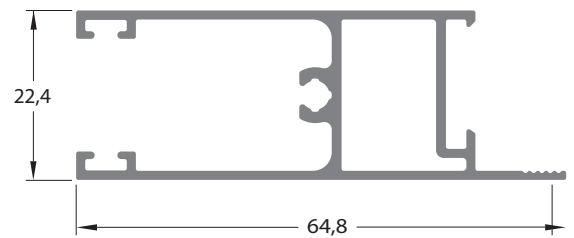
**MG25-243 (88-243)**  
0,636 kg/m



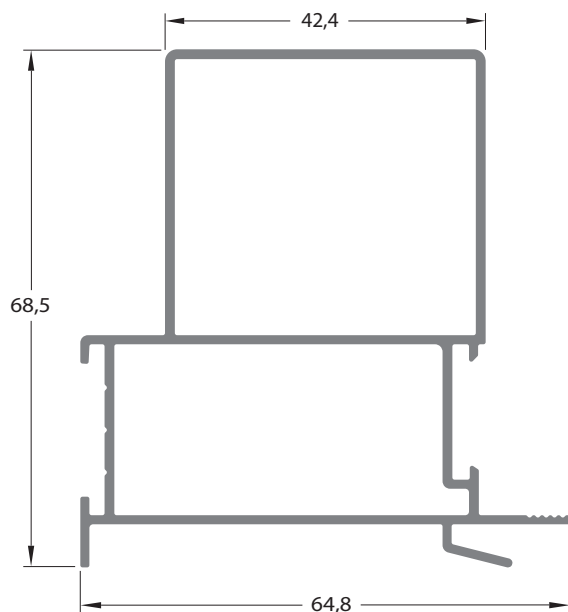
**MG25-244 (88-244)**  
0,699 kg/m



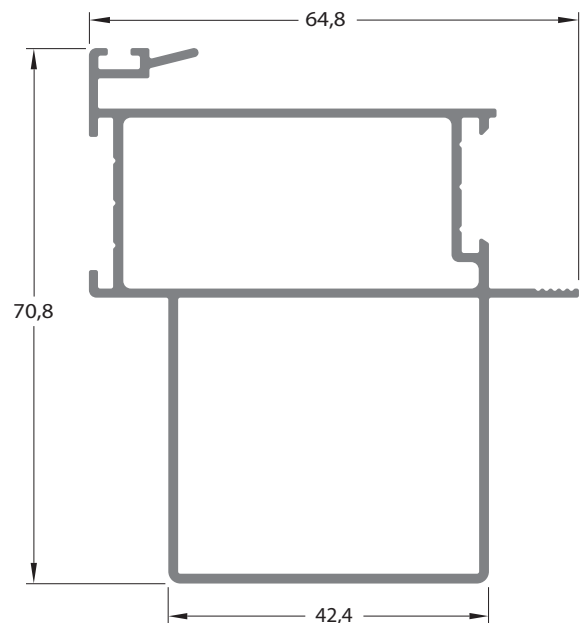
**MG25-245 (88-245)**  
0,636 kg/m



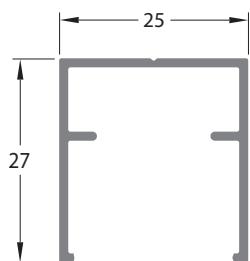
**MG25-246 (88-246)**  
0,645 kg/m



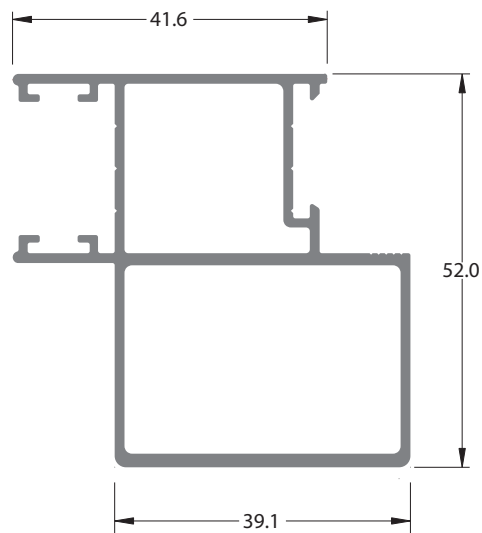
**MG25-289 (88-289)**  
1,040 kg/m



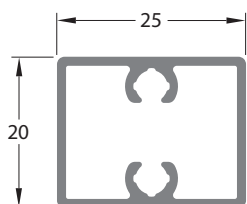
**MG25-290 (88-290)**  
1,078 kg/m



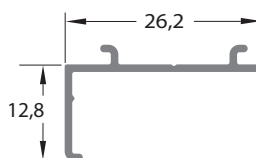
**MG25-093**  
(88-093)  
0,280 kg/m



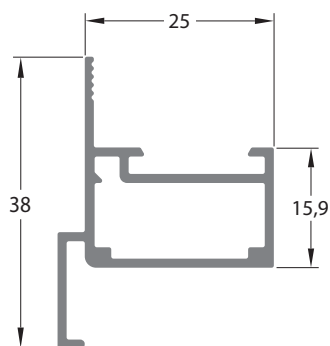
**MG25-044**  
0,997 kg/m



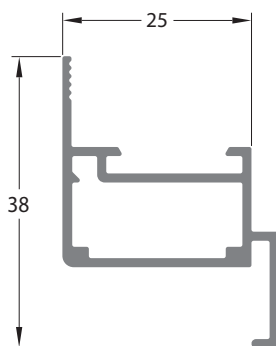
**MG25-094** (88-094)  
0,362 kg/m



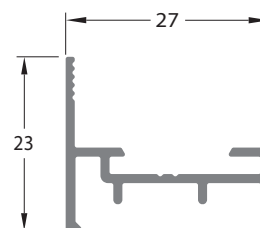
**MG25-084**  
(L-795)  
0,125 kg/m



**MG25-097** (88-097)  
0,399 kg/m

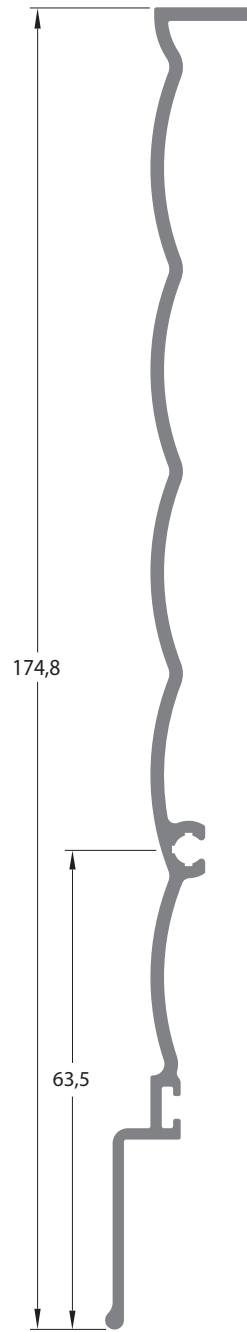


**MG25-098** (88-098)  
0,399 kg/m



**MG25-099** (88-099)  
0,228 kg/m

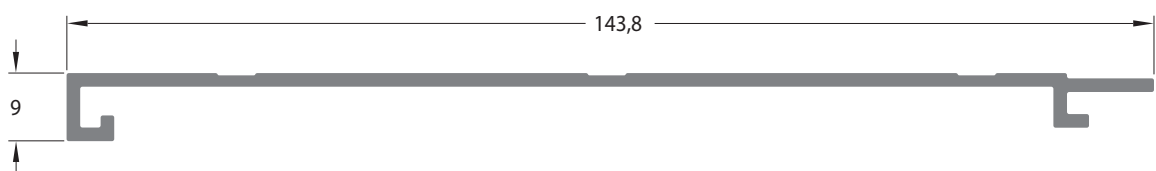
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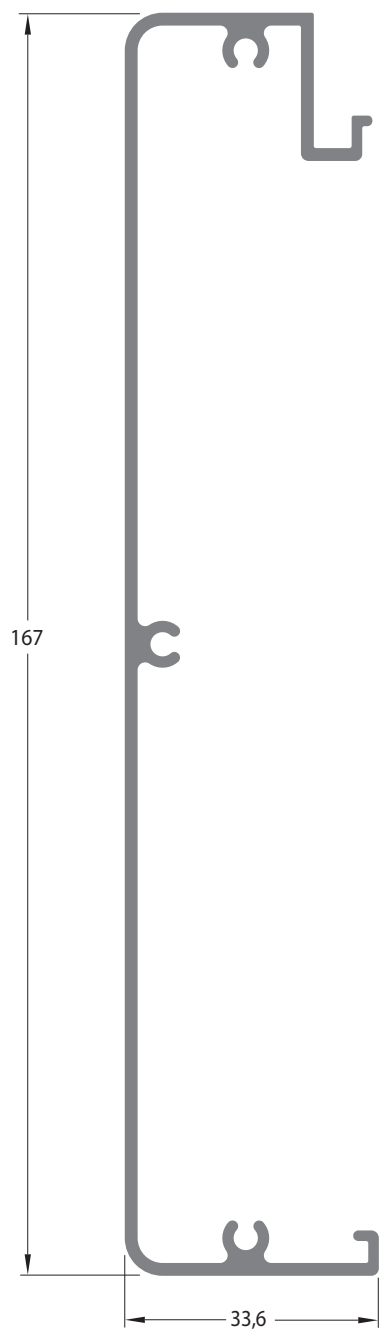
**MG25-360**  
0,984 kg/m



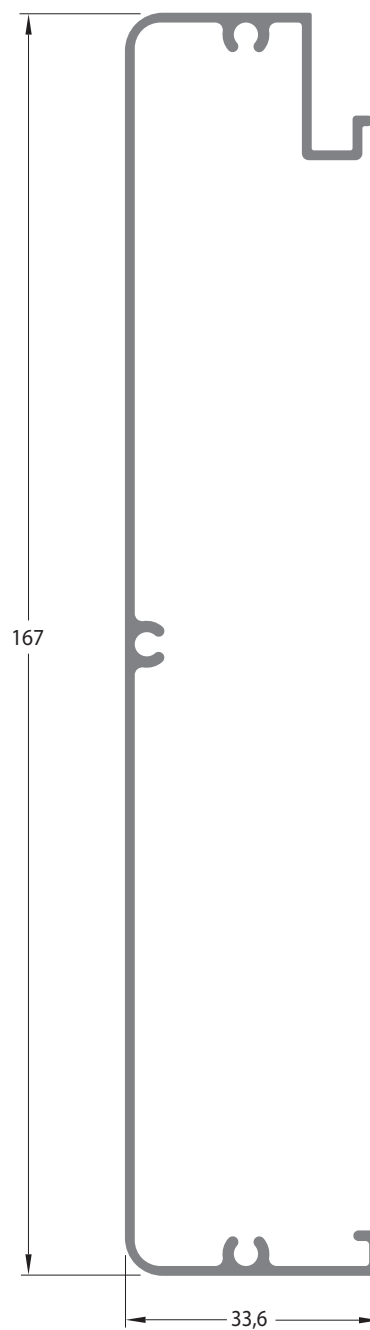
**MG25-710**  
0,753 kg/m



**MG25-380**  
0,794 kg/m

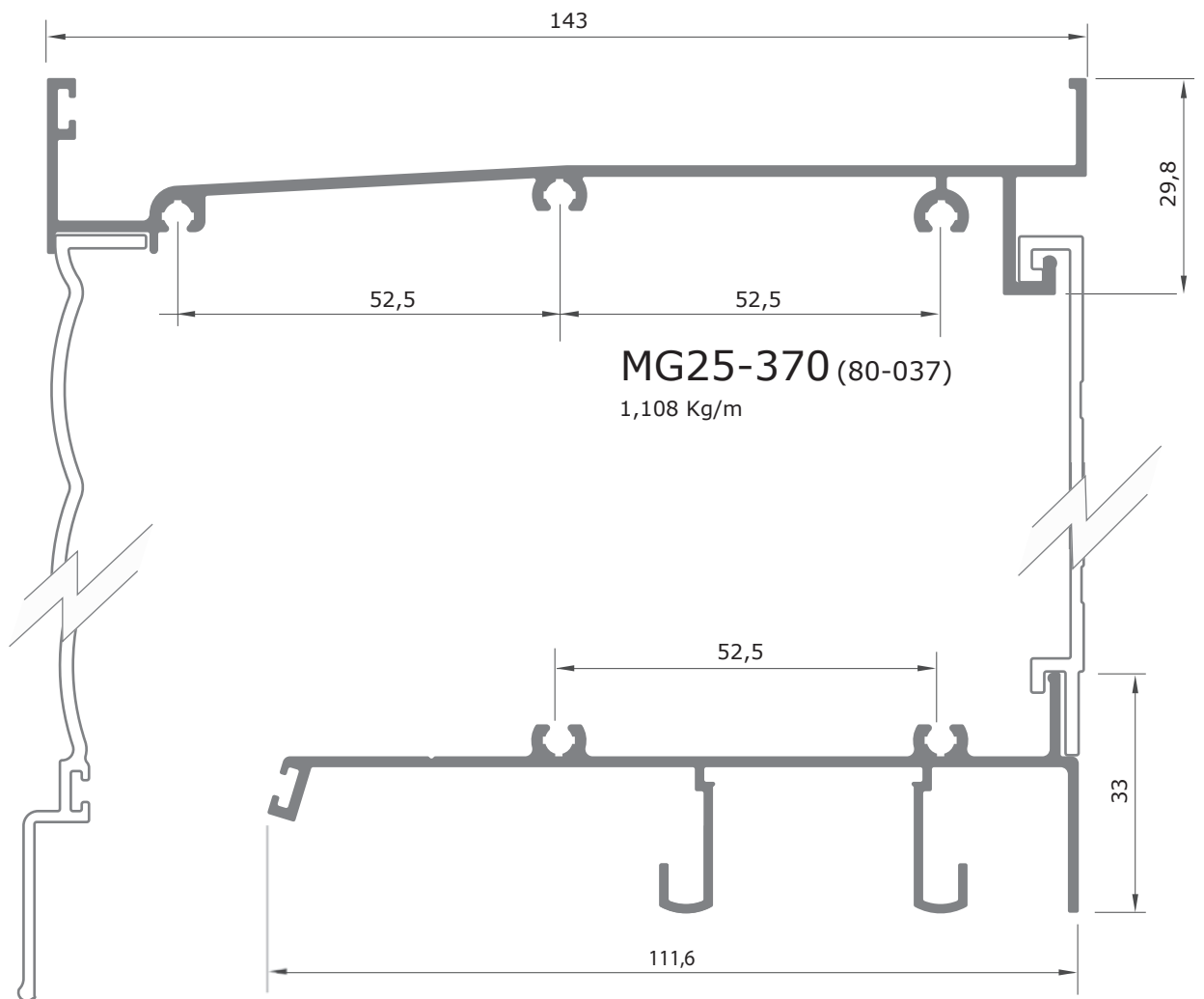


**MG25-450**  
1,332 kg/m



**MG25-690**  
1,006 kg/m

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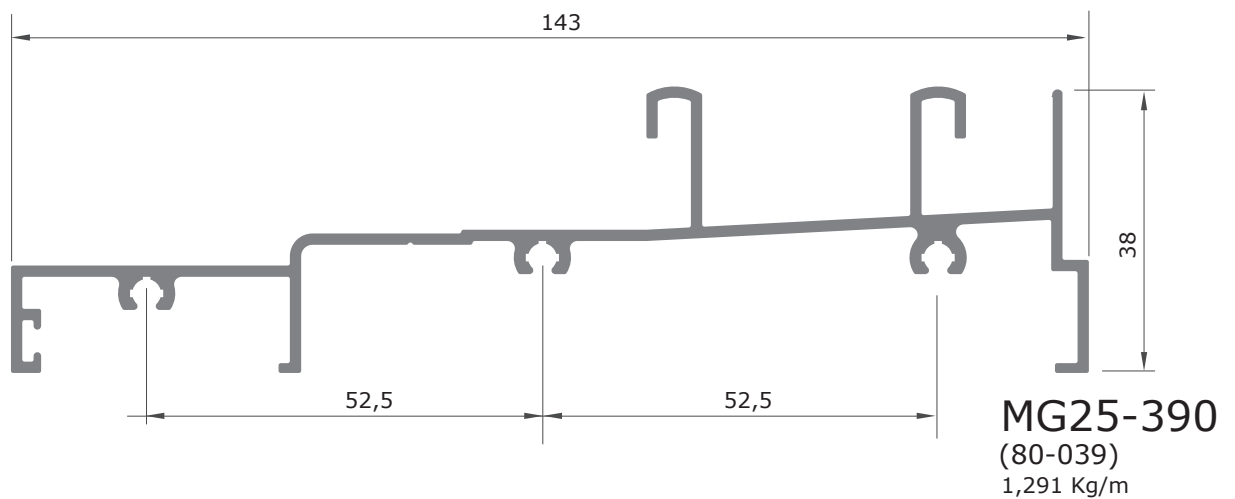


**MG25-370** (80-037)

1,108 Kg/m

**MG25-430** (80-043)

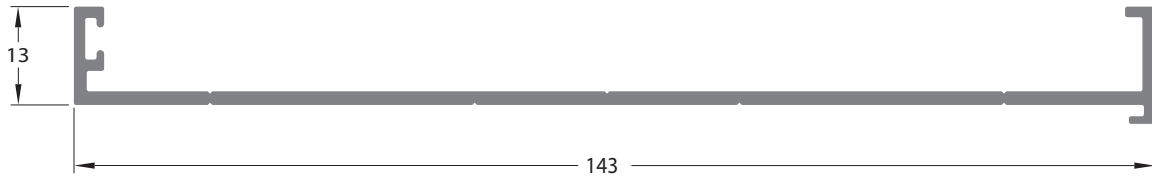
0,948 Kg/m



**MG25-390**

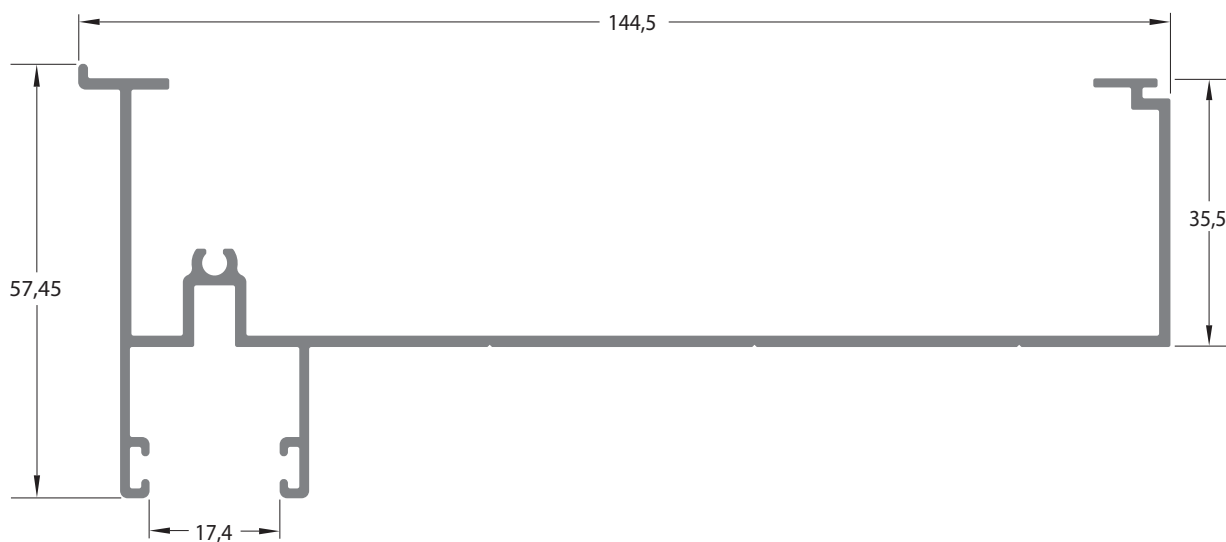
(80-039)

1,291 Kg/m



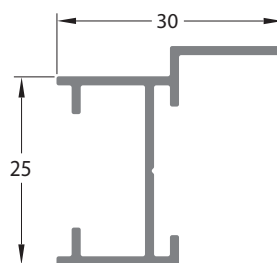
**MG25-400 (80-040)**

0,845 kg/m



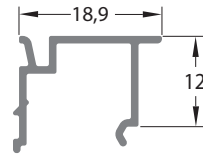
**MG25-420 (80-042)**

1,207 kg/m



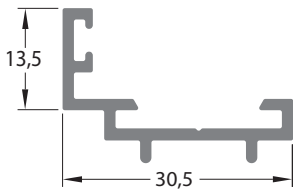
**MG25-782**

0,279 kg/m



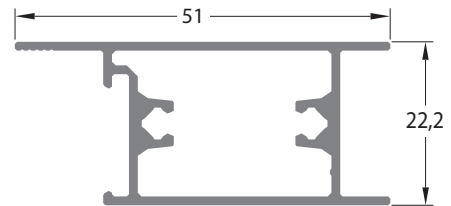
**MG25-797**

0,107 kg/m



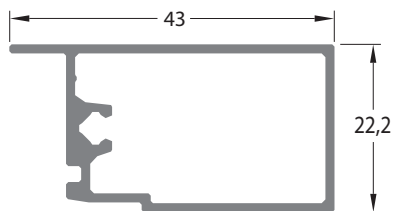
**MG25-798**

0,283 kg/m



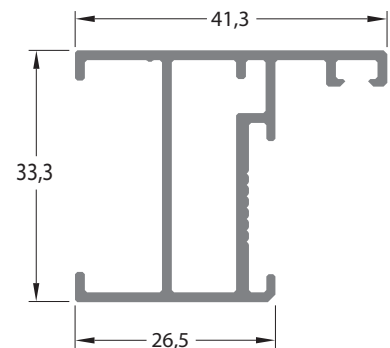
**MG25-799**

0,554 kg/m



**MG25-800**

456 kg/m

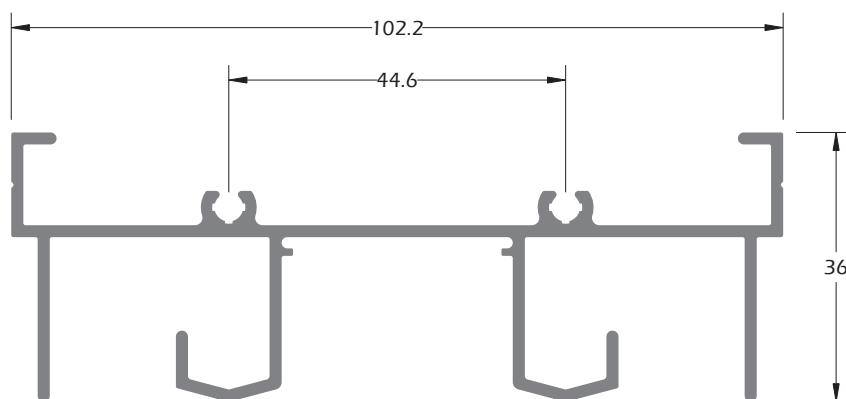


**MG25-801**

0,565 kg/m

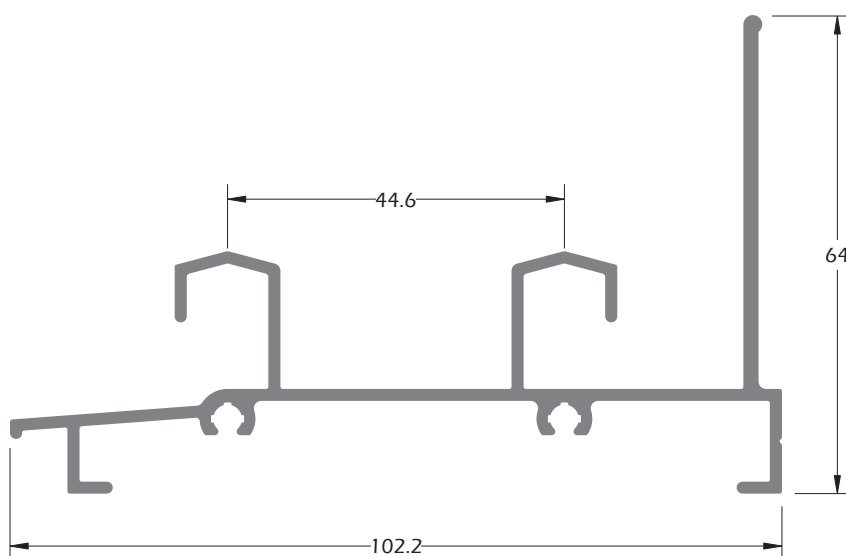


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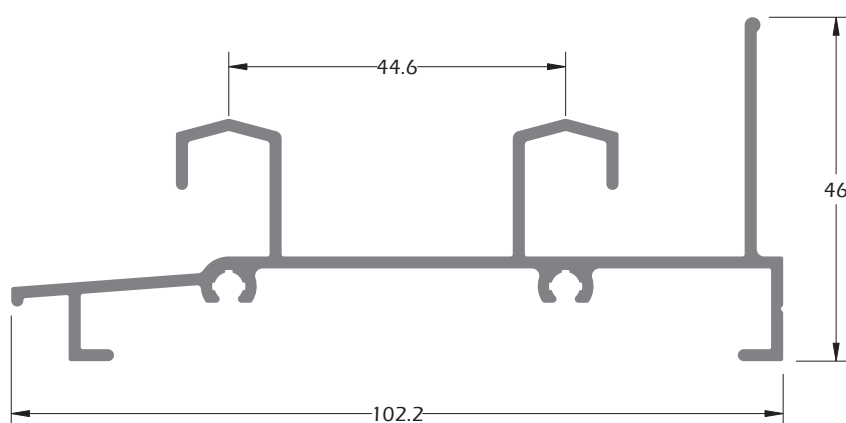
**MG32-001 (80-001)**

1,230 kg/m



**MG32-004 (80-004)**

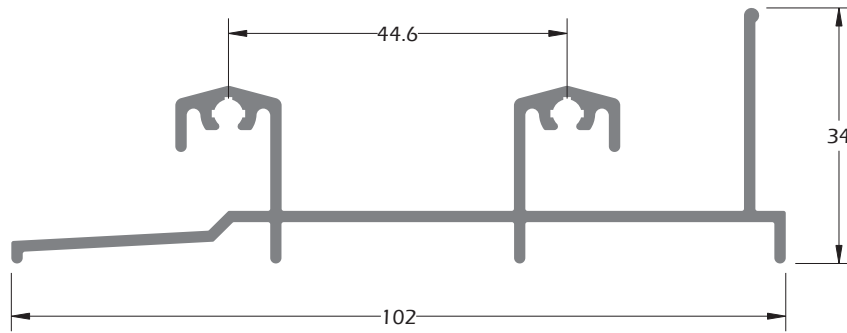
1,123 kg/m



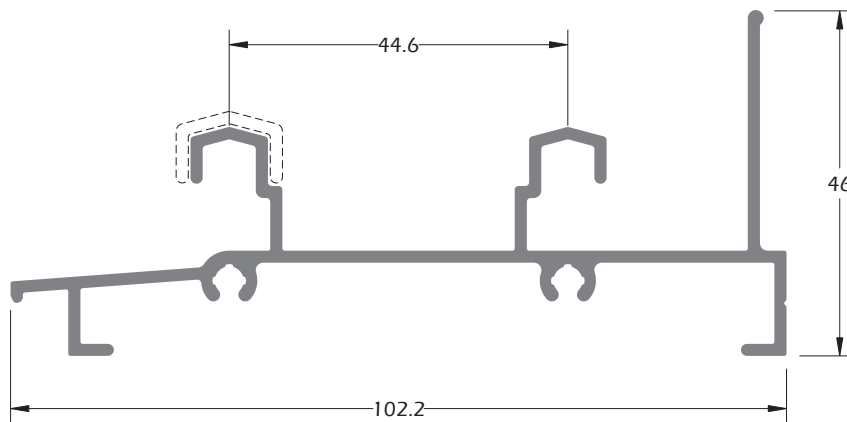
**MG32-023 (80-023)**

1,256 kg/m

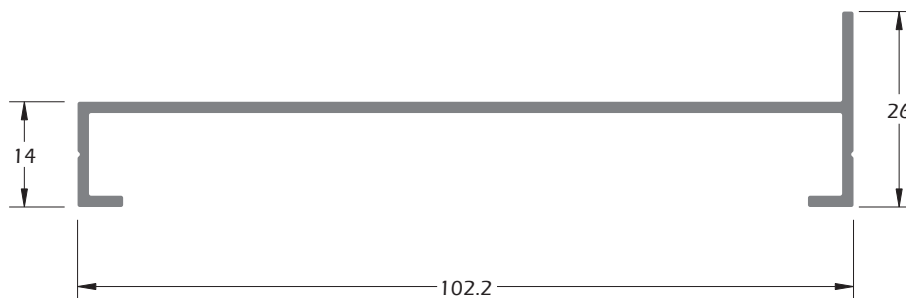
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**MG32-610** (80-610)  
0,957 kg/m

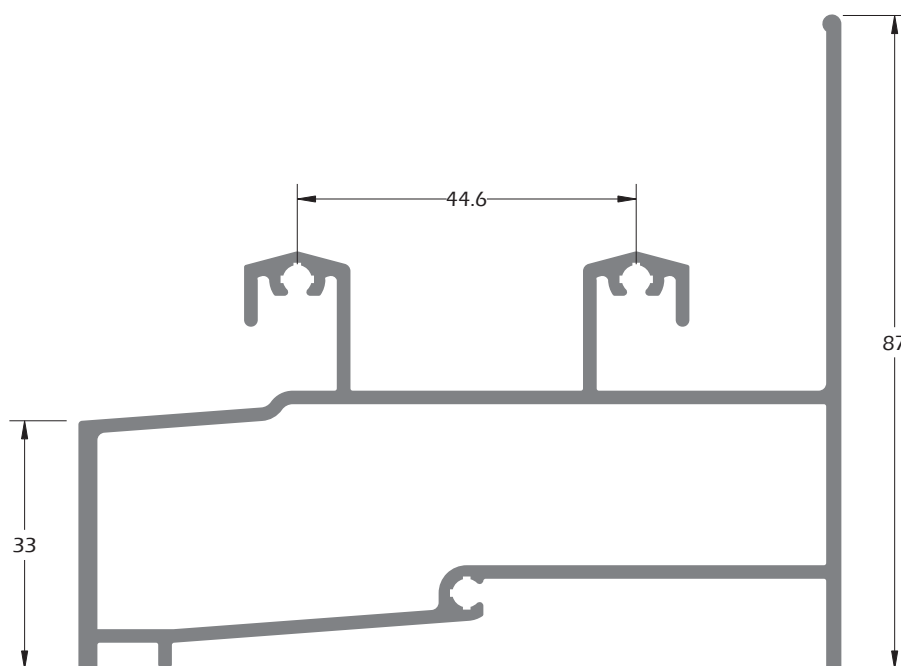
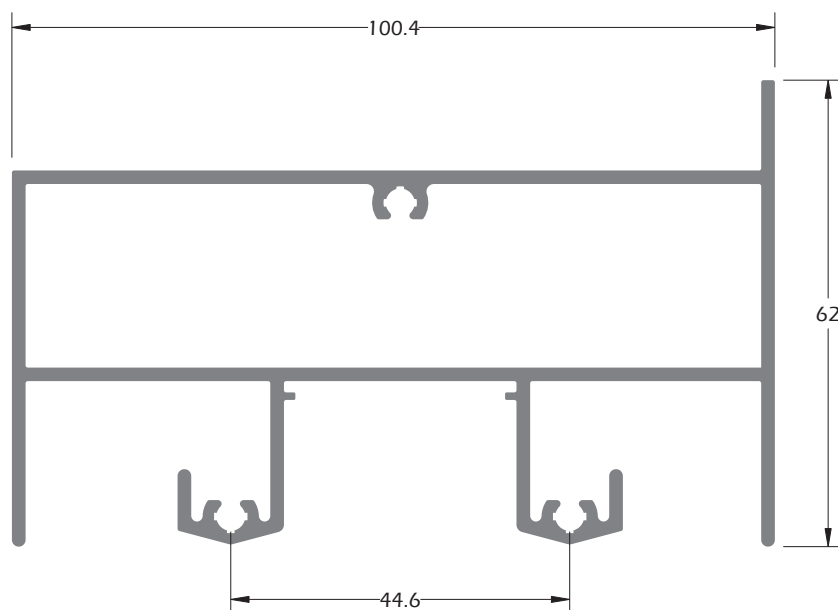
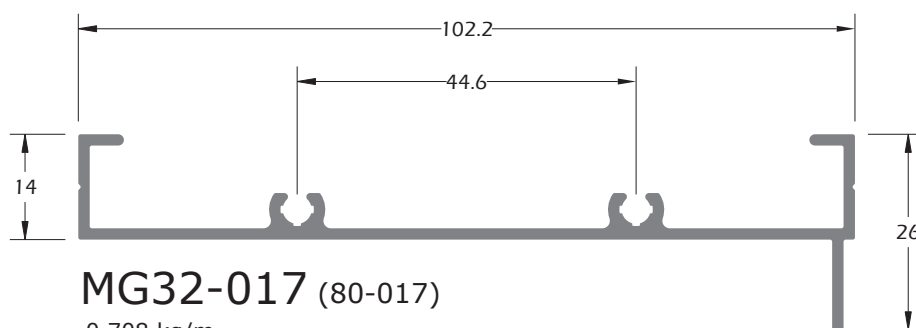


**MG32-083** (80-083)  
1,088 kg/m

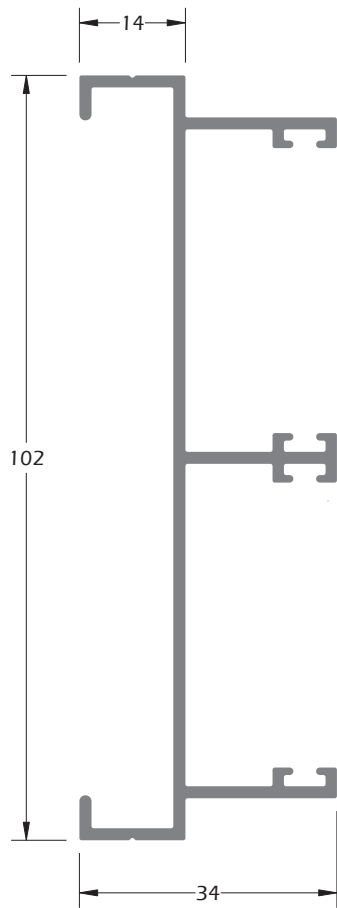


**MG32-016** (80-016)  
0,601 kg/m

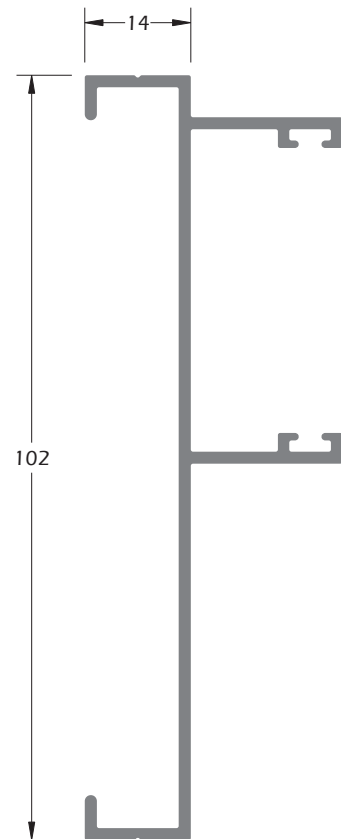
CATÁLOGO GERAL DE PERFIS



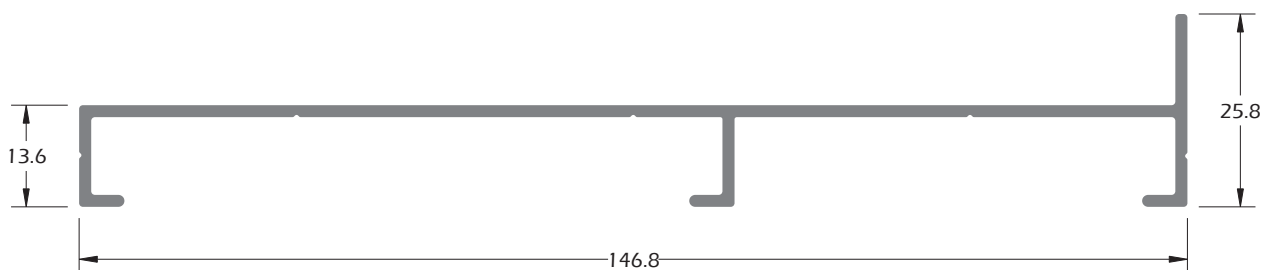
CATÁLOGO GERAL DE PERFIS



**MG32-002 (80-002)**  
0,952 kg/m

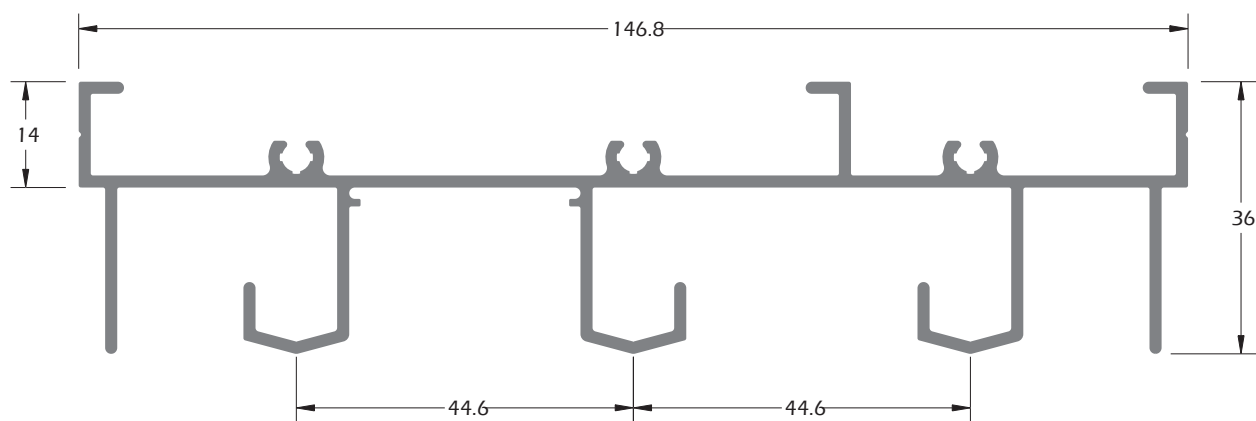


**MG32-049 (80-049)**  
0,812 kg/m



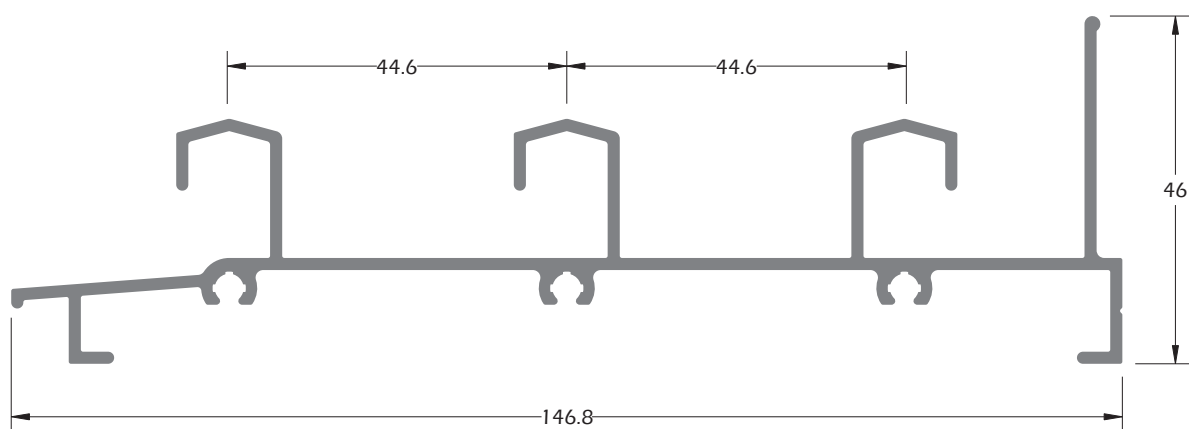
**MG32-072 (80-072)**  
0,887 kg/m

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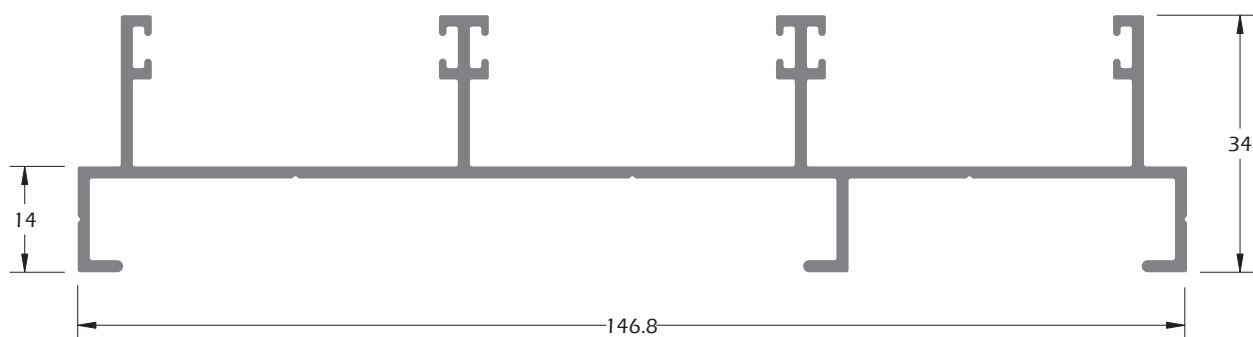
**MG32-013 (80-013)**

1,718 kg/m



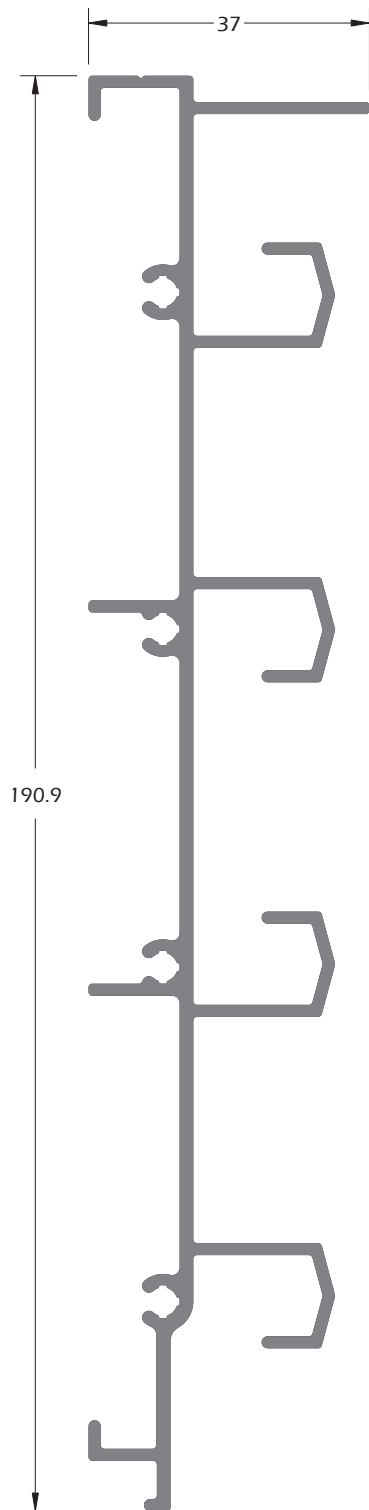
**MG32-015 (80-015)**

1,524 kg/m

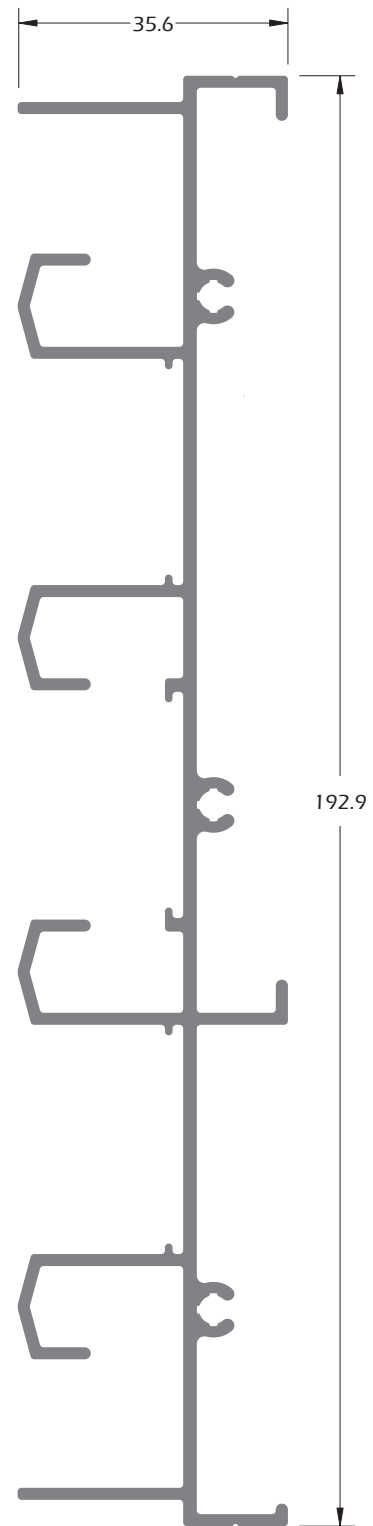


**MG32-014 (80-014)**

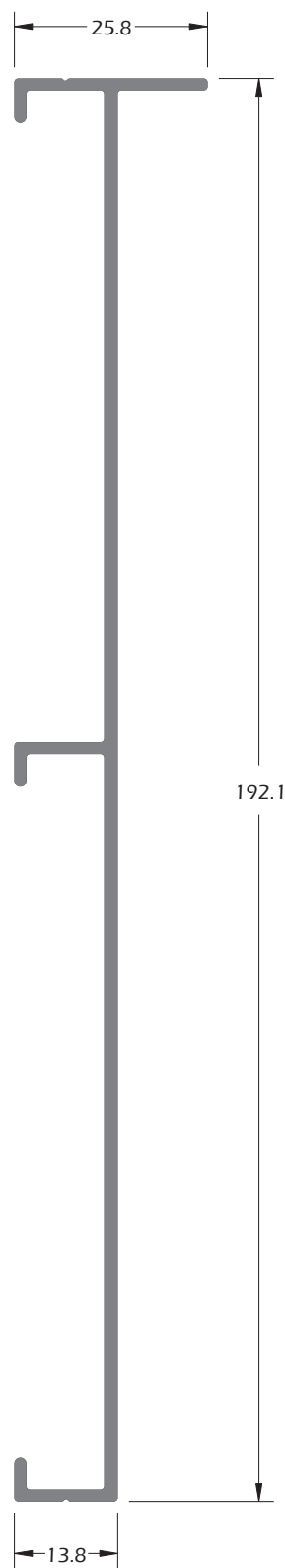
1,357 kg/m



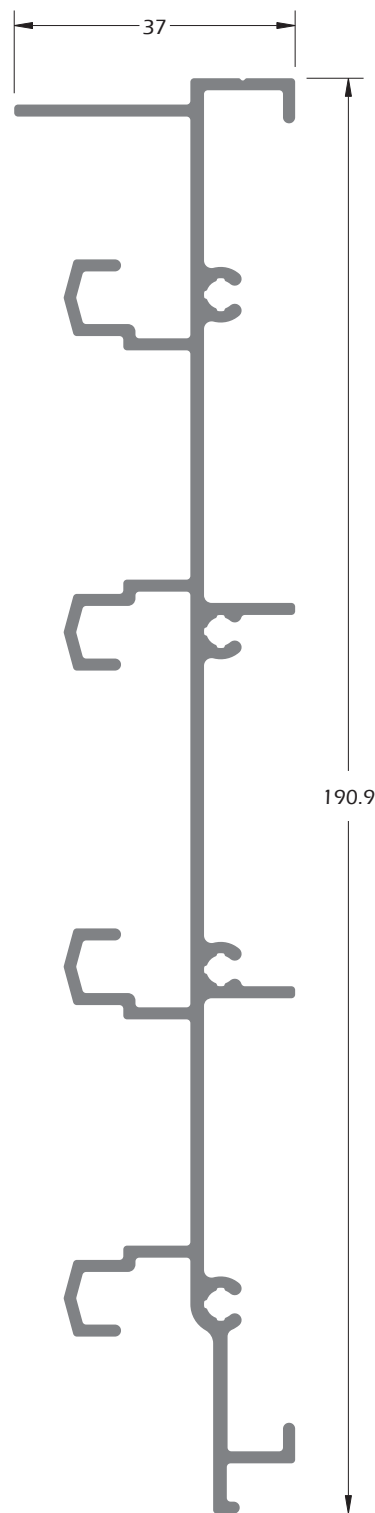
**MG32-066** (80-066)  
1,967kg/m



**MG32-065** (80-065)  
2,117 kg/m



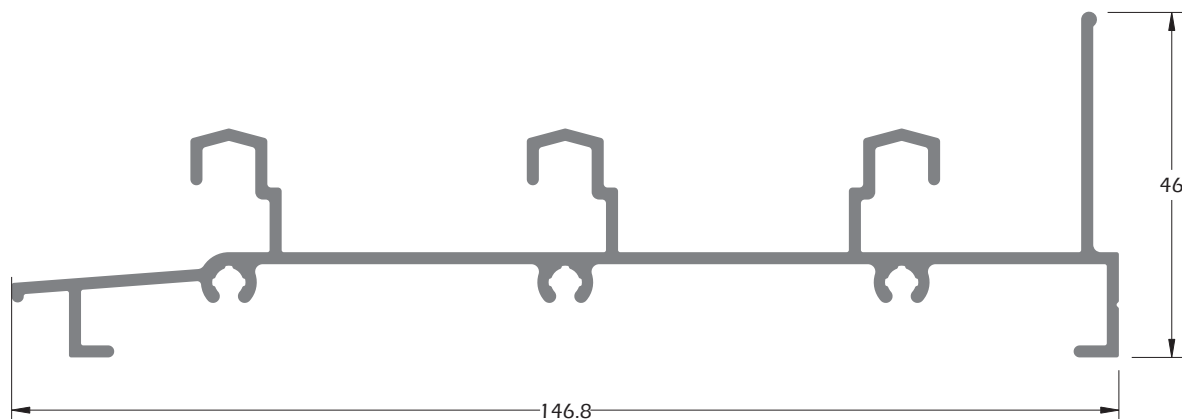
**MG32-067 (80-067)**  
1,163 kg/m



**MG32-085 (80-085)**  
1,979 kg/m

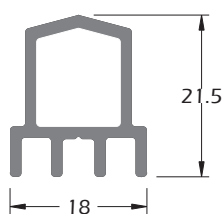
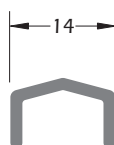


CATÁLOGO GERAL DE PERFIS



**MG32-084 (80-084)**

1,470 kg/m



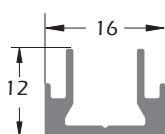
**MG32-052 (80-052)**

0,318 kg/m

**MG32-086**

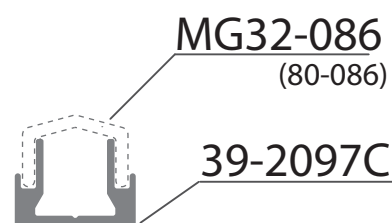
(80-086)

0,114 kg/m

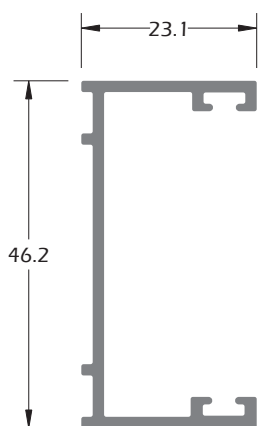


**39-2097C**

0,165 kg/m



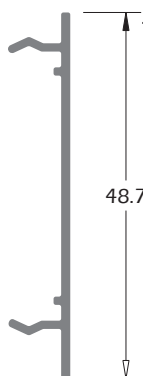
Montagem



**MG32-024**

(80-024)

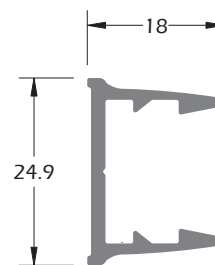
0,430 kg/m



**MG32-003**

(80-003)

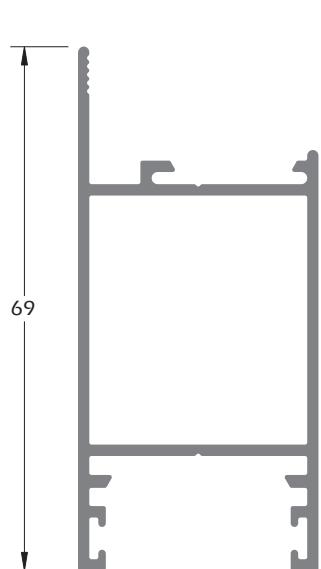
0,206 kg/m



**MG32-111**

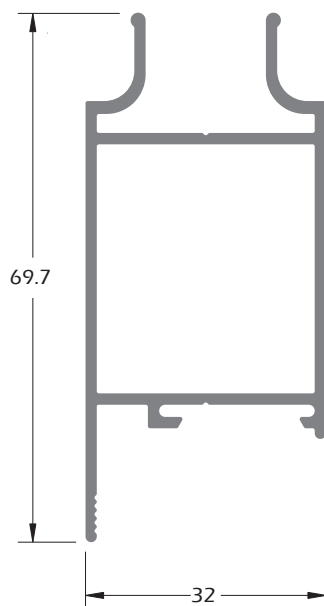
0,282 kg/m

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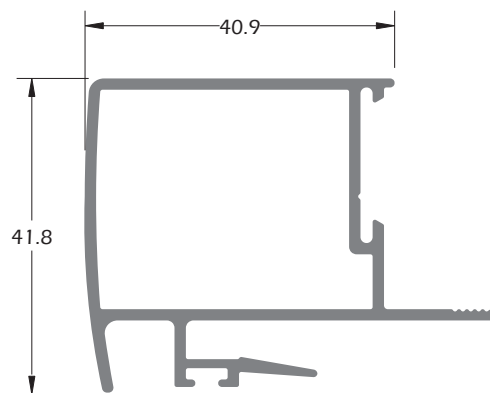
**MG32-087**

0,843 kg/m



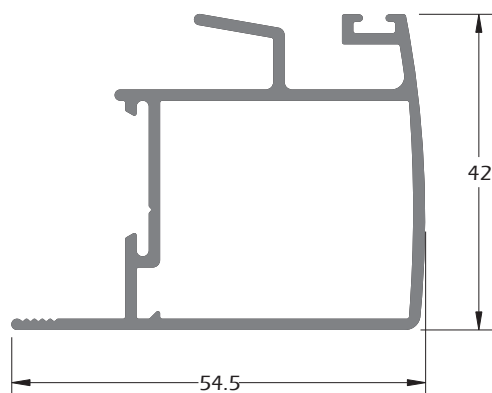
**MG32-088**

0,825 kg/m



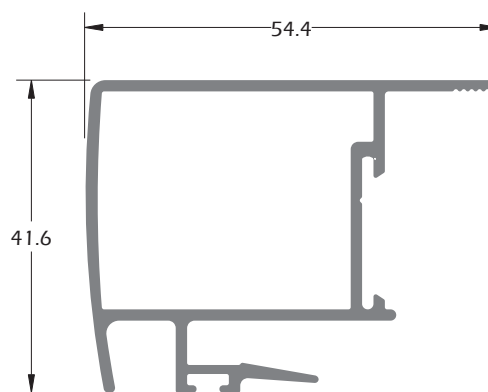
**MG32-090**

0,806 kg/m



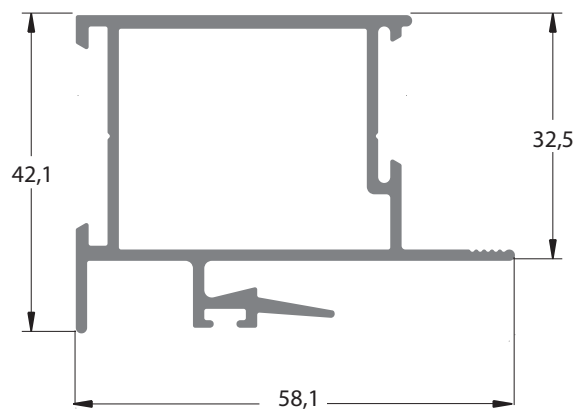
**MG32-112**

0,815 kg/m



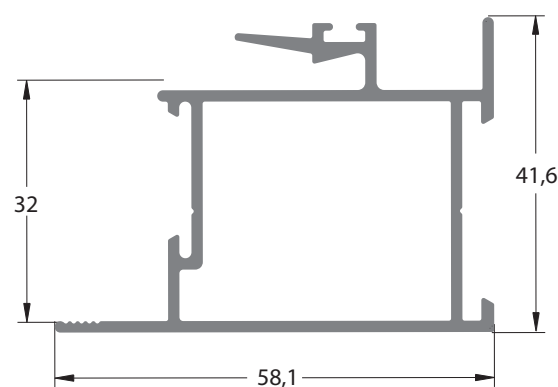
**MG32-091**

0,808 kg/m



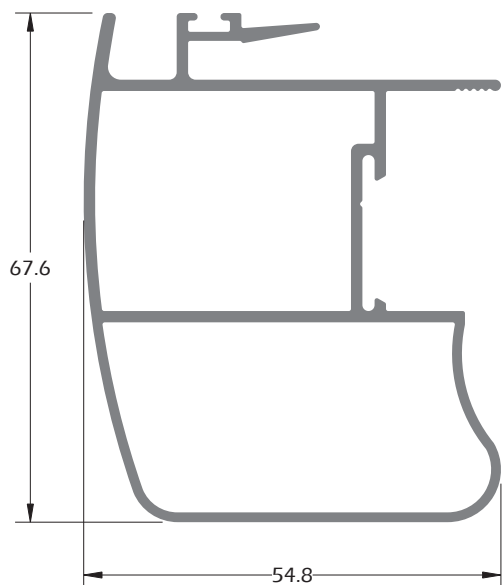
**MG32-005 (80-005)**

0,916 kg/m



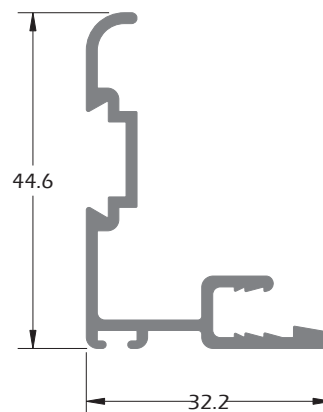
**MG32-006 (80-006)**

0,879 kg/m



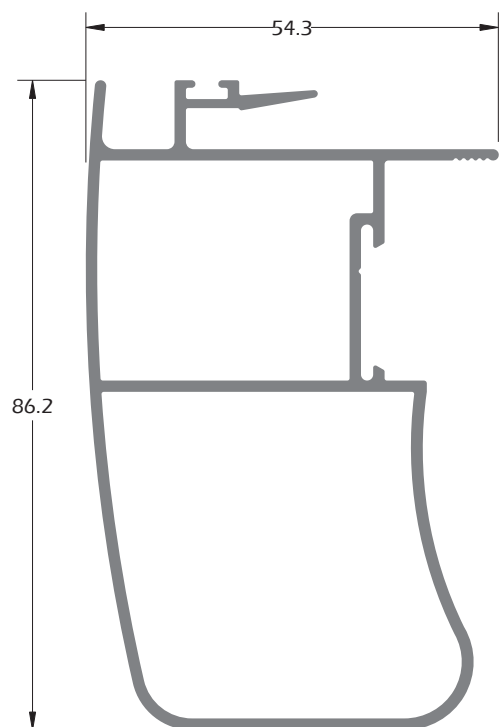
**MG32-092**

1,185 kg/m



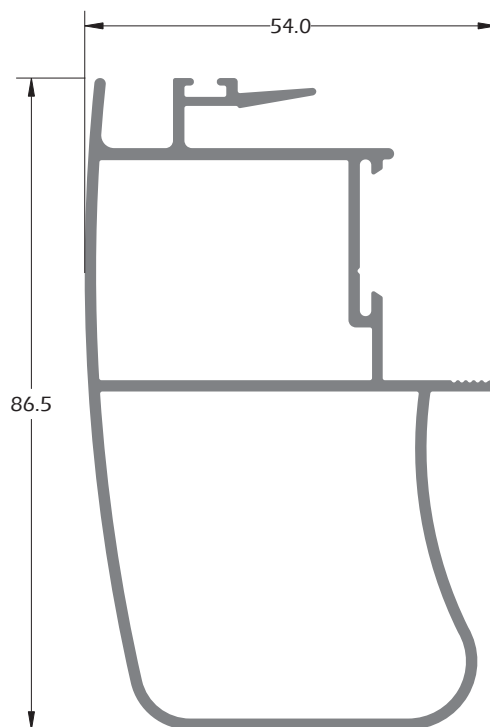
**MG32-079 (80-079)**

0,450 kg/m



**MG32-093**

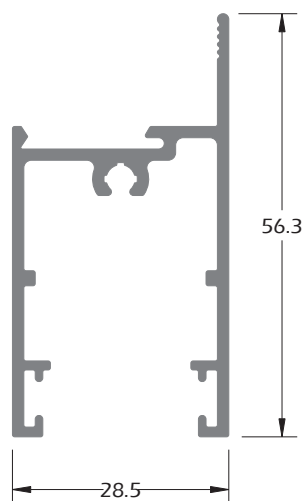
1,331 kg/m



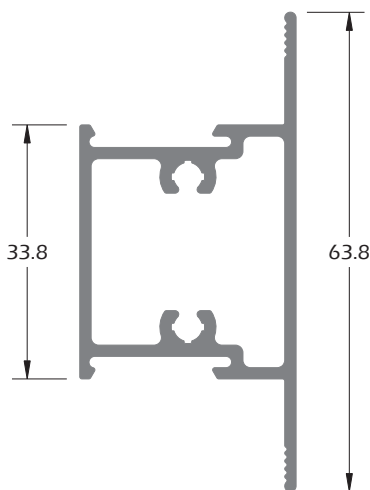
**MG32-094**

1,331 kg/m

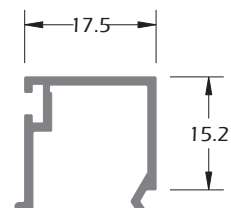
CATÁLOGO GERAL DE PERFIS



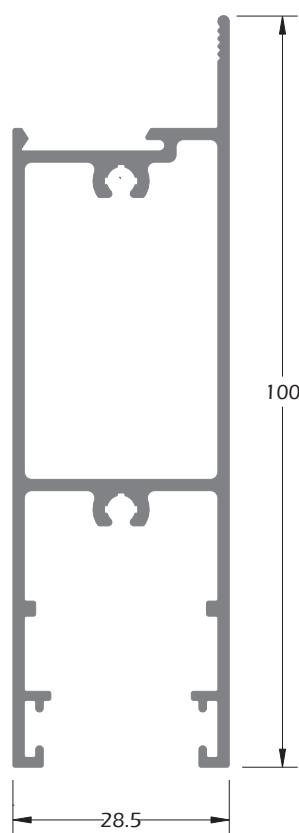
**MG32-020** (80-020)  
0,647 kg/m



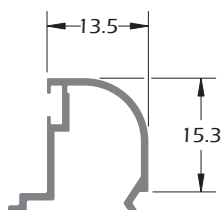
**MG32-009** (80-009)  
0,750 kg/m



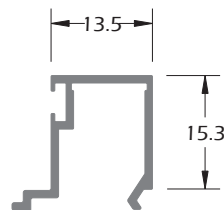
**MG32-012**  
(80-012)  
0,173 kg/m



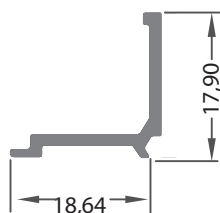
**MG32-021** (80-021)  
1,161 kg/m



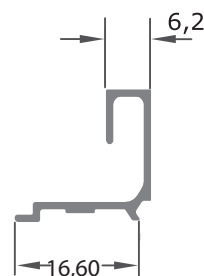
**MG32-057**  
(80-057)  
0,147 kg/m



**MG32-025**  
(80-025)  
0,155 kg/m

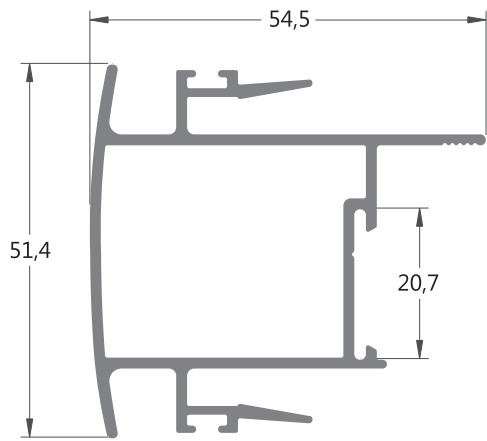


**MG32-115**  
0,142 kg/m



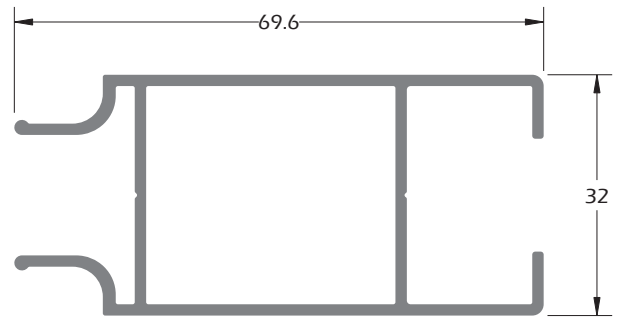
**MG32-114**  
0,141 kg/m

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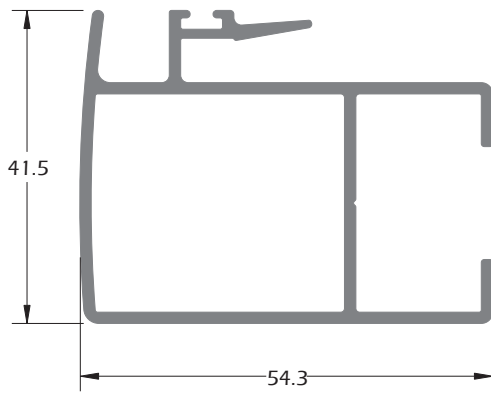
**MG32-178**

0,968 kg/m



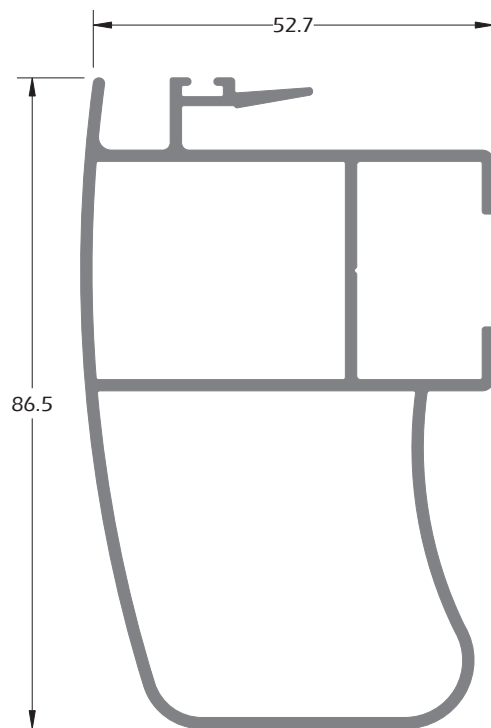
**MG32-098**

0,904 kg/m



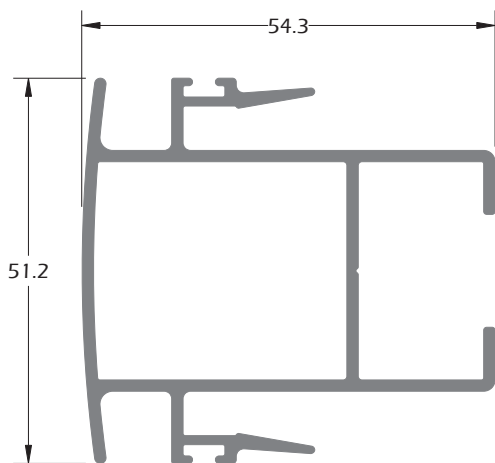
**MG32-099**

0,886 kg/m



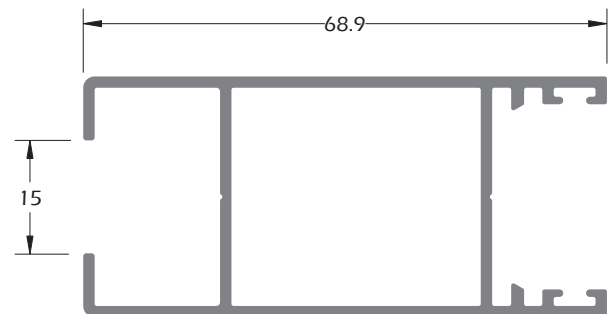
**MG32-102**

1,399 kg/m



**MG32-113**

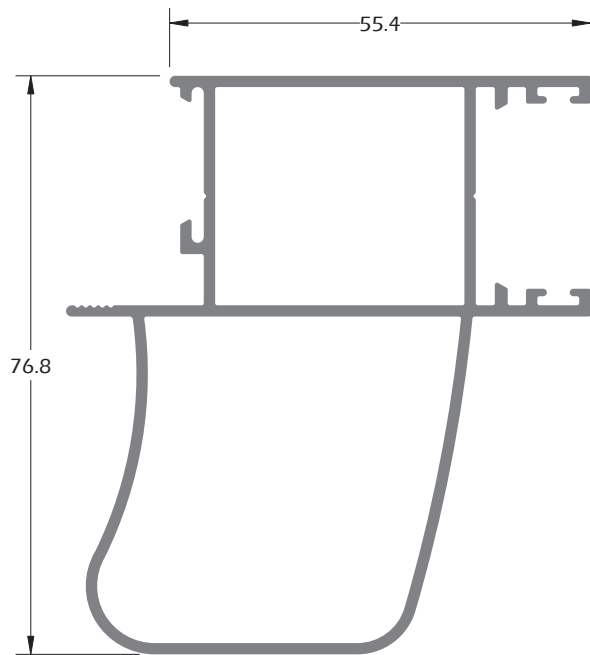
1,050 kg/m



**MG32-097**

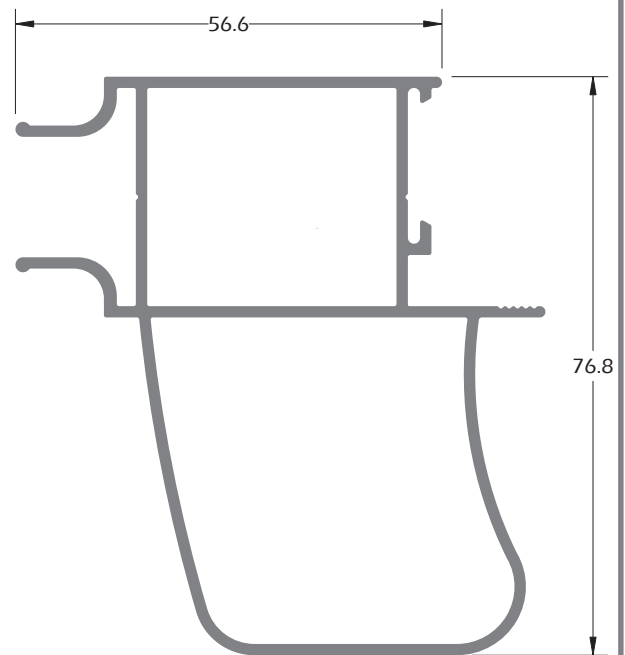
0,922 kg/m

CATÁLOGO GERAL DE PERFIS



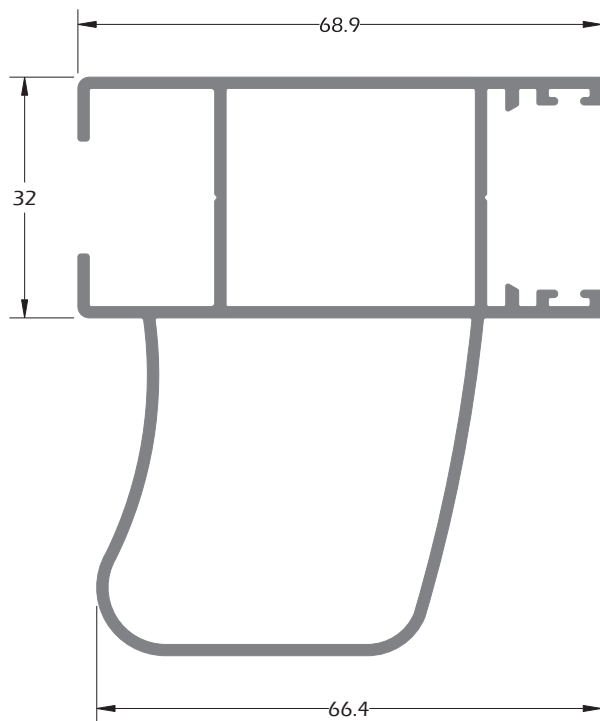
**MG32-095**

1,574 kg/m



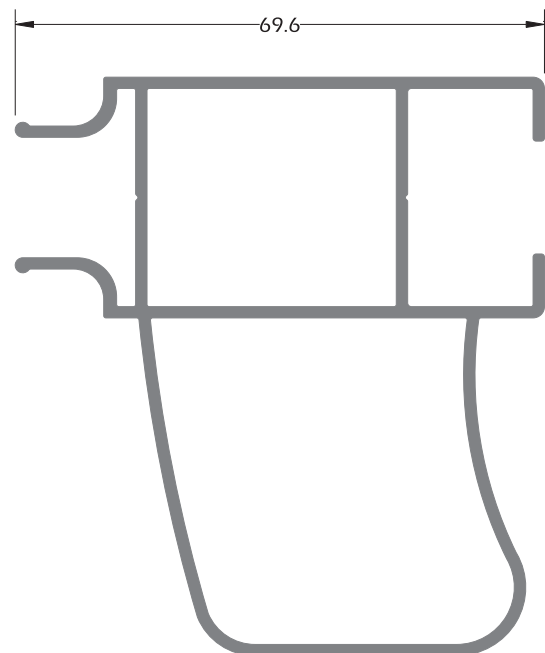
**MG32-096**

1,335 kg/m



**MG32-100**

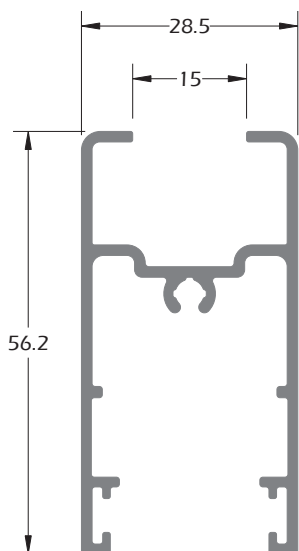
1,433 kg/m



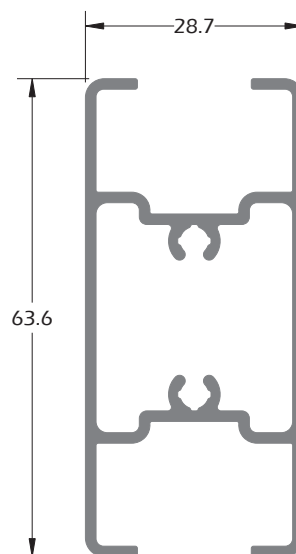
**MG32-101**

1,415 kg/m

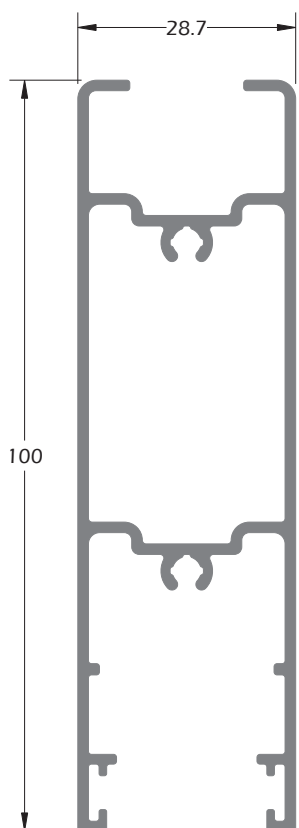
CATÁLOGO GERAL DE PERFIS



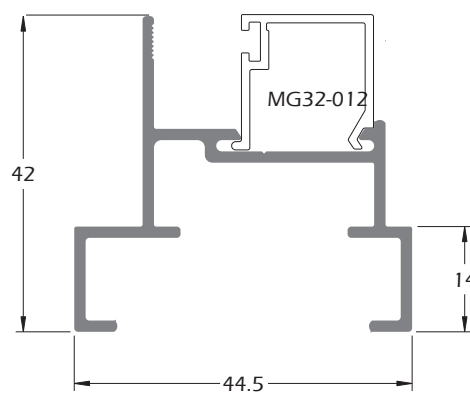
**MG32-103** (80-103)  
0,682 kg/m



**MG32-104** (80-104)  
0,868 kg/m



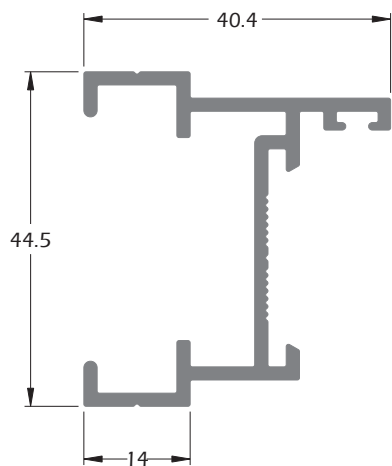
**MG32-105** (80-105)  
1,180 kg/m



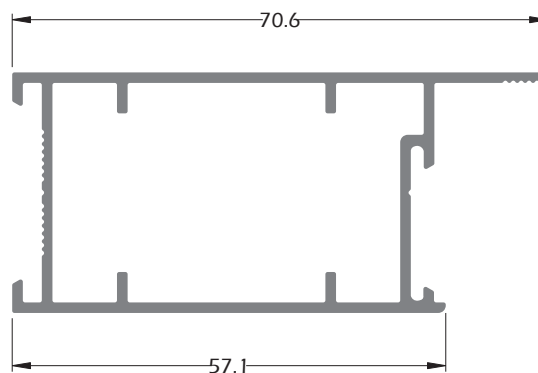
**MG32-051** (80-051)  
0,549 kg/m



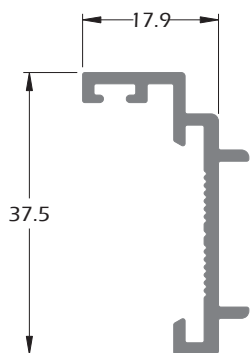
CATÁLOGO GERAL DE PERFIS



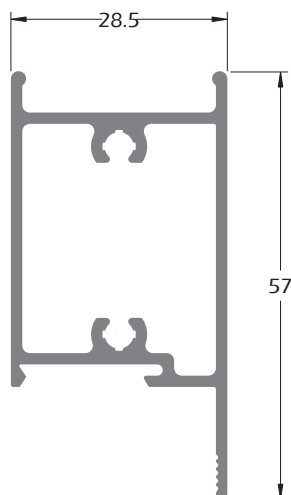
**MG32-010** (80-010)  
0,658 kg/m



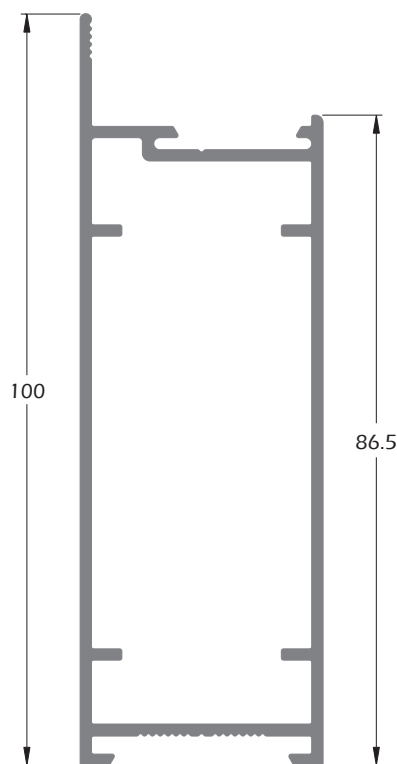
**MG32-011A** (80-011A)  
0,810 kg/m



**MG32-029** (80-029)  
0,342 kg/m

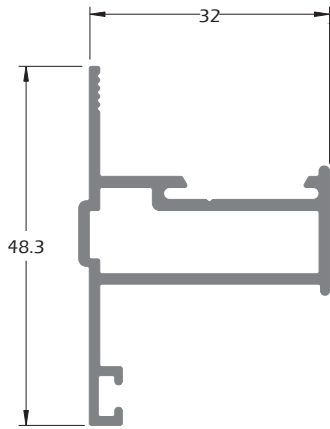


**MG32-026** (80-026)  
0,750 kg/m



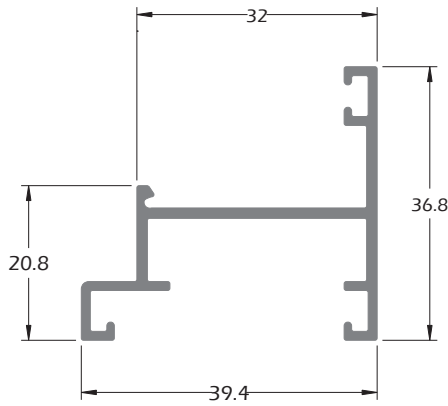
**MG32-047** (80-047)  
0,949 kg/m

CATÁLOGO GERAL DE PERFIS



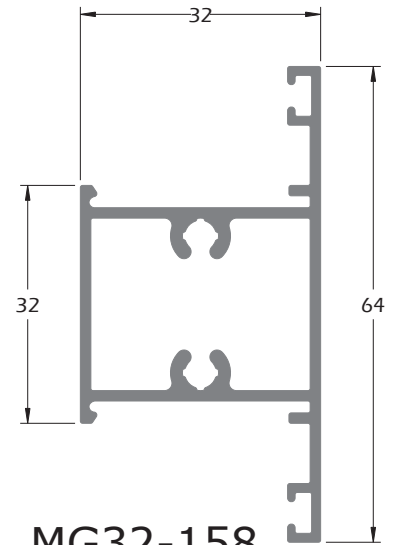
**MG32-157**

0,537 kg/m



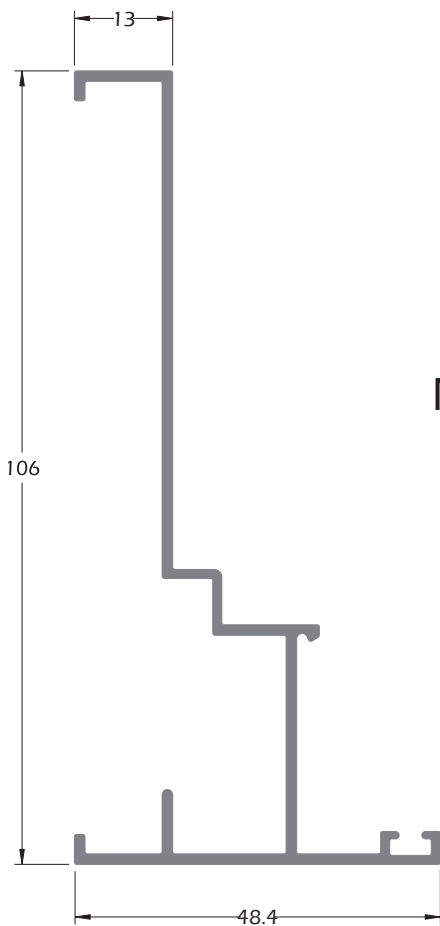
**MG32-174**

0,417 kg/m



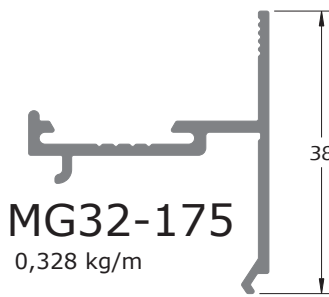
**MG32-158**

0,781 kg/m



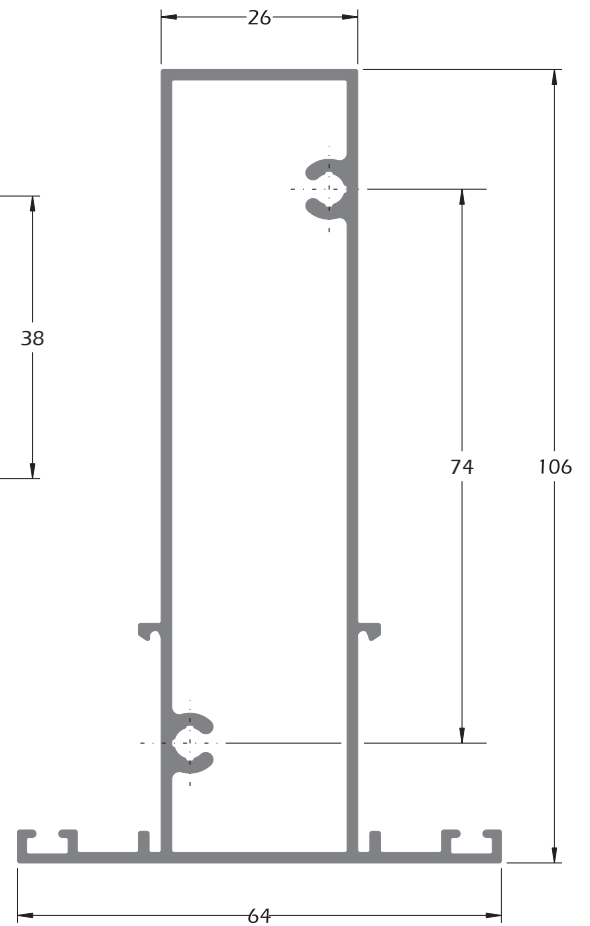
**MG32-173**

0,766 kg/m



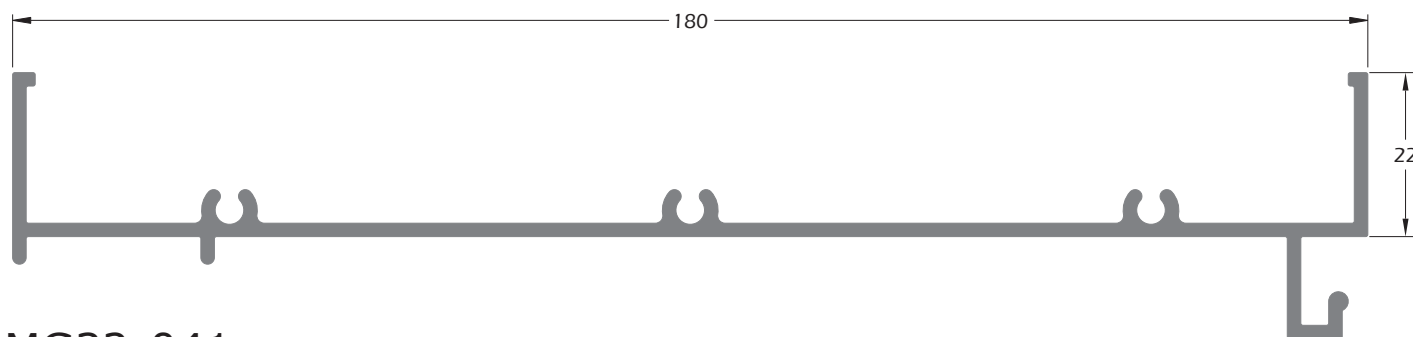
**MG32-175**

0,328 kg/m



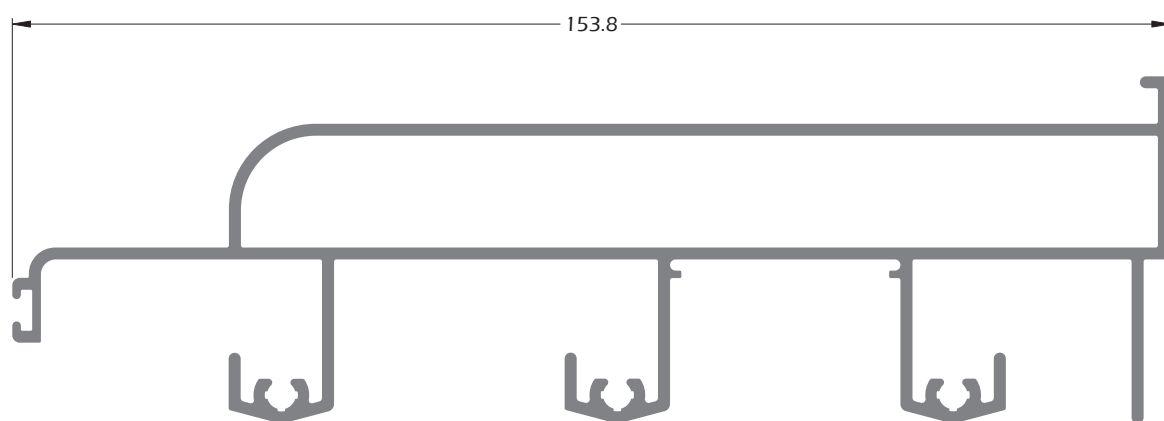
**MG32-159**

1,342 kg/m



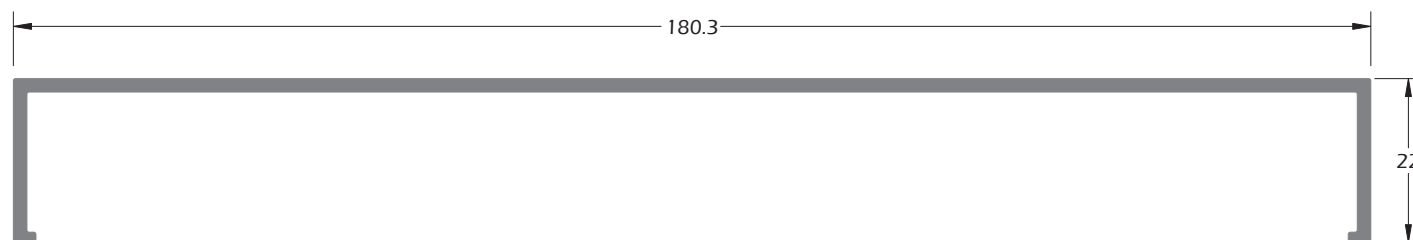
**MG32-041 (80-041)**

1,274 kg/m



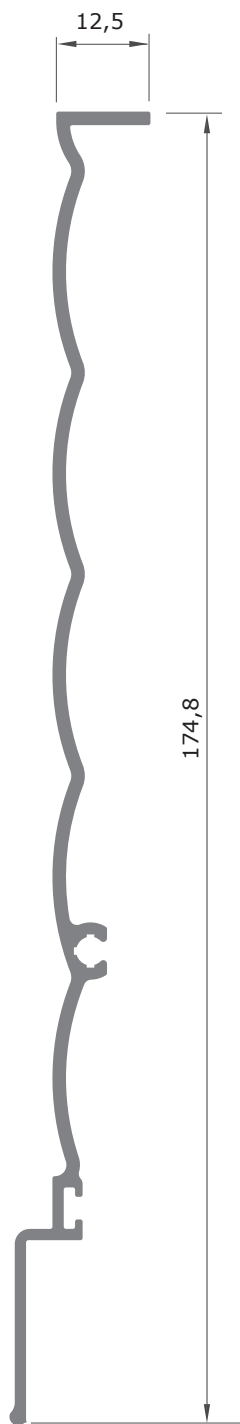
**MG32-034 (80-034)**

2,142 kg/m

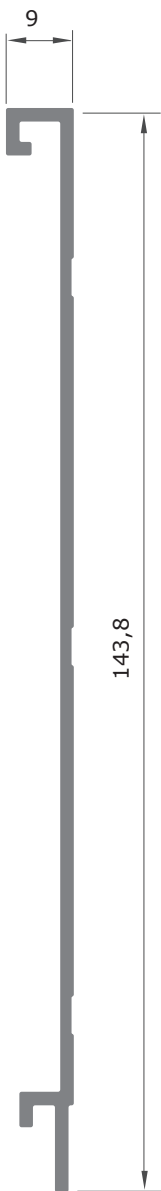


**MG32-035 (80-035)**

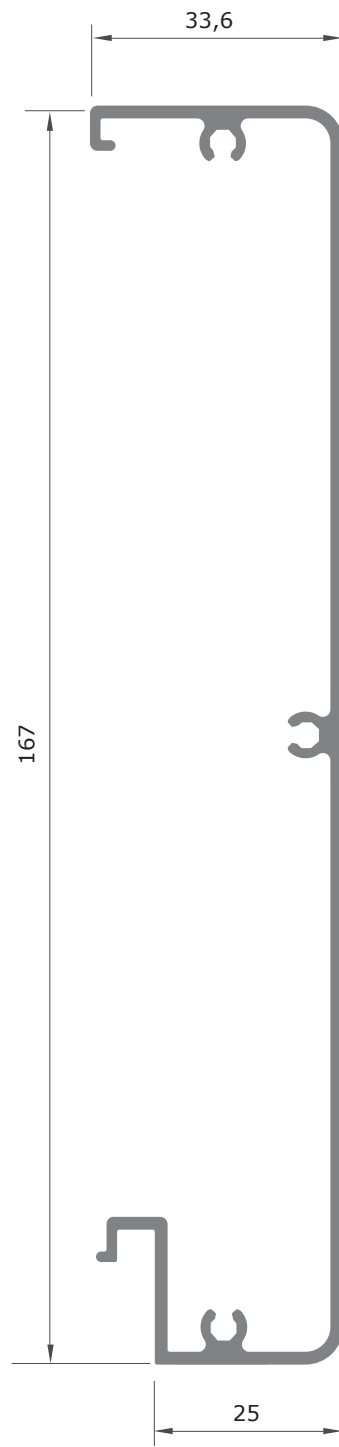
1,085 kg/m



**MG25-360**  
(80-036)  
1,007 Kg/m

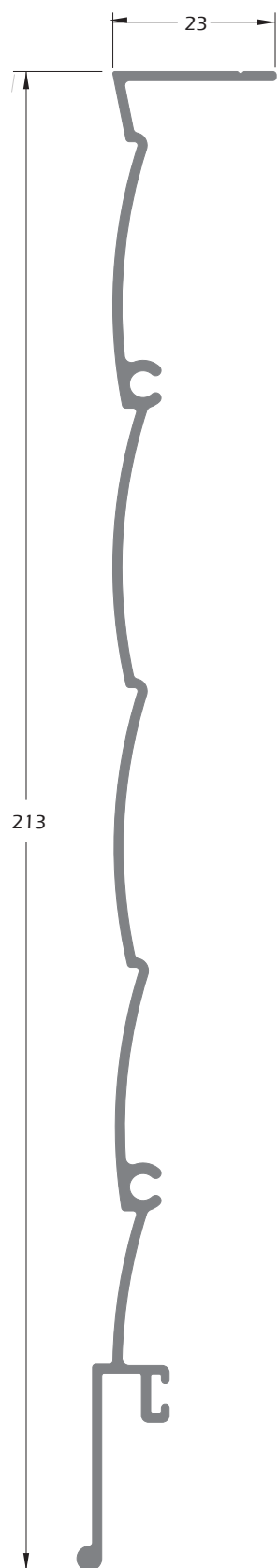


**MG25-380**  
(80-038)  
0,794 Kg/m

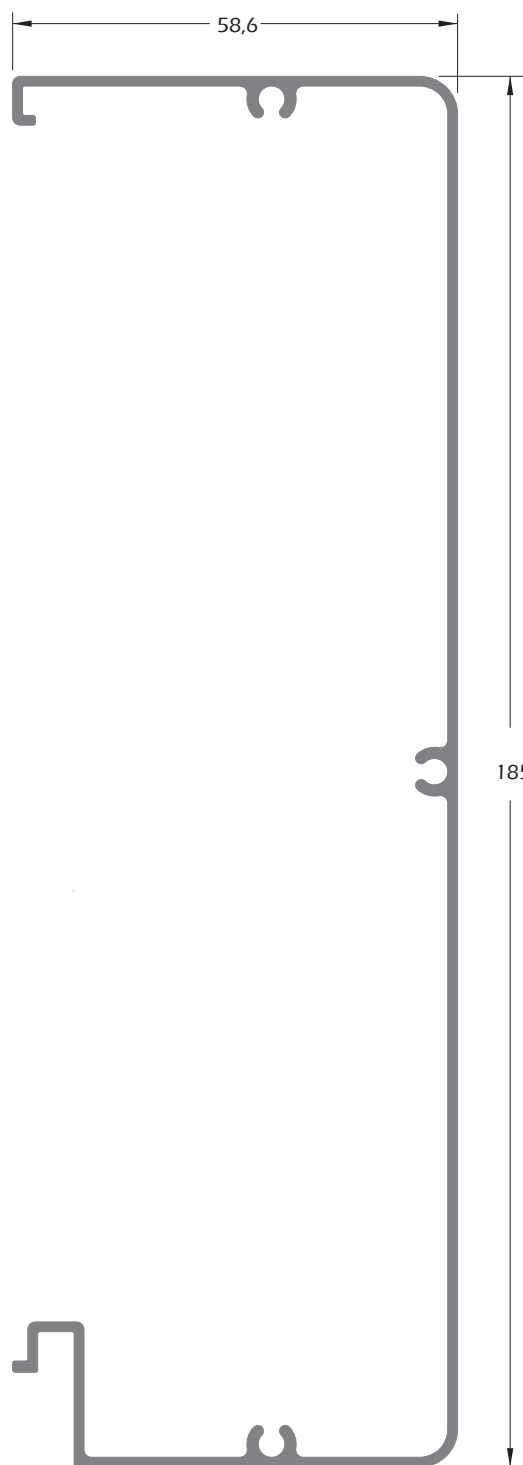


**MG25-450**  
(80-045)  
1,332 Kg/m

CATÁLOGO GERAL DE PERFIS

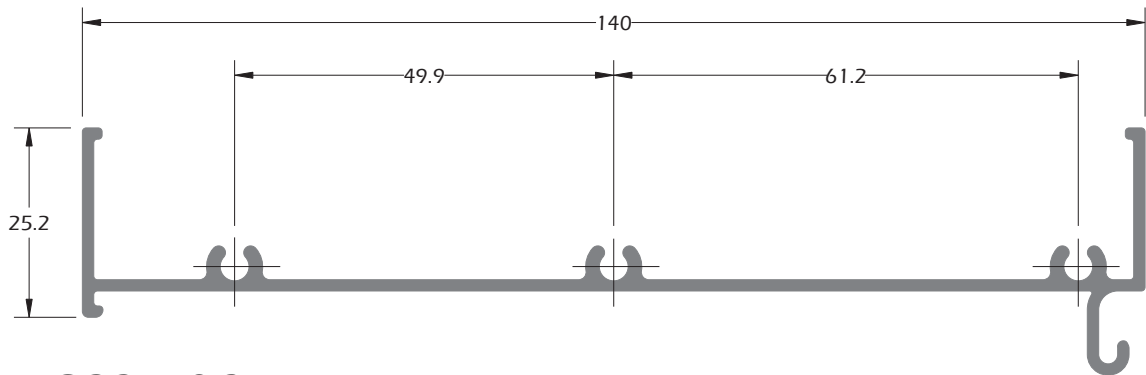


**MG32-070** (80-070D)  
1,005 kg/m



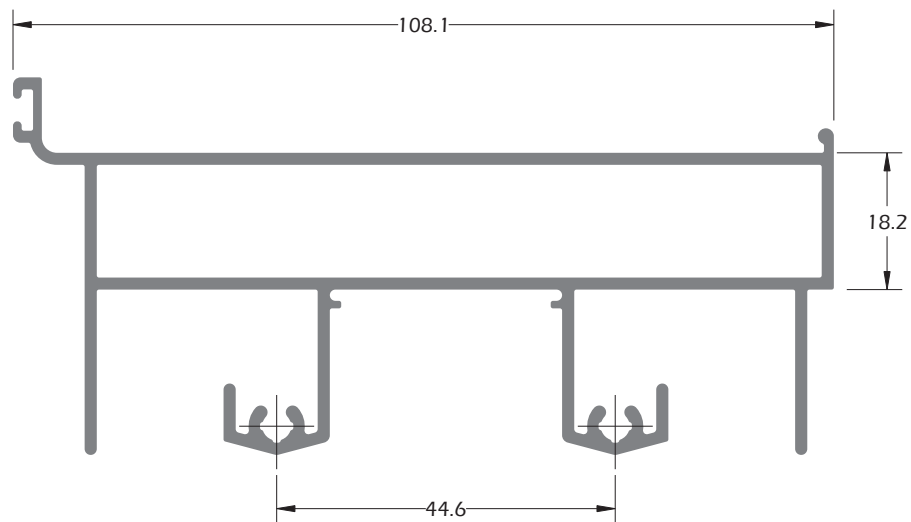
**MG32-068** (80-068D)  
1,214 kg/m

CATÁLOGO GERAL DE PERFIS



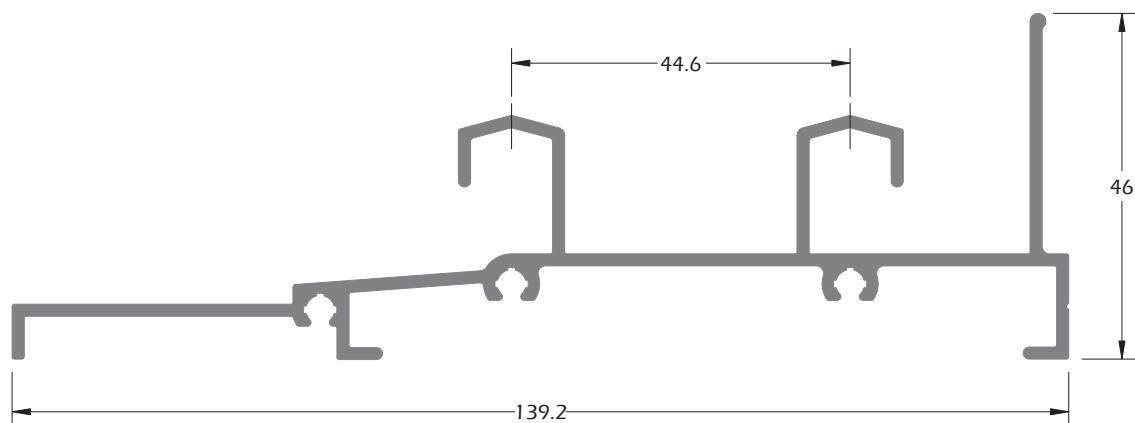
**MG32-106**

0,969 kg/m



**MG32-107**

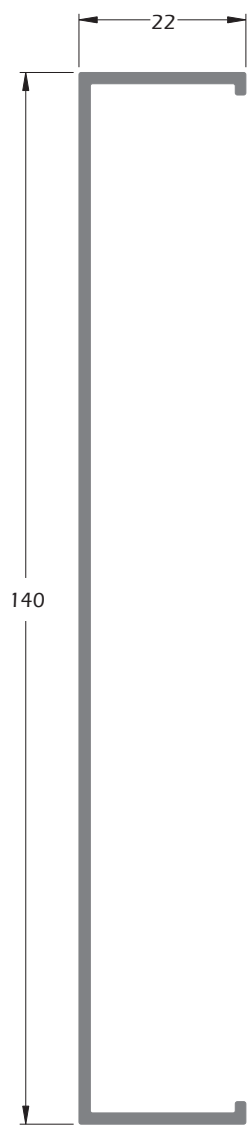
1,714 kg/m



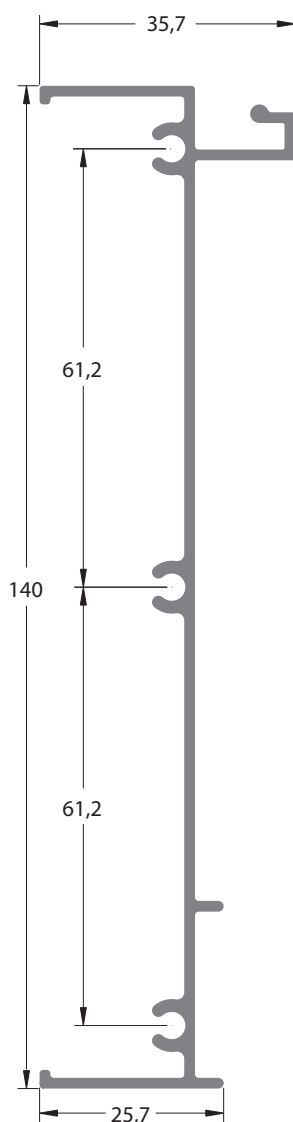
**MG32-061 (80-061)**

1,332 kg/m

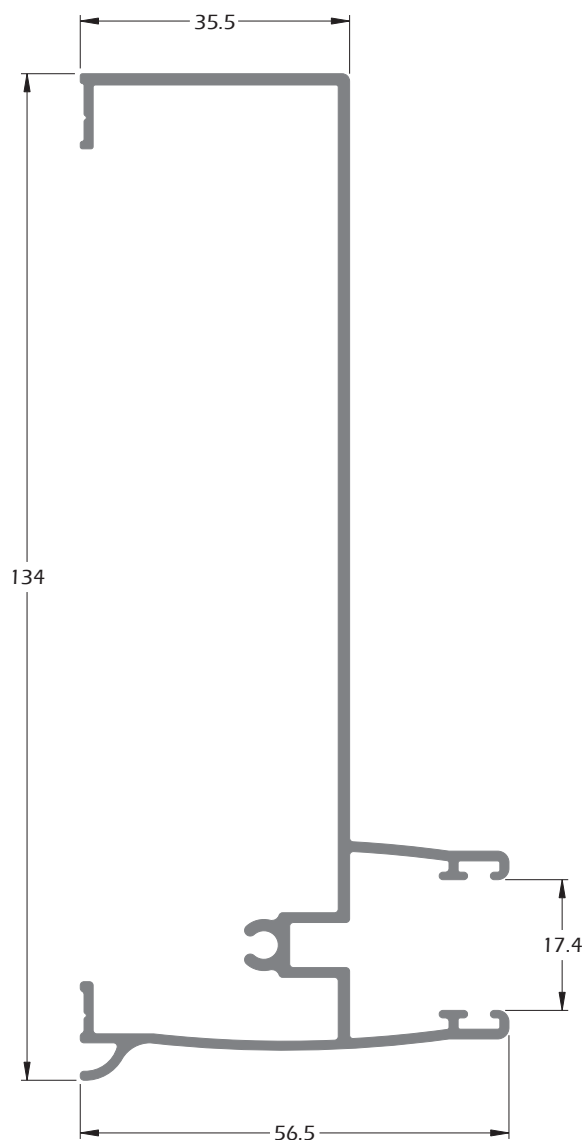
CATÁLOGO GERAL DE PERFIS



**MG32-058**  
(80-058)  
0,746 kg/m



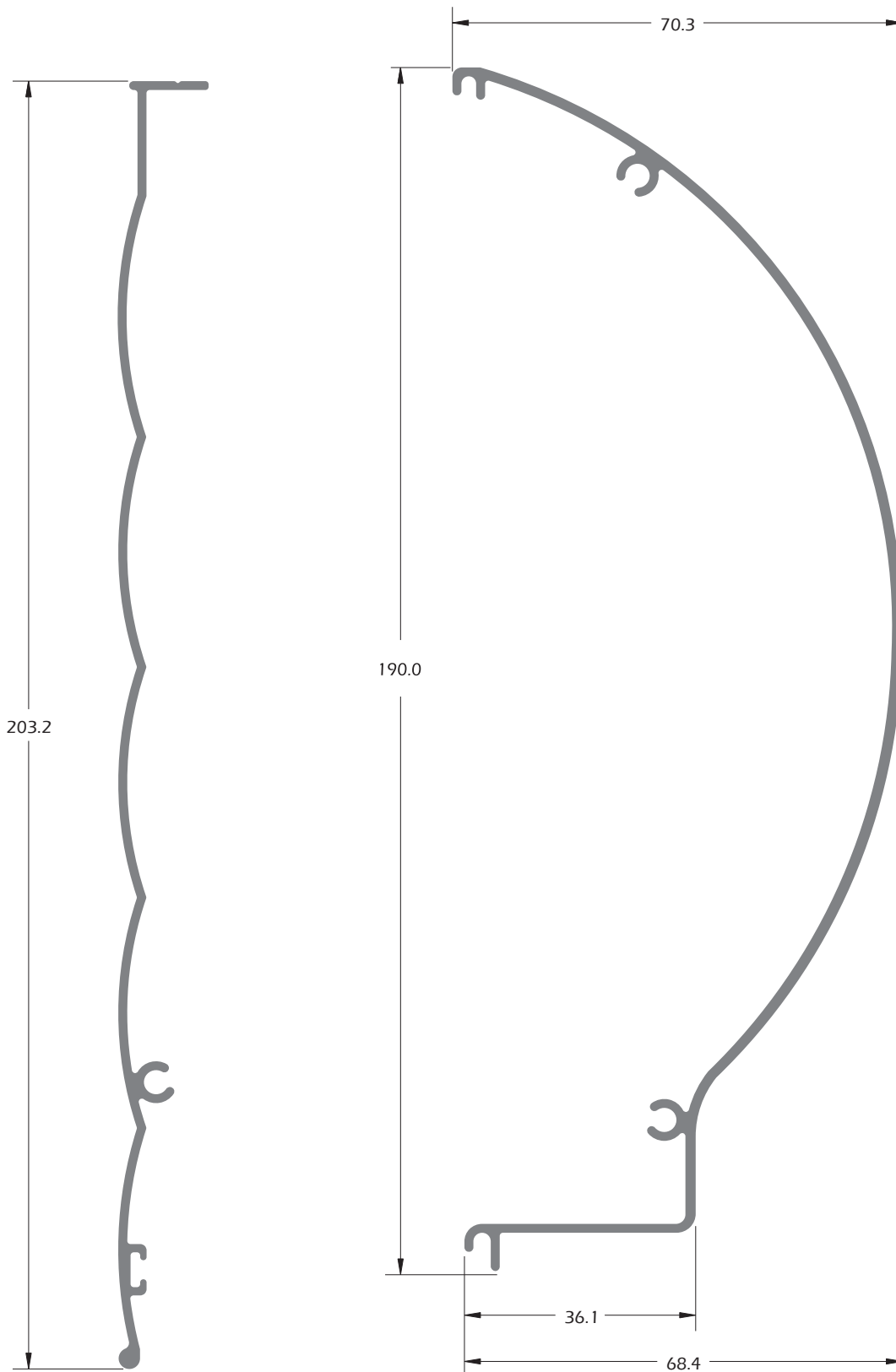
**MG32-060**  
(80-060)  
1,017 kg/m



**MG32-108**  
1,148 kg/m



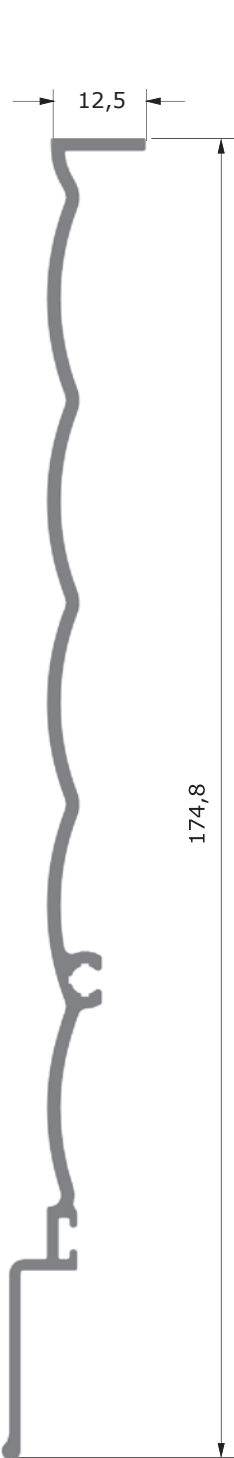
CATÁLOGO GERAL DE PERFIS



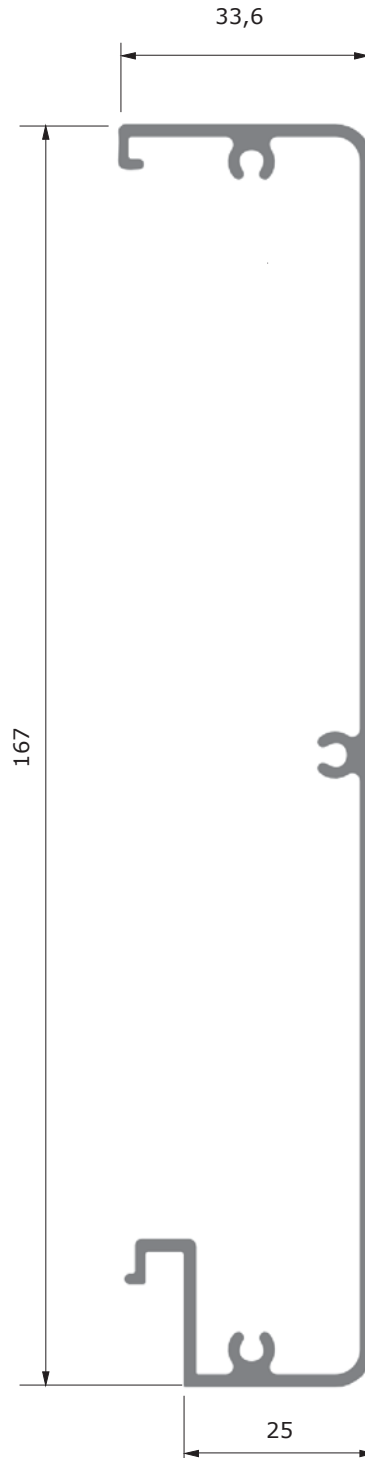
**MG32-109**  
0,922 kg/m

**MG32-110**  
1,274 kg/m

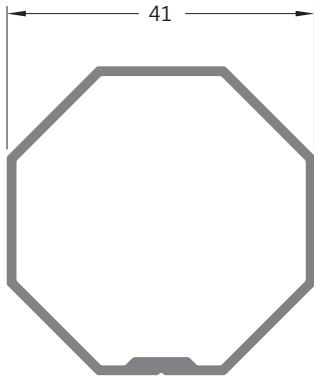
CATÁLOGO GERAL DE PERFIS



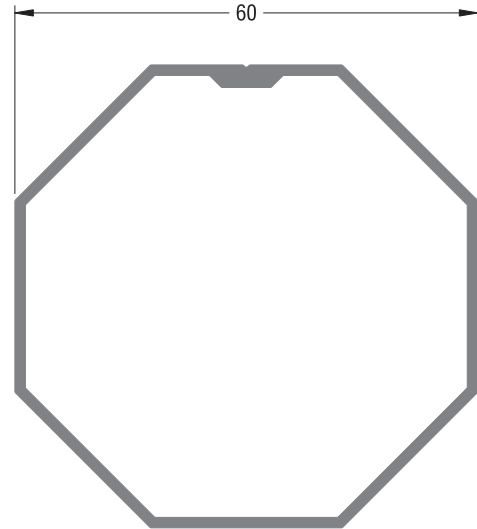
**MG32-071D**  
(80-071D)  
0,735 kg/m



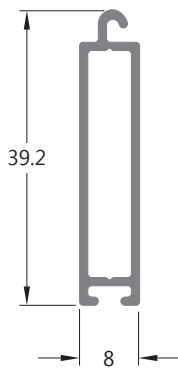
**MG32-069D**  
(80-069D)  
0,990 kg/m



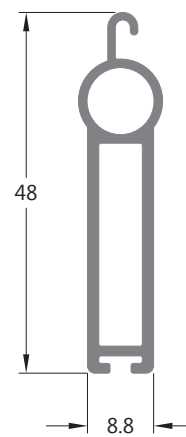
**MG32-063**  
0,489 kg/m



**MG32-032**  
0,792 kg/m

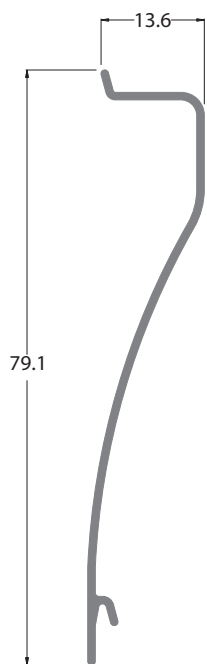


**MG32-062**  
0,270 kg/m

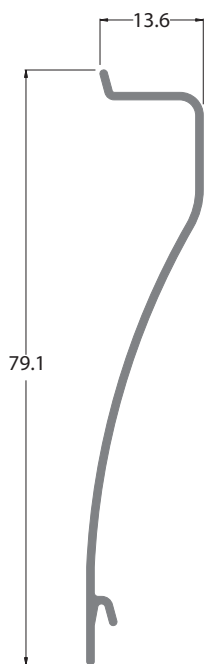


**MG32-046**  
0,430 kg/m

CATÁLOGO GERAL DE PERFIS



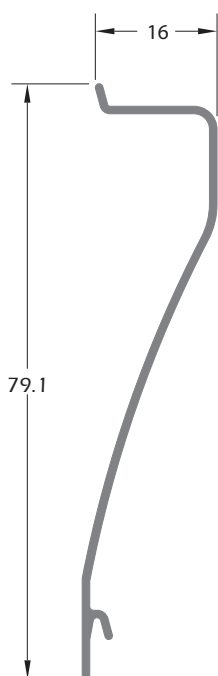
**VA-015**  
0,265 kg/m



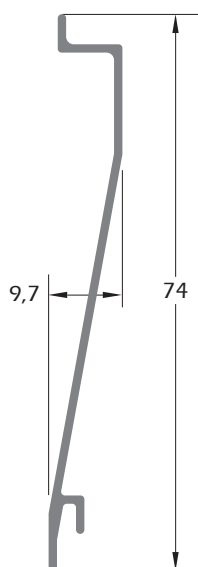
**VA-015F**  
0,265 kg/m



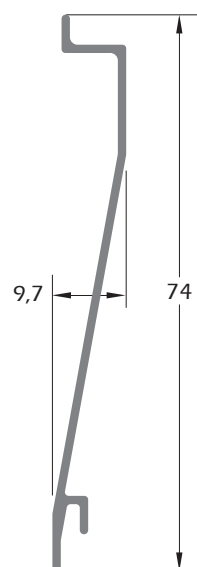
**VA-017**  
0,274 kg/m



**VA-017F**  
0,274 kg/m



**VA-024**  
0,271 kg/m

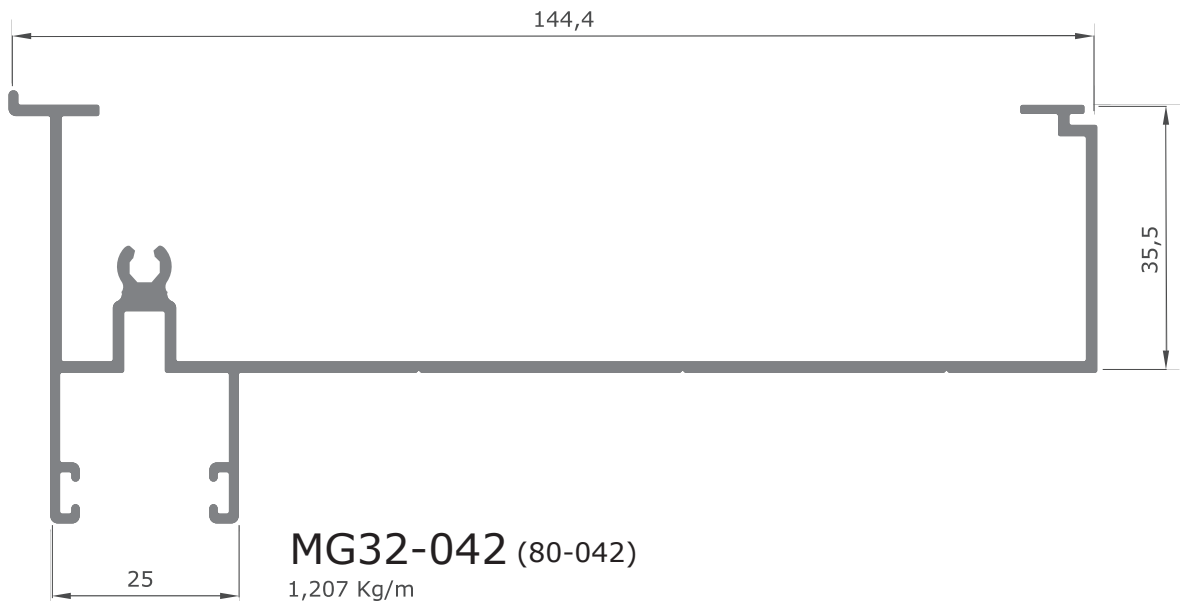


**VA-024F**  
0,271 kg/m

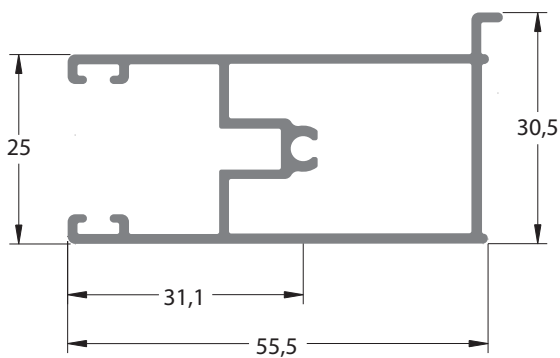
CATÁLOGO GERAL DE PERFIS



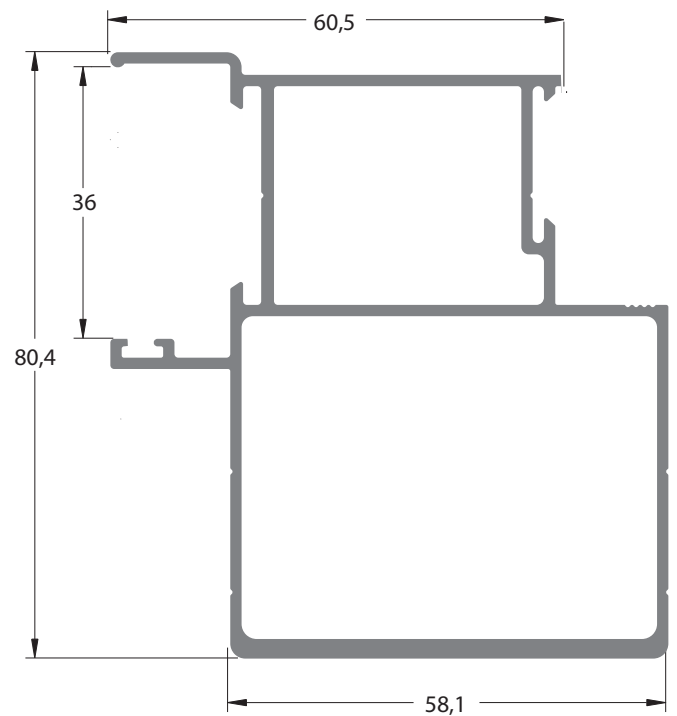
**MG32-040 (80-040)**  
0,836 Kg/m



**MG32-042 (80-042)**  
1,207 Kg/m

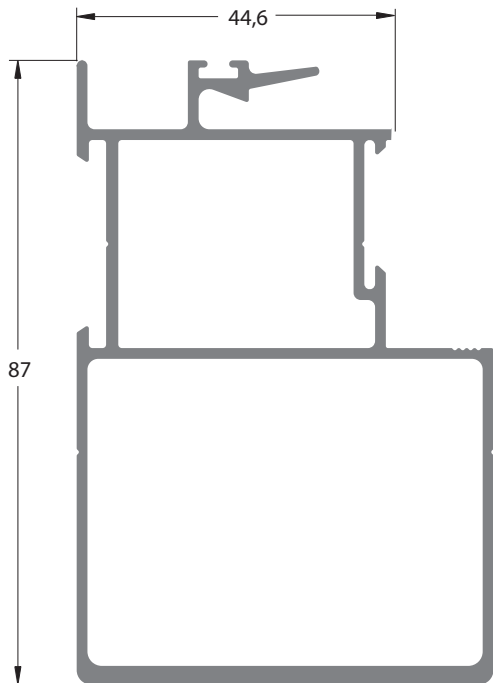


**MG32-044 (80-044)**  
0,719 kg/m

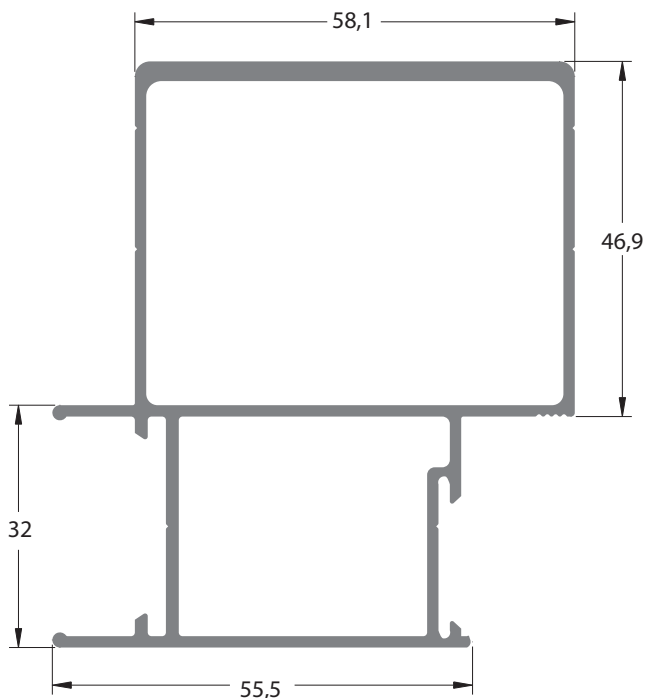


**MG32-053 (80-053)**  
1,649 kg/m

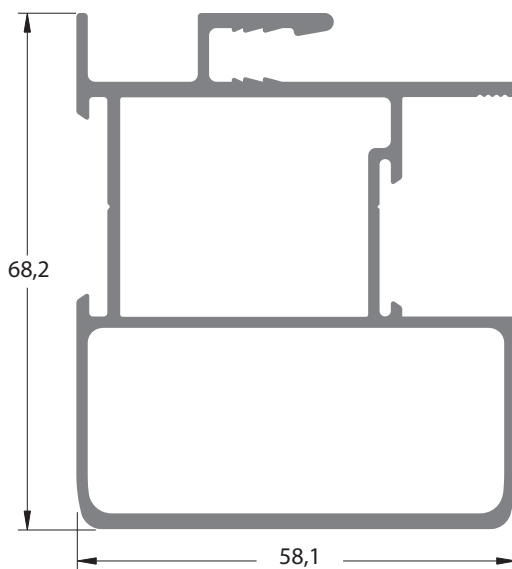
CATÁLOGO GERAL DE PERFIS



**MG32-054 (80-054)**  
1,666 kg/m

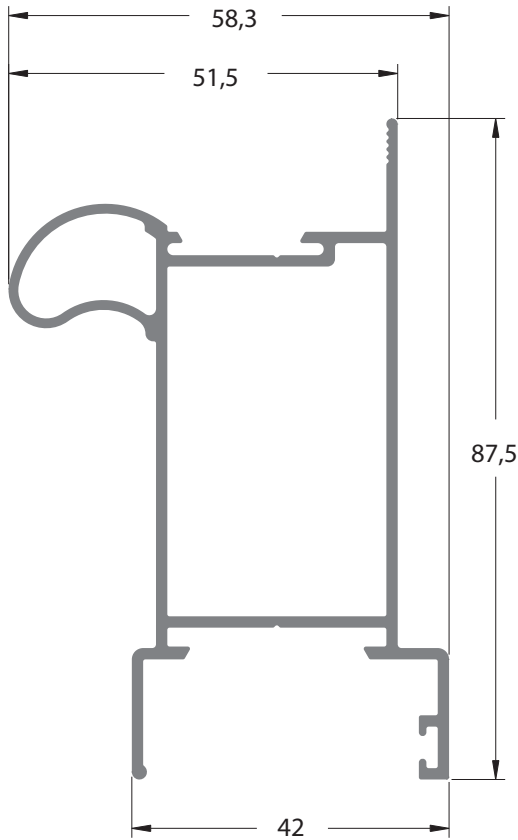


**MG32-056 (80-056)**  
1,574 kg/m

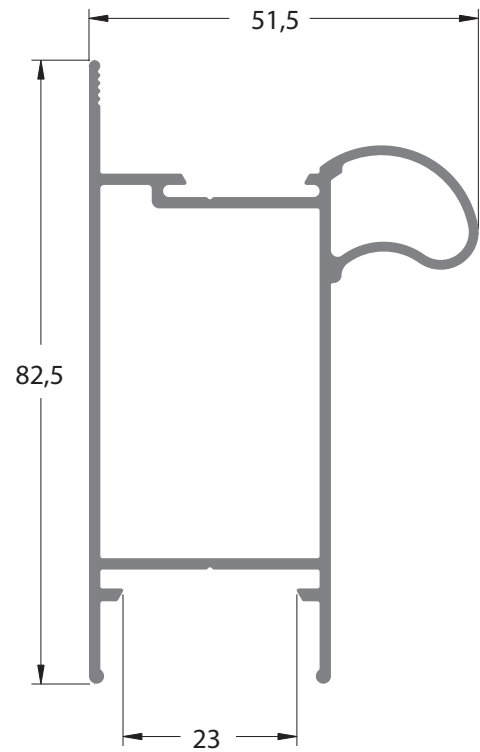


**MG32-055 (80-055)**  
1,570 kg/m

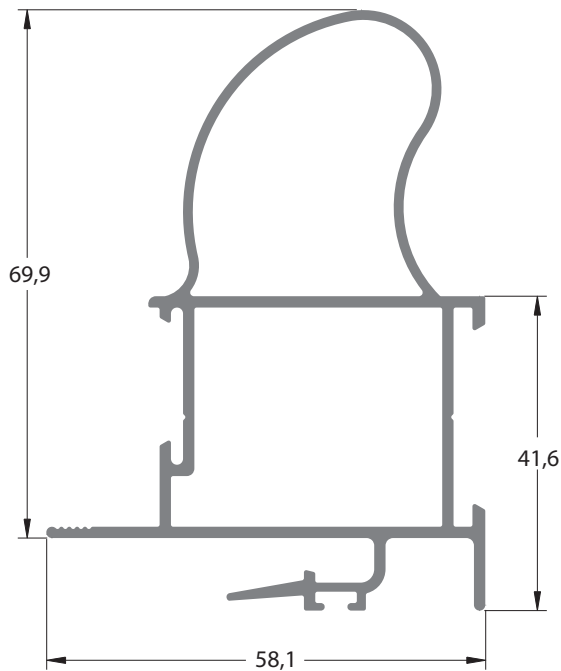
CATÁLOGO GERAL DE PERFIS



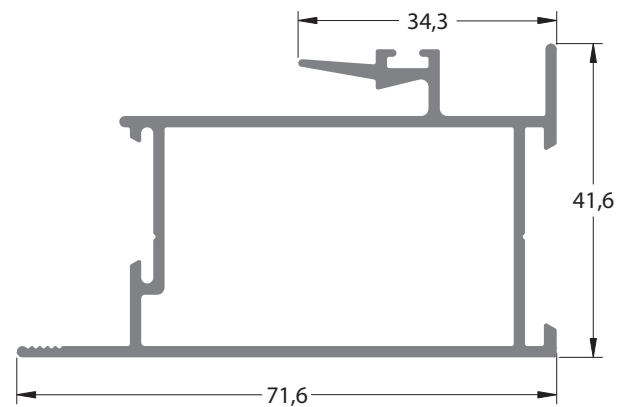
**MG32-073** (80-073)  
1,191 kg/m



**MG32-074** (80-074)  
1,087 kg/m

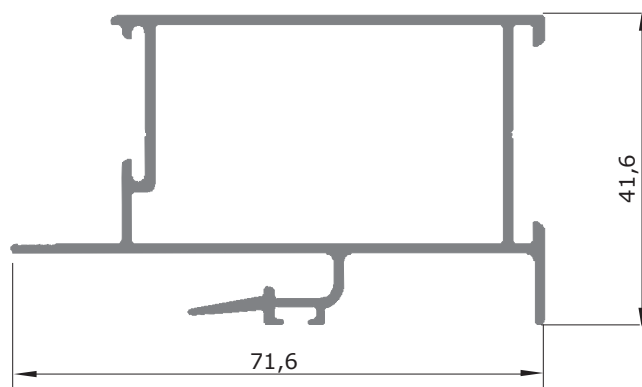


**MG32-075** (80-075)  
1,212 kg/m

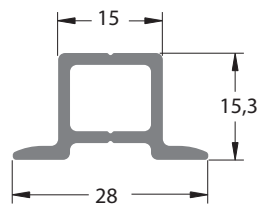


**MG32-076** (80-076)  
0,981 kg/m

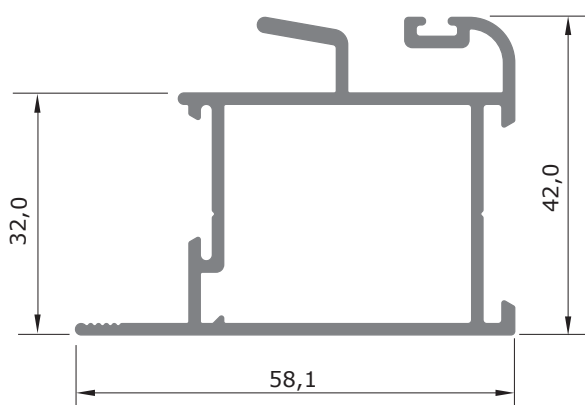




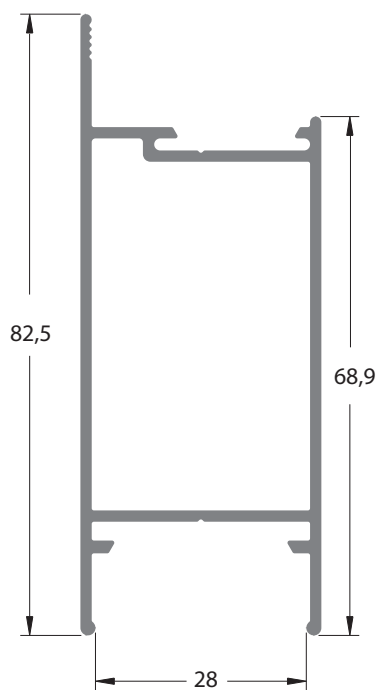
**MG32-081C (80-081C)**  
0,987 Kg/m



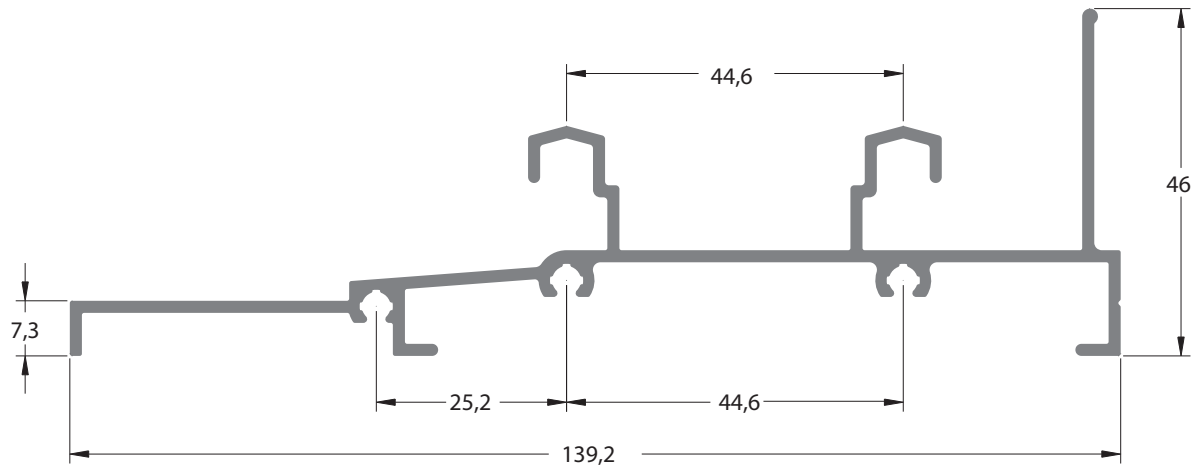
**MG32-177**  
0,311 kg/m



**MG32-077C (80-077C)**  
0,884 Kg/m

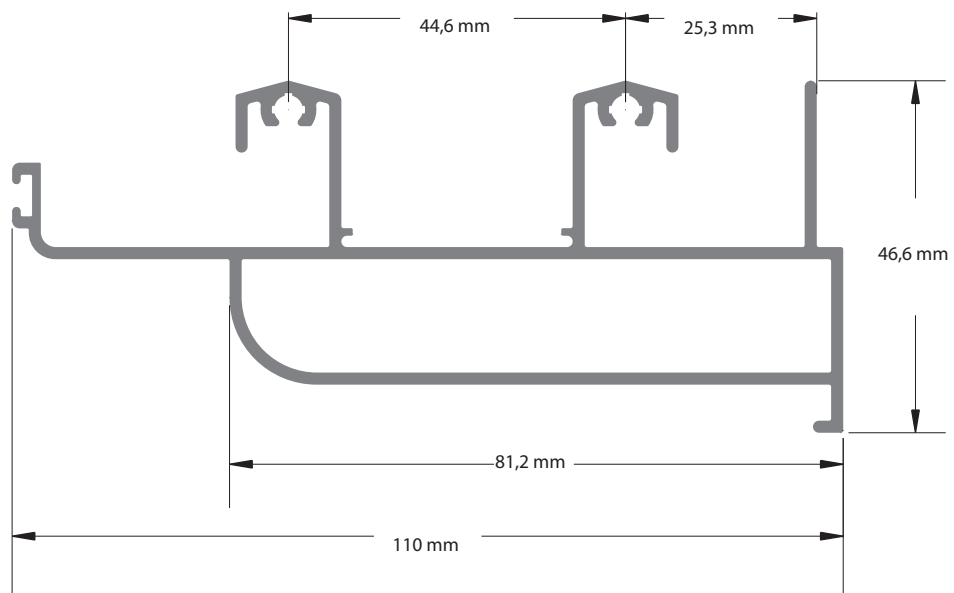


**MG32-078 (80-078)**  
0,908 kg/m



**MG32-176** (80-176)

1,288 kg/m



**MG32-059** (80-059)

1,017 kg/m









Sede Administrativa  
Centro de Desenvolvimento



**Asa Alumínio**, toda nossa estrutura,  
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