

GRATING

- Gridforge
- FRP
- Gridwalk

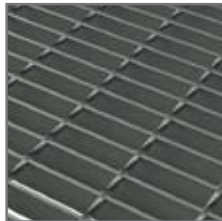


Grating

Locker Group manufactures & supplies a broad range of options for safe access walkways and flooring solutions for the mining, petro-chemical, industrial, manufacturing and commercial sectors.

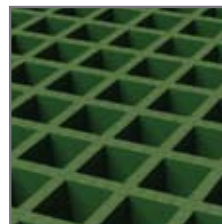
This manual covers a full range of flooring solutions from Gridforge (forge welded steel grating), FRP Grating (fibreglass) and Gridwalk (expanded metal mesh) including the complete technical and design data necessary for the selection of the most appropriate Locker Group grating type and size.

Locker Group safe access solutions are suitable for a range of applications, including mezzanine floors; roof walkways, access platforms, conveyor walkways and stair treads.



Gridforge™ Welded Grating

- Panel sizes
- Load tables
- Stair treads
- Grating options and tolerances



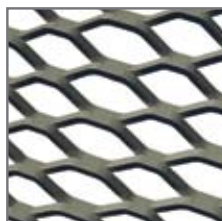
Fibreglass Grating

- Panel sizes & options
- Load tables



Fixing Grating

Handrail



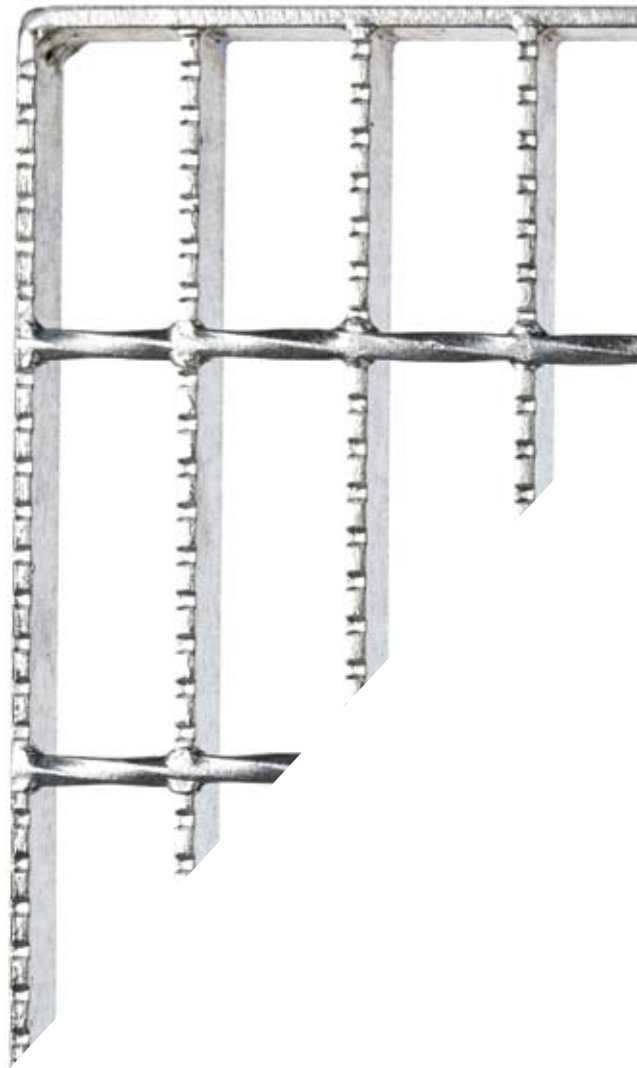
Gridwalk™ Gripwalk™ Walkway Mesh

- Panel sizes & options
- Load tables
- Fixing details

Product Selection Guide

Product Type	Common Products	Gridforge					FRP (Fibre Reinforced Plastic)				Gridwalk			
		W30A-255	W30A-325	W40A-255	W40A-325	W60B-325	ISO25	ISO38	VE25	VE38	WK4514	WK4519	WK3022	WK3028
Industry	Mining	✓	✓	✓	✓	✓					✓	✓	✓	✓
	Oil & Gas	✓	✓	✓	✓	✓					✓	✓	✓	✓
	Power	✓	✓	✓	✓	✓					✓	✓	✓	✓
	Food Processing	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓
	Water Treatment	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Refining	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓
	Industrial	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Civil	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓
	Commercial	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓
Applications	Platforms	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Conveyor Walkways	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Air Conditioning Platforms	✓	✓	✓	✓	✓					✓	✓	✓	✓
	Stair Treads	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Roof Walkways	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓
	Wharfs / Jetties	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓
	Screens / Guards	✓	✓	✓	✓	✓					✓	✓	✓	✓
	Fencing	✓	✓	✓	✓	✓					✓	✓	✓	✓
	Drain Grates	✓	✓	✓	✓	✓	✓	✓	✓	✓				
Material	Mild Steel	✓	✓	✓	✓	✓					✓	✓	✓	✓
	Aluminium	✓	✓	✓	✓	✓					✓	✓	✓	✓
	Stainless Steel	✓	✓	✓	✓	✓					✓	✓	✓	✓
	Fibreglass						✓	✓	✓	✓				
Finishes	Galvanised	✓	✓	✓	✓	✓					✓	✓	✓	✓
	Untreated / Mill	✓	✓	✓	✓	✓					✓	✓	✓	✓
	Painted (Wet / Dry)	✓	✓	✓	✓	✓					✓	✓	✓	✓
	Bitumen Dipped	✓	✓	✓	✓	✓					✓	✓	✓	✓
	Isophalic Green						✓	✓						
	Vinylester Yellow								✓	✓				
Accessories	Fixing Clips	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Nosings	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Locker Cleats	✓	✓	✓	✓	✓								
	Locker Plate	✓	✓	✓	✓	✓								
	Locker Mesh	✓	✓	✓	✓	✓								
Supply Options	Stock Sheets	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Fabricated to suit	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Wt/m² *	Kilograms	36	45	27	34	27	12	18	12	18	14	19	22	28
Maximum Recommended Span in mm for pedestrian loading - 4kpa uniformly distributed load with of 5mm of less in accordance with AS1657.		1200	1500	1200	1500	1200	750	1050	750	1050	770	860	780	915

*Weights and max spans are for standard mild steel products, except for FRP (fibreglass).

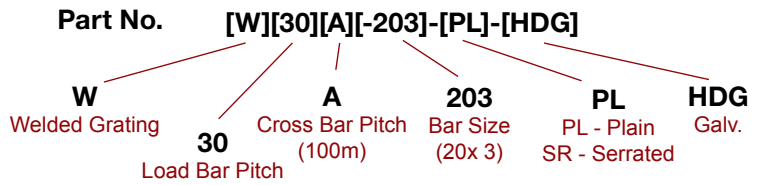


Gridforge™ Welded Grating

Gridforge grating is a multi purpose grating system suitable for a variety of industrial applications.

Gridforge is available in numerous combinations of load bar (flat bar) depth and thickness, load bar pitch and cross rod pitch.

Gridforge part numbers use the following coding system for easy identification.



Eg. Part No. W30A-203-PL-HDG

Part No description

W = Welded Grating

30 = Load Bar Pitch

A = 100mm Cross Bar Pitch (B = 50mm)

203 = Bar size (20 x3)

PL = Plain (SR = Serrated)

HDG = Hot Dipped Galvanised

Locker Group can supply Gridforge grating in standard and fabricated panels or customised to project specifications, ready for immediate installation.

Plain

Standard Gridforge has a plain edge load bar and twisted cross rods



Serrated

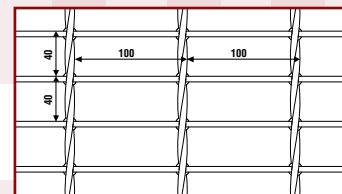
Gridforge is also available in a serrated edge bar for enhanced anti-slip properties.



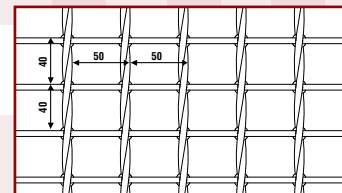
Please Note: When selecting serrated bar grating, conversion factors must be used to determine load and spanning capabilities. (see pages 5-7)

Series 40 Load Table

LG Code	Bar Size	Cross Bar	Weight kg/m ²		Span (mm)																			
					300	400	600	750	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2700	2850	3000	
W40A-203 W40B-203	20 X 3	100	14.8	U	82.68	36.87	18.94	9.79	5.60	3.47														
		50	17.6	D	0.80	1.81	2.95	3.75	4.50	5.25														
				C	12.40	8.3	4.5	4.5	3.15	2.28														
				D	0.64	1.45	2.36	3.68	4.50	5.25														
W40A-205 W40B-205	20 X 5	100	23.0	U	137.83	61.48	30.55	15.92	9.21	5.8	3.88													
		50	25.8	D	0.8	1.81	2.95	3.75	4.5	5.25	6.0													
				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	6.0													
W40A-253 W40B-253	25 x 5	100	17.9	U	131.27	59.74	28.64	18.33	10.80	6.80	4.55	3.20												
		50	20.7	D	0.65	1.50	2.36	3.68	4.50	5.25	6.00	6.75												
				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	4.24	5.25	6.00	6.75												
W40A-255 W40B-255	25 x 5	100	27.4	U	218.81	99.60	47.74	30.55	18.00	11.33	7.59	5.33	3.88											
		50	30.2	D	0.65	1.50	2.36	3.68	4.50	5.25	6.00	6.75	7.50											
				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											
W40A-323 W40B-323	32 x 3	100	22.1	U	224.07	104.50	49.74	31.84	22.04	14.06	9.35	6.50	4.68	3.47										
		50	24.9	D	0.55	1.30	1.96	3.07	4.42	5.25	6.00	6.75	7.50	8.25										
				C	35.76	22.33	15.53	12.42	110.31	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										
W40A-325 W40B-325	32 x 5	100	35.2	U	373.46	174.18	82.91	53.07	36.76	23.44	15.59	10.85	7.82	5.79	4.38									
		50	38.0	D	0.55	1.30	1.96	3.07	4.42	5.25	6	6.75	7.5	8.25	9.00									
				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									
W40A-403 W40B-403	40 x 3	100	27.0	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							
		50	29.8	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							
				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	3.61	4.71	5.97	7.37	8.25	9.00	9.75	10.00							
W40A-405 W40B-405	40 x 5	100	43.4	U	620.81	245.01	122.22	78.22	54.32	39.90	30.55	21.85	15.92	11.96	9.21	7.25	5.52	4.19	3.24					
		50	46.2	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					
				C	90.55	59.73	36.66	29.33	24.44	20.95	18.33	16.29	14.66	12.34	10.37	8.83	7.25	5.89	4.86					
				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					
W40A-505 W40B-505	50 x 5	100	53.9	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			
		50	56.7	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			
				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			
W40A-655	65 x 5	100	71.3	U	1383.00	615.00	346.00	221.00	154.00	113.00	86.50	68.30	55.30	45.70	38.40	31.10	23.50	17.70	13.50	10.50	8.18	6.46	5.13	
				D	0.24	0.54	0.95	1.49	2.15	2.93	3.84	4.87	6.02	7.31	8.72	9.75	10.00	10.00	10.00	10.00	10.00	10.00	10.00	
				C	207.00	138.00	104.00	83.00	69.20	59.30	51.90	46.10	41.50	37.70	34.60	31.90	29.60	25.80	21.30	17.70	14.90	12.70	10.90	
				D	0.19	0.43	0.76	1.19	1.72	2.35	3.08	3.90	4.83	5.87	7.01	8.25	9.61	10.00	10.00	10.00	10.00	10.00	10.00	



A - Cross Rod Pitch 100mm



B - Cross Rod Pitch 50mm

Recommended maximum spans for pedestrian loading –

spans to the left of black line have a deflection of less than 5mm for a 4 kPa (uniformly distributed load) therefore meet the criteria.

U = uniformly distributed load in kilopascals

C = Concentrated Load in Kilo-Newtons

D = deflection at centre in millimetres (mm)

Bending Stress Criteria 195MPa

Weight calculated on untreated grating

The weight of fabricated grating (eg banded and galvanised) will increase the weight per sqm by approximately 14%

Serrated Bar Conversion Factors

Load Bar	20 x 3	20 x 5	25 x 3	25 x 5	32 x 3	32 x 5	40 x 3	40 x 5	45 x 5	50 x 5	65 x 5
Load	Not		0.79	0.79	0.83	0.83	0.87	0.87	0.88	0.89	0.92
Deflection	Recommended		1.12	1.12	1.09	1.09	1.07	1.07	1.07	1.06	1.04

Select the profile and span from the load table, then multiply by the conversion factor above.

Bar to Bar Dimensions

No. of bars	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
5mm Load Bars	125	165	205	245	285	325	365	405	445	485	525	565	605	645	685
No. of bars	19	20	21	22	23	24	25	26							
5mm Load Bars	725	765	805	845	885	925	965	1005							

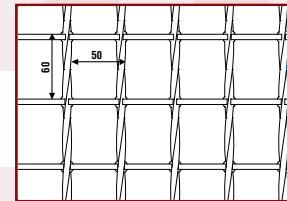
* For 3mm load bars subtract 2mm from the widths

* Width dimensions may vary due to manufacturing process (refer tolerances pg 10)

SAFE FLOORING SOLUTIONS

Series 60 Load Table

LG Code	Bar Size	Weight kg/m ²		Span (mm)														
				500	750	900	1000	1250	1500	1750	1800	2000	2100	2250	2400	2500	2750	
W60B-253	25 x 3	18.4	U	26.49	11.76	6.80	4.96	2.54	1.47									
			D	1.67	3.75	4.50	5.00	6.25	7.50									
			C	6.62	4.42	3.68	3.10	1.98	1.38									
			D	1.33	3.00	4.33	5.00	6.25	7.50									
W60B-255	25 x 5	25.2	U	43.39	19.27	11.14	8.13	4.16	2.41	1.51								
			D	1.67	3.75	4.50	5.00	6.25	7.50	8.75								
			C	10.85	7.23	6.03	5.08	3.24	2.26	1.66								
			D	1.33	3.00	4.33	5.00	6.25	7.50	8.75								
W60B-323	32 x 3	21.2	U	38.14	16.95	11.76	8.571	4.39	2.54	1.60	1.47							
			D	1.39	3.13	4.50	5.00	6.25	7.50	8.75	9.00							
			C	9.54	6.36	5.30	4.77	3.43	2.38	1.75	1.65							
			D	1.11	2.50	3.60	4.45	6.25	7.50	8.75	9.00							
W60B-325	32 x 5	29.9	U	62.49	27.77	19.27	14.04	7.17	4.16	2.62	2.41	1.75						
			D	1.39	3.13	4.50	5.00	6.25	7.50	8.75	9.00	10.00						
			C	15.62	10.41	8.68	7.81	5.61	3.90	2.87	2.71	2.19						
			D	1.11	2.50	3.60	4.45	6.25	7.50	8.75	9.00	10.00						
W60B-403	40 x 3	24.5	U	67.81	30.13	20.93	16.95	10.40	6.03	3.79	3.48	2.54	2.09	1.59				
			D	1.04	2.35	3.38	4.17	6.25	7.50	8.75	9.00	10.00	10.00	10.00				
			C	16.95	11.30	9.42	8.48	6.78	5.65	4.15	3.92	3.18	2.74	2.23				
			D	0.83	1.88	2.70	3.34	5.21	7.50	8.75	9.00	10.00	10.00	10.00	10.00			
W60B-405	40 x 5	35.5	U	111.09	49.37	34.29	27.77	17.04	9.87	6.21	5.71	4.16	3.43	2.60	2.10	1.71		
			D	1.04	2.35	3.38	4.17	6.25	7.50	8.75	9.00	10.00	10.00	10.00	10.00	10.00		
			C	27.77	18.52	15.74	13.89	11.11	9.25	6.79	6.42	5.20	4.49	3.65	3.01	2.66		
			D	0.83	1.88	2.70	3.34	5.21	7.50	8.75	9.00	10.00	10.00	10.00	10.00	10.00	10.00	
W60B-505	50 x 5	42.3	U	192.86	85.71	59.52	48.21	30.86	21.40	13.48	12.39	9.03	7.43	5.63	4.35	3.70	2.53	
			D	0.83	1.88	2.70	3.34	5.21	7.50	8.75	9.00	10.00	10.00	10.00	10.00	10.00	10.00	
			C	48.21	32.14	26.78	24.10	19.28	16.07	13.77	13.39	11.29	9.75	7.53	6.53	5.78	4.34	
			D	0.67	1.50	2.16	2.67	4.17	6.01	8.18	8.65	10.00	10.00	10.00	10.00	10.00	10.00	



B - Cross Rod Pitch 50mm

Recommended maximum spans for pedestrian loading –

spans to the left of black line have a deflection of less than 5mm for a 4 kPa (uniformly distributed load) therefore meet the criteria.

- U** = uniformly distributed load in kilopascals
- C** = Concentrated Load in Kilo-Newtons
- D** = deflection at centre in millimetres (mm)

Bending Stress Criteria 195MPa

Weight calculated on untreated grating

The weight of fabricated grating (eg banded and galvanised) will increase the weight per sqm by approximately 16%

Serrated Bar Conversion Factors

Load Bar	20 x 3	20 x 5	25 x 3	25 x 5	32 x 3	32 x 5	40 x 3	40 x 5	45 x 5	50 x 5	65 x 5
Load	Not		0.79	0.79	0.83	0.83	0.87	0.87	0.88	0.89	0.92
Deflection	Reccommended		1.12	1.12	1.09	1.09	1.07	1.07	1.07	1.06	1.04

Select the profile and span from the load table, then multiply by the conversion factor above.

Bar to Bar Dimensions

No. of bars	3	4	5	6	7	8	9	10	11	12	13	14
5mm Load Bars	125	185	245	305	365	425	485	545	605	665	725	785
No. of bars	15	16	17									
5mm Load Bars	845	905	965									

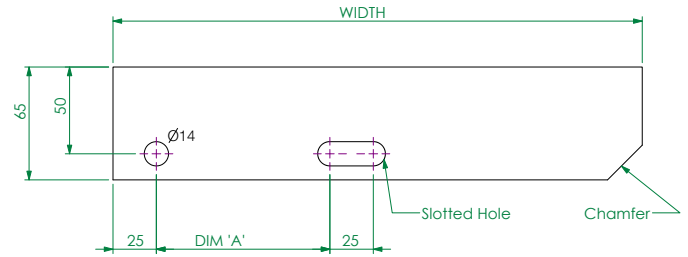
* For 3mm load bars subtract 2mm from the widths

* Width dimensions may vary due to manufacturing process (refer tolerances pg 10)

Stair Treads

Stair Treads – when placing an order for Gridforge stair treads, the following information is required to ensure smooth and fast delivery.

1. Grating type and size, eg W30A-255
 2. Grating top surface, plain or serrated bar
 3. Weld in or bolt in connection type (or just specify tread type T1 to T8)
 4. Nosing type
 5. Number and size of treads
 6. Finish; galvanised, bitumen dipped or untreated
- For example: Stair Tread T6 Bolt in + Abrasive Yellow Nosing W30A-255-275 x 750



STAIR TREAD END PLATE



T1 Welded Fixing – no nosing



T2 Bolted Fixing – no nosing



T3 Welded Fixing – floor plate nosing



T4 Bolted Fixing – floor plate nosing



T5 Welded Fixing – abrasive nosing



T6 Bolted Fixing – abrasive nosing



T7 Welded Fixing – perforated nosing



T8 Bolted Fixing – perforated nosing

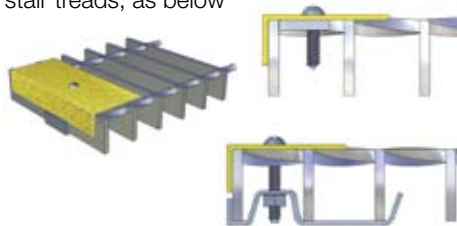
Recommended Standard Widths

Dim 'A'	Hole Centres	45	75	75	100	100	100	100
Series 30	T2 - T8	125	155	185	215	245	275	305
Series 40	T2 - T8	125	165		205	245	285	325
Series 60	T2 - T8	125		185		245		305

Recommended Maximum Length

Load Bar Size	25 x 5	32 x 5	40 x 5
Series 30	900	1300	1600
Series 40	750	1200	1500
Series 60	500	800	1300

Nosing options can be retrofitted to grating stair treads, as below



Grating Options

Locker Safety Mesh –

Flattened expanded metal (Part # 1220F) welded to either the topside or underside of grating to reduce the chance of small objects falling through to areas where people will be walking, or working, below.

Coding example: W30A-325-PL-HDG-LSM



Locker Cleats –

10x10sq bar welded at 300mm centres (nominal) on walkways with an incline of 7° or greater, to minimise the chance of slipping.

Coding example: W30A-325-PL-HDG-LC



Locker Plate –

5mm floor plate welded to the top of grating for applications where full coverage flooring is required.

Coding examples: W30A-325-PL-HDG-LP3 or W30A-325-PL-HDG-LP5



Locker Group Drain Grates

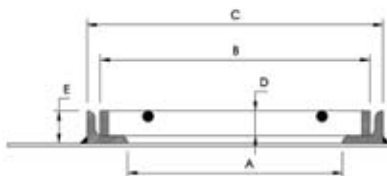
Locker Group can manufacture galvanised mild steel sump and trench grates and frames to suit your requirements.

Codes	Load Bar	Axle Load					
		Large Car Wheel Load Wheel Load 495 kg 130 x 130 Tyre Contact Area	2 tonnes Forklift Wheel Load 1865kg 130 x 140 Tyre contact area	5 tonnes Forklift Wheel Load 4450kg 180 x 250 Tyre contact area	5 tonnes Truck Wheel Load 1690kg 170 x 170 Tyre contact area	9.8 tonnes Dual Wheel each axle end Wheel Load 2450kg 200 x 200 Tyre contact area	14.3 tonnes Dual Wheel each axle end Wheel Load 3580kg 250 x 200 Tyre contact area
DG30-255	25 x 5	320	-	-	-	-	-
DG30-325	32 x 5	485	180	-	220	180	180
DG30-405	40 x 5	725	245	-	305	285	285
DG30-455	45 x 5	900	290	-	365	335	330
DG30-505	50 x 5	1095	340	285	435	390	380
DG30-655	65 x 5	1700	530	395	685	590	555

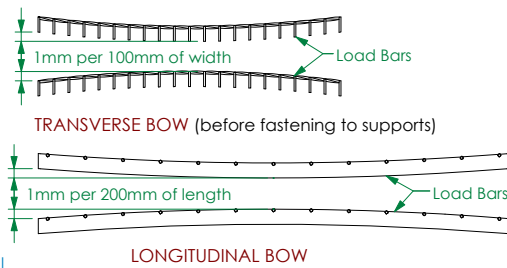
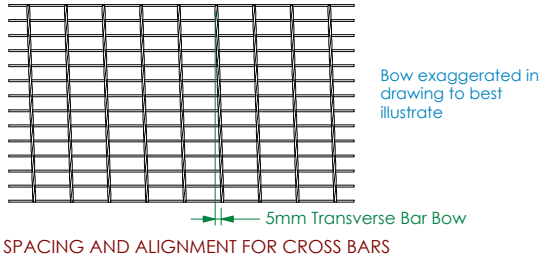
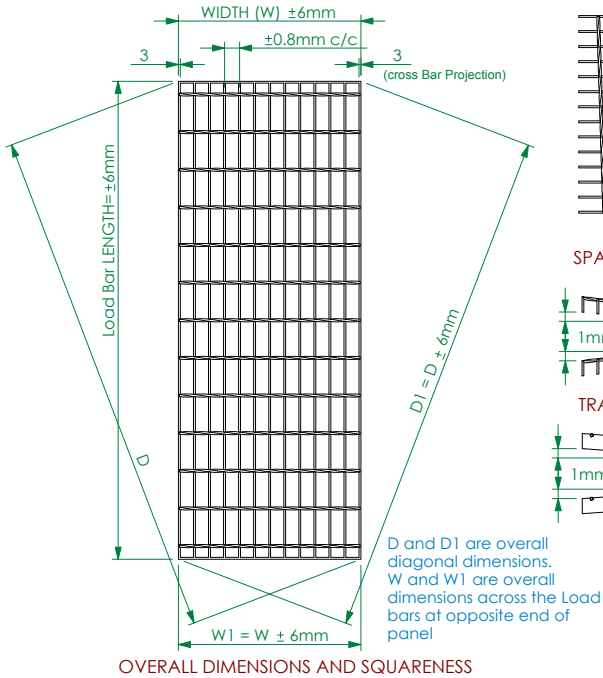
* Please specify panels are to be used for drain grating.

Use the table above to find maximum clear span dimension. (A)

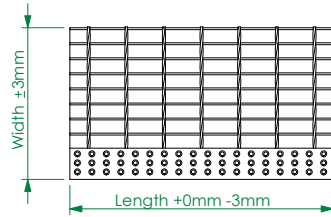
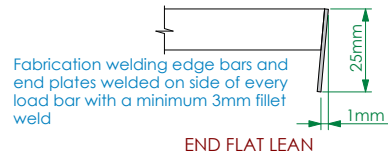
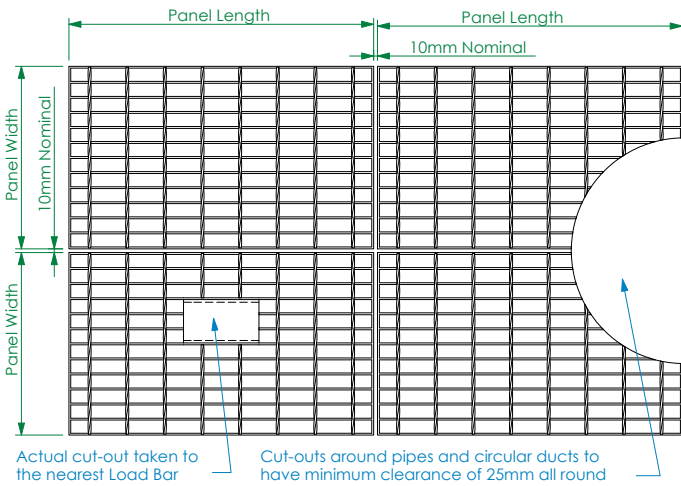
- A** = Clear Opening
- B** = Grate Size
- C** = Overall Frame
- D** = Grate Depth
- E** = Frame Depth



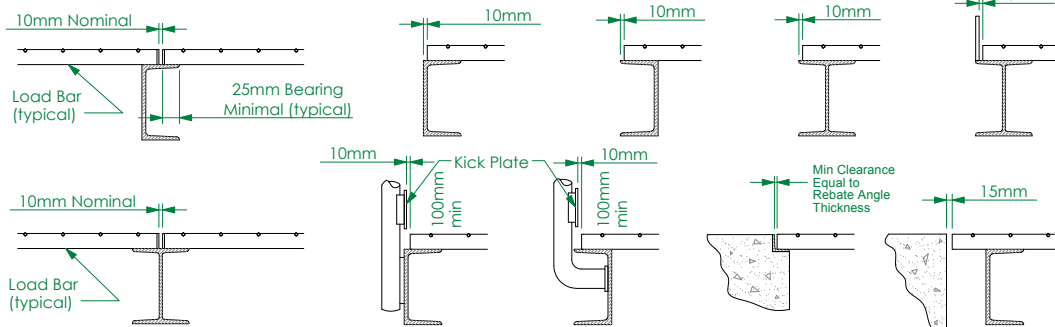
Grating Tolerances



FABRICATION WELDING
 Edge Bars and attachments are welded with a minimum 3mm fillet weld to one side of Every 5th Load Bar on Type 30 Grating
 Every 4th Load Bar on Type 40 Grating
 Every 3rd Load Bar on Type 60 Grating



NOTE: Length of tread is distance between outer faces of the End Flats



NOTE: Clearance can vary relative to rebate angle straightness

FRP Grating

What is FRP?

Locker Group FRP is a one piece, fully moulded fibre reinforced plastic grating. Primarily used for flooring, access walkways, platforms, screening, battery racks, bridges, sump / trench covers, machine guards and stair treads.

Initially designed for caustic or corrosive environments, the product is also a viable alternative to flooring products such as aluminium or stainless steel grating.

Locker Group can supply panels as stock sheets (3660x1220 mm) or custom shaped to meet specific project requirements.

Benefits

- **Excellent strength** to weight ratio. Its interwoven fibre one piece square pattern construction allows for applied loads to be evenly distributed to adjoining bars.
- Grit top surface provides superb anti-slip properties.
- Locker Group FRP has **excellent corrosion** resistance properties. Please refer to the chemical resistance chart on page 12.
- **Fire Resistant:** Locker Group FRP has a Class 1 flame spread rating of 25 or less, and has been tested with ASTM E-84 Tunnel test method.
- **Non-Sparking:** Locker Group FRP is ideally suited for areas where combustible gases may be present, which have the potential to explode or cause fire from accidental sparks caused by steel objects being dropped on steel grating.
- **Non - Magnetic:** Locker Group FRP is also ideal for installations sensitive to magnetic fields.
- **Non-Conductive:** Ideal for work platforms in potential electrically hazardous areas.
- **Light weight:** Panels can be easily installed on site without mechanical hoists.
- **Minimal wastage:** Locker Group FRP's square pattern design offers the best utilisation of custom made panels.
- **Ideal for site work:** Locker Group FRP is easily cut using standard cutting tools to suit complicated site installation work. Locker Group FRP sealing kits are also available to seal cut edges after fabrication.

Standard Panel Size:

3660 x 1220mm

Weight of standard panel:

25mm thick = 51kg (11.4kg/m²)

38mm thick = 82 kg (18.3kg/m²)

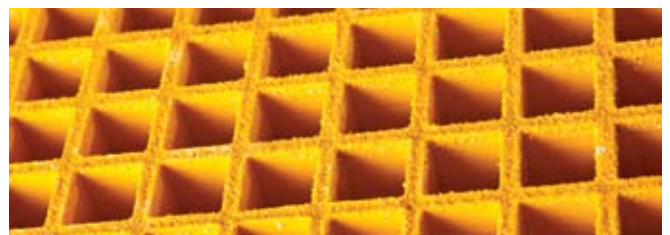
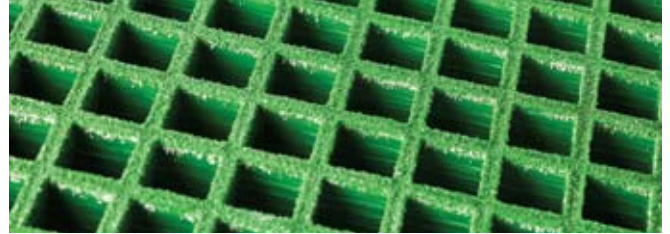
Integral, one piece moulded construction distributes load evenly to bi-directional bearing bars.

One mesh pattern:

38 x 38 square mesh 70% open area
6mm thick load bearing bars in both directions

Two grating depths:

38mm & 25mm



Two resin types:

Type 'I' (green) uses isopathalic polyester resin with Class 1 flame spread rating of 25 or less, while providing excellent corrosion resistance over a broad range of chemicals.

Type 'V' (yellow) uses vinyl ester resin base with Class 1 flame spread rating of 25 or less, providing superior corrosion resistance to acidic environments and moderate resistance to caustic and solvent applications.

Product Coding:

Part No.	Description
Isopathalic 'I' Green Fibreglass Grating	
ISO25-3660x1220	25mm Green FRP Grating 3660 x 1220
ISO38-3660x1220	38mm Green FRP Grating 3660 x 1220
ISO38ST-3054x565	38mm Green FRP Grating 3054 x 565
Vinyl Ester 'V' Yellow Fibreglass Grating	
VE25-2440 x 1220	25mm Yellow FRP Grating 2440 x 1220
VE25-3660 x 1220	25mm Yellow FRP Grating 3660 x 1220
VE38-2440 x 1220	38mm Yellow FRP Grating 2440 x 1220
VE38-3660 x 1220	38mm Yellow FRP Grating 3660 x 1220
VE38ST-3054 x 565	38mm Yellow FRP Grating 3054 x 565

Other colours and grid sizes are available.

Conditions apply.

Fabricating FRP Grating

Use a heavy duty rotary saw with a masonry, carbide or diamond coated blade, with the panel turned bottom side up. All cut edges should be ground smooth using a coarse grit, open coated resin grinding disk. All cut surfaces should be coated with a light coating of a two part resin system or a urethane spray paint to prevent corrosion of glass fibres. When cutting Locker Group FRP grating, always wear safety goggles to protect your eyes and a dust mask to reduce dust inhalation. Wear gloves to prevent skin irritation.

Load & Deflection Data

Locker Group FRP 25mm deep grating, normal walking pedestrian loads will span up to 900mm with a 6mm deflection.

FRP Stair Treads

Locker Group FRP stair treads are made from 38mm deep FRP grating to fit the T5 profile. The treads are complete with block grit nosing on the leading edge. Nosing is normally black.

Treads are usually fixed using M type Top clips, bolts, nuts and spring washers. Minimum bearing surface of at least 40mm.

Span (mm)	Kilonewtons					
	1	2	4	6	8	10
25mm Deep, 38mm square mesh						
300	-	-	-	-	-	-
450	0.815	1.579	3.172	4.738	6.330	7.922
600	1.533	3.055	6.136	9.166	12.246	-
900	4.078	8.156	-	-	-	-
1200	8.777	-	-	-	-	-

Locker Group FRP 38mm deep grating, normal walking pedestrian loads will span up to 1200mm with a 6mm deflection.

38mm Deep, 38mm square mesh						
300	-	-	-	-	-	-
450	0.388	0.751	1.540	2.304	3.055	3.845
600	0.647	1.333	2.718	4.038	5.385	6.745
900	1.489	2.925	5.888	8.842	11.781	-
1200	3.301	6.214	12.436	-	-	-

Chemical Resistance Chart

Chemical Exposure	Isophthalic (Type "I")		Vinyl Ester (Type "V")		Chemical Exposure	Isophthalic (Type "I")		Vinyl Ester (Type "V")	
	% Concentration	Temperature F°/C°	% Concentration	Temperature F°/C°		% Concentration	Temperature F°/C°	% Concentration	Temperature F°/C°
Acetic Acid	50	125/50	50	185/85	Hydrocyanic Acid	All	150/65	All	185/85
Acetone	N/R	N/R	N/R	N/R	Hydrogen Peroxide	10	75/25	30	75/25
Aluminium Salts	All	160/70	All	195/90	Hypochlorous Acid	10	85/30	20	150/65
Ammonium Chloride	All	160/70	All	185/85	Lactic Acid	All	170/75	All	195/90
Ammonium Hydroxide	N/R	N/R	20	100/38	Lead Acetate	All	170/75	All	195/90
Ammonium Carbonate	N/R	N/R	All	150/65	Lead Chloride	All	140/60	All	195/90
Ammonium Bicarbonate	15	125/50	All	125/50	Lead Nitrate	All	150/65	All	195/90
Ammonium Nitrate	All	160/70	All	185/85	Lime Slurry	All	150/60	All	185.85
Benzene	N/R	N/R	N/R	N/R	Magnesium Salts	All	150/65	All	185/85
Benzene Sulfonic Acid	25	115/45	All	195/90	Maleic Acid	100	150/65	100	185/85
Benzoic acid	All	150/65	All	195/90	Mercury Chloride	100	150/65	100	185/85
Calcium Hydroxide	25	150/65	35	185/85	Nickel Salts	All	170/75	All	195/90
Calcium Hypochlorite	All	150/65	All	185/85	Nitric Acid	N/R	N/R	20	105/40
Calcium Salts	All	150/65	All	195/90	Perchloric Acid	N/R	N/R	30	85/30
Calcium Nitrate	All	185/85	All	195/90	Phosphoric Acid	100	125/50	100	195/90
Carbonic Acid	All	125/50	All	185/85	Potassium Salts	All	150/65	All	185/85
Carbon Tetrachloride	N/R	N/R	100	140/60	Phthalic Acid	-	-	All	185/85
Chlorine Dioxide	N/R	N/R	All	140/60	Silver Nitrate	100	150/65	100	185/85
Chlorine Water	All	75/25	All	125/50	Sodium Hypochlorite	N/R	N/R	10	150/65
Chromic Acid	10	140/60	10	185/85	Sodium Salts	All	75/25	All	105/40
Citric Acid	All 1	50/65	All	185/85	Stannic Chloride	All	160/70	All	195/90
Copper Cyanide Plating	N/R	N/R	All	185/85	Styrene	N/R	N/R	N/R	N/R
Copper Salts	All	150/65	All	185/85	Sulphuric Acid	50	N/R	50	185/85
Ethanol	50	N/R	50	85/30	Sulphuric Acid	25	75/25	25	195/90
Ethyl Acetate	N/R	N/R	N/R	N/R	Tartaric Acid	All	170/75	All	195/90
Ferric Chloride	100	150/65	100	185/85	Trisodium Phosphate	N/R	N/R	All	170/65
Ferric Salts	All	150/65	All	185/85	Urea	All	75/25	All	140/60
Glycerine	100	150/65	100	195/90	Vinegar	100	170/75	100	195/90
Heptane	100	105/40	100	125/50	Water, Distilled	100	170/75	100	195/90
Hydrobromic Acid	50	125/50	50	125/50	Water, Sea	All	170/75	All	195/90
Hydrochloric Acid	37	75/25	37	95/35	Zinc Salts	100	150/65	100	185/85

Fixing Grating

Grating Clips

Locker Group has a range of fixing clips and accessories available for use with the Gridforge range.

Installation Clips:

- Clips are suitable to install whilst working on top of the grating
- The fastener is designed for use with either Type 30, 40 or 60 grating profiles
- Adjoining grating panels can be secured with the same fastener
- By using the top portion of the fastener, combined with a self drilling screw, grating can be secured to areas where no flanges are available on the supporting structure.

Recommended clip installation rate:

- Minimum 4 clips per panel
- Approximately 3 clips per m², where the span is +/- 1500mm
- Approximately 5 clips per m², where the span is +/- 750mm

Coding –

Standard clip mild steel galvanised – **PCA-CLIP**

Standard clip 316 Stainless Steel – **PCA-S/S**

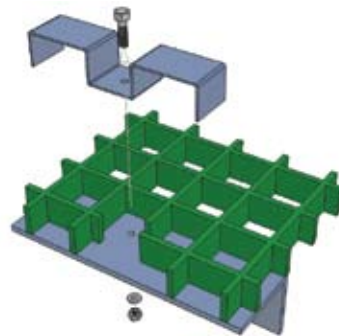


FRP Fixing Clips

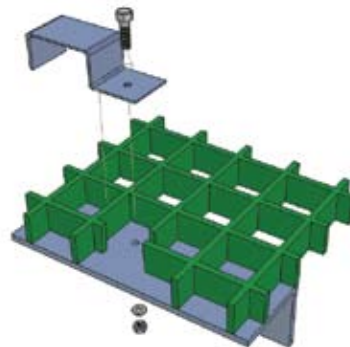
Type FRP S/S Clip



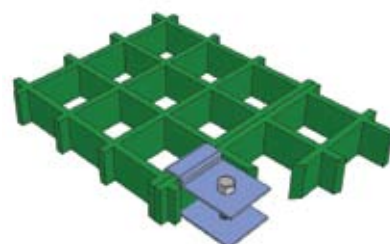
Type M38 S/S Clip



Type L38 S/S Clip



Type C25 or C38 S/S Clip



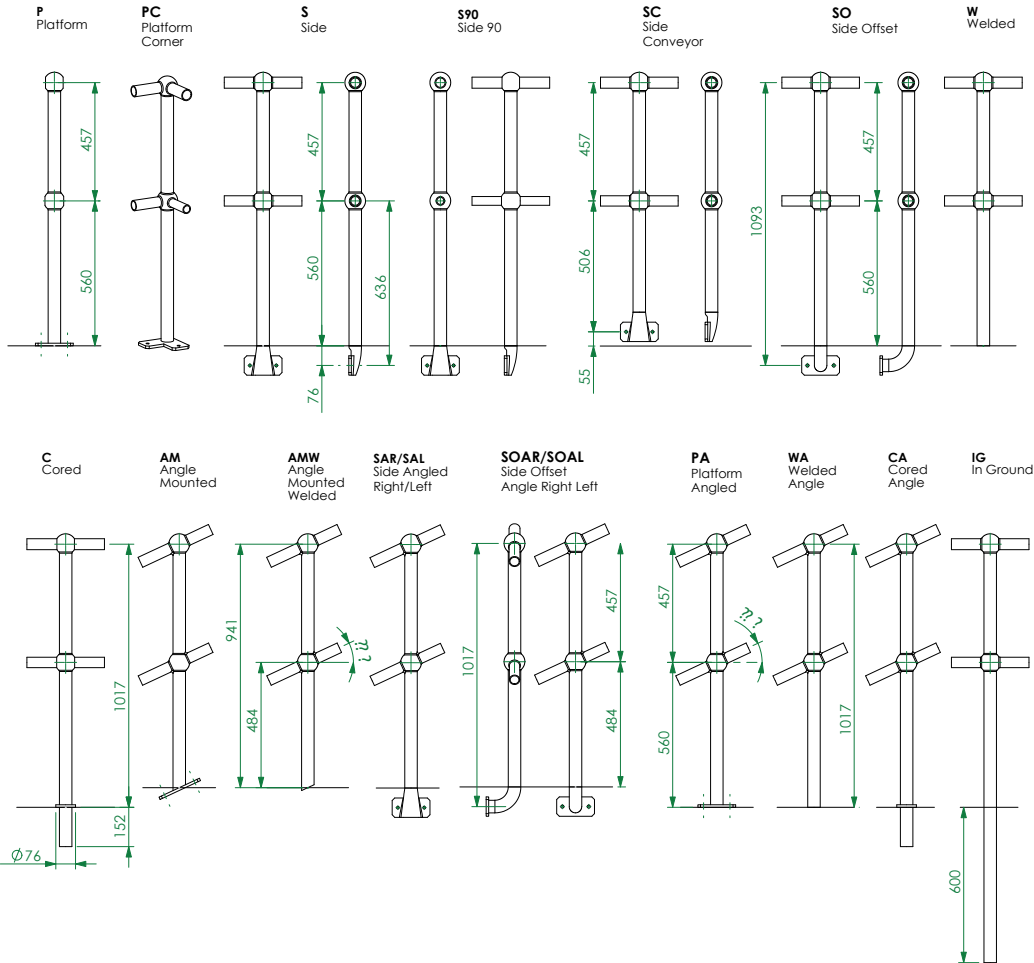
Installation using welding

Welding to the support structure is acceptable, when there is a minimum of four (4) welds per panel.

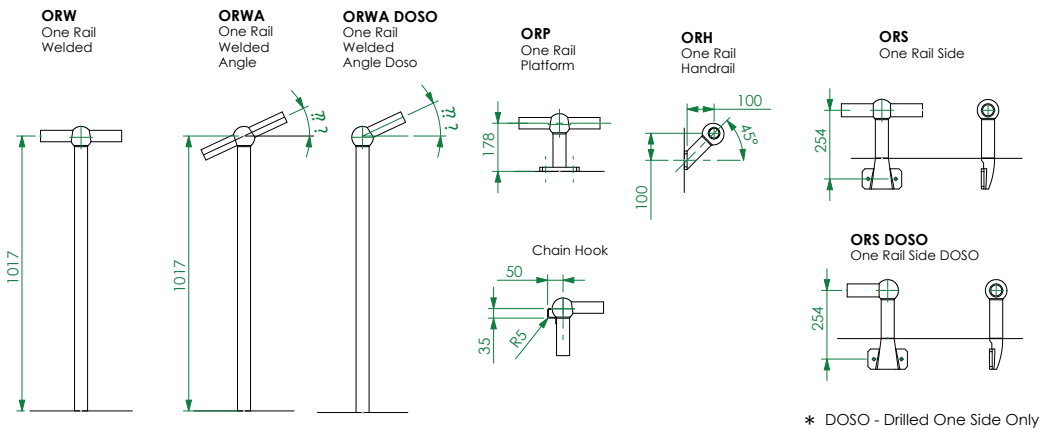
Welds should be 5mm fillet welds, 25mm long at 1000 centres.

Handrail

Standard Stanchions



One Rail Stanchions

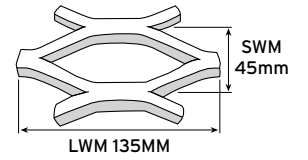


For more details, see the Handrail brochure.

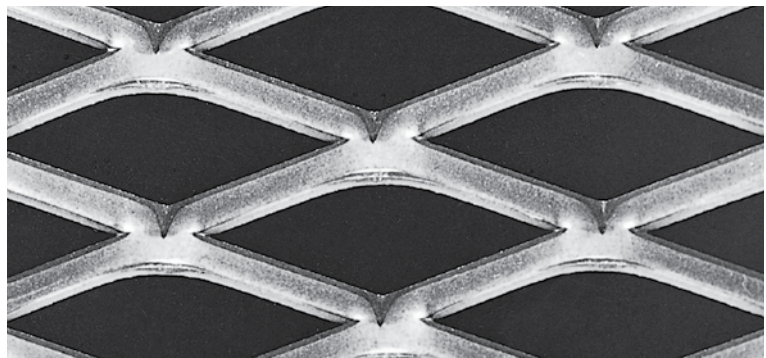
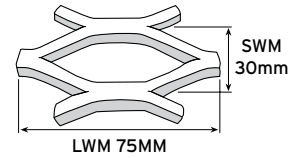
Gridwalk (Expanded Metal)



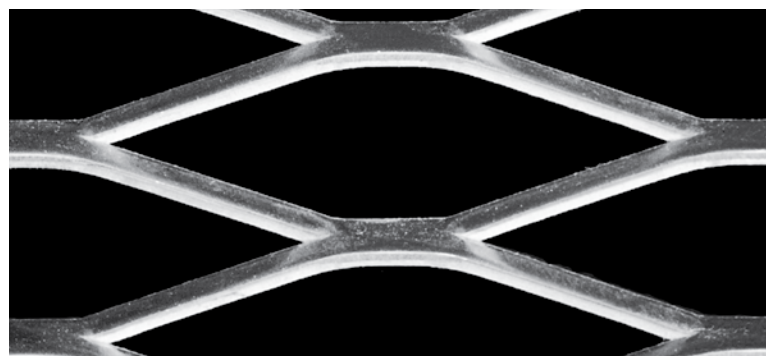
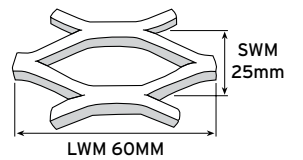
WK45 PROFILE



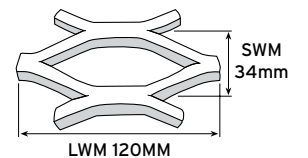
WK30 PROFILE



WK25 PROFILE



WK34 PROFILE



Profile	Nominal size of mesh (mm)		Nom. Strand Size (mm)		Weight kg/m ²	Overall Height mm	Load	Span (mm) LW			
	LWM	SWM	Width	Thick				600	750	900	1200
WK4514	135	45	8.0	5.0	14.0	15.0	U	13.87	5.55	2.62	1.17
							D	3.00	3.75	4.50	6.00
							C	1.40	1.22	1.03	0.66
WK4519	135	45	11.0	5.0	19.0	20.5	U	15.33	9.60	4.62	2.65
							D	3.00	3.75	4.50	6.00
							C	3.10	2.34	1.56	-
WK3022	75	30	7.8	5.0	22.0	13.0	U	12.47	7.50	3.91	1.37
							D	3.00	3.75	4.50	6.00
							C	2.38	1.90	1.42	0.45
WK3028	75	30	10.5	5.0	28.0	15.0	U	17.07	8.93	4.84	3.10
							D	3.00	3.75	4.50	6.00
							C	3.79	3.04	2.25	0.75
WK3414	120	34	6.4	5.0	14.0	13.0	U	11.13	5.07	3.09	1.50
							D	3.00	3.75	4.50	6.00
							C	2.17	1.60	1.10	-
WK3419	120	34	8.4	5.0	19.0	15.3	U	16.65	7.79	4.04	1.73
							D	3.00	3.75	4.50	6.00
							C	2.45	2.05	1.67	0.80
WK3422	120	34	9.6	5.0	22.0	18.0	U	17.93	9.89	6.31	2.70
							D	3.00	3.75	4.50	6.00
							C	3.12	2.64	2.12	1.15
WK3428	120	34	10.4	6.0	28.0	19.0	U	20.40	12.00	7.9	3.60
							D	3.00	3.75	4.50	6.00
							C	3.47	2.69	2.08	0.73
WK2517	60	25	5.6	5.0	17.0	11.0	U	7.33	4.75	3.02	1.05
							D	3.00	3.75	4.50	6.00
							C	2.43	1.65	0.87	-
WK2517F	60	25	5.6	5.0	17.0	5.0					
WK1225	60	25	5.6	5.0	17.0	6.0					
Grip 14	120	34	6.4	5.0	14.0	12.5	U	16.65	7.79	4.04	1.73
							D	3.00	3.75	4.50	6.00
							C	2.45	2.05	1.67	0.80
Grip 19	120	34	8.4	5.0	19.0	15.5	U	16.65	7.79	4.04	1.73
							D	3.00	3.75	4.50	6.00
							C	2.45	2.05	1.67	0.80
Grip 22	120	34	9.6	5.0	22.0	18.0	U	17.93	9.89	6.31	2.70
							D	3.00	3.75	4.50	6.00
							C	3.12	2.64	2.12	1.15
Grip 28	120	34	10.4	6.0	28.0	19.5	U	20.40	12.00	7.90	3.60
							D	3.00	3.75	4.50	6.00
							C	3.47	2.69	2.08	0.73

* Aluminium and Stainless Steel profiles also available
Gridwalk & Gripwalk LW stock sizes 600, 750, 900 & 1200.
Custom lengths also available.

Gridwalk and Gripwalk are also available in stair treads.
Talk to your Locker Group sales consultant for more information.



GRIPWALK GRIP14 PROFILE

Fixing Details

Using removable fixings.

A clip for fixing sheets of expanded metal grating direct to structural steelwork is available. This consists of an upper saddle engaging over two knuckles of the grating with a screw passing through the saddle and tightening into a lower clamping strip which engages with the bottom edge of a knuckle. The advantage of this arrangement is that the need to tighten a nut from below is eliminated. With saddle and clamping strip held together by the screw, the end of the clamping strip is worked through the grating, positioned correctly and screw tightened.

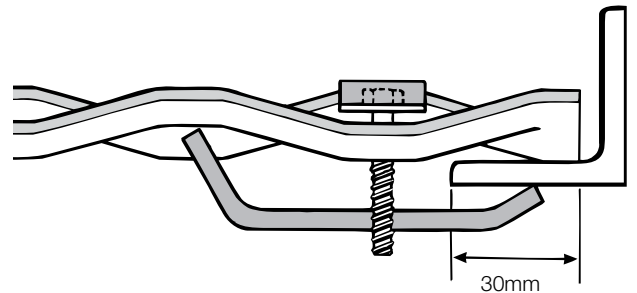
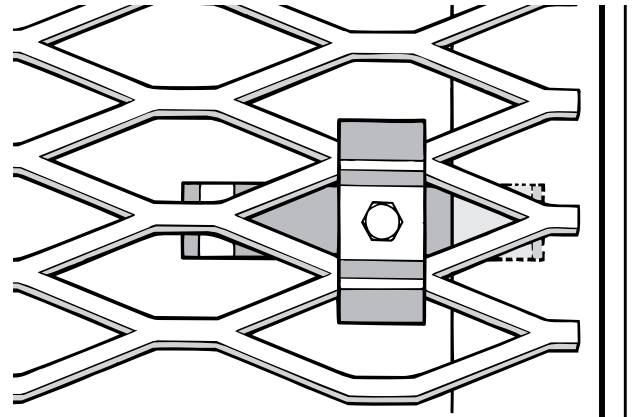
WK34 Fixing Clip

To suit the following profiles:
 WK3414, WK3419, WK3422,
 WK3428, WK2517, WK1225,
 Grip14, Grip19, Grip22, Grip28



WK45 Fixing Clip

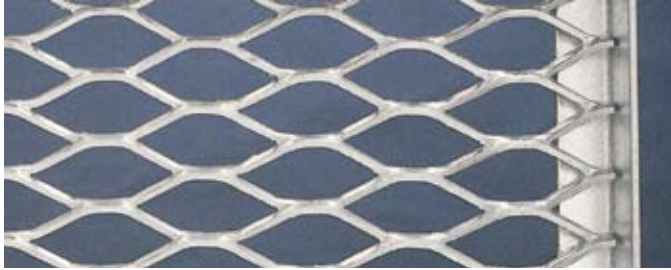
To suit the following profiles:
 WK4514, WK4519, WK3022,
 WK3028, Grip4514, Grip4519



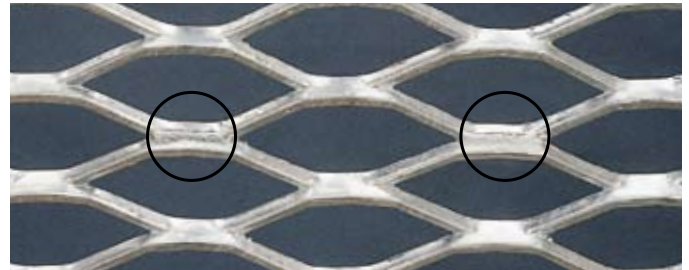
The ends of Gridwalk should bear on structural supports. Minimum overlap 30mm. Adjoining sheets must be lapped at least one mesh and clamped. The strands of adjoining sheets should slope in same direction.

Note: maximum recommended distance between fixing clips is 750mm.

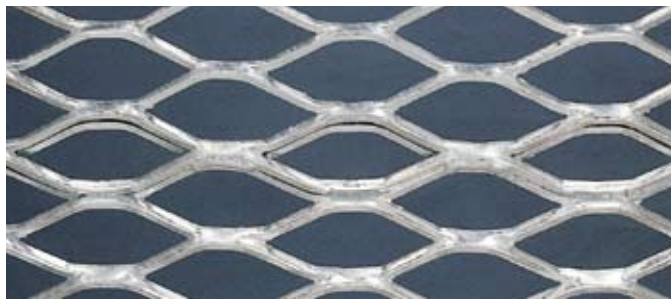




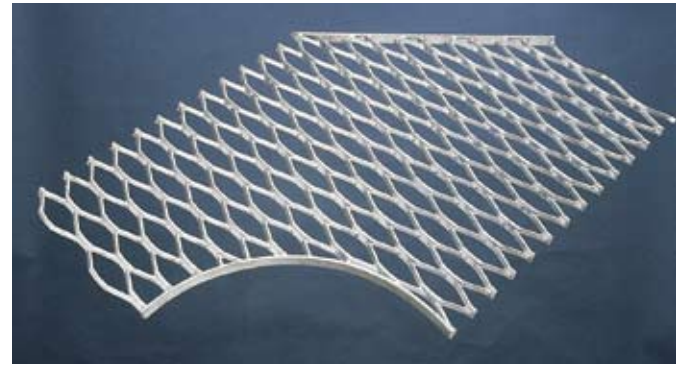
Welded to support – Each fourth stag (or at 750mm centres) should be welded to a structural support.



Sheets joined by butt weld



Notes: As overlapping Gripwalk can produce a raised edge, butt joining is recommended. Join should be positioned over a support. Adjoining sheets (butting or lapped) can be welded together, or a support can be welded beneath the join of the grating.



Banding of cut edges – Gridwalk can be easily shaped to fit around pipes or structural members. Cut-outs should be edged with flat bar, welded at all contact points.

