

Figures 4500-D, 4500-U Pressure Reducing Valves

Description

GA Industries Figures 4500-D and 4500-U self-contained, pilot-operated, differential piston actuated pressure reducing valves reduce a higher, fluctuating inlet pressure to a lower, steady downstream pressure regardless of variations in demand.

The valve's unique V-port trim provides a semi-linear flow characteristic for excellent control during periods of minimum demand plus full port capacity to handle peak demand such as fire flow.

Product Features

- Heavy duty cast iron body with lead-free bronze internals for long term dependable service
- V-port trim provides excellent low flow control plus full port capacity
- Standard visual position indicator
- Pilot system standard with closing speed needle valve, wye strainer and pilot isolating valves

Standard Materials

- Body Cast Iron, ASTM A126 Class B
- Cover Steel, ASTM A36
- Internal Trim Lead-free Bronze
- Renewable Seat Buna-N
- Internal Fasteners Stainless Steel
- External Fasteners Steel, A307, Zinc Plated
- Pilot System Lead Free Brass, Bronze or Copper

Corrosion Protection

- Standard: Internal and External Carboline 891 NSF-61 Certified Epoxy, min 6 mil DFT

See Option P2 for upgraded corrosion protection package

Options

- Option P2: Minimum 6 mil Internal and External 2-Part NSF-61 Carboline 891 Epoxy and 316 SS External Fasteners
- Option 1S With Honeywell HDLS NEMA 1, 3, 4, 4X, 6, 6P, 12 & 13 SPDT Limit Switch
- Option G1 Outlet Pressure Gauge
- Option G2 Inlet and Outlet Pressure Gauges

Ordering Data

- Figure Number (4500-D or 4500-U)
- Size
- Options and/or Accessories



Non-Shock Working Water Pressure Up to 125F (52C)			
Figure No.	4500-D		4500-U
Flanges	ANSI B16.1 Class 125		ANSI B16.1 Class 250
Size	3" – 12"	14" to 20"	3" – 20"
Max Inlet Pressure	200 PSI	150 PSI	300 PSI
Hydro Test	300 PSI	225 PSI	450 PSI

Variations

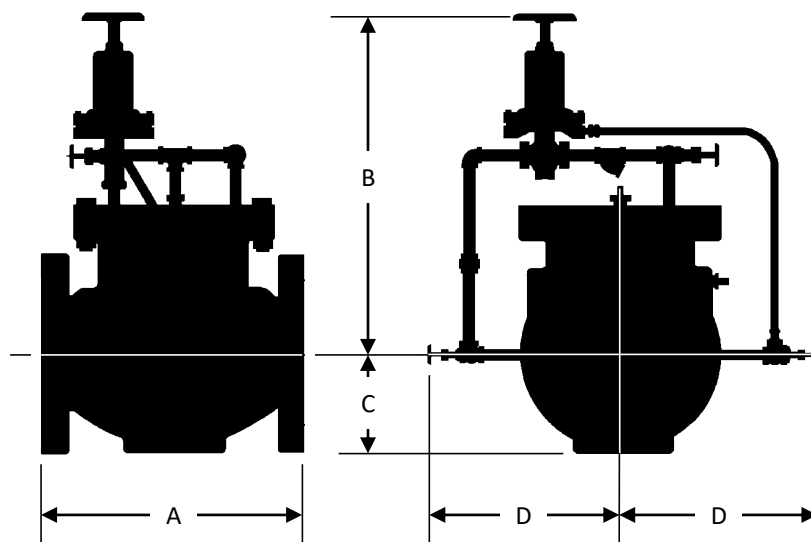
- With Check Feature – See Data Sheet 4900.01
- With Solenoid Shutoff Feature – See Data Sheet 4050.01
- With Sustaining Feature – See Data Sheet 4700.01

Data Sheet 4500.01B

Sizing Guidelines

Valve Size	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"
Flow Coefficient (C _v)	130	205	447	831	1,175	1,750	2,500	3,264	4,131	5,100
Recommended Maximum Continuous Flow, USGPM	450	800	1,750	3,100	5,000	7,000	9,600	12,500	16,000	19,500
Recommended Maximum Intermittent Flow, USGPM	565	1,000	2,200	3,875	6,250	8,750	12,000	15,600	20,000	24,000
Recommended Minimum Continuous Flow, USGPM	25	40	90	150	250	350	450	600	800	1,000

- Recommended maximum continuous flow based on approximate 20 ft/sec nominal inlet velocity. Maximum intermittent flow is 25 ft/sec nominal inlet velocity.
- Use formula $Q = C_v (\Delta P)^{1/2}$ (where Q = required flow rate and ΔP is inlet pressure minus reduced pressure) but do not exceed the above recommended maximum flow rates.
- Standard Figure 4500-D or 4500-U reduced pressure cannot be higher than 85% of minimum inlet pressure. Consult factory if reduced pressure could be higher than 85% of minimum inlet pressure.



Installation Dimensions

	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"
A	12	13	18	24½	26	31	33	36	40	40
B	24	24	25	27	30	30	39	41	45	45
C	4¼	5¼	6½	8¼	9¼	13	12¼	17	17	21
D	9	10	12	14	18	19	20	21	23	23
WGT	160	200	350	700	1,200	1,500	1,700	2,300	3,600	3,800

- Face to face same for both Class 125 and Class 250 flanged valves, Class 250 supplied with flat face
- Dimensions are in inches, weight in pounds and are approximate. Consult factory if critical.
- Angle body valves available, consult factory for dimensions
- 24" and larger valves available, consult factory