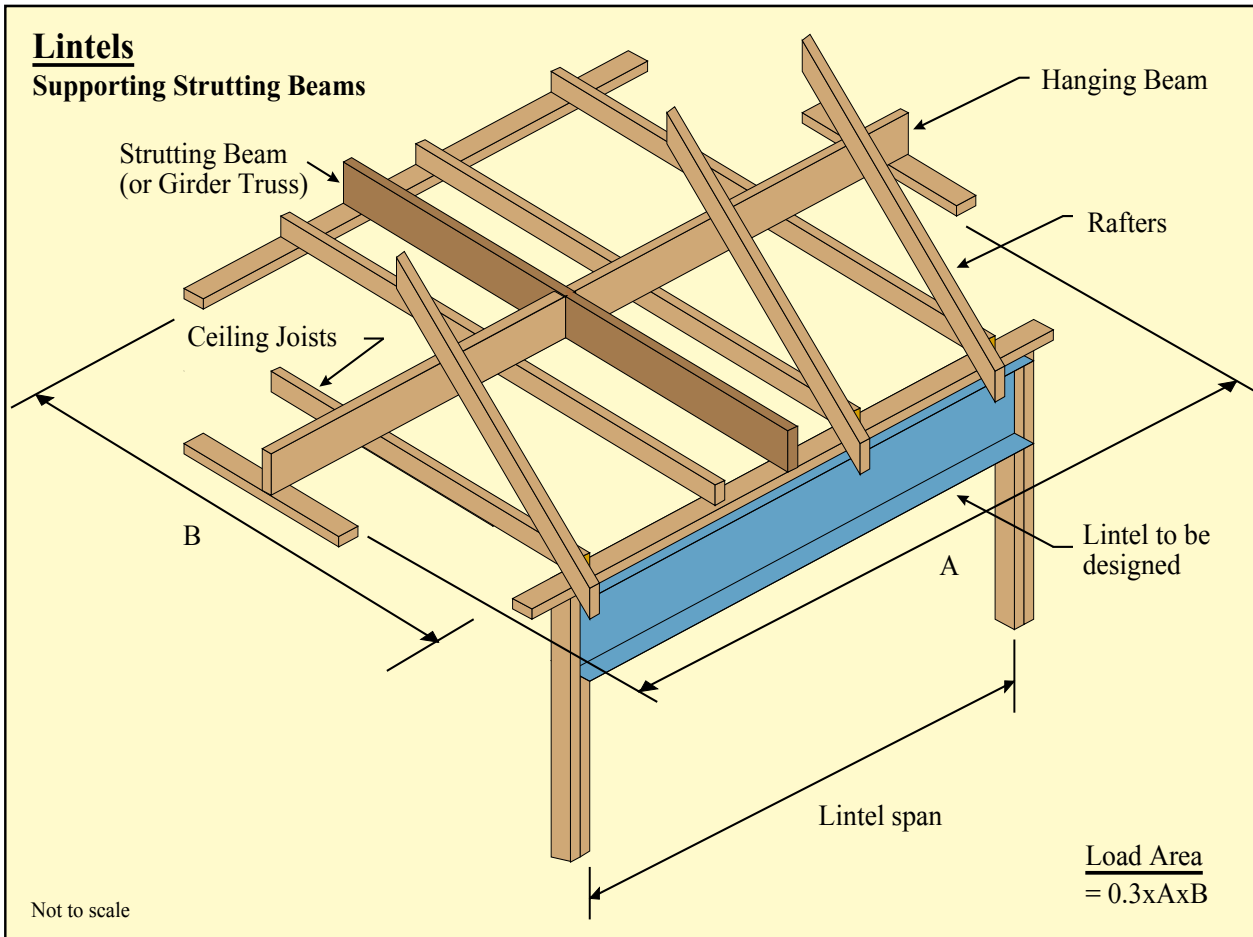


LINTELS SUPPORTING STRUTTING BEAM (or Girder Truss)

	Load (kg/m ²)		Deflection Limit (mm)	
	Dead Load	Live Load	Dead & Live Load	Live Load
Lintel supporting strutting beam, steel sheet roof and ceiling	40	25 (or $\geq 180/\text{Area} + 12$)	span/240 to 15	span/360 to 10
Lintel supporting strutting beam, tiled roof and ceiling	90	25 (or $\geq 180/\text{Area} + 12$)	span/240 to 15	span/360 to 10



Notes:

1. The length of the rafters are assumed to be within 15% of the Strutting Beam span (B).
2. The Strutting Beam is assumed to be supported by the Lintel at mid-span.
3. The top flange of the Lintel is assumed to be laterally supported at mid-span.

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

Section Designation	Load Area (m ²)						
	7	10	13	16	19	22	25
	MAXIMUM SPAN OF LINTEL (m)						
100TFB	2.2	1.8*	1.5*	1.3*	1.2*	1.1*	1.0*
125TFB	4.5	3.6*	3.1*	2.8*	2.5*	2.3*	2.1*
150UB14.0	4.7	3.8*	3.3*	3.0*	2.7*	2.5*	2.4*
• 150UB18.0	6.1	5.0*	4.3*	3.8*	3.5*	3.2*	3.0*
180UB16.1	5.6	4.7*	4.1*	3.7*	3.3*	3.1*	2.9*
180UB18.1		5.2*	4.5*	4.1*	3.7*	3.4*	3.2*
• 180UB22.2		6.4*	5.5*	4.9*	4.5*	4.1*	3.9*
200UB18.2		5.4*	4.7*	4.2*	3.9*	3.6*	3.4*
200UB22.3			6.2*	5.6*	5.1*	4.8*	4.5*
200UB25.4			6.8*	6.1*	5.6*	5.2*	4.9*
• 200UB29.8			7.7*	7.3*	6.6*	6.1*	5.8*
250UB25.7			6.8*	6.1*	5.6*	5.2*	4.9*
250UB31.4					6.9*	6.5*	6.1*
250UB37.3					8.3*	7.7*	7.2*
310UB32.0					7.1*	6.6*	6.3*
310UB40.4							8.1*
75PFC	2.0	1.6*	1.3*	1.1*			
100PFC	3.0	2.4*	2.1*	1.8*	1.6*	1.4*	1.4*
125PFC	4.6	3.7*	3.2*	2.8*	2.5*	2.3*	2.2*
150PFC		5.6*	4.8*	4.3*	3.9*	3.5*	3.3*
180PFC		6.6*	5.7*	5.0*	4.6*	4.2*	3.9*
200PFC			6.2*	5.5*	5.0*	4.6*	4.3*
230PFC			6.6*	5.9*	5.3*	4.9*	4.6*
250PFC					7.9*	7.2*	6.8*
300PFC							7.5*

Example:
Refer to Fig. page 16
Span=6.1m
A=8.4m
B=7.0
Load area =0.3xAxB
=0.3x8.4x7.0
=17.6m²
Use a load area of 19 sq metres in the adjacent table a 200UB29.8 will span 6.6m and requires a M10 anchor rod.

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

Section Designation	Load Area (m ²)						
	7	10	13	16	19	22	25
	MAXIMUM SPAN OF LINTEL (m)						
100TFB	2.7	2.1	1.6*	1.3*	1.1*		
125TFB	4.1	3.7	3.5*	3.1*	2.5*	2.2*	2.0*
150UB14.0	4.8	4.3	3.9*	3.7*	3.3*	2.7*	2.5*
• 150UB18.0	5.3	4.8	4.4*	4.1*	4.0*	3.7*	3.3*
180UB16.1	5.5	5.0	4.7*	4.2*	4.1*	3.8*	3.4*
180UB18.1	5.8	5.3	4.9*	4.6*	4.4*	4.2*	3.8*
• 180UB22.2	6.2	5.7	5.3*	4.9*	4.7*	4.5*	4.3*
200UB18.2	6.3	5.7	5.3*	4.9*	4.7*	4.1*	4.1*
200UB22.3		6.3	5.8*	5.5*	5.2*	4.9*	4.8*
200UB25.4		6.5	6.0*	5.7*	5.4*	5.1*	5.0*
• 200UB29.8		6.9	6.5*	6.1*	5.7*	5.5*	5.3*
250UB25.7		7.4	6.9*	6.5*	6.1*	5.9*	5.7*
250UB31.4			7.4*	7.0*	6.6*	6.3*	6.1*
250UB37.3			7.9*	7.5*	7.1*	6.8*	6.6*
310UB32.0			8.3*	7.8*	7.4*	7.1*	6.9*
310UB40.4					8.2*	7.8*	7.6*
310UB46.2					8.5*	8.2*	7.9*
75PFC	1.8	1.3	1.0*				
100PFC	2.8	2.4	1.8*	1.5*	1.3*	1.1*	
125PFC	4.0	3.6	3.3*	2.7*	2.3*	2.0*	1.8*
150PFC	5.1	4.6	4.3*	4.0*	3.8*	3.5*	3.1*
180PFC	6.1	5.5*	5.1*	4.8*	4.5*	4.3*	4.1*
200PFC		6.1*	5.6*	5.3*	5.0*	4.8*	4.6*
230PFC		6.8*	6.3*	5.9*	5.6*	5.4*	5.2*
250PFC			7.4*	7.0*	6.6*	6.3*	6.1*
300PFC				8.1*	7.7*	7.4*	7.1*

Example:
Refer to Fig. page 16
Span=6.1m
A=8.4m
B=7.0m
Load area =0.3xAxB
=0.3x8.4x7.0
=17.6m²
Use a load area of 19 sq metres in the adjacent table a 250UB25.7 will span 6.1m 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
- 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).



STRUCTURAL STEEL IN HOUSING - THIRD EDITION



Structural steel is playing an increasingly important role in traditional and medium density housing with its versatility, strength and competitive price.

OneSteel produces a unique range of steel beams, columns, channels and angles which are suitable for use in domestic housing as floor bearers, joists, roof strutting beams, lintels, piling and other applications.

This booklet has been compiled to assist builders, draftspersons and designers to specify and use OneSteel's range of structural steel. It contains span tables, surface treatment specifications and installation details on the use of OneSteel's structural steel products in various residential building applications.

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