

HADLEY

CI/SfB reference		
(27)	Hh2	
October 2004		

UltraZED®
UltraBEAM®

390
SECTION PROPERTIES
AND
LOAD TABLES



CLADDING WEIGHTS

	MATERIAL THICKNESS	MATERIAL WEIGHT	
	in mm	kg/m ²	kN/m ²
STEEL CLADDING			
	0.30	3.1	0.030
	0.40	3.6	0.035
	0.45	4.2	0.041
	0.50	4.8	0.047
	0.55	5.5	0.054
	0.60	6.2	0.061
	0.70	7.1	0.070
Double Skin Steel with insulated core		12.2	0.120
ALUMINIUM CLADDING			
	0.50	1.6	0.016
	0.70	2.6	0.026
	0.90	3.5	0.034
Double Skin aluminium with insulation core	-	6.1	0.060
CEMENT FIBRE CLADDING			
Single Skin	-	16.0	0.160
9mm	-	24.0	0.235
Insulated Double Cladding with battens	-	30.0	0.295
CONCRETE ROOF TILES			
	-	66.0	0.650
OVER PURLIN LININGS			
12.5mm Insulated Fibre Board on Steel Tees	-	4.39	0.043
9.5mm Plaster Board on Steel Tees	-	8.26	0.081
12.5 mm Plaster Board on Steel Tees	-	11.22	0.110
9.5mm Insulation Board on Steel Tees	-	7.85	0.077
30mm Polyurethane Foam	-	1.02	0.010
60mm Glass Fibre	-	0.70	0.007
80mm Glass Fibre	-	0.90	0.009
100mm Glass Fibre	-	1.10	0.011
GLASS			
4mm Glass	4	11.2	0.110
6mm Glass	6	16.8	0.165
2 x 4mm Double Glazing	-	24.0	0.235
8mm Glass	8	22.4	0.220
FLOOR DECKING			
25mm Hardwood Particle Board	25	19.01	0.186
38mm Hardwood Particle Board	38	28.9	0.284
38mm Softwood Particle Board	38	26.5	0.260
25mm Heavy Duty Chipboard	25	17.6	0.173
30mm Heavy Duty Chipboard	30	20.0	0.196
38mm Heavy Duty Chipboard	38	26.8	0.263
18mm Flooring Grade Chipboard	18	13.0	0.128
22mm Flooring Grade Chipboard	22	15.8	0.155

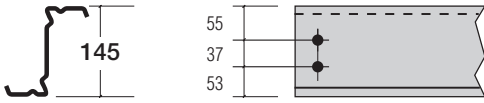


SECTION PROPERTIES

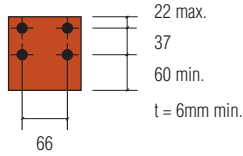
SECTION Reference	t mm Thickness	Wt/m kg	AREA cm ²	Ixx cm ⁴	Iyy cm ⁴	Ryy cm	Zxx cm ²	Zxr cm ²
145/120	1.20	3.07	3.83	125.39	36.85	3.15	17.16	17.14
145/130	1.30	3.32	4.14	136.11	39.86	3.15	18.61	18.60
145/140	1.40	3.57	4.45	146.57	42.84	3.15	20.06	20.05
145/150	1.50	3.81	4.76	156.98	45.80	3.14	21.49	21.49
145/160	1.60	4.05	5.06	167.34	48.74	3.14	22.92	22.92
145/180	1.80	4.53	5.66	187.92	54.33	3.14	25.77	25.77
145/200	2.00	5.02	6.26	208.30	60.23	3.13	28.62	28.62
170/120	1.20	3.17	3.96	182.03	32.66	2.83	21.19	21.19
170/130	1.30	3.43	4.28	197.95	35.82	2.85	22.98	22.98
170/140	1.40	3.69	4.61	213.99	39.05	2.86	24.77	24.77
170/150	1.50	3.87	4.93	230.21	42.39	2.87	26.57	26.57
170/160	1.60	4.21	5.25	246.42	45.73	2.90	28.37	28.37
170/180	1.80	4.70	5.87	279.32	52.69	2.93	31.98	31.98
170/200	2.00	5.28	6.59	310.35	58.54	2.96	35.53	35.53
170/230	2.30	6.15	7.68	356.90	67.32	3.01	40.86	40.86
200/120	1.20	3.67	4.58	274.75	38.06	2.88	27.04	27.04
200/130	1.30	3.97	4.96	297.29	41.43	2.89	29.26	29.26
200/140	1.40	4.27	5.33	319.78	44.84	2.89	31.48	31.48
200/150	1.50	4.57	5.70	342.19	48.29	2.90	33.69	33.69
200/160	1.60	4.87	6.08	364.60	51.74	2.91	35.89	35.89
200/180	1.80	5.47	6.83	409.21	58.77	2.92	40.28	40.28
200/200	2.00	6.13	7.65	454.67	65.30	2.93	44.75	44.75
200/250	2.50	7.78	9.71	568.32	81.62	2.96	55.93	55.93
225/130	1.30	4.22	5.27	393.22	41.65	2.79	34.43	34.43
225/140	1.40	4.54	5.67	422.95	44.85	2.80	37.04	37.04
225/150	1.50	4.86	6.07	452.68	48.28	2.81	39.65	39.65
225/160	1.60	5.18	6.46	482.35	51.75	2.82	42.25	42.25
225/180	1.80	5.82	7.26	541.37	58.85	2.84	47.42	47.42
225/200	2.00	6.45	8.05	600.39	65.95	2.85	52.58	52.58
225/250	2.50	8.04	10.03	747.94	82.44	2.89	65.49	65.49
255/140	1.40	4.88	6.12	570.66	45.29	2.71	44.14	44.14
255/150	1.50	5.23	6.56	610.24	48.52	2.72	47.24	47.24
255/160	1.60	5.57	6.95	650.62	51.76	2.72	50.33	50.33
255/180	1.80	6.26	7.81	730.58	58.79	2.73	56.52	56.52
255/200	2.00	7.03	8.77	811.76	65.32	2.76	62.80	62.80
255/250	2.50	8.59	10.72	1008.02	84.42	2.78	77.98	77.98
255/300	3.00	10.26	13.08	1209.62	101.30	2.81	93.57	93.57
285/150	1.50	5.64	7.03	798.57	49.01	2.61	55.33	55.33
285/160	1.60	5.99	7.48	850.73	52.26	2.62	58.94	58.94
285/180	1.80	6.70	8.36	955.05	58.80	2.64	66.17	66.17
285/200	2.00	7.41	9.25	1059.37	65.96	2.66	73.40	73.40
285/230	2.30	8.50	10.61	1215.18	76.95	2.68	84.19	84.19
285/250	2.50	9.20	11.48	1318.61	84.43	2.69	91.36	91.36
285/300	3.00	11.20	13.98	1582.33	101.31	2.72	109.63	109.63

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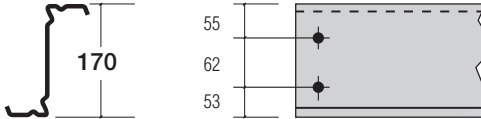
Dim. A	Dim. B	Dim. C	Dim. D	Dim. E
145	67.5	61.5	15.5	14.0



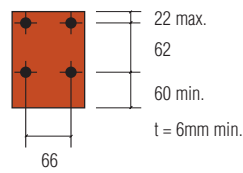
Dim. F	Dim. G	Dim. H
90	9.75	37



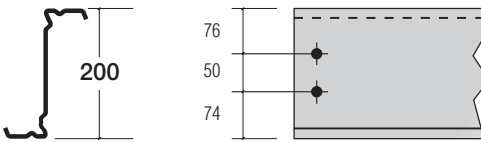
Dim. A	Dim. B	Dim. C	Dim. D	Dim. E
170	67.5	61.5	15.5	14.0



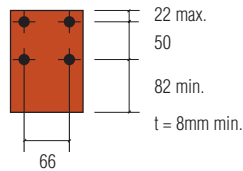
Dim. F	Dim. G	Dim. H
115	9.75	62



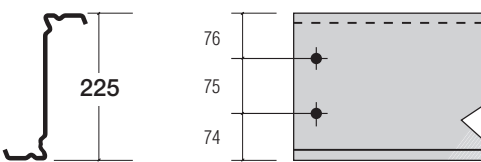
Dim. A	Dim. B	Dim. C	Dim. D	Dim. E
200	76.0	71.0	18.5	17.5



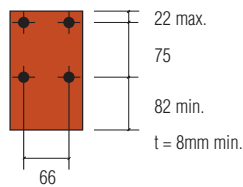
Dim. F	Dim. G	Dim. H
100	13.0	50



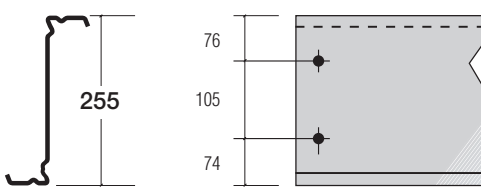
Dim. A	Dim. B	Dim. C	Dim. D	Dim. E
225	76.0	71.0	18.5	17.5



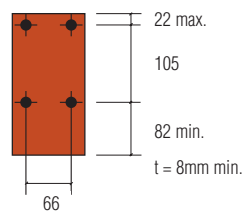
Dim. F	Dim. G	Dim. H
125	13.0	75



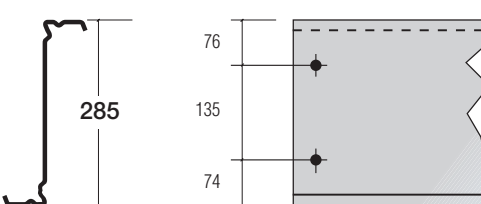
Dim. A	Dim. B	Dim. C	Dim. D	Dim. E
255	76.0	71.0	18.5	17.5



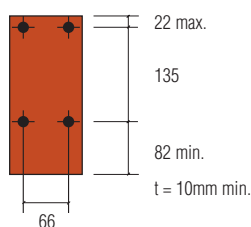
Dim. F	Dim. G	Dim. H
155	13.0	105



Dim. A	Dim. B	Dim. C	Dim. D	Dim. E
285	76.0	71.0	18.5	17.5

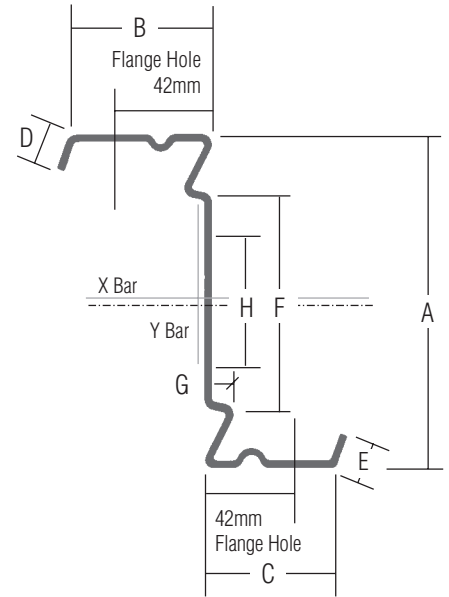


Dim. F	Dim. G	Dim. H
185	13.0	135



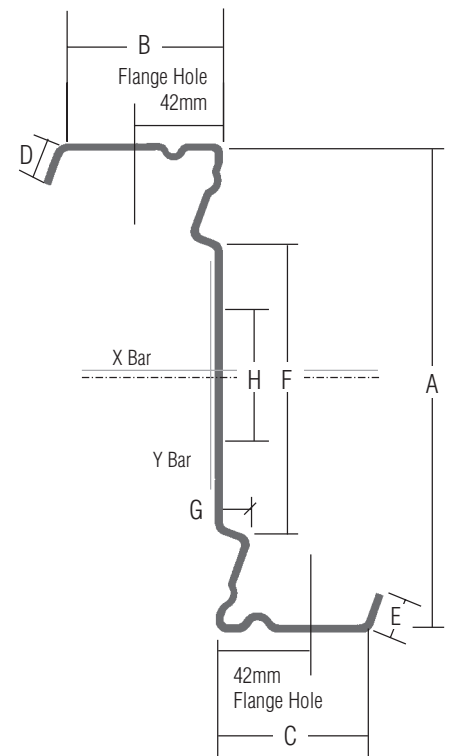
DIMENSIONS

Series 145 - 170



ALL HOLES 14 Dia. FOR M12 BOLTS

Series 200 - 285



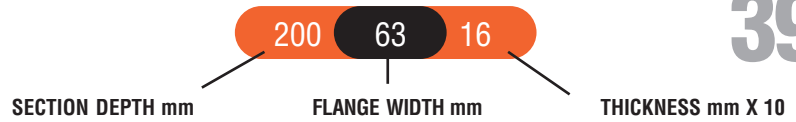
ALL HOLES 14 Dia. FOR M12 BOLTS

UltraZED

Quality steel to BS EN 10326: 2004 S390GD+Z275-N-A-C. Pre-hot dipped galvanised to BSEN 10147: 1995. Coating Z275.

All dimensions in mm. Drawings not to scale.

SECTION PROPERTIES



Section Reference	t (mm)	Mass (kg/m)	Area (cm ²)	I _{xx} (cm ⁴)	I _{yy} (cm ⁴)	R _{xx} (cm)	R _{yy} (cm)	Z _{xx} (cm ³)	Z _{yy} (cm)	Z _{xx} (cm ³)	C _y (mm)	Q Factor	C _x (mm)	esXCG (mm)	es J (mm)
1455012	1.20	2.51	3.19	97.31	9.13	5.61	1.72	13.42	2.56	12.98	13.76	0.86	72.50	14.99	1.23
1455013	1.30	2.71	3.45	105.30	9.84	5.61	1.72	14.52	2.77	14.29	13.76	0.89	72.50	14.93	1.17
1455014	1.40	2.91	3.71	113.23	10.54	5.61	1.71	15.62	2.97	15.51	13.77	0.91	72.50	14.80	1.03
1455016	1.60	3.31	4.21	128.89	11.91	5.60	1.70	17.78	3.36	17.78	13.78	0.94	72.50	14.52	0.74
1455018	1.80	3.70	4.72	144.31	13.22	5.59	1.69	19.90	3.74	19.90	13.79	0.96	72.50	14.27	0.48
1455020	2.00	4.09	5.21	159.47	14.50	5.59	1.68	22.00	4.12	22.00	13.80	0.98	72.50	14.07	0.27
1705012	1.20	2.74	3.49	142.03	9.59	6.48	1.69	16.71	2.61	16.18	12.63	0.79	85.00	14.95	2.32
1705013	1.30	2.96	3.78	153.74	10.34	6.48	1.68	18.09	2.82	17.81	12.63	0.81	85.00	14.93	2.30
1705014	1.40	3.18	4.06	165.36	11.07	6.48	1.68	19.45	3.02	19.32	12.64	0.83	85.00	14.78	2.14
1705016	1.60	3.62	4.61	188.36	12.51	6.47	1.67	22.16	3.42	22.16	12.65	0.86	85.00	14.53	1.88
1705018	1.80	4.06	5.17	211.03	13.89	6.46	1.66	24.83	3.81	24.83	12.67	0.89	85.00	14.14	1.47
1705020	2.00	4.49	5.71	238.12	15.54	6.45	1.65	28.01	4.19	28.01	12.68	0.91	85.00	13.81	1.13
2006312	1.20	3.35	4.27	242.73	18.78	7.67	2.13	24.27	4.07	21.71	16.27	0.77	100.00	17.61	1.34
2006313	1.30	3.62	4.62	262.90	20.28	7.66	2.13	26.29	4.40	24.07	16.27	0.79	100.00	17.71	1.44
2006314	1.40	3.90	4.96	282.95	21.75	7.66	2.12	28.30	4.73	26.63	16.28	0.82	100.00	17.84	1.56
2006316	1.60	4.43	5.65	322.69	24.64	7.65	2.11	32.27	5.37	31.47	16.29	0.87	100.00	17.83	1.54
2006318	1.80	4.97	6.33	361.97	27.46	7.65	2.11	36.20	6.00	35.93	16.31	0.90	100.00	17.68	1.37
2006320	2.00	5.50	7.01	400.77	30.20	7.64	2.10	40.08	6.64	40.08	16.32	0.92	100.00	17.49	1.17
2006325	2.50	6.78	8.63	495.75	36.72	7.64	2.08	49.58	8.09	49.58	16.34	0.97	100.00	16.90	0.56
2256314	1.40	4.17	5.31	374.92	22.52	8.52	2.09	33.33	4.79	31.40	15.25	0.77	112.50	17.78	2.53
2256316	1.60	4.75	6.05	427.74	25.52	8.52	2.08	38.02	5.44	37.11	15.27	0.81	112.50	17.81	2.54
2256318	1.80	5.32	6.78	479.98	28.43	8.51	2.07	42.66	6.07	42.34	15.28	0.84	112.50	17.69	2.41
2256320	2.00	5.89	7.51	531.64	31.27	8.50	2.06	47.26	6.70	47.26	15.30	0.86	112.50	17.47	2.17
2256323	2.30	6.71	8.55	608.03	35.39	8.50	2.05	54.05	7.60	54.05	15.31	0.89	112.50	17.01	1.70
2256325	2.50	7.27	9.26	658.24	38.04	8.50	2.04	58.51	8.19	58.51	15.32	0.91	112.50	16.69	1.37
2557514	1.40	4.83	6.15	569.36	38.82	9.76	2.55	44.66	6.97	39.45	18.59	0.68	127.50	21.95	3.36
2557515	1.50	5.16	6.58	609.82	41.46	9.76	2.54	47.83	7.45	43.25	18.60	0.70	127.50	22.13	3.53
2557516	1.60	5.50	7.01	650.09	44.08	9.75	2.54	50.99	7.93	47.17	18.61	0.73	127.50	22.16	3.55
2557518	1.80	6.17	7.86	730.05	49.22	9.75	2.53	57.26	8.87	54.88	18.62	0.77	127.50	22.32	3.70
2557520	2.00	6.77	8.62	809.26	54.26	9.74	2.52	63.47	9.80	62.18	18.63	0.80	127.50	22.16	3.53
2557523	2.30	7.80	9.93	926.64	61.60	9.74	2.51	72.68	11.16	72.68	18.63	0.83	127.50	21.83	3.20
2557525	2.50	9.74	10.75	1003.96	66.36	9.74	2.50	78.74	12.04	78.74	18.66	0.85	127.50	21.59	2.93
2557530	3.00	10.04	12.79	1193.99	77.79	9.73	2.48	93.65	14.19	93.65	18.69	0.89	127.50	20.74	2.05
2857515	1.50	5.52	7.03	795.37	42.77	10.78	2.50	55.82	7.51	50.72	17.46	0.66	142.50	22.04	4.58
2857516	1.60	5.88	7.49	848.00	45.47	10.78	2.50	59.51	8.01	55.25	17.47	0.68	142.50	22.13	4.66
2857518	1.80	6.59	8.40	952.58	50.78	10.77	2.49	66.85	8.97	64.18	17.48	0.72	142.50	22.32	4.84
2857520	2.00	7.24	9.22	1056.22	55.97	10.76	2.48	74.12	9.91	72.65	17.50	0.75	142.50	22.18	4.68
2857523	2.30	8.34	10.62	1209.94	63.55	10.76	2.47	84.91	11.28	84.91	17.51	0.78	142.50	21.83	4.32
2857525	2.50	9.03	11.50	1311.26	68.46	10.76	2.46	92.02	12.18	92.02	17.52	0.81	142.50	21.52	4.00
2857530	3.00	10.75	13.69	1560.54	80.26	10.75	2.44	109.51	14.35	109.51	17.56	0.83	142.50	20.76	3.20
3057515	1.50	5.75	7.33	936.15	43.56	11.46	2.47	61.39	7.58	55.95	16.77	0.63	152.50	22.05	5.28
3057516	1.60	6.13	7.81	998.19	46.30	11.45	2.47	65.46	8.06	60.91	16.78	0.66	152.50	22.11	5.33
3057518	1.80	6.87	8.76	1121.46	51.71	11.44	2.46	73.54	9.02	70.69	16.80	0.69	152.50	22.26	5.46
3057520	2.00	7.55	9.62	1243.68	57.00	11.44	2.45	81.55	9.97	79.97	16.82	0.72	152.50	21.98	5.16
3057523	2.30	8.70	11.08	1425.03	64.71	11.44	2.44	93.44	11.35	93.27	16.82	0.75	152.50	21.89	5.07
3057525	2.50	9.42	12.00	1544.62	69.72	11.44	2.43	101.29	12.25	101.29	16.84	0.76	152.50	21.53	4.69
3057530	3.00	11.22	14.29	1839.02	81.73	11.42	2.41	120.59	14.44	120.59	16.88	0.80	152.50	20.76	3.88
2009018	1.80	5.73	7.30	455.30	68.02	7.98	3.09	45.53	10.72	40.16	25.66	0.82	100.00	25.73	0.07
2009020	2.00	6.35	8.09	514.81	76.58	7.98	3.08	51.48	11.85	47.82	25.69	0.88	100.00	25.90	0.21
2009025	2.50	7.84	9.98	625.29	92.03	7.98	3.06	62.53	14.59	61.73	25.68	0.95	100.00	26.05	0.37
2559018	1.80	6.51	8.29	801.65	73.25	9.94	3.01	62.87	11.03	65.08	22.71	0.72	127.50	25.70	2.99
2559020	2.00	7.21	9.19	888.84	80.83	9.94	3.00	69.71	12.19	64.49	22.71	0.76	127.50	25.80	3.09
2559025	2.50	8.91	11.36	1103.38	99.13	9.94	2.98	86.54	15.01	85.41	22.72	0.84	127.50	25.81	3.09

EAVES BEAM SECTIONS

2009018	1.80	5.73	7.30	455.30	68.02	7.98	3.09	45.53	10.72	40.16	25.66	0.82	100.00	25.73	0.07
2009020	2.00	6.35	8.09	514.81	76.58	7.98	3.08	51.48	11.85	47.82	25.69	0.88	100.00	25.90	0.21
2009025	2.50	7.84	9.98	625.29	92.03	7.98	3.06	62.53	14.59	61.73	25.68	0.95	100.00	26.05	0.37
2559018	1.80	6.51	8.29	801.65	73.25	9.94	3.01	62.87	11.03	65.08	22.71	0.72	127.50	25.70	2.99
2559020	2.00	7.21	9.19	888.84	80.83	9.94	3.00	69.71	12.19	64.49	22.71	0.76	127.50	25.80	3.09
2559025	2.50	8.91	11.36	1103.38	99.13	9.94	2.98	86.54	15.01	85.41	22.72	0.84	127.50	25.81	3.09

UltraBEAM Quality steel to BS EN 10326: 2004 S390GD+Z275-N-A-C.

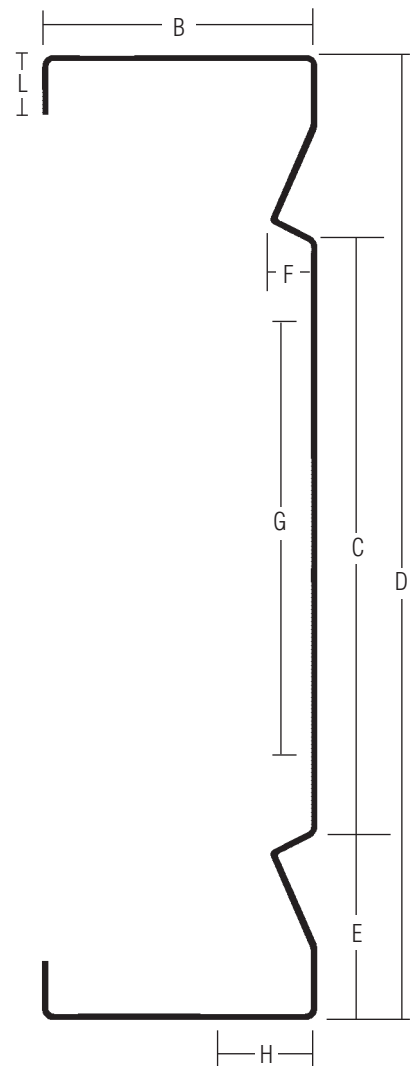
Pre-hot dipped galvanised to BSEN 10147: 1995. Coating Z275.

All dimensions in mm. Drawings not to scale.

DIMENSIONS

SERIES 145 - 305

Dim. D	Dim. B	Dim. C	Dim. L	Dim. E	Dim. F	Dim. G	Dim. H
145	50	75	12	35	9	37	25
170	50	100	12	35	9	62	25
200	63	100	14	50	12.5	50	42
225	63	125	14	50	12.5	75	42
255	75	155	17	50	12.5	105	42
285	75	185	17	50	12.5	135	42
305	75	205	17	50	12.5	155	42
200	90	100	20	50	12.5	50	42
255	90	155	20	50	12.5	105	42



ALL HOLES 14 Dia. FOR GRADE 8.8 M12 BOLTS
 All dimensions in mm. Drawings not to scale.

Roof **UltraZED** ROOF PURLINS

The loads shown are valid when the Purlins are fixed in the manner described within the current systems manual.

The tabulated loads are those which may be applied, the self weight has already been deducted.

These tables only apply when full lateral restraint is afforded to the Purlin top flange.

WIND UPLIFT

Reference should be made to our current systems manual for correct Purlin Tie orientation and recommendations.

NORMAL IMPOSED ROOF LOADS

Normal imposed roof loads where no general access is available to the roof - reference should be made to BS6399: Part 3: 1988 for "on plan" loads and direct conditions.

PAGES 7 - 13

OTHER CONDITIONS

For roof slopes over 30°, unrestrained Purlins and other deflection criteria our **UltraPRO**. computer design software should be utilised.

Alternatively contact our Technical Department for assistance.

Side **UltraZED/UltraBEAM** SIDE RAILS

The loads shown are valid only when the Side Rails are fixed in the manner described in the current systems manual.

The capacities given in the following tables assume full lateral restraint is afforded to the Side Rail by the cladding.

The values shown are for horizontal wind load. For wind suction (negative) loads, tabulated loads should be multiplied by 0.9.

The tables are based on the number of rows of Side Rail Supports being as shown in our current systems manual.

PAGES 14 - 21

Side Rails may be selected from either the working loads or where the load factor is other than 1.4 by using the ultimate load figures.

Floor **UltraBEAM** FLOOR BEAMS

System load tables are valid for **UltraBEAM** Floor Beam Sections only when fixed in accordance with the methods described in the current systems manual.

Opposing pairs of Beams are to be restrained with a Tie Bar or Tubular Strut at mid span on ALL spans PRIOR to the laying of floor decking.

Decking material should be fixed using self tapping screws or similar with reference to the manufacturers recommendations and must provide adequate restraint to the section top flange.

Screw fixing centres should not exceed 1000mm.

Floor loading is to be distributed uniformly over the full length of the section - where point loads occur please consult our Technical Department.

PAGES 22 - 24

Tabulated loads are safe working loads determined by reducing the ultimate load capacity of the **UltraBEAM** Section by a factor of 1.6 or by limiting deflection as stated.

The section self weight has already been allowed for.

Eaves **UltraBEAM** EAVES BEAMS

In all cases the working load tables as published require the Eaves Beam to be connected to the first Purlin by an Eaves Brace which acts to limit rotation

of the Eaves Beam and to transmit Horizontal Wind Load through the diaphragm action of the roof.

SEE BELOW

1 x Eaves Brace at mid-span up to 6.1 metres.

2 x Eaves Braces at 1/3 & 2/3 points over 6.1 metres.

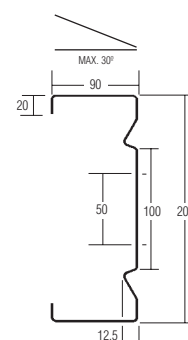
SINGLE SPANNING EAVES BEAM WORKING LOADS (kN UDL)

SECTION	Kg/m	SPAN IN METRES									
		4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0
2009018	5.73	17.40	15.66	13.16	11.06	9.43	-	-	-	-	-
2009020	6.35	20.72	18.01	14.89	12.51	10.66	-	-	-	-	-
2009025	7.84	26.75	21.88	18.08	15.19	12.94	11.16	-	-	-	-
2559018	6.51	-	25.38	23.07	19.48	16.60	14.31	12.47	-	-	-
2559020	7.21	-	25.15	22.86	20.96	18.40	15.87	13.82	12.15	-	-
2559025	8.91	-	33.31	30.28	26.81	22.84	19.70	17.16	15.08	13.36	11.91

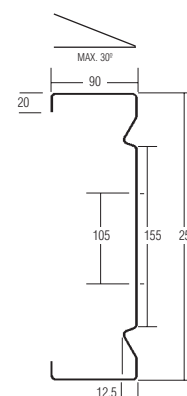
● BASED UPON MAXIMUM HORIZONTAL WIND LOAD OF 1kN/m. RUN.

● VERTICAL DEFLECTION BASED ON SPAN/180.

200



255



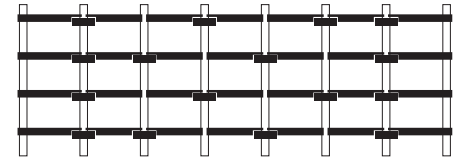
390 SLEEVED SYSTEM

This is the most commonly used Purlin System. It provides a cost effective roofing solution to many building designs including the more complex. The sheeting line is easily varied by using a combination of Purlin depths and extended Cleats. The single spanning lengths, combined with simple fabricated Cleats, contribute to flexibility and to simplification of site handling logistics.

Sleeves required at every joint on the penultimate rafter and alternate joints thereafter.

Sections can be supplied as double spanning lengths if required.

Roof



Span	Section Ref.	Weight kg / m	Working Load Max. Span/180 kN / Span	Ultimate Capacities			
				Download kN / Span	Wind Uplift kN / Span		
				No. Purlin Ties			
				0	1	2	
4.00	145/120	3.07	11.47	18.35	18.35	18.35	18.35
	145/130	3.32	12.58	20.14	20.14	20.14	20.14
4.50	145/120	3.07	9.96	16.26	16.26	16.26	16.26
	145/130	3.32	10.81	17.85	17.85	17.85	17.85
	170/120	3.17	12.09	19.34	17.40	19.34	19.34
	170/130	3.43	13.11	20.97	18.87	20.97	20.97
5.00	145/120	3.07	8.22	14.59	14.59	14.59	14.59
	145/130	3.32	8.92	16.01	16.01	16.01	16.01
	170/120	3.17	10.85	17.36	15.62	17.36	17.36
	170/130	3.43	11.76	18.82	16.94	18.82	18.82
	200/120	3.67	14.44	23.11	18.49	23.11	23.11
5.50	145/120	3.07	6.90	13.22	13.22	13.22	13.22
	145/130	3.32	7.49	14.51	14.51	14.51	14.51
	170/120	3.17	9.83	15.73	14.16	15.73	15.73
	170/130	3.43	10.66	17.06	15.35	17.06	17.06
	200/120	3.67	13.10	20.96	16.76	20.96	20.96
6.00	145/120	3.07	5.88	12.07	12.07	12.07	12.07
	145/130	3.32	6.38	13.25	13.25	13.25	13.25
	170/120	3.17	8.42	14.37	12.93	14.37	14.37
	170/130	3.43	9.12	15.59	14.03	15.59	15.59
	170/140	3.69	9.83	16.80	15.12	16.80	16.80
	200/120	3.67	11.97	19.15	15.32	19.15	19.15
	200/130	3.97	13.10	20.96	16.77	20.96	20.96
	200/140	4.27	14.22	22.80	18.24	22.80	22.80
	200/150	4.57	15.22	24.67	19.74	24.67	24.67
	225/130	4.22	15.44	24.71	19.77	24.71	24.71
6.50	200/120	3.67	10.55	17.63	12.69	17.63	17.63
	200/130	3.97	11.42	19.29	13.89	19.29	19.29
	200/140	4.27	12.29	20.98	15.11	20.98	20.98
	225/130	4.22	14.21	22.74	16.37	22.74	22.74
	225/140	4.54	15.46	24.74	17.81	24.74	24.74
	225/150	4.86	16.74	26.78	19.28	26.78	26.78
	255/140	4.88	18.46	29.54	21.27	29.54	29.54
	255/150	5.23	19.97	31.96	23.01	31.96	31.96
7.00	200/140	4.27	10.73	19.42	12.04	19.42	19.42
	225/130	4.22	12.85	21.05	13.05	21.05	21.05
	225/140	4.54	13.82	22.90	14.20	22.90	22.90
	225/150	4.86	14.80	24.79	15.37	24.79	24.79
	225/160	5.18	15.77	26.71	16.56	26.71	26.71
	255/140	4.88	17.10	27.35	16.96	27.35	27.35
	255/150	5.23	18.50	29.60	18.35	29.60	29.60
	255/160	5.57	19.92	31.88	19.77	31.88	31.88
	285/150	5.64	21.70	34.72	21.52	34.72	34.72
	285/160	5.99	23.37	37.39	23.18	37.39	37.39
	285/180	6.70	26.40	42.24	26.19	42.24	42.24

Span	Section Ref.	Weight kg / m	Working Load Max. Span/180 kN / Span	Ultimate Capacities			
				Download kN / Span	Wind Uplift kN / Span		
				No. Purlin Ties			
				0	1	2	
7.50	225/130	4.22	11.33	19.59	10.19	19.59	19.59
	225/140	4.54	12.19	21.31	11.08	21.31	21.31
	225/150	4.86	13.05	23.06	11.99	23.06	23.06
	225/160	5.18	13.91	24.85	12.92	24.85	24.85
	255/140	4.88	15.91	25.46	13.24	25.46	25.46
	255/150	5.23	17.12	27.54	14.32	27.54	27.54
	255/160	5.57	18.24	29.67	15.43	29.67	29.67
	255/180	6.26	20.49	33.52	17.43	33.52	33.52
	285/150	5.64	20.20	32.32	16.81	32.32	32.32
	8.00	255/140	4.88	14.22	23.79	-	22.47
255/150		5.23	15.22	25.74	-	24.31	25.74
255/160		5.57	16.22	27.73	-	26.19	27.73
255/180		6.26	18.23	31.33	-	29.59	31.33
285/150		5.64	18.88	30.21	-	28.53	30.21
285/160		5.99	20.34	32.54	-	30.73	32.54
285/180		6.70	22.98	36.76	-	34.71	36.76
285/200		7.41	25.49	40.78	-	38.51	40.78
8.50	255/160	5.57	14.53	26.01	-	23.73	26.01
	255/180	6.26	16.32	29.40	-	26.81	29.40
	255/200	7.03	18.13	32.65	-	29.78	32.65
	285/150	5.64	17.31	28.35	-	25.86	28.35
	285/160	5.99	18.45	30.54	-	27.85	30.54
	285/180	6.70	20.72	34.50	-	31.47	34.50
	285/200	7.41	22.99	38.27	-	34.91	38.27
	285/230	8.50	26.38	43.90	-	40.04	43.90
	285/250	9.20	28.64	47.64	-	43.45	47.64
	285/300	11.20	34.36	57.14	-	52.12	57.14
9.00	255/180	6.26	14.70	27.67	-	24.35	27.67
	255/200	7.03	16.34	30.73	-	27.04	30.73
	285/150	5.64	15.61	26.69	-	23.49	26.69
	285/160	5.99	16.63	28.75	-	25.30	28.75
	285/180	6.70	18.68	32.48	-	28.58	32.48
	285/200	7.41	20.72	36.03	-	31.71	36.03
	285/230	8.50	23.78	41.33	-	36.37	41.33
	285/250	9.20	25.81	44.85	-	39.47	44.85
	285/300	11.20	30.98	53.80	-	47.34	53.80
	9.50	285/180	6.70	16.93	30.67	-	26.99
285/200		7.41	18.78	34.02	-	29.94	34.02
285/230		8.50	21.55	39.02	-	34.34	39.02
285/250		9.20	23.40	42.35	-	37.27	42.35
285/300		11.20	28.08	50.79	-	44.70	50.79
SRS STRUTS							
10.00	285/200	7.41	17.11	32.21	-	25.77	32.21
	285/230	8.50	19.63	36.94	-	29.55	36.94
	285/250	9.20	21.31	40.09	-	32.07	40.09
	285/300	11.20	25.57	48.08	-	38.47	48.08
10.50	285/200	7.41	15.65	30.56	-	24.45	30.56
	285/230	8.50	17.96	35.05	-	28.04	35.05
	285/250	9.20	19.49	38.04	-	30.43	38.04
	285/300	11.20	23.39	45.62	-	36.50	45.62
11.00	285/230	8.50	16.49	33.33	-	26.66	33.33
	285/250	9.20	17.90	36.17	-	28.94	36.17
	285/300	11.20	21.48	43.38	-	34.70	43.38

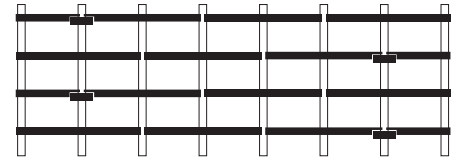
Roof

If Double Spanning Purlins are preferred, this system offers the best solution.

The virtual elimination of sleeves offers savings in component parts and consequently site erection time.

390

DOUBLE SPANNING BUTT-JOINED SYSTEM

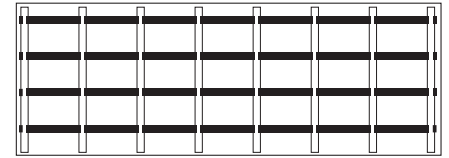


Span	Section Ref.	Weight kg /m	Working Load Max. Span/180 kN / Span	Ultimate Capacities		
				Download kN / Span	Wind Uplift kN / Span	No. Purlin Ties
				0	1	2
4.00	145/120	3.07	11.00	17.61	17.61	17.61
	145/130	3.32	11.94	19.11	19.11	19.11
	170/120	3.17	12.57	20.11	18.10	20.11
	170/130	3.43	13.63	21.81	19.63	21.81
	170/140	3.69	14.69	23.51	21.15	23.51
4.50	145/120	3.07	9.75	15.61	15.61	15.61
	145/130	3.32	10.59	16.94	16.94	16.94
	170/120	3.17	11.14	17.83	16.04	17.83
	170/130	3.43	12.08	19.33	17.40	19.33
	170/140	3.69	13.02	20.84	18.75	20.84
	200/120	3.67	15.44	24.70	19.76	24.70
	200/130	3.97	16.71	26.73	21.38	26.73
	200/140	4.27	17.97	28.76	23.01	28.76
	200/150	4.57	19.23	30.77	24.62	30.77
	5.00	145/120	3.07	8.75	14.00	14.00
145/130		3.32	9.50	15.19	15.19	15.19
170/120		3.17	10.00	16.00	14.40	16.00
170/130		3.43	10.84	17.35	15.61	17.35
170/140		3.69	11.69	18.70	16.83	18.70
200/120		3.67	13.86	22.18	17.74	22.18
200/130		3.97	15.00	24.00	19.20	24.00
200/140		4.27	16.14	25.82	20.66	25.82
200/150		4.57	17.27	27.63	22.10	27.63
5.50		145/120	3.07	7.93	12.68	12.68
	145/130	3.32	8.60	13.76	13.76	13.76
	170/120	3.17	9.06	14.49	13.04	14.49
	170/130	3.43	9.82	15.72	14.15	15.72
	170/140	3.69	10.59	16.94	15.25	16.94
	200/120	3.67	12.57	20.11	16.09	20.11
	200/130	3.97	13.60	21.76	17.41	21.76
	200/140	4.27	14.63	23.41	18.73	23.41
	200/150	4.57	15.65	25.05	20.04	25.05
	225/130	4.22	16.03	25.64	20.51	25.64
	225/140	4.54	17.24	27.58	22.07	27.58
	6.00	145/120	3.07	7.24	11.58	11.58
145/130		3.32	7.85	12.57	12.57	12.57
170/120		3.17	8.27	13.24	11.91	13.24
170/130		3.43	8.97	14.36	12.92	14.36
170/140		3.69	9.67	15.48	13.93	15.48
200/120		3.67	11.48	18.38	14.70	18.38
200/130		3.97	12.43	19.88	15.91	19.88
200/140		4.27	13.37	21.39	17.11	21.39
200/150		4.57	14.31	22.89	18.31	22.89
225/130		4.22	14.65	23.44	18.75	23.44
225/140		4.54	15.76	25.22	20.17	25.22
225/150		4.86	16.87	26.99	21.59	26.99
255/140		4.88	18.81	30.10	24.08	30.10
255/150		5.23	20.13	32.21	25.77	32.21

Span	Section Ref.	Weight kg /m	Working Load Max. Span/180 kN / Span	Ultimate Capacities		
				Download kN / Span	Wind Uplift kN / Span	No. Purlin Ties
				0	1	2
6.50	170/120	3.17	7.61	12.17	8.76	12.17
	170/130	3.43	8.25	13.20	9.51	13.20
	170/140	3.69	8.89	14.23	10.25	14.23
	200/120	3.67	10.57	16.91	12.17	16.91
	200/130	3.97	11.43	18.29	13.17	18.29
	200/140	4.27	12.30	19.68	14.17	19.68
	200/150	4.57	13.16	21.06	15.16	21.06
	225/130	4.22	13.48	21.57	15.53	21.57
	225/140	4.54	14.51	23.21	16.71	23.21
	225/150	4.86	15.53	24.84	17.89	24.84
	255/140	4.88	17.32	27.71	19.95	27.71
	255/150	5.23	18.53	29.65	21.35	29.65
	255/160	5.57	19.75	31.60	22.75	31.60
7.00	200/140	4.27	11.38	18.21	11.29	18.21
	200/150	4.57	12.18	19.49	12.08	19.49
	225/130	4.22	12.48	19.97	12.38	19.97
	225/140	4.54	13.43	21.48	13.32	21.48
	225/150	4.86	14.37	23.00	14.26	23.00
	225/160	5.18	15.32	24.50	15.19	24.50
	255/140	4.88	16.04	25.66	15.91	25.66
	255/150	5.23	17.16	27.46	17.02	27.46
	255/160	5.57	18.29	29.26	18.14	29.26
	255/180	6.26	20.53	32.85	20.37	32.85
	285/150	5.64	20.13	32.21	19.97	32.21
	285/160	5.99	21.45	34.32	21.28	34.32
	7.50	200/140	4.27	10.58	16.93	8.81
200/150		4.57	11.32	18.12	9.42	18.12
225/130		4.22	11.61	18.57	9.66	18.57
225/140		4.54	12.49	19.98	10.39	19.98
225/150		4.86	13.37	21.39	11.12	21.39
225/160		5.18	14.25	22.79	11.85	22.79
255/140		4.88	14.92	23.87	12.41	23.87
255/150		5.23	15.97	25.55	13.28	25.55
255/160		5.57	17.01	27.22	14.16	27.22
285/150		5.64	18.74	29.98	15.59	29.98
285/160		5.99	19.96	31.94	16.61	31.94
285/180		6.70	22.41	35.86	18.65	35.86
8.00		225/130	4.22	10.84	17.35	-
	225/140	4.54	11.66	18.66	-	17.62
	225/150	4.86	12.49	19.98	-	18.87
	225/160	5.18	13.31	21.29	-	20.10
	255/140	4.88	13.94	22.31	-	21.06
	255/150	5.23	14.92	23.87	-	22.54
	255/160	5.57	15.90	25.44	-	24.02
	285/150	5.64	17.51	28.02	-	26.46
	285/160	5.99	18.66	29.85	-	28.19
	285/180	6.70	20.95	33.52	-	31.65
	285/200	7.41	23.24	37.18	-	35.11
285/230	8.50	26.66	42.65	-	40.27	
285/250	9.20	28.93	46.28	-	43.71	
285/300	11.20	34.70	55.52	-	52.43	

For roof structures containing short spans or no continuity of the purlin line, this system is eminently suitable.

It is economical, easily detailed and allows a variety of Purlin depths to be used, either over the rafters or between rafter webs.



Span	Section Ref.	Weight kg/m	Working Load Max. Span/180 kN / Span	Ultimate Capacities		
				Download kN / Span	Wind Uplift kN / Span	
				0	1	2
4.00	145/120	3.07	6.84	13.18	13.18	13.18
	145/130	3.32	7.43	14.30	14.30	14.30
	170/120	3.17	9.95	16.33	14.70	16.33
	170/130	3.43	10.82	17.71	15.94	17.71
	170/140	3.69	11.70	19.09	17.18	19.09
4.50	145/120	3.07	5.41	11.67	11.67	11.67
	145/130	3.32	5.87	12.66	12.66	12.66
	170/120	3.17	7.86	14.47	13.02	14.47
	170/130	3.43	8.55	15.69	14.12	15.69
	170/140	3.69	9.24	16.91	15.22	16.91
	200/120	3.67	11.56	18.49	14.79	18.49
	200/130	3.97	12.50	20.01	16.00	20.01
5.00	170/120	3.17	6.37	12.97	11.68	12.97
	170/130	3.43	6.93	14.07	12.66	14.07
	170/140	3.69	7.49	15.17	13.65	15.17
	200/120	3.67	9.61	16.58	13.27	16.58
	200/130	3.97	10.40	17.95	14.36	17.95
	200/140	4.27	11.19	19.31	15.45	19.31
	200/150	4.57	11.97	20.66	16.53	20.66
5.50	200/120	3.67	7.94	15.02	12.02	15.02
	200/130	3.97	8.60	16.26	13.00	16.26
	200/140	4.27	9.25	17.49	13.99	17.49
	200/150	4.57	9.89	18.71	14.97	18.71
	225/130	4.22	11.37	19.17	15.33	19.17
	225/140	4.54	12.23	20.62	16.50	20.62
	225/150	4.86	13.09	22.07	17.66	22.07
	255/140	4.88	15.39	24.62	19.69	24.62
	255/150	5.23	16.47	26.34	21.08	26.34
	6.00	200/120	3.67	6.68	13.72	10.97
200/130		3.97	7.22	14.84	11.87	14.84
200/140		4.27	7.77	15.97	12.77	15.97
200/150		4.57	8.31	17.09	13.67	17.09
225/130		4.22	9.55	17.51	14.00	17.51
225/140		4.54	10.28	18.83	15.07	18.83
225/150		4.86	11.00	20.16	16.13	20.16
255/140		4.88	13.86	22.49	17.99	22.49
255/150		5.23	14.84	24.07	19.26	24.07

Span	Section Ref.	Weight kg/m	Working Load Max. Span/180 kN / Span	Ultimate Capacities		
				Download kN / Span	Wind Uplift kN / Span	
				0	1	2
6.50	225/130	4.22	8.14	16.10	11.59	16.10
	225/140	4.54	8.76	17.32	12.47	17.32
	225/150	4.86	9.37	18.54	13.35	18.54
	255/140	4.88	11.81	20.69	14.90	20.69
	255/150	5.23	12.64	22.14	15.94	22.14
7.00	255/160	5.57	13.47	23.59	16.99	23.59
	255/150	5.23	10.90	20.48	12.70	20.48
	255/160	5.57	11.61	21.82	13.53	21.82
	285/150	5.64	14.25	24.04	14.90	24.04
	285/160	5.99	15.19	25.61	15.88	25.61
7.50	285/180	6.70	17.05	28.76	17.83	28.76
	255/160	5.57	10.12	20.28	10.55	20.28
	255/180	6.26	11.36	22.78	11.84	22.78
	285/150	5.64	12.42	22.35	11.62	22.35
	285/160	5.99	13.23	23.81	12.38	23.81
	285/180	6.70	14.85	26.74	13.90	26.74
	285/200	7.41	16.47	29.66	15.42	29.66
	285/230	8.50	18.91	34.02	17.69	34.02
	285/250	9.20	20.50	36.92	19.20	36.92
	285/300	11.20	24.60	44.29	23.03	44.29
8.00	285/160	5.99	11.63	22.24	-	21.00
	285/180	6.70	13.05	24.97	-	23.57
	285/200	7.41	14.48	27.70	-	26.15
	285/230	8.50	16.62	31.77	-	30.00
	285/250	9.20	18.02	34.48	-	32.55
	285/300	11.20	21.63	41.35	-	39.05
8.50	285/160	5.99	10.30	20.84	-	19.01
	285/180	6.70	11.56	23.39	-	21.34
	285/200	7.41	12.82	25.95	-	23.67
	285/230	8.50	14.72	29.77	-	27.15
	285/250	9.20	15.96	32.31	-	29.47
	285/300	11.20	19.16	38.75	-	35.34
9.00	285/180	6.70	10.31	21.99	-	19.35
	285/200	7.41	11.44	24.40	-	21.47
	285/230	8.50	13.13	27.98	-	24.63
	285/250	9.20	14.24	30.37	-	26.73
	285/300	11.20	17.09	36.42	-	32.05

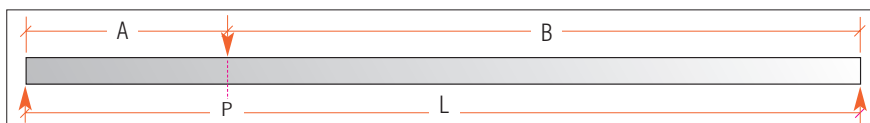
CALCULATION OF POINT LOADS (To CHECK PURLIN DESIGN WITH POINT LOADS USE UltraPRO. DESIGN SOFTWARE)

When designing Purlins to carry point loads such as suspended services the following simple beam analysis utilising working loads may be used.

1. Calculate the general design load for the Purlin as follows:-

Dead load	0.15 kN/m ²
Service load	0.15 kN/m ²
Super load	0.6 kN/m ²
Total load =	0.9 kN/m ²

If a Purlin span of 6 metres at centres of 1.8 metres is considered the total UDL for the above is:- $6 \times 1.8 \times 0.9 = 9.72 \text{ kN}$.



2. If a point load of 1.5kN is required to be supported from the web of the Purlin at a point of 2.5 metres from its end the Purlin capacity may be derived as follows:-

$$\text{Moment (M)} = \frac{P \cdot A \cdot B}{L}$$

$$M = \frac{1.5 \times 2.5 \times 3.5}{6} = 2.19 \text{ kNm}$$

3. This gives an equivalent UDL of:-

$$\frac{WL}{8} = 2.19 \text{ kNm} \text{ therefore } W = \frac{2.19 \times 8}{6} = 2.92 \text{ kN}$$

4. Total UDL applied to Purlin:-

$$9.72 + 2.92 = 12.64 \text{ kN}$$

5. From the load tables select the Purlin required, ie. from sleeved load tables select:- UltraZED section 200/130 section capacity = 13.10kN.

6. If more than one point load is to be considered repeat calculations 2 and 3 of above adding their sub totals W1 + W2 etc. to the general design UDL as in item 4.

NB:-

Deflection caused by point loads is more onerous than that caused by uniform loads.

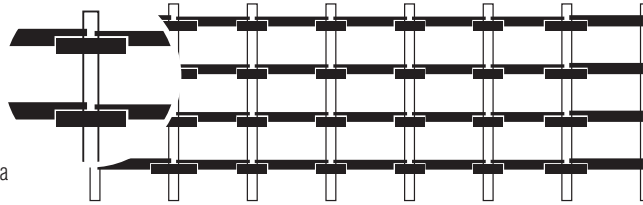
Therefore deflection should be considered whenever point loads are applied.

Where:-
P = 1.5kN .
A = 2.5 metres,
B = 3.5 metres
L = 6 metres

Roof

HEAVY END BAY SLEEVED SYSTEM - END BAY PURLINS

For uncomplicated purlin runs and where spans exceed 8 metres. Single span (standard) sleeved inner bay purlins utilised in conjunction with end bay purlins and sleeves manufactured from heavier section optimise the use of material within a sleeved system configuration.



For spans up to 8 metres, double spanning inner bay purlins may be used to reduce the number of sleeves utilised.

However when the double spanning inner bay purlins and standard sleeves are used in conjunction with end bay purlins and sleeve manufactured from heavier section the substantial increase in carrying capacity represents a reduction in cost.

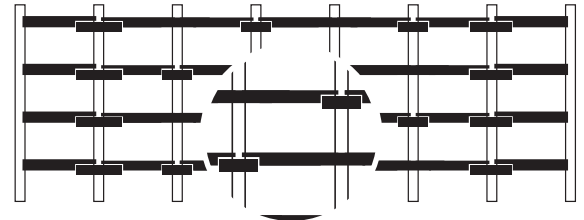
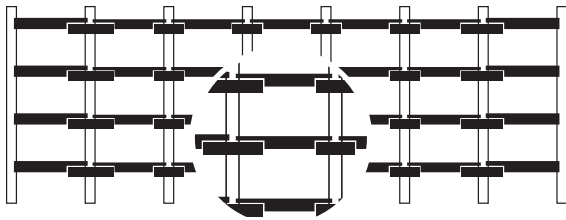
Span	Section Ref.	Weight kg/m	Working Load Max. Span/180 kN / Span	Ultimate Capacities		
				Download kN / Span	Wind Uplift kN / Span	
				No. Purlin Ties		
				0	1	2
6.00	145/180	4.54	8.84	19.10	19.10	19.10
	145/200	5.02	9.82	21.21	21.21	21.21
	170/160	4.21	11.24	19.25	17.32	19.25
	170/180	4.70	12.66	21.70	19.53	21.70
	170/200	5.28	14.06	24.10	21.69	24.10
	200/160	4.87	16.22	26.57	21.26	26.57
	200/180	5.47	18.21	30.01	24.00	30.01
	200/200	6.13	20.24	33.33	26.66	33.33
6.50	170/160	4.21	9.70	17.70	12.75	17.70
	170/180	4.70	10.93	19.96	14.37	19.96
	170/200	5.28	12.14	22.17	15.96	22.17
	200/150	4.57	13.15	22.70	16.35	22.70
	200/160	4.87	14.02	24.45	17.61	24.45
	200/180	5.47	15.74	27.62	19.88	27.62
	200/200	6.13	17.49	30.67	22.09	30.67
	225/150	4.86	16.74	26.78	19.28	26.78
225/160	5.18	18.03	28.84	20.77	28.84	
7.00	170/180	4.70	9.53	18.46	11.45	18.46
	170/200	5.28	10.59	20.50	12.71	20.50
	200/150	4.57	11.49	21.01	13.03	21.01
	200/160	4.87	12.24	22.63	14.03	22.63
	200/180	5.47	13.74	25.56	15.85	25.56
	200/200	6.13	15.27	28.39	17.60	28.39
	225/160	5.18	15.77	26.71	16.56	26.71
	225/180	5.82	17.71	30.16	18.70	30.16
225/200	6.45	19.64	33.44	20.73	33.44	
7.50	200/160	4.87	10.78	21.05	10.95	21.05
	200/180	5.47	12.11	23.77	12.36	23.77
	200/200	6.13	13.45	26.40	13.73	26.40
	225/160	5.18	13.91	24.85	12.92	24.85
	225/180	5.82	15.61	28.06	14.59	28.06
	225/200	6.45	17.32	31.11	16.18	31.11
	225/250	8.04	21.59	38.75	20.15	38.75
	255/160	5.57	18.24	29.67	15.43	29.67
	255/180	6.26	20.49	33.52	17.43	33.52
	255/200	7.03	22.77	37.24	19.37	37.24
	255/250	8.59	28.31	46.26	24.05	46.26
	8.00	225/160	5.18	12.36	23.22	-
225/180		5.82	13.87	26.22	-	24.75
225/200		6.45	15.39	29.07	-	27.45
255/160		5.57	16.22	27.73	-	26.19
255/180		6.26	18.23	31.33	-	29.59
255/200		7.03	20.25	34.81	-	32.87
255/250		8.59	25.18	43.24	-	40.83
285/180		6.70	22.98	36.76	-	34.71
285/200		7.41	25.49	40.78	-	38.51
285/230		8.50	29.24	46.78	-	44.17
285/250		9.20	31.73	50.76	-	47.94

Span	Section Ref.	Weight kg/m	Working Load Max. Span/180 kN / Span	Ultimate Capacities			
				Download kN / Span	Wind Uplift kN / Span		
				No. Purlin Ties			
				0	1	2	
8.50	225/200	6.45	13.77	27.26	-	24.87	
	225/250	8.04	17.16	33.96	-	30.97	
	255/160	5.57	14.53	26.01	-	23.73	
	255/180	6.26	16.32	29.40	-	26.81	
	255/200	7.03	18.13	32.65	-	29.78	
	255/250	8.59	22.54	40.56	-	37.00	
	285/180	6.70	20.72	34.50	-	31.47	
	285/200	7.41	22.99	38.27	-	34.91	
8.50	285/230	8.50	26.38	43.90	-	40.04	
	285/250	9.20	28.64	47.64	-	43.45	
	9.00	225/200	6.45	12.40	25.65	-	22.57
		225/250	8.04	15.45	31.95	-	28.11
255/180		6.26	14.70	27.67	-	24.35	
255/200		7.03	16.34	30.73	-	27.04	
9.50	255/250	8.59	20.31	38.18	-	33.60	
	285/180	6.70	18.68	32.48	-	28.58	
	285/200	7.41	20.72	36.03	-	31.71	
	285/230	8.50	23.78	41.33	-	36.37	
	285/250	9.20	25.81	44.85	-	39.47	
	285/300	11.20	30.98	53.80	-	47.34	
	9.50	255/250	8.59	18.39	36.04	-	31.71
		255/300	10.26	22.07	43.22	-	38.03
285/180		6.70	16.93	30.67	-	26.99	
285/200		7.41	18.78	34.02	-	29.94	
285/230		8.50	21.55	39.02	-	34.34	
285/250		9.20	23.40	42.35	-	37.27	
285/300		11.20	28.08	50.79	-	44.70	

SRS STRUTS

10.00	255/200	7.03	13.47	27.45	-	21.96
	255/250	8.59	16.74	34.10	-	27.28
	255/300	10.26	20.09	40.90	-	32.72
	285/180	6.70	15.42	29.03	-	23.23
	285/200	7.41	17.11	32.21	-	25.77
	285/230	8.50	19.63	36.94	-	29.55
	285/250	9.20	21.31	40.09	-	32.07
	285/300	11.20	25.57	48.08	-	38.47
10.50	255/250	8.59	15.30	32.35	-	25.88
	255/300	10.26	18.36	38.79	-	31.03
	285/150	5.64	11.79	22.63	-	18.10
	285/160	5.99	12.56	24.38	-	19.50
	285/200	7.41	15.65	30.56	-	24.45
	285/230	8.50	17.96	35.05	-	28.04
	285/250	9.20	19.49	38.04	-	30.43
	285/300	11.20	23.39	45.62	-	36.50
11.00	285/230	8.50	16.49	33.33	-	26.66
	285/250	9.20	17.90	36.17	-	28.94
	285/300	11.20	21.48	43.38	-	34.70
11.50	285/200	7.41	13.25	27.68	-	22.14
	285/230	8.50	15.20	31.75	-	25.40
	285/250	9.20	16.50	34.46	-	27.57
	285/300	11.20	19.80	41.32	-	33.05
12.00	285/230	8.50	14.06	30.30	-	24.24
	285/250	9.20	15.26	32.88	-	26.30
	285/300	11.20	18.31	39.42	-	31.54

HEAVY END BAY SLEEVED SYSTEM - INNER BAY PURLINS



Span	Section Ref.	Weight kg/m	Working Load Max. Span/180 kN / Span	Ultimate Capacities		
				Download kN / Span	Wind Uplift kN / Span	No. Purlin Ties
				0	1	2
6.00	145/120	3.07	7.60	15.75	15.75	15.75
	145/130	3.32	8.25	17.10	17.10	17.10
	145/140	3.57	8.89	18.43	18.43	18.43
	170/120	3.17	11.06	19.54	17.58	19.54
	170/130	3.43	12.02	21.19	19.07	21.19
	170/140	3.69	13.00	22.84	20.55	22.84
	200/120	3.67	15.60	24.96	24.96	24.96
	200/130	3.97	16.88	27.01	27.01	27.01
	200/140	4.27	18.16	29.06	29.06	29.06
	200/150	4.57	19.44	31.10	31.10	31.10
6.50	170/120	3.17	9.42	17.98	12.95	17.98
	170/130	3.43	10.24	19.51	14.04	19.51
	170/140	3.69	11.08	21.02	15.14	21.02
	200/120	3.67	14.22	22.99	16.55	22.99
	200/130	3.97	15.39	24.88	17.91	24.88
	200/140	4.27	16.55	26.76	19.27	26.76
	200/150	4.57	17.71	28.64	20.62	28.64
	225/130	4.22	18.32	29.32	21.11	29.32
	225/140	4.54	19.71	31.54	22.71	31.54
	7.00	170/120	3.17	8.12	16.65	10.32
170/130		3.43	8.83	18.06	11.20	18.06
170/140		3.69	9.55	19.47	12.07	19.47
200/120		3.67	12.26	21.29	13.20	21.29
200/130		3.97	13.27	23.04	14.28	23.04
200/140		4.27	14.27	24.79	15.37	24.79
200/150		4.57	15.27	26.52	16.44	26.52
225/130		4.22	16.97	27.16	16.84	27.16
225/140		4.54	18.26	29.22	18.12	29.22
225/150		4.86	19.55	31.28	19.39	31.28
7.50	200/120	3.67	10.68	19.82	10.30	19.82
	200/130	3.97	11.56	21.44	11.15	21.44
	200/140	4.27	12.43	23.07	12.00	23.07
	200/150	4.57	13.30	24.69	12.84	24.69
	225/130	4.22	15.29	25.28	13.15	25.28
	225/140	4.54	16.44	27.20	14.14	27.20
	225/150	4.86	17.60	29.12	15.14	29.12
	255/140	4.88	20.30	32.48	16.89	32.48
	255/150	5.23	21.72	34.76	18.07	34.76
	255/160	5.57	23.15	37.03	19.26	37.03
255/180	6.26	25.99	41.59	21.62	41.59	
8.00	225/130	4.22	13.44	23.64	-	22.32
	225/140	4.54	14.45	25.43	-	24.02
	225/150	4.86	15.47	27.22	-	25.71
	255/140	4.88	18.98	30.37	-	28.68
	255/150	5.23	20.31	32.50	-	30.69
	255/160	5.57	21.65	34.63	-	32.70
	255/180	6.26	24.31	38.89	-	36.72
	285/150	5.64	23.83	38.13	-	36.01
	285/160	5.99	25.39	40.62	-	38.36
	285/180	6.70	28.51	45.61	-	43.07
285/200	7.41	31.62	50.60	-	47.78	
8.50	225/140	4.54	12.80	23.87	-	21.77
	225/150	4.86	13.70	25.55	-	23.30
	255/140	4.88	17.27	28.51	-	26.01
	255/150	5.23	18.48	30.51	-	27.83
	255/160	5.57	19.69	32.51	-	29.65
	255/180	6.26	22.11	36.51	-	33.30
	285/150	5.64	22.38	35.80	-	32.66
	285/160	5.99	23.84	38.14	-	34.79
	285/180	6.70	26.77	42.83	-	39.06
	285/200	7.41	29.69	47.51	-	43.33

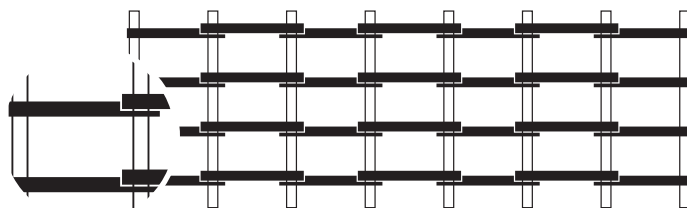
Span	Section Ref.	Weight kg/m	Working Load Max. Span/180 kN / Span	Ultimate Capacities		
				Download kN / Span	Wind Uplift kN / Span	No. Purlin Ties
				0	1	2
9.00	225/140	4.54	11.42	22.47	-	19.77
	225/150	4.86	12.22	24.05	-	21.17
	225/160	5.18	13.02	25.63	-	22.56
	255/140	4.88	15.41	26.85	-	23.63
	255/150	5.23	16.48	28.74	-	25.29
	255/160	5.57	17.56	30.62	-	26.95
	255/180	6.26	19.72	34.38	-	30.26
	285/150	5.64	21.08	33.73	-	29.68
	285/160	5.99	22.46	35.93	-	31.62
	285/180	6.70	25.22	40.34	-	35.50
285/200	7.41	27.97	44.76	-	39.38	
285/230	8.50	32.08	51.33	-	45.17	
9.50	255/140	4.88	13.83	25.37	-	22.32
	255/150	5.23	14.80	27.14	-	23.89
	255/160	5.57	15.76	28.92	-	25.45
	255/180	6.26	17.70	32.48	-	28.58
	285/150	5.64	19.35	31.87	-	28.04
	285/160	5.99	20.61	33.95	-	29.88
	285/180	6.70	23.14	38.12	-	33.54
	285/200	7.41	25.67	42.29	-	37.21
	285/230	8.50	29.46	48.50	-	42.68
	SRS STRUTS					
10.00	255/150	5.23	13.35	25.71	-	20.57
	255/160	5.57	14.23	27.39	-	21.91
	255/180	6.26	15.98	30.76	-	24.61
	285/150	5.64	17.46	30.19	-	24.15
	285/160	5.99	18.60	32.16	-	25.73
	285/180	6.70	20.88	36.11	-	28.89
285/200	7.41	23.16	40.06	-	32.05	
285/230	8.50	26.59	45.95	-	36.76	
10.50	255/150	5.23	12.11	24.40	-	19.52
	255/160	5.57	12.90	26.00	-	20.80
	255/180	6.26	14.49	29.20	-	23.36
	285/150	5.64	15.84	28.66	-	22.93
	285/160	5.99	16.87	30.54	-	24.43
	285/180	6.70	18.94	34.29	-	27.43
285/200	7.41	21.01	38.04	-	30.43	
285/230	8.50	24.11	43.63	-	34.90	
11.00	285/150	5.64	14.43	27.27	-	21.82
	285/160	5.99	15.37	29.06	-	23.25
	285/180	6.70	17.26	32.63	-	26.10
	285/200	7.41	19.14	36.19	-	28.96
	285/230	8.50	21.97	41.52	-	33.21
11.50	285/160	5.99	14.07	27.70	-	22.16
	285/180	6.70	15.79	31.11	-	24.88
	285/200	7.41	17.52	34.51	-	27.61
	285/230	8.50	20.10	39.58	-	31.66
12.00	285/180	6.70	14.50	29.71	-	23.77
	285/200	7.41	16.09	32.96	-	26.36
	285/230	8.50	18.46	37.80	-	30.24

Roof

UltraLAP SYSTEM-END BAY PURLINS

For long spans and uncomplicated Purlin runs the UltraLAP System with shorter overlap lengths optimise the inherent strength to weight ratio of UltraZED.

Easily handled single span lengths are alternately inverted and overlapped to provide a fully continuous Purlin System which offers savings in both material and site erection time.

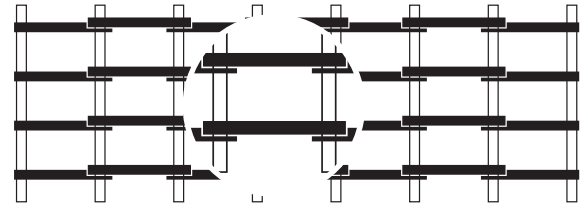


Span	Section Ref.	Weight kg /m	Working Load Max. Span/180 kN / Span	Ultimate Capacities		
				Download kN / Span	Wind Uplift kN / Span	
				No. Purlin Ties		
				0	1	2
6.00	145/160	4.05	8.46	18.96	18.96	18.96
	145/180	4.54	9.52	21.32	21.32	21.32
	145/200	5.02	10.57	23.68	23.68	23.68
	170/160	4.21	12.28	23.55	21.19	23.55
	170/180	4.70	13.85	26.54	23.89	26.54
	170/200	5.28	15.38	29.49	26.54	29.49
	170/230	6.15	17.69	33.90	30.51	33.90
6.50	170/160	4.21	10.47	21.67	15.60	21.67
	170/180	4.70	11.80	24.43	17.59	24.43
	170/200	5.28	13.11	27.14	19.54	27.14
	170/230	6.15	15.07	31.20	22.46	31.20
	200/160	4.87	15.58	27.46	19.77	27.46
	200/180	5.47	17.48	30.82	22.19	30.82
	200/200	6.13	19.42	34.23	24.65	34.23
	200/250	7.78	24.27	42.77	30.79	42.77
7.00	200/160	4.87	13.43	25.43	15.76	25.43
	200/180	5.47	15.07	28.53	17.69	28.53
	200/200	6.13	16.75	31.70	19.65	31.70
	200/250	7.78	20.93	39.60	24.55	39.60
	225/160	5.18	17.79	29.99	18.60	29.99
	225/180	5.82	19.96	33.66	20.87	33.66
	225/200	6.45	22.14	37.32	23.14	37.32
	225/250	8.04	27.57	46.49	28.82	46.49
7.50	200/180	5.47	13.13	26.55	13.81	26.55
	200/200	6.13	14.59	29.49	15.33	29.49
	200/250	7.78	18.23	36.84	19.16	36.84
	225/150	4.86	14.54	26.20	13.62	26.20
	225/160	5.18	15.49	27.91	14.52	27.91
	225/180	5.82	17.39	31.33	16.29	31.33
	225/200	6.45	19.28	34.74	18.06	34.74
	225/250	8.04	24.02	43.27	22.50	43.27
8.00	225/160	5.18	13.62	26.09	-	24.64
	225/180	5.82	15.28	29.28	-	27.65
	225/200	6.45	16.95	32.47	-	30.66
	225/250	8.04	21.11	40.44	-	38.19
	255/180	6.26	20.65	34.99	-	33.04
	255/200	7.03	22.94	38.87	-	36.70
	255/250	8.59	28.49	48.28	-	45.59
	255/300	10.26	34.18	57.91	-	54.68
8.50	255/200	7.03	20.32	36.47	-	33.27
	255/250	8.59	25.23	45.31	-	41.33
	255/300	10.26	30.28	54.34	-	49.57
	285/180	6.70	23.93	38.52	-	35.14
	285/200	7.41	26.54	42.73	-	38.98
	285/230	8.50	30.45	49.02	-	44.71
	285/250	9.20	33.04	53.20	-	48.52
	285/300	11.20	39.65	63.81	-	58.20

Span	Section Ref.	Weight kg /m	Working Load Max. Span/180 kN / Span	Ultimate Capacities		
				Download kN / Span	Wind Uplift kN / Span	
				No. Purlin Ties		
				0	1	2
9.00	255/200	7.03	18.13	34.34	-	30.22
	255/250	8.59	22.51	42.66	-	37.54
	255/300	10.26	27.01	51.16	-	45.02
	285/180	6.70	21.35	36.28	-	31.93
	285/200	7.41	23.68	40.25	-	35.42
	285/230	8.50	27.16	46.16	-	40.62
	285/250	9.20	29.47	50.10	-	44.09
9.50	255/200	7.03	16.27	32.42	-	28.53
	255/250	8.59	20.20	40.28	-	35.45
	255/300	10.26	24.24	48.31	-	42.51
	285/180	6.70	19.16	34.27	-	30.16
	285/200	7.41	21.25	38.02	-	33.45
	285/230	8.50	24.37	43.60	-	38.37
	285/250	9.20	26.45	47.32	-	41.64
10.00	255/200	7.03	15.74	31.74	-	28.53
	255/250	8.59	20.20	40.28	-	35.45
	255/300	10.26	24.24	48.31	-	42.51
	285/180	6.70	19.16	34.27	-	30.16
	285/200	7.41	21.25	38.02	-	33.45
	285/230	8.50	24.37	43.60	-	38.37
	285/250	9.20	26.45	47.32	-	41.64
10.50	255/250	8.59	18.23	38.14	-	30.51
	255/300	10.26	21.88	45.73	-	36.59
	285/180	6.70	17.29	32.45	-	25.96
	285/200	7.41	19.18	36.00	-	28.80
	285/230	8.50	22.00	41.29	-	33.04
	285/250	9.20	23.87	44.82	-	35.85
	285/300	11.20	28.65	53.75	-	43.00
11.00	285/180	6.70	15.68	30.81	-	24.64
	285/200	7.41	17.40	34.17	-	27.34
	285/230	8.50	19.95	39.20	-	31.36
	285/250	9.20	21.65	42.54	-	34.03
	285/300	11.20	25.98	51.02	-	40.82
	285/200	7.41	15.85	32.51	-	26.01
	285/230	8.50	18.18	37.29	-	29.83
11.50	285/250	9.20	19.73	40.47	-	32.37
	285/300	11.20	23.67	48.53	-	38.82
	285/230	8.50	16.63	35.53	-	28.43
	285/250	9.20	18.05	38.56	-	30.85
	285/300	11.20	21.66	46.25	-	37.00
	285/250	9.20	16.58	36.82	-	29.45
	285/300	11.20	19.89	44.15	-	35.32

SRS STRUTS

Roof



Span	Section Ref.	Weight kg / m	Working Load Max. Span/180 kN / Span	Ultimate Capacities		
				Download kN / Span	Wind Uplift kN / Span No. Purlin Ties	
				0	1	2
6.00	145/120	3.07	12.96	20.73	20.73	20.73
	145/130	3.32	14.06	22.50	22.50	22.50
	145/140	3.57	15.16	24.25	24.25	24.25
	170/120	3.17	16.05	25.69	23.12	25.69
	170/130	3.43	17.41	27.86	25.07	27.86
	170/140	3.69	18.77	30.03	27.03	30.03
	170/150	3.95	20.13	32.21	28.99	32.21
6.50	170/120	3.17	14.79	23.66	17.04	23.66
	170/130	3.43	16.04	25.66	18.48	25.66
	170/140	3.69	17.29	27.66	19.92	27.66
	170/150	3.95	18.55	29.67	21.37	29.67
	200/120	3.67	18.90	30.23	21.77	30.23
	200/130	3.97	20.45	32.72	23.56	32.72
	200/140	4.27	22.00	35.20	25.34	35.20
200/150	4.57	23.54	37.67	27.12	37.67	
7.00	200/120	3.67	17.51	28.02	17.37	28.02
	200/130	3.97	18.95	30.32	18.80	30.32
	200/140	4.27	20.39	32.62	20.22	32.62
	200/150	4.57	21.82	34.91	21.64	34.91
	225/130	4.22	22.33	35.73	22.15	35.73
	225/140	4.54	24.02	38.43	23.83	38.43
	225/150	4.86	25.71	41.14	25.51	41.14
225/160	5.18	27.40	43.84	27.18	43.84	
7.50	200/120	3.67	16.31	26.10	13.57	26.10
	200/130	3.97	17.65	28.24	14.68	28.24
	200/140	4.27	18.99	30.38	15.80	30.38
	200/150	4.57	20.32	32.51	16.90	32.51
	225/130	4.22	20.80	33.28	17.31	33.28
	225/140	4.54	22.38	35.80	18.62	35.80
	225/150	4.86	23.95	38.33	19.93	38.33
225/160	5.18	25.53	40.84	21.24	40.84	
8.00	225/130	4.22	19.46	31.14	-	29.40
	225/140	4.54	20.94	33.50	-	31.63
	225/150	4.86	22.41	35.86	-	33.86
	225/160	5.18	23.88	38.21	-	36.08
	255/140	4.88	24.99	39.98	-	37.76
	255/150	5.23	26.74	42.79	-	40.40
	255/160	5.57	28.49	45.59	-	43.05
255/180	6.26	32.00	51.20	-	48.35	
8.50	255/140	4.88	23.47	37.56	-	34.26
	255/150	5.23	25.12	40.19	-	36.66
	255/160	5.57	26.77	42.82	-	39.06
	255/180	6.26	30.06	48.09	-	43.87
	285/150	5.64	29.46	47.14	-	43.00
	285/160	5.99	31.39	50.22	-	45.81
	285/180	6.70	35.24	56.39	-	51.43
285/200	7.41	39.09	62.55	-	57.05	

Span	Section Ref.	Weight kg / m	Working Load Max. Span/180 kN / Span	Ultimate Capacities		
				Download kN / Span	Wind Uplift kN / Span No. Purlin Ties	
				0	1	2
9.00	255/140	4.88	22.12	35.40	-	31.15
	255/150	5.23	23.67	37.88	-	33.33
	255/160	5.57	25.23	40.36	-	35.52
	255/180	6.26	28.33	45.32	-	39.89
	285/150	5.64	27.77	44.44	-	39.10
	285/160	5.99	29.59	47.34	-	41.66
	285/180	6.70	33.22	53.15	-	46.77
285/200	7.41	36.85	58.96	-	51.89	
9.50	255/140	4.88	20.91	33.46	-	29.44
	255/150	5.23	22.38	35.81	-	31.51
	255/160	5.57	23.84	38.15	-	33.57
	255/180	6.26	26.78	42.84	-	37.70
	285/150	5.64	26.26	42.01	-	36.97
	285/160	5.99	27.97	44.76	-	39.39
	285/180	6.70	31.41	50.25	-	44.22
285/200	7.41	34.84	55.74	-	49.06	
SRS STRUTS						
10.00	255/140	4.88	19.82	31.71	-	25.37
	255/150	5.23	21.21	33.94	-	27.15
	255/160	5.57	22.60	36.16	-	28.93
	255/180	6.26	25.38	40.60	-	32.48
	285/150	5.64	24.89	39.82	-	31.86
	285/160	5.99	26.52	42.43	-	33.94
	285/180	6.70	29.77	47.64	-	38.11
285/200	7.41	33.03	52.84	-	42.28	
10.50	285/150	5.64	23.65	37.84	-	30.27
	285/160	5.99	25.20	40.32	-	32.25
	285/180	6.70	28.29	45.27	-	36.21
11.00	285/150	5.64	22.52	36.03	-	28.83
	285/160	5.99	23.99	38.39	-	30.71
	285/180	6.70	26.94	43.10	-	34.48
11.50	285/150	5.64	21.49	34.38	-	27.51
	285/160	5.99	22.89	36.63	-	29.30
	285/180	6.70	25.70	41.13	-	32.90
12.00	285/150	5.64	20.54	32.86	-	26.29
	285/160	5.99	21.88	35.01	-	28.01
	285/180	6.70	24.57	39.31	-	31.45

Side

The values shown are for horizontal wind load. For wind suction (negative) loads, tabulated loads should be multiplied by 0.9.

The tables are based on the number of rows of Side Rail Supports being as shown in our current systems manual.



SLEEVED SIDE RAIL SYSTEM

Span	Section Ref.	Weight kg /m	Safe Working Load kN/ Span	Ultimate Capacity kN / Span	Working Load Max. span/150 kN / Span	
4.00	145/120	3.07	14.16	19.83	13.69	
	145/130	3.32	15.38	21.54	14.86	
4.50	145/120	3.07	12.31	17.23	10.81	
	145/130	3.32	13.59	19.03	11.74	
	170/120	3.17	15.11	21.15	15.11	
	170/130	3.43	16.38	22.94	16.38	
	170/140	3.69	17.66	24.72	17.66	
5.00	145/120	3.07	10.82	15.15	8.76	
	145/130	3.32	11.98	16.77	9.51	
	170/120	3.17	13.38	18.73	12.74	
	170/130	3.43	14.71	20.59	13.85	
	170/140	3.69	15.85	22.19	14.97	
	200/120	3.67	17.86	25.00	17.86	
	200/130	3.97	19.32	27.05	19.32	
5.50	145/120	3.07	9.60	13.44	7.24	
	145/130	3.32	10.66	14.92	7.86	
	170/120	3.17	11.92	16.69	10.53	
	170/130	3.43	13.17	18.44	11.45	
	170/140	3.69	14.37	20.11	12.37	
	200/120	3.67	15.98	22.38	15.89	
	200/130	3.97	17.52	24.53	17.19	
	200/140	4.27	18.85	26.40	18.49	
	6.00	145/120	3.07	8.59	2.03	6.08
		145/130	3.32	9.56	13.38	6.60
170/120		3.17	10.71	14.99	8.85	
170/130		3.43	11.85	16.59	9.62	
170/140		3.69	13.00	18.20	10.40	
200/120		3.67	14.38	20.14	13.35	
200/130		3.97	15.84	22.18	14.45	
200/140		4.27	17.23	24.13	15.54	
200/150		4.57	18.45	25.82	16.63	
225/130		4.22	18.64	26.09	18.64	
225/140		4.54	20.31	28.44	20.31	
6.50		170/120	3.17	10.33	14.46	7.54
		170/130	3.43	11.20	15.68	8.20
	170/140	3.69	12.07	16.90	8.86	
	200/120	3.67	13.62	19.06	11.38	
	200/130	3.97	14.74	20.63	12.31	
	200/140	4.27	15.86	22.20	13.24	
	200/150	4.57	16.97	23.76	14.17	
	225/130	4.22	17.38	24.33	16.28	
	225/140	4.54	18.70	26.18	17.51	
	225/150	4.86	20.02	28.03	18.74	
	225/160	5.18	21.34	29.87	19.97	
	7.00	170/120	3.17	9.55	13.37	6.50
		170/130	3.43	10.36	14.50	7.07
170/140		3.69	11.17	15.63	7.64	
200/120		3.67	12.60	17.64	9.81	
200/130		3.97	13.64	19.09	10.61	
200/140		4.27	14.68	20.55	11.42	
200/150		4.57	15.71	21.99	12.22	
225/130		4.22	16.09	22.52	14.04	
225/140		4.54	17.31	24.24	15.10	
225/150		4.86	18.53	25.95	16.16	
225/160		5.18	19.76	27.66	17.22	
255/140		4.88	20.67	28.94	20.37	
255/150		5.23	22.13	30.98	21.80	
7.50		200/120	3.67	11.72	16.41	8.54
		200/130	3.97	12.68	17.76	9.25
	200/140	4.27	13.65	19.11	9.94	
	200/150	4.57	14.61	20.46	10.64	
	225/130	4.22	14.97	20.95	12.23	
	225/140	4.54	16.10	22.55	13.15	
	225/150	4.86	17.24	24.14	14.08	
	225/160	5.18	18.38	25.73	15.00	
	255/140	4.88	19.24	26.93	17.75	
	255/150	5.23	20.59	28.83	18.99	
	255/160	5.57	21.95	30.73	20.23	
	8.00	200/120	3.67	10.94	15.32	7.51
		200/130	3.97	11.84	16.58	8.13
200/140		4.27	12.75	17.85	8.74	
200/150		4.57	13.65	19.10	9.35	
225/130		4.22	13.98	19.57	10.75	
225/140		4.54	15.05	21.06	11.56	

Span	Section Ref.	Weight kg /m	Safe Working Load kN/ Span	Ultimate Capacity kN / Span	Working Load Max. span/150 kN / Span	
8.00	225/150	4.86	16.11	22.56	12.37	
	225/160	5.18	17.17	24.04	13.18	
	255/140	4.88	17.98	25.17	15.60	
	255/150	5.23	19.25	26.95	16.69	
	255/160	5.57	20.51	28.72	17.78	
	255/180	6.26	23.04	32.25	19.97	
	285/150	5.64	22.59	31.62	21.83	
	285/160	5.99	24.07	33.70	23.25	
	285/180	6.70	27.03	37.84	26.10	
	8.50	225/130	4.22	13.11	18.35	9.52
225/140		4.54	14.11	19.75	10.24	
225/150		4.86	15.11	21.15	10.96	
225/160		5.18	16.10	22.55	11.68	
255/140		4.88	16.87	23.61	13.82	
255/150		5.23	18.05	25.28	14.78	
255/160		5.57	19.24	26.94	15.75	
255/180		6.26	21.61	30.26	17.69	
285/150		5.64	21.20	29.67	19.34	
285/160		5.99	22.59	31.62	20.60	
285/180		6.70	25.37	35.51	23.12	
285/200		7.41	28.14	39.39	25.65	
9.00		225/130	4.22	12.33	17.27	8.49
	225/140	4.54	13.27	18.58	9.13	
	225/150	4.86	14.21	19.90	9.78	
	225/160	5.18	15.15	21.21	10.42	
	255/140	4.88	15.87	22.22	12.32	
	255/150	5.23	16.99	23.79	13.19	
	255/160	5.57	18.11	25.36	14.05	
	255/180	6.26	20.34	28.48	15.78	
	285/150	5.64	19.95	27.94	17.25	
	285/160	5.99	21.27	29.77	18.37	
	285/180	6.70	23.88	33.43	20.63	
	285/200	7.41	26.49	37.09	22.88	
	285/230	8.50	30.39	42.54	26.26	
9.50	255/140	4.88	14.95	20.92	11.06	
	255/150	5.23	16.04	22.45	11.84	
	255/160	5.57	17.10	23.93	12.61	
	255/180	6.26	19.20	26.88	14.16	
	285/150	5.64	18.84	26.37	15.48	
	285/160	5.99	20.08	28.11	16.49	
	285/180	6.70	22.55	31.57	18.51	
	285/200	7.41	25.01	35.02	20.53	
	285/230	8.50	28.69	40.17	23.57	
	10.00	255/140	4.88	14.04	19.65	9.98
255/150		5.23	15.18	21.25	10.68	
255/160		5.57	16.18	22.65	11.38	
255/180		6.26	18.17	25.44	12.78	
285/150		5.64	17.83	24.97	13.97	
285/160		5.99	19.01	26.61	14.88	
285/180		6.70	21.35	29.88	16.71	
285/200		7.41	23.68	33.15	18.53	
285/230		8.50	27.16	38.03	21.27	
285/250		9.20	29.48	41.27	23.07	
10.50		285/150	5.64	16.85	23.59	12.67
		285/160	5.99	18.03	25.25	13.50
		285/180	6.70	20.25	28.36	15.15
	285/200	7.41	22.47	31.46	16.81	
	285/230	8.50	25.77	36.08	19.29	
	285/250	9.20	27.97	39.16	20.92	
	285/300	11.20	33.54	46.96	25.11	
11.00	285/150	5.64	15.91	22.28	11.55	
	285/160	5.99	17.15	24.01	12.30	
	285/180	6.70	19.26	26.96	13.81	
	285/200	7.41	21.36	29.91	15.32	
	285/230	8.50	24.51	34.31	17.58	
	285/250	9.20	26.60	37.23	19.06	
	285/300	11.20	31.89	44.65	22.88	
	11.50	285/180	6.70	18.34	25.68	12.63
285/200		7.41	20.35	28.49	14.01	
285/230		8.50	23.34	32.68	16.08	
285/250		9.20	25.34	35.47	17.44	
285/300		11.20	30.38	42.53	20.93	
12.00	285/180	6.70	17.50	24.51	11.60	
	285/200	7.41	19.42	27.19	12.87	
	285/230	8.50	22.27	31.18	14.77	
	285/250	9.20	24.18	33.85	16.02	
	285/300	11.20	28.99	40.58	19.22	

SLEEVED SIDE RAIL SYSTEM

Side

Span	Section Ref.	Weight kg /m	Safe Working Load kN / Span	Ultimate Capacity kN / Span	Working Load Max. span/150 kN / Span	
4.00	1455012	2.51	10.12	14.17	10.12	
	1455013	2.71	11.15	15.60	11.15	
	1455014	2.91	12.10	16.94	12.10	
	1455016	3.31	13.87	19.42	13.87	
	1705012	2.74	12.62	17.67	12.62	
	1705013	2.97	13.89	19.45	13.89	
	1705014	3.19	15.07	21.10	15.07	
1705016	3.62	17.29	24.20	17.29		
4.50	1455012	2.51	9.00	12.60	8.41	
	1455013	2.71	9.91	13.87	9.10	
	1455014	2.91	10.75	15.06	9.78	
	1455016	3.31	12.33	17.26	11.22	
	1705013	2.97	12.35	17.29	12.35	
	1705014	3.19	13.40	18.75	13.40	
	1705016	3.62	15.36	21.51	15.36	
5.00	1455012	2.51	8.10	11.34	6.81	
	1455013	2.71	8.92	12.48	7.37	
	1455014	2.91	9.68	13.55	7.92	
	1455016	3.31	11.09	15.53	9.02	
	1705012	2.74	10.10	14.14	9.94	
	1705013	2.97	11.11	15.56	10.76	
	1705014	3.19	12.06	16.88	11.57	
	1705016	3.62	13.83	19.36	13.18	
	2006312	3.35	12.58	17.61	12.58	
	2006313	3.63	13.95	19.53	13.95	
	2006314	3.90	15.43	21.60	15.43	
	2006316	4.44	18.23	25.53	18.23	
	5.50	1455012	2.51	7.36	10.31	5.63
1455013		2.71	8.11	11.35	6.09	
1455014		2.91	8.80	12.32	6.55	
1455016		3.31	10.09	14.12	7.45	
1705012		2.74	9.18	12.85	8.21	
1705013		2.97	10.10	14.14	8.89	
1705014		3.19	10.96	15.34	9.56	
1705016		3.62	12.57	17.60	10.89	
2006312		3.35	11.44	16.01	11.44	
2006313		3.63	12.68	17.75	12.68	
2006314		3.90	14.03	19.64	14.03	
2006316		4.44	16.58	23.21	16.58	
6.00		1455012	2.51	6.75	9.45	4.73
		1455013	2.71	7.43	10.40	5.12
		1455014	2.91	8.07	11.29	5.50
	1455016	3.31	9.25	12.94	6.26	
	1705012	2.74	8.41	11.78	6.90	
	1705013	2.97	9.26	12.97	7.47	
	1705014	3.19	10.05	14.07	8.04	
	1705016	3.62	11.52	16.13	9.15	
	2006312	3.35	10.48	14.68	10.48	
	2006313	3.63	11.62	16.27	11.62	
	2006314	3.90	12.86	18.00	12.86	
	2006316	4.44	15.20	21.27	15.20	
	2256314	4.17	15.16	21.23	15.16	
	2256316	4.75	17.92	25.09	17.92	
	6.50	1705012	2.74	7.77	10.87	5.88
		1705013	2.97	8.55	11.97	6.37
		1705014	3.19	9.27	12.98	6.85
1705016		3.62	10.64	14.89	7.80	
2006312		3.35	9.68	13.55	9.68	
2006313		3.63	10.73	15.02	10.73	
2006314		3.90	11.87	16.62	11.72	
2006316		4.44	14.03	19.64	13.36	
2256314		4.17	14.00	19.59	14.00	
2256316		4.75	16.54	23.16	16.54	
2256318		5.33	18.87	26.42	18.87	
7.00	2006312	3.35	8.99	12.58	8.67	
	2006313	3.63	9.96	13.95	9.39	
	2006314	3.90	11.02	15.43	10.10	
	2006316	4.44	13.02	18.23	11.52	
	2256314	4.17	13.00	18.19	13.00	
	2256316	4.75	15.36	21.50	15.27	
	2256318	5.33	17.52	24.53	17.14	
	2557516	5.51	18.02	25.23	18.02	
	2557518	6.17	20.97	29.35	20.97	

Span	Section Ref.	Weight kg /m	Safe Working Load kN / Span	Ultimate Capacity kN / Span	Working Load Max. span/150 kN / Span
7.50	2006312	3.35	8.39	11.74	7.55
	2006313	3.63	9.30	13.02	8.18
	2006314	3.90	10.29	14.40	8.80
	2006316	4.44	12.16	17.02	10.04
	2256314	4.17	12.13	16.98	11.66
	2256316	4.75	14.34	20.07	13.30
	2256318	5.33	16.36	22.90	14.93
	2557516	5.51	16.82	23.55	16.82
2557518	6.17	19.57	27.40	19.57	
8.00	2006314	3.90	9.64	13.50	7.73
	2006316	4.44	11.40	15.96	8.82
	2256314	4.17	11.37	15.92	10.25
	2256316	4.75	13.44	18.82	11.69
	2256318	5.33	15.33	21.47	13.12
	2557516	5.51	15.77	22.08	15.77
	2557518	6.17	18.35	25.68	18.35
2857518	6.60	21.45	30.04	21.45	
2857520	7.24	24.29	34.00	24.29	
8.50	2256314	4.17	10.70	14.98	9.08
	2256316	4.75	12.65	17.71	10.36
	2256318	5.33	14.43	20.20	11.62
	2557516	5.51	14.84	20.78	14.84
	2557518	6.17	17.27	24.17	17.27
	2857518	6.60	20.19	28.27	20.19
	2857520	7.24	22.86	32.00	22.86
	2857525	9.03	28.95	40.53	28.95
9.00	2557516	5.51	14.02	19.62	14.02
	2557518	6.17	16.31	22.83	15.77
	2557525	8.44	23.40	32.76	21.68
	2857518	6.60	19.07	26.70	19.07
	2857520	7.24	21.59	30.22	21.59
	2857525	9.03	27.34	38.28	27.34
	9.50	2557516	5.51	13.28	18.59
2557518		6.17	15.45	21.63	14.15
2557525		8.44	22.17	31.03	19.46
2857518		6.60	18.07	25.29	18.07
2857520		7.24	20.45	28.63	20.45
2857525		9.03	25.90	36.27	25.42
10.00		2557516	5.51	12.61	17.66
	2557518	6.17	14.68	20.55	12.77
	2557525	8.44	21.06	29.48	17.56
	2857518	6.60	17.16	24.03	16.66
	2857520	7.24	19.43	27.20	18.48
	2857525	9.03	24.61	34.45	22.94
	10.50	2857518	6.60	16.35	22.89
2857520		7.24	18.50	25.91	16.76
2857525		9.03	23.44	32.81	20.80
11.00	2857518	6.60	15.60	21.84	13.77
	2857520	7.24	17.66	24.73	15.27
	2857525	9.03	22.37	31.32	18.96
11.50	2857518	6.60	14.93	20.90	12.60
	2857520	7.24	16.89	23.65	13.97
	2857525	9.03	21.40	29.96	17.34
12.00	2857518	6.60	14.30	20.02	11.57
	2857520	7.24	16.19	22.67	12.83
	2857525	9.03	20.51	28.71	15.93

Side

The values shown are for horizontal wind load.
For wind suction (negative) loads, tabulated loads should be multiplied by 0.9.

The tables are based on the number of rows of Side Rail
Supports being as shown in our current systems manual.

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DOUBLE SPANNING BUTT JOINTED

Span	Section Ref.	Weight kg /m	Safe Working Load kN / Span	Ultimate Capacity kN / Span	Working Load Max. span/150 kN / Span	
4.00	145/120	3.07	13.03	18.24	13.03	
	145/130	3.32	14.15	19.82	14.15	
4.50	145/120	3.07	11.32	15.85	11.32	
	145/130	3.32	12.50	17.50	12.50	
	170/120	3.17	13.90	19.46	13.90	
	170/130	3.43	15.07	21.10	15.07	
	170/140	3.69	16.25	22.75	16.25	
5.00	145/120	3.07	9.95	13.94	9.95	
	145/130	3.32	11.02	15.43	11.02	
	170/120	3.17	12.31	17.24	12.31	
	170/130	3.43	13.53	18.94	13.53	
	170/140	3.69	14.58	20.42	14.58	
	200/120	3.67	16.43	23.00	16.43	
	200/130	3.97	17.78	24.89	17.78	
5.50	145/120	3.07	8.84	12.37	8.84	
	145/130	3.32	9.81	13.73	9.81	
	170/120	3.17	10.97	15.36	10.97	
	170/130	3.43	12.12	16.97	12.12	
	170/140	3.69	13.22	18.50	13.22	
	200/120	3.67	14.70	20.59	14.70	
	200/130	3.97	16.12	22.57	16.12	
	200/140	4.27	17.35	24.28	17.35	
	200/150	4.57	18.56	25.99	18.56	
	6.00	145/120	3.07	7.90	11.06	7.90
145/130		3.32	8.79	12.31	8.58	
170/120		3.17	9.85	13.79	9.85	
170/130		3.43	10.91	15.27	10.91	
170/140		3.69	11.96	16.74	11.96	
200/120		3.67	13.23	18.53	13.23	
200/130		3.97	14.58	20.41	14.58	
200/140		4.27	15.86	22.20	15.86	
200/150		4.57	16.97	23.76	16.97	
225/130		4.22	17.14	24.00	17.14	
225/140		4.54	18.69	26.16	18.69	
6.50		170/120	3.17	9.50	13.30	9.50
		170/130	3.43	10.30	14.43	10.30
		170/140	3.69	11.11	15.55	11.11
	200/120	3.67	12.53	17.54	12.53	
	200/130	3.97	13.56	18.98	13.56	
	200/140	4.27	14.59	20.43	14.59	
	200/150	4.57	15.62	21.86	15.62	
	225/130	4.22	15.99	22.38	15.99	
	225/140	4.54	17.20	24.08	17.20	
	225/150	4.86	18.42	25.79	18.42	
	225/160	5.18	19.63	27.48	19.63	

Span	Section Ref.	Weight kg /m	Safe Working Load kN / Span	Ultimate Capacity kN / Span	Working Load Max. span/150 kN / Span
7.00	170/120	3.17	8.79	12.30	8.44
	170/130	3.43	9.53	13.34	9.18
	170/140	3.69	10.27	14.38	9.92
	200/120	3.67	11.59	16.23	11.59
	200/130	3.97	12.55	17.57	12.55
	200/140	4.27	13.50	18.91	13.50
	200/150	4.57	14.45	20.24	14.45
	225/130	4.22	14.80	20.72	14.80
	225/140	4.54	15.93	22.30	15.93
	225/150	4.86	17.05	23.87	17.05
	225/160	5.18	18.17	25.44	18.17
7.50	255/140	4.88	19.02	26.63	19.02
	255/150	5.23	20.36	28.50	20.36
	170/140	3.69	9.55	13.37	8.64
	200/120	3.67	10.78	15.09	10.78
	200/130	3.97	11.67	16.34	11.67
	200/140	4.27	12.56	17.58	12.56
	200/150	4.57	13.44	18.82	13.44
	225/130	4.22	13.77	19.28	13.77
	225/140	4.54	14.82	20.74	14.82
	225/150	4.86	15.86	22.21	15.86
	225/160	5.18	16.91	23.67	16.91
255/140	4.88	17.70	24.78	17.70	
255/150	5.23	18.95	26.52	18.95	
255/160	5.57	20.19	28.27	20.19	
255/180	6.26	22.68	31.75	22.68	
285/150	5.64	22.23	31.12	22.23	
285/160	5.99	23.69	33.16	23.69	
285/180	6.70	26.60	37.24	26.60	
285/200	7.41	29.51	41.31	29.51	

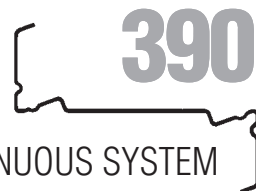
DOUBLE SPANNING BUTT-JOINTED SYSTEM

Span	Section Ref.	Weight kg /m	Safe Working Load kN / Span	Ultimate Capacity kN / Span	Working Load Max. span/150 kN / Span
4.00	1455012	2.51	9.40	13.16	9.40
	1455013	2.71	10.35	14.49	10.35
	1455014	2.91	11.23	15.73	11.23
	1455016	3.31	12.88	18.03	12.88
	1705012	2.74	11.72	16.41	11.72
	1705013	2.97	12.90	18.06	12.90
	1705014	3.19	13.99	19.59	13.99
4.50	1455012	2.51	8.36	11.70	8.36
	1455013	2.71	9.20	12.88	9.20
	1455014	2.91	9.99	13.98	9.99
	1455016	3.31	11.45	16.03	11.45
	1705012	2.74	10.42	14.58	10.42
	1705013	2.97	11.47	16.05	11.47
	1705014	3.19	12.44	17.41	12.44
	1705016	3.62	14.27	19.97	14.27
5.00	1455012	2.51	7.52	10.53	7.52
	1455013	2.71	8.28	11.59	8.28
	1455014	2.91	8.99	12.58	8.99
	1455016	3.31	10.30	14.42	10.30
	1705012	2.74	9.38	13.13	9.38
	1705013	2.97	10.32	14.45	10.32
	1705014	3.19	11.19	15.67	11.19
	1705016	3.62	12.84	17.98	12.84
	2006312	3.35	11.61	16.26	11.61
	2006313	3.63	12.87	18.02	12.87
	2006314	3.90	14.24	19.94	14.24
	2006316	4.44	16.83	23.57	16.83
	5.50	1455012	2.51	6.84	9.57
1455013		2.71	7.53	10.54	7.53
1455014		2.91	8.17	11.44	8.17
1455016		3.31	9.37	13.11	9.37
1705012		2.74	8.52	11.93	8.52
1705013		2.97	9.38	13.13	9.38
1705014		3.19	10.18	14.25	10.18
1705016		3.62	11.67	16.34	11.67
2006312		3.35	10.56	14.78	10.56
2006313		3.63	11.70	16.39	11.70
2006314		3.90	12.95	18.13	12.95
2006316		4.44	15.30	21.42	15.30
6.00		1455012	2.51	6.27	8.77
	1455013	2.71	6.90	9.66	6.65
	1455014	2.91	7.49	10.48	7.15
	1455016	3.31	8.59	12.02	8.13
	1705012	2.74	7.81	10.94	7.81
	1705013	2.97	8.60	12.04	8.60
	1705014	3.19	9.33	13.06	9.33
	1705016	3.62	10.70	14.98	10.70
	2006312	3.35	9.68	13.55	9.68
	2006313	3.63	10.73	15.02	10.73
	2006314	3.90	11.87	16.62	11.87
	2006316	4.44	14.03	19.64	14.03
	2256314	4.17	14.00	19.59	14.00
	2256316	4.75	16.54	23.16	16.54

Span	Section Ref.	Weight kg /m	Safe Working Load kN / Span	Ultimate Capacity kN / Span	Working Load Max. span/150 kN / Span
6.50	1705012	2.74	7.21	10.10	7.21
	1705013	2.97	7.94	11.11	7.94
	1705014	3.19	8.61	12.06	8.61
	1705016	3.62	9.88	13.83	9.88
	2006312	3.35	8.93	12.51	8.93
	2006313	3.63	9.90	13.86	9.90
	2006314	3.90	10.96	15.34	10.96
	2006316	4.44	12.95	18.13	12.95
	2256314	4.17	12.92	18.09	12.92
	2256316	4.75	15.27	21.38	15.27
7.00	1705014	3.19	8.00	11.19	7.67
	1705016	3.62	9.17	12.84	8.73
	2006312	3.35	8.29	11.61	8.29
	2006313	3.63	9.20	12.87	9.20
	2006314	3.90	10.17	14.24	10.17
	2006316	4.44	12.02	16.83	12.02
	2256314	4.17	12.00	16.79	12.00
	2256316	4.75	14.18	19.85	14.18
	2256318	5.33	16.18	22.65	16.18
	2557516	5.51	17.27	24.18	17.27
2557518	6.17	20.09	28.13	20.09	
2857518	6.60	23.50	32.90	23.50	
7.50	2006312	3.35	7.74	10.84	7.74
	2006313	3.63	8.58	12.02	8.58
	2006314	3.90	9.50	13.29	9.50
	2006316	4.44	11.22	15.71	11.22
	2256314	4.17	11.20	15.68	11.20
	2256316	4.75	13.23	18.53	13.23
	2256318	5.33	15.10	21.14	15.10
	2557516	5.51	16.12	22.57	16.12
	2557518	6.17	18.75	26.25	18.75
	2557525	8.44	26.91	37.67	26.91
2857518	6.60	21.93	30.70	21.93	
2857520	7.24	24.83	34.76	24.83	
2857525	9.03	31.44	44.02	31.44	
8.00	2256314	4.17	10.50	14.70	10.50
	2256316	4.75	12.41	17.37	12.41
	2256318	5.33	14.15	19.82	14.15
	2557516	5.51	15.11	21.16	15.11
	2557518	6.17	17.58	24.61	17.58
	2857518	6.60	20.56	28.79	20.56
	2857520	7.24	23.27	32.58	23.27
2857525	9.03	29.48	41.27	29.48	

Side

The values shown are for horizontal wind load. For wind suction (negative) loads, tabulated loads should be multiplied by 0.9.
The tables are based on the number of rows of Side Rail
Supports being as shown in our current systems manual.



NON-CONTINUOUS SYSTEM

Span	Section Ref.	Weight kg /m	Safe Working Load kN / Span	Ultimate Capacity kN / Span	Working Load Max. span/150 kN / Span	
4.00	145/120	3.07	10.07	14.09	8.21	
	145/130	3.32	11.09	15.53	8.91	
4.50	145/120	3.07	8.76	12.26	6.49	
	145/130	3.32	9.67	13.54	7.04	
	170/120	3.17	11.37	15.91	9.43	
	170/130	3.43	12.51	17.52	10.26	
5.00	145/120	3.07	7.71	10.80	5.26	
	145/130	3.32	8.54	11.95	5.70	
	170/120	3.17	10.05	14.06	7.64	
	170/130	3.43	11.08	15.51	8.31	
	170/140	3.69	12.12	16.96	8.98	
5.50	145/120	3.07	6.86	9.60	4.34	
	145/130	3.32	7.61	10.65	4.71	
	170/120	3.17	8.97	12.55	6.32	
	170/130	3.43	9.91	13.87	6.87	
	170/140	3.69	10.85	15.19	7.42	
	200/120	3.67	11.83	16.56	9.53	
	200/130	3.97	13.01	18.21	10.32	
	200/140	4.27	14.20	19.87	11.10	
	6.00	170/120	3.17	8.07	11.29	5.31
		170/130	3.43	8.93	12.50	5.77
170/140		3.69	9.79	13.71	6.24	
200/120		3.67	10.66	14.93	8.01	
200/130		3.97	11.75	16.45	8.67	
200/140		4.27	12.84	17.97	9.32	
200/150		4.57	13.92	19.49	9.98	
225/130		4.22	13.94	19.52	11.46	
225/140		4.54	15.23	21.33	12.33	
6.50		170/120	3.17	8.32	11.64	4.52
	170/130	3.43	9.03	12.65	4.92	
	170/140	3.69	9.75	13.65	5.32	
	200/120	3.67	10.78	15.09	6.83	
	200/130	3.97	11.69	16.36	7.39	
	200/140	4.27	12.60	17.64	7.94	
	200/150	4.57	13.51	18.91	8.50	
	225/130	4.22	13.89	19.45	9.77	
	225/140	4.54	14.98	20.97	10.51	
	225/150	4.86	16.07	22.49	11.25	
	225/160	5.18	17.16	24.02	11.98	
	255/140	4.88	17.99	25.19	14.18	
	255/150	5.23	19.30	27.01	15.17	
	255/160	5.57	20.60	28.84	16.16	
	7.00	200/120	3.67	9.97	13.95	5.89
200/130		3.97	10.81	15.13	6.37	
200/140		4.27	11.65	16.31	6.85	
200/150		4.57	12.49	17.49	7.33	
225/130		4.22	12.85	17.99	8.42	
225/140		4.54	13.85	19.40	9.06	
225/150		4.86	14.86	20.81	9.70	
225/160		5.18	15.87	22.22	10.33	
255/140		4.88	16.65	23.31	12.22	
255/150		5.23	17.86	25.00	13.08	
255/160		5.57	19.07	26.69	13.94	
255/180		6.26	21.50	30.10	15.65	

Span	Section Ref.	Weight kg /m	Safe Working Load kN / Span	Ultimate Capacity kN / Span	Working Load Max. span/150 kN / Span
7.50	200/140	4.27	10.82	15.15	5.97
	200/150	4.57	11.60	16.24	6.39
	225/130	4.22	11.94	16.72	7.34
	225/140	4.54	12.88	18.03	7.89
	225/150	4.86	13.81	19.34	8.45
	225/160	5.18	14.75	20.65	9.00
	255/140	4.88	15.48	21.67	10.65
	255/150	5.23	16.60	23.24	11.39
	255/160	5.57	17.73	24.82	12.14
	255/180	6.26	20.00	27.99	13.63
	285/150	5.64	19.55	27.37	14.90
	285/160	5.99	20.88	29.23	15.87
285/180	6.70	23.55	32.96	17.82	
8.00	225/130	4.22	11.15	15.61	6.45
	225/140	4.54	12.02	16.83	6.94
	225/150	4.86	12.89	18.05	7.42
	225/160	5.18	13.77	19.27	7.91
	255/140	4.88	14.46	20.24	9.36
	255/150	5.23	15.50	21.70	10.01
	255/160	5.57	16.55	23.18	10.67
	255/180	6.26	18.67	26.14	11.98
	285/150	5.64	18.26	25.57	13.10
	285/160	5.99	19.50	27.30	13.95
	285/180	6.70	22.00	30.79	15.66
	285/200	7.41	24.51	34.31	17.37
8.50	255/140	4.88	13.55	18.97	8.29
	255/150	5.23	14.53	20.34	8.87
	255/160	5.57	15.51	21.72	9.45
	255/180	6.26	17.50	24.50	10.61
	285/150	5.64	17.12	23.97	11.60
	285/160	5.99	18.28	25.60	12.36
	285/180	6.70	20.62	28.87	13.87
	285/200	7.41	22.98	32.17	15.39
285/230	8.50	26.53	37.14	17.66	
9.00	285/150	5.64	16.10	22.55	10.35
	285/160	5.99	17.20	24.08	11.02
	285/180	6.70	19.40	27.15	12.38
	285/200	7.41	21.61	30.26	13.73
	285/230	8.50	24.96	34.94	15.75
	285/250	9.20	27.21	38.09	17.09
	285/300	11.20	32.97	46.16	20.50
9.50	285/150	5.64	14.92	20.89	9.29
	285/160	5.99	16.08	22.51	9.89
	285/180	6.70	18.30	25.61	11.11
	285/200	7.41	20.39	28.54	12.32
	285/230	8.50	23.54	32.96	14.14
	285/250	9.20	25.66	35.93	15.34
	285/300	11.20	31.10	43.54	18.40
10.00	285/150	5.64	14.08	19.71	8.38
	285/160	5.99	15.18	21.25	8.93
	285/180	6.70	17.30	24.22	10.02
	285/200	7.41	19.28	26.99	11.12
	285/230	8.50	22.26	31.17	12.76
	285/250	9.20	24.27	33.98	13.84
	285/300	11.20	29.41	41.18	16.61

NON-CONTINUOUS SYSTEM

Side

Span	Section Ref.	Weight kg /m	Safe Working Load kN / Span	Ultimate Capacity kN / Span	Working Load Max. span/150 kN / Span	
3.50	1455012	2.51	8.26	11.57	8.26	
	1455013	2.71	9.10	12.74	9.02	
	1455014	2.91	9.88	13.83	9.70	
4.00	1455012	2.51	7.23	10.12	6.38	
	1455013	2.71	7.96	11.15	6.91	
	1455014	2.91	8.64	12.10	7.43	
	1705012	2.74	9.01	12.62	9.01	
	1705013	2.97	9.92	13.89	9.92	
	1705014	3.19	10.76	15.07	10.76	
	1705016	3.62	12.35	17.29	12.35	
	2006312	3.35	12.10	16.93	12.10	
	2006313	3.63	13.41	18.77	13.41	
4.50	1455012	2.51	6.43	9.00	5.04	
	1455013	2.71	7.08	9.91	5.46	
	1455014	2.91	7.68	10.75	5.87	
	1455016	3.31	8.81	12.33	6.68	
	1705012	2.74	8.01	11.22	7.36	
	1705013	2.97	8.82	12.35	7.97	
	1705014	3.19	9.57	13.40	8.57	
	1705016	3.62	10.97	15.36	9.76	
	2006312	3.35	10.75	15.05	10.75	
	2006313	3.63	11.92	16.69	11.92	
	2006314	3.90	13.19	18.46	13.19	
	2006316	4.44	15.59	21.82	15.59	
	5.00	1455012	2.51	5.79	8.10	4.09
1455013		2.71	6.37	8.92	4.42	
1455014		2.91	6.91	9.68	4.75	
1455016		3.31	7.92	11.09	5.41	
1705012		2.74	7.21	10.10	5.96	
1705013		2.97	7.94	11.11	6.45	
1705014		3.19	8.61	12.06	6.94	
1705016		3.62	9.88	13.83	7.91	
2006312		3.35	9.68	13.55	9.68	
2006313		3.63	10.73	15.02	10.73	
2006314		3.90	11.87	16.62	11.87	
2006316		4.44	14.03	19.64	13.55	
2256314		4.17	14.00	19.59	14.00	
2256316		4.75	16.54	23.16	16.54	
2256318		5.33	18.87	26.42	18.87	
5.50		1705012	2.74	6.56	9.18	4.93
		1705013	2.97	7.22	10.10	5.33
		1705014	3.19	7.83	10.96	5.74
	1705016	3.62	8.98	12.57	6.54	
	2006312	3.35	8.80	12.32	8.42	
	2006313	3.63	9.75	13.65	9.12	
	2006314	3.90	10.79	15.11	9.82	
	2006316	4.44	12.75	17.85	11.20	
	2256314	4.17	12.72	17.81	12.72	
	2256316	4.75	15.04	21.05	14.84	
	2256318	5.33	17.16	24.02	16.65	
	6.00	1705012	2.74	6.01	8.41	4.14
1705013		2.97	6.62	9.26	4.48	
1705014		3.19	7.18	10.05	4.82	
1705016		3.62	8.23	11.52	5.49	
2006312		3.35	8.06	11.29	7.08	
2006313		3.63	8.94	12.52	7.66	
2006314		3.90	9.89	13.85	8.25	
2006316		4.44	11.69	16.36	9.41	
2256314		4.17	11.66	16.33	10.93	
2256316		4.75	13.78	19.30	12.47	
2256318		5.33	15.73	22.02	13.99	
2557516		5.51	17.52	24.53	17.52	
2557518		6.17	20.38	28.54	20.38	
6.50		2006312	3.35	7.44	10.42	6.03
	2006313	3.63	8.25	11.55	6.53	
	2006314	3.90	9.13	12.78	7.03	
	2006316	4.44	10.79	15.11	8.02	
	2256314	4.17	10.77	15.07	9.31	
	2256316	4.75	12.72	17.81	10.63	
	2256318	5.33	14.52	20.32	11.92	
	2557516	5.51	16.17	22.64	16.15	
	2557518	6.17	18.82	26.34	18.14	
	2857518	6.60	22.00	30.81	22.00	

Span	Section Ref.	Weight kg /m	Safe Working Load kN / Span	Ultimate Capacity kN / Span	Working Load Max. span/150 kN / Span
7.00	2256314	4.17	10.00	14.00	8.03
	2256316	4.75	11.81	16.54	9.16
	2256318	5.33	13.48	18.87	10.28
	2557516	5.51	15.02	21.02	13.93
	2557518	6.17	17.47	24.46	15.64
	2857518	6.60	20.43	28.61	20.40
	2857520	7.24	23.13	32.38	22.62
7.50	2256314	4.17	9.33	13.06	7.00
	2256316	4.75	11.03	15.44	7.98
	2256318	5.33	12.58	17.61	8.96
	2557516	5.51	14.02	19.62	12.13
	2557518	6.17	16.31	22.83	13.62
	2857518	6.60	19.07	26.70	17.77
	2857520	7.24	21.59	30.22	19.71
8.00	2857525	9.03	27.34	38.28	24.47
	2557516	5.51	13.14	18.40	10.66
	2557518	6.17	15.29	21.40	11.97
	2857518	6.60	17.88	25.03	15.62
	2857520	7.24	20.24	28.33	17.32
8.50	2857525	9.03	25.63	35.89	21.50
	2557516	5.51	12.37	17.31	9.44
	2557518	6.17	14.39	20.14	10.61
	2857518	6.60	16.83	23.56	13.84
	2857520	7.24	19.05	26.67	15.34
9.00	2857525	9.03	24.13	33.78	19.05
	2857518	6.60	15.89	22.25	12.34
	2857520	7.24	17.99	25.19	13.69
9.50	2857525	9.03	22.79	31.90	16.99
	2857518	6.60	15.06	21.08	11.08
	2857520	7.24	17.04	23.86	12.28
10.00	2857525	9.03	21.59	30.22	15.25
	2857518	6.60	14.30	20.02	10.00
	2857520	7.24	16.19	22.67	11.09
	2857525	9.03	20.51	28.71	13.76

Side

UltraBEAM SLEEVED SYSTEM - SPAN/300 MAXIMUM DEFLECTION

Section Reference	Weight Kg/m	Span (metres)							
		4.50	5.00	5.50	6.00	6.50	7.00	7.50	8.00
SECTION CAPACITY - WORKING LOAD UDL IN kN PER SPAN									
1455012	2.51	4.20	3.40	2.81	2.36	2.01	1.74	1.51	1.33
1455013	2.71	4.55	3.68	3.04	2.56	2.18	1.88	1.64	1.44
1455014	2.91	4.89	3.96	3.27	2.75	2.34	2.02	1.76	1.55
1455016	3.31	5.57	4.51	3.73	3.13	2.67	2.30	2.00	1.76
1455018	3.71	6.23	5.05	4.17	3.51	2.99	2.58	2.24	1.97
1455020	4.09	6.89	5.58	4.61	3.87	3.30	2.85	2.48	2.18
1705012	2.74	6.13	4.97	4.11	3.45	2.94	2.54	2.21	1.94
1705013	2.97	6.64	5.38	4.45	3.74	3.18	2.74	2.39	2.10
1705014	3.19	7.14	5.79	4.78	4.02	3.42	2.95	2.57	2.26
1705016	3.62	8.14	6.59	5.45	4.58	3.90	3.36	2.93	2.57
1705018	4.06	9.12	7.38	6.10	5.13	4.37	3.77	3.28	2.88
1705020	4.48	10.29	8.33	6.89	5.79	4.93	4.25	3.70	3.25
2006312	3.35	10.48	8.49	7.02	5.90	5.03	4.33	3.77	3.32
2006313	3.63	11.36	9.20	7.60	6.39	5.44	4.69	4.09	3.59
2006314	3.90	12.22	9.90	8.18	6.87	5.86	5.05	4.40	3.87
2006316	4.44	13.94	11.29	9.33	7.84	6.68	5.76	5.02	4.41
2006318	4.97	15.63	12.66	10.47	8.79	7.49	6.46	5.63	4.95
2006320	5.51	17.31	14.02	11.59	9.74	8.30	7.15	6.23	5.48
2256314	4.17	16.19	13.12	10.84	9.11	7.76	6.69	5.83	5.12
2256316	4.75	18.48	14.97	12.37	10.39	8.86	7.64	6.65	5.85
2256318	5.33	20.73	16.79	13.88	11.66	9.94	8.57	7.46	6.56
2256320	5.90	22.96	18.60	15.37	12.92	11.01	9.49	8.27	7.27
2256323	6.72	26.26	21.27	17.58	14.77	12.59	10.85	9.45	8.31
2256325	7.27	28.43	23.03	19.03	15.99	13.63	11.75	10.24	9.00
2557514	4.83	24.59	19.92	16.46	13.83	11.79	10.16	8.85	7.78
2557515	5.17	26.34	21.34	17.63	14.82	12.62	10.89	9.48	8.33
2557516	5.51	28.08	22.74	18.80	15.79	13.46	11.60	10.11	8.88
2557518	6.17	31.53	25.54	21.11	17.74	15.11	13.03	11.35	9.98
2557520	6.77	34.95	28.31	23.40	19.66	16.75	14.45	12.58	11.06
2557523	7.80	40.02	32.42	26.79	22.51	19.18	16.54	14.41	12.66
2557525	8.44	43.36	35.12	29.03	24.39	20.78	17.92	15.61	13.72
2557530	10.05	51.57	41.77	34.52	29.01	24.72	21.31	18.56	16.32
2857515	5.52	33.17	27.83	23.00	19.32	16.47	14.20	12.37	10.87
2857516	5.88	35.37	29.67	24.52	20.60	17.56	15.14	13.19	11.59
2857518	6.60	39.73	33.33	27.54	23.14	19.72	17.00	14.81	13.02
2857520	7.24	44.05	36.95	30.54	25.66	21.87	18.85	16.42	14.43
2857523	8.34	50.46	42.33	34.98	29.40	25.05	21.60	18.81	16.54
2857525	9.03	54.69	45.87	37.91	31.86	27.14	23.41	20.39	17.92
2857530	10.75	65.08	54.60	45.12	37.91	32.31	27.86	24.27	21.33

UltraBEAM DOUBLE SPANNING BUTT-JOINTED - SPAN/300 MAXIMUM DEFLECTION

Section Reference	Weight Kg/m	Span (metres)							
		4.50	5.00	5.50	6.00	6.50	7.00	7.50	8.00
SECTION CAPACITY - WORKING LOAD UDL IN kN PER SPAN									
1455012	2.51	5.46	4.42	3.65	3.07	2.62	2.26	1.97	1.73
1455013	2.71	5.91	4.78	3.95	3.32	2.83	2.44	2.13	1.87
1455014	2.91	6.35	5.14	4.25	3.57	3.04	2.62	2.29	2.01
1455016	3.31	7.23	5.86	4.84	4.07	3.47	2.99	2.60	2.29
1455018	3.71	8.10	6.56	5.42	4.55	3.88	3.35	2.91	2.56
1455020	4.09	8.95	7.25	5.99	5.03	4.29	3.70	3.22	2.83
1705012	2.74	7.97	6.45	5.33	4.48	3.82	3.29	2.87	2.52
1705013	2.97	8.62	6.99	5.77	4.85	4.13	3.56	3.10	2.73
1705014	3.19	9.28	7.51	6.21	5.22	4.45	3.83	3.34	2.93
1705016	3.62	10.57	8.56	7.07	5.94	5.06	4.37	3.80	3.34
1705018	4.06	11.84	9.59	7.92	6.66	5.67	4.89	4.26	3.75
1705020	4.48	13.36	10.82	8.94	7.51	6.40	5.52	4.81	4.23
2006312	3.35	13.62	11.03	9.11	7.66	6.53	5.63	4.90	4.31
2006313	3.63	14.75	11.95	9.87	8.30	7.07	6.09	5.31	4.67
2006314	3.90	15.87	12.86	10.63	8.93	7.61	6.56	5.71	5.02
2006316	4.44	18.10	14.66	12.12	10.18	8.68	7.48	6.52	5.73
2006318	4.97	20.30	16.45	13.59	11.42	9.73	8.39	7.31	6.42
2006320	5.51	22.48	18.21	15.05	12.65	10.78	9.29	8.09	7.11
2256314	4.17	19.81	17.04	14.08	11.83	10.08	8.69	7.57	6.65
2256316	4.75	22.60	19.44	16.06	13.50	11.50	9.92	8.64	7.59
2256318	5.33	25.35	21.81	18.02	15.15	12.90	11.13	9.69	8.52
2256320	5.90	28.09	24.16	19.96	16.78	14.29	12.32	10.74	9.44
2256323	6.72	32.12	27.63	22.83	19.19	16.35	14.10	12.28	10.79
2256325	7.27	34.77	29.91	24.72	20.77	17.70	15.26	13.29	11.68
2557514	4.83	25.44	22.89	20.81	17.97	15.31	13.20	11.50	10.11
2557515	5.17	27.24	24.52	22.29	19.24	16.40	14.14	12.31	10.82
2557516	5.51	29.04	26.14	23.76	20.51	17.48	15.07	13.13	11.54
2557518	6.17	32.61	29.35	26.68	23.04	19.63	16.92	14.74	12.96
2557520	6.77	36.15	32.53	29.58	25.54	21.76	18.76	16.34	14.36
2557523	7.80	41.39	37.25	33.87	29.24	24.91	21.48	18.71	16.45
2557525	8.44	44.84	40.36	36.69	31.68	26.99	23.27	20.27	17.82
2557530	10.05	53.34	48.00	43.64	37.67	32.10	27.68	24.11	21.19
2857515	5.52	31.79	28.61	26.01	23.84	21.38	18.44	16.06	14.12
2857516	5.88	33.89	30.50	27.73	25.42	22.80	19.66	17.12	15.05
2857518	6.60	38.07	34.27	31.15	28.55	25.61	22.08	19.24	16.91
2857520	7.24	42.21	37.99	34.54	31.66	28.40	24.49	21.33	18.75
2857523	8.34	48.36	43.52	39.57	36.27	32.53	28.05	24.43	21.47
2857525	9.03	52.41	47.17	42.88	39.31	35.25	30.40	26.48	23.27
2857530	10.75	62.37	56.13	51.03	46.78	41.96	36.18	31.51	27.70

UltraBEAM NON-CONTINUOUS SYSTEM - SPAN/300 MAXIMUM DEFLECTION

Section Reference	Weight Kg/m	Span (metres)							
		4.50	5.00	5.50	6.00	6.50	7.00	7.50	8.00
SECTION CAPACITY - WORKING LOAD UDL IN kN PER SPAN									
1455012	2.51	2.52	2.04	1.69	1.42	1.21	1.04	0.91	0.80
1455013	2.71	2.73	2.21	1.83	1.54	1.31	1.13	0.98	0.86
1455014	2.91	2.93	2.38	1.96	1.65	1.41	1.21	1.06	0.93
1455016	3.31	3.34	2.71	2.24	1.88	1.60	1.38	1.20	1.06
1455018	3.71	3.74	3.03	2.50	2.10	1.79	1.55	1.35	1.18
1455020	4.09	4.13	3.35	2.77	2.32	1.98	1.71	1.49	1.31
1705012	2.74	3.68	2.98	2.46	2.07	1.76	1.52	1.33	1.16
1705013	2.97	3.98	3.23	2.67	2.24	1.91	1.65	1.43	1.26
1705014	3.19	4.29	3.47	2.87	2.41	2.05	1.77	1.54	1.36
1705016	3.62	4.88	3.95	3.27	2.75	2.34	2.02	1.76	1.54
1705018	4.06	5.47	4.43	3.66	3.08	2.62	2.26	1.97	1.73
1705020	4.48	6.17	5.00	4.13	3.47	2.96	2.55	2.22	1.95
2006312	3.35	6.29	5.10	4.21	3.54	3.02	2.60	2.26	1.99
2006313	3.63	6.81	5.52	4.56	3.83	3.27	2.82	2.45	2.16
2006314	3.90	7.33	5.94	4.91	4.12	3.51	3.03	2.64	2.32
2006316	4.44	8.36	6.77	5.60	4.70	4.01	3.46	3.01	2.65
2006318	4.97	9.38	7.60	6.28	5.28	4.50	3.88	3.38	2.97
2006320	5.51	10.39	8.41	6.95	5.84	4.98	4.29	3.74	3.29
2256314	4.17	9.72	7.87	6.50	5.47	4.66	4.02	3.50	3.07
2256316	4.75	11.09	8.98	7.42	6.24	5.31	4.58	3.99	3.51
2256318	5.33	12.44	10.08	8.33	7.00	5.96	5.14	4.48	3.94
2256320	5.90	13.78	11.16	9.22	7.75	6.60	5.69	4.96	4.36
2256325	6.72	15.76	12.76	10.55	8.86	7.55	6.51	5.67	4.99
2256325	7.27	17.06	13.82	11.42	9.60	8.18	7.05	6.14	5.40
2557514	4.83	14.76	11.95	9.88	8.30	7.07	6.10	5.31	4.67
2557515	5.17	15.80	12.80	10.58	8.89	7.57	6.53	5.69	5.00
2557516	5.51	16.85	13.65	11.28	9.48	8.07	6.96	6.07	5.33
2557518	6.17	18.92	15.33	12.67	10.64	9.07	7.82	6.81	5.99
2557520	6.77	20.97	16.99	14.04	11.80	10.05	8.67	7.55	6.64
2557523	7.80	24.01	19.45	16.08	13.51	11.51	9.92	8.65	7.60
2557525	8.44	26.02	21.07	17.42	14.63	12.47	10.75	9.37	8.23
2557530	10.05	30.94	25.06	20.71	17.40	14.83	12.79	11.14	9.79
2857515	5.52	20.61	16.70	13.80	11.59	9.88	8.52	7.42	6.52
2857516	5.88	21.98	17.80	14.71	12.36	10.53	9.08	7.91	6.95
2857518	6.60	24.69	20.00	16.53	13.89	11.83	10.20	8.89	7.81
2857520	7.24	27.37	22.17	18.32	15.40	13.12	11.31	9.85	8.66
2857523	8.34	31.36	25.40	20.99	17.64	15.03	12.96	11.29	9.92
2857525	9.03	33.98	27.52	22.75	19.11	16.29	14.04	12.23	10.75
2857530	10.75	40.44	32.76	27.07	22.75	19.38	16.71	14.56	12.80

FLOORLOADTABLES

SINGLE SPAN INSET/CLEAT FIXED



Span Metres	Section Reference	Weight kg /m	Mcx kN/m	Ultimate Capacity kN UDL	UDL SPAN / 200	SAFE WORKING LOAD		
						UDL SPAN / 250	UDL SPAN / 360	
3.00	1455012	2.51	5.06	13.73	8.58	7.12	4.94	
	1455013	2.71	5.57	15.12	9.45	7.70	5.35	
	1455014	2.91	6.05	16.41	10.26	8.28	5.75	
	1455016	3.31	6.93	18.81	11.76	9.43	6.55	
	1705012	2.74	6.31	17.13	10.70	10.39	7.22	
	1705013	2.97	6.95	18.85	11.78	11.25	7.81	
	1705014	3.19	7.53	20.45	12.78	12.10	8.40	
	1705016	3.62	8.64	23.46	14.66	13.78	9.57	
	2006312	3.35	8.47	22.99	14.37	14.37	12.33	
	2006313	3.63	9.39	25.49	15.93	15.93	13.36	
	2006314	3.90	10.39	28.21	17.63	17.63	14.37	
	2006316	4.44	12.27	33.34	20.84	20.84	16.39	
	3.50	1455014	2.91	6.05	13.99	7.56	6.05	4.20
1455016		3.31	6.93	16.04	8.60	6.88	4.78	
1455018		3.71	7.76	17.96	9.63	7.71	5.35	
1455020		4.09	8.58	19.85	10.65	8.52	5.91	
1705012		2.74	6.31	14.61	9.13	7.58	5.27	
1705013		2.97	6.95	16.08	10.05	8.21	5.70	
1705014		3.19	7.53	17.45	10.90	8.83	6.13	
1705016		3.62	8.64	20.01	12.51	10.06	6.99	
2006312		3.35	8.47	19.61	12.26	12.26	9.00	
2006313		3.63	9.39	21.75	13.59	13.59	9.75	
2006314		3.90	10.39	24.06	15.04	15.04	10.49	
2006316		4.44	12.27	28.44	17.78	17.23	11.97	
4.00		2006312	3.35	8.47	17.09	10.68	9.88	6.86
	2006313	3.63	9.39	18.95	11.84	10.70	7.43	
	2006314	3.90	10.39	20.97	13.11	11.51	8.00	
	2006316	4.44	12.27	24.79	15.49	13.13	9.12	
	2006318	4.97	14.01	28.30	17.69	14.73	10.23	
	2006320	5.51	15.63	31.57	19.73	16.31	11.33	
	2256314	4.17	12.25	24.74	15.46	15.26	10.59	
	2256316	4.75	14.47	29.25	18.28	17.41	12.09	
	2256318	5.33	16.51	33.37	20.86	19.53	13.56	
	2256320	5.90	18.43	37.25	23.28	21.63	15.02	
	2256323	6.72	21.08	42.61	26.63	24.74	17.18	
	2256325	7.27	22.82	46.12	28.83	26.78	18.60	
	2557514	4.83	15.39	31.10	19.44	19.44	16.09	
	2557515	5.17	16.87	34.10	21.31	21.31	17.23	
	2557516	5.51	18.40	37.20	23.25	23.25	18.37	
	2557518	6.17	21.40	43.29	27.05	27.05	20.63	
	2557520	6.77	24.25	49.05	30.66	30.66	22.87	
	4.50	2006314	3.90	10.39	18.57	11.33	9.06	6.29
		2006316	4.44	12.27	21.95	12.92	10.34	7.18
2006318		4.97	14.01	25.07	14.49	11.59	8.05	
2006320		5.51	15.63	27.96	16.05	12.84	8.91	
2256314		4.17	12.25	21.91	13.70	12.01	8.34	
2256316		4.75	14.47	25.91	16.19	13.70	9.51	
2256318		5.33	16.51	29.56	18.48	15.37	10.68	
2256320		5.90	18.43	33.00	20.62	17.03	11.83	
2557514		4.83	15.39	27.55	17.22	17.22	12.67	
2557515		5.17	16.87	30.21	18.88	18.88	13.57	
2557516		5.51	18.40	32.95	20.59	20.59	14.46	
2557518		6.17	21.40	38.35	23.97	23.38	16.24	
2557520		6.77	24.25	43.46	27.16	25.92	18.00	
2557523		7.80	28.35	50.80	31.75	29.68	20.61	
2557525		8.44	30.71	55.04	34.40	32.16	22.33	
2557530		10.05	36.52	65.46	40.91	38.24	26.56	
2857515		5.52	19.78	35.45	22.16	22.16	17.69	
2857516		5.88	21.55	38.62	24.14	24.14	18.86	
2857518		6.60	25.03	44.87	28.05	28.05	21.19	
2857520		7.24	28.33	50.81	31.75	31.75	23.49	

Span Metres	Section Reference	Weight kg /m	Mcx kN/m	Ultimate Capacity kN UDL	UDL SPAN / 200	SAFE WORKING LOAD		
						UDL SPAN / 250	UDL SPAN / 360	
5.00	2256314	4.17	12.25	19.65	12.12	9.70	6.74	
	2256316	4.75	14.47	23.24	13.83	11.07	7.68	
	2256318	5.33	16.51	26.52	15.52	12.42	8.62	
	2256320	5.90	18.43	29.60	17.19	13.75	9.55	
	2557514	4.83	15.39	24.71	15.45	14.73	10.23	
	2557515	5.17	16.87	27.10	16.94	15.78	10.96	
	2557516	5.51	18.40	29.56	18.48	16.82	11.68	
	2557518	6.17	21.40	34.40	21.50	18.89	13.11	
	2557520	6.77	24.25	38.99	24.37	20.93	14.54	
	2557523	7.80	28.35	45.58	28.49	23.97	16.65	
	2857515	5.52	19.78	31.81	19.88	19.88	14.29	
	2857516	5.88	21.55	34.65	21.66	21.66	15.23	
	2857518	6.60	25.03	40.26	25.17	24.64	17.11	
	2857520	7.24	28.33	45.59	28.49	27.32	18.97	
	2857523	8.34	33.11	53.29	33.31	31.30	21.74	
5.50	2557516	5.51	18.40	26.79	16.74	13.86	9.63	
	2557518	6.17	21.40	31.18	19.46	15.57	10.81	
	2557520	6.77	24.25	35.34	21.57	17.26	11.99	
	2557523	7.80	28.35	41.31	24.70	19.76	13.72	
	2557525	8.44	30.71	44.76	26.76	21.41	14.87	
	2557530	10.05	36.52	53.23	31.83	25.46	17.68	
	2857515	5.52	19.78	28.83	18.02	16.96	11.78	
	2857516	5.88	21.55	31.41	19.63	18.09	12.56	
	2857518	6.60	25.03	36.50	22.81	20.32	14.11	
	2857520	7.24	28.33	41.33	25.83	22.53	15.64	
	2857523	8.34	33.11	48.31	30.19	25.80	17.92	
	2857525	9.03	35.89	52.35	32.72	27.96	19.42	
	2857530	10.75	42.71	62.30	38.94	33.28	23.11	
	3057515	5.76	21.82	31.82	19.89	19.89	13.86	
	3057516	6.13	23.75	34.65	21.65	21.29	14.78	
3057518	6.88	27.57	40.22	25.14	23.92	16.61		
3057520	7.56	31.19	45.51	28.45	26.52	18.42		
6.00	2557525	8.44	30.71	40.91	22.44	17.95	12.47	
	2557530	10.05	36.52	48.65	26.69	21.35	14.83	
	2857515	5.52	19.78	26.35	16.47	14.22	9.88	
	2857516	5.88	21.55	28.71	17.94	15.17	10.53	
	2857518	6.60	25.03	33.36	20.85	17.04	11.83	
	2857520	7.24	28.33	37.78	23.61	18.89	13.12	
	2857523	8.34	33.11	44.16	27.05	21.64	15.03	
	2857525	9.03	35.89	47.86	29.31	23.45	16.28	
	2857530	10.75	42.71	56.95	34.89	27.91	19.38	
	3057515	5.76	21.82	29.08	18.18	16.74	11.63	
	3057516	6.13	23.75	31.67	19.79	17.85	12.40	
	3057518	6.88	27.57	36.77	22.98	20.06	13.93	
	3057520	7.56	31.19	41.61	26.00	22.24	15.45	
	3057523	8.70	36.38	48.53	30.33	25.49	17.70	
	3057525	9.43	39.50	52.71	32.94	27.62	19.18	
3057530	11.22	47.03	62.75	39.22	32.89	22.84		
6.50	2857523	8.34	33.11	40.65	23.01	18.41	12.78	
	2857525	9.03	35.89	44.05	24.93	19.95	13.85	
	2857530	10.75	42.71	52.43	29.67	23.74	16.49	
	3057515	5.76	21.82	26.77	16.73	14.24	9.89	
	3057516	6.13	23.75	29.15	18.22	15.19	10.55	
	3057518	6.88	27.57	33.84	21.15	17.06	11.85	
	3057520	7.56	31.19	38.30	23.65	18.92	13.14	
	3057523	8.70	36.38	44.68	27.10	21.68	15.05	
	3057525	9.43	39.50	48.52	29.37	23.50	16.32	
	3057530	11.22	47.03	57.77	34.97	27.98	19.43	
	7.00	2857525	9.03	35.89	40.79	21.47	17.17	11.93
		2857530	10.75	42.71	48.54	25.55	20.44	14.19
3057515		5.76	21.82	24.78	15.33	12.26	8.52	
3057516		6.13	23.75	26.99	16.34	13.07	9.08	
3057518		6.88	27.57	31.34	18.36	14.69	10.20	
3057520		7.56	31.19	35.47	20.36	16.29	11.31	
3057523		8.70	36.38	41.38	23.33	18.66	12.96	
3057525		9.43	39.50	44.94	25.29	20.23	14.05	
3057530		11.22	47.03	53.50	30.11	24.09	16.73	
7.50		3057520	7.56	31.19	33.01	17.71	14.17	9.84
	3057523	8.70	36.38	38.51	20.30	16.24	11.28	
	3057525	9.43	39.50	41.82	22.00	17.60	12.22	
	3057530	11.22	47.03	49.79	26.20	20.96	14.55	

FLOORLOADTABLES

DOUBLE SPAN /CLEAT FIXED



Span Metres	Section Reference	Weight kg /m	Mcx kN/m	Ultimate Capacity kN UDL	UDL SPAN / 200	SAFE WORKING LOAD		
						UDL SPAN / 250	UDL SPAN / 360	
3.00	1455012	2.51	5.06	17.87	11.17	11.17	10.23	
	1455013	2.71	5.57	19.68	12.30	12.30	11.08	
	1455014	2.91	6.05	21.36	13.35	13.35	11.91	
	1705012	2.74	6.31	22.29	13.93	13.93	13.93	
	1705013	2.97	6.95	24.54	15.33	15.33	15.33	
	1705014	3.19	7.53	26.62	16.64	16.64	16.64	
	2006312	3.35	8.47	27.61	17.25	17.25	17.25	
	2006313	3.63	9.39	30.61	19.13	19.13	19.13	
3.50	1455012	2.51	5.06	15.25	9.53	9.53	7.52	
	1455013	2.71	5.57	16.79	10.49	10.49	8.14	
	1455014	2.91	6.05	18.22	11.39	11.39	8.75	
	1705012	2.74	6.31	19.02	11.89	11.89	10.98	
	1705013	2.97	6.95	20.94	13.08	13.08	11.88	
	1705014	3.19	7.53	22.71	14.20	14.20	12.78	
	2006312	3.35	8.47	23.56	14.72	14.72	14.72	
	2006313	3.63	9.39	26.12	16.33	16.33	16.33	
	2006314	3.90	10.39	28.90	18.06	18.06	18.06	
	2006316	4.44	12.27	34.16	21.35	21.35	21.35	
4.00	1455016	3.31	6.93	18.20	11.38	10.98	7.63	
	1455018	3.71	7.76	20.37	12.73	12.29	8.54	
	1455020	4.09	8.58	22.52	14.08	13.59	9.43	
	1705014	3.19	7.53	19.80	12.37	12.37	9.78	
	1705016	3.62	8.64	22.71	14.19	14.19	11.14	
	1705018	4.06	9.68	25.44	15.90	15.90	12.49	
	1705020	4.48	10.92	28.71	17.94	17.94	14.09	
	2006312	3.35	8.47	20.53	12.83	12.83	12.83	
	2006313	3.63	9.39	22.77	14.23	14.23	14.23	
	2006314	3.90	10.39	25.19	15.75	15.75	15.75	
	2006316	4.44	12.27	29.78	18.61	18.61	18.61	
	4.50	2006312	3.35	8.47	18.19	11.37	11.37	11.35
		2006313	3.63	9.39	20.17	12.60	12.60	12.29
2006314		3.90	10.39	22.32	13.95	13.95	13.23	
2006316		4.44	12.27	26.38	16.49	16.49	15.08	
2006318		4.97	14.01	30.12	18.83	18.83	16.92	
2006320		5.51	15.63	33.60	21.00	21.00	18.73	
2256314		4.17	12.25	26.33	16.46	16.46	16.46	
2256316		4.75	14.47	31.13	19.46	19.46	19.46	
2256318		5.33	16.51	35.52	22.20	22.20	22.20	
2256320		5.90	18.43	39.65	24.78	24.78	24.78	
5.00		2006314	3.90	10.39	20.02	12.51	12.51	10.71
		2006316	4.44	12.27	23.67	14.79	14.79	12.22
		2006318	4.97	14.01	27.02	16.89	16.89	13.71
	2006320	5.51	15.63	30.15	18.84	18.84	15.17	
	2256314	4.17	12.25	23.62	14.77	14.77	14.20	
	2256316	4.75	14.47	27.93	17.46	17.46	16.20	
	2256318	5.33	16.51	31.87	19.92	19.92	18.17	
	2256320	5.90	18.43	35.58	22.24	22.24	20.13	
	2256323	6.72	21.08	40.69	25.43	25.43	23.02	
	2256325	7.27	22.82	44.05	27.53	27.53	24.92	
	2557514	4.83	15.39	28.46	17.79	17.79	17.79	
	2557515	5.17	16.87	31.21	19.51	19.51	19.51	
	2557516	5.51	18.40	34.04	21.28	21.28	21.28	
	5.50	2006318	4.97	14.01	24.49	15.31	15.31	11.33
2006320		5.51	15.63	27.32	17.08	17.08	12.54	
2256314		4.17	12.25	21.41	13.38	13.38	11.73	
2256316		4.75	14.47	25.32	15.82	15.82	13.39	
2256318		5.33	16.51	28.89	18.06	18.06	15.02	
2256320		5.90	18.43	32.25	20.15	20.15	16.64	
2256323		6.72	21.08	36.88	23.05	23.05	19.03	
2256325		7.27	22.82	39.93	24.95	24.95	20.60	
2557514		4.83	15.39	25.80	16.12	16.12	16.12	
2557515		5.17	16.87	28.29	17.68	17.68	17.68	
2557516		5.51	18.40	30.86	19.29	19.29	19.29	
2557518		6.17	21.40	35.92	22.45	22.45	22.45	
2557520		6.77	24.25	40.70	25.44	25.44	25.32	

Span Met	Section Reference	Weight kg/m	Mcx kN/m	Ultimate Capacity kN UDL	UDL SPAN / 200	SAFE WORKING LOAD	
						UDL SPAN / 250	UDL SPAN / 360
6.00	2256320	5.90	18.43	29.47	18.42	18.42	13.98
	2256323	6.72	21.08	33.71	21.07	21.07	15.99
	2256325	7.27	22.82	36.49	22.81	22.81	17.31
	2557514	4.83	15.39	23.58	14.74	14.74	14.74
	2557515	5.17	16.87	25.86	16.16	16.16	16.04
	2557516	5.51	18.40	28.21	17.63	17.63	17.09
	2557518	6.17	21.40	32.83	20.52	20.52	19.20
	2557520	6.77	24.25	37.21	23.26	23.26	21.28
	2557523	7.80	28.35	43.50	27.19	27.19	24.37
	2557525	8.44	30.71	47.13	29.46	29.46	26.40
	2557530	10.05	36.52	56.05	35.03	35.03	31.39
	2857515	5.52	19.78	30.35	18.97	18.97	18.97
	2857516	5.88	21.55	33.07	20.67	20.67	20.67
	2857518	6.60	25.03	38.43	24.02	24.02	24.02
	6.50	2256323	6.72	21.08	31.03	19.39	19.39
2256325		7.27	22.82	33.59	20.99	20.99	14.75
2557514		4.83	15.39	21.70	13.56	13.56	12.76
2557515		5.17	16.87	23.80	14.87	14.87	13.66
2557516		5.51	18.40	25.96	16.23	16.23	14.57
2557518		6.17	21.40	30.22	18.89	18.89	16.36
2557520		6.77	24.25	34.26	21.41	21.41	18.13
2557523		7.80	28.35	40.05	25.03	25.03	20.76
2557525		8.44	30.71	43.39	27.12	27.12	22.49
2557530		10.05	36.52	51.60	32.25	32.25	26.75
2857515		5.52	19.78	27.94	17.46	17.46	17.46
2857516		5.88	21.55	30.45	19.03	19.03	19.00
2857518		6.60	25.03	35.38	22.11	22.11	21.34
2857520		7.24	28.33	40.07	25.04	25.04	23.66
2857523		8.34	33.11	46.84	29.27	29.27	27.11
7.00	2557525	8.44	30.71	40.18	25.11	25.11	19.39
	2557530	10.05	36.52	47.79	29.87	29.87	23.06
	2857515	5.52	19.78	25.88	16.17	16.17	15.37
	2857516	5.88	21.55	28.20	17.62	17.62	16.38
	2857518	6.60	25.03	32.77	20.48	20.48	18.40
	2857520	7.24	28.33	37.11	23.19	23.19	20.40
	2857523	8.34	33.11	43.38	27.11	27.11	23.37
	2857525	9.03	35.89	47.01	29.38	29.38	25.33
	2857530	10.75	42.71	55.95	34.97	34.97	30.15

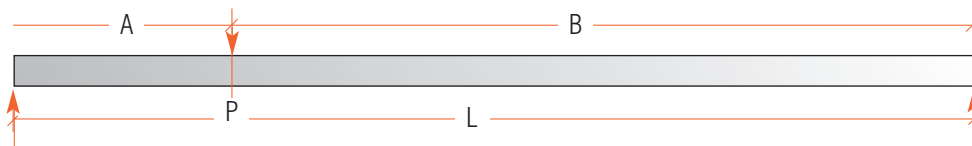
CALCULATION OF POINT LOADS

When designing Beams to carry point loads such as suspended services the following simple beam analysis utilising working loads may be used.

1. Calculate the general design load for the Beam as follows:-

Dead load	0.25 KN/m ²
Service load	0.15 KN/m ²
Super load	4.8 KN/m ²
Total load =	5.2 KN/m ²

If a beam span of 4 metres at centres of .610 metres is considered the total UDL for the above is:- 4 x 0.61 x 5.2 = 12.69kN.



2. If a point load of 1.5kN is required to be supported from the web of the Beam at a point of 1.5 metres from its end the Beam capacity may be derived as follows:-

Where:-

- P = 1.5 kN
- A = 1.5 metres
- B = 2.5 metres
- L = 4 metres

$$\text{Moment (M)} = \frac{PAB}{L}$$

$$M = \frac{1.5 \times 1.5 \times 2.5}{4} = 1.41\text{kNm}$$

$$\frac{WL}{8} = 1.41\text{kNm} \text{ therefore } w = \frac{1.41 \times 8}{4} = 2.82 \text{ kN}$$

3. This gives an equivalent UDL of:-

4. Total UDL applied to Beam:-

$$12.69 + 2.82 = 15.51 \text{ kN}$$

5. From the load tables select the Beam required, i.e. from double span load tables select:- UltraBEAM section 2006314 section capacity = 15.75 kN.

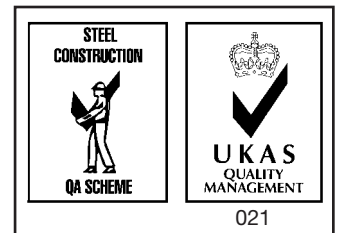
NB:- Deflection caused by point loads is more onerous than that caused by uniform loads. Therefore deflection should be considered whenever point loads are applied.

NOTES

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SECTION PROPERTIES AND LOAD TABLES



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