

# Tank Bottom Valve

Machined stainless steel body,  
Pneumatically operated



## Description

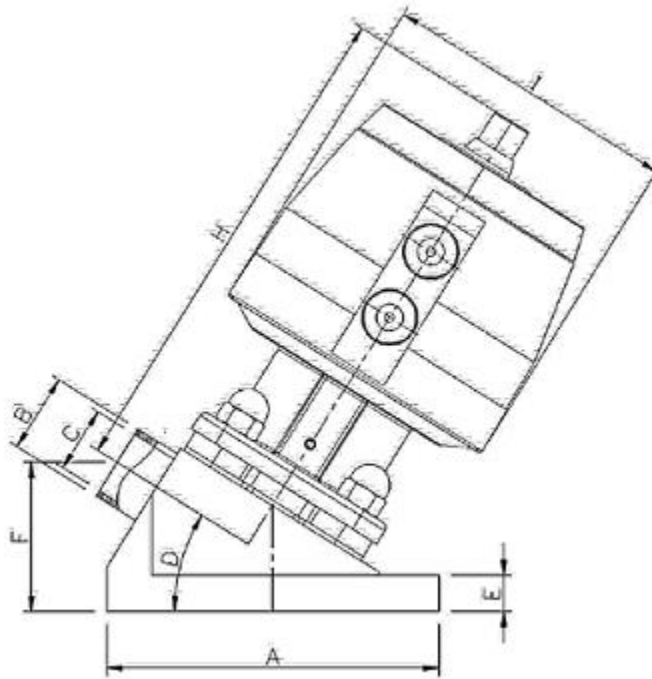
Series 55 pneumatically operated tank bottom valve has a body with attached welding neck and an inlet ports, a diaphragm seal and actuator. Tank bottom valves are normally used as outlet valves and are welded into the lowest point of the tank bottom enabling the tank to be self drained and cleaned or sterilized. The most important design feature of the valve is that the weir is as close as possible to the internal contour of the tank. This enables the diaphragm seal to effectively become a continuation of the surface of the tank bottom with no dead leg. The diaphragm is both a switch as well as a sealing element for the media. It is easily replaceable. An actuator is provided for the protection of diaphragm and for opening and closing actuation of valve. Modified versions of the tank bottom valves are designed for installation in the tank walls.

## Main Features

- Compact design for space restricted applications
- Simplified welding with provision of welding neck
- Optimized flow geometry
- Hermetical separation of fluids from the operating mechanism by diaphragm
- Fully machined from SS 316L bar-stock
- CIP/SIP capable and crevice free
- Zero dead leg and self-draining capabilities
- Fully Autoclavable
- Various internal surface finish available each with less than 0.40 Ra

## Dimensions

Tank bottom valve, stainless steel body machined from bar-stock, pneumatically operated



*Figure 50-1 Bonnet and Handle - Stainless Steel*

**Figure 50 -1 Body and Handle – Stainless Steel**

Conn. Size	Body OD	Pipe OD	Pipe ID	Port Angle from Body Face	Thickness of Body Welding Neck	Port Center to Body Face Distance		Max. Valve Length from Port Center	Outside Diameter of Handle
						Vertical	Horizontal		
	A [mm]	B [mm]	C [mm]	D (°)	E [mm]	F [mm]	G[mm]	H [mm]	I [mm]
1/2"	65.0	12.70	9.40	32	7.0	34.30	36.60	114.6	68.0
3/4"	65.0	19.05	15.75	32	7.0	31.70	38.30	117.7	68.0
1"	107.0	25.40	22.10	32	11.8	48.0	50.10	161.4	96.0
1 1/2"	140.0	38.10	34.80	35	16.0	69.0	62.80	234.3	151.0
2"	140.0	50.80	47.50	35	16.0	63.40	66.74	214.1	151.0
2 1/2"	174.5	63.50	60.20	35	20.0	72.10	80.30	267.7	180.0
3"	188.6	76.20	72.90	35	20.0	67.20	83.70	273.7	180.0

**Notes:**

1. Dimensions and tolerances for end connections and face-to-face length are as per ASME BPE.
2. All other dimensions are approximate and subject to change without prior notice.
3. Dimensions for valves with v-band (hygienic) clamp connections will be provided on request.

## Technical Data

### Processing medium

Neutral gases and liquids, high purity, sterile, aggressive or abrasive fluids

### Temperature

Media temperature		Sterilization temperature		Ambient Temperature
EPDM	-10°C to 75°C	EPDM	Briefly up to 130°C	Up to 90°C
PTFE	-10°C to 90°C	PTFE	Briefly up to 150°C	

### Valve body material

MOC – Wetted (Contact)	MOC – Non-wetted (Non- contact)
Stainless Steel 316L	Polyamide or ASTM A351 CF8 (SS 304)

### End connection

V-band (Hygienic) Clamp	ASME BPE (EN ISO 1127/ISO 4200 and BS 4825 are available on request)
Butt-Weld	

## Data Order

Connection Size		Type of Diaphragm		Certificate	
05	1/2" Mini	EPDM	E	ISO 9001	9
7	3/4"	PTFE	P		
10	1"				
15	1 1/2"				
20	2"				
25	2 1/2"				
30	3"				

Actuator Type		Connection Type	
Normally Open (NO)	O	ASME BPE	A
Normally Closed (NC)	C	BS 4825	B <sup>1</sup>
Doubled Actuator (DA)	A	EN ISO 1127 / ISO 4200	E <sup>2</sup>

Type of End Connection		Surface Finish	
Butt Weld	B	Mechanical Polish	M
V- Band (hygienic) Clamp <sup>3</sup>	T	Electro Polish	E

<sup>1</sup> Valves with end connection sizes according to EN ISO 1127/ISO 4200 and BS 4825 are available on request

<sup>2</sup> EN ISO 1127/ISO 4200 offers standards for butt-weld end connections only.

<sup>3</sup> For V-band (Hygienic) clamp connections, clamp connector will be welded to the valve body with butt-weld end. Internal finish will be provided as per customer request.

Order Example	LE	15	A	10	E	O	6	E	T	9
Leistung										
Series #										
Conn. Type										
Conn. Size										
Type of diaphragm										
Actuator type										
Reserves										
Surface finish										
Type of end conn.										
Certificate										

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