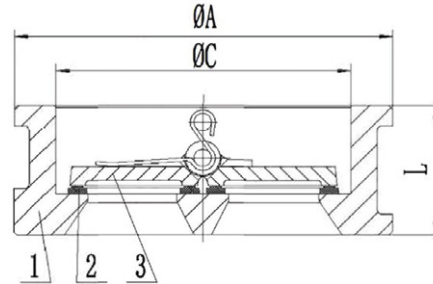


# Dual Plate Wafer Type Check Valve

*Comply to BS 5153*

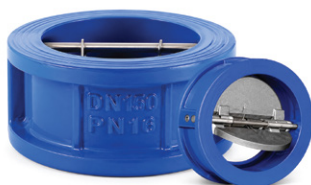


| Hydrostatic Test Pressure |          |
|---------------------------|----------|
| Body                      | Seat     |
| 24 bar                    | 17.6 bar |

| No. | Part   | Material     |
|-----|--------|--------------|
| 1   | Body   | Ductile Iron |
| 2   | Seat   | EPDM         |
| 3   | Disc   | SS304        |
| 4   | Stem   | SS304        |
| 5   | Spring | SS304        |

| SIZE  |      | ØA  | L   | ØC  |
|-------|------|-----|-----|-----|
| 65mm  | 2.5" | 127 | 46  | 80  |
| 80mm  | 3"   | 142 | 64  | 94  |
| 100mm | 4"   | 162 | 64  | 117 |
| 150mm | 6"   | 218 | 76  | 170 |
| 200mm | 8"   | 273 | 89  | 224 |
| 250mm | 10"  | 328 | 114 | 265 |
| 300mm | 12"  | 378 | 114 | 310 |
| 350mm | 14"  | 438 | 127 | 360 |
| 400mm | 16"  | 489 | 140 | 410 |
| 450mm | 18"  | 539 | 152 | 457 |
| 500mm | 20"  | 594 | 152 | 505 |
| 600mm | 24"  | 697 | 178 | 624 |

## How It Works?



Dual plate wafer check valves, have two spring loaded half-moon shaped discs that rotate about their shaft. They are designed to automatically prevent back-flow in systems where it is desirable to permit flow in one direction and prevent flow in the opposite direction. When the pump starts and the downstream flow creates the required pressure drop in the forward direction, the Dual Plates will automatically open. When the pump stops and the flow ceases, the torsion of the spring will automatically close the Dual Plates prior to flow reversal. This creates a positive shutoff against flow reversal and eliminates system surges and water hammer.

## Features

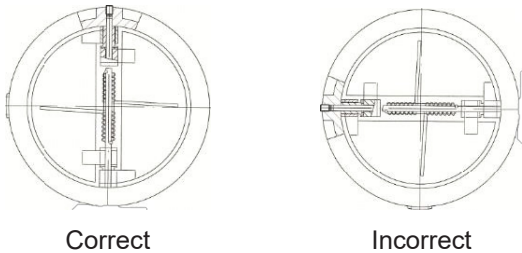
- ✓ Small size, light weight, compact structure, easy maintenance.
- ✓ Short body structure length and good rigidity.
- ✓ Quickly and automatically close.
- ✓ Easily installed.
- ✓ Suitable for both horizontal and vertical directions pipes.
- ✓ Tightly sealed, without any leakage.

Designs, materials and specifications shown are subject to change without notice due to our continuing program of product development.

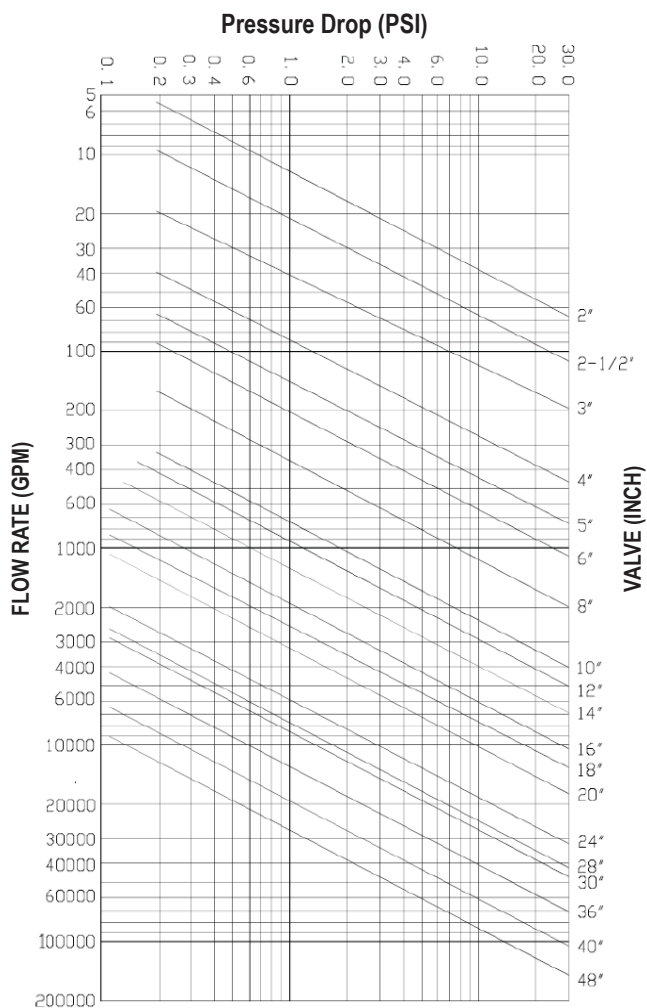
# Installation

## Horizontal Installation

The valve rib must be installed perpendicular to the flow. This is shown in the diagram below. The eyebolt or plug is located directly above the valve rib can be used to correctly position the valve.



## Pressure Drop At Valve Fully Open

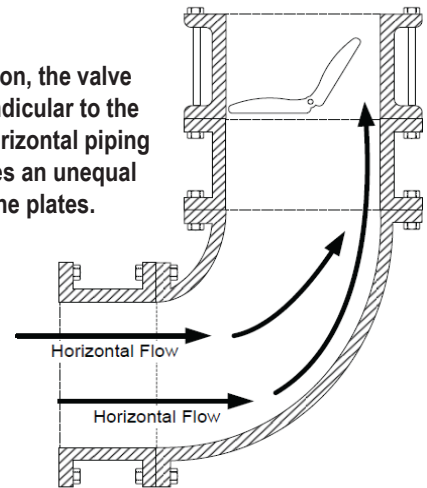


INDICATIVE ONLY - generated from  
generic dual-plate Cv correlations ( $Q = C_v \sqrt{\Delta P}$ , SG = 1.0).

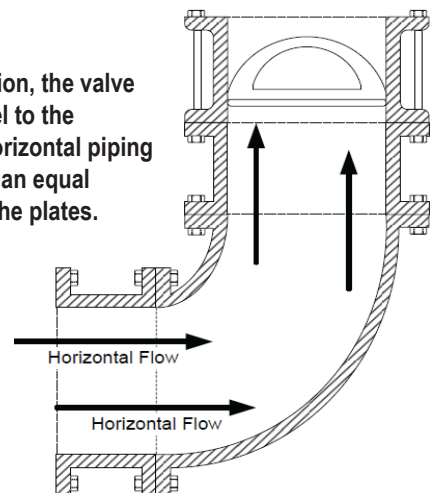
## Vertical Installation

It is necessary to orientate the valve rib such that there is equal loading on the Dual Plates. This is illustrated in the diagram below. Additional pressure drop should be expected due to the weight of the discs.

In this position, the valve rib is perpendicular to the incoming horizontal piping which creates an unequal loading on the plates.



In this position, the valve rib is parallel to the incoming horizontal piping and creates an equal loading on the plates.



### Caution:

For vertical installations, Dual Plate Check Valves can only be installed with flow direction upward. In the vertical position, the outlet will be above the inlet.

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