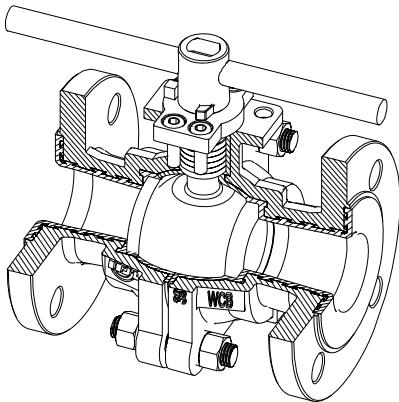
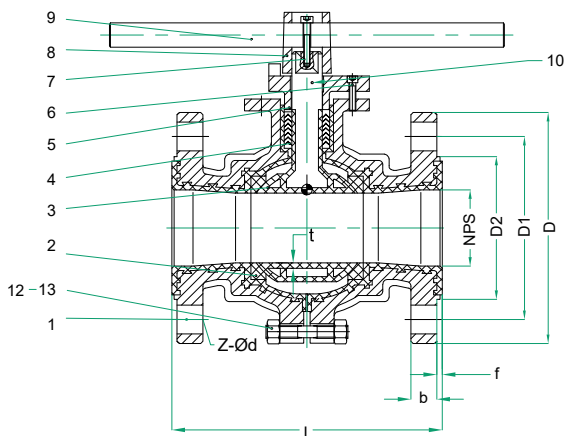




Design for 1/2" to 6" valves



Design for 1/2" to 6" valves



## Features / Design

### Lined Valves - Series 2L / Midsplit Ball Valve

- TFV lined midsplit ball valve adopts fluorine plastic as liner and equipped with new type structure for ball integrated with stem, as well as the unique elastic lip type sealing seat structure to provide itself all the advantages of general ball valve.
- It offers much lower torques and being one of the most accepted and popular valve types.
- It offers economical solutions for the vast majority of chemical applications while maintaining the highest possible degree of performance in terms of in-line leakage.
- They are commonly used in chlor-alkali, industrial in organic chemicals, metal & mining, nitrogen & phosphatic fertilizers, petroleum refining, pharmaceutical, and have superior performance in: chlorine, benzene, bromine, sulfuric acid, nitric acid, hydrochloric acid, phosphoric acid, sea water etc.
- Design & Manufacture Standard: ASME B16.34.
- Flange Std.: ANSI 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).

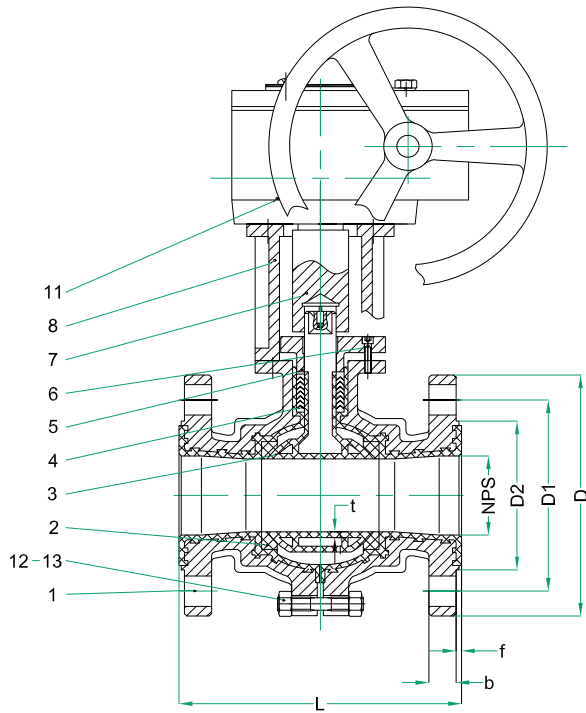
## Material List

NO.	PART NAME	MATERIAL
1	BODY	ASTM A216 WCB + PFA
2	SEAT	PTFE
3	BALL	ASTM A351 CF8M + PFA
4	PACKING	PTFE
5	GLAND	ASTM A216 WCB
6	BOLT	SS304
7	BOLT	SS304
8	HANDLE SEAT	ASTM A216 WCB
9	LEVER	1025
10	STEM	ASTM A351 CF8M + PFA
11	WORM GEAR	COMBINATION
12	NUT	SS304
13	BOLT	SS304
14	BONNET	ASTM A216 WCB + PFA
15	GASKET	SS304
16	BOLT	SS304
17	NUT	SS304
18	BOLT	SS304

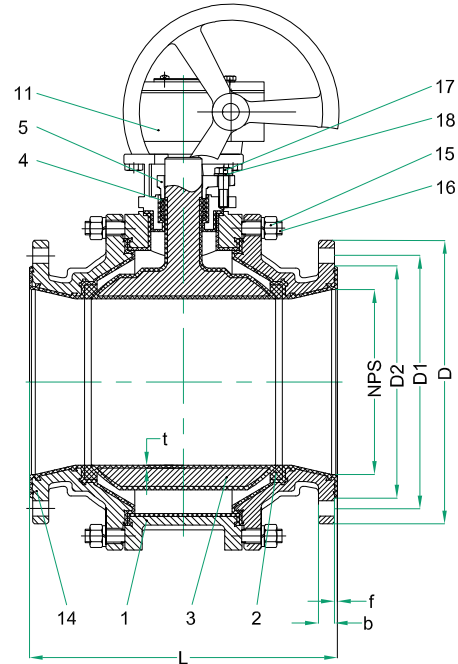
NOTE: Material list as example, other materials and liners available. TFV lined ball valves are available as per the needs of applications in additional sizes and other than standard materials. Please contact us.



Design for 8" valves



Design for 10" valves



## Dimensions (inches)

SIZE	L (in)	D (in)	D1 (in)	D2 <sup>(1)</sup> (in)	b (in)	Z (in)	d (in)	f <sup>(2)</sup> (in)	t (in)	WEIGHT <sup>(3)</sup> (lb)	CV (USgpm)	TORQUE (Lbf*in)
1/2"	4.252	3.543	2.374	1.378	0.354	4	0.630	0.098	0.118	6.173	*	7.376
3/4"	4.606	3.937	2.752	1.693	0.394	4	0.630	0.098	0.118	6.614	38	8.851
1"	5.000	4.331	3.126	2.008	0.433	4	0.630	0.098	0.118	8.818	50	11.064
1 1/4"	5.512	4.528	3.500	2.520	0.441	4	0.630	0.098	0.118	11.023	112	14.751
1 1/2"	6.496	4.921	3.874	2.874	0.500	4	0.630	0.118	0.118	17.637	170	25.815
2"	7.008	5.906	4.752	3.622	0.563	4	0.748	0.118	0.118	24.251	255	33.191
2 1/2"	7.480	7.087	5.500	4.134	0.626	4	0.748	0.118	0.118	33.951	284	44.254
3"	7.992	7.480	6.000	5.000	0.689	4	0.748	0.118	0.118	44.092	512	59.006
4"	9.016	9.055	7.500	6.181	0.878	8	0.748	0.138	0.157	61.729	940	95.884
5"	10.000	10.039	8.500	7.323	0.878	8	0.866	0.138	0.157	*	*	*
6"	10.512	11.024	9.500	8.504	0.941	8	0.866	0.157	0.197	119.050	2220	191.769
8"	17.992	13.583	11.744	10.630	0.866	8	0.866	0.157	0.197	295.420	3580	442.543
10"	17.717	15.984	14.252	12.756	0.984	12	0.984	0.157	0.197	507.064	5120	1327.629

NOTES:

\* Please consult with manufacturer.

(1) With the objective of increasing the effective sealing are between the pipe and the valve laying, the rise diameter may be greater than the standard.

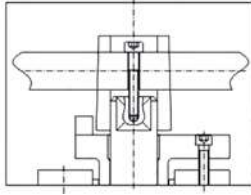
(2) With the objective of increasing the effective sealing are between the pipe and the valve laying, the thickness of the laying may be greater than the marked by the standard.

(3) The weight is an estimate, it may vary.



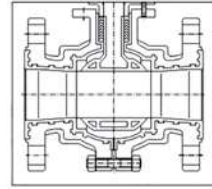
## Structure Features

### New handle design



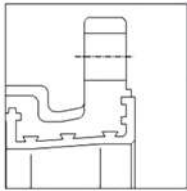
Designed to be movable from operating rod, which can be adjusted to lengthen the rod. Or handle can be fixed on the operating rod to prevent from falling off. Handle seat and locating plate adopt the integral casting molding design, to get rid of traditional fission design, is more convenient for installation & positioning adjustment.

### Lower torque



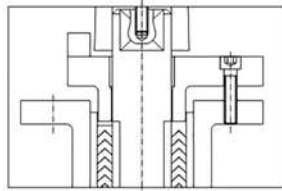
Because of midsplit body, the force on seat can be balanced on left and right side, to avoid uneven stress on body and displacement of ball. The ball is contact with a much smaller surface (seat rings). Consequently the operating torque is much lower, reducing costs, space and weight saving.

### For vacuum service



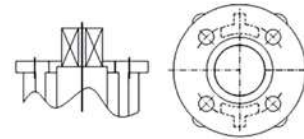
Processing dovetail groove in metal body in which lining locked to resists shrinkage, collapse and blow-out, to strengthen the adhesion between body and liner, ensuring the valve operated in the condition of slight negative pressure and full vacuum.

### Design of less leakage point



Valve body takes design of stuffing box to replace the fission structure to reduce the leakage point.

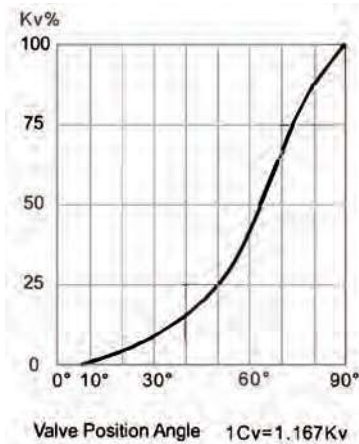
### ISO 5211 Platform design



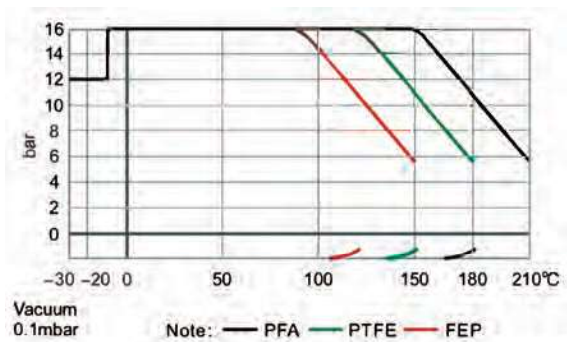
This new type ball valve with high platform fully compliance with ISO 5211 standard, allowing use of standard mounting kits. Nice appearance and light configuration.

## Flow Characteristic and Pressure-Temperature Chart

### Flow Characteristic



### Pressure Temperature Chart



NOTE: The working temperature cannot exceed the specified (it depends on lining material) range.



## How to Order

SERIES NUMBER	MATERIAL							ENDS	CLASS	SIZE		OPERATION				
	BODY	BALL	BODY LINER		SEAT											
2L	2	WCB	2	WCB	P	PTFE	P	PTFE	F	Flanged RF	0	ANSI 150#	0.5	1/2"	L	Manual Lever
	3	CF8M	3	316SS	F	FEP							0.75	3/4"	H	Handwheel
	4	CF8	4	304SS	A	PFA							01	1"	G	Gear Operator
	6	DI / CI			E	ETFE							01.25	1 1/4"	B	Bare Shaft
					K	KYNAR							01.5	1 1/2"	P	Pneumatic Actuator
													02	2"	E	Electric Actuator
													02.5	2 1/2"	X	Stem Extension w/Lever
													03	3"		
													04	4"		
													05	5"		
								06	6"							
								08	8"							
								10	10"							

**Example:**

Midsplit Full Port Ball Valve, Body DI + PFA Liner, Trim 304 + PFA Liner, Seat PTFE, Flanged RF  
ANSI Class 150# Size 6" with Lever.

**2L64APF006L**

