

OMEGATEK®

DATASHEET

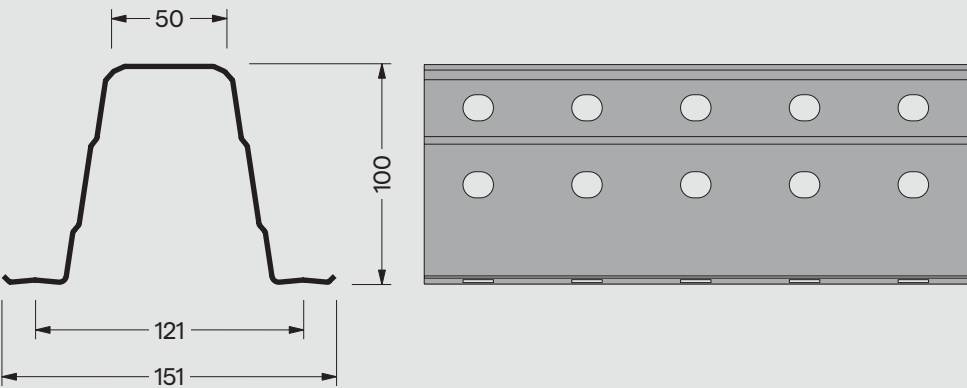


OMEGATEK® 100

361metal



SECTION GEOMETRY



Description

Range of high quality metal purlins, cold formed with certified structural galvanized sheet.

Application

Support structure for metal roofs and cladding or insulating panels in construction, support for solar installations and light structures.
CE certified product in accordance with European Standard EN 1090, specific for metallic structures.

GROSS SECTION PROPERTIES

SECTION	WEIGHT	HEIGHT	WIDTH	THICKNESS		GROSS SECTION PROPERTIES									
				Nomi.	Efect.										
		h	b	t _{nom}	t _{eff}	A _{gross}	I _{y,gross}	I _{z,gross}	W _{y,gross}	W _{z,gross}	I _w	I _t	Y _{cg} = Y _{cc}	Z _{cg}	Z _{cc}
	Kg/m	mm	mm	mm	mm	mm ²	mm ⁴	mm ⁴	mm ³	mm ³	×10 ⁶ mm ⁶	mm ⁴	mm	mm	mm
Omegatek® 100×1,0	2,38	100	151	1,0	0,96	303	420220	510380	8030	6746	182,9	93	75	49	124
Omegatek® 100×1,5	3,62	100	151	1,5	1,46	461	639200	776230	12156	10236	278,2	327	75	49	124
Omegatek® 100×2,0	4,85	100	151	2,0	1,96	618	858310	1042100	16245	13710	373,5	792	75	49	124

Note: the weights indicated in the tables are estimated theoretical weights based on the nominal dimensions of the cross-section, and variations may occur within the tolerances provided for in the EN 10051 standard.

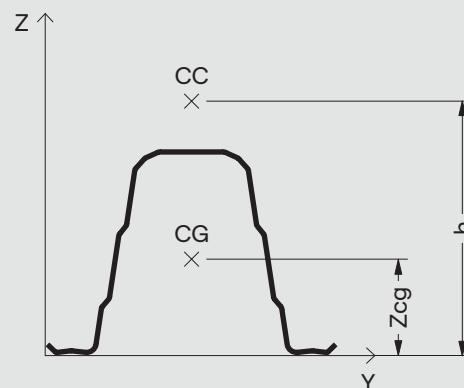
EFFECTIVE SECTION PROPERTIES

S280 GD																		
SECTION	COMPRESSION			Y-AXIS POSITIVE FLEXION					Y-AXIS NEGATIVE FLEXION					Z-AXIS FLEXION				
	A _{eff}	Y _{cg,eff}	Z _{cg,eff}	A _{eff}	I _{y,eff}	W _{y,eff}	Y _{cg,eff}	Z _{cg,eff}	A _{eff}	I _{y,eff}	W _{y,eff}	Y _{cg,eff}	Z _{cg,eff}	A _{eff}	I _{z,eff}	W _{z,eff}	Y _{cg,eff}	Z _{cg,eff}
	mm ²	mm	mm	mm ²	mm ⁴	mm ³	mm	mm	mm ²	mm ⁴	mm ³	mm	mm	mm ²	mm ⁴	mm ³	mm	mm
Omegatek® 100×1,0	277	75	46	303	420090	8025	75	45	292	407430	7966	75	46	291	487340	6323	77	45
Omegatek® 100×1,5	451	75	45	461	639030	12153	75	45	458	635600	12136	75	45	456	768690	10152	76	45
Omegatek® 100×2,0	618	75	45	618	857920	16239	75	45	618	857920	16239	75	45	618	1042100	13710	75	45

S350 GD																		
SECTION	COMPRESSION			Y-AXIS POSITIVE FLEXION					Y-AXIS NEGATIVE FLEXION					Z-AXIS FLEXION				
	A _{eff}	Y _{cg,eff}	Z _{cg,eff}	A _{eff}	I _{y,eff}	W _{y,eff}	Y _{cg,eff}	Z _{cg,eff}	A _{eff}	I _{y,eff}	W _{y,eff}	Y _{cg,eff}	Z _{cg,eff}	A _{eff}	I _{z,eff}	W _{z,eff}	Y _{cg,eff}	Z _{cg,eff}
	mm ²	mm	mm	mm ²	mm ⁴	mm ³	mm	mm	mm ²	mm ⁴	mm ³	mm	mm	mm ²	mm ⁴	mm ³	mm	mm
Omegatek® 100×1,0	265	75	47	301	419460	7996	75	45	287	401010	7914	75	46	285	475570	6103	78	45
Omegatek® 100×1,5	438	75	45	461	639030	12153	75	44	451	628240	12099	75	45	450	757080	9922	76	45
Omegatek® 100×2,0	612	75	45	618	857920	16239	75	44	618	857920	16239	75	44	615	1037000	13710	76	45

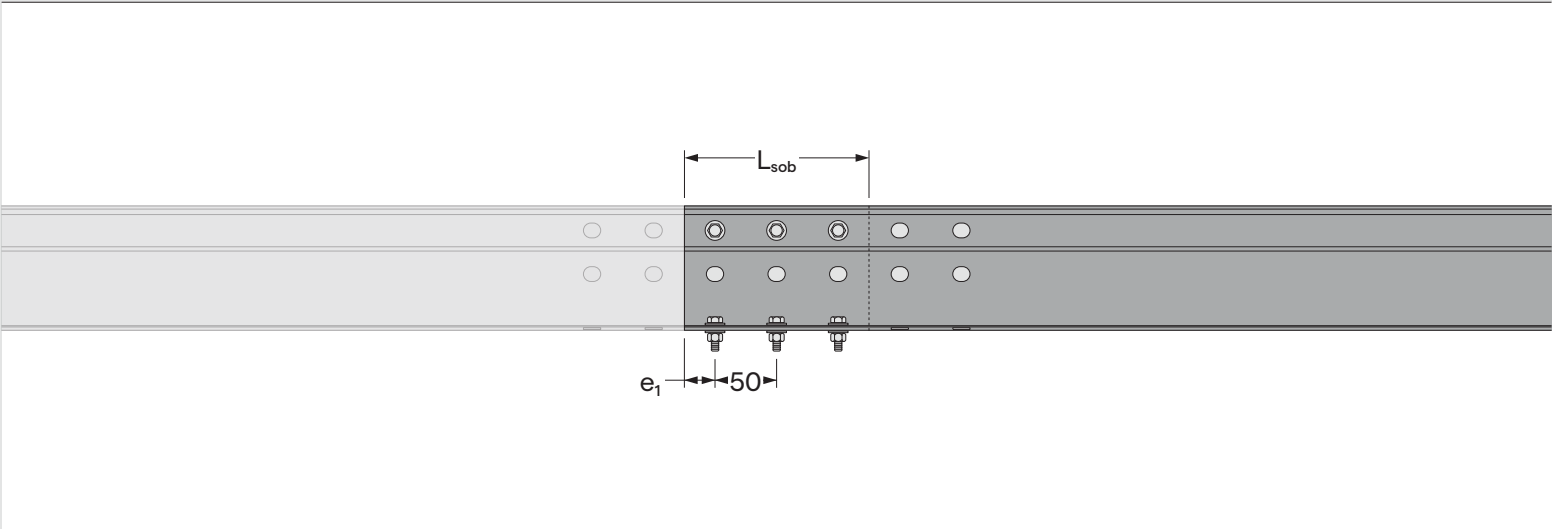
Subtitle

A _{gross}	Gross cross-sectional area
I _{y,gross}	Inertia of the gross section yy-axis
I _{z,gross}	Inertia of the gross section zz-axis
I _w	Warp constant
I _t	Torsion inertia
CG	Centre of gravity coordinates
CC	Cutting centre coordinates
A _{eff}	Effective section area
I _{y,eff}	Inertia of the effective section yy-axis
W _{y,eff}	Flexural modulus of the effective section yy-axis
I _{z,eff}	Inertia of the effective section zz-axis
W _{z,eff}	Flexural modulus of the effective section zz-axis





01. Simple amendment between supports



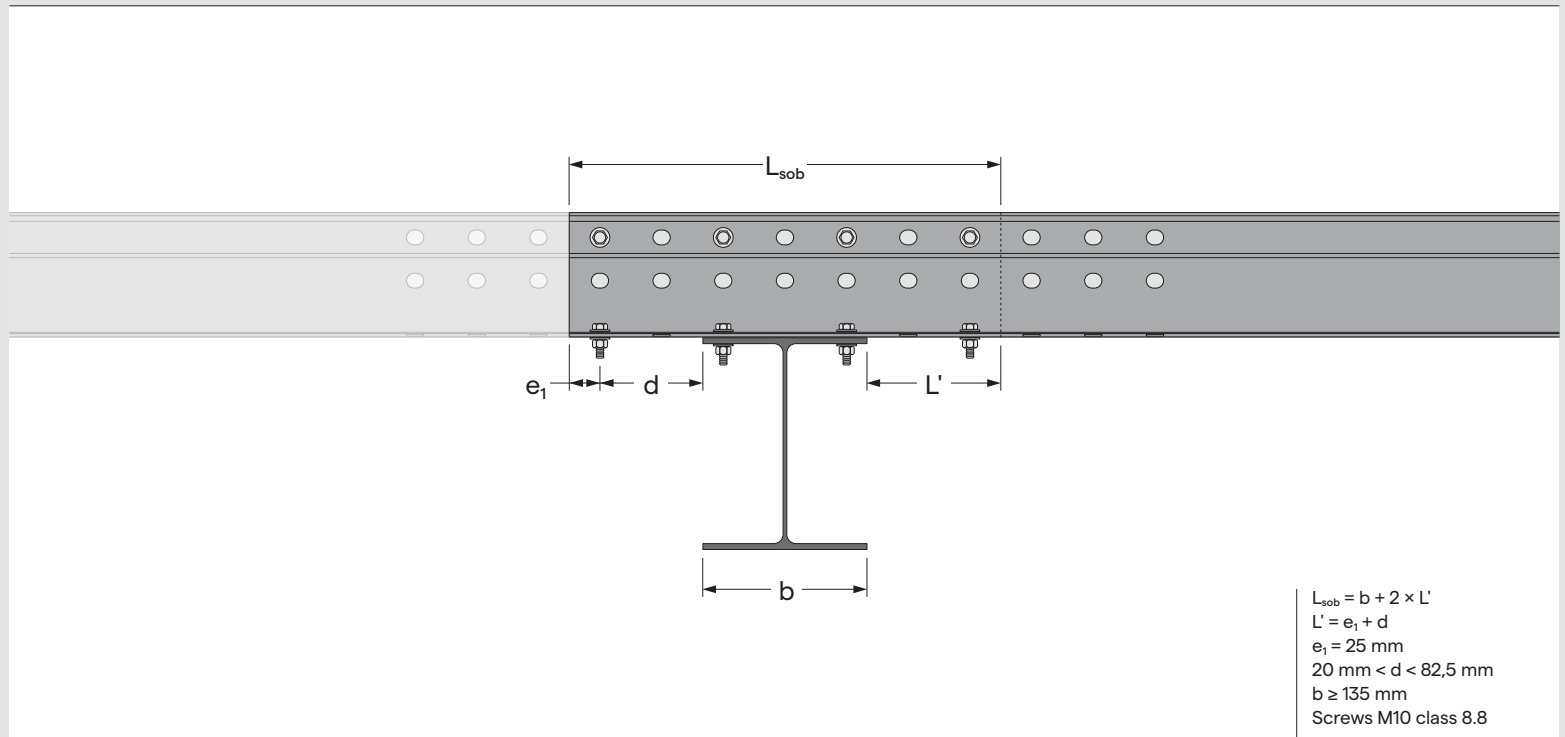
SECTION	e ₁	L _{sob}	NR. OF SCREWS	Ø SCREWS*
	mm	mm	units	mm
Omegatek® 100×1,0	25	150	3	10
Omegatek® 100×1,5	25	150	3	10
Omegatek® 100×2,0	25	150	3	10

*Screws class 8.8

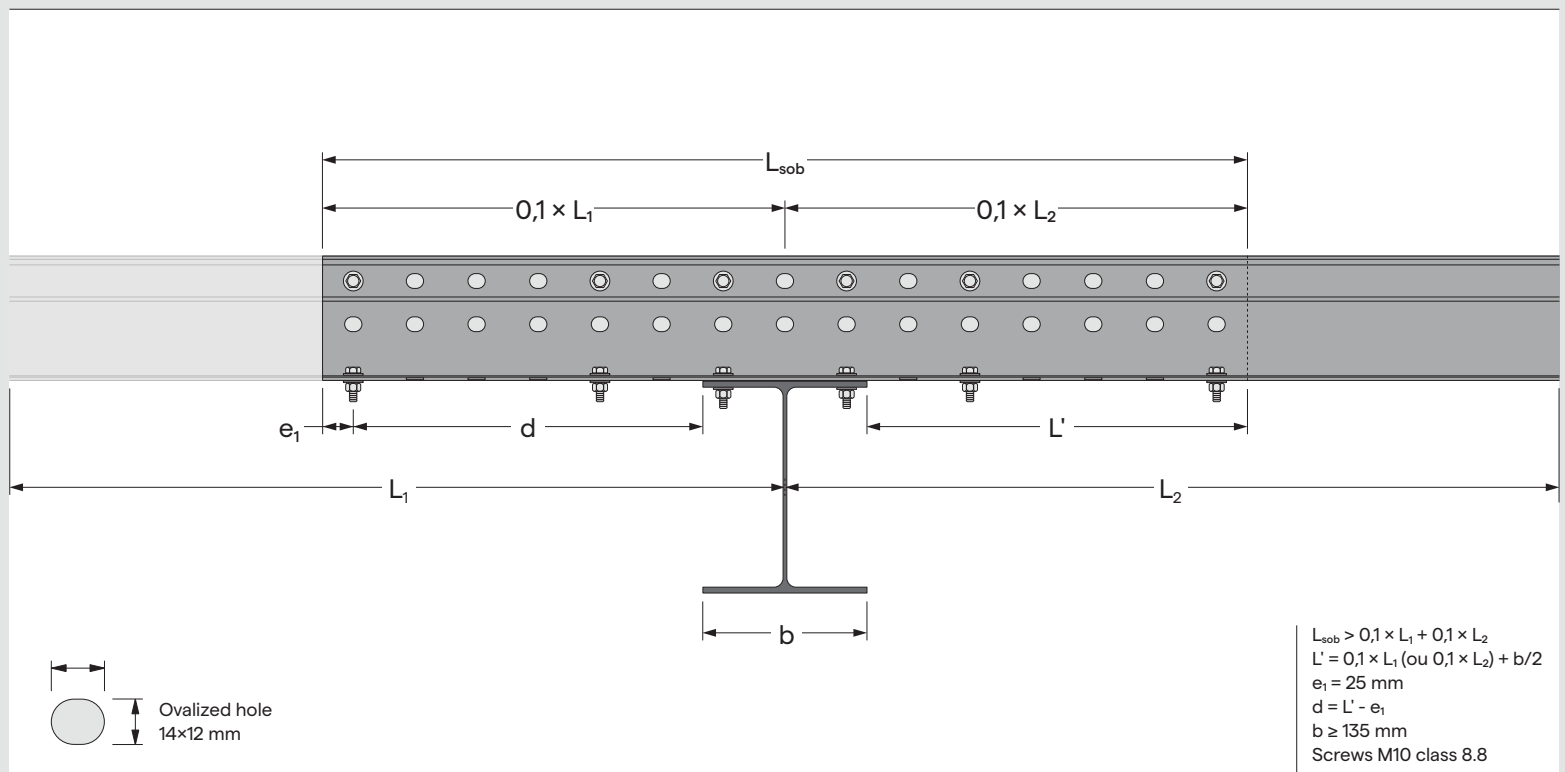
Subtitle

- L_{sob}Overlap length
- e₁Distance between the center of the screw and the end of the profile
- ØScrews diameter

02. Simple amendment on intermediate support



03. Amendment with reinforcement on intermediate support



Subtitle

L_{sob}	Overlap length
L'	Distance between the end of the support beam flange and the end of the profile
e_1	Distance between the center of the screw and the end of the profile
d	Distance between the end of the support beam flange and the center of the end screw
b	Length of the upper flange of the support beam
$\emptyset$	Screws diameter

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