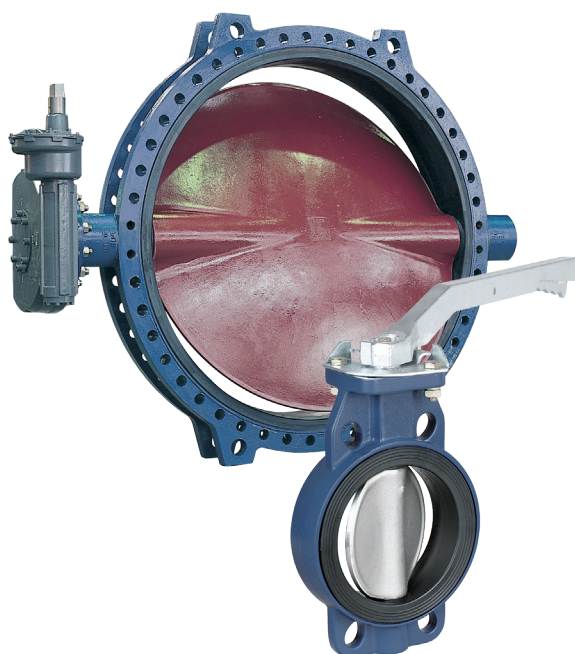


KEYSTONE BUTTERFLY VALVE PARASEAL RANGE

The ParaSeal range features a proven disc, shaft and seat arrangement designed for use in high pressure and high velocity applications



FEATURES

- Available in wafer, lugged and double flanged
- One piece body design acc. ISO 5752 series 20 (DIN 3202 K1)
- Suitable for severe vacuum and up to 25 bar (360 psi) bubble tight shut off
- The field replaceable seat fully isolates the body and shaft from the media
- Bed grooved seat construction for tight shut off at full rated pressure, also for end of line service
- Suitable for Bördel and slip-on flanges
- A molded-in O-ring in the seat face for flange sealing. No flange gaskets required
- Lenticular shaped disc to improve flow capacity
- Splined, squared or key shaped disc/shaft connection
- Dry shaft design
- PTFE lined bearings to minimize friction
- Actuator flange acc. ISO 5211
- High solid body coating provides excellent corrosion resistance
- Lifting lugs are provided for easy handling and mounting in the pipeline or as floor support
- Body locating holes ease installation and centering of the valve between flanges
- Tapped body lugs for mounting on or between DIN or ANSI drilled flanges, or flanged at one side only for end of line service (lugged)

GENERAL APPLICATION

Water, food and beverage processing, dry bulk conveying, paper mills, slurry handling, etc.

Approvals

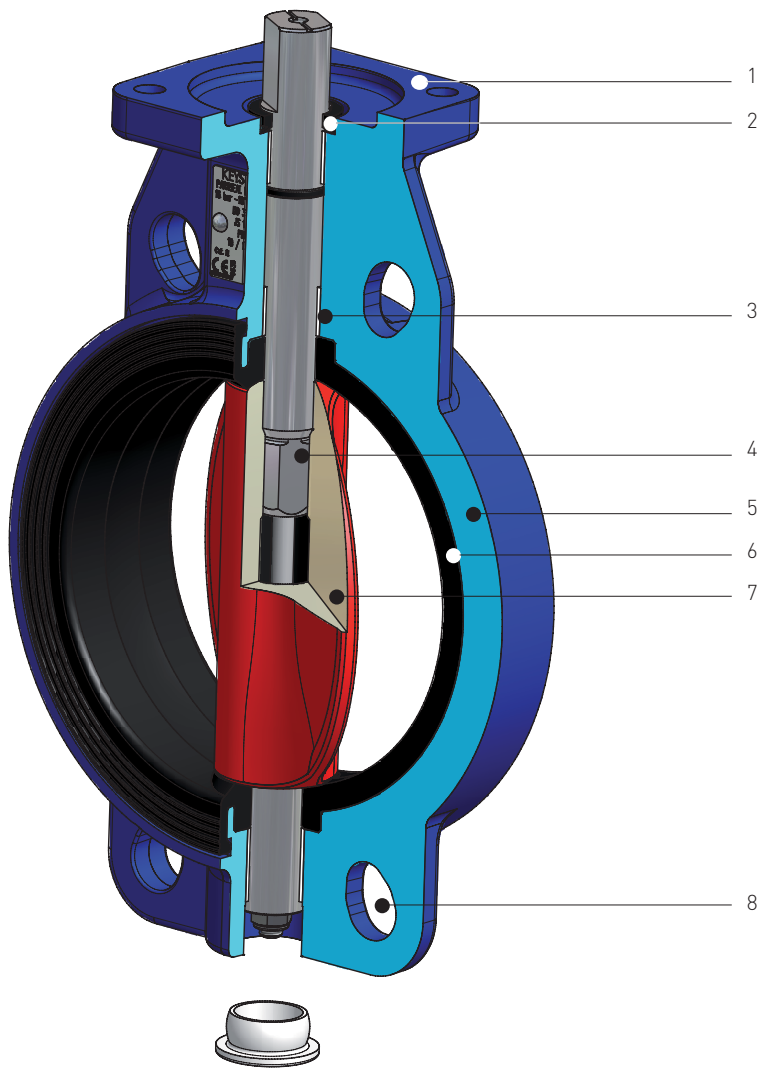
Veritas, KTW, SNCF, ADR, Lloyds Register of Shipping, EDF, DVGW, Town of Paris, VDS, Office of water authority of Hong Kong, Fire Services Hong Kong, DNV, WRC, Certificate of Foodstuff Quality Poitiers Laboratory-France and ABS.

TECHNICAL DATA

Pressure:	25 bar (360 psi)
Temperature:	-30°C - +170°C (-22°F - +338°F)
Sizes:	DN 50 - 2400 (NPS 2-96)
Flange accommodation:	PN 2.5 / PN 6 / PN 10 / PN 16 / PN 25 / ANSI 150 / AWWA

KEYSTONE BUTTERFLY VALVE PARASEAL RANGE

DN 50-2400 (2-96 INCH)



The Keystone plant is ISO 9001 approved



The ParaSeal is in compliance with the latest European directives:



- PED module H,
category 3

- TPED module H,
category 2

- ATEX:

Ex II 2 G/D EEx c



The ParaSeal range holds the following approvals and certificates:

Water:



ACS



WRAS



PSB
Corporation

Gas:



Marine:



Lloyd's
Register



Fire
protection:



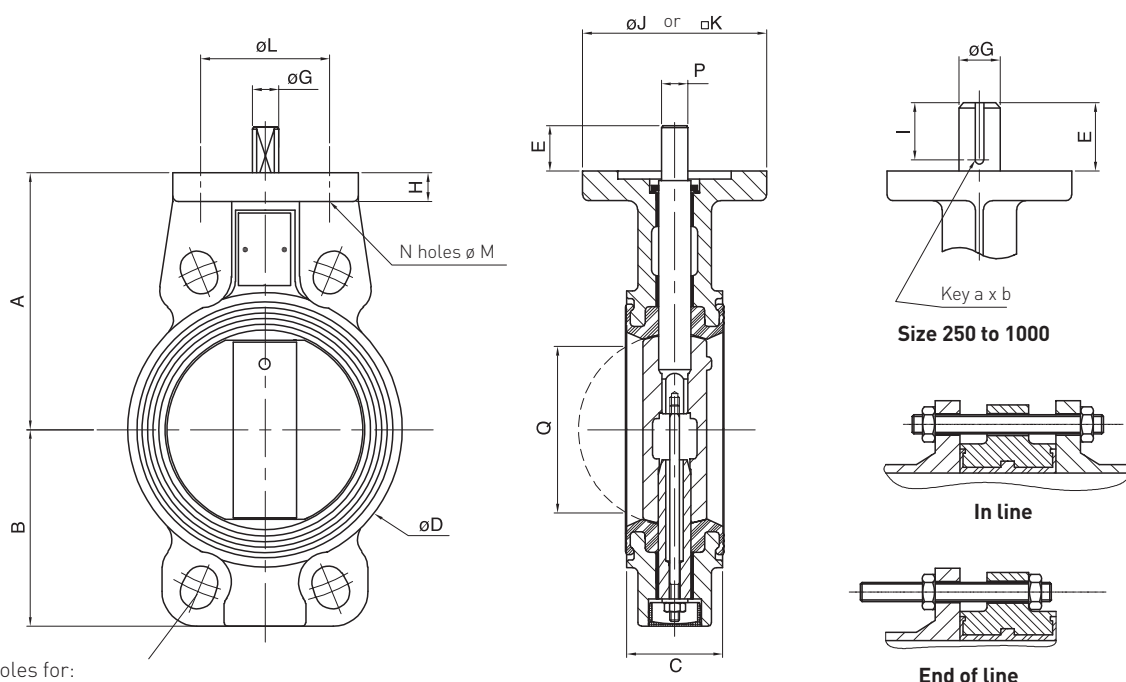
1. **Top flange**
Conform to ISO 5211 standard, with integrated recess for accurate actuator installation.
2. **Chevron seal**
This uniquely shaped shaft seal prevents environmental pollution to penetrate to the internals of the valve.
3. **Bearings**
Guarantees perfect shaft stability under all pressure conditions.
4. **Shaft**
The dry shaft design ensures long term, corrosion free, performance.
5. **Body**
Ductile iron, as standard, providing higher mechanical properties.
6. **Seat**
Its unique design results in trouble free installation, and perfect performance in both high pressure as well as vacuum applications.
7. **Disc**
Its smooth profile is extremely suitable for abrasive and hygienic applications.
8. **Lugs**
Enable easy and accurate installation. In addition these lugs ensure bidirectional dead end service. Full threaded lugs are also available for end of line service.



Detail view
Seat pocket in body

KEYSTONE BUTTERFLY VALVE PARASEAL RANGE

DN 50-1000 WAFER - METRIC



VALVE DIMENSIONS (mm)

Shaft dimensions (mm)						Shaft dimensions					Actuator flange acc. ISO 5211							Mass (kg)
						Key size												
DN	A	B	C	øD	Q	E	P	øG	l	width x height	Type	øJ	□K	H	øL	øM hole	N holes	
50	110	74	43	94	35	25.5	11	14	-	-	F07	90	-	14	70	9	4	2.8
65	118	81	46	107	52	25.5	11	14	-	-	F07	90	-	14	70	9	4	3.3
80	125	93	46	126	69	25.5	11	14	-	-	F07	90	-	14	70	9	4	4
100	140	107	52	150	90	25.5	14	18	-	-	F10	-	100	16	102	11	4	6
125	160	122	56	179	114	25.5	14	18	-	-	F10	-	100	16	102	11	4	8.5
150	175	135	56	204	139	25.5	19	25	-	-	F10	-	100	17	102	11	4	11
200	206	170	60	259	191	25.5	19	25	-	-	F10	-	100	17	102	11	4	15
250	247	200	68	313	239	70.0	-	35	60	10 x 8	F12	-	132	17	125	14	4	23
300	277	233	78	369	289	70.0	-	35	60	10 x 8	F12	-	132	17	125	14	4	31
350	300	270	78	418	330	70.0	-	35	60	10 x 8	F12	-	132	17.5	125	14	4	39
400	345	300	102	467	377	90.5	-	40	73	12 x 8	F14	-	132	21	140	18	4	69
450	375	330	114	521	422	100.0	-	50	60	14 x 9	F14	-	140	22	140	18	4	83
500	425	375	127	571	469	100.0	-	60	80	18 x 11	F16	210	-	25	165	22	4	107
600	495	430	154	670	564	100.0	-	60	80	18 x 11	F16	210	-	25	165	22	4	145
700	570	510	165	776	658	110.0	-	80	100	22 x 14	F25	300	-	30	254	18	8	217
750	610	540	*165	843	715	110.0	-	80	100	22 x 14	F25	300	-	30	254	18	8	250
800	640	560	190	882	745	110.0	-	80	100	22 x 14	F25	300	-	30	254	18	8	310
900	700	665	203	1000	853	110.0	-	100	100	28 x 16	F25	300	-	30	254	18	8	448
1000	750	715	216	1105	952	110.0	-	100	100	28 x 16	F30	350	-	30	298	22	8	530

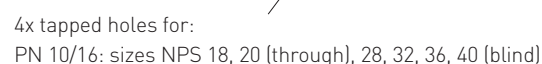
MAXIMUM PRESSURE RATING (bar)

Valve size DN	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	750	800	900	1000
W-IL ^[6]	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
W-EOL ^[7]	10	10	5	5	5	4	4	2	2	2	2	1	1	1	0	0	0	0	0

NOTES

- Flange accommodation and pressure rating must be specified when ordering.
- Specify size, product name, part name, material and flange accommodation when ordering spare parts.
- C = FTF ISO 5752 series 20 (table 5 wafer style) - NF E 29305 series 20 - MSS SP 67 - API 609 - BS 5155.
- Q = minimum inside diameter of connecting pipe without clearance.
- * Not defined by ISO 5752 Series 20.
- W-IL = Wafer in line
- W-EOL = Wafer end of line

2-40 INCH WAFER - IMPERIAL



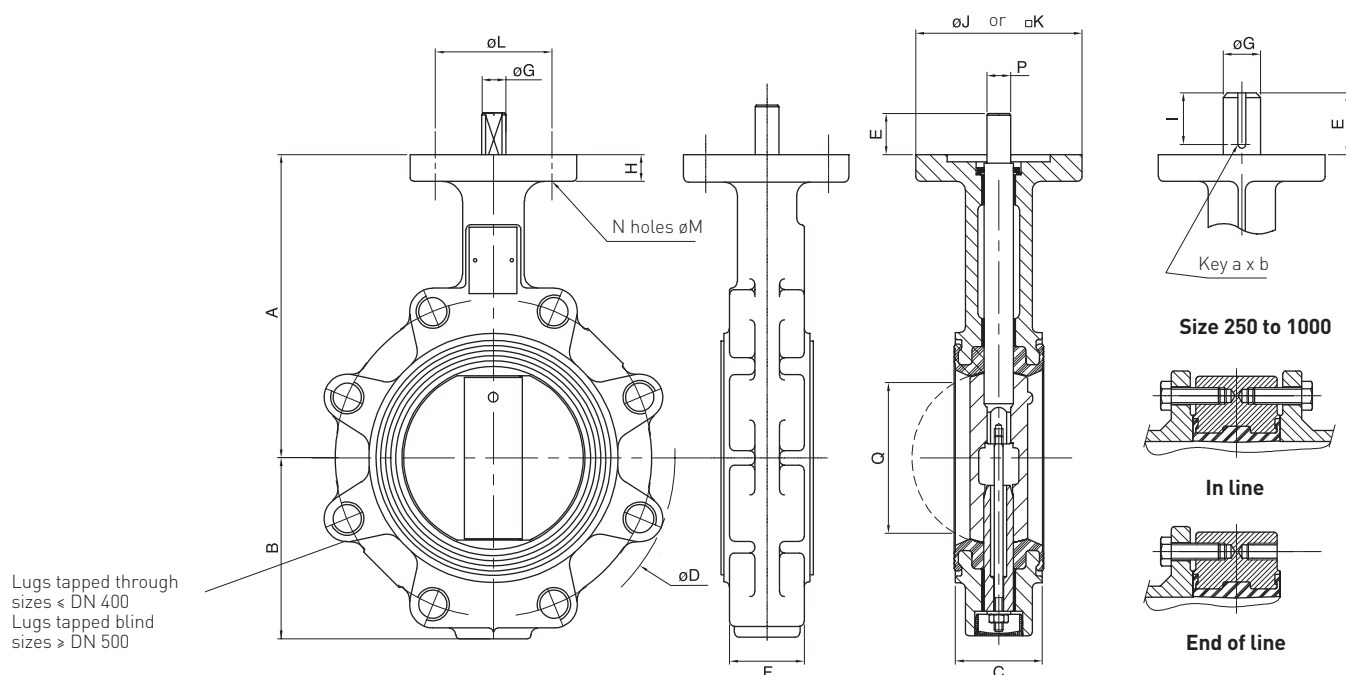
VALVE DIMENSIONS (inches)						Shaft dimensions					Actuator flange acc. ISO 5211							Mass (lb)
						E	P	øG	l	Key size width x height	Type	øJ	□K	H	øL	øM hole	N holes	
NPS	A	B	C	øD	Q													
2	4.33	2.91	1.69	3.70	1.38	1.00	0.43	0.55	-	-	F07	3.54	-	0.55	2.76	0.35	4	6.2
2½	4.65	3.19	1.81	4.21	2.05	1.00	0.43	0.55	-	-	F07	3.54	-	0.55	2.76	0.35	4	7.3
3	4.92	3.66	1.81	4.96	2.72	1.00	0.43	0.55	-	-	F07	3.54	-	0.55	2.76	0.35	4	8.8
4	5.51	4.21	2.05	5.91	3.54	1.00	0.55	0.71	-	-	F10	-	3.94	0.63	4.02	0.43	4	13.2
5	6.30	4.80	2.20	7.05	4.49	1.00	0.55	0.71	-	-	F10	-	3.94	0.63	4.02	0.43	4	18.7
6	6.89	5.31	2.20	8.03	5.47	1.00	0.75	0.98	-	-	F10	-	3.94	0.67	4.02	0.43	4	24
8	8.11	6.69	2.36	10.20	7.52	1.00	0.75	0.98	-	-	F10	-	3.94	0.67	4.02	0.43	4	33
10	9.72	7.87	2.68	12.32	9.41	2.76	-	1.38	2.36	0.39 x 0.31	F12	-	5.20	0.67	4.92	0.55	4	51
12	10.91	9.17	3.07	14.53	11.38	2.76	-	1.38	2.36	0.39 x 0.31	F12	-	5.20	0.67	4.92	0.55	4	68
14	11.81	10.63	3.07	16.46	12.99	2.76	-	1.38	2.36	0.39 x 0.31	F12	-	5.20	0.69	4.92	0.55	4	86
16	13.58	11.81	4.02	18.39	14.84	3.56	-	1.57	2.87	0.47 x 0.31	F14	-	5.20	0.83	5.51	0.71	4	152
18	14.76	12.99	4.49	20.51	16.61	3.94	-	1.97	2.36	0.55 x 0.35	F14	-	5.51	0.87	5.51	0.71	4	183
20	16.73	14.76	5.00	22.48	18.46	3.94	-	2.36	3.15	0.71 x 0.43	F16	8.27	-	0.98	6.50	0.87	4	236
24	19.49	16.93	6.06	26.38	22.20	3.94	-	2.36	3.15	0.71 x 0.43	F16	8.27	-	0.98	6.50	0.87	4	320
28	22.44	20.08	6.50	30.55	25.91	4.33	-	3.15	3.94	0.87 x 0.55	F25	11.81	-	1.18	10.00	0.71	8	478
30	24.02	21.26	6.50*	33.19	28.15	4.33		3.15	3.94	0.87 x 0.55	F25	11.81		1.18	10.00	0.71	8	551
32	25.20	22.05	7.48	34.72	29.33	4.33	-	3.15	3.94	0.87 x 0.55	F25	11.81	-	1.18	10.00	0.71	8	683
36	27.56	26.18	7.99	39.37	33.58	4.33	-	3.94	3.94	1.10 x 0.63	F25	11.81	-	1.18	10.00	0.71	8	988
40	29.53	28.15	8.50	43.50	37.48	4.33	-	3.94	3.94	1.10 x 0.63	F30	13.78	-	1.18	11.73	0.87	8	1168

Valve size NPS	2	2½	3	4	5	6	8	10	12	14	16	18	20	24	28	30	32	36	40
W-IL ^[6]	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360
W-EOL ^[7]	145	145	73	73	73	58	58	29	29	29	29	15	15	15	0	0	0	0	0

1. Flange accommodation and pressure rating must be specified when ordering.
2. Specify size, product name, part name, material and flange accommodation when ordering spare parts.
3. C = FTF ISO 5752 series 20 (table 5 wafer style) - NF E 29305 series 20 - MSS SP 67 - API 609 - BS 5155.
4. Q = minimum inside diameter of connecting pipe without clearance.
5. * Not defined by ISO 5752 Series 20.
6. W-IL = Wafer in line
7. W-EOL = Wafer end of line

KEYSTONE BUTTERFLY VALVE PARASEAL RANGE

DN 50-1000 LUGGED - METRIC



VALVE DIMENSIONS (mm)

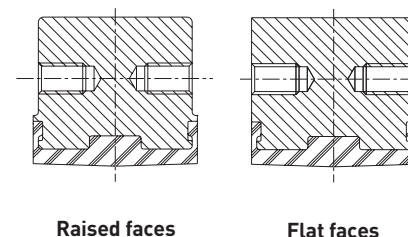
VALVE DIMENSIONS (mm)							Shaft dimensions					Actuator flange acc. ISO 5211								Mass (kg)
							Key size													
DN	A	B	C	øD	F	Q	E	P	øG	l	width x height	Type	øJ	□K	H	øL	øM hole	N holes		
50	152	76	43	153	38	35	25.5	11	14	-	-	F07	90	-	14	70	9	4	3.7	
65	159	84	46	173	40	52	25.5	11	14	-	-	F07	90	-	14	70	9	4	4.2	
80	166	90	46	188	40	69	25.5	11	14	-	-	F07	90	-	14	70	9	4	7.1	
100	182	109	52	219	45	90	25.5	14	18	-	-	F10	-	100	16	102	11	4	8.7	
125	193	120	56	252	48	114	25.5	14	18	-	-	F10	-	100	16	102	11	4	11	
150	217	140	56	278	48	139	25.5	19	25	-	-	F10	-	100	17	102	11	4	15	
200	242	167	60	335	52	191	25.5	19	25	-	-	F10	-	100	17	102	11	4	22	
250	280	203	68	400	60	239	70.0	-	35	60	10 x 8	F12	-	132	17	125	14	4	33	
300	310	228	78	470	70	289	70.0	-	35	60	10 x 8	F12	-	132	17	125	14	4	44	
350	350	270	78	520	70	330	70.0	-	35	60	10 x 8	F12	-	132	17.5	125	14	4	67	
400	375	300	102	588	90	377	90.5	-	40	73	12 x 8	F14	-	132	21	140	18	4	104	
450	400	330	114	633	100	422	100.0	-	50	60	14 x 9	F14	-	140	22	140	18	4	136	
500	425	375	127	704	113	469	100.0	-	60	80	18 x 11	F16	210	-	25	165	22	4	180	
600	495	430	154	828	140	564	100.0	-	60	80	18 x 11	F16	210	-	25	165	22	4	260	
700	570	510	165	895	150	658	110.0	-	80	100	22 x 14	F25	300	-	30	254	18	8	280	
750	610	540	*165	972	150	715	110.0	-	80	100	22 x 14	F25	300	-	30	254	18	8	370	
800	640	560	190	1010	170	745	110.0	-	80	100	22 x 14	F25	300	-	30	254	18	8	400	
900	700	640	203	1148	190	853	110.0	-	100	100	28 x 16	F25	300	-	30	254	18	8	550	
1000	750	690	216	1240	190	952	110.0	-	100	100	28 x 16	F30	350	-	30	298	22	8	660	

MAXIMUM PRESSURE RATING (bar)

Valve size DN	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	750	800	900	1000
L-IL ^[7]	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
L-EOL ^[8]	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16

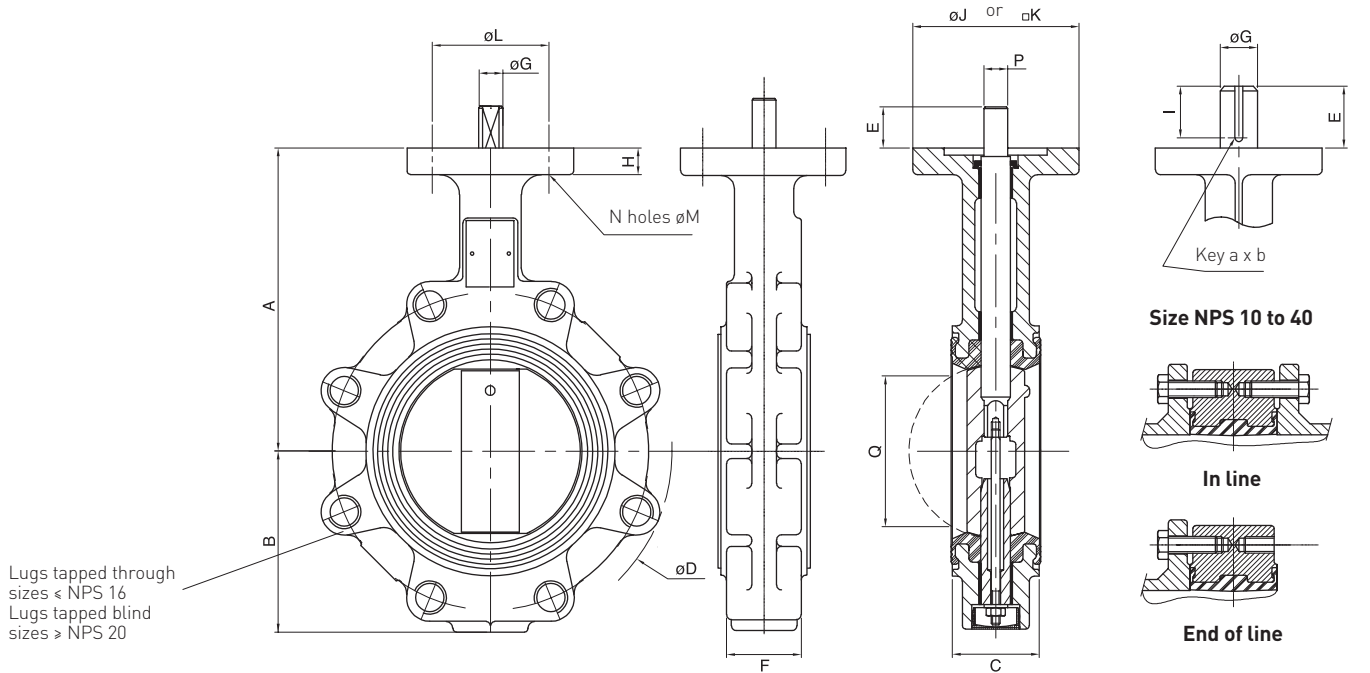
NOTES

- Flange accommodation and pressure rating must be specified when ordering.
- Specify size, product name, part name, material and flange accommodation when ordering spare parts.
- C = FTF ISO 5752 series 20 (table 5 wafer style) - NF E 29305 series 20 - MSS SP 67 - API 609 - BS 5155.
- Q = minimum inside diameter of connecting pipe without clearance.
- * Not defined by ISO 5752 Series 20.
- Flat face version available (std. for Carbon steel).
- L-IL = Lugged in line
- L-EOL = Lugged end of line



KEYSTONE BUTTERFLY VALVE PARASEAL RANGE

2-40 INCH LUGGED - IMPERIAL



VALVE DIMENSIONS (inches)

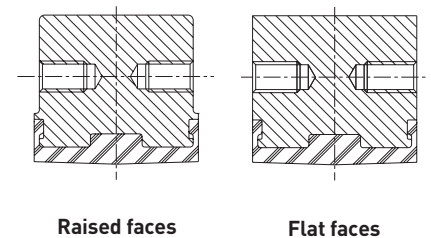
NPS	A	B	C	øD	F	Q	Shaft dimensions				Key size width x height	Actuator flange acc. ISO 5211							Mass (lb)
							E	P	øG	l		Type	øJ	□K	H	øL	øM hole	N holes	
2	5.98	2.99	1.69	6.02	1.50	1.38	1.00	0.43	0.55	-	-	F07	3.54	-	0.55	2.76	0.35	4	8.2
2½	6.26	3.31	1.81	6.81	1.57	2.05	1.00	0.43	0.55	-	-	F07	3.54	-	0.55	2.76	0.35	4	9.3
3	6.54	3.54	1.81	7.40	1.57	2.72	1.00	0.43	0.55	-	-	F07	3.54	-	0.55	2.76	0.35	4	15.7
4	7.17	4.29	2.05	8.62	1.77	3.54	1.00	0.55	0.71	-	-	F10	-	3.94	0.63	4.02	0.43	4	19.2
5	7.60	4.72	2.20	9.92	1.89	4.49	1.00	0.55	0.71	-	-	F10	-	3.94	0.63	4.02	0.43	4	24
6	8.54	5.51	2.20	10.94	1.89	5.47	1.00	0.75	0.98	-	-	F10	-	3.94	0.67	4.02	0.43	4	33
8	9.53	6.57	2.36	13.19	2.05	7.52	1.00	0.75	0.98	-	-	F10	-	3.94	0.67	4.02	0.43	4	49
10	11.02	7.99	2.68	15.75	2.36	9.41	2.76	-	1.38	2.36	0.39 x 0.31	F12	-	5.20	0.67	4.92	0.55	4	73
12	12.20	8.98	3.07	18.50	2.76	11.38	2.76	-	1.38	2.36	0.39 x 0.31	F12	-	5.20	0.67	4.92	0.55	4	97
14	13.78	10.63	3.07	20.47	2.76	12.99	2.76	-	1.38	2.36	0.39 x 0.31	F12	-	5.20	0.69	4.92	0.55	4	148
16	14.76	11.81	4.02	23.15	3.54	14.84	3.56	-	1.57	2.87	0.47 x 0.31	F14	-	5.20	0.83	5.51	0.71	4	229
18	15.75	12.99	4.49	24.92	3.94	16.61	3.94	-	1.97	2.36	0.55 x 0.35	F14	-	5.51	0.87	5.51	0.71	4	300
20	16.73	14.76	5.00	27.72	4.45	18.46	3.94	-	2.36	3.15	0.71 x 0.43	F16	8.27	-	0.98	6.50	0.87	4	397
24	19.49	16.93	6.06	32.60	5.51	22.20	3.94	-	2.36	3.15	0.71 x 0.43	F16	8.27	-	0.98	6.50	0.87	4	573
28	22.44	20.08	6.50	35.24	5.91	25.91	4.33	-	3.15	3.94	0.87 x 0.55	F25	11.81	-	1.18	10.00	0.71	8	617
30	24.02	21.26	*6.50	38.27	5.91	28.15	4.33	-	3.15	3.94	0.87 x 0.55	F25	11.81	-	1.18	10.00	0.71	8	816
32	25.20	22.05	7.48	39.76	6.69	29.33	4.33	-	3.15	3.94	0.87 x 0.55	F25	11.81	-	1.18	10.00	0.71	8	882
36	27.56	25.20	7.99	45.20	7.48	33.58	4.33	-	3.94	3.94	1.10 x 0.63	F25	11.81	-	1.18	10.00	0.71	8	1213
40	29.53	27.17	8.50	48.82	7.48	37.48	4.33	-	3.94	3.94	1.10 x 0.63	F30	13.78	-	1.18	11.73	0.87	8	1455

MAXIMUM PRESSURE RATING (psi)

Valve size NPS	2	2½	3	4	5	6	8	10	12	14	16	18	20	24	28	30	32	36	40
L-IL ^[7]	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360
L-EOL ^[8]	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230

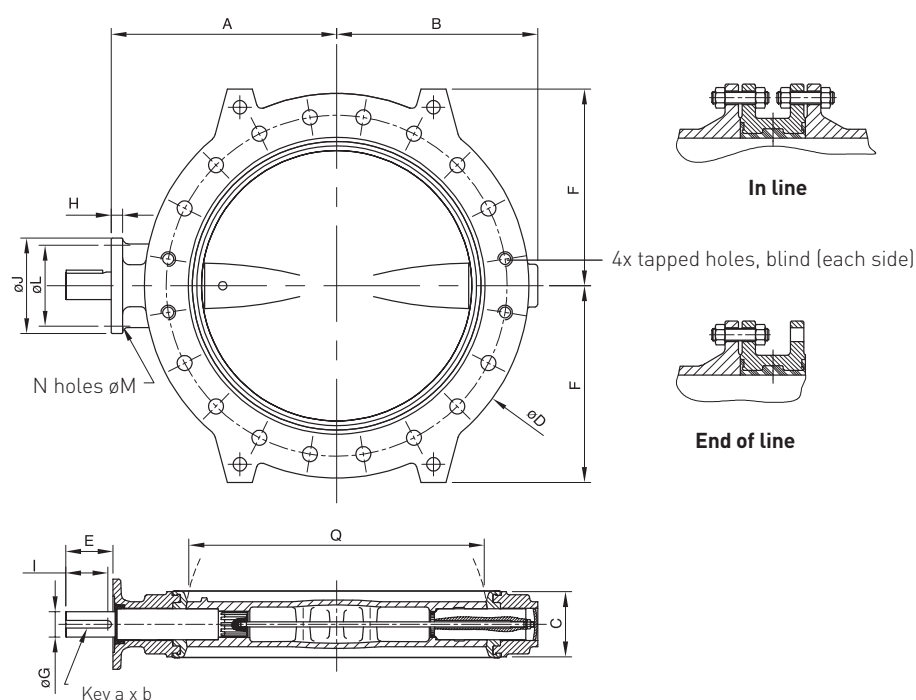
NOTES

- Flange accommodation and pressure rating must be specified when ordering.
- Specify size, product name, part name, material and flange accommodation when ordering spare parts.
- C = FTF ISO 5752 series 20 (table 5 wafer style) - NF E 29305 series 20 - MSS SP 67 - API 609 - BS 5155.
- Q = minimum inside diameter of connecting pipe without clearance.
- * Not defined by ISO 5752 Series 20.
- Flat face version available [std. for Carbon steel].
- L-IL = Lugged in line
- L-EOL = Lugged end of line



KEYSTONE BUTTERFLY VALVE PARASEAL RANGE

DN 500-2400 DOUBLE FLANGED - METRIC



VALVE DIMENSIONS (mm)

DN	A	B	C	øD	F	Q	Shaft dimensions			Key size width x height	Actuator flange acc. ISO 5211						Mass (kg)
							E	øG	I		Type	øJ	H	øL	øM hole	N holes	
500	425	375	127	730	375	469	100	60	80	18 x 11	F16	210	25	165	22	4	167
600	495	430	154	845	432	564	100	60	80	18 x 11	F16	210	25	165	22	4	203
700	570	510	165	940	480	658	110	80	100	22 x 14	F25	300	30	254	18	8	292
750	610	540	*165	984	505	715	110	80	100	22 x 14	F25	300	30	254	18	8	400
800	640	560	190	1060	542	745	110	80	100	22 x 14	F25	300	30	254	18	8	403
850	700	665	*203	1168	597	804	110	100	100	28 x 16	F25	300	30	254	18	8	450
900	700	665	203	1160	597	853	110	100	100	28 x 16	F25	300	30	254	18	8	493
1000	750	704	216	1290	660	952	110	100	100	28 x 16	F30	350	30	298	22	8	583
1050	780	770	*254	1340	695	979	140	100	120	28 x 16	F30	350	30	298	22	8	1100
1100	820	805	*254	1400	710	1050	140	100	120	28 x 16	F30	350	30	298	22	8	1199
1200	870	830	*254	1490	760	1150	140	100	120	28 x 16	F30	350	30	298	22	8	1276
1300	960	935	*254	1625	835	1252	140	120	130	32 x 18	F35	415	40	356	32	8	1672
1350	987	965	*254	1685	865	-	140	120	130	32 x 18	F35	415	40	356	32	8	1716
1400	1015	1000	*254	1690	865	1364	140	120	130	32 x 18	F35	415	40	356	32	8	1749
1500	1130	1090	*254	1855	950	1466	180	130	160	32 x 18	F40	475	50	406	38	8	2134
1600 [10]	1170	1135	*254	1930	980	1567	180	130	160	32 x 18	F40	475	50	406	38	8	2211
1600 [16]	1200	1165	*356	1930	980	1537	200	150	170	36 x 20	F40	475	50	406	38	8	3001
1650	1230	1200	*356	2035	1040	-	200	150	170	36 x 20	F40	475	55	406	38	8	3608
1800	1290	1250	*356	2115	1080	1705	200	150	170	36 x 20	F40	475	55	406	38	8	3839
2000	1463	1390	*356	2340	1200	1907	200	200	170	45 x 25	F48	560	55	483	38	12	4565
2100	1532	1460	*356	2535	1290	2060	200	200	170	45 x 25	F48	560	55	483	38	12	5390
2200	1566	1500	*356	2545	1300	2115	200	200	170	45 x 25	F48	560	55	483	38	12	5060
2400	1672	1590	*356	2755	1425	2327	200	200	170	45 x 25	F48	560	55	483	38	12	5940

MAXIMUM PRESSURE RATING (bar)

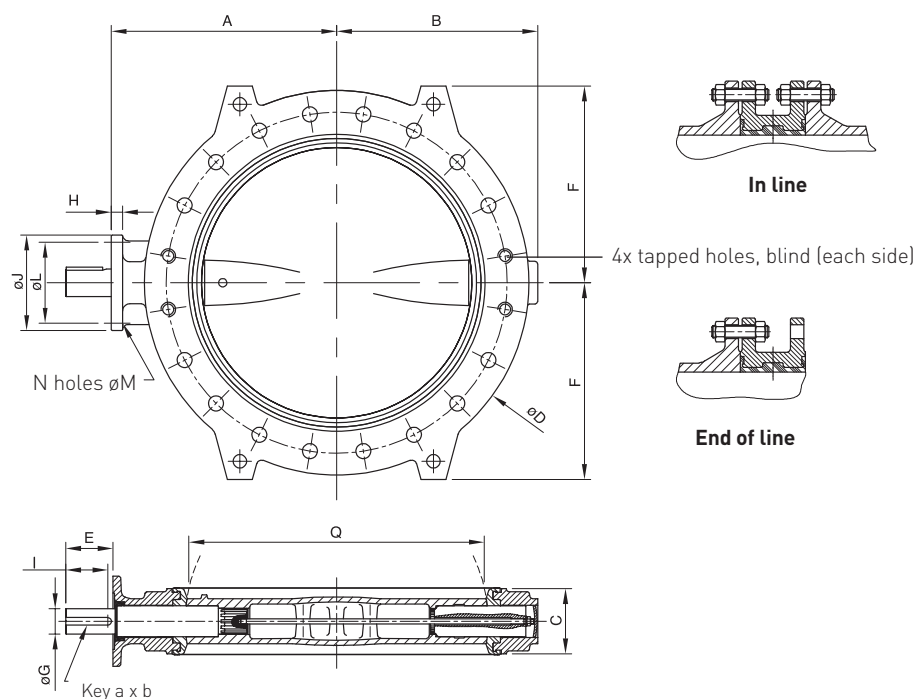
Valve size DN	500 - 1000	1050 - 1600	1650 - 2000	2100 - 2400
DF-IL ^[7]	25	16	10	6
DF-EOL ^[8]	16	10	6	4

NOTES

1. Flange accommodation and pressure rating must be specified when ordering.
2. Specify size, product name, part name, material and flange accommodation when ordering spare parts.
3. C = FTF ISO 5752 series 20 (table 5 wafer style) - NF E 29305 series 20 - MSS SP 67.
4. Valve size shown is DN 500.
5. * Not defined by ISO 5752 Series 20.
6. Flat face version available (std. for Carbon steel).
7. DF-IL = Double flanged in line
8. DF-EOL = Double flanged end of line

KEYSTONE BUTTERFLY VALVE PARASEAL RANGE

20-96 INCH DOUBLE FLANGED - IMPERIAL



VALVE DIMENSIONS (inches)

NPS	A	B	C	ØD	F	Q	Shaft dimensions				Actuator flange acc. ISO 5211						Mass (lb)
							E	ØG	I	Key size width x height	Type	ØJ	H	ØL	ØM hole	N holes	
20	17	15	5.00	29	15	18	4	2	3	0.71 x 0.43	F16	8	1	7	1	4	368
24	19	17	6.00	33	17	22	4	2	3	0.71 x 0.43	F16	8	1	7	1	4	448
28	22	20	7.00	37	19	26	4	3	4	0.87 x 0.55	F25	12	1	10	1	8	644
30	24	21	*6.50	39	20	28	4	3	4	0.87 x 0.55	F25	12	1	10	1	8	882
32	25	22	7.00	42	21	29	4	3	4	0.87 x 0.55	F25	12	1	10	1	8	889
34	28	26	*7.99	46	24	32	4	4	4	1.10 x 0.63	F25	12	1	10	1	8	992
36	28	26	8.00	46	24	34	4	4	4	1.10 x 0.63	F25	12	1	10	1	8	1.087
40	30	28	9.00	51	26	37	4	4	4	1.10 x 0.63	F30	14	1	12	1	8	1.285
42	31	30	*10.00	53	27	39	6	4	5	1.10 x 0.63	F30	14	1	12	1	8	2.425
44	32	32	*10.00	55	28	41	6	4	5	1.10 x 0.63	F30	14	1	12	1	8	2.643
48	34	33	*10.00	59	30	45	6	4	5	1.10 x 0.63	F30	14	1	12	1	8	2.813
52	38	37	*10.00	64	33	49	6	5	5	1.26 x 0.71	F35	16	2	14	1	8	3.686
54	39	38	*10.00	66	34		6	5	5	1.26 x 0.71	F35	16	2	14	1	8	3.783
56	40	39	*10.00	67	34	54	6	5	5	1.26 x 0.71	F35	16	2	14	1	8	3.856
60	44	43	*10.00	73	37	58	7	5	6	1.26 x 0.71	F40	19	2	16	2	8	4.705
64 (145 psi)	46	45	*10.00	76	39	62	7	5	6	1.26 x 0.71	F40	19	2	16	2	8	4.874
64 (230 psi)	47	46	*14.02	76	39	61	8	6	7	1.42 x 0.79	F40	19	2	16	2	8	6.616
66	48	47	*14.02	80	41		8	6	7	1.42 x 0.79	F40	19	2	16	2	8	7.954
72	51	49	*14.02	83	43	67	8	6	7	1.42 x 0.79	F40	19	2	16	2	8	8.464
80	58	55	*14.02	92	47	75	8	8	7	1.77 x 0.98	F48	22	2	19	2	12	10.064
84	60	57	*14.02	100	51	81	8	8	7	1.77 x 0.98	F48	22	2	19	2	12	11.882
88	62	59	*14.02	100	51	83	8	8	7	1.77 x 0.98	F48	22	2	19	2	12	11.155
96	66	63	14.02*	108	56	92	8	8	7	1.77 x 0.98	F48	22	2	19	2	12	13.095

MAXIMUM PRESSURE RATING (psi)

Valve size NPS	20 - 40	42 - 64	66 - 80	84 - 96
DF-IL ^[7]	360	230	145	87
DF-EOL ^[8]	230	145	87	58

NOTES

- Flange accommodation and pressure rating must be specified when ordering.
- Specify size, product name, part name, material and flange accommodation when ordering spare parts.
- C = FTF ISO 5752 series 20 (table 5 wafer style) - NF E 29305 series 20 - MSS SP 67.
- Valve size shown is NPS 20.
- * Not defined by ISO 5752 Series 20.
- Flat face version available (std. for Carbon steel).
- DF-IL = Double flanged in line
- DF-EOL = Double flanged end of line

KEYSTONE BUTTERFLY VALVE PARASEAL RANGE

VALVE DATA - METRIC

K_v VALUES

Disc opening	Size DN																
	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	750	800
20°	3	6	10	13	30	45	68	128	197	265	345	449	566	828	1161	1358	1653
30°	9	17	26	37	60	90	162	257	394	531	690	899	131	1656	2323	2715	3300
40°	21	40	63	86	150	225	270	429	661	880	1134	1498	1881	2750	3850	4538	5504
50°	39	73	115	152	249	375	486	772	1183	1595	2070	2697	3395	4969	6969	8168	9905
60°	65	124	195	268	439	660	756	1201	1841	2479	3218	4195	5280	7730	10813	12703	15416
70°	93	178	280	457	747	1123	1431	2273	3486	4692	6096	7942	9997	14630	20515	24049	29165
80°	105	201	316	573	927	1393	2457	3904	5985	8057	10465	13636	17160	25124	35233	41290	50031
90°	110	210	330	610	1000	1500	2700	4300	6600	8900	11500	15000	18800	27600	38600	45400	55037

	850	900	1000	1050	1100	1200	1300	1350	1400	1500	1600	1650	1800	2000	2100	2200	2400
20°	1866	2092	2583	2847	3093	3722	4099	4520	4940	5504	6452	6654	8165	10080	11113	12197	14515
30°	3725	4176	5156	5684	6186	7428	7613	8335	9056	10287	11828	12198	14969	18480	20374	22361	26611
40°	6214	6966	8600	9482	10310	12390	14202	15539	16876	19190	22042	22731	27897	34440	37970	41672	49594
50°	11182	12536	15477	17063	18558	22300	25770	28074	30377	34818	39676	40916	50213	61992	68346	75010	89268
60°	17403	19510	24087	26556	28868	34703	40016	43364	47252	54067	61717	63646	78110	96432	106316	116683	138862
70°	32925	36912	45570	50241	54643	65657	75640	82389	89318	102198	116660	120306	147647	182280	200964	220559	262483
80°	56480	63320	78173	86186	93718	112630	129815	141548	153280	175396	200203	206459	253381	312816	344879	378507	450455
90°	62132	69656	85995	94809	103100	123900	146240	159556	172872	197830	225792	232848	292572	361200	398223	437052	520128

NOTE

Rated K_v = the volume of water in m³/hr that will pass through a given valve opening at a pressure drop of 1 bar.

MAXIMUM ALLOWABLE SHAFT TORQUES (Nm)

Size DN	Stainless steel shaft 13% Cr.	Size DN	Stainless steel shaft 13% Cr.	Size DN	Stainless steel shaft 13% Cr.	Size DN	Stainless steel shaft 13% Cr.
50	122	350	4000	800	22672	1500	68248
65	122	400	4000	850	34608	1600 [10]	68248
80	122	450	8693	900	34608	1600 [16]	90356
100	297	500	16000	1000	34608	1800	90356
125	297	550	16000	1050	41328	2000	157809
150	743	600	16000	1100	41328	2100	157809
200	743	650	41300	1200	41328	2200	157809
250	2128	700	24226	1300	58968	2400	157809
300	2128	750	24226	1400	58968		

NOTE

The given maximum allowable torques are applicable for standard type valves.

ACTUATOR SIZING TORQUES

Size DN	Rating (bar)	Torque (Nm)	Reduced rating ^[1]	Torque (Nm)	Size DN	Rating (bar)	Torque (Nm)	Reduced rating ^[1]	Torque (Nm)	Size DN	Rating (bar)	Torque (Nm)
50	25	15	10	10	500	25	2300	10	1530	1350	16	27000
65	25	26	10	17	600	25	3200	10	2130	1400	16	31000
80	25	40	10	26	700	25	4500	10	3000	1500	16	38000
100	25	68	10	44	750	25	5200	10	3800	1600	16	46000
125	25	115	10	75	800	25	6000	10	4000	1650	10	50000
150	25	170	10	110	850	25	7000	10	4600	1800	10	65000
200	25	320	10	208	900	25	8000	10	5300	2000	10	85000
250	25	480	10	312	1000	25	10500	10	7000	2100	6	95000
300	25	720	10	468	1050	16	11000	-	-	2200	6	105000
350	25	950	10	660	1100	16	12000	-	-	2400	6	125000
400	25	1350	10	900	1200	16	15000	-	-			
450	25	1700	10	1130	1300	16	22500	-	-			

NOTES

Torques valid for fresh water at ambient temperature. Please specify differential pressure at ordering.

1. Valve torque at lower pressure rating is reduced in function of disc closing and needs to be indicated during order placement. Consult factory for details.

KEYSTONE BUTTERFLY VALVE PARASEAL RANGE

VALVE DATA - IMPERIAL

C_v VALUES

Disc opening	Size NPS																
	2	2½	3	4	5	6	8	10	12	14	16	18	20	24	28	30	32
20°	3	7	12	15	35	52	79	148	228	306	399	519	654	957	1.342	1.570	1.780
30°	10	20	30	43	69	104	187	297	455	614	798	1.039	1.308	1.914	2.686	3.139	3.561
40°	24	46	73	99	173	260	312	496	764	1.017	1.311	1.732	2.175	3.179	4.451	5.246	5.951
50°	45	84	133	176	288	434	562	892	1.368	1.844	2.393	3.118	3.925	5.745	8.057	9.443	10.712
60°	75	143	225	310	508	763	874	1.388	2.128	2.866	3.720	4.850	6.104	8.936	12.501	14.686	16.659
70°	108	206	324	528	864	1.298	1.654	2.628	4.030	5.424	7.047	9.182	11.557	16.913	23.717	27.802	31.538
80°	121	232	365	662	1.072	1.610	2.840	4.513	6.919	9.314	12.098	15.764	19.838	29.045	40.732	47.734	54.148
90°	127	243	382	705	1.156	1.734	3.121	4.971	7.630	10.289	13.295	17.341	21.734	31.908	44.624	52.486	59.538

	34	36	40	42	44	48	52	54	56	60	64	66	72	80	84	88	96
20°	2.021	2.277	2.844	3.291	3.576	4.303	4.739	5.225	5.711	6.363	7.459	7.692	9.439	11.653	12.847	14.101	16.780
30°	4.042	4.555	5.676	6.571	7.151	8.587	8.801	9.636	10.469	11.892	13.674	14.102	17.305	21.364	23.554	25.851	30.764
40°	6.747	7.595	9.468	10.962	11.919	14.324	16.418	17.964	19.510	22.185	25.482	26.279	32.251	39.815	43.896	48.176	57.334
50°	11.477	13.642	17.040	19.726	21.454	25.780	29.792	32.455	35.118	40.252	45.868	47.302	58.050	71.667	79.013	86.717	103.200
60°	18.875	21.237	26.520	30.701	33.373	40.119	46.261	50.132	54.627	62.505	71.349	73.579	90.301	111.482	122.909	134.894	160.534
70°	35.728	40.197	50.173	58.082	63.171	75.904	87.445	95.247	103.258	118.148	134.867	139.082	170.690	210.728	232.328	254.982	303.449
80°	61.309	68.936	86.069	99.637	108.345	130.208	150.075	163.639	177.202	202.770	231.449	238.681	292.926	361.637	398.704	437.580	520.757
90°	67.429	75.838	94.682	109.606	119.191	143.237	169.064	184.458	199.852	228.705	261.031	269.188	338.234	417.572	460.373	505.262	601.304

NOTE

Rated C_v = the volume of water in USG/min that will pass through a given valve opening at a pressure drop of 1 psi.

MAXIMUM ALLOWABLE SHAFT TORQUES (lbf - NPS)

Size NPS	Stainless steel shaft 13% Cr.	Size NPS	Stainless steel shaft 13% Cr.	Size NPS	Stainless steel shaft 13% Cr.	Size NPS	Stainless steel shaft 13% Cr.
2	1.080	14	35.403	32	200.664	60	604.046
2½	1.080	16	35.403	34	306.307	64 [145 psi]	604.046
3	1.080	18	76.940	36	306.307	64 [230 psi]	799.718
4	2.629	20	141.612	40	306.307	72	799.718
5	2.629	22	141.612	42	365.784	80	1.396.728
6	6.576	24	141.612	44	365.784	84	1.396.728
8	6.576	26	365.536	48	365.784	88	1.396.728
10	18.834	28	214.418	52	521.911	96	1.396.728
12	18.834	30	214.418	56	521.911		

NOTE

The given maximum allowable torques are applicable for standard type valves.

ACTUATOR SIZING TORQUES

Size NPS	Rating (psi)	Torque (in-lb)	Reduced rating ^[1]	Torque (in-lb)	Size NPS	Rating (psi)	Torque (in-lb)	Reduced rating ^[1]	Torque (in-lb)	Size NPS	Rating (psi)	Torque (in-lb)
2	360	133	145	89	20	360	20356	145	13542	54	230	238970
2½	360	230	145	150	24	360	28322	145	18852	56	230	274373
3	360	354	145	230	28	360	39828	145	26552	60	230	336328
4	360	602	145	389	30	360	46024	145	33632	64	230	407135
5	360	1018	145	664	32	360	53105	145	35403	66	145	442538
6	360	1505	145	974	34	360	61955	145	40713	72	145	575299
8	360	2832	145	1841	36	360	70806	145	46909	80	145	752314
10	360	4248	145	2761	40	360	92933	145	61955	84	87	840821
12	360	6373	145	4142	42	230	97358			88	87	929329
14	360	8408	145	5841	44	230	106209			96	87	1106344
16	360	11948	145	7965	48	230	132761					
18	360	15046	145	10001	52	230	199142					

NOTES

Torques valid for fresh water at ambient temperature. Please specify differential pressure at ordering.

1. Valve torque at lower pressure rating is reduced in function of disc closing and needs to be indicated during order placement. Consult factory for details.

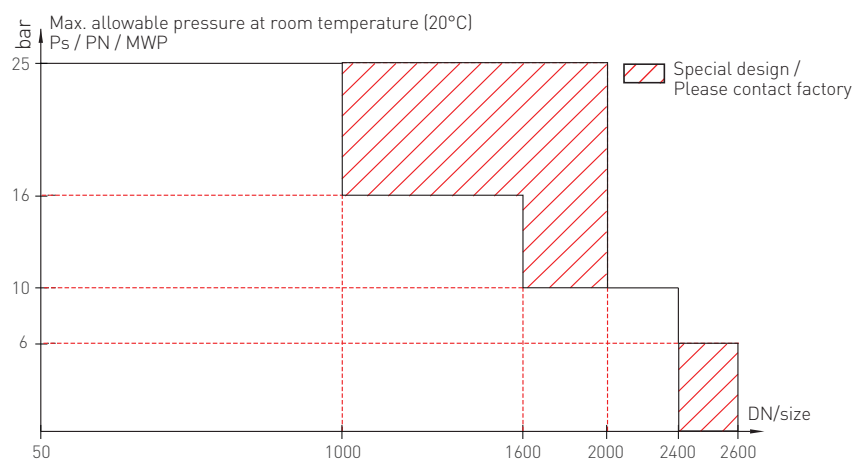
KEYSTONE BUTTERFLY VALVE PARASEAL RANGE

VALVE DATA

SEATS CHARACTERISTICS

Seat materials	Range of temperature				Resistance against ageing (storage)			
	Minimum	Maximum	Minimum	Maximum	Air	Light	Ozone	Heat
EPDM	-30°C	+130°C	-22°F	+266°F	E	E	E	E
White EPDM	-30°C	+130°C	-22°F	+266°F	E	E	E	E
EPDM-S	-30°C	+80°C	-22°F	+176°F	E	E	E	G
Nitrile	-20°C	+80°C	-4°F	+176°F	G	M	N	G
Nitrile DIN	-20°C	+80°C	-4°F	+176°F	G	M	N	G
Carboxyld nitrile	-20°C	+60°C	-4°F	+140°F	G	M	N	G
FKM	-15°C	+160°C	+5°F	+320°F	E	E	E	E
Hypalon®	-20°C	+80°C	-4°F	+176°F	E	E	E	G
Therban®	-20°C	+140°C	-4°F	+284°F	M	M	G	E
Silicone	-30°C	+170°C	-22°F	+338°F	E	E	E	E

E = excellent M = mediocre G = good N = null



NOTE

Vacuum: 1 Torr

Factory tests

Every ParaSeal valve undergoes hydraulic tests, as per ISO 5208 Standard:

- For tightness at 1.1 x rating
 - For body strength at 1.5 x rating
- Other specific tests on request.

Available for any disc in stainless steel, aluminium bronze and ductile iron with epoxy, Rilsan® and Halar® coating. For any other temperature, check behaviors of material according to datasheets.
End of line pressure is limited to 0.7 x WP for Wafer with counter flange, Lug, and Double Flanged.

SELECTION TABLE FOR SEAT AND DISC MATERIALS

Typical fluids	Suitable seat											Suitable disc											
	EPDM	White EPDM	EPDM-S	Nitrile	Nitrile DIN	Carboxyted nitrile	FKM	Hypalon®	Therban®	Silicone	Ductile iron + epoxy	Ductile iron + Rilsan®	Ductile iron + EPDM	Ductile iron + nitrile	Ductile iron + natural rubber	Ductile iron + ebonite	Ductile iron + Halar®	Carbon steel	Stainless steel	Aluminium bronze	Brass	Uranus B6®	Monel 400®
Cold water	•		•	•	•				•	•	•	•			•	•			•	•	•		
Hot water	•						•		•	•	•								•	•	•		
Demineralized water	•																		•				
Sea water	•		•	•	•								•	•		•				•			•
Drinking water	•		•								•								•				
Waste water	•		•								•								•				
Air - Heating - HVAC	•								•		•												
Bulkhandling (pneumatic transport)						•									•								
Foodstuff	•	•		•				•		•									•				
Sugar process			•																				
Sulfuric and chlorydric acids	•						•	•									•					•	
Mineral oil				•	•		•		•		•								•	•			
Petroleum products				•	•														•	•			
Natural gas					•						•	•							•	•		•	

NOTE

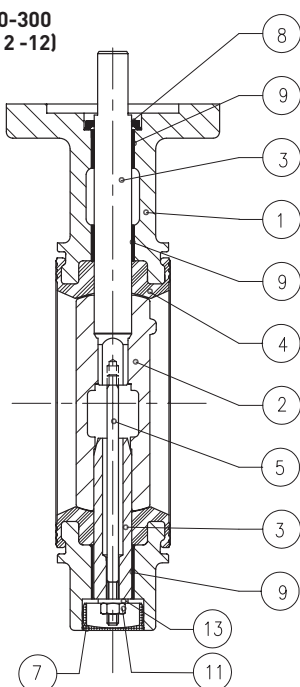
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- Possible
- ® Registered trade mark

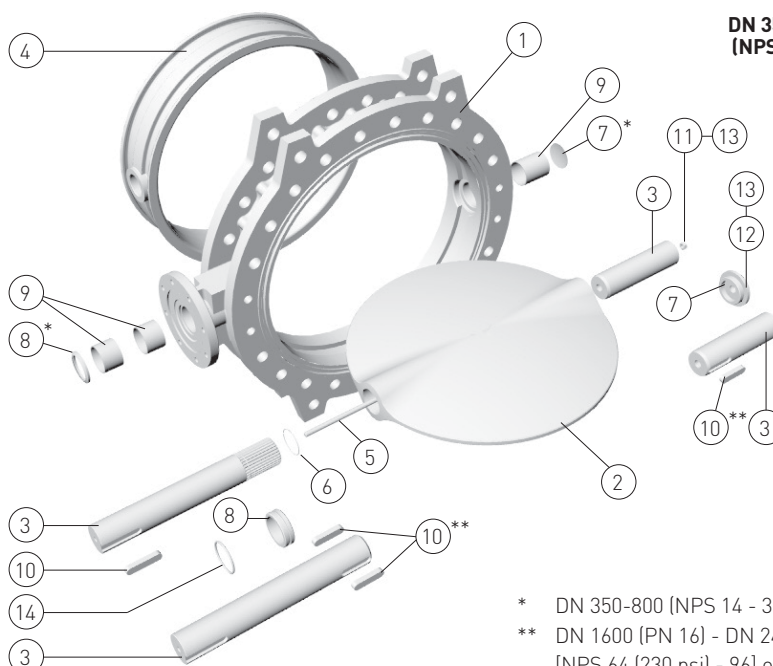
KEYSTONE BUTTERFLY VALVE PARASEAL RANGE

MATERIAL SPECIFICATION AND PARTS LIST

**DN 50-300
(NPS 2 -12)**



**DN 350-2400
(NPS 14 -96)**



* DN 350-800 (NPS 14 - 32) only

** DN 1600 (PN 16) - DN 2400
[NPS 64 (230 psi) - 96] only

MATERIAL SPECIFICATION

Part nr	Part name	Material	EN designation	EN material number	Equivalent designation	Remarks
1	Body	Ductile iron	GJS-400-15	JS-1030		Siloxane coated
		Ductile iron	GJS-400-18	JS-1020	ASTM A536 Gr. 60.40.18	Siloxane coated
		Carbon steel	GP240GH	1.0619	ASTM A216 WCB	Siloxane coated
		Stainless steel	GX5CrNiMo19-11-2	1.4408	ASTM A351 Gr. CF8M	
		Stainless steel	GX2CrNiMo19-11-2	1.4409	ASTM A351 Gr. CF3M	
		NiAlBz	CuAl10Fe5Ni5-[B or C]		ASTM B148 Gr. 958	
2	Disc	Ductile iron CTD	GJS-400-15	JS-1030		Epoxy coated
		Ductile iron CTD	GJS-400-18	JS-1020	ASTM A536 Gr. 60.40.18	Epoxy coated
		Stainless steel	GX2CrNiMo19-11-2	1.4409	ASTM A351 Gr. CF3M	Polished on request
		Stainless steel	GX5CrNiMo19-11-2	1.4408	ASTM A351 Gr. CF8M	Polished on request
		NiAlBz	CuAl10Fe5Ni5-[B or C]		ASTM B148 Gr. 958	Polished on request
		DI/Ebonite rubber covered				sizes above DN 300 (NPS 12)
		DI/EPDM rubber covered				sizes up to DN 300 (NPS 12)
		DI/NBR rubber covered				sizes up to DN 300 (NPS 12)
		Brass	CuZn40Pb2			
		Uranus B6®				
		Monel 400®				
3	Shaft	Alternative disc coatings: Epoxy, Rilsan®, Halar®				
		Stainless steel	X20Cr13	1.4021	ASTM A276-420	
		Stainless steel	X5CrNiCuNb16-4	1.4542	ASTM A276-630 (17-4 PH)	
		NiAlBz				
		Monel K500®	DIN NiCu30Al	DIN 2.4375		
4	Seat	Inconel®				
		EPDM				White EPDM on request
		EPDM-S				
		NBR				
		X-NBR				Carboxylated nitrile
		FKM				Fluoro-elastomer
		Hypalon®				Chlorosulphonated polyethylene
		Therban®				Hydrogenated NBR
		Silicon				
		Other seat materials on request				

KEYSTONE BUTTERFLY VALVE PARASEAL RANGE

MATERIAL SPECIFICATION AND PARTS LIST - VALVE DATA

MATERIAL SPECIFICATION (Continued)

Part nr	Part name	Material	EN designation	EN material number	Equivalent designation	Remarks
5	Thru bolt	Steel zinc plated				Optional stainless steel
6	Circlip	Stainless steel				
7	Cover / Plug	Steel or polyethylene				
8	Gasket holder or Seal	Bronze or NBR				
9	Bearing	Reinforced PTFE lined				DU type
10	Key	Carbon steel				
11	Locking nut	Steel zinc plated				Optional stainless steel
12	Screw	Steel zinc plated				
13	Washer	Steel zinc plated				
14	O-rings	Nitrile				

NOTE

Contact factory for exact material specification and product availability.

MATERIAL SELECTION

Seat	Disc	Shaft	Body			Notes
			Ductile iron	Carbon steel	Stainless steel	
EPDM	Ductile iron epoxy	Stainless steel	646	686		
	Stainless steel	Stainless steel	112	141	059	
	NiAlBz	Stainless steel	135	140		
	DI/Ebonite rubber covered	Stainless steel	760	762		Valve sizes above DN 300 (NPS 12)
	DI/EPDM rubber covered	Stainless steel	113	311		Valve sizes up to DN 300 (NPS 12)
	DI/NBR rubber covered	Stainless steel	681			Valve sizes up to DN 300 (NPS 12)
	DI/Rilsan® coated	Stainless steel				
	DI/Halar® coated	Stainless steel				
EPDM White	Ductile iron epoxy	Stainless steel				
	Stainless steel	Stainless steel				
	NiAlBz	Stainless steel				
	DI/Rilsan® coated	Stainless steel				
	DI/Halar® coated	Stainless steel				
EPDM-S	Ductile iron epoxy	Stainless steel				
	Stainless steel	Stainless steel				
	NiAlBz	Stainless steel				
	DI/Ebonite rubber covered	Stainless steel				Valve sizes above DN 300 (NPS 12)
	DI/EPDM rubber covered	Stainless steel				Valve sizes up to DN 300 (NPS 12)
	DI/NBR rubber covered	Stainless steel				Valve sizes up to DN 300 (NPS 12)
	DI/Rilsan® coated	Stainless steel				
	DI/Halar® coated	Stainless steel				
NBR	Ductile iron epoxy	Stainless steel	673	687		
	Stainless steel	Stainless steel	116	145	063	
	NiAlBz	Stainless steel	137	144	757	
	DI/Ebonite rubber covered	Stainless steel	761	763		Valve sizes above DN 300 (NPS 12)
	DI/NBR rubber covered	Stainless steel	682			Valve sizes up to DN 300 (NPS 12)
	DI/Rilsan® coated	Stainless steel				
	DI/Halar® coated	Stainless steel				
X-NBR	Ductile iron epoxy	Stainless steel				
	Stainless steel	Stainless steel				
	NiAlBz	Stainless steel				
	DI/Ebonite rubber covered	Stainless steel				Valve sizes above DN 300 (NPS 12)
	DI/NBR rubber covered	Stainless steel				Valve sizes up to DN 300 (NPS 12)
	DI/Rilsan® coated	Stainless Steel				
	DI/Halar® coated	Stainless Steel				

KEYSTONE BUTTERFLY VALVE PARASEAL RANGE

VALVE DATA

MATERIAL SELECTION (Continued)

Seat	Disc	Shaft	Body			Notes
			Ductile iron	Carbon steel	Stainless steel	
FKM	Stainless steel	Stainless steel				
	NiAlBz	Stainless steel				
	DI/Rilsan® coated	Stainless steel				
	DI/Halar® coated	Stainless steel				
Hypalon	Ductile iron epoxy	Stainless steel				
	Stainless steel	Stainless steel				
	NiAlBz	Stainless steel				
	DI/Ebonite rubber covered	Stainless steel				Valve sizes above DN 300 (NPS 12)
	DI/Rilsan® coated	Stainless steel				
	DI/Halar® coated	Stainless steel				
Therban	Ductile iron epoxy	Stainless steel				
	Stainless steel	Stainless steel				
	NiAlBz	Stainless steel				
	DI/Rilsan® coated	Stainless steel				
	DI/Halar® coated	Stainless steel				
Silicon	Ductile iron epoxy	Stainless steel				
	Stainless steel	Stainless steel				
	NiAlBz	Stainless steel				
	DI/Rilsan® coated	Stainless steel				
	DI/Halar® coated	Stainless steel				

Shaft material standard 1.4021, optional 1.4542

Body material ductile iron standard GJS-400-15, optional GJS-400-18

Body material stainless steel; standard 1.4408, optional 1.4409

Disc material ductile iron; standard GJS-400-15, optional GJS-400-18

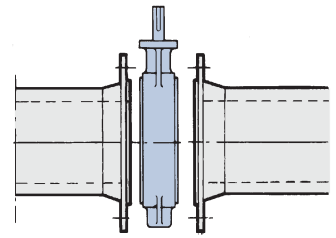
Disc material stainless steel; standard 1.4408, optional 1.4409

KEYSTONE BUTTERFLY VALVE PARASEAL RANGE

FLANGE COMPATIBILITY

Assembly on line

1. Leave sufficient space between the flanges to avoid injury to the sides of the seat while sliding the valve between the two flanges. Be sure that these edges have well aligned, parallel, and erect sealing faces.
2. Center the valve by bolting the body locator first.
3. Progressively tighten diametrically opposed bolts by alternating sides until contact has been made between the metal valve body and the flange faces. Tighten bolts fully.
4. Control after mounting: operate the valve from fully open position to fully closed position to make sure that nothing is obstructing the disc.



BETWEEN FLANGES AND DEAD END ASSEMBLY FOR WAFER TYPE

		Size (DN / NPS)																							
		50	65	80	100	125	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	1000		
		2	2½	3	4	5	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	40		
EN 1092	PN 6	1		1	1	1	1		1	1	1	1	1		1										
DIN 2501	PN 10														1										
BS 4504	PN 16														1										
ISO 7005	PN 25										2					1									
EN 1759	Class 150			1											1										
ANSI B 16.5	Class 150			1												1	See ANSI B 16.47 A								
ANSI B 16.47 A	Class 150	See ANSI B 16.5															✓					✓			
BS 10	Table E	1	1				1																		
JIS B 2210	JIS 10 K			1	1						1								1						
	JIS 16 K	1	1				1																		
MSS SP 44	Class 150														✓	1	✓				✓				
AWWA C207	Tables 2-3-4-5														✓		✓				✓				

BETWEEN FLANGES AND DEAD END ASSEMBLY FOR LUGGED TYPE

		Size (DN / NPS)																							
		50	65	80	100	125	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	1000		
		2	2½	3	4	5	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	40		
EN 1092	PN 6																								
DIN 2501	PN 10																								
BS 4504	PN 16																								
ISO 7005	PN 25										2									✓		✓			
EN 1759	Class 150																					✓			
ANSI B 16.5	Class 150																	See ANSI B 16.47 A							
ANSI B 16.47 A	Class 150	See ANSI B 16.5														✓						✓	✓		
BS 10	Table E																								
JIS B 2210	JIS 10 K																								
	JIS 16 K																			✓		✓			
MSS SP 44	Class 150														✓		✓				✓	✓			
AWWA C207	Tables 2-3-4-5														✓		✓				✓	✓			

BETWEEN FLANGES AND DEAD END ASSEMBLY FOR DOUBLE FLANGED TYPE

		Size (DN / NPS)																							
		500	550	600	650	700	750	800	850	900	1000	1050	1100	1200	1300	1350	1400	1500	1600	1650	1800	2000	2100	2200	2400
		20	22	24	26	28	30	32	34	36	40	42	44	48	52	54	56	60	64	66	72	80	84	88	96
EN 1092	PN 6							✓		✓	✓				✓							✓			✓
DIN 2501	PN 10														✓							✓			✓
BS 4504	PN 16														✓						✓	✓			✓
ISO 7005	PN 25													✓							✓	✓			✓
EN 1759	Class 150											✓			✓										
ANSI B 16.5	Class 150				See ANSI B 16.47 A																				
ANSI B 16.47 A	Class 150	See ANSI B 16.5			✓				✓			✓			✓	✓									
BS 10	Table E											✓													
JIS B 2210	JIS 10 K														✓										
	JIS 16 K			✓										✓	✓										
MSS SP 44	Class 150		✓		✓				✓			✓			✓	✓									
AWWA C207	Tables 2-3-4-5		✓		✓				✓			✓			✓	✓				✓	✓		✓		✓

NOTES

- 1 : Possible for all versions
- ✓ : Please contact factory
- 1 : With counter-flange in case of dead end assembly

- 2 : Extended top flange to avoid interference with pipe flange
- These data are valid for raised face only. For flat face, please consult factory
- Please, specify requested valve drilling when ordering

KEYSTONE BUTTERFLY VALVE PARASEAL RANGE

VALVE DATA

WAFER VALVE - Dimensions of tapped flange locating holes - mm (inches)

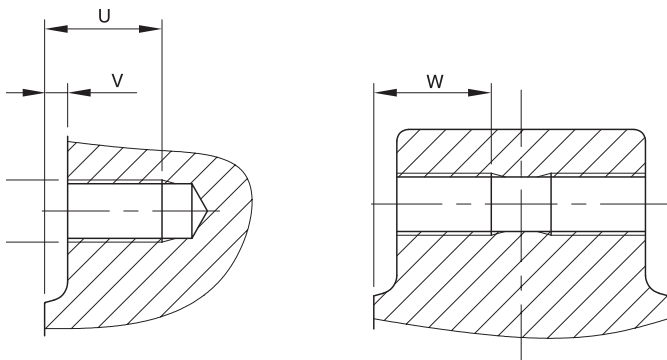
DN (NPS)	PN 6		PN 10		PN 16		PN 25		Class 150**		
	T	U	T	U	T	U	T	U	T*	U	V
700 (28)	M24	52.5 (2.07)	M27	52.5 (2.07)	M33	52.5 (2.07)	M39	48.5 (1.91)	1¼"	47.5 (1.87)	7.5 (0.30)
750 (30)	-	-	-	-	-	-	-	-	1¼"	47.5 (1.87)	7.5 (0.30)
800 (32)	M27	65.0 (2.56)	M30	65.0 (2.56)	M36	70.0 (2.76)	M45	60.0 (2.36)	1½"	60.0 (2.36)	10.0 (0.39)
900 (36)	-	-	M30	61.5 (2.42)	M36	58.5 (2.30)	M45	54.5 (2.15)	1½"	56.5 (2.22)	6.5 (0.26)
1000 (40)	-	-	M33	73.0 (2.87)	M39	73.0 (2.87)	M52	63.0 (2.48)	1½"	53.0 (2.09)	13.0 (0.51)

DOUBLE FLANGED VALVE - Dimensions of tapped flange locating holes - mm (inches)

DN (NPS)	PN 6		PN 10		PN 16		PN 25		Class 150**		
	T	U	T	U	T	U	T	U	T*	U	V
700 (28)	M24	49.5 (1.95)	M27	49.5 (1.95)	M33	49.5 (1.95)	M39	49.5 (1.95)	1¼"	47.5 (1.87)	4.5 (0.18)
750 (30)	-	-	-	-	-	-	-	-	1¼"	49.0 (1.93)	4.0 (0.16)
800 (32)	M27	65.0 (2.56)	M30	65.0 (2.56)	M36	65.0 (2.56)	M45	65.0 (2.56)	1½"	60.0 (2.36)	5.0 (0.20)
900 (36)	M27	64.5 (2.54)	M30	59.5 (2.34)	M36	56.5 (2.22)	M45	52.5 (2.07)	1½"	54.5 (2.15)	4.5 (0.18)
1000 (40)	M27	64.5 (2.54)	M33	64.5 (2.54)	M39	64.5 (2.54)	M52	64.5 (2.54)	1½"	59.5 (2.34)	4.5 (0.18)
1100 (44)	M30	64.5 (2.54)	M33	64.5 (2.54)	M39	64.5 (2.54)	M52	64.5 (2.54)	1½"	58.5 (2.3)	4.5 (0.18)
1200 (48)	M27	63.0 (2.48)	M36	63.0 (2.48)	M45	63.0 (2.48)	-	-	-	-	3.0 (0.12)
1400 (56)	M33	60.0 (2.36)	M39	60.0 (2.36)	M45	60.0 (2.36)	-	-	-	-	5.0 (0.20)
1500 (60)	-	-	M39	64.5 (2.54)	M52	59.5 (2.34)	M56	59.5 (2.34)	1¾"	52.5 (2.07)	4.5 (0.18)
1600 (64)	M33	60.0 (2.36)	M45	78.0 (3.07)	M52	75.0 (2.95)	M56	75.0 (2.95)	-	-	5.0 (0.20)
1800 (72)	M36	72.0 (2.83)	M45	75.0 (2.95)	M52	85.0 (3.35)	-	-	-	-	10.0 (0.39)
2200 (88)	M39	70.0 (2.76)	M52	70.0 (2.76)	M56	65.0 (2.56)	-	-	-	-	5.0 (0.20)

LUGGED VALVE - Dimensions of tapped flange locating holes - mm (inches)

DN (NPS)	PN 6		PN 10		PN 16		PN 25		Class 150**			
	T	U	T	U	T	U	T	U	T*	U	V	W
700 (28)	M24	52.5 (2.07)	M27	52.5 (2.07)	M33	52.5 (2.07)	M39	52.5 (2.07)	-	-	7.5 (0.30)	70 (2.76)
750 (30)	-	-	-	-	-	-	-	-	1¼"	49.5 (1.95)	7.5 (0.30)	65 (2.56)
800 (32)	M27	65.0 (2.56)	M30	65.0 (2.56)	M36	70.0 (2.76)	M45	70.0 (2.76)	-	-	10.0 (0.39)	70 (2.76)
900 (36)	-	-	M30	61.5 (2.42)	M36	58.5 (2.3)	-	-	1½"	51.5 (2.03)	6.5 (0.26)	70 (2.76)
1000 (40)	-	-	M33	73.0 (2.87)	M39	73.0 (2.87)	-	-	1½"	56.0 (2.20)	13.0 (0.51)	80 (3.15)



NOTES

1. T = thread type, U = full thread blind + V,
V = raised face, W = full thread through + V.
 2. For raised face flanges only.
 3. 4x tapped at each side of the body.
 4. DN 1600 (NPS 64) double flanged only 16 bar (230 psi) version mentioned.
 5. For other sizes or flange drillings contact factory.
- * Denotes: standard type UNC
** Denotes: according MSS SP44

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