



Centric Series Butterfly Valves

Size Range: 1 1/2" - 48"

Wafer/Lug/Flanged



MS-7 SERIES Centric Butterfly Valves

FEATURES

- With 45 years of experience in the industry, extensive reference lists in all industrial sectors and continued improvement with high quality products, we are a company to be trusted – now, tomorrow and far into the future.
- To meet customer expectations a new centric type butterfly valve with technical improvements is now introduced to the market.
- Valve designed per API 609, ASME B16.34 and ISO 5208.
- Mounting flange designed per ISO 5211 for actuator mounting, square shaft end for valve size up to INCH 24 (DN600) and round keyway shaft for valve size INCH 26 (DN650) and larger.

APPLICATIONS

HVAC
Ship Building
Petrochemical
Fire Control
Seawater
Flue Gas
Desulphurization

FEATURES

Model No.	MS-730	MS-733	MS-737
End Connection	Wafer type	Lugged type	Flanged type
Flange Drilling	ANSI 125/150.		ANSI 150.
	BS Table E. JIS 10K. PN10. PN16.		JIS 10K. PN10. PN16
Size	1 1/2"-40" (40mm-1000mm)	1 1/2"-24" (40mm-600mm)	14"-72" (350mm-1800mm)
Seat	Soft Seat		
Temperature Range	-20 °C~204 °C (-4 °F ~400 °F)		

Remark:

1. Wafer type comes with flange positioning holes while fitting on pipeline
2. Technical dimensions of stainless steel valves are different with iron valve, please refer to page 13 for details
3. When temp. $\leq -20\text{ }^{\circ}\text{C}$ ($-4\text{ }^{\circ}\text{F}$), please consult Max-Seal.

- Pressure Rating: Bi-directional bubble tight shut-off with
10bar(150psi)----(1 1/2"~72")40mm~1800mm.(STD)
16bar(230psi)----(1 1/2"~24")40mm~600mm.(OPT)
- Closure Test Pressure (per ISO 5208)
11bar(160psi)----(1 1/2"~72")40mm~1800mm.(STD)
18bar(260psi)----(1 1/2"~24")40mm~600mm.(OPT)
- Shell Test Pressure (per ISO 5208)
15bar(220psi)----(1 1/2"~72")40mm~1800mm.(STD)
24bar(340psi)----(1 1/2"~24")40mm~600mm.(OPT)
- Material required other than standard upon request.
- Anti-Condensed: upon request



ANTI-CONDENSED



LUG TYPE



WAFER TYPE



WAFER TYPE

DESIGN DETAILS

DISC INDICATION

Disc indication marked at the shaft end to clearly identify the disc opening degree at any time.

BUSHING

With self-lubricating bush design, life cycles up to 50,000 cycles without jamming.

"Q" TYPE DESIGN

No special tools required with "Q" type design for the shaft at top mounting to disassemble the shaft, Q type design available for size up to 14" (350mm).

PIN-LESS

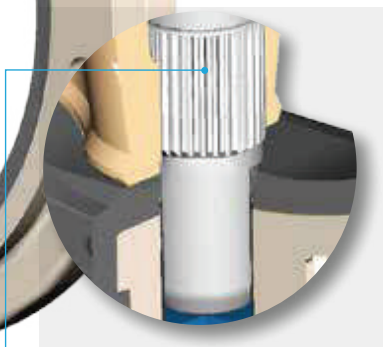
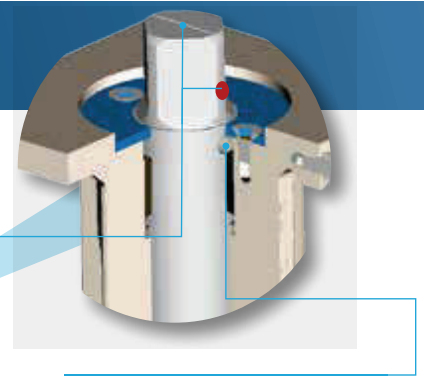
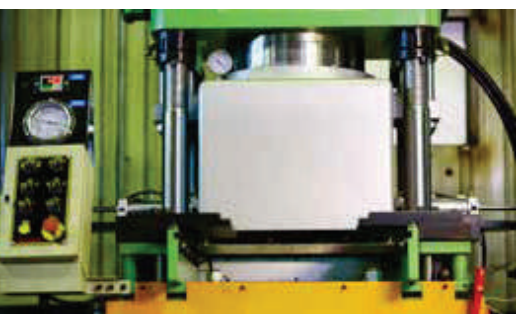
Pin-less design provides easy maintenance work.

SEAT

VF-730 with rubber seated centric type butterfly valve design.

SHAFT STRENGTH UPGRADED

Shaft strength increased by splined shaft without drilling on the shaft for taper pin.



DESIGN STANDARDS

End Connection: Wafer, Lugged, Flanged
Wall Thickness: AWWA C504, ASME B 16.34
Mounting Flange: ISO 5211
Design: ISO 5208, AWWA C504, ASME B16.34
Face to Face: API 609, ISO 5752, AWWA C504(54"~72")
Pressure Test: ISO 5208, AWWA C504(54"~72")
Marketing System: MSS-SP-25
ATEX Certificate: ATEX 2014/34/EU
ABS Certificate: ABS Steel Vessel Rules 1-1-7/7,4-6-2/5.11

(For other flange connection, please contact Max Seal Inc.)

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CERTIFICATE

TUV-Rheinland:

PED(H) (Pressure Equipment Directive)

ATEX-Atmosphere Explosibl

TR CU approval available with
(Customs Union Technical Regulations)

TR CU 032 Certificate - Gas / Liquid

TR CU 010 Certificate - Gas / Liquid

ABS-American Bureau of Shipping:

Manufacture Assessment

Design Assessmnet

CR-China Corporation Register of Shipping:

Manufacture Assessment

TS-Manufacture License of Special

Equipment People's Republic of China



CV FLOW COEFFICIENT

Size		Percent of Rated Travel									
mm	inch	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
40	1 1/2	0.7	2.5	7.3	15.0	23.2	37.9	44.2	71.0	96.0	132.2
50	2	1.2	4.0	10.7	23.2	40.0	63.2	73.7	120.3	156.4	225.8
65	2 1/2	2.1	7.9	19.2	36.9	64.2	100.0	116.7	225.0	284.3	368.6
80	3	2.6	10.3	27.4	50.5	87.4	132.7	154.8	257.5	400.4	497.3
100	4	4.0	15.4	41.1	75.8	125.3	232.7	271.5	434.4	717.9	845.9
125	5	6.8	25.3	65.3	124.3	228.5	414.9	484.0	720.9	1229.6	1454.3
150	6	10.5	43.2	100.0	184.3	343.3	570.7	665.8	1050.6	1492.6	2175.0
200	8	20.0	67.4	173.7	322.2	603.4	1047.7	1222.4	1885.8	2736.5	3655.1
250	10	29.5	106.4	258.0	474.9	880.3	1539.5	1796.1	2711.3	3857.1	5565.7
300	12	35.8	135.8	328.5	647.6	1197.3	2237.6	2610.6	3908.7	5912.5	8257.9
350	14	49.5	171.6	410.7	837.1	1577.4	2709.4	3160.9	4789.6	6810.4	9733.2
400	16	65.3	243.2	534.9	1134.1	2077.6	3560.2	4153.6	6480.5	9594.3	13405.9
450	18	79.0	269.6	653.9	1272.0	2437.7	4133.0	4821.9	7618.9	11223.1	15926.0
500	20	108.5	364.3	904.5	1781.7	3249.6	5631.4	6570.0	10244.8	15529.2	21935.2
550	22	131.6	440.2	1094.1	2155.5	3931.9	6814.0	7949.6	12395.3	18789.3	26541.5
600	24	146.4	520.2	1214.1	2515.6	4702.7	7961.7	9288.7	14375.0	21427.5	29503.9
650	26	171.6	609.7	1424.7	2952.6	5518.8	9343.3	10900.5	16869.7	25147.2	34626.2
700	28	201.1	693.9	1762.7	3394.9	6307.5	11223.9	13094.6	20990.2	29845.4	43080.6
750	30	213.8	737.1	1871.2	3601.3	6690.8	11906.3	13890.6	22267.0	31661.5	45702.5
800	32	270.6	1024.6	2424.0	4773.2	8671.5	14871.5	17350.1	27704.1	37449.6	53814.2
900	36	346.4	1319.4	3106.4	6172.7	11382.9	19147.8	22339.0	35809.2	50812.1	71421.5
950	38	484.4	1821.7	4233.1	7560.5	12815.0	20849.4	24324.3	39099.4	58425.7	72715.5
1000	40	537.0	2020.7	4692.2	8377.7	14209.2	23101.8	26952.1	43323.4	64738.6	80582.6
1050	42	591.8	2228.1	5173.4	9235.9	15665.5	25470.0	29715.0	47764.1	71374.8	88842.8
1100	44	649.7	2445.1	5677.8	10137.2	17193.4	27952.9	32611.8	52421.3	78333.3	97505.5
1200	48	772.9	2909.4	6757.1	12064.2	20460.8	33266.4	38810.8	62385.7	93224.1	116039.4

Note:

1. For other dimensions please consult with Max Seal Inc.

2. The pressure-drop corresponding to the spring action is referring to the normal torque type.

3. Cv=The number of U.S. Gallons/minute that will result in 1 psi pressure lose across the valve at temp of 15.6°C(60 °F).

4. Cv=1.17Kv

5. Where the Kv value denotes the rate in m³/hr for water at 25 °C (77 °F) flowing under pressure differential 1 Kg/cm²

$$Q = C_v \sqrt{\frac{\Delta P}{G_L}}$$

Q= flow in gpm
(U.S. gallons per minute)

Δp= pressure drop through the valve (psi)

GL= specific gravity
(for water at 15.6°C(60 °F) =1)

TORQUE CHART (Nm)

Including 30% Safety Factor

SIZE		DIFFERENTIAL PRESSURE													
mm	inch	Lubricating (Non-Corrosive) (Nm)								Dry (Non-Lubricating) (Nm)					
		3 bar	43.5 psi	6 bar	87 psi	10 bar	145 psi	16 bar	232 psi	3 bar	43.5 psi	6 bar	87 psi	10 bar	145 psi
40	1 1/2	15	133	17	150	19	168	23	204	19	168	21	186	23	204
50	2	15	133	17	150	19	168	23	204	19	168	21	186	23	204
65	2 1/2	18	159	20	177	22	195	26	230	22	195	24	212	27	239
80	3	28	248	31	274	34	301	41	363	34	301	38	336	42	372
100	4	37	327	41	363	45	398	54	478	45	398	50	443	56	496
125	5	61	540	68	602	76	673	91	805	76	673	84	743	93	823
150	6	116	1027	127	1124	140	1239	154	1363	126	1115	138	1221	152	1345
200	8	171	1513	190	1682	211	1867	253	2239	211	1867	234	2071	260	2301
250	10	275	2434	306	2708	340	3009	408	3611	340	3009	378	3345	420	3717
300	12	381	3372	423	3744	470	4160	564	4991	470	4160	522	4620	580	5133
350	14	545	4823	605	5354	672	5947	806	7133	672	5947	747	6611	830	7346
400	16	728	6443	809	7160	899	7956	1079	9549	899	7956	999	8841	1110	9824
450	18	912	8071	1013	8965	1126	9965	1351	11956	1126	9965	1251	11071	1390	12302
500	20	1135	10045	1261	11160	1401	12399	1681	14877	1401	12399	1557	13779	1730	15311
550	22	1325	11726	1472	13027	1636	14479	1963	17373	1636	14479	1818	16089	2020	17877
600	24	1373	12151	1525	13496	1695	15001	2034	18001	1695	15001	1884	16673	2093	18523
650	26	1555	13762	1727	15284	1920	16992	-	-	1920	16992	2133	18877	2370	20975
700	28	2339	20700	2599	23001	2888	25559	-	-	2888	25559	3209	28400	3566	31559
750	30	2608	23081	2898	25647	3220	28497	-	-	3220	28497	3578	31665	3975	35179
800	32	3008	26621	3342	29577	3713	32860	-	-	3713	32860	4125	36506	4583	40560
900	36	3828	33878	4253	37639	4726	41825	-	-	4726	41825	5251	46471	5834	51631
950	38	4415	39073	4920	43542	6616	58552	-	-	5450	48233	6050	53543	7100	62835
1000	40	5090	45047	5680	50268	7620	67437	-	-	6280	55578	7010	62039	9410	83279
1050	42	5611	49657	6262	55419	8401	74349	-	-	6924	61277	7728	68393	10374	91810
1100	44	6158	54498	6872	60817	9262	81969	-	-	7599	67251	8481	75057	11385	100757
1200	48	7328	64853	8178	72375	11022	97545	-	-	9043	80031	10093	89323	13548	119900

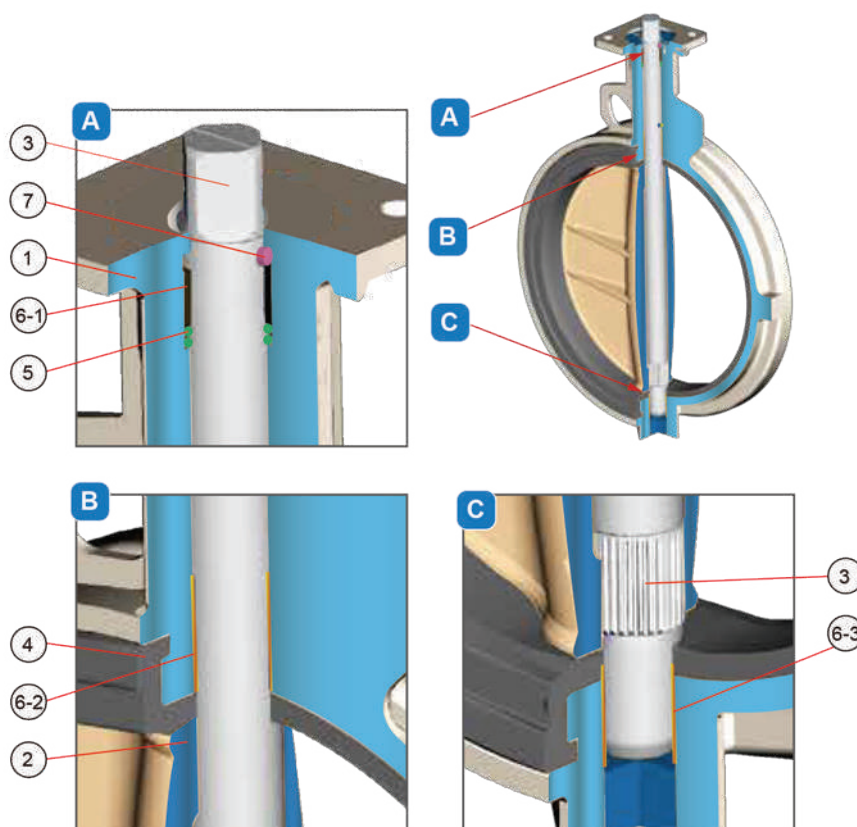
To use torque chart, note the following:

1. Seating / unseating torque valves above include, friction bearing torque for stated Δp.
2. Do not apply a safety factor to above torque valves when determining actuator output torque requirement.
3. For other dimensions please consult with us.
4. Test medium: water / room temperature

PARTS AND MATERIALS

DN 40~300
INCH 1 1/2~12

WAFER TYPE	MS-730	SIZE	1 1/2	12	14	24	26	40	72
LUG TYPE	MS-733								
FLANGE TYPE	MS-737								
		INCH	40	300	350	600	650	1000	1800
		DN							



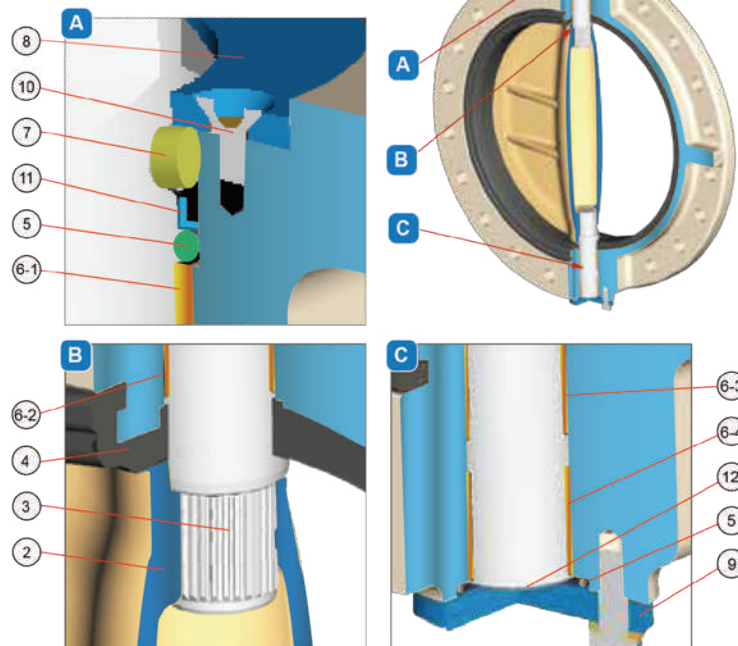
No.	NAME	MATERIAL	SPECIFICATION		REMARK
			JIS	ASTM	
1	BODY	CAST IRON	FC 200	A126 Cl. B	
		DUCTILE IRON	FCD 450	A536-65-45-12	
2	DISC	DUCTILE IRON	FCD 400	A395-60-40-18	Nylon 11 coated
			FCD 450	A536-65-45-12	
		STAINLESS STEEL	SCS 13A	A351 Gr. CF8	
			SCS 14A	A351 Gr. CF8M	
3	SHAFT	STAINLESS STEEL	ALU-BRONZE	B148 C95400	
			SUS 410	A182 Gr. F6A	
			SUS 304	A182 Gr. F304	
			SUS 316	A182 Gr. F316	
4	SEAT	NBR (NITRILE)			-10°C~90°C (14°F~194°F)
		EPDM			-20°C~120°C (-4°F~248°F)
		EPT			-20°C~140°C (-4°F~284°F)
		WHITE EPT			-20°C~140°C (-4°F~284°F)
		NEOPRENE(CR)			0°C~ 80°C (32°F~176°F)
		SILICON			-20°C~180°C (-4°F~356°F)
		FKM			-18°C~204°C (-0.4°F~400°F)
5	O-RING	NBR(NITRILE)			*
6-1	BUSHING	DELFIN			*
6-2		RPTFE+STAINLESS STEEL	RTFE+SUS 316	RTFE+A240 Gr. 316	*
6-3		BRONZE	BC 6	B62	*For cast iron and ductile iron body
7	PIN	STAINLESS STEEL	SUS 304	A182 Gr. F304	*

- Each material can be adjusted to fit customer requirements and processes.
- *We offer high quality replacement parts for our own products.

PARTS AND MATERIALS

WAFFER TYPE MS-730	SIZE	1 1/2	12	14	24	26	40	72
LUG TYPE MS-733								
FLANGE TYPE MS-737								
INCH		1 1/2	12	14	24	26	40	72
DN		40	300	350	600	650	1000	1800

DN 350~600
INCH 14~24



No.	NAME	MATERIAL	SPECIFICATION		REMARK
			JIS	ASTM	
1	BODY	CAST IRON	FC 200	A 126 Cl. B	
		DUCTILE IRON	FCD 450	A536-65-45-12	
			FCD 400	A395-60-40-18	
		STAINLESS STEEL	SCS 13A	A351 Gr.CF8	
			SCS 14A	A351 Gr.CF8M	
2	DISC	CARBON STEEL	SC 480	A216 Gr. WCB	
		DUCTILE IRON	FCD 450	A536-65-45-12	Nylon 11 coated
			FCD 400	A395-60-40-18	
		STAINLESS STEEL	SCS 13A	A351 Gr. CF8	
			SCS 14A	A351 Gr. CF8M	
3	SHAFT	ALU-BRONZE	ALBC 2	B 148 C95400	
		STAINLESS STEEL	SUS 410	A 182 Gr. F6A	
			SUS 304	A 182 Gr. F304	
			SUS 316	A 182 Gr. F316	
			SUS 630	A 564 Gr. 630	
4	SEAT	NBR (NITRILE)			-10°C~ 90°C (14°F~194°F)
		EPDM			-20°C~120°C (-4°F~248°F)
		EPT			-20°C~140°C (-4°F~284°F)
		WHITE EPT			-20°C~140°C (-4°F~284°F)
		NEOPRENE(CR)			0°C~ 80°C (32°F~176°F)
		SILICON			-20°C~180°C (-4°F~356°F)
5	O-RING	FKM			-18°C~204°C (-0.4°F~400°F)
6-1	BUSHING	NBR(NITRILE)			*
6-2		RTFE+STAINLESS STEEL	RTFE+SUS 316	RTFE+A240 Gr. 316	
6-3					
6-4					
7	PIN	STAINLESS STEEL	SUS 304	A 182 Gr. F304	*
8	UPPER COVER	CAST IRON	FC 200	A 126 Cl. B	For cast iron, ductile iron body.
		STAINLESS STEEL	SUS 13A	A351 Gr.CF8	For stainless steel body
			SUS 14A	A351 Gr.CF8M	
9	BOTTOM COVER	CAST IRON	FC 200	A 126 Cl. B	For cast iron, ductile iron body
		STAINLESS STEEL	SUS 13A	A351 Gr.CF8	For stainless steel body
			SUS 14A	A351 Gr.CF8M	
10	BOLT	STEEL			
11	THRUST RING	STAINLESS STEEL	SUS 304	A240 Gr. 304	*
12	PACKING	PTFE			

1. Each material can be adjusted to fit customer requirements and processes.

2. *We offer high quality replacement parts for our own products.

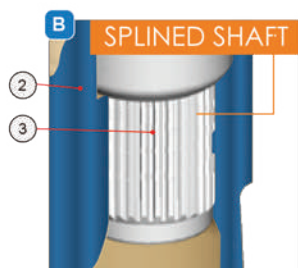
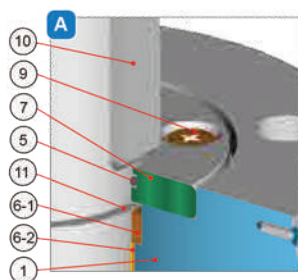
PARTS AND MATERIALS

DN 650~1800
INCH 26~72

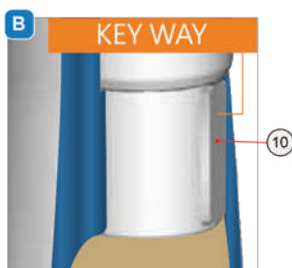
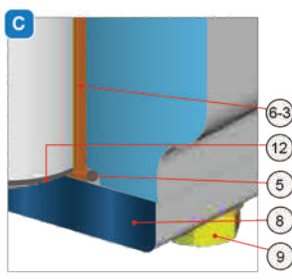
WAFLER TYPE MS-730
LUG TYPE MS-733
FLANGE TYPE MS-737

INCH 1 1/2 12 14 24 26 40 72
DN 40 300 350 600 650 1000 1800

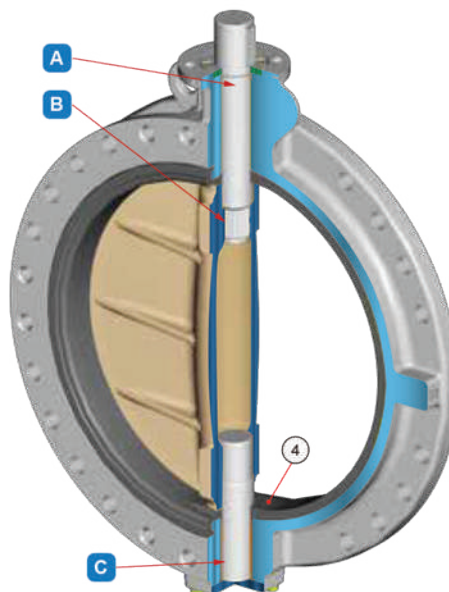
SIZE



DN 650-900
(INCH 26~36)



DN 950-1800
(INCH 38~72)

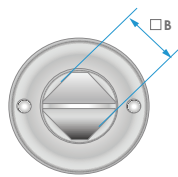


No.	NAME	MATERIAL	SPECIFICATION		REMARK
			JIS	ASTM	
1	BODY	DUCTILE IRON	FCD450	A536-65-45-12	
			FCD 400	A395-60-40-18	
		STAINLESS STEEL	SCS 13A	A351 Gr.CF8	
			SCS 14A	A351 Gr.CF8M	
		CARBON STEEL	SC 480	A216 Gr. WCB	
2	DISC	DUCTILE IRON	FCD 450	A536-65-45-12	Nylon 11 coated
			FCD 400	A395-60-40-18	
		STAINLESS STEEL	SCS 13A	A351 Gr. CF8	
			SCS 14A	A351 Gr. CF8M	
		ALU-BRONZE	ALBC 2	B148 C95400	
3	SHAFT	STAINLESS STEEL	SUS 410	A 182 Gr. F6A	
			SUS 304	A 182 Gr. F304	
			SUS 316	A 182 Gr. F316	
			SUS 630	A 564 Gr. 630	
4	SEAT	NBR (NITRILE)			-10°C~ 90°C (14°F~194°F)
		EPDM			-20°C~120°C (-4°F~248°F)
		EPT			-20°C~140°C (-4°F~284°F)
		WHITE EPT			-20°C~140°C (-4°F~284°F)
		NEOPRENE(CR)			0°C~ 80°C (32°F~176°F)
		SILICON			-20°C~180°C (-4°F~356°F)
		FKM			-18°C~204°C (-0.4°F~400°F)
5	O-RING	NBR(NITRILE)			*
6-1	BUSHING	BRONZE	BC 6	B62	
6-2		RTFE+	RTFE+	RTFE+	
6-3		STAINLESS STEEL	SUS 316	A240 Gr. 316	
7	UPPER COVER	DUCTILE IRON	SS 400	A36	For ductile iron body.
			SUS 304	A240 Gr. 304	
		STAINLESS STEEL	SUS 316	A240 Gr. 316	For stainless steel body.
8	BOTTOM COVER	DUCTILE IRON	SS 400	A36	For ductile iron body.
			SUS 304	A240 Gr. 304	
		STAINLESS STEEL	SUS 316	A240 Gr. 316	For stainless steel body.
9	BOLT	STEEL			
10	THRUST RING	STAINLESS STEEL	SUS 304	A240 Gr. 304	
11	PACKING	PTFE			
12	KEY	STEEL			

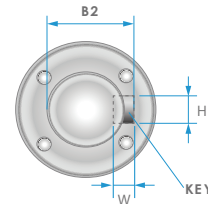
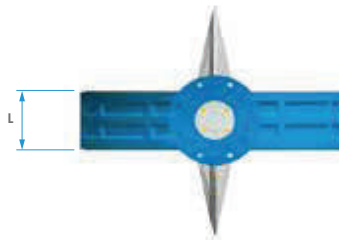
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Materials

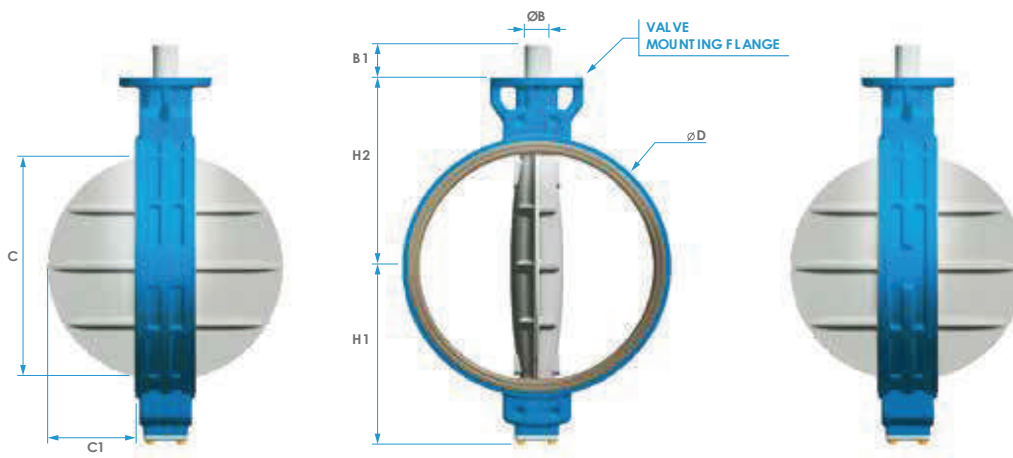
DIMENSIONS AND WEIGHTS



DN 40~ 600
INCH 1 1/2"~24"



DN 650~1000
INCH 26"~40"

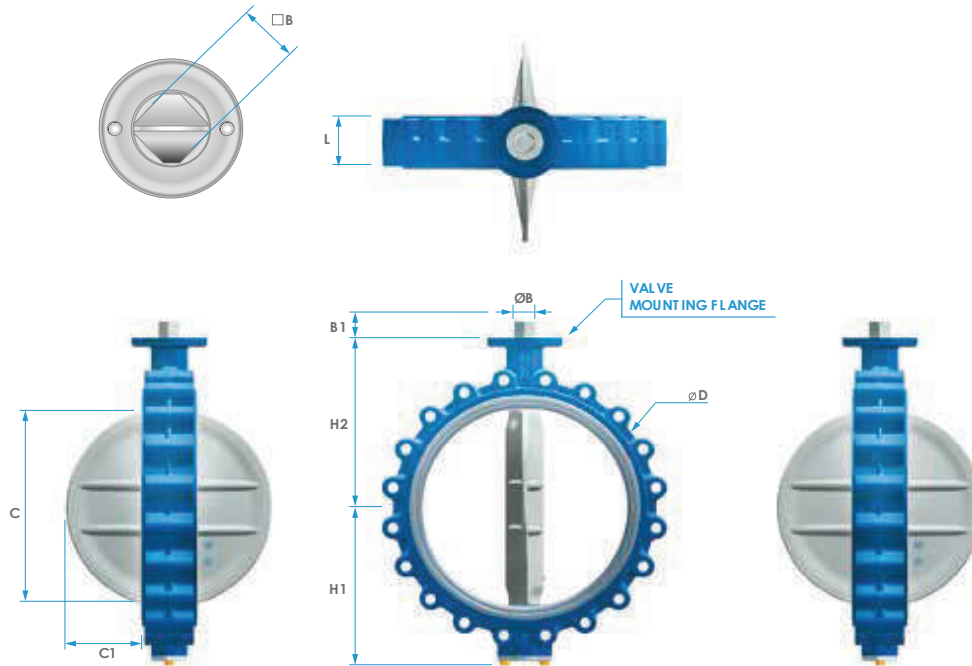


Unit : mm

SIZE		FACE TO FACE		DIMENSIONS										MOUNTING FLANGE (ISO 5211)		SHAFT END					WEIGHT	
		L		H1		H2		ØD		C		C1		VALVE		ØB	B1	B2	KEY (H*W)	αB	kg	lbs
DN	NPS	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	TYPE	PCD							
40	1 1/2	33	1.30	60	2.36	120	4.72	81	3.19	34	1.34	7	0.28	F07	70	14.00	19	-	-	11	2	4.41
50	2	43	1.69	65	2.56	143	5.63	96	3.78	39	1.54	8	0.31	F07	70	14.00	19	-	-	11	3	6.61
65	2 1/2	46	1.81	71	2.80	155	6.10	110	4.33	55	2.17	13	0.51	F07	70	14.00	19	-	-	11	4	8.82
80	3	46	1.81	77	3.03	162	6.38	124	4.88	69	2.72	19	0.75	F07	70	14.00	19	-	-	11	4	8.82
100	4	52	2.05	107	4.21	181	7.13	148	5.83	91	3.58	27	1.06	F07	70	14.00	19	-	-	11	6	13.23
125	5	56	2.20	122	4.80	197	7.76	180	7.09	115	4.53	36	1.42	F07	70	17.90	19	-	-	14	8	17.64
150	6	56	2.20	150	5.91	210	8.27	206	8.11	140	5.51	47	1.85	F07	70	17.90	19	-	-	14	9	19.84
200	8	60	2.36	165	6.50	240	9.45	259	10.20	186	7.32	68	2.68	F10/*F12	102/*125	22.00	24	-	-	17	14	30.86
250	10	68	2.68	201	7.91	286	11.26	320	12.60	239	9.41	90	3.54	F10/*F12	102/*125	25.00	24	-	-	19	22	48.50
300	12	78	3.07	234	9.21	309	12.17	370	14.57	289	11.38	111	4.37	F10/*F12	102/*125	27.85	24	-	-	22	33	72.75
350	14	78	3.07	303	11.93	329	12.95	412	16.22	325	12.80	128	5.04	F12/*F14	125/*140	35.00	29	-	-	27	48	105.82
400	16	102	4.02	335	13.19	361	14.21	475	18.70	375	14.76	143	5.63	F12/*F14	125/*140	35.00	29	-	-	27	60	132.28
450	18	114	4.49	363	14.29	393	15.47	530	20.87	423	16.65	162	6.38	F14/*F16	140/*165	47.70	38	-	-	36	80	176.37
500	20	127	5.00	397	15.63	427	16.81	585	23.03	473	18.62	182	7.17	F14/*F16	140/*165	47.70	38	-	-	36	125	275.58
550	22	154	6.06	426	16.77	475	18.70	635	25.00	507	19.96	186	7.32	F14/*F16	140/*165	47.70	38	-	-	36	130	286.60
600	24	154	6.06	459	18.07	492	19.37	687	27.05	560	22.05	214	8.43	F16	165	60.00	48	-	-	46	200	440.92
650	26	165	6.50	489	19.25	515	20.28	712	28.03	607	23.90	232	9.13	F16	165	65.00	90	69.50	18*12	-	194	427.70
700	28	165	6.50	511	20.12	563	22.17	790	31.10	655	25.79	255	10.04	F16	165	74.70	90	79.20	20*12	-	249	548.95
750	30	190	7.48	544	21.42	585	23.03	846	33.31	692	27.24	264	10.39	F25	254	74.70	110	79.20	20*12	-	316	696.66
800	32	190	7.48	592	23.31	630	24.80	870	34.25	736	28.98	285	11.22	F25	254	79.50	110	87.50	24*16	-	365	804.69
900	36	203	7.99	632	24.88	660	25.98	972	38.27	841	33.11	331	13.03	F25	254	84.50	110	92.50	24*16	-	424	934.76
1000	40	216	8.50	698	27.48	749	29.49	1090	42.91	941	37.05	375	14.76	F30	298	99.30	155	105.30	28*16	-	648	1428.60

- *Other dimensions please consult with us.
- Size of Stainless Steel is 12" and below, please see page13.
- Inside Pipe Diameter > C

DIMENSIONS AND WEIGHTS



Unit : mm

SIZE		FACE TO FACE		DIMENSIONS										MOUNTING FLANGE (ISO 5211)		SHAFT END			WEIGHT	
		L		H1		H2		ØD		C		C1		VALVE		ØB	B1	□B	kg	lbs
DN	NPS	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	TYPE	PCD					
40	1 1/2	33	1.30	60	2.36	120	4.72	81	3.19	34	1.34	7	0.28	F07	70	14.00	19	11	3	6.61
50	2	43	1.69	65	2.56	143	5.63	96	3.78	39	1.54	8	0.31	F07	70	14.00	19	11	4	8.82
65	2 1/2	46	1.81	71	2.80	155	6.10	110	4.33	55	2.17	13	0.51	F07	70	14.00	19	11	4	8.82
80	3	46	1.81	77	3.03	162	6.38	124	4.88	69	2.72	19	0.75	F07	70	14.00	19	11	5	11.02
100	4	52	2.05	89	3.50	181	7.13	148	5.83	91	3.58	27	1.06	F07	70	14.00	19	11	8	17.64
125	5	56	2.20	112	4.41	197	7.76	180	7.09	115	4.53	36	1.42	F07	70	17.90	19	14	10	22.05
150	6	56	2.20	123	4.84	210	8.27	206	8.11	140	5.51	47	1.85	F07	70	17.90	19	14	11	24.25
200	8	60	2.36	150	5.91	240	9.45	259	10.20	186	7.32	68	2.68	F10/*F12	102/*125	22.00	24	17	18	39.68
250	10	68	2.68	179	7.05	286	11.26	320	12.60	239	9.41	90	3.54	F10/*F12	102/*125	25.00	24	19	27	59.52
300	12	78	3.07	216	8.50	309	12.17	370	14.57	289	11.38	111	4.37	F10/*F12	102/*125	27.85	24	22	44	97.00
350	14	78	3.07	303	11.93	329	12.95	412	16.22	325	12.80	128	5.04	F12/*F14	125/*140	35.00	29	27	58	127.87
400	16	102	4.02	335	13.19	361	14.21	475	18.70	375	14.76	143	5.63	F12/*F14	125/*140	35.00	29	27	81	178.57
450	18	114	4.49	363	14.29	393	15.47	530	20.87	423	16.65	162	6.38	F14/*F16	140/*165	47.70	38	36	110	242.51
500	20	127	5.00	397	15.63	427	16.81	585	23.03	473	18.62	182	7.17	F14/*F16	140/*165	47.70	38	36	155	341.72
600	24	154	6.06	459	18.07	492	19.37	687	27.05	560	22.05	214	8.43	F16	165	60.00	48	46	318	701.07

1. *Other dimensions please consult with us.

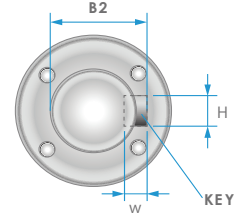
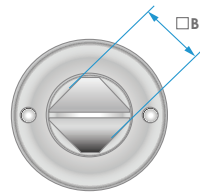
2. Size of Stainless Steel is 12" and below, please see page13.

3. Inside Pipe Diameter > C

MS-737 FLANGE TYPE

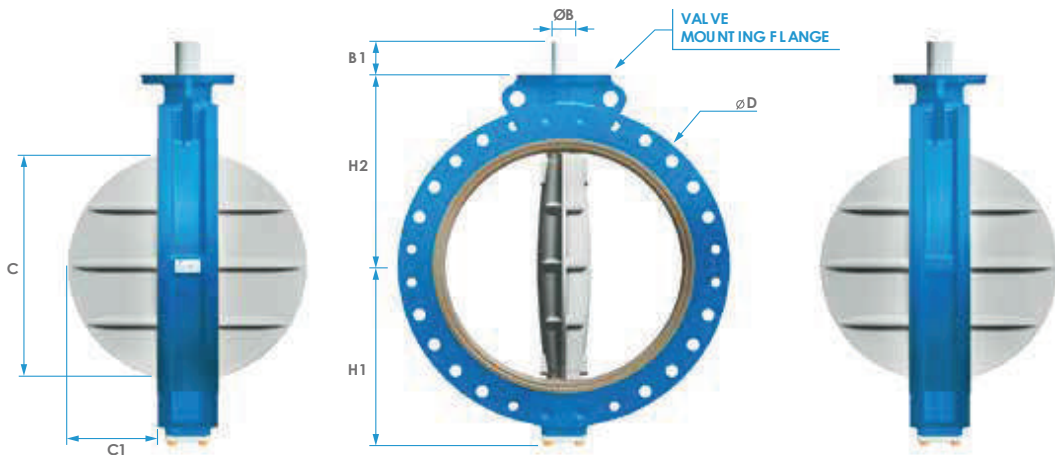
DN 350~1800
INCH 14~72

DIMENSIONS AND WEIGHTS



DN 350~DN 600
INCH 14"~24"

DN 650~DN 1800
INCH 26"~72"



Unit : mm

SIZE		FACE TO FACE		DIMENSIONS										MOUNTING FLANGE (ISO 5211)		SHAFT END					THICKNESS OF FLANGE		WEIGHT	
		L		H1		H2		ØD		C		C1		VALVE		ØB	B1	B2	KEY (H*W)	ØB	T		kg	lbs
DN	NPS	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	TYPE	PCD						mm	in		
350	14	78	3.07	303	11.93	329	12.95	535	21.06	325	12.80	128	5.04	F12/*F14	125/*140	35.00	29	-	-	27	21	0.83	69	152.12
400	16	102	4.02	335	13.19	361	14.21	600	23.62	375	14.76	143	5.63	F12/*F14	125/*140	35.00	29	-	-	27	22	0.87	95	209.44
450	18	114	4.49	363	14.29	393	15.47	648	25.51	423	16.65	162	6.38	F14/*F16	140/*165	47.70	38	-	-	36	27	1.06	129	284.40
500	20	127	5.00	397	15.63	427	16.81	715	28.15	473	18.62	182	7.17	F14/*F16	140/*165	47.70	38	-	-	36	30	1.18	161	354.94
550	22	154	6.06	426	16.77	475	18.70	762	30.00	507	19.96	186	7.32	F14/*F16	140/*165	47.70	38	-	-	36	31	1.22	191	421.08
600	24	154	6.06	459	18.07	492	19.37	840	33.07	560	22.05	214	8.43	F16	165	60.00	48	-	-	46	36	1.42	248	546.75
650	26	165	6.50	489	19.25	515	20.28	870	34.25	607	23.90	232	9.13	F16	165	65.00	90	69.50	18*12	-	40	1.57	294	648.16
700	28	165	6.50	511	20.12	563	22.17	927	36.50	655	25.79	255	10.04	F16	165	74.70	90	79.20	20*12	-	40	1.57	329	725.32
750	30	190	7.48	544	21.42	585	23.03	997	39.25	692	27.24	264	10.39	F25	254	74.70	110	79.20	20*12	-	40	1.57	431	950.19
800	32	190	7.48	592	23.31	630	24.80	1060	41.73	736	28.98	285	11.22	F25	254	79.50	110	87.50	24*16	-	44	1.73	507	1117.74
900	36	203	7.99	632	24.88	660	25.98	1170	46.06	841	33.11	331	13.03	F25	254	84.50	110	92.50	24*16	-	46	1.81	621	1369.07
950	38	216	8.50	682	26.85	729	28.70	1238	48.74	889	35.00	350	13.78	F25	254	94.30	110	100.30	28*16	-	50	1.97	750	1653.47
1000	40	216	8.50	698	27.48	749	29.49	1289	50.75	941	37.05	375	14.76	F30	298	99.30	155	105.30	28*16	-	50	1.97	810	1785.74
1050	42	216	8.50	761	29.96	813	32.01	1346	52.99	979	38.54	393	15.47	F30	298	99.30	155	105.30	28*16	-	50	1.97	859	1893.77
1100	44	216	8.50	768	30.24	814	32.05	1403	55.24	1026	40.39	416	16.38	F30	298	109.30	180	116.30	32*18	-	50	1.97	931	2052.50
1200	48	254	10.00	814	32.05	870	34.25	1511	59.49	1132	44.57	453	17.83	F30	298	109.30	180	116.30	32*18	-	56	2.20	1161	2559.57
1300	52	381	15.00	833	32.80	927	36.50	1626	64.02	1202	47.32	440	17.32	F35	356	144.00	180	152.00	36*20	-	60	2.36	-	-
1350	54	381	15.00	862	33.94	956	37.64	1683	66.26	1267	49.88	471	18.54	F35	356	146.00	180	154.00	36*20	-	62	2.44	-	-
1400	56	381	15.00	893	35.16	987	38.86	1746	68.74	1298	51.10	486	19.13	F35	356	149.00	180	157.00	36*20	-	62	2.44	-	-

1. *Other dimensions please consult with us.

2. Inside Pipe Diameter > C

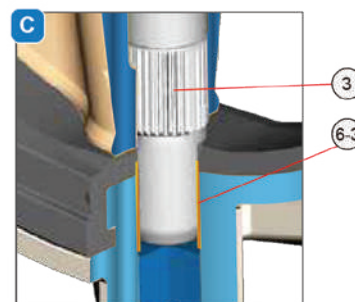
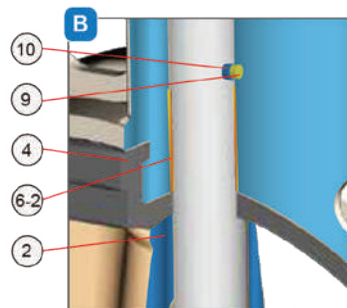
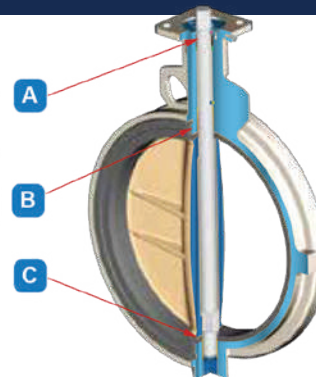
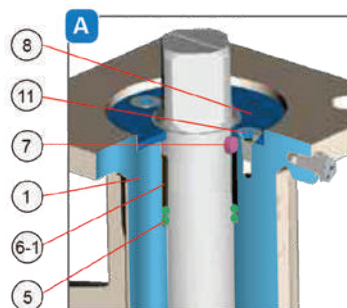
DN 40~300
INCH 1 1/2~12

WAFER TYPE MS-730
LUG TYPE MS-733
FLANGE TYPE MS-737

INCH 1 1/2 12 14 24 26 40 72
DN 40 300 350 600 650 1000 1800

We offer a new line of butterfly valves with stainless steel investment cast bodies(1) and discs (2) from size DN40 up to DN300 (12") IN BOTH WAFER AND LUG TYPES.

This line of valves has the same design features of MS-730/733 valves, plus the advantage parts like RTFE+SS 304 bushings (6-2,6-3), upper cover (8), stainless steel lever operator set and gear box etc., to reach a high integrity corrosion resistance exterior for use in aggressive environment.



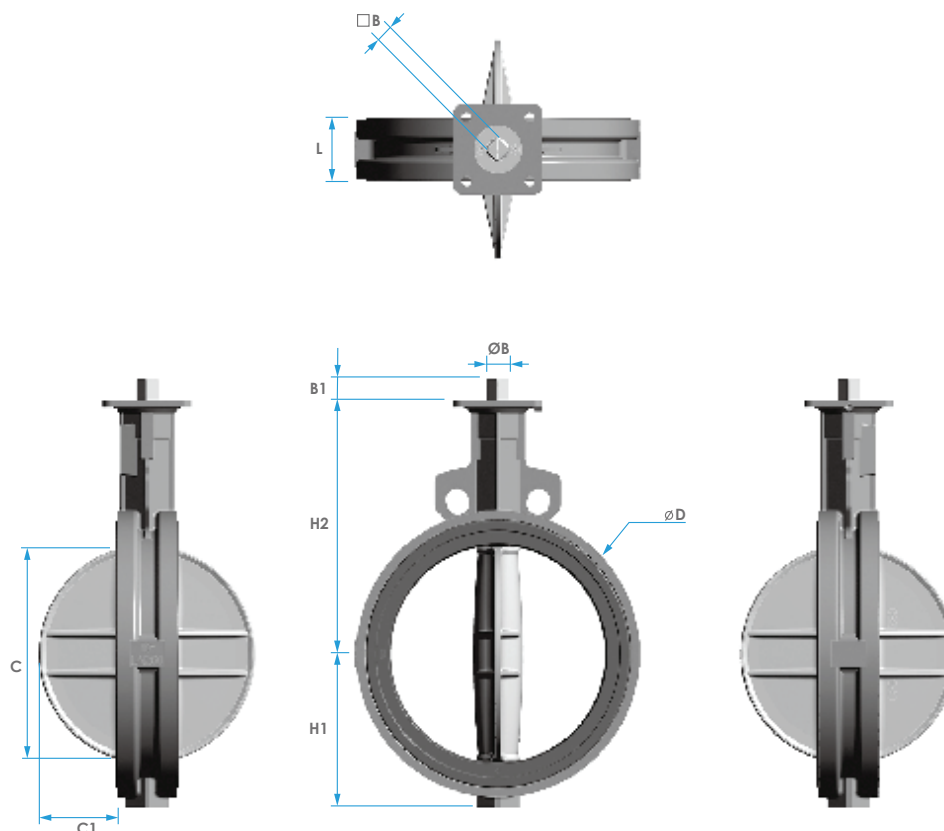
Anti static device (9, 10) has to be equipped with this valve, since the valve disc & stem are isolated by rubber liner and stem bushings. It will collect the static, which result from the friction between the fluids and disc. In order to prevent the dangers caused by static, the antistatic device is required.

No.	NAME	MATERIAL	SPECIFICATION		REMARK
			JIS	ASTM	
1	BODY	STAINLESS STEEL	SCS 13A	A351 Gr.CF8	
		CARBON STEEL	SC 480	A216 Gr. WCB	
2	DISC	STAINLESS STEEL	SCS 13A	A351 Gr. CF8	
			SCS 14A	A351 Gr. CF8M	
3	SHAFT	STAINLESS STEEL	SUS 410	A182 Gr. F6A	
			SUS 304	A182 Gr. F304	
			SUS 316	A182 Gr. F316	
			SUS 630	A564 Gr. 630	
4	SEAT	NBR (NITRILE)			-10°C~ 90°C (14°F~194°F)
		EPDM			-20°C~120°C (-4°F~284°F)
		EPT			-20°C~140°C (-4°F~284°F)
		WHITE EPT			-20°C~140°C (-4°F~284°F)
		NEOPRENE(CR)			0°C~ 80°C (32°F~176°F)
		SILICON			-20°C~180°C (-4°F~356°F)
		FPM			-18°C~204°C (-0.4°F~400°F)
5	O-RING	NBR(NITRILE)			*
6-1	BUSHING	DELTRIN			*
6-2		PTFE+STAINLESS STEEL	RTFE+SUS 316	RTFE+A240 Gr. 316	*
6-3					
7	PIN	STAINLESS STEEL	SUS 304	A182 Gr. F304	*
8	UPPER COVER	STAINLESS STEEL	SUS 304	A240 Gr. 304	
9	PIN(ANTI-STATIC)	STAINLESS STEEL	SUS 304	A182 Gr. F304	*
10	SPRING	STAINLESS STEEL	SUS 304	A182 Gr. F304	*
11	BOLT	STAINLESS STEEL	SUS 304	A193 Gr. B8	

1. Each materials can provide on different process of customer's requirements.

2. *We offer high quality replacement parts for our own product.

DIMENSIONS AND WEIGHTS



Unit : mm

SIZE		FACE TO FACE		DIMENSIONS												MOUNTING FLANGE (ISO 5211)		SHAFT END			WEIGHT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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1. *Other dimensions please consult with us.

2. Inside Pipe Diameter > C

General Ordering Information

Value Model Number Codes

MS	-	TYPE		-	SIZE	-	BODY DISC SHAFT			-	SEAT	-	FLANGE DRILLING	-	OPERATOR
		73	X				X	X	X						

END CONNECTION	
0	WAFER
3	LUG
7	FLANGE

SIZE	mm/in
015	40/1.5
02	50/2
025	65/2.5
03	80/3
04	100/4
05	125/5
06	150/6
08	200/8
10	250/10
12	300/12
14	350/14
16	400/16
18	450/18
20	500/20
24	600/24
26	650/26
28	700/28
30	750/30
32	800/32
34	850/34
36	900/36
38	950/38
40	1000/40
42	1050/42
44	1100/44
48	1200/48

BODY		DISC		SHAFT	
13	CF8	13	CF8	XM	XM-19
14	CF8M	14	CF8M	D2	SS 32205
D5	A536	D5	A536	10	F6A
D3	A395	AB	ALBC2	34	F304
WC	WCB	0	OTHER	16	F316
0	OTHER			63	A564 630
				0	OTHER

OPERATOR	
N	BARE SHAFT
G	GEAR BOX
P	PNEUMATIC
E	ELECTRIC
H	HYDRAULIC
L	LEVER

FLANGE DRILLING	
A	ANSI 150 LB
B	PN 10
C	PN 16
F	JIS 10K
L	A.S. 10 Table E

SEAT	
NB	NBR (NITRILE)
EP	EPDM
ET	EPT
WET	WHITE EPT
CR	NEOPRENE(CR)
SI	SILICON
VT	FKM

Note: Example MS-730-08-1314XM-ET-F-N

Shall be a: Centric butterfly valve(73) Wafer Type(0) DN200(08)
CF8 Body(13) CF8M Disc(14) Shaft in XM-19(XM)
Seat in EPT(ET) JIS 10K(F) Bare Shaft(N)

* For any other special offers, please contact us.

Most exotic alloys are available upon request.

Max-Seal offers many automation options for precise proportioning or electrically powered units.





**DOUBLE AND TRIPLE
OFFSET HIGH PERFORMANCE**