



# Hi-Pro Ball Valve for High Performance Process Isolation

Catalog 4190-HBV  
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# Hi-Pro Ball Valve for up to 10,000 psig/689 barg operations

## Product Description

These high performance two piece bi-directional Ball Valves offer the user full cold working pressure ratings up to 10,000 psig (689 barg), 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

- 316 Stainless steel construction
- Maximum cold working pressure rating 6,000 psig (414 barg) with P.T.F.E. seats.\*
- Temperature rating PTFE seats -54°C to +204°C (-65°F to +400°F).\*
- Maximum cold working pressure rating 10,000 psig (689 barg) with PEEK seats.\*
- Temperature rating PEEK seats -54°C to +232°C (-65°F to +450°F).\*

\*always refer to P/T graph



### Features

- Two piece body design - minimal leakage paths.
- 4:1 Pressure boundary designed safety factor.
- Designed to comply with requirements of ANSI/ASME B16.34 where applicable.
- Bi-directional.
- PEEK and PTFE standard ball seat materials.
- PTFE and Graphoil gland packings.
- Bubble tight shutoff.
- Floating ball principal with dynamic response seats featuring inherent self relief.
- Anti blowout stem.
- Integral compression ends available eliminating taper threads and thread sealants.
- Low torque operation.
- Quarter turn positive stop handle with ergonomically designed protective sleeve.
- Full hydrostatic and low pressure air tested.
- Connector thread environmentally sealed.
- Anti static.
- Firesafe designed to meet API 607, BS6755 Pt2 (optional).
- Cv = 6.4, 10mm bore ball.

### WARNING

FAILURE, IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

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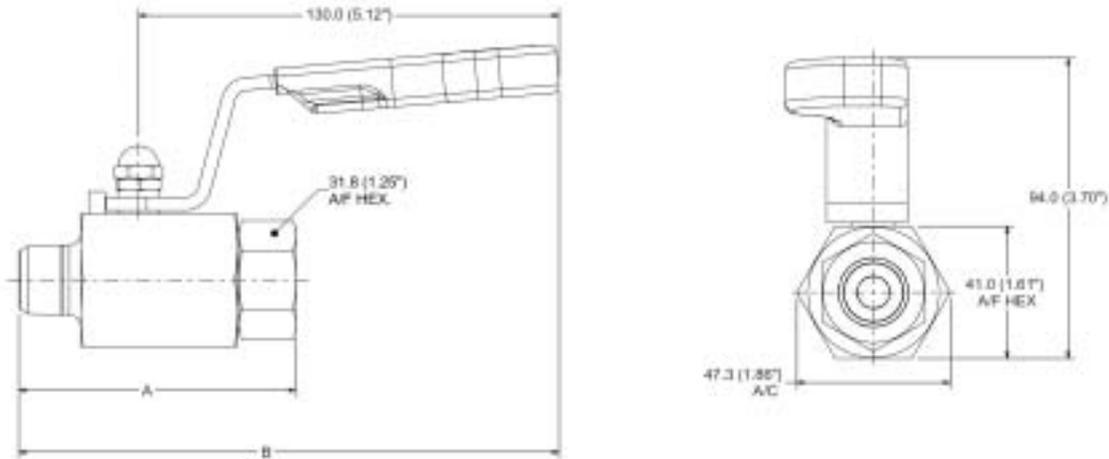
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# Hi-Pro Ball Valve for up to 10,000 psig/689 barg operations



**Standard product specification:** PTFE packing with PTFE seats, 10mm ball bore 6,000 psig (414 barg).  
**Standard product specification:** PTFE packing with PEEK seats, 10mm ball bore 10,000 psig (689 barg).

## Standard range part numbers

Part number	Part number	Inlet	Outlet	Dimensions	
6000 psig (414 barg)	10000 psig (689 barg)	Female	Female	A mm (inch)	B mm (inch)
HPB6*4FF	HPB6*4FFHP	1/4" Female	1/4" Female	70.0 (2.76)	161.5 (6.36)
HPB6*6FF	HPB6*6FFHP	3/8" Female	3/8" Female	71.0 (2.80)	162.0 (6.38)
HPB6*8FF	HPB6*8FFHP	1/2" Female	1/2" Female	85.0 (3.35)	166.5 (6.56)
		Male	Female		
HPB6*4M4F	HPB6*4M4FHP	1/4" Male	1/4" Female	70.0 (2.76)	161.5 (6.36)
HPB6*8M8F	HPB6*8M8FHP	1/2" Male	1/2" Female	85.0 (3.35)	166.5 (6.56)
		A-LOK®	A-LOK®		
HPB6*4A	—	1/4" A-LOK®	1/4" A-LOK®	95.0 (3.74)	165.5 (6.52)
HPB6*6A	—	3/8" A-LOK®	3/8" A-LOK®	99.1 (3.90)	167.4 (6.59)
HPB6*8A	—	1/2" A-LOK®	1/2" A-LOK®	104.7 (4.12)	170.2 (6.70)
HPB6*M6A	—	6mm A-LOK®	6mm A-LOK®	95.0 (3.74)	165.5 (6.52)
HPB6*M8A	—	8mm A-LOK®	8mm A-LOK®	96.6 (3.80)	166.3 (6.55)
HPB6*M10A	—	10mm A-LOK®	10mm A-LOK®	99.5 (3.92)	167.6 (6.60)
HPB6*M12A	—	12mm A-LOK®	12mm A-LOK®	104.7 (4.12)	170.2 (6.70)

\*Insert material code - select from material matrix (S = Standard 316 Stainless Steel).

For CPI™ change A to Z.

"A" dimensions given for finger tight nuts.

For compression ended valve pressure ratings consult tube ratings table.

Combination ends are available.

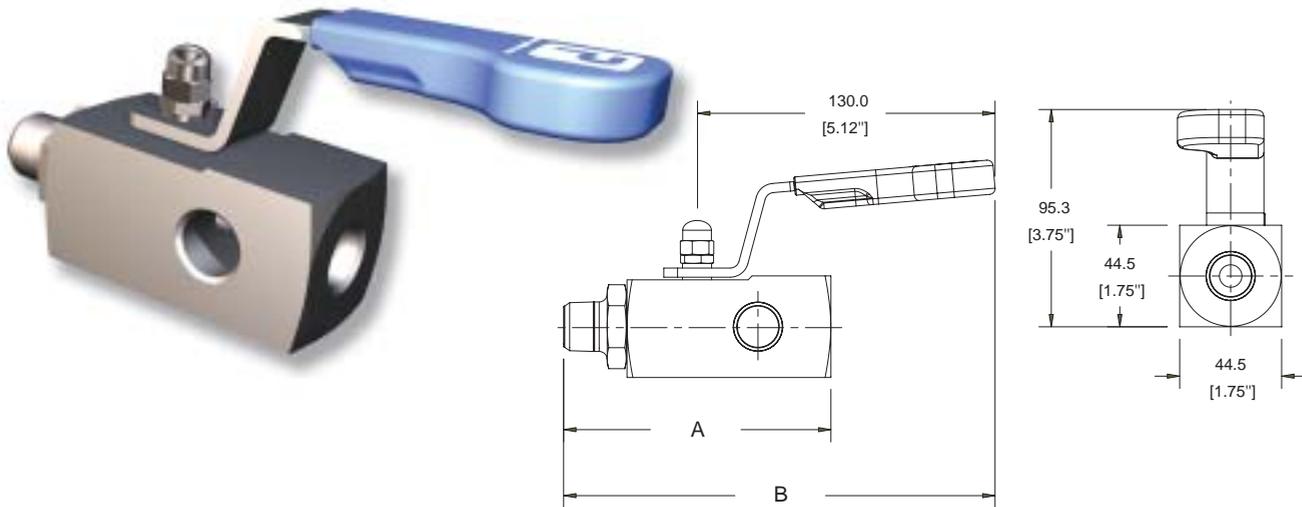
Material	*Insert
316 Stainless steel std	S
Monel	M
Duplex	D1
Super Duplex	F
Hasteloy	HC
Carbon steel	C
6Mo	6MO
Inconel 625	625

Available options	Part number Suffix
Graphoil packing	3
PEEK seats	PK
Secured end connector	LC
Handle locking	HL
Spanner actuation	SA
Panel mounting	PM
Fire safe design - Graphoil packing (std)	FS
NACE	NACE
Heat trace certificates	HCT
Retro-fit handle locking kit (for site assembly)	HPHLKIT



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# Hi-Pro Multi Port Gauge Valve for up to 10,000 psig/689 barg operations



## Standard Product Specifications

**Part No. HPB6GVS8:** 316 Stainless Steel construction, PTFE packing, PTFE seats, 10mm ball bore, 6,000 psig (414 barg), 1/2" NPT male inlet x 3 – 1/2" NPT female outlets.

**Part No. HPB6GVS12:** 316 Stainless Steel construction, PTFE packing, PTFE seats, 10mm ball bore, 6,000 psig (414 barg), 3/4" NPT male inlet x 3 – 1/2" NPT female outlets.

**Part No. HPB6GVS8HP:** 316 Stainless Steel construction, PTFE packing, PEEK seats, 10mm ball bore, 10,000 psig (689 barg), 1/2" NPT male inlet x 3 – 1/2" NPT female outlets.

**Part No. HPB6GVS12HP:** 316 Stainless Steel construction, PTFE packing, PEEK seats, 10mm ball bore, 10,000 psig (689 barg), 3/4" NPT male inlet x 3 – 1/2" NPT female outlets.

**Note:** To obtain optional bleed valve and/or blank plug with the gauge valve the above part number must be suffixed accordingly. If these parts are required they will be shipped loose in the box for customer assembly using their preferred thread sealant.

Part number	Part number	Inlet	Outlet	Dimensions	
6000 psig (414 barg)	10000 psig (689 barg)	Male	Female	A mm (inch)	B mm (inch)
HPB6GV*8	HPB6GV*8HP	1/2" NPT	3x1/2" NPT	116.5 (4.59)	188.1 (7.41)
HPB6GV*12	HPB6GV*12HP	3/4" NPT	3x1/2" NPT	119.5 (4.71)	191.1 (7.52)

\*Insert material code - select from material matrix (S = Standard 316 Stainless Steel).

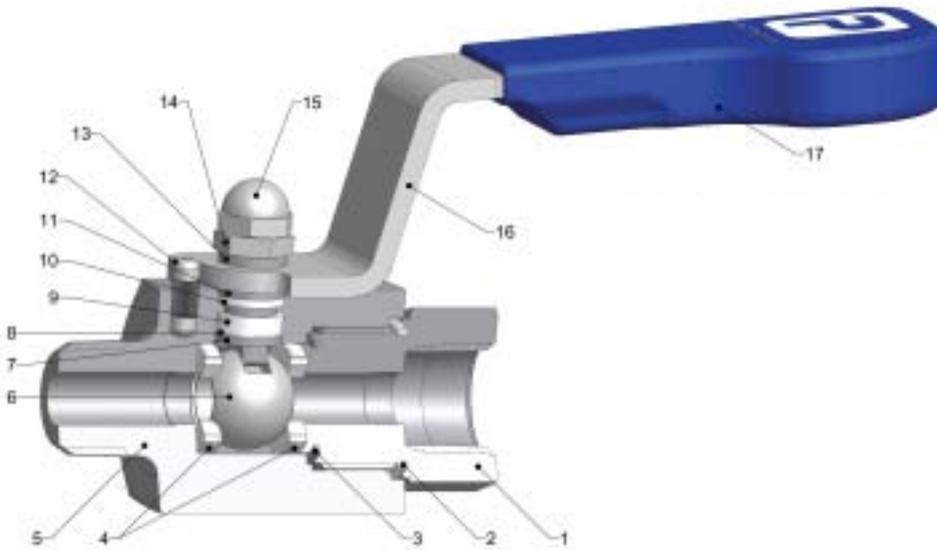
Material	*Insert
316 Stainless steel std	S
Monel	M
Duplex	D1
Hasteloy	HC
Carbon steel	C
6Mo	6MO
Inconel 625	625

Available options	Part number Suffix
Blank plug	P
Bleed valve	BV
Plug and bleed valve	PBV
Graphoil packing	3
PEEK seats	PK
Secured end connector	LC
Handle locking	HL
Spanner actuation	SA
Panel mounting	PM
Fire safe design - Graphoil packing (std)	FS
Fire safe and certified	FC
NACE	NACE
Heat trace certificates	HCT



# Hi-Pro Ball Options for up to 10,000 psig/689 barg operations

## Part description



Item	Description
1	End Connector
2	E-seal™
3	Sealing washer
4	Seats
5	Body
6	Ball
7	Anti blowout stem
8	Thrust Seal
9	Gland packing
10	Upper gland packing
11	Thrust bush
12	Stop pin
13	Thrust bush
14	Lock nut
15	Locking dome nut
16	Handle
17	Handle grip



Handle locking



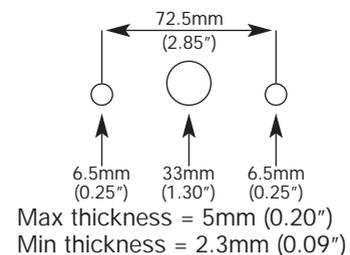
Secured end connector  
(double pin)



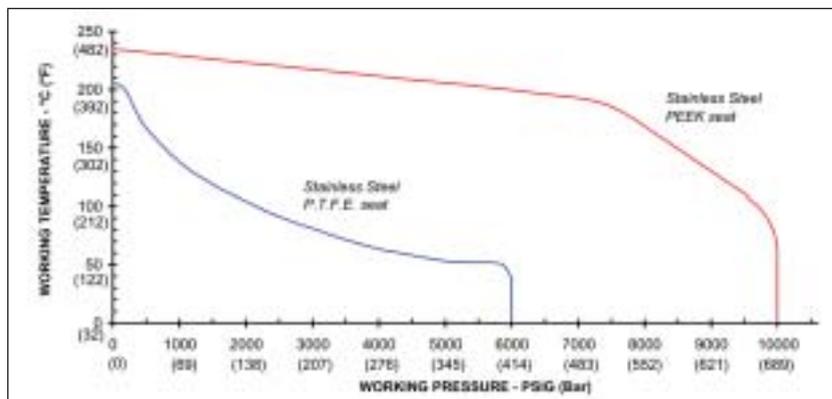
Spanner actuation



Panel mounting  
(c/w nuts & bolts)



## Performance Data Pressure vs temperature



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