

# Timber Joists for Hebel Panel Flooring

## Table 1

Minimum Joist Sizes for L/250 Deflection Maximum															
1.5 kPa Live Load															
Framing Type	Dry No.1 & MSG6			Dry VSG8 & MSG8			Dry VSG10 & MSG10			Dry MSG12			Dry MSG15		
	Joist Spacing (mm)			Joist Spacing (mm)			Joist Spacing (mm)			Joist Spacing (mm)			Joist Spacing (mm)		
	Span (m)	360	450	600	360	450	600	360	450	600	360	450	600	360	450
1.2	90 x 35	90 x 35	90 x 45	90 x 35	90 x 35	90 x 45	90 x 35	90 x 35	90 x 35	90 x 35	90 x 35	90 x 35	90 x 35	90 x 35	90 x 35
1.5	140 x 45	140 x 45	140 x 45	90 x 45	140 x 45	140 x 45	90 x 45	90 x 45	140 x 45	90 x 35	90 x 35	90 x 45	90 x 35	90 x 35	90 x 35
1.8	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	90 x 45	140 x 45	140 x 45	90 x 45	90 x 45	140 x 45
2.1	140 x 45	140 x 45	190 x 45	140 x 45	140 x 45	190 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45
2.4	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	140 x 45	190 x 45	190 x 45	140 x 45	140 x 45	190 x 45	140 x 45	140 x 45	140 x 45
2.7	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	140 x 45	190 x 45	190 x 45	140 x 45	190 x 45	190 x 45
3.0	190 x 45	240 x 45	240 x 45	190 x 45	190 x 45	240 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45
3.3	240 x 45	240 x 45	290 x 45	190 x 45	240 x 45	240 x 45	190 x 45	190 x 45	240 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45
3.6	240 x 45	290 x 45		240 x 45	240 x 45	290 x 45	190 x 45	240 x 45	240 x 45	190 x 45	190 x 45	240 x 45	190 x 45	190 x 45	190 x 45
3.9	290 x 45			240 x 45	290 x 45		240 x 45	240 x 45	290 x 45	190 x 45	240 x 45	240 x 45	190 x 45	190 x 45	240 x 45
4.2				290 x 45			240 x 45	290 x 45		240 x 45	240 x 45	240 x 45	190 x 45	240 x 45	240 x 45
4.5							290 x 45	290 x 45		240 x 45	240 x 45	290 x 45	240 x 45	240 x 45	240 x 45
4.8										240 x 45	290 x 45		240 x 45	240 x 45	290 x 45
2.0 kPa Live Load															
Framing Type	Dry No.1 & MSG6			Dry VSG8 & MSG8			Dry VSG10 & MSG10			Dry MSG12			Dry MSG15		
	Joist Spacing (mm)			Joist Spacing (mm)			Joist Spacing (mm)			Joist Spacing (mm)			Joist Spacing (mm)		
	Span (m)	360	450	600	360	450	600	360	450	600	360	450	600	360	450
1.2	90 x 35	90 x 35	90 x 45	90 x 35	90 x 35	90 x 45	90 x 35	90 x 35	90 x 35	90 x 35	90 x 35	90 x 35	90 x 35	90 x 35	90 x 35
1.5	140 x 45	140 x 45	140 x 45	90 x 45	140 x 45	140 x 45	90 x 45	90 x 45	140 x 45	90 x 35	90 x 35	90 x 45	90 x 35	90 x 35	90 x 35
1.8	140 x 45	140 x 45	190 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	90 x 45	140 x 45	140 x 45	90 x 45	90 x 45	140 x 45
2.1	190 x 45	190 x 45	190 x 45	140 x 45	190 x 45	190 x 45	140 x 45	140 x 45	190 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45
2.4	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	140 x 45	190 x 45	190 x 45	140 x 45	140 x 45	190 x 45	140 x 45	140 x 45	190 x 45
2.7	190 x 45	190 x 45	240 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	140 x 45	190 x 45	190 x 45
3.0	240 x 45	240 x 45	290 x 45	190 x 45	190 x 45	240 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45
3.3	240 x 45	290 x 45		190 x 45	240 x 45	290 x 45	190 x 45	190 x 45	240 x 45	190 x 45	190 x 45	240 x 45	190 x 45	190 x 45	190 x 45
3.6	290 x 45			240 x 45	240 x 45		240 x 45	240 x 45	240 x 45	190 x 45	240 x 45	240 x 45	190 x 45	190 x 45	240 x 45
3.9				290 x 45			240 x 45	240 x 45	290 x 45	240 x 45	240 x 45	240 x 45	190 x 45	240 x 45	240 x 45
4.2							240 x 45	290 x 45		240 x 45	240 x 45	290 x 45	240 x 45	240 x 45	240 x 45
4.5							290 x 45			240 x 45	290 x 45		240 x 45	240 x 45	290 x 45
4.8										290 x 45			240 x 45	290 x 45	290 x 45
3.0 kPa Live Load															
Framing Type	Dry No.1 & MSG6			Dry VSG8 & MSG8			Dry VSG10 & MSG10			Dry MSG12			Dry MSG15		
	Joist Spacing (mm)			Joist Spacing (mm)			Joist Spacing (mm)			Joist Spacing (mm)			Joist Spacing (mm)		
	Span (m)	360	450	600	360	450	600	360	450	600	360	450	600	360	450
1.2	90 x 45	90 x 45	140 x 45	90 x 35	90 x 35	90 x 45	90 x 35	90 x 35	90 x 35	90 x 35	90 x 35	90 x 35	90 x 35	90 x 35	90 x 35
1.5	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	90 x 45	140 x 45	140 x 45	90 x 35	90 x 45	140 x 45	90 x 35	90 x 35	90 x 45
1.8	140 x 45	190 x 45	190 x 45	140 x 45	140 x 45	190 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45
2.1	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	140 x 45	190 x 45	190 x 45	140 x 45	140 x 45	190 x 45	140 x 45	140 x 45	140 x 45
2.4	190 x 45	190 x 45	240 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	140 x 45	190 x 45	190 x 45
2.7	190 x 45	240 x 45	290 x 45	190 x 45	190 x 45	240 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45
3.0	240 x 45	290 x 45		190 x 45	240 x 45	290 x 45	190 x 45	190 x 45	240 x 45	190 x 45	190 x 45	240 x 45	190 x 45	190 x 45	190 x 45
3.3	290 x 45			240 x 45	290 x 45		240 x 45	240 x 45	240 x 45	190 x 45	240 x 45	240 x 45	190 x 45	190 x 45	240 x 45
3.6				290 x 45			240 x 45	240 x 45	240 x 45	240 x 45	240 x 45	240 x 45	240 x 45	240 x 45	240 x 45
3.9							240 x 45	290 x 45		240 x 45	240 x 45	290 x 45	240 x 45	240 x 45	240 x 45
4.2							290 x 45			240 x 45	290 x 45		240 x 45	240 x 45	290 x 45
4.5										290 x 45			240 x 45	290 x 45	290 x 45
4.8										290 x 45			290 x 45	290 x 45	

**NOTES**

- 1) These tables refer to Pinus Radiata only.
- 2) These tables are for single spans. Continuous joists over two or more spans may have allowable spans increased by 10%.
- 3) Where a load-bearing wall runs parallel to the line of joists, the wall must be supported on double joists with a maximum width spacer of 50 mm between them.
- 4) Where a load-bearing wall is perpendicular to the line of joists, the centre of the wall must be no more than 200 mm from the centre of the bearer supporting the joists.
- 5) Cantilevered joists must be specifically designed.
- 6) Joists with moisture content in excess of 16% must be propped until the moisture content is 16% or less.
- 7) Where 35 mm thick joists are used, panel end joints must be on double joists.
- 8) These tables allow for a ceiling dead load of 260 N/m<sup>2</sup> (12 mm plasterboard on battens)
- 9) These tables include the effect of a 1.8 kN concentrated live load as required by NZS 4203

In most cases, joist size is governed by deflection. Some larger spans are governed by bending capacity.

# Timber Joists for Hebel Panel Flooring

## Table 2

Minimum Joist Sizes for L/600 Deflection Maximum															
1.5 kPa Live Load															
Framing Type	Dry No.1 & MSG6			Dry VSG8 & MSG8			Dry VSG10 & MSG10			Dry MSG12			Dry MSG15		
	Joist Spacing (mm)			Joist Spacing (mm)			Joist Spacing (mm)			Joist Spacing (mm)			Joist Spacing (mm)		
Span (m)	360	450	600	360	450	600	360	450	600	360	450	600	360	450	600
1.2	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	90 x 45	90 x 45	90 x 45	90 x 45	90 x 45	90 x 45
1.5	140 x 45	140 x 45	190 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45
1.8	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	140 x 45	190 x 45	190 x 45	140 x 45	140 x 45	190 x 45	140 x 45	140 x 45	140 x 45
2.1	190 x 45	190 x 45	240 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	140 x 45	190 x 45	190 x 45
2.4	240 x 45	240 x 45	240 x 45	190 x 45	190 x 45	240 x 45	190 x 45	190 x 45	240 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45
2.7	240 x 45	240 x 45	290 x 45	240 x 45	240 x 45	240 x 45	190 x 45	240 x 45	240 x 45	190 x 45	190 x 45	240 x 45	190 x 45	190 x 45	190 x 45
3.0	290 x 45	290 x 45	290 x 45	240 x 45	240 x 45	290 x 45	240 x 45	240 x 45	240 x 45	240 x 45	240 x 45	240 x 45	190 x 45	190 x 45	240 x 45
3.3	290 x 45	290 x 45		290 x 45	290 x 45	290 x 45	240 x 45	290 x 45	290 x 45	240 x 45	240 x 45	290 x 45	240 x 45	240 x 45	240 x 45
3.6				290 x 45	290 x 45		290 x 45	290 x 45	290 x 45	240 x 45	290 x 45	290 x 45	240 x 45	240 x 45	290 x 45
3.9				290 x 45			290 x 45	290 x 45		290 x 45	290 x 45		240 x 45	290 x 45	290 x 45
4.2										290 x 45	290 x 45		290 x 45	290 x 45	
4.5										290 x 45			290 x 45	290 x 45	
4.8													290 x 45		
2.0 kPa Live Load															
Framing Type	Dry No.1 & MSG6			Dry VSG8 & MSG8			Dry VSG10 & MSG10			Dry MSG12			Dry MSG15		
	Joist Spacing (mm)			Joist Spacing (mm)			Joist Spacing (mm)			Joist Spacing (mm)			Joist Spacing (mm)		
Span (m)	360	450	600	360	450	600	360	450	600	360	450	600	360	450	600
1.2	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	90 x 45	90 x 45	140 x 45	90 x 45	90 x 45	90 x 45
1.5	190 x 45	190 x 45	190 x 45	140 x 45	140 x 45	190 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45
1.8	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	140 x 45	190 x 45	190 x 45	140 x 45	140 x 45	190 x 45	140 x 45	140 x 45	190 x 45
2.1	190 x 45	240 x 45	240 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45
2.4	240 x 45	240 x 45	240 x 45	190 x 45	240 x 45	240 x 45	190 x 45	190 x 45	240 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45
2.7	240 x 45	290 x 45	290 x 45	240 x 45	240 x 45	290 x 45	240 x 45	240 x 45	240 x 45	190 x 45	240 x 45	240 x 45	190 x 45	190 x 45	240 x 45
3.0	290 x 45	290 x 45		240 x 45	290 x 45	290 x 45	240 x 45	240 x 45	290 x 45	240 x 45	240 x 45	240 x 45	240 x 45	240 x 45	240 x 45
3.3	290 x 45			290 x 45	290 x 45		240 x 45	290 x 45	290 x 45	240 x 45	240 x 45	290 x 45	240 x 45	240 x 45	290 x 45
3.6				290 x 45			290 x 45	290 x 45		290 x 45	290 x 45	290 x 45	240 x 45	290 x 45	290 x 45
3.9							290 x 45			290 x 45	290 x 45		290 x 45	290 x 45	
4.2										290 x 45			290 x 45	290 x 45	
4.5													290 x 45		
4.8															
3.0 kPa Live Load															
Framing Type	Dry No.1 & MSG6			Dry VSG8 & MSG8			Dry VSG10 & MSG10			Dry MSG12			Dry MSG15		
	Joist Spacing (mm)			Joist Spacing (mm)			Joist Spacing (mm)			Joist Spacing (mm)			Joist Spacing (mm)		
Span (m)	360	450	600	360	450	600	360	450	600	360	450	600	360	450	600
1.2	140 x 45	140 x 45	190 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	140 x 45	90 x 45	140 x 45	140 x 45	90 x 45	90 x 45	140 x 45
1.5	190 x 45	190 x 45	190 x 45	140 x 45	190 x 45	190 x 45	140 x 45	140 x 45	190 x 45	140 x 45	140 x 45	190 x 45	140 x 45	140 x 45	140 x 45
1.8	190 x 45	190 x 45	240 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	140 x 45	190 x 45	190 x 45
2.1	240 x 45	240 x 45	240 x 45	190 x 45	190 x 45	240 x 45	190 x 45	190 x 45	240 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45	190 x 45
2.4	240 x 45	240 x 45	290 x 45	240 x 45	240 x 45	240 x 45	190 x 45	240 x 45	240 x 45	190 x 45	190 x 45	240 x 45	190 x 45	190 x 45	240 x 45
2.7	290 x 45	290 x 45		240 x 45	290 x 45	290 x 45	240 x 45	240 x 45	290 x 45	240 x 45	240 x 45	240 x 45	190 x 45	240 x 45	240 x 45
3.0	290 x 45			290 x 45	290 x 45		240 x 45	290 x 45	290 x 45	240 x 45	240 x 45	290 x 45	240 x 45	240 x 45	290 x 45
3.3				290 x 45			290 x 45	290 x 45		290 x 45	290 x 45	290 x 45	240 x 45	290 x 45	290 x 45
3.6							290 x 45			290 x 45	290 x 45		290 x 45	290 x 45	290 x 45
3.9										290 x 45			290 x 45	290 x 45	
4.2													290 x 45		
4.5															
4.8															

NOTES- Refer to Table 1 for Notes

# Steel Joists for Hebel Panel Flooring

## Table 3

Minimum Steel Joist Sizes for L/250 Deflection Maximum											
1.5 kPa Live Load				2.0 kPa Live Load				3.0 kPa Live Load			
Span (m)	Joist Spacing (mm)			Span (m)	Joist Spacing (mm)			Span (m)	Joist Spacing (mm)		
	360	450	600		360	450	600		360	450	600
1.2	60 x .95 TH	60 x .95 TH	60 x .95 TH	1.2	100 x .75 TH	100 x .75 TH	100 x .75 TH	1.2	60 x .95 TH	60 x .95 TH	60 x .95 TH
1.5	100 x .75 TH	100 x .75 TH	100 x .75 TH	1.5	100 x .75 TH	100 x .75 TH	100 x .75 TH	1.5	100 x .75 TH	100 x .75 TH	100 x .75 TH
1.8	100 x .75 TH	100 x .75 TH	100 x .75 TH	1.8	100 x .75 TH	100 x .75 TH	100 x .75 TH	1.8	100 x .75 TH	100 x .75 TH	100 x .75 TH
2.1	100 x .75 TH	100 x .75 TH	100 x .75 TH	2.1	100 x .75 TH	100 x .95 TH	120 x .95 TH	2.1	100 x .75 TH	100 x .75 TH	100 x .95 TH
2.4	100 x .75 TH	100 x .75 TH	100 x .95 TH	2.4	100 x .95 TH	120 x .95 TH	120 x .95 TH	2.4	100 x .95 TH	120 x .95 TH	120 x .95 TH
2.7	100 x .95 TH	100 x .95 TH	120 x .95 TH	2.7	120 x .95 TH	150 x .95 TH	150 x .95 TH	2.7	120 x .95 TH	120 x .95 TH	150 x .95 TH
3.0	120 x .95 TH	120 x .95 TH	150 x .95 TH	3.0	150 x .95 TH	150 x .95 TH	150 x .95 TH	3.0	150 x .95 TH	150 x .95 TH	150 x .95 TH
3.3	120 x .95 TH	150 x .95 TH	150 x .95 TH	3.3	150 x .95 TH	150 x .95 TH	150 x .95 TH	3.3	150 x .95 TH	150 x .95 TH	150/15 C
3.6	150 x .95 TH	150 x .95 TH	150 x 1.15 TH	3.6	150 x .95 TH	150 x 1.15 TH	150/15 C	3.6	150 x 1.15 TH	150/15 C	200/12 C
3.9	150 x .95 TH	150 x 1.15 TH	150/15 C	3.9	150 x 1.15 TH	150/15 C	150/18 C	3.9	150/15 C	200/12 C	200/12 C
4.2	150 x 1.15 TH	150/15 C	150/18 C	4.2	150/15 C	150/18 C	200/12 C	4.2	150/15 C	200/12 C	200/15 C
4.5	150/15 C	150/18 C	200/12 C	4.5	150/18 C	200/12 C	200/12 C	4.5	200/12 C	200/12 C	200/18 C
4.8	150/18 C	200/12 C	200/12 C	4.8	200/12 C	200/12 C	200/15 C	4.8	200/12 C	200/15 C	250/15 C
5.1	200/12 C	200/12 C	200/15 C	5.1	200/12 C	200/15 C	200/18 C	5.1	200/15 C	200/18 C	250/15 C
5.4	200/12 C	200/15 C	200/18 C	5.4	200/15 C	200/18 C	250/15 C	5.4	200/18 C	250/15 C	250/15 C
5.7	200/15 C	200/18 C	250/15 C	5.7	200/18 C	250/15 C	250/15 C	5.7	250/15 C	250/15 C	250/18 C
6	200/18 C	250/15 C	250/15 C	6	250/15 C	250/15 C	250/18 C	6	250/15 C	250/18 C	300/15 C
6.3	200/18 C	250/15 C	250/15 C	6.3	250/15 C	250/15 C	250/18 C	6.3	250/15 C	250/18 C	300/15 C
6.6	250/15 C	250/15 C	250/15 C	6.6	250/15 C	250/18 C	300/15 C	6.6	250/18 C	300/15 C	300/18 C
6.9	250/15 C	250/18 C	300/15 C	6.9	250/18 C	300/15 C	300/15 C	6.9	300/15 C	300/15 C	300/18 C
7.2	250/15 C	250/18 C	300/15 C	7.2	250/18 C	300/15 C	300/15 C	7.2	300/15 C	300/18 C	350/18 C
7.5	27.97	300/15 C	300/15 C	7.5	300/15 C	300/15 C	300/15 C	7.5	300/15 C	300/18 C	350/18 C
7.8	300/15 C	300/15 C	300/18 C	7.8	300/15 C	300/18 C	350/18 C	7.8	300/18 C	350/18 C	350/18 C
8.1	300/15 C	300/15 C	350/18 C	8.1	300/15 C	300/18 C	350/18 C	8.1	350/18 C	350/18 C	400/20 C
8.4	300/15 C	300/18 C	350/18 C	8.4	300/18 C	350/18 C	350/18 C	8.4	350/18 C	350/18 C	400/20 C
8.7	300/18 C	350/18 C	350/18 C	8.7	300/18 C	350/18 C	400/20 C	8.7	350/18 C	400/20 C	400/20 C
9	300/18 C	350/18 C	350/18 C	9	350/18 C	350/18 C	400/20 C	9	350/18 C	400/20 C	400/20 C

### Notes:

- 1) These Tables are for HST steel sections. TH refers to Top Hat sections and C refers to channel sections as shown on Table 5 below.
- 2) Short span sizes make allowance for a 1.8 kN concentrated load (as required by NZS 4203) where deflection or bending stress is higher with the concentrated load than the uniformly distributed load.
- 3) These tables are for single spans. Continuous joists over two or more spans may have allowable spans increased by 10%.
- 4) Where a load-bearing wall runs parallel to the line of joists, wall must be supported on double joists with a maximum clear width of 50 mm between them.
- 5) Where a load-bearing wall is perpendicular to the line of joists, the centre of the wall must be no more than 200 mm from the centre of the bearer supporting the joists.
- 6) Cantilevered joists must be specifically designed.
- 7) These tables allow for a ceiling dead load of 260n/m<sup>2</sup> (12 mm plasterboard on battens)

# Steel Joists for Hebel Panel Flooring

## Table 4

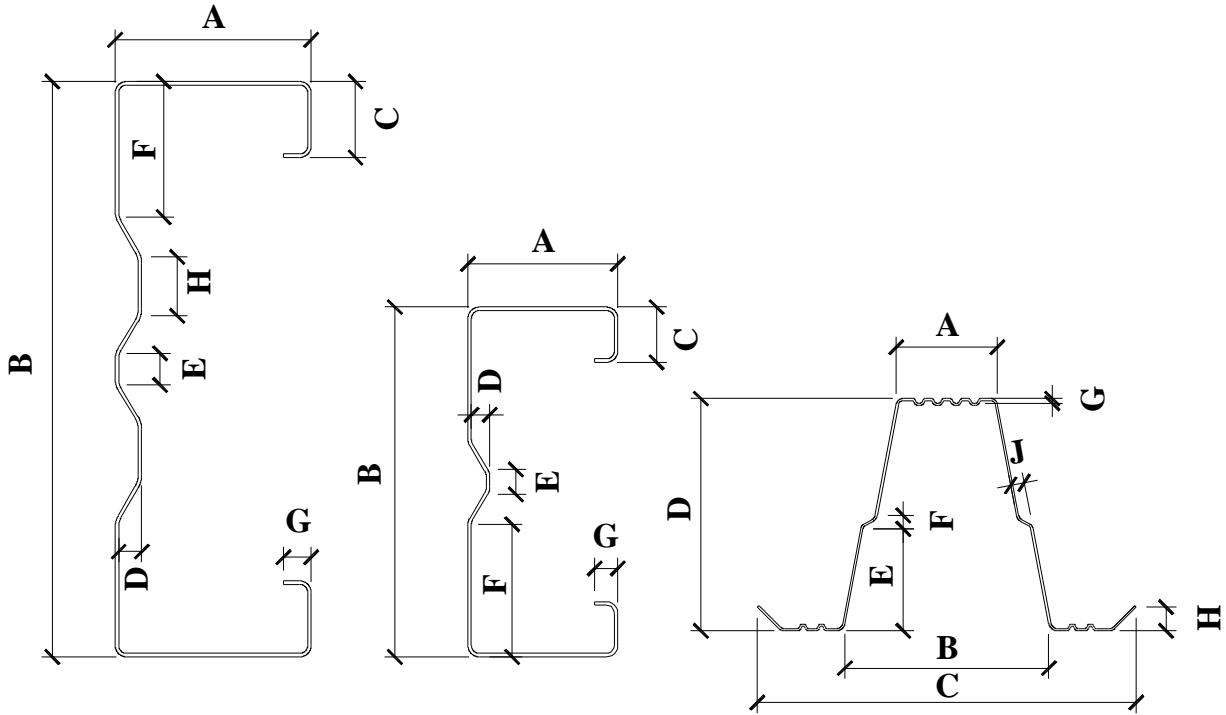
Minimum Steel Joist Sizes for L/600 Deflection Maximum											
1.5 kPa Live Load				2.0 kPa Live Load				3.0 kPa Live Load			
Span (m)	Joist Spacing (mm)			Span (m)	Joist Spacing (mm)			Span (m)	Joist Spacing (mm)		
	360	450	600		360	450	600		360	450	600
1.2	100 x .75 TH	100 x .75 TH	100 x .75 TH	1.2	100 x .75 TH	100 x .75 TH	100 x .75 TH	1.2	100 x .75 TH	100 x .75 TH	100 x .75 TH
1.5	100 x .75 TH	100 x .75 TH	100 x .75 TH	1.5	100 x .75 TH	100 x .75 TH	100 x .75 TH	1.5	100 x .75 TH	100 x .75 TH	100 x .75 TH
1.8	100 x .95 TH	100 x .95 TH	120 x .95 TH	1.8	100 x .95 TH	100 x .95 TH	120 x .95 TH	1.8	100 x .95 TH	120 x .95 TH	120 x .95 TH
2.1	120 x .95 TH	120 x .95 TH	120 x .95 TH	2.1	120 x .95 TH	120 x .95 TH	150 x .95 TH	2.1	120 x .95 TH	150 x .95 TH	150 x .95 TH
2.4	120 x .95 TH	150 x .95 TH	150 x .95 TH	2.4	150 x .95 TH	150 x .95 TH	150 x .95 TH	2.4	150 x .95 TH	150 x .95 TH	150/15 C
2.7	150 x .95 TH	150 x .95 TH	150 x 1.15 TH	2.7	150 x .95 TH	150 x 1.15 TH	150/15 C	2.7	150 x 1.15 TH	150/15 C	200/12 C
3.0	150 x .95 TH	150 x 1.15 TH	150/15 C	3.0	150 x 1.15 TH	150/15 C	150/18 C	3.0	200/12 C	200/12 C	200/12 C
3.3	150/15 C	150/18 C	200/12 C	3.3	150/18 C	200/12 C	200/12 C	3.3	200/12 C	200/12 C	200/15 C
3.6	150/18 C	200/12 C	200/12 C	3.6	200/12 C	200/12 C	200/15 C	3.6	200/15 C	200/15 C	250/15 C
3.9	200/12 C	200/15 C	200/18 C	3.9	200/12 C	200/15 C	200/18 C	3.9	200/18 C	250/15 C	250/15 C
4.2	200/15 C	200/18 C	250/15 C	4.2	200/15 C	200/18 C	250/15 C	4.2	250/15 C	250/15 C	250/18 C
4.5	200/18 C	250/15 C	250/15 C	4.5	250/15 C	250/15 C	250/18 C	4.5	250/15 C	250/18 C	300/15 C
4.8	250/15 C	250/15 C	250/18 C	4.8	250/15 C	250/15 C	300/15 C	4.8	250/18 C	300/15 C	300/15 C
5.1	250/15 C	250/18 C	300/15 C	5.1	250/15 C	250/18 C	300/15 C	5.1	300/15 C	300/15 C	300/18 C
5.4	250/18 C	250/18 C	300/15 C	5.4	250/18 C	300/15 C	300/18 C	5.4	300/15 C	300/18 C	350/18 C
5.7	250/18 C	300/15 C	300/18 C	5.7	300/15 C	300/15 C	350/18 C	5.7	300/18 C	350/18 C	350/18 C
6	300/15 C	300/15 C	300/18 C	6	300/15 C	300/18 C	350/18 C	6	350/18 C	350/18 C	400/20 C
6.3	300/15 C	300/18 C	350/18 C	6.3	300/18 C	350/18 C	350/18 C	6.3	350/18 C	350/18 C	400/20 C
6.6	300/18 C	350/18 C	350/18 C	6.6	350/18 C	350/18 C	400/20 C	6.6	350/18 C	400/20 C	400/20 C
6.9	350/18 C	350/18 C	400/20 C	6.9	350/18 C	350/18 C	400/20 C	6.9	400/20 C	400/20 C	
7.2	350/18 C	350/18 C	400/20 C	7.2	350/18 C	400/20 C	400/20 C	7.2	400/20 C	400/20 C	
7.5	350/18 C	400/20 C	400/20 C	7.5	400/20 C	400/20 C		7.5	400/20 C		
7.8	350/18 C	400/20 C	400/20 C	7.8	400/20 C	400/20 C		7.8	400/20 C		
8.1	400/20 C	400/20 C		8.1	400/20 C			8.1			
8.4	400/20 C	400/20 C		8.4	400/20 C			8.4			
8.7	400/20 C			8.7				8.7			
9				9				9			

**Notes:**

- 1) These Tables are for HST steel sections. TH refers to Top Hat sections and C refers to channel sections as shown on Table 5 below.
- 2) Short span sizes make allowance for a 1.8 kN concentrated load (as required by NZS 4203) where deflection or bending stress is higher with the concentrated load than the uniformly distributed load.
- 3) These tables are for single spans. Continuous joists over two or more spans may have allowable spans increased by 10%.
- 4) Where a load-bearing wall runs parallel to the line of joists, wall must be supported on double joists with a maximum clear width of 50 mm between them.
- 5) Where a load-bearing wall is perpendicular to the line of joists, the centre of the wall must be no more than 200 mm from the centre of the bearer supporting the joists.
- 6) Cantilevered joists must be specifically designed.
- 7) These tables allow for a ceiling dead load of 260n/m<sup>2</sup> (12 mm plasterboard on battens)

# Steel Joists Profiles for Hebel Panel Flooring

## Table 5



HST Channel Sections

HST Tophat Section

HST STEEL JOIST DIMENSIONS (mm)										
	Section	A	B	C	D	E	F	G	H	J
Tophat	60 x .95	32	65	108						
	100 x .75	43	91	163	100	45	3	2	10	5
	100 x .95	43	91	163	100	45	3	2	10	5
	120 x .95	43	98	170	120	65	3	2	10	5
	150 x .95	43	110	183	150	100	3	2	10	5
	150 x 1.15	43	110	183	150	100	3	2	10	5
Channel	150/12	65	152	24	8	7	59	10		
	150/15	65	152	24	8	7	59	10		
	150/18	65	152	24	8	7	59	10		
	200/12	75	203	25	8	10	59	12	10	
	200/15	75	203	25	8	10	59	12	10	
	200/18	75	203	25	8	10	59	12	10	
	250/15	85	250	33	10	14	59	12	25	
	250/18	85	250	33	10	14	59	12	25	
	300/15	100	300	38	10	64	59	12	25	
	300/18	100	300	38	10	64	59	12	25	
	350/18	100	350	43	10	92	70	12	25	
400/20	100	400	48	10	132	75	12	25		