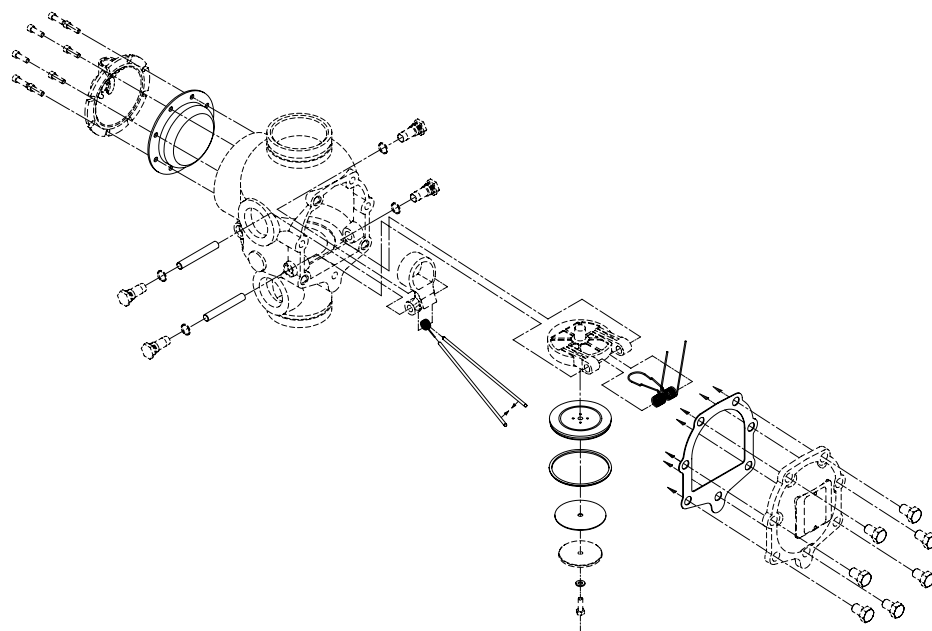


# 5-Year Rebuild Kit Instructions for FireLock NXT™ Valves

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WARNING



## WARNING



Failure to follow instructions and warnings can cause product failure, resulting in serious personal injury and property damage.

- Read and understand all instructions before attempting to install, remove, adjust, or maintain any Victaulic piping products.
- Depressurize and drain the piping system before attempting to install, remove, adjust, or maintain any Victaulic piping products.
- Wear safety glasses, hardhat, and foot protection.

If you need additional copies of any literature, or if you have any questions concerning the safe use of this product, contact Victaulic, P.O. Box 31, Easton, PA 18044-0031, USA, Telephone: 1-800 PICK VIC, e-mail: pickvic@victaulic.com.

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## HAZARD IDENTIFICATION

 Definitions for identifying the various hazard levels are provided below. When you see this symbol, be alert to the possibility of personal injury. Carefully read and fully understand the message that follows.

 **WARNING**

- The use of the word “WARNING” identifies the presence of hazards or unsafe practices that could result in death or serious personal injury if instructions, including recommended precautions, are not followed.

 **CAUTION**

- The use of the word “CAUTION” identifies possible hazards or unsafe practices that could result in personal injury and product or property damage if instructions, including recommended precautions, are not followed.

**NOTICE**

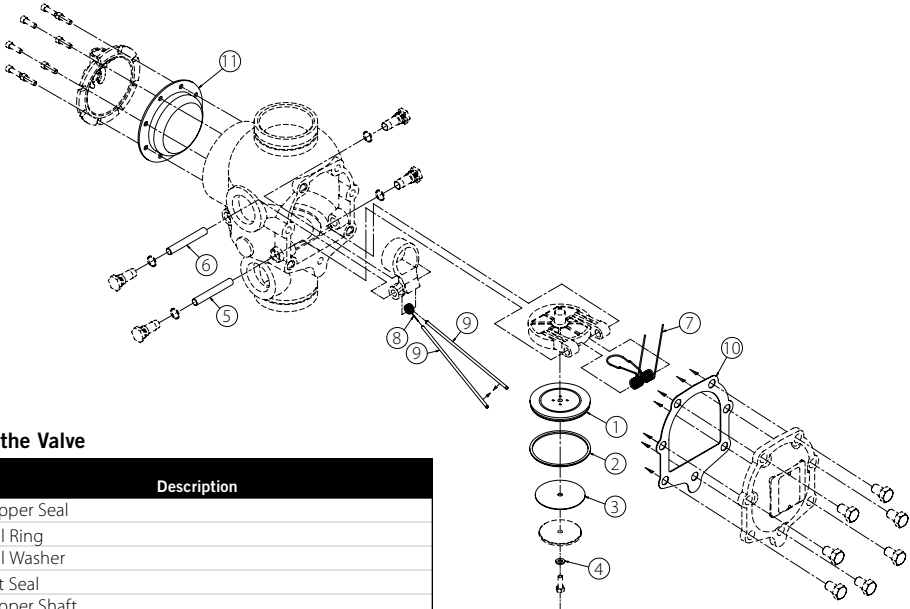
- The use of the word “NOTICE” identifies special instructions that are important but not related to hazards.

## CONTENTS OF REBUILD KIT

Internal Components of the Valve

Item	Qty.	Description
1	1	Clapper Seal
2	1	Seal Ring
3*	1	Seal Washer
4	1	Bolt Seal
5	1	Clapper Shaft
6	1	Latch Shaft
7	1	Clapper Spring
8	1	Latch Spring
9	2	Latch Spring Insertion Tool
10	1	Cover Plate Gasket
11	1	Diaphragm

\* Item #3 is not applicable for 1 ½ – 2-inch/48.3 – 60.3-mm valve sizes.



## 5-Year Rebuild Kit Instructions for FireLock NXT™ Valves

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### REMOVING THE SYSTEM FROM SERVICE

#### ⚠ WARNING



- Depressurize and drain the piping system before attempting to remove the cover plate from the valve.

Failure to follow this instruction could result in serious personal injury and/or property damage.

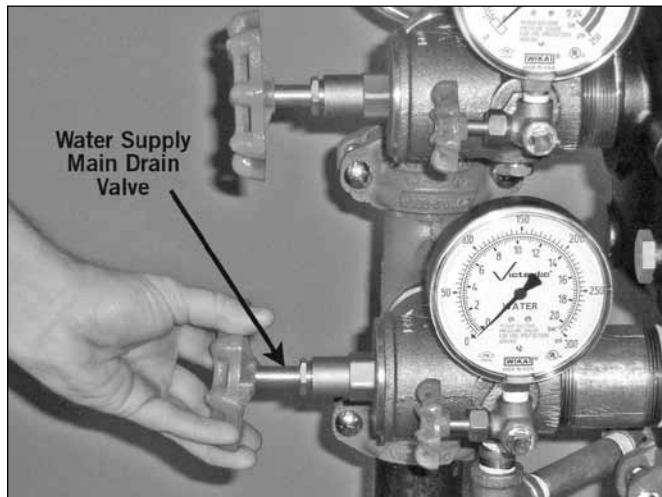
#### ⚠ CAUTION



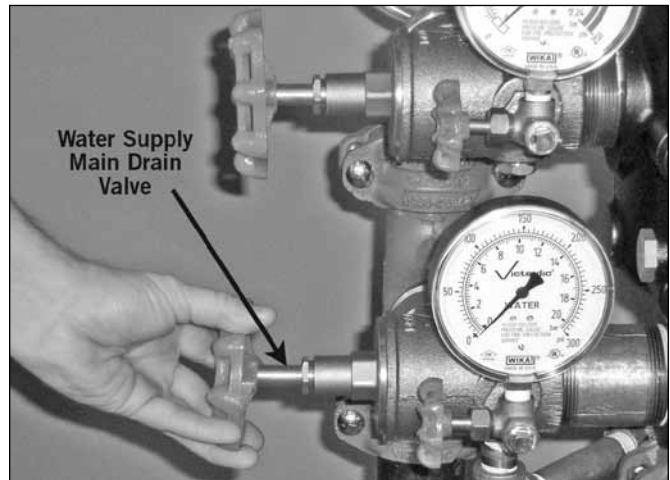
- Any activities that require taking the valve out of service may eliminate the fire protection provided.
- Before servicing or testing the system, notify the authority having jurisdiction.
- Consideration of a fire patrol should be given in the affected areas.

Failure to follow these instructions could result in serious personal injury and/or property damage.

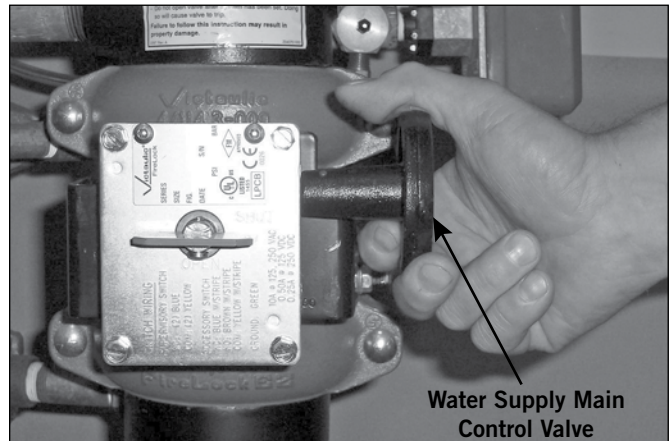
1. Notify the authority having jurisdiction, remote station alarm monitors, and those in the affected area that the system is being taken out of service.



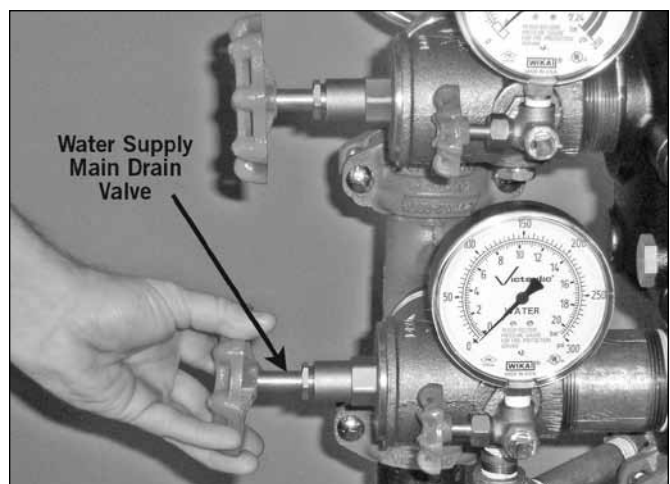
2. Open the water supply main drain valve fully to flush the water supply of any contaminants.



3. Close the water supply main drain valve.



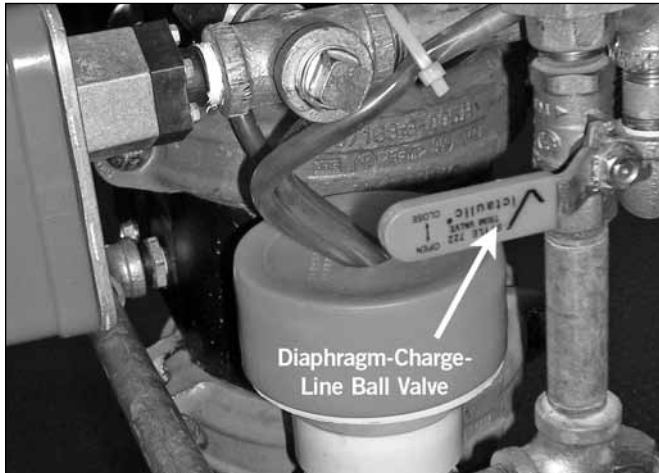
4. Close the water supply main control valve to take the system out of service.



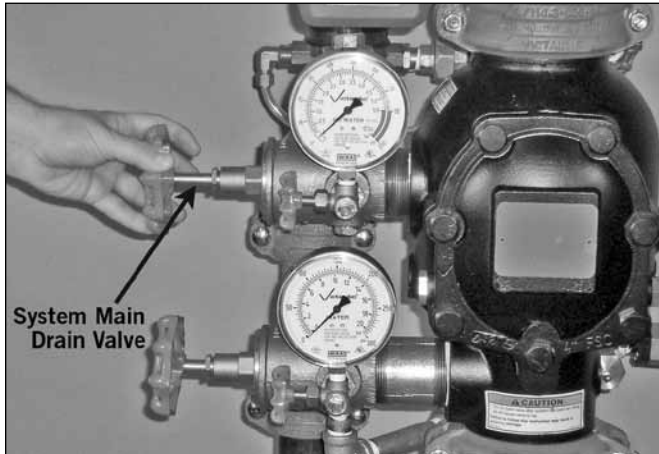
5. Open the water supply main drain valve.
6. Confirm that water is not flowing from the water supply main drain valve.

## 5-Year Rebuild Kit Instructions for FireLock NXT™ Valves

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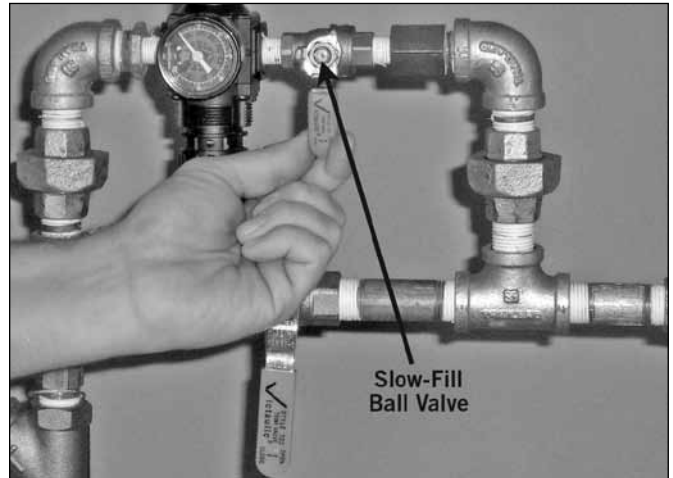


7. Close the diaphragm-charge-line ball valve.



8. Open the system main drain valve to drain any water that has accumulated and to release system air pressure.

**NOTE:** If the system has operated, open the remote system test valve (inspector's test connection) and any auxiliary drain valves.



9. Close the slow-fill ball valve on the Air Maintenance Trim Assembly (AMTA).
10. **PUSH DOWN ON THE AUTO DRAIN SCREW TO REMOVE PRESSURE IN THE DIAPHRAGM CHARGE LINE.**

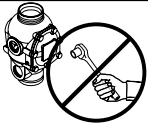


## 5-Year Rebuild Kit Instructions for FireLock NXT™ Valves

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### INSTRUCTIONS FOR REPLACING INTERNAL COMPONENTS OF THE VALVE (ITEMS 1 - 10 ON PAGE 1)

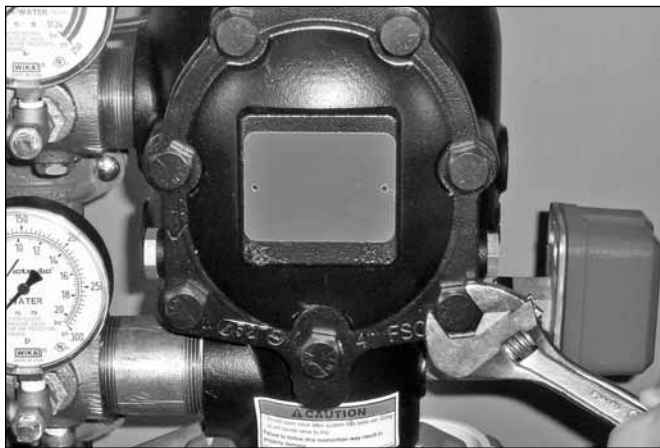
#### WARNING



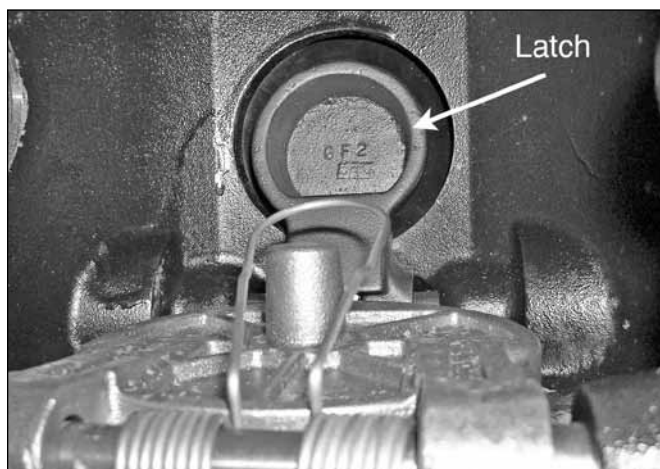
- Make sure the valve is depressurized and drained completely before the cover plate bolts are removed.



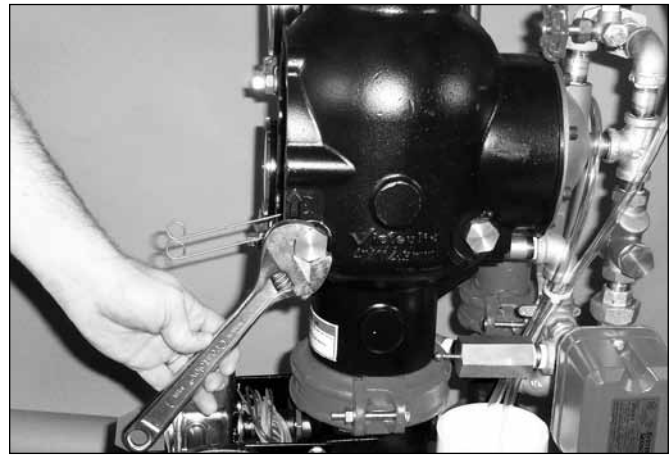
The cover plate could blow off if the cover plate bolts are removed while the valve is pressurized, resulting in serious personal injury and/or property damage.



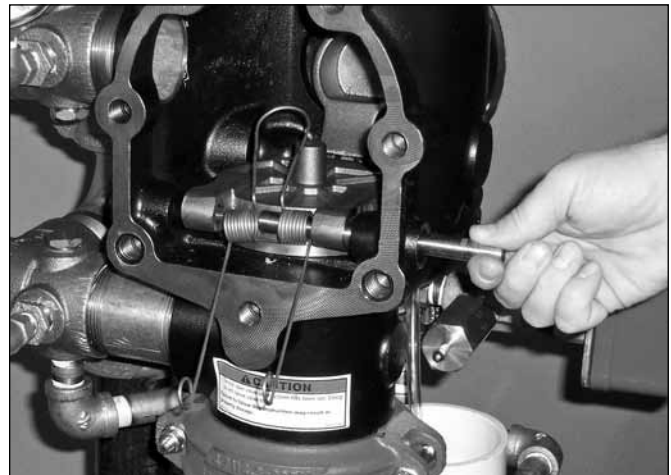
1. After all pressure is released from the system, loosen the cover plate bolts slowly. **NOTE:** DO NOT remove any cover plate bolts until all cover plate bolts are loosened.
2. Remove all cover plate bolts, along with the cover plate and cover plate gasket. Discard the old cover plate gasket. **NOTE:** The 1 1/2-inch/48.3-mm and 2-inch/60.3-mm valve sizes contain washers under the heads of the cover plate bolts. Keep these washers for re-installation.



3. Push the latch back (toward the diaphragm).



4. Remove the clapper shaft bushings from the valve body.



5. Remove the clapper shaft. **NOTE:** As the shaft is being removed, the clapper spring will drop out of position. Discard the clapper spring.



6. Remove the clapper from the valve body.

## 5-Year Rebuild Kit Instructions for FireLock NXT™ Valves

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7. Remove the latch-shaft retaining plugs from the valve body.

### ⚠ WARNING

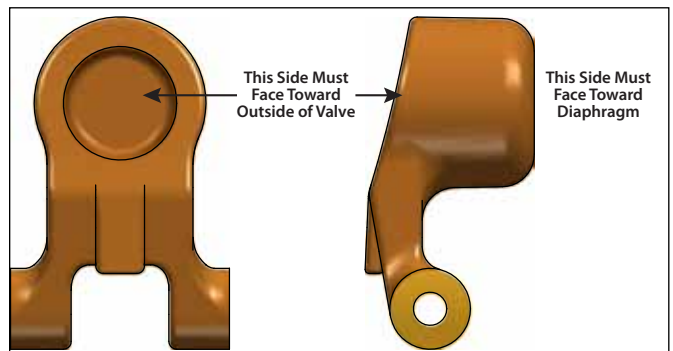
- **DO NOT** allow the latch to drop onto the valve-body seat ring. Failure to follow this instruction will damage the valve-body seat ring and cause improper valve operation, resulting in serious personal injury and/or property damage.



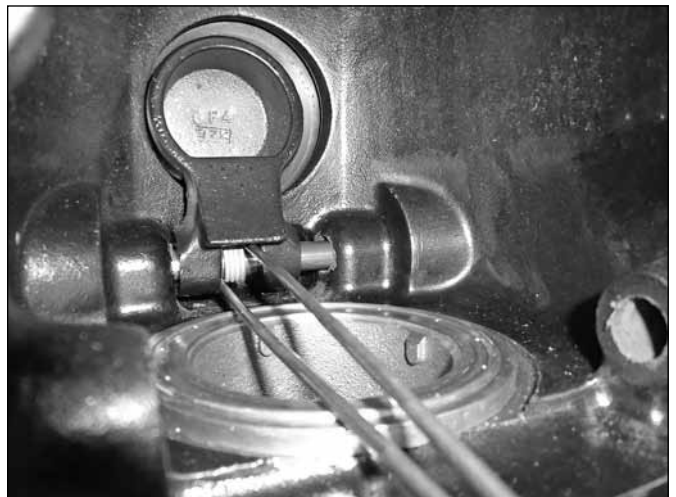
8. Remove the latch shaft. **NOTE:** As the latch shaft is being removed, the latch and latch spring will drop out of position. **BE PREPARED TO SUPPORT THE LATCH AND LATCH SPRING DURING REMOVAL OF THE LATCH SHAFT. DO NOT ALLOW THE LATCH TO DROP ONTO THE VALVE-BODY SEAT RING.** Discard the latch shaft and latch spring. Save the latch for re-installation.

### ⚠ WARNING

- **Make sure the latch is re-installed in the correct orientation.** Failure to re-install the latch in the correct orientation could cause improper valve operation, resulting in serious personal injury and/or property damage.



9. Insert the new latch shaft (supplied with the kit) through the valve body and into the first arm of the shaft. **MAKE SURE THE RECESSED SIDE OF THE LATCH FACES TOWARD THE OUTSIDE OF THE VALVE BODY, AS SHOWN ABOVE.**

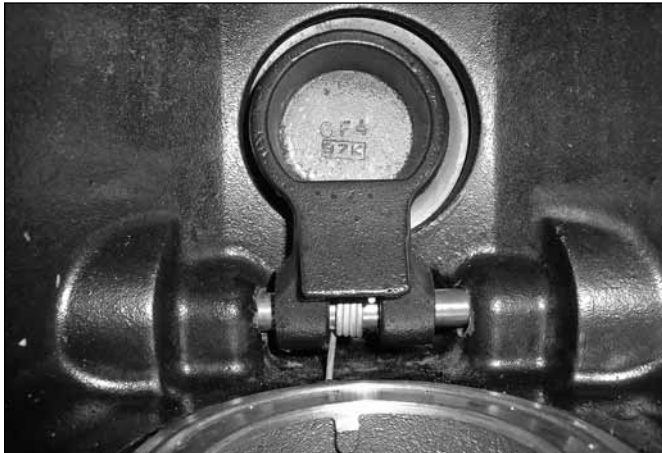


10. Place a spring insert tool (supplied with the kit) onto each arm of the new latch spring (supplied with the kit). Using the spring insert tool to close the latch spring arms together slightly, install the latch spring onto the latch shaft, as shown above.
11. Continue to pass the latch shaft through the other arm of the latch and valve body.



## 5-Year Rebuild Kit Instructions for FireLock NXT™ Valves

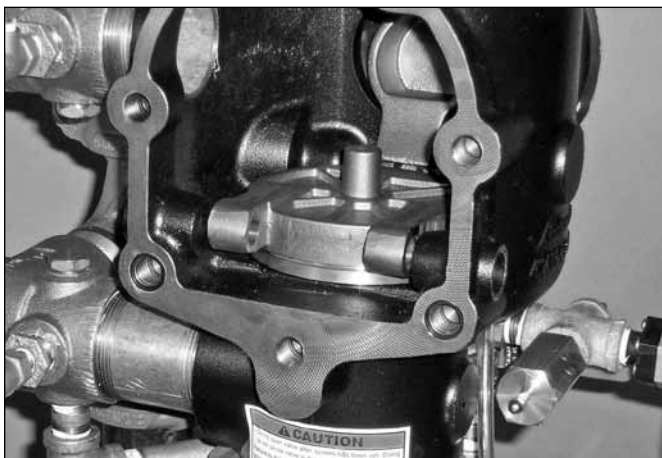
SERIES 768 AND 769



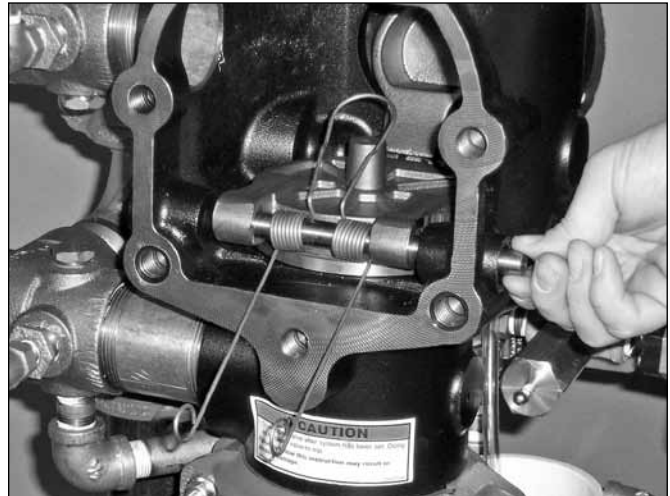
12. REMOVE THE SPRING INSERT TOOLS FROM THE ARMS OF THE LATCH SPRING.



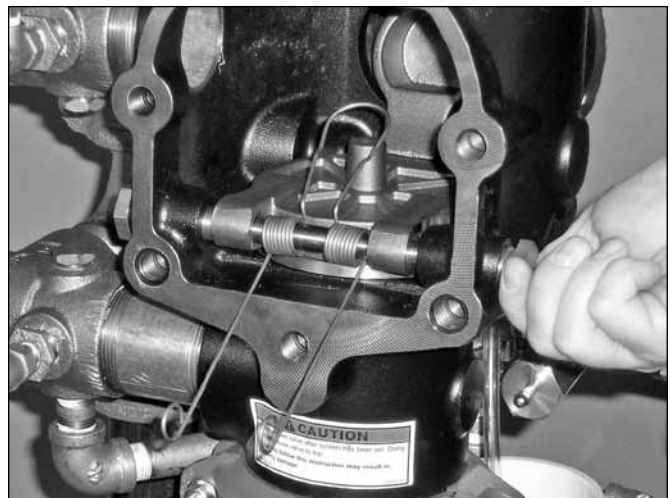
13. Apply a thin coat of Victaulic lubricant or silicone lubricant to the o-ring on each latch-shaft retaining plug. Install the latch-shaft retaining plugs into the valve body.
- 13a. Tighten the latch-shaft retaining plugs until metal-to-metal contact occurs with the valve body.



14. Place the new clapper assembly onto the valve-body seat ring. Make sure the holes in the clapper arms align with the holes in the valve body.



15. Insert the clapper shaft halfway into the valve body.
16. Install the clapper spring onto the clapper shaft. Make sure the loop of the clapper spring is facing toward the clapper, as shown above.
17. Finish inserting the clapper shaft through the clapper arm and valve body.



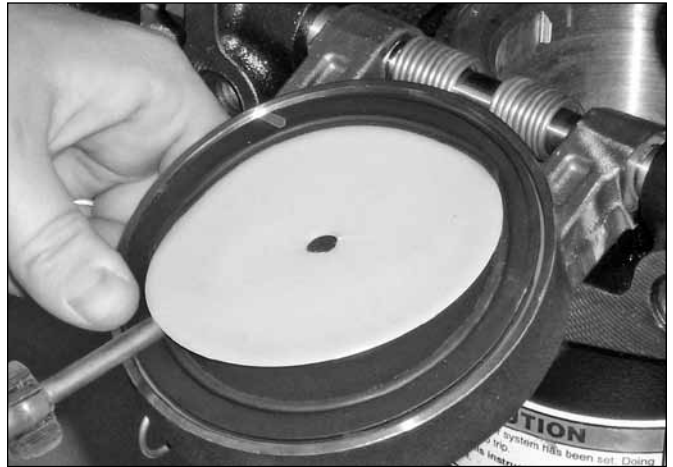
18. Apply a thin coat of Victaulic lubricant or silicone lubricant to the o-ring on each clapper shaft bushing. Install the clapper shaft bushings into the valve body until hand-tight.
19. Tighten the clapper shaft bushings until metal-to-metal contact occurs with the valve body.

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20. Check the clapper for freedom of movement.



23. Pry the edge of the old seal washer from inside the clapper seal. Remove and discard the seal washer.



21. Rotate the clapper out of the valve body. Remove the seal assembly bolt/bolt seal from the clapper seal, as shown above. Save the seal assembly bolt for re-installation. Discard the bolt seal.



24. Pry the old clapper seal, along with the seal ring, out of the clapper. Discard the clapper seal and seal ring.



22. Remove the seal-retaining ring. Save the seal-retaining ring for re-installation.



25. Install the new clapper seal assembly (supplied with the kit) into the clapper carefully. Make sure the seal ring snaps into the clapper completely.



# 5-Year Rebuild Kit Instructions for FireLock NXT™ Valves

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26. Install the new bolt seal (supplied with the kit) onto the seal-assembly bolt.



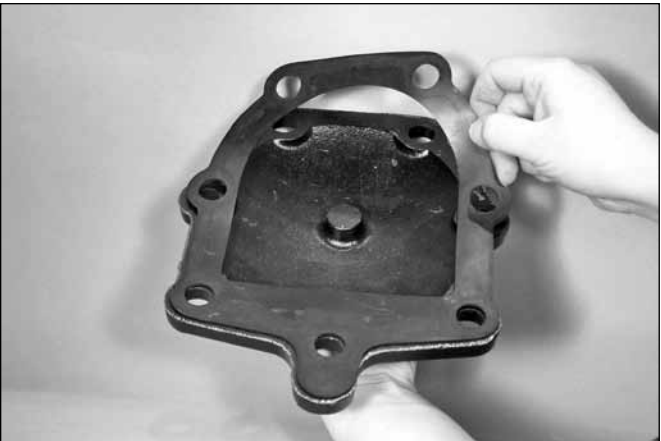
27. Place the seal-retaining ring onto the seal washer of the clapper seal. Install the seal-assembly bolt/bolt seal through the seal-retaining ring and clapper.



28. Tighten the seal-assembly bolt/bolt seal to the torque value listed in the table on this page to ensure a proper seal.

## REQUIRED SEAL-ASSEMBLY BOLT/BOLT SEAL TORQUES

Size		Torque
Nominal Size inches	Actual Outside Diameter inches mm	inch-lbs N•m
1 ½	1.900 48.3	40 5
2	2.375 60.3	40 5
2 ½	2.875 73.0	90 10
76.1 mm	3.000 76.1	90 10
3	3.500 88.9	90 10
4	4.500 114.3	110 12
165.1 mm	6.500 165.1	160 18
6	6.625 168.3	160 18
8	8.625 219.1	160 18



29. Align the holes of the new cover plate gasket (provided with the kit) with the holes in the cover plate.



30. Insert one cover plate bolt through the cover plate and cover plate gasket to ease alignment. **NOTE:** For 1 ½-inch/48.3-mm and 2-inch/60.3-mm valve sizes, a washer must be re-installed under the head of each cover plate bolt.

## 5-Year Rebuild Kit Instructions for FireLock NXT™ Valves

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### ⚠ CAUTION

- DO NOT over-tighten the cover plate bolts.
- Failure to follow this instruction could cause damage to the cover plate gasket, resulting in valve leakage.



- Align the cover plate/cover plate gasket to the valve. Make sure the clapper spring's arms are rotated to their installed position. Tighten all cover plate bolts into the cover plate/valve body.
- Torque all cover plate bolts in an even, crossing pattern. Refer to the "Required Cover Plate Bolt Torques" table below for the required torque values. DO NOT over-tighten the cover plate bolts.

#### Required Cover Plate Bolt Torques

Size		Torque
Nominal Size inches	Actual Outside Diameter inches mm	ft-lbs N•m
1½	1.900 48.3	30 41
2	2.375 60.3	30 41
2½	2.875 73.0	60 81
76.1 mm	3.000 76.1	60 81
3	3.500 88.9	60 81
4	4.500 114.3	100 136
165.1 mm	6.500 165.1	115 156
6	6.625 168.3	115 156
8	8.625 219.1	100 136

### INSTRUCTIONS FOR REPLACING THE DIAPHRAGM (ITEM 11 ON PAGE 1)

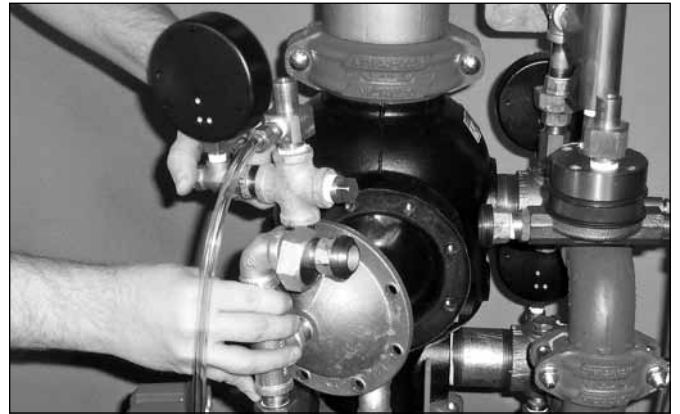
### ⚠ WARNING



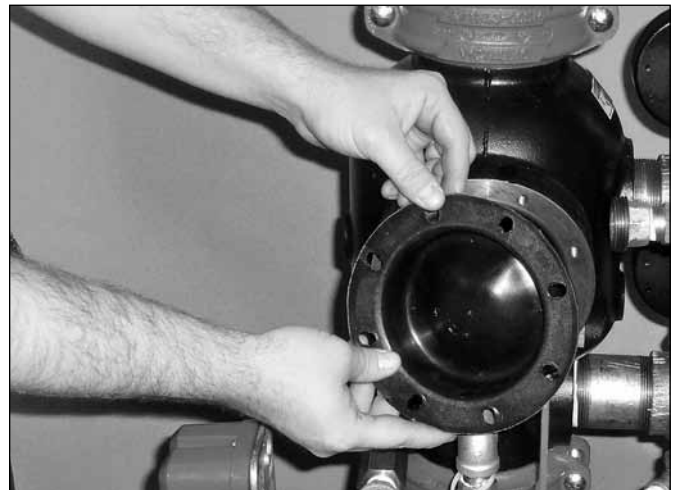
- Make sure the valve is depressurized and drained before attempting to remove any trim from the valve.
- Failure to depressurize and drain the valve before removing any trim from the valve could cause serious personal injury and/or property damage.

If the system is in service, follow the "Removing the System from Service" section.

- Break the unions that connect the trim to the diaphragm cover. Refer to the applicable trim drawing for details.



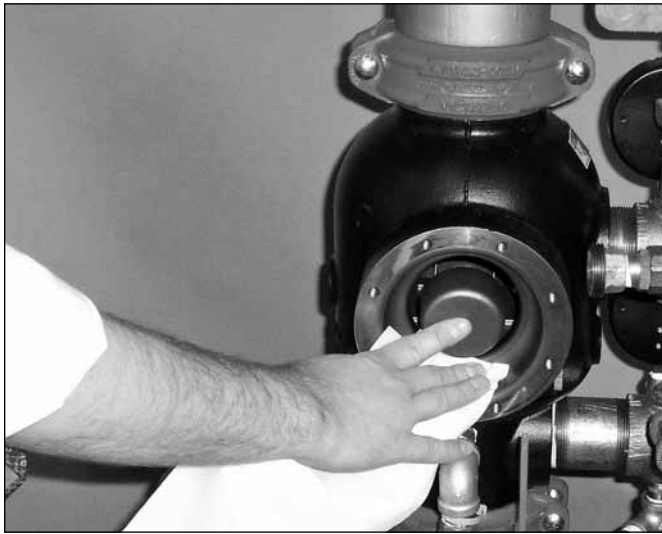
- Remove the cap screws from the diaphragm cover, and pull the diaphragm cover/trim off the valve.



- Remove the old diaphragm from the valve body. Discard the diaphragm.

## 5-Year Rebuild Kit Instructions for FireLock NXT™ Valves

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4. Clean the back of the valve body to remove any debris that may interfere with proper diaphragm seating.

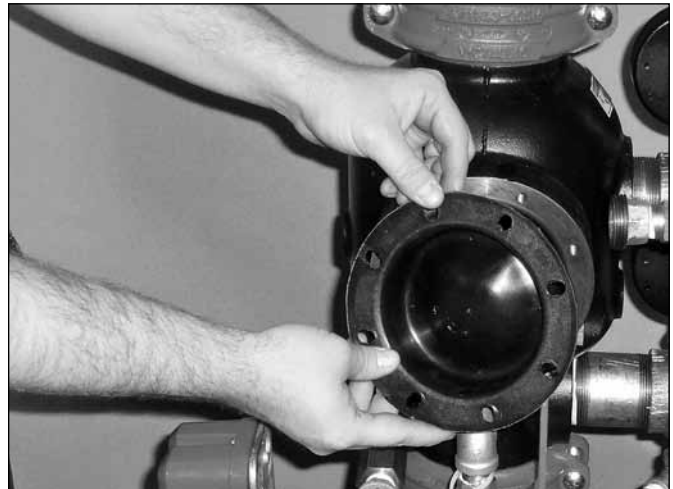


- 4a. Clean the inside of the diaphragm cover to remove any foreign material.

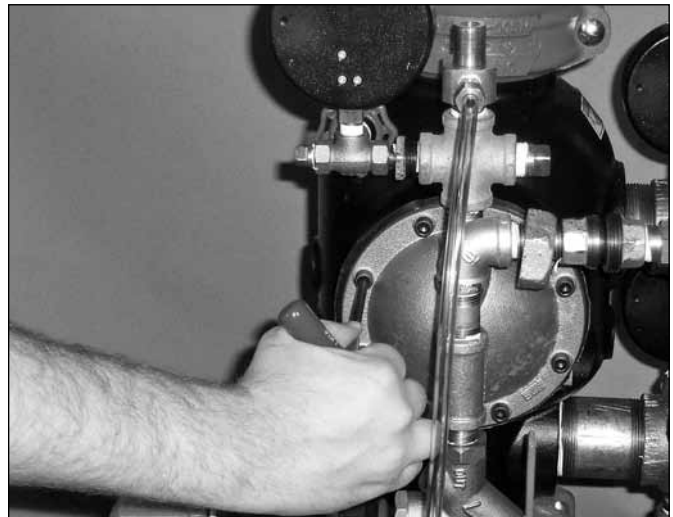
### CAUTION

- Use caution when installing a new diaphragm into the valve body.

Failure to follow this instruction could cause damage to the diaphragm, resulting in improper valve operation and valve leakage.



5. Install the new diaphragm (provided with the kit) by aligning the holes in the diaphragm with the holes in the valve body. Be careful not to damage the diaphragm during installation.



6. Align the holes of the diaphragm cover with the holes in the diaphragm/valve body. Tighten all cap screws into the diaphragm cover/valve body.
7. Re-attach the trim at the unions that were loosened in step 1. Refer to the applicable trim drawing for details. **MAKE SURE ALL UNIONS THAT WERE LOOSENEED TO PERMIT ACCESS TO THE DIAPHRAGM COVER ARE RE-TIGHTENED BEFORE ATTEMPTING TO PLACE THE SYSTEM BACK IN SERVICE.**
8. Place the system back in service by following the "Placing the System in Service" section in the applicable installation, maintenance, and testing manual for the valve.

For complete contact information, visit [www.victaulic.com](http://www.victaulic.com)

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