

The ASEPCO Weirless Radial-Diaphragm™ Tank-Bottom Valve



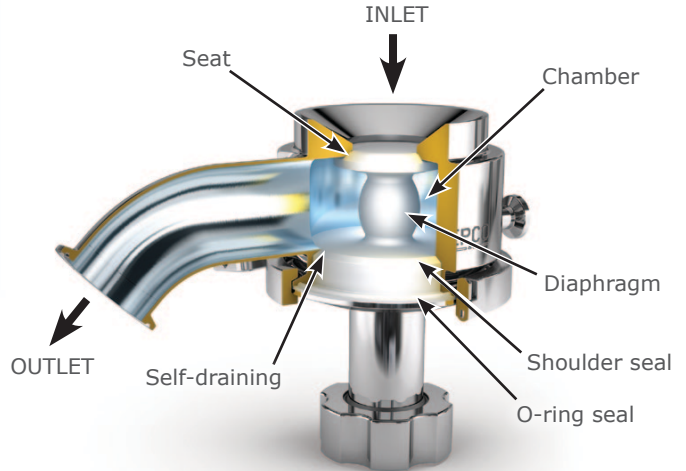
ADVANCED ASEPTIC
PROCESSING EQUIPMENT

Designed for Critical Aseptic Processing Applications

ASEPCO radial-diaphragm valves are specifically designed for applications where leakage, dead legs, or cross-contamination are unacceptable. ASEPCO valves provide added security in all high-purity processing. The Tank-Bottom Valve can be ported to allow it to be C/SIP or flushed while closed, providing access through the valve body to the downstream lines. The ability to quickly flush or C/SIP while the valve is closed solves downstream problems simply, and speeds the product changeover.

Features

- Radial-diaphragm
- Flush mount design
- Self-draining, highly cleanable
- Simple clamp assembly
- Change diaphragms in seconds
- Integral travel stops
- Weep hole under diaphragm
- Patented shoulder seal
- Behind the seat flow path
- Multiple ports, locations, and configurations available



Specifications

Valves

Material	316L, AL6XN, Hastelloy Machined from solid, hot-rolled, bar stock
Surface Finish	Max. 20 micro-inch Ra (0.5 µm Ra), electropolished Max. 15 micro-inch Ra (0.375 µm Ra), electropolished Max. 10 micro-inch Ra (0.25 µm Ra), electropolished
Sizes	0.5 inch, 1 inch, 1.5 inch, 2 inches, 2.5 inches, 3 inches, and 4 inches
Outlet Connections	Standard: Hygienic clamp, tube end, (others available)
Maximum Pressure	[Valve body pressure only] ASME vessels: 250 psi (17 bar), PED vessels: 175 psi (12 bar)
Maximum Temperature	Varies from 135°C/275°F to 260°C/500°F depending on diaphragm material
Marking	Each valve is serialized and marked for full material traceability
ISO	All product and procedures are governed by our ISO Quality Assurance Program
Standards	BPE, CE-PED, ASME

Actuators

Types	Manual or compact pneumatic Fail open or closed
Material	304 stainless steel housing, can be made in 316L
Sizes	0.5 inch, 1 inch, 1.5 inch, 2 inches, 3 inches, and 4 inches
Operating Air Pressure	100 psi max. for pneumatic actuators
Seals	Teflon bushings and O-rings
Fitting	1/8-inch NPT air connection (for pneumatic)
Possible Instrumentation	• Switched • With or without solenoids • With or without DeviceNet cards

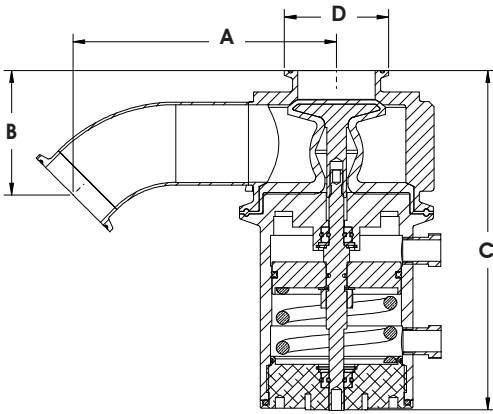
Diaphragms

Materials	Silicone	Silicone Plus	EPDM	EPDM Plus	Viton*	PTFE*
Temperature Range	-60 to 275°F	-60 to 275°F	-30 to 275°F	-30 to 275°F	5 to 400°F	39 to 500°F
Pressure Range	100-150psi	100-150psi	100-150psi	100-150psi	100-150psi	40-60psi
Parylene Treatment	-	√	-	√	-	-
Class	All materials: USP Class VI, 21 CFR 177.2600					

* Not available in all valve sizes

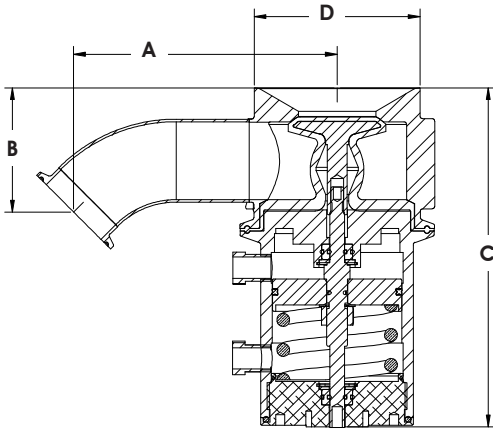
Please contact our Customer Service Department for any non-standard valve requirement (800) 882-3886 or info@asepco.com

Tank-Bottom Valve Dimensions, Flow Rates, and Weights Specifications



TCXX-100-X: Clamp-Mounted Tank Valve

Size	A	B	C - with Pneumatic Actuator	C - with Manual Actuator	D
inches	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)
0.50	3.44 (87)	2.19 (56)	5.08 (129)	4.26 (108)	0.98 (25)
1.00	4.44 (113)	2.06 (52)	6.82 (173)	5.81 (148)	1.98 (50)
Compact 1.50	5.19 (132)	2.53 (64)	7.36 (187)	5.75 (146)	1.98 (50)
2.00	6.36 (162)	3.00 (76)	8.18 (208)	7.34 (186)	2.52 (64)
2.50	N/A	N/A	N/A	N/A	N/A
3.00	7.89 (200)	3.94 (100)	10.66 (271)	8.34 (212)	3.58 (91)
4.00	9.56 (243)	5.74 (146)	15.00 (381)	11.17 (284)	4.68 (119)



TFXX-100-X: Flush-Mounted Tank Valve

Size	A	B	C - with Pneumatic Actuator	C - with Manual Actuator	D
inches	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)
0.50	3.44 (87)	2.19 (56)	5.08 (129)	4.26 (108)	1.98 (50)
1.00	4.44 (113)	2.06 (52)	6.82 (173)	5.81 (148)	2.98 (76)
Compact 1.50	5.19 (132)	2.53 (64)	7.36 (187)	5.75 (146)	2.98 (76)
2.00	6.36 (162)	3.00 (76)	8.18 (208)	7.34 (186)	4.00 (102)
2.50	7.54 (192)	3.97 (101)	10.66 (271)	8.34 (212)	4.91 (125)
3.00	7.89 (200)	3.94 (100)	10.66 (271)	8.34 (212)	4.91 (125)
4.00	9.56 (243)	5.74 (146)	15.00 (381)	11.17 (284)	7.00 (178)

Tank Valve Flow Rates

Size	Cv at 1 psi (0.07 bar)
inches	GPM (LPM)
0.50	2.7 (10.2)
1.00	15.8 (59.8)
Compact 1.50	48 (180)
2.00	72 (272)
2.50	90 (340.7)
3.00	170 (643)
4.00	302 (1143)

Weights

Size	Valve Body	Total Weight with Manual Actuator	Total Weight with Pneumatic Actuator
inches	lb (kg)	lb (kg)	lb (kg)
0.50	0.64 (0.29)	2.69 (1.2)	2.39 (1.08)
1.00	3.60 (1.63)	7.80 (3.5)	8.65 (3.92)
Compact 1.50	3.92 (1.78)	7.07 (3.21)	9.72 (4.41)
2.00	16.38 (7.43)	22.93 (10)	24.73 (11.22)
2.50	38.59 (17.50)	45.59 (21)	62.34 (28.28)
3.00	38.59 (17.50)	45.58 (21)	62.33 (28.27)
4.00	68.58 (31.11)	84.08 (38)	120.98 (54.88)