



EXPERT, founded in 1981, is a rapidly growing company, manufacturing various types of Industrial Valves. A customer-driven organizational philosophy and investment in the best technology and human resources has enabled us to constantly meet the high standards set by our customers. Expert has received ISO 9001 : 2000 certification from DNV in 2002. We deliver Quality products that bring tangible business value to the customers in India and abroad. We trust "*Winning Together*" is the key to long lasting relationships.

## Wafer Check Valves



EXPERT 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.**

## Constructional 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 body of material 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

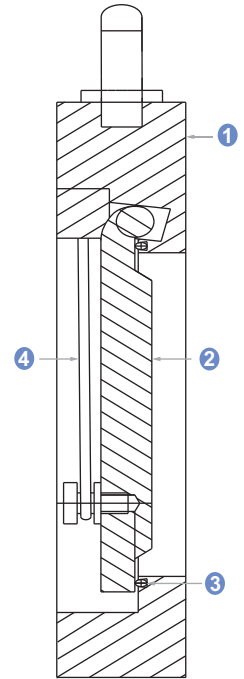
The disc is available in Cast Steel, Stainless Steel and other materials based on the specific requirements.

### 3. Seat

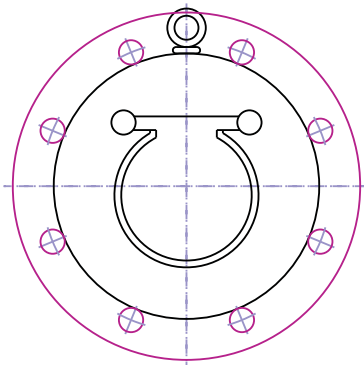
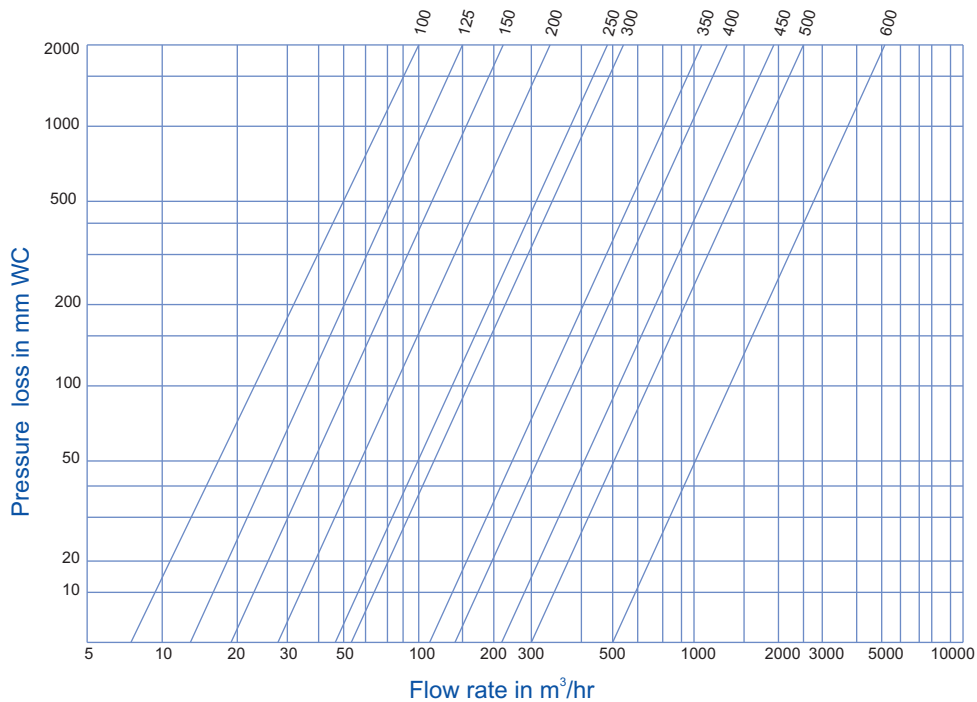
The resilient seat is an 'O' ring of EPDM / Nitrile / Silicon / Viton or PTFE and is fitted in the body. The soft seated 'O' ring ensures tight shut off.

### 4. Springs (Optional)

The specially designed springs are of Stainless Steel and ensure positive closing even at low back pressure.

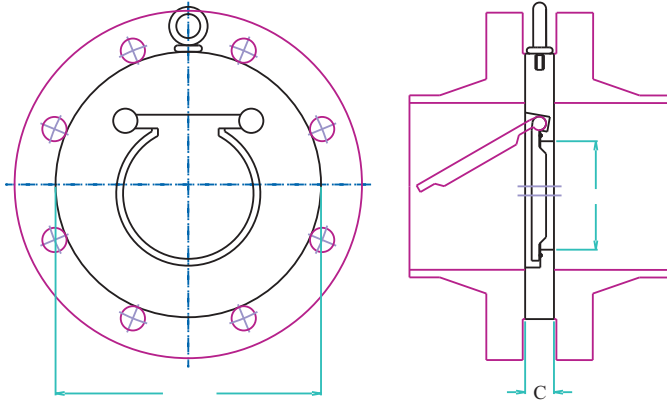


## PRESSURE LOSS DIAGRAM



## Installation

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



STANDARD MATERIAL OF CONSTRUCTION			
<b>Body</b>	CI / MS / SGI / WCB	CF8	CF8M
<b>Disc</b>	MS / WCB / CF8 / CF8M	CF8	CF8M
<b>Seat</b>	NITRILE / EPDM / SILICON / VITON / PTFE		
<b>Spring</b>	SS316		

NOMINAL SIZES		40	50	65	80	100	125	150	200	250	300	350	400	450	500	600
A	# 150	85	105	124	137	175	197	222	279	340	410	451	514	549	606	717
	# 300	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
B		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

- Valve design as per API 6D.
- Valve testing as per API 598.

**NOTE :**

- Higher sizes available on request.
- The other material such as Alloy 20, SS316L, SS317, SS317L etc. available on request.
- Valves above 300 mm. will be without spring.
- All dimensions are in mm. unless otherwise specified.
- Please specify the required size, material of construction, flange standard & quantity clearly at the time of placing the order.
- In the process of continuous improvement of products, the data given herein is subject to change.

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Manufactured by

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