

# Double Eccentric Butterfly Valve

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# flu-con SERIES 35

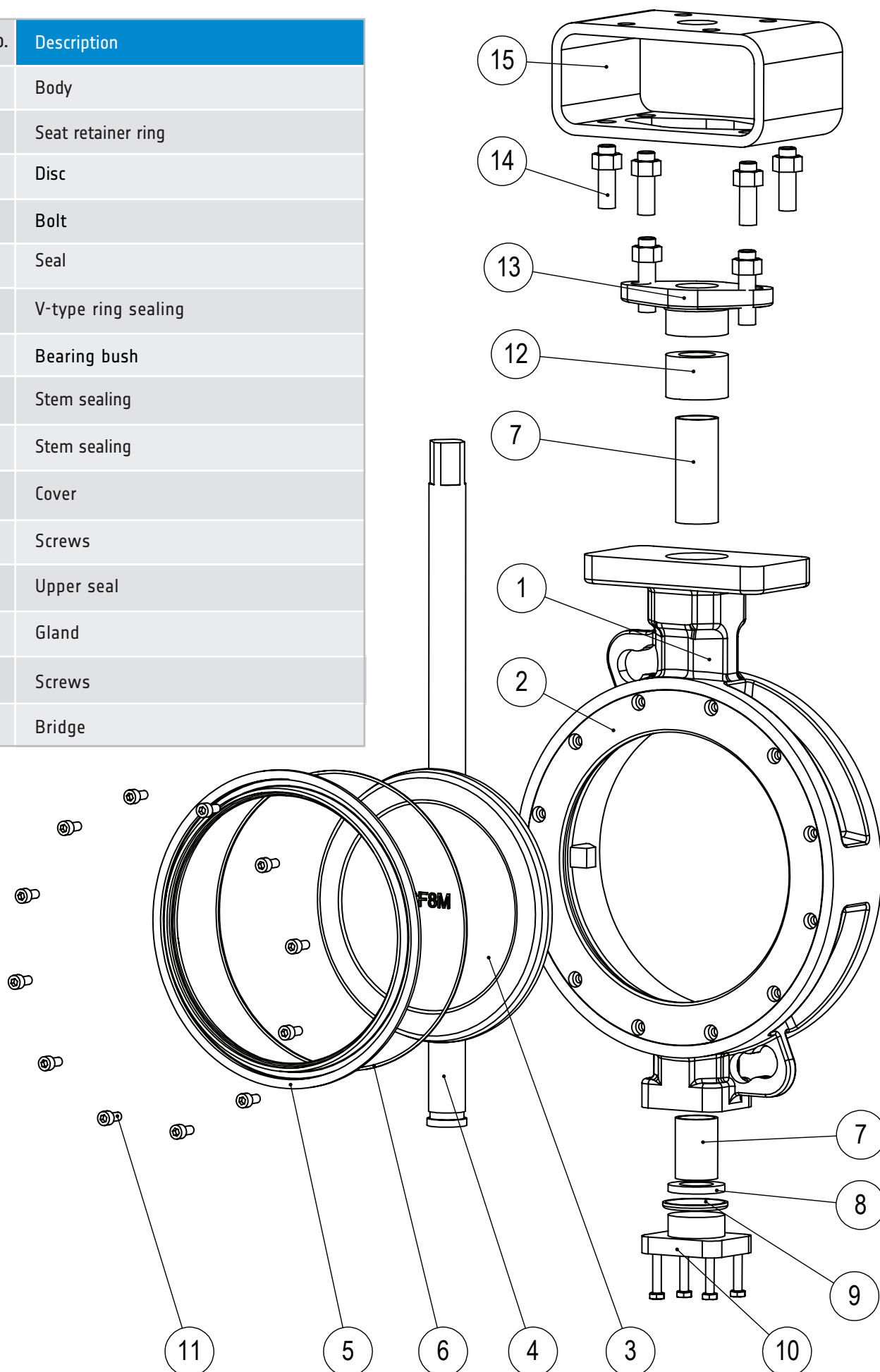


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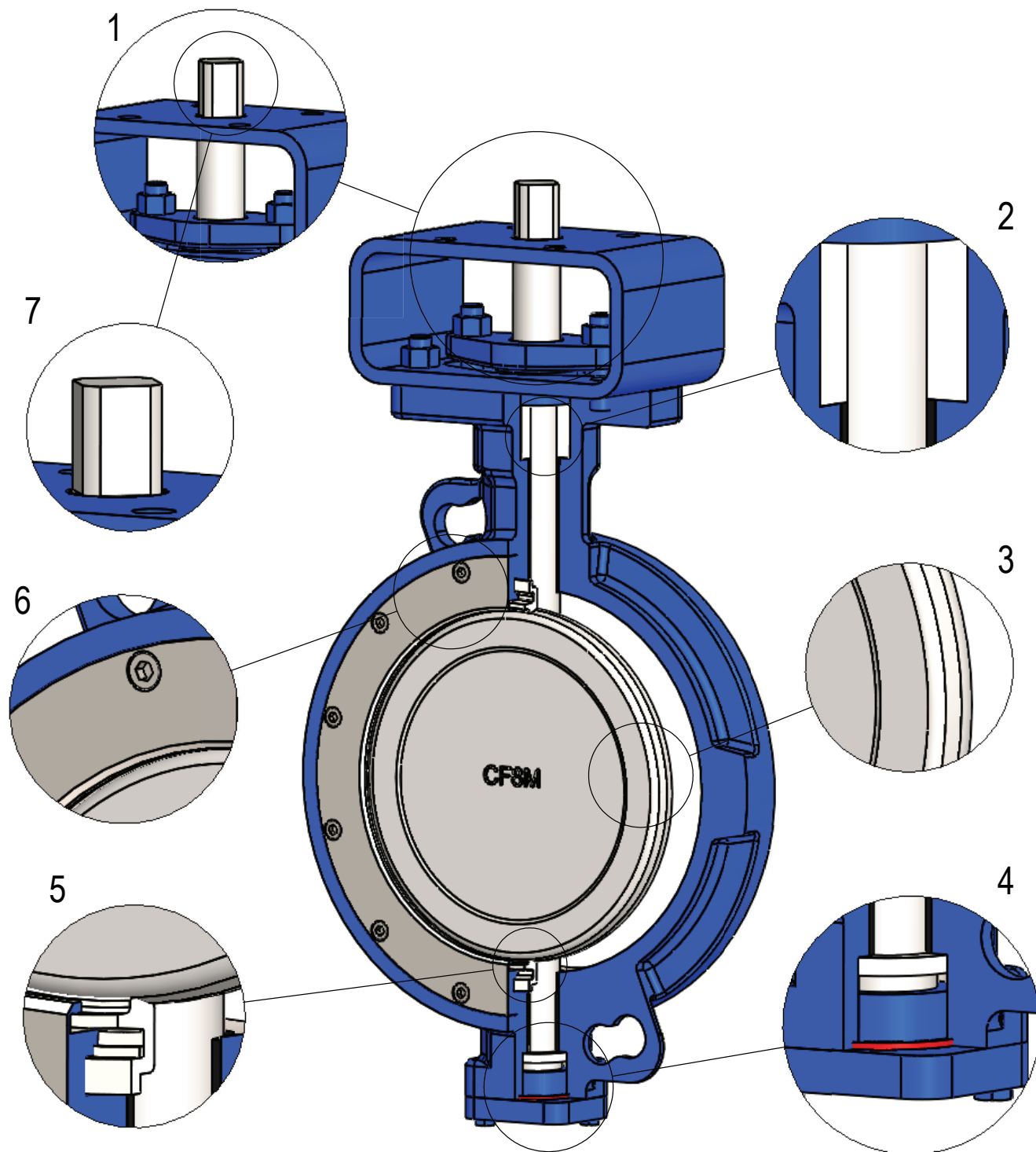
## Technical Specification

Double Eccentric Wafer Type	Standard version	Upon request
Nominal dimension	DN50 to DN 1000, 2" to 40"	
DN 50 (2") to DN1000 (40")	ISO PN10,16,20 and 25, ANSI B16.1CL ANSI B16.5 CL. 150, 300	BS4504, PN10, PN16 BS10 Table D, E, JIS B2210 10K, 16K and 20K
Body	Ductile iron GGG40 (EN-JS-1030) (EN-GJS-400-15)	Stainless steel 1.4408 /AISI 316 A743 (CF8M), Cast iron 1.0619/GP240GH (G- SC25)/A216 WCB
Disc	Stainless steel 1.4408, CF8M	Ductile iron 1.0619 Stainless steel 304
Media temperature related to possible body coatings	RPTFE -30°C bis +200°C Metal -30°C bis +350°C	
Mounting flange	ISO5211	acc.to specifications
Body length	API609	acc.to specifications

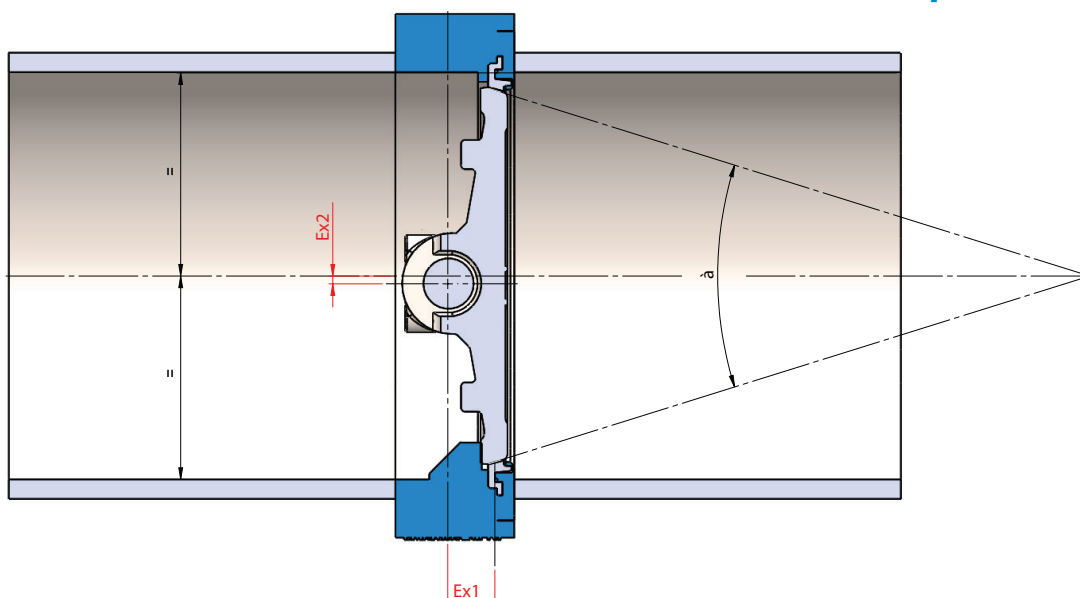
Pos.-No.	Description
1	Body
2	Seat retainer ring
3	Disc
4	Bolt
5	Seal
6	V-type ring sealing
7	Bearing bush
8	Stem sealing
9	Stem sealing
10	Cover
11	Screws
12	Upper seal
13	Gland
14	Screws
15	Bridge



## Setup of Series 35, DN50 (2") – DN 1000 (40")



- |   |  |
|---|--|
| 1 | Top flange acc. to ISO-5211.   |
| 2 | Maintenance-free bearing for all nominal sizes. Bearing for exact centering of the disc. Valve disc double eccentric mounted.                                  |
| 3 | All sealing surfaces are machined. As an advantage you have low torque and low wear.   |
| 4 | The bolt is secured by a locking plate. An additional sealing ring ensures that the inner area of the bolt is protected against dirt and liquids.              |
| 5 | The seat ring inserted with a positive fit ensures absolute tightness and compensates for wear. Replacement is possible without disassembly of shaft and disc. |
| 6 | The removable retainer ring protects against abrasion and erosion.   |
| 7 | The continuous shaft ensures high stability.   |



In the case of the double eccentric butterfly valve, the main seal or the seat is displaced to the shaft axis (Ex1), so that an endless sealing ring can be used. In addition, the shaft axis is further displaced above or below the pipe axis (Ex2).

## Torque values (Nm)

Series 35		Torque value at closed valve 10 bar (Nm)	Torque value at closed valve 16 bar (Nm)
DN	NPS		
DN50	2"	22	30
DN65	2 1/2"	30	34
DN80	3"	38	43
DN100	4"	55	60
DN125	5"	85	113
DN150	6"	130	144
DN200	8"	190	246
DN250	10"	280	412
DN300	12"	390	603
DN350	14"	650	1050
DN400	16"	900	1440
DN450	18"	1100	1830
DN500	20"	1500	2352
DN600	24"	2300	3744
DN700	28"	3700	*
DN800	32"	4500	*
DN900	36"	*	*
DN1000	40"	*	*

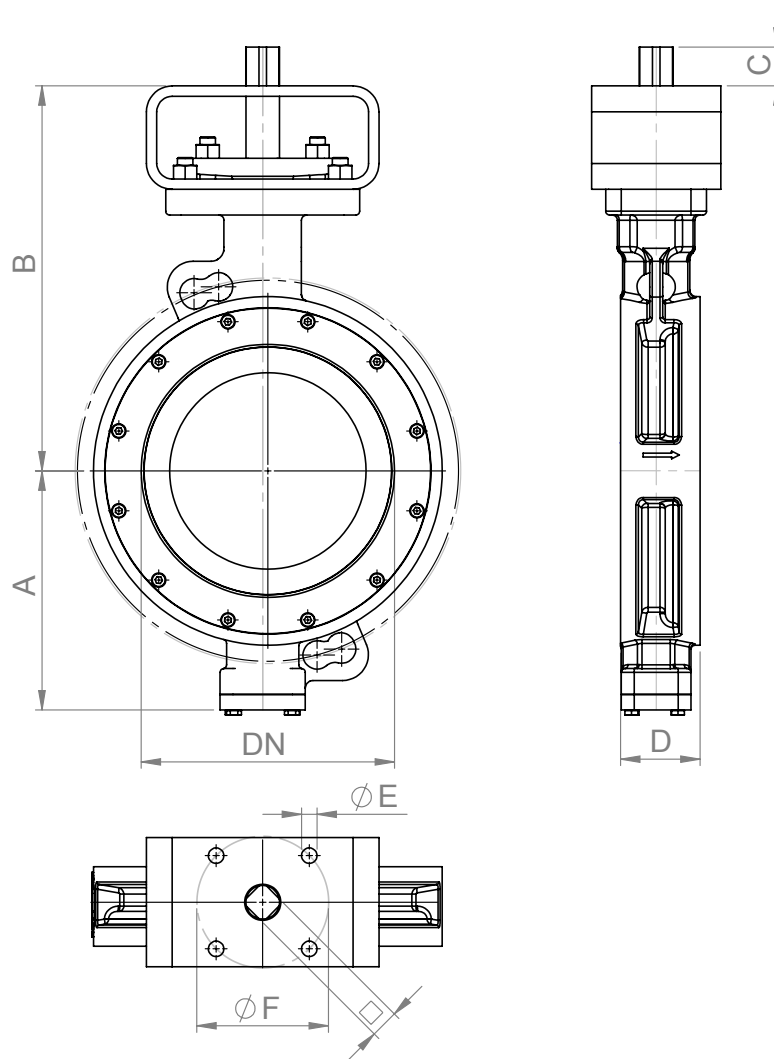
\* upon request

Note:  
The table values refer to water, seawater, hydrocarbon lubricant. Temperatures from 0 °C to 80°C. Butterfly valves are activated at least once a month. For other applications in liquids and lubricating gases, multiply the values by 1.25. For lubricant-free and dry media multiply the values by 1.3.

The torque value in the table is the sum of all frictions and resistances when opening and closing the disc under the given pressure difference.

The effect of the dynamic torque is not taken into account in the table.  
When dimensioning the actuators, the torque of the table must be multiplied by 1.25

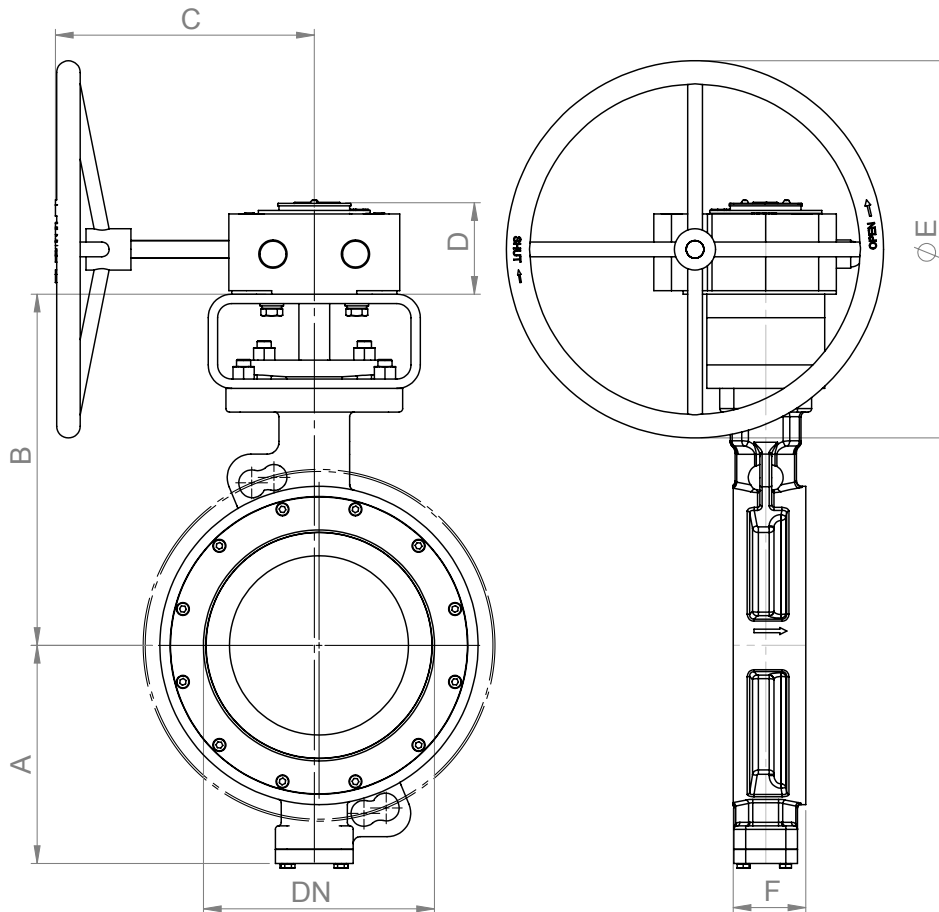
## Dimensions wafer type Series 35 DN50 (2") to DN 1000 (40") with bare shaft



Size	A	B	C	D	□	øE	øF / ISO	Weight/ KG
50	76	150	13,5	43	11	4x ø7	ø50 / F05	3,2
65	81	162	13,5	46	11	4x ø7	ø50 / F05	5
80	128	1740	17,5	46	14	4x ø8	ø70 / F07	6
100	130	192	17,5	52	14	4x ø8	ø70 / F07	8
125	145	209	20,5	56	17	4x ø8	ø70 / F07	12
150	146	215	20,5	56	17	4x ø8	ø70 / F07	13,8
200	184	300	25,5	60	22	4x ø11	ø102 / F10	23,1
250	228	320	25,5	68	22	4x ø11	ø102 / F10	30,7
300	245	350	30,5	78	27	4x ø13	ø125 / F12	42,8
350	275	360	30,5	78	27	4x ø13	ø125 / F12	60,4
400	326	440	39	102	36	4x ø17	ø140 / F14	106,7
450	350	500	39	114	36	4x ø17	ø140 / F14	130,4
500	395	530	49	127	46	4x ø17	ø140 / F14	167
600	468	590	49	154	46	4x ø21	ø165 / F16	302
700	550	660	60	165	55	8x ø17	ø254 / F25	364
800	585	750	60	190	55	8x ø21	ø298 / F30	494
900	643	790	*	203	75/55	8x ø21	ø298 / F30	638
1000	726	890	*	216	75	8x ø21	ø298 / F30	888

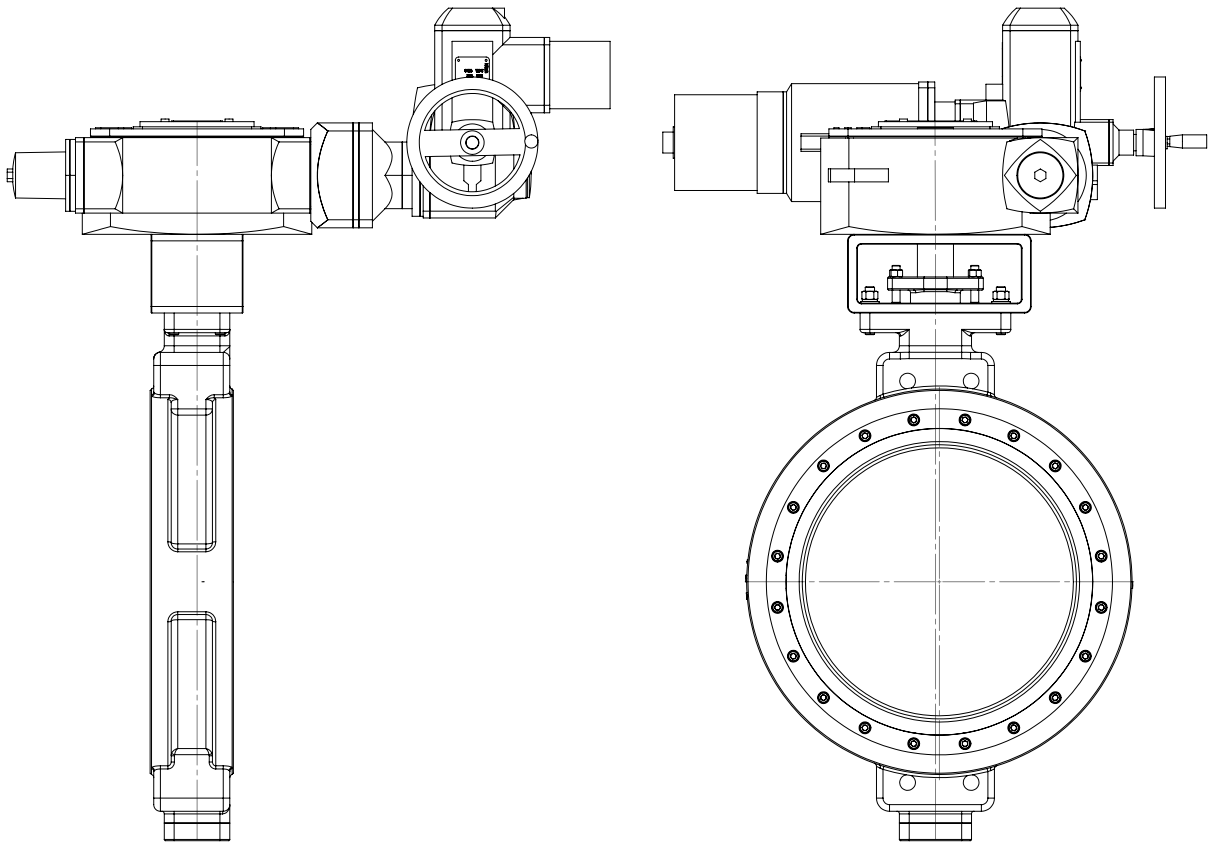
\* upon request

## Dimensions wafer type Series 35 DN50 (2") to DN1000 (40") with gearboxiebe

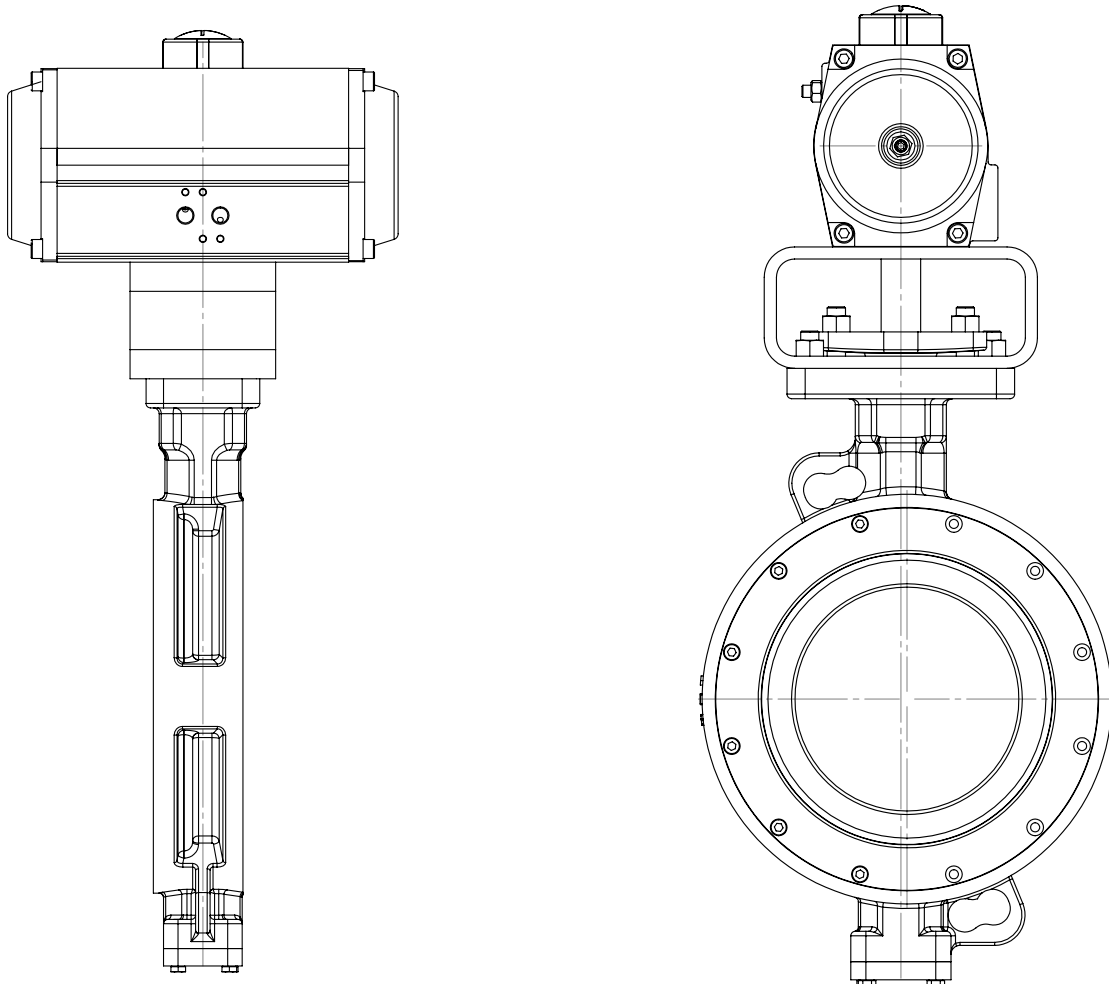


Size	A	B	C	D	øE	F	Weight/ KG
DN50	76	150	99	48	100	43	4,7
DN65	81	162	99	48	100	46	7
DN80	128	1740	115	54	120	46	7,9
DN100	130	192	115	54	120	52	9,9
DN125	145	209	115	54	120	56	11,9
DN150	146	215	115	54	120	56	15,7
DN200	184	300	220	71	300	60	28,3
DN250	228	320	220	71	300	68	35,9
DN300	245	350	208	72	300	78	53,8
DN350	275	360	208	72	300	78	71,4
DN400	326	440	287	81	400	102	127,3
DN450	350	500	287	81	400	114	151,4
DN500	395	530	357	91	500	127	199
DN600	468	590	382	93	500	154	346
DN700	550	660	448	130	500	165	430
DN800	585	750	480	160	500	190	603
DN900	643	790	555	160	600	203	760
DN1000	726	890	555	160	600	216	1010

## Series 35 with electrical actuator upon request



## Series 35 with pneumatic actuator upon request



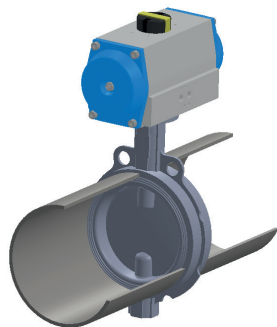


## Assembly variants for actuator mounting „parallel to the pipe“

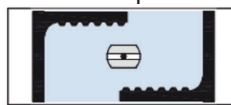
Assembly version: **H** (double acting + single acting)

-Safety position: spring to close, clockwise rotation default: clockwise „closed“

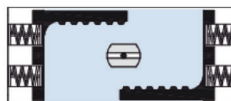
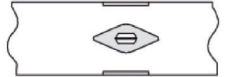
-to DIN EN 15714-1



90° switch position

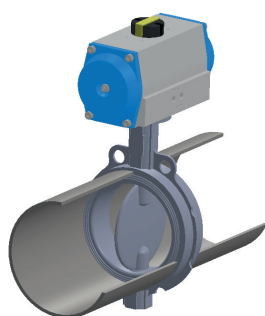


0° basic position

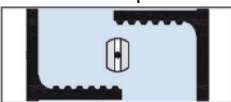


Assembly version: **F** (double acting + single acting)

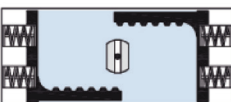
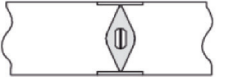
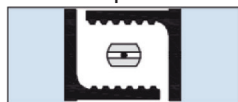
-Safety position: spring to open, counter-clockwise rotating



90° switch position

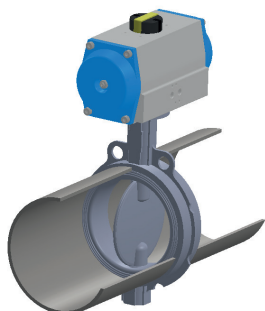


0° basic position

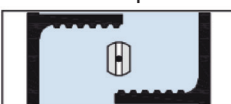


Assembly version: **G** (double acting + single acting)

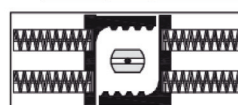
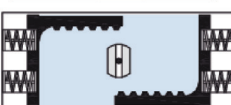
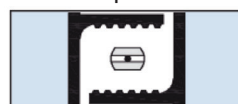
-Safety position: spring to open, clockwise



90° switch position

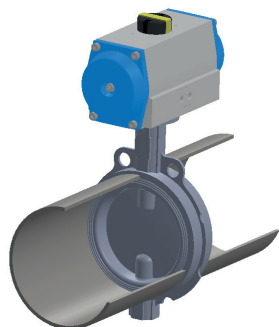


0° basic position

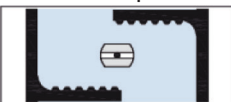


Assembly version: **E** (double acting + single acting)

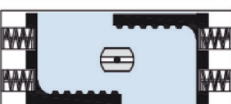
-Safety position: spring to close, counter-clockwise



90° switch position



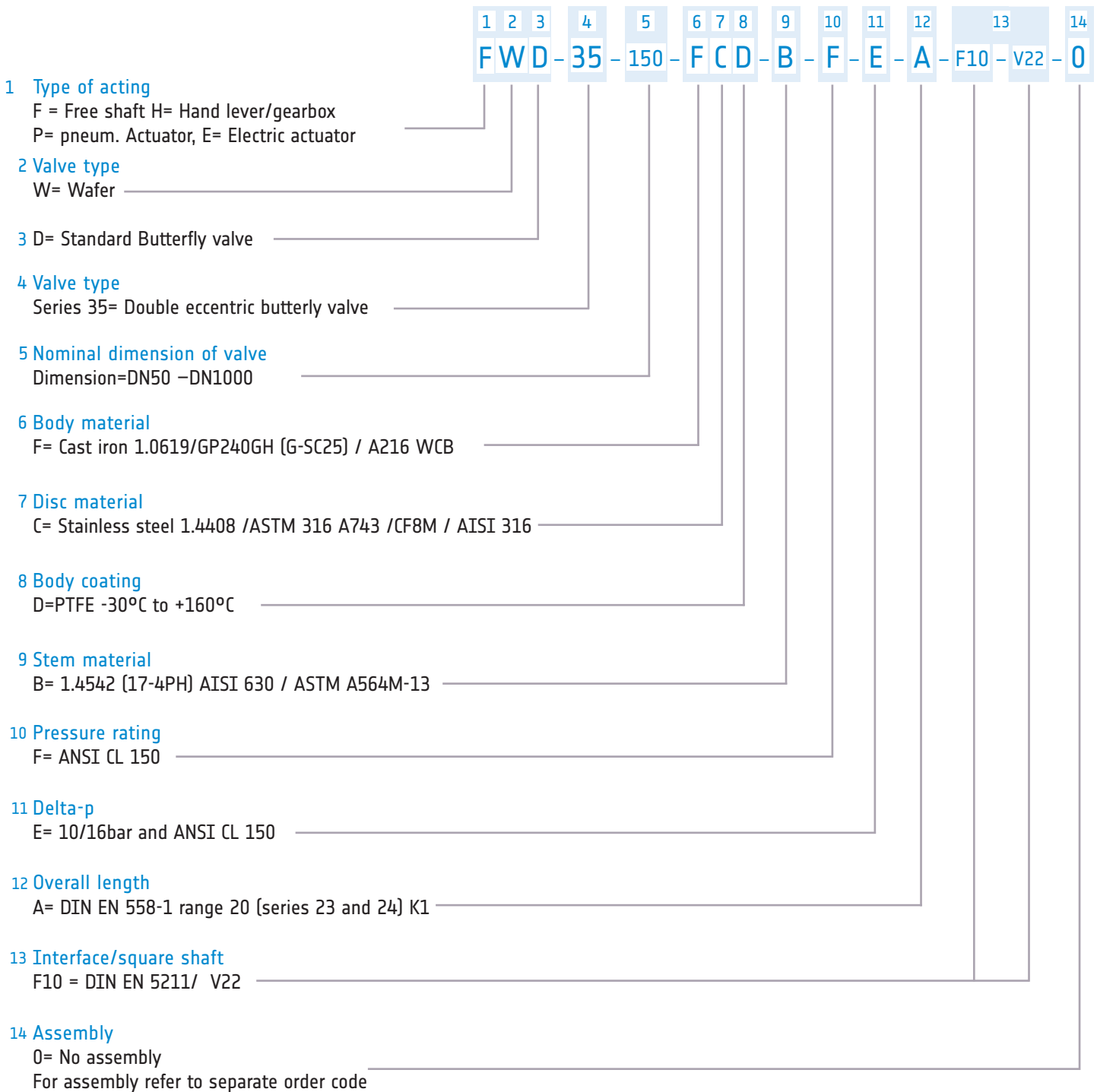
0° basic position



Actuator mounting „crossmount to the pipe“ on request.

## Order code

### Order examples for a double eccentric butterfly valve DN150 with bare shaft



Service hotline for questions and information:

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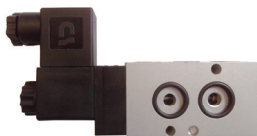


# Extract from the delivery program of APE

Positioners



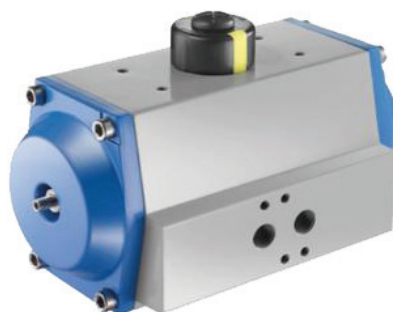
Solenoid valves



Limit switch boxes



Manual gear boxes



Pressure booster



Mounting bridge and couplings



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