DESIGN NOTES
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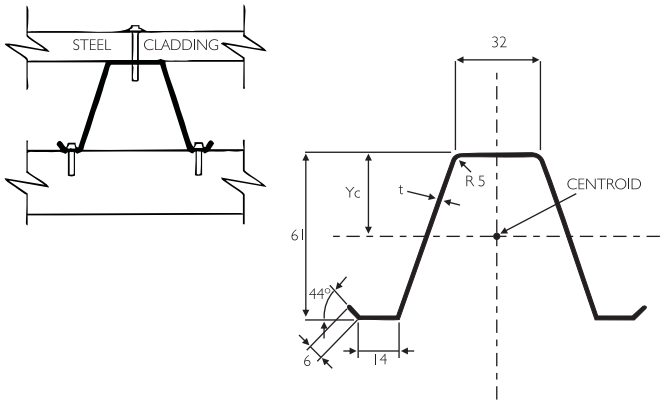
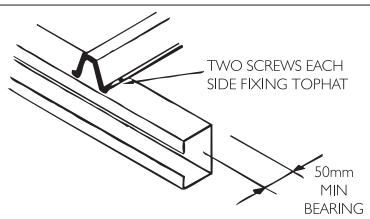
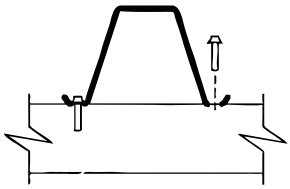
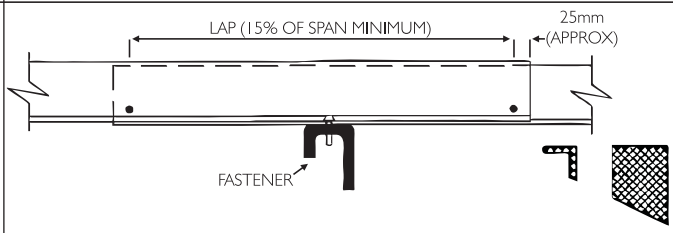
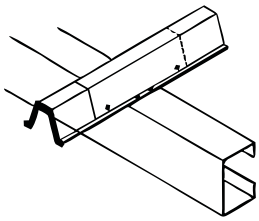
TH61 SERIES

FASTENING AND ATTACHMENT

FASTENING STEEL CLADDING		For fastener selection on fixing roof to tophat, see separate literature.
TYPICAL ATTACHMENT - ENDS		Typical attachment details for Topspan 61 at ends.
FASTENING TOPSPAN 61 TO FRAME		For fastener type, see note 6.
TYPICAL FIXING DETAIL - LAPPED SECTION		The support (frame or rafters) can be made of cold formed sections, hot rolled sections or timber. Choose the fixing screws accordingly.
TYPICAL ATTACHMENT DETAIL - LAPPED SECTIONS		Typical attachment details for Topspan 61 lapped section.

DIMENSIONS AND PROPERTIES

MATERIAL	Base Metal THICKNESS (t)	AREA	MASS	Ix	Iy	Zx	Zy	Yc	J
	mm	mm^2	kg/m	$10^6 mm^4$	$10^6 mm^4$	$10^3 mm^3$	$10^3 mm^3$	mm	mm^4
G550 Z275	0.75	141.00	1.14	0.69	0.12	2.40	2.25	30.50	27.42
G550 Z275	0.95	186.00	1.51	0.98	0.15	3.15	3.02	30.60	65.00

Available Length: Custom Cut & Stock Lengths Length Tolerance: + or – 5mm

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TH61 SERIES

TOP HAT TH61 SERIES

TH 61 - 075 - 0.75mm BMT - Safe loads in Kilo-Newtons per metre of span (KN/m)

Span (mm)	Simple Span						Double Span					
	Inward			Outward			Inward			Outward		
	Safe Load	Deflection		Safe Load	Deflection		Safe Load	Deflection		Safe Load	Deflection	
		Span/150	Span/90		Span/150	Span/90		Span/150	Span/90		Span/150	Span/90
1000	8.18	8.96		5.60	7.12		4.02			5.04		
1200	5.68	5.19		4.67	5.17		3.35			4.20		
1400	4.17	3.27	5.01	4.00	3.20	4.98	2.87	5.97		3.06	5.28	
1600	3.2	2.19	3.36	3.08	2.14	3.34	2.51	4.02	6.72	3.06	3.53	5.51
1800	2.52	1.54	2.36	2.43	1.5	2.34	2.23	2.82	4.72	2.42	2.48	3.86
2000	2.05	1.12	1.72	1.97	1.1	1.72	1.98	2.06	3.44	1.96	1.82	2.84
2200	1.69	0.84	1.29	1.63	0.82	1.28		1.55	2.59	1.63	1.35	2.11
2400	1.42	0.65	1.00	1.37	0.63	0.98		1.19	1.99	1.37	1.04	1.62
2600	1.21	0.51	0.78	1.16	0.47	0.73		0.94	1.57	1.16	0.78	1.20
2800	1.04	0.41	0.63	1.01	0.35	0.55		0.75	1.25	1.03	0.58	0.91
3000	0.91		0.51	0.85		0.47			1.02	0.88		0.78
3200	0.80		0.42	0.71		0.35			0.84	0.73		0.58
3400	0.71			0.60						0.63		
3600	0.63			0.49						0.52		
3800	0.57			0.40						0.42		
4000	0.51			0.33						0.35		

TH 61 - 095 - 0.95mm BMT - Safe loads in Kilo-Newtons per metre of span (KN/m)

Span (mm)	Simple Span						Double Span					
	Inward			Outward			Inward			Outward		
	Safe Load	Deflection		Safe Load	Deflection		Safe Load	Deflection		Safe Load	Deflection	
		Span/150	Span/90		Span/150	Span/90		Span/150	Span/90		Span/150	Span/90
1000	11.65			9.69			8.42			5.04		
1200	8.09	7.18		7.44	6.76		7.02			4.20		
1400	5.94	4.52	7.05	5.47	4.28	6.68	5.94	8.17		3.60	7.06	
1600	4.55	3.03	4.72	4.19	2.87	4.48	4.55	5.47		3.15	4.74	
1800	3.6	2.13	3.32	3.31	2.02	3.15	3.6	3.84	6.25	2.80	3.33	5.2
2000	2.91	1.55	2.42	2.68	1.47	2.29	2.91	2.8	4.56	2.53	2.43	3.78
2200	2.41	1.16	1.82	2.21	1.10	1.72	2.41	2.10	3.42	2.21	1.82	2.84
2400	2.02	0.90	1.40	1.82	0.85	1.33	2.02	1.62	2.64	1.83	1.40	2.19
2600	1.72	0.71	1.10	1.53	0.66	1.03	1.72	1.28	2.07	1.55	1.09	1.70
2800	1.49	0.56	0.88	1.30	0.53	0.83	1.49	1.02	1.66	1.36	0.87	1.40
3000	1.29	0.46	0.72	1.09	0.42	0.66	1.29	0.83	1.35	1.18	0.69	1.09
3200	1.14	0.38	0.59	0.92	0.35	0.55	1.14	0.68	1.11	0.99	0.58	0.91
3400	1.01		0.49	0.79		0.45	1.01		0.93	0.84		0.74
3600	0.90		0.41	0.71		0.36	0.90		0.78	0.78		0.59
3800	0.81			0.66			0.81			0.7		
4000	0.73			0.62			0.73			0.65		

NOTES

1. The safe loads are uniformly distributed along the length of the Batten EB61 and the loads are applied through cladding, screw fixed to Tophats.
2. The safe loads allow for connection capacity to the supports.
3. For the cold formed steel supports the Tophat is fastened to the flange of the support.
4. Lapped spans require a minimum of 15% (measured between lap screws) of the span between rafters or supports. Two screw fasteners are required at each end of the lap joints, located in the webs as close as possible to the flanges. Fasteners to be No. 12 - 14 x 20mm Hex head self drilling tapping screws.
5. Two fasteners per leg are required at each rafter/support, located through the bottom flanges, using Hex head self drilling and tapping screws as follows: Cold formed steel supports: No. 12 - 14 x 20mm. Timber supports: Type 17, No. 14 x 50 for hardwood, and type 17, No. 14 x 50 for softwood.
6. When using Type 17 screw fasteners for timber supports, pre-drilling of Tophats may be required for lapped spans and for 1.0 BMT double spans.