

A.R.I. D-060 NS



Full-bore, Non-slam, Combination Air Valve Series

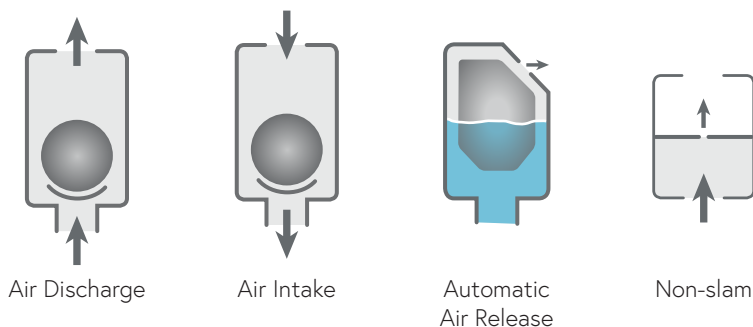
Description

A.R.I. D-060 NS is a non-slam, full-bore, surge-dampening Combination Air Valve Series. Installed on liquid transmission systems, the Air Valve is designed to improve hydraulic operation by protecting the pipeline, increasing pipeline efficiency and reducing energy requirements. The Air Valve provides both high-capacity vacuum protection and efficient surge suppression.



Installation

- Pump stations: downstream of the pump and the check valve
- Downstream and upstream of shut-off valves
- Downstream of deep-well pumps
- On long constant-sloped pipeline segments
- At peaks along the pipeline and at peaks relative to hydraulic gradient
- Water pipelines with anticipated conditions of surge and water hammer
- Water pipelines where water column separation occurs
- Municipal and industrial water conveyance systems

Operation



Features and Benefits

| | |
|--|---|
| Flow cross-sections | Equal to or greater than nominal port area |
| Simple product design | Easy to install and maintain |
| Aerodynamic design | High-capacity air discharge, no premature closure |
| | Reduces water hammer impact |
| | Saves energy and increases system efficiency |
| Unique orifice seat / seal design | Long-term maintenance-free operation |
| Screen protected outlet | Prevents intrusion of insects and debris |
| Construction materials | Non-corrosive and durable |
| Automatic air release valve rolling seal | Leak-free sealing over a wide range of pressure differentials |
| Automatic air release valve orifice | High flow air release, lessens obstruction by debris |
| Non-slam (NS) device | Efficient surge suppression |
|  ATEX certified air valves | ATEX certified air valves are optional by customer request. Certification is conditional upon the customer connecting the designated part on the product to a dedicated ground connection point |
|  NSF/ANSI/CAN 61 certified & listed | For drinking water system component |
| | NSF/ANSI 372 certified & listed |

Technical Specifications

| | |
|------------------------|---|
| Size range | 1" - 10" 2" - 8" (D-065 NS only) |
| Working pressure range | A.R.I. D-060 L NS 0.05 - 16 bar (PN16) A.R.I. D-060 NS 0.2 - 16 bar (PN16) A.R.I. D-062 NS 0.2 - 25 bar (PN25) A.R.I. D-065 NS 0.2 - 40 bar (PN40) |
| Testing pressure | 1.5 times maximum working pressure |
| Temperature | Maximum working temperature: 60° C Maximum intermittent temperature: 90° C |

Upon ordering, please specify: model, size, working pressure, thread / flange standard and type of liquid

Valve Selection Options

| | |
|--|---|
| Models | A.R.I. D-060 NS A.R.I. D-060 L NS A.R.I. D-062 NS A.R.I. D-065 NS |
| Valve connection | Threaded male BSPT/NPT (1", 2") Flanged ends to meet various requested standard (2"-10") |
| Standard materials | Cast Stainless Steel 316 |
| Pressure rating | PN16 A.R.I. D-060 NS A.R.I. D-060 L NS PN25 A.R.I. D-062 NS PN40 A.R.I. D-065 NS |
| Additional product configurations | SB Underground Air Valve System |



A.R.I. D-060 NS
A.R.I. D-062 NS



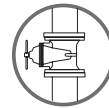
A.R.I. D-060 L NS



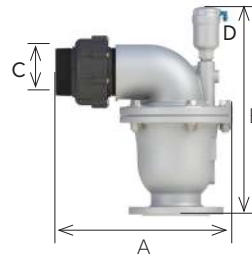
A.R.I. D-065 NS

The isolation valve installed under the air valve must be fully open to prevent damage or malfunction and ensure performance within the specifications of the air valve.

For complete installation instructions, please refer to the IOM document.



A.R.I. D-060 NS



FL - Flanged THR - Threaded

Dimensions and Weight

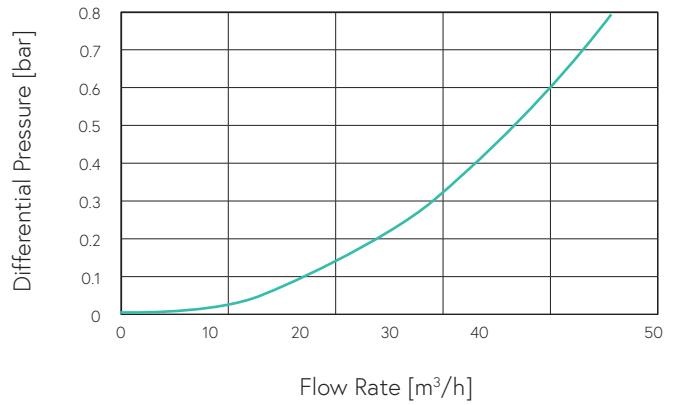
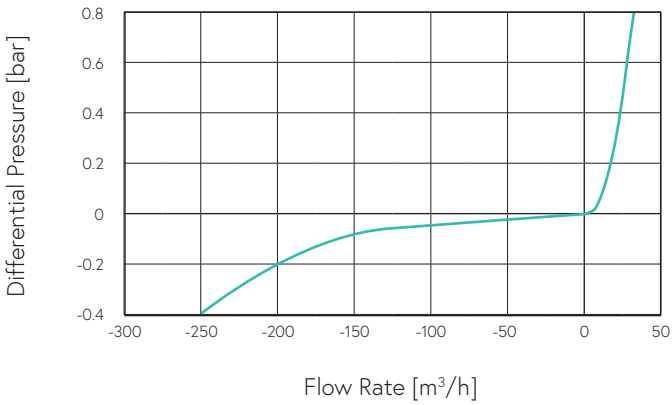
| Model | Size | Dimensions (mm) | | Connections | | Weight (kg) | Orifice Area (mm ²) | | |
|------------------------------|----------------|-----------------|-----|-------------|-----------------|-------------|---------------------------------|------------|----------|
| | | max. A | B | C | D | | A / V | Auto. | |
| A.R.I. D-060 NS | | | | | | | | | |
| Horizontal Outlet | 1" (25mm) THR | 250 | 303 | 1½" Female | 1/8" Female | 4.4 | 507 | 12 | |
| | 2" (50mm) THR | 270 | 380 | 2" Female | 1/8" Female | 10.3 | 1960 | 12 | |
| | 2" (50mm) FL | 270 | 367 | 2" Female | 1/8" Female | 12.7 | 1960 | 12 | |
| | 3" (80mm) FL | 338 | 423 | 3" Female | 1/8" Female | 20.2 | 5030 | 12 | |
| | 4" (100mm) FL | 404 | 480 | 4" Female | 1/8" Female | 31.5 | 7850 | 12 | |
| Screen Cover | 6" (150mm) FL | 375 | 689 | | 1/8" Female | 78 | 17662 | 12 | |
| | 8" (200mm) FL | 463 | 849 | | 1/8" Female | 156 | 31400 | 12 | |
| | 10" (250mm) FL | 586 | 993 | | 1/8" Female | 291 | 49087 | 12 | |
| A.R.I. D-060 C NS / D-062 NS | | | | | | | | D-060 C NS | D-062 NS |
| Horizontal Outlet | 1" (25mm) THR | 250 | 311 | 1½" Female | 1/8" Female | 5.3 | 507 | 12 | 9 |
| | 2" (50mm) THR | 270 | 388 | 2" Female | 1/8" Female | 11.3 | 1960 | 12 | 9 |
| | 2" (50mm) FL | 270 | 375 | 2" Female | 1/8" Female | 13.7 | 1960 | 12 | 9 |
| | 3" (80mm) FL | 338 | 431 | 3" Female | 1/8" Female | 21.7 | 5030 | 12 | 9 |
| | 4" (100mm) FL | 404 | 488 | 4" Female | 1/8" Female | 32.5 | 7850 | 12 | 9 |
| Screen Cover | 6" (150mm) FL | 375 | 700 | | 1/8" Female | 93 | 17662 | 12 | 9 |
| | 8" (200mm) FL | 463 | 800 | | 1/8" Female | 157 | 31400 | 12 | 9 |
| | 10" (250mm) FL | 586 | 987 | | 1/8" Female | 292 | 49087 | 12 | 9 |
| A.R.I. D-065 NS | | | | | | | | | |
| Horizontal Outlet | 1" (25mm) THR | 312 | 452 | 1½" Female | 1/2" BSP Female | 9.3 | 507 | 15 | |
| | 2" (50mm) THR | 312 | 531 | 2" Female | 1/2" BSP Female | 15.3 | 1960 | 15 | |
| | 2" (50mm) FL | 300 | 518 | 2" Female | 1/2" BSP Female | 17.3 | 1960 | 15 | |
| | 3" (80mm) FL | 364 | 575 | 3" Female | 1/2" BSP Female | 24.7 | 5030 | 15 | |
| | 4" (100mm) FL | 424 | 631 | 4" Female | 1/2" BSP Female | 36.5 | 7850 | 15 | |
| Screen Cover | 6" (150mm) FL | 382 | 774 | | 1/2" BSP Female | 95 | 17662 | 15 | |
| | 8" (200mm) FL | 476 | 973 | | 1/2" BSP Female | 152 | 31400 | 15 | |

NOTE

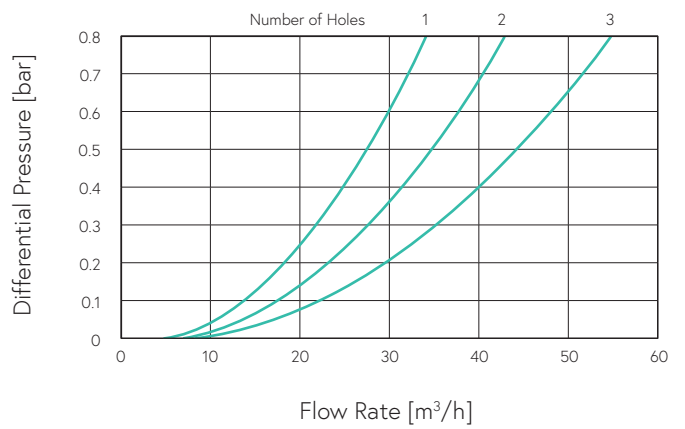
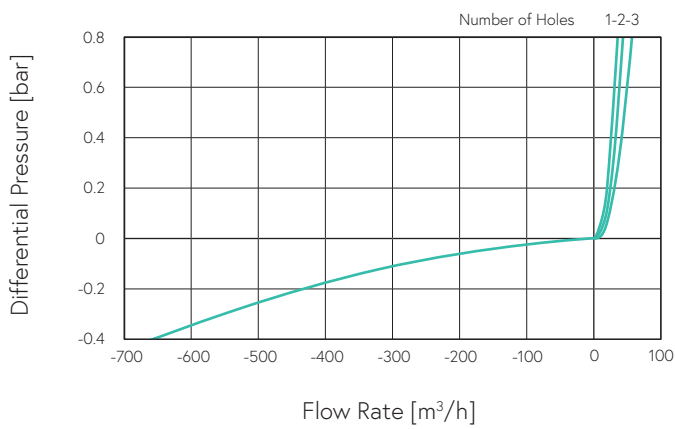
Dimension A in the picture and in the table shows the maximum product width. This width can be reduced by changing the cover direction. All product weights are approximate, due to the differences in flange standards, materials and variable accessories.

Flow Charts Horizontal Outlet Models

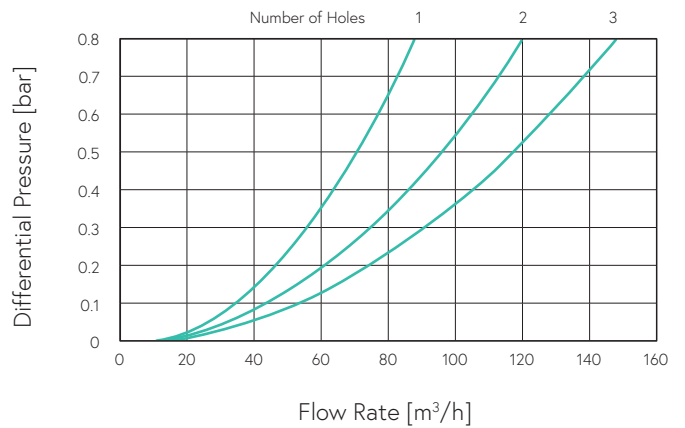
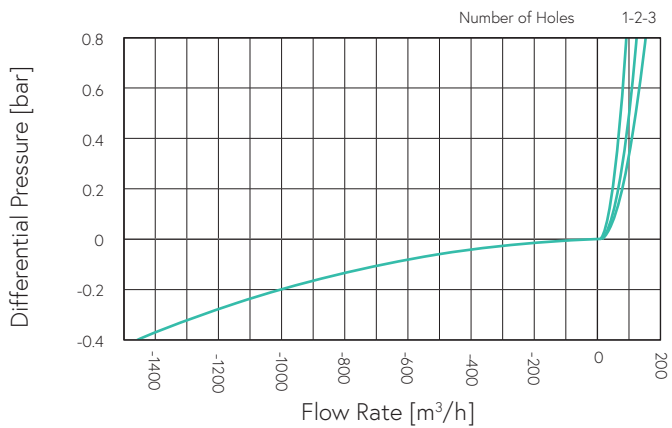
1" Adjustable NS Check Valve



2" Adjustable NS Check Valve



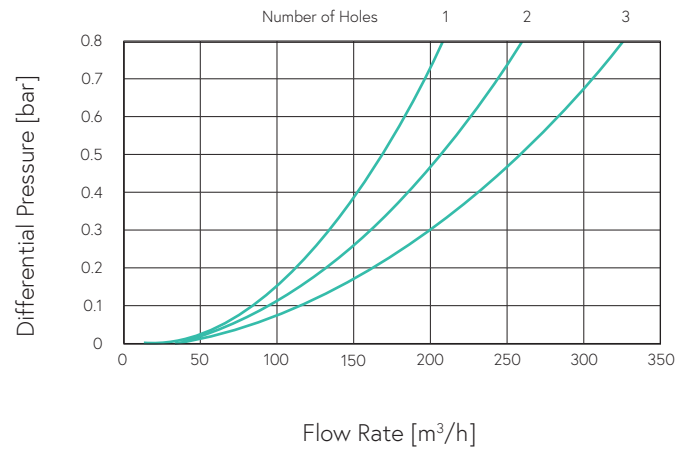
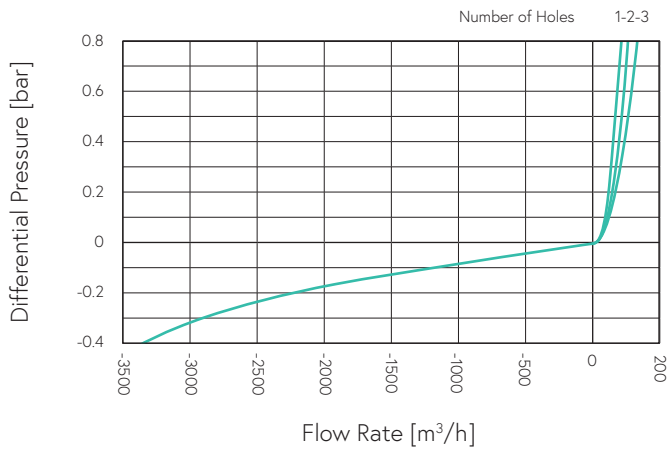
3" Adjustable NS Check Valve



Flow Charts

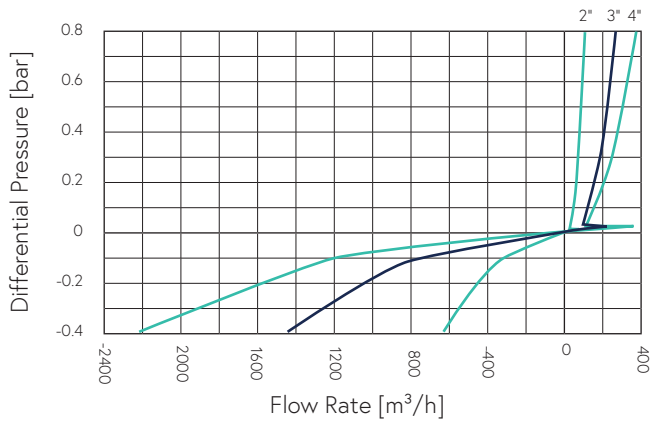
Horizontal Outlet Models

4" Adjustable NS Check Valve

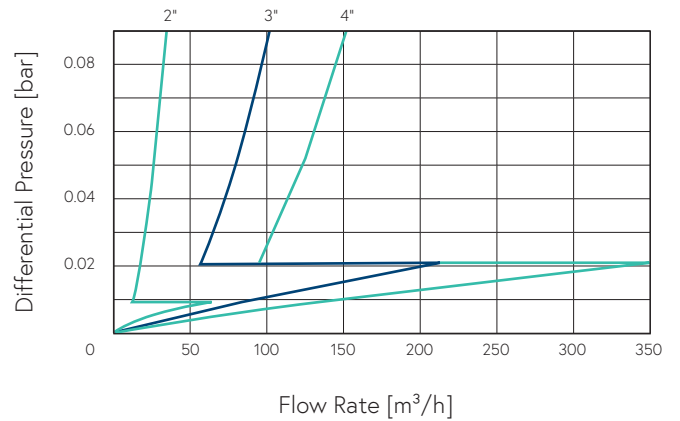


Screen Cover Models

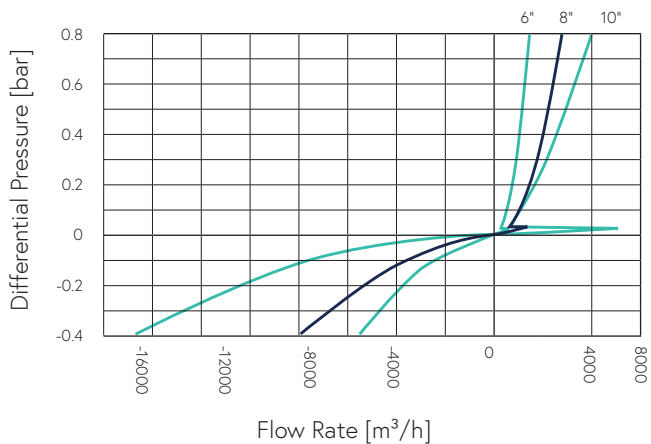
Air & Vacuum Flow Rate



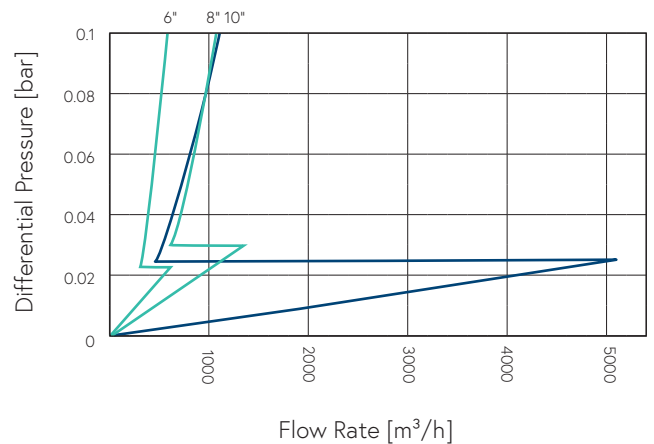
Air Discharge Switching Region



Air & Vacuum Flow Rate

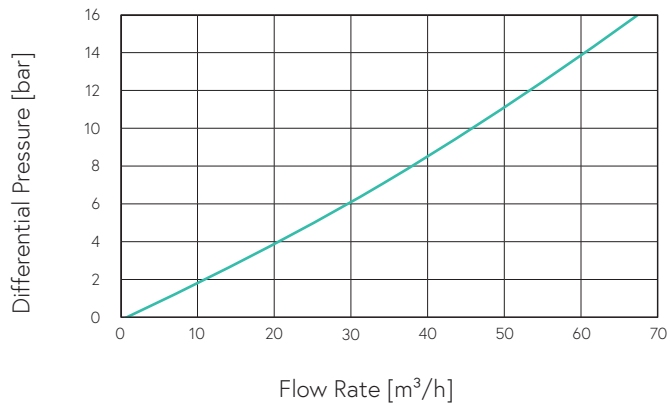


Air Discharge Switching Region

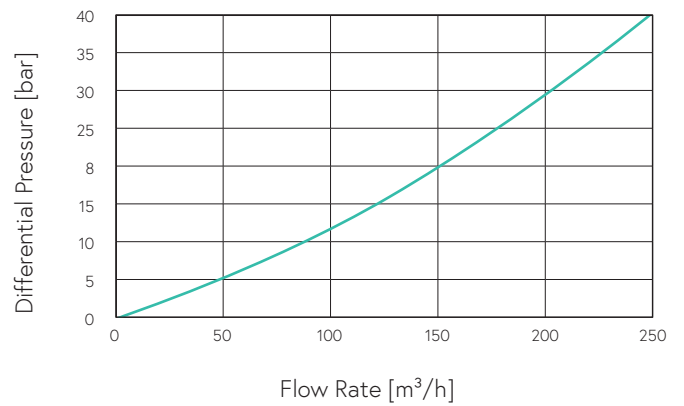


Flow Charts

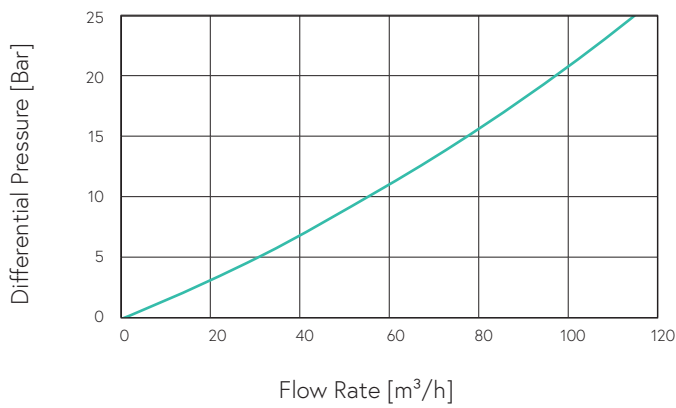
PN16 Automatic Air Release Flow Rate



PN40 Automatic Air Release Flow Rate



PN25 Automatic Air Release Flow Rate



Parts List and Specifications | 1"-4" Horizontal Outlet Models

| No. | Part | Material |
|-----|----------------------------|---|
| 1 | Automatic Assembly options | |
| | A.R.I. S-050 | Stainless Steel 316, Reinforced Nylon, Polypropylene, EPDM |
| | A.R.I. S-050 L | |
| | A.R.I. S-052 | |
| | A.R.I. S-015 | |
| 2 | Cover Assembly | |
| 2a | Cover | Stainless Steel 316, Super Duplex |
| 2b | Orifice Seat | Stainless Steel 316, Super Duplex |
| 2c | Orifice Seal | EPDM, Viton |
| 3 | Float | Stainless Steel 316, Super Duplex, Polycarbonate |
| 4 | Body Assembly | |
| 4a | O-ring | EPDM, Viton |
| 4b | Bolts, Nuts & Washers | Steel/Stainless Steel 316 |
| 4c | Body | Stainless Steel 316, Super Duplex |
| 5 | Non-slam Assy. | Polypropylene / Reinforced Nylon |

Parts List and Specifications | 6"-10" Screen Cover Models

| No. | Part | Material |
|-----|----------------------------|--|
| 1 | Automatic Assembly Options | |
| | A.R.I. S-050 | Stainless Steel 316, Reinforced Nylon, Polypropylene, EPDM |
| | A.R.I. S-050 L | |
| | A.R.I. S-052 | |
| | A.R.I. S-015 | |
| 2 | Cover Assembly | |
| 2a | Screen Cover | Polypropylene |
| 2b | Screen | Stainless Steel 316 |
| 2c | Bolts, Nuts & Washers | Stainless Steel 316 |
| 2d | Locking Ring | Stainless Steel 316 |
| 2e | Non-slam Disc Assy. | Stainless Steel 316 |
| 2f | Cover | Stainless Steel 316, Super Duplex |
| 2g | Orifice Seat | Stainless Steel 316, Super Duplex |
| 2h | Orifice Seal | EPDM, Viton |
| 3 | Float | |
| 3a | Float | Stainless Steel 316, Super Duplex, Polycarbonate |
| 4 | Body Assembly | |
| 4a | O-ring | EPDM, Viton |
| 4b | Bolts, Nuts & Washers | Steel/Stainless Steel 316 |
| 4c | Body | Stainless Steel 316, Super Duplex |

