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21 Columbus Avenue
Garfield, NJ 07026

Model BPS05-TC

Sanitary Tri-Clamp Flange Back Pressure/Bypass Valve



Features

Body and Tri-Clamp Flanges - Standard material is 316 Stainless Steel manufactured from bar stock and can be offered with a 20RA mechanical finish, with an optional electroplished finish.(Also See Sanitary Relief Model) **Poppet- 316SS** Stainless steel, metal seated is standard, but can be offered with a Teflon seat. **Elastomeric Seal** Choice of different elastomers including Viton, EPDM, Teflon, Kalrez etc, expands valve usage to a wide range of applications and fluids. Choice of elastomers determines final temperature limitation. **Spring Chamber** - standard construction is a 300 series stainless steel, as the product does not in contact with it. It can also be supplied in type 316 Stainless steel **Right Angle Porting** - Standard construction is bottom inlet, side outlet. **Self-Draining** - Valve is self-draining with the poppet in the open position. **No Pipe threads in contact with the media** - Prevents accumulation of contaminants

Applications

This valve is used for sanitary backpressure 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 sanitary process or piping system. For use with liquids, clean steam, and gases to 450 deg F depending on elastomer used for piston seal. Standard piston seal material is Viton. EPDM, Teflon and Dupont's Kalrez and Parker's Parfluor are also available to meet temperature and product compatibility requirements.

When used on bypass service specify if the discharge is acting against any head pressure or just to an open reservoir.

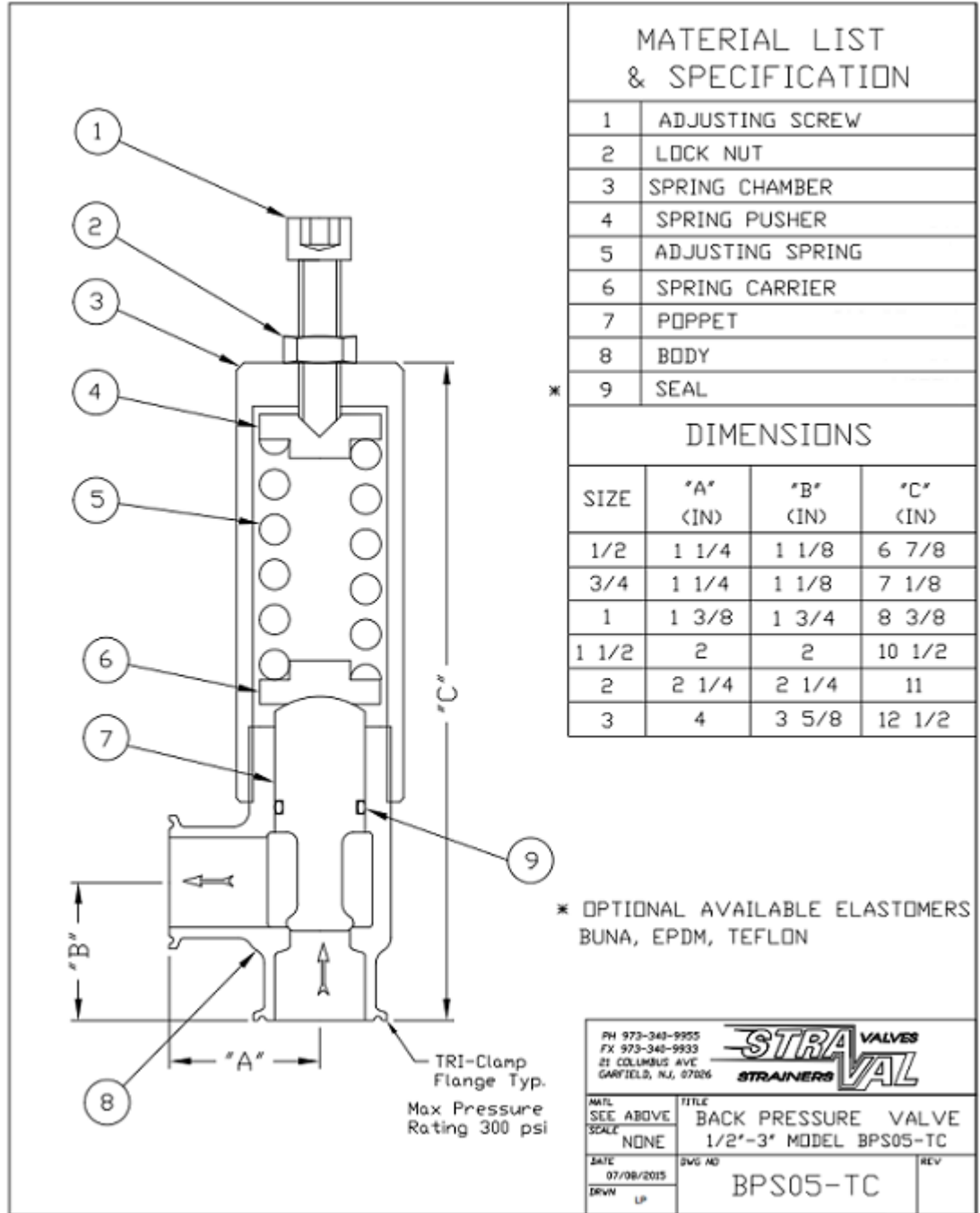
Options

Scroll down below to select the valve size, spring range, material options in the customized pricing and ordering section indicated by the red arrows. You have the ability to customize your valve choices by selecting the wetted and nonwetted materials, and choice of seat materials to suit your shutoff requirements, using the softer seats for improved shutoff, particularly for air or gas applications where they are available at the lower pressures. Once these selections are made a price quote can be generated and printed directly to your computer or immediately e-mailed to you.

When ordering don't forget to state your desired bypass or control set pressure. This set pressure will be added to the nameplate. **If the set pressure is not specified, the valve will be set at or below the stated spring range as selected for the order and no set pressure will be added to the nameplate.**

Principle of Operation

This is a direct acting valve with an adjustable spring operating against a piston 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 poppet to open and bypass the excess pressure through the outlet port.



MATERIAL LIST & SPECIFICATION

1	ADJUSTING SCREW
2	LOCK NUT
3	SPRING CHAMBER
4	SPRING PUSHER
5	ADJUSTING SPRING
6	SPRING CARRIER
7	POPPET
8	BODY
9	SEAL

DIMENSIONS

SIZE	"A" (IN)	"B" (IN)	"C" (IN)
1/2	1 1/4	1 1/8	6 7/8
3/4	1 1/4	1 1/8	7 1/8
1	1 3/8	1 3/4	8 3/8
1 1/2	2	2	10 1/2
2	2 1/4	2 1/4	11
3	4	3 5/8	12 1/2

* OPTIONAL AVAILABLE ELASTOMERS
BUNA, EPDM, TEFLON

PH 973-340-9955 FX 973-340-9933 21 COLUMBUS AVE GARFIELD, NJ, 07026			
MATL	SEE ABOVE	TITLE	BACK PRESSURE VALVE
SCALE	NONE		1/2"-3" MODEL BPS05-TC
DATE	07/08/2015	SVG NO	BPS05-TC
DRWN	LP	REV	

1/2" BPS05-05TC

Sanitary Tri-Clamp Connections 600 psi (~40 bar) rating
 Multiple Spring Ranges from:20-350 psig (1.38-24.1 barg) Select spring from pricing page

3/4" BPS05-07TC

Sanitary Tri-Clamp Connections 600 psi (~40 bar) rating

Multiple Spring Ranges from:20-320 psig (1.38-22.1 barg) Select spring from pricing page

1" BPS05-10TC

Sanitary Tri-Clamp Connections 600 psi (~40 bar) rating

Multiple Spring Ranges from:20-225 psig (1.38-15.5 barg) Select spring from pricing page

1 1/2" BPS05-15TC

Sanitary Tri-Clamp Connections 600 psi (~40 bar) rating

Multiple Spring Ranges from:15-275 psig (1.03-19 barg) Select spring from pricing page

2" BPS05-20TC

Sanitary Tri-Clamp Connections 600 psi (~40 bar) rating

Multiple Spring Ranges from:20-165 psig (1.38-11.4 barg) Select spring from pricing page

3" BPS05-30TC

Sanitary Tri-Clamp Connections 600 psi (~40 bar) rating

Multiple Spring Ranges from:15-125 psig (1.03-8.62 barg) Select spring from pricing page

4" BPS05-40TC

Sanitary Tri-Clamp Connections 600 psi (~40 bar) rating

Multiple Spring Ranges from:15-125 psig (1.03-8.62 barg) Select spring from pricing page

The spring ranges listed above are not achievable with one spring, but are compressed to show overall product capability. Select a specific spring range in the pricing pages or specify a set pressure when ordering.