

USFilter

Over-the-Top Bag Filter System

Installation and Operating Instructions

Models: PBH-410/PBH-420

PBH-410 BT/PBH-420 BT

Specifications

Max. Pressure: PBH-410/PBH-410 BT 100 psi (6.8 bar)
PBH-420/PBH-420 BT 90 psi (6.2 bar)

Maximum Temperature: 100° F (37.7° C)
Recommended Service Flow Rate: 3 psid @ 35 gpm (132 Lpm)
Maximum Service Flow Rate: 3 psid @ 50 gpm (188 Lpm)

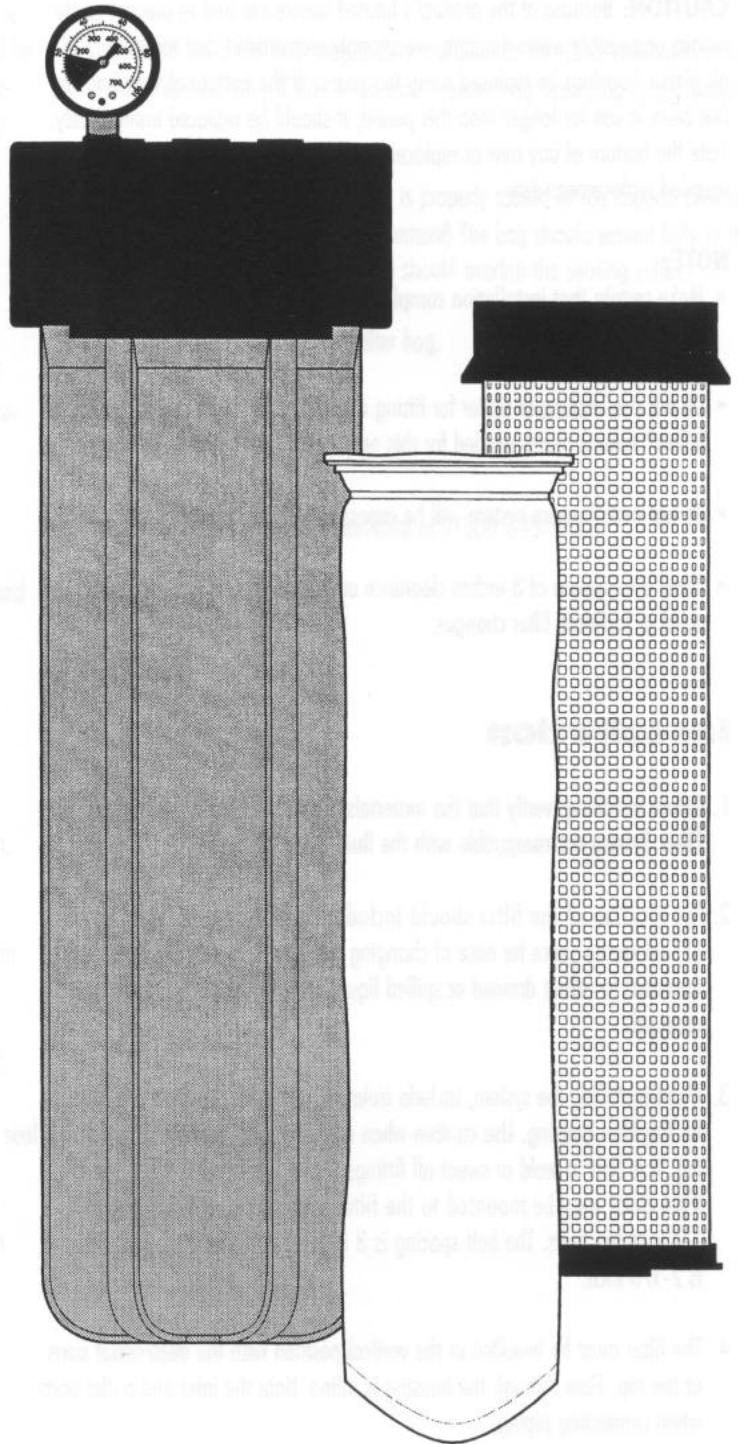
Materials of Construction

Filter cap	Polypropylene
Filter body 10-inch	Polypropylene
Filter body 20-inch	Polypropylene
Basket 10-inch	Polypropylene
Basket 20-inch	Polypropylene
Gasket	Buna-N or EPR
O-ring (Sump)	Buna-N
Vent plug	Polypropylene
Drain plug	Polyethylene
Drain valve	PVC
Seals	Buna-N
Gauge	Brass & Bronze
Spanner wrench	Polypropylene

Dimensions

10-inch Filter 7-1/4-inch Diameter x 13-5/8 inch Height
20-inch Filter 7-1/4-inch Diameter x 23-7/8 inch Height

Patent #5,484,529



Precautions

WARNING: For drinking water applications, do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

CAUTION: Filter must be protected against freezing (when used with aqueous solutions), which can cause cracking of the filter and water leakage.

CAUTION: Because of the product's limited service life and to prevent costly repairs or possible water damage, we strongly recommend that the bottom of all plastic housings be replaced every ten years. If the bottom of your housing has been in use for longer than this period, it should be replaced immediately. Date the bottom of any new or replacement housing to indicate the next recommended replacement date.

NOTE:

- Make certain that installation complies with all state and local laws and regulations.
- Do not use wicking or sealer for fitting connections into the cap of the filter. Teflon® tape is recommended for this purpose.
- Do not install where system will be exposed to direct sunlight.
- Allow a minimum of 3 inches clearance under the filter or optional sump stand to facilitate filter changes.

Installation

1. Before installing, verify that the materials of construction of the USFilter Bag Filter System are compatible with the fluid being filtered.
2. The location of the filter should include the following considerations:
 - (1) adequate space for ease of changing the filter bag, (2) drainage or containment to collect drained or spilled liquid, and (3) proper ventilation, if required.
3. When installing the system, include isolation valves for the filter and support for the filter housing. Use caution when applying heat near the filter housing. It is best to weld or sweat all fittings before assembly to the filter. The filter head may be mounted to the filter support using 5/16 inch X 1-1/4 inch lag bolts. The bolt spacing is 3 inch on center and the bolt circle is 2-1/8 inch.
4. The filter must be installed in the vertical position with the inlet/outlet ports at the top. Flow through the housing is inline. Note the inlet and outlet ports when connecting piping.
5. The filter housing is equipped with a 1/4 inch NPT gauge port on the outlet for installation of a pressure gauge (included) and a 3/8 inch NPT drain port at the base of the sump (3/8 inch NPT ball valve supplied). The gauge or valve should be installed using Teflon® tape as a thread sealant.

Bag Selection

The USFilter Bag Filter Housing is designed for use with USFilter filter bags. However, the housing may accept some filter bags from other manufacturers. The unit is designed to accept a standard 4 inch FILTER SPECIALISTS, INC. (FSI) POLYLOC filter bag.

Other 4 inch filter bags may work if they meet the following criteria:

1. Filter bag length equals the depth of the filter basket plus one inch.
2. The maximum allowable thickness of the filter bag at the sealing surface is .080 inches.
3. The minimum allowable thickness of the filter bag at the sealing surface is .040 inches.

NOTE: The USFilter bag filter housing may not be compatible with filter bags using reinforcing rings or snap bands.

Start-up

1. Open the inlet valve. It is recommended that the inlet valve be opened before the outlet valve to prevent any backflow.
2. Vent trapped air from the system before opening the outlet valve.
3. Open the outlet valve.

Bag Replacement

The pressure differential across the bag will remain fairly constant until the bag is approximately 80% blinded off. It is recommended that the bag be changed when the pressure differential reaches 15 psi. However, this figure can vary with the type of filter bag. The bag manufacturer's data should be consulted to determine the actual pressure drop for replacement.

WARNING: Review all precautions specific to the handling of the fluid being filtered before changing the filter bag. A filter bag that has been used with a hazardous liquid may contain residual amounts of this material and should be handled with the same safeguards that would be used in handling any hazardous and/or toxic material i.e. gloves, respirators, protective eyewear, etc. Filter bags should be disposed of in accordance with federal, state or local laws and requirements. Failure to follow precautions may result in injury.

1. Close isolation valves to the filter.
2. Drain sump. (See WARNING above)
NOTE: If bag has not been changed on a timely basis it may not drain. If necessary, the liquid contents of the used bag can be poured into the replacement bag to be filtered.
3. Unscrew sump from cap. Sump will unscrew counter-clockwise.
CAUTION: Support sump at base while unscrewing to prevent dropping and possibly damaging the sump or drain valve.
4. Remove basket assembly from sump. (See WARNING above)
5. Remove bag from basket.
6. Remove O-ring from groove in the sump and wipe groove and O-ring clean. Relubricate O-ring with clean petroleum jelly (Vaseline®). Insert O-ring in place and press into groove.
NOTE: This step is important to ensure a proper housing seal. Make certain the O-ring is seated level in the groove.
7. Insert new bag into the basket. Form the bag to the contours of the basket, making sure that the bag extends fully to the bottom of the basket.
NOTE: Make sure the filter bag overlaps the bag collar to insure a proper seal when the filter housing is closed.
8. Screw the sump onto the cap and hand-tighten securely. Do not over-tighten.

Troubleshooting

Leaks

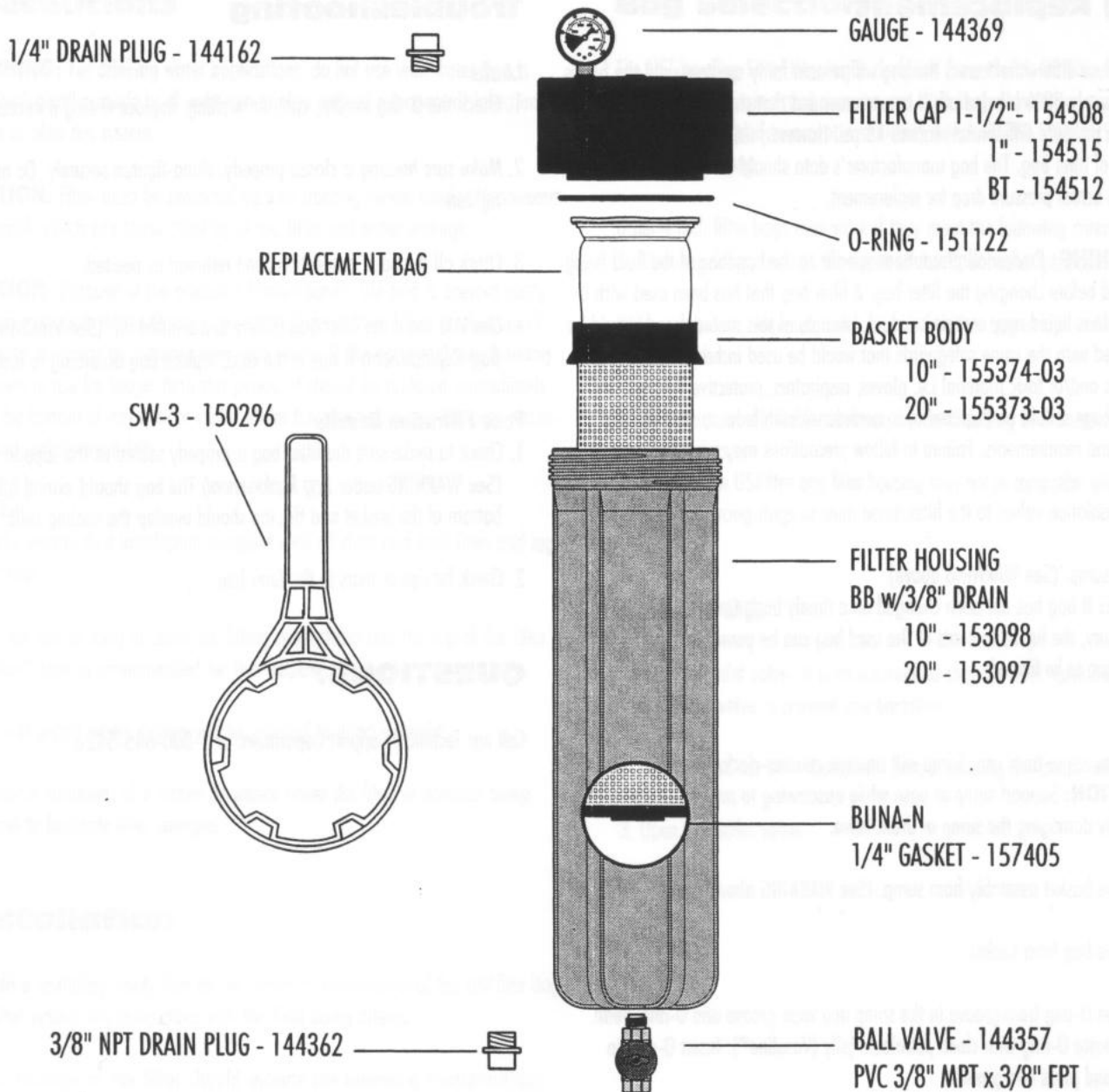
1. Check the O-ring for dirt, cuts, or swelling. Replace O-ring if necessary.
2. Make sure housing is closed properly. Hand-tighten securely. Do not over-tighten.
3. Check all threaded connections and rethread as needed.
4. Check to see if the filter bag is dirty and blinded off. (See WARNING under *Bag Replacement*) If this is the case, replace bag according to instructions.

Poor Filtration Results

1. Check to make sure the filter bag is properly seated in the support basket. (See WARNING under *Bag Replacement*) The bag should extend fully to the bottom of the basket and the top should overlap the sealing collar.
2. Check for rips or tears in the filter bag.

QUESTIONS?

Call our Technical Support Department at 1-800-645-5426



WARRANTY of USFilter Bag Filter

This warranty applies only to the USFilter filter housing; it does not apply to the disposable USFilter filter cartridge since its life expectancy varies with the condition of the water being filtered. The filter housing is warranted against defects in material and workmanship for one year from the original date of delivery. We will replace any part of any filter housing which in our opinion is defective, provided the filter housing has not been subjected to tampering, alterations, or improper use after delivery and has not been repaired by anyone except us; however, our obligation hereunder does not include the cost of transportation. We assume no responsibility for damage in transit, and any claims for such damage should be presented to the carrier by the customer. The filter housing is not warranted against freezing.

We make no warranties, express or implied, including without limitation, any warranties of fitness or merchantability, except as expressly set forth above. We shall not be liable for any anticipated or lost profits, incidental damages, consequential damages, costs, time charges or other losses incurred in connection with the purchase, installation, repair or operation of the USFilter water filter, or any part thereof.

For servicing under this warranty, return any defective part to YOUR DEALER within the one year period referred to above.

Keep this warranty with your USFilter water filter purchase receipt showing the date of purchase. They are required to validate a claim.

USFilter - Plymouth Products

502 INDIANA AVE - PO BOX 1047 • SHEBOYGAN WI 53082-1047 USA
TEL 920-457-9435 FAX 920-457-6652 TOLL-FREE 1-800-645-0267
INTERNATIONAL FAX 920-457-2417 INTERNATIONAL EMAIL international@plymouthwater.com
<http://www.plymouthwater.com>