DUCTILE IRON

DIAPHRAGM TYPE PRESSURE REDUCING VALVE

INTRODUCTION

Leader Diaphragm Type Pressure Reducing Valves automatically reduces a higher inlet pressure to a steady lower downstream pressure, regardless of changing flow rate and/or varying inlet pressure. This valve is an accurate, diaphragm regulator capable of holding downstream pressure to a pre-determined limit. No matter how the flow rate or pressure before the valve fluctuates and changes the valve can reduce the pre-valve high pressure to the post-valve low pressure and keep it stable, even if the valve does not have user water. It can keep the outlet pressure stable.

PRINCIPAL FEATURES

- Body made of sturdy construction in Ductile Iron.
- SS304 internals offers long life.
- Designed to suite precise application requiring accurate pressure rating, pressure drop being less.
- Top & bottom guided stem and diaphragm assembly for long life and reliable performance.
- Preferred horizontal installation for better performance, can be installed in vertical position.
- Performs perfect modulation in variable flows.
- No external source of energy required.
- Very rugged type of construction leads to low damages and self operating in nature.

END CONNECTION

Flanges as per DIN 2533 PN -16 (R.F.), Drilled

UTILISATION & SERVICE

"LEADER" Ductile Iron Pressure Reducing Valves are suitable for above-ground installations.
Best suited for Water application.

WORKING PRESSURE & TEMPERATURE LIMITS

Maximum Working Pressure: 16 Bar.
Set Pressure range 3 to 12 Bar (Hyd.)
Maximum Working temperature: 80°C.
See Flow Rate Chart

Item Code:	DI0060
Pressure Rating:	PN-16
Testing Standard:	Mfg.Standard
Size Range:	65mm to 300mm
Product Standard:	Mfg.Standard

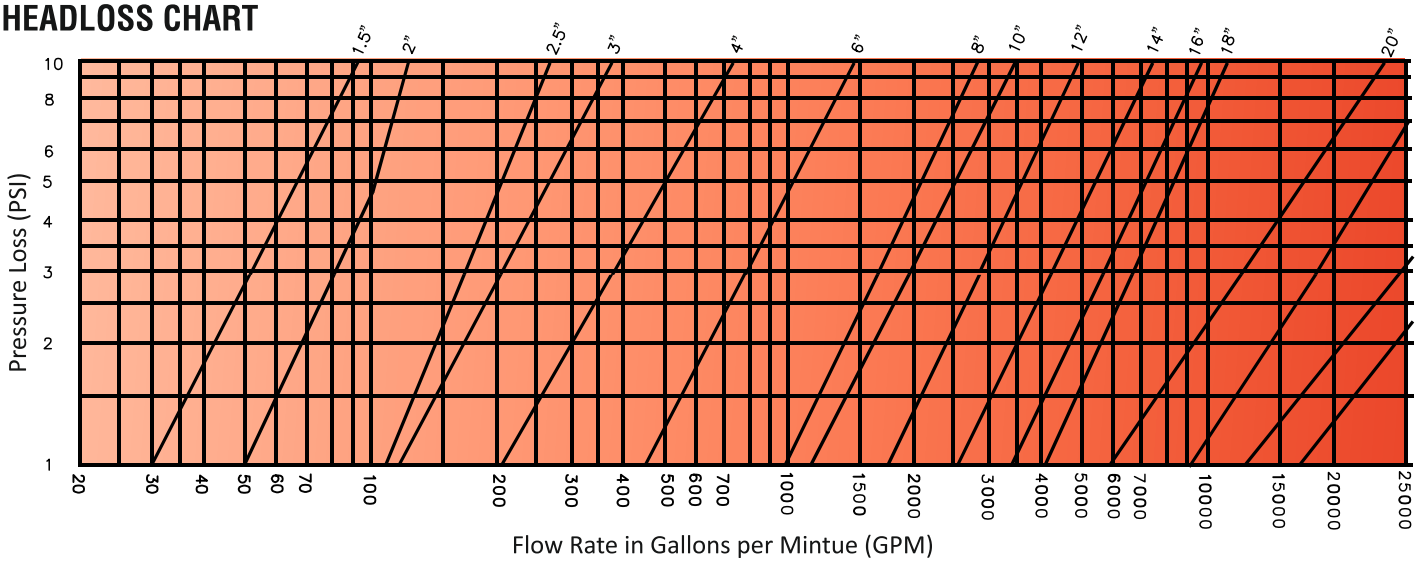
SUITABLE FOR

Water	Oil	Air	Gases	Steam
✓		✓		

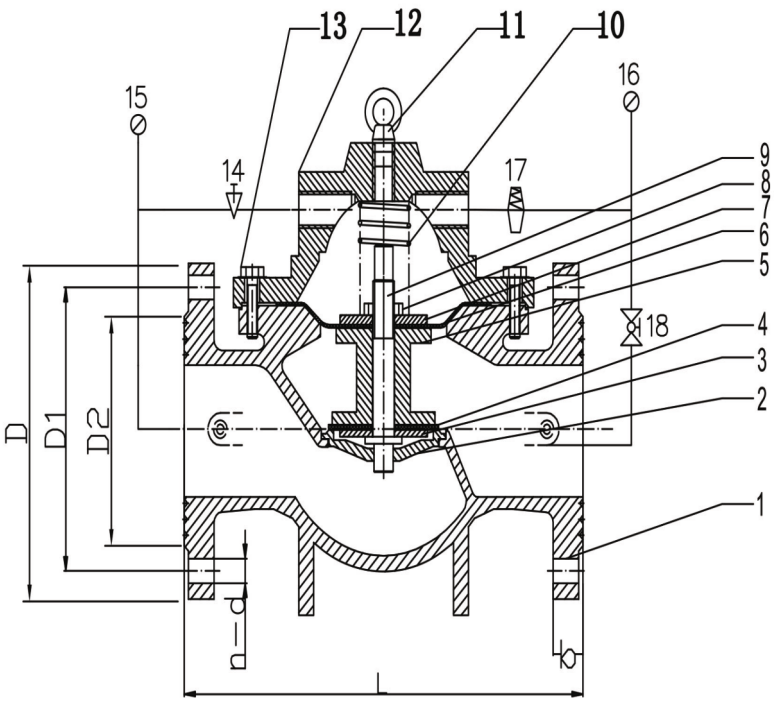
TEST PRESSURE (Hydrostatic)

Rating	PN-16
Body (Hyd.)	24 Bar

HEADLOSS CHART



Note : The above data is subject to change without notice due to our continuing product improvement program.



MATERIAL SPECIFICATION

P.No.	NAME OF PART	MATERIAL
1	BODY	DUCTILE IRON
2	SEAT	BRASS
3	PLATEN	CARBON STEEL
4	SEAL	EPDM
5	DISC	DUCTILE IRON
6	DIAPHRAGM	EPDM
7	PLATEN	CARBON STEEL
8	NUT	STAINLESS STEEL 316
9	STEM	STAINLESS STEEL 316
10	SPRING	STAINLEES STEEL 304
11	EYE BOLT	CARBON STEEL
12	BONNET	DUCTILE IRON
13	BOLTS	STAINLESS STEEL 316
14	NEEDLE VALVE	STAINLESS STEEL 304
15	PRESSURE GAUGE	
16	PRESSURE GAUGE	
17	PILOT VALVE	STAINLESS STEEL 304
18	BALL VALVE	STAINLESS STEEL 304

DIMENSIONAL DATA CLASS

Size (mm)	65	80	100	125	150	200	250	300
L	247	285	325	337	400	458	506	585
D	180	195	215	246	280	337	405	445
D1	145	160	180	210	240	295	355	410
D2	118	135	154	183	205	260	320	366
b	20	20	21	23	23	25	25	28
n-d	4-19	8-19	8-19	8-19	8-23	12-23	12-28	12-28

Cv Value

Size (mm)	40	50	65	80	100	150	200	250	300
Gal/Min.	29	48	110	110	205	462	980	1165	1234
Liter/Sec	1.83	2.96	6.94	6.94	12.93	29.15	61.8	73.5	103.34

Flow Criteria

Size (mm)	50	65	80	100	150	200	250	300
Max. (Liter/ Sec)	13	19	29	50	113	195	309	442
Min. (Liter/Sec)	0.06	0.09	0.13	0.25	0.63	0.95	2.2	3.2

Operation manual of pressure reducing valve

1. Application: This valve be usually used in life system, industry system, especially in firefighting system

2.Working Principle: When the outlet pressure is lower than the set value, the guide valve opens, and the pressure water in the control room above the diaphragm will be discharged (the discharge speed is faster than the inlet filling speed). The main valve seal linkage moves up slightly, so that the outlet pressure will increases to the set value. When the outlet pressure is higher than the set value, the guide valve closes, the pressure water in the control room above the diaphragm acts on the diaphragm downward, and the main valve seal linkage moves downward slightly, so that the outlet pressure decreases to the set value.

3.Testing step:

1) Close the globe valve before the in let, open the globe valve behind the outlet, the out let bein the low pressure.
2) Turn the lever of pilot valve to the top position.(To make the outlet in lowest pressure)
3) Open the globe valve before the inlet to full open slightly.
4) Turn the lever of pilot slightly, so the outlet pressure gradually increase, lock the rod until the outlet pressure reach to the set value.
5) If the adjustment is excessive, please operate again from step 1. But make sure that the adjustment just can be from low pressure to high pressure.
6) If the “shock”happened during adjustment or using, please adjust the needle valve, to reduce the opening frequency of main valve to eliminate “shock”

4.Installing attention:

1) Please clean the pipe and impurity before using.
2) The globe valve and Strainers must be installed before pressure reducing valve, and clean and clear every half or one year.
3) Please pay more attention on the flow direction.

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