

BALL VALVES



- Sizes: 1/4" to 2"
- Pressure Ratings: 3,000 PSI , 6,000 PSI, 10,000 PSI
- NPT, ISO/BSP, Threads
- Stainless Steel (316L, 316, 304, 304L),
Brass, Carbon Steel, Monel, Inconel

TVI MANIFOLDS

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INSTRUMENT BALL VALVE

TVI one-piece instrumentation ball valves have been well accepted and widely used in a variety of industries for many years. The Valves have been manufactured to meet the highest quality and performance standards associated with the instrumentation, control, and process industry marketplace. The **TVI** product line was initiated and expanded in response to expressed needs for solutions in unique flow control applications. Out of its original beginnings of specialization, standard product lines became available to serve a wide variety of applications and customers.

Specifications

| Pressure Ratings | | |
|---------------------|----------------------|---------------------|
| Material | CWP | with PTFE Seats |
| 316 Stainless Steel | 6000 psig (414 bar)* | 1500 psig (103 bar) |
| Brass | 3000 psig (207 bar) | 1500 psig (103 bar) |
| Monel Alloy 400 | 3000 psig (207 bar) | 1500 psig (103 bar) |
| Hastelloy C-276 | 4000 psig (276 bar) | 1500 psig (103 bar) |

Features of Ball Valves

- Two way on-off, 2 Way Angle or 3 way switching models.
- Blow-Out Proof Bottom Loaded stem.
- Low operating torque with SS lever/Fenolic handle.
- Full or reduced Bore for Perfect Flow.
- Flouting ball design for positive seating.
- Working Pressure from 1000 PSI to 6000 PSI.
- With PTFE seat.

Construction of Ball Valves

SS-316, SS-304, Carbon Steel, Brass and Monel Material in different type of end connection include Male/Female thread NPT, BSP, BSPT and Single or Double Tube Fittings ends.

Application of Instrumentation Ball Valves

Process Control, Instrumentation.

- **Pressure Ratings:** 3000 PSI, 6000 PSI
- **Sizes:** 1/4" - 1"
- **Materials:** Stainless Steel (316L, 316, 304, 304L), Steel, Brass, Carbon Steel, Monel, Hastelloy, Incone
- **Types:** 2 Way, 3 Way, 5 Way,
- **Pattern:** Round Body, Square Body, Hex Body

Note:-

Materials of Construction is show with dimension table.

TVI MANIFOLDS

INSTRUMENT BALL VALVES

TVI one-piece instrumentation ball valves have been well accepted and widely used in a variety of industries for many years. The Valves have been manufactured to meet the highest quality and performance standards associated with the instrumentation, control, and process industry marketplace. The **TVI** product line was initiated and expanded in response to expressed needs for solutions in unique flow control applications. Out of its original beginnings of specialization, standard product lines became available to serve a wide variety of applications and customers.

Specifications

| Material | Pressure Ratings | |
|---------------------|----------------------|---------------------|
| | CWP | with PTFE Seats |
| 316 Stainless Steel | 6000 psig (414 bar)* | 1500 psig (103 bar) |
| Brass | 1000 psig (70 bar) | 1000 psig (70 bar) |
| Monel Alloy 400 | 3000 psig (207 bar) | 1500 psig (103 bar) |
| Hastelloy C-276 | 4000 psig (276 bar) | 1500 psig (103 bar) |

Ball Valve Construction

SS-316, SS-304, Carbon Steel, Brass and Monel Material in different type of end connection include Male/Female thread NPT, BSP, BSPT and Single or Double Tube Fittings ends.

Note

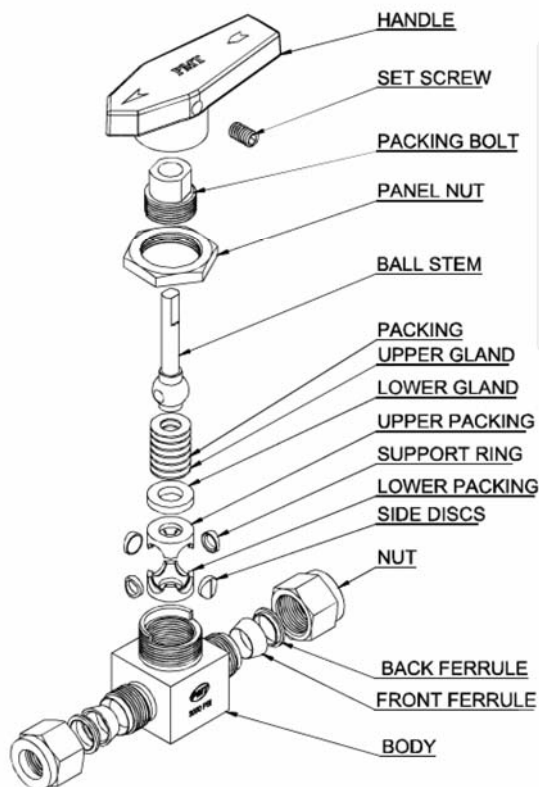
Materials of Construction is show with dimension table.

Ball Valve Features

- Two way on-off, 2 Way Angle or 3 way switching models.
- Blow-Out Proof Bottom Loaded stem.
- Low operating torque with Nylon with Brass insert handle.
- Full or reduced Bore for Perfect Flow.
- Floating ball design for positive seating.
- Working Pressure from 1000 PSI to 6000 PSI.
- With PTFE/POM/DELIN seat.

- **Pressure Ratings:** 3000 PSI, 6000 PSI
- **Sizes:** 1/4" - 1"
- **Materials:** Stainless Steel (316L, 316, 304, 304L), Steel, Brass, Carbon Steel, Monel, Hastelloy, Inconel
- **Types:** 2 Way, 3 Way, 5 Way,
- **Pattern:** Square Body, Hex Body, Round Body
- **Application:** Process control, Instrumentation

Instrument Ball Valve - One Piece Body



| SR. NO. | PART NAME | MATERIALS | QTY. |
|---------|---------------|-------------------------|------|
| 1 | BODY | A479-316L | 1 |
| 2 | BALL STEM | A479-316L | 1 |
| 3 | PACKING BOLT | A479-316L | 1 |
| 4 | UPPER GLAND | A479-316L | 1 |
| 5 | LOWER GLAND | A479-316L | 1 |
| 6 | UPPER PACKING | PTFE | 1 |
| 7 | LOWER PACKING | PTFE | 1 |
| 8 | PANEL NUT | A479-316L | 1 |
| 9 | SUPPORT RING | A479-316L | 2 |
| 10 | SIDE DISCS | A479-316L | 2 |
| 11 | PACKING | A479-316L | 6 |
| 12 | HANDLE | NYLON WITH BRASS INSERT | 1 |
| 13 | NUT | A479-316L | 2 |
| 14 | FRONT FERRULE | A479-316L | 2 |
| 15 | BACK FERRULE | A479-316L | 2 |
| 16 | SET SCREW | STEEL | 1 |

| SR. NO. | PART NO. | SIZE | L/L1 | H | ORIFICE |
|---------|---------------------|-------------------------|---------|-----|---------|
| 1 | TM-BV-2S-S-02-FF/OD | 1/8" OD/1/8" NPT FEMALE | 51/51 | 51 | 3 |
| 2 | TM-BV-2S-S-04-FF/OD | 1/4" OD/1/4" NPT FEMALE | 56/56 | 56 | 5 |
| 3 | TM-BV-2S-S-06-FF/OD | 3/8" OD/3/8" NPT FEMALE | 63/66 | 65 | 8 |
| 4 | TM-BV-2S-S-08-FF/OD | 1/2" OD/1/2" NPT FEMALE | 90/99 | 99 | 10 |
| 5 | TM-BV-2S-S-12-FF/OD | 3/4" OD/3/4" NPT FEMALE | 90/99 | 99 | 16 |
| 6 | TM-BV-2S-S-16-FF/OD | 1" OD/1" NPT FEMALE | 115/121 | 112 | 19 |

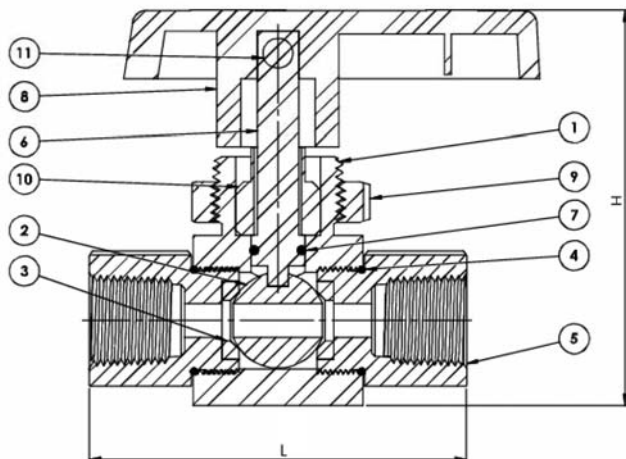
• For more detail contact our factory.

Applications

- Analytical market requiring a valve with lowest dead volume to prevent fluid entrapment which can cause contamination.
- Control Sampling Systems, and Process Instrumentation market requiring a valve with compact size, high flow capacity and directional indication of flow.

INSTRUMENT BALL VALVE - 3 PIECE DESIGN - 6,000 PSI

Female x Female Ends



Features

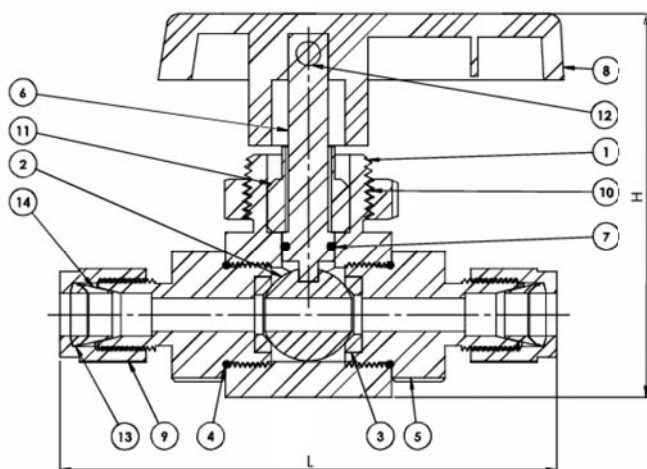
- Free floating ball design provides seat wear compensation.
- Micro-finished ball provides a positive seal.
- Straight through flow path for minimum pressure drop.



| ITEM NO. | PART NAME | MATERIALS | QTY. |
|----------|------------|-------------------|------|
| 1 | BODY | A479-316L/B-16 | 1 |
| 2 | BALL | A479-316 | 1 |
| 3 | SEAL | PTFE/POM | 2 |
| 4 | O-RING | VITON/BUNA-N | 2 |
| 5 | ADAPTOR | A479-316L/B-16 | 2 |
| 6 | SPINDLE | A479-316 | 1 |
| 7 | O-RING | VITON/BUNA-N | 1 |
| 8 | HANDLE | PHENOLIC/SS LEVER | 1 |
| 9 | PANEL NUT | A479-316L/B-16 | 1 |
| 10 | GLAND NUT | A479-316L/B-16 | 1 |
| 11 | GRUB SCREW | STEEL | 1 |

| SR. NO. | PART NO. | SIZE | L | H | ORIFICE |
|---------|-----------------|-----------------|-----|----|---------|
| 1 | TM-BV-2-S-02-FF | 1/8" FEMALE NPT | 70 | 50 | 3 |
| 2 | TM-BV-2-S-04-FF | 1/4" FEMALE NPT | 70 | 50 | 5 |
| 3 | TM-BV-2-S-06-FF | 3/8" FEMALE NPT | 72 | 50 | 8 |
| 4 | TM-BV-2-S-08-FF | 1/2" FEMALE NPT | 85 | 60 | 10 |
| 5 | TM-BV-2-S-12-FF | 3/4" FEMALE NPT | 98 | 60 | 16 |
| 6 | TM-BV-2-S-16-FF | 1" FEMALE NPT | 115 | 70 | 19 |

Tube Ends



Features

- Free floating ball design provides seat wear compensation.
- Micro-finished ball provides a positive seal.
- Straight through flow path for minimum pressure drop.
- 90 degree actuation.
- Adjustable PTFE stem seal can be maintained in-line.



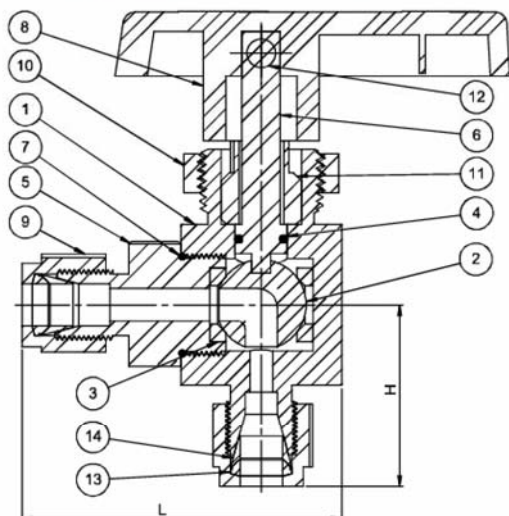
| ITEM NO. | PART NAME | MATERIALS | QTY. |
|----------|---------------|-------------------|------|
| 1 | BODY | A479-316L/B-16 | 1 |
| 2 | BALL | A479-316 | 1 |
| 3 | SEAL | PTFE/POM | 2 |
| 4 | O-RING | VITON/BUNA-N | 2 |
| 5 | ADAPTOR | A479-316L/B-16 | 2 |
| 6 | SPINDLE | A479-316 | 1 |
| 7 | O-RING | VITON/BUNA-N | 1 |
| 8 | HANDLE | PHENOLIC/SS LEVER | 1 |
| 9 | NUT | A479-316L/B-16 | 2 |
| 10 | PANEL NUT | A479-316L/B-16 | 1 |
| 11 | GLAND NUT | A479-316L/B-16 | 1 |
| 12 | GRUB SCREW | STEEL | 1 |
| 13 | BACK FERRULE | A479-316L/B-16 | 2 |
| 14 | FRONT FERRULE | A479-316L/B-16 | 2 |

| SR. NO. | PART NO. | SIZE | L | H | ORIFICE |
|---------|------------------|----------|-----|----|---------|
| 1 | TM-BV-2S-S-02-OD | 1/8" OD | 78 | 50 | 3 |
| 3 | TM-BV-2S-S-04-OD | 1/4" OD | 78 | 50 | 5 |
| 5 | TM-BV-2S-S-05-OD | 5/16" OD | 78 | 50 | 5 |
| 7 | TM-BV-2S-S-06-OD | 3/8" OD | 85 | 50 | 8 |
| 9 | TM-BV-2S-S-08-OD | 1/2" OD | 102 | 60 | 10 |
| 11 | TM-BV-2S-S-10-OD | 5/8" OD | 97 | 63 | 10 |
| 13 | TM-BV-2S-S-02-OD | 3/4" OD | 115 | 60 | 16 |
| 15 | TM-BV-2S-S-16-OD | 1" OD | 121 | 73 | 19 |

Dimensions are for reference only and are subjected to change.

INSTRUMENT ANGLE BALL VALVE - 6,000 PSI

Angle Valve - Tube Ended



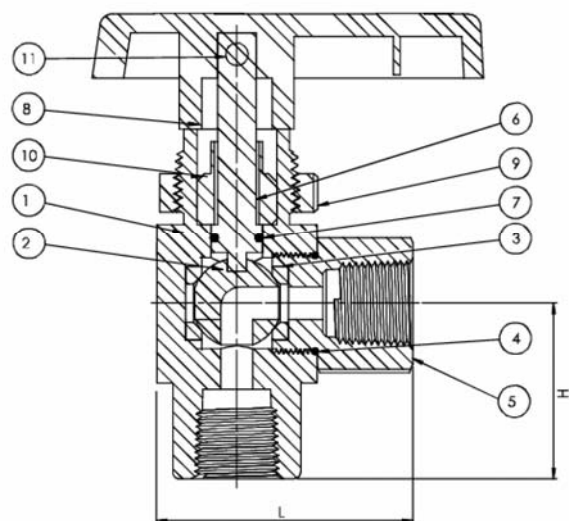
Features

- Free floating ball design provides seat wear compensation.
- Micro-finished ball provides a positive seal.
- Straight through flow path for minimum pressure drop.
- Positive handle stop.
- Adjustable PTFE stem seal can be maintained in-line.

| ITEM NO. | PART NAME | MATERIALS | QTY. |
|----------|---------------|-------------------|------|
| 1 | BODY | A479-316L/B-16 | 1 |
| 2 | BALL | A479-316 | 1 |
| 3 | SEAL | PTFE/POM | 2 |
| 4 | O-RING | VITON/BUNA-N | 1 |
| 5 | ADAPTOR | A479-316L/B-16 | 1 |
| 6 | SPINDLE | A479-316 | 1 |
| 7 | O-RING | VITON/BUNA-N | 1 |
| 8 | HANDLE | PHENOLIC/SS LEVER | 1 |
| 9 | NUT | A479-316L/B-16 | 2 |
| 10 | PANEL NUT | A479-316L/B-16 | 1 |
| 11 | GLAND NUT | A479-316L/B-16 | 1 |
| 12 | GRUB SCREW | STEEL | 1 |
| 13 | FRONT FERRULE | A479-316L/B-16 | 2 |
| 14 | BACK FERRULE | A479-316L/B-16 | 2 |

| SR. NO. | PART NO. | SIZE | L | H | ORIFICE |
|---------|-------------------|---------|----|----|---------|
| 1 | TM-BV-2A-S-04-OD | 1/4" OD | 41 | 35 | 5 |
| 2 | TM-BV-2A-S-06-OD | 3/8" OD | 41 | 35 | 8 |
| 3 | TM-BV-2A-S-08-OD | 1/2" OD | 45 | 40 | 10 |
| 4 | TM-BV-2AS-S-12-OD | 3/4" OD | 55 | 60 | 16 |
| 5 | TM-BV-2A-S-16-OD | 1" OD | 55 | 60 | 19 |

Angle Valve - Female x Female Pipe Ended



Features

- Free floating ball design provides seat wear compensation.
- Micro-finished ball provides a positive seal.
- Straight through flow path for minimum pressure drop.
- Positive handle stop.
- Adjustable PTFE stem seal can be maintained in-line.

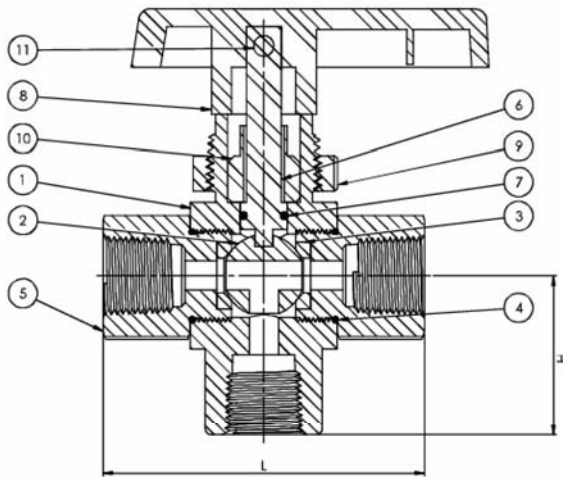
| ITEM NO. | PART NAME | MATERIALS | QTY. |
|----------|------------|-------------------|------|
| 1 | BODY | A479-316L/B-16 | 1 |
| 2 | BALL | A479-316 | 1 |
| 3 | SEAL | PTFE/POM | 2 |
| 4 | O-RING | VITON/BUNA-N | 2 |
| 5 | ADAPTOR | A479-316L/B-16 | 2 |
| 6 | SPINDLE | A479-316 | 1 |
| 7 | O-RING | VITON/BUNA-N | 1 |
| 8 | HANDLE | PHENOLIC/SS LEVER | 1 |
| 9 | PANEL NUT | A479-316L/B-16 | 1 |
| 10 | GLAND NUT | A479-316L/B-16 | 1 |
| 11 | GRUB SCREW | STEEL | 1 |

| SR. NO. | PART NO. | SIZE (NPT/BSP) | L | H | ORIFICE |
|---------|------------------|----------------|----|----|---------|
| 1 | TM-BV-2V-S-04-FF | 1/4" FEMALE | 41 | 32 | 3 |
| 3 | TM-BV-2V-S-06-FF | 3/8" FEMALE | 41 | 32 | 8 |
| 4 | TM-BV-2V-S-08-FF | 1/2" FEMALE | 45 | 38 | 10 |
| 5 | TM-BV-2V-S-12-FF | 3/4" FEMALE | 55 | 58 | 16 |
| 6 | TM-BV-2V-S-16-FF | 1" FEMALE | 55 | 58 | 19 |

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INSTRUMENT - 3-WAY BALL VALVE - 6,000 PSI

3 Way: Female x Female NPT



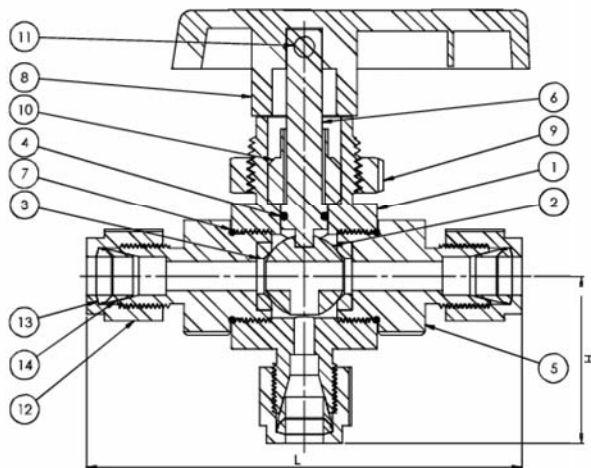
Features

- Free floating ball design provides seat wear compensation.
- Micro-finished ball provides a positive seal.
- Adjustable PTFE stem seal can be maintained in-line.
- 180 degree actuation

| ITEM NO. | PART NAME | MATERIALS | QTY. |
|----------|------------|-------------------|------|
| 1 | BODY | A479-316L/B-16 | 1 |
| 2 | BALL | A479-316 | 1 |
| 3 | SEAL | PTFE/POM | 2 |
| 4 | O-RING | VITON/BUNA-N | 2 |
| 5 | ADAPTOR | A479-316L/B-16 | 2 |
| 6 | SPINDLE | A479-316 | 1 |
| 7 | O-RING | VITON/BUNA-N | 1 |
| 8 | HANDLE | PHENOLIC/SS LEVER | 1 |
| 9 | PANEL NUT | A479-316L/B-16 | 1 |
| 10 | GLAND NUT | A479-316L/B-16 | 1 |
| 11 | GRUB SCREW | STEEL | 1 |

| SR. NO. | PART NO. | SIZE (NPT/BSP) | L | H | ORIFICE |
|---------|------------------|----------------|-----|----|---------|
| 1 | TM-BV-3V-S-04-FF | 1/4" FEMALE | 70 | 32 | 3 |
| 3 | TM-BV-3V-S-06-FF | 3/8" FEMALE | 72 | 32 | 8 |
| 4 | TM-BV-3V-S-08-FF | 1/2" FEMALE | 85 | 38 | 10 |
| 5 | TM-BV-3V-S-12-FF | 3/4" FEMALE | 98 | 58 | 16 |
| 6 | TM-BV-3V-S-16-FF | 1" FEMALE | 115 | 58 | 19 |

3 Way: Tube Ended



Features

- Free floating ball design provides seat wear compensation.
- Micro-finished ball provides a positive seal.
- Adjustable PTFE stem seal can be maintained in-line.
- 180 degree actuation.
- Handle indicate flow direction.



| ITEM NO. | PART NAME | MATERIALS | QTY. |
|----------|---------------|-------------------|------|
| 1 | BODY | A479-316L/B-16 | 1 |
| 2 | BALL | A479-316 | 1 |
| 3 | SEAL | PTFE/POM | 2 |
| 4 | O-RING | VITON/BUNA-N | 1 |
| 5 | ADAPTOR | A479-316L/B-16 | 2 |
| 6 | SPINDLE | A479-316 | 1 |
| 7 | O-RING | VITON/BUNA-N | 2 |
| 8 | HANDLE | PHENOLIC/SS LEVER | 1 |
| 9 | PANEL NUT | A479-316L/B-16 | 1 |
| 10 | GLAND NUT | A479-316L/B-16 | 1 |
| 11 | GRUB SCREW | STEEL | 1 |
| 12 | NUT | A479-316L/B-16 | 3 |
| 13 | BACK FERRULE | A479-316L/B-16 | 3 |
| 14 | FRONT FERRULE | A479-316L/B-16 | 3 |

| SR. NO. | PART NO. | SIZE (NPT/BSP) | L | H | ORIFICE |
|---------|------------------|----------------|-----|----|---------|
| 1 | TM-BV-3V-S-04-OD | 1/4" OD | 78 | 35 | 5 |
| 3 | TM-BV-3V-S-06-OD | 3/8" OD | 85 | 35 | 8 |
| 4 | TM-BV-3V-S-08-OD | 1/2" OD | 102 | 40 | 10 |
| 5 | TM-BV-3V-S-12-OD | 3/4" OD | 115 | 60 | 16 |
| 6 | TM-BV-3V-S-16-OD | 1" OD | 121 | 60 | 19 |

Dimensions are for reference only and are subjected to change

TVI MANIFOLDS

BALL VALVE - 2 PIECE DESIGN - 3,000 PSI

We are counted amongst the reliable company involved in offering a wide array of two Piece Ball Valve. These are manufactured under the supervision of our experts using very high quality steel that are sourced from very reliable vendors. These types of valves are widely used to control the flow into delicate gauges. We offer these products at industry leading prices to our valuable clients.

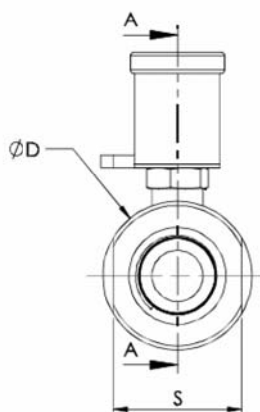
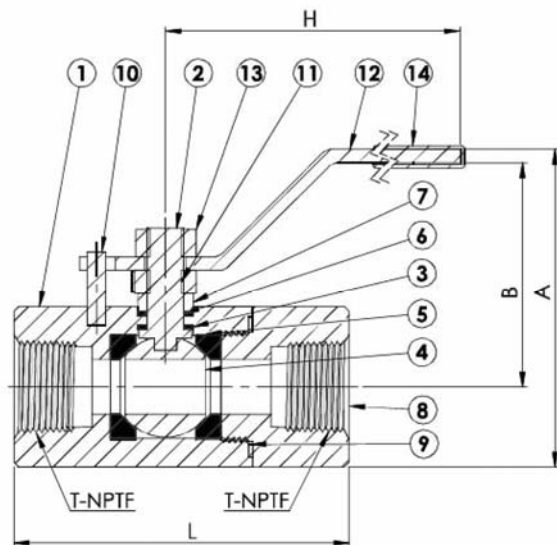
Features

- Available in SS316
- Heat code traceable to certified material test report
- Two piece body design, Bi-directional Flow
- PTFE or PEEK Ball Seat, Bubble tight shut-off
- Floating Ball design provides seat wear compensation
- Connection thread environmentally sealed
- Variety of end configuration includes
- Anti blow-out stem, Low torque operation
- Quarter turn positive stop handle
- Every valve is factory tested
- Micro-finished ball provides a positive seal.
- Adjustable PTFE stem seal can be maintained in-line.
- Handle indicate flow direction.



Specifications

| | |
|----------------------------|--|
| Max. Working Pres.: | 6,000 psi (413 bar) |
| Seat Type | : Soft Seat |
| Materials | Stainless Steel (316L, 316, 304, 304L), Monel, Inconel, Carbon Steel, Duplex Steel. NACE MR-01-75 is available. (For Sour gas Service) |
| Service Medium | : Liquid, Gas or Vapor Service water and Oil |
| Ball | : Hard chrome plated |
| Connection | : Screwed (NPT, BSP, BSPT) ISO, Socket Weld, Tube End |

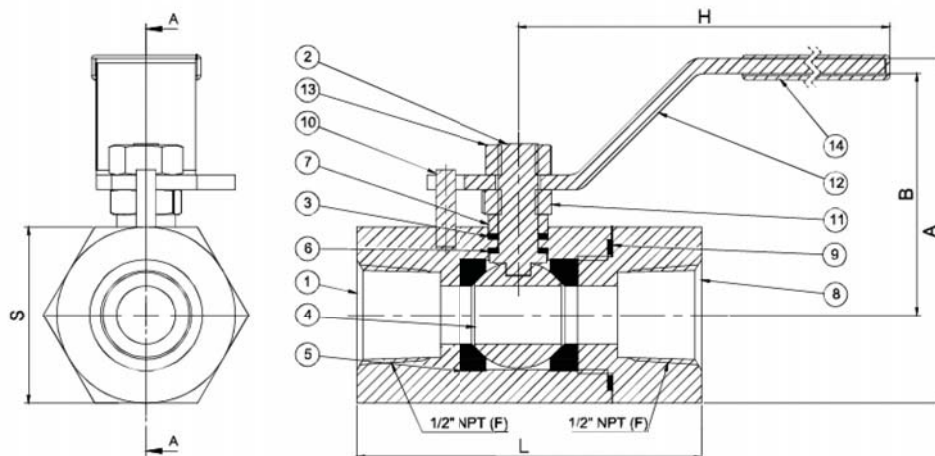


| PART NUMBER | SIZE | TYPE | T-NPTF | L | D | S | H | A | B |
|-----------------|--------|------|--------|-------|------|----|------|------|-------|
| TM-R02P-S-4-FF | 1/4" | FXF | 1/4" | 55 | 27 | 23 | 78.5 | 53.5 | 37.5 |
| TM-R02P-S-6-FF | 3/8" | FXF | 3/8" | 55 | 27 | 23 | 78.5 | 53.5 | 37.5 |
| TM-R02P-S-8-FF | 1/2" | FXF | 1/2" | 73 | 35 | 30 | 106 | 69.5 | 49 |
| TM-R02P-S-12-FF | 3/4" | FXF | 3/4" | 78.5 | 44.5 | 38 | 157 | 67.5 | 45 |
| TM-R02P-S-16-FF | 1" | FXF | 1" | 90 | 55.5 | 43 | 156 | 81.5 | 49.8 |
| TM-R02P-S-24-FF | 1-1/2" | FXF | 1 1/2" | 131.5 | 92 | 75 | 235 | 155 | 101.5 |
| TM-R02P-S-4-FF | 2" | FXF | 2" | 136.5 | 97 | 80 | 240 | 160 | 106.5 |

| ITEM NO. | PART NAME | MATERIALS | QTY. |
|----------|---------------|----------------|--------|
| 1 | BODY | A479-316L/A105 | 1 |
| 2 | STEM | A276-316 | 1 |
| 3 | STEM PACKING | PTFE/GRAPHOIL | 1 |
| 4 | BALL | A479-316L/A105 | 1 |
| 5 | BALL SEAL | PTFE/GRAPHOIL | 2 |
| 6 | GLAND PACKING | PTFE/GRAPHOIL | ASREQ. |
| 7 | GLAND WASHER | A276-316L/A105 | ASREQ. |
| 8 | ADAPTOR | A479-316L/A105 | 1 |
| 9 | BODY SEAL | PTFE/GRAPHOIL | 1 |
| 10 | LOCK PIN | A479-316L/A105 | 1 |
| 11 | GLAND NUT | A479-316L/A105 | 1 |
| 12 | HANDLE | A276-316L/A105 | 1 |
| 13 | LOCK NUT | A479-316L/A105 | 1 |
| 14 | SLEEVE | PVC | 1 |

Dimensions are for reference only and are subjected to change.

BALL VALVE - HEX 2 PIECE DESIGN - 6,000 PSI



Features

- Free floating ball design provides seat wear compensation.
- Micro-finished ball provides a positive seal.
- Straight through flow path for minimum pressure drop.
- Adjustable PTFE stem seal can be maintained in-line.

Specifications

Max. Working Pres. : 6,000 psi (413 bar)

Seat Type : Soft Seat

Materials : Stainless Steel (316L, 316, 304, 304L), Monel, Inconel, Carbon Steel, Duplex Steel. NACE MR-01-75 is available. (For Sour gas Service)

Service Medium : Liquid, Gas or Vapor Service water and Oil

Ball : Hard chrome plated

Connection : Screwed (NPT, BSP, BSPT) ISO, Socket Weld, Tube End



| PART NUMBER | SIZE | TYPE | T-NPTF | L | S | H | A | B |
|-----------------|------|------|--------|------|----|------|------|------|
| TM-HX2P-S-4-FF | 1/4" | FXF | 1/4" | 55 | 27 | 78.5 | 53.5 | 37.5 |
| TM-HX2P-S-6-FF | 3/8" | FXF | 3/8" | 55 | 27 | 78.5 | 53.5 | 37.5 |
| TM-HX2P-S-8-FF | 1/2" | FXF | 1/2" | 73 | 36 | 106 | 69.5 | 49 |
| TM-HX2P-S-12-FF | 3/4" | FXF | 3/4" | 78.5 | 45 | 157 | 67.5 | 45 |
| TM-HX2P-S-16-FF | 1" | FXF | 1" | 90 | 55 | 156 | 81.5 | 49.8 |

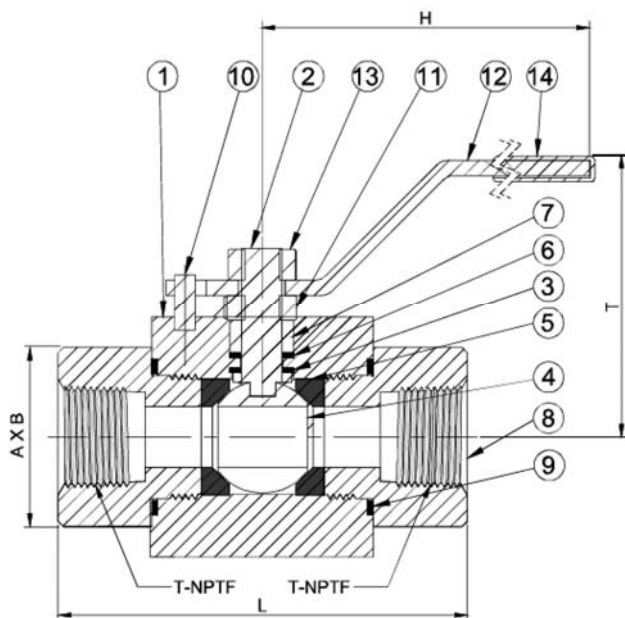
| ITEM NO. | PART NAME | MATERIALS | QTY. |
|----------|---------------|----------------|---------|
| 1 | BODY | A479-316L/A105 | 1 |
| 2 | STEM | A276-316 | 1 |
| 3 | STEM PACKING | PTFE/GRAPHOIL | 1 |
| 4 | BALL | A479-316L/A105 | 1 |
| 5 | BALL SEAL | PTFE/GRAPHOIL | 2 |
| 6 | GLAND PACKING | PTFE/GRAPHOIL | AS REQ. |
| 7 | GLAND WASHER | A276-316L/A105 | AS REQ. |
| 8 | ADAPTOR | A479-316L/A105 | 1 |
| 9 | BODY SEAL | PTFE/GRAPHOIL | 1 |
| 10 | LOCK PIN | A479-316L/A105 | 1 |
| 11 | GLAND NUT | A479-316L/A105 | 1 |
| 12 | HANDLE | A276-316L/A105 | 1 |
| 13 | LOCK NUT | A479-316L/A105 | 1 |
| 14 | SLEEVE | PVC | 1 |

Dimensions are for reference only and are subjected to change.

TVI MANIFOLDS

BALL VALVE - 3 PIECE DESIGN - 6,000 PSI

TVI 3 Piece ball valve is designed for a range of media up to 6,000 psi. Its internally loaded blow-out proof stem and floating ball for positive shut-off along with its other features offer a robust, compact and easy to operate valve solution. The Ball valve is available in 1/4" to 1" NPT connections. Please consult factory for additional material options and/or end connections.



Features

- Free floating ball design provides seat wear compensation.
- Micro-finished ball provides a positive seal.
- Straight through flow path for minimum pressure drop.
- Adjustable PTFE stem seal can be maintained in-line.
- Ball is hard chrome plated which provide less friction to operate the valve.
- Low torque operation.
- PTFE and Graphoil gland packings.



Specifications

Max. Working Pres. : 6,000 psi (413 bar)

Seat Type : Soft Seat

Materials : Stainless Steel (316L, 316, 304, 304L), Monel, Inconel, Carbon Steel, Duplex Steel. NACE MR-01-75 is available. (For Sour gas Service)

Service Medium : Liquid, Gas or Vapor Service water and Oil

Ball : Hard chrome plated

Connection : Screwed (NPT, BSP, BSPT) ISO, Socket Weld, Tube End

| PART NUMBER | SIZE | TYPE | T-NPTF | A | B | L | H | T | ORIFICE |
|--------------------|------|------|--------|----|----|-----|-----|----|---------|
| TM-BV-SQ2P-S-4-FF | 1/4" | FXF | 1/4" | 30 | 33 | 76 | 110 | 49 | 4.8 |
| TM-BV-SQ2P-S-6-FF | 3/8" | FXF | 3/8" | 30 | 33 | 76 | 110 | 49 | 7 |
| TM-BV-SQ2P-S-8-FF | 1/2" | FXF | 1/2" | 35 | 38 | 96 | 180 | 64 | 9.5 |
| TM-BV-SQ2P-S-12-FF | 3/4" | FXF | 3/4" | 43 | 49 | 108 | 180 | 67 | 12 |
| TM-BV-SQ2P-S-16-FF | 1" | FXF | 1" | 50 | 56 | 125 | 180 | 70 | 20 |

| ITEM NO. | PART NAME | MATERIALS | QTY. |
|----------|---------------|----------------|---------|
| 1 | BODY | A479-316L/A105 | 1 |
| 2 | STEM | A276-316 | 1 |
| 3 | STEM PACKING | PTFE/GRAPHOIL | 1 |
| 4 | BALL | A479-316L/A105 | 1 |
| 5 | BALL SEAL | PTFE/GRAPHOIL | 2 |
| 6 | GLAND PACKING | PTFE/GRAPHOIL | AS REQ. |
| 7 | GLAND WASHER | A276-316L/A105 | AS REQ. |
| 8 | ADAPTOR | A479-316L/A105 | 1 |
| 9 | BODY SEAL | PTFE/GRAPHOIL | 1 |
| 10 | LOCK PIN | A479-316L/A105 | 1 |
| 11 | GLAND NUT | A479-316L/A105 | 1 |
| 12 | HANDLE | A276-316L/A105 | 1 |
| 13 | LOCK NUT | A479-316L/A105 | 1 |
| 14 | SLEEVE | PVC | 1 |

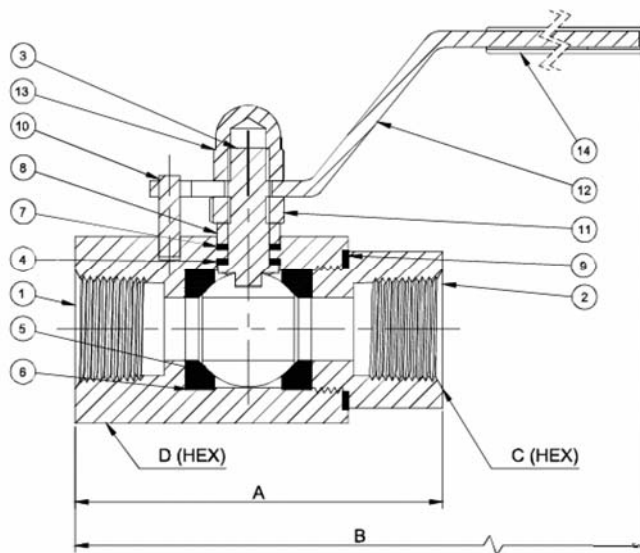
Dimensions are for reference only and are subjected to change.

TVI MANIFOLDS

BALL VALVE - HEX BODY - 10,000 PSI

TVI two piece bi-directional Ball Valves offer the user full cold working pressure ratings up to 10,000 psi (689 bar), giving 100% bubble tight shut off and continuous repeatable performance. The Ball Valves are suitable for the most demanding applications in the oil, gas and process control industries.

By offering a true two piece design, body leakage paths are reduced to a minimum. With the added opportunity to select integral compression ends the user can eliminate the use of taper threads and thread sealant. This avoids system contamination, reduces leakage paths, installation costs, weight and space.



Specifications

Max. Working Pres. : 10,000 psi (700 bar)

Seat Type : Soft Seat

Materials : Stainless Steel (316L, 316, 304, 304L), Monel, Inconel, Carbon Steel, Duplex Steel.

Service Medium : Liquid, Gas or Vapor Service water and Oil

Ball : Hard chrome plated

Connection : Screwed (NPT, BSP, BSPT) ISO, Socket Weld

Features

- Two piece body design - minimal leakage paths.
- Bubble tight shutoff.
- Low torque operation.
- Connector thread environmentally sealed.
- Full hydrostatic and low pressure air tested.
- Anti blowout stem.
- PTFE and Graphoil gland packings.
- Quarter turn positive stop handle with ergonomically designed protective sleeve.



| Ordering Number | Size | Dimensions mm | | | |
|-------------------|-----------------|---------------|-----|-------|-------|
| | | A | B | C-Hex | D-Hex |
| TM-BLVHX-SS-6MTE | 6mm OD | 95 | 166 | 22 | 30 |
| TM-BLVHX-SS-8MTE | 8mm OD | 97 | 166 | 32 | 38 |
| TM-BLVHX-SS-10MTE | 10mm OD | 100 | 168 | 32 | 38 |
| TM-BLVHX-SS-12MTE | 12mm OD | 105 | 170 | 36 | 41 |
| TM-BLVHX-SS-4TE | 1/4" OD | 95 | 166 | 22 | 30 |
| TM-BLVHX-SS-6TE | 3/8" OD | 99 | 168 | 32 | 38 |
| TM-BLVHX-SS-8TE | 1/2" OD | 105 | 170 | 36 | 41 |
| TM-BLVHX-SS-4MF | 1/4" Male NPT | 70 | 162 | 22 | 30 |
| TM-BLVHX-SS-12MF | 1/2" Male NPT | 85 | 167 | 36 | 41 |
| TM-BLVHX-SS-4FF | 1/4" Female NPT | 70 | 163 | 22 | 30 |
| TM-BLVHX-SS-6FF | 3/8" Female NPT | 71 | 162 | 32 | 38 |
| TM-BLVHX-SS-8FF | 1/2" Female NPT | 85 | 167 | 36 | 41 |

| ITEM NO. | PART NAME | MATERIALS | QTY. |
|----------|---------------|------------------|------|
| 1 | BODY | A479-316/A105 | 1 |
| 2 | ADAPTOR | A479-316/A105 | 1 |
| 3 | STEM | A276-316 | 1 |
| 4 | STEM PACKING | PTFE | 1 |
| 5 | BALL | ASTM A 182 F 316 | 1 |
| 6 | BALL SEAL | PEEK | 2 |
| 7 | GLAND PACKING | PTFE | 1 |
| 8 | GLAND WASHER | A276-316/A105 | 1 |
| 9 | BODY SEAL | PTFE | 1 |
| 10 | LOCK KEY | A479-316/A105 | 1 |
| 11 | GLAND NUT | A479-316/A105 | 1 |
| 12 | HANDLE | SS 304 | 1 |
| 13 | LOCK NUT | A479-316/A105 | 1 |
| 14 | SLEEVE | PVC MOULDED | 1 |

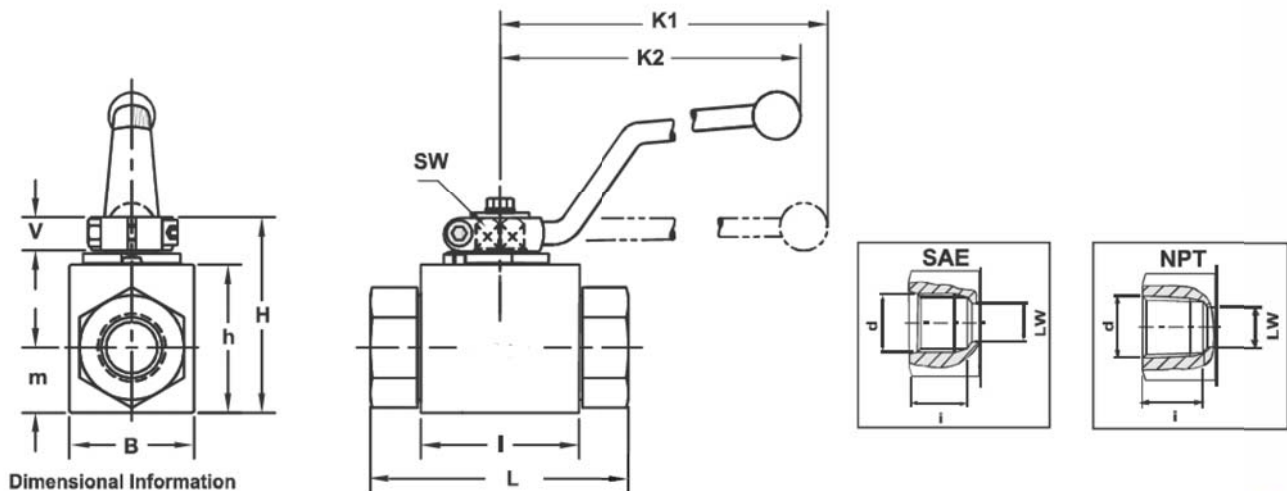
Dimensions are for reference only and are subjected to change.

BALL VALVE - 3 PIECE DESIGN - 10,000 PSI

TVI Ball Valves are available in a variety of configurations and a range of sizes to suit most hydraulic applications. Ball Valves are a simple method of controlling flow by a means of a ported ball supported on seals in a special housing. We offer these products at industry leading prices to our valuable clients.

Features

- No lubrication or maintenance required for the life of the valve.
- All valves are easily and completely repairable.
- All valves offer completely bidirectional operation, eliminating any chance of incorrect installation.
- No threads in fluid service to contaminate flow or cause turbulence.
- Hard chromium plated micro-smooth ball greatly reduces friction and seat wear.



Dimensional Information

Specifications

| | |
|-----------------------------|---|
| Max. Working Pres. : | 10,000 psi (700 bar) |
| Seat Type : | Soft Seat |
| Materials : | Stainless Steel (316L,316, 304,304L), Monel,Inconel, Carbon Steel,Duplex Steel. |
| Service Medium : | Liquid, Gas or Vapor Service water and Oil |
| Ball : | Hard chrome plated |
| Connection : | Screwed(NPT,BSP,BSPT) ISO,Socket Weld,SAE |



| Size | d NPT | d SAE | i NPT | i SAE | L SAE / NPT | LW NPT | LW SAE | I | B | H | h | m | V | SW | K ₁ | K ₂ |
|--------|--------------|----------|---------------|---------------|----------------|---------------|-----------|---------------|---------------|---------------|---------------|---------------|---------------|------------|----------------|----------------|
| | | | in mm | in mm | in mm | in mm | in mm | in mm | in mm | in mm | in mm | in mm | in mm | in mm | in mm | in mm |
| 1/8" | 1/8-27 | 3/16-24 | 0.51 12.95 | 0.55 | 2.72 | 0.24 6.10 | 0.2 | 1.57 39.88 | 1.02 25.91 | 1.85 46.99 | 1.30 33.02 | 0.53 13.46 | 0.43 10.92 | 0.35 9 | 5.91 150.11 | 4.53 115.06 |
| 1/4" | 1/4-18 | 1/4-20 | 0.67 17.02 | 0.61 15.49 | 2.83 72.00 | 0.24 6.10 | 0.2 | 1.57 39.88 | 1.02 25.91 | 1.85 46.99 | 1.30 33.02 | 0.53 13.46 | 0.43 10.92 | 0.35 9 | 5.91 150.11 | 4.53 115.06 |
| 3/8" | 3/8-18 | 3/8-16 | 0.69 17.53 | 0.61 15.49 | 2.83 72.00 | 0.39 10.00 | 0.39 | 1.69 42.93 | 1.26 32.00 | 2.05 52.07 | 1.50 38.10 | 0.69 17.53 | 0.43 10.92 | 0.35 9 | 5.91 150.11 | 4.53 115.06 |
| 1/2" | 1/2-14 | 1/2-16 | 0.82 20.83 | 0.69 17.53 | 3.27 83.06 | 0.51 13.00 | 0.51 | 1.89 48.01 | 1.38 35.05 | 2.13 54.10 | 1.57 39.88 | 0.75 19.05 | 0.43 10.92 | 0.35 9 | 5.91 150.11 | 4.53 115.06 |
| 3/4" | 3/4-14 | 3/4-12 | 0.71 18.00 | 0.61 15.49 | 3.74 95.00 | 0.79 20.00 | 0.79 | 2.44 61.98 | 1.83 46.99 | 2.95 74.93 | 2.24 56.90 | 0.98 24.38 | 0.55 13.97 | 0.55 14 | 7.87 199.90 | 6.73 171 |
| 1" | 1-11 1/2 | 1 1/8-12 | 1.09 27.69 | 0.79 20.00 | 4.45 113.00 | 0.98 25.00 | 0.98 | 2.60 66.04 | 2.28 57.91 | 3.27 83.06 | 2.56 65.02 | 1.16 29.46 | 0.55 13.97 | 0.55 14 | 7.87 199.90 | 6.30 160 |
| 1 1/4" | 1 1/4-11 1/2 | 1 1/8-12 | 0.79 20.00 | 0.79 20.00 | 4.45 113.00 | 0.98 25.00 | 0.98 | 2.91 74.00 | 2.75 70.00 | 3.46 88.00 | 2.75 70.00 | 1.38 34.50 | 0.55 14.00 | 0.55 14 | 7.90 200 | 6.30 160 |

Dimensions are for reference only and are subjected to change.