

# FireLock® Dry Accelerator



## SERIES 746-LPA

The Victaulic Series 746-LPA Firelock Accelerator is a quick-opening device that can be added to the:

- Victaulic FireLock NXT™ Series 768 Dry and Series 769 Preaction Valve

in order to speed response time and/or accommodate larger systems.

**IMPORTANT:** The Series 746-LPA and the Series 746 provide unique functionality and are NOT interchangeable.

Series 746-LPA Firelock Dry Accelerators are compatible with the Victaulic Series 768, 769 valves and are recommended for system air pressures ranging from 13psi/90kPa to 18psi/124kPa.



## FUNCTIONALITY

The Series 746-LPA Firelock Dry Accelerator speeds the operation of the sprinkler's control valves by sensing the rapid decay of system pressure and exhausting air from the upper chamber of the actuating device. It attaches to the air supply's trim at the inlet of the dry actuator.

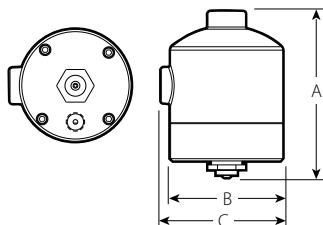
System air pressure in the upper and lower chambers sets the dry accelerator in the closed position, which holds pressure in the air chamber of the actuating device. When a sprinkler opens and system air pressure releases, the air evacuates from the lower chamber faster than it does from the upper air chamber. As the air pressure in the lower chamber decreases, the pressure in the upper air chamber remains relatively higher.

When a 3 – 5 psi/21 – 34 kPa differential occurs, the Series 746-LPA Firelock opens and vents the lower chamber's air into the atmosphere. This action also exhausts the air quickly from the actuator, which causes the sprinkler valve to operate.

The Series 746-LPA Firelock features a unique, built-in check valve that allows rapid pressure equalization of the dry accelerator during system charging, and fast response to variations in system air pressure.

The Series 746-LPA Firelock is equipped with all required parts, and is easily attached to the valve trim without additional modification. The Series 746-LPA Firelock Dry Accelerator is rated to 300psi/2065kPa working pressure, and is tested and UL Listed/FM Approved for use with all sizes of Victaulic Series 768, Series 769 Fire Safety Valves.

## DIMENSIONS



Dimensions – Inches/millimeters			Aprx. Wgt. Ea.
A	B	C	Lbs./kg
4.45 113	3.00 76	3.25 83	5.0 2.2

### JOB/OWNER

System No. \_\_\_\_\_  
Location \_\_\_\_\_

### CONTRACTOR

Submitted By \_\_\_\_\_  
Date \_\_\_\_\_

### ENGINEER

Spec Sect \_\_\_\_\_ Para \_\_\_\_\_  
Approved \_\_\_\_\_  
Date \_\_\_\_\_

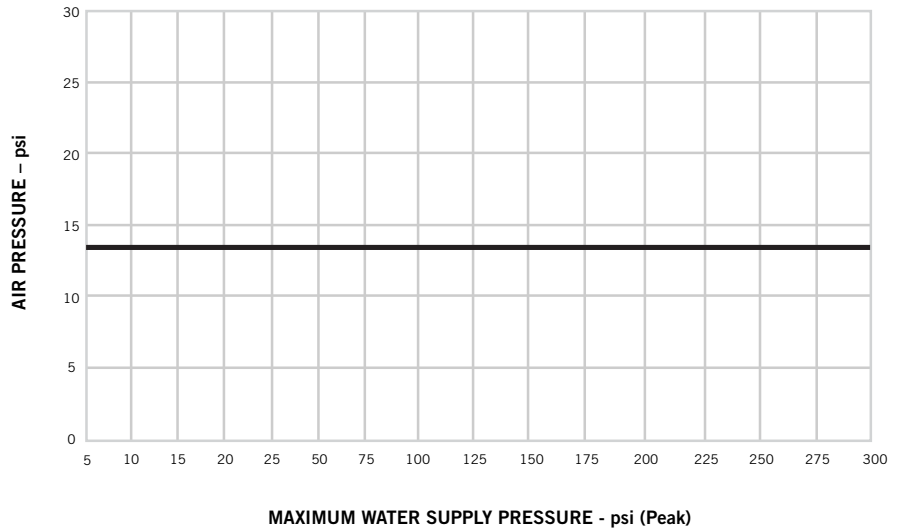
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## RECOMMENDED MINIMUM AIR PRESSURES

### Series 764-LPA FireLock Dry Accelerators

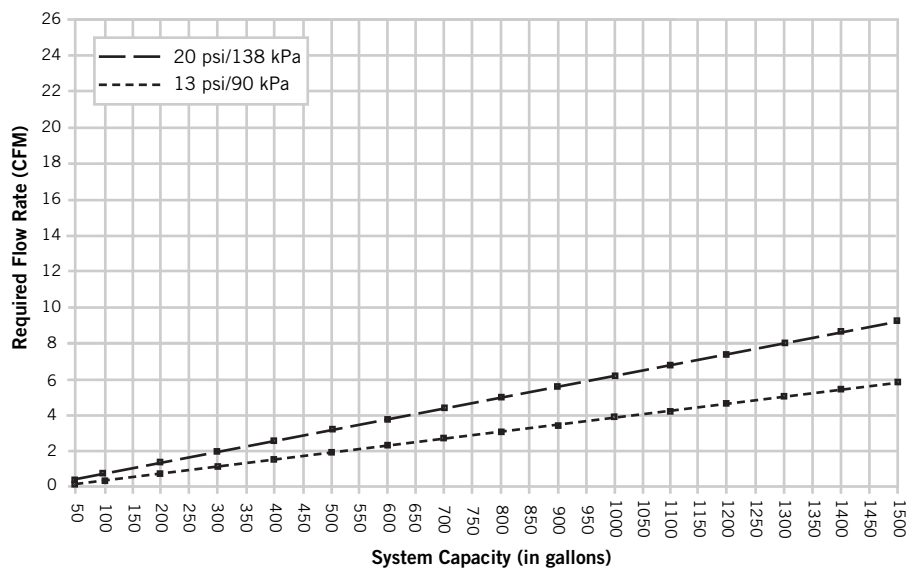
For Systems Containing Series 776 Low-Pressure Actuators, Series 767 Electric/Pneumatic Actuators, or Series 798 Double-Pneumatic Actuators



### NOTES:

- 1 When a Series 746-LPA Dry Accelerator is used with a Series 776 Low-Pressure Actuator, Series 767 Electric/Pneumatic Actuator, or a Series 798 Double-Pneumatic Actuator, the air maintenance trim assembly **MUST** be used with the air regulator.
- 2 The recommended air pressures, shown in the chart above, apply to valves equipped with the Series 776 Low-Pressure Actuator, Series 767 Electric/Pneumatic or Series 798 Double-Pneumatic Actuator at 13 psi/90 kPa. When the system air pressure is higher than 18 psi/124 kPa, a series 746 LPA Dry Accelerator should be installed.
- 3 Systems operating at air pressures higher than 20 psi (138 kPa) should use the Series 746 Dry Accelerator.

## COMPRESSOR AND AIR MAINTENANCE TRIM REQUIREMENTS



## FireLock® Dry Accelerator

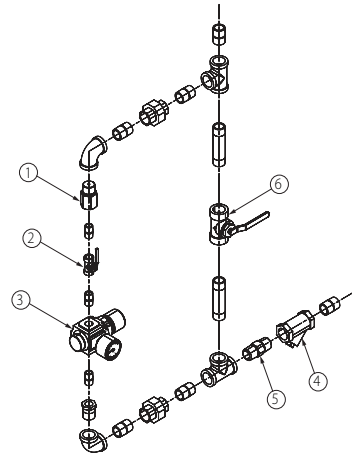
### SERIES 746-LPA

**SERIES 757 REGULATED AIR MAINTENANCE TRIM ASSEMBLY**  
(For use with tank mounted air compressors or shop air systems)

When a Series 746-LPA Dry Accelerator is used with a Series 776 Low-Pressure Actuator, Series 767 electric/pneumatic actuator, or a Series 798 Double-Pneumatic Actuator, the air maintenance trim assembly **MUST** be used with the air regulator.

#### Bill of Materials

- 1 1/8" 3.2 mm Restrictor
- 2 Slow Fill Ball Valve (Normally Open)
- 3 Air Regulator
- 4 Strainer (100 Mesh)
- 5 Spring-Loaded, Soft-Seated Ball Check Valve
- 6 Fast Fill Ball Valve (Normally Closed)



**1** In the event that a compressor becomes inoperative, a properly sized tank-mounted compressor provides the greatest protection for systems that contain a Series 746-LPA FireLock Dry Accelerator. In this situation, air can be supplied continuously to the sprinkler system for an extended time period.

**2** If multiple valves are installed with a common air supply, isolate the system by using a spring-loaded, soft-seat check valve to ensure air integrity for each system.

**3** Victaulic recommends using no more than two dry valves per air maintenance trim assembly.

**NOTE: The Series 757P Air Maintenance Trim Assembly with Pressure Switch MUST NOT BE USED in any system installed with a Series 746-LPA FireLock Dry Accelerator.**

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**MATERIAL SPECIFICATIONS**

**Body:** Bronze per CDA-836 (85-5-5-5)

**Diaphragm:** EPDM

**Seal:** EPDM

**Spring:** Type 316 Stainless Steel

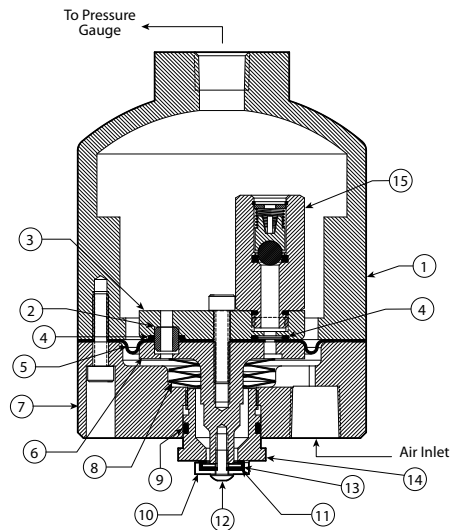
**Restrictor:** Porous Stainless Steel

**Bolts:** Type 316 Stainless Steel

**O-ring:** EPDM

**Bill of Materials**

- |   |                     |    |                       |
|---|---------------------|----|-----------------------|
| 1 | Opening/Air Chamber | 9  | O-Ring                |
| 2 | Restrictor          | 10 | Seal Support          |
| 3 | Piston              | 11 | Closing Chamber Seal  |
| 4 | O-Ring              | 12 | Button-Head Cap Screw |
| 5 | Diaphragm           | 13 | Washer                |
| 6 | Actuator Shaft      | 14 | Adjustable Seat       |
| 7 | Closing Chamber     | 15 | Check Valve           |
| 8 | Compression Spring  |    |                       |



**WARRANTY**

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

**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.

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

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