

 Aliaxis



FK DN 40÷400

PVDF

Butterfly valve

FK DN 40÷400

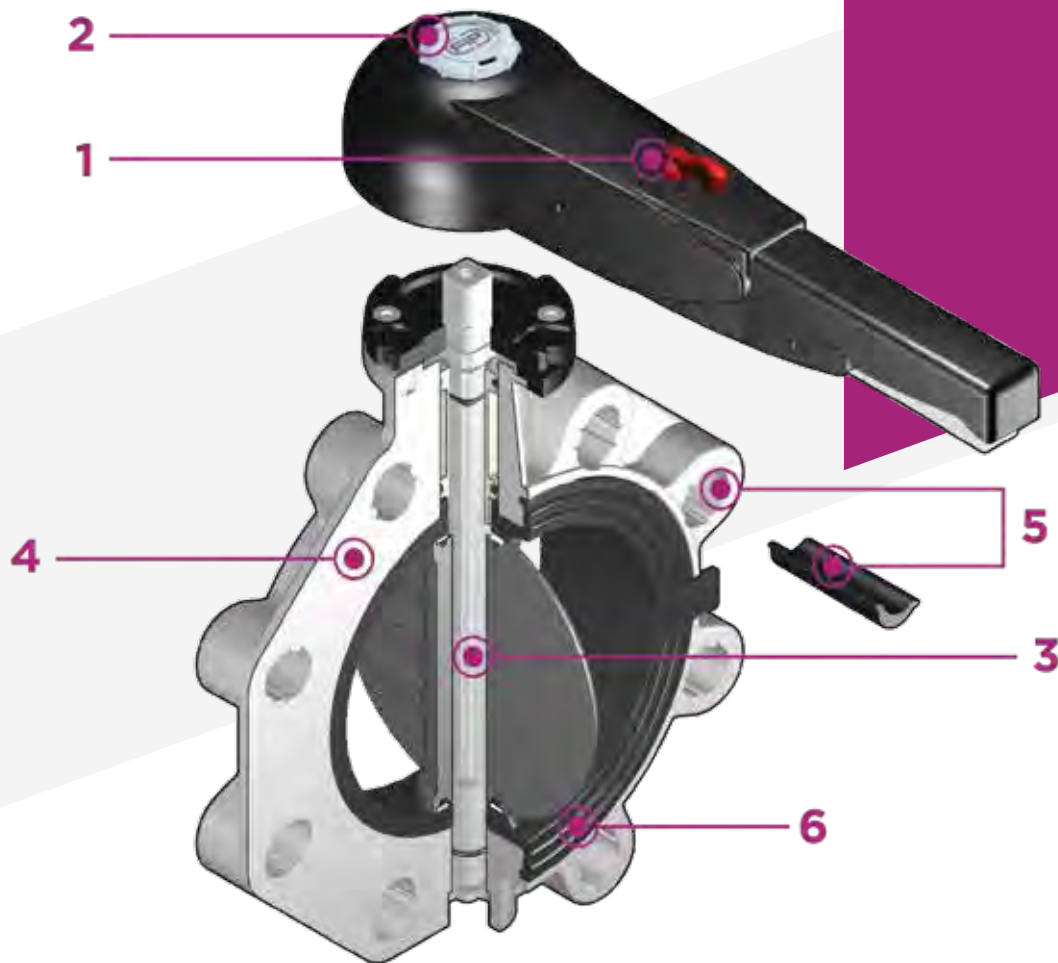
The FK is a butterfly valve for shutting off or regulating flow, with structural characteristics that make it ideal for industrial applications requiring high performance and longterm reliability. This valve is also equipped with the customisable Labelling System.

BUTTERFLY VALVE

- Interchangeable Disk in PVDF with through shaft, available in different thermoplastic materials: PVC-U, PP-H, PVC-C, ABS
- Overall dimensions of the valve in accordance with standard ISO 5752 (DN 40÷200 Medium Series 25, DN 250÷ 300 Long Series 16) and DIN 3202 K2 and ISO 5752 (DN 65÷200 K2, DN 250÷300 K3)
- Can also be installed as an end line valve, bottom discharge valve or tank dump valve
- **Special Lug version** PN 10 fully drilled according to DIN 2501 or ANSI B16.5 cl.150 **with molded-in AISI 316 stainless steel threaded inserts**
- Possibility of installing a manual reducer or pneumatic and/or electric actuators by applying an ISO standard drilling PP-GR flanges. DN 40 ÷ 200 valve equipped with plate with rack in PP-GR. For actuated versions with flange drilled according to ISO 5211 F05, F07, F10. DN 250÷300 valve, fitted with one-piece top flange in high mechanical strength PP-GR with mounting flange for internal components drilled according to standard ISO 5211 F10 (excluding DN 350÷400), F12, F14.
- Possibility to have handle with integrated LSQT limit micro switch, even as a retrofit in existing installations

Technical specifications

Construction	Bi-directional centric butterfly valve
Size range	DN 40 ÷ 400
Nominal pressure	Wafer version DN 40 ÷ 50: PN 16 with water at 20° C DN 65÷250: PN 10 with water at 20° C DN 300: PN 8 with water at 20° C DN 350: PN 7 with water at 20° C DN 400: PN 6 with water at 20° C Lug version DN 65÷200: PN 10 with water at 20° C DN 250÷300: PN 6 with water at 20° C
Temperature range	0 °C ÷ 100 °C
Coupling standards	Flanging system: EN ISO 10931, DIN 2501, ISO 7005-1, EN 1092-1, ASTM B16.5 Cl.150
Reference standards	Construction criteria: EN ISO 16136, EN ISO 10931 Test methods and requirements: ISO 9393 Actuator couplings: ISO 5211
Valve material	Body: PP-GR Disk: PVDF Stem: STAINLESS steel AISI 316
Seal material	Liner: FKM. On request EPDM
Control options	Manual control (DN 40÷200); Gearbox, pneumatic actuator, electric actuator



1 Ergonomic handle in HIPVC equipped with **locking and unlocking device, release, quick operation and graduated adjustment** in 10 intermediate positions (DN 40÷200). The operating range, starting from the first few degrees of valve opening, also guarantees extremely low pressure drops.

2 Customisable Labelling System: integrated module in the handle, made of a transparent protection plug and a customisable tag holder using the LSE set (available as an accessory). The **customisation** lets you **identify the valve**

on the system according to specific needs.

3 STAINLESS steel square section stem completely isolated from the fluid complying with standard ISO 5211:
 DN 40÷65: 11 mm
 DN 80÷100: 14 mm
 DN 125÷150: 17 mm
 DN 200: 22 mm
 DN 250÷400: 27 mm

4 Body in polypropylene based **compound reinforced with fibreglass (PP-GR) resistant to UV rays** and characterised by **high mechanical strength.**

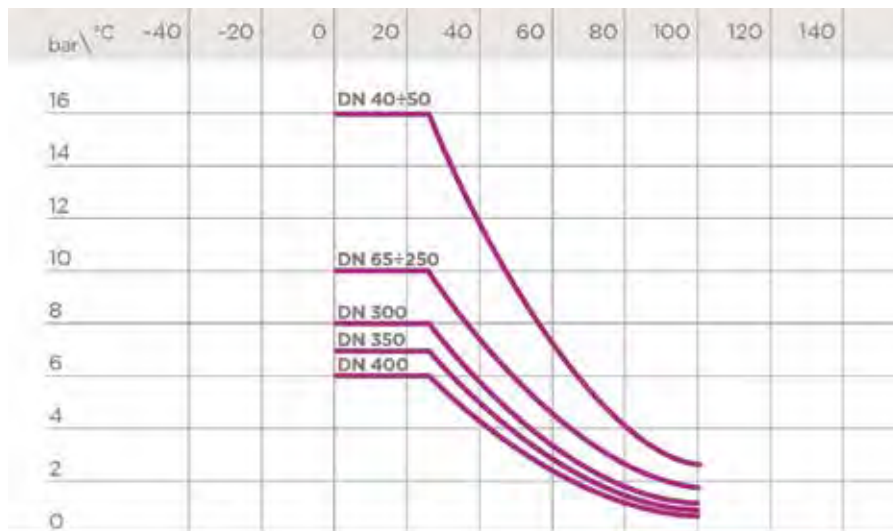
5 Drilling pattern using oval slots that allow coupling to flanges according to numerous international standards. The special **self-centring inserts in ABS** supplied for DN 40÷200 guarantee the **correct axial alignment** of the valve during installation. For DN 250÷400 valves, the drilling pattern for the selfcentring system is of the traditional type according to DIN and ANSI standards.

6 Interchangeable liner with the dual function of forming a hydraulic seal and isolating the body from the fluid.

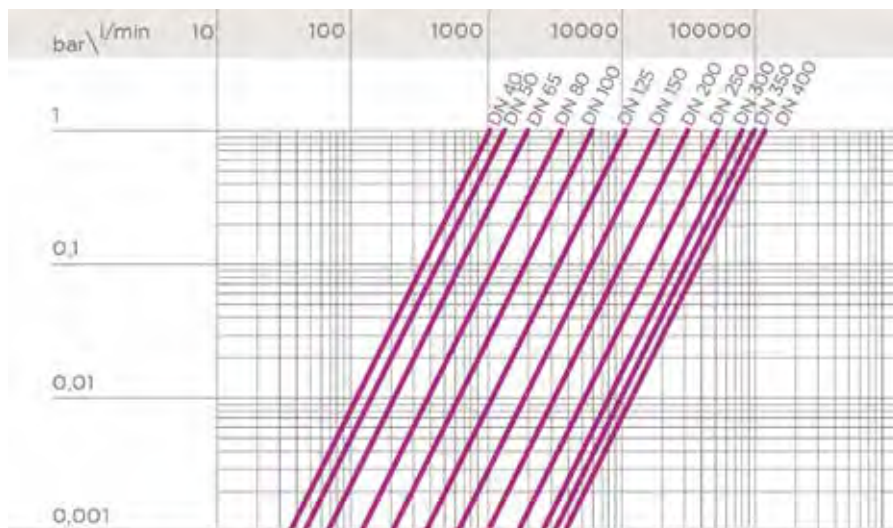
TECHNICAL DATA

PRESSURE VARIATION ACCORDING TO TEMPERATURE

For water and harmless fluids to which the material is classified as CHEMICALLY RESISTANT. In other cases, a reduction of the nominal PN pressure is required (25 years with safety factor).



PRESSURE DROP GRAPH



K_v100 FLOW COEFFICIENT DN 40÷200

The K_v100 flow coefficient is the Q flow rate of litres per minute of water at a temperature of 20°C that will generate Δp= 1 bar pressure drop at a certain valve position. The K_v100 values shown in the table are calculated with the valve completely open.

DN	40	50	65	80	100	125	150	200
Kv100 l/min	1000	1285	1700	3550	5900	9850	18700	30500

K_v100 FLOW COEFFICIENT DN 250÷400

The K_v100 flow coefficient is the Q flow rate of litres per minute of water at a temperature of 20°C that will generate Δp= 1 bar pressure drop at a certain valve position. The K_v100 values shown in the table are calculated with the valve completely open.

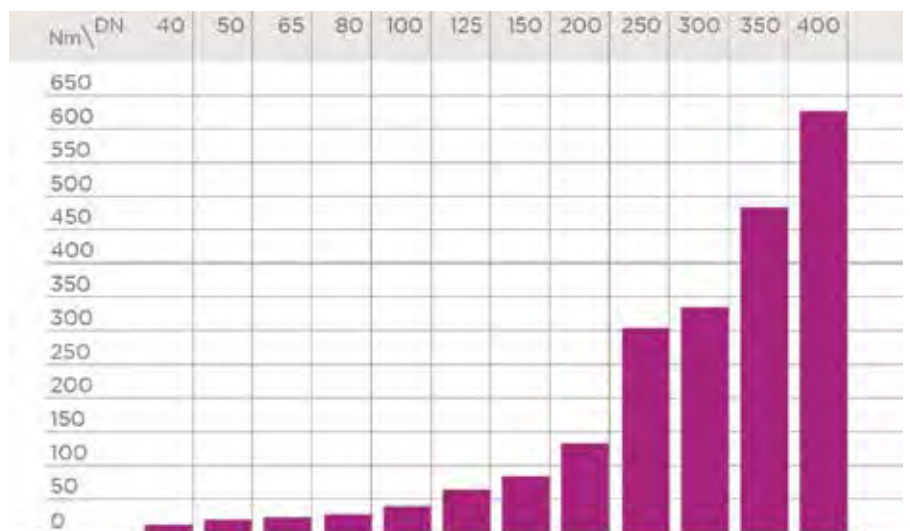
DN	250	300	350	400
Kv100 l/min	53200	81600	94100	124900

RELATIVE FLOW COEFFICIENT GRAPH

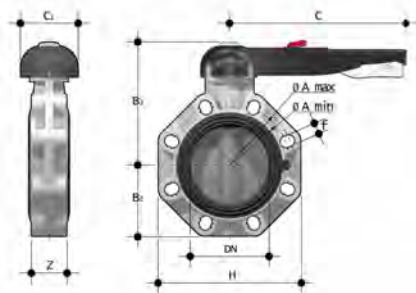
The relative flow coefficient is the flow rate through the valve as a function of the degree of valve opening.
Horizontal axis: Percentage opening of the disk
Vertical axis: Relative flow coefficient



OPERATING TORQUE AT MAXIMUM WORKING PRESSURE



DIMENSIONS

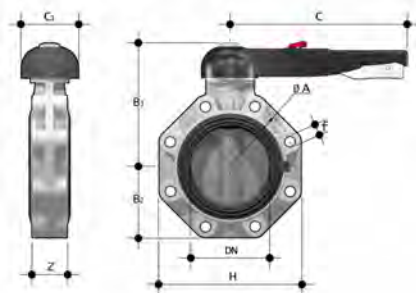


FKOF/LM

Hand operated Butterfly valve

d - Size	DN	PN	A min	A max	B ₂	B ₃	C	C ₁	H	U	Z	g	FKM code
50 - 1"1/2	40	16	99	109	60	137	175	100	132	4	33	1000	FKOFLM050F
63 - 2"	50	16	115	125,5	70	143	175	100	147	4	43	1180	FKOFLM063F
75 - 2"1/2	65	10	128	144	80	164	175	110	165	4	46	1570	FKOFLM075F
90 - 3"	80	10	145	160	93	178	175	100	185	12	49	2020	FKOFLM090F
110 - 4"	100	10	165	190	107	192	272	110	211	8	56	2370	FKOFLM110F
140 - 5"	125	10	204	215	120	212	330	110	240	8	64	3300	FKOFLM140F
160 - 6"	150	10	230	242	134	225	330	110	268	8	70	4100	FKOFLM160F
225 - 8"	200	10	280	298	161	272	420	122	323	8	71	7050	FKOFLM225F

Note: EPDM, NBR (d75-225) primary liner available

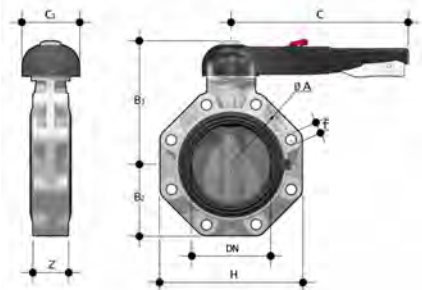


FKOF/LM LUG ISO-DIN

Hand operated Butterfly valve, version Lug ISO-DIN

d	DN	PN	ØA	B ₂	B ₃	C	C ₁	f	H	U	Z	g	FKM code
75	65	10	145	80	164	175	110	M16	165	4	46	1970	FKOLF075F
90	80	10	160	93	178	175	100	M16	185	12	49	2820	FKOLF090F
110	100	10	180	107	192	272	110	M16	211	8	56	3170	FKOLF110F
140	125	10	210	120	212	330	110	M16	240	8	64	4900	FKOLF140F
160	150	10	240	134	225	330	110	M20	268	8	70	5700	FKOLF160F
225	200	10	295	161	272	420	122	M20	323	8	71	8650	FKOLF225F

Note: EPDM, NBR (d75-225) primary liner available

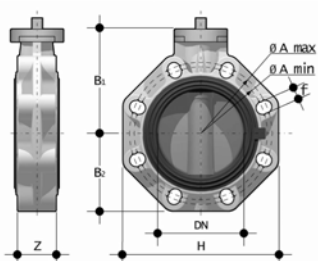


FKOF/LM LUG ANSI

Hand operated Butterfly valve, version Lug ANSI

d	DN	PN	øA	B ₂	B ₃	C	C ₁	f	H	U	Z	g	FKM code
2" 1/2	65	10	139,7	119	80	175	110	5/8"	165	4	46	1970	FKOALFLM212F
3"	80	10	152,4	133	93	175	100	5/8"	185	12	49	2820	FKOALFLM300F
4"	100	10	190,5	147	107	272	110	5/8"	211	8	56	3170	FKOALFLM400F
5"	125	10	215,9	167	120	330	110	3/4"	240	8	64	4900	FKOALFLM500F
6"	150	10	241,3	180	134	330	110	3/4"	268	8	70	5700	FKOALFLM600F
8"	200	10	298,4	227	161	420	122	3/4"	323	8	71	8650	FKOALFLM800F

Note: EPDM, NBR (d 2" 1/2 - 8") primary liner available



FKOF/FM

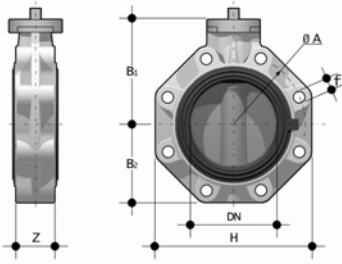
Butterfly valve with bare shaft

d - Size	DN	PN	A min	A max	øA	B ₁	B ₂	f	H	U	Z	g	FKM code
50 - 1"1/2	40	16	99	109	-	106	60	19	132	4	33	674	FKOFFM050F
63 - 2"	50	16	115	125,5	-	112	70	19	147	4	43	854	FKOFFM063F
75 - 2"1/2	65	10	128	144	-	119	80	19	165	4	46	1100	FKOFFM075F
90 - 3"	80	10	145	160	-	133	93	19	185	12	49	1550	FKOFFM090F
110 - 4"	100	10	165	190	-	147	107	19	211	8	56	1900	FKOFFM110F
140 - 5"	125	10	204	215	-	167	120	23	240	8	64	2750	FKOFFM140F
160 - 6"	150	10	230	242	-	180	134	23	268	8	70	3550	FKOFFM160F
225 - 8"	200	10	280	298	-	227	161	23	323	8	71	6300	FKOFFM225F
250	*250	10	-	-	350	248	210	22	405	12	114	13000	FKOFFM280F
280	*250	10	-	-	350	248	210	22	405	12	114	13000	FKOFFM280F
315	*300	8	-	-	400	305	245	22	475	12	114	21000	FKOFFM315F
10"	**250	10	-	-	362	248	210	25,4	405	12	114	13000	FKOAFM810F
12"	**300	8	-	-	432	305	245	25,4	475	12	114	21000	FKOAFM812F
355	*350	7	-	460	-	330	280	22	530	16	129	28395	FKOFFM355F
400	*400	6	-	515	-	350	306	26	594	16	169	37295	FKOFFM400F
14"	**350	7	-	476	-	330	280	28,5	530	12	129	28395	FKOAFM814F
16"	**400	6	-	540	-	350	306	28,5	594	16	169	37295	FKOAFM816F

*ISO-DIN

**ANSI B.16.5 150

Note: EPDM, NBR (d75-225) primary liner available

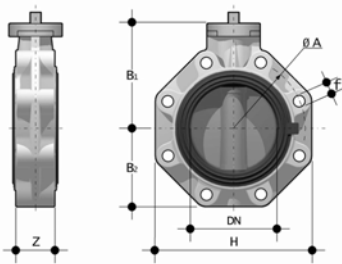


FKOF/FM LUG ISO-DIN

Butterfly valve with bare shaft, version Lug ISO-DIN

d	DN	PN	øA	B ₁	B ₂	f	H	U	Z	g	FKM code
75	65	10	145	119	80	M16	165	4	46	1500	FKOLFFM075F
90	80	10	160	133	93	M16	185	12	49	2350	FKOLFFM090F
110	100	10	180	147	107	M16	211	8	56	2700	FKOLFFM110F
140	125	10	210	167	120	M16	240	8	64	4350	FKOLFFM140F
160	150	10	240	180	134	M20	268	8	70	5150	FKOLFFM160F
225	200	10	295	227	161	M20	323	8	71	7900	FKOLFFM225F

Note: EPDM, NBR (d75-225) primary liner available

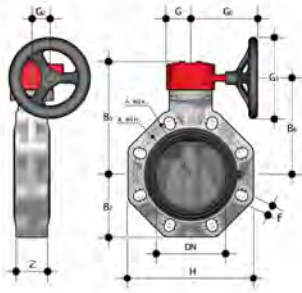


FKOF/FM LUG ANSI

Butterfly valve with bare shaft, version Lug ANSI

d	DN	PN	øA	B ₁	B ₂	f	H	U	Z	g	FKM code
2" 1/2	65	10	139,7	119	80	5/8"	165	4	46	1500	FKOALFFM212F
3"	80	10	152,4	133	93	5/8"	185	12	49	2350	FKOALFFM300F
4"	100	10	190,5	147	107	5/8"	211	8	56	2700	FKOALFFM400F
5"	125	10	215,9	167	120	3/4"	240	8	64	4350	FKOALFFM500F
6"	150	10	241,3	180	134	3/4"	268	8	70	5150	FKOALFFM600F
8"	200	10	298,4	227	161	3/4"	323	8	71	7900	FKOALFFM800F
10"	250	6	362	248	210	7/8"	405	12	114	17800	FKOALFFM810F
12"	300	6	431,8	305	245	7/8"	475	12	114	25800	FKOALFFM812F

Note: EPDM, NBR (d 2" 1/2 - 8") primary liner available



FKOF/RM

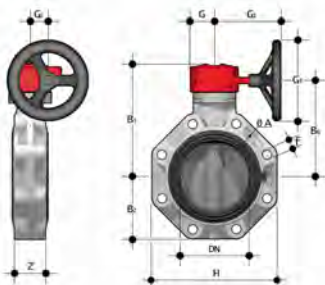
Gearbox operated Butterfly valve

d - Size	DN	PN	A _{min}	A _{max}	øA	B ₂	B ₅	B ₆	G	G ₁	G ₂	G ₃	H	U	Z	g	FKM code
75 - 2"1/2	65	10	128	144	-	80	174	146	48	135	39	125	165	4	46	2500	FKOFRM075F
90 - 3"	80	10	145	160	-	93	188	160	48	135	39	125	185	12	49	3050	FKOFRM090F
110 - 4"	100	10	165	190	-	107	202	174	48	135	39	125	211	8	56	3300	FKOFRM110F
140 - 5"	125	10	204	215	-	120	222	194	48	144	39	200	240	8	64	4650	FKOFRM140F
160 - 6"	150	10	230	242	-	134	235	207	48	144	39	200	268	8	70	5450	FKOFRM160F
225 - 8"	200	10	280	298	-	161	287	256	65	204	60	200	323	8	71	9600	FKOFRM225F
*280	250	10	-	-	350	210	317	281	88	236	76	250	405	12	114	19600	FKOFRM280F
*315	300	8	-	-	400	245	374	338	88	236	76	250	475	12	114	27600	FKOFRM315F
**10"	250	10	-	-	362	210	317	281	88	236	76	250	405	12	114	19600	FKOAFRM810F
**12"	300	8	-	-	432	245	374	338	88	236	76	250	475	12	114	27600	FKOAFRM812F
*355	350	7	-	-	460	280	438	390	88	361	80	300	530	16	129	36845	FKOFRM355F
*400	400	6	-	-	515	306	438	390	88	361	80	300	594	16	169	45745	FKOFRM400F
**14"	350	7	-	-	460	280	438	390	88	361	80	300	530	16	129	36845	FKOAFRM814F
**16"	400	6	-	-	515	306	438	390	88	361	80	300	594	16	169	45745	FKOAFRM816F

*ISO-DIN

**ANSI B.16.5 150

Note: EPDM, NBR (d75-225) primary liner available

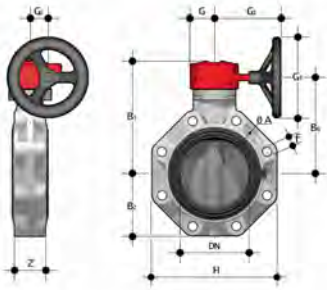


FKOM/RM LUG ISO-DIN

Gearbox operated Butterfly valve, version Lug ISO-DIN

d	DN	PN	øA	B ₂	B ₅	B ₆	f	G	G ₁	G ₂	G ₃	H	U	Z	g	FKM code
75	65	10	145	80	174	146	M16	48	135	39	125	165	4	46	2900	FKOLFRM075F
90	80	10	160	93	188	160	M16	48	135	39	125	185	12	49	3750	FKOLFRM090F
110	100	10	180	107	202	174	M16	48	135	39	125	211	8	56	4100	FKOLFRM110F
140	125	10	210	120	222	194	M16	48	144	39	200	240	8	64	6250	FKOLFRM140F
160	150	10	240	134	235	207	M20	48	144	39	200	268	8	70	7050	FKOLFRM160F
225	200	10	295	161	256	256	M20	65	204	60	200	323	8	71	11200	FKOLFRM225F

Note: EPDM, NBR (d75-225) primary liner available



FKOF/RM LUG ANSI

Gearbox operated Butterfly valve, version Lug ANSI

d	DN	PN	øA	B ₂	B ₅	B ₆	f	G	G ₁	G ₂	G ₃	H	U	Z	g	FKM code
2" 1/2	65	10	139,7	80	174	146	5/8"	48	135	39	125	165	4	46	2900	FKOALFRM212F
3"	80	10	152,4	93	188	160	5/8"	48	135	39	125	185	12	49	3750	FKOALFRM300F
4"	100	10	190,5	107	202	174	5/8"	48	135	39	125	211	8	56	4100	FKOALFRM400F
5"	125	10	215,9	120	222	194	3/4"	48	144	39	200	240	8	64	6250	FKOALFRM500F
6"	150	10	241,3	134	235	207	3/4"	48	144	39	200	268	8	70	7050	FKOALFRM600F
8"	200	10	298,4	161	287	256	3/4"	65	204	60	200	323	8	71	11200	FKOALFRM800F
10"	250	6	362	210	317	281	7/8"	88	236	76	250	405	12	114	24400	FKOALFRM810F
12"	300	6	431,8	245	374	338	7/8"	88	236	76	250	475	12	114	32450	FKOALFRM812F

Note: EPDM, NBR (d 2" 1/2 - 8") primary liner available