Bedec SteelGrate
Private Limited



Dedication



Integrity



Reliability



Commitment



Bedec SteelGrate Pte Ltd is a specialist supplier of customised steel gratings. We provide expert advice on engineering grating design, supported with load calculations and AutoCAD drawings from conceptual stage to final execution on site for Industrial and Commercial uses. This is exemplified by our ISO 9001:2015 and Bizsafe Level 4 certifications.

Drawing on our technical expertise and years of experience, we value add by offering cost effective grating design through engineering solutions. We facilitate our valued customers by providing AutoCAD drawings during design approval submission, fabrication drawings, quantity take-off, conduct on-site verification and confirmation visits before commencement of fabrication and final As-built drawings when the project is completed.

Our products can be manufactured to many specifications, whether to be as economical as possible or to meet the stringent requirements of the end user. Our expanded range of products and services include Aluminium rung, Aluminium safety walkway grating, Aluminium swaged louver, Aluminium ball joint handrail and an array of other custom steel fabrication, like: safety clamp posts for drain wall, slotted drain, steel bollard and PUB standard drain railing.

We are ever ready to adapt and accept the challenges and changes of the industry. By pursuing cost effective solutions through design engineering, we endeavour to provide the most economical prices to our customers.

Design and Engineering, AutoCAD Drawing Support





Our Mission

To deliver value added custom design grating solutions to our clients with the most cost-effective approach and contribute to its buildability.

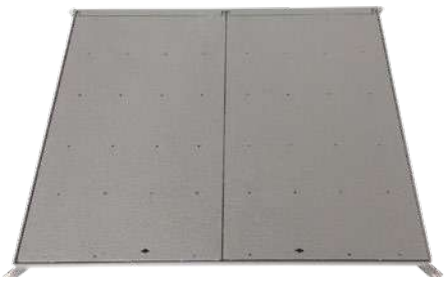
Quality Policy

As a company and individuals, we are part of the quality culture. We will strive to provide a prompt approach in meeting and satisfying our customers' needs and demands, performing up to and exceeding customers' expectations will be the ultimate objective.

In every solution we deliver, it will be cost effective and in the best interest of the customer.

All employees will practise our Quality Management and seek continual improvements towards achieving higher company's performance.

We will comply with any applicable statutory and regulatory requirements.



Pedestrian Grating for Sump / Drain – with Mild Steel Plate Anti-Skid Coating & Sound Damper

Drawing ref:
LTA/SDRE14/4/GRA 2 rev. A
LTA/SDRE14/4/GRA 3 rev. A



Anti-Skid Coating



Pedestrian Grating for Sump / Drain – with Flat Bars And Sound Damper

Drawing ref:
LTA/SDRE14/4/GRA 1 rev. A
LTA/SDRE14/4/GRA 3 rev. A



M.S. Vehicular Grating

Drawing ref:
LTA/SDRE14/4/GRA 4
LTA/SDRE14/4/GRA 5



Pedestrian Grating for Sump / Drain – with Mild Steel Plate Anti-Skid Coating, Flat Bars & Sound Damper

Drawing ref:
LTA/SDRE14/4/GRA 1 rev. A
LTA/SDRE14/4/GRA 2 rev. A
LTA/SDRE14/4/GRA 3 rev. A



Pedestrian Grating for Sump / Drain – with Mild Steel Chequer Plate

Drawing ref:
LTA/SDRE14/4/GRA 2
LTA/SDRE14/4/GRA 3



M.S. Vehicular Grating for Drain

Drawing ref:
LTA/SDRE14/4/GRA 6
LTA/SDRE14/4/GRA 7

Hot Dip Galvanise Grating



HDB Type – Apron Drain Grating with Hinged Panel



HDB Type – Apron Drain Grating, Plain



Pedestrian Grating – Barrier Free Design



Heavy Duty Tray Grating with Drain Slots



Heavy Duty Flat Bar Grating With Centre Mild Steel Plate



Continuous Hinged Grating



Tray Grating



Stainless Steel Serrated Grating



Press Locked Grating – Grid 33x11



Press Locked Grating – Grid 33x33

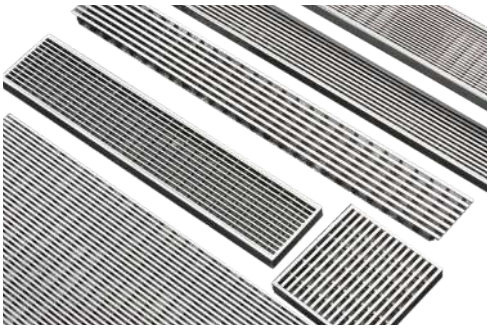


Stainless Steel Tray Grating with Drain Slot

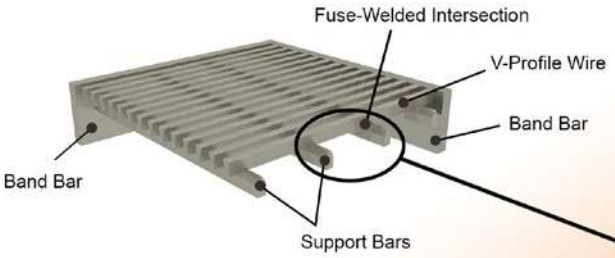


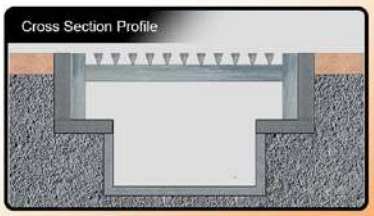
Stainless Steel – Heelguard Grating

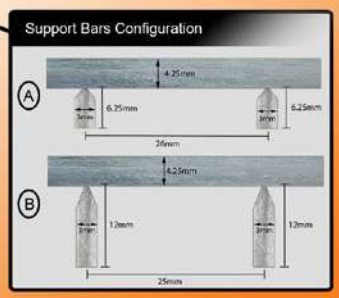
Slim Line V Profile Grating



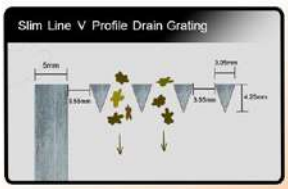
Slim Line V Profile stainless steel grating is fabricated from grade - 304 or 316 stainless steel material using either 3.05 x 4.25 mm with 20 degrees reflected angle V profile wires at 3.55 mm slot opening or 5 x 5 mm with 27 degrees reflected angle V profile wires at 5mm slot opening welded to support bars by electronic fusion.







Unique Feature
Non-Clogging Aperture



VS



Applications:
Scupper Drain Grating
Entrance Mat
Heelguard Grating
Swimming Pool Grating
Floor Trap / Floor Waste

A) Light Duty
Support Bars of height 6.25mm with 26mm pitch.

B) Heavy Duty
Support Bars of height 12mm with 25mm pitch.

More Applications of Slim Line V Profile













Fountain Grating



Swimming Pool Grating



Shower Grating



Heelguard / Handicap Friendly Grating



Scupper Drain In Male Toilet

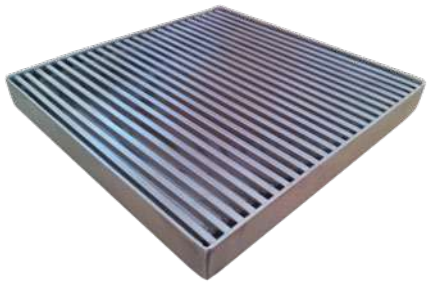


Scupper Drain in Food Production Factory

Slim Line V Profile Grating



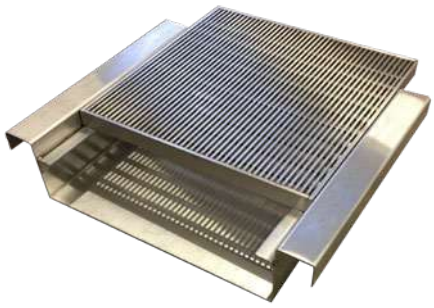
Floor Waste 100 x 100



Floor Trap 128 x 128 & 150 x 150



Receiving Tray 128 x 128



V Profile Grating With Channel



Entrance Mat



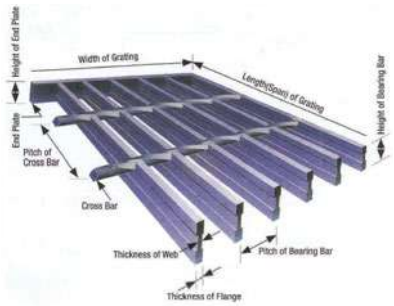
V Profile Grating Studded



Angle Detail

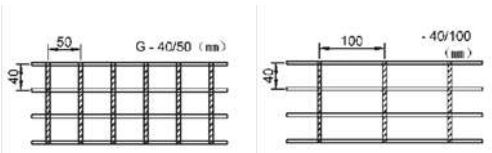


Corner Detail



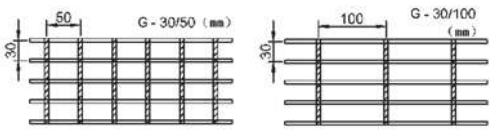
G-40/50 & G-40/100

The 40mm bearing bar pitch steel grating is one of the most economical with the lightest weight, a perfect choice for projects with a small clear span.



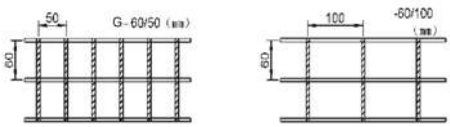
G-30/50 & G-30/100

Steel grating with 30mm bearing bar pitch is the most widely used in industrial areas. It maintains the highest resistance to impulsive force.

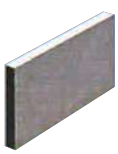


G-60/50 & G-60/100

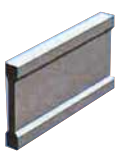
The 60mm bearing bar pitch steel grating is a popular choice for fabrication plant, transportation terminals and other areas of mining.



Types of Bearing Bar



Plain Flat Bar (PF)



Plain I Bar (PI)



Serrated Flat Bar (SF)



Serrated I Bar (SI)

Grating Standards

Manfacturing Standard	Material Standard	Hot-Dip Galvanising Standard
YB / T4001.1-2007	GB 700-88 (Q235)	GB / T13912-2002
ANSI/NAAMM (MGB531-00)	ASTM A36 / A36M-08	ASTM A123/A123M-09
BS 4592-2006	BS 4360 (43A)	BS EN ISO 1461-1999
AS 1657-1992	AS 3679.1 (1-250)	AS/NZS 4680-2006
SS 363-1993	SS 400	SS113

Identification Code

G 325/30/100 PF G

- Type of Surface Treatment
- Type of Bearing Bar
- Pitch of Crossbar
- Pitch of Bearing Bar
- Size of Bearing Bar (Width x Thickness)
- Product Identification

Eg.

- Product Identification:
  - **G**-Grating
  - **S**-Stair Tread
- Bearing Bar pitches may be 15 to 30, 40, 60, 80 & 90mm of which 30 & 40mm are recommended
- Cross Bar pitches may be 30, 38, 50, 76, 100mm, of which 50 & 100mm are recommened
- Type of Bearing Bar:
  - **PF**-Plain Flat Bar
  - **PI**-Plain I Bar,
  - **SF**-Serrated Flat Bar
  - **SI**-Serrated I Bar
- Type of Surface Treatment:
  - **G**-Hot Dipped Galvanishing
  - **P**-Painted,
  - **U**-Untreated

Safety Load and Deflection Table for Flat Bar Grating

Bearing Bars @ 30mm Pitch

Code	Load Bar Size (mm)	Pitch of Cross Bar (mm)	Weight (m^2)	Serrated Profile Coefficient			Span (mm)																	
				Load	Deflection		300	450	600	750	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2700	2850	3000
G605/30/100	60 x 5	100	82.9	0.93	1.03	U	2142.34	724.90	374.00	239.36	166.22	122.12	93.50	73.87	59.84	49.45	41.55	33.27	25.37	19.25	14.87	11.67	9.28	7.48	6.09
						D	0.35	0.60	0.98	1.53	2.21	3.01	3.93	4.97	6.14	7.43	8.84	9.75	10.00	10.00	10.00	10.00	10.00	10.00	10.00
G605/30/50		50	85.7			C	229.56	152.91	112.20	89.76	74.80	64.11	56.10	49.86	44.88	40.80	37.40	34.52	32.05	27.07	22.31	18.60	15.67	13.32	11.42
						D	0.20	0.45	0.79	1.23	1.77	2.41	3.14	3.98	4.91	5.94	7.07	8.30	9.63	10.00	10.00	10.00	10.00	10.00	10.00
G555/30/100	55 x 5	100	76.2	0.93	1.03	U	1791.52	623.46	314.26	201.12	139.67	102.61	78.56	62.07	50.28	41.55	32.59	25.63	19.54	14.85	11.45	8.99	7.15	5.76	4.69
						D	0.38	0.67	1.07	1.67	2.41	3.28	4.29	5.42	6.70	8.10	9.00	9.75	10.00	10.00	10.00	10.00	10.00	10.00	10.00
G555/30/50		50	79.0			C	221.03	138.72	94.27	75.42	62.85	53.87	47.13	41.90	37.71	34.28	31.42	29.00	25.65	20.85	17.18	14.32	12.07	10.26	8.79
						D	0.25	0.45	0.86	1.34	1.93	2.63	3.43	4.34	5.36	6.48	7.71	9.05	10.00	10.00	10.00	10.00	10.00	10.00	10.00
G505/30/100	50 x 5	100	69.6	0.93	1.03	U	1416.74	496.28	259.72	166.22	115.43	84.80	64.93	51.30	41.55	31.78	24.48	19.25	14.86	11.14	8.60	6.75	5.37	4.32	3.52
						D	0.40	0.71	1.18	1.84	2.65	3.61	4.71	5.97	7.37	8.25	9.00	9.75	10.00	10.00	10.00	10.00	10.00	10.00	10.00
G505/30/50		50	72.4			C	179.34	117.97	77.91	62.33	51.94	44.52	38.95	34.62	31.16	28.33	25.97	23.47	19.27	15.67	12.91	10.76	9.06	7.71	6.61
						D	0.27	0.53	0.94	1.47	2.12	2.89	3.77	4.77	5.89	7.13	8.49	9.75	10.00	10.00	10.00	10.00	10.00	10.00	10.00
G455/30/100	45 x 5	100	62.9	0.93	1.03	U	1084.35	407.59	210.37	134.64	93.50	68.69	52.59	41.55	30.84	23.17	17.85	14.03	10.07	8.12	6.27	4.92	3.91		
						D	0.42	0.80	1.31	2.05	2.95	4.01	5.24	6.63	7.50	8.25	9.00	9.75	10.00	10.00	10.00	10.00	10.00		
G455/30/50		50	65.7			C	140.40	93.15	63.11	50.49	42.07	36.06	31.55	28.05	25.24	22.95	20.08	17.11	14.05	11.42	9.41	7.84	6.61		
						D	0.29	0.60	1.05	1.64	2.36	3.21	4.19	5.30	6.55	7.92	9.00	9.75	10.00	10.00	10.00	10.00	10.00		
G405/30/100	40 x 5	100	56.2	0.93	1.03	U	815.88	321.99	166.22	106.38	73.87	54.27	41.55	29.71	21.66	16.27	12.53	9.86	7.51	5.70	4.40	3.45			
						D	0.45	0.90	1.47	2.30	3.31	4.50	5.89	6.75	7.50	8.25	9.00	9.75	10.00	10.00	10.00	10.00			
G405/30/50		50	59.0			C	119.01	78.49	49.86	39.89	33.27	28.49	24.93	22.16	19.94	16.78	14.10	12.01	9.86	8.02	6.61	5.51			
						D	0.35	0.65	1.18	1.84	2.65	3.61	4.71	5.97	7.37	8.25	9.00	9.75	10.00	10.00	10.00	10.00			
G403/30/100	40 x 3	100	34.9	0.93	1.04	U	543.95	203.93	99.73	63.82	44.32	32.56	24.93	17.82	12.99	9.76	7.52	5.91	4.51	3.42					
						D	0.50	0.95	1.47	2.30	3.31	4.51	5.89	6.75	7.50	8.25	9.00	9.75	10.00	10.00					
G403/30/50		50	37.7			C	71.40	47.09	29.92	23.93	19.94	17.09	14.96	13.29	11.96	10.07	8.46	7.21	5.92	4.81					
						D	0.35	0.78	1.18	1.84	2.35	3.61	4.71	5.97	7.37	8.25	9.00	9.75	10.00	10.00					
G355/30/100	35 x 5	100	49.5	0.92	1.04	U	631.54	251.60	127.26	81.44	56.56	41.55	28.34	19.90	14.51	10.90	8.39	6.60	5.03	3.82					
						D	0.52	1.05	1.68	2.63	3.79	5.16	6.00	6.75	7.50	8.25	9.00	9.75	10.00	10.00					
G355/30/50		50	52.3			C	91.10	57.28	38.17	30.54	25.45	21.81	19.08	16.79	13.60	11.24	9.44	8.05	6.61	5.37					
						D	0.40	0.78	1.35	2.10	3.03	4.13	5.39	6.75	7.50	8.25	9.00	9.75	10.00	10.00					
G353/30/100	35 x 3	100	30.8	0.92	1.04	U	378.91	150.95	76.35	48.86	33.93	24.93	17.00	11.94	8.70	6.54	5.03	3.96	3.02						
						D	0.52	1.05	1.68	2.63	3.79	5.16	6.00	6.75	7.50	8.25	9.00	9.75	10.00						
G353/30/50		50	33.6			C	54.66	34.36	22.90	18.32	15.27	13.09	11.45	10.07	8.16	6.74	5.66	4.83	3.96						
						D	0.40	0.85	1.35	2.10	3.03	4.13	5.39	6.75	7.50	8.25	9.00	9.75	10.00						
G325/30/100	32 x 5	100	45.5	0.90	1.05	U	510.46	238.09	113.34	72.56	50.24	32.05	21.32	14.84	10.70	7.93	6.00	4.62							
						D	0.55	1.30	1.96	3.07	4.42	5.25	6.00	6.75	7.50	8.25	9.00	9.75							
G325/30/50		50	48.4			C	78.33	48.92	34.03	2715	22.59	19.25	16.00	12.53	10.03	8.18	6.75	5.64							
						D	0.45	0.95	1.57	2.46	3.54	4.81	6.00	6.75	7.50	8.25	9.00	9.75							
G323/30/100	32 x 3	100	28.4	0.90	1.05	U	306.27	142.85	68.00	43.52	30.13	19.22	12.78	8.89	6.41	4.75	3.59								
						D	0.55	1.30	1.96	3.07	4.42	5.25	6.00	6.75	7.50	8.25	9.00								
G323/30/50		50	31.3			C	46.99	29.35	20.41	16.32	13.55	11.54	9.59	7.51	6.01	4.90	4.04								
						D	0.45	0.95	1.57	2.46	3.54	4.81	6.00	6.75	7.50	8.25	9.00								
G255/30/100	25 x 5	100	36.2	0.88	1.06	U	287.56	130.89	64.93	41.55	24.48	15.41	10.32	7.25	5.28	3.97									
						D	0.65	1.50	2.36	3.68	4.50	5.25	6.00	6.75	7.50	8.25									
G255/30/50		50	39.0			C	43.14	28.46	19.47	15.58	12.98	10.11	7.74	6.12	4.95	4.00									
						D	0.52	1.16	1.89	2.95	4.24	5.25	6.00	6.75	7.50	8.25									
G253/30/100	25 x 3	100	22.8	0.88	1.06	U	172.52	78.52	38.95	24.93	14.69	9.25	6.19	4.35	3.17										
						D	0.65	1.50	2.36	3.68	4.50	5.25	6.00	6.75	7.50										
G253/30/50		50	25.7			C	25.88	17.07	11.68	9.35	7.79	6.07	4.64	3.67	2.97										
						D	0.52	1.16	1.89	2.95	4.42	5.25	6.00	6.75	7.50										
G205/30/100	20 x 5	100	29.5	Not recommended		U	181.13	80.79	41.55	21.66	12.53	7.89	5.28	3.71											
						D	0.80	1.81	2.95	3.75	4.50	5.25	6.00	6.75											
G205/30/50		50	32.3			C	27.17	18.19	12.46	9.97	7.05	5.18	3.96	3.13											
						D	0.64	1.45	2.36	3.68	4.50	5.25	6.00	6.75											
G203/30/100	20 x3	100	18.8			U	106.67	48.46	24.90	12.87	7.37	4.57													
						D	0.80	1.81	2.95	3.75	4.50	5.25													
G203/30/50		50	21.7			C	16.30	10.91	7.46	5.92	4.15	3.00													
						D	0.64	1.45	2.36	3.68	4.50	5.25													

1) U = Safe uniformly distributed load, KN/m^2
C = Safe concentrated mid span load, KN/m^2
D = Deflection, mm

2) Gratings for spans to the left of the thick line in the table have a deflection of less than 10mm or

1/200 of span for uniform load of 5KN/m^2
This is the maximum deflection to meet steel structure design standard.

Safety Load and Deflection Table for Flat Bar Grating

Bearing Bars @ 40mm Pitch

Code	Load Bar Size (mm)	Pitch of Cross Bar (mm)	Weight (m^2)	Serrated Profile Coefficient			Span (mm)																	
				Load	Deflection		300	450	600	750	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2700	2850	3000
G605/40/100	60 x 5	100	64.1	0.93	1.03	U	1630.10	551.57	275.00	176.00	122.22	89.79	68.75	54.32	44.00	36.36	30.55	24.46	18.65	14.15	10.93	8.58	6.82	5.50	4.48
						D	0.35	0.60	0.98	1.53	2.21	3.01	3.93	4.97	6.14	7.43	8.84	9.75	10.00	10.00	10.00	10.00	10.00	10.00	10.00
G605/40/50		50	67.0			C	174.67	116.35	82.50	66.00	55.00	47.14	41.25	36.66	33.00	30.00	27.50	25.38	23.57	19.91	16.40	13.67	11.52	9.79	8.40
						D	0.20	0.45	0.79	1.23	1.77	2.41	3.14	3.98	4.91	5.94	7.07	8.30	9.63	10.00	10.00	10.00	10.00	10.00	10.00
G555/40/100	55 x 5	100	59.0	0.93	1.03	U	1363.16	474.37	231.07	147.88	102.70	75.45	57.76	45.64	36.97	30.55	23.96	18.84	14.37	10.90	8.42	6.61	5.25	4.23	3.45
						D	0.38	0.67	1.07	1.67	2.41	3.82	4.29	5.42	6.70	8.10	9.00	9.75	10.00	10.00	10.00	10.00	10.00	10.00	10.00
G555/40/50		50	61.8			C	168.18	105.55	69.32	55.45	46.21	39.61	34.66	30.81	27.72	25.20	23.10	21.33	18.86	15.33	12.63	10.53	8.87	7.54	6.47
						D	0.25	0.53	0.86	1.34	1.93	2.63	3.43	4.34	5.36	6.48	7.71	9.05	10.00	10.00	10.00	10.00	10.00	10.00	10.00
G505/40/100	50 x 5	100	53.9	0.93	1.03	U	1077.99	377.61	190.97	122.22	84.87	62.36	47.74	37.72	30.55	23.37	18.00	14.16	10.79	8.19	6.32	4.96	3.95		
						D	0.40	0.71	1.18	1.84	2.65	3.61	4.71	5.97	7.37	8.25	9.00	9.75	10.00	10.00	10.00	10.00	10.00		
G505/40/50		50	56.7			C	136.46	89.76	57.29	45.83	38.19	32.73	28.64	25.45	22.91	20.83	19.09	19.25	14.17	11.52	9.49	7.91	6.66		
						D	0.27	0.60	0.94	1.47	2.12	2.89	3.77	4.77	5.89	7.13	8.49	9.75	10.00	10.00	10.00	10.00	10.00		
G455/40/100	45 x 5	100	47.0	0.93	1.03	U	825.09	310.15	154.68	99.00	68.75	50.51	38.67	30.55	22.68	17.03	13.12	10.32	7.87	5.97	4.61	3.62			
						D	0.42	0.80	1.31	2.05	2.95	4.01	5.24	6.63	7.50	8.25	9.00	9.75	10.00	10.00	10.00	10.00			
G455/40/50		50	49.8			C	106.84	70.88	45.40	37.12	30.93	26.51	23.20	20.62	18.56	16.87	14.76	12.58	10.33	8.39	6.92	5.77			
						D	0.29	0.65	1.05	1.64	2.36	3.21	4.19	5.30	6.55	7.92	9.00	9.75	10.00	10.00	10.00	10.00			
G405/40/100	40 x 5	100	42.1	0.93	1.03	U	620.81	245.01	122.20	78.22	54.32	39.90	30.55	21.85	15.92	11.96	9.21	7.25	5.52	4.19	3.24				
						D	0.45	0.90	1.47	2.30	3.31	4.51	5.89	6.75	7.50	8.25	9.00	9.75	10.00	10.00	10.00				
G405/40/50		50	44.9			C	90.55	59.74	36.66	29.33	24.44	20.95	18.33	16.29	14.66	12.30	10.37	8.83	7.25	5.89	4.68				
						D	0.35	0.78	1.18	1.84	2.65	3.61	4.71	5.97	7.37	8.25	9.00	9.75	10.00	10.00	10.00				
G403/40/100	40 x 3	100	26.4	0.93	1.04	U	413.90	155.18	73.33	46.93	32.59	23.94	18.33	13.11	9.55	7.18	5.53	4.35	3.31						
						D	0.50	0.95	1.47	2.30	3.31	4.51	5.89	6.75	7.50	8.25	9.00	9.75	10.00						
G403/40/50		50	29.2			C	54.33	35.83	22.00	17.60	14.66	12.57	11.00	9.77	8.80	7.40	6.22	5.30	4.35						
						D	0.35	0.78	1.18	1.84	2.65	3.10	4.71	5.97	7.37	8.25	9.00	9.75	10.00						
G355/40/100	35 x 5	100	38.5	0.92	1.04	U	480.53	191.43	93.57	59.88	41.58	30.55	20.84	14.63	10.67	8.01	6.17	4.85	3.70						
						D	0.52	1.05	1.68	2.63	3.79	5.16	6.00	6.75	7.50	8.25	9.00	9.75	10.00						
G355/40/50		50	41.3			C	69.32	43.58	28.07	22.45	18.71	16.04	14.03	12.35	10.00	8.26	6.94	5.91	4.86						
						D	0.40	0.85	1.35	2.10	3.03	4.13	5.39	6.75	7.50	8.25	9.00	9.75	10.00						
G353/40/100	35 x 3	100	24.2	0.92	1.04	U	288.31	114.85	56.14	35.93	24.95	18.33	12.50	8.78	6.40	4.81	3.70	2.67							
						D	0.52	1.05	1.68	2.63	3.79	6.16	6.00	6.75	7.50	8.25	9.00	9.76							
G353/40/50		50	27.0			C	41.59	26.15	16.84	13.47	11.22	9.62	8.42	7.41	6.00	4.96	4.16	3.26							
						D	0.40	0.85	1.35	2.10	3.03	4.13	5.39	6.75	7.50	8.25	9.00	9.75							
G325/40/100	32 x 5	100	34.2	0.90	1.05	U	373.46	174.18	82.91	53.07	36.76	23.44	15.59	10.85	7.82	5.79	4.38								
						D	0.55	1.30	1.96	3.07	4.42	5.25	6.00	6.75	7.50	8.25	9.00								
G325/40/50		50	37.1			C	59.60	37.22	25.89	20.72	17.19	14.65	12.17	9.54	7.64	6.22	5.14								
						D	0.45	0.95	1.57	2.46	3.54	4.81	6.00	6.75	7.50	8.25	9.00								
G323/40/100	32 x 3	100	21.7	0.90	1.05	U	224.07	104.50	49.74	31.84	22.04	14.06	9.35	6.50	4.68	3.47									
						D	0.55	1.30	1.96	3.07	4.42	5.25	6.00	6.75	7.50	8.25									
G323/40/50		50	24.5			C	35.76	22.33	15.53	12.42	10.31	8.78	7.29	5.71	4.57	3.72									
						D	0.45	0.95	1.57	2.46	3.54	4.81	6.00	6.75	7.50	8.25									
G255/40/100	25 x 5	100	27.4	0.88	1.06	U	218.81	99.60	47.74	30.55	18.00	11.33	7.59	5.33	3.88										
						D	0.65	1.50	2.36	3.68	4.50	5.25	6.00	6.75	7.50										
G255/40/50		50	30.2			C	32.82	21.65	14.32	11.45	9.54	7.44	5.69	4.50	3.64										
						D	0.52	1.16	1.89	2.95	4.24	5.25	6.00	6.75	7.50										
G253/40/100	25 x 3	100	17.5	0.88	1.06	U	131.27	59.74	28.64	18.33	10.80	6.80	4.55	3.20											
						D	0.65	1.50	2.36	3.68	4.50	5.25	6.00	6.75											
G253/40/50		50	20.4			C	19.69	12.99	8.59	6.87	5.72	4.46	3.41	2.70											
						D	0.52	1.16	1.89	2.95	4.42	5.25	6.00	6.75											
G205/40/100	20 x 5	100	22.5	Not recommended		U	137.83	61.48	30.55	15.92	9.21	5.80	3.88												
						D	0.80	1.81	2.95	3.75	4.50	5.25	6.00												
G205/40/50		50	25.3			C	20.67	13.84	9.16	7.33	5.18	3.80	2.91												
						D	0.64	1.45	2.36	3.68	4.50	5.25	6.00												
G203/40/100	20 x3	100	14.6			U	82.68	36.87	18.94	9.79	5.60	3.47													
						D	0.80	1.81	2.95	3.75	4.50	5.25													
G203/40/50		50	17.4			C	12.40	8.30	5.67	4.50	3.15	2.28													
						D	0.64	1.45	2.36	3.68	4.50	5.25													

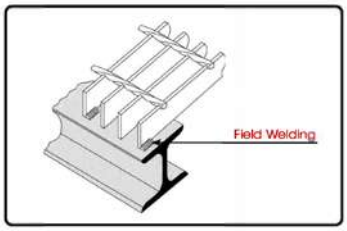
3) The tabulated load deflection should be multiplied by the factors shown when using serrated gratings.

4) The nominal weights in tables are based on stock gratings. After fabricating such as edging and galvanising, the weights per square meter will be increased by at least 12-16% more than that of stock gratings shown. The increased weight percentage of each type is different, but that for galvanising gratings in based on 7%.

Fastening Methods

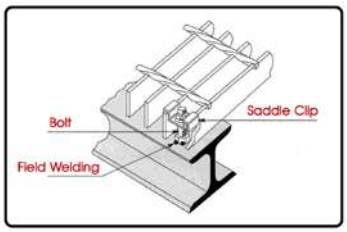
Field Welding

Recommended for all permanently installed gratings.



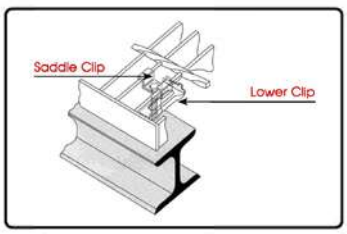
Saddle Clip Type-A

May be used in installations where grating is subject to frequent removal. When it is possible to weld the nut to supporting steelwork members in the field, galvanised bolts and nuts are recommended.



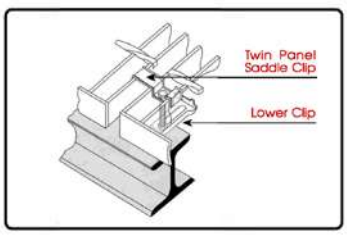
Saddle Clip Type-B

This can be done quickly and safely by one man using only a box-end wrench, working from the floor surface.



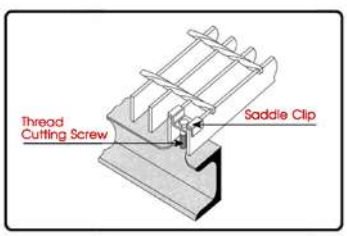
Saddle Clip Type-C

This can be done quickly and safely by one man using a twin panel bar saddle clip for securing two adjacent panels working from the floor surface.



Saddle Clip Type-D

Saddle Clip and Thread Cutting Screw.

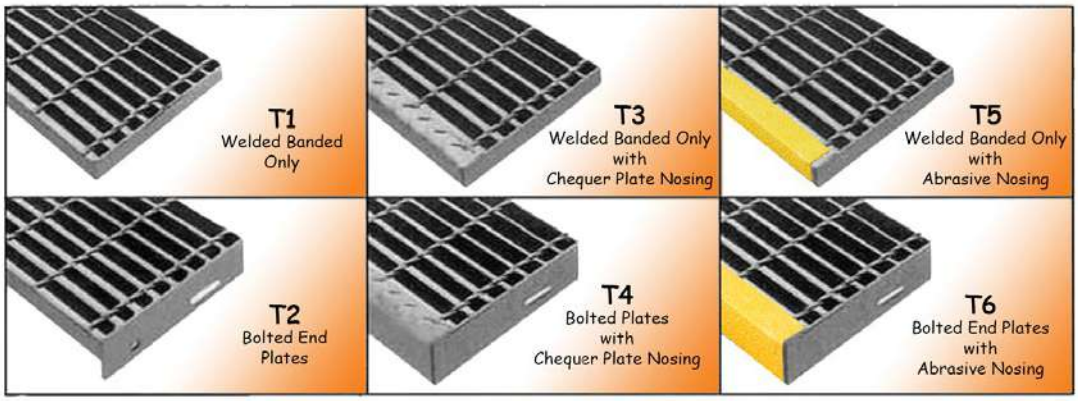


Note:

It is important to note that when there is no lateral restraint provided by the support structure, a minimum of four clips per panel must be used to restrain floor panels. Where larger panels are to be fixed, it is advisiable to use extra clips on any available intermediate supports.

Stair Treads

Different stair treads options:



T1 which is applicable for welding, both sides are edged with flat bars of which the height is same with the bearing flat bars and the thickness is 5mm, without front protection plate.

T2 which is applicable for bolting, both sides are edged with 65×5 flat bars and are punched, without front protection plate.

T3 which is applicable for welding, both sides are edged with flat bars of which the height is same with the bearing flat bars and the thickness is 5mm. Front protection plate is 3mm thickness bended chequer plate nosing.

T4 which is applicable for bolting, both sides are edged with 65×5 flat bars and are punched. Front protection plate is 3mm thickness bended chequer plate nosing.

T5 which is applicable for welding, both sides are edged with flat bars of which the height is same with the bearing flat bars and the thickness is 5mm. Front protection plate is 3mm thickness bended chequer plate nosing with abrasive coating.

T6 which is applicable for bolting, both sides are edged with 65×5 flat bars and are punched. Front protection plate is 3mm thickness bended chequer plate nosing with abrasive coating.

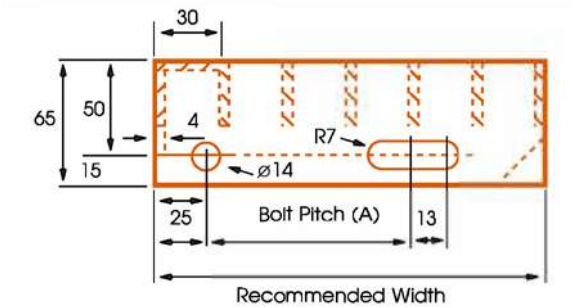
Recommended Stair Tread Widths

Bearing Bars at 30mm Pitch							
T1, T2, T3, T4, T5 & T6	95	125	155	185	215	245	275
Bearing Bars at 40mm Pitch							
T1 & T2		125	165		205	245	285
T3, T4, T5 & T6		115	155		195	235	275
Bolted Fixing							
Bolt Pitch (A)	45		75		100		125

Max. Stair Tread Lengths

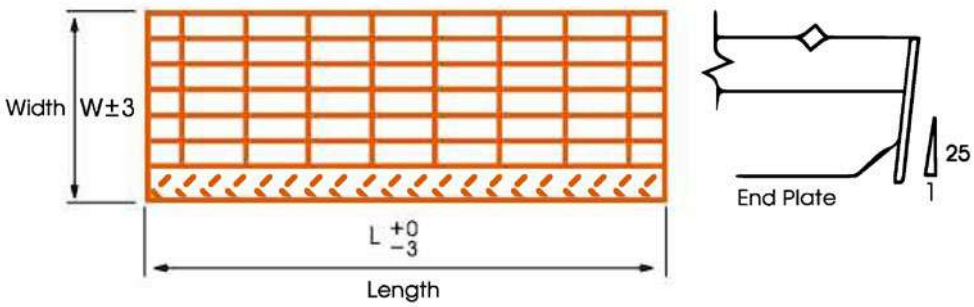
Steel Grating Specification / Bearing Bars Section	25 x 3	25 x 5	32 x 5
Bearing Bars at 30mm Pitch	550	900	1300
Bearing Bars at 40mm Pitch	450	750	1200

Stair Tread End Plate

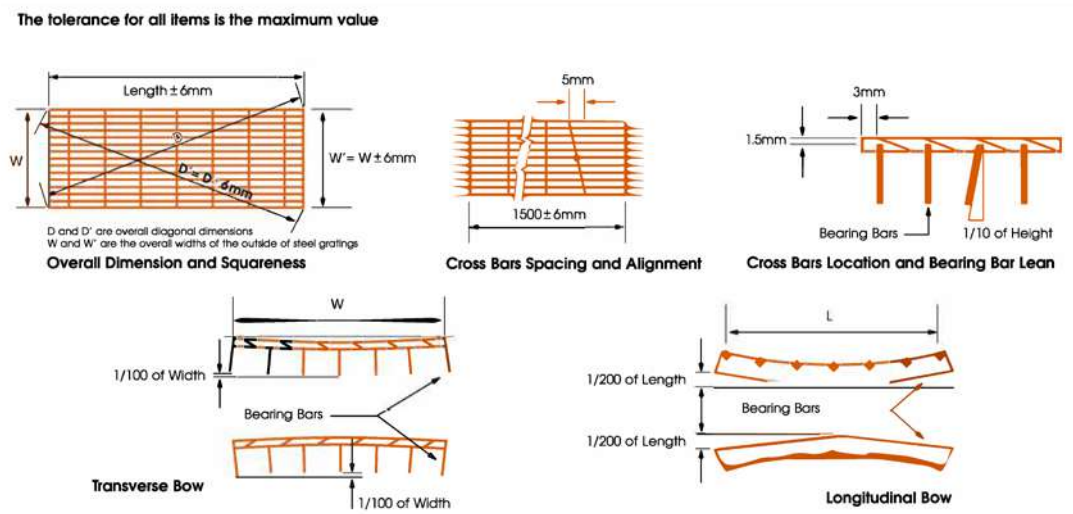


End Plate is made of 65 x 5mm flat steel and mitred only when requested by customers

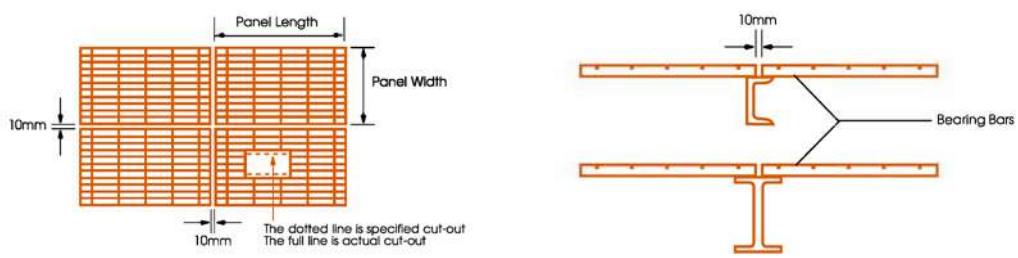
Stair Tread Tolerances



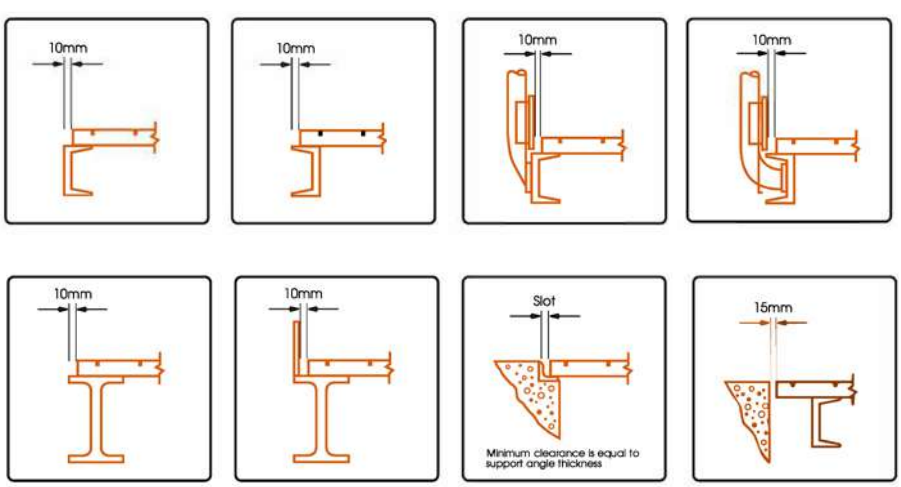
Manufacturing Tolerances



Installation Clearances



All clearances shown are recommendations only as panels can vary dimensionally in accordance with the manufacturing standards. It is recommened that cut outs around circular obstruction be 50mm greater in diameter than the obstruction.



Swaged Rectangular Bar

Swaged aluminum grating is widely used in a large range of industrial & commercial applications. It is assembled by permanently attaching cross bars to bearing bars through a high hydraulic pressure swaging process. The finished product is both functionally durable and aesthetically pleasing. Aluminum grating is light weight, high strength and corrosion free which makes it a sought after alternative product.



Applications

- platform
- walkway
- trench grate
- building facade
- sunscreen
- grille
- fencing
- sunshade
- stair tread

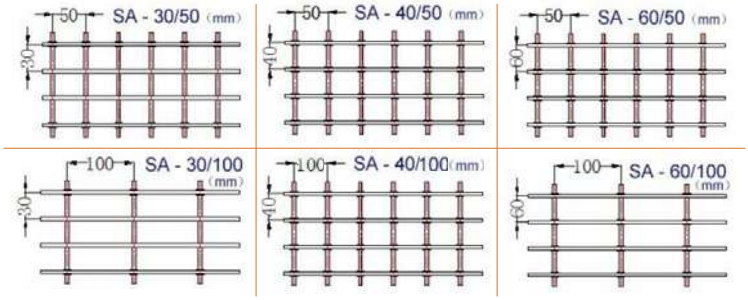
Surfaces

- flat

Surfaces Treatments

- mill finish
- anodizing
- powder coating

Standard Product Profiles



The SA Series rectangular bar type is the most widely used aluminum swaged grating. We offer a variety of spacings including those that conform to the "Americans with Disabilities Act".





Serrated Bar

The serrated bar grating has a slip resistance surface design. We offer a variety of spacings including those that conform to the "Americans with Disabilities Act".



Applications

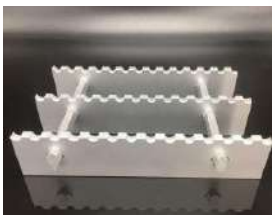
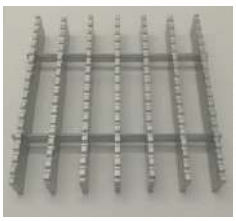
- railing infill
- trench grate
- shelving
- platform
- fencing
- walkway

Surfaces

- serrated

Surfaces Treatments

- mill finish
- anodizing
- powder coating

I Bar

The I-bar grating is manufactured with highly efficient extruded I shaped bearing bars. It is an economical alternative to the rectangular flat bar grating with the same load capacity. The striated top and bottom flanges offer a build-in slip resistant surface ideal for wheel and heel protection. We offer a variety of spacings including those that conform to the "Americans with Disabilities Act".



Applications

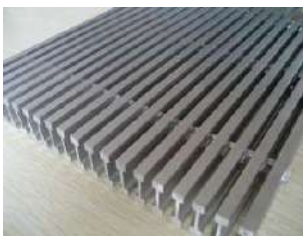
- railing infill
- trench grate
- shelving
- platform
- fencing
- walkway

Surfaces

- flat
- striated

Surfaces Treatments

- mill finish
- anodizing
- powder coating





T Bar

The T-bar grating manufactured with extruded T shaped bearing bars has larger supporting area for extra underfoot comfort and striated surface for added slip resistance. We offer a variety of spacings including those that conform to the "Americans with Disabilities Act".



Applications

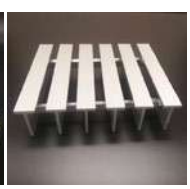
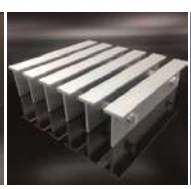
- trench grate
- platform
- walkway

Surfaces

- striated

Surfaces Treatments

- mill finish
- anodizing
- powder coating


Flush Top

The flush top bar grating is another product with clean crisp lines developed. The diamond shaped cross bars are flush with bearing bars and are also permanently locked in by a hydraulic pressured swaging process. Serrated surface is available for added skid resistance.



Applications

- railing infill
- trench grate
- shelving
- platform
- fencing
- walkway

Surfaces

- flat
- serrated

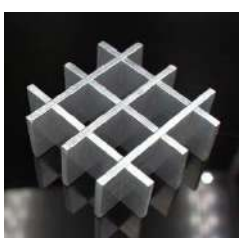
Surfaces Treatments

- mill finish
- anodizing
- powder coating



Press Locked

The press locked grating is made with pre-punched bearing bars and flush top cross bars fitted seamlessly together under hydraulic pressure. It has a greater load capacity than regular swaged bar grating and zero welding point offering a more elegant appearance than press-welded grating.



Applications

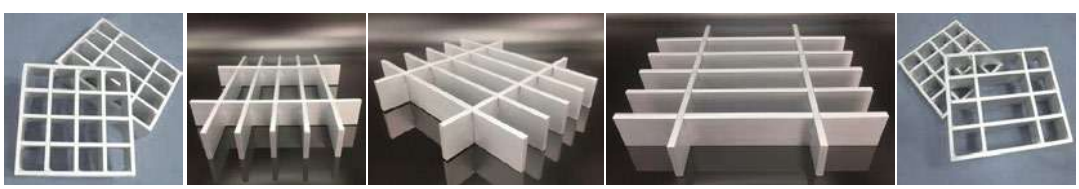
- passage
- walkway
- ceiling
- platform
- fencing
- building facade

Surfaces

- flat
- serrated

Surfaces Treatments

- mill finish
- anodizing
- powder coating



Load Table

Span for Al-Grating															
		Distance between supports (mm), (Figures within tables are load pressures in KPa)													
Type	**Kg/m²**	**750**	**900**	**1050**	**1200**	**1350**	**1500**	**1800**	**2000**	**2200**	**2400**	**2600**	**2800**	**3000**	**3200**
A205	**11**	7.5	4.0	2.5	1.5	1.0	0.5	-	-	-	-	-	-	-	-
A253	**9**	7.5	5.0	3.0	1.5	1.0	0.5	-	-	-	-	-	-	-	-
A255	**13**	7.5+	7.5	5.0	2.5	1.5	1.5	0.5	0.5	-	-	-	-	-	-
A323	**11**	7.5+	7.5	5.0	4.0	2.5	1.5	1.0	0.5	0.5	-	-	-	-	-
A325	**17**	7.5+	7.5+	7.5+	7.5	5.0	3.0	1.5	1.5	1.0	0.5	0.5	-	-	-
A403	**13**	7.5+	7.5+	7.5+	7.5	5.0	4.0	2.5	1.5	1.0	0.5	0.5	0.5	-	-
A405	**20**	7.5+	7.5+	7.5+	7.5+	7.5	5.0	4.0	3.0	2.5	1.5	1.0	0.5	0.5	0.5
ATS40203S	**19**	7.5+	7.5+	7.5+	7.5+	7.5+	5.0	4.0	2.5	2.0	1.5	1.0	1.0	0.5	0.5
A453	**14**	7.5+	7.5+	7.5+	7.5+	7.5	5.0	3.0	2.5	1.5	1.0	1.0	0.5	0.5	0.5
A455	**23**	7.5+	7.5+	7.5+	7.5+	7.5+	7.5	5.0	4.0	3.0	2.0	1.5	1.0	1.0	0.5
A503	**16**	7.5+	7.5+	7.5+	7.5+	7.5+	7.5	5.0	3.0	2.5	1.5	1.0	1.0	0.5	0.5
A505	**25**	7.5+	7.5+	7.5+	7.5+	7.5+	7.5+	7.5	5.0	4.0	3.0	2.5	2.0	1.5	1.0
A553	**17**	7.5+	7.5+	7.5+	7.5+	7.5+	7.5+	7.0	5.0	3.0	2.5	2.0	1.5	1.0	0.5
A555	**27**	7.5+	7.5+	7.5+	7.5+	7.5+	7.5+	7.5+	7.5	5.0	4.0	3.0	2.5	2.0	1.5
A603	**19**	7.5+	7.5+	7.5+	7.5+	7.5+	7.5+	7.5	5.0	4.0	3.0	2.5	1.5	1.5	1.0
A605	**30**	7.5+	7.5+	7.5+	7.5+	7.5+	7.5+	7.5+	7.5+	5.0	5.0	4.0	3.0	2.5	2.0
A653	**20**	7.5+	7.5+	7.5+	7.5+	7.5+	7.5+	7.5+	7.5	5.0	4.0	3.0	2.5	2.0	1.5
A655	**32**	7.5+	7.5+	7.5+	7.5+	7.5+	7.5+	7.5+	7.5+	7.5+	7.5	5.0	4.0	4.0	3.0
A753	**23**	7.5+	7.5+	7.5+	7.5+	7.5+	7.5+	7.5+	7.5+	7.5+	7.5	5.0	4.0	3.0	2.5
A755	**37**	7.5+	7.5+	7.5+	7.5+	7.5+	7.5+	7.5+	7.5+	7.5+	7.5+	7.5+	6.0	5.0	4.0

Expanded Walkway

Safety walkways can be ceiling-hung or supported from the floor or adjacent structures, including racks or mezzanines. Expanded walkway panels can also be installed as part of an architectural facade system.



The expanded walkway is the most practical and economical way to assure strength, and safety with its expertly designed patterns and skid-free surface. It is much easier to install by welding or bolting to fit any sizing criteria.



Applications

- platform
- fencing
- decorative screen

Patterns

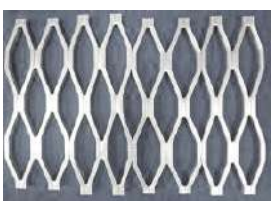
- EWG13mm
- EWG22mm
- EWG30mm
- EWG30/SL
- EWG30/ST
- EWG40
- EWG40/ST

Surfaces

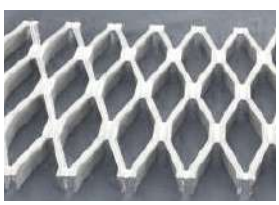
- striated

Surfaces Treatments

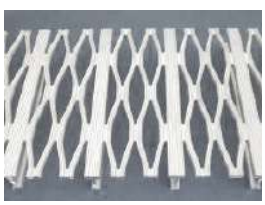
- mill finish
- anodizing
- powder coating



EWG13mm



EWG22mm



EWG30mm



EWG30/SL



EWG30 /ST



EWG40



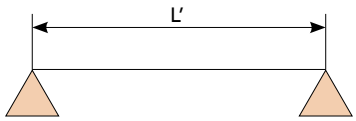
EWG40/ST



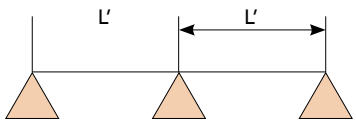
Alu Extruded Decking

Safety Load Table

PANEL 13 & 22		SPAN 'L' (mm) - SINGLE					
		500	600	700	800	900	1000
UWG13	UDL (kpa)	4.7	2.7	1.5	0.8	0.6	
	DEF (mm)	2.5	3.0	3.5	4.0	4.5	
UWG22	UDL (kpa)	9.4	6.3	4.2	2.9	2.1	1.4
	DEF (mm)	2.5	3.0	3.5	4.0	4.5	4.9



PANEL 13 & 22		SPAN 'L' (mm) - DOUBLE					
		500	600	700	800	900	1000
UWG13	UDL (kpa)	6.6	3.8	2.1	1.1	0.8	
	DEF (mm)	2.5	3.0	3.5	4.0	4.5	
UWG22	UDL (kpa)	13.2	8.8	5.9	4.1	2.9	2.0
	DEF (mm)	2.5	3.0	3.5	4.0	4.5	4.9



PANEL UWG30	SPAN 'L' (mm) - SINGLE											
	750	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400
UDL (kpa)	22.8	13.1	8.2	5.5	3.8	2.8	2.0	1.6	1.2	0.9	0.7	0.6
DEF (mm)	3.7	4.6	5.1	5.9	6.6	7.4	8.2	8.9	9.6	10.4	11.2	11.9
CL (kn)	5.1	3.7	2.7	2.1	1.7	1.3	1.1	0.9	0.8	0.7	0.6	0.5
DEF (mm)	3.5	4.4	5.1	5.9	6.6	7.4	8.2	8.9	9.6	10.4	11.2	11.9

PANEL UWG30	SPAN 'L' (mm) - DOUBLE											
	750	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400
UDL (kpa)	26.0	18.7	13.6	10.4	8.2	6.7	4.2	4.2	3.3	2.6	2.1	1.7
DEF (mm)	1.6	2.4	3.2	4.3	5.5	6.7	8.2	8.9	9.6	12.4	11.2	11.8
CL (kn)	6.7	5.5	4.7	4.2	3.6	2.7	2.3	1.9	1.6	1.4	1.2	1.0
DEF (mm)	2.1	3.1	4.3	5.6	6.6	7.4	8.2	8.9	9.6	12.4	11.2	11.8

PANEL UWG30SL	SPAN 'L' (mm) - SINGLE											
	750	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400
UDL (kpa)	38.6	28.3	14.0	9.4	6.5	4.7	35	2.7	2.2	1.7	1.3	1.1
DEF (mm)	3.7	4.4	5.1	5.9	6.6	7.4	8.2	8.9	9.7	10.4	11.2	11.9
CL (kn)	4.4	3.1	2.2	1.7	1.3	1.0	0.8	0.7	0.6	0.5	0.4	0.3
DEF (mm)	3.7	4.4	5.1	5.9	6.6	7.4	8.2	8.9	9.7	10.4	11.2	11.9

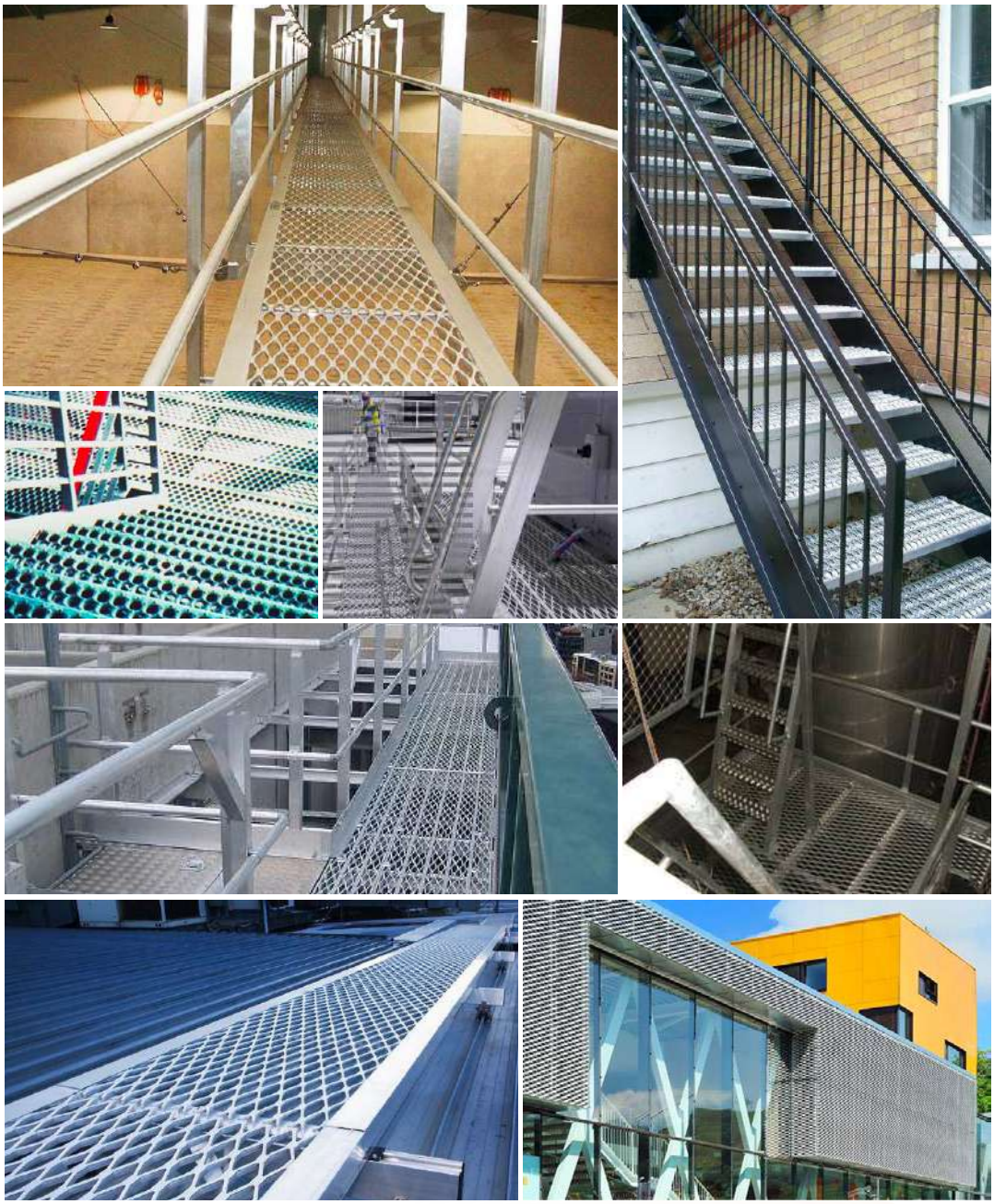
PANEL UWG30SL	SPAN 'L' (mm) - DOUBLE													
	750	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2770
UDL (kpa)	48.0	33.3	24.4	18.7	14.7	11.9	9.4	7.2	5.7	4.5	3.6	3.0	2.5	2.1
DEF (mm)	1.7	2.5	3.5	4.6	5.8	7.2	8.2	8.9	9.7	10.4	12.2	11.9	12.6	13.4
CL (kn)	5.5	4.6	3.9	3.4	3.0	2.5	2.0	1.7	1.4	1.2	1.1	0.9	0.8	0.7
DEF (mm)	1.9	2.8	3.9	5.1	6.0	7.4	8.2	8.9	9.7	10.4	12.2	11.9	12.6	13.4

PANEL UWG40	SPAN 'L' (mm) - SINGLE											
	750	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400
UDL (kpa)	45.4	29.6	18.6	12.4	8.7	6.3	4.7	3.6	2.8	2.2	1.8	1.5
DEF (mm)	3.2	4.4	5.1	5.9	6.6	7.4	8.2	8.9	9.6	10.4	11.2	11.9
CL (kn)	8.4	7.0	6.0	4.6	3.6	2.9	2.4	2.0	1.7	1.4	1.2	1.1
DEF (mm)	2.6	3.7	5.1	5.9	6.6	7.4	8.2	8.9	9.6	10.4	11.2	11.9

PANEL UWG40	SPAN 'L' (mm) - DOUBLE													
	750	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2770
UDL (kpa)	45.4	31.5	23.1	18.6	13.9	11.3	9.3	7.8	6.6	5.7	4.9	4.0	3.3	2.8
DEF (mm)	1.2	1.7	2.4	3.2	4.0	5.0	6.1	7.2	8.5	10.0	11.2	11.9	12.6	13.4
CL (kn)	11.2	9.3	8.0	6.9	6.1	5.6	5.1	4.5	3.7	3.1	2.7	2.4	2.1	1.9
DEF (mm)	1.6	2.2	3.1	4.2	5.3	6.6	8.2	8.9	9.6	10.4	11.2	11.9	12.6	13.4

* LOADS SHOWN IN SHADED AREA COMPLIES TO AS 1657 WITH DEFLECTION OF SPAN/200
* FOR PEDESTRIAN TRAFFIC A 'UDL' OF 2.5 KPA (min) IS REQUIRED

Application Display



Stanchion

Our stanchion, manufactured in accordance with AS1657 adopts a ball joint design that offers both functionality and aesthetics. The handrail system can be installed by welding or bolting and can be easily customized to fit any layout. The handrail stanchion system is used extensively throughout the mining, petro-chemical, mineral processing and other heavy industries.



Applications

- shipyard
- airport
- bridgework
- garden
- power plant
- water treatment plant

Surfaces

- aluminium
- mild steel
- stainless steel

Surfaces Treatments

- untreated
- galvanizing
- anodizing
- electropolishing
- powder coating







Architectural Louver

Different from conventional louver which uses fixing screws or clip on, we offer two types of swaged aluminium louvers: sunscreen louver and trafficable louver. It is assembled by permanently attaching cross bars to louver blades through a high hydraulic pressure swaging process. The finished product is both functionally durable and aesthetically pleasing. It is light weight, high strength and corrosion free which makes it a sought after alternative product.

Sunscreen Louver





Aluminium sunscreen louver is an environmentally friendly solution to reduce solar glare and conserve energy. It is corrosion resistant and ecologically sound.

Trafficable Louver





Aluminium trafficable louver is an innovative combination of two separate functions in one product. With all the benefits of a sunscreen, it offers a safe access platform for cleaning and maintenance of surrounding façade and vision panels.



Steel Bollard with Concrete Infill



Aluminium Rung



Drain Wall Safety Clamp



Drain Railing

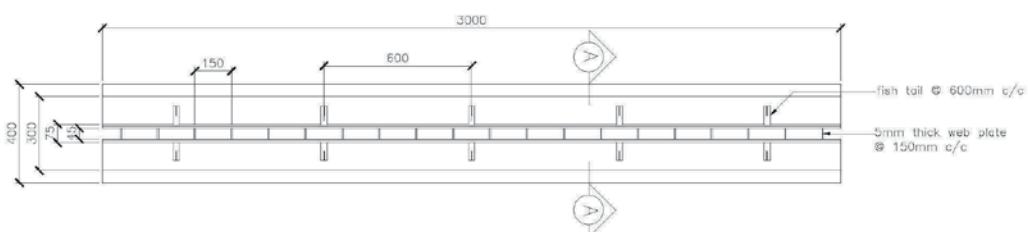


Slotted Drain @ Salambigar Industrial Park, Brunei

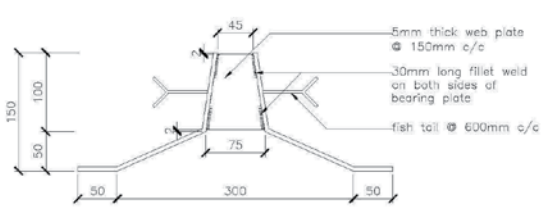


Slotted Drain Profile

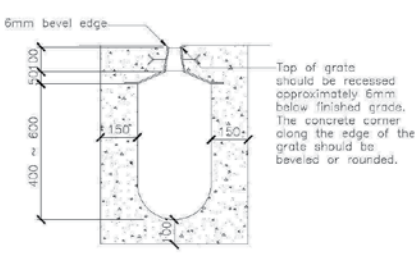
Typical plan & section details. Available in any drain widths.



PLAN OF HDG MS HEAVY DUTY SLOTTED GRATING , FOR 300MM (W) DRAIN
SCALE 1 : 16



SECTION A-A
SCALE 1 : 5



TYPICAL SECTION
SCALE 1 : 16

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