

# Multibeam Cladding Rails - Load Tables

## Multibeam Cladding Rails

### Ultimate Loads

Multichannel used as cladding rail supports, sections supported on Multichannel cleats as shown in the Multibeam Handbook  
LOADS SHOWN ARE UDL'S IN kN AND ARE ULTIMATE VALUES.

Values against deflection should be compared against values at working load. Loading assumes cladding provides restraint to the

**Table 3:6 Double Span Siderails (Vertical Cladding)**

Span (m)	Siderail Section	Weight kg/m	Ultimate Uniformly Distributed Load (kN) Pressure	Working Load to Produce Suction	Deflection of Span/150
4.5	M145065120	2.75	11.95	9.33	-
	M145065130	2.99	14.04	11.23	-
	M145065140	3.21	16.21	12.96	-
	M145065150	3.45	18.40	14.72	-
	M145065160	3.69	20.61	16.49	20.04
	M145065180	4.15	24.96	19.97	22.44
	M145065200	4.63	29.10	23.28	24.80
	M145065220	5.06	33.02	26.42	27.12
	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	-
	M175065200	5.08	34.07	27.25	-
	M175065220	5.56	38.74	31.00	-
	M175065250	6.35	45.42	36.34	-
	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	-
	M145065130	2.99	12.82	10.26	-
	M145065140	3.21	14.78	11.82	14.26
	M145065150	3.45	16.76	13.41	15.25
	M145065160	3.69	18.75	15.00	16.23
	M145065180	4.15	22.67	18.13	18.17
	M145065200	4.63	26.39	21.12	20.09
	M145065220	5.06	29.93	23.94	21.97
	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	-
	M175065160	4.05	22.36	17.89	-

Multichannel, and that the Multichannel restraint system as detailed in the Multibeam Handbook is used. Lining and levelling of the bottom base rails should be completed before fitting further rails or tube struts. Maximum height limit 10m. Use grade 8.8 bolts for M265, M300 and M350.

For Rafter and Stanchion Stays please refer to page 127.

Span (m)	Siderail Section	Weight kg/m	Ultimate Uniformly Distributed Load (kN) Pressure	Working Load to Produce Suction	Deflection of Span/150	
4.5	M175065180	4.55	27.07	21.66	-	
	M175065200	5.08	30.96	24.76	-	
	M175065220	5.56	35.16	28.13	34.17	
	M175065250	6.35	41.17	32.94	38.51	
	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	-	
	M205065270	7.49	52.21	41.76	-	
	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	-
		M145065130	2.99	11.79	9.44	10.96
		M145065140	3.21	13.58	10.86	11.78
		M145065150	3.45	15.38	12.30	12.60
		M145065160	3.69	17.19	13.75	13.41
		M145065180	4.15	20.76	16.60	15.02
		M145065200	4.63	24.15	19.32	16.60
M145065220		5.06	27.36	21.89	18.16	
M175065120		3.02	12.47	9.97	-	
M175065130		3.29	14.62	11.70	-	
M175065140		3.52	16.84	13.47	-	
M175065150		3.79	18.86	15.09	-	
M175065160		4.05	20.55	16.44	-	
M175065180		4.55	24.83	19.87	23.34	
M175065200		5.08	28.36	22.69	25.81	
M175065220		5.56	32.19	25.75	28.24	
M175065250	6.35	37.65	30.12	31.82		
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	-		

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



# Multibeam Cladding Rails - Load Tables

Table 3:6 Double Span Siderails (Vertical Cladding) (Cont.)

Span (m)	Siderail Section	Weight kg/m	Ultimate Uniformly Distributed Load (kN) Pressure	Working Load to Produce Suction	Deflection of Span/150	Span (m)	Siderail Section	Weight kg/m	Ultimate Uniformly Distributed Load (kN) Pressure	Working Load to Produce Suction	Deflection of Span/150
	M205065180	4.96	28.42	22.73	-		M235065160	4.76	26.77	21.42	-
	M205065200	5.53	32.71	26.17	-		M235065170	5.04	29.13	23.30	-
	M205065220	6.05	37.21	29.77	-		M235065180	5.35	31.77	25.42	-
	M205065250	6.91	43.63	34.90	-		M235065200	5.97	36.36	29.07	-
	M205065270	7.49	47.76	38.20	-		M235065220	6.53	41.46	34.97	-
	M235065130	3.86	19.67	15.73	-		M235065250	7.46	48.65	41.04	-
	M235065140	4.14	22.72	18.18	-		M235065270	8.08	53.30	44.97	-
	M235065150	4.45	25.82	20.66	-		M265065140	4.46	23.92	19.12	-
	M235065160	4.76	28.85	23.08	-		M265065150	4.79	28.17	22.29	-
	M235065170	5.04	31.42	25.14	-		M265065160	5.13	30.45	23.74	-
	M235065180	5.35	34.30	27.44	-		M265065180	5.76	37.04	28.00	-
	M235065200	5.97	39.31	31.43	-		M265065200	6.43	42.88	33.11	-
	M235065220	6.53	44.87	37.86	-		M265065220	7.03	48.56	39.15	-
	M235065250	7.46	52.72	44.48	-		M265065250	8.03	58.89	46.22	-
	M235065270	8.08	57.80	48.77	-		M265065270	8.70	64.59	50.80	-
	M265065140	4.46	25.63	20.49	-	6.5	M175065120	3.02	10.82	8.66	-
	M265065150	4.79	30.24	23.32	-		M175065130	3.29	12.65	10.12	12.17
	M265065160	5.13	32.74	24.86	-		M175065140	3.52	14.53	11.63	13.10
	M265065180	5.76	39.93	29.51	-		M175065150	3.79	16.25	13.00	14.01
	M265065200	6.43	46.30	35.06	-		M175065160	4.05	17.67	14.13	14.91
	M265065220	7.03	52.50	41.61	-		M175065180	4.55	21.30	17.04	16.71
	M265065250	8.03	63.76	49.32	-		M175065200	5.08	24.28	19.43	18.48
	M265065270	8.70	69.99	54.32	-		M175065220	5.56	27.52	22.02	20.22
6.0	M145065120	2.75	9.34	7.47	8.51		M175065250	6.35	32.14	25.71	22.78
	M145065130	2.99	10.92	8.73	9.21		M205065120	3.29	12.30	9.84	-
	M145065140	3.21	12.55	10.04	9.90		M205065130	3.58	14.40	11.52	-
	M145065150	3.45	14.21	11.37	10.59		M205065140	3.84	16.56	13.25	-
	M145065160	3.69	15.87	12.70	11.27		M205065150	4.13	18.74	14.99	-
	M145065180	4.15	19.14	15.31	12.62		M205065160	4.41	20.94	16.75	-
	M145065200	4.63	22.25	17.80	13.95		M205065170	4.67	23.13	18.23	23.01
	M145065220	5.06	25.19	20.15	15.26		M205065180	4.96	24.44	19.55	24.29
	M175065120	3.02	11.59	9.27	-		M205065200	5.53	28.07	22.46	26.88
	M175065130	3.29	13.57	10.85	-		M205065220	6.05	31.88	25.50	29.42
	M175065140	3.52	15.60	12.48	15.37		M205065250	6.91	37.30	29.84	33.18
	M175065150	3.79	17.46	13.97	16.44		M205065270	7.49	40.79	32.63	35.63
	M175065160	4.05	19.00	15.20	17.50		M235065130	3.86	17.18	13.74	-
	M175065180	4.55	22.93	18.35	19.61		M235065140	4.14	19.78	15.82	-
	M175065200	5.08	26.16	20.93	21.69		M235065150	4.45	22.40	17.93	-
	M175065220	5.56	29.67	23.74	23.73		M235065160	4.76	24.89	19.98	-
	M175065250	6.35	34.67	27.74	26.74		M235065170	5.04	27.14	21.71	-
	M205065120	3.29	13.14	10.52	-		M235065180	5.35	29.58	23.67	-
	M205065130	3.58	15.41	12.33	-		M235065200	5.97	33.81	27.04	-
	M205065140	3.84	17.74	14.20	-		M235065220	6.53	38.52	32.50	-
	M205065150	4.13	20.11	16.09	-		M235065250	7.46	45.16	38.10	-
	M205065160	4.41	22.48	17.99	-		M235065270	8.08	49.45	41.72	49.43
	M205065170	4.67	24.85	19.59	-		M265065140	4.46	22.41	17.91	-
	M205065180	4.96	26.28	21.02	-		M265065150	4.79	26.34	20.85	-
	M205065200	5.53	30.22	24.17	-		M265065160	5.13	28.44	22.65	-
	M205065220	6.05	34.34	27.47	-		M265065180	5.76	34.53	26.59	-
	M205065250	6.91	40.22	32.17	38.94		M265065200	6.43	39.92	31.32	-
	M205065270	7.49	44.00	35.20	41.82		M265065220	7.03	45.16	36.72	-
	M235065130	3.86	18.35	14.67	-		M265065250	8.03	54.70	43.12	-
	M235065140	4.14	21.15	16.92	-		M265065270	8.70	59.96	47.27	-
	M235065150	4.45	24.00	19.20	-						

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

Span (m)	Siderail Section	Weight kg/m	Ultimate Uniformly Distributed Load (kN) Pressure	Working Load to Produce Suction	Deflection of Span/150
7.0	M175065120	3.02	10.15	8.12	9.70
	M175065130	3.29	11.85	9.48	10.50
	M175065140	3.52	13.60	10.88	11.29
	M175065150	3.79	15.19	12.15	12.08
	M175065160	4.05	16.51	13.21	12.86
	M175065180	4.55	19.88	15.91	14.41
	M175065200	5.08	22.65	18.12	15.93
	M175065220	5.56	25.66	20.53	17.44
	M175065250	6.35	29.94	23.95	19.65
	M205065120	3.29	11.56	9.25	-
	M205065130	3.58	13.51	10.81	-
	M205065140	3.84	15.52	12.41	-
	M205065150	4.13	17.55	14.04	17.55
	M205065160	4.41	19.59	15.67	18.69
	M205065170	4.67	21.62	17.05	19.84
	M205065180	4.96	22.84	18.27	20.94
	M205065200	5.53	26.21	20.97	23.17
	M205065220	6.05	29.74	23.79	25.37
	M205065250	6.91	34.78	27.82	28.61
	M205065270	7.49	38.02	30.41	30.72
	M235065130	3.86	16.15	12.92	-
	M235065140	4.14	18.56	14.85	-
	M235065150	4.45	21.01	16.81	-
	M235065160	4.76	23.11	18.71	-
	M235065170	5.04	25.41	20.32	-
	M235065180	5.35	27.67	22.14	-
	M235065200	5.97	31.60	25.27	-
	M235065220	6.53	35.97	30.34	35.16
	M235065250	7.46	42.13	35.54	39.67
	M235065270	8.08	46.11	38.90	42.62
	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	-	
M265065200	6.43	37.34	29.69	-	
M265065220	7.03	42.20	34.31	-	
M265065250	8.03	51.07	40.26	-	
M265065270	8.70	55.95	44.11	-	
7.5	M175065120	3.02	9.47	7.64	8.45
	M175065130	3.29	11.06	8.91	9.14
	M175065140	3.52	12.69	10.22	9.84
	M175065150	3.79	14.18	11.41	10.52
	M175065160	4.05	15.41	12.39	11.20
	M175065180	4.55	18.56	14.91	12.55
	M175065200	5.08	21.14	16.98	13.88
	M175065220	5.56	23.94	19.22	15.19
	M175065250	6.35	27.95	22.42	17.11
	M205065120	3.29	10.90	8.72	-
	M205065130	3.58	12.72	10.18	-
	M205065140	3.84	14.60	11.68	14.29
	M205065150	4.13	16.49	13.20	15.29
	M205065160	4.41	18.40	14.72	16.28
	M205065170	4.67	20.30	16.00	17.28

Span (m)	Siderail Section	Weight kg/m	Ultimate Uniformly Distributed Load (kN) Pressure	Working Load to Produce Suction	Deflection of Span/150	
8.0	M205065180	4.96	21.43	17.14	18.25	
	M205065200	5.53	24.58	19.66	20.19	
	M205065220	6.05	27.87	22.30	22.10	
	M205065250	6.91	32.58	26.06	24.92	
	M205065270	7.49	35.60	28.47	26.76	
	M235065130	3.86	15.23	12.18	-	
	M235065140	4.14	17.48	13.99	-	
	M235065150	4.45	19.77	15.82	-	
	M235065160	4.76	21.57	17.60	-	
	M235065170	5.04	23.87	19.10	-	
	M235065180	5.35	25.93	20.79	25.27	
	M235065200	5.97	29.65	23.71	27.97	
	M235065220	6.53	33.73	28.46	30.63	
	M235065250	7.46	39.48	33.31	34.56	
	M235065270	8.08	43.20	36.44	37.13	
	M265065140	4.46	19.87	15.88	-	
	M265065150	4.79	23.31	18.45	-	
	M265065160	5.13	25.11	20.07	-	
	M265065180	5.76	30.40	24.06	-	
	M265065200	6.43	35.07	27.88	-	
	M265065220	7.03	39.60	32.20	-	
	M265065250	8.03	47.88	37.75	46.18	
	M265065270	8.70	52.44	41.34	49.64	
	8.0	M205065120	3.29	10.31	8.25	-
		M205065130	3.58	12.02	9.61	11.67
		M205065140	3.84	13.78	11.02	12.56
		M205065150	4.13	15.56	12.45	13.43
		M205065160	4.41	17.34	13.88	14.31
		M205065170	4.67	19.13	15.08	15.19
		M205065180	4.96	20.19	16.15	16.04
		M205065200	5.53	23.14	18.51	17.74
		M205065220	6.05	26.23	20.98	19.42
M205065250		6.91	30.63	24.50	21.90	
M205065270		7.49	33.47	26.77	23.52	
M235065130		3.86	14.41	11.52	-	
M235065140		4.14	16.52	13.22	-	
M235065150		4.45	18.66	14.93	18.60	
M235065160		4.76	20.22	16.60	19.81	
M235065170		5.04	22.52	18.01	21.00	
M235065180	5.35	24.31	19.60	22.21		
M235065200	5.97	27.93	22.33	24.58		
M235065220	6.53	31.75	26.79	26.92		
M235065250	7.46	37.14	31.33	30.38		
M235065270	8.08	40.63	34.27	32.63		
M265065140	4.46	18.80	15.03	-		
M265065150	4.79	22.03	17.44	-		
M265065160	5.13	23.72	18.96	-		
M265065180	5.76	28.68	22.95	-		
M265065200	6.43	33.05	26.28	32.82		
M265065220	7.03	37.31	30.33	35.96		
M265065250	8.03	45.07	35.53	40.59		
M265065270	8.70	49.34	38.90	43.62		

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



# Multibeam Cladding Rails - Load Tables

**Table 3:6 Double Span Siderails (Vertical Cladding)**

Span (m)	Siderail Section	Weight kg/m	Ultimate Uniformly Distributed Load (kN) Pressure	Working Load to Produce Suction	Deflection of Span/150	Span (m)	Siderail Section	Weight kg/m	Ultimate Uniformly Distributed Load (kN) Pressure	Working Load to Produce Suction	Deflection of Span/150		
8.5	M205065120	3.29	9.77	7.82	9.55	9.5	M235065130	3.86	12.31	9.91	11.45		
	M205065130	3.58	11.39	9.11	10.34		M235065140	4.14	14.10	11.34	12.32		
	M205065140	3.84	13.04	10.43	11.12		M235065150	4.45	15.90	12.79	13.19		
	M205065150	4.13	14.72	11.78	11.90		M235065160	4.76	17.03	14.20	14.05		
	M205065160	4.41	16.40	13.12	12.67		M235065170	5.04	19.14	15.38	14.90		
	M205065170	4.67	18.08	14.26	13.46		M235065180	5.35	20.47	16.72	15.75		
	M205065180	4.96	19.08	15.26	14.21		M235065200	5.97	23.70	19.02	17.43		
	M205065200	5.53	21.85	17.48	15.72		M235065220	6.53	26.92	22.78	19.09		
	M205065220	6.05	24.76	19.81	17.21		M235065250	7.46	31.46	26.61	21.54		
	M205065250	6.91	28.91	23.12	19.40		M235065270	8.08	34.39	29.08	23.14		
	M205065270	7.49	31.57	25.26	20.84		M265065140	4.46	16.07	12.93	-		
	M235065130	3.86	13.66	10.93	-		M265065150	4.79	18.81	14.97	17.59		
	M235065140	4.14	15.66	12.53	15.39		M265065160	5.13	20.22	16.24	18.74		
	M235065150	4.45	17.68	14.14	16.47		M265065180	5.76	24.41	19.77	21.02		
	M235065160	4.76	19.03	15.72	17.54		M265065200	6.43	28.08	22.41	23.28		
	M235065170	5.04	21.30	17.04	18.61		M265065220	7.03	31.66	25.83	25.50		
	M235065180	5.35	22.88	18.54	19.67		M265065250	8.03	38.21	30.20	28.78		
	M235065200	5.97	26.40	21.11	21.78		M265065270	8.70	41.80	33.04	30.94		
	M235065220	6.53	29.99	25.31	23.85		10.0	M235065130	3.86	11.69	9.46	10.33	
	M235065250	7.46	35.07	29.58	26.91			M235065140	4.14	13.39	10.82	11.12	
	M235065270	8.08	38.34	32.35	28.91			M235065150	4.45	15.11	12.20	11.90	
	M265065140	4.46	17.84	14.26	-			M235065160	4.76	16.18	13.54	12.68	
	M265065150	4.79	20.88	16.53	-			M235065170	5.04	18.19	14.66	13.44	
	M265065160	5.13	22.47	17.96	-			M235065180	5.35	19.45	15.94	14.21	
	M265065180	5.76	27.14	21.89	26.26			M235065200	5.97	22.52	18.12	15.73	
	M265065200	6.43	31.26	24.85	29.07			M235065220	6.53	25.58	21.70	17.23	
	M265065220	7.03	35.26	28.66	31.85			M235065250	7.46	29.89	25.33	19.44	
	M265065250	8.03	42.57	33.56	35.96			M235065270	8.08	32.68	27.68	20.89	
	M265065270	8.70	46.59	36.73	38.64			M265065140	4.46	15.27	12.35	14.83	
	9.0	M205065120	3.29	9.29	7.44			8.52	M265065150	4.79	17.87	14.29	15.88
		M205065130	3.58	10.82	8.65			9.22	M265065160	5.13	19.21	15.50	16.91
		M205065140	3.84	12.38	9.91			9.92	M265065180	5.76	23.19	18.85	18.97
M205065150		4.13	13.97	11.18	10.61	M265065200		6.43	26.68	21.36	21.01		
M205065160		4.41	15.56	12.45	11.30	M265065220		7.03	30.08	24.61	23.01		
M205065170		4.67	17.15	13.52	12.00	M265065250	8.03	36.30	28.77	25.98			
M205065180		4.96	18.08	14.47	12.67	M265065270	8.70	39.71	31.46	27.92			
M205065200		5.53	20.70	16.56	14.02								
M205065220		6.05	23.45	18.76	15.35								
M205065250		6.91	27.37	21.89	17.31								
M205065270		7.49	29.88	23.90	18.59								
M235065130		3.86	12.99	10.39	12.76								
M235065140		4.14	14.88	11.90	13.73								
M235065150		4.45	16.79	13.43	14.69								
M235065160		4.76	17.98	14.92	15.65								
M235065170		5.04	20.21	16.17	16.60								
M235065180		5.35	21.61	17.58	17.55								
M235065200		5.97	25.02	20.01	19.42								
M235065220		6.53	28.42	23.98	21.27								
M235065250		7.46	33.21	28.02	24.00								
M235065270		8.08	36.30	30.63	25.79								
M265065140		4.46	16.97	13.56	-								
M265065150		4.79	19.85	15.71	19.60								
M265065160		5.13	21.34	17.06	20.88								
M265065180		5.76	25.76	20.78	23.42								
M265065200		6.43	29.64	23.57	25.93								
M265065220		7.03	33.42	27.17	28.41								
M265065250		8.03	40.33	31.79	32.07								
M265065270		8.70	44.12	34.78	34.47								

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