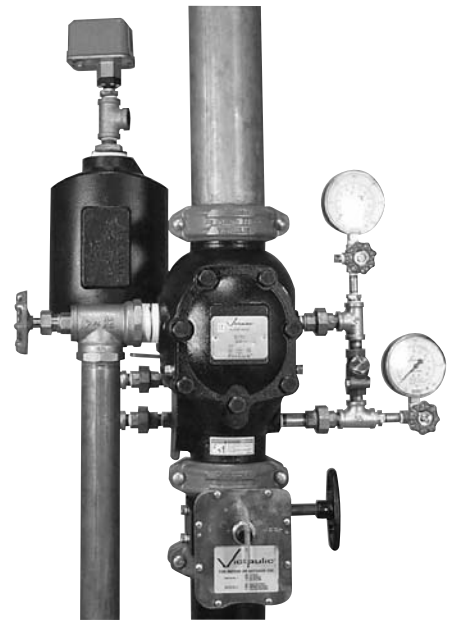


# Installation, Maintenance, and Testing Manual

## Series 751 FireLock® Alarm Check Valve

Hang these instructions on the  
installed valve for easy future reference



### **WARNING**



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

- Read and understand all instructions before attempting to install any Victaulic piping products.
- Wear safety glasses, hardhat, and foot protection.
- Save this installation, maintenance, and testing manual for future reference.

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



**TABLE OF CONTENTS**

Hazard Identification . . . . . 1

Installer Safety Instructions . . . . . 2  
 General . . . . . 2  
 Maintenance and Testing . . . . . 2

Introduction . . . . . 3

Trim Dimensions . . . . . 3

Exploded View Drawing – Trim Components . . . . . 4

Exploded View Drawing – Trim Components (Canada Only) . . . . . 5

Exploded View Drawing – Internal Valve Components . . . . . 6

Series 751 Alarm Check Valve –  
 Trim Assembly Drawing Numbers . . . . . 7

Series 751 Alarm Check Valve for Use with Excess Pressure  
 Pump (Canada Only) – Trim Assembly Drawing Numbers . . . . . 7

Important Installation Information . . . . . 8

Valve/Trim Installation . . . . . 8

Hydrostatic Testing . . . . . 8

Placing the System in Service . . . . . 9

External Inspection . . . . . 10

Monthly Inspection . . . . . 10

Required Tests . . . . . 10  
 Main Drain Test . . . . . 10

Required Internal Inspection . . . . . 12

Maintenance . . . . . 14  
 Removing and Replacing the Clapper Seal for  
 1½ - 3-inch (40 – 80-mm) and 8-inch (200-mm) Size Valves . . . . . 14  
 Removing and Replacing the Clapper Seal for  
 4 – 6-inch (100 – 150-mm) Size Valves . . . . . 16  
 Removing and Replacing the Clapper Assembly (All Sizes) . . . . . 17  
 Installing the Cover Plate Gasket and Cover Plate . . . . . 18

Troubleshooting – Series 751 Alarm Check Valve . . . . . 20

Facilities Locations . . . . . B/C

**HAZARD IDENTIFICATION**

Definitions for identifying the various hazard levels are provided below.



This safety alert symbol indicates important safety messages. 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.

## Series 751 FireLock® Alarm Check Valve

### INSTALLER SAFETY INSTRUCTIONS

 <b>WARNING</b>	
	<ul style="list-style-type: none"><li>• An experienced, trained installer must install this product in accordance with all instructions. These instructions contain important information.</li><li>• Depressurize and drain the piping system before attempting to install, remove, adjust, or maintain any Victaulic piping products.</li></ul>
	<p><b>Failure to follow these instructions can cause product failure, resulting in serious personal injury and/or property damage.</b></p>

#### General

- 1. Read and understand all instructions and refer to the trim diagrams before proceeding with the installation, maintenance, and testing of this Victaulic Series 751 FireLock Alarm Check Valve.**
- 2. Inspect the shipment.** Make sure all components are included with the shipment and that all necessary tools are available for installation.
- 3. Use only recommended accessories.** Use of accessories or equipment that are not approved for use with this alarm check valve may result in improper system operation.
- 4. Wear safety glasses, hardhat, foot protection, and hearing protection.** Wear hearing protection if you are exposed to long periods of noisy job-site operations.
- 5. Prevent back injury.** Larger and pre-trimmed valves are heavy and require more than one person or mechanical lifting equipment to position and install the assembly. Always practice proper lifting techniques.
- 6. Avoid using electrically powered tools in dangerous environments.** When using electrically powered tools for installation, make sure the area is moisture-free. Keep the work area well lit, and allow enough space to accommodate proper installation of the valve, trim, and accessories.
- 7. Watch for pinch points.** Do not place fingers under the valve body where they could be pinched by the weight of the valve. Use caution around spring-loaded components (i.e. clapper assembly).
- 8. Keep work areas clean.** Cluttered areas, benches, and slippery floors can create hazardous working conditions.
- 9. PROTECT THE SYSTEM FROM FREEZING CONDITIONS. THE VALVE AND SUPPLY PIPING MUST BE PROTECTED FROM FREEZING TEMPERATURES AND MECHANICAL DAMAGE.**

#### Maintenance and Testing

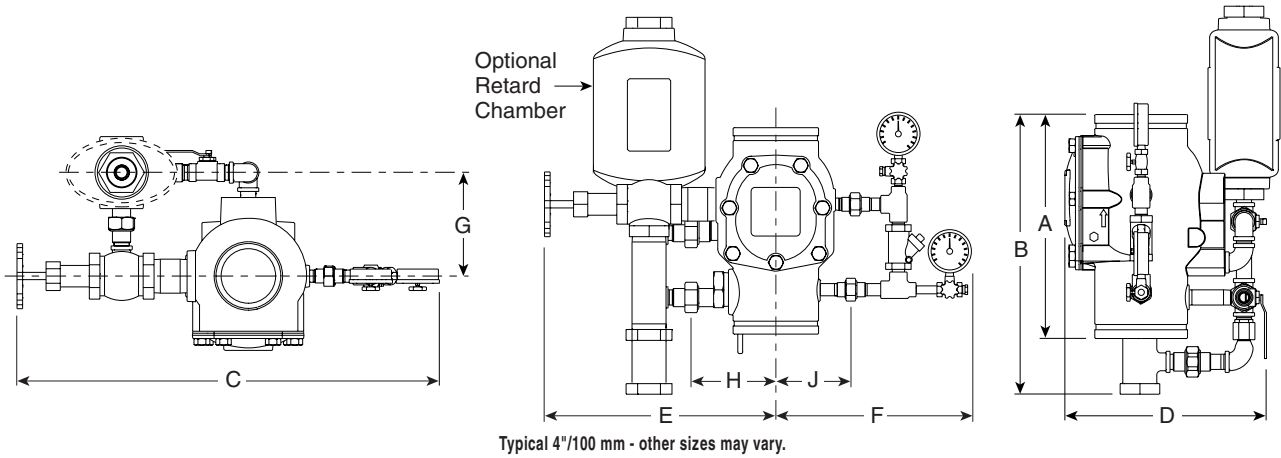
- 1. Notify the authority having jurisdiction.** Always notify the authority having jurisdiction before taking a fire protection system out of service or before performing any maintenance that eliminates the fire protection provided by the system.
- 2. Follow NFPA requirements for system testing and inspection schedules.** In addition, contact the authority having jurisdiction to verify additional testing and inspection schedules required in your area.
- 3. Depressurize and drain the system completely before performing any maintenance.** Water under pressure can cause the cover plate to blow off during removal if the system is not depressurized and drained completely.
- 4. Protect the valve from freezing temperatures, foreign matter, and corrosive atmospheres.** Any condition that might degrade the system or affect system performance must be avoided.

## Series 751 FireLock® Alarm Check Valve

### INTRODUCTION

The following instructions are a guide for proper installation of Victaulic Series 751 Alarm Check Valves. These instructions involve pipe that is properly prepared and grooved in accordance with current Victaulic specifications.

### TRIM DIMENSIONS



Valve Size		Dimensions inches (mm)									Approximate Weight Each lbs (kg)	
Nominal Diameter inches (mm)	Actual Outside Diameter inches (mm)	E to E A *	Height B ‡	Width C	Depth D	E	F	G	H	J	Without Trim	With Trim

#### GROOVED X GROOVED

1½ 40	1.900 48,3	9.00 228,60	18.50 470	21.00 533	12.50 318	10.00 254	11.00 279	9.00 229	5.00 127	5.00 127	14.2 6,4	31.0 14,1
2 50	2.375 60,3	9.00 228,60	18.50 470	21.00 533	12.50 318	10.00 254	11.00 279	9.00 229	5.00 127	5.00 127	14.6 6,6	31.0 14,1
2½ 65	2.875 73,0	12.61 320,29	22.50 572	23.50 597	13.50 343	11.25 286	12.00 305	9.00 229	5.00 127	5.00 127	34.4 15,6	52.0 23,6
76,1 mm	3.000 76,1	12.61 320,29	22.50 572	23.50 597	13.50 343	11.25 286	12.00 305	9.00 229	5.00 127	5.00 127	34.4 15,6	52.0 23,6
3 80	3.500 88,9	12.61 320,29	22.50 572	23.50 597	13.50 343	11.25 286	12.00 305	9.00 229	5.00 127	5.00 127	35.3 16,0	52.0 23,6
4 100	4.500 114,3	15.03 381,76	23.50 597	29.00 737	14.00 356	13.50 343	15.00 381	10.00 254	5.80 147	5.80 147	49.0 22,2	80.0 36,3
6 150	6.625 168,3	16.00 406,40	24.00 610	30.11 765	17.28 439	14.25 362	16.00 406	10.00 254	5.88 149	6.02 153	69.0 31,3	91.0 41,3
165,1 mm	6.500 165,1	16.00 406,40	24.00 610	30.11 765	17.28 439	14.25 362	16.00 406	10.00 254	5.88 149	6.02 153	69.0 31,3	95.0 43,1
8 200	8.625 219,1	17.50 444,50	26.00 660	30.00 762	18.00 457	15.25 387	16.00 406	10.00 254	16.00 406	10.00 254	142.0 64,4	182.0 82,6

#### FLANGED X GROOVED

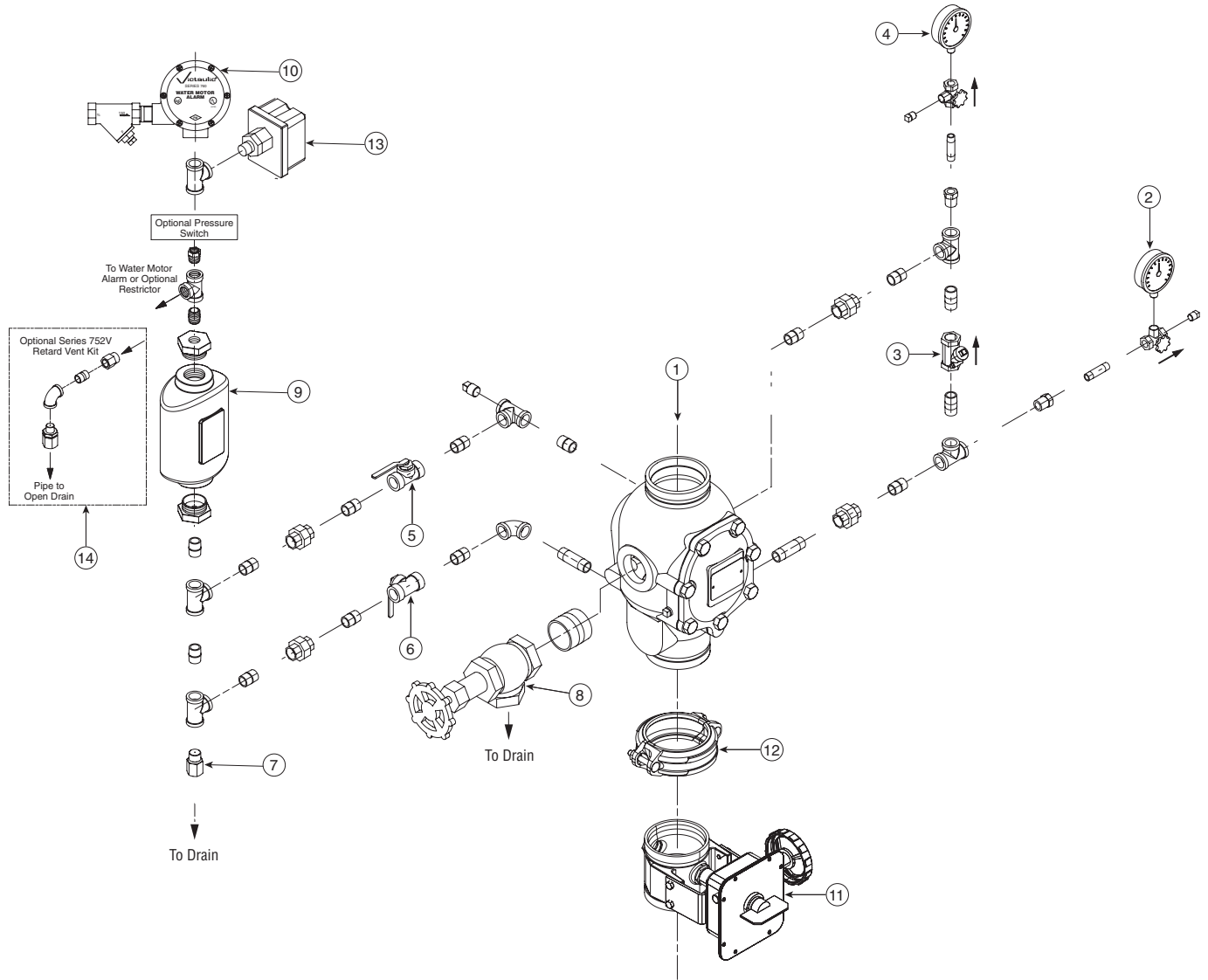
4 100	4.500 114,3	15.64 397,26	23.50 597	29.00 737	14.00 355	11.50 292	15.00 381	10.00 254	5.80 147	5.80 147	59.0 26,8	90.0 40,8
6 150	6.625 168,3	16.94 430,28	24.00 610	30.11 765	17.28 439	14.00 356	16.00 406	10.00 254	5.88 149	6.02 153	79.0 35,8	106.0 48,1
165,1 mm	6.500 165,1	16.94 430,28	24.00 610	30.11 765	17.28 439	14.00 356	16.00 406	10.00 254	5.88 149	6.02 153	79.0 35,8	110.0 49,9
8 200	8.625 219,1	19.27 489,46	26.00 660	20.00 508	18.00 457	16.00 406	14.00 356	10.00 254	16.00 406	10.00 254	155.0 70,0	195.0 88,5

\* The "A" dimension is the measurement from the top of the valve body to the bottom of the valve body (takeout dimension).  
 ‡ Add 12 inches (305 mm) to the "B" (Height) dimension when an optional retard chamber is installed.

**Series 751 FireLock® Alarm Check Valve**  
**EXPLODED VIEW DRAWING – TRIM COMPONENTS**

**Series 751 Alarm Check Valve**

Grooved x Grooved  
 (Optional Accessories Also Shown)



**BILL OF MATERIALS**

- |  |   |
|--|---|
| 1 Series 751 FireLock Alarm Check Valve              | 8 System's Main Drain Valve                     |
| 2 Water Supply Pressure Gauge (0-300 psi/0-2068 kPa) | 9 Series 752 Retard Chamber (Optional)          |
| 3 Swing Check Valve                                  | 10 Series 760 Water Motor Alarm (Optional)      |
| 4 System Pressure Gauge (0-300 psi/0-2068 kPa)       | 11 Series 705W Butterfly Valve (Optional)       |
| 5 Alarm Line Ball Valve (NO)                         | 12 Style 005 FireLock Rigid Coupling (Optional) |
| 6 Alarm Test Line Ball Valve (NC)                    | 13 PS10-1 or PS10-2 Alarm Pressure Switch       |
| 7 Alarm Line Drain Restrictor (1/16-inch)            | 14 Series 752V Retard Vent Kit (Optional)*      |

NO = Normally Open; NC = Normally Closed

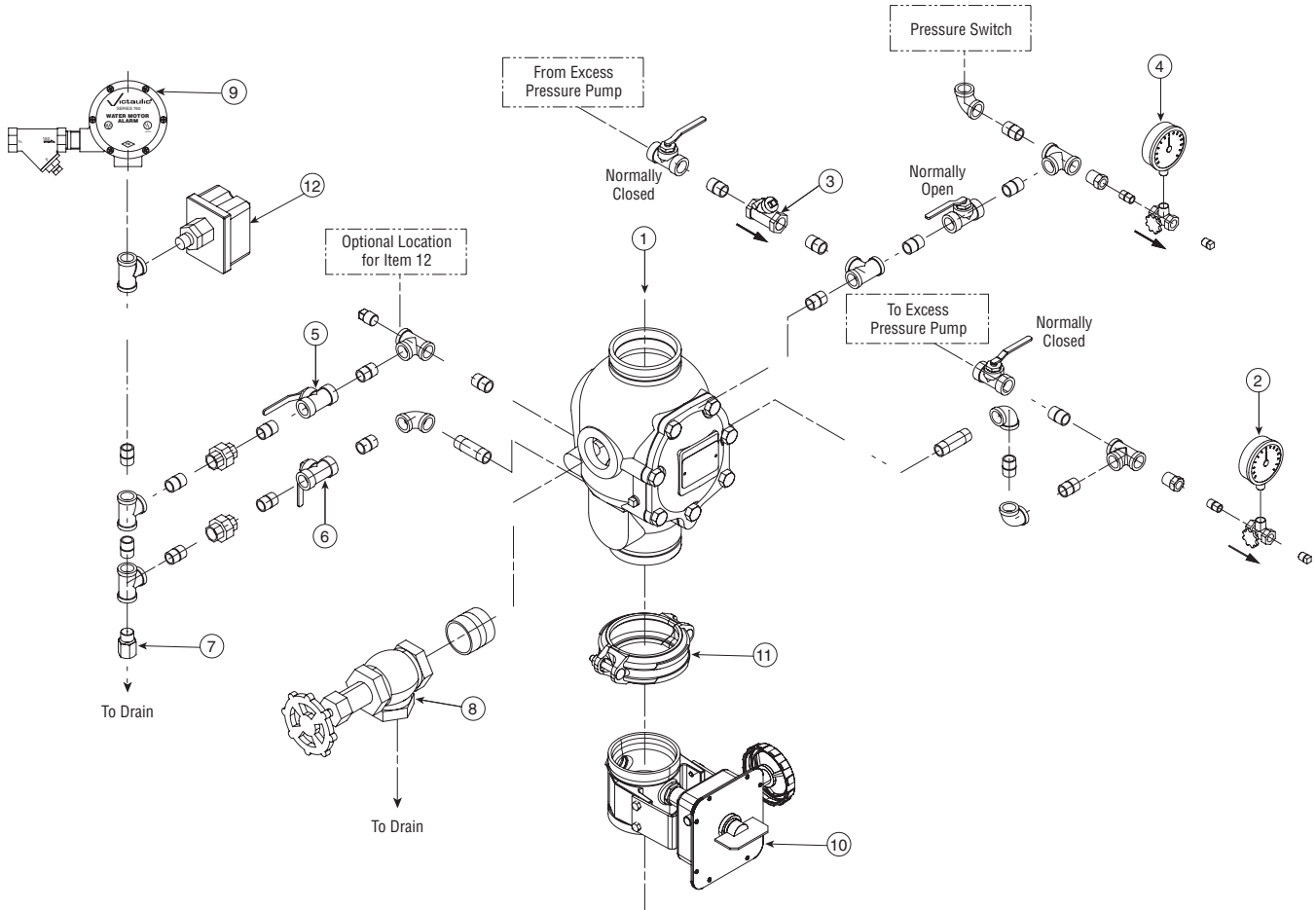
\* The Series 752V Retard Vent Kit is required any time an air break is needed above the retard chamber. In addition, the Series 752V Retard Vent Kit is required if multiple valves are tied into one water motor alarm and a check valve isolates each line.

## Series 751 FireLock® Alarm Check Valve

### EXPLODED VIEW DRAWING – TRIM COMPONENTS (CANADA ONLY)

#### Series 751 Alarm Check Valve for Use with Excess Pressure Pump

Grooved x Grooved  
(Optional Accessories Also Shown)



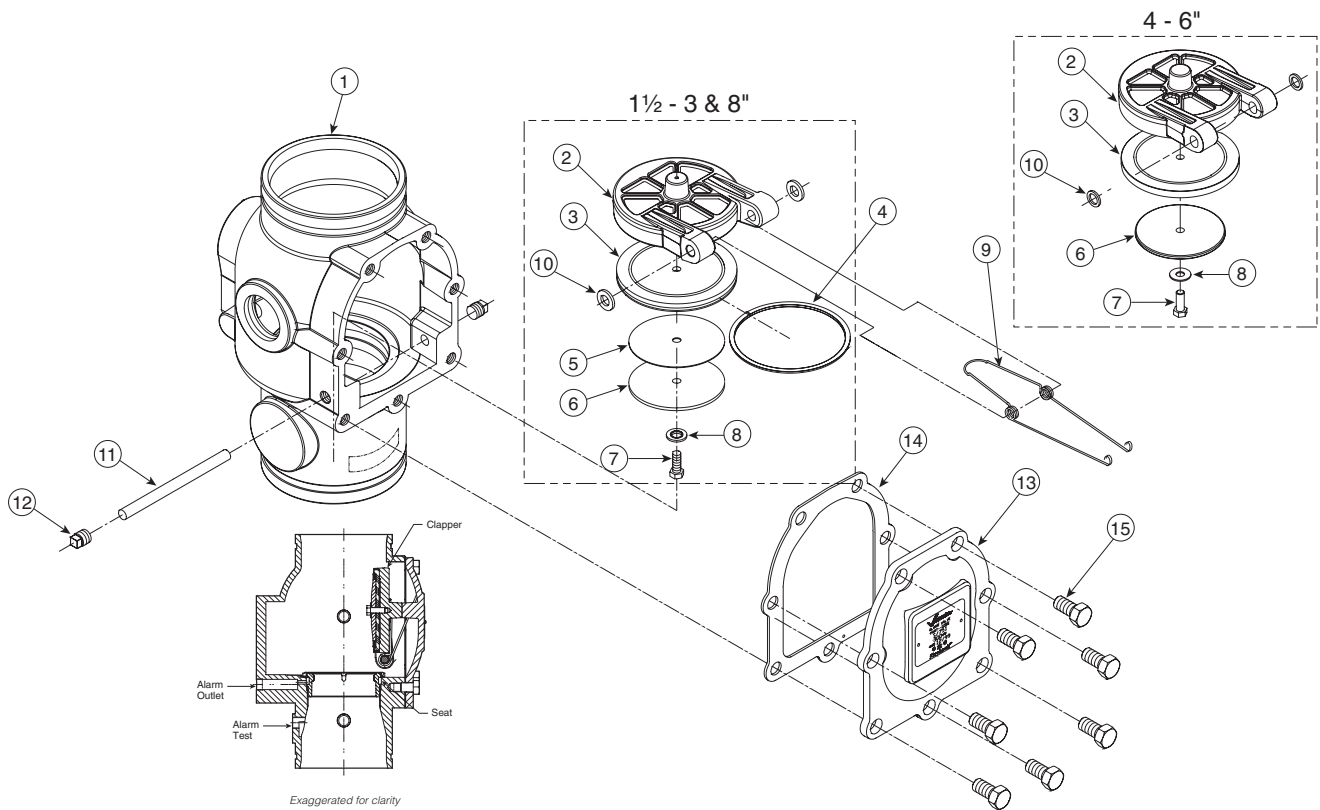
#### BILL OF MATERIALS

1	Series 751 FireLock Alarm Check Valve	7	Alarm Line Drain Restrictor (1/16-inch)
2	Water Supply Pressure Gauge (0-300 psi/0-2068 kPa)	8	System's Main Drain Valve
3	Swing Check Valve	9	Series 760 Water Motor Alarm (Optional)
4	System Pressure Gauge (0-300 psi/0-2068 kPa)	10	Series 705W Butterfly Valve (Optional)
5	Alarm Line Ball Valve (NO)	11	Style 005 Firelock Rigid Coupling (Optional)
6	Alarm Test Line Ball Valve (NC)	12	PS10-1 or PS10-2 Alarm Pressure Switch (Optional)

NO = Normally Open; NC = Normally Closed

**Series 751 FireLock® Alarm Check Valve**

**EXPLODED VIEW DRAWING – INTERNAL VALVE COMPONENTS**



**BILL OF MATERIALS**

- |   |  |
|---|--|
| 1 Valve Body  | 9 Clapper Spring                         |
| 2 Clapper   | 10 Spacers (Qty. 2)                      |
| 3 Clapper Seal  | 11 Clapper Shaft                         |
| 4 Seal Ring   | 12 Clapper Shaft Retaining Plug (Qty. 2) |
| 5 Seal Washer (Not Used on 1½ - 2" [40 - 50-mm] Valves) | 13 Cover Plate                           |
| 6 Seal-Retaining Ring                                   | 14 Cover Plate Gasket                    |
| 7 Seal-Assembly Bolt                                    | 15 Cover Plate Bolts (Qty. 7)            |
| 8 Bolt Seal   |  |

**Series 751 FireLock® Alarm Check Valve**

**SERIES 751 ALARM CHECK VALVE – TRIM ASSEMBLY DRAWING NUMBERS**

VALVE SIZE		Vertical Trim Drawing Number	Horizontal Trim Drawing Number	VALVE SIZE		Vertical Trim Drawing Number	Horizontal Trim Drawing Number
Nominal Diameter inches (mm)	Actual Outside Diameter inches (mm)			Nominal Diameter inches (mm)	Actual Outside Diameter inches (mm)		
1 <sup>1</sup> / <sub>2</sub> 40	1.900 48,3	Z014751201	Z014751251	4 100	4.500 114,3	Z040751201	Z040751251
2 50	2.375 60,3	Z014751201	Z014751251	6 150	6.625 168,3	Z060751201	Z060751251
2 <sup>1</sup> / <sub>2</sub> 65	2.875 73,0	Z024751201	Z024751251	165,1 mm	6.500 165,1	Z060751201	Z060751251
76,1 mm	3.000 76,1	Z024751201	Z024751251	8 200	8.625 219,1	Z080751201	Z080751251
3 80	3.500 88,9	Z024751201	Z024751251				

**SERIES 751 ALARM CHECK VALVE FOR USE WITH EXCESS PRESSURE PUMP (CANADA ONLY) – TRIM ASSEMBLY DRAWING NUMBERS**

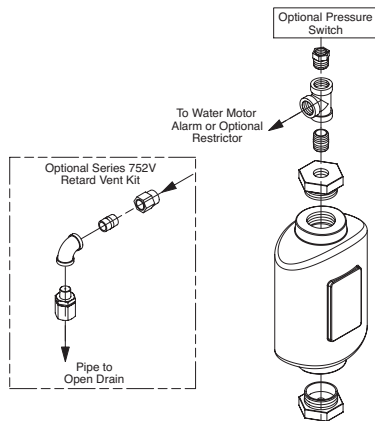
VALVE SIZE		Vertical Trim Drawing Number	Horizontal Trim Drawing Number	VALVE SIZE		Vertical Trim Drawing Number	Horizontal Trim Drawing Number
Nominal Diameter inches (mm)	Actual Outside Diameter inches (mm)			Nominal Diameter inches (mm)	Actual Outside Diameter inches (mm)		
1 <sup>1</sup> / <sub>2</sub> 40	1.900 48,3	Z014751203	Z014751253	4 100	4.500 114,3	Z040751203	Z040751253
2 50	2.375 60,3	Z014751203	Z014751253	6 150	6.625 168,3	Z060751203	Z060751253
2 <sup>1</sup> / <sub>2</sub> 65	2.875 73,0	Z024751203	Z024751253	165,1 mm	6.500 165,1	Z060751203	Z060751253
76,1 mm	3.000 76,1	Z024751203	Z024751253	8 200	8.625 219,1	Z080751203	Z080751253
3 80	3.500 88,9	Z024751203	Z024751253				



## Series 751 FireLock® Alarm Check Valve

### IMPORTANT INSTALLATION INFORMATION

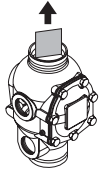
1. For proper operation and approval, the Series 751 Alarm Check Valve must be installed in accordance with the specific trim diagrams included in the shipment. **NOTE:** Victaulic provides specific trim diagrams for vertical and horizontal installations.
2. Before installing the Series 751 Alarm Check Valve, flush the water supply piping thoroughly to remove all foreign material.
3. Series 751 Alarm Check Valves **MUST NOT** be located in an area where the valve can be exposed to freezing temperatures. In addition, the Series 751 Alarm Check Valve **MUST NOT** be located in an area where physical damage may occur.
4. It is the owner's responsibility to confirm material compatibility of the Series 751 Alarm Check Valve, trim, and associated accessories when a corrosive environment or contaminated water is present.
5. The Victaulic Series 752 Retard Chamber should be installed in variable pressure installations. **NOTE:** Victaulic provides specific trim drawings for installations that involve a Series 752 Retard Chamber.



6. The Series 752V Retard Vent Kit is required any time an air break is needed above the retard chamber. In addition, the Series 752V Retard Vent Kit is required if multiple valves are tied into one water motor alarm and a check valve isolates each line. Refer to the drawing above.
7. Series 751 Alarm Check Valves can be installed in the vertical position with the arrow on the body pointing upward. The arrow on the swing check valve in the bypass line must point upward.
8. **When installed horizontally, the cover plate must face upward. The arrow on the swing check valve in the bypass line must match the direction of the water flow.**
9. When the Series 751 Alarm Check Valve is used with a water motor alarm, it is recommended that the valve contain an uninterrupted, low-pressure alarm that is installed on the piston charge line downstream of the check valve.

### VALVE/TRIM INSTALLATION

1. Make sure trim drawings match system requirements. Refer to page 7 for the listing.

<b>! CAUTION</b>	
	<ul style="list-style-type: none"><li>• <b>Make sure the foam spacer is removed from inside the valve body before attempting to install the valve. Failure to follow this instruction could cause improper valve operation, resulting in personal injury and/or property damage.</b></li></ul>


2. Remove all plastic caps and foam spacers from the valve.
3. Apply a small amount of pipe joint compound or Teflon\* tape to the external threads of all threaded pipe connections. **DO NOT** get any tape, compound, or other foreign material in the valve body, pipe nipples, or valve openings.

<b>! CAUTION</b>	
<ul style="list-style-type: none"><li>• <b>Make sure no foreign material gets into the valve body, pipe nipples, or valve openings.</b></li><li>• <b>If using any material other than Teflon tape, use extra caution so that no material gets into the trim.</b></li></ul> <p><b>Failure to follow these instructions could cause improper valve operation and/or property damage.</b></p>	

4. Install the valve, trim, and accessories per the trim drawing.

\* Teflon is a registered trademark of the Dupont Company

### HYDROSTATIC TESTING

<b>! WARNING</b>	
	<ul style="list-style-type: none"><li>• <b>If air testing is required, DO NOT exceed 50-psi (345-kPa) air pressure. Failure to follow this instruction could result in serious personal injury and/or property damage.</b></li></ul>

The Victaulic Series 751 Alarm Valve is UL Listed and FM Approved for a maximum working pressure of 300 psi (2065 kPa) for 1½ - 6-inch (40 - 150-mm) sizes and 225 psi (1551 kPa) for the 8-inch (200-mm) size. The valve is factory tested to 600 psi (4135 kPa) for 1½ - 6-inch (40 - 150-mm) sizes and 500 psi (3447 kPa) for the 8-inch (200-mm) size. The valve can be hydrostatically tested against the clapper at 200 psi (1380 kPa) or 50 psi (345 kPa) above the normal water supply pressure (2-hour limited time period) for acceptance by the authority having jurisdiction.

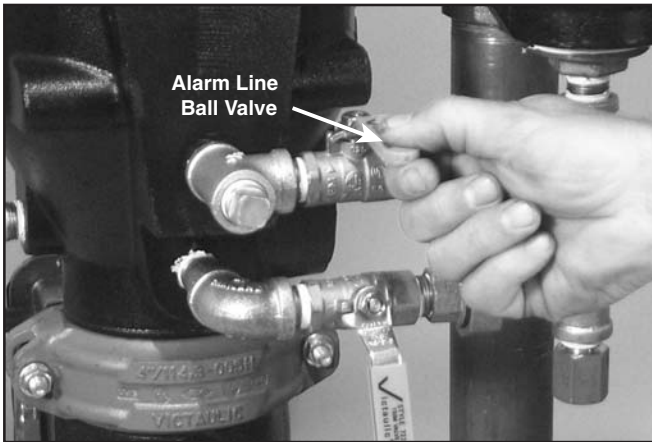
## PLACING THE SYSTEM IN SERVICE

### ⚠ CAUTION

- The Series 751 Alarm Check Valve and supply piping must be protected from freezing temperatures and mechanical damage.
- For proper operation of alarms in a wet system, it is important to remove all air from the system. Auxiliary drains may be required to release all trapped air from the system.

Failure to follow these instructions could cause improper valve operation, resulting in personal injury and/or property damage.

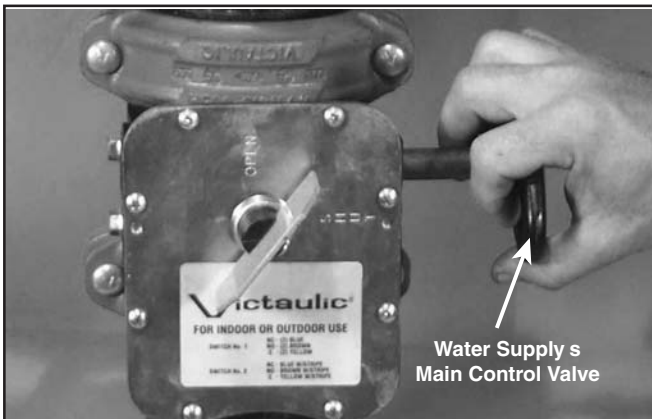
1. Confirm that system drains are shut and the system is free of leaks.
2. Open the remote system test valve (inspector's test connection) and any auxiliary drains to remove all air from the system.



3. Close the alarm line ball valve to prevent alarms from operating while the system is filling. Alarms and electrical panels (controlled by an alarm flow switch on the riser) cannot be interrupted. **NOTE:** If alarm activation is possible, notify local fire companies that the system is being serviced.

### ⚠ CAUTION

- Take precautions when opening the water supply's main control valve because water will flow from all open system valves. Failure to follow this instruction could result in property damage.



4. Open the water supply's main control valve slowly.

## Series 751 FireLock® Alarm Check Valve

5. Allow the system to fill with water completely. Allow water to flow from the remote system test valve (inspector's test connection) and any auxiliary drains until all trapped air is removed from the system.
6. After a steady flow of water is established and all air is released from the system, close the remote system test valve (inspector's test connection) and any auxiliary drains in the system.
7. Record the system pressures. The system pressure gauge should be equal to or greater than the water supply pressure gauge.

### ⚠ CAUTION

- The alarm line ball valve must be open to allow alarms to activate. Failure to follow this instruction will prevent alarms from activating during a fire condition, resulting in personal injury and/or property damage.




8. Open the alarm line ball valve.
9. Confirm that all valves are in their normal operating positions (refer to table below).

Valve	Normal Operating Position
Alarm Line Ball Valve	Open
Alarm Test Ball Valve	Closed

10. Notify the authority having jurisdiction, remote station alarm monitors, and those in the affected area that the system is in service.

## Series 751 FireLock® Alarm Check Valve

### EXTERNAL INSPECTION

<b>⚠ CAUTION</b>	
	<ul style="list-style-type: none"> <li>Any activities that require taking the valve out of service may eliminate the fire protection provided.</li> <li>Before servicing or testing the system, notify the authority having jurisdiction.</li> <li>Consideration of a fire patrol should be given in the affected areas.</li> </ul> <p>Failure to follow these instructions could cause serious personal injury and/or property damage.</p>

<b>NOTICE</b>
<ul style="list-style-type: none"> <li>The owner is responsible for maintaining the fire protection system in proper operation condition.</li> <li>It is important to inspect the system regularly, according to proper procedures.</li> <li>The Victaulic Series 751 Alarm Check Valve and trim must not be exposed to foreign material, corrosive environments, freezing conditions, contaminated water supplies, or any other condition that could impair system operation.</li> <li>Modify the frequency of inspections in the presence of any environmental conditions that could degrade system operation.</li> <li>The authority having jurisdiction may have additional maintenance, inspection, and test requirements.</li> </ul>


#### Monthly Inspection

Victaulic recommends a visual inspection of the alarm check valve and trim on a monthly basis, as required by the current NFPA-25 code.

- Record the system's pressure and the water supply's pressure. It is normal for the system's water pressure to be higher than the water supply's pressure due to the check valve trapping pressure surges above the clapper. Confirm that the water supply's pressure is in the range of normal pressures observed in the area. A significant loss in supply pressure could indicate an adverse condition in the water supply.
- Check for mechanical damage or corrosion. If damage or corrosion is present, replace the affected parts.
- Confirm that the valve and trim cannot be exposed to freezing conditions.
- If the valve is installed in a variable pressure system, confirm that there is no excessive leakage occurring from the restricted orifice. It is normal for some leakage because pressure surges lift the clapper and allow water into the intermediate chamber.
- Confirm that all valves are in their normal operating positions (refer to table below).

Valve	Normal Operating Position
Alarm Line Ball Valve	Open
Alarm Test Ball Valve	Closed

### REQUIRED TESTS

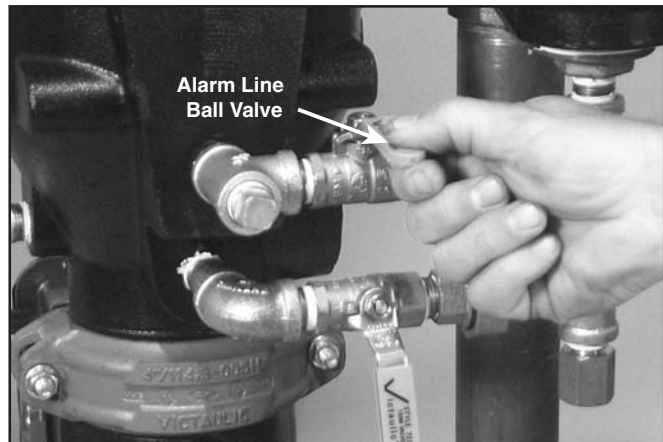
<b>⚠ CAUTION</b>	
	<ul style="list-style-type: none"> <li>Any activities that require taking the valve out of service may eliminate the fire protection provided.</li> <li>Before servicing or testing the system, notify the authority having jurisdiction.</li> <li>Consideration of a fire patrol should be given in the affected areas.</li> </ul> <p>Failure to follow these instructions could cause serious personal injury and/or property damage.</p>

#### Main Drain Test

Perform the main drain test annually, as required by the current NFPA-25 code. The authority having jurisdiction in the area may require these tests on a more frequent basis. Verify these requirements by contacting the authority having jurisdiction in the affected area.

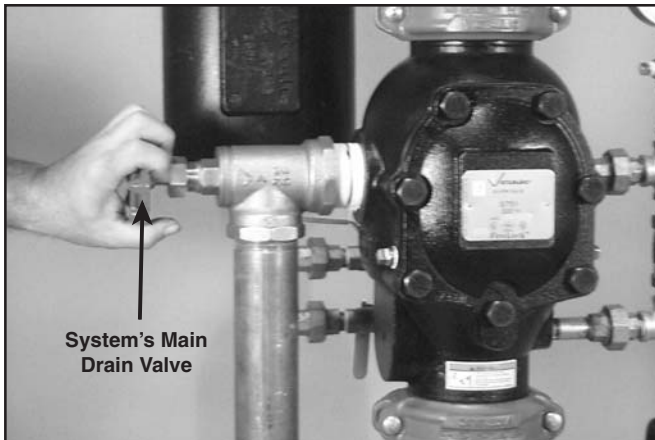
- Notify the authority having jurisdiction, remote station alarm monitors, and those in the affected area that the main drain test will be performed.
- Confirm that sufficient drainage is in place for a full-flow drain test.
- Record the water supply's pressure and the system's water pressure.

<b>NOTICE</b>
<ul style="list-style-type: none"> <li>If you do not want alarms to activate, close the alarm line ball valve.</li> </ul>

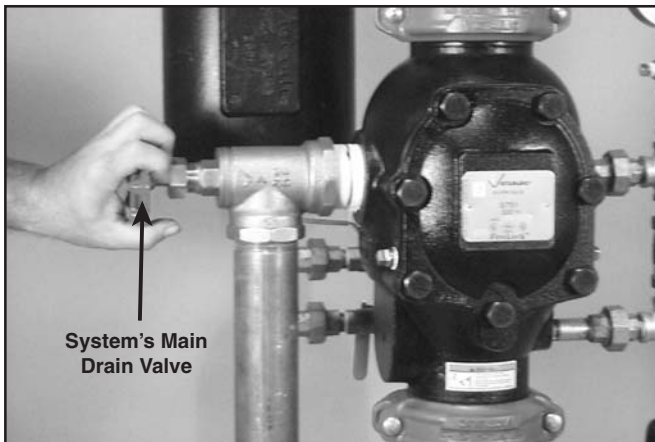


- Close the alarm line ball valve.

## Series 751 FireLock® Alarm Check Valve



5. Open the system's main drain valve completely.
6. With the system's main drain valve open completely, record the water supply's pressure as the residual pressure.



7. Close the system's main drain valve slowly.
8. Record the water pressures established after closing the system's main drain valve.
9. Compare the residual pressure reading, taken above, to the residual pressure readings taken in previous main drain tests. If there is degradation in the residual water supply readings, restore the proper water supply pressure.

### CAUTION

- The alarm line ball valve must be open to allow alarms to activate. Failure to follow this instruction will prevent alarms from activating during a fire condition, resulting in personal injury and/or property damage.



10. Open the alarm line ball valve.
11. Confirm that all valves are in their normal operating positions (refer to table below).



Valve	Normal Operating Position
Alarm Line Ball Valve	Open
Alarm Test Ball Valve	Closed



12. Notify the authority having jurisdiction, remote station alarm monitors, and those in the affected area that the valve is back in service. Provide test results, as required, to the authority having jurisdiction.

## Series 751 FireLock® Alarm Check Valve

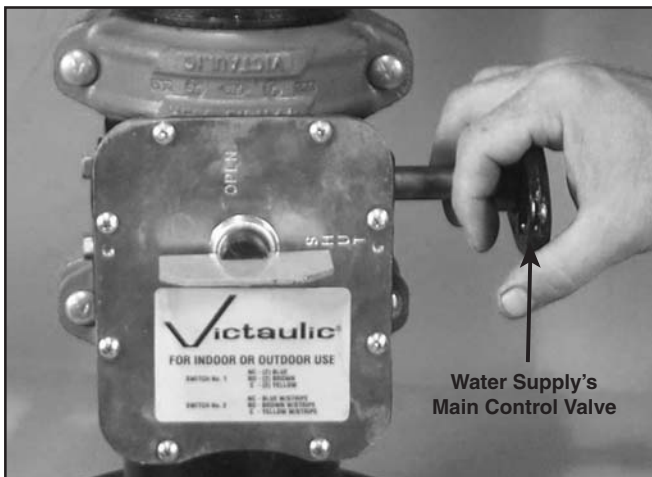
### REQUIRED INTERNAL INSPECTION

Inspect internal components every five years, as required by the current NFPA-25 code. The authority having jurisdiction in the area may require these inspections on a more frequent basis. Verify these requirements by contacting the authority having jurisdiction in the affected area.

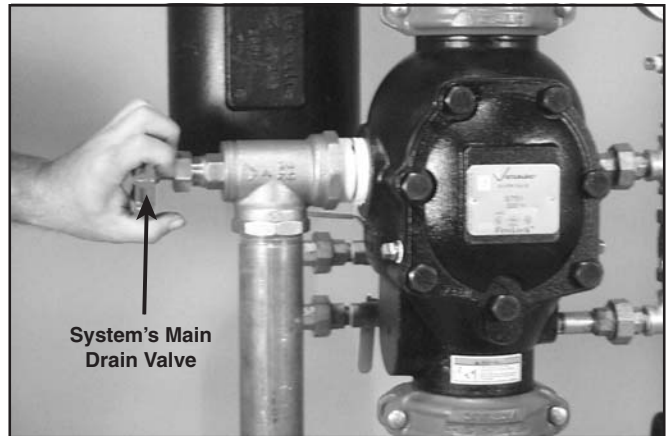
 <b>WARNING</b>	
	<ul style="list-style-type: none"> <li>Depressurize and drain the piping system before attempting to remove the cover plate from the alarm check valve.</li> </ul> <p>Failure to follow this instruction could result in serious personal injury and/or property damage.</p>

 <b>CAUTION</b>	
	<ul style="list-style-type: none"> <li>Any activities that require taking the valve out of service may eliminate the fire protection provided.</li> <li>Before servicing or testing the system, notify the authority having jurisdiction.</li> <li>Consideration of a fire patrol should be given in the affected areas.</li> </ul> <p>Failure to follow these instructions could cause serious personal injury and/or property damage.</p>


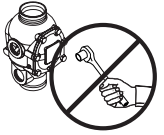

1. Notify the authority having jurisdiction, remote station alarm monitors, and those in the affected area that the system is being taken out of service.

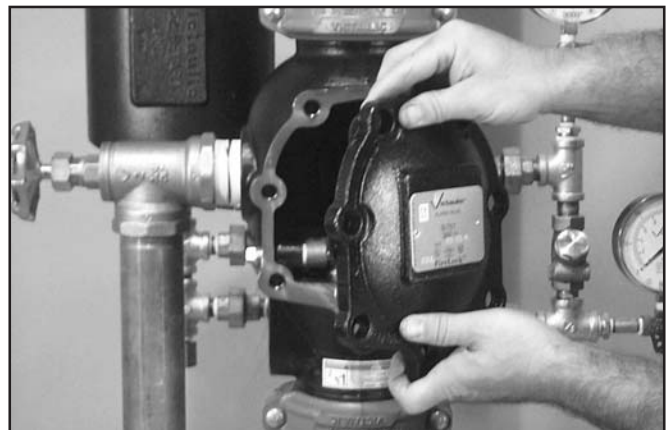


2. Close the water supply's main control valve to take the system out of service.




3. Open the system's main drain valve, and allow the system to drain completely. It may be necessary to open the remote system test valve (inspector's test connection) and any auxiliary drains in order to drain the system completely.

 <b>WARNING</b>	
	<ul style="list-style-type: none"> <li>Make sure the valve is depressurized and drained completely before the cover plate bolts are removed.</li> </ul>
	<p>The cover plate could blow off if the bolts are removed while the valve is pressurized, resulting in serious personal injury and/or property damage.</p>

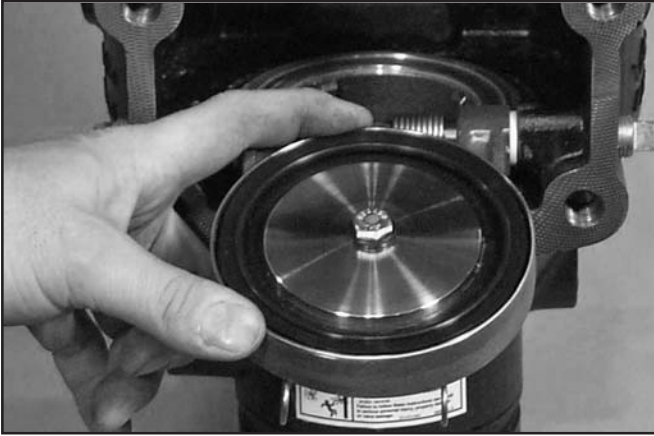


4. After all pressure is released from the system, loosen the cover plate bolts slowly. **NOTE:** DO NOT remove any cover plate bolts until all bolts are loosened.

- 4a. Remove all cover plate bolts, along with the cover plate and cover plate gasket.

 <b>CAUTION</b>	
<ul style="list-style-type: none"> <li>DO NOT use solvents or abrasives on or near the valve body seat ring.</li> </ul> <p>Failure to follow this instruction could prevent the clapper from sealing properly, resulting in improper valve operation and/or valve leakage.</p>	

## Series 751 FireLock® Alarm Check Valve



- 5.** Rotate the clapper out of the valve body. Inspect the clapper seal and seal-retaining ring. Wipe away any contaminants, dirt, and mineral deposits. Clean out any holes that are plugged in the valve-body seat ring. **DO NOT USE SOLVENTS OR ABRASIVES.**
- 6.** Inspect the clapper for freedom of movement and physical damage. Replace any damaged or worn parts by following the applicable instructions in the "Maintenance" section, starting on page 14.
- 7.** Re-install the cover plate by following the "Installing the Cover Plate Gasket and Cover Plate" section, starting on page 18.
- 8.** Place the system back in service by following the "Placing the System in Service" section, starting on page 9.

## Series 751 FireLock® Alarm Check Valve

### MAINTENANCE

The following steps instruct on how to remove and replace internal valve components. Care must be taken to avoid damage to parts.

#### ⚠ WARNING



- Depressurize and drain the piping system before attempting to remove the cover plate from the alarm check 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 cause serious personal injury and/or property damage.

### Removing and Replacing the Clapper Seal for 1½ - 3-inch (40 - 80-mm) and 8-inch (200-mm) Size Valves

1. Perform steps 1 – 5 of the "Required Internal Inspection" section, starting on page 12.



2. Remove the seal-assembly bolt/bolt seal from the clapper seal.



3. Remove the seal-retaining ring.

#### ⚠ CAUTION

- DO NOT pry the seal washer out of the clapper seal from the inner hole.
- Failure to follow this instruction could damage the seal washer, resulting in improper clapper sealing and valve leakage.



4. Pry the edge of the seal washer from inside the clapper seal. DO NOT pry the seal washer out from the inner hole.



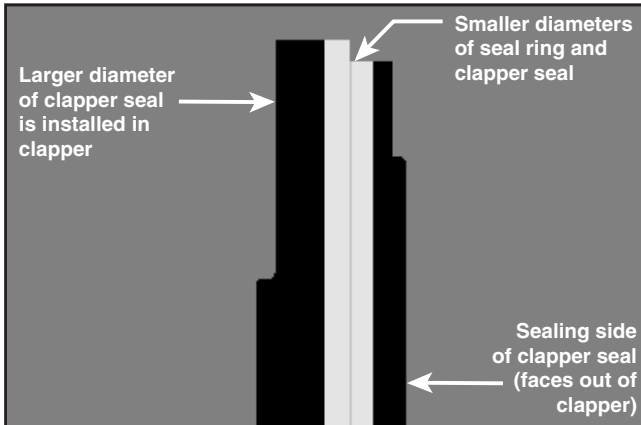
5. Remove the seal washer from the clapper seal. Dry up any moisture that is under the seal washer and on the clapper seal.

**CAUTION**

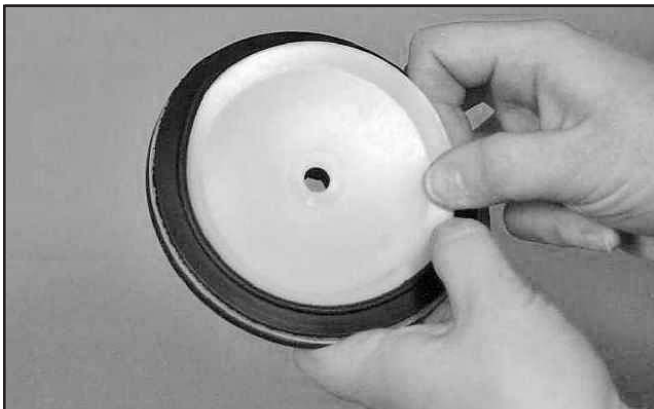
- Use only Victaulic-supplied replacement parts. Failure to follow this instruction could cause improper valve operation, resulting in property damage.



**6.** Pry the clapper seal, along with the seal ring, out of the clapper. Inspect the seal. If the clapper seal is torn or worn, replace it with a new, Victaulic-supplied clapper seal. If replacing the clapper seal assembly with a new assembly, skip to step 7 below.



**If using the same clapper seal assembly, and the seal ring was removed from the clapper seal in the previous step:** Re-insert the seal ring carefully underneath the outer lip of the clapper seal. Make sure the smaller diameter of the seal ring is toward the sealing surface of the clapper seal.



**7.** Insert the seal washer carefully underneath the sealing lip of the gasket.

## Series 751 FireLock® Alarm Check Valve

**8.** Make sure contaminants, dirt, and mineral deposits are removed from the clapper.



**9.** Install the clapper seal into the clapper carefully. Make sure the seal ring snaps into the clapper completely.



**10.** Place the seal-retaining ring onto the seal washer of the clapper seal.



**11.** Install the seal-assembly bolt/bolt seal through the seal-retaining ring and clapper. Tighten the seal-assembly bolt/bolt seal sufficiently, and apply an additional  $\frac{1}{4}$  turn to ensure a proper seal.

**12.** Replace the cover plate by following the "Installing the Cover Plate Gasket and Cover Plate" section, starting on page 18.

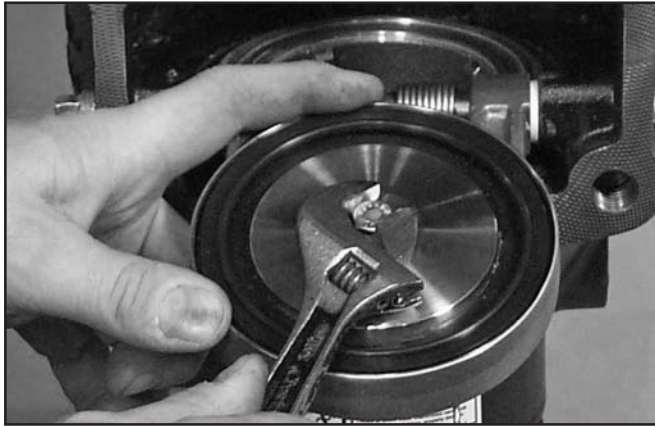
**13.** Place the system back in service by following the "Placing the System in Service" section, starting on page 9.



## Series 751 FireLock® Alarm Check Valve

### Removing and Replacing the Clapper Seal for 4 – 6-inch (100 – 150-mm) Size Valves

1. Perform steps 1 – 5 of the "Required Internal Inspection" section, starting on page 12.



2. Remove the seal-assembly bolt/bolt seal from the clapper.



3. Remove the seal-retaining ring.

#### CAUTION

- Use only Victaulic-supplied replacement parts. Failure to follow this instruction could cause improper valve operation, resulting in property damage.



4. Remove the solid clapper seal from the clapper. Inspect the seal. If the solid clapper seal is torn or worn, replace it with a new, Victaulic-supplied solid clapper seal.

5. Make sure contaminants, dirt, and mineral deposits are removed from the clapper.



6. Install the solid clapper seal into the clapper. **NOTE:** Make sure the sealing lip is pointing upward.



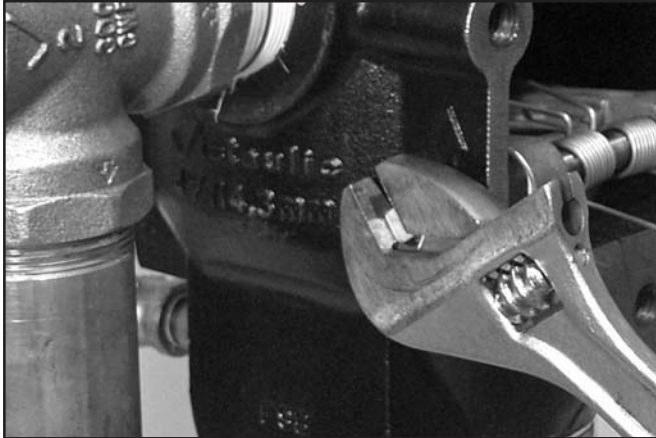
7. Place the seal-retaining ring onto the solid seal.



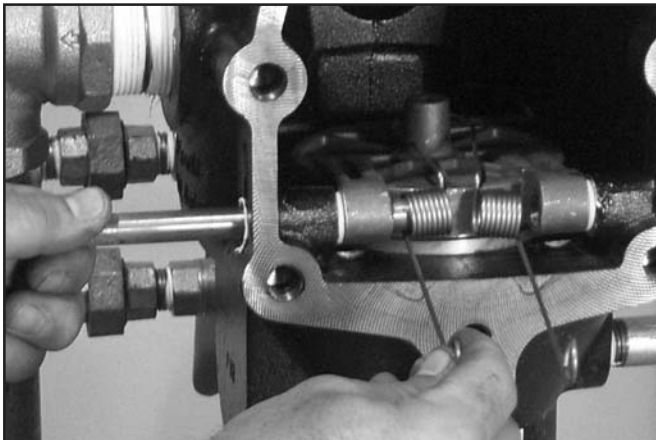
8. Install the seal-assembly bolt/bolt seal through the seal-retaining ring and the clapper. Tighten the seal-assembly bolt/bolt seal sufficiently, and apply an additional 1/4 turn to ensure a proper seal.

## Series 751 FireLock® Alarm Check Valve

### Removing and Replacing the Clapper Assembly (All Sizes)



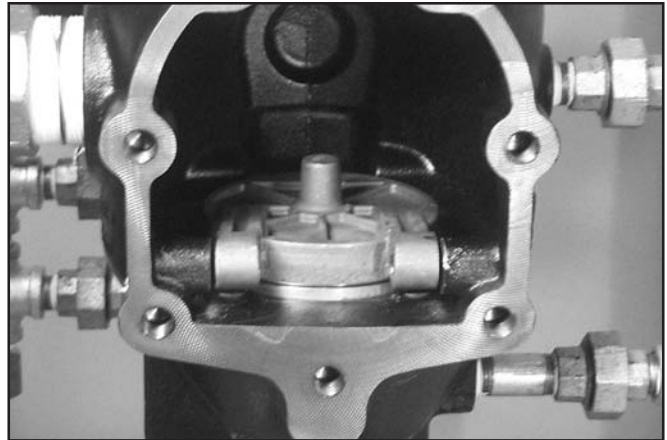
1. Remove the clapper shaft-retaining plugs from the valve body.



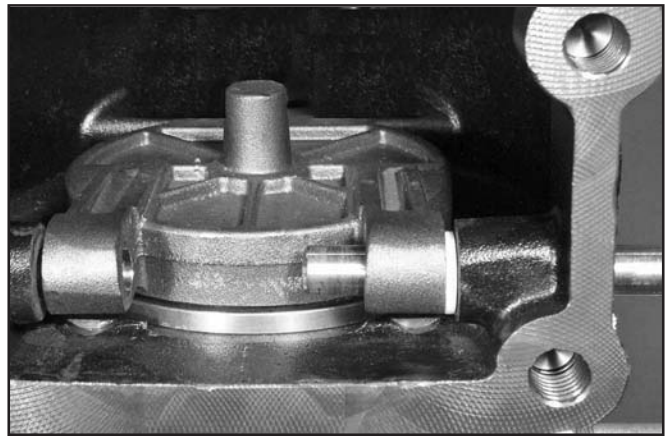
2. Remove the clapper shaft. **NOTE:** As the shaft is being removed, the two spacers and clapper spring will drop out of position. Keep the spacers and clapper spring for re-installation.



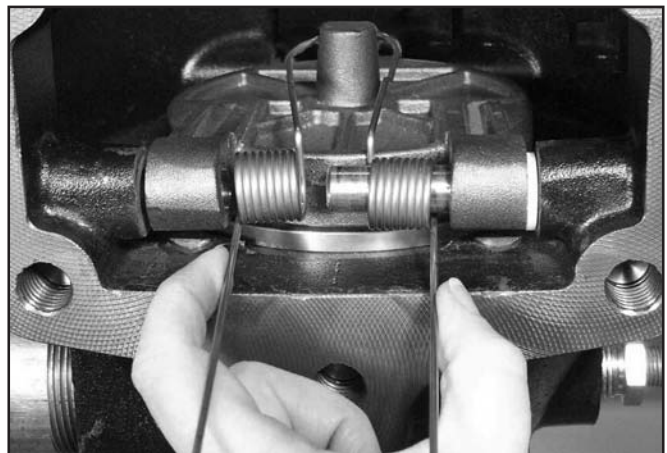
3. Remove the clapper from the valve body.



4. 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.

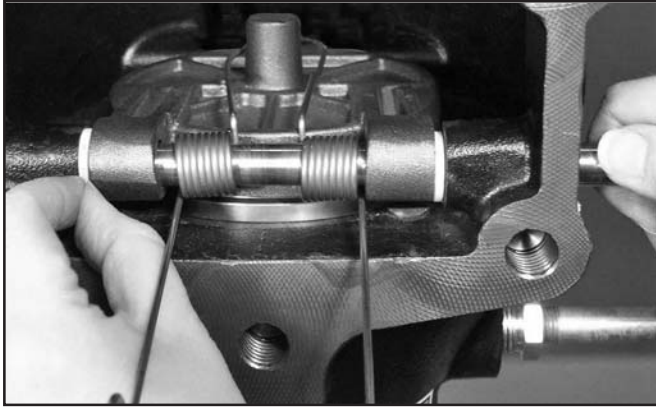


5. Start the clapper shaft into the valve body. Place one spacer between the clapper and the valve body.

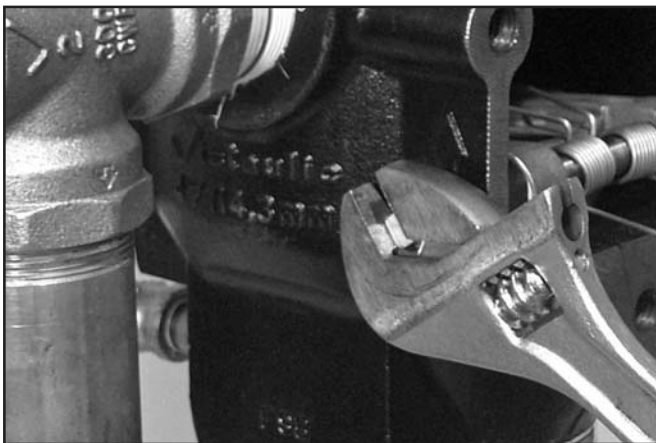


6. Install the spring onto the clapper shaft. Make sure the loop is toward the clapper.

## Series 751 FireLock® Alarm Check Valve



**7.** Place the other spacer between the clapper and the valve body. Finish inserting the clapper shaft through the clapper arm and valve body.



**8.** Apply thread sealant to the clapper shaft-retaining plugs. Install the clapper shaft-retaining plugs into the valve body.

**9.** Check the clapper for freedom of movement.

**10.** Replace the cover plate by following the "Installing the Cover Plate Gasket and Cover Plate" section, starting on page 18.

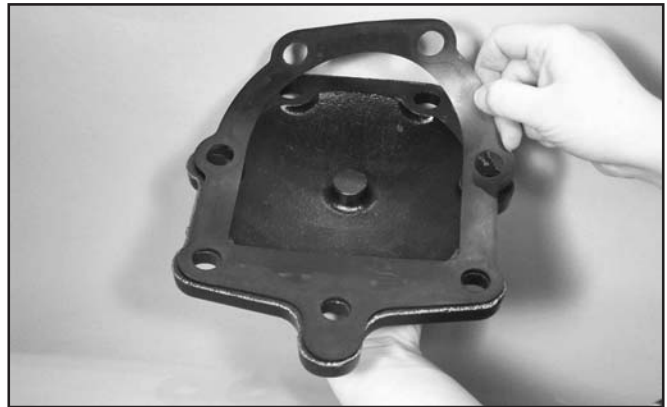
**11.** Place the system back in service by following the "Placing the System in Service" section, starting on page 9.

## Installing the Cover Plate Gasket and Cover Plate

### CAUTION

• Use only Victaulic-supplied replacement parts. Failure to follow this instruction could cause improper valve operation, resulting in property damage.

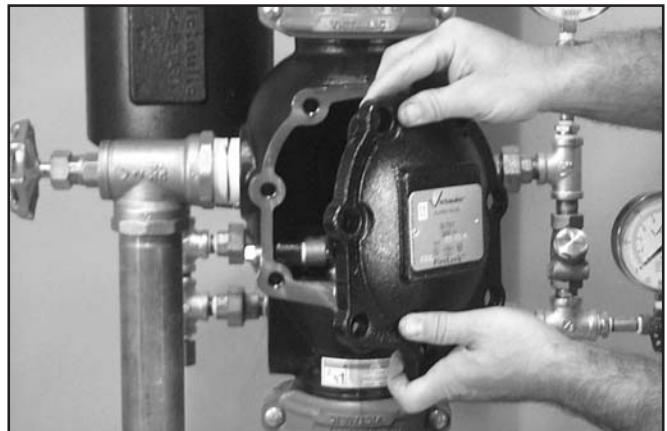
**1.** Verify that the cover plate gasket is in good condition. If the gasket is torn or worn, replace it with a new, Victaulic-supplied gasket.



**2.** Align the holes of the cover plate gasket with the holes in the cover plate.



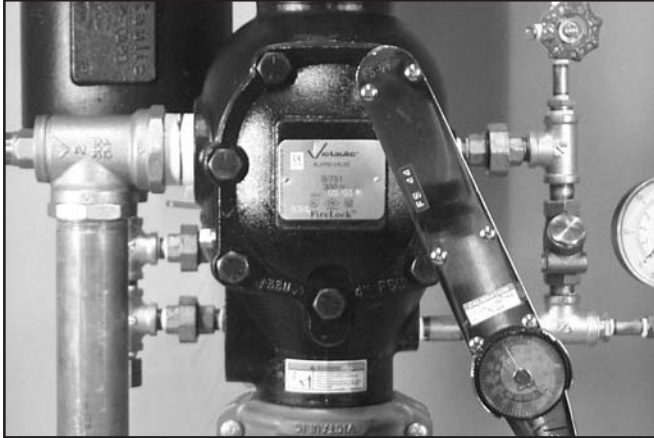
**3.** Insert one cover bolt through the cover plate and cover plate gasket to ease alignment.



**4.** Align the cover plate/cover plate gasket to the valve. Make sure the spring arms are rotated to their installed position. Hand-tighten all cover bolts into the cover plate/valve body.

**⚠ CAUTION**

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



**5.** Torque all cover bolts in an even, crossing pattern. Refer to the "Required Cover Bolt Torque" table below for the required torque values. **DO NOT** over-tighten the cover bolts.

**Required Cover Bolt Torque**

Valve Size		Torque ft-lbs (N•m)
Nominal Diameter inches (mm)	Actual Outside Diameter inches (mm)	
1½ (40)	1.900 (48,3)	30 (41)
2 (50)	2.375 (60,3)	30 (41)
2½ (65)	2.875 (73,0)	60 (81)
76,1 mm	3.000 (76,1)	60 (81)
3 (80)	3.500 (88,9)	60 (81)
4 (100)	4.500 (114,3)	100 (136)
6 (150)	6.625 (168,3)	115 (156)
165,1 mm	6.500 (165,1)	115 (156)
8 (200)	8.625 (219,1)	100 (136)

**6.** Place the system back in service by following the "Placing the System in Service" section, starting on page 9.

**Series 751 FireLock® Alarm Check Valve**

**TROUBLESHOOTING – SERIES 751 ALARM CHECK VALVE**

Problem	Possible Cause	Solution
The system water pressure gauge is fluctuating with the supply pressure	<p>The check valve in the bypass line is installed backward.</p> <p>Debris is present in the bypass check valve.</p>	<p>Check the orientation of the bypass check valve. The arrow must point from the supply side to the system side.</p> <p>Remove the threaded cap from the check valve to remove any debris. Make sure the clapper has freedom of movement.</p>
Water is leaking from the intermediate chamber	Water is getting past the seal.	<p>Check the clapper seal and seat for physical damage. Make sure no debris is present on the clapper seal and seat.</p> <p>Make sure there is no vacuum in the alarm line. If a vacuum is present in the alarm line, install the Series 752V Retard Vent Kit or create some means of an air break in the alarm line.</p>
The water motor gong is not ringing, or the ringing is weak	<p>No water is going into the intermediate chamber.</p> <p>Water from the alarm line could be leaking out of the alarm line drain of another valve.</p> <p>The wrong restrictor size is installed in the alarm line drain.</p>	<p>Make sure the holes in the seat ring are not plugged.</p> <p>Make sure there are check valves isolating the alarm line of each valve in the system.</p> <p>Confirm that the proper restrictor size is installed in the alarm drain. If the proper restrictor size is not installed, refer to the trim drawing to replace the restrictor with the correct size.</p>

;



**Victaulic Companies**

**WORLD HEADQUARTERS**

P.O. Box 31 • Easton, PA 18044-0031  
4901 Kesslersville Road • Easton, PA 18040 USA  
e-mail: pickvic@victaulic.com

Phone: 1-800-PICK-VIC (1-800-742-5842)  
Phone: 610/559-3300 • Fax: 610/250-8817

**VICTAULIC TOOL COMPANY**

P.O. Box 31 • Easton, PA 18044-0031  
Phone: 1-888-VIC-TOOL • Fax: 610/923-3090  
e-mail: victools@victaulic.com

**VICTAULIC CONSTRUCTION PIPING SERVICES DIV.**

1818 Vultee Street • Allentown, PA 18103  
Phone: 610/559-3488 • Fax: 610/923-3170  
e-mail: cps@victaulic.com

**Victaulic Around the World**

**VICTAULIC COMPANY OF AMERICA**

P.O. Box 31 • Easton, PA 18044-0031  
Phone: 610/559-3300 • Fax: 610/250-8817  
e-mail: victaulic@victaulic.com

**VICTAULIC COMPANY OF CANADA**

123 Newkirk Road • Richmond Hill, ON L4C 3G5  
Phone: 905/884-7444 • Fax: 905/884-9774  
e-mail: viccanada@victaulic.com

**VICTAULIC EUROPE**

Prijkelstraat 36 • 9810 Nazareth, Belgium  
Phone: 32-9-381-15-00 • Fax: 32-9-380-44-38  
e-mail: viceuro@victaulic.be

**VICTAULIC AMERICA LATINA**

P.O. Box 31 • Easton, PA USA 18044-0031  
4901 Kesslersville Road • Easton, PA USA 18040  
Phone: 610/559-3300 • Fax: 610/559-3608  
e-mail: vical@victaulic.com

**VICTAULIC ASIA-PACIFIC**

Room 707, No. 600 Min Sheng Road  
Pudong • Shanghai 200135, China  
Phone: 86-21-58855151 • Fax: 86-21-58851298  
e-mail: vicap@victaulic.com

**Victaulic Subsidiaries**

**AQUAMINE, LLC**

247-A Vance Tank Road • Bristol, TN 37620  
Phone: 800/637-0117 • Fax: 423/652-7338

**COASTLINE PLASTICS, LLC**

86334 Coastline Drive • Yulee, FL 32097- 3355  
Phone: 888/225-5950 • Fax: 904/225-8660

**VICTAULIC DEPEND-O-LOK, INC.**

P.O. Box 48776 • Atlanta, GA 30362  
2681 Pleasantdale Road • Doraville, GA 30340  
Phone: 800/841-6624 • Fax: 770/840-8312

**GAMMA FOUNDRIES LTD.**

123 Newkirk Road • Richmond Hill, ON L4C 3G5  
Phone: 905/884-9091 • Fax: 905/884-2669