

SWIVELING STANDPIPE

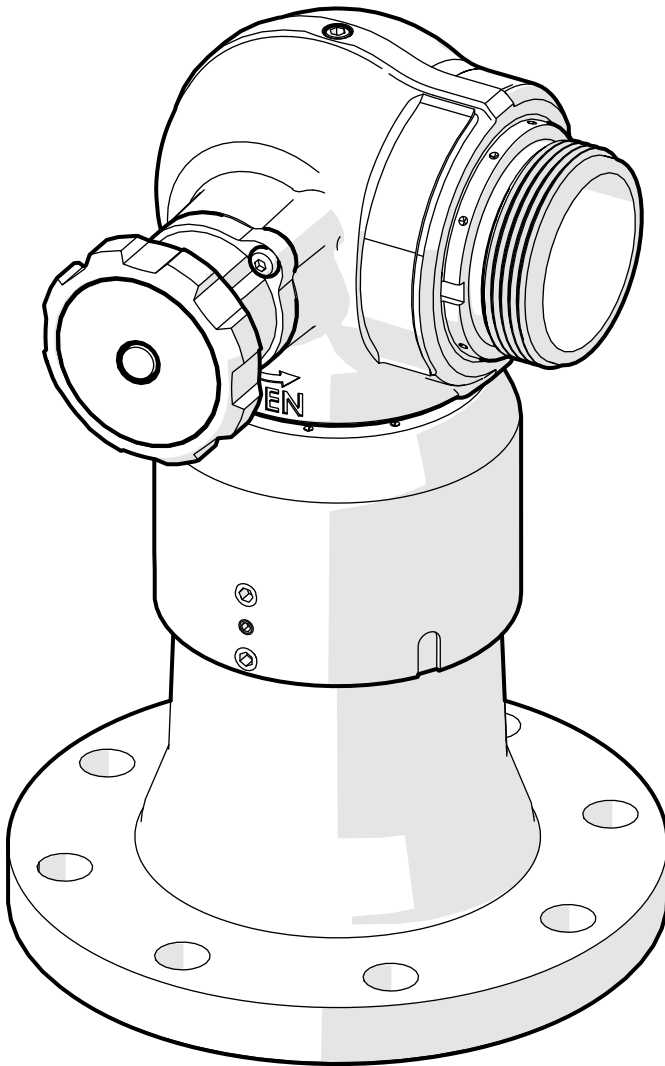
INSTRUCTION FOR INSTALLATION, OPERATION, AND MAINTENANCE

⚠ DANGER

Understand manual before use. Operation of this device without understanding the manual and receiving proper training is a misuse of this equipment. Obtain safety information at tft.com/serial-number.

This equipment is intended for use by trained and qualified emergency services personnel for firefighting. All personnel using this equipment shall have completed a course of education approved by the Authority Having Jurisdiction (AHJ).

This instruction manual is intended to familiarize firefighters and maintenance personnel with the operation, servicing, and safety procedures associated with this product. This manual should be kept available to all operating and maintenance personnel.



**MAXIMUM OPERATING PRESSURE
300 PSI (20 BAR)**

**HYDROSTATIC PROOF TEST
900 PSI (62 BAR)**

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DANGER

PERSONAL RESPONSIBILITY CODE

The member companies of FEMSA that provide emergency response equipment and services want responders to know and understand the following:

1. **Firefighting and Emergency Response are inherently dangerous activities** requiring proper training in their hazards and the use of **extreme caution** at all times.
2. **IT IS YOUR RESPONSIBILITY** to read and understand any user's instructions, including purpose and limitations, provided with any piece of equipment you may be called on to use.
3. **IT IS YOUR RESPONSIBILITY** to know that you have been properly trained in Firefighting and/or Emergency Response and in the use, precautions, and care of any equipment you may be called upon to use.
4. **IT IS YOUR RESPONSIBILITY** to be in proper physical condition and to maintain the personal skill level required to operate any equipment you may be called upon to use.
5. **IT IS YOUR RESPONSIBILITY** to know that your equipment is in operable condition and has been maintained in accordance with the manufacturer's instructions.
6. Failure to follow these guidelines may result in death, burns or other severe injury.

Fire and Emergency Manufacturers and Service Association, Inc.
PO Box 147, Lynnfield, MA 01940 • www.FEMSA.org

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1.0 MEANING OF SAFETY SIGNAL WORDS

A safety related message is identified by a safety alert symbol and a signal word to indicate the level of risk involved with a particular hazard. Per ANSI Z535.6, the definitions of the four signal words are as follows:



DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.



WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.



NOTICE is used to address practices not related to physical injury.

2.0 SAFETY



An inadequate supply of pressure and/or flow will cause an ineffective stream and can result in injury or death. Choose operating conditions to deliver adequate fire suppression. See flow graphs.



This equipment is intended for use by trained personnel for firefighting. Use of this equipment for other purposes may involve hazards not addressed by this manual. Seek appropriate guidance and training to reduce risk of injury.



Damage or injury could result from operating this equipment beyond the specified operating pressure. Do not operate the device at pressures higher than the maximum operating pressure stated in the specification section.



Equipment may be damaged if frozen while containing significant amounts of water. Such damage may be difficult to detect visually. Subsequent pressurization can lead to injury or death. Any time the equipment is subject to possible damage due to freezing, it must be tested and approved for use by qualified personnel before being considered safe for use.



To prevent mechanical damage, do not drop or throw equipment.

3.0 GENERAL INFORMATION

The Task Force Tips Swiveling Standpipe is a lightweight valve with a full 2.5" (65 mm) waterway designed for use in flange mounted applications. The valve is operated with an easy to grip multi-turn slow-close valve handle. A high visibility rising stem position indicator is exposed when the valve is open. The outlet swivels a FULL 360° for easy hose lays. The PN20 valve rating enables 20 bar maximum operating pressure (300 psi) with a full-flow 65 mm (2.5") waterway. The Swiveling Standpipe can be directly bolted to many common pipe flanges. The outlet is available with various 2.5" (65 mm) male threads. The simple and basic design requires no grease application or other maintenance. Swiveling element and seals (including valve seat) can be replaced within a few minutes with common hand tools. A threaded pipe port [1/8" NPT (6 mm)] is provided for pressure gauge installation. The Swiveling Standpipe is constructed from hard anodized aluminum (6061-T6 and ANSI 356-T6) and is fully powder coated inside and out. Lower trunnion, screws, and balls are 18-8 stainless steel.

3.1 SPECIFICATIONS

	US	METRIC
Main Waterway Minimum Diameter	2.5"	65 mm
Maximum Operating Pressure	300 psi	20 bar
Hydrostatic Proof Test	900 psi	62 bar
Operating Temperature Range of Fluid	33°F to 120°F / 1°C to 50°C	
Storage Temperature Range*	-25° to 135°F / -32° to 57°C	
Materials	ANSI A356.0-T6 Aluminum, 6000-series Aluminum, 18-8 Stainless Steel, Nylon, acrylonitrile rubber, Dupont Alcryn 2080BK	
*For temperatures below 32°F (0°C), valve must be drained after use to avoid damage.		

Table 3.1

3.2 CORROSION RESISTANCE

All aluminum components are hardcoat anodized for corrosion resistance. Aluminum valve body, adapter, and flange are powder coated inside and out for additional corrosion resistance. The effects of corrosion can be minimized by good maintenance practice as well as the use of a corrosion isolation kit during installation.

3.3 USE WITH SALT WATER

Use with salt water is permissible provided the equipment is thoroughly cleaned with fresh water after each use. The service life of the equipment may be shortened due to the effects of corrosion, and is not covered under warranty.

To reduce galvanic corrosion, it is highly suggested to use galvanic isolator kits between the monitor & mounting flange. Order Part # Z-G4A150 (4").

3.4 VARIOUS MODELS AND TERMS

The Swiveling Standpipe is available in several different models featuring different inlet and outlet connections. The standard configuration is shown below.

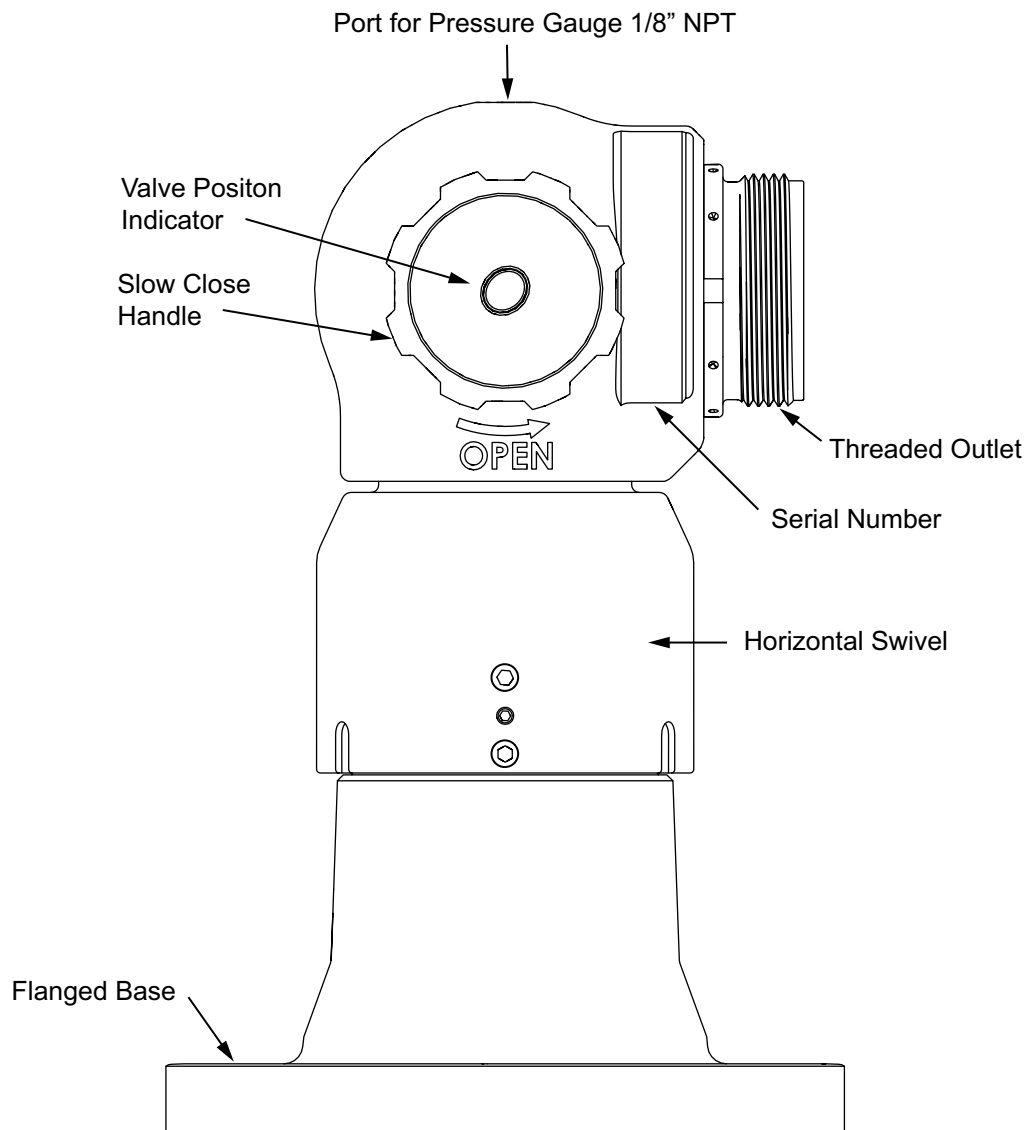


Figure 3.4

3.5 INLET FLANGE OPTIONS

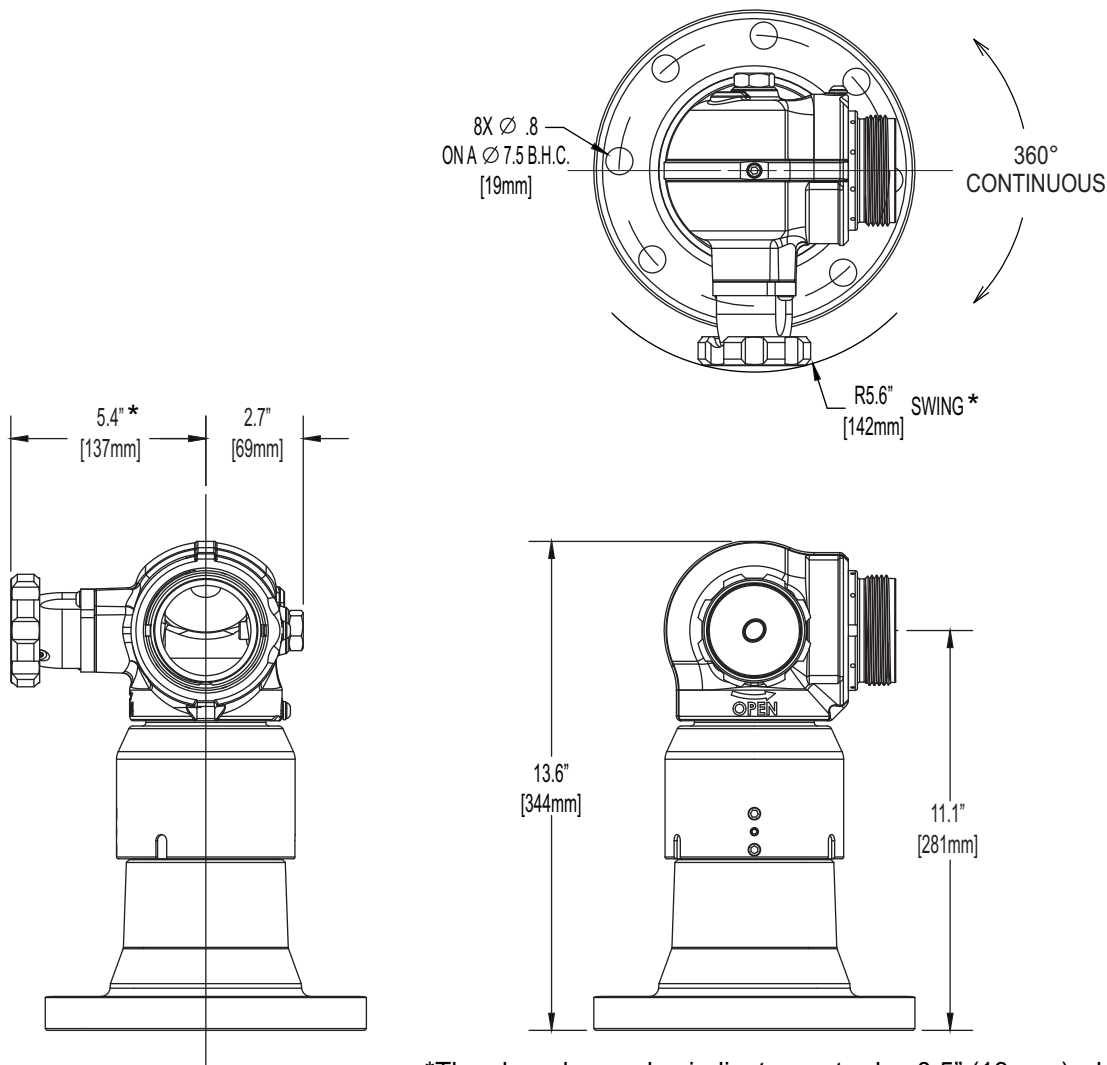
Four different flange options are available. Valve height varies depending on flange installed. Valve height is measured from the bottom of the inlet flange to the top to the valve body.

Inlet Flange Option	3" ANSI 125/150 (also DN80 PN20)	DN80 PN16	4" ANSI 150 (also DN100 PN20) Standard Configuration	DN100 PN16
Valve Height	10.6 in (270 mm)	10.6 in (270 mm)	13.6 in (345 mm)	13.6 in (345 mm)

Table 3.5

3.6 OVERALL DIMENSIONS

The Swiveling Standpipe is available in several different models featuring different inlet and outlet connections. The standard configuration is shown below.



*The slow close valve indicator protrudes 0.5" (13 mm) when open, increasing the overall dimension and swing radius to 5.9" (150 mm).

Figure 3.6

4.0 INSTALLATION

The Swiveling Standpipe is installed to a riser pipe by a bolted flange joint. Verify that no interference exists between the Swiveling Standpipe and surrounding hardware that would limit its usefulness. Also verify no interference exists with the valve handle.

4.1 STRUCTURAL REQUIREMENTS

⚠ WARNING

Reaction forces generated by master stream flows are capable of causing injury and property damage if not properly supported. Valves should be securely installed by qualified individuals.

- Mounting objects must be capable of withstanding maximum reaction force.
- The valve must be securely mounted to rigid support members.
- Do not use flanges or pipe made from plastic for mounting.
- Torque all fasteners to specified values.

The structure that the Swiveling Standpipe is installed to must withstand the internal pressure of the water main as well as shear and bending forces due to the weight of hose attached to the valve outlet.

For flanged connections the use of flat flanges without raised faces is recommended. Use a ring gasket as defined in ASME 16.21 or ISO 7483. Tighten flange bolts in an alternating sequence as shown in Figure 4.1A.

Tighten sequentially each bolt or stud three times with 30%, then 60%, and finally 100% of the specified torque in Figure 4.1B.

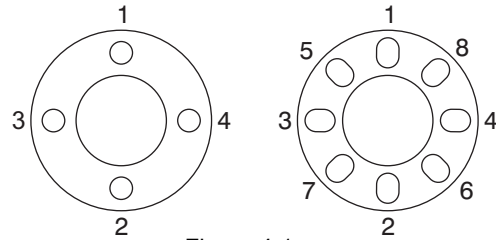


Figure 4.1

NOTICE

If equipped with a TFT Corrosion Isolation Sleeve, the use of a gasket on either side of the sleeve is required. Do not use a TFT Corrosion Isolation Sleeve as a gasket replacement.

FLANGE TYPE*	OUTSIDE DIAMETER**		THICKNESS**		BOLT HOLE CIRCLE		NUMBER OF BOLTS	SIZE OF BOLTS		REQUIRED TORQUE	
	in	mm	in	mm	in	mm		in	mm	ft-lb	N-m
3" ANSI 125/150-DN100 PN20	7.5	190	0.75	20	6.0	152	4	5/8	16	76-80	100-110
4" ANSI 150-DN100 PN20	9.0	230	0.94	23	7.5	190	8	5/8	16	76-80	100-110
DN80 PN16	7.9	200	0.87	22	6.3	160	8	5/8	16	76-80	100-110
DN100 PN16	8.7	220	0.87	22	7.1	180	8	5/8	16	76-80	100-110

**Dimensions listed are from the applicable standard for each flange type and are for reference only. Measure both flanges when selecting bolt length.

Table 4.1

4.2 HOSE INSTALLATION

A hose is simply screwed onto the valve's exit threads until it bottoms out and compresses the rubber gasket. It is permissible to use an adapter before hose installation and, if used, should be installed as outlined above prior to hose installation.

⚠ CAUTION

Mismatched or damaged waterway connections may cause equipment to leak or uncouple under pressure. Failure could result in injury. Equipment must be mated to matched connections.

⚠ CAUTION

Dissimilar metals coupled together can cause galvanic corrosion that can result in the inability to uncouple the connection, or complete loss of engagement over time. Failure could cause injury. Per NFPA 1962, if dissimilar metals are left coupled together, an anti-corrosive lubricant should be applied to the connection and the coupling should be disconnected and inspected at least quarterly.

4.3 PRESSURE GAUGE

There is an 1/8" NPT female threaded hole located in the top of the valve body, as shown in Figure 3.1. The hole is plugged from the factory. If a pressure gage is desired, unscrew the plug and install the gauge using pipe sealant. Make sure the gauge does not interfere with operation.

4.4 DRAINING RESIDUAL WATER

Draining residual water from the waterway will assure the longest service life by limiting corrosion and preventing freeze damage.

WARNING

Monitors, valves, and piping may be damaged if frozen while containing sufficient amounts of water. Such damage may be difficult to detect visually and can lead to possible damage, injury, or death. Equipment that may be exposed to freezing conditions must be drained immediately following use to prevent damage.

CAUTION

Structural damage from corrosion can result from failure to drain appliance between uses. Damage from corrosion can cause injury due to equipment failure. Always drain appliance between uses.

NOTICE

All monitors, valves and standpipes exposed to freezing conditions must be drained immediately following use to prevent damage. To drain a standpipe, a drainage port must be opened underground below the frost depth to keep water out of the standpipe until the next use.

5.0 OPERATING INSTRUCTIONS

5.1 VALVE OPERATION

The valve is in the OFF/CLOSED position when the valve handle is rotated clockwise fully in the direction marked CLOSED on the valve handle label. The valve is in the ON/OPEN position when the valve handle is rotated fully in the direction marked OPEN on both the valve handle label and the valve body. An indicator located in the center of the valve handle shows the valve's position by moving in and out relative to the position of the knob. The indicator moves flush with the valve handle when fully closed and raises 1/2" when the valve is fully opened. The position that the valve is normally left in will depend upon your particular location's standard operating procedure. Operate the valve slowly to reduce water hammer.

5.2 HORIZONTAL ROTATION

WARNING

The stream exiting the valve is very powerful and capable of causing injury or death. Make sure a hose is attached and pointing in a safe direction before water is turned on. Do not direct water stream to cause injury or damage to persons or property.

WARNING

This valve does not have a horizontal swivel position lock. Discharging high velocity water into the open may cause the swivel trajectory to change by itself (pinwheel) if operated without a hose, causing injury or death.

- Always operate with a hose.
- Never flush large volumes of water through an unrestrained swiveling standpipe, or attempt to use it as a monitor.
- If the valve gets out of control while flowing, retreat from the spray area immediately.
- Do not attempt to regain control of an out of control valve while flowing.

The outlet of the Swiveling Standpipe can rotate 360° about its flange, even while pressurized and flowing. The resistance felt in rotation will increase as the operating pressure increases. Always check that the valve rotates freely about its flange prior to use.

6.0 WARRANTY

Go to tft.com for all warranty information.

7.0 MAINTENANCE

TFT products are designed and manufactured to be damage resistant and require minimal maintenance. However, as the primary firefighting tool upon which your life depends, it should be treated accordingly. The unit should be kept clean and free of dirt by rinsing with water after each use. Any inoperable or damaged parts should be repaired or replaced before placing the unit in service. To help prevent mechanical damage, do not drop or throw equipment.

In applications where appliances are left continuously connected to the apparatus or other devices or are used where water is trapped inside the appliance, the appliance must be flushed with fresh water following each use and inspected for damage.

This appliance should be disconnected, cleaned and visually inspected inside and out at least quarterly, or as water quality and use may require. Moving parts such as handles, valve ball and couplings should be checked for smooth and free operation. Seals shall be greased as needed with Silicone based grease such as Molykote 112. Any scrapes that expose bare aluminum should be cleaned and touched up with enamel paint such as Rust-Oleum. Replace any missing or damaged parts before returning to service.

Any equipment taken out of service due to failure should be returned to the factory for repair or replacement. If you have any questions regarding the testing or maintenance of your valve, please call Task Force Tips at 800-348-2686.

7.1 SERVICE TESTING

In accordance with NFPA 1962, equipment must be tested a minimum of annually. Units failing any part of this test must be removed from service, repaired and retested upon completion of the repair.

7.2 REPAIR

Factory service is available. Factory serviced equipment is repaired by experienced technicians, wet tested to original specifications, and promptly returned. Call TFT service department at 1-800-348-2686 to troubleshoot and, if needed, directions for return. A return for service form can also be obtained at tft.com/Support/Returning-an-Item-for-Service.

Repair parts and service procedures are available for those wishing to perform their own repairs. Task Force Tips assumes no liability for damage to equipment or injury to personnel that is a result of user service. Contact the factory or visit the web site at tft.com for parts lists, exploded views, test procedures and troubleshooting guides.

Performance tests shall be conducted on the equipment after a repair, or anytime a problem is reported to verify operation in accordance with TFT test procedures. Consult factory for the procedure that corresponds to the model and serial number of the equipment. Any equipment which fails the related test criteria should be removed from service immediately. Troubleshooting guides are available with each test procedure or equipment can be returned to the factory for service and testing.



It is the responsibility of service technicians to ensure the use of appropriate protective clothing and equipment. The chosen protective clothing and equipment must provide protection from potential hazards users may encounter while servicing equipment. Requirements for protective clothing and equipment are determined by the Authority Having Jurisdiction (AHJ).



Any alterations to the product or its markings could diminish safety and constitutes a misuse of this product.



All replacement parts must be obtained from the manufacturer to assure proper performance and operation of the device.

7.3 VALVE SEAT REPLACEMENT

If the valve does not fully shut off, the valve seat may need to be replaced.

To replace the valve seat:

1. Turn off the water.
2. Move the valve to the fully open position.
3. Using a 5/32" hex key, remove button head cap screw and the washer from the valve inlet.
4. Using at least one strap wrench, rotate the valve body counterclockwise to unthread it from adapter.
5. Pull out the old valve seat.
6. Clean away dirt and debris from the valve seat groove.
7. Apply grease to the valve seat groove and side of valve seat with the curved detail. (Molykote 112 silicone recommended)
8. Install the valve seat into the valve seat groove with greased side down, being sure it is fully seated in its groove.
9. Move the valve to the fully closed position.
10. Grease sealing surface of adapter and thread into valve body.
11. Torque adapter in valve body to 50 ft-lbs. (68 N-m)
12. If needed, unscrew the valve body until blind holes in adapter threads align with the screw hole in the valve body.
13. Slide the washer over the button head cap screw, apply blue Loctite or equivalent to the screw threads, and tighten into valve body using 5/32" hex key.

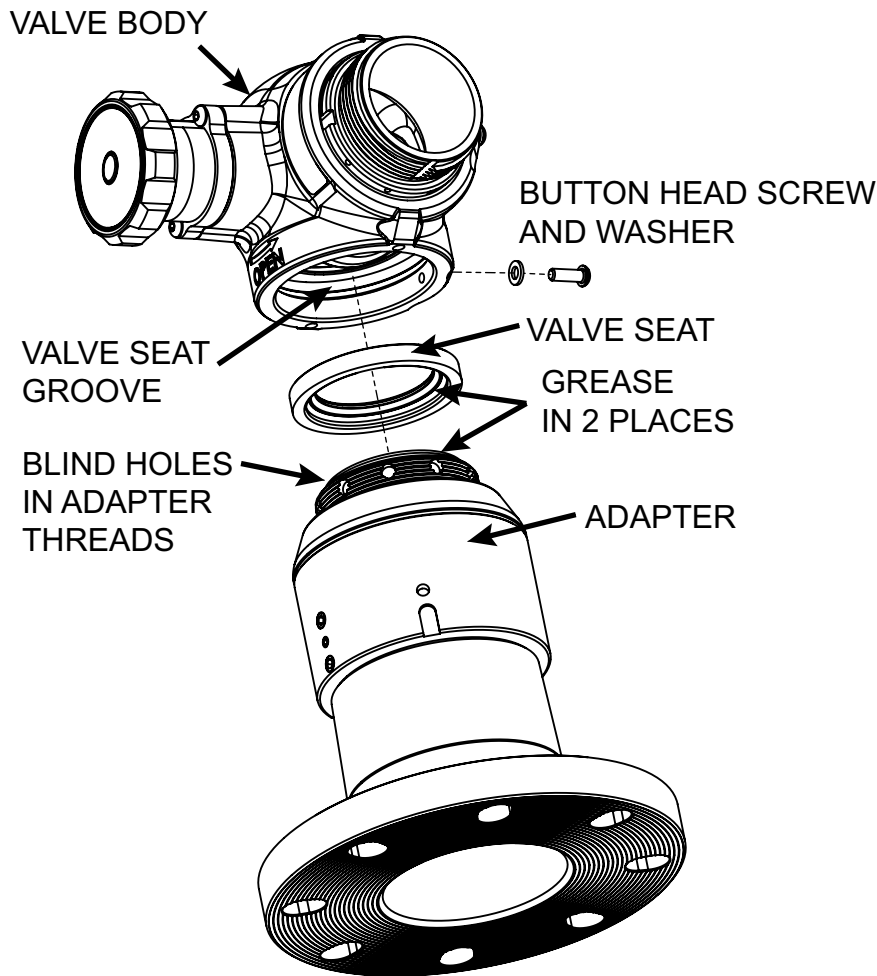


Figure 7.3

8.0 EXPLODED VIEWS AND PARTS LISTS

Exploded views and parts lists are available at tft.com/serial-number.

9.0 INSPECTION CHECKLIST

BEFORE EACH USE, appliances must be inspected to this checklist:

1. All valves open and close fully and smoothly
2. Waterway is clear of obstructions
3. There is no damage to any thread or other connection
4. All locks and hold-down devices (if so equipped) work properly
5. The pressure setting on the relief valve (if so equipped) is set correctly
6. Gaskets are in good repair
7. There is no obvious damage such as missing, broken or loose parts
8. There is no damage to the appliance that could impair safe operation (e.g. dents, cracks, corrosion or other defects)
9. All swiveling elements rotate freely
10. There are no missing, worn out or broken lugs on couplings
11. Hose is securely attached

BEFORE BEING PLACED BACK IN SERVICE, appliances must be inspected to this list:

1. All valves open and close fully and smoothly
2. Waterway is clear of obstructions
3. There is no damage to any thread or other connection
4. All locks and hold-down devices (if so equipped) work properly
5. Gaskets are in good condition
6. There is no damage to the appliance that could impair safe operation (e.g. dents, cracks, corrosion or other defects)
7. All swiveling components rotate freely
8. There are no missing parts or components
9. The marking for maximum pressure is visible
10. There are no missing, broken, or worn lugs on couplings
11. Hose is securely attached



Equipment failing any part of the checklist is unsafe for use and must have the problem corrected before use or being placed back into service. Operating equipment that has failed the checklist is a misuse of this equipment.

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