074 & 075 Poppet Check Valves
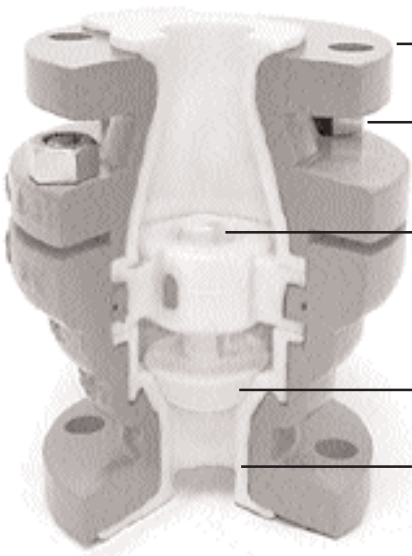

Ductile iron or cast steel bodies available.

B7 bolting resists chloride stress-cracking.

Keyway prevents poppet rotation.

Poppet covering matches body liner in 4" thru 8" sizes (solid PTFE poppet in 1" thru 3" sizes). Steel insert in 4" thru 8" valve poppet.

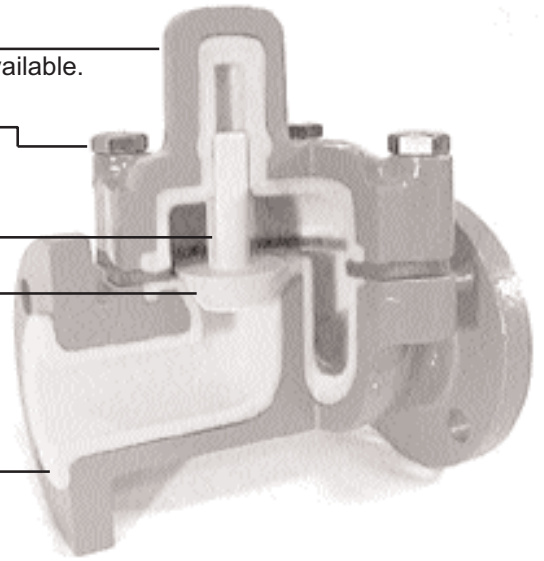Choice of 3 liner materials (PP, PVDF, PFA) for handling a wide range of fluids.

Figure 074

Figure 075

Tufline Plastic-Lined Poppet Check Valves handle various corrosive media at temperatures from -20°F to 300°F (-28°C to 149°C) by combining the best properties of two different materials of construction.

On the outside, a metal body provides strength, shock resistance, ease of installation, and a high pressure handling capability.
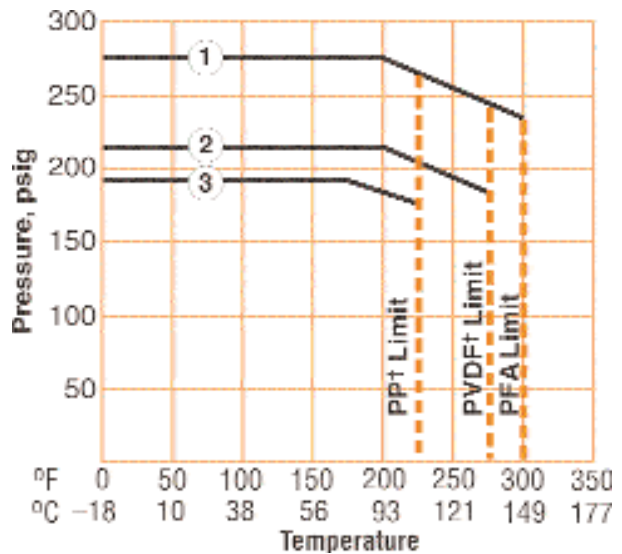
On the inside, a plastic lining offers corrosion resistance that stainless steel and high alloy metal valves can't match. The thick plastic lining also prevents contamination of high purity fluids.

Poppet-type check valves.

Horizontal and vertical check valves are plastic lined for handling corrosives and high-purity fluids. They are extremely effective in preventing back-pressure or backflow, featuring a low 0.5 psi (0.03 bar) cracking pressure differential, and are capable of handling pressures to 275 psi (19 bar).

Since Tufline Check Valves have only one moving part, they are less likely to need maintenance. Because every surface in contact with the fluid is made of, or covered with, a thick layer of plastic, corrosion and contamination are virtually eliminated. They also have full pipe diameter ports and provide minimal obstruction in the flow path. The poppet-type design eliminates problems that occur in some check valves with pockets that can trap fluid.

Pressure / temperature ratings

① Class 150 Cast Steel 1" - 4" Valves

② Class 150 Cast Steel 6" & 8" Valves

③ Class 150 Ductile Iron

† Maximum allowable temperature of liner/gasket may be lower based on the aggressiveness of the fluid being handled. Contact Xomox for further details.

Available size, body material, and lining combinations for both 074 and 075 valves

Size (in.)	1		1½		2		2½		3		4		6		8	
Body Material	DI	CS	DI	CS	DI	CS	DI	CS	DI	CS	DI	CS	DI	CS	DI	CS
PP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
PVDF		●		●		●				●		●		●		*
PFA		●		●		●				●		●				

*Vertical Check Valve (074) only

Poppets.

Valves 1″ through 3″ sizes feature a solid PTFE poppet. Larger sizes use a steel reinforced poppet molded of the same material as the valve liner.

Cv Factors

Size	Horizontal	Vertical
1	5	8
1½	22	60
2	30	130
2½	N/A	N/A
3	80	320
4	150	500
6	450	1100
8	800	1500

Body bolting torques.

To ensure optimum performance in the presence of thermal cycling, it is essential that the body nuts be torqued to the values shown in the table below.

Torquing should only be done on the system in the ambient, cooled state, never at elevated temperature. Otherwise, excessive force could be applied to the plastic faces. Xomox recommends retorquing body bolts immediately before installation of the valve.

Body bolt torque values (ft-lbs)

Size	Horizontal		Vertical
	Elastometric gaskets	PTFE gaskets	
1	30	30	35
1½	30	30	35
2	30	40	45
2½	30	N/A	60
3	55	120	60
4	40	60	50
6	65	110	75
8	80	125	120

Check valve dimensions & weights (All dimensions in inches)

		1	1½	2	2½	3	4	6	8
A	Horizontal Face To Face	7.00	7.63	8.63	8.88	10.75	14.50	18.50	23.13
A	Vertical Face To Face	6.38	7.13	8.13	8.50	9.75	12.00	14.50	17.13
B	Horizontal Center To Top	4.38	5.38	6.50	7.38	8.63	11.00	15.25	18.44
B	Vertical Center To Top	5.38	5.63	6.75	7.00	8.38	9.75	12.75	16.20
C	Flange Thickness	.44	.56	.63	.063	.75	.94	1.00	1.13
D	Plastic ID (PP, PVDF)	.69	1.25	1.63	2.09	2.69	3.50	5.56	7.25
D	Plastic ID (PFA)	.69	1.31	1.75	N/A	2.81	3.69	N/A	N/A
N	No. Of Bolt Holes	4	4	4	4	4	8	8	8
O	Size Of Bolt Holes	.63	.63	.75	.75	.75	.75	.88	.88
P	Bolt Circle Diameter	3.20	3.88	4.75	5.50	6.00	7.50	9.50	11.75
G	Flange Diameter	4.20	5.00	6.00	7.00	7.50	9.00	11.00	13.50
J	Face Diameter	1.88	2.69	3.44	3.94	4.63	5.94	8.00	10.06
K	Horizontal Approx. Weight, lbs.	15	19	31	37	56	92	200	330
K	Vertical Approx. Weight, lbs.	16	19	31	38	52	88	142	225

NA=Not Available

N - Number of bolts
O - Diameter of holes
P - Diameter of bolt circle