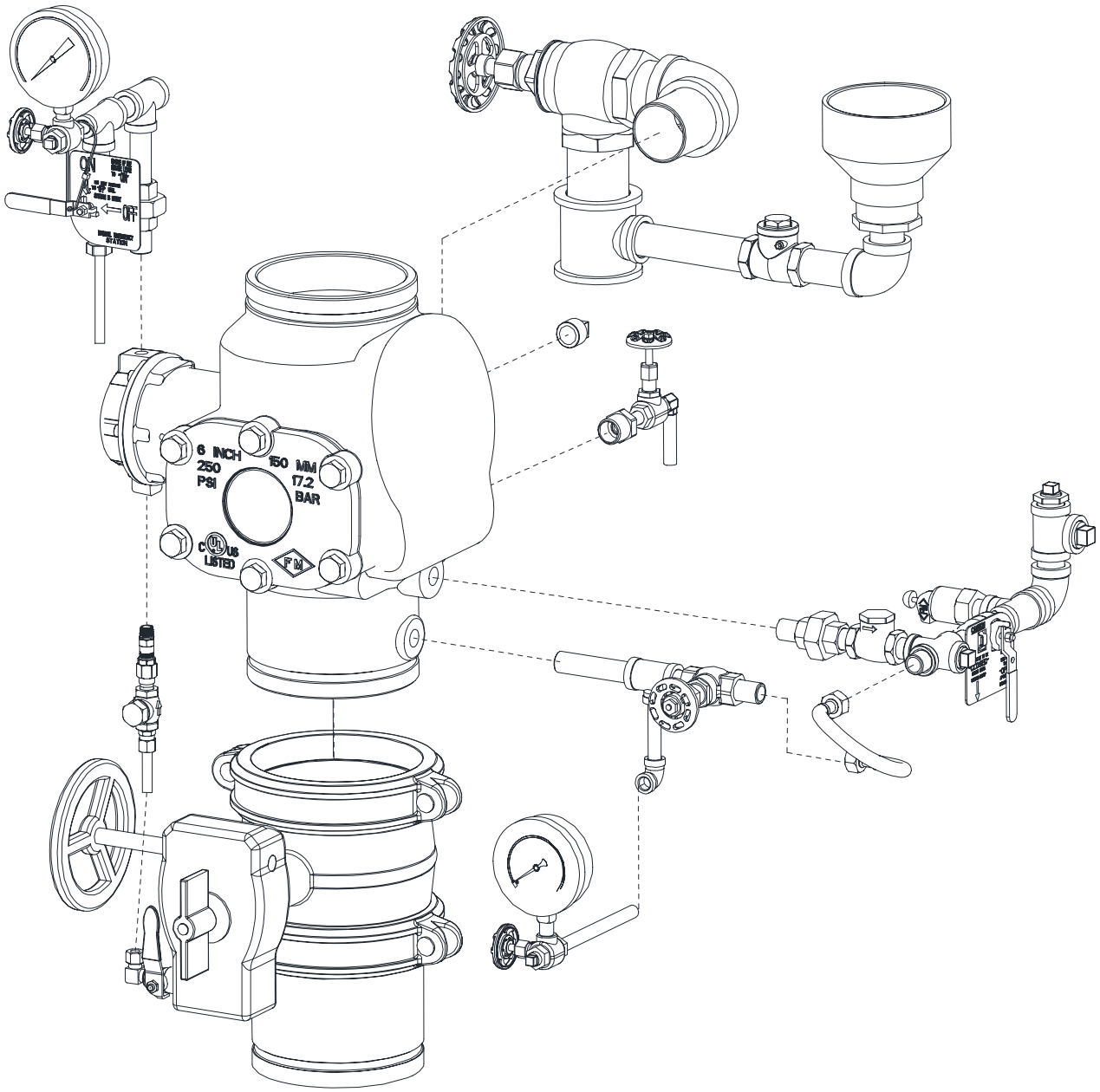
Instructions for Installation, Operation, Care and Maintenance

Model AGCX Deluge Valve

2” (50 mm), 2½” (65 mm), 3” (80 mm), 4” (100 mm), 6” (150 mm), 8” (200 mm)

Wet Pilot Line, Dry Pilot Line, and Electric Actuation Trims, Electro-Pneumatic Actuation Trims,Combination of Electric or Dry Pilot Line Actuation Trims



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GENERAL

The AG Sprinkler Model AGCX Deluge Valve is a hydraulically operated, differential latching clapper-type valve designed for use as primary control valve in deluge, preaction, or special types of fire protection systems. Following operation, the valve is easily reset externally (see Fig.1).

The Wet Pilot Line Trim set is connected to the push rod chamber outlet and provides a one and one quarter inch main drain on 2" (50mm), 2½" (65mm), 3" (80mm) valve sizes or a two inch main drain on 4" (100mm), 6" (150mm) and 8" (200mm) valve sizes, alarm test, supply pressure gauge, and the push rod chamber supply connections. Releasing devices that can be used are wet pilot line detectors (Model F1-FTR) or hydraulic manual emergency stations/pull boxes (Models A & B).

Two alternate or combined actuation trim sets, Dry Pilot Line or Electric Actuation, are available when dry pilot sprinklers or solenoid valves are used for releasing. Actuation by solenoid valves enables a full range of electrical detectors to be used for remote sensing.

LISTINGS & APPROVALS

(Only when used with Trim Sets.)

1. Listed by Underwriters Laboratories, Inc. and UL certified for Canada (cULus).
2. Certified by Factory Mutual Approvals (FM).
3. LPCB (4" (100mm), 165mm, 6" (150mm) & 8" (200mm) only)
4. CE
5. VdS Schadenverhütung GmbH

VALVE OPERATION

The AG Sprinkler Model AGCX Deluge Valve is shown in both closed and open positions in Fig. 1. In the closed position, the supply pressure acts on the underside of the clapper and also on the push rod through the push rod chamber's inlet restriction. The resultant force due to the supply pressure acting on the push rod is multiplied by the mechanical advantage of the lever and is more than sufficient to hold the clapper closed against normal supply pressure surges.

When a fire is detected, a releasing device vents the push rod chamber to atmosphere through the chamber's outlet. Since the pressure cannot be replenished through the inlet restriction as rapidly as it is vented, the push rod chamber pressure falls instantaneously. When the push rod chamber pressure approaches approximately one-third of the supply pressure, the upward force of the supply pressure acting beneath the clapper overcomes the lever-applied force thereby opening the clapper.

Once the clapper has opened, the lever acts as a latch, preventing the clapper from returning to the closed position. Water from the supply flows through the Deluge Valve into the system piping. Water also flows through the Deluge Valve alarm outlet to the alarm devices.

After system shutdown, resetting the Model AGCX Deluge Valve is quite simple. Doing so only requires pushing in and turning the reset knob at the rear of the valve (see Fig.1). The external reset feature of the Model AGCX Deluge Valve provides a means for simple, economical system testing, which is one essential acet of a good maintenance program. The external reset feature does not, however, eliminate another important facet of good maintenance, namely, periodic cleaning and inspection of the internal valve parts.

In the event that water builds up inside the valve due to condensate from the air supply system or water left inside from valve system testing, a drain is available for venting. After closing the main supply valve, a small valve over the drain cup can be opened slightly until the water inside the valve body and the main pipe column has drained.

Whenever ambient temperature conditions are high, the water temperature in the Model AGCX Deluge Valve's pushrod chamber could possibly increase, thereby increasing the pressure in the chamber to values exceeding the rated pressure of the system. In an indoor installation where standard room temperatures are exceeded, a pressure relief kit may be needed. Pressure relief kit, can be installed into the pushrod chamber's release line to limit the pressure to 250 psi (17,2 bar).

AG Sprinkler Model AGCX Deluge Valve with associated trim sizes 2" (50 mm), 2½" (65 mm), 3" (80 mm), 4" (100 mm), 6" (150 mm) and 8" (200 mm) are rated for use at a minimum water supply pressure of 20 psi (1,4 bar) and a maximum water supply pressure of 250 psi (17,2 bar) for 2" (50mm), 21/2" (65mm), 3" (80mm), 8" (200mm) valve sizes and 300 psi (20,7 bar) for 4" (100mm), 6" (150mm) valve sizes). Water supplied to the inlet of the valve and to the push rod chamber must be maintained between 40°F(4°C) and 140°F(60°C).

PRESSURIZING LINE CONNECTION

The water supply for the push-rod chamber must be provided by connection of its inlet pressurizing line to the water supply piping. Pressurizing lines for multiple Model AGCX Deluge Valve push-rod chambers must never be manifolded together, having only a single tap on the water supply piping. Each Model AGCX Deluge Valve must have its own push-rod chamber pressurizing line connection.

This connection must be made on the supply side of the water supply control valve (see Fig. 4 or Fig. 5). This can be accomplished by:

- Using a tapped connection directly below or next to the main water supply control valve using a welded outlet or the appropriate mechanical fittings. A grooved-end outlet coupling is one way to achieve this; or

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- Using a water supply control valve that has an available threaded (NPT) supply-side tap design to allow for a direct water supply connection to the Model AGCX Deluge Valve's push-rod chamber.

Caution: AG Sprinkler AGCX valve is designed with an inlet restriction built into the pushrod chamber. It is important not to introduce additional restrictions into the direct water supply connection or the discharge from the pushrod chamber by installing additional valves or improperly installing the copper lines used in the trim of the valve.

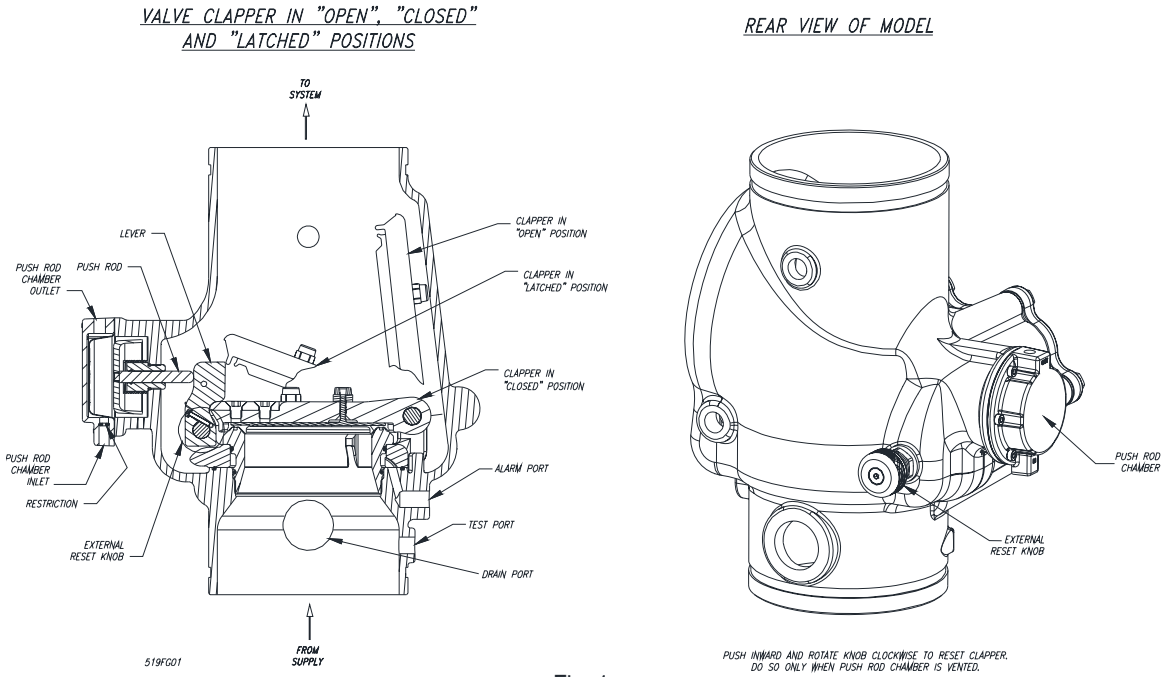

Fig. 1

HYDROSTATIC TESTING OF AGCX VALVES AND AGCX SYSTEMS

As required by NFPA 13, fire sprinkler systems with working pressures up to and including 150 psi are to be hydrostatically tested at a water pressure of 200 psi and maintain that pressure without loss for two hours. Fire sprinkler systems with working pressures above 150 psi are required to be hydrostatically tested at 50 psi above the system working pressure and maintain that pressure without loss for two hours. In addition to the hydrostatic tests described above, dry pipe and double interlock preaction systems require an additional low pressure air test.

In some cases, hydrostatic testing (in accordance with the NFPA 13 requirements noted above) will result in pressures that exceed the working pressure of the valve and trim kit for the two-hour test period. The valve and applicable trim kit have been tested, approved and listed under these conditions and as such, hydrostatic testing in accordance with NFPA 13 is acceptable. In addition, the clapper can remain in the closed position and the trim kit need not be isolated, as each has been designed to withstand hydrostatic testing as required by NFPA 13.

Hydrostatically testing the valve and trim to pressures higher than their rating is limited to the hydrostatic test as referenced by NFPA 13. It does not address the occurrence(s) of a "water hammer" effect, which can indeed damage the valve. A "water hammer" in the water supply piping of the valve can create pressures in excess of the rated pressure and should be avoided by all necessary means. This condition may be created from improper fire pump settings, underground construction work, or an improper venting of trapped air in the water supply piping.

ENGINEERING SPECIFICATION

2" (50 mm), 2½" (65 mm) , 3" (80 mm), 4" (100 mm) , 6" (150 mm) and 8" (200 mm) Model AGCX Deluge Valve

Deluge valve shall be a [2" (50 mm)][2½" (65 mm)] [3" (80 mm)][4" (100 mm)][6" (150 mm][8" (200 mm] [cULus Listed] [Factory Mutual Approved] hydraulically operated, differential latching clapper type valve. Deluge valve construction shall be of lightweight, ductile iron construction with either a "screw in" stainless steel seat and clapper assembly or drop in bronze seat and clapper assembly. Stainless steel or Bronze seat shall have O-ring seals to resist leakage and corrosion. Clapper

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facing shall be pressure actuated, providing a limited compression seat for the sealing force between the clapper rubber facing and the valve seat. Deluge valve shall have an external reset knob for resetting the clapper without requiring the removal of the valve face plate. Push-rod chamber design shall consist of a stainless steel piston/ push-rod and spring assembly with diaphragm seal secured to the casting through a push-rod guide constructed of a synthetic engineering plastic to resist corrosion. Casting shall have a bleeder hole located on the pushrod chamber for air/water leakage indication. Trip ratio shall be approximately a 3:1 force differential. Deluge valve shall be of the straight through design to minimize friction loss. Deluge valve shall be activated by [hydraulic wet-pilot][low pressure, pneumatic dry-pilot][electric] actuation trim. Inlet restriction orifice shall be factory installed into the inlet port of the deluge valve push-rod cover plate and not be a separate part of the deluge valve trim. End connection style to be [2" (50 mm)] [2½" (65 mm)][76 mm] [3" (80 mm)][4" (100 mm)][165 mm] [6" (150 mm)][8" (200mm)] grooved per ANSI/AWWA C606 or flanged per ASME 16.5 or ISO 7005. Deluge valve shall have a rated working pressure of 250 psi (17,2 bar) for 2" (50mm), 2½" (65mm), 3" (80mm), 76mm and 8" (200mm) valve sizes or 300 psi (20,7 bar) for 4" (100mm), 6" (150mm) and 165mm valve sizes and shall be factory hydrostatic tested at 500 psi (34,5 bar) for 2" (50mm), 2½" (65mm), 3" (80mm), 76mm and 8" (200mm) valve sizes or 600 psi (41,4 bar) for 4" (100mm), 6" (150mm) and 165mm valve sizes.

Deluge valve to be [2" (50 mm)][2½" (65 mm)] [3" (80 mm)][4" (100 mm)][6" (150 mm][8" (200 mm)] AG Sprinkler Model AGCX Deluge Valve (Bulletin 519).

WET PILOT LINE TRIM

Deluge valve wet pilot line trim shall be galvanized and include a 1¼" main drain on 2" (50 mm), 2½" (65 mm) and 3" (80 mm) valve sizes or a 2" main drain on 4" (100 mm), 6" (150 mm) and 8" (200 mm) valve sizes, alarm line test, water pressure gauges, pushrod chamber supply connections, manual emergency release valve, connection for wet pilot line of detectors, and 4" diameter drip cup assembly. Condensate drain trim shall also be included to prevent water columning above the clapper. The wet pilot line detection piping shall be ½" galvanized pipe and extend from the deluge valve push-rod chamber outlet to the protected area. Maximum wet pilot line length and height shall be in accordance with manufacturer's guidelines (see Fig. 2). Wet pilot line shall utilize AG Sprinkler Model F1-FTR fixed temperature release pilot line detectors spaced and positioned in accordance with the device listing or in accordance with NFPA 72 as fixed temperature heat detectors.

DRY PILOT LINE TRIM

Dry pilot line trim to be used in areas:

- Where ambient temperatures are expected to exceed 150 °F (65 °C)
- Subject to freezing
- Maximum wet pilot line height and/or length are exceeded

Deluge valve dry pilot line trim shall be galvanized pipe and include Model AGLP Dry Pilot Line Actuator, a 1¼" main drain on 2" (50 mm), 2½" (65 mm) and 3" (80 mm) valve sizes or a 2" main drain on 4" (100 mm), 6" (150 mm) and 8" (200 mm) valve sizes, alarm line test, air and water pressure gauges, push-rod chamber supply connections, manual emergency release valve, pressure relief valve, low air pressure switch, connections for dry pilot line of detectors and 4" diameter drip cup assembly. Condensate drain trim shall also be included to prevent water from columning above the clapper. Dry pilot line detection piping shall be ½" galvanized pipe and extend from the deluge valve push-rod chamber outlet to the protected area. Dry pilot line shall utilize AG Sprinkler Model F1-FTR fixed temperature release pilot line detectors spaced and positioned in accordance with the device listing or in accordance with NFPA 72 as fixed temperature heat detectors.

ELECTRIC ACTUATION TRIM

Deluge valve electric trim shall be galvanized pipe and include a normally closed, powered open electric solenoid valve, a 1¼" main drain on 2" (50 mm), 2½" (65 mm), 3" (80 mm) valve sizes or a 2" main drain on 4" (100 mm), 6" (150 mm) and 8" (200 mm) valve sizes, alarm line test, water pressure gauges, push-rod chamber supply connections, manual emergency release valve, and 4" diameter drip cup assembly. Condensate drain trim shall also be included to prevent water from columning above the clapper.

STANDARD SOLENOID VALVE SPECIFICATIONS:

Skinner Model 73218BN4UNLVN0C111C2
Rated working pressure: 175 psi (12,1 bar)
Voltage: 24 VDC
Power: 10 Watts
Current: 0.41 Amps Holding
Enclosure Coil: NEMA 4X
Pipe Size: ½" NPT Female
Cv Factor: 4.0

-More options available

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ALTERNATE SOLENOID VALVE SPECIFICATIONS FOR 300psi (20.7bar):

Skinner Model 73212BN4TNLVN0C322C2
Rated working pressure: 300 psi (20,7 bar)
Voltage: 24 VDC
Power: 22 Watts
Current: 0.83 Amps Holding
Enclosure Coil: NEMA 4X
Pipe Size: ½" NPT Female
Cv Factor: 2.8

-more options available.

ELECTRO-PNEUMATIC ACTUATION TRIM

Deluge valve electro-pneumatic trim to be used in cases where it is advantageous to keep the solenoid dry, such as seawater installations.

Deluge valve electro-pneumatic trim shall be galvanized pipe and include a normally closed powered open electric solenoid valve, a Model AGLP Dry Pilot Line Actuator, a 1¼" main drain on 2" (50 mm), 2½" (65 mm), and 3" (80 mm) valve sizes or a 2" main drain on 4" (100 mm), 6" (150 mm) and 8" (200 mm) valve sizes, alarm line test, air and water pressure gauges, push-rod chamber supply connections, manual emergency release valve, pressure relief valve, low air pressure switch and 4" diameter drip cup assembly. Condensate drain trim shall also be included to prevent water from columning above the clapper.

COMBINATION OF ELECTRIC OR DRY PILOT LINE TRIM

Deluge valve with combination of electric or pneumatic trim to be used in cases where it is advantageous to maintain a dual actuation with both an electric or a dry pilot trim.

Deluge valve electro-pneumatic trim shall be galvanized pipe and include a normally closed powered open electric solenoid valve, a Model AGLP Dry Pilot Line Actuator, a 1¼" main drain on 2" (50 mm), 2½" (65 mm), and 3" (80 mm) valve sizes or a 2" main drain on 4" (100 mm), 6" (150 mm) and 8" (200 mm) valve sizes, alarm line test, air and water pressure gauges, push-rod chamber supply connections, manual emergency release valve, pressure relief valve, low air pressure switch, connections for dry pilot line of detectors and 4" diameter drip cup assembly. Condensate drain trim shall also be included to prevent water from columning above the clapper.

Dry pilot line detection piping shall be ½" galvanized pipe and extend from the deluge valve push-rod chamber outlet to the protected area. Dry pilot line shall utilize AG Sprinkler Model F1-FTR fixed temperature release pilot line detectors spaced and positioned in accordance with the device listing or in accordance with NFPA 72 as fixed temperature heat detectors.

MODEL AGCX DELUGE VALVE DESCRIPTION

1. Rated working pressure:
   Valve & System - 250 psi (17.2 bar) for 2" (50mm), 2½" (65mm), 3" (80mm), 8" (200mm) valve sizes or 300 psi (20,7 bar) for 4" (100mm), 6" (150mm) valve sizes).
2. Factory tested to a hydrostatic pressure of 500 psi (34,5 bar) for 2" (50mm), 2½" (65mm), 3" (80mm), 8" (200mm) valve sizes or 600 psi (41,4 bar) for 4" (100mm), 6" (150mm) valve sizes). (Valve only)
3. Installation position: Vertical
4. End and trim connections:
   - ANSI/AWWA C606 grooved inlet and outlet
   - Threaded openings Per ANSI B 2.1
   - Flange Dimensions

Flange Type:	Nominal Pipe Size	Bolt Circle Diameter	Bolt Hole Diameter	Flange Outside Diameter	Flange Thickness	Number of Bolts
AMSE B16.5 Class 150	4" (100mm)	7 ½" (191mm)	¾" (19mm)	9" (229mm)	15/16" (24mm)	8
ISO 7005-2 PN16	4" (100mm)	73/32" (180mm)	¾" (19mm)	9" (229mm)	15/16" (24mm)	8
AMSE B16.5 Class 150	6" (150mm)	9½" (241mm)	7/8" (22mm)	11" (279mm)	15/16" (24mm)	8
ISO 7005-2 PN16	6" (150mm)	9 7/16" (240mm)	29/32" (23mm)	11" (279mm)	15/16" (24mm)	8
AMSE B16.5 Class 150	8" (200mm)	11 ¾" (298mm)	7/8" (22mm)	13½" (343mm)	1" (25.4mm)	8
ISO 7005-2 PN16	8" (200mm)	11 5/8" (295mm)	29/32" (23mm)	13½" (343mm)	1" (25.4mm)	12

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5. Face to face dimensions:

Valve Size:	End Connection:	End to End:
2" (50mm), 2 ½" (65mm), 3" (80mm)	Groove/ Groove	12 ½" (318mm)
4" (100mm)	Groove/ Groove	14" (356mm)
	Flange/ Groove	16" (406mm)
	Flange/ Flange	16" (406mm)
6" (150mm)	Groove/ Groove	16" (406mm)
	Flange/ Groove	19" (483mm)
	Flange/ Flange	19" (483mm)
8" (200mm)	Groove/ Groove	19 3/8" (492mm)
	Flange/ Flange	21 ¼" (540mm)

6. Valve Shipping Weight:

Valve Size:	End Connection:	Weight:
2" (50mm), 2 ½" (65mm), 3" (80mm)	Groove/ Groove	34 lbs (15 kg)
4" (100mm)	Groove/ Groove	64 lbs (29 kg)
	Flange/ Groove	79 lbs (36 kg)
	Flange/ Flange	92 lbs (42 kg)
6" (150mm)	Groove/ Groove	95 lbs (43 kg)
	Flange/ Groove	122 lbs (56 kg)
	Flange/ Flange	138 lbs (69 kg)
8" (200mm)	Groove/ Groove	148 lbs (67 kg)
	Flange/ Flange	197 lbs (90 kg)

7. Trim Shipping Weight:

Trim Confi guration	2" (50 mm), 2½" (65 mm), 3" (80 mm)	4" (100 mm), 6" (150 mm), 8" (200 mm)
Wet Pilot Deluge	31 lbs (14 kg)	37 lbs (17 kg)
Dry Pilot Deluge	39 lbs (18 kg)	50 lbs (23 kg)
Electric Actuation Deluge	33 lbs (15 kg)	38 lbs (17 kg)
Electro-Pneumatic	42 lbs (19Kgr)	53 lbs (24Kgr)
Combination of Electric or Pneumatic Deluge.	42 lbs (19Kgr)	53 lbs (24Kgr)

8. Friction loss (Expressed in equivalent length of Schedule 40 pipe, based on Hazen & Williams formula:

Valve Size:	End Connection:		Cv
	C = 120	C = 100	
2" (50mm)	4.4 ft (1,3 m)	3.1 ft (1,0 m)	101
2 ½" (65mm)	6.0 ft (1,8 m)	4.3 ft (1,3 m)	236
3" (80mm)	12.6 ft (3,8 m)	9.0 ft (2,7 m)	254
4" (100mm)	14 ft (4,3 m)	10 ft (3,0 m)	469
6" (150mm)	29.4 ft (9,0 m)	20.9 ft (6,4 m)	886
8" (200mm)	53.5 ft (16,3 m)	38.1 ft (11,6 m)	1516

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MODEL AGCX HYDRAULIC FRICTION LOSS GRAPH

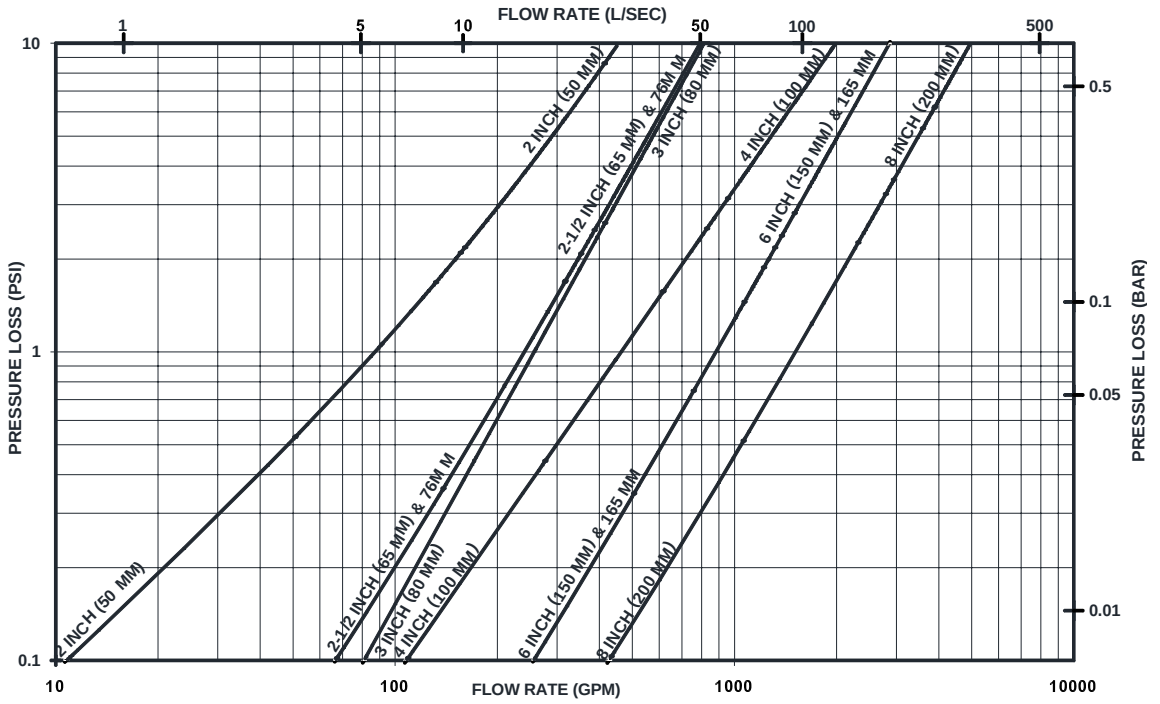

Fig. 3

Equivalent Length of Pipe	4,4´(1,3 m)	6,0´(1,8 m)	12,6´(3,8 m)	14,0´(4,3 m)	29,4´(9,0 m)	53,5´(16,3 m)
Cv Factor	101	236	254	469	886	1516
Valve Size	2" (50 mm)	2 1/2" (65 mm)	3" (80 mm)	4" (100 mm)	6" (150 mm)	8" (200 mm)

TRIM DESCRIPTIONS

The trims for the AG Sprinkler Model AGCX Deluge Valve are arranged for rapid, easy, and compact attachment, and serve as connection points to AG Sprinkler Mechanical Alarms and other devices.

The available Model AGCX Deluge Valve trim sets are:

- Wet Pilot Trim
- Dry Pilot Trim
- Electric Actuation Trim
- Electro-Pneumatic Trim
- Combination of Electric or Pneumatic Deluge Trim.

All trim configurations can be ordered as individual parts, in time-saving segmentally assembled kit forms, or fully assembled to the Model AGCX Deluge Valve (with or without a control valve).

The Hydraulic Manual Emergency Station (see Fig. 9) is a standard item of all Deluge Valve trim sets. It consists of an aluminum nameplate mechanically attached to a ball valve. The valve handle in its OFF position is guarded against accidental turning to the ON position (and system discharge) by a nylon cable tie provided with each trim kit. The cable tie is inserted, as shown in Fig. 9, after the system has been restored for operation. The nylon cable tie is designed to allow, in case of an emergency, forceful turning of the valve handle to the ON position. As an alternative to the Hydraulic Manual Emergency Station, the Hydraulic Manual Emergency Pull Box (see Bulletin 506) is also available and can be provided as an option.

Model F1-FTR fixed temperature pilot line detectors and spacing requirements are described in Bulletin 180.

WET PILOT LINE TRIM

Wet pilot line operation is the simplest method of Deluge Valve Actuation. The trim is a basic one and its components are included in all other AG Sprinkler Model AGCX Deluge Valve Trims regardless of application. Shown in Figures 4 & 5, it contains components required on all installations, such as a one and one quarter main drain on 2" (50 mm), 2½" (65 mm), 3" (80 mm) valve sizes or a two inch main drain on 4" (100 mm), 6" (150 mm) and 8" (200 mm) valve sizes, alarm test, supply and push rod chamber pressure gauges, and push rod chamber connections. The wet pilot line consists of a line of closed detectors (Model F1-FTR) located over the area to be protected. This line contains water under pressure and is connected

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to the outlet of the push rod chamber of the Deluge Valve. When one of the pilot line detectors actuates, the push rod chamber is vented and the Deluge Valve operates. The Deluge Valve can also be operated manually by opening the ball valve of the Hydraulic Manual Emergency Station (see Fig. 9) or the optional Hydraulic Manual Emergency Pull Box (see AG SPrinkler Bulletin 506).

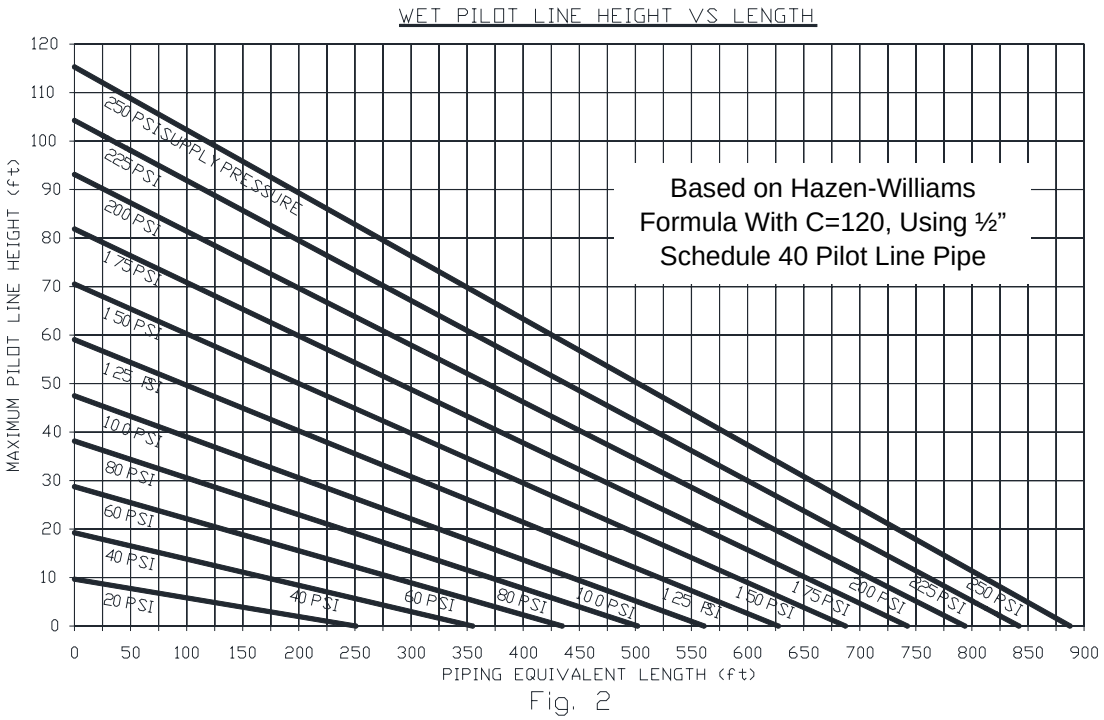

Fig. 2

The wet pilot line is only a detection system and does not contribute to controlling the fire. Its installation is subject to the following restrictions:

a) It is not to be installed in an area subject to freezing.
b) It is not to be installed in an area where temperatures in excess of 150°F (65°C) are anticipated.
c) NFPA 72 or the authority having jurisdiction should be consulted for spacing and elevation requirements.
d) Maximum wet pilot line length and height must comply with data provided in Fig. 2.

Wet Pilot Trim installation on Model AGCX Deluge Valves uses eight tapped openings for trim connections. Each opening and its function are indicated on Fig. 4 or Fig. 5. Using Fig. 4 or Fig. 5 as reference, the recommended trim installation is as follows:

1. Install ½" nipple (#33, Fig. 4 or #37, Fig. 5) in the tapped opening marked "TEST". **Note: If interference occurs between the supply gauge and the control valve, the 1/4" plug (#48, Fig. 4 or #50, Fig. 5) in the opening marked "SUPPLY" may be swapped with: the 1/4" nipple (#31, Fig. 4), angle valve (#9, Fig. 4) and gauge (#60, Fig. 4) for the 2" (50mm), 2-1/2" (65mm), and 3" (80mm) valve sizes; 1/4" nipple (#32, Fig. 5), 1/4" elbow (#23, Fig. 5), 1/4" nipple (#33, Fig. 5), 3-way valve (#61, Fig. 5) and the gauge (#62, Fig. 5) for the 4" (100mm) and 6" (150mm) valve sizes; 1/4" nipple (#33, Fig. 5), 3-way valve (#61, Fig. 5) and the gauge (#62, Fig. 5) for the 8" (200mm) valve size, in the trim installed in the opening marked "TEST".**

2. Install ½" nipple (#35, Fig. 4 or #34, Fig. 5) in the tapped opening marked "ALARM" and connect balance of this trim line.

3. Install ¼" plug (#48, Fig. 4 or #50, Fig. 5) in the tapped opening marked "SUPPLY." **Note: If interference occurs between the supply gauge and the control valve, the 1/4" plug (#48, Fig. 4 or #50, Fig. 5) in the opening marked "SUPPLY" may be swapped with: the 1/4" nipple (#31, Fig. 4), angle valve (#9, Fig. 4) and gauge (#60, Fig. 4) for the 2" (50mm), 2-1/2" (65mm) and 3" (80mm) valve sizes; 1/4" nipple (#32, Fig. 5), 1/4" elbow (#23, Fig. 5), 1/4" nipple (#33, Fig. 5), 3-way valve (#61, Fig. 5) and the gauge (#62, Fig. 5) for the 4" (100mm) and 6" (150mm) valve sizes; 1/4" nipple (#33, Fig. 5), 3-way valve (#61, Fig. 5) and the gauge (#62, Fig. 5) for the 8" (200mm) valve size, in the trim installed in the opening marked "TEST".**

4. Install ½" nipple (#32, Fig. 4 or #34, Fig. 5) in the tapped opening marked "OUT" and connect balance of this trim line.

5. Install ¼" inline check valve (#15, Fig. 4 or #14, Fig. 5) in the tapped opening marked "IN" and connect balance of this trim line. **Caution: Over tightening check valve can cause a restriction in fl ow that may prevent the valve from "setting up".**

6. Install 1¼" Nipple (#40, Fig. 4) or 2" nipple (#42, Fig. 5) in the tapped drain opening and connect balance of this trim line.

7. Install ¾ x ¼ reducing coupling (#44, Fig. 4 or #46, Fig. 5) in the lower-most tapped opening at the rear of the Deluge Valve and connect the balance of this trim line.

8. Install ¾" pipe plug (#50, Fig. 4 or #52, Fig. 5) in the upper- most tapped opening at the rear of the Deluge Valve

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Small AGCX Wet Pilot Line Trim (Refer to Fig. 4)

Item No.	Part No. Galvanized	Description	QTY.
1	VD050RR0	Valve Assembly, 2" (50mm) - For 2" Assembly Only	1
	VD065RR0	Valve Assembly, 2½" (65mm) For 2½" Assembly Only	
	VD080RR0	Valve Assembly, 3" (80mm) - For 3" Assembly Only	
2	VM050RA300V0	Butterfly Valve, 2" For 2" Assembly Only	1
	VM065RA300V0	Butterfly Valve, 2½" For 2½" Assembly Only	
	VM080RA300V0	Butterfly Valve, 3" For 3" Assembly Only	
3	OR80800	Rigid Coupling, 2" For 2" Assembly Only	2
	OR01000	Rigid Coupling, 2½" For 2½" Assembly Only	
	OR21200	Rigid Coupling, 3" - For 3" Assembly Only	
4	OR04002	Outlet Spool, 2" For 2" Assembly Only	1
	OR04001	Outlet Spool, 2½" - For 2½" Assembly Only	
	OR04003	Outlet Spool, 3" For 3" Assembly Only	
5	OR53000	Manual Emergency Station Assembly	1
6	OR53004	Valve Caution Station Assembly	1
7	VMDB015	Ball Drip Valve, ½"	1
8	99080002	Adhesive Pad	1
9	OR40101	Angle Valve, ¼"	1
10	OR40106	Angle Valve, 1¼"	1
11	A008794	Ball Valve, ¼" NPTF x ¼" NPTM	1
12	VRROMM008	Check Valve, ¼" NPTM x ¼" NPTF	1
13	VRR0015	Check Valve, Horizontal Swing, ½" NPT	1
14	VR0025	Check Valve, Horizontal Swing, 1" NPT	1
15	VRROMH008	Check Valve, Inline Poppet, ¼"	1
16	A008777	Compression Connector, 3/8" ID Tube x ¼" NPT	1
17	AG3055-9-1/4	Compression Connector, Elbow 3/8" ID Tube x ¼" NPT	1
18	0R56810	Connector, 3/8" ID Tube x ½" NPT	1
19	OR56705	Connector, Elbow, 3/8" ID Tube x ¼" NPT	1
20	OR86722	Copper Tubing, 3/8" OD x 2 ft.	1
21	OR16915	Deluge Valve Nameplate	1
22	D102-420DWV	Drain Cup, PVC	1
23	OR06270	Drain Hose Clip	1

Item No.	Part No. Galvanized	Description	QTY.
24	VH3112060G00	Elbow, ¼"	1
25	VH31120500G00	Elbow, 1"	1
26	OR74414	Elbow, 1¼"	1
27	OR20912	Flex Line, ½"	1
28	VGL008	Globe Valve, ¼"	1
29	VGL015	Globe Valve, ½"	1
30	VH310140NPTG	Nipple ¼" x 1½"	3
31	VH310138NPTG	Nipple ¼" x 4"	1
32	VH310135NPTG	Nipple ½" x 1½"	5
33	VH310134NPTG	Nipple ½" x 2"	4
34	VH310132NPTG	Nipple ½" x 3"	1
35	VH310104NPTG	Nipple ½" x Close	4
36	VH310124NPTG	Nipple ¾" x 2"	1
37	OR43263	Nipple 1" x 3"	2
38	A008801	Nipple 1" x Close	1
39	OR43239	Nipple 1¼" x 3"	1
40	OR43250	Nipple 1¼" x 4"	1
41	OR43285	Nipple 1¼" x Close	1
42	VH3120060G00	Pipe Cross, ½"	1
43	A008796	PVC Tubing, 3/8" ID x 6 ft.	1
44	A005001	Reducer Bushing, ¾" x ¼"	1
45	OR48022	Reducer Bushing, ¾" x ½"	1
46	40PVC	Reducer Bushing, 2" Spigot x 1" NPTF, PVC	1
47	OR41112	Retaining Tie	9
48	VH31100110G00	Square Head Plug, ¼"	2
49	VH31100110G00	Square Head Plug, ½"	2
50	VH3110011G00	Square Head Plug, ¾"	2
51	FILY008	Strainer, ¼"	1
52	OR74400	Street Elbow, ½"	2
53	VH31130G00	Tee, ½"	1
54	OR61649	Tee, ½" x ¼" x ½"	1
55	VH31139230G00	Tee, ½" x ½" x ¼"	1
56	VH3113921G00	Tee, ¾"	1
57	A008767	Tee, ¾" x ½" x ½"	1
58	96606630	Tee, 1¼" x 1¼" x 1"	1
59	VH3114030G00	Union, ½"	2
60	V3V008	Valve, 3-way, ¼"	1
61	MANAA300	Water Pressure Gauge (0-300 psi)	2
62	OR06255	Hose Clamp	2

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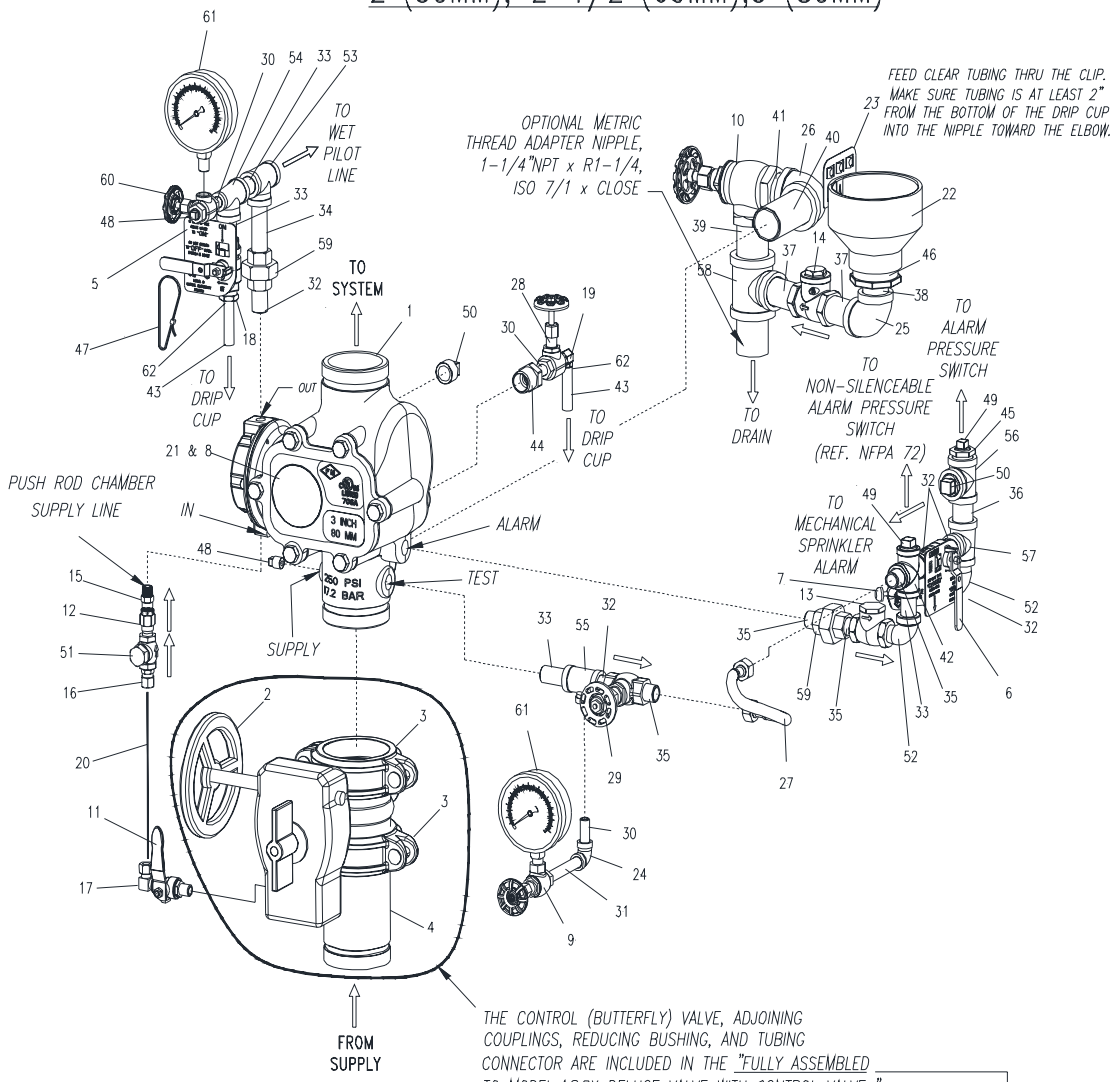
WET PILOT LINE DELUGE TRIM

2"(50MM), 2-1/2"(65MM),3"(80MM)



RECOMMENDED INSTALLATION LOCATION FOR A FIRE DEPT. CONNECTION (FDC) IS ABOVE THE MODEL AGCX DELUGE VALVE.

AVAILABLE TRIM CONFIGURATIONS:

- INDIVIDUAL PARTS (MODEL AGCX DELUGE VALVE SOLD SEPARATELY)
- SEGMENTALLY ASSEMBLED (MODEL AGCX DELUGE VALVE SOLD SEPARATELY)
- FULLY ASSEMBLED TO MODEL AGCX DELUGE VALVE WITHOUT CONTROL VALVE
- FULLY ASSEMBLED TO MODEL AGCX DELUGE VALVE WITH CONTROL VALVE*

* "FULLY ASSEMBLED TO MODEL AGCX DELUGE VALVE WITH CONTROL VALVE"

Fig. 4

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Large AGCX Wet Pilot Line Trim (Refer to Fig. 5)

Item No.	Part No.	Description	QTY.
	Galvanized		
1	VD100RR0	Valve Assembly, 4" (100mm) -For 4" Assembly Only	1
	VD150RR0	Valve Assembly, 6" (150mm) -For 6" Assembly Only	
	VD200RR0	Valve Assembly, 8" (200mm) -For 8" Assembly Only	
2	VM100RA300V0	Butterfly Valve, 4"- For 4" Assembly Only	1
	VM150RA300V0	Butterfly Valve, 6" – For 6" Assembly Only	
	VM200RA300V0	Butterfly Valve, 8" - For 8" Assembly Only	
3	OR61600	Rigid Coupling, 4" - For 4" Assembly Only	2
	OR42400	Rigid Coupling, 6" - For 6" Assembly Only	
	OR23200	Rigid Coupling, 8" - For 8" Assembly Only	
4	OR04004	Outlet Spool, 4" - For 4" Assembly Only	1
	OR04006	Outlet Spool, 6" - For 6" Assembly Only	
	OR04008	Outlet Spool, 8" - For 8" Assembly Only	
5	OR53000	Manual Emergency Station Assembly	1
6	OR53004	Valve Caution Station Assembly	1
7	VMDB015	Ball Drip Valve, ½"	1
8	99080002	Adhesive Pad	1
9	98840100	Angle Valve, 2"	1
10	A008794	Ball Valve, ¼" NPTF x ¼" NPTM	1
11	VRROMM008	Check Valve, ¼" NPTM x ¼" NPTF	1
12	VRR0015	Check Valve, Horizontal Swing, ½" NPT	1
13	VRR0025	Check Valve, Horizontal Swing, 1" NPT	1
14	VRROMH008	Check Valve, Inline Poppet, ¼"	1
15	A008797	Compression Connector, 3/8" ID Tube x ¼" NPT	1
16	AG3055-9-1/4	Compression Connector, Elbow 3/8" ID Tube x ¼" NPT	1
17	OR56810	Connector, 3/8" ID Tube x ½" NPT	1
18	OR56705	Connector, Elbow, 3/8" ID Tube x ¼" NPT	1
19	OR86722	Copper Tubing, 3/8" OD x 2 ft.	1
20	OR16915	Deluge Valve Nameplate	1
21	D102-420DWV	Drain Cup, PVC	1
22	OR06270	Drain Hose Clip	1
23	VH3112060G00	Elbow, ¼"	1
24	VH310101G00	Elbow, ¾"	1

Item No.	Part No.	Description	QTY.
	Galvanized		
25	VH31120500G00	Elbow, 1"	1
26	OR74405	Elbow, 2"	1
27	OR20912	Flex Line, ½"	1
28	VGL008	Globe Valve, ¼"	1
29	VGL015	Globe Valve, ½"	1
30	VH310140NPTG	Nipple ¼" x 1½"	1
31	OR73220	Nipple ¼" x 2½"	1
32	VD98543220	Nipple ¼" x 3"	1
33	VH310136NPTG	Nipple ¼" x 6"	1
34	VH310135NPTG	Nipple ½" x 1½"	9
35	VH310134NPTG	Nipple ½" x 2"	3
36	VH3103040NPTG	Nipple ½" x 3"	1
37	VH3103050NPTG	Nipple ½" x 3½"	1
38	VH3104000NPTG	Nipple ¾" x Close	2
39	A008803	Nipple 1" x 3½"	1
40	A008804	Nipple 1" x 6"	1
41	A008801	Nipple 1" x Close	1
42	OR43262	Nipple 2" x 3½"	2
43	VH310115NPTG	Nipple 2" x Close	1
44	VH3120060G00	Pipe Cross, ½"	1
45	A008796	PVC Tubing, 3/8" ID x 6 ft.	1
46	OR48025	Reducer Bushing, ¾" x ¼"	1
47	OR48022	Reducer Bushing, ¾" x ½"	1
48	40PVC	Reducer Bushing, 2" Spigot x 1" NPTF, PVC	1
49	OR41112	Retaining Tie	9
50	VH3110010G00	Square Head Plug, ¼"	3
51	VH3110160G00	Square Head Plug, ½"	2
52	VH3110011G00	Square Head Plug, ¾"	2
53	FILY008	Strainer, ¼"	1
54	VH31130G00	Tee, ½"	1
55	OR61649	Tee, ½" x ¼" x ½"	1
56	VH31139230G00	Tee, ½" x ½" x ¼"	1
57	VH31139210G00	Tee, ¾"	1
58	OR06612	Tee, ¾" x ½" x ½"	1
59	OR06627	Tee, 2" x 2" x 1"	1
60	VH3114030G00	Union, ½"	2
61	V3V008	Valve, 3-way, ¼"	2
62	MANAA300	Water Pressure Gauge (0-300 psi)	2
63	OR06255	Hose Clamp	2

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WET PILOT LINE DELUGE TRIM
4"(100MM), 6"(150MM),8"(200MM)

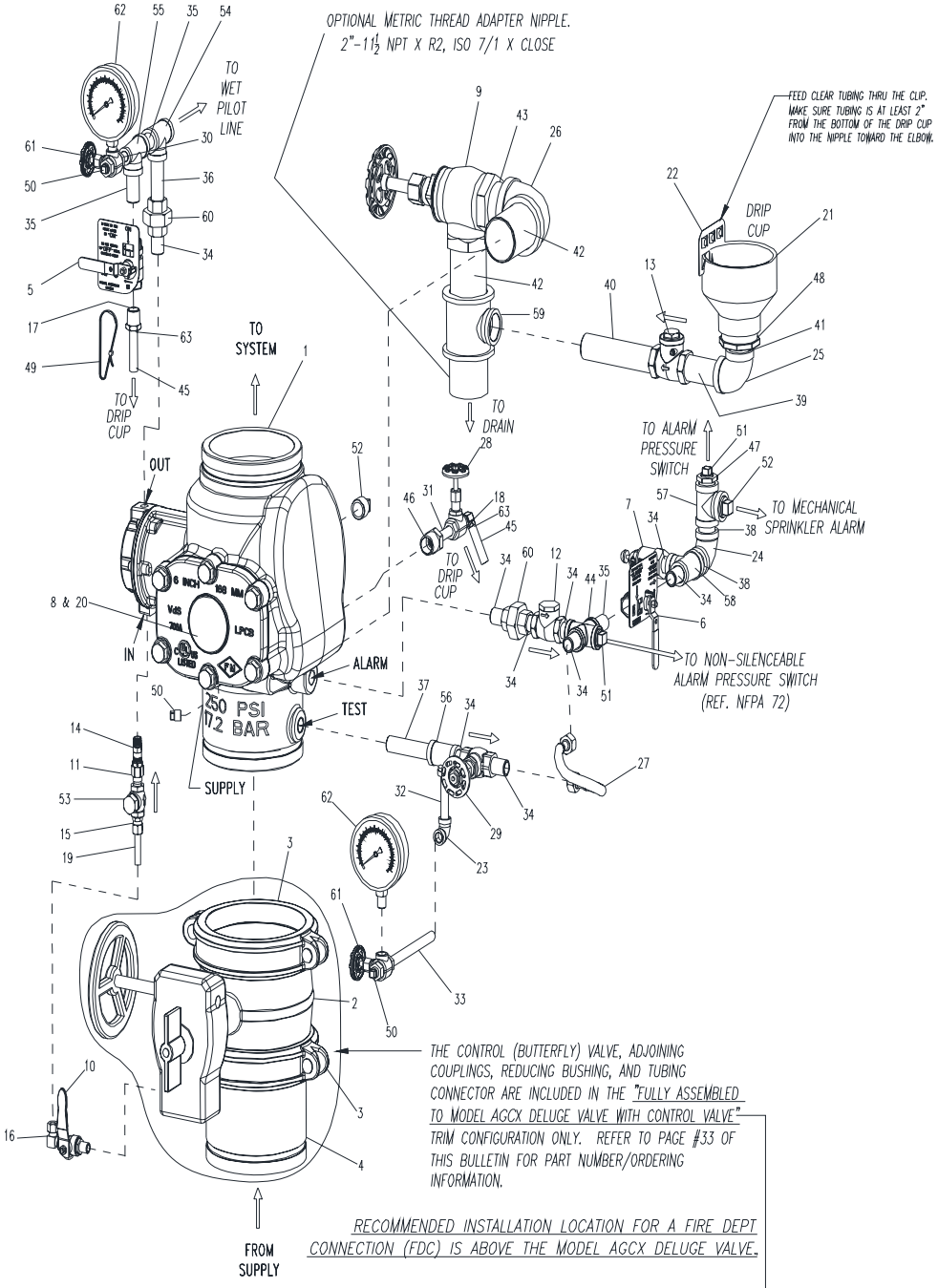

Fig. 5

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Dry Pilot Line Trim

Dry pilot line operation is used in areas which are subject to freezing conditions or to obtain installed sprinkler heights and pipe lengths greater than allowed for wet pilot line trim.

Dry pilot operation uses a pilot line of closed sprinklers (Model F1-FTR) containing air under pressure located in the area to be protected. This pressurized line is connected to a Model AGLP Dry Pilot Line Actuator. The dry pilot line actuator functions very much like a miniature dry pipe valve. In areas where moisture-laden air could cause freezing or other problems in the dry pilot line, the use of a cylinder of dry compressed gas such as nitrogen is suggested. Approved gas handling regulators and connections are then recommended. When one of the closed sprinklers on the dry pilot line actuates, the air pressure is reduced, thus opening the Model AGLP Dry Pilot Line Actuator, which releases the Deluge Valve. NFPA 72 or the Authority Having Jurisdiction should be consulted for spacing and elevation requirements of the pilot line sprinklers.

The Dry Pilot Line Trim, shown in Figures 7 and 8, includes gauges to read the air and water pressure, a low air pressure switch, a pressure relief valve, a Model AGLP Dry Pilot Line Actuator, and connections for the dry pilot line of detectors.

Dry Pilot Line Trim installation on Model AGCX Deluge Valves uses eight tapped openings for trim connections. Each opening and its function are indicated on Fig. 7 and Fig. 8. Using Fig. 7 and Fig. 8 as reference, the recommended trim installation is as follows:

1. Install ½" nipple (#39, Fig. 7 or #43, Fig. 8) in tapped opening marked "TEST". **Note: If interference occurs between the supply gauge and the control valve, the 1/4" plug (#57, Fig. 7 or #58, Fig. 8) in the opening marked "SUPPLY" may be swapped with: the 1/4" nipple (#37, Fig. 7), angle valve (#11, Fig. 7) and gauge (#71, Fig. 7) for the 2" (50mm), 2-1/2" (65mm), 76mm and 3" (80mm) valve sizes; 1/4" nipple (#37, Fig. 8), 1/4" elbow (#27, Fig. 8), 1/4" nipple (#38, Fig. 8), 3-way valve (#69, Fig. 8) and the gauge (#71, Fig. 8) for the 4" (100mm), 165mm and 6" (150mm) valve sizes; 1/4" nipple (#38, Fig. 8), 3-way valve (#69, Fig. 8) and the gauge (#71, Fig. 8) for the 8" (200mm) valve size, in the trim installed in the opening marked "TEST".**

2. Install ½" nipple (#42, Fig. 7 or #39, Fig. 8) in tapped opening marked "ALARM" and connect balance of this trim line.

3. Install ¼" plug (#57, Fig. 7 or #58, Fig. 8) in tapped opening marked "SUPPLY." **Note: If interference occurs between the supply gauge and the control valve, the 1/4" plug (#57, Fig. 7 or #58, Fig. 8) in the opening marked "SUPPLY" may be swapped with: the 1/4" nipple (#37, Fig. 7), angle valve (#11, Fig. 7) and gauge (#71, Fig. 7) for the 2" (50mm), 2-1/2" (65mm), 76mm and 3" (80mm) valve sizes; 1/4" nipple (#37, Fig. 8), 1/4" elbow (#27, Fig. 8), 1/4" nipple (#38, Fig. 8), 3-way valve (#69, Fig. 8) and the gauge (#71, Fig. 8) for the 4" (100mm), 165mm and 6" (150mm) valve sizes; 1/4" nipple (#38, Fig. 8), 3-way valve (#69, Fig. 8) and the gauge (#71, Fig. 8) for the 8" (200mm) valve size, in the trim installed in the opening marked "TEST".**

4. Install ½" nipple (#38, Fig. 7 or #39, Fig. 8) in tapped opening marked "OUT" and connect balance of this trim line.

5. Install ¼" inline check valve (#18, Fig. 7 or #17, Fig. 8) in tapped opening marked "IN" and connect balance of this trim line. **Caution:** Over tightening check valve can cause a restriction in flow that may prevent the valve from "setting up".

6. Install 1¼" Nipple (#47, Fig. 7) or 2" nipple (#48, Fig. 8) in tapped drain opening and connect balance of this trim line.

7. Install ¾" x ¼" reducing bushing (#52, Fig. 7 or #53, Fig. 8) in the lower-most tapped opening at the rear of the Deluge Valve and connect the balance of this trim line.

8. Install ¾" pipe plug (#59, Fig. 7 or #60, Fig. 8) in the upper-most tapped opening at the rear of the Deluge Valve.

Connect the air supply to the air inlet side of the Model AGLP Dry

Pilot Line Actuator as shown in Fig. 7 or Fig. 8. Table A specifies the air pressure to be used in a dry pilot line. The level of air pressure is adjusted by removing the cap nut on the end of the Relief Valve (#55, Fig. 7 or #56, Fig. 8) and turning the now exposed slotted adjusting screw clockwise to increase pressure or counterclockwise to reduce it. Replace the cap nut after the correct pressure setting has been made at 5 psi above the maximum pilot line pressure required by Table A. An appropriate automatic pressure maintenance device must be used to safeguard against the Deluge Valve tripping due to air pressure leaks in the dry pilot line. See Bulletin 254 for pressure maintenance device information.

Install the dry pilot line as required. Wire the low air pressure switch (#5, Fig. 7 or #5, Fig. 8) to an annunciating device or control panel. This low air pressure switch should be set to open at an air pressure which is slightly lower than the "Not Less Than" values found in Table A.

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Table A

Water Pressure psi (bar)	Pneumatic Pressure to be Pumped into Sprinkler System psi (bar)	
Maximum	Not Les Than	Not More Than
20 (1.4)	10 (.7)	14 (1.0)
50 (3.4)	12 (.8)	16 (1.1)
75 (5.2)	13 (.9)	17 (1.2)
100 (6.9)	15 (1.)	19 (1.3)
125 (8.6)	16 (1.1)	20 (1.4)
150 (10.3)	17 (1.2)	21 (1.4)
175 (12.1)	18 (1.2)	22 (1.5)
200 (13.8)	19 (1.3)	23 (1.6)
225 (15.5)	21 (1.4)	25 (1.7)
250 (17.2)	22 (1.5)	26 (1.8)
275 (19.)	23 (1.6)	27 (1.9)
300 (20.7)	24 (1.7)	28 (1.9)

Note: During system set-up, a higher pneumatic pressure may be required in order to properly set the Model AGLP Dry Pilot Line Actuator

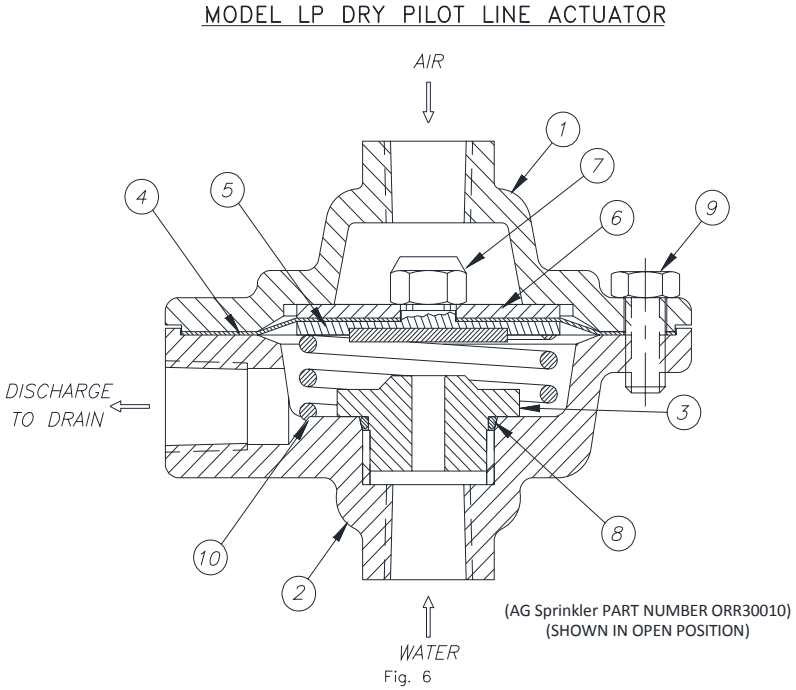

Fig. 6

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Model AGLP Dry Pilot Line Actuator Parts List VD3931037000

Item No.	Part No.	Description	Qty. Required
1	ORR06936	Lower Housing	1
2	ORR06935	Upper Housing	1
3	ORR06905	Seat	1
4	ORR06311	Diaphragm	1
5	ORR06911	Facing Plate Assembly	1
6	ORR06311	Diaphragm Washer	1
7	ORR06406	Facing Plate Nut	1
8	ORR06901	Seat O-Ring	1
9	ORR06305	Bolt	6
10	ORR06902	Compression Spring	1

Maintenance – Model AGLP Dry Pilot Line Actuator

Refer to Figs. 6 & 14

If water constantly flows through the Model AGLP Dry Pilot Line Actuator and into the drain, there is a leak in the seal of the Actuator's seat.

1. Close the main valve controlling water supply (Fig. 14) to the Dry Pipe Valve and close off the air/nitrogen supply to the sprinkler system. Close valve A (Fig. 14).

2. Drop pressure in the system by opening the ¼" angle valve, valve H (Fig. 14), and remove the Actuator from the system.

3. Remove all six bolts (#9, Fig. 6) holding the Actuator together. Clean or replace the facing plate assembly (#5, Fig. 6), seat (#3, Fig. 6) and seat o-ring (#8, Fig. 6).

4. Reassemble the Actuator, using a torque of 8 ft-lbs on the facing plate nut (#7, Fig. 6) and 12 ft-lbs on the six bolts (#9, Fig. 6). Use a cross-tightening pattern. Reinstall the Actuator. Set up the Model AGCX Deluge Valve as per the section "Resetting Model AGCX Deluge Valve System".

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Small AGCX Dry Pilot Line Trim (Refer to Fig. 7)

Item No.	Part No. Galvanized	Description	QTY.
1	VD050RR0	Valve Assembly, 2" (50mm) For 2" Assembly Only	1
	VD065RR0	Valve Assembly, 2½"(65mm) For 2½" Assembly Only	
	VD080RR0	Valve Assembly, 3" (80mm) For 3" Assembly Only	
2	VM050RA300V0	Butterfly Valve, 2" For 2" Assembly Only	1
	VM065RA300V0	Butterfly Valve, 2½" For 2½" Assembly Only	
	VM080RA300V0	Butterfly Valve, 3" For 3" Assembly Only	
3	OR080800	Rigid Coupling, 2" For 2" Assembly Only	2
	OR01000	Rigid Coupling, 2½" For 2½" Assembly Only	
	OR21200	Rigid Coupling, 3" - For 3" Assembly Only	
4	OR04002	Outlet Spool, 2" For 2" Assembly Only	1
	OR04001	Outlet Spool, 2½" - For 2½" Assembly Only	
	91004003	Outlet Spool, 3" For 3" Assembly Only	
5	SY1340404	Pressure Switch (EPS40-2) (UL/FM)	1
	SY1340404	Pressure Switch (EPSA40-2) (ULC)	
6	VD3931037000	Model AGLP Pilot Line Actuator	1
7	OR53000	Manual Emergency Station Assembly	1
8	OR53004	Valve Caution Station Assembly	1
9	VMDB015	Ball Drip Valve, ½"	1
10	OR80002	Adhesive Pad	1
11	OR40101	Angle Valve, ¼"	1
12	OR40106	Angle Valve, 1¼"	1
13	VRROMH008	Ball Valve, ¼" NPTF x ¼" NPTM	1
14	OR40109	Ball Valve, ½"	1
15	VRROMM008	Check Valve, ¼" NPTM x ¼" NPTF	1
16	VRRO015	Check Valve, Horizontal Swing, ½" NPT	1
17	VRRO025	Check Valve, Horizontal Swing, 1" NPT	1
18	VRROMH008	Check Valve, Inline Poppet, ¼"	1
19	A008797	Compression Connector, 3/8" ID Tube x ¼" NPT	1
20	Ag3055-9-1/4	Compression Connector, Elbow 3/8" ID Tube x ¼"NPT	1
21	A008811	Connector, 3/8" ID Tube x ½" NPT	1
22	A008809	Connector, Elbow, 3/8" ID Tube x ¼" NPT	1
23	OR56704	Connector, Elbow, 3/8" ID Tube x ½" NPT	1
24	A008808	Copper Tubing, 3/8" OD x 2 ft.	1
25	OR16915	Deluge Valve Nameplate	1
26	D102-420DW	Drain Cup, PVC	1
27	OR06270	Drain Hose Clip	1
28	VH3112060G00	Elbow, ¼"	1

Item No.	Part No. Galvanized	Description	QTY.
29	VH310100NPTG	Elbow, ½"	1
30	VH31120600G00	Elbow, 1"	1
31	OR74414	Elbow, 1¼"	1
32	OR20912	Flex Line, ½"	1
33	VGL008	Globe Valve, ¼"	1
34	VGL015	Globe Valve, ½"	1
35	VH310140NPTG	Nipple ¼" x 1½"	3
36	VD98543220	Nipple ¼" x 3"	1
37	VH310138NPTG	Nipple ¼" x 4"	1
38	VH310135NPTG	Nipple ½" x 1½"	11
39	VH310134NPTG	Nipple ½" x 2"	4
40	VH310132NPTG	Nipple ½" x 3"	1
41	VH310104NPTG	Nipple ½" x Close	2
42	VH310124NPTG	Nipple ¾" x 2"	4
43	OR43263	Nipple 1" x 3"	1
44	A008801	Nipple 1" x Close	2
45	OR43239	Nipple 1¼" x 3"	1
46	OR43250	Nipple 1¼" x 4"	1
47	OR43285	Nipple 1¼" x Close	1
48	VH3120060G00	Pipe Cross, ½"	1
49	A008796	PVC Tubing, 3/8" ID x 6 ft.	2
50	A005001	Reducer Bushing, ¾" x ¼"	1
51	OR48000	Reducer Bushing, ½" x ¼"	1
52	OR48025	Reducer Bushing, ¾" x ¼"	1
53	40PVC	Reducer Bushing, ¾" x ½"	2
54	OR48015	Reducer Bushing, 2" Spigot x 1" NPTF, PVC	1
55	A008638	Relief Valve, ½" NPT, 33 psi	1
56	OR41112	Retaining Tie	9
57	VH3110010G00	Square Head Plug, ¼"	3
58	VH31100110G00	Square Head Plug, ½"	2
59	VH3110011G00	Square Head Plug, ¾"	2
60	FILY008	Strainer, ¼"	1
61	OR74400	Street Elbow, ½"	2
62	VH3113030G00	Tee, ½"	3
63	OR61649	Tee, ½" x ¼" x ½"	1
64	VH31139230G00	Tee, ½" x ½" x ¼"	1
65	VH3113921G00	Tee, ¾"	1
66	A008767	Tee, ¾" x ½" x ½"	1
67	OR06630	Tee, 1¼" x 1¼" x 1"	1
68	VH3114030G00	Union, ½"	3
69	V3V008	Valve, 3-way, ¼"	2
70	MANAA80	Air Pressure Gauge (0-80 psi)	1
71	MANAA300	Water Pressure Gauge (0-300 psi)	2
72	OR06255	Hose Clamp	3

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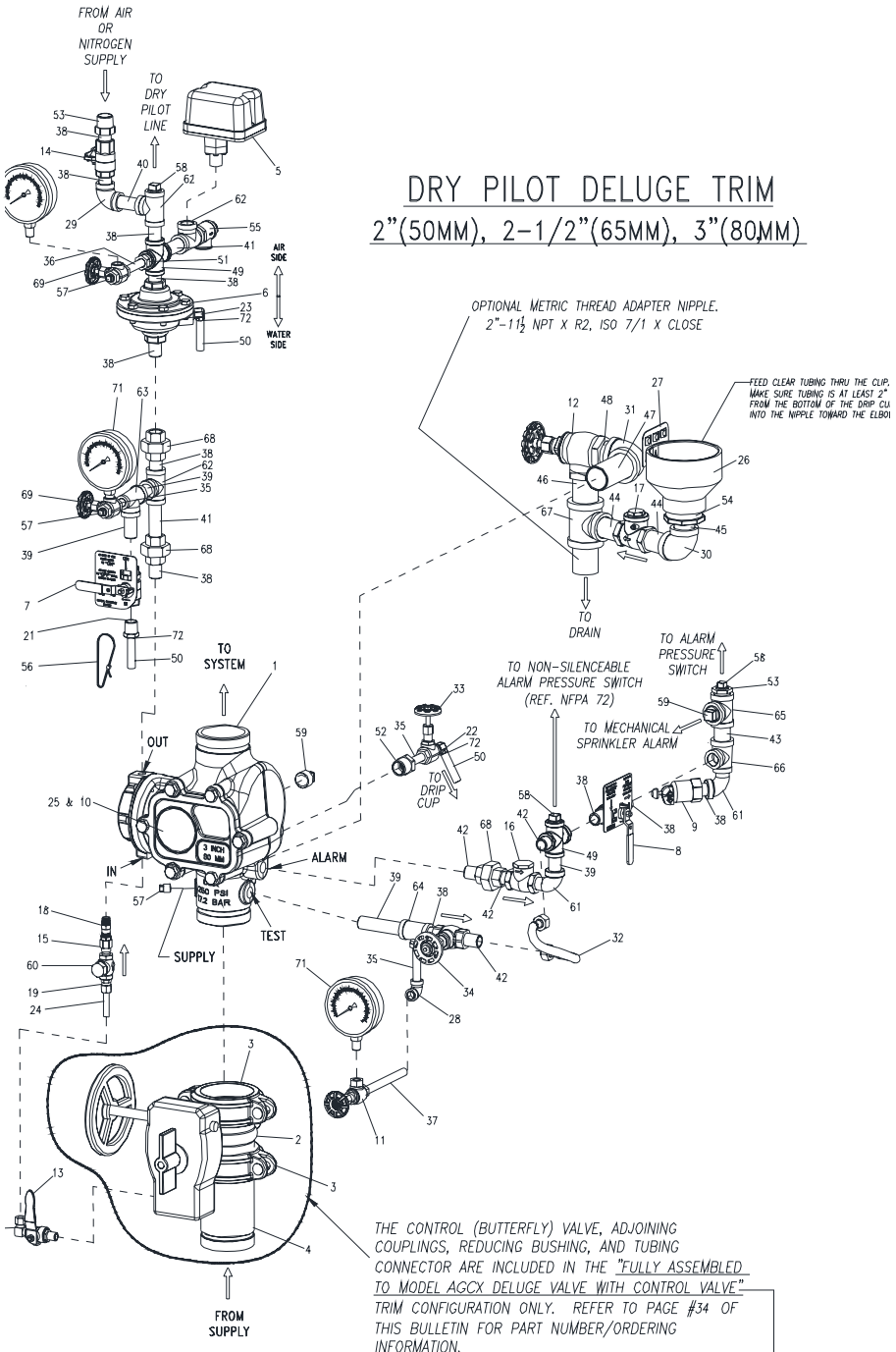

DRY PILOT DELUGE TRIM
2"(50MM), 2-1/2"(65MM), 3"(80MM)

THE CONTROL (BUTTERFLY) VALVE, ADJOINING COUPLINGS, REDUCING BUSHING, AND TUBING CONNECTOR ARE INCLUDED IN THE "FULLY ASSEMBLED TO MODEL AGCX DELUGE VALVE WITH CONTROL VALVE" TRIM CONFIGURATION ONLY. REFER TO PAGE #34 OF THIS BULLETIN FOR PART NUMBER/ORDERING INFORMATION.

RECOMMENDED INSTALLATION LOCATION FOR A FIRE DEPT. CONNECTION (FDC) IS ABOVE THE MODEL AGCX DELUGE VALVE.

AVAILABLE TRIM CONFIGURATIONS:

- INDIVIDUAL PARTS (MODEL AGCX DELUGE VALVE SOLD SEPARATELY)
- SEGMENTALLY ASSEMBLED (MODEL AGCX DELUGE VALVE SOLD SEPARATELY)
- FULLY ASSEMBLED TO MODEL AGCX DELUGE VALVE WITHOUT CONTROL VALVE
- FULLY ASSEMBLED TO MODEL AGCX DELUGE VALVE WITH CONTROL VALVE*

* "FULLY ASSEMBLED TO MODEL AGCX DELUGE VALVE WITH CONTROL VALVE"

519FG07

Fig. 7

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Large AGCX Dry Pilot Line Trim (Refer to Fig. 8)

Item No.	Part No. Galvanized	Description	QTY.
1	VD100RR0	Valve Assembly, 4" (100mm) -For 4" Assembly Only	1
	VD150RR0	Valve Assembly, 6" (150mm) -For 6" Assembly Only	
	VD200RR0	Valve Assembly, 8" (200mm) -For 8" Assembly Only	
2	VM100RA300V0	Butterfly Valve, 4"- For 4" Assembly Only	1
	VM150RA300V0	Butterfly Valve, 6" – For 6" Assembly Only	
	VM200RA300V0	Butterfly Valve, 8" - For 8" Assembly Only	
3	OR61600	Rigid Coupling, 4" - For 4" Assembly Only	2
	OR42400	Rigid Coupling, 6" - For 6" Assembly Only	
	OR23200	Rigid Coupling, 8" - For 8" Assembly Only	
4	OR04004	Outlet Spool, 4" - For 4" Assembly Only	1
	OR04006	Outlet Spool, 6" - For 6" Assembly Only	
	OR04008	Outlet Spool, 8" - For 8" Assembly Only	
5	SY1340404	Pressure Switch (EPS40-2) (UL/FM)	1
	SY1340404	Pressure Switch (EPSA40-2) (ULC)	
6	VD3931037000	Model AGLP Pilot Line Actuator	
7	OR53000	Manual Emergency Station Assembly	1
8	OR53004	Valve Caution Station Assembly	1
9	VMDB015	Ball Drip Valve, ½"	1
10	OR80002	Adhesive Pad	1
11	OR40100	Angle Valve, 2"	1
12	A008794	Ball Valve, ¼" NPTF x ¼" NPTM	1
13	OR40109	Ball Valve, ½"	1
14	VRROMM008	Check Valve, ¼" NPTM x ¼" NPTF	1
15	VRRO015	Check Valve, Horizontal Swing, ½" NPT	1
16	VRRO025	Check Valve, Horizontal Swing, 1" NPT	1
17	VRROMH008	Check Valve, Inline Poppet, ¼"	1
18	Ag3055-9-1/4	Compression Connector, 3/8" ID Tube x ¼" NPT	1
19	A008809	Compression Connector, Elbow 3/8" ID Tube x ¼" NPT	1
20	A008811	Connector, 3/8" ID Tube x ½" NPT	1
21	Ag3055-9-1/4	Connector, Elbow, 3/8" ID Tube x ¼" NPT	1
22	92056704	Connector, Elbow, 3/8" ID Tube x ½" NPT	1
23	A008808	Copper Tubing, 3/8" OD x 2 ft.	1
24	OR16915	Deluge Valve Nameplate	1
25	D102-420DWV	Drain Cup, PVC	1
26	OR06270	Drain Hose Clip	1
27	VH3112060G00	Elbow, ¼"	1
28	VH310100NPTG	Elbow, 1/2"	1
29	A004990	Elbow, ¾"	1
30	VH31120500G00	Elbow, 1"	1
31	OR74405	Elbow, 2"	1
32	OR20912	Flex Line, ½"	1
33	VGL008	Globe Valve, ¼"	1
34	VGL015	Globe Valve, ½"	1
35	VH310140NPTG	Nipple ¼" x 1½"	1
36	OR73220	Nipple ¼" x 2½"	1
37	VD98543220	Nipple ¼" x 3"	2
38	VH310136NPTG	Nipple ¼" x 6"	1
39	VH310135NPTG	Nipple ½" x 1½"	15
40	VH310134NPTG	Nipple ½" x 2"	3
41	VH310133NPTG	Nipple ½" x 2½"	1
42	VH310132NPTG	Nipple ½" x 3"	2
43	VH310131NPTG	Nipple ½" x 3½"	1
44	A004972	Nipple ¾" x Close	2
45	A008803	Nipple 1" x 3½"	1
46	A008804	Nipple 1" x 6"	1
47	A008801	Nipple 1" x Close	1
48	OR43262	Nipple 2" x 3½"	2
49	OR43238	Nipple 2" x Close	1
50	VH3120060G00	Pipe Cross, ½"	2
51	A008796	PVC Tubing, 3/8" ID x 6 ft.	1
52	OR48000	Reducer Bushing, ½" x ¼"	1
53	OR48025	Reducer Bushing, ¾" x ¼"	1
54	OR48022	Reducer Bushing, ¾" x ½"	2
55	40PVC	Reducer Bushing, 2" Spigot x 1" NPTF, PVC	1
56	A008638	Relief Valve, ½" NPT, 33 psi	1
57	OR41112	Retaining Tie	9
58	VH3110010G00	Square Head Plug, ¼"	4
59	VH31100110G00	Square Head Plug, ½"	3
60	VH3110011G00	Square Head Plug, ¾"	2
61	FILY008	Strainer, ¼"	1
62	VH31139230G00	Tee, ½"	3
63	OR61649	Tee, ½" x ¼" x ½"	1
64	VH31139230G00	Tee, ½" x ½" x ¼"	1
65	VH3113921G00	Tee, ¾"	1
66	A008767	Tee, ¾" x ½" x ½"	1
67	OR06627	Tee, 2" x 2" x 1"	1
68	VH3114030G00	Union, ½"	3
69	V3V008	Valve, 3-way, ¼"	3
70	MANAA80	Air Pressure Gauge (0-80 psi)	1
71	MANAA300	Water Pressure Gauge (0-300 psi)	2
72	OR06255	Hose Clamp	3

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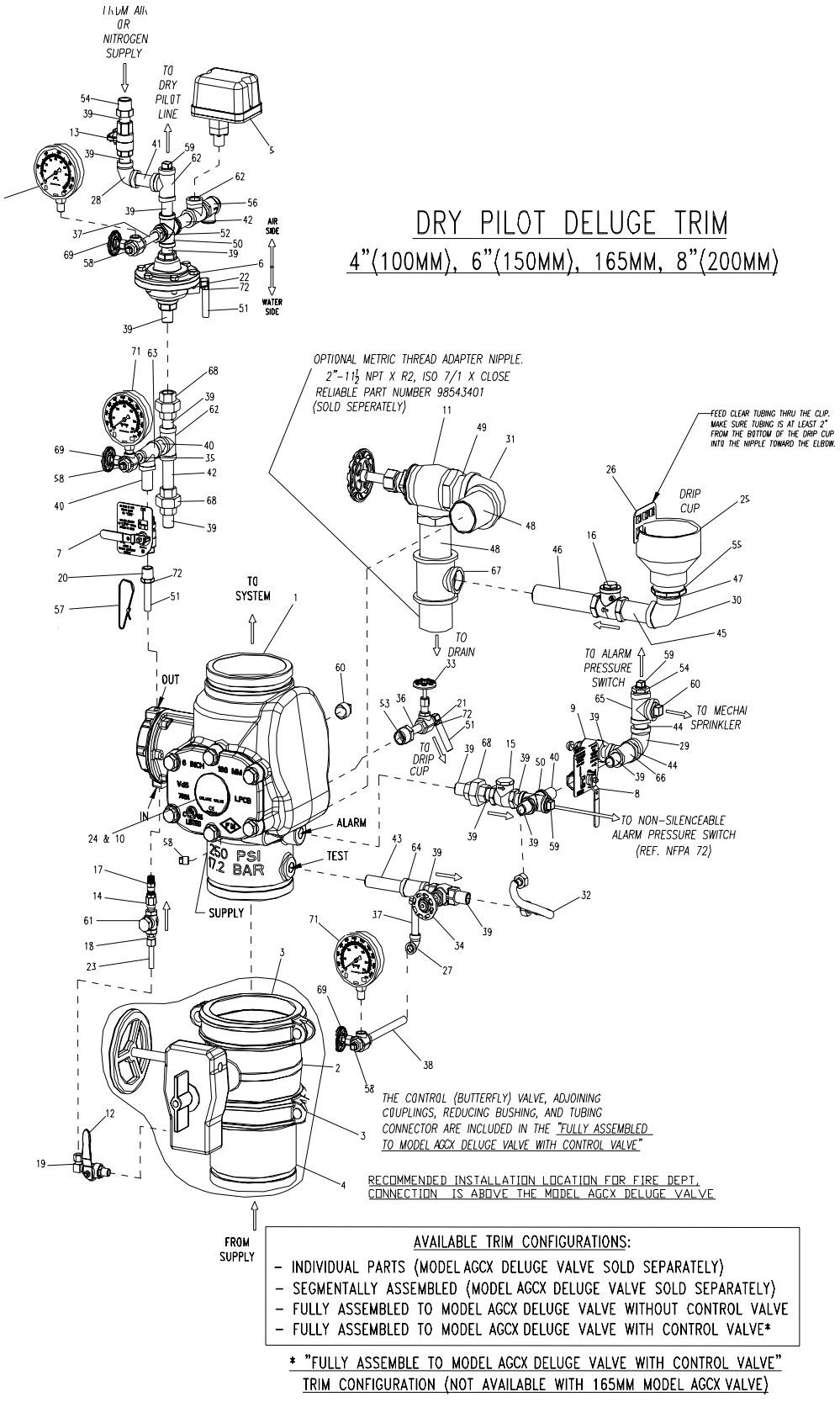

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Electric Actuation Trim

Electric Actuation trim (see Figures 10 and 11) combines a normally closed/powered-open solenoid valve with the Wet Pilot Trim for releasing the Deluge Valve. The solenoid valve used in the assembly is available in both a 175 psi (12,1 bar) or 300 psi (20,7 bar) rating. Details on the electrical portion of this trim can be found in AG Sprinkler Bulletin 700, which describes Deluge and Preaction Systems.

Caution: Repairs or disassembly of the solenoid valve should only be done by a trained technician. An improperly repaired or partially assembled solenoid valve could result in failure of the valve to operate.

Electric Actuation Trim installation on Model AGCX Deluge Valves uses eight tapped openings for trim connections. Each opening and its function are indicated on Fig. 10 or Fig. 11. Using Fig. 10 or Fig. 11 as reference, the recommended trim installation is as follows:

1. Install ½" nipple (#35, Fig. 10 or #39, Fig. 11) in tapped opening marked "TEST." **Note: If interference occurs between the supply gauge and the control valve, the 1/4" plug (#50, Fig. 10 or #52, Fig. 11) in the opening marked "SUPPLY" may be swapped with: the 1/4" nipple (#32, Fig. 10), angle valve (#10, Fig. 10) and gauge (#63, Fig. 10) for the 2" (50mm), 2-1/2" (65mm), 76mm and 3" (80mm) valve sizes; 1/4" nipple (#34, Fig. 11), 1/4" elbow (#25, Fig. 11), 1/4" nipple (#35, Fig. 11), 3-way valve (#63, Fig. 11) and the gauge (#64, Fig. 11) for the 4" (100mm), 165mm and 6" (150mm) valve sizes; 1/4" nipple (#35, Fig. 11), 3-way valve (#63, Fig. 11) and the gauge (#64, Fig. 11) for the 8" (200mm) valve size, in the trim installed in the opening marked "TEST".**
2. Install ½" nipple (#37, Fig. 10 or #36, Fig. 11) in tapped opening marked "ALARM" and connect balance of this trim line.
3. Install ¼" plug (#50, Fig. 10 or #52, Fig. 11) in tapped opening marked "SUPPLY." **Note: If interference occurs between the supply gauge and the control valve, the 1/4" plug (#50, Fig. 10 or #52, Fig. 11) in the ,opening marked "SUPPLY" may be swapped with: the 1/4" nipple (#32, Fig. 10), angle valve (#10, Fig. 10) and gauge (#63, Fig. 10) for the 2" (50mm), 2-1/2" (65mm), 76mm and 3" (80mm) valve sizes; 1/4" nipple (#34, Fig. 11), 1/4" elbow (#25, Fig. 11), 1/4" nipple (#35, Fig. 11), 3-way valve (#63, Fig. 11) and the gauge (#64, Fig. 11) for the 4" (100mm), 165mm and 6" (150mm) valve sizes; 1/4" nipple (#35, Fig. 11), 3-way valve (#63, Fig. 11) and the gauge (#64, Fig. 11) for the 8" (200mm) valve size, in the trim installed in the opening marked "TEST".**

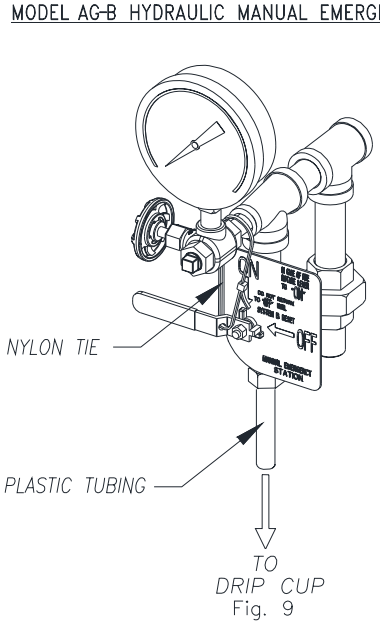

Fig. 9

4. Install ½" nipple (#34, Fig. 10 or #36, Fig. 11) in tapped opening marked "OUT" and connect balance of this trim line.
5. Install ¼" inline check valve (#16, Fig. 10 or #15, Fig. 11) in tapped opening marked "IN" and connect balance of this trim line. Supply line must be connected to the inlet mof the control valve for each Deluge Valve as shown. **Caution:** Over tightening check valve can cause a restriction in flow that may prevent the valve from "setting up".
6. Install 1¼" Nipple (#42, Fig. 10) or 2" nipple (#44, Fig. 11) in tapped drain opening and connect balance of this trim line.
7. Install ¾" x ¼" reducing bushing (#46, Fig. 10 or #48, Fig. 11) in the lower-most tapped opening at the rear of the Deluge Valve and connect the balance of this trim line.
8. Install ¾" pipe plug (#52, Fig. 10 or #54, Fig. 11) in the upper-most tapped opening at the rear of the Deluge Valve.

Maintenance

AG Sprinkler Deluge Valves and associated equipment shall periodically be given a thorough inspection and test. NFPA 25 provides minimum requirements for inspection, testing and maintenance. The Deluge Valve should be tested, operated, cleaned, and inspected at least annually and parts replaced as required.

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Small AGCX Electric Actuation Trim (Refer to Fig. 10)

Item No.	Part No. Galvanized	Description	QTY.
1	VD050RR0	Valve Assembly, 2" (50mm) For 2" Assembly Only	1
	VD065RR0	Valve Assembly, 2½"(65mm) For 2½" Assembly Only	
	VD080RR0	Valve Assembly, 3" (80mm) For 3" Assembly Only	
2	VM050RA300V0	Butterfly Valve, 2" For 2" Assembly Only	1
	VM065RA300V0	Butterfly Valve, 2½" For 2½" Assembly Only	
	VM080RA300V0	Butterfly Valve, 3" For 3" Assembly Only	
3	OR80800	Rigid Coupling, 2" For 2" Assembly Only	2
	OR01000	Rigid Coupling, 2½" For 2½" Assembly Only	
	OR21200	Rigid Coupling, 3" - For 3" Assembly Only	
4	OR04002	Outlet Spool, 2" For 2" Assembly Only	1
	OR04001	Outlet Spool, 2½" - For 2½" Assembly Only	
	OR04003	Outlet Spool, 3" For 3" Assembly Only	
5	IOM7211	Solenoid Valve, 175 psi Rated	1
	OR20000	Solenoid Valve, 300 psi Rated	
6	OR53000	Manual Emergency Station Assembly	1
7	OR53004	Valve Caution Station Assembly	1
8	VMDB015	Ball Drip Valve, ½"	1
9	OR80002	Adhesive Pad	1
10	OR40101	Angle Valve, ¼"	1
11	OR40106	Angle Valve, 1¼"	1
12	A008794	Ball Valve, ¼" NPTF x ¼" NPTM	1
13	VRROMM008	Check Valve, ¼" NPTM x ¼" NPTF	1
14	VRRO015	Check Valve, Horizontal Swing, ½" NPT	1
15	VRRO025	Check Valve, Horizontal Swing, 1" NPT	1
16	VRROMH008	Check Valve, Inline Poppet, ¼"	1
17	A008797	Compression Connector, 3/8" ID Tube x ¼" NPT	1
18	AG3055-9-1/4	Compression Connector, Elbow 3/8" ID Tube x ¼"NPT	1
19	A008811	Connector, 3/8" ID Tube x ½" NPT	1
20	A008809	Connector, Elbow, 3/8" ID Tube x ¼" NPT	1
21	OR56704	Connector, Elbow, " ID Tube x ½" NPT	1
22	A008808	Copper Tubing, " OD x 2	1

Item No.	Part No. Galvanized	Description	QTY.
23	OR16915	Deluge Valve Nameplate	1
24	D102-420CWV	Drain Cup, PVC	1
25	OR06270	Drain Hose Clip	1
26	VH3112060G00	Elbow, ¼"	1
27	VH31120500G00	Elbow, 1"	1
28	OR74414	Elbow, 1¼"	1
29	OR20912	Flex Line, ½"	1
30	VGL008	Globe Valve, ¼"	1
31	VGL015	Globe Valve, ½"	1
32	VH310140NPTG	Nipple ¼" x 1½"	3
33	VH310138NPTG	Nipple ¼" x 4"	1
34	VH310135NPTG	Nipple ½" x 1½"	6
35	VH310134NPTG	Nipple ½" x 2"	4
36	VH310104NPTG	Nipple ½" x Close	1
37	VH310124NPTG	Nipple ¾" x 2"	4
38	OR43263	Nipple 1" x 3"	1
39	A008801	Nipple 1" x Close	2
40	OR43239	Nipple 1¼" x 3"	1
41	OR43250	Nipple 1¼" x 4"	1
42	OR43285	Nipple 1¼" x Close	1
43	VH3120060G00	Pipe Cross, ½"	1
44	A0088796	PVC Tubing, 3/8" ID x 6 ft.	1
45	OR48025	Reducer Bushing, ¾" x ¼"	1
46	OR48025	Reducer Bushing, ¾" x ¼"	1
47	OR48022	Reducer Bushing, ¾" x ½"	2
48	40PVC	Reducer Bushing, 2" Spigot x 1" NPTF, PVC	1
49	OR41112	Retaining Tie	9
50	VH3110010G00	Square Head Plug, ¼"	2
51	VH31100110G00	Square Head Plug, ½"	2
52	VH3110011G00	Square Head Plug, ¾"	2
53	FILY008	Strainer, ¼"	1
54	OR74400	Street Elbow, ½"	2
55	VH3113030G00	Tee, ½"	1
56	98761649	Tee, ½" x ¼" x ½"	1
57	VH31139230G00	Tee, ½" x ½" x ¼"	1
58	VH3113921G00	Tee, ¾"	1
59	A008767	Tee, ¾" x ½" x ½"	1
60	OR06630	Tee, 1¼" x 1¼" x 1"	1
61	VH3114030G00	Union, ½"	2
62	V3V008	Valve, 3-way, ¼"	1
63	MANAA300	Water Pressure Gauge (0-300 psi)	2
64	OR06255	Hose Clamp	3

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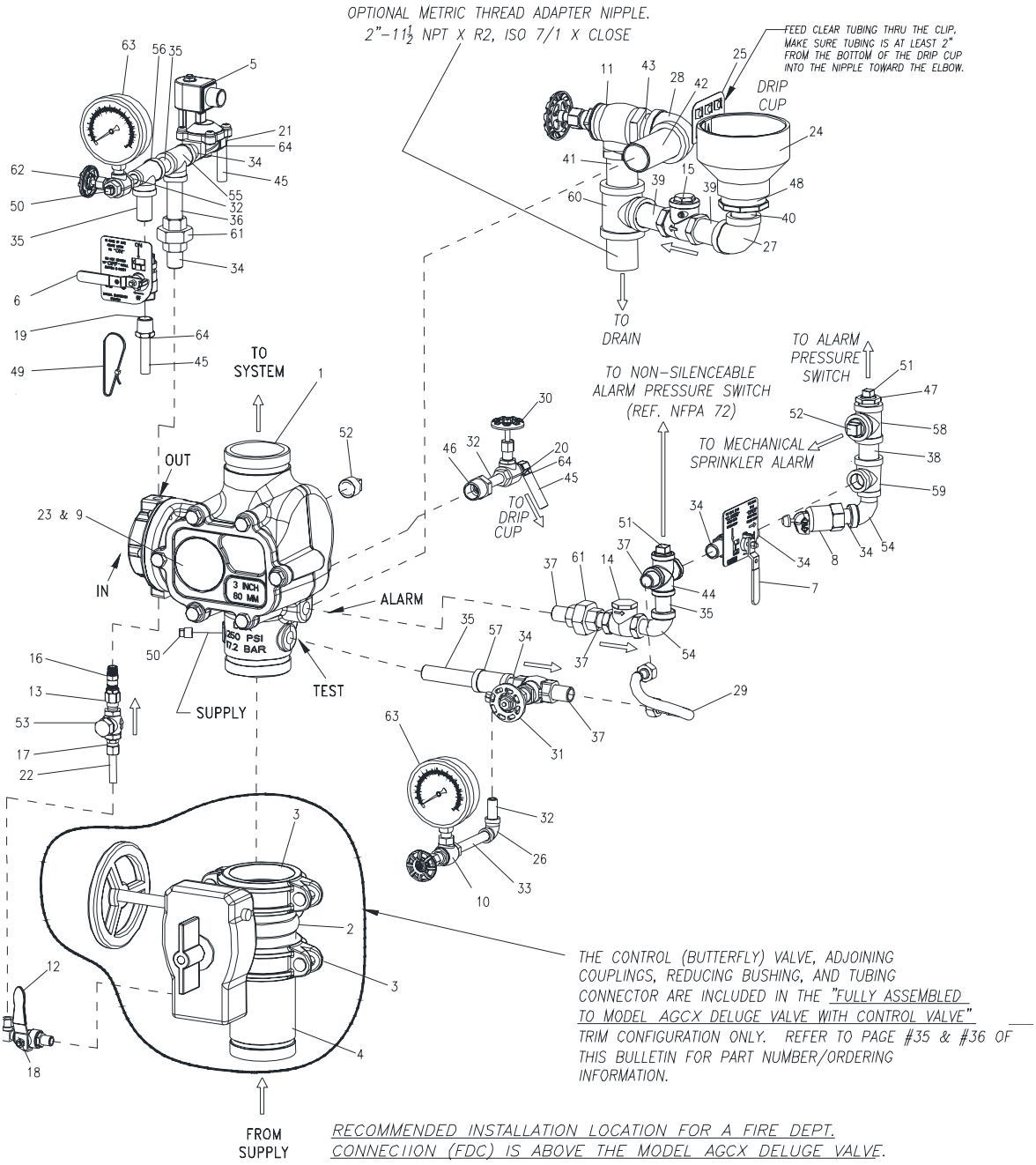
ELECTRIC ACTUATION DELUGE TRIM
2"(50MM), 2-1/2"(65MM), 3"(80MM)



RECOMMENDED INSTALLATION LOCATION FOR A FIRE DEPT. CONNECTION (FDC) IS ABOVE THE MODEL AGCX DELUGE VALVE.

AVAILABLE TRIM CONFIGURATIONS:

- INDIVIDUAL PARTS (MODEL AGCX DELUGE VALVE SOLD SEPARATELY)
- SEGMENTALLY ASSEMBLED (MODEL AGCX DELUGE VALVE SOLD SEPARATELY)
- FULLY ASSEMBLED TO MODEL AGCX DELUGE VALVE WITHOUT CONTROL VALVE
- FULLY ASSEMBLED TO MODEL AGCX DELUGE VALVE WITH CONTROL VALVE* ←

* "FULLY ASSEMBLED TO MODEL AGCX DELUGE VALVE WITH CONTROL VALVE"

Fig. 10

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Large AGCX Electric Actuation Trim (Refer to Fig.11)

Item No.	Part No. Galvanized	Description	QTY.
1	VD100RR0	Valve Assembly, 4" (100mm) -For 4" Assembly Only	1
	VD150RR0	Valve Assembly, 6" (150mm) -For 6" Assembly Only	
	VD200RR0	Valve Assembly, 8" (200mm) -For 8" Assembly Only	
2	VM100RA300V0	Butterfly Valve, 4"- For 4" Assembly Only	1
	VM150RA300V0	Butterfly Valve, 6" – For 6" Assembly Only	
	VM200RA300V0	Butterfly Valve, 8" - For 8" Assembly Only	
3	OR61600	Rigid Coupling, 4" - For 4" Assembly Only	2
	OR42400	Rigid Coupling, 6" - For 6" Assembly Only	
	OR23200	Rigid Coupling, 8" - For 8" Assembly Only	
4	OR04004	Outlet Spool, 4" - For 4" Assembly Only	1
	OR04006	Outlet Spool, 6" - For 6" Assembly Only	
	OR04008	Outlet Spool, 8" - For 8" Assembly Only	
5	IOM7211	Solenoid Valve, 175 psi Rated	1
	OR20020	Solenoid Valve, 300 psi Rated	
6	A008806	Manual Emergency Station Assembly	1
7	A008807	Valve Caution Station Assembly	1
8	VMDB015	Ball Drip Valve, ½"	1
9	OR80002	Adhesive Pad	1
10	OR40100	Angle Valve, 2"	1
11	A008794	Ball Valve, ¼" NPTF x ¼" NPTM	1
12	VRROMM008	Check Valve, ¼" NPTM x ¼" NPTF	1
13	VRRO015	Check Valve, Horizontal Swing, ½" NPT	1
14	VRRO025	Check Valve, Horizontal Swing, 1" NPT	1
15	VRROMH008	Check Valve, Inline Poppet, ¼"	1
16	A008797	Compression Connector, 3/8" ID Tube x ¼" NPT	1
17	AG3055-9-1/4	Compression Connector, Elbow 3/8" ID Tube x ¼" NPT	1
18	A008811	Connector, 3/8" ID Tube x ½" NPT	1
19	A008809	Connector, Elbow, 3/8" ID Tube x ¼" NPT	1
20	A008809	Connector, Elbow, 3/8" ID Tube x ¼" NPT	1
21	A008808	Copper Tubing, 3/8" OD x 2 ft.	1
22	OR16915	Deluge Valve Nameplate	1
23	D102-420DWV	Drain Cup, PVC	1
24	OR06270	Drain Hose Clip	1

Item No.	Part No. Galvanized	Description	QTY.
25	VH3112060G00	Elbow, ¼"	1
26	A004990	Elbow, ¾"	1
27	VH31120500G00	Elbow, 1"	1
28	OR74405	Elbow, 2"	1
29	OR20912	Flex Line, ½"	1
30	VGL008	Globe Valve, ¼"	1
31	VGL015	Globe Valve, ½"	1
32	VH310140NPTG	Nipple ¼" x 1½"	1
33	OR73220	Nipple ¼" x 2½"	1
34	VD98543220	Nipple ¼" x 3"	1
35	OR43217	Nipple ¼" x 6"	1
36	VH310135NPTG	Nipple ½" x 1½"	10
37	VH310134NPTG	Nipple ½" x 2"	3
38	VH310132NPTG	Nipple ½" x 3"	1
39	VH310131NPTG	Nipple ½" x 3½"	1
40	A004972	Nipple ¾" x Close	2
41	A008803	Nipple 1" x 3½"	1
42	A008804	Nipple 1" x 6"	1
43	A008801	Nipple 1" x Close	1
44	OR43262	Nipple 2" x 3½"	2
45	OR43238	Nipple 2" x Close	1
46	VH3120060G00	Pipe Cross, ½"	1
47	A008796	PVC Tubing, 3/8" ID x 6 ft.	1
48	OR48025	Reducer Bushing, ¾" x ¼"	1
49	OR48022	Reducer Bushing, ¾" x ½"	1
50	40PVC	Reducer Bushing, 2" Spigot x 1" NPTF, PVC	1
51	OR41112	Retaining Tie	9
52	VH3110010G00	Square Head Plug, ¼"	3
53	VH31100110G00	Square Head Plug, ½"	2
54	VH3110011G00	Square Head Plug, ¾"	2
55	FILY008	Strainer, ¼"	1
56	VH3113030G00	Tee, ½"	1
57	OR61649	Tee, ½" x ¼" x ½"	1
58	VH31139230G00	Tee, ½" x ½" x ¼"	1
59	VH3113921G00	Tee, ¾"	1
60	A008767	Tee, ¾" x ½" x ½"	1
61	OR06627	Tee, 2" x 2" x 1"	1
62	VH3114030G00	Union, ½"	2
63	V3V008	Valve, 3-way, ¼"	2
64	MANAA300	Water Pressure Gauge (0-300 psi)	2
65	OR06255	Hose Clamp	3

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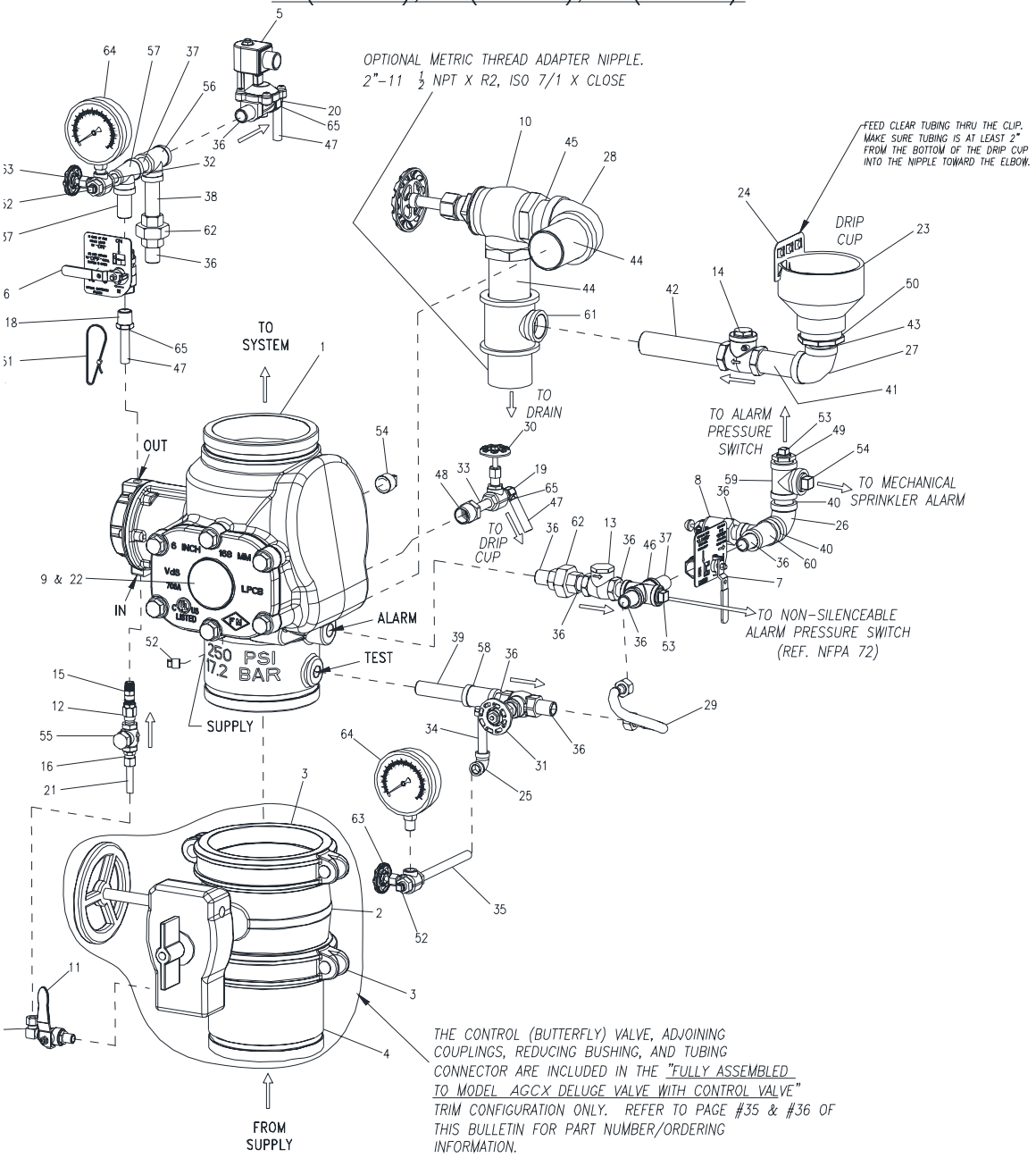
ELECTRIC ACTUATION DELUGE TRIM

4"(100MM), 6"(150MM), 8"(200MM)



RECOMMENDED INSTALLATION LOCATION FOR A FIRE DEPT. CONNECTION (FDC) IS ABOVE THE MODEL AGCX DELUGE VALVE

AVAILABLE TRIM CONFIGURATIONS:

- INDIVIDUAL PARTS (MODEL AGCX DELUGE VALVE SOLD SEPARATELY)
- SEGMENTALLY ASSEMBLED (MODEL AGCX DELUGE VALVE SOLD SEPARATELY)
- FULLY ASSEMBLED TO MODEL AGCX DELUGE VALVE WITHOUT CONTROL VALVE
- FULLY ASSEMBLED TO MODEL AGCX DELUGE VALVE WITH CONTROL VALVE*

* "FULLY ASSEMBLE TO MODEL AGCX DELUGE VALVE WITH CONTROL VALVE"

Fig. 11

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Electro- Pneumatic Actuation Trim

Electro-pneumatic operation is used in cases where it is advantageous to keep the solenoid dry, such as seawater installations.

Electro-pneumatic operation uses a pilot line containing air under pressure connected to a solenoid valve. This pressurized line is also connected to a Model AGLP Dry Pilot Line Actuator. The dry pilot line actuator functions very much like a miniature dry pipe valve. In areas where moisture-laden air could cause freezing or other problems in the dry pilot line, the use of a cylinder of dry compressed gas such as nitrogen is suggested. Approved gas handling regulators and connections are then recommended.

When the solenoid valve on the dry pilot line actuates, the air pressure is reduced, thus opening the Model AGLP Dry Pilot Line Actuator, which releases the Deluge Valve.

The Electro-Pneumatic Trim, shown in Figures 7 and 8, includes gauges to read the air and water pressure, a low air pressure switch, a pressure relief valve, a Model AGLP Dry Pilot Line Actuator, and connections for the solenoid valve.

Electro-Pneumatic Trim installation on Model AGCX Deluge Valves uses eight tapped openings for trim connections. Each opening and its function are indicated on Fig. 7 and Fig. 8.

Using Fig. 7 and Fig.8 as reference, the recommended trim installation is as follows:

1. Install ½" nipple (#39, Fig. 7 or #43, Fig. 8) in tapped opening marked "TEST". **Note: If interference occurs between the supply gauge and the control valve, the 1/4" plug (#57, Fig.7 or #58, Fig. 8) in the opening marked "SUPPLY" may be swapped with: the 1/4" nipple (#37, Fig. 7), angle valve (#11, Fig. 7) and gauge (#71, Fig. 7) for the 2" (50mm), 2-1/2" (65mm), 76mm and 3" (80mm) valve sizes; 1/4" nipple (#37, Fig. 8), 1/4" elbow (#27, Fig. 8),1/4" nipple (#38, Fig. 8), 3-way valve (#69, Fig. 8) and the gauge (#71, Fig. 8) for the 4"(100mm), 165mm and 6" (150mm) valve sizes; 1/4" nipple (#38, Fig. 8), 3-way valve (#69, Fig.8) and the gauge (#71, Fig. 8) for the 8" (200mm) valve size, in the trim installed in the opening marked "TEST".**

2. Install ½" nipple (#42, Fig. 7 or #39, Fig. 8) in tapped opening marked "ALARM" and connect balance of this trim line.

3. Install ¼" plug (#57, Fig. 7 or #58, Fig. 8) in tapped opening marked "SUPPLY**." Note: If interference occurs between the supply gauge and the control valve, the 1/4" plug (#57, Fig.7 or #58, Fig. 8) in the opening marked "SUPPLY" may be swapped with: the 1/4" nipple (#37, Fig. 7), angle valve (#11, Fig. 7) and gauge (#71, Fig. 7) for the 2" (50mm), 2-1/2"(65mm), 76mm and 3" (80mm) valve sizes; 1/4" nipple (#37, Fig. 8), 1/4" elbow (#27, Fig. 8), 1/4" nipple (#38, Fig. 8), 3-way valve (#69, Fig. 8) and the gauge (#71, Fig. 8) for the 4" (100mm), 165mm and 6" (150mm) valve sizes; 1/4" nipple (#38, Fig. 8), 3-way valve (#69, Fig. 8) and the gauge (#71, Fig. 8) for the 8" (200mm) valve size, in the trim installed in the opening marked "TEST".**

4. Install ½" nipple (#38, Fig. 7 or #39, Fig. 8) in tapped opening marked "OUT" and connect balance of this trim line.

5. Install ¼" inline check valve (#18, Fig. 7 or #17, Fig. 8) in tapped opening marked "IN" and connect balance of this trim line. **Caution: Over tightening check valve can cause a restriction in flow that may prevent the valve from "setting up".**

6. Install 1¼" Nipple (#47, Fig. 7) or 2" nipple (#48, Fig. 8) in tapped drain opening and connect balance of this trim line.

7. Install ¾" x ¼" reducing bushing (#52, Fig. 7 or #53, Fig. 8) in the lower-most tapped opening at the rear of the Deluge Valve and connect the balance of this trim line.

8. Install ¾" pipe plug (#59, Fig. 7 or #60, Fig. 8) in the upper-most tapped opening at the rear of the Deluge Valve. Connect the air supply to the air inlet side of the Model AGLP Dry Pilot Line Actuator as shown in Fig. 7 or Fig. 8. Table A specifies the air pressure to be used in a dry pilot line. The level of air pressure is adjusted by removing the cap nut on the end of the Relief Valve (#55, Fig. 7 or #56, Fig. 8) and turning the now exposed slotted adjusting screw clockwise to increase pressure or counterclockwise to reduce it. Replace the cap nut after the correct pressure setting has been made at 5 psi above the maximum pilot line pressure required by Table A. An appropriate automatic pressure maintenance device must be used to safeguard against the Deluge Valve tripping due to air pressure leaks in the dry pilot line. See Bulletin 254 for pressure maintenance device information.

Install the dry pilot line as required. Wire the low air pressure switch (#5, Fig. 7 or #5, Fig. 8) to an annunciating device or control panel. This low air pressure switch should be set to open at an air pressure which is slightly lower than the "Not Less Than" values found in Table A.

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Table A

Water Pressure psi (bar)	Pneumatic Pressure to be Pumped into Sprinkler System psi (bar)	
Maximum	Not Les Than	Not More Than
20 (1.4)	10 (.7)	14 (1.0)
50 (3.4)	12 (.8)	16 (1.1)
75 (5.2)	13 (.9)	17 (1.2)
100 (6.9)	15 (1.)	19 (1.3)
125 (8.6)	16 (1.1)	20 (1.4)
150 (10.3)	17 (1.2)	21 (1.4)
175 (12.1)	18 (1.2)	22 (1.5)
200 (13.8)	19 (1.3)	23 (1.6)
225 (15.5)	21 (1.4)	25 (1.7)
250 (17.2)	22 (1.5)	26 (1.8)
275 (19.)	23 (1.6)	27 (1.9)
300 (20.7)	24 (1.7)	28 (1.9)

MODEL LP DRY PILOT LINE ACTUATOR

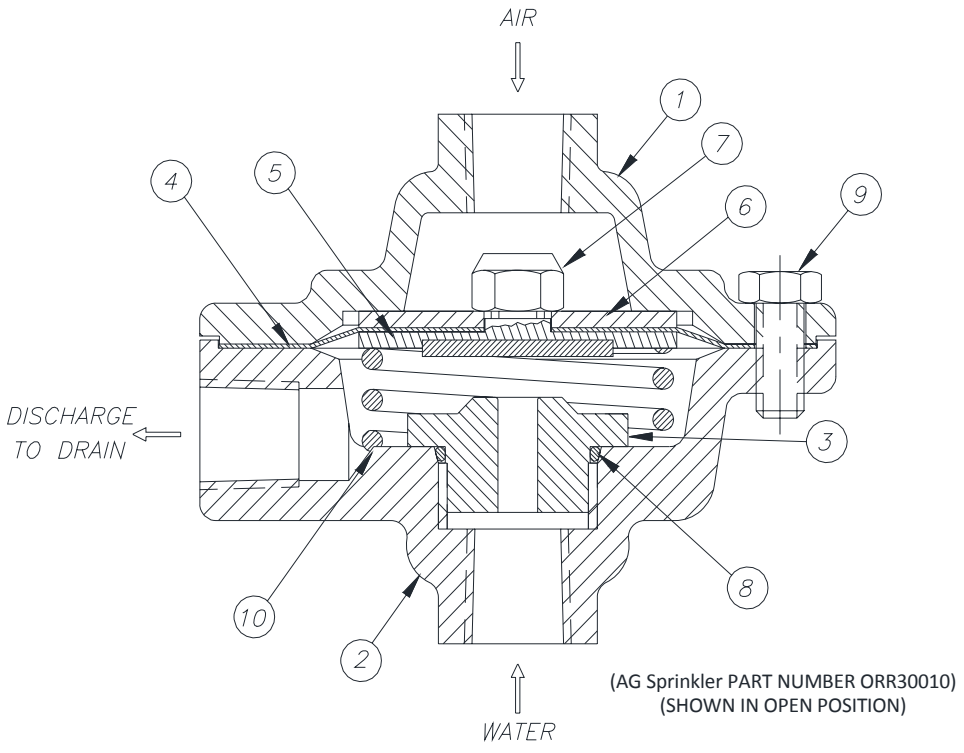

Fig. 6

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Model AGLP Dry Pilot Line Actuator Parts List VD3931037000

Item No.	Part No.	Description	Qty. Required
1	ORR06936	Lower Housing	1
2	ORR06935	Upper Housing	1
3	ORR06905	Seat	1
4	ORR06311	Diaphragm	1
5	ORR06911	Facing Plate Assembly	1
6	ORR06311	Diaphragm Washer	1
7	ORR06406	Facing Plate Nut	1
8	ORR06901	Seat O-Ring	1
9	ORR06305	Bolt	6
10	ORR06902	Compression Spring	1

Maintenance – Model AGLP Dry Pilot Line Actuator

Refer to Figs. 6 & 14

If water constantly flows through the Model AGLP Dry Pilot Line Actuator and into the drain, there is a leak in the seal of the Actuator's seat.

1. Close the main valve controlling water supply (Fig. 14) to the Dry Pipe Valve and close off the air/nitrogen supply to the sprinkler system. Close valve A (Fig. 14).

2. Drop pressure in the system by opening the ¼" angle valve, valve H (Fig. 14), and remove the Actuator from the system.

3. Remove all six bolts (#9, Fig. 6) holding the Actuator together. Clean or replace the facing plate assembly (#5, Fig. 6), seat (#3, Fig. 6) and seat o-ring (#8, Fig. 6).

4. Reassemble the Actuator, using a torque of 8 ft-lbs on the facing plate nut (#7, Fig. 6) and 12 ft-lbs on the six bolts (#9, Fig. 6). Use a cross-tightening pattern. Reinstall the Actuator. Set up the Model AGCX Deluge Valve as per the section "Resetting Model AGCX Deluge Valve System".

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Small AGCX Electro-Pneumatic activation Trim (Refer to Fig. 15)

Item No.	Part No. Galvanized	Description	QTY.
1	VD050RR0	Valve Assembly, 2" (50mm) For 2" Assembly Only	1
	VD065RR0	Valve Assembly, 2½"(65mm) For 2½" Assembly Only	
	VD080RR0	Valve Assembly, 3" (80mm) For 3" Assembly Only	
2	VM050RA300V0	Butterfly Valve, 2" For 2" Assembly Only	1
	VM065RA300V0	Butterfly Valve, 2½" For 2½" Assembly Only	
	VM080RA300V0	Butterfly Valve, 3" For 3" Assembly Only	
3	OR80800	Rigid Coupling, 2" For 2" Assembly Only	2
	OR01000	Rigid Coupling, 2½" For 2½" Assembly Only	
	OR21200	Rigid Coupling, 3" - For 3" Assembly Only	
4	OR04002	Outlet Spool, 2" For 2" Assembly Only	1
	OR04001	Outlet Spool, 2½" - For 2½" Assembly Only	
	OR04003	Outlet Spool, 3" For 3" Assembly Only	
5	VD3931037000	Pressure Switch (EPS40-2) (UL/FM)	1
	OR92361	Pressure Switch (EPSA40-2) (ULC)	
6	VD3931037000	Model AGLP Pilot Line Actuator	1
7	A008806	Manual Emergency Station Assembly	1
8	A008807	Valve Caution Station Assembly	1
9	VMDB015	Ball Drip Valve, ½"	1
10	OR80002	Adhesive Pad	1
11	OR40101	Angle Valve, ¼"	1
12	OR40106	Angle Valve, 1¼"	1
13	A008794	Ball Valve, ¼" NPTF x ¼" NPTM	1
14	OR40109	Ball Valve, ½"	1
15	VRROMM008	Check Valve, ¼" NPTM x ¼" NPTF	1
16	VRRO015	Check Valve, Horizontal Swing, ½" NPT	1
17	VRRO025	Check Valve, Horizontal Swing, 1" NPT	1
18	VRROMH008	Check Valve, Inline Poppet, ¼"	1
19	A008797	Compression Connector, 3/8" ID Tube x ¼" NPT	1
20	AG3055-9-1/4	Compression Connector, Elbow 3/8" ID Tube x ¼"NPT	1
21	A008811	Connector, 3/8" ID Tube x ½" NPT	2
22	A008809	Connector, Elbow, 3/8" ID Tube x ¼" NPT	1
23	OR56704	Connector, Elbow, 3/8" ID Tube x ½" NPT	1
24	A008808	Copper Tubing, 3/8" OD x 2 ft.	1
25	OR16915	Deluge Valve Nameplate	1
26	D102-420DWV	Drain Cup, PVC	1
27	OR06270	Drain Hose Clip	1
28	VH3112060G00	Elbow, ¼"	1

Item No.	Part No. Galvanized	Description	QTY.
29	VH310100NPTG	Elbow, ½"	1
30	VH31120500G00	Elbow, 1"	1
31	OR74414	Elbow, 1¼"	1
32	OR20912	Flex Line, ½"	1
33	VGL008	Globe Valve, ¼"	1
34	VGL015	Globe Valve, ½"	1
35	VH310140NPTG	Nipple ¼" x 1½"	3
36	VD98543220	Nipple ¼" x 3"	1
37	VH310138NPTG	Nipple ¼" x 4"	1
38	VH310135NPTG	Nipple ½" x 1½"	12
39	VH310134NPTG	Nipple ½" x 2"	4
40	VH310133NPTG	Nipple ½" x 2.5"	1
41	VH310132NPTG	Nipple ½"x3"	3
42	VH310104NPTG	Nipple ½" x Close	4
43	VH310124NPTG	Nipple ¾" x 2"	1
44	OR43263	Nipple 1" x 3"	2
45	A008801	Nipple 1" x Close	1
46	OR43239	Nipple 1¼" x 3"	1
47	OR43250	Nipple 1¼" x 4"	1
48	OR43285	Nipple 1¼" x Close	1
49	VH3120060G00	Pipe Cross, ½"	2
50	A008796	PVC Tubing, 3/8" ID x 6 ft.	3
51	OR48000	Reducer Bushing,1/2" x 1/4"	1
51	OR48025	Reducer Bushing, ¾" x ¼"	1
52	OR48000	Reducer Bushing, ½" x ¼"	1
53	OR48025	Reducer Bushing, ¾" x 1/2"	2
54	40PVC	Reducer Bushing, 2" Spigot x 1" NPTF, PVC	1
55	A008638	Relief Valve, ½" NPT, 33 psi	1
56	OR41112	Retaining Tie	9
57	VH3110010G00	Square Head Plug, ¼"	3
58	VH31100110G00	Square Head Plug, ½"	3
59	VH3110011G00	Square Head Plug, ¾"	2
60	FILY008	Strainer, ¼"	1
61	OR74400	Street Elbow, ½"	2
62	VH3113030G00	Tee, ½"	3
63	OR61649	Tee, ½" x ¼" x ½"	1
64	VH31139230G00	Tee, ½" x ½" x ¼"	1
65	VH3113921G00	Tee, ¾"	1
66	A008767	Tee, ¾" x ½" x ½"	1
67	OR06630	Tee, 1¼" x 1¼" x 1"	1
68	VH3114030G00	Union, ½"	3
69	V3V008	Valve, 3-way, ¼"	2
70	MANAA80	Air Pressure Gauge (0-80 psi)	1
71	MANAA300	Water Pressure Gauge (0-300 psi)	2
72	OR06255	Hose Clamp	4
73	IOM7211	Solenoid valve175psi	1
	OR20020	Solenoid valve 300psi	

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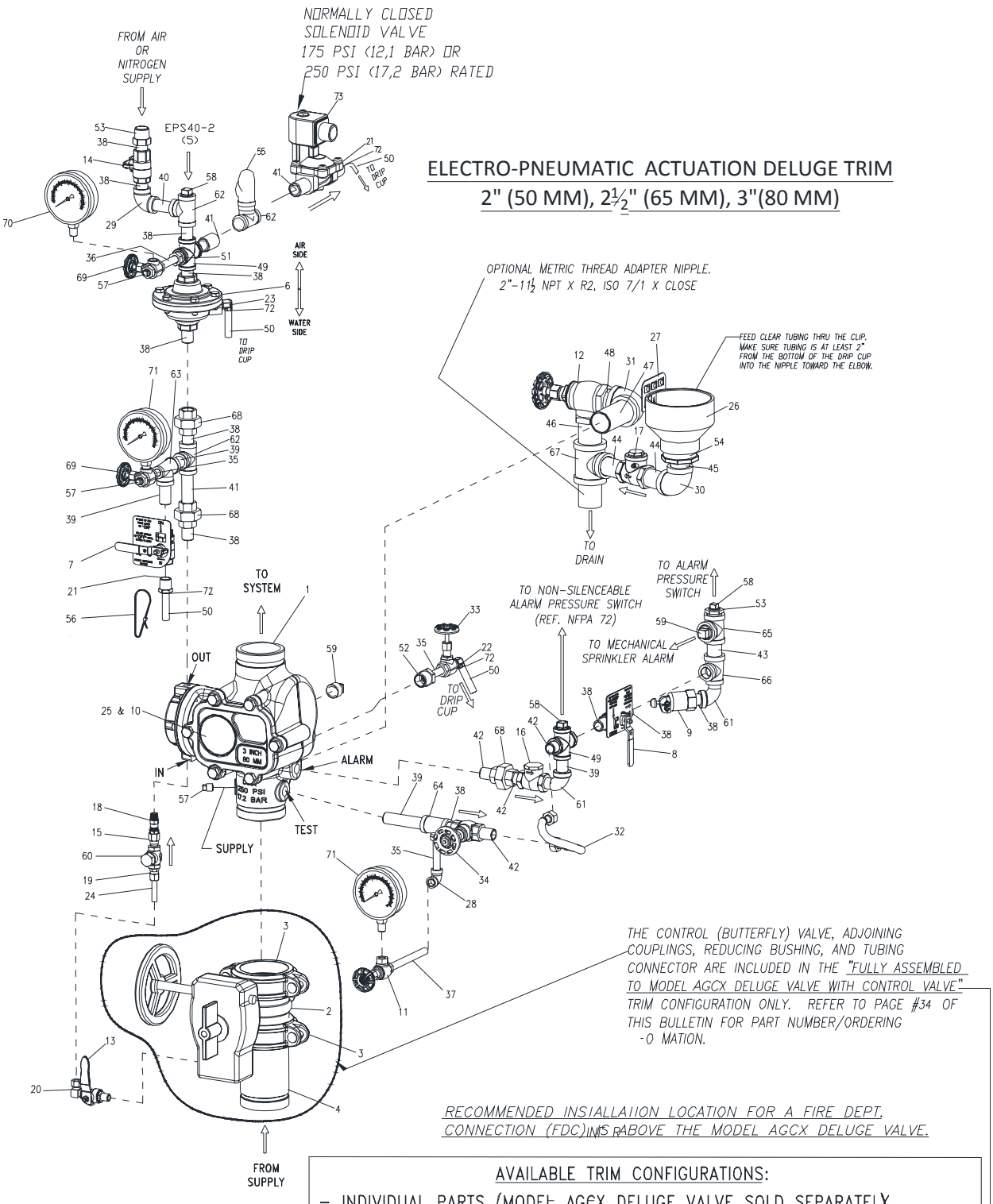
ELECTRO-PNEUMATIC ACTUATION DELUGE TRIM
2" (50 MM), 2½" (65 MM), 3"(80 MM)



THE CONTROL (BUTTERFLY) VALVE, ADJOINING COUPLINGS, REDUCING BUSHING, AND TUBING CONNECTOR ARE INCLUDED IN THE "FULLY ASSEMBLED TO MODEL AGCX DELUGE VALVE WITH CONTROL VALVE" TRIM CONFIGURATION ONLY. REFER TO PAGE #34 OF THIS BULLETIN FOR PART NUMBER/ORDERING -O MATION.

RECOMMENDED INSIALLAIION LOCATION FOR A FIRE DEPT. CONNECTION (FDC) IS ABOVE THE MODEL AGCX DELUGE VALVE.

AVAILABLE TRIM CONFIGURATIONS:

- INDIVIDUAL PARTS (MODEL AGCX DELUGE VALVE SOLD SEPARATELY)
- SEGMENTALLY ASSEMBLED (MODEL AGCX DELUGE VALVE SOLD SEPARATELY)
- FULLY ASSEMBLED TO MODEL AGCX DELUGE VALVE WITHOUT CONTROL VALVE
  FULLY ASSEMPLED TO MODEL AGCX DELUGE VALVE WITH CONTROL VALVE*

Fig15

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Large AGCX Electro-Pneumatic actuation Trim (Refer to Fig. 16)

Item No.	Part No. Galvanized	Description	QTY.
1	VD100RR0	Valve Assembly, 4" (100mm) -For 4" Assembly Only	1
	VD150RR0	Valve Assembly, 6" (150mm) -For 6" Assembly Only	
	VD200RR0	Valve Assembly, 8" (200mm) -For 8" Assembly Only	
2	VM100RA300V0	Butterfly Valve, 4"- For 4" Assembly Only	1
	VM150RA300V0	Butterfly Valve, 6" – For 6" Assembly Only	
	VM200RA300V0	Butterfly Valve, 8" - For 8" Assembly Only	
3	OR61600	Rigid Coupling, 4" - For 4" Assembly Only	2
	OR42400	Rigid Coupling, 6" - For 6" Assembly Only	
	OR23200	Rigid Coupling, 8" - For 8" Assembly Only	
4	OR04004	Outlet Spool, 4" - For 4" Assembly Only	1
	OR04006	Outlet Spool, 6" - For 6" Assembly Only	
	91004008	Outlet Spool, 8" - For 8" Assembly Only	
5	SY1340404	Pressure Switch (EPS40-2) (UL/FM)	1
	OR92361	Pressure Switch (EPSA40-2) (ULC)	
6	VD3931037000	Model AGLP Pilot Line Actuator	
7	A008806	Manual Emergency Station Assembly	1
8	A008807	Valve Caution Station Assembly	1
9	VMDB015	Ball Drip Valve, ½"	1
10	OR80002	Adhesive Pad	1
11	OR40100	Angle Valve, 2"	1
12	A008794	Ball Valve, ¼" NPTF x ¼" NPTM	1
13	OR40109	Ball Valve, ½"	1
14	VRROMM008	Check Valve, ¼" NPTM x ¼" NPTF	1
15	VRRO015	Check Valve, Horizontal Swing, ½" NPT	1
16	VRRO025	Check Valve, Horizontal Swing, 1" NPT	1
17	VRROMH008	Check Valve, Inline Poppet, ¼"	1
18	A008897	Compression Connector, 3/8" ID Tube x ¼" NPT	1
19	AG3055-9-1/4	Compression Connector, Elbow 3/8" ID Tube x ¼" NPT	1
20	A008811	Connector, 3/8" ID Tube x ½" NPT	1
21	A008809	Connector, Elbow, 3/8" ID Tube x ¼" NPT	1
22	OR56704	Connector, Elbow, 3/8" ID Tube x ½" NPT	2
23	A008808	Copper Tubing, 3/8" OD x 2 ft.	1
24	OR16915	Deluge Valve Nameplate	1
25	D102-420DWV	Drain Cup, PVC	1
26	OR06270	Drain Hose Clip	1
27	VH3112060G00	Elbow, ¼"	1
29	A004990	Elbow, ¾"	1
30	VH31120500G00	Elbow, 1"	1
31	OR74405	Elbow, 2"	1
32	OR20912	Flex Line, ½"	1
33	VGL008	Globe Valve, ¼"	1
34	VGL015	Globe Valve, ½"	1
35	VH310140NPTG	Nipple ¼" x 1½"	1
36	OR73220	Nipple ¼" x 2½"	1
37	VD98543220	Nipple ¼" x 3"	2
38	OR43217	Nipple ¼" x 6"	1
39	VH310135NPTG	Nipple ½" x 1½"	15
40	VH310134NPTG	Nipple ½" x 2"	3
41	VH310133NPTG	Nipple ½" x 2½"	1
42	VH310132NPTG	Nipple ½" x 3"	3
43	VH310131NPTG	Nipple ½" x 3½"	1
44	A004972	Nipple ¾" x Close	2
45	A008803	Nipple 1" x 3½"	1
46	A008804	Nipple 1" x 6"	1
47	A008801	Nipple 1" x Close	1
48	OR43262	Nipple 2" x 3½"	2
49	OR43238	Nipple 2" x Close	1
50	VH3120060G00	Pipe Cross, ½"	2
51	A008796	PVC Tubing, 3/8" ID x 6 ft.	3
52	OR48000	Reducer Bushing, ½" x ¼"	1
53	OR48025	Reducer Bushing, ¾" x ¼"	1
54	OR48022	Reducer Bushing, ¾" x ½"	2
55	40PVC	Reducer Bushing, 2" Spigot x 1" NPTF, PVC	1
56	A008638	Relief valve 33psi	1
57	OR41112	Retaining Tie	9
58	VH3110010G00	Square Head Plug, ¼"	4
59	VH31100110G00	Square Head Plug, ½"	3
60	VH3110011G00	Square Head Plug, ¾"	2
61	FILY008	Strainer, ¼"	1
62	VH3113030G00	Tee, ½"	3
63	OR61649	Tee, ½" x ¼" x ½"	1
64	VH31139230G00	Tee, ½" x ½" x ¼"	1
65	VH3113921G00	Tee, ¾"	1
66	A008767	Tee, ¾" x ½" x ½"	1
67	OR06627	Tee, 2" x 2" x 1"	1
68	VH3114030G00	Union, ½"	3
69	V3V008	Valve, 3-way, ¼"	3
70	MANAA80	Air Pressure Gauge (0-80 psi)	1
71	MANAA300	Water Pressure Gauge (0-300 psi)	2
72	OR06255	Hose Clamp	4
73	IOM7211	Solenoid valve 175psi	1
	OR20020	Solenoid Valve 300psi	1

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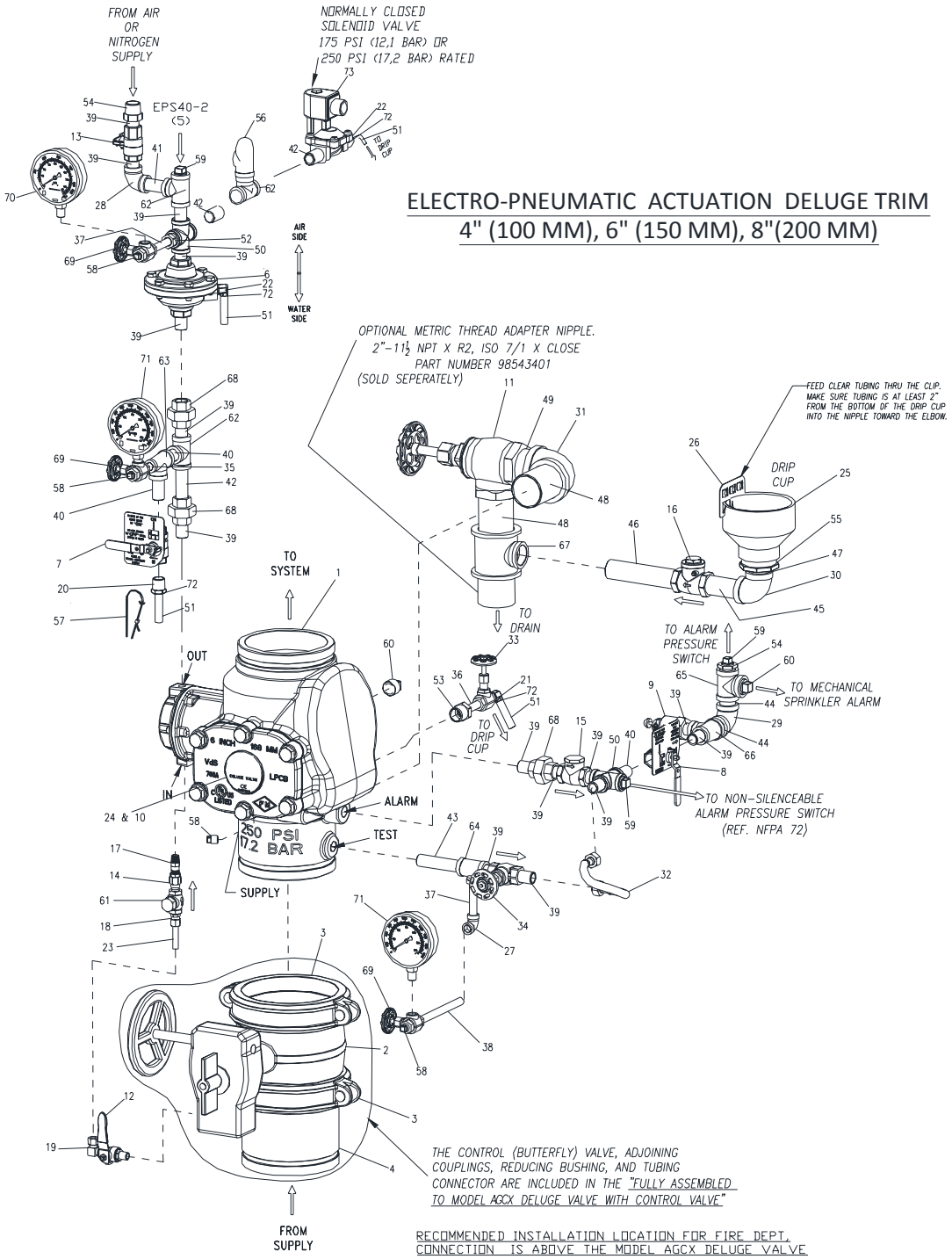

ELECTRO-PNEUMATIC ACTUATION DELUGE TRIM
4" (100 MM), 6" (150 MM), 8"(200 MM)

Fig16

AVAILABLE TRIM CONFIGURATIONS:

- INDIVIDUAL PARTS (MODEL AGCX DELUGE VALVE SOLD SEPARATELY)
- SEGMENTALLY ASSEMBLED (MODEL AGCX DELUGE VALVE SOLD SEPARATELY)
- FULLY ASSEMBLED TO MODEL AGCX DELUGE VALVE WITHOUT CONTROL VALVE
- FULLY ASSEMBLED TO MODEL AGCX DELUGE VALVE WITH CONTROL VALVE*

* "FULLY ASSEMBLE TO MODEL AGCX DELUGE VALVE WITH CONTROL VALVE"

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Combination of Electric or Pneumatic Actuation Trim

COMBINATION OF ELECTRIC OR PNEUMATIC

Combination of electric or pneumatic operation is used in cases where it is advantageous to maintain a dual actuation with both an electric or a dry pilot trim.

Combination of electric or pneumatic operation uses a pilot line containing air under pressure connected to both a solenoid valve and a line of closed sprinklers. This pressurized line is also connected to a Model AGLP Dry Pilot Line Actuator. The dry pilot line actuator functions very much like a miniature dry pipe valve. In areas where moisture-laden air could cause freezing or other problems in the dry pilot line, the use of a cylinder of dry compressed gas such as nitrogen is suggested. Approved gas handling regulators and connections are then recommended.

When either the solenoid valve or the closed sprinklers on the dry pilot line actuate, the air pressure is reduced, thus opening the Model AGLP Dry Pilot Line Actuator, which releases the Deluge Valve.

Combination of electric or pneumatic trim, shown in Figures 12 and 13, includes gauges to read the air and water pressure, a low air pressure switch, a pressure relief valve, a Model AGLP Dry Pilot Line Actuator, and connections for the solenoid valve.

Combination of electric or pneumatic trim installation on Model AGCX Deluge Valves uses eight tapped openings for trim connections. Each opening and its function are indicated on Fig. 12 and Fig. 13.

Using Fig. 12 and Fig.13 as reference, the recommended trim installation is as follows:

1. Install ½" nipple (#39, Fig. 7 or #43, Fig. 8) in tapped opening marked "TEST". **Note: If interference occurs between the supply gauge and the control valve, the 1/4" plug (#57, Fig.7 or #58, Fig. 8) in the opening marked "SUPPLY" may be swapped with: the 1/4" nipple (#37, Fig. 7), angle valve (#11, Fig. 7) and gauge (#71, Fig. 7) for the 2" (50mm), 2-1/2" (65mm), 76mm and 3" (80mm) valve sizes; 1/4" nipple (#37, Fig. 8), 1/4" elbow (#27, Fig. 8),1/4" nipple (#38, Fig. 8), 3-way valve (#69, Fig. 8) and the gauge (#71, Fig. 8) for the 4"(100mm), 165mm and 6" (150mm) valve sizes; 1/4" nipple (#38, Fig. 8), 3-way valve (#69, Fig.8) and the gauge (#71, Fig. 8) for the 8" (200mm) valve size, in the trim installed in the opening marked "TEST".**

2. Install ½" nipple (#42, Fig. 7 or #39, Fig. 8) in tapped opening marked "ALARM" and connect balance of this trim line.

3. Install ¼" plug (#57, Fig. 7 or #58, Fig. 8) in tapped opening marked "SUPPLY**." Note: If interference occurs between the supply gauge and the control valve, the 1/4" plug (#57, Fig.7 or #58, Fig. 8) in the opening marked "SUPPLY" may be swapped with: the 1/4" nipple (#37, Fig. 7), angle valve (#11, Fig. 7) and gauge (#71, Fig. 7) for the 2" (50mm), 2-1/2"(65mm), 76mm and 3" (80mm) valve sizes; 1/4" nipple (#37, Fig. 8), 1/4" elbow (#27, Fig. 8), 1/4" nipple (#38, Fig. 8), 3-way valve (#69, Fig. 8) and the gauge (#71, Fig. 8) for the 4" (100mm), 165mm and 6" (150mm) valve sizes; 1/4" nipple (#38, Fig. 8), 3-way valve (#69, Fig. 8) and the gauge (#71, Fig. 8) for the 8" (200mm) valve size, in the trim installed in the opening marked "TEST".**

4. Install ½" nipple (#38, Fig. 7 or #39, Fig. 8) in tapped opening marked "OUT" and connect balance of this trim line.

5. Install ¼" inline check valve (#18, Fig. 7 or #17, Fig. 8) in tapped opening marked "IN" and connect balance of this trim line. **Caution: Over tightening check valve can cause a restriction in flow that may prevent the valve from "setting up".**

6. Install 1¼" Nipple (#47, Fig. 7) or 2" nipple (#48, Fig. 8) in tapped drain opening and connect balance of this trim line.

7. Install ¾" x ¼" reducing bushing (#52, Fig. 7 or #53, Fig. 8) in the lower-most tapped opening at the rear of the Deluge Valve and connect the balance of this trim line.

8. Install ¾" pipe plug (#59, Fig. 7 or #60, Fig. 8) in the upper-most tapped opening at the rear of the Deluge Valve. Connect the air supply to the air inlet side of the Model AGLP Dry Pilot Line Actuator as shown in Fig. 7 or Fig. 8. Table A specifies the air pressure to be used in a dry pilot line. The level of air pressure is adjusted by removing the cap nut on the end of the Relief Valve (#55, Fig. 7 or #56, Fig. 8) and turning the now exposed slotted adjusting screw clockwise to increase pressure or counterclockwise to reduce it. Replace the cap nut after the correct pressure setting has been made at 5 psi above the maximum pilot line pressure required by Table A. An appropriate automatic pressure maintenance device must be used to safeguard against the Deluge Valve tripping due to air pressure leaks in the dry pilot line. See Bulletin 254 for pressure maintenance device information.

Install the dry pilot line as required. Wire the low air pressure switch (#5, Fig. 7 or #5, Fig. 8) to an annunciating device or control panel. This low air pressure switch should be set to open at an air pressure which is slightly lower than the "Not Less Than" values found in Table A.

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Table A

Water Pressure psi (bar)	Pneumatic Pressure to be Pumped into Sprinkler System psi (bar)	
Maximum	Not Les Than	Not More Than
20 (1.4)	10 (.7)	14 (1.0)
50 (3.4)	12 (.8)	16 (1.1)
75 (5.2)	13 (.9)	17 (1.2)
100 (6.9)	15 (1.)	19 (1.3)
125 (8.6)	16 (1.1)	20 (1.4)
150 (10.3)	17 (1.2)	21 (1.4)
175 (12.1)	18 (1.2)	22 (1.5)
200 (13.8)	19 (1.3)	23 (1.6)
225 (15.5)	21 (1.4)	25 (1.7)
250 (17.2)	22 (1.5)	26 (1.8)
275 (19.)	23 (1.6)	27 (1.9)
300 (20.7)	24 (1.7)	28 (1.9)

MODEL LP DRY PILOT LINE ACTUATOR

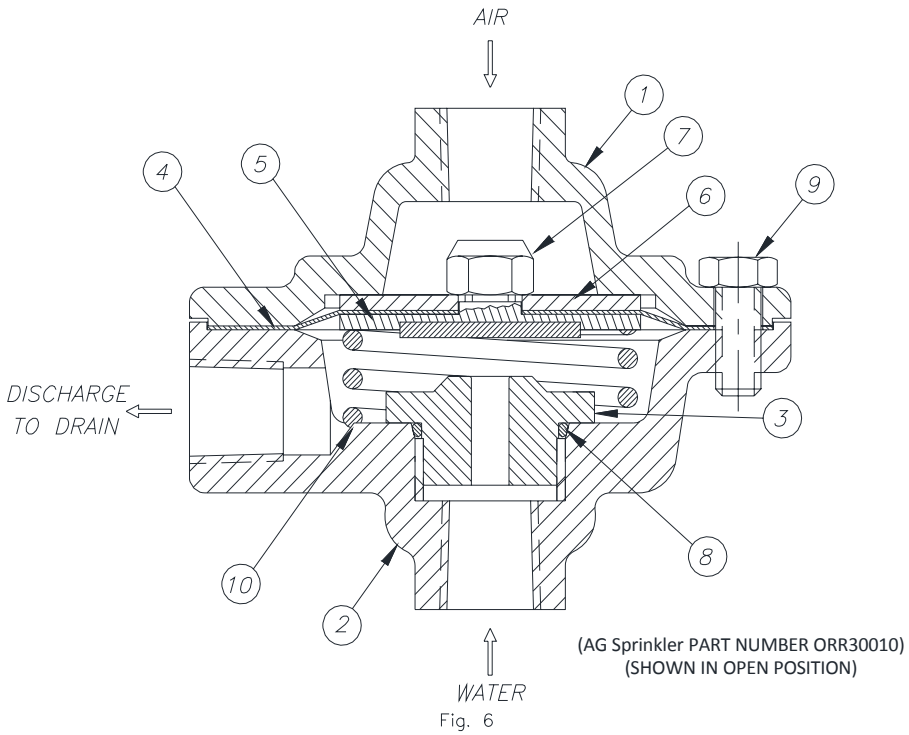

Fig. 6

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Model AGLP Dry Pilot Line Actuator Parts List VD3931037000

Item No.	Part No.	Description	Qty. Required
1	ORR06936	Lower Housing	1
2	ORR06935	Upper Housing	1
3	ORR06905	Seat	1
4	ORR06311	Diaphragm	1
5	ORR06911	Facing Plate Assembly	1
6	ORR06311	Diaphragm Washer	1
7	ORR06406	Facing Plate Nut	1
8	ORR06901	Seat O-Ring	1
9	ORR06305	Bolt	6
10	ORR06902	Compression Spring	1

Maintenance – Model AGLP Dry Pilot Line Actuator

Refer to Figs. 6 & 14

If water constantly flows through the Model AGLP Dry Pilot Line Actuator and into the drain, there is a leak in the seal of the Actuator's seat.

1. Close the main valve controlling water supply (Fig. 14) to the Dry Pipe Valve and close off the air/nitrogen supply to the sprinkler system. Close valve A (Fig. 14).

2. Drop pressure in the system by opening the ¼" angle valve, valve H (Fig. 14), and remove the Actuator from the system.

3. Remove all six bolts (#9, Fig. 6) holding the Actuator together. Clean or replace the facing plate assembly (#5, Fig. 6), seat (#3, Fig. 6) and seat o-ring (#8, Fig. 6).

4. Reassemble the Actuator, using a torque of 8 ft-lbs on the facing plate nut (#7, Fig. 6) and 12 ft-lbs on the six bolts (#9, Fig. 6). Use a cross-tightening pattern. Reinstall the Actuator. Set up the Model AGCX Deluge Valve as per the section "Resetting Model AGCX Deluge Valve System".

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Small AGCX Combination of Electric or Pneumatic Actuation Trim(Refer to Fig. 17)

Item No.	Part No. Galvanized	Description	QTY.
1	VD050RR0	Valve Assembly, 2" (50mm) For 2" Assembly Only	1
	VD065RR0	Valve Assembly, 2½"(65mm) For 2½" Assembly Only	
	VD080RR0	Valve Assembly, 3" (80mm) For 3" Assembly Only	
2	VM050RA300V0	Butterfly Valve, 2" For 2" Assembly Only	1
	VM065RA300V0	Butterfly Valve, 2½" For 2½" Assembly Only	
	VM080RA300V0	Butterfly Valve, 3" For 3" Assembly Only	
3	OR80800	Rigid Coupling, 2" For 2" Assembly Only	2
	OR01000	Rigid Coupling, 2½" For 2½" Assembly Only	
	OR21200	Rigid Coupling, 3" - For 3" Assembly Only	
4	OR04002	Outlet Spool, 2" For 2" Assembly Only	1
	OR04001	Outlet Spool, 2½" - For 2½" Assembly Only	
	OR04003	Outlet Spool, 3" For 3" Assembly Only	
5	SY1340404	Pressure Switch (EPS40-2) (UL/FM)	1
6	OR30010	Model AGLP Pilot Line Actuator	1
7	A008806	Manual Emergency Station Assembly	1
8	A008807	Valve Caution Station Assembly	1
9	OR53100	Ball Drip Valve, ½"	1
10	OR80002	Adhesive Pad	1
11	OR40101	Angle Valve, ¼"	1
12	OR40106	Angle Valve, 1¼"	1
13	A008794	Ball Valve, ¼" NPTF x ¼" NPTM	1
14	OR40109	Ball Valve, ½"	1
15	VRROMM008	Check Valve, ¼" NPTM x ¼" NPTF	1
16	VRR0015	Check Valve, Horizontal Swing, ½" NPT	1
17	VRR0025	Check Valve, Horizontal Swing, 1" NPT	1
18	VRROMH008	Check Valve, Inline Poppet, ¼"	1
19	A008797	Compression Connector, 3/8" ID Tube x ¼" NPT	1
20	AG3055-9-1/4	Compression Connector, Elbow 3/8" ID Tube x ¼"NPT	1
21	A008811	Connector, 3/8" ID Tube x ½" NPT	2
22	A008809	Connector, Elbow, 3/8" ID Tube x ¼" NPT	1
23	OR56704	Connector, Elbow, 3/8" ID Tube x ½" NPT	1
24	A008808	Copper Tubing, 3/8" OD x 2 ft.	1
25	OR16915	Deluge Valve Nameplate	1
26	D102-420DWV	Drain Cup, PVC	1
27	OR06270	Drain Hose Clip	1
28	98174404	Elbow, ¼"	1

Item No.	Part No. Galvanized	Description	QTY.
29	VH3112060G00	Elbow, ½"	1
30	VH31120500G00	Elbow, 1"	1
31	OR74414	Elbow, 1¼"	1
32	OR20912	Flex Line, ½"	1
33	VGL008	Globe Valve, ¼"	1
34	VGL015	Globe Valve, ½"	1
35	VH310140NPTG	Nipple ¼" x 1½"	3
36	VD98543220	Nipple ¼" x 3"	1
37	VH310138NPTG	Nipple ¼" x 4"	1
38	VH310135NPTG	Nipple ½" x 1½"	11
39	VH310134NPTG	Nipple ½" x 2"	4
40	VH310133NPTG	Nipple ½" x 2.5"	1
41	VH310132NPTG	Nipple ½"x3"	3
42	VH310104NPTG	Nipple ½" x Close	4
43	VH310124NPTG	Nipple ¾" x 2"	1
44	OR43263	Nipple 1" x 3"	2
45	A004972	Nipple 1" x Close	1
46	OR43239	Nipple 1¼" x 3"	1
47	OR43250	Nipple 1¼" x 4"	1
48	OR43285	Nipple 1¼" x Close	1
49	VH3120060G00	Pipe Cross, ½"	3
50	A008796	PVC Tubing, 3/8" ID x 6 ft.	3
51	OR48000	Reducer Bushing,1/2" x 1/4"	1
51	OR48025	Reducer Bushing, ¾" x ¼"	1
52	OR48000	Reducer Bushing, ½" x ¼"	1
53	OR48025	Reducer Bushing, ¾" x 1/2"	2
54	40PVC	Reducer Bushing, 2" Spigot x 1" NPTF, PVC	1
55	A008638	Relief Valve, ½" NPT, 33 psi	1
56	OR41112	Retaining Tie	9
57	VH3110010G00	Square Head Plug, ¼"	4
58	VH31100110G00	Square Head Plug, ½"	2
59	VH3110011G00	Square Head Plug, ¾"	2
60	FILY008	Strainer, ¼"	1
61	OR74400	Street Elbow, ½"	2
62	VH3113030G00	Tee, ½"	3
63	OR61649	Tee, ½" x ¼" x ½"	1
64	VH31139230G00	Tee, ½" x ½" x ¼"	1
65	VH3113921G00	Tee, ¾"	1
66	A008767	Tee, ¾" x ½" x ½"	1
67	OR06630	Tee, 1¼" x 1¼" x 1"	1
68	VH3114030G00	Union, ½"	3
69	V3V008	Valve, 3-way, ¼"	2
70	MANAA80	Air Pressure Gauge (0-80 psi)	1
71	MANAA300	Water Pressure Gauge (0-300 psi)	2
72	OR06255	Hose Clamp	4
73	IOM7211	Solenoid valve 175psi	1
	OR20020	Solenoid valve 300psi	

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COMBINATION OF ELECTRIC OR PNEUMATIC ACTUATION TRIM
2" (50 MM), 2 ½" (65 MM), 3" (80 MM)

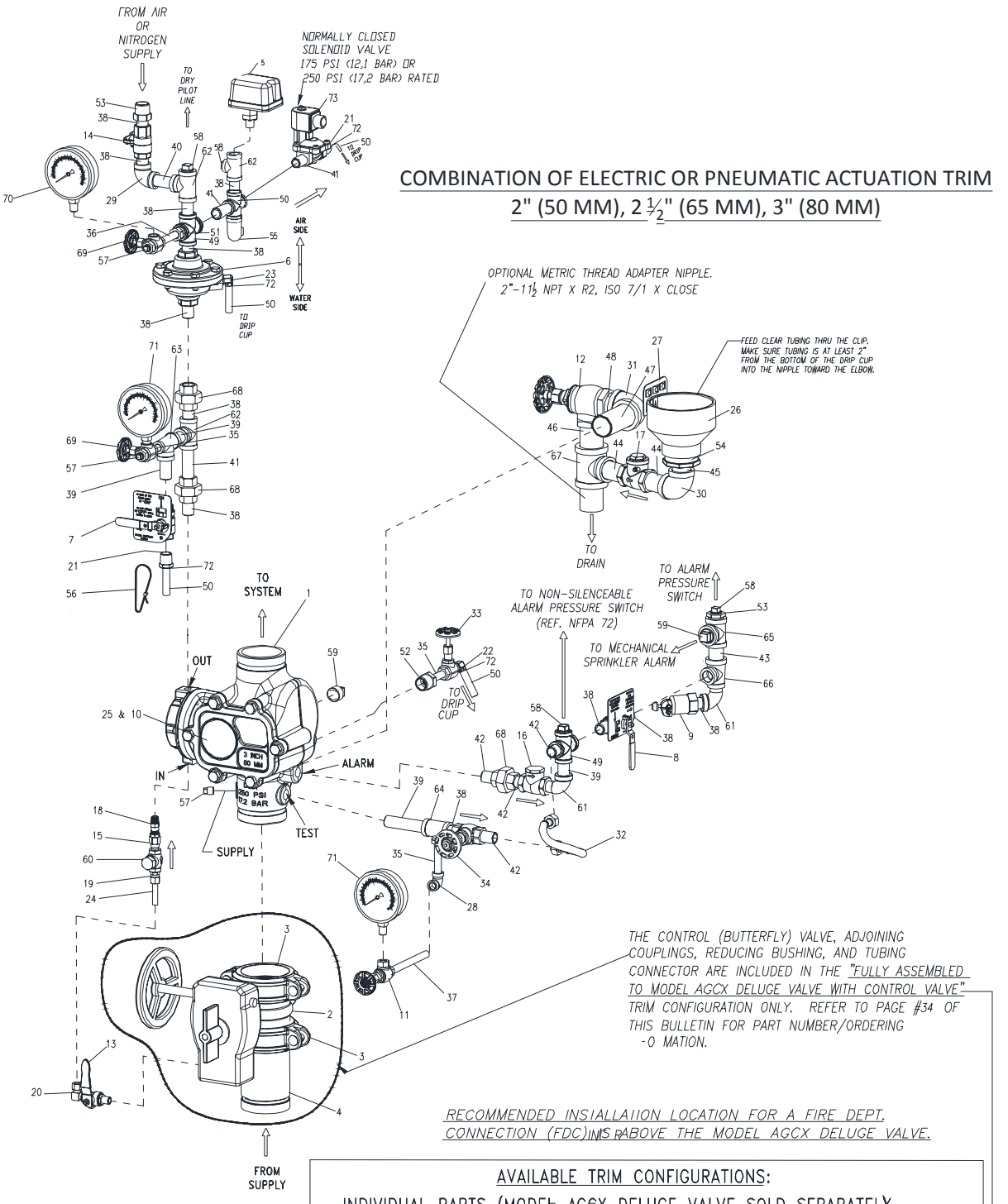

Fig17

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Large AGCX Combination of Electric or Pneumatic Actuation Trim (Refer to Fig. 18)

Item No.	Part No. Galvanized	Description	QTY.
1	VD100RR0	Valve Assembly, 4" (100mm) - For 4" Assembly Only	1
	VD150RR0	Valve Assembly, 6" (150mm) - For 6" Assembly Only	
	VD200RR0	Valve Assembly, 8" (200mm) - For 8" Assembly Only	
2	VM100RA300V0	Butterfly Valve, 4"- For 4" Assembly Only	1
	VM150RA300V0	Butterfly Valve, 6" – For 6" Assembly Only	
	VM200RA300V0	Butterfly Valve, 8" - For 8" Assembly Only	
3	OR61600	Rigid Coupling, 4" - For 4" Assembly Only	2
	OR42400	Rigid Coupling, 6" - For 6" Assembly Only	
	OR23200	Rigid Coupling, 8" - For 8" Assembly Only	
4	OR04004	Outlet Spool, 4" - For 4" Assembly Only	1
	OR04006	Outlet Spool, 6" - For 6" Assembly Only	
	OR04008	Outlet Spool, 8" - For 8" Assembly Only	
5	SY1340404	Pressure Switch (EPS40-2) (UL/FM)	1
	OR92361	Pressure Switch (EPSA40-2) (ULC)	
6	VD3931037000	Model AGLP Pilot Line Actuator	
7	A008806	Manual Emergency Station Assembly	1
8	A008807	Valve Caution Station Assembly	1
9	VMDB015	Ball Drip Valve, ½"	1
10	OR80002	Adhesive Pad	1
11	OR40100	Angle Valve, 2"	1
12	A008794	Ball Valve, ¼" NPTF x ¼" NPTM	1
13	OR40109	Ball Valve, ½"	1
14	VRROMM008	Check Valve, ¼" NPTM x ¼" NPTF	1
15	VRRO015	Check Valve, Horizontal Swing, ½" NPT	1
16	VRRO025	Check Valve, Horizontal Swing, 1" NPT	1
17	VRROMH008	Check Valve, Inline Poppet, ¼"	1
18	A008797	Compression Connector, 3/8" ID Tube x ¼" NPT	1
19	AG3055-9-1/4	Compression Connector, Elbow 3/8" ID Tube x ¼" NPT	1
20	OR56810	Connector, 3/8" ID Tube x ½" NPT	1
21	A008809	Connector, Elbow, 3/8" ID Tube x ¼" NPT	1
22	A008811	Connector, Elbow, 3/8" ID Tube x ½" NPT	2
23	A008808	Copper Tubing, 3/8" OD x 2 ft.	1
24	OR16915	Deluge Valve Nameplate	1
25	D102-42DWV	Drain Cup, PVC	1
26	OR06270	Drain Hose Clip	1
27	VH3112060G00	Elbow, ¼"	1
28	VH3112060G00	Elbow, 1/2"	**1**
29	A004990	Elbow, ¾"	1
30	VH31120500G00	Elbow, 1"	1
31	OR74405	Elbow, 2"	1
32	OR20912	Flex Line, ½"	1
33	VGL008	Globe Valve, ¼"	1
34	VGL015	Globe Valve, ½"	1
35	VH310140NPTG	Nipple ¼" x 1½"	1
36	OR73220	Nipple ¼" x 2½"	1
37	VD98543220	Nipple ¼" x 3"	2
38	OR43217	Nipple ¼" x 6"	1
39	VH310135NPTG	Nipple ½" x 1½"	15
40	VH310134NPTG	Nipple ½" x 2"	3
41	VH310133NPTG	Nipple ½" x 2½"	1
42	VH310132NPTG	Nipple ½" x 3"	3
43	VH310131NPTG	Nipple ½" x 3½"	1
44	A004972	Nipple ¾" x Close	2
45	A008803	Nipple 1" x 3½"	1
46	A008804	Nipple 1" x 6"	1
47	A008801	Nipple 1" x Close	1
48	OR43262	Nipple 2" x 3½"	2
49	OR43238	Nipple 2" x Close	1
50	VH3120060G00	Pipe Cross, ½"	3
51	A008796	PVC Tubing, 3/8" ID x 6 ft.	3
52	OR48000	Reducer Bushing, ½" x ¼"	1
53	OR48025	Reducer Bushing, ¾" x ¼"	1
54	OR48022	Reducer Bushing, ¾" x ½"	2
55	40PVC	Reducer Bushing, 2" Spigot x 1" NPTF, PVC	1
56	A008638	Relief Valve, ½" NPT, 33 psi	1
57	OR41112	Retaining Tie	9
58	VH3110010G00	Square Head Plug, ¼"	4
59	VH31100110G00	Square Head Plug, ½"	3
60	VH3110011G00	Square Head Plug, ¾"	2
61	FILY008	Strainer, ¼"	1
62	VH3113030G00	Tee, ½"	2
63	OR61649	Tee, ½" x ¼" x ½"	1
64	VH31139230G00	Tee, ½" x ½" x ¼"	1
65	VH3113921G00	Tee, ¾"	1
66	A008767	Tee, ¾" x ½" x ½"	1
67	OR06627	Tee, 2" x 2" x 1"	1
68	VH3114030G00	Union, ½"	3
69	V3V008	Valve, 3-way, ¼"	3
70	MANAA80	Air Pressure Gauge (0-80 psi)	1
71	MANAA300	Water Pressure Gauge (0-300 psi)	2
72	OR06255	Hose Clamp	4
73	IOM7211	Solenoid valve 175psi	1
	OR20020	Solenoid Valve 300psi	1

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COMBINATION OF ELECTRIC OR PNEUMATIC ACTUATION TRIM
4" (100 MM), 6" (150 MM), 8"(200 MM)

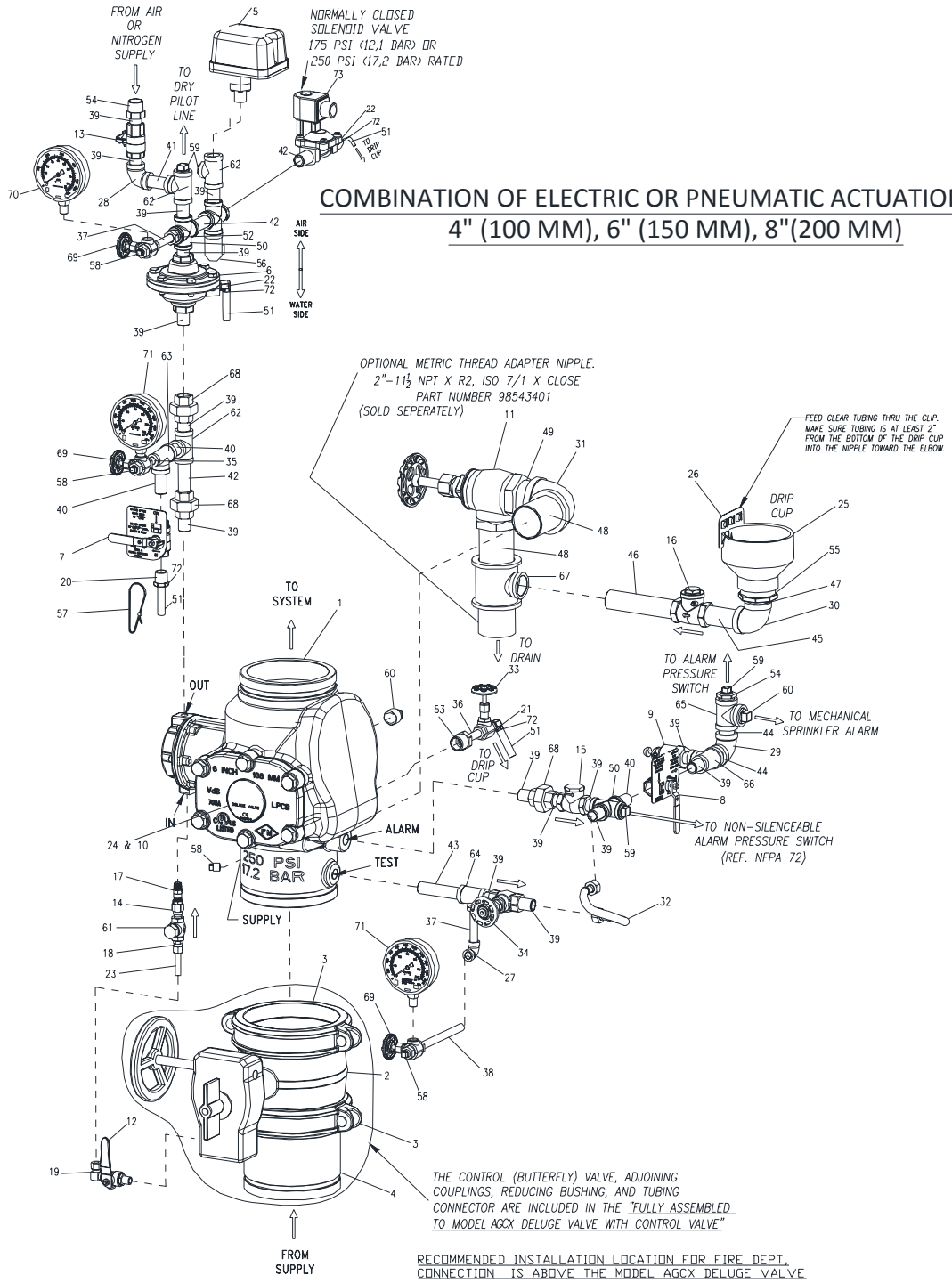

Fig18

AVAILABLE TRIM CONFIGURATIONS:

- INDIVIDUAL PARTS (MODEL AGCX DELUGE VALVE SOLD SEPARATELY)
- SEGMENTALLY ASSEMBLED (MODEL AGCX DELUGE VALVE SOLD SEPARATELY)
- FULLY ASSEMBLED TO MODEL AGCX DELUGE VALVE WITHOUT CONTROL VALVE
- FULLY ASSEMBLED TO MODEL AGCX DELUGE VALVE WITH CONTROL VALVE*

* "FULLY ASSEMBLE TO MODEL AGCX DELUGE VALVE WITH CONTROL VALVE"

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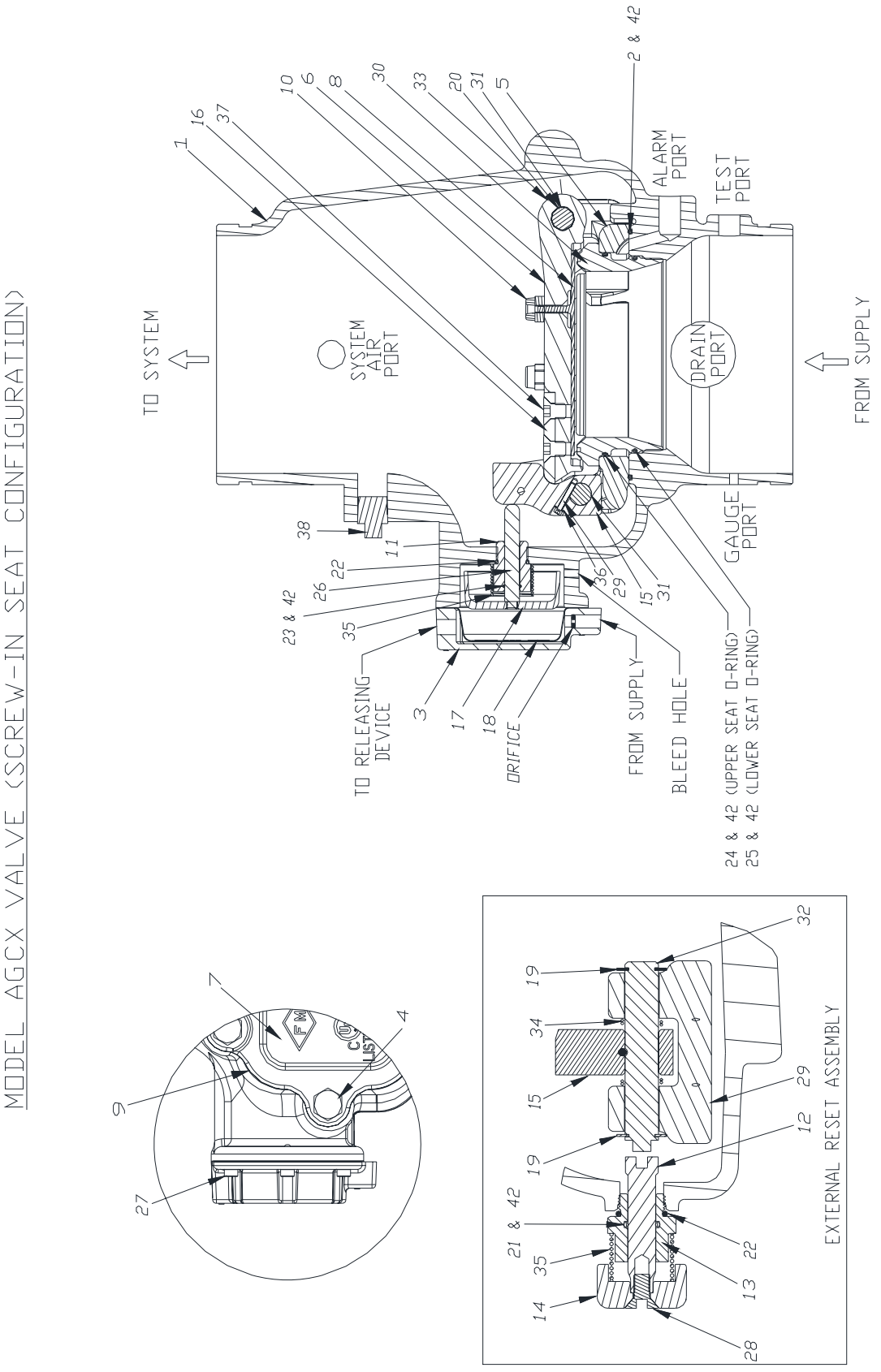

Fig. 12

C/Alfoz de Bricia nº4 | P.I. Villalonquéjar | 09001 Burgos (Spain) | Tlfno: +34 947 28 11 08

Model AGCX (Screw-In Seat Configuration) Deluge Valves Parts List (Refer to Fig. 12)

Item No.	Part No. 2" (50mm)	2½" (65mm)	3" (80mm)	4" (100mm)	6" (150mm)	8" (200mm)	Part Description	QTY	Material
1	OR06011	OR06012	OR06013	OR06005	OR06007	OR06028	Valve Body Groove/Groove	1	Ductile Iron 65-45-12
	N/A	N/A	N/A	OR06045	OR06067	N/A	Valve Body Flange/Groove		
	N/A	N/A	N/A	OR06035	OR06037	OR06039	Valve Body Flange/Flange		
2	N/A	N/A	N/A	N/A	N/A	OR06414	O-ring (Mounting Ring)	1	Buna-N
3	OR40416						Pushrod Cover Assembly	1	Ductile Iron 65-45-12 & Brass C36000
4	OR06123			N/A	N/A	N/A	Hex Bolt ½"-13 x 1¼"	6	Zinc Plated Steel
	N/A			OR06107	N/A	N/A	Hex Bolt ½"-13 x 1½"	6	Zinc Plated Steel
	N/A			N/A	OR06006	N/A	Hex Bolt 5/8"-11 x 1¾"	6	Zinc Plated Steel
	N/A			N/A	N/A	OR 06110	Hex Bolt 5/8"-11 x 2"	8	Zinc Plated Steel
5	OR06013			OR 06014	OR 06016	OR 06018	Mounting Ring	1	Stainless Steel CF8 or CF8M
6	OR16013			OR 16014	OR 16016	OR 16008	Clapper	1	Stainless Steel CF8 or CF8M
7	OR16063			OR 16064	OR 16065 / OR 16066	OR 16068	Access Cover	1	Ductile Iron 65-45-12
8	OR16003			OR 16014	OR16016	OR 16008	Seal Assembly	1	Stainless Steel 304 & EPDM
9	OR06003			OR06004	OR 06006	OR 06008	Access Cover Gasket	1	Buna-N or Neoprene
10	OR22000			OR22000	N/A	N/A	Bumpstop Assembly	1	Stainless Steel UNS S31600 & EPDM
	N/A			N/A	OR 22000	N/A		2	
	N/A			N/A	N/A	OR 22000		3	
11	OR 16006						Pushrod Guide	1	Acetal
12	OR 16066						Reset Shaft	1	Brass UNS C36000
13	OR 06066						Reset Housing	1	Brass UNS C36000
14	OR 56006						Reset Knob	1	Aluminum 6061
15	OR 06003			OR 06004	OR 06016	OR 06008	Lever	1	Stainless Steel UNS S17400
16	OR 06414			OR 06412	OR 06410	OR 06410	Striker	1	Aluminum Bronze C95400
17	OR 06006						Piston	1	Stainless Steel CF8M
18	OR 76006						Diaphragm	1	EPDM & Polyester
19	OR 06267			N/A	N/A	N/A	Retaining Ring, 3/8" Shaft, Lever Pin	2	Stainless Steel 15-7 or 17-7
	N/A			OR 06267	N/A	N/A	Retaining Ring, ½" Shaft, Lever Pin		
	N/A			N/A	OR 06269	N/A	Retaining Ring, 5/8" Shaft, Lever Pin		
	N/A			N/A	N/A	OR 16408	Retaining Ring, ¾" Shaft, Lever Pin		
20	OR 06267			N/A	N/A	N/A	Retaining Ring, 3/8" Shaft, Hinge Pin	2	Stainless Steel 15-7 or 17-7
	N/A			OR 06267	OR 06267	N/A	Retaining Ring, ½" Shaft, Hinge Pin		
	N/A			N/A	N/A	OR 16408	Retaining Ring, ¾" Shaft, Hinge Pin		
21	OR 06007						O-Ring, Reset Housing ID	1	Buna-N
22	OR 06024						O-Ring, Reset Housing & Pushrod Guide OD	2	Buna-N
23	OR 06407						O-Ring, Pushrod Guide ID	1	Buna-N
24	OR 06410			OR 06409	OR 36126	OR 06413	O-Ring, Upper Seat	1	Buna-N
25	OR 06411			OR 06420	OR 46226	OR 06412	O-Ring, Lower Seat	1	Buna-N
26	OR 06006						Pushrod	1	Stainless Steel UNS S30300
27	OR 06114						Socket Head Screw, ¼"-20 x 5/8"	6	Steel
28	OR 06127						Flat Head Socket Cap Screw 3/8"-16 x ¾"	1	Steel

29	OR 06133			N/A	N/A	N/A	Socket Head Screw #6-32 x ½"	1	Stainless Steel 18-8
	N/A			OR 06130	OR 06130	OR 06130	Socket Head Screw #10-32 x 1"		Stainless Steel UNS S31600
30	OR16003			OR16014	OR16016	OR 16008	Seat	1	Stainless Steel CF8M
31	OR06003			N/A	N/A	N/A	Hinge Pin	1	Stainless Steel UNS S30400

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	N/A	OR16086	OR16068	OR06008			Stainless Steel UNS S21800
32	OR16003	N/A	N/A	N/A	Lever Pin	1	Stainless Steel UNS S17400
	N/A	OR 16044	OR 16047	OR16008			Stainless Steel UNS S21800
33	OR10003	OR 06904	OR 06904	OR10008	Clapper Spacer	2	Teflon or Acetal
34	OR06003	N/A	N/A	N/A	Lever Spring	1	Stainless Steel UNS S30400
	N/A	OR06004	OR 06005	OR06008		1	Stainless Steel UNS S31600
35	OR 06906				Piston/ Reset Spring	2	Stainless Steel UNS S31600
36	OR06112	N/A	N/A	N/A	Spring Lock Washer, #6	1	Stainless Steel 18-8
	N/A	OR06111	OR 06111	OR06111	Spring Lock Washer, #10	1	Stainless Steel UNS S31600
37	OR06140	N/A	N/A	N/A	Flat Head Socket Cap Screw ¼"-20 x ½"	2	Stainless Steel 18-8
	N/A	OR 06139	N/A	N/A	Flat Head Socket Cap Screw ¼"-20 x ½"		Stainless Steel UNS S31600
	N/A	N/A	N/A	OR06135	Flat Head Socket Cap Screw ½"-13 x ¾"		Stainless Steel UNS S31600
38	OR04402				Plug, ½" NPT	1	Steel
39	OR16921				Knob Caution Label (Not Shown)	1	Polystyrene
40	OR56922				Ball Chain, 1/8" (Not Shown) (Length is in Inches)	6	Nickel Plated Brass
41	OR56923				Clamping Link, Ball Chain (Not Shown)	1	Nickel Plated Brass
42	OR993406				O-Ring Grease, Duponttm Krytox®GPL-205	A/R	Krytox®

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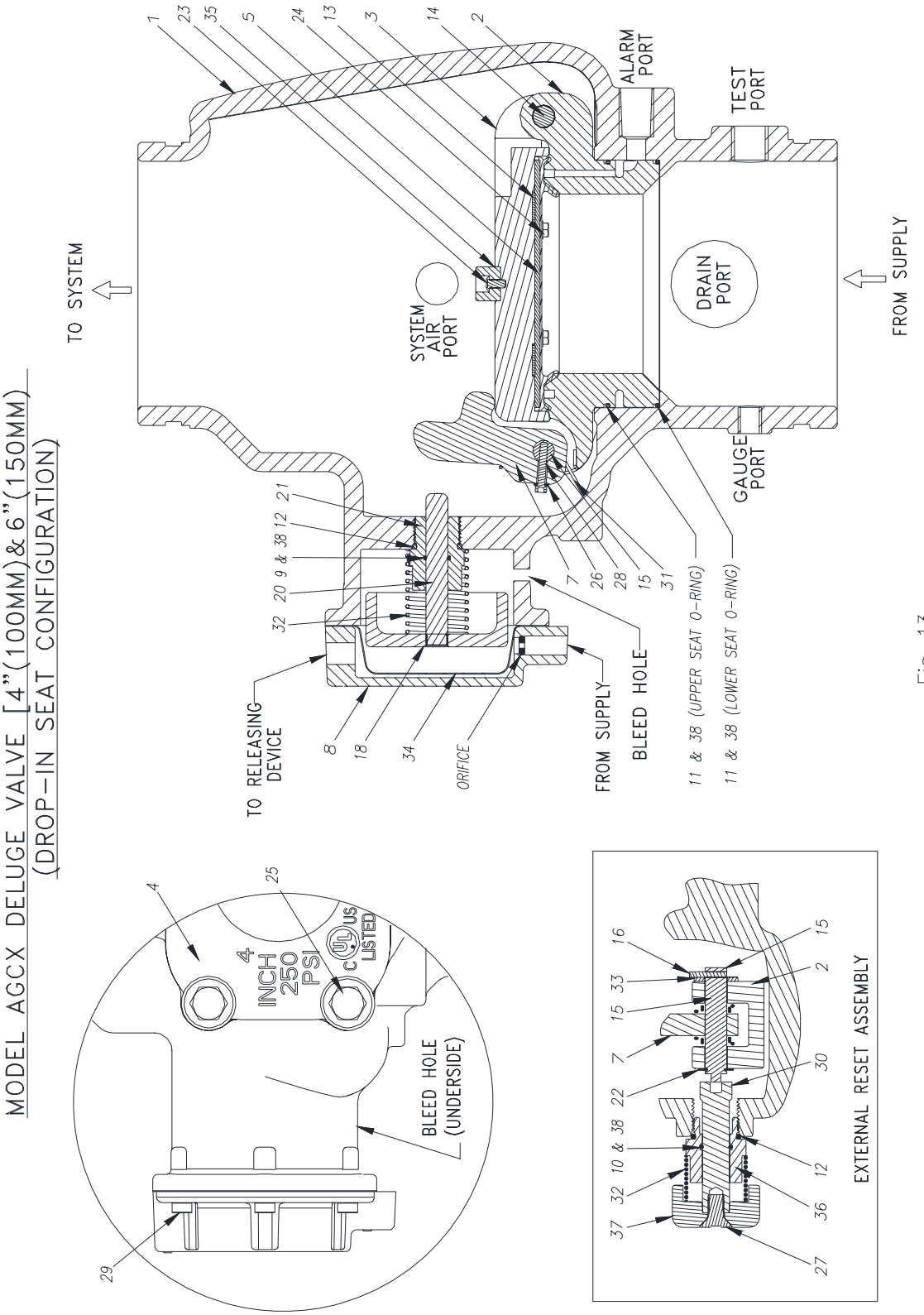

Fig. 13

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Model AGCX (Drop-In Seat Confi guration) Deluge Valves Parts List (Refer to Fig. 13)

Item No.	Part No.		Part Description	QTY.	Material
	4" (100mm)	6" (150mm)			
1	OR 06005	OR 06007	Valve Body	1	Ductile Iron 65-45-12
2	OR 16004	OR 16006	Seat	1	Brass UNS C86300
3	OR 16004	OR 16006	Clapper	1	Brass UNS C86300
4	OR 16064	OR 16066	Access Cover	1	Ductile Iron 65-45-12
5	OR 16004	OR 16006	Seal Assembly	1	Stainless Steel 304 & EPDM
6	OR 06004	OR 06006	Access Cover Gasket	1	Buna-N or Neoprene
7	OR 06004	OR 06006	Lever	1	Stainless Steel UNS S17400
8	OR 40416		Pushrod Cover Assembly	1	Ductile Iron 65-45-12 & Brass UNS C36000
9	OR 06407		O-Ring, Pushrod Guide ID	1	Buna-N
10	OR 06007		O-Ring, Reset Housing ID	1	Buna-N
11	OOR 06006	OOR 06016	O-Ring, Upper Seat	2	Buna-N
			O-Ring, Lower Seat		Buna-N
12	OR 06024		O-Ring, Reset Housing OD	2	Buna-N
13	OR 06001	OR 06002	Clapper Gasket	1	Buna-N or Neoprene
14	OR 16086		Hinge Pin	1	Stainless Steel UNS S21800
15	OR 16046		Lever Pin	1	Stainless Steel UNS S44000
16	OR 06131		Threaded Stud, #10-32 x ¾"	1	Stainless Steel 18-8
17	OR 16066		Locking Pin (not shown)	2	Stainless Steel UNS S44000
18	OR 06006		Piston	1	Stainless Steel CF8M
19	OR 00038		Socket Plug 3/8" - 18 NPT (not shown)	2	Steel
20	OR 06006		Pushrod	1	Stainless Steel UNS S30300
21	OR 16006		Pushrod Guide	1	Acetal
22	OR 06267		Retaining Ring, 1/2" Shaft	3	Stainless Steel 15-7 or 17-7
23	OR 06128		Button Head Screw #10-32 x 3/8"	1	
24	OR 06129		Hex Washer Head Screw #10-32 x 3/8"	4	Stainless Steel 18-8
25	OR 06107	N/A	Hex Cap Screw ½"-13 x 1½"	6	Zinc Plated Steel
	N/A	OR 06006	Hex Cap Screw 5/8"-11 x 1¾"		
26	OR 06111		Spring Lock Washer, #10	1	Stainless Steel UNS S31600
27	OR 06127		Flat Head Socket Cap Screw 3/8"-16 x ¾"	1	Steel
28	OR 06130		Socket Head Screw #10-32 x 1"	1	Stainless Steel UNS S31600
29	OR 06136		Socket Head Screw, ¼"-20 x 5/8"	6	Steel
30	OR 16066		Reset Shaft	1	Brass UNS C36000
31	OR 06004		Lever Spring	1	Stainless Steel UNS S30400
32	OR 06906		Piston/ Reset Spring	2	Stainless Steel UNS S31600
33	OR 06904		Clapper Spacer	3	Teflon
34	OR 76006		Diaphragm	1	EPDM & Polyester
35	OR 06006		Bumper Disc	1	SBR Rubber
36	OR 06066		Reset Housing	1	Brass UNS C36000
37	OR 56006		Reset Knob	1	Aluminum 6061
38	OR 9993406		O-Ring Grease, Duponttm Krytox® GPL-205	A/R	Krytox®
39	OR 16921		Knob Caution Label (Not Shown)	1	Polystyrene
40	OR 56922		Ball Chain, 1/8" (Not Shown) (Length is in Inches)	6	Nickel Plated Brass
41	OR 56923		Clamping Link, Ball Chain (Not Shown)	1	Nickel Plated Brass

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Resetting Model AGCX Deluge Valve Systems

Refer to Figs. 7, 8, 14,15,16,17&18.

1. Close the valve controlling water supply to the Deluge Valve and close valve A (Fig. 14).
2. Open main drain valve B (Fig. 14) and drain system.
3. Open all drain valves and vents at low points throughout the system, closing them when flow of water has stopped. Open valve D (Fig. 14).
4. With valve G (Fig. 14) open, push in the plunger of ball drip valve E (Fig. 14), forcing the ball from its seat to verify that there is atmospheric pressure inside the main valve chamber.
5. Push in and rotate external reset knob (#14, Fig. 12 or #38, Fig. 13) clockwise, until you hear a distinct noise indicating that the clapper has reset.
6. Inspect and replace any portion of the detection system subjected to fire conditions.
7. Open valve A (Fig. 14) and allow water to fill the push rod chamber. Close valve D (Fig. 14).
8. Bleed all air from the actuation piping.
   A. Wet Pilot Trim—bleed the entire wet pilot line until all air is removed at the most remote sprinkler.
   B. Electric Actuation Trim—open the solenoid valve by operating a detector or an electric manual emergency station. While water is flowing through the solenoid valve, cause it to close. Refer to Bulletin 700, “Special Hazards & Special Systems” for details.
   C. Dry Pilot Trim—open valve D (Fig. 14) allowing water to flow through the pilot line actuator. When all air has been expelled from the release line, and there is a solid flow of water into the drain cup J (Fig. 14), apply compressed air or nitrogen through the pressure maintenance device to close the pilot line actuator. Subsequently, close valve D (Fig. 14) and adjust the air or nitrogen pressure to the appropriate value in Table A as indicated on air pressure gauge (#71, Fig. 7 or #71, Fig. 8).
   D. Electro-Pneumatic actuation.

      Open valve D (Fig. 14) allowing water to flow through the pilot line actuator. When all air has been expelled from the release line, and there is a solid flow of water into the drain cup J (Fig. 14), apply compressed air or nitrogen through the pressure maintenance device to close the pilot line actuator. Subsequently, close valve D (Fig. 14) and adjust the air or nitrogen pressure to the appropriate value in Table A as indicated on air pressure gauge (#71, Fig. 7 or #71, Fig. 8).

      Open the solenoid valve by operating a detector or an electric manual emergency station. While air is flowing through the solenoid valve, cause it to close. Refer to Bulletin 700, “Special Hazards & Special Systems” for details.

   E. Combination of Electric ot Pneumatic Actuation Trim.

      Open valve D (Fig. 14) allowing water to flow through the pilot line actuator. When all air has been expelled from the release line, and there is a solid flow of water into the drain cup J (Fig. 14), apply compressed air or nitrogen through the pressure maintenance device to close the pilot line actuator. Subsequently, close valve D (Fig. 14) and adjust the air or nitrogen pressure to the appropriate value in Table A as indicated on air pressure gauge (#71, Fig. 7 or #71, Fig. 8).

      Open the solenoid valve by operating a detector or an electric manual emergency station. While air is flowing through the solenoid valve, cause it to close. Refer to Bulletin 700, “Special Hazards & Special Systems” for details.
9. Check that valves D (Fig. 14) and F (Fig. 14) are closed and that valve G is open (Fig. 14). Open slightly the valve controlling water supply to the Deluge Valve, closing the main drain valve B (Fig. 14) when water flows. Observe if water leaks through ball drip valve E (Fig. 14), into drain cup J (Fig. 14), (Be sure that valve G (Fig. 14) is open). If no leak occurs the water seat is tight. Open slowly but fully the valve controlling water supply to the Deluge Valve. Verify that it is fully opened and properly monitored.
10. Valve A (Fig. 14) must remain open when the Deluge Valve has been reset, to maintain water pressure in the push rod chamber.
11. Verify that the Manual Emergency Station, valve D (Fig. 14) is sealed in the OFF position with the appropriate nylon tie.

Inspection and Testing

Refer to Figs.,14,15,16,17&18.

1. **Water supply** — be sure the valves controlling water supply to the Deluge Valve are opened fully and properly monitored.
2. **Alarm line** — be sure that valve G (Fig. 14) is opened and remains in this position.
3. **Other trimming valves** — check that valve A (Fig. 14) is open, as well as all of the pressure gauge’s ¼“ 3-way valves. Valves D, F, & H (Fig. 14) should be closed.
4. **Ball drip valve E (Fig. 14)** — Make sure valve G (Fig. 14) is open. Push in on the plunger to be sure ball check is off its seat. If no water appears, the Deluge Valve’s water seat is tight. Inspect the bleed hole (see Fig. 12 of Fig. 13) on the underside of the push rod chamber for leakage.
5. **Dry pilot trim** — check air gauge pressure for conformance to Table A.

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6. **Releasing device** — check outlet of the releasing device (i.e., the dry pilot line actuator, solenoid valve, or the hydraulic manual emergency station) for leakage. Also verify that tubing drain lines from releasing devices are not pinched or crushed which could prevent proper releasing of the Deluge Valve.
7. **Testing alarms** — Make sure valve G (Fig. 14) is open. Open valve F (Fig. 14) permitting water from the supply to flow to the electric sprinkler alarm switch and to the mechanical sprinkler alarm (water motor). After testing, close this valve securely. Push in on the plunger of ball drip valve E (Fig. 14) until all of the water has drained from the alarm line.
8. **Operation test** — Open the Manual Emergency Station, valve D (Fig. 14).

Note: An operational test will cause the Deluge Valve to open and flow water into the sprinkler system.

9. Secure the Manual Emergency Station, valve D (Fig. 14), in the OFF position with nylon tie after Deluge Valve is reset.

Testing Detection System without Operating

Deluge Valve

Refer to Figs. 7, 8,14,15,16,17&18.

1. Close the valve controlling water supply to Deluge Valve and open the main drain valve B (Fig.14).
2. Verify that valve A (Fig. 14) is open, allowing water to enter the push rod chamber.
3. Operate detection system —
   - **A. Wet Pilot Trim** — open Manual Emergency Station, valve D (Fig. 14).
   - **B. Dry Pilot Trim** — directly above the Model LP Dry Pilot Line Actuator, remove the ¼" pipe plug (#58, Fig. 7 or #59, Fig. 8) and open the ¼" three-way valve (#70, Fig. 7 or #70, Fig.8).
   - **C. Electric Actuation** — refer to Bulletin 700.
   - **D. Electro -Pneumatic Actuation Trim** directly above the Model LP Dry Pilot Line Actuator, remove the ¼" pipe plug (#58, Fig. 7 or #59, Fig. 8) and open the ¼" three-way valve (#70, Fig. 7 or #70, Fig.8).

     -Solenoid: refer to Bulletin 700.
   - **E. Combination of Electric or Pneumatic Actuation Trim** directly above the Model LP Dry Pilot Line Actuator, remove the ¼" pipe plug (#58, Fig. 7 or #59, Fig. 8) and open the ¼" three-way valve (#70, Fig. 7 or #70, Fig.8).

     -Solenoid: refer to Bulletin 700.
4. Operation of the detection system must result in a sudden drop of water pressure in the push rod chamber.
5. Reset detection system — reverse operations performed in step three above and then proceed according to the directions listed in the "Resetting Model AGCX Deluge Valve Systems" section of this bulletin for resetting the Deluge Valve.

Draining Excess/Condensate Water From System

Refer to Fig. 14

1. Close the valve controlling water supply to Deluge Valve. Also close valve A and open main drain valve B.
2. Open condensate drain valve H until all water has drained. Close valve H.
3. Close main drain valve B. If system contains pressurized air, allow air pressure to come back up to specification (see table A). Open valve A and the valve controlling the water supply to the Deluge Valve.

Maintenance Procedures -

Model AGCX Deluge Valve

Refer to Figs. 7, 8, 14,15,16,17&18.

1. **Mechanical sprinkler alarm (water motor–not shown) not operating:** This is most likely caused by a clogged screen in the strainer of the water motor. Proceed as follows: Remove plug from the strainer.Remove and clean the screen. Replace the screen and the plug, and then tighten securely (Ref. Bulletin 613).
2. **Leakage out of the ball drip valve E (Fig. 14).**
   - **a. Water leakage due to water column in deluge systems:** This condition can be caused by leakage past the system side of the Model AGCX Deluge Valve's seal assembly (#8, Fig. 12 or #5, Fig. 13). Be sure that this surface is free of any type of debris. To eliminate leakage due to water column in a deluge system, refer to the section in this bulletin marked "Draining Excess/Condensate Water From System". If the problem continues proceed to the following section.
   - **b. Leakage, air or water from the ball drip valve, E (Fig. 14):** If system air is leaking out the ball drip valve, the problem is either damage to the airside of the Model AGCX Deluge Valve's seal assembly (#8, Fig. 12 or #5, Fig. 13), seat (#29, Fig. 12 or #2, Fig. 13), the upper seat o-ring(#23, Fig. 12 or #11, Fig. 13) or, on the 8" (200 mm) valve size only, the mounting ring o-ring (#2, Fig. 12). If supply water is leaking out the ball drip valve, the problem could be caused by damage to the Model AGCX Deluge Valve's seal assembly (#8, Fig. 12 or #5, Fig. 13), seat (#29, Fig. 12 or #2, Fig. 13), or lower seat O-ring (#24, Fig. 12 or #11, Fig. 13). The following section provides instructions to correct both conditions:

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A) Shut down the valve controlling the water supply to the Deluge Valve and open the 1¼" main drain valve on the 2" (50mm), 2½" (65mm), and 3" (80mm) valve sizes or the 2" main drain valve on the 4" (100mm), 6" (150mm) and 8" (200mm) valve sizes, valve B (Fig. 14). Open the water column drain valve H (Fig. 14). Close the pushrod chamber supply valve A (Fig. 14) and open the Manual Emergency Station, valve D (Fig. 14).

B) Remove the Deluge Valve's front (handhold) cover (#7, Fig. 12 or #4, Fig. 13) and inspect the seat (#29, Fig. 12 or #2, Fig. 13), clapper (#6, Fig. 12 or #3, Fig. 13), and seal assembly (#8, Fig. 12 or #5, Fig. 13) for damage. If inspection indicates damage to the seal assembly (#8, Fig. 12 or #5, Fig. 13), replace as follows:

For Valve Sizes: 2" (50mm), 2½" (65mm), 3" (80mm), 8" (200mm) and 4" (100mm), 6" (150mm) with Screw- In Seat only, Refer to Fig. 7, Fig. 8 & Fig. 12: Remove the bumpstop nuts (#10, Fig. 12) and remove the seal assembly (#8, Fig. 12). Install a new seal assembly (#8, Fig. 12) and thread the bumpstop nuts (#10, Fig. 12) onto the threaded studs of the seal assembly (#8, Fig. 12) and tighten finger tight plus ¼ to ½ turn. If inspection indicates damage to the clapper (#6, Fig. 12) only, then the clapper subassembly can be removed as follows:

At the rear of the valve, disconnect the water column drain trim section starting with the elbow connector (#22, Fig. 7 or #21, Fig. 8). Then remove the ¼" globe valve (#33, Fig. 7 or #33, Fig. 8), followed by the ¾"x¼" reducing bushing (#52, Fig. 7 or #53, Fig. 8). Remove the retaining ring (condensate drain side for 2" (50mm), 2½" (65mm), 3" (80mm), 8" (200mm) valve sizes or hand hole cover side for 4" (100mm), 6" (150mm) valve sizes) from the clapper hinge pin (#30, Fig. 12) and push this pin through the hand hole opening (for 2" (50mm), 2½" (65mm), 3" (80mm), 8" (200mm) valve sizes or condensate drain side for 4" (100mm), 6" (150mm) and valve sizes) and remove the clapper subassembly. Replace the seal assembly as described **previously. Inspect the clapper (#6, Fig. 12) visually before reinstalling. Reinstall in** the reverse order making sure the clapper spacers are in their proper position. If the seat (#29, Fig. 12) is damaged or it is suspected that the leakage is through the lower O-ring (#24, Fig. 12), the seat-clapper subassembly is easily removed as a unit as follows:

Using AG Sprinkler OOR603000 Seat Wrench for 2" (50mm), 2½" (65mm), 3" (80mm) valve sizes, AG Sprinkler OOR04000 for 4" (100mm) valve size, AG Sprinkler OOR06000 for the 6" (150mm) valve sizes or AG Sprinkler P/N 6881608000 Seat Wrench for 8" (200mm) valve size, remove the seat by unscrewing. This will loosen the seatclapper- mounting ring subassembly. Reach into the valve and grasp the seat and remove it from the valve. Then remove the clappermounting ring subassembly from the valve. Visually examine all components of the seatclapper- mounting ring subassembly replacing any component that appears damaged. New O-rings (#23 & #24, Fig. 12 and #2, Fig. 12 (8"

(200mm) valve size only)) should always be used for reassembly.

For Valve Sizes: 4" (100mm), 6" (150mm) with Drop-In Seat Confi guration only, Refer to Fig. 8 and Fig. 13:

At the rear of the valve, disconnect the water column drain trim section starting with the elbow connector (#21, Fig. 8). Then remove the ¼" angle globe (#33, Fig. 8), followed by the ¾"x¼" reducing bushing (#53, Fig. 8). Remove the retaining ring (hand hole cover side) from the clapper hinge pin (#14, Fig. 13) and push this pin through the condensate drain port and remove the clapper subassembly. Remove the four retaining screws (#24, Fig. 13) holding the seal faceplate assembly (#5, Fig. 13). Inspect the clapper (#3, Fig. 13) visually before installing. Apply a small amount of silicone based lubricant to the four retaining screws. Install a new seal faceplate assembly. Torque the retaining screws to approximately 40 inchpounds and reassemble. If the seat (#2, Fig. 13) is damaged or it is suspected that the leakage is through the lower o-ring (#11, Fig. 13), the seat-clapper subassembly is easily removed as a unit as follows:

Using a 5/16" Allen wrench, remove the two 3/8" NPT pipe plugs (#19, (not shown) Fig. 13) located on the side chamber side of the Model AGCX deluge valve. The seat-clapper subassembly is retained by two locking pins (#17, (not shown) Fig. 13). The centers of these pins have a ¼"-20 threaded hole. Remove the two locking pins by engaging them with a ¼"-20 screw and pulling them out (the two locking pins are not externally threaded, so turning them with the attached ¼"-20 screw or threaded rod is not recommended. A proven method is to use ¼"-20 threaded rod with a locknut on the unassembled end. Grab hold of the locknut with a pliers or vise-grips and tap the pliers or vise-grips in the direction away from the Deluge Valve. Doing so should pull the locking pins out of the Deluge Valve. With the clapper (#3, Fig. 13) in the closed position (not latched), dislodge the clapper-seat subassembly from the valve body by inserting two slotted screwdrivers under the lever and clapper mounting ears and pry up until the clapper-seat subassembly is free from its bore. Reach into the valve and grasp the clapper-seat subassembly from the sides. Making sure the clapper is in the closed position (see Fig. 1), lift up and rotate the clapper- seat sub assembly clockwise 90 degrees so that the lever side of the assembly is facing up towards the outlet of the deluge valve. Next, rotate the clapper-seat sub assembly 90 degrees about the centerline of the valve so that the clapper is facing the hand hole open- 29. ing and the lever is still facing the outlet of the deluge valve.. Then rotate the clapper-seat sub assembly 90 degrees, so that the clapper is now facing the outlet of the deluge valve and the lever is now facing the back of the valve. Pull the clapper-seat sub assembly out through the hand hole opening by the hinge pin side. Rotating the seat-clapper subassembly up as it is being removed will help it slide out more easily since the lever will prohibit it from sliding straight out. Visually examine all components of the clapper-seat subassembly replacing any component that appears damaged. New orings (#11, Fig. 13) should always be used for reassembly.

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Reassembly:

For Valve Sizes: 2" (50mm), 2½" (65mm), 3" (80mm), 8" (200mm) and 4" (100mm), 6" (150mm) with Screw- In Seat Confi guration only, Refer to Fig. 12:

Clean the bore of the valve body. Lubricate the bore with O-ring grease. Lubricate and install the O-rings (#23 & #24, Fig. 12) onto the seat. Lubricate and install the mounting ring o-ring (#2, Fig. 12) into the body (8" (200mm) valve size only). Insert the clapper-mounting ring subassembly into the handhold opening of the Deluge Valve using caution to not damage or dislodge the mounting ring o-ring (#2, Fig. 12) (8" (200mm) valve size only). Align the mounting ring so that the Lever (#15, Fig. 12) is near the pushrod (#25, Fig. 12) and the mounting ring (#5, Fig. 12) "ears" are between the tabs of the valve body (#1, Fig. 12). Insert the seat (#29, Fig. 12) into the valve body (#1, Fig. 12) and through the clapper-mounting ring subassembly. Start to tread the seat (#29, Fig. 12) into the body by hand, then tighten the seat (#29, Fig. 12) with AG Sprinkler OOR03000 Seat Wrench for 2" (50mm), 2½" (65mm), 3" (80mm) valve sizes , AG Sprinkler OOR04000 Seat Wrench for 4" (100mm) valve size, AG Sprinkler OOR06000 Seat Wrench for 6" (150mm valve sizes or AG Sprinkler OOR08000 Seat Wrench for 8" (200mm) valve size until it bottoms out on the mounting ring (#5, Fig. 12).Verify that the seat-clappermounting ring subassembly is in the fully down position between the tabs of the body, and check to see that the lever (#15, Fig. 12) lines up with the push rod (#25, Fig. 12). Loosen and reassemble if necessary. Reassemble thehandhold cover (#7, Fig. 12) and set up the Model AGCX Deluge Valve as per the section "Resetting Model AGCX Deluge Valve Systems."

For Valve Sizes: 4" (100mm) , 6" (150mm) with Drop-In Seat Confi guration only, Refer to Fig. 13:

It is likely that the lower seat o-ring (#11, Fig. 13) has remained at the bottom of the Deluge Valve body's bore. Discard this o-ring and clean the bore. Lubricate the bore with o-ring grease and place the lower o-ring on the step at the bottom of the bore, verifying that it is in full contact with the bore. Lubricate the bottom step and upper o-ring (#11, Fig. 13) of the refurbished clapperseat subassembly. Insert the clapper-seat sub assembly into the hand hole opening, lever (#7, Fig. 13) first and rotating the clapper-seat subassembly until the lever faces the outlet of the deluge valve. Next rotate the clapper-seat subassembly 90 degrees about the center axis of the valve until the bottom of the clapper-seat sub assembly faces the pushrod (#20, Fig. 13). Then rotate the clapper-seat subassembly 90 degrees counterclockwise so that the clapper (#3, Fig. 13) is facing the outlet of the deluge valve and the lever (#7, Fig. 13) is facing the pushrod (#20, Fig. 13). Once the clapper seat subassembly is in this position simply slide the assembly into the bore of the valve, making sure it is straight to avoid binding of the seat in the bore. Slightly twisting the assembly will assist in getting the clapper-seat subassembly properly seated. Once it is verified that the clapper-seat sub assembly is in the fully down position and the lever (#7, Fig. 13) is aligned with the pushrod (#20, Fig. 13), clean and lubricate the two locking pins (#17, (not shown) Fig. 13) with o-ring lubricant. Slide the two locking pins into the deluge valve body to lock the seat in place. Slightly twisting and pressing down on the clapper-seat subassembly will help the pins to slide in more easily. Then reinstall the 3/8" NPT pipe plugs (#19, (not shown) Fig. 13). Reassemble the hand hole cover (#4, Fig. 13) and set up the Model AGCX Deluge Valve as per the section "Resetting Model AGCX Deluge Valve Systems".

3. **Leakage out of the push rod chamber vent hole:** A small bleed hole is located on the underside of the push rod chamber (see Fig. 12 or Fig. 13). If there is air or water leakage coming out of this hole, do the following:
   a) Shut down the valve controlling water supply to the Deluge Valve. Relieve the inlet pressure by opening the 1¼" main drain valve on the 2" (50mm), 2½" (65mm), 3" (80mm) valve sizes or the 2" main drain valve on the 4" (100mm), 6" (150mm) and 8" (200mm) valve sizes, valve B (Fig. 14). Close valve A (Fig. 14) that supplies water to the push rod chamber, and open the Manual Emergency Station, valve D (Fig. 14).
   b) Remove the trim at the unions nearest to the push rod chamber cover (#3, Fig. 12 or #8, Fig. 13).
   c) Take the push rod chamber cover (#3, Fig. 12 or #8, Fig. 13) off by removing the six retaining screws (#26, Fig. 12 or #29, Fig. 13).

   CONDITION ONE (Water coming out of the bleed hole):

   Water coming out of the bleed hole is caused by a leaking diaphragm (#18, Fig. 12 or #34, Fig. 13). Visually inspect the push rod chamber cover (#3, Fig. 12 or #8, Fig. 13), piston (#17, Fig. 12 or #18, Fig. 13 and bore of the body (#1, Fig. 12 or #1, Fig. 13) to determine what could have damaged the diaphragm and correct. Install a new diaphragm. **NOTE:** The diaphragm has two different surfaces; it is not bi-directional. It will fail if installed backwards!

   Roll the diaphragm so that the smooth surface (the pressure side) conforms to the inside of the push rod chamber cover and reassemble the six retaining screws (#26, Fig. 12 or #29, Fig. 13) with an installation torque of 15 foot-pounds. Set up the Model AGCX Deluge Valve as per the section "Resetting Model AGCX Deluge Valve Systems."

   CONDITION TWO (System Air coming out of the bleed hole):

   System air coming out of the bleed hole is caused by a defective O-ring assembled to the push rod guide (#11, Fig. 12 or #21, Fig. 13). Remove the piston- push rod subassembly, push rod spring (#34, Fig. 12 or #32, Fig. 13), and push rod guide (#11, Fig. 12 or #21, Fig. 13). Verify by hand turning, that the push rod cannot be unscrewed from the piston. Replace all O-rings and the push rod guide (#21, #22 and #11, Fig. 12 or #9, #12 and #21, Fig.13). The correct installation torque for the pushrod guide is 35 inch-pounds. **CAUTION:** Do not over tighten the push rod guide. Reassemble the components that were initially removed. Re-install the diaphragm (#18, Fig. 12 or #34, Fig. 13) if it appears to be in good shape, otherwise, replace it also. **NOTE:** The diaphragm has two different surfaces; it is not bidirectional.

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It will fail if installed backwards! Roll the diaphragm so that the smooth surface (the pressure side) conforms to the inside of the push rod chamber cover and reassemble the six retaining screws (#26, Fig. 12 or #29, Fig. 13) with an installation torque of 15 foot-pounds. Set up the Model AGCX Deluge Valve as per the section

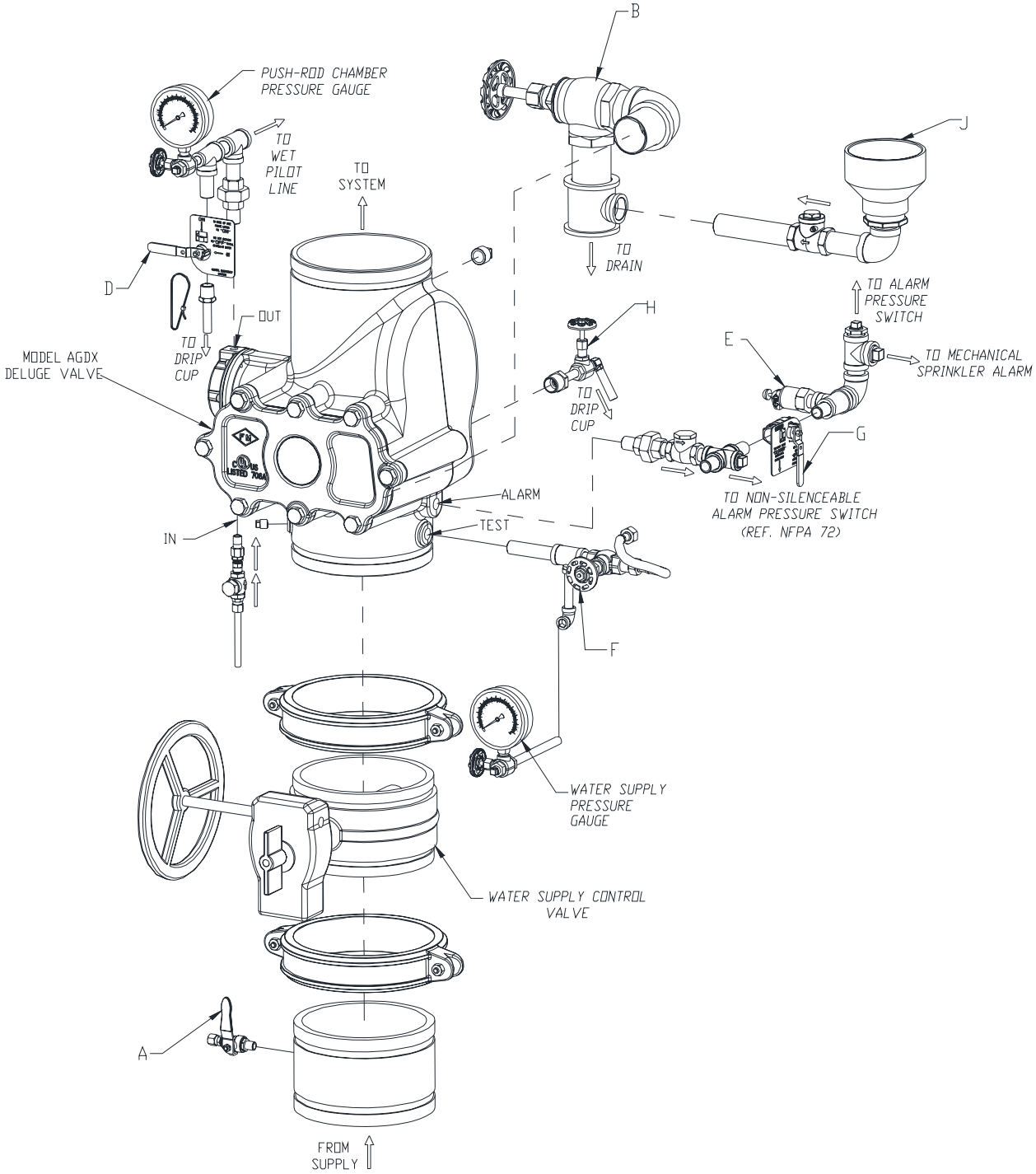

Fig. 14

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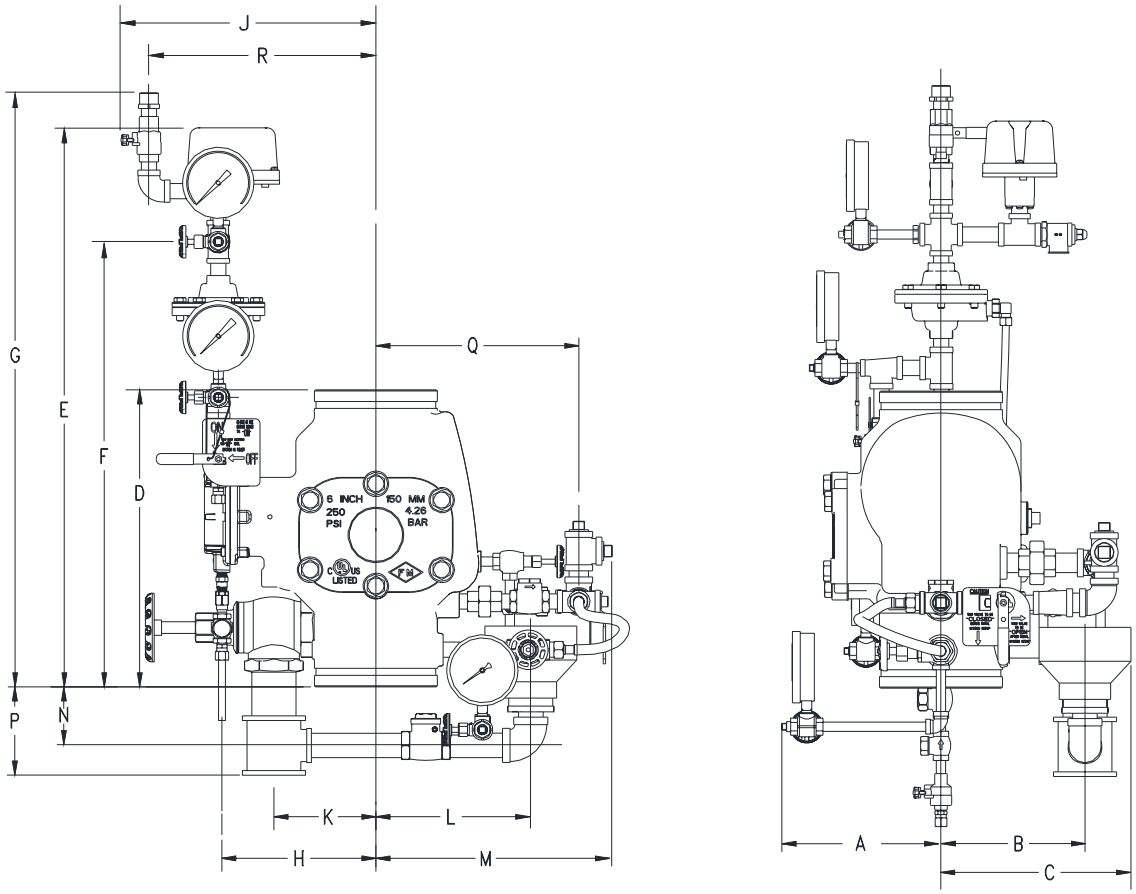
DRY PILOT LINE TRIM SHOWN (FULLY ASSEMBLED WITHOUT CONTROL VALVE)



SOLENOID VALVE INSPECTIONS, TESTS AND MAINTENANCE

WARNING: THE OWNER IS RESPONSIBLE FOR MAINTAINING THE FIRE PROTECTION SYSTEM IN PROPER OPERATING CONDITION. ANY SYSTEM MAINTENANCE OR TESTING THAT INVOLVES PLACING A CONTROL VALVE OR DETECTION SYSTEM OUT OF SERVICE MAY ELIMINATE THE FIRE PROTECTION OF THAT SYSTEM. PRIOR TO PROCEEDING, NOTIFY ALL AUTHORITIES HAVING JURISDICTION. CONSIDERATION SHOULD BE GIVEN TO EMPLOYMENT OF A FIRE PATROL IN THE AFFECTED AREA.

WARNING: PRIOR TO OPERATING THE SOLENOID VALVE, BE SURE TO CLOSE THE SYSTEM CONTROL VALVE TO AVOID UNINTENTIONAL OPERATION OF THE DELUGE VALVE

1. Inspections: It is imperative that the system be inspected and tested in accordance with NFPA 25 on a regular basis. The frequency of the inspections may vary due to contaminated water supplies, corrosive water supplies, or corrosive atmospheres. In addition, the alarm devices, detection systems, or other connected trim may require a more frequent schedule. Refer to the system description and applicable codes for minimum requirements.
2. The valve must be inspected at least monthly for cracks, corrosion, leakage, etc., and cleaned, repaired, or replaced, or replaced as necessary.
3. If Leakage is suspected through the solenoid valve, the valve diaphragms and seat should be inspected and if necessary, repaired or replaced.

WARNING: CLOSE SYSTEM CONTROL VALVE, TURN OFF POWER SUPPLY, AND DEPRESSURIZE VALVE BEFORE DISASSEMBLING VALVE. IT IS NOT NECESSARY TO REMOVE THE VALVE FROM THE PIPE LINE TO MAKE INSPECTIONS.

4. When lubricating valve components, use high grade silicone grease (Dow Corning® 111 Compound Lubricant or equal).

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5. When reassembling, tighten parts to torque values indicated in the manufacturer's maintenance instructions (packed with valve).
6. After maintenance is completed, operate the valve a few times to be sure of proper operation. A metallic "click" signifies the solenoid is operating.
7. All service must be performed by qualified personnel. Upon completion of inspections or replacement of the valve, the entire system must be checked for proper operation. See appropriate system description and testing instructions for additional information.

The equipment presented in this bulletin is to be installed in accordance with the latest published Standards of the National Fire Protection Association, Factory Mutual Research Corporation, or other similar organizations and also with the provisions of governmental codes or ordinances whenever applicable.
Products manufactured and distributed by AG Sprinkler have been protecting life and property for over 90 years, and are installed and serviced by the most highlyqualified and reputable sprinkler contractors located throughout the United States, Canada and foreign countries.

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