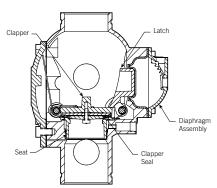
SERIES 769 With Preaction Trim Grooved x Grooved

The patented Victaulic FireLock NXT Series 769 Preaction Valve controls the water supply entry into the Preaction system piping and sprinklers. The Preaction System is normally supervised with pressurized air or nitrogen in order to detect any leaks in the system. The Series 769 is a low differential, latched clapper valve that uses a unique direct acting diaphragm to separate system water supplies from Preaction pipe sprinkler systems. The positive latching mechanism uses the supply water pressure from upstream (city side) of the main control valve to hold the clapper shut. When the water pressure in the diaphragm chamber is released the latch retracts from the clapper and the valve actuates. The low differential and unique latch and actuator design of the valve allows the valve to be self-resetting; therefore it is not necessary to remove the cover. The low differential design is not subject to water columns.

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CSFM: 7770-0531-117

FEATURES



Exaggerated for Clarity NOTE: Valve is shown in the "set" position The valve allows the water to operate a water motor alarm and/or electric pressure alarms, which continue until the flow of water stops.

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MEA: 248-98-E

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The valve is rated to 300 psi/2065 kPa water working pressure and is factory tested hydrostatically to 600 psi/4135 kPa for sizes $1\frac{1}{2} - 8\frac{1}{40} - 200 \text{ mm}$, Required air pressure is 13 psi/90 kPa. The Series 769 is available grooved x grooved. Standard grooved dimensions conform to ANSI/AWWA C606.

Victaulic Series 769 Preaction valves do NOT require a separate check valve in the preaction system and feature a straight-through valve body design that provides superior flow and low-pressure drop. The valve body is tapped with a special drain for a complete system. The valve has simple access to all internal parts for easy maintenance. All internal parts are replaceable.

Maintenance and service can be performed from the installed position. The rubber clapper seal is replaced easily without removing the clapper from the valve. The body is tapped for main drain and all available trim configurations. The valve is painted inside and out to increase corrosion resistance.

The Victaulic FireLock NXT Series 769 Preaction valve trim includes an alarm test valve, which allows testing of the alarm system without reducing the system pressure. The Series 769 Preaction Valve must be located in an area maintained above 40°F (4°C), which is not subject to weather, freezing temperatures, or physical damage.

NOTE: The bare value carries the LPCB and VdS approvals for deluge applications only. There is no LPCB or VdS recognition of the preaction configurations.

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System No.

Location

CONTRACTOR

Date

Submitted By _____

ENGINEER

Spec Sect _____ Para _____

Approved

Date

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SERIES 769

With Preaction Trim Grooved x Grooved

INSTALLATION OPTIONS

Pre-trimmed

The pre-trimmed valve comes completely assembled with all necessary trim components.

Vic®-Quick Riser

The Vic-Quick Riser comes completely pre-trimmed and includes a shut off valve (uses a Series 705 FireLock Butterfly valve - request publication 10.81; for 1 ½ and 2"/40 and 50mm sizes, the Vic-Quick Riser comes with a Series 728 Ball Valve - request publication 10.17) for system shut off, pre-set pressure switches, and a drain kit for ease of installation.

Series 745 FireLock Fire-Pac

The Fire-Pac is a completely pre-assembled fire protection valve that provides maximum service in a minimal enclosed space. The unit includes a water supply shutoff valve, the sprinkler system fire protection valve, alarm line pressure switches, air supervisory pressure switches, supervisory pump switches, and digital pressure gauges that are easily viewed through a window in the cabinet door. sets/uploads/ For complete Fire-Pac information request publication 30.23.

Optional accessories ship separately.

RELEASE MECHANISM OPTIONS

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Non-Interlocked

Non-interlocked systems are designed so that either an event detection by the release mechanism or loss of supervisory air in the sprinkler system will cause the valve to operate. When the valve operates, water will enter the sprinkler system and flow from any open sprinklers or other openings in the system.

Pneumatic Release: The pneumatic release system uses a supervisory pilot line to detect a release event. When EITHER a pilot sprinkler or a system sprinkler operates, the water in the diaphragm chamber is released and the valve operates. If the pilot sprinkler activates and a system sprinkler does not operate, water will fill the sprinkler system, alarms will be activated and the Victaulic Series 769 Actuated Valve will act as an Alarm Check Valve. If the valve is actuated by the activation or damage of a sprinkler, water will enter the system and flow from any open sprinklers. Alarms will activate due to water entering the intermediate chamber of the valve.

Pneumatic/Electric Release: The Victaulic Electric Release System uses an electric solenoid valve, approved electric panel and a compatible detection system. When EITHER an electric detection or a system sprinkler operates, the water in the diaphragm chamber is released and the valve operates. If there is an electric detection and a system sprinkler does not operate, water will fill the sprinkler system, alarms will be activated and the Victaulic Series 769 Actuated Valve will act as an Alarm Check Valve. If the valve is actuated by the activation or damage of a sprinkler system sprinkler, water will enter the system and flow from any open sprinklers. Alarms will activate due to water entering the intermediate chamber of the valve.

SERIES 769 With Preaction Trim Grooved x Grooved

SYSTEM DESCRIPTION

Single Interlocked

Single interlocked systems are designed so that only an event detection by the release mechanism will cause the valve to operate. When the valve operates water will enter the sprinkler system and flow from any open sprinklers or other openings in the system.

Pneumatic Release: The pneumatic release system uses a supervisory pilot line to detect a release event. Only when a pilot sprinkler operates will the water in the diaphragm chamber be released and the valve operate. Pneumatic pressure is maintained in the sprinkler system only for supervisory purposes and a low pressure alarm is installed in the sprinkler system in order to detect any leaks in the system. If the pilot sprinkler activates and a system sprinkler does not operate, water will fill the sprinkler system, alarms will be activated and the Victaulic Series 769 Actuated Valve will act as an Alarm Check Valve. If a system sprinkler is damaged or activates and there is no release mechanism detection the low pressure alarm in the system will activate but no water will flow until there is a release detection.

Electric Release: The Victaulic Electric Release System uses an electric solenoid valve, approved electric panel and a compatible detection system. Only when a release system event occurs, will the water in the diaphragm chamber be released and the valve operate. Pneumatic pressure is maintained in the sprinkler system only for supervisory purposes and a low pressure alarm is installed in the sprinkler system in order to detect any leaks in the system. If there is an electric release activation and a sprinkler system sprinkler does not operate, the valve will operate and water will fill the sprinkler system, alarms will be activated and the Victaulic Series 769 Actuated Valve will act as an Alarm Check Valve. If a system sprinkler is damaged or activates and there is no release mechanism detection, the low pressure alarm in the system will activate but the valve will not operate and no water will flow until there is a release detection.

Double Interlocked

Double interlocked systems are designed so that the valve will actuate only in the event of multiple fire detections by the release mechanisms. If a single release event occurs alarms will sound but the valve will not operate and water will not flow until a second release event is detected. Double interlocked systems are commonly used in refrigerated systems and in systems where water entering the sprinkler system is critical as well as when accidental discharge of water is critical.

Preumatic/Electric Release: The electric/pneumatic preaction system uses both an electric release system, icomposed of an approved solenoid valve, electric panel and an approvide sonson), and pneumatically pressurized sprinkler system. The Victaulic Series 769 Actuated Valve will activate ONLY when there is a pressure loss in the sprinkler system without an electric detection of a release event, in the event of a loss of pressure in the sprinkler system without an electric detection and page to the sprinkler system no water will flow. Additionally, if there is an electric detection and no pressure loss in the sprinkler system the valve will not actuate in both cases alerting the user of a detection condition.

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SERIES 769 With Preaction Trim Grooved x Grooved

SYSTEM DESCRIPTION

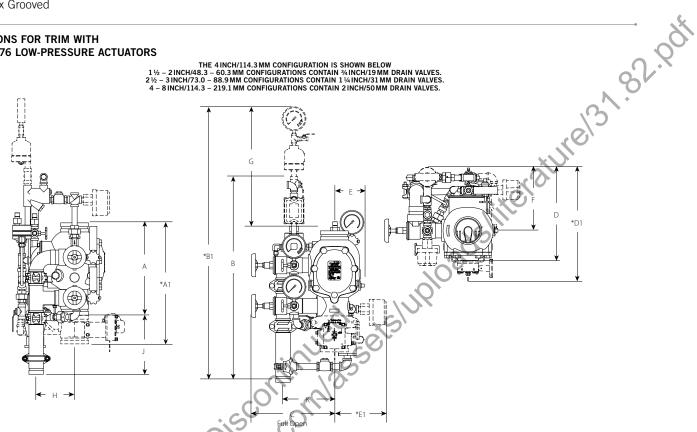
Electric (Electric-Pneumatic/Electric): The electric/pneumatic/electric release uses two electric detection devices, a fire detection device and a low pressure switch installed in the sprinkler system. Both electric detection devices are wired into an approved control panel in a "cross-zoned" configuration. The electric control panel controls a solenoid valve piped to the Victaulic Series 769 Actuated Valve piston. In the event of a fire detection device activation and no pressure loss in the sprinkler system the control panel will not trigger the solenoid valve and the valve will not actuate. If there is a loss of pressure in the sprinkler system due to damage or a sprinkler activating and no fire detection the control panel will not trigger the solenoid and the valve will not actuate. The valve will actuate ONLY when BOTH a fire detection event and loss of system pressure occurs. When BOTH signals are received by the control panel the panel triggers the solenoid valve. This allows the water supply pressure in the Series 769 diaphragm chamber to be released and the valve will actuate allowing water into the system.

Pneumatic/Pneumatic Release: The pneumatic/pneumatic system uses one Series 798 Double Pneumatic Actuator to control the Series 769 Actuated Valve. The system control valve will operate only when there are sprinklers activated in both the pilot line and the sprinkler system. If a sprinkler e will no .ors, the need .e low-presure si .interdok pneumatic .umatic/pneumatic doub .umatic/pneumatic doub .umatic/pneumatic doub .umatic/pneumatic doub .umatic/pneumatic doub .umatic/pneumatic .umatic .u is activated in either the pilot line or the sprinkler system (without an accompanying open sprinkler in the other system) the system control valve will not operate. Since the pneumatic/pneumatic system uses two separate pneumatic detections, the need for an electric release panel is eliminated. In all cases, an open sprinkler will cause low-pressure supervisory alarm. Note: All Series 769 valves are approved and listed for double interlock pneumatic – electric with the Series 767. It is also approved for double interlock and pneumatic/pneumatic double interlock configurations with the Series 798.

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SERIES 769 With Preaction Trim Grooved x Grooved

DIMENSIONS FOR TRIM WITH SERIES 776 LOW-PRESSURE ACTUATORS



Size		Dimensions – inches/mm											Aprx. Weight Ea. Ibs/kg				
Nominal Size Inches/ mm	Actual Outside Diameter Inches/ mm	A	A1*	В	381*	C C	D	D1*	Е	E1*	F	G	н	J	к	Without Trim	With Trim
1½	1.900	9.00	16.43	28.25	40.50	13.75	16.00	—	5.25	8.50	9.50	22.25	3.04	9.17	6.98	16.7	43.0
40	48.3	228.60	417.32	717	1028	349	406		133	215	241	565	77.21	232.91	177.29	7.6	19.5
2	2.375	9.00	16.43	28.25	40.50	13.75	16.00	—	5.25	8.50	9.50	22.25	3.04	9.17	6.98	17.0	43.0
50	60.3	228.60	417.32	717	1028	349	406		133	215	241	565	77.21	232.91	177.29	7.7	19.5
2 ½	2.875	12.61	16.50	32.25	44.25	13.50	16.00	17.50	5.25	9.00	9.25	21.25	3.90	10.50	6.93	41.0	65.0
65	73.0	320.29	419.10	819	1123	342	406	444	133	228	234	539	99.06	266.70	176.02	18.7	29.5
76.1 mm	3.000	12.61	16.50	32.25	44.25	13.50	16.00	17.50	5.25	9.00	9.25	21.25	3.90	10.50	6.93	41.0	65.0
	76.1	320.29	419.10	819	1123	342	406	444	133	228	234	539	99.06	266.70	176.02	18.7	29.5
3	3.500	12.61	16.50	32.25	44.25	13.50	16.00	17.50	5.25	9.00	9.25	21.25	3.90	10.50	6.93	41.0	65.0
80	88.9	320.29	419.10	819	1123	342	406	444	133	228	234	539	99.06	266.70	176.02	18.7	29.5
4	4.500	15.03	19.78	33.25	45.50	15.00	15.75	20.50	5.50	9.00	10.75	20.75	6.25	9.62	8.46	59.0	95.0
100	114,3	381.76	502.41	844	1155	381	400	520	139	228	273	527	158.75	244.34	214.88	26.7	43.0
165.1 mm	6.500	16.00	22.00	33.50	45.75	15.50	17.00	22.00	6.00	8.50	11.50	20.00	6.20	9.62	8.84	80.0	116.0
	165,1	406.40	558.80	850	1162	393	431	558	152	215	292	508	157.48	244.34	224.53	36.2	52.6
6	6.625	16.00	22.00	33.50	45.75	15.50	17.00	22.00	6.00	8.50	11.50	20.00	6.20	9.62	8.84	80.0	116.0
150	168.3	406.40	558.80	850	1162	393	431	558	152	215	292	508	157.48	244.34	224.53	36.2	52.6
8	8.625	17.50	22.94	33.50	45.50	16.75	20.00	25.25	7.00	8.75	12.75	18.50	6.05	9.40	10.21	122.0	158.0
200	219.1	444.50	582.67	850	1155	425	508	641	177	222	323	469	153.67	238.76	259.33	55.3	71.6

NOTES:

The drawings shown above reflect the single-interlocked, pneumatic release trim with Series 776 Low-Pressure Actuator. In addition, these dimensions can be applied to single-interlocked, pneumatic release; non-interlocked, pneumatic/electric release; single-interlocked, electric release; and double-interlocked, electric (electric-pneumatic/electric) release trim.

The "A" dimension coupling is not shown for clarity.

Components shown as dotted lines denote optional equipment

* Measurements denoted with an asterisk take optional equipment into account

Optional drain connection kit is shown for reference and takeout dimensions.

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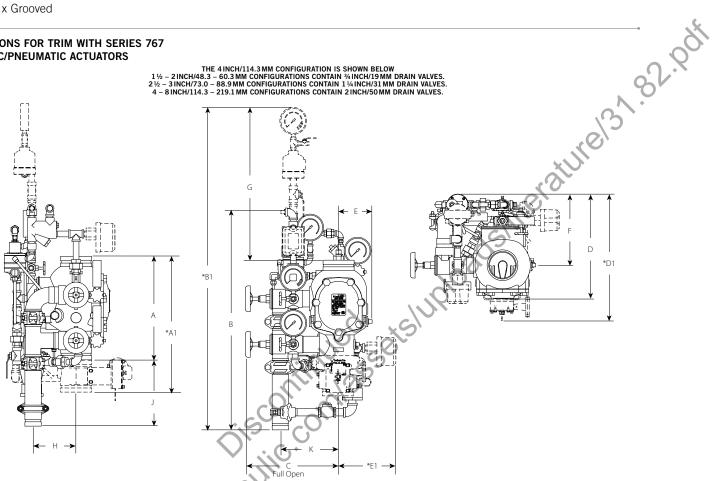
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SERIES 769 With Preaction Trim Grooved x Grooved

DIMENSIONS FOR TRIM WITH SERIES 767 ELECTRIC/PNEUMATIC ACTUATORS



	Dimensions – inches/mm													Aprx. Weight Ea. Ibs/kg			
Nominal Size Inches/ mm	Actual Outside Diameter Inches/ mm	A	A1*	CB ·	B1*	С	D	D1*	E	E1*	F	G	н	J	к	Without Trim	With Trim
1½	1.900	9.00	16.43	28.00	42.75	13.75	16.00	15.00	5.25	8.50	9.50	24.50	3.04	9.17	6.98	16.7	43.0
40	48.3	228.60	417.32	711	1085	349	406	381	133	215	241	622	77.21	232.91	177.29	7.6	19.5
2	2.375	9.00	16.43	28.00	42.75	13.75	16.00	15.00	5.25	8.50	9.50	24.50	3.04	9.17	6.98	17.0	43.0
50	60.3	228.60	417.32	711	1085	349	406	381	133	215	241	622	77.21	232.91	177.29	7.7	19.5
2 ½	2.875	12.61	16.50	31.25	45.75	13.50	16.25	18.00	5.25	9.00	9.75	22.75	3.90	10.50	6.93	41.0	65.0
65	73.0	320.29	419.10	793	1162	342	412	457	133	228	247	577	99.06	266.70	176.02	18.7	29.5
76.1 mm	3.000	12.61	16.50	31.25	45.75	13.50	16.25	18.00	5.25	9.00	9.75	22.75	3.90	10.50	6.93	41.0	65.0
	76.1	320.29	419.10	793	162	342	412	457	133	228	247	577	99.06	266.70	176.02	18.7	29.5
3	3.500	12.61	16.50	31.25	45.75	13.50	16.25	18.00	5.25	9.00	9.75	22.75	3.90	10.50	6.93	41.0	65.0
80	88.9	320.29	419.10	793	1162	342	412	457	133	228	247	577	99.06	266.70	176.02	18.7	29.5
4	4.500	15.03	19.78	32.75	47.50	15.00	16.25	20.75	5.50	9.00	11.25	22.75	6.25	9.62	8.46	59.0	100.0
100	114.3	381.76	502.41	831	1206	381	412	527	139	228	285	577	158.75	244.34	214.88	26.7	43.3
165.1 mm	6.500	16.00	22.00	32.75	47.50	15.50	17.25	22.25	6.00	8.50	11.50	21.75	6.20	9.62	8.84	80.0	121.0
	165.1	406.40	558.80	831	1206	393	438	565	152	215	292	552	157.48	244.34	224.53	36.2	54.8
6	6.625	16.00	22.00	32.75	47.50	15.50	17.25	22.25	6.00	8.50	11.50	21.75	6.20	9.62	8.84	80.0	121.0
150	168.3	406.40	558.80	831	1206	393	438	565	152	215	292	552	157.48	244.34	224.53	36.2	54.8
200	8.625	17.50	22.94	32.50	47.00	16.75	20.00	25.50	7.00	8.75	13.00	20.25	6.05	9.40	10.21	122.0	163.0
	219.1	444.50	582.67	825	1193	425	508	647	177	222	330	514	153.67	238.76	259.33	55.3	73.9

The "A" dimension coupling is not shown for clarity.

Components shown as dotted lines denote optional equipment

* Measurements denoted with an asterisk take optional equipment into account

Optional drain connection kit is shown for reference and takeout dimensions.

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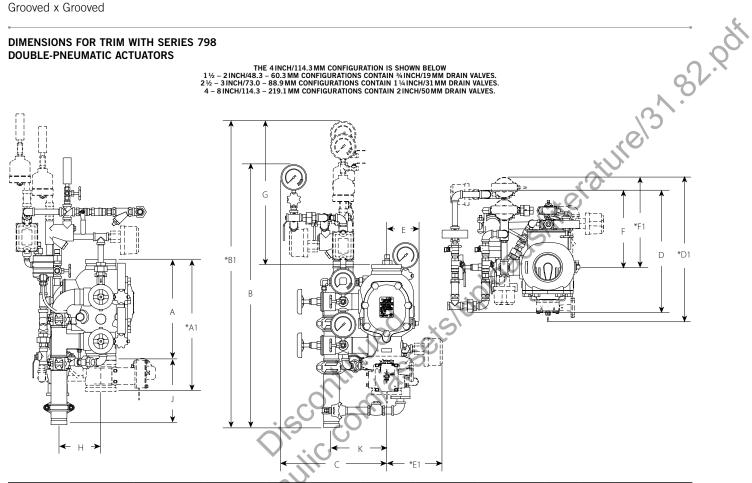
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SERIES 769 With Preaction Trim Grooved x Grooved

DIMENSIONS FOR TRIM WITH SERIES 798 DOUBLE-PNEUMATIC ACTUATORS



Size		Dimensions – inches/mm													Aprx. Weight Ea. Ibs/kg			
Nominal Size Inches/ mm	Actual Outside Diameter Inches/ mm	A	A1*	BC	31*	c	D	D1*	E	E1*	F	F1*	G	н	J	к	Without Trim	With Trim
1½	1.900	9.00	16.43	36.00	42.50	15.75	19.00	21.00	5.25	8.50	10.75	12.75	24.25	3.04	9.17	6.98	16.7	43.0
40	48.3	228.60	417.32	914	1079	400	482	533	133	215	273	323	615	77.21	232.91	177.29	7.6	19.5
2	2.375	9.00	16.43	36.00	42.50	15.75	19.00	21.00	5.25	8.50	10.75	12.75	24.25	3.04	9.17	6.98	17.0	43.0
50	60.3	228.60	417.32	914	1079	400	482	533	133	215	273	323	615	77.21	232.91	177.29	7.7	19.5
2 ½	2.875	12.61	16.50	39.25	45.75	15.75	19.00	21.00	5.25	9.00	10.75	12.75	22.50	3.90	10.50	6.93	41.0	65.0
65	73.0	320.29	419.10	996	1162	400	482	533	133	228	273	323	571	99.06	266.70	176.02	18.7	29.5
76.1 mm	3.000	12.61	16.50	39.25	45.75	15.75	19.00	21.00	5.25	9.00	10.75	12.75	22.50	3.90	10.50	6.93	41.0	65.0
	76.1	320.29	419.10	996	1162	400	482	533	133	228	273	323	571	99.06	266.70	176.02	18.7	29.5
3	3.500	12.61	16.50	39.25	45.75	15.75	19.00	21.00	5.25	9.00	10.75	12.75	22.50	3.90	10.50	6.93	41.0	65.0
80	88.9	320.29	419.10	996	1162	400	482	533	133	228	273	323	571	99.06	266.70	176.02	18.7	29.5
4	4.500	15.03	19.78	40.50	47.00	16.75	19.00	24.00	5.50	9.00	12.25	14.25	22.25	6.25	9.62	8.46	59.0	111.0
100	114.3	381.76	502.41	1028	1193	425	482	609	139	228	311	361	565	158.75	244.34	214.88	26.7	50.3
165.1 mm	6.500	16.00	22.00	40.75	47.25	17.00	19.00	25.25	6.00	8.50	12.75	14.75	21.50	6.20	9.62	8.84	80.0	132.0
	165.1	406.40	558.80	1035	1200	431	482	641	152	215	323	374	546	157.48	244.34	224.53	36.2	59.8
6	6.625	16.00	22.00	40.75	47.25	17.00	19.00	25.25	6.00	8.50	12.75	14.75	21.50	6.20	9.62	8.84	80.0	132.0
150	168.3	406.40	558.80	1035	1200	431	482	641	152	215	323	374	546	157.48	244.34	224.53	36.2	59.8
8	8.625	17.50	22.94	40.50	47.00	18.25	21.50	28.75	7.00	8.75	14.25	16.25	20.00	6.05	9.40	10.21	122.0	174.0
200	219.1	444.50	582.67	1028	1193	463	546	730	177	222	361	412	508	153.67	238.76	259.33	55.3	78.9

The "A" dimension coupling is not shown for clarity.

Components shown as dotted lines denote optional equipment

* Measurements denoted with an asterisk take optional equipment into account

Optional drain connection kit is shown for reference and takeout dimensions.

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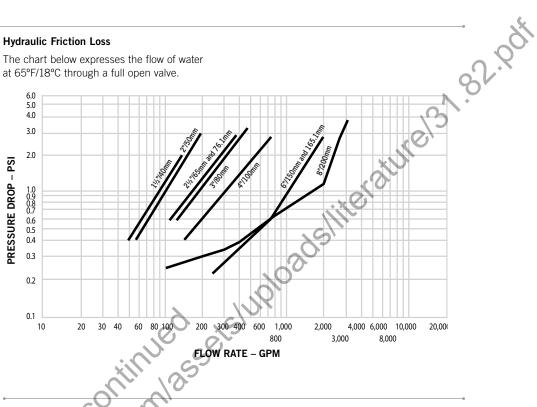


SERIES 769 With Preaction Trim

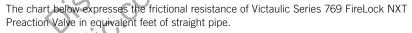
Grooved x Grooved

PERFORMANCE

Hydraulic Friction Loss



Frictional Resistance



	Si	ze	Equivalent Length of Pipe				
	Nominal Size Inches/ mm	Actual Outside Dia. Inches/ mm	Feet meters				
	1½	1.900	3.00				
	40	48.3	0.914				
	2	2.375	9.00				
	50	60.3	2.743				
55	2½	2.875	8.00				
	65	73.0	2.438				
.\\'0	76.1 mm	3.000 76.1	8.00 2.439				
Si	3	3.500	17.00				
	80	88.9	5.182				
Yir,	4	4.500	21.00				
	100	114.3	6.401				
	165.1 mm	6.500 165.1	22.00 6.706				
	6	6.625	22.00				
	150	168.3	6.706				
	8	8.625	50.00				
	200	219.1	15.240				
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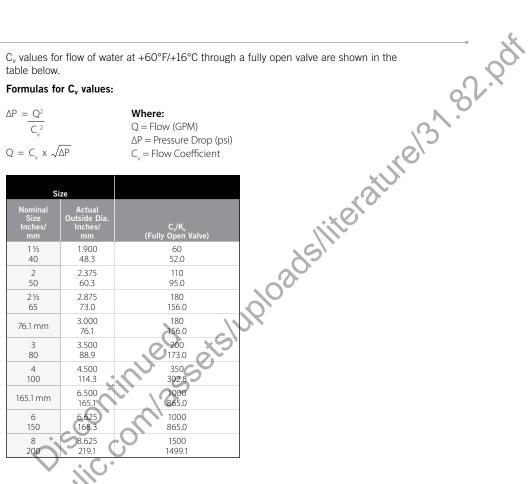
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SERIES 769 With Preaction Trim Grooved x Grooved

C_v VALUES

C_v values for flow of water at +60°F/+16°C through a fully open valve are shown in the table below.

Formulas for C_v values:



The Victaulic Preaction System utilizes the Series 769 Preaction Valve to control the entry of the water supply into the Preaction System piping and sprinklers. The Series 769 Preaction Valve is constructed with a clapper having a replaceable rubber face. The clapper makes contact with the valve seat ring which has access holes to the intermediate chamber of the valve. The clapper is contacted by the latch which is contacted by the diaphragm. In the set position, water supply pressure from upstream of the water supply control valve is maintained in the diaphragm chamber which holds the clapper in the closed/set position. The water is maintained in the diaphragm by one of the system release mechanisms (pneumatic, hydraulic or electric). Upon the detection of an appropriate actuating event of the Preaction System (see system description above) the water supply pressure in the diaphragm chamber is released. This release allows the latch to move to its open position, permitting the clapper to pivot freely, thus allowing water into the system. Water will flow from all open sprinklers in the piping. Also, water enters the intermediate chamber of the valve through the holes in the seat ring. The water flows from the intermediate chamber to the alarm line thus activating the system alarms. These alarms will continue to sound until the flow of water is stopped. When the flow of water is stopped the spring assisted valve clapper returns to the closed position and the valve acts as an alarm check valve until the system is put back into service as a Preaction System.

Manual Operation

Any time the manual release handle is pulled water will be released from the diaphragm chamber and the valve will actuate, allowing water into the Preaction System. Water motor alarms and alarm pressure switches will activate.



OPERATION

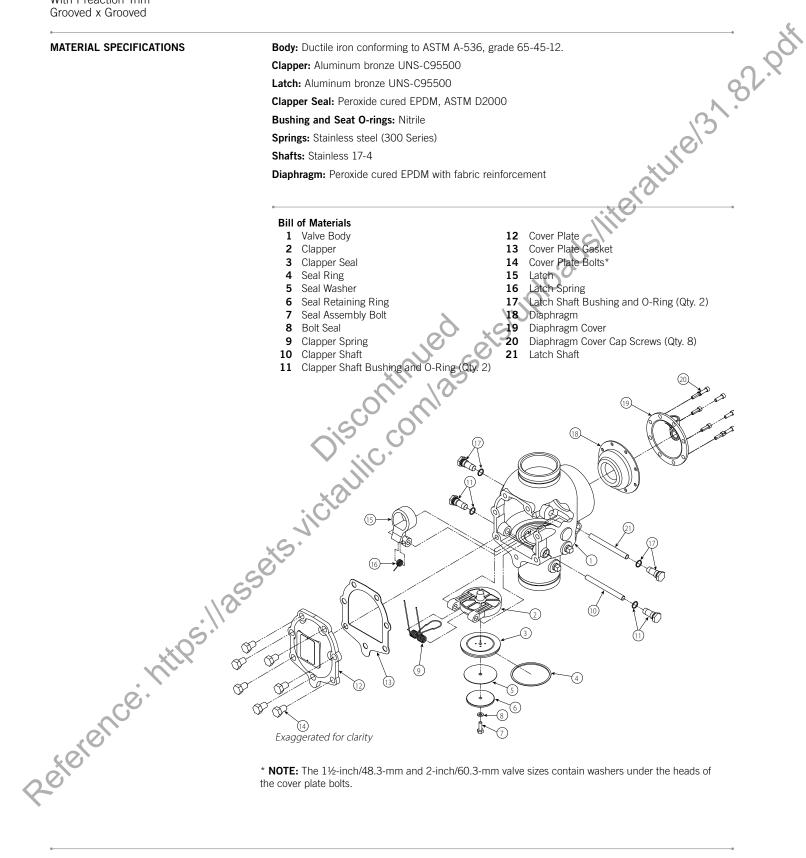


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SERIES 769 With Preaction Trim Grooved x Grooved



* NOTE: The 1½-inch/48.3-mm and 2-inch/60.3-mm valve sizes contain washers under the heads of

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SERIES 769

With Preaction Trim Grooved x Grooved

TRIM PACKAGES

Trim Packages Options:

- 1 Non-Interlocked, Penumatic
- 2 Non-Interlocked, Pneumatic/Electric
- 3 Single-Interlocked, Pneumatic
- 1.82.9d 4 Single-Interlocked, Electric or Double-Interlocked, Electric (Electric-Pneumatic/Electric)
- 5 Double-Interlocked, Electric/Pneumatic
- 6 Double-Interlocked, Pneumatic/Pneumatic

Trim packages include all required galvanized pipe and fittings. For trim package details and optional accessories, see pages 17-22

Actuators:

- Series 776 Low-Pressure Actuator The Series 776 Low-Pressure Actuator is pneumatically actuated and requires only 13 psi/90 kPa minimum air pressure, regardless of the system supply pressure. This actuator allows the system to operate with a low air or gas pressure of 7 psi/48 kPa. Request submittal 30.65.
- Series 767 Electric/Pneumatic Actuator The Series 767 Electric/Pneumatic Actuator provides a single trip point for the pneumatic event and an integral electric actuator. This actuator requires only 13 psi/90 kPa minimum air pressure, regardless of the system supply pressure. This actuator allows the system to operate with a low air or gas pressure of 7 psi/ 48 kPa. Request submittal 30.62.
- Series 798 Double-Pneumatic Actuator The Series 798 Double-Pneumatic Actuator requires two separate pneumatic activations in order to actuate the system. This actuator requires only 13 psi/90 kPa minimum air pressure, regardless of the system supply pressure. This actuator allows the system to operate with a low air or gas pressure of 7 psi/48 kPa. Request submittal 30.61.
- Reference. https://assets.victauit Series 753-E Solenoid Valve - The Series 753-E Solenoid Valve is designed for use with systems that require electrical activation. Request submittal 30.63.



SERIES 769

With Preaction Trim Grooved x Grooved

TRIM PACKAGES

Optional accessories:

- Series 746-LPA Dry Accelerator The Series 746-LPA Dry Accelerator can be used on pneumatic release systems to improve response time. Request submittal 30.64.
- 82.Pd Series 760 Water Motor Alarm - The Series 760 Water Motor Alarm is a mechanical device that sounds when a sustained flow of water occurs (such as with an open sprinkler). Request submittal 30.32.
- Series 75B Supplemental Alarm Device The Series 75B Supplemental Alarm Device is designed to provide a continuous alarm for systems equipped with a mechanical device. Request submittal 30.33.
- Series 75D Water Column Kit The Series 75D Water Column Kit is designed to minimize residual water in the riser from collecting above the clapper. Request submittal 30.34.
- Alarm Pressure Switch Alarm Pressure Switches are designed to activate electrical alarms and control panels when a sustained flow of water occurs (such as with an open sprinkler).
- Air Supervisory Pressure Switch Air Pressure Supervisory Switches are used to monitor system air pressure and are available as low-pressure and high-pressure sensitivity.
- Air Supply System - The air supply system contains all components for establishing and maintaining air in a pneumatic system. The compressor, low pressure alarms, ball valves, and required trim are included in the air supply system.
 - Air Compressor (See page 14 for more on the Victaulic Series 7C7 Compressor Package)



SERIES 769 With Preaction Trim Grooved x Grooved

AIR SUPPLY REQUIREMENTS

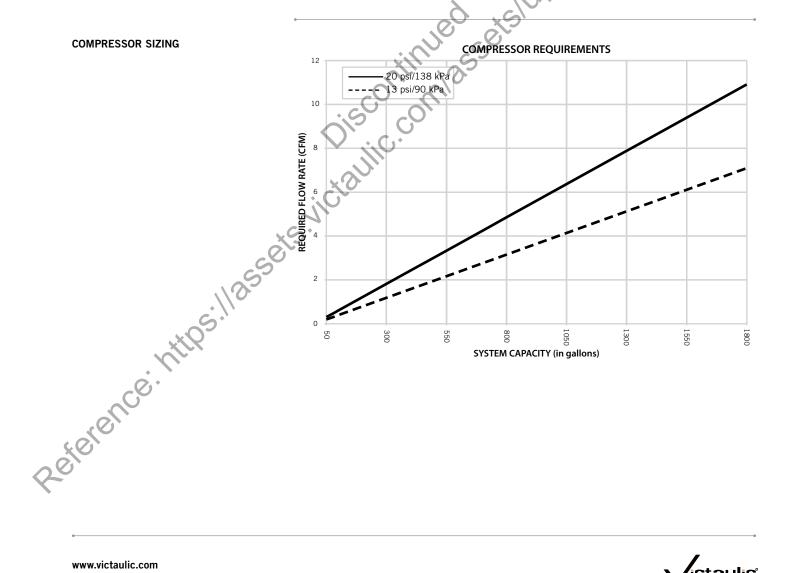
The required air pressure for Series 769 FireLock NXT Preaction Valves is 13 psi/90 kPa minimum, regardless of the system supply pressure. Air pressures should be kept below 18 psi/124 kPa, unless a Series 746-LPA Dry Accelerator is installed. Systems with air pressures higher than 18 psi/124 kPa may require the addition of a Series 746-LPA Dry Accelerator.

If multiple Series 769 FireLock NXT Preaction Valves are installed with a common air supply, isolate the systems with a 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.

Set the air pressure to the required system air pressure. Air pressure differing from the required system air pressure could reduce system operation response time.

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.





SERIES 769 With Preaction Trim Grooved x Grooved

COMPRESSORS

BASE OR RISER-MOUNTED

For base or riser-mounted compressors, the recommended air pressure of 13 psi/90 kPa is the "on" or "low" pressure setting for the compressor. The "off" or "high" pressure setting should be 18 psi/124 kPa. Victaulic offers the Series 7C7 Compressor package for FireLock NXT devices which is riser-mounted and pre-set for the FireLock NXT pressure requirements as stated above. For information on the Series 7C7 package, consult publication 30.22. The Series 7C7 Compressor package is only available in North America.

When a base or riser-mounted air compressor supplies air to a Series 768 FireLock NXT Dry Valve, it is not necessary to install the Victaulic Series 757 Regulated Air Maintenance Trim Assembly (AMTA). In this case, the airline of the compressor connects to the trim at the fitting where the Series 757 Regulated AMTA is normally installed (refer to the applicable trim drawing). If the compressor is not equipped with a pressure switch, the Series 757P Air Maintenance Trim Assembly with Pressure Switch should be installed. For information on the Series 757 Regulated Air Maintenance Trim Assembly, see publication 30.35. For information on the Series 757P Air Maintenance Trim Assembly, see publication 30.36.

SHOP AIR OR TANK-MOUNTED AIR COMPRESSORS

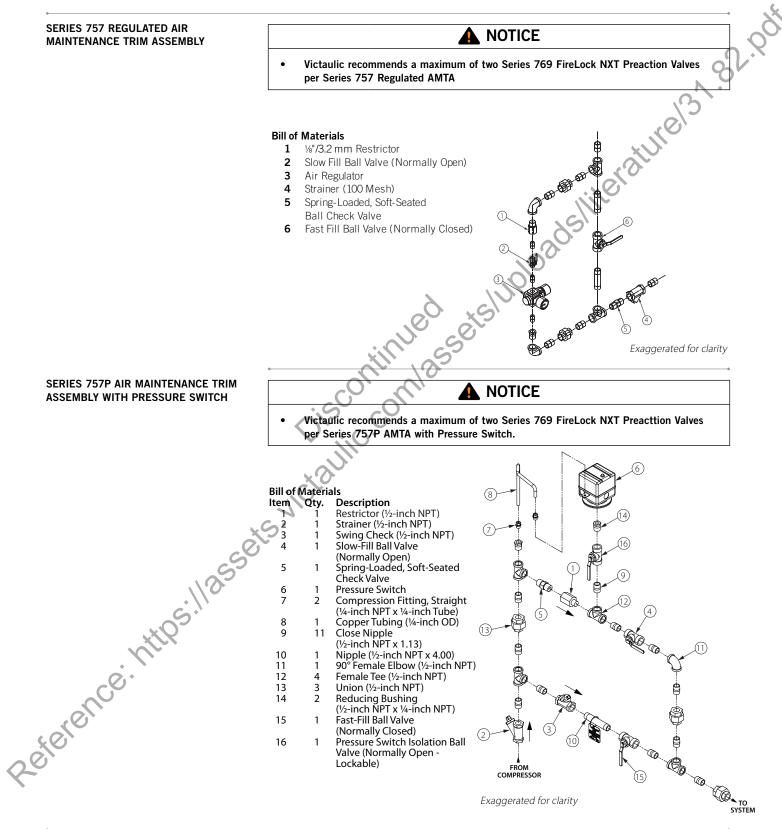
In the event a compressor becomes inoperative, a properly sized tank-mounted air compressor provides the the greatest protection for systems.

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

edeterence . For tank-mounted air compressors, the recommended air pressure of 13 psi/90 kPa should be used as the set point for the air regulator. The "on" pressure of the compressor should be at least 5 psi/ 34 kPa above the set point of the air regulator.

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SERIES 769 With Preaction Trim

Grooved x Grooved

COMPRESSOR REQUIREMENTS

Reference https://ac

Compressor Requirements and Settings for Series 769 FireLock NXT Preaction Valves	Installed
with Series 746-LPA Dry Accelerators	

Set the air regulator of the Series 757 Regulated AMTA to 13 psi/90 kPa.

THE SERIES 757P AIR MAINTENANCE TRIM ASSEMBLY WITH PRESSURE SWITCH MUST NOT BE USED ON A SERIES 769 FIRELOCK NXT PREACTION VALVE INSTALLED WITH A SERIES 746-LPA DRY ACCELERATOR.

When a Series 769 FireLock NXT Preaction Valve is installed with a Series 746-LPA Dry Accelerator, the Series 757 Regulated AMTA must be used. **NOTE:** The use of an air regulator with a base or riser-mounted compressor could cause short cycling, resulting in premature wear of the compressor.

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 Regulated AMTA must be used with a tank-mounted air compressor that supplies air to a Series 769 FireLock NXT Preaction Valve installed with a Series 746-LPA Dry Accelerator.

The air regulator of the Series 757 Regulated AMTA 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. **NOTE:** The Series 746-LPA should not be used above 30 psi/207kPa. If higher pressures are required, the Series 746 should be used.

Settings for Air Supervisory Pressure Switches and Alarm Pressure Switches

Air supervisory pressure switches are required for preaction systems and must be set according to the following instructions; **NOTE:** Switches for Vic-Quick Risers are pre-set at the factory.

Wire the air supervisory pressure switches to activate a low-pressure alarm signal. **NOTE:** In addition, the local authority having jurisdiction may require a high-pressure alarm. Contact the local authority having jurisdiction for this requirement.

Set the air supervisory pressure switches to activate at $2-4\,psi/14-28\,kPa$ below the minimum air pressure required, but not lower than $10\,psi/69\,kPa.$

Wire the alarm pressure switch to activate a water flow alarm.

Set the alarm pressure switch to activate on a pressure rise of 4 - 8 psi/28 - 55 kPa.

Remote System Test Valve Requirements

The remote system test valve (inspector's test connection) should contain a UL Listed and/or FM Approved valve (normally closed), which can be opened to simulate the operation of a sprinkler.

The remote system test valve (inspector's test connection) should be located at the most hydraulically demanding location in the release system. **NOTE:** Multiple restrictions on the remote system test valve (inspector's test connection) may slow the air decay rate and cause the system to respond slower than required.

The remote system test valve (inspector's test connection) should terminate with an orifice equal to the smallest orifice in the releasing system.

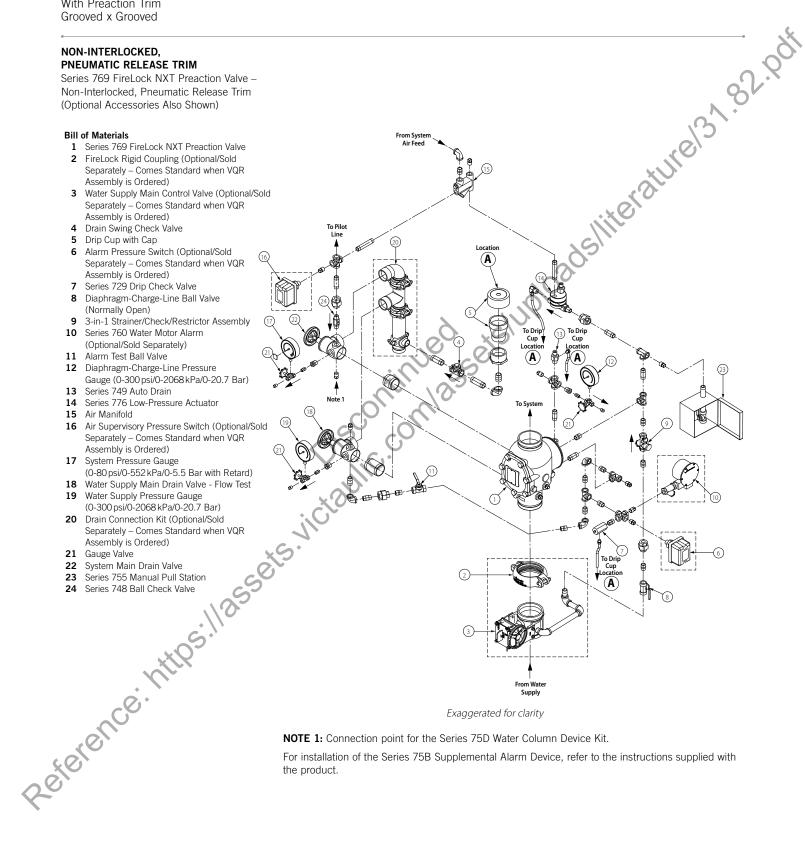
The remote system test valve (inspector's test connection) is used to ensure that water reaches the most remote part of the system within 60 seconds.

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SERIES 769 With Preaction Trim

Grooved x Grooved



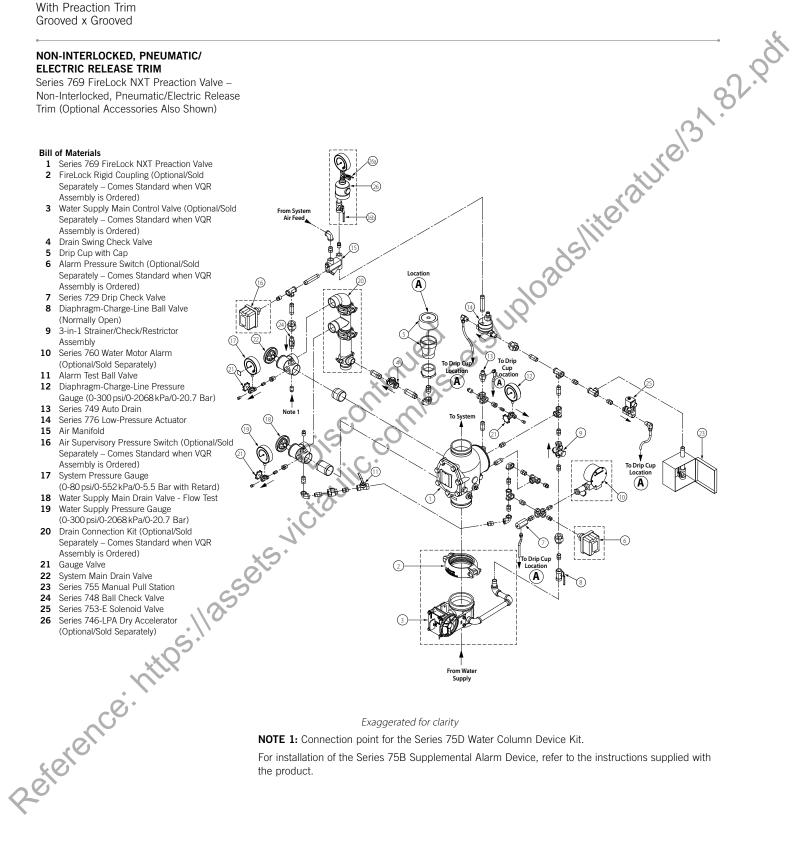
NOTE 1: Connection point for the Series 75D Water Column Device Kit.

For installation of the Series 75B Supplemental Alarm Device, refer to the instructions supplied with



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SERIES 769 With Preaction Trim



Exaggerated for clarity

NOTE 1: Connection point for the Series 75D Water Column Device Kit.

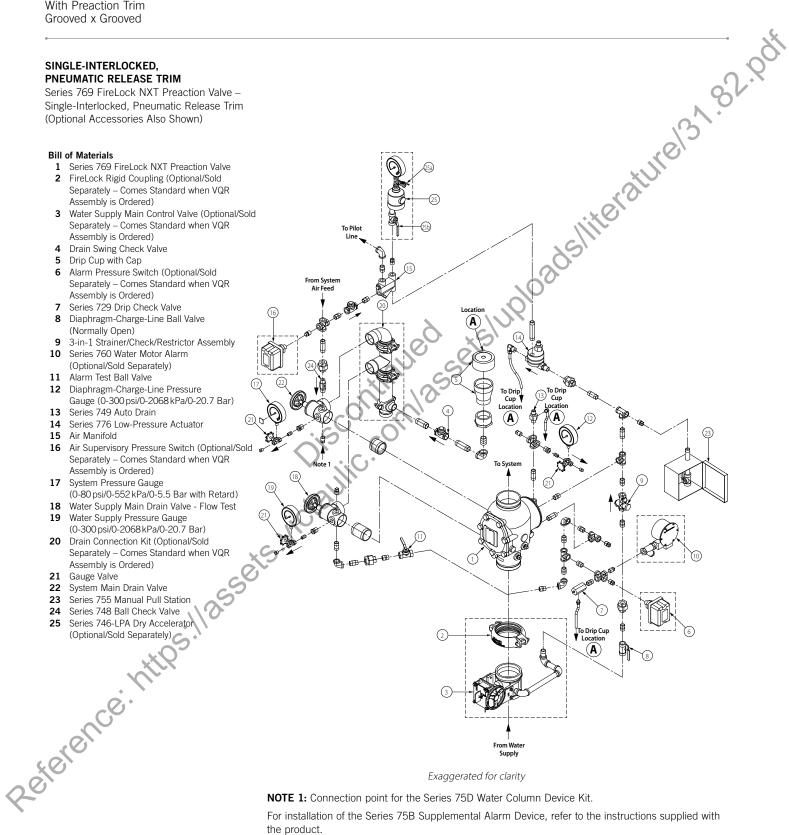
For installation of the Series 75B Supplemental Alarm Device, refer to the instructions supplied with

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SERIES 769 With Preaction Trim Grooved x Grooved



NOTE 1: Connection point for the Series 75D Water Column Device Kit.

For installation of the Series 75B Supplemental Alarm Device, refer to the instructions supplied with the product.

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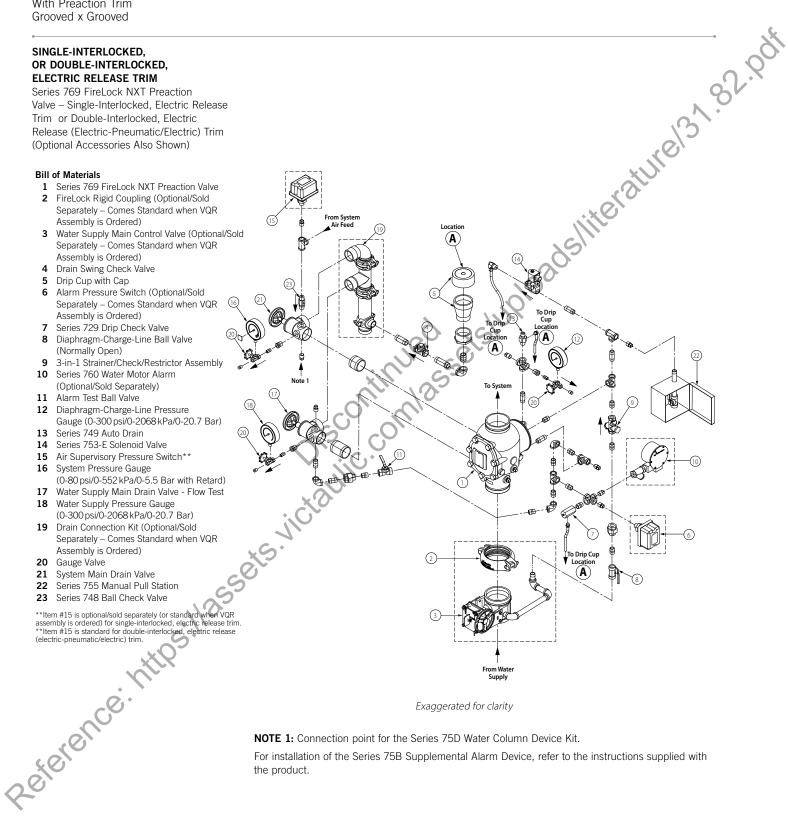
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SERIES 769

With Preaction Trim Grooved x Grooved



NOTE 1: Connection point for the Series 75D Water Column Device Kit.

For installation of the Series 75B Supplemental Alarm Device, refer to the instructions supplied with the product.

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SERIES 769

With Preaction Trim Grooved x Grooved

DOUBLE-INTERLOCKED,

ELECTRIC/PNEUMATIC RELEASE TRIM Series 769 FireLock NXT Preaction Valve -Double-Interlocked, Electric/Pneumatic Release Trim

(Optional Accessories Also Shown)

Bill of Materials

- 1 Series 769 FireLock NXT Preaction Valve 2 FireLock Rigid Coupling (Optional/Sold Separately - Comes Standard when VQR Assembly is Ordered)
- 3 Water Supply Main Control Valve (Optional/Sold Separately - Comes Standard when VQR Assembly is Ordered)
- 4 Drain Swing Check Valve
- 5 Drip Cup with Cap
- Alarm Pressure Switch (Optional/Sold 6 Separately - Comes Standard when VQR Assembly is Ordered)
- Series 729 Drip Check Valve 7
- 8 Diaphragm-Charge-Line Ball Valve
- (Normally Open) 3-in-1 Strainer/Check/Restrictor 9
- Assembly 10 Series 760 Water Motor Alarm
- (Optional/Sold Separately)
- 11 Alarm Test Ball Valve
- 12 Diaphragm-Charge-Line Pressure Gauge (0-300 psi/0-2068 kPa/0-20.7 Bar)
- 13 Series 749 Auto Drain 14 Series 767 Electric/Pneumatic Actuator
- 15 Air Manifold
- 16 Air Supervisory Pressure Switch (Optional/Sold Separately - Comes Standard when VQR Assembly is Ordered)
- 17 System Pressure Gauge (0-80 psi/0-552 kPa/0-5.5 Bar with Retard)
- 18 Water Supply Main Drain Valve Flow Test 19 Water Supply Pressure Gauge
- (0-300 psi/0-2068 kPa/0-20.7 Bar) 20 Drain Connection Kit (Optional/Sold Separately - Comes Standard when VQR Assembly is Ordered)
- 21 Gauge Valve
- 22 System Main Drain Valve
- 23 Series 755 Manual Pull Station
- 24 Series 748 Ball Check Valve
- 25 Series 746-LPA Dry Accelerator (Optional/Sold Separately)
- 26 Upper Chamber Strainer (100 Mesh) 27 Upper Chamber Pressure Gauge for
- Series 767 Electric/Pneumatic Actuator 28 Auto Vent for Series 767 Electric/
- Pneumatic Actuator 29 Upper Chamber Inlet Restrictor
- .032-inch) for Series 767 Electric/ Pneumatic Actuator
- Upper Chamber Check Valve (1/4-inch) or Series 767 Electric/Pneumatic Actuator 2010

Exaggerated for clarity

NOTE 1: Connection point for the Series 75D Water Column Device Kit.

For installation of the Series 75B Supplemental Alarm Device, refer to the instructions supplied with the product.

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NOTE: When installing the optional Series 746-LPA Dry Accelerator, relocate the auto vent to the location of the indicated plug.

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With Preaction Trim Grooved x Grooved

rature 131.82. Pdf DOUBLE-INTERLOCKED, PNEUMATIC/ PNEUMATIC RELEASE TRIM Series 769 FireLock NXT Preaction Valve -Double-Interlocked, Pneumatic/Pneumatic Release Trim (Optional Accessories Also Shown) Bill of Materials 1 Series 769 FireLock NXT Preaction Valve 2 FireLock Rigid Coupling (Optional/Sold Separately - Comes Standard when VQR Assembly is Ordered) 3 Water Supply Main Control Valve (Optional/Sold Separately - Comes Standard when VQR Assembly is Ordered) 4 Drain Swing Check Valve NOTE: When installing the optional Series 746-LPA Dry Drip Cup with Cap 5 ator(s), relocate th nt to the location o indicated plug. Alarm Pressure Switch (Optional/Sold 6 Separately - Comes Standard when VQR Assembly is Ordered) 3 7 Series 729 Drip Check Valve 8 Diaphragm-Charge-Line Ball Valve (Normally Open) ۹ 3-in-1 Strainer/Check/Restrictor Assembly 10 Series 760 Water Motor Alarm (Optional/Sold Separately) 11 Alarm Test Ball Valve 12 Diaphragm-Charge-Line Pressure Gauge (0-300 psi/0-2068 kPa/0-20.7 Bar) Series 749 Auto Drain 13 14 Series 798 Pneumatic/Pneumatic Actuator 15 Air Manifold 16 Air Supervisory Pressure Switch (Optional/Sold Separately - Comes Standard when VQR Drip Cu 9 Assembly is Ordered) 17 System Pressure Gauge **S** (0-80 psi/0-552 kPa/0-5.5 Bar with Retard) 18 Water Supply Main Drain Valve - Flow Test 19 Water Supply Pressure Gauge (0-300 psi/0-2068 kPa/0-20.7 Bar) 20 Drain Connection Kit (Optional/Sold Separately - Comes Standard when VQR Assembly is Ordered) 21 Gauge Valve 1 22 System Main Drain Valve ∰ œ 8 Series 755 Manual Pull Station 23 24 Series 748 Ball Check Valve ¢ Series 746-LPA Dry Accelerator 25 (Optional/Sold Separately) 26 Air Feed Valve Assembly 26a Pilot Line Fill Valve and Shutoff Valve (Shutoff Valve has Yellow Handle) o Drip Cup 26b System Line Fill Valve and Shutoff Valve A) (Shutoff Valve has Yellow Handle) System Air Line Strainer (100 Mesh) 27 28 Pilot Line Strainer (100 Mesh) 29 Pilot Line Pressure Gauge (20 Pilot Line Pressure Gauge) (0-80 psi/0-552 kPa/0-5.5 Bar with Retard) 30 Auto Vent for Series 798 Pneumatic/ Pneumatic Actuators Supply Exaggerated for clarity

NOTE 1: Connection point for the Series 75D Water Column Device Kit.

For installation of the Series 75B Supplemental Alarm Device, refer to the instructions supplied with the product.

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SERIES 769 With Preaction Trim Grooved x Grooved

WARRANTY

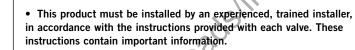
Refer to the Warranty section of the current Price List or contact Victaulic for details.

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

WARNING

NOTE

WARNING



incurring obligations.

instructions contain important information. Failure to follow these instructions may result in serious personal injury, property damage, or valve leakage.

hi dama, .a. ned add. .stallation instr installation instr installatio If you need additional copies of this product literature or the valve installation instructions, or if you 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.



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