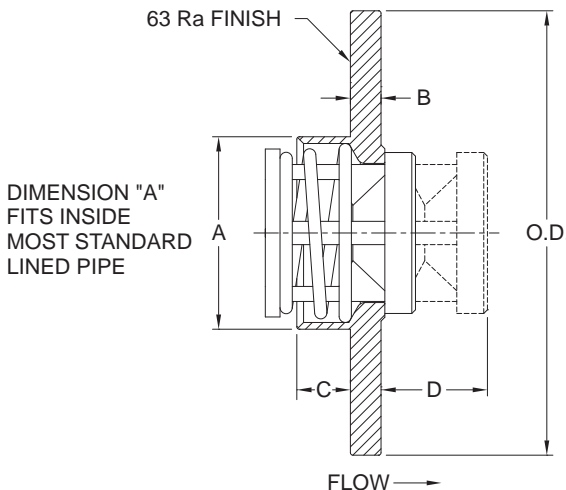


The **Lined Pipe Insert (LP)** valve is designed to mate between two flanges on most lined pipe systems. It provides the simplest and most economical way to install a check valve in a lined piping system. No gaskets are required; just spread the flanges, center the valve, and bolt the flanges together. Lined Pipe Insert valves are available in fluoropolymer (PTFE/FEP/PFA) and Alloy C-276 to satisfy the most demanding applications. The standard spring material is Alloy C-276. Other materials are available upon request.



Nom. Pipe Size	Size Code	A	B	C		D ^①	OD	Orifice ^② Diameter
				PTFE	HC			
1	H	0.590	1/4	0.26	0.26	0.53	2	0.348
1-1/2	J	1.120	1/4	0.46	0.42	0.78	2-7/8	0.593
2	K	1.570	1/4	0.79	0.44	1.01	3-5/8	1.135
3	M	2.520	5/16	0.77	0.66	1.43	5	1.555 ^③

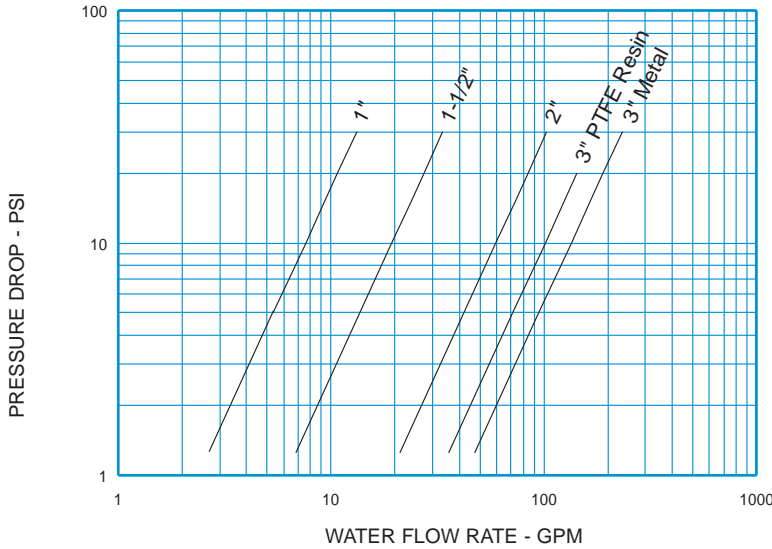
- ① Maximum nominal dimension for a fully open valve with no spring.
- ② Orifice Diameter for PTFE valve may vary due to molding process.
- ③ 3" PTFE valves use 1.385 Orifice Diameter.

Body Material ^④	Nominal Pipe Size	Non-Shock Pressure-Temperature Rating
Alloy C-276 (HC)	1 - 3	ANSI Class 150 & 300
PTFE (TF)	1 - 2	55 PSIG @ 100°F ^⑤
	3	20 PSIG @ 100°F ^⑤

④ See page 55 for material grade information. Contact the factory for availability of other materials.

⑤ Consult the factory for reduced P-T rating above 100°F.

Lined Pipe Insert
For Water at 72°F



Note: All flow curves and Cv values presume the valves are fully open with 1/2 PSI cracking pressure springs. Consult the factory for more information.

STYLE LP (LPI) C _v VALUES & VALVE WEIGHTS				
METAL C _v	PTFE C _v	SIZE	METAL	PTFE
2.4	2.4	1	4.0 oz.	1.0 oz.
6.1	6.1	1-1/2	8.8 oz.	2.2 oz.
18.8	18.8	2	14.4 oz.	3.2 oz.
45.8	32.0	3	2.3 lb.	9.0 oz.

See page 50 for Flow Formulae.
Valve weights are approximate.

**HOW TO ORDER
CHECK-ALL STYLE LP (LPI)**

BODY MATERIAL

ALLOY C-276 = HC
PTFE = TF

See p. 4 for temperature ratings

SPRING CRACKING PRESSURES
Replace "X" with actual desired setting.
Must use decimal as a character.

(PSI) FORMAT

.000 TO .999 = .XXX
1.00 TO 9.99 = X.XX
10.0 TO 99.9 = XX.X
NO SPRING = NOSPRG

STANDARD CRACKING PRESSURE^①
.500

Note: Many other cracking pressures are available. Consult factory.

SPECIAL OPTIONS

T = FEP ENCAPSULATED SPRING

See p. 5 for temperature ratings

Contact the factory for more options

LP

VALVE STYLE

SIZE

1 = H
1-1/2 = J
2 = K
3 = M

SEAT MATERIAL^②

AFLAS® = AS
BUNA-N = BN
EPDM = EP
KALREZ® = KZ
"METAL-TO-METAL"^③ = MT
NEOPRENE = NE
PTFE = TF
VITON® = VT

See p. 4 for temperature ratings

SPRING MATERIAL

ALLOY C-276 = HC
316 SS = SS
INCONEL® X-750 = IX
MONEL® = MO
17-7PH SS = PH
TITANIUM = TI

See p. 5 for temperature ratings

Listed above are the most common material selections. Please contact the factory for additional options.

^① .500 PSI is the only standard cracking pressure for spring materials other than Stainless Steel. Cracking pressure tolerance is +/- 15%. .125 PSI springs are not recommended for installations with flow vertical down.

^② Seat materials other than "metal-to-metal" have a maximum pressure rating of 1500 PSI. "Metal-to-Metal" and PTFE seats are not resilient. See page 51 for allowable leakage rates.

^③ For plastic valves, "MT" seats mean plastic to plastic. Consult factory for further information.