

**PRODUCT DATA**

General Description	<b>BUTTERFLY VALVE</b> - Centric rubber lined
Design Code	EN 593
Size Range	DN 50 – 2000, NPS 2" - 80"
Maximum Pressure	16 bar



**DESIGN**

Body	Double Flanged type
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
Face to Face	EN 558-1/2 Series 13 ISO 5752 Series 13 API 609 – Double Flanged Short (3"-24")
Body Seat	Non replaceable Lining bonded to the body
Shaft Seal Design	O-ring bush
Driving Shaft	Anti blow out design acc. EN 736/3 and API 609 with indicator for position of the disc
Special Design Options	-

**TESTING PROCEDURES**

Shell strength test	EN 12266-1, P10 DIN 3230, Part 3 API 598
Shell tightness test	EN 12266-1, P11 API 598
Seat tightness test	EN 12266-1, P12, Rate A ISO 5208, Rate A API 598
Operability test	EN 12266-2, F20 DIN 3230, Part 3 API 598

**OPTIONS**

Anti Static Design	In accordance with EN 736/3 and API 609
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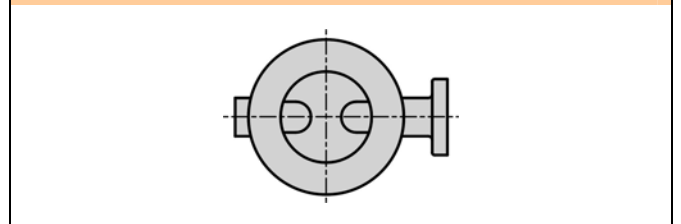
**FUNCTIONAL CHARACTERISTICS**

Application	On/off, regulating, control valve
Design pressure PS	Maximum 16 bar
Design temp. TS	-20°C (-4°F) to +200° (392°F)
Flow velocity	Max. 5 m/s for liquids, max. 50 m/s for gases
Seat tightness rate	Bi-directional - ISO 5208 rate A

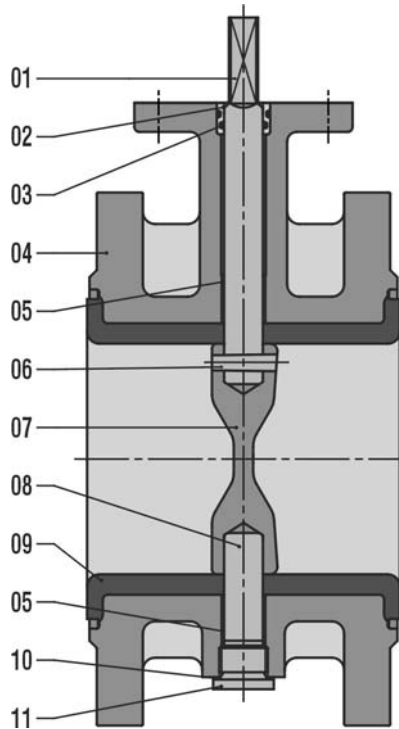
**MARKING & CERTIFICATION**

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

**PREFERRED POSITION WHEN INSTALLED IN HORIZONTAL PIPELINE**



**PARTS LIST – EVFS 50-350 (2"-14")**

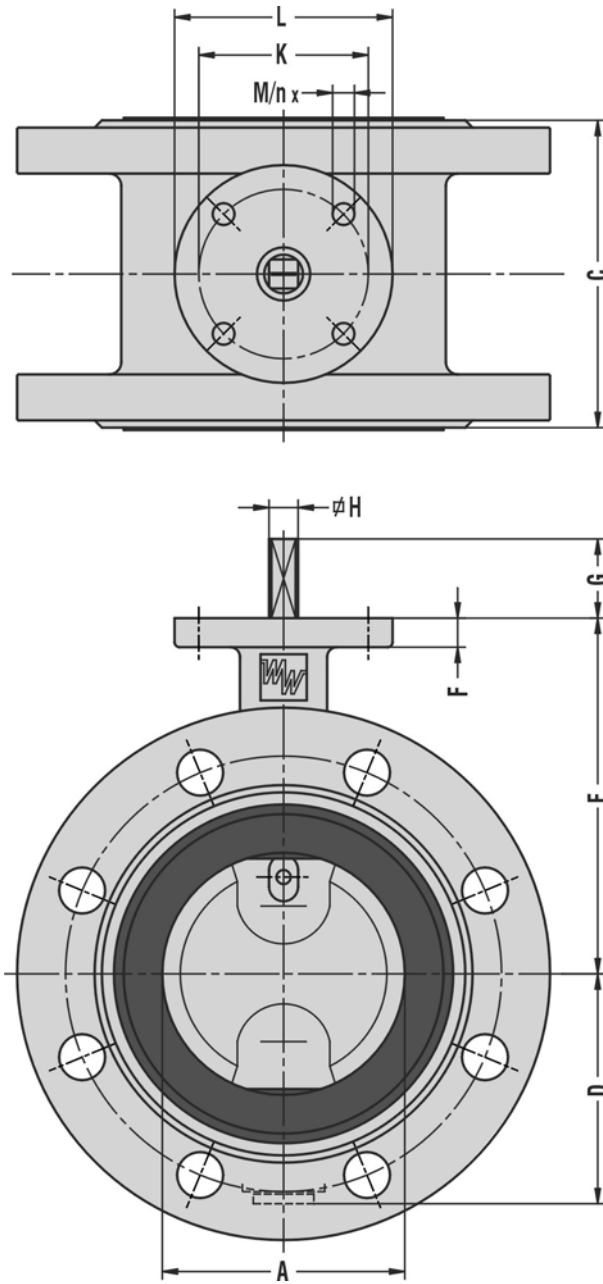


ITEM	DESCRIPTION	MATERIAL <sup>(1)</sup>	EN/DIN	COMPARABLE ASTM
01	Shaft	Duplex SS Martensitic SS Aluminium Bronze Monel K500® Hastelloy-C®	1.4462, EN 10088 1.4057, EN 10088 CuAl10Ni5Fe4, EN/DIN 17665 NA 18, BS 3076 -	A 181, Grade F51 A 276, Grade 431 B 150, C63000 - B 547, N10276
02	Bush	Bronze		
03	O-ring	EPDM NBR FPM		
04	Body	Cast Iron Ductile Iron Ductile Iron (low temp.) Carbon Steel Bronze	JL 1040, EN 1561 JS 1030, EN 1563 JS 1049, EN 1563 1.0619, EN 10213 2.1096.01, DIN 1705	A 126, Class B A 395, 60-40-18 - A 216, WCB B 584, C.836.00
05	Bearing	St. / PTFE Lining Bronze / PTFE Lining		
06	Conical pin	See ITEM 01	See ITEM 01	See ITEM 01
07	Disc	Duplex SS Martensitic SS Ductile Iron / Rilsan coated <sup>(2)</sup> Aluminium Bronze Hastelloy-C® CuNi	1.4462, EN 10088 1.4057, EN 10088 JS 1030, EN 1563 G-CuAl10Ni, DIN 1714 - 2.0835, DIN 17658	A 181, Grade F51 A 276, Grade 431 A 395, 60-40-18 B 148, C95800 A 494, CW-12MW -
08	Shaft	See ITEM 01	See ITEM 01	See ITEM 01
09	Lining	EPDM NBR FPM		
10	Sealing ring	Cu		
11	Plug	St./Zn5C		

<sup>(1)</sup> Other materials on request

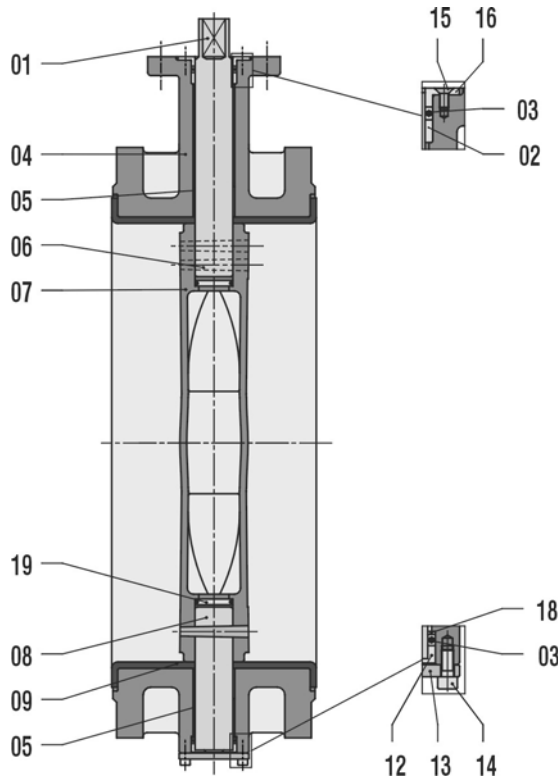
<sup>(2)</sup> For DN 250 and DN 300

**DIMENSIONS – EVFS 50-350 (2"-14")**



DN	NPS	A	C	D	E	F	G	H	ISO 5211	K	L	M	n	MASS ±kg
40	1½"	40	106	58	113	12	34	10	F07	70	90	9	4	7
50	2"	50	108	63	118	12	34	10	F07	70	90	9	4	8
65	2½"	65	112	71	126	12	34	10	F07	70	90	9	4	9
80	3"	80	114	78	133	12	34	10	F07	70	90	9	4	11
100	4"	100	127	98	147	12	34	12	F07	70	90	9	4	13
125	5"	125	140	109	160	12	34	12	F07	70	90	9	4	17
150	6"	150	140	133	180	14	34	16	F07	70	90	9	4	23
200	8"	200	152	158	204	14	34	16	F07	70	90	9	4	32
250	10"	250	165	194	245	15	45	24	F10	102	125	11	4	50
300	12"	300	178	219	270	15	45	24	F10	102	125	11	4	65
350	14"	336	190	256	315	15	45	24	F10	102	125	11	4	95

**PARTS LIST – EVFS 400-1000 (16"-40")**



ITEM	DESCRIPTION	MATERIAL <sup>(1)</sup>	EN/DIN	COMPARABLE ASTM
01	Shaft	Duplex SS Martensitic SS Aluminium Bronze Monel K500® Hastelloy-C®	1.4462, EN 10088 1.4057, EN 10088 CuAl10Ni5Fe4, EN/DIN 17665 NA 18, BS 3076 -	A 181, Grade F51 A 276, Grade 431 B 150, C63000 - B 547, N10276
02	Bush	Bronze		
03	O-ring	EPDM NBR FPM		
04	Body	Cast Iron Ductile Iron Ductile Iron (low temp.) Carbon Steel Bronze	JL 1040, EN 1561 JS 1030, EN 1563 JS 1049, EN 1563 1.0619, EN 10213 2.1096.01, DIN 1705	A 126, Class B A 395, 60-40-18 - A 216, WCB B 584, C.836.00
05	Bearing	St. / PTFE Lining Bronze / PTFE Lining		
06	Conical pin	See ITEM 01	See ITEM 01	See ITEM 01
07	Disc	Austenitic SS <sup>(2)</sup> Duplex SS <sup>(3)</sup> Martensitic SS <sup>(4)</sup> Ductile Iron / Rilsan coated Aluminium Bronze Hastelloy-C® <sup>(5)</sup> CuNi <sup>(5)</sup>	1.4408, EN 10213 1.4462, EN 10088 1.4057, EN 10088 JS 1030, EN 1563 G-CuAl10Ni, DIN 1714 - 2.0835, DIN 17658	A 351, CF8M A 181, Grade F51 A 276, Grade 431 A 395, 60-40-18 B 148, C95800 A 494, CW-12MW -
08	Shaft	See ITEM 01	See ITEM 01	See ITEM 01
09	Lining	EPDM NBR FPM		
12	Axial bearing	Bronze		
13	Cover plate	St./Zn5C		
14	Cilinder head screw	St./Zn5C		
15	Counter sunk screw	St./Zn5C		
16	Colar bearing	Bronze		
18	Ring	Bronze		
19	Sealing plate	St./NBR St./FPM		

<sup>(1)</sup> Other materials on request

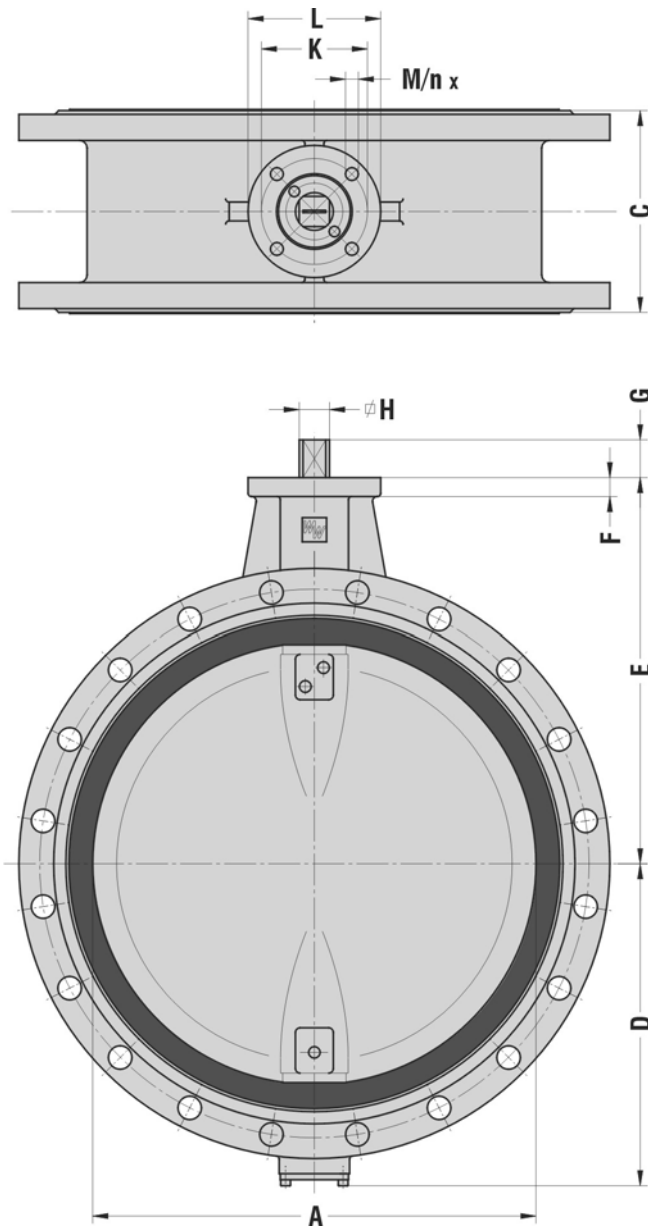
<sup>(2)</sup> for ≥ DN 700

<sup>(3)</sup> forged ≤ DN 600, casted ≥ DN 700, material 1.4517, EN 10213 (ASTM A 351, CD-4MCu)

<sup>(4)</sup> forged ≤ DN 600

<sup>(5)</sup> ≤ DN 500

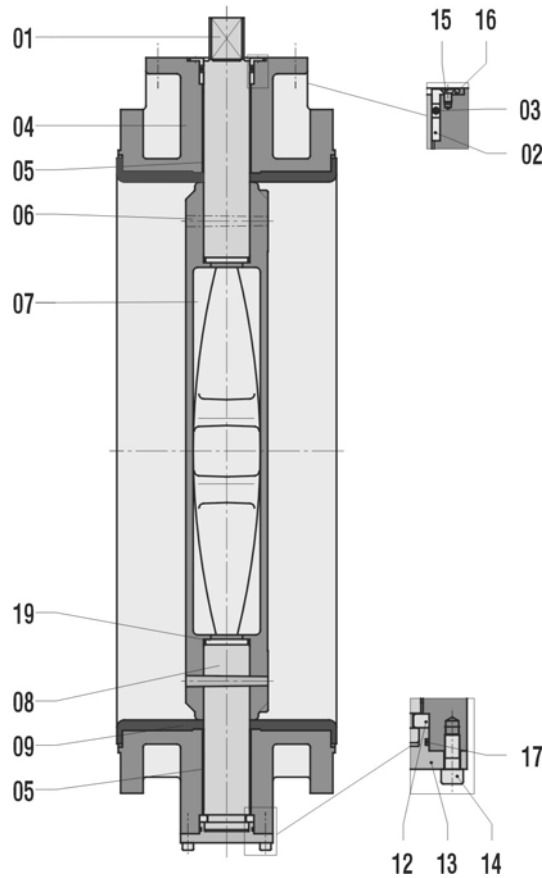
**DIMENSIONS – EVFS 400-1000 (16"-40")**



DN	NPS	A	C	D	E	F	G	H	ISO 5211	K	L	M	n	MASS ±kg
400	16"	386	216	308	363	25	50	30	F14	140	175	17	4	130
450	18"	436	222	334	388	25	50	30	F14	140	175	17	4	150
500	20"	486	229	360	413	25	50	30	F14	140	175	17	4	200
550	22"	536	( <sup>1</sup> ) 267	395	485	25	50	40	F14	140	175	17	4	260
600	24"	586	267	426	510	25	50	40	F14	140	175	17	4	300
700	28"	686	292	480	535	25	60	46	F16	165	210	21	4	350
750	30"	636	( <sup>1</sup> ) 292	520	560	25	60	46	F16	165	210	21	4	380
750	30"	736	318	520	585	25	60	46	F16	165	210	21	4	440
800	32"	786	318	525	610	25	60	46	F16	165	210	21	4	500
900	36"	886	330	635	690	30	90	60	F25	254	300	17	8	660
1000	40"	986	410	685	740	30	90	60	F25	254	350	17	8	900
1000	40"	986	410	685	740	30	90	60	F30	298	350	21	8	900

(<sup>1</sup>) Manufacturers standard

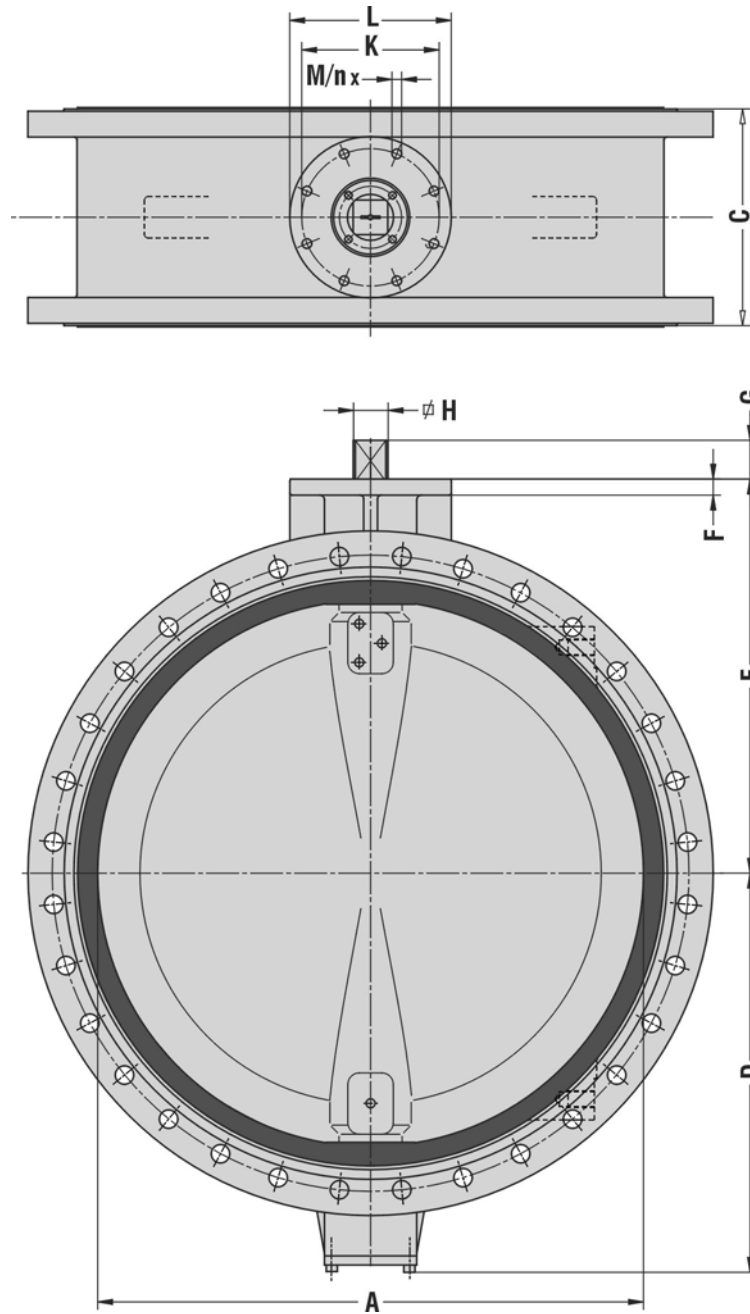
**PARTS LIST – EVFS 1200-2000 (48"-80")**



ITEM	DESCRIPTION	MATERIAL <sup>(1)</sup>	EN/DIN	COMPARABLE ASTM
01	Shaft	Duplex SS Martensitic SS Aluminium Bronze Monel K500®	1.4462, EN 10088 1.4057, EN 10088 CuAl10Ni5Fe4, EN/DIN 17665 NA 18, BS 3076	A 181, Grade F51 A 276, Grade 431 B 150, C63000 -
02	Bush	Bronze		
03	O-ring	EPDM NBR FPM		
04	Body	Cast Iron Ductile Iron Ductile Iron (low temp.) Carbon Steel	JL 1040, EN 1561 JS 1030, EN 1563 JS 1049, EN 1563 1.06019, EN 10213	A 126, Class B A 395, 60-40-18 - A 216, WCB
05	Bearing	St. / PTFE Lining Bronze / PTFE Lining		
06	Conical pin	See ITEM 01	See ITEM 01	See ITEM 01
07	Disc	Austenitic SS Duplex SS Martensitic SS Ductile Iron / Rilsan coated Aluminium Bronze	1.4408, EN 10213 1.4517, EN 10213 1.4059, DIN 17445 JS 1030, EN 1563 G-CuAl10Ni, DIN 1714	A 351, CF8M A 351, CD-4MCu - A 395, 60-40-18 B 148, C95800
08	Shaft	See ITEM 01	See ITEM 01	See ITEM 01
09	Lining	EPDM NBR FPM		
12	Axial bearing	Bronze		
13	Cover plate	St./Zn5C		
14	Cylinder head screw	St./Zn5C		
15	Counter sunk screw	St./Zn5C		
16	Flanged bush	Bronze		
17	O-ring	EPDM NBR FPM		
19	Sealing plate	St./NBR St./FPM		

<sup>(1)</sup> Other materials on request

**DIMENSIONS – EVFS 1200-2000 (48"-80")**



DN	NPS	A	C	D	E	F	G	H	ISO 5211	K	L	M	n	MASS ±kg
1200	48"	1186	470	870	855	35	85	75	F30	298	415	21	8	1300
1200	48"	1186	470	870	855	35	85	75	F35	356	415	31	8	1300
1400	56"	1386	530	980	955	35	85	75	F35	356	415	31	8	1700
1400	56"	1386	530	980	955	35	100	90	F35	356	415	31	8	1700
1500	60"	1484	<sup>(1)</sup> 600	1037	1029	50	100	90	F35	356	475	31	8	2100
1500	60"	1484	<sup>(1)</sup> 600	1037	1029	50	120	105	F40	406	475	37	8	2100
1600	64"	1586	600	1096	1079	50	100	90	F35	356	475	31	8	2500
1600	64"	1586	600	1096	1079	50	120	105	F40	406	475	37	8	2500
1800	72"	1776	670	1187	1176	50	100	90	F35	356	475	31	8	3500
1800	72"	1776	670	1187	1176	50	120	105	F40	406	475	37	8	3500
2000	80"	1976	760	1287	1276	50	120	105	F35	356	475	31	8	4000
2000	80"	1976	760	1287	1276	50	140	120	F40	406	475	37	8	4000

<sup>(1)</sup> Manufacturers standard