

## Deluge Valves Size 2"-12"

FIG · 9266

### Specifications

- Automatic valve, hydraulically activated by the pressure of the pipeline, direct diaphragm sealing weir type with proven reliable design.
- Design for use in any water and foam supply application.
- The valve consists of three major components: body, cover and diaphragm. The only moving part is the diaphragm.
- Fast opening and cushioned closure operation.
- Will regulate from near zero flow.
- Exceptionally low pressure losses.
- Flanges to ANSI B16.1, 125 lb. ( other types available on request ) .
- UL Listed.
- Fusion Bonded Epoxy Coated Interior and Exterior to AWWA C550 Standard.

### Working Pressure

- 300PSI .

### Working Temperature

- 0°C to 68°C for electrical signals.
- 4.4°C to 68°C for wet lead nozzle pipe.

### Corrosion Protection

- Internally and externally liquid epoxy painted or fusion bonded epoxy powder coated ( FBE ) .

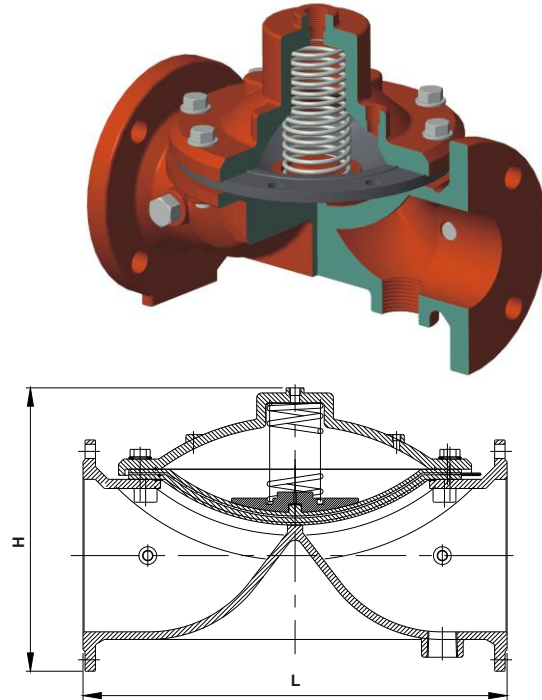
### Notes:

*Design and material are subject to change without notice.*

### Material Specifications

| Component                  | Material                | ASTM Spec.               |
|----------------------------|-------------------------|--------------------------|
| Body                       | Ductile Iron            | A536 65-45-12            |
| Cover                      | Ductile Iron            | A536 65-45-12            |
| Elastomers                 | Rubber                  | NR / NBR / EPDM / Buna-N |
| Control Trim & Accessories | Brass / Stainless Steel |                          |

### Schematic



Connection: FL\*FL/FL\*Gr/Gr\*Gr

### Dimensions ( mm )

| Size   |         | L   |       | H   |       |
|--------|---------|-----|-------|-----|-------|
| mm     | inch    | mm  | inch  | mm  | inch  |
| DN 50  | 2"      | 233 | 9.17  | 188 | 7.40  |
| DN 65  | 2- 1/2" | 290 | 11.42 | 200 | 7.87  |
| DN 80  | 3"      | 310 | 12.20 | 260 | 10.24 |
| DN 100 | 4"      | 356 | 14.02 | 274 | 10.79 |
| DN 125 | 5"      | 370 | 14.57 | 292 | 11.50 |
| DN 150 | 6"      | 436 | 17.17 | 332 | 13.07 |
| DN 200 | 8"      | 530 | 20.87 | 424 | 16.69 |
| DN 250 | 10"     | 636 | 25.04 | 483 | 19.01 |
| DN 300 | 12"     | 835 | 32.87 | 558 | 21.97 |

### Working principle and operation

- The WEFLO 9266 Deluge Valve is a diaphragm style valve that depends upon water pressure in the Diaphragm Chamber to hold the Diaphragm closed against the water supply pressure.
- When the Valve is set for service, the Diaphragm Chamber is pressurized through the trim connections from the inlet side of the system's main control valve.
- Opening an actuation device, for example the solenoid valve in the Electric Actuation Trim, releases water from the Diaphragm Chamber faster than it can be replenished through restriction provided by the diaphragm chamber supply connection provided in the applicable trim arrangements.
- This results in a rapid pressure drop in the Diaphragm Chamber and the Force differential applied through the Diaphragm to hold the Diaphragm in the set position is reduced below the valve trip point.
- The water supply pressure then forces the Diaphragm open, permitting water to flow into the system piping

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**FIG · 9266**

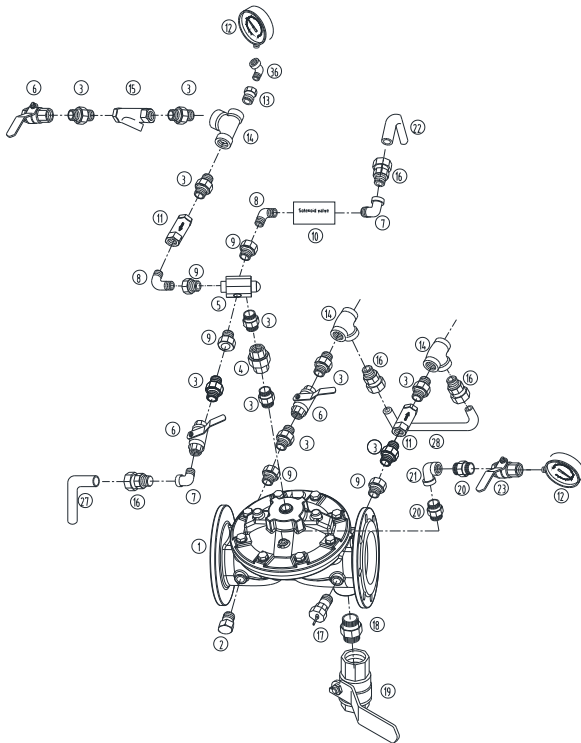
### Schematic



### Material Specifications

| No. | Part Name                                 | Material       |
|-----|---|----------------|
| 1   | Main Valve                                | Ductile Iron   |
| 2   | ½" Plug                                   | Malleable Iron |
| 3   | ½" Nipple                                 | Malleable Iron |
| 4   | ½" Union                                  | Malleable Iron |
| 5   | Water Relay                               |                |
| 6   | ½" Ball Valve                             | Brass          |
| 7   | ¼" 90° Elbow                              | Malleable Iron |
| 8   | ¼" 90° Elbow                              | Malleable Iron |
| 9   | Tube                                      | Malleable Iron |
| 10  | ½" Nipple                                 | Brass          |
| 11  | ½" Swing Check Valve                      | Brass          |
| 12  | Water Pressure Gauge                      |                |
| 13  | ½"×¼" Reducing Joint                      | Malleable Iron |
| 14  | ½" Tee                                    | Malleable Iron |
| 15  | ½" Y-Strainer                             | Brass          |
| 16  | Card Sleeve Joint                         | SS 304         |
| 17  | Drip Valve                                |                |
| 18  | 1-¼" Nipple(2"-3"), 2" Nipple(4"-12")     | Malleable Iron |
| 19  | 1-¼" Angle Valve(2"-3"), 2" Angle(4"-12") | Brass          |
| 20  | ¼" Nipple                                 | Malleable Iron |
| 21  | ¼" 90° Elbow                              | Malleable Iron |
| 22  | Tube 1                                    | SS 304         |
| 23  | ¼" Ball Valve                             | Brass          |
| 25  | ¾" Nipple                                 | Malleable Iron |
| 26  | ¾"×½" 90° Elbow                           | Malleable Iron |
| 27  | Tube 2                                    | SS 304         |
| 28  | Tube 3                                    | SS 304         |

### Accessories



### Installation

- Install the deluge valve in a readily visible and accessible location.
- Before trim installation, clean all nipples, fittings, and devices to ensure they are free of scale and burrs. Use pipe-thread sealant sparingly on male pipe threads only.
- Exercise care to ensure that check valves, strainers, and globe valves are installed with the flow arrows in the proper direction.
- Drain tubing must be installed with smooth bends that will not restrict flow.
- Ensure suitable provision exists for disposal of drain water (as in the case of a flow test via the Main Drain Valve). Direct drain water so that it can not cause accidental damage to property or danger to persons.
- Connect the Diaphragm Chamber Supply Control Valve to the inlet side of the Main Control/Shut-Off Valve to facilitate setting the valve.
- The connection to the Diaphragm Chamber Supply Control Valve should be as short as practical and from the same water supply as the system.
- Make conduit and electrical connections in accordance with the requirements of the authority having jurisdiction and/or the National Electrical Code (NFPA 70).

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