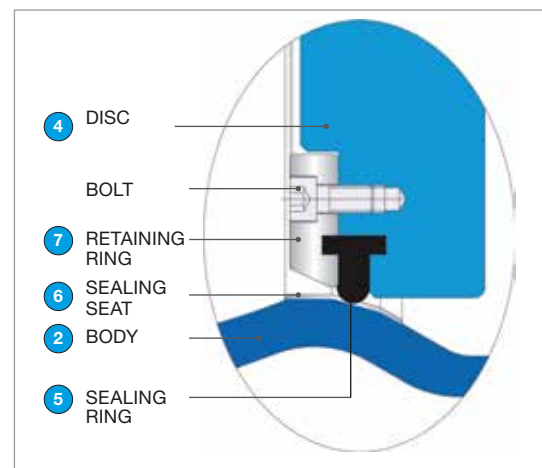
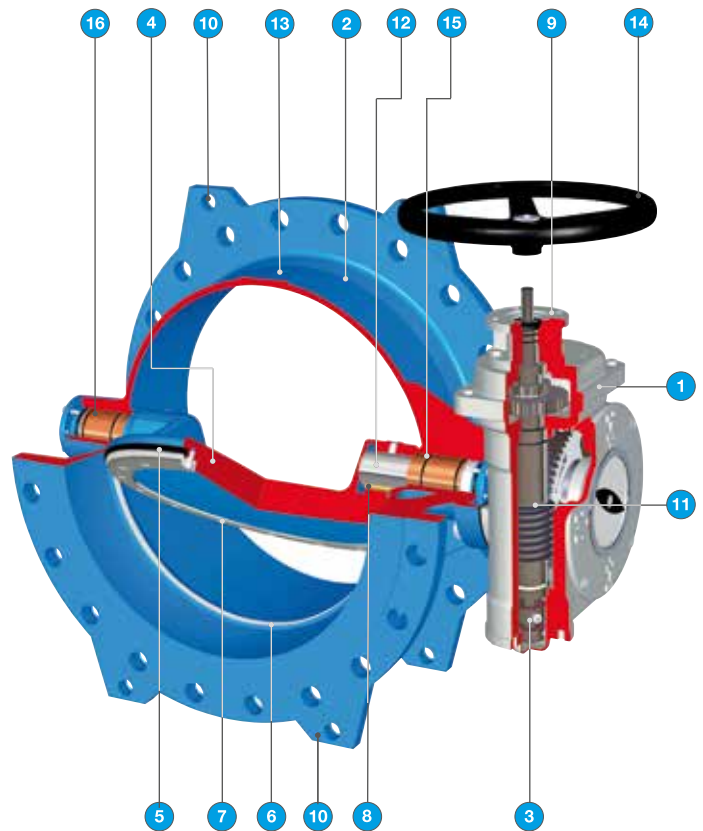


Butterfly valves

Double eccentric DN 150 – 1400

Design features

- 1 **Butterfly valve and gearbox**
Standard butterfly valve is suitable for either buried installations or chamber installations
- 2 **Body**
Streamlined design and smooth finish of the body provides minimum resistance to flow
- 3 **Travelling nut**
Bottom end of the worm shaft is threaded and a travelling nut moves up and down on this threaded spindle. When operating the gear (valve) in "open" or "close" direction, the travelling nut also moves towards the corresponding end stop and safe guards the correct travel of the valve disc to fully closed position
- 4 **Disc lenght**
Streamlined and low profiled disc including closed hubs ensures higher Kv values. Double offset disc design reduces seal wear and torque
- 5 **Sealing system**
Sealing on seat face is ensured by an endless T-profile resilient sealing ring which is held on the periphery of the disc by a retaining ring. In closed position the sealing ring is pressed against the conically shaped seat face of the body and **provides safe sealing in either direction of flow**. In opened position the sealing ring is completely unstressed due to the double eccentric disc design
- 6 **Body seat**
Stainless steel weld filled and finished integral body seat enables a corrosion and erosion resistant seat face. With this special type of seating it is possible to manufacture the valve drop tight
- 7 **Retaining ring**
The one piece retaining ring prevents sealing ring from rolling out. Sealing ring can be replaced easily at site without dismantling the valve disc and without requirement of any special tool
- 8 **Shaft connection**
Positive disc to shaft connection by use of key
- 9 **Connection flange for actuator**
All butterfly valves are provided with standard flanges according to EN ISO 5210 for installation of actuators
- 10 **Lifting holes and feet**
Integral lifting holes provide easy installation and the feet provides strong ground support
- 11 **Worm gear operators**
The drive is designed so that the disk can be actuated by just one operator with little force
- 12 **Shafts**
Split shaft guarantees maximum restriction to flow
- 13 **Unique tracking number**
Every valve is equipped with a cast tracking number for easy traceability and identification
- 14 **Handwheel**
Every valve is equipped with a handwheel (standard version)
- 15 **Shaft sealing**
Multiple O-ring shaft sealing system guarantees maintenance free sealing
- 16 **Bearing system**
Self lubricating plain bearings reduce shaft friction and operating torque. These bearings keep the shaft centralised and prevent axial movement



Hawle butterfly valve

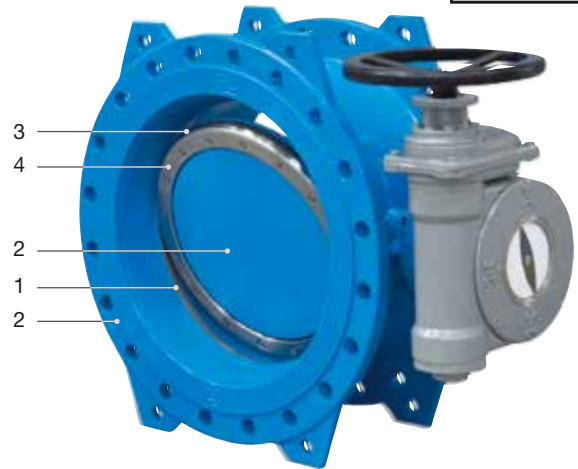
Double eccentric, DN 150 – 1400, PN 10 | PN 16



Design features

- Standard version including actuation device: Wormgearbox and handwheel
- Protection class IP 68
- Applicable for below ground installation, simple assembly of the extension spindle
- Applicable for actuator
- Face-to-face dimension according EN 558 – 1 SERIES 14
- Flange connection dimensions according to EN 1092-2
- Pressure rating PN 10 | PN 16

No. 9881K



Material | Technical features

- 1 **Sealing seat** made of stainless steel welded and microfinished
 - 2 **Body and disk** made of ductile iron, epoxy powder coated inside and out
 - 3 **Sealing rings** made of elastomer
 - 4 **Retaining ring** made of stainless steel
- **Shafts** made of stainless steel
 - **All connections** made of stainless steel
 - **Bearings** made of bronze
 - **Handwheel** made of cast iron, epoxy powder coated

Order No.	MOP (PN)	Dimension/DN																
		150	200	250	300	350	400	450	500	600	700	800	900	1000	1100	1200	1400	
9881K	10																	*
	16																	*

* Without ÖVGW (Austrian Association for Gas and Water) certificate.

Suitable accessories

Suitable accessories:

- Adapter extension spindle **E2/E3**, DN 200: No. 9211
- Adapter square cap: No. 2161
- Actuator: No. 9920
- Flat gasket: No. 3390
- Dismantling piece: No. 9810

Application example



Adapter for extension spindle **E2/E3**
(underground installation), DN 200

No. 9211



Square cap

No. 2161

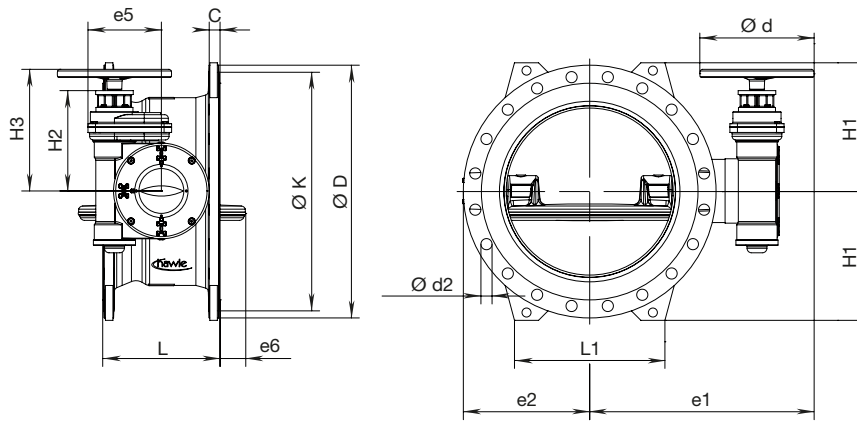


Actuator

No. 9920

Hawle butterfly valve

Double eccentric, DN 150 – 1400, PN 10 | PN 16



No. 9881K

Pressure rating PN 10

DN	MOP (PN)	L Serie 14	L1	e1	e2	e5	e6	Ø d	Ø D	Ø K	C	Bolts Qty. Ø d2		H1	H2	H3	Turns to open/close	Weight
150	10	210	190	378	151	134	0	245	285	240	19,0	8	23	143	145	212	11,25	45,0
200		230	180	405	177	134	0	245	340	295	20,0	8	23	180	145	212	11,25	60,0
250		250	220	481	214	158	5	245	405	350	22,0	12	23	213	165	239	10	95,0
300		270	280	503	237	158	11	245	460	400	24,5	12	23	242	165	239	10	115,0
350		290	320	595	283	175	28	370	505	460	24,5	16	23	264	186	271	12,5	155,0
400		310	335	626	297	175	43	370	565	515	24,5	16	28	293	186	271	12,5	165,0
450		330	380	670	333	198	57	370	615	565	25,5	20	28	320	287	372	36,25	220,0
500		350	400	701	344	244	67	370	670	620	26,5	20	28	345	336	420	43,5	285,0
600		390	440	749	414	244	98	370	780	725	30,0	20	31	400	336	420	43,5	350,0
700		430	540	838	511	313	126	370	895	840	32,5	24	31	460	399	484	104	575,0
800		470	610	855	530	313	153	370	1015	950	35,0	24	34	520	399	484	104	680,0
900		510	670	965	618	365	181	370	1115	1050	37,5	28	34	568	435	519	192,5	980,0
1000		550	740	1039	650	365	206	370	1230	1160	40,0	28	37	625	435	519	192,5	1155,0
1100		590	750	1022	720	365	237	370	1355	1270	53,5	32	37	695	435	519	192,5	1558,0
1200	630	900	1251	782	515	264	485	1455	1380	45,0	32	41	738	576	625	362,5	1965,0	
1400	710	1160	1349	917	515	323	485	1675	1500	46,0	36	44	848	538	625	362,5	2690,0	

No. 9881K

Pressure rating PN 16

DN	MOP (PN)	L Serie 14	L1	e1	e2	e5	e6	Ø d	Ø D	Ø K	C	Bolts Qty. Ø d2		H1	H2	H3	Turns to open/close	Weight
150	16	210	190	378	151	134	0	245	285	240	19,0	8	23	143	145	212	11,25	45,0
200		230	180	405	177	134	0	245	340	295	20,0	12	23	180	145	212	11,25	60,0
250		250	220	481	214	158	6	245	405	355	22,0	12	28	213	165	239	10	95,0
300		270	280	503	237	158	11	245	460	410	24,5	12	28	242	165	239	10	115,0
350		290	320	595	283	175	28	370	520	470	26,5	16	28	272	186	271	12,5	162,0
400		310	335	626	297	198	43	370	580	525	28,0	16	31	300	287	372	36,25	204,0
450		330	380	670	333	198	57	370	640	585	30,0	20	31	330	287	372	36,25	240,0
500		350	400	721	344	244	67	370	715	650	31,5	20	34	370	336	420	43,5	325,0
600		390	500	779	414	244	98	370	840	770	36,0	20	37	432	336	420	43,5	435,0
700		430	540	838	511	313	126	370	910	840	39,5	24	37	467	399	484	104	610,0
800		470	615	928	530	313	153	370	1025	950	43,0	24	41	525	399	484	104	780,0
900		510	675	1007	618	365	181	370	1125	1050	46,5	28	41	573	435	519	192,5	1065,0
1000		550	740	1039	650	365	206	370	1255	1170	50,0	28	44	638	435	519	192,5	1320,0
1100		590	750	1091	720	365	237	370	1355	1270	53,5	32	44	696	435	519	192,5	1558,0
1200	630	900	1251	782	515	264	485	1485	1390	57,0	32	50	753	576	625	362,5	2375,0	
1400	710	1160	1349	917	515	323	485	1685	1590	60,0	36	50	848	538	625	362,5	2870,0	