

# FireLock® Devices



SEE VICTAULIC PUBLICATION 10.01 FOR DETAILS

## SERIES 757P AIR MAINTENANCE TRIM ASSEMBLY

The FireLock Air Maintenance Trim Assembly is designed to control the system air pressure when using FireLock NXT valves Series 764, 768 and 769.

The Victaulic Air Maintenance Trim Assembly is designed for use with small air compressors which do not have pressure control switches.

By wiring the compressor to the 757P pressure switch, the compressor is controlled by the system pressure.

Air pressure decreases close the switch to start the compressor. When pressure is restored, the compressor is turned off and the compressor is unloaded with the unloader valve.

Series 757P must be used with a reliable source of continuous (24 hrs./day, 7 days/wk.) electricity.

**Note:** The switch is factory preset at 13-18 psi operating range and is ready for installation on all FireLock NXT valves Series 764, 768 and 769.

The Air Maintenance Trim Assembly and switch, when used with a 753-A actuator, is factory preset at 20-40 psi and must be manually field set to recommended air pressure required by the system.

Included in the Air Maintenance Trim Assembly are the following components:

- Strainer – A 100 mesh strainer is used to prevent particles from entering the Air Maintenance System and the sprinkler system.
- Restrictor – A brass Restrictor is used in the air maintenance loop in order to assure that air cannot enter the sprinkler system faster than air can be discharged through an open head.
- Spring Loaded In-line Check Valve – A bubble tight ball check is used to isolate the valve air maintenance system from air leaks in the air supply system.
- Fast Fill Line – Used to rapidly restore system air pressure following operation or service.
- Pressure switch with unloader valve to automatically bleed pressure off the compressor when the switch opens. This protects the compressor from start-up overload.

**Note:** Two different versions are available: 25 psi cut-in – 40 psi cut-out for Series 753A and 13 psi cut-in – 18 psi cut-out for Series 776 Low Pressure Actuators and Series 798 Double-Pneumatic Actuators.




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<b>JOB/OWNER</b>	<b>CONTRACTOR</b>	<b>ENGINEER</b>
System No. _____	Submitted By _____	Spec Sect _____ Para _____
Location _____	Date _____	Approved _____
		Date _____

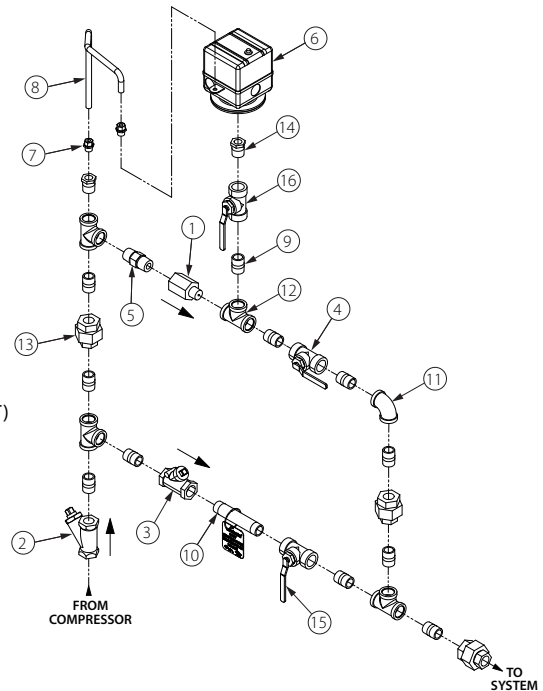
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### AIR MAINTENANCE TRIM

**Bill of Materials**

Item	Qty.	Description
1	1	Restrictor (½-inch NPT)
2	1	Strainer (½-inch NPT)
3	1	Swing Check (½-inch NPT)
4	1	Slow-Fill Ball Valve (Normally Open)
5	1	Spring-Loaded, Soft-Seated Check Valve
6	1	Pressure Switch
7	2	Compression Fitting, Straight (¼-inch NPT x ¼-inch Tube)
8	1	Copper Tubing (¼-inch OD)
9	11	Close Nipple (½-inch NPT x 1.13)
10	1	Nipple (½-inch NPT x 4.00)
11	1	90° Female Elbow (½-inch NPT)
12	4	Female Tee (½-inch NPT)
13	3	Union (½-inch NPT)
14	2	Reducing Bushing (½-inch NPT x ¼-inch NPT)
15	1	Fast-Fill Ball Valve (Normally Closed)
16	1	Pressure Switch Isolation Ball Valve (Normally Open - Lockable)



**NOTES:**

The Series 757P Air Maintenance Trim Assembly is designed to control system air pressure for Series 768 FireLock NXT™ Dry Valves, Series 764 FireLock NXT Alternate Wet/Dry Valves, and Series 769 FireLock NXT Deluge and Preaction Valves (pneumatic systems).

A decrease in air pressure will close the pressure switch. When the pressure switch closes, the air compressor turns on to restore air pressure. When air pressure is restored, the air compressor turns off, and pressure in the compressor automatically bleeds off through the release valve of the pressure switch. The release valve protects the air compressor from startup overload.

**NOTICE**

Victaulic recommends a maximum of two FireLock NXT Valves per Series 757P Air Maintenance Trim Assembly with Pressure Switch.

The required air pressure for Series 768 FireLock NXT Dry Valves, Series 764 FireLock NXT Alternate Wet/Dry Valves, and Series 769 FireLock NXT Deluge and Preaction Valves is 13 psi/0.9 Bar minimum, regardless of the system supply water pressure. Normal air pressure should not exceed 18 psi/1.2 Bar. Air pressure higher than the required system air pressure could delay system operation response time.

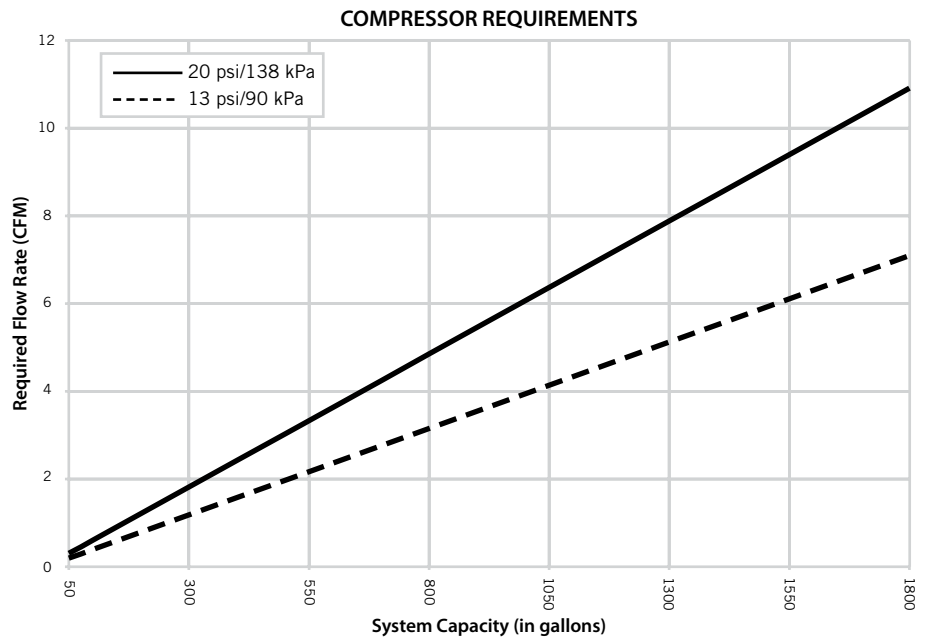
The Series 757P Air Maintenance Trim Assembly with Pressure Switch **MUST NOT** be used on a Series 768 or Series 769 FireLock NXT Valve installed with a Series 746 or Series 746-LPA Dry Accelerator, unless a tank and air regulator are added.

The engineer/system designer is responsible for sizing the compressor so that the entire system is charged to the required air pressure within NFPA guidelines (30 minutes). **DO NOT** oversize the compressor to provide more airflow. An oversized compressor will slow down or possibly prevent valve operation.

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## SERIES 757P AIR MAINTENANCE TRIM ASSEMBLY


### AIR MAINTENANCE TRIM CONTINUED



## FireLock® Devices

### SERIES 757P AIR MAINTENANCE TRIM ASSEMBLY

#### INSTALLATION AND ADJUSTMENT

<b>⚠ WARNING</b>	
	<ul style="list-style-type: none"> <li>• This product must be installed by an experienced, trained installer, in accordance with the instructions provided with each valve. These instructions contain important information.</li> </ul> <p>Failure to follow these instructions may result in serious personal injury, property damage or valve leakage.</p> <p>If you need additional copies of this product literature or the valve installation instructions or have any questions about the safe installation and use of this device, contact Victaulic Company, P.O. Box 31, Easton, PA 18044-0031 USA, Telephone: 001-610-559-3300.</p>

Install the Air Maintenance Trim Assembly in the orientation shown on the appropriate trim drawing. Refer to the Installation, Maintenance and Testing Manuals of the particular valve being installed for detailed setting information and procedures.

#### **Adjustment**

More accurate adjustment of the system air pressure should then be made using the system pressure gauge.

#### **Range**

Always adjust the range spring nut (A) first, until the desired operating point on falling pressure is obtained. This adjustment changes both the cut-in and cut-out operating points but should always be adjusted for the cut-in point. Turning the nut (A) clockwise will increase the setting.

#### **Differential**

Set the operating point on rising pressure by adjusting the differential spring nut (B). Turning the nut (B) clockwise increases the pressure difference between the cut-in and cut-out operating points by increasing the cut-out point only.

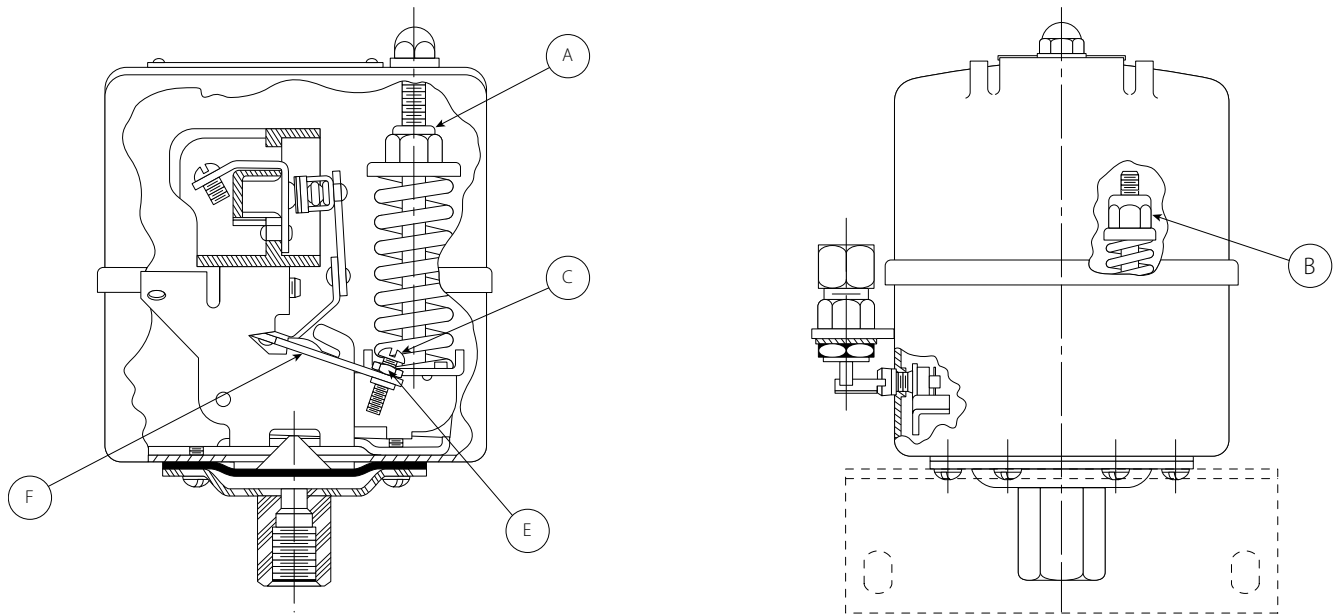
#### **Release Valve**

This valve is factory installed. If the valve is replaced or the valve screw (E) requires adjustment for any reason, the following steps must be taken. With air pressure applied to the valve and the switch contacts open, turn the adjusting screw (C) until the valve just begins to release air, then turn the screw (C) clockwise an additional 1 ½ turns. Now lock the jam nut (E) against the bearing plate lever (F).

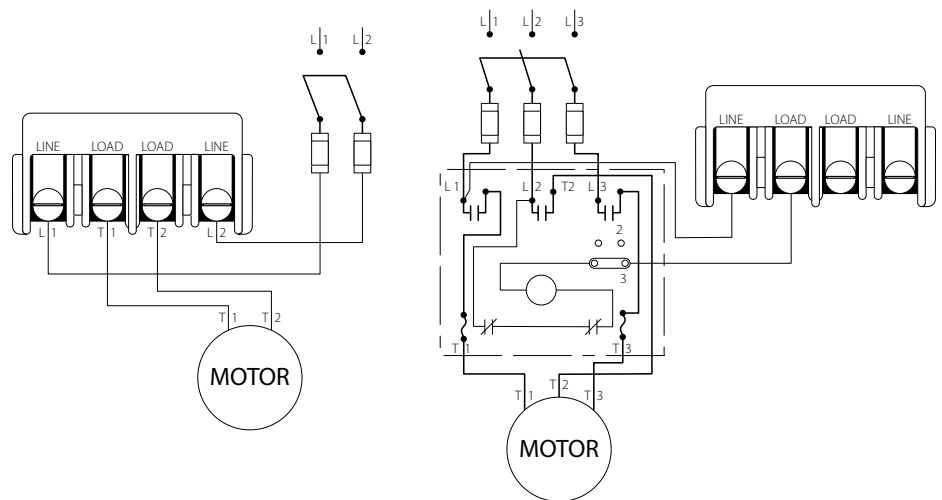
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## SERIES 757P AIR MAINTENANCE TRIM ASSEMBLY

### INSTALLATION AND ADJUSTMENT CONTINUED



Exaggerated for clarity



Two Pole Electrical Ratings			
Voltage	Single Phase AC	Polyphase AC	DC
115	2 HP	3 HP	1 HP
230	3 HP	5 HP	1 HP
460-575	5 HP	5 HP	—
32	—	—	½HP

**NOTE:** Hook electrical power up per applicable electrical codes as per diagram provided. Do not attach a motor larger than electrical rating per chart.

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**INSTALLATION**

Reference should always be made to the Installation, Maintenance, and Testing manual shipped with the product. Installation, Maintenance, and Testing manuals are included with each shipment of Victaulic products and are available in PDF format on our website at [www.victaulic.com](http://www.victaulic.com).

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**WARRANTY**

Refer to the Warranty section of the current Price List or contact Victaulic for details.

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**NOTE**

This product shall be manufactured by Victaulic or to Victaulic specifications. All products to be installed in accordance with current Victaulic installation/assembly instructions. Victaulic reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligations.

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

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