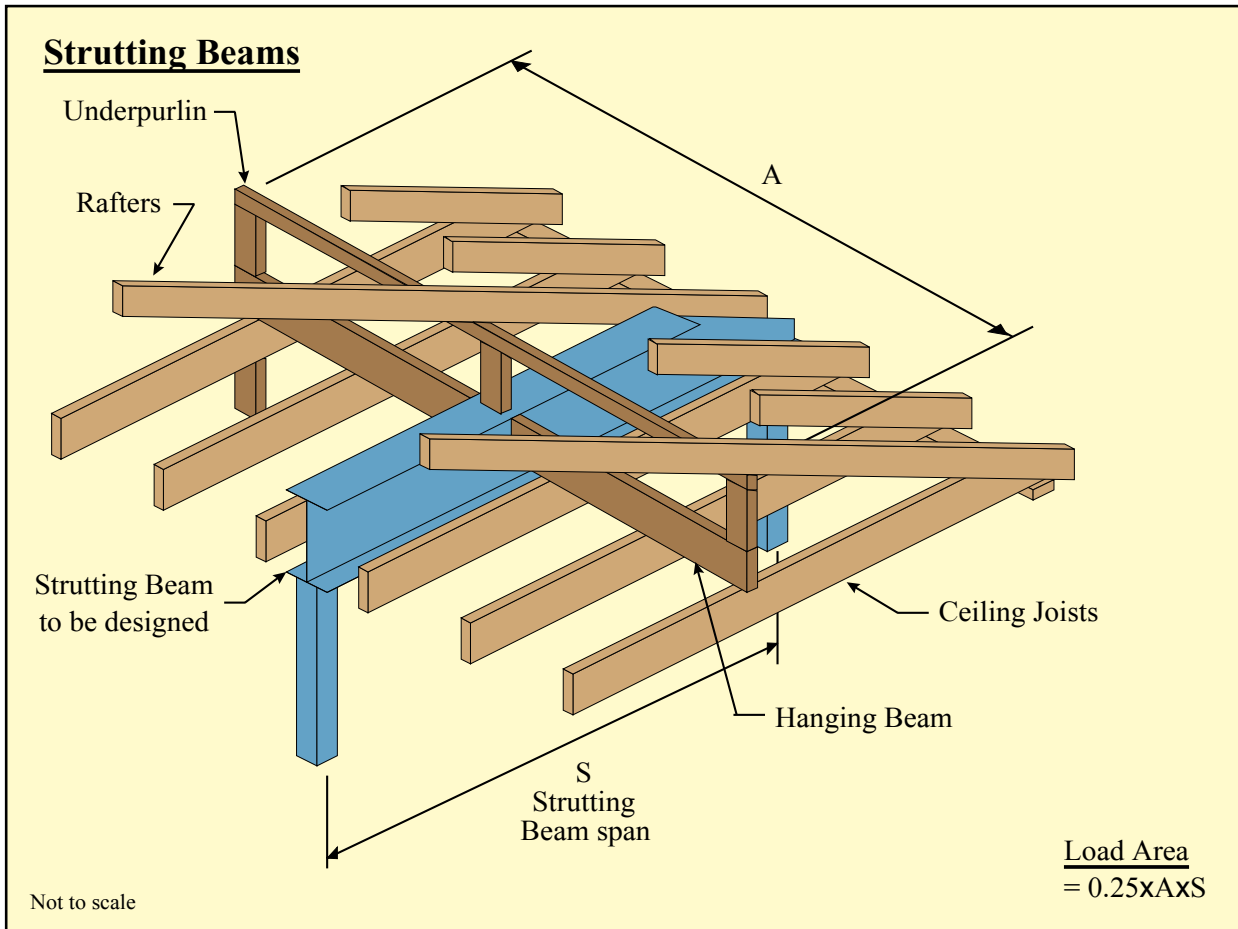


# STRUTTING BEAMS

	Load (kg/m <sup>2</sup> )		Deflection Limit (mm)	
	Dead Load	Live Load	Dead & Live Load	Live Load
<b>Strutting Beam supporting a steel sheet roof &amp; ceiling</b>	40	25 (or $\geq 180/\text{Area} + 12$ )	span/180 to 20	span/240 to 15
<b>Strutting Beam supporting a tiled roof &amp; ceiling</b>	90	25 (or $\geq 180/\text{Area} + 12$ )	span/180 to 20	span/240 to 15



**Notes:**

1. The length of the Rafters and Ceiling Joists are assumed to be within 15% of the Strutting Beam span.
2. Both flanges of the Strutting Beam are assumed to be fully restrained at mid-span.

**STRUTTING BEAM SUPPORTING A STEEL SHEET ROOF AND CEILING - NORMAL WIND N3**

Section Designation	Load Area (m <sup>2</sup> )						
	7	10	13	16	19	22	25
	<b>MAXIMUM SPAN OF BEAM (m)</b>						
100TFB	3.4	2.7*	2.2*	1.8*	1.5*	1.3*	1.2*
125TFB	5.4	5.0*	4.7*	4.2*	3.6*	3.1*	2.8*
150UB14.0	6.2	5.7*	5.2*	4.6*	4.2*	3.9*	3.6*
• 150UB18.0		6.3*	5.9*	5.6*	5.3*	4.9*	4.6*
180UB16.1		6.7*	6.2*	5.7*	5.2*	4.8*	4.5*
180UB18.1		6.9*	6.5*	6.1*	5.8*	5.3*	5.0*
• 180UB22.2		7.4*	7.0*	6.6*	6.2*	6.0*	5.8*
200UB18.2		7.5*	7.1*	6.7*	6.1*	5.7*	5.4*
200UB22.3			7.7*	7.3*	6.9*	6.6*	6.4*
200UB25.4				7.5*	7.2*	6.9*	6.7*
• 200UB29.8				8.0*	7.6*	7.3*	7.1*
250UB25.7				8.6*	8.2*	7.8*	7.6*
250UB31.4					8.7*	8.4*	8.1*
• 250UB37.3						8.9*	8.7*
310UB32.0						9.4*	9.1*
310UB40.4							
75PFC	2.6	1.8*	1.4*	1.1*			
100PFC	4.0	3.5*	2.6*	2.1*	1.8*	1.5*	1.4*
125PFC	5.3	4.9*	4.5*	3.9*	3.3*	2.8*	2.5*
150PFC		6.1*	5.8*	5.4*	5.1*	4.9*	4.5*
180PFC			6.8*	6.4*	6.1*	5.8*	5.6*
200PFC			7.5*	7.1*	6.7*	6.4*	6.2*
230PFC				7.9*	7.5*	7.2*	6.9*
250PFC						8.4*	8.1*
300PFC							

**Example:**  
Refer to Fig. page 8  
Span S=6.1m  
A=7.0m  
Load area =0.25xAxS  
=0.25x7.0x6.1  
=10.7m<sup>2</sup>  
Use a load area of 13  
sq metres in the adjacent table  
a 180UB16.1 will span 6.2m  
and requires a M10 anchor rod.

**STRUTTING BEAM SUPPORTING A TILED ROOF AND CEILING - NORMAL WIND N3**

Section Designation	Load Area (m <sup>2</sup> )						
	7	10	13	16	19	22	25
100TFB	2.7	2.0	1.6*	1.3*	1.1*		
125TFB	4.6	4.1	3.7*	3.0*	2.5*	2.2*	2.0*
150UB14.0	5.2	4.8	4.2*	3.8*	3.2*	2.8*	2.3*
• 150UB18.0	5.8	5.2	4.9*	4.6*	4.3*	3.7*	3.3*
180UB16.1	6.1	5.5	5.1*	4.7*	4.3*	3.8*	3.4*
180UB18.1	6.4	5.8	5.4*	5.0*	4.7*	4.3*	3.8*
• 180UB22.2	6.8	6.2	5.8*	5.4*	5.1*	4.9*	4.7*
200UB18.2	6.9	6.3	5.9*	5.5*	5.0*	4.7*	4.4*
200UB22.3		6.9	6.4*	6.0*	5.7*	5.4*	5.3*
200UB25.4		7.1	6.6*	6.2*	5.9*	5.6*	5.5*
• 200UB29.8		7.6	7.1*	6.7*	6.3*	6.0*	5.8*
250UB25.7		8.1	7.6*	7.1*	6.8*	6.5*	6.2*
250UB31.4			8.1*	7.7*	7.3*	6.9*	6.7*
• 250UB37.3				8.2*	7.8*	7.4*	7.2*
310UB32.0				8.6*	8.1*	7.8*	7.5*
310UB40.4					9.0*	8.6*	8.3*
310UB46.2						9.0*	8.7*
75PFC	1.8	1.3	1.0*				
100PFC	3.3	2.4	1.8*	1.5*	1.3*	1.1*	
125PFC	4.4	4.0	3.4*	2.7*	2.3*	2.0*	1.8*
150PFC	5.6	5.1	4.7*	4.4*	4.1*	3.5*	3.1*
180PFC	6.6	6.1	5.6*	5.3*	5.0*	4.6*	4.1*
200PFC		6.7	6.2*	5.8*	5.5*	5.3*	5.0*
230PFC		7.4	6.9*	6.5*	6.2*	5.9*	5.7*
250PFC				7.7*	7.3*	7.0*	6.7*
300PFC					8.5*	8.1*	7.8*

**Example:**  
Refer to Fig. page 8  
Span S=6.1m  
A=7.0m  
Load area=0.25xAxS  
=0.25x7.0x6.1  
=10.7m<sup>2</sup>  
Use load area of 13  
sq metres in the adjacent table  
a 200UB22.3 will span 6.4m  
and requires a M10 anchor rod.

**Notes on Tables:**

- The tables apply for 300PLUS® steel only. For details of your nearest 300PLUS® structural steel supplier, call OneSteel Direct toll free on 1800 1 STEEL (1800 1 78335), or visit our website at [www.onesteel.com](http://www.onesteel.com)
- For sections marked '•' the next largest size may be more economical.
- 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).
- For a steel sheet roof in high wind load areas refer to the table on page 20.



## STRUCTURAL STEEL IN HOUSING - THIRD EDITION



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