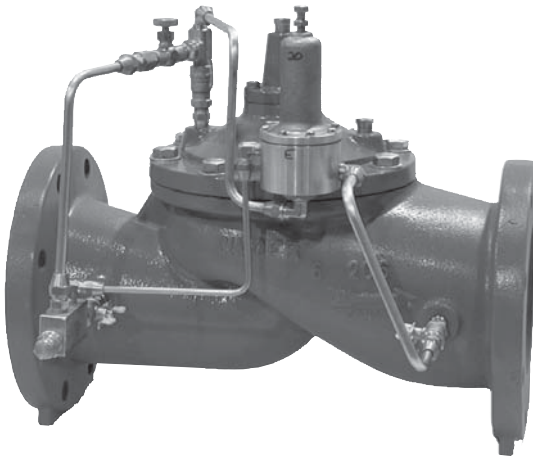


Pressure Sustaining Valve



The Singer model -RPS pressure sustaining valve employs the basic Singer model 106-PG or 206-PG main valve.

The RPS pilot valve (model 81-RP) senses the upstream pressure through a connection to the valve inlet. The valve and pilot remain closed until the inlet pressure exceeds the pilot setting.

Under flowing conditions, the pilot reacts to small changes in pressure to control the valve position by modulating the pressure above the diaphragm.

Should the upstream pressure fall below the set point, the valve will close (modulate) to ensure that the set point is maintained.

- ENSURES MAXIMUM UPSTREAM PRESSURE FOR CRITICAL USE
- EASILY ADJUSTABLE PRESSURE SETTING
- CLOSSES IF INLET PRESSURE DROPS BELOW SET POINT

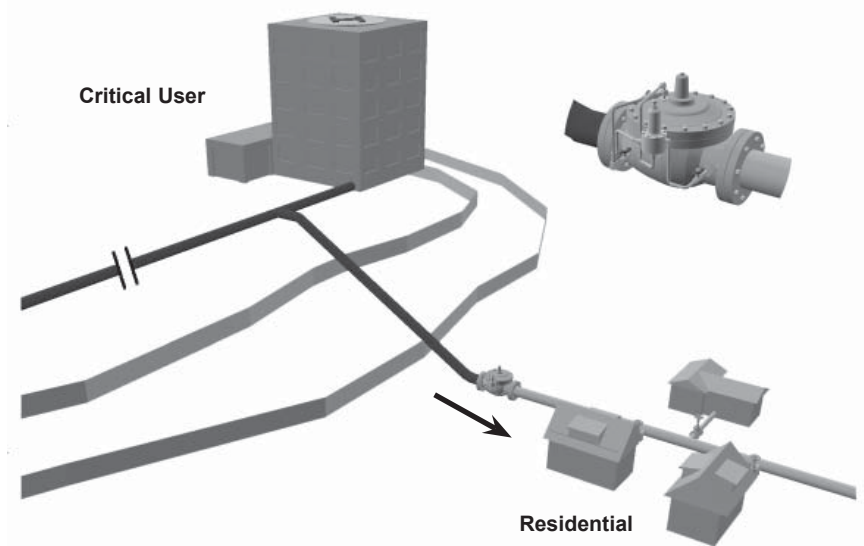
When Ordering Please Specify:

1. Catalog Model # 2. Full Port (106) or Reduced Port (206) (See Main Valves) 3. Globe or Angle Pattern 4. End Connections
 5. Valve Size 6. Pilot Range

Typical Application:

Pressure Sustaining Valve (106-RPS or 206-RPS) prevents high demand in the residential area from dropping the pressure available to the critical user.

Valve modulates to assure minimum upstream pressure and if need be, closes tight.

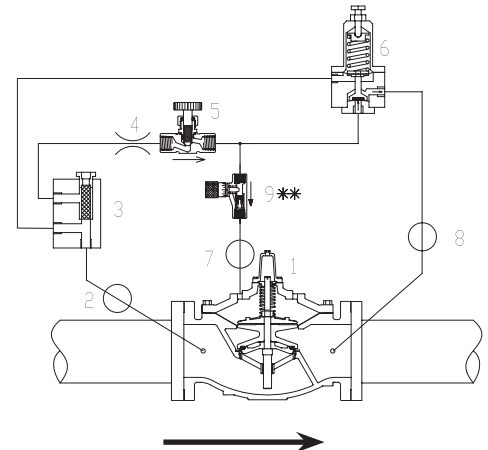


Pressure Sustaining Valve:

1. Main Valve - 106-PG or 206-PG
2. Isolation Valve - standard 4" (100mm) and larger
3. Strainer - standard 4" (100mm) and larger
4. Fixed Restriction- 1/8" (3.3mm)
5. Model 852-B Closing Speed Control
6. Model 81-RP pilot - standard spring 20 to 200 psi (1.38 to 13.8 bar)
 -specify for 5 to 50 psi (.35 to 3.5bar), 10 to 80 psi (.7 to 5.5bar),
 100 to 300 psi (6.9 to 20.7 bar).
7. Isolation Valve - standard 4" (100mm) and larger
8. Isolation Valve - standard all sizes
9. Opening Speed Control (OPTIONAL)

Standard materials for pilot system components are:

- ASTM B62 bronze or ASTM B16 brass
- AISI 303/316 stainless steel trim
- Buna/EPDM diaphragm and seals



SCHMATIC A-0423F

106-RPS-Sustaining	Flow Capacity (See 106-PG in Main Valve Section for other Valve Data)								
Size (inches)	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
Size (mm)	15mm	19mm	25mm	32mm	40mm	50mm	65mm	80mm	100mm
Minimum (USGPM)	1	1	1	1	1	5	5	5	10
Minimum (L/s)	0.06	0.06	0.06	0.06	0.06	0.32	0.32	0.32	0.63
Maximum Continuous (USGPM)	12	19	49	93	125	210	300	460	800
Maximum Continuous (L/s)	0.76	1.20	3.09	5.87	7.89	13.25	18.93	29	50

206-RPS-Sustaining	Flow Capacity (See 206-PG in Main Valve Section for other Valve Data)								
Size (inches)	3"	4"	6"	8"	10"	12"	16"	18"	20"
Size (mm)	80mm	100mm	150mm	200mm	250mm	300mm	400mm	450mm	500mm
Minimum (USGPM)	5	5	10	20	40	5	5	5	5
Minimum (L/s)	0.32	0.32	0.63	1.26	2.52	0.32	0.32	0.32	0.32
Maximum Continuous (USGPM)	300	580	1025	2300	4100	6400	9230	16500	16500
Maximum Continuous (L/s)	19	37	65	145	259	404	582	1041	1041

106-RPS-Sustaining	Flow Capacity (See 106-PG in Main Valve Section for other Valve Data)								
Size (inches)	6"	8"	10"	12"	14"	16"	20"	24"	36"
Size (mm)	150mm	200mm	250mm	300mm	350mm	400mm	500mm	600mm	900mm
Minimum (USGPM)	20	40	5	5	5	5	50	50	75
Minimum (L/s)	1.26	2.52	0.32	0.32	0.32	0.32	3.15	3.15	4.73
Maximum Continuous (USGPM)	1800	3100	4900	7000	8500	11000	22500	25800	55470
Maximum Continuous (L/s)	114	196	309	442	536	694	1420	1628	3500

206-RPS-Sustaining	Flow Capacity (See 206-PG in Main Valve Section for other Valve Data)				
Size (inches)	24"	28"	30"	32"	36"
Size (mm)	600mm	700mm	750mm	800mm	900mm
Minimum (USGPM)	5	50	50	50	50

Main Valve Dimensions
 106-PG Page 20
 206-PG Page 29
 Anti-Cav Page 82

Selection Summary:

1. Select the valve with sufficient capacity using the minimum available pressure drop across the valve.
2. Usually operating in the continuous "C" service range up to 20 ft/s (6 m/s) - see below and/or performance curves (see Technical & Sizing Section).
3. If the outlet pressure is less than 35% of the inlet pressure and operating for extended periods, consult the factory.
4. For sustaining applications with high pressure drops, a model 106-RPS-AC: Pressure Sustaining with Anti-Cavitation Cages may be required. Refer to bulletin 106(-)-AC (see High Performance Section) and consult the factory.
5. Ensure that the maximum working pressure rating for the valve and for the flanges exceeds the maximum operating pressure.

Other supplementary functions are available, consult with the factory.

Specifications:

The valve shall be a Singer Valve model 106 (206) -RPS, size "____", ANSI Class 150 (ANSI 300, ANSI flanges drilled to ISO PN 10 / 16/ 25 or 40) pressure rating/ flange standard, globe (angle), style valve. The Model 81-RP Pressure Relief Pilot (Normally Closed Pilot) spring range shall be "___ to ___" Psi (bar), with set point preset at factory to "___" Psi (bar). Assembly shall be according to Schematic A-0423F.

- The valve shall maintain a minimum predetermined upstream pressure. When the actual upstream pressure meets the minimum allowable predetermined upstream pressure setting the valve will either close or modulate in order to maintain the minimum allowable upstream pressure.

Refer to "Main Valve" section, 106-PG (or 206-PG) for detailed information pertaining to valve sizes and materials, selection criteria and specifications.

Refer to "Pilot and Accessories" section, Model 81 Pressure Relief Pilot (Normally Closed Pilot) for detailed information pertaining to materials and specifications.