Tank Valve

The Tank Bottom Valve is designed for applications in the aseptic process industry offering a pocket-free interior surface, minimized sump, eliminating entrapment areas and minimizing flow resistance thus reducing the potential for process contamination. The tank bottom valve incorporates the same features and performance of a standard diaphragm valve utilizing the same valve components for a flush mounted tank bottom valve or side mounted tank and sample valve.

The tank valve body is machined as standard from solid bar stock material 1.4435/316L ASME/BPE and other alloy materials are available according to the specification. The standard design offers one valve port outlet. There are a number of different options available for sampling, sterilization and multi-outlet configurations that are standard in our product range of customized solutions.

Features:
- Tank body machined from a solid bar stock material
- Material 1.4435/316L ASME/ BPE
- Other alloy options available as specified
- Minimized dead leg and internal sump
- Suitable for mounting with Steripur Series and KMA Series Actuation
- Optional manual operation via an extended crankshaft stem

It is preferred to weld in the tank valve directly in the vessel. Mounting the valve directly to the tank minimizes the hold up volume, the most important criteria for this application. If removal of the tank valve from the tank is required, versions are offered with flange or clamp connections. Please contact us for these options.

Tank bottom valves are typically used for tank discharge, draining, sampling, cleaning and/or sterilizing, rinsing and isolation of down stream processing.

The outlet port of the tank valve is available with all butt weld tube end standards (see fold-out page 13), aseptic clamp, screw connection (see page 14 and 15) or other special ends. The size range available is the same as the two-way valve.

The Tank

Tank bottom body

Crankshaft extended stem

Easy access to the manual bonnet handle

Steripur Series Manual

KMA Series Manual

Pneumatically operated tank bottom valve

Steripur Series

Steripur Series Pneumatically Operated

KMA Series Pneumatically Operated

Side mounted body manufactured according to the tank diameter radius

All leaflets are available on: www.asconumatics.eu
Tank Valve

Example: Drawing Steripur Series pneumatically operated

Example: Drawing KMA Series manually operated

On request, all dimensional data sheets or 2D and 3D - CAD drawings are available.

These include options for sampling, sterilization, and multi-outlet configurations.

The following two pages show a table of some examples of standard and customized designs of tank diaphragm valves.

**Description**
Select a tank valve or see page 53 to sketch and specify your solution

**P&ID**
- Flow direction
- Drain direction
- Valve

**Image**
Actuators and other options are included in some of the illustrations

1) **BT**
1x Valve port
Standard tank bottom body
Tank body for the tank bottom

2) **1x Valve machined from bar stock**
   - **BZL 3/1** with one welded valve tank side left
   - **BZR 3/1** with one welded valve tank side right
   - **BXL 3/1** with one welded valve outlet left
   - **BXR 3/1** with one welded valve outlet right
   - **BW 4/1** with one welded valve tank side left and one welded valve outlet right

   For all options the welded valve is rotated into the self draining position and extended to eliminate interference with the tank bottom

3) **BZR 3/2**
1x Main Valve
1x Sample valve tank side right

Like position 2 but includes an integral sample valve tank side. Right side and left side options are available and are fully drainable.

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## Tank Valve

<table>
<thead>
<tr>
<th>Description</th>
<th>P&amp;ID</th>
<th>Image</th>
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<tbody>
<tr>
<td><strong>Select a tank valve or see page 53 to sketch and specify your solution</strong></td>
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<tr>
<td><strong>4) BXL 3/2</strong></td>
<td><img src="image" alt="Diagram" /></td>
<td>![Image]</td>
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<tr>
<td>1x Main Valve</td>
<td></td>
<td></td>
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<tr>
<td>1x Sample valve outlet left</td>
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<tr>
<td>Like position 2 but includes an integral outlet valve. Right side and left side options are available and are fully drainable.</td>
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| **5) BW 4/3** | ![Diagram](image) | ![Image] |
| 1x Main Valve | | |
| 1x Sample valve tank side right | | |
| 1x CIP/ SIP cleaning outlet valve left | | |
| Like position 2 but includes integral valves that are fully drainable. | | |

| **6) BT 3/1** | ![Diagram](image) | ![Image] |
| 1x Main valve | | |
| 2x Outlet port for loop installation or as two access ports | | |

| **7) BT 5/4** | ![Diagram](image) | ![Image] |
| 4x Main valves | | |
| 1x Port | | |
| Application with 4 internal tank partitions. | | |

| **8) BU** | ![Diagram](image) | ![Image] |
| 1x Tank side sample valve | | |
| All previous position options are available with the tank side sample valve. Machined welding pad to match the radius of the tank diameter. | | |

| **9) BF** | ![Diagram](image) | ![Image] |
| Customized for aseptic modular retainer mounted in aseptic piping installations. | | |

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