

Recommended Specification for Standard Trims High Performance Butterfly Valves

FLANGE MOUNTING

- Valves of wafer design rated up to 740 psig shall be suitable for mating between ASME Class 150 and/or Class 300 flanges (flat or raised face) without modification of the valve body.
- Wafer type valves shall be provided with at least two, diametrically opposite, flange alignment holes (note: full round holes, not ridges or landings) to facilitate proper alignment between flanges.
- Laying length shall conform to the current MSS SP68 or API 609 standards.

BODY

- Valve bodies shall meet the minimum wall thickness requirements of ANSI B16.34.
- Valve bodies shall have an internally cast travel stop to provide positive positioning of the valve disc.
- Valve body neck length shall permit 2" of insulation of valve and piping.

DISC AND STEM

- Valve disc and stem shall be of double offset design to minimize cycle wear and distortion of seat.
- Disc design shall lend itself to high Cv and low pressure-drop values in the open position.
- Valve discs shall be secured in a concentric location relative to the seat by means of non-wearing self-lubricated bushings.
- Valve disc shall provide for maximum flow capacity and low pressure loss values in the open position using a two piece stem design, in which case the stems shall penetrate at least 1-1/2 times their diameter into the disc hub.
- Valve discs shall employ a hardened edge material to allow long cycle life of both the disc and the seat.
- Disc shall be capable of rotation through adjacent schedule 80 piping.

SEAT

- Seat design shall bi-directionally affect tight shut-off or all differential pressures through the full pressure class rating with a minimum disc closure tolerance requirement of $\pm 2^\circ$ of rotation.
- Seat shall be replaceable without removing disc or stem from valve.
- Valve seats shall be located in the valve body and secured in place by means of a retaining ring.
- Seat shall be of non-energized design.

STEM PACKING

- Stem packing shall be adjustable. Stem packing adjustment nuts shall have full 180° clearance for ease of wrench access and rotation.
- Stem packing shall be provided on the drive end of the valve only. The non-driving end of the valve is to use a static gasket type seal.
- Stem packing shall be equally suitable for full vacuum and pressure service.

STEM SUPPORT BUSHINGS

- Valve journals shall have pressed fit upper and lower bushings located immediately adjacent to flatted body bore surface for maximum stem support.

SEAT RETAINING RINGS

- Valve retaining rings shall be secured to the valve body for shipment and installation in such a manner as to provide a non-obstructed flange gasket surface.
- Valve retaining rings shall allow ease of removal in the event of severe corrosion of the body and retention fasteners.

ACTUATOR MOUNTING

- Valve body shall have an internally cast top plate for direct flush mounting of manual or power actuators without use of brackets or adapters.