

Industrial butterfly valve K 200

Corrosion resistant and deflection resistant thermoplastic butterfly valves

Rational, space saving design

Leak rate 1, tested in accordance with DIN 3230

Sizes from DN 50 to DN 300

Optional also with manual gear box



NOTE: CHEMICAL INDUSTRY FIG K210 HAS DOUBLE STEM SEALS AND PVDF BODY OPTION

Type of fluids:

Neutral, aggressive¹⁾, liquid or gaseous liquids provided that the selected materials are resistant of operating temperature. Refer to the ASV resistance guide.

Installation:

Optional.

Pressure stage:

DN ≤ 125: PN 10

DN ≥ 150: PN 6

at 20 °C

Operating pressure:

See pressure/temperature-diagram.

Media temperature:

Depends on the operating conditions (system pressure, load etc.). Taking creep strength into account, the following approximately temperatures apply:

- uPVC: - 10 °C to +60 °C

- PP: +10 °C to +80 °C

Sealing element and O-ring sealings:

- EPDM: - 40 °C up to + 90 °C

- FPM: - 20 °C up to +120 °C

Actuation:

- With hand lever, spring loaded latch and ratchet with 7 engagement positions, each 15°; as from DN 250 with manual gear box.

- Manual gear box with visual position display.

- Designed for mounting actuators as per DIN ISO 5211.

Design:

- Butterfly valve for inserting in existing line as per DIN 3202, for length refer to dimension table.

- Can be radially fitted or removed.

- DN ≤ 200 with vertical hoop sealing element and O-ring sealing for the flange connection.

- DN ≥ 250 with liner.

Option:

Limit switch units also for manually operated butterfly valves.

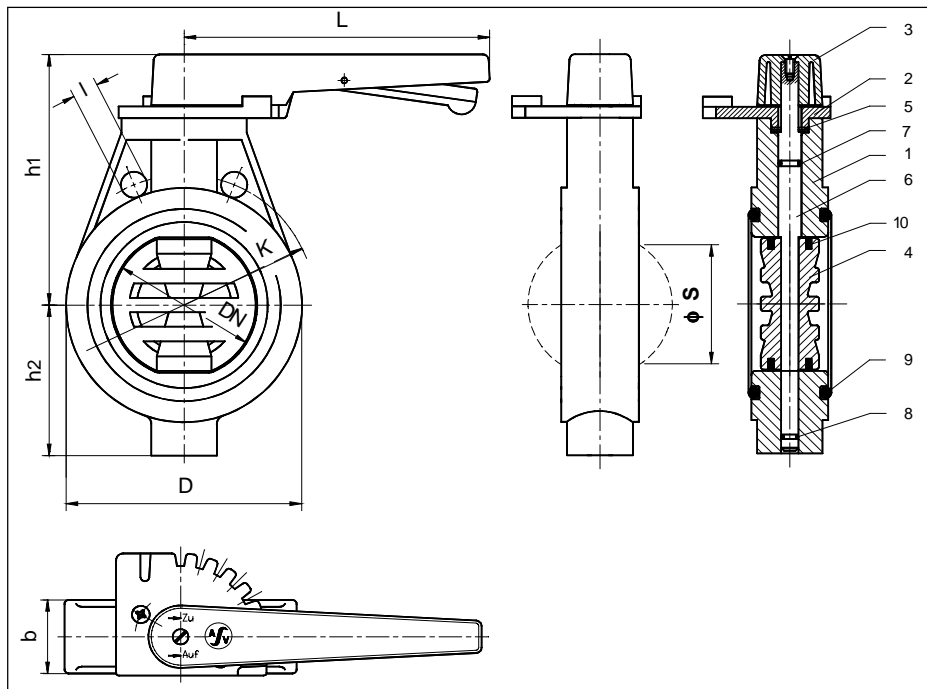
Ident-No.

Execution: Housing/Disc:			with hand lever				with manual gear box			
			uPVC		PP		uPVC		PP	
Sealing element			EPDM	FPM	EPDM	FPM	EPDM	FPM	EPDM	FPM
d mm	DN mm	DN Inch	ID-No.	ID-No.	ID-No.	ID-No.	ID-No.	ID-No.	ID-No.	ID-No.
63	50	2	62209	65161	67448	67470	123367	123374	123381	123388
75	65	2 1/2	62210	65162	67449	67471	123368	123375	123382	123389
90	80	3	62211	65076	67450	67472	123369	123376	123383	123390
110	100	4	62212	65077	67451	67473	123370	123377	123384	123391
140	125	5	62213	65165	67452	67474	123371	123378	123385	123392
160	150	6	62214	65166	67453	67475	123372	123379	123386	123393
225	200	8	69941	64451	65366	65367	123373	123380	123387	123394
280	250	10	-	-	-	-	119277	118108	118132	119279
315	300	12	-	-	-	-	119278	118109	118245	119280

¹⁾ See butterfly valve K 210 with double shaft seal. Materials: uPVC, PP & PVDF .

* DIBt = German institution for structural engineering

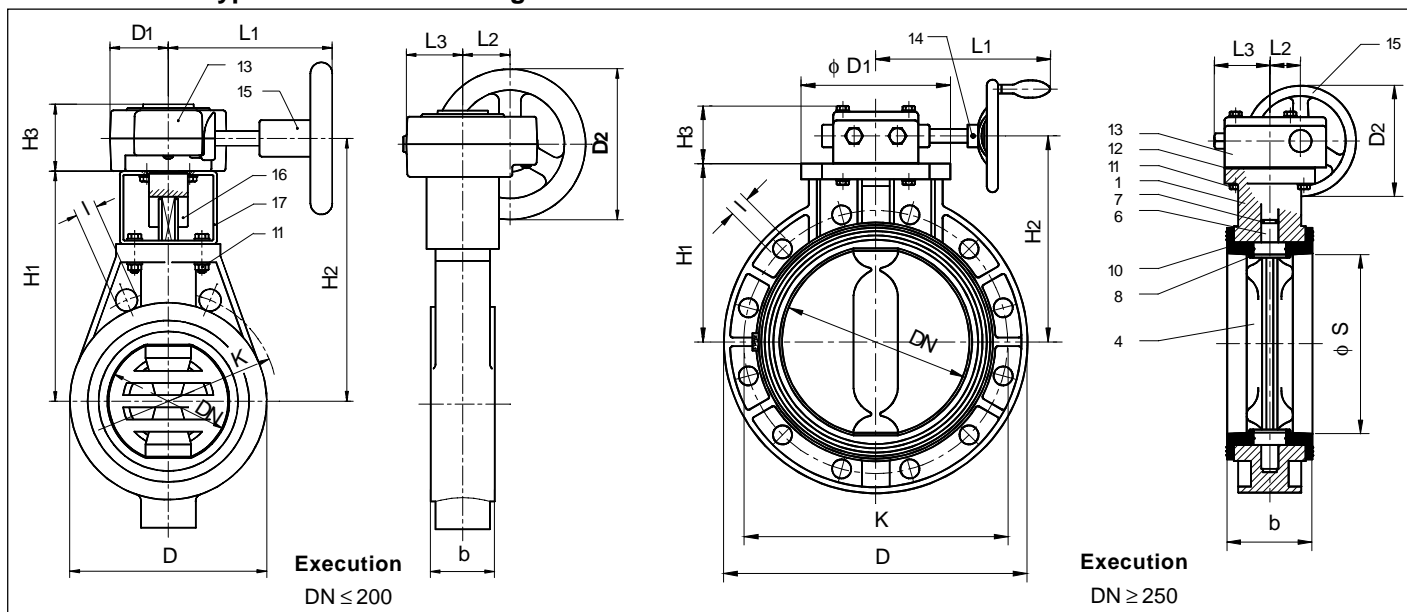
Dimensions for type K 200 with hand lever



Parts list

Pos.	Pcs.	Description
1	1	Housing
2	1	Engagement disc
3	1	Hand lever
4	1	Disc
5	2	Shaft lock
6	1	Shaft
7	1 / 2 ²⁾	O-ring
8	1 / 2 ²⁾	O-ring
9	2	O-ring
10	1	Sealing element/liner
11	4	Hex. screw with U washer
12	1	Shaft seal
13	1	Manual gear box
14	1	Shaft dowel sleeve
15	1	Hand wheel
16	1	Coupling
17	1	Intermediate adaptor

Dimensions for type K 200 with manual gear box



Dimensions

Size			Dimensions mm															
d mm	DN mm	DN Inch	b mm	D mm	D1 mm	D2 mm	H1 mm	H2 mm	H3 mm	h1 mm	h2 mm	L mm	L1 mm	L2 mm	L3 mm	I mm	K mm	S ³⁾ mm
63	50	2	43	107	48	125	162	189	55	140	81	170	97	39	46	18	125	36
75	65	2 1/2	46	127	48	125	172	199	55	156	88	210	97	39	46	18	145	56
90	80	3	46	142	48	125	180	207	55	164	96	210	97	39	46	18	160	71
110	100	4	52	162	48	125	190	217	55	174	106	210	97	39	46	18	180	88
140	125	5	64	192	48	125	215	242	55	209	133	300	97	39	46	18	210	109
160	150	6	65	216	61	200	227	256	60	220	145	300	127	47	56	23	240	138
225	200	8	71	272	61	200	280	309	60	265	180	400	127	47	56	23	295	190
280	250	10	110	411	205	200	240	280	76	-	-	-	278	57	83	23	350	255
315	300	12	132	490	236	250	297	337	76	-	-	-	282	61	58	23	400	311

²⁾ DN ≥ 250

³⁾ Also refer to page 3

Connection:

Housing flange connection according to DIN 2501, PN 10. Pipeline flanges with smooth flange sleeves as per DIN 8063 (PVC execution) or analog to DIN 16 962/3 with smooth flange sleeves or welding sleeves (PP/PE execution).

Installation instructions:

Prior to installing the butterfly valve chamfer the welding sleeves in accordance with the table/drawing at the side. Chamfer dimensions for further pressure stages upon request.

Attention: Ensure that the butterfly disc/sealing element is not damaged and avoid contact with the connection fittings.

Pressure/ temperature-diagram:

The values are a guide for harmless fluids (DIN 2403) against which the material of the valve is resistant. Other media see the ASV resistance guide.

The pressure/temperature limits are applicable for a computed operating life factor of 20 years for PVC or 10 years for PP at PN 10. Durability of wear and tear parts is depending on the working conditions of the application.

For working temperature below 0 °C (PP < +10 °C) please contact ASV Stübbe Export Department Valve Division and advise the exact condition of the application.

Materials:

Housing, disc:

uPVC or PP

Sealing element, O-ring sealing:

EPDM or FPM

Shaft:

Stainless steel 1.4305

Hand lever with latch and ratchet:

PA-GFR

Manual gear box:

Die-casting, chromated or with a two component protective coat.

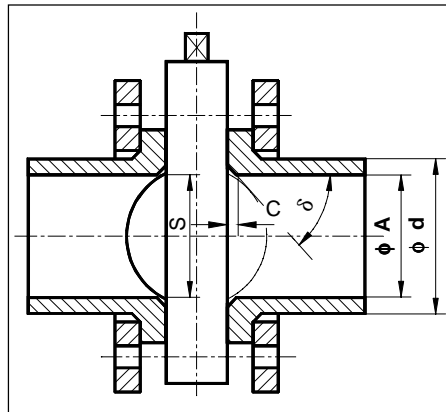
Colour:

- uPVC - grey, RAL 7011
- PP - grey, RAL 7032
- Hand lever - orange, RAL 2005

Marking:

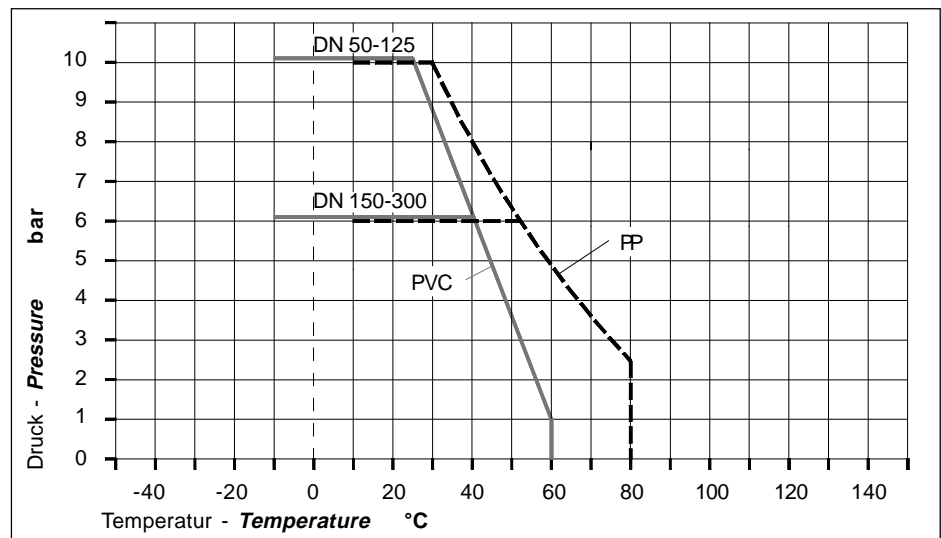
According to ISO/DIN EN 19.

Note: Prepare welding sleeves in accordance with the table prior to fitting

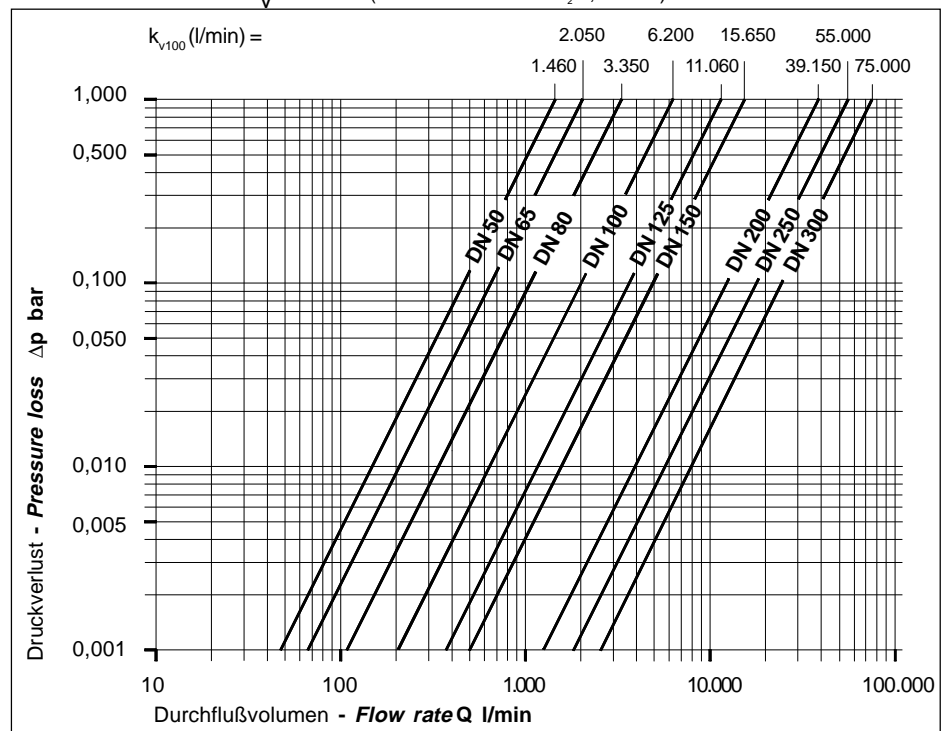


d mm	φ A ⁴⁾ mm	Chamf. ⁴⁾ C x δ°	φ A ⁵⁾ mm	Chamf. ⁵⁾ C x δ°
63	50	-	45	-
75	59	-	54	3 x 45°
90	71	3 x 45°	65	8 x 35°
110	88	3 x 45°	79	9 x 35°
140	111	3 x 45°	101	11 x 35°
160	127	12 x 30°	115	20 x 35°
225	179	18 x 30°	162	31 x 30°
280	223	15 x 30°	203	25 x 30°
315	251	35 x 30°	228	45 x 35°

Pressure/temperature-diagram



Pressure loss and k_v-values (standard value for H₂O, 20 °C)



⁴⁾ PN 10 ⁵⁾ PN 16



Weight kg (standard value)

Size DN	with hand lever		w. man. gearing	
	PVC	FP	PVC	FP
50	0.9	0.7	3.0	2.8
65	1.4	1.0	3.5	3.1
80	1.6	1.2	3.7	3.3
100	1.9	1.5	4.0	3.6
125	3.7	2.9	5.8	5.0
150	4.2	3.2	7.2	6.2
200	7.2	5.6	10.2	8.6
250	-	-	22.5	19.5
300	-	-	28.5	26.5

Torque (Nm) for gear boxes designed for p = 10⁶ bar (standard value)⁷⁾

DN	50	65	80	100	125	150	200	250	300
Nm	40	40	50	60	70	90	170	280	390

⁶⁾ DN 150 up to DN 300 at 6 bar operating pressure.

⁷⁾ Depending upon the operating conditions the torque may deviate and exceed the standard values. Please contact us in case of drive adaptor.

Operating instructions:



Safe operation of the valve can only be ensured if it is properly installed, operated, serviced or repaired by qualified personnel according to its intended use while observing the accident prevention regulations, safety regulations, standards and technical regulations. Non-observance of the specified information and safety instructions may lead to injuries and/or property damages.

The intended use includes adhering to the specified limit values for pressure and temperature, and conducting a resistance test.

For this purpose, ensure that all components coming in contact with the media are »resistant« in accordance with the ASV resistance guide. The owner/operator bears the sole responsibility for the consequences.

The owner/user of a plant or the orderer of an installation bears full responsibility for

- assuring that the work protection and accident prevention regulations are adhered to,
- the adherence of employees to plastics and safe working methods and informing same of potential danger from the medium/plant (see ChemG, safety data sheet 91/155/EEC etc.),
- disposal of all used media/waste in accordance with regulations and directives.

Disassembly and installation:

- Close the pipeline valves upstream and downstream for shut-off prior to commencing any work on the valve.
- Ensure a safe pressure release in the pipeline.
- Fully drain the lines taking into account the accident prevention regulations or similar.
- Release the flange screw fittings and carefully radially remove the valve from the line.

Disassembly DN 50 to DN 200:

1. Remove the O-rings (9).
2. Undo the screw on the hand lever (3) and remove the hand lever from the shaft (6).
3. Remove screws from the engagement disc and pull off.
4. Remove the shaft lock (5).
5. Pull the shaft (6) out of the body.
6. Remove the O-rings (7 and 8) using a blunt tool.
7. Push the disc (4) out of the housing.
8. Carefully remove sealing element (10) from the disc.

Disassembly DN 50 to DN 200 with manual gear box:

1. Release the hexagonal head screws (11) between the butterfly valve and intermediate adaptor (17).
2. Fully remove the gear box (13) together with the intermediate adaptor (17) and coupling (16) from the butterfly valve.

Perform the further disassembly as already described under points 4 to 8.

Disassembly DN 250 and DN 300:

1. Release the screws (11) and remove the gearing (13) from the shaft (6).
2. Pull the shaft (6) out of the housing.
3. Push the disc (4) out of the housing completely with the sealing element (10).
4. Remove the sealing element (10) from the disc (4).

Assembly:

In the reverse order to disassembly. Check components for damage and replace if necessary. Always use new sealing elements when refitting. Neutral gliding agents (e.g. soap and water) eases assembly.

Technical alterations excepted