# VERANDAH BEAMS

	Load	i (kg/m²)	Deflection Limit (mm)			
	Dead Load	Live Load	Dead & Live Load	Live Load		
Beams supporting a steel sheet verandah roof or carport	40	$25$ (or $\ge 180$ /Area + 12)	span/240 to 15	span/360 to 10		
Beams supporting a tiled verandah roof or carport	90	$25$ (or $\ge$ 180/Area + 12)	span/240 to 15	span/360 to 10		



### Notes:

1. The top flange of the Beam is assumed to be continuously laterally supported by rafters at 900mm maximum centres.

Section	Load Width (m)							
Designation	1.2	1.8	2.4	3.0	3.6	4.2	4.8	
100TFB 125TFB 150UB14.0 150UB18.0 180UB16.1 180UB18.1 180UB22.2 200UB22.3 200UB25.4 200UB29.8 250UB25.7 250UB31.4 250UB37.3 310UB32.0 310UB40.4 310UB40.2 75PFC 100PFC 125PFC 150PFC 180PFC 200PFC 230PFC	3.2 5.0* 5.2* 6.1* 5.8* 3.1 3.9 5.1*	$2.8^*$ $4.3^*$ $5.3^*$ $5.1^*$ $5.5^*$ $6.2^*$ $5.6^*$ $6.7^*$ $7.1^*$ $8.0^*$ $7.1^*$ 2.6 $3.4^*$ $4.4^*$ $5.7^*$ $6.4^*$ $6.7^*$ $7.0^*$	MAXIMUM \$ 2.5* 3.9* 4.0* 4.8* 4.6* 4.9* 5.6* 5.0* 6.1* 6.5* 7.2* 6.4* 7.4* 8.4+ 7.5* 2.4* 3.0* 4.0* 5.2* 5.7* 6.1* 6.3*	2.3* 3.6* 3.7* 4.4* 4.2* 4.6* 5.2* 4.7* 5.6* 6.0* 6.7+ 6.0* 6.9+ 7.7+ 7.0+ 8.3+ 2.2* 2.8* 3.7* 4.8* 5.3* 5.6* 5.8*	AM (m) 2.1* 3.4* 3.5* 4.1* 4.0* 4.3* 4.3* 4.4* 5.3+ 5.6+ 6.3+ 5.6+ 6.5+ 7.3+ 6.6+ 7.9^ 8.5^ 2.0* 2.6* 3.4* 4.4* 4.9* 5.2+ 5.4+ 5.4+	$2.0^*$ $3.2^*$ $3.3^*$ $3.9^*$ $3.8^*$ $4.1^*$ $4.6_+$ $4.2^*$ $5.0_+$ $5.3_+$ $5.9_+$ $5.3_+$ $6.2_+$ $6.9^{\wedge}$ $6.3_+$ $7.5^{\wedge}$ $8.0^{\wedge}$ $1.9^*$ $2.5^*$ $3.2^*$ $4.2^*$ $4.7_+$ $4.9_+$ $5.1_+$	$\begin{array}{c} 1.9^{*}\\ 3.0^{*}\\ 3.2^{*}\\ 3.7^{*}\\ 3.6^{*}\\ 3.9+\\ 4.4+\\ 4.0+\\ 4.8+\\ 5.1+\\ 5.6^{\wedge}\\ 5.1+\\ 5.9^{\wedge}\\ 6.6^{\wedge}\\ 6.0^{\wedge}\\ 7.1^{\wedge}\\ 7.7^{\wedge}\\ 1.8^{*}\\ 2.3^{*}\\ 3.1^{*}\\ 4.0+\\ 4.4+\\ 4.7+\\ 4.9+\\ \end{array}$	Example: Refer to Fig. page 18 Span=6.1m A=7.0m, B=6.1m Load width= $A^2/2B$ $=7.0^2/(2x6.1)$ =4.0m Use a load width of 4.2 in the adjacent table a 250UB31.4 will span 6.2m and requires a M12 anchor rod.
250PFC 300PFC				7.5+ 8.0+	7.0+ 7.4+	6.6^ 7.0^	6.3^ 6.7^	

#### BEAM SUPPORTING A STEEL SHEET VERANDAH OR CARPORT ROOF - NORMAL WIND N3

#### BEAM SUPPORTING A TILED VERANDAH OR CARPORT ROOF - NORMAL WIND N3

Section			L	oad Width (n	1)			
Designation	1.2	1.8	2.4	3.0	3.6	4.2	4.8	
	MAXIMUM SPAN OF BEAM (m)							
100TFB 125TFB 150UB14.0 • 150UB18.0 180UB16.1 180UB18.1	3.8 5.0 5.6 6.0 6.3 6.5	3.4 4.6 5.1 5.5 5.8 5.9	3.2 4.3 4.8* 5.2* 5.4* 5.6*	3.0 4.1* 4.6* 4.9* 5.1* 5.3*	2.8 3.9* 4.4* 4.7* 4.9* 5.1*	2.6* 3.8* 4.2* 4.5* 4.7* 4.9*	2.4* 3.7* 4.1* 4.4* 4.6* 4.7*	Example: Refer to Fig. page 18 Required beam span=4.0m A=6.0m B=5.1m Load width=A <sup>2</sup> /2B
<ul> <li>180UB22.2</li> <li>200UB18.2</li> <li>200UB22.3</li> <li>200UB25.4</li> <li>200UB29.8</li> <li>250UB25.7</li> </ul>	6.8 6.9 7.4 7.6 8.0 8.4	6.3 6.4 6.8* 7.0* 7.4* 7.8*	5.9* 6.0* 6.4* 6.6* 6.9* 7.3*	5.6* 5.7* 6.1* 6.2* 6.6* 6.9*	5.4* 5.4* 5.8* 6.0* 6.3* 6.6*	5.2* 5.2* 5.6* 5.8* 6.1* 6.4*	5.0* 5.1* 5.4* 5.6* 5.9* 6.2*	=6.0 <sup>2</sup> /(2X5.1) =3.5m Use a load width of 3.6 in the adjacent table a 150UB14.0 will span 4.4m and requires a M10 anchor rod.
250UB31.4 250UB37.3 310UB32.0 310UB40.4 310UB46.2 75PFC	2.9	8.2* 8.6* 8.9*	7.7* 8.1* 8.4* 9.0* 9.3* 2.4	7.3* 7.7* 8.0* 8.6* 8.8* 2.3	7.0* 7.4* 7.6* 8.2* 8.5* 2.1	6.7* 7.1* 7.4* 7.9* 8.2* 2.0	6.5* 6.9* 7.1* 7.7* 8.0* 2.0	
100PFC 125PFC 150PFC 200PFC 230PFC 250PFC 300PFC	3.9 4.9 5.9 6.7 7.2 7.8	3.6 4.5 5.4 6.2 6.6* 7.2* 8.2*	3.4 4.2 5.1* 5.8* 6.2* 6.8* 7.7* 8.6*	3.1 4.0* 4.8* 5.5* 5.9* 6.4* 7.3* 8.2*	3.0 3.8* 4.6* 5.3* 5.7* 6.2* 7.0* 7.9*	2.8* 3.7* 4.4* 5.1* 5.5* 6.0* 6.7* 7.6*	2.7* 3.6* 4.3* 4.9* 5.3* 5.8* 6.5* 7.4*	

#### Notes on Tables:

1. The Tables apply for 300PLUS<sup>®</sup> steel only. For details of your nearest 300PLUS<sup>®</sup> structural steel supplier, call OneSteel Direct toll free on 1800 1 STEEL (1800 1 78335),or visit our website at www.onesteel.com

2. For sections marked '•' the next largest size may be more economical.

3. No symbol next to the span indicates that only nominal holding down is required (uplift is less than 5 kN). A "\*" indicates a M10 holding down rod is required (uplift is between 5 and 19 kN). A "+" indicates a M12 holding down bolt is required (uplift is between 19 & 27 kN). A "^" indicates a M16 holding down bolt is required (uplift is between 27 and 50 kN).

4. For a steel sheet roof in high wind load areas refer to table on page 21.



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![](_page_5_Picture_0.jpeg)

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## **ONESTEEL DIRECT**

Freecall 1800 178 335 Website www.onesteel.com Freefax 1800 101 141 Email onesteeldirect@onesteel.com Postal address

Locked Bag 8825 Wollongong DC NSW 2500 Australia

![](_page_5_Picture_5.jpeg)

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