

**Series 11  
High Performance Butterfly Valve  
for JIS 10K****Series 11 Features****General**

The series butterfly valves have been developed for a large number of applications throughout process industries. The series 11 high performance butterfly valves are mainly used for the control of fluids flowing in large valve. It offers added advantages such as simple structure and low cost.

**Design Features****Performance**

- High Cv to valve weight ratio compared to conventional control valves.
- Throttling controls 60° rotation, on-off controls 90° rotation.
- Excellent control range ability.

**Function**

- General Service
- High Temperature Service
- Cryogenic Service
- High Pressure Service

**Design Flexibility**

- Soft seated trim design
- Flange connection versions available
- Full range of bonnet and packing design to suit various temperatures and fluids
- Provides fire safe sealing, which combines a soft seal ring and metal seal ring
- Full range of body and vane material options, with availability of hard facings



Figure 1. Series 11 High Performance Butterfly Valve

## Butterfly Valve Specifications

Valve Type	High Performance Butterfly Valve									
Valve Model	Series 11									
Body Type	Double offset High Performance									
Vale Size	(Inch)	2	2-1/2	3	4	5	6	8	10	12
	(mm)	50	65	80	100	125	150	200	125	150
Pressure Rating	JIS 10K									
End Connection	Wafer									
Body	Carbon Steel, Stainless Steel, Special alloys (Hastelloy-B/C, Monel, Inconel, Duplex)									
Packing	Graphite, PTFE, VOC, etc									
Gasket	Graphite, PTFE									
Guiding	Bushing									
Seat Type	PTFE									
Bonnet Type	Plain									
Handle	Sheet Metal									
Valve Characteristic	On-Off									

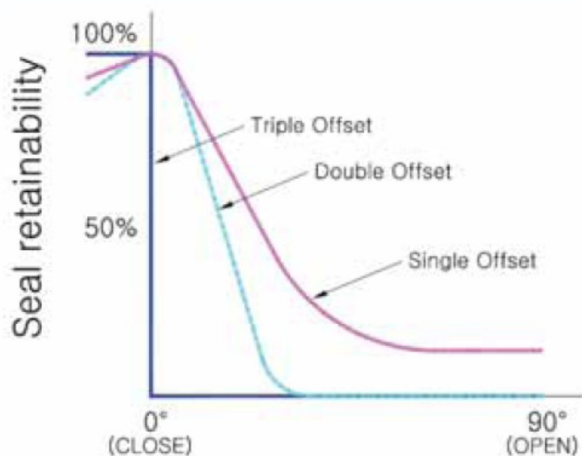
### Design Integrity

- Wafer type as standard.
- Double eccentric mechanism - series 11
- Actuator mounting flange dimensions in accordance with ISO 5211

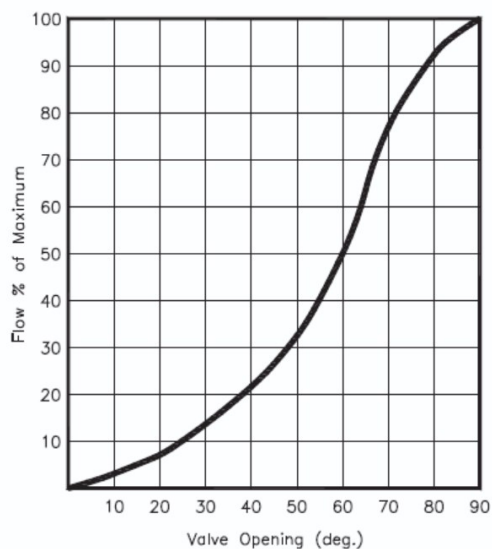
### Quality manufacturing

- Rigorously tested to ensure specified performance on site
- Quality assurance system in accordance with ISO 9001

### Disc Friction



### Flow Characteristic Curves



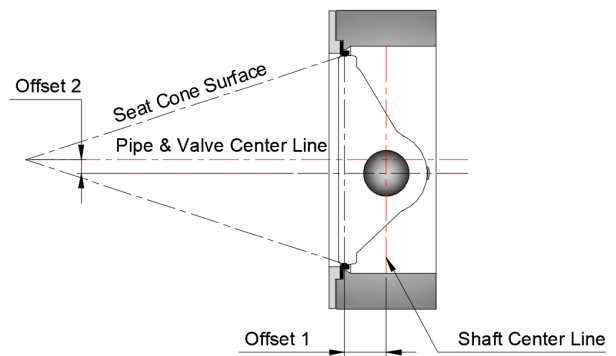
### Double Offset

The center of rotation is moved from the centerline of the valve body. The seat and seal Design remains frictional, interference seal, but the length of rotation over which this friction occurs is reduced, allowing a larger range of process resistant seat materials to be used. However these materials must be relatively soft or highly elastic to prevent "jamming"

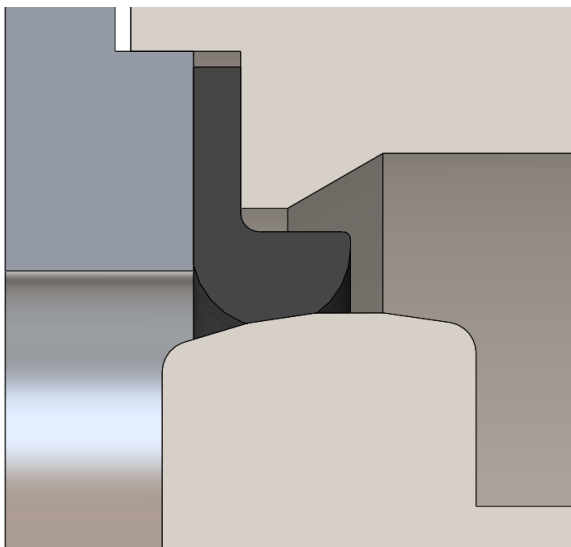


### Feature

- Fire Safe design
- Packing Grand -Adjust able
- Grand Follow- Inside and outside O-ring to eliminate leak
- Packing -VOC packing with anti-Extrusion Ring
- Bearing - Long length provides maximum stem support
- Seat - positive cast disc stop



### Seat Configuration



**Soft Seat**

**Cv Value**

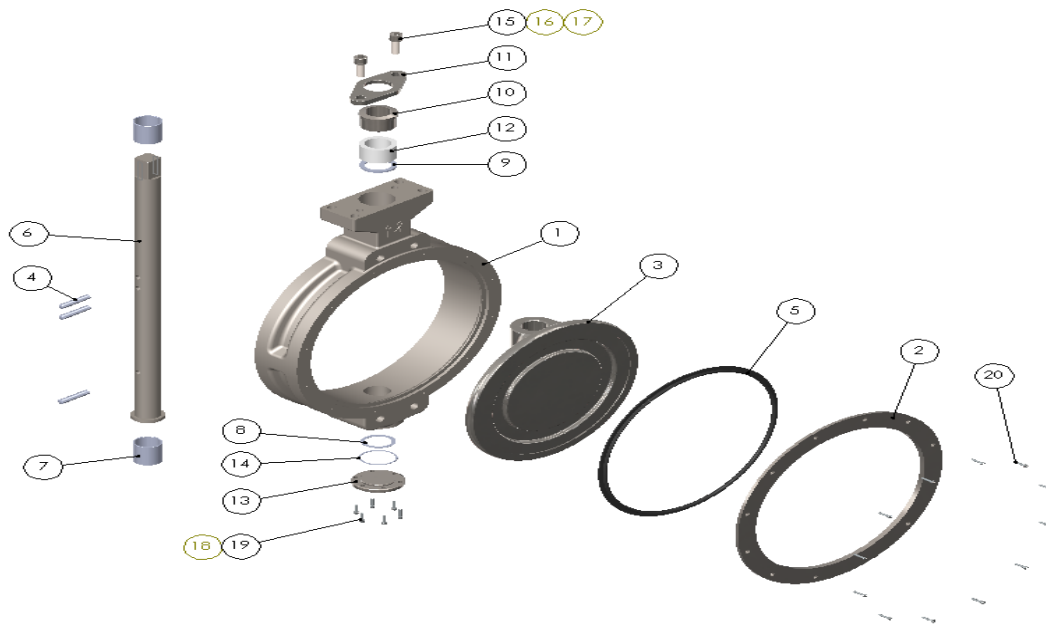
Valve Size		JIS Class	
NPS	DN	10K	
		60°	90°
2	50	43	92
2.5	65	70	150
3	80	122	260
4	100	216	460
5	125	357	760
6	150	540	1150
8	200	987	2100
10	250	1504	3200
12	300	2209	4700

**Valve Torque & Actuator Selection**

Size(mm) Class	50A	65A	80A	100A	125A	150A	200A	250A	300A
<b>JIS 10K</b>	18	19	20	25	34	41	68	110	152
<b>SR Actuator</b>	RP08S	RP08S	RP10S	RP10S	RP12S	RP12S	RP14S	RP16S	RP19S
<b>DA Actuator</b>	RP06D	RP06D	RP08D	RP08D	RP10D	RP10D	RP12D	RP14D	RP16D
<b>Electric Motor</b>	KE004	KE004	KE006	KE006	KE008	KE016	KE028	KE040	KE080

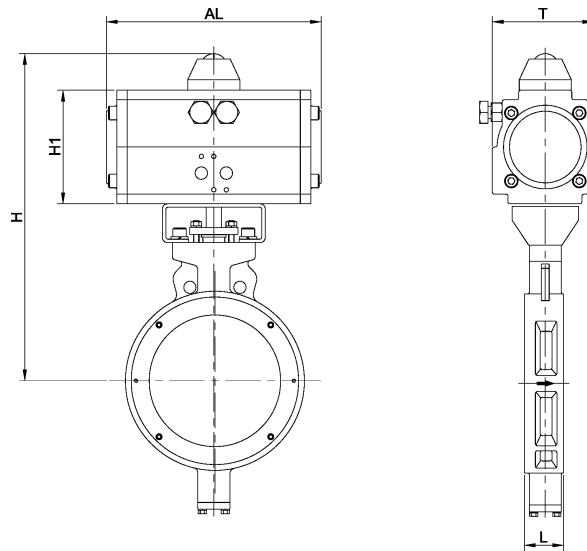
\* Based on Actuator Supply Air 5 barg

## Part List



No.	DESCRIPTION	MATERIAL	
		CARBON STEEL	STAINLESS STEEL
1	BODY	A216 Gr. WCB	A351 Gr. CF8 A351 Gr. CF8M
2	INSERT RING	Carbon Steel	A240 Tp. 340 A240 Tp. 316
3	DISC	A351 Gr. CF8 A351 Gr. CF8M	
4	DISC PIN	A276 Tp. 316	
5	SEAT	PTFE	
6	SHAFT	A276 Tp. 304	A276 Tp. 304
		A276 Tp. 316	A276 Tp. 316
		17-4PH	Duplex
7	SHAFT BEARING	A276 Tp. 316	
8	SHAFT RETAINER	A276 Tp. 316	
9	SHAFT SPACER	A276 Tp. 316	
10	PACKING GLAND	A276 Tp. 316	
11	GLAND FLANGE	A351 Gr. CF8	
12	GLAND PACKING	PTFE	
		Grafoil	
13	BOTTOM PLUG	Carbon Steel	A351 Gr. CF8M
14	BOTTOM PACKING	PTFE	
		Grafoil	
15	STUD BOLT	A167 Tp. 304	
16	HEX. NUT	A193 Gr. B8	
17	SPRING WASHER	A194 Gr. 8	
18	HEX. BOLT	A193 Gr. B8	
19	SPRING WASHER	A167 Tp. 304	
20	WRENCH BOLT	A193 Gr. B8	

## Dimension Table (Butterfly Valve, Actuator Assembly)

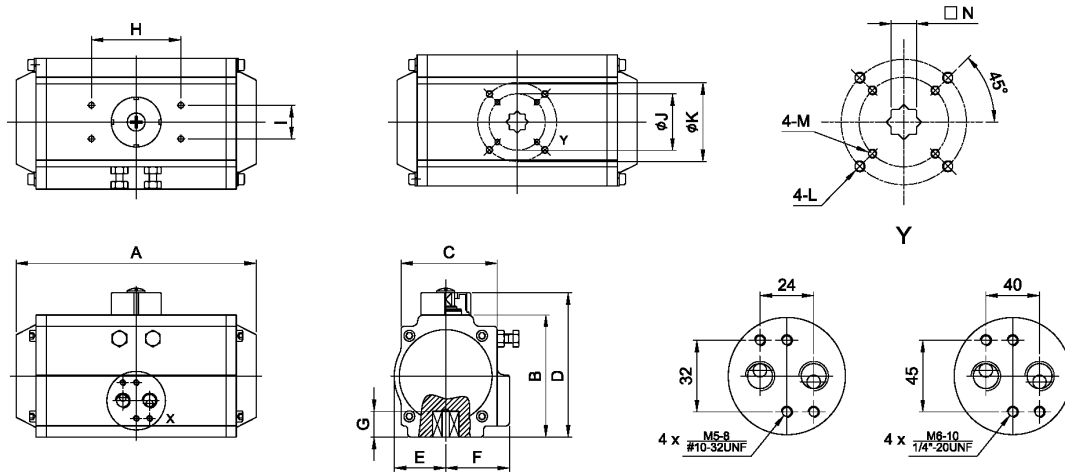


### JIS 10K (Spring Return)

SIZE		SR Act.	L	H	H1	AL	T
mm	Inch						
50	2	RP08S	44	299	109	212	97
65	2-1/2	RP08S	46	313	109	212	97
80	3	RP10S	48	345	135	270	116
100	4	RP10S	54	362	135	270	116
125	5	RP12S	57	412	157	302	135
150	6	RP12S	57	417	157	302	135
200	8	RP14S	64	480	174	398	142
250	10	RP16S	71	550	201	460	161
300	12	RP19S	81	614	232	534	189

### JIS 10K (Double Acting)

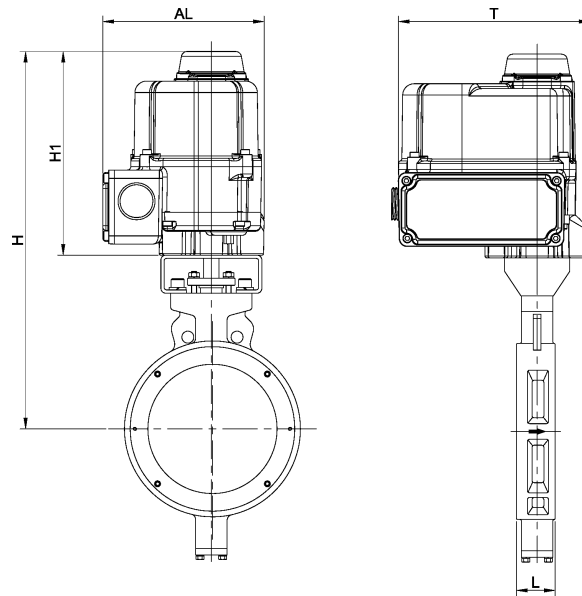
SIZE		SR Act.	L	H	H1	AL	T
mm	Inch						
50	2	RP06D	44	280	91	170	81
65	2-1/2	RP06D	46	294	91	170	81
80	3	RP08D	48	319	109	212	97
100	4	RP08D	54	336	109	212	97
125	5	RP10D	57	382	135	270	116
150	6	RP10D	57	387	135	270	116
200	8	RP12D	64	465	157	302	135
250	10	RP14D	71	520	174	398	142
300	12	RP16D	81	585	201	460	161



X - 1/4" NAMUR      X- 1/2" NAMUR

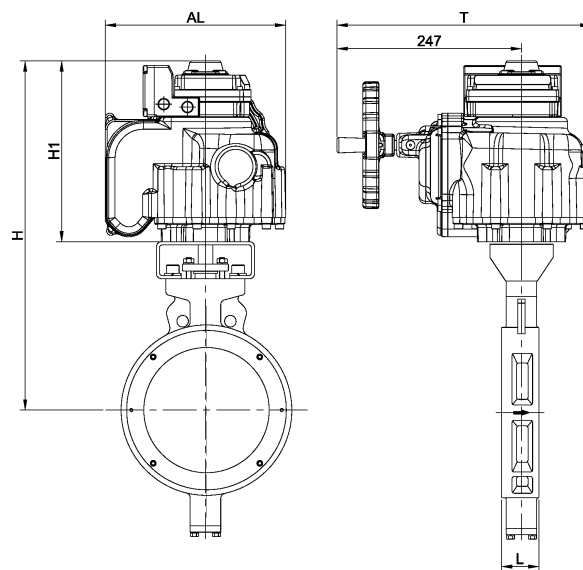
Model	A	B	C	D	E	F	G	H	I	N	J	K	L	M	Air Connection
RP05 S/D	147	72.8	60.5	92	26	41.5	14	80	30	11	F05	F03	M6 x 10	M5 x 7.5	1/4"
RP06 S/D	170	90.5	70	110	33.5	47	17	80	30	14	F07	F05	M8 x 13	M6 x 7.5	1/4"
RP08 S/D	212	109	86	129	40	57	17	80	30	14	F07	F05	M8 x 13	M6 x 10	1/4"
RP10 S/D	270	135	104.8	155	52	64	26	80	30	17	F10	F07	M10 x 16	M8 x 13	1/4"
RP12 S/D	302	157	120	185	60	74.5	25	80	30	22	F10	F07	M10 x 16	M8 x 13	1/4"
RP14 S/D	398	174	125	200	65	77	30	130	30	27	F12	F10	M12 x 20	M10 x 16	1/4"
RP16 S/D	460	201	143	230	74	87	30	130	30	27	F12	F10	M12 x 20	M10 x 16	1/4"
RP19 S/D	534	232	172.8	259	86	103	40	130	30	36	F14	-	M16 x 20	-	1/4"
RP21 S/D	536	265	194	295	97	113	43	130	30	36	F14	-	M16 x 20	-	1/4"
RP24 S/D	620	290	223	320	115	130	50	130	30	46	F16	-	M20 x 25	-	1/4"

## Dimension Table (Butterfly Valve, Electric Motor Assembly)



### JIS 10K (Electric Motor)

SIZE		Elect. Motor	L	H	H1	AL	T
mm	Inch						
50	2	KE004	44	299	124	98	117
65	2-1/2	KE004	46	313	124	98	117
80	3	KE006	48	345	135	111	122
100	4	KE006	54	362	135	111	122
125	5	KE008	57	412	156	122	126
150	6	KE016	57	417	190	171	157
200	8	KE028	64	480	209	209	182
250	10	KE040	71	550	209	209	182



### JIS 10K (Electric Motor)

SIZE		Elect. Motor	L	H	H1	T
mm	Inch					
300	12	KE080	81	614	282	395



## Warranty / Remedy

Korea Motoyama Inc. warrants goods of its manufacture as being free of defective materials and faulty workmanship for 12 months from the date of shipment, unless otherwise specified. In this period, all of our products claimed by original defects may be returned to our factory after notice and authorization by us. If warranted goods are returned to Korea Motoyama Inc. during the period of coverage, it will be repaired or replaced without charge for those items it finds defective. Such defects shall be exclusive of the effects of corrosion, erosion, normal wear or improper handling and storage. In case our engineers have field service, the user shall detach and install valves by his cost. Determination of the suitability of the Products for the use contemplated by the buyer or buyer's customer(s) is the sole responsibility of the buyer in connection therewith. The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose.

**Specifications are subject to change without notices.**

 **KOMOTO**  
**VALVES & CONTROLS**

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