

Top Hat & Cladding Sections



Heavy Gauge Top Hats

Available in a range of sizes for fixing cladding to interior and exterior building structures.

Top Hat & Cladding Sections

Top Hats are used for fixing support for lining material where the structural framework is not suitable for fixing directly to. A range of Junction Studs, Battens and Top Hats in various sizes and thicknesses are available to suit any cladding requirements for interior or exterior use. Refer to page 69-71 for Top Hat span tables. Top Hat sections can be custom rolled to suit your project specific requirements.

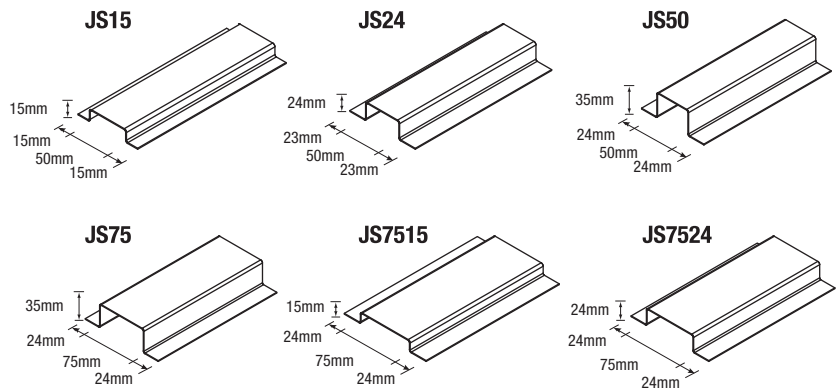
Top Hat & Cladding Sections

Components

Junction Studs

Table 91

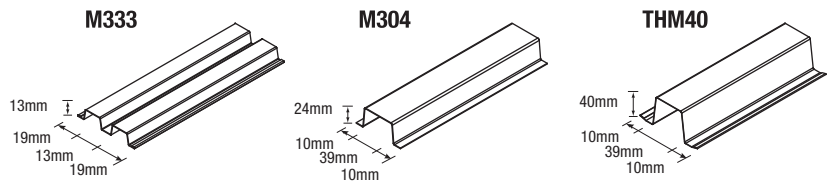
PART No	DESCRIPTION
JS15	Junction Stud 15mm x 50mm x 1.15TCT
JS24	Junction Stud 24mm x 50mm x 1.15TCT
JS50	Junction Stud 35mm x 50mm x 1.15TCT
JS75	Junction Stud 35mm x 75mm x 1.15TCT
JS7515	Junction Stud 15mm x 75mm x 1.15TCT
JS7524	Junction Stud 24mm x 75mm x 1.15TCT



Battens

Table 92

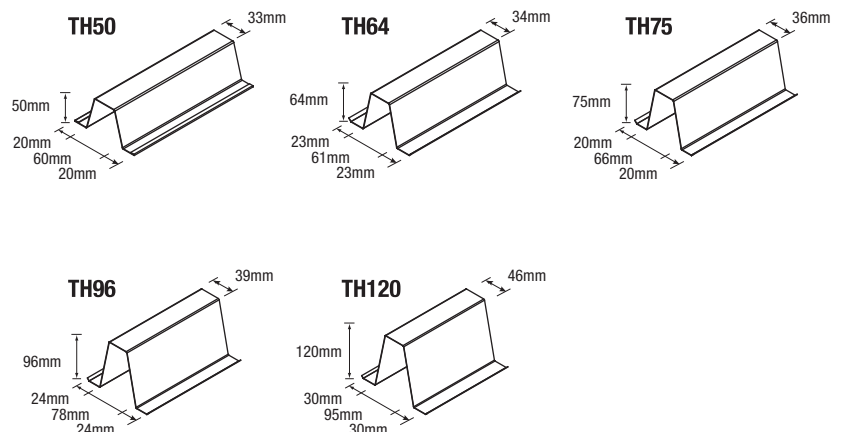
PART No	DESCRIPTION
M333S	Recessed Batten 13mm Smooth Face
M304	Batten 24mm x 0.75BMT
THM40	Batten 40mm x 40mm x 0.48BMT



Top Hat

Table 93

PART No	DESCRIPTION
TH5075	Top Hat 50mm x 0.75BMT
TH6475	Top Hat 64mm x 0.75BMT
TH6495	Top Hat 64mm x 0.95BMT
TH7575	Top Hat 75mm x 0.75BMT
TH7595	Top Hat 75mm x 0.95BMT
TH9675	Top Hat 96mm x 0.75BMT
TH9695	Top Hat 96mm x 0.95BMT
TH12075	Top Hat 120mm x 0.75BMT
TH12095	Top Hat 120mm x 0.95BMT



Installation Guide - Top Hats and Junction Studs

Top Hat & Cladding Sections

Fig. 1 Typical Top Hat Installation

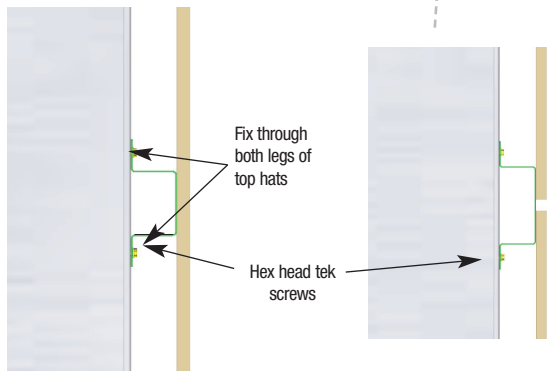
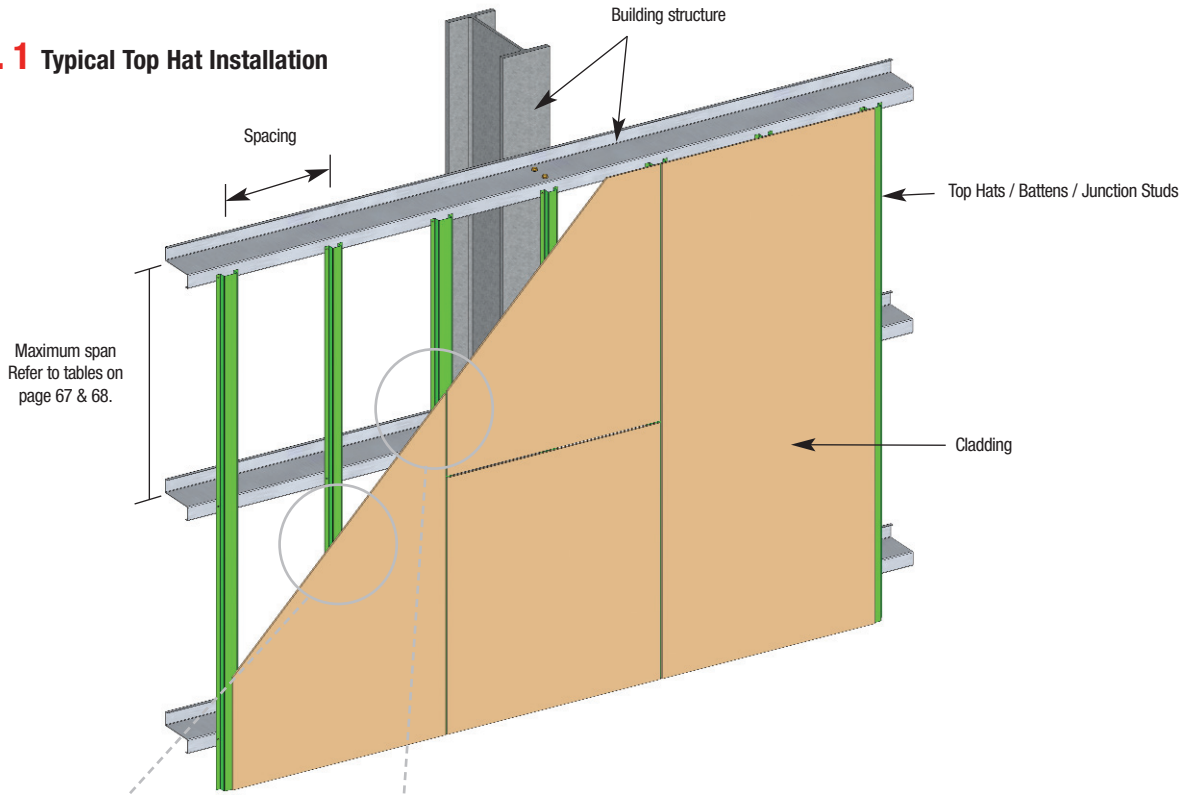


Fig. 2 Top Hat Sections to Support CFC Sheetting

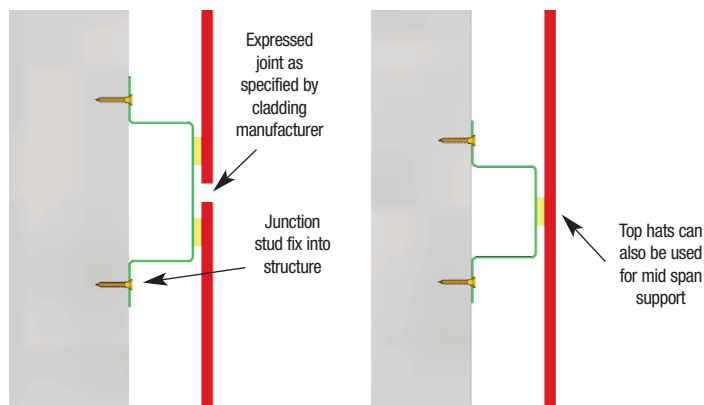


Fig. 3 Top Hat Sections to Support Aluminium Composite Panel

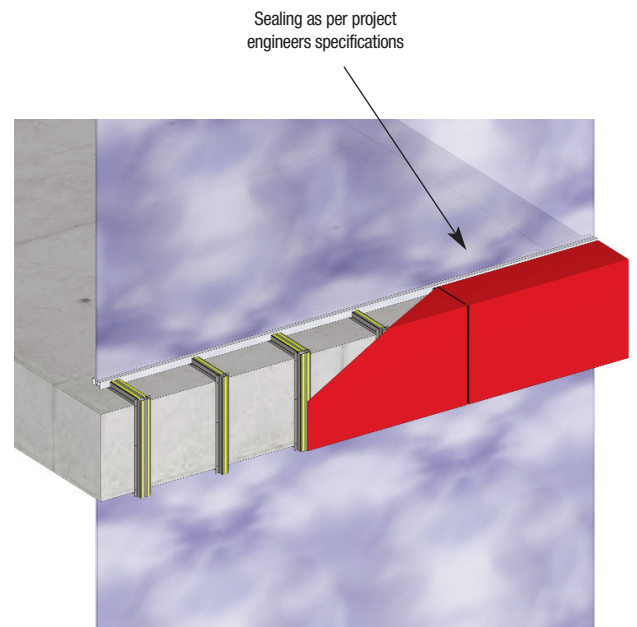


Fig. 4 Junction stud fixed to primary structure to support composite panel

Span Tables - Junction Studs

Table 94

MAXIMUM SPANS - JUNCTION STUDS - 0.25kPa			
Maximum Span For Deflection			
Part No.	Spacing	Single Span	Continuous Span
JS15	450mm	1263mm	1690mm
	600mm	1148mm	1536mm
	900mm	1003mm	1342mm
	1200mm	911mm	1219mm
JS24	450mm	1805mm	2416mm
	600mm	1640mm	2195mm
	900mm	1433mm	1917mm
	1200mm	1320mm	1742mm
JS50	450mm	2411mm	3226mm
	600mm	2191mm	2931mm
	900mm	1914mm	2561mm
	1200mm	1739mm	2326mm
JS75	450mm	2536mm	3394mm
	600mm	2304mm	3084mm
	900mm	2013mm	2694mm
	1200mm	1829mm	2447mm

Table 95

MAXIMUM SPANS - JUNCTION STUDS - 0.50kPa			
Maximum Span For Deflection			
Part No.	Spacing	Single Span	Continuous Span
JS15	450mm	1003mm	1342mm
	600mm	911mm	1219mm
	900mm	796mm	1065mm
	1200mm	723mm	968mm
JS24	450mm	1433mm	1917mm
	600mm	1302mm	1742mm
	900mm	1137mm	1522mm
	1200mm	1033mm	1383mm
JS50	450mm	1914mm	2561mm
	600mm	1739mm	2326mm
	900mm	1519mm	2032mm
	1200mm	1380mm	1847mm
JS75	450mm	2013mm	2694mm
	600mm	1829mm	2447mm
	900mm	1598mm	2138mm
	1200mm	1452mm	1943mm

Notes:

1. Ultimate limit state load capacity to be calculated in accordance with AS/NZS 1170.0 as applicable
2. Connections to be independently checked

Span Tables - Junction Studs

Top Hat & Cladding Sections

Table 96

MAXIMUM SPANS - JUNCTION STUDS - 0.75kPa			
Part No.	Maximum Span For Deflection		
	Spacing	Single Span	Continuous Span
JS15	450mm	876mm	1172mm
	600mm	796mm	1065mm
	900mm	695mm	930mm
	1200mm	632mm	845mm
JS24	450mm	1252mm	1675mm
	600mm	1137mm	1522mm
	900mm	994mm	1329mm
	1200mm	903mm	1208mm
JS50	450mm	1672mm	2237mm
	600mm	1519mm	2032mm
	900mm	1327mm	1775mm
	1200mm	1206mm	1613mm
JS75	450mm	1759mm	2353mm
	600mm	1598mm	2138mm
	900mm	1396mm	1868mm
	1200mm	1268mm	1697mm

Table 97

MAXIMUM SPANS - JUNCTION STUDS - 1.00kPa			
Part No.	Maximum Span For Deflection		
	Spacing	Single Span	Continuous Span
JS15	450mm	796mm	1065mm
	600mm	723mm	968mm
	900mm	632mm	845mm
	1200mm	574mm	768mm
JS24	450mm	1137mm	1522mm
	600mm	1033mm	1383mm
	900mm	903mm	1208mm
	1200mm	820mm	1097mm
JS50	450mm	1519mm	2032mm
	600mm	1380mm	1847mm
	900mm	1206mm	1613mm
	1200mm	1095mm	1466mm
JS75	450mm	1598mm	2138mm
	600mm	1452mm	1943mm
	900mm	1268mm	1697mm
	1200mm	1152mm	1542mm

Notes:

1. Ultimate limit state load capacity to be calculated in accordance with AS/NZS 1170.0 as applicable
2. Connections to be independently checked

Span Tables - Top Hats

Table 98

TOP HAT SECTION TH50 X 0.75BMT													
		PURLIN SPACING											
Loading	Wind Class	600			900			1200			1500		
		Single	Double	Lapped	Single	Double	Lapped	Single	Double	Lapped	Single	Double	Lapped
		MAXIMUM ALLOWABLE SPAN (mm)											
INWARD LOADS		1600	2439	2661	1578	2389	2603	1556	2344	2551	1537	2303	2477
OUTWARD LOADS	TC3	2777	3715	3959	2426	3246	3458	2204	2949	3142	2046	2737	2917
	TC2.5	2691	3600	3837	2351	3145	3352	2136	2858	3045	1983	2653	2827
	TC2.0	2611	3494	3723	2281	3052	3253	2073	2773	2955	1924	2575	2743

Table 99

TOP HAT SECTION TH64 X 0.75BMT													
		PURLIN SPACING											
Loading	Wind Class	600			900			1200			1500		
		Single	Double	Lapped	Single	Double	Lapped	Single	Double	Lapped	Single	Double	Lapped
		MAXIMUM ALLOWABLE SPAN (mm)											
INWARD LOADS		2128	3229	3519	2090	3147	3424	2054	3074	3335	2022	3008	3202
OUTWARD LOADS	TC3	3380	4522	4819	2953	3951	4210	2683	3589	3825	2490	3332	3551
	TC2.5	3275	4383	4670	2861	3829	4080	2600	3479	3707	2413	3229	3441
	TC2.0	3179	4253	4532	2777	3716	3959	2523	3376	3597	2342	3134	3340

Table 100

TOP HAT SECTION TH64 X 0.95BMT													
		PURLIN SPACING											
Loading	Wind Class	600			900			1200			1500		
		Single	Double	Lapped	Single	Double	Lapped	Single	Double	Lapped	Single	Double	Lapped
		MAXIMUM ALLOWABLE SPAN (mm)											
INWARD LOADS		2384	3610	3932	2337	3510	3816	2293	3422	3714	2254	3343	3624
OUTWARD LOADS	TC3	3657	4893	5214	3195	4275	4555	2903	3884	4138	2694	3605	3842
	TC2.5	3544	4742	5053	3096	4143	4414	2813	3764	4011	2611	3494	3723
	TC2.0	3439	4602	4904	3005	4020	4284	2730	3653	3892	2534	3391	3613

Notes:

- Definition of Wind Class as per AS 1170.2
- The maximum spans stated in all cases are based on either strength or serviceability requirements for the following load cases

Serviceability Load Cases	Strength
1. Dead Load Only	G Dead Load + Live Load 1.2 G + 1.5Q
2. Live Load Only	0.7Q Dead Load + Wind Load 0.9 G + W _U
4. Wind Load	W _s
- Deflection Limits - Span/150

Top Hat & Cladding Sections

Span Tables - Top Hats

Top Hat & Cladding Sections

Table 101

TOP HAT SECTION TH75 X 0.75BMT													
		PURLIN SPACING											
Loading	Wind Class	600			900			1200			1500		
		Single	Double	Lapped	Single	Double	Lapped	Single	Double	Lapped	Single	Double	Lapped
		MAXIMUM ALLOWABLE SPAN (mm)											
INWARD LOADS		2649	4003	4358	2591	3883	4217	2539	3778	4005	2492	3686	3824
OUTWARD LOADS	TC3	3936	5266	5611	3438	4600	4902	3124	4180	4454	2900	3880	4135
	TC2.5	3814	5103	5438	3332	4458	4751	3027	4051	4316	2810	3760	4007
	TC2.0	3701	4953	5277	3233	4327	4610	2938	3931	4189	2727	3649	3889

Table 102

TOP HAT SECTION TH75 X 0.95BMT													
		PURLIN SPACING											
Loading	Wind Class	600			900			1200			1500		
		Single	Double	Lapped	Single	Double	Lapped	Single	Double	Lapped	Single	Double	Lapped
		MAXIMUM ALLOWABLE SPAN (mm)											
INWARD LOADS		2964	4469	4864	2894	4324	4695	2831	4198	4551	2774	4088	4426
OUTWARD LOADS	TC3	4258	5698	6071	3720	4977	5304	3380	4522	4819	3138	4198	4474
	TC2.5	4127	5522	5884	3605	4824	5140	3275	4383	4670	3041	4068	4335
	TC2.0	4005	5359	5710	3499	4681	4988	3179	4253	4532	2951	3948	4207

Table 103

TOP HAT SECTION TH96 X 0.75BMT													
		PURLIN SPACING											
Loading	Wind Class	600			900			1200			1500		
		Single	Double	Lapped	Single	Double	Lapped	Single	Double	Lapped	Single	Double	Lapped
		MAXIMUM ALLOWABLE SPAN (mm)											
INWARD LOADS		3521	5289	5750	3426	5095	5527	3341	4930	5233	3266	4787	4960
OUTWARD LOADS	TC3	4808	6433	6855	4200	5620	5988	3816	5106	5441	3542	4740	5051
	TC2.5	4659	6234	6643	4070	5446	5803	3698	4948	5273	3433	4594	4895
	TC2.0	4522	6050	6447	3950	5285	5632	3589	4802	5117	3332	4421	4750

Notes:

- Definition of Wind Class as per AS 1170.2
- The maximum spans stated in all cases are based on either strength or serviceability requirements for the following load cases

Serviceability Load Cases	Strength	
1. Dead Load Only	G	Dead Load + Live Load
2. Live Load Only	0.7Q	Dead Load + Wind Load
4. Wind Load	Ws	
- Deflection Limits - Span/150

Span Tables - Top Hats

Table 104

TOP HAT SECTION TH96 X 0.95BMT													
		PURLIN SPACING											
Loading	Wind Class	600			900			1200			1500		
		Single	Double	Lapped	Single	Double	Lapped	Single	Double	Lapped	Single	Double	Lapped
MAXIMUM ALLOWABLE SPAN (mm)													
INWARD LOADS		3935	5894	6404	3818	5661	6136	3716	5465	5914	3626	5297	5724
OUTWARD LOADS	TC3	5202	6960	7417	4544	6080	6479	4129	5525	5887	3833	5129	5465
	TC2.5	5041	6745	7188	4404	5893	6279	4001	5354	5705	3714	4970	5296
	TC2.0	4892	6546	6976	4274	5719	6094	3883	5196	5537	3605	4823	5140

Table 105

TOP HAT SECTION TH120 X 0.75BMT													
		PURLIN SPACING											
Loading	Wind Class	600			900			1200			1500		
		Single	Double	Lapped	Single	Double	Lapped	Single	Double	Lapped	Single	Double	Lapped
MAXIMUM ALLOWABLE SPAN (mm)													
INWARD LOADS		4997	7438	8070	4821	7096	7679	4670	6816	7363	4539	6580	7098
OUTWARD LOADS	TC3	6174	8261	8803	5394	7217	7690	4900	6557	6987	4549	6087	6486
	TC2.5	5983	8006	8531	5227	6994	7453	4749	6354	6771	4409	5899	6286
	TC2.0	5807	7770	8279	5073	6787	7233	4609	6167	6571	4279	5725	6100

Table 106

TOP HAT SECTION TH120 X 0.95BMT													
		PURLIN SPACING											
Loading	Wind Class	600			900			1200			1500		
		Single	Double	Lapped	Single	Double	Lapped	Single	Double	Lapped	Single	Double	Lapped
MAXIMUM ALLOWABLE SPAN (mm)													
INWARD LOADS		5571	8266	8962	5359	7860	8500	5180	7532	8131	5026	7258	7824
OUTWARD LOADS	TC3	6680	8938	9525	5836	7808	8321	5302	7095	7560	4922	6586	7018
	TC2.5	6474	8662	9230	5655	7567	8064	5138	6875	7326	4770	6383	6801
	TC2.0	6283	8407	8958	5488	7344	7826	4987	6672	7110	4629	6194	6600

Notes:

- Definition of Wind Class as per AS 1170.2
- The maximum spans stated in all cases are based on either strength or serviceability requirements for the following load cases

Serviceability Load Cases	Strength	
1. Dead Load Only	G	Dead Load + Live Load 1.2 G + 1.5Q
2. Live Load Only	0.7Q	Dead Load + Wind Load 0.9 G + W _u
4. Wind Load	W _s	
- Deflection Limits - Span/150