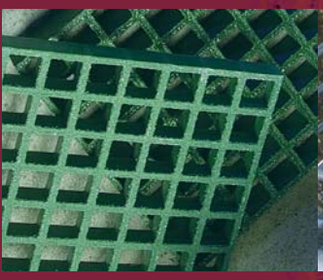
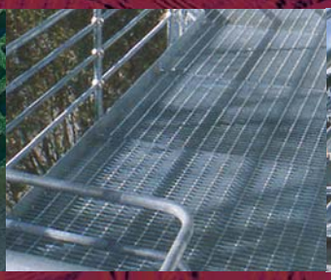
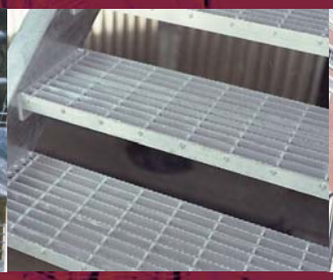
Access Products Division




WEBFORGE

Webforge Contents

CONTENTS

The Company

Services:

- In excess of 50 years experience
- Branches throughout Australia, Asia and New Zealand
- Manufacture
- Design
- Technical Support
- Quotations
- Fabrication
- Quality Assurance
- Feasibility and Budget Rates
- Lump Sum and Rate Contracts
- Project Management
- Small Jobs
- Large Projects
- Computerised Job Tracking

Products:

- Bar Grating
- Handrailing
- Expanded Metal
- Balustrades
- Drainage Grates and Cast Covers
- Sunscreens

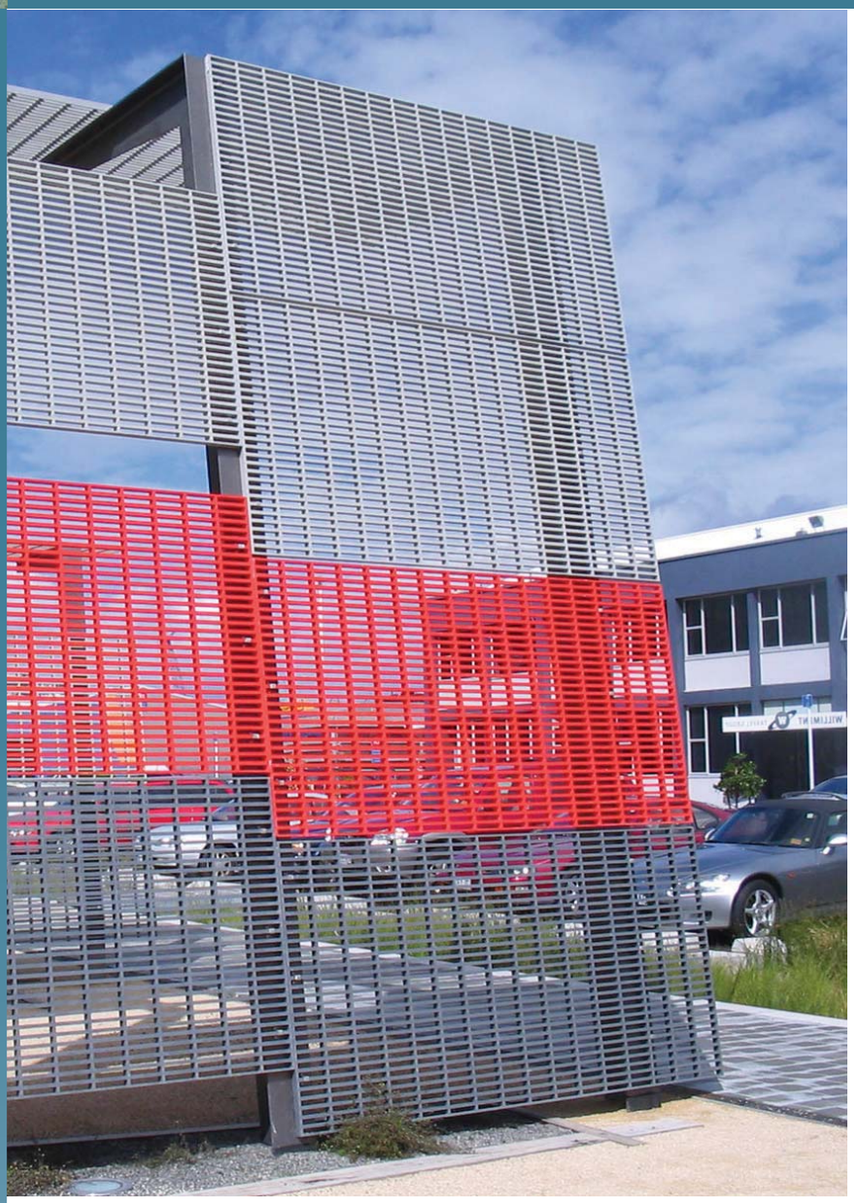
For Architectural Products see Hi Light Industries

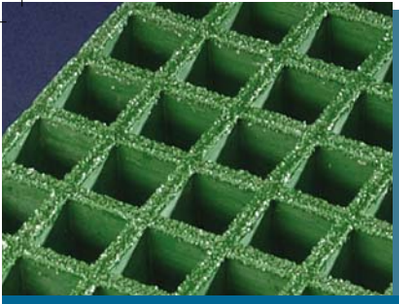
For Civil Products see separate brochure

Issue Number: 7

FRP Grating

APPLICATIONS

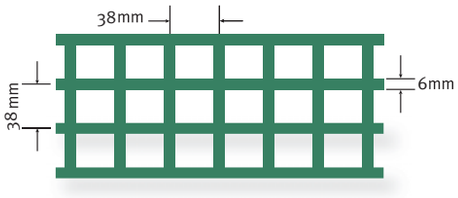




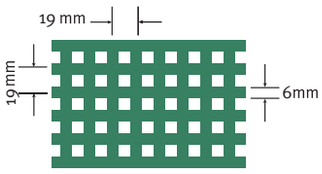
WEBFORGE FRP

FIBRE REINFORCED PLASTIC

Standard Mesh



Mini Mesh



MATERIAL

ISOPTHALIC POLYESTER RESIN
ASTM E-84 Fire rating Class 1, 25 or less

VINYL ESTER RESIN
ASTM E-84 Fire rating Class 1, 25 or less

PHENOLIC RESIN
ASTM E-84-97a
Fire spread index 4. Smoke developed value 1.
Meets: Class 1 Flammability per ASTM E-84.
Class A interior wall & ceiling finish per NFPA No. 255.
Available only in 38mm deep.

CODES:
I = Isopthalic Polyester Resin
V = Vinyl Ester Resin
P = Phenolic Resin

TOP SURFACE

FRP GRATING
Normally provided with an anti-skid surface.
This is a coarse grit embedded into the resin.
Plain top surface is available.

CODES:
G = Grit
P = Plain

TREATMENT/COLOUR

FRP GRATING

Available in a variety of colours.
We recommend:

Isopthalic Polyester Resin - Green

Vinyl Ester Resin - Yellow

Phenolic Resin - Reddish Brown

CODES:
G = Green
Y = Yellow
D = Dark Grey
R = Red
RB = Reddish-Brown

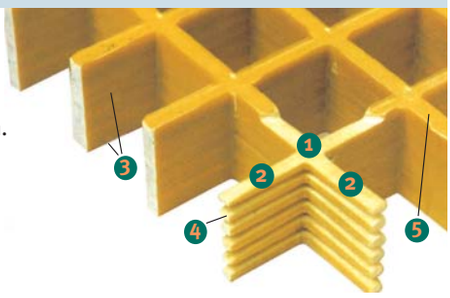
PANEL SIZE

FRP GRATING
Available in a variety of sizes suitable for cutting to suit the application.

CODES:
1 = 1220 x 3660

FEATURES/BENEFITS

1. Integral, one–piece construction increases load–bearing capabilities.
2. Load applied to a Webforge FRP bar is transferred to adjoining bearing bars, assisting in load distribution on the grating as well as on the support structure.
3. Smooth resin–rich vertical surfaces and tapered bars allow all debris to fall through.
4. Continuous glass fibre strand in alternating layers thoroughly wetted with the appropriate resin for excellent corrosion resistance.
5. Open area 70%.



HOW TO ORDER FRP

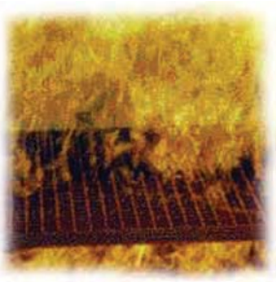
1. G pattern.
2. Choose a load bar from the Load/Deflection Table on page 9.
3. Add the options for Material, Top Surface and Colour.
4. Panel size suffix should be stated only if you want a stock panel.

Panels will have fingers (see page 21) unless the required sizes fall on a bar width.

Examples:

G256IGG 1/1500 x 1200 span
G256VGY 2/6250 x 768 span (each in 2 pieces)
G386IGG1 6/1220 x 3660 span Stock panels

5. Other options are available. Contact your nearest branch.



Fixing Clips - See pages 16-17 ›

Allowable Environmental Service Conditions

CHEMICAL EXPOSURE	TYPE 'V' % CONCENTRATION	TYPE 'V' MAX. OPER. TEMP. °F / °C	TYPE 'I' % CONCENTRATION	TYPE 'I' MAX. OPER. TEMP. °F / °C	CHEMICAL EXPOSURE	TYPE 'V' % CONCENTRATION	TYPE 'V' MAX. OPER. TEMP. °F / °C	TYPE 'I' % CONCENTRATION	TYPE 'I' MAX. OPER. TEMP. °F / °C
Acetic Acid	50	180/82	50	125/52	Lithium Chloride	SAT	210/99	SAT	150/66
Aluminium Hydroxide	100	180/82	100	160/71	Magnesium Chloride	ALL	210/99	ALL	170/77
Ammonium Chloride	ALL	210/99	ALL	170/77	Magnesium Nitrate	ALL	210/99	ALL	140/60
Ammonium Hydroxide	28	100/38	28	N/R	Magnesium Sulphate	ALL	210/99	ALL	170/77
Ammonium Bicarbonate	50	160/71	15	125/52	Mercuric Chloride	100	210/99	100	150/66
Ammonium Sulphate	ALL	210/99	ALL	170/77	Mercurous Chloride	ALL	210/99	ALL	140/60
Benzene	N/R	N/R	N/R	N/R	Nickel Chloride	ALL	210/99	ALL	170/77
Benzoic Acid	SAT	210/99	SAT	150/66	Nickel Sulphate	ALL	210/99	ALL	170/77
Borax	SAT	210/99	SAT	170/77	Nitric Acid	20	120/49	20	70/21
Calcium Carbonate	ALL	180/82	ALL	170/77	Oxalic Acid	ALL	210/99	ALL	75/24
Calcium Nitrate	ALL	210/99	ALL	180/82	Perchloric Acid	30	100/38	N/R	N/R
Carbon Tetrachloride	100	150/65	N/R	N/R	Phosphoric Acid	100	210/99	100	120/49
Chlorine - Dry Gas	-	210/99	-	140/60	Potassium Chloride	ALL	210/99	ALL	170/77
Chlorine - Water	SAT	200/93	SAT	80/27	Potassium Dichromate	ALL	210/99	ALL	170/77
Chromic Acid	10	150/65	5	70/21	Potassium Nitrate	ALL	210/99	ALL	170/77
Citric Acid	ALL	210/99	ALL	170/77	Potassium Sulphate	ALL	210/99	ALL	170/77
Copper Chloride	ALL	210/99	ALL	170/77	Propylene Glycol	ALL	210/99	ALL	170/77
Copper Cyanide	ALL	210/99	ALL	170/77	Sodium Acetate	ALL	210/99	ALL	160/71
Copper Nitrate	ALL	210/99	ALL	170/77	Sodium Bisulphate	ALL	210/99	ALL	170/77
Ethanol	50	100/38	50	75/24	Sodium Cyanide	ALL	210/99	ALL	170/77
Ethylene Glycol	100	200/93	100	90/32	Sodium Hydroxide	25	180/82	N/R	N/R
Ferric Chloride	ALL	210/99	ALL	170/77	Sodium Nitrate	ALL	210/99	ALL	170/77
Ferrous Chloride	ALL	210/99	ALL	170/77	Sodium Sulphate	ALL	210/99	ALL	170/77
Formaldehyde	ALL	150/65	50	75/24	Stannic Chloride	ALL	210/99	ALL	160/21
Gasoline	100	180/82	100	90/32	Sulphuric Acid	75	100/38	25	75/24
Glucose	100	210/99	100	170/77	Tartaric Acid	ALL	210/99	ALL	170/77
Glycerine	100	210/99	100	150/66	Vinegar	100	210/99	100	170/77
Hydrobromic Acid	50	150/65	50	120/49	Water - Distilled	100	180/82	100	170/77
Hydrochloric Acid	37	150/65	37	75/24	Zinc Nitrate	ALL	210/99	ALL	170/77
Hydrogen Peroxide	30	150/65	5	100/38	Zinc Sulphate	ALL	210/99	ALL	170/77
Lactic Acid	ALL	210/99	ALL	170/77					

ALL- All Concentrations SAT- Saturated Solution N/R - Not Recommended.

The corrosion resistance data listed above is for general information only.
Resin manufacturers have provided test data which indicates the specific resin can withstand the corrosion conditions listed above. Webforge believes the data to be true and accurate but no guarantee is expressed or implied as to specific performance. Testing for specific environments is recommended.

FRP Grating Load/Deflection Table

Product	Load Bar Size	Mass kg/m2	U = kPa	Span mm 450	600	750	900	1200	4kPa 5mm Defl Span
				Deflection mm					
G256***	25 x 6	12.1	2.5	0.27	1.03	2.58	6.15	15.51	
			3.0	0.33	1.25	3.1	7.6	18.61	
			4.0	0.44	1.67	4.48	9.64		750mm
			5.0	0.55	2.37	5.17	11.97		
			7.5	0.94	3.11	7.76	17.48		
			10.0	1.1	4.15	10.34			
			15.0	1.74	6.23	15.52			
			2.5	0.1	0.27	0.98	1.68	4.7	
G386***	38 x 6	18.6	3.0	0.12	0.32	1.4	2.03	5.64	
			4.0	0.17	0.43	1.71	2.7	7.52	
			5.0	0.21	0.53	2.02	3.38	9.4	1050mm
			7.5	0.31	0.8	2.81	5.06	14.1	
			10.0	0.41	1.06	3.59	6.75	18.8	
			15.0	0.63	1.6	5.16	10.13		
G38619**	38 x 6	23.1	2.5	0.09	0.27	0.63	1.25	3.71	
			3.0	0.11	0.32	0.75	1.50	4.45	
			4.0	0.15	0.43	1.00	2.00	5.93	
			5.0	0.18	0.54	1.25	2.50	7.41	1140mm
			7.5	0.27	0.81	1.88	3.75	11.12	
			10.0	0.36	1.08	2.51	4.99	14.82	
			15.0	1.54	1.62	3.76	7.49		

Note: Where * indicates Material. Top Surface. Treatment/Colour.**

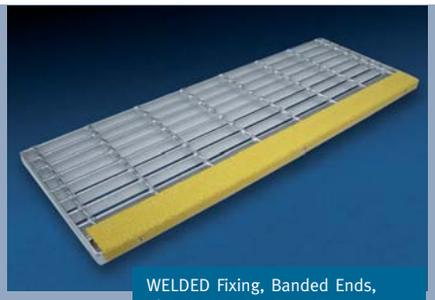
Recommended minimum landing equal to grating depth but = >25mm.

Choose the Options

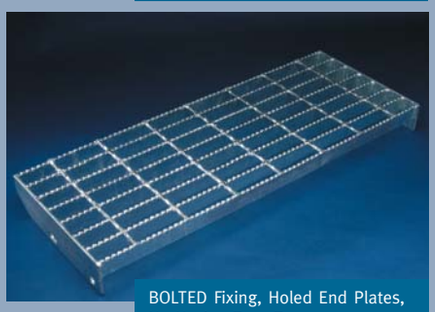
Mild/Stainless Steel

WELDED Fixing, Banded Ends,
No Nosing Type T1

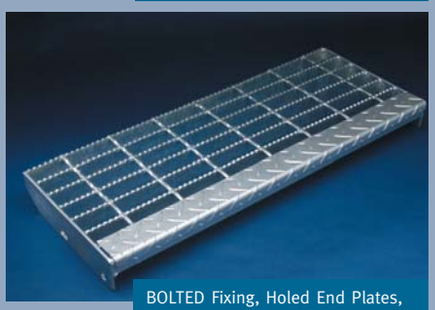
WELDED Fixing, Banded Ends,
Floor Plate Nosing Type T3



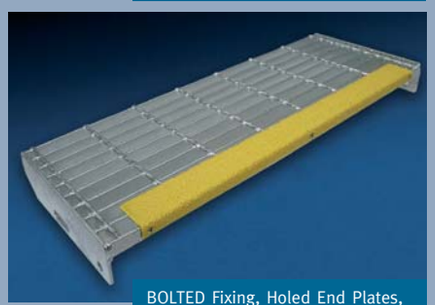
WELDED Fixing, Banded Ends,
Abrasive Nosing Type T5



BOLTED Fixing, Holed End Plates,
No Nosing Type T2



BOLTED Fixing, Holed End Plates,
Floor Plate Nosing Type T4



BOLTED Fixing, Holed End Plates,
Abrasive Nosing Type T6

Aluminium

WELDED Fixing, Banded Ends,
No Nosing Type T1

WELDED Fixing, Banded Ends,
Floor Plate Nosing Type T3

WELDED Fixing, Banded Ends,
Abrasive Nosing Type T5

BOLTED Fixing, Holed End Plates,
No Nosing Type T2

BOLTED Fixing, Holed End Plates,
Floor Plate Nosing Type T4

BOLTED Fixing, Holed End Plates,
Abrasive Nosing Type T6

FRP

BOLTED Fixing.
Abrasive Nosing Type

Note: Nosings in some instances may be less than the full tread width.

RECOMMENDED MAXIMUM LENGTHS FOR GRATING PATTERNS

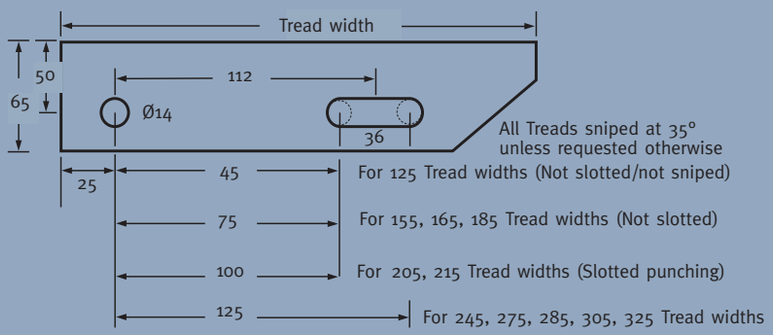
	STEEL			ALUMINIUM			FRP	
LOAD BAR SIZE	25 x 5	32 x 5	40 x 5	25 x 5	32 x 5	40 x 5	25 x 6	38 x 6
A & B Pattern	900	1300	1600	550	900	1275	–	–
C & D Pattern	750	1200	1500	–	675	1050	–	–
F Pattern	550	850	1350	–	450	700	–	–
G Pattern	–	–	–	–	–	–	600	875

RECOMMENDED TREAD WIDTHS FOR GRATING PATTERNS

A & B Pattern	125	155	185	215	245	275	305
C & D Pattern	125	165	–	205	245	285	325
F Pattern	125	–	185	–	245		305
G Pattern	–	–	–	–	234	272	310

How to order Stair Treads

Standard Tread Type:	T5 or T6
Standard Material:	C255MP*
	Where * indicates treatment. See page 3
Standard Length:	750mm
Standard Widths:	285mm
Eg.	T5/C255MPG



All Treads sniped at 35° unless requested otherwise

For 125 Tread widths (Not slotted/not sniped)

For 155, 165, 185 Tread widths (Not slotted)

For 205, 215 Tread widths (Slotted punching)

For 245, 275, 285, 305, 325 Tread widths (Slotted punching)

Compliance with AS1657 requires width = ›215

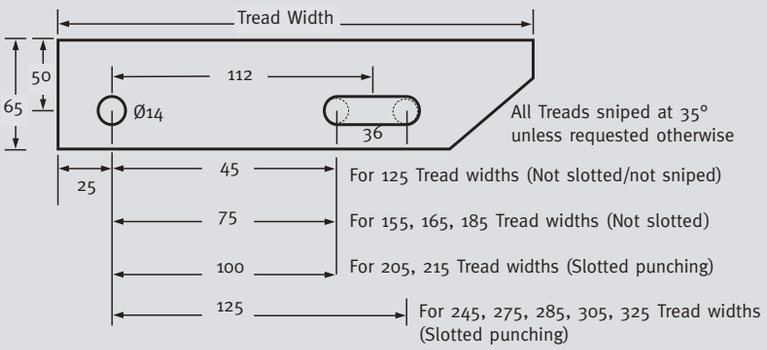
HOW TO ORDER MILD/STAINLESS STEEL TREADS

1. Choose the standard tread shown or design your own as follows:
2. Select tread type from pictures opposite.
3. Select required pattern, bar size and width by referring to the tables on page 14.
4. Select options of Material, Top Surface and Treatment from page 3.
5. Nominate required quantity and dimensions.

Examples:

T6/C255MPB	T3/A325MPG	T1/F255MPU
50/285 x 750	10/245 x 1250	10/245 x 550

Standard Tread Type:	T5 or T6
Standard Material:	A325AP*
	Where * indicates treatment. See page 3
Standard Length:	750mm
Standard Widths:	275mm
Eg.	T6/A325APM



All Treads sniped at 35° unless requested otherwise

For 125 Tread widths (Not slotted/not sniped)

For 155, 165, 185 Tread widths (Not slotted)

For 205, 215 Tread widths (Slotted punching)

For 245, 275, 285, 305, 325 Tread widths (Slotted punching)

Compliance with AS1657 requires width = ›215

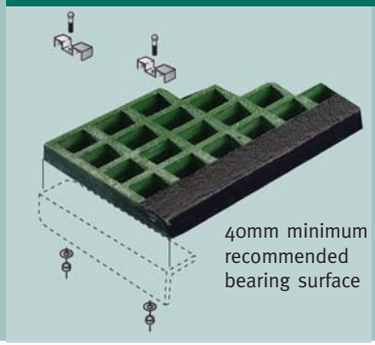
HOW TO ORDER ALUMINIUM TREADS

1. Choose the standard tread shown or design your own as follows:
2. Select tread type from pictures opposite.
3. Select required pattern, bar size and width by referring to the tables on page 14.
4. Select options of Material, Top Surface and Treatment from page 3.
5. Nominate required quantity and dimensions.

Examples:

T6/A325APM	T3/A405APPC	T1/F405APA
50/285 x 750	10/245 x 1250	10/275 x 700

Standard Tread Type	
Standard Material:	G386IGG
	Where G indicates green. See pages 8 & 9
Standard Lengths:	729 or 767mm
Standard Widths:	234 or 272mm
Eg.	T5/G386IGG



40mm minimum recommended bearing surface

Attach with:
Top Saddle: C130SM
Screw: C312SM
4 clips per tread (angle not supplied).

HOW TO ORDER FRP TREADS

1. Select the standard tread shown or design your own as follows:
2. Select required bar size and width by referring to the tables on page 14.
3. Select the options of Material, Top Surface and Colour from page 3 or by reference to the full details on FRP in pages 8 & 9.
4. Nominate required quantity and dimensions.

Examples:

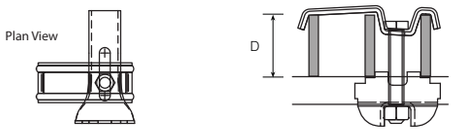
T5/G386IGG	T5/G386VGY
50/234 x 729	15/272 x 767

Fixing Clips

	Clip Set Code	Pattern	Description	Comprises	Usage
Mild Steel	MLIND	A-D	Clip Set Lindaptor A-D Pattern Mild Steel Galvanised Top Bottom 50x10 SHCS	-	Mild Steel Grating =‹32mm Flange present
	C001MG	A - F	Clip Set A-F Pattern Mild steel Galvanised Top. Bottom. 65 x 8 screw	Top C100MG Bottom C200MG Screw C301MG	Mild steel grating =‹50mm Flange present
	C002MG	A - F	Clip Set A-F Pattern Mild steel Galvanised Top. 50 x 8 screw.	Top C100MG Screw C302MG Thread Rolling	Mild steel grating =‹50mm No flange present.
	C003MG	A - F	Clip Set A-F Pattern Mild steel. Galvanised Top. Bottom. 80 x 8 screw	Top C100MG Bottom C200MG Screw C301SM	Mild steel grating =›55mm Flange present
Aluminium	C001SM	A - F	Clip Set A-F Pattern Stainless steel. Mill finish Top. Bottom. 65 x 8 screw	Top C100SM Bottom C200SM Screw C301SM	Stainless steel/ Aluminium grating =‹50mm Flange present
	C003SM	A - F	Clip Set A-F Pattern Stainless steel. Mill finish Top. Bottom. 80 x 8 screw	Top C100SM Bottom C200SM Screw C303SM	Stainless steel/ Aluminium grating =›55mm Flange present
	C004SM	A - F	Clip Set A-F Pattern Stainless steel. Mill finish Top. Bottom. 50 x 8 screw	Top C100SM Bottom C200SM Screw C304SM	Aluminium grating =‹40mm Flange present
Expanded Metal	C010MG	SWM30	Clip Set Expanded metal Top. Bottom. 65 x 8 screw	Top C150MG Bottom C200MG Screw C301MG	Expanded metal WM SWM30
	C011MG	SWM45	Clip Set Expanded metal Top. Bottom. 65 x 8 screw	Top C151MG Bottom C200MG Screw C301MG	Expanded metal WM SWM45
FRP	C020SM	G	Clip Set G Pattern Stainless steel. Mill finish Top. 30 x 6 screw	Top C133SM Screw C311SM	FRP grating 25mm deep
	C021SM	G	Clip Set. G SS Mill Top. 50 x 6 screw	Top C134SM Screw C312SM	FRP grating 38mm deep
	C022SM	G	Clip Set G Pattern Stainless steel. Mill finish Top. 20 x 6 screw	Top C131SM Screw C310SM	FRP grating 25mm deep
	C023SM	G	Clip Set G Pattern Stainless steel. Mill finish Top. 20 x 6 screw	Top C132SM Screw C310SM	FRP grating 38mm deep
	C024SM	G	Clip Set G Pattern Stainless steel. Mill finish Top. 30 x 6 screw	Top C130SM Screw C311SM	FRP grating 25mm deep
	C025SM	G	Clip Set G Pattern Stainless steel. Mill finish Top. 50 x 6 screw	Top C130SM Screw C301SM	FRP grating 38mm deep
	C026SM	G	Clip Set Mini Mesh Stainless steel. Mill finish Top. 35 x 4 screw	Top C139SM Screw C313SM	FRP grating 38mm deep

Fixing Clips

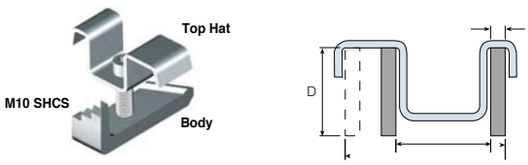
CLIP ASSEMBLIES



The Webforge Clip (product code Co01MG) is a galvanised clip that consists of a pre-assembled 'clip top', M8Bolt and nut and a bottom bracket that captivates the nut, allowing fixing from the top of the grating. It enables rapid and secure connection of grating to steel support sections.

Product	Screw	To suit flange	To suit Webforge	Grating Bar
Code	Size	thickness (mm)	Grating type	depth* D (mm)
Co01MG	M8x65	5-16	A,B,C,D,E,F	Min 20 Max 50

* longer screws available for greater bar depth. Max Bar Depth = 65mm

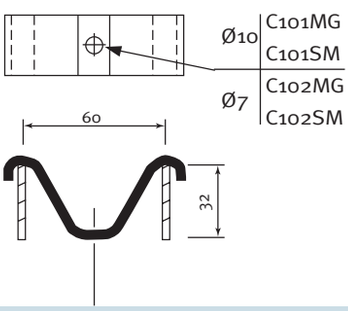


The Lindapter Grate-Fast® (product code MLIND) is a galvanised Lloyds Approved anti-vibration clip that consists of a pre-assembled 'top hat' bracket, socket head capscrew and body casting. It enables rapid and secure connection of grating to steel support sections.

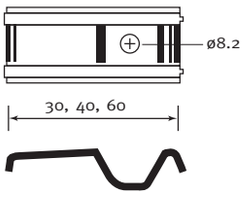
Product	Screw	To suit flange	Body casting	To suit Webforge	Grating Bar
Code	Size	thickness (mm)	width (mm)	Grating type	depth* D (mm)
MLIND	M10	3-19	20	A,B,C,D	Min 20 Max 32

* longer screws available for greater bar depth.

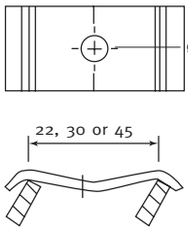
TOPS



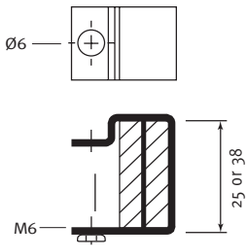
C101MG
C101SM
C102MG
C102SM



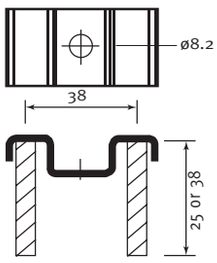
C100MU
C100MB
C100MG
C100SM



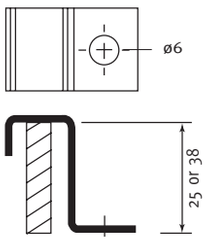
C150MG (SWM30)
C151MG (SWM45)
C152MG(SWM22)



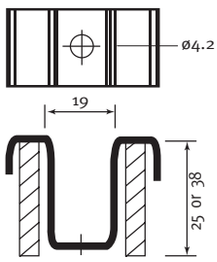
C133SM (25mm)
C134SM (38mm)



C130SM



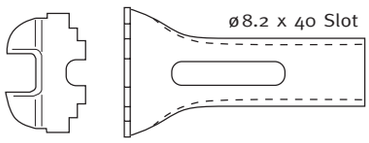
C131SM (25mm)
C132SM (38mm)



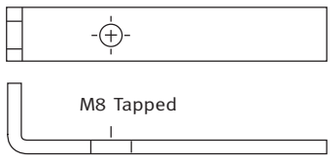
C139SM

BOTTOMS

C200MU
C200MB
C200MG
C200SM



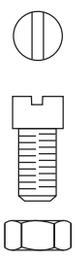
C210MG
C210SM



SCREWS/RIVETS

C301MG (65 x 8)
C301SM (65 x 8)

C324MG (50 x 8)
(Pilot Hole 7.4mm)
Thread Rolling



C303MG (80 x 8)
C303SM (80 x 8)
C304SM (50 x 8)

C310SM (20 x 6)
C311SM (30 x 6)
C312SM (50 x 6)
C313SM (35 x 4)

C400MG (Grip Range 9-16mm)
C401MG (Grip Range 6-20mm)

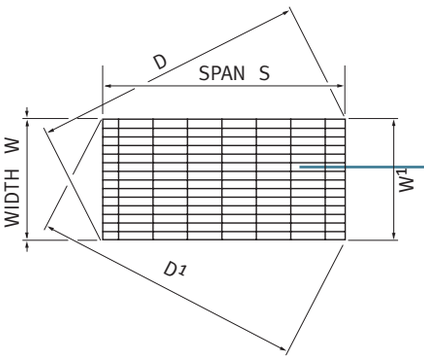
WELDING

Webforge believe that welding to the support structure is a suitable process. Minimum number of welds is four per panel. Grating: Weld 5mm fillet 25mm long at 1000mm centres. Expanded Mesh: Weld every fourth strand.

CLIP FREQUENCY

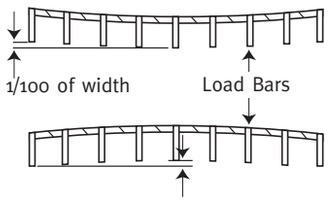
Nominal 4 per panel.
(Approximately 3 per M^2 where span is › 1500mm. Approximately 5 per M^2 where span is › 750mm or less.)
Fixing clips are not generally recommended in areas of vibration or where lateral loads are applied to the grating

Manufacturing Tolerances

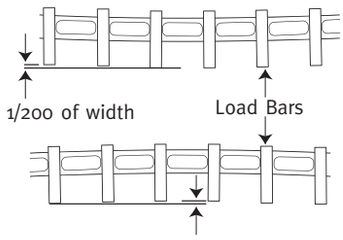


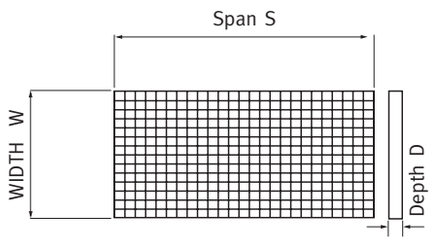
Panel Size mm	S mm	W1 mm	D1 mm
S ⩽ 3000	± 3	W ± 3	D ± 5.5
S ⩾ 3000 S ⩽ 6000	± S/1000	W ± 3	D ± S/500

Transverse Bow



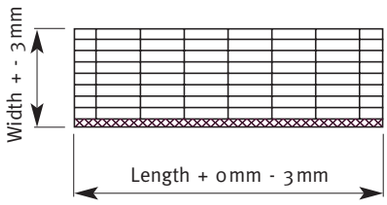
Panel Size mm	S mm	W1 mm	D1 mm
S ⩽ 3000	± 3	W ± 3	D ± 3.5
S ⩾ 3000 S ⩽ 6000	± S/1000	W ± 3	D ± S/500

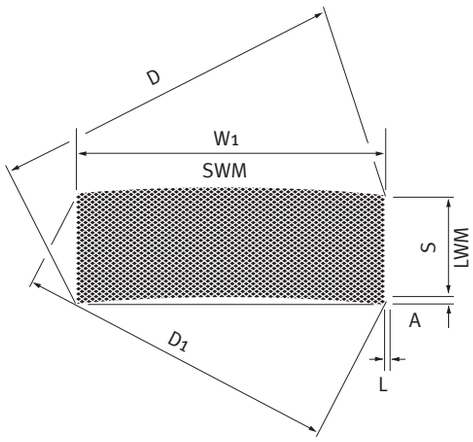




S mm	W1 mm	D mm
2.5/1000	2.5/1000	±1.5

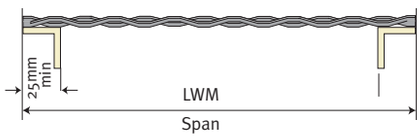
Stair Treads





A mm	S mm	W1 mm	D1 mm	L mm
⩽ 5(S/1000)	-4 +20	-0 +50	D+10	5/1000

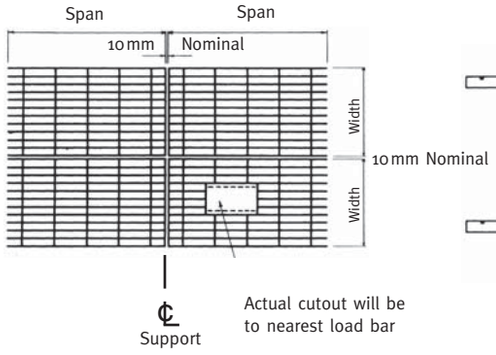
Minimum Support Dimension

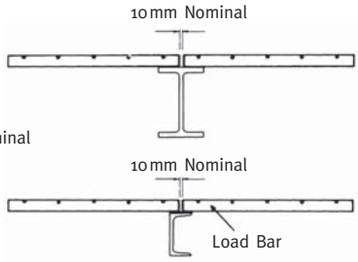


Installation Note

Minimum support dimension:-
A minimum of 25mm for loadbars up to 50mm deep and a minimum of 50mm for loadbars › 50mm deep. Webforge recommends that the land on the support should be equal to the height of the load bar.

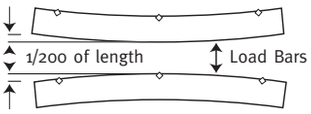
Grating Cantilevers:-
Grating cantilevers up to 250m in the loadbar direction are acceptable as long as the grating is securely anchored to the supports (not clips.) Cantilevers in the crossroad direction are not acceptable.

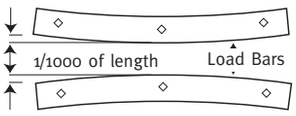




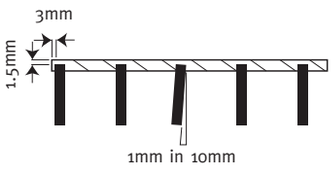
Manufacturing Tolerances

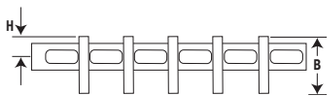
Longitudinal Bow





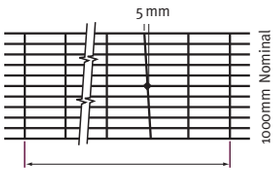
Cross Rod Location Load Bar Lean





Bmm	Hmm
25	12
>25	15

Cross Rod Alignment and Spacing



±6mm centre to centre of crossrods measured randomly across 1500mm in length

Fabrication Welding

Banding bars and attachments are welded with minimum 3mm fillet to one side of:

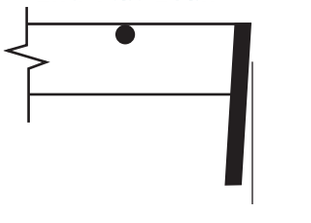
every 5th loadbar on A&B Pattern grating

every 4th loadbar on C&D Pattern grating

every 3rd loadbar on F Pattern grating

Other welding is applied to cut-outs, splays or circles as appropriate or as requested.

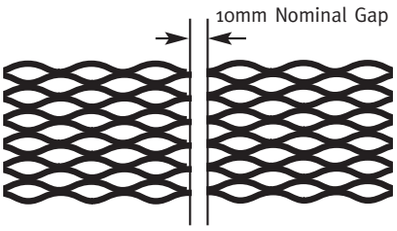
End Flat Lean



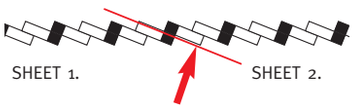
Welding.

Banding bars and end plates are welded one side of every load bar with a minimum 3mm fillet weld.

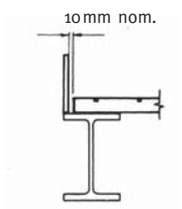
Nominal Gap

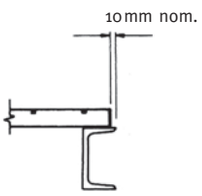


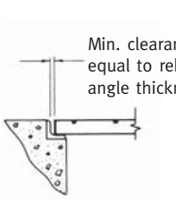
Laying Sheets

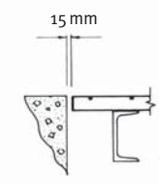


Overlap join SWM to SWM









Load Bar Chart

No. of bars	AB	CD	F	G
41	1205			1530
40	1175			1492
39	1145			1454
38	1115			1416
37	1085			1378
36	1055			1339
35	1025			1301
34	995			1263
33	965			1225
32	935			1187
31	905	1205		1149
30	875	1165		1111
29	845	1125		1073
28	815	1085		1035
27	785	1045		997
26	755	1005		958
25	725	965		920
24	695	925		882
23	665	885		844
22	635	845		806
21	605	805	1205	768
20	575	765	1145	730
19	545	725	1085	692
18	515	685	1025	654
17	485	645	965	616
16	455	605	905	577
15	425	565	845	539
14	395	525	785	501
13	365	485	725	463
12	335	445	665	425
11	305	405	605	387
10	275	365	545	349
9	245	325	485	311
8	215	285	425	273
7	185	245	365	235
6	155	205	305	196
5	125	165	245	158
4	95	125	185	120
3	65	85	125	82
2	35	45	65	44

NZ	905	925	905
W.A.	1205	1205	1205
Other	995	1005	1025

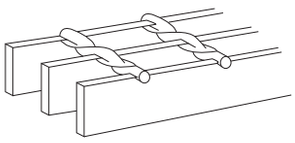
Note:

Sizes are overall outside to outside of bars.

Calculations based on 5mm bars for A to F pattern. 6mm for G pattern.

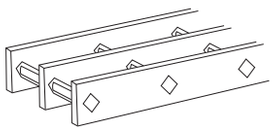
G pattern is FRP only. Bar centres are 38.1mm.

Terminology - Grating/Expanded Metal



LOAD BAR

Flat Bar from which grating is made.

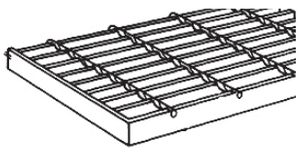


CROSS ROD

In mild steel this is a twisted square bar forged into the top of the load bar.

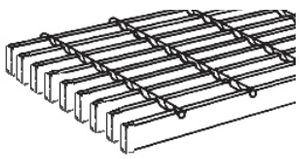
In stainless steel grating this is a round bar forged into the top of the load bar.

In aluminium this is a square bar inserted through punched holes in the load bar and swaged to hold it in position.



BANDED

Refers to the process of welding a flat bar (normally 5mm) to the loadbars after they have been cut to size to provide a uniform appearance around all sides of a grating panel. This process also helps prevent injury from laceration during installation and assists in keeping the panels flat.

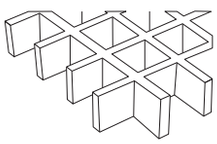


CUT TO SIZE ONLY

Refers to the process of leaving the panels with a raw cut edge and not banded as described above.

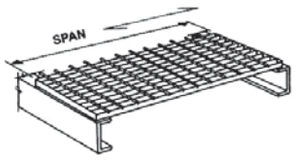
EXACT SIZE

Refers to the requirement to make the panels to an exact dimension and not to be adjusted to the nearest width across the standard pattern of the load bars.



FINGERS

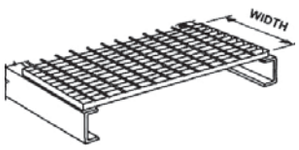
In FRP grating this describes a panel cut that does not run adjacent to the load bar.



SPAN

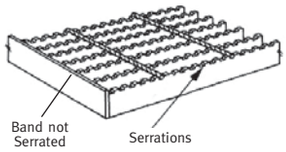
Overall dimension of a panel measured parallel with load bar.

Indicated by this symbol ⇌



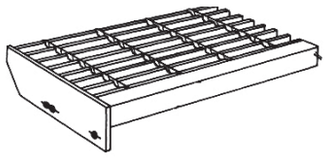
WIDTH

Overall dimension of a panel measured at right angles to the load bars. Always called "Width" even if greater than the length.



SERRATIONS

Small notches made in the top edge of the load bar to assist in slip resistance.

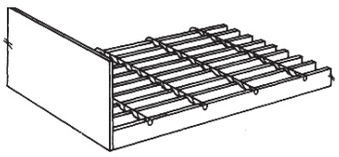


NOSING

A member attached to or on the leading edge of a stair tread or at the top of a flight of stairs to assist slip resistance and to give a clear visual indication of the edge of the stairtreads.

Can be

- Abrasive
- Floor Plate

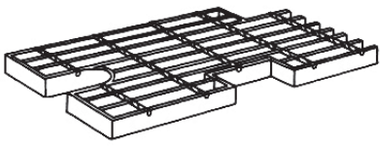


KICK PLATE

Heavy section flat bar welded to ends or sides of panels and around cut outs, etc. when specified. Top edge to be 100mm above grating generally and is typically 130 x 6.

CUT OUT

Grating areas removed from panel to permit passage for installation of pipes, plant and structural and handrail items.



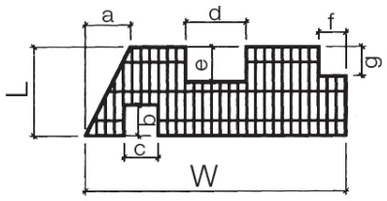
PENETRATIONS

As for cut out but typically within the grating panel and not on the edge.

GROSS AREA

The total area of grating as shown on drawings using overall width and length dimensions of grating ie: W x L.

The gross area is always the area calculated for invoicing purposes.

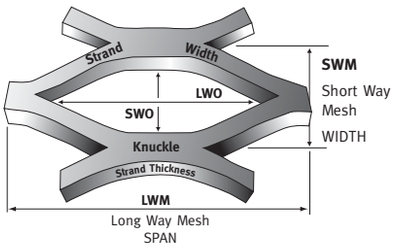


LONG WAY MESH (LWM)

The distance from a point on a knuckle to a corresponding point on the following knuckle measured across the Long Way. LWM is the same as span in grating.

SHORT WAY MESH (SWM)

The distance from a point on a knuckle to a corresponding point on the following knuckle measured across the Short Way.



LONG WAY OPENING (LWO)

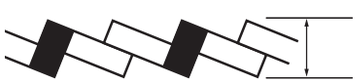
The distance measured from the inside of the knuckle in the long way.

SHORT WAY OPENING (SWO)

The distance measured from the inside of the knuckle in the short way.

KNUCKLE

The intersection of 2 strands. It is always the width of 2 strands.



OVERALL HEIGHT

The actual measurement of the height of the mesh measured at the knuckle.

WEBFORGE

Through its network of operations throughout Australia, New Zealand and Asia, Webforge has the resources and experience to service a complete range of projects whatever the complexity or size.

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