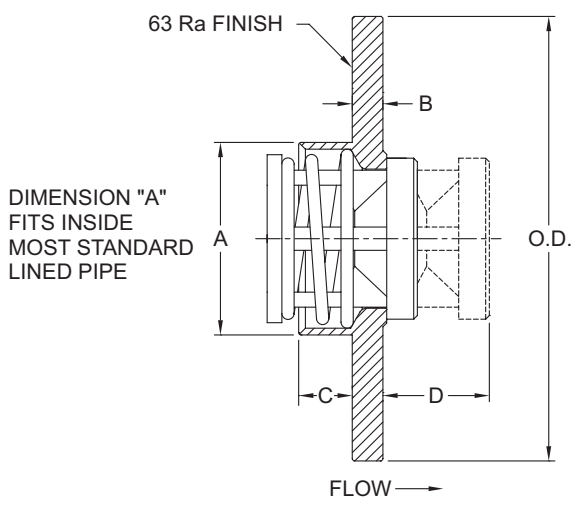


The **Lined Pipe Insert (LP)** valve is designed to mate between two flanges on most lined pipe systems. It provides the simplest and most economical way to install a check valve in a lined piping system. No gaskets are required; just spread the flanges, center the valve and bolt the flanges together. LP 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. The LP valve can also be used as a low pressure relief valve or vacuum breaker by using the desired spring settings.



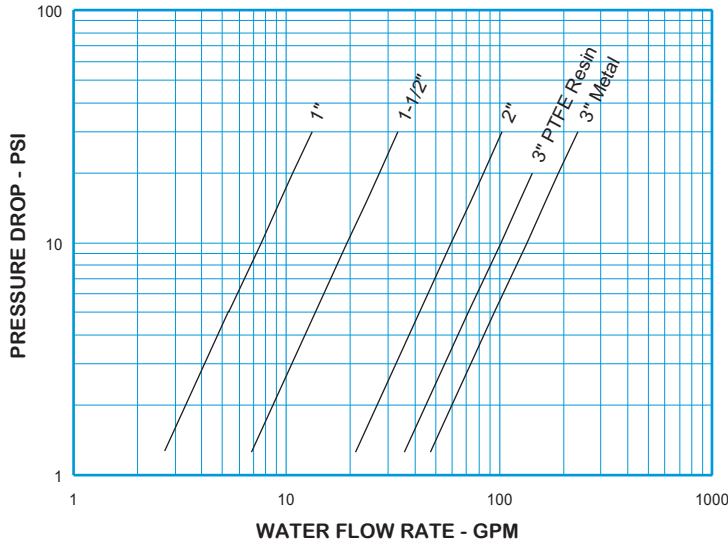
Nom. Pipe Size	Size Code	A	B	C		D ¹	OD	Orifice ² Diameter
				PTFE	HC			
1	H	0.590	1/4	0.26	0.26	0.53	2	0.348
1-1/2	J	1.120	1/4	0.46	0.42	0.78	2-7/8	0.593
2	K	1.570	1/4	0.79	0.44	1.01	3-5/8	1.135
3	M	2.520	5/16	0.77	0.66	1.43	5	1.555 ³

- 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-Temp. Rating
Alloy C-276 (HC)	1" - 3"	ANSI Class 150 & 300
PTFE (TF)	1" - 2"	55 PSIG @ 100°F
	3"	20 PSIG @ 100°F

⁴ See page 56 for material grade information. Contact the factory for availability of other materials.

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 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 51 for Flow Formulae.
Valve weights are approximate.

**HOW TO ORDER
CHECK-ALL STYLE LP**

BODY MATERIAL

ALLOY C-276 = HC
PTFE = TF

See p. 3 for temperature ratings

SPRING CRACKING PRESSURES (PSI) Note: Many other cracking pressures are available. All spring tolerances +/- 15%.

Must use decimal as a character unless selecting NO SPRING. Specify Exact Setting

SPRING RANGES	EXAMPLE
.000 TO .999	= .500
1.00 TO 9.99	= 1.50
10.0 TO 85.0	= 15.0
NO SPRING	= NOSPRG

STANDARD CRACKING PRESSURES ①

.500

SPECIAL OPTIONS

T = FEP ENCAPSULATED SPRING

Contact the factory for more options

See p. 4 for temperature rating

LP

VALVE STYLE

SEAT MATERIAL ②

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

See p. 3 for temperature ratings

SPRING MATERIAL

ALLOY C-276 = HC
316 SS = SS
INCONEL® X750 OR ALLOY X750 = IX
ALLOY 400 OR MONEL® = MO
TITANIUM = TI

See p. 4 for temperature ratings

SIZE

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

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. .125 PSI springs are not recommended for installations with flow vertical down.

② "Metal-to-Metal" and PTFE seats are not resilient. See page 52 for allowable leakage rates.

③ For PTFE valves, "TF" o-ring seats are not available, "MT" seats mean plastic to plastic. (No o-ring)