



# Water Storage Solutions

# **Brimar Plastics Limited**

Brimar have been manufacturing GRP water storage tanks and housings for over thirty years. Our experienced team of engineers have, through years of research and development, created a unique range of products that we believe to be the finest available. This claim is backed up by accreditations and approvals from all of the industry regulatory and standard authorities. This range of products has been installed throughout the world and is designed to endure the most

Two 8,000 x 3,000 x 2,500mm one piece tanks, 60,000 litre capacity, supplied and installed by Brimar.

Two 6,000 x 4,000 x 2,500mm GRP housings again supplied and installed by Brimar.

punishing climates on earth.

Brimar operates from multiple sites across the UK which enables us to provide our clients with some of the quickest lead times in the industry, competitive delivery and installation costs and minimising the environmental effect of road travel. This also means that our engineers are close at hand and are always happy to assist you in designing the most cost effective and efficient solution to your water storage requirements.



# **Tif Tanks**

#### Totally Internally Flanged (TIF)

Our TIF range is the most versatile sectional tank system on the market and has been specifically designed to suit applications where maximum water capacity is required, but where physical space is either limited or an unaffordable luxury. The Brimar TIF system is the ideal solution to your confined plant room refurbishment.

A conventional externally flanged sectional tank (IFB or EFB) requires a minimum clearance of 500mm around the sides for installation and future maintenance. However, with its unique internal flange system a Brimar TIF can be installed within 25mm of a wall giving you the opportunity to maximise the use of floor space available whilst maintaining the desired water storage capacity.

Imagine being able to replace an existing galvanised sectional tank without having to remove it thereby saving costly strip out, base works and disposal costs. This is possible with a Brimar TIF as the panel increments available make it possible to install the system as a virtual liner in almost any application.

Rain harvesting has been an ideal solution to the ever increasing usage cost of water and our impact on the environment. On new building developments this environmentally friendly approach is now part of the course, but to retro fit such a design in to an existing building can be problematic. The fundamental purpose of a rain harvesting system is the storage of said water, and the single largest problem is the availability of space to store a tank. This problem can be solved with the Brimar TIF, with 50mm incremental heights up to 3m deep and with our range of side panels we can put a tank where others simply cannot.







# **Tif Tanks**

#### Design the tank to fit the available space

A basic Brimar TIF tank will comprise of 4 no 500mm x 500mm corner sections, further side panels can then be selected from our extensive range of sizes giving you the flexibility to design your tank around the available space.









#### **Sectional Tanks**

The Brimar sectional tank system consists of a number of different panel profiles, which are specifically designed for various duties within the range. The metric range consists of panel sizes from 0.5m x 0.5m up to 2.5m x 1m which can be combined to provide an overall tank height of up to 4m deep. Our Imperial range consists of panel sizes from 2ft x 2ft up to 6ft x 4ft and these can be combined to provide an overall tank height of 10ft. The larger panels help us to reduce the number of components and minimise both installation time and future maintenance costs.

**Internally Flanged Base** (IFB) tanks are designed to be installed where there is restricted headroom but sufficient access to the sides of the tank to facilitate installation and future maintenance. A mandatory minimum clearance of 500mm is required above and around all sides of the tank. The fixings for the base are only accessible from inside the tank; this offers a saving in overall headroom requirements because the tank does not require elevating to allow man access to the base panel joints. There is still the need for sufficient headroom above the tank for man access (min. 500mm) and where specified a raised float valve housing.

The base plates on an IFB tank will have a residual 80mm depth of water after draining; this will require pumping out to fully empty the vessel. The tank base must be fully supported and the selected support structure must be a minimum of 300mm greater than the gross external dimensions of the tank. It must be flat, level and strong enough to support the weight of the tank and its contents when full without movement.

The base structure for IFB tanks must be to the following tolerances:

- 2mm in any metre
- 6mm in any 6 metres
- Maximum beam deflection 1:500









### **Sectional Tanks**

**Externally Flanged Base** (EFB) tanks are the most cost effective solution if a sectional tank is required. They have the additional advantage of being able to be fully drained without the requirement of a pump. The EFB range is designed for situations where there is sufficient access to the base and sides for installation and future maintenance. A mandatory minimum clearance of 500mm is required is required above and around all sides of the tank.

As the EFB base plate fixings are only accessible from the underside of the tank a solid slab is unsuitable. The base support structure must be constructed of cast piers, block work or a combination of RSJs and piers/block work. The supports will sit directly underneath each panel joint and should ideally run in one direction only. They must be a minimum of 500mm high and 300mm longer than the gross external dimensions of the tank.

The final base support structure must be flat, level and strong enough to support the weight of the tank and its contents when full without movement.

The base structure for EFB tanks must be to the following tolerances:

- 2mm in any metre
- 6mm in any 6 metres
- Maximum beam deflection 1:500

Pier or RSJ Supports must be spaced at 1m centres for metric sectionals and 4ft centres for imperial sectionals.









# **One Piece Tanks**

The Brimar range of GRP one piece tanks is available from 45 litres to 24,000 litres as a standard and up to 60,000 litres to special order. In addition to our standard tank range we also offer a custom build tank service to ensure that all of customer's design requirements can be met. Each vessel, standard or otherwise is water tested before leaving the factory, and a copy of the test certificate is available on request.

One Piece construction offers the most cost effective, reliable and practically maintenance free solution to fluid storage. However, it is often the case that restricted site access e.g. through loft hatches or narrow doorways make the selection of a one piece tank impractical.







- Suitable for potable/wholesome water, foodstuffs, effluent and chemical solutions.
- Available as non-insulated or with factory fitted HCFC & CFC free insulation.
- Fully compliant with Water Regulations and British Standards.
- Universally accepted by Architects, Consulting Engineers and the Building Services Industry.
- Accepted by MOD, Foreign Office, Home Office, NRA, Water Authorities, DEFRA etc.
- Designed to comply with the requirements of BS EN 13280:2001 (BS 7491 Parts 1,2 & 3).
- Suitable for internal or external applications (unaffected by sunlight).
- Internal metallic components in stainless steel to current European standards.
- Exposed external reinforcements to current European standards.
- Structural GRP Laminate with a high glass content, quality polyester resin and no fillers.
- Internal Gelcoated surfaces providing excellent resistance to algae growth.
- Extensive range of factory fitted connections.
- A superior weather resistant external finish.
- Available in a various colours from the BS 5252 or RAL colour range.



# **One Piece Tank Sizes**

	Nominal Capacity		Internal Dimensions (mm)			External Dimensions (mm)		
Туре	Gallons	Litres	Length	Width	Height	Length	Width	Height
SC10	10	45	460	310	310	560	410	340
SC20	20	90	610	410	380	710	510	410
SC30	30	140	610	460	480	710	560	510
SC40	40	180	690	510	510	790	610	540
SC50	50	225	740	560	560	840	660	590
SC60	60	275	760	590	610	860	690	640
SC100	100	450	1220	610	610	1360	740	640
6/1A	132	600	1990	400	750	2120	530	780
3/2A	100	450	890	590	810	1040	740	840
3/2B	70	320	890	590	610	1040	740	640
3/2C	50	250	890	590	460	1040	740	490
3/3A	200	900	1070	910	910	1200	1060	940
3/3B	165	750	1070	910	760	1200	1060	790
3/3C	130	600	1070	910	610	1200	1060	640
4/3A	300	1350	1370	910	1070	1510	1050	1100
4/3B	250	1150	1370	910	910	1510	1050	940
4/3C	200	900	1370	910	760	1510	1050	790
4/3D	165	750	1370	910	610	1510	1050	640
4/4A	400	1800	1220	1220	1220	1360	1360	1350
4/4B	350	1600	1220	1220	1070	1360	1360	1200
4/4C	300	1350	1220	1220	910	1360	1360	1040
4/4D	250	1150	1220	1220	760	1360	1360	890
6/4A	600	2750	1830	1220	1220	1990	1380	1350
6/4B	525	2400	1830	1220	1070	1990	1380	1190
6/4C	450	2050	1830	1220	910	1990	1380	1040
6/4D	375	1700	1830	1220	760	1990	1380	890
7/4A	700	3200	2130	1220	1220	2290	1380	1350
7/4B	600	2750	2130	1220	1070	2290	1380	1250
7/4C	525	2400	2130	1220	910	2290	1380	1040
7/4D	450	2050	2130	1220	760	2290	1380	890
8/5A	1000	4500	2440	1520	1220	2600	1680	1350
8/5B	880	4000	2440	1520	1070	2600	1680	1250
8/5C	750	3400	2440	1520	915	2600	1680	1040
8/50	630	2900	2440	1520	760	2600	1680	890
10/5A	1550	7000	3060	1520	1520	3200	1680	1650
10/5B	1250	5700	3660	1520	1220	3200	1680	1350
M11-A	220	1000	1000	1000	1000	1160	1160	1130
M15-A	330	1500	1500	1000	1000	1660	1160	1130
IVIZI-A	440	2000	2000	1000	1000	2160	1160	1130
MA1 A	880	4000	4000	1000	1000	4160	1160	1130
M2-A	880	4000	2000	2000	1000	2160	2160	1130
M3-A	1300	000	3000	2000	1000	3160	2160	1130
M4-A	1750	8000	4000	2000	1000	4160	2160	1130
M5-A	2200	10000	5000	2000	1000	5160	2160	1130
M6-A	2650	12000	6000	2000	1000	6160	2160	1130
M1-B	330	1500	1000	1000	1500	1160	1160	1630
M2-B	1300	6000	2000	2000	1500	2160	2160	1630
М3-В	1980	9000	3000	2000	1500	3160	2160	1630
M4-B	2650	12000	4000	2000	1500	4160	2160	1630
M5-B	3300	15000	5000	2000	1500	5160	2160	1630
M6-B	3950	18000	6000	2000	1500	6160	2160	1630
M2-C	1750	8000	2000	2000	2000	2160	2160	2130
M3-C	2650	12000	3000	2000	2000	3160	2160	2130
M4-C	3500	16000	4000	2000	2000	4160	2160	2130
M5-C	4400	20000	5000	2000	2000	5160	2160	2130
M6-C	5300	24000	6000	2000	2000	6160	2160	2130

### Housings

Brimar offer a range of GRP housings and enclosures. These can be supplied in sections for site installation or fully assembled for delivery in one piece and are engineered to protect field-based control gear including pumps, generators, telemetry and for general site storage.

Brimar GRP housings can be supplied with encapsulated HCFC & CFC insulation and additional reinforcement can be incorporated to resist vandals, punishing weather conditions and airborne chemicals. All housings can be manufactured from fire retardant materials Class 2, 1, 0 where required.

All models are finished in a resilient, hard gloss gel coat which is colourfast and waterproof and can be supplied in various colours from the BS5252 or RAL range. The units are impervious to U.V. rays and bacteriological growth. The internal surface is coated with a robust easily cleaned isopthalic resin flow coat.

Whatever the requirement, Brimar housings and enclosures provide an ideal solution for a multitude of your protective storage needs.



Example of a combined one piece water tank and pump housing.





#### **Thermoplastic Fabrications**



Thermoplastics are the result of some of the most recent breakthroughs in plastic technology. They are durable, resistant to chemicals and cost effective.

With the fabrication processes designed for thermoplastics most configurations can be manufactured from sheet and tube.

Thermoplastics are increasingly replacing conventional materials in many industries. In the water industry for example, they are used in the manufacture of a replacement floating arm draw off for steel units that were prone to rust.

In the chemical industry thermoplastics are used for containment and ducting. They are not only chemically resistant but can also operate at high temperatures.



There is growing demand for thermoplastics in the food and drinks industry due to the absence of odour, taint or toxicity. Most thermoplastics are easily cleaned with water, steam and C.I.P systems.

#### **Fabrication**

Brimar's manufacturing expertise enables us to provide short lead times for products ranging from complicated underground liquid storage systems with capacities up to 50,000 litres to the smallest of tubes and fittings.

#### **Applications:**

- Manufacturing
- Industrial
  - Food and drink, Processing
- Pharmaceutical
- Chemical and waste Management.
- Plant room bunding
- Groundwater protection





#### **Brimar Plastics Limited**

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