

# MODELS 306-PG / 306-PG

## Single Chamber, Hydraulically Operated Valve

### KEY FEATURES

- Anti-cavitation option is ideal for high pressure drop situation
- Meet the EN 1074-5 and EN 558-1 standard

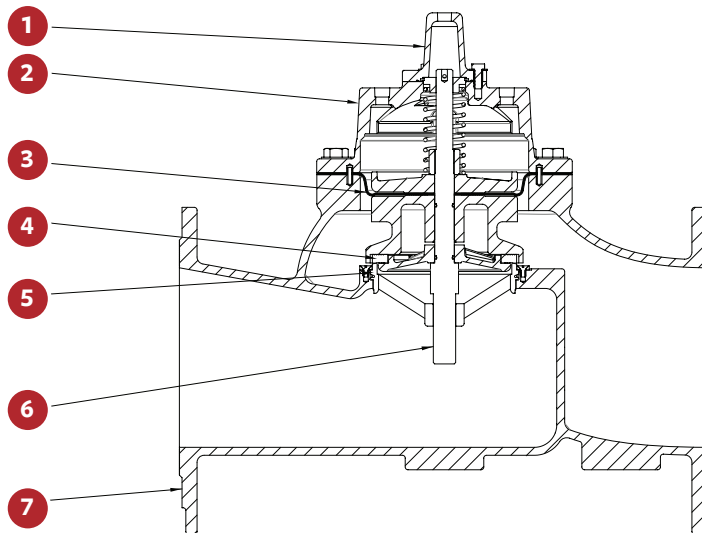
### PRODUCT OVERVIEW

The 306-PG/S306-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 water control.

Refer to Main Valve Options and Pilots & Accessories section on the complete catalog to further customize the valve to suit specific applications.

### PRODUCT LINE DRAWING

ID	PART NAME
1	Removable Stem Cap
2	ASTM A536 Ductile Iron Construction
3	EPDM Diaphragm
4	EPDM Resilient Disc
5	AISI 316 Stainless-Steel Seat
6	AISI 316 Stainless-Steel Stem
7	NSF61 Fusion Bonded Epoxy Coating



### SELECTION

Automatic control valves operate by introducing or exhausting water from above the diaphragm at controlled rates. A pressure differential is required and is either inlet to outlet or inlet to atmosphere, depending on the application. Valves are sized to provide an appropriate pressure drop for each application. Most valves require a minimum of 0.7 bar / 70 KPa pressure drop to operate. This applies mostly to valves that have the bonnet vented to downstream. With minimum of 0.35 bar / 35 KPa downstream pressure, many valves can be made to open fully by venting the bonnet to atmosphere.

Singer® control valves are designed for use with clean potable water. Applications for other media are possible. Consult with us.

Careful consideration of the possibility of cavitation must be given. Anti-cavitation trim is available to control the cavitation, reduce noise and prevent damage. Refer to 106-AC on the complete catalog or consult with us.

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### VALVE SIZES & MATERIALS

VALVE MATERIALS		
	Standard	Optional
Available Sizes	Flanged	
Globe	DN50 to DN400	
VALVE COMPONENTS		
1. Valve Body, Cover	65-45-12 Ductile Iron	-
2. Seat Ring	316 Stainless-Steel	-
3. Disc Retainer	B16 Brass / B62 Bronze / A536 Ductile Iron	316 Stainless-Steel
4. Stem	316 Stainless-Steel	-
5. Stem Nut	B16 Brass	316 Stainless-Steel
6. Spring	316 Stainless-Steel	-
7. Guide Bushings	B16 Brass or SAE 660 Bronze	316 Stainless-Steel
8. Diaphragm	EPDM	Buna-N / Viton (Limited Sizes)
9. Resilient Disc	EPDM	Buna-N / Viton (Limited Sizes)
10. Coating	NSF61 Approved Fusion Bonded Epoxy - Thickness 10-14 mils (250-300 microns)	Consult Factory
11. Fasteners	AISI 18-8 Stainless-Steel	AISI 316 Stainless-Steel

The Singer® Model 306-PG/S306-PG single chambered valve is the basic valve used in practically every model bearing the 306/S306 description. The pilot systems are designed to meet the functional and performance requirements of specific applications. Sizing is ultimately determined by the specific application.

### AVAILABLE OPTIONS

Further customize the valve by adding any of the available options below.

### MAIN VALVE OPTIONS

**Position Indicators (Available for install at Singer manufacturing or as a field modification)**

- Model X107 stem mounted position indicators
- Model X129 limit switch assembly with Single Pole Double Throw limit switch (Double Pole Double Throw optional)
- Model X156 position transmitter (4 to 20 mA)

**Oxy-Nitride Stem**

**Grooved Ends**

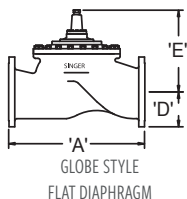
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## Single Chamber, Hydraulically Operated Valve

### ANSI VALVE DATA (METRIC UNITS)

SIZE MM	DWG REF	STANDARD ANSI BS4504	FLAT DIAPHRAGM SYSTEM				
			DN50	DN65	DN80	DN100	DN150
<b>GLOBE DIMENSIONS</b>							
Lay Length	A	PN10	230	290	310	350	480
Centerline to Bottom	D	PN10	89	95	102	144	152
Lay Length	A	PN16	230	290	310	350	480
Centerline to Bottom	D	PN16	89	95	102	144	152
Lay Length	A	PN25	230	290	310	350	480
Centerline to Bottom	D	PN25	89	95	102	144	152
Lay Length	A	PN40	230	290	310	350	480
Centerline to Bottom	D	PN40	89	95	102	144	152
<b>COMMON DIMENSIONS (GLOBE &amp; ANGLE)</b>							
Width	C		165	185	200	235	311
Height (To Stem Cap) Globe	E		157	165	234	246	303
Body Port Tapping	FNPT	Inches	$\frac{3}{8}$	$\frac{3}{8}$	1	1	1
Stem Cap Plug	MNPT	Inches	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$
Cover Port Tapping	FNPT	Inches	—	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$
Valve Stroke		mm	12.4	19.2	28.2	32.4	35.1
Displaced Bonnet Volume (Liters)			0.09	0.16	0.41	0.56	0.92
Approximate Shipping Weight (Kilograms)			10.6	14.7	22.6	32.6	59.6
<b>FLOW CAPACITIES (L/S) GLOBE</b>							
Kv - Globe (m <sup>3</sup> /h @ 1 bar)			28	48	69	130	261
Continuous (Globe)			9	16	22	37	67
Intermittent (Globe)			11	19	29	44	75
Momentary (Globe)			16	30	45	78	136
<b>MAXIMUM PRESSURE RATINGS</b>							
Bar		PN10	10	10	10	10	10
Bar		PN16	16	16	16	16	16
Bar		PN25	25	25	25	25	25
Bar		PN40	40	40	40	40	40
<b>MAXIMUM TEMPERATURE</b>							
Celcius			82°	82°	82°	82°	82°

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



See pilot system information and additional engineering notes.

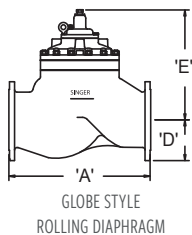
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## Single Chamber, Hydraulically Operated Valve

### ANSI VALVE DATA (METRIC UNITS)

SIZE MM	DWG REF	STANDARD ANSI BS4504	ROLLING DIAPHRAGM SYSTEM				
			DN200	DN250	DN300	DN350	DN400
<b>GLOBE DIMENSIONS</b>							
ALL FIGURES SHOW IN INCHES UNLESS OTHERWISE STATED							
Lay Length	A	PN10	600	730	850	980	1100
Centerline to Bottom	D	PN10	200	217	240	270	298
Lay Length	A	PN16	600	730	850	980	1100
Centerline to Bottom	D	PN16	200	217	240	270	298
Lay Length	A	PN25	600	730	850	980	1100
Centerline to Bottom	D	PN25	200	217	240	270	298
Lay Length	A	PN40	600	730	850	980	1100
Centerline to Bottom	D	PN40	200	217	240	270	298
<b>COMMON DIMENSIONS (GLOBE &amp; ANGLE)</b>							
Width	C		340	413	481	670	670
Height (To Stem Cap) Globe	E		390	486	578	678	678
Body Port Tapping	FNPT	Inches	1	1	1	1	1
Stem Cap Plug	MNPT	Inches	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$
Cover Port Tapping	FNPT	Inches	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$
Valve Stroke		mm	48.0	73.6	88.5	99.1	104.1
Displaced Bonnet Volume (Liters)			2.33	5.10	8.74	13.24	14.29
Approximate Shipping Weight (Kilograms)			89.4	153.7	234.9	387.4	394.7
<b>FLOW CAPACITIES (L/S) GLOBE</b>							
Kv - Globe (m <sup>3</sup> /h @ 1 bar)			462	852	1341	2045	2149
Continuous (Globe)			150	267	417	560	600
Intermittent (Globe)			178	316	465	637	667
Momentary (Globe)			306	530	833	1019	1211
<b>MAXIMUM PRESSURE RATINGS</b>							
Bar		PN10	10	10	10	10	10
Bar		PN16	16	16	16	16	16
Bar		PN25	25	25	25	25	25
Bar		PN40	40	40	40	40	40
<b>MAXIMUM TEMPERATURE</b>							
Celcius			82°	82°	82°	82°	82°

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



See pilot system information and additional engineering notes.