

170 Series

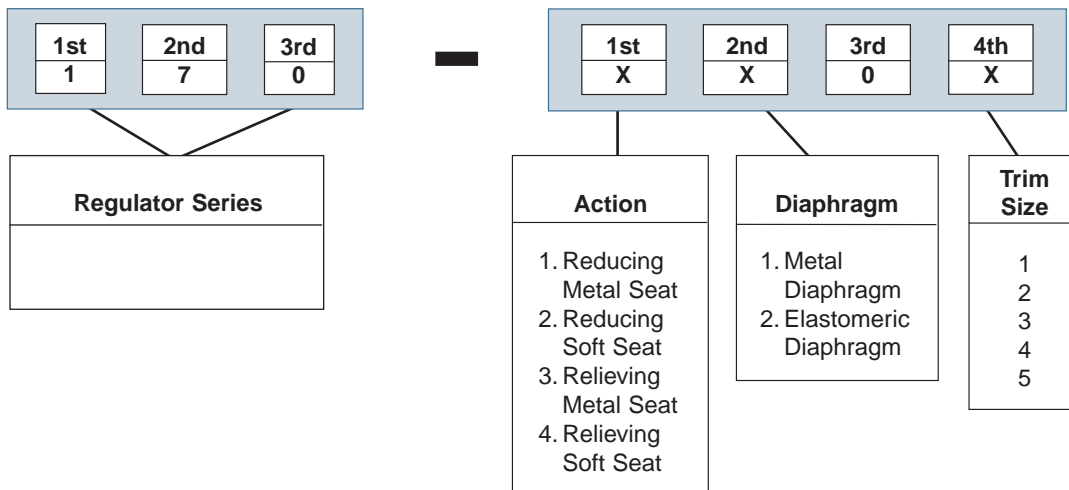
Spring Loaded,
Direct-Operated,
Pressure Reducing Regulator



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Numbering System



170 Series: Reducing – (97/23/EC - PED, 94/9/EC - ATEX)

The 170 Reducing version is a compact, spring loaded, direct-operated, pressure reducing regulator. It is available in 1/4" NPT only and is suitable for most low capacity applications. The regulator is available in cast iron or carbon steel. The design can handle inlet pressures up to 300 psig (20.7 barg).

Features

- Compact design
- In-line maintenance
- Elastomer discs for tight shutoff
- Rugged construction

Specifications

Body

Body Sizes and End Connections

- 1/4" (DN6) NPT or GAS

Maximum Inlet Pressure

- 300 psig (20.7 barg)

Maximum Outlet Pressure

- 261 psig (18 barg)

Set Point Ranges

- 3 to 72.5 psig (0.21 to 5 barg)
- 72.5 to 217 psig (5 to 15 barg)

Temperature Range

- -20° to 392°F (-29° to 200°C)
- see tables 1, 2, 3

Pressure Sensing

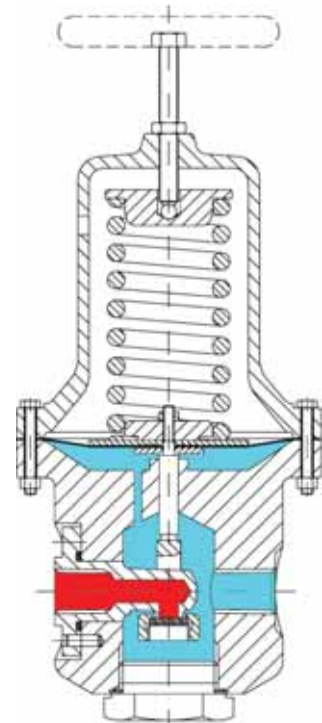
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Capacities

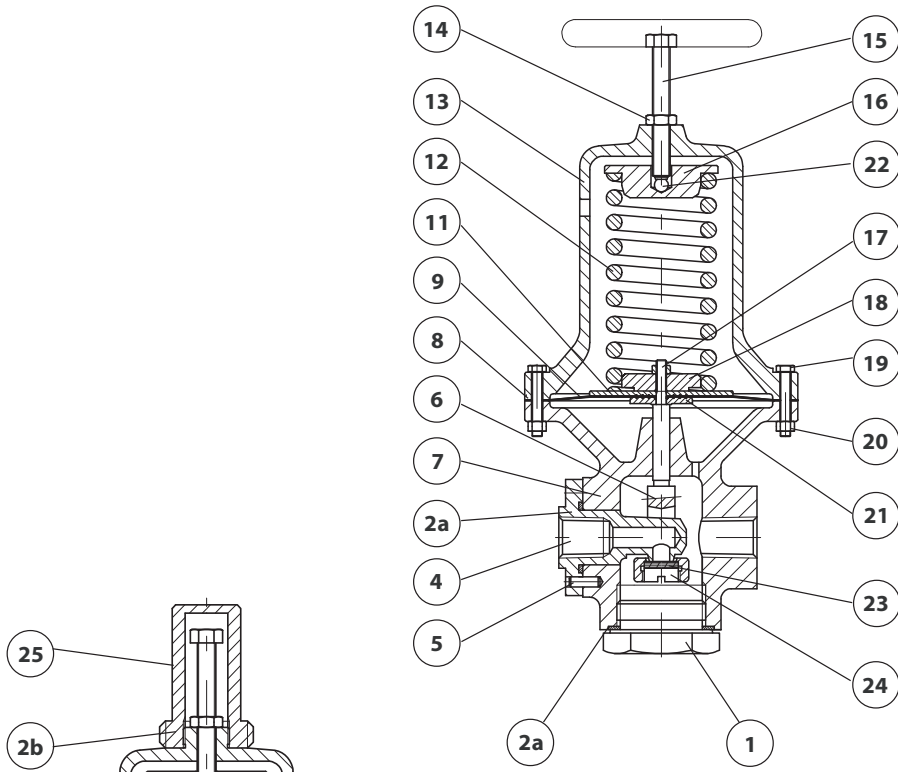
- see table 4

Weight

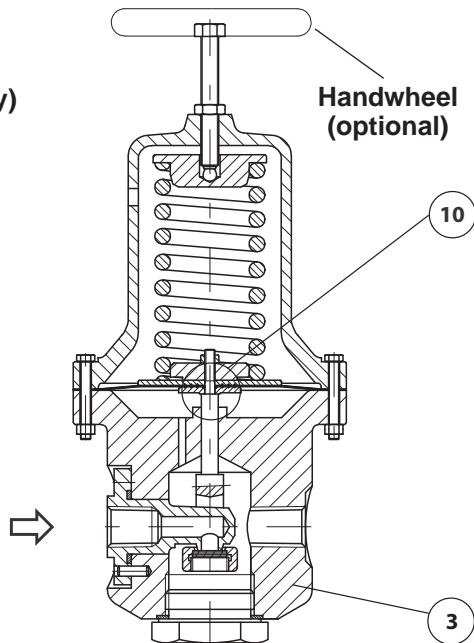
- cast iron: 2.4 lbs (1.1kg)
- carbon steel: 3.3 lbs (1.5 kg)



Materials



**Seal Cap
(Steel Construction Only)**



Materials			
1	Cover	14	Lock Nut
2	Gaskets Set	15	Adjusting Screw
3	L.P. Body	16	Spring Loader
4	H.P. Body	17	Nut
5	Pin	18	Spring Guide
6	Plug	19	Screw
7	Screw	20	Nut
8	Diaphragm	21	Washer
9	Protection	22	Ball
10	O-Ring	23	Disc
11	Diaphragm Plate	24	Plug
12	Spring	25	Cap
13	Spring Cover		

Materials

Table 1 - Standard Material Combinations

Body		
	Cast Iron*	Carbon Steel***
	32° F<T<392° F (0°C<T<200°C)	-20° F<T<392° F (-29° C<T<200° C)
LP Body	Cast Iron	Carbon Steel
HP Body	316 SS	316 SS
Cover	Carbon Steel	Carbon Steel
Studs	Carbon Steel	Carbon Steel
Gasket	P T F E	P T F E
Trim		
Disc	FKM* - Air, Gas, Liquids 316 St.St.** - Steam Service	FKM* - Air, Gas, Liquids 316 St.St.** - Steam Service
Plug Stem	316 SS	316 SS
Guide Bushing	303 SS	303 SS
Actuator		
Spring Casing	Cast Iron	Carbon Steel
Spring	CrV Steel	CrV Steel
Diaphragm	Chloroprene (CR)* Air, Gas, Liquids Ethylene-Propylene (EPDM + PTFE)** - Steam Service	

Table 2 - Temperature Ranges for Disc Elastomers

Fluoroelastomer (FKM)*	14 to 392°F (-10 to 200°C)
Polytetrafluoroethylene (PTFE)***	-4 to 320°F (-20 to 160°C)
316 SS**	-4 to 392°F (-20 to 200°C)

Table 3 - Temperature Ranges for Diaphragms

Chloroprene (CR)*	-4 to 194°F (-20 to 90° C)
Ethylene-Propylene (EPDM+PTFE)**	-20 to 320°F (-29 to 160° C)
316 SS***	-20 to 392°F (-29 to 200° C)

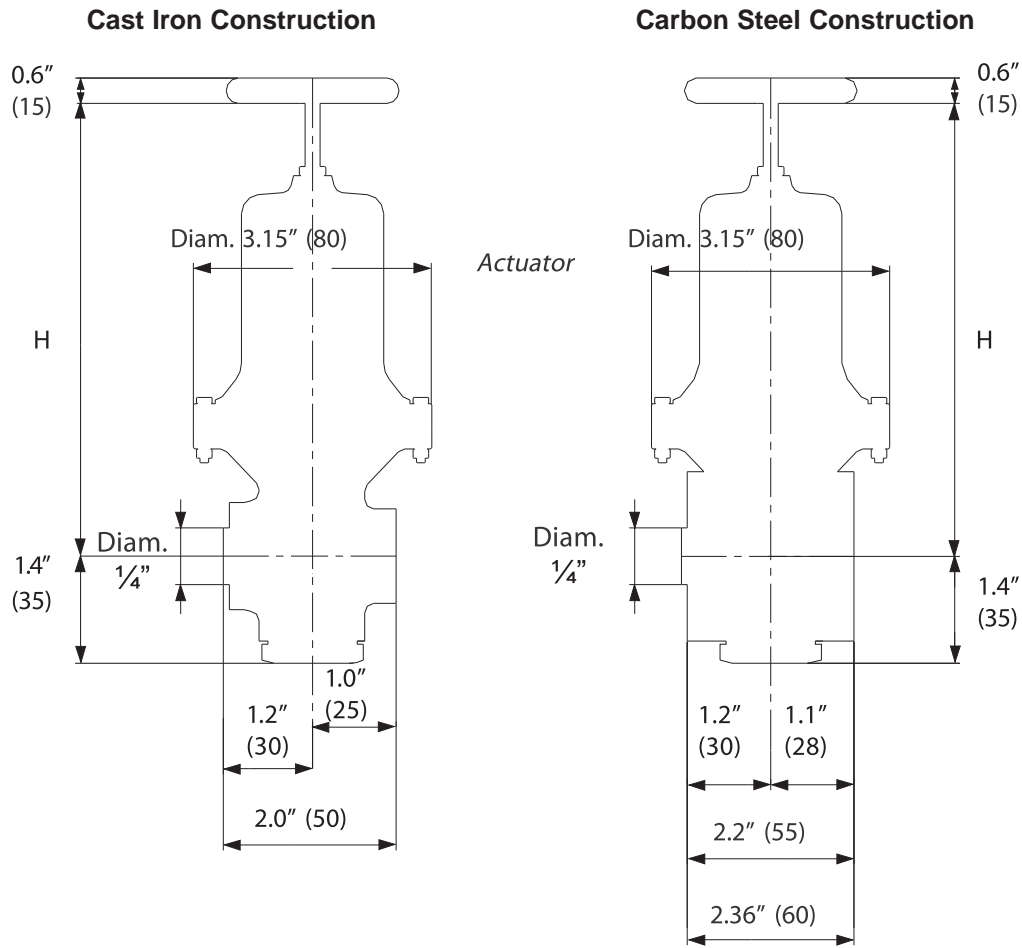
Table 4 - Rated Cv

Trim Number	Elastomer Diaphragm	Metal Diaphragm
1	0.033	0.033
2	0.13	0.13
3	0.28	0.22
4	0.5	0.25
5	0.8	0.38

Configurations/Material Availability

*	Standard - Except Steam Service
**	Steam Service
***	Non Standard - Manufactured on Request

Dimensions



Dimensions: Inches (Millimeters)		
H	Set Pressure	
	< 72.5 psig (5 barg)	> 72.5 psig (5 barg)
	6.90" (175mm)	9.85" (250mm)

170 Series: Relieving – (97/23/EC - PED, 94/9/EC - ATEX)

The 170 Relieving version is a compact spring loaded, direct-operated, pressure relief valve. Its typical application is to provide downstream protection for pneumatic and electropneumatic systems. Available in 1/4" NPT only, the design can handle inlet pressures up to 261 psig (18 barg).

Features

- Compact design
- In-line maintenance
- Elastomer discs for tight shutoff



Specifications

Body

Body Sizes and End Connections

- 1/4" (DN6) NPT or GAS

Maximum Inlet Pressure

- 261 psig (18 barg)

Set Point Ranges

- 3 to 72.5 psig (0.21 to 5 barg)
- 72.5 to 217 psig (5 to 15 barg)

Temperature Range

- -20° to 392°F (-29° to 200°C)
- see tables 2, 3, 4

Pressure Sensing

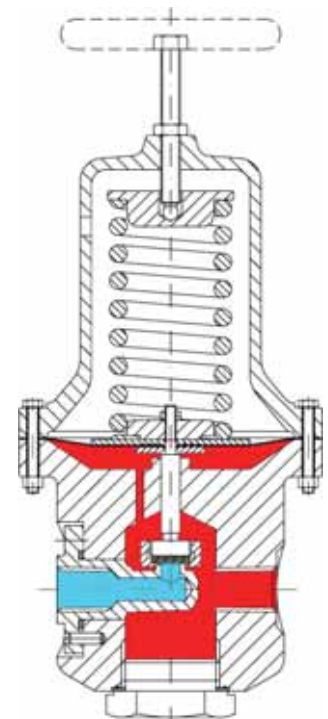
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Capacities

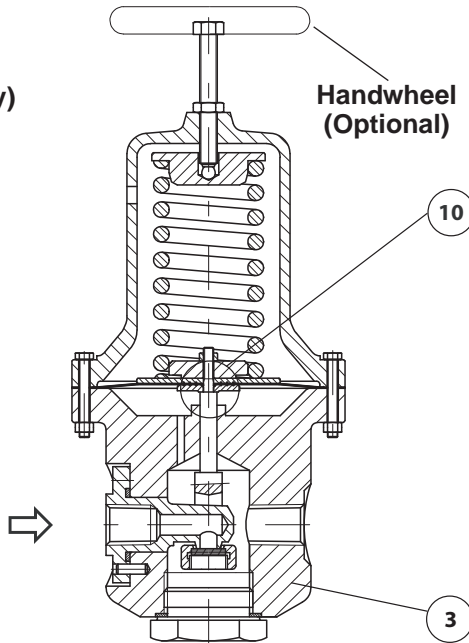
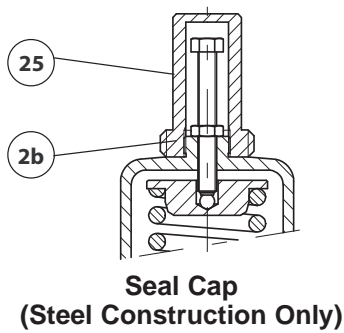
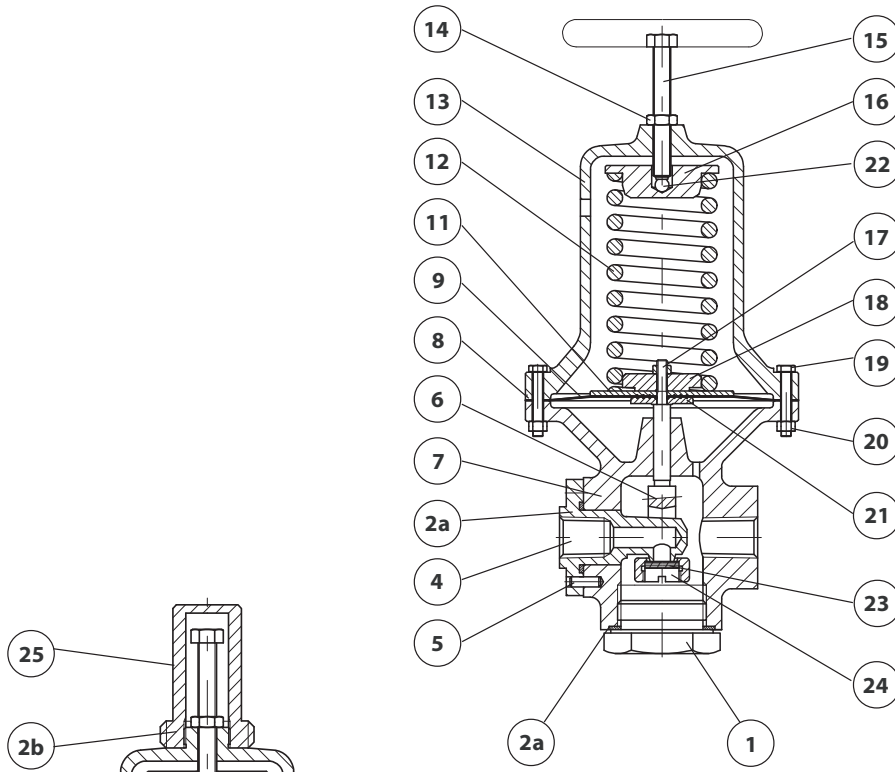
- see table 5

Weight

- cast iron: 2.4 lbs (1.1kg)



Materials



Materials			
1	Cover	14	Lock Nut
2	Gaskets Set	15	Adjusting Screw
3	L.P. Body	16	Spring Loader
4	H.P. Body	17	Nut
5	Pin	18	Spring Guide
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11	Diaphragm Plate	24	Plug
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13	Spring Cover		

Materials

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Body		
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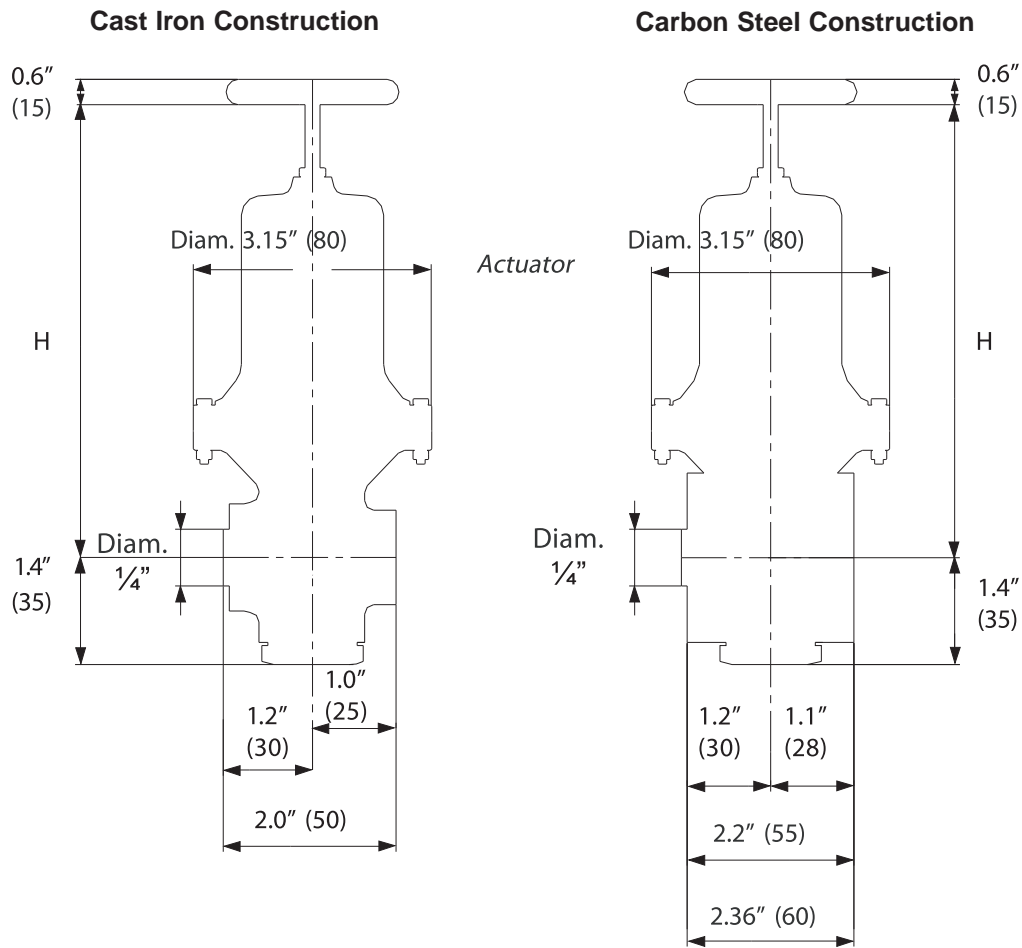
Table 4 - Wide Open Capabilities

Trim Number	Elastomer Diaphragm	Metal Diaphragm
1	0.033	0.033
2	0.13	0.13
3	0.28	0.22
4	0.5	0.25
5	0.8	0.38

Configurations/Material Availability

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Dimensions



Dimensions: Inches (Millimeters)		
H	Set Pressure	
	< 72.5 psig (5 barg)	> 72.5 psig (5 barg)
	6.90" (175mm)	9.85" (250mm)

Notes

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Fax: 281-884-1010

(Contractor Sales)
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Leading brand names within the Dresser portfolio include Dresser Wayne® retail fueling systems, Waukesha® natural gas-fired engines, Masoneilan® control valves, Mooney® regulators, Consolidated® pressure relief valves, and Roots® blowers and rotary gas meters. It has manufacturing and customer service facilities located strategically worldwide and a sales presence in more than 100 countries. The company's website can be accessed at www.dresser.com.

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Dresser Masoneilan

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