

Multichannel - Load Tables

Multichannel Brickwork Restraint

Working Loads

Loads shown are working loads limited to a deflection of span/360 or span/500. Sections can be used as combined sheeting rail/brick restraint, or as a brick restraint built into the brickwork either as a single or compound section. Attachment to the brickwork can be: Rawlbolts, or other similar.

Threaded rods built into the wall.
Shop-fired fixings.
Flat strapped brick restraints.

Compound Multichannels will support twice the capacity of the single section shown. Sections shown do not preclude the use of thinner gauge if the capacity is adequate. Use of the AUTOFORM® connection can provide an efficient solution for the attachment of brick restraints to the steelwork.

Please contact our Technical Department for further details.

Table 4:7 Multichannel Brickwork Restraint Single Span

Span (m)	Section	Weight kg/m	Ultimate Uniformly Distributed Load (kN)			Working Load to Produce Deflection of		
			Pressure	Suction		span/300 kN	span/360 kN	span/500 kN
4.00	L175070120	3.02	13.60	13.60	6.50	5.42	3.90	
	L175070130	3.29	15.60	15.60	7.04	5.87	4.22	
	L175070140	3.52	17.65	17.65	7.57	6.31	4.54	
	L175070150	3.79	19.73	19.73	8.10	6.75	4.86	
	L175070160	4.05	21.81	21.81	8.62	7.19	5.17	
	L175070180	4.55	26.34	26.34	9.66	8.05	5.80	
	L175070200	5.08	29.90	29.90	10.69	8.90	6.41	
	L175070220	5.56	33.70	33.70	11.69	9.75	7.02	
	L175070250	6.35	39.12	39.12	13.18	10.98	7.91	
	L205070120	3.29	15.23	15.23	9.39	7.83	5.63	
	L205070130	3.58	18.23	18.23	10.17	8.47	6.10	
	L205070140	3.84	20.72	20.72	10.94	9.12	6.56	
	L205070150	4.13	23.24	23.24	11.71	9.76	7.02	
	L205070160	4.41	25.77	25.77	12.47	10.39	7.48	
	L205070170	4.67	28.28	28.28	13.23	11.02	7.93	
	L205070180	4.96	30.76	30.76	13.98	11.64	8.39	
L205070200	5.53	35.59	35.59	15.46	12.89	9.28		
4.50	L175070120	3.02	12.09	12.09	5.14	4.28	3.08	
	L175070130	3.29	13.86	13.86	5.56	4.63	3.34	
	L175070140	3.52	15.69	15.69	5.98	4.99	3.59	
	L175070150	3.79	17.54	17.54	6.40	5.33	3.84	
	L175070160	4.05	19.38	19.38	6.81	5.68	4.09	
	L175070180	4.55	23.05	23.05	7.63	6.36	4.58	
	L175070200	5.08	26.58	26.58	8.44	7.04	5.06	
	L175070220	5.56	29.95	29.51	9.24	7.70	5.55	
	L175070250	6.35	34.77	33.16	10.41	8.68	6.25	
	L205070120	3.29	14.04	14.04	7.42	6.19	4.45	
	L205070130	3.58	16.21	16.21	8.03	6.70	4.82	
	L205070140	3.84	18.42	18.42	8.64	7.20	5.19	
	L205070150	4.13	20.66	20.66	9.25	7.71	5.55	
	L205070160	4.41	22.91	22.91	9.85	8.21	5.91	
	L205070170	4.67	25.13	25.13	10.45	8.71	6.27	
	L205070180	4.96	27.35	27.35	11.04	9.20	6.63	
L205070200	5.53	31.64	31.64	12.22	10.18	7.33		
5.00	L175070120	3.02	10.88	10.88	4.16	3.47	2.49	
	L175070130	3.29	12.48	12.48	4.50	3.75	2.70	
	L175070140	3.52	14.12	14.12	4.84	4.04	2.91	
	L175070150	3.79	15.78	15.78	5.19	4.32	3.11	
	L175070160	4.05	17.45	17.45	5.52	4.60	3.31	
	L175070180	4.55	20.75	20.69	6.19	5.15	3.71	
	L175070200	5.08	23.92	22.84	6.84	5.70	4.10	
	L175070220	5.56	26.96	24.92	7.48	6.24	4.49	
	L175070250	6.35	31.30	28.02	8.44	7.03	5.06	
	L205070120	3.29	12.64	12.64	6.01	5.01	3.61	
	L205070130	3.58	14.59	14.59	6.51	5.42	3.91	
	L205070140	3.84	11.58	11.58	7.00	5.84	4.20	
	L205070150	4.13	18.60	18.60	7.49	6.24	4.50	
	L205070160	4.41	20.62	20.62	7.98	6.65	4.79	
	L205070170	4.67	22.62	22.62	8.46	7.05	5.08	
	L205070180	4.96	24.61	24.61	8.95	7.46	5.37	
L205070200	5.53	28.47	27.98	9.90	8.25	5.94		

Multichannel - Load Tables

Multichannel Brickwork Restraint

Table 4:7 Multichannel Brickwork Restraint Single Span Cont.

Span (m)	Section	Weight kg/m	Ultimate Uniformly Distributed Load (kN)		Working Load to Produce Deflection of			
			Pressure	Suction	span/300 kN	span/360 kN	span/500 kN	
5.5	L175070120	3.02	9.89	9.89	3.44	2.86	2.06	
	L175070130	3.29	11.34	11.34	3.72	3.10	2.23	
	L175070140	3.52	12.83	12.83	4.01	3.34	2.40	
	L175070150	3.79	14.35	14.35	4.28	3.57	2.57	
	L175070160	4.05	15.86	15.50	4.56	3.80	2.74	
	L175070180	4.55	13.36	17.33	5.11	4.26	3.07	
	L175070200	5.08	21.75	19.13	5.65	4.71	3.39	
	L175070220	5.56	24.50	20.89	6.19	5.16	3.71	
	L175070250	6.35	28.45	23.49	6.97	5.81	4.18	
	L205070120	3.29	11.48	11.48	4.97	4.14	2.98	
	L205070130	3.58	13.26	13.26	5.38	4.48	3.23	
	L205070140	3.84	15.07	15.07	5.79	4.82	3.47	
	L205070150	4.13	16.90	16.90	6.19	5.16	3.72	
	L205070160	4.41	18.74	18.74	6.60	5.50	3.96	
	L205070170	4.67	20.56	20.09	7.00	5.83	4.20	
	L205070180	4.96	22.37	21.20	7.39	6.16	4.43	
	L205070200	5.53	25.88	23.39	8.18	6.82	4.91	
	6.0	L175070150	3.79	13.15	12.11	3.60	3.00	2.16
		L175070160	4.05	14.54	12.88	3.83	3.19	2.30
		L175070180	4.55	17.29	14.41	4.30	3.58	2.58
L175070200		5.08	19.93	15.91	4.75	3.96	2.85	
L175070220		5.56	22.46	17.39	5.20	4.33	3.12	
L175070250		6.35	20.08	19.57	5.86	4.88	3.52	
L205070120		3.29	10.53	10.53	4.17	3.48	2.50	
L205070130		3.58	12.16	12.16	4.52	3.77	2.71	
L205070140		3.84	13.82	13.82	4.86	4.05	2.92	
L205070150		4.13	15.49	14.81	5.20	4.33	3.12	
L205070160		4.41	17.18	15.74	5.54	4.62	3.33	
L205070170		4.67	18.85	16.67	5.88	4.90	3.52	
L205070180		4.96	20.51	17.60	6.21	5.18	3.73	
L205070200		5.53	23.72	19.42	6.87	5.73	4.12	
6.5	L175070150	3.79	12.14	11.64	3.07	2.56	1.84	
	L175070160	4.05	13.42	12.37	3.27	2.72	1.96	
	L175070180	4.55	15.96	13.83	3.66	3.05	2.20	
	L175070200	5.08	18.40	15.26	4.05	3.37	2.43	
	L175070220	5.56	20.74	16.65	4.43	3.69	2.66	
	L175070250	6.35	24.07	18.70	4.99	4.16	2.99	
	L205070120	3.29	9.72	9.72	3.56	2.96	2.13	
	L205070130	3.58	11.22	11.22	3.85	3.21	2.31	
	L205070140	3.84	12.75	12.75	4.14	3.45	2.49	
	L205070150	4.13	14.30	14.27	4.43	3.69	2.66	
	L205070160	4.41	15.85	15.17	4.72	3.94	2.83	
	L205070170	4.67	17.40	16.06	5.01	4.17	3.01	
	L205070180	4.96	18.93	16.95	5.29	4.41	3.18	
	L205070200	5.53	21.90	18.69	5.86	4.88	3.51	
L205070220	6.05	24.76	21.57	6.41	5.34	3.85		
L205070250	6.91	28.88	22.91	7.23	6.02	4.34		
7.0	L175070150	3.79	11.27	9.93	2.64	2.20	1.59	
	L175070160	4.05	12.46	10.55	2.81	2.35	1.69	
	L175070180	4.55	14.82	11.79	3.16	2.63	1.89	
	L175070200	5.08	17.09	13.01	3.49	2.91	2.09	
	L175070220	5.56	19.26	14.20	3.82	3.18	2.29	
	L175070250	6.35	22.35	15.95	4.30	3.59	2.58	
	L205070120	3.29	9.02	9.02	3.07	2.56	1.84	
	L205070130	3.58	10.42	10.42	3.32	2.77	1.99	
	L205070140	3.84	11.84	11.38	3.57	2.98	2.14	
	L205070150	4.13	13.28	12.16	3.82	3.18	2.30	
	L205070160	4.41	14.72	12.93	4.07	3.39	2.44	
	L205070170	4.67	16.16	13.69	4.32	3.60	2.59	
	L205070180	4.96	17.58	14.44	4.56	3.80	2.74	
	L205070200	5.53	20.34	15.93	5.05	4.21	3.03	
L205070220	6.05	23.00	17.38	5.53	4.61	3.32		
L205070250	6.91	26.82	19.51	6.24	5.19	3.74		

Table 4:7 Multichannel Brickwork Restraint Double Span

Span (m)	Section	Weight kg/m	Ultimate Uniformly Distributed Load (kN)		Working Load to Produce Deflection of		
			Pressure	Suction	span/300 kN	span/360 kN	span/500 kN
4.0	L175070120	3.02	11.07	11.07	15.66	13.05	9.40
	L175070130	3.29	13.35	13.35	16.95	14.13	10.17
	L175070140	3.52	15.75	15.75	18.24	15.20	10.94
	L175070150	3.79	18.24	18.24	19.51	16.26	11.71
	L175070160	4.05	20.77	20.77	20.77	17.31	12.46
	L175070180	4.55	25.88	25.88	23.28	19.40	13.97
	L175070200	5.08	30.85	30.85	25.74	21.45	15.45
	L175070220	5.56	35.60	35.60	28.17	23.48	16.90
	L175070250	6.35	42.30	42.30	31.75	26.46	19.05
	L205070120	3.29	10.85	10.85	22.62	18.85	13.57
	L205070130	3.58	13.34	13.34	24.50	20.41	14.70
	L205070140	3.84	16.03	16.03	26.35	21.96	15.81
	L205070150	4.13	18.89	18.89	28.20	23.50	16.92
	L205070160	4.41	21.87	21.87	30.03	25.03	18.02
	L205070170	4.67	24.93	24.93	31.86	26.55	19.11
	L205070180	4.96	28.04	28.04	33.67	28.05	20.20
	L205070200	5.53	34.25	34.25	37.25	31.04	22.35
4.5	L175070120	3.02	9.22	9.22	12.38	10.31	7.43
	L175070130	3.29	11.05	11.05	13.40	11.16	8.04
	L175070140	3.52	12.96	12.96	14.41	12.01	8.65
	L175070150	3.79	14.93	14.93	15.42	12.85	9.25
	L175070160	4.05	16.92	16.92	16.41	13.68	9.85
	L175070180	4.55	20.93	20.93	18.39	15.33	11.03
	L175070200	5.08	24.80	24.80	20.34	16.95	12.20
	L175070220	5.56	28.49	28.49	22.26	18.55	13.36
	L175070250	6.35	33.69	33.69	25.08	20.90	15.05
	L205070120	3.29	9.20	9.20	17.88	14.90	10.73
	L205070130	3.58	11.25	11.25	19.35	16.13	11.61
	L205070140	3.84	13.43	13.43	20.82	17.35	12.49
	L205070150	4.13	15.74	15.74	22.28	18.57	13.37
	L205070160	4.41	18.12	18.12	23.73	19.77	14.24
	L205070170	4.67	20.55	20.55	25.17	20.97	15.10
	L205070180	4.96	23.00	23.00	26.60	22.17	15.96
	L205070200	5.53	27.86	27.86	29.43	24.53	17.66
5.0	L175070120	3.02	8.65	8.65	10.02	8.35	6.01
	L175070130	3.29	10.31	10.31	10.85	9.04	6.51
	L175070140	3.52	12.03	12.03	11.67	9.73	7.00
	L175070150	3.79	13.80	13.80	12.49	10.41	7.49
	L175070160	4.05	15.59	15.59	13.29	11.08	7.98
	L175070180	4.55	19.16	19.16	14.90	12.41	8.94
	L175070200	5.08	22.60	22.60	16.47	13.73	9.88
	L175070220	5.56	25.87	25.87	18.03	15.02	10.82
	L175070250	6.35	30.50	30.50	20.32	16.93	12.19
	L205070120	3.29	8.77	8.77	14.48	12.07	8.69
	L205070130	3.58	10.66	10.66	15.68	13.06	9.41
	L205070140	3.84	12.67	12.67	16.87	14.06	10.12
	L205070150	4.13	14.77	14.77	18.05	15.04	10.83
	L205070160	4.41	16.92	16.92	19.22	16.02	11.53
	L205070170	4.67	19.11	19.11	20.39	16.99	12.23
	L205070180	4.96	21.31	21.31	21.55	17.96	12.93
	L205070200	5.53	25.63	25.63	23.84	19.87	14.30
5.5	L175070120	3.02	8.13	8.13	8.28	6.90	4.97
	L175070130	3.29	9.64	9.64	8.97	7.47	5.38
	L175070140	3.52	11.21	11.21	9.65	8.04	5.79
	L175070150	3.79	12.81	12.81	10.32	8.60	6.19
	L175070160	4.05	14.43	14.43	10.99	9.16	6.59
	L175070180	4.55	17.64	17.64	12.31	10.26	7.39
	L175070200	5.08	20.74	20.74	13.62	11.35	8.17
	L175070220	5.56	23.68	23.34	14.90	12.42	8.94
	L175070250	6.35	27.85	26.58	16.79	13.99	10.08
	L205070120	3.29	8.36	8.36	11.97	9.97	7.18
	L205070130	3.58	10.11	10.11	12.96	10.80	7.77
	L205070140	3.84	11.96	11.96	13.94	11.62	8.36
	L205070150	4.13	13.88	13.88	14.92	12.43	8.95
	L205070160	4.41	15.73	14.87	15.89	13.24	9.53
	L205070170	4.67	17.82	16.73	16.85	14.04	10.11
	L205070180	4.96	19.80	18.49	17.81	14.84	10.68
	L205070200	5.53	23.69	20.98	19.70	16.42	11.82

Multichannel - Load Tables

Table 4:7 Multichannel Brickwork Restraint Double Span Cont.

Span (m)	Section	Weight kg/m	Ultimate Uniformly Distributed Load (kN)		Working Load to Produce Deflection of		
			Pressure	Suction	span/300 kN	span/360 kN	span/500 kN
6.0	L175070150	3.79	11.94	11.94	8.67	7.23	5.20
	L175070160	4.05	13.41	13.41	9.23	7.69	5.54
	L175070180	4.55	16.34	16.34	10.35	8.62	6.21
	L175070200	5.08	19.15	19.15	11.44	9.53	6.86
	L175070220	5.56	21.82	21.82	12.52	10.43	7.51
	L175070250	6.35	25.61	25.61	14.11	11.76	8.47
	L205070120	3.29	7.97	7.97	10.05	8.38	6.03
	L205070130	3.58	9.59	9.59	10.89	9.07	6.53
	L205070140	3.84	11.30	11.30	11.71	9.76	7.03
	L205070150	4.13	13.06	13.06	12.53	10.44	7.52
	L205070160	4.41	14.86	14.86	13.35	11.12	8.01
	L205070170	4.67	16.67	16.67	14.16	11.80	8.49
	L205070180	4.96	18.47	18.47	14.96	12.47	8.98
	L205070200	5.53	22.00	21.52	16.55	13.80	9.93
	6.5	L175070150	3.79	11.17	11.17	7.39	6.16
L175070160		4.05	12.52	12.52	7.87	6.56	4.72
L175070180		4.55	15.20	15.20	8.81	7.35	5.29
L175070200		5.08	17.78	17.78	9.75	8.12	5.85
L175070220		5.56	20.23	20.23	10.67	8.89	6.40
L175070250		6.35	23.71	23.71	12.02	10.02	7.21
L205070120		3.29	7.60	7.60	8.57	7.14	5.14
L205070130		3.58	9.11	9.11	9.28	7.73	5.57
L205070140		3.84	10.69	10.69	9.98	8.32	5.99
L205070150		4.13	12.32	12.32	10.68	8.90	6.41
L205070160		4.41	13.98	13.98	11.37	9.48	6.82
L205070170		4.67	15.64	15.64	12.06	10.05	7.24
L205070180		4.96	17.30	17.30	12.75	10.62	7.65
L205070200		5.53	20.52	20.52	14.11	11.75	8.46
L205070220		6.05	23.62	23.62	15.44	12.87	9.27
L205070250	6.91	28.03	28.03	17.42	14.51	10.45	
7.0	L175070150	3.79	10.48	10.48	6.37	5.31	3.82
	L175070160	4.05	11.73	11.73	6.78	5.65	4.07
	L175070180	4.55	14.20	14.20	7.60	6.33	4.56
	L175070200	5.08	16.58	16.58	8.41	7.00	5.04
	L175070220	5.56	18.84	18.84	9.20	7.67	5.52
	L175070250	6.35	22.06	22.06	10.37	8.64	6.22
	L205070120	3.29	7.25	7.25	7.39	6.16	4.43
	L205070130	3.58	8.67	8.67	8.00	6.67	4.80
	L205070140	3.84	10.14	10.14	8.61	7.17	5.16
	L205070150	4.13	11.66	11.66	9.21	7.67	5.53
	L205070160	4.41	13.19	13.19	9.81	8.17	5.88
	L205070170	4.67	14.72	14.72	10.40	8.67	6.24
	L205070180	4.96	16.25	16.25	10.99	9.16	6.60
	L205070200	5.53	19.22	19.22	12.16	10.14	7.30
	L205070220	6.05	22.07	22.07	13.32	11.10	7.99
L205070250	6.91	26.13	26.13	15.02	12.51	9.01	

Rafter and Stanchion Stays

Length between c/c holes mm	RNB Angle 45 x 45	RNA Channel 38 x 38 x 38
	Ultimate compression kN	Ultimate compression kN
500	17.54	31.4
600	17.05	31.4
700	16.55	31.4
800	16.1	31.4
900	15.75	31.4
1000	15.55	31.4
1500	-	21
2000	-	15.5

Horizontal Panel Vertical Support Member (G140/150)

Span (m)	Ultimate Pressure	Ultimate Suction	Deflection
	Kn	Kn	L/150 Kn
3.0	23.44	9.21	9.10
3.5	19.66	7.72	6.69
4.0	16.73	6.58	5.12
4.5	14.33	6.68	4.05

NOTE: Stay attaches to Multichannel/Multibeam with an M12 (8.8 grade) bolt and to the hot-rolled steel with a M16 bolt.