

REGULATORS

HSP Series CAST STEEL

Pilot-Operated Pressure Regulating Valve

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PILOT-OPERATED
REGULATING VALVES

Model	HSP Series
Sizes	1", 1 1/2", 2", 3", 4"
Connections	150#/300# Flange
Body Material	Cast Steel
PMO Max. Operating Pressure	450 PSIG
TMO Max. Operating Temperature	650°F
PMA Max. Allowable Pressure	550 PSIG @ 650°F
TMA Max. Allowable Temperature	650°F @ 550 PSIG

PRESSURE-ADJUSTING SPRING RANGES	
Pressure Ranges	Identifying Colors
10-40 PSIG	yellow
25-100 PSIG	blue
75-300 PSIG	red



TYPICAL APPLICATIONS

The **HSP-Series** Main Valve with integral Pressure Pilot reduces steam pressure in steam system piping mains and process applications. This pilot-operated regulator is specifically used in applications where the properties and benefits of Cast Steel are desired and/or specified. Using steel as the material of construction for the main valve body extends the temperature ranges of the regulator. A unique two-bolt pilot adapter design and field-reversible tubing offer even greater versatility to this type of regulator, further reducing maintenance downtime. These valves share the same design and proven reliability of the Watson McDaniel HD-Series Regulators, providing extremely accurate control of downstream system pressure even when inlet pressure to the regulator fluctuates or steam usage varies.

FEATURES

- **Cast Steel body for higher pressure and temperature ratings**
- **New, convenient bolt-on pilot design simplifies installation**
- **New diaphragm design improves performance and extends life**
- **Hardened stainless steel trim for extended life**
- **Optional Stellite trim available**
- **Full port strainer and blowdown valve on pilot adapter for ultimate protection from dirt and scale**
- **Maintains downstream pressure + 1.0 PSIG**
- **Choice of three overlapping spring ranges**
- **Pre-mounted pilot & tubing simplifies installation**

CONTROL PILOTS

Pilot Mounting

Standard pilot mounting is on the right side of the regulator when looking into the outlet port (see diagram on opposite page which is right mounted). For opposite mounting, please specify when ordering. Pilot mounting on HSP regulators are field reversible.

Pressure

The spring-adjusted Pilot is used for general purpose pressure reducing applications.

MATERIALS

Body	ASTM A-216 GR WCB
Cover	ASTM A-216 GR WCB
Diaphragm Cover	ASTM A-216 GR WCB
Pilot	ASTM A-216 GR WCB
Gaskets	Garlock 3400/grafoil SLS
Seat	420F SS (optional Stellite seat, consult factory)
Disc	420F SS
Diaphragm	300 SS
Mfg. Bolts	SA-193 GR B7
Spring	302 SS
Stem	416 SS

HSP Series CAST STEEL

Pilot-Operated Pressure Regulating Valve

DIMENSIONS HSP Series – inches / pounds															
Size	(A) Face-To-Face			B			C			D			Weight (lbs)		
	NPT	150#	300#							NPT	150#	300#			
1"	x	5 1/2	6	6 1/4	3 1/2	7	x	40	45						
1 1/2"	x	6 7/8	7 3/8	7 3/8	4 7/8	8 3/4	x	55	60						
2"	x	8 1/2	9	8 1/4	5 3/8	10 7/8	x	75	85						
3"	x	10	10 3/4	8 7/8	6 3/4	13 1/4	x	130	145						
4"	x	11 7/8	12 1/2	10 7/8	7 1/2	14 3/4	x	215	235						

MINIMUM OPERATING PRESSURES

Minimum Inlet Pressure:

- 15 PSIG (standard Main Valve)
- 5 PSIG (low pressure Main Valve)

Minimum Differential Pressure:

- 10 PSIG (standard Main Valve)
- 3 PSIG (low pressure Main Valve)

HOW TO ORDER

REGULATOR BODY

- Specify:
- HSP regulator body
 - Regulator size or capacity of steam required
 - End connections (150#/300# flanged)

PILOT REQUIRED TO OPERATE THIS VALVE

- Pressure Pilot (Specify Range)

- Specify:
- 10-40 PSIG - Yellow
 - 25-100 PSIG - Blue
 - 75-300 PSIG - Red

Example: 2" HSP, 150# FLG, 10-40 PSIG (yellow)

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