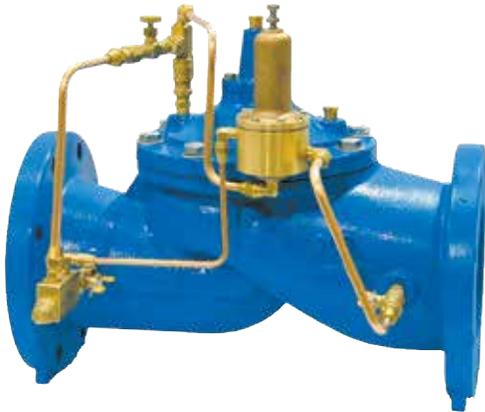


Models 106-RPS / 206-RPS Pressure Relief Valve



206-RPS Globe

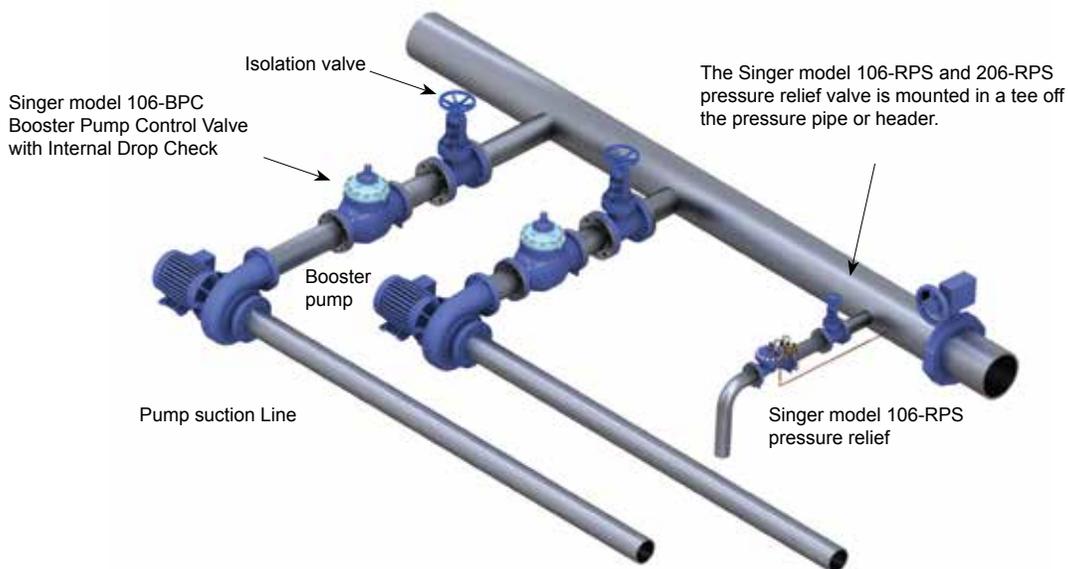
KEY FEATURES

- Limits system pressure by relieving excess flow
- Quick opening relief
- Easily adjustable pressure setting

Product Overview

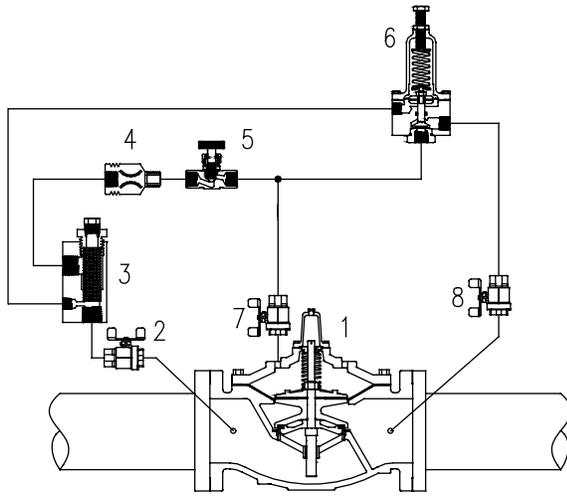
The 106-RPS and 206-RPS pressure relief valves are based on the 106-PG and 206-PG main valves. The 81-RP pilot senses the upstream pressure through a connection to the valve inlet. The valve and pilot remain closed until the inlet pressure exceeds the pilot setting. The valve opens rapidly to relieve damaging overpressure and closes smoothly at an adjustable speed, when the pressure returns below the set-point. The upstream pressure is limited to the pilot set-point.

Typical Application



Models 106-RPS / 206-RPS Pressure Relief Valve

Schematic Drawing



Schematic A-0423F

1. Main Valve - 106-PG or 206-PG
2. Isolation Valve - standard 4 in / 100 mm and larger
3. Strainer - standard 4 in / 100 mm and larger
4. Fixed Restriction- 1/8 in / 3.2 mm
5. Model 852-B Closing Speed Control
6. Model 81-RP pilot
 - Specify for 5 to 50 psi / 0.35 to 3.5 bar,
10 to 80 psi / 0.70 to 5.5 bar,
20 to 200 psi / 1.3 to 13.8 bar,
100 to 300 psi / 6.9 to 20.7 bar.
7. Isolation Valve - standard 4 in / 100 mm and larger
8. Isolation Valve - standard all sizes

Standard Materials

Standard materials for pilot system components are:

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

Specifications

- The valve shall be a Singer Valve model 106-RPS / 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 Singer Valve to “___” psi / bar. Assembly shall be according to Schematic A-0423F.
- The valve shall remain closed until inlet pressure exceeds a pre-determined set- point at which time the valve opens quickly.
- 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.

Note

- Where UL / FM designation is required, specify 106-RPS-8700A. Available in 2-1/2 in / 65 mm to 8 in / 200 mm globe and angle configurations, ANSI 150 and ANSI 300 flanges, and grooved end connections.

Models 106-RPS / 206-RPS Pressure Relief Valve

Selection Summary

1. Select the valve with sufficient capacity using the available pressure drop across the valve.
2. Usually operating in the momentary “m” service range.
3. For extended or continuous relief applications, use model 106-RPS-AC: Pressure Relief with Anti-Cavitation Cages.
4. Ensure that the maximum working pressure rating for the valve and for the flanges exceeds the maximum operating pressure.
5. Select a standard globe style body or the optional angle style body.

Ordering Instructions

Refer to page 293 for the order form and ordering instructions.

Additionally, include the following information for this product:

1. Full port (106) or reduced port (206)
2. Relief pressure range
3. Outlet pressure

Models 106-RPS / 206-RPS Pressure Relief Valve

Flow Capacity - Relief

106-RPS	Flow Capacity 45 ft / s or 14 m / s (See 106-PG in Main Valve section for other valve data)								
	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
Size (inches)	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
Size (mm)	15 mm	19 mm	25 mm	32 mm	40 mm	50 mm	65 mm	80 mm	100 mm
Momentary (USGPM)	28	43	110	170	250	470	670	1030	1800
Momentary (L/s)	2	3	7	11	16	30	42	65	114

106-RPS	Flow Capacity 45 ft / s or 14 m / s (See 106-PG in Main Valve section for other valve data)								
	6 in	8 in	10 in	12 in	14 in	16 in	20 in	24 in	36 in
Size (inches)	6 in	8 in	10 in	12 in	14 in	16 in	20 in	24 in	36 in
Size (mm)	150 mm	200 mm	250 mm	300 mm	350 mm	400 mm	500 mm	600 mm	900 mm
Momentary (USGPM)	4000	7000	11000	16000	19000	25000	39000	56200	124700
Momentary (L/s)	252	442	694	1009	1199	1577	2461	3546	7868

206-RPS	Flow Capacity 45 ft / s or 14 m / s (See 206-PG in Main Valve section for other valve data)								
	3 in	4 in	6 in	8 in	10 in	12 in	16 in	18 in	20 in
Size (inches)	3 in	4 in	6 in	8 in	10 in	12 in	16 in	18 in	20 in
Size (mm)	80 mm	100 mm	150 mm	200 mm	250 mm	300 mm	400 mm	450 mm	500 mm
Momentary (USGPM)	564	1236	2160	4800	8400	13200	19200	30000	30050
Momentary (L/s)	36	78	136	303	530	833	1211	1893	1896

206-RPS	Flow Capacity 45 ft / s or 14 m / s (See 206-PG in Main Valve section for other valve data)							
	24 x 16 in	24 x 20 in	28 in	30 in	32 in	36 in	40 in	
Size (inches)	24 x 16 in	24 x 20 in	28 in	30 in	32 in	36 in	40 in	
Size (mm)	600 x 400 mm	600 x 500 mm	700 mm	750 mm	800 mm	900 mm	1000 mm	
Momentary (USGPM)	30100	39000	67440	67490	67540	67640	62000	
Momentary (L/s)	1899	2461	4255	4258	4261	4268	3912	