HUSSEY DELUGE VALVE

**FEATURES**

- 5-Year Warranty
- Low Head Loss
- Cast Steel Construction
- Stainless Steel Pilot and Tubing
- Stainless Steel Solenoid
- Anti-Cavitation Design
- Fuse Coat Epoxy Inside and Out
- Nickel Aluminum Bronze Construction Option (Alloy C95800)
- Duplex Stainless Steel Construction Option (Alloy 2205)

**BENEFITS**

- Low Maintenance
- Simple and Reliable Operation

FM APPROVED
The Hussey Deluge Valve is a pressure-operated, in-line axial valve. A tube diaphragm actuates the valve, which is comprised of three major components: 1) Tube; 2) Barrier; and 3) Body. There is only one moving part in the valve - the tube diaphragm. There are no shafts, packing, stem guides or springs.

The tube diaphragm is a one piece, homogeneous nitrile rubber part which is extremely durable. The ends of the tube are thick solid rubber, designed to fit between mating flanges. This design eliminates the possibility of cutting the tube diaphragm due to overtightening or piping misalignment during installation.

The tube forms a drip tight seal around the barrier when the pressure is equalized between the valve inlet and the control chamber. When pressure is removed from the control chamber, the valve is open. Forty P.S.I. inlet pressure is the minimum recommended operating pressure.

**INTRODUCTION   HUSSEY DELUGE VALVE**

**MAIN VALVE**
- Flanged ANSI B16.5
- ASTM A216 WCB
- Nitrile Rubber
- Urethane
- 316 SS
- 250 PSIG (17.24 BAR)
- 32°F to 180°F (0°C to 82.2°C)

**MAIN VALVE OPTIONS**
- Body: Nickel Aluminum Bronze (Alloy C95800) or Duplex SS (Alloy 2205)

**PILOT VALVE**
- Nitrile Rubber
- 20 to 250 PSIG
- 20 to 250 PSIG
- Latches in operated position; manual reset

**PILOT VALVE OPTIONS**
- All Parts: Monel (Alloy 400)
- Operation: Non-latching

**DELUGE VALVE SPECIFICATIONS**

<table>
<thead>
<tr>
<th>VALVE SIZE</th>
<th>4&quot;</th>
<th>6&quot;</th>
<th>8&quot;</th>
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<tbody>
<tr>
<td>L/IN</td>
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<td>18.25</td>
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<tr>
<td>L/MM</td>
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<td>463.55</td>
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<td>298.45</td>
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<td>1/2</td>
<td>1/2</td>
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<td>T-3 (NPT)</td>
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<td>2</td>
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<tr>
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<tr>
<td>WT/Kg</td>
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<td>89</td>
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See general arrangement drawings for Factory Mutual approved versions.
**CLOSING**
Water pressure from valve inlet is applied to the control chamber. Valve closes bubble tight.

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**OPENING**
When pressure in control chamber is relieved, the valve is open.

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**MANUAL RESET DELUGE PILOT**
Operation: Pull to RESET, Push to OPERATE.
Valve “latches” in operated position.
Control Range: 20 to 250 PSIG
Pilot can be reset at 20 PSIG.
Pilot Pressure Range: 20 to 250 PSIG
TO DEFINE HEAD LOSS THROUGH THIS VALVE AT VARIOUS FLOW RATES, USE THE FOLLOWING EQUATION:

\[ \Delta P = \left( \frac{Q}{C_V} \right)^2 \]

\[ \Delta P = \left( \frac{Q}{K_V} \right)^2 \times 0.06894 \]

\[ \Delta P = \text{Pressure Drop in PSIG} \]
\[ Q = \text{Flow Rate in GPM} \]
\[ C_V = \text{Flow Factor} \]

\[ \Delta P = \text{Pressure Drop in BAR} \]
\[ Q = \text{Flow Rate in Cu. Meters/Hour} \]
\[ K_V = \text{Flow Factor} \]

1 BARG = 14.5 PSIG
1 M³/Hr. = 4.4 GPM