

GENERAL DESIGN SPECIFICATION – One & Two-piece tank(s)

1. General Construction.

The design and production of The Tank Shop - GRP one & two-piece tanks shall be manufactured to the following standards quality standard: **ISO9001: 2015**, as well as complying to **BS EN 13280:2001 & Singapore Standard 245:1995** for worldwide usage.

2. Materials

All materials shall be in line with the requirements as per BS EN 13280:2001 & WRAS approved. Our tanks are manufactured by 'Hand-lay method', Combining an approved polyester resin (**BS3532 & BS2782**) pigmented to **BS4800** colour range Re. 10A05 & 'E' fibreglass mat which when complete leaves a smooth gel coat finish internally.

3. Bracings.

All tanks shall where indicated have an internal bracing system. All internal components shall be of stainless steel construction.

4. Pre-Insulation (Encapsulated).

The tank shall be manufactured with an integral polyurethane foam core to a set thickness. The foam core shall be sandwiched in the centre of the laminate layers and shall provide a minimum thermal conductance of:

- * 25mm thickness - 0.72W/M20°C (Positioned Internally)
- * 50mm thickness - 0.40W/M20°C (Positioned Externally)
- * 75mm thickness - 0.27W/M20°C (For Extreme Application)

The foam shall be both CFC and HCFC free and have an ozone depletion factor of 0.

5. Fixings.

All external fixings where required shall be zinc plated & passivated or galvanized (**BSEN ISO 1461:2009**). All internal fixings shall be stainless steel construction (**EN 10088-3:1995**).

6. Sealant.

All joints & bolts shall be sealed with WRAS approved materials.

7. Maintenance Access

There shall be a minimum working access to 450mm above the external size of the cistern. Allowing good working practices for the installation & future maintenance purposes.

8. Foundation.

All tanks are to be installed on either a flat screed concrete, steelwork or plinth, should be flat & level to a tolerance of 2mm in any square m or 6mm in 6m. These correspond with the manufactures specification as per BS EN 13280:2001

9. Access Points.

All sectional tank(s) shall have a flat, Byelaw 30 Cover (s), suitably supported. Access to the ball valves shall be via a 300 x 300 inspection hatch and for cistern(s) storing over 1000 litres a standard 600 x 600 manway shall be provided.

Raised ball valve chambers are provided with lift-off GRP lid and come in options of 200mm, 300mm & 400mm heights If ordered provision for Type AB air gap in compliance with **BS EN13077:2008** can be provided.

10. Catchment tray(s) (Optional).

The sectional tank(s) shall be positioned above a GRP catchments tray, which shall be 150mm larger than the cisterns overall size and have a 100mm upstand. The tray shall also be fitted with a drain connection.

11. Connections.

Connections supplied to be site installed & as per tank specification.

Overflow connections shall be supplied with Screens & should be fitted as per standard byelaw regulations by others.

12. Maintenance Dividers (optional).

On request new sectional storage tank(s) shall have an internal maintenance divider fitted within the cistern, allowing maintenance works to be carried out without disturbing the system.

13. Access Ladders

Tank above 1.5 meters depth shall be fitted with GRP internal & Galvanized external ladders to BS4211 with safety hoops. (If Ordered)

14. Commissioning and Testing

Tanks are to be factory water tested to a certified QA procedure for a minimum of 24 hours.



In accordance with our Policy of Continuous development and improvement, we reserve the right to alter designs and specifications without notice

