



High Pressure Equipment

Ball Valves and Subsea Ball Valves

10,000, 15,000 & 20,000 psi service

HiP offers two styles of ball valves (free floating and severe duty trunion) to provide shut-off of liquid or gas flow through 20,000 psi. These valves are available in two-way and three-way configurations, as well as a diverter style in trunion valves.

Subsea Ball Valves are designed for the extreme pressures and harsh environments commonly found in the offshore oil and gas industry. HiP offers the industry's broadest line of subsea ball valves for 10, 15 and 20,000 psi.

Relief Valves

60,000 psi service

Relief Valves are engineered to protect a system from over-pressure damage and failure. Relief Valves are available in metal seat, soft seat and field adjustable styles in a variety of pressures ranges up to 60,000 psi. HiP relief valves are now available with CE marking. These products will proudly be marked with the CE symbol, signifying they comply with the stringent requirements of the Pressure Equipment Directive (PED).

Block & Bleed Valves

20,000 psi service

High Pressure Equipment has developed a line of block and bleed needle valves, double block and bleed needle valves, and double block and bleed ball valves to provide an excellent method of blocking, bleeding and calibrating pressure gauges and transmitters.



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Ball Valves

Ball Valves

10,000, 15,000 and 20,000 psi service

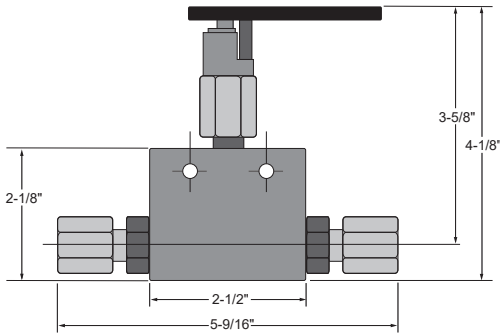
High Pressure Equipment offers two styles of ball valves (free floating and trunion) to provide effective shut-off of liquid or gas flow.

Two-way ball valves offer complete shut-off with a convenient $\frac{1}{4}$ turn. Valve actuators are available for remote control of HiP ball valves.

Virtually all metal components are stainless steel to insure consistent operation under even the most severe applications. Teflon packing provides reliable leak-free service up to 400°F. Other packings, including Polypak and Grafoil are available upon request.



Two-Way Free Floating Ball Valves



Catalog No.	Tube Size	Conn*	Pressure Rating @RT	Minimum Orifice	C _v
15-16AF1	$\frac{1}{16}$ "	AF1	15,000 psi	0.052	0.09
15-16AF2	$\frac{1}{8}$ "	AF2	15,000 psi	0.094	0.20
10-16AF4	$\frac{1}{4}$ "	AF4	10,000 psi	0.125	0.45
10-16AF6	$\frac{3}{8}$ "	AF6	10,000 psi	0.250	2.70
20-16LF4	$\frac{1}{4}$ "	LF4	20,000 psi	0.109	0.31
20-16LF6	$\frac{3}{8}$ "	LF6	20,000 psi	0.203	1.70
20-16LF9	$\frac{9}{16}$ "	LF9	20,000 psi	0.250	2.70
20-16HF2	$\frac{1}{8}$ "	HF2	20,000 psi	0.062	0.12
20-16HF4	$\frac{1}{4}$ "	HF4	20,000 psi	0.094	0.20
20-16HF6	$\frac{3}{8}$ "	HF6	20,000 psi	0.125	0.45
20-16HF9	$\frac{9}{16}$ "	HF9	20,000 psi	0.188	1.45
15-16NFA	$\frac{1}{8}$ "	$\frac{1}{8}$ " NPT	15,000 psi	0.250	2.70
15-16NFB	$\frac{1}{4}$ "	$\frac{1}{4}$ " NPT	15,000 psi	0.250	2.70
15-16NFC	$\frac{3}{8}$ "	$\frac{3}{8}$ " NPT	15,000 psi	0.250	2.70
15-16NFD	$\frac{1}{2}$ "	$\frac{1}{2}$ " NPT	15,000 psi	0.250	2.70

* Other connections available upon request. Consult factory.

Severe Duty Ball Valves (Trunion Style) 10,000, 15,000 and 20,000 psi service

High Pressure Equipment Company introduces its TRUNION STYLE ball valves for effective shut-off of liquid and gas flow through 20,000 psi @ 400°F maximum. Our offering features a trunion ball design, making this type of valve ideal for severe duty applications. This valve is available in two-way or three-way configurations with orifices of .187", .375", .500" or 1.000".

The two-way ball valve offers complete shut-off with a convenient 1/4 turn. The standard configuration of the three-way ball valve requires 1/2 turn to change port outlets and provides for complete shut-off. An optional diverter style three-way ball valve requires only a 1/4 turn to change the port outlets. Air operated actuators are available for remote control.

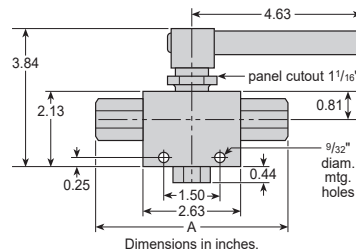
Material of construction is 316 stainless steel, O-rings are Viton, ball seat is PEEK. Alternate materials of construction are available upon request.

- Trunion style closure, ideal for severe duty applications
- Two-way and three-way valve configurations
- Three-way, 1/4 turn diverter valve
- .187", .375", .500" or 1.000" orifices
- Air actuators for remote operation
- Convenient panel mount design (cut 1 1/16" diameter hole) .187 and .375 only
- Large selection of tube and pipe fittings available
- Optional wetted parts available
- Optional O-rings available

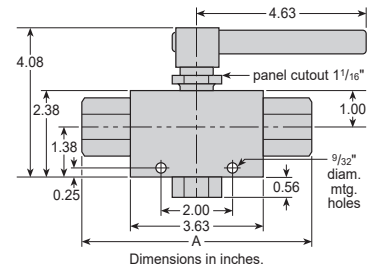
Note: Bottom port must be used as the inlet on all three-way trunion ball valves

Two-Way Trunion Ball Valves - 90°

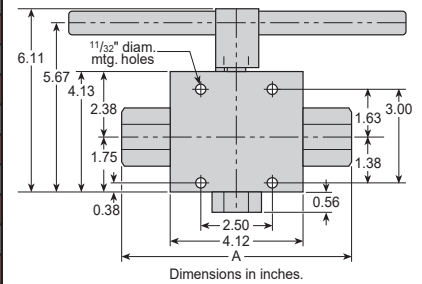
Orifice	Tube Size	Connection	Pressure Rating	Minimum Orifice	Cv	A	Catalog No.
.187	1/16"	AF1	15,000 psi	.052	0.09	4.19	15-71AF1
	1/8"	AF2	15,000 psi	.094	0.20	4.19	15-71AF2
	1/4"	AF4	10,000 psi	.125	0.45	4.69	10-71AF4
	3/8"	AF6	10,000 psi	.187	1.45	4.69	10-71AF6
	1/4"	LF4	20,000 psi	.109	0.31	4.63	20-71LF4
	3/8"	LF6	20,000 psi	.187	1.45	4.63	20-71LF6
	9/16"	LF9	20,000 psi	.187	1.45	5.13	20-71LF9
	1/4"	HF4	20,000 psi	.094	0.20	4.63	20-71HF4
	3/8"	HF6	20,000 psi	.125	0.45	4.63	20-71HF6
	9/16"	HF9	20,000 psi	.187	1.45	4.87	20-71HF9
	1/8"	1/8" NPT	15,000 psi	.187	1.45	4.63	15-71NFA
	1/4"	1/4" NPT	15,000 psi	.187	1.45	4.63	15-71NFB
3/8"	3/8" NPT	15,000 psi	.187	1.45	4.65	15-71NFC	
.375	3/8"	AF6	10,000 psi	.250	2.70	5.13	10-74AF6
	9/16"	LF9	15,000 psi	.312	4.22	6.25	15-74LF9
	3/4"	LF12	15,000 psi	.375	6.08	6.67	15-74LF12
	1"	LF16	15,000 psi	.375	6.08	7.45	15-74LF16
	1/4"	1/4" NPT	15,000 psi	.250	2.70	5.63	15-74NFB
	3/8"	3/8" NPT	15,000 psi	.375	6.08	5.63	15-74NFC
.500	3/4"	LF12	10,000 psi	.500	10.2	6.56	10-80LF12
	1"	LF16	10,000 psi	.500	10.2	7.44	10-80LF16
	3/4"	3/4" NPT	10,000 psi	.500	10.2	6.44	10-80NFF
	1"	1" NPT	10,000 psi	.500	10.2	7.44	10-80NFH
1.000	1 1/2"	LF24	10,000 psi	1.000	30.0	10.91	10-83LF24



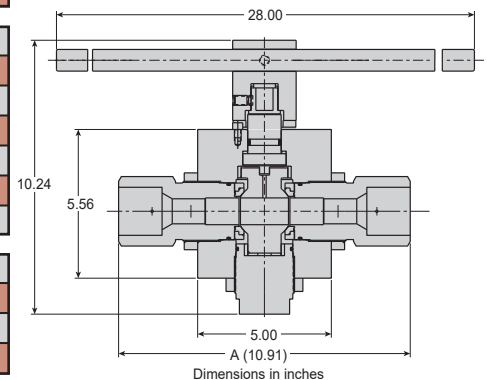
.187 Orifice



.375 Orifice



.500 Orifice



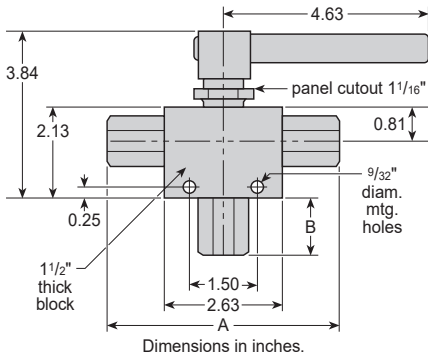
1.000 Orifice

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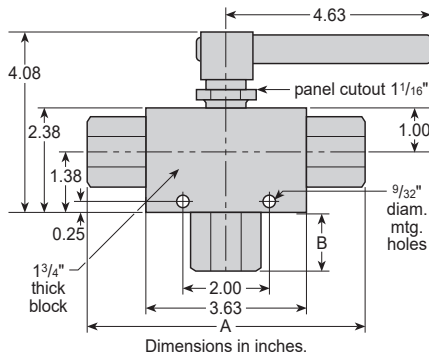
Ball Valves

Three-Way Trunion Ball Valves

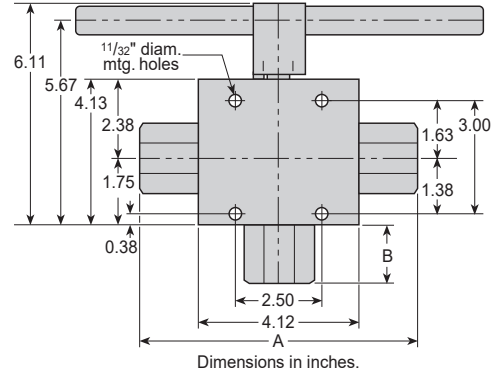
Note: Bottom port must be used as the inlet on all three-way trunion ball valves



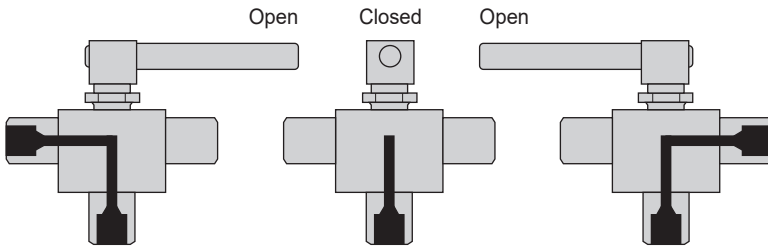
.187 Orifice



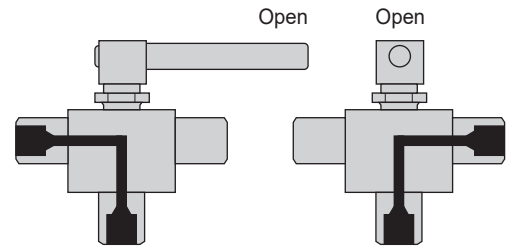
.375 Orifice



.500 Orifice



180° Three-Way Ball Valve



90° Three-Way Diverter Valve

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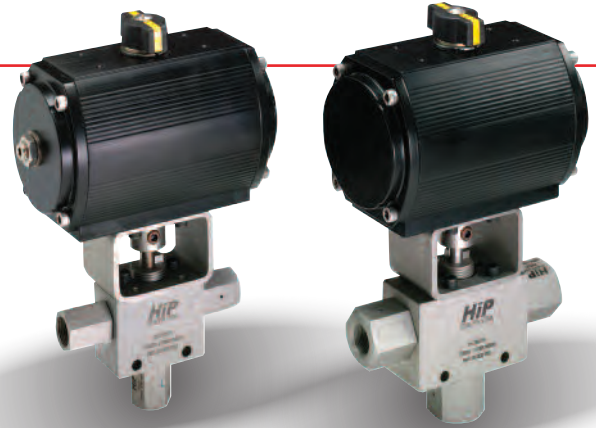
Orifice	Tube Size	Connection	Pressure Rating	Minimum Orifice	Cv	A	B	3-Way 90° Catalog No.	3-Way 180° Catalog No.
.187	1/16"	AF1	15,000 psi	.052	0.04	4.19	0.55	15-73AF1	15-72AF1
	1/8"	AF2	15,000 psi	.094	0.10	4.19	0.55	15-73AF2	15-72AF2
	1/4"	AF4	10,000 psi	.125	0.22	4.69	0.83	10-73AF4	10-72AF4
	3/8"	AF6	10,000 psi	.187	0.71	4.69	1.01	10-73AF6	10-72AF6
	1/4"	LF4	20,000 psi	.109	0.15	4.63	1.00	20-73LF4	20-72LF4
	3/8"	LF6	20,000 psi	.187	0.71	4.63	1.00	20-73LF6	20-72LF6
	9/16"	LF9	20,000 psi	.187	0.71	5.13	1.25	20-73LF9	20-72LF9
	1/4"	HF4	20,000 psi	.094	0.10	4.63	0.81	20-73HF4	20-72HF4
	3/8"	HF6	20,000 psi	.125	0.22	4.63	0.94	20-73HF6	20-72HF6
	9/16"	HF9	20,000 psi	.187	0.71	4.87	1.19	20-73HF9	20-72HF9
	1/8"	1/8" NPT	15,000 psi	.187	0.71	4.63	0.50	15-73NFA	15-72NFA
	1/4"	1/4" NPT	15,000 psi	.187	0.71	4.63	1.06	15-73NFB	15-72NFB
3/8"	3/8" NPT	15,000 psi	.187	0.71	4.65	1.06	15-73NFC	15-72NFC	
.375	3/8"	AF6	10,000 psi	.250	1.07	5.13	0.75	10-76AF6	10-75AF6
	9/16"	LF9	15,000 psi	.312	1.67	6.25	1.06	15-76LF9	15-75LF9
	3/4"	LF12	15,000 psi	.375	2.40	6.67	1.18	15-76LF12	15-75LF12
	1"	LF16	15,000 psi	.375	2.40	7.45	1.99	15-76LF16	15-75LF16
	1/4"	1/4" NPT	15,000 psi	.250	1.07	5.63	1.06	15-76NFB	15-75NFB
	3/8"	3/8" NPT	15,000 psi	.375	2.40	5.63	1.06	15-76NFC	15-75NFC
	1/2"	1/2" NPT	15,000 psi	.375	2.40	5.63	1.06	15-76NFD	15-75NFD
.500	3/4"	LF12	10,000 psi	.500	7.43	6.56	1.30	10-82LF12	10-81LF12
	1"	LF16	10,000 psi	.500	7.43	7.44	1.74	10-82LF16	10-81LF16
	3/4"	3/4" NPT	10,000 psi	.500	7.43	6.44	1.30	10-82NFF	10-81NFF
	1"	1" NPT	10,000 psi	.500	7.43	7.44	1.74	10-82NFH	10-81NFH

Ball Valve Actuators

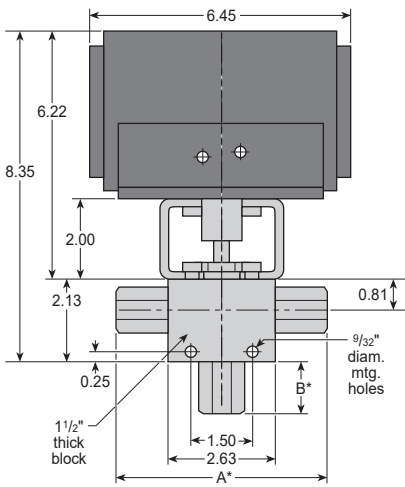
High Pressure Equipment Company offers air operated actuators to accommodate remote operation. **NOTE: These air operators are only for use with two-way and three-way diverter style valves.**

To order: simply specify the appropriate ball valve catalog number and add the suffix “-TSR8” for air to open/spring to close, or “-TDA8” for air to open and close (double acting) or TSR20 for 0.500 orifice. For trunion only.

Use TDA4 and TSR4 for floating ball style valves.

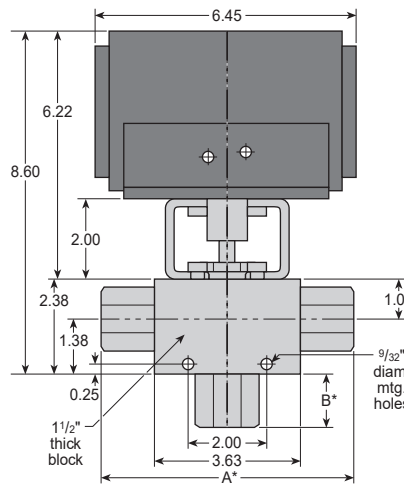


Note: Bottom port must be used as the inlet on all three-way trunion ball valves



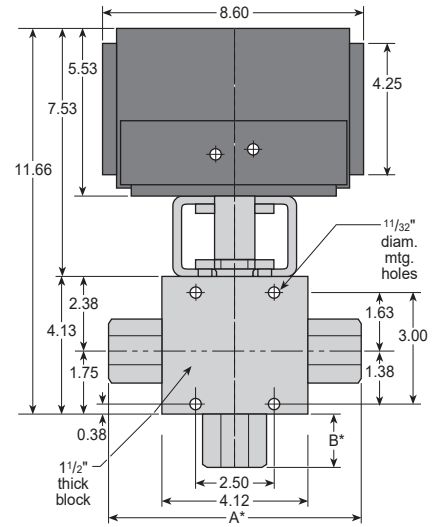
Dimensions in inches.
* Dimensions found within charts on pages 6.3-6.4

.187 Orifice



Dimensions in inches.
* Dimensions found within charts on pages 6.3-6.4

.375 Orifice



Dimensions in inches.
* Dimensions found within charts on pages 6.3-6.4

.500 Orifice

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Ball Valves

Subsea Ball Valves

In today's offshore oil and gas industry, wells have become deeper than ever, causing a growing demand for subsea ball valves that can withstand extreme pressures and harshest environments. As a leader in developing ways to provide effective shut off under increasing temperature and pressure requirements at greater depths, High Pressure Equipment offers subsea ball valves that provide safe and reliable operation at very high external pressures.

High Pressure Equipment's Subsea Ball Valves feature their reliable trunion style ball design and incorporate the required design modifications for ideal performance in critical subsea systems. HiP offers the industry's widest range of subsea valve sizes, these valves are available in 2 or 3 way configurations with 180° operation or 90° diverter styles in .187", .375" and .500" orifices and 10, 15 and 20,000 psi pressure ranges.

Subsea Valve Features

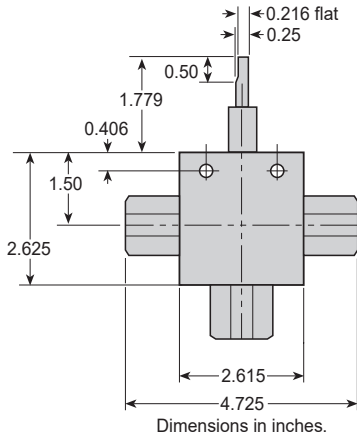
- Trunion style ball design
- 316 cold-worked SS construction
- Two and three-way valve configurations
- 90° diverter or 180° styles
- .187", .375" and .500" orifices
- PEEK ball seats, which offers excellent resistance to chemicals, heat and wear/abrasion
- Optional O-rings available
- Optional wetted materials
- Available to NACE MR-01-75



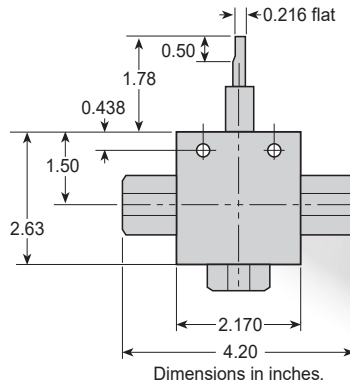
Note: Bottom port must be used as the inlet on all three-way trunion ball valves

.187 Orifice Subsea Ball Valves

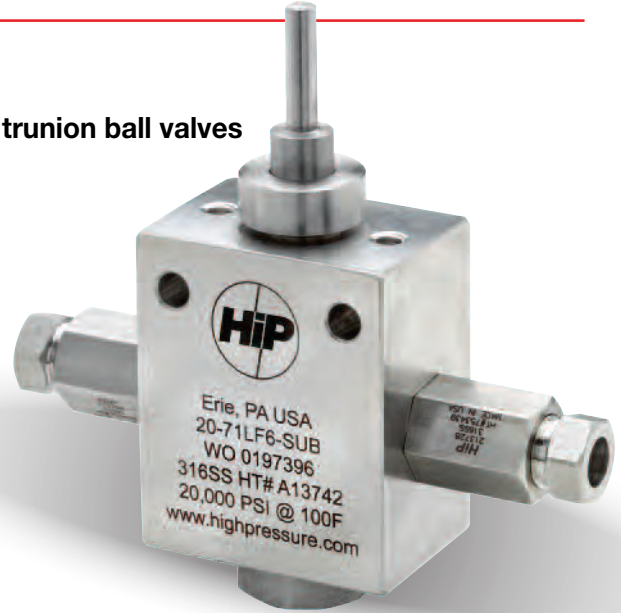
Note: Bottom port must be used as the inlet on all three-way trunion ball valves



3-Way Ball Valve



2-Way Ball Valve



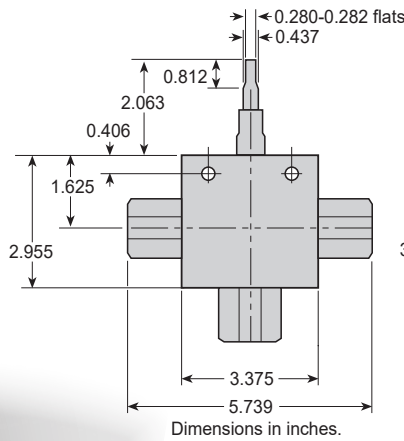
Orifice	Tube Size	Connection	Pressure Rating	Minimum Orifice	Cv	Catalog No.
3-Way 180°	3/8"	HF6	20,000 psi	0.125	0.22	20-72HF6-SUB
	1/4"	HF4	20,000 psi	0.094	0.10	20-72HF4-SUB
	9/16"	LF9	20,000 psi	0.187	0.71	20-72HF9-SUB
	3/8"	LF6	20,000 psi	0.187	0.71	20-72LF6-SUB
	1/4"	LF4	20,000 psi	0.109	0.15	20-72LF4-SUB
	3/8"	3/8" NPT	15,000 psi	0.187	0.71	15-72NFC-SUB
3-Way 90° Diverter	3/8"	HF6	20,000 psi	0.125	0.22	20-73HF6-SUB
	1/4"	HF4	20,000 psi	0.094	0.10	20-73HF4-SUB
	9/16"	LF9	20,000 psi	0.187	0.71	20-73LF9-SUB
	3/8"	LF6	20,000 psi	0.187	0.71	20-73LF6-SUB
	1/4"	LF4	20,000 psi	0.109	0.15	20-73LF4-SUB
	3/8"	3/8" NPT	15,000 psi	0.187	0.71	15-73NFC-SUB
2-Way	1/4"	1/4" NPT	15,000 psi	0.187	0.71	15-73NFB-SUB
	9/16"	HF9	20,000 psi	0.187	1.45	20-71HF9-SUB
	3/8"	HF6	20,000 psi	0.125	0.45	20-71HF6-SUB
	1/4"	HF4	20,000 psi	0.094	0.20	20-71HF4-SUB
	9/16"	LF9	20,000 psi	0.187	1.45	20-71LF9-SUB
	3/8"	LF6	20,000 psi	0.187	1.45	20-71LF6-SUB
	1/4"	LF4	20,000 psi	0.109	0.31	20-71LF4-SUB
	1/2"	1/2" NPT	15,000 psi	0.187	1.45	15-71NFD-SUB
	3/8"	3/8" NPT	15,000 psi	0.187	1.45	15-71NFC-SUB
1/4"	1/4" NPT	15,000 psi	0.187	1.45	15-71NFB-SUB	
	1/8"	1/8" NPT	15,000 psi	0.187	1.45	15-71NFA-SUB

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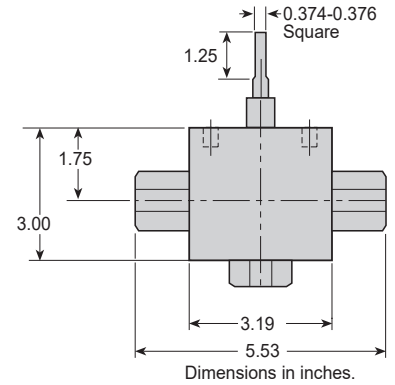
Ball Valves

.375 Orifice Subsea Ball Valves

Note: Bottom port must be used as the inlet on all three-way trunion ball valves



3-Way Ball Valve



2-Way Ball Valve

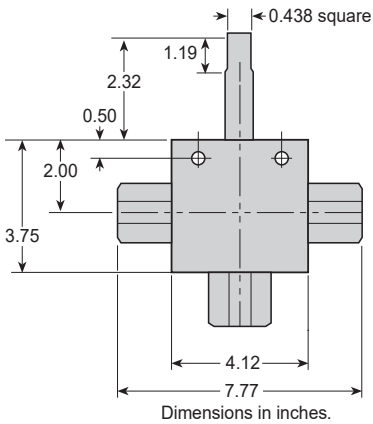
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Orifice	Tube Size	Connection	Pressure Rating	Minimum Orifice	C _v	Catalog No.
3-Way 180°	3/4"	LF12	15,000 psi	0.375	2.40	15-75LF12-SUB
	9/16"	LF9	15,000 psi	0.312	1.67	15-75LF9-SUB
	3/8"	LF6	15,000 psi	0.203	0.81	15-75LF6-SUB
	1/2"	1/2" NPT	15,000 psi	0.375	2.40	15-75NFD-SUB
	3/8"	3/8" NPT	15,000 psi	0.375	2.40	15-75NFC-SUB
	1/4"	1/4" NPT	15,000 psi	0.250	1.07	15-75NFB-SUB
3-Way 90° Diverter	3/4"	LF12	15,000 psi	0.375	2.40	15-76LF12-SUB
	9/16"	LF9	15,000 psi	0.312	1.67	15-76LF9-SUB
	3/8"	LF6	15,000 psi	0.203	0.81	15-76LF6-SUB
	1/2"	1/2" NPT	15,000 psi	0.375	2.40	15-76NFD-SUB
	3/8"	3/8" NPT	15,000 psi	0.375	2.40	15-76NFC-SUB
	1/4"	1/4" NPT	15,000 psi	0.250	1.07	15-76NFB-SUB
2-Way	3/4"	LF12	15,000 psi	0.375	6.08	15-74LF12-SUB
	9/16"	LF9	15,000 psi	0.312	4.22	15-74LF9-SUB
	3/8"	LF6	15,000 psi	0.203	2.20	15-74LF6-SUB
	1/2"	1/2" NPT	15,000 psi	0.375	6.08	15-74NFD-SUB
	3/8"	3/8" NPT	15,000 psi	0.375	6.08	15-74NFC-SUB
	1/4"	1/4" NPT	15,000 psi	0.250	2.70	15-74NFB-SUB

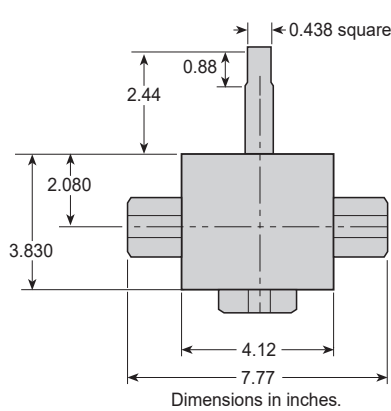
.500 Orifice Subsea Ball Valves

Note: Bottom port must be used as the inlet on all three-way trunion ball valves

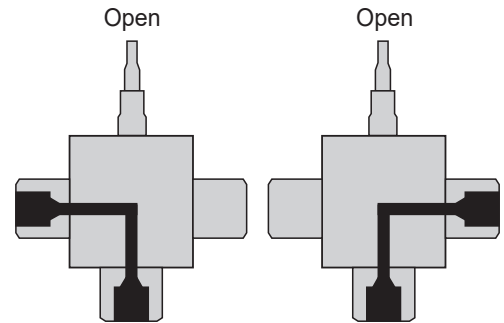
Orifice	Tube Size	Connection	Pressure Rating	Minimum Orifice	Cv	Catalog No.
3-Way 180°	1"	1" NPT	10,000 psi	.500	4.40	10-81NFH-SUB
	3/4"	3/4" NPT	10,000 psi	.500	4.40	10-81NFF-SUB
	1"	LF16	10,000 psi	.500	4.40	10-81LF16-SUB
	3/4"	LF12	10,000 psi	.500	4.40	10-81LF12-SUB
3-Way 90° Diverter	1"	1" NPT	10,000 psi	.500	4.40	10-82NFH-SUB
	3/4"	3/4" NPT	10,000 psi	.500	4.40	10-82NFF-SUB
	1"	LF16	10,000 psi	.500	4.40	10-82LF16-SUB
	3/4"	LF12	10,000 psi	.500	4.40	10-82LF12-SUB
2-Way	1"	1" NPT	10,000 psi	.500	10.2	10-80NFH-SUB
	3/4"	3/4" NPT	10,000 psi	.500	10.2	10-80NFF-SUB
	1"	LF16	10,000 psi	.500	10.2	10-80LF16-SUB
	3/4"	LF12	10,000 psi	.500	10.2	10-80LF12-SUB



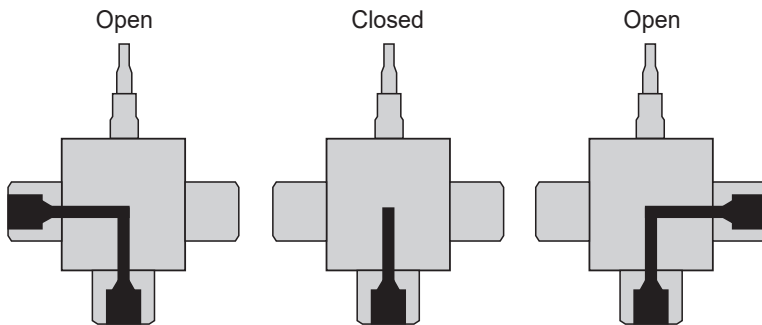
3-Way Ball Valve



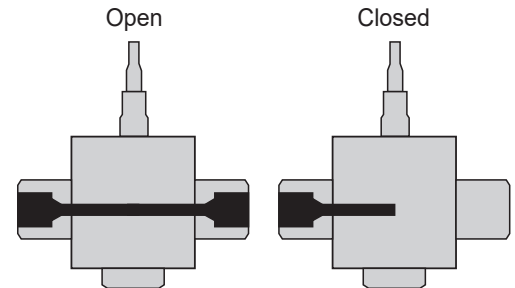
2-Way Ball Valve



90° Three-Way Diverter Valve



180° Three-Way Ball Valve



Two-Way Valve

8

Relief Valves

Metal Seat Relief Valves (Factory Set)

Relief valves are offered in pressure ranges: 1,500 through 60,000 psi.

Standard materials include 316 stainless steel bodies and removable seat glands with 17-4PH stainless steel removable stem and stem seats. Standard O-ring material on the stem is Viton Valves may be used up to 400°F.

Inlet connections are for $\frac{9}{16}$ " O.D. tubing (HF9) with adapters for other sizes available. Outlet connections are $\frac{1}{2}$ " NPT.

These valves are not recommended for use below 1,500 psi, and are not readily adjustable in the field without proper test equipment. Pressure settings are made at the factory and valves are tagged accordingly.

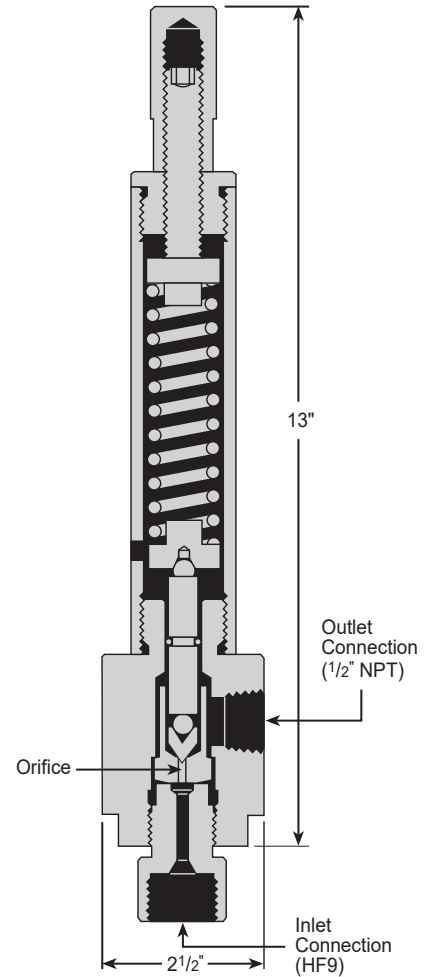
To order, simply specify catalog number and set pressure.

- Metal Seated - Catalog Number: 402633
- Minimum Temperature: 0°F
- Maximum Temperature with standard Viton O-ring: 400°F
- Maximum Temperature with Kalrez O-ring: 500°F

Metal Seat Relief Valves (Factory Set)

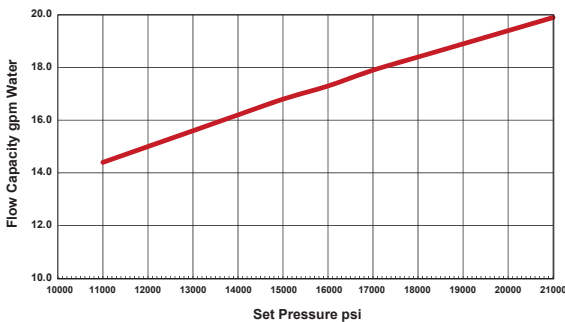
Pressure Range	Orifice Size	Type of Service*	Assembly Part No.	Max Flow Capacity H ₂ O (GPM)
1,500 to 2,999 psi	1/4"	GAS OR LIQUID	402633-03	13
3,000 to 10,999 psi	1/4"	GAS OR LIQUID	402633-10	25
11,000 to 20,999 psi	3/16"	GAS OR LIQUID	402633-20	20
21,000 to 30,000 psi	1/8"	GAS OR LIQUID	402633-30	10
30,001 to 45,000 psi	7/64"	GAS OR LIQUID	402633-45	10
45,001 to 60,000 psi	3/32"	GAS OR LIQUID	402633-60	8

*Valves not bubble tight on gas service.



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402633-20 Relief Valve (Factory Set)



CE Marked Relief Valves

HiP relief valves are now available with CE marking. These products will proudly be marked with the CE symbol, signifying they comply with the stringent requirements of the Pressure Equipment Directive (PED). To order, add -CE to your relief valve part number.

Soft Seat Relief Valves (Factory Set)

Relief valves are offered in pressure ranges: 1,500 through 25,000 psi.

Standard materials include 316 stainless steel bodies and removable seat glands with 17-4PH stem and seal ring. Standard O-ring material on the stem is Viton. The seat material is Peek. Valves may be used up to 400°F with standard Viton O-ring or 450°F with the Kalrez O-ring option.

Inlet connections are for 9/16" O.D. tubing (HF9) with adapters for other sizes available. Outlet connections are 1/2" NPT. These valves are not recommended for use below 1,500 psi, and are not readily adjustable in the field without proper test equipment. Pressure settings are made at the factory and valves are tagged accordingly.

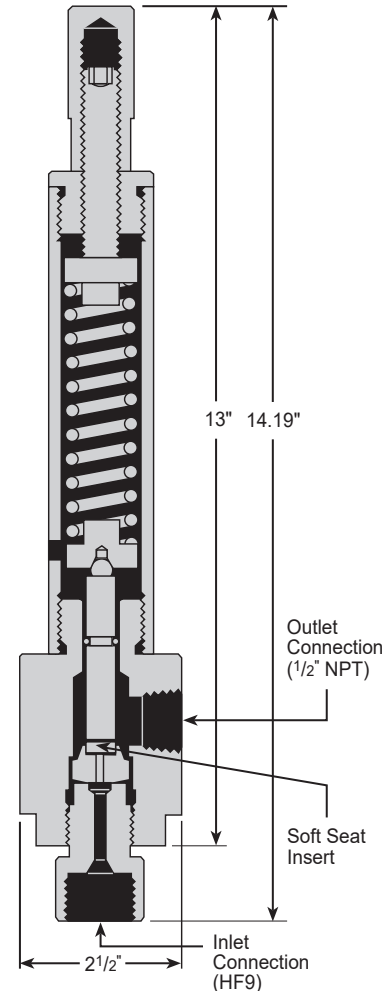
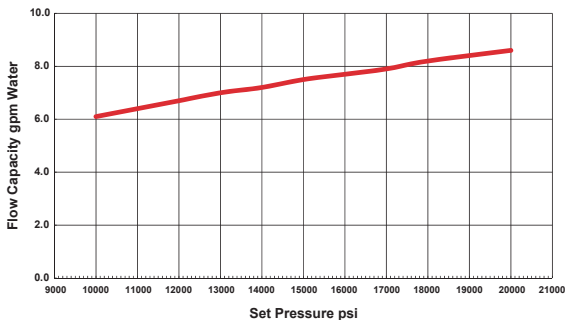
To order, simply specify catalog number and set pressure.

- Soft Seat - Catalog Number: 602923
- Minimum Temperature: 0°F
- Maximum Temperature up to 10,000 psi is 300°F
- For set pressures between 10,001 to 25,000 psi the Maximum Temperature with standard Viton O-ring: 400°F
- For set pressures between 10,001 to 25,000 psi the Maximum Temperature with Kalrez O-ring: 450°F

Soft Seat Relief Valves (Factory Set)

Pressure Range	Orifice Size	Type of Service	Assembly Part No.	Max Flow Capacity H ₂ O (GPM)
1,500 to 2,999 psi	3/16"	GAS OR LIQUID	602923-03	8
3,000 to 9,999 psi	3/16"	GAS OR LIQUID	602923-10	14
10,000 to 19,999 psi	1/8"	GAS OR LIQUID	602923-20	8
20,000 to 25,000 psi	1/8"	GAS OR LIQUID	602923-25	10

602923-20 Soft Seat Relief Valve (Factory Set)



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CE Marked Relief Valves

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Relief Valves

Relief Valves (Field Adjustable)

Relief valves are offered in pressure ranges: 1,000 through 20,000 psi.

Standard materials include 316 stainless steel bodies and seat glands. Standard O-ring material is EPDM, with teflon packing and nylon seats.

Inlet connections $\frac{1}{4}$ " NPT-HIP-10RV; HF4-HIP-20RV. Outlet connections are $\frac{1}{4}$ " NPT.

These valves are not recommended for use below 1,000 psi, and are **readily** adjustable in the field.

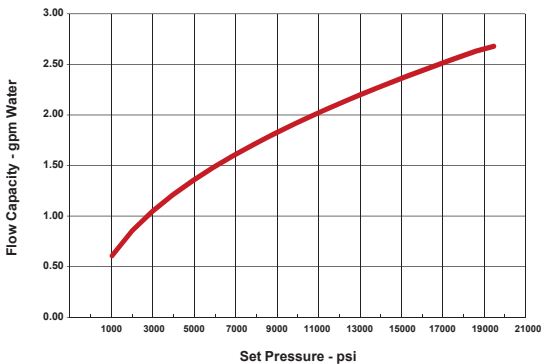
To order, simply specify catalog number. Example: HIP-10RV

- Metal Seated - HIP-10RV and HIP-20RV
- Seat Material: Nylon standard, Peek optional
- Minimum Temperature: 0°F
- Maximum Temperature with standard EPDM: 350°F
- Maximum Temperature with Peek seats: 450°F
- Maximum Temperature Kalrez O-rings: 450°F

Relief Valves (Field Adjustable)

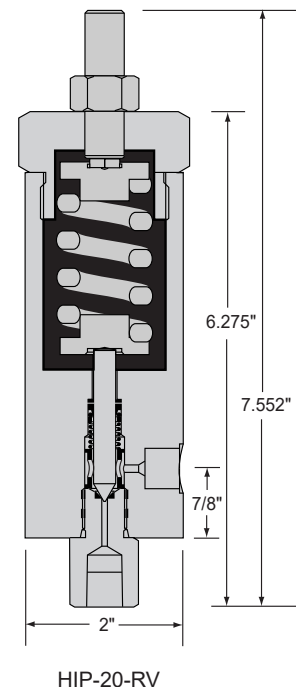
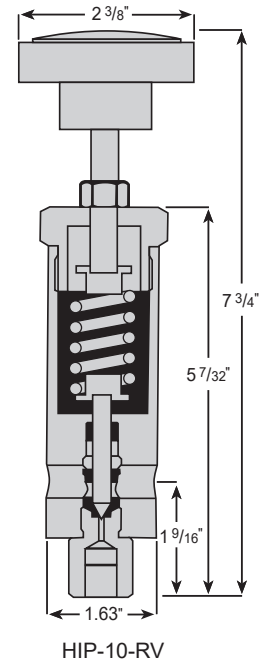
Pressure Range	Orifice Size	Type of Service	Part number	Cv
1,000 to 10,000 psi	0.070	GAS OR LIQUID	HIP-10RV	.12
10,001 - 20,000 psi	0.070	GAS OR LIQUID	HIP-20RV	.12

HIP 10RV & HIP 20RV Relief Valves (Field Adjustable)



CE Marked Relief Valves

HiP relief valves are now available with CE marking. These products will proudly be marked with the CE symbol, signifying they comply with the stringent requirements of the Pressure Equipment Directive (PED). To order, add -CE to your relief valve part number.

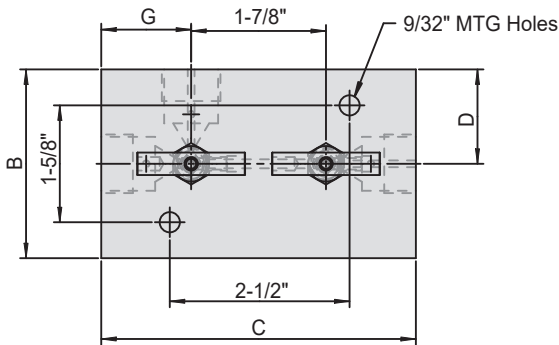


*Please note HIP-20RV does not have handle, the valve is shipped with $\frac{1}{2}$ -13" set screw.

Block and Bleed Needle Valves

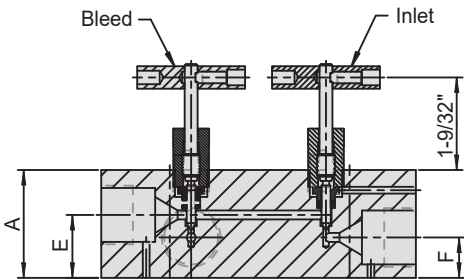
High Pressure Equipment offers Block and Bleed needle valves designed for calibration operations. Block and Bleed needle valves provide controlled flow to high-pressure hydraulic and pneumatic systems through both shut-off regulation and diversion. These needle valves deliver safe, reliable operation to 20,000 psi.* Teflon packing provides dependable leak-free service up to 400°F (204°C).

- Tube sizes: 1/4", 3/8", 9/16" medium pressure and 1/4" FNPT, 3/8" FNPT, 1/2" FNPT
- Non-rotating stem design
- Type 300 stainless steel tee handles
- Teflon packing to 400°F (204°C)
- Optional wetted parts available
- Optional O-rings available



Catalog Number	Connector	A	B	C	D	E	F	G
15-SBB-NFB	1/4" NPT	1 1/2"	2 5/8"	3 7/8"	1 5/16"	7/8"	9/16"	1"
15-SBB-NFC	3/8" NPT	1 3/4"	3"	4 3/8"	1 1/2"	1 1/8"	13/16"	1 1/4"
15-SBB-NFD	1/2" NPT	1 3/4"	3"	4 3/8"	1 1/2"	1 1/8"	13/16"	1 1/4"
20-SBB-LF4	LF4	1 1/2"	2 5/8"	3 1/2"	1 5/16"	7/8"	9/16"	1 3/16"
20-SBB-LF6	LF6	1 1/2"	2 5/8"	3 3/4"	1 5/16"	7/8"	9/16"	1 5/16"
20-SBB-LF9	LF9	1 1/2"	2 5/8"	4 3/8"	1 5/16"	7/8"	9/16"	1 1/4"

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Dimensions in inches

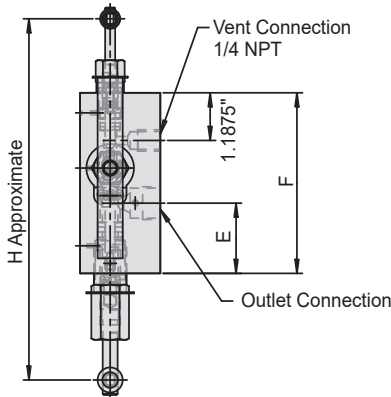
* NPT connection: rated 15,000 psi

Block and Bleed Valves

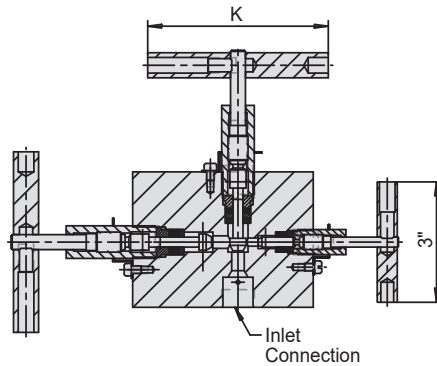
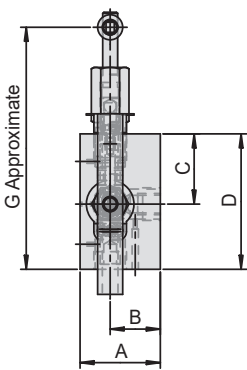
Double Block and Bleed Needle Valves

High Pressure Equipment Company introduces its Double Block and Bleed needle valves that deliver safe, reliable operation to 20,000 psi. Our valves feature coned and threaded connections for 1/4" to 1" medium pressure tubing, making them ideal for pressure monitoring and testing, chemical injection and drain line isolation applications. This valve is manufactured from cold worked stainless steel and 17-4-H1075 with 300 stainless steel tee handles and a non-rotating stem design. Teflon packing provides reliable leak-free service from 0°F (-17.8°C) to 400°F (204°C).

- Rated for service to 20,000 psi
- DBB series: 1/4" to 1" medium pressure, coned and threaded connections
- Non-rotating stem design
- Type 300 stainless steel tee handles
- Manufactured from cold worked stainless steel and 17-4-H1075
- 1/4" FNPT vent
- Teflon packing from 0°F (-17.8°C) to 400°F (204°C)
- Optional wetted parts available
- Optional PolyPak available



Catalog Number	Inlet Connector	Outlet Connector	A	B	C	D	E	F	G	H	K
20-DBB-LF4	LF4	LF4	2"	1 1/4"	1 3/16"	2 3/4"	1 3/16"	3 1/2"	4 5/8"	7 3/16"	3"
20-DBB-LF6	LF6	LF6	2"	1 1/4"	1 3/16"	2 3/4"	1 3/16"	3 1/2"	4 5/8"	7 3/16"	3"
20-DBB-LF9	LF9	LF9	2"	1 1/4"	1 3/4"	3 3/8"	1 3/4"	4 1/2"	6 1/16"	9"	4 1/2"
20-DBB-LF12	LF12	LF12	2 1/2"	1 3/4"	2 1/4"	4 1/4"	2 1/4"	5"	6 7/8"	9 1/2"	8 3/4"
20-DBB-LF16	LF16	LF16	3 1/2"	2 1/2"	2 13/16"	5 1/4"	2 13/16"	6"	8 7/16"	11"	10 1/4"



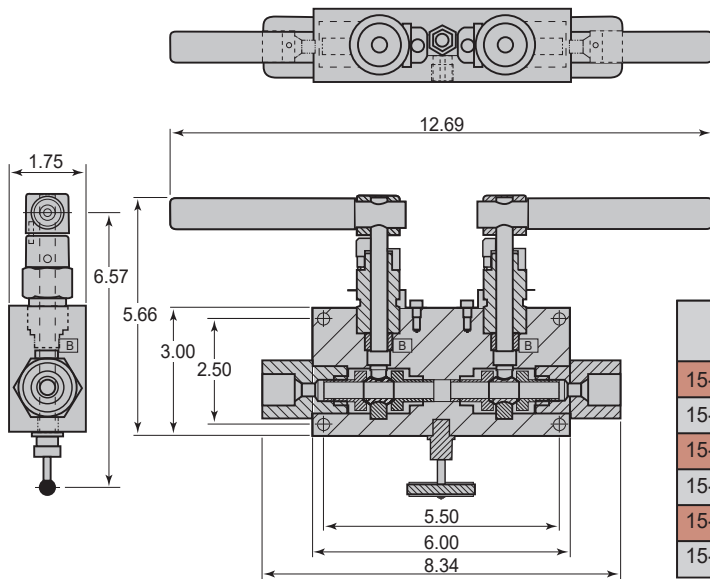
Dimensions in inches

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Double Block and Bleed Ball Valves

High Pressure Equipment has designed a trunion style block and bleed ball valve for calibration applications to 15,000 psi. This reliable ball valve is an excellent method to block and bleed high pressure hydraulic and pneumatic systems used for pressure monitoring and test, chemical injection and drain line isolation. This is a full port, quarter turn double ball valve.

- Trunion style closure, ideal for severe service applications
- .203", .250", .313" and .375" orifices
- Tube sizes: $\frac{3}{8}$ ", $\frac{9}{16}$ ", $\frac{3}{4}$ ", $\frac{1}{4}$ " NPT, $\frac{3}{8}$ " NPT and $\frac{1}{2}$ " NPT
- 316 stainless steel construction
- Viton O-rings
- PEEK ball seats provide excellent environmental and chemical resistance
- Optional O-rings, wetted parts and materials of construction available
- Double positive isolation
- Vent port is $\frac{1}{4}$ " FNPT



Dimensions in inches

Catalog Number	Tube Size	Connector	Pressure Rating	Minimun Orifice	C _v
15-DBB-BV-NFD	$\frac{1}{2}$ " NPT	NFD	15,000	.375	6.08
15-DBB-BV-NFC	$\frac{3}{8}$ " NPT	NFC	15,000	.375	6.08
15-DBB-BV-NFB	$\frac{1}{4}$ " NPT	NFB	15,000	.250	2.70
15-DBB-BV-LF12	$\frac{3}{4}$ "	LF12	15,000	.375	6.08
15-DBB-BV-LF9	$\frac{9}{16}$ "	LF9	15,000	.313	4.22
15-DBB-BV-LF6	$\frac{3}{8}$ "	LF6	15,000	.203	2.01

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