



# LEHRY VALVES

Where flow and pressure meets quality

## WAFER CHECK VALVE

**LEHRY single plate, swing type Wafer Check Valves** are used in pipelines to prevent backflow of the fluid. The valves are manufactured according to API 6D standard and tested in accordance with API 598. These valves are fast acting in closing, thereby maximizing protection to prevent or minimize the adverse effect of the back-flow. Opening and closing of the valve takes place at an extremely low pressure difference over the valve disc

The eccentric disc shaft connection with the soft seat embedded in the body ensures a positive shut off of the returning medium.

The Wafer Check valves have extremely short overall lengths in comparison with the standard flanged end Check valves. The size and weight are considerably reduced. This offers great advantage for installation, handling, transportation and storing

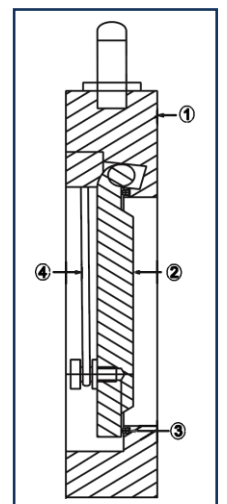


### Salient Features:

- **Compact:** Requires little space in piping systems due to the short overall length.
- **Light Weight:** Wafer Check valve is much less in weight compared to conventional flanged end Swing Check valves.
- **Bubble Tight Shut-off:** The replaceable soft seal fitted in the body ensures a tight shut-off to prevent backflow.
- **Long life of Seat Rings :** The seat rings are fitted in the body in order to prevent contact with the flow, which results in longer life of the seat rings. This also ensures the retention of the seat rings in its original position. (i.e. the seat rings are not lost in the pipe due to the flow pressure)
- **Easy & space saving installation :** The valves are installed between two flanges and centering is achieved by means of body rim (outside diameter)
- **Extremely low opening pressures.**
- **Easy to handle and maintain.**
- **Higher sizes available with counter balance and hydraulic cushioning on request.**
- **Low pressure drop:** Decreasing with increasing valve size.
- **Available in different materials of construction.**
- **Available in wide range of sizes.**

### Construction Features:

- 1) **Body:-**  
The single piece cast body is precision machined and is available in Cast Iron, SG Iron, Cast Steel, Stainless Steel and other alloys to suit the specific requirements. The Cast Iron, SG Iron & Cast Steel will be epoxy coated to give better corrosion resistance. The dovetail groove machined in the body holds the sealing ring.
- 2) **Disc**  
The disc is available in Cast Steel, Stainless Steel and other materials based on the specific requirements.
- 3) **Seat**  
The resilient seat is an 'O' ring of EPDM / Nitrile / Silicon / Viton or PTFE and is fitted in the body. The soft seated 'O' ring ensures tight shut off.
- 4) **Springs (Optional)**  
The specially designed springs are of Stainless Steel and ensure positive closing even at low back pressure.

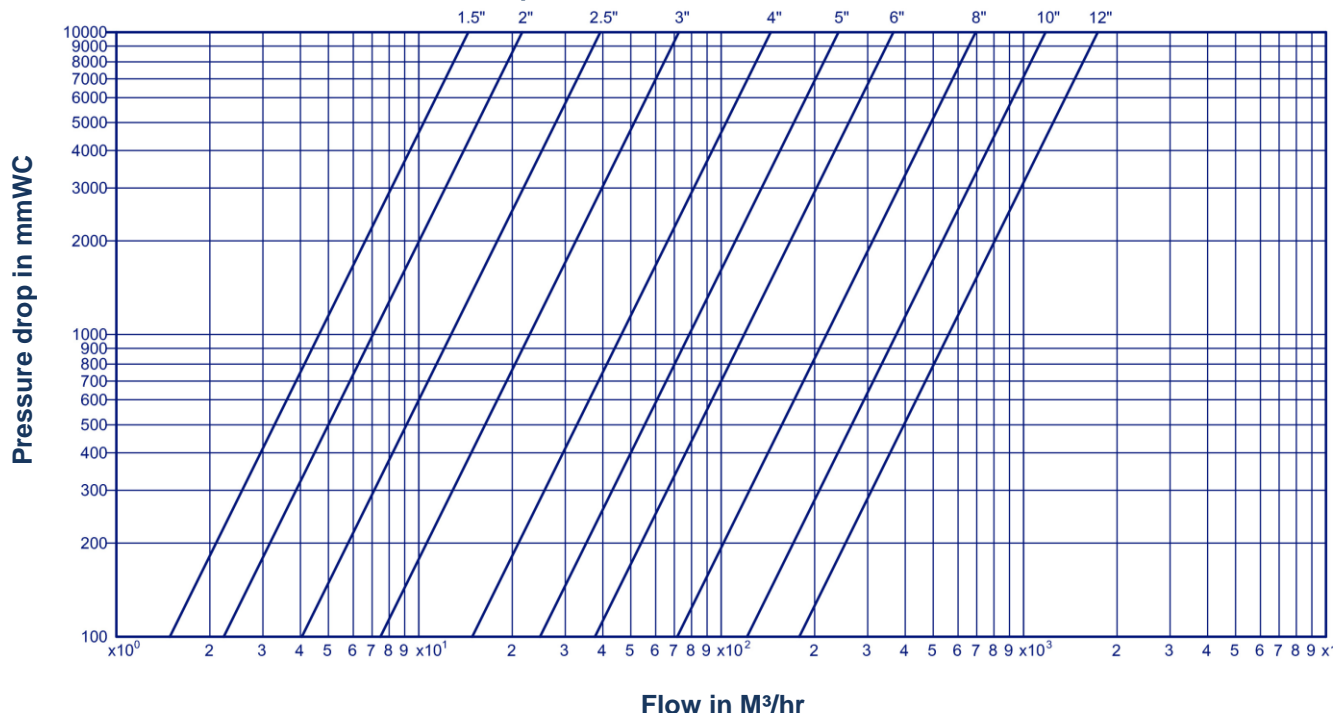


### INSTALLATION

- a) Clean the surfaces.
- b) Place the bolts on lower half of the flange.
- c) Check the flow direction.
- d) Place the valve between the two flanges to rest on the bolts.
- e) Centering is achieved by means of body rim (outside diameter).
- f) Place gaskets between the valve and flanges on both the sides.
- g) Place the bolts on the upper half of the flange.
- h) Tighten the bolts to secure the valve in position.
- i) For vertical installation of valve, always keep the eye-bolt on the top side.

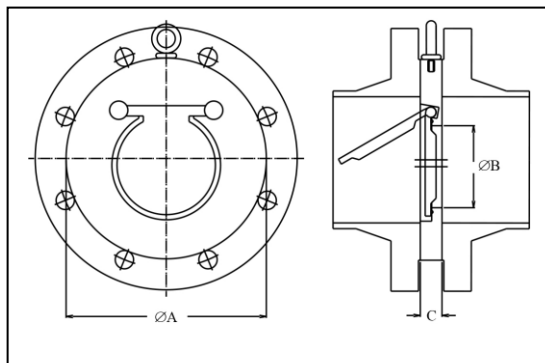
## VALVE SELECTION

### Pressure Drop Characteristics of Wafer Check Valve



## Material of Construction

|        |   |     |      |
|--------|---|-----|------|
| Body   | CI/ MS/ SGI / WCB                       | CF8 | CF8M |
| Disc   | MS / WCB / CF8 / CF8M                   | CF8 | CF8M |
| Seat   | Nitrile / EPDM / Silicon / Viton / PTFE |     |      |
| Spring | SS316                                   |     |      |



## WAFER CHECK VALVE

| Size | Cracking Pressure mbar | Cracking Pressure mbar |
|------|------------------------|------------------------|
|      | ↑                      | →                      |
| 40   | 17.5                   | 1.05                   |
| 50   | 12.4                   | 0.75                   |
| 65   | 8.8                    | 0.53                   |
| 80   | 10.4                   | 0.62                   |
| 100  | 9.6                    | 0.58                   |
| 125  | 10.5                   | 0.63                   |
| 150  | 10.8                   | 0.65                   |
| 200  | 15.3                   | 0.92                   |
| 250  | 16.9                   | 1.02                   |
| 300  | 20.7                   | 1.24                   |
| 350  | 17.5                   | 1.05                   |
| 400  | 19.1                   | 1.15                   |
| 450  | 19.9                   | 1.19                   |
| 500  | 16.6                   | 1                      |
| 600  | 23.9                   | 1.43                   |

## Dimensions

All Dimensions are in mm

| SIZES |              | 40 | 50  | 65  | 80  | 100  | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 |
|-------|--------------|----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| ØA    | # 150 (PN25) | 85 | 105 | 124 | 137 | 175  | 197 | 222 | 279 | 340 | 410 | 451 | 514 | 549 | 606 | 717 |
|       | # 300 (PN40) | 95 | 111 | 130 | 149 | 180  | 216 | 250 | 307 | 362 | 422 | 486 | 540 | 597 | 654 | 775 |
|       | PN 10        | 94 | 109 | 129 | 144 | 164  | 194 | 220 | 275 | 330 | 380 | 440 | 491 | 541 | 596 | 698 |
|       | PN 16        | 94 | 109 | 129 | 144 | 164  | 194 | 220 | 275 | 331 | 386 | 446 | 498 | 558 | 620 | 737 |
|       | BS 10TD      | 85 | 98  | 111 | 130 | 162  | 194 | 219 | 276 | 336 | 386 | 448 | 498 | 562 | 619 | 730 |
|       | BS 10TE      | 85 | 98  | 111 | 130 | 162  | 194 | 216 | 273 | 336 | 384 | 448 | 498 | 562 | 619 | 730 |
| ØB    |              | 20 | 30  | 40  | 52  | 71.5 | 93  | 114 | 157 | 195 | 240 | 270 | 311 | 361 | 392 | 480 |
| C     | # 150        | 19 | 19  | 19  | 19  | 19   | 19  | 19  | 29  | 29  | 38  | 44  | 51  | 60  | 64  | 70  |

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