

spirax sarco®

Pressure Regulator with Air Loaded Pilot 1/2" to 4" 25PA

The Pressure Pilot is loaded by an external compressed air supply rather than by a spring. The downstream pressure can be set remotely by adjusting the loading air pressure.

Model	25PA			
Sizes	1/2" to 2"	2-1/2", 3", 4"	1/2" to 2"	2-1/2", 3", 4"
Connections	NPT	ANSI 125 flgd.	NPT	ANSI 300 flgd.
Construction	Cast Iron		Cast Steel Body	
Options		ANSI 250 flgd.		ANSI 150 flgd.

Limiting Operating Conditions

Max. Operating Pressure (PMO)

NPT: 250 psig (17 barg) @ 450°F (232°C)
 ANSI 125: 125 psig (8 barg) @ 450°F (232°C)
 ANSI 250: 250 psig (17 barg) @ 450°F (232°C)
 ANSI 150: 185 psig (12 barg) @ 450°F (232°C)
 ANSI 300: 300 psig (20 barg) @ 450°F (232°C)

Max. Operating Temperature
450°F (232°C)

Air Pilots

PA direct air load maximum 120 psig air

Downstream Pressure Ranges

For proper selection, see TIS 3.032

PA 3 to 100 psig (approximate ratio 1:1), see table

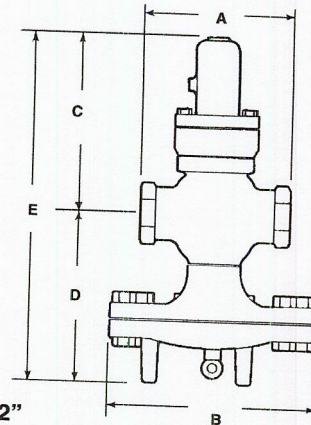
Pressure Shell Design Conditions

PMA Max. allowable pressure 250 psig/0-450°F 17 barg/0-232°C

TMA Max. allowable temperature 450°F/0-250 psig 232°C/0-17 barg

Capacities

For selection and sizing data, see TI-3-030-US.



25PA 1/2" to 2"

Dimensions (nominal) in inches*

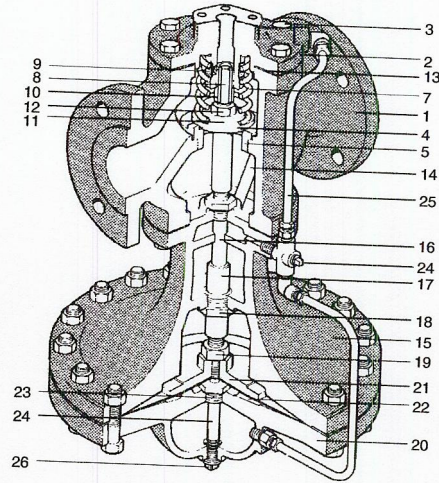
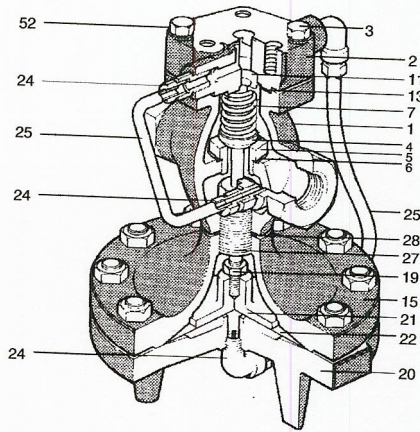
Size	Ansi 125		Ansi 250		Ansi 300		Weight				
	A	A1	A1	B	C	C1	D	E	E1	Cast Iron	Cast Steel
1/2", 3/4"	5.5	-	-	7.6	10.1	8.0	6.2	16.3	14.2	32	35
1"	6.0	-	-	8.6	10.1	8.0	6.75	16.9	14.8	39	43
1-1/4", 1-1/2"	7.25	-	-	8.6	10.1	8.0	7.1	17.7	15.6	44	48
2"	8.5	-	-	10.6	11.3	9.2	8.2	19.5	17.4	69	75
2-1/2"	-	10.9	11.5	13.6	11.9	9.9	13.9	25.8	23.8	157	171
3"	-	11.75	12.5	13.6	11.9	9.8	14.4	26.3	24.3	188	205
4"	-	13.9	14.5	15.6	13.2	11.1	16.1	29.3	27.3	284	309

* All pilots are interchangeable. Drawings are for dimensional purposes only.

EPRI Edgemont Precision Rebuilders, Inc.
 Matlack Industrial Center
 207 Carter Dr Unit C
 West Chester, PA 19382
 800 356-3774

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.

Pressure Reducing Valve with Air Loaded Pilot 1/2" to 4" 25PA



Construction Materials

No.	Part	Material	
1	Valve Body	Cast Iron	ASTM A 126 CL B
		Cast Steel	ASTM A216 Gr WCB
2	Cover	Cast Iron	ASTM A 126 CL B
		Cast Steel	ASTM A216 Gr WCB
3	Cover Bolts	Steel	ASTM A449
4	Main Valve Head	Stainless Steel	400 Series Stn Stl
5	Main Valve Seat	Stainless Steel 1/2"-2"	400 Series Stn Stl
		2-1/2" - 4"	AISI 303
6	Main Valve Seat Gasket	Copper	ASTM B272
7	Valve Return Spring	Stainless Steel	ASIS 631
8	Valve Stem	Stainless Steel	AISI 303
9	Strainer Screen	Stainless Steel	AISI 304
10	Valve Stem Sleeve	Stainless Steel	AISI 420F
11	Spring Guide	Cast Iron 1/2"-2"	ASTM A 126 CL B
		CRS 2-1/2" - 4"	AISI 1117
12	Nut	Steel	ASTM 304
13	Cover Gasket	Graphite	
14	Pressure Equalizer Pipe	Stainless Steel	AISI 304
15	Upper Diaphragm Case	Cast Iron	ASTM A 126 CL B
		Cast Steel	ASTM A216 Gr WCB
16	Stem Bushing (2-1/2" - 4" Cast Steel only)	Stainless Steel	AISI 303
17	Diaphragm Plate Stem	Stainless Steel	AISI 304
18	Diaphragm Stem Guide	Stainless Steel	AISI 303
19	Nut	Brass 1/2" - 2"	ASTM B16
		Steel 2-1/2" - 4"	ASTM A307
20	Lower Diaphragm Case	Cast Iron	ASTM A 126 CL B
		Cast Steel	ASTM A216 Gr WCB
21	Diaphragm Plate	Brass 1/2" - 2"	ASTM B124 (377)
22	Main Diaphragm (2 ply)	C.I. 2-1/2" - 4"	ASTM A126 CL B
		Stainless Steel	ASTM A240
23	Bushing	CRS	AISI 1117
24	Tube & Orifice	Stainless Steel	AISI 304
25	Tubing Assembly	Copper	ASTM B280 (122)
		Brass	ASTM B16
26	Plug (Cast Iron) (Cast Steel)	Brass	ASTM B16
		Steel	ASTM A105
27	Connector Stud	Stainless Steel	AISI 303
28	Body Gasket	1/2" - 2" Copper Clad	Non Asbestos Fill
		2-1/2" - 4" Graphite	

Installation

The valve 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 valve. The trap and regulator should both be protected with a strainer. The pressure sensing line should be located either in the downstream piping, or in the steam space. Complete installation instructions are given in IM-3-000-US.

Air Loading Pilot PA Requires Air Loading as indicated in the following table

Desired Outlet Steam Pressure P2 psig	5	10	25	50	75	100
Inlet Pressure P1 psig	10 psig to 100 psig					
Approximate Air Set Pressure psig	11 to 13.5	16 to 16.8	31 to 33.5	56 to 58	80 to 81	102 to 103

Maintenance

Complete installation and maintenance instructions are given in IM-3-000-US, a copy of which is supplied with each valve. Available spare parts are shown on TI-3-027-US and TI-3-0271-US.