



HAWLE-**E3**

Cutting-edge gate valve technology



HAWLE. **MADE FOR GENERATIONS.**

E3 GATE VALVE

Overview

- Medium: Water, seawater, gas*
- In accordance to EN 1074-1 and -2

ADVANTAGES HAWLE-E3 GATE VALVE

- O-Ring carrier with double bayonet (up to DN200) or heavy-duty O-ring carrier with centre flange (> DN 200) in inside and outside fully coated bonnet
- POM sliding disks (up to DN 200) and an additional axial ball bearing (> DN 200) ensure low torque actuation
- Duplex stainless steel spindle
- Extended edge protection
- Wedge and wedge nut fully coated with vulcanized elastomer
- The wedge is connected to the wedge nut with a flexible link and embedded in elastomer. This snug fit dampens vibration during opening and closing of the wedge
- Stainless steel allen screws in bonnet
- 100% corrosion protection
- E3 bonnets are entirely compatible with all E2 bodies and accessories
- Full straight bore – suitable for pigging the pipeline
- Spindle O-rings replaceable under operating pressure up to DN 300
- All components made in the EU, including ductile iron parts

HAWLE-QUALITY WARRANTY



*in preparation

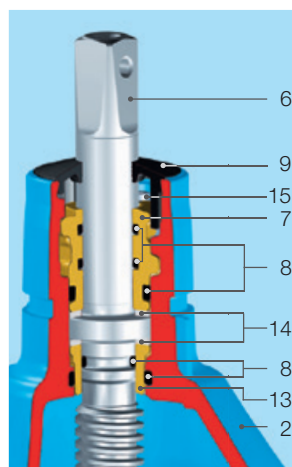
Design features

- **Resilient seated gate valve** according to EN 1171, EN 1074-1 and EN 1074-2 with smooth, straight-through bore
- **Double bayonet O-ring carrier** is connecting the spindle to the bonnet, allowing a fully encased, uniform epoxy powder coated bonnet for further improved corrosion protection
- **Wedge guide** made of wear resistant POM material in load optimized design minimizes attrition and ensures lowest torque actuation
- **Wedge** is flexible and fully linked in vulcanized elastomer to the wedge nut. This snug fit dampens vibration during opening and closing of the wedge
- **Wedge nut** has a long thread length allowing significantly higher torques than the standard before breaking
- **O-rings, lip-seals** mounted in the bonnet are replaceable under operating pressure
- **Extended edge protection** to avoid damages during transport, storage and assembly
- **Sliding disks and ball bearing** assure low friction performance of the spindle
- **100%** suitable for buried installations

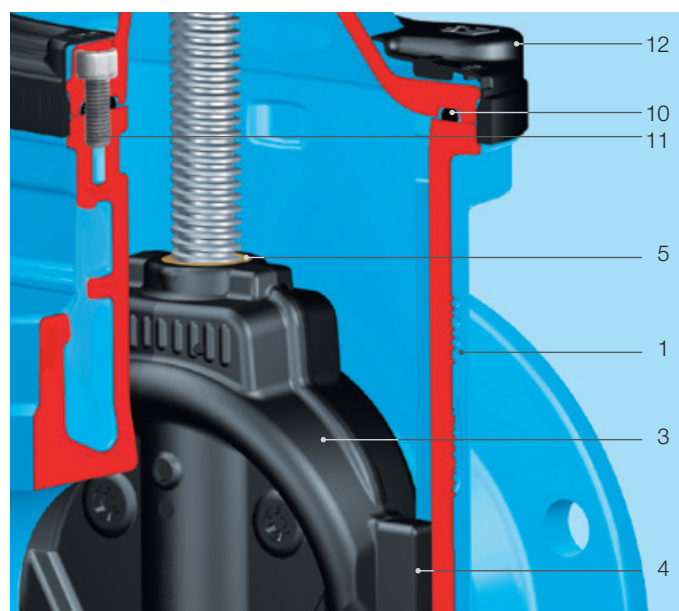
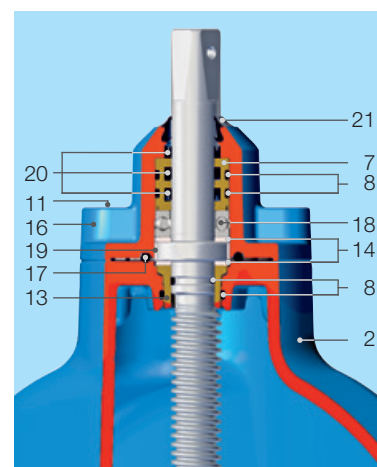
Material / technical features

- 1, 2, **Body (1), bonnet (2) centering flange (16)**
- 16 made of ductile iron, epoxy powder coated inside and outside
- 3 **Wedge** made of ductile iron (DN 50 made of dezincification-resistant brass) with vulcanized elastomer all-over
- 4 **Wedge guide** made of wear-resistant plastic
- 5 **Wedge nut** made of dezincification-resistant brass
- 6 **Duplex stainless steel spindle** with rolled thread and flat-rolled anti-friction surface
- 7 **O-ring carrier** made of brass, DN 50 - DN 200 with double bayonet
- 8 **O-rings** made of elastomer
- 9 **Wiper ring** made of PE
- 10 **Bonnet gasket** made of elastomer
- 11 **Allen screws** made of stainless steel, encased into the body with interlacing gasket and sealing compounds, ensuring full corrosion protection
- 12 **Extended edge protection** made of PE
- 13 **Spindle bearing** made of dezincification resistant brass
- 14 **Sliding disks** made of POM
- 15 **Safety screw** made of stainless steel
- 17 **Centering flange gasket** made of elastomer
- 18 **Axial ball bearing** permanently lubricated
- 19 **Centering ring** made of POM
- 20 **Lip seals** made of elastomer
- 21 **Wiper ring** made of elastomer

DN 50-200 Spindle bearing with sliding disks



DN 250-600 Spindle bearing with ball bearing and additional sliding disks















Application examples



VERSIONS AND DIMENSIONS

	E3 valve types	DN	MOP (PN)	
         	Flanged ends EN 558-1 GR 14 & 15, BS 5163*	50 - 300 (350 - 600*)	10, 16, 25	Pages 6 – 9
	Reduction valve flanged ends	100 - 300 65 - 250	10, 16	Pages 10, 11
	Spigot ends Spigot ends with loose flanges	50 - 300 (- 400*)	10, 16	Pages 12 – 15
	System 2000 System 2000 / System 2000 Flanged end / System 2000	50 - 300	10, 16	Pages 36 – 39
	PE-welding ends Flange / PE-welding end	50 - 200	10, 16	Pages 16 – 19
	Socket systems VRS Socket end BAIO Socket / BAIO Socket BAIO Socket / BAIO spigot end	80 - 300	10, 16	Pages 20, 42, 44
	Combi T Flanged ends System 2000 System BAIO sockets	65 - 200 50 - 150 80 - 200	10, 16	Pages 22, 40, 46
	Combi III Flanged ends System BAIO sockets	80 - 200 100- 200	10, 16	Pages 24, 47
	Combi IV Flanged ends	80 - 200	10, 16	Pages 26, 27
	Combiflex DN 150 Flanged ends Combiflex DN 250 / DN 300 Flanged ends	80 - 200 150 - 400	10, 16	Pages 27 – 35

*in preparation



E3 GATE 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 (4000E3, 4700E3);
EN 1092-2 | PN 25 (4010E3, 4710E3)
EN 1092-2 | PN 16 from DN 200 (4000E3, 4700E3)
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 retrofitting of 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. 4000ELE3
with position indicator: No. 4000STE3
for seawater: No. 4002E3,
No. 4702E3

Special versions: on request

Suitable accessories

Suitable accessories: see page 48

Handwheel: No. 7800
Extension spindles: rigid No. 9000E2/E3
telescopic No. 9500E2/E3
Surface boxes: rigid No. 1750
telescopic No. 2050
No. 2051K
No. 9920
Valve actuator: No. 8630E2/E3
Adapter for actuator (E2/E3 adapter): No. 3481, No. 3482
Base plate: No. 2156, No. 2157, No. 2158
Operating cap: No. 7820, No. 7825
Extension spindle: No. 2170E2/E3
Position indicator: No. 8810, No. 8830, No. 8840
Bolts: No. 9894, No. 9895
HAWAK-pillar: No. 3390, No. 3470
Flat gasket:

No. 4000E3
No. 4700E3
No. 4010E3
No. 4710E3
No. 4060E3*



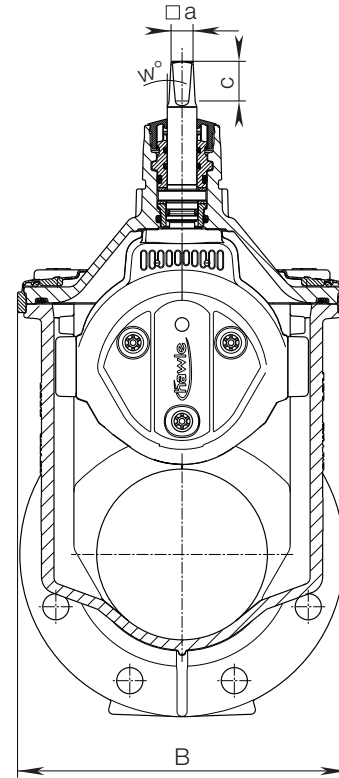
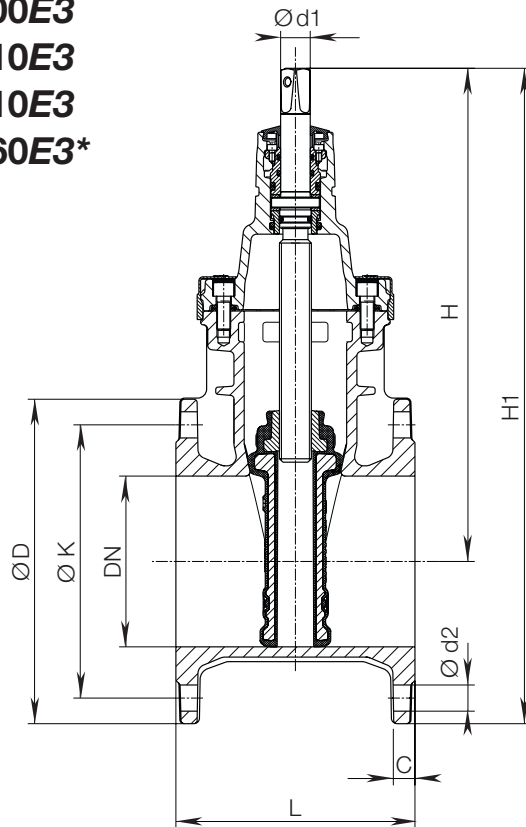
Order no.	Version	MOP (PN)	Dimensions/DN						
			50	65	80	100	125	150	200
4000E3	short EN 558-1 GR 14	16							
4700E3	long EN 558-1 GR 15	16							
4010E3	short EN 558-1 GR 14	25							
4710E3	long EN 558-1 GR 15	25							
4060E3*	to BS 5163	16							

*in preparation

Application examples



No. 4000E3
No. 4700E3
No. 4010E3
No. 4710E3
No. 4060E3*



DN	MOP (PN)	Flange			Bolts			Spindle				Valve						Weight		
		ØD	C	ØK	Qty.	Thread	Ød2	□ a	c	w°	Ød1	H	H1	L short	L long	BS 5163	B	short	long	BS 5163
50	10	165	19	125	4	M 16	19	14,8	30	3°	20,5	234	316,5	150	250		143	10,0	10,0	
	16														10,0					
	25																			
65	10	185	19	145	4	M 16	19	17,3	35		24	305	397,5	170	270		180	15,5	15,5	
	16														16,0					
	25*				8															
80	10	200	19	160	8	M 16	19	17,3	35		24	312,5	412,5	180	280	203	180	16,5	20,0	19,0
	16														18,0					
	25*																			
100	10	220	19	180	8	M 16	19	19,3	38		24	343	453	190	300	229	212	20,5	25,5	26,0
	16																			
	25*			235		190	M 20						23		460				24,5	
125	10	250	19	210	8	M 16	19	19,3	38		26	421	546	200	325		289	33,0	33,0	
	16																			
	25*			270		220	M 24						28		556					34,0
150	10	285	19	240	8	M 20	23	19,3	38		26	433	576	210	350	267	289	37,5	37,5	45,0
	16																			
	25*			300		250	M 24						28		583				40,0	49,0
200	10	340	20	295	8	M 20	23	24,3	48		30	541	711	230	400	292	356	61,0	71,5	67,5
	16																			
	25*			360		310	M 24						28		721				67,0	79,0

*in preparation



E3 GATE VALVE

With flange DN 250-300, 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 (4000E3, 4700E3);
EN 1092-2 | PN 25 (4710E3)
EN 1092-2 | PN 16 from DN 200 (4000E3, 4700E3)
Please specify on order - other standards on request
- Suitable for cleaning with a cleaning pig
- Suitable for operation by automatic actuators
- O-rings lip-seals replaceable under operating 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 mounting a position indicator it is necessary to remove the centering flange and attach the adapter for position indicator

Standard version: without handwheel and extension spindle

Design versions: for actuator: No. 4000ELE3
with position indicator: No. 4000STE3
for seawater: No. 4002E3,
No. 4702E3

Special versions: on request
- Bevel gearing

No. 4000E3
No. 4700E3
No. 4710E3
No. 4060E3*



Suitable accessories

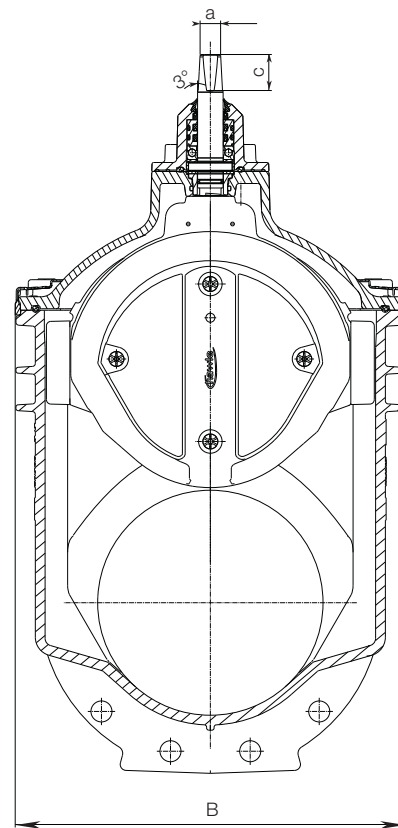
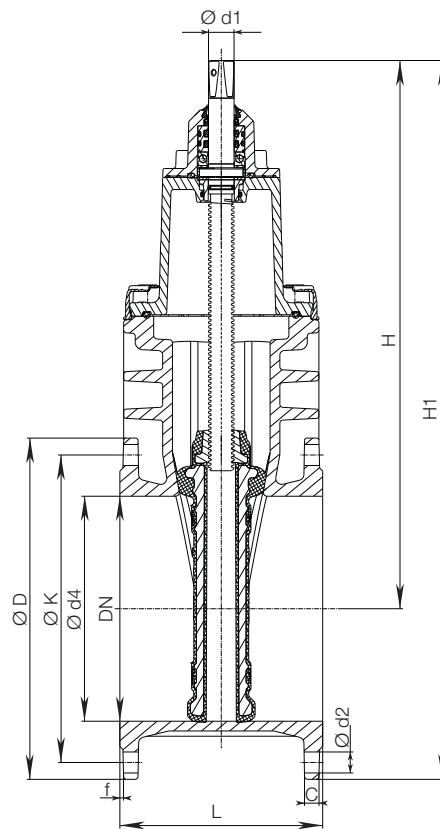
Suitable accessories: see page 48

Handwheel: No. 7800
Extension spindles: rigid No. 9000E2/E3
telescopic No. 9500E2/E3
Surface boxes: rigid No. 1750
telescopic No. 2050
No. 2051K
Valve actuator: No. 9920
Adapter for actuator (E3 adapter): No. 8630E3
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

Order no.	Version	MOP (PN)	Dimensions/DN	
			250	300
4000E3	short EN 558-1 GR 14	16		
4700E3	long EN 558-1 GR 15	16		
4710E3	long EN 558-1 GR 15	25		
4060E3*	to BS 5163	16		

*in preparation

No. 4000E3
No. 4700E3
No. 4710E3
No. 4060E3*



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	330			M 24	28					883						136,0	
	25	425	24,5	370	330			M 27	31												
300	10	455	24,5	400	367	4	12	M 20	23	27,3	48	34	753	981	270	500	356	518	147,0	169,5	153,5
	16			410				M 24	28											169,0	
	25	485	27,5	430	389	5	16	M 27	31					996						196,0	



E3 REDUCING VALVE

With flange DN 65-200, 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 please specify on order - other standards on request
- This **E3** 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 retrofitting of 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. 4150ELE3
with position indicator: No. 4150STE3

Special versions: on request

No. 4150E3



Suitable accessories

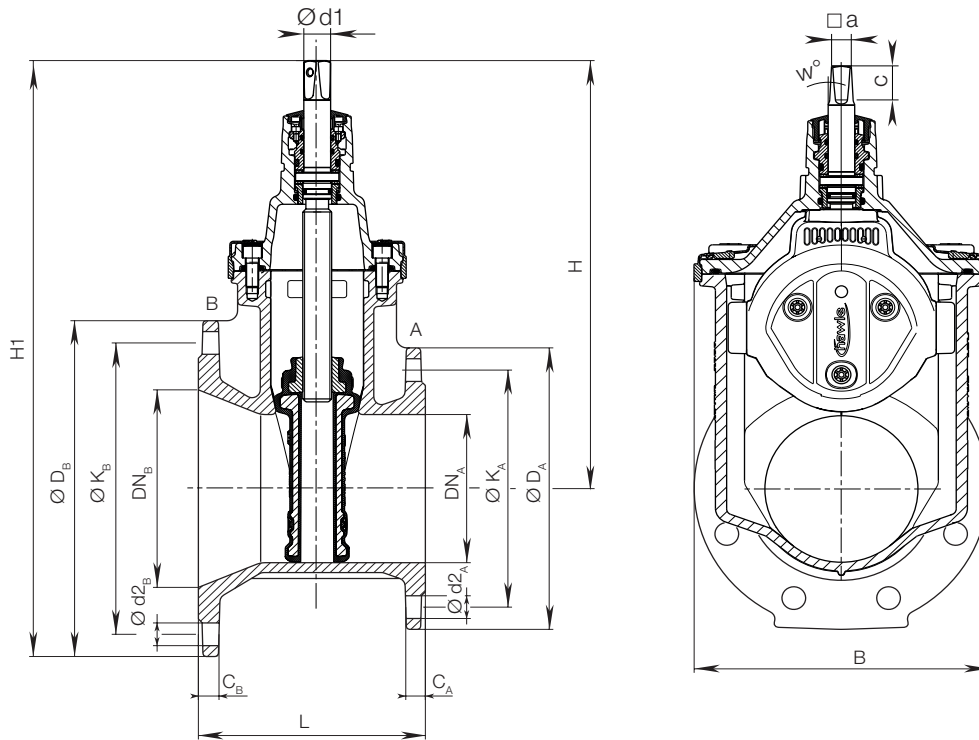
Suitable accessories: see page 48

Handwheel:		No. 7800
Extension spindles:	rigid	No. 9000E2/E3
	telescopic	No. 9500E2/E3
Surface boxes:	rigid	No. 1750
	telescopic	No. 2050
		No. 2051K
Valve actuator:		No. 9920
Adapter for actuator (E2/E3 adapter):		No. 8630E2/E3
Base plate:		No. 3481, No. 3482
Operating cap:		No. 2156, No. 2157, No. 2158
Extension spindle:		No. 7820, No. 7825
Position indicator:		No. 2170E2/E3
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*													
		100 65	100 80	125 80	125 100	150 80	150 100	150 125	200 100	200 150	250 150	250 200	300 150	300 200	300 250
4150E3	16														

* The valve is sized in accordance with the smaller flange

No. 4150E3



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	305	415	180	180	18,0
100 - 80	10 16	200	19	160	19	8	220	19,0	180	19	8	17,3	35	25	313	423	190	180	19,5
125 - 80	10 16	200	19	160	19	8	250	19,0	210	19	8	17,3	35	25	313	438	200	180	21,5
125 - 100	10 16	220	19	180	19	8	250	19,0	210	19	8	19,3	38	25	343	468	200	213	24,0
150 - 80	10 16	200	19	160	19	8	285	19,0	240	23	8	17,3	35	25	313	456	200	180	24,0
150 - 100	10 16	220	19	180	19	8	285	19,0	240	23	8	19,3	38	25	343	486	210	213	26,5
150 - 125	10 16	250	19	210	19	8	285	19,0	240	23	8	19,3	38	28	421	564	210	285	36,0
200 - 100	10 16	220	19	180	19	8	340	20,0	295	23	8 12	19,3	38	25	343	513	210	213	29,0
200 - 150	10 16	285	19	240	23	8	340	20,0	295	23	8 12	19,3	38	28	433	603	220	285	42,5
250 - 150	10 16	285	19	240	23	8	400	22,0	350 355	23 28	12	19,3	38	28	433	633	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	433	661	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	541	741	240	357	69,0
300 - 200	10 16	340	20	295	23	8 12	455	24,5	400 410	23 28	12	24,3	48	32	541	769	250	357	74,0
300 - 250	10 16	400	22	350 355	23 28	12	455	24,5	400 410	23 28	12	27,3	48	34	649	877	260	432	105,0

The valve is sized in accordance with the smaller flange nA*, nB* = bolts per flange



E3 VALVE SPIGOT ENDS

PN 16

Design features

- Resilient seated gate valve with smooth straight-through bore
- The Hawle **E3** 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 retrofitting of position indicator and automatic actuators on the standard bonnet

Standard version: without handwheel and extension spindle

No. 4100E3



No. 4140E3



Suitable accessories

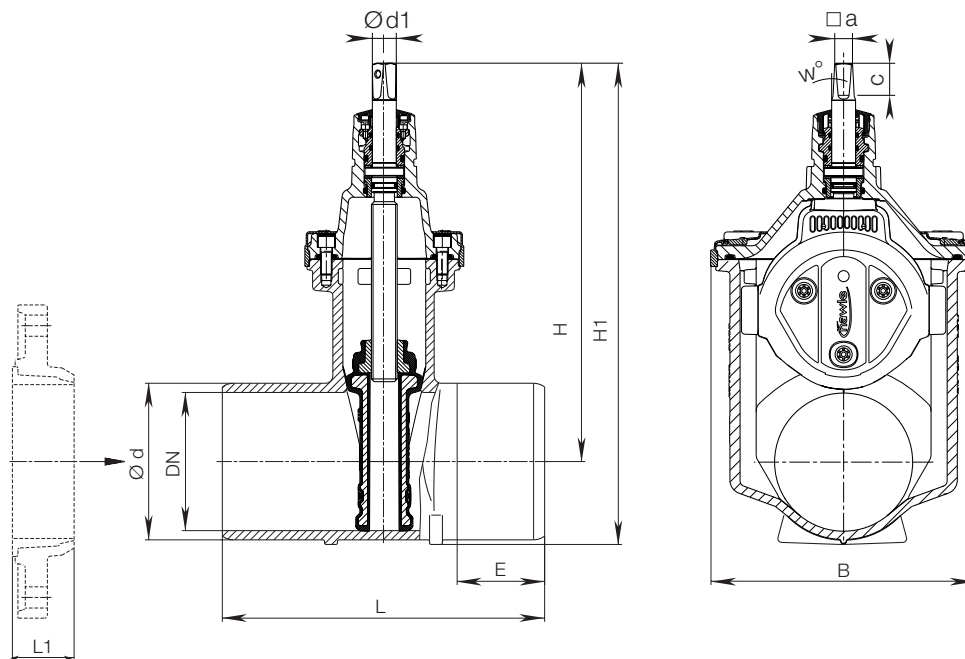
Suitable accessories: see page 48

Flange:		No. 7102 No. 0102
Handwheel:		No. 7800
Extension spindles:	rigid	No. 9000 E2/E3
	telescopic	No. 9500 E2/E3
Surface boxes:	rigid	No. 1750
	telescopic	No. 2050 No. 2051K No. 9920
Valve actuator:		No. 9920
Adapter for actuator (E2/E3 adapter):		No. 8630 E2/E3
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/E3
Bolts:		No. 8810, No. 8830, No. 8840
HAWAK-pillar:		No. 9894, No. 9895

Order no.	Version Face-to-face length	MOP (PN)	Dimensions/DN								
			50	65	80	100	125	150	200	250	300
4100E3	Standard	16									
4140E3	600 mm										
	810 mm										
	860 mm										

No. 4100E3

No. 4140E3



For a shorter face-to-face dimension, shorten the spigot ends¹⁾ and assemble with HAWLE flanges No. 7102 / No. 0102
(see water catalogue 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 water catalogue page P 5/2)

DN	MOP (PN)	Valve						Spindle				Weight
		Ød*	L	E	H	H1	B	□ a	c	w°	Ød1	
50	16	66	250	80	234	270	143	14,8	30	3°	20,5	8,0
65		82	270	85	305	350	180	17,3	35		24	12,0
80		98	280	85	313	366,5	180	17,3	35		24	13,5
			600	245								19,5
100		118	300	90	343	408	213	19,3	38		24	18,0
			600	240								24,0
125		144	325	95	421	498	285	19,3	38		26	28,5
150		170	350	95	433		523	285	19,3		38	26
			600	220		40,0						
200		222	400	115	541	657	357	24,3	48		30	55,0
			600	215								64,0
250		274	450	120	649	792	432	27,3	48		34	91,0
			810	300								112,5
300		326	500	120	731	897	518	27,3	48		34	139,0
			860	300								177,0

* Other outside diameters on request



E3 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 **E3** 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 retrofitting of position indicator and automatic actuators on the standard bonnet

Standard version: without handwheel and extension spindle

No. 4120E3



Suitable accessories

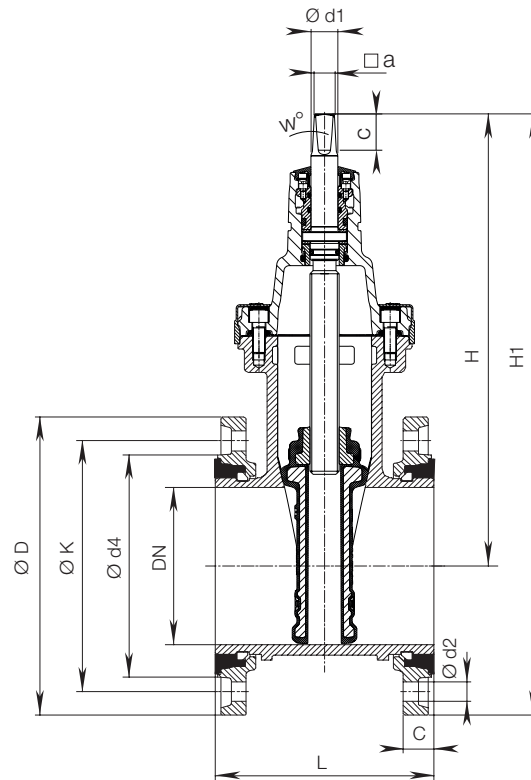
Suitable accessories: see page 48

Handwheel:		No. 7800
Extension spindles:	rigid	No. 9000 E2/E3
	telescopic	No. 9500 E2/E3
Surface boxes:	rigid	No. 1750
	telescopic	No. 2050
		No. 2051K
Valve actuator:		No. 9920
Adapter for actuator (E2/E3 adapter):		No. 8630 E2/E3
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/E3
Bolts:		No. 8810, No. 8830, No. 8840
HAWAK-pillar:		No. 9894, No. 9895

Order no.	Version	MOP (PN)	Dimensions/DN		
			100	150	200
4120E3	short EN 558-1 GR 14	16			

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

No. 4120E3



DN	MOP (PN)	Flange				Bolts			Spindle				Valve				Weight
		$\varnothing D$	C	$\varnothing K$	$\varnothing d4$	Qty.	Thread	$\varnothing d2$	$\square a$	c	w°	$\varnothing d1$	H	H1	L	B max. width	
100	10	220	19	180	153	8	M 16	19	19,3	38	3°	24	343	453	190	213	23,5
	16																
150	10	285	19	240	209	8	M 20	23	19,3	38	3°	26	433	576	210	285	40,0
	16																
200	10	340	20	295	264	8	M 20	23	24,3	48	3°	30	541	711	230	357	61,0
	16					12											64,0



E3 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 retrofitting of position indicator and automatic actuators on the standard bonnet
- Duplex stainless steel spindle

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

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 drawing)

2 Socket sealing made of elastomer

3 O-Ring made of elastomer

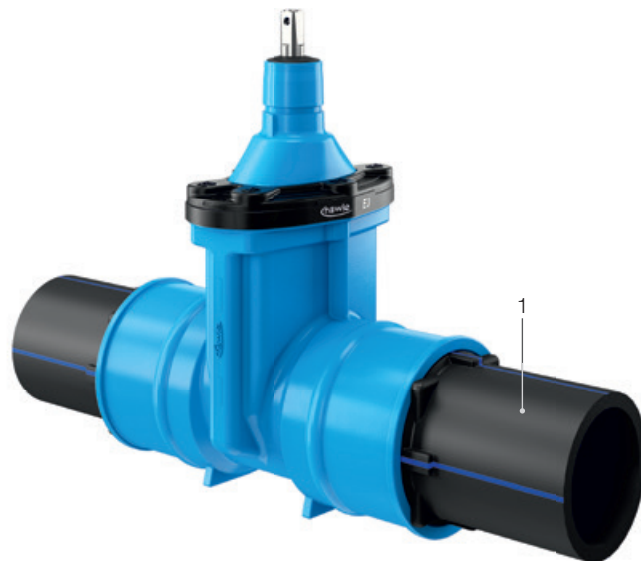
Suitable accessories

Suitable accessories: see page 48

Handwheel: No. 7800
 Extension spindles: rigid No. 9000E2/E3
 telescopic No. 9500E2/E3
 Surface boxes: rigid No. 1750
 telescopic No. 2050, No. 2051K
 Valve actuator: No. 9920
 Adapter for actuator (E2/E3 adapter): No. 8630E2/E3
 Base plate: No. 3481, No. 3482
 Operating cap: No. 2156, No. 2157, No. 2158
 Extension spindle: No. 7820, No. 7825
 Position indicator: No. 2170E2/E3
 HAWAK-pillar: No. 9894, No. 9895

No. 4050E3

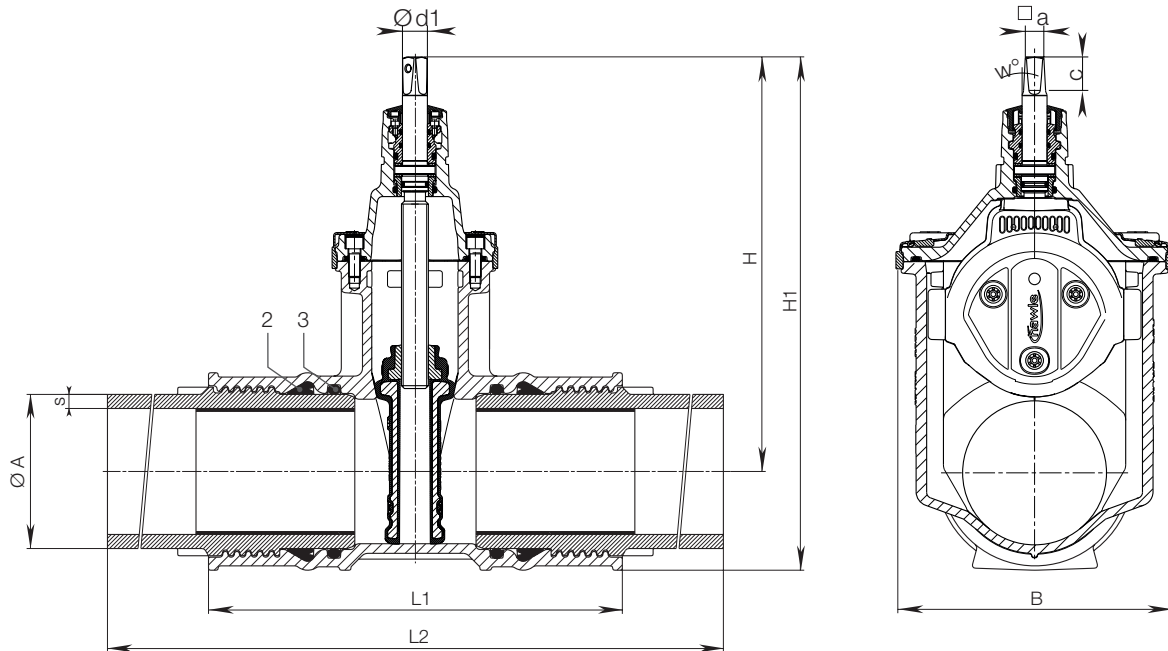
No. 4051E3



Order no.	MOP (PN)	Dimensions/DN Pipe Ø									
		50	65	80	100	100	125	150	150	200	200
4050E3	16	63	75	90	110	125	140	160	180	200	225
4051E3	10										

PE-fusion tail: No. 4050E3 PN 16 / SDR 11
 No. 4051E3 PN 10 / SDR 17.6

No. 4050E3
No. 4051E3



PE-fusion tail:

No. 4050E3 PN 16 / SDR 11
No. 4051E3 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	w°	Ød1	
50	63	3,6	5,8	234	283	280	648	143	14,8	30	3°	20,5	11,0
65	75	4,3	6,9	305	361	295	657	180	17,3	35		24	17,0
80	90	5,1	8,2	313	377	310	668	180	17,3	35		24	19,0
100	110	6,3	10,0	343	419	340	710	213	19,3	38		24	26,0
100	125	7,1	11,4	343	428	395	761	213	19,3	38		24	30,5
125	140	8,0	12,8	421	513	390	756	285	19,3	38		26	31,5
150	160	9,1	14,6	433	536	430	796	285	19,3	38		26	50,0
150	180	10,4	16,4	433	548	458	814	285	19,3	38		26	57,5
200	200	11,4	18,2	541	679	514	900	357	24,3	48		30	88,0
200	225	12,8	20,5	541	679	514	900	357	24,3	48		30	90,0



E3 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 retrofitting of position indicator and automatic actuators on the standard bonnet
- Duplex stainless steel spindle

Standard version: without handwheel and extension spindle

Special versions: on request

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 drawing)

2 **Socket sealing** made of elastomer

3 **O-Ring** made of elastomer

Suitable accessories

Suitable accessories: see page 48

Handwheel:		No. 7800
Extension spindles:	rigid	No. 9000E2/E3
	telescopic	No. 9500E2/E3
Surface boxes:	rigid	No. 1750
	telescopic	No. 2050, No. 2051K
Valve actuator:		No. 9920
Adapter for actuator (E2/E3 adapter):		No. 8630E2/E3
Base plate:		No. 3481, No. 3482
Operating cap:		No. 2156, No. 2157, No. 2158
Extension spindle:		No. 7820, No. 7825
Position indicator:		No. 2170E2/E3
Bolts:		No. 8810, No. 8830, No. 8840
HAWAK-pillar:		No. 9894, No. 9895
Flat gasket:		No. 3390, No. 3470

No. 4090E3

No. 4091E3

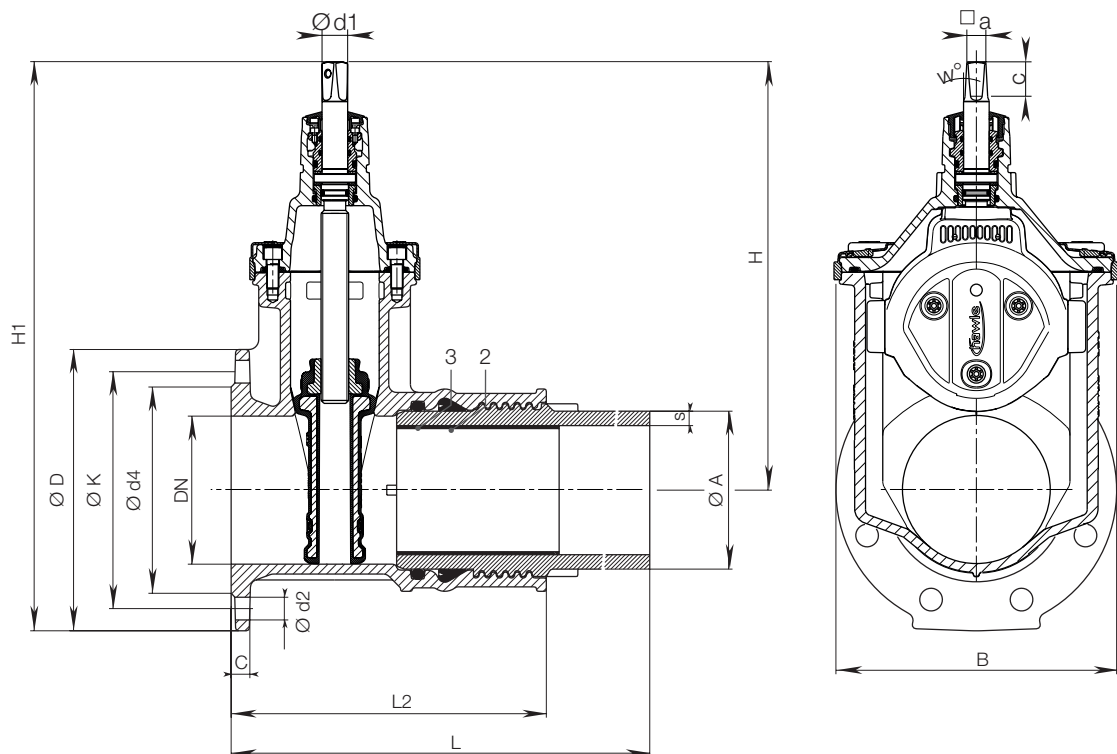


Order no.	MOP (PN)	Dimensions/DN Pipe Ø									
		50	65	80	100	100	125	150	150	200	
		63	75	90	110	125	140	160	180	225	
4090E3	16										
4091E3	10										

PE-fusion tail:

No. 4090E3 PN 16 / SDR 11
No. 4091E3 PN 10 / SDR 17.6

No. 4090E3
No. 4091E3



PE-fusion tail:

No. 4090E3 PN 16 / SDR 11
No. 4091E3 PN 10 / SDR 17.6

DN	Ø Pipe	Flange				Bolts			Valve with PE tails							Spindle				Weight
		ØD	C	ØK	Ød4	Qty.	Thread	Ød2	^s (SDR 17.6)	^s (SDR 11)	H	H1	L	L2	B	□ a	c	w°	Ød1	
50	63	165	19	125	98	4	M 16	19	3,6	5,8	234	316	399	215	143	14,8	30	3°	20,5	11,5
65	75	185		145	118	4	M 16	19		6,9	305	397	416	235	180	17,3	35		24	17,0
80	90	200		160	133	8	M 16	19	5,1	8,2	313	413	425	245	180	17,3	35		24	18,0
100	110	220		180	153	8	M 16	19	6,3	10,0	343	453	450	265	213	19,3	38		24	25,0
100	125	220		180	153	8	M 16	19		11,4	343	453	476	293	213	19,3	38		24	26,5
125	140	250		210	183	8	M 16	19		12,8	421	546	485	310	285	19,3	38		26	38,0
150	160	285		240	209	8	M 20	23		14,6	433	576	503	320	285	19,3	38		26	44,5
150	180	285		240	209	8	M 20	23		16,4	433	576	512	334	285	19,3	38		26	49,5
200	225	340		20	295	264	8 12	M 20	23	12,8	20,5	541	711	565	372	357	24,3		48	



E3 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 retrofitting of position indicator and automatic actuators on the standard bonnet
- 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)

No. 4027E3



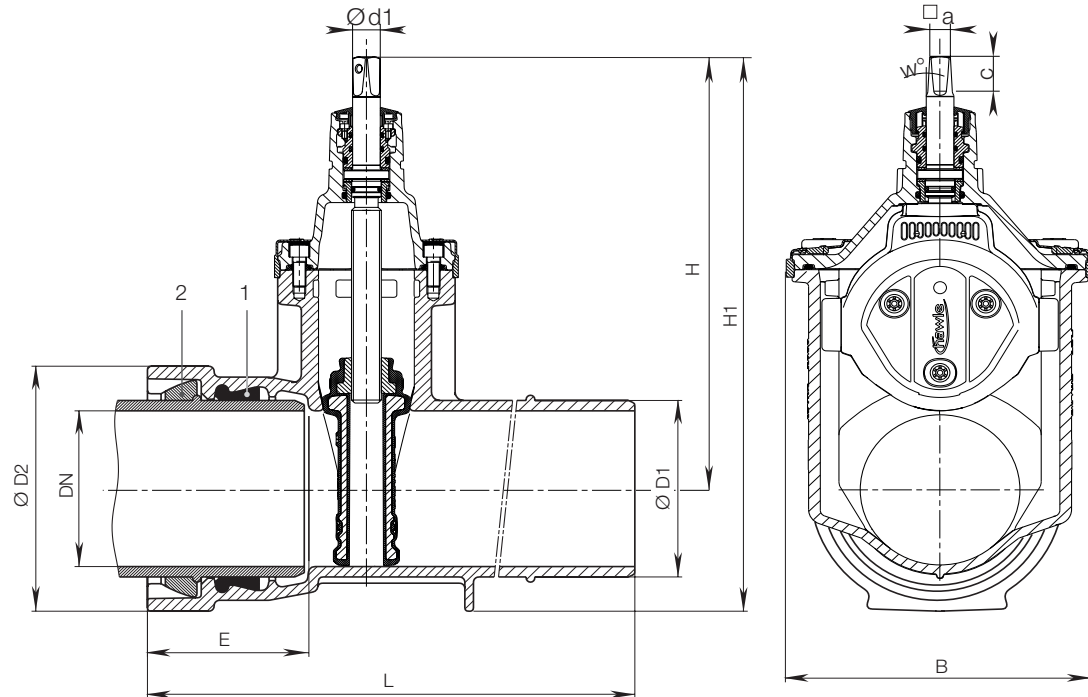
Suitable accessories

Suitable accessories: see page 48

Handwheel:		No. 7800
Extension spindles:	rigid	No. 9000E2/E3
	telescopic	No. 9500E2/E3
Surface boxes:	rigid	No. 1750
	telescopic	No. 2050, No. 2051K
Valve actuator:		No. 9920
Adapter for actuator (E2/E3 adapter):		No. 8630E2/E3
Base plate:		No. 3481, No. 3482
Operating cap:		No. 2156, No. 2157, No. 2158
Extension spindle:		No. 7820, No. 7825
Position indicator:		No. 2170E2/E3
HAWAK-pillar:		No. 9894, No. 9895

Order no.	Version	MOP (PN)	Dimensions/DN						
			80	100	125	150	200	250	300
4027E3	Socket-Spigot	16							

No. 4027E3



DN	Ø Pipe	MOP (PN)	Valve							Spindle				Weight
			Ø D1	Ø D2	E	H	H1	L	B	□ a	c	w°	Ø d1	
80	98	16	98	156	127	313	391	422	180	17,3	35	3°	24	20,5
100	118		118	178	135	343	432	440	213	19,3	38		24	24,5
125	144		144	208	143	421	525	494	285	19,3	38		24	37,5
150	170		170	235	150	433	551	513	285	19,3	38		26	44,5
200	222		222	295	160	541	689	535	357	24,3	48		30	72,0
250	274		274	356	165	649	827	577	432	27,3	48		36	114,0
300	326		326	414	170	731	938	638	518	27,3	48		36	168,5



E3 COMBI-T

Flange T-piece with integrated E3-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 **E3** Combi-T with **E3** 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 retrofitting of 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. 4340E3



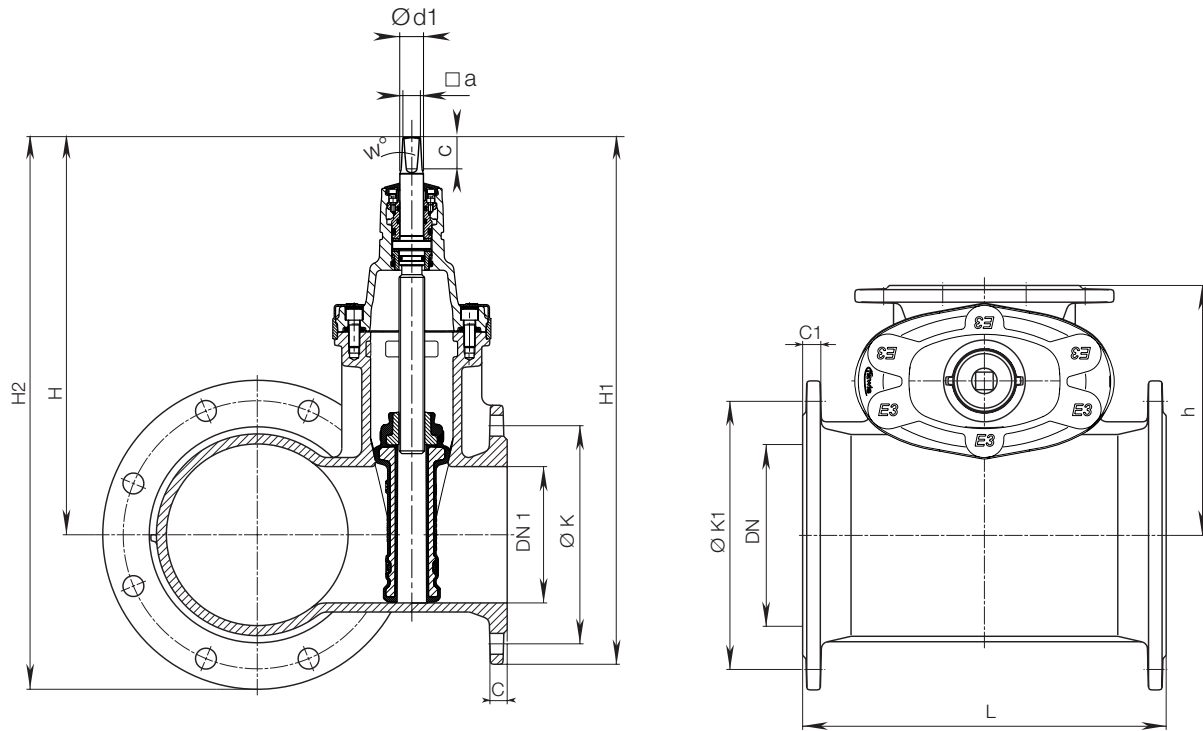
Suitable accessories

Suitable accessories: see page 48

Handwheel:		No. 7800
Extension spindles:	rigid	No. 9000 E2/E3
	telescopic	No. 9500 E2/E3
Surface boxes:	rigid	No. 1750
	telescopic	No. 2050, No. 2051K
Valve actuator:		No. 9920
Adapter for actuator (E2/E3 adapter):		No. 8630 E2/E3
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/E3
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
4340E3	16	80					
		100					
		125					
		150					
		200					

No. 4340E3



DN	DN 1 Valve	E3 Combi-T					Flange				Spindle				Weight
		L	H	H1	H2	h	ØK	C	ØK1	C1	□ a	c	w°	Ød1	
80	80	280	313	413	413	170	160	19	160	19	17,3	35	3°	24	24,0
100	65	260	305	397	408	180	145	19	180	19	17,3	35		24	29,5
100	80	280	313	413	416	200	160	19	180	19	17,3	35		24	30,0
100	100	310	343	453	453	200	180	19	180	19	19,3	38		24	34,0
125	80	280	313	413	432	200	160	19	210	19	17,3	35		24	30,5
125	100	310	343	453	469	215	180	19	210	19	19,3	38		24	36,5
150	65	260	305	397	441	210	145	19	240	19	17,3	35		24	33,0
150	80	280	313	413	444	220	160	19	240	19	17,3	35		24	36,0
150	100	310	343	453	487	220	180	19	240	19	19,3	38		24	40,5
150	150	400	433	576	576	250	240	19	240	19	19,3	38		26	55,5
200	80	280	313	413	484	250	160	19	295	20	17,3	35		24	43,0
200	100	310	343	453	521	250	180	19	295	20	19,3	38		24	49,5
200	150	400	433	576	610	275	240	19	295	20	19,3	38		26	68,5
200	200	460	541	711	711	295	295	20	295	20	24,3	48		30	90,0



E3 COMBI-III

Flanged T-piece with 3 flanged outlets and 2 or 3 integral E3 valves, PN 10 | PN 16

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 48

Handwheel:		No. 7800
Extension spindles:	rigid	No. 9000E2/E3
	telescopic	No. 9500E2/E3
Surface box:		No. 4550
Operating cap:	No. 2156, No. 2157, No. 2158	
Extension spindle:	No. 7820, No. 7825	
Position indicator:	No. 2170E2/E3	
Bolts:	No. 8810, No. 8830, No. 8840	
Flat gasket:	No. 3390, No. 3470	
Blanking cap:	No. 8570E2/E3	

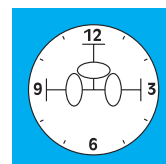
No. 4450E3

No. 4460E3



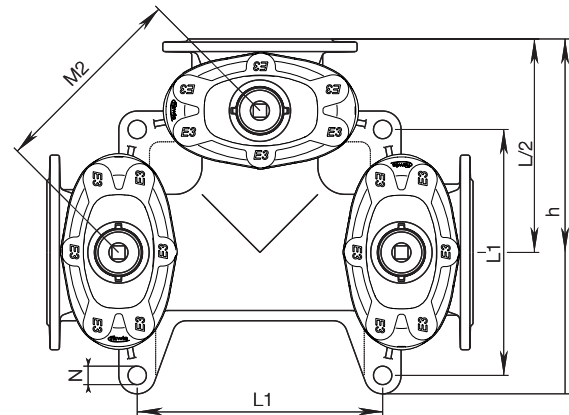
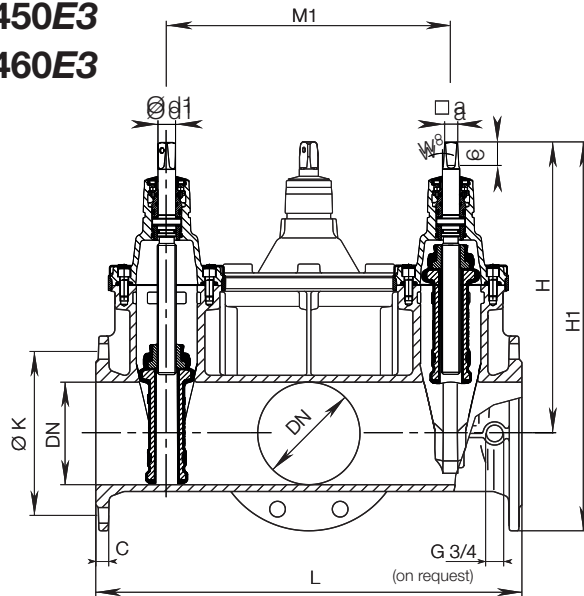
Instead of a bonnet, a cap
No. 8570E2 can be fitted onto
the body of any outlet not
requiring a valve

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

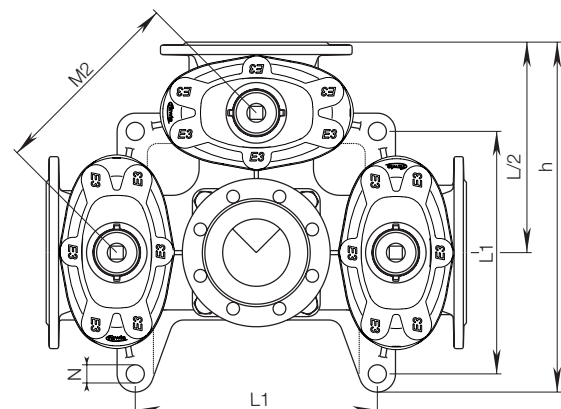
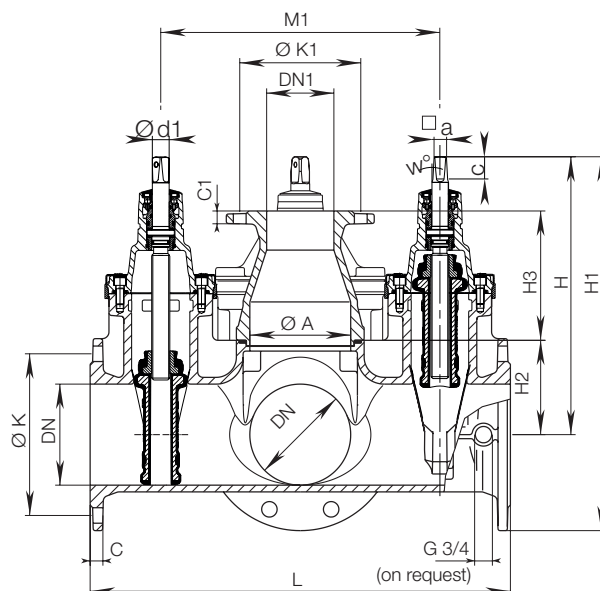


Order no.	Version	MOP (PN)	No. of valves	Dimensions/DN				
				80	100	125	150	200
4450E3	Without vertical centre outlet	16	2					
			3					
4460E3	With vertical outlet	16	2					
			3					

No. 4450E3
No. 4460E3



DN	E3 Combi III without vertical centre outlet										Spindle				Weight (no. of valves)	
	L	H	H 1	ØK	C	M1	M2	L1	h	N	□ a	c	w°	Ød1	2	3
80	435	313	413	160	19	255	180	-	318	-	17,3	35	3°	24	45,0	47,0
100	555	343	453	180	19	365	258	212	411	27	19,3	38		24	68,0	67,0
125	615	446	571	210	19	415	294	360	515	27	19,3	38		26	101,0	153,0
150	625	433	576	240	19	415	294	360	520	27	19,3	38		26	105,0	114,5
200	695	541	711	295	20	465	329	445	602	32	24,3	48		30	167,0	183,0



DN	E3 Combi III with vertical centre outlet																Spindle				E3 Combi III with vertical centre outlet	
	ØA	DN1	L	L1	H	H1	H2	H3	C	C1	ØK	ØK1	M1	M2	h	N	a	c	w°	Ød1	2	3
100	100	100	555	212	343	453	90	+	19	+	180	+	365	258	411	27	19,3	38	3°	24	71,0	76,0
150	150	100	625	360	433	516	140	192	19	19	240	180	415	293,5	520	27	19,3	38		26	120,0	130,0
200	200	100	695	445	541	711	180	192	20	19	295	180	465	329	602	32	24,3	48		30	198,0	205,0

+ flange connection directly on the body - stud

E3 COMBI-IV

Flanged T-piece with 4 flanged outlets and 2, 3 or 4 integral E3 valves, PN 10 | PN 16

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 48

Handwheel:		No. 7800
Extension spindles:	rigid	No. 9000E2/E3
	telescopic	No. 9500E2/E3
Surface box:	No. 4550	
Operating cap:	No. 2156, No. 2157, No. 2158	
Extension spindle:	No. 7820, No. 7825	
Position indicator:	No. 2170E2/E3	
Bolts:	No. 8810, No. 8830, No. 8840	
Flat gasket:	No. 3390, No. 3470	
Blanking cap:	No. 8570E2/E3	

No. 4400E3

No. 4410E3



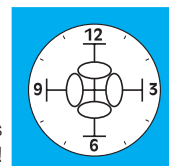
Instead of a bonnet, a cap No. 8570E2 can be fitted onto the body of any outlet not requiring a valve



No. 4410E3 cross connection with 3 valves and vertical centre outlet



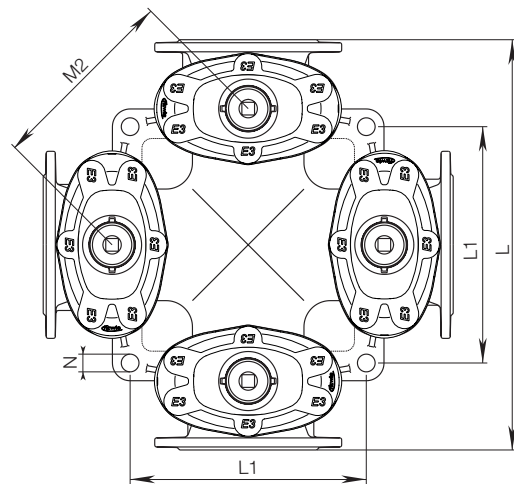
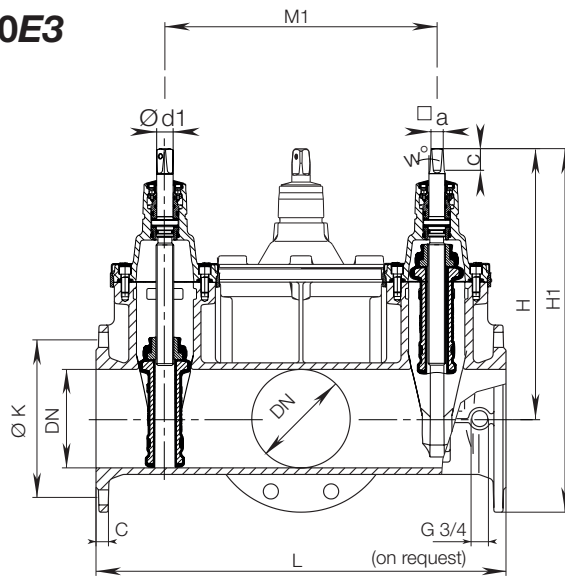
With 3 valves and no vertical outlet



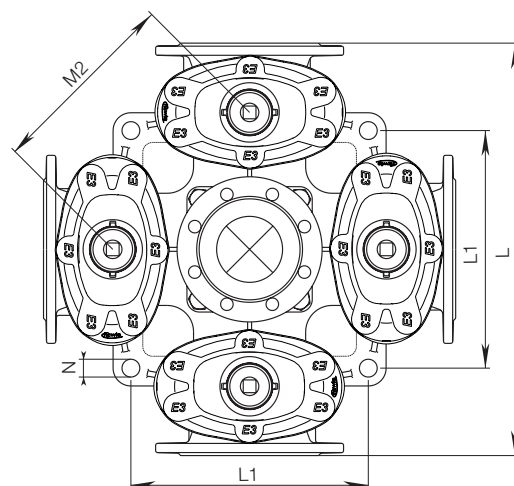
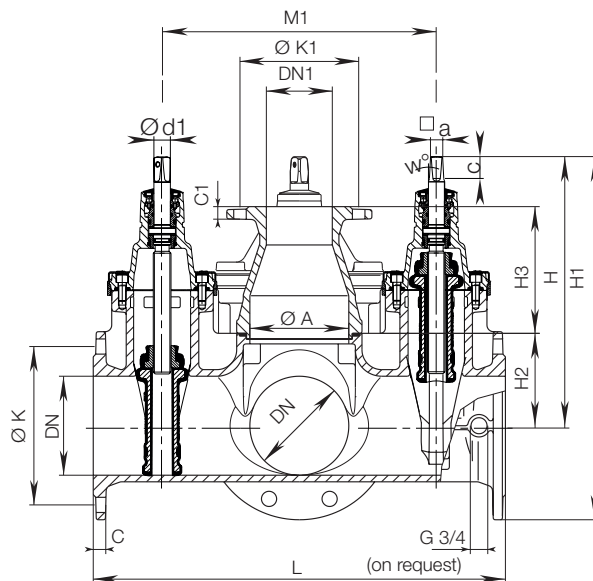
Please specify the arrangement of the valves in a clockwise direction!

Order no.	Version	MOP (PN)	No. of valves	Dimensions/DN				
				80	100	125	150	200
4400E3	Without vertical centre outlet	16	2					
			3					
			4					
4410E3	With vertical outlet		3					
			4					

No. 4400E3 **No. 4410E3**



DN	E3 Combi IV without vertical centre outlet									Spindle				Weight (no. of valves)		
	L	H	H1	ØK	C	M1	M2	L1	N	□ a	c	w°	Ød1	2	3	4
80	435	313	413	160	19	255	180			17,3	35	3°	24	55,0	60,0	65,0
100	555	343	453	180	19	365	258	212	27	19,3	38		24	76,0	84,0	90,0
125	615	446	571	210	19	415	293,5	360	27	19,3	38		26	125,0	135,0	139,0
150	625	433	576	240	19	415	293,5	360	27	19,3	38		26	135,0	143,0	151,0
200	695	541	711	295	20	465	329	445	32	24,3	48		30	207,0	223,0	238,0



DN	E3 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	w°	Ød1	3	4
100	100	100	555	212	343	453	90	+	19	+	180	+	365	258	27	19,3	38		24	90,0	96,0
150	150	100	625	360	433	576	140	192	19	19	240	180	415	293,5	27	19,3	38	3°	26	154,0	164,0
200	200	100	695	445	541	711	180	192	20	19	295	180	465	329	32	24,3	48		30		265,0

+ flange connection directly on the body - stud

E3 HAWLE-COMBIFLEX

DN 150, 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

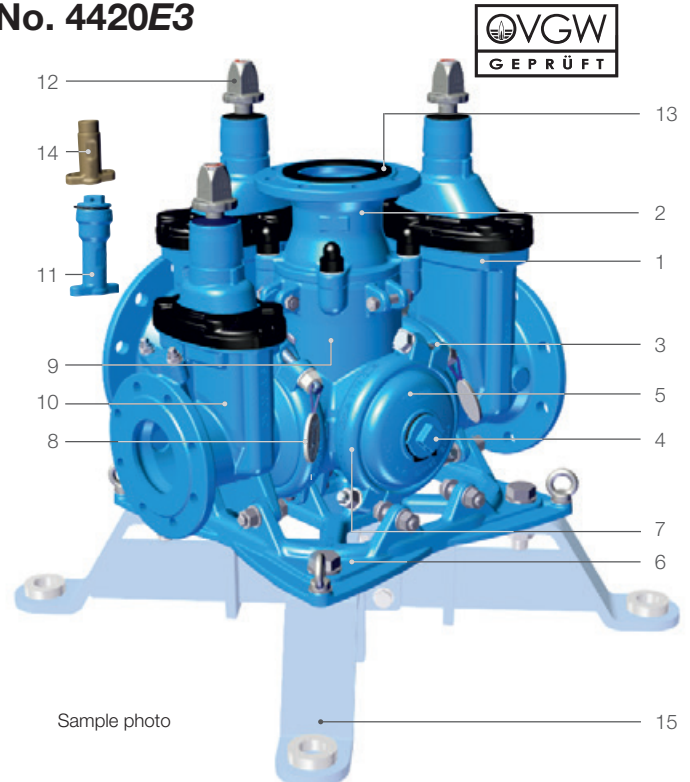
- 1 **Resilient seated E3 valve** according to EN 1074-1 and 1074-2
- 3 Molybdenum coated, A4 type **clamping ring bolts**
- 4/11 **ZAK-46** (4) or **ZAK-34** (11) socket for corrosion-free connection of sensors or ZAK Service valve
- 2/5/7/ Hawle Combiflex **vertical outlet** (2) optionally
- 9/10 DN 80 or DN 100 **end cap** (5), **clamping ring** (7), **middle section** DN 150 (9), **E3 body** (10) reduced in DN 80, DN 100, DN 125; DN 150; or expanded to DN 200: ductile iron, epoxy powder coated
- 6 HAWLE-COMBIFLEX **mounting frame**: ductile iron, epoxy powder coated, with ring bolts for fastening hoists and integrated rings for floor connections
- 8 **Quality inspection seal**
- 12 **Operating cap** made of aluminum, including covering cap with direction indicator
- 13 Vertical outlet with affixed flat elastomer gasket
- 14 **Outlet ET 1"**, optional (not installed)
- 15 **Anchoring system**, optional

Suitable accessories

Suitable accessories: see page 48

Handwheel:		No. 7800
Extension spindles:	rigid	No. 9000E2/E3
	telescopic	No. 9500E2/E3
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
Operating cap		No. 2157, No. 2158
ET 1" outlet		No. 6979
ZAK 34 outlet		No. 6979
ZAK 34 plug		No. 6980
Blanking cap:		No. 8570E2

No. 4420E3



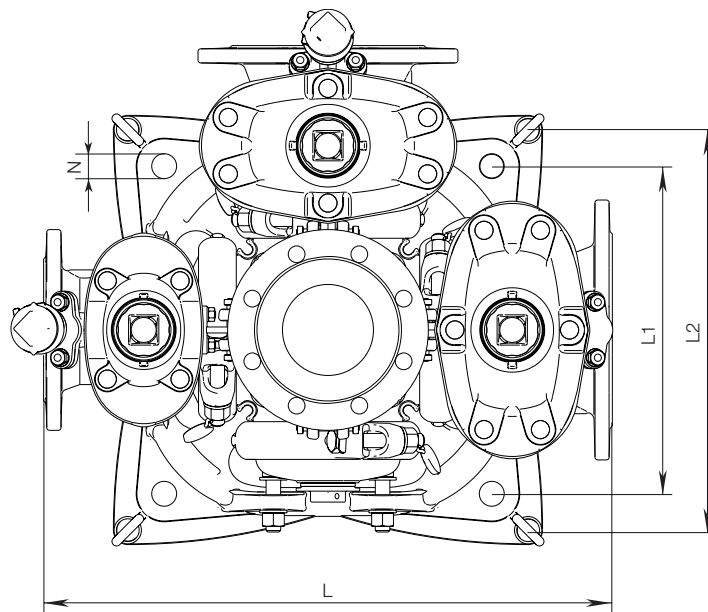
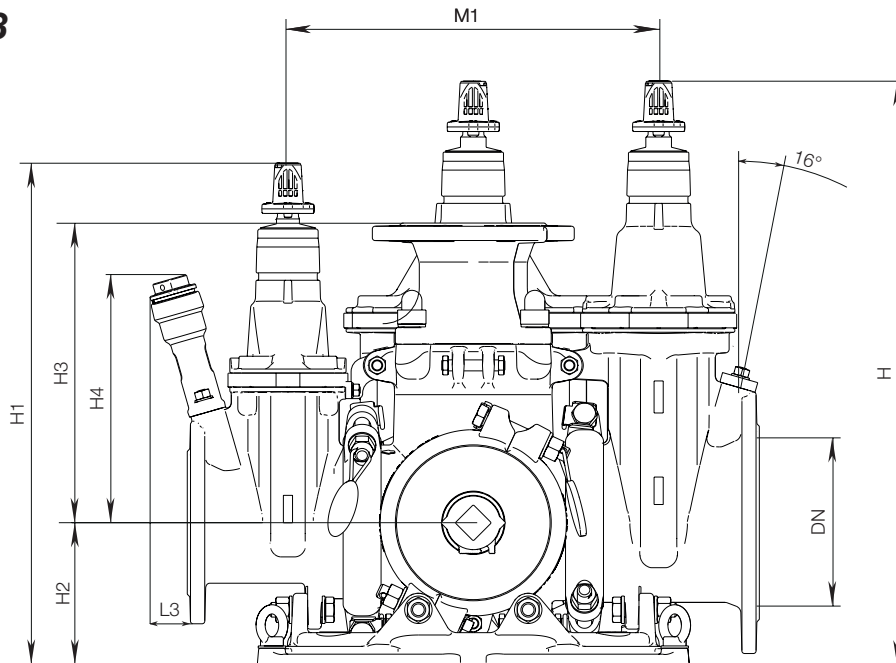
Individual combination options



Order no.	Version	MOP (PN)	Dimensions / DN	Possible reduction / DN	Possible vertical outlet / DN	Weight min. - max.
4420E3		10/16	150	80	80/100	57 - 212
				100		
				125		
				150		
				200		

Flange sized and drilled in accordance with EN 1092-2 standard PN 10. Please specify PN 16 when ordering.
Standard version inclusive operating caps (remove in case of actuation by extension spindle or handwheel)
Please use the HAWLE-COMBIFLEX order form. It can be found on our homepage.

No. 4420E3



DN	HAWLE-COMBIFLEX												
	MOP (PN)	DN	L*	L1	L2	L3	H	H1	H2	H3	H4	M1*	Ø N
150	10/16	80	625	360	440	37	638	548	155	328	262	405	27,4
		100				40					271		
		125				38					284		
		150				40					298		
		200*				24					335		
			660 (1xDN 200)										
			695 (2xDN 200)										

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

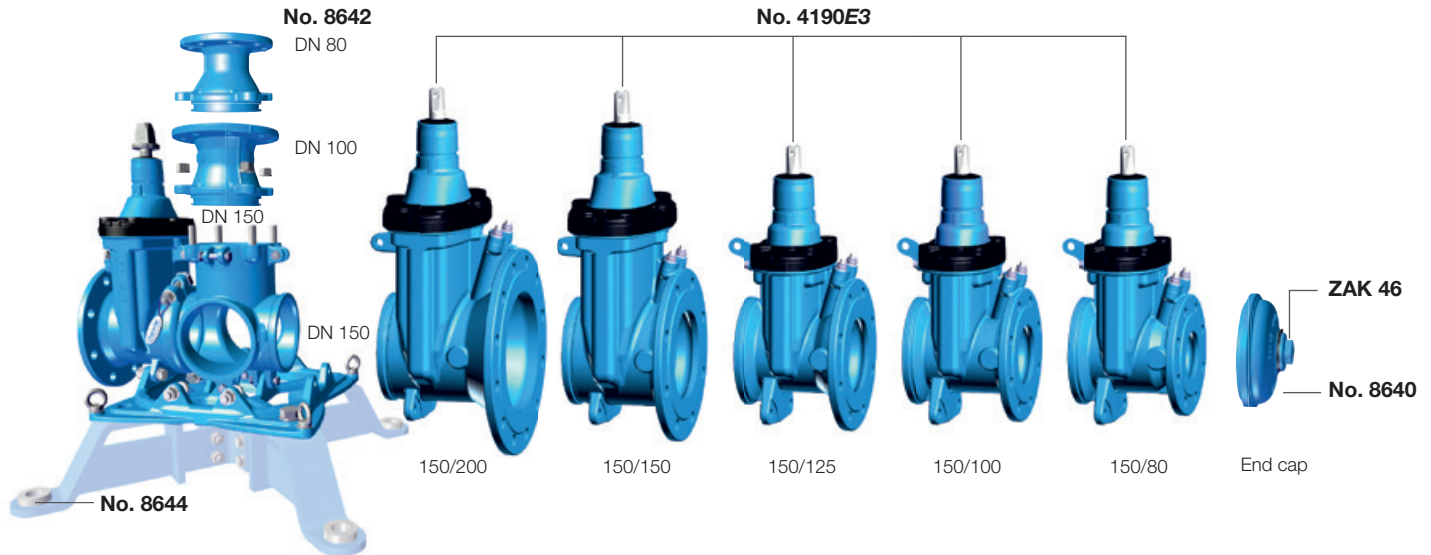
* height compensation due to flange necessary

#Transport dimensions = L



E3 HAWLE-COMBIFLEX

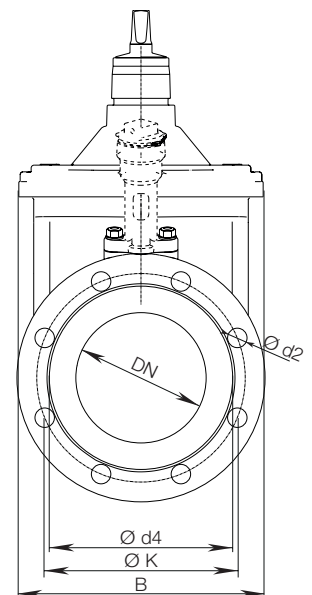
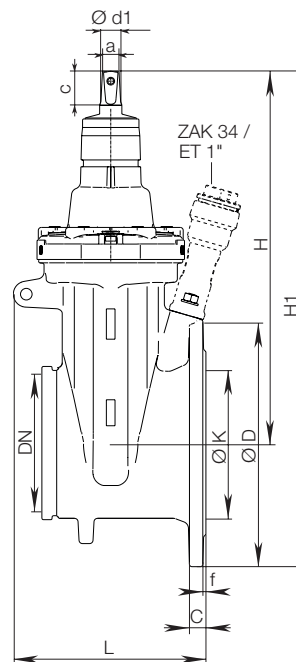
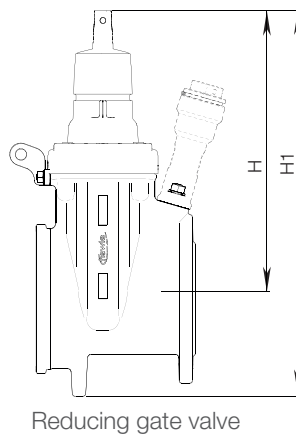
Individual parts DN 150



HAWLE-COMBIFLEX E3 gate valve No. 4190E3



- Without operating cap
- Incl. bolt fastener for the middle section
- Fits through manhole openings



DN	HAWLE-COMBIFLEX E3 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*	~ Max. weight
150	80	10 16	200	19	160	133	3	8	M16	19	19,3	38	25	100	ZAK 34 ET 1"	372	488	258	213	21,8
	100	10 16	220	19	180	153		8	M16	19			25	100		372	488	261	213	22,5
	125	10 16	250	19	210	183		8	M16	19			25	100		372	497	259	213	23,7
	150	10 16	285	19	240	209		8	M20	23			28	150		462	604	262	283	34,7
	200	10 16	340	20	295	264		8 12	M20	23			28	150		462	632	281	283	40,0

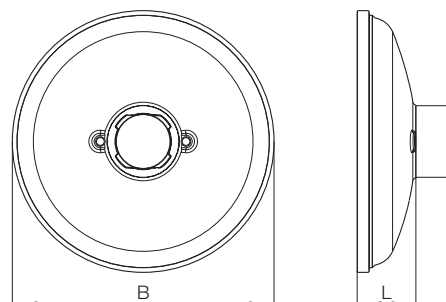
* Transport dimensions

E3 HAWLE-COMBIFLEX

Individual parts DN 150

HAWLE-COMBIFLEX end cap

No. 8640

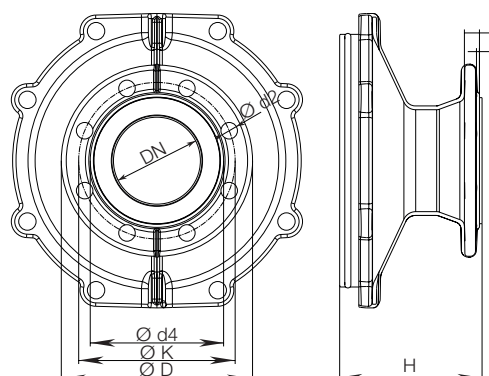


- ZAK 69 socket

DN	HAWLE-COMBIFLEX end cap			
	B	ZAK-socket	L	Weight
150	177	ZAK 46	47	2,5

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
150	80	10/16	200	19	160	133	3	8	M16	19	155	7,0
	100	10/16	220	19	180	153	3	8	M16	19	155	8,0

Blanking cap

No. 8570E2/E3



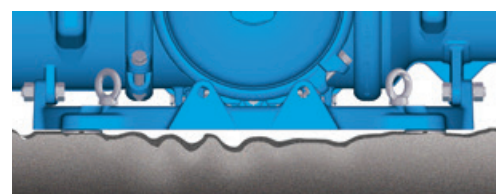
- For combi valves in place of valve bonnet
- Made of ductile iron, epoxy powder coated without screws and hood seal

Order No.	DN	Weight
8570E2/E3	80	1,6
	100	1,9
	125 - 150	3,2
	200	5,0

HAWLE-COMBIFLEX ground-distance set

No. 8644 (order separately)

Stainless steel



E3 HAWLE-COMBIFLEX

DN 250 / DN 300, 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

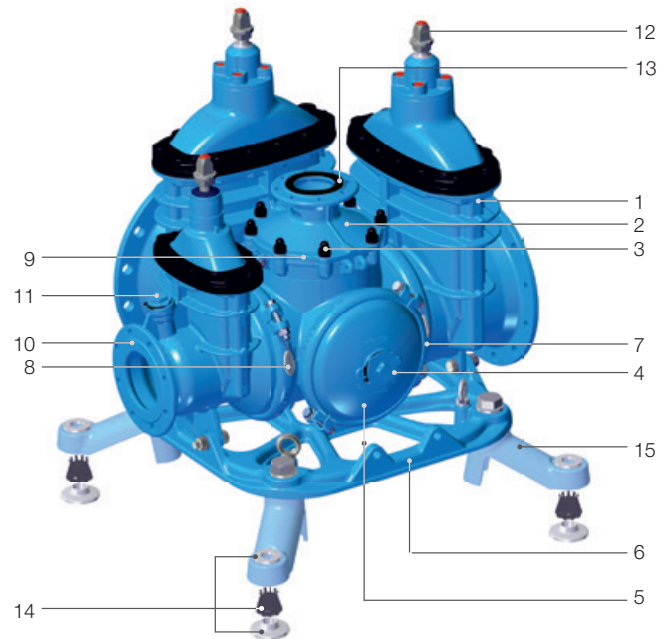
- 1 **Resilient seated E3 valve** in DN 150 to DN 400 according to EN 1074-1 and 2
- 3 Molybdenum coated, A4 type **clamping ring bolts**
- 4/11 **ZAK-69** (4) or **ZAK-46** (11) socket for corrosion-free connection of sensors or ZAK Service valve
- 2/5/7/ **Hawle Combiflex vertical outlet** (2) optionally
- 9/10 DN 100 or DN 150 **end cap** (5), **clamping ring** (7), 2 types of **middle section** DN 250 or DN 300 (9), **E3 body** (10) reduced in DN 150 and DN 200 or expanded to DN 400: ductile iron, epoxy powder coated
- 6 **HAWLE-COMBIFLEX mounting frame**: ductile iron, epoxy powder coated, with ring bolts for fastening hoists and integrated rings for floor connections
- 8 **Quality inspection seal**
- 12 **Operating cap** made of aluminum, including covering cap with direction indicator
- 13 Vertical outlet with affixed flat elastomer gasket
- 14 **Assembly fittings kit** (4 items each: plastic **support liner**; hot-dip galvanized **spacer disk**; hot-dip galvanized **washer**)
- 15 **Anchoring system**, optional

Suitable accessories

Suitable accessories: see page 48

Handwheel:		No. 7800
Extension spindles:	rigid	No. 9000E2/E3
	telescopic	No. 9500E2/E3
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
Assembly fittings kit:		No. 8647
Flat gasket:		No. 3390, No. 3470
Blanking cap:		No. 8570E2/E3

No. 4420E3



Sample photo

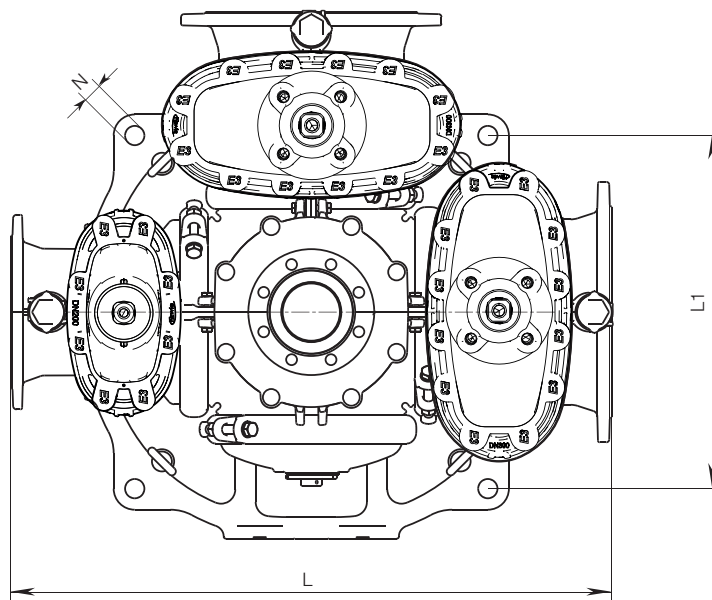
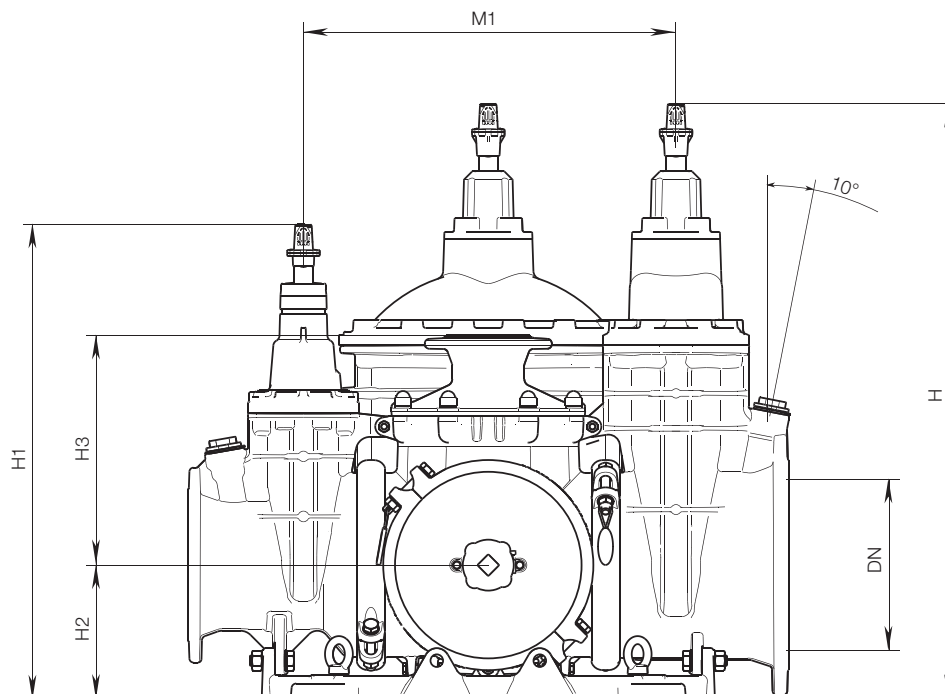
Individual combination options



Order no.	Version	MOP (PN)	Dimensions / DN	Possible reduction / DN	Possible vertical outlet / DN	~ Max. weight
4420E3	Individually configurable	10	250	150	100	465
		16		200	150	
				250		
		10	300	150	100	706
				200		
				250		
				300	150	
		16		400		

Flange sized and drilled in accordance with EN 1092-2 standard PN 10. Please specify PN 16 when ordering.
Standard version including operating cap (to be removed during operation using extension spindle or hand wheel)
Please use the HAWLE-COMBIFLEX order form. It can be found on our homepage.

No. 4420E3



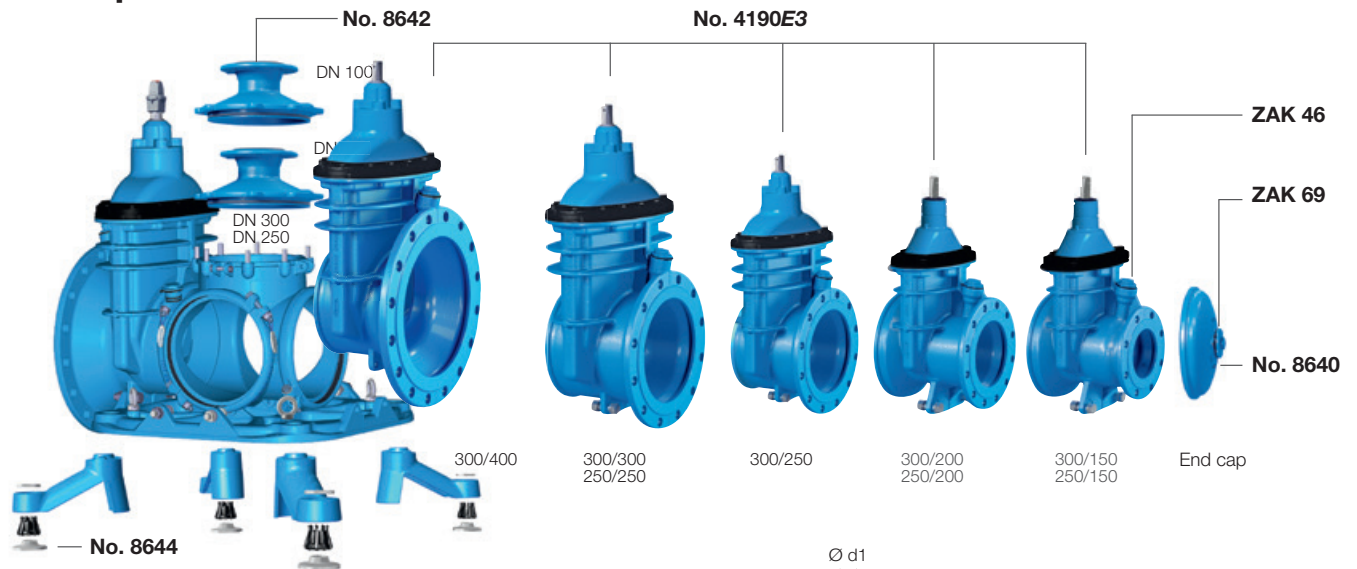
DN	HAWLE-COMBIFLEX									
	MOP (PN)	L*	L1	H	H1	H2	H3	DN	M1*	Ø N
250	10	960	617	932	777	210	359	150	590	34
	16							200		
								250		
300	10	1050	617	1043	830	235	399	150	646	34
								200		
								250		
	16							300		
								400		

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

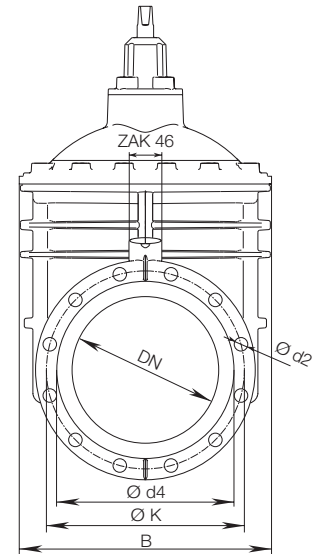
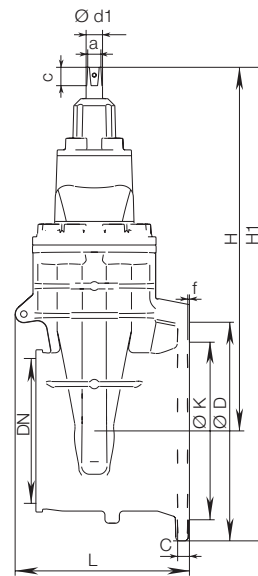
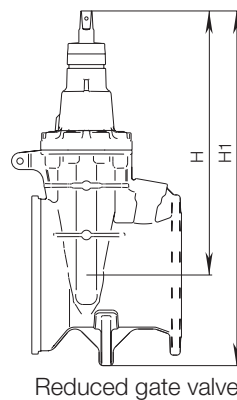


E3 HAWLE-COMBIFLEX

Individual parts DN 250 / DN 300



HAWLE-COMBIFLEX E3 gate valve No. 4190E3



HAWLE-COMBIFLEX E3 gate valve																		
DN	Flange					Bolts			Spindle			Valve						
	DN	MOP (PN)	Ø D	C	Ø K	Qty.	Thread	Ø d2	a	c	Ø d1	Wedge DN	Service outlet	H	H1*	L*	B*	Weight
250	150	10 16	285	19	240	8	M20	23	24,3	48	32	200	ZAK 46	561	727	337	356	61,0
	200	10 16	340	20	295	8 12	M20	23	24,3	48	32	200		561	730	337	356	62,0
	250	10 16	400	22	350 355	12	M20 M24	23 28	27,3	48	34	250		670	870	337	438	89,0
300	150	10 16	285	19	240	8	M20	23	24,3	48	32	200		561	754	361	356	65,0
	200	10 16	340	20	295	8 12	M20	23	24,3	48	32	200		561	754	361	356	66,0
	250	10 16	400	22	350 355	12	M20 M24	23 28	27,3	48	34	250		670	870	361	438	93,0
	300	10 16	455	24,5	400 410	12	M20 M24	23 28	27,3	48	34	300		753	981	361	523	132,0
	400*	10 16	580	28	515 525	16	M24 M27	28 31	27,3	48	34	300		753	1050	361	523	146,0

* Transport dimensions

*height adjustment necessary due to flange sheet

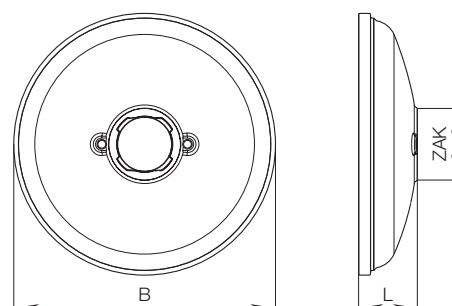
E3 HAWLE-COMBIFLEX

Individual parts DN 250 / DN 300

HAWLE-COMBIFLEX end cap No. 8640



- ZAK 69 socket

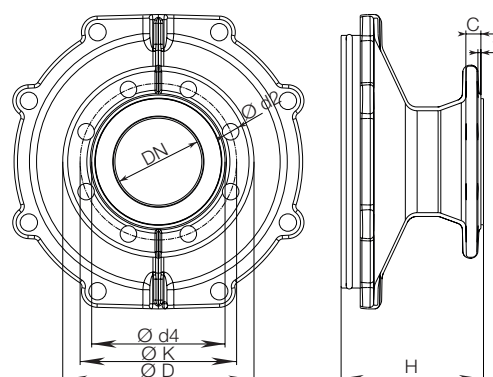


DN	HAWLE-COMBIFLEX end cap			
	B	ZAK-socket	L	Weight
250	284	ZAK 69	67	6,0
300	335	ZAK 69	77	7,5

HAWLE-COMBIFLEX vertical outlet No. 8642



- Incl. affixed elastomer flange gasket

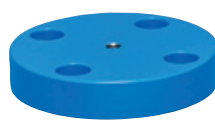


DN	HAWLE-COMBIFLEX vertical outlet											
	Flange							Bolts			Vertical outlet	
	DN	MOP (PN)	Ø D	C	Ø K	Ø d4	f	Qty.	Thread	Ø d2	H	Weight
250	100	10/16	220	19	180	153	3	8	M16	19	146	12,0
	150	10/16	285	19	240	209	3	8	M20	23	146	11,0
300	100	10/16	220	19	180	153	3	8	M16	19	160	13,0
	150	10/16	285	19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

Blanking cap No. 8570E2/E3



DN 150-200



DN 250-350

Order No.	DN	Weight
8570E2/E3	150	3,2
	200	5,0
	250 - 350	5,0

- For combi valves in place of valve bonnet
- Made of ductile iron, epoxy powder coated without screws and hood seal

E3 VALVE SYSTEM 2000

E3 valve socket-socket for PE and PVC pipes, PN 10 | PN 16

Design features

- Resilient seated gate valve with smooth straight-through bore
- With sockets for PE and PVC pipes
- One extension spindle for several dimensions
- Suitable for operation by automatic actuators
- Easy retrofitting of position indicator and automatic actuator on the standard bonnet

Standard version: without handwheel and extension spindle

Special versions: on request

No. 4040E3



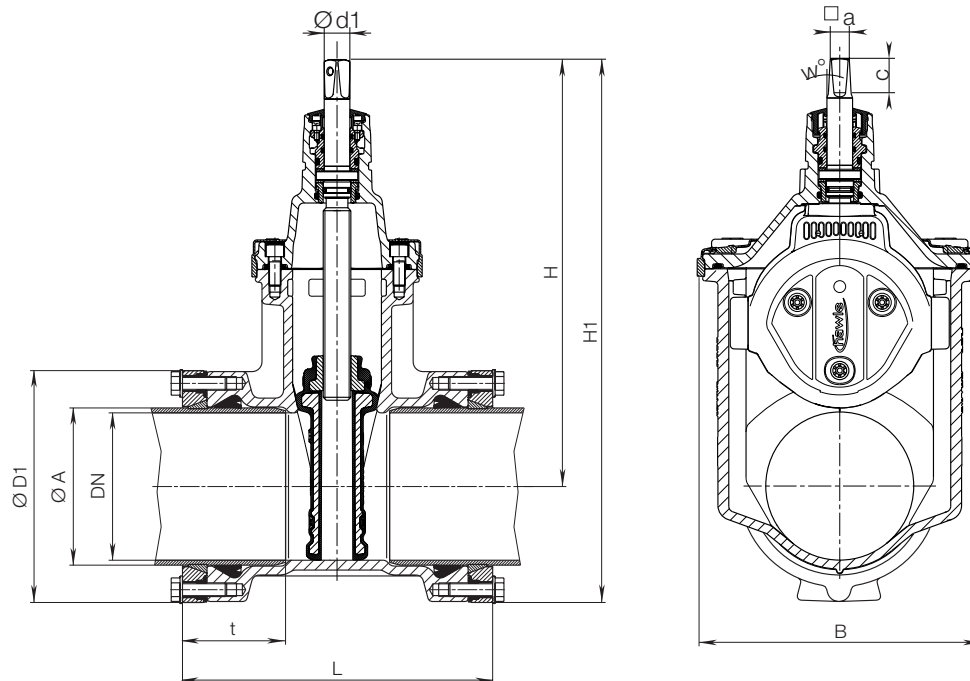
Suitable accessories

Suitable accessories: see page 48

Handwheel:		No. 7800
Extension spindle:	rigid	No. 9000E2/E3
	telescopic	No. 9500E2/E3
Surfaces boxes:	rigid	No. 1750
	telescopic	No. 2050, No. 2051K
Actuator:		No. 9920
Adapter for actuator (E2/E3 adapter):		No. 8630E2/E3
Base plate:		No. 3481, No. 3482
Sealing cap:		No. 2156, No. 2157, No. 2158
Spindle extension:		No. 7820, No. 7825
Position indicator:		No. 2170E2/E3
HAWAK pillar:		No. 9894, No. 9895

Order No.	MOP (PN)	Dimensions/DN Ø pipe A															
		50	65	80	100	100	125	125	150	150	200	200	200	250	250	300	300
4040E3	16	63	75	90	110	125	125	140	160	180	200	225	250	250	280	315	355

No. 4040E3



DN	Ø pipe A	Valve						Spindle				Weight
		Ø D1	t	H	H1	L	B	□ a	c	w°	Ø d1	
50	63	124	83	234	296	226	143	14,8	30	3°	20,5	9,0
65	75	138	85	305	374	240	180	17,3	35		24	14,0
80	90	152	88	313	389	242	180	17,3	35		24	16,0
100	110	174	88	343	430	252	213	19,3	38		24	20,0
	125	195	88	343	440	260	213	19,3	38		24	21,5
125	125	195	90	421	518	280	285	19,3	38		26	30,5
	140	212	96	421	527	278	285	19,3	38		26	32,5
150	160	236	108	433	551	316	285	19,3	38		26	36,5
	180	258	118	433	562	342	285	19,3	38		26	44,0
200	200	284	128	541	683	366	357	24,3	48		30	65,5
	225	314	130	541	698	366	357	24,3	48		30	69,5
	250	347	147	541	716	469	357	24,3	48		30	81,5
250	250	347	147	649	844	400	432	27,3	48		34	103,0
	280	376	150	649	858	420	432	27,3	48		34	112,0
300	315	422	176	731	964	472	518	27,3	48		34	171,0
	355	470	237	731	988	687	518	27,3	48		34	216,6



E3 VALVE SYSTEM 2000

E3 valve flange-socket for PE and PVC pipes, PN 10 | PN 16

Design features

- Resilient seated gate valve with smooth straight-through bore
- With socket for high-tensile connection with PE and PVC pipes
- Flange sized according to EN 1092-2, drilled according to EN 1092-2 | PN 10 standard; EN 1092-2 | PN 16 DN 200 - DN 250 please specify on order - other standards on request
- One extension spindle for several dimensions
- Suitable for operation by automatic actuators
- Easy retrofitting of position indicator and automatic actuator on the standard bonnet

Standard version: without handwheel and extension spindle

Special versions: on request

No. 4041E3



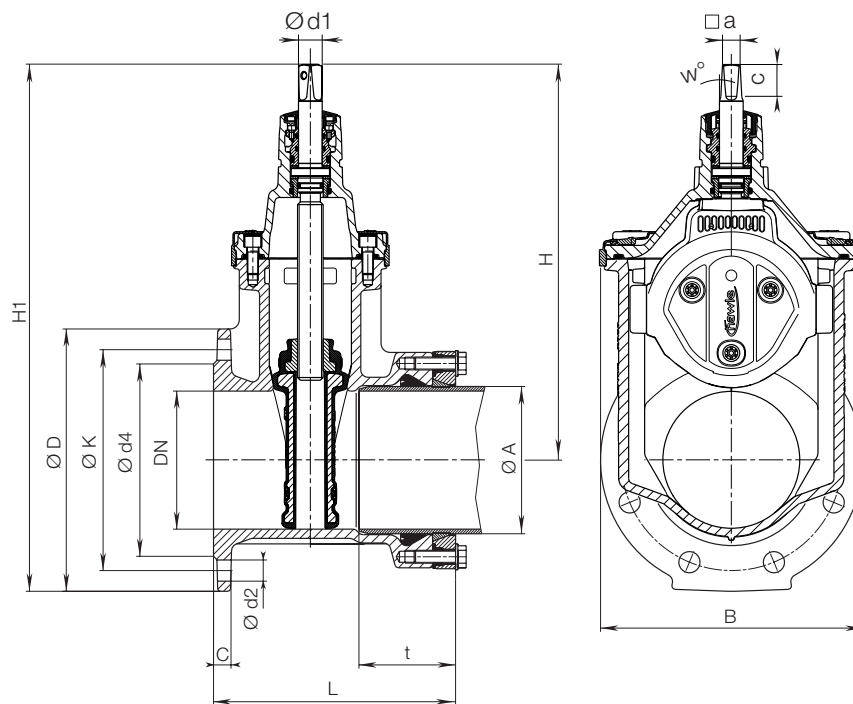
Suitable accessories

Suitable accessories: see page 48

Handwheel:		No. 7800
Extension spindle:	rigid	No. 9000 E2/E3
	telescopic	No. 9500 E2/E3
Surfaces boxes:	rigid	No. 1750
	telescopic	No. 2050,
		No. 2051K
Actuator:		No. 9920
Adapter for actuator (E2/E3 adapter):		No. 8630 E2/E3
Base plate:		No. 3481, No. 3482
Sealing cap:		No. 2156, No. 2157, No. 2158
Spindle extension:		No. 7820, No. 7825
Position indicator:		No. 2170 E2/E3
Bolts:		No. 8810, No. 8830 No. 8840
Flat gasket:		No. 3390, No. 3470
HAWAK pillar:		No. 9894, No. 9895

Order No.	MOP (PN)	Dimension/DN Ø pipe A													
		50	65	80	100	100	125	150	150	200	200	250	250	300	300
4041E3	16	63	75	90	110	125	140	160	180	200	225	250	280	315	

No. 4041E3



DN	MOP (PN)	Ø Pipe A	Flange			Bolts		Valve					Spindle				Weight
			ØD	C	ØK	Qty.	Thread	t	H	H1	L	B	□ a	c	w°	Ød1	
50	10 16	63	165	19	125	4	M 16	83	234	316	188	143	14,8	30		20,5	9,5
65	10 16	75	185	19	145	4	M 16	85	305	397	205	180	17,3	35		24	15,0
80	10 16	90	200	19	160	8	M 16	88	313	413	211	180	17,3	35		24	17,0
100	10 16	110	220	19	180	8	M 16	88	343	453	221	213	19,3	38		24	21,5
	10 16	125	220	19	180	8	M 16	88	343	453	225	213	19,3	38		24	22,0
125	10 16	140	250	19	210	8	M 16	96	421	546	239	285	19,3	38		26	32,0
150	10 16	160	285	19	240	8	M 20	108	433	576	263	285	19,3	38	3°	26	38,0
	10 16	180	285	19	240	8	M 20	118	433	576	276	285	19,3	38		26	40,5
200	10 16	200	340	20	295	8 12	M 20	128	541	711	298	357	24,3	48		30	63,0
	10 16	225	340	20	295	8 12	M 20	130	541	711	298	357	24,3	48		30	65,5
250	10 16	250	400	22	350 355	12	M 20 M 24	147	649	849	325	432	27,3	48		34	99,0
	10 16	280	400	22	350 355	12	M 20 M 24	150	649	849	335	432	27,3	48		34	106,0
300	10 16	315	455	24,5	400 410	12	M 20 M 24	176	731	959	371	518	27,3	48		34	158,0



E3 ALL SOCKET TEE SYSTEM 2000

All socket tee with one integral **E3** valve for PE and PVC pipes

Design features

- Resilient seated gate valve combined with socket T-piece
- With push sockets for high-tensile connection with PE and PVC pipes
- One extension spindle for several dimensions
- Suitable for operation by automatic actuators
- Easy retrofitting of position indicator and automatic actuator on the standard bonnet

Standard version: without handwheel and extension spindle

Special versions: on request

No. 4343E3



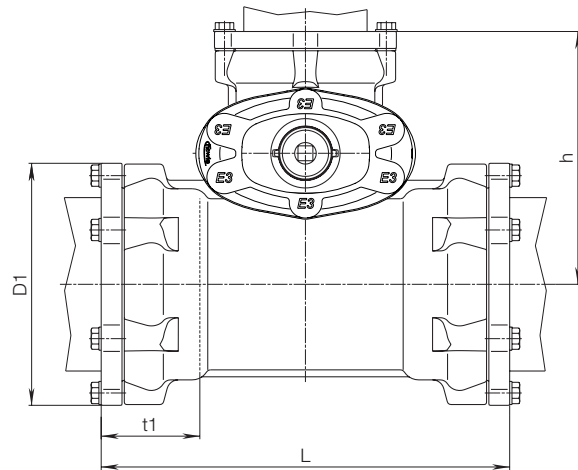
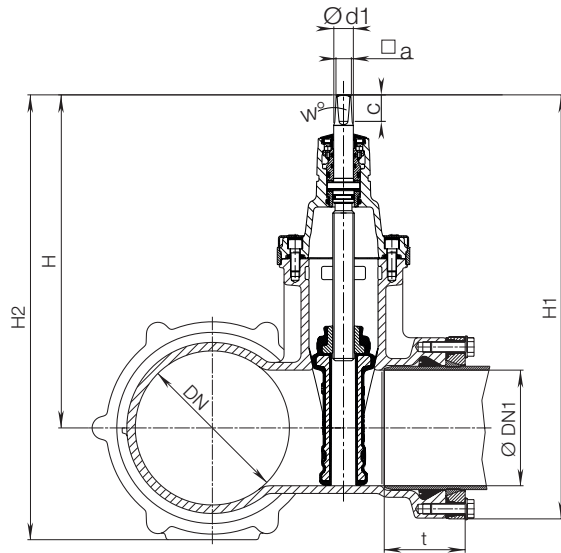
Suitable accessories:

Suitable accessories: see page 48

Handwheel:		No. 7800
Extension spindle:	rigid	No. 9000 E2/E3
	telescopic	No. 9500 E2/E3
Surfaces boxes:	rigid	No. 1750
	telescopic	No. 2050, No. 2051K
Actuator:		No. 9920
Adapter for actuator (E2/E3 adapter):		No. 8630 E2/E3
Base plate:	No. 3481, No. 3482	
Sealing cap:	No. 2156, No. 2157, No. 2158	
Spindle extension:	No. 7820, No. 7825	
Position indicator:	No. 2170 E2/E3	
HAWAK pillar:	No. 9894, No. 9895	

Order no.	MOP (PN)	Valve DN1 / Ø Pipe					
		DN/ Ø Pipe	50 63	80 90	100 110	100 125	150 160
4343E3	16	80/90					
		100/110					
		100/125					
		150/160					
		200/225					

No. 4343E3



DN Ø Pipe	DN 1 Ø Pipe	E3 Combi-T					Socket			Spindle				Weight
		H	H1	H2	t	L	t1	D1	h	□ a	c	w°	Ø d1	
80/90	80/90	313	389	389	88	310	88	150	201	17,3	35	3°	24	21,0
100/110	50/63	305	314	320	83	290	88	172	218	14,8	30		20,5	17,0
100/110	80/90	313	389	399	88	320	88	172	231	17,3	35		24	23,0
100/110	100/110	350	430	430	88	340	88	172	231	19,3	38		24	27,5
100/125	100/125	350	440	440	88	345	88	195	235	19,3	38		24	30,0
150/160	80/90	313	389	430	88	350	108	234	251	17,3	35		24	27,0
150/160	100/110	350	430	460	88	370	108	234	251	19,3	38		24	34,5
150/160	100/125	350	440	440	88	370	108	234	255	19,3	38		24	36,5
150/160	150/160	433	551	551	108	420	108	234	303	19,3	38		26	51,0
200/225	80/90	313	389	458	88	410	130	312	281	17,3	35		24	48,0
200/225	100/110	350	430	496	88	430	130	312	291	19,3	38		24	53,0

E3 VALVE - BAIO SOCKET-SOCKET

For ductile iron, steel, PE and PVC pipes, PN 16

Design features

- Resilient seated gate valve with smooth straight-through bore
- With socket for ductile iron pipes
- One extension spindle for several dimensions
- Suitable for operation by automatic actuators
- Suitable for cleaning with a cleaning pig
- Easy retrofitting of position indicator and automatic actuators on the standard bonnet

Standard version: without handwheel and extension spindle
without gaskets

No. 4500E3



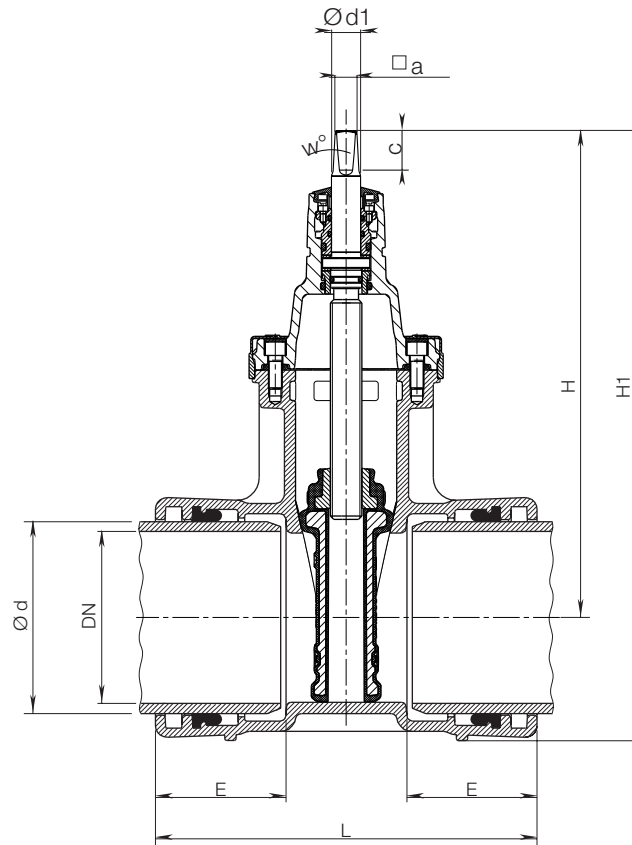
Suitable accessories

Suitable accessories: see page 48

Handwheel:		No. 7800
Extension spindles:	rigid	No. 9000E2/E3
	telescopic	No. 9500E2/E3
Surface boxes:	rigid	No. 1750
	telescopic	No. 2050, No. 2051K
Restraint clamp:	Hawle stop	No. NL80, NL78 NL82, NL84
BAIO lip seal (BLD):	for DCI pipes	No. NL85
GKS pipe seal:	for PE/PVC pipes	No. NL86
Actuator:		No. 9920
Adapter for actuator (E2/E3 adapter):		No. 8630E2/E3
Base plate:		No. 3481, No. 3482
Sealing cap:		No. 2156, No. 2157, No. 2158
Spindle extension:		No. 7820, No. 7825
Position indicator:		No. 2170E2/E3
HAWAK pillar:		No. 9894, No. 9895

Order no.	MOP (PN)	Dimension/DN						
		80	100	125	150	200	250	300
4500E3	16							

No. 4500E3



DN	Pipe Ød	Valve						Spindle				Hawle-Stop
		E	H	H1	L	max. width	Weight	□ a	c	w°	Ød1	Weight
80	98	110	332	433	300	180	18,0	17,3	35	3°	24	3,7
100	118	105	345	475	300	213	23,5	19,3	38		24	4,7
125	144	115	421	566	345	285	34,0	19,3	38		26	5,0
150	170	115	431	595	340	285	38,0	19,3	38		26	5,5
200	222	125	543	735	365	357	53,0	24,3	48		30	9,5
250	274	174	649	874	470	432	89,0	27,3	48		36	10,1
300	326	198	733	986	537	518	162,0	27,3	48		36	12,9



E3 VALVE - BAIO SOCKET-SPIGOT

For ductile iron, steel, PE and PVC pipes, PN 16

Design features

- Resilient seated gate valve with smooth straight-through bore
- One side with spigot and with one side socket for ductile iron pipes
- One extension spindle for several dimensions
- Suitable for operation by automatic actuators
- Suitable for cleaning with a cleaning pig
- Easy retrofitting of position indicator and automatic actuators on the standard bonnet

Standard version: without handwheel and extension spindle
without gaskets

No. NL00E3



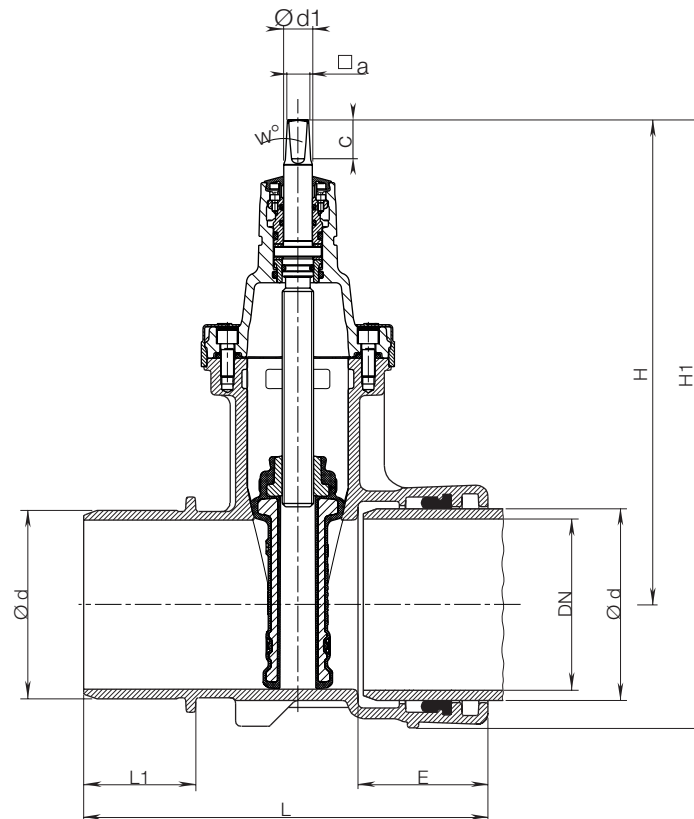
Suitable accessories

Suitable accessories: see page 48

Handwheel:		No. 7800
Extension spindles:	rigid	No. 9000E2/E3
	telescopic	No. 9500E2/E3
Surface boxes:	rigid	No. 1750
	telescopic	No. 2050, No. 2051K
Restraint clamp:	Hawle stop	No. NL80, NL78 NL82, NL84
BAIO lip seal (BLD):	for DCI pipes	No. NL85
GKS pipe seal:	for PE/PVC pipes	No. NL86
Actuator:		No. 9920
Adapter for actuator (E2/E3 adapter):		No. 8630E2/E3
Base plate:		No. 3481, No. 3482
Sealing cap:		No. 2156, No. 2157, No. 2158
Spindle extension:		No. 7820, No. 7825
Position indicator:		No. 2170E2/E3
HAWAK pillar:		No. 9894, No. 9895

Order no.	Version	MOP (PN)	Dimensions/DN						
			80	100	125	150	200	250	300
NL00E2	Socket-spigot	16							

No. NL00E3



DN	Ød	Valve					Spindle				Weight
		L	L1	E	H	H1	□ a	c	w°	Ød1	
80	98	295	82	110	332	433	17,3	35	3°	24	16,0
100	118	320	102	105	345	475	19,3	38		24	21,3
125	144	350	109	115	421	566	19,3	38		26	34,5
150	170	360	109	115	431	595	19,3	38		26	37,5
200	222	390	115	125	543	735	24,3	48		30	59,5
250	274	536	164	174	670	874	27,3	48		36	104,0
300	326	599	177	198	733	986	27,3	48		36	155,0



E3 MMB-VALVE - BAIO

For ductile iron, steel, PE and PVC pipes, PN 16

Design features

- Resilient seated gate valve combined with socket T-piece
- With socket for ductile iron pipes
- One extension spindle for several dimensions
- Suitable for operation by automatic actuators
- Suitable for cleaning with a cleaning pig
- Easy retrofitting of position indicator and automatic actuators on the standard bonnet

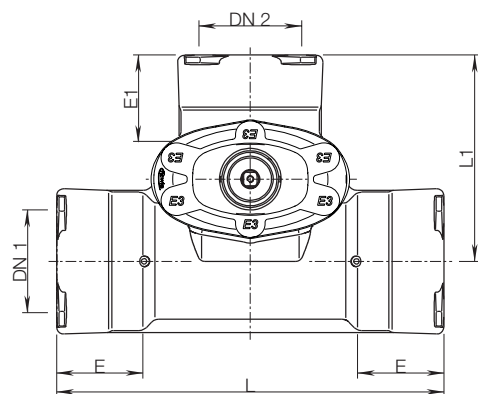
Standard version: without handwheel and extension spindle
without gaskets

Suitable accessories

Suitable accessories: see page 48

Handwheel:		No. 7800
Extension spindles:	rigid	No. 9000E2/E3
	telescopic	No. 9500E2/E3
Surface boxes:	rigid	No. 1750
	telescopic	No. 2050, No. 2051K
Restraint clamp:	Hawle stop	No. NL80, NL78 NL82, NL84
BAIO lip seal (BLD):	for DCI pipes	No. NL85
GKS pipe seal:	for PE/PVC pipes	No. NL86
Actuator:		No. 9920
Adapter for actuator (E2/E3 adapter):		No. 8630E2/E3
Base plate:		No. 3481, No. 3482
Sealing cap:		No. 2156, No. 2157, No. 2158
Spindle extension:		No. 7820, No. 7825
Position indicator:		No. 2170E2/E3
HAWAK pillar:		No. 9894, No. 9895

No. NL10E3



Order no.	MOP (PN)	Dimension/ DN 1					
		DN 2	80	100	125	150	200
NL10E3	16	80					
		100					
		125					
		150					
		200					

DN 1	DN 2	Valve				Spindle				Weight
		L	E	E1	L1	□ a	c	w°	Ød1	
80	80	410	105	105	220	17,3	35	3°	24	26,0
100	80	435	120	105	230	17,3	35		24	30,0
100	100	455	120	120	255	19,3	38		24	35,0
125	100	435	125	120	270	19,3	38		24	38,5
125	125	440	125	125	290	19,3	38		24	53,0
150	80	450	125	105	260	17,3	35		24	35,0
150	100	475	125	120	280	19,3	38		24	43,0
150	125	565	125	125	295	19,3	38		24	59,0
150	150	565	125	125	300	19,3	38		26	61,0
200	80	490	145	105	280	17,3	35		24	46,5
200	100	515	145	120	305	19,3	38		24	52,0
200	125	605	145	125	320	19,3	38		24	71,0
200	150	605	145	125	325	19,3	38		26	72,5
200	200	670	145	145	355	24,3	48		30	100,5

E3 COMBI-III-VALVE - BAIO

With vertical outlet for ductile iron, steel, PE and PVC pipes, PN 16

Design features

- Resilient seated gate valve combined with socket T-piece
- With socket for ductile iron pipes
- With vertical outlet BAIO DN 80 and two ZAK-46 sockets
- Space-saving design through short construction
- Save material, labour, transport and storage costs
- One extension spindle for several dimensions
- Suitable for cleaning with a cleaning pig
- Easy retrofitting of position indicator and automatic actuators on the standard bonnet

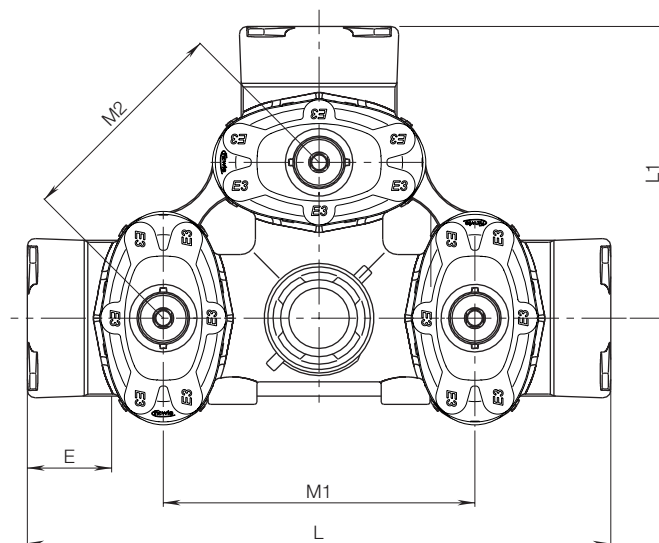
Standard version: without handwheel and extension spindle without gaskets

Suitable accessories

Suitable accessories: see page 48

Handwheel:		No. 7800
Extension spindles:	rigid	No. 9000E2/E3
	telescopic	No. 9500E2/E3
Surface boxes:		No. 4550
Restraint clamp:	Hawle-Stop	No. NL80, NL78, NL82, NL84
BAIO lip seal (BLD):	for DCI pipes	No. NL85
	for PE/PVC pipes	No. NL86
GKS pipe seal:		No. 2156, No. 2157, No. 2158
Spindle extension:		No. 7820, No. 7825
Position indicator:		No. 2170E2/E3
Below-ground hydrant:		No. 5059, No. 5061

No. NL15E3



Order no.	Version	MOP (PN)	Valve-Qty.	Dimension/DN		
				100	150	200
NL15E3	with 2x ZAK 46-socket	16	3			

DN	E3 Combi-III with vertical outlet						Spindle				Weight for valve quantity
	Ø d	L	L1	E	M1	M2	a	c	w°	Ød1	
100	118	691	346	105	365	258	19,3	38	3°	24	88,00
150	170	777	389	125	415	293	19,3	38		26	142,00
200	222	875	437,5	145	465	330	24,3	48		30	230,00

HAWLE ACCESSORIES FOR GATE VALVES



Hand-wheel
No. 7800



Extension spindles
No. 9000E2/E3,
No. 9500E2/E3



Actuator
No. 9920



E2/E3 Adapter
No. 8630E2/E3
(DN 50 - DN 200)
No. 8630E3
(DN 250 - DN 300)



Position indicator
No. 2170E2/E3
(DN 50 - DN 200)
No. 2170E3
(DN 250 - DN 300)



Limit switch
No. 2190



Operating cap
No. 2156, No. 2157
No. 2158



Base plate
No. 3481K



HAWAK-Pillar
No. 9894, No. 9895



Surface boxes
No. 1750, No. 2050
No. 2051K



Additional extension spindle
No. 7820, No. 7825



Flat gasket
No. 3390, No. 3470



Nut and Bolt
No. 8810, No. 8830
No. 8840

Your distributor: