







Features / Design

Lined Valves - Series 7L / Lined Ball Check Valve

- TFV lined check valves come in several forms, all of which fulfill the same basic purpose, namely to allow forward fluid flow, but to minimize backwards flow. They prevent the back-flow of liquids in pipelines, prevent siphoning of pumps and eliminates pump impeller rotation in opposite direction due to back-flowing media. Generally check valve is automatically working. Under the pressure function of one direction flow, the disc opens, while when the liquid backflows, the valve will cut the flow.
- TFV Lined Check Valves 7L Series do not have a spring to help with valve closing, limiting their use to vertical lines with upwards forward flow. The salid PTFE ball at valve body lining guarantees that ball rolls into the seat due to gravitation. Selfcleaning effect due to permanent ball rotation, resistance against salid particles.
- It can sustain any corrosive medium in addition to the "molten alkali metals & fluorine elements". It is ideal for chlor-alkali & organic chemicals industry, metal & mining, nitrogen & phosphatic fertilizers, petroleum refining, pharmaceutical, etc.
- Design & Manufacture Standard: API 594 (Thickness).

■ Flange Std.: ASME B16.5.

■ Face to Face: ASME B16.10.

Lining Thickness: 3 to 5 mm.

Inspection and Test Standard: API 598.

Liner Inspection: Spark test 15 Kv.

Temperature Range (°C): PFA (-30 to 200), FEP (-30 to 150), PO (-10 to 80).

Material List

NO.	DESCRIPTION	MATERIAL				
1	BODY	A216 WCB + PFA / A351 CF8M + ETFE				
2	BALL	PTFE				
3	BOLT	A276 304SS / A276 316SS				
4	NUT	A276 304SS / A276 316SS				
5	CAP	S216 WCB + PFA / A351 CF8M + ETFE				

NOTE: Material list as example, other materials and liners available. TFV lined ball check valves are available as per the needs of applications in additional sizes and other than standard materials. Please contact us.





Dimensions (inches)

SIZE	L (in)	ØO (in)	ØC (in)	Ø G ⁽¹⁾ (in)	T (in)	f (2) (in)	N (in)	Ød (in)	CV (USgpm)	WEIGHT (lb)
1/2"	4.252	3.543	2.382	1.535	0.551	0.118	4	0.591	11.0	7.716
3/4"	5.512	3.937	2.752	1.693	0.551	0.118	4	0.591	20.0	7.716
1"	5.512	4.331	3.126	2.244	0.551	0.118	4	0.591	32.0	8.818
1 1/2"	7.008	4.921	3.874	2.874	0.630	0.118	4	0.591	90.0	16.535
2"	7.992	5.906	4.752	3.622	0.669	0.157	4	0.748	140.0	22.046
3"	9.488	7.480	6.000	5.000	0.827	0.157	4	0.748	375.0	39.683
4"	11.496	9.055	7.500	6.181	1.024	0.157	8	0.748	610.0	66.139
6"	14.016	11.024	9.500	8.504	1.102	0.157	8	0.866	1450.0	123.459

NOTES:
(1) The diameter of the enhancement may be greater than the indicated by the standard, this with the objective of increasing effective sealing area.
(2) The enhancement height may be greater than the indicated by the standard, this with the objective of increasing effective sealing area.



How to Order

SERIES NUMBER	BODY	MATERIA BODY LINER	AL BALL	SEAT	ENDS	CLASS	SIZE	OPERATION
7L	2 WCB	P PTFE	P PTFE	NONE	F Flanged RF	0 ANSI 150#	0.5 1/2"	NONE
	3 CF8M	F FEP					0.75 3/4"	
	4 CF8	F PFA					01 1"	
	6 DI/CI	E ETFE					01.5 1 1/2"	
		K KYNAR					02 2"	
							03 3"	
							04 4"	
							06 6"	

Example:

Lined Check Valve (Ball Type NRV), Body DI + PFA Liner, PTFE Solid Ball, Flanged RF ANSI Class 150# Size 6".

7L6APF006