



Manufacturers of Tough and Durable Polyprene® Water & Foam Tanks and PolyBilt Bodies for the Fire Industry

**BID DOCUMENT DESCRIPTION FOR  
POLYPRENE® ELLIPTICAL TANK**

The tank shall have a rated capacity in U.S. gallons, complete with lifetime warranty. The tank manufacturer shall mark the tank and furnish notice that indicates proof of warranty. The purpose of the notice is to inform department personnel who store or use the tank that the unit is under warranty.

The tank shall be constructed of 1/2" thick Polyprene sheet stock. This material shall be non-corrosive stress relieved thermoplastic and U.V. stabilized for maximum protection. The tank shall be of a special configuration and is so designed to be completely independent of the body and compartments. All exterior tank joints and seams including the tank wrap shall be extrusion welded and/or contain the *Bent Edge™* and tested for maximum strength and integrity. The top of the tank is fitted with removable lifting eyes designed with a 3 to 1 safety factor to facilitate easy removability.

The transverse and longitudinal swash partitions shall be manufactured of Polyprene material. All partitions shall be equipped with vent and air holes to permit movement of air and water between compartments. The partitions shall be designed to provide maximum water flow. All swash partitions interlock with one another and are welded to each other as well as to the walls and floor of the tank.

The tank shall have a combination vent and fill tower. The fill tower shall be constructed of 1/2" thick Polyprene and shall be a minimum dimension of 24"x 24" outer perimeter. The tower shall be located in the center of the tank unless otherwise specified by the purchaser. The tower shall have a 1/4" thick Polyprene screen and a Polyprene hinged-type cover. Inside the fill tower, there shall be a combination vent overflow pipe. The vent overflow shall be a minimum of schedule 40 polypropylene pipe with a minimum I.D. of 6" that is designed to run through the tank, and shall be piped behind the rear wheels where specified by the purchaser so as to maximize traction.

There shall be one (1) sump standard per tank. The sump shall be constructed of 1/2" black Polyprene and be located in the front of the tank unless specified otherwise. On all tanks that require a front suction, a 3" schedule 40 polypropylene shall be installed that will incorporate a dip tube from the front of the tank to the sump location. The sump shall have a minimum 3" FNPT threaded outlet on the bottom for a drain plug. This shall be used as a combination cleanout and drain. All tanks shall have an anti-swirl plate located approximately 2 1/2" above the dip tube.

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ISO 9001 CERTIFIED

There will be two (2) standard tank outlets: one for tank to sump suction line which shall be a minimum of 3" FNPT coupling; and one for a tank fill line which shall be a minimum of 2 1/2" FNPT coupling. All tank fill couplings shall be backed with flow deflectors to break up the stream of water entering the tank and be capable of withstanding sustained fill rates of up to 1,000 G.P.M. All auxiliary outlets and inlets must meet N.F.P.A. 1900 guidelines in effect at the time of manufacture. There also shall be one rear dump valve fitting designed for sustained water evacuation.

Unless otherwise specified, the tank shall rest on the Polyprene cradle and a subframe with linear and cross members spaced at a distance that would not allow for more than 530 square inches of unsupported area under the integrated tank cradle.

Unless otherwise specified, the tank must be isolated from the cross members through the use of hard rubber strips with a minimum thickness and width dimension of 1/4" x 2" and a minimum Rockwell hardness of 60 durometer. Additionally, the tank must be supported around the entire bottom outside perimeter and captured both front and rear as well as side to side to prevent tank from shifting during vehicle operation.

Unless otherwise specified, a picture frame type cradle mount shall be utilized with a minimum 2"x 2" x 1/4" mild steel, stainless steel or aluminum angle. Where aluminum or steel tubing and channel sub frames are incorporated in the body structure, the use of corner angles having a minimum dimension of 4"x 4" x 1/4" by 6" high are permitted for the purpose of capturing the tank.

Although the tank is designed as a free-floating suspension unit, it is required that the tank have adequate hold down restraints to minimize movement during vehicle operation. A mounting restraint system shall be located on side of the cradle at a minimum halfway between the front and rear on each side of the tank and beneath the tank. These mounting brackets shall be constructed of steel, stainless steel or aluminum angle having minimum dimensions of 3" x 3" x 1/4" and shall be approximately 6 to 12 inches long. These brackets must incorporate a hard rubber isolating pad with a minimum thickness of 1/4" affixed on the underside of the angle. The angle should then be bolted to the subframe and a spring bolt system.

Other equipment such as generators, portable pumps must not be mounted directly to the tank top unless provisions have been designed into the tank for that purpose. The tank shall be completely removable without disturbing or dismantling the apparatus structure.