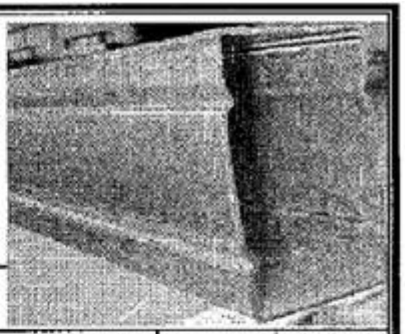
Metroll®
BETTER SERVICE - BETTER BUILDING SOLUTIONS

METBEAM

SPAN TABLES



NEW

Dimensions and Properties (Full Section)
METBEAM RECTANGULAR HOLLOW SECTIONS

Metbeam Designation	WEB	FLANGE	THICKNESS	RADIUS	Nominal Mass per m	Perimeter	Full Section Area	2nd Moment of Area		Section Modulus		Plastic Modulus		Radius of Gyration		Torsion Constant	Yield Strength	Tensile Strength
	D	B	T	r_i			A	Ix	Iy	Zx	Zy	S_x	S_y	r_x	r_y	J	f_y	f_u
	mm	mm	mm	mm	kg/m	mm	mm^2	10^6 mm^4	10^6 mm^4	10^3 mm^3	10^3 mm^3	10^3 mm^3	10^3 mm^3	mm	mm	10^6 mm^4	Mpa	Mpa
1005012	100	50	1.2	1.8	2.79	298	354	0.4697	0.1614	9.394	6.457	11.51	7.14	36.5	21.4	0.3726	300	340
1505015	150	50	1.2	1.8	4.63	398	590	1.596	0.2871	21.289	11.483	27.115	12.485	52	22.1	0.7832	300	340

Designation	RAFTER SPACING	MAXIMUM RAFTER SPAN (m)					
		WIND CATEGORY					
		N1	N2	N3	N4	N5	N6
		Design Pressures (Kpa)					
		0.69	0.95	1.5	2.2	3.2	4.4
100x50x1.2	900	5.0 (4.4)	4.8 (4.4)	3.8	3.2	2.6	2.2
	1200	4.6 (4.1)	4.2 (4.1)	3.3	2.7	2.3	1.9
	1500	4.0 (3.7)	3.4	2.7	2.2	1.8	1.6
	2100	3.7 (3.6)	3.2	2.5	2.1	1.7	1.5
150x50x1.5	900	7.6 (6.0)	7.3 (6.0)	5.9 (5.4)	4.8	4.0	3.4
	1200	6.9 (5.6)	6.4 (5.6)	5.1	4.2	3.4	3.0
	1500	6.0 (5.0)	5.2 (5.0)	4.1	3.4	2.8	2.4
	2100	5.6 (4.8)	4.8	3.8	3.1	2.6	2.2

The above load table has been prepared for Metroll Victoria to give guidance to span capabilities of Metbeam Sections used in domestic applications applying to verandah, patio, awning and carport.
Allowable spans apply to open structures as defined in the Australian Standards. Generally two or more sides are open and clear of walls.
Rafters are to be connected to beams with suitable brackets through both webs of the section.
Roof pitch should not exceed 5 degrees.
The above table includes a dead load of 0.1 Kpa for roof cladding and excludes any ceiling loads.
The span table is for a non trafficable roof.
Span table has been designed for Wind Classification regions as indicated in AS 4055 -2006.
A deflection serviceability limit of Span/150 has been applied to the above tables. Spans shown in brackets indicate a 20mm maximum deflection limit.
The table is for use in non cyclonic areas as defined in AS/NZ 1170.2 - 2002.
The structural sections comply the following Australian Standards.
- AS/NZ 4600 - 2005 Cold-formed Steel Structures.
- AS/NZ 1170.1 - 2002 Structural design actions-Permanent imposed and other actions
- AS/NZ 1170.1 - 2002 Structural design actions-Wind actions
-AS/NZ 4005 - 2006 Wind Loads for Housing
Minimum strength steel used in above table is based on a Yield stress of 300Mpa and Tensile strength of 340Mpa.
The site conditions and use of sections for design should be determined by a suitably qualified person.

Please contact us for a distributor near you!!!