

SMC

Hot Pressed GRP Sectional
Water Tank



ANCHOR -LINK SDN BHD

Anchor-Link's high quality GRP (or FRP) sectional water storage tank is hot-pressed from sheet moulding compound (SMC), which is produced in-house. The benefits of storing potable water in GRP tanks have now been recognized and we are very pleased to see our tanks being widely used in the residential, commercial, industrial and the public works sectors in Malaysia. We are also experiencing an increase in the export sales to countries in the Asean, Middle East and African countries, where the consciousness of hygienic storage of potable water is growing. We are committed to a continuous programme of product innovations in order to serve the needs of our valued customers.

MANUFACTURING METHOD/FEATURES

- Hot pressed moulding from specially formulated SMC up to 150°C.
- Strong consistent panels
- Smooth surface on both sides
- Dimensionally accurate with sharply defined profiles
- Rust free

SAFETY

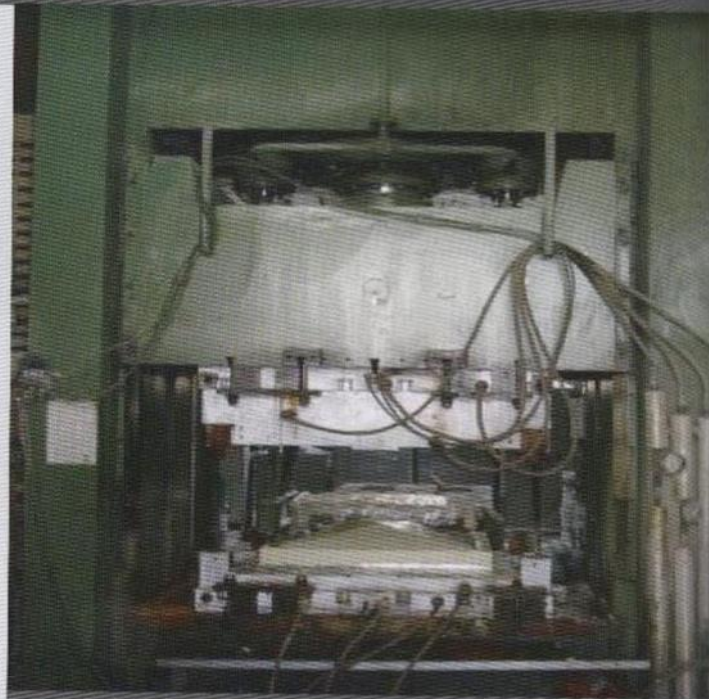
Our GRP panel tank is non-toxic and is safe for storage of drinking water. The SMC material used in the moulding has good ultra-violet resistant properties and gives a high degree of opacity to daylights that prevents growth of organisms within the tank.

EASY MAINTENANCE

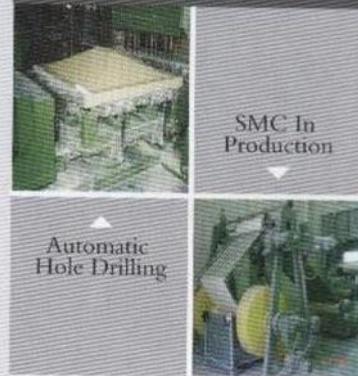
The convex base panels and a concave drain panel for each tank compartment ensure full draining during maintenance. With a diameter of 600mm, the manhole provides easy access for entering and exiting the tank.

INSTALLATION

Anchor-Link SMC Hot Pressed GRP Panel is very light in weight. It permits easier handling and provide simplified assembling method that help installation process to be speedily and conveniently assembled using conventional tools and labour. Details installation method would be provided upon request.

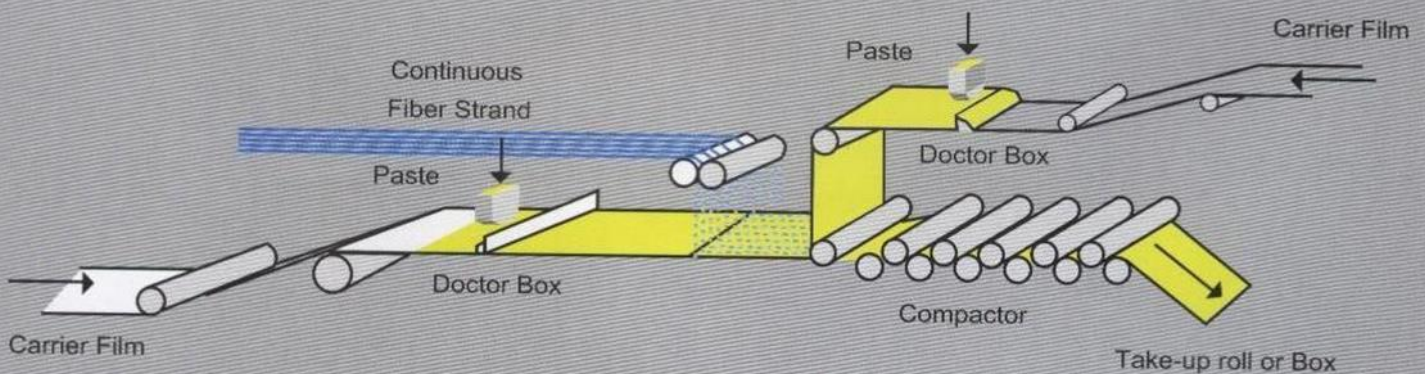


► Hydraulic Press Machine



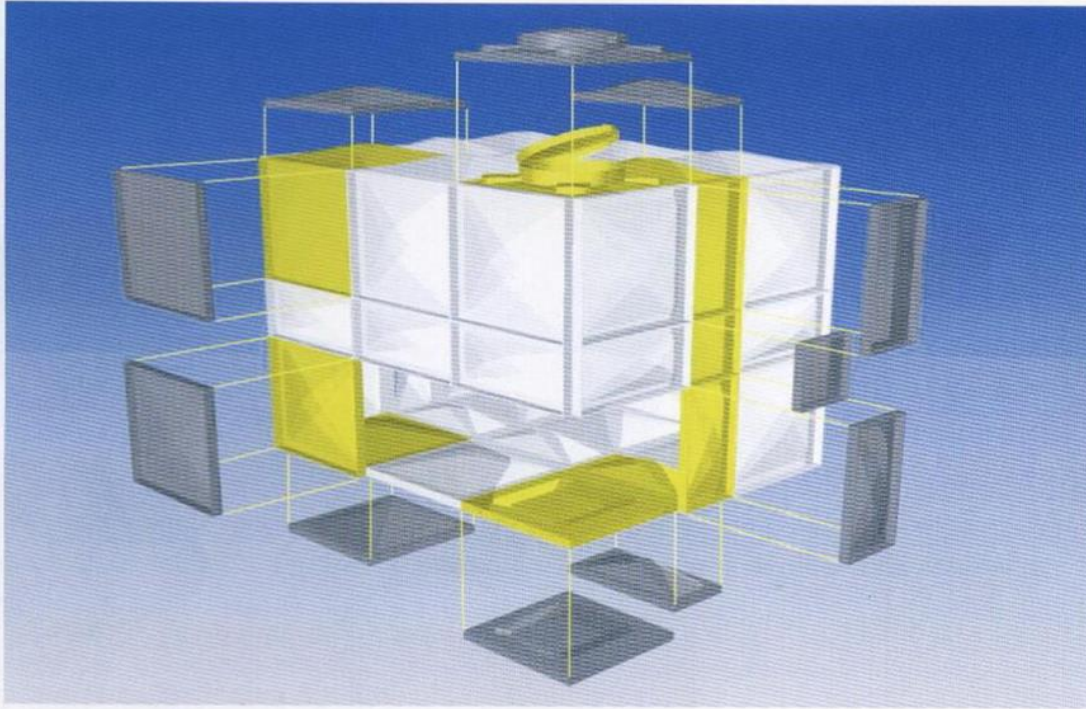
SMC In Production

Automatic Hole Drilling



SMC Process

VIEW OF ASSEMBLED TANK PANELS

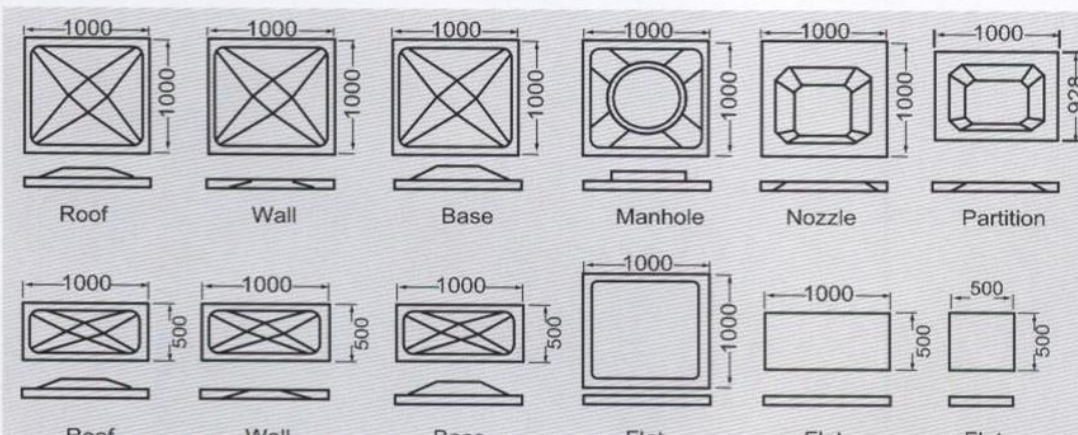


VERSATILITY

For convenience of users, a wide range of panels are readily available to meet any eventuality in tank size.

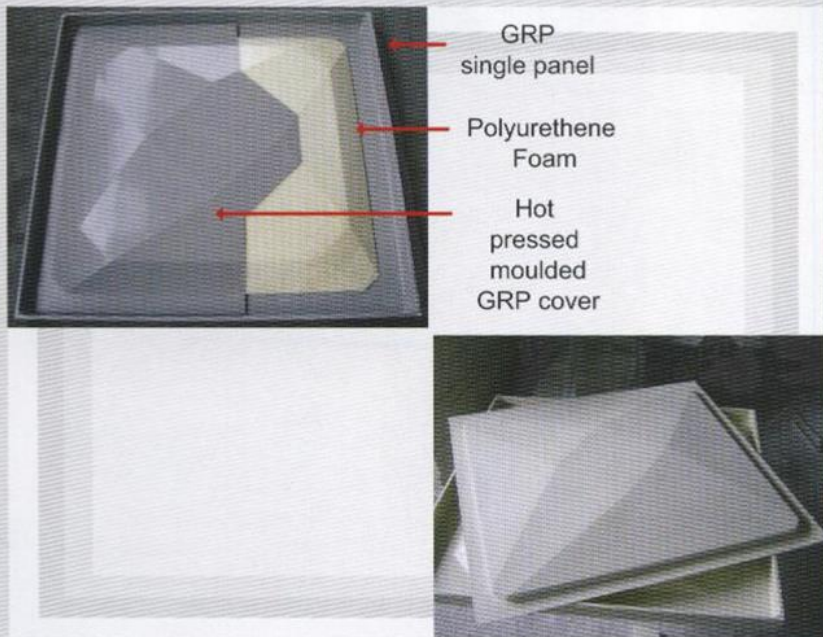
- 1.0m x 1.0m (roof, manhole, side wall, base, piping, drain)
- 1.0m x 0.5m (roof, side wall, base, piping, drain)
- 0.5m x 0.5m (roof, side wall, base, piping, drain)

TYPES OF GRP PANELS



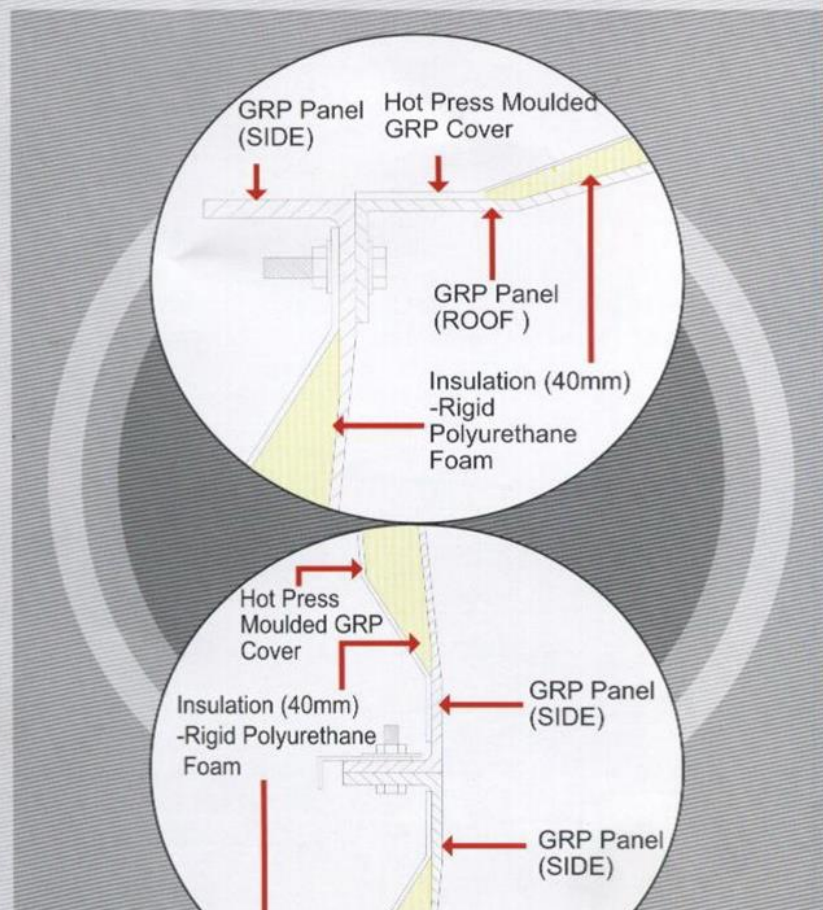
Insulated Panels

Anchor-Link insulated panel has specially developed low thermal conductive rigid polyurethane foam (40mm) in between the hot pressed moulded GRP single panel and hot pressed moulded GRP cover as shown below. These insulated panels are recommended for areas subject to extreme weather conditions.

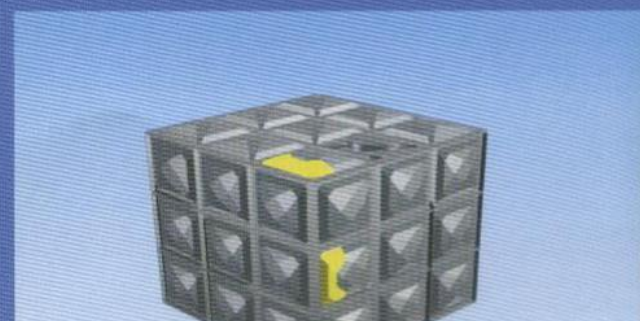


PHYSICAL PROPERTIES OF INSULATION

Density	38-40 kg/m ³
Closed Cells	90 to 95%
Operation Temperature	0°C to 50°C
Light Transmission	0.00
Insulation Thickness	40mm
Material of Moulded Cover	SMC Hot Pressed



DIAGRAMATIC GRP TANK WITH INSULATION



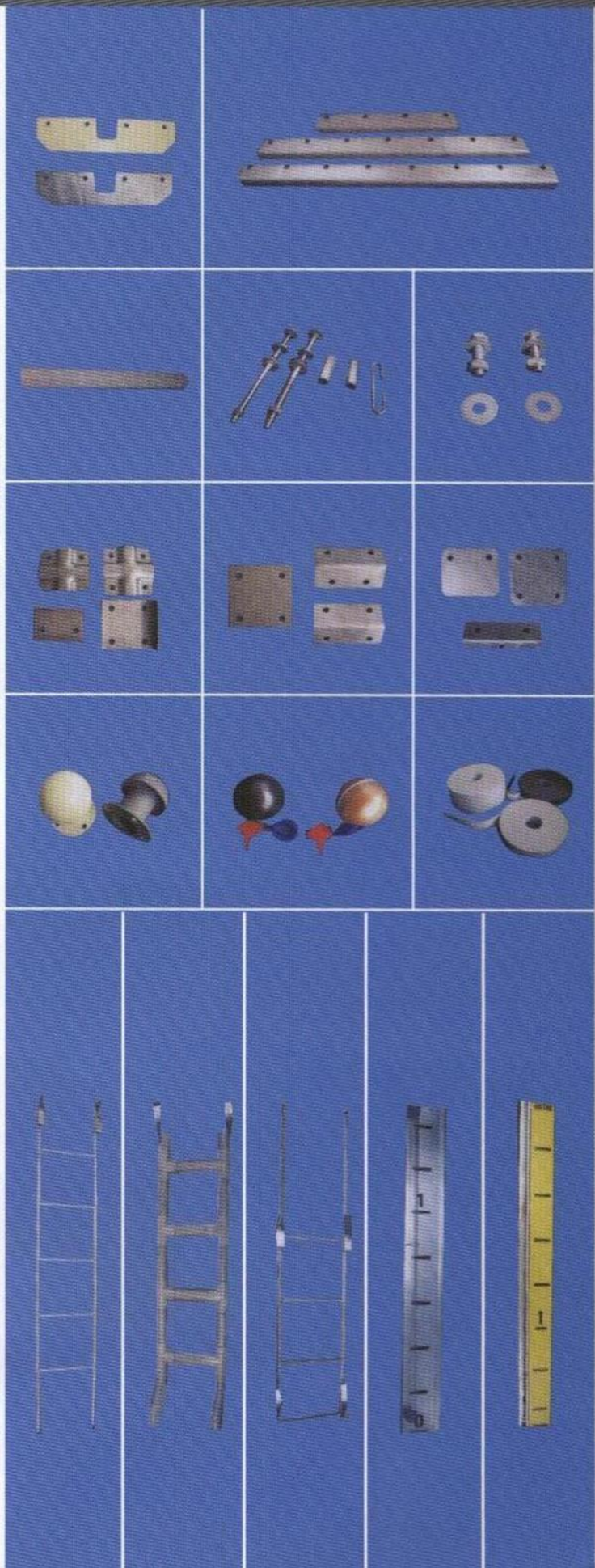
Generally, Anchor-Link's GRP panel tank shall consist of the following parts:

PARTS	SPECIFICATIONS
Standard SMC panels of 1.0m x 1.0m, 1.0m x 0.5m or 0.5m x 0.5m (1.5m x 1.0m projected panel)	Hot pressed panels moulded from SMC consisting of glass fibre and isophthalic resin.
Manhole	Hot pressed panels moulded from SMC consisting of glass fibre and isophthalic resin.
Insulated Panel	40mm thick insulation material (rigid polyurethane foam) sandwiched in between the hot pressed GRP panel and an outer hot pressed moulded GRP cover. 25mm thick insulation material available optionally.
Corner Angles	GRP, Galvanised Steel and Stainless Steel 304/316 available optionally.
Sealant	UV resistant foam sealant.
Tie Rods*	SS 304 rods. SS 316 available optionally.
Bolts, Nuts, Washers	Galvanised steel not in contact with water. SS in contact with water

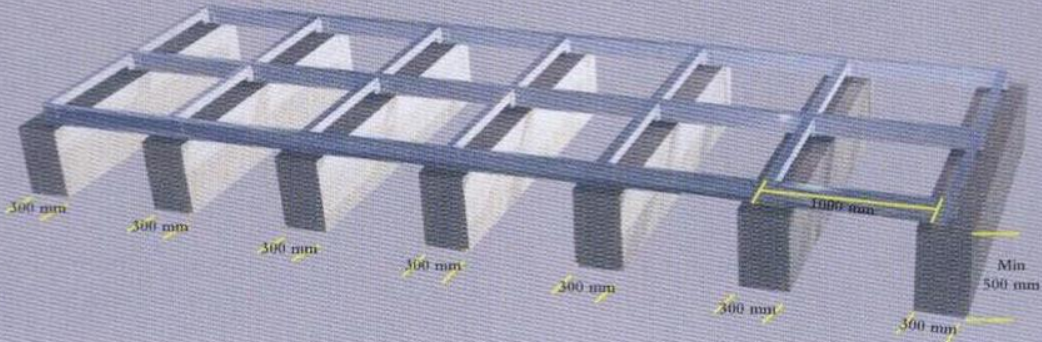
PARTS	SPECIFICATIONS
External Reinforcement*	Galvanised steel. Others available optionally.
Internal Roof Support*	PVC pole.
External Ladder*	Galvanised steel. Others available optionally.
Internal Ladder*	PVC, Aluminium and SS available optionally.
Air Vent	GRP/powder coated mushroom type. PVC goose neck available optionally.
Water Level Indicator*	Cat-and mouse type. Acrylic tube indicator available optionally.
Skid*	Mild steel painted, galvanised steel. Both available optionally.

* Where applicable

Note: Externally framed GRP tank up to 3.0m depth also available



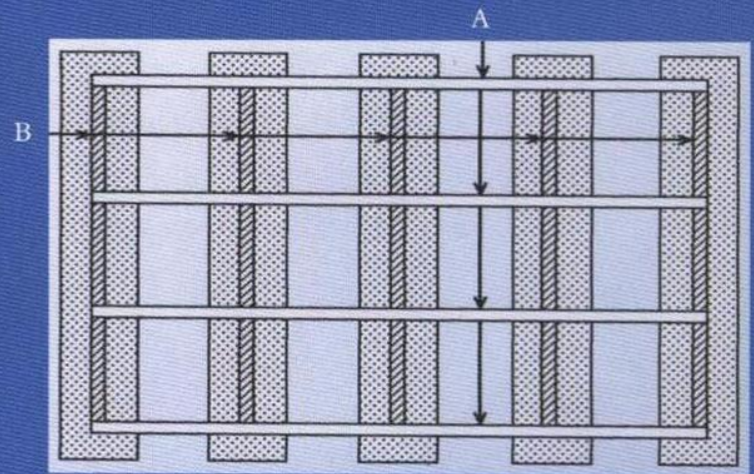
GENERAL ARRANGEMENT FOR CONCRETE PLINTH



STEEL FRAME SUPPORT

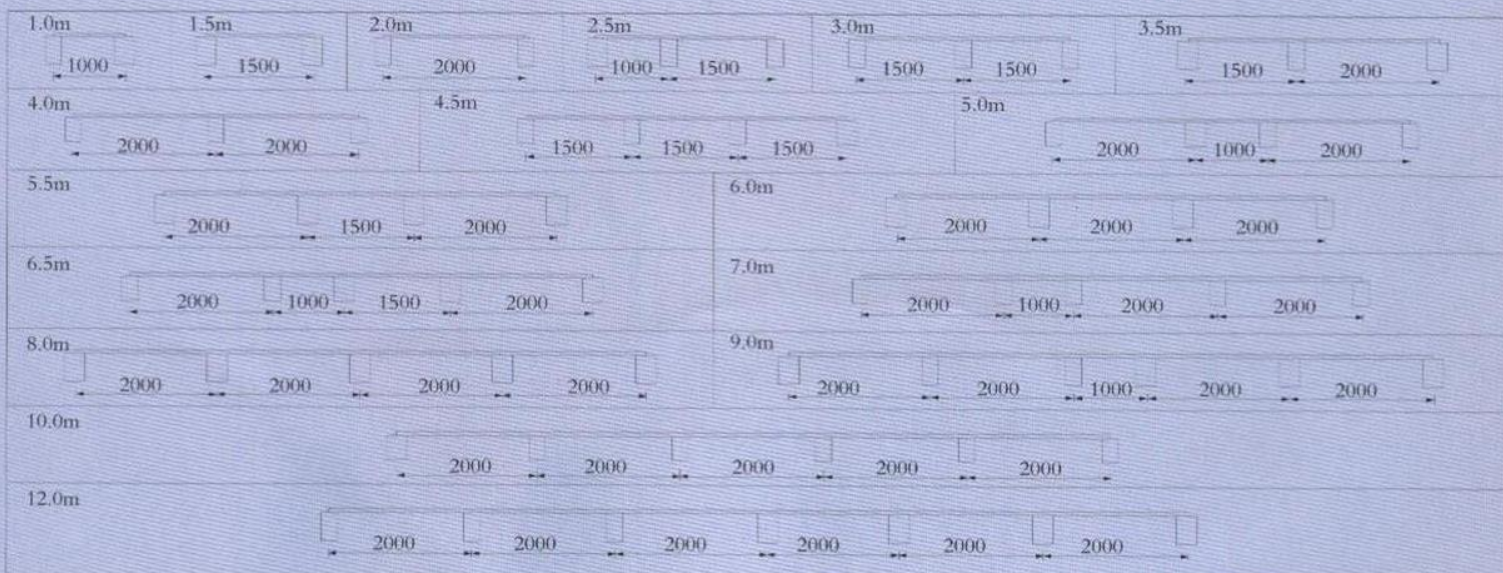
Depth of Tank	Distance Between Centre To Centre of Plinth			
	1.0 m		2.0 m	
	A	B	A	B
1.0	100 X 50 [(9.4KG)	Nil	100 X 50 [(9.4KG)	Nil
1.5	100 X 50 [(9.4KG)	50 x 50 x 5L	125 X 65 [(12.0KG)	65 x 65 x 6L
2.0	100 X 50 [(12.0KG)	65 x 65 x 6L	125 X 65 [(13.4KG)	65 x 65 x 6L
2.5	125 X 75 [(13.4KG)	75 x 75 x 6L	125 X 65 [(13.4KG)	75 x 75 x 6L
3.0	125 X 75 [(13.4KG)	75 x 75 x 6L	200 X 100 I (18.2KG)	75 x 75 x 6L
3.5	125 X 75 [(13.4KG)	75 x 75 x 9L	200 X 100 I (18.2KG)	75 x 75 x 9L
4.0	125 X 75 [(13.4KG)	75 x 75 x 9L	200 X 100 I (18.2KG)	75 x 75 x 9L

All measurements subject to manufacturer tolerances.
We reserve the right to offer alternative sections in our design.

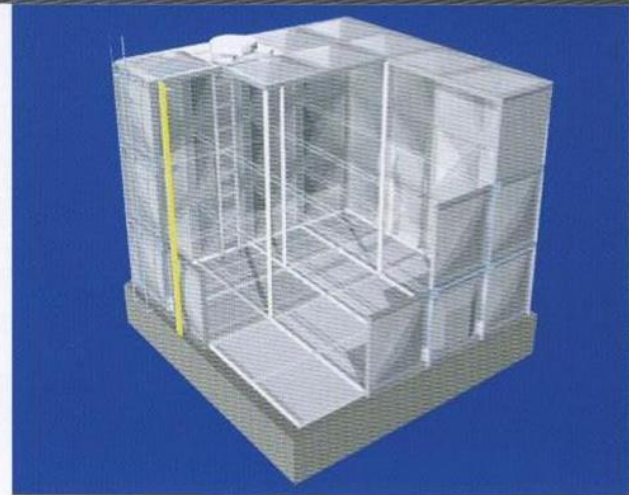
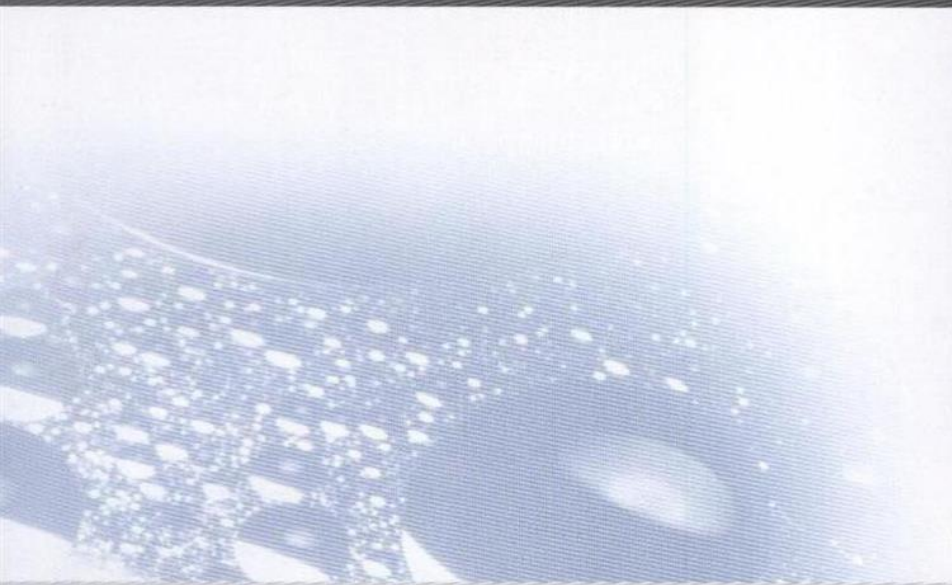


The minimum working space of 600mm be made available for
(1) below the tank base
(2) all side walls
(3) above the roof panels

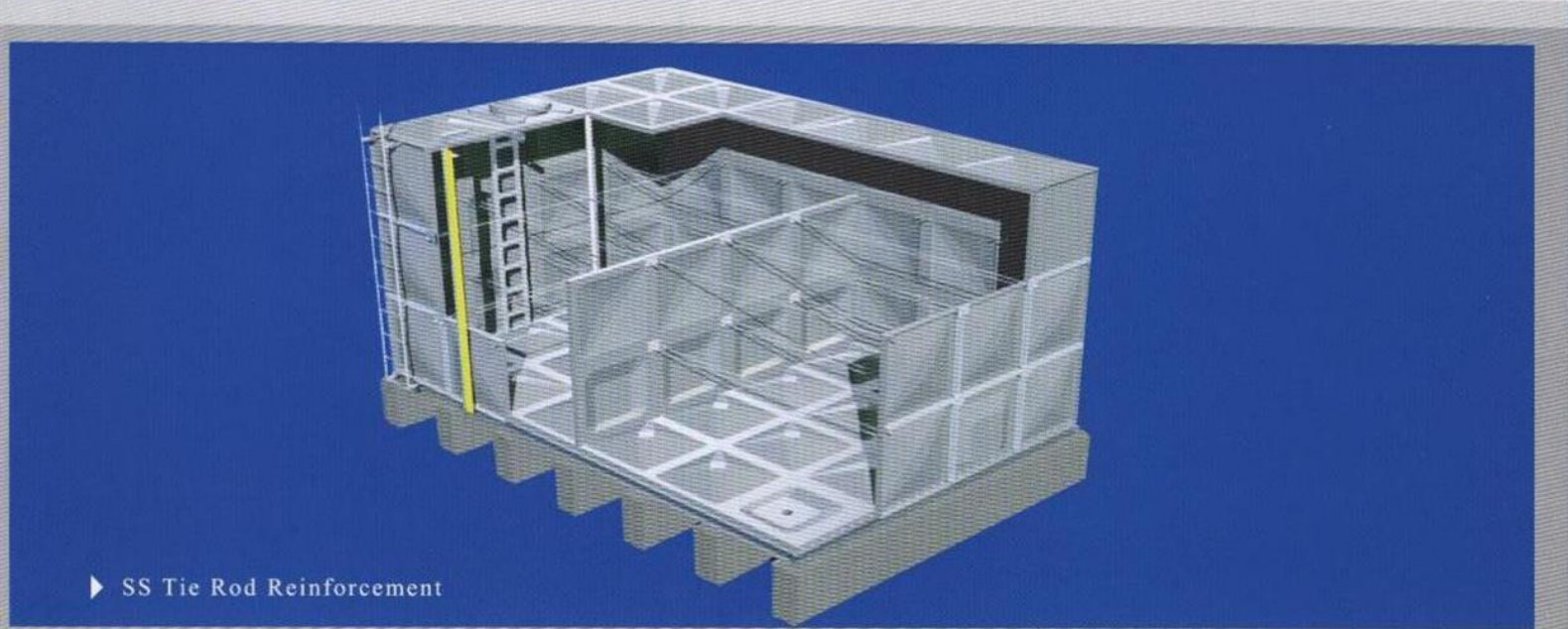
▼ The following are typical arrangement of concrete footings for various tank sizes. The dimension for plinth spacings are user friendly.



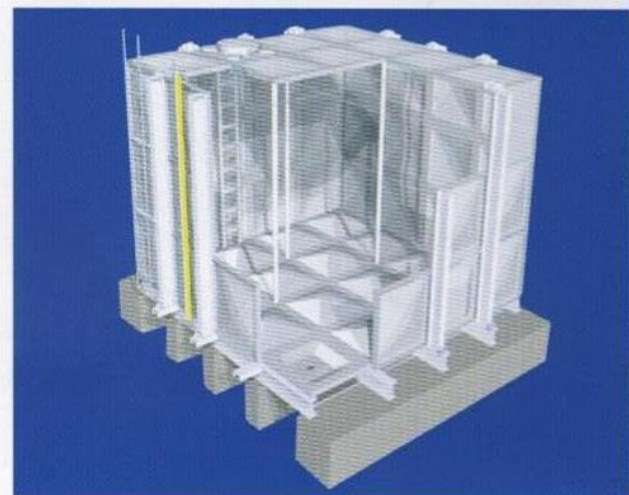
Diagrammatic View of GRP Water Tank



▶ Internal Flange At Base



▶ SS Tie Rod Reinforcement



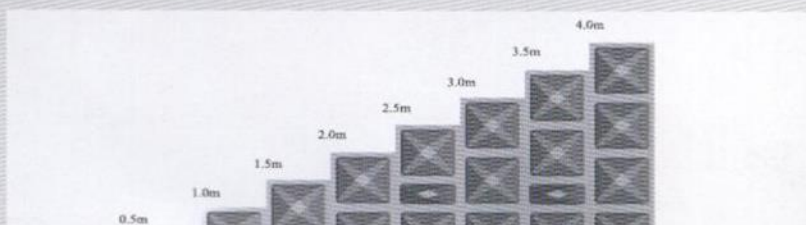
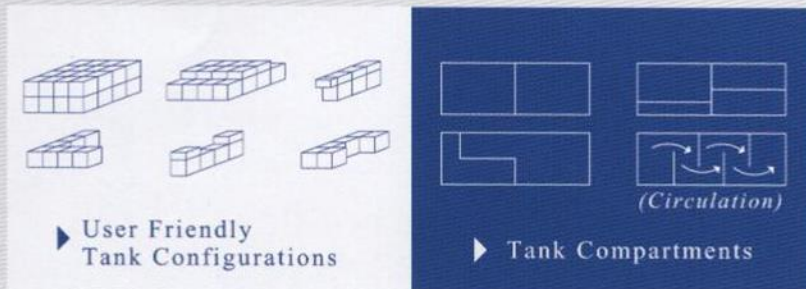
▶ External Framing Reinforcement

ADVANTAGES OF HOT PRESSED SMC GRP TANK PANELS

- **High pressure moulding**
Moulded at pressure of 60 to 100 kg/sq.cm and a curing temperatures of 150°C.
- **Tolerance $\pm 0.5\text{mm}$**
Accurately drilled and aligned bolt holes. Uniform compression of gasket throughout the flange length.
- **Smooth finish on both GRP surfaces**
No distortion of panel flanges. Minimum residual styrene – suitable for storing potable water.
- **Opaque moulding**
Good opacity that prevents algae growth.
- **Match die moulding**
Accurate moulding with uniform thickness and product quality.
- **Isophthalic polyester resin SMC**
Do not distort in hot climatic conditions. Durable and excellent water tightness.

TANK CONFIGURATIONS/COMPARTMENTS

The following are possible and user friendly tank configurations/compartments, please contact us for configurations/compartments not shown below.



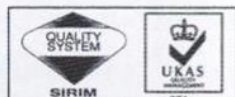
COMPARISON BETWEEN HOT PRESSED SMC PANEL TANK AND OTHERS TANK

Type	Water Quality	Water Tightness	Durability	Maintenance	Corrosion	Easy Assembly
Hot Pressed SMC Moulded Panel Tank	★	★	+	★	★	★
Hot Dipped Galvanised Panel Tank	✦	★	+	✦	✦	+
Stainless Steel Panel Tank	★	★	+	✦	✦	+
GRP Handlay Tank	✦	+	✦	✘	+	✦
Concrete Tank	✘	✦	✦	✘	+	✘

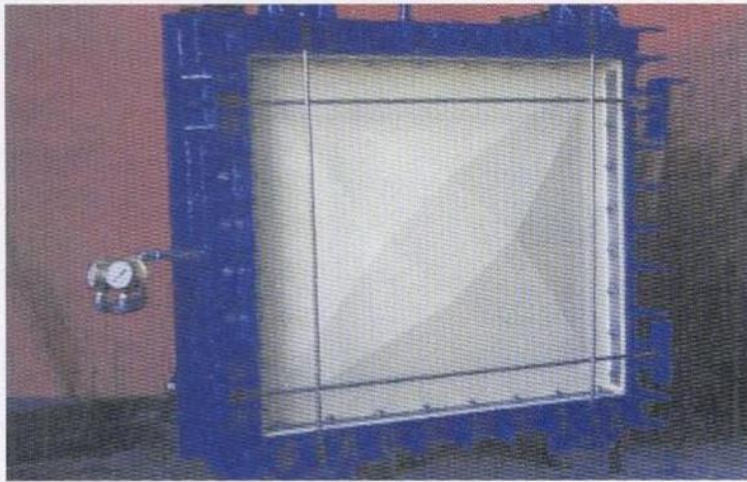
Our GRP tank panels are certified to comply with the requirements of SS 245 : 1995 Singapore Standards and BS 7491 Part 3 – 1994 British Standards (SIRIM). The material has also been in compliance with Productivity And Standards Board (PSB) and Water Regulations Advisory Scheme (WRAS).

QUALITY ASSURANCE

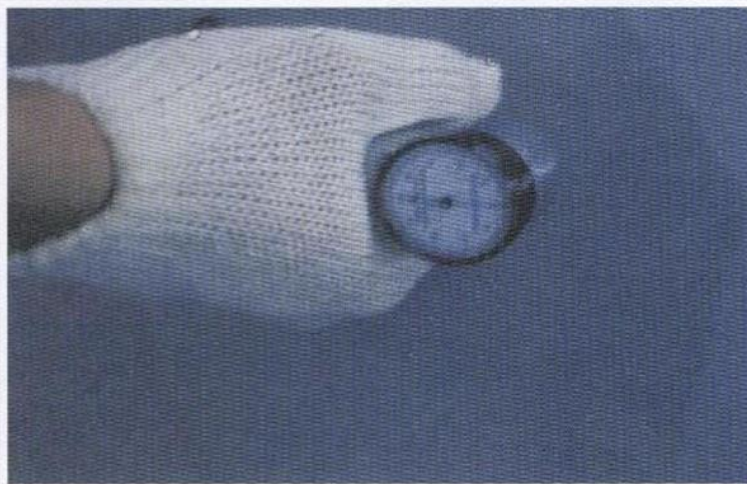
Anchor-Link Sdn Bhd is certified to ISO 9001:2000 and we strive to obtain maximum customers' satisfaction with continually improvement in production/processes and to achieve excellent product quality.



IN HOUSE TESTING



▶ Hydrostatic Test



▶ Barcol Hardness Test



▶ Testing Equipments



▶ Testing Machine

PROPERTIES OF GRP PANEL

Glass Content	>30%
Tensile Strength	1000 kg/cm ² ±10%
Flexural Strength	2000 kg/cm ² ±10%
Water Absorption	0.1%
Elastic Modulus In Bend	>10,000 MN/m ²

Light Transmission	0%
Microbiological Growth	Nil
Toxicity	Nil
Taste & Odour	Nil
Barcol Hardness	Max: 62 Min: 48

