

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.

Specification

Maximum service pressure			
10UB	1.4 MPa	16UB (size 14" to 24")	1.4 MPa
16UB (size 2" to 12")	2.0 MPa	150UB	1.9 MPa
Service temperature range			
PTFE seat	-29°C to +160°C		
Carbon filled PTFE seat	-29°C to +200°C		
Wall thickness			
ASME B 16.34 Class 150			
Face to face dimensions			
6" and smaller	ISO 5752 Short		
8" and larger	ISO 5752 Medium		
Coupling flanges			
10UB	JIS 10K		
16UB	JIS 16K		
150UB	ASME Class 150		

Standard Materials

Parts	ASTM Materials	JIS Materials
Body	A351 Gr.CF8*1	SCS13A*1
Stem	SUS304 N2	SUS304 N2
Disc	A351 Gr.CF8*1	SCS13A*1
Gland	A351 Gr.CF8*1	SCS13A*1
Seat ring	PTFE*2	PTFE*2
Seat retainer	A276 TYPE304	SUS304
Gland packing	PTFE	PTFE
Gasket	PTFE	PTFE

Feature

Double-eccentric Kinematics

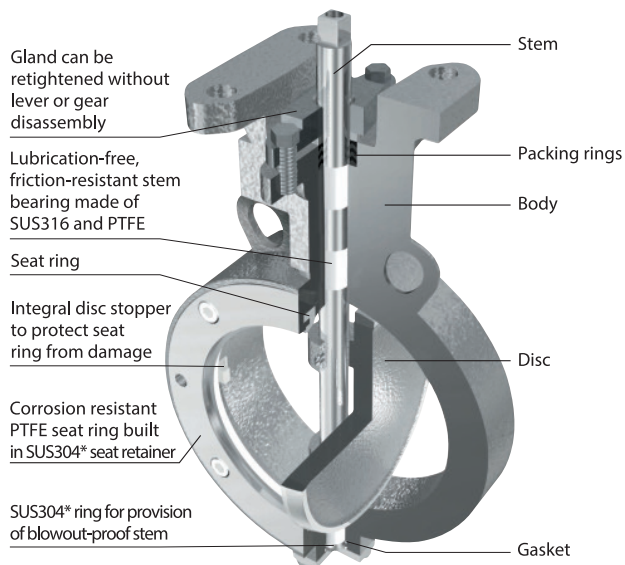
The valves stem is designed eccentric to both the center of the seat ring (by X) and the center of the valve body (by Y), which makes the clearance C between the seat ring and the disc seat surface on its fully open position (Fig. 1). Disc seating surface is spherically machined and contacts PTFE seat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

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).



*SCS14A or SUS316 is available as an option

Parts	ASTM Materials	JIS Materials
Set bolt	A193 Gr.B8	SUS304
Taper pin	A276 TYPE316	SUS316
Stem bearing	METAL BACKED PTFE	METAL BACKED PTFE
Gland bolts	A193 Gr.B8	SUS304
Thrust washer	PTFE	PTFE
End plate	A351 Gr.CF8	SCS13A
End plate bolts	A193 Gr.B8	SUS304

*1. CF8M(316)/SCS14A(SUS316) is available as an option.
*2. Carbon filled PTFE seat rings are optionally available.

Fig. 1

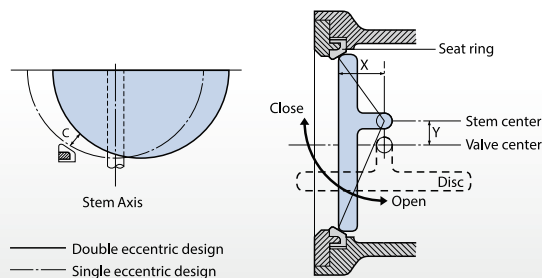
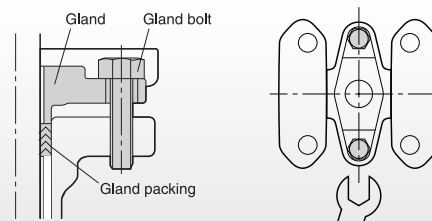


Fig. 2



Flow Coefficient (Cv)

Size		Valve opening			
DN	NPS	30°	45°	60°	90°
50	2	17	33	54	83
65	2 1/2	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

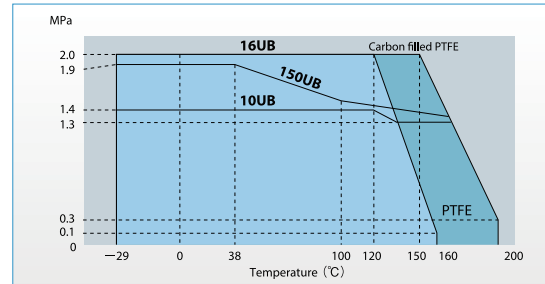
CAUTION

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

*Asbestos joint sheet or PTFE sheet

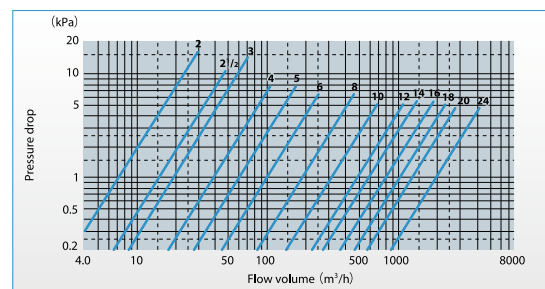
Size	I / D		O / D		Thickness
	NPS	Min.	Max.	Min.	
2	60	61	90	3	
2 1/2	73	77	115	3	
3	88	90	126	3	
4	108	116	146	3	
5	136	143	181	3	
6	162	170	211	3	
8	213	220	257	3	
10	266	275	322	3	
12	312	326	367	3	
14	342	359	410	3	
16	389	410	470	3	
18	444	460	530	3	
20	493	513	580	3	
24	594	615	688	3	

P-T Rating of Seats

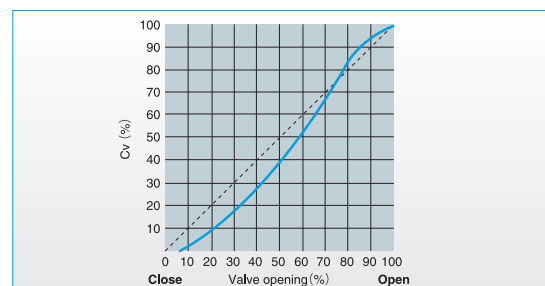


Contact KITZ for technical advice when service conditions may exceed the P-T rating range limited here.

Pressure Loss (for handling static clean water)



Flow Characteristics

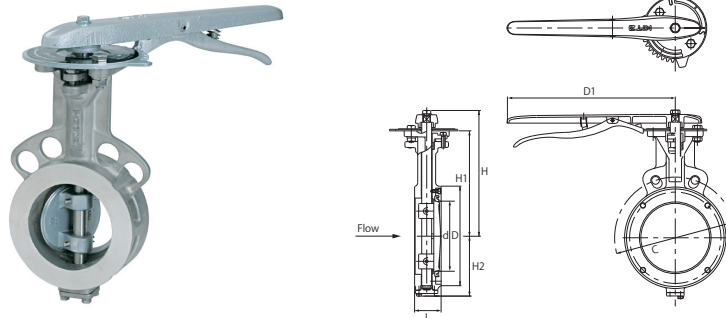


CAUTION

- The following gaskets should be used for installation of the UB series butterfly valves to pipelines.
 - [Type of Gasket]
 - Non-asbestos joint sheet gasket
 - Reinforced PTFE gasket (Jacketed gasket, Spiral Wound gasket, or Metal gasket cannot be installed.)
 - [Shape of Gasket]
 - Full-face gasket
 - Ring gasket (for full-face flanges and flat-face flanges)
 - [Dimension of Gasket]
 - The dimension of the gasket should comply with JIS B 2404 and ASME B 16.21 (minimum gasket thickness is 3 mm).
- UB series butterfly valves cannot be used with lapped loose flanges (lap joints + stub ends, stainless steel pipe joints with flanged pipe end).
- UB series butterfly valves may not be used with some large flat face flanges.
 - JIS 5K RF Flange: Not applicable
 - JIS 10K RF Flange: Applicable, but be sure to align the centers of the flange and the valve.
 - JIS 16K RF Flange: Applicable
 - Class 150 RF Flange: Applicable, but be sure to align the centers of the flange and the valve.
- UB series butterfly valves cannot be used with rubber lining pipes
- 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.

Lever Operated

10UB
150UB



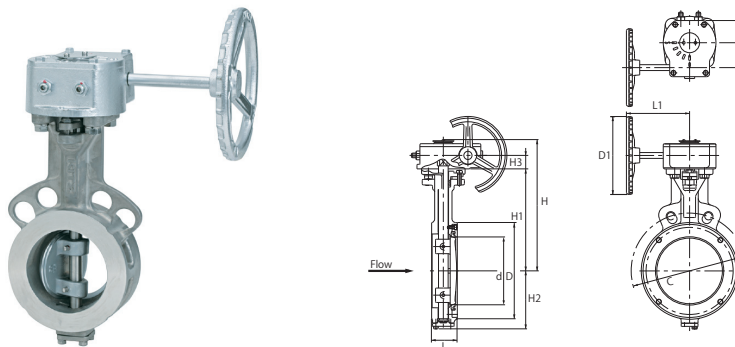
Dimensions

unit: mm

Size		d	H	H1	H2	L	D	C		D1
mm	inch							10UB	150UB	
50	2	50	176	138	64	43	92	120	120.5	230
65	2½	65	186	148	74	46	117	140	139.5	230
80	3	78	207	167	82	46	128	150	152.5	280
100	4	98	221	181	92	52	148	175	190.5	280
125	5	123	241	202	115	56	183	210	216	350
150	6	148	263	225	126	56	213	240	241.5	350

Gear Operated

GL-10UB
GL-16UB
GL-150UB



Dimensions

unit: mm

Size		d	H	H1	H2	H3	L	D	C			D1	L1	E	F	Gear type
mm	inch								10UB	16UB	150UB					
50	2	50	192	138	64	25	43	92	120	120	120.5	140	150	35	42	No. 1
65	2½	65	202	148	74	25	46	117	140	140	139.5	140	150	35	42	No. 1
80	3	78	226	167	82	28	46	128	150	160	152.5	170	195	42	60	No. 2
100	4	98	240	181	92	28	52	148	175	185	190.5	170	195	42	60	No. 2
125	5	123	261	202	115	28	56	183	210	225	216	200	204	42	60	No. 2
150	6	148	283	225	126	28	56	213	240	260	241.5	200	204	42	60	No. 2
200	8	197	348	263	163	47	71	259	290	305	298.5	310	280	54	66	No. 3
250	10	243	416	315	234	60	76	322	355	380	—	360	310	68	89	No. 4
300	12	295	443	342	257	60	83	367	400	430	—	360	310	68	89	No. 4
350	14	325	476	375	293	57	92	410	445	480	—	500	358	70	94	No. 5
400	16	371	572	409	314	94	102	470	510	540	—	500	360	90	134	No. 6
450	18	421	607	443	369	94	114	530	565	605	—	500	360	90	134	No. 6
500	20	470	623	459	394	94	127	580	620	660	—	500	360	90	134	No. 6
600	24	569	757	558	475	117	154	688	730	770	—	500	371	105	213	No. 7