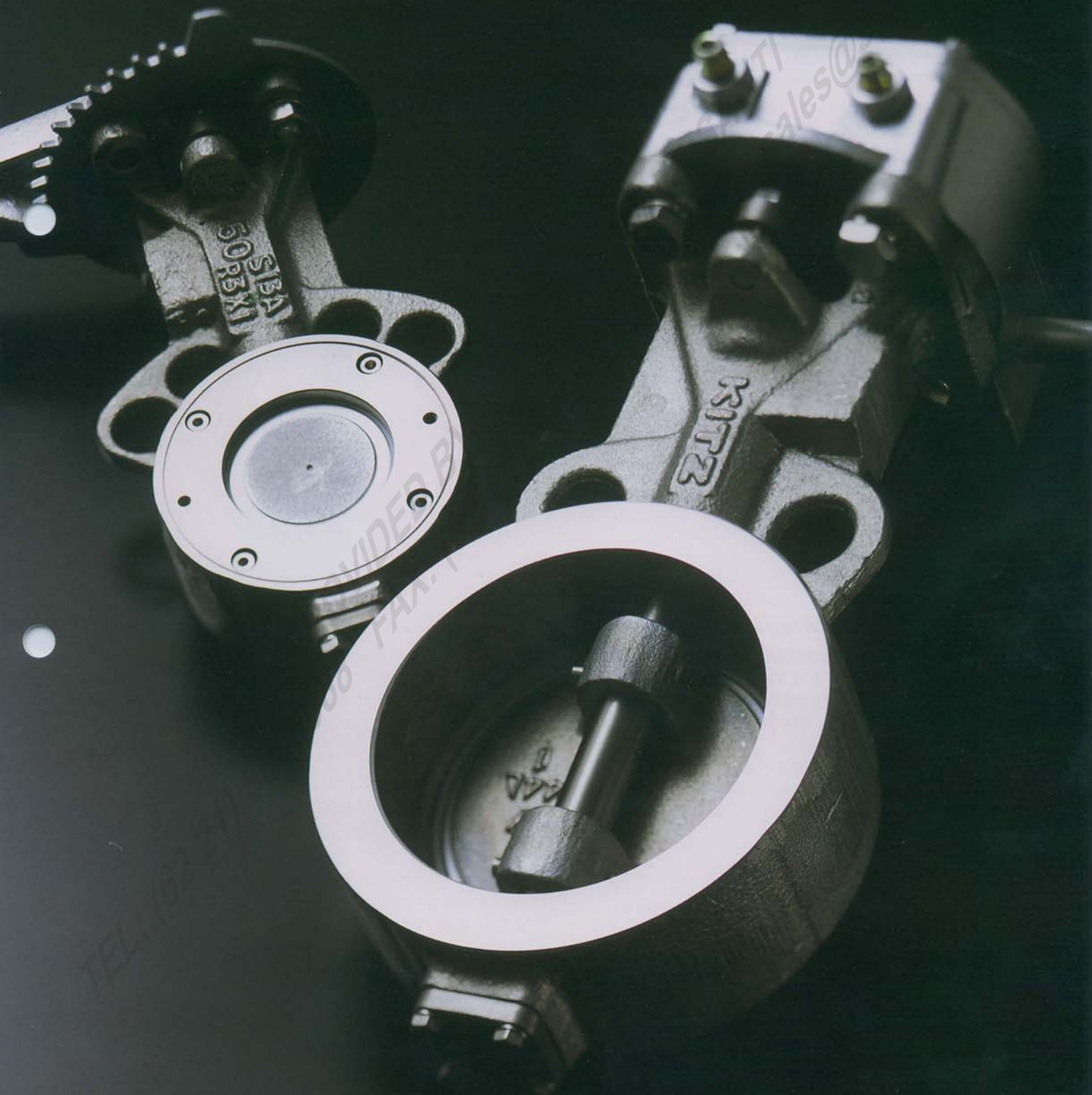


KITZ

Stainless Steel Butterfly Valves



KITZ CORPORATION

KITZ Type UB 10K/16K & Class 150 Stainless Steel Butterfly Valves

Double-eccentric kinematics, and all stainless steel bodies and trims guarantee high performance corrosion resistant service for application of KITZ Type UB butterfly valves to chemical industries.

DESIGN FEATURES

- Rigid SUS304N2 stainless steel stem
- Gland can be retightened without lever or gear disassembly
- Low-friction V shape PTFE gland packing rings
- Lubrication-free, friction-resistant stem bearing made of SUS316 and PTFE
- Rigidly built SCS13A* body with ASME Class 150 wall thickness
- Corrosion resistant PTFE seat ring built in SUS304* seat retainer
- Integral disc stopper to protect seat ring from damage
- Rigid SUS304N2 stainless steel stem
- SUS304* ring for provision of blowout-proof stem
- Corrosion resistant PTFE gasket

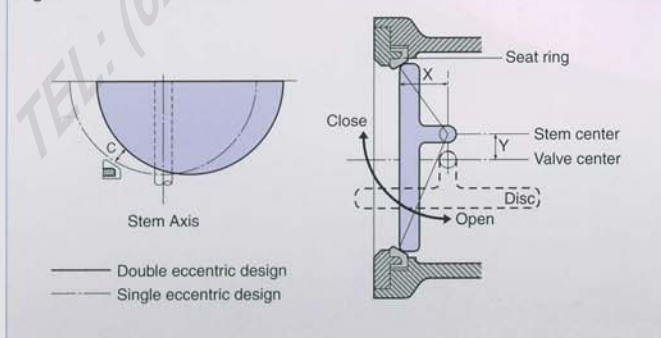


*SCS14A or SUS316 is available as an option

● Double-eccentric kinematics

The valve's stem is designed eccentric to both the center of the seat ring (by X) and the center of the valve body (by Y), which makes the clearance C between the seat ring and the disc seat surface on its fully open position (Fig.1). Disc seating surface is spherically machined and contacts PTFE seat tightly through 360°C for leak-free service. All these help minimize frictional wear of seat rings and reduce the valve operating torque considerably.

Fig.1



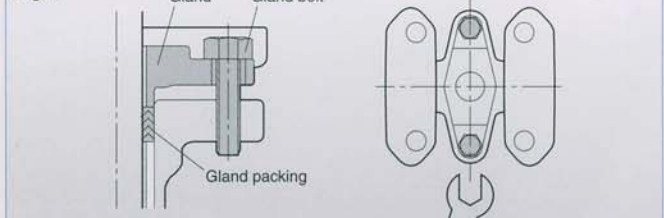
● Durable seat rings

Seat rings are made of PTFE with stainless steel supporter. Furthermore, double-eccentric kinematics relieve seat ring from damage or wear which is a rather usual problem of conventional butterfly valves. This makes the service life twice as long as rubber seated butterfly valves.

● Retightening of gland packing

There is a room between the gland and the lever or gear to allow retightening of gland boltings without trouble of disassembly of the lever or gear during plant operation. Another feature of KITZ Type UB butterfly valves (Fig.2).

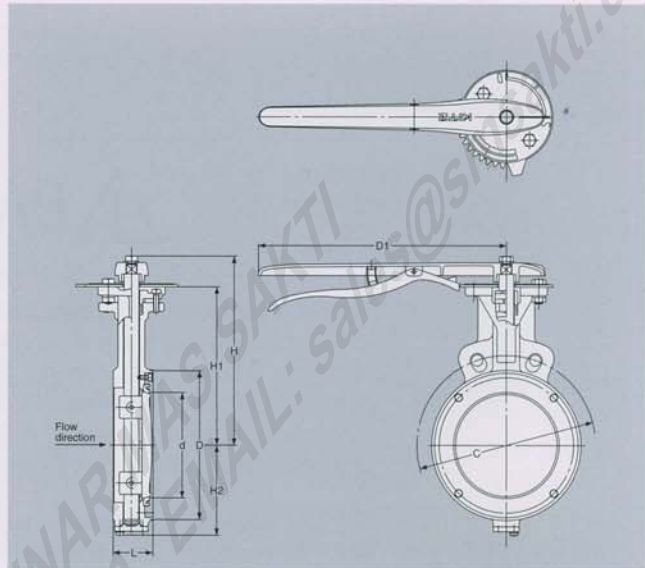
Fig.2



LEVER OPERATED

10UB*: Class 10K / 150UB: Class 150

*KITZ valve codes shall be suffixed with M in case of SCS14A stainless steel body and trim.



Dimensions

unit: mm

Size		d	H	H1	H2	L	D	D1	C	
mm	inch								10K	150
50	2	50	174	138	64	43	90	230	120	120.5
65	2 1/2	65	184	148	74	46	115		140	139.5
80	3	78	205	167	82		52	126	280	150
100	4	98	219	181	92	56	146	175		190.5
125	5	123	242	202	105		211	181	210	216.0
150	6	148	265	225	127			211	350	240

Materials

Parts	JIS Materials
Body	SCS13A* ¹
Stem	SUS304 N2
Disc	SCS13A* ¹
Gland	SCS13A* ¹
Seat ring	PTFE* ²
Seat retainer	SUS304* ¹
Gland packing	PTFE
Gasket	PTFE

Parts	JIS Materials
Set bolt	SUS304* ¹
Taper pin	SUS316
Stem bearing	Metal backed PTFE
Gland bolts	SUS304
Thrust washer	PTFE
End plate	SCS13A* ¹
End plate bolts	SUS304

*¹ SCS14A or SUS316 is available as an option.
*² Carbon filled PTFE seat rings are optionally available.

⚠ CAUTION

The following gaskets should be used for the installation of the valves into pipelines.

[Type of Gasket]

- Reinforced PTFE gasket (Jacketed gasket, Spiral Wound gasket or Metal gasket cannot be installed.)

[Dimension of Gasket]

- The dimensions of the gasket should comply with ASME B16.21. (Minimum gasket thickness is 3mm.)

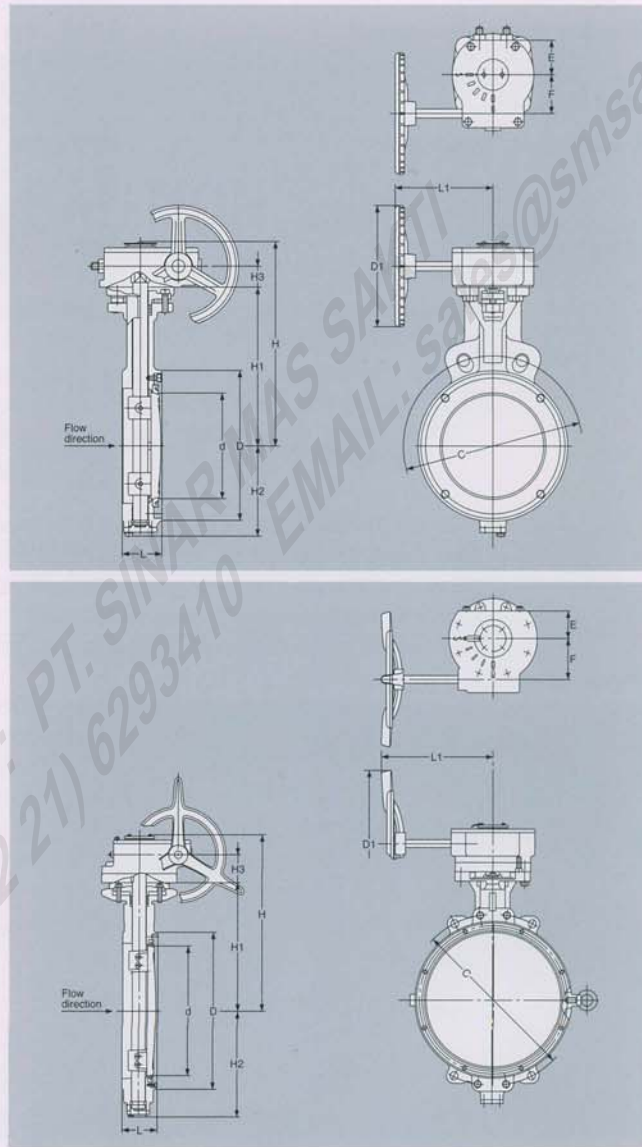
The valves cannot be installed to stub ends.

UB is a unidirectional valve. The valve must be installed according to an arrow, provided on the side of the operator mounting flange. The arrow must point from the higher pressure side to the lower pressure side in the valve closed position.

LONG SPINDLE GEAR OPERATED

GL-10UB*: Class 10K / GL-16UB: Class 16K / GL-150UB: Class 150

*KITZ valve codes shall be suffixed with M in case of SCS14A stainless steel body and trim.



Dimensions

unit: mm

Size		d	H	H1	H2	H3	L	L1	D	D1	E	F	C			Gear type	
mm	inch												10K	16K	150		
50	2	50	191	138	64	25	43	150	90	140	35	42.5	120	120	120.5	No.1	
65	2½	65	201	148	74		46		115								
80	3	78	225	167	82		52	195	126	170	42	60	150	160	152.5		No.2
100	4	98	239	181	92	28	56	204	146	200	64	88.5	175	185	190.5		
125	5	123	260	202	105		83	310	181				360	210	225	216.0	
150	6	148	283	225	127		92	363	211				410	240	260	241.5	
200	8	197	350	263	164	47	71	280	257	310	54	65.5	290	305	298.5	No.3	
250	10	243	417	315	235	60	76	310	322	360	64	88.5	355	380	362.0	No.4	
300	12	295	444	342	258		83		367				360	400	430		432.0
350	14	325	476	374	294		92		363				410	445	480		476.5
400	16	371	572	408	315	95	102	377	470	500	90	134	510	540	539.5	No.6	
450	18	421	606	442	370		114		530				500	565	605		578.0
500	20	470	622	458	398		127		580				580	620	660		635.0
600	24	569	758	558	475	170	154		688		105	213	730	770	749.5	No.7	

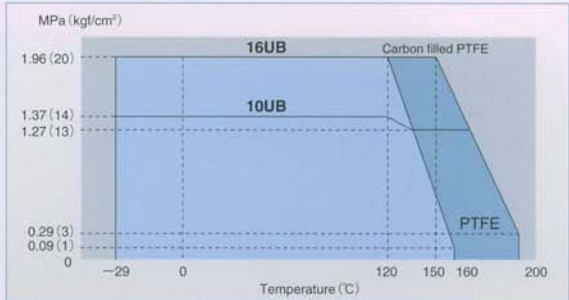
TECHNICAL SPECIFICATIONS

● Maximum service pressures	10K 16K (Size 2" to 12") 16K (Size 14" to 24")	1.37MPa (14kgf/cm ²) 1.96MPa (20kgf/cm ²) 1.37MPa (14kgf/cm ²)
● Service temperature range	PTFE seat Carbon filled PTFE seat	-29°C to +160°C -29°C to +200°C
● Wall thickness		ASME B 16.34 Class 150
● Face-to-face dimensions	ISO 5752 Short Medium	6" and smaller 8" and larger
● Coupling flanges	10K 16K Class 150	JIS 10K JIS 16K ASME Class 150
● Test pressure 10K	Shell test Seat test	2.06MPa (21kgf/cm ²) [hydrostatic] 1.51MPa (15.4kgf/cm ²) [hydrostatic] 0.59MPa (6kgf/cm ²) [pneumatic]
16K (Class 150) (Size 2" to 12")	Shell test Seat test	2.94MPa (30kgf/cm ²) [hydrostatic] 2.16MPa (22kgf/cm ²) [hydrostatic] 0.59MPa (6kgf/cm ²) [pneumatic]
(Size 14" to 24")	Shell test Seat test	2.06MPa (21kgf/cm ²) [hydrostatic] 1.51MPa (15.4kgf/cm ²) [hydrostatic] 0.59MPa (6kgf/cm ²) [pneumatic]

● Flow coefficient (Cv)

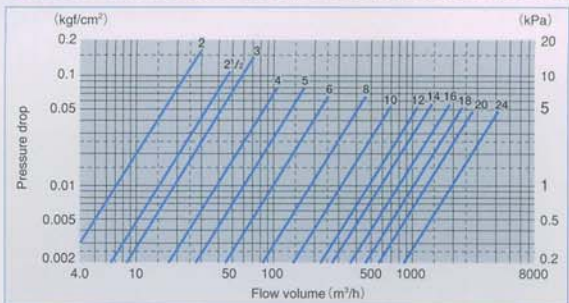
Size		Valve opening			
mm	inch	30°	45°	60°	90°
50	2	17	33	54	83
65	2½	36	69	112	175
80	3	52	101	164	255
100	4	94	182	295	460
125	5	147	285	462	722
150	6	240	465	756	1180
200	8	455	883	1440	2240
250	10	743	1450	2350	3660
300	12	1150	2230	3610	5640
350	14	1440	2790	4520	7060
400	16	1910	3700	6010	9390
450	18	2500	4850	7880	12300
500	20	3110	6030	9800	15300
600	24	4650	9030	14700	22900

● P-T rating of seats

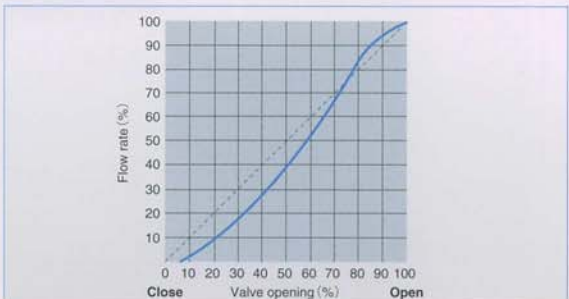


Contact KITZ for technical advice when service conditions may exceed the P-T rating range limited here.

● Flow characteristics (for handling static clean water)



● Flow rate



⚠ CAUTION

For mounting Valves onto pipes, be sure to use gaskets* specified below: *PTFE sheet mm

Size	I/D		O/D		Thickness
	inch	Min.	Max.	Min.	
2		60	61	90	3
2½		73	77	115	3
3		88	90	126	3
4		108	116	146	3
5		136	143	181	3
6		162	170	211	3
8		213	220	257	3
10		266	275	322	3
12		312	326	367	3
14		342	359	410	3
16		389	410	470	3
18		444	460	530	3
20		493	513	580	3
24		594	615	688	3