

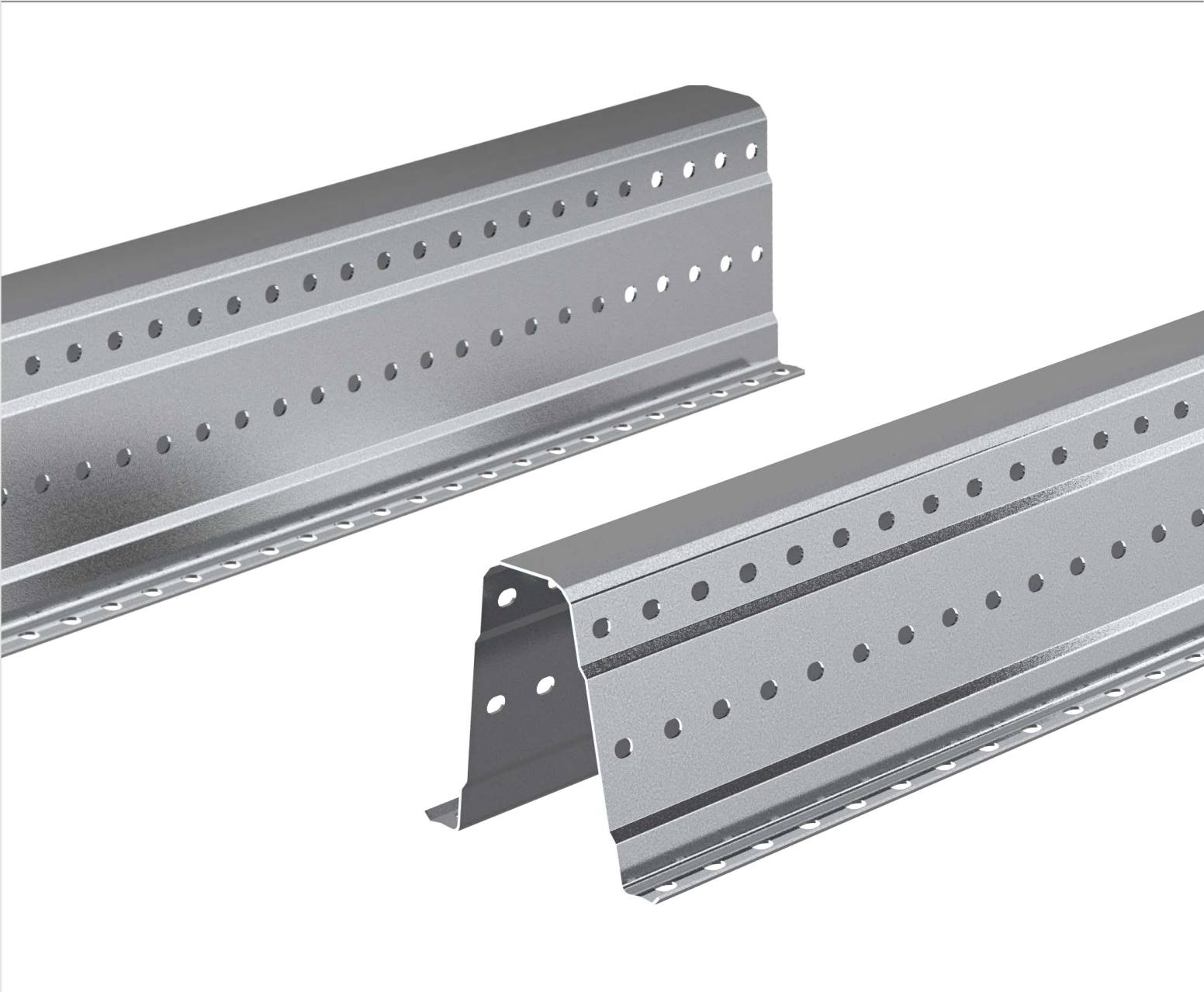
OMEGATEK®

DATASHEET

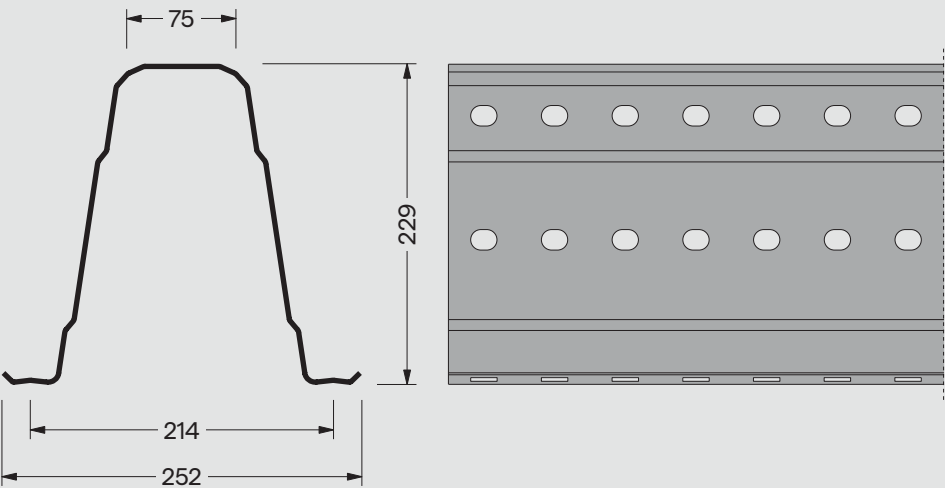


OMEGATEK® 230

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.										
	Kg/m	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}
		mm	mm	mm	mm	mm ²	mm ⁴	mm ⁴	mm ³	mm ³	×10 ⁶ mm ⁶	mm ⁴	mm	mm	mm
Omegatek® 230×1,5	7,20	229	252	1,5	1,46	917	5941500	4510900	50702	35709	5091,4	652	126	113	289
Omegatek® 230×2,0	9,67	229	252	2,0	1,96	1231	7976700	6055800	67924	47871	6835,1	1577	126	113	289
Omegatek® 230×2,5	12,13	229	252	2,5	2,46	1545	10012000	7600900	84508	60001	8578,7	3118	126	113	289
Omegatek® 230×3,0	14,60	229	252	3,0	2,96	1860	12048000	9146000	102160	72097	10322,0	5431	126	113	289

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.

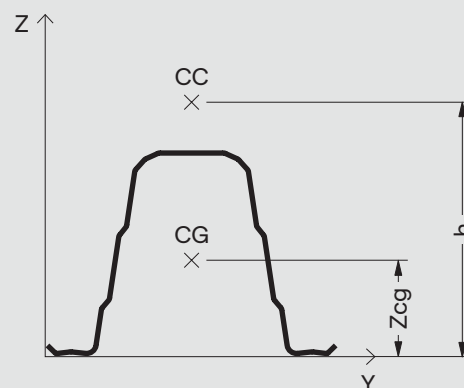
EFFECTIVE SECTION PROPERTIES

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® 230×1,5	635	126	109	860	5751300	47622	126	102	861	5638600	47579	126	110	778	3774600	27412	138	107
Omegatek® 230×2,0	944	126	107	1181	7811700	65242	126	104	1186	7747000	66299	126	109	1091	5346000	39792	134	106
Omegatek® 230×2,5	1279	126	107	1505	9897500	82920	126	104	1511	9839600	84734	126	107	1418	6981700	52992	132	106
Omegatek® 230×3,0	1635	126	106	1831	11953000	100630	126	105	1838	11941000	101940	126	107	1747	8613800	66229	130	106

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® 230×1,5	593	126	110	843	5692400	46698	126	102	831	5487800	45407	126	113	760	3636600	26026	140	107
Omegatek® 230×2,0	883	126	108	1162	7747700	64223	126	103	1165	7627800	64560	126	110	1059	5156900	37746	137	107
Omegatek® 230×2,5	1202	126	107	1484	9811000	81818	126	104	1490	9732800	83177	126	108	1378	6759900	50496	134	106
Omegatek® 230×3,0	1543	126	107	1809	11881000	99560	126	104	1816	11828000	101640	126	108	1705	8389100	63631	132	106

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

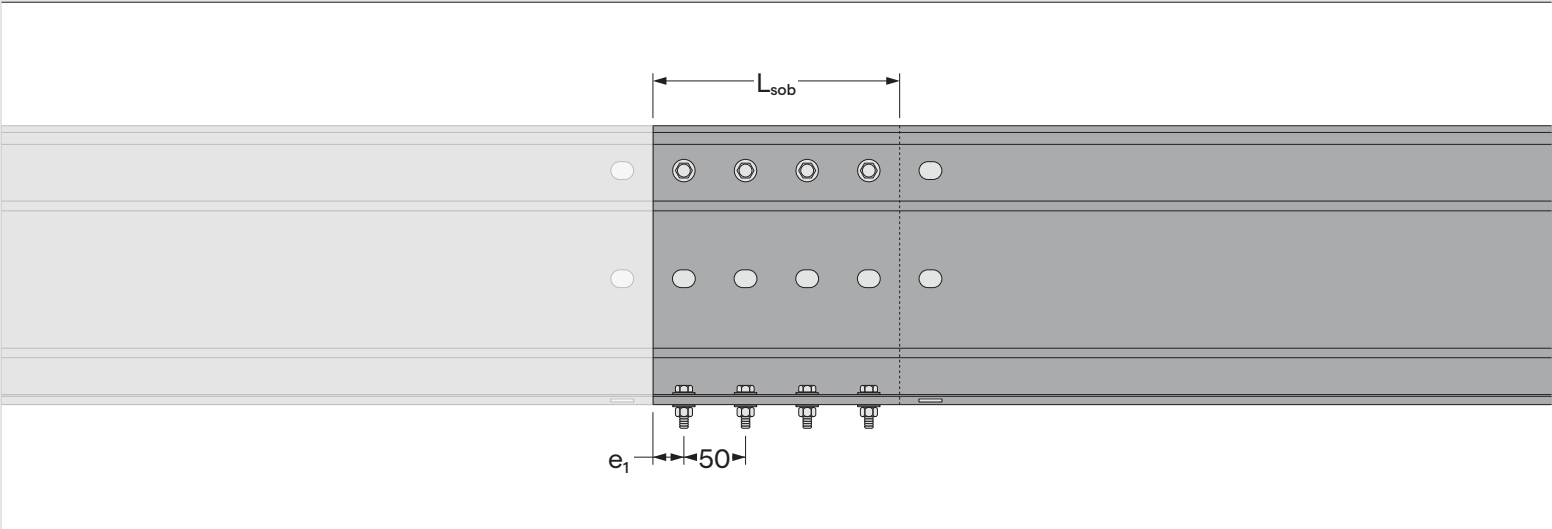


OMEGATEK® 230

CONNECTIONS AND CONSTRUCTION ARRANGEMENTS



01. Simple amendment between supports



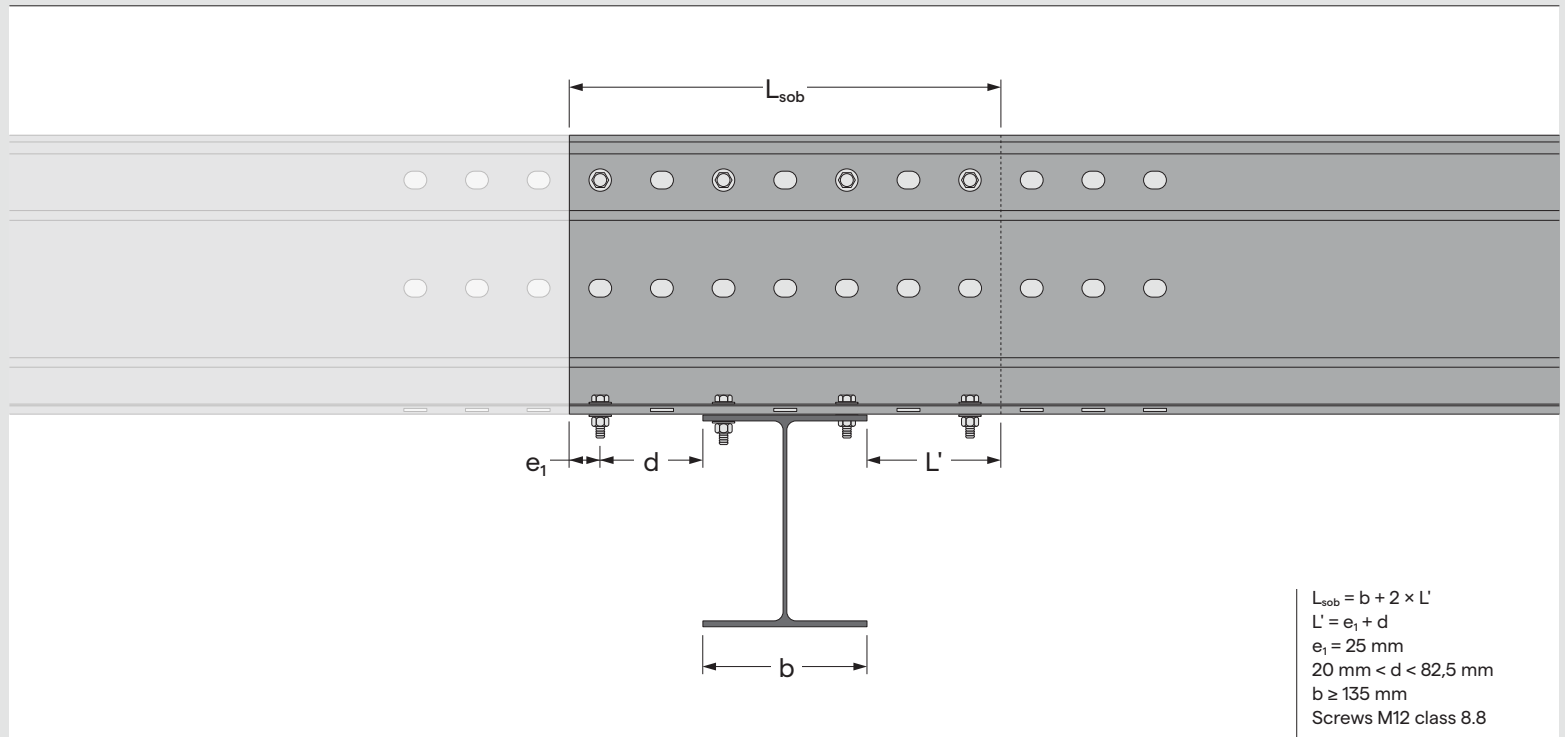
SECTION	e ₁	L _{sob}	NR. OF SCREWS	Ø SCREWS*
	mm	mm	units	mm
Omegatek® 230×1,0	25	200	4	12
Omegatek® 230×1,5	25	200	4	12
Omegatek® 230×2,0	25	200	4	12

*Screws class 8.8

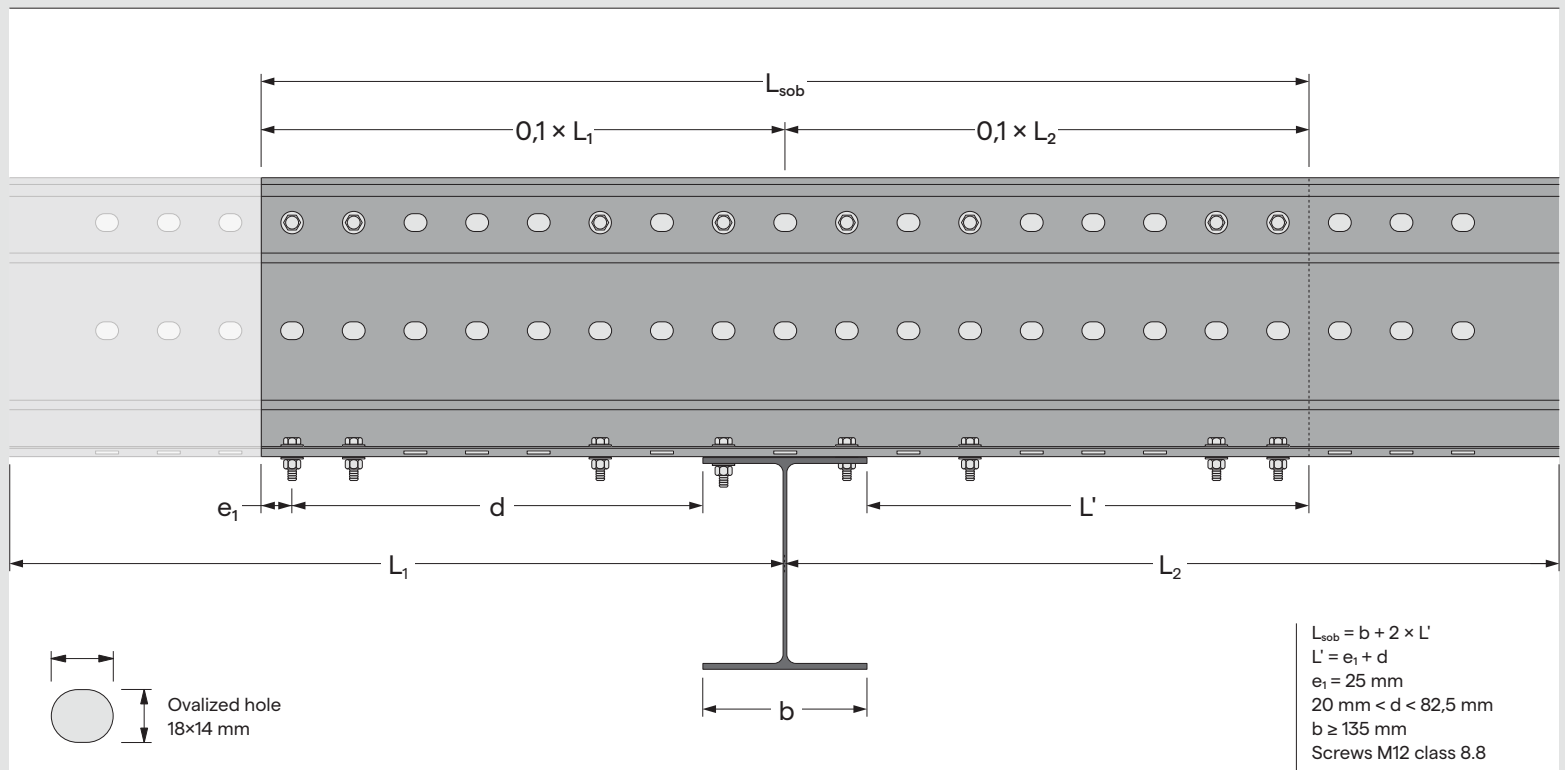
Subtitle

- 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
$\varnothing$	Screws diameter

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