



DOUBLE ECCENTRIC BUTTERFLY VALVES

HIGH PERFORMANCE SERIES

S96 WAFER TYPE

S97 LUG TYPE

S98 DOUBLE FLANGED TYPE

*Time to change to the new
European valve Standard!*

ALFA EUROPE ECCENTRIC VALVES

Alfa Europe is a producer of soft seat, metal seat and fire-safe seat HIGH PERFORMANCE butterfly valves. The valves are manufactured according ISO 9001 Quality Assurance and is designed and tested to meet or exceed the most general industrial standards and are a result of a long time experience in the design and manufacturing of valves.

APPLICABLE STANDARDS

- PED Module H according to 2014/68/EC
- Fire safe approved according to ISO 10497: 2010 / API 607
- DNV / LR approved foundry certification
- Leakage rate for soft seated valves according to API 598 or EN 12266-1 class A
- Zero leakage
- Leakage rate for metal seated valves according to ANSI FCI 70-2-2003
 - Table 1 class V for Class 150 valves up to DN300
 - Table 1 class IV for DN350 and larger.
- Fugitive emission according to ISO 15848-1 CO3 class BH (optional)

MODELS

- Wafer type - Serie S96
- Lug type - Serie S97
- Double flanged type - Serie S98

RANGE

- ANSI 150 | 2" - 24"
- DIN PN16/25 | DN50-600

Optional:

- JIS Standard | 2" - 24"
- other on request

STANDARD SEAT MATERIALS

- PTFE: -40°C to 180°C
- R-PTFE: -40°C to 230°C
- PTFE/SS316L (fire safe): -40°C to 230°C
- R-PTFE/Inconel (fire safe): -40°C to 250°C
- SS316L metal seated: -40°C to 450°C

STANDARD BODY MATERIALS

- A216 WCB / 1.0619
- A351 CF8M / 1.4408
- Duplex materials 4A, 6A, 2507 etc.

WAFER TYPE SERIE S96



LUG TYPE SERIE S97



DOUBLE FLANGED TYPE SERIE S98



CERTIFICATIONS:



ALFA
EUROPE

FEATURES

One piece shaft, anti-blowout design and equipped with an anti-static device.

Direct Mount Flange Bracket according to ISO 5211 for easy and fast assembly of actuators.

The adjustable gland packing provides a constant compression for a reliable stem sealing. Optionally a stem sealing can be supplied, which complies with the ISO 15848-1 fugitive emission standard.

Anti-static design.

The shaft is supported by top and bottom long life bearings. The two bearings provide excellent resistance to corrosion and distortion as a result of high temperatures and mechanical forces.

Available seat constructions:

- PTFE or R-PTFE soft seated.
- PTFE/SS316L or R-PTFE/Inconel B637 fire safe soft seated.
- SS316L metal seated.

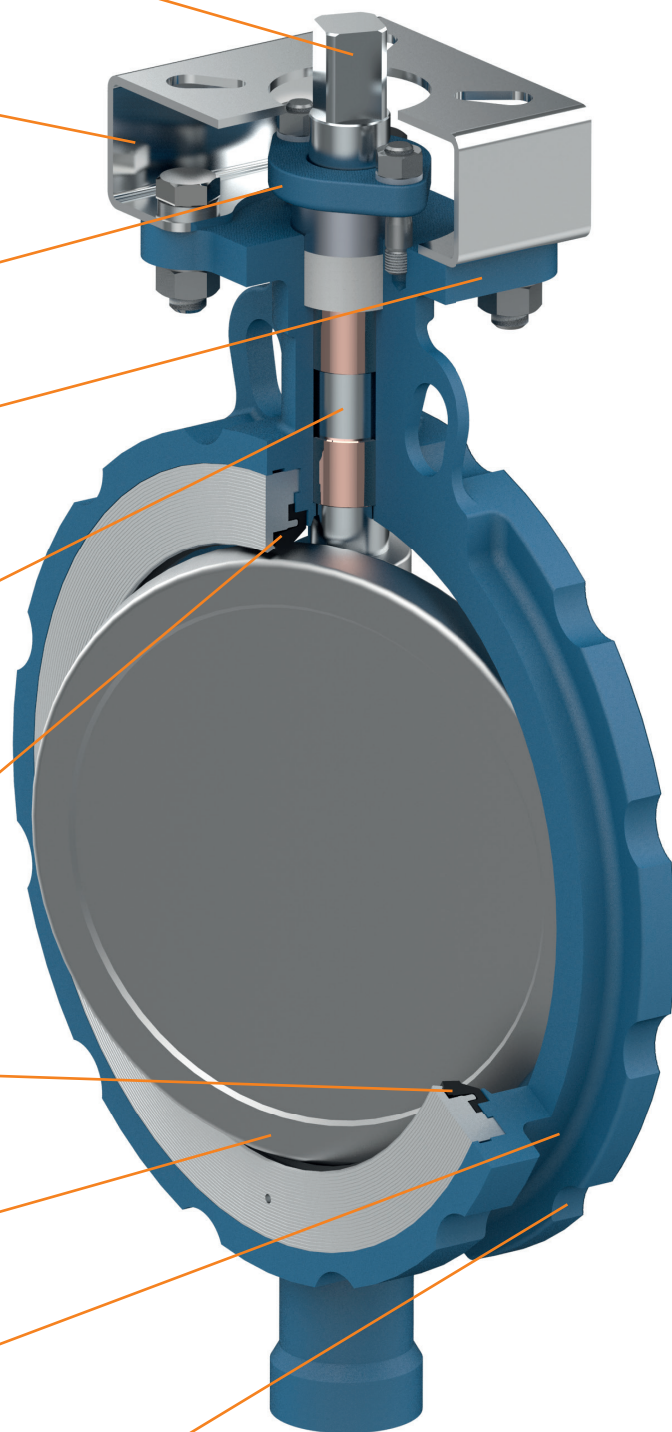
High Performance butterfly valves have a preferred flow direction for an optimal performance and long life span. Due to the unique floatable seat construction the valve still is 100% bi-directional for the full pressure rating of the valve.

Pin stem-disc connection for an ideal load distribution and backlash free operation.

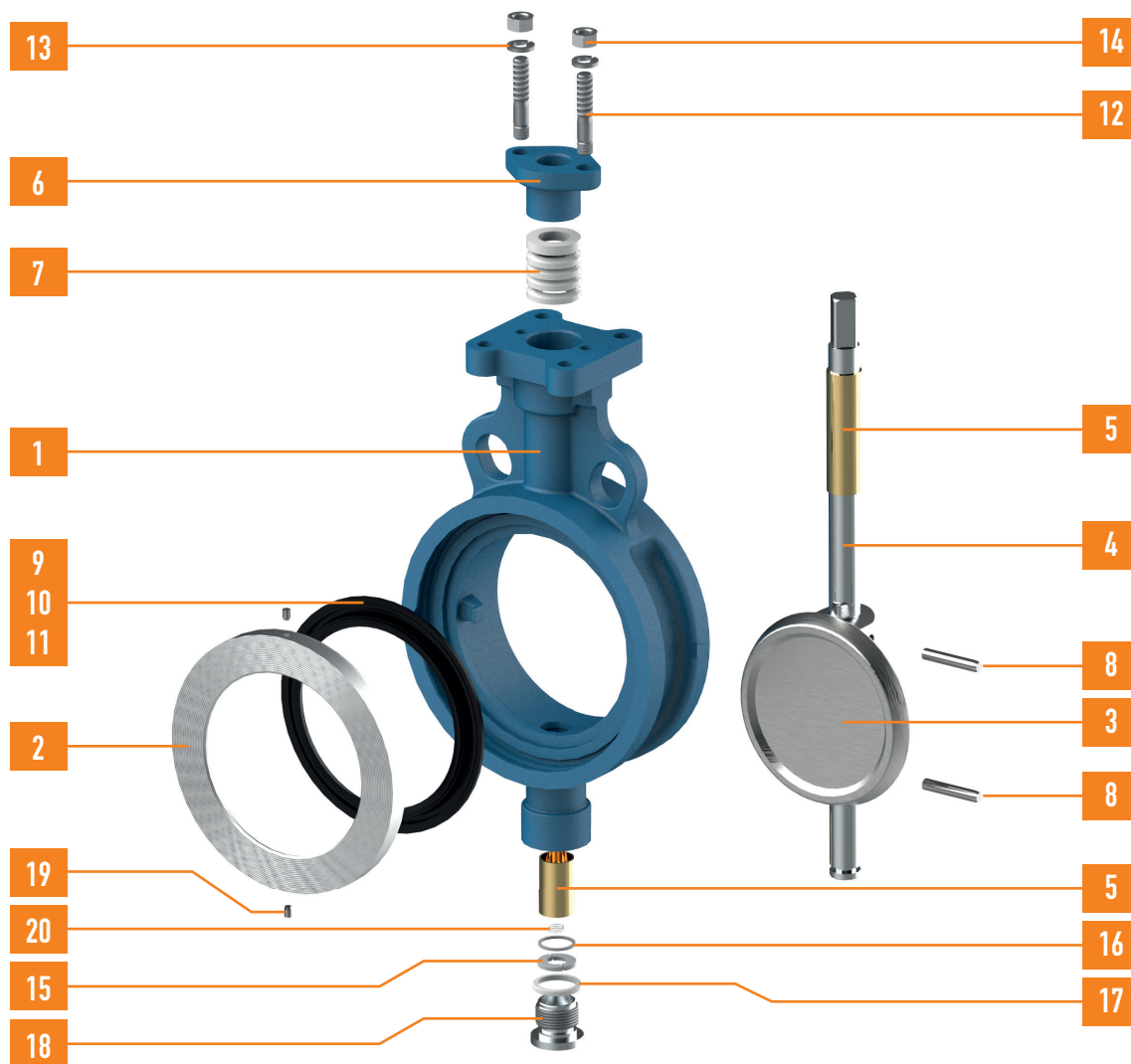
High quality body and disc, realized by the "lost wax" molding process.

Face-to-face dimensions according to:

- API 609 Category A (wafer and lug type) and B (double flanged type).
- EN 558 series 20 (wafer and lug type) and series 13 and 14 (double flanged type).



MATERIALS



ITEM NO.	DESCRIPTION	MATERIAL NO.	MATERIAL	ASTM
1	BODY			
	Ductile Cast Iron	GGG40	0.704	A536
	Carbon Steel	GS-C25N	1.0619	A216WCB
	Stainless Steel	G-X5CrNiMo19-1102	1.4408	CF8M
2	SEAT CLAMPING RING			
	Steel	St37-2	10.037	283-C
	Stainless Steel	X5CrNiMo 17-12-2	1.4401	316
3	DISC			
	Stainless Steel	G-X5CrNiMo19-1102	1.4408	CF8M
4	SHAFT			
	Stainless Steel	X4CrNiMo 16-5-1	1.4418	
5	BUSH BOARING			
	Stainless Steel	X5CrNiMo 17-12-2	1.4401/PTFE	316
6	GLAND SLEEVE			
	Stainless Steel	G-X5CrNiMo19-1102	1.4408	CF8M
7	GASKET GLAND			
	Stainless Steel	G-X5CrNiMo19-1102	1.4408	CF8M
8	TAPER PIN			
	Stainless Steel	X4CrNiMo 16-5-1	1.4418	
9	SEALING SEAT			
	PTFE-R	PTFE Compound		
	Inconel	Inconel 625		
10	GASKET			
	PTFE-R			
	Graphite			

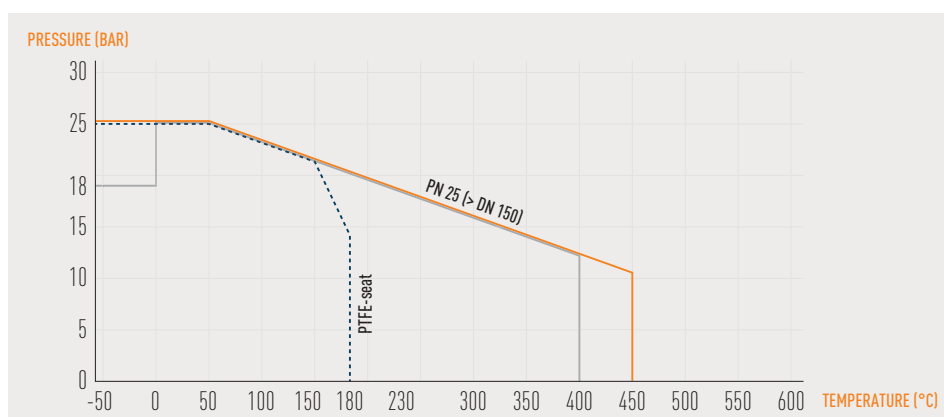
ITEM NO.	DESCRIPTION	MATERIAL NO.	MATERIAL	ASTM
11	GASKET RING			
	Stainless Steel	X4CrNiMo 16-5-1	1.4418	
12	GLAND BOLT			
	Stainless Steel A4-70	A2-70	1.4301	
13	SPRING WASHER			
	Stainless Steel A4-70	A2-70	1.4301	
14	NUT			
	Stainless Steel A4-70	A2-70	1.4301	
15	LOCK RING			
	Stainless Steel	X4CrNiMo 16-5-1	1.4418	
16	DISTANCE RING			
	Stainless Steel	X4CrNiMo 16-5-1	1.4418	
17	SEALING RING			
	PTFE-R			
	Graphite			
18	BOTTOM PLUG			
	Stainless Steel			
19	LOCK PIN			
	Stainless Steel	X4CrNiMo 16-5-1	1.4418	
20	ANTI-STATIC SPRING			

PRACTICAL INFORMATION

PRESSURE / TEMPERATURE DIAGRAM

- Pressure control line for 1.0619 body material and metal seat.
- Pressure control line for 1.4408 body material and metal seat.
- - - - Pressure control line for PTFE.

The diagram illustrates the performance of the standard version of our valve type HP. Valves for higher pressure or deviating temperature are available upon request.



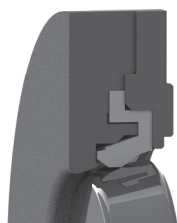
KV-VALUE OPENING ANGLE

DN (mm)	Size (in)	20°	30°	40°	50°	60°	70°	80°	90°
50	2	1.3	6	15	18	19	21	22	23
65	2.5	1.5	7	18	22	23	24	25	25
80	3	7	30	50	68	82	97	113	115
100	4	22	60	97	119	164	199	223	251
125	5	45	100	152	195	256	346	452	493
150	6	63	109	162	250	391	588	814	845
200	8	96	168	301	509	742	1107	1581	1747
250	10	264	458	682	980	1421	2083	2882	2889
300	12	397	625	956	1368	1938	2778	3794	3940
350	14	460	720	1100	1650	2500	3400	4800	5400
400	16	550	870	1250	2000	3200	4800	6800	8080

TORQUE VALUE EXCL. SAFETY FACTOR

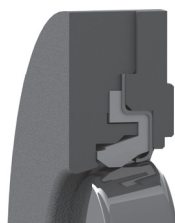
DN	SOFT SEAT (N.M.)			FIRE SAFE SEAT (N.M.)			METAL SEAT (N.M.)		
	10 BAR	16 BAR	25 BAR	10 BAR	16 BAR	25 BAR	10 BAR	16 BAR	25 BAR
50	17	20	23	22	26	38	28	34	48
65	27	30	33	32	39	55	35	44	61
80	28	35	42	36	46	71	44	52	72
100	40	48	63	60	70	90	72	80	96
125	53	63	75	70	95	145	90	115	176
150	85	95	125	90	100	180	136	160	240
200	180	220	240	200	280	340	280	344	404
250	290	350	430	350	465	660	404	496	688
300	384	500	660	540	770	980	592	800	1024
350	550	670	920	710	830	1080	790	1050	1150
400	900	1050	1350	1100	1250	1700	1224	1792	2320

SEATS



SOFT SEAT

Elasticity of the PTFE or PTFE(R) seat and fluid pressure assures perfect "bubble tight" sealing.



FIRE SAFE SEAT

After a fire when the PTFE seat has burned away, the supplementary metal sealing seat activates automatically and prevent from excessive flop.

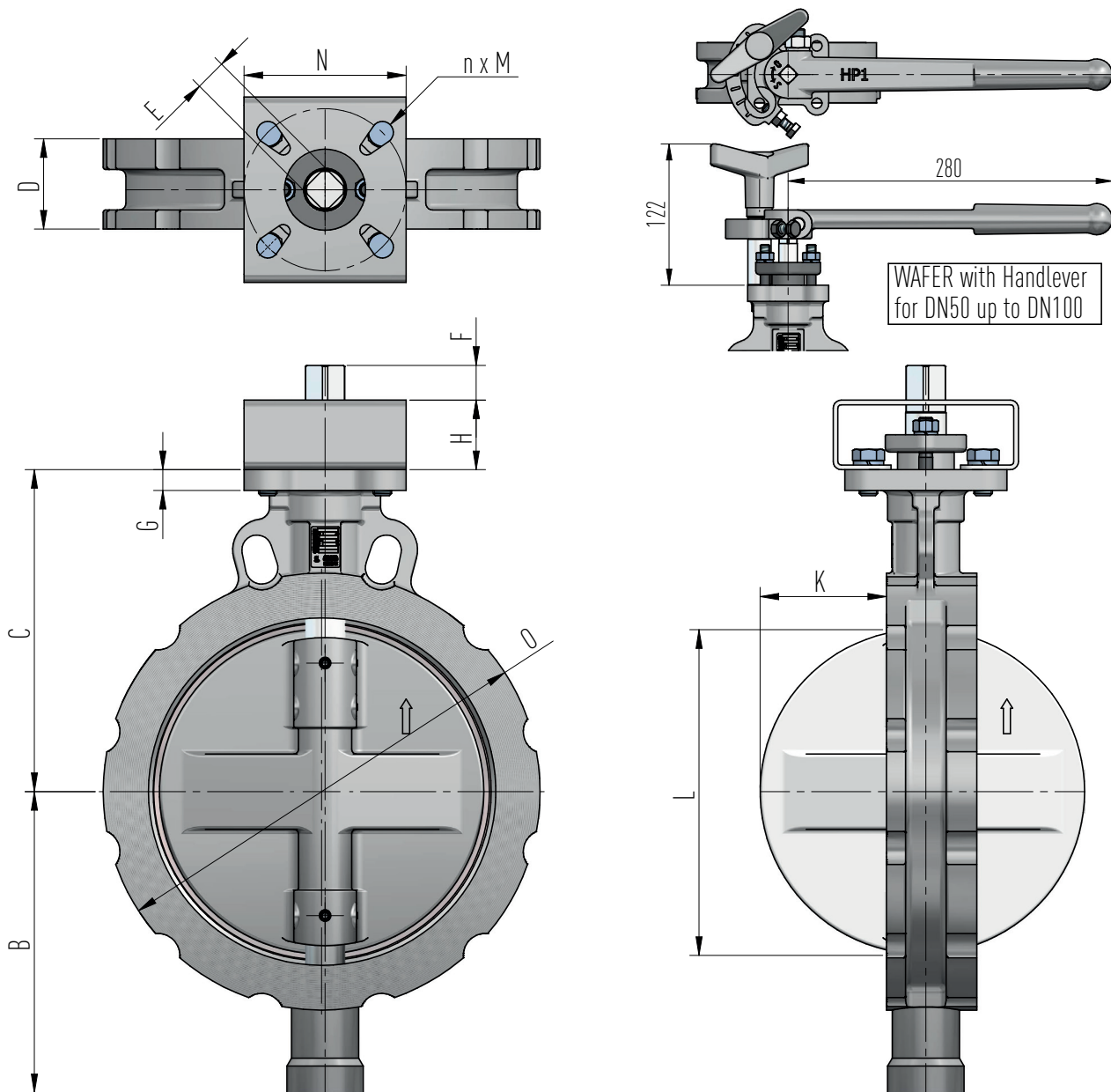


METAL SEAT

This version offers a very high sealing capability with an unusually low leakage rate.

WAFER TYPE S96

BARE SHAFT / HANDLEVER DN50 - DN400

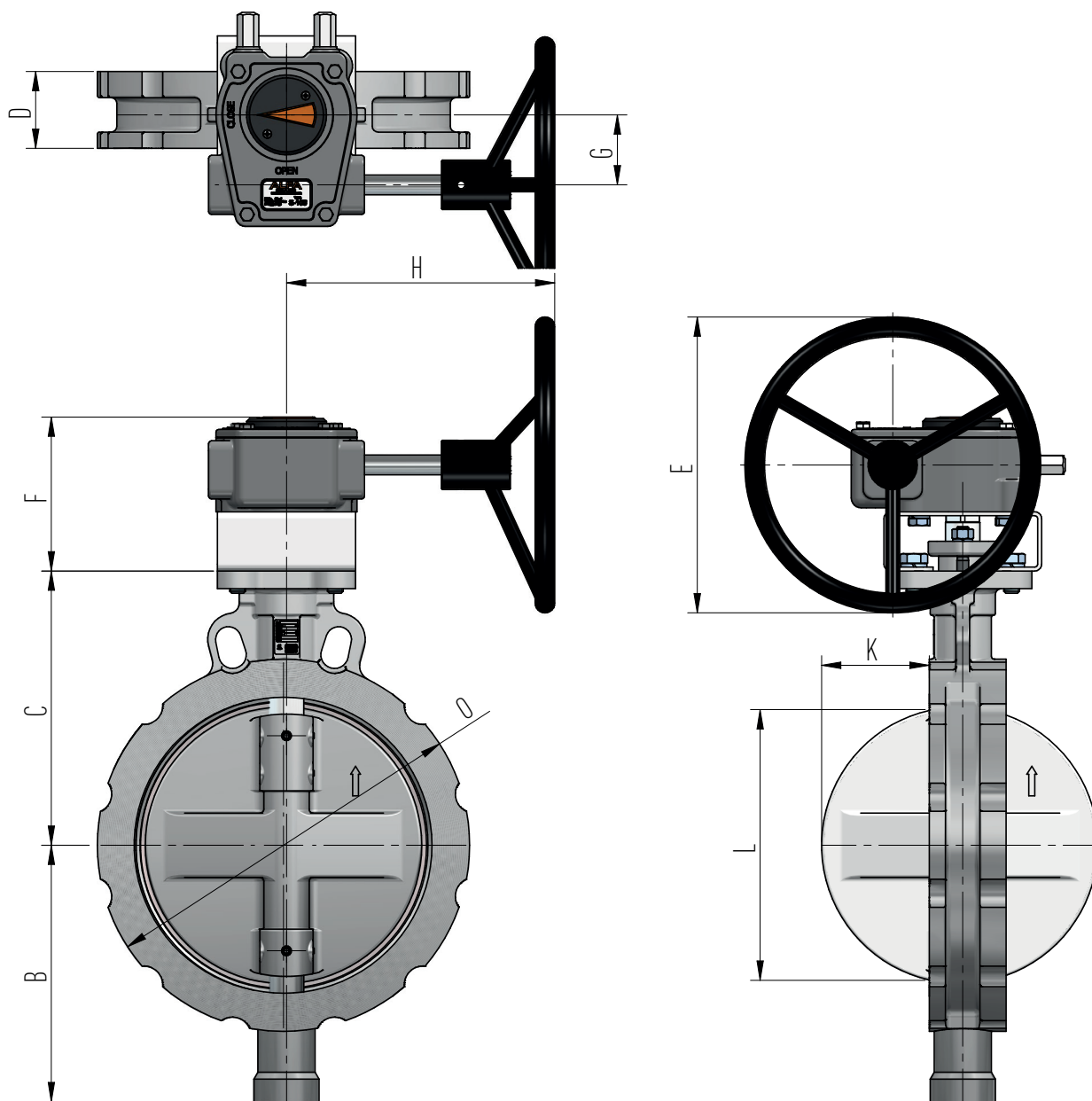


SIZE	B	C	D	E	F	G	H	TOPFLANGE			K	L	O	WEIGHT ± Kg
								ISO 5211	N	n X M				
DN 50	91	108	43	12 <45°	20	12	45	F05/07	50/70	4x ø8/ø10	8	38	102	3.6
DN 65	101	123	46	12 <45°	20	13	45	F05/07	50/70	4x ø8/ø10	15	58	122	4.8
DN 80	107	133	46	12 <45°	20	14	45	F05/07	50/70	4x ø8/ø10	21	71	132	5.0
DN 100	115	155	52	12 <45°	20	14	45	F05/07	50/70	4x ø8/ø10	28	91	155	6.5
DN 125	155	173	56	17 <45°	20	14	45	F07/10	70/102	4x ø10/ø12	37	113	188	11.0
DN 150	164	183	56	17 <45°	20	14	45	F07/10	70/102	4x ø10/ø12	47	134	212	12.3
DN 200	195	218	60	19 <45°	30	15	55	F12	125	4x ø14	71	185	268	20.6
DN 250	230	253	68	22 <45°	30	16	55	F12	125	4x ø14	94	234	326	34.2
DN 300	260	278	78	27 <45°	30	18	60	F10/12/14	102/125/140	4x ø12/ø14/ø18	109	272	377	45.1
DN 350	308	318	92	30 <45°	32	20	60	F10/12/14	102/125/140	4x ø12/ø14/ø18	125	318	420	72.0
DN 400	354	363	102	36 <45°	54	28	70	F12/14/16	125/140/165	4x ø14/ø18/ø22	147	367	482	106.0

* The details of this datasheet are subject to change without prior notification.

WAFER TYPE S96

GEARBOX OPERATED DN50 - DN400

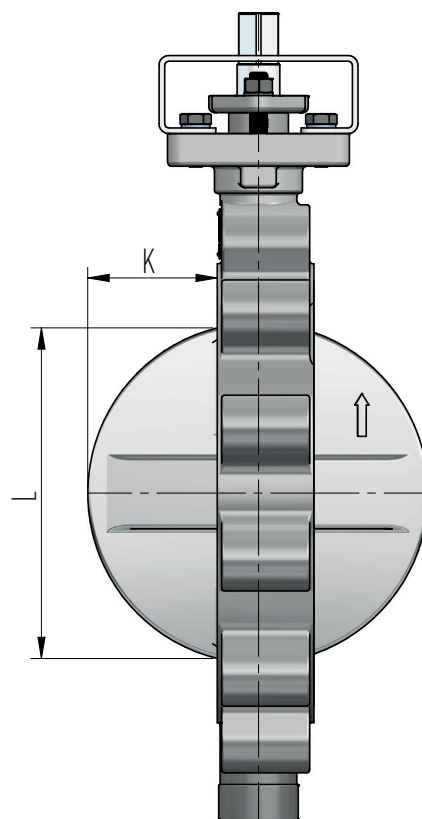
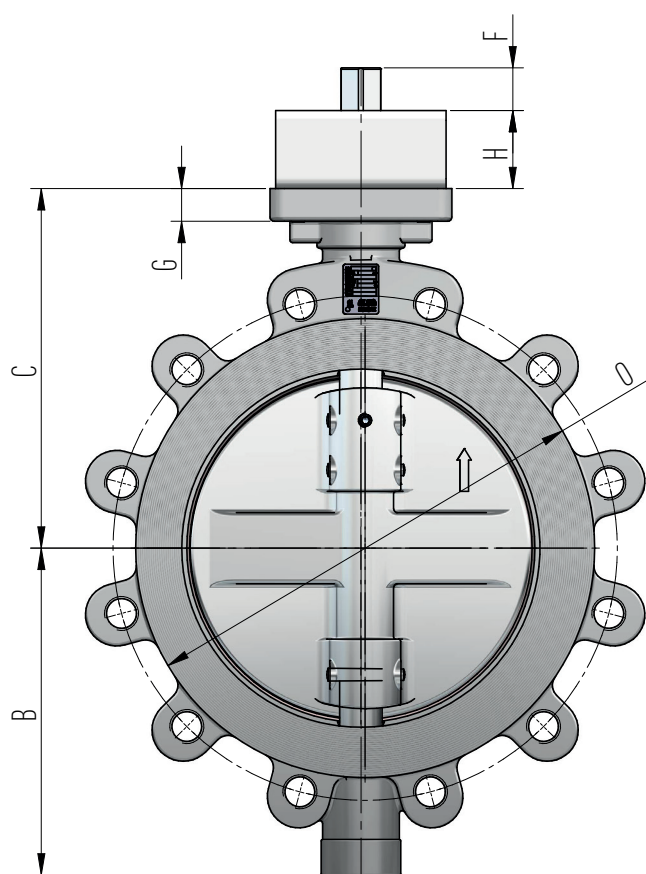
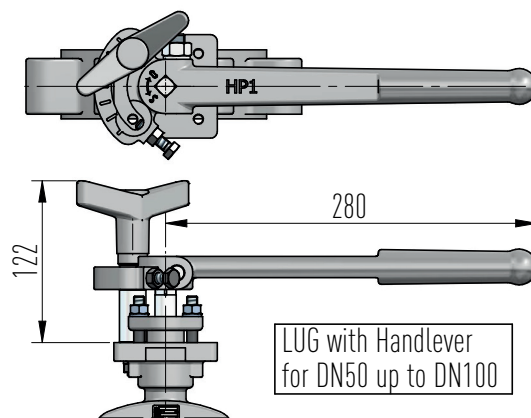
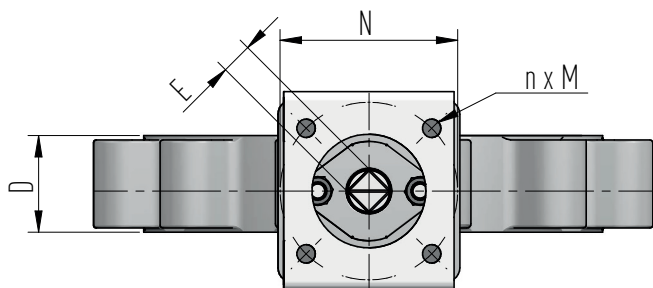


SIZE	GEARBOX	B	C	D	E	F	G	H	K	L	O	WEIGHT ± Kg
DN 50	ALFA - 25	91	108	43	SW-150	107	44.6	178	8	38	102	7.1
DN 65	ALFA - 25	101	123	46	SW-150	107	44.6	178	15	58	122	8.3
DN 80	ALFA - 25	107	133	46	SW-150	107	44.6	178	21	71	132	8.5
DN 100	ALFA - 25	115	155	52	SW-150	107	44.6	178	28	91	155	10
DN 125	ALFA - 35	155	173	56	SW-150	107	44.6	178	37	113	188	14.5
DN 150	ALFA - 35	164	183	56	SW-150	107	44.6	178	47	134	212	15.8
DN 200	ALFA - 55	195	218	60	SW-200	128	55	205	71	185	268	26.8
DN 250	ALFA - 55	230	253	68	SW-200	128	55	205	94	234	326	40.4
DN 300	ALFA - 100	260	278	78	SW-300	155	71	272	109	272	377	57.8
DN 350	ALFA - 100	308	318	92	SW-300	155	71	272	125	318	420	84.7
DN 400	ALFA - 200	354	363	102	SW-400	172	86	310	147	367	482	126

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LUG TYPE S97

BARE SHAFT / HANDLEVER DN50 - DN400

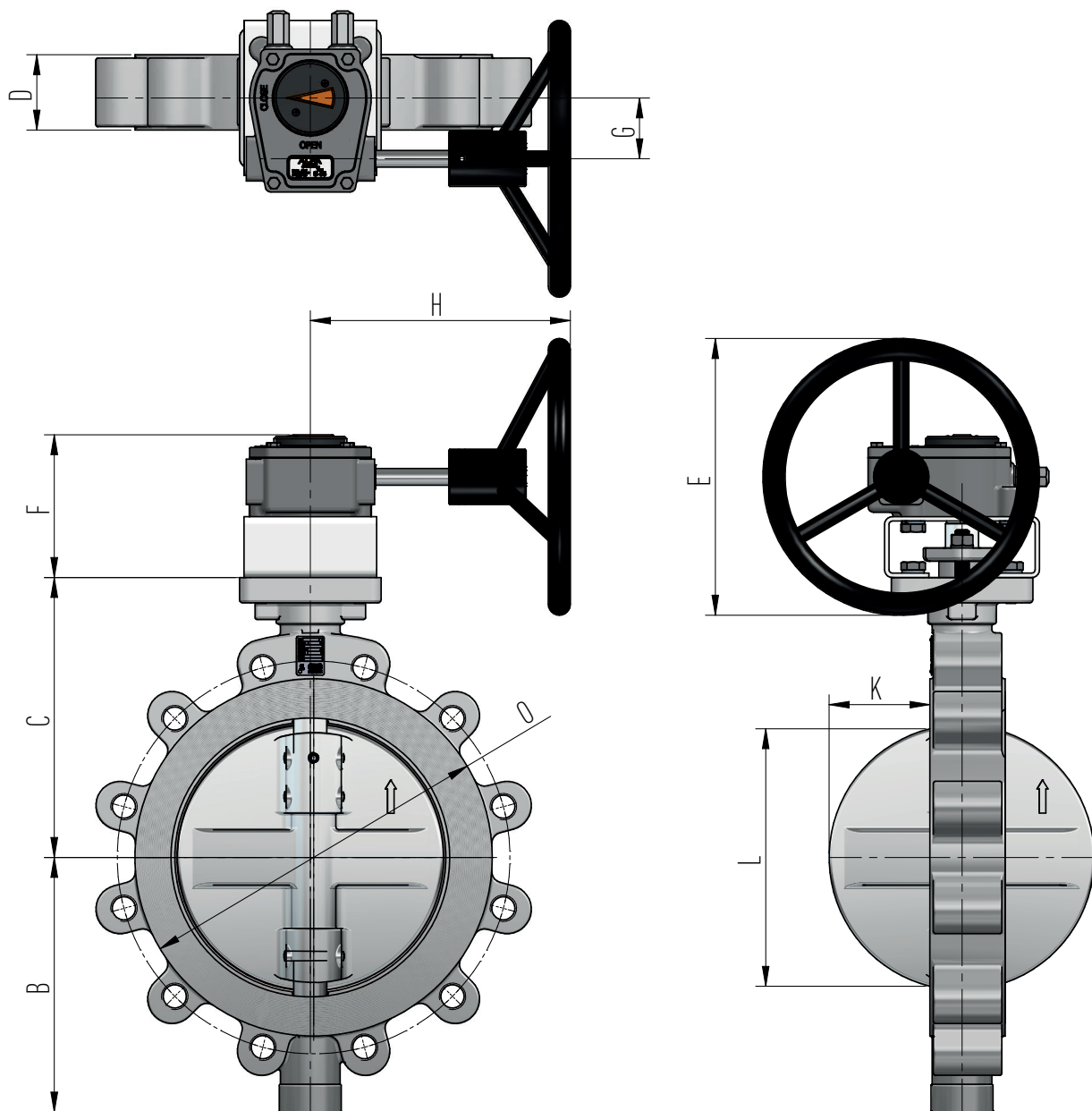


SIZE	B	C	D	E	F	G	H	TOPFLANGE			K	L	O	WEIGHT ± Kg
								ISO 5211	N	n X M				
DN 50	91	108	43	12 <45°	20	12	45	F05/07	50/70	4x ø8/ø10	8	38	100	4.2
DN 65	101	125	46	12 <45°	20	13	45	F05/07	50/70	4x ø8/ø10	15	58	120	5.3
DN 80	107	133	46	12 <45°	20	14	45	F05/07	50/70	4x ø8/ø10	21	71	132	8.9
DN 100	115	155	52	12 <45°	20	14	45	F05/07	50/70	4x ø8/ø10	28	91	155	9.5
DN 125	155	173	56	17 <45°	20	14	45	F07/10	70/102	4x ø10/ø12	37	113	188	14.2
DN 150	164	183	56	17 <45°	20	14	45	F07/10	70/102	4x ø10/ø12	47	134	216	16.2
DN 200	195	218	60	19 <45°	30	15	55	F12	125	4x ø14	71	185	268	28.5
DN 250	230	253	68	22 <45°	30	16	55	F12	125	4x ø14	94	234	323	44
DN 300	260	278	78	27 <45°	30	18	60	F10/12/14	102/125/140	4x ø12/ø14/ø18	109	272	372	68
DN 350	308	318	92	30 <45°	32	20	60	F10/12/14	102/125/140	4x ø12/ø14/ø18	125	318	420	98
DN 400	354	363	102	36 <45°	54	28	70	F12/14/16	125/140/165	4x ø14/ø18/ø22	147	367	482	125

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LUG TYPE S97

GEARBOX OPERATED DN50 - DN400

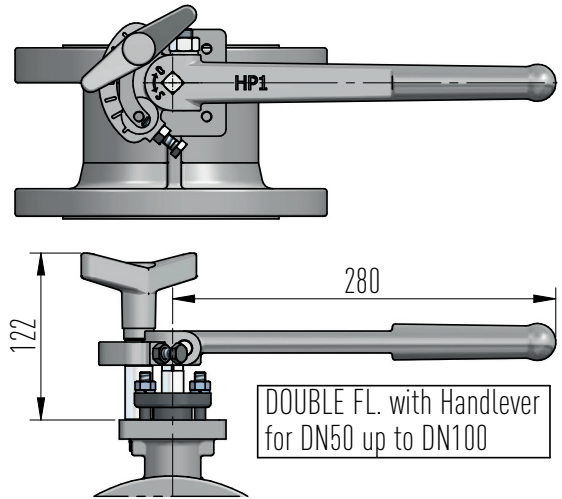
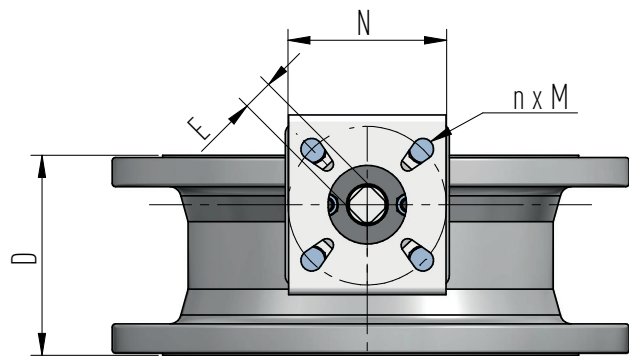


SIZE	GEARBOX	B	C	D	E	F	G	H	K	L	O	WEIGHT ± Kg
DN 50	ALFA - 25	91	108	43	SW-150	107	44.6	178	8	38	100	7.7
DN 65	ALFA - 25	101	123	46	SW-150	107	44.6	178	15	58	120	8.8
DN 80	ALFA - 25	107	133	46	SW-150	107	44.6	178	21	71	132	12.4
DN 100	ALFA - 25	115	155	52	SW-150	107	44.6	178	28	91	155	13
DN 125	ALFA - 35	155	173	56	SW-150	107	44.6	178	37	113	188	17.7
DN 150	ALFA - 35	164	183	56	SW-150	107	44.6	178	47	134	216	19.7
DN 200	ALFA - 55	195	218	60	SW-200	128	55	205	71	185	268	34.7
DN 250	ALFA - 55	230	253	68	SW-200	128	55	205	94	234	323	50.2
DN 300	ALFA - 100	260	278	78	SW-300	155	71	272	109	272	372	80.7
DN 350	ALFA - 100	308	318	92	SW-300	155	71	272	125	318	420	110.7
DN 400	ALFA - 200	354	363	102	SW-400	172	86	310	147	367	482	145

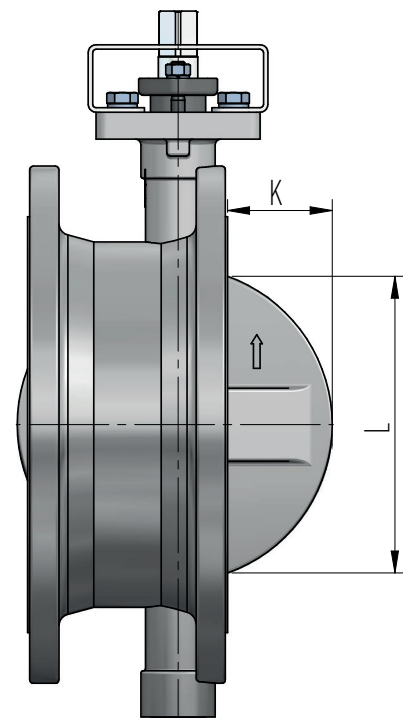
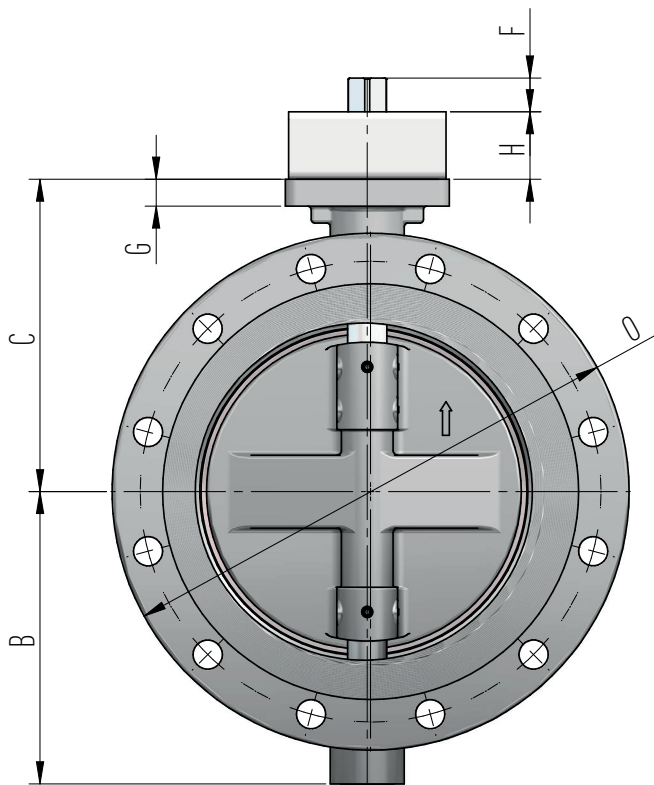
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DOUBLE FLANGED TYPE S98

BARE SHAFT / HANDLEVER DN50 - DN400



DOUBLE FL. with Handlever
for DN50 up to DN100

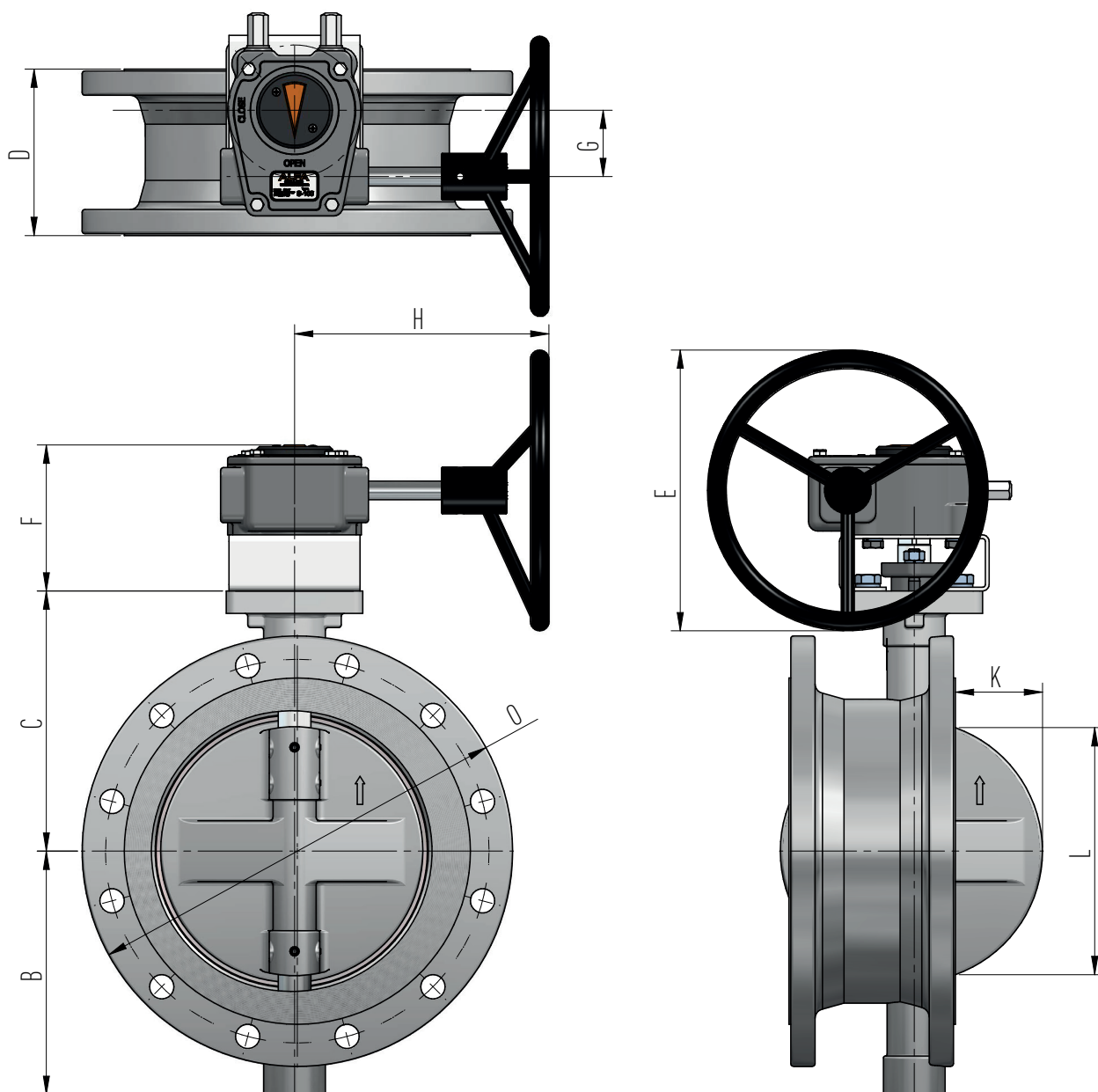


SIZE	B	C	D	E	F	G	H	TOPFLANGE			K	L	O	WEIGHT ± Kg
								ISO 5211	N	n X M				
DN 50	91	108	108	12 <45°	20	12	45	F05/07	50/70	4x ø8/ø10	-	-	165	11
DN 65	101	123	112	12 <45°	20	13	45	F05/07	50/70	4x ø8/ø10	-	-	185	13
DN 80	107	133	114	12 <45°	20	14	45	F05/07	50/70	4x ø8/ø10	16	65	200	15
DN 100	115	155	127	12 <45°	20	14	45	F05/07	50/70	4x ø8/ø10	-	-	220	18
DN 125	155	173	140	17 <45°	20	14	45	F07/10	70/102	4x ø10/ø12	31	107	255	23
DN 150	164	183	140	17 <45°	20	14	45	F07/10	70/102	4x ø10/ø12	41	129	285	29
DN 200	195	218	152	19 <45°	30	23	55	F12	125	4x ø14	63	180	343	39
DN 250	230	253	165	22 <45°	30	23	55	F12	125	4x ø14	81	227	406	57
DN 300	260	278	178	27 <45°	30	24	60	F10/12/14	102/125/140	4x ø12/ø14/ø18	96	266	460	81
DN 350	308	318	190	30 <45°	32	24	60	F10/12/14	102/125/140	4x ø12/ø14/ø18	112	311	533	113
DN 400	354	363	216	36 <45°	54	28	70	F12/14/16	125/140/165	4x ø14/ø18/ø22	-	-	565	150

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DOUBLE FLANGED TYPE S98

GEARBOX OPERATED DN50 - DN400



SIZE	GEARBOX	B	C	D	E	F	G	H	K	L	O	WEIGHT ± Kg
DN 50	ALFA - 25	91	108	108	SW-150	107	44.6	178	-	-	165	14.5
DN 65	ALFA - 25	101	123	112	SW-150	107	44.6	178	-	-	185	16.5
DN 80	ALFA - 25	107	133	114	SW-150	107	44.6	178	16	65	200	18.5
DN 100	ALFA - 25	115	155	127	SW-150	107	44.6	178	-	-	220	21.5
DN 125	ALFA - 35	155	173	140	SW-150	107	44.6	178	31	107	255	26.5
DN 150	ALFA - 35	164	183	140	SW-150	107	44.6	178	41	129	285	32.5
DN 200	ALFA - 55	195	218	152	SW-200	128	55	205	63	180	343	45.2
DN 250	ALFA - 55	230	253	165	SW-200	128	55	205	81	227	406	63.2
DN 300	ALFA - 100	260	278	178	SW-300	155	71	272	96	266	460	93.7
DN 350	ALFA - 100	308	318	190	SW-300	155	71	272	112	311	533	125.7
DN 400	ALFA - 200	354	363	216	SW-400	172	86	310	-	-	565	170

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*Time to change to the new
European valve Standard!*

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