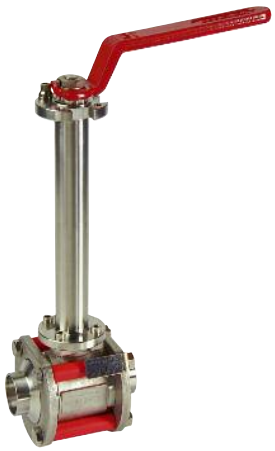
Manual Ball Valve

PY4 CY SERIES

- 375 psi
  T° : -200 °C (-320 °F)
- 1/4" to 3"



Requirements

Operating performance at low temperature

Liquids and Gases

- Oxygen
- Nitrogen
- Argon
- Carbon Dioxide

Features and Benefits

■ **Materials and Seat Design**
A unique PTFE material is used that ensures excellent mechanical resistance and stable torques at low temperatures. This low consistent torque reduces the cost of automation as smaller actuators are required to operate the valve.

■ **Pressure Relief**
Vent holes in the ball removes the risk of trapping liquid in the valve body.

■ **Flow Direction**
An arrow on the body prevents any installation errors.

■ **Cryogenic Stem Extension**
The internal space in the extension is designed to create a gas buffer between the liquid and the gland packing minimizing maintenance and increasing operating life. The extension is manufactured as a one-piece stem to increase mechanical strength. The large drive surface between the stem and ball ensures a long operating life.

For Extended Stem

CBV-ME-SS3 - _____ _____
Size, Connection

For Non-Extended Stem

CBV-MN-SS3 - _____ _____ _____
Size, Connection, Bore

Size Options

12 - 1/2" 34 - 3/4" 1 - 1" 114 - 1 1/4" 112 - 1 1/2" 2 - 2" 212 - 2 1/2"

Connection Options

NPT - National Pipe Thread **BW** - Butt Weld
SW - Socket Weld **BSP** - BSP Thread
FL - Flanges

Bore Options

FB - Full Bore
RB - Reducing Bore

Actuated Ball Valve

Specifications

Type 3-piece ball valves, PY4 CY line

Dimensions 3/8" to 2 1/2"
3" to 4" on request

Connections BW, SW, NPT threaded & ASA flanges

Applications Liquid gases – 196° C / PN 20

Features and Benefits

■ **Sealing**
Double chevron stem seals provide a long-lasting and tight stem sealing.
A static PTFE seal captured between the extension and the body stops external leaks.
The specific seat design and material guarantee an excellent seal. The 'live load' stem seal system with Bellville washers ensures consistent stem sealing.

■ **Expansion Compensation**
An upstream vent hole in the ball allows gases trapped in the body cavity to expand into the upstream area of the piping system. The arrow on the valve body shows the direction for installation.

■ **Low Torque Operation**
The shape and material used in the seats allow for low operating torques, even at cryogenic temperatures. This makes the valve easy and economical to automate.

■ **Stem Alignment**
The stem is machined on its entire length, guaranteeing its alignment with the body, therefore increasing valve life. The split bushing is located at the base of the extension allowing cryogenic fluid into the bottom of the extension and creating a gas buffer at the top of the extension.

■ **Resistance Against Stem Twisting**
The stem is machined to a constant thickness from top to bottom, requiring special body machining to eliminate any stem twisting.

For Fail Safe Actuated Ball Valves

CBV-AF-SS3 - _____ _____
Size, Connection

For Double Acting Actuated Ball Valves

CBV-AD-SS3 - _____ _____
Size, Connection

Size Options

12 - 1/2" 34 - 3/4" 1 - 1" 114 - 1 1/4" 112 - 1 1/2" 2 - 2" 212 - 2 1/2"

Connection Options

NPT - National Pipe Thread **BW** - Butt Weld **SW** - Socket Weld
BSP - BSP Thread **FL** - Flanges

Meca-Inox Advantages *vs* Competitive Brands

■ Expansion and Contraction of Seals Under Cryogenic Conditions

■ Advantages of Kit Form Delivery. Prior to welding the "Competitive Brands" valve must be dismantled and seals replaced

■ Need to lubricate the ball on the "Competitive Brands" valve to prevent sticking during operation

■ Under extreme cryogenic test conditions the Meca-Inox valve was found to perform substantially better than the "Competitive Counterpart"