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## PREFERRED MOUNTING POSITIONS for DuraSeal Valve

### 1.0 SCOPE OF INSTRUCTION

- 1.1. This information is provided for support of the Duraseal Valve in maintaining the maximum life and function of the valve.
- 1.2. The contained information is subject to change without notice.
- 1.3. This document provides information for typical installations. In the event of unique situations, please contact your representative or the factory.

### 2.0 DEFINITIONS

- 2.1. **DBB** - Double Block and Bleed, method to test seat integrity with valve closed while under pressure.
- 2.2. **DIB-1** - Double Isolation and Bleed, Bi-Directional seating. API 6D definition of redundant sealing surfaces in both flow directions.
- 2.3. **DTR** - Differential Thermal Relief, provides the cavity relief functions of API 6D. Also contains DBB bleed function.

### 3.0 CONSIDERATIONS

- 3.1. Positioning of valve to provide operational access in installation. This is of particular concern for manually operated valves in pipe racks. Operator and handwheel extensions are available to improve access. See PUB-002-EN for details on the extension of DTR systems.
- 3.2. Positioning of DTR to provide proper function. The DTR relief direction should be toward the pressure side to be isolated. In a typical piping system, there is often a specific direction. When isolating equipment such as pumps, the preferred isolation may be different from the prevailing flow direction. See PUB-002-EN for DTR details.
- 3.3. Positioning of bleeds and drains to provide adequate operation. On valves which require complete draining, ensure that drains are positioned to provide complete draining. On valves which require DBB operation, it is typically preferable to position bleed valves for an elevated position so that DBB bleeds the minimum amount of liquid.
- 3.4. Positioning for reducing damage due to solids contained in fluids. With solids in the fluids it is preferable to have regular draining of the body cavity to reduce accumulation

and reduction of performance. It is also preferable to have the DTR to the upper side so that solids do not damage the DTR checks or valves.

#### **4.0 PREFERRED MOUNTING POSITIONS**

- 4.1.1. Positioning of the stem facing up in the vertical position is preferable.
- 4.1.2. 12+or smaller 150 & 300 class and 6+or smaller 600 class may be oriented with a horizontal stem position.
- 4.1.3. If the valve is oriented with the stem in the horizontal position, it is preferable that the left flange is receiving the prevailing flow and that the DTR is on the upper side. This provides an inlet flow upon opening that tends to flush out any accumulated solids.
- 4.1.4. Mounting of the valve with the waterway oriented vertically is acceptable. This provides an inherent cavity flushing characteristic in both the upward and downward flow directions.
- 4.1.5. Mounting the valve with the stem facing down is non-preferred, but may be acceptable for very clean conditions. This exposes the stem and stem seals to potential damage from settling solids and exposes the DTR to potential accumulations.