

Ductile Iron Dual Plate Wafer Check Valve

PN16

Size 2½" to 16"

Specifications:

IVAL® Dual Plate Wafer type Check Valve, in. accordance with BS EN 16767. Ductile Iron Body, SS316 Disc, SS420 Stem and SS304 spring, EPDM seat.

Suitable for installation in vertical and horizontal pipelines. When installed in vertical pipelines the flow must be in an upward direction.

Valve has C550 corrosion level epoxy coating.

Minimum Opening Pressure: 4kPa

WRAS approved.

Features:

- Check valves permit flow in one direction only and close automatically if flow reverses, depending upon pressure and velocity of flow to perform the functions of the opening and closing.
- EPDM rubber seat to facilitate quiet operation and improve disk seating.
- Non-Slam design as a result of rubber seat and spring-assisted closure.
- Design and construction lend itself to pump duty applications.

Pressure/Temperature Ratings:

| | |
|-------------------------|-------------|
| Temperature (°C) | -10 to +100 |
| Pressure (Bar) | 16 |

Test Pressures:

Each valve is individually hydrostatically tested EN12266-1 at the following test:

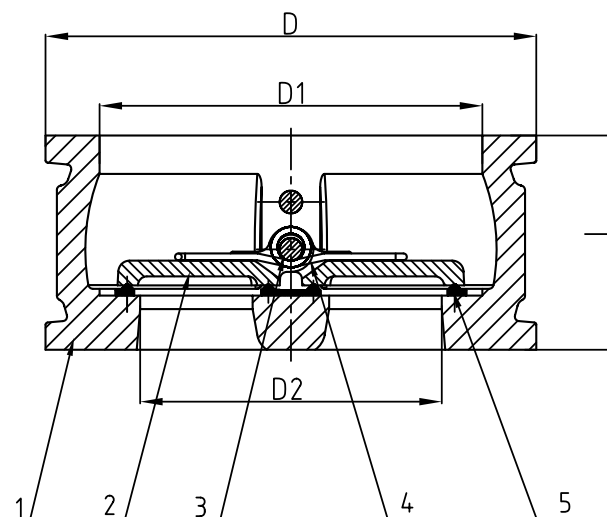
(HYDRAULIC) Shell: 24 bar

Materials:

| No. | Description | Material | Specification |
|-----|-------------|-----------------|---------------|
| 1 | Body | Ductile Iron | EN-GJS-450-10 |
| 2 | Disc | Stainless Steel | AISI 316 |
| 3 | Stem | Stainless Steel | AISI 420 |
| 4 | Spring | Stainless Steel | AISI 304 |
| 5 | Rubber Seat | EPDM | - |

This valve is suitable for use on Group 2 liquids only, as defined by the Pressure Equipment Directive 2014/68/EU.

TECHNICAL DATASHEET



Dimensions:

| DN | | Dimensions (mm) | | | | Wt. (Kg) |
|------|-----|-----------------|-----|-----|-----|----------|
| Inch | mm | L | D | D1 | D2 | |
| 2.5" | 65 | 60 | 127 | 78 | 60 | 2.02 |
| 3" | 80 | 57 | 134 | 102 | 70 | 2.46 |
| 4" | 100 | 67 | 162 | 117 | 84 | 3.93 |
| 5" | 125 | 83 | 194 | 145 | 115 | 5.97 |
| 6" | 150 | 95 | 218 | 170 | 134 | 7.71 |
| 8" | 200 | 127 | 277 | 226 | 184 | 13.99 |
| 10" | 250 | 140 | 336 | 265 | 220 | 23.29 |
| 12" | 300 | 181 | 406 | 310 | 260 | 36.54 |
| 14" | 350 | 184 | 447 | 360 | 302 | 61.11 |
| 16" | 400 | 191 | 505 | 410 | 350 | 79.95 |



Flow Characteristics:

| Size | Kv (m³/h) |
|---------------|-----------|
| DN65 – 2.1/2" | 112.37 |
| DN80 – 3" | 150.27 |
| DN100 – 4" | 263.72 |
| DN125 – 5" | 576.75 |
| DN150 – 6" | 800.43 |
| DN200 – 8" | 1,631.85 |
| DN250 – 10" | 2,272.63 |
| DN300 – 12" | 3,189.63 |
| DN350 – 14" | 4,864.01 |
| DN400 – 16" | 6,350.4 |

Formula linking flow **Q (in l/s)** and theoretical valve head loss **ΔP (in KPa)**:

$$\Delta P = \left(\frac{36 \cdot Q}{K_v} \right)^2$$

Pressure Loss vs. Flow Rate Chart:

