

Installation Guidelines

COBAGrip® Grating

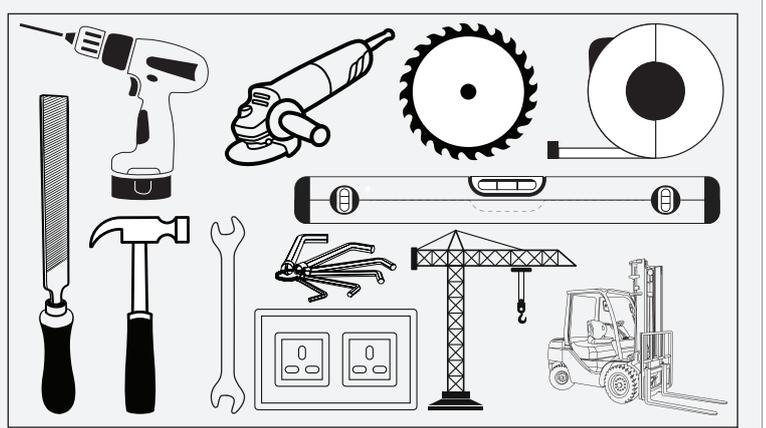
COBAGrip Grating Installation Guidelines

Tools & Materials

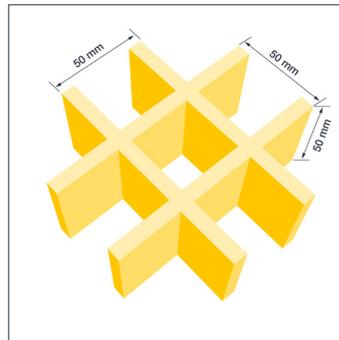
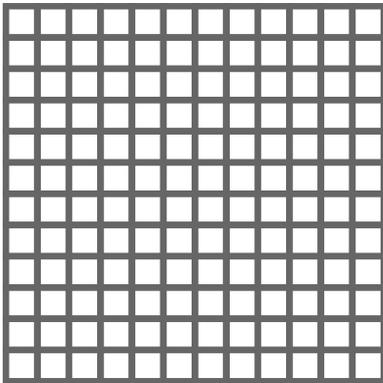
- Spirit Level
- Socket
- Allen Keys
- Hex-Keys
- Additional tooling (dependant on install conditions):
- Forklift, Crane, Other lifting aids. Drill, Hammer, File, Angle Grinder, Diamond Disc, Wrench, Tape Measure

Materials

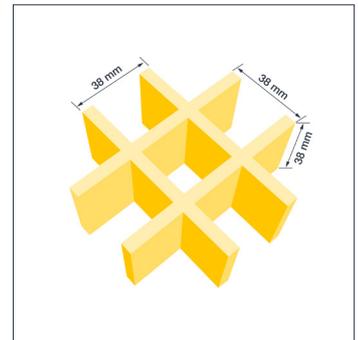
1. GRP Gratings
2. Stainless Steel Clips
3. Expansion Bolt (for fixing to the concrete)



COBAGrip Grating Tile



50 mm Thickness



25 mm & 38 mm Thickness

Preparation before installation

GRP gratings load bearing is measured from the top surface. Any impact to the side of the grating may cause damage, as will any misuse of the product.

We advise customers to use nylon straps to unload the gratings, if they cannot be unloaded by hand. If a forklift is used to unload the gratings, be cautious of the forks damaging the grating.

Inspect all GRP gratings before installation, as any complaints regarding quality and size will not be upheld after installation and/or modification.



Clean

Sweep the existing floor to ensure that the surface is clean and free of dust and dirt.



Temperature

Ortho resin grating, the working temperature is -50 to +60 degrees.



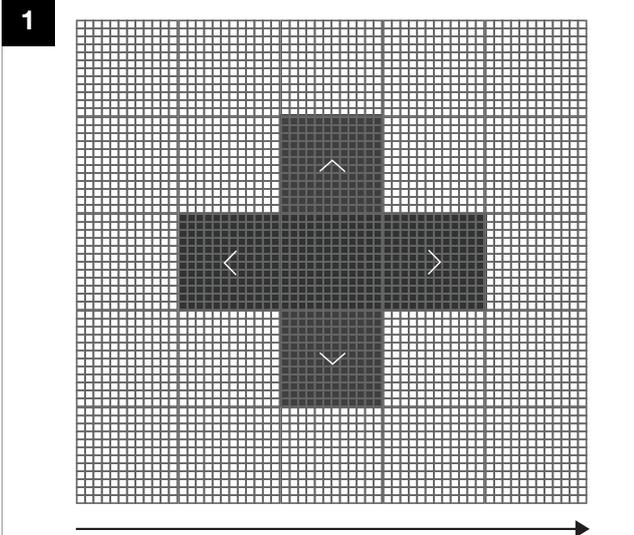
Humidity

Humidity will not be an issue for the GRP Gratings.

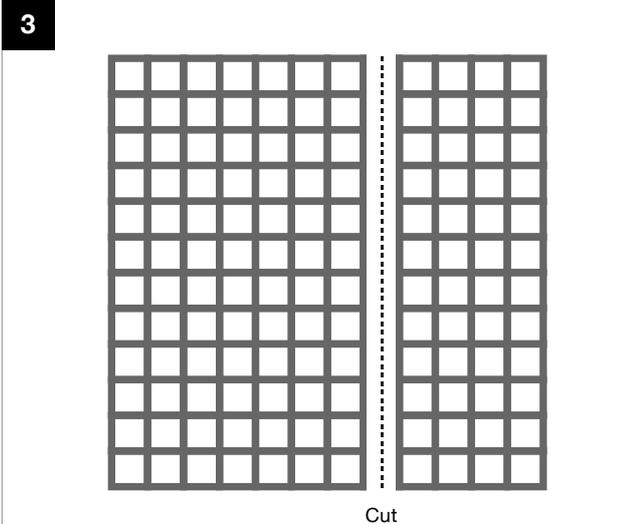
Load and Deflection Table (Kg/metre @ 1% Deflection)

Height	Span Type of Loading (mm)	Space between horizontal supports							
		250	500	600	750	1000	1200	1500	2000
25mm	Point Load (kg)	1585	464	322	206	116	80	51	29
	UDL (kg)	2751	1375	850	435	184	106	54	23
38mm	Point Load (kg)	3814	1698	1179	755	424	294	188	106
	UDL (kg)	7629	3814	3179	1834	774	448	229	97
50mm	Point Load (kg)	5933	2967	2414	1545	868	603	386	217
	UDL (kg)	11866	933	4944	3754	1584	916	469	198

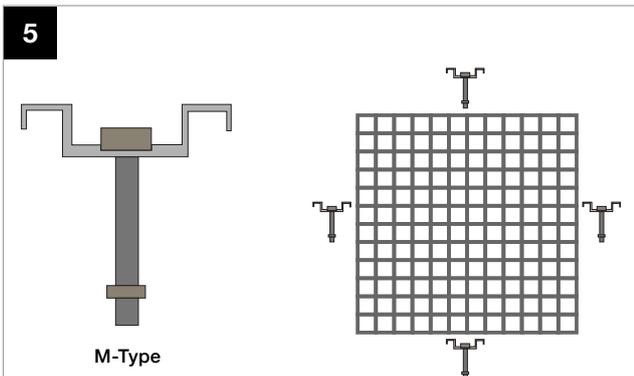
Installation Method



Once unpacked and laid out, place the GRP gratings in their corresponding locations as required by relevant drawings. Installation work should begin by working from one side, to the other. Do not work from both edges and work inwards in case of any incorrect measurements or tolerances in the product.



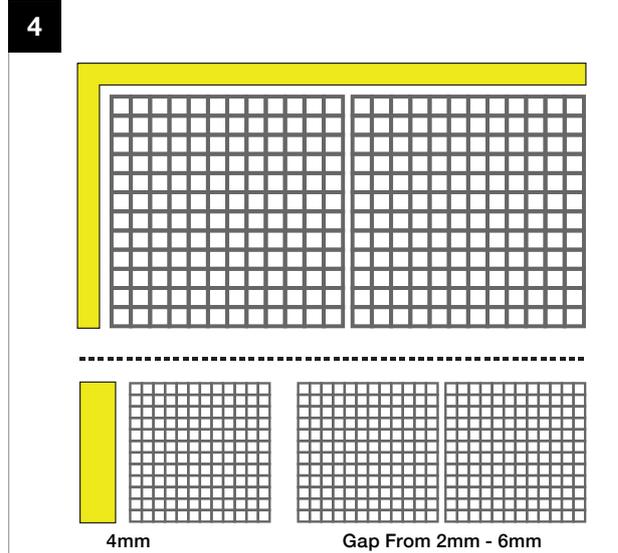
We recommend cutting the product away from the body, towards the ground to prevent injury and to push any debris and dust away from the operator.



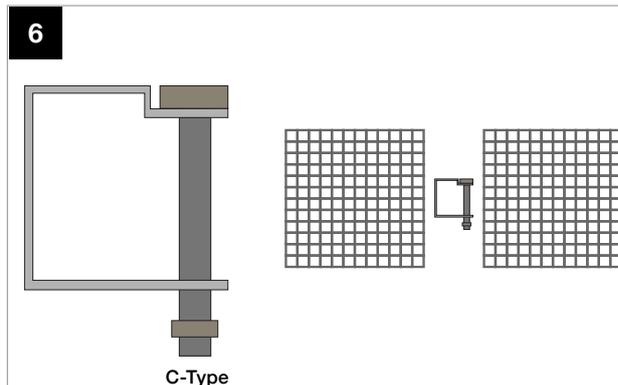
Use M-type steel clips to connect the GRP gratings with the frames, using at least 4 fixings for each section of grating.



All cutting/trimming of the product should be done in a well-lit and ventilated area and correct protective equipment should be worn at all times.



To install the GRP gratings on an existing steel frame, ensure that the grating is within 4 mm of the steel frame, to offer sufficient support. The recommended gap between 2 pieces of gratings should be within a minimum of 2 mm or a maximum of 6 mm. The gap between the grating and the concrete/steel prop should not exceed 6 mm.



When the length exceeds more than 1800 mm an additional fixing will need to be added in the middle or use the C-type grating to connect the 2 pieces of gratings.

Clips installation steps

Put the upper clip on the upper surface of the GRP grating. Saddles are aligned to connect two adjacent bearing bars of the grating. Position the lower clip on the lower surface of the GRP grating and against the steel beam of the steel grating. Ensure saddles are buckled tightly with corresponding bearing bars. Note that the lower clip hole and the upper clip holes need to be aligned. When the upper and lower clips are correctly installed, insert the bolts to the upper and lower clips through the bolt holes, and tighten the nuts from bottom to top.

After installation, ensure the working platform is clean, flat, with no twists in profile or lips/ridges in the joins between sections.

Tolerance

The overall size tolerance of the GRP gratings is equal to the size of the section being used. For example:- a 25 mm grating will require, a 25 mm tolerance, and a 50 mm grating will require a 50 mm tolerance. This is for production purposes and to provide a smooth edged finish to each section.

This is vitally important if more than 1 section is being used in the same area.

The thickness tolerance of the GRP grating should be within 2 mm.

Maintenance

During installation, the surface of the GRP gratings should be protected well with cardboard, plywood or other similar materials.

GRP gratings can be cleaned with ordinary detergent, there is no need to use harsh chemicals. For best results, a pressure washer is recommended.

Avoid direct contact with high temperatures and open flames. Avoid potential damage caused by sharp tools, and hard impacts on the top surface of the gratings. Do not drag materials or equipment over the gratings as this can damage the top surface.

M-clip provides excellent hold-down capability by securing GRP gratings to the support using 2 adjacent bearing bars.

Assembly: Standard M-clip comes as set with hex bolt, nut & washer.

Installation: Insert the M-clip in the open mesh GRP grating to ensure that it sits appropriately on the load bars & the base of the saddle clip. This should be held close to the bottom of the GRP grating panel. For fixing an M-clip directly into the existing base structure, pilot drill through the hole in the clip and into the substrate, then fasten using a suitable screw & plug. For fixing an M-clip into a support frame, you will need to drill into the frame. Insert the bolt and then tighten the nut & washer underneath the frame.

Technical Specifications:

- Fits Grating Height: 25 mm, 38 mm & 50 mm
- Drilling: Required
- Includes: Hex bolt, hex nut & plain washer
- Recommended quantity: 4-6 M-clips / sq.meter of grating

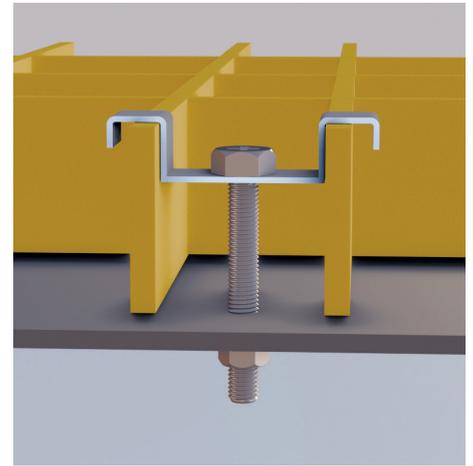
L-clip is an alternative option of M-clips used for securing gratings to the support structure. L-clips are lighter duty fixing clips that hold down one GRP grating load bar to the base support.

Assembly: Standard L-clip comes as set with hex bolt, nut & washer.

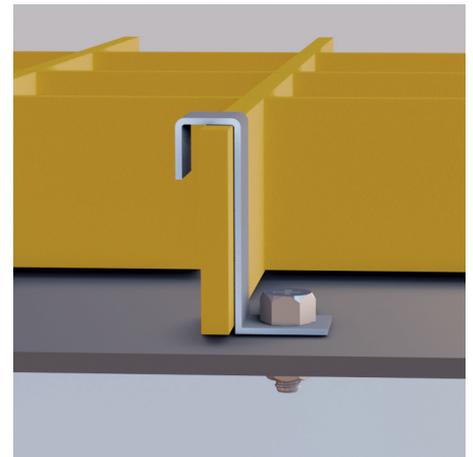
Installation: Insert the L -clip in the open mesh GRP grating to ensure that it sits appropriately on a load bar & the base of the fixing clip. The fixing clip should rest on the bottom structure. For fixing an L-clip directly into the existing base structure, pilot drill through the hole in the clip and into the substrate then fasten using suitable screw & plug. For fixing an L-clip into a support frame, you will need to drill into the frame. Insert the bolt and then tighten the nut & washer underneath the frame.

Technical Specifications:

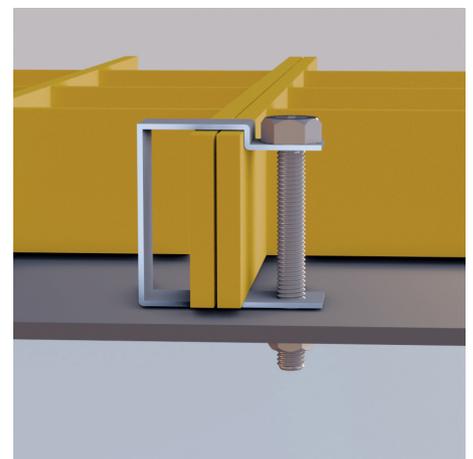
- Fits Grating Height: 25 mm, 38 mm & 50 mm
- Drilling: Required
- Includes: Hex bolt, hex nut & plain washer
- Recommended quantity: 4-6 L-clips / sq.meter of grating



M-Clip



L-Clip



C-Clip

Disclaimer

These methods of installation make no claim to being comprehensive but should be used as a guide. Always employ safe practices. A risk assessment and method statement should always be prepared.

If in doubt please contact us:

Call: +44 (0)1788 228 555 or email sales@coba.com