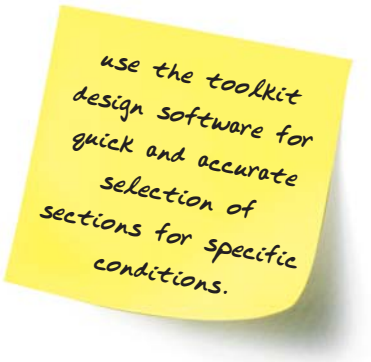
Multibeam Purlins - Load Tables



Purlin Ultimate Loads

The load tables show the ultimate load for double span sections in terms of a UDL per span.

Section self weight has not been subtracted in the loads shown. Loadings have also been tabulated that will produce the noted deflection ratio. Loads shown assume lateral restraint to the top flange of the section and that the beams are fixed exactly as indicated in the Multibeam Handbook.

Interpolation of the ultimate loads shown is permissible on a linear basis. Use grade 8.8 bolts for M265, M300 and M350.

For Rafter and Stanchion Stays please refer to page 127.

Loading	Load Factor
Dead load	1.4
Dead load restraining uplift or overturning	1.0
Dead load acting with wind and imposed loads combined	1.2
Imposed load	1.6
Imposed load acting with wind load	1.2
Wind load	1.4
Wind load acting with wind and imposed load	1.2
Forces due to temperature effects	1.2

Table 1:13 Double span and single span sleeved

Span (m)	Section	Weight kg/m	Ultimate UDL Gravity kN	Ultimate UDL Suction kN	Load to Produce Deflection L/180 kN
4.5	M145065130	2.99	14.04	11.23	13.64
	M145065140	3.21	16.21	12.96	14.67
	M145065150	3.45	18.40	14.72	15.69
	M145065160	3.69	20.61	16.49	16.70
	M145065180	4.15	24.96	19.97	18.70
	M145065200	4.63	29.10	23.28	20.67
	M145065220	5.06	33.02	26.42	22.60
	M175065120	3.02	14.66	11.73	-
	M175065130	3.29	17.29	13.83	-
	M175065140	3.52	19.98	15.99	-
	M175065150	3.79	22.45	17.96	-
	M175065160	4.05	24.52	19.61	-
	M175065180	4.55	29.74	23.34	29.05
	M175065200	5.08	34.07	27.25	32.13
	M175065220	5.56	38.74	31.00	35.16
	M175065250	6.35	45.42	36.34	39.62
	M205065120	3.29	16.44	13.02	-
	M205065130	3.58	19.44	14.98	-
	M205065140	3.84	22.53	17.40	-
	M205065150	4.13	25.67	19.89	-
	M205065160	4.41	28.82	22.40	-
	M205065170	4.67	31.97	24.55	-
	M205065180	4.96	33.90	26.47	-
	M205065200	5.53	39.16	30.69	-
	M205065220	6.05	44.66	35.08	-
	M205065250	6.91	52.52	41.37	-
	M205065270	7.49	57.57	45.42	-
	M235065130	3.86	22.89	17.58	-
	M235065140	4.14	26.61	20.35	-
	M235065150	4.45	30.38	23.35	-
	M235065160	4.76	34.07	26.73	-
	M235065170	5.04	37.23	28.82	-
	M235065180	5.35	40.75	31.47	-
	M235065200	5.97	46.89	36.54	-
	M235065220	6.53	53.69	44.28	-
	M235065250	7.46	63.30	52.41	-
	M235065270	8.08	69.52	57.66	-
5.0	M145065120	2.75	10.94	8.75	10.21
	M145065130	2.99	12.82	10.26	11.05
	M145065140	3.21	14.78	11.82	11.88
	M145065150	3.45	16.76	13.41	12.71
	M145065160	3.69	18.75	15.00	13.53
	M145065180	4.15	22.67	18.13	15.14
	M145065200	4.63	26.39	21.12	16.74
	M145065220	5.06	29.93	23.94	18.31
	M175065120	3.02	13.48	10.79	-
	M175065130	3.29	15.85	12.68	-
	M175065140	3.52	18.28	14.63	-
	M175065150	3.79	20.50	16.40	19.73
	M175065160	4.05	22.36	17.89	21.00
	M175065180	4.55	27.07	21.66	23.53
	M175065200	5.08	30.96	24.76	26.02
	M175065220	5.56	35.16	28.13	28.48
	M175065250	6.35	41.17	32.94	32.09
	M205065120	3.29	15.19	12.15	-
	M205065130	3.58	17.90	14.32	-
	M205065140	3.84	20.69	16.55	-
	M205065150	4.13	23.51	18.81	-
	M205065160	4.41	26.35	21.08	-
	M205065170	4.67	29.19	23.02	-
	M205065180	4.96	30.92	24.74	-
	M205065200	5.53	35.65	28.52	-
	M205065220	6.05	40.60	32.48	-
	M205065250	6.91	47.67	38.13	46.72
	M205065270	7.49	52.21	41.76	50.18
	M235065130	3.86	21.17	16.94	-
	M235065140	4.14	24.53	19.62	-
	M235065150	4.45	27.93	22.34	-
	M235065160	4.76	31.25	25.00	-
	M235065170	5.04	34.09	27.27	-
	M235065180	5.35	37.26	29.65	-
	M235065200	5.97	42.78	34.20	-
	M235065220	6.53	48.89	41.25	-
	M235065250	7.46	57.54	48.54	-
	M235065270	8.08	63.13	53.26	-
5.5	M145065120	2.75	10.08	8.06	8.44
	M145065130	2.99	11.79	9.44	9.13
	M145065140	3.21	13.58	10.86	9.82
	M145065150	3.45	15.38	12.30	10.50
	M145065160	3.69	17.19	13.75	11.18
	M145065180	4.15	20.76	16.60	12.52
	M145065200	4.63	24.15	19.32	13.83
	M145065220	5.06	27.36	21.89	15.13
	M175065120	3.02	12.47	9.97	-
	M175065130	3.29	14.62	11.70	14.17
	M175065140	3.52	16.84	13.47	15.24
	M175065150	3.79	18.86	15.09	16.30
	M175065160	4.05	20.55	16.44	17.36

- indicates the load to produce a deflection of span/180 exceeds ultimate UDL capacity

Multibeam Purlins - Load Tables

Table 1:13 Double span and single span sleeved (Cont.)

Span (m)	Section	Weight kg/m	Ultimate UDL Gravity kN	Ultimate UDL Suction kN	Load to Produce Deflection L/180 kN
	M175065180	4.55	24.83	19.87	19.45
	M175065200	5.08	28.36	22.69	21.51
	M175065220	5.56	32.19	25.75	23.53
	M175065250	6.35	37.65	30.12	26.52
	M205065120	3.29	14.10	11.28	-
	M205065130	3.58	16.57	13.25	-
	M205065140	3.84	19.11	15.29	-
	M205065150	4.13	21.68	17.35	-
	M205065160	4.41	24.27	19.41	-
	M205065170	4.67	26.85	21.17	26.78
	M205065180	4.96	28.42	22.73	28.27
	M205065200	5.53	32.71	26.17	31.28
	M205065220	6.05	37.21	29.77	34.25
	M205065250	6.91	43.63	34.90	38.62
	M205065270	7.49	47.76	38.20	41.47
	M235065130	3.86	19.67	15.73	-
	M235065140	4.14	22.72	18.18	-
	M235065150	4.45	25.82	20.66	-
	M235065160	4.76	28.85	23.08	-
	M235065170	5.04	31.42	25.14	-
	M235065180	5.35	34.30	27.44	-
	M235065200	5.97	39.31	31.43	-
	M235065220	6.53	44.87	37.86	-
	M235065250	7.46	52.72	44.48	-
	M235065270	8.08	57.80	48.77	57.54
	M265065140	4.46	25.63	20.49	-
	M265065150	4.79	30.24	23.32	-
	M265065160	5.13	32.74	24.86	-
	M265065180	5.76	39.93	29.51	-
	M265065200	6.43	46.30	35.06	-
	M265065220	7.03	52.50	41.61	-
	M265065250	8.03	63.76	49.32	-
	M265065270	8.70	69.99	54.32	-
6.0	M145065120	2.75	9.34	7.47	7.09
	M145065130	2.99	10.92	8.73	7.67
	M145065140	3.21	12.55	10.04	8.25
	M145065150	3.45	14.21	11.37	8.82
	M145065160	3.69	15.87	12.70	9.39
	M145065180	4.15	19.14	15.31	10.52
	M145065200	4.63	22.25	17.80	11.62
	M145065220	5.06	25.19	20.15	12.71
	M175065120	3.02	11.59	9.27	11.00
	M175065130	3.29	13.57	10.85	11.91
	M175065140	3.52	15.60	12.48	12.81
	M175065150	3.79	17.46	13.97	13.70
	M175065160	4.05	19.00	15.20	14.59
	M175065180	4.55	22.93	18.35	16.34
	M175065200	5.08	26.16	20.93	18.07
	M175065220	5.56	29.67	23.74	19.78
	M175065250	6.35	34.67	27.74	22.28
	M205065120	3.29	13.14	10.52	-
	M205065130	3.58	15.41	12.33	-
	M205065140	3.84	17.74	14.20	-
	M205065150	4.13	20.11	16.09	19.90
	M205065160	4.41	22.48	17.99	21.19
	M205065170	4.67	24.85	19.59	22.50
	M205065180	4.96	26.28	21.02	23.76
	M205065200	5.53	30.22	24.17	26.29
	M205065220	6.05	34.34	27.47	28.78
	M205065250	6.91	40.22	32.17	32.45
	M205065270	7.49	44.00	35.20	34.85
	M235065130	3.86	18.35	14.67	-
	M235065140	4.14	21.15	16.92	-
	M235065150	4.45	24.00	19.20	-
	M235065160	4.76	26.77	21.42	-
	M235065170	5.04	29.13	23.30	-
	M235065180	5.35	31.77	25.42	-
	M235065200	5.97	36.36	29.07	-
	M235065220	6.53	41.46	34.97	39.88
	M235065250	7.46	48.65	41.04	45.00
	M235065270	8.08	53.30	44.97	48.35
	M265065140	4.46	23.92	19.12	-
	M265065150	4.79	28.17	22.29	-
	M265065160	5.13	30.45	23.74	-
	M265065180	5.76	37.04	28.00	-
	M265065200	6.43	42.88	33.11	-
	M265065220	7.03	48.56	39.15	-
	M265065250	8.03	58.89	46.22	-
	M265065270	8.70	64.59	50.80	-
6.5	M175065120	3.02	10.82	8.66	9.37
	M175065130	3.29	12.65	10.12	10.14
	M175065140	3.52	14.53	11.63	10.91
	M175065150	3.79	16.25	13.00	11.67
	M175065160	4.05	17.67	14.13	12.43
	M175065180	4.55	21.30	17.04	13.92
	M175065200	5.08	24.28	19.43	15.40
	M175065220	5.56	27.52	22.02	16.85
	M175065250	6.35	32.14	25.71	18.99
	M205065120	3.29	12.30	9.84	-
	M205065130	3.58	14.40	11.52	-
	M205065140	3.84	16.56	13.25	15.85
	M205065150	4.13	18.74	14.99	16.96
	M205065160	4.41	20.94	16.75	18.06
	M205065170	4.67	23.13	18.23	19.17
	M205065180	4.96	24.44	19.55	20.24
	M205065200	5.53	28.07	22.46	22.40
	M205065220	6.05	31.88	25.50	24.52
	M205065250	6.91	37.30	29.84	27.65
	M205065270	7.49	40.79	32.63	29.69
	M235065130	3.86	17.18	13.74	-
	M235065140	4.14	19.78	15.82	-
	M235065150	4.45	22.40	17.93	-
	M235065160	4.76	24.89	19.98	-
	M235065170	5.04	27.14	21.71	26.51
	M235065180	5.35	29.58	23.67	28.04
	M235065200	5.97	33.81	27.04	31.03
	M235065220	6.53	38.52	32.50	33.98
	M235065250	7.46	45.16	38.10	38.34
	M235065270	8.08	49.45	41.72	41.20
	M265065140	4.46	22.41	17.91	-
	M265065150	4.79	26.34	20.85	-
	M265065160	5.13	28.44	22.65	-
	M265065180	5.76	34.53	26.59	-
	M265065200	6.43	39.92	31.32	-
	M265065220	7.03	45.16	36.72	-
	M265065250	8.03	54.70	43.12	51.24
	M265065270	8.70	59.96	47.27	55.07
	M300090150	5.86	27.41	20.99	-
	M300090160	6.27	31.68	24.38	-
	M300090180	7.05	41.69	31.45	-

- indicates the load to produce a deflection of span/180 exceeds ultimate UDL capacity

Span (m)	Section	Weight kg/m	Ultimate UDL Gravity kN	Ultimate UDL Suction kN	Load to Produce Deflection L/180 kN
	M300090200	7.86	49.40	37.25	-
	M300090250	9.82	71.53	57.47	-
	M300090270	10.64	80.43	55.40	-
	M350090150	6.43	33.70	24.97	-
	M350090160	6.87	39.19	28.94	-
	M350090180	7.72	50.59	36.98	-
	M350090200	8.62	60.16	44.00	-
	M350090250	10.77	81.46	60.90	-
	M350090270	11.66	90.78	68.44	-
7.0	M175065120	3.02	10.15	8.12	8.08
	M175065130	3.29	11.85	9.48	8.75
	M175065140	3.52	13.60	10.88	9.41
	M175065150	3.79	15.19	12.15	10.07
	M175065160	4.05	16.51	13.21	10.72
	M175065180	4.55	19.88	15.91	12.01
	M175065200	5.08	22.65	18.12	13.28
	M175065220	5.56	25.66	20.53	14.53
	M175065250	6.35	29.94	23.95	16.37
	M205065120	3.29	11.56	9.25	-
	M205065130	3.58	13.51	10.81	12.70
	M205065140	3.84	15.52	12.41	13.67
	M205065150	4.13	17.55	14.04	14.62
	M205065160	4.41	19.59	15.67	15.57
	M205065170	4.67	21.62	17.05	16.53
	M205065180	4.96	22.84	18.27	17.45
	M205065200	5.53	26.21	20.97	19.31
	M205065220	6.05	29.74	23.79	21.14
	M205065250	6.91	34.78	27.82	23.84
	M205065270	7.49	38.02	30.41	25.60
	M235065130	3.86	16.15	12.92	-
	M235065140	4.14	18.56	14.85	-
	M235065150	4.45	21.01	16.81	20.24
	M235065160	4.76	23.11	18.71	21.56
	M235065170	5.04	25.41	20.32	22.86
	M235065180	5.35	27.67	22.14	24.17
	M235065200	5.97	31.60	25.27	26.76
	M235065220	6.53	35.97	30.34	29.30
	M235065250	7.46	42.13	35.54	33.06
	M235065270	8.08	46.11	38.90	35.52
	M265065140	4.46	21.07	16.84	-
	M265065150	4.79	24.74	19.58	-
	M265065160	5.13	26.68	21.32	-
	M265065180	5.76	32.34	25.27	32.27
	M265065200	6.43	37.34	29.69	35.73
	M265065220	7.03	42.20	34.31	39.14
	M265065250	8.03	51.07	40.26	44.18
	M265065270	8.70	55.95	44.11	47.48
	M300090150	5.86	26.05	20.84	-
	M300090160	6.27	30.02	24.02	-
	M300090180	7.05	39.35	30.65	-
	M300090200	7.86	46.50	36.04	-
	M300090250	9.82	67.06	54.98	-
	M300090270	10.64	75.33	52.84	-
	M350090150	6.43	32.22	24.65	-
	M350090160	6.87	37.33	28.55	-
	M350090180	7.72	47.93	36.66	-
	M350090200	8.62	56.80	43.13	-
	M350090250	10.77	76.52	58.75	-
	M350090270	11.66	85.17	65.76	-
7.5	M175065120	3.02	9.47	7.64	7.04

Span (m)	Section	Weight kg/m	Ultimate UDL Gravity kN	Ultimate UDL Suction kN	Load to Produce Deflection L/180 kN
	M175065130	3.29	11.06	8.91	7.62
	M175065140	3.52	12.69	10.22	8.20
	M175065150	3.79	14.18	11.41	8.77
	M175065160	4.05	15.41	12.39	9.34
	M175065180	4.55	18.56	14.91	10.46
	M175065200	5.08	21.14	16.98	11.57
	M175065220	5.56	23.94	19.22	12.66
	M175065250	6.35	27.95	22.42	14.26
	M205065120	3.29	10.90	8.72	10.22
	M205065130	3.58	12.72	10.18	11.06
	M205065140	3.84	14.60	11.68	11.91
	M205065150	4.13	16.49	13.20	12.74
	M205065160	4.41	18.40	14.72	13.56
	M205065170	4.67	20.30	16.00	14.40
	M205065180	4.96	21.43	17.14	15.20
	M205065200	5.53	24.58	19.66	16.82
	M205065220	6.05	27.87	22.30	18.42
	M205065250	6.91	32.58	26.06	20.77
	M205065270	7.49	35.60	28.47	22.30
	M235065130	3.86	15.23	12.18	-
	M235065140	4.14	17.48	13.99	16.48
	M235065150	4.45	19.77	15.82	17.63
	M235065160	4.76	21.57	17.60	18.78
	M235065170	5.04	23.87	19.10	19.92
	M235065180	5.35	25.93	20.79	21.06
	M235065200	5.97	29.65	23.71	23.31
	M235065220	6.53	33.73	28.46	25.53
	M235065250	7.46	39.48	33.31	28.80
	M235065270	8.08	43.20	36.44	30.94
	M265065140	4.46	19.87	15.88	-
	M265065150	4.79	23.31	18.45	-
	M265065160	5.13	25.11	20.07	25.06
	M265065180	5.76	30.40	24.06	28.11
	M265065200	6.43	35.07	27.88	31.12
	M265065220	7.03	39.60	32.20	34.09
	M265065250	8.03	47.88	37.75	38.49
	M265065270	8.70	52.44	41.34	41.36
	M300090150	5.86	24.79	19.83	-
	M300090160	6.27	28.50	22.80	-
	M300090180	7.05	37.24	29.01	-
	M300090200	7.86	43.91	34.03	-
	M300090250	9.82	63.11	51.74	62.67
	M300090270	10.64	70.83	50.44	67.43
	M350090150	6.43	30.82	23.57	-
	M350090160	6.87	35.59	27.22	-
	M350090180	7.72	45.50	34.80	-
	M350090200	8.62	53.76	40.83	-
	M350090250	10.77	72.13	56.61	-
	M350090270	11.66	80.20	63.15	-
8.0	M205065120	3.29	10.31	8.25	8.98
	M205065130	3.58	12.02	9.61	9.73
	M205065140	3.84	13.78	11.02	10.46
	M205065150	4.13	15.56	12.45	11.20
	M205065160	4.41	17.34	13.88	11.92
	M205065170	4.67	19.13	15.08	12.66
	M205065180	4.96	20.19	16.15	13.36

- indicates the load to produce a deflection of span/180 exceeds ultimate UDL capacity

Multibeam Purlins - Load Tables

Table 1:13 Double span and single span sleeved (Cont.)

Span (m)	Section	Weight kg/m	Ultimate UDL Gravity kN	Ultimate UDL Suction kN	Load to Produce Deflection L/180 kN
	M205065200	5.53	23.14	18.51	14.79
	M205065220	6.05	26.23	20.98	16.19
	M205065250	6.91	30.63	24.50	18.25
	M205065270	7.49	33.47	26.77	19.60
	M235065130	3.86	14.41	11.52	13.46
	M235065140	4.14	16.52	13.22	14.48
	M235065150	4.45	18.66	14.93	15.50
	M235065160	4.76	20.22	16.60	16.51
	M235065170	5.04	22.52	18.01	17.50
	M235065180	5.35	24.31	19.60	18.51
	M235065200	5.97	27.93	22.33	20.49
	M235065220	6.53	31.75	26.79	22.44
	M235065250	7.46	37.14	31.33	25.31
	M235065270	8.08	40.63	34.27	27.20
	M265065140	4.46	18.80	15.03	-
	M265065150	4.79	22.03	17.44	20.67
	M265065160	5.13	23.72	18.96	22.02
	M265065180	5.76	28.68	22.95	24.70
	M265065200	6.43	33.05	26.28	27.35
	M265065220	7.03	37.31	30.33	29.97
	M265065250	8.03	45.07	35.53	33.83
	M265065270	8.70	49.34	38.90	36.35
	M300090150	5.86	23.63	18.91	-
	M300090160	6.27	27.12	21.69	-
	M300090180	7.05	35.33	27.52	-
	M300090200	7.86	41.58	32.23	-
	M300090250	9.82	59.59	48.85	55.08
	M300090270	10.64	66.83	48.21	59.27
	M350090150	6.43	29.50	22.56	-
	M350090160	6.87	33.98	25.98	-
	M350090180	7.72	43.29	33.11	-
	M350090200	8.62	51.02	38.74	-
	M350090250	10.77	68.21	54.52	-
	M350090270	11.66	75.76	60.66	-
8.5	M205065120	3.29	9.77	7.82	7.96
	M205065130	3.58	11.39	9.11	8.61
	M205065140	3.84	13.04	10.43	9.27
	M205065150	4.13	14.72	11.78	9.92
	M205065160	4.41	16.40	13.12	10.56
	M205065170	4.67	18.08	14.26	11.21
	M205065180	4.96	19.08	15.26	11.84
	M205065200	5.53	21.85	17.48	13.10
	M205065220	6.05	24.76	19.81	14.34
	M205065250	6.91	28.91	23.12	16.17
	M205065270	7.49	31.57	25.26	17.36
	M235065130	3.86	13.66	10.93	11.92
	M235065140	4.14	15.66	12.53	12.83
	M235065150	4.45	17.68	14.14	13.73
	M235065160	4.76	19.03	15.72	14.62
	M235065170	5.04	21.30	17.04	15.50
	M235065180	5.35	22.88	18.54	16.39
	M235065200	5.97	26.40	21.11	18.15
	M235065220	6.53	29.99	25.31	19.87
	M235065250	7.46	35.07	29.58	22.42
	M235065270	8.08	38.34	32.35	24.09
	M265065140	4.46	17.84	14.26	17.11
	M265065150	4.79	20.88	16.53	18.31
	M265065160	5.13	22.47	17.96	19.51
	M265065180	5.76	27.14	21.89	21.88
	M265065200	6.43	31.26	24.85	24.23

Span (m)	Section	Weight kg/m	Ultimate UDL Gravity kN	Ultimate UDL Suction kN	Load to Produce Deflection L/180 kN
	M265065220	7.03	35.26	28.66	26.54
	M265065250	8.03	42.57	33.56	29.96
	M265065270	8.70	46.59	36.73	32.20
	M300090150	5.86	22.56	18.05	-
	M300090160	6.27	25.85	20.68	-
	M300090180	7.05	33.60	26.17	-
	M300090200	7.86	39.48	30.60	39.35
	M300090250	9.82	56.43	46.27	48.79
	M300090270	10.64	63.25	46.14	52.50
	M350090150	6.43	28.26	21.61	-
	M350090160	6.87	32.48	24.84	-
	M350090180	7.72	41.25	31.55	-
	M350090200	8.62	48.52	36.85	-
	M350090250	10.77	64.67	52.52	-
	M350090270	11.66	71.78	58.30	-
9.0	M205065120	3.29	9.29	7.44	7.10
	M205065130	3.58	10.82	8.65	7.68
	M205065140	3.84	12.38	9.91	8.27
	M205065150	4.13	13.97	11.18	8.85
	M205065160	4.41	15.56	12.45	9.42
	M205065170	4.67	17.15	13.52	10.00
	M205065180	4.96	18.08	14.47	10.56
	M205065200	5.53	20.70	16.56	11.68
	M205065220	6.05	23.45	18.76	12.79
	M205065250	6.91	27.37	21.89	14.42
	M205065270	7.49	29.88	23.90	15.49
	M235065130	3.86	12.99	10.39	10.63
	M235065140	4.14	14.88	11.90	11.44
	M235065150	4.45	16.79	13.43	12.24
	M235065160	4.76	17.98	14.92	13.04
	M235065170	5.04	20.21	16.17	13.83
	M235065180	5.35	21.61	17.58	14.62
	M235065200	5.97	25.02	20.01	16.19
	M235065220	6.53	28.42	23.98	17.73
	M235065250	7.46	33.21	28.02	20.00
	M235065270	8.08	36.30	30.63	21.49
	M265065140	4.46	16.97	13.56	15.26
	M265065150	4.79	19.85	15.71	16.34
	M265065160	5.13	21.34	17.06	17.40
	M265065180	5.76	25.76	20.78	19.52
	M265065200	6.43	29.64	23.57	21.61
	M265065220	7.03	33.42	27.17	23.68
	M265065250	8.03	40.33	31.79	26.73
	M265065270	8.70	44.12	34.78	28.72
	M300090150	5.86	21.58	17.26	-
	M300090160	6.27	24.69	19.75	-
	M300090180	7.05	32.02	24.94	31.67
	M300090200	7.86	37.57	29.12	35.10
	M300090250	9.82	53.59	43.94	43.52
	M300090270	10.64	60.03	44.22	46.83
	M350090150	6.43	27.10	20.73	-
	M350090160	6.87	31.10	23.78	-
	M350090180	7.72	39.39	30.13	-
	M350090200	8.62	46.25	35.13	-
	M350090250	10.77	61.48	50.61	-
	M350090270	11.66	68.20	56.08	67.81

- indicates the load to produce a deflection of span/180 exceeds ultimate UDL capacity

Span (m)	Section	Weight kg/m	Ultimate UDL Gravity kN	Ultimate UDL Suction kN	Load to Produce Deflection L/180 kN
9.5	M235065130	3.86	12.31	9.91	9.54
	M235065140	4.14	14.10	11.34	10.27
	M235065150	4.45	15.90	12.79	10.99
	M235065160	4.76	17.03	14.20	11.70
	M235065170	5.04	19.14	15.38	12.41
	M235065180	5.35	20.47	16.72	13.12
	M235065200	5.97	23.70	19.02	14.53
	M235065220	6.53	26.92	22.78	15.91
	M235065250	7.46	31.46	26.61	17.95
	M235065270	8.08	34.39	29.08	19.29
	M265065140	4.46	16.07	12.93	13.70
	M265065150	4.79	18.81	14.97	14.66
	M265065160	5.13	20.22	16.24	15.62
	M265065180	5.76	24.41	19.77	17.52
	M265065200	6.43	28.08	22.41	19.40
	M265065220	7.03	31.66	25.83	21.25
	M265065250	8.03	38.21	30.20	23.99
	M265065270	8.70	41.80	33.04	25.78
	M300090150	5.86	20.44	16.54	-
	M300090160	6.27	23.39	18.90	-
	M300090180	7.05	30.33	23.82	28.42
	M300090200	7.86	35.59	27.77	31.50
	M300090250	9.82	50.77	41.83	39.06
	M300090270	10.64	56.87	42.44	42.03
	M350090150	6.43	26.03	19.91	-
	M350090160	6.87	29.81	22.80	-
	M350090180	7.72	37.32	28.82	-
	M350090200	8.62	43.82	33.55	-
	M350090250	10.77	58.25	48.80	56.54
	M350090270	11.66	64.61	53.98	60.86
10.0	M235065130	3.86	11.69	9.46	8.61
	M235065140	4.14	13.39	10.82	9.27
	M235065150	4.45	15.11	12.20	9.92
	M235065160	4.76	16.18	13.54	10.56
	M235065170	5.04	18.19	14.66	11.20
	M235065180	5.35	19.45	15.94	11.85
	M235065200	5.97	22.52	18.12	13.11
	M235065220	6.53	25.58	21.70	14.36
	M235065250	7.46	29.89	25.33	16.20
	M235065270	8.08	32.68	27.68	17.41
	M265065140	4.46	15.27	12.35	12.36
	M265065150	4.79	17.87	14.29	13.23
	M265065160	5.13	19.21	15.50	14.10
	M265065180	5.76	23.19	18.85	15.81
	M265065200	6.43	26.68	21.36	17.51
	M265065220	7.03	30.08	24.61	19.18
	M265065250	8.03	36.30	28.77	21.65
	M265065270	8.70	39.71	31.46	23.27
	M300090150	5.86	19.42	15.86	-
	M300090160	6.27	22.22	18.11	-
	M300090180	7.05	28.82	22.79	25.65
	M300090200	7.86	33.82	26.55	28.43
	M300090250	9.82	48.23	39.91	35.25
	M300090270	10.64	54.03	40.78	37.93
	M350090150	6.43	25.02	19.14	-
	M350090160	6.87	28.62	21.89	-
	M350090180	7.72	35.45	27.62	-
	M350090200	8.62	41.63	32.11	41.12
	M350090250	10.77	55.34	47.09	51.03
	M350090270	11.66	61.38	52.02	54.93

- indicates the load to produce a deflection of span/180 exceeds ultimate UDL capacity

Cleader Angle Wind Loadings

Maximum horizontal wind loading which can be carried by the Kingspan 70x70x2.7mm cleader angle.

Span between purlins (m)	Maximum UDL (wind) kN
1.0	2.70
1.2	2.27
1.4	1.95
1.6	1.70
1.8	1.51
2.0	1.36

Multibeam Purlins Tiled Roofs

Loads are Ultimate vertical (on slope) and in kN and kN/m^2.

The designer should not resolve the loadings into normal and downslope components as they have been taken into account when compiling this table. Loads are based on the utilisation of an anti-sag system comprising angle struts at 1/3 span with diagonal rod ties at a minimum slope to the purlins of 30º and stiffened cleats. In order to maintain 30º on larger bays, struts should be positioned at 1/4 intervals as shown on page 14 in the Multibeam Handbook.

One set of diagonal rods are required per 6m length of roof slope.

The loads are applicable to roof slopes not exceeding 30º and purlin spacings not exceeding 1.8m.

Timber rafters must be securely fixed to the purlins at centres not exceeding 600mm. Where metal decking is used with tiles consult our Technical Department.

Table 1:14 Tiled Roof Double Span Load Tables

Span (m)	Section	UDL kN	Purlin Centres m 1.2	1.375	1.5	1.675	1.8
5.0	M205065150	20.85	3.48	3.03	2.78	2.49	2.32
	M205065160	23.06	3.84	3.35	3.08	2.75	2.56
	M205065180	24.14	4.02	3.51	3.22	2.88	2.68
	M235065160	24.14	4.02	3.51	3.22	2.88	2.68
5.5	M205065150	19.17	2.90	2.53	2.32	2.08	1.94
	M205065160	21.17	3.21	2.80	2.57	2.30	2.14
	M235065160	23.04	3.49	3.05	2.79	2.50	2.33
	M235065180	23.04	3.49	3.05	2.79	2.50	2.33
6.0	M235065160	21.65	3.01	2.62	2.41	2.15	2.00
	M235065180	22.00	3.06	2.67	2.44	2.19	2.04
	M235065200	22.00	3.06	2.67	2.44	2.19	2.04
6.5	M235065160	20.13	2.58	2.25	2.07	1.85	1.72
	M235065180	21.02	2.69	2.35	2.16	1.93	1.80
	M235065200	21.02	2.69	2.35	2.16	1.93	1.80
7.0	M235065160	18.81	2.24	1.95	1.79	1.60	1.49
	M235065180	20.10	2.39	2.09	1.91	1.71	1.60
	M235065200	20.10	2.39	2.09	1.91	1.71	1.60