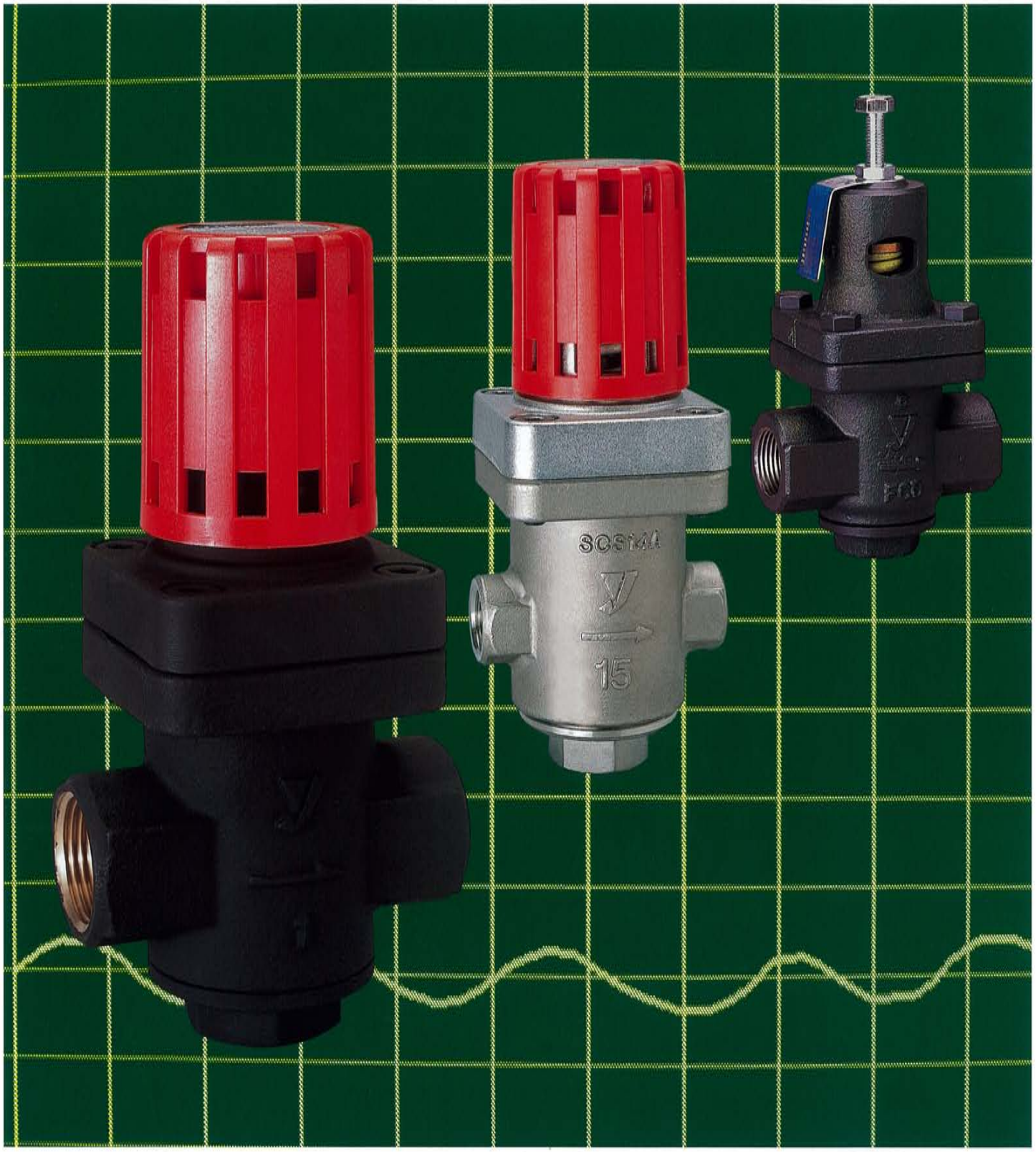
You can believe in.

Pressure Reducing Valve

GD-30 Series

GD-30・GD-30S・GD-45

ISO 14001 9001



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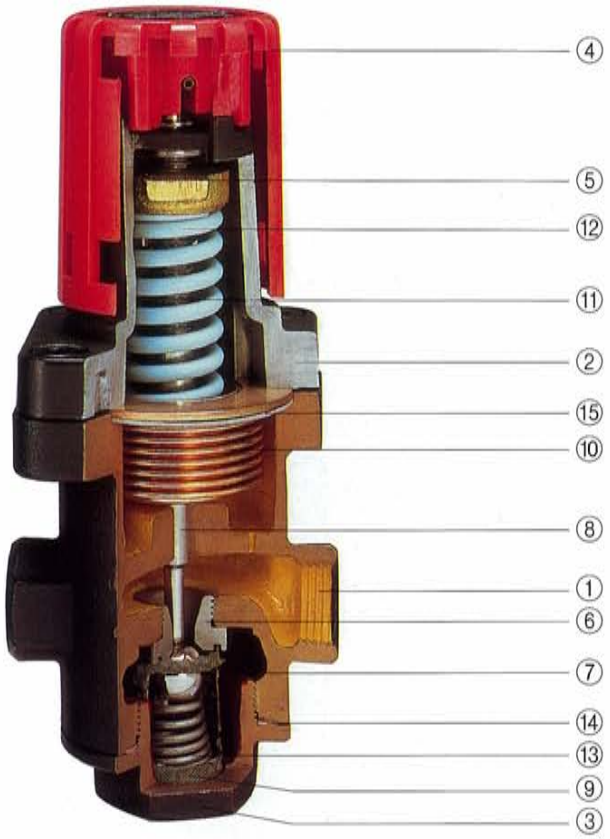
Different body materials cover all the requirements.



① Body ② Spring housing ③ Cap ④ Handle ⑤ Spring seat
⑥ Valve seat ⑦ valve ⑧ Spindle ⑨ Screen ⑩ Bellows
⑪ Adjusting screw ⑫ Spring ⑬ Main valve spring
⑭ Cap gasket ⑮ Bellows gasket

Consumable parts are written in red color.

Description of Operation

When the adjusting screw ⑪ connected to the handle ④ applies pressure to the spring ⑫, the bellows ⑩ are extended and the spindle ⑧ opens the valve.
When the valve opens, the steam flowing to the outlet side passes through the reduced pressure detection hole, and becomes an upwardly directed pressure under the bellows and balances the force of the spring ⑫. The degree of valve opening is adjusted by the balancing of inlet and reduced pressures, thereby stabilizing reduced pressure.

Type	Spring color	Setting pressure range
A	Yellow	0.02~0.1MPa {0.2~ 1kgf/cm²G}
B	Blue	0.05~0.4MPa {0.5~ 4kgf/cm²G}
C	Yellow-green	0.35~1 MPa {3.5~10kgf/cm²G}

The color-coded spring can be changed to obtain the 3 setting pressure ranges shown above.

Multi-function, ultra-light and economical pressure reducing valve.

The compact, ultra-light GD-30 Series direct-acting type pressure reducing valve features a stainless steel valve and valve seat, and a bellows sensor with pressure on the outside for high durability. The valve is well suited for a wide range of applications, including kitchen systems, cleaning machines, food processing equipment, sterilizers, air conditioning equipments, etc.

Features

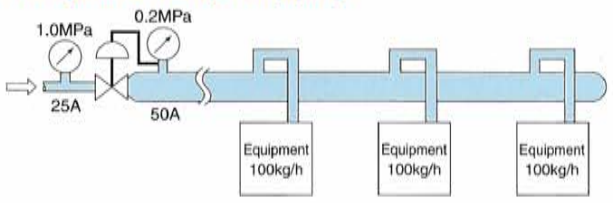
- Compact, ultra-light, with an advanced design.
- Simple, highly-durable construction for easy maintenance.
- Screwed connection for easy installation.
- A stainless steel valve and valve seat provide superior wear resistance and durability.
- A built-in 60-mesh screen protects the valve and valve seat from foreign matter, etc.
- A bellows sensor with pressure external is used to insure increased performance and durability.

Adjustment Procedure for GD-30/30S

Lift up the handle and remove the Spring housing ②.
Then turing the handle in the direction of the (+) symbol on the name plate raises reduced pressure.
The handles goes back down when your hand is released and locks in positions that are spaced 45° apart.

Measures to conserve energy

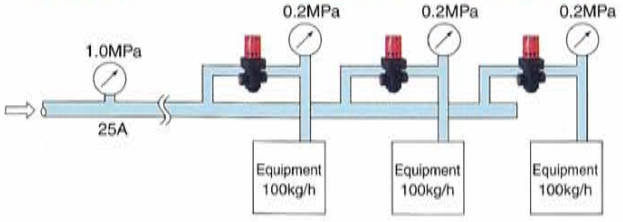
〈The general example of piping〉



〈Energy-Saving Strategy〉

Supply of high-pressure steam

Pressure reduction in front of equipment



Advantages

- Downsizing of transportation pipe line reduces heat release and initial cost.
- Stabilization of steam supply obtains by decompression in front of equipment.
- Lowering the effect on operation at the time of troubles.

GD-30

Bronze

GD-30S

Stainless Steel

GD-45

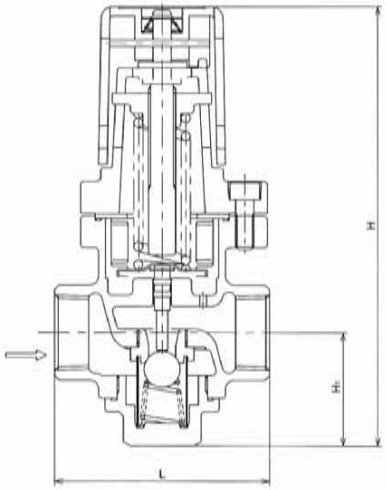
Ductile Cast Iron

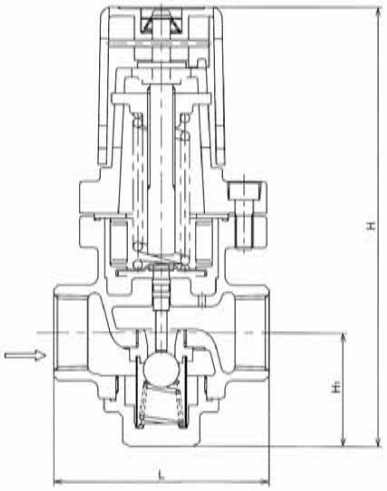
Specifications

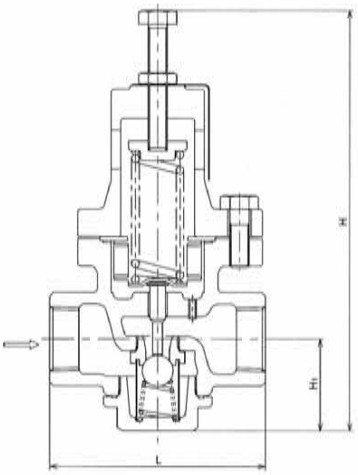
Model		GD-30	GD-30S	GD-45
Application		Steam, Air	Steam	
Inlet Pressure		1.7MPa {17kgf/cm²G} or less	2.0MPa {20kgf/cm²G} or less	
Reduced Pressure		0.02~0.1MPa {0.2~1kgf/cm²G}		
		0.05~0.4MPa {0.5~4kgf/cm²G}		
		0.35~1.0MPa {3.5~10kgf/cm²G}		
Min. Differential Pressure		0.05MPa {0.5kgf/cm²}		
Max. Temperature		210℃	220℃	220℃
Material	Body	Bronze	Stainless Steel	Ductile Cast Iron
	Valve・Valve seat	Stainless Steel		
	Bellows	Phosphor Bronze	Stainless Steel	Phosphor Bronze
Connection		JIS Rc (PT Screwed)		

- Max. pressure reduction ratio 10 : 1
- Valve seat leakage : 0.1% or less of rated flow.

Dimensions & Weights

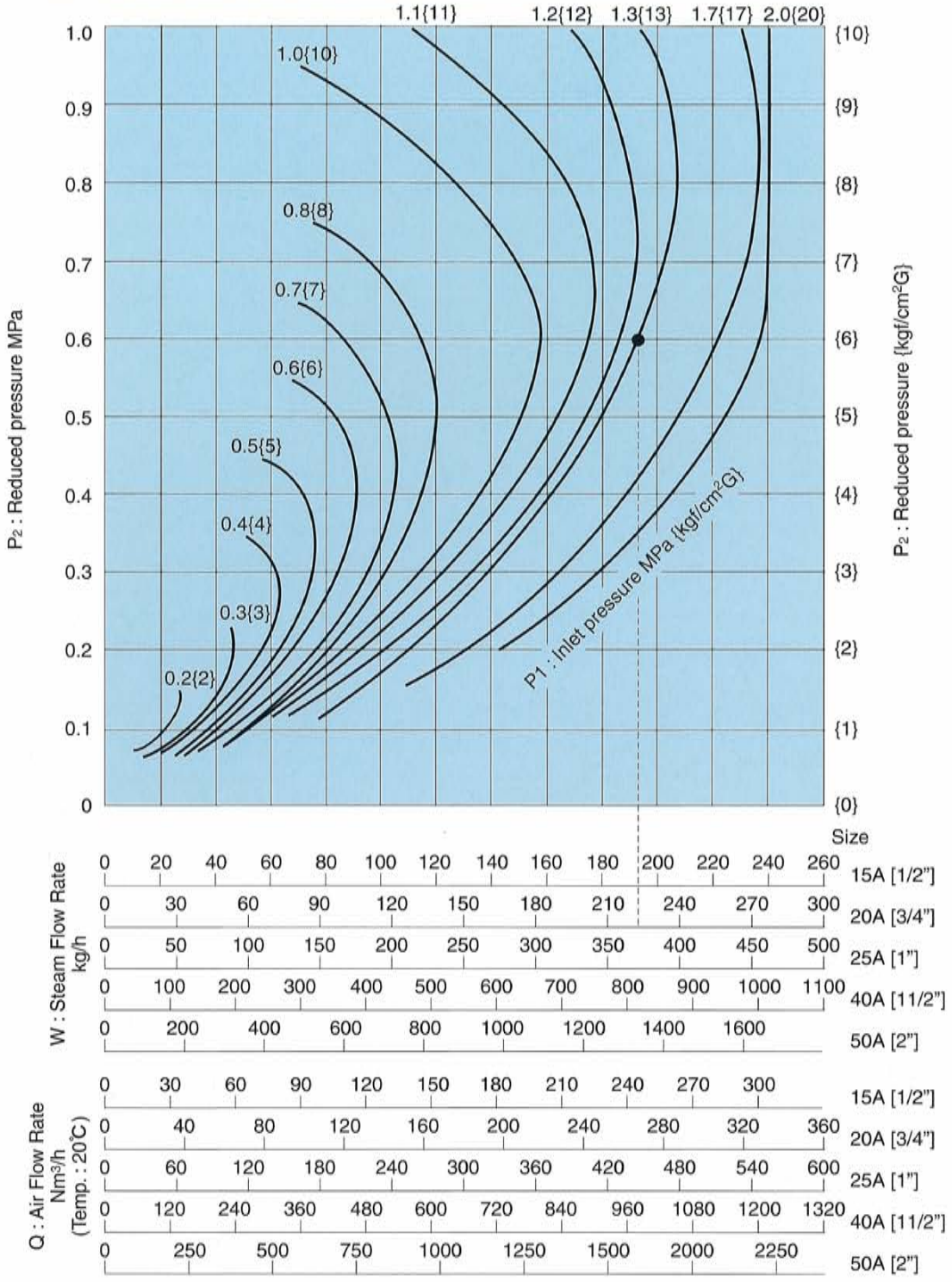






Model		GD-30				GD-30S				GD-45			
Nominal Size	d	L (mm)	H (mm)	H1 (mm)	Weight (kg)	L (mm)	H (mm)	H1 (mm)	Weight (kg)	L (mm)	H (mm)	H1 (mm)	Weight (kg)
15A	Rc 1/2	80	191	47	1.9	80	196	50.5	1.9	111	216	47	3.2
20A	Rc 3/4	85	191	47	1.9	85	196	50.5	1.9	111	216	47	3.2
25A	Rc 1	95	191	47	2.0	95	196	50.5	2.0	111	216	47	3.2
40A	Rc 1 1/2	140	307	77	10.1								
50A	Rc 2	150	307	77	10.4								

Nominal Size Selection Chart



Example

Under the following operating conditions, the appropriate nominal size would be determined as described below.

- Inlet pressure (P_1) : 1.3MPa {13kgf/cm²G}
- Reduced pressure (P_2) : 0.6MPa {6kgf/cm²G}
- Flow Rate : 200kg/h

First, find the point where the inlet and reduced pressures intersect. Next, draw a line straight down from that point to the nominal size scale where a flow rate of 200kg/h or more is indicated. The appropriate nominal size is indicated at the right side of the flow rate scale. For the above example, a nominal size of 20A should be selected.

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