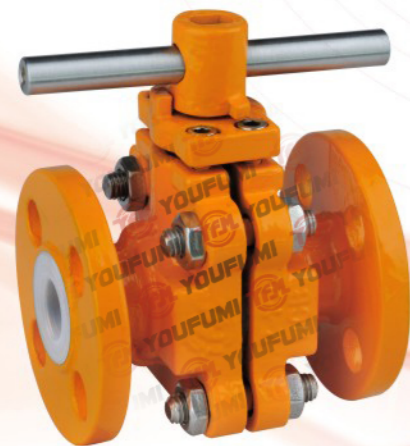# Lined Midsplit Ball Valve

Patent No.: ZL201420018107.4

YFM ZQ41PFA/FEP

※Product Description

■ Youfumi lined midsplit ball valve adopts fluorine plastic as liner and equipped with new type structure of the 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 and mining, nitrogen and phosphatic fertilizers, petroleum refining, pharmaceutical, and have superior performance in: chlorine, benzene, bromine, sulfuric acid, nitric acid, hydrochloric acid, phosphoric acid, sea water etc.

PFA Lined Midsplit Ball Valve Lever Operated

PFA Lined Midsplit Ball Valve Pneumatic Operated

🅰 Lined Valve
Lined Midsplit Ball Valve

※Technical Specification

| Design & Manufacture Standard	HG/T 3704, GB/T 12237		API 6D
Face-to-face Dimension Standard	HG/T 3704, GB/T 12221		ASME B16.10
Flange Standard	HG/T 20592, GB/T 9119		ASME B16.5, JIS B2220
Inspection & Test Standard	GB/T 13927, JB/T 9092		API 598
Nominal Diameter	DN15~DN350		1/2"~14"
Nominal Pressure (MPa)	1.0	1.6	150Lb
Pressure Test (MPa)	Shell Test	1.5	1.5	1.5
	High Pressure Sealing	1.1	1.1	1.1
	Low Pressure Sealing	0.6	0.6	0.6
Temperature Range(°C)	PFA: –30~200 FEP: –30~150		PO: –10~80
Applicable Medium	Strong corrosive medium i.e. hydrochloric acid, Nitric acid, Hydrofluoric acid, Liquid chlorine, Sulfuric Acid and Aqua regia etc.		

### ※Structure Features

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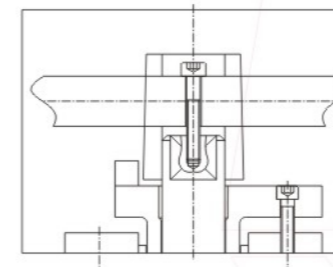
Handle designed to be movable from the operating rod, which can be adjusted to lengthen the rod. Or handle can be fixed on the operating rod to prevent from falling off. Handle seat and locating plate adopt the integral casting molding design, to get rid of traditional fission design, is more convenient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

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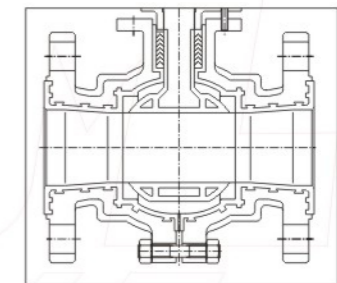
Because of midsplit body, the force on seat can be balanced on left and right side, to avoid uneven stress on body and displacement of ball. The ball is contact with a much smaller surface (seat rings). Consequently the operating torque is much lower, reducing costs, space and weight saving.

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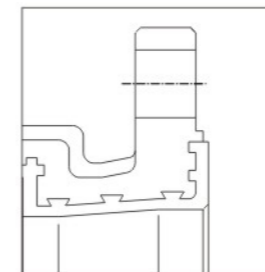
Processing dovetail groove in metal body in which lining locked to resists shrinkage, collapse and blow-out, to strengthen the adhesion between body and liner, ensuring the valve operated in the condition of slight negative pressure and full vacuum.

◆**Design of less leakage point**
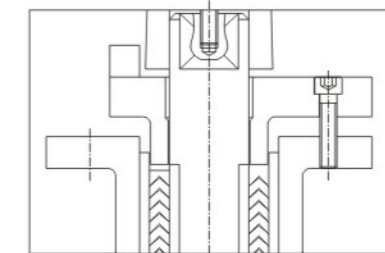
Valve body takes design of stuffing box to replace the fission structure to reduce the leakage point.
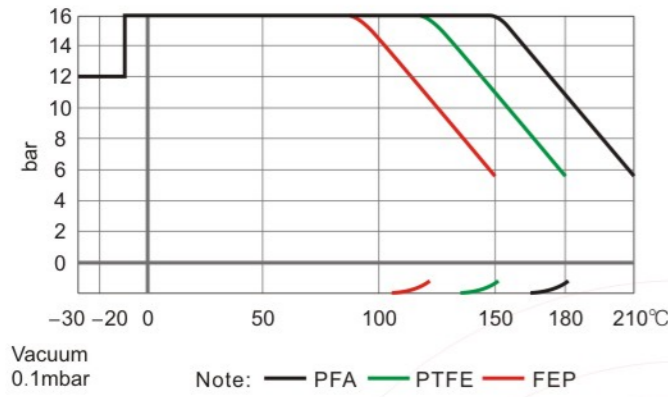
◆**ISO 5211 platform design**
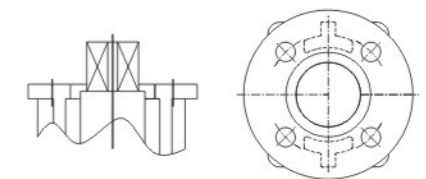
This new type ball valve with high platform fully compliance with ISO 5211 standard, allowing use of standard mounting kits. Nice appearance and tight configuration.
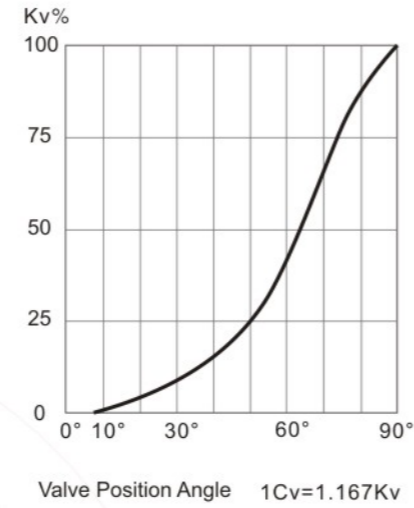
※Pressure-Temperature Curve

Vacuum
0.1mbar

Note: — PFA — PTFE — FEP

※Flow Characteristic

Valve Position Angle   1Cv=1.167Kv

※Instruction

◆ When examine and repair lined ball valve, shut off cut-off valve in front of lined ball valve before open it, and then release the pressure on ball valve body completely, because when ball valve in the closed state, there remain part of medium and pressure in body. If it is electric or pneumatic lined ball valve, disconnect the power and air supply before examine and repair.

Be careful to prevent PTFE seat from damage which would result in leakage when disassemble the ball valve if need to clean it.

When assemble or disassemble the lined ball valve, body bolts and nuts should be fixed and then tighten all nuts to fix at the same time. Otherwise uneven force from nuts will cause damage on flange surface, leading leakage.

When clean the valve, do not choose the solvent that will corrode or react to the valve parts. When cleaning, thoroughly clean the traces of dirt, grease and other attached objects. If cannot clean with water, under the condition of no damage to the valve body and component, clean it with alcohol and then waiting for the solvent completely evaporated before assembly.

If there is a little leakage in packing position, tighten the stem nut until no leaking and no need to further tighten.

If valves stored in outdoor for a long time, it can lead to valve parts rust and increase the possibility of liner expansion or shrink. Therefore, ball valve must store indoor, or should be rainproof, waterproof, moisture proof and the flange should be protected by cover.

If the lined ball valve stored for more than 12 months, it should be retested to ensure stable performance before installing in line.
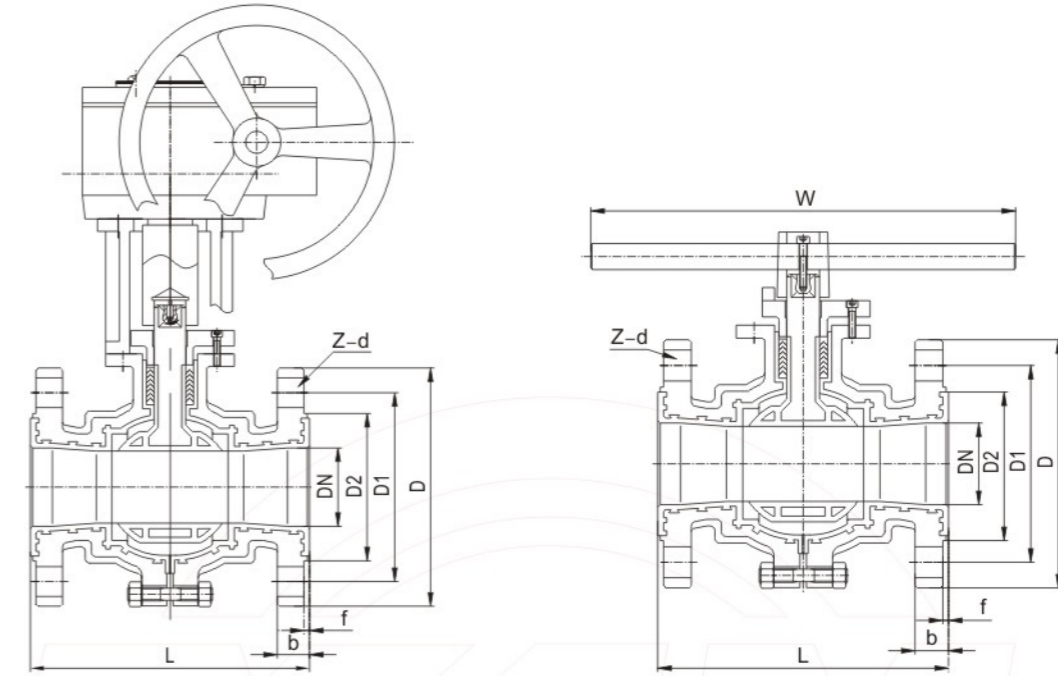
HG/T 20592 PN10/PN16
Unit:mm

DN	L	D	D1	D2	Z-d	f	b	W	H	H1
15	132	95	65	45	4-14	2	15	140	100	-
20	142	105	75	55	4-14	2	16	160	105	-
25	150	115	85	65	4-14	2	16	200	110	-
32	165	140	100	78	4-18	3	16	200	130	-
40	180	150	110	85	4-18	3	17	220	135	-
50	200	165	125	100	4-18	3	18	220	145	-
65	220	185	145	120	4-18	3	20	350	155	-
80	250	200	160	135	8-18	3	22	400	210	340
100	280	220	180	155	8-18	3	24	400	235	360
125	320	250	210	185	8-18	3	26	550	255	405
150	360	285	240	210	8-22	3	28	550	285	425

ASME B16.5 Class150
Unit:mm

NPS	L	D	D1	D2	Z-d	f	b	W	H	H1
1/2	110	89	60.5	35	4-16	2	12	140	100	-
3/4	117	98	70.0	43	4-16	2	12	160	105	-
1	127	108	79.5	51	4-16	2	12	200	110	-
11/4	140	117	89.0	64	4-16	2	13	200	130	-
11/2	165	127	98.5	73	4-16	2	15	220	135	-
2	178	152	120.5	92	4-19	2	16	220	145	-
21/2	190	178	139.5	105	4-19	2	18	350	155	-
3	203	190	152.5	127	4-19	2	19	400	210	340
4	229	229	190.5	157	8-19	2	24	400	235	360
5	254	254	216.0	186	8-22	3	24	550	255	405
6	267	279	241.5	216	8-22	3	26	550	285	425

Note: For more size please consult factory.