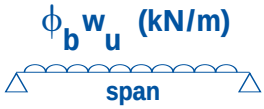
Metalcraft
INDUSTRIES LIMITED

MSS STRENGTH LOAD SPAN TABLE

UNIFORMLY DISTRIBUTED LOAD = $\phi_b w_u$ (kN/m)

SINGLE SPAN



Span	MSS 150/12				MSS 150/15				MSS 150/18				MSS 200/12				MSS 200/15			
	$\phi_b w_u$ (kN/m)			w_s kN/m	$\phi_b w_u$ (kN/m)			w_s kN/m	$\phi_b w_u$ (kN/m)			w_s kN/m	$\phi_b w_u$ (kN/m)			w_s kN/m	$\phi_b w_u$ (kN/m)			w_s kN/m
m	1B	2B	FR		1B	2B	FR		1B	2B	FR		1B	2B	FR		1B	2B	FR	
3.0	6.37	6.37	6.37	5.40	8.72	8.72	8.72	6.69	10.0	10.0	10.0	7.93	9.39	9.39	9.39	11.6	13.0	13.0	13.0	14.3
3.5	4.68	4.68	4.68	3.40	6.41	6.41	6.41	4.21	7.08	7.35	7.35	4.99	6.90	6.90	6.90	7.27	9.58	9.58	9.58	9.01
4.0	3.58	3.58	3.58	2.28	4.40	4.91	4.91	2.82	5.21	5.63	5.63	3.35	5.28	5.28	5.28	4.87	7.33	7.33	7.33	6.04
4.5	2.39	2.83	2.83	1.60	3.29	3.88	3.88	1.98	3.93	4.45	4.45	2.35	4.17	4.17	4.17	3.42	5.80	5.80	5.80	4.24
5.0	1.83	2.29	2.29	1.17	2.50	3.14	3.14	1.44	3.01	3.49	3.60	1.71	3.38	3.38	3.38	2.49	3.96	4.69	4.69	3.09
5.5	1.41	1.90	1.90	0.88	1.91	2.59	2.59	1.09	2.33	2.81	2.98	1.29	2.21	2.79	2.79	1.87	3.10	3.88	3.88	2.32
6.0	1.09	1.59	1.59	0.68	1.46	1.93	2.18	0.84	1.81	2.29	2.50	0.99	1.75	2.35	2.35	1.44	2.45	3.26	3.26	1.79
6.5	0.84	1.15	1.36	0.53	1.11	1.59	1.86	0.66	1.40	1.89	2.13	0.78	1.39	2.00	2.00	1.14	1.93	2.78	2.78	1.41
7.0	0.64	0.96	1.17	0.43	0.85	1.31	1.60	0.53	1.08	1.57	1.84	0.62	1.10	1.72	1.72	0.91	1.50	2.06	2.39	1.13
7.5	0.50	0.80	1.02	0.35	0.66	1.09	1.40	0.43	0.83	1.31	1.60	0.51	0.87	1.50	1.50	0.74	1.17	1.74	2.09	0.92
8.0	0.39	0.67	0.90	0.28	0.52	0.91	1.23	0.35	0.65	1.10	1.41	0.42	0.69	1.05	1.32	0.61	0.93	1.47	1.83	0.75
8.5	0.32	0.56	0.79	0.24	0.42	0.75	1.09	0.29	0.52	0.92	1.25	0.35	0.56	0.89	1.17	0.51	0.75	1.25	1.62	0.63
9.0		0.47	0.71	0.20	0.34	0.63	0.97	0.25	0.42	0.78	1.11	0.29	0.45	0.76	1.04	0.43	0.61	1.06	1.45	0.53
9.5		0.39	0.64	0.17	0.27	0.52	0.87	0.21	0.34	0.65	1.00	0.25	0.37	0.65	0.94	0.36	0.50	0.90	1.30	0.45
10.0		0.32	0.57	0.15	0.23	0.43	0.78	0.18	0.28	0.54	0.90	0.21	0.31	0.55	0.85	0.31	0.41	0.76	1.17	0.39
10.5		0.27	0.52	0.13		0.36	0.71	0.16	0.23	0.45	0.82	0.18	0.26	0.47	0.77	0.27	0.34	0.64	1.06	0.33
11.0						0.30	0.65	0.14	0.19	0.38	0.74	0.16	0.22	0.40	0.70	0.23	0.29	0.54	0.97	0.29
11.5									0.16	0.32	0..68	0.14		0.34	0.64	0.20		0.46	0.89	0.25
12.0									0.13	0.27	0.63	0.12		0.30	0.59	0.18		0.39	0.81	0.22
12.5																		0.34	0.75	0.20
13.0																		0.29	0.69	0.18
13.5																				
14.0																				
14.5																				
15.0																				
15.5																				
16.0																				
16.5																				
17.0																				
17.5																				
18.0																				
$\phi_b M_u$	7.20				9.82				11.25				10.6				14.7			
$\phi_v V_u$	13.2				26.5				38.9				8.82				17.7			

1B = One brace mid span

2B = Two braces within the span

3B = Three braces within the span

FR = Assumes compression flange fully restrained

ws = Uniformly distributed serviceability load for deflection limit = $Span_{/150}$ (kN/m)

$\phi_b w_u$ = Strength load resistance applied at the centroid (kN/m)

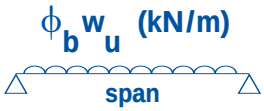
$\phi_b M_u$ = Section strength in bending at the F.R. condition (kN.m.)

$\phi_v V_u$ = Section strength in shear (kN)

MSS STRENGTH LOAD SPAN TABLE

UNIFORMLY DISTRIBUTED LOAD = $\phi_b w_u$ (kN/m)

SINGLE SPAN



Span	MSS 200/18				MSS 250/13					MSS 250/15					MSS 250/18				
	$\phi_b w_u$ (kN/m)			w_s kN/m	$\phi_b w_u$ (kN/m)				w_s kN/m	$\phi_b w_u$ (kN/m)				w_s kN/m	$\phi_b w_u$ (kN/m)				w_s kN/m
m	1B	2B	FR		1B	2B	3B	FR		1B	2B	3B	FR		1B	2B	3B	FR	
3.0	15.3	15.3	15.3	17.0															
3.5	11.3	11.3	11.3	10.8															
4.0	8.63	8.63	8.63	7.18	8.27	8.27	8.27	8.27	9.74	10.2	10.2	10.2	10.2	11.2	12.3	12.3	12.3	12.3	13.4
4.5	6.20	6.82	6.82	5.04	6.53	6.53	6.53	6.53	6.84	8.07	8.07	8.07	8.07	7.87	9.69	9.69	9.69	9.69	9.38
5.0	4.80	5.52	5.52	3.68	5.29	5.29	5.29	5.29	4.99	6.54	6.54	6.54	6.54	5.74	7.85	7.85	7.85	7.85	6.83
5.5	3.77	4.56	4.56	2.76	4.37	4.37	4.37	4.37	3.75	5.40	5.40	5.40	5.40	4.31	5.75	6.49	6.49	6.49	5.14
6.0	2.98	3.83	3.83	2.13	3.68	3.68	3.68	3.68	2.89	3.73	4.54	4.54	4.54	3.32	4.65	5.45	5.45	5.45	3.96
6.5	2.36	2.98	3.27	1.67	2.44	3.13	3.13	3.13	2.27	3.03	3.87	3.87	3.87	2.61	3.78	4.64	4.64	4.64	3.11
7.0	1.87	2.50	2.82	1.34	1.99	2.70	2.70	2.70	1.82	2.47	3.34	3.34	3.34	2.09	3.09	4.00	4.00	4.00	2.49
7.5	1.48	2.11	2.45	1.09	1.63	2.35	2.35	2.35	1.48	2.02	2.91	2.91	2.91	1.70	2.53	3.49	3.49	3.49	2.03
8.0	1.16	1.78	2.16	0.90	1.33	2.07	2.07	2.07	1.22	1.65	2.55	2.55	2.55	1.40	2.07	2.72	3.07	3.07	1.67
8.5	0.93	1.52	1.91	0.75	1.08	1.83	1.83	1.83	1.02	1.34	1.89	2.26	2.26	1.17	1.69	2.35	2.72	2.72	1.39
9.0	0.75	1.29	1.70	0.63	0.89	1.31	1.63	1.63	0.86	1.09	1.63	2.02	2.02	0.98	1.38	2.04	2.42	2.42	1.17
9.5	0.61	1.10	1.53	0.54	0.74	1.14	1.47	1.47	0.73	0.90	1.42	1.81	1.81	0.84	1.13	1.77	2.17	2.17	1.00
10.0	0.51	0.94	1.38	0.46	0.62	0.99	1.32	1.32	0.62	0.74	1.23	1.63	1.63	0.72	0.94	1.54	1.96	1.96	0.85
10.5	0.42	0.80	1.25	0.40	0.52	0.86	1.20	1.20	0.54	0.62	1.07	1.48	1.48	0.62	0.78	1.34	1.78	1.78	0.74
11.0	0.35	0.68	1.14	0.35	0.44	0.75	1.09	1.09	0.47	0.53	0.94	1.35	1.35	0.54	0.66	1.17	1.62	1.62	0.64
11.5	0.30	0.58	1.04	0.30	0.37	0.66	1.00	1.00	0.41	0.45	0.81	1.24	1.24	0.47	0.56	1.02	1.48	1.48	0.56
12.0	0.25	0.49	0.96	0.27	0.32	0.57	0.92	0.92	0.36	0.38	0.71	1.13	1.13	0.41	0.48	0.89	1.21	1.36	0.49
12.5		0.42	0.88	0.24	0.27	0.50	0.85	0.85	0.32	0.33	0.61	1.05	1.05	0.37	0.41	0.77	1.10	1.26	0.44
13.0		0.36	0.82	0.21	0.24	0.43	0.78	0.78	0.28	0.28	0.53	0.80	0.97	0.33	0.35	0.67	1.00	1.16	0.39
13.5		0.32	0.76	0.19	0.21	0.38	0.58	0.73	0.25	0.25	0.46	0.73	0.90	0.29	0.31	0.58	0.91	1.08	0.35
14.0		0.28	0.70	0.17	0.18	0.33	0.53	0.68	0.23	0.22	0.41	0.66	0.83	0.26			0.82	1.00	0.31
14.5						0.30	0.48	0.63	0.20	0.19	0.36	0.60	0.78	0.24			0.75	0.93	0.28
15.0						0.26	0.44	0.59	0.18	0.17	0.32	0.55	0.73	0.21			0.68	0.87	0.25
15.5											0.28	0.50	0.68	0.19			0.62	0.82	0.23
16.0											0.25	0.46	0.64	0.18			0.57	0.77	0.21
16.5																	0.52	0.72	0.19
17.0																	0.48	0.68	0.17
17.5																			
18.0																			
$\phi_b M_u$	17.3				16.6					20.4					24.5				
$\phi_v V_u$	31.1				9.23					14.0					25.3				

1B = One brace mid span

2B = Two braces within the span

3B = Three braces within the span

FR = Assumes compression flange fully restrained

ws = Uniformly distributed serviceability load for deflection limit = Span/150 (kN/m)

$\phi_b w_u$ = Strength load resistance applied at the centroid (kN/m)

$\phi_b M_u$ = Section strength in bending at the F.R. condition (kN.m.)

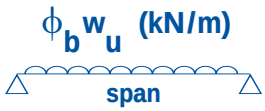
$\phi_v V_u$ = Section strength in shear (kN)

Metalcraft
INDUSTRIES LIMITED

MSS STRENGTH LOAD SPAN TABLE

UNIFORMLY DISTRIBUTED LOAD = $\phi_b w_u$ (kN/m)

SINGLE SPAN



Span	MSS 275/15					MSS 275/18					MSS 300/15					MSS 300/18				
	$\phi_b w_u$ (kN/m)				w_s kN/m	$\phi_b w_u$ (kN/m)				w_s kN/m	$\phi_b w_u$ (kN/m)				w_s kN/m	$\phi_b w_u$ (kN/m)				w_s kN/m
m	1B	2B	3B	FR		1B	2B	3B	FR		1B	2B	3B	FR		1B	2B	3B	FR	
3.0																				
3.5																				
4.0																				
4.5	9.28	9.28	9.28	9.28	10.2	11.3	11.3	11.3	11.3	12.3										
5.0	7.52	7.52	7.52	7.52	7.43	9.15	9.15	9.15	9.15	8.97	8.59	8.59	8.59	8.59	9.78	10.4	10.4	10.4	10.4	11.7
5.5	6.21	6.21	6.21	6.21	5.58	7.57	7.57	7.57	7.57	6.74	7.10	7.10	7.10	7.10	7.35	8.56	8.56	8.56	8.56	8.77
6.0	5.22	5.22	5.22	5.22	4.30	5.52	6.36	6.36	6.36	5.19	5.96	5.96	5.96	5.96	5.66	7.19	7.19	7.19	7.18	6.75
6.5	3.56	4.45	4.45	4.45	3.38	4.53	5.42	5.42	5.42	4.08	5.08	5.08	5.08	5.08	4.45	6.13	6.13	6.13	6.13	5.31
7.0	2.93	3.83	3.83	3.83	2.71	3.73	4.67	4.67	4.67	3.27	4.38	4.38	4.38	4.38	3.56	4.44	5.28	5.28	5.28	4.25
7.5	2.41	3.34	3.34	3.34	2.20	3.08	4.07	4.07	4.07	2.66	2.96	3.82	3.82	3.82	2.90	3.73	4.60	4.60	4.60	3.46
8.0	1.99	2.94	2.94	2.94	1.81	2.55	3.58	3.58	3.58	2.19	2.48	3.35	3.35	3.35	2.39	3.15	4.04	4.04	4.04	2.85
8.5	1.63	2.60	2.60	2.60	1.51	2.10	2.79	3.17	3.17	1.83	2.08	2.97	2.97	2.97	1.99	2.66	3.58	3.58	3.58	2.38
9.0	1.34	1.91	2.32	2.32	1.27	1.73	2.43	2.83	2.83	1.54	1.75	2.65	2.65	2.65	1.68	2.25	3.20	3.20	3.20	2.00
9.5	1.10	1.67	2.08	2.08	1.08	1.42	2.12	2.54	2.54	1.31	1.47	2.38	2.38	2.38	1.43	1.89	2.87	2.87	2.87	1.70
10.0	0.92	1.46	1.88	1.88	0.93	1.18	1.86	2.29	2.29	1.12	1.23	2.15	2.15	2.15	1.22	1.58	2.20	2.59	2.59	1.46
10.5	0.77	1.27	1.70	1.70	0.80	0.99	1.63	2.08	2.08	0.97	1.04	1.95	1.95	1.95	1.06	1.33	1.95	2.35	2.35	1.26
11.0	0.65	1.12	1.55	1.55	0.70	0.83	1.43	1.89	1.89	0.84	0.88	1.37	1.77	1.77	0.92	1.12	1.73	2.14	2.14	1.10
11.5	0.55	0.98	1.42	1.42	0.61	0.71	1.25	1.73	1.73	0.74	0.75	1.22	1.62	1.62	0.80	0.96	1.54	1.96	1.96	0.96
12.0	0.47	0.86	1.30	1.30	0.54	0.60	1.10	1.59	1.59	0.65	0.65	1.08	1.49	1.49	0.71	0.82	1.37	1.80	1.80	0.84
12.5	0.41	0.75	1.20	1.20	0.48	0.52	0.96	1.46	1.46	0.57	0.56	0.96	1.37	1.37	0.63	0.71	1.22	1.66	1.66	0.75
13.0	0.35	0.65	1.11	1.11	0.42	0.45	0.84	1.18	1.35	0.51	0.48	0.85	1.27	1.27	0.56	0.61	1.09	1.53	1.53	0.66
13.5	0.31	0.57	0.85	1.03	0.38	0.39	0.73	1.08	1.26	0.46	0.42	0.75	1.18	1.18	0.50	0.53	0.97	1.42	1.42	0.59
14.0		0.50	0.78	0.96	0.34	0.34	0.64	0.99	1.17	0.41	0.37	0.67	1.10	1.10	0.45	0.47	0.86	1.32	1.32	0.53
14.5		0.44	0.71	0.89	0.30		0.57	0.90	1.09	0.37	0.33	0.59	1.02	1.02	0.40	0.41	0.76	1.23	1.23	0.48
15.0		0.39	0.65	0.84	0.28		0.50	0.83	1.02	0.33	0.29	0.52	0.95	0.95	0.36	0.36	0.67	0.98	1.15	0.43
15.5		0.35	0.59	0.78	0.25		0.44	0.76	0.95	0.30		0.47	0.89	0.89	0.33	0.32	0.60	0.90	1.08	0.39
16.0		0.31	0.54	0.73	0.23		0.39	0.69	0.89	0.27		0.42	0.66	0.84	0.30	0.29	0.53	0.83	1.01	0.36
16.5		0.28	0.50	0.69	0.21		0.35	0.63	0.84	0.25		0.38	0.61	0.79	0.27	0.25	0.48	0.77	0.95	0.32
17.0												0.34	0.56	0.74	0.25	0.23	0.43	0.71	0.90	0.30
17.5												0.30	0.52	0.70	0.23	0.20	0.38	0.66	0.85	0.27
18.0																0.18	0.35	0.61	0.80	0.25
$\phi_b M_u$	23.5					26.8					26.8					32.4				
$\phi_v V_u$	10.4					12.9					12.9					15.6				

1B = One brace mid span

2B = Two braces within the span

3B = Three braces within the span

FR = Assumes compression flange fully restrained

ws = Uniformly distributed serviceability load for deflection limit = Span/150 (kN/m)

$\phi_b w_u$ = Strength load resistance applied at the centroid (kN/m)

$\phi_b M_u$ = Section strength in bending at the F.R. condition (kN.m.)

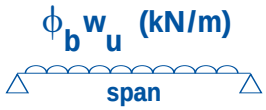
$\phi_v V_u$ = Section strength in shear (kN)

Metalcraft
INDUSTRIES LIMITED

MSS STRENGTH LOAD SPAN TABLE

UNIFORMLY DISTRIBUTED LOAD = $\phi_b w_u$ (kN/m)

SINGLE SPAN



Span	MSS 325/15					MSS 325/18					MSS 350/18					MSS 400/20				
	$\phi_b w_u$ (kN/m)				w_s kN/m	$\phi_b w_u$ (kN/m)				w_s kN/m	$\phi_b w_u$ (kN/m)				w_s kN/m	$\phi_b w_u$ (kN/m)				w_s kN/m
m	1B	2B	3B	FR		1B	2B	3B	FR		1B	2B	3B	FR		1B	2B	3B	FR	
3.0																				
3.5																				
4.0																				
4.5	11.5	11.5	11.5	11.5	16.2	14.1	14.1	14.1	14.1	19.5										
5.0	9.34	9.34	9.34	9.34	11.8	11.4	11.4	11.4	11.4	14.2										
5.5	7.71	7.71	7.71	7.71	8.86	9.44	9.44	9.44	9.44	10.7										
6.0	6.48	6.48	6.48	6.48	6.83	7.93	7.93	7.93	7.93	8.22	8.93	8.93	8.93	8.93	9.88	12.7	12.7	12.7	12.7	15.3
6.5	5.52	5.52	5.52	5.52	5.37	6.76	6.76	6.76	6.76	6.47	7.61	7.61	7.61	7.61	7.77	9.6	10.9	10.9	10.9	12.0
7.0	4.76	4.76	4.76	4.76	4.30	4.90	5.82	5.82	5.82	5.18	5.58	6.56	6.56	6.56	6.22	8.04	9.36	9.36	9.36	9.60
7.5	3.21	4.15	4.15	4.15	3.50	4.12	5.07	5.07	5.07	4.21	4.70	5.72	5.72	5.72	5.06	6.76	8.15	8.15	8.15	7.81
8.0	2.69	3.65	3.65	3.65	2.88	3.48	4.46	4.46	4.46	3.47	3.97	5.02	5.02	5.02	4.17	5.71	7.16	7.16	7.16	6.43
8.5	2.26	3.23	3.23	3.23	2.40	2.94	3.95	3.95	3.95	2.89	3.36	4.45	4.45	4.45	3.48	4.84	6.35	6.35	6.35	5.36
9.0	1.90	2.88	2.88	2.88	2.02	2.49	3.52	3.52	3.52	2.44	2.86	3.97	3.97	3.97	2.93	4.11	5.66	5.66	5.66	4.52
9.5	1.59	2.59	2.59	2.59	1.72	2.11	3.16	3.16	3.16	2.07	2.42	3.56	3.56	3.56	2.49	3.48	4.50	5.08	5.08	3.84
10.0	1.33	2.33	2.33	2.33	1.47	1.78	2.43	2.85	2.85	1.78	2.05	2.76	3.22	3.22	2.13	2.92	3.98	4.58	4.58	3.29
10.5	1.13	1.68	2.12	2.12	1.27	1.49	2.15	2.59	2.59	1.53	1.73	2.45	2.92	2.92	1.84	2.45	3.53	4.16	4.16	2.85
11.0	0.96	1.49	1.93	1.93	1.11	1.26	1.91	2.36	2.36	1.33	1.46	2.18	2.66	2.66	1.60	2.06	3.14	3.79	3.79	2.47
11.5	0.82	1.32	1.76	1.76	0.97	1.07	1.70	2.16	2.16	1.17	1.24	1.94	2.43	2.43	1.40	1.75	2.79	3.47	3.47	2.17
12.0	0.71	1.17	1.62	1.62	0.85	0.92	1.52	1.98	1.98	1.03	1.06	1.73	2.23	2.23	1.24	1.49	2.49	3.18	3.18	1.91
12.5	0.62	1.04	1.49	1.49	0.76	0.79	1.35	1.83	1.83	0.91	0.91	1.55	2.06	2.06	1.09	1.28	2.23	2.93	2.93	1.69
13.0	0.53	0.92	1.38	1.38	0.67	0.69	1.21	1.69	1.69	0.81	0.79	1.38	1.90	1.90	0.97	1.11	1.99	2.71	2.71	1.50
13.5	0.47	0.82	1.28	1.28	0.60	0.60	1.08	1.57	1.57	0.72	0.69	1.24	1.76	1.76	0.87	0.96	1.78	2.52	2.52	1.34
14.0	0.41	0.72	1.19	1.19	0.54	0.52	0.96	1.46	1.46	0.65	0.60	1.10	1.64	1.64	0.78	0.84	1.58	2.34	2.34	1.20
14.5	0.36	0.64	1.11	1.11	0.48	0.46	0.85	1.36	1.36	0.58	0.53	0.98	1.53	1.53	0.70	0.74	1.40	1.92	2.18	1.08
15.0	0.32	0.57	1.04	1.04	0.44	0.40	0.76	1.08	1.27	0.53	0.47	0.88	1.23	1.43	0.63	0.65	1.24	1.77	2.04	0.98
15.5	0.28	0.51	0.78	0.97	0.40	0.36	0.67	0.99	1.19	0.48	0.41	0.78	1.13	1.34	0.57	0.57	1.10	1.63	1.19	0.88
16.0	0.25	0.46	0.72	0.91	0.36	0.32	0.60	0.92	1.11	0.43	0.37	0.69	1.05	1.26	0.52	0.51	0.98	1.51	1.79	0.80
16.5	0.22	0.41	0.66	0.86	0.33		0.54	0.85	1.05	0.40	0.33	0.62	0.97	1.18	0.48	0.45	0.87	1.39	1.68	0.73
17.0	0.20	0.37	0.61	0.81	0.30		0.48	0.79	0.99	0.36		0.55	0.90	1.11	0.43	0.40	0.78	1.29	1.59	0.67
17.5	0.18	0.33	0.56	0.76	0.28		0.43	0.73	0.93	0.33		0.50	0.83	1.05	0.40	0.36	0.70	1.20	1.50	0.61
18.0	0.16	0.30	0.52	0.72	0.25		0.39	0.67	0.88	0.30		0.45	0.77	0.99	0.37	0.32	0.63	1.11	1.42	0.56
$\phi_b M_u$	29.1					35.6					40.2					57.3				
$\phi_v V_u$	8.71					15.3					16.4					19.3				

1B = One brace mid span

2B = Two braces within the span

3B = Three braces within the span

FR = Assumes compression flange fully restrained

ws = Uniformly distributed serviceability load for deflection limit = Span/150 (kN/m)

$\phi_b w_u$ = Strength load resistance applied at the centroid (kN/m)

$\phi_b M_u$ = Section strength in bending at the F.R. condition (kN.m.)

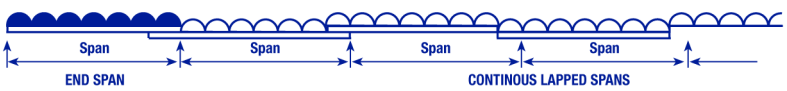
$\phi_v V_u$ = Section strength in shear (kN)

Metalcraft
INDUSTRIES LIMITED

MSS STRENGTH LOAD SPAN TABLE

UNIFORMLY DISTRIBUTED LOAD = $\phi_b w_u$ (kN/m)

LAPPED END SPAN AND DOUBLE SPAN



Span	MSS 150/12				MSS 150/15				MSS 150/18				MSS 200/12				MSS 200/15			
	$\phi_b w_u$ (kN/m)			w_s kN/m	$\phi_b w_u$ (kN/m)			w_s kN/m	$\phi_b w_u$ (kN/m)			w_s kN/m	$\phi_b w_u$ (kN/m)			w_s kN/m	$\phi_b w_u$ (kN/m)			w_s kN/m
m	1B	2B	FR		1B	2B	FR		1B	2B	FR		1B	2B	FR		1B	2B	FR	
3.0	8.34	8.34	8.34	9.94	11.4	11.4	11.4	13.0	13.12	13.12	13.12	15.44	12.3	12.3	12.3	7.93	17.1	17.1	17.1	24.7
3.5	6.13	6.13	6.13	6.38	8.40	8.40	8.40	8.20	9.64	9.64	9.64	9.73	9.02	9.02	9.02	4.99	12.5	12.5	12.5	16.6
4.0	4.62	4.69	4.69	4.33	6.31	6.43	6.43	5.49	7.33	7.38	7.38	6.52	6.91	6.91	6.91	3.35	9.60	9.60	9.60	11.3
4.5	3.55	3.71	3.71	3.07	4.84	5.08	5.08	3.86	5.64	5.83	5.83	4.58	5.36	6.46	5.46	2.35	7.43	7.58	7.58	8.06
5.0	2.79	3.00	3.00	2.26	3.78	4.11	4.11	2.81	4.43	4.72	4.72	3.34	4.23	4.42	4.42	1.91	5.86	6.14	6.14	5.92
5.5	2.22	2.48	2.48	1.70	3.00	3.40	3.40	2.11	3.54	3.90	3.90	2.51	3.40	3.65	3.65	1.29	4.71	5.08	5.08	4.48
6.0	1.79	2.06	2.08	1.31	2.41	2.82	2.86	1.63	2.86	3.27	3.28	1.93	2.77	3.07	3.07	0.99	3.83	4.26	4.26	3.47
6.5	1.45	1.73	1.78	1.03	1.95	2.35	2.43	1.28	2.33	2.74	2.79	1.52	2.77	2.60	2.62	0.78	3.14	3.60	3.63	2.73
7.0	1.19	1.46	1.53	0.83	1.57	1.99	2.10	1.02	1.91	2.32	2.41	1.22	1.88	2.21	2.26	0.62	2.59	3.06	3.13	2.19
7.5	0.93	1.25	1.33	0.67	1.22	1.69	1.83	0.83	1.54	1.98	2.10	0.99	1.56	1.89	1.97	0.51	2.15	2.62	2.73	1.78
8.0	0.73	1.07	1.17	0.55	0.96	1.45	1.61	0.69	1.21	1.70	1.84	0.81	1.30	1.63	1.73	0.42	1.73	2.26	2.40	1.47
8.5	0.59	0.93	1.04	0.46	0.77	1.25	1.42	0.57	0.97	1.48	1.63	0.68	1.05	1.42	1.53	0.35	1.38	1.96	2.13	1.22
9.0	0.48	0.80	0.93	0.39	0.62	1.08	1.27	0.48	0.78	1.28	1.46	0.57	0.85	1.24	1.36	0.29	1.12	1.71	1.90	1.03
9.5	0.39	0.70	0.83	0.33	0.57	0.94	1.14	0.41	0.63	1.12	1.31	0.49	0.70	1.09	1.22	0.25	0.92	1.50	1.70	0.88
10.0	0.32	0.59	0.75	0.28	0.42	0.78	1.03	0.35	0.52	0.98	1.18	0.42	0.58	0.96	1.11	0.21	0.76	1.32	1.54	0.75
10.5					0.35	0.65	0.93	0.30	0.43	0.82	1.07	0.36	0.48	0.85	1.00	0.18	0.64	1.17	1.39	0.65
11.0					0.29	0.55	0.85	0.26	0.36	0.69	0.98	0.31	0.41	0.74	0.91	0.16	0.53	0.98	1.27	0.57
11.5									0.30	0.59	0.89	0.27	0.35	0.43	0.84	0.14	0.45	0.84	1.16	0.49
12.0									0.25	0.50	0.82	0.24	0.30	0.54	0.77	0.12	0.39	0.72	1.07	0.44
12.5																	0.33	0.62	0.98	0.39
13.0																	0.29	0.53	0.91	0.34
13.5																				
14.0																				
14.5																				
15.0																				
15.5																				
16.0																				
16.5																				
17.0																				
17.5																				
18.0																				

1B = One brace mid span

2B = Two braces within the span

3B = Three braces within the span

FR = Assumes compression flange fully restrained

ws = Uniformly distributed serviceability load for deflection limit = Span/150 (kN/m)

$\phi_b w_u$ = Strength load resistance applied at the centroid (kN/m)

$\phi_b M_u$ = Section strength in bending at the F.R. condition (kN.m.)

$\phi_v V_u$ = Section strength in shear (kN)

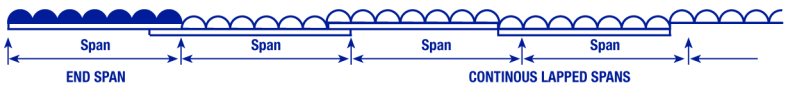
NOTE: 1. The tables are based on a total lap length between bolt centres being equal to 10% of the span or 600mm whichever is the greater.
2. Tables assume one flange continuously restrained by roof or wall cladding.

Metalcraft
INDUSTRIES LIMITED

MSS STRENGTH LOAD SPAN TABLE

UNIFORMLY DISTRIBUTED LOAD = $\phi_b w_u$ (kN/m)

LAPPED END SPAN AND DOUBLE SPAN



Span	MSS 200/18				MSS 250/13					MSS 250/15					MSS 250/18				
	$\phi_b w_u$ (kN/m)			w_s kN/m	$\phi_b w_u$ (kN/m)				w_s kN/m	$\phi_b w_u$ (kN/m)				w_s kN/m	$\phi_b w_u$ (kN/m)				w_s kN/m
m	1B	2B	FR		1B	2B	3B	FR		1B	2B	3B	FR		1B	2B	3B	FR	
3.0	20.1	20.1	20.1	32.2															
3.5	14.8	14.8	14.8	20.7															
4.0	11.3	11.3	11.3	14.0	10.8	10.8	10.8	10.8	14.3	13.4	13.4	13.4	13.4	18.2	16.1	16.1	16.1	16.1	24.3
4.5	8.82	8.94	8.94	9.82	8.55	8.55	8.55	8.55	10.5	10.6	10.6	10.6	10.6	13.4	12.7	12.7	12.7	12.7	17.7
5.0	6.97	7.24	7.24	7.16	6.85	6.92	6.92	6.92	7.97	8.45	8.55	8.55	8.55	10.2	10.2	10.3	10.3	10.3	13.0
5.5	5.60	5.98	5.98	5.38	5.55	5.72	5.72	5.72	6.22	6.84	7.07	7.07	7.07	7.82	8.30	8.49	8.49	8.49	9.86
6.0	4.55	5.03	5.03	4.14	4.56	4.81	4.81	4.81	4.95	5.62	5.94	5.94	5.94	6.11	6.83	7.13	7.13	7.13	7.64
6.5	3.74	4.28	4.28	3.26	3.78	4.10	4.10	4.10	3.96	4.67	5.06	5.06	5.06	4.86	5.68	6.08	6.08	6.08	6.03
7.0	3.10	3.63	3.69	2.61	3.17	3.53	3.53	3.53	3.21	3.91	4.36	4.36	4.36	3.92	4.76	5.24	5.24	5.24	4.84
7.5	2.57	3.11	3.22	2.12	2.68	3.06	3.08	3.08	2.65	3.30	3.77	3.80	3.80	3.21	4.02	4.56	4.56	4.56	3.94
8.0	2.15	2.69	2.83	1.75	2.27	2.65	2.70	2.70	2.21	2.79	3.27	3.34	3.34	2.66	3.41	3.96	4.01	4.01	3.25
8.5	1.72	2.33	2.50	1.46	1.93	2.32	2.40	2.40	1.86	2.38	2.86	2.96	2.96	2.23	2.91	3.47	3.55	3.55	2.71
9.0	1.39	2.04	2.23	1.23	1.65	2.04	2.14	2.14	1.58	2.03	2.51	2.64	2.64	1.89	2.48	3.05	3.17	3.17	2.28
9.5	1.14	1.79	2.01	1.04	1.39	1.80	1.92	1.92	1.36	1.68	2.22	2.37	2.37	1.61	2.10	2.70	2.85	2.85	1.94
10.0	0.94	1.58	1.81	0.90	1.16	1.59	1.72	1.73	1.17	1.39	1.97	2.12	2.14	1.38	1.74	2.39	2.57	2.57	1.66
10.5	0.78	1.39	1.64	0.77	0.97	1.42	1.54	1.57	1.01	1.16	1.75	1.90	1.94	1.20	1.45	2.13	2.31	2.33	1.44
11.0	0.66	1.23	1.50	0.67	0.82	1.27	1.39	1.43	0.89	0.98	1.56	1.72	1.77	1.05	1.22	1.90	2.08	2.12	1.25
11.5	0.55	1.04	1.37	0.59	0.69	1.14	1.26	1.31	0.78	0.83	1.40	1.55	1.62	0.92	1.03	1.71	1.89	1.94	1.09
12.0	0.47	0.89	1.26	0.52	0.59	1.02	1.14	1.20	0.69	0.71	1.26	1.41	1.48	0.81	0.88	1.53	1.72	1.78	0.96
12.5	0.40	0.76	1.16	0.46	0.51	0.92	1.04	1.11	0.61	0.61	1.12	1.29	1.37	0.71	0.76	1.38	1.56	1.64	0.85
13.0	0.35	0.66	1.07	0.41	0.44	0.80	0.95	1.02	0.54	0.53	0.97	1.17	1.27	0.64	0.65	1.21	1.43	1.52	0.76
13.5	0.30	0.57	0.99	0.36	0.38	0.70	0.87	0.95	0.49	0.46	0.84	1.07	1.17	0.57	0.57	1.06	1.31	1.41	0.68
14.0	0.26	0.50	0.92	0.33	0.34	0.62	0.80	0.88	0.44	0.40	0.74	0.98	1.09	0.51	0.49	0.92	1.20	1.31	0.61
14.5					0.30	0.54	0.73	0.82	0.40	0.35	0.65	0.90	1.02	0.46	0.43	0.81	1.10	1.22	0.55
15.0					0.26	0.48	0.67	0.77	0.36	0.31	0.57	0.83	0.95	0.41	0.38	0.72	1.01	1.14	0.49
15.5										0.27	0.57	0.77	0.89	0.37	0.34	0.63	0.93	1.07	0.45
16.0										0.24	0.45	0.71	0.84	0.34	0.30	0.56	0.86	1.00	0.41
16.5																			
17.0																			
17.5																			
18.0																			

1B = One brace mid span

2B = Two braces within the span

3B = Three braces within the span

FR = Assumes compression flange fully restrained

ws = Uniformly distributed serviceability load for deflection limit = Span/150 (kN/m)

$\phi_b w_u$ = Strength load resistance applied at the centroid (kN/m)

$\phi_b M_u$ = Section strength in bending at the F.R. condition (kN.m.)

$\phi_v V_u$ = Section strength in shear (kN)

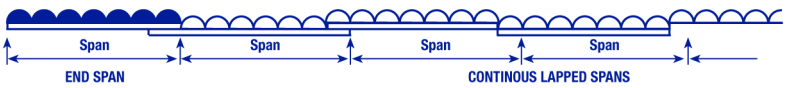
NOTE: 1. The tables are based on a total lap length between bolt centres being equal to 10% of the span or 600mm whichever is the greater.
2. Tables assume one flange continuously restrained by roof or wall cladding.

Metalcraft
INDUSTRIES LIMITED

MSS STRENGTH LOAD SPAN TABLE

UNIFORMLY DISTRIBUTED LOAD = $\phi_b w_u$ (kN/m)

LAPPED END SPAN AND DOUBLE SPAN



Span	MSS 275/15					MSS 275/18					MSS 300/15					MSS 300/18				
	$\phi_b w_u$ (kN/m)				w_s kN/m	$\phi_b w_u$ (kN/m)				w_s kN/m	$\phi_b w_u$ (kN/m)				w_s kN/m	$\phi_b w_u$ (kN/m)				w_s kN/m
m	1B	2B	3B	FR		1B	2B	3B	FR		1B	2B	3B	FR		1B	2B	3B	FR	
3.0																				
3.5																				
4.0											17.6	17.6	17.6	17.6	26.0	21.2	21.2	21.2	21.2	34.9
4.5	12.1	12.1	12.1	12.1	16.1	14.8	14.8	14.8	14.8	21.9	13.9	13.9	13.9	13.9	19.1	16.7	16.7	16.7	16.7	25.6
5.0	9.80	9.83	9.83	9.83	12.2	12.0	12.0	12.0	12.0	16.6	11.2	11.2	11.2	11.2	14.4	13.6	13.6	13.6	13.6	19.4
5.5	7.95	8.13	8.13	8.13	9.55	9.78	9.90	9.90	9.90	12.7	9.27	9.29	9.29	9.29	11.3	11.2	11.2	11.2	11.2	15.2
6.0	6.54	6.83	6.83	6.83	7.60	8.06	8.32	8.32	8.32	9.84	7.66	7.80	7.80	7.80	8.97	9.32	9.41	9.41	9.41	12.1
6.5	5.44	5.82	5.82	5.82	6.07	6.73	7.09	7.09	7.09	7.79	6.41	6.65	6.65	6.65	7.28	7.81	8.01	8.01	8.01	9.75
7.0	4.57	5.02	5.02	5.02	4.93	5.66	6.11	6.11	6.11	6.27	5.41	5.73	5.73	5.73	6.01	6.61	6.91	6.91	6.91	7.88
7.5	3.87	4.37	4.37	4.37	4.06	4.81	5.32	5.32	5.32	5.12	4.61	4.99	4.99	4.99	4.99	5.64	6.02	6.02	6.02	6.45
8.0	3.29	3.79	3.84	3.84	3.37	4.10	4.66	4.68	4.68	4.24	3.95	4.39	4.39	4.39	4.16	4.85	5.29	5.29	5.29	5.35
8.5	2.81	3.32	3.40	3.40	2.82	3.51	4.08	4.15	4.15	3.54	3.41	3.87	3.89	3.89	3.57	4.19	4.69	4.69	4.69	4.49
9.0	2.41	2.92	3.03	3.03	2.39	3.01	3.60	3.70	3.70	2.99	2.95	3.42	3.47	3.47	2.99	3.64	4.15	4.18	4.18	3.80
9.5	2.07	2.58	2.72	2.72	2.05	2.59	3.19	3.32	3.32	2.54	2.56	3.03	3.11	3.11	2.57	3.18	3.69	3.75	3.75	3.25
10.0	1.72	2.29	2.46	2.46	1.76	2.19	2.84	2.99	2.99	2.18	2.23	2.70	2.81	2.81	2.23	2.78	3.29	3.39	3.39	2.79
10.5	1.44	2.05	2.21	2.23	1.53	1.83	2.53	2.72	2.72	1.89	1.94	2.42	2.55	2.55	1.93	2.43	2.95	3.07	3.07	2.42
11.0	1.21	1.83	1.99	2.03	1.33	1.54	2.27	2.45	2.48	1.64	1.67	2.17	2.32	2.32	1.69	2.10	2.66	2.80	2.80	2.11
11.5	1.03	1.64	1.81	1.86	1.17	1.31	2.04	2.22	2.26	1.44	1.42	1.96	2.11	2.12	1.49	1.78	2.40	2.56	2.56	1.85
12.0	0.88	1.48	1.64	1.71	1.03	1.12	1.84	2.02	2.08	1.26	1.21	1.77	1.92	1.95	1.32	1.53	2.17	2.34	2.35	1.64
12.5	0.76	1.33	1.50	1.57	0.92	0.96	1.66	1.85	1.92	1.12	1.04	1.60	1.76	1.80	1.17	1.31	1.97	2.14	2.17	1.45
13.0	0.65	1.20	1.37	1.45	0.82	0.83	1.50	1.69	1.77	0.99	0.90	1.46	1.61	1.66	1.04	1.14	1.79	1.96	2.00	1.29
13.5	0.57	1.05	1.25	1.35	0.73	0.72	1.34	1.55	1.64	0.89	0.79	1.32	1.48	1.54	0.94	0.99	1.63	1.80	1.86	1.15
14.0	0.50	0.91	1.15	1.25	0.66	0.63	1.17	1.42	1.53	0.80	0.69	1.21	1.36	1.43	0.84	0.87	1.49	1.66	1.73	1.04
14.5	0.44	0.80	1.06	1.17	0.59	0.55	1.03	1.31	1.42	0.72	0.61	1.10	1.25	1.34	0.76	0.76	1.36	1.53	1.61	0.93
15.0	0.39	0.71	0.97	1.09	0.54	0.49	0.91	1.21	1.33	0.65	0.53	0.97	1.16	1.25	0.69	0.67	1.23	1.42	1.51	0.84
15.5	0.34	0.63	0.90	1.02	0.49	0.43	0.80	1.12	1.25	0.59	0.47	0.87	1.07	1.17	0.63	0.59	1.09	1.31	1.41	0.76
16.0	0.30	0.56	0.83	0.96	0.44	0.38	0.71	1.03	1.17	0.53	0.42	0.77	0.99	1.10	0.57	0.53	0.97	1.22	1.32	0.69
16.5	0.27	0.50	0.77	0.90	0.40	0.34	0.64	0.96	1.10	0.49	0.38	0.69	0.92	1.03	0.52	0.47	0.87	1.13	1.24	0.63
17.0	0.24	0.45	0.71	0.85	0.37	0.30	0.57	0.89	1.04	0.44	0.34	0.62	0.86	0.97	0.48	0.42	0.78	1.06	1.17	0.58
17.5	0.22	0.40	0.66	0.80	0.34	0.27	0.51	0.82	0.98	0.41	0.30	0.56	0.80	0.92	0.44	0.38	0.70	0.98	1.11	0.53
18.0	0.20	0.36	0.61	0.76	0.31	0.24	0.46	0.76	0.92	0.37	0.27	0.50	0.74	0.87	0.41	0.34	0.63	0.92	1.05	0.49

1B = One brace mid span

2B = Two braces within the span

3B = Three braces within the span

FR = Assumes compression flange fully restrained

ws = Uniformly distributed serviceability load for deflection limit = $Span_{/150}$ (kN/m)

$\phi_b w_u$ = Strength load resistance applied at the centroid (kN/m)

$\phi_b M_u$ = Section strength in bending at the F.R. condition (kN.m.)

$\phi_v V_u$ = Section strength in shear (kN)

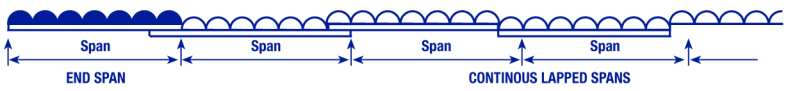
NOTE: 1. The tables are based on a total lap length between bolt centres being equal to 10% of the span or 600mm whichever is the greater.
2. Tables assume one flange continuously restrained by roof or wall cladding.

Metalcraft
INDUSTRIES LIMITED

MSS STRENGTH LOAD SPAN TABLE

UNIFORMLY DISTRIBUTED LOAD = $\phi_b w_u$ (kN/m)

LAPPED END SPAN AND DOUBLE SPAN



Span	MSS 325/15					MSS 325/18					MSS 350/18					MSS 400/20				
	$\phi_b w_u$ (kN/m)				w_s kN/m	$\phi_b w_u$ (kN/m)				w_s kN/m	$\phi_b w_u$ (kN/m)				w_s kN/m	$\phi_b w_u$ (kN/m)				w_s kN/m
m	1B	2B	3B	FR		1B	2B	3B	FR		1B	2B	3B	FR		1B	2B	3B	FR	
3.0																				
3.5																				
4.0											26.3	26.3	26.3	26.3	47.9	37.5	37.5	37.5	37.5	76.3
4.5	15.1	15.1	15.1	15.1	21.6	18.4	18.4	18.4	18.4	29.5	20.8	20.8	20.8	20.8	35.0	29.6	29.6	29.6	29.6	55.7
5.0	12.2	12.2	12.2	12.2	16.4	14.9	14.9	14.9	14.9	22.4	16.8	16.8	16.8	16.8	26.5	24.0	24.0	24.0	24.0	42.1
5.5	10.1	10.1	10.1	10.1	12.7	12.3	12.3	12.3	12.3	17.4	13.9	13.9	13.9	13.9	20.6	19.8	19.8	19.8	19.8	32.7
6.0	8.32	8.48	8.48	8.48	10.1	10.3	10.4	10.4	10.4	13.9	11.6	11.7	11.7	11.7	16.4	16.6	16.7	16.7	16.7	25.9
6.5	6.96	7.23	7.23	7.23	8.23	8.61	8.84	8.84	8.84	11.3	9.74	9.96	9.96	9.96	13.3	13.9	14.2	14.2	14.2	21.0
7.0	5.88	6.23	6.23	6.23	6.79	7.29	7.62	7.62	7.62	9.34	8.25	8.59	8.59	8.59	11.0	11.8	12.3	12.3	12.3	17.3
7.5	5.01	5.43	5.43	5.43	5.68	6.22	6.64	6.64	6.64	7.69	7.05	7.48	7.48	7.48	9.18	10.1	10.7	10.7	10.7	14.4
8.0	4.29	4.77	4.77	4.77	4.81	5.35	5.83	5.83	5.83	6.41	6.07	6.57	6.57	6.57	7.65	8.66	9.38	9.38	9.38	12.1
8.5	3.70	4.20	4.23	4.23	4.06	4.63	5.17	5.17	5.17	5.40	5.25	5.82	5.82	5.82	6.44	7.49	8.31	8.31	8.31	10.2
9.0	3.20	3.71	3.77	3.77	3.46	4.02	4.58	4.61	4.61	4.59	4.57	5.18	5.19	5.19	5.48	6.51	7.39	7.41	7.41	8.60
9.5	2.78	3.29	3.38	3.38	2.98	3.50	4.07	4.14	4.14	3.92	3.99	4.60	4.66	4.66	4.69	5.68	6.57	6.65	6.65	7.34
10.0	2.42	2.93	3.05	3.05	2.58	3.06	3.63	3.73	3.73	3.38	3.49	4.11	4.21	4.21	4.04	4.98	5.86	6.00	6.00	6.32
10.5	2.11	2.63	2.77	2.77	2.25	2.68	3.25	3.39	3.39	2.93	3.06	3.68	3.82	3.82	3.57	4.36	5.26	5.44	5.44	5.47
11.0	1.81	2.36	2.52	2.52	1.98	2.35	2.93	3.09	3.09	2.56	2.69	3.32	3.48	3.48	3.06	3.83	4.73	4.96	4.96	4.77
11.5	1.55	2.13	2.29	2.31	1.75	2.00	2.64	2.82	2.82	2.24	2.31	3.00	3.18	3.18	2.69	3.26	4.27	4.54	4.54	4.19
12.0	1.33	1.92	2.09	2.12	1.55	1.71	2.39	2.58	2.59	1.98	1.98	2.71	2.91	2.92	2.37	2.78	3.87	4.16	4.17	3.69
12.5	1.15	1.74	1.91	1.95	1.38	1.47	2.17	2.36	2.39	1.76	1.70	2.46	2.66	2.69	2.10	2.39	3.52	3.80	3.84	3.27
13.0	1.00	1.58	1.75	1.81	1.24	1.27	1.98	2.16	2.21	1.57	1.47	2.24	2.44	2.49	1.88	2.06	3.20	3.34	3.55	2.91
13.5	0.87	1.44	1.60	1.67	1.11	1.11	1.80	1.99	2.05	1.40	1.28	2.05	2.25	2.31	1.68	1.79	2.92	3.21	3.29	2.60
14.0	0.76	1.31	1.48	1.56	1.00	0.97	1.65	1.83	1.90	1.26	1.12	1.87	2.07	2.15	1.57	1.56	2.67	2.96	3.06	2.34
14.5	0.67	1.19	1.36	1.45	0.91	0.85	1.50	1.69	1.78	1.13	0.98	1.71	1.91	2.00	1.36	1.37	2.44	2.73	2.85	2.10
15.0	0.59	1.06	1.26	1.36	0.82	0.75	1.38	1.56	1.66	1.02	0.86	1.57	1.77	1.87	1.23	1.21	2.24	2.53	2.67	1.90
15.5	0.52	0.94	1.17	1.27	0.75	0.66	1.23	1.45	1.55	0.93	0.76	1.42	1.64	1.75	1.12	1.07	2.00	2.34	2.50	1.72
16.0	0.47	0.84	1.08	1.19	0.68	0.59	1.09	1.35	1.46	0.84	0.68	1.26	1.53	1.64	1.01	0.95	1.78	2.18	2.34	1.57
16.5	0.42	0.76	1.00	1.12	0.63	0.53	0.97	1.25	1.37	0.77	0.61	1.12	1.42	1.55	0.93	0.84	1.58	2.02	2.20	1.43
17.0	0.37	0.68	0.93	1.06	0.57	0.47	0.87	1.16	1.29	0.70	0.54	1.01	1.32	1.46	0.85	0.75	1.42	1.89	2.08	1.31
17.5	0.33	0.61	0.87	1.00	0.53	0.42	0.78	1.09	1.22	0.65	0.49	0.90	1.23	1.37	0.78	0.67	1.27	1.76	1.96	1.20
18.0	0.30	0.56	0.81	0.94	0.49	0.38	0.71	1.01	1.15	0.59	0.44	0.82	1.15	1.30	0.71	0.60	1.14	1.64	1.85	1.10

1B = One brace mid span

2B = Two braces within the span

3B = Three braces within the span

FR = Assumes compression flange fully restrained

ws = Uniformly distributed serviceability load for deflection limit = Span/150 (kN/m)

$\phi_b w_u$ = Strength load resistance applied at the centroid (kN/m)

$\phi_b M_u$ = Section strength in bending at the F.R. condition (kN.m.)

$\phi_v V_u$ = Section strength in shear (kN)

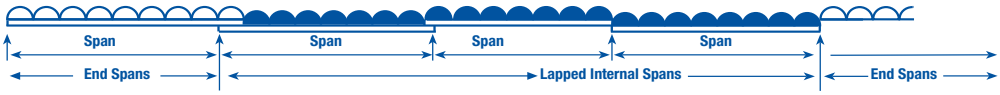
NOTE: 1. The tables are based on a total lap length between bolt centres being equal to 10% of the span or 600mm whichever is the greater.
2. Tables assume one flange continuously restrained by roof or wall cladding.

Metalcraft
INDUSTRIES LIMITED

MSS STRENGTH LOAD SPAN TABLE

UNIFORMLY DISTRIBUTED LOAD = $\phi_b\ w_u$ (kN/m)

LAPPED INTERNAL SPAN



Span	MSS 150/12				MSS 150/15				MSS 150/18				MSS 200/12				MSS 200/15			
	$\phi_b w_u$ (kN/m)			w_s kN/m	$\phi_b w_u$ (kN/m)			w_s kN/m	$\phi_b w_u$ (kN/m)			w_s kN/m	$\phi_b w_u$ (kN/m)			w_s kN/m	$\phi_b w_u$ (kN/m)			w_s kN/m
m	1B	2B	FR		1B	2B	FR		1B	2B	FR		1B	2B	FR		1B	2B	FR	
3.0	11.6	11.6	11.6	22.6	15.8	15.8	15.8	28.5	19.0	19.0	19.0	33.8	17.0	17.0	17.0	43.3	23.6	23.6	23.6	59.3
3.5	8.48	8.48	8.48	14.4	11.6	11.6	11.6	17.9	14.0	14.0	14.0	21.3	12.5	12.5	12.5	28.3	17.4	17.4	17.4	37.8
4.0	6.49	6.49	6.49	9.69	8.90	8.90	8.90	12.0	10.2	10.2	10.2	14.2	9.57	9.57	9.57	19.4	13.3	13.3	13.3	25.5
4.5	5.13	5.13	5.13	6.82	7.03	7.03	7.03	8.44	8.07	80.7	80.7	10.0	7.56	7.56	7.56	14.0	10.5	10.5	10.5	18.0
5.0	4.16	4.16	4.16	4.97	5.66	5.70	5.70	6.15	6.54	6.54	6.54	7.3	6.12	6.12	6.12	10.3	8.50	8.50	8.50	13.2
5.5	3.34	3.43	3.43	3.73	4.53	4.53	4.71	4.62	5.31	5.40	5.40	5.48	5.00	5.06	5.06	7.77	7.02	7.03	7.03	9.89
6.0	2.71	2.89	2.89	2.88	3.67	3.96	3.96	3.56	4.32	4.76	4.54	4.22	4.15	4.25	4.25	6.03	5.75	5.91	5.91	7.62
6.5	2.23	2.46	2.46	2.26	3.00	3.37	3.37	2.80	3.55	3.87	3.87	3.32	3.44	3.62	3.62	4.77	4.75	5.03	5.03	5.99
7.0	1.84	2.12	2.12	1.81	2.47	2.90	2.91	2.24	2.94	3.34	3.34	2.66	2.87	3.12	3.12	3.84	3.96	4.34	4.34	4.80
7.5	1.53	1.85	1.85	1.47	2.04	2.53	2.53	1.82	2.45	2.91	2.91	2.16	2.41	2.72	2.72	3.13	3.32	3.78	3.78	3.90
8.0	1.27	1.60	1.62	1.21	1.69	2.18	2.23	1.50	2.05	2.55	2.55	1.78	2.03	2.39	2.39	2.59	2.80	3.32	3.32	3.21
8.5	1.05	1.39	1.44	1.01	1.39	1.89	1.96	1.25	1.72	2.22	2.26	1.48	1.72	2.12	2.12	2.16	2.35	2.93	2.94	2.68
9.0	0.87	1.22	1.28	0.85	1.15	1.65	1.76	1.05	1.44	1.94	2.02	1.25	1.45	1.86	1.89	1.82	1.98	2.57	2.62	2.26
9.5	0.71	1.07	1.15	0.72	0.95	1.44	1.58	0.90	1.21	1.70	1.81	1.06	1.23	1.64	1.70	1.55	1.66	2.27	2.36	1.92
10.0	0.59	0.94	1.04	0.62	0.79	1.27	1.42	0.77	1.0	1.50	1.63	0.91	1.04	1.45	1.53	1.33	1.39	2.00	2.13	1.64
10.5					0.66	1.11	1.29	0.66	0.84	1.33	1.48	0.79	0.87	1.29	1.39	1.15	1.17	1.78	1.93	1.42
11.0					0.56	0.98	1.18	0.58	0.71	1.18	1.35	0.69	0.74	1.15	1.27	1.00	0.98	1.58	1.76	1.24
11.5									0.60	1.05	1.24	0.60	0.63	1.02	1.16	0.87	0.84	1.41	1.61	1.08
12.0									0.51	0.93	1.14	0.53	0.54	0.92	1.06	0.77	0.72	1.26	1.48	0.95
12.5									0.44	0.83	1.05	0.47					0.62	1.13	1.36	0.84
13.0																	0.54	1.01	1.26	0.75
13.5																				
14.0																				
14.5																				
15.0																				
15.5																				
16.0																				
16.5																				
17.0																				
17.5																				
18.0																				

1B = One brace mid span

2B = Two braces within the span

3B = Three braces within the span

FR = Assumes compression flange fully restrained

ws = Uniformly distributed serviceability load for deflection limit = Span/150 (kN/m)

$\phi_b\ w_u$ = Strength load resistance applied at the centroid (kN/m)

$\phi_b\ M_u$ = Section strength in bending at the F.R. condition (kN.m.)

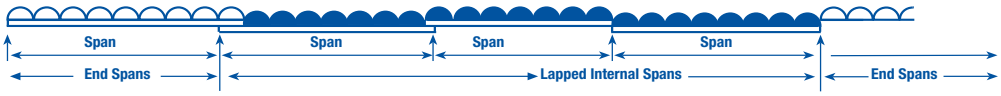
$\phi_v\ V_u$ = Section strength in shear (kN)

NOTE: 1. The tables are based on a total lap length between bolt centres being equal to 10% of the span or 600mm whichever is the greater.
2. Tables assume one flange continuously restrained by roof or wall cladding.

MSS STRENGTH LOAD SPAN TABLE

UNIFORMLY DISTRIBUTED LOAD = $\phi_b w_u$ (kN/m)

LAPPED INTERNAL SPAN



Span	MSS 200/18				MSS 250/13					MSS 250/15					MSS 250/18				
	$\phi_b w_u$ (kN/m)			w_s kN/m	$\phi_b w_u$ (kN/m)				w_s kN/m	$\phi_b w_u$ (kN/m)				w_s kN/m	$\phi_b w_u$ (kN/m)				w_s kN/m
m	1B	2B	FR		1B	2B	3B	FR		1B	2B	3B	FR		1B	2B	3B	FR	
3.0	27.8	27.8	27.8	72.5															
3.5	20.5	20.5	20.5	45.7															
4.0	15.7	15.7	15.7	30.6	15.0	15.0	15.0	15.0	36.2	18.5	18.5	18.5	18.5	45.1	22.2	22.2	22.2	22.2	56.3
4.5	12.4	12.4	12.4	21.5	11.8	11.8	11.8	11.8	26.0	14.6	14.6	14.6	14.6	32.1	17.6	17.6	17.6	17.6	39.8
5.0	10.0	10.0	10.0	15.7	9.59	9.59	9.59	9.59	19.4	11.8	11.8	11.8	11.8	23.6	14.2	14.2	14.2	14.2	29.1
5.5	8.28	8.28	8.28	11.8	7.92	7.92	7.92	7.92	14.9	9.79	9.79	9.79	9.79	18.0	11.8	11.8	11.8	11.8	21.9
6.0	6.83	6.96	6.96	9.06	6.66	6.66	6.66	6.66	11.6	8.22	8.22	8.22	8.22	14.1	9.88	9.88	4.88	4.88	17.0
6.5	5.65	5.93	5.93	7.13	5.65	5.67	5.67	5.67	9.25	6.97	7.01	7.01	7.01	11.0	8.41	8.41	8.41	8.41	13.3
7.0	4.72	5.11	5.11	5.71	4.76	4.89	4.89	4.89	7.46	5.87	6.04	6.04	6.04	8.84	7.15	7.26	7.26	7.26	10.6
7.5	3.96	4.45	4.45	4.64	4.04	4.26	4.26	4.26	6.11	4.98	5.26	5.26	5.26	7.21	6.07	6.32	6.32	6.32	8.62
8.0	3.35	3.91	3.91	3.82	3.45	3.74	3.74	3.74	5.06	4.26	4.63	4.63	4.63	5.95	5.19	5.56	5.56	5.56	7.11
8.5	2.83	3.47	3.47	3.19	2.97	3.32	3.32	3.32	4.24	3.65	4.10	4.10	4.10	4.97	4.46	4.92	4.92	4.92	5.92
9.0	2.40	3.09	3.09	2.69	2.56	2.96	2.96	2.96	3.59	3.15	3.65	3.65	3.65	4.19	3.85	4.39	4.39	4.39	4.99
9.5	2.04	2.78	2.78	2.28	2.21	2.66	2.66	2.66	3.06	2.72	3.28	3.28	3.28	3.56	3.33	3.94	3.94	3.94	4.24
10.0	1.73	2.51	2.51	1.96	1.91	2.38	2.40	2.40	2.63	2.35	2.94	2.96	2.96	3.05	2.88	3.56	3.56	3.56	3.64
10.5	1.46	2.27	2.27	1.69	1.65	2.13	2.17	2.17	2.28	2.03	2.63	2.69	2.69	2.64	2.50	3.20	3.22	3.22	3.14
11.0	1.23	2.06	2.07	1.47	1.43	1.91	1.98	1.98	1.99	1.75	2.36	2.45	2.45	2.29	2.17	2.87	2.94	2.94	2.73
11.5	1.05	1.86	1.89	1.29	1.23	1.72	1.81	1.81	1.74	1.57	2.12	2.24	2.24	2.01	1.88	2.58	2.69	2.69	2.39
12.0	0.90	1.68	1.74	1.13	1.06	1.55	1.66	1.66	1.54	1.30	1.91	2.06	2.06	1.77	1.62	2.33	2.47	2.47	2.11
12.5	0.77	1.53	1.60	1.00	0.92	1.40	1.53	1.53	1.36	1.12	1.73	1.88	1.89	1.56	1.40	2.11	2.28	2.28	1.86
13.0	0.67	1.39	1.48	0.89	0.80	1.27	1.39	1.42	1.21	0.97	1.56	1.72	1.75	1.39	1.21	1.91	2.09	2.10	1.66
13.5	0.58	1.27	1.37	0.80	0.70	1.15	1.28	1.31	1.08	0.84	1.42	1.58	1.62	1.24	1.06	1.73	1.92	1.95	1.48
14.0	0.57	1.16	1.28	0.71	0.61	1.05	1.17	1.22	0.97	0.74	1.29	1.45	1.51	1.11	0.93	1.57	1.76	1.81	1.33
14.5					0.54	0.95	1.08	1.14	0.87	0.65	1.17	1.33	1.41	1.00	0.81	1.43	1.62	1.69	1.19
15.0					0.48	0.86	0.99	1.07	0.79	0.57	1.06	1.22	1.32	0.90	0.72	1.31	1.49	1.58	1.08
15.5										0.51	0.97	1.13	1.23	0.82	0.64	1.19	1.38	1.48	0.98
16.0										0.45	0.88	1.04	1.16	0.75	0.57	1.08	1.27	1.39	0.89
16.5																			
17.0																			
17.5																			
18.0																			

1B = One brace mid span

2B = Two braces within the span

3B = Three braces within the span

FR = Assumes compression flange fully restrained

ws = Uniformly distributed serviceability load for deflection limit = Span/150 (kN/m)

$\phi_b w_u$ = Strength load resistance applied at the centroid (kN/m)

$\phi_b M_u$ = Section strength in bending at the F.R. condition (kN.m.)

$\phi_v V_u$ = Section strength in shear (kN)

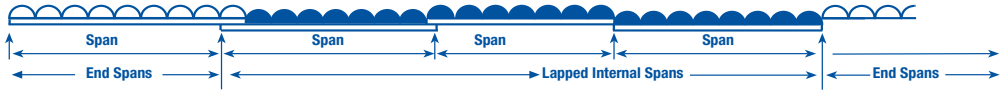
NOTE: 1. The tables are based on a total lap length between bolt centres being equal to 10% of the span or 600mm whichever is the greater.
2. Tables assume one flange continuously restrained by roof or wall cladding.

Metalcraft INDUSTRIES LIMITED

MSS STRENGTH LOAD SPAN TABLE

UNIFORMLY DISTRIBUTED LOAD = $\phi_b w_u$ (kN/m)

LAPPED INTERNAL SPAN



Span	MSS 275/15					MSS 275/18					MSS 300/15					MSS 300/18				
	$\phi_b w_u$ (kN/m)				w_s kN/m	$\phi_b w_u$ (kN/m)				w_s kN/m	$\phi_b w_u$ (kN/m)				w_s kN/m	$\phi_b w_u$ (kN/m)				w_s kN/m
m	1B	2B	3B	FR		1B	2B	3B	FR		1B	2B	3B	FR		1B	2B	3B	FR	
3.0																				
3.5																				
4.0											24.3	24.3	24.3	24.3	65.3	29.3	29.3	29.3	29.3	88.1
4.5	16.8	16.8	16.8	16.8	40.1	20.5	20.5	20.5	20.5	51.4	19.2	19.2	19.2	19.2	48.1	23.2	23.2	23.2	23.2	64.3
5.0	13.6	13.6	13.6	13.6	29.8	16.6	16.6	16.6	16.6	37.7	15.6	15.6	15.6	15.6	36.6	18.8	18.8	18.8	18.8	47.5
5.5	11.3	11.3	11.3	11.3	22.7	13.7	13.7	13.7	13.7	28.5	12.9	12.9	12.9	12.9	28.0	15.5	15.5	15.5	15.5	36.0
6.0	9.45	9.45	9.45	9.45	17.6	11.5	11.5	11.5	11.5	22.0	10.8	10.8	10.8	10.8	22.0	13.0	13.0	13.0	13.0	28.0
6.5	8.06	8.06	8.06	8.06	14.0	9.81	9.81	9.81	9.81	17.4	9.20	9.20	9.20	9.20	17.5	11.1	11.1	11.1	11.1	22.2
7.0	6.84	6.95	6.95	6.95	11.3	8.45	8.46	8.46	8.46	13.9	7.94	7.94	7.94	7.94	14.2	9.6	9.6	9.6	9.6	17.8
7.5	5.82	6.05	6.05	6.05	9.20	7.21	7.37	7.37	7.37	11.3	6.88	6.91	6.91	6.91	11.7	8.34	8.34	8.34	8.34	14.6
8.0	4.99	5.32	5.32	5.32	7.62	6.19	6.48	6.48	6.48	9.32	5.93	6.08	6.08	6.08	9.67	7.25	7.33	7.33	7.33	12.1
8.5	4.30	4.71	4.71	4.71	6.37	5.34	5.74	5.74	5.74	7.77	5.14	5.38	5.38	5.38	8.12	6.30	6.49	6.49	6.49	10.1
9.0	3.71	4.20	4.20	4.20	5.39	4.63	5.12	5.12	5.12	6.55	4.48	4.80	4.80	4.80	6.88	5.50	5.79	5.79	5.79	8.51
9.5	3.22	3.77	3.77	3.77	4.59	4.02	4.59	4.59	4.59	5.57	3.92	4.31	4.31	4.31	5.88	4.83	5.20	5.20	5.20	7.24
10.0	2.80	3.40	3.40	3.40	3.95	3.50	4.15	4.15	4.15	4.77	3.44	3.89	3.89	3.89	5.07	4.25	4.69	4.69	4.69	6.21
10.5	2.43	3.06	3.09	3.09	3.41	3.05	3.76	3.76	3.76	4.12	3.02	3.53	3.53	3.53	4.40	3.75	4.25	4.25	4.25	5.37
11.0	2.12	2.75	2.81	2.81	2.97	2.66	3.40	3.43	3.43	3.59	2.66	3.21	3.21	3.21	3.84	3.32	3.87	3.87	3.87	4.67
11.5	1.84	2.48	2.57	2.57	2.60	2.32	3.07	3.14	3.14	3.14	2.35	2.93	2.94	2.94	3.37	2.94	3.55	3.55	3.55	4.09
12.0	1.59	2.24	2.36	2.36	2.29	2.03	2.77	2.88	2.88	2.76	2.07	2.65	2.70	2.70	2.98	2.60	3.24	3.26	3.26	3.60
12.5	1.38	2.03	2.18	2.18	2.03	1.76	2.52	2.65	2.65	2.44	1.83	2.41	2.49	2.49	2.64	2.30	2.95	3.00	3.00	3.18
13.0	1.19	1.84	2.00	2.01	1.80	1.53	2.29	2.45	2.45	2.17	1.61	2.20	2.30	2.30	2.36	203	2.70	2.77	2.77	2.83
13.5	1.04	1.67	1.84	1.87	1.61	1.33	2.08	2.27	2.28	1.94	1.41	2.01	2.13	2.13	2.11	1.79	2.47	2.57	2.57	2.53
14.0	0.91	1.52	1.69	1.74	1.44	1.17	1.90	2.09	2.12	1.74	1.24	1.84	1.98	1.98	1.90	1.58	2.26	2.39	2.39	2.26
14.5	0.80	1.39	1.55	1.62	1.30	1.03	1.73	1.92	1.97	1.57	1.10	1.68	1.84	1.85	1.71	1.39	2.08	2.23	2.23	2.04
15.0	0.71	1.26	1.43	1.51	1.17	0.91	1.58	1.78	1.84	1.41	0.97	1.55	1.70	1.73	1.54	1.23	1.91	2.08	2.08	1.84
15.5	0.63	1.15	1.32	1.42	1.06	0.80	1.44	1.64	1.73	1.28	0.86	1.42	1.57	1.62	1.40	1.09	1.76	1.93	1.95	1.67
16.0	0.56	1.05	1.22	1.33	0.97	0.71	1.32	1.52	1.62	1.17	0.77	1.31	1.46	1.52	1.27	0.97	1.62	1.79	1.83	1.52
16.5	0.50	0.96	1.13	1.25	0.88	0.64	1.21	1.41	1.52	1.06	0.69	1.20	1.36	1.43	1.16	0.87	1.50	1.67	1.72	1.38
17.0	0.45	0.88	1.05	1.18	0.81	0.57	1.11	1.31	1.43	0.97	0.62	1.11	1.26	1.35	1.06	0.78	1.38	1.55	1.62	1.26
17.5	0.40	0.80	0.97	1.11	0.74	0.51	1.01	1.21	1.35	0.89	0.55	1.02	1.18	1.27	0.97	0.70	1.28	1.45	1.53	1.16
18.0	0.36	0.73	0.90	1.05	0.68	0.46	0.93	1.13	1.28	0.82	0.50	0.94	1.10	1.20	0.89	0.63	1.18	1.35	1.45	1.07

1B = One brace mid span

2B = Two braces within the span

3B = Three braces within the span

FR = Assumes compression flange fully restrained

ws = Uniformly distributed serviceability load for deflection limit = $Span_{/150}$ (kN/m)

$\phi_b w_u$ = Strength load resistance applied at the centroid (kN/m)

$\phi_b M_u$ = Section strength in bending at the F.R. condition (kN.m.)

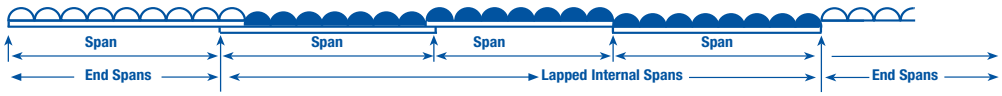
$\phi_v V_u$ = Section strength in shear (kN)

NOTE: 1. The tables are based on a total lap length between bolt centres being equal to 10% of the span or 600mm whichever is the greater.
2. Tables assume one flange continuously restrained by roof or wall cladding.

MSS STRENGTH LOAD SPAN TABLE

UNIFORMLY DISTRIBUTED LOAD = $\phi_b w_u$ (kN/m)

LAPPED INTERNAL SPAN



Span	MSS 325/15					MSS 325/18					MSS 350/18					MSS 400/20				
	$\phi_b w_u$ (kN/m)				w_s kN/m	$\phi_b w_u$ (kN/m)				w_s kN/m	$\phi_b w_u$ (kN/m)				w_s kN/m	$\phi_b w_u$ (kN/m)				w_s kN/m
m	1B	2B	3B	FR		1B	2B	3B	FR		1B	2B	3B	FR		1B	2B	3B	FR	
3.0																				
3.5																				
4.0											36.4	36.4	36.4	36.4	119	52.0	52.0	52.0	52.0	189
4.5	20.9	20.9	20.9	20.9	54.4	25.5	25.5	25.5	25.5	74.6	28.8	28.8	28.8	28.8	88.0	41.0	41.0	41.0	41.0	139
5.0	16.9	16.9	16.9	16.9	41.4	20.7	20.7	20.7	20.7	56.4	23.3	23.3	23.3	23.3	67.0	33.2	33.2	33.2	33.2	105
5.5	14.0	14.0	14.0	14.0	32.4	17.1	17.1	17.1	17.1	43.1	19.3	19.3	19.3	19.3	52.0	27.5	27.5	27.5	27.5	81.0
6.0	11.7	11.7	11.7	11.7	25.4	14.4	14.4	14.4	14.4	33.7	16.2	16.2	16.2	16.2	40.0	23.1	23.1	23.1	23.1	63.0
6.5	10.0	10.0	10.0	10.0	20.3	12.2	12.2	12.2	12.2	26.8	13.8	13.8	13.8	13.8	32.0	19.7	19.7	19.7	19.7	50.0
7.0	8.63	8.63	8.63	8.63	16.5	10.6	10.6	10.6	10.6	21.6	11.9	11.9	11.9	11.9	26.0	17.0	17.0	17.0	17.0	40.0
7.5	7.48	7.51	7.51	7.51	13.6	9.19	9.19	9.19	9.19	17.6	10.4	10.4	10.4	10.4	21.0	14.8	14.8	14.8	14.8	33.0
8.0	6.44	6.60	6.60	6.60	11.4	8.00	8.08	8.08	8.08	14.6	9.06	9.10	9.10	9.10	17.0	12.9	13.0	13.0	13.0	27.0
8.5	5.58	5.85	5.85	5.85	9.57	6.95	7.15	7.15	7.15	12.2	7.88	8.06	8.06	8.06	15.0	11.2	11.5	11.5	11.5	23.0
9.0	4.86	5.22	5.22	5.22	8.15	6.07	6.38	6.38	6.38	10.3	6.88	7.19	7.19	7.19	12.0	9.82	10.3	10.3	10.3	19.0
9.5	4.25	4.68	4.68	4.68	6.99	5.32	5.73	5.73	5.73	8.79	6.04	6.46	6.46	6.46	10.5	8.62	9.21	9.21	9.21	16.0
10.0	3.73	4.23	4.23	4.23	6.05	4.69	5.17	5.17	5.17	7.55	5.33	5.83	5.83	5.83	9.10	7.60	8.31	8.31	8.31	14.0
10.5	3.28	3.83	3.83	3.83	5.26	4.14	4.69	4.69	4.69	6.53	4.71	5.28	5.28	5.28	7.80	6.71	7.54	7.54	7.54	12.0
11.0	2.89	3.49	3.49	3.49	4.59	3.66	4.27	4.27	4.27	5.68	4.17	4.81	4.81	4.81	6.82	5.94	6.87	6.87	6.87	10.5
11.5	2.55	3.18	3.20	3.20	4.03	3.24	3.91	3.91	3.91	4.97	3.70	4.41	4.41	4.41	5.98	5.27	6.28	6.28	6.28	9.22
12.0	2.25	2.88	2.94	2.94	3.56	2.88	3.58	3.59	3.59	4.38	3.29	4.05	4.05	4.05	5.26	4.68	5.77	5.77	5.77	8.12
12.5	1.98	2.62	2.71	2.71	3.16	2.55	3.26	3.31	3.31	3.87	2.92	3.69	3.73	3.73	4.66	4.16	5.26	5.32	5.32	7.18
13.0	1.74	2.39	2.50	2.50	2.82	2.26	2.97	3.06	3.06	3.44	2.59	3.37	3.45	3.45	4.14	3.69	4.81	4.92	4.92	6.38
13.5	1.53	2.18	2.32	2.32	2.52	2.00	2.72	2.84	2.84	3.07	2.30	3.08	3.20	3.20	3.70	3.27	4.40	4.56	4.56	5.70
14.0	1.35	1.99	2.16	2.16	2.27	1.77	2.49	2.64	2.64	2.76	2.04	2.83	2.97	2.97	3.31	2.88	4.03	4.24	4.24	5.11
14.5	1.19	1.83	2.00	2.01	2.05	1.56	2.29	2.46	2.46	2.48	1.80	2.60	2.77	2.77	2.98	2.54	3.71	3.95	3.95	4.60
15.0	1.06	1.68	1.85	1.88	1.85	1.38	2.10	2.29	2.30	2.24	1.59	2.39	2.59	2.59	2.69	2.24	3.41	3.69	3.69	4.16
15.5	0.94	1.54	1.71	1.76	1.68	1.22	1.94	2.12	2.15	2.03	1.41	2.20	2.41	2.42	2.44	1.98	3.14	3.43	3.46	3.77
16.0	0.84	1.42	1.59	1.65	1.53	1.09	1.79	1.97	2.02	1.85	1.25	2.03	2.24	2.28	2.22	1.76	2.90	3.19	3.25	3.42
16.5	0.76	1.30	1.47	1.55	1.40	0.97	1.65	1.84	1.90	1.68	1.12	1.88	2.08	2.14	2.02	1.57	2.68	2.97	3.05	3.12
17.0	0.68	1.20	1.37	1.46	1.28	0.87	1.52	1.71	1.79	1.54	1.00	1.74	1.94	2.02	1.85	1.41	2.47	2.77	2.87	2.86
17.5	0.61	1.11	1.28	1.38	1.17	0.78	1.41	1.60	1.69	1.41	0.90	1.61	1.81	1.90	1.70	1.26	2.29	2.58	2.71	2.62
18.0	0.55	1.02	1.19	1.30	1.08	0.71	1.30	1.49	1.60	1.30	0.81	1.49	1.69	1.80	1.56	1.14	2.12	2.41	2.56	2.41

1B = One brace mid span

2B = Two braces within the span

3B = Three braces within the span

FR = Assumes compression flange fully restrained

ws = Uniformly distributed serviceability load for deflection limit = Span/150 (kN/m)

$\phi_b w_u$ = Strength load resistance applied at the centroid (kN/m)

$\phi_b M_u$ = Section strength in bending at the F.R. condition (kN.m.)

$\phi_v V_u$ = Section strength in shear (kN)

NOTE: 1. The tables are based on a total lap length between bolt centres being equal to 10% of the span or 600mm whichever is the greater.
2. Tables assume one flange continuously restrained by roof or wall cladding.

MSS STRENGTH LOAD SPAN TABLE

AXIAL LOAD (kN) = $\phi_c N_{uc}$

SINGLE SPAN

Span	MSS 150/12				MSS 150/15				MSS 150/18				MSS 200/12				MSS 200/15			
	$\phi_c N_{uc}$			N_e	$\phi_c N_{uc}$			N_e	$\phi_c N_{uc}$			N_e	$\phi_c N_{uc}$			N_e	$\phi_c N_{uc}$			N_e
m	1B	2B	FR		1B	2B	FR		1B	2B	FR		1B	2B	FR		1B	2B	FR	
3.0	74.4	86.7	102	305	96.6	115	138	377	113.3	135.0	175	447	102	113	124	651	140	157	172	807
3.5	59.3	74.0	94.4	224	74.3	96.2	128	277	89.0	113	160	329	89.3	103	119	479	122	142	165	593
4.0	46.6	61.0	86.4	172	57.1	76.8	116	212	68.6	91.4	145	252	76.4	92.0	113	366	102	126	157	454
4.5	37.0	49.3	78.0	135	45.3	60.8	104	168	54.6	72.7	129	199	63.9	81.0	107	289	82.5	109	149	359
5.0	30.0	40.2	69.7	110	36.9	49.4	91.3	136	44.6	59.1	113	161	53.3	70.1	101	235	67.1	92.0	140	291
5.5	24.9	33.3	61.3	90.7	30.7	40.9	79.0	112	37.1	49.0	97.7	133	44.9	60.1	94.0	194	55.6	76.8	130	240
6.0	21.1	28.0	52.5	76.2	25.9	34.5	66.3	94.3	31.5	41.4	83.2	112	38.1	51.5	87.6	163	46.9	64.7	121	202
6.5	17.9	23.9	45.4	64.9	22.2	29.5	56.0	80.4	27.1	35.4	70.9	95.3	32.5	44.6	80.8	139	40.0	55.2	111	172
7.0	15.5	20.7	39.3	56.0	19.3	25.5	48.7	69.3	23.6	30.7	61.2	82.2	28.1	38.7	74.0	120	34.7	47.7	100	148
7.5	13.6	18.0	34.2	48.8	16.9	22.3	42.4	60.4	20.8	26.9	53.3	71.6	24.5	33.8	67.2	104	30.3	41.6	89.5	129
8.0	12.0	15.9	30.0	42.9	15.0	19.7	37.2	53.1	18.4	23.8	46.8	62.9	21.6	29.7	60.7	91.6	26.8	36.7	79.5	114
8.5	10.7	14.1	26.6	38.0	13.4	17.5	33.0	47.0	16.5	21.1	41.5	55.7	19.2	26.4	54.8	81.1	23.8	32.6	70.5	101
9.0	9.6	12.6	23.8	33.9	12.0	15.7	29.4	41.9	14.9	19.0	37.0	49.7	17.2	23.6	49.5	72.4	21.4	29.1	63.0	89.7
9.5	8.6	11.4	21.3	30.4	10.9	14.1	26.4	37.6	13.6	17.2	33.2	44.6	15.5	21.2	44.8	65.0	19.3	26.2	57.0	80.5
10.0					9.92	12.8	23.9	34.0	12.4	15.6	30.0	40.3	14.0	19.1	40.8	58.6	17.5	23.7	50.9	72.6
10.5					9.08	11.7	21.6	30.8	11.4	14.2	27.2	36.5	12.8	17.4	37.2	53.2	15.9	21.6	46.2	65.9
11.0					8.35	10.7	19.7	28.1	10.5	13.1	24.8	33.3	11.7	15.9	33.9	48.5	14.6	19.7	42.1	60.0
11.5									9.7	12.0	22.7	30.4	10.7	14.6	31.0	44.3	13.4	18.1	38.5	54.9
12.0									9.1	11.1	20.8	28.0	9.87	13.4	28.5	40.7	12.4	16.7	35.3	50.4
12.5																	11.5	15.4	32.6	46.5
13.0																	10.7	14.3	30.1	43.0
13.5																				
14.0																				
14.5																				
15.0																				
15.5																				
16.0																				
16.5																				
17.0																				
17.5																				
18.0																				

FR	Assumes both flanges fully restrained and using r_x
OFR	Assumes compression flange only fully restrained. Refer to AS/NZS 4600, 3.4.7
Ne	Euler buckling capacity about the X-X axis of symmetry (kN)
Φ_C	= .85
N_{uc}	Strength resistance axial compressive load (kN)

MSS STRENGTH LOAD SPAN TABLE

AXIAL LOAD (kN) = $\phi_c N_{uc}$

SINGLE SPAN

Span	MSS 200/18				MSS 250/13					MSS 250/15					MSS 250/18				
	$\phi_c N_{uc}$			N_e	$\phi_c N_{uc}$				N_e	$\phi_c N_{uc}$				N_e	$\phi_c N_{uc}$				N_e
m	1B	2B	FR		1B	2B	3B	FR		1B	2B	3B	FR		1B	2B	3B	FR	
3.0	168	188	208	961	142	153	159	159	1300										
3.5	145	170	200	706	130	143	151	155	957										
4.0	120	150	190	540	117	133	143	150	733	144	164	177	186	843	178	203	218	227	1010
4.5	97.5	129	180	427	104	122	134	145	597	128	151	165	179	666	158	186	205	220	793
5.0	79.3	109	168	346	91.1	111	124	139	469	111	137	153	172	539	138	169	190	212	643
5.5	65.8	90.8	156	286	78.7	99.9	115	133	388	94.7	123	141	165	446	117	152	175	204	531
6.0	55.6	76.5	144	240	68.3	88.9	105	127	326	81.7	108	129	157	375	99.4	135	160	195	446
6.5	47.6	65.3	132	205	59.6	78.6	95.1	120	278	70.8	94.6	117	149	319	85.5	117	144	184	380
7.0	41.3	56.5	119	176	52.6	69.7	85.4	114	239	61.7	83.4	104	141	275	73.9	102	129	175	328
7.5	36.2	49.3	106	154	46.6	62.0	76.7	107	208	54.2	74.0	92.3	132	240	64.6	89.3	114	164	286
8.0	32.0	43.5	94.7	135	41.3	55.5	69.0	100	183	48.0	65.5	82.6	124	211	56.9	78.7	101	153	251
8.5	28.5	38.7	83.8	120	36.9	50.0	62.2	93.3	162	42.6	58.5	74.3	115	187	50.6	70.0	90.0	143	222
9.0	25.6	34.6	74.8	107	33.1	45.1	56.5	86.6	145	38.1	52.5	66.8	106	166	45.3	62.4	80.3	133	198
9.5	23.2	31.2	67.1	95.8	29.8	40.8	51.5	79.8	130	34.2	47.3	60.3	97.0	149	40.8	56.1	72.1	122	178
10.0	21.1	28.3	60.5	86.5	27.0	37.0	47.0	73.7	117	31.0	42.7	54.7	89.1	135	37.0	50.8	65.2	110	161
10.5	19.3	25.7	54.9	78.4	24.5	33.8	42.9	68.1	106	28.2	38.8	49.9	82.0	122	33.7	46.1	59.2	102	146
11.0	17.7	23.6	50.0	71.5	22.4	30.9	39.3	63.0	96.9	25.8	35.4	45.5	75.7	111	30.8	42.1	54.0	92.5	133
11.5	16.3	21.6	45.8	65.4	20.5	28.3	36.1	58.4	88.7	23.6	32.5	41.6	70.0	102	28.3	38.6	49.5	85.1	122
12.0	15.1	20.0	42.0	60.0	19.0	26.0	33.3	54.2	81.4	21.8	29.9	38.3	64.6	93.6	26.1	35.6	45.5	78.2	112
12.5	14.1	18.5	38.7	55.3	17.5	24.0	30.8	50.6	75.0	20.1	27.6	35.3	59.8	86.3	24.2	32.9	42.0	72.1	103
13.0	13.1	17.2	35.8	51.2	16.2	22.2	28.5	47.3	69.4	18.7	25.5	32.7	55.5	79.8	22.5	30.5	38.8	66.6	95.1
13.5	12.3	16.0	34.7	47.4	15.0	20.6	26.4	46.1	64.3	17.4	23.7	30.3	53.8	74.0	21.0	28.3	36.1	64.5	88.2
14.0	11.5	15.0	32.2	44.1	14.0	19.2	24.6	43.6	59.8	16.2	22.1	28.2	50.3	68.8	19.6	26.4	33.6	59.9	82.0
14.5					13.1	17.9	23.0	40.2	55.8	15.2	20.6	26.3	46.8	64.1	18.4	24.7	31.3	55.5	76.4
15.0					12.3	16.8	21.4	37.7	52.1	14.2	19.3	24.6	43.8	59.9	17.3	23.1	29.3	52.1	71.4
15.5										13.4	18.1	23.1	41.1	56.1	16.3	21.7	27.5	49.0	66.9
16.0										12.6	17.0	21.7	38.5	52.7	15.3	20.5	25.9	45.9	62.8
16.5															14.5	19.3	24.4	43.1	59.0
17.0																			
17.5																			
18.0																			

FR Assumes both flanges fully restrained and using r_x

OFR Assumes compression flange only fully restrained. Refer to AS/NZS 4600, 3.4.7

Ne Euler buckling capacity about the X-X axis of symmetry (kN)

ϕ_c = .85

N_{uc} Strength resistance axial compressive load (kN)

MSS STRENGTH LOAD SPAN TABLE

AXIAL LOAD (kN) = $\phi_c N_{uc}$

SINGLE SPAN

Span	MSS 275/15					MSS 275/18					MSS 300/15					MSS 300/18				
	$\phi_c N_{uc}$				N_e	$\phi_c N_{uc}$				N_e	$\phi_c N_{uc}$				N_e	$\phi_c N_{uc}$				N_e
m	1B	2B	3B	FR		1B	2B	3B	FR		1B	2B	3B	FR		1B	2B	3B	FR	
3.0																				
3.5																				
4.0																				
4.5	140	162	176	200	863	177	205	221	249	1040										
5.0	125	149	165	194	699	157	188	208	241	843	145	167	181	194	1100	183	209	226	254	1100
5.5	109	136	154	187	577	138	172	194	233	697	130	155	171	188	907	164	195	214	247	907
6.0	93.9	123	143	179	485	119	155	180	225	586	116	143	161	181	762	146	180	202	240	762
6.5	82.1	109	131	172	413	103	139	165	216	499	102	131	150	176	649	129	165	190	232	649
7.0	72.5	96.6	120	164	357	89.8	123	151	207	430	90.3	119	140	168	560	114	150	176	224	560
7.5	64.1	86.0	108	156	311	79.1	108	137	197	375	80.5	107	129	162	488	101	135	163	215	488
8.0	56.9	77.2	96.5	147	273	70.2	96.1	123	186	329	72.3	95.9	118	154	429	89.6	121	149	207	428
8.5	50.8	69.6	87.2	139	242	62.8	85.9	110	176	292	65.3	86.6	108	147	380	80.7	109	136	198	380
9.0	45.8	62.6	79.1	130	216	56.3	77.3	98.8	165	260	59.3	78.8	98.0	140	339	72.2	98.6	124	189	339
9.5	41.4	56.7	72.2	122	194	50.7	69.9	89.4	155	234	53.7	72.0	89.6	133	304	65.4	89.2	113	179	304
10.0	37.7	51.5	65.9	114	175	45.9	63.6	81.2	144	211	48.8	66.0	82.2	125	274	59.5	81.1	104	169	274
10.5	34.4	47.1	60.2	105	158	41.8	57.9	74.2	134	191	44.6	60.8	75.8	118	249	54.4	74.1	94.5	159	249
11.0	31.5	43.2	55.2	96.9	144	38.2	52.9	68.0	124	174	41.0	56.1	70.1	110	227	49.9	68.0	86.7	149	227
11.5	28.9	39.8	50.8	89.9	132	35.1	48.5	62.6	114	159	37.8	51.5	65.0	103	207	45.8	62.7	79.8	140	207
12.0	26.6	36.7	46.9	83.6	121	32.3	44.6	57.7	105	146	35.0	47.6	60.5	95.9	191	42.2	57.9	73.8	130	191
12.5	24.6	34.1	43.5	78.0	112	29.9	41.2	53.2	97.5	135	32.4	44.1	56.2	90.2	176	39.0	53.7	68.4	121	176
13.0	22.8	31.5	40.4	73.0	103	27.8	38.2	49.2	90.6	125	30.2	41.0	52.2	84.2	162	36.1	50.0	63.6	114	162
13.5	21.2	29.3	37.7	68.3	95.9	25.8	35.5	45.7	84.4	116	28.1	38.3	48.8	82.4	151	33.6	46.4	59.3	107	151
14.0	19.7	27.3	35.2	63.8	89.1	24.1	33.0	42.5	78.9	108	26.2	35.8	45.5	77.5	140	31.3	43.2	55.4	99.7	140
14.5	18.5	25.5	32.9	59.8	83.1	22.6	30.9	39.7	73.8	100	24.4	33.5	42.6	73.1	131	29.3	40.3	51.9	98.4	131
15.0	17.3	23.8	30.8	56.1	77.6	21.2	28.9	37.1	69.3	93.7	22.9	31.5	40.0	69.0	122	27.5	37.7	48.6	87.6	122
15.5	16.3	22.4	28.8	52.7	72.7	20.0	27.1	34.8	65.1	87.8	21.5	29.6	37.7	65.3	114	25.8	35.4	45.6	82.4	114
16.0	15.3	21.0	27.1	49.7	68.2	18.8	25.5	32.7	61.3	82.4	20.2	28.0	35.5	61.8	107	24.3	33.3	42.8	77.7	107
16.5	14.4	19.8	25.5	46.9	64.2	17.8	24.1	30.8	57.7	77.4	19.0	26.2	33.5	58.8	101	22.9	31.3	40.3	73.3	101
17.0	13.7	18.7	24.0	44.4	60.5	16.8	22.7	29.1	54.4	73.0	18.0	24.8	31.7	55.6	94.9	21.7	29.6	38.0	69.4	94.9
17.5	12.9	17.7	22.7	42.0	57.0	16.0	21.5	27.5	51.3	68.8	17.0	23.4	30.1	52.6	89.6	20.5	28.0	35.9	65.7	89.6
18.0	12.3	16.7	21.5	39.8	53.9	15.2	20.4	26.0	48.5	65.1	16.1	22.1	28.5	50.0	84.7	19.5	26.5	33.9	62.3	84.7

FR Assumes both flanges fully restrained and using r_x

OFR Assumes compression flange only fully restrained. Refer to AS/NZS 4600, 3.4.7

Ne Euler buckling capacity about the X-X axis of symmetry (kN)

Φ_C = .85

N_{uc} Strength resistance axial compressive load (kN)

MSS STRENGTH LOAD SPAN TABLE

AXIAL LOAD (kN) = $\phi_c N_{uc}$

SINGLE SPAN

Span	MSS 325/15					MSS 325/18					MSS 350/18					MSS 400/20				
	$\phi_c N_{uc}$				N_e	$\phi_c N_{uc}$				N_e	$\phi_c N_{uc}$				N_e	$\phi_c N_{uc}$				N_e
m	1B	2B	3B	FR		1B	2B	3B	FR		1B	2B	3B	FR		1B	2B	3B	FR	
3.0																				
3.5																				
4.0																				
4.5	183	198	205	217	1370	211	233	247	270	1650										
5.0	171	189	198	212	1110	194	220	237	265	1340	207	232	247	257	1610	261	289	306	316	2480
5.5	159	180	190	207	917	178	207	226	259	1100	191	219	237	251	1330	243	275	296	310	2050
6.0	147	170	182	201	770	161	193	215	252	928	175	206	227	246	1120	225	261	284	305	1720
6.5	135	160	173	195	656	144	180	203	245	791	159	193	215	240	950	206	247	272	299	1470
7.0	123	150	164	188	566	127	166	191	238	682	142	180	204	234	819	186	232	260	292	1260
7.5	111	140	155	182	493	113	151	179	230	594	126	166	193	227	714	167	216	248	286	1100
8.0	101	130	146	175	433	101	136	166	222	522	113	152	181	220	627	149	200	235	279	968
8.5	92.1	120	137	168	384	90.0	123	154	214	462	101	138	169	213	556	134	184	222	272	857
9.0	84.2	110	128	161	342	81.0	112	141	205	412	91.4	125	157	206	496	121	168	208	264	765
9.5	76.8	101	119	153	307	73.3	101	129	197	370	82.8	114	144	198	445	109	153	194	257	686
10.0	70.4	93.8	110	146	277	66.7	92.1	118	188	334	75.4	104	133	191	402	99.8	139	180	249	619
10.5	64.8	87.0	102	139	252	61.0	84.1	109	180	303	69.0	95.2	122	183	364	91.4	127	166	241	562
11.0	59.6	80.5	95.1	131	229	56.0	77.2	99.6	171	276	63.4	87.4	113	175	332	84.1	117	153	233	512
11.5	54.9	74.7	88.8	124	210	51.6	71.1	91.7	162	253	58.5	80.6	104	167	304	77.7	108	141	225	469
12.0	50.7	69.5	82.9	117	193	47.6	65.7	84.7	154	232	54.2	74.5	96.2	160	279	72.0	100	131	216	430
12.5	46.9	64.9	77.4	110	177	44.0	61.0	78.5	144	214	50.3	69.2	89.2	151	257	67.0	93.0	121	208	396
13.0	43.6	60.5	72.4	104	164	40.8	56.7	73.0	135	198	46.9	64.4	83.0	143	238	62.5	86.6	113	199	366
13.5	40.6	56.4	67.9	97.8	152	37.9	52.9	68.1	127	183	43.8	60.1	77.4	141	220	58.5	81.0	106	198	340
14.0	38.0	52.7	63.8	92.5	142	35.4	49.4	63.6	119	170	41.0	56.3	72.4	132	205	55.0	75.8	98.8	189	316
14.5	35.6	49.4	59.9	87.6	132	33.1	46.1	59.6	112	159	38.5	52.8	67.9	124	191	51.6	71.2	92.7	179	295
15.0	33.4	46.4	56.3	82.9	123	31.0	43.2	56.0	105	148	36.3	49.6	63.8	118	178	48.6	67.1	87.2	170	275
15.5	31.4	43.7	52.9	78.4	115	29.1	40.5	52.7	99.1	139	34.1	46.8	60.1	112	167	45.8	63.2	82.2	162	258
16.0	29.5	41.2	49.9	74.3	108	27.4	38.1	49.6	93.3	130	32.1	44.1	56.7	105	157	43.2	59.8	77.6	153	242
16.5	27.8	38.9	47.1	70.5	102	25.8	35.8	46.7	88.1	123	30.2	41.8	53.6	99.0	147	40.8	56.6	73.4	144	228
17.0	26.2	36.8	44.6	67.0	96.0	24.4	33.8	44.0	83.3	116	28.6	39.5	50.8	94.0	139	38.6	53.7	69.6	136	214
17.5	24.8	34.8	42.2	63.8	90.6	23.1	32.0	41.6	78.9	109	27.0	37.5	48.1	89.0	131	36.6	51.0	66.1	129	202
18.0	23.4	33.1	40.1	60.7	85.6	21.9	30.3	39.3	74.9	103	25.6	35.6	45.7	84.5	124	34.8	48.5	62.8	122	191

FR Assumes both flanges fully restrained and using r_x

OFR Assumes compression flange only fully restrained. Refer to AS/NZS 4600, 3.4.7

Ne Euler buckling capacity about the X-X axis of symmetry (kN)

Φ_C = .85

N_{uc} Strength resistance axial compressive load (kN)