

Application: Lintels

Single or Upper Storey

Lintels are beams contained with load bearing walls over windows or doors.

They transfer the vertical loads applied over the opening to the jamb studs on each side.

Basic Loading Data

Snow Load = 0.9kPa

Wind Area = Very High

Min End Bearing Length = 60mm

Dimensional Data

Roof Pitch = 15.0 deg

Bottom Edge Restraint = nil

Table 1: Light Sheet Roof - with ceiling - 40kg/m²

Roofing = Sheet (20kg/m²)

Ceiling = 13mm P'Board = (20kg/m²)

Design Deflection Limits

Dead Load - Span/300 or 10mm max

Live Load - Span/360 or 10mm max

Table 2: Heavy Tile Roof - with ceiling - 90kg/m²

Roofing = Terracotta Tiles (70kg/m²)

Ceiling = 13mm P'Board = (20kg/m²)

NP Frame LVL 8
NP Frame LVL 11
NP Frame LVL 13

Table 1

Single Span Roof Load Width (mm)	Max Span (mm)				
	2100	3200	4000	4700	5500
1800	2/140x45	2/190x45	2/240x45	2/290x45	
	2/90x45	2/140x45	2/190x45		2/360x45
	150x90	150x90	200x90	240x90	300x90
	2/150x45	2/150x45	2/200x45	2/240x45	2/300x45
	2000	3100	3900	4600	5400
2100	2/140x45	2/190x45	2/240x45	2/290x45	
	2/90x45	2/140x45	2/190x45		2/360x45
	150x90	150x90	200x90	240x90	300x90
	2/150x45	2/150x45	2/200x45	2/240x45	2/300x45
	1900	3000	3800	4500	5300
2400	2/140x45	2/190x45	2/240x45	2/290x45	
	2/90x45	2/140x45	2/190x45		2/360x45
	150x90	150x90	200x90	240x90	300x90
	2/150x45	2/150x45	2/200x45	2/240x45	2/300x45
	1800	2800	3600	4400	5200
3000	2/140x45	2/190x45	2/240x45	2/290x45	
	2/90x45	2/140x45	2/190x45		2/360x45
	150x90	150x90	200x90	240x90	300x90
	2/150x45	2/150x45	2/200x45	2/240x45	2/300x45
	1600	2600	3300	4200	5000
4000	2/140x45	2/190x45	2/240x45	2/290x45	
	2/90x45	2/140x45	2/190x45		2/360x45
	150x90	150x90	200x90	240x90	300x90
	2/150x45	2/150x45	2/200x45	2/240x45	2/360x45
	1500	2400	3200	4000	4800
5000	2/140x45	2/190x45	2/240x45	2/290x45	
	2/90x45	2/140x45	2/190x45		2/360x45
	150x90	150x90	200x90	240x90	300x90
	2/150x45	2/150x45	2/200x45	2/240x45	2/360x45

Table values relate to Allowable Maximum Span in mm

Table 2

Single Span Roof Load Width (mm)	Max Span (mm)				
	1600	2600	3300	4000	4700
1800	2/140x45	2/190x45	2/240x45	2/290x45	
	2/90x45	2/140x45	2/190x45		2/360x45
	150x90	150x90	200x90	240x90	300x90
	2/150x45	2/150x45	2/200x45	2/240x45	2/300x45
	1600	2400	3200	3900	4600
2100	2/140x45	2/190x45	2/240x45	2/290x45	
	2/90x45	2/140x45	2/190x45		2/360x45
	150x90	150x90	200x90	240x90	300x90
	2/150x45	2/150x45	2/200x45	2/240x45	2/300x45
	1500	2300	3100	3800	4500
2400	2/140x45	2/190x45	2/240x45	2/290x45	
	2/90x45	2/140x45	2/190x45		2/360x45
	150x90	150x90	200x90	240x90	300x90
	2/150x45	2/150x45	2/200x45	2/240x45	2/300x45
	1400	2200	2900	3600	4300
3000	2/140x45	2/190x45	2/240x45	2/290x45	
	2/90x45	2/140x45	2/190x45		2/360x45
	150x90	150x90	200x90	240x90	300x90
	2/150x45	2/150x45	2/200x45	2/240x45	2/300x45
	1200	2000	2700	3400	4100
4000	2/140x45	2/190x45	2/240x45	2/290x45	
	2/90x45	2/140x45	2/190x45		2/360x45
	150x90	150x90	200x90	240x90	300x90
	2/150x45	2/150x45	2/200x45	2/240x45	2/300x45
	1200	1800	2500	3200	3900
5000	2/140x45	2/190x45	2/240x45	2/290x45	
	2/90x45	2/140x45	2/190x45		2/360x45
	150x90	150x90	200x90	240x90	300x90
	2/150x45	2/150x45	2/200x45	2/240x45	2/360x45

Table values relate to Allowable Maximum Span in mm

Note: Span tables shown here for NP Frame LVL 8, 11 and 13 are representative for the basic design function in the NP Design program.

For specific design options, refer to NP Design's professional design feature at www.nelsonpine.co.nz

These span tables apply only to NelsonPine®LVL products