



Fumagalli S.p.A

Milano - Roma - Italy

V A L V E S

Wafer-Type Butterfly Valve-Soft Seated

MAIN STANDARD FEATURES

CONSTRUCTION :

BODY IN CAST IRON: GG25 / ASTM A126-B
 DISC IN STAINLESS STEEL: ASTM A351 CF8 (AISI 304)

- General prescriptions: BS 5155 - MSS SP67 - API 609
- DIAMETER: from DN40 to DN600
- Connection with flanges:
 PN6-PN10-PN16-ANSI 150 from DN40 to DN300
 PN6-PN10 from DN350 to DN600
- Maximum working pressure (between flanges):
 PN16 from DN40 to DN300
 PN10 from DN350 to DN600
- TEMPERATURE LIMITS WITH SEALING SEATS IN:
 EPDM from -20°C to +110°C (with peaks up to +130°C)
 NBR from -20°C to + 90°C (with peaks up to +100°C)
 VITON from -10°C to +160°C
- Face to face dimensions in conformity with:
 BS5155 - ISO5752 - MSS SP67 - API609 - DIN3202/3-K1
- Top flange with ISO5211 connection
- Blow-out proof stem
- Operation device: lever handle from DN40 to DN200
 manual reduction gear from DN250 to DN600
- Tests: Hydraulic on body: 1.5 x nominal pressure
 Hydraulic for sealing: 1.1 x nominal pressure
 Pneumatic for sealing: 6 bar
- Locking device from DN40 to DN200
- Tested for vacuum at 1 -10⁻⁷ bar
- Polyurethanic coating

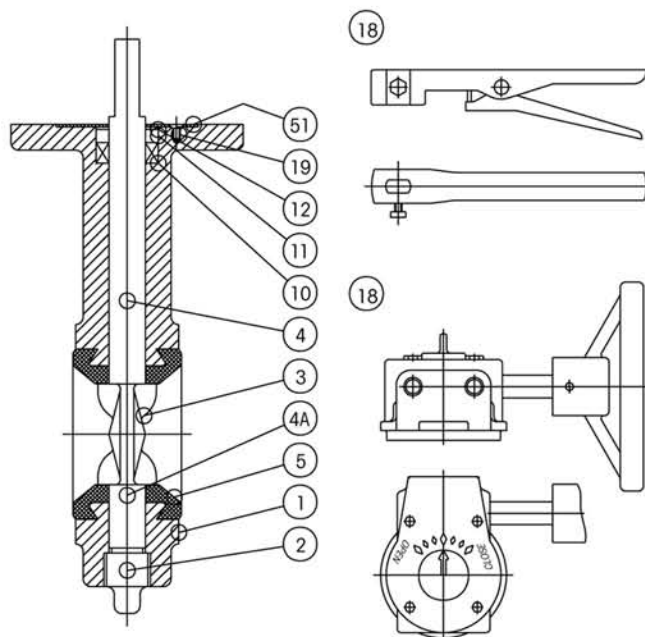
SPECIAL EXECUTIONS

- Yellow lever handle for gas
- Reduction gear with manual operation also for small DN
- Disc in AISI 316 or GGG40 nickel plated till DN200
- VITON seals
- For further special requests please consult our technical/commercial service



BOLTS AND TIE RODS DIMENSIONS

SIZE	PN10 Flanging		PN16 Flanging		SIZE	PN10 Flanging		PN16 Flanging	
	Ø x Length	holes	Ø x Length	holes		Ø x Length	holes	Ø x Length	holes
1 1/2"	40	M16x110 4	M16x110 4	4	1 1/2"	40	M16x90 4	M16x90 4	4
2"	50	M16x130 4	M16x130 4	4	2"	50	M16x100 4	M16x100 4	4
2 1/2"	65	M16x130 4	M16x130 4	4	2 1/2"	65	M16x100 4	M16x100 4	4
3"	80	M16x140 8	M16x140 8	8	3"	80	M16x100 8	M16x100 8	8
4"	100	M16x150 8	M16x150 8	8	4"	100	M16x110 8	M16x110 8	8
5"	125	M16x150 8	M16x150 8	8	5"	125	M16x120 8	M16x120 8	8
6"	150	M20x160 8	M20x160 8	8	6"	150	M20x120 8	M20x120 8	8
8"	200	M20x170 8	M20x170 12	12	8"	200	M20x130 8	M20x130 12	12
10"	250	M20x180 12	M24x190 12	12	10"	250	M20x140 12	M24x150 12	12
12"	300	M20x190 12	M24x200 12	12	12"	300	M20x160 12	M24x160 12	12
14"	350	M20x190 16	M24x220 16	16	14"	350	M20x160 16	M24x170 16	16
16"	400	M24x230 16	M27x240 16	16	16"	400	M24x190 16	M27x200 16	16
20"	500	M24x250 20	M30x280 20	20	20"	500	M24x200 20	M30x230 20	20
24"	600	M24x300 20	M33x300 20	20	24"	600	M24x260 20	M33x270 20	20



	APPLICATION FOR:	NOT RECOMMENDED FOR:
with EPDM	Water, sea water, steam, brine, esters, alcohols, ketones, caustic sodas, abrasive substances, food compounds, phosphates, inorganic acids, etc.	Hydrocarbons, oils, greases, dry air.
with NBR	Natural gas, air, water, sea water, pickle, oils and greases.	Solvents, benzene, xylol.
VITON	Mineral oil, benzene, oil for hydraulic purposes and high temperatures, sulphuric acid propane.	Not recommended for glycoethylic fluids, vegetable oil, acetone ethylic acetate, acetic acid.

LIST OF VALVE COMPONENTS AND MATERIALS

REF.	PART	Q.ty	MATERIAL
1	BODY	1	CAST IRON GG25/ASTM A126-B
2	PLUG	1	NICKEL PLATED C. STEEL
3	DISC	1	CF8 (AISI 304)
4	STEM	1	TYPE 410
4A	LOWER STEM	1	TYPE 410
5	SEAT	1	EPDM or NBR
10	UPPER SEAL	1	EPDM or NBR
11	BUSHING	1	DELTRIN
12	RING	1	STEEL FOR SPRINGS
19	SCREW	2	NICKEL PLATED C. STEEL
51	WASHER	1	NICKEL PLATED C. STEEL
18	LEVER HANDLE	1	CARBON STEEL
18	REDUCTION GEAR	1	CAST IRON

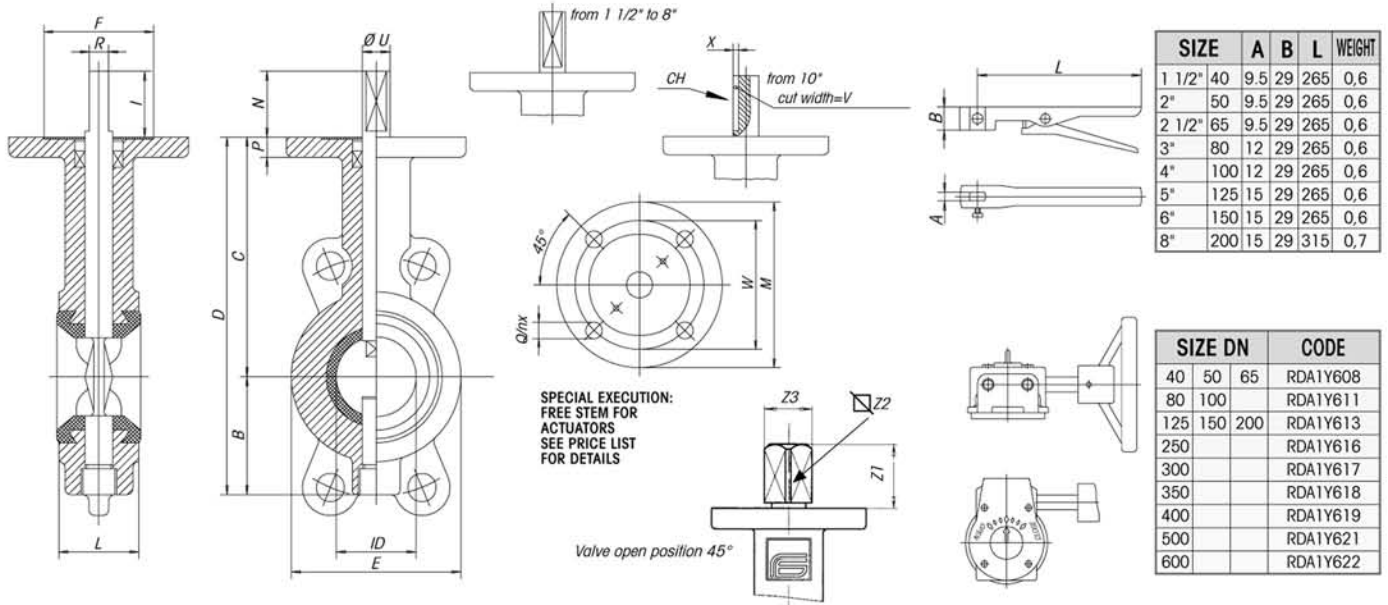


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SIZE	A	B	L	WEIGHT	
1 1/2"	40	9.5	29	265	0.6
2"	50	9.5	29	265	0.6
2 1/2"	65	9.5	29	265	0.6
3"	80	12	29	265	0.6
4"	100	12	29	265	0.6
5"	125	15	29	265	0.6
6"	150	15	29	265	0.6
8"	200	15	29	315	0.7

SIZE DN	CODE		
40	50	65	RD1Y608
80	100		RD1Y611
125	150	200	RD1Y613
250			RD1Y616
300			RD1Y617
350			RD1Y618
400			RD1Y619
500			RD1Y621
600			RD1Y622

SIZE	STEM														ISO 5211 CONN.						* WEIGHT				
	ID	L	B	C	D	E	P	N	I	R	U	X	V	Z1	Z2	Z3	CH	ISO CONN.	M	W		n	Q	F	
1 1/2"	40	40	40	59	120	179	85	10	33	30	9.5	14		16.5	11	14		F07	90	70	4	9	55	2.7	
2"	50	50	43	64	130	194	92	11	33	30	9.5	14		16.5	11	14		F07	90	70	4	9	55	2.9	
2 1/2"	65	63	46	72	137	209	107	11	33	30	9.5	14		16.5	11	14		F07	90	70	4	9	55	4.1	
3"	80	77	46	85	156	241	122	11	33	30	11.8	16		17.5	11	14		F07	90	70	4	9	55	4.4	
4"	100	100	52	95	170	265	150	11	33	30	11.8	16		17.5	11	14		F07	90	70	4	9	55	4.7	
5"	125	125	56	110	185	295	179	12	33	30	14.5	19		17.5	14	18		F07	90	70	4	9	55	6.3	
6"	150	147	56	123	203	326	206	12	33	30	14.5	19		22.5	14	18		F07	90	70	4	9	55	7.9	
8"	200	198	60	168	238	406	257	13	33	30	14.5	19		22.5	17	22		F07	90	70	4	9	55	12.3	
10"	250	244	68	203	270	473	316	15	65	60		22	4	8	27	22	28	8x7	F10	125	102	4	12	72	19.5
12"	300	298	78	242	310	552	370	15	65	60		28	4	8	27	22	28	8x7	F10	125	102	4	12	72	30.5
14"	350	337	78	290	330	620	410	15	65	60		28	4	8				8x7	F10	125	102	4	12	72	41
16"	400	387	102	330	375	705	468	20	75	70		38	5	12				12x8	F14	175	140	4	18	80	62
20"	500	487	127	400	440	840	578	20	100	95		45	5.5	14				14x9	F16	210	165	4	22	90	111
24"	600	575	154	460	510	970	680	22	100	95		55	5.5	14				14x9	F16	210	165	4	22	105	210

* WEIGHT REFERS TO VALVE WITH BARE SHAFT

BREAKAWAY TORQUES in Nm

PN - bar	DN size	40	50	65	80	100	125	150	200	250	300	350	400	500	600	The values in Nm may vary as a function of the seals material, temperature and type of medium. For a firm operation of the various types of actuators, in the different working conditions it is necessary to consider a safety factor of 1.5. During operation, with frequent open and close cycles, the operating torque can decrease considerably in comparison with the initial breakaway torque.
	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	20"	24"		
0	11	14	18	27	40	59	88	157	248	343	485	662	1142	2385		
6	11	20	25	32	41	62	92	173	275	382	549	766	1327	2787		
10	12	23	27	34	54	71	106	186	321	576	882	1634	3250			
16	14	25	29	37	56	86	123	262	392	551	1528	2035	3070	5670		

Kv AND Cv VALUES AS A FUNCTION OF OPENING ANGLE

SIZE		Kv AND Cv VALUES AS A FUNCTION OF OPENING ANGLE															
		20°		30°		40°		50°		60°		70°		80°		90°	
		Kv	Cv	Kv	Cv	Kv	Cv	Kv	Cv	Kv	Cv	Kv	Cv	Kv	Cv	Kv	Cv
1 1/2"	40	2.6	3	4.3	5	9.5	11	16	18	22	26	39	45	60	70	69	80
2"	50	6.7	8	7.8	9	16	18	24	28	48	55	62	72	95	110	116	135
2 1/2"	65	8.6	10	13	15	23	27	38	44	73	85	95	110	145	168	181	210
3"	80	13	15	20	23	34	39	56	65	112	130	142	165	216	250	267	310
4"	100	23	27	35	41	61	71	99	115	198	230	259	300	401	465	466	540
5"	125	50	58	74	86	129	150	211	245	414	480	526	610	845	980	948	1100
6"	150	83	96	121	140	211	245	345	400	677	785	871	1010	1392	1615	1647	1910
8"	200	142	165	211	245	354	410	591	685	1099	1275	1478	1715	2302	2670	2746	3185
10"	250	220	255	328	380	560	650	974	1130	1810	2100	2328	2700	3664	4250	4224	4900
12"	300	319	370	466	540	819	950	1353	1570	2629	3050	3405	3950	5129	5950	6336	7350
14"	350	388	450	647	750	1120	1300	1905	2210	3517	4080	4836	5610	6964	8078	9655	11200
16"	400	552	640	776	900	1483	1720	2405	2790	4310	5000	6336	7650	9284	10770	11121	12900
20"	500	785	910	1375	1595	2457	2850	3991	4630	7414	8600	9914	11500	15121	17540	19310	22400
24"	600	1078	1250	1974	2290	3448	4000	5250	6090	10776	12500	14224	16500	20336	23590	24397	28300