

## THREE PIECE BALL VALVE

(SCREWED END | SOCKETWELD END)

SIZES: DN15 TO DN80

CLASS 150



## **FEATURES**

- Floating Type Ball Valve i.e. the ball is suspended in the media but held in place by the two seat rings and supported by the valve seats.
- The floating design allows the ball to move slightly within the valve body which helps to reduce the operating torque and extend the valve service life.
- Soft seated design provides a tight seal between the ball and the seat while also allowing for some flexibility.
- Soft seated design reduces the operating torque required for opening and closing the valve.
- Soft seated design minimizes the risk of damage to the ball and the seat
- Blowout proof stem in ball valves is designed to prevent the stem from being blown-out of the body due to high pressure or excessive force.
- The pressure-relief hole in the valve helps to equalize the pressure across the valve, reducing the risk of damage to the valve or the pipeline. This helps to ensure reliable operation and prevents leaks or malfunctions.
- The anti-static device in ball valves helps to prevent static electricity buildup during operation, which can reduce the risk of fire or explosion in certain applications.
- Mirror finish ball helps to reduce friction, ensuring smooth operation and extending the valve's life span.
- The mirror finish also provides excellent corrosion resistance ensuring that the valve performs reliably even in harsh environments.
- Fire-safe valves are designed to prevent flammable fluids from spreading in the event of a process line fire. The design uses metal back-up seats to prevent ignition.
- Three-piece design i.e. the body and the 2 end pieces are bolted and assembled together.
- Three-piece design helps in removal of the valve body and trims independently and quickly without interfering with the pipe connections.
- Three-piece design ensures low long-term maintenance cost.
- End Connection is threaded type as per the standard ASME B1.20.1
- Threaded connections are available in NPT, BSP & BSPT as per the requirement.
- The integral ISO 5211 mounting pad provides a standard interface for mounting actuators or gear operators, making it easy to automate the valve.











#### **TECHNICAL DATA:**

DESIGN & MANUFACTURING STANDARD: API 6D / BS EN ISO 17292 / ASME B16.34

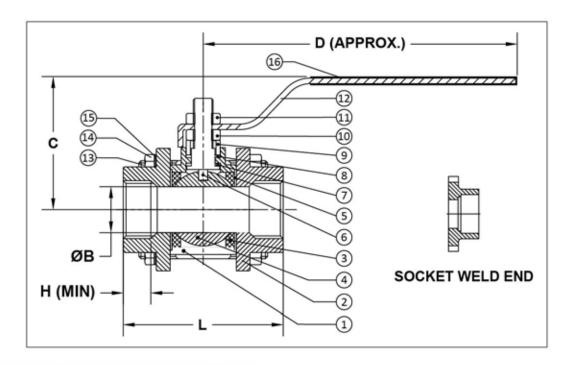
TESTING & INSPECTION STANDARD : API 598 / API 6D / ISO 5208 FACE TO FACE : API 6D / ASME B16.10

SCREWED END : ASME B1.20.1 SOCKET WELD END : ASME B16.11

FIRE TEST : ISO 10497 / API 607 / API 6FA

MOUNTING PAD : ISO 5211

NACE : ANSI/ASME MR 0175 / ISO 15156-1



| NO | DESCRIPTION   | MATERIAL                    | QTY |
|----|---------------|-----------------------------|-----|
| 1  | BODY          | CI / CS / SS304 / SS316     | 1   |
| 2  | END PIECE     | CI / CS / SS304 / SS316     | 2   |
| 3  | SEAT RING     | PTFE                        | 2   |
| 4  | BALL          | ASTM A351 Gr. SS304 / SS316 | 1   |
| 5  | BODY SEAL     | PTFE                        | 2   |
| 6  | STEM          | ASTM A276 Gr. SS304 / SS316 | 1   |
| 7  | STEM SEAL     | PTFE                        | 1   |
| 8  | GLAND PACKING | PTFE                        | 1   |
| 9  | GLAND         | ASTM A276 Gr. SS304 / SS316 | 1   |
| 10 | GLAND NUT     | ASTM A194 Gr.8              | 1   |
| 11 | LEVER NUT     | ASTM A194 Gr.2H             | 1   |
| 12 | LEVER         | MS / SS                     | 1   |
| 13 | STUD          | ASTM A193 Gr.B7             |     |
| 14 | STUD NUT      | ASTM A194 Gr.2H             | 8   |
| 15 | STUD WASHER   | MS / SS                     | 4 🚳 |
| 16 | LEVER SLEEVE  | PVC                         | 1   |

| SIZ   | SIZE |     | CLASS 150 |     |     |       |  |
|-------|------|-----|-----------|-----|-----|-------|--|
| in.   | mm   | L   | ØB        | С   | D   | н     |  |
| 1/2"  | 15   | 63  | 13        | 52  | 115 | 14    |  |
| 3/4"  | 20   | 72  | 19        | 55  | 115 | 15.5  |  |
| 1.    | 25   | 87  | 25        | 70  | 142 | 20    |  |
| 1½*   | 40   | 114 | 38        | 95  | 170 | 18.25 |  |
| 2"    | 50   | 132 | 50.5      | 105 | 170 | 23    |  |
| 21/2" | 65   | 142 | 64        | 130 | 240 | 25.5  |  |
| 3*    | 80   | 158 | 76        | 145 | 270 | 26    |  |

#### ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED

| PRIMARY SERVICE RATING & TEST PRESSURE |                     |                    |          |       |  |  |  |  |
|--|---------------------|--------------------|----------|-------|--|--|--|--|
| CLASS                                  | WORKING<br>PRESSURE | HYD. TEST PRESSURE |          |       |  |  |  |  |
| CLASS                                  |                     | BODY               | SEAT     | TEMP. |  |  |  |  |
| 150                                    | 150 PSIG            | 425 PSIG           | 300 PSIG | 200°F |  |  |  |  |
| AIR TEST - SEAT : 80 PSIG ± 10 PSIG    |                     |                    |          |       |  |  |  |  |

# REGISTERED FACTORY AND OFFICE ROYALTECH VALVES

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