

## B1A Rubber Lined Butterfly Valves

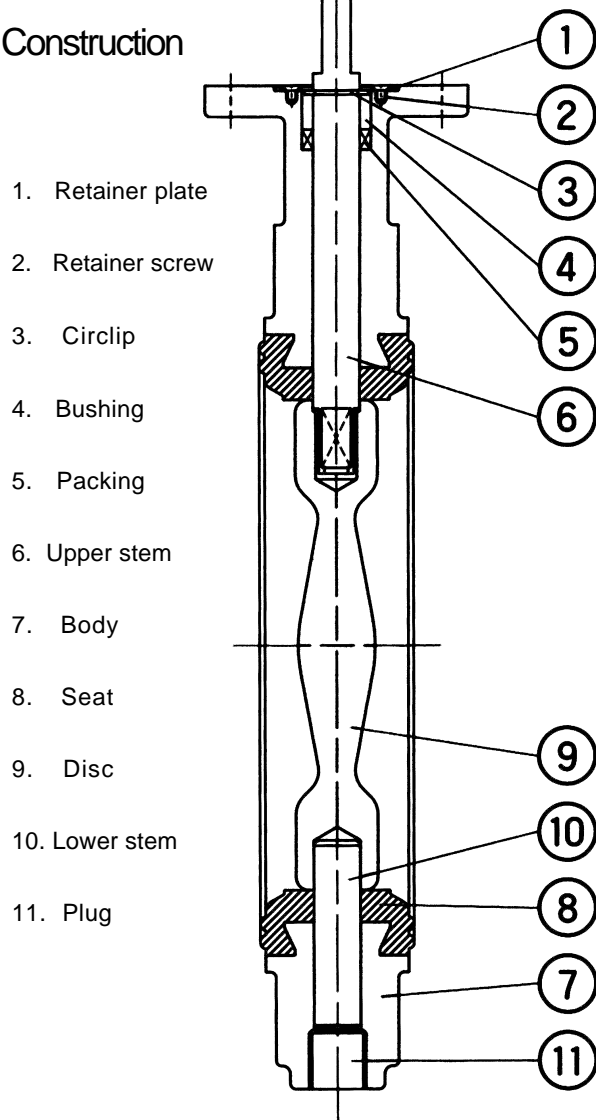
### Features

- ◆ Perfect shut off liquid and gas in both directions
- ◆ Economic Alternatives to gate,ball and plug valves
- ◆ Corrosion free:Stems and body are not in contact with line media.Bodies are protected with epoxy coating.
- ◆ Self centering disc by axial movement due to the floating coupling
- ◆ Compact light weight wafer design
- ◆ Anti blow out stem  
The upper stem is fully retained by the retainer plate under pressure in unlikely event of primary seal fail.
- ◆ Easy replaceable seat without any special tools.
- ◆ Easy installation for each type of actuators:manual, pneumatic,hydraulic and electric
- ◆ Wide range of material for various conditions
- ◆ Maintenance free
- ◆ Minimal flow loss and turbulence
- ◆ Reliable for flow control
- ◆ Self cleaning

### Applications

- ◆ Water
- ◆ Waste Water
- ◆ Thermo Technical Water Treatment
- ◆ Heating line
- ◆ Chemical processing
- ◆ Construction industry
- ◆ Paper industry
- ◆ Sugar industry
- ◆ Mining industry
- ◆ Air line
- ◆ Air conditioning
- ◆ Gas plant
- ◆ Dry Powder
- ◆ Sand Handling
- ◆ Food and Beverage
- ◆ Drilling Rigs
- ◆ Desulphurisation Plants

### Construction



# B1A Rubber Lined Butterfly Valves

## Technical Data :

Standard Compliance	CEPHAS Butterfly Valves conform in general to BS5155, MSS SP67 and API 609.
production Range	Size DN40~DN1200
	Working pressure upto 16Bar(90 up to 230Psi) for DN40~300 and upto 10Bar for DN350~DN1200
	Working temperature: -20°C ~ 150°C
Connections	CEPHAS Butterfly Valves are designed to fit without gaskets between flanges drilled to BS 4504 PN6, PN10 and PN16
	DIN 2501 PN6, PN10 and PN16
	ANSI B16.1 CL, 125 and B16.5 CL 150
	MSS SP 44CL 150
	ISO 2531 PN6, PN10 and PN16
	KS/JIS(5K, 10K, 16K, 20K)
	BS10 Table D and E
	SABS 1123 Table 10000/3 and Table 1600/3
Face to face dimensions	Conform BS5155, ISO5752, MSS SP67 and AP1609
Top flange dimensions	Conform to ISO 5211

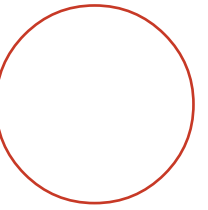
## Material

Body	Cast Iron: ASTM A48, BSI452-220, DIN 1691-GG25 Ductile Iron: ASTM A536 Gr65, 45, 12, BS 2789, 420/12, DIN1693 GGG40 Carbon Steel: ASTM A216 WCB, BS 1504-161 Gr, A, B, Aluminium Bronze: ASTM B148 CL, 9D, BS1400 AB1, AB2, JIS H5114 AL-BC1, AL-BC2, AL-BC3 Aluminium: ASTM B275 Stainless Steel : ASTM A351 CF8, CF8M.
Stem	Stainless steel: ASTM A479 TYPE 304, ANSI 410, ASTM A564 TYPE 630 K-Monel: ASTM B164
Disc	Ductile Iron Nickelplated: ASTM A536 Gr 65, 45, 12, BS2789 420/12, DIN693 GGG40 Stainless Steel: ASTM A351 CF8, CF8M. Aluminium Bronze: BS1400 AB1, AB2, JIS H5114 AL-BC1, AL-BC3
Seat	EPDM: -15°C ~ +110°C      NBR: -10°C ~ +80°C SBR: -20°C ~ +80°C      VITON: -10°C ~ +150°C SILICONE: -20°C ~ +140°C      NEOPRENE: -18°C ~ +90°C
Packing	NBR or VITON
Bushing	DELTRIN
Retainer plate	Mild steel
Plug	Mild steel

Specifications are subject to change without notice

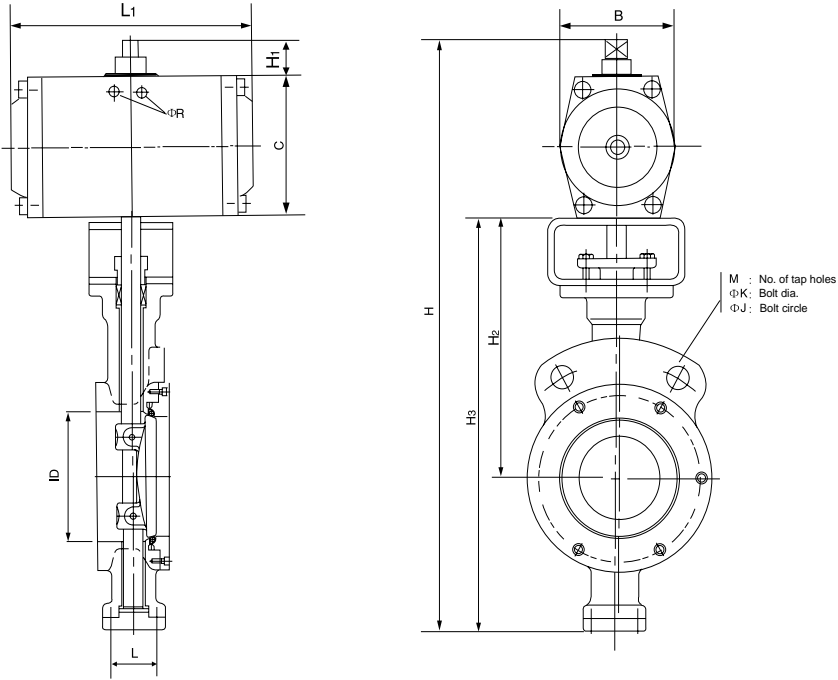
(NOTE) Specials are available on request.

**Bellofram®**



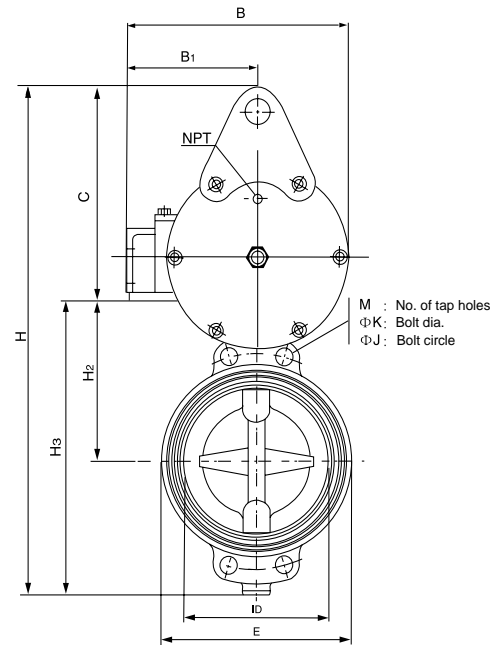
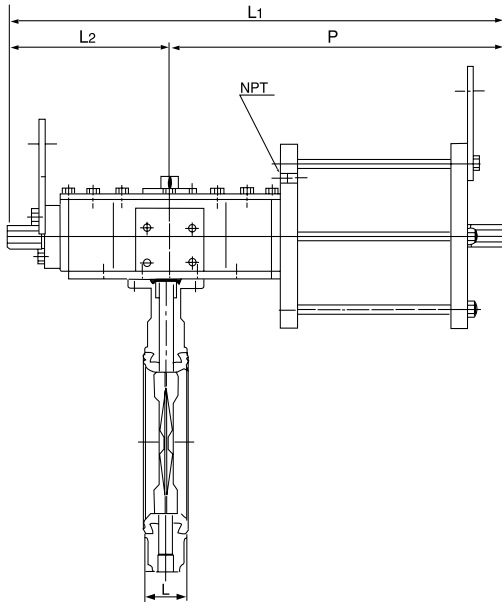
**Bellofram**<sup>®</sup>

Pneumatic Operated Butterfly(wafer)Valves Double Acting Actuators



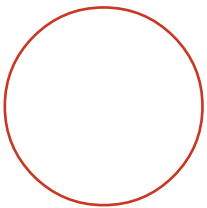
Valve size		Valve									Actuator				
mm	inch	L	ID	E	Φ J	Φ K	M	H	H <sub>B</sub>	H <sub>2</sub>	L1	B	C	H1	Φ R
40	1 1/2	40	40	85	98.5	16	4	309	179	120	155	83	100	30	1/4
50	2	43	50	92	120.5	16	4	335	205	130	155	83	100	30	1/4
65	2 1/2	46	63	107	139.5	19	4	347	217	137	155	83	100	30	1/4
80	3	46	80	122	152.5	19	8	398	251	156	203	100	117	30	1/4
100	4	52	100	150	190.5	19	8	427	280	170	203	100	117	30	1/4
125	5	56	125	179	216	22	8	478	308	185	284	120	140	30	1/4
150	6	56	150	206	241.5	22	8	516	346	203	284	120	140	30	1/4
200	8	60	200	257	298.5	22	12	634	406	238	368	172	198	30	1/4
250	10	68	250	316	362.5	25	12	701	473	270	368	172	198	30	1/4
300	12	78	300	370	432	25	16	837	552	310	450	224	255	30	1/4
350	14	78	350	410	476	29	16	895	610	330	450	224	255	30	1/4
400	16	102	400	468	539	29	16	980	695	375	450	224	255	30	1/4
450	18	114	450	527	578	32	20	1082	750	400	662	272	302	30	1/4
500	20	127	500	578	635	32	20	1152	820	440	683	207	302	30	1/4
550	22	142	550	636	692	1 1/4	20	1217	885	475	683	272	302	30	1/4
600	24	154	600	680	749.5	1 1/4	24	1340	950	510	683	360	360	30	1/4

# Pneumatic Operated Butterfly(Wafer)Valves Double Acting Actuators



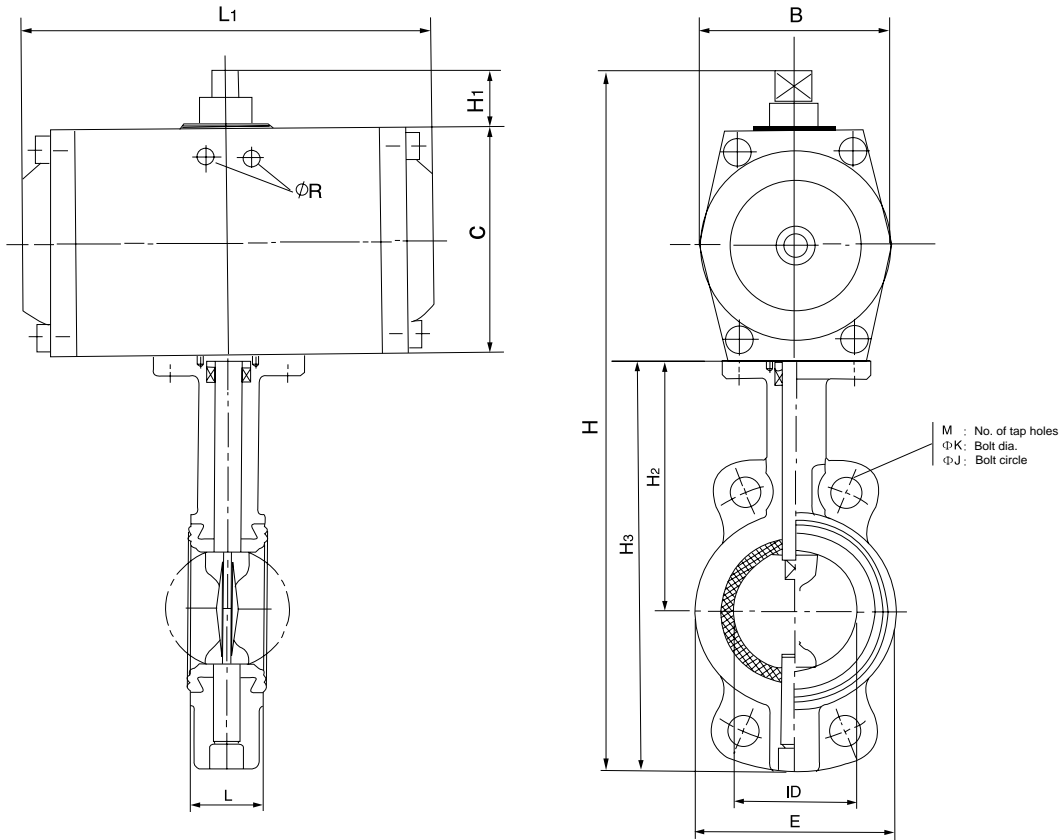
Valve size		Valve									Actuator					
mm	inch	L	ID	E	Φ J	ΦK	M	H	HB	H2	L1	L2	P	B	B1	C
650	26	165	625	735	806.5	1 1/4	24	1439	985	530	1176	588	588	390	230	454
700	28	165	673	785	963.6	1 1/4	28	1514	1060	580	1176	588	588	390	230	454
750	30	192	731	845	914.4	1 1/2	28	1629	1120	585	1490	745	745	420	230	509
800	32	190	767	895	977.9	1 1/2	28	1731	1200	6330	1530	765	765	433	230	531
850	34	200	824	945	1028.7	1 1/2	32	1811	1280	660	1530	765	765	433	230	531
900	36	203	860	1000	1085.9	1 1/2	32	1901	1370	700	1530	765	765	433	230	531
1000	40	216	970	1095	1200.2	1 1/2	36	2060	1475	750	1660	830	830	460	235	585
1050	42	216	1010	1154	1257.3	1 1/2	36	2155	1570	820	1660	830	830	460	235	585
1200	48	254	1173	1310	1422	1 1/2	44	2455	1760	900	2040	1020	1020	670	390	695

Specifications are subject to change without notice



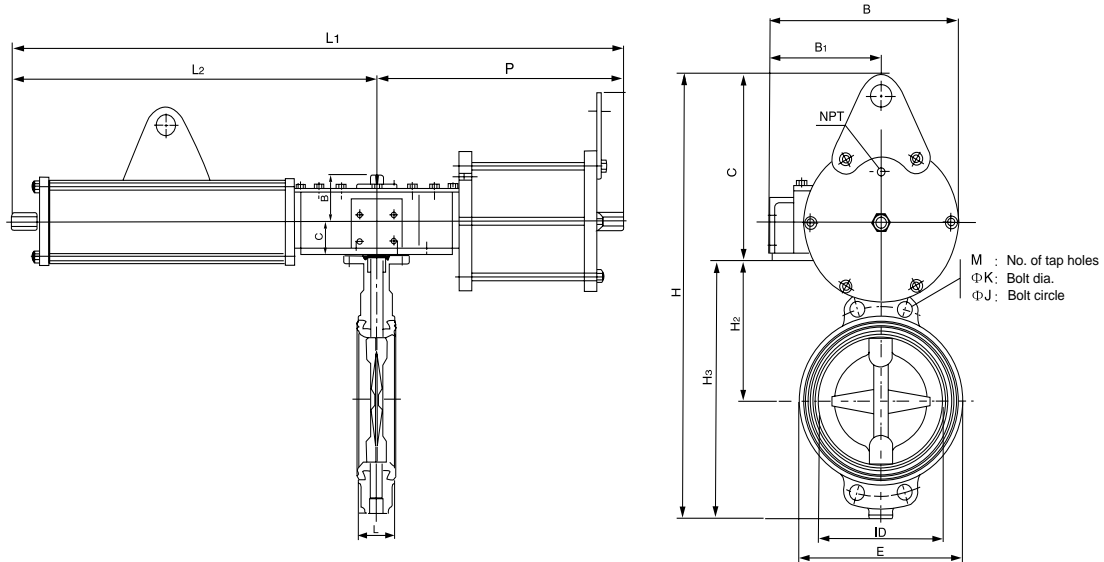
**Bellofram**<sup>®</sup>

Pneumatic Operated Butterfly(Wafer)Valves Single Acting Actuators



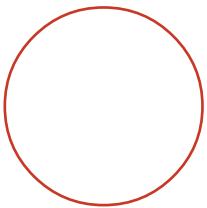
Valve size		Valve							Actuator						
mm	inch	L	ID	E	Φ J	Φ K	M	H	H <sub>B</sub>	H <sub>2</sub>	L1	B	C	H1	Φ R
40	1 1/2	40	40	85	98.5	16	4	349	179	120	216	120	140	30	1/4
50	2	43	50	92	120.5	16	4	375	205	130	216	120	140	30	1/4
65	2 1/2	46	63	107	139.5	19	4	387	217	137	216	120	140	30	1/4
80	3	46	80	122	152.5	19	8	479	251	156	337	172	198	30	1/4
100	4	52	100	150	190.5	19	8	508	280	170	337	172	198	30	1/4
125	5	56	125	179	216	22	8	593	308	185	420	224	255	30	1/4
150	6	56	150	206	241.5	22	8	631	346	203	420	224	255	30	1/4
200	8	60	200	257	298.5	22	12	738	406	238	583	272	302	30	1/4
250	10	68	250	316	362.5	25	12	805	473	270	583	272	302	30	1/4
300	12	78	300	370	432	25	16	884	552	310	662	272	302	30	1/4
350	14	78	350	410	476	29	16	1000	610	330	683	360	360	30	1/4
400	16	102	400	468	539	29	16	1085	695	375	683	360	360	30	1/4

# Pneumatic Operated Butterfly(Wafer)Valves Single Acting Actuators



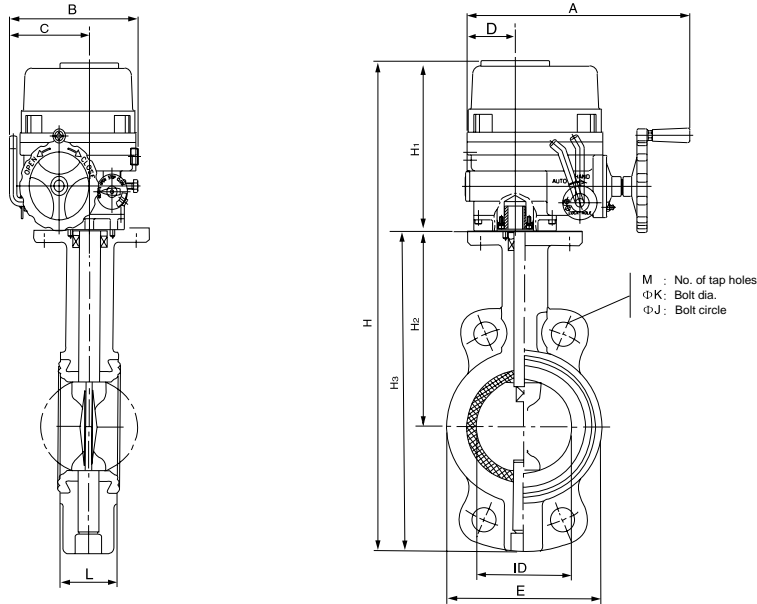
Valve size		Valve									Actuator					
mm	inch	L	ID	E	Φ J	Φ K	M	H	H <sub>B</sub>	H <sub>2</sub>	L1	L2	P	B	B1	C
450	18	114	434	527	578	32	16	1259	750	400	1474	886	588	420	230	509
500	20	127	487	578	635	32	20	1329	820	440	1474	886	588	420	230	509
550	22	142	530	636	692	1 1/4	20	1394	885	475	1875	1130	745	420	230	509
600	24	154	575	680	749.5	1 1/4	20	1459	950	510	1875	1130	745	420	230	509
650	26	165	625	735	806.5	1 1/4	24	1526	985	530	2440	1610	830	438	235	541
700	28	165	673	785	963.6	1 1/4	28	1601	1060	580	2440	1610	830	438	235	541
750	30	192	731	845	914.4	1 1/2	28	1705	1120	585	2440	1610	830	460	235	585
800	32	190	767	895	977.9	1 1/2	28	1785	1200	6330	3055	1020	2035	615	390	585
850	34	200	824	945	1028.7	1 1/2	32	1865	1280	660	3055	1020	2035	615	390	585
900	36	203	860	1000	1085.9	1 1/2	32	2065	1370	700	3055	1020	2035	715	390	695

Specifications are subject to change without notice



**Bellofram®**

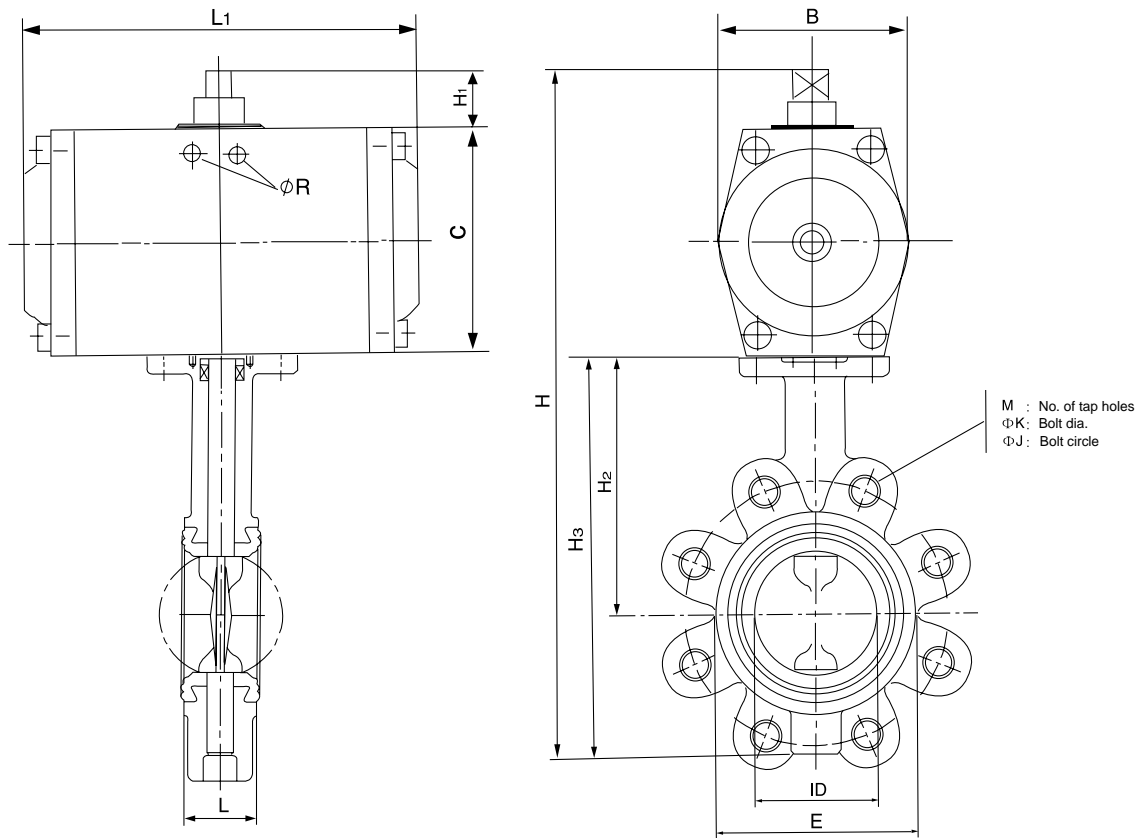
## Electric Operated Butterfly(Wafer) Valves



Valve size		Valve									Actuator				
mm	inch	L	ID	E	Φ J	Φ K	M	H	H <sub>1</sub>	H <sub>2</sub>	A	B	C	D	H <sub>1</sub>
40	1 1/2	40	40	85	98.5	16	4	316	179	120	126	105	—	—	137
50	2	43	50	92	120.5	16	4	342	205	130	126	105	—	—	137
65	2 1/2	46	63	107	139.5	19	4	354	217	137	126	105	—	—	137
80	3	46	80	122	152.5	19	8	471	251	156	126	105	—	50	220
100	4	52	100	150	190.5	19	8	500	280	170	258	170	100	50	220
125	5	56	125	179	216	22	8	568	308	185	338	229	142	73	260
150	6	56	150	206	241.5	22	8	606	346	203	338	229	142	73	260
200	8	60	200	257	298.5	22	12	666	406	238	338	229	142	73	260
250	10	68	250	316	362.5	25	12	763	473	270	368	259	160	82	290
300	12	78	300	370	432	25	16	842	552	310	368	259	160	82	290
350	14	78	350	410	476	29	16	900	610	330	368	259	160	82	290
400	16	102	400	468	539	29	16	1010	695	375	410	297	186	103	315
450	18	114	450	527	578	32	20	1298	750	400	410	319	186	103	548
500	20	127	500	578	635	32	20	1368	820	440	410	319	186	103	548
550	22	142	550	636	692	1 1/4	20	1433	885	475	410	319	186	103	548
600	24	154	600	680	749.5	1 1/4	24	1498	950	510	410	319	186	103	548

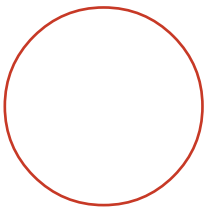
(NOTE)Bellofram can provide larger torque electric operated butterfly valves,please get the detailed information by contacting us

# Pneumatic Operated Butterfly (Lug) Valves



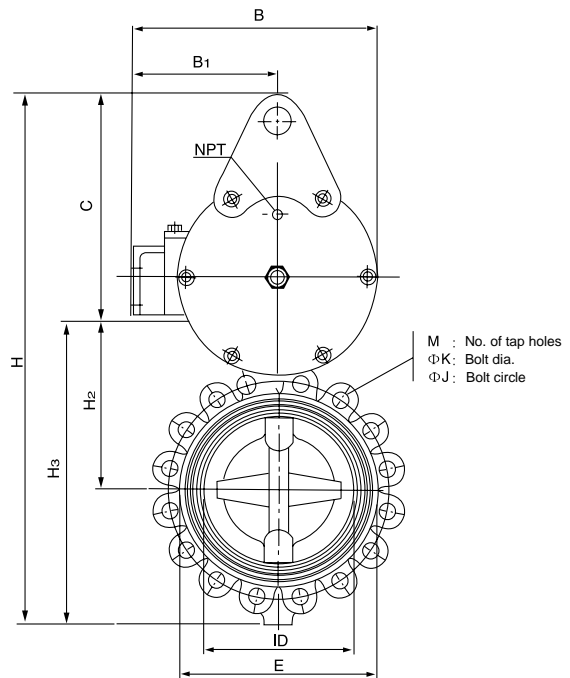
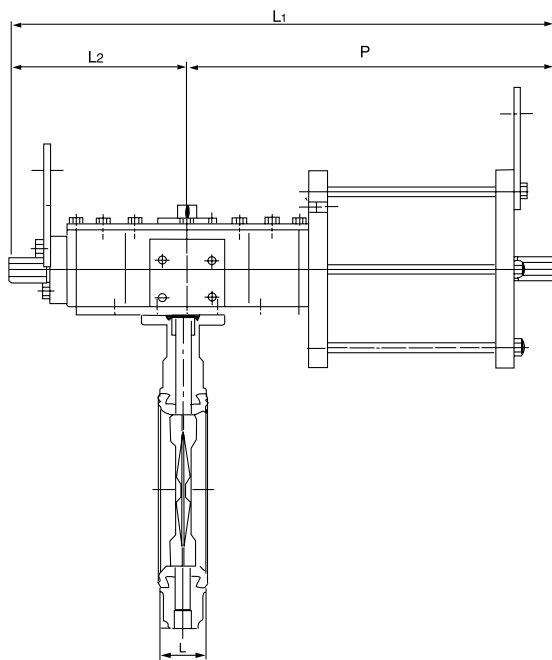
Valve size		Valve									Actuator				
mm	inch	L	ID	E	Φ J	Φ K	M	H	H <sub>B</sub>	H <sub>2</sub>	L <sub>1</sub>	B	C	H <sub>1</sub>	Φ R
40	1 1/2	40	40	85	98.5	16	4	309	179	120	155	83	100	30	1/4
50	2	43	50	92	120.5	16	4	335	205	130	155	83	100	30	1/4
65	2 1/2	46	63	107	139.5	19	4	347	217	137	155	83	100	30	1/4
80	3	46	80	122	152.5	19	8	398	251	156	203	100	117	30	1/4
100	4	52	100	150	190.5	19	8	427	280	170	203	100	117	30	1/4
125	5	56	125	179	216	22	8	478	308	185	284	120	140	30	1/4
150	6	56	150	206	241.5	22	8	516	346	203	284	120	140	30	1/4
200	8	60	200	257	298.5	22	12	634	406	238	368	172	198	30	1/4
250	10	68	250	316	362.5	25	12	701	473	270	368	172	198	30	1/4
300	12	78	300	370	432	25	16	837	552	310	450	224	255	30	1/4
350	14	78	350	410	476	29	16	895	610	330	450	224	255	30	1/4
400	16	102	400	468	539	29	16	980	695	375	450	224	255	30	1/4
450	18	114	450	527	578	32	20	1082	750	400	662	272	302	30	1/4
500	20	127	500	578	635	32	20	1152	820	440	683	207	302	30	1/4
550	22	142	550	636	692	1 1/4	20	1217	885	475	683	272	302	30	1/4
600	24	154	600	680	749.5	1 1/4	24	1340	950	510	683	360	360	30	1/4

Specifications are subject to change without notice



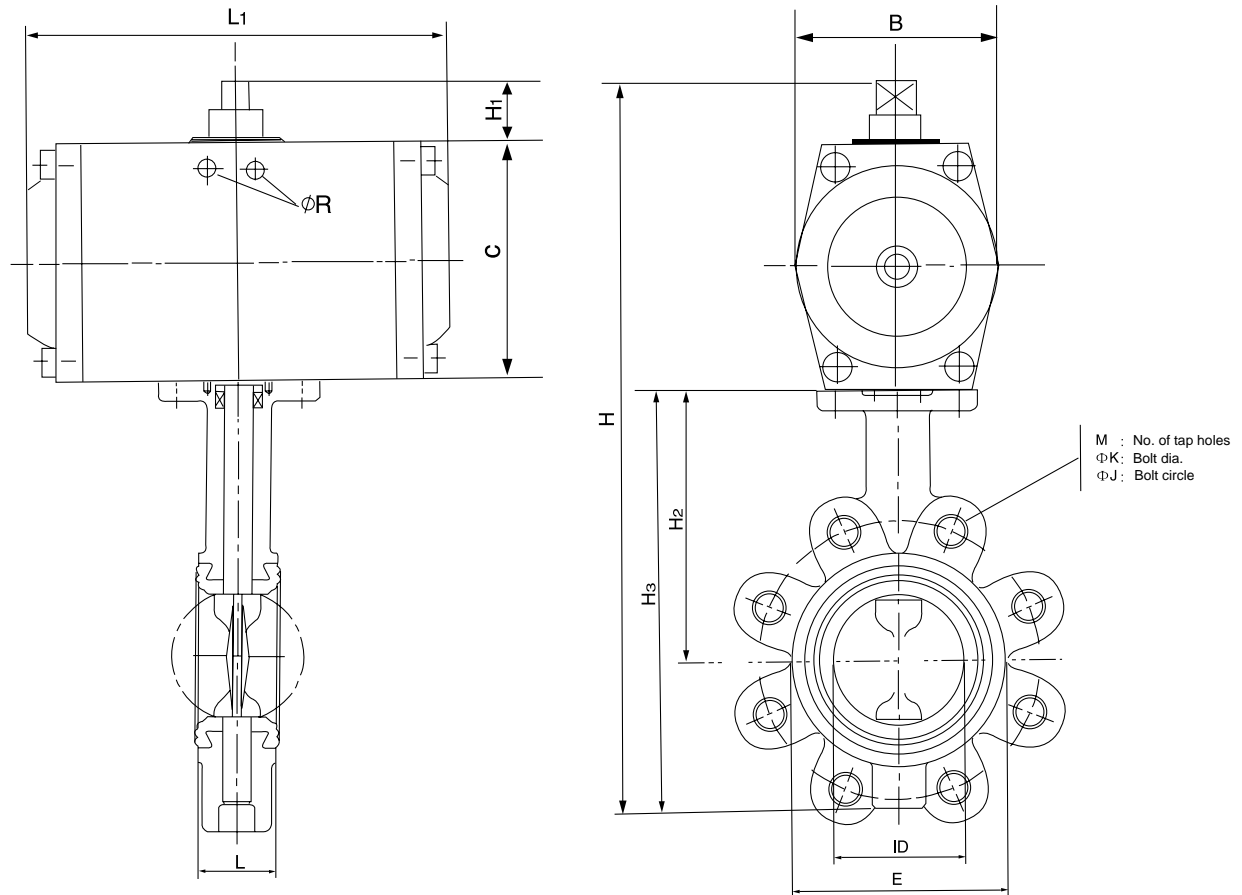
**Bellofram**<sup>®</sup>

Pneumatic Operated Butterfly (Lug) Valves



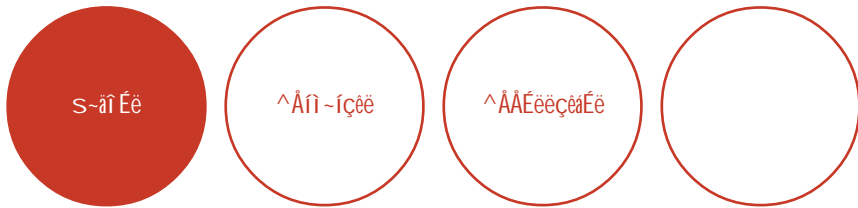
Valve size		Valve									Actuator					
mm	inch	L	ID	E	Φ J	Φ K	M	H	H3	H2	L1	L2	P	B	B1	C
650	26	165	625	735	806.5	1 1/4	24	1439	985	530	1176	588	588	390	230	454
700	28	165	673	785	963.6	1 1/4	28	1514	1060	580	1176	588	588	390	230	454
750	30	192	731	845	914.4	1 1/2	28	1629	1120	585	1490	745	745	420	230	509
800	32	190	767	895	977.9	1 1/2	28	1731	1200	6330	1530	765	765	433	230	531
850	34	200	824	945	1028.7	1 1/2	32	1811	1280	660	1530	765	765	433	230	531
900	36	203	860	1000	1085.9	1 1/2	32	1901	1370	700	1530	765	765	433	230	531
1000	40	216	970	1095	1200.2	1 1/2	36	2060	1475	750	1660	830	830	460	235	585
1050	42	216	1010	1154	1257.3	1 1/2	36	2155	1570	820	1660	830	830	460	235	585
1200	48	254	1173	1310	1422	1 1/2	44	2455	1760	900	2040	1020	1020	670	390	695

# Pneumatic operated butterfly (lug) valves single acting actuators



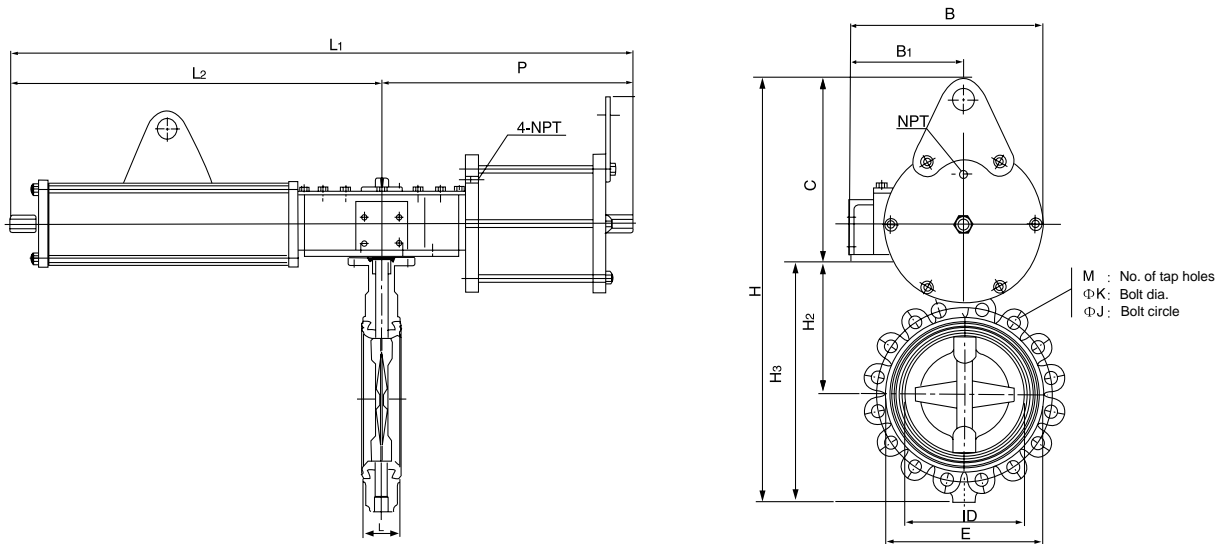
Valve size		Valve									Actuator				
mm	inch	L	ID	E	Φ J	Φ K	M	H	H <sub>B</sub>	H <sub>2</sub>	L1	B	C	H1	Φ R
40	1 1/2	40	40	85	98.5	16	4	349	179	120	216	120	140	30	1/4
50	2	43	50	92	120.5	16	4	375	205	130	216	120	140	30	1/4
65	2 1/2	46	63	107	139.5	19	4	387	217	137	216	120	140	30	1/4
80	3	46	80	122	152.5	19	8	479	251	156	337	172	198	30	1/4
100	4	52	100	150	190.5	19	8	508	280	170	337	172	198	30	1/4
125	5	56	125	179	216	22	8	593	308	185	420	224	255	30	1/4
150	6	56	150	206	241.5	22	8	631	346	203	420	224	255	30	1/4
200	8	60	200	257	298.5	22	12	738	406	238	583	272	302	30	1/4
250	10	68	250	316	362.5	25	12	805	473	270	583	272	302	30	1/4
300	12	78	300	370	432	25	16	884	552	310	662	272	302	30	1/4
350	14	78	350	410	476	29	16	1000	610	330	683	360	360	30	1/4
400	16	102	400	468	539	29	16	1085	695	375	683	360	360	30	1/4

Specifications are subject to change without notice



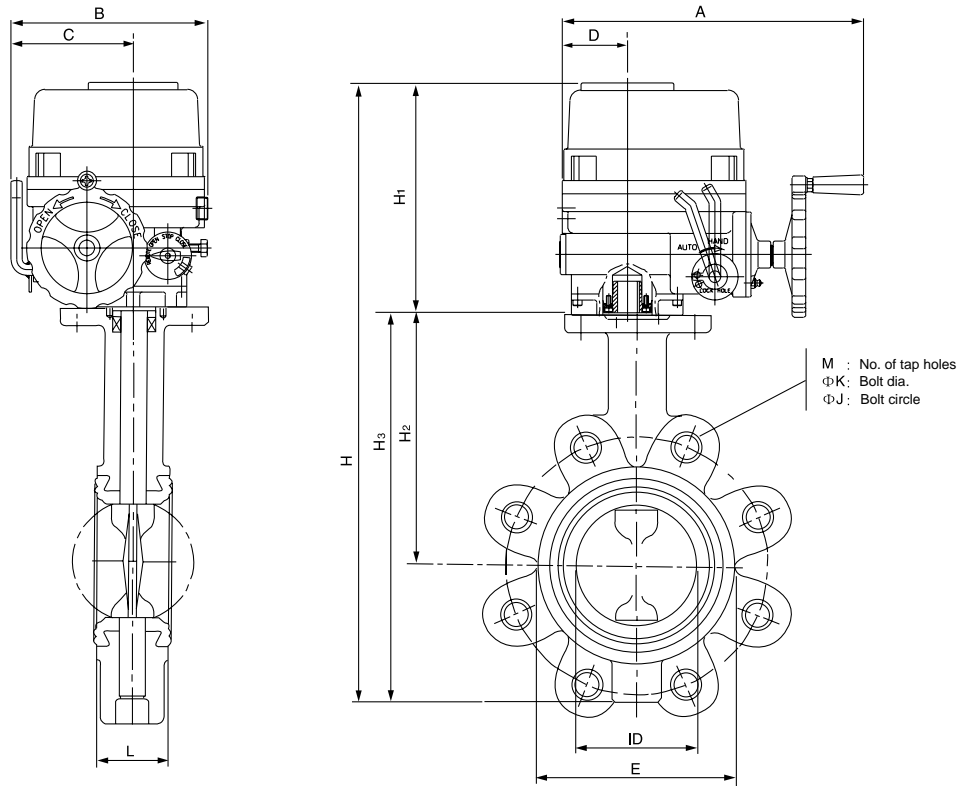
**Bellofram®**

Pneumatic Operated Butterfly (Lug) Valves Single Acting Actuators



Valve size		Valve									Actuator					
mm	inch	L	ID	E	Φ J	Φ K	M	H	H <sub>B</sub>	H <sub>2</sub>	L1	L2	P	B	B1	C
450	18	114	434	527	578	32	16	1259	750	400	1474	886	588	420	230	509
500	20	127	487	578	635	32	20	1329	820	440	1474	886	588	420	230	509
550	22	142	530	636	692	1 1/4	20	1394	885	475	1875	1130	745	420	230	509
600	24	154	575	680	749.5	1 1/4	20	1459	950	510	1875	1130	745	420	230	509
650	26	165	625	735	806.5	1 1/4	24	1526	985	530	2440	1610	830	438	235	541
700	28	165	673	785	963.6	1 1/4	28	1601	1060	580	2440	1610	830	438	235	541
750	30	192	731	845	914.4	1 1/2	28	1705	1120	585	2440	1610	830	460	235	585
800	32	190	767	895	977.9	1 1/2	28	1785	1200	6330	3055	1020	2035	615	390	585
850	34	200	824	945	1028.7	1 1/2	32	1865	1280	660	3055	1020	2035	615	390	585
900	36	203	860	1000	1085.9	1 1/2	32	2065	1370	700	3055	1020	2035	715	390	695

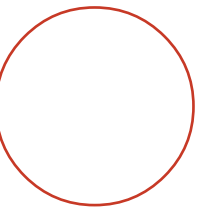
# Electric operated butterfly (lug) valves



Valve size		Valve									Actuator				
mm	inch	L	ID	E	Φ J	Φ K	M	H	H <sub>3</sub>	H <sub>2</sub>	A	B	C	D	H <sub>1</sub>
40	1 1/2	40	40	85	98.5	16	4	306	179	120	126	105	—	—	137
50	2	43	50	92	120.5	16	4	335	205	130	126	105	—	—	137
65	2 1/2	46	63	107	139.5	19	4	347	217	137	126	105	—	—	137
80	3	46	80	122	152.5	19	8	398	251	156	126	105	—	50	220
100	4	52	100	150	190.5	19	8	427	280	170	258	170	100	50	220
125	5	56	125	179	216	22	8	478	308	185	338	229	142	73	260
150	6	56	150	206	241.5	22	8	516	346	203	338	229	142	73	260
200	8	60	200	257	298.5	22	12	634	406	238	338	229	142	73	260
250	10	68	250	316	362.5	25	12	701	473	270	368	259	160	82	290
300	12	78	300	370	432	25	16	837	552	310	368	259	160	82	290
350	14	78	350	410	476	29	16	895	610	330	368	259	160	82	290
400	16	102	400	468	539	29	16	980	695	375	410	297	186	103	315
450	18	114	450	527	578	32	20	1082	750	400	410	319	186	103	548
500	20	127	500	578	635	32	20	1152	820	440	410	319	186	103	548
550	22	142	550	636	692	1 1/4	20	1217	885	475	410	319	186	103	548
600	24	154	600	680	749.5	1 1/4	24	1340	950	510	410	319	186	103	548

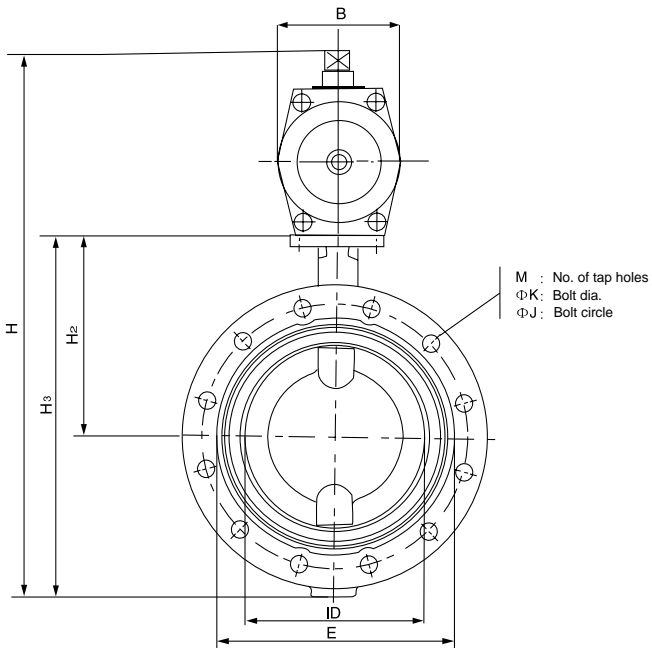
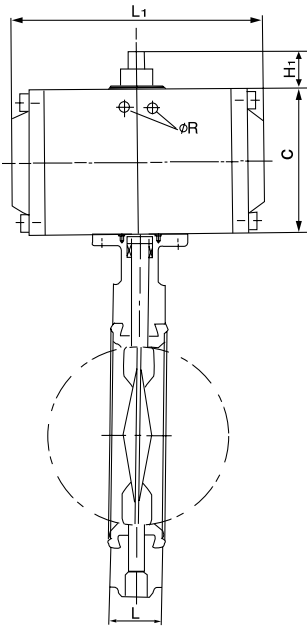
Specifications are subject to change without notice

(NOTE) Bellofram can provide larger torque electric operated valves, please get detailed information by contacting us



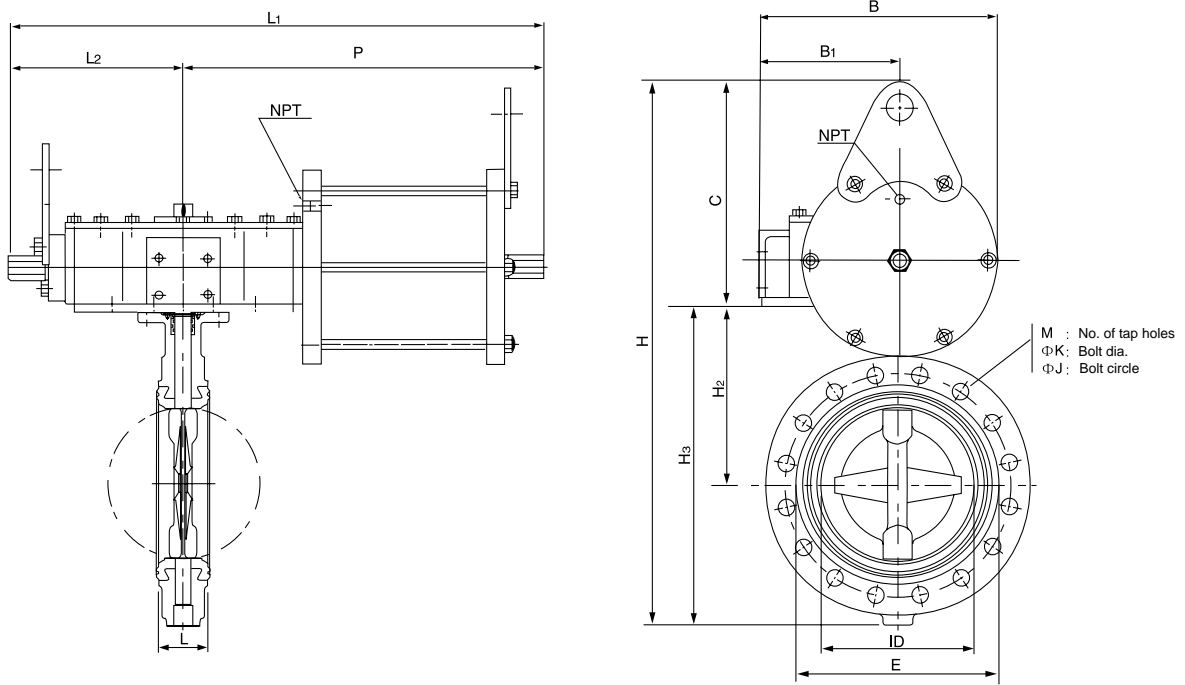
**Bellofram**<sup>®</sup>

Pneumatic Operated Butterfly (Flange) Valves Double Acting Actuators



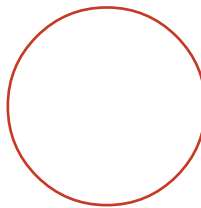
Valve size		Valve									Actuator				
mm	inch	L	ID	E	Φ J	Φ K	M	H	H <sub>B</sub>	H <sub>2</sub>	L1	B	C	H <sub>1</sub>	Φ R
40	1 1/2	40	40	85	98.5	16	4	309	179	120	155	83	100	30	1/4
50	2	43	50	92	120.5	16	4	335	205	130	155	83	100	30	1/4
65	2 1/2	46	63	107	139.5	19	4	347	217	137	155	83	100	30	1/4
80	3	46	80	122	152.5	19	8	398	251	156	203	100	117	30	1/4
100	4	52	100	150	190.5	19	8	427	280	170	203	100	117	30	1/4
125	5	56	125	179	216	22	8	478	308	185	284	120	140	30	1/4
150	6	56	150	206	241.5	22	8	516	346	203	284	120	140	30	1/4
200	8	60	200	257	298.5	22	12	634	406	238	368	172	198	30	1/4
250	10	68	250	316	362.5	25	12	701	473	270	368	172	198	30	1/4
300	12	78	300	370	432	25	16	837	552	310	450	224	255	30	1/4
350	14	78	350	410	476	29	16	895	610	330	450	224	255	30	1/4
400	16	102	400	468	539	29	16	980	695	375	450	224	255	30	1/4
450	18	114	450	527	578	32	20	1082	750	400	662	272	302	30	1/4
500	20	127	500	578	635	32	20	1152	820	440	683	207	302	30	1/4
550	22	142	550	636	692	1 1/4	20	1217	885	475	683	272	302	30	1/4
600	24	154	600	680	749.5	1 1/4	24	1340	950	510	683	360	360	30	1/4

# Pneumatic Operated Butterfly (Flange) Valves Double Acting Actuators



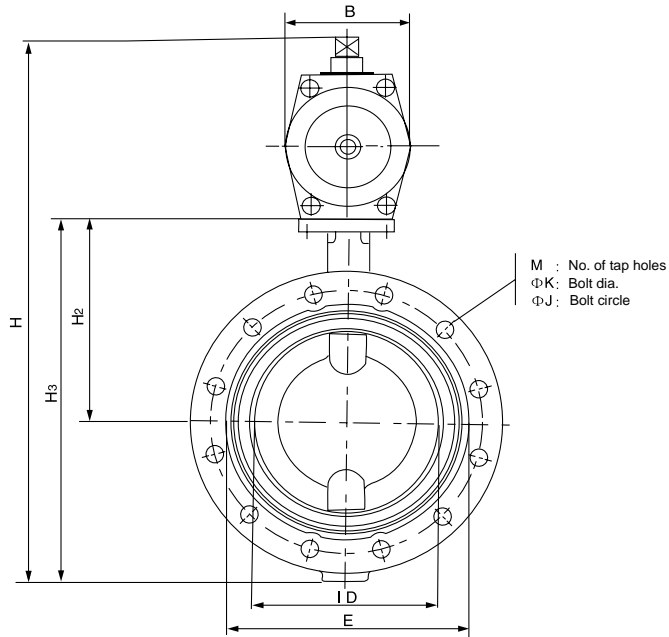
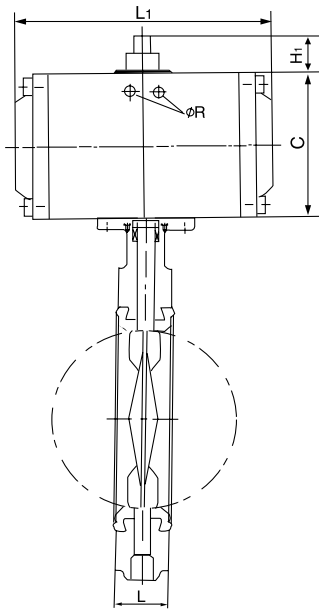
Valve size		Valve									Actuator					
mm	inch	L	ID	E	Φ J	Φ K	M	H	H <sub>B</sub>	H <sub>2</sub>	L1	L2	P	B	B1	C
650	26	165	625	735	806.5	1 1/4	24	1439	985	530	1176	588	588	390	230	454
700	28	165	673	785	963.6	1 1/4	28	1514	1060	580	1176	588	588	390	230	454
750	30	192	731	845	914.4	1 1/2	28	1629	1120	585	1490	745	745	420	230	509
800	32	190	767	895	977.9	1 1/2	28	1731	1200	6330	1530	765	765	433	230	531
850	34	200	824	945	1028.7	1 1/2	32	1811	1280	660	1530	765	765	433	230	531
900	36	203	860	1000	1085.9	1 1/2	32	1901	1370	700	1530	765	765	433	230	531
1000	40	216	970	1095	1200.2	1 1/2	36	2060	1475	750	1660	830	830	460	235	585
1050	42	216	1010	1154	1257.3	1 1/2	36	2155	1570	820	1660	830	830	460	235	585
1200	48	254	1173	1310	1422	1 1/2	44	2455	1760	900	2040	1020	1020	670	390	695

Specifications are subject to change without notice



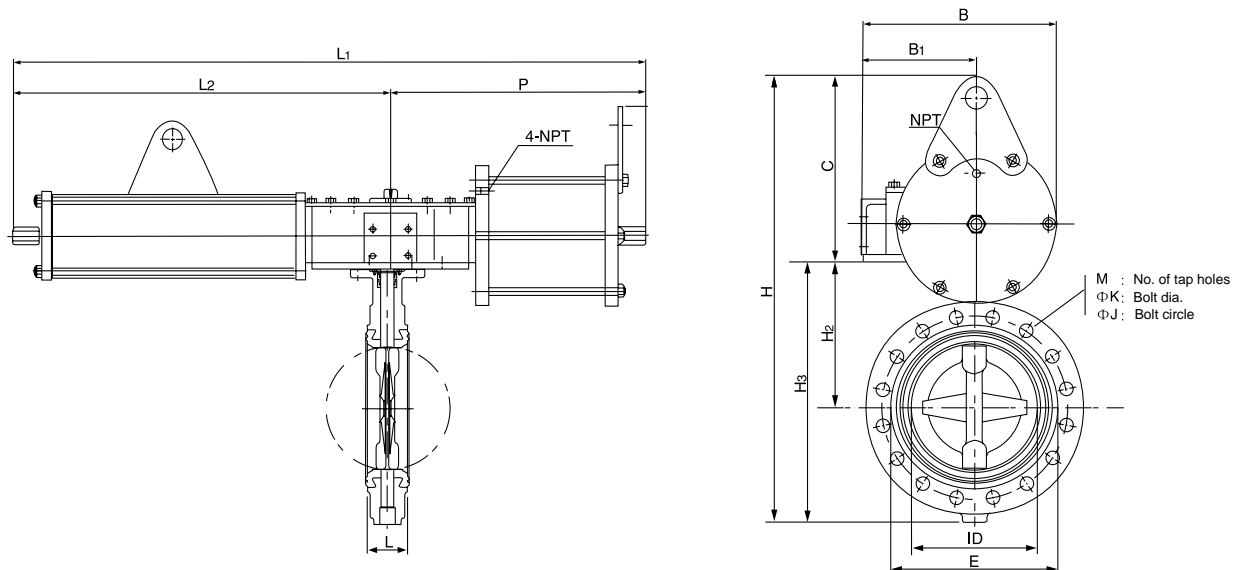
**Bellofram®**

Pneumatic Operated Butterfly(Flange)Valves Single Acting Actuators



Valve size		Valve									Actuator				
mm	inch	L	ID	E	Φ J	Φ K	M	H	H <sub>B</sub>	H <sub>2</sub>	L1	B	C	H1	Φ R
40	1 1/2	40	40	85	98.5	16	4	349	179	120	216	120	140	30	1/4
50	2	43	50	92	120.5	16	4	375	205	130	216	120	140	30	1/4
65	2 1/2	46	63	107	139.5	19	4	387	217	137	216	120	140	30	1/4
80	3	46	80	122	152.5	19	8	479	251	156	337	172	198	30	1/4
100	4	52	100	150	190.5	19	8	508	280	170	337	172	198	30	1/4
125	5	56	125	179	216	22	8	593	308	185	420	224	255	30	1/4
150	6	56	150	206	241.5	22	8	631	346	203	420	224	255	30	1/4
200	8	60	200	257	298.5	22	12	738	406	238	583	272	302	30	1/4
250	10	68	250	316	362.5	25	12	805	473	270	583	272	302	30	1/4
300	12	78	300	370	432	25	16	884	552	310	662	272	302	30	1/4
350	14	78	350	410	476	29	16	1000	610	330	683	360	360	30	1/4
400	16	102	400	468	539	29	16	1085	695	375	683	360	360	30	1/4

# Pneumatic Operated Butterfly(Flange)Valves Single Acting Actuators



Valve size		Valve									Actuator					
mm	inch	L	ID	E	Φ J	Φ K	M	H	H <sub>B</sub>	H <sub>2</sub>	L1	L2	P	B	B1	C
450	18	114	434	527	578	32	16	1259	750	400	1474	886	588	420	230	509
500	20	127	487	578	635	32	20	1329	820	440	1474	886	588	420	230	509
550	22	142	530	636	692	1 1/4	20	1394	885	475	1875	1130	745	420	230	509
600	24	154	575	680	749.5	1 1/4	20	1459	950	510	1875	1130	745	420	230	509
650	26	165	625	735	806.5	1 1/4	24	1526	985	530	2440	1610	830	438	235	541
700	28	165	673	785	963.6	1 1/4	28	1601	1060	580	2440	1610	830	438	235	541
750	30	192	731	845	914.4	1 1/2	28	1705	1120	585	2440	1610	830	460	235	585
800	32	190	767	895	977.9	1 1/2	28	1785	1200	6330	3055	1020	2035	615	390	585
850	34	200	824	945	1028.7	1 1/2	32	1865	1280	660	3055	1020	2035	615	390	585
900	36	203	860	1000	1085.9	1 1/2	32	2065	1370	700	3055	1020	2035	715	390	695

Specifications are subject to change without notice

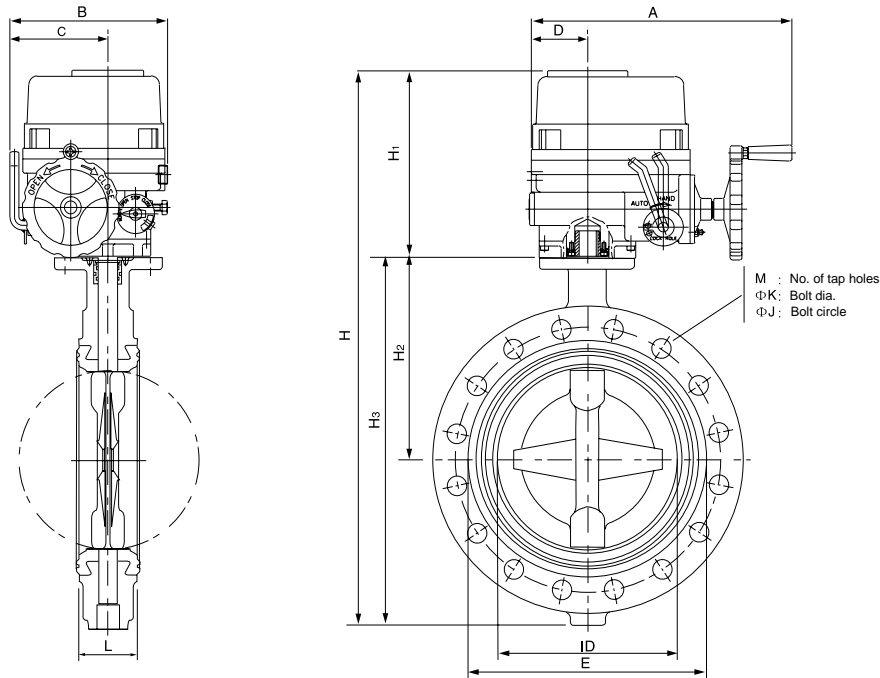
S-āī Ēē

^Āīī -īçēē

^ĀĀĒēēçēēĒē

**Bellofram**<sup>®</sup>

## Electric Operated Butterfly (Flange) Valves



Valve Size		Valve									Actuator				
mm	inch	L	ID	E	Φ J	Φ K	M	H	H3	H2	A	B	C	D	H1
40	1 1/2	40	40	85	98.5	16	4	316	179	120	126	105	—	—	137
50	2	43	50	92	120.5	16	4	342	205	130	126	105	—	—	137
65	2 1/2	46	63	107	139.5	19	4	354	217	137	126	105	—	—	137
80	3	46	80	122	152.5	19	8	471	251	156	126	105	—	50	220
100	4	52	100	150	190.5	19	8	500	280	170	258	170	100	50	220
125	5	56	125	179	216	22	8	568	308	185	338	229	142	73	260
150	6	56	150	206	241.5	22	8	606	346	203	338	229	142	73	260
200	8	60	200	257	298.5	22	12	666	406	238	338	229	142	73	260
250	10	68	250	316	362.5	25	12	763	473	270	368	259	160	82	290
300	12	78	300	370	432	25	16	842	552	310	368	259	160	82	290
350	14	78	350	410	476	29	16	900	610	330	368	259	160	82	290
400	16	102	400	468	539	29	16	1010	695	375	410	297	186	103	315
450	18	114	450	527	578	32	20	1298	750	400	410	319	186	103	548
500	20	127	500	578	635	32	20	1368	820	440	410	319	186	103	548
550	22	142	550	636	692	1 1/4	20	1433	885	475	410	319	186	103	548
600	24	154	600	680	749.5	1 1/4	24	1498	950	510	410	319	186	103	548

Note: Bellofram can provide larger torque electric operated valves, please get detailed information by contacting us

# High Performance Butterfly Valves

## Features

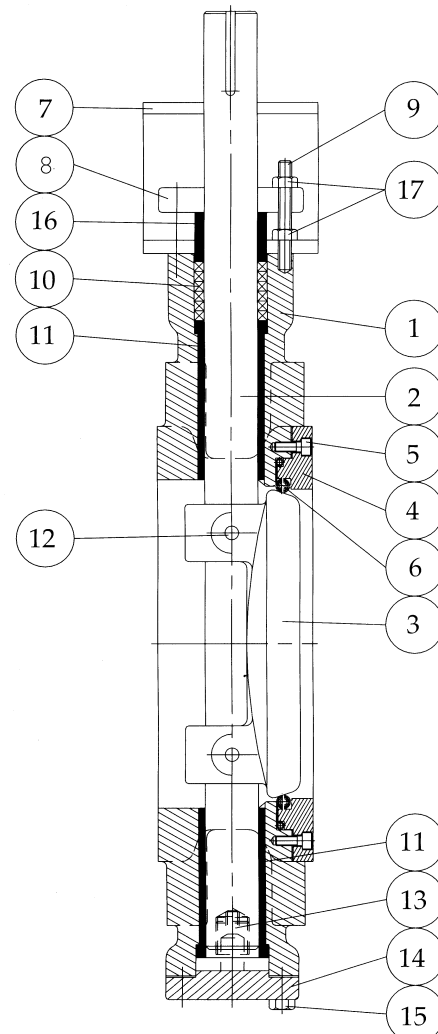
- ◆ Positive Bi-directional Shut-Off: Full rating bi-directional pressure energized sealing system. Helicoflex metal seat and spring energized teflon seat provide positive shut-off. For rubber or flat metal seat type positive shut-off is generated by line pressure.
- ◆ Economic alternatives to other valves without sacrificing any performance capabilities
- ◆ Reduced operating torque-double eccentric disc and self-lubricating bearings provide smooth and easy operation.
- ◆ No seat wear in open position -By double offset and spherical segment disc.
- ◆ Simple maintenance-seat and stem packing retrofit without removing actuator.
- ◆ Full fire-safe capabilities
- ◆ Heavy duty disc and shaft
- ◆ Vertical movement free disc by disc locator
- ◆ Hard chrome plated disc seating surface
- ◆ Wide range of material for various conditions
- ◆ Reliable for flow control
- ◆ Easy installation for each type of actuators: manual, pneumatic, hydraulic and electric
- ◆ Wide temperature range:  $-100^{\circ}\text{C} \sim +400^{\circ}\text{C}$

## Applications

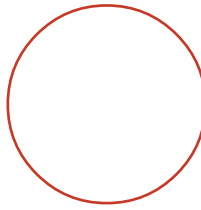
- ◆ Marine tankers-shipbuilding
- ◆ Offshore plants
- ◆ Chemical and petrochemical plants
- ◆ Water treatment-purification
- ◆ Steel and metal plants
- ◆ Military application
- ◆ Food plants
- ◆ Pulp and paper plants
- ◆ Tobacco industry
- ◆ Textile industry
- ◆ Sugar refining

## Construction

- 1, Body
- 2, Stem
- 3, Disc
- 4, Retainer
- 5, Retainer Bolt
- 6, Seat
- 7, Stand
- 8, Packing Gland
- 9, Gland Bolt
- 10, Packing
- 11, Bearing
- 12, Disc Pin
- 13, Disc Locator
- 14, Bottom Cover
- 15, Cover Bolt
- 16, Gland Ring
- 17, Gland Nut



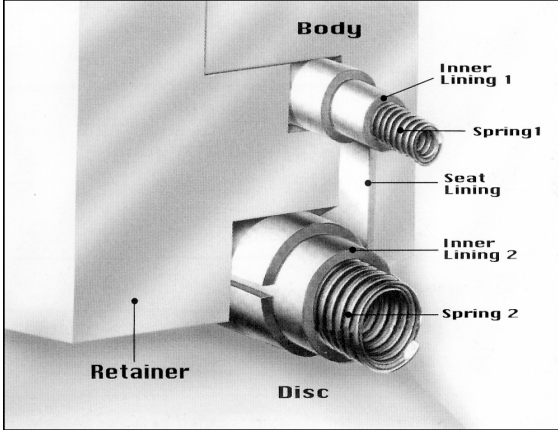
Specifications are subject to change without notice



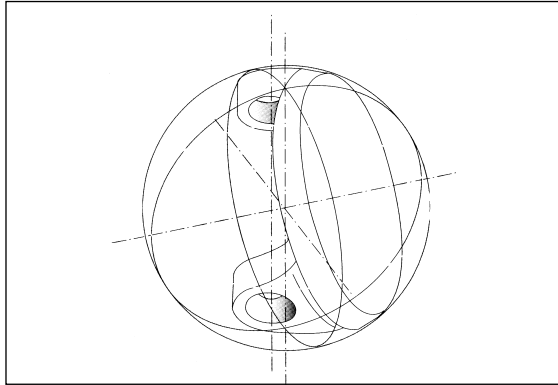
**Bellofram**<sup>®</sup>

# High Performance Butterfly Valves

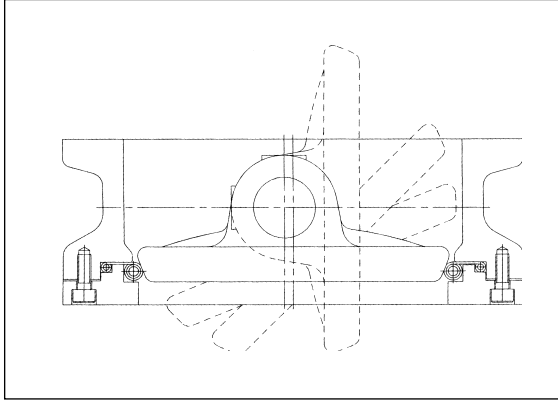
Helicoflex is a patented sealing system developed by CARBONE LORRAINE/Cefilac/CEA (French atomic energy commission)



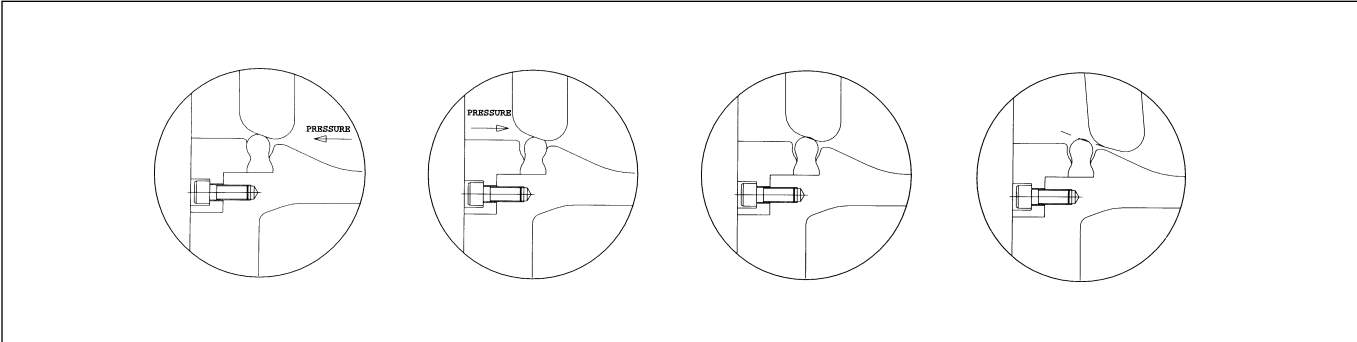
- Spherical Segment disc
- Extending seat service life
- Improving sealing
- Reducing operating torque
- Providing smooth and even touch
- Eliminating friction



- Double Eccentric Disc and Stem assembly:
- Reducing seat wear
- Providing perfect sealing
- Decreasing operating torque



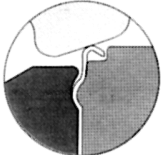
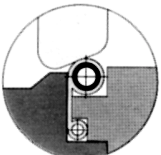




- Pressure Energized Sealing
- Line pressure force creates energized sealing.

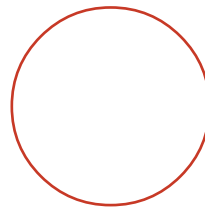


# High Performance Butterfly Valves

## Bi-directional pressure energized sealing systems

Type	Features	Materials	Applications	Servicetemperature
RS	 Rubber Seat	<ul style="list-style-type: none"> <li>● NBR</li> <li>● High built NBR</li> <li>● VITON</li> <li>● EPDM</li> </ul>	<ul style="list-style-type: none"> <li>● Crude Oil</li> <li>● Sea Water</li> <li>● Water</li> <li>● Petroleum Products</li> </ul>	<ul style="list-style-type: none"> <li>● NBR: 0 °C to 90°C</li> <li>● EPDM: -10°C to 120°C</li> <li>● VITON 0°C to 150°C</li> </ul>
ST	 Teflon Seat	<ul style="list-style-type: none"> <li>● Teflon+Egilog HT or Silicme O-Ring</li> </ul>	<ul style="list-style-type: none"> <li>● Chemicals</li> <li>● Petrochemical</li> <li>● Ethylene</li> <li>● LPG</li> </ul>	<ul style="list-style-type: none"> <li>-50°C to 200°C</li> </ul>
FM	 Flat Metal Seat	<ul style="list-style-type: none"> <li>● Stainess steel 316 type</li> </ul>	<ul style="list-style-type: none"> <li>● Water</li> <li>● Sea Water</li> <li>● Steam</li> <li>● Chemicals</li> <li>● Petroleum Products</li> </ul>	<ul style="list-style-type: none"> <li>-80°C to 300°C</li> </ul>
HM	 Helicoflex Metal Seat	<ul style="list-style-type: none"> <li>● Nickel + Stainess steel + Nimonic 90</li> </ul>	<ul style="list-style-type: none"> <li>● Steam</li> <li>● Chemicals</li> <li>● LPG</li> <li>● Ethylene</li> </ul>	<ul style="list-style-type: none"> <li>-100°C to 400°C</li> </ul>
RF	 Fire Safe Rubber with Metal	<ul style="list-style-type: none"> <li>● NBR</li> <li>● VITON</li> <li>● EPDM</li> <li>● Stainess steel 316 type</li> </ul>	<ul style="list-style-type: none"> <li>● Crude Oil</li> <li>● Sea Water</li> <li>● Water</li> <li>● Petroleum Products</li> </ul>	<ul style="list-style-type: none"> <li>-10°C to 150°C</li> </ul>
TF	 Fire Safe Teflon with Metal	<ul style="list-style-type: none"> <li>● Teflon</li> <li>● Stainess steel 316 type</li> </ul>	<ul style="list-style-type: none"> <li>● Chemicals</li> <li>● Petrochemical</li> <li>● Sea Water</li> <li>● Ethylene</li> <li>● LPG</li> </ul>	<ul style="list-style-type: none"> <li>-50°C to 200°C</li> </ul>

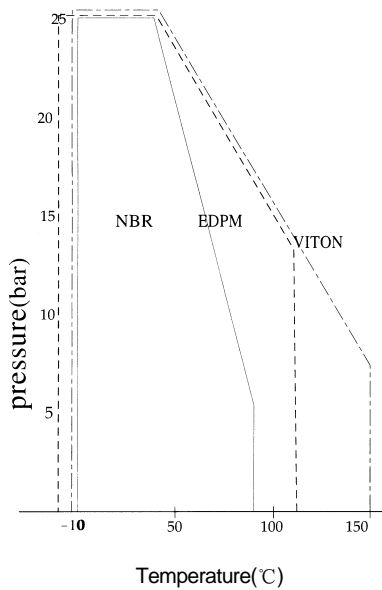
Specifications are subject to change without notice



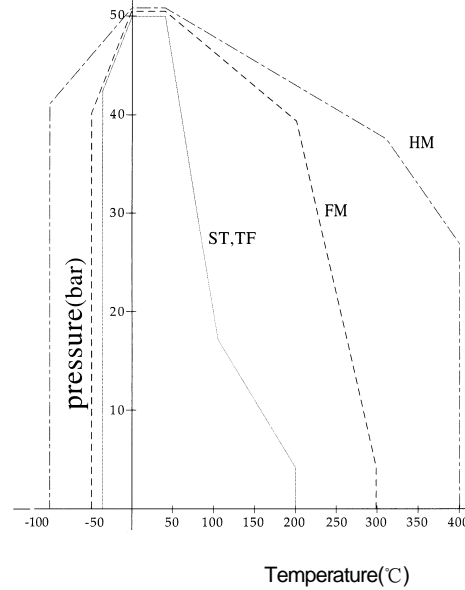
**Bellofram**<sup>®</sup>

# High Performance Butterfly Valves

## Pressure temperature rating



Rubber seat (Type RS, RT)



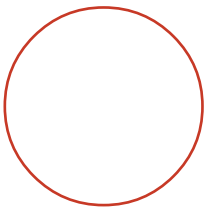
Ptfe, metal, fire safe seat (Type ST, TF, FM, HM)

ANSI class/ISO PN	Temperature(°C)		Temperature(°C)		PN 10	PN 16	PN 25	PN 40
	Carbon steel	316 SS	Carbon steel	316 SS				
	psi	psi	psi	psi				
-29(-20) to 38(100)	285	275	740	720				
-10 to 120					10	16	25	40
39 to 100(200)	260	240	675	620				
150(300)	230	215	655	560	9.5	15.2	23.8	38
200(400)	205	205	635	515	9	14.4	22.5	36
250					8	12.8	20	32
260(500)	170	170	600	480				
300					7	11.2	17.5	28
320(600)	140	140	560	450				
340(650)	125	125	535	445				
350					5.5	8.8	13.8	22
370(700)	110	110	535	430	ISO 2531 Grade 400-5 ISO 1083 Grade 500-7 ISO 1083 Grade 600-3 ISO 1085 Grade 600-3 is limited to applications up to temperature of 120°C			
400(750)	95	95	505	430				
430(800)	80	80	415	415				
450(850)	65	65	275	405				
480(900)	50	50	170	395				
520(950)	35	35	105	385				
540(1000)		20	50	365				

## Standard specification

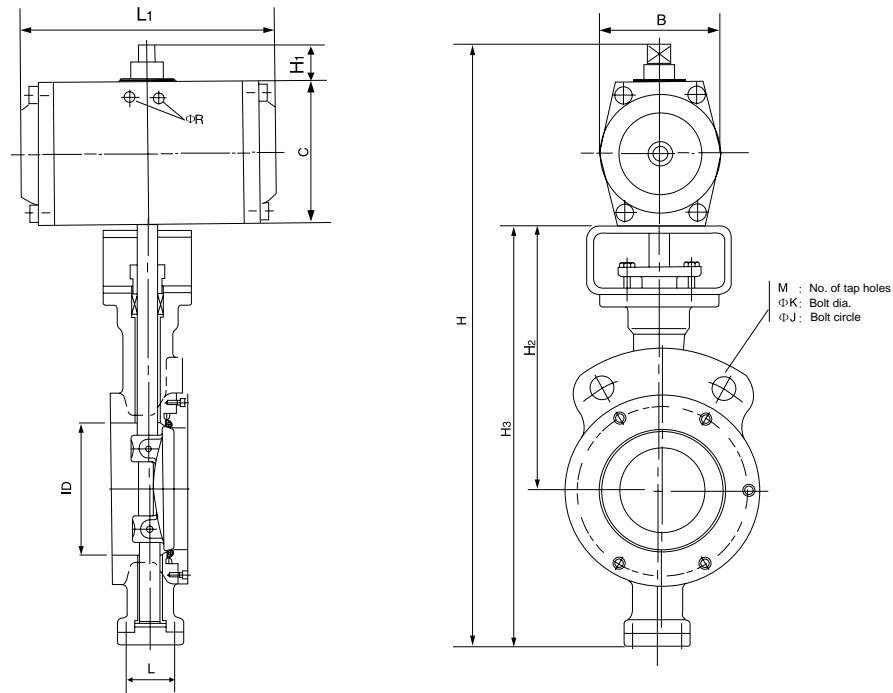
Valve(sealing) type	RS	RF	ST	TF	HM	FM	
Standard size range							
Pressurerating	DN 50 to DN 1200: ANSI B16.5 Class150		DN 50 to DN 1200: ANSI B16.5 Class150		DN 50 to DN 1200: ANSI B16.5 Class150		
Max.workingpressure	DN 50 to DN 300:40 Bar DN 350 to DN 1200:30 Bar		DN 50 to DN 300:40 Bar DN 350 to DN 1200:30 Bar				
connection	Wafer Lug Flange						
ApplicableFlange	ANSI B16.5 Class 150 · Class 300      JIS 10K · 16K · 20K						
Flow Direction	Bi-directional(use in preferred direction,ie,from stem to disc,is recommended for better						
Disc design	Double Eccentric						
Seatleakage (water)	Tight shut-off (ISO 5208, Rate 3)				up to DN300 Tight shut-off DN350andabove		
workingtemperature	-10°C to +120		-50°C to +200		-100°C to 400°C	-80°C to 300°C	
StandardMaterial	Body disc	ASTM A536 Gr.65.45.12(DIN 1693 GGG40)ASTM A216 Gr.WCB ASTM A351 CF8, ASTM B148 CL.9D,DUPLEX STEEL and etc.					
	stem	ASTM A479 TYPE 304 · 316,AISI410.420J2,ASTM A 564 TYPE 630,DUPLEX STEEL					
	seat ring	NBR.VITON	NBR.VITON 316 St.Steel	PTFE,RTFE	PTFE,RTFE 316 St.Steel	Nickel Nimonic 90	316 St. Steel
		Carbon Graphite, Non-Asbestos packing,NBR,VITON,GRAFOIL					
BonnetType	Open type						
TopFlange							
Actuator	Lever,gear box,pneumatic cylinder, hydraulic cylinder electric Motor						
	Epoxy, Tar Epoxy, Bare						

Specials are available on request



**Bellofram**<sup>®</sup>

## High Performance Pneumatic Operated Butterfly (Wafer) Valves Single Acting Actuators



Valve size		Valve										Actuator					
mm	inch	ID	L	H2	H3	ANSI CLASS 150			ANSI CLASS 300			H	L1	B	C	H1	Φ R
						Φ J	Φ K	M	Φ J	Φ K	M						
50	2	50	43	205	280	120.5	19	4	127.5	19	4	410	155	83	100	30	1/4
65	2 1/2	65	46	220	310	139.5	19	4	149	22	4	440	155	83	100	30	1/4
80	3	80	64	230	340	152.5	19	4	168	22	8	487	203	100	117	30	1/4
100	4	100	64	250	375	190.5	19	8	200	22	8	522	203	100	117	30	1/4
125	5	125	70	265	405	216	22	8	235	22	8	575	284	120	140	30	1/4
150	6	150	76	280	445	241.5	22	8	270	22	8	615	284	120	140	30	1/4
200	8	200	89	340	555	298.5	3/4	8	330	7/8	12	783	368	172	198	30	1/4
250	10	250	114	370	610	362.5	7/8	12	387.5	1	12	838	368	172	198	30	1/4
300	12	300	114	430	725	432	7/8	12	451	1 1/8	16	1010	450	224	255	30	1/4
350	14	350	127	450	760	476	1	12	514.5	1 1/8	16	1045	450	224	255	30	1/4
400	16	400	140	555	910	539	1	16	571.5	1 1/4	16	1195	450	224	255	30	1/4
450	18	450	152	560	920	578	1 1/8	16	628.5	1 1/4	20	1252	662	272	302	30	1/4
500	20	500	152	660	1100	635	1 1/8	20	686	1 1/4	20	1432	683	207	302	30	1/4
600	24	600	229	750	1260	749.5	1 1/4	20	813	1 1/2	24	1650	683	360	360	30	1/4













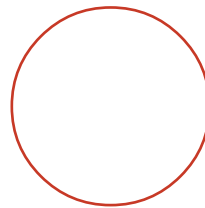






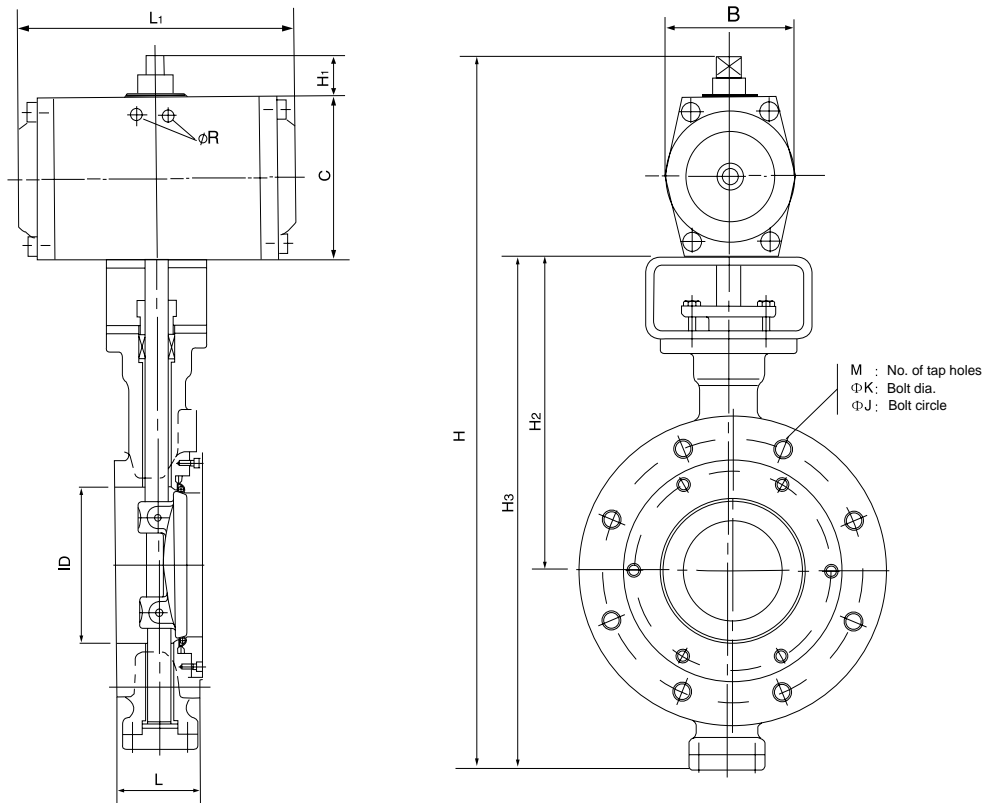






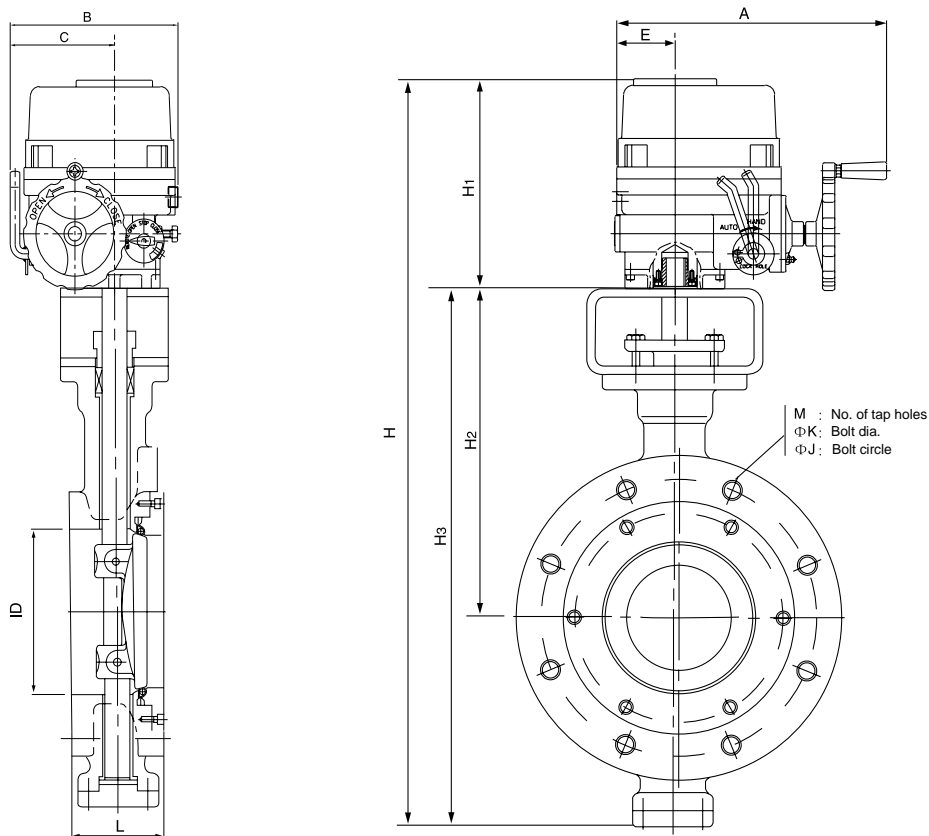
**Bellofram**<sup>®</sup>

## High Performance Pneumatic Operated Butterfly (Flange) Valves Single Acting Actuators



Valve size		Valve										Actuator					
mm	inch	ID	L	H2	H3	ANSI CLASS 150			ANSI CLASS 300			H	L1	B	C	H1	Φ R
						Φ J	Φ K	M	Φ J	Φ K	M						
50	2	50	43	205	280	120.5	19	4	127.5	19	4	450	216	120	140	30	1/4
65	2 1/2	65	46	220	310	139.5	19	4	149	22	4	480	216	120	140	30	1/4
80	3	80	64	230	340	152.5	19	4	168	22	8	568	337	172	198	30	1/4
100	4	100	64	250	375	190.5	19	8	200	22	8	603	337	172	198	30	1/4
125	5	125	70	265	405	216	22	8	235	22	8	690	420	224	255	30	1/4
150	6	150	76	280	445	241.5	22	8	270	22	8	730	420	224	255	30	1/4
200	8	200	89	340	555	298.5	3/4	8	330	7/8	12	887	583	272	302	30	1/4
250	10	250	114	370	610	362.5	7/8	12	387.5	1	12	942	583	272	302	30	1/4
300	12	300	114	430	725	432	7/8	12	451	1 1/8	16	1057	662	272	302	30	1/4
350	14	350	127	450	760	476	1	12	514.5	1 1/8	16	1150	683	360	360	30	1/4
400	16	400	140	555	910	539	1	16	571.5	1 1/4	16	1300	683	360	360	30	1/4

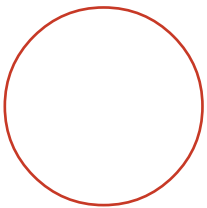
# High Performance Electric Operated Butterfly (Flange) Valves



Valve size		Valve										Actuator					
mm	inch	ID	L	H2	H3	ANSI CLASS 150			ANSI CLASS 300			H	A	B	C	E	H1
						ΦJ	ΦK	M	ΦJ	ΦK	M						
50	2	50	43	205	280	120.5	19	4	127.5	19	4	417	126	105	—	—	137
65	2 1/2	65	46	220	310	139.5	19	4	149	22	4	447	126	105	—	—	137
80	3	80	64	230	340	152.5	19	4	168	22	8	560	126	105	100	50	220
100	4	100	64	250	375	190.5	19	8	200	22	8	595	258	170	142	73	220
125	5	125	70	265	405	216	22	8	235	22	8	665	338	229	142	73	260
150	6	150	76	280	445	241.5	22	8	270	22	8	705	338	229	142	73	260
200	8	200	89	340	555	298.5	3/4	8	330	7/8	12	815	338	229	142	73	260
250	10	250	114	370	610	362.5	7/8	12	387.5	1	12	900	368	259	160	82	290
300	12	300	114	430	725	432	7/8	12	451	1 1/8	16	1015	368	259	160	82	290
350	14	350	127	450	760	476	1	12	514.5	1 1/8	16	1050	368	259	160	82	290
400	16	400	140	555	910	539	1	16	571.5	1 1/4	16	1225	410	297	186	103	315
450	18	450	152	560	920	578	1 1/8	16	628.5	1 1/4	20	1468	410	319	186	103	548
500	20	500	152	660	1100	635	1 1/8	20	686	1 1/4	20	1648	410	319	186	103	548
600	24	600	229	750	1260	749.5	1 1/4	20	813	1 1/2	24	1808	410	319	186	103	548

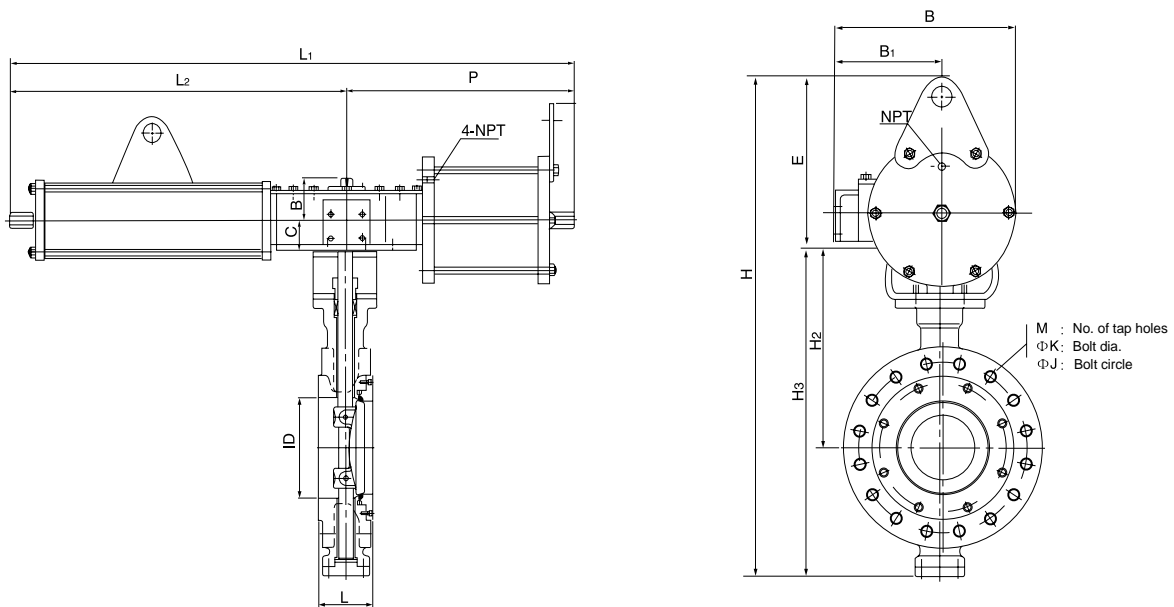
Specifications are subject to change without notice

(NOTE) Bellofram can provide larger torque electric butterfly valves, please get detailed information by contacting us



**Bellofram**<sup>®</sup>

## High Performance Pneumatic Operated Butterfly (Flange) Valves Single Acting Actuators



Valve size		Valve											Actuator					
mm	inch	ID	L	H2	H3	ANSI CLASS 150			ANSI CLASS 300			H	L1	L2	P	B	B1	E
						ΦJ	ΦK	M	ΦJ	ΦK	M							
450	18	450	152	560	920	578	1 1/8	16	628.5	1 1/4	20	1429	1474	886	588	420	230	509
500	20	500	152	660	1100	635	1 1/8	20	686	1 1/4	20	1609	1474	886	588	420	230	509
600	24	600	229	750	1260	749.5	1 1/4	20	813	1 1/2	24	1769	1875	1130	745	420	230	509
700	28	700	229	750	1280	863.5	1 1/4	28	939.8	1 5/8	28	1821	2440	1610	830	438	235	541
800	32	800	241	830	1455	978	1 1/2	28	1054	1 7/8	28	2040	3055	1020	2035	615	390	585
900	36	900	241	950	1650	1085	1 1/2	32	1168	1 3/4	32	2345	3055	1020	2035	715	390	695

## Order information



Series	Type of struction	Operation	End connection	Seat material	Pressure fating	Body material	Valve size
	1、Lever type	1、Electric actuator	1、Internal thread	1、PTFE	1、ANSI 150	1、Gray cast iron	
	2、Vertical type	2、Pneumatic actuator	2、External thread	2、Graphite	2、ANSI 300	2、Malleable cast iron	
	3、Indinedisc type	3、Worm gearactuator	3、Flange	3、Copper alloy	3、ANSI 600	3、Nodular cast iron	
	0、Other	4、Handle	4、Wafer	4、Alloy steel	4、ANSI 900	4、WCB	
		5、Screw	5、Welding	5、Nitrided steel	5、ANSI 1500	5、Copper alloy	
		0、Other	6、Union ring	6、Hard metals	6、ANSI 2500	6、Stainless steel	
			7、Compression Joint	7、Nylon plastic	0、Other	0、Other	
			8、Socket Welding	8、Rubber			
			0、Other	0、Other			

NOTE:If you have any question while make order,please contact us.

Specifications are subject to change without notice