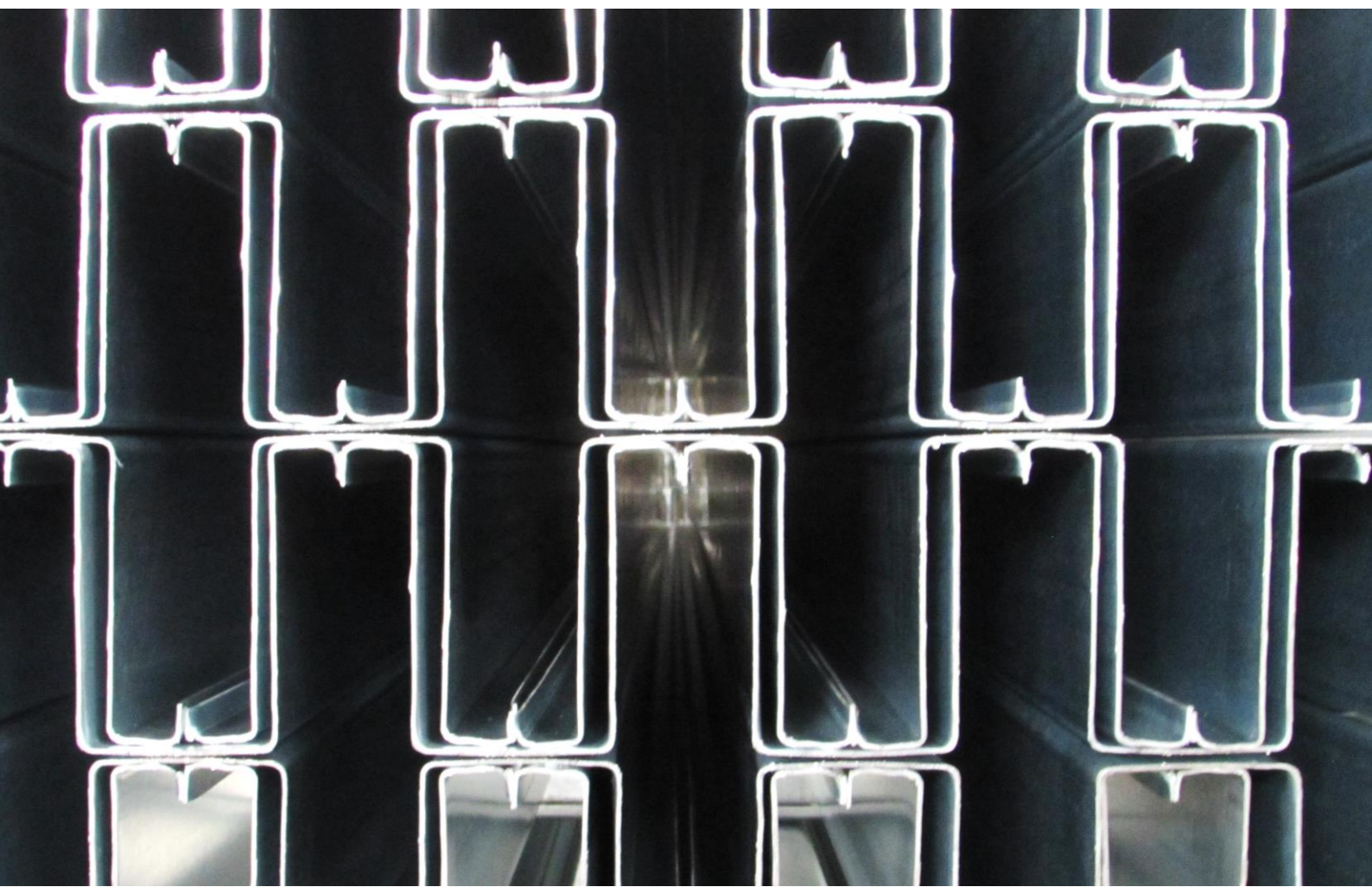




**BARRALFERROS**



<b>BARRAFERROS, LDA.</b>	<b>3</b>
<b>SETORES DE ATIVIDADE · SECTORES OF ACTIVITY</b>	<b>4</b>
<b>CERTIFICAÇÃO · CERTIFICATION</b>	<b>6</b>
<b>PRÉMIOS · AWARDS</b>	<b>7</b>
<b>PRODUTOS · PRODUCTS</b>	<b>8</b>
<b>INDÚSTRIA · INDUSTRY</b>	<b>8</b>
OMEGA OB	9
OMEGA	10
OMEGA R	10
SUORTE · SUPPORT	10
Z	11
C	12
G40	13
TUBULAR	14
<b>HABITAÇÃO · RESIDENCE</b>	<b>15</b>
VIGA TRELIÇADA · TRUSS BEAM	16
COBERTURA COM VÃO APROVEITADO · ATTIC ROOF	17
RBF	18
RBF & OB35/40	18
RBF & UB120	18
CP	19
UB40 & UB60	19
RIPAS · PURLINS	20
C & U (ESTRUTURA EM AÇO LEVE · LIGHT STEEL FRAMING)	21
<b>ENERGIA · ENERGY</b>	<b>22</b>
PERFIS PARA PAINÉIS FOTOVOLTAICOS SECTIONS FOR PHOTOVOLTAIC PANELS	23
<b>AGRICULTURA · AGRICULTURE</b>	<b>24</b>
PERFIS PARA ESTUFAS · SECTIONS FOR GREENHOUSES	25
ESTACA · STAKE	26
CABECEIRA · HEADSTAKE	26
<b>PORTÕES · GATES</b>	<b>27</b>
PERFIL PORTÃO DE CORRER · SECTION FOR SLIDING GATE	28
PORTÕES DE FOLE · FOLDING GATES	28
<b>CORTE E QUINAGEM · CUTTING AND PRESS BRAKING</b>	<b>29</b>
<b>PROPRIEDADES DOS MATERIAIS · MATERIAL PROPERTIES</b>	<b>30</b>

# EMPRESA ESPECIALIZADA NO DESENVOLVIMENTO E FABRICO DE PERFIS EM AÇO ENFORMADO A FRIO

1991  
ano de  
fundação

Os perfis em aço enformados a frio apresentam muitas vantagens quando comparados com outras soluções, nomeadamente a boa relação entre a resistência e o peso, fabrico industrial rápido e limpo, facilidade de elevação e montagem em obra.

A Barraferros com o desenvolvimento e fabrico de perfis em aço enformado a frio, por perfilagem e quinagem, para os setores da construção, reabilitação, energia e agricultura, contribui para projetos mais económicos, sustentáveis e inteligentes.

+250

perfis  
em aço  
steel  
sections

0,6-3,0

mm de  
espessura  
mm of  
thickness

S220GD  
S280GD  
S320GD  
S350GD  
+Z e +ZM

aço estrutural  
EN 10346  
structural steel  
EN 10346

1.4301 (304)  
1.4401 (316)  
2B

aço inoxidável  
EN 10088  
stainless steel  
EN 10088

# COMPANY SPECIALIZED IN THE DEVELOPMENT AND MPRODUCTION OF COLD FORMED STEEL SECTIONS

1991  
founded  
in

Cold-formed steel sections have many advantages when compared to other solutions, namely the good ratio between strength and weight, fast and clean industrial production, ease of lifting and assembly on site.

Barraferros, with the development and manufacture of cold-formed steel sections, by profiling and press bending, for the construction, retrofitting, energy, and agriculture sectors, contributes to more economical, sustainable, and intelligent projects.



## INDÚSTRIA

perfis para estrutura de suporte de cobertura e fachada

## INDUSTRY

sections for roof and facade cladding structure



## HABITAÇÃO

perfis para pilares, vigas, paredes, pisos e cobertura

## RESIDENCE

sections for columns, beams, walls, floors and roof



## ENERGIA

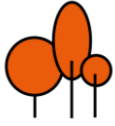
perfis para estrutura de suporte de painéis fotovoltaicos

## ENERGY

sections for photovoltaic panels support structure







**AGRICULTURA**  
perfis para culturas  
agrícolas e estufas

**AGRICULTURE**  
sections for  
agriculture culture  
and greenhouses



**PORTÕES**  
portão de fole em  
chapa de aço

**GATES**  
steel sheet folding  
gate



**CORTE E  
QUINAGEM**  
perfis  
personalizados até  
12 m de  
comprimento

**CUTTING AND  
PRESS BRAKING**  
custom-made  
sections until 12 m  
of length



## CERTIFICAÇÃO · CERTIFICATION

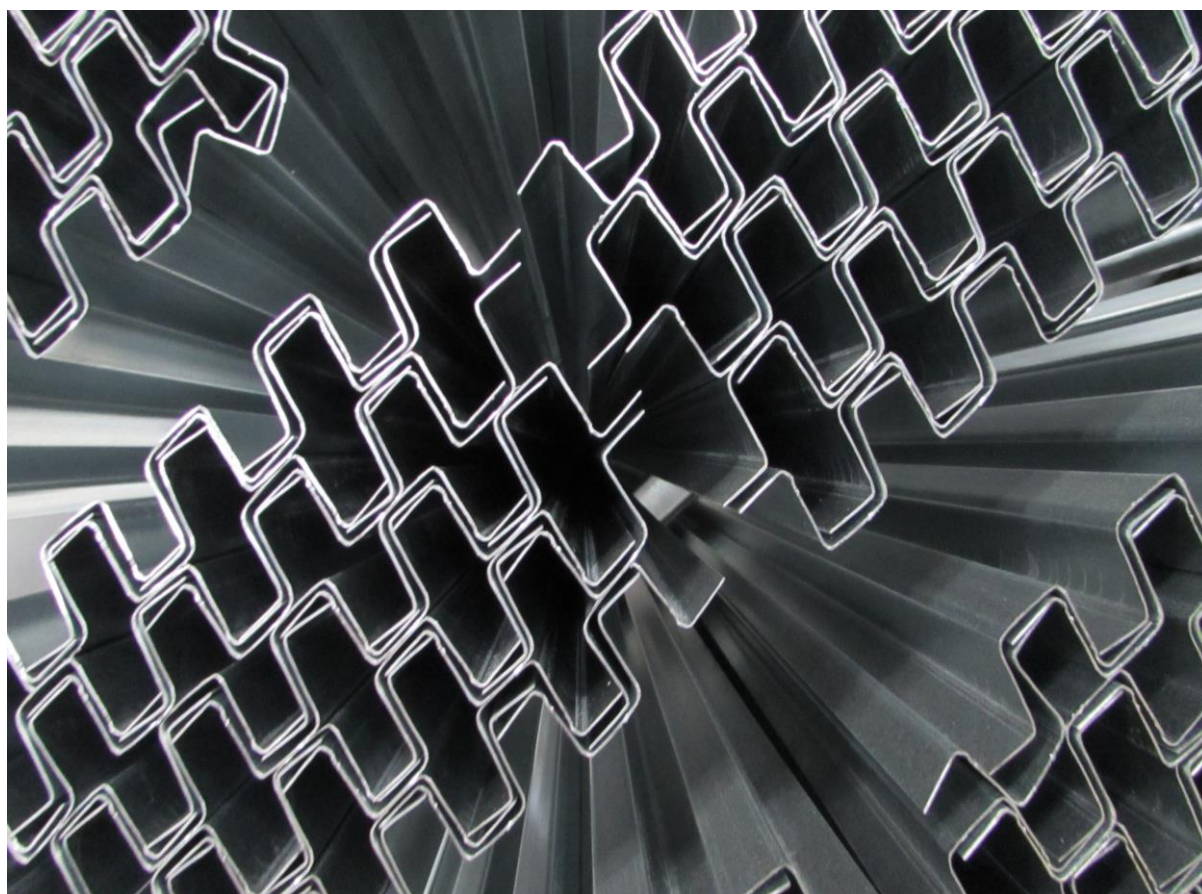
<b>CE</b>	Certificado de Conformidade do Controlo de Produção em Fábrica Certificate of Conformity of Factory Production Control
Produto Product	Aço Galvanizado Galvanized Steel
Norma Standard	EN 1090-1:2009 + A1:2011
Método de Declaração Declaration Method	2, 3a
Classe de Execução Execution Class	EXC2 (EN 1090-4)
Material de Base Base Material	S220GD, S280GD, S320GD, S350GD



## PRÉMIOS · AWARDS

O estatuto PME Líder é um selo de reputação criado pelo IAPMEI para distinguir o mérito das Pequenas e Médias Empresas Portuguesas com desempenho superior, com base nas melhores notações de rating e indicadores económico-financeiros.

The PME Líder status is a seal of reputation created by IAPMEI to distinguish the merit of Small and Medium Sized Portuguese Companies with superior performance, based on the best ratings and economic-financial indicators.





INDÚSTRIA  
INDUSTRY



**APLICAÇÃO**

Estrutura para revestimento de cobertura e fachada (madres)  
 Estrutura para piso  
 Estrutura para painéis fotovoltaicos

**APPLICATION**

Structure for roof and facade cladding (purlins and side rails)  
 Structure for floor  
 Structure for photovoltaic panels

**ESPECIFICIDADES**

A configuração das secções permite a sobreposição vertical com as seguintes vantagens:

- Aumento da resistência na zona de sobreposição
- Redução do volume do lote de perfis no transporte
- Facilidade de montagem e ligação dos perfis

**SPECIFICITIES**

The configuration of the sections allows vertical overlap with the following advantages:

- Increase of the resistance in the overlap area
- Reduction of the profile set volume for transport
- Easy installation and connection of profiles on site

**Esquema de sobreposição sugerido:**

- Vãos internos – comprimento de sobreposição nos apoios igual a 20% do vão, sendo 10% para cada lado do apoio
- Vãos de extremidade – comprimento de sobreposição nos apoios igual a 25% do vão, sendo 10% no vão extremidade e 15% no vão interno adjacente

**Suggested overlap scheme:**

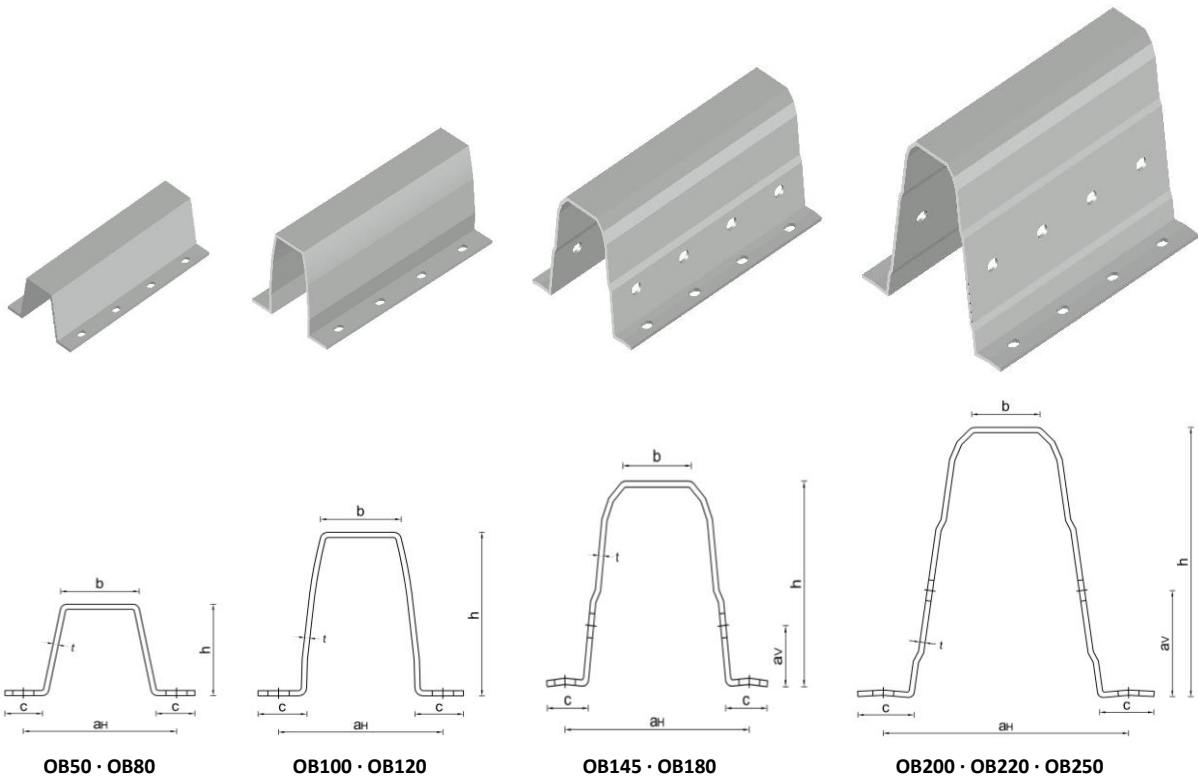
- Internal spans – overlap length at the supports equal to 20% of the span, 10% for each side of the support
- End spans – overlap length at the supports equal to 25% of the span, being 10% at the end span and 15% at the adjacent internal span

**Furações:**

- Furos ovais nas abas e almas
- De acordo com os requisitos de projeto

**Holes:**

- Oval holes in the lower flanges and webs
- According to design specifications



Seção Section	h (mm)	b (mm)	c (mm)	$f_{nom}$ (mm)	$\varnothing$ (mm)	$a_H$ (mm)	$a_v$ (mm)	P (kg/m)
OB50x1.2	50	42	22	1.2	9.0x13.0 //50	82	--	1.70
OB50x1.5				1.5				2.12
OB80x1.5				1.5				3.00
OB100x1.5	30		1.5	3.52				
OB120x1.5			1.5	3.96				
OB145x1.5			1.5	4.86				
OB145x2.0	143	56	32	2.0	12.5x14.5 //50	150	37	6.48
OB145x2.5				2.5				8.10
OB180x1.5				1.5				5.94
OB180x2.0	38		2.0	7.92				
OB180x2.5			2.5	9.90				
OB200x1.5			44	1.5				6.30
OB200x2.0	2.0	8.40						
OB200x2.5	2.5	10.50						
OB220x1.5	1.5	7.08						
OB220x2.0	220	2.0		9.44				
OB220x2.5		2.5		11.80				
OB250x1.5		48	1.5	7.86				
OB250x2.0	2.0		10.48					
OB250x2.5	2.5		13.10					

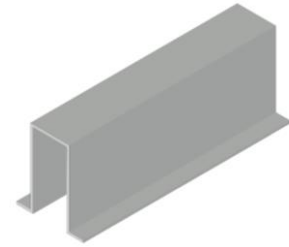
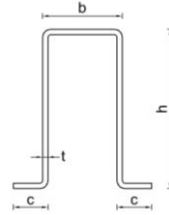
## OMEGA

### APLICAÇÃO

Estrutura para revestimento de cobertura e fachada (madres)  
Comprimento e furação de acordo com os requisitos

### APPLICATION

Structure for roof and facade cladding (purlins and side rails)  
Length and holes according to specifications



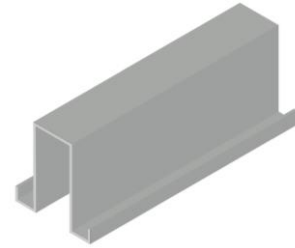
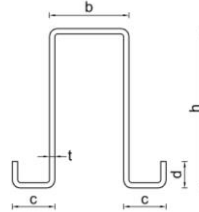
## OMEGA R

### APLICAÇÃO

Madres para cobertura e fachada de pavilhões industriais  
Comprimento e furação de acordo com os requisitos

### APPLICATION

Purlins and side rails for industrial buildings  
Length and holes according to specifications



Seção Section	h (mm)	b (mm)	c (mm)	t <sub>nom</sub> (mm)	P (kg/m)
O40/40/15x1.5	40	40	15	1.5	1.66
O50/40/16x1.5	50		16	1.5	1.92
O50/40/18x2.0			18	2.0	2.56
O100/65/20x1.5		65	20	1.5	3.52
O100/65/22x2.0	100		22	2.0	4.69
O100/65/24x2.5			24	2.5	5.86
O110/65/19x1.5		65	19	1.5	3.72
O110/65/21x2.0	110		21	2.0	4.96
O110/65/23x2.5			23	2.5	6.20
O120/65/19x1.5		65	19	1.5	3.96
O120/65/21x2.0	120		21	2.0	5.28
O120/65/23x2.5			23	2.5	6.60
O140/65/19x1.5		65	19	1.5	4.44
O140/65/21x2.0	140		21	2.0	5.92
O140/65/23x2.5			23	2.5	7.40
O160/65/16x1.5		65	16	1.5	4.86
O160/65/18x2.0	160		18	2.0	6.48
O160/65/20x2.5			20	2.5	8.10

Seção Section	h (mm)	b (mm)	c (mm)	d (mm)	t <sub>nom</sub> (mm)	P (kg/m)
OR100/60/16/5x1.5	100	60	16	5	1.5	3.32
OR100/60/16/7x2.0				7	2.0	4.43
OR100/65/20/12x1.5		65	20	12	1.5	3.72
OR100/65/20/15x2.0	15			2.0	4.96	
OR100/65/20/18x2.5			18	2.5	6.20	
OR120/65/20/9x1.5	120	65	20	9	1.5	4.14
OR120/65/20/12x2.0				12	2.0	5.52
OR120/65/20/15x2.5				15	2.5	6.90
OR125/60/16/5x1.5	125	60	16	5	1.5	3.96
OR125/60/16/6x2.0				6	2.0	5.28
OR125/60/16/9x2.5		9	2.5	6.60		
OR135/65/20/8x1.5	135	65	20	8	1.5	4.44
OR135/65/20/10x2.0				10	2.0	5.92
OR135/65/20/13x2.5				13	2.5	7.40
OR145/60/16/5x1.5	145	60	16	5	1.5	4.44
OR145/60/16/7x2.0				7	2.0	5.92
OR145/60/16/9x2.5		9	2.5	7.40		
OR150/65/20/9x1.5	150	65	20	9	1.5	4.86
OR150/65/20/12x2.0				12	2.0	6.48
OR150/65/20/15x2.5				15	2.5	8.10
OR160/65/20/9x1.5	160	65	20	9	1.5	5.10
OR160/65/20/12x2.0				12	2.0	6.80
OR160/65/20/15x2.5				15	2.5	8.50

Outras dimensões sob consulta · Other dimensons on demand

Omega R b = 60 mm econômica · economic

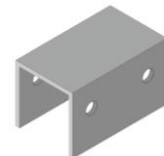
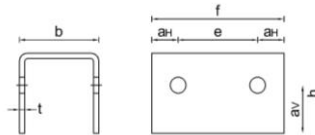
## SUPORTE · SUPPORT

### APLICAÇÃO

Ligação para perfil OMEGA e OMEGA R

### APPLICATION

Connection for section OMEGA and OMEGA R



Seção Section	h (mm)	b (mm)	∅ (mm)	aH (mm)	e (mm)	f (mm)	aV (mm)	t <sub>nom</sub> (mm)	P (kg/m)
SUP 2.0	70	60	14	28	70	125	40	2.0	3.07
SUP 2.5								2.5	3.84

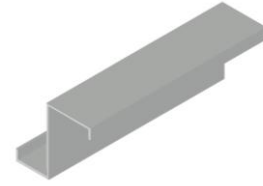
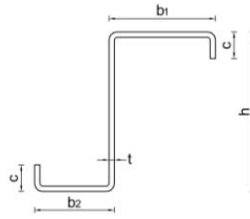


**APLICAÇÃO**

Estrutura para revestimento de cobertura e fachada (madres)  
Comprimento e furação de acordo com os requisitos

**APPLICATION**

Structure for roof and facade cladding (purlins and side rails)  
Length and holes according to specifications



Seção Section	h (mm)	b <sub>1</sub> (mm)	b <sub>2</sub> (mm)	c (mm)	t <sub>nom</sub> (mm)	P (kg/m)			
Z160/50-50/15x1.5	160	50	50	15	1.5	3.32			
Z160/50-50/17x2.0				17	2.0	4.43			
Z160/60-60/21x1.5		60	60	21	1.5	3.72			
Z160/60-60/23x2.0				23	2.0	4.96			
Z160/60-60/25x2.5				25	2.5	6.20			
Z160/70-70/16x1.5				70	60	16	1.5	3.72	
Z160/70-70/18x2.0		18	2.0			4.96			
Z160/70-70/20x2.5		20	2.5			6.20			
Z160/70-70/11x1.5		70	70			11	1.5	3.72	
Z160/70-70/13x2.0						13	2.0	4.96	
Z160/70-70/15x2.5						15	2.5	6.20	
Z180/60-60/21x1.5						180	60	21	1.5
Z180/60-60/23x2.0		23	2.0					5.28	
Z180/60-60/25x2.5		25	2.5	6.60					
Z180/70-70/16x1.5		70	60	16	1.5			3.96	
Z180/70-70/18x2.0				18	2.0		5.28		
Z180/70-70/20x2.5	20			2.5	6.60				
Z180/70-70/19x1.5	70			70	19		1.5	4.14	
Z180/70-70/21x2.0			21		2.0		5.52		
Z180/70-70/23x2.5			23		2.5		6.90		
Z200/60-60/19x1.5			200		60		19	1.5	4.14
Z200/60-60/21x2.0	21			2.0			5.52		
Z200/60-60/23x2.5	23	2.5		6.90					
Z200/70-70/14x1.5	70	60		14			1.5	4.14	
Z200/70-70/16x2.0				16	2.0		5.52		
Z200/70-70/18x2.5				18	2.5		6.90		
Z200/70-70/21x1.5				70	70		21	1.5	4.44
Z200/70-70/23x2.0		23				2.0	5.92		
Z200/70-70/25x2.5		25				2.5	7.40		
Z200/80-70/16x1.5		80				70	16	1.5	4.44
Z200/80-70/18x2.0				18	2.0		5.92		
Z200/80-70/20x2.5	20			2.5	7.40				
Z220/60-60/21x1.5	220			60	21		1.5	4.44	
Z220/60-60/23x2.0					23	2.0	5.92		
Z220/60-60/25x2.5					25	2.5	7.40		
Z220/70-70/16x1.5					70	60	16	1.5	4.44
Z220/70-70/18x2.0			18	2.0			5.92		
Z220/70-70/20x2.5		20	2.5	7.40					
Z240/60-60/13x2.0		240	60	13			2.0	4.96	
Z240/60-60/15x2.5				15		2.5	6.48		
Z240/70-70/24x1.5				70		60	24	1.5	4.86
Z240/70-70/26x2.0							26	2.0	6.48
Z240/70-70/28x2.5			28				2.5	8.10	
Z240/70-70/19x1.5			70		70		19	1.5	4.86
Z240/70-70/21x2.0						21	2.0	6.48	
Z240/70-70/23x2.5						23	2.5	8.10	
Z240/80-70/14x1.5						80	70	14	1.5
Z240/80-70/16x2.0			16		2.0			6.48	
Z240/80-70/18x2.5	18		2.5	8.10					
Z250/60-60/24x1.5	250		60	24	1.5			4.86	
Z250/60-60/26x2.0				26	2.0		6.48		
Z250/60-60/28x2.5				28	2.5		8.10		
Z250/70-70/19x1.5				70	60		19	1.5	4.86
Z250/70-70/21x2.0			21				2.0	6.48	
Z250/70-70/23x2.5		23	2.5			8.10			
Z250/70-70/14x1.5		70	70			14	1.5	4.86	
Z250/70-70/16x2.0					16	2.0	6.48		
Z250/70-70/18x2.5					18	2.5	8.10		
Z250/80-70/19x1.5					80	70	19	1.5	5.10
Z250/80-70/21x2.0		21	2.0				6.80		
Z250/80-70/23x2.5		23	2.5	8.50					
Z260/60-60/19x1.5		260	60	19			1.5	4.86	
Z260/60-60/21x2.0				21		2.0	6.48		
Z260/60-60/23x2.5				23		2.5	8.10		
Z260/70-70/14x1.5				70		60	14	1.5	4.86
Z260/70-70/16x2.0	16		2.0				6.48		
Z260/70-70/18x2.5	18		2.5		8.10				
Z260/70-70/26x1.5	70		60		26		1.5	5.64	
Z300/70-60/28x2.0					28	2.0	7.52		
Z300/70-60/28x2.5					28	2.5	9.30		
Z300/70-60/32x3.0					32	3.0	11.28		
Z300/70-70/21x1.5			300		70	21	1.5	5.64	
Z300/70-70/23x2.0				23		2.0	7.52		
Z300/70-70/23x2.5				23		2.5	9.30		
Z300/70-70/27x3.0				27		3.0	11.28		
Z300/80-70/16x1.5	80			70	16	1.5	5.64		
Z300/80-70/18x2.0					18	2.0	7.52		
Z300/80-70/18x2.5		18			2.5	9.30			
Z300/80-70/22x3.0		22			3.0	11.28			

Seção Section	h (mm)	b <sub>1</sub> (mm)	b <sub>2</sub> (mm)	c (mm)	t <sub>nom</sub> (mm)	P (kg/m)		
Z240/60-60/13x2.0	240	60	60	13	2.0	5.92		
Z240/60-60/15x2.5				15	2.5	7.40		
Z240/70-70/24x1.5				70	60	24	1.5	4.86
Z240/70-70/26x2.0						26	2.0	6.48
Z240/70-70/28x2.5		28	2.5			8.10		
Z240/70-70/19x1.5		70	70			19	1.5	4.86
Z240/70-70/21x2.0					21	2.0	6.48	
Z240/70-70/23x2.5					23	2.5	8.10	
Z240/80-70/14x1.5					80	70	14	1.5
Z240/80-70/16x2.0		16	2.0				6.48	
Z240/80-70/18x2.5		18	2.5	8.10				
Z250/60-60/24x1.5		250	60	24			1.5	4.86
Z250/60-60/26x2.0				26		2.0	6.48	
Z250/60-60/28x2.5				28		2.5	8.10	
Z250/70-70/19x1.5				70		60	19	1.5
Z250/70-70/21x2.0			21				2.0	6.48
Z250/70-70/23x2.5	23		2.5		8.10			
Z250/70-70/14x1.5	70		70		14		1.5	4.86
Z250/70-70/16x2.0					16	2.0	6.48	
Z250/70-70/18x2.5					18	2.5	8.10	
Z250/80-70/19x1.5					80	70	19	1.5
Z250/80-70/21x2.0	21		2.0				6.80	
Z250/80-70/23x2.5	23		2.5	8.50				
Z260/60-60/19x1.5	260		60	19			1.5	4.86
Z260/60-60/21x2.0				21		2.0	6.48	
Z260/60-60/23x2.5				23		2.5	8.10	
Z260/70-70/14x1.5				70		60	14	1.5
Z260/70-70/16x2.0		16	2.0				6.48	
Z260/70-70/18x2.5		18	2.5		8.10			
Z260/70-60/26x1.5		70	60		26		1.5	5.64
Z300/70-60/28x2.0					28	2.0	7.52	
Z300/70-60/28x2.5					28	2.5	9.30	
Z300/70-60/32x3.0					32	3.0	11.28	
Z300/70-70/21x1.5			300		70	21	1.5	5.64
Z300/70-70/23x2.0				23		2.0	7.52	
Z300/70-70/23x2.5				23		2.5	9.30	
Z300/70-70/27x3.0				27		3.0	11.28	
Z300/80-70/16x1.5		80		70	16	1.5	5.64	
Z300/80-70/18x2.0					18	2.0	7.52	
Z300/80-70/18x2.5	18				2.5	9.30		
Z300/80-70/22x3.0	22				3.0	11.28		

Outras dimensões sob consulta · Other dimensions on demand

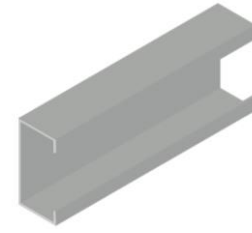
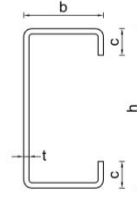


**APLICAÇÃO**

Estrutura para revestimento de cobertura e fachada (madres)  
Comprimento e furação de acordo com os requisitos

**APPLICATION**

Structure for roof and facade cladding (purlins and side rails)  
Length and holes according to specifications



Seção Section	h (mm)	b (mm)	c (mm)	t <sub>nom</sub> (mm)	P (kg/m)		
C100/55/15x2.0	100	55	15	2.0	3.58		
C100/55/17x2.5			17	2.5	4.48		
C120/55/16x1.5	120	55	16	1.5	3.00		
C120/55/18x2.0			18	2.0	4.00		
C120/55/20x2.5			20	2.5	5.00		
C120/60/11x1.5			60	11	1.5	3.00	
C120/60/13x2.0	13	2.0		4.00			
C120/60/15x2.5	15	2.5		5.00			
C140/50/11x1.5	140	50	11	1.5	3.00		
C140/50/13x2.0			13	2.0	4.00		
C140/50/15x2.5			15	2.5	5.00		
C140/55/20x1.5		55	20	1.5	3.32		
C140/55/22x2.0			22	2.0	4.43		
C140/60/15x1.5		60	15	1.5	3.32		
C140/60/17x2.0			17	2.0	4.43		
C140/65/18x1.5			65	18	1.5	3.52	
C140/65/20x2.0		20		2.0	4.69		
C140/70/21x1.5		70	21	1.5	3.72		
C140/70/23x2.0	23		2.0	4.96			
C140/70/25x2.5	25		2.5	6.20			
C150/50/20x1.5	150	50	20	1.5	3.32		
C150/50/22x2.0			22	2.0	4.43		
C150/55/15x1.5		55	15	1.5	3.32		
C150/55/17x2.0			17	2.0	4.43		
C150/60/18x1.5			60	18	1.5	3.52	
C150/60/20x2.0		20		2.0	4.69		
C150/65/13x1.5		65	13	1.5	3.52		
C150/65/15x2.0			15	2.0	4.69		
C150/70/16x1.5			70	16	1.5	3.72	
C150/70/18x2.0		18		2.0	4.96		
C150/70/20x2.5	20	2.5		6.20			
C160/50/15x1.5	160	50	15	1.5	3.32		
C160/50/17x2.0			17	2.0	4.43		
C160/55/18x1.5		55	18	1.5	3.52		
C160/55/20x2.0			20	2.0	4.69		
C160/60/21x1.5			60	21	1.5	3.72	
C160/60/23x2.0		23		2.0	4.96		
C160/60/25x2.5		65	25	2.5	6.20		
C160/65/16x1.5			65	16	1.5	3.72	
C160/65/18x2.0				18	2.0	4.96	
C160/65/20x2.5		20		2.5	6.20		
C160/70/11x1.5	70	11	11	1.5	3.72		
C160/70/21x1.5			21	1.5	3.96		
C160/70/13x2.0			13	13	2.0	4.96	
C160/70/23x2.0				23	2.0	5.28	
C160/70/15x2.5		15	15	2.5	6.20		
C160/70/25x2.5			25	2.5	6.60		
C180/60/21x1.5			180	60	21	1.5	3.96
C180/60/23x2.0					23	2.0	5.28
C180/60/25x2.5	25	2.5			6.60		
C180/65/16x1.5	65	16		1.5	3.96		
C180/65/18x2.0		18		2.0	5.28		
C180/65/20x2.5		20		2.5	6.60		
C180/70/19x1.5	70	19		19	1.5	4.14	
C180/70/21x2.0				21	2.0	5.52	
C180/70/23x2.5		23		23	2.5	6.90	
C200/50/11x1.5				200	50	11	1.5
C200/50/13x2.0	13	2.0	4.96				
C200/50/15x2.5	15	2.5	6.20				
C200/55/16x1.5	55	16	1.5		3.96		
C200/55/18x2.0		18	2.0		5.28		
C200/55/20x2.5		20	2.5		6.60		

Seção Section	h (mm)	b (mm)	c (mm)	t <sub>nom</sub> (mm)	P (kg/m)		
C200/60/19x1.5	200	60	19	1.5	4.14		
C200/60/21x2.0			21	2.0	5.52		
C200/60/23x2.5			23	2.5	6.90		
C200/65/14x1.5	65	65	14	1.5	4.14		
C200/65/16x2.0			16	2.0	5.52		
C200/65/18x2.5			18	2.5	6.90		
C200/70/21x1.5			70	21	1.5	4.44	
C200/70/23x2.0	23	2.0		5.92			
C200/70/25x2.5	25	2.5		7.40			
C220/55/14x1.5	220	55	14	1.5	4.14		
C220/55/16x2.0			16	2.0	5.52		
C220/55/18x2.5			18	2.5	6.90		
C220/60/21x1.5		60	21	1.5	4.44		
C220/60/23x2.0			23	2.0	5.92		
C220/60/25x2.5			25	2.5	7.40		
C220/65/16x1.5		65	16	1.5	4.44		
C220/65/18x2.0			18	2.0	5.92		
C220/65/20x2.5			20	2.5	7.40		
C220/70/11x1.5		70	11	11	1.5	4.44	
C220/70/13x2.0	13			2.0	5.92		
C220/70/15x2.5	15			2.5	7.40		
C240/55/16x1.5	240			55	16	1.5	4.44
C240/55/18x2.0		18	2.0		5.92		
C240/55/20x2.5		20	2.5		7.40		
C240/60/13x2.0		60	13	2.0	5.92		
C240/60/15x2.5			15	2.5	7.40		
C240/70/19x1.5			70	19	1.5	4.86	
C240/70/21x2.0		21		2.0	6.48		
C240/70/23x2.5		23		2.5	8.10		
C250/60/24x1.5		250	60	24	1.5	4.86	
C250/60/26x2.0				26	2.0	6.48	
C250/60/28x2.5	28			2.5	8.10		
C250/65/19x1.5	65		19	1.5	4.86		
C250/65/21x2.0			21	2.0	6.48		
C250/65/23x2.5			23	2.5	8.10		
C250/70/14x1.5	70		14	14	1.5	4.86	
C250/70/16x2.0				16	2.0	6.48	
C250/70/18x2.5				18	2.5	8.10	
C260/60/19x1.5				260	60	19	1.5
C260/60/21x2.0	21	2.0	6.48				
C260/60/23x2.5	23	2.5	8.10				
C260/65/14x1.5	65	14	1.5		4.86		
C260/65/16x2.0		16	2.0		6.48		
C260/65/18x2.5		18	2.5		8.10		
C260/70/19x1.5	70	19	19		1.5	5.10	
C260/70/21x2.0			21		2.0	6.80	
C260/70/23x2.5			23		2.5	8.50	
C280/60/19x1.5			280		60	19	1.5
C280/60/21x2.0	21	2.0		6.80			
C280/60/23x2.5	23	2.5		8.50			
C280/65/14x1.5	65	14		1.5	5.10		
C280/65/16x2.0		16		2.0	6.80		
C280/65/18x2.5		18		2.5	8.50		
C300/70/21x1.5	300	70		21	1.5	5.64	
C300/70/23x2.0				23	2.0	7.52	
C300/70/23x2.5				23	2.5	9.30	
C300/70/27x3.0		70		27	3.0	11.28	
C325/65/14x1.5			325	65	14	1.5	5.64
C325/65/16x2.0					16	2.0	7.52
C325/65/15x2.5	15	2.5			9.30		
C325/65/20x3.0	20	3.0			11.28		

Outras dimensões sob consulta · Other dimensons on demand





**APLICAÇÃO**

Perfil de separação entre o revestimento de cobertura existente e novo

**FIG A** – a reentrância no banzo inferior permite acomodar os parafusos do revestimento existente

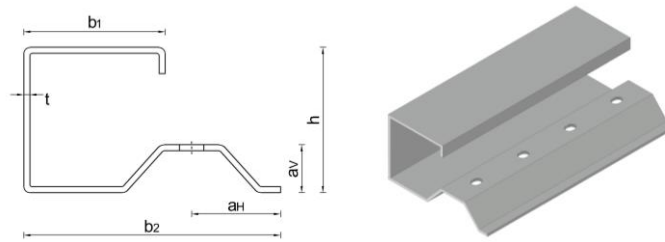
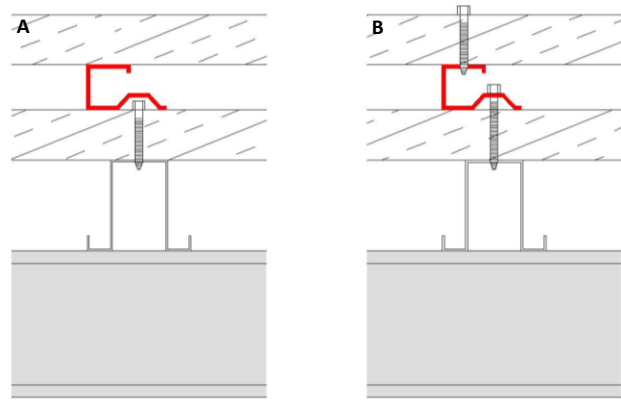
**FIG B** – banzo superior para fixar o revestimento novo e furação no banzo inferior para fixar o perfil G40 à estrutura existente

**APPLICATION**

Separation section between existing and new roof cladding

**FIG A** – the recess in the lower flange allows to accommodate the bolts from the existing cladding

**FIG B** – upper flange to fix the new cladding and holes in the lower flange to fix section G40 to the existing structure



Seção Section	h (mm)	b <sub>1</sub> (mm)	b <sub>2</sub> (mm)	t <sub>nom</sub> (mm)	∅ (mm)	av (mm)	a <sub>H</sub> (mm)	P (kg/m)
G40	38	35	64	1.5	9.0x15.0 // 50	15	22	1.66



## TUBULAR

### APLICAÇÃO

Viga e pilar para a execução de pisos, escadas e coberturas

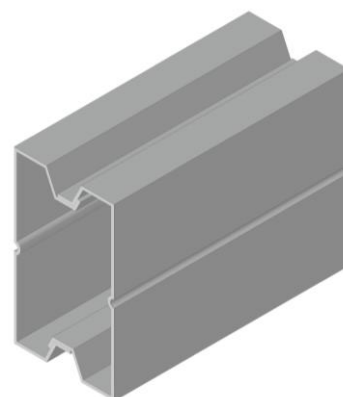
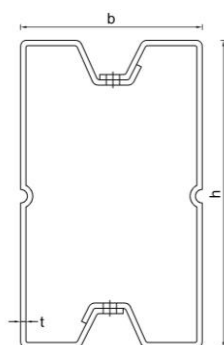
O perfil TUBULAR é composto por 2 secções ligadas por parafusos M8

### APPLICATION

Beam and column for the execution of floors, mezzanine, stairs and roofs

Section TUBULAR is the result of 2 sections connected by M8 bolts

Seção Section	h (mm)	b (mm)	t <sub>nom</sub> (mm)	P (kg/m)
Tubular 170	170	100	2.5	12.40
Tubular 230	230			14.80
Tubular 265	265			16.20





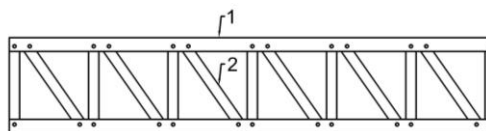
**HABITAÇÃO**  
**RESIDENCE**



### APLICAÇÃO

Pisos, coberturas e platibandas

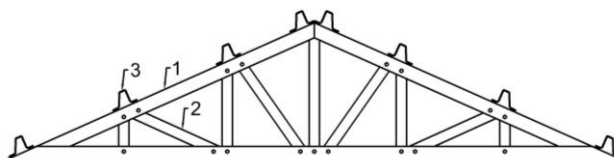
- (1) cordas definidas por perfil RBF ou CP
- (2) diagonais definidas por perfil UB40 ou UB60
- (3) a calha no banzo superior do perfil RBF permite a ligação a outros perfis através de parafuso rômico



### APPLICATION

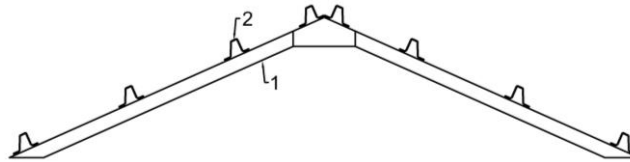
Floors, roof and parapets

- (1) chords in section RBF or section CP
- (2) diagonals in section UB40 or UB60
- (3) the upper flange of RBF has a channel that allows the connection to other sections through rhombic bolts





## COBERTURA VÃO APROVEITADO · ATTIC ROOF



### APLICAÇÃO

Estrutura de cobertura com vão aproveitado

(1) viga definida pelas seguintes alternativas: TUBULAR, VIGA TRELIÇADA, RBF, RBF & OB35/40 ou RBF & UB120

(2) ripa definida pelas seguintes alternativas: OB40/20 ou OB60/20 para telha cerâmica, OB100, ÔMEGA ou ÔMEGA R para painel de cobertura

### APPLICATION

Structure for attic roof

(1) beam defined by the following alternatives: TUBULAR, TRUSS BEAM, RBF, RBF & OB35/40 or RBF & UB120

(2) purlin defined by the following alternatives: OB40/20 or OB60/20 for ceramic roof tiles, OB100, OMEGA or OMEGA R for roof panel



## RBF

### APLICAÇÃO

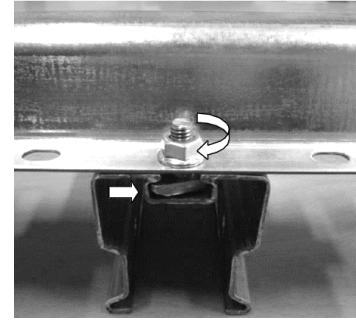
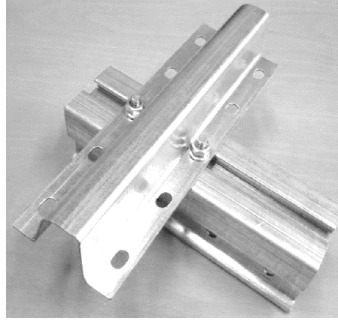
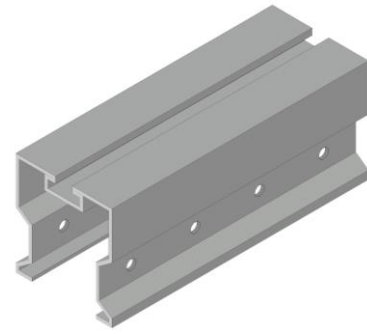
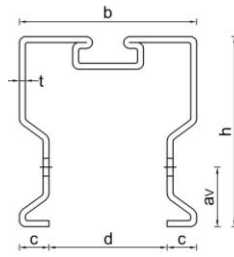
Viga treliçada, estrutura de cobertura, estrutura de suporte de painéis fotovoltaicos

Calha no banzo superior do perfil RBF permite a ligação a outros perfis através de parafuso rômbo

### APPLICATION

Truss beam, roof structure, support structure for photovoltaic panels

The channel on the upper flange of section RBF allows the connection to other sections through rhombic bolts



Estrutura de cobertura com fixação das ripas em qualquer posição simplificando a montagem em obra  
Roof structure with purlin connection in any position simplifying the construction on site

## RBF & OB35/40

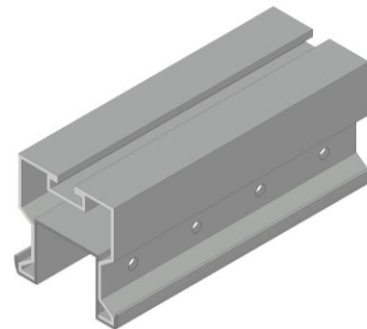
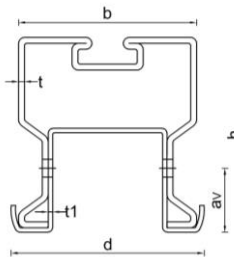
### APLICAÇÃO

Estrutura de cobertura com aproveitamento do vão  
Perfil composto pelas secções RBF e OB35/40 ligadas por parafusos M8

### APPLICATION

Attic roof

Section composed by sections RBF and OB35/40 connected by M8 bolts



## RBF & UB120

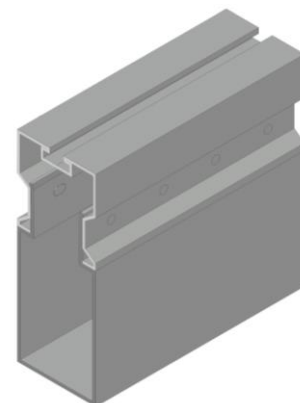
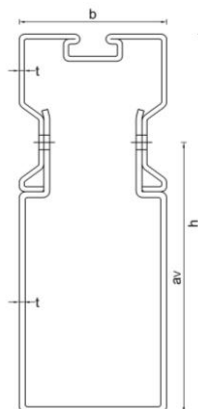
### APLICAÇÃO

Estrutura de cobertura com aproveitamento do vão  
Perfil composto pelas secções RBF e UB120 ligadas por parafusos M8

### APPLICATION

Attic roof

Section composed by sections RBF and UB120 connected by M8 bolts



Seção Section	h (mm)	b (mm)	c (mm)	d (mm)	t <sub>nom</sub> (mm)	∅ (mm)	av (mm)	P (kg/m)
RBF	64	60	10	40	2.0	9.0 // 50	20	3.58
RBF & OB35/40	66	60	--	65	2.0 / 1.5	9.0x13.0 // 50	22	5.24
RBF & UB120	154	60	--	--	2.0	9.0 // 50	110	8.54



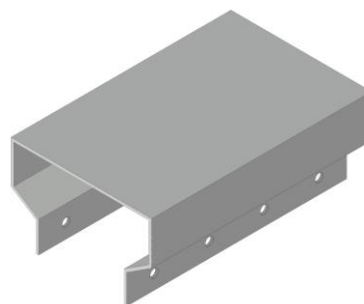
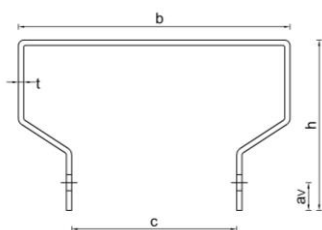
## CP

### APLICAÇÃO

Viga treliçada, estrutura de cobertura

### APPLICATION

Truss beam, roof structure



## UB40 · UB60

### APLICAÇÃO

Diagonal de viga treliçada

Perfil UB40 com perfil RBF

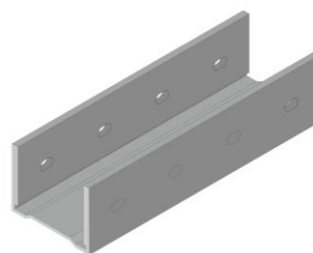
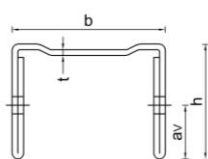
Perfil UB60 com perfil CP

### APPLICATION

Diagonal of truss beam

Section UB40 with section RBF

Section UB60 with section CP



Seção Section	h (mm)	b (mm)	c (mm)	t <sub>nom</sub> (mm)	∅ (mm)	av (mm)	P (kg/m)
CP	60	96	58	2.0	9.0 // 50	20	3.58
UB40	30	40	--	1.5	9.0x13.0 // 50	20	1.66
UB60	30	58	--	1.5	9.0x13.0 // 50	20	1.92



**APLICAÇÃO**

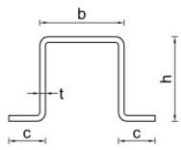
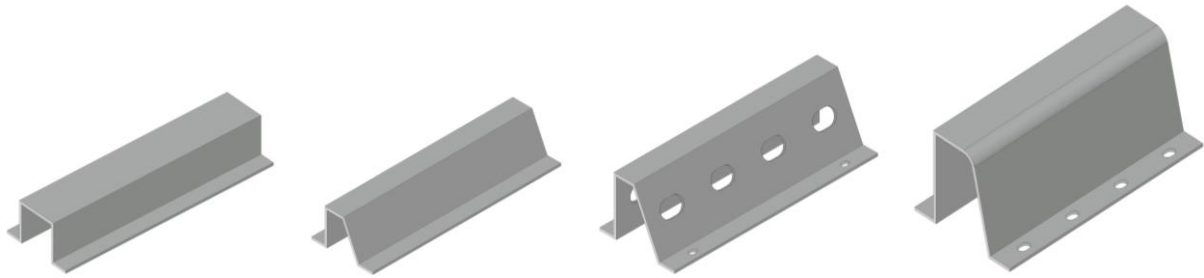
Perfis para suporte de telha cerâmica

- OB20/20, OB20/10 e OB30/10 como sub-ripa
- OB30/10 com furos nas almas para ventilação
- OB40/20 e OB60/20 como ripa

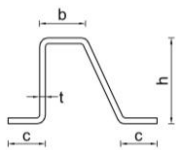
**APPLICATION**

Sections for the support of roof tile

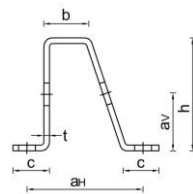
- OB20/20, OB20/10 and OB30/10 as sub-purlin
- OB30/10 with holes in the web for ventilation
- OB40/20 and OB60/20 as purlin



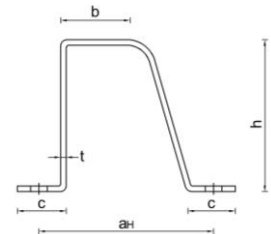
**OB20/20**



**OB20/10**



**OB30/10**



**OB40/20 · OB60/20**

Seção Section	h (mm)	b (mm)	c (mm)	t <sub>nom</sub> (mm)	∅ (mm)	a <sub>H</sub> (mm)	a <sub>V</sub> (mm)	P (kg/m)
OB20/20x0.6	20	20	16	0.6	--	--	--	0.42
OB20/20x0.8				0.8				0.56
OB20/10x0.6		10	15	0.6				0.39
OB20/10x0.8				0.8				0.52
OB30/10x0.8	30	10	16	0.8	H: 6.0x10.0 // 300 V: 14.0x20.0 // 100	46	15	0.67
OB40/20x1.5	40	20	20	1.5	13.0x9.0 // 50	60	--	1.66
OB60/20x1.2	55			1.2				1.70





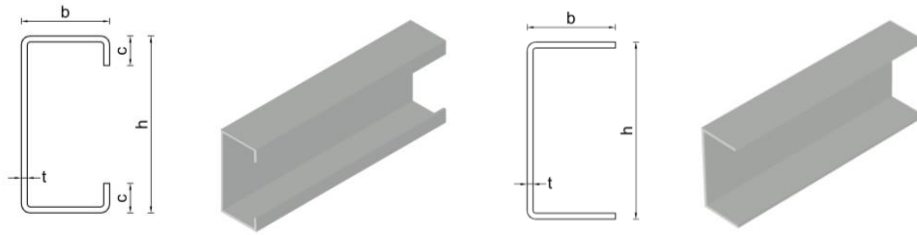
**APLICAÇÃO**

Estrutura de paredes, pisos e cobertura composta por perfis C (montantes) & U (canais)  
 Comprimento e furação de acordo com os requisitos

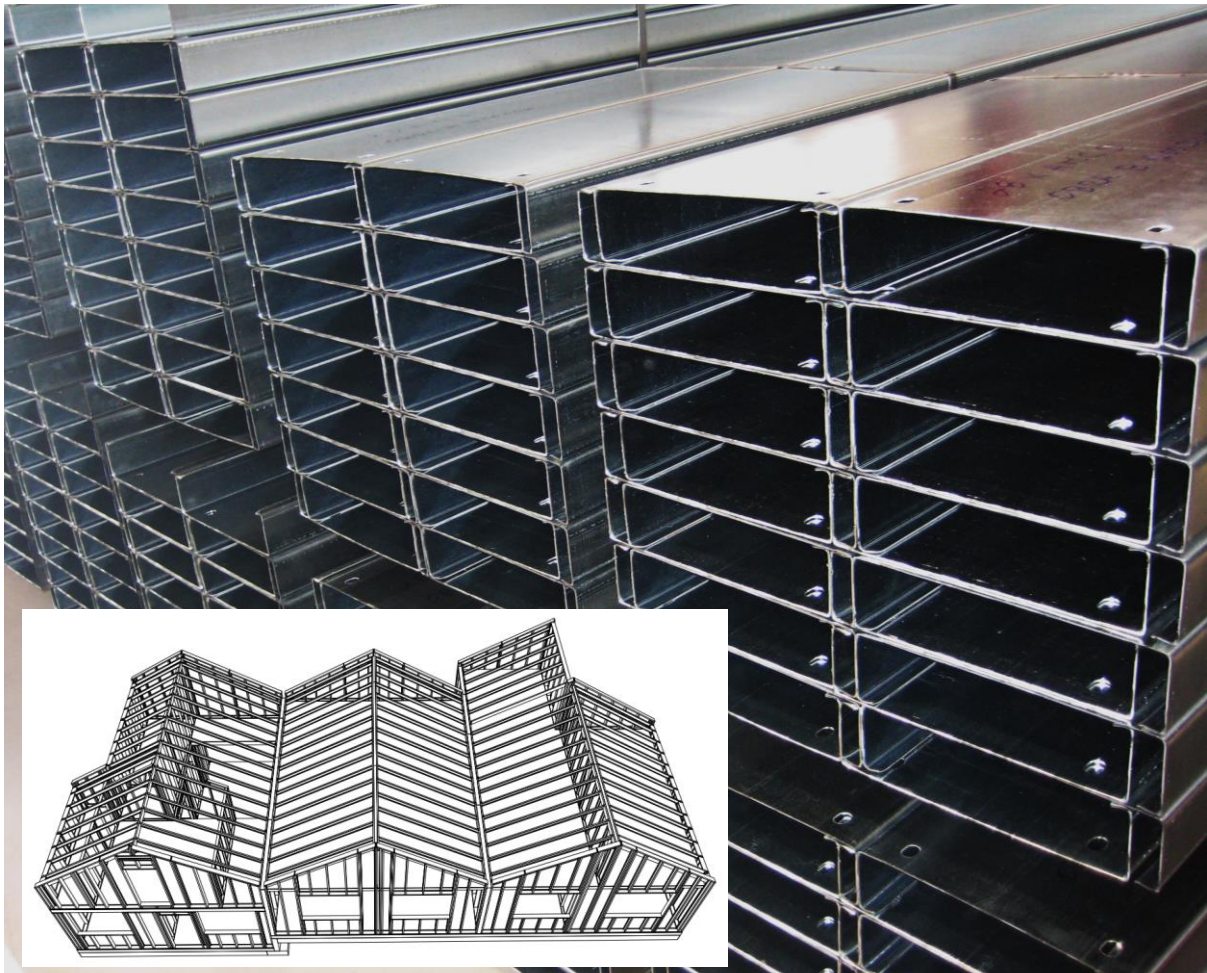


**APPLICATION**

Walls, floors and roofs structure composed by sections C (vertical) & U (channel)  
 Length and holes according to specifications



Seção Section	h (mm)	b (mm)	c (mm)	t <sub>nom</sub> (mm)	P (kg/m)
C90/43/15x1.5	90	43	15	1.5	2.23
C150/43/15x1.5	150			1.5	3.00
C200/43/15x2.0	200			2.0	4.80
C250/43/15x2.5	250			2.5	6.90
U93/40x1.5	93	40	-	1.5	2.00
U153/40x1.5	153			1.5	2.72
U204/41x2.0	204	41		2.0	4.43
U255/43x2.5	255	43		2.5	6.60





**ENERGIA**  
**ENERGY**

## PERFIS PARA PAINÉIS FOTOVOLTAICOS SECTIONS FOR PHOTOVOLTAIC PANELS

### APLICAÇÃO

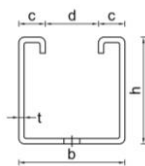
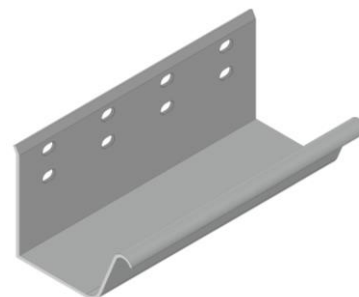
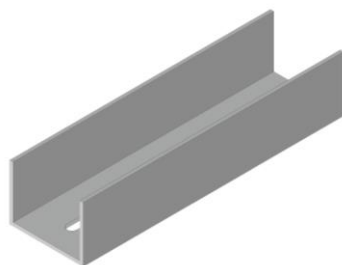
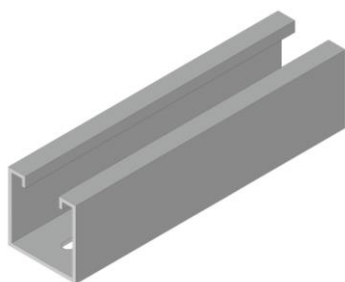
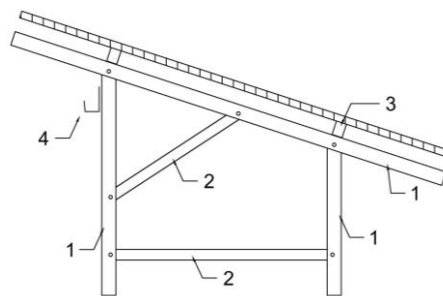
Estrutura de suporte para painéis fotovoltaicos definida pelos perfis: (1) RBF, (2) UB40, (3) UF40/40 e USF35/45 e (4) CF

- UF40/40 – banzo superior preparado para porca M10 com mola para fixar perfil intermédio de ligação aos painéis fotovoltaicos
- USF35/45 – perfil de ligação para garantir continuidade entre UF40/40
- CF – perfil para passagem de cabos

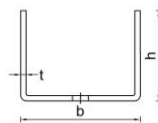
### APPLICATION

Support structure for photovoltaic panels defined by sections: (1) RBF, (2) UB40, (3) UF40/40 and USF34/45 and (4) CF

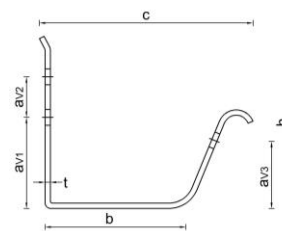
- UF40/40 – upper flange prepared for M10 nut with Spring to fix intermediate section of connection to photovoltaic panels
- USF35/45 – connection section between UF40/40 to guarantee continuity
- CF – section for cable running



**UF40/40**



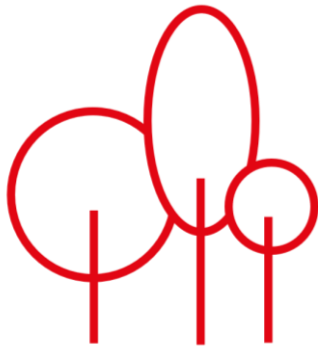
**USF34/45**



**CF**

Seção Section	h (mm)	b (mm)	c (mm)	t <sub>nom</sub> (mm)	Ø (mm)	a <sub>V1</sub> (mm)	a <sub>V2</sub> (mm)	a <sub>V3</sub> (mm)	P (kg/m)
UF40/40	40	40	10	2.0	9.0x24.0 // 50	--	--	--	2.08
USF34/45	34	45	--	2.0	9.0x24.0 // 50	--	--	--	1.68
CF	70	52	86	1.2	9.0x13.0 // 50	35	20	30	1.70





**AGRICULTURA**  
**AGRICULTURE**



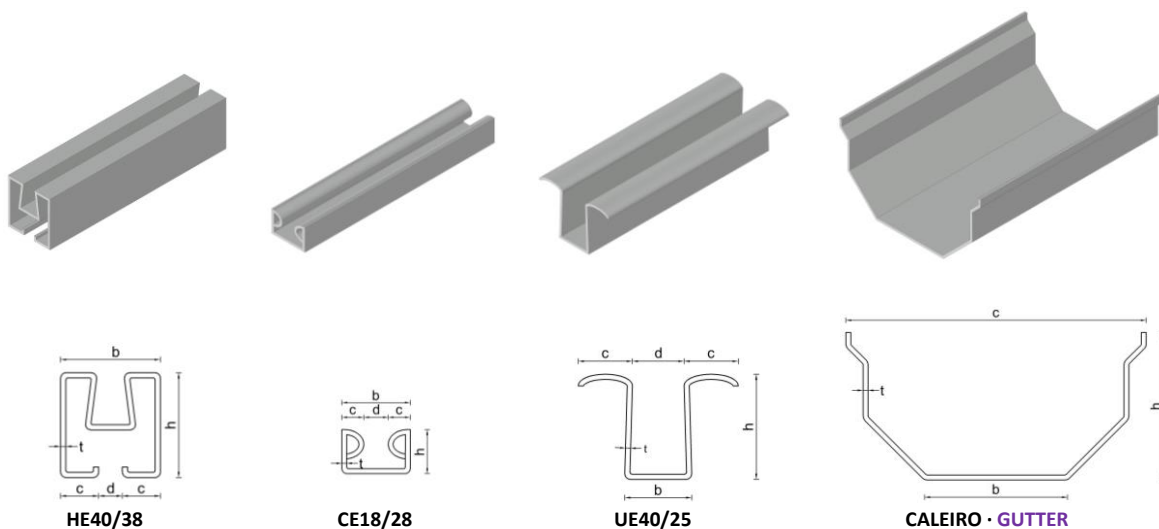
## PERFIS PARA ESTUFAS · SECTIONS FOR GREENHOUSES

### APLICAÇÃO

Perfis para clipar plástico: HE40/38, CE18/28, UE40/25  
 Caleiro para escoamento de água

### APPLICATION

Sections to clip plastic: HE40/38, CE18/28, UE40/25  
 Gutter for water drainage



Seção Section	h (mm)	b (mm)	c (mm)	d (mm)	t <sub>nom</sub> (mm)	P (kg/m)
HE40/38	147	142	295	--	2.0	7.92
CE18/28	40	38	14	10	1.2	1.70
UE40/25	18	28	9	10	1.2	0.84
CALEIRO · GUTTER	40	25	20	21	1.5	1.56



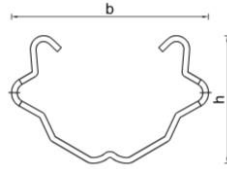
## ESTACA · STAKE

### APLICAÇÃO

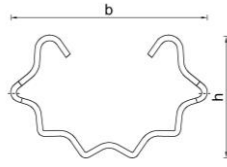
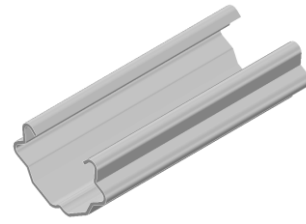
Estaca para diferentes culturas agrícolas  
Furos tipo Z nas almas com 100 mm de afastamento, 50 mm da extremidade, para fixação de arame

### APPLICATION

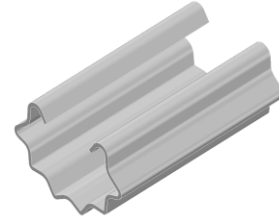
Stake for different agriculture cultures  
Z type holes in the webs with 100 mm spacing, 50 mm from the edge, for wire support



ESTACA A STAKE A



ESTACA B STAKE B



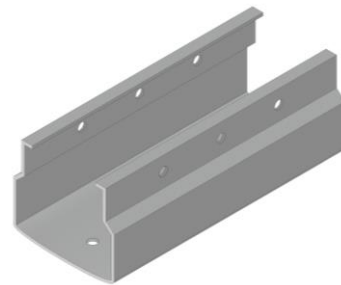
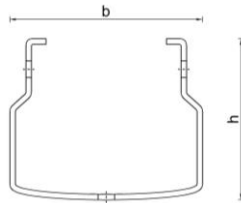
## CABECEIRA · HEADSTAKE

### APLICAÇÃO

Estaca de cabeceira para diferentes culturas agrícolas  
Furos redondo 8 mm na alma com 100 mm de afastamento para fixação de arame

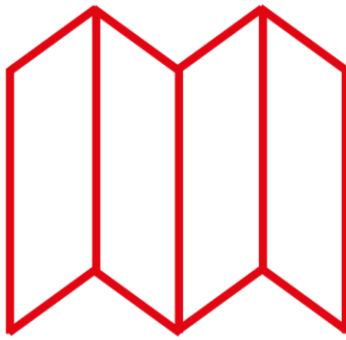
### APPLICATION

Headstake for different agriculture cultures  
Circular hole with 8 mm in the web with 100 mm spacing for wire support



Seção Section	h (mm)	b (mm)	t <sub>nom</sub> (mm)	P (kg/m)	Esquema de Furação Hole Scheme	L (m)	f (mm)	g (m)	n (un)	∅ (mm)	a (mm)	
ESTACA STAKE	34	52	1.2	1.04		Lateral Side	1.50	50	0.70	8	Z16.0	100
			1.5	1.30			2.00					
			1.8	1.56			2.20					
			2.20	1.10			12					
CABECEIRA HEADSTAKE	50	42	2.0	2.08		Base Bottom	2.20	50	1.32	12	8.0	120
							2.40					120
						Lateral Side	2.60	100	1.32	12	8.0	120
							2.60					120





**PORTÕES**  
**GATES**



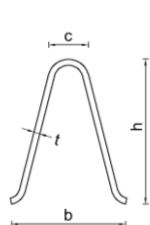
## PERFIL PORTÃO DE CORRER · SECTION FOR SLIDING GATE

### APLICAÇÃO

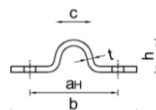
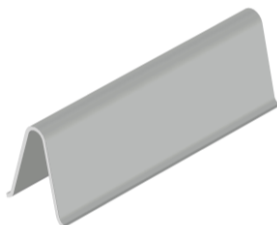
Perfil guia para portão de correr

### APPLICATION

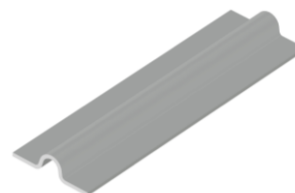
Rail section for sliding gate



GUIA DE CHUMBAR · CEMENT FIXING RAIL



GUIA DE APARAFUSAR · SURFACE FIXING RAIL



Seção Section	Roda Wheel	h (mm)	b (mm)	c (mm)	t <sub>nom</sub> (mm)	a <sub>H</sub> (mm)	φ (mm)	P (kg/m)
GUIA DE CHUMBAR CEMENT FIXING RAIL	Ø16 mm	60	48	16	2.5	--	--	2.48
	Ø20mm	56	48	20	2.5	--	--	2.48
GUIA DE APARAFUSAR SURFACE FIXING RAIL	Ø16 mm	14	54	16	2.5	38	9.0 // 500	1.24

## PORTÕES DE FOLE · FOLDING GATES

### APLICAÇÃO

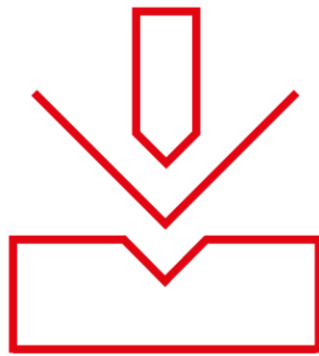
Portão de segurança para edifícios industriais ou residenciais  
Portão em chapa de aço galvanizada ou plastificada com guias superior e inferior e fechadura de linguete com gancho

### APPLICATION

Security ate for industrial or residential buildings  
Galvanized or plastic-coated steel sheet gate with upper and lower rails and bolt lock hook







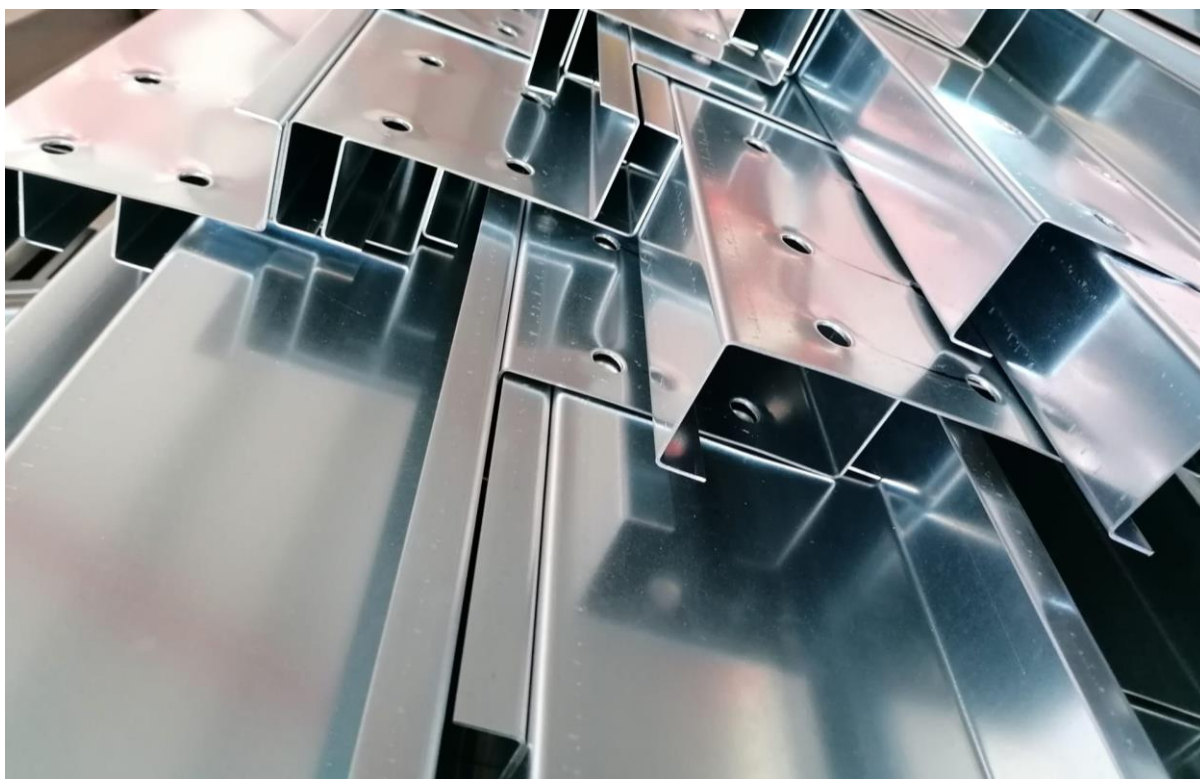
**CORTE E QUINAGEM**  
**CUTTING AND PRESS BRAKING**

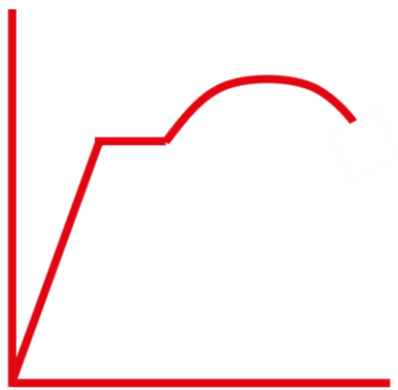
**APLICAÇÃO**

Perfis personalizados em chapa de aço até 12 m de comprimento  
Comprimento e furação de acordo com os requisitos

**APPLICATION**

Custom-made steel sections until 12 m of length  
Length and holes according to specifications





**PROPRIEDADES DOS MATERIAIS**  
**MATERIAL PROPERTIES**

## AÇO GALVANIZADO · GALVANIZED STEEL

EN 10346

Aço ao carbono de qualidade estrutural com revestimento de zinco por imersão contínua a quente  
Continuous hot dip zinc coated carbon steel sheet of structural quality

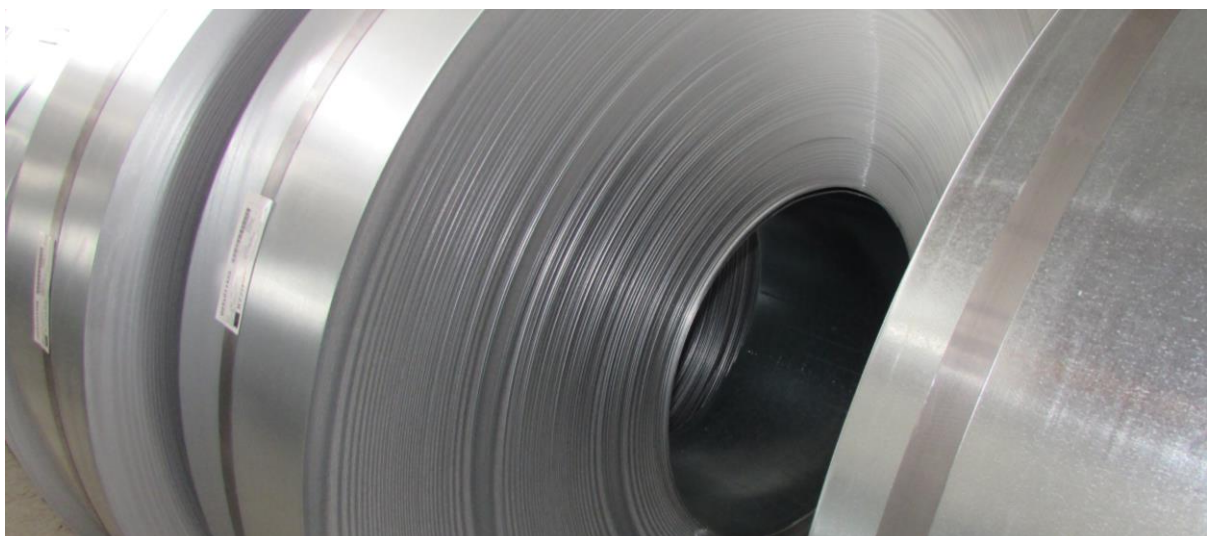
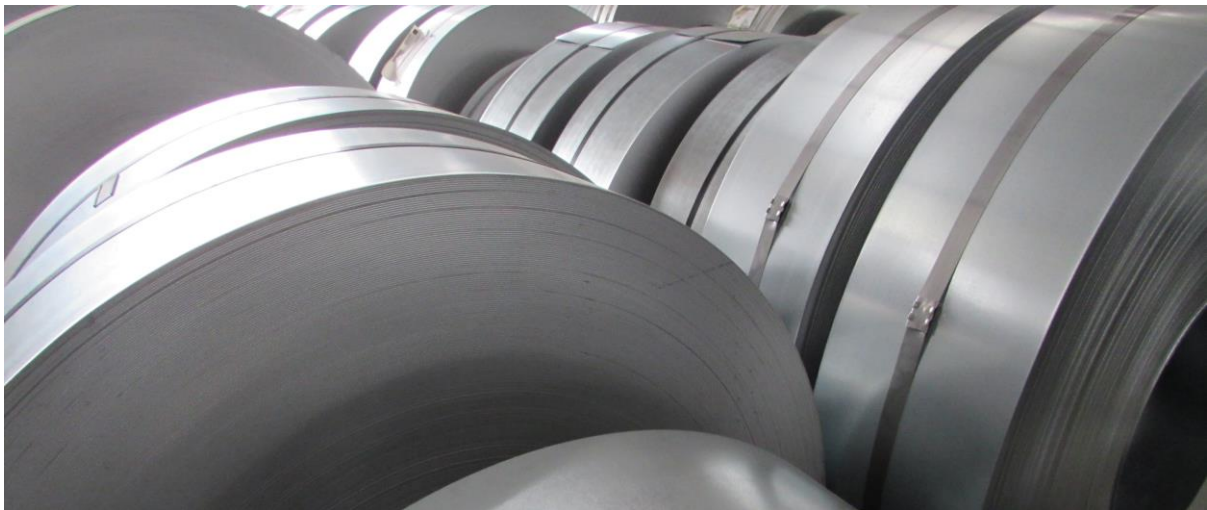
Classe de Aço Steel Grade	Tensão de cedência Basic yield strength	Tensão de rotura Tensile strength	Revestimento Coating	Espessura · Thickness (μm)	
	$f_{yb}$ (MPa)	$f_u$ (MPa)		Valor típico Typical Value	Intervalo Range
S220GD+Z	220	300	Z200	14	10 – 20
S280GD+Z	280	360	Z275	20	13 – 27
S320GD+Z	320	390	ZM130	10	7 – 15
S350GD+Z	350	420	Z – Zinco, ZM – Zinco-Magnésio		

## AÇO INOXIDÁVEL · STAINLESS STEEL

EN 10088

Aço inoxidável austenítico  
Austenitic stainless steel

Classe de Aço Steel Grade	Tensão de cedência Basic yield strength	Tensão de rotura Tensile strength
	$f_{yb}$ (MPa)	$f_u$ (MPa)
304 2B (1.4301)	230	540
316 2B (1.4401)	240	530







Rua Bartolomeu Dias, 8  
Parque Industrial Manuel da Mota  
3100-354 Pombal  
Portugal

(+351) 236 212 418  
custo de chamada para rede fixa nacional  
geral@barraferros.com



[WWW.BARRAFERROS.COM](http://WWW.BARRAFERROS.COM)

