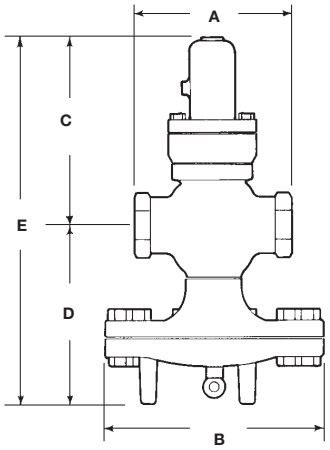
Pressure Regulator with Air Loaded Pilot
1/2" to 4" 25PA

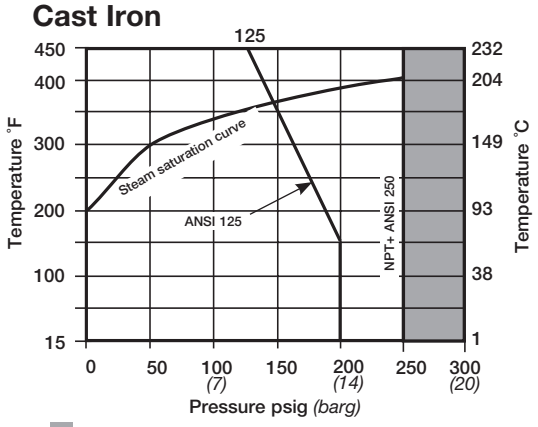
The Pressure Pilot is loaded by an external compressed air supply rather than by a spring. The downstream pressure can be set remotely by adjusting the loading air pressure.

Model	25PA			
Sizes	1/2" to 2"	2-1/2", 3", 4"	1/2" to 2"	2", 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 (excludes 2")

25PA 1/2" to 2"

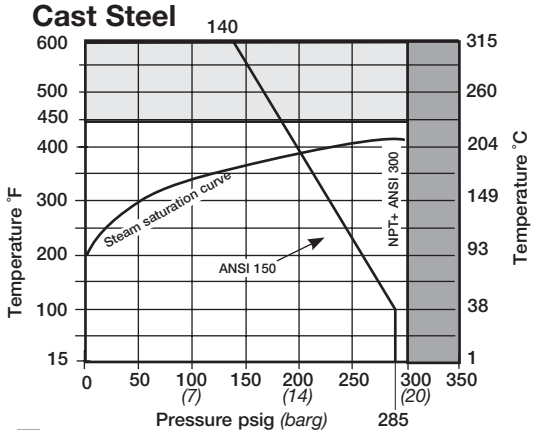


Cast Iron



The product should not be used in shaded area.

Cast Steel



The product should not be used in shaded area.

For operation in this region, stainless steel transmission tubing need be fitted.

Note: Maximum temperature for Stainless Steel tubing is 600°F

Air Pilots

PA direct air load maximum 120 psig air

Downstream Pressure Ranges

For proper selection, see TI-3-030-US

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

Capacities

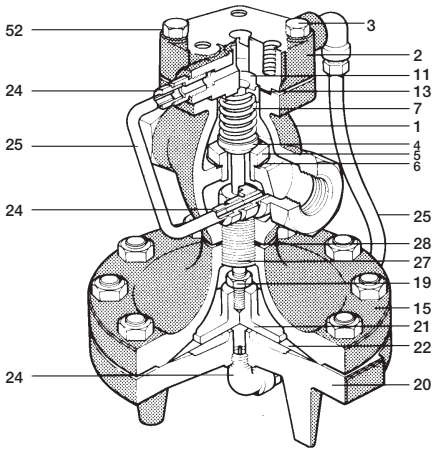
For selection and sizing data, see TI-3-030-US

Dimensions (nominal) in inches*

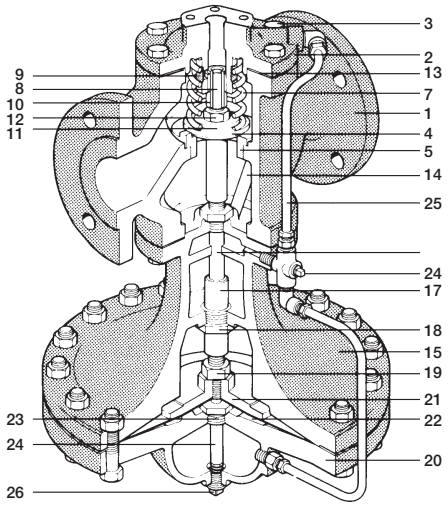
Size	A	A1	A1	B	C	C1	D	E	E1	Weight Cast Iron	Weight Cast Steel
		Ansi 125	Ansi 250 Ansi 300								
1/2", 3/4"	5.5	–	–	7.6	10.1	8.0	6.2	16.3	14.2	32	35
1"	6.0	–	–	8.6	10.1	8.0	6.75	16.9	14.8	39	43
1-1/4", 1-1/2"	7.25	–	–	8.6	10.1	8.0	7.1	17.7	15.6	44	48
2"	8.5	–	9.0	10.6	11.3	9.2	8.2	19.5	17.4	69	75
2-1/2"	–	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.*

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



½" to 2"



2"* to 4" *ANSI 300 ONLY

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	
5	Main Valve Seat	Stainless Steel	
6	Main Valve Seat Gasket	Copper	
7	Valve Return Spring	Stainless Steel	
8	Valve Stem	Stainless Steel	
9	Strainer Screen	Stainless Steel	
10	Valve Stem Sleeve	Stainless Steel	
11	Spring Guide	Cast Iron 1/2"-2"	
		CRS 2"* - 4"	
12	Nut	Steel	
13	Cover Gasket	Graphite	
14	Pressure Equalizer Pipe	Stainless Steel	
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	
17	Diaphragm Plate Stem	Stainless Steel	
18	Diaphragm Stem Guide	Stainless Steel	
19	Nut	Brass 1/2" - 2"	
		Steel 2"* - 4"	
20	Lower Diaphragm Case	Cast Iron	ASTM A 126 CL B
		Cast Steel	ASTM A216 Gr WCB
21	Diaphragm Plate	Brass 1/2" - 2"	
		C.I. 2"* - 4"	
22	Main Diaphragm (2 ply)	Stainless Steel	
23	Bushing	CRS	
24	Tube & Orifice	Stainless Steel	
25	Tubing Assembly	Copper	
		Brass	
26	Plug (Cast Iron)	Brass	
	(Cast Steel)	Steel	
27	Connector Stud	Stainless Steel	
28	Body Gasket	1/2" - 2" Copper Clad	
		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-1-1120-US and TI-3-0271-US.

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