

DESCRIPTION

The R-K PBP series pressure bypass valve is a 3-port valve designed to relieve excess fluid pressure in piping systems. When mounted in-line, the pressure bypass valve will permit fluid to pass through the system. Adjust the stem to get desired outlet pressure and tighten the lock nut to hold that setting. When the fluid pressure approaches the valve setting, the excess fluid is vented through the bottom port. Pressure settings for the valve outlet can be set to relieve from 10-80 PSI. The valve is designed so there is no metal contact with the fluid.

This compact valve features top entry for easy maintenance and can be factory pre-set upon request.

Note: This valve is not designed for use in piping systems with back pressure on the downstream side.

R-K PBP SERIES PRESSURE BYPASS VALVE



KEY FEATURES

- Relieves excess fluid pressure by venting it through a bottom port when the system pressure approaches the valve setting.
- Adjustable screw and lock-nut for accurate pre-setting of relief pressure.
- Wide working pressure range (10 to 80 PSIG).
- Top entry for easy in-line maintenance.
- Can be factory pre-set upon request.
- No metal contact with the fluid.

VALVE BODY MATERIALS:

- Type 1 – Grade 1 PVC
- Natural Polypropylene (PP)
- PVDF (Polyvinylidene Fluoride)
- Teflon

SEAL

- EPDM,
- VITON,
- KALREZ.

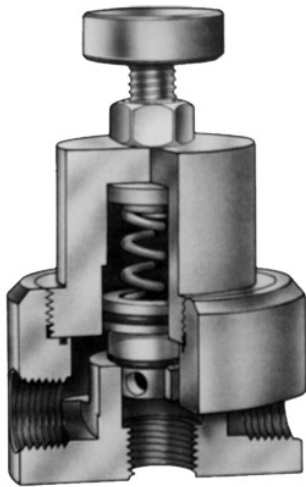
SIZES & PORTING

Valve Sizes: ¼", ½", ¾", 1.0", 1.5", 2.0

Port Types:

¼" to 1" FNPT,
1.5" to 2" MPT
(all fully ported).

Mounting: Four (4) ¼"-20 tapped holes for standard machined valve body (¼" to 1.00").

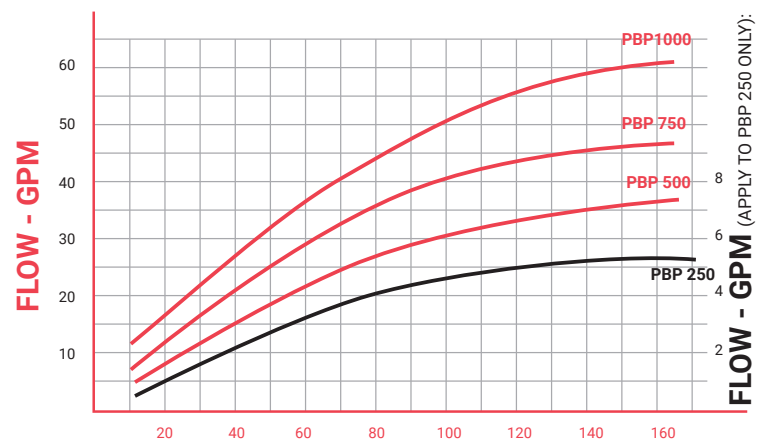


PRESSURE & TEMPERATURE RATINGS:

Temperature Range

- PVC: 0°F to 140°F
- POLYPRO: 0°F to 180°F
- PVDF: 0°F to 280°F
- TEFLON: 0°F to 340°F

ENGINEERING & PERFORMANCE DATA



The chart below will specify R - K standard valves regarding valve size, valve material, and seal material.
For special orders, please consult the factory for pricing and delivery information.

PBP - X X X - X

VALVE SIZE

- 25 = 1/4"
- 50 = 1/2"
- 75 = 3/4"
- 100 = 1.0"
- 150 = 1.5"
- 200 = 2.0"

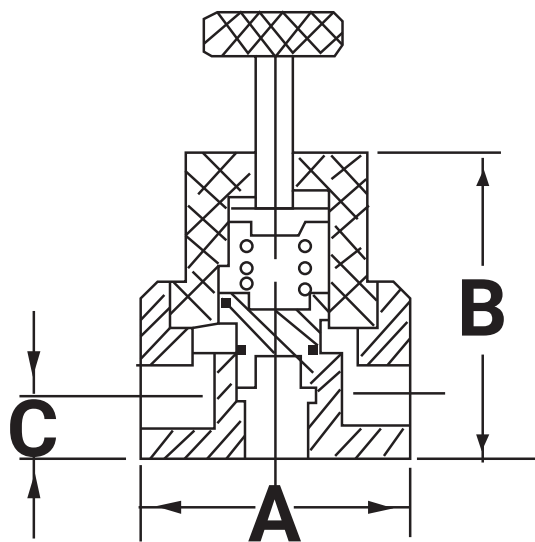
MATERIAL

- 1 = PVC
- 2 = POLYPRO
- 3 = PVDF
- 4 = TEFLON
- 5 = OTHER (Please specify)

SEALS

- E = EPDM
- V = VITON
- K = KALREZ
- O = OTHER (Please specify)

ENGINEERING & PERFORMANCE DATA

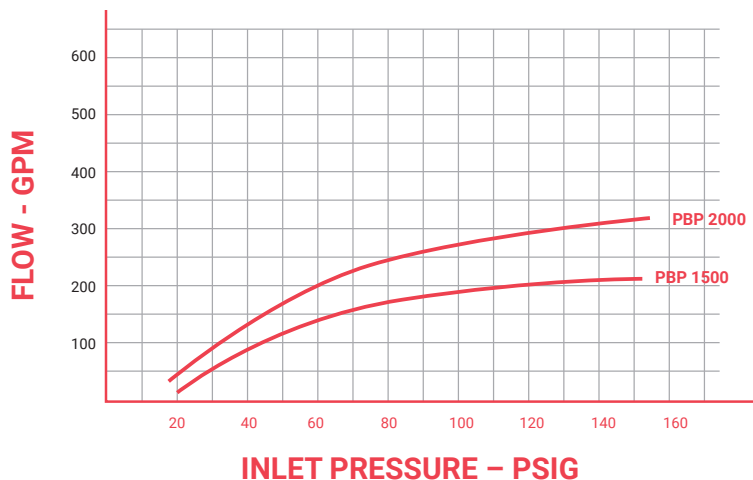


NOTES

- Performance curves show flow rate with piston seals fully open and 100% fluid flow through the valve. These curves can change based on system flow and different pressure settings.
- Test data was performed with 68°F water and 160 PSIG maximum pressure.
- Performance curves will change with higher viscosity liquids and/or higher temperatures.
- Customers should consult R-K Industries for custom products or special applications.

DIMENSIONAL DATA

DIMENSIONS IN INCHES



Valve size	Ports	A	B	C	Cv
1/4"	FNPT	2	2.7	0.5	0.58
1/2"	FNPT	3	3.4	0.7	2.87
3/4"	FNPT	3.5	4.3	0.9	3.31
1.0"	FNPT	4	4.7	1.1	4.32
1.5"	MPT	5.5	6.5	1.5	16.4*
2.0"	MPT	6	7.5	1.7	21.6*

(*) Cv value @ 150 GPM