

# **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 overpressure 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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# **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  $\frac{9}{1_6}$ " 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.

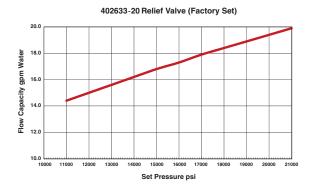
To order, simply specify catalog number and set pressure.

- 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)

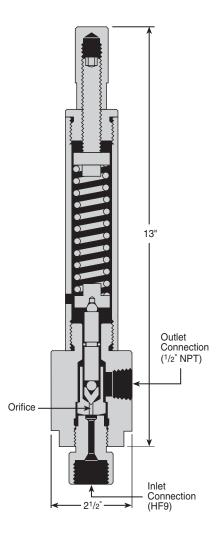
Pressure Range	Orifice Size	Type of Service*	Assembly Part No.	Max Flow Capacity H <sub>2</sub> O (GPM)
1,500 to 2,999 psi	1/4"	GAS OR LIQUID	402633-03	13
3,000 to 10,999 psi	1/4"	GAS OR LIQUID	402633-10	25
11,000 to 20,999 psi	3/16"	GAS OR LIQUID	402633-20	20
21,000 to 30,000 psi	1/8"	GAS OR LIQUID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

<sup>\*</sup>Valves not bubble tight on gas service.



#### **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 Vtion O-ring or 450°F with the Kalrez O-ring option.

Inlet connections are for 9/16" O.D. tubing (HF9) with adapters for

**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.

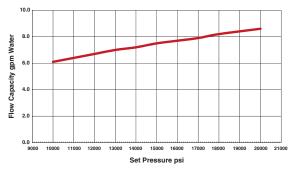
To order, simply specify catalog number and set pressure.

- Soft Seat Catalog Number: 602923
- Minimum Temperature: 0°F
- Maximum Temperature standard Viton O-ring: 400°F
- Maximum Temperature with Kalrez O-ring: 450°F

# **Soft Seat Relief Valves** (Factory Set)

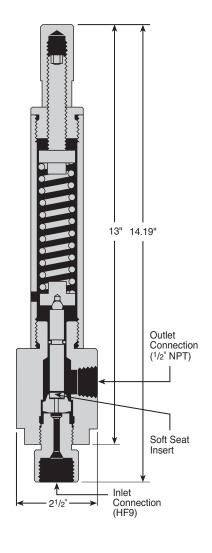
Pressure Range	Orifice Size	Type of Service	Assembly Part No.	Max Flow Capacity H <sub>2</sub> O (GPM)
1,500 to 2,999 psi	3/16"	GAS OR LIQUID	602923-03	8
3,000 to 9,999 psi	3/16"	GAS OR LIQUID	602923-10	14
10,000 to 19,999 psi	1/8"	GAS OR LIQUID	602923-20	8
20,000 to 25,000 psi	1/8"	GAS OR LIQUID	602923-25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





#### **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.



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.

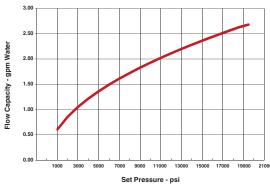
To order, simply specify catalog number. Example: HIP-10RV

- 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)

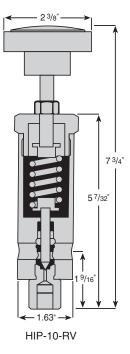
Pressure Range	Orifice Size	Type of Service	Part number	Cv
1,000 to 10,000 psi	0.070	GAS OR LIQUID	HIP-10RV	.12
10,001 - 20,000 psi	0.070	GAS OR LIQUID	HIP-20RV	.12

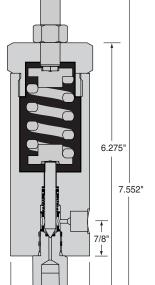




#### **CE Marked Relief Valves**

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HIP-20-RV

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<sup>\*</sup>Please note HIP-20RV does not have handle, the valve is shipped with 1/2-13" set screw.