

Victaulic® Series 757 Firelock™ Air Maintenance Trim Assembly



1.0 PRODUCT DESCRIPTION

Maximum Inlet Air Pressure

- 150 psi/1034 kPa/10.3 Bar

Minimum Inlet Air Pressure

- Minimum inlet air pressure shall be 10 psi/69 kPa/0.7 Bar higher than air pressure setpoint

Maximum Air Pressure Setpoint

- 50 psi/344 kPa/3.4 Bar

Minimum Air Pressure Setpoint

- 13 psi/90 kPa/0.9 Bar (factory setting)

Connections

- Threaded

Designed for Use With

- Series 768N FireLock NXT™ Dry Valve
- Series 769N FireLock NXT™ Deluge Valve
- Series 769N FireLock NXT™ Actuated Valve with Preaction Trim

Components

- A regulator (relief-type design) maintains the sprinkler piping air pressure.
- A 100-mesh strainer is used to prevent particles from entering the air maintenance system and sprinkler system.
- A brass restrictor is used in the air maintenance loop to ensure that air cannot enter the sprinkler system faster than air can be discharged through an open sprinkler.
- A spring-loaded, soft-seated ball check valve isolates the air maintenance system from leaks in the air supply.
- A fast-fill line is used to rapidly restore system air pressure following operation or service.

NOTE

- Victaulic recommends only one FireLock NXT™ Actuated Valve per Series 757 in accordance with NFPA 13. Reference Section 5.0 for additional information.

2.0 CERTIFICATION/LISTINGS



NOTE

- Product approvals for some agencies may be tied to the overall product listed above.

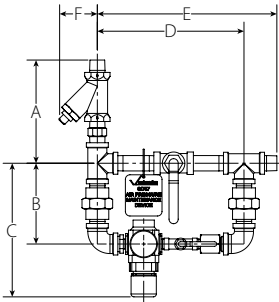
ALWAYS REFER TO ANY NOTIFICATIONS AT THE END OF THIS DOCUMENT REGARDING PRODUCT INSTALLATION, MAINTENANCE OR SUPPORT.

3.0 SPECIFICATIONS – MATERIAL

Strainer: Brass
Pipe Nipples and Fittings: Galvanized Steel
Ball Valves: Brass

4.0 DIMENSIONS

Assembly Dimensions
Series 757 Firelock™ Air Maintenance Trim Assembly



Size		Dimensions						Weight
Nominal inches DN	Actual Outside Diameter inches mm	A inches mm	B inches mm	C inches mm	D inches mm	E inches mm	F inches mm	Approx. (Each) lb kg
½	0.840	5.75	4.41	7.38	8.01	9.88	2.13	5.9
DN15	21.3	144	112	186	203	250	53	2.7

5.0 PERFORMANCE

Air Supply Requirements

The required air pressure for FireLock NXT™ Actuated Valves is 13 psi/90 kPa/0.9 Bar minimum, regardless of the system supply water pressure. Normal air pressure shall not exceed 20 psi/138 kPa/1.4 Bar. Failure to maintain air pressure within the 13 psi/90 kPa/0.9 Bar to 18 psi/124 kPa/1.2 Bar range may delay system operation response time.

The Series 746-LPA Dry Accelerator shall be used only on systems operating below 20 psi/138 kPa/1.4 Bar of air. If air pressure is higher than 20 psi/138 kPa/1.4 Bar, the Series 746 Dry Accelerator shall be used.

If multiple FireLock NXT™ Actuated Valves are installed with a common air supply, isolate the systems with a Victaulic spring-loaded, soft-seated ball check valve to ensure air integrity for each system. Good practice is to include a ball valve for isolation and service of each individual system.

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

If the compressor fills the system too fast, it may be necessary to restrict the air supply. Restricting the air supply will ensure that air being exhausted from an open sprinkler or manual release valve is not replaced by the air supply system as fast as it is being exhausted.

Base- or Riser-Mounted Air Compressors

For base- or riser-mounted air compressors, the recommended air pressure of 13 psi/90 kPa/0.9 Bar is the “on” or “low” pressure setting for the compressor. The “off” or “high” pressure setting shall be 18 psi/124 kPa/1.2 Bar.

When a base mounted air compressor supplying a single dry pipe system has a capacity less than 5.5 ft³/min (160 L/min), the Victaulic Series 757 air maintenance device shall not be required. In this case, the air line of the compressor connects to the trim at the fitting where the Series 757 is normally installed (refer to the applicable trim drawing). Verify that the compressor is installed with the correct pressure switch range, or use the Series 7C7 Air Compressor Assembly with integrated Series 757P Air Maintenance Trim Assembly.

NOTICE

- Victaulic recommends only one FireLock NXT™ Actuated Valve per Series 757 in accordance with NFPA 13.

Shop Air or Tank-Mounted Air Compressors

In the event a compressor becomes inoperative, a properly sized tank-mounted air compressor provides the greatest protection for systems.

When shop air or a tank-mounted air compressor is used, the Series 757 shall be installed. The Series 757 provides proper air regulation from the air reservoir to the sprinkler system.

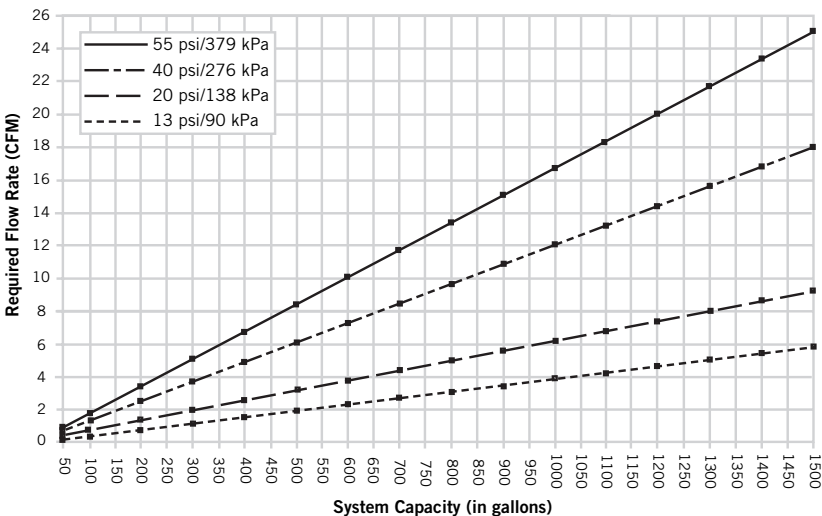
For tank-mounted air compressors, the recommended air pressure of 13 psi/90 kPa/0.9 Bar shall be used as the set point for the air regulator. The “on” pressure of the compressor shall be at least 5 psi/34 kPa/0.3 Bar above the set point of the air regulator.

Compressor Requirements and Settings for a FireLock NXT™ Actuated Valve Installed with a Series 746-LPA Dry Accelerator

Set the air regulator of the Series 757 to a minimum of 13 psi/90 kPa/0.9 Bar.

In the event a compressor becomes inoperative, a properly sized tank-mounted air compressor provides the greatest protection for systems installed with a Series 746-LPA Dry Accelerator. In this situation, air can be supplied continuously to the sprinkler system for an extended time period. **NOTE:** The Series 757 shall be used with a tank-mounted air compressor to supply air to a FireLock NXT™ Actuated Valve when the Series 746-LPA Dry Accelerator is used. The use of an air regulator with a base- or riser-mounted air compressor could cause short cycling, resulting in premature wear of the compressor.

The air regulator of the Series 757 is a relief-type design. Any pressure in the system that is above the set point of the air regulator will be released. Therefore, charging the air regulator above the set point could cause premature operation of a valve installed with a Series 746-LPA Dry Accelerator.



6.0 NOTIFICATIONS

**WARNING**



- Read and understand all instructions before attempting to install any Victaulic products.
- Always verify that the piping system has been completely depressurized and drained immediately prior to installation, removal, adjustment, or maintenance of any Victaulic products.
- Confirm that any equipment, branch lines, or sections of piping that may have been isolated for/during testing or due to valve closures/positioning are identified, depressurized, and drained immediately prior to installation, removal, adjustment, or maintenance of any Victaulic products.
- Wear safety glasses, hardhat, and foot protection.

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

- These products shall be used only in fire protection systems that are designed and installed in accordance with current, applicable National Fire Protection Association (NFPA) standards, or equivalent standards, and in accordance with applicable building and fire codes. These standards and codes contain important information regarding protection of systems from freezing temperatures, corrosion, mechanical damage, etc.
- The installer shall understand the use of this product and why it was specified for the particular application.
- The installer shall understand common industry safety standards and potential consequences of improper product installation.
- It is the system designer's responsibility to verify suitability of materials for use with the intended fluid media within the piping system and external environment.
- The material specifier shall evaluate the effect of chemical composition, pH level, operating temperature, chloride level, oxygen level, and flow rate on materials to confirm system life will be acceptable for the intended service.

Failure to follow installation requirements and local and national codes and standards could compromise system integrity or cause system failure, resulting in death or serious personal injury and property damage.

7.0 REFERENCE MATERIALS

- [31.80: Series 768N Victaulic® FireLock NXT™ Dry Valve](#)
- [31.81: Series 769N Victaulic® FireLock NXT™ Deluge Valve](#)
- [31.82: Series 769N Victaulic® FireLock NXT™ Preaction Trim](#)
- [30.23: FireLock™ Fire-Pac Series 745](#)
- [30.36: FireLock™ Devices Series 757P Air Maintenance Trim Assembly](#)

User Responsibility for Product Selection and Suitability

Each user bears final responsibility for determining the suitability of Victaulic products for their end-use application, in accordance with industry standards, project specifications, and Victaulic's published performance, maintenance, and safety data, as well as all warnings and installation instructions. Nothing in this or any other document, nor any verbal recommendation, advice, or opinion from any Victaulic employee, shall be deemed to alter, vary, supersede, or waive any provision of Victaulic Company's standard conditions of sale, warranty, installation instructions, or this disclaimer.

Installation

Always refer to and follow the [Victaulic Installation Handbook](#) or installation instructions for the product you are installing. Handbooks are included with each shipment of Victaulic products, providing complete installation and assembly data, and are available in PDF format on our website at [victaulic.com](#).

Warranty

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

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Note

All products bearing a Victaulic trademark are manufactured by Victaulic or to Victaulic specifications. All products are to be installed only in accordance with the applicable Victaulic installation instructions. Victaulic reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligations.