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**Series 10  
Butterfly Valves  
Double / Triple Eccentric  
for ANSI 150-1500  
DIN/BS 4504 PN10-PN260  
JIS 10K-100K**

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## Series 10 Features

### General

The series 10 butterfly valves have been developed for a large number of applications throughout process industries. The series 10 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. Series 10 high performance butterfly valves are categorized into series 11 double eccentric butterfly valves and series 12 triple eccentric butterfly valves.

### 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, metal 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	Butterfly Valve													
Valve Model	Series 10													
Body Type	Double offset High Performance/ Triple offset / Damper/TFE Lining/Rubber Lining													
Valve Size (inch)	3	4	5	6	8	10	12	14	16	18	20	24	up to 64	
(mm)	80	100	125	150	200	250	300	350	400	450	500	600	up to 1600	
Pressure Rating	ANSI 150# ~ 1500# (vary with detail body type)													
End Connection	Wafer, Lug, Double Flange, Full Flange, etc													
Body Materials	Carbon Steel, Stainless Steel, Special alloys (Hastelloy-B/C, Monel, Inconel, Duplex, etc)													
Bonnet Type	Plain(-17°C to 230°C), Extension(-45°C to -17°C, over 230°C), Cryogenic(-196°C to -45°C)													
Packing	Graphite, PTFE, VOC, etc													
Gasket	Graphite, PTFE													
Guiding	Bushing													
Seat Type	Metal/Soft/Laminated													
Valve Plug Shapes	VANE													
Plug Characteristic	Inherent													

### Design Integrity

- Wafer type as standard.
- Double eccentric mechanism - series 11
- Triple eccentric mechanism - series 12
- Actuator mounting flange dimensions in accordance with ISO 5211

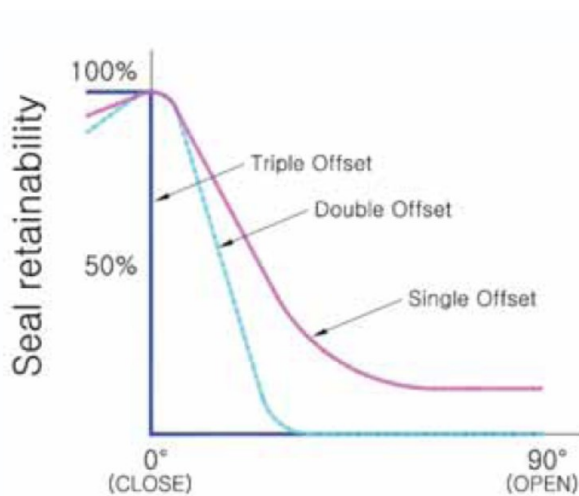
### Quality manufacturing

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

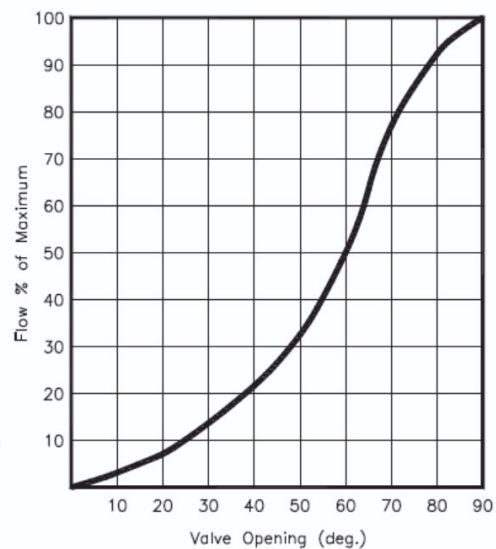
### Various Materials Available

Carbon Steel, Stainless Steel, Special Alloys ( Duplex, Super Duplex, Inconel, Monel, Nickel Aluminum Bronze, Hastelloy B/C, etc )

### Disc Friction



### Flow Characteristic Curves



**Series 11**  
**Double Eccentric High Performance Butterfly Valves**  
**for ANSI 150-600**  
**DIN/BS 4504 PN10-PN100**  
**JIS 10K-40K**

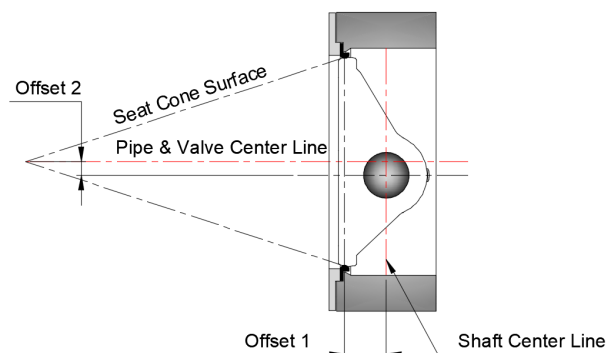
**Double Offset**

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"

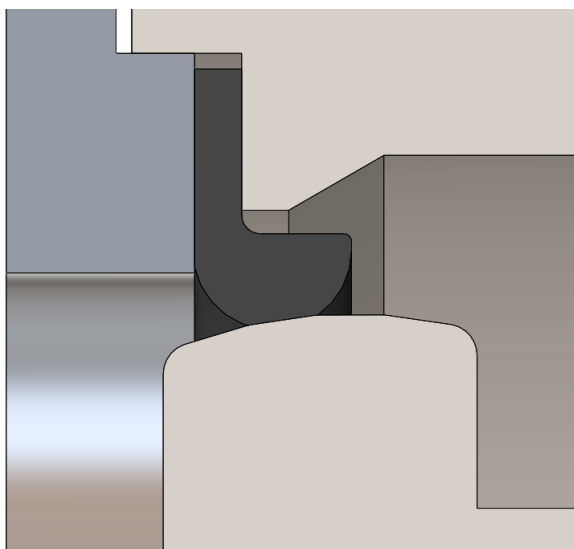


**Feature**

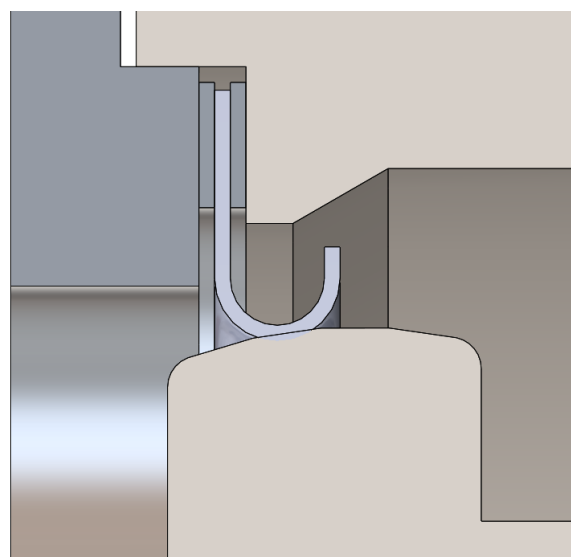
- Fire Safe design
- Packing Grand -Adjust able
- Grand Follow- Inside and outside O-ring to eliminate leak
- Packing -VOC packing with anti-Extrusion Ring
- Bearing - Long length provides maximum stem support
- Seat - positive cast disc stop



**Seat Configuration**



**Soft Seat**



**Metal Seat**

## Cv Value

Valve Size		ASME Class					
NPS	DN	150		300		600	
		60°	90°	60°	90°	60°	90°
2	50	43	92	43	92	-	-
2.5	65	70	150	70	150	-	-
3	80	122	260	122	260	72	155
4	100	216	460	216	460	119	255
5	125	357	760	357	760	272	580
6	150	540	1150	540	1150	479	1020
8	200	987	2100	893	1900	635	1350
10	250	1504	3200	1316	2800	964	2050
12	300	2209	4700	1927	4100	1316	2800
14	350	2726	5800	2585	5500	1833	3900
16	400	3760	8000	3572	7600	2397	5100
18	450	4935	10500	4653	9900	2585	5500
20	500	6580	14000	6110	13000	3713	7900
24	600	9870	21000	9165	19500	5217	11100
28	700	15300	27200	13900	24800		
30	750	17200	30700	16300	29000		
32	800	19700	35000	18300	32600		
36	900	24200	43000	23300	41500		
40	1000	31900	56900	28000	49900		
42	1050	33700	60000	32000	57100		
48	1200	45000	80000	33700	60000		

## Torque Table (N·m) - ASME Class 150

VALVE SIZE		Soft Seat				Fire Safety Type				Metal Seat			
inch	mm	5 Bar	10 Bar	15 Bar	20 Bar	5 Bar	10 Bar	15 Bar	20 Bar	5 Bar	10 Bar	15 Bar	20 Bar
2"	50	18	19	21	22	30	32	33	34	40	44	45	46
2.5"	65	19	20	22	24	32	34	35	35	43	46	46	48
3"	80	20	22	23	27	34	35	36	38	46	48	50	50
4"	100	25	29	33	39	46	50	52	54	62	67	70	73
5"	125	34	39	42	55	54	62	64	68	73	82	87	92
6"	150	41	50	59	64	66	71	74	80	90	95	101	110
8"	200	68	95	100	116	105	116	129	142	146	161	179	196
10"	250	110	140	168	194	154	180	212	236	214	250	295	327
12"	300	152	200	247	294	193	249	304	365	268	345	422	506
14"	350	230	298	380	483	343	451	558	665	476	625	774	922
16"	400	333	453	576	756	440	616	726	858	616	862	1016	1201
18"	450	459	616	754	980	616	792	968	1188	862	1109	1355	1663
20"	500	588	928	1008	1408	704	924	1188	1452	1126	1478	1901	2323
22"	550	832	1152	1350	1728	988	1352	1690	2080	1338	1830	2288	2816
24"	600	1024	1408	1760	2112	1274	1664	2054	2496	1725	2253	2781	3379
26"	650	1224	1700	2108	2550	1658	2155	2763	3315	2160	2934	3600	4320
28"	700	1428	1938	2516	2992	2100	2707	3370	4144	2736	3528	4392	5400
30"	750	1768	2312	2856	3400	2321	3039	3812	4531	3024	3960	4968	5905
32"	800	2142	2788	3468	4216	2707	3536	4420	5250	3528	4608	5760	6840
34"	850	2534	3379	4224	5069	3432	4462	5434	6864	4320	5616	6840	8640
36"	900	2957	3872	4928	5843	4004	5148	6292	8008	5040	6480	7920	10080

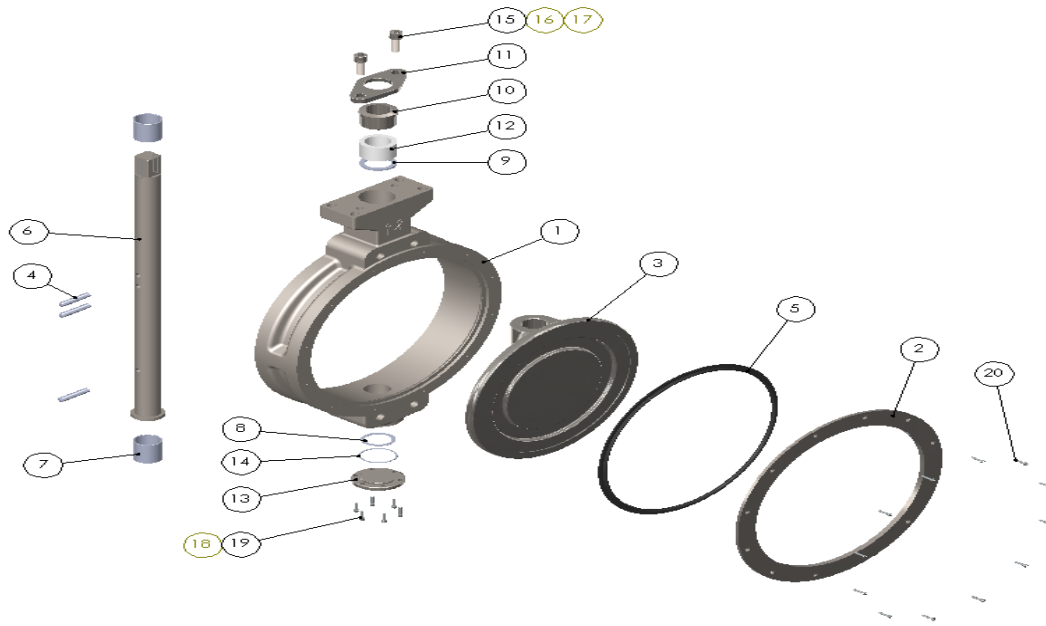
### Torque Table (N·m) - ASME Class 300

VALVE		Soft Seat						Fire Safety Type						Metal Seat					
SIZE																			
inc h	mm	10 Bar	20 Bar	25 Bar	35 Bar	40 Bar	50 Bar	10 Bar	20 Bar	25 Bar	35 Bar	40 Bar	50 Bar	10 Bar	20 Bar	25 Bar	35 Bar	40 Bar	50 Bar
2"	50	20	22	25	26	27	27	35	37	38	40	41	41	47	50	51	53	54	55
2.5"	65	22	25	28	29	30	31	37	38	40	41	42	44	49	51	53	55	56	59
3"	80	24	27	30	32	33	34	38	41	43	44	45	50	51	54	58	59	60	66
4"	100	31	39	45	47	49	54	54	59	63	68	74	79	72	78	84	90	99	105
5"	125	41	55	59	64	69	76	68	74	81	86	92	99	90	99	108	114	123	132
6"	150	54	60	76	83	88	93	77	88	99	106	113	122	102	117	132	141	150	162
8"	200	95	116	129	140	151	163	130	158	178	192	206	216	173	211	236	255	275	287
10"	250	149	209	231	257	273	305	202	264	307	331	350	374	268	351	408	440	466	497
12"	300	214	315	357	399	431	462	278	408	576	624	696	816	370	542	765	829	925	1084
14"	350	344	518	675	816	844	929	546	806	936	1040	1196	1300	670	989	1148	1275	1466	1594
16"	400	522	810	990	1080	1200	1320	774	1078	1381	1602	1823	1934	924	1287	1650	1914	2178	2310
18"	450	660	1050	1320	1440	1560	1680	995	1492	1879	2182	2486	2735	1188	1782	2244	2607	2970	3267
20"	500	987	1496	1760	1888	2080	2240	1250	1964	2499	2975	3392	3689	1571	2468	3142	3740	4264	4638
24"	600	1590	2384	2720	3060	3366	3604	1904	2856	3570	4284	4820	5355	2394	3590	4488	5386	6059	6732

### Torque Table (N·m) - ASME Class 600

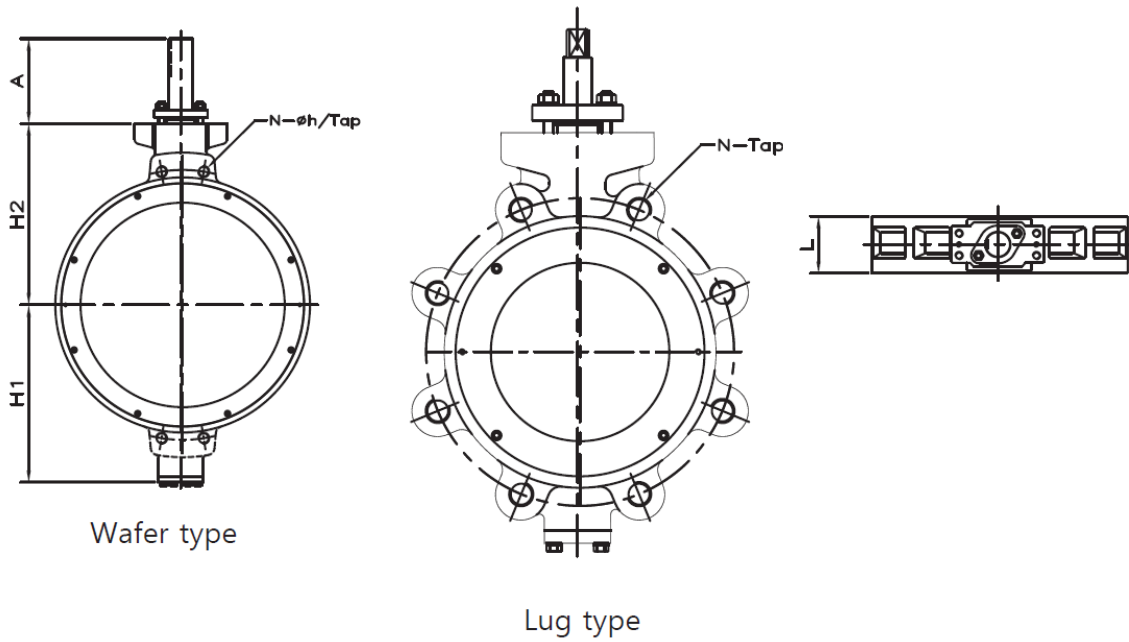
VALVE		Soft Seat						Fire Safety Type						Metal Seat					
SIZE																			
inch	mm	10 Bar	35 Bar	55 Bar	70 Bar	80 Bar	100 Bar	10 Bar	35 Bar	55 Bar	70 Bar	80 Bar	100 Bar	10 Bar	35 Bar	55 Bar	70 Bar	80 Bar	100 Bar
3"	80	25	37	54	62	67	74	42	68	81	88	97	104	56	90	108	117	128	138
4"	100	34	62	89	100	112	131	79	144	185	221	243	261	104	192	246	294	324	348
5"	125	46	74	116	135	154	174	104	185	252	311	342	396	138	246	336	414	456	528
6"	150	56	97	154	190	212	231	126	230	329	405	495	585	168	306	438	540	660	780
8"	200	83	165	264	326	371	454	192	394	624	768	864	912	255	523	829	1020	1148	1211
10"	250	139	265	454	557	660	701	331	672	960	1152	1296	1392	440	893	1275	1530	1721	1849
12"	300	244	488	743	866	969	1073	648	1056	1536	1896	2112	2352	861	1403	2040	2519	2805	3124
14"	350	387	765	1170	1414	1560	1706	832	1560	2236	2808	3120	3380	1020	1913	2741	3443	3825	4144
16"	400	528	1008	1612	1976	2184	2340	1188	2210	3039	3868	4310	4475	1419	2640	3630	4620	5148	5346
18"	450	744	1296	1760	2496	2704	2912	1437	2652	3868	4862	5415	6078	1716	3168	4620	5808	6468	7260
20"	500	936	1728	2600	3120	3640	3900	2083	3749	5355	7140	8330	8925	2618	4712	6732	8976	10472	11220
24"	600	1530	2805	4420	5304	6630	7183	3273	6545	9520	11305	12495	13685	4114	8228	11968	14214	15708	17207

**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 PTFE A240 Tp. 304 A240 Tp. 316 Inconel	
6	SHAFT	A276 Tp. 304 A276 Tp. 316 17-4PH	A276 Tp. 304 A276 Tp. 316 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



### ASME Class 150

Unit : mm

Valve Size		H1	H2	A	L	WAFER N-Øh/Tap	LOG N-Tap
mm	inch						
50	2	95	110	74	44	2-Ø19	4-5/8"(11unc)
65	2.5	110	124	77	46	2-Ø19	4-5/8"(11unc)
80	3	115	130	77	48	2-Ø19	4-5/8"(11unc)
100	4	120	147	77	54	2-Ø19	8-5/8"(11unc)
125	5	150	167	81	57	2-Ø22.5	8-3/4"(11unc)
150	6	150	172	81	57	2-Ø22.5	8-3/4"(11unc)
200	8	195	210	101	67	2-Ø22.5	8-3/4"(11unc)
250	10	230	250	101	71	2-Ø25.5	12-7/8"(9unc)
300	12	260	275	115	81	2-Ø25.5	12-7/8"(9unc)
350	14	290	315	118	92	2-Ø28.5	12-1"(8unc)
400	16	340	350	165	102	2-Ø28.5	16-1"(8unc)
450	18	360	380	180	114	4-1 1/8"(8un)	16-1 1/8"(8un)
500	20	400	340	210	127	4-1 1/8"(8un)	20-1 1/8"(8un)
600	24	480	490	230	154	4-1 1/8"(8un)	20-1 1/4"(8un)
700	28	50	685	130	165	4-1.1/4"(6unc)	28-1.1/4"(6unc)
750	30	600	695	130	165	4-1.1/4"(6unc)	28-1.1/4"(6unc)
800	32	630	750	130	190	4-1.1/2"(6unc)	28-1.1/2"(6unc)
900	36	690	820	160	200	4-1.1/2"(6unc)	32-1.1/2"(6unc)
1000	40	720	835	175	216	4-1.1/2"(6unc)	36-1.1/2"(6unc)
1050	42	750	860	175	251	4-1.1/2"(6unc)	36-1.1/2"(6unc)
1200	48	845	1020	200	276	4-1.1/2"(6unc)	44-1.1/2"(6unc)

## Dimension Table

### ASME Class 300

Unit : mm

Valve Size		H1	H2	A	L	WAFER N-Øh/Tap	LOG N-Tap
mm	inch						
50	2	95	110	74	44	2-Ø19	8-5/8" x 11unc
65	2.5	110	124	77	46	2-Ø22.5	8-3/4" x 10unc
80	3	115	130	77	48	2-Ø22.5	8-3/4" x 10unc
100	4	120	147	77	54	2-Ø22.5	8-3/4" x 10unc
125	5	150	167	81	57	2-Ø22.5	8-3/4" x 10unc
150	6	185	195	81	59	2-Ø22.5	12-3/4" x 10unc
200	8	215	230	101	73	2-Ø25.5	12-7/8" x 9unc
250	10	250	270	115	83	4-1" x 8unc	16-1" x 8unc
300	12	280	310	118	92	4-1 1/8" x 8unc	16-1 1/8" x 8unc
350	14	340	350	165	117	4-1 1/8" x 8unc	20-1 1/8" x 8unc
400	16	370	400	210	133	4-1 1/4" x 8unc	20-1 1/4" x 8unc
450	18	430	425	230	149	4-1 1/4" x 8unc	24-1 1/4" x 8unc
500	20	450	460	230	159	4-1 1/4" x 8unc	24-1 1/4" x 8unc
600	24	550	530	250	181	4-1 1/2" x 8unc	24-1 1/2" x 8unc
700	28	640	820	200	229	4-1.5/8" x 8unc	28-1.5/8" x 8unc
750	30	690	850	200	241	4-1.3/4" x 5unc	28-1.3/4" x 5unc
800	32	720	880	200	241	4-1.7/8" x 8unc	28-1.7/8" x 8unc
900	36	960	780	200	260	4-2" x 4.1/2unc	32-2" x 4.1/2unc
1000	40	990	800	200	300	4-1.5/8" x 8unc	32-1.5/8" x 8unc
1050	42	840	1050	200	300	4-1.5/8" x 8unc	32-1.5/8" x 8unc
1200	48	950	1150	250	320	4-1.7/8" x 8unc	32-1.7/8" x 8unc

### ASME Class 600

Unit : mm

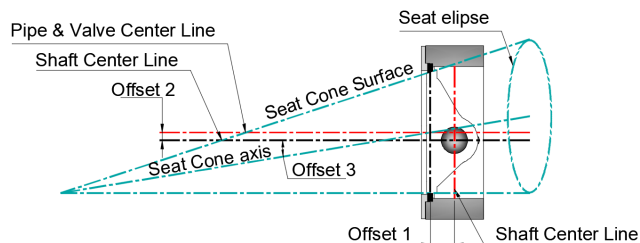
Valve Size		H1	H2	A	L	WAFER N-Øh/Tap	LOG N-Tap
mm	inch						
80	3	130	145	77	54	2-Ø22.5	8-3/4" x 10unc
100	4	155	170	81	64	2-Ø25.5	8-7/8" x 10unc
125	5	-	-	-	-		
150	6	210	225	101	78	4-1" x 8unc	12-1" x 8unc
200	8	250	270	118	102	4-1 1/8" x 8unc	12-1 1/8" x 8unc
250	10	295	320	165	117	4-1 1/4" x 8unc	16-1 1/4" x 8unc
300	12	325	360	180	140	4-1 1/4" x 8unc	20-1 1/4" x 8unc
350	14	375	392	210	155	4-1 3/8" x 8unc	20-1 3/8" x 8unc
400	16	410	425	210	178	4-1 1/2" x 8unc	20-1 1/2" x 8unc
450	18	455	460	230	200	4-1 5/8" x 8unc	20-1 5/8" x 8unc
500	20	490	500	230	216	4-1 5/8" x 8unc	24-1 5/8" x 8unc
600	24	590	575	230	232	4-1 7/8" x 8unc	24-1 7/8" x 8unc



**Series 12  
Triple Eccentric Butterfly Valves  
for ANSI 150-1500  
DIN/BS 4504 PN10-PN260  
JIS 10K-100K**

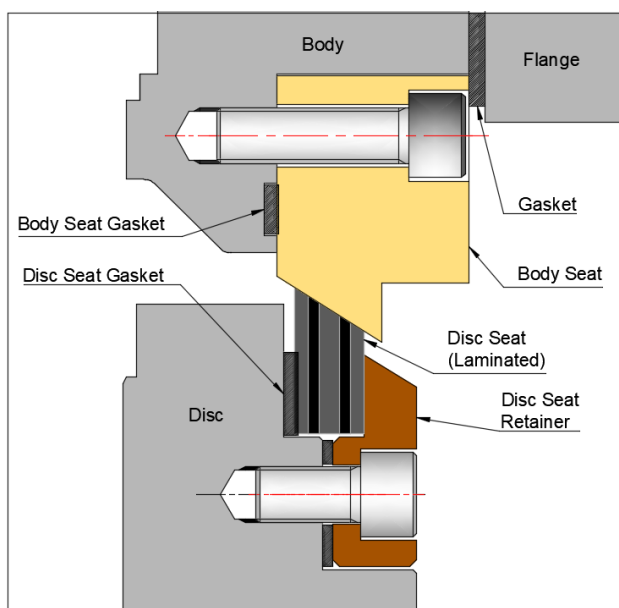
**Triple Offset**

The centerline of the cone is rotated away from the valve centerline resulting in an ellipsoidal profile and providing the third offset. With this geometry, seat seal interference is completely eliminated ensuring long sealing life. The result is a torque seated, process pressure aided FRICTIONLESS seal. The geometry allows the body seat to be used as the closed limit stop, aiding operator adjustment. The Triple Offset design is ideally suited to metal seated valves providing bubble-tight performance on high temperature, high pressure and fire-safe applications.

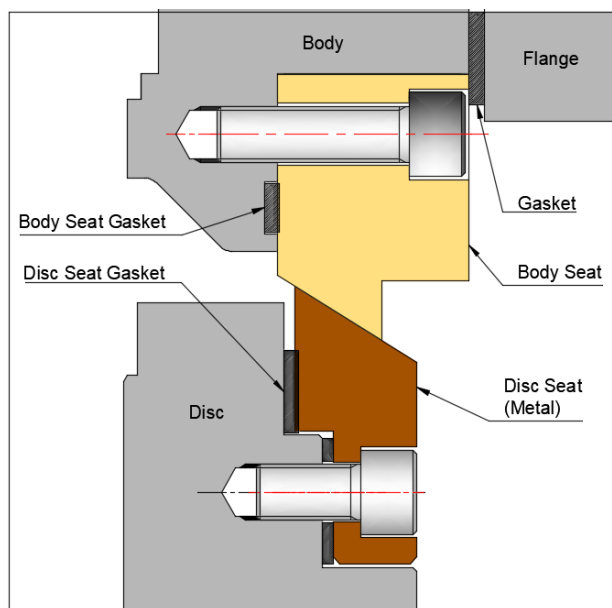


**Feature**

- No Seat Friction
- ISO5211 Actuator Direct Mounting Bracket
- Replaceable Disc Seat and Body Seat
- Bigger CV (optimized disc profile - metal Seat, Laminated Seat on body)
- Pushed on Sealing - continued Sealing through Thermal cycling
- Very Easy maintenance
- Fire Safety Design



**Laminated Seat**



**Metal Seat**

## Cv Value

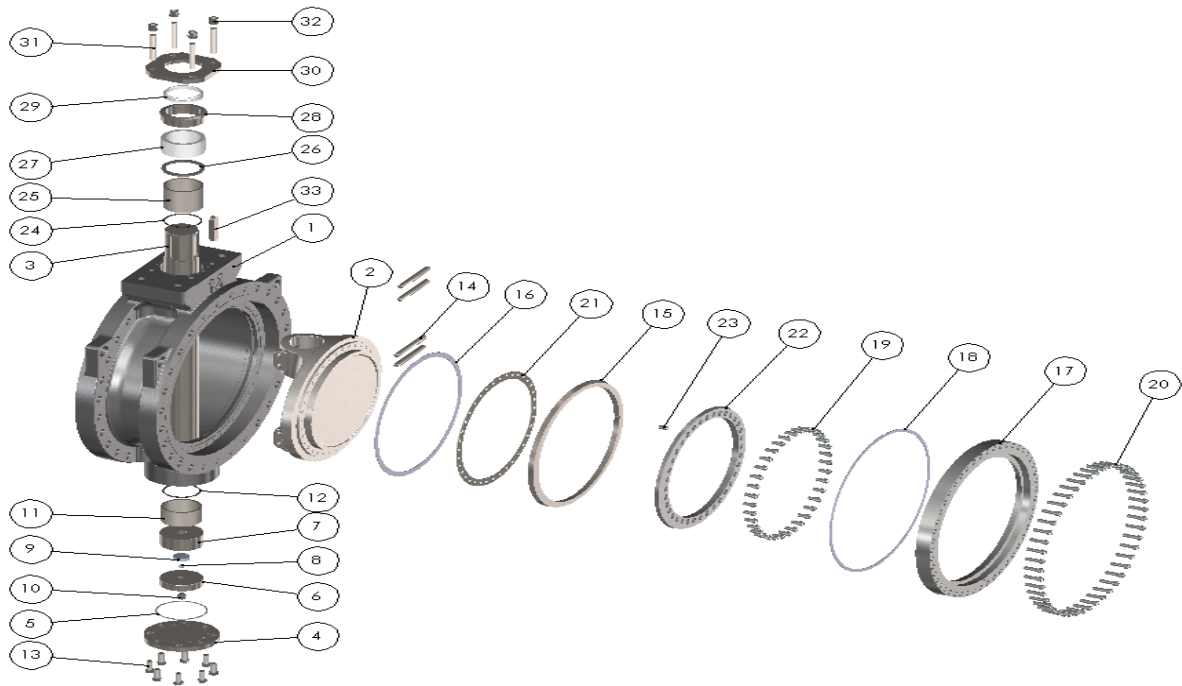
Valve Size		ASME Class							
NPS	DN	150		300		600		900	
		60°	90°	60°	90°	60°	90°	60°	90°
3	80	96	215	96	215	57	122	-	-
4	100	163	370	163	370	89	213	-	-
5	125	265	620	265	620	157	444	-	-
6	150	415	930	415	930	391	809	318	645
8	200	742	1700	742	1700	595	1273	500	1064
10	250	1137	2600	1137	2600	898	1955	750	1619
12	300	1718	3682	1718	3682	1219	2586	999	2148
14	350	2259	4699	2259	4699	1545	3290	1301	2756
16	400	3193	6783	3193	6783	2340	4969	1964	4165
18	450	3994	8519	3994	8519	2745	5840	2357	5035
20	500	4956	10562	4956	10562	3406	7262	2887	6205
24	600	7896	16778	7896	16778	5428	11574	4639	9869
28	700	12240	21760	11120	19840				
30	750	13760	24560	13040	23200				
32	800	15760	28000	14640	26080				
36	900	19360	34400	18640	33200				
40	1000	25520	45520	22400	39920				
42	1050	26960	48000	25600	45680				
48	1200	36000	64000	26960	48000				

## Torque Table

Valve Size		ASME Class 150				ASME Class 300				
NPS	DN	0-5 Bar N·m	10 Bar N·m	15 Bar N·m	20 Bar N·m	0-10 Bar N·m	20 Bar N·m	30 Bar N·m	40 Bar N·m	50 Bar N·m
3	80	85	90	95	100	110	120	130	140	160
4	100	110	115	120	130	160	180	195	220	230
5	125	130	140	155	160	220	260	300	310	340
6	150	170	185	200	210	320	365	400	440	500
8	200	300	330	360	400	620	730	850	950	1050
10	250	480	570	670	750	890	1170	1370	1500	1600
12	300	580	700	820	1000	1250	1650	2150	2500	2700
14	350	900	1150	1350	1500	1800	2350	2800	3400	3700
16	400	1300	1700	2080	2400	2800	3700	4650	5600	6300
18	450	1800	2200	2700	3400	4000	5400	6500	7800	9200
20	500	2300	2900	3900	4300	4400	5900	7800	9400	11000
22	550	3000	3600	4800	5700	5900	7700	10000	13300	14800
24	600	3700	4900	6000	6900	6500	8300	11000	14400	17000

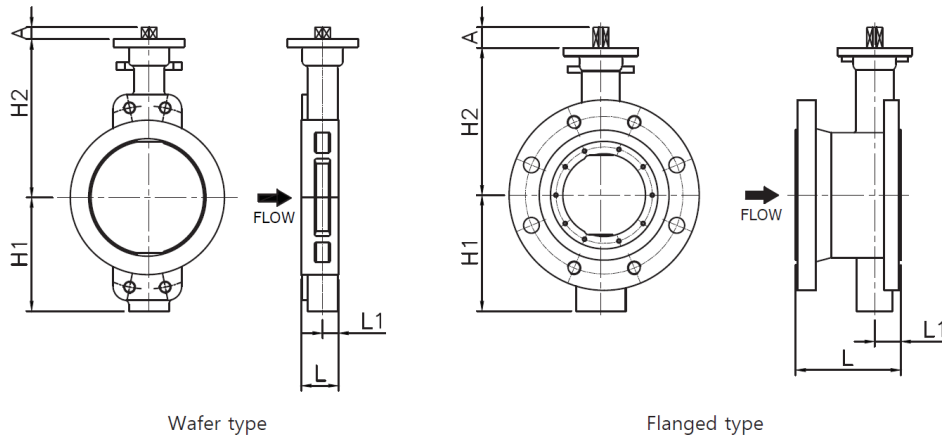
Valve Size		ASME Class 600					ASME Class 900				
NPS	DN	0-30 Bar N·m	40 Bar N·m	60 Bar N·m	80 Bar N·m	100 Bar N·m	0-40 Bar N·m	50 Bar N·m	80 Bar N·m	110 Bar N·m	150 Bar N·m
3	80	210	240	270	305	340	-	-	-	-	-
4	100	380	420	460	510	600	-	-	-	-	-
5	125	550	590	685	840	1010	-	-	-	-	-
6	150	600	700	850	1000	1300	850	950	1200	1540	2000
8	200	1000	1150	1400	1650	2100	1350	1500	1900	2460	3200
10	250	1650	1900	2300	2800	3800	2700	3000	3800	4900	6400
12	300	2400	2850	3450	4100	4900	3800	4200	5400	6900	9000
14	350	3400	4300	5350	6300	7500	5000	5500	7000	9000	11800
16	400	5000	6900	8900	9700	11500	7200	9000	11000	13000	17000
18	450	7000	9400	12000	14500	17000	9800	13000	16000	19000	24000
20	500	8700	12000	15000	18000	21000	13600	16000	20000	26000	34000
24	600	15000	21000	25700	30500	36000	23000	26000	35000	45000	58000

**Part List**



No.	DESCRIPTION	MATERIAL	
		CARBON STEEL	STAINLESS STEEL
1	BODY	A216 WCB	A351 CF8 / A351 CF8M
2	DISC	Carbon Steel	A240 304 / A240 316
3	STEM	17-4 PH / SUS316 / SUS410	
4	BOTTOM COVER	Carbon Steel	SUS 316
5	BOTTOM GASKET	Graphite	
6	THRUST PAD	A276 304 / A276 316	
7	STEM LOCK PAD	A276 304 / A276 316	
8	BEARING BALL	A276 304 / A276 316	
9	BEARING BALL PAD	A276 304 / A276 316	
10	THRUST BOLT	A193 B8 / A193 B8M	
11	BOTTOM BUSH	AL BRONZE	
12	O-RING	NBR / VITON	
13	BOTTOM COVER BOLT	A193 B7	A193 B8 / A193 B8M
14	DISC PIN	A479 410	
15	DISC SEAT	SUS316 / SUS316+Graphite / ALLOY STEEL	
16	DISC SEAT GASKET	Graphite	
17	BODY SEAT	SUS316 / SUS316+Graphite / ALLOY STEEL	
18	BODY SEAT GASKET	PTFE / SUS316+Graphite	
19	DISC SEAT BOLT	A193 B8 / A193 B8M	
20	BODY SEAT BOLT	A193 B8 / A193 B8M	
21	DISC SEAT SPACER	SUS304 / SUS316	
22	DISC RETAINER	SUS304 / SUS316	
23	DISC SEAT PIN	A479 410	
24	O-RING	NBR / VITON	
25	TOP BUSH	AL BRONZE	
26	PACKING RING	A240 304	
27	PACKING	PTFE / Graphite	
28	GLAND FOLLOWER	A240 304	
29	DUST RING	PTFE	
30	GLAND FLANGE	A240 304	
31	GLAND BOLT	A193 B8	
32	GLAND NUT	A194 8	
33	KEY	SC45C	

### Dimension Table



### ASME Class 150

Unit : mm

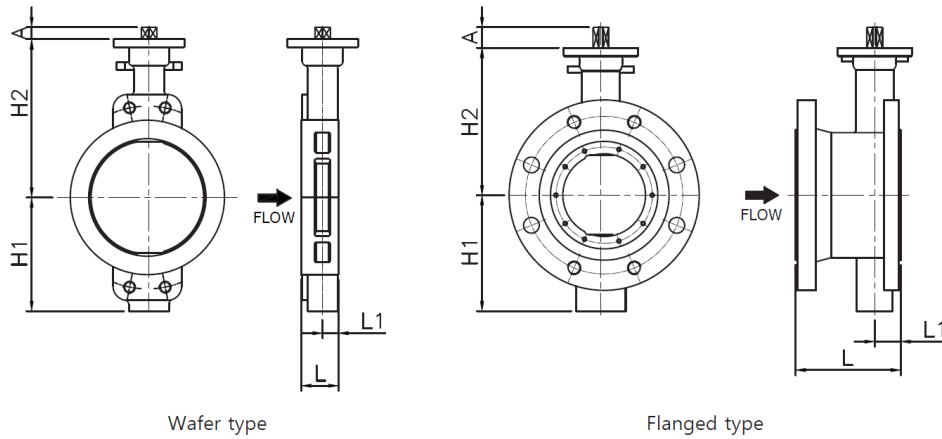
Valve Size		H1	H2	A	L 1	Wafer type	Flanged Type
mm	inch						
80	3	110	157	20	29	48	114
100	4	128	178	25	31	54	127
150	6	180	255	25	37	57	140
200	8	192	275	30	41	64	152
250	10	256	325	35	46	71	165
300	12	296	390	30	53	81	178
350	14	329	423	30	61	92	190
400	16	363	468	59	64	102	216
450	18	390	420	135	75	114	222
500	20	437.5	452	135	81	127	229
600	24	512.5	528	140	97	154	267
700	28	570	685	130	107	165	292
750	30	600	695	130	107	165	318
800	32	630	750	130	124	190	318
900	36	690	820	160	130	200	330
1000	40	720	835	175	140	216	410
1050	42	750	860	175	163	251	410
1200	48	845	1020	200	179	276	470

### ASME Class 300

Unit : mm

Valve Size		H1	H2	A	L 1	Wafer type	Flanged Type
mm	inch						
80	3	110	157	20	29	48	114
100	4	128	178	25	31	54	127
150	6	180	255	25	37	59	140
200	8	192	275	30	44	73	152
250	10	256	325	35	48	83	165
300	12	296	390	30	54	92	178
350	14	329	423	30	61	117	190
400	16	363	468	59	67	133	216
450	18	390	420	135	79	149	222
500	20	437.5	452	135	85	159	229
600	24	512.5	528	140	97	181	267

## Dimension Table



### ASME Class 600

Unit : mm

Valve Size		H1	H2	A	L 1	Wafer type	Flanged Type
mm	inch						
80	3	154	202	44	31	54	180
100	4	166	208	44	35	64	190
150	6	238	302	79	43	78	210
200	8	248	315	79	60	102	230
250	10	316	376	79	66	117	250
300	12	349	442	109	76	140	270
350	14	374	457	109	85	155	290
400	16	474	561	129	102	178	310
450	18	476	610	129	112	200	330
500	20	504	645	129	112	216	350
600	24	555	730	178	127	232	390

### ASME Class 900

Unit : mm

Valve Size		H1	H2	A	L 1	Wafer type	Flanged Type
mm	inch						
100	4	181	240	64	40	80	235
150	6	238	315	79	52	104	250
200	8	281	360	79	60	112	310
250	10	358	412	109	71	135	350
300	12	383	475	109	85	170	380
350	14	392	405	260	126	173	400
400	16	427	450.5	270	135	210	430
450	18	503	660	178	114	228	460
500	20	550	685	178	127	250	490
600	24	625	663	330	161	275	530

## 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

### For More Information

Visit our website [www.komoto.co.kr](http://www.komoto.co.kr) or contact

KOREA MOTOYAMA INC.