

## The ASEPCO Weirless Radial-Diaphragm™ Tangential Valve

# ASEPCO

ADVANCED ASEPTIC  
PROCESSING EQUIPMENT

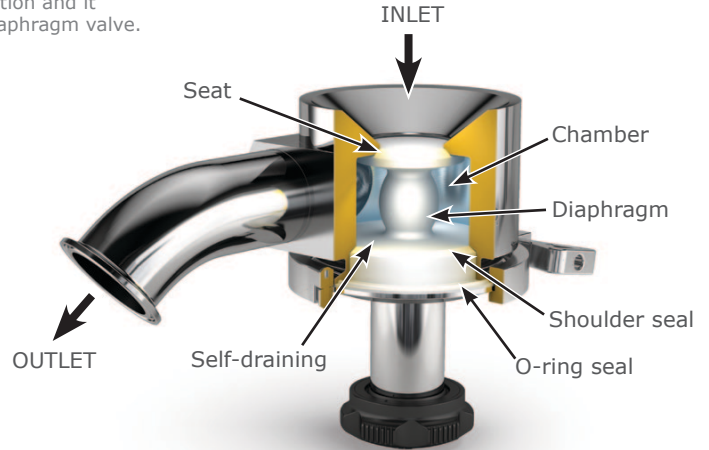
### Designed for Critical Aseptic Processing Applications

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.

ASEPCO developed the Tangential Radial-Diaphragm valve specifically for situations where a valve needs to be mounted off-center on the vessel head. This design is completely drainable in an off-set position and it retains all these standard benefits of an ASEPCO Radial-Diaphragm valve.

### Features

- Radial-diaphragm
- Flush mount design
- Self-draining, cleanable
- Simple clamp assembly
- Change diaphragms in seconds
- Integral travel stops
- Flush or CIP/SIP while valve is closed



### Specifications

#### Valves

|                     |  |
|---------------------|--|
| Material            | 316L, AL6XN, Hastelloy<br>Machined from solid, hot-rolled, bar stock   |
| Surface Finish      | Max 20 micro-inch Ra (0.5 µm Ra), Electropolished<br>Max 15 micro-inch Ra (0.375 µm Ra), Electropolished<br>Max 10 micro-inch Ra (0.25 µm Ra), Electropolished |
| Sizes               | 0.5 inch, 1 inch, 1.5 inch, 2 inches, 2.5 inches, and 3 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<br>Fail open or closed                       |
| Material                 | 304 stainless steel housing, can be made in 316L                         |
| Sizes                    | 1 inch through 3 inches  |
| Operating Air Pressure   | 100 psi max. for pneumatic actuators                                     |
| Seals                    | Teflon bushings and O-rings  |
| Fitting                  | 1/8" NPT air connection (for pneumatic)                                  |
| Possible Instrumentation | • Switched • With or without solenoids • With or without DeviceNet cards |

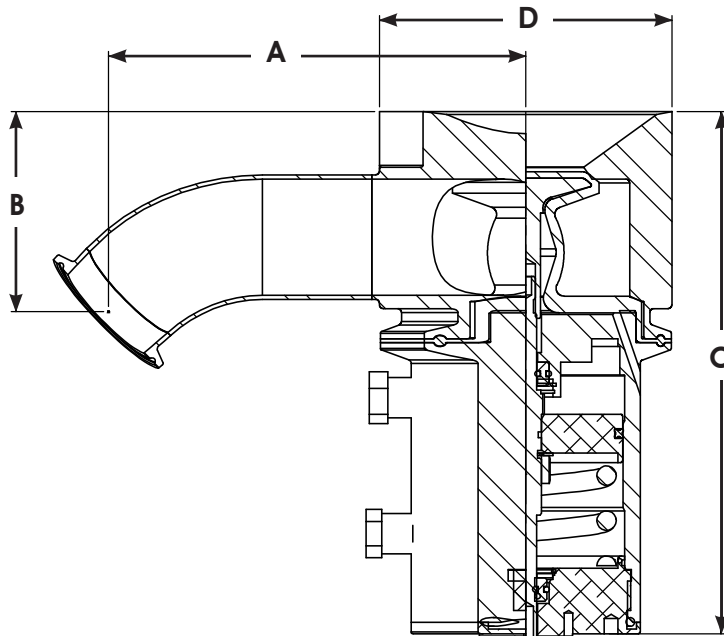
#### Diaphragms

| 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

## Tangential Valve Dimensions, Flow Rates, and Weights Specifications



### TR/TLXX-100-X: Flush-Mounted Tangential Valve

| Size<br>inches | A<br>in (mm) | B<br>in (mm) | C - with Pneumatic<br>Actuator<br>in (mm) | C - with Manual<br>Actuator<br>in (mm) | D<br>in (mm) |
|----------------|--------------|--------------|---|--|--------------|
| 1.00           | 4.37 (111)   | 2.04 (52)    | 6.82 (173)                                | 5.26 (134)                             | 2.98 (76)    |
| 1.50           | 5.19 (132)   | 2.60 (66)    | 7.42 (189)                                | 5.65 (144)                             | 2.60 (66)    |
| 2.00           | 6.72 (171)   | 3.22 (82)    | 8.40 (213)                                | 7.59 (193)                             | 4.71 (120)   |
| 2.50           | 7.54 (192)   | 4.00 (102)   | 10.77 (274)                               | 8.43 (214)                             | 4.91 (125)   |
| 3.00           | 6.75 (171)   | 3.97 (101)   | 10.77 (274)                               | 8.42 (214)                             | 4.91 (125)   |

### Tangential Valve Flow Rates

| Size<br>inches | Cv at 1 psi (0.07 bar)<br>GPM (LPM) |
|----------------|-------------------------------------|
| 1.00           | 15.8 (59.8)                         |
| 1.50           | 48 (180)                            |
| 2.00           | 72 (272)                            |
| 2.50           | 90 (340)                            |
| 3.00           | 170 (643)                           |

### Weights

| Size<br>inches | Valve Body<br>lb (Kg) | Total Weight with<br>Manual Actuator<br>lb (Kg) | Total Weight with<br>Pneumatic Actuator<br>lb (Kg) |
|----------------|-----------------------|---|--|
| 1.00           | 3.60 (1.63)           | 7.80 (3.5)                                      | 8.65 (3.92)  |
| 1.50           | 4.75 (2.15)           | 8.35 (3.78)                                     | 9.80 (4.44)  |
| 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)                                      |