

Short Form Specification

The contractor shall provide the appropriate aboveground fiberglass storage tank and accessories as indicated on tank drawings. Capacity, dimensions, fitting locations and sizes will also be indicated on tank drawings. Tanks shall be fiberglass as manufactured per the requirements of Containment Solutions, Inc. The tank must be installed according to manufacturer's current installation instructions.

Long Form Specification

1. GENERAL

1.1. Quality Assurance

1.1.1. Acceptable Manufacturers:

Containment Solutions, Inc., Conroe, Texas

1.1.2. Governing Standards:

1.1.2.1. Tank manufacturer shall be in the business of manufacturing fiberglass tanks.

1.1.2.2. The tank shall be manufactured to meet or exceed the applicable requirements listed in the Rainwater Catchment Design and Installation Standards published by the American Rainwater Catchment Systems Association (ARCSA).

1.1.2.3. The tanks shall be manufactured to meet applicable standards as found in:

- ANSI/AWWA-D120, Thermosetting Fiberglass Reinforced Tanks
- API-12P, Specification for Fiberglass Reinforced Plastic Tanks
- ASTM D3299, Specification for Filament Wound Glass Fiber Tanks
- ASTM C582-02, Specification for Contact Molded RTP Laminates
- ASTM D2583, Test Method for Indention Hardness by Barcol Impressor

1.2. Submittals

1.2.1. Contractor shall submit to engineer ____ copies of shop drawings for each tank and ____ copies of manufacturer's literature (including installation instructions).

2. PRODUCTS

2.1. Fiberglass Aboveground Tanks

2.1.1. Product-Storage Requirements:

2.1.1.1. All tanks must be vented by a top vent opening size equal to or larger than the largest inlet/outlet fitting. Tanks are designed for operation at atmospheric pressure only.

2.1.1.2. Tanks shall be capable of long term storage of non-potable water at ambient temperature conditions.

2.1.2. Tanks designed for potable water storage shall be manufactured by procedures that meet the applicable standards found in ANSI/AWWA-D120, and with resin systems that comply with FDA approval for storage contact with drinking water.

2.1.3. Loading Conditions - Tanks shall meet the following design criteria:

2.1.3.1. Standard designs shall conform to the specification described in API 12P, requiring a maximum working pressure equal to the hydrostatic head of the stored fluid plus 6 inches of water column (0.217 psig) and 2 inches of water column vacuum.

2.1.3.2. Tanks shall be designed to support accessory equipment such as submersible pumps and inlet pipes when installed according to manufacturer's recommendations and limitations.

2.1.4. Materials:

2.1.4.1. The tank shall be manufactured of resin and glass fibers as defined in API 12P.

2.1.4.2. Tank inner wall shall be fabricated against a mold to produce a non-air inhibited and high gloss laminate to provide fully cured inner surface without the need of wax coats, a low coefficient of friction and a natural resistance to the build-up of algae or other contamination on the surface.

2.1.4.3. Joint constructions and appurtenance attachments shall be completed in accordance with the requirements of API 12P.

2.1.4.4. Standard tanks shall be factory coated with desert sand or forest green paint or pigmented gel coat to inhibit sunlight from penetrating the tank and to prevent UV degradation of the tank surfaces.

2.1.5. Fittings:

2.1.5.1. The standard tank configuration of fittings and fitting sizes shall match the CSI Standard Tank drawings.

2.1.5.2. All threaded fittings, nozzles, and manways shall be installed in each tank in accordance with the requirements prescribed by API 12P.

2.1.5.3. The tank shall have a 18" threaded polypropylene lid on the tank top.

2.1.6. Tank Dimensions and Sizes: (refer to CSI sales literature and drawings)

2.1.6.1. Tank height shall be _____.

2.1.6.2. Tank diameter shall be _____.

2.1.6.3. Tank capacity shall be _____.

2.2. Accessories

2.2.1. First flush catchment available on select sizes.

2.2.2. Liquid Level Gauge available on select sizes:

3. INSTALLATION

3.1. Installation

3.1.1. Installation - Tank shall be installed according to the CSI Installation Instructions (publication INST 6053) in effect at time of installation.

3.1.2. Rainwater Catchment Design and Installation Standards published by ARCSA - American Rainwater Catchment Systems Association must be followed when the tank is utilized for rain harvesting.

4. LIMITED WARRANTY

4.1. Limited Warranty

4.1.1. Warranty shall be Containment Solutions limited warranty in effect at time of delivery.