



## Installation and Operating Instructions

### Filter Models ST-1, ST-2, ST-3

#### General

Your high quality PENTEK filter has been designed to provide a dependable, long service life of performance, under normal operating and handling conditions. The elastomer gaskets will eventually wear after prolonged usage and will require replacing when this occurs.

The filter cartridges should be replaced regularly to maintain high quality of the filtered liquid. Sediment type (dirt removal) cartridges should be replaced when the liquid flow is noticeably reduced at the faucet. The exact length of service life will vary on the type, size and volume of particles to be removed from the liquid.

Taste/Odor removal cartridges should be replaced when the undesirable taste and/or odor returns to your drinking water.

#### Filter Construction

This standard heavy duty filter is constructed of a stainless steel sump and a nickel-plated, cast brass head. The standard head has 3/4" female inlet and outlet thread connections.

The rugged construction of this filter allows it to be used for both hot and cold water filtration and many kinds of commercial and industrial applications where relatively high line pressures exist.

#### General Precautions

Maximum Pressure: 250 psi (17.2 bar)

Maximum Temperature: 300°F (149°C)

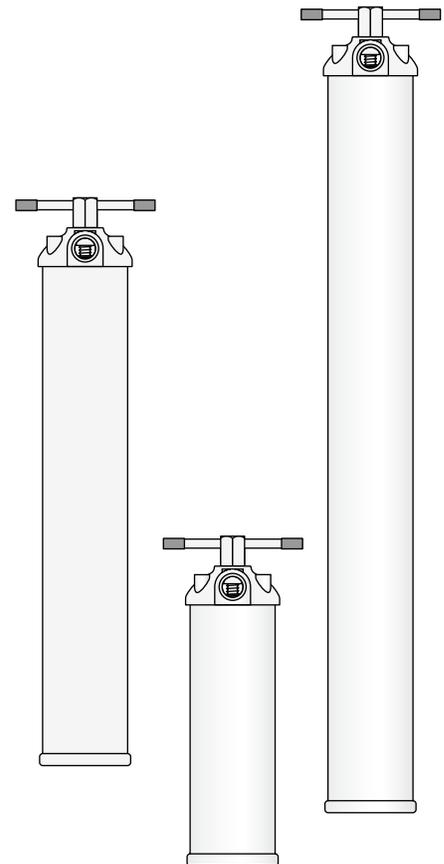
Dimensions: ST-1 12-7/8" H x 4-1/8" O.D. (327mm x 105mm)  
ST-2 22-3/4" H x 4-1/8" O.D. (578mm x 105mm)  
ST-3 32-3/8" H x 4-1/8" O.D. (822mm x 105mm)

**Caution:** The filters must be protected from freezing. Failure to do so may result in cracking of the filter and water leakage.

**Caution:** A taste/odor type cartridge will contain a small amount of carbon fines (very fine black powder) and a new cartridge after installation should be flushed with sufficient liquid to remove all traces of fines before using the liquid.

Allow a minimum of 3" clearance under the filter to facilitate changing the cartridge.

Make sure that the installation complies with all state and local laws and regulations.



## Filter Installation

The filter can be installed as a separate system at the point of use or it can be manifolded in groups to provide a system for effective filtration of liquids. If used on a full line system, the filter should be installed after the pressure tank in private systems, or after the water meter in municipal systems. It is recommended that shutoff valves be installed on either side of the filter to facilitate the changing of cartridges.

Make certain that the filter is positioned properly in the line so the flow of liquid will be in the direction as indicated by the arrow on the head. The top of the head over the female threads is also identified with "IN" and "OUT" to aid in proper alignment.

To replace drain plug with petcock, remove drain plug, apply Teflon tape to the threads of the petcock and tighten into the filter housing. Use a wrench to further tighten the petcock one to two turns.

## Cartridge Installation or Change

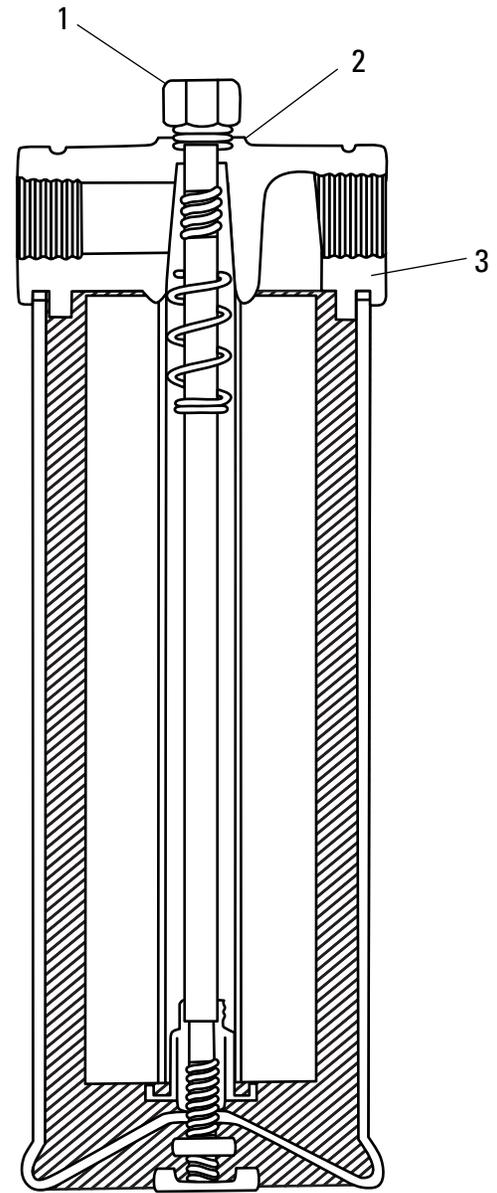
When your filter installation has been completed, remove the sump from the head, if it has not already been removed. Insert the filter cartridge over the center post in the sump making certain it is properly seated on the V-bead at the bottom of the sump.

Next check the head and make sure the gasket is flat in the groove in the underside of the head. The gasket provides the seal between the head and the top rim of the sump. If the gasket should become damaged or brittle after repeated opening to change cartridges, replace with a new gasket.

Position sump under head with threaded center post projecting up through hole in center of head. Thread on nut with "T" handle making certain flat gasket is positioned between nut and head. DO NOT overtighten "T" nut using tools or wrenches. A firm hand tightening of the nut is all that is required.

Make certain drain plug on bottom of sump is closed. Tighten with wrench one to two turns. If petcock is used, turn petcock by hand to the off position. Slowly open both inlet and outlet shutoff valves and let filter fill up with liquid. Check entire system for leaks. If a leak should occur through a gasket area, shut off valves, drain out some liquid and reseal the mating parts. The sump must be square in the head or a leak through the gasket may occur.

When replacing a cartridge, shut off both valves at filter. Open drain plug or petcock and remove about a cup of liquid (8-ounces or 236 cc). Shut drain and unscrew "T" nut. Remove sump from head being careful not to spill liquid remaining in sump. Discard liquid and cartridge, clean sump, insert new cartridge and proceed with steps as outlined above.



## Replacement Parts List

ID	PART#	DESCRIPTION
1	143220	Headnut
2	156048	Headnut Gasket
3	143216	Gasket
*	144128	Wall Bracket

\*Not Shown



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