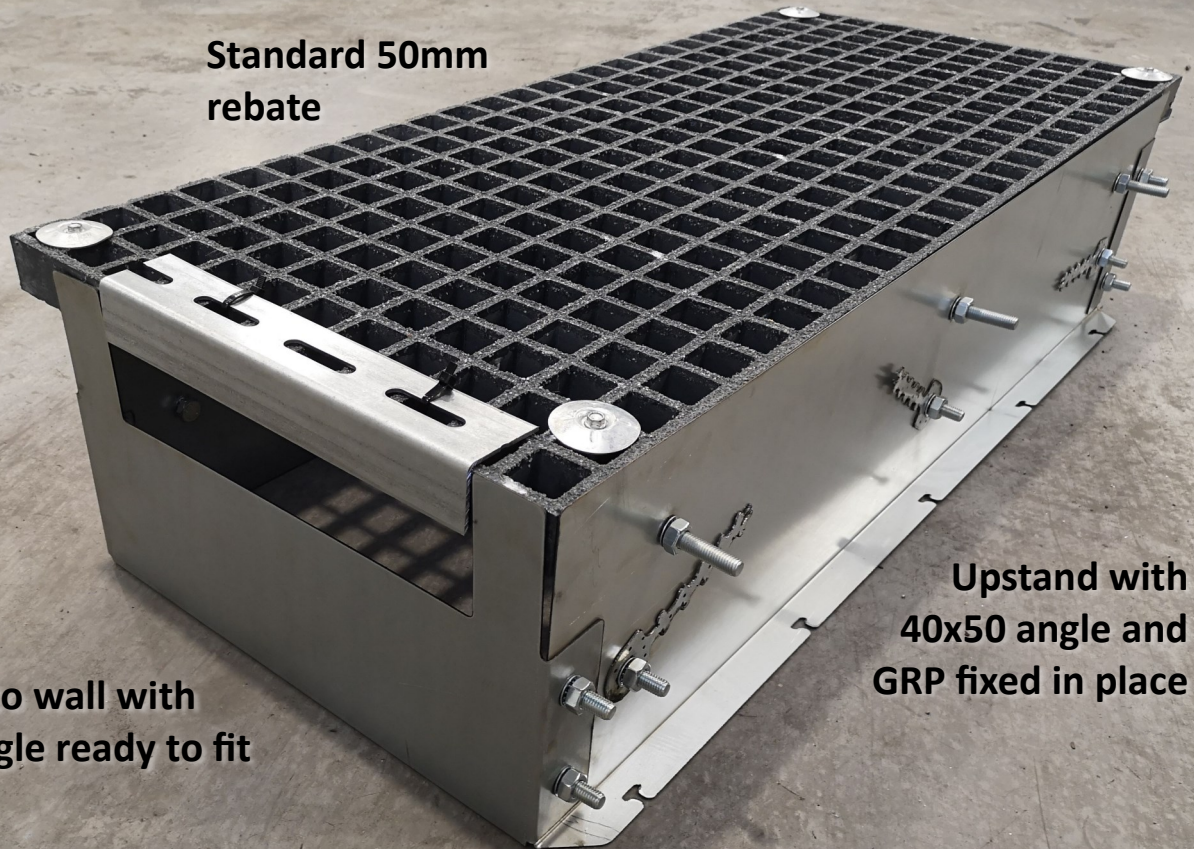


# GRP RAPID RISER

Standard 50mm  
rebate



Flat end to wall with  
40x50 angle ready to fit

Upright with  
40x50 angle and  
GRP fixed in place

## MAKE THE FIRST FIX COUNT

### MADE TO MEASURE

- ✓ Manufactured to customer dimensions
- ✓ Any width, any length
- ✓ Any depth subject to practical width and length dimensions
- ✓ Non std shapes e.g. triangles, rhombus

### EASY TO FIT

- ✓ Delivered to site ready to install
- ✓ Support systems for larger width risers supplied as required
- ✓ Labelled with drawing reference
- ✓ Concrete ties for connection to rebar

### OFF-SITE MANUFACTURE

- ✓ Manufactured and assembled in a factory environment
- ✓ Maximum GRP yield using computer cutting programs
- ✓ Designs to suit kickers and core walls

### SAFER WITH NO BREAKING OUT

- ✓ No open areas in the slab
- ✓ No working at height
- ✓ No temporary works required
- ✓ No breaking out
- ✓ Saves PM and labour time on site

## SAVE TIME ON SITE

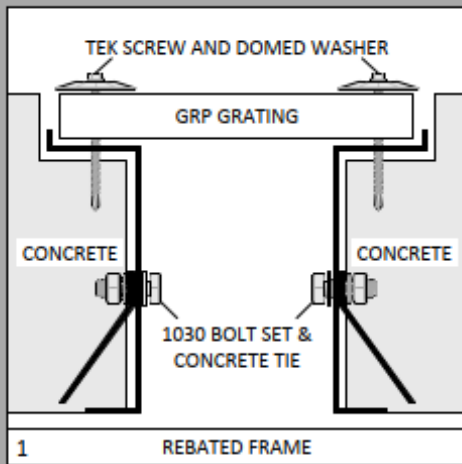


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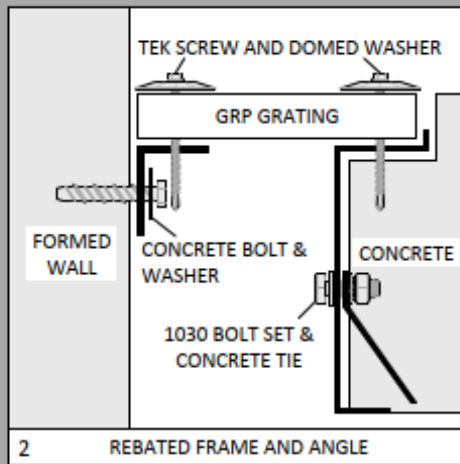


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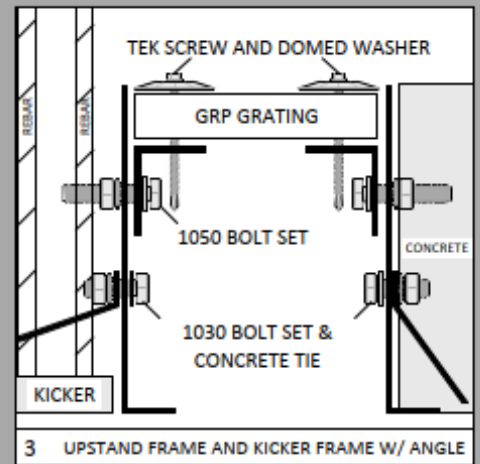
# RAPID RISER VARIATIONS



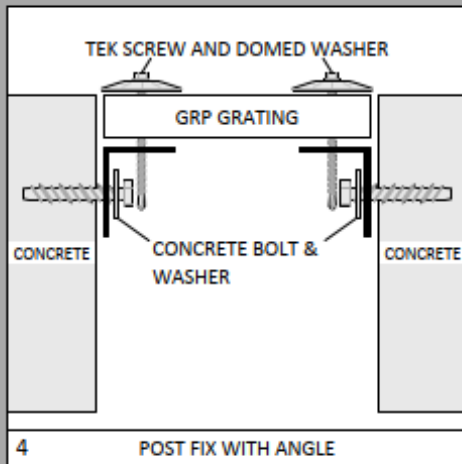
1 REBATED FRAME



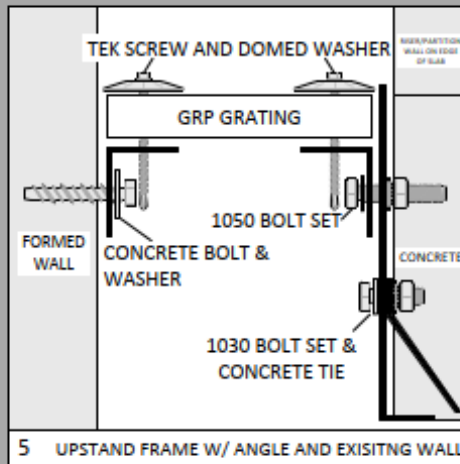
2 REBATED FRAME AND ANGLE



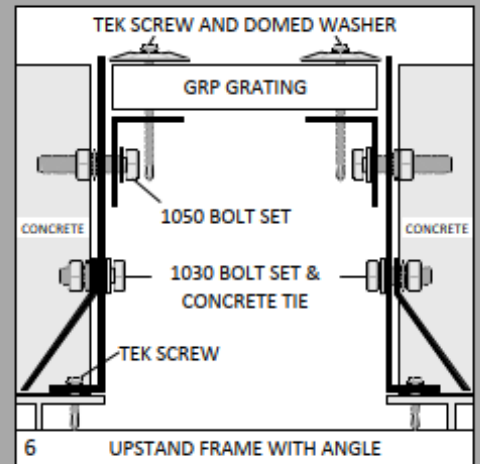
3 UPSTAND FRAME AND KICKER FRAME W/ ANGLE



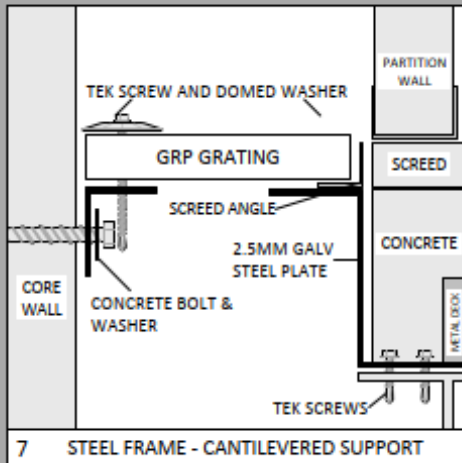
4 POST FIX WITH ANGLE



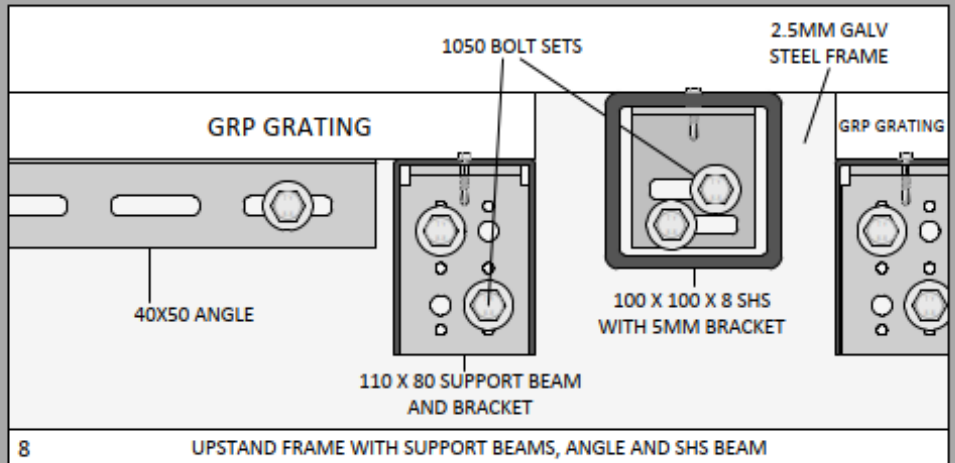
5 UPSTAND FRAME W/ ANGLE AND EXISTING WALL



6 UPSTAND FRAME WITH ANGLE



7 STEEL FRAME - CANTILEVERED SUPPORT



8 UPSTAND FRAME WITH SUPPORT BEAMS, ANGLE AND SHS BEAM

## Technical Information

**Manufacture :** Rapid Riser frames are galvanised mild steel of European Standard EN10142:2000, coated with zinc by hot-dip processes (Galvatite Z), including iron-zinc alloy (Galvatite ZF). The hot-dip coatings may contain up to 0.002% lead or up to 0.12% antimony. Fibreglass grating is made from fibrous glass, polyester resin, catalyst (peroxyester), styrene, aluminium oxide, pigments. Ingredients are chemically cured and bonded together.

**Personal Protection :** Suitable protective clothing covering all exposed body parts should be worn. Equipment, such as safety spectacles, and cut-resistant gloves, should be worn when handling the GRP and metal frames. Wear 3M-respirator mask No 4251 when cutting or grinding GRP. People who have a condition that could be aggravated by dust should avoid cutting or grinding GRP. Avoid breathing dust. Dust produced by cutting or grinding can penetrate the pores of the skin causing itching. When cutting with a jigsaw use Bosch T141HM blade otherwise use diamond tools.

**First Aid :** Steel frame skin and eye contact: Possible cuts from steel edges. Treat as other cuts; if required, seek medical attention. GRP dust irritation on the skin – remove person from dust area and shower with soap and water. GRP dust intrusion in the eye – flush at once with sterile eye wash solution.

**Fire Fighting Measures :** GRP will burn. Avoid direct fire source. **Flash Point :** none. **Flammability Limits :** none. **Extinguishing media :** water, foam, A, B or C fire extinguishers. Black smoke. Carbon particles. Use air respirator. Self-extinguishing.

**Fire Testing :** Rapid Riser steel frames and fixings : none. GRP : ASTM E84 class A, 25 or less.

## GRP SELECTION

When choosing the correct depth of GRP to install, the factors to take into account should include :-

- Intended use and associated loading requirements.
- Types of equipment that will be placed on it in both the temporary and permanent condition.
- Cuts required for M&E and services.

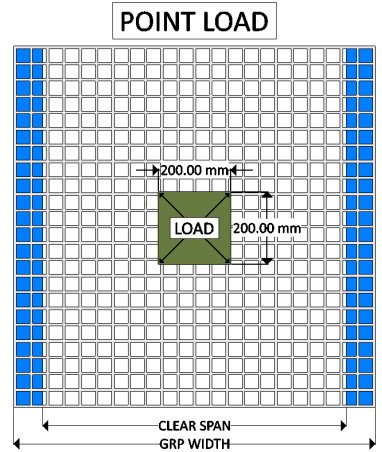
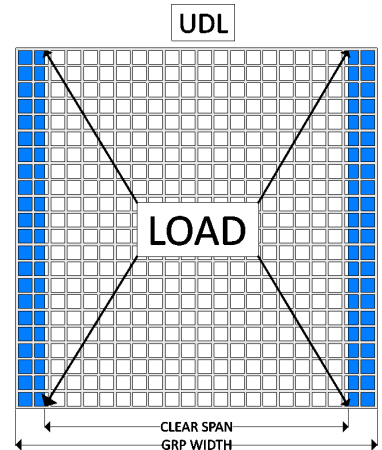
## GRP LOADING STANDARDS

- 1 BS 4592 PART 0+A1:2012 and BSEN14122 standards for walkways & working platforms state the minimum loads to take into account are:
  - 2.0kN/m<sup>2</sup> Uniformly Distributed Load (UDL) to account for structure.
  - 1.5kN concentrated load applied in the most unfavourable position over an area of 200mm<sup>2</sup> of the floor.
- 2 Standard GRP design deflection allowance is L/200 up to a maximum of 10mm.

## LOADING DEFINITIONS

**Uniformly Distributed Load (UDL)** - Where the load is considered evenly distributed across a defined area, usually denoted as per m<sup>2</sup>.

**Point Load** - A static load considered to act over a small area (in this case 200mm<sup>2</sup>) when compared to the total surface area to which the load is applied.



Load Table	25mm		38mm		50mm		28mm Solid Top		41mm Solid Top	
Mesh Size	38 x 38		38 x 38		50 x 50		38 x 38		38 x 38	
Open Area	70%		70%		78%		Closed top		Closed top	
Weight kgpm <sup>2</sup>	13.5		18.5		21.2		24		30	
Clear Span (W)	UDL kg	PL kg	UDL kg	PL kg	UDL kg	PL kg	UDL kg	PL kg	UDL kg	PL kg
600mm	425	161	1589	589	2472	1207	425	161	1589	589
750mm	217	103	917	377	1877	772	217	103	917	377
1000mm	N/A	N/A	387	212	792	434	N/A	N/A	387	212
1200mm	N/A	N/A	224	147	458	301	N/A	N/A	224	147
1500mm	N/A	N/A	N/A	N/A	234	193	N/A	N/A	N/A	N/A

The data listed above is for general guidance only. Due to environmental & operational conditions as a third party supplier, First Fix Formwork Ltd is unable to guarantee that the performance of the grating will correspond to the loadings indicated above.

## SAVE TIME ON SITE



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## Section 1 - Physical / Chemical Characteristics / Reactivity Data

Resin type	Isophalic polyester
Solubility in water	No
Appearance and odour	1 phase solid with various colours and possible slight odour
% Volatiles by volume	None (75°F)
pH (Neutral =7)	6 - 8
Evaporation rate	0
Stability	Stable
Hazardous polymerisation	Will not occur

## Section 2 - Fire and Explosion Hazard

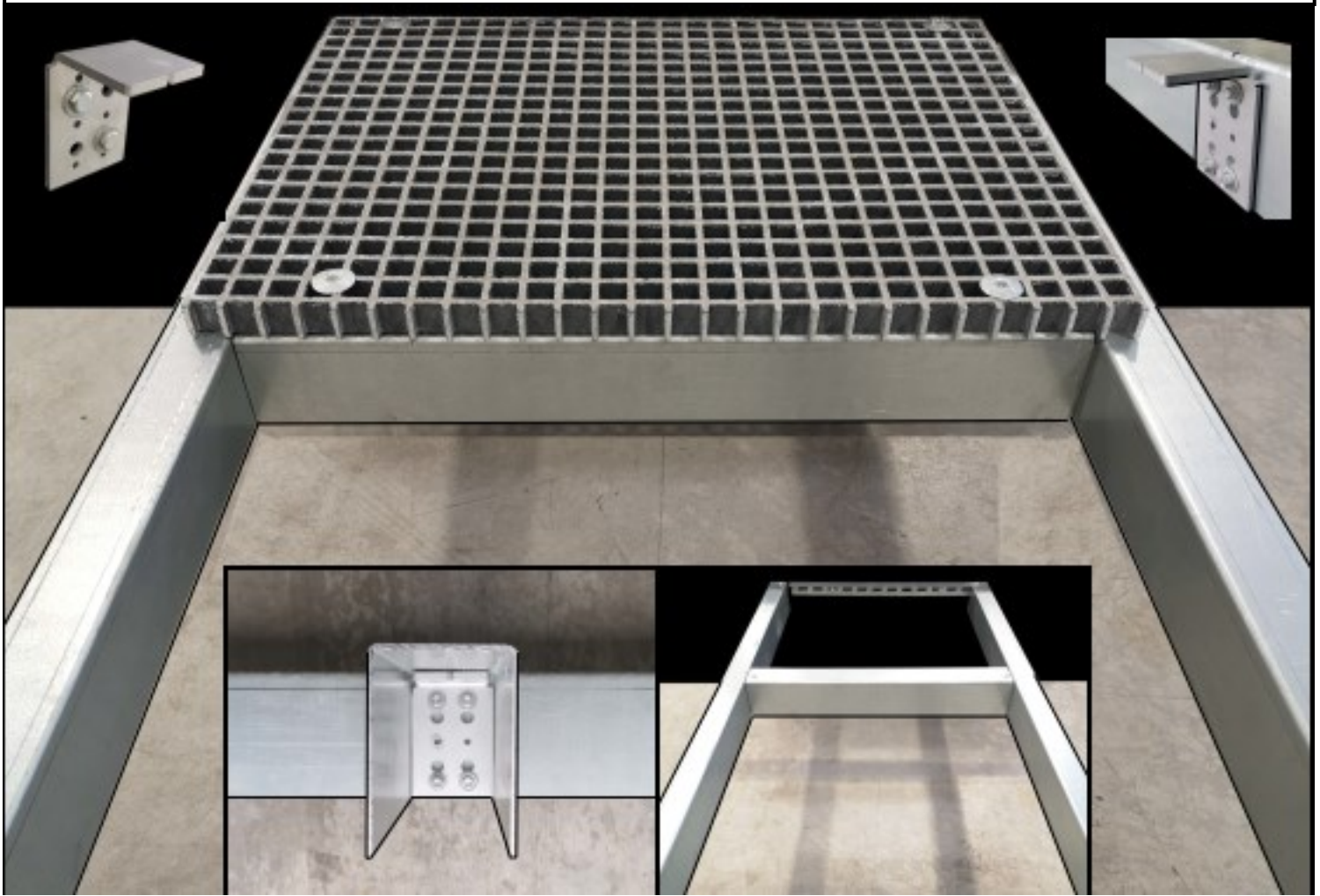
Flash point	N/A
Extinguishing Media	Water, foam : Type A, B, or C extinguishers
Special fire fighting procedures	Use self-contained apparatus
Unusual fire & explosion hazards	Heavy smoke, products of combustion (CO, CO2, HBr)
Fire tested	ASTM E84 class A, 25 or less
Approvals	US Coast Guard, ABS Approved, Det Norsk Veritas

## Section 3 - Health Hazard Data / Safe Handling

Threshold limit value	N/A
Effects of overexposure	Dust from grinding or finishing can cause mild irritation to the eyes and skin. Nuisance dust.
Emergency first aid procedures	Wash skin well without rubbing. For the eyes, use a sterile solution and flood the eye area. Change clothing after exposure. Apply antiseptic to abraded skin areas.
Movement	Care should be taken when lifting full sheets and attention paid to any manual lifting restrictions.

## Section 4 - Control Measures

Respiratory Protection	Wear respirator mask when cutting : 3M No 4251 is recommended.
Ventilation	Cut in a well ventilated area. Use vacuum/dust collector with cutting tools.
Protective equipment	Suitable protective clothing covering all exposed body parts should be worn. Equipment such as safety glasses, cut resistant gloves and respirator mask should be worn when cutting and handling GRP.
Cutting	Heavy duty rotary saw with masonry, carbide or diamond coated blade.
Grinding	Use coarse grit, open coated (resin) grinding discs.
Finishing	In corrosive environments cut edges may be coated with resin to prevent possible corrosion of glass fibres. A light coating of two-part resin or urethane spray paint is satisfactory, subject to environmental conditions.



## QUALITY MANUFACTURE

- ✓ 110x80x110 support beam manufactured from 3mm galvanised steel sheet
- ✓ CNC bending ensures consistent and accurate quality
- ✓ Fixing brackets 6mm zinc coated steel

## EASY TO USE

- ✓ The fastest GRP support beams to install
- ✓ Fixing brackets locate inside the beams
- ✓ Easy to fix with concrete wall bolts and tek screws, **NO NUTS AND BOLTS** required
- ✓ Standard lengths for easy pricing

## MADE TO STANDARD

- ✓ Complies with floor loading standards for 2.5kN UDL and 1.5kN concentrated load for L/200 or 10mm max deflection
- ✓ Designed for use with risers spanning up to 3000mm

## HELP AND ADVICE

- ✓ Help with riser take-offs to ensure the correct GRP and support structures are installed.
- ✓ Cutting advice when M&E and service positions are known

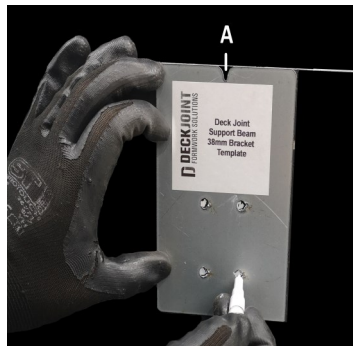
**SAVE TIME ON SITE**



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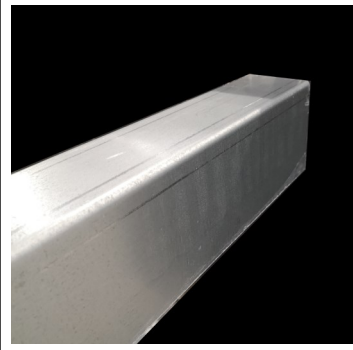
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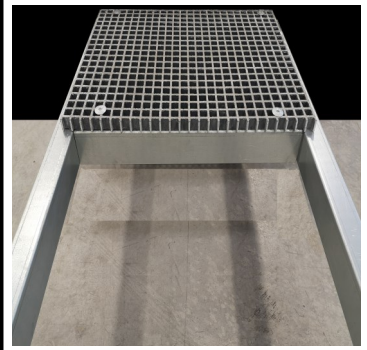
1. Draw a line for the top of the GRP. Mark the position for the centre of the support beam, shown here as A. Using the template provided, place the top on the line with the 'V' on point A and mark the holes.



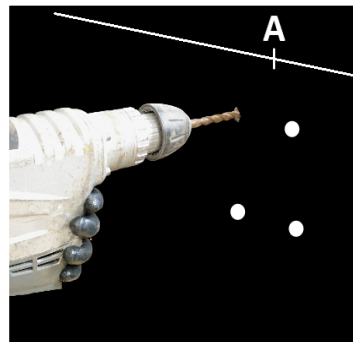
3. When fixing to a concrete wall Deck Joint recommend using an M8/10 x 60mm concrete bolt with M10 x 28 x 2mm round washer, or as advised by others.



5. When the bracket is fitted place the 110 x 80 x 110 support beam over the top. Ensure that the beam is cut so any gap to the wall is less than 5mm.



7. When the beams and cross members have been fitted, place the GRP panels so that they sit half way across the beam. Fix the GRP down with large domed washers and tek screws.



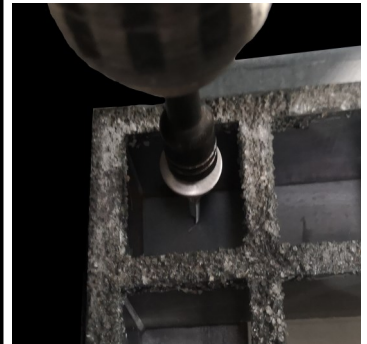
2. Using an 8mm bit, drill two holes ideally diagonally opposite to a depth of 75mm.



4. When fixing to another beam to form a cross member, use a 38mm stainless steel tek screw with washer.



6. The above picture shows the support beam in place over the bracket when forming a cross member.



8. Finally, fix the beam to the bracket with a 38mm stainless steel tek screw, within the GRP hole as shown.

Note : For information on the fixings please see separate datasheet

### Technical Information

**Manufacture** : Support beams and angles are galvanised mild steel of European Standard EN10142:2000, coated with zinc by hot-dip processes (Galvatite Z), including iron-zinc alloy (Galvatite ZF). The hot-dip coatings may contain up to 0.002% lead or up to 0.12% antimony.

Fibreglass grating is made from fibrous glass, polyester resin, catalyst (peroxyester), styrene, aluminium oxide, pigments. Ingredients are chemically cured and bonded together.

**Personal Protection** : Suitable protective clothing covering all exposed body parts should be worn. Equipment, such as safety spectacles, and cut-resistant gloves, should be worn when handling the GRP and metal frames. Wear 3M-respirator mask No 4251 when cutting or grinding GRP. People who have a condition that could be aggravated by dust should avoid cutting or grinding GRP. Avoid breathing dust. Dust produced by cutting or grinding can penetrate the pores of the skin causing itching. When cutting with a jigsaw use Bosch T141HM blade otherwise use diamond tools.

**First Aid** : Steel frame skin and eye contact: Possible cuts from steel edges. Treat as other cuts; if required, seek medical attention.

GRP dust irritation on the skin – remove person from dust area and shower with soap and water. GRP dust intrusion in the eye – flush at once with sterile eye wash solution.

**Fire Fighting Measures** : GRP will burn. Avoid direct fire source. **Flash Point** : none. **Flammability Limits** : none. **Extinguishing media** : water, foam, A, B or C fire extinguishers. Black smoke. Carbon particles. Use air respirator. Self-extinguishing.

**Fire Testing** : Steel angle, beams and fixings : none. GRP : ASTM E84 class A, 25 or less.

## SAVE TIME ON SITE



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**One stop shop for GRP grating, fixings, support systems and advice.**

### EVERYTHING YOU NEED

- ✓ GRP cut to customer dimensions
- ✓ All sizes and colours of GRP available
- ✓ 40x50x2.5mm slotted support angle
- ✓ Support beams for wider risers
- ✓ All concrete bolts and GRP fixings

### EASY TO USE

- ✓ Delivered to site ready to install
- ✓ Angle attached to GRP for ease of use
- ✓ Non std shapes e.g. L-shapes, triangles
- ✓ Labelled with drawing reference
- ✓ Reduced waste removal from site

### OFF-SITE MANUFACTURE

- ✓ Manufactured and assembled in a factory environment
- ✓ Maximum GRP yield using computer cutting program
- ✓ Support angle and beams cut to fit

### HELP AND ADVICE

- ✓ Help with riser take-offs to ensure the correct GRP and support structures are installed.
- ✓ Cutting advice when M&E and service positions are known

**SAVE TIME ON SITE**

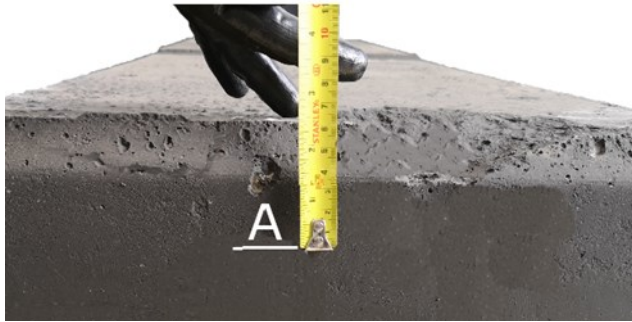


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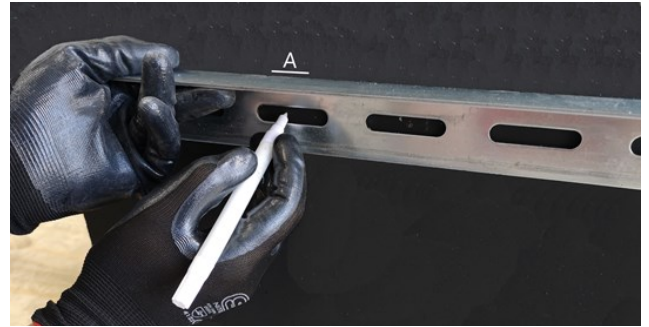


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1. Using the depth of the GRP, mark where the panel will sit - shown here as A.



2. Place the top of the 40x50 angle at A and mark the centre of the slots where concrete bolts will be located.



3. Drill hole to the depth recommended by the concrete bolt manufacturer.



4. Bolt the angle to the wall using the concrete bolt and 40x40x5 square washer.



5. Locate GRP on the angle and fix with 75mm tek screw and large domed washer.



6. The picture below shows the GRP fixed in place on the angle.



Note : For fixings detail please see separate datasheet

### Technical Information

**Manufacture** : Support beams and angles are galvanised mild steel of European Standard EN10142:2000, coated with zinc by hot-dip processes (Galvatite Z), including iron-zinc alloy (Galvatite ZF). The hot-dip coatings may contain up to 0.002% lead or up to 0.12% antimony. Fibreglass grating is made from fibrous glass, polyester resin, catalyst (peroxyester), styrene, aluminium oxide, pigments. Ingredients are chemically cured and bonded together.

**Personal Protection** : Suitable protective clothing covering all exposed body parts should be worn. Equipment, such as safety spectacles, and cut-resistant gloves, should be worn when handling the GRP and metal frames. Wear 3M-respirator mask No 4251 when cutting or grinding GRP. People who have a condition that could be aggravated by dust should avoid cutting or grinding GRP. Avoid breathing dust. Dust produced by cutting or grinding can penetrate the pores of the skin causing itching. When cutting with a jigsaw use Bosch T141HM blade otherwise use diamond tools.

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**Fire Fighting Measures** : GRP will burn. Avoid direct fire source. **Flash Point** : none. **Flammability Limits** : none. **Extinguishing media** : water, foam, A, B or C fire extinguishers. Black smoke. Carbon particles. Use air respirator. Self-extinguishing.

**Fire Testing** : Steel angle, beams and fixings : none. GRP : ASTM E84 class A, 25 or less.

**SAVE TIME ON SITE**



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# First Fix Formwork GRP Installation— Handover Checklist

Project:		Client:		Block / Building:		
DWG's No. & Rev:		Level:		Riser Ref:		
GRP Depth mm	25 / 38 / 50 / 41 solid / 53 solid / Other	GRP Colour	Grey / Green / Yellow / Other			
<b>1. Are any cracks or damaged areas visible in the GRP grating?</b>					YES	NO
If YES sketch on the back, take a picture, advise PM/GRP supplier, note action taken.						
<b>2. Do the GRP sides rest on a minimum of 40mm support from angle, beam or rebate?</b>					YES	NO
If NO check installation drawing and if different sketch on the back, advise PM/GRP supplier, note action taken.						
<b>3. Is there a drawing / plan for the M&amp;E openings and the support structures required?</b>				N/A	YES	NO
If NO, advise PM/GRP supplier, note action taken.						
<b>4. Where the GRP has been cut for M&amp;E services, do the cuts comply to the drawing / plan?</b>				N/A	YES	NO
If NO sketch on the back, advise PM/GRP supplier, note action taken.						
<b>5. Have the agreed support structures for the M&amp;E openings been installed to the drawing / plan?</b>				N/A	YES	NO
If NO sketch on the back, take a picture, advise PM / GRP supplier, note action taken.						
<b>6. Is the GRP securely fixed with Domed Washers &amp; 75mm Tek screws or other system?</b>					YES	NO
If NO sketch on the back, take a picture, advise PM / GRP supplier, note action taken.						
<b>7. Do all perimeter angles (50mm x 40mm x 2.5mm), fitted without a frame or post pour, have M8/10 Anker Bolts or equivalent, at 50mm from each end and at 300mm max centres?</b>					YES	NO
If NO sketch on the back, take a picture, advise PM / GRP supplier, note action taken.						
<b>8. Do all 110x80 support beam brackets fixed to a wall, have 2 no. M8/10 Anker Bolts or equivalent?</b>					YES	NO
If NO sketch on the back, take a picture, advise PM / GRP supplier, note action taken.						
<b>9. Have the M8/10 Anker Bolts or equivalent been installed as per manufacturers guidance - 8mm drill hole dia (rotary hammer drill mode), 90mm min hole depth (hole cleaned with air pump) &amp; 75mm embedment?</b>					YES	NO
If NO sketch on the back, take a picture, advise PM / GRP supplier, note action taken.						
<b>10. Have the M8/10 Anker Bolts or equivalent been Torqued to manufacturers guidance - 40Nm?</b>					YES	NO
If NO sketch on the back, take a picture, advise PM / GRP supplier, note action taken.						
<b>11. For all 110x80 'T' type cross beams, have the beam brackets been fixed with 4No 38mm stainless steel tek screws?</b>					YES	NO
If NO sketch on the back, take a picture, advise PM / GRP supplier, note action taken.						
<b>12. Are all 110x80 support beams placed with no more than 10mm spacing at each end?</b>					YES	NO
If NO sketch on the back, take a picture, advise PM / GRP supplier, note action taken.						

**SAVE TIME ON SITE**



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