

PRODUCT / DESIGN DATA

General Description	BUTTERFLY VALVE
Design Code	EN 593 & API 609
Type	Concentric
End Connection	Wafer type – Mono flange
Size Range	DN 50 - 1000, NPS 2" - 40"
End connection	EN 1092 PN 6, 10 and 16 ASME B16.5 cl. 150 / B16.47 cl. 150 MSS SP 44 cl. 150 AWWA C207 cl. B, D and E BS 10 table D and E JIS 5K/10K/16K
Body Material	See Parts List
Body Seat	Non replaceable rubber lining, vulcanized, bonded to the body
Trim Material	See Parts List
Design pressure PS	10/16 bar - optional 20 bar
Design temperature TS	Min. -20 °C (-4 °F) to max. +200 °C (392 °F), depending on materials selected
Face to Face	EN 558 Table 2 - Series 20 ISO 5752 Table 1 - Series 20 API 609 Table 2 - Cat. A
Shaft Seal Design	O-ring
Driving Shaft	With indication for position of the disc

OPTIONS

Anti-Static Design	Compliant with EN 736/3 and API 609
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**TESTING PROCEDURES**

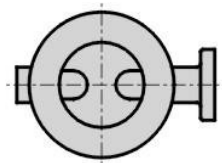
Shell strength test	EN 12266-1, P10 ISO 5208 API 598
Shell tightness test	EN 12266-1, P11 ISO 5208 API 598
Seat tightness test	EN 12266-1, P12, Rate A ISO 5208, Rate A API 598
Operability test	EN 12266-2, F20 ISO 5208 API 598

FUNCTIONAL CHARACTERISTICS

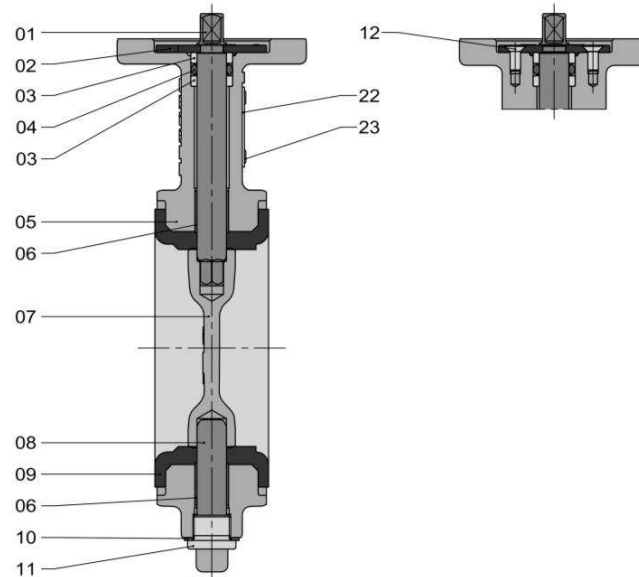
Application	Isolating, regulating, control valve
Flow velocity	Max. 5 m/s for liquids, max. 50 m/s for gases
Seat tightness rate	ISO 5208 rate A - Bi-directional bubble tight

MARKING & CERTIFICATION

Marking	EN 19, MSS SP 25
Certification	EN 10204 - 2.2, 3.1, 3.2

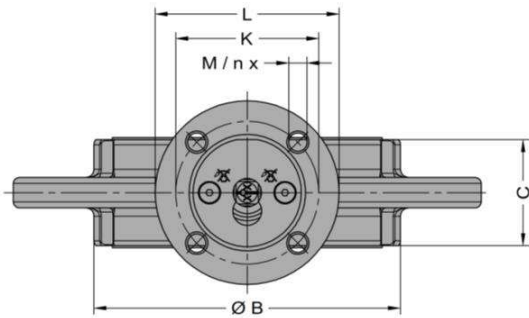
PREFERRED POSITION WHEN INSTALLED IN HORIZONTAL PIPELINE

PARTS LIST - EVMS-i 50-350 (2"-14")

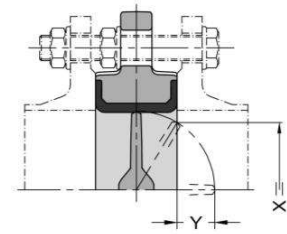


Item	Description	Material ⁽¹⁾	Standard	Comparable ASME
01	Shaft	Duplex SS Super Duplex SS Martensitic SS Aluminium Bronze Monel K500 [®]	1.4462, EN 10088 1.4501, EN 10272 1.4021, EN 10088 CuAl10Ni5Fe4, EN 12163 NA 18, BS 3076	SA 182, Grade F51 SA 479, UNS 32760 SA 276, Grade 420 SB 150, C63000 -
02	Anti-blow-out cover	POM Steel - zinc plated	Polyoxymethylene, ISO 29988-1	
03	Radial bearing	POM Bronze	Polyoxymethylene, ISO 29988-1 CC493K, EN 1982	
04	O-ring	EPDM NBR FPM		
05	Body	Ductile Iron Ductile Iron (low temp.) Carbon Steel Bronze Bronze Bronze	5.3106, EN 1563 (JS1030) 5.3103, EN 1563 (JS1049) 1.0619, EN 10213 2.1096.01, DIN 1705 (CC491K, EN 1982) 2.1086.01, DIN 1705 (CC482K, EN 1982) CC493K, EN 1982	SA 395, 60-40-18 - SA 216, WCB SB 584, C83600 SB 584, C90500 SB 584, C93200
06	Bearing	Steel / PTFE Lining Bronze / PTFE Lining		
07	Disc	Martensitic SS Martensitic SS Austenitic SS Duplex SS Duplex SS Super Duplex SS Ductile Iron / Rilsan coated ⁽²⁾ Aluminium Bronze Bronze Bronze	- 1.4405, EN 10213 1.4408, EN 10213 1.4517, EN 10213 1.4470, EN 10213 1.4469, EN 10213 5.3106, EN 1563 (JS1030) CC333G, EN 1982 2.1096.01, DIN 1705 (CC491K, EN 1982) 2.1086.01, DIN 1705 (CC482K, EN 1982)	SA 352, CA6NM - SA 351, CF8M SA 351, CD-4MCu SA 351, Grade 4A SA 995, Grade 5A/6A SA 395, 60-40-18 SB 148, C95800 SB 584, C83600 SB 584, C90500
08	Shaft	See Item 01	See Item 01	See Item 01
09	Lining	EPDM NBR FPM Silicone		
10	Seal ring	SS/NBR		
11	Plug	Steel - zinc plated		
12	Hex sch screw	Steel - zinc plated		
22	Identification plate	SS		
23	Blind rivet	SS		

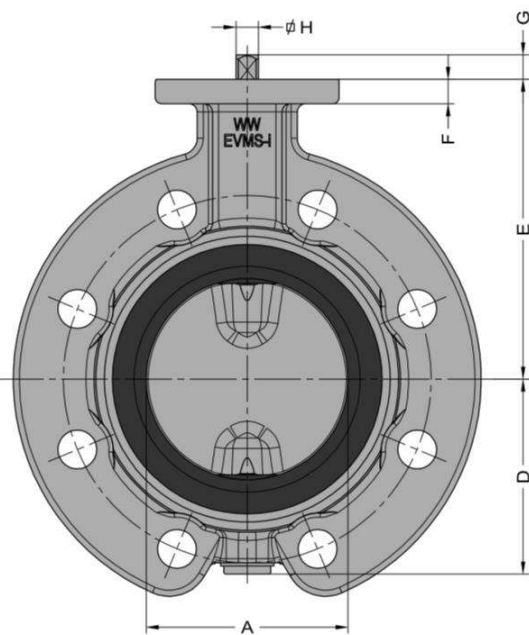
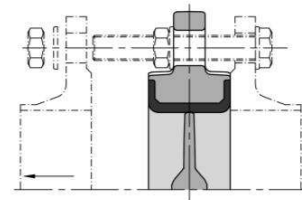
⁽¹⁾ Other materials on request.⁽²⁾ Other coating on request.

DIMENSIONS – EVMS-i 50-350 (1,5"-14")


IN LINE INSTALLATION



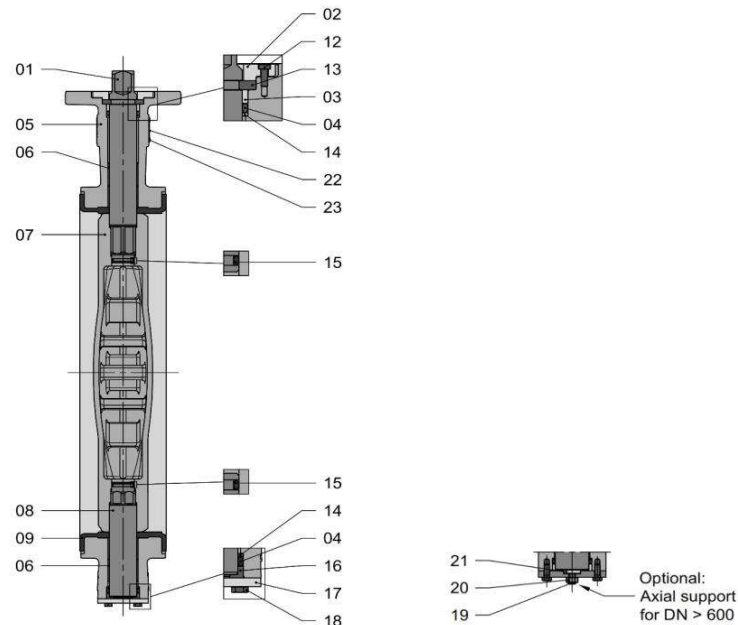
DEAD END SERVICE



Optional: EV-shaft

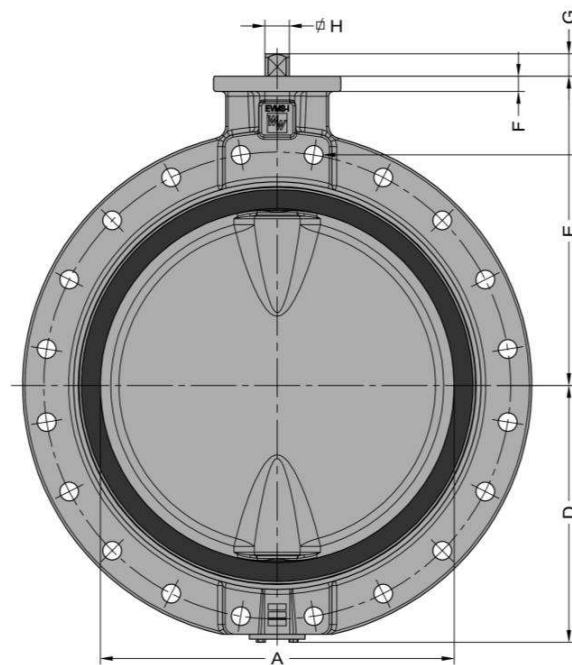
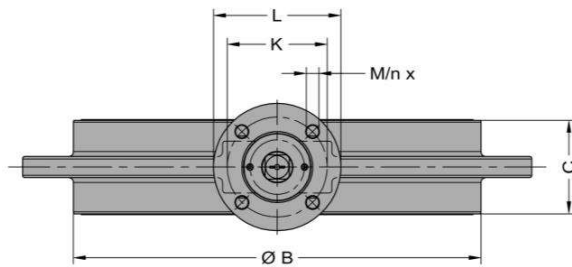
DN	NPS	PS max [bar]	A	B	C	D	E	F	G	H	ISO 5211	K	L	M	n	X	Y	MASS ±kg
50	2"	16	50	100	43	63	118	12	15	10 9	F07	70	90	9	4	27	4	3
65	2.5"	16	65	115	46	71	126	12	15	10 9	F07	70	90	9	4	47	10	3.5
80	3"	16	80	130	46	78	133	12	15	10 9	F07	70	90	9	4	67	18	4
100	4"	16	100	150	52	98	147	12	15	12 11	F07	70	90	9	4	87	25	5
125	5"	16	125	182	56	109	160	12	16	12 14	F07	70	90	9	4	113	35	7
150	6"	16	150	210	56	133	180	14	16	16 14	F07	70	90	9	4	140	48	10
200	8"	16	200	262	60	158	204	14	19	16 17	F07	70	90	9	4	191	70	15
250	10"	16	250	315	68	194	245	15	24	24 22	F10	102	125	11	4	242	92	25
300	12"	16	300	371	78	219	270	15	24	24 22	F10	102	125	11	4	289	111	36
350	14"	16	336	405	78	236	315	15	24	24 22	F12	125	150	13	4	328	130	45

PARTS LIST - EVTLS-i 400-1000 (16"-40")

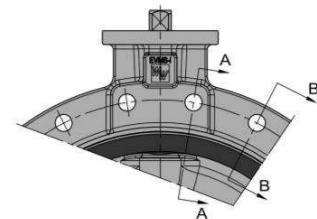


Item	Description	Material ⁽¹⁾	Standard	Comparable ASME
01	Shaft	Duplex SS Super Duplex SS Martensitic SS Aluminium Bronze Monel K500 [*]	1.4462, EN 10088 1.4501, EN 10272 1.4021, EN 10088 CuAl10Ni5Fe4, EN 12163 NA 18, BS 3076	SA 182, Grade F51 SA 479, UNS 32760 SA 276, Grade 420 SB 150, C63000 -
02	Anti-blow-out cover	POM Steel - zinc plated	Polyoxymethylene, ISO 29988-1	
03	Radial bearing	POM Bronze	Polyoxymethylene, ISO 29988-1 CC493K, EN 1982	
04	O-ring	EPDM NBR FPM		
05	Body	Ductile Iron Ductile Iron (low temp.) Carbon Steel Bronze Bronze Bronze Aluminium Bronze	5.3106, EN 1563 (JS1030) 5.3103, EN 1563 (JS1049) 1.0619, EN 10213 2.1096.01, DIN 1705 (CC491K, EN 1982) 2.1086.01, DIN 1705 (CC482K, EN 1982) CC493K, EN 1982 CC333G, EN 1982	SA 395, 60-40-18 - SA 216, WCB SB 584, C83600 SB 584, C90500 SB 584, C93200 SB 148, C95800
06	Bearing	St. / PTFE Lining Bronze / PTFE Lining		
07	Disc	Austenitic SS Duplex SS Duplex SS Super Duplex SS Ductile Iron / Rilsan coated ⁽²⁾ Aluminium Bronze Bronze Bronze	1.4408, EN 10213 1.4517, EN 10213 1.4470, EN 10213 1.4469, EN 10213 5.3106, EN 1563 (JS1030) CC333G, EN 1982 2.1096.01, DIN 1705 (CC491K, EN 1982) 2.1086.01, DIN 1705 (CC482K, EN 1982)	SA 351, CF8M SA 351, CD-4MCu SA 351, Grade 4A SA 995, Grade 5A/6A SA 395, 60-40-18 SB 148, C95800 SB 584, C83600 SB 584, C90500
08	Shaft	See Item 01	See Item 01	See Item 01
09	Lining	EPDM NBR FPM Silicone		
12	Hex shc screw	Steel - zinc plated		
13	Axial bearing	POM	Polyoxymethylene, ISO 29988-1	
14	Support ring	POM Bronze	Polyoxymethylene, ISO 29988-1 CC493K, EN 1982	
15	O-ring	See Item 04	See Item 04	See Item 04
16	Axial bearing	POM	Polyoxymethylene, ISO 29988-1	
17	Cover plate	Steel - zinc plated		
18	Hexagon head bolt	Steel - zinc plated		
19	Hex. socket set screw	Steel - zinc plated		
20	Bearing disc	Bronze	CC493K, EN 1982	
21	Hexagon nut	Steel - zinc plated		
22	Identification plate	SS		
23	Blind rivet	SS		

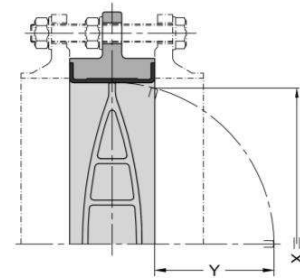
⁽¹⁾ Other materials on request.⁽²⁾ Other coating on request.

DIMENSIONS – EVMS-i 400-1000 (16"-40")


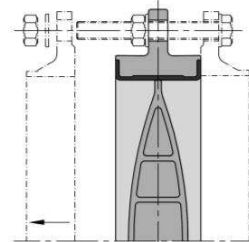
At shaft passage, holes drilled through or blind tapped, depending on flange connection



IN LINE INSTALLATION

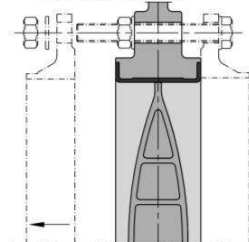


DEAD END SERVICE



B-B

DEAD END SERVICE



A-A

DN	NPS	PS max [bar]	A	B	C	D	E	F	G	H	ISO 5211	K	L	M	n	X	Y	MASS ±kg
400	16"	16	386	470	102	305	363	25	28	27	F14	140	175	17	4	374	143	85
450	18"	16	436	522	114	330	388	25	28	27	F14	140	175	17	4	422	162	100
500	20"	10	486	576	127	373	460	25	28	27	F14	140	210	17	4	470	180	135
500	20"	16	486	576	127	373	460	25	37	36	F16	165	210	21	4	470	180	135
600	24"	10	586	672	154	423	510	25	37	36	F14	140	210	17	4	566	216	200
600	24"	16	586	672	154	423	510	25	37	36	F16	165	210	21	4	566	216	200
700	28"	10	686	776	165	520	560	25	37	36	F16	165	210	21	4	667	261	315
700	28"	16	686	776	165	520	560	25	48	46	F16	165	210	21	4	667	261	315
800	32"	10	786	880	190	570	610	25	48	46	F16	165	210	21	4	764	299	365
800	32"	16	786	880	190	570	610	25	57	55	F25	254	300	17	8	764	299	365
900	36"	10	886	980	203	640	690	30	48	46	F25	254	300	17	8	863	343	500
900	36"	16	886	980	203	640	690	30	57	55	F25	254	300	17	8	863	343	500
1000	40"	10	986	1085	216	690	740	30	57	55	F25	254	350	17	8	953	368	670
1000	40"	16	986	1085	216	690	740	30	77	75	F30	298	350	21	8	953	368	670