
Cold formed sections





Contents

Cold formed sections type EL Σ , EL C, EL Z, EL Zplus.....	5
Profiles type EL Σ 175, 205, 225, 255	6
Profiles type EL C 140, 155, 175, 205	7
Profiles type EL Z 140, 155, 175, 205	8
Profiles type EL Zplus 205, 225, 255, 285.....	9
Marking of cold formed sections.....	10
Sleeves of type EL Σ	11
Cold formed sections for photovoltaic installations.....	12
Hot rolled / Continuously hot- dip coated Cold Formed Sections of multiple dimensions type C, Z, U	14
Design load tables for cold form sections.....	16
Special components of connection and supporting beams EL Σ , EL C, EL Z, EL Zplus	30
Purlins support EL Z205/2 on IPE360.....	31
EL Z & EL Zplus profiles quick erection procedure.....	32
Construction details.....	33



Cold formed sections type EL Σ , EL C, EL Z, EL Zplus

The cold formed sections type EL Σ , EL C, EL Z and EL Zplus (EN 10162) are used as secondary steel frame structure of metal construction, decreasing its weight up to 50%, compared to the ordinary hot rolled steel sections (IPE, UPN etc.).

The combination of the geometrical characteristics and the high resistance of the steel S320GD (EN 10346) that cold formed sections hold, has as a result increased resistance in relation to their weight.

For each type of cold formed section, the place of bolting holes can be provided so that it is delivered ready for erection. There are also accessories available, necessary for the installation of the cold formed sections on the base metal frame (i.e., connection sleeves).

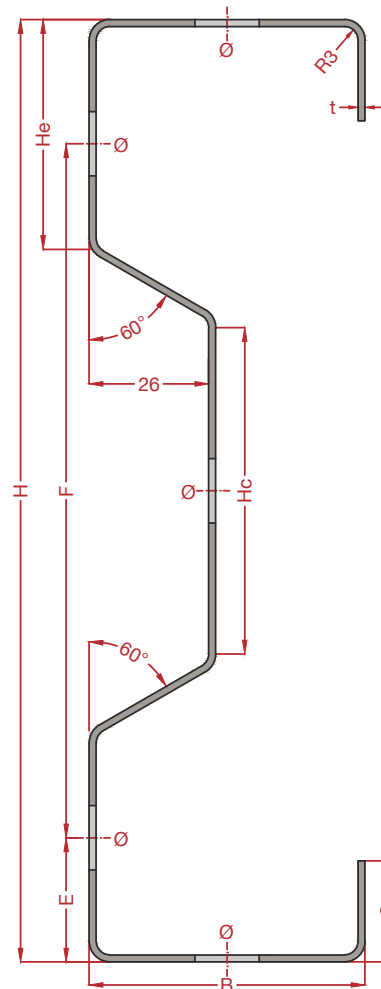
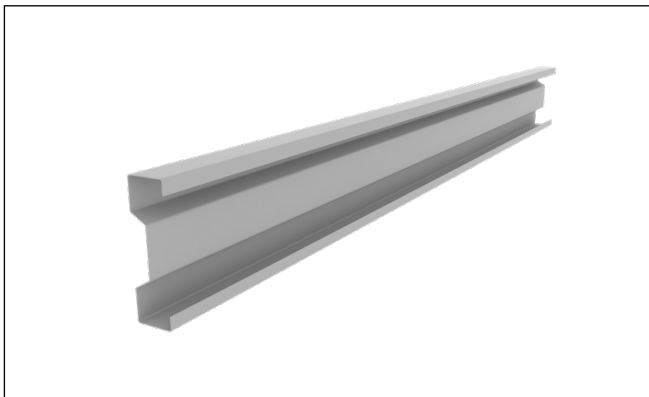
Main characteristics

- High strength to weight ratio (load capacity).
- Ease of handling and erection on the metal frame.
- Decrease of the total weight of the metal base framing.
- Consistent quality. High resistance (S230GD), hot galvanized steel production (Z275).
- Marking based on constructional drawing for easier erection.



Profiles type EL Σ 175, 205, 225, 255

- Appropriate either for side or roof purlins. Suitable for decking (used for example in composite-concrete deck, steel sheet or MDF).
- Different types of configuration (one span, two spans, three multiple continuous spans connected with "sleeve" profile).



Dimensions (mm)

	EL Σ175			EL Σ205				EL Σ225			EL Σ255			
	1,50	2,00	2,50	1,50	2,00	2,50	3,00	1,50	2,00	2,50	1,50	2,00	2,50	3,00
t	1,50	2,00	2,50	1,50	2,00	2,50	3,00	1,50	2,00	2,50	1,50	2,00	2,50	3,00
H	175			205				225			255			
B	60			60				70			70			
C	22			22				25			25			
Hc	40,8			70,8				90,8			120,8			
He	50			50				50			50			
F	121			151				171			201			
E	27			27				27			27			
Ø	10 / 12 / 14 / 16 / 18 / 20			10 / 12 / 14 / 16 / 18 / 20				10 / 12 / 14 / 16 / 18 / 20			10 / 12 / 14 / 16 / 18 / 20			

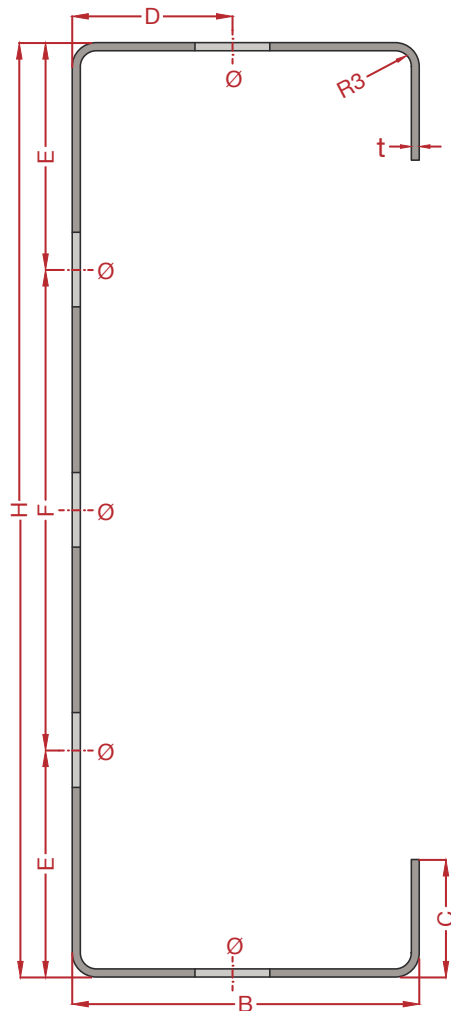
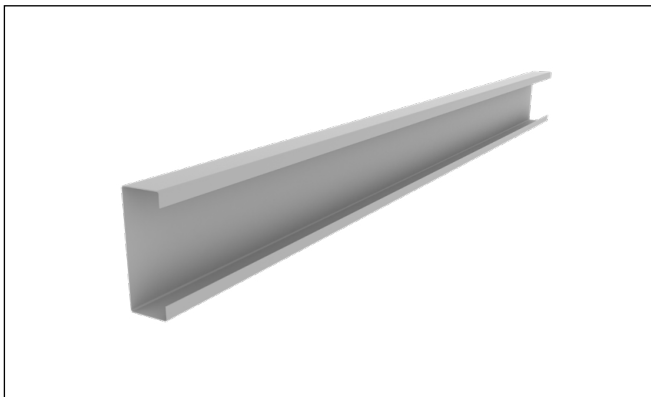
* 14 / 16 / 18 x 24 - There is a possibility of perforation in the body and the footings of the profiles.

Geometric and inertial characteristics

	EL Σ175			EL Σ205				EL Σ225			EL Σ255			
	1,50	2,00	2,50	1,50	2,00	2,50	3,00	1,50	2,00	2,50	1,50	2,00	2,50	3,00
G (kg/m)	4,12	5,45	6,73	4,47	5,92	7,32	8,69	4,95	6,55	8,11	5,30	7,02	8,69	10,36
A (cm ²)	5,28	7,03	8,77	5,72	7,62	9,50	11,36	6,39	8,52	10,64	6,83	9,11	11,37	13,61
I _y (cm ⁴)	232,54	308,24	381,97	340,24	451,47	460,04	665,99	469,62	623,91	774,92	634,26	843,18	1047,91	1248,49
W _y (cm ³)	26,58	35,23	43,65	33,19	44,05	54,64	64,97	41,74	55,46	68,88	49,75	66,13	82,19	97,92
I _y (cm)	6,64	6,62	6,60	7,72	7,70	7,68	7,66	8,57	8,56	8,54	9,64	9,62	9,60	9,58
L _z (cm ⁴)	22,29	29,15	35,65	22,36	29,26	35,80	41,98	33,65	44,14	54,13	33,65	44,14	54,13	63,64
W _z (cm ³)	5,93	7,78	9,53	6,01	7,88	9,66	11,36	7,73	10,16	12,48	7,73	10,16	12,50	14,72
I _z (cm)	2,06	2,04	2,02	1,98	1,96	1,94	1,92	2,30	2,28	2,26	2,22	2,20	2,18	2,16
I _w (cm ⁶)	1949,7	2538,8	3090,2	2774,0	3615,0	4403,06	5141,4	5025,3	6568,4	8025,3	6499,4	8497,9	10386,0	12167,0
I _k (cm ⁴)	0,0375	0,0901	0,1768	0,0406	0,0976	0,1917	0,3318	0,0454	0,1092	0,2145	0,0485	0,1167	0,2294	0,3975

Profiles type EL C 140, 155, 175, 205

- Suitable for decking (used for example composite - concrete deck, steel sheet or MDF). Can be used to provide elements forming partitions online and industrial doors (door jamb or head rails).
- Different types of configuration (one span or two spans).



Dimensions (mm)

	EL C140			EL C155			EL C175				EL C205			
t	1,50	1,80	2,00	1,50	1,80	2,00	1,50	1,80	2,00	2,50	1,50	1,80	2,00	2,50
H	140			155			175				205			
B	55			55			65				65			
C	20			20			22				25			
D	27,5			27,5			32,5				32,5			
F	70			70			90				90			
E	35			42,5			42,5				57,5			
Ø	10 / 12 / 14 / 16 / 18 / 20			10 / 12 / 14 / 16 / 18 / 20			10 / 12 / 14 / 16 / 18 / 20				10 / 12 / 14 / 16 / 18 / 20			

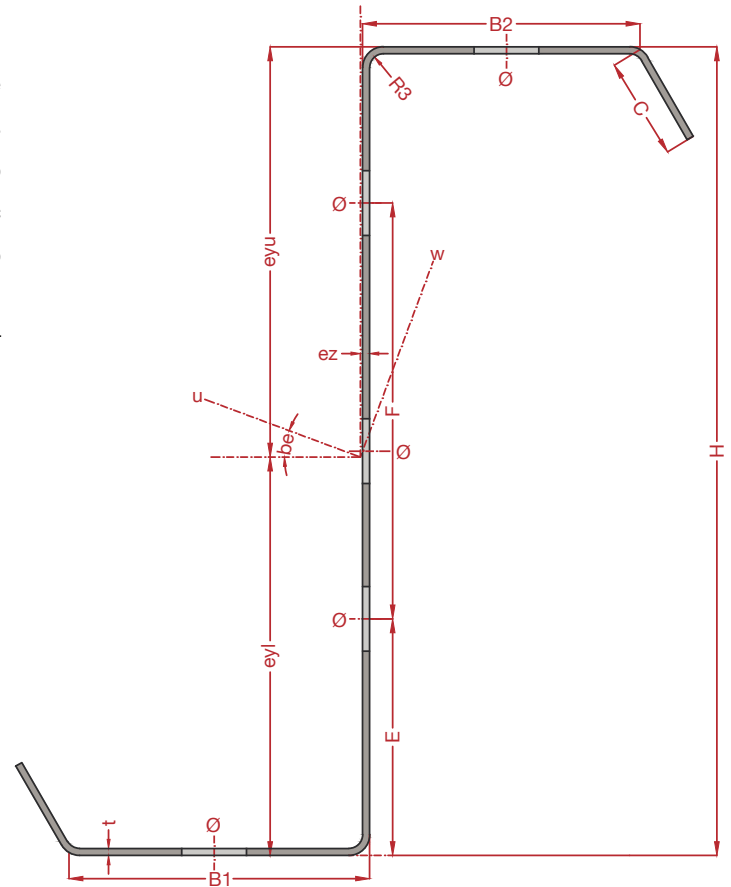
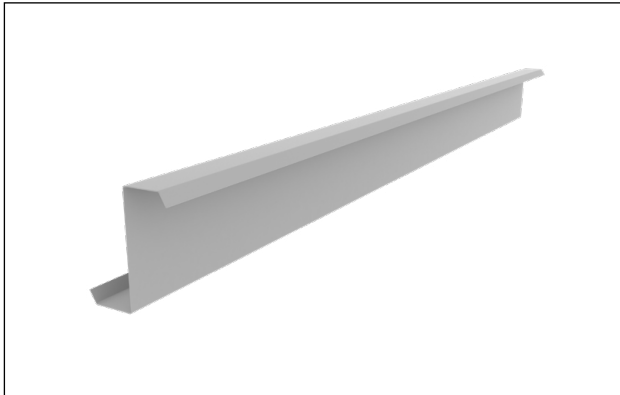
* 14 / 16 / 18 x 24 - There is a possibility of perforation in the body and the footings of the profiles.

Geometric and inertial characteristics

	EL C140			EL C155			EL C175				EL C205			
G (kg/m)	3,20	3,82	4,24	3,37	4,01	4,43	3,84	4,58	5,06	6,28	4,19	5,00	5,53	6,87
A (cm ²)	4,26	5,09	5,64	4,37	5,24	5,82	5,01	6,02	6,69	8,34	5,54	6,65	7,39	9,23
I _y (cm ⁴)	130,89	155,64	171,88	161,72	193,27	214,00	239,52	286,57	317,53	393,53	352,05	421,52	467,30	579,89
W _y (cm ³)	17,27	20,85	23,62	20,87	24,94	27,61	27,37	32,75	36,29	44,98	34,35	41,12	45,59	56,58
e _z (cm)	7,00			7,75			8,75				10,25			
I _z (cm ⁴)	19,05	22,49	24,71	19,21	22,78	25,09	30,72	36,52	40,28	49,38	34,06	40,50	44,69	54,81
W _z (cm ³)	4,66	5,71	6,39	5,08	6,03	6,64	6,88	8,18	9,03	11,08	7,49	8,91	9,83	12,07
e _y (cm)	1,81			1,72			2,04				1,95			
I _w (cm ⁶)	831	974	1066	996,3	1174	1289	2013	2381	2617	3180	3072	3637	4002	4872
I _t (cm ⁴)	0,032	0,055	0,075	0,0306	0,0531	0,073	0,0351	0,0611	0,0841	0,1645	0,0389	0,0677	0,0931	0,1823

Profiles type EL Z 140, 155, 175, 205

- Appropriate either for side or roof purlins.
- Different types of configuration (one span, two spans or multiple continuous spans connected by overlapping). The EL Z sections feature one broad and one narrow flange, sized so that two sections of the same size fit tight (overlapping). Proposed static system or continuous beam of multiple openings with overlap at the support points that offers the best use of the material (the footings of the sections EL Z have different widths for their overlap at the support points).



Dimensions (mm)

	EL Z140			EL Z155			EL Z175				EL Z205			
t	1,50	1,80	2,00	1,50	1,80	2,00	1,50	1,80	2,00	2,50	1,50	1,80	2,00	2,50
H	140			155			175				205			
B ₁	55			55			65				65			
B ₂	50			50			60				60			
C	20			20			22				25			
F	70			70			90				90			
E	36,50			44			44				59			
Ø	10 / 12 / 14 / 16 / 18 / 20			10 / 12 / 14 / 16 / 18 / 20			10 / 12 / 14 / 16 / 18 / 20				10 / 12 / 14 / 16 / 18 / 20			

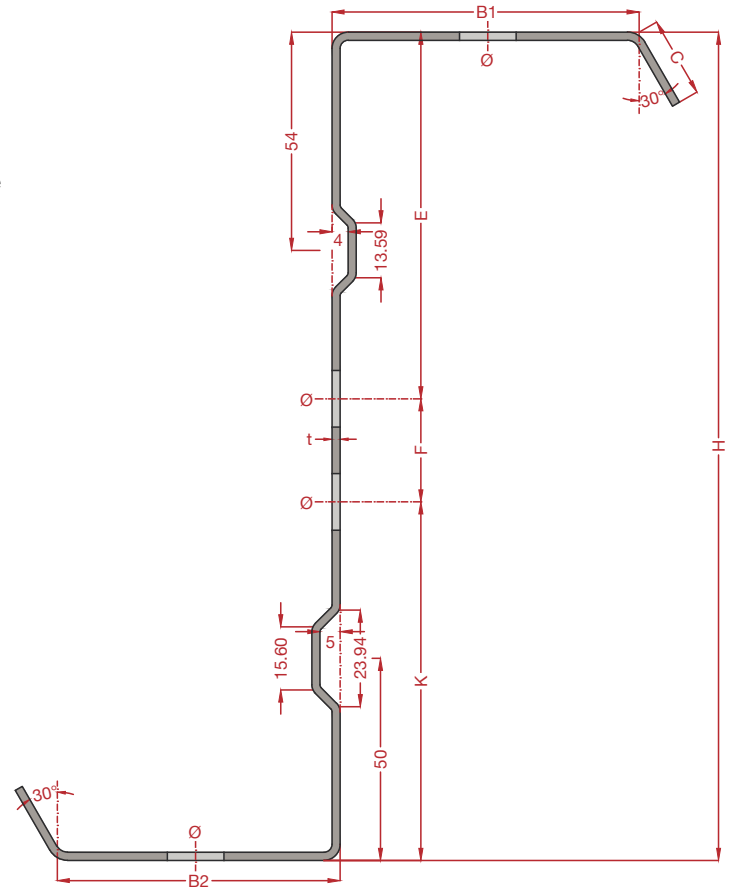
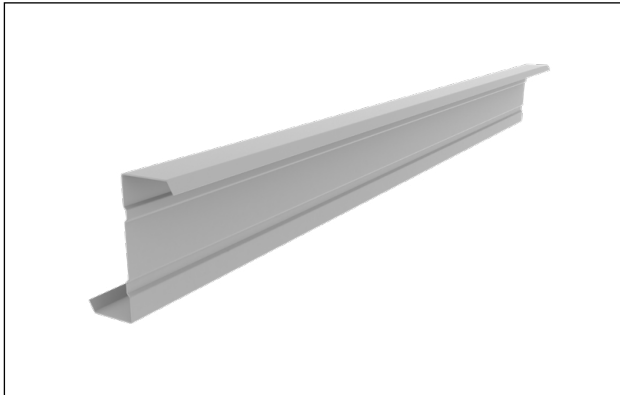
*14 / 16 / 18 x 24 - There is a possibility of perforation in the body and the footings of the profiles.

Geometric and inertial characteristics

	EL Z140			EL Z155			EL Z175				EL Z205			
G (kg/m)	3,20	3,82	4,24	3,37	4,01	4,43	3,84	4,58	5,06	6,28	4,19	5,00	5,53	6,87
A (cm ²)	4,20	5,02	5,57	4,39	5,25	5,81	5,05	6,04	6,69	8,33	5,59	6,69	7,41	9,22
I _y (cm ⁴)	128,80	153,30	169,40	160,52	191,03	211,09	239,01	284,76	314,89	388,90	352,23	420,03	464,64	574,47
W _y (cm ³)	20,158	24,00	26,00	20,16	24,01	26,54	26,40	31,48	34,82	43,05	33,47	39,93	44,19	54,68
I _z (cm ⁴)	32,17	38,09	41,93	32,72	38,79	42,75	52,72	62,61	69,09	84,87	57,57	68,40	75,49	92,64
W _z (cm ³)	3,30	4,00	4,40	3,38	4,02	4,43	4,63	5,51	6,08	7,49	5,13	6,10	6,74	8,29

Profiles type EL Zplus 205, 225, 255, 285

- Appropriate either for side or roof purlins for covering big openings between frames (7 - 10 m).
- Increased inertial characteristics due to ribs.
- Different types of configuration (one span, two spans, three multiple continuous spans connected with "sleeve" profile).



Dimensions (mm)

	EL Zplus205		EL Zplus225		EL Zplus255		EL Zplus285	
t	2,00	2,50	2,00	2,50	2,00	2,50	2,00	2,50
H	205		225		255		285	
B ₁	76		76		76		76	
B ₂	70		70		70		70	
C	20		20		25		25	
F	47		67		97		127	
E	81		81		81		81	
K	77		77		77		77	
Ø	10 / 12 / 14 / 16 / 18 / 20		10 / 12 / 14 / 16 / 18 / 20		10 / 12 / 14 / 16 / 18 / 20		10 / 12 / 14 / 16 / 18 / 20	

*14 / 16 / 18 x 24 - There is a possibility of perforation in the body and the footings of the profiles.

Geometric and inertial characteristics

	EL Zplus205		EL Zplus225		EL Zplus255		EL Zplus285	
G (kg/m)	6,00	7,44	6,31	7,83	6,78	8,42	7,25	9,00
A (cm ²)	7,54	9,43	7,93	9,92	8,72	10,90	9,31	11,64
L _y (cm ⁴)	491,44	610,82	610,54	759,28	841,86	1047,87	1095,63	1364,50
W _y (cm ³)	48,70	60,53	55,08	68,50	66,92	83,30	77,86	96,97
L _z (cm ⁴)	92,28	113,81	92,29	113,82	105,62	130,37	105,63	130,38
W _z (cm ³)	11,47	14,19	11,48	14,21	12,75	15,79	12,77	15,81

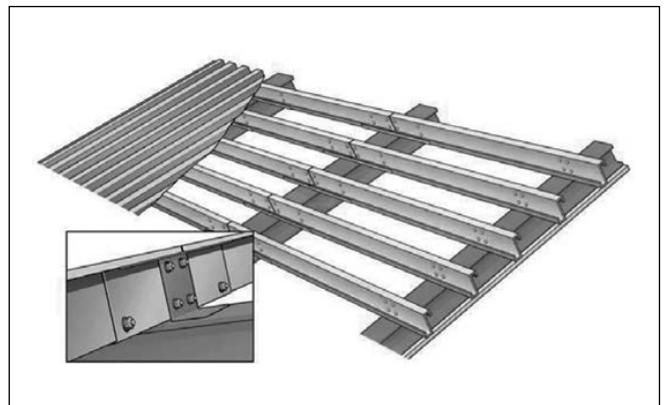
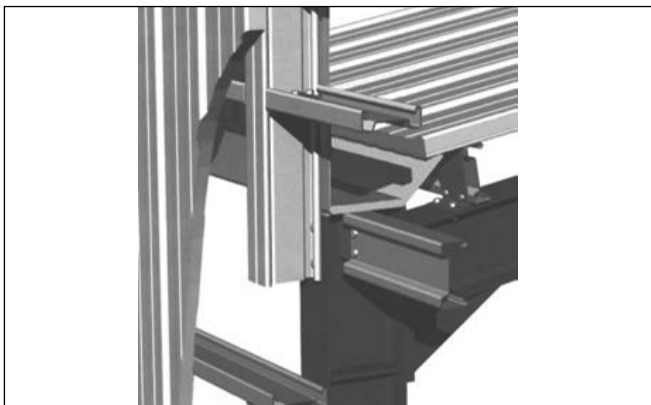
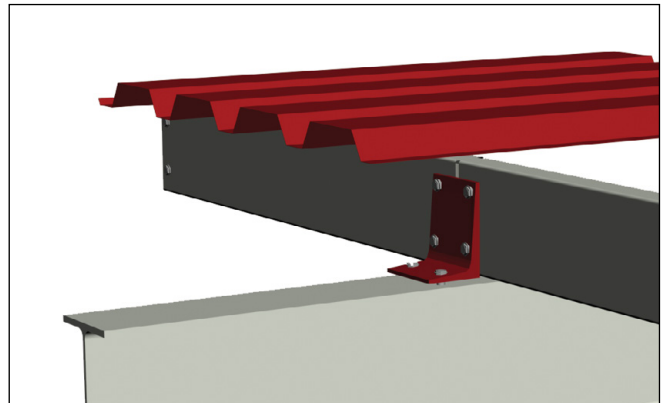
Marking of cold formed sections



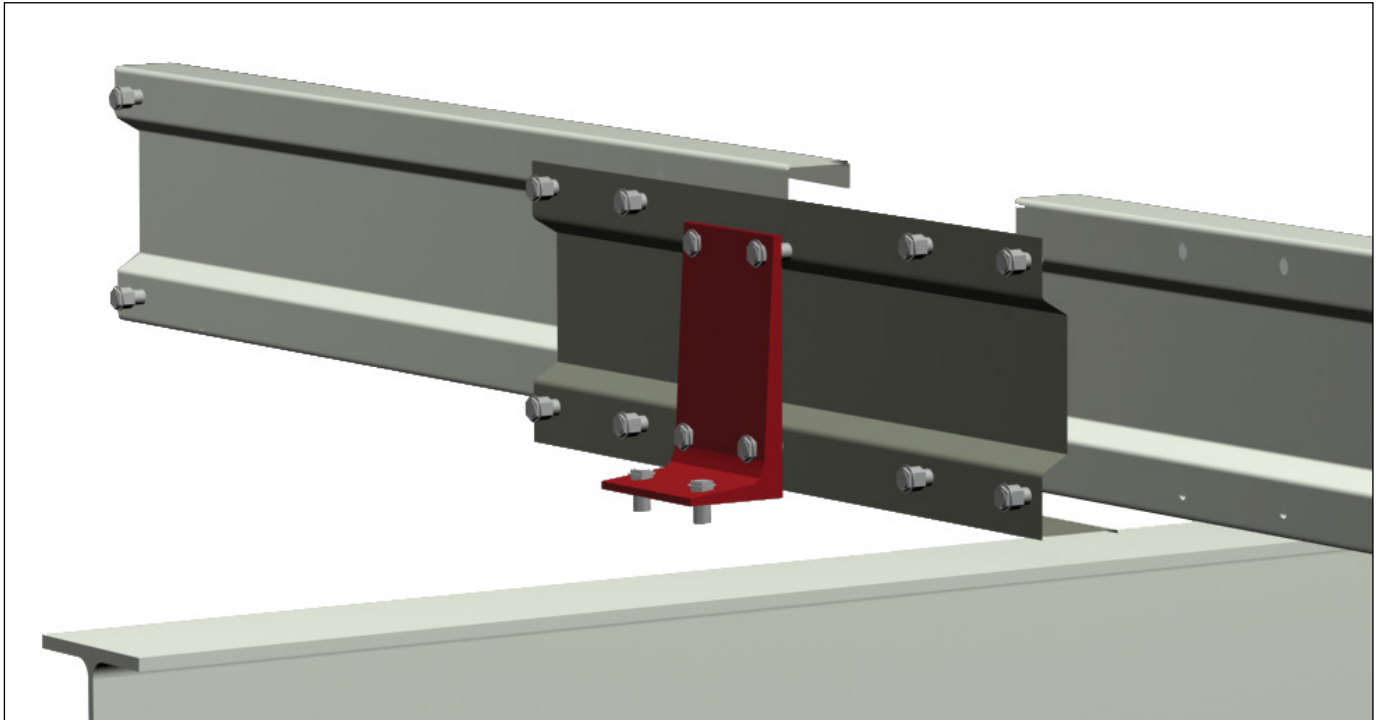
The contemporary cold form section product line has the ability to:

- Be easily programmed, by using NC files.
- Mark each profile (name of client, number of drawing, type of profile, length) to facilitate the erection phase.

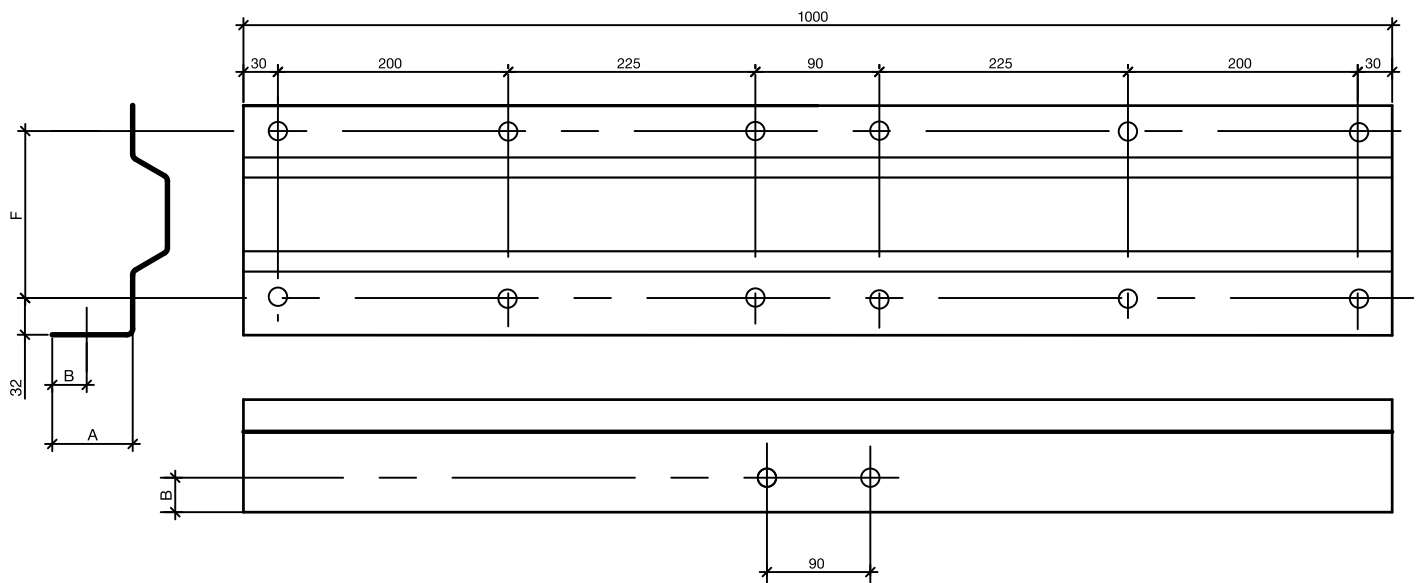
ELASTRON's cold form sections are included in libraries of specialized software of metal construction designs.



Sleeves of type EL Σ



Formed section	A	B	F	Width
175	60	30	121	2,5
205	60	30	151	2,5
225	70	40	171	2,5
255	70	40	201	2,5



Cold formed sections for photovoltaic installations

The use of Cold Formed Sections (EL Σ , EL C, EL Z, EL Zplus and EL U) produced by pre-galvanized high strength steel, is applicable in steel construction (purlins and rails) and photovoltaic bases for tracking systems, roof or ground installations.

Implementation plans, technical advice and information are available from the technical support department of our company.



Cold formed sections for photovoltaic installations

Advantages of using CFS in photovoltaic bases

- Their high strength capability is used for long distance span structures according to EN Norms.
- Certified procedure according to ISO 9001 (norms EN 10162, EN 10346 and EN 10025).
- Provide corrosion resistance.
- Are produced according to the designer's drawings (holes, dimensions, length etc.).
- High standards of industrialization.

Special Features

- Pre-galvanized steel S320GD or higher.
- Galvanized coating thickness Z275 or Z600 or **Magnelis®** (Arcelormittal- 25 years warranty).
- Hot rolled steel S235, S275, S355
- Tailor – Made.
- Labeling - Packaging - Marking.
- Special items and clamps are available.

* **Magnelis®** is a registered trademark belonging to ArcelorMittal Flat Carbon Europe S.A.

Advantages of steel bases

- Cost and time saving.
- Accelerated pace of construction.
- Easy to assemble.
- Less foundations.
- Durability and low-cost maintenance.
- Long spans.
- Subject to processing and welding.

Flashings

- Flashings (clamps) are offered for all types of photovoltaic panels. Clamps are made of hot dipped galvanized steel which is suitable for being placed along with anodized aluminum frame.
- Piles of galvanized beams are offered.





Hot rolled / Continuously hot- dip coated Cold Formed Sections of multiple dimensions type C, Z, U

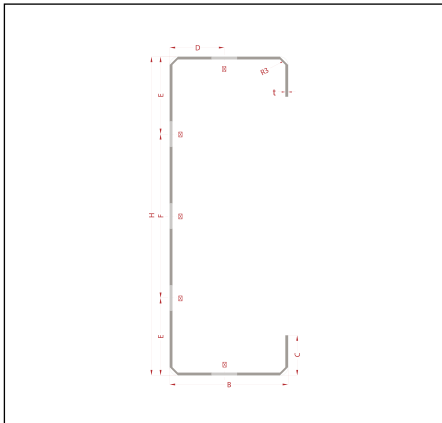
Profile Type

	Purlin C	Purlin Z	Purlin U
t	1,50 up to 3,00	1,50 up to 3,00	1,50 up to 3,00
H (mm)	80 up to 200	100 up to 200	80 up to 200
B (mm)	30 up to 60	30 up to 60	30 up to 60
C (mm)	10 up to 20	10 up to 20	-

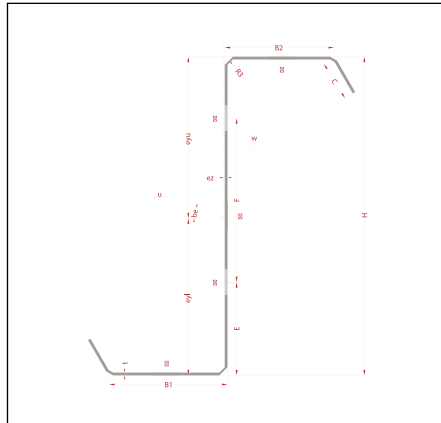
There is a possibility of round or oval perforation in the body and the footings of the profiles:

- \emptyset round: 10 / 12 / 14 / 16 / 18 / 20
- \emptyset oval: 10 x 20 up to 20 x 40

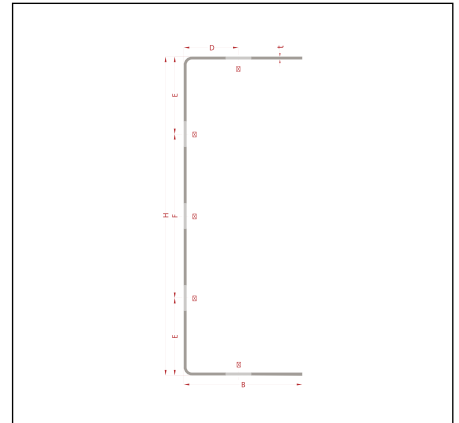
Autocad designs



Purlin C

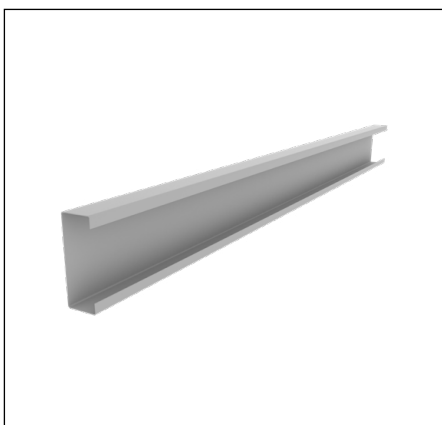


Purlin Z

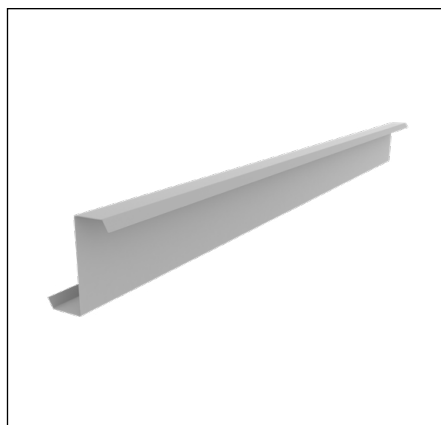


Purlin U

3D designs



Purlin C



Purlin Z



Purlin U

Design load tables for cold form sections

The design tables of ELASTRON's Cold Formed Sections, include maximum tolerable load (kg/m²) and are based on the following parameters:

Structural System

1, 2, 4 spans in length of 4 m until 6 m, step every 1m. The working loads for 3 span structural systems are equal with 2 span systems, due to lack of overlapping either in purlins or rails.

Distance between purlins (mm)

1000, 1200, 1500, 1800, 2000, 2400

Tie Brachet

0, 1, 2 per span

Steel Quality

S320GD

Sleeves or overlappings

The placement or not of the overlapping-connection is defined from the maximum length of the purlin, which is considered to be 12m.

For example, if we have 4 span structural systems in a length of 5m per span, we assume an overlapping of 10m.

Methodology of maximum working load

We choose the weight of cladding system as the load for design in combination with the dead weight, as follows $1.0 \times \text{Dead Weight} + 1.0 \times \text{Weight of Cladding System}$. The results of this calculation define the maximum ultimate load of the specific profile in the specific structural system.

Starting with a maximum overlay load of 1000 kgs/m² search is applied to find the maximum load whose ratio does not exceed the unit. The value of the load which is found is the maximum value the selected cross section can withstand in the selected static system.

Note: The supply factors used for the design tables are those suggested by the EN as below.				
Safety factors				EN
EC3 EN1993-1-3:2006 §2.3	Steel	γM1	Sections' Tolerances Categ. 4	1.00
			Elements' Tolerance	1.00

Example for using Design Tables

In case the user deals with a problem with the design table: User in Greece wants to give dimensions to a purlin by taking into consideration the following loads scenarios:

Scenario 1

Purlin self-weight: 5 kg/m²
 Cladding: 10 kg/m²
 Snow: 100 kg/m²
 Wind: +100 kg/m² (pressure)

Scenario 2

Purlin self-weight: 5 kg/m²
 Cladding: 10 kg/m²
 Snow: 100 kg/m²
 Wind: -250 kg/m² (suction)

Design table of purlins

The user by taking into consideration that he is situated in Greece; he must calculate the sum of the actions in accordance with the Eurocode 1. Let us consider that the user decides to take into account the following combinations:

$$S_d = \Sigma[\Sigma(y_g \times G_k) + Y_{Q,1} \times Q_{k,1} + \Sigma_i \times \psi_{0,i} \times Y_{Q,i} \times Q_{k,i}] \quad (1)$$

$$S_d = \Sigma[\Sigma(y_g \times G_k) + Y_{Q,1} \times Q_{k,1}] \quad (2)$$

According to equation (1):

Scenario 1 – main action snow

$$S_d = \Sigma[1.35 \times 5 + 1.35 \times 10] + 1.5 \times 100 + 0.6 \times 1.5 \times 100 = 6.75 + 13.5 + 150 + 90 = 260.25 \text{ kg/m}^2$$

Scenario 1 – main action wind

$$S_d = \Sigma[1.35 \times 5 + 1.35 \times 10] + 1.5 \times 100 + 0.7 \times 1.5 \times 100 = 6.75 + 13.5 + 150 + 105 = 275.25 \text{ kg/m}^2$$

Scenario 2 – main action snow

$$S_d = \Sigma[1.35 \times 5 + 1.35 \times 10] + 1.5 \times 100 + 0.6 \times 1.5 \times (-250) = 6.75 + 13.5 + 150 - 225 = 54.75 \text{ kg/m}^2$$

Scenario 2 – main action wind

$$S_d = \Sigma[1.35 \times 5 + 1.35 \times 10] + 1.5 \times (-250) + 0.7 \times 1.5 \times 100 = 6.75 + 13.5 - 375 + 105 = -249.75 \text{ kg/m}^2$$

According to equation (2):

Scenario 1 – main action snow

$$S_d = \Sigma[1.35 \times 5 + 1.35 \times 10] + 1.5 \times 100 = 6.75 + 13.5 + 150 = 170.25 \text{ kg/m}^2$$

Scenario 1 – main action wind

$$S_d = \Sigma[1.35 \times 5 + 1.35 \times 10] + 1.5 \times 100 = 6.75 + 13.5 + 150 = 170.25 \text{ kg/m}^2$$

Scenario 2 – main action snow

$$S_d = \Sigma[1.35 \times 5 + 1.35 \times 10] + 1.5 \times 100 = 6.75 + 13.5 + 150 = 170.25 \text{ kg/m}^2$$

Scenario 2 – main action wind

$$S_d = \Sigma[1.35 \times 5 + 1.35 \times 10] + 1.5 \times (-250) = 6.75 + 13.5 - 375 = -354.75 \text{ kg/m}^2$$

From all the above scenarios it is concluded that the worst load is delivered from:

Scenario 2 – main action wind = -354.75 kg/m²

For the load (354.75 kg/m²) the user should choose the appropriate purlin section as well as the appropriate configuration (continuous, simply, supported, number of threads).

EL C - Number of Spans: 1

Lengths of Spans: 4.000 mm

Sections	Distance between the beams (mm)	1000			1200			1500			1800			2000			2400		
	Threads	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2
	Weight (kg/m)	Maximum allowable load (kg/m ²)																	
EL C140-1,5	3,20	70,74	173,83	217,16	58,90	144,90	181,03	47,15	115,91	144,78	39,28	96,62	120,67	35,37	86,91	108,58	29,45	72,45	90,52
EL C140-1,8	3,82	87,89	219,12	280,27	73,24	182,62	233,52	58,59	146,12	186,89	48,83	121,77	155,64	43,95	109,56	140,14	36,62	91,31	116,76
EL C140-2,0	4,24	98,33	235,35	296,39	81,97	196,17	247,01	65,55	156,86	197,63	54,66	130,74	164,67	49,16	117,68	148,19	40,99	98,08	123,51
EL C155-1,5	3,37	76,23	191,53	240,78	63,54	159,55	200,68	50,84	127,69	160,52	42,36	106,38	133,79	38,12	95,76	120,39	31,77	79,77	100,34
EL C155-1,8	4,01	94,30	240,60	310,06	78,55	200,56	258,30	62,87	160,40	206,67	52,40	133,67	172,24	47,15	120,30	155,03	39,28	100,28	129,15
EL C155-2,0	4,43	107,00	274,41	358,40	89,17	228,64	298,58	71,35	182,86	238,95	59,46	152,34	199,10	53,50	137,21	179,20	44,59	114,32	149,29
EL C175-1,5	3,84	124,88	258,30	298,58	104,07	215,33	248,84	83,25	172,24	199,10	69,34	143,56	165,89	62,44	129,15	149,29	52,03	107,67	124,42
EL C175-1,8	4,58	155,15	341,06	403,56	129,27	284,18	336,18	103,46	227,42	269,04	86,18	189,58	224,24	77,58	170,53	201,78	64,64	142,09	168,09
EL C175-2,0	5,06	174,81	389,89	465,09	145,63	324,95	387,70	116,58	259,77	310,06	97,11	216,55	258,30	87,40	194,95	232,54	72,82	162,48	193,85
EL C175-2,5	6,28	222,05	481,93	574,71	184,94	401,61	479,00	147,95	321,29	383,30	123,32	267,82	319,34	111,02	240,97	287,35	92,47	200,81	239,50
EL C205-1,5	4,19	158,08	314,21	358,40	131,71	261,72	298,83	105,41	209,47	238,95	87,83	174,56	199,22	79,04	157,10	179,20	65,86	130,86	149,41
EL C205-1,8	5,00	191,65	413,82	484,86	159,67	344,97	404,05	127,81	275,88	323,24	106,51	229,98	269,29	95,83	206,91	242,43	79,83	172,49	202,03
EL C205-2,0	5,53	216,06	478,64	567,38	180,05	398,93	472,78	144,04	319,09	378,17	120,03	265,87	315,19	108,03	239,32	283,69	90,03	199,46	236,39
EL C205-2,5	6,87	278,08	640,63	777,34	231,81	533,69	647,95	185,43	427,00	518,07	154,54	355,96	431,89	139,04	320,31	388,67	115,91	266,85	323,98

Lengths of Spans: 5.000 mm

Sections	Distance between the beams (mm)	1000			1200			1500			1800			2000			2400		
	Threads	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2
	Weight (kg/m)	Maximum allowable load (kg/m ²)																	
EL C140-1,5	3,20	30,26	87,83	124,79	25,21	73,18	104,00	20,17	58,53	83,19	16,80	48,77	69,34	15,13	43,92	62,39	12,60	36,59	52,00
EL C140-1,8	3,82	38,18	109,19	159,30	31,80	90,94	132,81	25,45	72,75	106,20	21,21	60,65	88,50	19,09	54,60	79,65	15,90	45,47	66,41
EL C140-2,0	4,24	43,37	118,74	169,56	36,13	98,94	141,36	28,90	79,16	113,04	24,09	65,98	94,24	21,68	59,37	84,78	18,07	49,47	70,68
EL C155-1,5	3,37	32,38	96,13	138,06	26,99	80,14	115,05	21,59	64,09	92,04	17,99	53,41	76,66	16,19	48,07	69,03	13,50	40,07	57,53
EL C155-1,8	4,01	40,62	119,20	175,78	33,84	99,30	146,48	27,08	79,47	117,25	22,57	66,22	97,66	20,31	59,60	87,89	16,92	49,65	73,24
EL C155-2,0	4,43	46,57	134,89	201,90	38,79	112,43	168,21	31,04	89,91	134,64	25,86	74,95	112,18	23,29	67,44	100,95	19,39	56,21	84,11
EL C175-1,5	3,84	54,54	140,63	177,73	45,44	117,19	148,07	36,35	93,75	118,47	30,30	78,13	98,76	27,27	70,31	88,87	22,72	58,59	74,04
EL C175-1,8	4,58	67,81	181,40	238,04	56,55	151,12	198,36	45,23	120,94	158,69	37,69	100,77	132,20	33,91	90,70	119,02	28,28	75,56	99,18
EL C175-2,0	5,06	76,84	205,69	273,44	64,03	171,39	227,78	51,24	137,09	182,25	42,69	114,32	151,86	38,42	102,84	136,72	32,01	85,69	113,89
EL C175-2,5	6,28	99,61	255,13	337,65	83,01	212,65	281,49	66,41	170,04	225,22	55,36	141,72	187,62	49,81	127,56	168,82	41,50	106,32	140,75
EL C205-1,5	4,19	69,46	173,46	214,72	57,86	144,53	178,83	46,33	115,66	143,07	38,61	96,38	119,29	34,73	86,73	107,36	28,93	72,27	89,42
EL C205-1,8	5,00	83,68	222,29	287,35	69,76	185,18	239,50	55,82	148,19	191,53	46,51	123,51	159,67	41,84	111,15	143,68	34,88	92,59	119,75
EL C205-2,0	5,53	94,54	254,40	334,72	78,74	212,04	278,81	62,99	169,56	223,15	52,52	141,36	185,91	47,27	127,20	167,36	39,37	106,02	139,40
EL C205-2,5	6,87	122,86	333,50	454,10	102,42	277,83	378,42	81,91	222,41	302,73	68,30	185,30	252,20	61,43	166,75	227,05	51,21	138,92	189,21

Lengths of Spans: 6.000 mm

Sections	Distance between the beams (mm)	1000			1200			1500			1800			2000			2400		
	Threads	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2
	Weight (kg/m)	Maximum allowable load (kg/m ²)																	
EL C140-1,5	3,20	14,30	46,88	75,44	11,92	39,06	62,87	9,54	31,25	50,29	7,94	26,05	41,90	7,15	23,44	37,72	5,96	19,53	31,43
EL C140-1,8	3,82	18,46	57,98	95,22	15,38	48,34	79,35	12,31	38,67	63,48	10,25	32,23	52,89	9,23	28,99	47,61	7,69	24,17	39,67
EL C140-2,0	4,24	21,29	63,78	102,11	17,75	53,16	85,08	14,19	42,54	68,05	11,83	35,43	56,73	10,64	31,89	51,06	8,87	26,58	42,54
EL C155-1,5	3,37	15,23	51,12	83,19	12,70	42,57	69,34	10,16	34,06	55,45	8,46	28,40	46,20	7,61	25,56	41,60	6,35	21,29	34,67
EL C155-1,8	4,01	19,50	62,99	104,68	16,25	52,52	87,22	13,00	42,02	69,76	10,83	35,00	58,17	9,75	31,49	52,34	8,13	26,26	43,61
EL C155-2,0	4,43	22,64	71,23	119,39	18,88	59,33	99,49	15,09	47,49	79,59	12,58	39,58	66,35	11,32	35,61	59,69	9,44	29,66	49,74
EL C175-1,5	3,84	26,40	79,83	112,67	21,99	66,53	93,87	17,59	53,22	75,07	14,66	44,34	62,56	13,20	39,92	56,34	10,99	33,26	46,94
EL C175-1,8	4,58	33,14	101,07	149,05	27,62	84,23	124,15	22,10	67,38	99,37	18,40	56,15	82,76	16,57	50,54	74,52	13,81	42,11	62,07
EL C175-2,0	5,06	37,84	114,14	170,29	31,53	95,09	141,97	25,24	76,05	113,59	21,03	63,35	94,67	18,92	57,07	85,14	15,76	47,55	70,98
EL C175-2,5	6,28	50,23	142,33	210,57	41,87	118,65	175,54	33,48	94,91	140,38	27,89	79,10	117,00	25,12	71,17	105,29	20,94	59,33	87,77
EL C205-1,5	4,19	33,78	100,04	137,21	28,17	83,37	114,38	22,52	66,65	91,49	18,77	55,57	76,23	16,89	50,02	68,60	14,08	41,69	57,19
EL C205-1,8	5,00	40,83	124,88	181,03	34,03	104,07	150,88	27,22	83,25	120,67	22,69	69,40	100,59	20,42	62,44	90,52	17,01	52,03	75,44
EL C205-2,0	5,53	46,39	141,72	209,60	38,64	118,16	174,68	30,92	94,48	139,77	25,76	78,74	116,46	23,19	70,86	104,80	19,32	59,08	87,34
EL C205-2,5	6,87	61,34	183,59	280,76	51,12	152,95	234,01	40,89	122,31	187,13	34,06	101,99	156,01	30,67	91,80	140,38	25,56	76,48	117,00

EL C - Number of Spans: 2

Lengths of Spans: 4.000 mm

Sections	Distance between the beams (mm)	1000			1200			1500			1800			2000			2400		
	Threads	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2
	Weight (kg/m)	Maximum allowable load (kg/m ²)																	
EL C140-1,5	3,20	71,17	175,05	218,63	59,33	145,87	182,13	47,46	116,70	145,75	39,55	97,23	121,49	35,58	87,52	109,31	29,66	72,94	91,06
EL C140-1,8	3,82	88,26	219,97	281,25	73,55	183,35	234,50	58,84	146,61	187,50	49,01	122,22	156,25	44,13	109,99	140,63	36,77	91,68	117,25
EL C140-2,0	4,24	98,76	236,21	297,61	82,28	196,90	247,93	65,80	157,47	198,36	54,87	131,23	165,28	49,38	118,10	148,80	41,14	98,45	123,96
EL C155-1,5	3,37	76,60	192,26	241,70	63,78	160,28	201,54	51,06	128,17	161,13	42,54	106,81	134,28	38,30	96,13	120,85	31,89	80,14	100,77
EL C155-1,8	4,01	94,73	241,70	311,28	78,92	201,42	259,28	63,11	161,13	207,52	52,61	134,28	172,97	47,36	120,85	155,64	39,46	100,71	129,64
EL C155-2,0	4,43	107,48	275,39	359,86	89,54	229,61	299,81	71,66	183,59	239,87	59,69	153,08	199,95	53,74	137,70	179,93	44,77	114,81	149,90
EL C175-1,5	3,84	125,49	259,77	300,29	104,61	216,55	250,24	83,68	173,22	200,20	69,76	144,41	166,75	62,74	129,88	150,15	52,31	108,28	125,12
EL C175-1,8	4,58	156,01	343,02	405,76	130,01	285,89	338,14	104,00	228,76	270,51	86,67	190,55	225,46	78,00	171,51	202,88	65,00	142,94	169,07
EL C175-2,0	5,06	175,78	391,85	467,77	146,48	326,66	389,65	117,19	261,23	311,77	97,66	217,77	259,77	87,89	195,92	233,89	73,24	163,33	194,82
EL C175-2,5	6,28	223,15	484,50	577,64	186,04	403,81	481,57	148,80	323,00	385,25	123,96	269,04	321,05	111,57	242,25	288,82	93,02	201,90	240,78
EL C205-1,5	4,19	159,18	316,41	360,84	132,57	263,67	300,78	106,14	210,94	240,60	88,44	175,78	200,56	79,59	158,20	180,42	66,28	131,84	150,39
EL C205-1,8	5,00	192,99	416,50	487,79	160,77	347,17	406,74	128,66	277,59	325,20	107,18	231,45	271,00	96,50	208,25	243,90	80,38	173,58	203,37
EL C205-2,0	5,53	217,53	481,93	571,29	181,27	401,61	476,07	145,02	321,29	380,86	120,85	267,82	317,38	108,77	240,97	285,65	90,64	200,81	238,04
EL C205-2,5	6,87	280,03	644,53	782,72	233,28	537,11	651,86	186,65	429,93	521,48	155,52	358,15	434,81	140,02	322,27	391,36	116,64	268,56	325,93

Lengths of Spans: 5.000 mm

Sections	Distance between the beams (mm)	1000			1200			1500			1800			2000			2400		
	Threads	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2
	Weight (kg/m)	Maximum allowable load (kg/m ²)																	
EL C140-1,5	3,20	30,40	88,20	125,24	25,33	73,49	104,43	20,26	58,78	83,56	16,88	48,98	69,58	15,20	44,10	62,62	12,67	36,74	52,22
EL C140-1,8	3,82	38,27	109,44	159,67	31,89	91,19	133,06	25,53	72,94	106,51	21,27	60,79	88,75	19,14	54,72	79,83	15,95	45,59	66,53
EL C140-2,0	4,24	43,49	119,02	170,04	36,22	99,18	141,60	28,99	79,35	113,34	24,16	66,10	94,42	21,74	59,51	85,02	18,11	49,59	70,80
EL C155-1,5	3,37	32,47	96,44	138,43	27,07	80,32	115,36	21,65	64,27	92,29	18,05	53,56	76,90	16,24	48,22	69,21	13,54	40,16	57,68
EL C155-1,8	4,01	40,74	119,48	176,27	33,94	99,61	146,85	27,16	79,65	117,55	22,63	66,41	97,96	20,37	59,74	88,14	16,97	49,81	73,43
EL C155-2,0	4,43	46,69	135,25	202,52	38,91	112,73	168,70	31,13	90,15	135,01	25,94	75,13	112,49	23,35	67,63	101,26	19,46	56,37	84,35
EL C175-1,5	3,84	54,75	141,11	178,35	45,62	117,55	148,68	36,50	94,06	118,93	30,42	78,37	99,12	27,37	70,56	89,17	22,81	58,78	74,34
EL C175-1,8	4,58	68,12	182,01	238,77	56,76	151,73	199,10	45,41	121,40	159,18	37,84	101,14	132,69	34,06	91,00	119,39	28,38	75,87	99,55
EL C175-2,0	5,06	77,15	206,42	274,17	64,27	172,00	228,64	51,42	137,57	182,86	42,85	114,69	152,34	38,57	103,21	137,09	32,14	86,00	114,32
EL C175-2,5	6,28	99,98	256,10	338,87	83,31	213,38	282,47	66,65	170,65	225,95	55,54	142,21	188,23	49,99	128,05	169,43	41,66	106,69	141,24
EL C205-1,5	4,19	69,76	174,19	215,58	58,17	145,14	179,69	46,51	116,15	143,68	38,76	96,80	119,75	34,88	87,10	107,79	29,08	72,57	89,84
EL C205-1,8	5,00	84,11	223,27	288,57	70,07	186,04	240,42	56,06	148,80	192,38	46,72	123,96	160,28	42,05	111,63	144,29	35,03	93,02	120,21
EL C205-2,0	5,53	94,91	255,37	336,18	79,10	212,89	280,03	63,29	170,29	224,12	52,73	141,85	186,77	47,46	127,69	168,09	39,55	106,45	140,02
EL C205-2,5	6,87	123,41	334,96	456,06	102,84	279,05	379,88	82,28	223,27	303,96	68,54	186,04	253,17	61,71	167,48	228,03	51,42	139,53	189,94

Lengths of Spans: 6.000 mm

Sections	Distance between the beams (mm)	1000			1200			1500			1800			2000			2400		
	Threads	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2
	Weight (kg/m)	Maximum allowable load (kg/m ²)																	
EL C140-1,5	3,20	14,34	47,03	75,62	11,96	39,19	63,05	9,57	31,34	50,45	7,97	26,12	42,02	7,17	23,51	37,81	5,98	19,59	31,53
EL C140-1,8	3,82	18,49	58,11	95,34	15,41	48,43	79,47	12,33	38,73	63,54	10,28	32,29	52,98	9,25	29,05	47,67	7,71	24,22	39,73
EL C140-2,0	4,24	21,33	63,90	102,30	17,78	53,25	85,27	14,22	42,60	68,18	11,86	35,49	56,85	10,67	31,95	51,15	8,89	26,63	42,63
EL C155-1,5	3,37	15,26	51,21	83,31	12,73	42,66	69,46	10,18	34,12	55,57	8,48	28,44	46,30	7,63	25,60	41,66	6,36	21,33	34,73
EL C155-1,8	4,01	19,53	63,11	104,92	16,28	52,61	87,40	13,02	42,08	69,95	10,86	35,07	58,29	9,77	31,56	52,46	8,14	26,31	43,70
EL C155-2,0	4,43	22,71	71,35	119,66	18,92	59,45	99,67	15,14	47,58	79,77	12,61	39,64	66,47	11,35	35,68	59,83	9,46	29,72	49,84
EL C175-1,5	3,84	26,46	80,02	112,98	22,05	66,71	94,12	17,64	53,38	75,32	14,69	44,46	62,74	13,23	40,01	56,49	11,02	33,36	47,06
EL C175-1,8	4,58	33,23	101,32	149,41	27,68	84,47	124,51	22,16	67,57	99,61	18,46	56,31	83,01	16,62	50,66	74,71	13,84	42,24	62,26
EL C175-2,0	5,06	37,96	114,38	170,78	31,62	95,34	142,33	25,30	76,23	113,83	21,09	63,54	94,85	18,98	57,19	85,39	15,81	47,67	71,17
EL C175-2,5	6,28	50,39	142,70	211,06	41,99	118,93	175,90	33,57	95,15	140,75	27,99	79,29	117,31	25,19	71,35	105,53	21,00	59,46	87,95
EL C205-1,5	4,19	33,91	100,34	137,70	28,26	83,62	114,75	22,60	66,90	91,80	18,83	55,76	76,48	16,95	50,17	68,85	14,13	41,81	57,37
EL C205-1,8	5,00	40,99	125,24	181,64	34,15	104,43	151,37	27,31	83,50	121,03	22,77	69,58	100,89	20,49	62,62	90,82	17,08	52,22	75,68
EL C205-2,0	5,53	46,51	142,21	210,33	38,76	118,47	175,17	31,01	94,79	140,14	25,85	78,98	116,82	23,25	71,11	105,16	19,38	59,24	87,59
EL C205-2,5	6,87	61,52	184,08	281,49	51,27	153,44	234,62	41,02	122,68	187,74	34,18	102,30	156,37	30,76	92,04	140,75	25,64	76,72	117,31

EL C - Number of Spans: 4

Lengths of Spans: 4.000 mm

Sections	Distance between the beams (mm)	1000			1200			1500			1800			2000			2400		
	Threads	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2
	Weight (kg/m)	Maximum allowable load (kg/m ²)																	
EL C140-1,5	3,20	70,74	173,83	217,16	58,90	144,90	181,03	47,15	115,91	144,78	39,28	96,62	120,67	35,37	86,91	108,58	29,45	72,45	90,52
EL C140-1,8	3,82	87,89	219,12	280,27	73,24	182,62	233,52	58,59	146,12	186,89	48,83	121,77	155,64	43,95	109,56	140,14	36,62	91,31	116,76
EL C140-2,0	4,24	98,33	235,35	296,39	81,97	196,17	247,01	65,55	156,86	197,63	54,66	130,74	164,67	49,16	117,68	148,19	40,99	98,08	123,51
EL C155-1,5	3,37	76,23	191,53	240,78	63,54	159,55	200,68	50,84	127,69	160,52	42,36	106,38	133,79	38,12	95,76	120,39	31,77	79,77	100,34
EL C155-1,8	4,01	94,30	240,60	310,06	78,55	200,56	258,30	62,87	160,40	206,67	52,40	133,67	172,24	47,15	120,30	155,03	39,28	100,28	129,15
EL C155-2,0	4,43	107,00	274,41	358,40	89,17	228,64	298,58	71,35	182,86	238,95	59,46	152,34	199,10	53,50	137,21	179,20	44,59	114,32	149,29
EL C175-1,5	3,84	124,88	258,30	298,58	104,07	215,33	248,84	83,25	172,24	199,10	69,34	143,56	165,89	62,44	129,15	149,29	52,03	107,67	124,42
EL C175-1,8	4,58	155,15	341,06	403,56	129,27	284,18	336,18	103,46	227,42	269,04	86,18	189,58	224,24	77,58	170,53	201,78	64,64	142,09	168,09
EL C175-2,0	5,06	174,81	389,89	465,09	145,63	324,95	387,70	116,58	259,77	310,06	97,11	216,55	258,30	87,40	194,95	232,54	72,82	162,48	193,85
EL C175-2,5	6,28	222,05	481,93	574,71	184,94	401,61	479,00	147,95	321,29	383,30	123,32	267,82	319,34	111,02	240,97	287,35	92,47	200,81	239,50
EL C205-1,5	4,19	158,08	314,21	358,40	131,71	261,72	298,83	105,41	209,47	238,95	87,83	174,56	199,22	79,04	157,10	179,20	65,86	130,86	149,41
EL C205-1,8	5,00	191,65	413,82	484,86	159,67	344,97	404,05	127,81	275,88	323,24	106,51	229,98	269,29	95,83	206,91	242,43	79,83	172,49	202,03
EL C205-2,0	5,53	216,06	478,64	567,38	180,05	398,93	472,78	144,04	319,09	378,17	120,03	265,87	315,19	108,03	239,32	283,69	90,03	199,46	236,39
EL C205-2,5	6,87	278,08	640,63	777,34	231,81	533,69	647,95	185,43	427,00	518,07	154,54	355,96	431,89	139,04	320,31	388,67	115,91	266,85	323,98

Lengths of Spans: 5.000 mm

Sections	Distance between the beams (mm)	1000			1200			1500			1800			2000			2400		
	Threads	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2
	Weight (kg/m)	Maximum allowable load (kg/m ²)																	
EL C140-1,5	3,20	30,40	88,20	125,24	25,33	73,49	104,43	20,26	58,78	83,56	16,88	48,98	69,58	15,20	44,10	62,62	12,67	36,74	52,22
EL C140-1,8	3,82	38,27	109,44	159,67	31,89	91,19	133,06	25,53	72,94	106,51	21,27	60,79	88,75	19,14	54,72	79,83	15,95	45,59	66,53
EL C140-2,0	4,24	43,49	119,02	170,04	36,22	99,18	141,60	28,99	79,35	113,34	24,16	66,10	94,42	21,74	59,51	85,02	18,11	49,59	70,80
EL C155-1,5	3,37	32,47	96,44	138,43	27,07	80,32	115,36	21,65	64,27	92,29	18,05	53,56	76,90	16,24	48,22	69,21	13,54	40,16	57,68
EL C155-1,8	4,01	40,74	119,48	176,27	33,94	99,61	146,85	27,16	79,65	117,55	22,63	66,41	97,96	20,37	59,74	88,14	16,97	49,81	73,43
EL C155-2,0	4,43	46,69	135,25	202,52	38,91	112,73	168,70	31,13	90,15	135,01	25,94	75,13	112,49	23,35	67,63	101,26	19,46	56,37	84,35
EL C175-1,5	3,84	54,75	141,11	178,35	45,62	117,55	148,68	36,50	94,06	118,93	30,42	78,37	99,12	27,37	70,56	89,17	22,81	58,78	74,34
EL C175-1,8	4,58	68,12	182,01	238,77	56,76	151,73	199,10	45,41	121,40	159,18	37,84	101,14	132,69	34,06	91,00	119,39	28,38	75,87	99,55
EL C175-2,0	5,06	77,15	206,42	274,17	64,27	172,00	228,64	51,42	137,57	182,86	42,85	114,69	152,34	38,57	103,21	137,09	32,14	86,00	114,32
EL C175-2,5	6,28	99,98	256,10	338,87	83,31	213,38	282,47	66,65	170,65	225,95	55,54	142,21	188,23	49,99	128,05	169,43	41,66	106,69	141,24
EL C205-1,5	4,19	69,76	174,19	215,58	58,17	145,14	179,69	46,51	116,15	143,68	38,76	96,80	119,75	34,88	87,10	107,79	29,08	72,57	89,84
EL C205-1,8	5,00	84,11	223,27	288,57	70,07	186,04	240,42	56,06	148,80	192,38	46,72	123,96	160,28	42,05	111,63	144,29	35,03	93,02	120,21
EL C205-2,0	5,53	94,91	255,37	336,18	79,10	212,89	280,03	63,29	170,29	224,12	52,73	141,85	186,77	47,46	127,69	168,09	39,55	106,45	140,02
EL C205-2,5	6,87	123,41	334,96	456,06	102,84	279,05	379,88	82,28	223,27	303,96	68,54	186,04	253,17	61,71	167,48	228,03	51,42	139,53	189,94

Lengths of Spans: 6.000 mm

Sections	Distance between the beams (mm)	1000			1200			1500			1800			2000			2400		
	Threads	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2
	Weight (kg/m)	Maximum allowable load (kg/m ²)																	
EL C140-1,5	3,20	14,34	47,03	75,62	11,96	39,19	63,05	9,57	31,34	50,45	7,97	26,12	42,02	7,17	23,51	37,81	5,98	19,59	31,53
EL C140-1,8	3,82	18,49	58,11	95,34	15,41	48,43	79,47	12,33	38,73	63,54	10,28	32,29	52,98	9,25	29,05	47,67	7,71	24,22	39,73
EL C140-2,0	4,24	21,33	63,90	102,30	17,78	53,25	85,27	14,22	42,60	68,18	11,86	35,49	56,85	10,67	31,95	51,15	8,89	26,63	42,63
EL C155-1,5	3,37	15,26	51,21	83,31	12,73	42,66	69,46	10,18	34,12	55,57	8,48	28,44	46,30	7,63	25,60	41,66	6,36	21,33	34,73
EL C155-1,8	4,01	19,53	63,11	104,92	16,28	52,61	87,40	13,02	42,08	69,95	10,86	35,07	58,29	9,77	31,56	52,46	8,14	26,31	43,70
EL C155-2,0	4,43	22,71	71,35	119,66	18,92	59,45	99,67	15,14	47,58	79,77	12,61	39,64	66,47	11,35	35,68	59,83	9,46	29,72	49,84
EL C175-1,5	3,84	26,46	80,02	112,98	22,05	66,71	94,12	17,64	53,38	75,32	14,69	44,46	62,74	13,23	40,01	56,49	11,02	33,36	47,06
EL C175-1,8	4,58	33,23	101,32	149,41	27,68	84,47	124,51	22,16	67,57	99,61	18,46	56,31	83,01	16,62	50,66	74,71	13,84	42,24	62,26
EL C175-2,0	5,06	37,96	114,38	170,78	31,62	95,34	142,33	25,30	76,23	113,83	21,09	63,54	94,85	18,98	57,19	85,39	15,81	47,67	71,17
EL C175-2,5	6,28	50,39	142,70	211,06	41,99	118,93	175,90	33,57	95,15	140,75	27,99	79,29	117,31	25,19	71,35	105,53	21,00	59,46	87,95
EL C205-1,5	4,19	33,91	100,34	137,70	28,26	83,62	114,75	22,60	66,90	91,80	18,83	55,76	76,48	16,95	50,17	68,85	14,13	41,81	57,37
EL C205-1,8	5,00	40,99	125,24	181,64	34,15	104,43	151,37	27,31	83,50	121,03	22,77	69,58	100,89	20,49	62,62	90,82	17,08	52,22	75,68
EL C205-2,0	5,53	46,51	142,21	210,33	38,76	118,47	175,17	31,01	94,79	140,14	25,85	78,98	116,82	23,25	71,11	105,16	19,38	59,24	87,59
EL C205-2,5	6,87	61,52	184,08	281,49	51,27	153,44	234,62	41,02	122,68	187,74	34,18	102,30	156,37	30,76	92,04	140,75	25,64	76,72	117,31

EL Zplus - Number of Spans: 1

Lengths of Spans: 4.000 mm

Sections	Distance between the beams (mm)	1000			1200			1500			1800			2000			2400		
	Threads	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2
	Weight (kg/m)	Maximum allowable load (kg/m ²)																	
EL Zplus 205-2,0	6,00	344,24	546,39	595,70	286,87	455,32	496,58	229,49	364,26	397,22	191,28	303,47	331,06	172,12	273,19	297,85	143,43	227,66	248,29
EL Zplus 205-2,5	7,44	447,51	733,40	805,66	373,05	610,84	671,39	298,34	488,89	537,11	248,66	407,47	447,51	223,76	366,70	402,83	186,52	305,42	335,69
EL Zplus 225-2,0	6,31	379,64	603,03	657,72	316,41	502,44	547,85	253,17	402,10	438,48	210,94	335,21	365,48	189,82	301,51	328,86	158,20	251,22	273,93
EL Zplus 225-2,5	7,83	492,55	809,08	888,67	410,40	674,32	740,23	328,37	539,06	592,29	273,68	449,46	493,65	246,28	404,54	444,34	205,20	337,16	370,12
EL Zplus 255-2,0	6,78	476,81	724,12	783,69	397,46	603,52	652,83	317,87	482,67	522,46	264,89	402,34	435,30	238,40	362,06	391,85	198,73	301,76	326,42
EL Zplus 255-2,5	8,42	619,14	977,05	1064,45	515,63	814,45	887,21	412,84	651,37	709,96	343,99	542,97	591,31	309,57	488,53	532,23	257,81	407,23	443,60
EL Zplus 285-2,0	7,25	536,13	814,94	881,35	447,02	679,20	734,38	357,67	542,97	587,40	297,85	452,64	489,62	268,07	407,47	440,67	223,51	339,60	367,19
EL Zplus 285-2,5	9,00	695,31	1098,63	1196,29	579,59	915,53	996,83	463,62	732,42	797,85	386,23	610,35	664,55	347,66	549,32	598,15	289,80	457,76	498,41

Lengths of Spans: 5.000 mm

Sections	Distance between the beams (mm)	1000			1200			1500			1800			2000			2400		
	Threads	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2
	Weight (kg/m)	Maximum allowable load (kg/m ²)																	
EL Zplus 205-2,0	6,00	162,11	318,85	364,01	135,13	265,87	303,47	108,09	212,65	242,62	90,09	177,25	202,27	81,06	159,42	182,01	67,57	132,94	151,73
EL Zplus 205-2,5	7,44	210,45	424,81	490,72	175,42	354,00	408,94	140,26	283,20	327,15	116,94	236,02	272,71	105,23	212,40	245,36	87,71	177,00	204,47
EL Zplus 225-2,0	6,31	178,59	352,30	402,10	148,80	293,70	334,96	119,02	234,86	268,07	99,18	195,80	223,39	89,29	176,15	201,05	74,40	146,85	167,48
EL Zplus 225-2,5	7,83	230,96	468,99	541,50	192,51	390,87	451,42	153,93	312,50	361,08	128,30	260,50	300,78	115,48	234,50	270,75	96,25	195,44	225,71
EL Zplus 255-2,0	6,78	227,66	427,25	480,84	189,70	355,96	400,64	151,73	284,67	320,56	126,47	237,31	267,09	113,83	213,62	240,42	94,85	177,98	200,32
EL Zplus 255-2,5	8,42	292,97	571,78	651,37	244,26	476,44	542,97	195,31	381,35	434,33	162,84	317,63	362,06	146,48	285,89	325,68	122,13	238,22	271,48
EL Zplus 285-2,0	7,25	255,86	480,84	541,02	213,14	400,64	450,93	170,53	320,56	360,60	142,09	267,09	300,54	127,93	240,42	270,51	106,57	200,32	225,46
EL Zplus 285-2,5	9,00	328,37	643,07	732,42	273,68	536,13	610,35	218,99	428,71	488,53	182,50	357,42	406,98	164,19	321,53	366,21	136,84	268,07	305,18

Lengths of Spans: 6.000 mm

Sections	Distance between the beams (mm)	1000			1200			1500			1800			2000			2400		
	Threads	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2
	Weight (kg/m)	Maximum allowable load (kg/m ²)																	
EL Zplus 205-2,0	6,00	83,37	197,02	239,32	69,46	164,19	199,46	55,60	131,35	159,55	46,33	109,44	132,94	41,69	98,51	119,66	34,73	82,09	99,73
EL Zplus 205-2,5	7,44	109,07	260,01	321,78	90,88	216,80	268,07	72,69	173,46	214,48	60,56	144,53	178,71	54,54	130,01	160,89	45,44	108,40	134,03
EL Zplus 225-2,0	6,31	91,61	217,77	264,40	76,36	181,40	220,46	61,11	145,14	176,39	50,90	120,94	146,97	45,81	108,89	132,20	38,18	90,70	110,23
EL Zplus 225-2,5	7,83	119,29	287,11	355,23	99,43	239,32	295,90	79,53	191,41	236,76	66,28	159,55	197,27	59,65	143,56	177,61	49,71	119,66	147,95
EL Zplus 255-2,0	6,78	117,68	267,33	317,87	98,15	222,90	264,89	78,49	178,22	212,04	65,43	148,56	176,64	58,84	133,67	158,94	49,07	111,45	132,45
EL Zplus 255-2,5	8,42	151,73	354,49	429,44	126,47	295,41	357,91	101,20	236,39	286,13	84,35	196,90	238,59	75,87	177,25	214,72	63,23	147,71	178,96
EL Zplus 285-2,0	7,25	132,20	301,27	357,91	110,17	250,98	298,34	88,14	200,81	238,59	73,43	167,36	198,85	66,10	150,64	178,96	55,08	125,49	149,17
EL Zplus 285-2,5	9,00	169,68	398,93	483,03	141,36	332,28	402,59	113,16	265,87	322,02	94,30	221,56	268,31	84,84	199,46	241,52	70,68	166,14	201,29

EL Zplus - Number of Spans: 2

Lengths of Spans: 4.000 mm

Sections	Distance between the beams (mm)	1000			1200			1500			1800			2000			2400		
	Threads	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2
	Weight (kg/m)	Maximum allowable load (kg/m ²)																	
EL Zplus 205-2,0	6,00	350,34	562,50	615,23	291,99	468,99	512,70	233,52	375,24	410,16	194,58	312,74	341,80	175,17	281,25	307,62	146,00	234,50	256,35
EL Zplus 205-2,5	7,44	455,08	754,88	831,06	379,15	628,91	692,38	303,22	502,93	553,71	252,69	419,43	461,67	227,54	377,44	415,53	189,58	314,45	346,19
EL Zplus 225-2,0	6,31	386,72	622,07	679,69	322,27	518,07	566,41	257,81	414,55	453,13	214,84	345,46	377,44	193,36	311,04	339,84	161,13	259,03	283,20
EL Zplus 225-2,5	7,83	500,98	833,50	917,48	417,73	694,34	764,65	334,23	555,66	611,33	278,32	463,14	509,77	250,49	416,75	458,74	208,86	347,17	382,32
EL Zplus 255-2,0	6,78	485,96	745,61	808,11	405,03	621,09	673,34	323,98	496,95	538,57	270,02	414,31	448,73	242,98	372,80	404,05	202,52	310,55	336,67
EL Zplus 255-2,5	8,42	629,88	1003,91	1095,70	524,90	836,43	913,09	420,17	668,95	730,47	350,10	557,62	608,40	314,94	501,95	547,85	262,45	418,21	456,54
EL Zplus 285-2,0	7,25	547,85	840,33	910,65	456,54	700,20	758,79	365,23	560,06	606,93	304,20	466,80	505,86	273,93	420,17	455,32	228,27	350,10	379,40
EL Zplus 285-2,5	9,00	708,98	1129,88	1233,40	590,82	941,90	1027,34	472,41	753,42	822,27	393,80	627,93	685,06	354,49	564,94	616,70	295,41	470,95	513,67

Lengths of Spans: 5.000 mm

Sections	Distance between the beams (mm)	1000			1200			1500			1800			2000			2400		
	Threads	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2
	Weight (kg/m)	Maximum allowable load (kg/m ²)																	
EL Zplus 205-2,0	6,00	163,94	327,15	374,76	136,60	272,46	312,26	109,31	218,02	249,76	91,13	181,64	208,13	81,97	163,57	187,38	68,30	136,23	156,13
EL Zplus 205-2,5	7,44	212,77	435,30	504,88	177,25	362,55	420,65	141,85	290,04	336,43	118,16	241,70	280,52	106,38	217,65	252,44	88,62	181,27	210,33
EL Zplus 225-2,0	6,31	180,66	361,57	414,06	150,51	301,27	344,97	120,39	240,97	275,88	100,34	200,81	229,98	90,33	180,79	207,03	75,26	150,64	172,49
EL Zplus 225-2,5	7,83	233,64	480,47	557,13	194,70	400,39	464,36	155,76	320,31	371,58	129,76	266,85	309,57	116,82	240,23	278,56	97,35	200,20	232,18
EL Zplus 255-2,0	6,78	230,47	437,50	493,65	192,02	364,50	411,62	153,56	291,75	329,10	128,05	242,98	274,41	115,23	218,75	246,83	96,01	182,25	205,81
EL Zplus 255-2,5	8,42	296,39	584,47	667,97	247,01	487,06	556,64	197,63	389,65	445,31	164,67	324,71	371,09	148,19	292,24	333,98	123,51	243,53	278,32
EL Zplus 285-2,0	7,25	259,28	492,92	556,15	216,06	410,89	463,62	172,85	328,61	370,85	144,04	273,93	309,08	129,64	246,46	278,08	108,03	205,44	231,81
EL Zplus 285-2,5	9,00	332,52	658,20	751,95	277,10	548,34	626,47	221,68	438,97	500,98	184,69	365,72	417,73	166,26	329,10	375,98	138,55	274,17	313,23

Lengths of Spans: 6.000 mm

Sections	Distance between the beams (mm)	1000			1200			1500			1800			2000			2400		
	Threads	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2
	Weight (kg/m)	Maximum allowable load (kg/m ²)																	
EL Zplus 205-2,0	6,00	84,05	201,17	245,73	70,07	167,60	204,83	56,06	134,03	163,82	46,69	111,76	136,60	42,02	100,59	122,86	35,03	83,80	102,42
EL Zplus 205-2,5	7,44	109,92	265,14	330,08	91,55	221,07	274,90	73,24	176,76	219,97	61,07	147,34	183,35	54,96	132,57	165,04	45,78	110,54	137,45
EL Zplus 225-2,0	6,31	92,41	222,41	271,73	77,03	185,30	226,44	61,62	148,19	181,15	51,33	123,51	150,88	46,20	111,21	135,86	38,51	92,65	113,22
EL Zplus 225-2,5	7,83	120,21	292,73	364,50	100,22	244,08	303,71	80,14	195,19	242,98	66,77	162,72	202,52	60,10	146,36	182,25	50,11	122,04	151,86
EL Zplus 255-2,0	6,78	118,77	272,71	325,68	99,00	227,30	271,48	79,16	181,89	217,16	65,98	151,49	181,03	59,39	136,35	162,84	49,50	113,65	135,74
EL Zplus 255-2,5	8,42	152,95	360,84	438,97	127,44	300,78	365,72	101,99	240,60	292,73	85,02	200,44	243,90	76,48	180,42	219,48	63,72	150,39	182,86
EL Zplus 285-2,0	7,25	133,42	307,37	367,19	111,21	256,10	305,91	88,99	204,96	244,63	74,16	170,78	203,98	66,71	153,69	183,59	55,60	128,05	152,95
EL Zplus 285-2,5	9,00	171,14	406,49	494,39	142,70	338,62	411,87	114,14	271,00	329,59	95,09	225,83	274,66	85,57	203,25	247,19	71,35	169,31	205,93

EL Zplus - Number of Spans: 4

Lengths of Spans: 4.000 mm

Sections	Distance between the beams (mm)	1000			1200			1500			1800			2000			2400		
	Threads	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2
	Weight (kg/m)	Maximum allowable load (kg/m ²)																	
EL Zplus 205-2,0	6,00	336,67	541,02	591,31	280,52	450,93	492,92	224,49	360,84	394,29	187,13	300,54	328,61	168,34	270,51	295,65	140,26	225,46	246,46
EL Zplus 205-2,5	7,44	438,48	727,54	801,27	365,48	606,45	667,48	292,24	485,23	534,18	243,71	404,30	445,07	219,24	363,77	400,64	182,74	303,22	333,74
EL Zplus 225-2,0	6,31	371,83	598,15	653,32	309,81	498,41	544,43	247,93	398,68	435,55	206,54	332,28	363,04	185,91	299,07	326,66	154,91	249,21	272,22
EL Zplus 225-2,5	7,83	483,03	803,22	884,28	402,59	669,43	736,82	322,02	535,65	589,36	268,31	446,29	491,09	241,52	401,61	442,14	201,29	334,72	368,41
EL Zplus 255-2,0	6,78	467,53	716,80	776,86	389,40	597,17	647,46	311,52	477,91	518,07	259,52	398,19	431,64	233,77	358,40	388,43	194,70	298,58	323,73
EL Zplus 255-2,5	8,42	606,93	967,53	1055,66	505,86	806,15	879,88	404,79	645,02	703,61	337,16	537,11	586,43	303,47	483,77	527,83	252,93	403,08	439,94
EL Zplus 285-2,0	7,25	526,86	808,11	875,49	438,97	673,34	729,49	351,07	538,57	583,50	292,48	448,98	486,33	263,43	404,05	437,74	219,48	336,67	364,75
EL Zplus 285-2,5	9,00	683,11	1088,87	1188,48	568,85	907,72	990,23	455,32	726,07	792,48	379,40	604,98	660,16	341,55	544,43	594,24	284,42	453,86	495,12

Lengths of Spans: 5.000 mm

Διοτομές	Distance between the beams (mm)	1000			1200			1500			1800			2000			2400		
	Threads	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2
	Weight (kg/m)	Maximum allowable load (kg/m ²)																	
EL Zplus 205-2,0	6,00	197,51	392,58	449,71	164,55	327,15	374,76	131,59	261,72	299,81	109,74	218,14	249,76	98,76	196,29	224,85	82,28	163,57	187,38
EL Zplus 205-2,5	7,44	256,10	521,97	605,47	213,38	435,30	504,40	170,65	348,15	403,56	142,21	290,04	336,43	128,05	260,99	302,73	106,69	217,65	252,20
EL Zplus 225-2,0	6,31	217,53	433,84	496,58	181,27	361,57	413,82	145,02	289,31	331,06	120,85	240,97	275,88	108,77	216,92	248,29	90,64	180,79	206,91
EL Zplus 225-2,5	7,83	281,01	576,66	668,46	234,25	480,47	556,64	187,38	384,28	445,56	156,13	320,31	371,34	140,50	288,33	334,23	117,13	240,23	278,32
EL Zplus 255-2,0	6,78	277,10	524,90	592,29	230,96	437,50	493,65	184,81	349,85	394,78	153,93	291,50	329,10	138,55	262,45	296,14	115,48	218,75	246,83
EL Zplus 255-2,5	8,42	356,20	701,17	800,78	296,88	583,98	666,99	237,49	467,29	533,69	197,88	389,40	444,82	178,10	350,59	400,39	148,44	291,99	333,50
EL Zplus 285-2,0	7,25	311,52	591,31	666,99	259,77	492,92	555,66	207,76	394,29	444,82	173,10	328,61	370,61	155,76	295,65	333,50	129,88	246,46	277,83
EL Zplus 285-2,5	9,00	399,66	789,06	900,88	333,01	657,72	750,98	266,36	525,88	600,59	222,05	438,48	500,49	199,83	394,53	450,44	166,50	328,86	375,49

Lengths of Spans: 6.000 mm

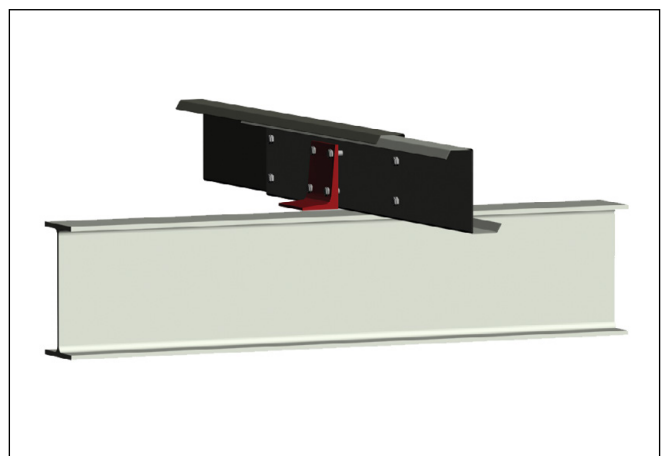
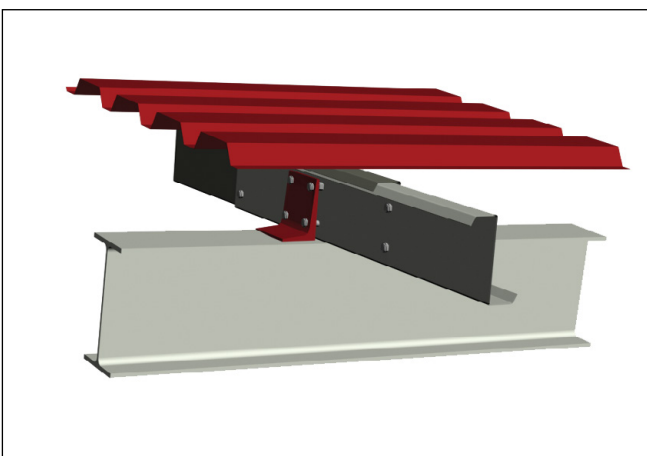
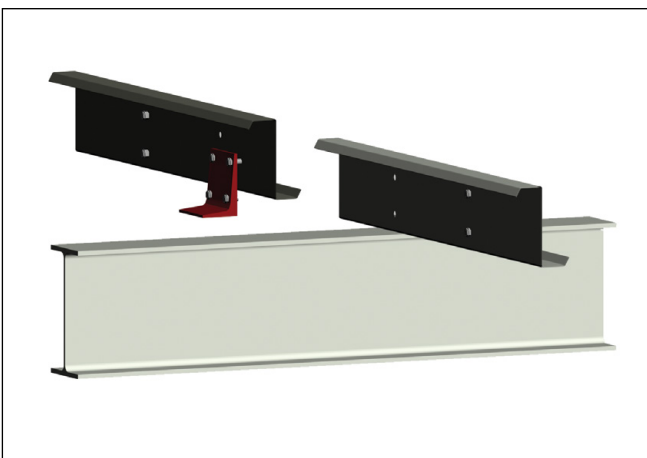
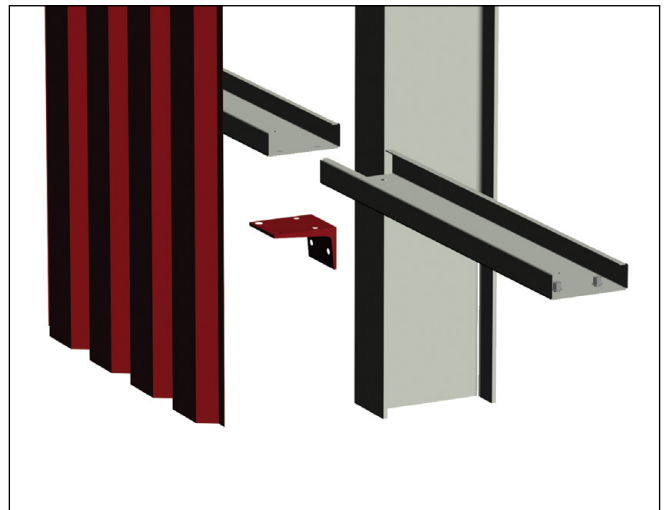
Sections	Distance between the beams (mm)	1000			1200			1500			1800			2000			2400		
	Threads	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2
	Weight (kg/m)	Maximum allowable load (kg/m ²)																	
EL Zplus 205-2,0	6,00	101,75	241,70	295,17	84,78	201,42	245,91	67,81	161,13	196,78	56,52	134,28	163,94	50,87	120,85	147,58	42,39	100,71	122,96
EL Zplus 205-2,5	7,44	132,81	318,60	396,00	110,72	265,38	330,08	88,56	212,40	263,92	73,79	177,00	220,09	66,41	159,30	198,00	55,36	132,69	165,04
EL Zplus 225-2,0	6,31	111,82	267,09	326,17	93,14	222,66	271,73	74,52	178,10	217,41	62,12	148,44	181,15	55,91	133,55	163,09	46,57	111,33	135,86
EL Zplus 225-2,5	7,83	145,26	351,56	437,26	121,12	292,97	364,50	96,86	234,50	291,50	80,75	195,31	242,98	72,63	175,78	218,63	60,56	146,48	182,25
EL Zplus 255-2,0	6,78	143,43	327,64	390,87	119,48	272,95	325,68	95,58	218,38	260,50	79,65	182,01	217,16	71,72	163,82	195,44	59,74	136,48	162,84
EL Zplus 255-2,5	8,42	184,69	433,11	526,37	153,81	360,84	438,72	123,05	288,57	351,07	102,60	240,60	292,48	92,35	175,78	218,63	76,90	180,42	219,36
EL Zplus 285-2,0	7,25	161,01	369,14	440,43	134,16	307,62	366,94	107,36	246,09	293,46	89,48	205,08	244,63	80,51	184,57	220,22	67,08	153,81	183,47
EL Zplus 285-2,5	9,00	206,42	487,43	592,77	172,00	406,25	494,02	137,57	324,95	395,02	114,69	270,75	329,35	103,21	243,71	296,39	86,00	203,13	247,01

Special components of connection and supporting beams EL Σ , EL C, EL Z & EL Zplus

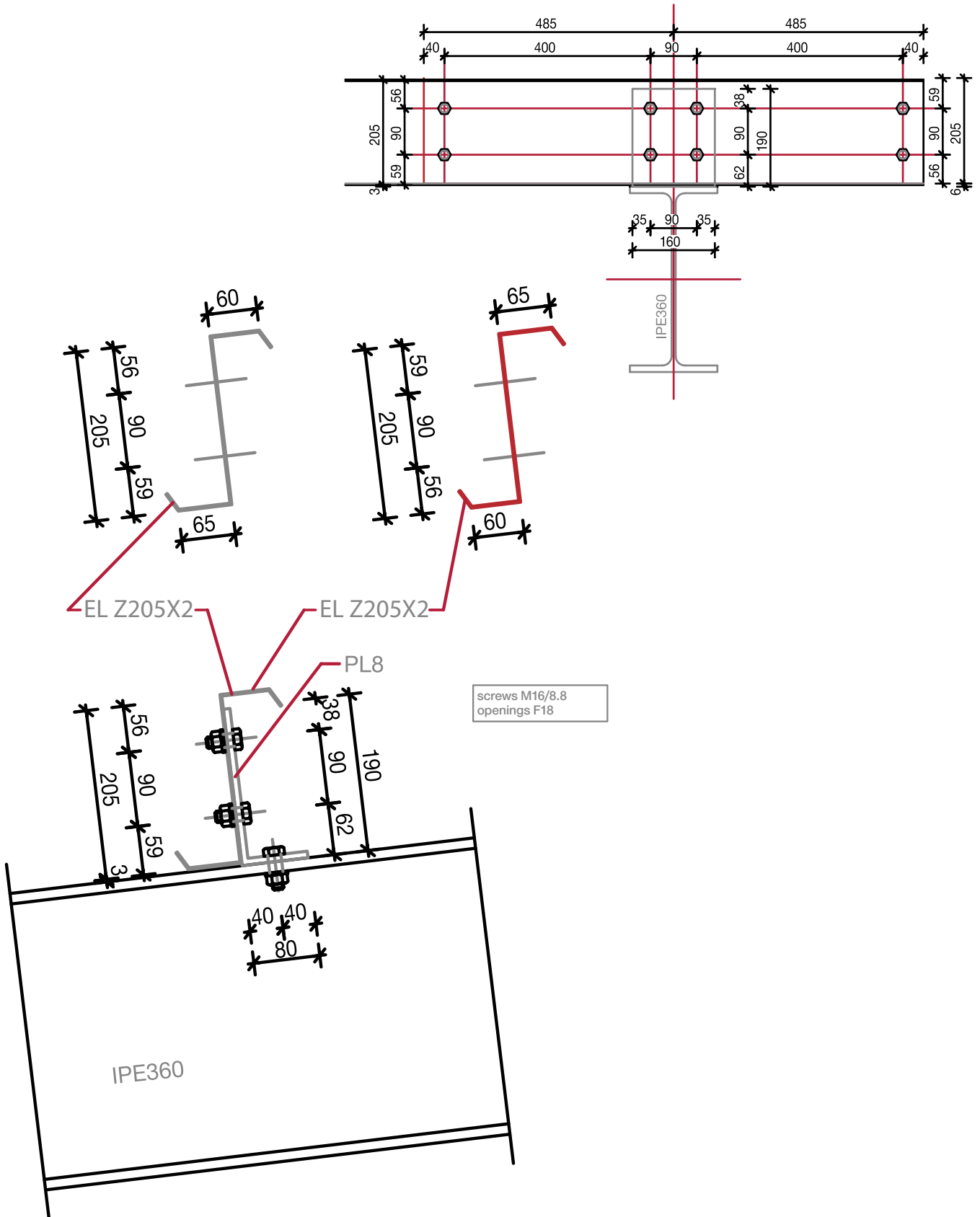
The dimensions and the placement of the special components have the appropriate geometric characteristics for their complete connection with the respective cross sections (EL Σ , EL C, EL Z & EL Zplus).

The place of the holes in the special type L components of the sections EL C, EL Z and EL Zplus, as well as in the connection sleeves of the section differs depending on the section.

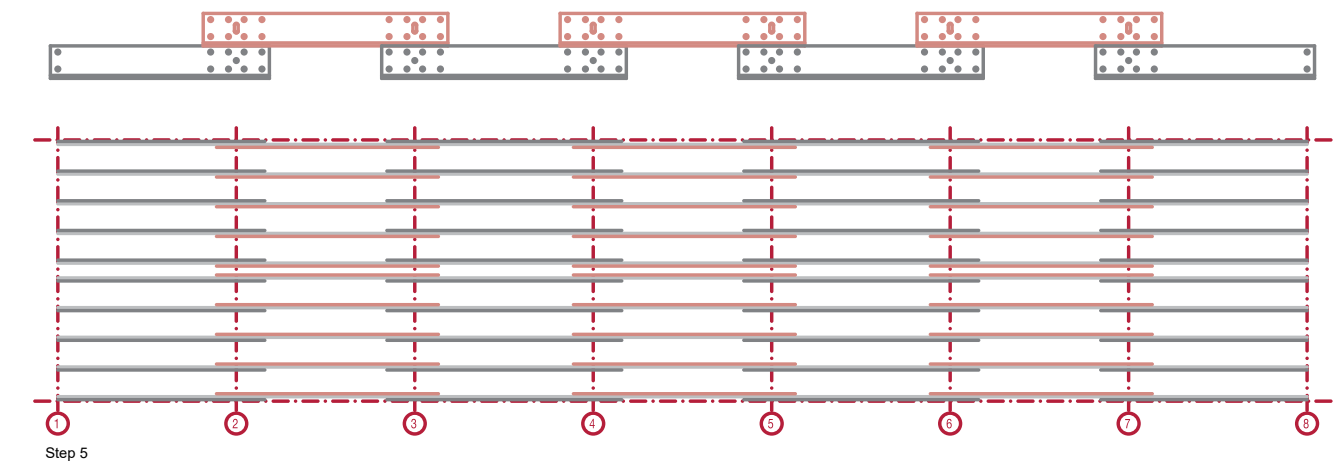
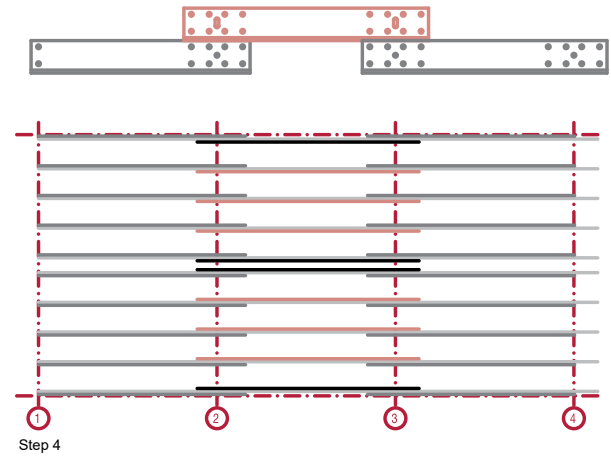
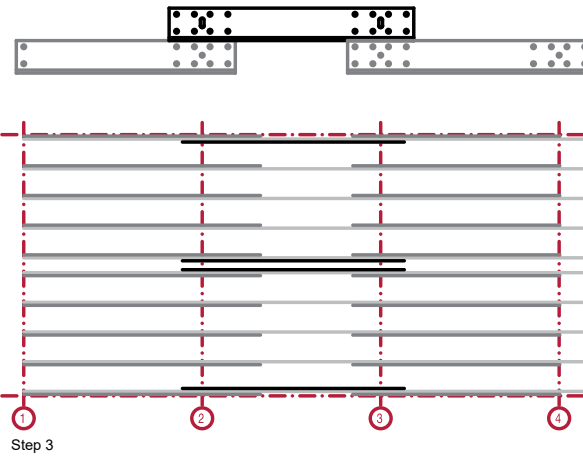
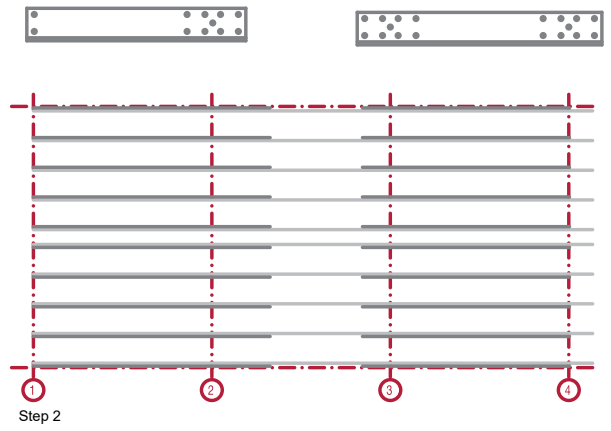
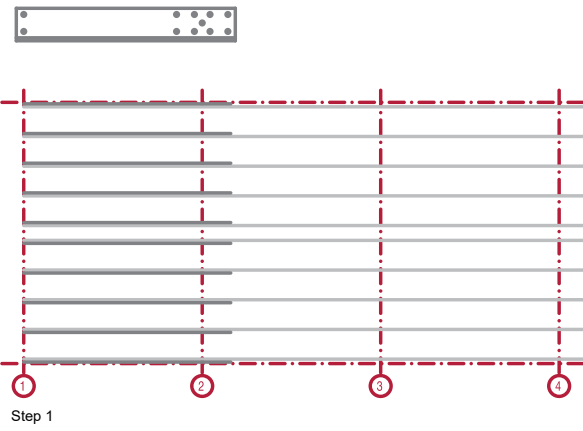
The special support components are made of high-strength steel and form the joint system of the beam sections EL Σ , EL C, EL Z & EL Zplus in the main frame of each building, safely transferring the bearing loads.



Purlins support EL Z205/2 on IPE360

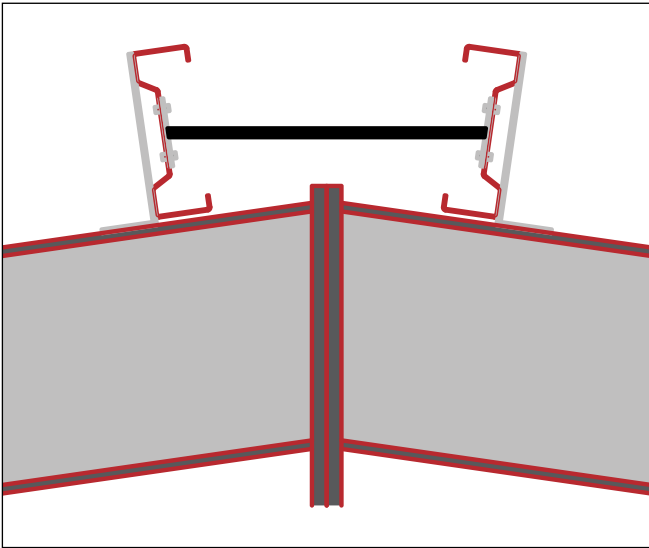


EL Z & EL Zplus profiles quick erection procedure

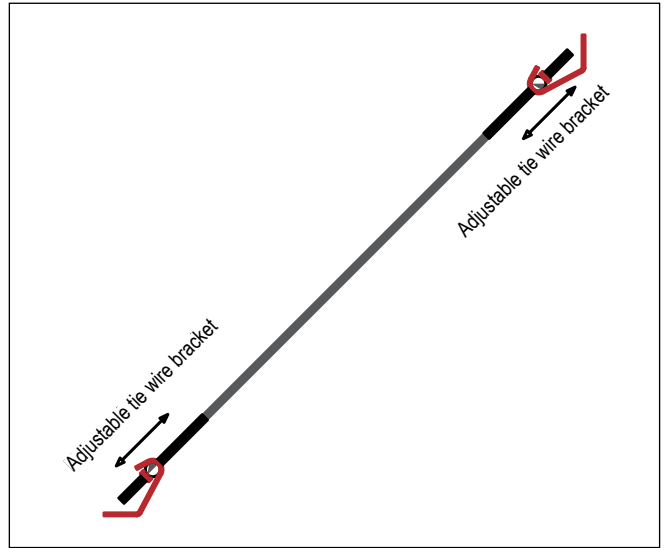


Construction details

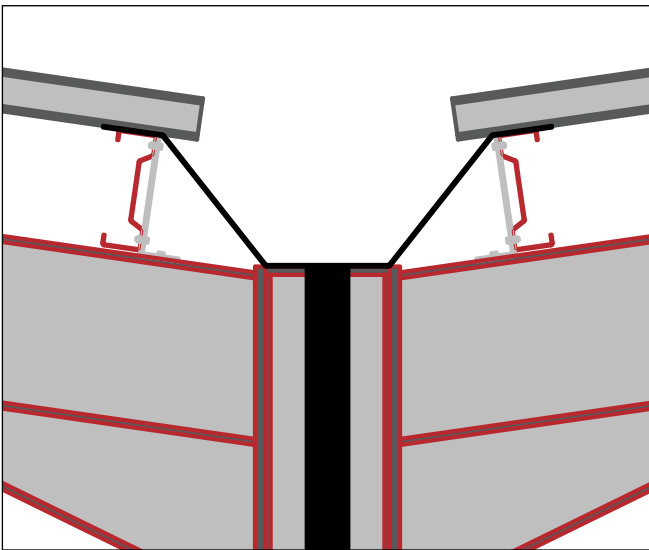
TIE ROD



ADJUSTABLE WINDBRAKER

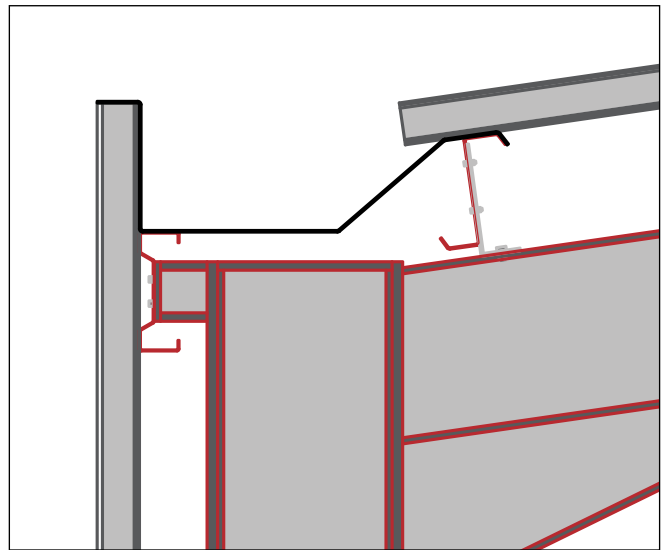


INTERNAL GUTTER INSTALLATION



Middle

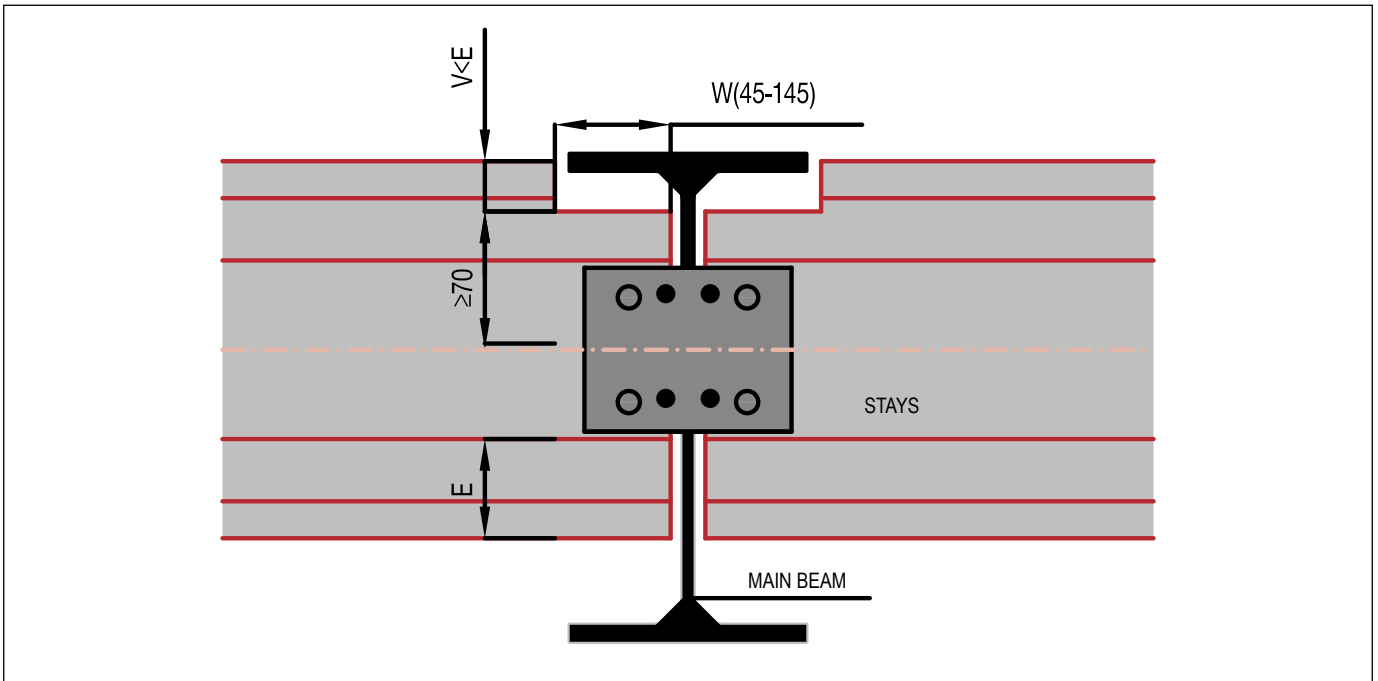
INTERNAL GUTTER INSTALLATION



Side

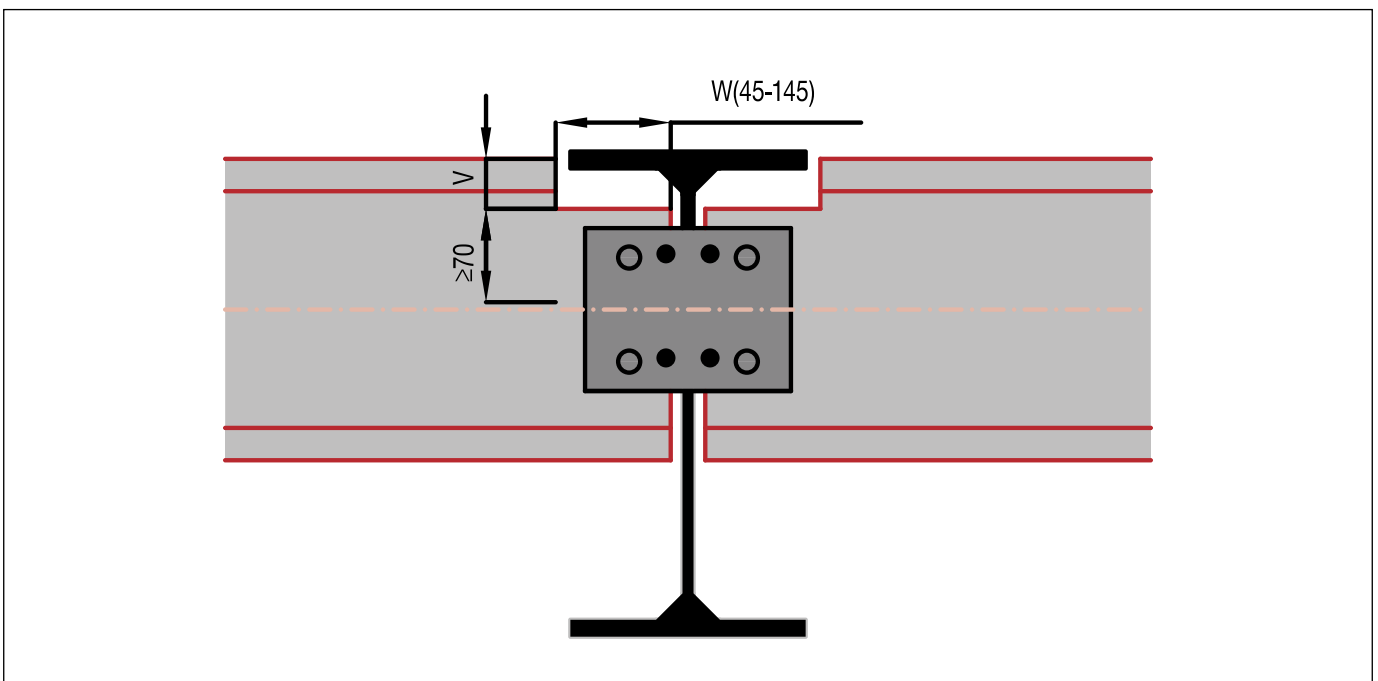
Construction details

MIDDLE FLOOR CONSTRUCTION



Connection between main frame - SIGMA CFS

MIDDLE FLOOR CONSTRUCTION



Connection between main frame - C CFS

The information, descriptions, procedures, specifications, and dimensions contained in this catalogue are true and valid until the date of issue. ELASTRON S.A. STEEL SERVICE CENTERS reserves the right to make changes to the design, and the materials of its products for their improvement or removal, without prior notice. Although ELASTRON S.A. STEEL SERVICE CENTERS has made every effort to ensure that the information, technical instructions and data presented in this catalogue are accurate, nevertheless it remains for the user (reader) the obligation to verify whether the above are suitable to cover any of its needs. The company is not liable and is not responsible for any technical or typographical errors that cannot be predicted or have occurred unintentionally or due to force majeure. Especially for the elaboration of particular mechanical engineering studies, we ask you to contact the technical department of our company, in order to receive an updated copy of our catalogue, and to provide you with information and clarifications regarding the data listed in it.

October 2020

ELASTRON S.A.

Agios Ioannis Street, Ag. Ioannis,
193 00, Aspropyrgos , Athens, Greece

Tel. +30 210 5515 000

Fax +30 210 5515 015

elastron@elastron.gr

www.elastron.gr