

OMEGATEK®

DATASHEET

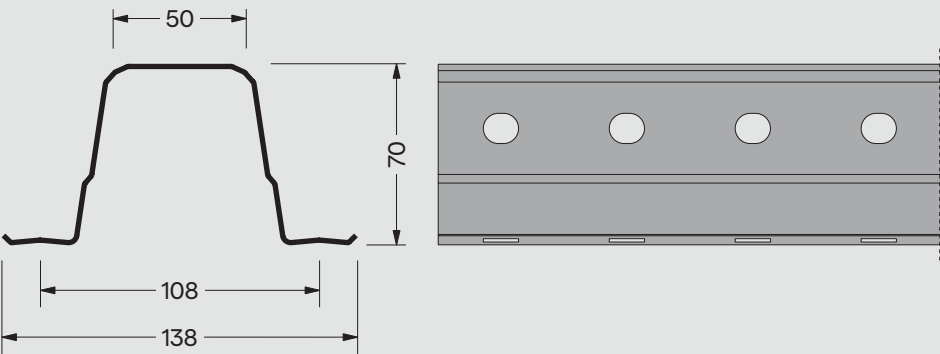


OMEGATEK® 70

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® 70×1,0	1,91	70	138	1,0	0,96	243	180380	346530	4863	5015	80,3	75	68	34	86
Omegatek® 70×1,5	2,90	70	138	1,5	1,46	370	274400	527030	7349	7608	122,2	263	68	34	86
Omegatek® 70×2,0	3,89	70	138	2,0	1,96	496	368530	707560	9804	10188	164,0	635	68	34	86

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.

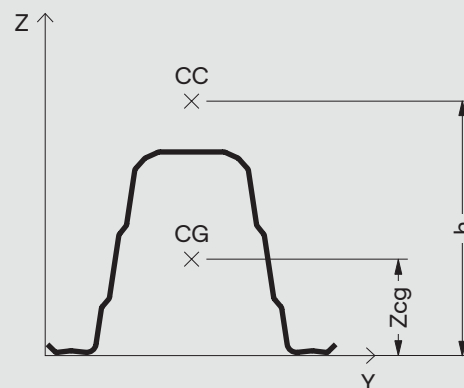
EFFECTIVE SECTION PROPERTIES

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® 70×1,0	224	69	30	243	180340	4863	69	30	234	176500	4755	69	31	235	334600	4777	70	30
Omegatek® 70×1,5	361	69	30	370	274290	7346	69	30	368	273950	7348	69	30	366	522100	7551	69	30
Omegatek® 70×2,0	496	69	30	461	368260	9797	69	30	461	368280	9797	69	30	496	707570	10188	69	30

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® 70×1,0	214	69	31	243	180340	4863	69	30	230	174230	4836	69	31	230	326950	4617	71	30
Omegatek® 70×1,5	353	69	30	370	274290	7346	69	30	363	271510	7336	69	30	362	518000	7458	69	30
Omegatek® 70×2,0	489	69	30	496	368260	9797	69	30	496	368260	9797	69	30	493	703660	10109	69	30

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

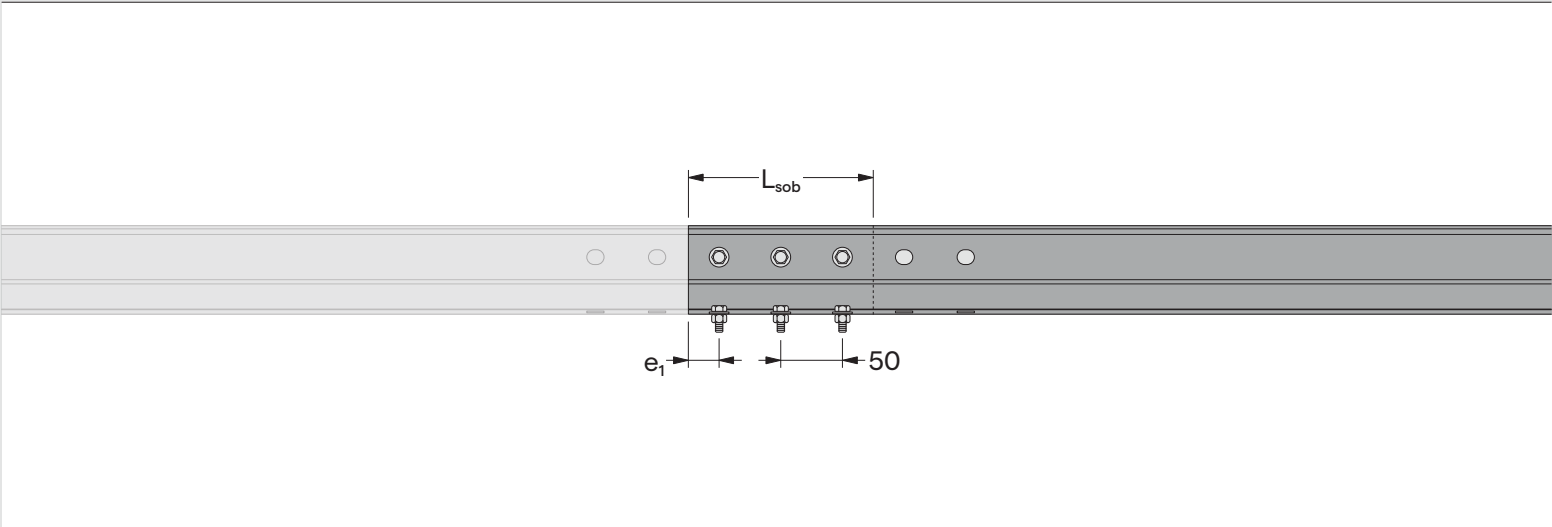


OMEGATEK® 70

CONNECTIONS AND CONSTRUCTION ARRANGEMENTS



01. Simple amendment between supports



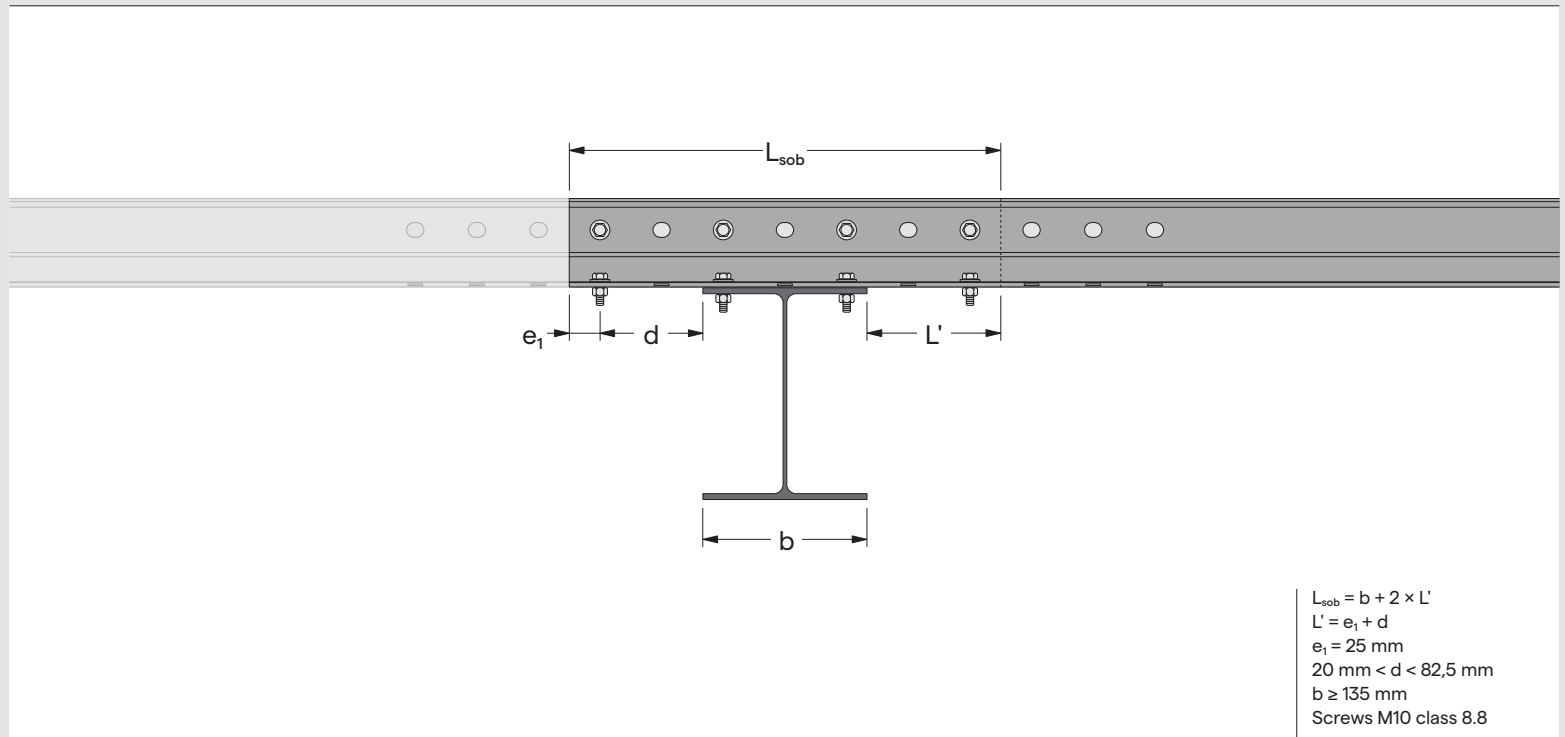
SECTION	e ₁	L _{sob}	NR. OF SCREWS	Ø SCREWS*
	mm	mm	units	mm
Omegatek® 70×1,0	25	150	3	10
Omegatek® 70×1,5	25	150	3	10
Omegatek® 70×2,0	25	150	3	10

*Screws class 8.8

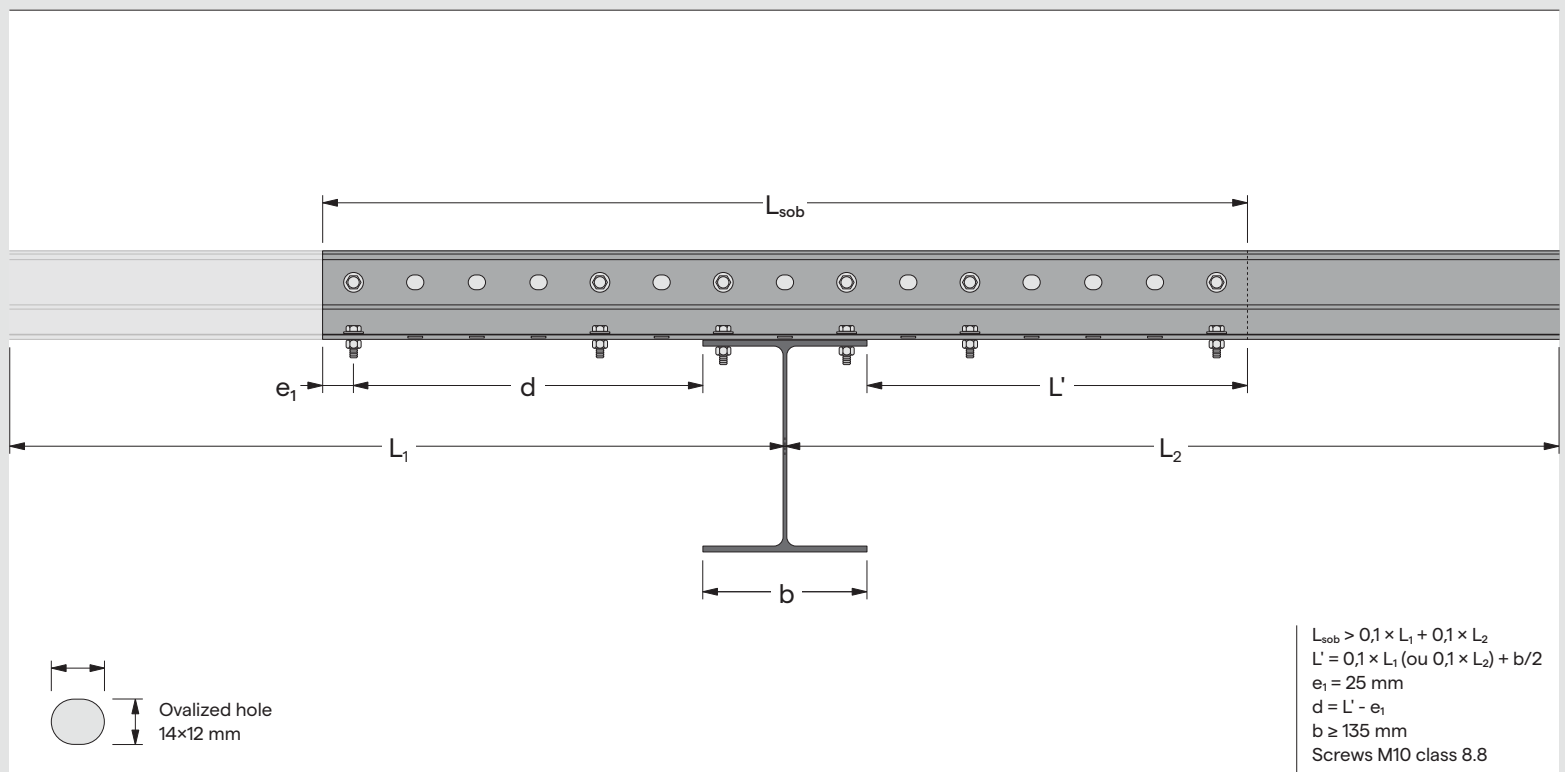
Subtitle

- 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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