



氟塑料衬里的耐腐蚀阀门及管路附件，由于其固有的特殊性质，在产品的安装、维修及保养等方面具有以下的特点：

1、阀门或管件法兰盖板不能随意拆开，除非已准备与管路连接，否则ptfe法兰面可能因温差、异物造成磕碰划伤或扭曲变形而影响密封，如因检验需要而移动盖板，也必须待体验后速将盖板重新复位，以保护ptfe法兰面。

2、氟塑料衬里阀门及管件与管路连接时，一般并不再单独使用垫片，但与异种材料（金属面等）法兰面相接时，应采用适当垫片，以保护ptfe法兰面。

3、产品在系统使用中，如在较高温度下发生泄漏，应首先将系统温度降至室温后，再查明原因，进行维修。

4、不允许在冷门用管件上做任何高温焊接工作，以免造成衬里层得永久损害。

5、安装时法兰螺母应按对角线方向（对称）一次均匀旋紧，并配以适当力矩：（1）若法兰密封面发生泄漏，并且泄漏位置螺母已经锁紧，此时因放松泄漏位置螺母半圈，再将其对侧施以同样力矩再次锁紧。（2）若上述办法仍未止漏时，应检查ptfe法兰面是否有凹凸压痕、划伤，届时可用细砂纸、布予以整平重新连接。

6、阀门及管件应存放于干燥通风的室内，严禁堆叠放置。

7、长期存放的阀门其密封副应呈微启分离状态，避免密封面长期受压发生永久变形，影响密封性能和使用寿命。

8、手动操作阀门时，不允许借助其它杠杆加力强行开、关阀门。

9、有方向性要求的阀门在安装时要注意介质的流向应顺阀体上箭头所示方向，并确保操作、维修方便。

10、经维修后的阀门使用前要按相关标准测试合格后方可安装。

Fluorine plastic lining corrosion resistant valves and piping annex, due to its inherent characteristics, in the product installation, repair and maintenance, has the following characteristics:

1.The valve or pipe flange cover can not be opened, unless they have been prepared with the pipeline connection, or PTFE flange may be due to temperature, foreign body causing bump scratch or distortion and effects of sealing, such as testing for needs of mobile cover plate, must also be experience after the speed will cover again, to protect the PTFE flange.

2.Fluorine plastic lined valves and pipe fittings and pipe connection, generally no longer used alone and gasket, but dissimilar materials (metal surface flange is connected), should be employed to protect PTFE flange gasket.

3.Products in the system in use, such as occurred in the high temperature leakage, should first be system ambient temperature, and then find out the reason, to repair.

4.Don't allow any high temperature welding work on unpopular with pipe fittings, so as not to cause permanent damage to the lining layer.

5.Flange nut when installation should be according to the diagonal direction (symmetric) evenly tighten at a time, and with appropriate force from: (1) If the flange sealing surface leakage, and leakage location nut has locking, this time for relaxing the leak location nut half circle, and then on the side with the same force again lock.(2) If the solution is still not stop leakage, should check whether the PTFE flange surface concave-convex indentation, scratch, then use fine sandpaper, cloth gives leveling connection.

6.Valves and fittings should be stored in dry and ventilated room, is strictly prohibited stacking.

7.Long-term storage of the valve of the seal should raise separation condition, avoid sealing surface compression permanent deformation for a long time, affect the sealing performance and service life.

8.Manual operation of the valve, do not allow the other lever boosting forced open, close the valve.

9.Direction valve required during installation to pay attention to the flow of media should shun the arrow on the body in the direction shown, and to ensure that the operation and easy maintenance.

10.The valve repaired before use in accordance with the relevant standard test only after passing the installation.

■ 阀门及管路附件用氟塑料衬里性能表 Valves and piping accessories fluorine plastic lining Performance Table

性能 Performance	名称 Name		聚四氟乙烯/PTFE	聚三氟氯乙烯/PTFCE	聚偏氟乙烯/PVDF	聚全氟乙丙烯/FEP	可溶性聚四氟乙烯/PFA	
	缩写 Abbreviation		PTFE		PO	FEP	PFA	
	项目 Project	单位 Unit	代号 Code	F4	F3	F2	F46	*FA
物理性能 Physical performance	比重 Proportion		g/cm ³	2.1~2.2	2.1~2.2	1.76	2.1~2.2	2.1~2.2
	吸水率 Water absorption		%	0.001~0.005	≤0.005	0.04	≤0.01	≤0.01
	撑起收缩率 Synthesizer shrinkage rate		%	1~5	1~2.5	2.0	2~5	1~5
	热胀系数 Coefficient of thermal expansion		10 ⁻⁵ /K	10~12	4.5~7.0	8.5~15.3	8.3~15.3	8~12
	脆化温度 T1 Embrittlement temperature T1		°C	-180~-195	-80~-195	-62	-260	-180~195
	连续耐热 T2 Continuous heat T2		°C	260	120~190	150	204	260
	*推荐使用温度 T3 Recommended temperature T3		°C	≤180	≤120	≤100	≤150	≤180
机械性能 Mechanical performance	硬度 Hardness	邵氏 Shaohi	D50~65	D74~78	D80	(R45)	D50~65	
	摩擦系数 f The coefficient of friction	-	0.06	0.3~0.4	0.14~0.17	0.06~0.11	0.06~0.11	
	拉伸强度 δ b Tensile strength	MPa	13.7~24.5	31.3~39.2	45~48.3	20.2~24.5	14~28	
	弯曲强度 δ W Bending strength	MPa	10.7~13.7	53.9~68.6	-	-	15~28	
	压缩强度 δ y Compressive strength	MPa	111	80.3~50.6	68.6	不断 Constantly	111	
	冲击强度 δ k Impact strength	KJ/M ²	16	12.7~16.6	19.7	250~270	1+	
	极限延伸 Limit extension	△%	250~350	30~190	30~300	40	300~500	
	击穿电压 V Breakdown voltage	KV/mn	25~40	19.7	10.2	优 Ezcellent	25~40	
加工性能 Processing performance	模压成型 Molding		优 Ezcellent	优 Ezcellent	优 Ezcellent	-	优 Ezcellent	
	注射成型 Injection molding		-	优 Ezcellent	优 Ezcellent	优 Ezcellent	优 Ezcellent	
	层压 Laminate		优 Ezcellent	优 Ezcellent	优 Ezcellent	优 Ezcellent	优 Ezcellent	
	图层 Coating		优 Ezcellent	优 Ezcellent	优 Ezcellent	优 Ezcellent	优 Ezcellent	

根据内衬于铸铁压件内壁的氟塑料温度-压力等级曲线，推荐用户在这个温度范围内选择冷门的使用温度最合理的。另推荐使用 PE ≤ 100°C, PP ≤ 100°C, PVC ≤ 55°C。
According to the piece of lining fluorine plastic lined with steel pressure temperature - pressure level curve, suggested users in this temperature range choose unfashionable use temperature is the most reasonable. Also recommended temperature PE ≤ 100°C, PP ≤ 100°C, PVC ≤ 55°C.

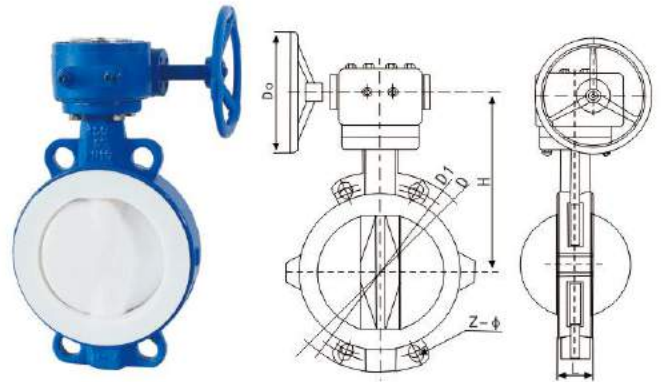
耐腐蚀性能 Corrosion resistance	介质 Medium	浓度 Concentration	温度 TEMP (°C)	PTFE	PO	FEP	PFA
	硫酸 Sulfuric acid	10~98	温度 TEMP-100	A	A-B	A-B	A
硝酸 Nitric acid	5~98	温度 TEMP-100	A	A	A	A	A
盐酸 Hydrochloric acid	10~38	温度 TEMP-100	A	A	A	A	A
醋酸 Acetic acid	10~100	温度 TEMP-70	A	A-B	A-B	A	A
铬酸 Chromic acid	50~100	温度 TEMP-100	A	A-B	A-B	A	A
磷酸 Phosphoric acid	50~85	常温 NPT	A-B	A	A	A-B	A-B
三氯甲烷 Chloroform	100	常温 NPT	C	D	D	C	C
硫酸铜 Copper sulfate	15	常温 NPT	A	B	B	A	A
二乙醚 Diethyl ether	100	常温 NPT	B	C	C	A	B
醋酸乙酯 Ethyl acetate	100	常温 NPT	B	C	C	C	B
汽油 Gasoline	100	常温 NPT	A	A	A	A	A
二氧化碳 Hydrogen peroxide	3~30	常温 NPT	A	A-B	A-B	A	A
王水 Aqua regia	-	常温 NPT	A	A	A	A	A
硝酸苯 Nitrobenzene	100	常温 NPT	A	B	B	A	A
苛性钠 Caustic soda	10~50	常温 NPT-100	A	A-B	A-B	A	A
次氯酸钠 Sodium hypochlorite	-	70	A	A	A	A	A
氢氟酸 Hydrofluoric acid	40~99	-30~100	A-B	B	B	A-B	A-B
发烟硫酸 Fuming sulfuric acid	20	常温 NPT	A	B	B	A	A
丙烯腈 Acrylonitrile	-	常温 NPT	B	C	C	B	B
苯胺 Aniline	100	常温 NPT	B	B	B	B	B
苯 Benzene	100	常温 NPT	B	C	C	C	B
醋酸丁酯 Butyl acetate	100	常温 NPT	B	C	C	B	B
四氯化碳 Carbon tetrachloride	试剂级 Reagent grade	常温 NPT	B	C	C	B	B

ABCD 表示耐腐蚀性能，分别为优、良、差四个等级。 The said corrosion resistance, excellent, good, fair and poor in four grades.

D71F4/F46/PFA/PO-10C、16P
 D371F4/F46/PFA/PO-10C、16P
 ANSI 150LB

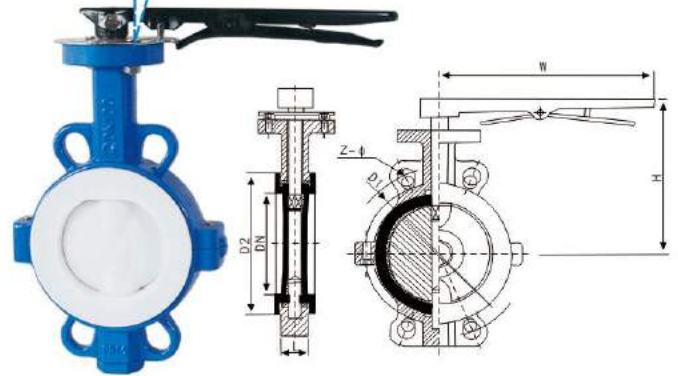
主要零件及材料 Main parts and materials

零件名称 Part name	材料 Material
上下阀体 Upper and lower valve body	铸铁 Cast iron、铸钢 Cast steel、 不锈钢 Stainless steel、衬 Lining/F4、F46、 PFA(可溶性聚四氟乙烯)PO(聚烯烃)
阀座 Valve seat	F4/F46/PFA/PO
带杆蝶板 With lever dish plate	全衬 Full lining (WCB包衬) F4/F46 PFA(可溶性聚四氟乙烯)PO(聚烯烃) 半衬 Half lining (不锈钢) 304、316、316L
衬垫 Liner	硅橡胶 Silicone rubber
蜗轮手柄 Worm handle	Qt400-15球墨铸铁、铝合金 Ductile cast iron



衬氟蝶阀标准 PTFE-lined Butterfly Valve

技术规范 Technical specification	
设计标准 Design standard	GB12238
结构长度 Structure length	GB12221
法兰标准 Flange standard	HG20592 GB9113.1-26
检验试验 Inspection and test	GB/T13927
驱动方式 Drive mode	蜗轮 Worm、手动 Manual、电动 Electric、气动 Pneumatic



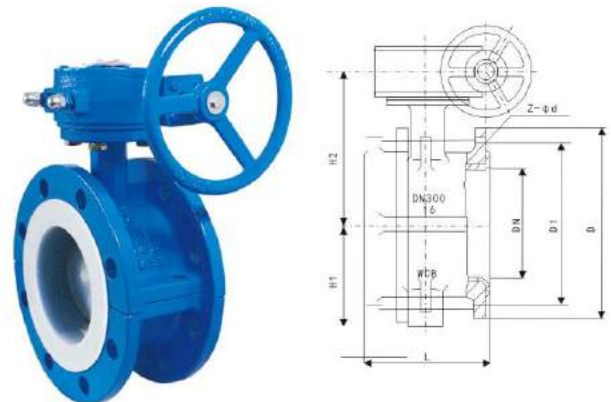
主要零件及材料 Main parts and materials

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上下阀体 Upper and lower valve body	铸铁 Cast iron、铸钢 Cast steel、 不锈钢 Stainless steel、衬 Lining/F4、F46、 PFA(可溶性聚四氟乙烯)PO(聚烯烃)
阀座 Valve seat	FEP(F46)、PTFE(F4)、PFA(可溶性聚四氟乙烯) PO(聚烯烃)
带杆蝶板 With lever dish plate	全衬 Full lining (WCB包衬) F4/F46 PFA(可溶性聚四氟乙烯)PO(聚烯烃) 半衬 Half lining (不锈钢) 304、316、316L
衬垫 Liner	硅橡胶 Silicone rubber
蜗轮手柄 Worm handle	Qt400-15球墨铸铁、铝合金

D41F4/F46/PFA/PO-10C、16P
 D341F4/F46/PFA/PO-10C、16P
 ANSI 150LB

衬氟蝶阀标准 PTFE-lined Butterfly Valve

技术规范 Technical specification	
设计标准 Design standard	GB12238
结构长度 Structure length	GB12221
法兰标准 Flange standard	HG20592 GB9113.1-26
检验试验 Inspection and test	GB/T13927
驱动方式 Drive mode	蜗轮 Worm、手动 Manual、电动 Electric、气动 Pneumatic



D71F4/F46/PFA/PO-10C、16P
 D371F4/F46/PFA/PO-10C、16P
 ANSI 150LB

■主要外形尺寸 Main dimensions

公称通径 Nominal diameter DN		外形尺寸Shape size									参考值The reference value			外形尺寸Shape size									参考值The reference value		
Mm	inch	L 对夹 Wafer	H2	H1	PN1.0MPa					Z-Φd	D0	H	重量 Weight (kg)	PN1.6MPa					D0	H	重量 Weight (kg)				
					D	D1	D2	F	B					D	D1	D2	F	B				Z-Φd			
40	1 1/2	33	143	85	150	110	85	3	19	4-18	150	140	3.4	150	110	85	3	19	4-18	150	140	4			
50	5	43	143	85	165	125	100	3	19	4-18	150	140	4.5	165	125	100	3	21	4-18	150	140	5			
65	2 1/2	46	157	93	185	145	120	3	21	4-18	150	150	6.5	185	145	120	3	21	4-18	150	150	8			
80	3	46	178	100	200	160	135	3	21	4-18	150	165	9	200	160	135	3	22	8-18	150	165	12			
100	4	52	185	110	220	180	155	3	21	4-18	200	180	11	220	180	155	3	23	8-18	200	180	14			
125	5	56	206	120	250	210	185	3	23	4-18	200	200	19	250	210	185	3	23	8-18	200	200	22			
150	6	56	225	160	285	240	210	3	25	8-23	280	220	28	285	240	210	3	25	8-23	280	220	30			
200	8	60	275	245	340	295	265	3	25	8-23	280	270	55	340	295	265	3	28	12-27	280	270	65			
250	10	68	326	260	395	350	320	4	28	12-23	200	320	71	405	355	320	4	28	12-27	200	320	80			
300	12	78	333	300	445	400	370	4	28	12-23	240	330	90	460	410	370	4	30	12-27	240	330	95			
350	14	78	393	320	505	460	430	4	28	16-23	240	385	1222	520	470	430	4	32	16-27	240	385	125			
400	16	102	438	330	565	515	480	4	28	16-26	280	430	140	580	525	480	4	34	16-30	280	430	155			
450	18	114	488	380	615	565	530	4	30	20-26	280	480	160	640	585	550	4	42	20-30	280	480	175			
500	20	127	540	390	670	620	580	4	30	20-26	320	540	200	715	650	610	5	42	20-33	320	540	230			
600	24	154	615	450	780	725	680	5	34	20-30	320	610	270	840	770	720	5	48	20-36	320	610	300			
700	28	165	660	480	895	840	795	5	36	24-33	360	650	320	910	840	759	5	48	24-36	360	650	335			
800	32	190	720	580	1015	950	900	5	38	24-33	360	710	390	1025	950	900	5	48	24-39	360	740	425			
900	36	203	780	625	1115	1050	1000	5	40	28-33	380	780	455	1125	1050	1000	5	50	28-39	380	780	500			
1000	40	216	900	660	1230	1160	1115	5	42	28-36	400	900	690	1255	1170	1110	5	50	28-42	400	900	715			
1200	48	254	1070	780	1455	1380	1330	5	44	32-39	400	1050	830	1485	1390	1330	5	50	32-48	400	1050	860			

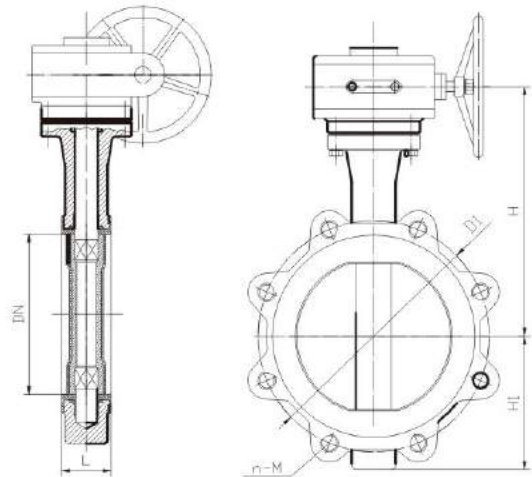
D41F4/F46/PFA/PO-10C、16P
 D341F4/F46/PFA/PO-10C、16P
 ANSI 150LB

■主要外形尺寸 Main dimensions

公称通径 Nominal diameter DN	外形尺寸Shape size			连接尺寸Connection dimension					
	L	H2	H1	1.0MPa			1.6MPa		
				D	D1	Z-Φd	D	D1	Z-Φd
50	108	143	85	165	125	4-Φ18	160	125	4-Φ18
65	112	157	93	185	145	4-Φ18	180	145	4-Φ18
80	114	178	100	200	160	4-Φ18	195	160	8-Φ18
100	127	185	110	220	180	8-Φ18	215	180	8-Φ18
125	140	206	120	250	210	8-Φ18	245	210	8-Φ18
150	140	225	160	285	240	8-Φ23	280	240	8-Φ23
200	152	275	245	340	295	8-Φ23	335	295	12-Φ23
250	165	326	260	395	350	12-Φ23	405	355	12-Φ26
300	178	333	300	445	400	12-Φ23	460	410	12-Φ26
350	190	393	320	505	460	16-Φ23	520	470	16-Φ26
400	216	438	330	565	515	16-Φ26	580	525	16-Φ30
450	222	488	380	615	565	20-Φ26	640	585	20-Φ30
500	229	540	390	670	620	20-Φ26	715	650	20-Φ33
600	267	615	450	780	725	20-Φ30	840	770	20-Φ36
700	292	660	480	895	840	24-Φ30	910	840	24-Φ36
800	318	720	580	1010	950	24-Φ34	1020	950	24-Φ39
900	330	785	625	1110	1050	28-Φ34	1120	1050	28-Φ39
1000	410	900	660	1220	1160	28-Φ34	1255	1170	28-Φ42
1200	470	1070	780	1450	1380	32-Φ41	1485	1390	32-Φ48

■主要外形尺寸 Main dimensions

公称通径		主要尺寸Main dimensions							
DN		L		D	D1	D2	F	B	Z-φd
mm	inch	对夹	法兰	PN1.6MPa					
40	1 1/2	33	106	150	110	85	3	19	4-18
50	2	43	108	165	125	100	3	21	4-18
65	2 1/2	46	112	185	145	120	3	21	4-18
80	3	46	114	200	160	135	3	22	8-18
100	4	52	127	200	180	155	3	23	8-18
125	5	56	140	250	210	185	3	23	8-18
150	6	56	140	285	240	210	3	25	8-23
200	8	60	152	340	295	265	3	25	12-27
250	10	68	165	405	355	320	4	28	12-27
300	12	78	178	460	410	370	4	30	12-27
350	14	78	190	520	470	430	4	32	16-27
400	16	102	216	580	525	480	4	34	16-30
450	18	114	222	640	585	550	4	42	20-30
500	20	127	229	715	650	610	5	42	20-33
600	24	154	267	840	770	720	5	48	20-36
700	28	165	292	910	840	759	5	48	24-36
800	32	190	318	1025	950	900	5	48	24-39
900	36	203	330	1125	1050	1000	5	50	28-39
1000	40	216	410	1255	1170	1110	5	50	28-42
1200	48	254	470	1485	1390	1330	5	50	32-48



■主要外形尺寸 Main dimensions

公称通径		主要尺寸Main dimensions															
DN		L	D	D1	D2	F	b	Z-d	D	D1	D2	F	b	Z-φd	D0	H	重量 (kg)
mm	inch	对夹	ANSI 150LB						JIS10K								
40	1 1/2	33	130	98.5	73	3	16	4-15	140	105	85	3	17	4-19	150	140	11
50	2	43	152	120.5	92	3	17	4-19	155	120	100	3	17	4-19	150	140	13
65	2 1/2	46	178	139.5	105	3	19	4-19	175	140	120	3	19	4-19	150	150	14
80	3	46	190	152.5	127	3	20	4-19	185	150	130	3	19	8-19	150	165	16
100	4	52	229	190.5	157	3	24	4-19	210	175	155	3	19	8-19	200	180	18
125	5	56	254	216	186	3	25	8-22	250	210	185	3	21	8-23	200	200	20
150	6	56	279	241.5	216	3	27	8-22	280	240	215	3	23	8-23	280	220	50
200	8	60	343	298.5	270	3	30	8-22	330	290	265	3	23	12-23	280	270	80
250	10	68	406	362.5	324	4	32	12-25	400	355	325	4	25	12-25	200	320	130
300	12	78	483	432	381	4	34	12-25	445	400	370	4	25	16-25	240	330	150
350	14	78	533	476	413	4	37	12-30	490	445	415	4	27	16-25	240	385	205
400	16	102	597	539.5	470	4	39	16-30	560	510	475	4	30	16-27	280	430	230
450	18	114	635	578	533	4	42	16-33	620	565	530	4	32	20-27	280	480	375
500	20	127	698	635	584	4	45	20-33	675	620	585	4	32	20-27	320	540	430
600	24	154	813	749.5	692	5	50	20-36	795	730	690	5	34	24-33	320	610	750

DN200以上D0尺寸为涡轮手轮尺寸, DN200以下D0尺寸手柄尺寸