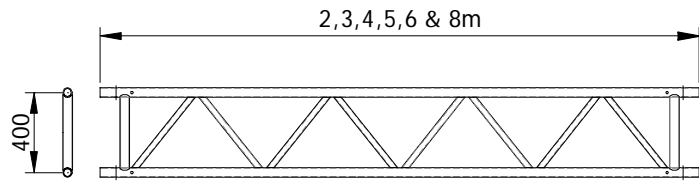


**1.0 Bending Moment and Shear Force Capacity**

Compression Chord Bracing Interval m	Permissible <sup>See note</sup>	
	Moment KNm	Shear KN
1.0	15.70	13.50
1.5	8.80	13.50
2.0	5.40	13.50

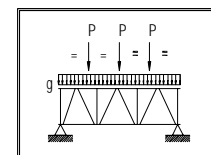
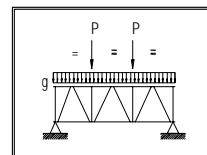
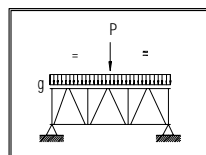
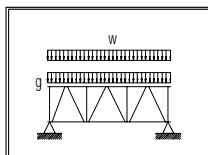


**2.0 Safe Load Tables**

2.0 Safe Load Tables	Span (m)	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	12.0
<b>2.1 Compression Chord Bracing c/c = 1.0m</b>										
i) Uniformly Distributed Load	(KN / M)	8.96	6.71	4.99	3.45	2.53	1.93	1.51	1.22	0.77
	Deflection(mm)	(2.7)	(6.5)	(11.7)	(16.8)	(22.8)	(29.6)	(37.3)	(45.7)	(60.0)
ii) Single Point Load Mid Span	(KN)	20.91	15.65	12.48	10.36	8.84	7.70	6.81	6.09	5.00
	Deflection(mm)	(3.4)	(6.0)	(9.4)	(13.4)	(18.2)	(23.7)	(29.8)	(36.6)	(51.9)
iii) Two Point Loads Third Spans	(KN)	13.44	11.73	9.36	7.77	6.63	5.78	5.11	4.57	3.39
	Deflection(mm)	(3.7)	(7.7)	(12.0)	(17.2)	(23.3)	(30.3)	(38.1)	(46.7)	(60.0)
iv) Three Point Loads Quarter Spans	(KN)	8.96	7.82	6.24	5.18	4.42	3.85	3.40	3.04	2.43
	Deflection(mm)	(3.5)	(7.1)	(11.1)	(16.0)	(21.6)	(28.1)	(35.4)	(43.4)	(60.0)
<b>2.2 Compression Chord Bracing c/c = 1.5m</b>										
i) Uniformly Distributed Load	(KN / M)	7.77	4.35	2.77	1.91	1.39	1.06	0.83	0.66	0.45
	Deflection(mm)	(2.4)	(4.2)	(6.5)	(9.3)	(12.6)	(16.3)	(20.4)	(24.9)	(34.8)
ii) Single Point Load Mid Span	(KN)	11.65	8.70	6.93	5.73	4.88	4.23	3.72	3.31	2.68
	Deflection(mm)	(1.9)	(3.3)	(5.2)	(7.4)	(10.0)	(13.0)	(16.3)	(19.9)	(27.9)
iii) Two Point Loads Third Spans	(KN)	8.74	6.53	5.19	4.30	3.66	3.17	2.79	2.48	2.01
	Deflection(mm)	(2.4)	(4.3)	(6.6)	(9.5)	(12.8)	(16.6)	(20.8)	(25.4)	(35.6)
iv) Three Point Loads Quarter Spans	(KN)	5.83	4.35	3.46	2.87	2.44	2.11	1.86	1.66	1.34
	Deflection(mm)	(2.2)	(4.0)	(6.2)	(8.8)	(11.9)	(15.4)	(19.4)	(23.6)	(33.1)
<b>2.3 Compression Chord Bracing c/c = 2.0m</b>										
i) Uniformly Distributed Load	(KN / M)	4.74	2.65	1.68	1.16	0.84	0.63	0.49	0.39	0.26
	Deflection(mm)	(1.4)	(2.5)	(3.9)	(5.6)	(7.6)	(9.7)	(12.1)	(14.6)	(20.1)
ii) Single Point Load Mid Span	(KN)	7.12	5.30	4.20	3.47	2.93	2.53	2.21	1.95	1.55
	Deflection(mm)	(1.2)	(2.0)	(3.2)	(4.5)	(6.0)	(7.8)	(9.7)	(11.7)	(16.1)
iii) Two Point Loads Third Spans	(KN)	5.34	3.98	3.15	2.60	2.20	1.90	1.66	1.46	1.16
	Deflection(mm)	(1.5)	(2.6)	(4.0)	(5.7)	(7.7)	(9.9)	(12.4)	(15.0)	(20.6)
iv) Three Point Loads Quarter Spans	(KN)	3.56	2.65	2.10	1.73	1.47	1.26	1.10	0.97	0.78
	Deflection(mm)	(1.4)	(2.4)	(3.7)	(5.3)	(7.2)	(9.2)	(11.5)	(13.9)	(19.1)

**3.0 Load Locations**

- i) Uniformly Distributed Load
- ii) Single Point Load Mid Span
- iii) Two Point Loads Third Spans
- iv) Three Point Loads Quarter Spans



**4.0 Notes**

These tables have been produced using the following design criteria:

- a) Factors of Safety, to BS 8118 : Part 1.
- b) Permissible Capacity to be used in conjunction with unfactored loads. An increase of 11% is permissible for loads solely produced by wind.
- c) The capacities shown on the tables in sections 1.0 and 2.0 above have been calculated on the basis of axial forces present in the beam members.
- d) In 2.0 above it is assumed that the truss is simply supported at either end.
- e) Design has been carried out in accordance the following Codes of Practice or British Standards:
  - BS 8118 : Part 1 : 1991. Structural Use of Aluminium.
  - BS 8118 : Part 2 : 1991. Specification for materials, workmanship and protection.
  - BS 6399 : Part 1 : 1988. Loadings for Buildings - Code of Practice for Dead and Imposed Loads
- f) The structure has been analysed under the assumption that it is fabricated from 6082-T6 Alloy and is of welded construction to BS 8118:Part 1.
- g) Allowance has been made for the connection of trusses using standard spigot connectors and bolts.
- h) It is assumed vertical loads are applied to both top and bottom chords simultaneously. Where a point load is applied between node points of a single chord member additional local bending checks of the member will be required.
- i) The load capacities given in these tables are for guidance only.
- j) For further assistance contact ASP Ltd technical department.
- k) Figures enclosed in boxes are limited by deflection all other figures are limited by permissible stresses within the truss members.