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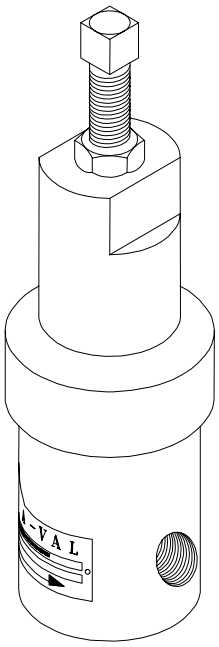
Model BPS-09 THD BACK PRESSURE-REDUCING VALVE



- Spring diaphragm operated
- 1/2"-2" NPT THD
- Control pressures to 75 PSI (5.1 Bar)
- Stainless steel, brass, and various exotic alloys

Features

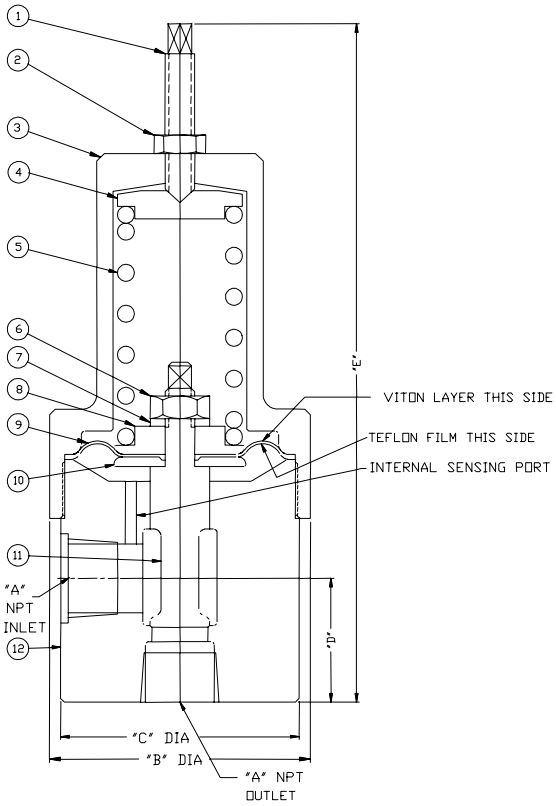
- **Pressure-containing parts** made from solid bar stock materials — unlike castings which have wall thickness variations.
- **Body:** Standard materials are stainless steel and brass. Special alloys (e.g. Monel, titanium, and Hastelloy) also available.
- **Trim:** Stainless steel for main valve is standard. Teflon sealing option is also available for air or gas service.
- **Teflon-Viton composite reinforced diaphragm** is designed for much greater main valve travel than models designed with stainless steel diaphragms. Teflon film on the wetted side provides good corrosion resistance for a wide range of fluids and gases including steam. Viton is the elastomeric seal on the non-wetted side. Max temperature rating is 350 °F. Special elastomers are also available.
- **Right-angle porting** is the standard piping arrangement which allows the valve to be self-draining.

Applications

This valve is used for back pressure control applications such as maintaining constant pump discharge pressures, bypassing excessive pressures from various types of process equipment, and wherever a constant pressure must be maintained in a process or piping system. Valve can be used for non-corrosive or mildly corrosive fluids, depending on the materials selected (consult factory). When liquids or gases contain debris or other solid matter which might cause internal clogging or improper operation of the valve, a strainer with a fine wire mesh should be installed before the inlet of the valve. In-line strainer fittings or basket strainers can be purchased from Stra-Val. For gas or air service, a soft-seated version with Teflon or other engineering plastics is available to improve seating performance. Request Illustration# **BPS09BBT-SS** for the soft-seated version.

Principle of Operation

This is a direct-acting valve with an adjustable spring operating against a flexible elastomeric diaphragm subjected to the inlet pressure of the valve. Increasing the spring compression will increase the system or line pressure to be maintained. Reducing the spring compression will reduce the system or line pressure to be maintained. An increase in system pressure beyond the set point will cause the main valve to open and relieve the excess pressure.



Material List and Specification

1.	Adjusting screw	Steel
2.	Lock nut	Steel
3.	Spring chamber	Steel
4.	Spring pusher	Steel
5.	Spring	Steel
6.	Lock nut	Steel
7.	Lock washer	Steel
8.	Spring follower	Steel
9.	Diaphragm	TFE / Viton
10.	Diaphragm disc.	Stainless steel
11.	Main valve	Stainless steel
12.	Body	Stainless steel

- Alternate elastomers available
- Max inlet pressure 25 PSI (1.7 Bar) based on diaphragm rated press

Dimensions (NPT)

A	B	C	D	E
1/2	4.00	4.50	1.31	10.25
3/4	4.00	4.50	1.50	11.50
1	4.00	4.50	2.00	12.38
1-1/4	4.50	4.00	3.44	13.25
1-1/2	4.50	4.00	3.56	16.56
2	5.00	4.50	4.13	17.25

Note: Dimensions are approximate and are subject to change without notice. Request certified dimensions before final product installation.