

# Installation & Operating Instructions

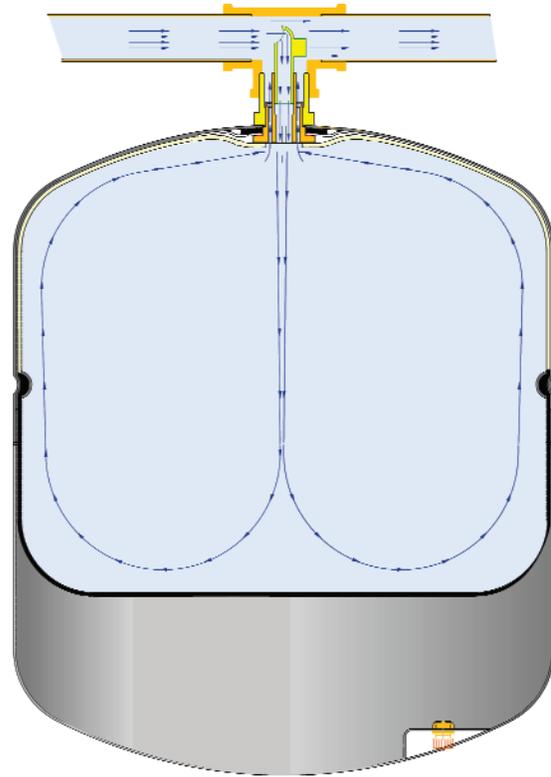
## Models FT 18, FT 18S, FT 44S

Flexcon Industries patented Flow Thru tank has been designed for today's modern VFD pumping systems. Because these systems operate on such low differential pressures, system water may remain in the pressure tank's water chamber for an extended period of time. The Flow Thru tank's unique design provides total exchange of the water from the tank, thus greatly reducing the potential for stagnant water.

### How it works

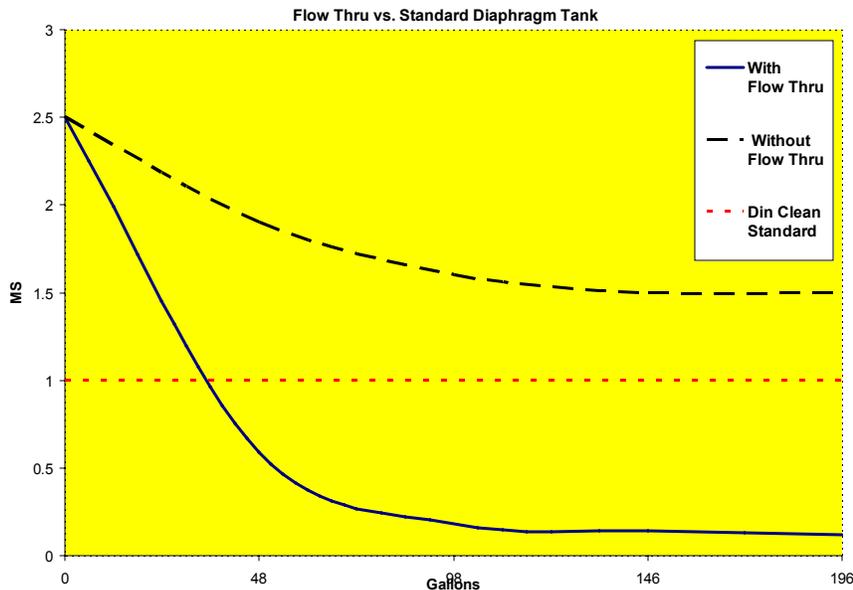
The windvane Flow Thru concept is based on the principle that when a scoop diverter is introduced into the flow stream, it will force a higher pressure stream of supply flow into the water chamber of the expansion vessel. This stream is carried through the center of the water connection fitting. A lower pressure flow path is created around the circumference of the fitting. These pressure differentials create an exchange from the contents of the water chamber to fresh supply water.

The device is self-aligning due to the patented windvane (watervane) opposite the diverter scoop opening. This aligning feature alleviates the need for directional alignment during installation.



### Testing

The Flow Thru tank with windvane insert has been thoroughly tested by an independent laboratory to the stringent requirements of the German DIN standard. Testing was conducted utilizing a VFD submersible pumping system cycled to a typical household demand, and compared the performance of a standard diaphragm type tank versus the Flow Thru tank. Tests showed that the Flow Thru tank exceeded the DIN standard within 48 gallons of system flow while the standard tank remains above the standard well beyond the daily demand of the typical household.



## Installation

**Important:** Flow Thru tanks, when shipped are not fully assembled. The windvane assembly must be inserted into the tank connection before installation. Please refer to instructions below for proper assembly.

### Tank Location

The Flow Thru tank may be installed in a horizontal or vertical position with the connection up or down. Like any pressure tank installation, this tank, system piping and your connections may in time leak. Select a location where a water leak will not cause property damage. Flexcon Industries is not responsible for any water damage that may occur in connection with this tank installation.

### Tank Pre-charge

Flow Thru tanks are shipped with a pre-charge of 35 PSIG. Please consult the VFD manufacturer's specifications for proper air pre-charge for your system. This will ensure proper use and function of the tank.

**Important:** To check tank pressure via the air charging valve, the piping system must be at 0 PSIG or the tank must be removed from the system.

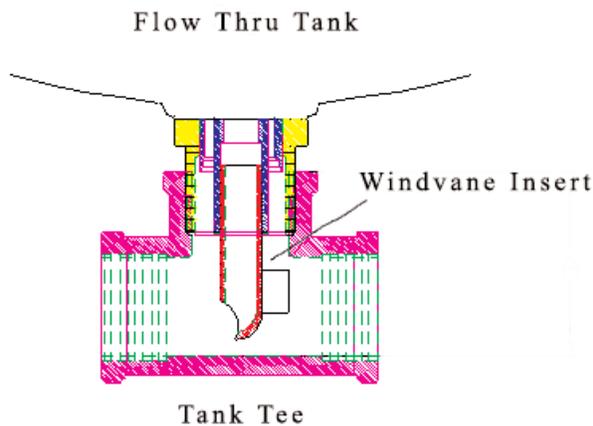
### Tank Assembly

The windvane insert may be set at one of three different positions in the tank's system connection. It should be positioned so the opening is in the center of the pipe train. Gently insert the windvane assembly, tube end first into the tank nipple. Each position is determined by a "click". The insert may be removed and re-inserted. Once installed, the windvane will swivel freely.

### System Connection

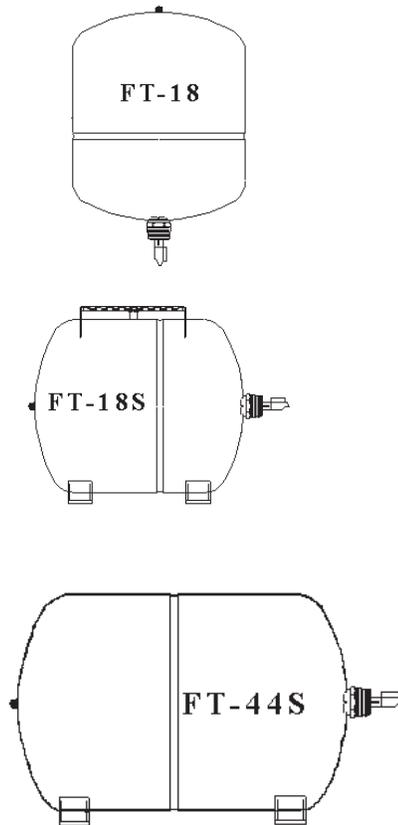
Prepare the Flow Thru tank's threads for mounting to the water system using pipe dope. Screw the tank into the fitting hand tight. Secure the tank to the system via the wrench flats on the tank connection.

The Flow Thru tank is now ready for operation.



| Model  | Tank                |                      | Dimensions         |                    | Shipping        |  |
|--------|---------------------|----------------------|--------------------|--------------------|-----------------|--|
|        | Volume<br>(Gallons) | Diameter<br>(Inches) | Height<br>(Inches) | Length<br>(Inches) | Weight<br>(lbs) |  |
| FT 18  | 4.5                 | 11                   | NA                 | 13.25              | 10              |  |
| FT 18S | 4.5                 | 11                   | 12.6               | 13.25              | 12              |  |
| FT 44S | 14                  | 16                   | NA                 | 20.80              | 24              |  |

Connection: 1" Male NPT                      Pre-charge: 35 PSIG  
Maximum Working Pressure: 150 PSIG



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