



## Spring Check Valves



### Application

Get control with the Bradford™ B45MP series spring check valve. Full precision machined body, plunger, and flow plate are constructed of 316L stainless steel. Our valve meets 3A requirements and is designed for use in food, pharmaceutical and other industries with sanitary requirements.

### Working Principle

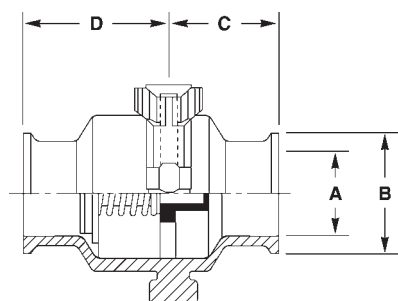
Spring check valves, also described as non-return valves, are designed to allow flow in one direction while preventing flow in the opposite direction. This valve is fully automatic. The pressure of the fluid flowing through the valve holds the plunger in the open position. When the pressure drop across the valve approaches zero, the spring will close the valve. Any reverse flow will firmly seat the plunger. The special angled plunger design and precision open/close operation prevent leaking through the valve in low pressure systems.

### Features and Benefits

- Lower resistance to flow
- Full size flow plate
- Long stem bushing for increased cycle life
- Suitable for low and medium viscosity fluids
- Space saving, lightweight
- Field serviceable (no special tools required)
- Special design prevents low pressure leak-through
- Various end connections available
- All wetted surfaces are sanitary finished to  $\leq 20R_a$
- Sizes from 1/2" thru 4"

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## Technical Data, Specifications and Dimensions



Size	Dimensions (in)			
	A	B	C	D
1/2"	0.370	0.992	1.1	1.6
3/4"	0.620	0.992	1.1	1.6
1"	0.870	1.988	1.7	2.3
1 1/2"	1.370	1.988	1.7	2.3
2"	1.870	2.519	1.7	2.3
2 1/2"	2.370	3.051	1.7	2.3
3"	2.870	3.582	1.7	2.3
4" *	3.834	4.682	1.7	2.7

Size	Part Number	Pressure Rating (PSI)	Cracking Pressure (PSI)		Flow Coefficient (CV)
			Spring #1	Spring #2	
1/2"	B45MP-R50	145	10	0.6	5
3/4"	B45MP-R75	145	4	2	8
1"	B45MP-R100	145	0.8	N/A	12
1 1/2"	B45MP-R150	145	1.6	N/A	20
2"	B45MP-R200	145	1.4	N/A	40
2 1/2"	B45MP-R250	145	0.9	N/A	60
3"	B45MP-R300	145	0.5	N/A	100
4" *	B45MP-R400	145	0.5	N/A	210

- \* 4" uses bolted construction in place of clamp
- See Valve and Actuation catalog for more technical information.
- **Note:** all dimensions are in inches. Dimensions are approximate. Engineering dimensions are available upon request. Specifications are subject to change without notice.