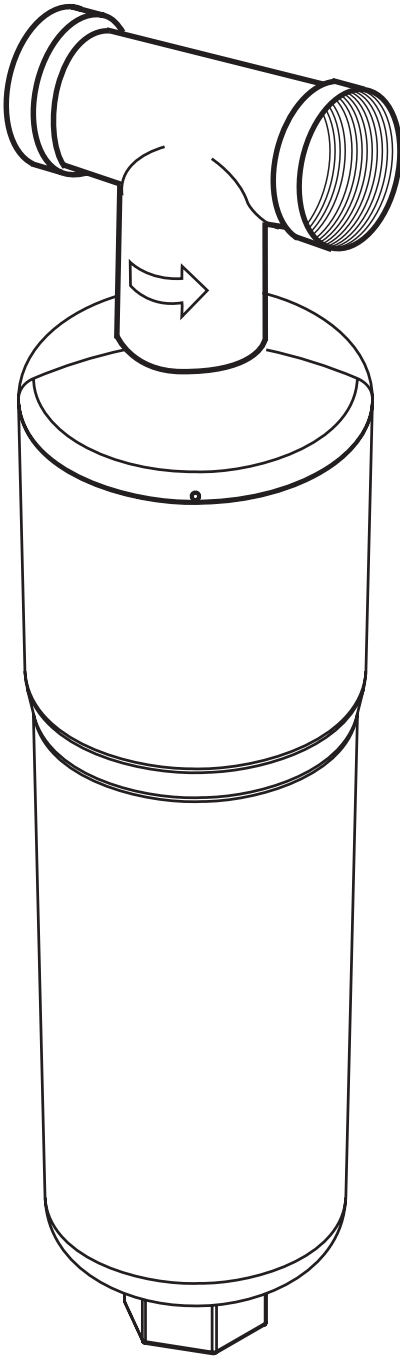


3M™ Water Filtration Products

Installation and Operation Instructions for SF18-S Scale Inhibition System



Installer: Please leave this manual with owner/operator.
Owner/Operator: Please retain for operation and future instructions.





SAFETY INFORMATION

Read, understand, and follow all safety information contained in these instructions prior to installation and use of the SF18-S scale inhibition system. Retain these instructions for future reference.

Intended use:

The SF18-S scale inhibition system is intended to reduce scale in water in foodservice applications and has not been evaluated for other uses. The system must be installed on the cold water line only, and must be installed as specified in the installation instructions.

EXPLANATION OF SIGNAL WORD CONSEQUENCES

 WARNING	Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury and/or property damage.
 CAUTION	Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury and/or property damage.
CAUTION	Indicates a potentially hazardous situation, which, if not avoided, may result in property damage.

WARNING

To reduce the risk associated with choking:

- **Do not** allow children under 3 years of age to have access to small parts during the installation of this product.

To reduce the risk associated with ingestion of contaminants:

- **Do not** use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

To reduce the risk of physical injury:

- Shut off inlet water supply and depressurize system as shown in manual prior to cartridge removal.

CAUTION

To reduce the risk associated with property damage due to water leakage:

- **Read and follow** Use Instructions before installation and use of this system.
- Installation and use **MUST** comply with all state and local plumbing codes.
- **Protect from freezing**, remove filter cartridge when temperatures are expected to drop below 40°F (4.4°C).
- **Do not** install systems in areas where ambient temperatures may go above 110° F (43.3° C).
- **Do not install on hot water supply lines.** The maximum operating water temperature of this system is 100°F (37.8°C).
- **Do not** install if water pressure exceeds 125 psi (862 kPa). If your water pressure exceeds 80 psi (552 kPa), you must install a pressure limiting valve. Contact a plumbing professional if you are uncertain how to check your water pressure.
- **Do not install** where water hammer conditions may occur. If water hammer conditions exist you must install a water hammer arrester. Contact a plumbing professional if you are uncertain how to check for this condition.
- Where a backflow prevention device is installed on a water system, a device for controlling pressure due to thermal expansion must be installed.
- **Do not** use a torch or other high temperature sources near system, cartridges, plastic fittings or plastic plumbing.
- On plastic fittings, never use pipe sealant or pipe dope. Use PTFE thread tape **only**, pipe dope properties may deteriorate plastic.
- Take care when using pliers or pipe wrenches to tighten plastic fittings, as damage may occur if over tightening occurs.
- **Do not install** in direct sunlight or outdoors.
- Mount system in such a position as to prevent it from being struck by other items used in the area of installation.
- Ensure that the location and fasteners will support the weight of the system when installed and full of water.
- Ensure all tubing and fittings are secure and free of leaks.
- SHUT OFF FUEL OR ELECTRIC POWER SUPPLY TO WATER HEATER after water is shut off.
- The disposable filter cartridge **MUST** be replaced every 12 months, at the rated capacity or sooner if a noticeable reduction in flow rate occurs.

IMPORTANT NOTES

- Failure to follow instructions will void warranty.
- Allow a minimum of 2" (5.1 cm) clear space under filter to facilitate cartridge change.
- Install with the inlet and outlet ports as labeled. Make sure not to reverse connections.

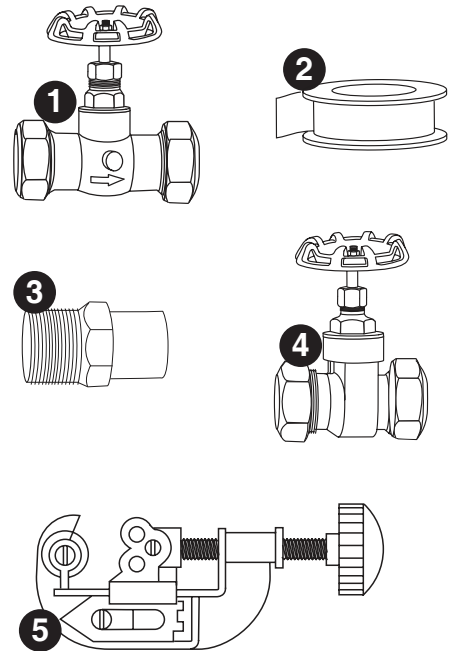
GETTING STARTED

Tools and Parts Required (not included):

- 1) One 3/4" Stop & Waste Valve (Compression Type)
- 2) PTFE Tape
- 3) Two 3/4" Male x 3/4" Street Adapters
- 4) One 3/4" Compression Gate Valve
- 5) Pipe Cutter

Identify all parts as shown in diagram. Read all instructions carefully before attempting to start installation. The existing shut-off valve remains in place and still acts as the cold water shut-off.

This filter system has 3/4" connections. The SF18-S can be adapted to various pipe sizes by using reducing adapter on either end. Installation fittings can be sweated or threaded. Use galvanized fittings for installation on galvanized pipe.



IMPORTANT NOTES

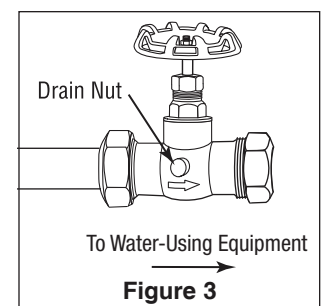
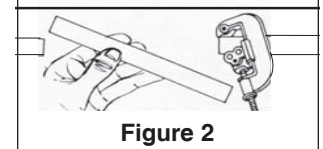
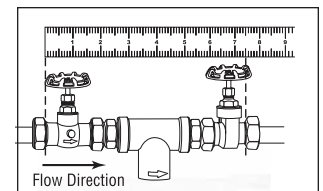
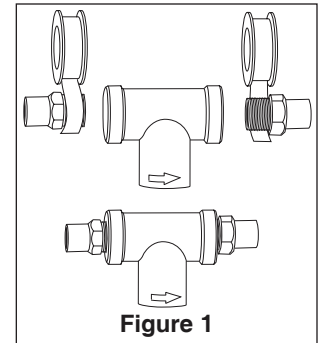
- Allow a minimum of 2" (5.1 cm) clear space under filter to facilitate cartridge change.

IMPORTANT INSTALLATION INSTRUCTIONS

Before starting, shut off main water supply and drain pipes.

Shut off fuel or electric power supply to water heater after water is shut off.

1. Using PTFE tape, wrap the threaded ends of the adapters and screw into both ends of the cartridge head. **Do not** use pipe sealant/dope as they may contain solvents that may deteriorate fittings. (Figure 1)
Position the flow direction arrow on the filter head for proper orientation. The arrow on the filter head should be pointing toward the water-using equipment.
2. Loosely fit compression fittings onto the cartridge head with adapters. Holding the cartridge head with attached adapters up to the pipe, mark for length of pipe to be removed. Using a pipe cutter, cut pipe. (Figure 2)
3. Using the valve compression fitting, attach the stop and waste valve on pipe (before the system on the cold water side) to the water-using equipment, with indicator arrow pointing towards the SF18-S assembly, so that drain nut can be accessed to release pressure when changing cartridge. Be sure the drain nut is firmly tightened. (Figure 3)



CAUTION

To reduce the risk associated with property damage due to water leakage:

- **Do not install on hot water supply lines.** The maximum operating water temperature of this filter system is 100°F (37.8°C).
- Installation and Use **MUST** comply with all state and local plumbing codes.
- On plastic fittings, never use pipe sealant or pipe dope. Use PTFE thread tape **only**, pipe dope properties may deteriorate plastic.
- **Do not** use a torch or other high temperature sources near filter system, cartridges, plastic fittings or plastic plumbing.
- Ensure that the location and fasteners will support the weight of the system.
- Ensure all tubing and fittings are secure and free of leaks.
- **SHUT OFF FUEL OR ELECTRIC POWER SUPPLY TO WATER HEATER** after water is shut off.

IMPORTANT INSTALLATION INSTRUCTIONS (Continued)

- Using the valve compression fitting, attach the gate valve to the incoming water supply pipe after the system. Firmly tighten compression nut. (Figure 4)

IMPORTANT NOTES

It may be necessary to slightly spread pipe ends apart in order to insert the SF18-S head assembly with adapters into valve.

- Tighten all compression nuts firmly, keeping the SF18-S head assembly vertical. (Figure 5)
- Screw cartridge to the right (clockwise) into the SF18-S filter head. Turn on main water supply, open valves and check for leaks. (Figure 6)

IMPORTANT NOTES

Optional: By-Pass Section can be installed around unit if desired using either threaded or sweated fitting. (Figure 7)

CAUTION

To reduce the risk associated with property damage due to water leakage:

- Protect from freezing**, remove cartridge when temperatures are expected to drop below 40°F (4.4°C).
- Ensure all tubing and fittings are secure and free of leaks.
- Do not install** if water pressure exceeds 125 psi (862 kPa). If your water pressure exceeds 80 psi (552 kPa), you must install a pressure limiting valve. Contact a plumbing professional if you are uncertain how to check your water pressure.
- Do not install** where water hammer conditions may occur. If water hammer conditions exist you must install a water hammer arrester. Contact a plumbing professional if you are uncertain how to check for this condition.

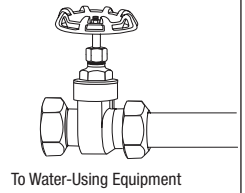


Figure 4

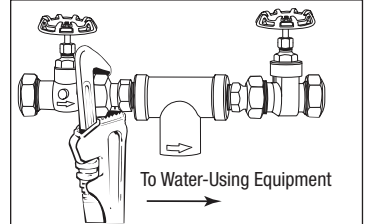


Figure 5

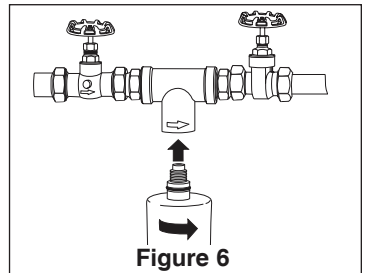


Figure 6

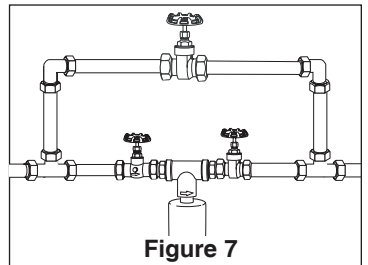


Figure 7

CARTRIDGE REPLACEMENT INSTRUCTIONS

CAUTION

To reduce the risk associated with property damage due to water leakage:

- The disposable filter cartridge **MUST** be replaced every 12 months, at the rated capacity or sooner if a noticeable reduction in flow rate occurs.

Always have spare cartridges on hand.

- Shut off inlet (Stop and Waste) and outlet (Compression Gate) valves. Open drain on inlet valve, to relieve pressure in the SF18-S.
- Unscrew the cartridge (HF8-S) to the left (counterclockwise) as shown in the illustration. (Figure 8)
- Install the new cartridge, moderately hand tight. Never use tools to tighten a cartridge. (Note: No tape or pipe sealant is required.)
- Turn on inlet valve and bleed air through gate valve drain until water appears. Then close drain, and open outlet valve.

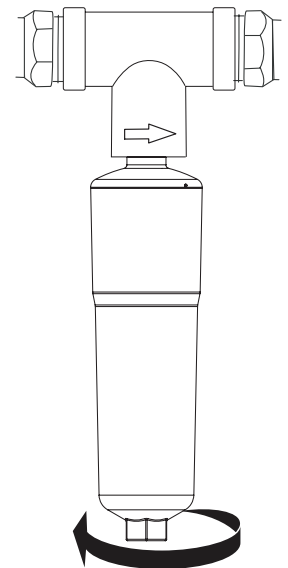
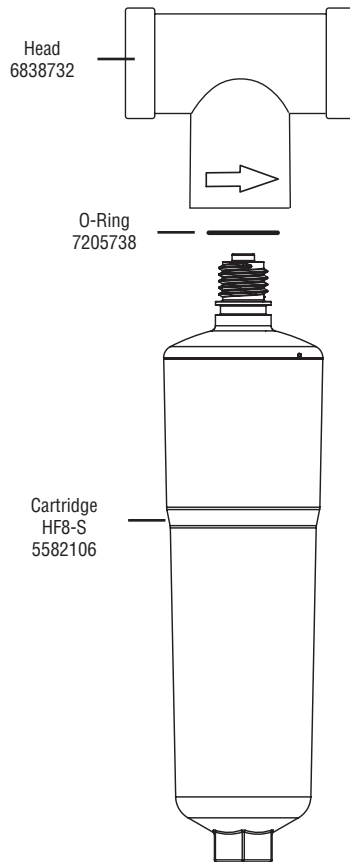


Figure 8

REPLACEMENT PARTS



Limited Warranty

3M Purification Inc. warrants this Product (excluding disposable filter cartridges) will be free from defects in material and manufacture for five (5) years from the date of purchase. The disposable filter cartridge or membrane is warranted from defects in material and manufacture for a period of one (1) year from the date of purchase. This warranty does not cover failures resulting from abuse, misuse, alteration or damage not caused by 3M Purification Inc. or failure to follow installation and use instructions. No warranty is given as to the service life of any filter cartridge or membrane as it will vary with local water conditions and water consumption. **3M PURIFICATION INC. MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY OR CONDITION ARISING OUT OF A COURSE OF DEALING, CUSTOMER OR USAGE OF TRADE.** If the Product fails to satisfy this Limited Warranty during the warranty period, 3M Purification Inc. will replace the Product or refund your Product purchase price. This warranty does not cover labor. **The remedy stated in this paragraph is Customer's sole remedy and 3M Purification Inc.'s exclusive obligation.**

This warranty gives you specific legal rights, and you may have other rights which may vary from state to state, or country to country. For any warranty questions, please call 866.990.9785 or mail your request to: Warranty Claims, 3M Purification Inc., 400 Research Parkway, Meriden, CT 06450. Proof of purchase (original sales receipt) must accompany the warranty claim, along with a complete description of the Product, model number and alleged defect.

Limitation of Liability.

3M Purification Inc. will not be liable for any loss or damage arising from this 3M Purification Inc. product, whether direct, indirect, special, incidental, or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability. Some states and countries do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

Important Notice

The information described in this literature is accurate to the best of our knowledge. A variety of factors, however, can affect the performance of the Product(s) in a particular application, some of which are uniquely within your knowledge and control. **INFORMATION IS SUPPLIED UPON THE CONDITION THAT THE PERSONS RECEIVING THE SAME WILL MAKE THEIR OWN DETERMINATION AS TO ITS SUITABILITY FOR THEIR USE. IN NO EVENT WILL 3M PURIFICATION INC. BE RESPONSIBLE FOR DAMAGES OF ANY NATURE WHATSOEVER RESULTING FROM THE USE OF OR RELIANCE UPON INFORMATION.**

It is your responsibility to determine if additional testing or information is required and if this product is fit for a particular purpose and suitable in your specific application.

