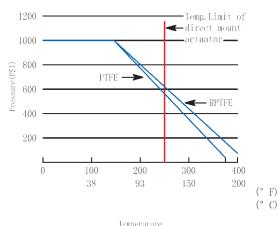


Design:ANSI/ASME B16.34
Face to Face: Manufacturer's
Pressure Testing API 598

Max Working Pressure: 1000PSI

For Steam: 150 psi Size: 1/2"~4"

Working Temperature: -29 ~180



### 1.Top Mounting Pad

Two sets of ISO5211 mounting patterns are available to accommodate a great range of actuators. Machined flat surface ensures correct alignment of actuator to the stem top for minimum side loading during operation



#### 2. 3 Pieces Valve BodyDesign

easy for in line and out of line servicing.



In line servicing



#### 3.Ball

Balls are precision machined and mirror finished for bubble-tight shut off with less operating torque. ball edges have machined curvatures to reduce seat wear and provide a high cycle life.

# 4.Seat

seat designed to ensure bi-directional, bubble-tight sealing while providing the lowest possible torque. This seat design reduces friction, minimizes seat wear and reduces operating torque.



#### 5.Stem

The sturdy blow-out proof stem is designed for direct mounting of actuator that meets ISO5211 specifications.



#### **6. High Cycle Stem Design Features**

· Live Loading Stem Sealing

The live load seals considerably increase the number of cycles between maintenance adjustment.

• Anti-Static Device: To eliminate the possibility of static electrical charges within the valve, two grounding connections are set in the stem to ensure electrical continuity for the entire ball valve.

### Three stages of stem sealing for effective control of stem leakage:

- Pyramidal Body and Stem Seal (1st Stage): Internal pressure of the valve pushes the pyramidal stem sealing upward. Because of it's shape, the sealing expands to fill all the air pockets that might become a potential leakage path in the lower stem area.
- Viton® O-Ring (2nd Stage): The elastic nature of the Viton® O-Ring serves as an effective sealing for gaseous medium that might escape the 1st stage sealing.
- V-Ring Stem Packing (3rd Stage): Live loading action of the Bellville washer expands the V-Ring stem packing, filling all the air pockets in the outer stem area. It effectively seals internal media within as well as keeping external media from entering the system



#### **PARTS**

- 1. tab lock washer
- 2, Lock nut
- 3. Belleville Washers
- 4. Gland
  - 5. V-Ring Stem Packing
  - 6. O-Ring
  - 7. Pyramidal Stem Seal
  - 8. Stem
  - 9. Anti-Static Device



#### 7. High neck design, easy to install and uninstall actuators



#### 8. End connections

Threaded: ASME B1.20.1 NPT BS21 BSP/DIN2999/259/ISO228-1 JIS B0203/ISO7/1 BUTT WELD :ASME B16.25(SCH40) SOCKET WELD: ASME B16.11 TUBE ENDS:US/3A ANSI FLANGE: ASME B16.50 DIN FLANGE: DIN2501,PN10-40 Tri-Clamp



stopper

01/ 02



#### **AUTOMATION**

### 2 Pieces Flanged Full Port Ball Valve with ISO 5211 Direct Mount Pad



ANSI CLASS 150 Design ANSI/ASME B16.34 Face to Face ANSI/ASME B16.10 Flange Dimensions ANSI/ASME B16.5 Pressure Testing API 598 Mounting ISO 5211 Marking System for Valves MSS SP-25

**DIN** PN16-40 Design DIN3357, En1256 Face to Face DIN3302-F4 Flange Dimensions DIN2501,PN10-40 Pressure Testing DIN3230/3, EN1266 Mounting ISO 5211 Marking System for Valves MSS SP-25 Fire Safe (Option)

#### **High Cycle Stem Design Features**

- Live Loading Stem Sealing (Adjustable Plate and Belleville Washer): The adjustable plate uniformly compresses the pair of Belleville washers to store energy for live loading. Live loading extends the time required between maintenance. During high cycle operation, the system works independently to maintain sealing integrity.
- Independent Stem Rotation: The rotational movement of the stem is independent of adjustable plate and Belleville washers (the live loading system). The action of stem rotation does not disrupt the sealing tightness of the disc plate.
- Anti-Static Device: To eliminate the possibility of static electrical charges within the valve, two grounding connections are set in the stem to ensure electrical continuity for the entire ball valve.

#### Three stages of stem sealing for effective control of stem leakage:

- Pyramidal Body and Stem Seal (1st Stage): Internal pressure of the valve pushes the pyramidal stem sealing upward. Because of it's shape, the sealing expands to fill all the air pockets that might become a potential leakage path in the lower stem area.
- Viton® O-Ring (2nd Stage): The elastic nature of the Viton® O-Ring serves as an effective sealing for gaseous medium that might escape the 1st stage sealing.
- V-Ring Stem Packing (3rd Stage): Live loading action of the Bellville washer expands the V-Ring stem packing, filling all the air pockets in the outer stem area. It effectively seals internal media within as well as keeping external media from entering the system

#### **PARTS**















- 1. Adjustable Plate 2. Belleville Washers 3. Gland 4. V-Ring Stem Packing 5. O-Ring
  - 6. Pyramidal Stem Seal
  - 7. Stem
  - 8. Anti-Static Device

## **Top Mounting Pad**



**AUTOMATION** 

Top Mounting Pad: Two sets of ISO5211 mounting

patterns are available to accommodate a great range of actuators. Machined flat surface ensures correct alignment of actuator to the stem top for minimum side loading during operation











**Gasket & Adaptor** 

Cast gasket and adaptor for high temperature

application to protect the actuators

TFM -29~230°C

#### Ball



RPTFE -29 ~120°C

Balls are precision machined and mirror finished for bubble-tight shut off with less operating torque. ball edges have machined curvatures to reduce seat wear and provide a high cycle life.



#### Seat

seat designed to ensure bi-directional, bubble-tight sealing while providing the lowest possible torque. This seat design reduces friction, minimizes seat wear and reduces operating torque.

TFM seat with Anti expansion design for high temperature application



The sturdy blow-out proof stem, bare shaft is designed for direct mounting of actuator that meets ISO5211 specifications.



Lockable handle with stopper available