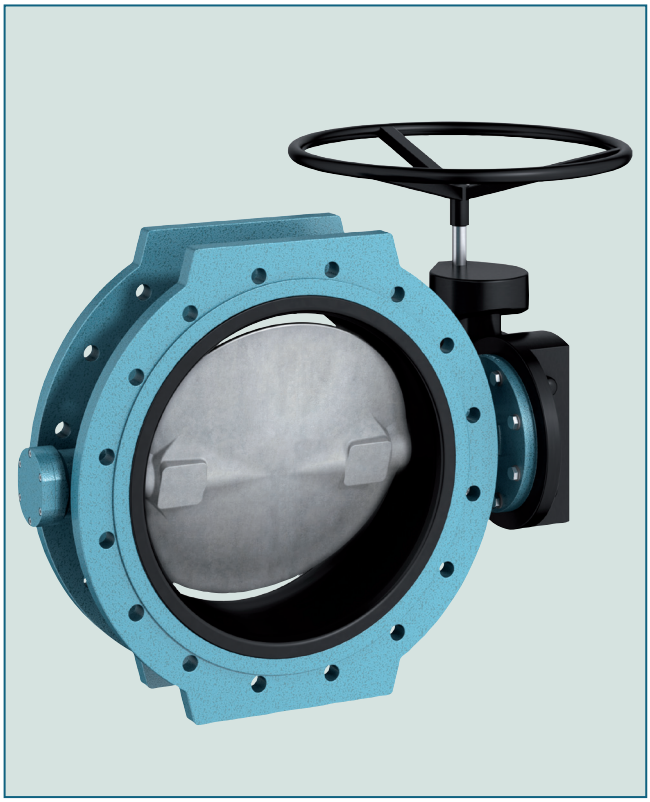
DOUBLE FLANGED BUTTERFLY VALVE F012-A



Soft seated double flanged butterfly valve designed for high pressure applications. The combination of vulcanized liner and thrugoing shaft allows pressure loads up to 25 bar.

TECHNICAL DATA

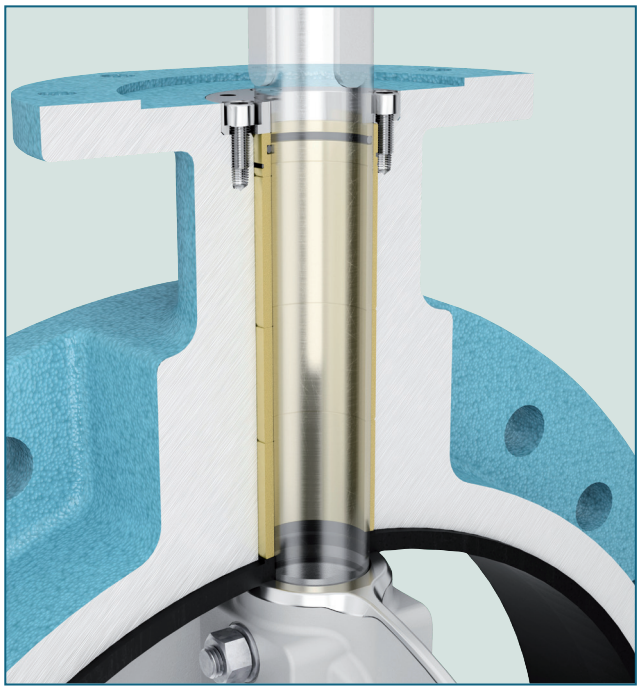
Nominal diameter:	DN 100 - DN 1400
Face-to-face:	EN 558 Series 13 ISO 5752 Series 13
Flange accommodation:	EN 1092 - PN 25 ASME B 16.5, Class 300 AS 4087 PN21 / PN 35
Flange Surface Design:	EN 1092 Form A/ B1/ B2 ASME RF, FF
Top flange:	EN ISO 5211
Marking:	EN 19
Tightness check:	EN 12266
Temperature range:	-10°C to +130°C
Operating pressure:	max. 25 bar
Differential pressure:	max. Δp 25 bar
Vacuum:	up to 1 mbar absolute

FEATURES

- Butterfly valve in double flanged design
- Can be installed in any desired position
- Triple shaft bearings
- Single flange mounting possible
- Maintenance-free
- Vulcanized liner and thrugoing shaft for high pressure applications
- Corrosion protection:
  Surface coating up to 550 microns

GENERAL APPLICATIONS

- Offshore
- Water and waste water technology
- Power plants
- Desalination technology
- Trunk mains
- Pipeline applications
- Pumping stations



Adjustable bearings ensure tightness even with max. pressure loads. This feature allows refixing during operation.

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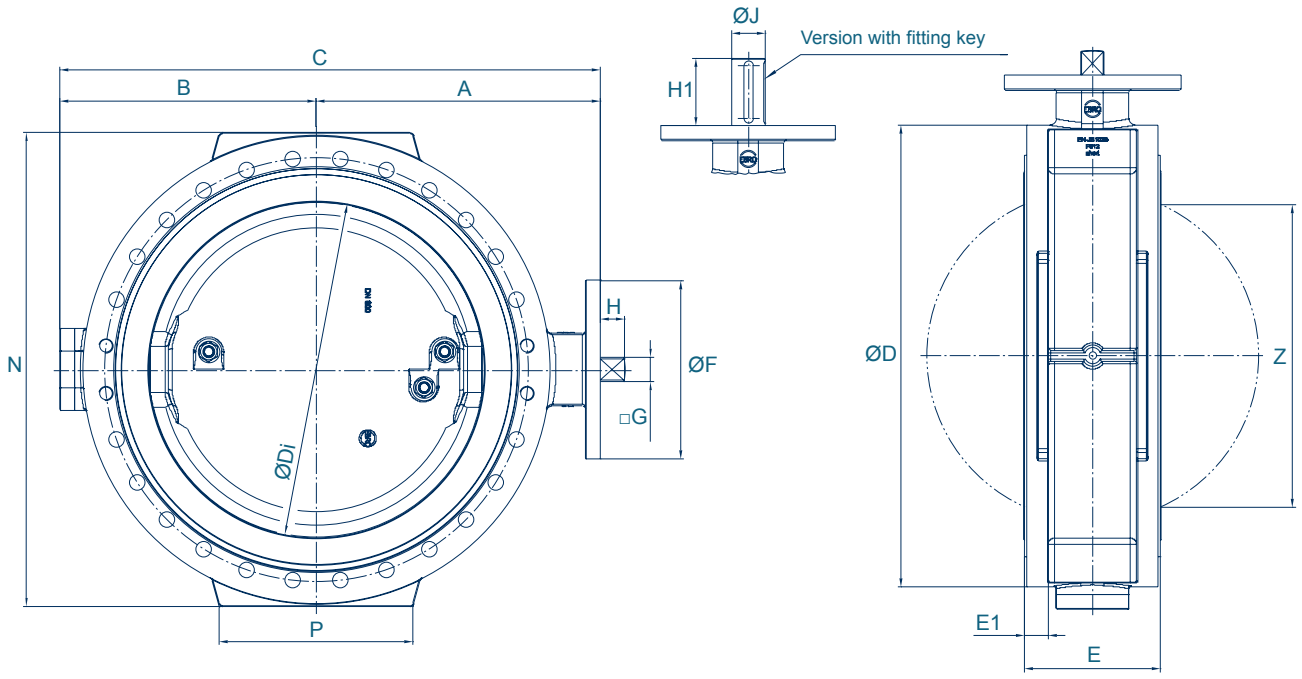

F 012-A with bare shaft end

DN [mm]	Size [in]	Dimensions [mm]																Weight [kg] (EN-JS 1030) max.
		A	B	C	D	Di	E	E1	F	Flange	G	H	H1	J	N	P	Z	
100	**4**	168	127	295	254	98	127	22	65	F05	14	16	-	-	-	-	-	18
150	**6**	203	153	356	305	148	140	26	90	F07	17	19	-	-	-	-	56	59
200	**8**	260	215	475	381	197	152	27	125	F10	17	19	-	-	-	-	131	66
250[1)]	**10**	305	250	555	445	248	165	28	150	F12	22	24	-	-	-	-	189	79
300	**12**	350	285	635	521	294	178	29	150	F12	22	24	-	-	-	-	240	110
300	**12**	335	285	620	515	294	178	32	150	F12	22	24	-	-	520	150	240	108
350[2)]	**14**	390	322	712	584	338	190	32	175	F14	27	29	-	-	-	-	282	150
400	**16**	435	360	795	660	390	216	38	210	F16	27	29	-	-	665	200	328	215
450	**18**	465	385	850	711	426	222	37	210	F16	36	38	-	-	720	300	367	250
500	**20**	500	415	915	775	489	229	44	300	F25	-	-	85	50	780	350	436	310
600[1)2)]	**24**	580	500	1080	914	581	267	44	300	F25	46	48	-	-	920	400	521	485
700	**28**	635	560	1195	995	680	292	45	350	F30	55	57	-	-	1010	350	612	600
750[1)2)]	**30**	670	589	1259	1092	725	292	51	350	F30	-	-	125	80	1100	450	668	765
800	**32**	660	595	1255	1085	780	318	49	415	F35	-	-	135	80	1100	500	717	770
900	**36**	696	645	1341	1185	881	330	47	300	F35	-	-	155	90	1190	500	821	830
1000	**40**	850	725	1575	1360	980	410	62	475	F40	-	-	165	100	1370	600	895	1410
1200	**48**	1004	862	1866	1575	1175	470	58	560	F48	-	-	195	120	1590	720	1085	2200
1400	**56**	1120	958	2078	1795	1372	530	81	560	F48	-	-	225	140	1830	800	1271	3060

1) ASME B16.5 / B16.47 class 300 (max. 25 bar)
2) AS 4087 PN21 / PN35 (max. 25 bar)

Subject to change without notice

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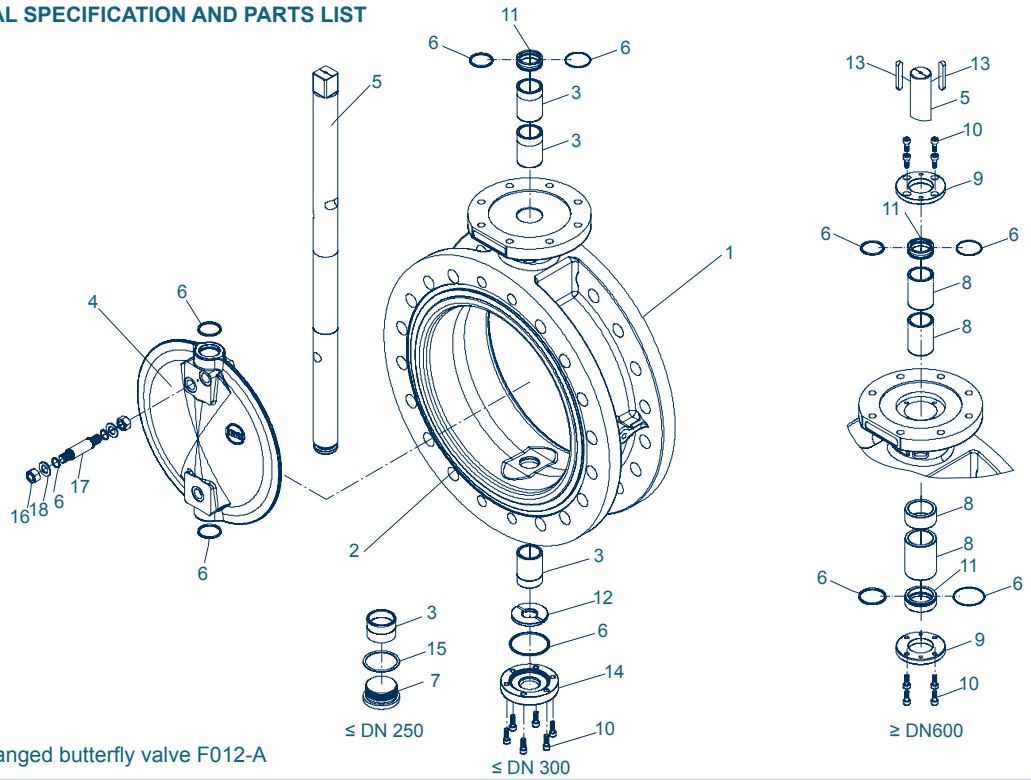
MATERIAL SPECIFICATION AND PARTS LIST



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Pos.	Description	Material	Material-No.	Pos.	Description	Material	Material-No.
1	**Body**			**10**	**Screw**		
	Nodular Cast Iron	EN-JS 1030	0.7040		Stainless Steel	A4-70	
2	**Seat**			**11**	**Bearing bush**		
	EPDM	Ethylene propylene caoutchouc			Brass		2.0401
3	**Bearing bush**			**12**	**Shaft retention**		
	Brass		2.0401		Stainless Steel	16MnCr5	1.7131
4	**Disc**			**13**	**Fitting key**		
	Stainless Steel	GX2CrNiMoN26-7-4	1.4469		Steel	C 45 k	
5	**TS-Shaft**			**14**	**Cover plate**		
	Stainless Steel		1.4542		Sectional steel	S235JR	
6	**O-Ring**			**15**	**Seal**		
	NBR	Acrylonitrile butadiene rubber			Cooper	Cu	
7	**Plug screw**			**16**	**Screw nut**		
	Stainless Steel	G-X5CrNiMo19-11-2	1.4408		Stainless Steel	A4	
8	**Thrust bearing**			**17**	**Bolt**		
	Brass		2.0401		Stainless Steel		1.4418
9	**Clamping ring**			**18**	**Washer**		
	Sectional steel	S235JR			Stainless Steel	A4	
							Other materials upon request

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TORQUE

- The values specified are based on the initial breakaway torque (disc engages from seat, torque than drops)

- Dynamic torque specification available upon request

Regarding the dimensioning of actuators, please contact our engineers.

DN [mm]	Size [in]	Operating pressure 19 [bar]	21 [bar]	25 [bar]
100	4	53	66	90
150	6	156	182	230
200	8	242	278	350
250	10	355	440	600
300	12	570	710	950
350	14	910	1080	1400
400	16	1320	1610	2050
450	18	2000	2410	3200
500	20	4170	4630	5500
600	24	6550	7130	8000
700	28	9860	11100	13000
750	30	12000	13600	16000
800	32	14250	16450	20000
900	36	19150	22900	30000
1000	40	30500	35300	44000
1200	48	53600	62300	78000
1400	66	77100	90900	116000

*Maximum torques (Nm)

K_V-VALUES

- The K_V-value [m³ per hour] is the flow of water at a temperature of 5°C to 30°C (41°F to 86°F) at a Δp of 1 bar

- Permissible velocity of flow
  - Vmax 4,5 m/s for liquids
  - Vmax 70 m/s for gases

- The throttle function is linear at an angle 30° to 70°

- Avoid cavitation

For further values, please contact our engineers.

DN [mm]	Size [in]	Opening angle α° 20°	30°	40°	50°	60°	70°	80°	90°
100	4	13	25	61	120	210	320	460	630
150	6	50	95	170	305	510	810	1230	1780
200	8	65	150	320	590	980	1515	2220	3115
250	10	175	290	560	1020	1700	2630	3830	5350
300	12	205	410	835	1520	2510	3820	5510	7590
350	14	320	590	1120	2000	3310	5140	7570	10700
400	16	460	865	1730	3120	5110	7760	11160	15360
450	18	570	1070	2140	3860	6330	9620	13830	19035
500	20	710	1335	2600	4810	7880	11980	17215	23700
600	24	760	1420	2900	5120	8380	12740	18315	25215
700	28	770	1430	4000	7560	12380	18820	27050	37240
750	30	801	1480	4180	8310	14720	23010	33155	45100
800	32	915	1800	4360	9480	16790	26250	37815	51440
900	36	1160	2100	5560	12080	21400	33450	48200	65560
1000	40	1450	2370	6920	15030	26630	41640	59900	81605
1200	48	2120	3470	10130	22000	38990	60950	87815	119460
1400	66	2930	4790	14000	30400	53840	84190	121290	165000

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