

## Primary Isolation Valves

A chemical injection and instrumentation primary isolation root valve with a 3/8" (9.5 mm) bore for pressures to 6000 psig (414 barg)

### General Application

The H70W is an ideal solution for the simple installation of chemical injection lines and instruments directly to a wellhead in conventional oil and gas production, reducing leak points, assembly time and installation footprint.

#### TECHNICAL DATA

**Materials**

CS, 316 SS

**Seats:**

Metal or soft

**Connections**
**Inlet:**

1/2" to 3/4" NPT

**Outlet:**

1/2" NPT

**Orifice sizes:**

3/8" (9.5 mm)

**Pressure (max):**

6000 psig (414 barg)

**Temperature (min/max):**

-70°F to 1000°F  
(-57°C to 538°C)



### Features

- Compact modular design.
- Simple installation directly to the outlet of a wellhead gate valve provides significant reduction in field installation costs.
- 'Plug and play' design eliminates multiple piping elbows, tees, tubing connectors and valves in one factory tested assembly.
- Simple field operation.
- DBB functions when used in conjunction with an API wellhead valve.
- Up to two chemical injection ports with isolation valves.
- Separate 3/8" bore block valve for isolation, testing and/or removal of instruments.
- Instrument bleed valve installed at factory and extra 1/2" NPT hex-plug included.
- Horizontal or vertical applications can be handled by the same valve.

## H70W SERIES

### Primary Isolation Valves

#### Specifications

##### Standard Features

- Single-piece 3/8" primary bore body design
- ANSI Class 2500#
- Bar-stock construction
- Full factory tested assembly
- Horizontal or vertical mounting of instrument
- Comes with additional 1/2" hex-plug
- Compliant to NACE MR0175

##### Design Codes and Standards

All H70WH Series assemblies are designed to comply with the following code requirements:

- ASME B16.34 Main body/block valves material wall thickness
- ASME VIII, DIV 1 Design procedures and materials
- ASME B1.20.1 National pipe threads
- MSS-SP-99 Injection/bleed valves design/testing

##### Standard Materials of Construction Options:

- Body Stainless steel (A479-316) or carbon steel (ASTM A105)  
\* Other materials are available, please consult if required.
- Trim SS 316 (available for all body materials)
- Seats 3/8" rodable bore block valves = PEEK, Delrin®, 316 SS  
3/16" injection/bleed valves = integral seats (body)
- Packing Standard = adjustable PTFE optional = adjustable GRAFOIL®

##### Optional Versions

- BS-6755: fire-tested (GRAFOIL® packing/metal seats)
- Large 1/4" bore injection valves available

##### Testing

- MSS-SP-99 standard functional air test of assembly to 3000 psig.
- MSS-SP-61 optional hydro-test of assembly. Please consult if required.
- EN10204 3.1 body material test reports available.

##### Valve Technical Specifications

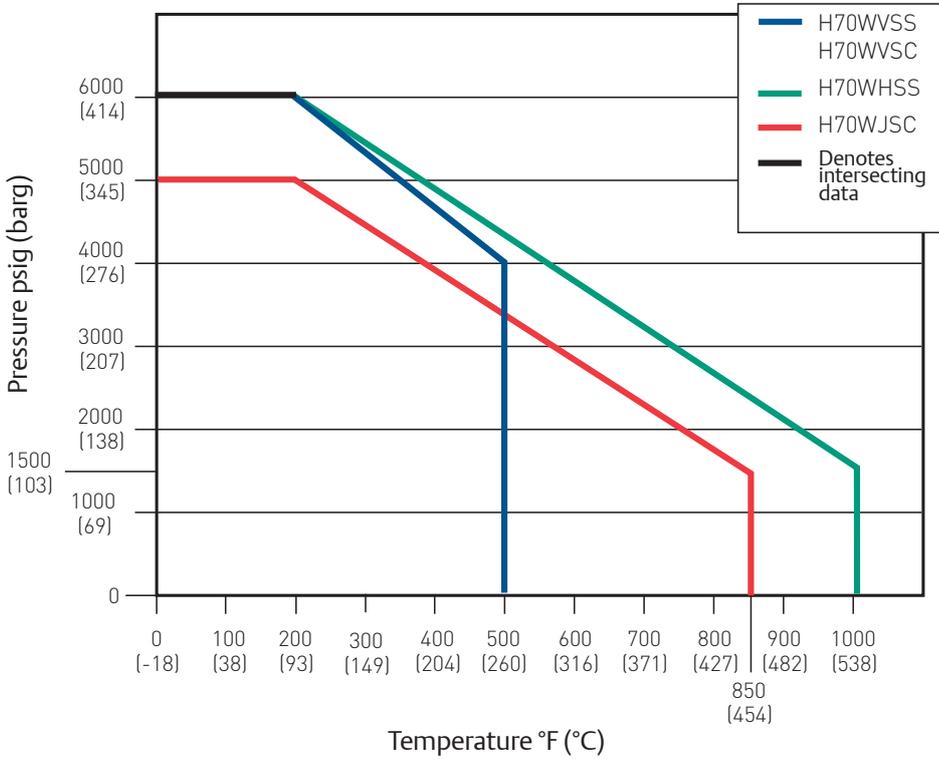
All H70WH Series feature our time tested high performance P Series and H7/H1 Bonnet designs for reliable performance and bubble-tight isolation.

- Anti-blow out stem design
- P Bonnet lock plates and packing adjustment lock collars
- Metal to metal bonnet to body seals
- Adjustable packing
- Pressure rating up to 6000 psig (680 barg)
- Temperature range -70°F to +1000°F (-57°C to +538°C)

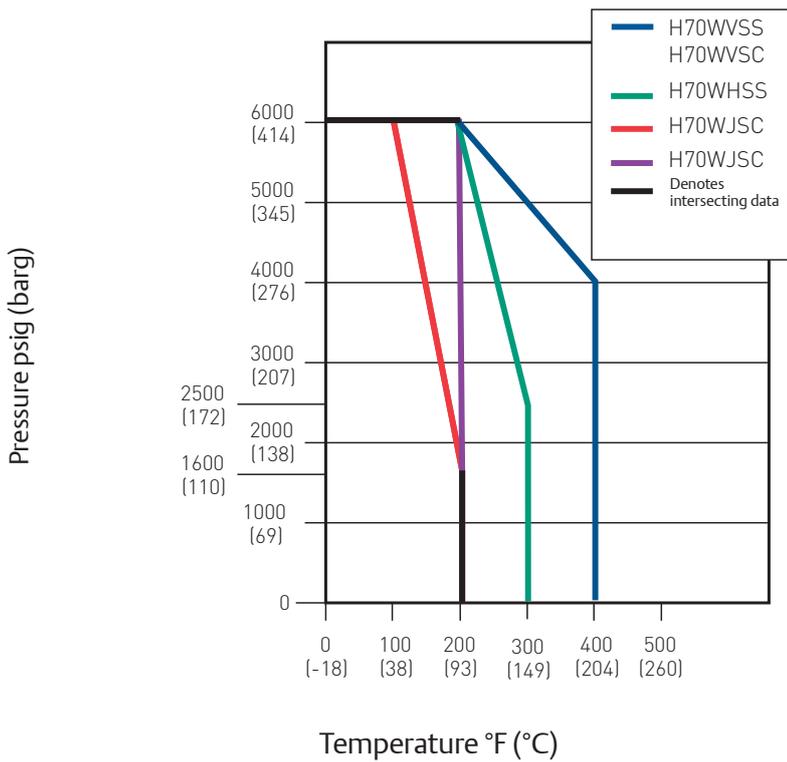
Primary Isolation Valves

Pressure vs. Temperature

Metal seat



Soft seat



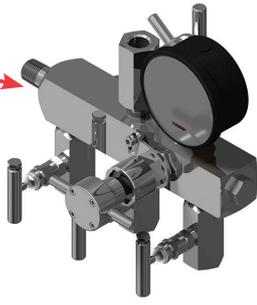
# H70W SERIES

## Primary Isolation Valves

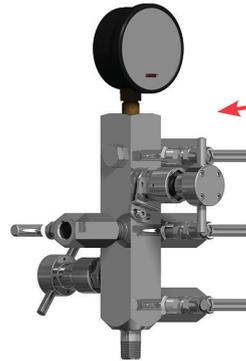
### Typical Wellhead Installation - Field Installs



Field assembly  
14 pieces reduced to 1



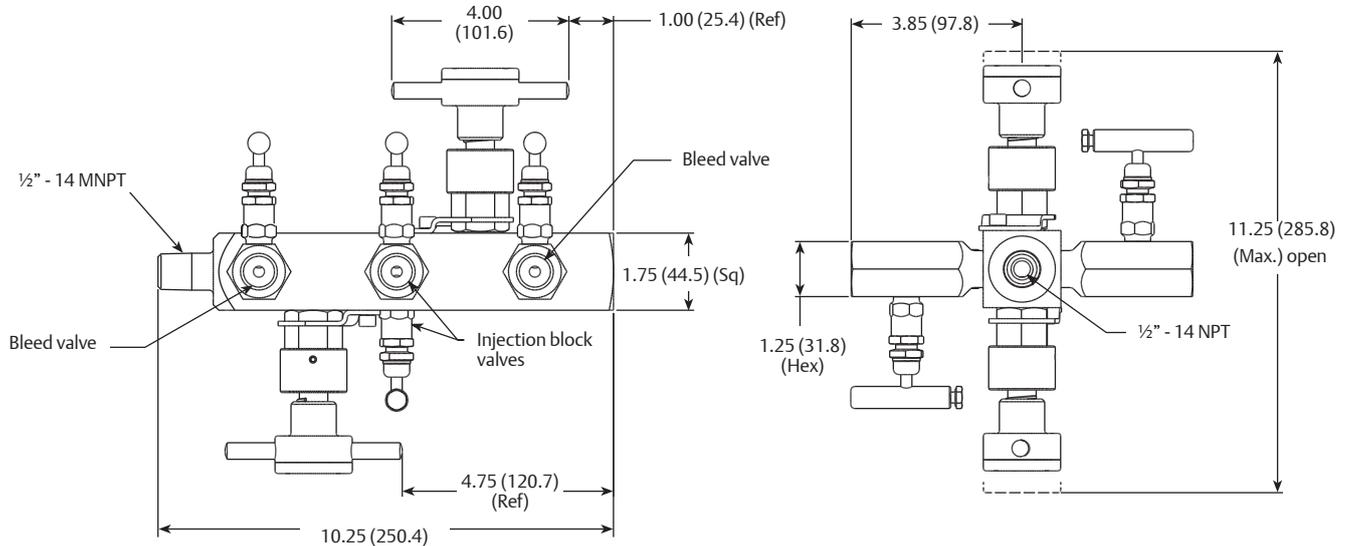
Back side, showing primary  
"P" Series block valve



Horizontal install - Qty 2 chemical injection lines

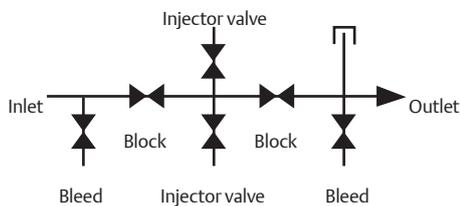
Vertical install - Qty 1 chemical injection line  
Fully assembled and tested in Harlingen, Texas - USA

### Standard dimensions, inches (mm)



Approximate valve weight: 18 lbs. (8.16 Kg)

### Flow schematic



## Primary Isolation Valves

### Selection Guide

H70W		V	E	S	44	
BASIC SERIES		ADJUSTABLE	SEAT MATERIAL - 3/8" BORE P SERIES BLOCK VALVES AND H1 SERIES (OPTION)		BODY MATERIAL <sup>[1]</sup>	CONNECTIONS (INLET/OUTLET)
<b>Series configuration</b>						
<b>H70W</b>	H70 series chemical injection primary isolation root valve	<b>V</b> PTFE	<b>E</b> PEEK	<b>S</b> 316 SS	<b>44</b>	½" MNPT x ½" FNPT
		<b>H</b> GRAFOIL®	<b>D</b> Delrin®	<b>C</b> A105 C.S.	<b>46</b>	¾" MNPT x ½" FNPT
			<b>S</b> 316 SS (required for fire-test cert)			

H72		-HD	
CHEMICAL LINE BLOCK VALVES (2)/BLEED VALVES (2)		OPTIONS	
<b>H71</b>	H7 <sup>[2]</sup> series qty 1 chemical injection	<b>HD</b>	Hydro-test as per MSS-SP-61
<b>H72</b>	H7 <sup>[2]</sup> series qty 2 chemical injection	<b>LB</b>	1/4" Large bore chemical injection block valves
<b>H11</b>	H1 series qty 1 chemical injection		
<b>H12</b>	H1 series qty 2 chemical injection		

#### NOTES

1. Please consult for other materials if required
2. Standard offering