

# MODEL 106-PG STAINLESS STEEL, SINGLE CHAMBER, HYDRAULICALLY OPERATED VALVE

## KEY FEATURES

- Anti-cavitation option is ideal for high pressure drop situations
- Available in globe style



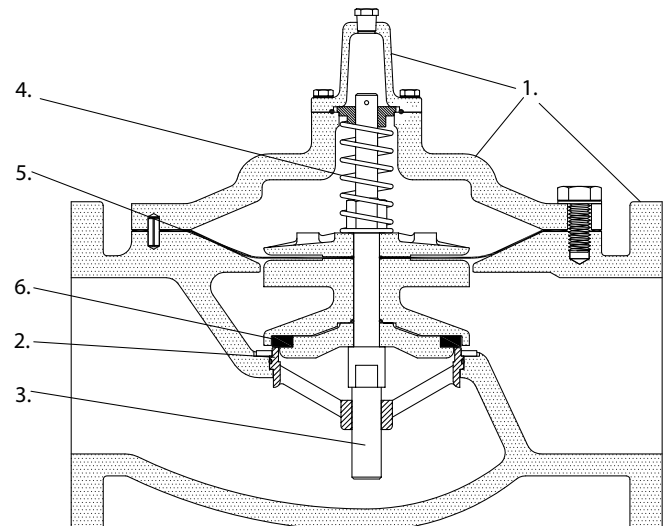
## PRODUCT OVERVIEW

The 106-PG series control valve is designed to suit a large variety of applications such as pressure, flow or level control. This hydraulically operated valve introduces or releases water from the control chamber above the diaphragm to effectively maintain accurate water control.

Refer to Main Valve Options on page 62 and Pilots & Accessories on page 207 to further customize the valve to suit specific applications.

## PRODUCT LINE DRAWING

1. AISI 316 Stainless Steel Construction Valve Body, Cover
2. 316 Stainless Steel Seat Ring
3. 316 Stainless Steel Stem
4. 316 Stainless Steel Spring
5. Diaphragm Buna-N or EPDM
6. Buna-N or EPDM Resilient Disc



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## VALVE SIZES & MATERIALS

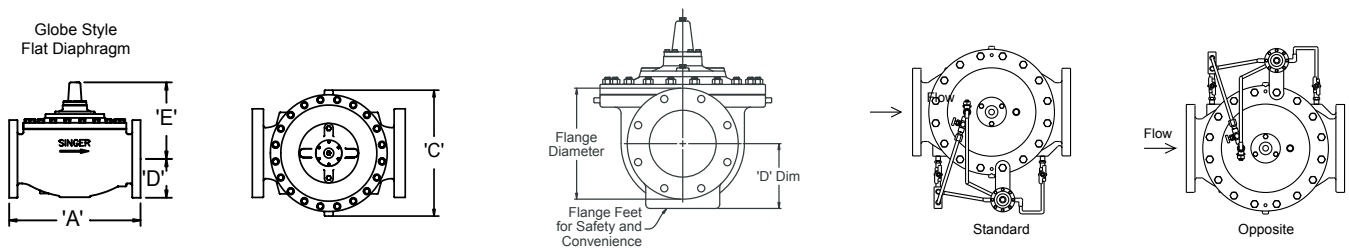
Valve Materials			
	Standard		Optional
Available Sizes	Threaded	Flanged	-
Globe	1/2 in to 1-1/2 in (15-40 mm)	1-1/2 in to 6 in (40-150 mm)	-
Valve Components			
1. Valve Body, Cover	316 Stainless Steel		-
2. Seat Ring	316 Stainless Steel		-
3. Disc Retainer	316 Stainless Steel		-
4. Stem	316 Stainless Steel		-
5. Stem Nut	316 Stainless Steel		-
6. Spring	316 Stainless Steel		-
7. Guide Bushings	316 Stainless Steel		-
8. Diaphragm	EPDM		Buna-N / Viton (limited sizes)
9. Resilient Disc	EPDM		Buna-N / Viton (limited sizes)
10. Fasteners	18-8 Stainless Steel		316 Stainless Steel

# MODEL 106-PG STAINLESS STEEL, SINGLE CHAMBER, HYDRAULICALLY OPERATED VALVE

## ANSI VALVE DATA (US UNITS)

Size	DWG	Standard	Flat Diaphragm System									
Inches	REF	ANSI	1/2 in	3/4 in	1 in	1 1/4 in	1 1/2 in	2 in	2 1/2 in	3 in	4 in	6 in
<b>Globe Dimensions</b>			<b>All figures shown in inches unless otherwise stated</b>									
Lay Length	A	FNPT	4.25	4.25	6.75	6.75	6.75	-	-	-	-	-
Centerline to Bottom	D	FNPT	0.83	0.83	2.50	2.50	2.50	-	-	-	-	-
Lay Length	A	150F	-	-	-	-	8.50	9.38	11.00	12.00	15.00	20.00
Centerline to Bottom	D	150F	-	-	-	-	2.75	3.00	3.50	3.75	4.60	5.60
Lay Length	A	300F	-	-	-	-	9.00	10.00	11.63	13.25	15.63	21.00
Centerline to Bottom	D	300F	-	-	-	-	3.25	3.25	3.75	4.13	5.09	6.34
<b>Common Dimensions (Globe &amp; Angle)</b>												
Width	C		3.00	3.00	4.88	4.88	6.13	6.50	8.19	9.25	10.88	16.75
Height (To Stem Cap) Globe	E		3.06	3.06	4.38	4.38	4.38	4.75	7.50	8.00	9.15	11.75
Height (To Stem Cap) Angle	E		-	-	4.38	4.38	4.38	4.75	7.50	8.00	9.15	11.75
Body Port Tapping		FNPT	1/4	1/4	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Stem Cap Plug		MNPT	1/4	1/4	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Cover Port Tapping		FNPT	-	-	3/8	3/8	3/8	3/8	3/8	3/8	3/8	1/2
Valve Stroke			1/4	1/4	1/2	1/2	1/2	9/16	15/16	1 1/8	1 7/16	1 11/16
Displaced Bonnet Volume (Gallons)			0.002	0.002	0.007	0.007	0.007	0.018	0.066	0.090	0.20	0.56
Approximate Shipping Weight (Lbs)			10	10	20	20	20	40	65	100	175	400
<b>Capacities (USPGM) Globe &amp; Angle</b>												
C <sub>v</sub> - Globe			6.4	6.4	28	30	32	55	80	110	200	460
C <sub>v</sub> - Angle			-	-	24	24	26	63	90	135	230	535
Continuous (Globe)			12	19	49	93	125	210	300	460	800	1800
Intermittent (Globe)			15	20	61	120	160	260	375	575	1000	2250
Momentary (Globe)			28	43	110	170	250	470	670	1030	1800	4000
<b>Maximum Pressure Ratings (Ductile Only)</b>												
PSI <sup>1</sup>		FNPT	400	400	400	400	400	400	400	400	-	-
PSI		150F	-	-	-	-	250	250	250	250	250	250
PSI <sup>1</sup>		300F	-	-	-	-	400	400	400	400	400	400
<b>Maximum Temperature</b>												
Fahrenheit			180°	180°	180°	180°	180°	180°	180°	180°	180°	180°

<sup>1</sup>Valves rated and stamped 400 psi as standard. Valves rated and stamped 600 psi on request.



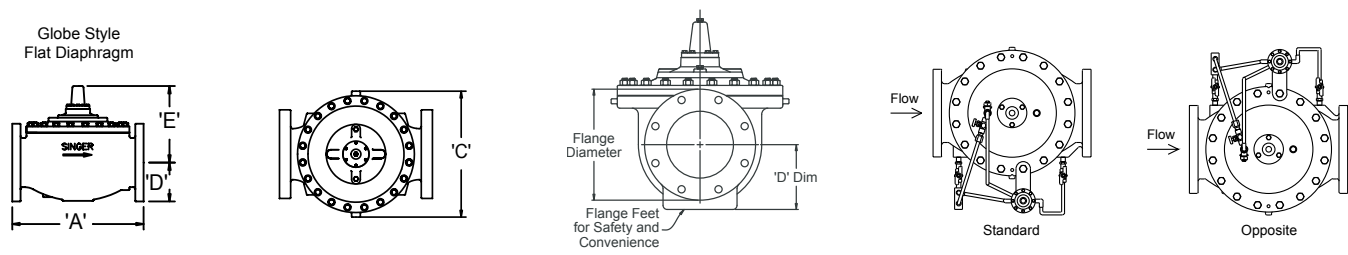
See pilot system information, page 207.  
For additional Engineering notes, see page 242.

# MODEL 106-PG STAINLESS STEEL, SINGLE CHAMBER, HYDRAULICALLY OPERATED VALVE

## ANSI VALVE DATA (METRIC UNITS)

Size	DWG	Stnd	Flat Diaphragm System									
mm	REF	ANSI	15 mm	20 mm	25 mm	32 mm	40 mm	50 mm	65 mm	80 mm	100 mm	150 mm
<b>Globe Dimensions</b>			<b>All figures show in mm unless otherwise stated</b>									
Lay Length	A	FNPT	108	108	171	171	171	-	-	-	-	-
Centerline to Bottom	D	FNPT	21	21	64	64	64	-	-	-	-	-
Lay Length	A	150F	-	-	-	-	216	238	279	305	381	508
Centerline to Bottom	D	150F	-	-	-	-	70	76	89	95	117	142
Lay Length	A	300F	-	-	-	-	229	254	295	337	397	533
Centerline to Bottom	D	300F	-	-	-	-	83	83	95	105	129	161
<b>Common Dimensions (Globe &amp; Angle)</b>												
Width	C		76	76	124	124	156	165	208	235	276	425
Height (to stem cap) Globe	E		78	78	111	111	111	121	191	203	232	298
Height (to stem cap) Angle	E		-	-	111	111	111	121	191	203	232	298
Body Port Tapping	FNPT	in	1/4	1/4	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Stem Cap Plug	MNPT	in	1/4	1/4	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Cover Port Tapping	FNPT	in	-	-	3/8	3/8	3/8	3/8	3/8	3/8	3/8	1/2
Valve Stroke		mm	6.4	6.4	13	13	13	14	25	29	37	43
Displaced Bonnet Volume (Litres)			0.01	0.01	0.03	0.03	0.03	0.07	0.25	0.34	0.76	2.12
Approximate Shipping Weight (Kilograms)			5.00	5.00	9.00	9.00	9.00	18.00	29.00	45.00	79.00	181.00
<b>Capacities (L/s) Globe &amp; Angle</b>												
K <sub>v</sub> - Globe			1.5	1.5	6.6	7.1	7.6	13.0	19.0	26.1	47.4	109.0
K <sub>v</sub> - Angle			-	-	5.7	5.7	6.2	14.9	21.3	32.0	54.5	126.8
Continuous (Globe)			0.76	1.20	3.09	5.87	7.89	13.25	18.93	29.02	50.47	113.56
Intermittent (Globe)			0.95	1.26	3.85	7.57	10.09	16.40	23.66	36.28	63.09	141.95
Momentary (Globe)			1.77	2.71	6.94	10.73	15.77	29.65	42.27	64.98	113.56	252.36
<b>Maximum Pressure Ratings (Ductile Only)</b>												
Bar <sup>1</sup>		FNPT	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	-	-
Bar		150F	-	-	-	-	17	17	17	17	17	17
Bar <sup>1</sup>		300F	-	-	-	-	27.6	27.6	27.6	27.6	27.6	27.6
<b>Maximum Temperature</b>												
Celcius			82°	82°	82°	82°	82°	82°	82°	82°	82°	82°

<sup>1</sup>Valves rated and stamped 27.6 bar as standard. Valves rated and stamped 41 bar on request



See pilot system information, page 207.  
For additional Engineering notes, see page 242.

# MODEL 106-PG

## STAINLESS STEEL, SINGLE CHAMBER, HYDRAULICALLY OPERATED VALVE

### ISO VALVE DATA (METRIC UNITS)

Size	DWG	Std	Flat Diaphragm System									
mm	REF	ISO	15 mm	20 mm	25 mm	32 mm	40 mm	50 mm	65 mm	80 mm	100 mm	150 mm
<b>Globe Dimensions</b>			<b>All figures show in mm unless otherwise stated</b>									
Lay Length	A	BSPT	108	108	171	171	171	-	-	-	-	-
Centerline to Bottom	D	BSPT	21	21	64	64	64	-	-	-	-	-
Lay Length	A	PN10 / PN16	-	-	-	-	229	238	279	318	381	508
Centerline to Bottom	D	PN10 / PN16	-	-	-	-	83	76	89	100	117	142
Lay Length	A	PN25 / PN40	-	-	-	-	229	238	279	318	397	533
Centerline to Bottom	D	PN25 / PN40	-	-	-	-	83	76	89	100	129	161
<b>Common Dimensions (Globe &amp; Angle)</b>												
Width	C		76	76	124	124	156	165	208	235	276	425
Height (To Stem Cap) Globe	E		78	78	111	111	111	121	191	203	232	298
Height (To Stem Cap) Angle	E		-	-	111	111	111	121	191	203	232	298
Body Port Tapping	FNPT	Inches	1/4	1/4	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Stem Cap Plug	MNPT	Inches	1/4	1/4	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Cover Port Tapping	FNPT	Inches	-	-	3/8	3/8	3/8	3/8	3/8	3/8	3/8	1/2
Valve Stroke		mm	6.4	6.4	13	13	13	14	25	29	37	43
Displaced Bonnet Volume (Litres)			0.01	0.01	0.03	0.03	0.03	0.07	0.25	0.34	0.76	2.12
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<b>Capacities (L/s) Globe &amp; Angle</b>												
K <sub>v</sub> - Globe			1.5	1.5	6.6	7.1	7.6	13.0	19.0	26.1	47.4	109.0
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Momentary (Globe)			1.77	2.71	6.94	10.73	15.77	29.65	42.27	64.98	113.56	252.36
<b>Maximum Pressure Ratings (Ductile Only)</b>												
Bar <sup>1</sup>		BSPT	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	-
Bar		PN16	-	-	-	-	16	16	16	16	16	16
Bar <sup>1</sup>		PN25	-	-	-	-	25	25	25	25	25	25
<b>Maximum Temperature</b>												
Celcius			82°	82°	82°	82°	82°	82°	82°	82°	82°	82°

<sup>1</sup>Valves rated and stamped 27.6 bar as standard. Valves rated and stamped 41 bar on request