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Application example



E2 VALVE | COMBI VALVES

Overview



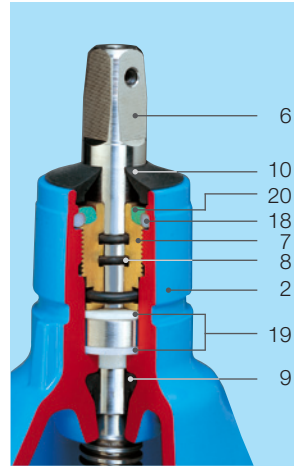
Design features

- **Resilient seated gate valve** according to EN 1171, EN 1074-1 and EN 1074-2 with smooth straight-through bore
- Flange valve
- Spigot valve
- Valve spigot ends
- Valve system 2000
- Valve system BAIO
- Valve for PE fusion
- VRS-socket valve
- Combi-T, Combi-III, Combi-IV, Hawle-Combiflex
- **Wedge guide** with high glide characteristics; load-optimised design guarantees lowest wear and minimum closing torques
- **Wedge nut** allows high torque load through large dimensioning of the required thread length
- **O-rings, lip seals** mounted in rust-proof material on all sides as well as up to DN 200 under pressure (according to ISO 7259), from DN 250 can be replaced in depressurised state
- **Edge protection** protects during transport and storage
- **Friction washers** (DN 50 to DN 200) and **roller bearings** (DN 250 to DN 600) guarantee low friction mounting of the spindle
- **100%** suitable for underground installation

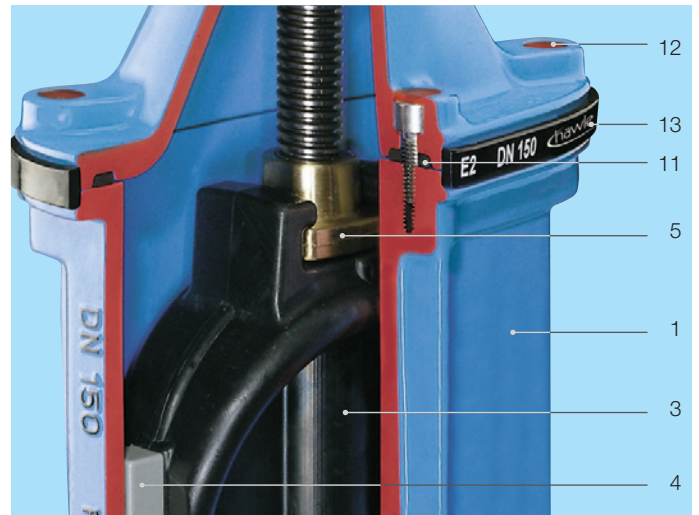
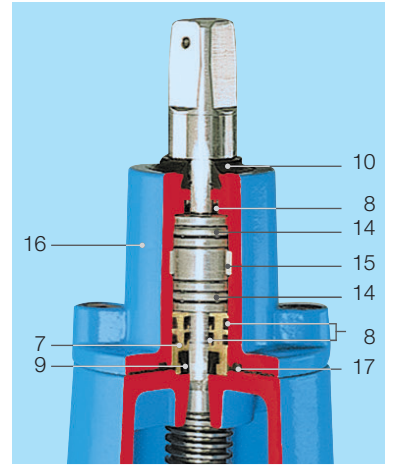
Material | technical features

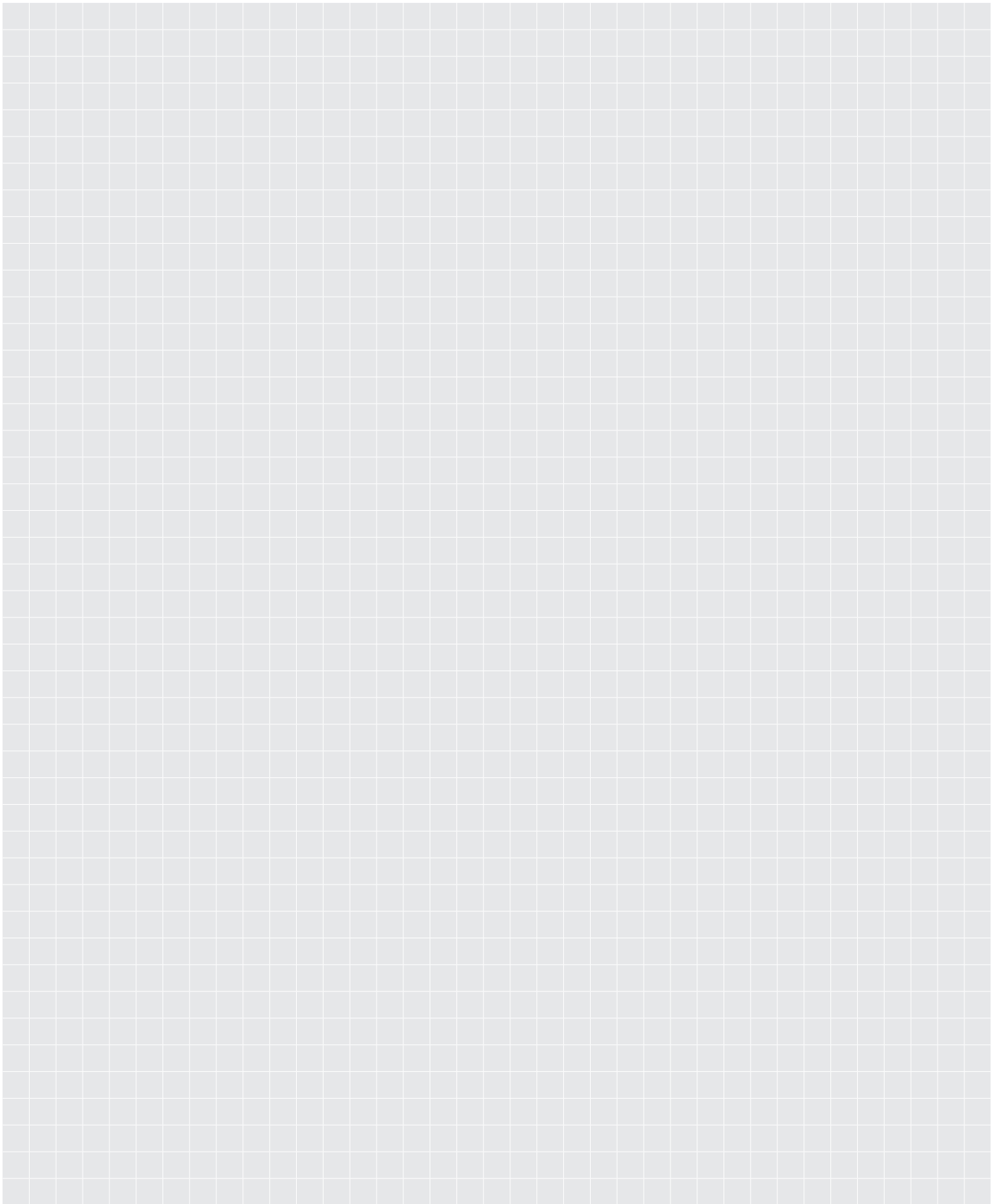
- 1,2, **Body (1), bonnet (2), centering flange (16)**
16 made of ductile iron, epoxy powder coated inside and out (see page 4)
- 3 **Wedge** made of ductile iron, inside and out with vulcanized elastomer
- 4 **Wedge guide** made of wear-resistant plastic
- 5 **Wedge nut** made of dezincification-resistant brass
- 6 **Stainless steel spindle** with rolled thread and flat-rolled sealed sliding surface
- 7 **O-ring bush** made of brass
- 8 **O-rings, lip seals** (from DN 200) made of elastomer
- 9 **Back seal** made of elastomer
- 10 **Wiper ring** made of elastomer
- 11 **Bonnet gasket** made of elastomer
- 12 **Allen screws** encased into the body with an enclosing gasket and wax, ensuring full corrosion protection
- 13 **Edge protection** made of PE
- 14 **Ball bearing** made of DN 250, permanently lubricated
- 15 **Centering ring** made of POM
- 17 **Centering flange gasket** made of elastomer
- 18 **Retaining ring** made of POM
- 19 **Friction washers** made of POM
- 20 **Sealing compound**, corrosion protection of the thread

DN 50-200 Spindle bearing on friction washers



DN 250-600 Spindle bearing on ball bearing





E2 VALVE

With flange DN 50-200, PN 10 | PN 16 | PN 25



Design features

- Resilient seated gate valve with smooth straight-through bore
- Flanges sized in accordance with EN 1092-2, drilled according to
EN 1092-2 | PN 10 standard (4000E2, 4700E2);
EN 1092-2 | PN 25 (4010E2, 4710E2)
EN 1092-2 | PN 16 from DN 200 (4000E2, 4700E2)
Please specify on order - other standards on request
- Suitable for cleaning with a cleaning pig
- One extension spindle for several dimensions
- Suitable for operation by automatic actuators
- Easy refitting for position indicator and automatic actuators on the standard bonnet
- Duplex stainless steel spindle

Standard version: without handwheel and extension spindle

Design versions: for actuator: No. 4000ELE2
with position indicator: No. 4000STE2
for seawater: No. 4002E2, No. 4702E2

Special versions: on request

Suitable accessories

Suitable accessories: see page A 1/2

Handwheel: No. 7800
Extension spindles: rigid No. 9000E2
telescopic No. 9500E2
Surface boxes: rigid No. 1750
telescopic No. 2050
No. 2051K
No. 9920
Valve actuator: No. 8630E2
Adapter for actuator (E2 adapter): No. 8630E2
Base plate: No. 3481, No. 3482
Operating cap: No. 2156, No. 2157, No. 2158
Extension spindle: No. 7820, No. 7825
Position indicator: No. 2170E2
Bolts: No. 8810, No. 8830, No. 8840
HAWAK-pillar: No. 9894, No. 9895
Flat gasket: No. 3390, No. 3470

No. 4000E2
No. 4700E2
No. 4010E2
No. 4710E2
No. 4060E2



Order no.	Version	MOP (PN)	Dimensions/DN						
			50	65	80	100	125	150	200
4000E2	short	16							
	EN 558-1 GR 14								
4700E2	long	16							
	EN 558-1 GR 15								
4010E2	short	25							
	EN 558-1 GR 14								
4710E2	long	25							
	EN 558-1 GR 15								
4060E2	to BS 5163	16							

Application example

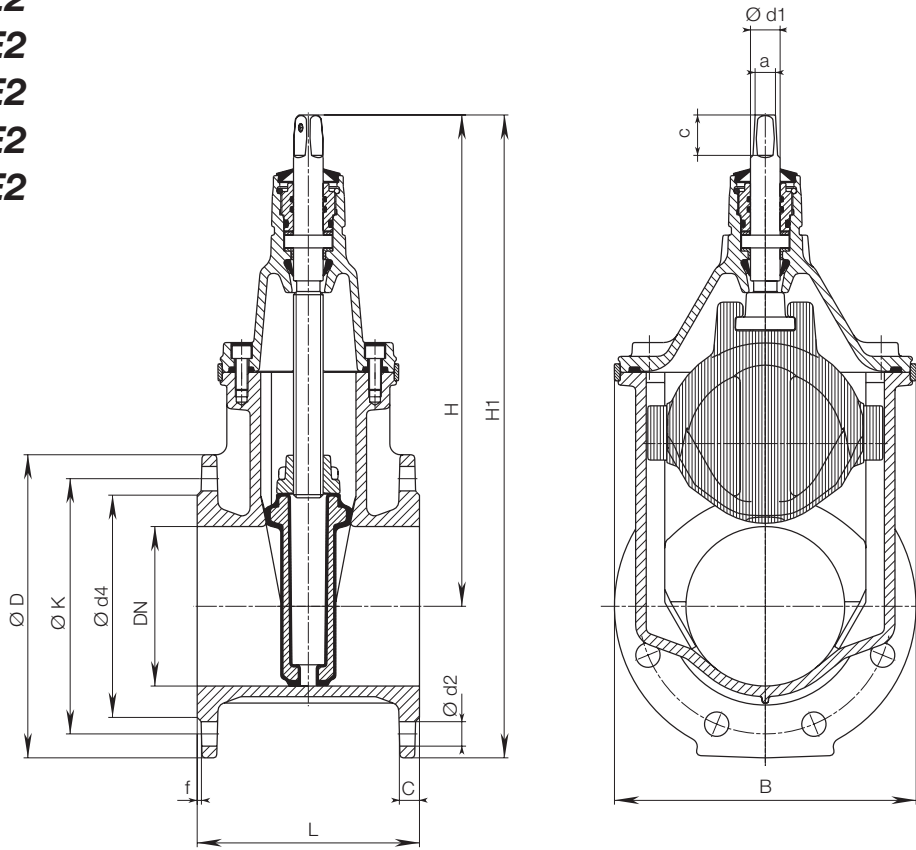


E2 VALVE

With flange DN 50-200, PN 10 | PN 16 | PN 25



No. 4000E2
 No. 4700E2
 No. 4010E2
 No. 4710E2
 No. 4060E2



DN	MOP (PN)	Flange					Bolts			Spindle			Valve					Weight			
		$\varnothing D$	C	$\varnothing K$	$\varnothing d4$	f	Qty.	Thread	$\varnothing d2$	a	c	$\varnothing d1$	H	H1	L short	L long	BS 5163	B	short	long	BS 5163
50	10	165	19	125	98	3	4	M 16	19	14,8	30	22	260	342	150	250		143	11,0	12,0	
	16																		11,0		
	25																				
65	10	185	19	145	118	3	4	M 16	19	17,3	35	25	328	420	170	270		180	17,0	18,0	
	16																		17,0		
	25																				
80	10	200	19	160	133	3	8	M 16	19	17,3	35	25	336	436	180	280	203	180	18,5	20,5	19,0
	16																		18,5		
	25																				
100	10	220	19	180	153	3	8	M 16	19	19,3	38	25	373	483	190	300	229	213	24,5	27,5	26,0
	16																		24,5		
	25																		235	190	M 20
125	10	250	19	210	183	3	8	M 16	19	19,3	38	28	450	575	200	325		285	35,5	38,0	
	16																		35,0		
	25																		270	220	M 24
150	10	285	19	240	209	3	8	M 20	23	19,3	38	28	462	605	210	350	267	285	40,5	46,0	45,0
	16																		40,5	49,0	
	25																		300	250	M 24
200	10	340	20	295	264	3	8	M 20	23	24,3	48	32	563	733	230	400	292	357	64,0	72,0	67,5
	16																		64,0	81,0	
	25																		360	310	M 24

E2 VALVE

With flange DN 250-600, PN 10 | PN 16 | PN 25



Design features

- Resilient seated gate valve with smooth straight-through bore
- Flanges sized in accordance with EN 1092-2, drilled according to
EN 1092-2 | PN 10 standard (4000E2, 4700E2);
EN 1092-2 | PN 25 (4710E2)
EN 1092-2 | PN 16 from DN 200 (4000E2, 4700E2)
Please specify on order - other standards on request
- Suitable for cleaning with a cleaning pig
- Suitable for operation by automatic actuators
- O-rings replaceable under pressure
- Ball bearings in the spindle seating minimizes closing forces
- Easy to actuate without bypass and without power boost - even for 16 bar differential pressure
- For the assembling of a position indicator it is necessary to remove the centering flange and mount the adapter for position indicator
- For the assembling of an electric actuator it is necessary to remove the centering flange and mount the adapter for electric actuator and a coated spindle (DN 250 - DN 400)

Standard version: without handwheel and extension spindle

Design versions: for actuator: No. 4000ELE2
with position indicator: No. 4000STE2
for seawater: No. 4002E2,
No. 4702E2

Special versions: on request
- Bevel gearing
- for DN 500/DN 600 - version with bypass (DN 50) available
- Ventilation and exhausting;
small amounts of air in the bonnet

Suitable accessories

Suitable accessories: see page A 1/2

Handwheel: No. 7800
Extension spindles: rigid No. 9000E2
telescopic No. 9500E2
Surface boxes: rigid No. 1750
telescopic No. 2050
No. 2051K
Valve actuator: No. 9920
Adapter for actuator (E2 adapter): No. 8630E2
Base plate: No. 3481, No. 3482
Operating cap: No. 2156, No. 2157, No. 2158
Extension spindle: No. 7820, No. 7825
Bolts: No. 8810, No. 8830, No. 8840
HAWAK-pillar: No. 9894, No. 9895
Flat gasket: No. 3390, No. 3470

No. 4000E2
No. 4700E2
No. 4710E2
No. 4060E2



Order no.	Version	MOP (PN)	Dimensions/DN							
			250	300	350	400	450*	500*	500	600
4000E2	short	16								
	EN 558-1 GR 14									
4700E2	long	16								
	EN 558-1 GR 15									
4710E2	long	25								
4060E2	to BS 5163	16								

* Body: DN 400 - flange connection: DN 450 or 500

Application example

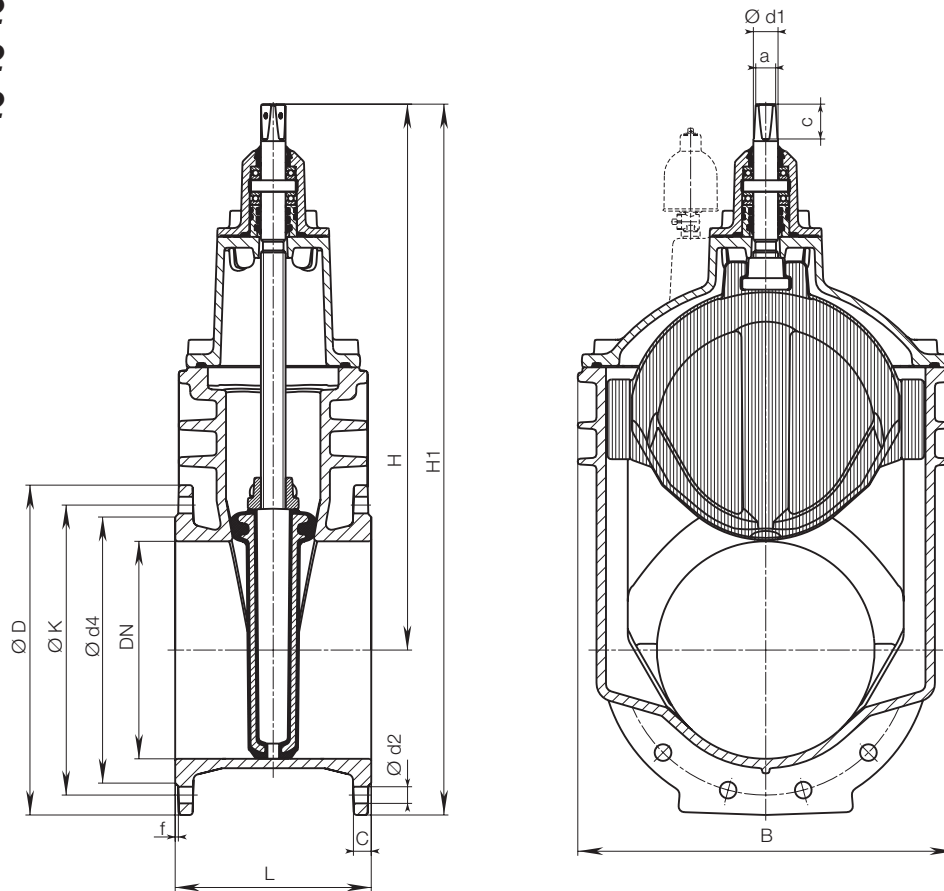


E2 VALVE

With flange DN 250-600, PN 10 | PN 16 | PN 25



No. 4000E2
 No. 4700E2
 No. 4710E2
 No. 4060E2



DN	MOP (PN)	Flange					Bolts			Spindle			Valve					Weight			
		Ø D	C	Ø K	Ø d4	f	Qty.	Thread	Ø d2	a	c	Ø d1	H	H1	L short	L long	BS 5163	B	short	long	BS 5163
250	10	400	22	350	319	3	12	M 20	23	27,3	48	34	670	870	250	450	330	432	100,0	121,0	104,0
	16			355	319			M 24	28					883							
	25			425	24,5			370	330					M 27							
300	10	455	24,5	400	367	4	12	M 20	23	27,3	48	34	753	981	270	500	356	518	147,0	170,0	153,5
	16			410	367			M 24	28					996							
	25			485	27,5			430	389					M 27							
350	10	520	26,5	460	427	4	16	M 20	23	27,3	48	34	838	1098	290			604	205,0		
	16			470	427			M 24	28												
400	10	580	28	515	477	4	16	M 24	28	32,3	55	44	974	1264	310	600		687	261,0	300,0	
	16			525	477			M 27	31												
450*	10	640	30	565	530	4	20	M 24	28	32,3	55	44	974	1310		650		687		332,0	
	16			585	530			M 27	31												
500*	10	715	31,5	620	582	4	20	M 24	28	32,3	55	44	974	1345		700		687		371,0	
	16			650	582			M 30	34												
500	10	715	31,5	620	582	4	20	M 24	28	36,3	66	50	1220	1578	350	700		800	488,0	542,0	
	16			650	582			M 30	34												
600	10	840	36	725	720	5	20	M 27	31	36,3	66	50	1377	1797	390	800		944	720,0	789,0	
	16			770	720			M 33	37												

* Body: DN 400 - flange connection: DN 450 or 500

E2 REDUCING VALVE

With flange DN 65-300, PN 10 | PN 16



Design features

- Resilient seated gate valve with unequal flange sizes
- Flanges sized in accordance with EN 1092-2, drilled according to EN 1092-2 | PN 10 standard; EN 1092-2 | PN 16 DN 200 - DN 300 please specify on order - other standards on request
- This **E2** reduction valve is a gate valve and a reducing connector in one piece; this feature provides for a multitude of application possibilities for the most efficient material and space requirements
- One extension spindle for several dimensions
- Suitable for operation by automatic actuators
- Easy refitting for position indicator and automatic actuators on the standard bonnet
- Duplex stainless steel spindle

Standard version: without handwheel and extension spindle

Design versions: for actuator: No. 4150**ELE2**
with position indicator: No. 4150**STE2**

Special versions: on request

Suitable accessories

Suitable accessories: see page A 1/2

Handwheel:		No. 7800
Extension spindles:	rigid	No. 9000 E2
	telescopic	No. 9500 E2
Surface boxes:	rigid	No. 1750
	telescopic	No. 2050
		No. 2051K
Valve actuator:		No. 9920
Adapter for actuator (E2 adapter):		No. 8630 E2
Base plate:		No. 3481, No. 3482
Operating cap:		No. 2156, No. 2157, No. 2158
Extension spindle:		No. 7820, No. 7825
Position indicator:		No. 2170 E2
Bolts:		No. 8810, No. 8830, No. 8840
HAWAK-pillar:		No. 9894, No. 9895
Flat gasket:		No. 3390, No. 3470

No. 4150E2



Order no.	MOP (PN)	Dimensions/DN*												
		100 65	100 80	125 80	125 100	150 80	150 100	200 100	200 150	250 150	250 200	300 150	300 200	300 250
4150E2	16													

* The valve is sized in accordance with the smaller flange

Application example

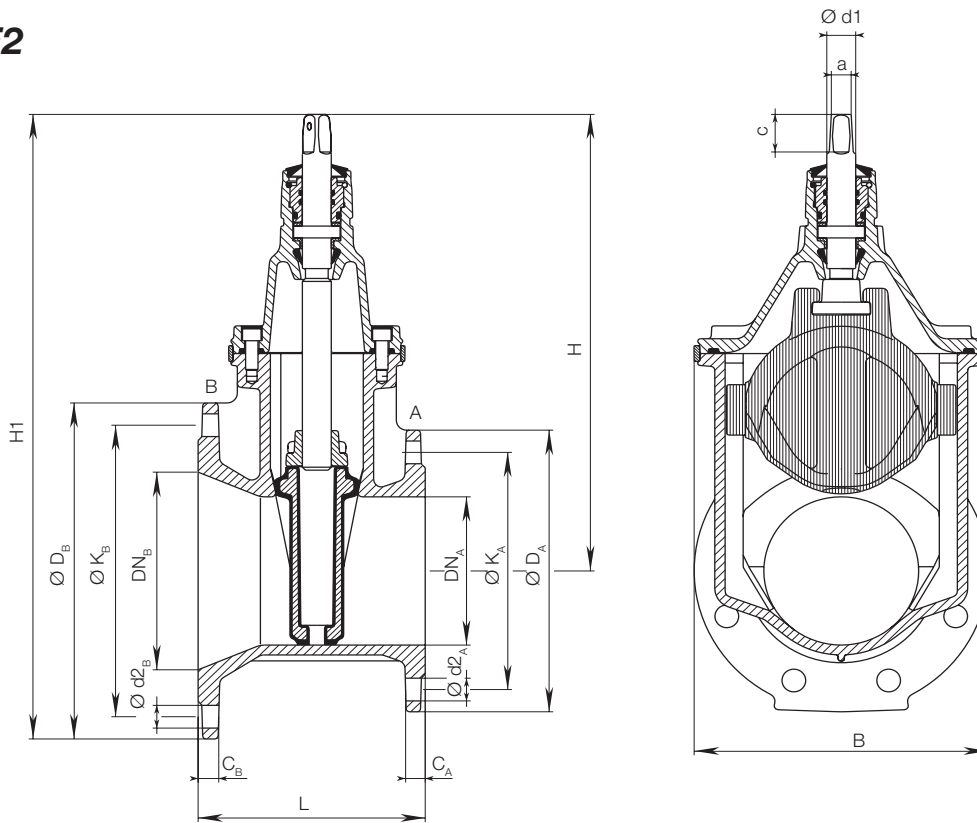


E2 REDUCING VALVE

With flange DN 65-300, PN 10 | PN 16



No. 4150E2



DN	MOP (PN)	Flange A					Flange B					Spindle			Valve				Weight
		ØD _A	C _A	ØK _A	Ød2 _A	n _A *	ØD _B	C _B	ØK _B	Ød2 _B	n _B *	a	c	Ød1	H	H1	L	B	
100 - 65	10 16	185	19	145	19	4	220	19,0	180	19	8	17,3	35	25	328	438	180	180	19,0
100 - 80	10 16	200	19	160	19	8	220	19,0	180	19	8	17,3	35	25	336	446	190	180	20,0
125 - 80	10 16	200	19	160	19	8	250	19,0	210	19	8	17,3	35	25	336	461	200	180	21,5
125 - 100	10 16	220	19	180	19	8	250	19,0	210	19	8	19,3	38	25	373	498	200	213	25,0
150 - 80	10 16	200	19	160	19	8	285	19,0	240	23	8	17,3	35	25	336	479	200	180	24,0
150 - 100	10 16	220	19	180	19	8	285	19,0	240	23	8	19,3	38	25	373	516	210	213	28,0
200 - 100	10 16	220	19	180	19	8	340	20,0	295	23	8 12	19,3	38	25	373	543	210	213	31,0
200 - 150	10 16	285	19	240	23	8	340	20,0	295	23	8 12	19,3	38	28	462	632	220	285	46,5
250 - 150	10 16	285	19	240	23	8	400	22,0	350 355	23 28	12	19,3	38	28	462	662	230	285	49,0
300 - 150	10 16	285	19	240	23	8	455	24,5	400 410	23 28	12	19,3	38	28	462	690	240	285	68,0
250 - 200	10 16	340	20	295	23	8 12	400	22,0	350 355	23 28	12	24,3	48	32	563	763	240	357	70,5
300 - 200	10 16	340	20	295	23	8 12	455	24,5	400 410	23 28	12	24,3	48	32	563	791	250	357	74,5
300 - 250	10 16	400	22	350 355	23 28	12	455	24,5	400 410	23 28	12	27,3	48	34	670	898	260	432	105,0

The valve is sized in accordance with the smaller flange n_A*, n_B* = bolts per flange

E2 VALVE SPIGOT ENDS

PN 16



Design features

- Resilient seated gate valve with smooth straight-through bore
 - The Hawle **E2** spigot valve with smooth spigot ends is a universal type, suitable for both flange as well as for socket connections
 - Easy replacement of old flange valve to insertion of HAWLE-flange, as insertion of flat gaskets is not required; special lengths can even be produced through shortening of the spigot ends
 - The outside diameters of the spigot ends correspond to that of the cast iron pipes (other size on request)
 - Suitable for cleaning with a cleaning pig
 - One extension spindle for several dimensions
 - Suitable for operation by automatic actuators
 - Easy refitting for position indicator and automatic actuators on the standard bonnet (DN 50 to DN 200)
- To set-up an actuator or a position indicator, remove the centering flange and insert position indicator or actuator with adapter (DN 250 bis DN 400)

Standard version: without handwheel and extension spindle

Suitable accessories

Suitable accessories: see page A 1/2

Flange:		No. 7102
		No. 0102
Handwheel:		No. 7800
Extension spindles:	rigid	No. 9000 E2
	telescopic	No. 9500 E2
Surface boxes:	rigid	No. 1750
	telescopic	No. 2050
		No. 2051K
Valve actuator:		No. 9920
Adapter for actuator (E2 adapter):		No. 8630 E2
Base plate:		No. 3481, No. 3482
Operating cap:		No. 2156, No. 2157, No. 2158
Extension spindle:		No. 7820, No. 7825
Position indicator:		No. 2170 E2
Bolts:		No. 8810, No. 8830, No. 8840
HAWAK-pillar:		No. 9894, No. 9895

No. 4100E2



No. 4140E2



Order no.	Version Face-to-face length	MOP (PN)	Dimensions/DN										
			50	65	80	100	125	150	200	250	300	400	
4100E2	Standard	16											
	600 mm												
4140E2	810 mm												
	860 mm												

Application example



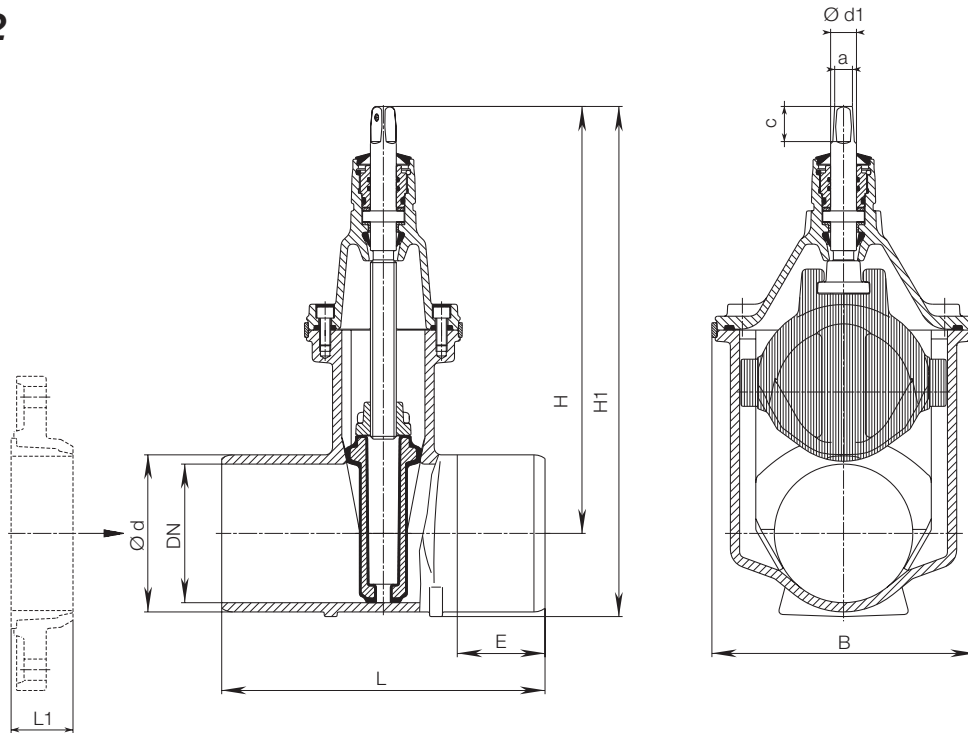
E2 VALVE SPIGOT ENDS

PN 16



No. 4100E2

No. 4140E2



For a shorter face-to-face dimension, shorten the spigot ends¹⁾ and assemble with HAWLE flanges No. 7102 / 0102 (see chapter „Flange connections“)

Caution: Compare flange length „L 1“ with spigot length „E“

¹⁾ Protect cutting surfaces against corrosion with Hawle repair material No. 3442 (see page P 5/2)

DN	MOP (PN)	Valve						Spindle			Weight
		Ød*	L	E	H	H1	B	a	c	Ød1	
50	16	66	250	80	260	296	143	14,8	30	22	8,0
65		82	270	85	328	373	180	17,3	35	25	13,0
80		98	280	85	336	390	180	17,3	35	25	15,0
			600	245							19,5
100		118	300	90	373	438	213	19,3	38	25	20,0
			600	240							26,0
125		144	325	95	450	527	285	19,3	38	28	30,0
			600	95							33,5
150		170	350	95	462	552	285	19,3	38	28	33,5
			600	220							41,5
200		222	400	115	563	679	357	24,3	48	32	55,0
			600	215							65,0
250		274	450	120	670	813	432	27,3	48	34	92,0
			810	300							113,5
300		326	500	120	753	919	518	27,3	48	34	137,0
			860	300							169,0
400	429	600	133	974	1198	687	32,3	55	44	245,0	

* Other outside diameters on request

E2 VALVE SPIGOT ENDS

With flange, PN 10 | PN 16



Design features

- Resilient seated gate valve with smooth straight-through bore
- Flanges sized in accordance with EN 1092-2, drilled according to EN 1092-2 | PN 10 standard; EN 1092-2 | PN 16 DN 200 please specify on order - other standards on request
- The Hawle **E2** spigot ends valve with the high-tensile loose flange system is especially suitable for use with new builds in addition to being a replacement for existing valves
- The flat gaskets are already contained in the conical seals
- Suitable for cleaning with a cleaning pig
- One extension spindle for several dimensions
- Suitable for operation by automatic actuators
- Easy refitting for position indicator and automatic actuators on the standard bonnet

Standard version: without handwheel and extension spindle

Suitable accessories

Suitable accessories: see page A 1/2

Handwheel:		No. 7800
Extension spindles:	rigid	No. 9000 E2
	telescopic	No. 9500 E2
Surface boxes:	rigid	No. 1750
	telescopic	No. 2050
		No. 2051K
Valve actuator:		No. 9920
Adapter for actuator (E2 adapter):		No. 8630 E2
Base plate:		No. 3481, No. 3482
Operating cap:		No. 2156, No. 2157, No. 2158
Extension spindle:		No. 7820, No. 7825
Position indicator:		No. 2170 E2
Bolts:		No. 8810, No. 8830, No. 8840
HAWAK-pillar:		No. 9894, No. 9895

No. 4120E2



Order no.	Version	MOP (PN)	Dimensions/DN		
			100	150	200
4120E2	short EN 558-1 GR 14	16			

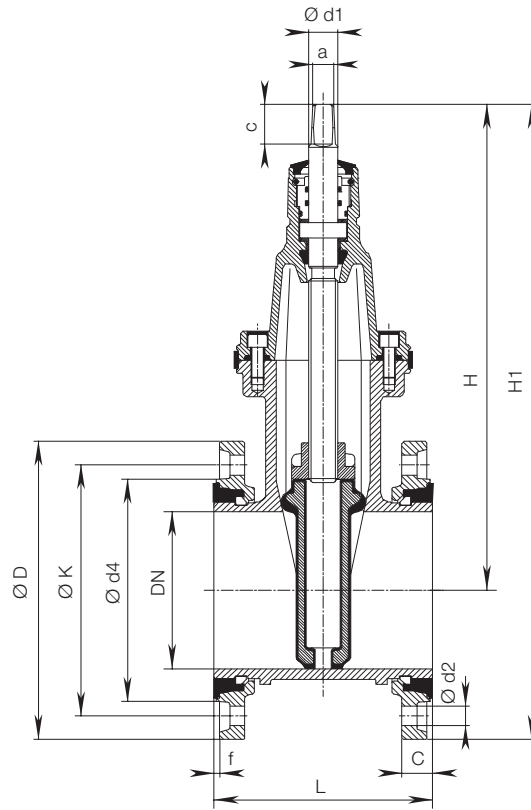
Face-to-face length EN 558-1 GR 15 on request

E2 VALVE SPIGOT ENDS

With flange, PN 10 | PN 16



No. 4120E2



DN	MOP (PN)	Flange					Bolts		Spindle			Valve				Weight	
		ØD	C	ØK	Ød4	f	Qty.	Thread	Ød2	a	c	Ød1	H	H1	L		B
100	10	220	19	180	153	3	8	M 16	19	19,3	38	25	373	483	190	213	22,0
	16																
150	10	285	19	240	209	3	8	M 20	23	19,3	38	28	462	605	210	285	39,0
	16																
200	10	340	20	295	264	3	8	M 20	23	24,3	48	32	563	733	230	357	61,0
	16																12

E2 VALVE FOR PE FUSION

DN 50-200, PN 10 | PN 16

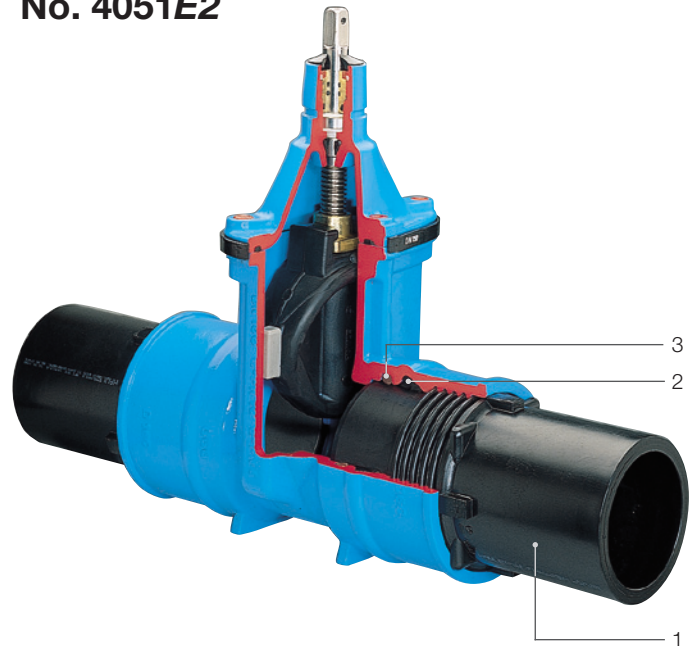


Design features

- Resilient seated gate valve with PE fusion tails in combination with PE pipes according to EN 12201, DIN 8074
- This resilient seated valve has PE tails screwed and sealed into the sockets
- High performance sealing of the PE tails within the sockets is assured by two separate seals and a support liner
- The valve can be connected to the PE pipeline by either butt fusion or electrofusion
- One extension spindle for several dimensions
- Suitable for operation by automatic actuators
- Easy refitting for position indicator and automatic actuators on the standard bonnet
- Duplex stainless steel spindle

Standard version: without handwheel and extension spindle
Special versions: on request

No. 4050E2
 No. 4051E2



Material | technical features

1 PE-fusion tail

Standard version PE 100 injection moulded
Support liner DN 50 made of POM,
 from DN 65 - DN 200 made of stainless steel
 for PE-fusion tail
 (see overleaf drawing)

2 Socket sealing made of elastomer

3 O-Ring made of elastomer



Order no.	MOP (PN)	Dimensions/DN Pipe Ø									
		50	65	80	100	100	125	150	150	200	200
		63	75	90	110	125	140	160	180	200	225
4050E2	16										
4051E2	10										

PE-fusion tail: No. 4050E2 PN 16 / SDR 11
 No. 4051E2 PN 10 / SDR 17.6

Suitable accessories

Suitable accessories: see page A 1/2

- Handwheel: No. 7800
- Extension spindles: rigid No. 9000E2
telescopic No. 9500E2
- Surface boxes: rigid No. 1750
telescopic No. 2050, No. 2051K
- Valve actuator: No. 9920
- Adapter for actuator (E2 adapter): No. 8630E2
- Base plate: No. 3481, No. 3482
- Operating cap: No. 2156, No. 2157, No. 2158
- Extension spindle: No. 7820, No. 7825
- Position indicator: No. 2170E2
- HAWAK-pillar: No. 9894, No. 9895

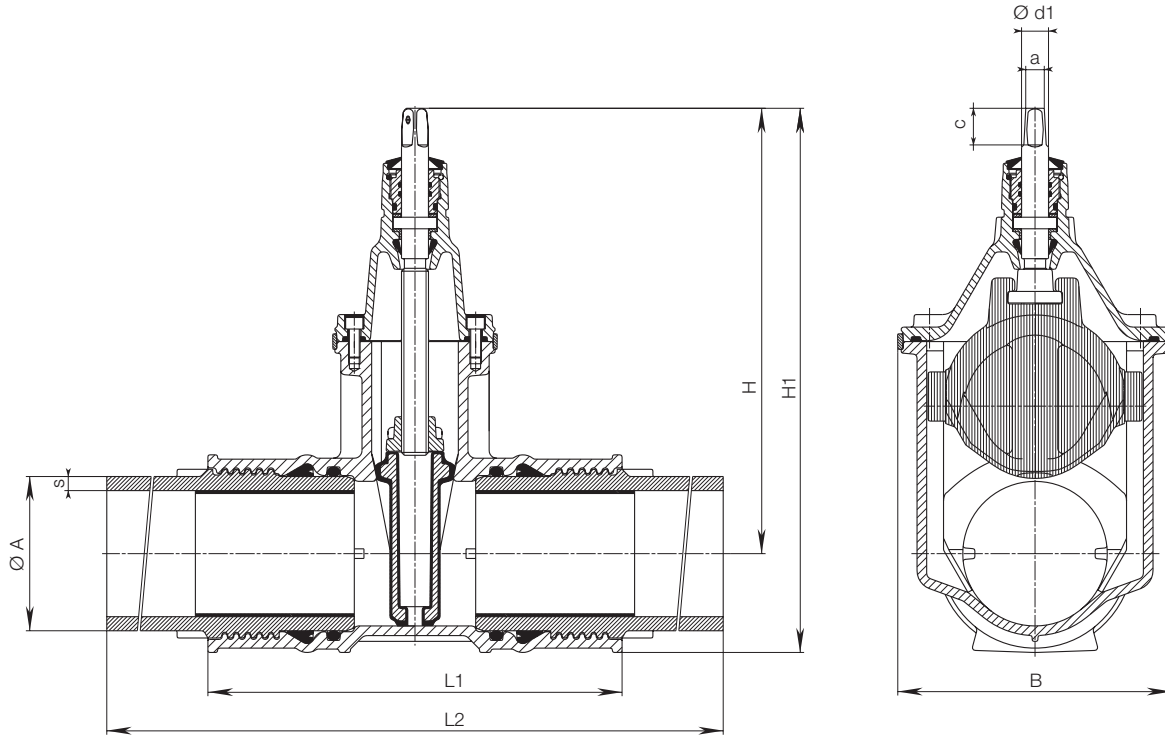
E2 VALVE FOR PE FUSION

DN 50-200, PN 10 | PN 16



No. 4050E2

No. 4051E2



PE-fusion tail: No. 4050E2 PN 16 / SDR 11
No. 4051E2 PN 10 / SDR 17.6

DN	ØA	Valve with PE tails							Spindle			Weight
		s (SDR 17.6)	s (SDR 11)	H	H1	L1	L2	B	a	c	Ød1	
50	63	3,6	5,8	260	309	280	648	143	14,8	30	22	10,5
65	75	4,3	6,9	328	384	295	657	180	17,3	35	25	17,0
80	90	5,1	8,2	336	400	310	668	180	17,3	35	25	20,0
100	110	6,3	10,0	373	449	340	710	213	19,3	38	25	28,0
100	125	7,1	11,4	373	458	395	761	213	19,3	38	25	30,0
125	140	8,0	12,8	450	542	390	756	285	19,3	38	28	32,5
150	160	9,1	14,6	462	565	430	796	285	19,3	38	28	50,5
150	180	10,4	16,4	462	577	458	814	285	19,3	38	28	57,5
200	200	11,4	18,2	563	701	514	900	357	24,3	48	32	76,0
200	225	12,8	20,5	563	701	514	900	357	24,3	48	32	81,0

E2 VALVE FLANGE | PE TAIL

DN 50-200, PN 10 | PN 16



Design features

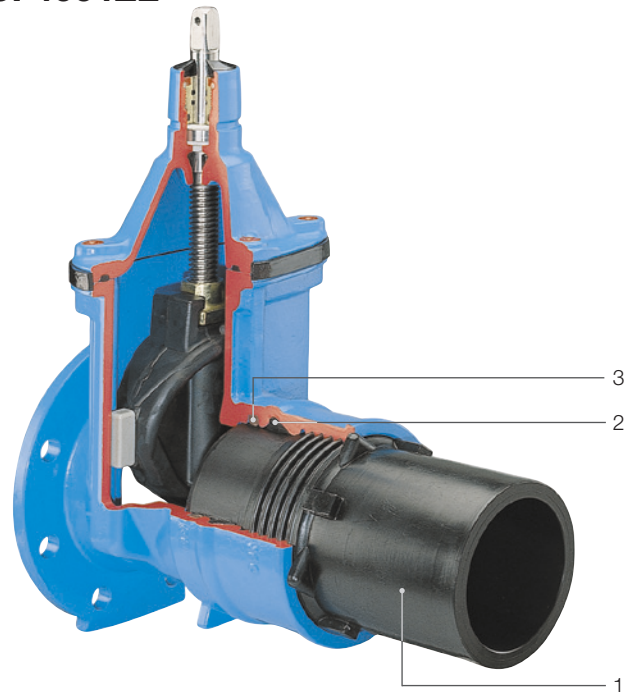
- Resilient seated gate valve with flange and PE fusion tail in combination with PE pipes according to EN 12201, DIN 8074
- This resilient seated valve has one flange and one PE tail screwed and sealed into the sockets
- High performance sealing of the PE tails within the sockets is assured by two separate seals and a support liner
- The valve can be connected to the PE pipeline by either butt fusion or electrofusion
- Flanges sized in accordance with EN 1092-2, drilled according to EN 1092-2 | PN 10 standard; EN 1092-2 | PN 16 DN 200 please specify on order - other standards on request
- One extension spindle for several dimensions
- Suitable for operation by automatic actuators
- Easy refitting for position indicator and automatic actuators on the standard bonnet
- Duplex stainless steel spindle

Standard version: without handwheel and extension spindle

Special versions: on request

No. 4090E2

No. 4091E2



Material | technical features

1 PE-fusion tail

Standard version PE 100 injection moulded

Support liner DN 50 made of POM,
from DN 65 - DN 200 made of stainless steel
for PE-fusion tail
(see overleaf drawing)

2 **Socket sealing** made of elastomer

3 **O-Ring** made of elastomer

Suitable accessories

Suitable accessories: see page A 1/2

Handwheel:		No. 7800
Extension spindles:	rigid	No. 9000E2
	telescopic	No. 9500E2
Surface boxes:	rigid	No. 1750
	telescopic	No. 2050, No. 2051K
Valve actuator:		No. 9920
Adapter for actuator (E2 adapter):		No. 8630E2
Base plate:		No. 3481, No. 3482
Operating cap:		No. 2156, No. 2157, No. 2158
Extension spindle:		No. 7820, No. 7825
Position indicator:		No. 2170E2
Bolts:		No. 8810, No. 8830, No. 8840
HAWAK-pillar:		No. 9894, No. 9895
Flat gasket:		No. 3390, No. 3470

Order no.	MOP (PN)	Dimensions/DN Pipe Ø								
		50	65	80	100	100	125	150	150	200
		63	75	90	110	125	140	160	180	225
4090E2	16									
4091E2	10									

PE-fusion tail: No. 4090E2 PN 16 / SDR 11
No. 4091E2 PN 10 / SDR 17.6

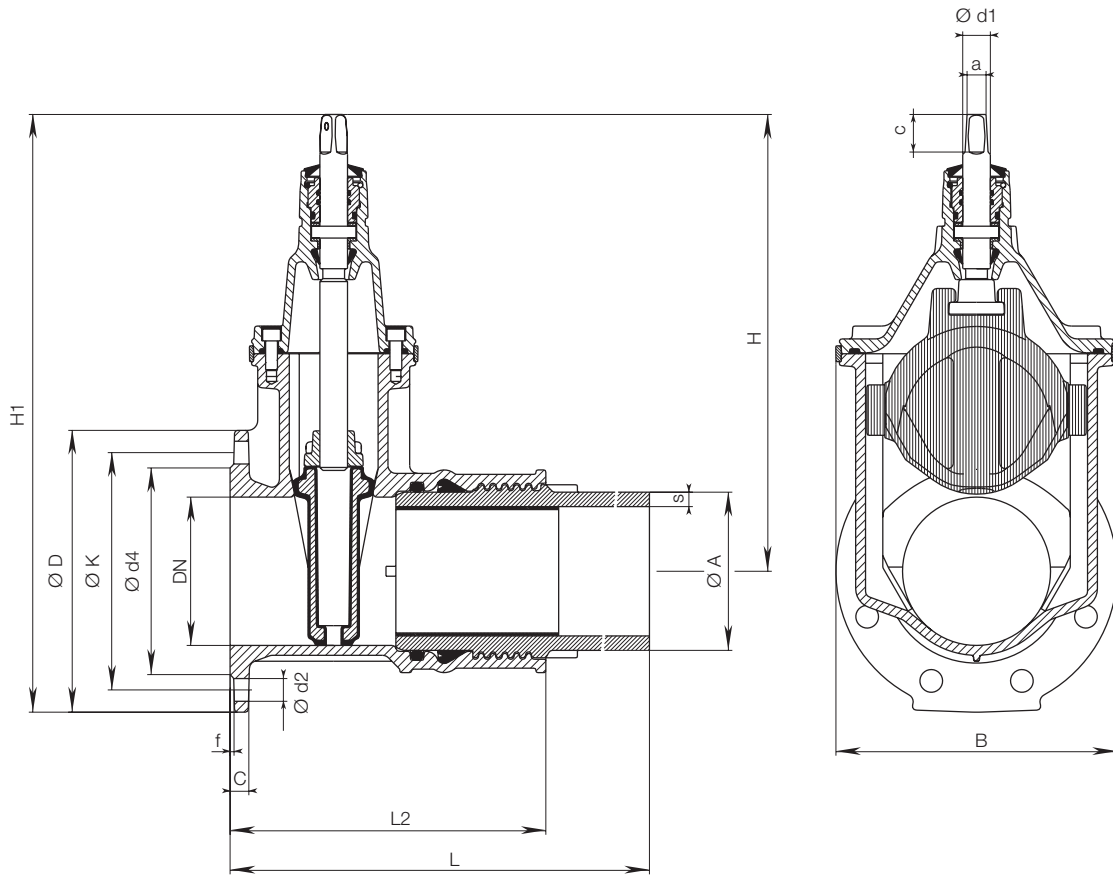
E2 VALVE FLANGE | PE TAIL

DN 50-200, PN 10 | PN 16



No. 4090E2

No. 4091E2



PE-fusion tail: No. 4090E2 PN 16 / SDR 11
No. 4091E2 PN 10 / SDR 17.6

DN	Ø Pipe	Flange					Bolts		Valve with PE tail						Spindle			Weight		
		Ø D	C	Ø K	Ø d4	f	Qty.	Thread	Ø d2	s (SDR 17.6)	s (SDR 11)	H	H1	L	L2	B	a		c	Ø d1
50	63	165	19	125	98	3	4	M 16	19	3,6	5,8	260	342	399	215	143	14,8	30	22	11,5
65	75	185	19	145	118	3	4	M 16	19		6,9	328	420	416	235	180	17,3	35	25	17,0
80	90	200	19	160	133	3	8	M 16	19	5,1	8,2	336	436	425	245	180	17,3	35	25	19,5
100	110	220	19	180	153	3	8	M 16	19	6,3	10,0	373	483	450	265	213	19,3	38	25	25,5
100	125	220	19	180	153	3	8	M 16	19		11,4	373	483	476	293	213	19,3	38	25	28,0
125	140	250	19	210	183	3	8	M 16	19		12,8	450	575	485	310	285	19,3	38	28	30,0
150	160	285	19	240	209	3	8	M 20	23		14,6	462	605	503	320	285	19,3	38	28	45,5
150	180	285	19	240	209	3	8	M 20	23		16,4	462	605	512	334	285	19,3	38	28	49,5
200	225	340	20	295	264	3	8 12	M 20	23	12,8	20,5	563	733	565	372	357	24,3	48	32	78,0

E2 VRS-SOCKET VALVE

For cast iron pipes and pipes with VRS-socket, PN 16



Design features

- Resilient seated gate valve with one-sided VRS-socket and one-sided VRS-spigot
- With VRS grip ring and VRS pipe restraint clamp (not included), a pipe connection can be made restraint
- Suitable for cleaning with a cleaning pig
- One extension spindle for several dimensions
- Suitable for operation by automatic actuators
- Easy refitting for position indicator and automatic actuators on the standard bonnet (DN 50 to DN 200)
To set-up an actuator or a position indicator, remove the centering flange and insert position indicator or actuator with adapter (DN 250 to DN 300)
- Duplex stainless steel spindle

Standard version: without handwheel and extension spindle

Material | technical features

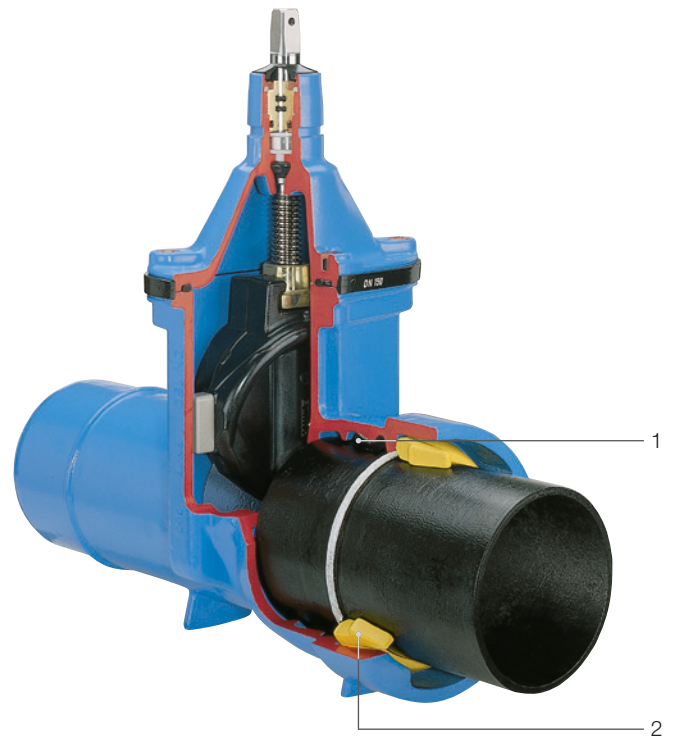
- 1 **Socket sealing** made of elastomer
- 2 **Pipe restraint clamp** (not included)

Suitable accessories

Suitable accessories: see page A 1/2

Handwheel:		No. 7800
Extension spindles:	rigid	No. 9000E2
	telescopic	No. 9500E2
Surface boxes:	rigid	No. 1750
	telescopic	No. 2050, No. 2051K
Valve actuator:		No. 9920
Adapter for actuator (E2 adapter):		No. 8630E2
Base plate:		No. 3481, No. 3482
Operating cap:		No. 2156, No. 2157, No. 2158
Extension spindle:		No. 7820, No. 7825
Position indicator:		No. 2170E2
HAWAK-pillar:		No. 9894, No. 9895

No. 4027E2



Order no.	Version	MOP (PN)	Dimensions/DN						
			80	100	125	150	200	250	300
4027E2	Socket-Spigot	16							

Application example

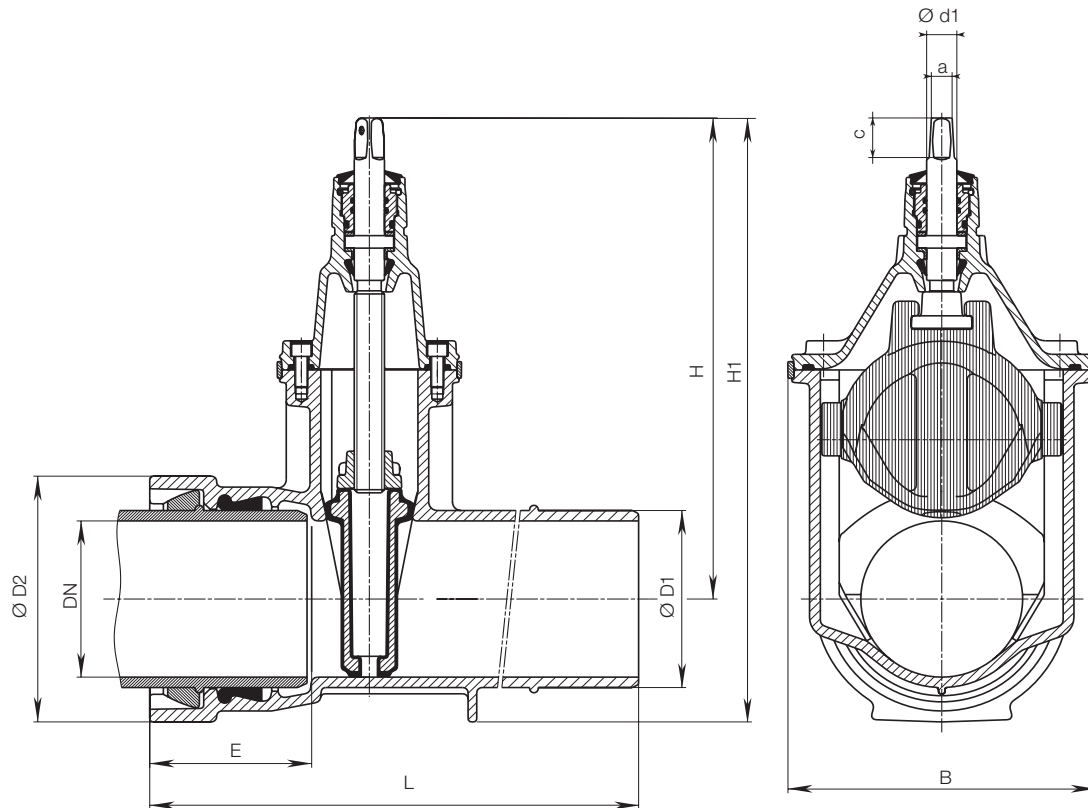


E2 VRS-SOCKET VALVE

For cast iron pipes and pipes with VRS-socket, PN 16



No. 4027E2



DN	Ø Pipe	MOP (PN)	Valve							Spindle			Weight
			Ø D1	Ø D2	E	H	H1	L	B	a	c	Ø d1	
80	98	16	98	156	127	336	414	422	180	17,3	35	25	20,0
100	118		118	178	135	373	462	440	213	19,3	38	25	28,0
125	144		144	208	143	450	554	494	285	19,3	38	25	35,0
150	170		170	235	150	462	580	513	285	19,3	38	28	46,0
200	222		222	295	160	563	711	535	357	24,3	48	32	74,5
250	274		274	356	165	670	848	577	432	27,3	48	36	115,0
300	326		326	414	170	753	960	638	518	27,3	48	36	170,0

E2 COMBI-T

Flange T-piece with integrated E2 valve, PN 10, PN 16



Design features

- Resilient seated gate valve combined with flange T-piece
- Short style, equal and reduced
- Space saving installation through short design as well as savings in material, work, transport and storage costs
- The compact design enables the valve chamber to be made from sectional concrete giving typical savings of 25 % in chamber construction costs
- A combination of **E2** Combi-T with **E2** reducing valve creates a multitude of application possibilities
- Flanges sized in accordance with EN 1092-2, drilled according to EN 1092-2 | PN 10 standard; EN 1092-2 | PN 16 DN 200 please specify on order - other standards on request
- Suitable for cleaning with a cleaning pig
- One extension spindle for several dimensions
- Suitable for operation by automatic actuators
- Easy refitting for position indicator and automatic actuators on the standard bonnet
- Duplex stainless steel spindle

Standard version: without handwheel and extension spindle

Special versions: on request

No. 4340E2



Suitable accessories

Suitable accessories: see page A 1/2

Handwheel:		No. 7800
Extension spindles:	rigid	No. 9000E2
	telescopic	No. 9500E2
Surface boxes:	rigid	No. 1750
	telescopic	No. 2050, No. 2051K
Valve actuator:		No. 9920
Adapter for actuator (E2 adapter):		No. 8630E2
Base plate:		No. 3481, No. 3482
Operating cap:		No. 2156, No. 2157, No. 2158
Extension spindle:		No. 7820, No. 7825
Position indicator:		No. 2170E2
Bolts:		No. 8810, No. 8830, No. 8840
Flat gasket:		No. 3390, No. 3470
HAWAK-pillar:		No. 9894, No. 9895



Order no.	MOP (PN)	Dimensions		Valve DN1				
		DN	65	80	100	150	200	
4340E2	16	80						
		100						
		125						
		150						
		200						

Application example

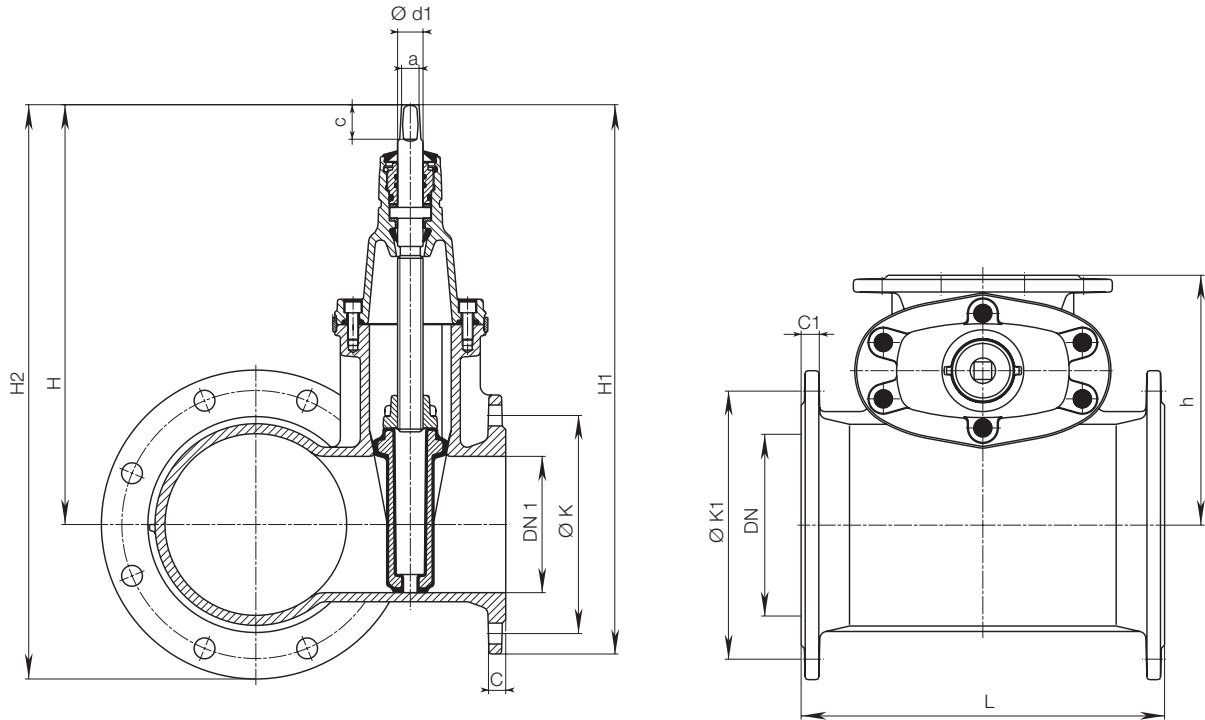


E2 COMBI-T

Flange T-piece with integrated E2 valve, PN 10, PN 16



No. 4340E2



DN	DN 1 Valve	E2 Combi-T					Flanges				Spindle			Weight
		L	H	H1	H2	h	ØK	C	ØK1	C1	a	c	Ød1	
80	80	280	336	436	436	170	160	19	160	19	17,3	35	25	25,0
100	65	260	328	420	438	180	145	19	180	19	17,3	35	25	29,5
100	80	280	336	436	446	200	160	19	180	19	17,3	35	25	30,0
100	100	310	373	483	483	200	180	19	180	19	19,3	38	25	34,0
125	80	280	336	436	461	200	160	19	210	19	17,3	35	25	31,0
125	100	310	373	483	498	215	180	19	210	19	19,3	38	25	36,0
150	65	260	328	420	470	210	145	19	240	19	17,3	35	25	33,0
150	80	280	336	436	473	220	160	19	240	19	17,3	35	25	36,0
150	100	310	373	483	516	220	180	19	240	19	19,3	38	25	40,5
150	150	400	462	605	605	250	240	19	240	19	19,3	38	28	59,0
200	80	280	336	436	506	250	160	19	295	20	17,3	35	25	42,0
200	100	310	373	483	543	250	180	19	295	20	19,3	38	25	49,5
200	150	400	462	605	632	275	240	19	295	20	19,3	38	28	66,0
200	200	460	563	733	733	295	295	20	295	20	24,3	48	32	88,0

E2 COMBI-III

Flanged T-piece with 3 flanged outlets and 2 or 3 integral E2 valves



Design features

- Resilient seated gate valve combined with flange-T-piece
- Space saving installation through short design as well as savings in material, work, transport and storage costs
- The compact design enables the valve chamber to be made from sectional concrete giving typical savings of 25 % in chamber construction costs
- Vertical connection DN 100 optional
- Internal thread connection 3/4" - optional for manometer, ball valve outlet etc.
- Flanges sized in accordance with EN 1092-2, drilled according EN 1092-2 | PN 10 standard; EN 1092-2 | PN 16 DN 200 please specify on order - other standards on request
- Suitable for cleaning with a cleaning pig
- Duplex stainless steel spindle

Suitable accessories

Suitable accessories: see page A 1/2

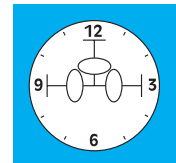
Handwheel:		No. 7800
Extension spindles:	rigid	No. 9000E2
	telescopic	No. 9500E2
Surface box:		No. 4550
Operating cap:	No. 2156, No. 2157, No. 2158	
Extension spindle:	No. 7820, No. 7825	
Position indicator:	No. 2170E2	
Bolts:	No. 8810, No. 8830, No. 8840	
Flat gasket:	No. 3390, No. 3470	
Blanking cap:	No. 8570E2	

No. 4450E2
No. 4460E2



Instead of a bonnet, a cap No. 8570E2 can be fitted onto the body of any outlet not requiring a valve

Please specify the arrangement of the valves in a clockwise direction!



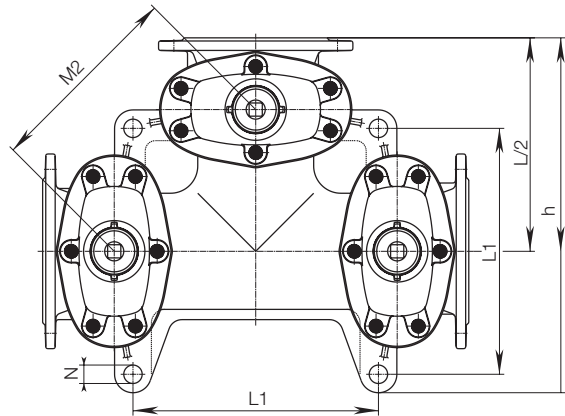
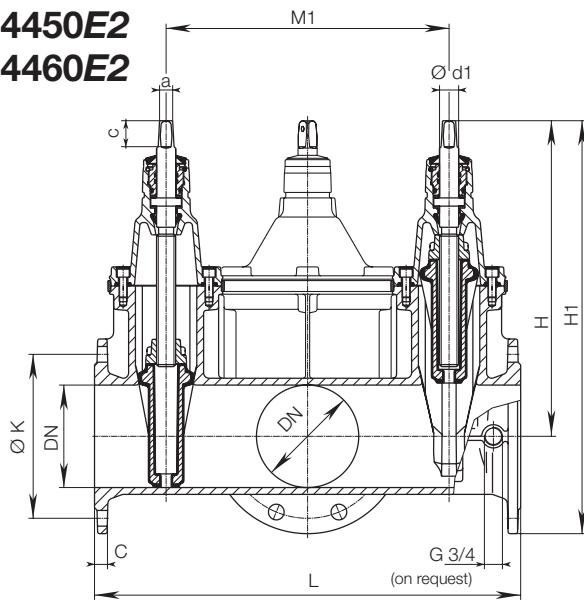
Order no.	Version	MOP (PN)	No. of valves	Dimensions/DN				
				80	100	125	150	200
4450E2	Without vertical centre outlet	16	2					
			3					
4460E2	With vertical outlet		2					
			3					

E2 COMBI-III

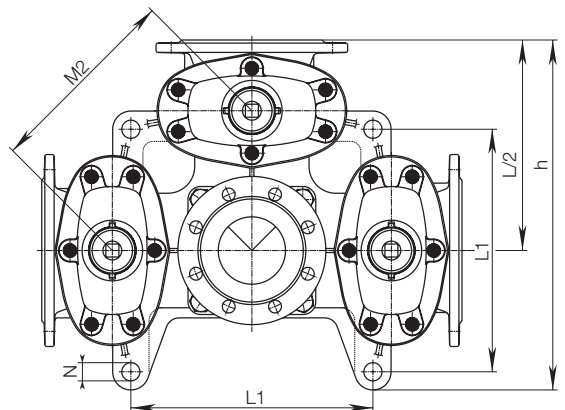
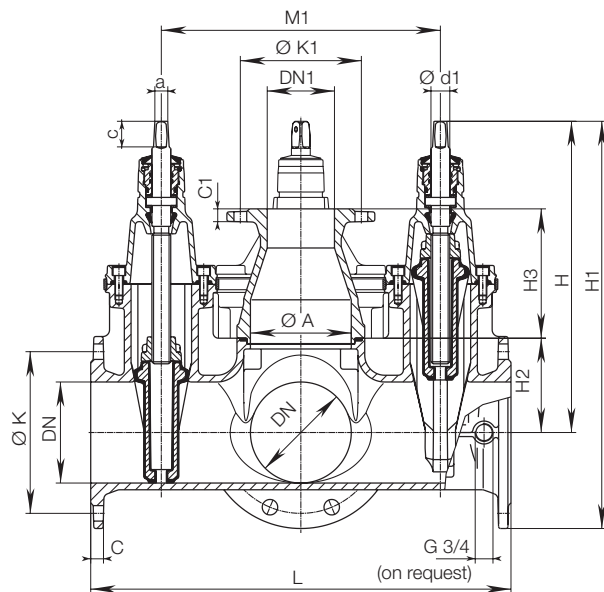
Flanged T-piece with 3 flanged outlets and 2 or 3 integral E2 valves



No. 4450E2
No. 4460E2



DN	E2 Combi III without vertical centre outlet										Spindle			Weight (no. of valves)	
	L	H	H1	Ø K	C	M1	M2	L1	h	N	a	c	Ø d1	2	3
80	435	336	436	160	19	255	180	-	318	-	17,3	35	25	45,0	50,0
100	555	373	483	180	19	365	258	212	411	27	19,3	38	25	68,0	74,0
125	615	475	600	210	19	415	293,5	360	515	27	19,3	38	28	101,0	111,0
150	625	462	605	240	19	415	293,5	360	520	27	19,3	38	28	105,0	115,0
200	695	563	733	295	20	465	329	445	602	32	24,3	48	32	167,0	183,0



DN	E2 Combi III with vertical centre outlet													Spindle			Weight (no. of valves)				
	Ø A	DN 1	L	L1	H	H1	H2	H3	C	C1	Ø K	Ø K1	M1	M2	h	N	a	c	Ø d1	2	3
100	100	100	555	212	373	483	90	+	19	+	180	+	365	258	411	27	19,3	38	25	71,0	76,0
150	150	100	625	360	462	605	140	192	19	19	240	180	415	293,5	520	27	19,3	38	28	120,0	130,0
200	200	100	695	445	563	733	180	192	20	19	295	180	465	329	602	32	24,3	48	32	198,0	205,0

+ flange connection directly on the body - stud

E2 COMBI-IV

Flanged T-piece with 4 flanged outlets and 2, 3 or 4 integral E2 valves



Design features

- Resilient seated gate valve combined with flange cross piece
- Space saving installation through short design as well as savings in material, work, transport and storage costs
- The compact design enables the valve chamber to be made from sectional concrete giving typical savings of 25 % in chamber construction costs
- Vertical connection DN 100 optional
- Internal thread connection 3/4" - optional for manometer, ball valve outlet etc.
- Flanges sized in accordance with EN 1092-2, drilled according EN 1092-2 | PN 10 standard; EN 1092-2 | PN 16 DN 200 please specify on order - other standards on request
- Suitable for cleaning with a cleaning pig
- Duplex stainless steel spindle

Suitable accessories

Suitable accessories: see page A 1/2

Handwheel:		No. 7800
Extension spindles:	rigid	No. 9000E2
	telescopic	No. 9500E2
Surface box:		No. 4550
Operating cap:	No. 2156, No. 2157, No. 2158	
Extension spindle:	No. 7820, No. 7825	
Position indicator:	No. 2170E2	
Bolts:	No. 8810, No. 8830, No. 8840	
Flat gasket:	No. 3390, No. 3470	
Blanking cap:	No. 8570E2	

No. 4400E2

No. 4410E2



Instead of a bonnet, a cap No. 8570E2 can be fitted onto the body of any outlet not requiring a valve

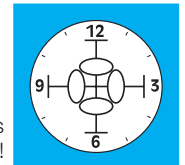


No. 4410E2 cross connection with 3 valves and vertical centre outlet



With 3 valves and no vertical outlet

Please specify the arrangement of the valves in a clockwise direction!



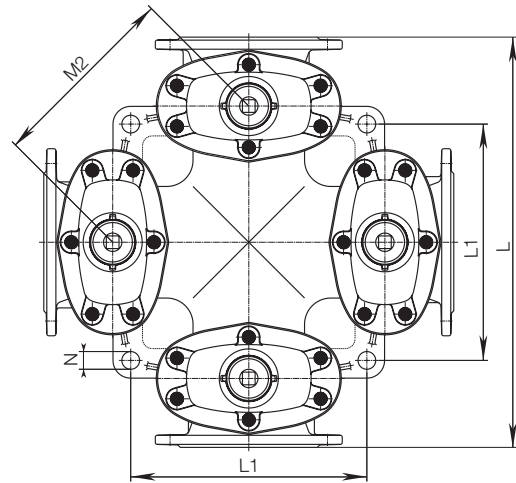
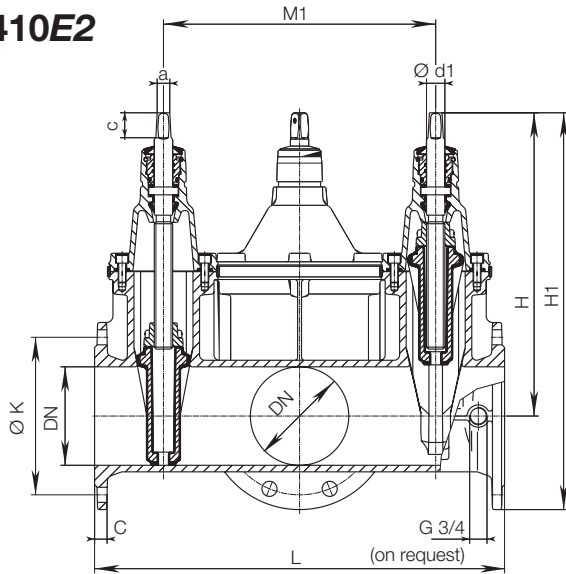
Order no.	Version	MOP (PN)	No. of valves	Dimensions/DN				
				80	100	125	150	200
4400E2	Without vertical centre outlet	16	2					
			3					
			4					
4410E2	With vertical outlet	16	3					
			4					

E2 COMBI-IV

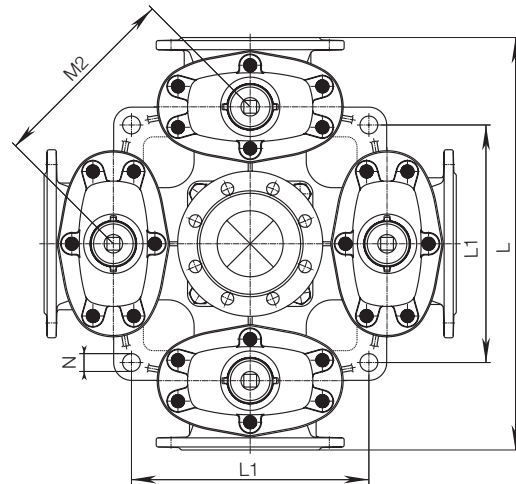
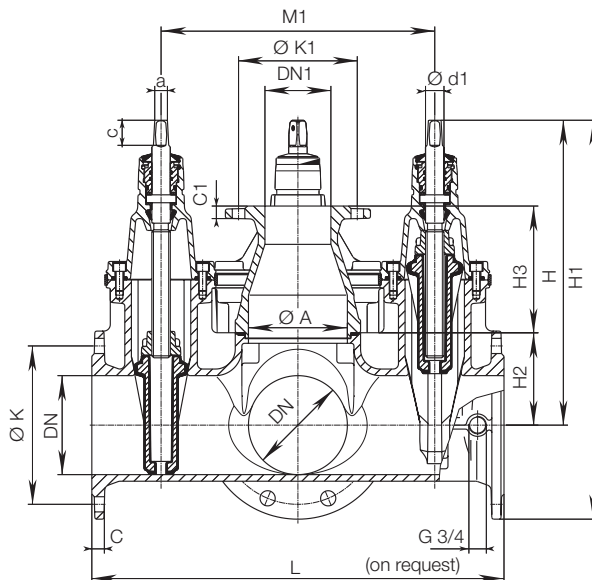
Flanged T-piece with 4 flanged outlets and 2, 3 or 4 integral E2 valves



No. 4400E2
No. 4410E2



DN	E2 Combi IV without vertical centre outlet									Spindle			Weight (no. of valves)		
	L	H	H1	ØK	C	M1	M2	L1	N	a	c	Ød1	2	3	4
80	435	336	436	160	19	255	180			17,3	35	25	55,0	60,0	65,0
100	555	373	483	180	19	365	258	212	27	19,3	38	25	76,0	84,0	90,0
125	615	475	600	210	19	415	293,5	360	27	19,3	38	28	125,0	135,0	145,0
150	625	462	605	240	19	415	293,5	360	27	19,3	38	28	135,0	143,0	151,0
200	695	563	733	295	20	465	329	445	32	24,3	48	32	207,0	223,0	238,0



DN	E2 Combi IV with vertical centre outlet												Spindle			Weight (no. of valves)				
	ØA	DN1	L	L1	H	H1	H2	H3	C	C1	ØK	ØK1	M1	M2	N	a	c	Ød1	3	4
100	100	100	555	212	373	483	90	+	19	+	180	+	365	258	27	19,3	38	25	90,0	96,0
150	150	100	625	360	462	605	140	192	19	19	240	180	415	293,5	27	19,3	38	28	154,0	164,0
200	200	100	695	445	563	733	180	192	20	19	295	180	465	329	32	24,3	48	32		265,0

+ flange connection directly on the body - stud

E2 HAWLE-COMBIFLEX

PN 10 | PN 16



Design features

- Modular Combi-valve system enables flexible assembly arrangements
- Standardized compact construction regardless of valve configuration
- Suitable for cleaning with a cleaning pig
- Comprehensive range of interchangeable ZAK connections possible in every module
- Unique design facilitates easy, rapid exchange of any module
- Duplex stainless steel spindle

Material | technical features

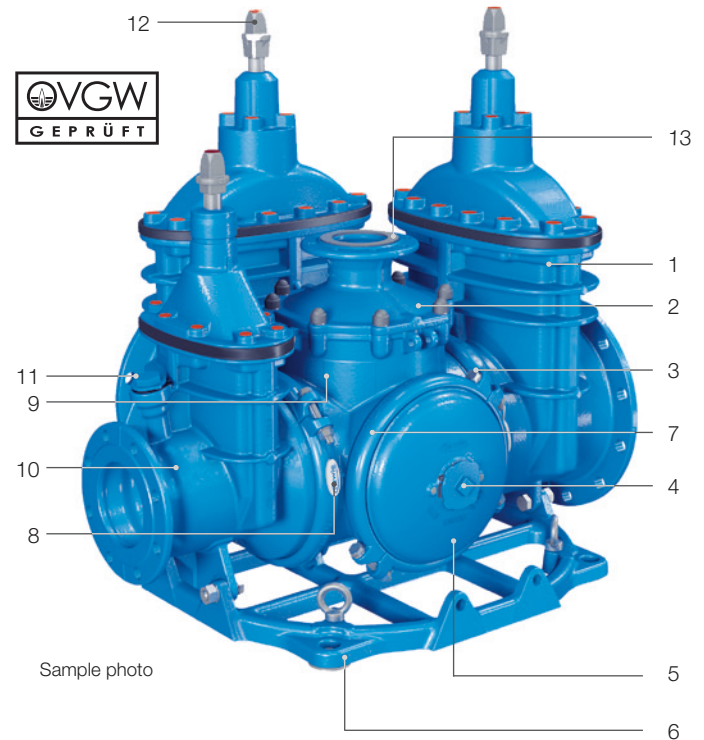
- Resilient seated E2 valve** in DN 150 to DN 400 according to EN 1074-1 and 2
- Molybdenum coated, A4 type **clamping ring bolts**
- ZAK-69** (4) or **ZAK-46** (11) socket for corrosion-free connection of sensors or ZAK Service valve
- 2/5/7/ DN 100 or DN 150 **end cap** (5), **clamping ring** (7), 2 types of **middle section** DN 250 or DN 300 (9), **E2 body** (10) reduced in DN 150 and DN 200 or expanded to DN 400: ductile iron, epoxy powder coated
- HAWLE-COMBIFLEX mounting frame**: ductile iron, epoxy powder coated, with ring bolts for fastening hoists and integrated rings for floor connections
- Quality inspection seal**
- Operating cap** made of aluminum, including covering cap with direction indicator
- Vertical outlet with affixed flat elastomer gasket

Suitable accessories

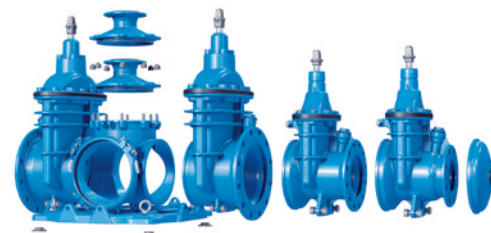
Suitable accessories: see page A 1/2

Handwheel:		No. 7800
Extension spindles:	rigid	No. 9000E2
	telescopic	No. 9500E2
Surface boxes:	rigid	No. 1750
	telescopic	No. 2050, No. 2051K
Operating cap:		No. 2156, No. 2157, No. 2158
Extension spindle:		No. 7820, No. 7825
Bolts:		No. 8810, No. 8830, No. 8840
Ground-distance sets:		No. 8644
Flat gasket:		No. 3390, No. 3470

No. 4420E2



Individual combination options



see A 9/3

Application example



Order no.	Version	MOP (PN)	Dimensions / DN	Possible reduction / DN	Possible vertical outlet / DN	Max. Weight
4420E2	Individually configurable	10	250	150	100	465
		16		200	150	
		250		150	100	
		10	300	200	100	706
		16		300	150	
		400		150	150	

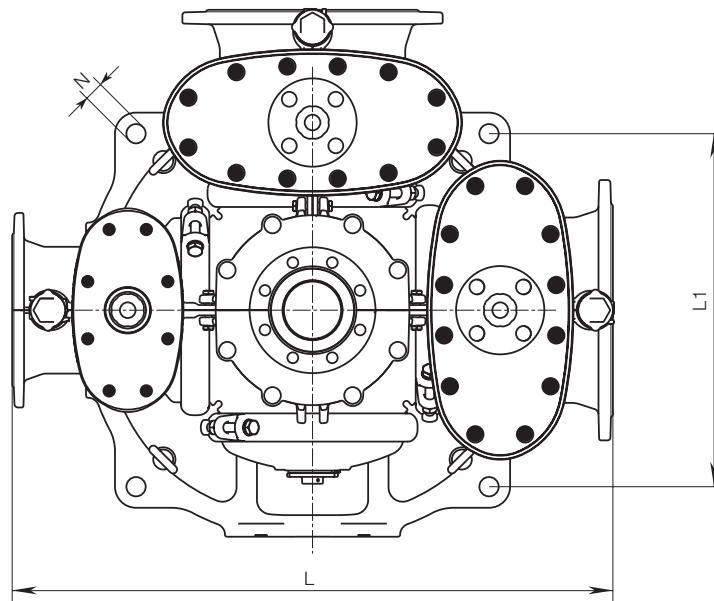
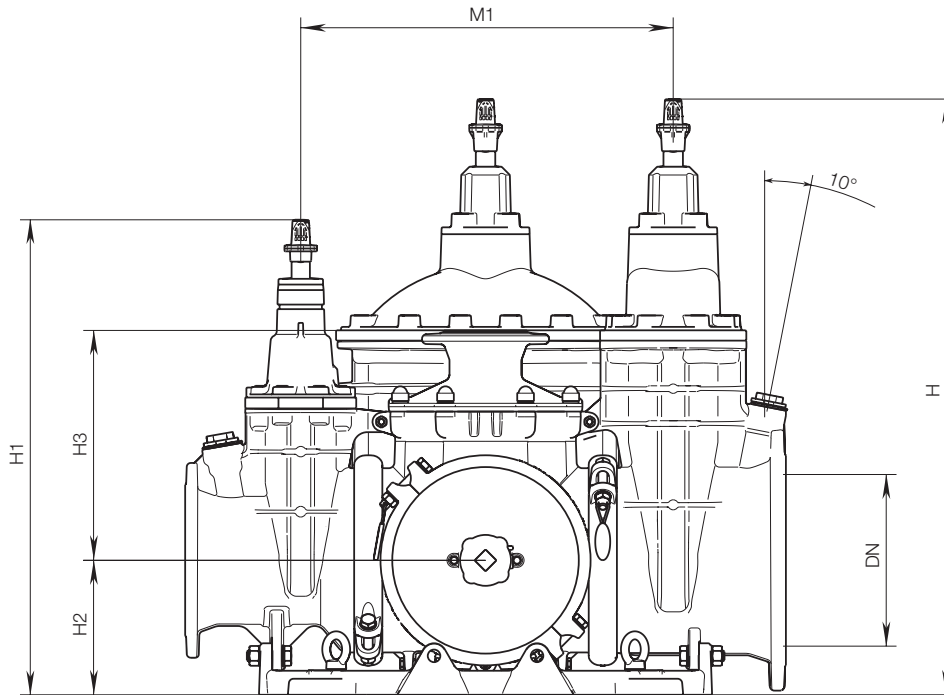
Flange sized and drilled in accordance with EN 1092-2 standard PN 10. Please specify PN 16 when ordering. Please use the HAWLE-COMBIFLEX order form. It can be found on our homepage.

E2 HAWLE-COMBIFLEX

PN 10 | PN 16



No. 4420E2

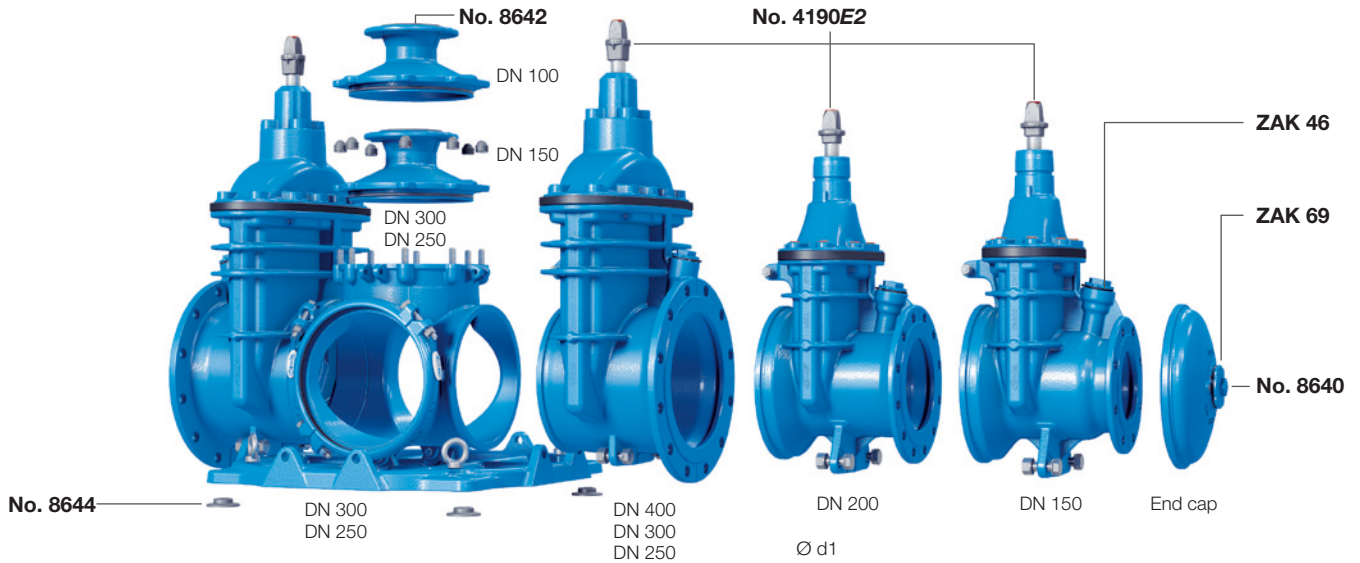


DN	HAWLE-COMBIFLEX										
	MOP (PN)	L*	L1	H	H1	H2	H3	DN	M1*	Ø N	max.
250	10	960	617	932	777	210	359	150	590	34	465
	16							200			
	250										
300	10	1050	617	1043	830	235	399	150	646	34	706
	16							200			
	300										
	400										

*The external dimensions (L, M1) remain the same with reducing valves!

E2 HAWLE-COMBIFLEX

Individual parts

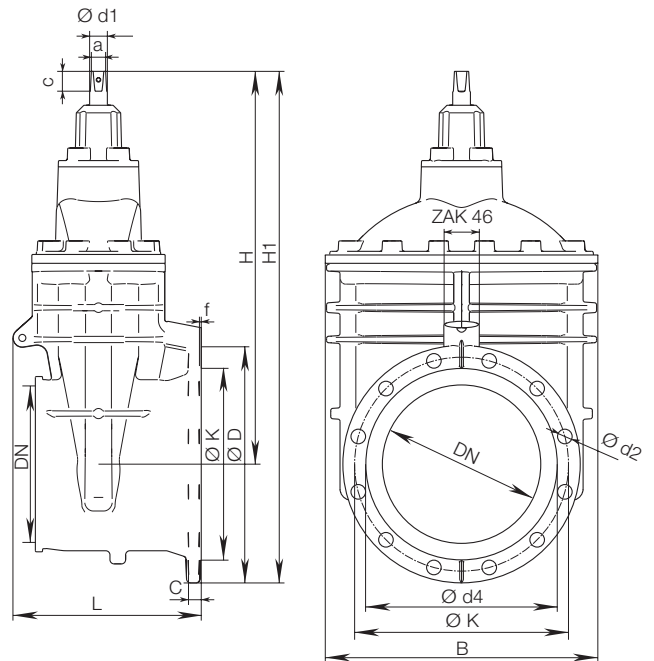
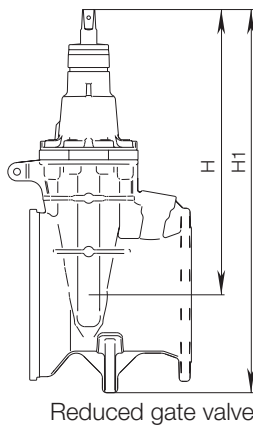


HAWLE-COMBIFLEX E2 gate valve No. 4190E2



ZAK 46

- ZAK 46 socket
- Incl. ZAK 46 plug
- Incl. operating cap
- Incl. bolt fastener
- Fits through man hole openings



DN	HAWLE-COMBIFLEX E2 gate valve																			
	Flange							Bolts			Spindle			Valve						
	DN	MOP (PN)	Ø D	C	Ø K	Ø d4	f	Qty.	Thread	Ø d2	a	c	Ø d1	Wedge DN	Service outlet	H	H1*	L*	B*	Weight
250	150	10 16	285	19	240	209	3	8	M20	23	24,3	48	32	200	ZAK 46	561	727	337	356	61,0
	200	10 16	340	20	295	264	3	8 12	M20	23	24,3	48	32	200	ZAK 46	561	730	337	356	62,0
		10 16	400	22	350 355	319	3	12	M20 M24	23 28	27,3	48	34	250	ZAK 46	670	870	337	438	89,0
300	150	10 16	285	19	240	209	3	8	M20	23	24,3	48	32	200	ZAK 46	561	754	361	356	65,0
	200	10 16	340	20	295	264	3	8 12	M20	23	24,3	48	32	200	ZAK 46	561	754	361	356	66,0
		10 16	455	24,5	400 410	367	4	12	M20 M24	23 28	27,3	48	34	300	ZAK 46	753	981	361	523	132,0
	400	10 16	580	28	515 525	477	4	16	M24 M27	28 31	27,3	48	34	300	ZAK 46	753	1050	361	523	146,0

* Transport dimensions

E2 HAWLE-COMBIFLEX

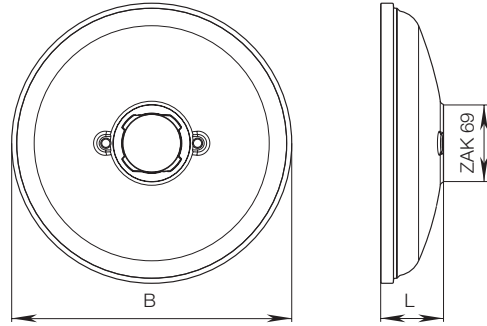
Individual parts



HAWLE-COMBIFLEX end cap No. 8640



- ZAK 69 socket

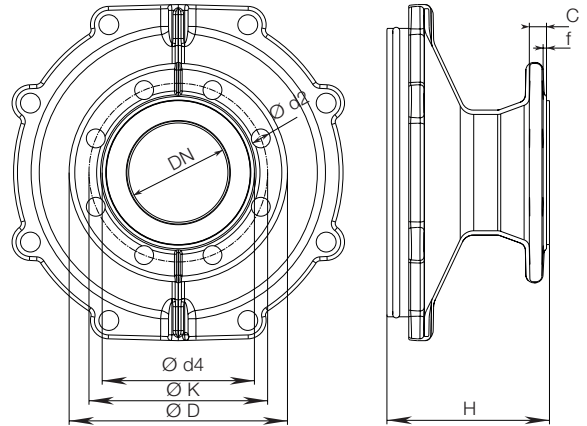


DN	HAWLE-COMBIFLEX end cap			
	B	ZAK-socket	L	Weight
250	284	ZAK 69	67	5,5
300	335	ZAK 69	77	8,0

HAWLE-COMBIFLEX vertical outlet No. 8642



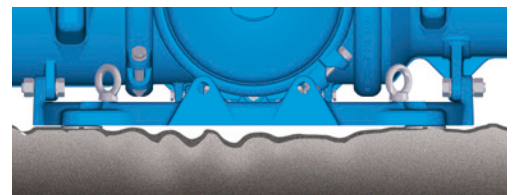
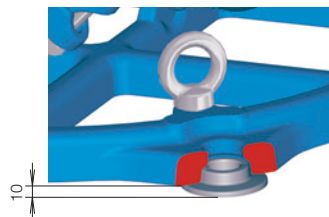
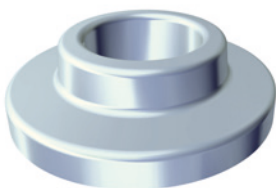
- Incl. affixed elastomer flange gasket



DN	HAWLE-COMBIFLEX vertical outlet											
	Flange							Bolts			Vertical outlet	
	DN	MOP (PN)	Ø D	C	Ø K	Ø d4	f	Qty.	Thread	Ø d2	H	Weight
250	100	10	220	19	180	153	3	8	M16	17	146	12,0
		16										
	150	10	285	19	240	209	3	8	M20	23	146	11,0
		16										
300	100	10	220	19	180	153	3	8	M16	17	160	13,0
		16										
	150	10	285	19	240	209	3	8	M20	23	160	13,0
		16										

HAWLE-COMBIFLEX ground-distance set No. 8644 (order separately)

Stainless steel



HAWLE-A VALVE

Overview



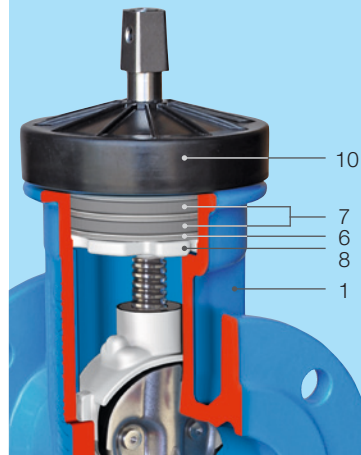
Design features

- **Resilient seated gate valve** according to EN 1171, EN 1074-1 and EN 1074-2 with smooth straight bore
- The HAWLE-A valve is the **first mono-design resilient-seated valve in the world**. Due to its unique mono design an unequalled strength of the valve is achieved
- No screw connection in bonnet. Spindle bearing fixed in the housing via bayonet lock. These unique design features permit all-over epoxy powder coating, thus providing a superior corrosion protection according to the regulations of GSK - The Quality Association for Heavy Duty Corrosion Protection of Powder Coated Valves and Fittings
- **Wedge** in sandwich design with two separate rubber gaskets. This new **wedge and sealing geometry** as well as the special wedge guide ensure low closing torques in every situation
- **Wedge guide** with high glide characteristics: Load-optimised design guarantees low wear and minimum closing torques
- The flexible **wedge nut** ensures a superb function of the valve even under high loads
- **O-ring bush** fixed in housing with bayonet lock, with locking piston, multiple O-ring sealing
- Spindle bearing on friction washers made of wear-resistant plastic
- Suitable for underground installations

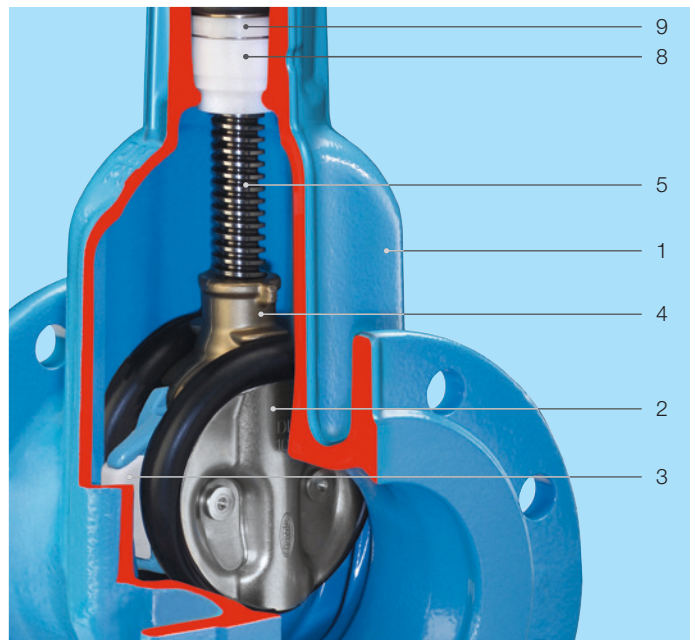
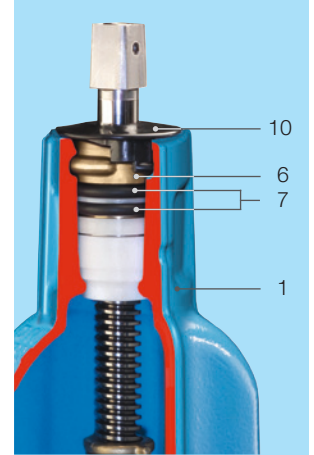
Material | technical features

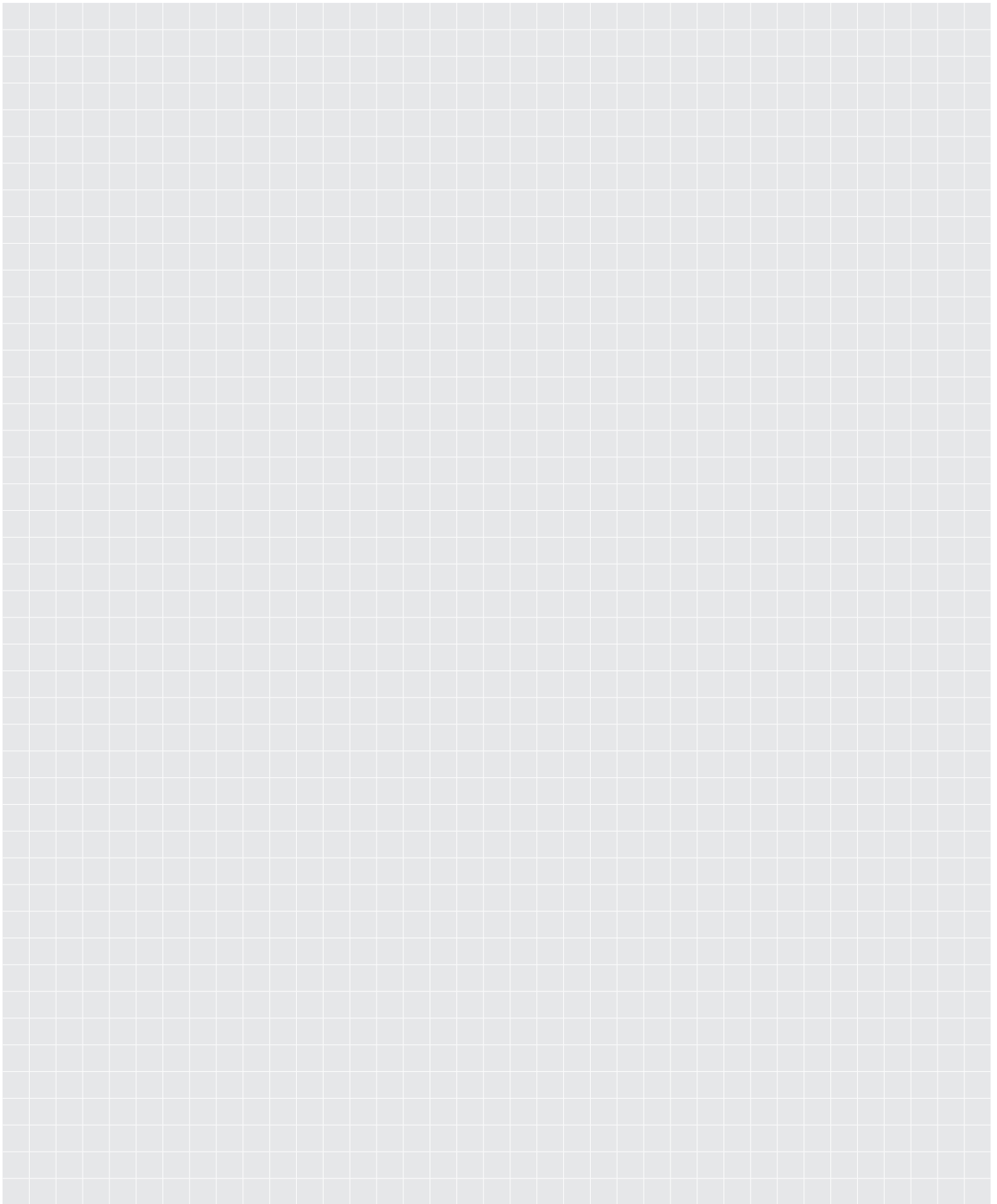
- 1 **Body** made of ductile iron, epoxy powder coated (see page 4)
- 2 **Wedge** made of POM (DN 50 and DN 65), made of ductile iron, epoxy powder coated (DN 80 up to DN 300)
Stainless steel plates / elastomer sealing plates
- 3 **Wedge guide** made of wear-resistant low friction plastic
- 4 **Wedge nut** made of brass
- 5 **Stainless steel spindle** with rolled thread,
Ball bearing made of POM
- 6 **O-ring bush** made of
POM (DN 50 and DN 65),
brass (DN 80 up to DN 300)
- 7 **O-rings** made of elastomer
- 8 **Spindle bearing** made of POM
- 9 **Friction washers** made of POM
- 10 **Covering cap** made of PE

DN 50-65



DN 80-300





HAWLE-A VALVE

With flange DN 50-300, PN 10 | PN 16



Design features

- Resilient seated gate valve with smooth straight bore
- Flanges sized in accordance with EN 1092-2, drilled according to EN 1092-2 | PN 10 standard; EN 1092-2 | PN 16 for DN 200 to DN 300. Please specify on order - other standards on request
- Suitable for cleaning with a cleaning pig
- One extension spindle for several dimensions

Standard version: without handwheel and extension spindle (Suitable only for manual actuation)

Design versions: short or long face-to-face length, closing clockwise or anti-clockwise

Suitable accessories

Suitable accessories: see page A 1/2

Handwheel:		No. 7800
Extension spindles:	rigid	No. 9000A
	telescopic	No. 9500A
Surface boxes:	rigid	No. 1750
	telescopic	No. 2050 No. 2051K
Base plate:	No. 3481, No. 3482	
Operating cap:	No. 2156, No. 2157, No. 2158	
Extension spindle:	No. 7820, No. 7825	
Bolts:	No. 8810, No. 8830, No. 8840	
HAWAK-pillar:	No. 9894, No. 9895	
Flat gasket:	No. 3390, No. 3470	

No. 4000A
No. 4700A
No. 4288A



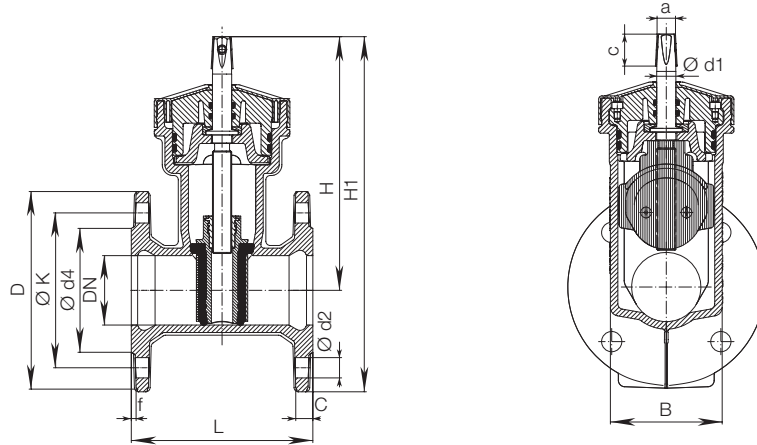
Order no.	Version	MOP (PN)	Dimensions/DN											
			50	65	80	100	125	150	200	250	300			
4000A	short EN 558-1 GR 14	16												
4700A	long EN 558-1 GR 15													
4288A	CSN 133045													

HAWLE-A VALVE

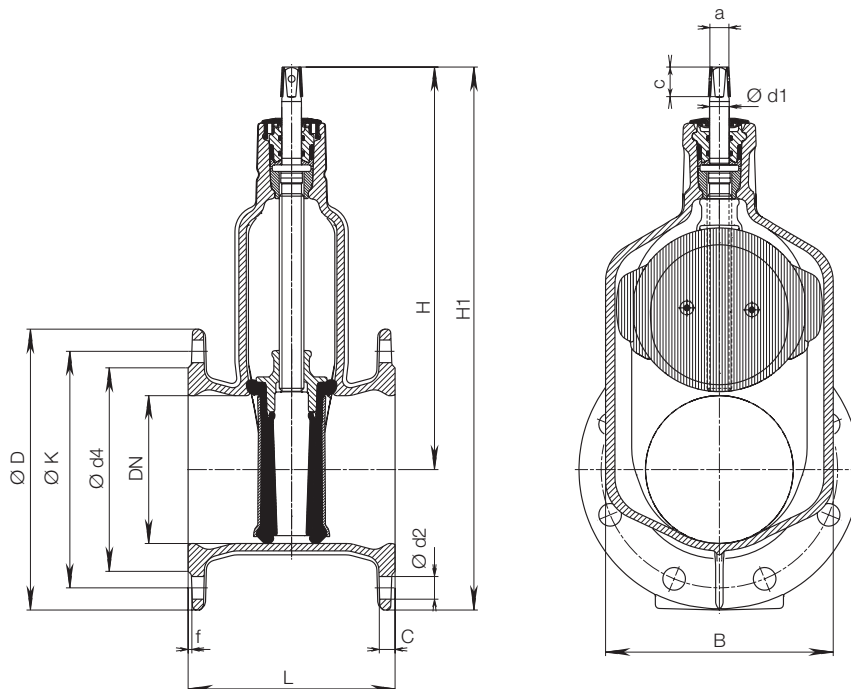
With flange DN 50-300, PN 10 | PN 16



DN 50 / DN 65



DN 80 – DN 300



DN	MOP (PN)	Flange					Bolts		Spindle			Valve					Weight				
		ØD	C	ØK	Ød4	f	Qty.	Thread	Ød2	a	c	Ød1	H	H1	L short	L long	L CSN	B	short	long	CSN
50	10	165	16	125	96	4,5	4	M 16	19	14,8	30	18	230	315	150	250	180	105	8,2	9,0	8,6
	16																				
65	10	185	16	145	116	4,5	4	M 16	19	17,3	30	18	238	333	170	270	210	105	9,4	10,5	
	16																				
80	10	200	16	160	133	4	4	M 16	19	17,3	30	20	286	386	180	280	210	136	10,5	12,8	11,9
	16																				
100	10	220	16	180	153	4	8	M 16	19	19,3	30	20	317	427	190	300	230	158	15,0	16,3	15,5
	16																				
125	10	250	16	210	183	4,5	8	M 16	19	19,3	30	20	359	485	200	325	207	19,0	21,8		
	16																				
150	10	285	16	240	207	4	8	M 20	23	19,3	30	20	409	552	210	350	280	231	26,5	30,0	27,7
	16																				
200	10	340	17	295	264	4	8	M 20	23	24,3	38	25	509	679	230	400	330	282	41,2	46,5	44,2
	16																				
250	10	400	22	350	319	4	12	M 20	22,4	27,3	38	32	599	799	250			410	88,7		
	16																				
300	10	455	23,5	400	369	6	12	M 20	22,4	27,3	38	32	674	901	270			470	118,6		
	16																				

HAWLE-E1+ VALVE

Overview

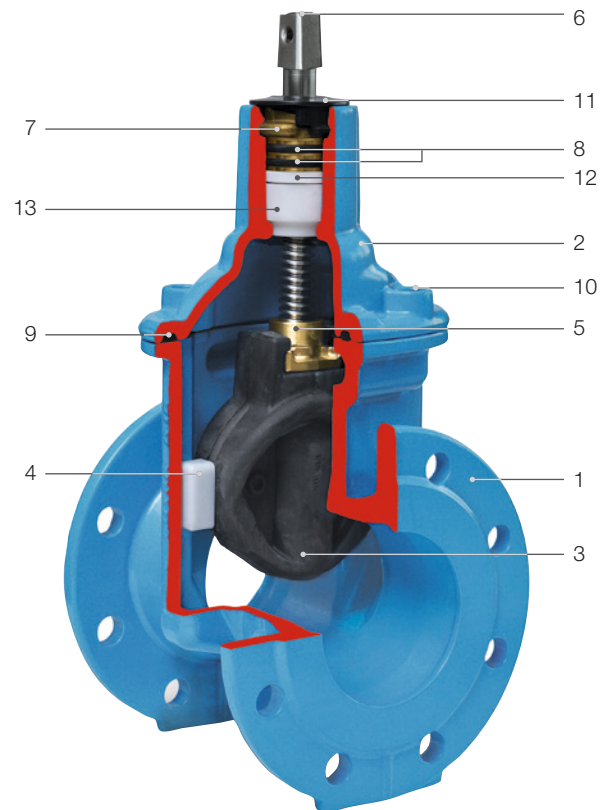


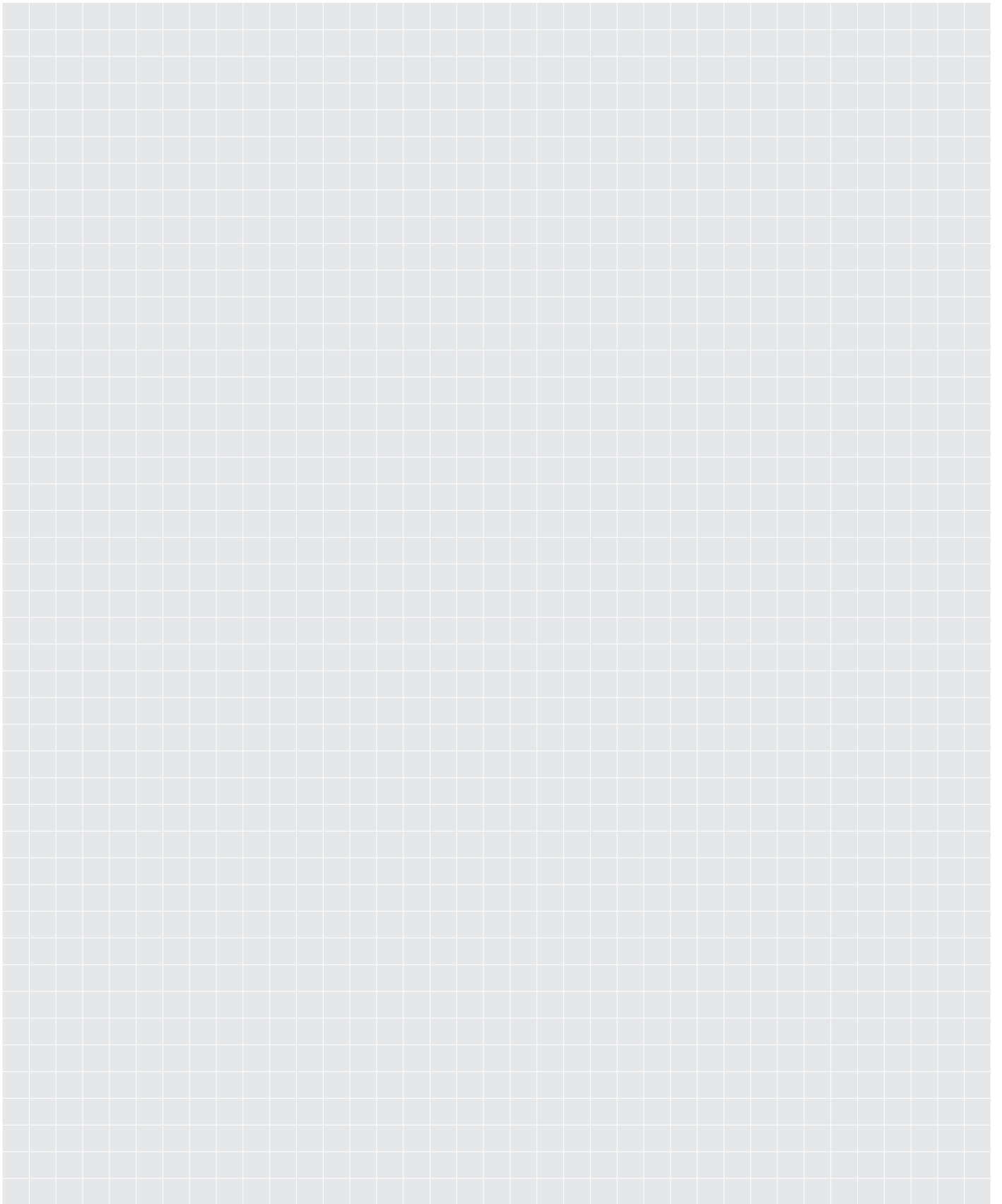
Design features

- **Resilient seated gate valve** according to EN 1074-1 and EN 1074-2 with smooth, straight bore
- Flanged valve, short face-to-face dimension
- **Wedge guide** with high glide characteristics; load-optimised design guarantees very low wear and closing torques
- **Wedge nut** resists high torque load due to its larger size with more than the required thread length
- **Spindle bearing** attached in bonnet by bayonet connection
- **O-rings** on all sides mounted in corrosion-proof material
- **Friction washers** guarantee smooth spindle guiding
- Suitable for underground installation
- **Duplex** stainless steel spindle

Material | technical features

- 1,2 **Body (1), bonnet (2)** made of ductile iron, epoxy powder coated inside and out (see page 4)
- 3 **Wedge** made of ductile iron, fully rubberized with vulcanized elastomer inside and out
- 4 **Wedge guide** made of wear-resistant POM
- 5 **Wedge nut** made of brass
- 6 **Duplex stainless steel spindle** with rolled thread and polished O-ring slide faces, bearing made of POM
- 7 **O-ring bush** made of brass, attached in bonnet by bayonet connection, anti-rotation, multiple O-ring sealing
- 8 **O-rings** made of elastomer
- 9 **Bonnet gasket** made of elastomer
- 10 **Allen screws** corrosion protected by being encased into the body with an enclosing gasket and wax
- 11 **Covering cap** as dirt protection of the spindle bearing made of PE
- 12 **Friction washer** made of POM
- 13 **Spindle bearing** made of POM





HAWLE-E1+ VALVE

With flange DN 50-300, PN 10 | PN 16



Design features

- Resilient seated gate valve with smooth, straight bore
- Flanges sized in accordance with EN 1092-2, drilled according to EN 1092-2 | PN 10 standard; EN 1092-2 | PN 16 for DN 200
Please specify on order - other standards on request
- Suitable for cleaning with a cleaning pig
- Short face-to-face length (EN 558 GR 14)

Standard version: without handwheel and extension spindle (only suitable for manual actuation)

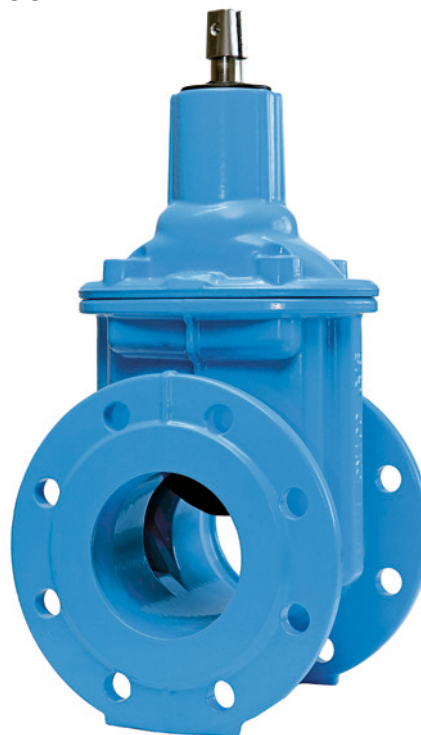
Special versions: on request

Suitable accessories

Suitable accessories: see page A 1/2

Handwheel:		No. 7800
Extension spindles:	rigid	No. 9000
	from DN 65	No. 9000A
	telescopic	No. 9500
	from DN 65	No. 9500A
Surface boxes:		No. 9500
	rigid	No. 1750
	telescopic	No. 2050
		No. 2051K
Base plate:	No. 3480, No. 3481	
Operating cap:	No. 2156, No. 2157, No. 2158	
Spindle extension:	No. 7820, No. 7825	
Bolts:	No. 8810, No. 8830, No. 8840	
HAWAK-pillar:	No. 9894	
Flat gasket:	No. 3390, No. 3470	

No. 4000E1+



Order no.	Version	MOP (PN)	Dimensions/DN									
			50	65	80	100	125	150	200	250	300	
4000E1+	short EN 558-1 GR 14	10										
		16										

Application example

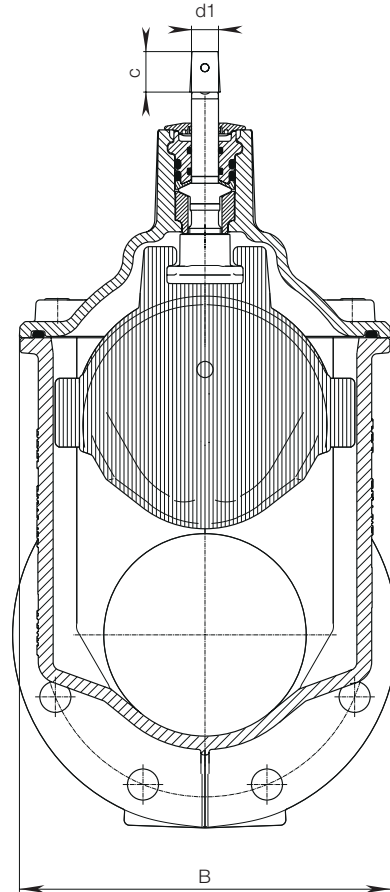
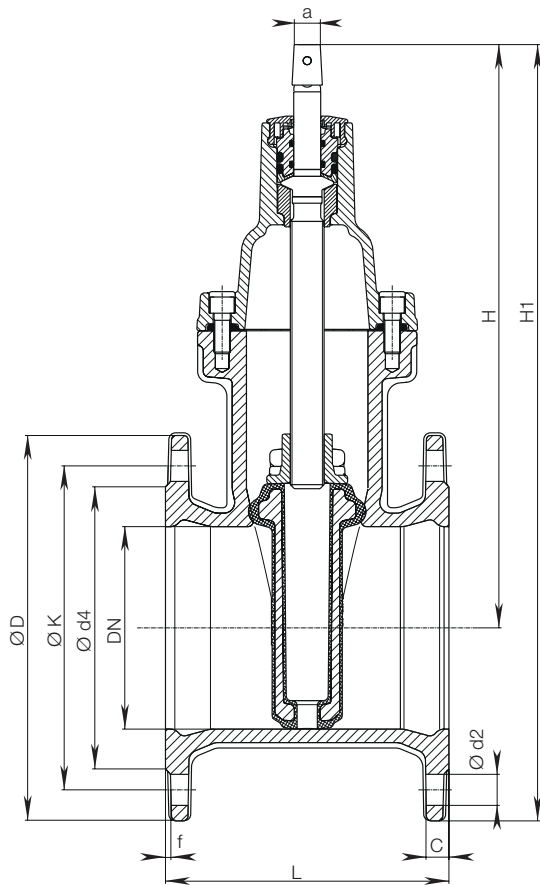


HAWLE-E1+ VALVE

With flange DN 50-300, PN 10 | PN 16



No. 4000E1+



DN	MOP (PN)	Flange					Bolts			Spindle			Valve				Weight
		ØD	C	ØK	Ød4	f	Qty.	Thread	Ød2	a	c	Ød1	H	H1	L	B	
50	10	165	18	125	98	5	4	M 16	19	14,8	30	18	230	313	150	135	8,5
	16																
65	10	185	18	145	118	5	4	M 16	19	17,3	30	20	298	390	170	172	13,5
	16																
80	10	200	18	160	133	5	8	M 16	19	17,3	30	20	305	405	180	172	14,5
	16																
100	10	220	18	180	153	5	8	M 16	19	19,3	30	20	339	449	190	203	18,5
	16																
125	10	250	17	210	183	4	8	M 16	19	19,3	30	20	420	545	200	275	31,0
	16																
150	10	285	17	240	209	4	8	M 20	23	19,3	30	20	432	575	210	275	34,0
	16																
200	10	340	19,5	295	264	4,5	8	M 20	23	24,3	38	25	534	704	230	345	54,0
	16																
250	10	400	21,5	350	318	4,5	12	M 20	23	27,3	38	32	626	826	250	422	82,0
	16																94,0
300	10	455	24	400	371	5,5	12	M 20	23	27,3	38	32	709	937	270	506	124,5
	16																142,0