

WT – Water Tanks



Our Water Tank designs range from 150 gallon capacity to 5,000 gallon+ and are offered in carbon steel, stainless steel or plastic. The WT series tanks are custom designed with or without a baffle and sized to accommodate a variety of pump configurations. Several options can be added to the tank for ease of operation

SUPERIOR BY DESIGN

All components are on a heavy gauge solid deck. The tank wall construction is of ¼" carbon steel plates with interior cross bracing. Coal tar epoxy coating is applied on the inside, and primer and industrial enamel paint on the outside.

All tanks are full seam welded inside and outside and include a cover. Six foot and taller tanks include ladder rungs for easy access and our chilled water tanks have ½ inch closed cell foam insulation on the walls and bottom.

Our design for automatic water make-up includes a bronze body type float valve with adjustable linkage. We also place a baffled zone around the float to protect it from turbulence.

By including a divider, two sump areas exist: one to receive hot process water, the other for cool water. The divider is below the overflow height and approximately two inches off the bottom of the reservoir for equalization of water level.

PUMP AND TRIM

A variety of configurations of pumps can be mounted on the tank deck dependent on the application it is to be used for. The process pump is of closed coupled design and includes full flow valves and headers to reduce pressure drop and sized to assure laminar flow.

The pump suction extends into the tank to assure total water turn-over. The ends are cut at a 45° angle to prevent vortexing and cavitation of the pump

A butterfly valve at the pump suction permits pump removal for replacement or service without the need to drain or stop the total system.

A flow-balancing valve at the pump discharge completes the trim to provide pump operation at the design rate of flow.

Process pumps also include check valve in the discharge line to prevent drain back and allow higher operating volume as well as a liquid filled pressure gauge to indicate pump discharge pressure.

A bottom drain with ball valve allows full drainage of the system.

MOUNTED ELECTRICAL PANEL

A NEMA rated control panel synchronizes the pump/tank services. The pump motor in this station has a properly sized electrical contactor and overload in the enclosure that includes start-stop buttons, fuses, and pilot lights.

Unless otherwise specified, the control panel is mounted on the pump deck and factory wired to the motor.

FEATURE SUMMARY

- Heavy gauge carbon steel frame and tank walls
- Primed and painted with acrylic enamel
- Interior coated with a coal/tar epoxy to alleviate corrosion of tank wall
- Fully welded seams both inside and out
- Carbon steel angle cross bracing for additional support
- Removable galvanized steel tank cover
- Automatic water make-up
- Drain near bottom of tank
- Vertical sight glass included to easily see water level inside of tank
- Tank overflow at top of tank wall to eliminate possible overflow of water from inside the tank

OPTIONS

- Polyurea Polycoat treatment after sand blasting inside of tank surface.
- Stainless Steel construction optional
- Plastic tanks
- ½" or 1" foam insulation on tank walls and under base of tank to keep water level chilled
- Safety rail and ladder
- Baffle to allow for a single tank to be used for two different purposes. Partial and full baffles available. Full baffles primarily used to create a closed loop environment.

Pumps – Anatomy of Pump Trims

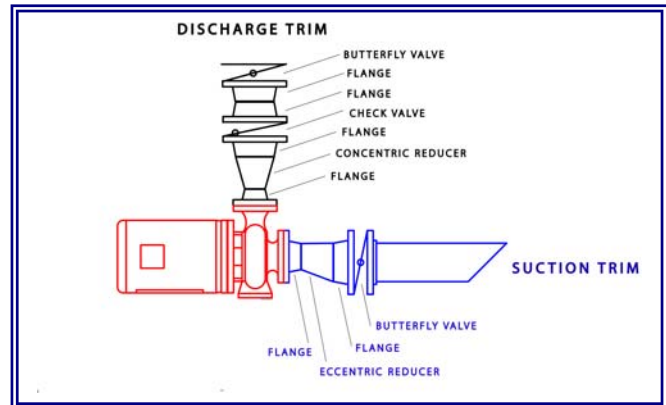
Cooling Technology's Pump Trims can have a variety of combinations. The following diagrams demonstrate the anatomy of pump trim combinations

SINGLE PUMPS

The pump trim on a main pump is as shown.

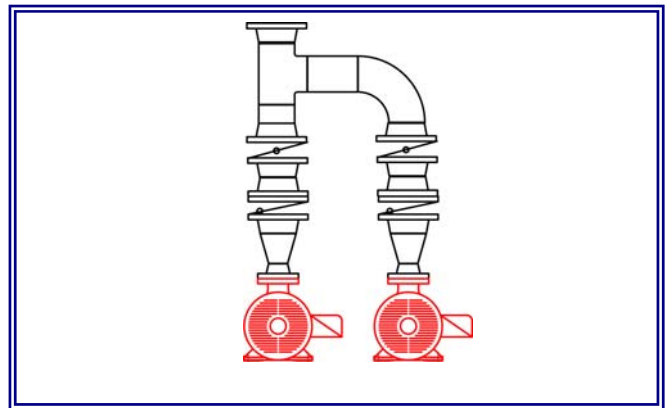
Check valve – Permits water to flow in one direction only. Doesn't allow water to return/change direction.

Butterfly valve – Throttling / isolation valve.



MAIN PUMP WITH STANDBY PUMPS

The main pump can be accompanied by a standby pump. The standby pump functions as the main pump in the event that the main pump goes down or needs to be serviced. The standby pump is connected to the discharge line at the end of the main pump trim by a tee in the line. The standby pump is always the size of the main pump



COMMON STANDBY PUMP

The common standby pump accompanies multiple pumps and acts as the replacement to either of the connected pumps in the event that the other pumps go down or need to be serviced. The common standby is always the size of the larger of the pumps it is connected to.

