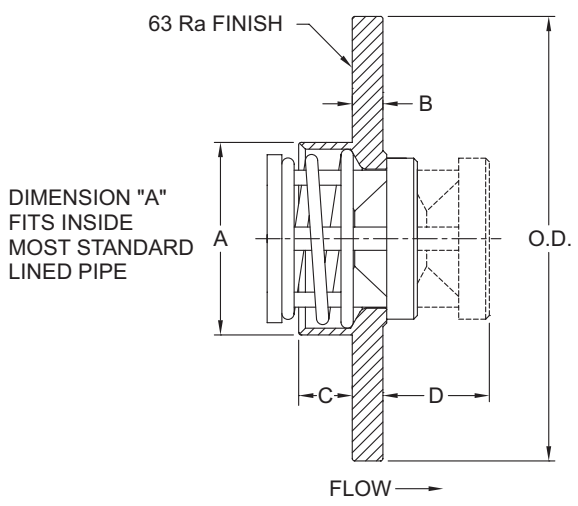


The **Lined Pipe Insert (LP)** valve is designed to mate between two flanges on most lined pipe systems. It provides the simplest and most economical way to install a check valve in a lined piping system. No gaskets are required; just spread the flanges, center the valve and bolt the flanges together. 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.



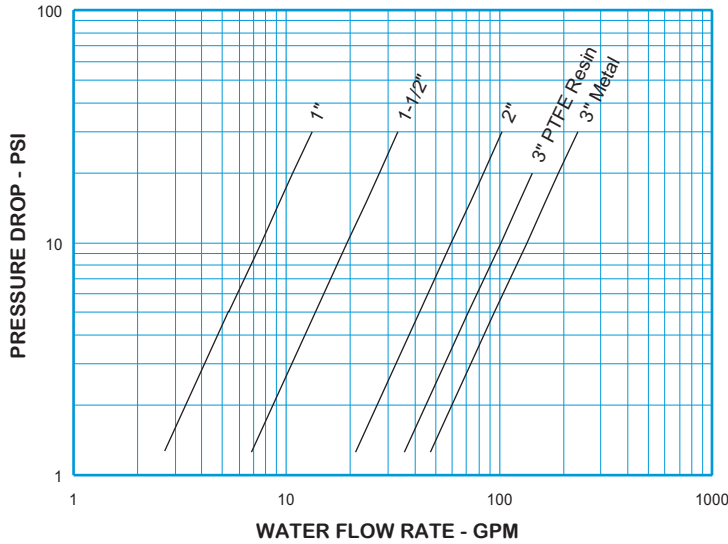
Nom. Pipe Size	Size Code	A	B	C		D <sup>①</sup>	OD	Orifice <sup>②</sup> Diameter
				PTFE	HC			
1	H	0.590	1/4	0.26	0.26	0.53	2	0.348
1-1/2	J	1.120	1/4	0.46	0.42	0.78	2-7/8	0.593
2	K	1.570	1/4	0.79	0.44	1.01	3-5/8	1.135
3	M	2.520	5/16	0.77	0.66	1.43	5	1.555 <sup>③</sup>

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

Body Material <sup>④</sup>	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

<sup>④</sup> 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 <sub>v</sub> VALUES & VALVE WEIGHTS				
METAL C <sub>v</sub>	PTFE C <sub>v</sub>	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

<b>SPRING RANGES</b>	<b>EXAMPLE</b>
.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**

**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" = 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**

**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)

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Page information references listed on this cut sheet are available in the printed catalog as well as the digital catalog, which is available at [www.checkall.com](http://www.checkall.com).