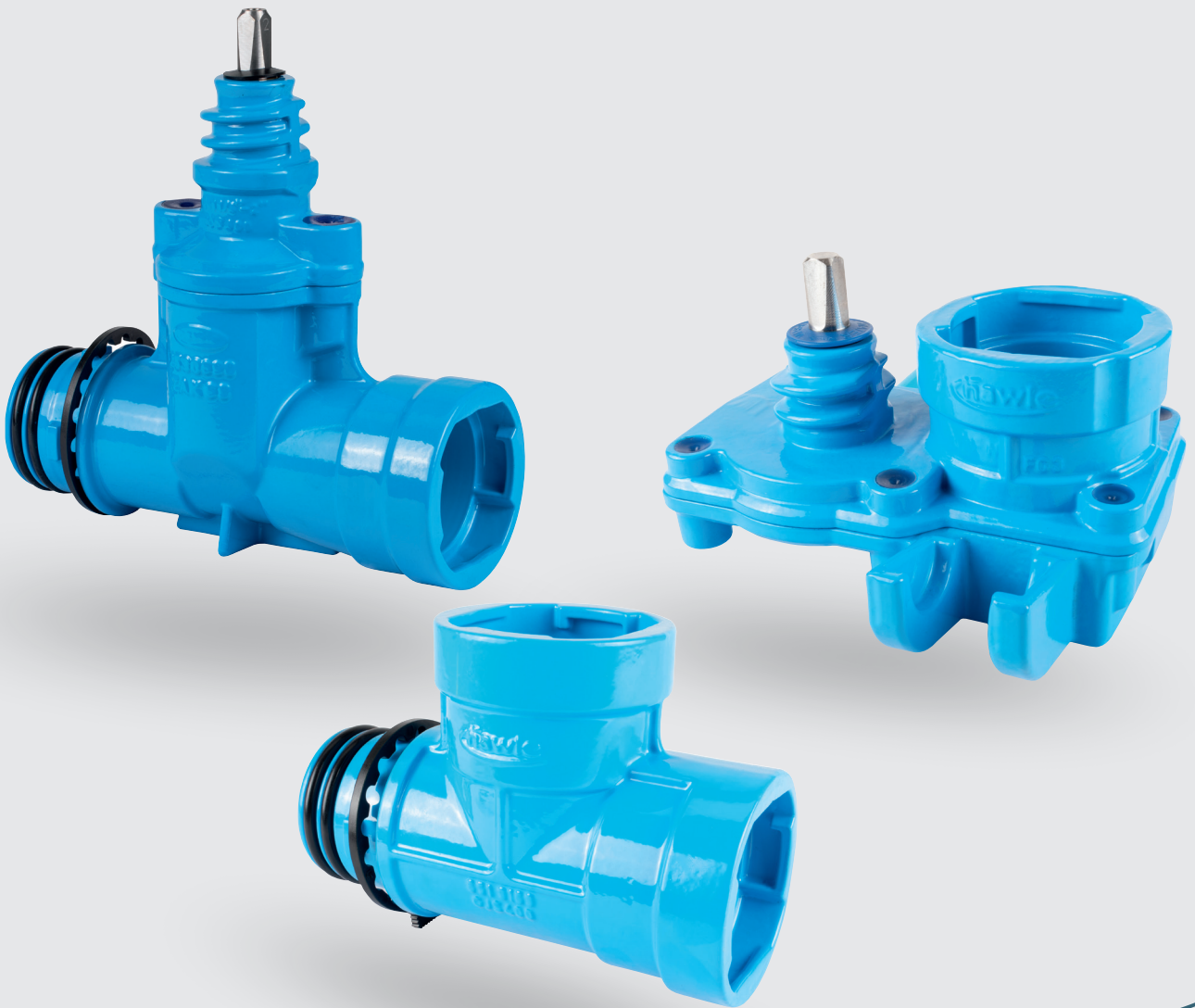




ZAK® system
ZAK 69 outlet

Explanatory notes on the brochure

General media information in the product descriptions may apply subject to certain restrictions. Kindly always state the relevant medium in your given application when you place an order or submit a query.

If you have any further questions about our products, please do not hesitate to contact our employees of the application engineering division at any time.



Products for use in connection with potable water



Products for use in municipal sewage treatment (www.hawle.de/grenzwerte-abwasser)



Information on our “10-year quality guarantee” for Hawle potable water products are available at the following link: www.hawle.de/en/10-years-quality-warranty/



For current information, please see our Hawle app. Further information is available at www.hawle.de/en/downloads/hawle-app/hawle-app/

Advantages of threadless connection systems

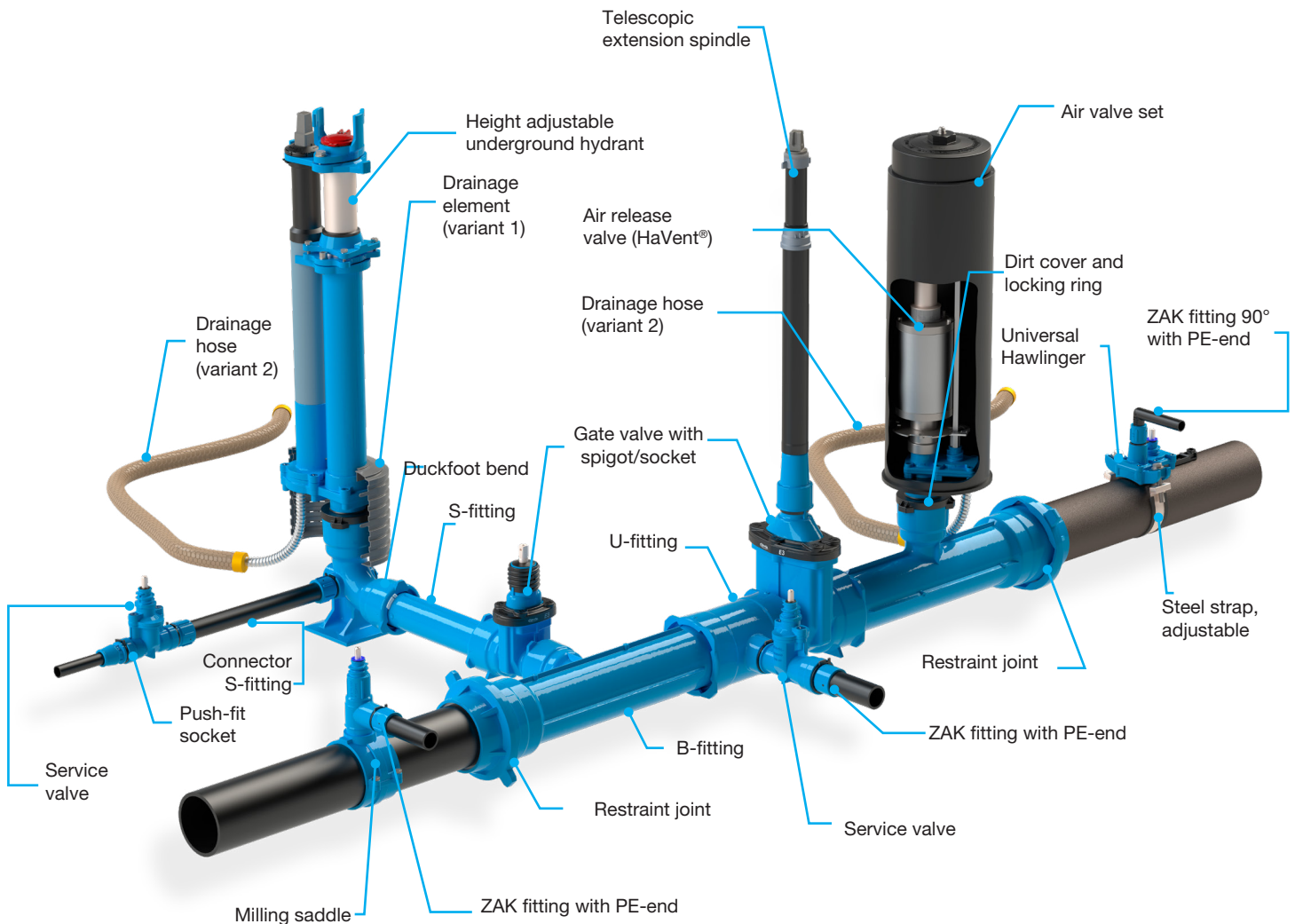
For decades, the connection of pipes and pipe fittings in buried pipeline construction has been mostly implemented through flangeless connections as this connection technology has both technical and economical advantages over conventional flanged and welded connections. In the past, threaded connections were used in the construction of service lines. The bare transition areas typical of this way of connection were susceptible to contact corrosion causing incrustation, which often permanently damaged the connection and the sealing.

Therefore, in the early 1980s, Hawle Armaturen GmbH developed the Hawle BAIO® system with a view to providing customers with a simple and stress-relieved installation of pipeline elements and valves, while simultaneously ensuring a long service life of the system due to integral corrosion protection.

This idea formed also the basis of the Hawle ZAK® system designed for the service line range to achieve a long service life of the service system in this regard, too. Mean-

while, both connection systems have become widely accepted as the state of the art.

These generally acknowledged advantages can be fully applied to the connection between pipelines and valves, as well as between valves. In addition to the technical advantages of this threadless connection system, the economic benefits of this push-fit socket technology deserve special mention. In case of the Hawle BAIO® system, this results in savings from its compact design, which facilitates storage and transport, as well as from the considerably shorter installation times compared with conventional flanged and welded connections.



Technical features: ZAK® system - ZAK 69

Threadless ZAK® connection system

Locking and sealing

During installation, the ZAK® spigot end is inserted in the ZAK® socket, locked by turning it 90° clockwise and fully retracted. To lock the ZAK® spigot end in the ZAK® socket, the connection must also be secured against unintentional disconnection by means of an anti-twist device.

The bayonet connection, of a corrosion-resistant socket with an internal bayonet locking mechanism and equally corrosion-resistant spigot end with locking lugs and a double O-ring sealing, ensures that the connection is reliably sealed.



Illustration ZAK 46

Technical features

- Medium: potable water, sewage
- Nominal diameter: ZAK 69 - corresponds to 2" in dimension (ZAK 69 is not suitable for gas!)
- Max. operating pressure: for potable water - 16 bar; for sewage - 10 or 16 bar
- Simple, quick installation
- Threadless connection system
- Reduced tension due to flexible connection
- Secure double O-ring sealing of the connection
- Long service life due to integral corrosion protection
- No tools required for installation

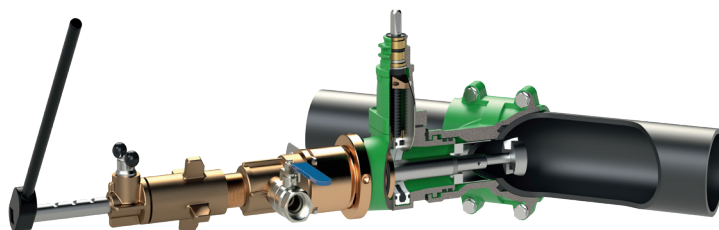
Pipe drilling in the ZAK® system

The "Hawloamat" pipe drilling device serves to drill holes of 1" to 2" into water pipelines and sewage pressure lines made of cast iron, steel, PVC, PE and AC pipelines. When used in conjunction with a tapping fitting, pipe drilling is possible during operation. Allows for pipe drilling in potable water and sewage systems.



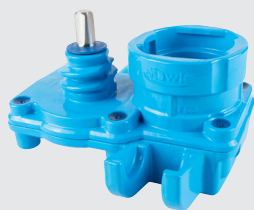
Application example from the potable water range
Tapping an existing PE distribution pipe through HAKU Hawlinger

For further information on our Hawloamat pipe drilling device or our rental pipe drilling equipment, please see our website www.hawle.de/en/.



Application example from a sewage system
Tapping a waste pipeline through a ZAK 69 sewage service valve using a HAKU pipe drilling bridge with a 45° ZAK 69 pipe drilling set

ZAK 69 outlet: Pipe drilling fittings



243-00

Universal Hawlinger with vertical ZAK® socket for potable water



236-00

HAKU Hawlinger with vertical ZAK® socket



352-00

Universal pipe drilling saddle with ZAK® socket



372-01

Shut-off adaptor with ZAK® outlet



524-00

HAKU pipe drilling bridge with 45° ZAK® outlet (ZAK 69)



525-01

HAKU pipe drilling bridge with ZAK® outlet

Maximum operating pressure



No.:

Description

Nominal diameter

243-00	Universal Hawlinger with vertical ZAK® socket for potable water	16 bar	-	Upper outlet: ZAK 69 pipe: DN 100 - 500
236-00	HAKU Hawlinger with vertical ZAK® socket	16 bar	-	Upper outlet: ZAK 69 pipe: d 110, d 125, d 140, d 160, d 180, d 225
352-00	Universal pipe drilling saddle with ZAK® socket	16 bar	16 bar	Outlet: ZAK 69 pipe: DN 100 - 500
372-01	Shut-off adaptor with ZAK® outlet	16 bar	16 bar	Outlet: ZAK 69
524-00	HAKU pipe drilling bridge with 45° ZAK® outlet (ZAK 69)	16 bar	16 bar	Outlet: ZAK 69 pipe: d 63, d 75, d 90, d 110, d 140, d 160, d 225
525-01	HAKU pipe drilling bridge with ZAK® outlet	16 bar	16 bar	Outlet: ZAK 69 pipe: d 90, d 110, d 125, d 140, d 160, d 180, d 225

For accessories to our pipe drilling fittings (straps, extension spindles and handwheel), please see our website.

ZAK 69 outlet: Service valves



253-00
Service valve
with ZAK[®] spigot end
and ZAK[®] socket



253-01
Service valve
with ZAK[®] socket



483-01
Sewage service valve (ZAK 69)
with ZAK[®] spigot end
and ZAK[®] socket

No.:	Description	Maximum operating pressure		Nominal diameter
253-00	Service valve with ZAK [®] spigot end and ZAK [®] socket	16 bar	-	ZAK 69
253-01	Service valve with ZAK [®] socket	16 bar	-	ZAK 69
483-01	Sewage service valve (ZAK 69) with ZAK [®] spigot end and ZAK [®] socket	-	10 bar	ZAK 69

For service valve accessories, please see our website.

ZAK 69 outlet: Fittings



536-01
Transition fitting BAIO®
spigot end / ZAK® socket



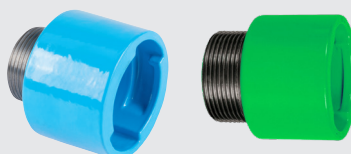
551-00
Adaptor
with flange and ZAK® socket



616-00
Push-fit socket with ZAK® spigot end



618-00
ZAK® PE-end



618-01
Transition fitting with ZAK® socket
and male thread (MT)



618-03
ZAK® end cap

Maximum operating pressure



No.:	Description			Nominal diameter
536-01	Transition fitting BAIO® spigot end / ZAK® socket	16 bar	16 bar	ZAK 69 DN 80
551-00	Adaptor with flange and ZAK® socket	16 bar	16 bar	ZAK 69 DN 50, 80
616-00	Push-fit socket with ZAK® spigot end	16 bar	16 bar	ZAK 69 pipe: d 50, d 63, d 75
618-00	ZAK® PE-end	16 bar	16 bar	ZAK 69 pipe: d 63
618-01	Transition fitting with ZAK® socket and male thread	16 bar	16 bar	ZAK 69 MT: 3" cylindrical, 3" conical
618-03	ZAK® end cap	16 bar	16 bar	ZAK 69

ZAK 69 outlet: Fittings



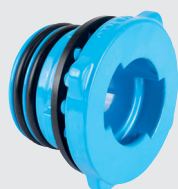
626-00
Transition fitting with
ZAK® socket



630-00
Connector (S-fitting, short)
with two ZAK® spigot ends



630-03
Transition piece with two
ZAK® sockets



630-05
Reduction fitting with ZAK® spigot
end and ZAK® socket, reduced



647-01
Elbow 90° with ZAK® spigot end
and push-fit socket



649-00
Elbow 45° with ZAK® spigot end
and push-fit socket

Maximum operating pressure



Nominal diameter

No.:	Description			
626-00	Transition fitting with ZAK® socket	16 bar	16 bar	ZAK 69 pipe: d 75
630-00	Connector (S-fitting, short) with two ZAK® spigot ends	16 bar	16 bar	ZAK 69
630-03	Transition piece with two ZAK® sockets	16 bar	16 bar	ZAK 69
630-05	Reduction fitting with ZAK® spigot end and ZAK® socket, reduced	16 bar	16 bar	ZAK 69 spigot end and ZAK 46 socket
647-01	Elbow 90° with ZAK® spigot end and push-fit socket	16 bar	16 bar	ZAK 69 pipe: d 50, d 63
649-00	Elbow 45° with ZAK® spigot end and push-fit socket	16 bar	16 bar	ZAK 69 pipe: d 50, d 63

ZAK 69 outlet: Fittings



651-00
Tee branch fitting with
ZAK® sockets at all ends



651-01
T branch fitting with ZAK® socket
and ZAK® spigot end



651-03
Connector with
ZAK® outlet, 45°



740-01
Synoflex transition piece
to ZAK® system



859-00
Wafer-type tee piece
with ZAK® outlets

Maximum operating pressure



No.:	Description			Nominal diameter
651-00	Tee branch fitting with ZAK® sockets at all ends	16 bar	16 bar	ZAK 69
651-01	Tee branch fitting with ZAK® socket and ZAK® spigot end	16 bar	16 bar	ZAK 69
651-03	Connector with ZAK® outlet, 45°	16 bar	16 bar	ZAK 69 d 63
740-01	Synoflex transition piece to ZAK® system	16 bar	16 bar	ZAK 69 pipe: d 56 - 71
859-00	Wafer-type tee piece with ZAK® outlets	10 / 16 bar	-	Outlet: 1x ZAK 69 flange: DN 150 PN 16, DN 200 PN 10

ZAK 69 outlet: Pipe fittings, accessories



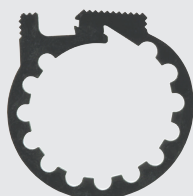
532-01
SM-fitting with ZAK® outlets -
BAIO® system



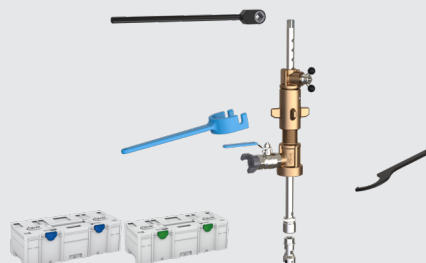
541-00
U-fitting (collar) -
BAIO® system



249-00
ZAK® plug



616-03
Locking ring for
ZAK® fittings



830-01
“Hawlomat” pipe drilling device
in the Systainer



835-00
Borehole sealing sleeve for
Universal Hawlinger

Maximum operating pressure



No.:	Description			Nominal diameter
532-01	SM-fitting with ZAK® outlets - BAIO® system	16 bar	16 bar	Outlet: 2x ZAK 69 DN 250, 300
541-00	U-fitting (collar) - BAIO® system	16 bar	16 bar	Outlet: 1x ZAK 69 DN 100, 125, 150, 200, 250, 300
249-00	ZAK® plug	16 bar	16 bar	ZAK 69
616-03	Locking ring for ZAK® sockets	-	-	ZAK 69
830-01	“Hawlomat” pipe drilling device in the Systainer	-	-	-
835-00	Borehole sealing sleeve for Universal Hawlinger	-	-	ZAK 69

Comments

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We deliver based on our familiar General Terms and Conditions of Sale (GTC), which are available for downloading.
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