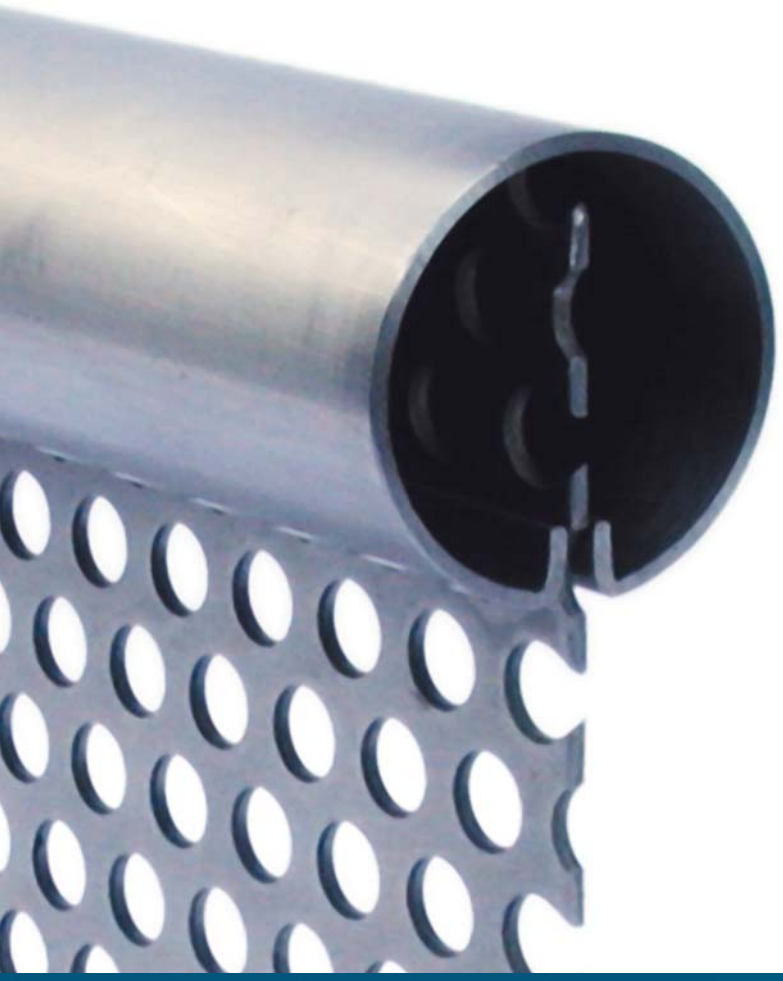
Graepel



Product Range

SERVICING THE INDUSTRY SINCE 1889

IS.EN ISO: 9001:2000

Perforated Metal

Perforated Metal Capabilities

Perforations – Graepel perforate a wide range of round, square, slotted, decorative and UNUSUAL shaped holes on special request. Recent investments allow for smaller and more economical batches of different specifications to be supplied.

Percentage open area – The more popular percentage open areas are between 30% and 50%, although more extreme open areas are available depending on the hole size.

Thickness – While the most popular range tends to be between 0.75mm and 12mm, we can perforate from 0.5 to 25mm thick.

Sheet Size – Our maximum perforating width is currently 2m (preferred width 1.5m) and our maximum length is 6m (preferred length 4m). Please note large sheets are more expensive to handle.

Material Types – We perforate Mild Steel, Pre Galvanised Steel, Stainless Steel, Aluminium, and Brass. Plastics and PVC's by special request.

Material Finishes

Mild Steel – Galvanised, Electro Plated and/or Painted.

Stainless Steel – Mill finish, brushed, bright annealed or Electro polished.

Aluminium – Mill finish, Painted or Anodised.

Brass and Copper – Polished and Lacquered.

Margins or Blank Areas – when perforating your orders, margins can be left on sheets. Please remember that the complexity of the blank areas on the sheet determines the type of machine used for perforating. Complex margins are generally perforated on machines that operate at lower speeds and may work out more expensive.

Bolt Holes – can be included on made-to-order sheets.

Edging – 'Click Profile Edging' and 'U Strip' (pages 8 and 9) can be used to edge standard perforated stock sheets which have no margins. The 'Click profile' unlike 'U' strip, can also be used to stiffen panels.

General Fabrication – We offer a cutting, folding, notching and welding service for those who cannot fabricate themselves.

Galvanising – to extend the lifespan of mild steel, it can be hot dipped galvanised after manufacture. The large ratio of surface area to mass in combination with the temperature differences on localised areas of a sheet contributes to uneven expansion and contraction leading to distortion.

To reduce the amount of relative distortion on a sheet it is important to keep the following in mind.

Sheet size – the smaller the sheet the less noticeable the distortion

Sheet thickness – the thicker the sheet the better

Open area – a lower open area is desirable

Welding – Welding perforated sheet to framing complicates the problem of keeping distortion to a minimum. If perforated sheet is welded to a frame, the frame can expand and contract at a different rate to the sheet. Galvanising safety instructions should be adhered to regarding welding.

Punchings for ballast applications

Rotary screens

Chequerplate walkway

Vent grill

Balustrade infill

Ceiling grills

Louvre

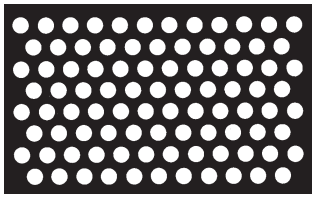
Heavy square

Heavy round

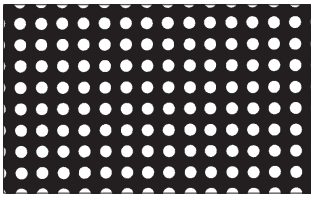
RESH small

Perforating Possibilities

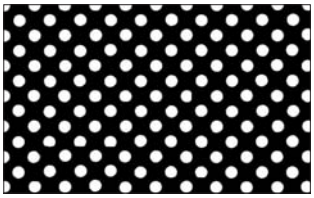
We illustrate a small selection from our wide range of patterns. We can perforate almost any shape that you desire but special tooling may have to be charged for. Some of the unusual perforations tend to take longer to manufacture. Our in-house tool room allows us to produce new tools to suit your requirements. Please contact us for details.



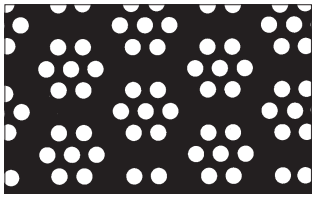
Round 60 degree staggered pitch



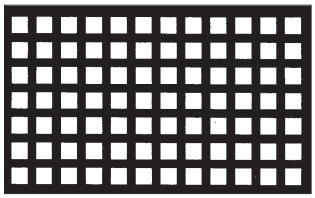
Round 90 degree pitch



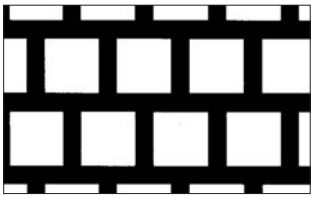
Round 45 degree pitch



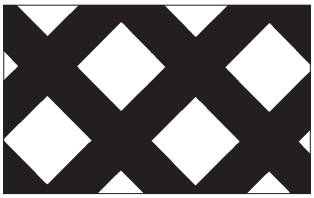
Round floral pattern



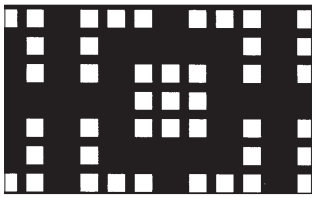
Square 90 degree pitch



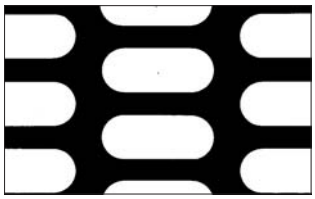
Square 60 degree staggered pitch



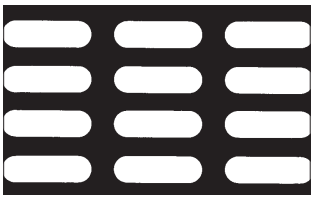
Square 45 degrees



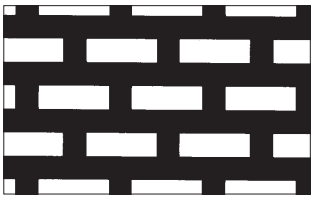
Square Patterned



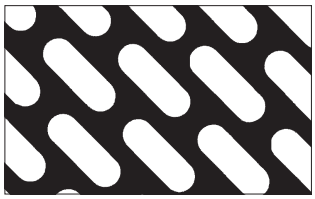
Round Ended Slotted end staggered



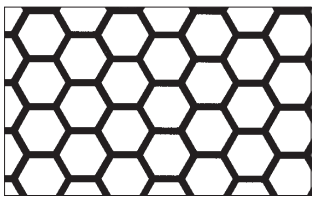
Round Ended Slotted rectangular pitch



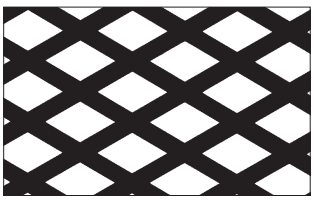
Square ended slotted side staggered



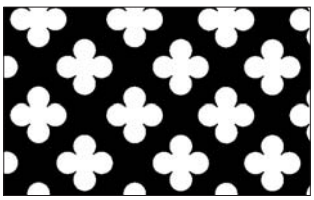
Round ended slotted side staggered at 45 degrees



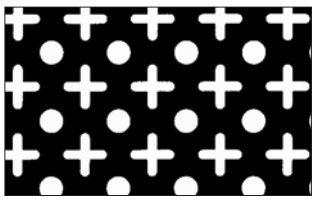
Standard Hexagonal



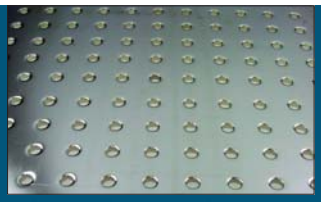
Diamond



Club



Cross and Round



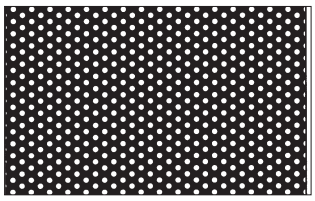
Small round – square pitch

Club and square

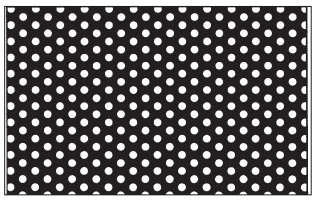
Perforated chequerplate

Floral patterns

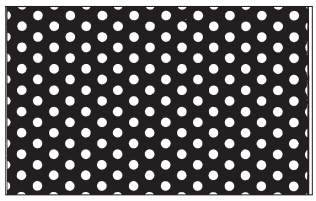
Perforated Metal



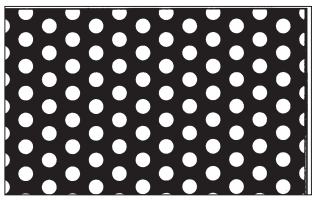
0.5mm round Grae fr050s010



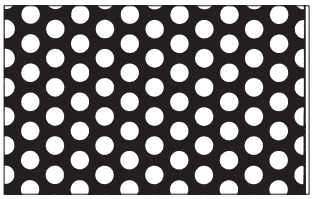
1mm round Grae fr010s020



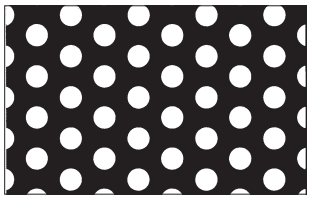
1.6mm round Grae fr016s032



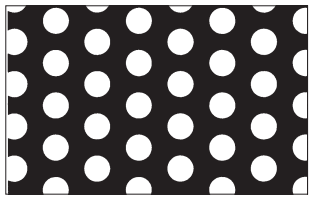
2mm round Grae fr020s042



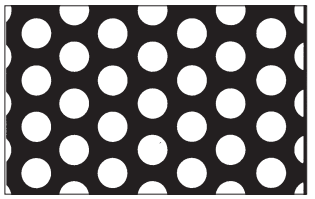
2.5mm round Grae fr025s042



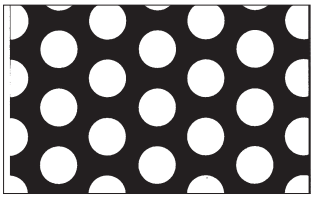
3mm round Grae fr030s050



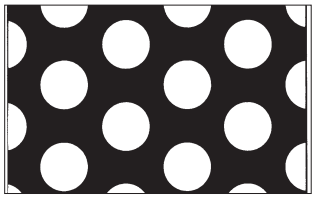
3.5mm round Grae fr035s050



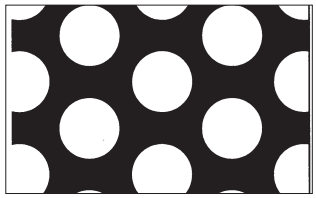
4mm round Grae fr040s065



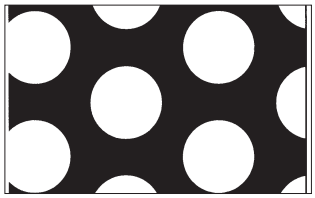
5mm round Grae fr050s075



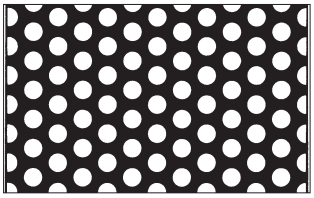
6.35mm round Grae fr063s095



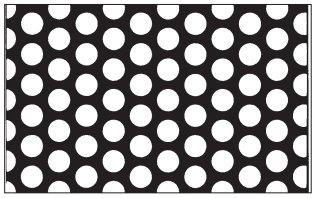
8mm round Grae fr080s111



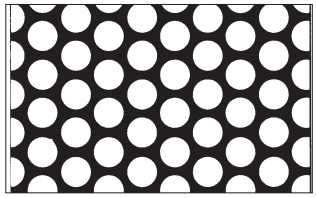
9.5mm round Grae fr095s142



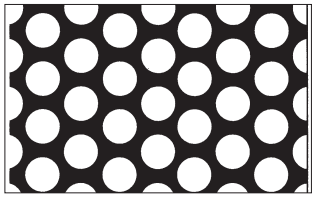
2.5mm round Grae fr025s038



3mm round Grae fr030s040



4mm round Grae fr040s050



4.62mm round Grae fr046s061

Perforated tower

Perforated light cover

Large round heavy plate

Round ended slotted – side staggered

Large round light plate

Diamond

Standard perforated sheet

Reference	Round Perforation	60 degree staggered pitch	% Open Area	Max Thickness in Mild Steel	Max Sheet Width
Grae F R005 S010	0.50	1.00	22.68	0.5	1000
Grae F R010 S020	1.00	2.00	22.68	0.8	1000
Grae F R015 S032	1.50	3.20	19.93	1.0	1250
Grae F R016 S024	1.60	2.45	38.68	1.0	1500
Grae F R016 S032	1.60	3.20	22.68	1.5	1500
Grae F R017 S032	1.75	3.20	27.13	1.5	1250
Grae F R019 S032	1.98	3.20	34.72	1.5	1250
Grae F R020 S042	2.00	4.20	20.57	2.0	1250
Grae F R023 S047	2.38	4.70	23.26	1.0	1250
Grae F R025 S038	2.50	3.80	39.26	2.5	1250
Grae F R025 S040	2.50	4.00	35.43	2.0	2000
Grae F R025 S042	2.50	4.20	32.14	2.5	1250
Grae F R026 S050	2.69	5.00	26.25	1.2	1250
Grae F R027 S050	2.75	5.00	27.44	2.5	1250
Grae F R030 S040	3.00	4.00	51.02	2.5	2000
Grae F R030 S050	3.00	5.00	32.65	3.0	2000
Grae F R032 S050	3.20	5.00	37.15	3.0	1500
Grae F R035 S050	3.50	5.00	44.44	3.0	1500
Grae F R035 S055	3.50	5.50	36.73	3.0	1500
Grae F R037 S055	3.75	5.50	42.16	3.0	1250
Grae F R039 S047	3.96	4.76	62.77	2.5	2000
Grae F R040 S050	4.00	5.00	58.05	1.5	1250
Grae F R040 S056	4.00	5.60	46.28	3.0	1500
Grae F R040 S065	4.00	6.50	34.35	3.0	1500
Grae F R040 S060	4.00	6.00	40.31	3.0	1500
Grae F R045 S065	4.50	6.50	43.47	3.0	1250
Grae F R046 S061	4.62	6.15	51.18	1.5	1500
Grae F R045 S065	4.50	6.50	43.47	3.0	1500
Grae F R047 S075	4.75	7.50	36.38	3.0	1500
Grae F R047 S085	4.75	8.50	28.32	5.0	2000
Grae F R050 S075	5.00	7.50	40.31	3.0	2000
Grae F R051 S065	5.16	6.35	59.89	3.0	2000
Grae F R055 S095	5.55	9.50	30.96	5.0	2000
Grae F R060 S080	6.00	8.00	51.02	6.0	2000
Grae F R063 S095	6.35	9.50	40.52	6.0	2000
Grae F R063 S111	6.35	11.10	29.68	6.0	2000
Grae F R080 R111	8.00	11.10	47.11	3.0	1500
Grae F R080 S127	8.00	12.70	35.99	6.0	2000
Grae F R095 S127	9.50	12.70	50.75	6.0	2000
Grae F R095 S142	9.50	14.20	40.60	8.0	2000
Grae F R095 S190	9.50	19.00	22.68	8.0	2000
Grae F R100 S150	10.00	15.00	40.31	10.0	2000
Grae F R100 S160	10.00	16.00	35.43	10.0	2000
Grae F R110 S190	11.00	19.00	30.40	10.0	2000
Grae F R110 S254	11.00	25.40	17.01	10.0	2000
Grae F R127 S190	12.70	19.00	40.52	3.0	1250
Grae F R130 S190	13.00	19.00	42.46	13.0	2000
Grae F R130 S254	13.00	25.40	23.76	12.0	2000
Grae F R130 S317	13.00	31.75	15.21	13.0	2000
Grae F R140 S190	14.00	19.00	49.24	10.0	2000
Grae F R160 S220	16.00	22.00	47.97	13.0	2000
Grae F R160 S230	16.00	23.00	43.89	5.0	2000
Grae F R190 S250	19.00	25.00	52.39	3.0	2000
Grae F R190 S300	19.00	30.00	36.38	12.0	2000
Grae F R200 S300	20.00	30.00	40.31	3.0	1500
Grae F R250 S300	25.00	30.00	62.99	10.0	2000
Grae F R350 S471	35.00	47.10	50.08	10.0	2000
Grae F R400 0000	40.00	Various	Various	10.0	2000
Grae F R500 0000	50.00	Various	Various	3.0	2000
please note that we can perforate many other hole sizes up to 154mm in size and up to a maximum thickness of 25mm					

Reference	Perforation	Pitch staggered pitch	% Open Area	Max Thickness	Max Sheet Width
Round Countersunk Flooring					
Round Grae F RC095 Q350 D	9.5 @ 45 Degrees	35 x 35	22.68	3.0	2000
Standard Slotted Perforation sizes shown in mm					
Grae F RL080 040 Y122 070	8 X 4	12.2 x 7	33.44	3.0	2000
Grae F RL100 050 E135 090	10 X 5	13.0 x 9	38.14	3.0	2000
Grae F RL063 127 Y172 108	12.7 x 6.35	17.2 x 10.85	38.57	3.0	2000
Grae F RL200 018 Y258 063	20 X 1.8	25.8 x 6.3	21.72	2.0	2000
Grae F RL100 200 Y160 250	10 X 20	16 x 25	44.62	10.0	2000
Grae F RL254 127 Y294 167	25.4 X 12.7	29.4 x 16.7	58.64	3.0	2000
Grae F RL254 127 Y227 354	12.7 x 25.4	22.7 x 35.4	35.83	10.0	2000
Grae F RL254 127 Y314 187	25.4 X 12.7	31.4 x 18.7	49.03	3.0	2000
Standard Countersunk Slotted Perforation shown in mm					
Grae F RLC650 160 Y314 187	25.4 x 12.7	31.4 x 18.7	49.03	3.0	2000
Grae F RLC650 160 Y730 353 D	65 x 16 @ 45 deg	73 x 35.5	38.01	3.0	2000
Standard Square Perforation sizes shown in mm					
Grae F Q050 Q070	5	7	51.02	2.0	2000
Grae F Q060 Q090	6	9	44.44	1.5	1250
Grae F Q100 Q140	10	14	51.02	6.0	2000
Grae F Q120 Q190	12	19	39.89	10.0	2000
Grae F Q120 Q180	12	18	44.44	6.0	2000
Grae F Q160 Q250	16	25	40.96	10.0	2000
Grae F Q250 0000	25	Various	Various	3.0	2000
Grae F Q250 Q523 D	25 @ 45 degrees	52.32	22.83	5.0	2000
Grae F Q254 Q350	25.4	35	52.67	12.0	2000
Grae F Q349 Q471	34.9	47.1	54.90	10.0	2000
Grae F Q380 0000	38	Various	Various	12.0	2000
Grae F Q400 0000	40	Various	Various	10.0	2000
Grae F Q500 0000	50	Various	Various	10.0	2000
Grae F Q750 0000	75	Various	Various	10.0	2000
Standard Dimple Jacket					
Grae F RZ063 0000 DimpleJacket	6.35	Various	Various	3.0	2000
Grae F RZ080 0000 DimpleJacket	8.00	Various	Various	3.0	2000
Grae F RZ127 0000 DimpleJacket	12.70	Various	Various	3.0	2000
Standard Hexagonal Perforations					
Grae F H063 S073	6.35	7.35	74.64	1.2	2000
Please note that we can perforate many other hole sizes up to 154mm in size and up to a maximum thickness of 25mm					

As stock is continually changing, please contact us if your requirements are not listed. We have a selection of standard profile edging for these sheets (Please see pages 8 & 9).

Perforated fencing

Perforated floor tiles

Frequently used perforated stock items highlighted

Large square staggered – heavy plate

Round ended slotted – side staggered – countersunk

Small louvre

Square at 45°

Woven Mesh

Woven Mesh Capabilities

Woven mesh is made in a multitude of sizes and patterns. We can weave very different meshes by including or omitting wires in both directions and changing the crimp patterns of the wire. The range of woven mesh is only limited by the imagination.

Mesh range – 2mm to 150mm

Percentage open area – standard ranges between 50% and 75% outside these can be manufactured to your specification.

Wire thickness –1.2mm to 12mm.

Sheet sizes – Panel sizes up to a maximum of 6 meters long and 2.44m wide falls within the standard range – longer lengths are more difficult to handle.

Material types – high tensile steel, stainless steel and galvanised steel.

Material Finishes

High Tensile steel – black mill finish, hot dipped galvanised, and painted or lacquered.

Stainless Steel – Electro polished or mill finish.

Edging – please see our range of 'U' strip edging profile on pages 8 and 9.

We stock edging for framing sheets with wire thickness up to 6mm thick. Heavier mesh is framed by other means.

General Fabrication – In situations where our customers cannot fabricate, we can offer a cutting, folding, notching and welding service.

Parallelograms (for balustrade infill on stairs) – Fabricating standard woven mesh can be difficult where the wires at the acute corners tend to fall off unless welded before cutting to size. There is little waste created when the mesh is woven loosely and pushed off square to create a parallelogram. The vertical dimension and the sloped dimension remain the same after pushing the panel into the required angle and the mesh tightens up in doing so.

This method eliminates waste, simplifies fabrication and is a very cost effective option. Meshes for pushing off square are generally made with 20mm to 50mm aperture using 5mm to 8mm thick wire.

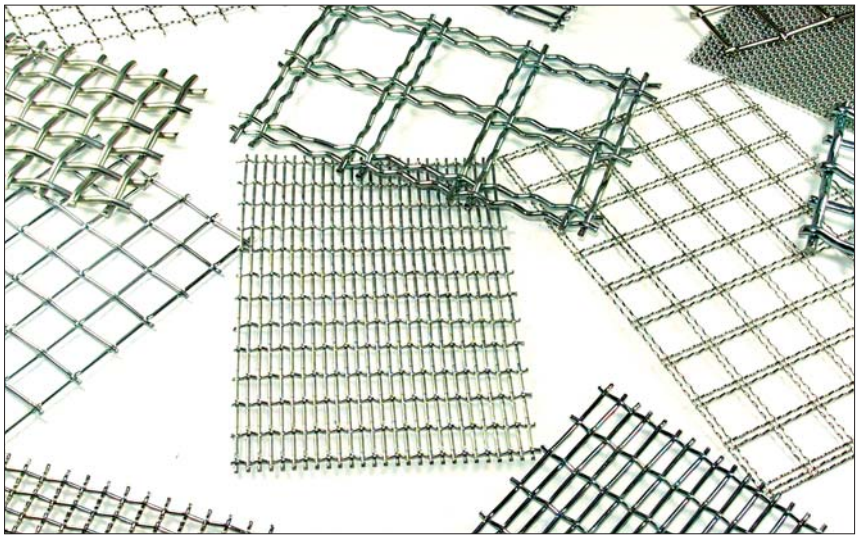
Galvanising – To extend the lifespan of woven mesh it can be hot dipped galvanised after manufacture. The large ratio of surface area to mass in combination with the temperature differences on localised areas of the sheet contributes to uneven expansion and contraction leading to distortion.

When galvanising it is important to keep the following in mind to improve the flatness of the panel.

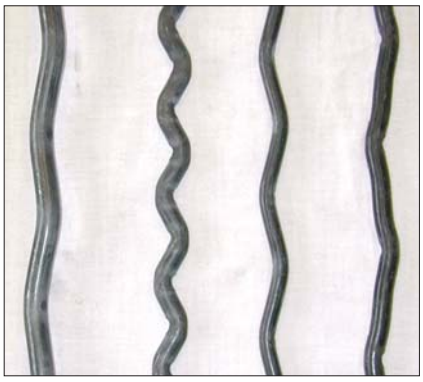
Sheet size – the smaller the sheet the less noticeable the distortion

Wire thickness – the thicker the wire the better

Welding – If both ends of the same wire are welded to a frame that is going to expand and contract at a different rate to the mesh, distortion is going to occur. If, however, only one end of any wire is welded and the welds are staggered, then this will allow a certain amount of movement in the mesh. Galvanising safety instructions should be adhered to regarding welding.



Stainless steel and electroplated selection



Crimped wire

Plain lock weave

Slotted double chute

Tartan

Slotted treble chute

Standard mesh range

High Tensile Woven Mesh Range - (Please note that the figures in the boxes represent the mesh weight per square meter)

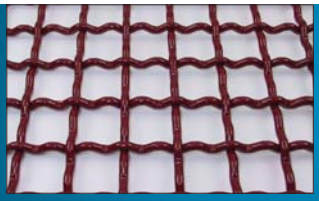
Wire Diameter	1.2	1.6	2	2.36	2.5	2.65	3	3.2	4	5	6.35	8	9.5	10	12
Clear mesh Size	0.905	0.01608	0.02513	0.03499	0.03927	0.04412	0.05654	0.06433	0.10053	0.15707	0.25335	0.40212	0.56705	0.62832	0.90478
2	5.66														
2.38	5.06	8.08													
2.4	5.03	4.53	11.42												
2.5	4.89	7.84	11.17												
3	4.31	6.99	10.05	13.06											
3.2	4.11	6.70	9.67	12.59											
4	3.48	5.74	8.38	11.00	12.08	13.27									
4.76	3.04	5.06	7.43	9.83	10.82	11.91	14.57								
5	2.92	4.87	7.18	9.51	10.47	11.53	14.36								
6.35		4.05	6.02	8.03	8.87	9.80	12.09	13.47							
7		3.74	5.58	7.48	8.27	9.14	11.31	12.61	18.28						
8			5.03	6.75	7.48	8.29	10.28	11.49	16.76						
9.5			4.37	5.90	6.55	7.26	9.05	10.13	14.89	21.66					
10				5.66	6.28	6.98	8.70	9.75	14.36	20.94					
11				5.24	5.82	6.46	8.08	9.06	13.40	19.63					
12					5.42	6.02	7.54	8.46	12.57	18.48					
12.7						5.75	7.20	8.09	12.04	17.75					
14						5.30	6.65	7.48	11.17	16.53					
15							6.28	7.07	10.58	15.71					
15.5							6.11	6.88	10.31	15.32	23.19				
16							5.95	6.70	10.05	14.96					
17.5							5.52	6.22	9.35	13.96	21.25				
19							5.14	5.80	8.74	13.09	19.99				
21								5.32	8.04	62.83	79.80				
22								5.11	7.73	11.63	17.87	26.81			
24								4.73	7.18	10.83	16.70				
25.4								4.50	6.84	10.33	15.96	24.08			
28.6									6.17	9.35	14.50	21.97			
30									5.91	8.98	13.94	21.16	28.71		
32									5.59	8.49	13.21	20.11	27.33		
35										7.85	12.25	18.70	25.49		
38										7.31	11.43	17.48	23.88		
40										6.98	10.93	16.76	22.91		
41										6.83	10.70	16.41	22.46		
42										6.68	10.48	16.08			
44											10.06	15.47	21.20		
45											9.87	15.17			
48											9.32	14.36	19.72		
50											8.99	13.87	19.06	20.94	
51											8.84	13.63	18.75		
52											8.68	13.40	18.44		
55											8.26	12.77	17.58	19.33	
57											8.00	12.37	17.05	18.76	
60												11.83	16.32	17.95	
63												11.33	15.64	17.21	
65												11.02	15.22	16.76	
70												10.31	14.27	15.71	
73												9.93	13.75	15.14	21.29
75													13.42	14.78	20.80
76													13.26	14.61	20.56
89													11.51	12.69	17.92
102													10.17	11.22	15.87
127															13.02
152															11.03

Max Weaving Width 1830mm | Max Weaving Width 1600mm

Standard square mesh shown in approximate weight per square meter. | Square mesh double Crimp range approximate weight per square meter. | Tartan Mesh | Lock Crimp

Plain slotted double crimp

Square flat top lock



Square double crimp

Lock Slotted Mesh

Profile Edging

FOR PERFORATED METAL AND WOVEN MESH

Manufacturing perforated sheets with blank margins can be costly and time consuming where many different sizes and small quantities of panels are involved.

Graepel 'Click Profile' and 'U strip' are designed so that standard sheeting can be easily framed enabling stock sheeting to be used, thus saving time and money.

'Click Profile' frames raw edges and helps to make floppy sheets rigid.

'U Strip Profile' frames raw edges of sheets but contribute less to the stiffness due to its flatter profile.

'Click Elbow' aligns joints making it possible to edge panels without having to weld the corners. Any angle can be obtained by simply bending the profile to the required shape before insertion.

Lengths – Click profile is available in 3m lengths and 'U' strip in 3.8m lengths.

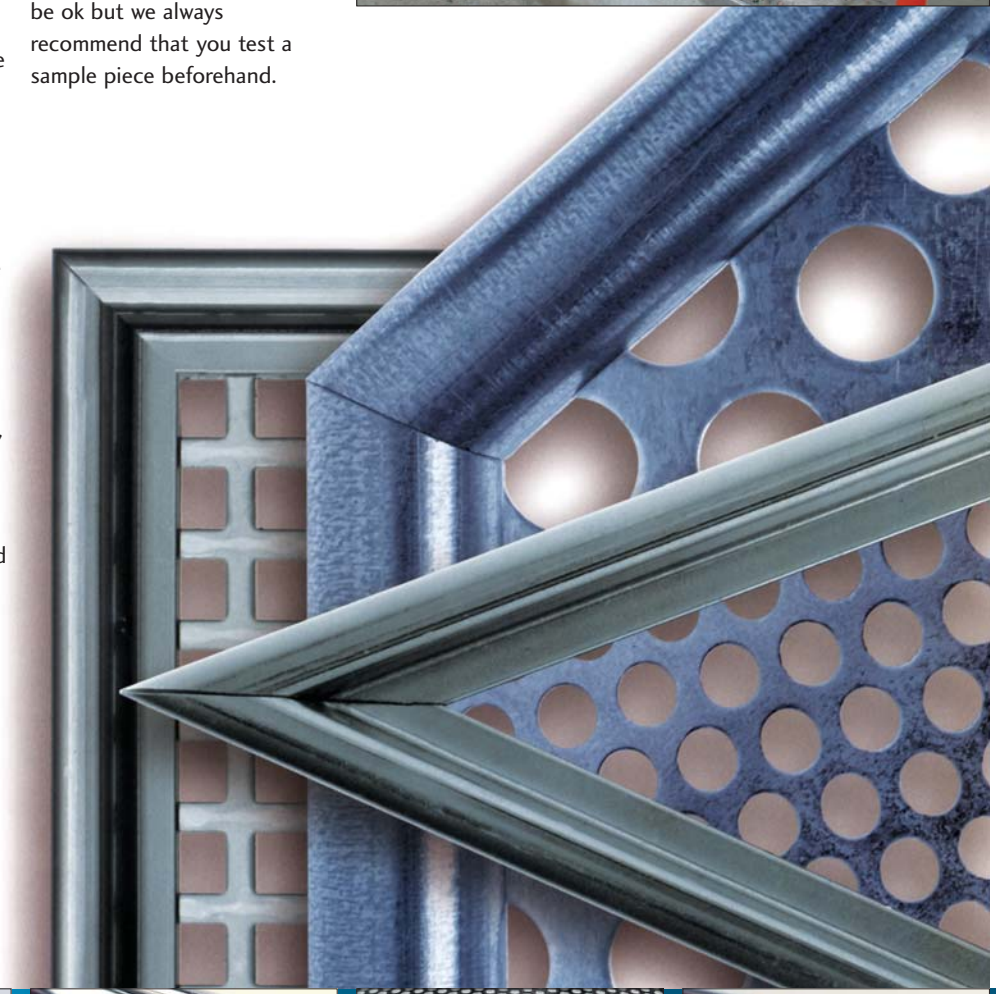
Material types – Click Profile and 'U' strip is available in mild steel, (galvanised steel - click profile only) and stainless steel.

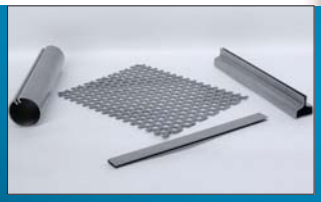
Material Thickness – 1.2mm for click profile and between 0.6mm and 2.5mm for U strip.

Galvanising – Galvanising click profile is possible but it is not recommended however small panels have been known to be successful. We would recommend that you test a sample piece before going ahead with your project.

Galvanising panels with 'U' strip profile is easier provided that they are not too large. Balustrade sized panels tend to be ok but we always recommend that you test a sample piece beforehand.

Click Round with perforated sheeting



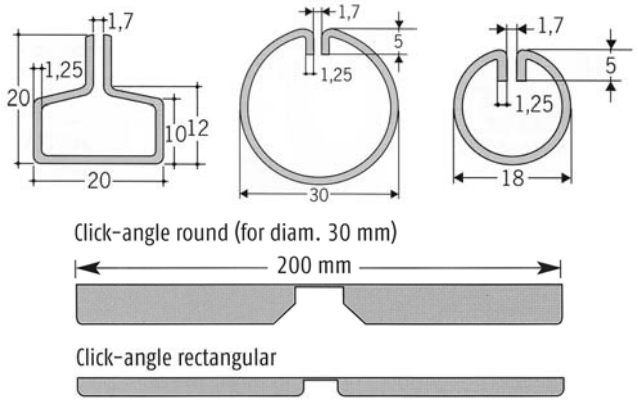


Edging Profile Range

Click Round

Click Round with elbows

Click Rectangular



The Click Elbow Joints are useful in situations where it is difficult to weld the profile together or where very clean joints are required.

Graepel Click Rectangular and Round are available in 3m lengths ex-stock in: Mild Steel, Galvanised, and Stainless Steel.

The list below shows a selection of our stock of edging U-Strip in both Stainless Steel and Mild Steel.

section profile	ref	depth	gauge	gap	length	weight
full size		mm	mm	mm	metres	kg
	us2	6.35	0.6	1.8	1.90	0.14
	us3	12.7	0.90	1.8	2.54	0.50
	us4	19.05	1.20	1.8	3.81	1.46
	us5	31.75	1.20	1.8	3.81	2.38
	us6	12.7	0.90	3.4	2.54	0.56
	us7	19.05	1.20	3.4	3.81	1.49
	us8	31.75	1.20	3.4	3.81	2.41
	us9	19.05	1.20	6.5	3.81	1.60
	us10	31.75	1.20	6.5	3.81	2.52
	us11	19.05	1.50	10.16	3.81	1.71
	us12	25.40	1.50	10.16	3.81	2.40
	us13	25.40	2.50	10.16	3.81	3.88
	us14	38.10	1.50	10.16	3.81	3.47
	us15	38.10	2.50	10.16	3.81	5.80

Click Rectangular with perforated sheeting

U strip edging on perforated sheet

Click Rectangular with elbows

'U' Strip

U Strip Profile

Click rectangular with elbow inserts

Duct Covers

LIGHT WEIGHT AND LIGHT EMITTING SHAFT COVERS

Strong, readily available and more economical

MATERIALS & SPECIFICATIONS

Available in mild steel from 6mm to 25mm thick. Perforated to your requirements in a parallel or staggered arrangement. Widths and lengths to specifications. Finish usually offered in mild steel but can be galvanised or painted to customers order.

Stainless Steel also available to satisfy health and safety requirements in the food and chemical industries.

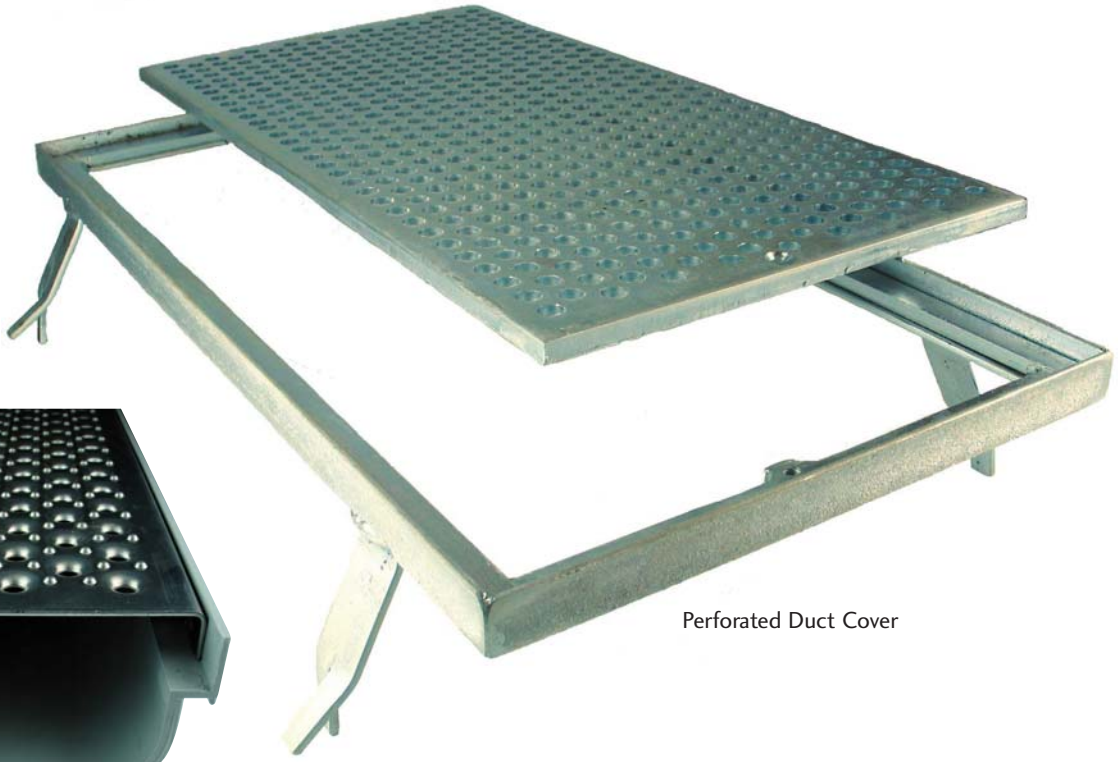
LAYERED PERFORATED DUCT COVERS

A fine aperture is sometimes required in combination with high load bearing properties. A solution may be obtained by placing a thinner, finely perforated sheet on top of the thick plate which has larger holes. Connection of the two is obtained either by tack welding, or, if the thinner sheet must be removed for cleaning purposes, countersunk screws are applied.

GRAEPEL PERFORATED DUCT COVERS

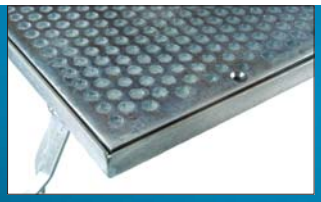
Usually made from mild steel plate which is cut to the required sizes, perforated in accordance with builders specification and subsequently surface treated to your requirement.

Perforations must be equal to or larger than plate thickness.



Perforated Duct Cover

Safedeck Round N Duct Cover



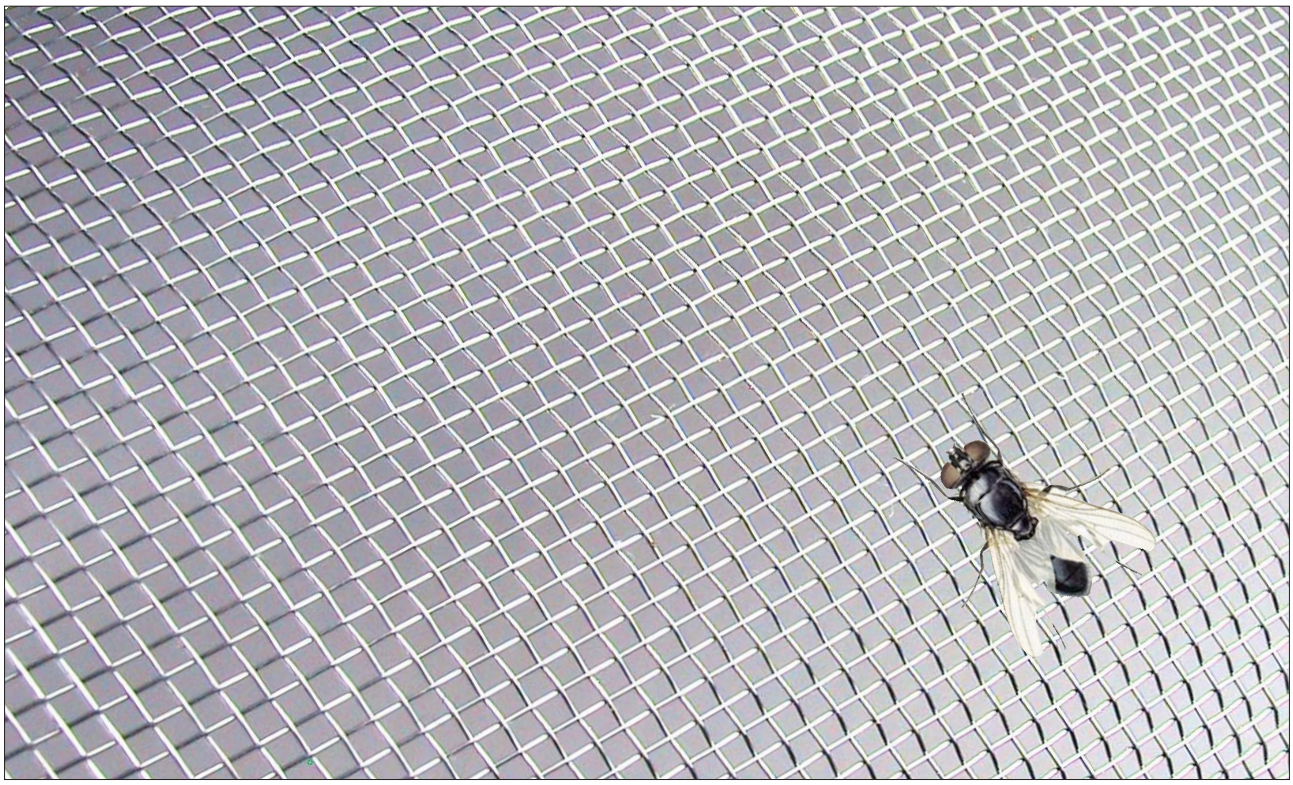
Perforated duct cover

Flat bar duct cover

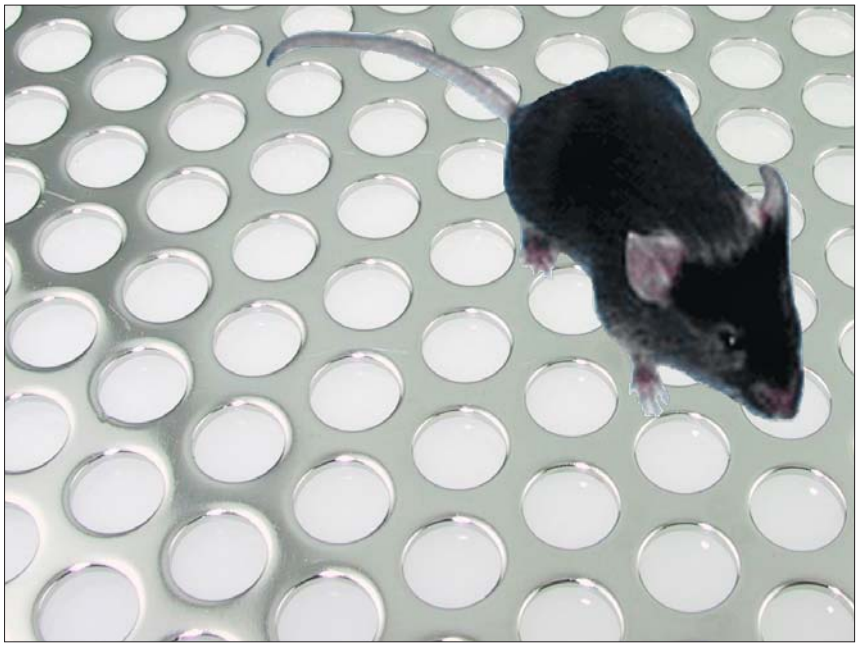
Perforated duct

Flat bar ducting

Fly & Vermin Mesh



Woven stainless steel or galvanised fly mesh



With stricter hygiene and food regulations all food handling and preparation areas e.g. Bakeries, Creameries, Abattoirs, Food Processing Plants, Restaurants, Canteens, Dairies, Pub Kitchens and Hotels have requirements for fly/insect mesh and vermin mesh screens.

Graepel Fly and Vermin meshes are available in Stainless Steel, Galvanised Steel and Aluminium, in Perforated Sheeting and Woven Mesh in sheets and coil. Woven fly mesh is useful where visibility and airflow are essential, while perforated fly mesh is used where durability is more important, in areas such as doorways.

Vermin mesh is supplied in heavier material with maximum aperture sizes of 6.35mm for mice and 9.5mm for rats.

Expanded Fly Mesh

Perforated Fly Mesh

Woven Fly Mesh

Vermin Mesh

Welded Mesh

welded mesh stock range in steel & galvanised	
Mesh Size mm	Wire Thickness mm
75x12	2.5
25	2.5
25	3.0
50	3.0
50	4.0
50	5.0
50 x 25	3.0
75	3.0
75	4.0
75	5.0
stainless steel	
13	2.5
20	3.0
25	3.0
30	3.0
38	4.0
50	3.0
50	5.0

welded mesh coils galvanised			
Mesh Size mm	Wire mm	Coil Width mm	Coil Length m
6.0	0.6	900	30
13.0	1.0	900	30
13.0	1.5	914	30
19.0	1.5	914	30
25.0	1.5	914	30
25.0	1.5	1220	30
25x12	1.5	900	30
50.0	1.6	900	30
stainless steel			
50.0	2.5	900	25
50.0	2.5	1220	25
6.0	0.6	900	6
12.7	1.0	900	6
6.0	0.6	900	30
13.0	1.6	1200	30

Welded Mesh Sheets

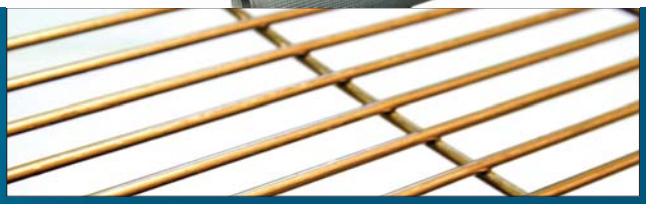
Welded Mesh

Graepel welded mesh is stocked in sheet and coil in mild steel, galvanised and stainless steel.

Please see the charts on the left for standard sizes. We can also supply mesh made to size. Please contact us with your enquiries.

Welded Mesh Coils

Square Mesh



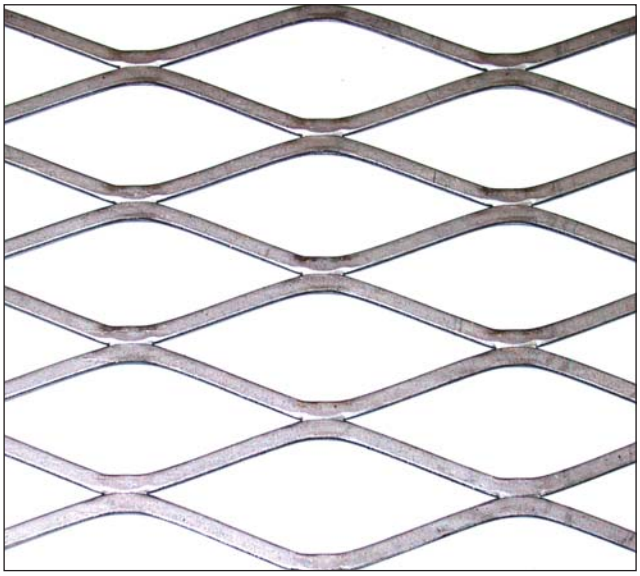
Slotted Mesh

Expanded Mesh

raised expanded mild steel mesh						
Reference	LW	SW	Width	Thick	Weight	Open Area
Number	mm	mm	mm	mm	kg/m²	% of whole
TM 020R	5.8	3.5	0.8	0.6	2.1	44%
TM 078R	19.0	7.4	1.7	1.0	3.4	55%
TM 124R	30.5	11.7	2.4	1.6	4.9	62%
TM 126R	30.5	11.7	2.4	1.2	3.8	61%
TM 157R	38.0	16.5	2.2	1.6	3.4	76%
TM 201R	50.8	22.5	2.5	2.5	4.4	77%
TM 203R	50.8	22.5	3.0	1.6	3.4	80%
TM 208R	50.8	22.5	3.9	3.0	8.1	69%
TM 209R	50.8	22.5	3.1	3.0	6.5	71%
TM 302R	76.2	33.9	3.5	3.0	4.9	78%
TM 336R	85.7	40.6	3.2	3.0	3.7	84%
TM 405R	101.6	50.8	5.0	3.0	4.7	82%
TM 407R	101.6	50.8	3.4	3.0	3.1	85%
TM 459R	114.3	39.3	4.6	3.0	5.4	82%
TM 008R	200.0	75.0	6.3	3.0	3.6	

flattened expanded mild steel mesh						
Reference	LW	SW	Width	Thick	Weight	Open Area
Number	mm	mm	mm	mm	kg/m²	% of whole
TM 026F	3.8	2.1	0.8	0.6	2.1	46%
TM 074F	14.2	4.8	1.8	0.9	3.3	52%
TM 120F	24.4	7.1	2.4	1.1	3.4	57%
TM 129F	23.1	5.8	3.2	1.5	6.3	43%
TM 154F	32.7	10.9	3.2	1.5	4.3	59%
TM 155F	33.5	12.4	2.3	1.1	2.5	71%
TM 203F	42.9	14.2	4.6	2.7	8.6	58%
TM 204F	39.1	18.3	4.7	2.7	7.6	60%
TM 207F	43.2	17.8	3.2	1.5	3.2	69%
TM 334F	69.8	37.1	5.5	2.1	3.9	75%

Walkway Meshes						
Reference	LW	SW	Width	Thick	Weight	Open
Number	mm	mm	mm	mm	kg/m²	Area
TM 122R	30.4	12.7	4.7	2.5	14.6	
TM 246R	62.0	25.0	6.1	4.5	17.7	
TM 486R	120.0	36.0	6.5	4.5	13.8	
TM 487R	120.0	36.0	8.1	4.5	17.2	



Light flattened mesh

Expanded Mesh

Graepel expanded mesh is stocked mostly in sheet form with some small mesh sizes being available in coil form. Expanded mesh is made in Mild Steel, Pre-Galvanised Steel, Aluminium and Stainless Steel. Please see the charts on the left for standard sizes in mild steel. We can also supply mesh made to size. Please contact us with your enquiries.

Heavy flattened mesh

Light raised mesh

Heavy raised mesh

Fine Woven (Filter Mesh)

The plain square mesh shown in the table overleaf are those widely used in industry and are available ex-stock from our works. Specifications highlighted in blue are generally recognised as being "Standards". They are more readily available and usually more economical to purchase. Woven Wire Mesh is sold as cut pieces or in rolls. Standard widths are 1000mm and 1220mm, but other widths can be made. We also have the facilities to manufacture discs, panels, strips, filters and screens. The listed specifications are available in a number of materials. Brass, Copper, and Phosphor Bronze made to order.

GALVANISED MILD STEEL

(Mesh range 2-100)

This is the most economically priced metal which is also strong and resistant to abrasion. Galvanising helps against corrosion.

STAINLESS STEEL

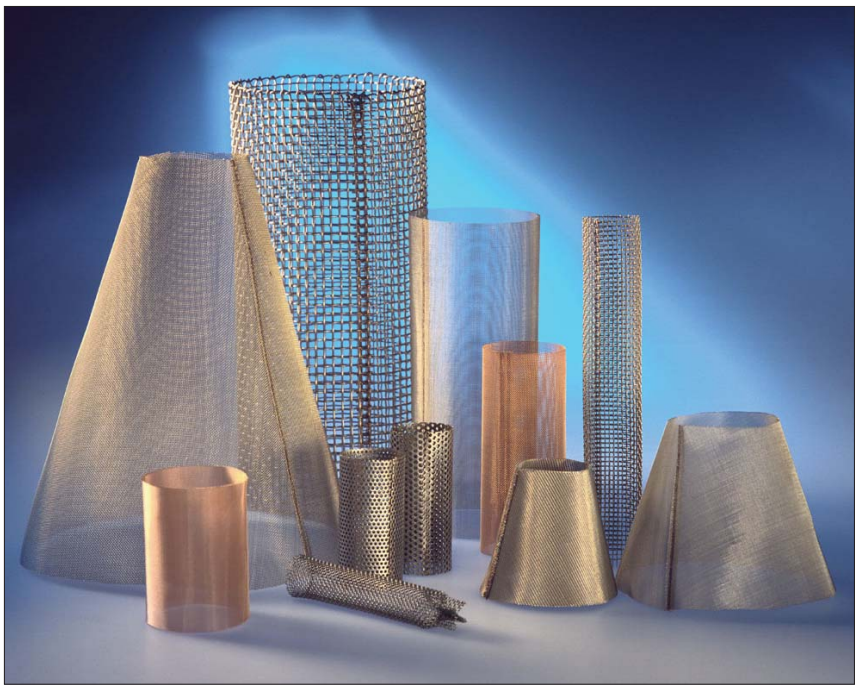
(Mesh range 2-400)

This is the metal to specify if you require strength durability and resistance to corrosion. It has wide use in the manufacture of food, chemical, and pharmaceutical products.
Several grades of steel are available for varying conditions.

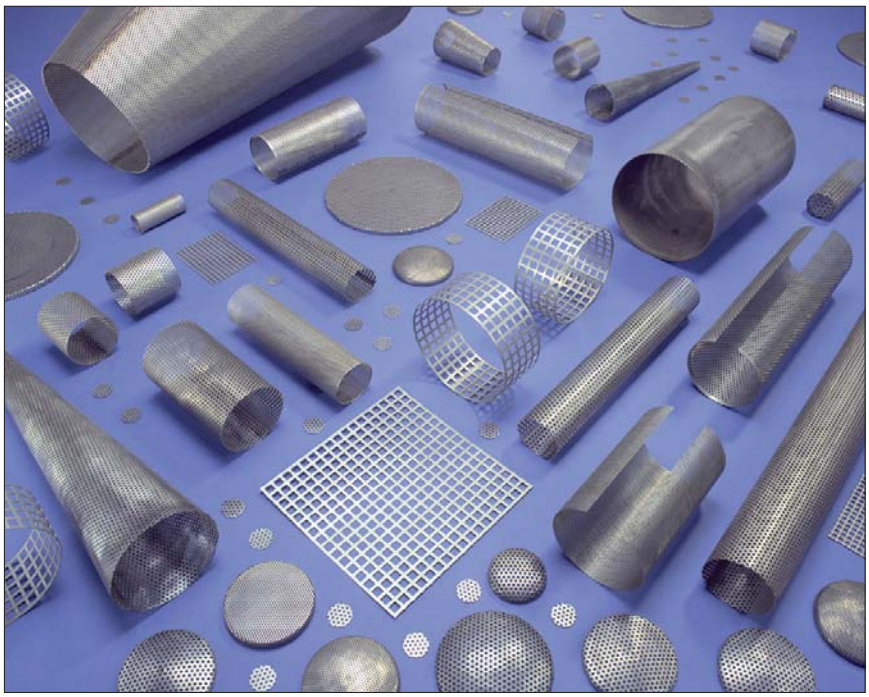
MONEL

(Mesh range 4-300)

One of the more expensive metals that is used principally when chemical corrosion is an important factor. It is resistant to many acids, alkalis, brines, etc. and is slightly more resistant to abrasion than galvanised.



Filters made to your requirements



Filters made to your requirements

Conical Filter

Washer Shaped Filter

Circular Filter

Corrigated Filter

EX-STOCK IN MILD STEEL, GALVANISED MILD STEEL AND STAINLESS STEEL. OTHER MATERIALS ALSO AVAILABLE

Mesh	Gauge	Wire Diameter mm	Aperture mm	Open Area %
2	10	3.15	9.55	55
	11	3.00	9.7	59
	12	2.65	10.05	36
	13	2.36	10.34	67
	14	2.00	10.70	17
	15	1.80	10.90	73
	16	1.60	11.10	76
	17	1.40	11.30	79
	18	1.25	11.45	82
3	10	3.15	5.31	38
	12	2.65	5.81	47
	14	2.00	6.46	58
	16	1.60	6.87	65
	18	1.25	7.22	73
4	12	2.65	3.70	34
	13	2.36	3.99	40
	14	2.00	4.35	46
	15	1.80	4.55	51
	16	1.60	4.75	55
	17	1.40	4.95	60
	18	1.25	5.10	65
	19	1.00	5.35	71
	20	0.90	5.45	73
5	12	2.65	2.43	23
	14	2.00	3.05	36
	16	1.60	3.48	46
	17	1.40	3.67	52
	19	1.00	4.08	64
	20	0.90	4.17	67
6	16	1.60	2.63	38
	17	1.40	2.83	44
	18	1.25	2.98	51
	19	1.00	3.23	58
	20	0.9	3.33	61
	21	0.80	3.43	65
	22	0.71	3.52	69
	23	0.60	3.63	73
	24	0.56	3.67	75
8	16	1.60	1.57	24
	17	1.40	1.77	30
	18	1.25	1.92	38
	19	1.00	2.17	46
	20	0.90	2.27	51
	21	0.80	2.37	55
	22	0.71	2.46	60
	23	0.60	2.57	65
	24	0.56	2.16	68
	33	0.25	2.92	85
	34	0.236	2.939	86
10	20	0.900	1.640	41
	21	0.800	1.740	46
	22	0.710	1.830	52
	23	0.600	1.940	58
	24	0.560	1.980	61
	25	0.500	2.040	64
	26	0.450	2.090	67
	27	0.425	2.115	70
	28	0.375	2.165	73
12	20	0.900	1.217	32
	21	0.800	1.317	38
	22	0.710	1.407	44
	23	0.600	1.517	51
	24	0.560	1.557	54
	25	0.500	1.617	58
	26	0.450	1.667	61
	27	0.425	1.692	64
	28	0.375	1.747	68

Mesh	Gauge	Wire Diameter mm	Aperture mm	Open Area %
14	22	0.710	1.104	37
	24	0.560	1.254	48
	25	0.500	1.314	52
	26	0.450	1.364	56
	28	0.375	1.431	63
	30	0.315	1.5	68
	32	0.280	1.534	72
16	22	0.710	0.877	30
	23	0.600	0.987	38
	24	0.560	1.027	42
	25	0.500	1.087	46
	26	0.450	1.137	51
	27	0.425	1.162	54
	28	0.375	1.212	58
	29	0.355	1.232	61
	30	0.315	1.272	64
20	24	0.560	0.710	31
	25	0.500	0.770	36
	26	0.450	0.820	41
	27	0.425	0.845	45
	28	0.375	0.895	50
	29	0.355	0.915	53
	30	0.315	0.955	57
	31	0.300	0.970	59
	32	0.280	0.990	61
24	26	0.450	0.608	32
	27	0.425	0.633	37
	28	0.375	0.683	41
	29	0.355	0.703	45
	30	0.315	0.743	49
	31	0.300	0.758	52
	32	0.280	0.778	55
28	27	0.425	0.482	28
	28	0.375	0.532	34
	29	0.355	0.552	38
	30	0.315	0.592	43
	31	0.300	0.607	46
30	27	0.425	0.422	25
	28	0.375	0.472	31
	29	0.355	0.492	35
	30	0.315	0.532	39
	31	0.300	0.547	42
	32	0.280	0.567	46
	33	0.250	0.597	49
	34	0.236	0.611	52
	36	0.190	0.657	59
36	32	0.280	0.426	37
	33	0.250	0.456	41
	34	0.236	0.470	44
	35	0.212	0.494	48
	36	0.190	0.516	52
40	30	0.315	0.320	26
	31	0.300	0.335	29
	32	0.280	0.355	32
	33	0.250	0.385	36
	34	0.236	0.399	40
	35	0.212	0.423	44
	36	0.190	0.445	48
50	33	0.250	0.258	26
	34	0.236	0.272	29
	35	0.212	0.296	34
	36	0.190	0.318	38
	37	0.170	0.338	44
	38	0.150	0.358	49

Mesh	Gauge	Wire Diameter mm	Aperture mm	Open Area %
60	35	0.212	0.211	25
	36	0.190	0.233	29
	37	0.170	0.253	35
	38	0.150	0.273	40
	39	0.132	0.291	47
	40	0.125	0.298	50
70	37	0.170	0.193	27
	38	0.150	0.213	33
	39	0.132	0.231	40
	40	0.125	0.238	43
	42	0.100	0.263	51
80	37	0.170	0.147	21
	38	0.150	0.167	27
	39	0.132	0.185	34
	40	0.125	0.192	38
	41	0.112	0.205	42
	42	0.100	0.217	46
90	40	0.125	0.157	32
	41	0.112	0.170	36
100	41	0.112	0.142	31
	42	0.100	0.154	36
	43	0.090	0.164	41
120	42	0.100	0.116	27
	43	0.090	0.126	32
	44	0.080	0.136	37
140	43	0.090	0.091	25
	44	0.080	0.101	30
	45	0.071	0.110	36
150	44	0.080	0.089	27
	45	0.071	0.098	34
	45	0.076	0.093	34
160	45	0.071	0.088	30
	46	0.060	0.099	37
	47	0.050	0.180	47
165	47	0.050	0.104	45
180	45	0.071	0.070	24
	46	0.060	0.081	31
	47	0.050	0.091	40
200	46	0.060	0.067	27
	47	0.050	0.077	36
250	48	0.040	0.061	36
	48	0.036	0.065	41
300	48	0.036	0.049	33
	49	0.030	0.055	41
325	48	0.036	0.042	29
350	49	0.030	0.042	34
400	50	0.025	0.038	36

Apart from the plain, square meshes shown, there are a number of other weaving processes and finishes readily available for specialist applications.

They include: Double Crimped, Square Mesh Twill, Single Plain Dutch or "hollander", Plain Twill or Micromesh, and reverse.

Cylindrical filter woven outer

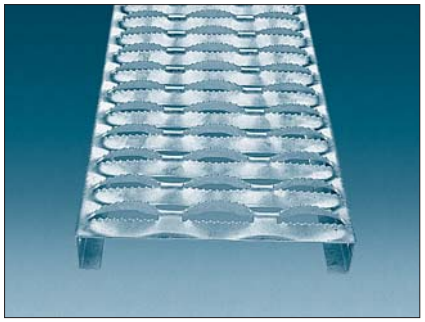
Compressed knitted filter

Perforated small bowl filter

Small circular filter

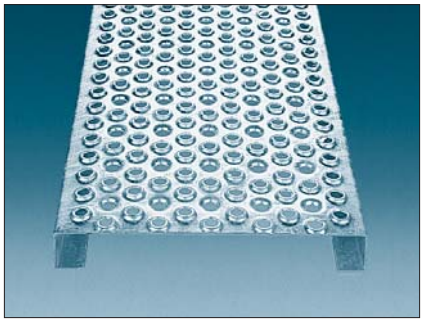
SafeDeck steel flooring

PROFILED SAFETY GRATINGS



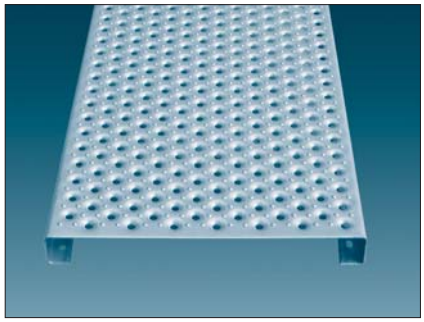
GRAEPEL - STABIL S

An extreme and uncompromising anti-slip effect, displacement area and drainage effect; very high loading capacity with substantial cost advantages for structural steel work. Panels up to 800mm wide and 6,000 mm long.



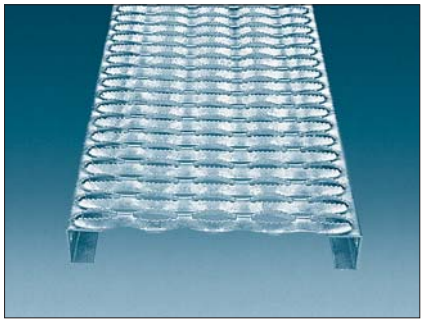
GRAEPEL - ROUND

A round grating with good anti-slip effect, adequate displacement area and drainage effect, primarily used for buildable parts such as scaffolding planks, treads and ladder rungs for trucks and commercial vehicles.



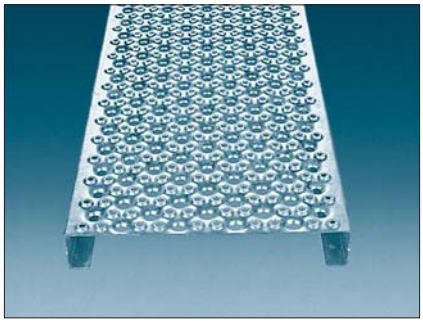
GRAEPEL - ROUND N

This newly developed grating is a mixture of round perforation and conical stamping with drainage effect. It can be walked on in bare feet and be used both indoors and outdoors.



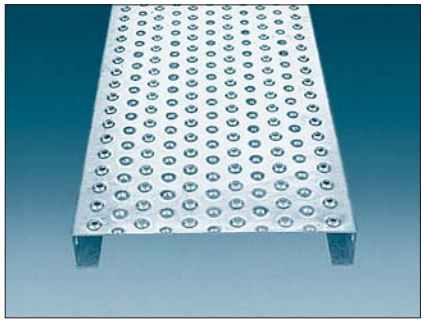
GRAEPEL - STABIL

The classic Graepel safety grating universally used on surfaces, walkways, stairs and in structural steel work; panels up to 480mm wide and 12,000mm long; hot galvanised up to 6,000mm.



GRAEPEL - ROUND S

A universal grating for use on surfaces and stairs; with good anti-slip effect, adequate displacement area and good drainage effect. Panels up to 420mm wide and 12,000mm long; hot galvanized up to 6,000mm.

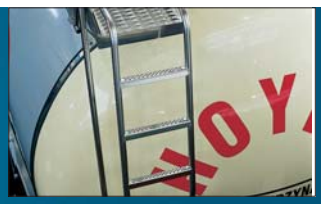


GRAEPEL - ROUND K

An “open safety grating” excellent for pedestrian walkways and also for industrial use such as canteens and abattoirs.

Portable Folding Stairs

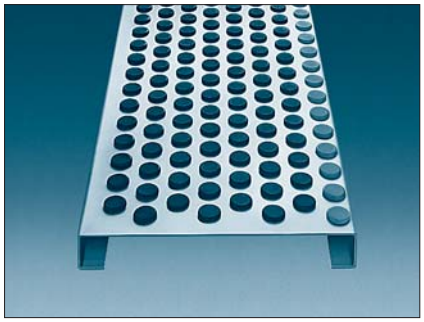
SafeDeck Stabil



Tanker with SafeDeck

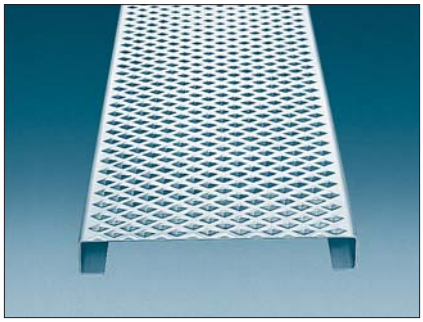
Portable Pedestrian Bridge

FOR MORE INFORMATION ON SAFEDECK PRODUCTS

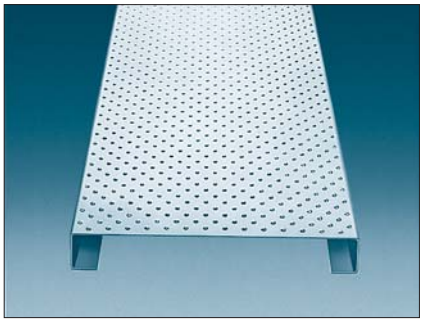


GRAEPEL - RUBBER STUD

A Graepel safety grating that is, thanks to its rubber studs, as quiet as a mouse. With its good anti-slip characteristics and attractive appearance, it is a popular choice for stairs and surfaces in modern interior installation.

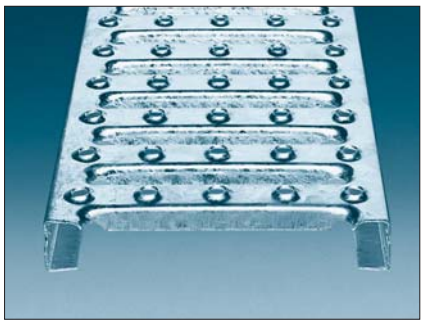


GRAEPEL - DIAMOND



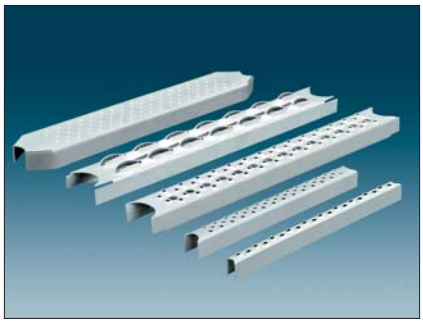
GRAEPEL - CONE

These two gratings with closed surface are used in industrial and public areas where technical functionality meets architectural demands indoors. On one hand a certain degree of anti-slip safety and displacement area must be provided, on the other hand one should not be able to look through the gratings, objects should not fall through them and the gratings should be suitable for light footwear.



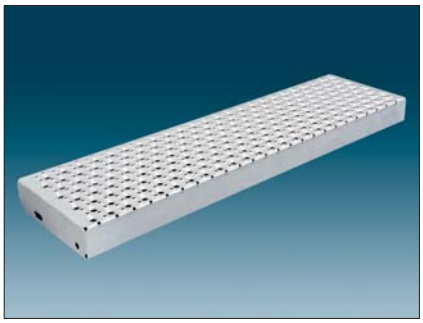
GRAEPEL - STEG

This grating excels by its practical design and high load-carryng capacity. It is recommended for large areas in industrial plants.



GRAEPEL - RUNGS

Graepel rungs are designed to meet highest standard requirements. Different standard designs guarantee safestanding, especially under extreme working conditions.



GRAEPEL - STAIRWAY STEPS

Different types are available in most SafeDeck patterns.

Profiled safety gratings are available in: mildsteel, steel/hot-galvanised, steel/strip-galvanised, high-grade stainless steel, aluminium.

Safedeck Cone Stairs

Exhibition Area

SafeDeck Stabil Ramp

Stepping Plates

Flat bar flooring

Flat Bar flooring is stocked in self colour and galvanised steel.

- Full 6m x 1m mats
- Cut to size for you to fabricate
- Fully fabricated to your drawings

We also supply:

- Universal holding down clips
- Pyramid anti-slip nosing

load	application
3kN/m²	Access limited to one person
5kN/m²	Two way pedestrian traffic
7.5kN/m²	High density pedestrian traffic

The following are the typical clear spans that will give a deflection of less that 10mm or 1/200th of the span as defined in BS 4592 and BS 5950 when subject to the uniformly distributed loads shown below. For critical applications please ask for the relevant technical sheet.

bearer bar	weight shown in kg/m²			maximum clear span shown in millimetres								
				3kN/m²			5kN/m²			7.5kN/m²		
	33x100mm	41x100mm	41x50mm	33x100mm	41x100mm	41x50mm	33x100mm	41x100mm	41x50mm	33x100mm	41x100mm	41x50mm
20x3	-	15.0	-	-	1090	-	-	920	-	-	800	-
25x3	20.5	17.5	20.0	1675	1565	1600	1335	1212	1305	1090	989	1054
25x5	33.4	28.5	33.0	2000	1707	1970	1598	1322	1570	1330	1080	1320
30x3	24.0	20.6	23.6	2069	1878	2000	1602	1454	1580	1308	1187	1295
30x5	39.5	33.6	38.8	2410	2049	2390	1963	1587	1950	1602	1296	1580
35x3	-	29.7	-	-	1900	-	-	1600	-	-	1400	-
35x5	-	39.0	-	-	2190	-	-	1900	-	-	1675	-
40x3	-	26.7	-	-	2504	-	-	1939	-	-	1582	-
40x5	-	43.6	-	-	2732	-	-	2116	-	-	1728	-

Clear span is the unsupported distance between the supporting steelwork. Allow at least 30mm support on either side. For galvanised weights add 8%

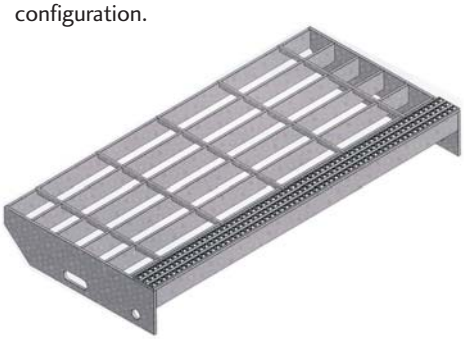
Open bar stair treads are fabricated from flooring manufactured to BS 4592. Slotted end plates and slip resistant pyramid nosing are supplied as standard. Unless otherwise stated, mesh type 40/100 will be supplied and the depth of treads is in 40mm steps to conform to this configuration.

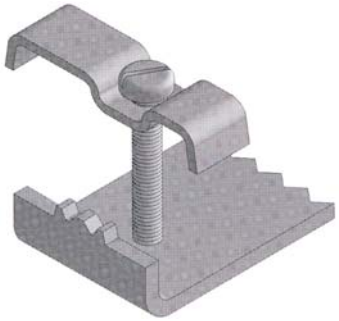
Treads can also be made in Expanded Metal or Durbar (with or without rear flange).

For your own fabrication we supply:

- End plates to our standard or your own drawing
- Pyramid nosing in cut or 6m lengths

standard sizes	
tread width	bearer bar height x width
700	25x3
800	25x5
900	30x3
1000	30x3
1200	30x5
tread width	hole centre to hole centre
245	100
285	125
325	125





PCL 002 WALKWAY CLIP

50x5mm serrated base plate with universal top clip-robust and reliable. Slotted pan head set screws are provided for easy fitting.

Curved Balustrade Infill

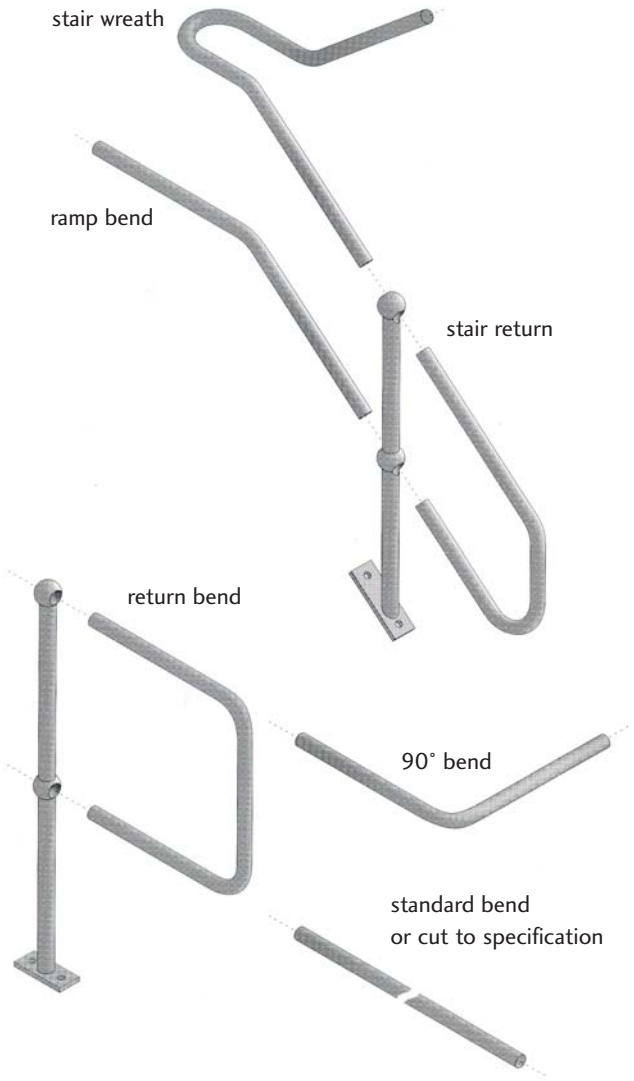
Fencing

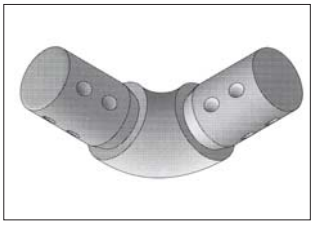
Platform & Handrail 1

Basketball Fencing 1

Handrails

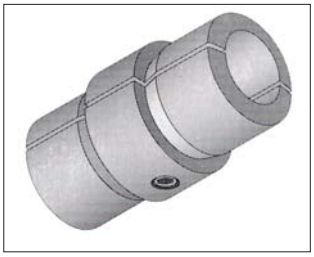
HANDRAIL SECTIONS





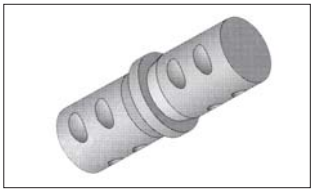
straight crimped connectors

To fit 25mm nominal bore tube only Galvanised to BS 729



internal expanding connectors

Complete with Hex Set Screw. To fit 25, 32 or 40mm nominal bore tube. Galvanised to BS 729



900 crimped connectors

To fit 25mm nominal bore tube only Galvanised to BS 729

manufacturing standards:

- Handrail tube is made to BS 1387 (medium weight).
- Handrail standards are made from tube to BS 6323 or from circular hollow section to BS 4848 part 2.
- All handrailing complies with EEMUA Publication 105.

when ordering please specify:

- Type of shank - solid or tubular
- Overall height
- Type of base
- If raked, the angle
- For raked standards specify if on right or left hand of stairway (ascending)
- Type of finish
- If required, grub screws can be supplied in the balls to secure handrails

hsp	vsp	tsp	tf	cb	rb	rtf	rtb
horizontal side palm	vertical side palm	triangular side palm	top fix	circular base	ragged base	raked top fix	raked triangular base

Balustrade Infill

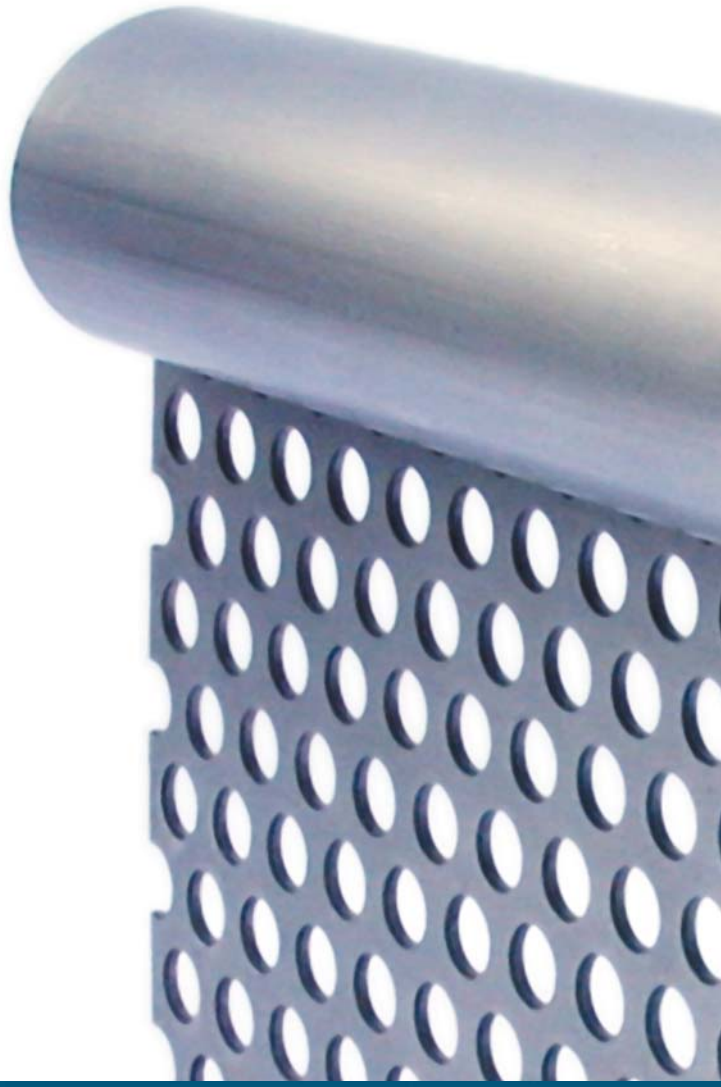
Platform & Handrail 2

Clamp type fittings for handrail

Basketball Fencing 2

Product Range:

- Perforated Metal
- Woven Wire Mesh
- Steel Flooring
- Welded Mesh
- Profile Edging
- Ballast/Punchings
- Crimped Wire
- Handrail
- Expanded Metal
- Rubber Capping



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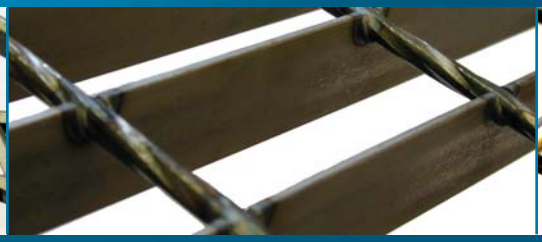

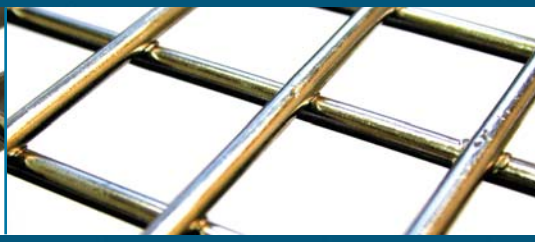

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