



GP SERIES

GP SERIES REDUCING VALVE

SIZES 1/2" - 4"²

PRESSURES to 600 PSIG at 600°F

- **Steam, Air or Gas Service**
- **95% Accuracy of Regulation****
- **100:1 Rangeability³**
- **Packless Construction**
- **Exclusive Spiroflex® Diaphragm for Smooth Operation**
- **3 Year Warranty⁴**
- **Air Loaded**
 - **Operates on As Little As 1/2 PSI Pressure Drop**
 - **Few Moving Parts Require Minimal Maintenance**

APPLICATION DATA

- HVAC Systems
- Process Control Systems for Food, Molding, Textile, Pulp, etc.
- Packaged OEM Systems for Heat Exchangers, Metal Cleaning, Vaporizers, etc.

VALVE RATINGS

Valve Ends ASME/ANSI	Pressure PSIG (bar)	Temperature °F (°C)
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CAST IRON

B16.1 Class 250 NPT	250 (17.2)	@ 450 (232) ¹
B16.1 Class 125 Flanged	125 (8.6)	@ 450 (232) ¹
B16.1 Class 250 Flanged	250 (17.2)	@ 450 (232) ¹

BRONZE

B16.1 Class 300 NPT/SWE	300 (21.0)	@ 550 (288) ¹
B16.1 Class 150 Flanged	150 (10.3)	@ 550 (288) ¹
B16.1 Class 300 Flanged	300 (21.0)	@ 550 (288) ¹

CAST STEEL

B16.34 Class 300 NPT	300 (21.0)	@ 600 (316) ¹
B16.34 Class 150 Flanged	150 (10.3)	@ 600 (316) ¹
B16.34 Class 300 Flanged	300 (21.0)	@ 600 (316) ¹
B16.34 Class 600 Flanged	600 (41.4)	@ 600 (316) ¹

STAINLESS STEEL

A217 Class 300 NPT/SWE	300(21.0)	@ 600 (316) ¹
A217 Class 150 Flanged	150 (10.3)	@ 600 (316) ¹
A217 Class 300 Flanged	300 (21.0)	@ 600 (316) ¹
A217 Class 600 Flanged	600 (41.4)	@ 600 (316) ¹

DUCTILE IRON

A395 Class 300 NPT	250 (17.2)	@ 450 (232)
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MODELS

- **GPK**—Air Loaded, Cast Iron, ANSI 250, Steam Service
- **GPB**—Air Loaded, Bronze, ANSI 300, Steam Service
- **GPS-1**—Air Loaded, Cast Steel, ANSI 300, Steam Service
- **GPSS-1**—Air Loaded, SS, ANSI 300, Steam Service
- **GPS**—Air Loaded, Cast Steel, ANSI 600, Steam Service
- **GPAK**—Air Loaded, Cast Iron, ANSI 250, Gas Service
- **GPAB**—Air Loaded, Bronze, ANSI 300, Gas Service
- **GPHS**—Air Loaded, Cast Steel, ANSI 600, Steam Service, Cage Trim
- **GPD**—Air Loaded, Ductile Iron, ANSI 300, Steam Service

OPTIONS

- SS Trim with Stellite®
- Teflon® Diaphragm for Rapid Cycling on all air loaded except gas service or ANSI 600 "T"
- Vacuum Breaker and Stem Seal "V"

RATED FLOW COEFFICIENTS (Cv)

		REGULATOR SIZE								
		1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
STEAM	Std ⁵	3.65	6.08	10.9	15.0	21.3	25.1	35.8	55.8	74.3
	Ext ⁶	5.67	10.0	15.7	21.9	29.1	29.1	65.7	84.6	103.0
GAS	Std ⁵	3.4	5.6	11.7	17	28	30	45	64	90
	Ext ⁶	5.3	9.2	16.9	24.8	38.3	41	82.6	97	124.8

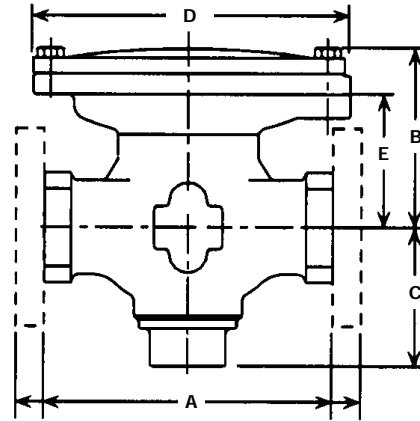
*For Air Loading Requirements
see Page 38*

*For GP Series Capacity Tables
see Pages 35, 36 & 41*

1. Units with "A" in model code limited to 180°F (82°C)
2. Ductile Iron 1/2"-3/4" only
3. Except GPS-1EP (rangeability is 30:1)
4. Except "T" Series which is 1 year warranty
5. 95% accuracy (2 psi min. droop)
6. 90% accuracy (3 1/2 psi min. droop)
7. 1/2" - 2" size Stainless Steel Trim with resilient seat insert, Class VI shutoff. 2 1/2" - 4" Stainless Steel Trim with Stellite Hardfacing Class IV shutoff.

GP SERIES REDUCING VALVE SPECIFICATIONS

Valve shall be single stage, air operated with 100:1 rangeability. Valve body shall be (cast iron, bronze, cast steel or stainless steel) and shall be renewable without removal from line. Seat ring shall be hardened stainless steel with (fluorocarbon insert or stellite). Diaphragm shall be (multiple leaf stainless steel rated for full travel or Teflon® composite). Valve shall have no stuffing box. Valve shall be warranted for three years.



MATERIALS OF CONSTRUCTION

Body, Cast IronASTM A126 Cl. B
Body, Cast Bronze.....ASTM B61 UNS C92200
Body, Cast SteelASTM A216 WCB
Body, Stainless Steel316 SS ASTM A351 CF8M
Trim, std. Steam¹SS w/Resilient Insert
std. GasBuna-n
opt. SteamSS w/Stellite®
Diaphragm, std.Spiroflex®
opt.Teflon® (Superflex)

STANDARD SEAT VALVE WEIGHTS* pounds (kg)

SIZE	CI, Brz BODY				CS, SS BODY		
	NPT	125	250	300	NPT/SWE	150	300
1/2 (15)	34 (15)	—	—	40 (18)	38 (17)	—	—
3/4 (20)	35 (16)	—	—	41 (19)	39 (18)	—	—
1 (25)	36 (16)	—	—	43 (20)	40 (18)	48 (22)	48 (22)
1 1/4 (32)	42 (19)	—	—	50 (23)	—	—	—
1 1/2 (40)	66 (30)	—	74 (34)	75 (34)	70 (32)	80 (36)	80 (36)
2 (50)	78 (35)	87 (39)	87 (40)	87 (39)	83 (37.6)	95 (43)	95 (43)
2 1/2 (65)	—	195 (88)	195 (88)	195 (88)	—	—	—
3 (80)	—	252 (114)	252 (114)	252 (114)	—	267 (121)	267 (121)
4 (100)	—	295 (134)	295 (134)	295 (134)	—	335 (152)	335 (152)

VALVE DIMENSIONS inches (mm)

SIZE	A							B	C	D	E
	NPT		125 CI	150 CS/SS	250 CI	300					
	CI/Brz	CS/SS				Brz	CS/SS				
1/2 (15)	6 1/8 (156)	8 1/8 (216)	—	—	—	5 1/8 (131)	—	5 1/2 (140)	3 3/8 (86)	8 3/8 (219)	3 3/8 (92)
3/4 (20)	6 1/2 (165)	8 1/8 (216)	—	—	—	5 1/8 (131)	—	5 1/2 (140)	3 3/8 (86)	8 3/8 (219)	3 3/8 (92)
1 (25)	7 1/4 (184)	8 1/8 (216)	—	8 1/2 (216)	—	5 1/16 (138)	8 1/2 (216)	5 1/8 (149)	3 3/8 (86)	8 3/8 (219)	4 (102)
1 1/4 (32)	7 7/8 (194)	— —	—	—	—	5 3/4 (146)	—	6 1/4 (159)	4 (102)	8 3/8 (219)	4 1/8 (105)
1 1/2 (40)	8 1/2 (216)	9 1/2 (241)	—	9 1/2 (241)	10 1/2 (267)	5 1/16 (148)	9 1/2 (241)	6 3/8 (162)	4 1/2 (114)	10 1/4 (260)	4 3/8 (111)
2 (50)	8 1/2 (216)	11 1/2 (292)	10 (254)	11 1/2 (292)	10 1/2 (267)	5 1/16 (148)	11 1/2 (292)	6 3/8 (162)	4 1/2 (114)	10 1/4 (260)	4 3/8 (111)
2 1/2 (65)	—	—	10 1/8 (276)	—	11 1/2 (292)	7 1/16 (198)	—	8 3/4 (210)	5 1/2 (140)	16 (406)	4 3/8 (105)
3 (80)	—	—	11 3/4 (298)	11 3/4 (298)	12 1/2 (318)	8 3/8 (219)	12 1/2 (318)	9 (229)	6 1/4 (159)	16 (406)	4 1/16 (125)
4 (100)	—	—	13 7/8 (352)	13 7/8 (352)	14 1/2 (368)	9 9/16 (252)	14 1/2 (368)	10 1/4 (260)	7 7/8 (200)	16 (406)	6 3/8 (159)

1. 1/2" - 2" size Stainless Steel Trim with resilient seat insert, Class VI shutoff. 2 1/2" - 4" Stainless Steel Trim with Stellite Hardfacing Class IV shutoff.

GPS AND GPHS VALVES

GPS, GPHS VALVE DIMENSIONS inches (mm) AND WEIGHTS pounds (kg)

SIZE	A				B	C	D	E	WEIGHT	
	NPT/ SWE	150	300	600					NPT/ SWE	FLG
1/2 (15)	—	—	—	8 (203)	4 7/8 (124)	3 3/8 (86)	8 5/8 (219)	3 3/8 (79)	—	45 (20.4)
3/4 (20)	—	—	—	8 7/8 (206)	4 7/8 (124)	3 3/8 (86)	8 5/8 (219)	3 3/8 (79)	—	55 (24.9)
1 (25)	—	—	—	8 1/4 (210)	5 1/4 (133)	3 3/8 (79)	8 5/8 (219)	3 3/8 (79)	—	60 (27.2)
1 1/4 (32)	7 1/4 (184)	7 3/4 (197)	8 1/4 (210)	8 5/8 (225)	5 1/4 (133)	3 3/8 (79)	8 5/8 (219)	3 3/8 (79)	62 (28)	65 (29.5)
1 1/2 (40)	—	—	—	9 5/8 (251)	5 13/16 (148)	3 1/2 (89)	10 1/2 (267)	4 (102)	—	90 (40.8)
2 (50)	—	—	—	11 1/4 (286)	6 1/4 (159)	3 3/4 (95)	10 1/2 (267)	4 7/8 (113)	—	100 (45.4)
2 1/2 (65)	12 1/4 (311)	10 7/8 (276)	11 1/2 (292)	12 1/4 (311)	7 3/4 (197)	6 7/8 (175)	16 (406)	5 5/8 (130)	189 (85.7)	192 (87.1)
3 (80)	—	—	—	13 3/4 (337)	8 (203)	7 1/2 (191)	16 (406)	5 1/2 (140)	—	225 (102.1)
4 (100)	—	—	—	15 1/4 (387)	9 1/2 (241)	8 1/2 (216)	16 (406)	16 13/16 (430)	—	300 (136.1)