

spirax sarco

Combination Pressure/Temperature Regulator 6" 25PT

The 25PT eliminates the need for a separate pressure regulator and a temperature regulator. Normal operation is controlled by the temperature pilot, and the pressure pilot sets an upper limit on the downstream steam pressure. The temperature pilot has a calibrated dial for accurate temperature setting, and is available with a variety of solid-fill sensing bulbs (See TI-1-1123-US). Standard capillary tubing lengths are 8ft and 15ft. This valve meets Class IV shut-off specifications but is not suitable for dead-end service.

Model	25PT	
Sizes	6"	
Connections	ANSI 125, 250	ANSI 150, 300
Construction	Cast Iron	Cast Steel
Options	Reduced Orifice Designated by "S" Non-standard capillary tubing length in 5 ft. intervals to a maximum of 50 ft. (See TI-1-1123-US)	

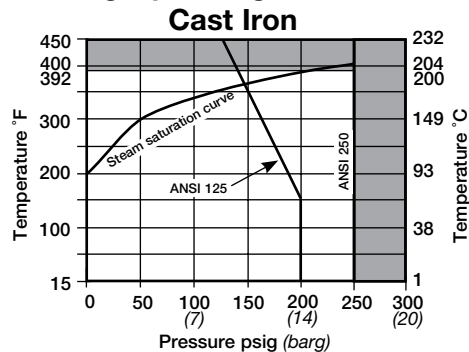
Typical Applications

Storage steam water heaters, instantaneous heat exchangers and converters, air handling coils, tank heating coils, steam jacketed vessels, steam chests, molds and platens, and other temperature control applications where it is necessary or desirable to set an upper limit on the delivered steam pressure.

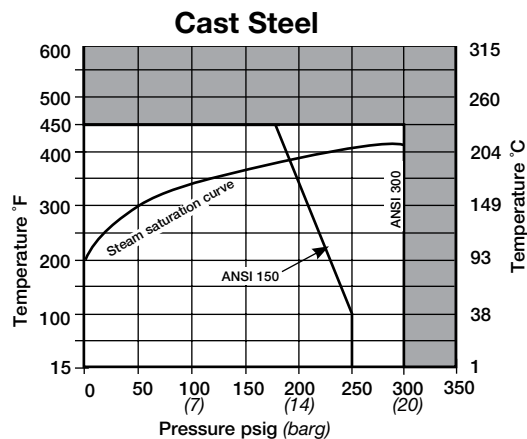
Capacities Sample Specification

Pressure/Temperature Regulators shall be of the pilot-actuated, diaphragm-operated type with separate pressure and temperature pilots. The main valve shall be single-seated, with hardened stainless steel trim; the regulator body shall be cast iron. The pilots shall be removable without disturbing the control connections. The temperature setting shall be adjustable without the use of tools, and the set point shall be indicated on a calibrated dial. The thermostatic system shall be solid fill, and shall incorporate overheat protection.

Limiting Operating Conditions



■ The product should not be used in shaded area.



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*The temperature of the sensing bulb must not exceed 350°F (177°C)

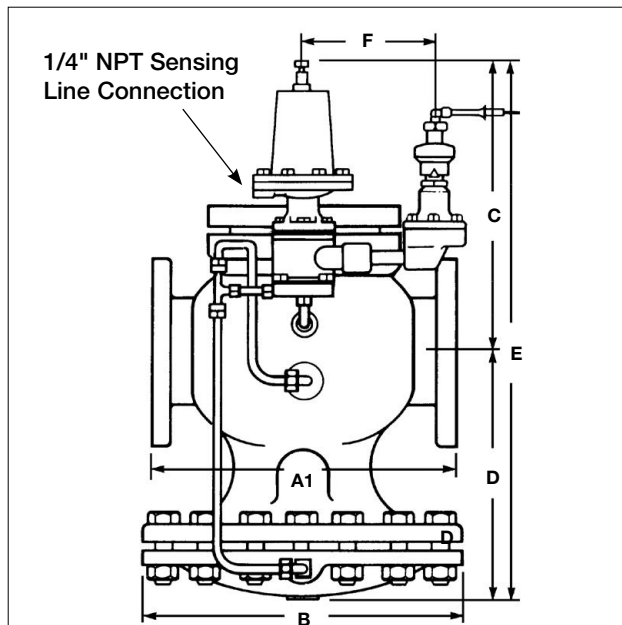
Downstream Pressure Ranges

For the following downstream pressures, 3 color-coded pilot valve springs are available:

- Yellow:** 3 to 30 psi
- Blue:** 20 to 100 psi
- Red:** 80 to 250 psi

C_v Values

Size	6"	6" "S"
C_v value	280	156



Dimensions (nominal) in inches and millimeters

	ANSI 125/150	ANSI 250/300						
Size	A1	A1	B	C	D	E	F	Weight
6"	18.1	18.9	19.75	16.1	17.1	33.2	5.0	595 lb
	460	481	502	408	435	843	127	270 kg

Standard Temperature Ranges

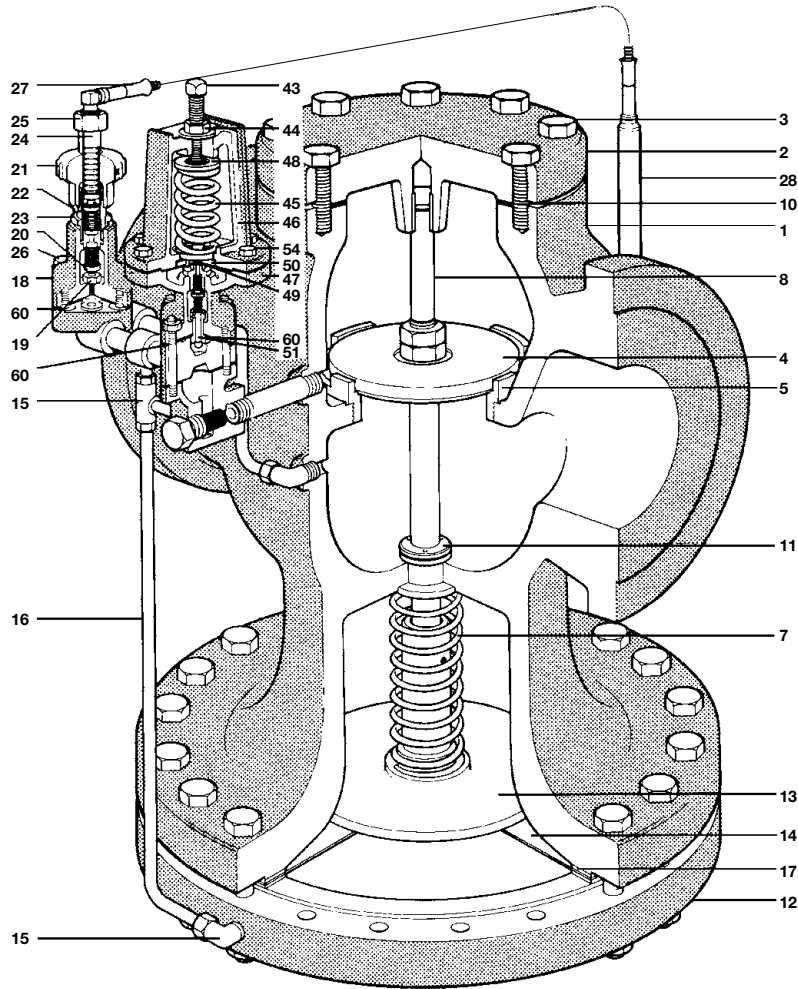
30°F to 90°F	0°C to 32°C	160°F to 220°F	70°C to 105°C
60°F to 120°F	15°C to 50°C	200°F to 260°F	95°C to 125°C
100°F to 160°F	40°C to 70°C	260°F to 320°F	125°C to 160°C
120°F to 180°F	50°C to 80°C		

Local regulation may restrict the use of this product below the conditions quoted. Limiting conditions refer to standard connections only.

In the interests of development and improvement of the product, we reserve the right to change the specification.

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Combination Pressure/Temperature Regulator 6" 25PT



Construction Materials

No.	Part	Material	
1	Valve Body	Cast Iron	ASTM A 126 CL B
		Cast Steel	ASTM A 216 WC B
2	Cover	Cast Iron	ASTM A 126 CL B
		Cast Steel	ASTM A 216 WC B
3	Cover Bolts	Steel	AISI 1038
4	Main Valve Head	Stainless Steel	ASTM A 743 CA 40
5	Main Valve Seat	Stainless Steel	ASTM A 743 CA 40
7	Valve Return Spring	Stainless Steel	AISI 302
8	Valve Stem	Stainless Steel	AISI 304
10	Cover Gasket	Graphite	BS 2815A
11	Stem Bushing	Brass	ASTM B16
12	Lower Diaphragm Case	Cast Iron	ASTM A 126 CL B
		Cast Steel	ASTM A 216 WC B
13	Diaphragm Plate	Stainless Steel	ASTM A 743 CA 40
14	Main Diaphragm (2 ply)	Stainless Steel	ASTM A240
15	Tube & Orifice	Brass	ASTM B16
16	Tubing Assembly	Copper	ASTM B280 (122)
17	Diaphragm Gasket (2)	Graphite	BS 2815 A
18	Pilot Valve Body	Cast Iron	ASTM A 126 CL B
		Cast Steel	ASTM A 216 WC B
19	Pilot Valve Seat	Stainless Steel	AISI 303
20	Pilot Valve Head	Stainless Steel	AISI 440A
21	Adjustment Knob	Phenolic	ASTM D 700 Ty2
22	Pointer	Stainless Steel	AISI 301
23	Extension Nut	Brass	ASTM B16
24	Case Tube	Brass	ASTM B 135 (330)
26	Retaining Nut	Brass	ASTM B 16
26	Pilot Mounting Screws	Steel	ASTM A449
27	Capillary Tube	Varies with style selected	

28	Bulb	Varies with style selected	
43	Adjustment Screw	Stainless Steel	AISI 304
44	Jam Nut	Brass	ASTM B16
45	Pilot Valve Spring	Steel	AISI 1060
46	Upper Diaphragm Case	Cast Iron	ASTM A 126 CL B
		Cast Steel	ASTM A 216 WC B
47	Lower Diaphragm Case	Cast Iron	ASTM A 126 CL B
		Cast Steel	ASTM A 216 WC B
48	Spring Plate	Steel	ASTM A569
49	Diaphragm	Stainless Steel	ASTM A240
50	Diaphragm Plate	Brass	ASTM B36
51	Head & Seat Assembly	Stainless Steel	AISI 440
		Stainless Steel	AISI 440F
54	Diaphragm Case Screws	Steel 5/16" - 18 x 1"	ASTM A449
60	Pilot Gasket	Graphite	

Installation

The regulator should be installed in a horizontal line with suitable bypass and isolating valves. A steam trap should be installed upstream to prevent condensate from reaching the regulator. The trap and regulator should both be protected with a strainer separator set. The thermostatic bulb must be carefully located in the medium being heated. The pressure sensing line may be located either in the downstream or in the steam space. Complete installation instructions are given in IM-3-000-US.

Maintenance

Complete installation and maintenance instructions are given in IM-3-000-US and ADVP 3029, a copy of which is supplied with each regulator. Available spare parts are shown on TI-1-1121-US and TI-3-0271-US.

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