

# Hand Lever / Worm Gear Operated Double Eccentric Design Off - Set Disc "Wafer" Type Butterfly Valve

4Matic offers Manual Worm Gear / Lever Operated Off - Set Disc Butterfly Valve "WAFER" Type Construction engineered for multiply ON/OFF Operation in the large Pipe line and full flow down Stream.

**Size Range : 2.1/2" to 48"**

### Standard

Design And Manufacturing	API 609 Category "B" / MSS SP - 68
Valve Face to Face Dimensions	API 609 Category "B" / ISO 5752 / MSS SP-68
Flange Standard Conformity	ASME B 16.5 Class 150 ASME B 16.47Series "A" Class 150
Inspection & Testing	API 598
Pressure Temperature Rating	ASME B16.34
Top Flange Dimensions	Bolt Hole ISO 5211
Stem Dimensions	Square Drive to ISO 5211
Leakage Class	Class VI as per ANSI B 16, 16.104

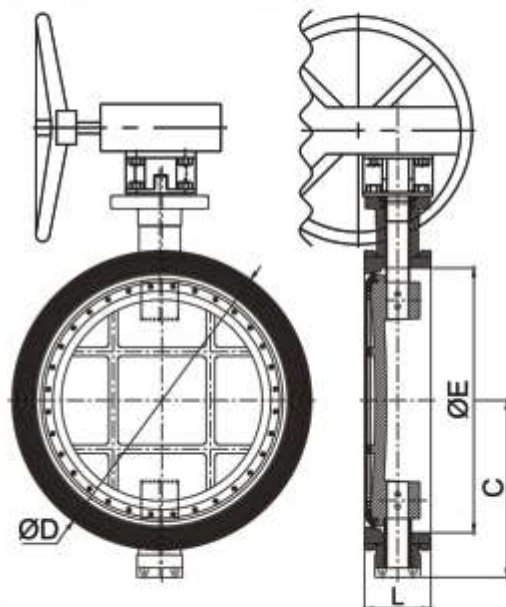
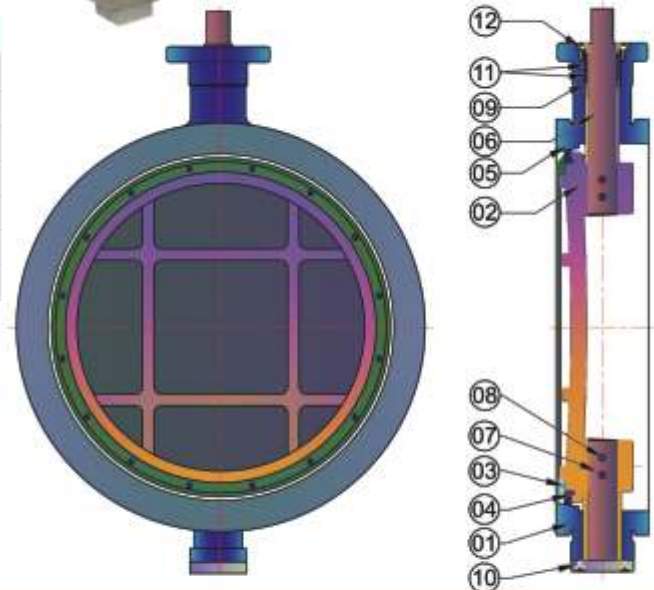
### PRESSURE / TEMPERATURE RATING

<b>PRESSURE RATING</b>	150# (PN 10 / PN 16 / PN 25 )
<b>OPERATING TEMPERATURE</b>	NBR - -10 °C TO +90 °C EPDM - -20 °C TO +120 °C VITON - 0 °C TO +220 °C PTFE - -25 °C TO +180 °C RPTFE - -25 °C TO +220 °C TFM -25 °C TO +250 °C

No.	Description	Material	Qty.
1	Body	C.I. / WCB / CF8 / CF8M / D.I.	1
2	Disc	C.I. / WCB / CF8 / CF8M / D.I.	1
3	Retainer	M.S. / CF8 / CF8M	1
4	Disc Seal Ring	PTFE / RPTFE / NBR / EPDM / Viton	1
5	Body Seal Ring	S.S. 304 / 316	1
6	Shaft	S.S. 304 / 316 / 410	1
7	Stem Shaft	S.S. 304 / 316 / 410	1
8	Disc Pin	S.S. 304 / 316 / 410	4
9	Flange Side Washer	S.S. 304 / 316 / 410	1
10	Stem Square	M.S. / CF8 / CF8M	1
11	Gland Seal Set	PTFE / NBR / EDPM / Viton	5
12	Gland Plate	M.S. / CF8 / CF8M	1



609 - 0055



Valve Model	Valve Size		L	ØD	ØE	C
	MM	Inch				
4M-BOD-100	100	4"	54	158	110	96
4M-BOD-125	125	5"	56	185.87	120	112
4M-BOD-150	150	6"	57	216	152	115
4M-BOD-200	200	8"	64	270	200	141
4M-BOD-250	250	10"	72	325	255	179
4M-BOD-300	300	12"	81	373	306	210
4M-BOD-350	350	14"	92	412	355	234
4M-BOD-400	400	16"	102	472	400	275
4M-BOD-450	450	18"	114	532	450	327.5
4M-BOD-500	500	20"	127	584	505	359
4M-BOD-600	600	24"	154	692.2	612	409
4M-BOD-650	650	26"	165	749.3	640	640
4M-BOD-700	700	28"	165	800.1	705	500
4M-BOD-750	750	30"	190	857.25	725	571
4M-BOD-800	800	32"	190	915	810	630
4M-BOD-850	850	34"	205	965.2	850	655.5
4M-BOD-900	900	36"	205	1022.35	900	680
4M-BOD-1000	1000	40"	300	1124	1000	735
4M-BOD-1200	1200	48"	350	1359	1200	915

4Matic offers Manual Worm Gear / Lever Operated Off - Set Disc Butterfly Valve in Double Flange Construction engineered for multiple ON / OFF Operation in the large Pipe line and full flow down Stream.



**Fire Safe Design**

**Size Range : 2.1/2" to 48"**

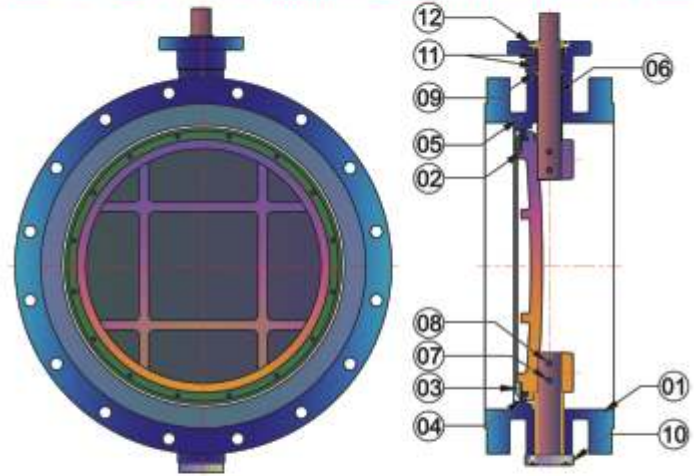
**Standard**

Design And Manufacturing	API 609 / BS 5155 / BSEN 593 / IS 13095 / AWWA C-504
Valve Face to Face Dimensions	API 609 (Short Pattern) / BS 5155 (Short Pattern) / IS 13095 (Short Pattern) / AWWA C - 504 (Short Pattern)
Flange Standard Conformity	ASME B16.5 Class 150 (Upto 24") ASME B16.47 Series "A" Class 150 (Above 26" to 48") AWWA C-207, IS1538, BS5404, IS 6392
Inspection & Testing	API 598 / BS 6755 / AWWA C - 504
Pressure Temperature Rating	ASME B16.34
Top Flange Dimensions	Bolt Hole ISO 5211
Stem Dimensions	Square Drive To ISO 5211
Leakage Class	Class VI As Per ASME B 16, 16.104

**Note.: For, Sea Water Application, Ebonite Lining On Request.**

**PRESSURE / TEMPERATURE RATING**

<b>PRESSURE RATING</b>	<b>150# ( PN 10 / PN 16 / PN 25 )</b>
<b>OPERATING TEMPERATURE</b>	<b>NBR - -10 °C TO +90 °C</b>
	<b>EPDM - -20 °C TO +120 °C</b>
	<b>VITON - 0 °C TO +220 °C</b>
	<b>PTFE - -25 °C TO +180 °C</b>
	<b>RPTFE - -25 °C TO +220 °C</b>



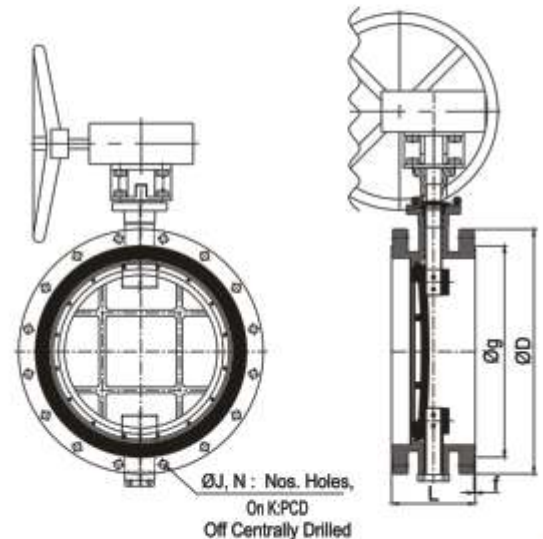
No.	Description	Material	Qty.
1	Body	C.I. / WCB / CF8 / CF8M / D.I	01
2	Disc	WCB / CF8 / CF8M / D.I	01
3	Retainer	M.S. / CF8 / CF8M	01
4	Disc Seal Ring	RPTFE / PTFE / NBR / EPDM / Viton	01
5	Body Seat Ring	S.S. 304 / 316	01
6	Shaft	S.S. 304 / 316 / 410	01
7	Stem Shaft	S.S. 304 / 316 / 410	01
8	Disc Pin	S.S. 304 / 316 / 410	04
9	Flange Side Washer	S.S. 304 / 316 / 410	01
10	Stem Square	M.S. / CF8 / CF8M	01
11	Gland Seal Set	PTFE / NBR / EDPM / Viton / RPTFE	05
12	Gland Plate	M.S. / CF8 / CF8M	01

**Notes :**

**We Have Successfully Carried Out Proof of Design Test on these Rubber Seated Butterfly Valve as per AWWA C - 504**

**Dimensions : B 16.5 150# & B 16.47 "A" 150# (All Dimensions are in mm)**

Valve Model	Valve Size		L API - 609	ØD	Øg	f	ØI	N	K:PCD
	MM	Inch							
BOD - 65	65	2.1/2"	112	180	104.8	2	19.05	04	139.7
BOD - 80	80	3"	114	190	127	2	19.05	04	152.4
BOD - 100	100	4"	127	230	157.2	2	19.05	08	190.5
BOD - 125	125	5"	140	255	185.7	2	22.2	08	215.9
BOD - 150	150	6"	140	280	215.9	2	22.2	08	241.3
BOD - 200	200	8"	152	345	269.9	2	22.2	08	298.5
BOD - 250	250	10"	165	405	323.8	2	25.4	12	362
BOD - 300	300	12"	178	485	381	2	25.4	12	431.8
BOD - 350	350	14"	190	535	412.8	2	28.6	12	476.3
BOD - 400	400	16"	216	595	469.9	2	28.6	16	539.8
BOD - 450	450	18"	222	635	533.4	2	31.75	16	577.9
BOD - 500	500	20"	229	700	584.2	2	31.75	20	635
BOD - 600	600	24"	267	815	692.2	2	34.9	20	749.3
BOD - 650	650	26"	292	870	749	2	34.9	24	806.4
BOD - 700	700	28"	292	925	800	2	34.9	28	863.6
BOD - 750	750	30"	318	985	857	2	34.9	28	914.4
BOD - 800	800	32"	318	1060	914	2	41.3	28	977.9
BOD - 850	850	34"	324	1110	965	2	41.3	32	1028.7
BOD - 900	900	36"	330	1170	1022	2	41.3	32	1085.8
BOD - 1000	1000	40"	410	1290	1124	2	41.3	36	1200.2
BOD - 1050	1050	42"	410	1345	1194	2	41.3	36	1257.3
BOD - 1200	1200	48"	470	1510	1359	2	41.3	44	1422.4



Dimensions :			PN 10							(All Dimensions are in mm)
Valve Model	Valve Size		L API 609	ØD	Øg	f	ØI	N	K:PCD	
	MM	Inch								
BOD - 80	80	3"	114	200	133	3	18	04	160	
BOD - 100	100	4"	127	220	153	3	19	08	180	
BOD - 150	150	6"	140	285	209	3	23	08	240	
BOD - 200	200	8"	152	340	264	3	23	08	295	
BOD - 250	250	10"	165	395	319	3	23	12	350	
BOD - 300	300	12"	178	445	367	4	23	12	400	
BOD - 350	350	14"	190	505	427	4	23	16	460	
BOD - 400	400	16"	216	565	477	4	28	16	515	
BOD - 450	450	18"	222	615	527	4	28	20	565	
BOD - 500	500	20"	229	670	582	4	28	20	620	
BOD - 600	600	24"	267	780	682	5	31	20	725	
BOD - 650	650	26"	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
BOD - 700	700	28"	292	895	797	5	31	24	840	
BOD - 750	750	30"	318	960	857	5	31	24	900	
BOD - 800	800	32"	318	1015	904	5	34	24	950	
BOD - 900	900	36"	330	1115	1004	5	34	28	1050	
BOD - 1000	1000	40"	410	1230	1111	5	36	28	1160	
BOD - 1200	1200	48"	470	1455	1328	5	40	32	1380	

Dimensions :			PN 16							(All Dimensions are in mm)
Valve Model	Valve Size		L API 609	ØD	Øg	f	ØI	N	K:PCD	
	MM	Inch								
BOD - 65	65	2.1/2"	112	185	122	3	18	04	145	
BOD - 80	80	3"	114	200	138	3	18	08	160	
BOD - 100	100	4"	127	220	158	3	18	08	180	
BOD - 150	150	6"	140	285	212	3	22	08	240	
BOD - 200	200	8"	152	340	268	3	22	12	295	
BOD - 250	250	10"	165	405	320	3	26	12	355	
BOD - 300	300	12"	178	460	378	4	26	12	410	
BOD - 350	350	14"	190	520	438	4	26	16	470	
BOD - 400	400	16"	216	580	490	4	30	16	525	
BOD - 450	450	18"	222	640	490	4	30	20	585	
BOD - 500	500	20"	229	715	610	4	33	20	650	
BOD - 600	600	24"	267	840	725	5	36	20	770	
BOD - 650	650	26"	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
BOD - 700	700	28"	292	910	795	5	36	24	840	
BOD - 750	750	30"	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
BOD - 800	800	32"	318	1025	900	5	39	24	950	
BOD - 900	900	36"	330	1125	1000	5	39	28	1050	
BOD - 1000	1000	40"	410	1255	1115	5	42	28	1170	
BOD - 1200	1200	48"	470	1485	1330	5	48	32	1390	

Dimensions :			AWWA C - 207				(All Dimensions are in mm)		
Valve Model	Valve Size		L AWWA C - 504	ØD	b	ØI	N	K:PCD	
	MM	Inch							
BOD - 65	65	2.1/2"	127	180	16	19.05	4	139.7	
BOD - 80	80	3"	127	190	16	19.05	4	152.4	
BOD - 100	100	4"	127	228.6	16	19.05	8	190.5	
BOD - 125	125	5"	127	254	16	19.05	8	215.9	
BOD - 150	150	6"	127	279.4	17.5	22.35	8	241.3	
BOD - 200	200	8"	152	343	17.5	22.35	8	298.45	
BOD - 250	250	10"	203	406.4	17.5	25.4	12	361.95	
BOD - 300	300	12"	203	482.6	20.6	25.4	12	431.8	
BOD - 350	350	14"	203	533.4	23.8	28.45	12	476.25	
BOD - 400	400	16"	203	596.9	25.5	28.45	16	539.75	
BOD - 450	450	18"	203	635	27	31.75	16	577.85	
BOD - 500	500	20"	203	698.5	28.5	31.75	20	635	
BOD - 600	600	24"	203	812.8	30.2	35.05	20	749.3	
BOD - 650	650	26"	305	869.9	31.5	35.05	24	806.45	
BOD - 700	700	28"	305	927.1	35.5	35.05	28	863.6	
BOD - 750	750	30"	305	984.25	35.5	35.05	28	914.4	
BOD - 800	800	32"	305	1060.45	38	41.15	28	977.9	
BOD - 850	850	34"	305	1111.25	38	41.15	32	1028.7	
BOD - 900	900	36"	305	1168.4	41	41.15	32	1085.85	
BOD - 1000	1000	40"	305	1289	41	41.15	36	1200.15	
BOD - 1050	1050	42"	305	1346.2	44.5	41.15	36	1257.3	
BOD - 1200	1200	48"	381	1511.3	47.5	41.15	44	1422.4	

4Matic offers Manual Worm Gear / Lever Operated Off - Set Disc Butterfly Valve in Double Flange Construction engineered for multiply ON / OFF Operation in the large Pipe line and full flow down Stream.



**Size Range : 2" to 24"**

**Applicable Standard**

Design And Manufacturing API 609 / BS 5155 / BSEN 593 / IS 13095  
Valve Face to Face Dimensions API 609 ( Short Pattern ) / BS 5155 ( Long Pattern )  
IS 13095 ( Long Pattern )  
Flange Standard Conformity ASME / ANSI B 16.5 Class 300  
Inspection & Testing API 598

**PRESSURE / TEMPERATURE RATING**

<b>PRESSURE RATING</b>	<b>300# ( PN 25 / PN 40 )</b>
<b>OPERATING TEMPERATURE</b>	<b>NBR - -10 °C TO +90 °C / EPDM - -20 °C TO +120 °C VITON - 0 °C TO +220 °C / PTFE - -25 °C TO +180 °C RPTFE - -25 °C TO +220 °C</b>

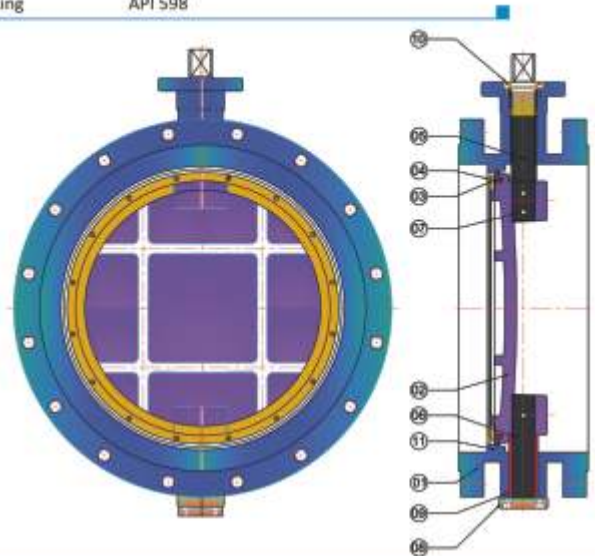
No.	Description	Material	Qty.
1	Body	ASTM A 216 Gr. WCB / A 351 Gr. CF8 / CF8M	01
2	Disc	ASTM A 216 Gr. WCB / A 351 Gr. CF8 / CF8M	01
3	Disc Seal Ring	PTFE / RPTFE / NBR / EPDM / Viton	01
4	Retainer	IS 2062 Gr B M.S. / ASTM A 351 Gr. CF8 / CF8M	01
5	Shaft	ASTM A 479 Type 410 / 304 / 316	01
6	Steam Shaft	ASTM A 479 Type 410 / 304 / 316	01
7	Disc Pin	S.S. 202	02
8	Steam Plate	M.S.	01
9	Shaft Bush	ASTM A - 479 Type 410 / 300 / 316	02
10	Gland Plate	M.S.	01
11	Body Seat Ring	ASTM A 479 Type 304 / 316	01

**Butterfly Valve CV Values 300#**

Valve Size MM Inch	CV Values								
	10"	20"	30"	40"	50"	60"	70"	80"	90"
150 6"	17.4	61	120	190	290	420	680	770	870
200 8"	27.2	100	200	300	460	640	1070	1200	1370
250 10"	42	150	290	460	690	980	1630	1840	2090
300 12"	59	200	410	650	970	1390	2300	2600	2950
350 14"	73	260	510	800	1200	1710	2840	3200	3640
400 16"	100	350	700	1100	1660	2360	39140	4410	5010
450 18"	120	440	870	1360	2040	2900	4810	5430	6170
500 20"	170	580	1160	1810	2720	3870	640	7250	8250
600 24"	260	900	1800	2830	4250	6050	10000	11300	12900

**Valve Torque 300#**

Valve Size MM Inch	10 Bar N - m	20 Bar N - m	25 Bar N - m	35 Bar N - m	40 Bar N - m	50 Bar N - m
80 3"	55	62	70	75	76	80
100 4"	72	89	104	111	114	125
125 5"	96	127	137	148	160	178
150 6"	126	138	178	194	205	220
200 8"	205	252	281	304	328	354
250 10"	325	468	503	560	594	663
300 12"	465	685	777	868	937	1005
350 14"	747	1126	1461	1776	1836	2021
400 16"	1065	1654	2020	2204	2448	2700
450 18"	1346	2143	2458	2938	3183	3428
500 20"	2014	3056	3590	3852	4244	4570
600 24"	3052	4578	5223	5876	6464	6921

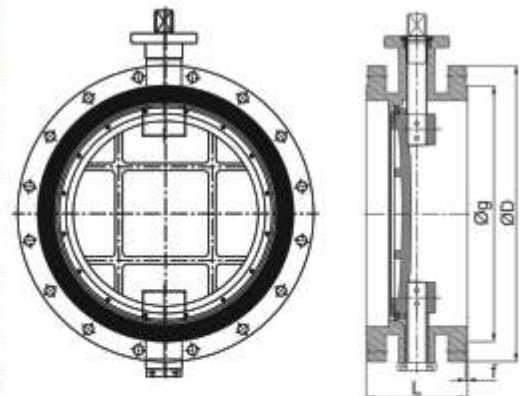


**Dimensions :**

**300#**

**(All Dimensions are in mm)**

Valve Model	Valve Size		L	ØD	Øg	b	f	ØJ	N	K-PCD
	MM	Inch								
B0D3C-50	50	2"	150	165.1	91.9		1.6	19.05	08	127
B0D3C-65	65	2.1/2"	170	190.5	104.6		1.6	22.35	08	149.35
B0D3C-80	80	3"	180	209.55	127	28.45	1.6	22.35	08	168.14
B0D3C-100	100	4"	190	254	157.2	31.75	1.6	22.35	08	200.0
B0D3C-125	125	5"	200	279.4	185.6	35.05	1.6	22.35	08	234.9
B0D3C-150	150	6"	210	317.5	215.9	36.5	1.6	22.35	12	269.9
B0D3C-200	200	8"	230	381	270	41.15	1.6	25.4	12	330.2
B0D3C-250	250	10"	250	444.5	323.8	47.75	1.6	28.5	16	387.35
B0D3C-300	300	12"	270	520.7	381	50.8	1.6	31.75	16	450.9
B0D3C-350	350	14"	290	584.2	412.75	53.85	1.6	31.75	20	514.35
B0D3C-400	400	16"	310	647.7	469.9	57.15	1.6	35.0	20	571.5
B0D3C-450	450	18"	330	711.2	533.4	60.45	1.6	35.0	24	628.6
B0D3C-500	500	20"	350	774.7	584.2	63.5	1.6	35.0	24	685.8
B0D3C-600	600	24"	390	914.4	692.15	69.85	1.6	41.14	24	812.8



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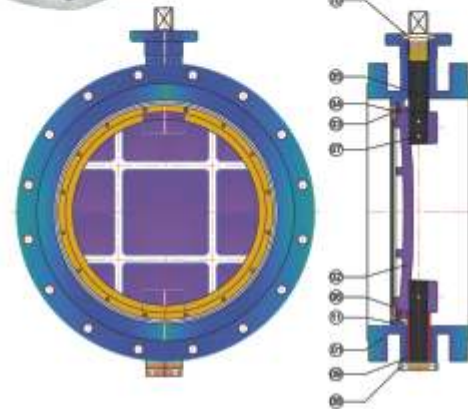
**Size Range : 3" to 24"**

**Standard**

Design And Manufacturing	API 609 / BS 5155 / BSEN 593 / IS 13095
Valve Face to Face Dimensions	API 609 ( Short Pattern ) / BS 5155 ( Long Pattern ) IS 13095 ( Long Pattern )
Flange Standard Conformity	ASME / ANSI B 16.5 Class 600
Inspection & Testing	API 598

**PRESSURE / TEMPERATURE**

<b>PRESSURE RATING</b>	<b>600# ( PN 60 )</b>
<b>OPERATING TEMPERATURE</b>	<b>NBR - -10 °C TO +90 °C / EPDM - -20 °C TO +120 °C VITON - 0 °C TO +220 °C / PTFE - -25 °C TO +180 °C RPTFE - -25 °C TO +250 °C</b>



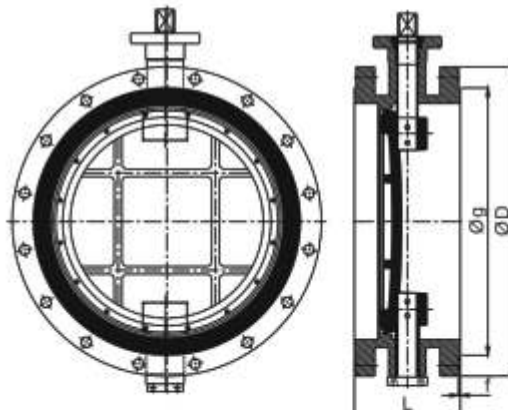
No.	Description	Material	Qty.
1	Body	ASTM A 216 Gr. WCB / A 351 Gr. CF8 / CF8M	01
2	Disc	ASTM A 216 Gr. WCB / A 351 Gr. CF8 / CF8M	01
3	Disc Seal Ring	PTFE / RPTFE / NBR / EPDM / Viton	01
4	Retainer	IS 2062 Gr B M.S. / ASTM A 351 Gr. CF8 / CF8M	01
5	Shaft	ASTM A 479 Type 410 / 304 / 316	01
6	Steam Shaft	ASTM A 479 Type 410 / 304 / 316	01
7	Disc Pin	S.S. 304	02
8	Steam Plate	M.S.	01
9	Shaft Bush	ASTM A - 479 Type 410 / 304 / 316	01
10	Gland Plate	M.S.	01
11	Body Seat Ring	ASTM A 479 Type 304 / 316	01

**Butterfly Valve CV Values**

Valve Size		10"	20"	30"	40"	50"	60"	70"	80"	90"
MM	Inch									
80	3"	4	15.6	31.5	47.6	74.5	110	180	200	230
100	4"	8	27.9	56	90	130	190	310	350	400
125	5"	13.1	46	92	150	220	310	520	580	670
150	6"	19.9	70	140	220	330	480	780	890	1000
200	8"	36.3	130	260	400	610	860	1430	1600	1830
250	10"	56	200	390	620	920	1300	2170	2450	2780
300	12"	84	290	590	930	1400	1980	3290	3700	4200
350	14"	100	370	730	1140	1700	2500	4060	4570	5200
400	16"	140	480	960	1500	2300	3220	5340	6020	6840
450	18"	1180	640	1260	2000	3000	4220	7000	7900	9000
500	20"	240	840	1680	2600	3950	5630	9300	10500	12000
600	24"	380	1300	2630	4200	6200	8800	14600	16500	18700

**VALVE TORQUE 600#**

Valve Size		30 Bar	40 Bar	60 Bar	80 Bar	100 Bar
MM	Inch	N - m	N - m	N - m	N - m	N - m
150	6"	600	700	850	1000	1300
200	8"	1000	1150	1400	1650	2100
250	10"	1650	1900	2300	2800	3800
300	12"	2400	2850	3450	4100	4900
350	14"	3400	4300	5350	6300	7500
400	16"	5000	6900	8900	9700	11500
450	18"	7000	9400	12000	14500	17000
500	20"	8700	12000	15000	18000	21000
600	24"	15000	21000	25700	30500	36000



**Dimensions :**

Valve Model	Valve Size		L	ØD	Øg	b	f	ØJ	N	K:PCD
	MM	Inch								
BOD3C-80	80	3"	180	210	127	31.75	6.35	22.0	08	168.3
BOD3C-100	100	4"	190	275	157	38.1	6.35	25.4	08	215.9
BOD3C-125	125	5"	210	330	185	44.4	6.35	28.5	08	266.7
BOD3C-150	150	6"	210	355	216	47.75	6.35	28.5	12	292.1
BOD3C-200	200	8"	230	420	270	55.63	6.35	32.0	12	349.2
BOD3C-250	250	10"	250	510	324	63.5	6.35	35.0	16	431.8
BOD3C-300	300	12"	270	560	381	66.55	6.35	35.0	20	489.5
BOD3C-350	350	14"	290	605	413	69.85	6.35	38.1	20	527.0
BOD3C-400	400	16"	310	685	470	76.2	6.35	41.15	20	603.2
BOD3C-450	450	18"	330	745	534	82.6	6.35	44.45	20	654.0
BOD3C-500	500	20"	350	815	584	88.9	6.35	44.45	24	723.9
BOD3C-600	600	24"	390	940	692	101.6	6.35	50	24	838.2

**4Matic** Gear Operated MS Fabricated Double Flange Butterfly Valve Construction engineered for multiply ON / OFF Operation in the large Pipe line and full flow down Stream.

**Size Range : 50" to 104" (12" to 48" On Request)**

**Standard**

Design And Manufacturing	AWWA C - 504
Valve Face to Face Dimension Upto 72"	AWWA C - 504
Valve Face to Face Dimension Upto 72"	As Per Manufacturer Standard
Flange Standard Conformity	AWWA C - 207 Class "D"
Inspection & Testing	AWWA C - 504
Rating	PN 6 / PN 10



609 - 0055

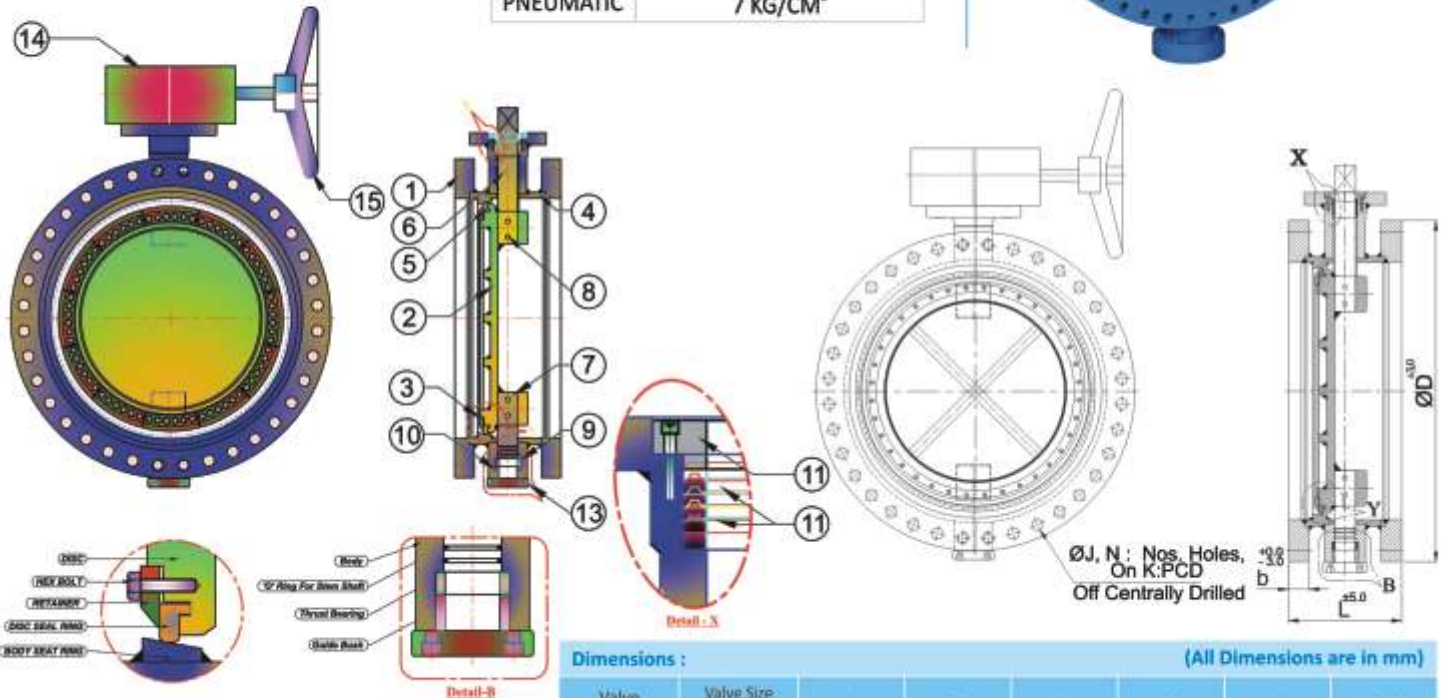


**PRESSURE / TEMPERATURE RATING**

PRESSURE RATING	PN 10
OPERATING TEMPERATURE	180 °C

**PRESSURE / TEMPERATURE RATING**

TESTING	BODY	SEAT
HYDRAULIC	16 KG/CM <sup>2</sup>	10 KG/CM <sup>2</sup>
PNEUMATIC	7 KG/CM <sup>2</sup>	



**Dimensions :**

(All Dimensions are in mm)

No.	Description	Material
1	Body	IS 2062 Gr. B M. S.
2	Disc	IS 2062 Gr. B M. S.
3	Retainer	IS 2062 Gr. B / ASTM A - 240 S.S. 304 / 316
4	Body Seat Ring	ASTM A - 479 Type 304 / 316
5	Disc Seal Ring	EPDM / NBR / Viton
6	Shaft	ASTM A - 479 Type 410 / 304 / 316
7	Stem Shaft	ASTM A - 479 Type 410 / 304 / 316
8	Disc Pin	ASTM A - 479 Type 410 / 304 / 316
9	Bearing	Double Thrust Bearing
10	Guide Bush	Bronze
11	Seal Set	EPDM / NBR / Viton
12	Gland Plate	M. S.
13	Stem Plate	IS 2062 Gr. B
14	Gear	Standard
15	Wheel	M. S.

Valve Model	Valve Size		L	ØD	b	ØI	N	K-PCD
	MM	Inch						
4M-FBV - 1250	1250	50"	381	1568.5	51.00	44.45	44	1479.6
4M-FBV - 1300	1300	52"	381	1626.0	51.00	44.45	44	1536.7
4M-FBV - 1350	1350	54"	381	1682.8	54.00	44.45	44	1593.8
4M-FBV - 1400	1400	56"	381	1770.0	57.15	44.45	52	1670.0
4M-FBV - 1500	1500	60"	381	1854.2	57.15	44.45	52	1758.95
4M-FBV - 1600	1600	64"	381	1915.0	60.00	44.45	52	1820.0
4M-FBV - 1650	1650	66"	457	2032.0	63.5	44.45	52	1930.4
4M-FBV - 1800	1800	72"	457	2197.1	66.5	44.45	60	2095.5
4M-FBV - 1950	1950	78"	760	2362.2	69.9	50.8	64	2260.6
4M-FBV - 2000	2000	80"	760	2449.0	70.00	50.8	64	2342.0
4M-FBV - 2100	2100	84"	830	2533.7	73.00	50.8	64	2425.7
4M-FBV - 2200	2200	88"	830	2800.0	77.00	58.0	68	2673.5
4M-FBV - 2400	2400	96"	910	2876.6	82.6	58.0	68	2755.9
4M-FBV - 2500	2500	100"	990	3048.0	82.6	63.5	72	2908.3
4M-FBV - 2600	2600	104"	990	3138.0	86.00	63.5	72	2994