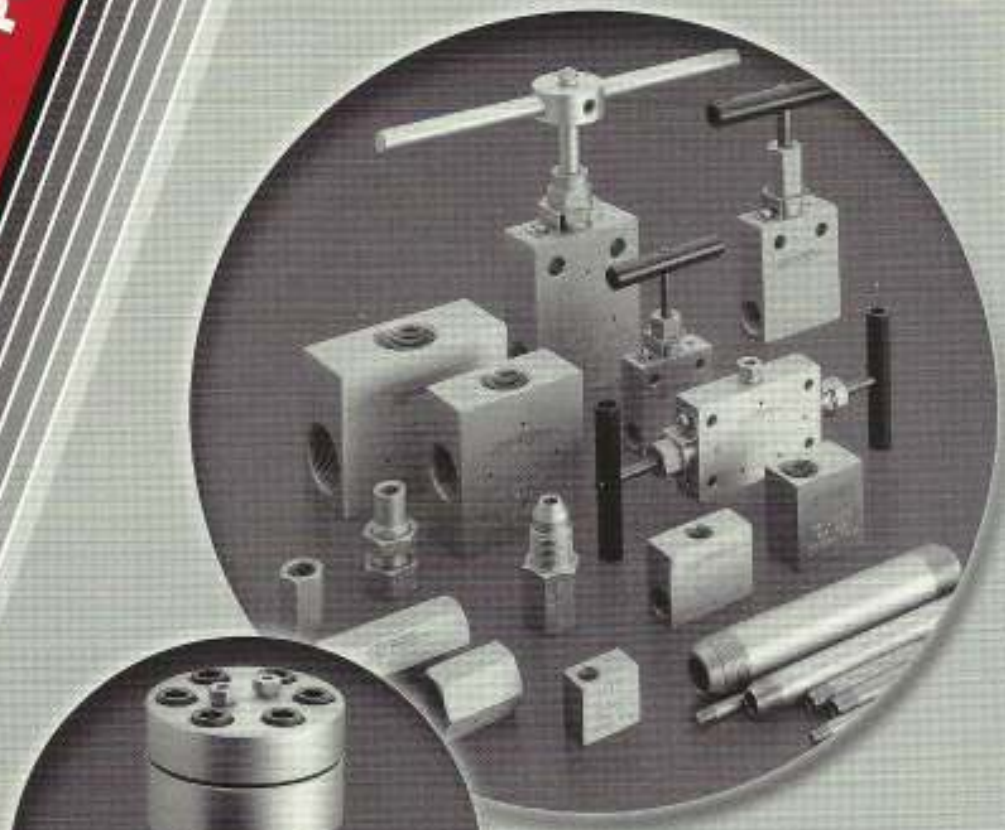
Condensed Catalog

Valves • Fittings • Tubing • Reactors • Pumps



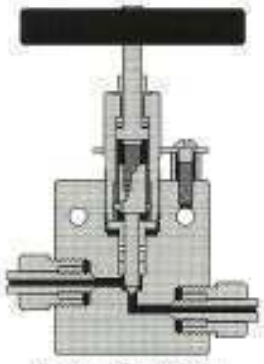
HiP

High Pressure Equipment Company

ISO 9001 CERTIFIED

High Pressure Equipment
Valves

High Pressure Equipment Company offers an extensive line of valves and affiliated components to safely and reliably handle the unique requirements of elevated pressure applications. Stainless steel is the material most commonly used for our valve products, although a variety of other materials are available to address alternative operating conditions. Our valve products are used in diverse markets such as waterjet cutting and cleaning, oil and gas, chemical and petrochemical, research and development, universities, government, and general industry.

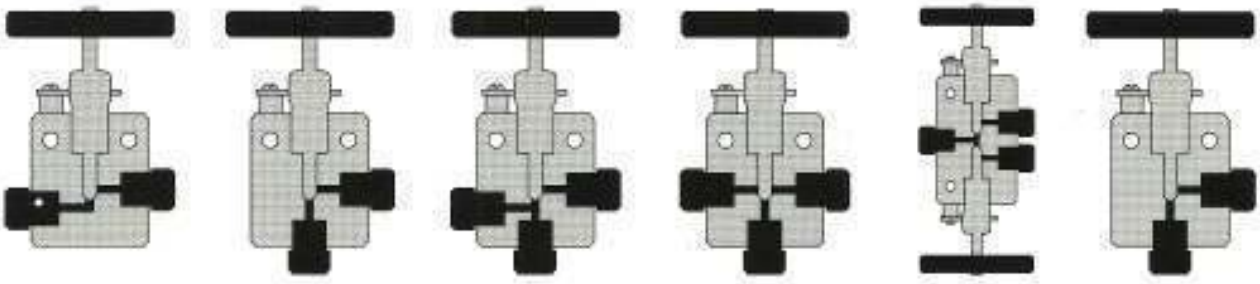


Positive Guide Stem

Features

- Valve bodies through 100,000 psi are high tensile Type 316 stainless steel, 150,000 psi valve bodies are 17-4 PH stainless steel.
- Stem assemblies have non-rotating tips to prevent galling with valve seats.
- Packing is located below the stem threads to prevent contact with media (liquid or gas).
- Packing glands are equipped with locking devices or lock nuts.
- Six valve patterns are available.
- Tubing connections are: 1/16", 1/8", 1/4", 3/8", 9/16", 3/4", and 1". Pipe connections include: 1/8", 1/4", 3/8", 1/2", 3/4", and 1" NPT.
- Remote control air operators are available for most valves.
- Three stem designs: positive guide, rolled style, and pinned stem.

Body Styles



Two-Way Straight | Two-Way Angle | Three-Way Two-Pressure | Three-Way One-Pressure | Three-Way Two-Stem | Replaceable Seat

Valve Series

Taper Seal

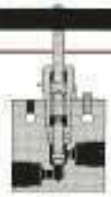
10,000 and 15,000 psi
1/16" - 3/8" O.D. tubing

The Taper Seal is a compression-type tube connection that is extremely easy to use and re-make. The sleeve clamps onto tubing much like a machine collet for a safe and reliable connection. Taper Seal valves are available in 1/16", 1/8", 1/4", and 3/8" O.D. tubing sizes and six body styles.

Medium Pressure

20,000 psi
1/4" - 1" O.D. tubing

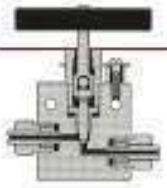
Medium Pressure components use a compact coned-and-threaded connection which permits the larger bore sizes and increased flow rates common in this pressure class. Medium Pressure valves are available in 1/4", 3/8", 9/16", 3/4", and 1" O.D. tubing sizes and six body styles.



High Pressure

30,000, 40,000 and 60,000 psi
1/8" - 1" O.D. tubing

High Pressure components use a coned-and-threaded connection which accommodates the high temperatures and pressures common in these applications. High Pressure valves are available in 1/8", 1/4", 3/8", 9/16", and 1" O.D. tubing sizes and six body styles.



Ultra High Pressure

100,000 and 150,000 psi
1/4" and 3/8" O.D. tubing

Ultra High Pressure components use a coned-and-threaded connection which accommodates the extreme conditions found in these applications. Ultra High Pressure valves are available in 1/4" and 3/8" O.D. tubing sizes and four body styles.

Fittings, Tubing and Accessories

Fittings A complete line of elbows, tees and crosses is available for all tubing connection sizes. HiP fittings are constructed of high tensile 316 stainless steel, unless otherwise specified.

Couplings Union couplings, bulkhead couplings, caps, line filters, check valves, rupture discs, safety heads, and anti-vibration gland assembles help you complete a safe installation.

Adapters Connect different sizes of tubing or tubing and pipe with our female-to-female couplings, female-to-male adapters, male-to-male adapters, reducer couplings, and thermocouple adapters.

Tubing HiP high pressure tubing is cold drawn, seamless and supplied in the 1/8" hard condition (not annealed). Tubing is available in all standard valve sizes and in any length specified, as well as a connection-ready nipple.

Gauges HiP gauges deliver accurate pressure readings from ATM to 100,000 psi, are available for wall or panel mounting, and have the appropriate connection machined into the bottom inlet.

Tools We offer complete instructions for the make-up of a coned and threaded connection, and both coning & threading tools and female tubing connection tools.

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P.O. Box 8248 • 1222 Linden Ave. • Erie, PA 16505 U.S.A. • Phone: (814) 838-2028 • 1-800-289-7447 • Fax: (814) 838-6075 • E-Mail: sales@highpressure.com

Severe Duty
Ball Valves
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. 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" or .375".

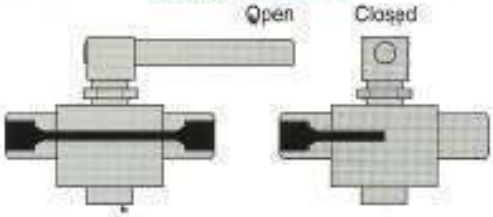
The two-way ball valve offers complete shut-off with a convenient 1/4 turn. The standard configuration of the three-way ball valve requires 1/2 turn to change port outlets and provides for complete shut-off. An optional diverter style three-way ball valve requires only a 1/4 turn to change the port outlets.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

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

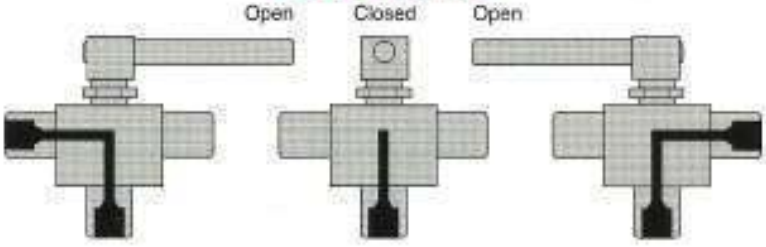
Features

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

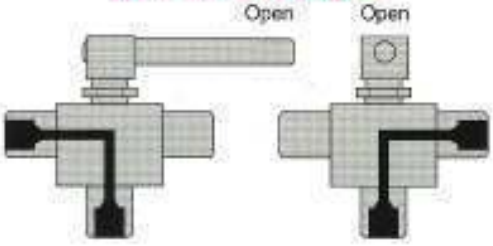
Two-Way Ball Valve



180° Three-Way Ball Valve



90° Three-Way Diverter Valve



Ball Valve Actuators

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

Air Operated Valves

High Pressure Equipment Company offers five lines of air operators to accommodate remote operation of pressure valves up to 100,000 psi. Various models of diaphragm and piston operated valves are available in both normally open (spring to open/air to close) and normally closed (air to open/spring to close) models, and can be controlled by air regulator, electrical solenoid or low pressure manual valve.

Mini-Hippo Air Operators - to 6,000 psi

Mini-Hippo piston air operators can be controlled by means of an air regulator, an electrical solenoid, or a manual low pressure valve in the user's air supply line. Air inlet is 1/4" NPT. Air pressure requirement ranges from 25 to 90 psi.

Hipco Air Operators - to 60,000 psi

Hipco diaphragm air operators can be controlled by means of an air regulator, an electrical solenoid, or a manual low pressure valve in the user's air supply line. Air inlet is 1/4" NPT.

Remarco Air Operators - to 100,000 psi

Remarco diaphragm air operated valves provide remote operation up to 100,000 psi by means of an air input supply ranging from 25 to 90 psi to the air actuator.

Hippo Air Operators - to 15,000 psi

Hippo piston air operators can be controlled by means of an air regulator, an electrical solenoid, or a manual low pressure valve in the user's air supply line. Air inlet is 1/4" NPT. Air pressure requirement ranges from 65 psi to 120 psi.

Remetco Air Operated Fine Metering Valves - to 60,000 psi

Remetco valves provide precise control with fast response in fine metering applications for liquids or gases to 60,000 psi. Pinpoint accuracy and repeatability are assured by a unique stem travel control device working in concert with a Conoflow operator, which is actuated by an input air pressure on only 15 psi.

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Specialty Valves

Hastelloy Valves are the most common special material valves we produce. We maintain an inventory of Hastelloy C-276 to assure prompt delivery.

High Temperature Valves feature an extension to remove the packing area (stuffing box) from the hot zone of a valve, making them suitable for use at 1,000°F (538°C).

Micro Control Metering Valves are designed to assure the fine and precise stem travel necessary for excellent control of flow. An integral vernier indicator provides exact measurement of stem revolution.

Relief Valves protect a system from over-pressure damage and failure. Relief valves are offered in pressures from 3,000 psi to 30,000 psi.

Pipe Connection Valves allow you to plumb a system through 15,000 psi using standard NPT pipe connections.

Male Bottom Connection Valves are designed for applications where extra rigidity or space restrictions are critical. These valves feature one-piece stem construction to increase durability and reduce overall height.

Oil and Gas Products

High Pressure Equipment Company has developed a complete line of valves and affiliated components specifically for the unique requirements of the oil and gas industry. We offer valves, fittings and tubing for use with sour oil and gas (H_2S) in a 10,000 psi, 20,000 psi and 30,000 psi series. Our "SGS" products are constructed of annealed 316 stainless steel and meet or exceed all requirements of NACE MR0175 and the American Petroleum Institute. For those applications where H_2S is not present, our standard line of valves, fittings and tubing will accommodate pressures to 150,000 psi.

Sour Oil and Gas

- ¼", ⅜" and 9/16" O.D. tube connections
- 10,000, 20,000 and 30,000 psi series
- Vee and regulating stem types
- Annealed 316 stainless steel construction
- Meet or exceed requirements of NACE MR0175
- Hastelloy and other exotic materials in stock
- Complementary line of fittings, tubing and accessories
- We offer many of our specialty valves for oil and gas applications, plus wellhead gauge valves and bleed valves

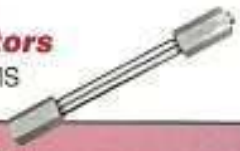
Wellhead Gauge Valves

Bleed Valves

Reactors and Pressure Vessels

HiP designs and manufactures a broad range of pressure vessels and reactors for both bench-scale and pilot plant applications. We have over 250 standard reactor designs which address varied size, material, pressure and temperature requirements, as well as custom design capabilities.

There are many applications that demand ASME approval for work involving pressure vessels. To satisfy this need, HiP produces a variety of pressure vessels and reactors that meet the requirements of the ASME Pressure Vessel Code.

Reactor Design	Description	Standard Material	Maximum Temperature (°F)	Maximum Working Pressure (psi)	Standard Capacity
 **O-ring Seal** Series OC	Simple closure design allows for easy assembly/disassembly and reliable operation. Series OC are economical reactors ideal for low temperature gas or liquid service.	316SS	250	16,000	125 mL to 6,750 mL
 **Confined Gasket Closure** Series GC	Series GC is designed for studying high temperature and pressure reactions. The vessels utilize thrust bolts and a thrust ring to ensure positive seating of the gasket.	316SS	800	16,000	125 mL to 6,750 mL
 **Bolted Closure** Series BC	These versatile reactors are the standard of the industry for applications involving moderate pressure ranges. Standard O-rings may be used in place of the metal gasket for lower temperatures.	316SS	650	5,000	300 mL to 2 gal.
 **Clover Leaf** Series CL	Quick opening cover design needs only one-eighth of a turn rotation for sealing. Ideal for high pressure operations requiring repetitive opening/closing.	4340 alloy steel	250	30,000	1,000 mL to 3,700 mL
 **O-ring Closure** Series R	Designed for extremely high pressure/low temperature operation, series R reactors feature a threaded closure for easy assembly and disassembly.	4340 alloy steel	250	150,000	77 mL to 30 liters
 **Micro Reactors** Series MS	Series MS are fixed bed tubular reactors designed for a variety of applications such as small volume testing of components and miniature scale reaction tests.	316SS	800	30,000	2 mL to 64 mL
 **Tubular Reactors** Series TOC	This line of economical and versatile reactors satisfy many moderate pressure applications. Accumulators can be customized through a variety of options including piston separators.	304SS	O-ring 250 confined gasket 800	10,000	50 mL to 15 liters
Custom Reactors	HiP makes every reactor to order, allowing for economical and timely customizing. We offer a broad range of exotic metals, sizes and connections to meet virtually any requirement.	—	—	—	—

Note: For ASME code stamping of HiP vessels, please consult factory for available reactor designs, materials, and pressure ratings.

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Pumps, Intensifiers and Gas Boosters

High Pressure Equipment Company produces a number of components and systems for general industrial, elevated pressure applications.

High Pressure Generators

are manually operated piston screw pumps for compressing liquids and some gases in small volumes to develop pressure.

Hydraulic Intensifiers

feature a compression ratio of 10 to 1, which allows for output pressures as high as 150,000 psi when used in conjunction with a commercially available lower pressure pump (15,000 psi).

Gas Boosters

and gas booster systems are an excellent method for increasing the pressures or flow rates for a variety of gases. These units offer compression ratios as high as 30 to 1 and output pressures up to 60,000 psi.

Pumping Systems

are air operated, hydraulic systems capable of producing output pressures up to 50,000 psi. These pumping systems are complete, self-contained and ready to operate; just connect to shop air supply.

Call for our 124-page catalog also available on CD Rom or see it on-line
www.highpressure.com

Represented by:

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PALM
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