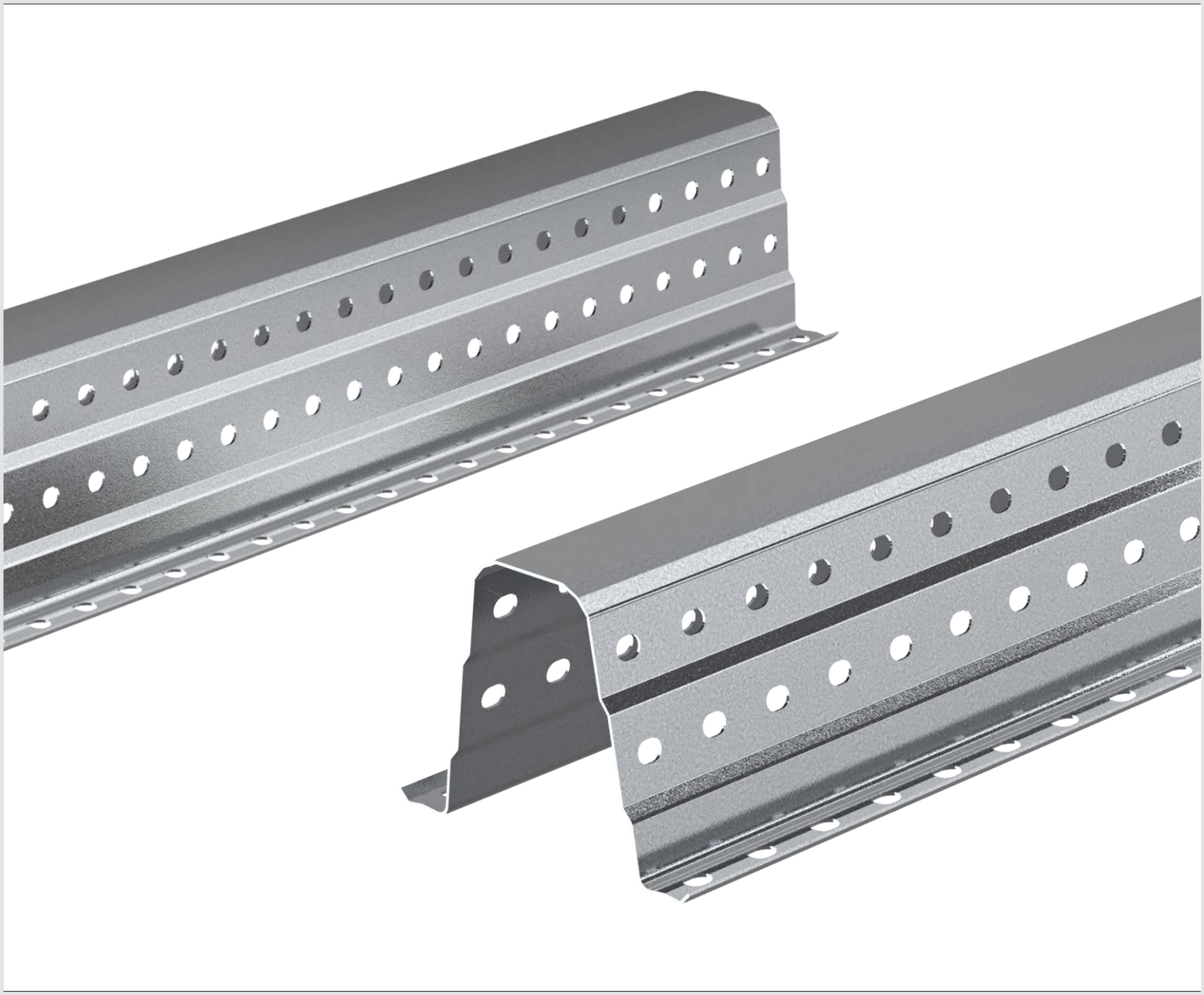
OMEGATEK®

DATASHEET

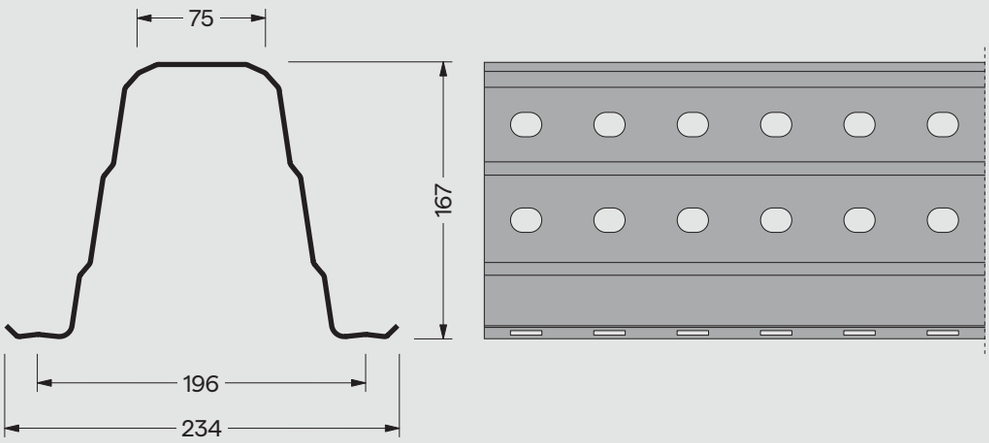
OMEGATEK® 170

361metal

OMEGATEK® 170



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	$\times 10^6\ mm^6$	mm^4	mm	mm	mm
Omegatek® 170×1,5	5,77	167	234	1,5	1,46	735	2722000	3150600	31507	26822	2241,4	523	117	75	208
Omegatek® 170×2,0	7,75	167	234	2,0	1,96	987	3654500	4229600	42179	35954	3009,0	1265	117	75	208
Omegatek® 170×2,5	9,72	167	234	2,5	2,46	1239	4587300	5308700	52792	45059	3776,6	2501	117	75	208

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

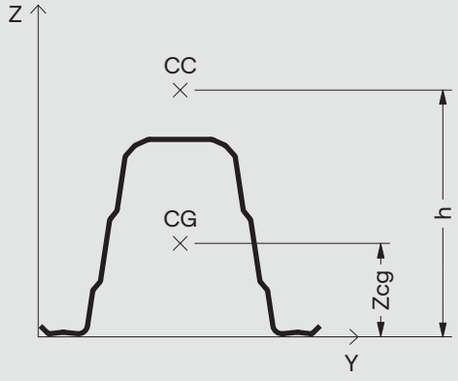
SECTION	Compression			Y-Axis Positive Flexion					Y-Axis Negative Flexion					Z-Axis Flexion				
	A_{eff}	$Y_{cg,eff}$	$Z_{cg,eff}$	A_{eff}	$I_{y,eff}$	$W_{y,eff}$	$Y_{cg,eff}$	$Z_{cg,eff}$	A_{eff}	$I_{y,eff}$	$W_{y,eff}$	$Y_{cg,eff}$	$Z_{cg,eff}$	A_{eff}	$I_{z,eff}$	$W_{z,eff}$	$Y_{cg,eff}$	$Z_{cg,eff}$
	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® 170×1,5	683	117	75	715	2701400	30967	117	74	724	2696900	31508	117	76	710	3049500	25585	119	75
Omegatek® 170×2,0	958	117	75	975	3643500	41885	117	74	986	3654000	42179	117	75	973	4177000	35234	118	75
Omegatek® 170×2,5	1232	117	75	1237	4587400	52786	117	75	1240	4587300	52792	117	75	1236	5298000	45059	117	75

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® 170×1,5	653	117	76	705	2690800	30698	117	74	712	2661000	31398	117	76	697	2991100	24841	120	75
Omegatek® 170×2,0	929	117	75	964	3617000	41583	117	74	976	3633100	42206	117	75	959	4118000	34660	119	75
Omegatek® 170×2,5	1205	117	110	1225	4574500	52458	117	75	1239	4587300	45285	117	75	1223	5248400	44557	118	75

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 efective section zz-axis
$W_{z,eff}$ Flexural modulus of the effective section zz-axis



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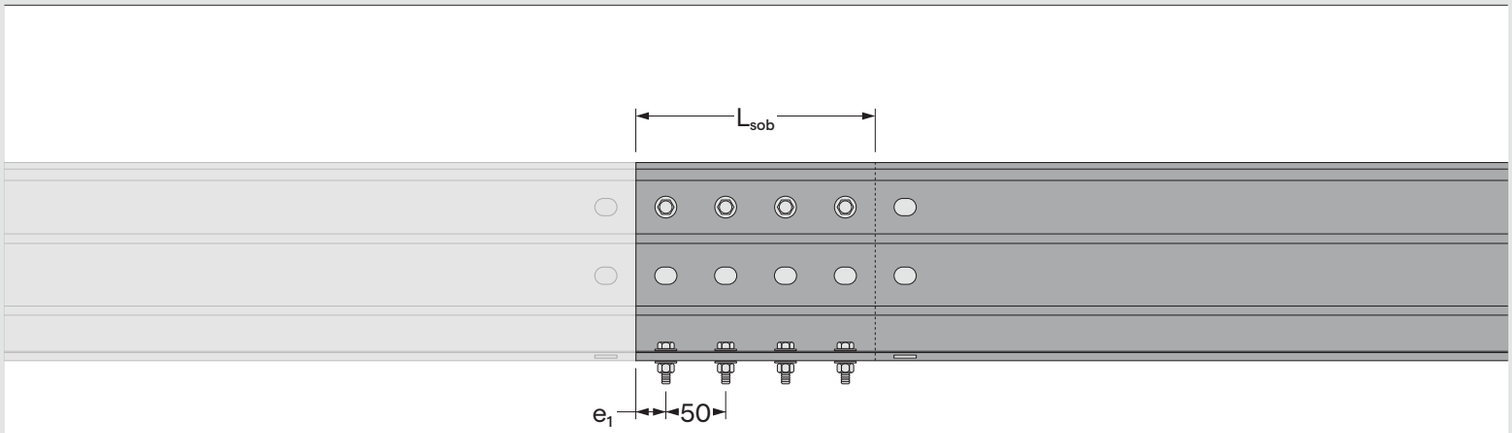
CONNECTIONS AND CONSTRUCTION ARRANGEMENTS

01. Simple amendment between supports



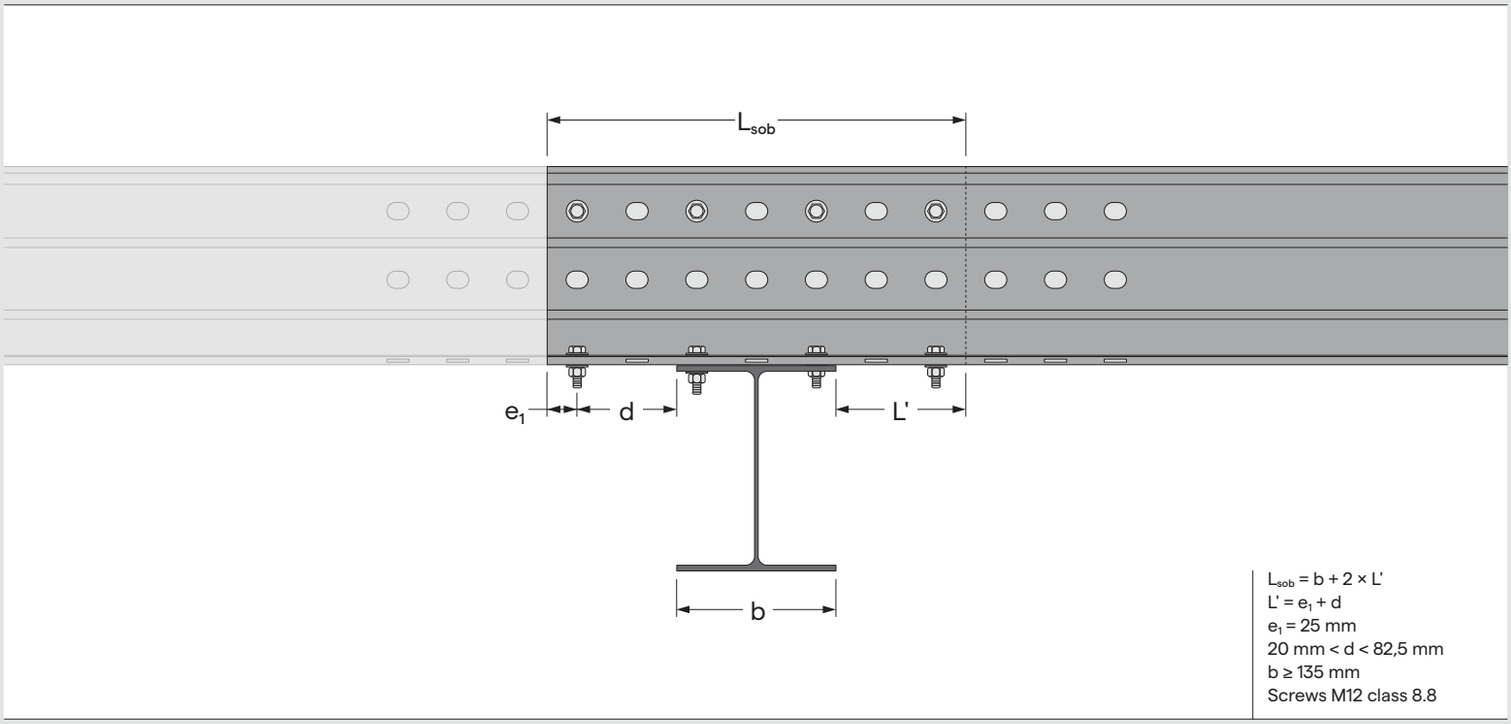
SECTION	e_1	L_{sob}	NR. OF SCREWS	Ø SCREWS*
	mm	mm	units	mm
Omegatek® 170×1,0	25	200	4	12
Omegatek® 170×1,5	25	200	4	12
Omegatek® 170×2,0	25	200	4	12

*Screws class 8.8

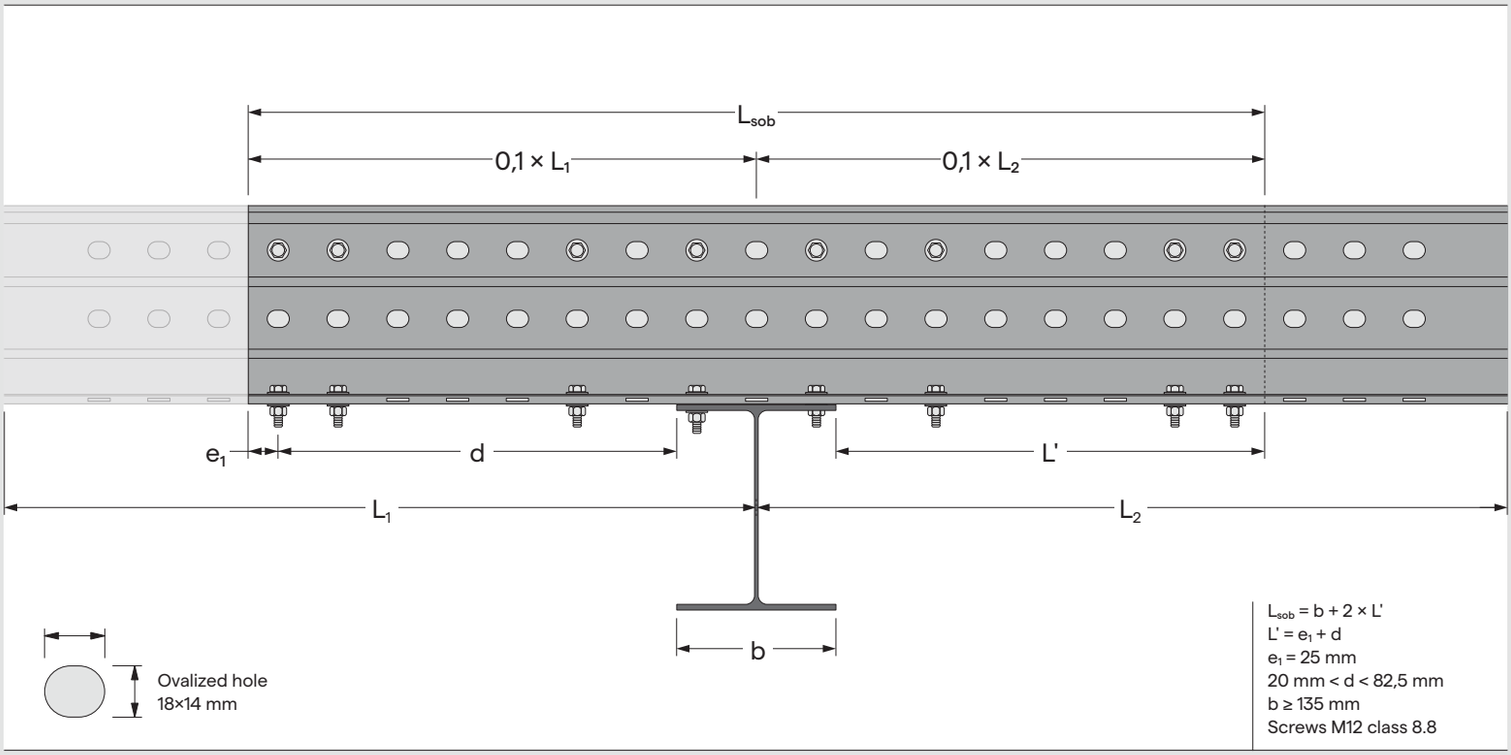
Subtitle

L_{sob} Overlap length
e_1 Distance between the center of the screw and the end of the profile
Ø Screws 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
Ø	Screws diameter

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