



GP SERIES

GP SERIES REDUCING VALVE

SIZES 1/2" – 4"²

PRESSURES to 600 PSIG at 600°F

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)
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		
B16.24 Class 300 NPT/SWE	300 (21.0)	@ 550 (288) ¹
B16.24 Class 150 Flanged	150 (10.3)	@ 550 (288) ¹
B16.24 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		
A351 Class 300 NPT/SWE	300(21.0)	@ 600 (316) ¹
A351 Class 150 Flanged	150 (10.3)	@ 600 (316) ¹
A351 Class 300 Flanged	300 (21.0)	@ 600 (316) ¹
A351 Class 600 Flanged	600 (41.4)	@ 600 (316) ¹
DUCTILE IRON		
A395 Class 300 NPT	250 (17.2)	@ 450 (232)

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

- 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

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"

For Air Loading Requirements
see Page 40

For GP Series Capacity Tables
see Pages 39, 40, & 41

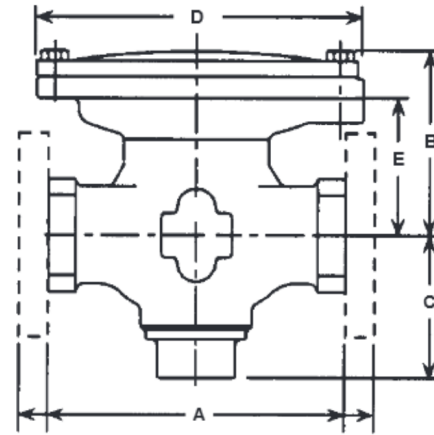
1. Units with "A" in model code limited to 180°F (82°C)
2. Ductile Iron 1/2"-3/4" only
3. Except GPS-1EP (rangeability is 30:1)
4. Except "T" Series which is 1 year warranty
5. 95% accuracy (2 psi min. droop)
6. 90% accuracy (3 1/2 psi min. droop)
7. 1/2" - 2" size Stainless Steel Trim with resilient 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 BronzeASTM B61 UNS C92200
 Body, Cast Steel.....ASTM A216 WCB
 Body, Stainless Steel316 SS ASTM A351 CF8M
 Trim, std. Steam¹SS w/Resilient Insert
 std. GasBuna-n
 opt. Steam.....SS w/Stellite®
 Diaphragm, std.Spiroflex®
 opt.Teflon® (Superflex)



STANDARD SEAT VALVE WEIGHTS* pounds (kg)

SIZE	Cl, 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 Cl	150 CS/SS	250 Cl	300					
	Cl/Brz	CS/SS				Brz	CS/SS				
1/2 (15)	6 1/8 (156)	8 1/2 (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 1/2 (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 1/2 (216)	—	8 1/2 (216)	—	5 7/16 (138)	8 1/2 (216)	5 1/8 (149)	3 3/8 (86)	8 3/8 (219)	4 (102)
1 1/4 (32)	7 3/8 (194)	—	—	—	—	5 1/4 (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 3/16 (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 3/16 (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 3/8 (276)	—	11 1/2 (292)	7 1/16 (198)	—	8 1/4 (210)	5 1/2 (140)	16 (406)	4 1/8 (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 15/16 (125)
4 (100)	—	—	13 3/8 (352)	13 3/8 (352)	14 1/2 (368)	9 1/16 (252)	14 1/2 (368)	10 1/4 (260)	7 3/8 (200)	16 (406)	6 1/4 (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 1/4 (124)	3 3/8 (86)	8 3/8 (219)	3 3/8 (79)	—	45 (20.4)
3/4 (20)	—	—	—	8 1/2 (206)	4 1/4 (124)	3 3/8 (86)	8 3/8 (219)	3 3/8 (79)	—	55 (24.9)
1 (25)	—	—	—	8 3/4 (210)	5 1/4 (133)	3 3/8 (79)	8 3/8 (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 3/8 (225)	5 1/4 (133)	3 3/8 (79)	8 3/8 (219)	3 3/8 (79)	62 (28)	65 (29.5)
1 1/2 (40)	—	—	—	9 1/4 (251)	5 1/2 (148)	3 3/8 (89)	10 1/2 (267)	4 (102)	—	90 (40.8)
2 (50)	—	—	—	11 1/4 (286)	6 1/4 (159)	3 3/8 (95)	10 1/2 (267)	4 7/8 (113)	—	100 (45.4)
2 1/2 (65)	12 1/4 (311)	10 3/4 (276)	11 1/2 (292)	12 1/4 (311)	7 3/4 (197)	6 3/8 (175)	16 (406)	5 3/8 (130)	189 (85.7)	192 (87.1)
3 (80)	—	—	—	13 1/4 (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 3/8 (216)	16 (406)	16 1/2 (430)	—	300 (136.1)

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