

FLUSH BOTTOM VALVE SERIES : UNICON 7000 & 7100

Tecnik's UNICON 7000 & 7100 Flush Bottom Valves are used for discharging of processed materials from the bottom portion or at the outlet of vessels, tanks, reactors, containers etc.

In these Y- type Flush Bottom Valves, the valve size are designated by two values. First value stands for the inlet flange connection size, which is fixed to the tank or vessel bottom pad. Second value stands for the size of the port and the outlet flange size which is connected to the pipe. In all the sizes the inlet are always larger in size than the outlet.

KEY FEATURES :

- Better flow capacity for line size.
- Suitable for drainage system.
- Tight closing for reliable shut-off even after change in pressure & temperature is sudden and extreme.
- Wide selection of actuator to meet stringent process requirement.
- Flexible design capabilities allows fitting in any vessel configuration.
- Measurement temperature is available with built-in thermometer.
- Jacketed option available (Full jacketed & Semi jacketed)
- Unique packing designs to suit various temperature & fluid needs.
- Excellent shut-off performance.

PRODUCT SPECIFICATION :

- Valve Size : NPS 1" to 8" (DN 25 to DN 200)
- Pressure Rating : ANSI 150#, 300# & 600# Equivalent to BS 10, DIN, IS, JIS etc.
- Body Material : Carbon Steel, Stainless Steel, Duplex, Super Duplex, Monel, Inconel, Hastelloy, Aluminum, Bronze and Higher Alloys available on request.
- Plug Options : Contoured
- Flow Characteristics : ON - OFF
- End Connection : Flanged (RF, TG)
- Leakage Class : Class IV & V (Metal to metal seated) & Class VI (Soft seated) as per FCI 70-2
- Temperature Range : -73 to 500°C
- Manual Over-ride : Top Mounted Version, Side Mounted Version

DESIGN STANDARD :

- Design Standard : ASME B16.34 & SFS EN 12516
- Testing Standard : ANSI / FCI 70-2
- Face to Face : As per manufactures standards
- Flange Fitting : ANSI B16.5, 150#, 300# & 600#

DESIGN FLEXIBILITY :

- The outlet flange is 45 Deg inclined to the axis of the valve.
- These valves are available in two types of constructions, one the plug opens into the vessels & second the plug opens into the valve body.
- These valves are available with actuators and manual operated.
- Special temperature sensing arrangement within the valve body itself also can be provided.
- Also the body can be provided with steam / oil / hot water jacketing arrangement to avoid solidification where in some application fluid tend to solidify at low temperature and discharged in hot condition only.
- These valves are compact, lightweight design and ideal for inline maintenance under the tank.

ACTUATOR TYPE :

- Pneumatic Diaphragm Actuator
- Pneumatic Cylinder Actuator
- Electrical Actuator

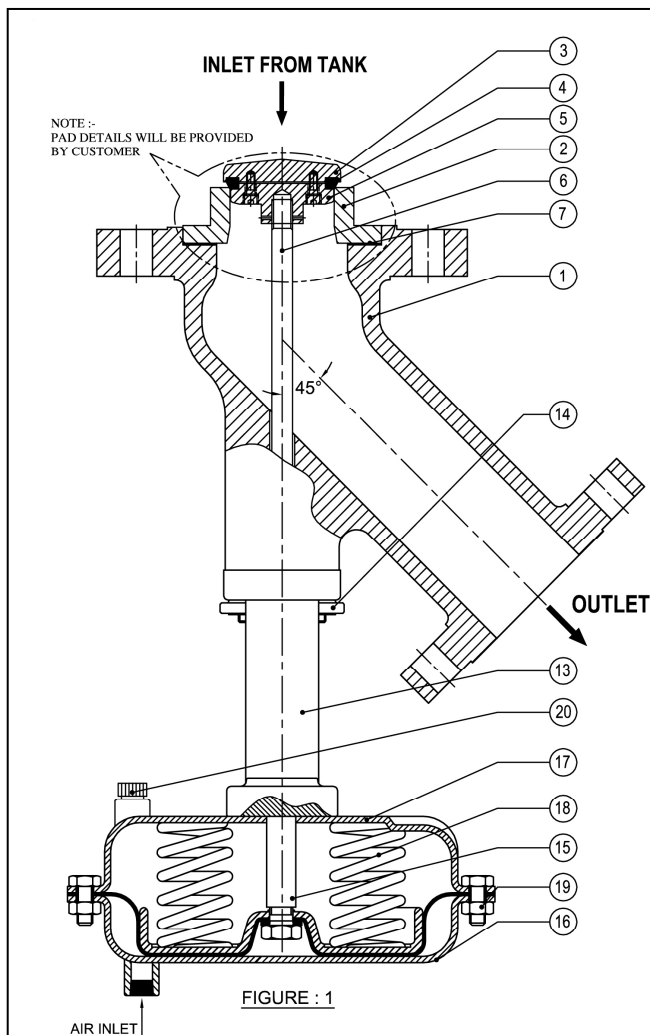
ACCESSORIES :

- Pneumatic valve positioner
- Electro - Pneumatic valve positioner
- Air filter regulator
- Solenoid valve
- Limit switches
- Proximity switches
- Air lock relay
- Volume booster
- Other accessories available on request

FLUSH BOTTOM VALVE

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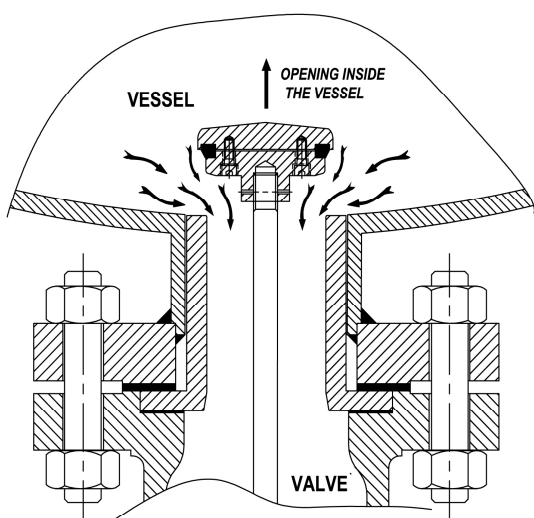
PART LIST :



SERIES : UNICON 7000

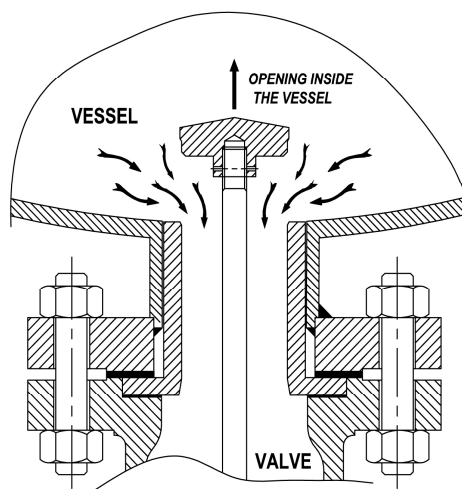
MULTIPLE DESIGN FEATURES

Part No.	Part Name	Standard Material of Construction
1.	Valve Body	ASTM specified Stainless Steel / Carbon Steel (Others available on request)
2.	Seat Ring	SS 316
3.	Plug	SS 316
4.	Soft Seat	PTFE / GFT (Glass Filled Teflon)
5.	Seat Retainer	SS 316
6.	Valve Stem	SS 316
7.	Seat Ring Gasket	Grafoil With SS 316 SIM
8.	Gland Nut	SS 316
9.	Gland Packing	PTFE ' V ' Rings / Grafoil Rings
10.	Packing Spring	SS 316
11.	Packing Spacer	SS 316
12.	Guide Bush	SS 316 HRN / SS 430 HRN
13.	Yoke	S. G. IRON
14.	Yoke Locking Ring	A 351 Gr. CF8
15.	Actuator Stem	SS 304
16.	Actuator - Top Casing	Pressed Steel
17.	Actuator - Bottom Casing	Pressed Steel
18.	Actuator Spring	Spring Steel
19.	Actuator Bolts & Nuts	Stainless Steel
20.	Vent Cap	PVC



Flush bottom valve with plug
Opening inside the Vessel Construction

Seat leakage Class : Class VI (Metal to Soft seating)



Flush bottom valve with plug
Opening inside the Vessel Construction

Seat leakage Class : Class III & Class IV (Metal to Metal seating)
Class V (Metal to Metal seating with Stellite facing)

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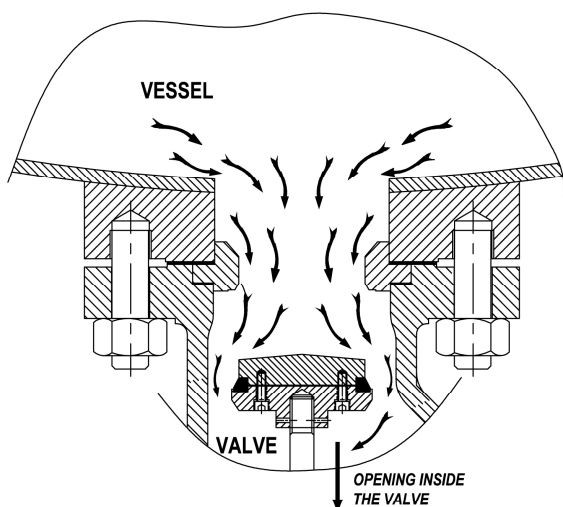


FIGURE : 4

Flush bottom valve with plug
Opening inside the Valve Construction

Seat leakage Class : Class VI (Metal to Soft seating)

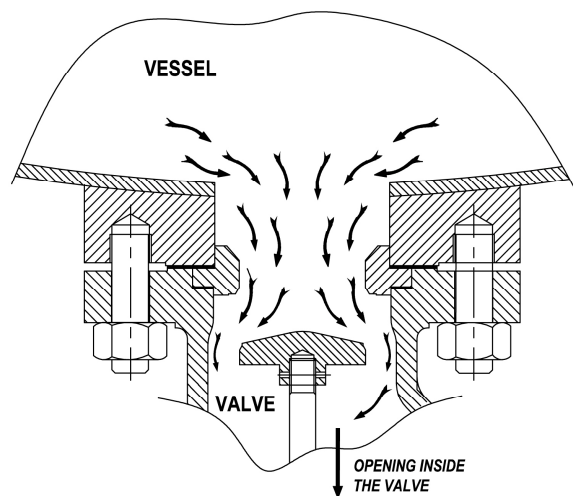


FIGURE : 5

Flush bottom valve with plug
Opening inside the Valve Construction

Seat leakage Class : Class III & Class IV (Metal to Metal seating)
Class V (Metal to Metal seating with Stellite facing)

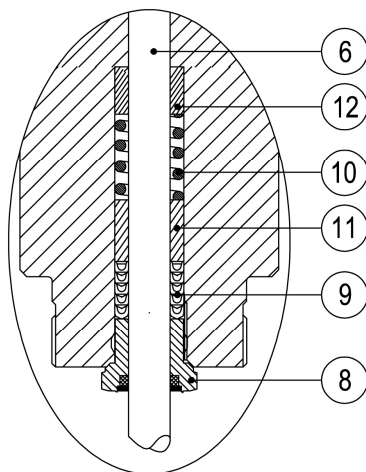


FIGURE : 6

GRAFOIL RING PACKING ARRANGEMENT

Suitable for high temperatures, made from Moulded Graphite rings, providing leakfree operation, high thermal conductivity and long service life. Suitable for temperature range from -185°C to 540°C.

GLAND PACKING ARRANGEMENTS

PTFE V-RING PACKING ARRANGEMENT

Self Adjusting & Lubricated spring loaded V-ring made of PTFE, suitable for temperature range from -70°C to 204°C and for application that require high level of sealing performance.

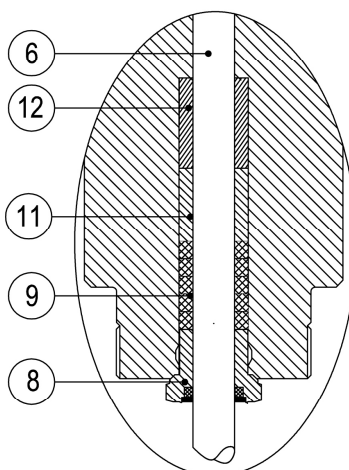
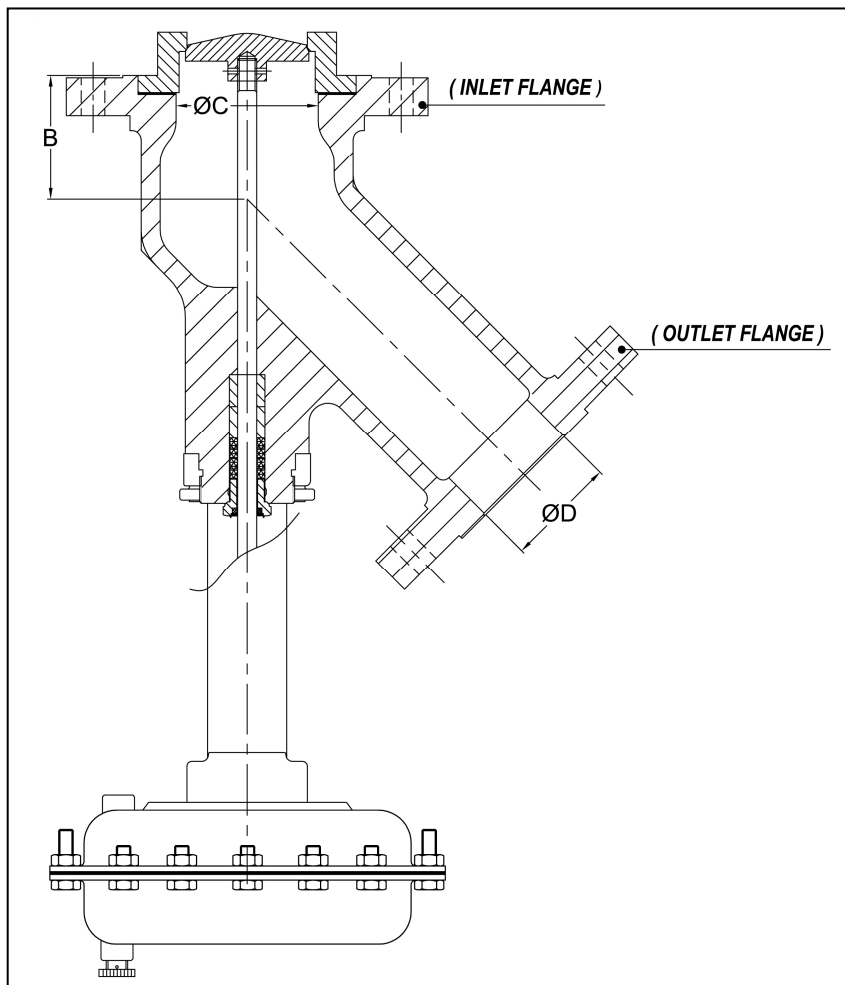


FIGURE : 7

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DESIGN CV AND DIMENSIONS :



ANSI CLASS	VALVE SIZE		CV
	INLET FLANGE X OUTLET FLANGE		
	INCH	mm	
150# & 300#	1.1/2" X 1"	DN 40 X 25	30
150# & 300#	2" X 1.1/2"	DN 50 X 40	48
150# & 300#	2.1/2" X 2"	DN 65 X 50	75
150# & 300#	3" X 2"	DN 80 X 50	100
150# & 300#	3" X 2.1/2"	DN 80 X 65	125
150# & 300#	4" X 3"	DN 100 X 80	196
150# & 300#	6" X 4"	DN 150 X 100	295
150# & 300#	8" X 6"	DN 200 X 150	660

NOTE : The above shown Cv values are for valve with inside vessel opening construction but for valve with inside valve opening reduced the Cv by 25%

DIMENSIONS : (All dimensions are in mm)

VALVE SIZE				
INLET FLANGE X OUTLET FLANGE		ØC	ØD	B
INCH	mm			
1.1/2" X 1"	DN 40 X 25	38.1	25.4	60
2" X 1.1/2"	DN 50 X 40	50.8	38.1	60
2.1/2" X 2"	DN 65 X 50	65	50.8	68
3" X 2"	DN 80 X 50	80	50.8	68
3" X 2.1/2"	DN 80 X 65	80	65	72
4" X 3"	DN 100 X 80	90	80	77
6" X 4"	DN 150 X 100	110	90	66
8" X 6"	DN 200 X 150	160	110	80



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