GRP GMAX®

Flexible, elevated GRP troughing for railways.
With a longer span.

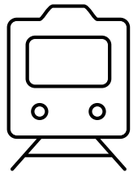
mita®
powered by wibe group

Eco Performance is our product sustainability platform, where you will find environmental documentation for our product range. Eco Performance shows our products' circularity value and environmental impact with full transparency.

Check a product!

A fit-and-forget system that lasts a lifetime

For a much easier, fully flexible and a complete, sustainable installation



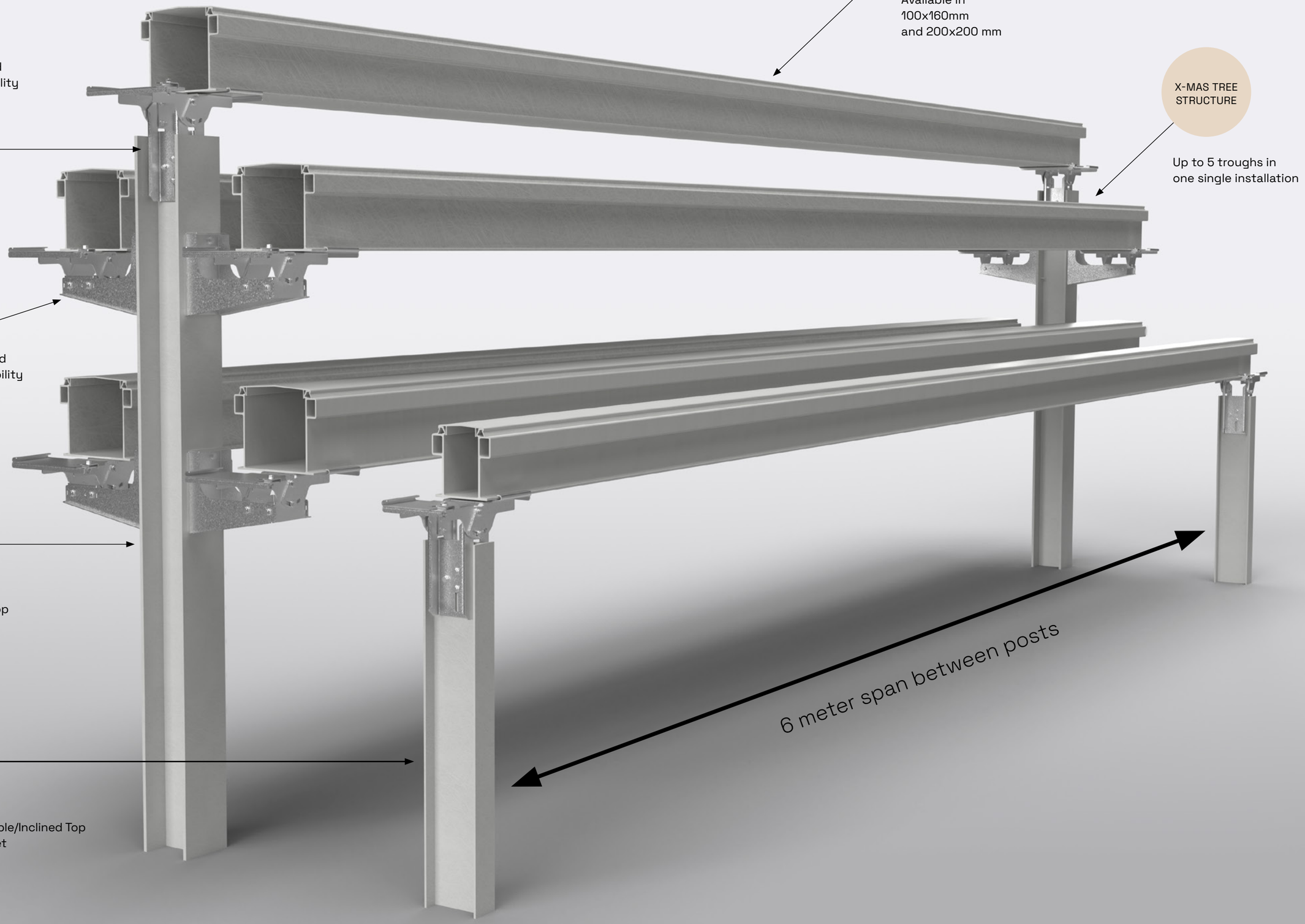
Why GRP GMAX® outperforms the competition

GRP GMAX® means lower costs, safer and easier installation, plus no EMC liability. This is because:

- GRP GMAX® offers both posts and troughing in GRP, ensuring a lifetime performance with much less maintenance.
- GRP is non-conductive, which means no earth bonding and no EMC liability. Also, slow heat transfer and resistant to electromagnetic pulses. It offers an excellent fire performance.
- Saves time and money: longer span between posts means less digging and improved health and safety.
- Easy to transport: reduces transport requirements and possession times.
- Easy to install: GRP is 70% lighter than steel.
- Easy to configure: GRP is easier to cut and fit than steel.
- A lifetime performance: GRP is both UV resistant and corrosion resistant, making it ideal for heavy duty environments with high air pollution and tough conditions.
- High flexibility: Vertical and horizontal flexibility when installing on uneven grounds and curved routes.

GRP GMAX®

offers both posts and troughing in GRP.



Posts

Elevated troughs are supported on GRP posts which are available in three different sizes to ensure the most economical solution.

HEAVY DUTY POST

For both Top Mounting Bracket and up to 4 Cantilevers.

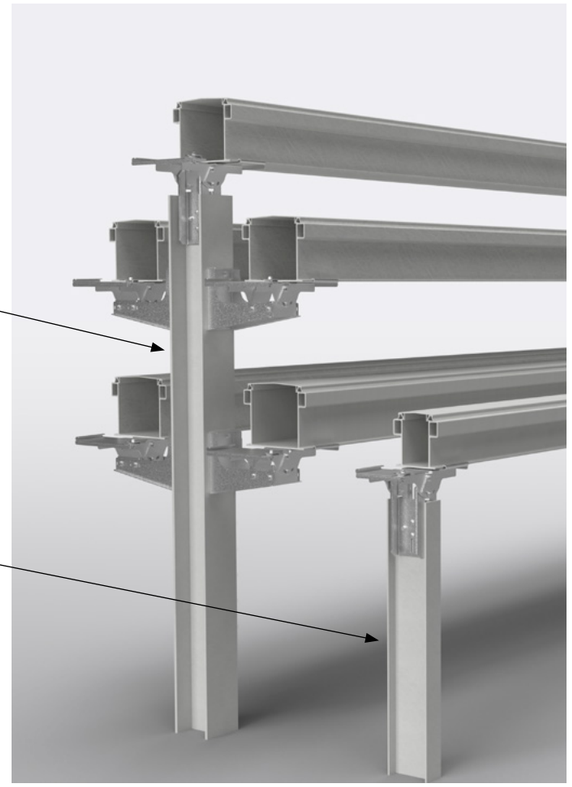
MPG24
Total height: 2.4 m
Max height above ground: 1.2 m

MPG30
Total height: 3.0 m
Max height above ground: 1.8 m

LIGHT DUTY POST

Only for Top Mounting Bracket.

MPG20
Total height: 2.0 m
Max height above ground: 1.0 m



Troughing

GRP GMAX® trough is a heavy duty Glass Fibre Reinforced Pultrusion that features a clip on lid. Troughing is available in 2 sizes to ensure efficient cable fill capacity and economical cable runs.

CLIP ON LID

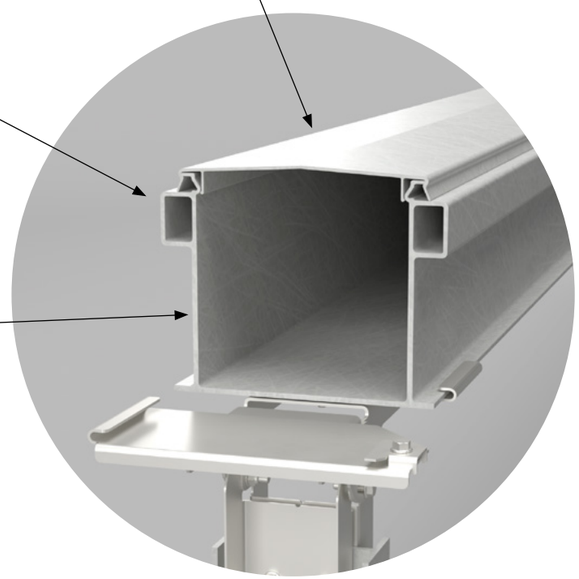
The lid is secured with a positive clipping action, removal is achieved by locating a lever under the lid at one end of the trough and levering the lid upwards.

2 SIZES

Available in
100x160mm and
200x200 mm
All troughs are 6 m long

HEAVY DUTY TROUGHING

The thick walled pultrusion ensures the trough is highly resistant to impacts and unforeseen damage that can occur during installation and general use.



How is it manufactured?

GRP is manufactured through a process called pultrusion.

Below you see the glass rovings going into the resin bath, then mats are placed on to these to create the profile first and goes into the die which shapes and cures it in the form of a tray, and at the end of the line it is cut to the required length.

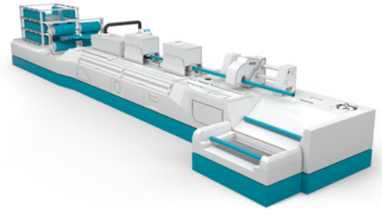


Image © 2020 Exel Composites Plc

Robust design for optimal mechanical behaviour

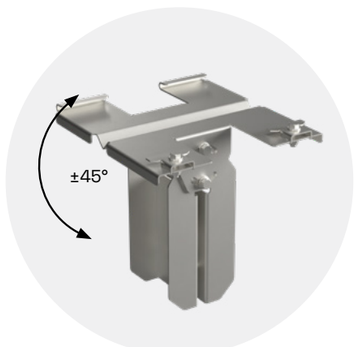
Materials related to GRP GMAX® have been developed using finite element analysis to optimise shape and wall thickness.

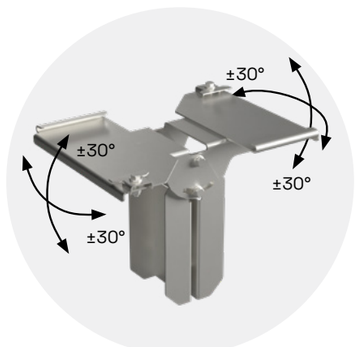
- → Extensive physical load testing has been carried out to ensure the trough can carry our stated loads.
- → Strength has been achieved using Glass reinforced pultrusion process to European Standard EN13706 with an Effective Flexural Modulus E23 making this a structural profile.
- → Robust design without reliance on twin walled or excessive multi chamber construction which give rise to a thin, delicate structure vulnerable to damage or water ingress.
- → Thick-walled reinforcement chambers at the top of the trough increase vertical stiffness and also resist horizontal side forces induced by windage.
- → Highest fire performance. Both an Acrylic or Polyester resin matrix is used to bond and protect the fibre reinforcement.
- → UV inhibitors and resin rich mesh surface veil are used to protect against damage from UV sun light.

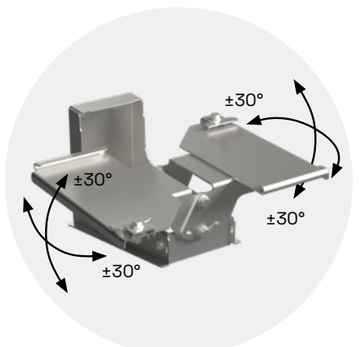
Brackets

Brackets for supporting the troughs onto the post are either (Top Mounting) or side of the post (Cantilever). All brackets are manufactured from hot dip galvanized steel.

Posts are pre-drilled for Top Mounting Brackets. Holes for fixing Cantilevers are drilled on site after first positioning the Cantilever at the required height on the post.







Inclined Top Mounting Bracket

- → The Inclined Top Mounting Bracket should be used for straight runs, where there is only minor deviation in the horizontal path. It can be adjusted 45° in the vertical plane.

Adjustable Top Mounting and Cantilever

- → These brackets can be adjusted both in the horizontal and vertical planes. Maximum anglular adjustment 30°, in both horizontal and vertical planes.

Care should be taken not to exceed the minimum bend radius of the cables contained in the troughing.

GRP GMAX® is with a Classification according to the harmonized standard BS EN IEC 61537: “Cable management – Cable tray systems and cable ladder systems” which is under the scope of the European Low Voltage Directive 2014/35/EU & Electrical Equipment Regulations 2016: UK SI 2016 No 1101.

Material	Application
PY1	Aggressive outdoor environments Rail track side installations
MX	Rail tunnel Underground station

Product material details

GMAX GRP® Trough is available in two resin options (PY1 & MX).
PY1 for use in trackside location and MX for subsurface stations and tunnels.

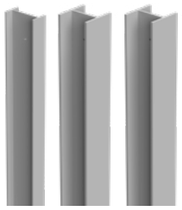
- → Both resins offer excellent resistance to extreme environments, fire, UV resistant additives and resin rich surface veil ensure high resistance to UV radiation.
- → Excellent corrosion resistance in coastal, industrial and polluted environments to C5 / CX according to ISO 9223.
- → Ensuring a service life of many decades without degradation of mechanical properties.

All Supports brackets fitted to posts are manufactured from high grade HDG Steel to give the required balance of resistance to deformation and corrosion. The material and production methods give a clean finish that will not collect debris which can cause areas of localised corrosion.

GRP GMAX® Troughing

Description	PY1 Commercial Reference	MX Commercial Reference
Length: 6000 mm		
GRP GMAX® Trough Lid 100 mm	GRC1006MPY1	GRC1006MMX
GRP GMAX® Trough 100x160 mm	GRP1001606MPY1	GRP1001606MMX
GRP GMAX® Trough Lid 200 mm	GRC2006MPY1	GRC2006MMX
GRP GMAX® Trough 200x200 mm	GRP2002006MPY1	GRP2002006MMX

GRP GMAX® Post



Description		PY1 Commercial Reference	MX Commercial Reference
GRP GMAX® Post MPG20 Light Duty Height: 2 m	For top mounting only	MPG20L6MPY1	MPG20L6MMX
GRP GMAX® Post MPG24 Heavy Duty Height: 2.4 m	For top mounting and cantilever	MPG24H6MPY1	MPG24H6MMX
GRP GMAX® Post MPG30 Heavy Duty Height: 3.0 m	For top mounting and cantilever	MPG30H6MPY1	MPG30H6MMX

Accessories

Description		Hot dip galvanized steel according to EN ISO 1461 Commercial Reference
GRP GMAX® Adjustable Cantilever Bracket 100x160 mm HDG	For mounting GRP GMAX® Trough 100x160mm to GRP GMAX® Post MPG24 or MPG30	CB100
GRP GMAX® Adjustable Cantilever Bracket 200x200 mm HDG	For mounting GRP GMAX® Trough 200x200mm to GRP GMAX® Post MPG24 or MPG30	CB200
GRP GMAX® Adjustable Top Mounting Bracket 100x160 mm HDG	For mounting GRP GMAX® Trough 100x160mm to any GRP GMAX® Post	PM100
GRP GMAX® Adjustable Top Mounting Bracket 200x200 mm HDG	For mounting GRP GMAX® Trough 200x200mm to any GRP GMAX® Post	PM200
GRP GMAX® Inclined Top Mounting Bracket 100x160 mm HDG	Bracket for straight runs, where there is only minor deviation in the horizontal path. For mounting GRP GMAX® Trough 100x160mm to any GRP GMAX® Post	RB1006M
GRP GMAX® Inclined Top Mounting Bracket 200x200 mm HDG	Bracket for straight runs, where there is only minor deviation in the horizontal path. For mounting GRP GMAX® Trough 100x160mm to any GRP GMAX® Post	RB2006M
M8 Nut, Bolt washer kit Zinc Flakes		M8BNWZF

Contact us

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