

DEWEY WATERS LIMITED
HERITAGE WORKS, WINTERSTOKE ROAD, WESTON-SUPER-MARE BS24 9AN

GENERAL SPECIFICATION FOR ONE PIECE GRP
POTABLE WATER STORAGE CISTERNS AND TANKS

Scope:

GRP "Format 30 Range" of one piece cisterns / tanks manufactured by Dewey Waters Limited of Weston-super-Mare BS24 9AN (01934 421477).

Applicable Standards:

The cisterns / tanks are designed and manufactured in order to comply with EN 13280: 2001; the Water Supply (Water Fittings) Regulations 1999 and are approved for use with potable water under the Water Regulations Advisory Scheme (Certificate Number 0507099).

The cisterns / tanks are manufactured under a quality management system registered to BS EN ISO.9001: 2000 with specific quality control arrangements being based upon BS4549-1: 1997 (QC requirements for reinforced plastic mouldings).

Specification of cistern / tank structure:

The raw materials of the GRP shall conform as appropriate to BS3532: 1990 (resin systems) and BS3691: 1990 (E glass rovings).

All internal surfaces of cisterns / tanks shall be of isophthalic gelcoat and are impervious to water and resistant to any bacteriological growth.

In order to meet the maximum deformation requirements (1.5% or 15mm - whichever is the lesser) rolled hollow section steel members shall, as necessary, be integrally bonded into the cistern side walls - and over laminated - in order to give necessary support.

Each cistern / tank shall be fitted with a cover, and which, whilst not designed to be air tight, shall exclude light and prevent the ingress of particles and / or insects. Where the cistern / tank holds more than 1000 liters then provision for inspection and cleaning shall be made without the necessity to remove the entire cover (access and / or inspection hatches). Each cistern / tank shall be fitted with either standard connection points or points as agreed by contract.

The sides and cover of the cistern / tank shall be insulated with a minimum of 25mm "HCFC Free" insulation material with a 'U' value of 0.877 watts/m² °C. The base shall be insulated if agreed by contract.

Raised float valve chambers can be provided in order to give increased cistern / tank capacity if agreed by contract.

DWL
OP.010 Issue 01

PRINTED COPIES OF THIS DOCUMENT ARE UNCONTROLLED UNLESS STATED OTHERWISE



Association of Tank
and Cistern Manufacturers

Registered in England No: 3839643.

Registered Office:

Heritage Works, Winterstoke Road, W-S-M, BS24 9AN



Quality Systems
Certificate No: 135

VAT Registration No: 742 1271 62.

A reinforced base is provided where the length or width of a cistern / tank places the base at risk of damage by fork lift trucks during handling or it is of a depth where the water pressure acting on the base would be considered to be otherwise excessive.

Reinforced bases may also be provided at the request of the client or where the foundation does not fully support the base of the tank.

Specification of Connections and fittings:

NB The correct provision and fitting of connections etc. is a requirement in order for the installed cistern / tank to comply with the relevant regulations. Dewey Waters Limited will provide all necessary connections etc., if so contracted, but it is normally the client's responsibility to fit them on site.

Overflow, warning and breather pipes shall be screened with corrosion resistant mesh with a 0.65mm maximum opening in order to prevent the ingress of particles and / or insects.

Air gaps and backflow. A potable water storage cistern / tank must be designed and fitted with backflow prevention in accordance with the Water Supply (Water Fittings) Regulations 1999. This takes the form of an air gap with an overflow arrangement dependent upon the fluid category. Wholesome water as supplied by a water undertaker is fluid category 1 and which requires a Type AF or AG backflow prevention arrangement. Other types of backflow prevention arrangements can be provided.

Float valves shall comply to BS.1212 Part 1,2 3 or 4 or shall be WRAS approved (eg equilibrium or delayed action types).

Installation Recommendations:

NB The correct installation of the cistern / tank is a requirement in order for the cistern / tank to comply with the relevant regulations. Dewey Waters Limited will install tanks if so contracted but this is normally the client's responsibility.

Each storage cistern / tank shall be adequately supported* so as to avoid distortion or damage and only installed in a place or position where the inside may be readily inspected and cleansed and the float operated valve may be readily installed, repaired, renewed or adjusted. For cisterns / tanks up to 1000 liter capacity there should be a minimum unobstructed space above the cistern / tank of not less than 350mm and for those of over 1000 liter capacity there should be an unobstructed space of not less than 500mm over the inspection hatch and not less than 350mm elsewhere.

* The cisterns should be seated on a continuously supported foundation and which, based upon BS EN 13280:

2001, shall conform to the following requirements:

The area of foundation conforming to the specification below shall be 170mm longer and wider than the nominal footprint of the tank.

DWL
OP.010 Issue 01

PRINTED COPIES OF THIS DOCUMENT ARE UNCONTROLLED UNLESS STATED OTHERWISE



Association of Tank
and Cistern Manufacturers



Quality Systems
Certificate No: 135

Registered Office:

In the unloaded state the horizontal plane of the foundation shall not vary more than 2mm in any one metre or a total of 6mm in any six metres measured laterally or diagonally.

Flat screened concrete foundations shall additionally be free from local irregularities and be capable of supporting the full tank without further deflection.

**Where a continuously supported base cannot be provided then, if agreed by contract, the cistern / tank base can be reinforced.

Horizontally split tanks. Where these are supplied in two halves see OP.125 for assembly instructions.

DWL
OP.010 Issue 01

PRINTED COPIES OF THIS DOCUMENT ARE UNCONTROLLED UNLESS STATED OTHERWISE



Association of Tank
and Cistern Manufacturers

Registered in England No: 3839643.

Registered Office:

Heritage Works, Winterstoke Road, W-S-M, BS24 9AN



Quality Systems
Certificate No: 135

VAT Registration No: 742 1271 62.