

STEEL GRATING SERIES 1

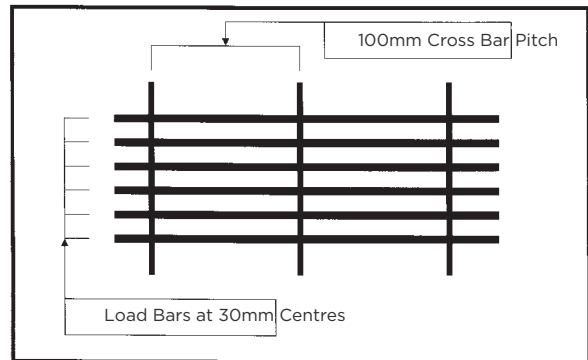


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STEEL GRATING SERIES 1: (30MM CENTRES)

We provide grating in both twistlock and forge-welded in mild steel and twistlock in aluminium. Our Series 1 grating has high load carrying capacity and is available in the following options:



Forge Welded (Mild Steel)	Twistlock (Mild Steel)	Twistlock (Aluminium)
20 x 3	20 x 3	20 x 3
20 x 5	20 x 5	20 x 5
25 x 3	25 x 3	25 x 3
25 x 5	25 x 5	25 x 5
32 x 3	32 x 3	32 x 3
32 x 5	32 x 5	32 x 5
40 x 5	40 x 3	40 x 3
45 x 5	40 x 5	40 x 5
50 x 5	50 x 3	50 x 3
65 x 5	50 x 5	50 x 5
25 x 5 serrated		
32 x 5 serrated		
40 x 5 serrated		

Note: Twistlock grating is available in both aluminium and mild steel serrated grating. They are available in all sizes.

At Steel Grating Limited, 90% of our work is Forge Bar style grating - the most common form of grating. We stock high levels of this grating to ensure we can supply as quickly as possible. Twistlock jobs are made to order.



STEEL GRATING

TWISTLOCK AND FORGE WELDED STEEL GRATING

Safe Loads and Deflections for Load Bars

Main Bars mm	Mass kg/sqm	Self Wt kPa	(1)	600	900	1200	1500	1800	2100	2400	Span for 5mm def @ 4kPa																				
20 x 3	19.47	9.191	U	25.23	11.11	CHECK DEFLECTION FOR LOADS & SPANS THIS SIDE OF SHADOW LINE					1073																				
			D	3.09	6.88																										
			C	7.57	5.00																										
20 x 5	29.93	0.294	U	42.08	18.54	10.30	Series 1 30 mm Bar Centres					1219																			
			D	3.09	6.89	12.09																									
			C	12.62	8.34	6.18																									
25 x 3	23.39	0.229	U	39.49	17.42	9.70						Series 1 30 mm Bar Centres					1268														
			D	2.47	5.52	9.72																									
			C	11.85	7.84	5.82																									
25 x 5	36.48	0.358	U	65.85	29.07	16.09											Series 1 30 mm Bar Centres					1441									
			D	2.47	5.43	0.73																									
			C	19.75	13.08	9.73																									
32 x 3	28.89	0.283	U	64.80	28.64	15.99																10.13	Series 1 30 mm Bar Centres					1526			
			D	1.93	4.33	7.64																11.81									
			C	19.44	12.89	9.59																7.60									
32 x 5	45.63	0.448	U	108.02	47.76	26.67	16.91	Series 1 30 mm Bar Centres														1734									
			D	1.93	4.33	7.64	11.83																								
			C	32.41	21.49	16.00	12.68																								
40 x 3	35.17	0.345	U	101.34	44.85	25.08	15.93						Series 1 30 mm Bar Centres									1804									
			D	1.55	3.47	6.13	9.51																								
			C	30.40	20.18	15.05	11.94																								
40 x 5	56.10	0.550	U	168.93	74.77	41.82	26.57											18.28	Series 1 30 mm Bar Centres									2050			
			D	1.55	3.47	6.14	9.52											13.58													
			C	50.68	33.65	25.09	19.93											16.45													
45 x 5	62.64	0.615	U	213.89	94.72	53.01	33.71											23.22						16.90	Series 1 30 mm Bar Centres					2239	
			D	1.38	3.09	5.46	8.48											12.11						16.33							
			C	64.17	42.62	31.81	25.28											20.90						17.74							
50 x 5	69.18	0.679	U	264.14	117.02	65.53	41.69	28.75	20.94	15.87	Series 1 30 mm Bar Centres							2424													
			D	1.24	2.78	4.92	7.65	10.93	14.75	19.08																					
			C	79.24	52.66	39.32	31.27	25.87	21.99	19.05																					
65 x 5	88.81	0.871	U	446.67	198.03	111.01	70.73	48.86	35.66	27.10						Series 1 30 mm Bar Centres								2951							
			D	.95	2.14	3.80	5.91	8.46	11.44	14.83																					
			C	34.00	89.12	66.61	53.05	43.97	37.45	32.52																					
			D	0.76	1.71	3.04	4.72	6.77	9.15	11.86																					

U: Safe Superimposed Uniformly Distributed Load - kPa

C: Safe Superimposed Line Load - kN/m

D: Deflection due to Superimposed Load - mmT

STEEL GRATING

TWISTLOCK ALUMINIUM GRATING

30mm Bar Centres

TABLE 1a – Safe Loads and Deflections for Load Bars @Based on a Yield Stress of: 172 MPa and Design Stress of: No of bars 34 per 115.24 MPa met

Main Bars mm	Mass kg/sqm	Self Wt kPa	(l)	150	300	450	600	750	900	1050	1200	1500	1800	Span for 5mm def @ 4kPa	
20 x 3	6.804	0.066747	U	278.56	69.59	30.89	17.35	11.08						817.06	
			D	0.39	1.55	3.48	6.18	9.64							
			C	20.89	10.44	6.95	5.20	4.15							
			D	0.31	1.24	2.79	4.95	7.71							
20 x 5	10.476	0.10277	U	464.27	115.99	51.49	28.92	18.47	12.80						928.36
			D	0.39	1.55	3.48	6.18	9.64	13.85						
			C	34.82	17.40	11.59	8.68	6.93	5.76						
			D	0.31	1.24	2.79	4.95	7.71	11.08						
25 x 3	8.181	0.080256	U	435.27	108.76	48.29	27.13	17.33	12.01						965.91
			D	0.31	1.24	2.79	4.95	7.72	11.10						
				32.65	16.31	10.87	8.14	6.50	5.41						
				0.25	0.99	2.23	3.96	6.18	8.88						
25 x 5	12.771	0.125284		725.46	181.27	80.50	45.22	28.90	20.03	14.68				1097.49	
				0.31	1.24	2.79	4.95	7.72	11.10	15.08					
				54.41	27.19	18.11	13.57	10.84	9.01	7.71					
				0.25	0.99	2.23	3.96	6.18	8.88	12.06					
32 x 3	10.1088	0.099167		713.18	178.22	79.15	44.48	28.43	19.71	14.46				1162.37	
				0.24	0.97	2.18	3.87	6.04	8.68	11.80					
				53.49	26.73	17.81	13.34	10.66	8.87	7.59					
				0.19	0.78	1.74	3.10	4.83	6.95	9.44					
32 x 5	15.984	0.156803		1188.64	297.04	131.93	74.14	47.40	32.87	24.10	18.42		1320.71		
				0.24	0.97	2.18	3.87	6.04	8.69	11.80	15.38				
				89.15	44.56	29.68	22.24	17.77	14.79	12.65	11.05				
				0.19	0.78	1.74	3.10	4.83	6.95	9.44	12.31				
40 x 3	12.312	0.120781		1114.38	278.50	123.71	69.54	44.86	30.84	22.62	17.29		1374.13		
				0.19	0.78	1.74	3.10	4.84	6.95	9.45	12.33				
				83.58	41.78	27.84	20.86	16.67	13.88	11.88	10.38				
				0.16	0.62	1.39	2.48	3.87	5.56	7.56	9.86				
40 x 5	19.656	0.192825		1857.31	464.18	206.20	115.90	74.11	51.40	37.72	28.83	18.38	1561.31		
				0.19	0.78	1.74	3.10	4.84	6.96	9.45	12.33	19.19			
				139.30	69.63	46.39	34.77	27.79	23.13	19.80	17.30	13.79			
				0.16	0.62	1.39	2.48	3.87	5.56	7.56	9.86	15.35			
45 x 5	21.951	0.215339		2350.68	587.51	261.00	146.72	93.82	65.09	47.76	36.52	23.29	1705.51		
				0.17	0.69	1.55	2.75	4.30	6.19	8.41	10.97	17.08			
				176.30	88.13	58.72	44.01	35.18	29.29	25.08	21.91	17.47			
				0.14	0.55	1.24	2.20	3.44	4.95	6.73	8.77	13.66			
50 x 5	24.246	0.237853		2902.10	725.35	322.24	181.16	115.86	80.38	58.99	45.11	28.79	19.92	1845.75	
				0.16	0.62	1.40	2.48	3.87	5.57	7.57	9.88	15.39	22.08		
				217.66	108.80	72.51	54.35	43.45	36.17	30.97	27.07	21.59	17.93		
				0.12	0.50	1.12	1.98	3.10	4.45	6.06	7.90	12.31	17.66		

U: Safe Superimposed Uniformly Distributed Load - kPa

C: Safe Superimposed Line Load - kN/m

D: Deflection due to Superimposed Load - mmT

STEEL GRATING SERIES 1

	Maximum Span (mm) for various Loads With 5.00mm Deflections			
	2.5 KPa	4.0 KPa	5.0 KPa	7.5 KPa
20 x 3	1185	1050	1005	900
20 x 5	1350	1205	1150	1035
25 x 3	1425	1260	1190	1055
25 x 5	1605	1430	1345	1220
32 x 3	1735	1611	1435	1301
32 x 5	1935	1715	1625	1475
40 x 5	2285	2030	1931	1741
45 x 5	2445	2220	2095	1900
50 x 5	2695	2395	2275	2055
65 x 5	3250	2925	2765	2600

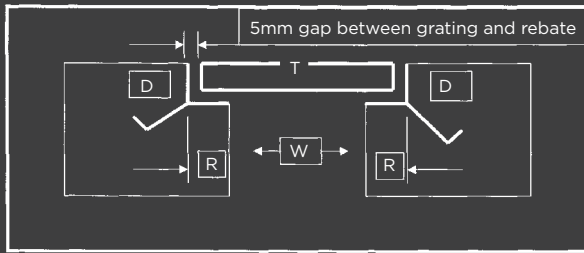
STEEL GRATING TYPICAL APPLICATION LOADINGS

Conveyor Walkways Light Access Platforms	2.5 KPa
Standard Australian Platform Loading	4 KPa
British Standard Platform Loading	5 KPa
Boiler House Platform Loading esp Power Station	7.5 KPa

STEEL GRATING DRAIN COVERS FOR HEAVY TRAFFIC RECOMMENDED VEHICLE LOADING CHARTS FOR SERIES 1 GRATING

Steel Grating's drain covers and sumps have a large amount of open area to allow liquid to drain through while still providing strength to support heavy loads. Our sumps and drain covers can be made out of any size grating we stock, and we can make them to any size or shape you request. The following table is our recommendation on the size of grating needed for different vehicle loadings and spans.





Key:

T = Type of grating

W = Width of drainage opening

R = Width of rebate

D = Depth of rebate

(Includes 5mm MSA)

STEEL GRATING CARS UP TO 2.5 TONNE

Span	T	W	R	D
210	205/1	175	25	25
310	255/1	265	30	30
410	305/1	345	40	40
510	305/1	445	40	40
610	405/1	525	50	50
710	405/1	625	50	50
810	505/1	725	60	60
910	505/1	805	60	60
1010	505/1	905	60	60

STEEL GRATING TRUCKS 2.5 TONNE AND OVER

Span	T	W	R	D
210	205/1	175	25	25
310	305/1	245	40	40
410	405/1	325	50	50
510	405/1	425	50	50
610	505/1	525	60	60
710	505/1	605	60	60
810	655/1	705	75	75
910	655/1	825	75	75

STEEL GRATING FORKLIFTS WITH 5 TONNE CAPACITY

Span	T	W	R	D
210	255/1	165	30	30
310	405/1	265	50	50
410	505/1	325	50	60
510	505/1	405	60	60
610	655/1	505	50	75
710	655/1	625	50	75
810	655/1	725	50	75