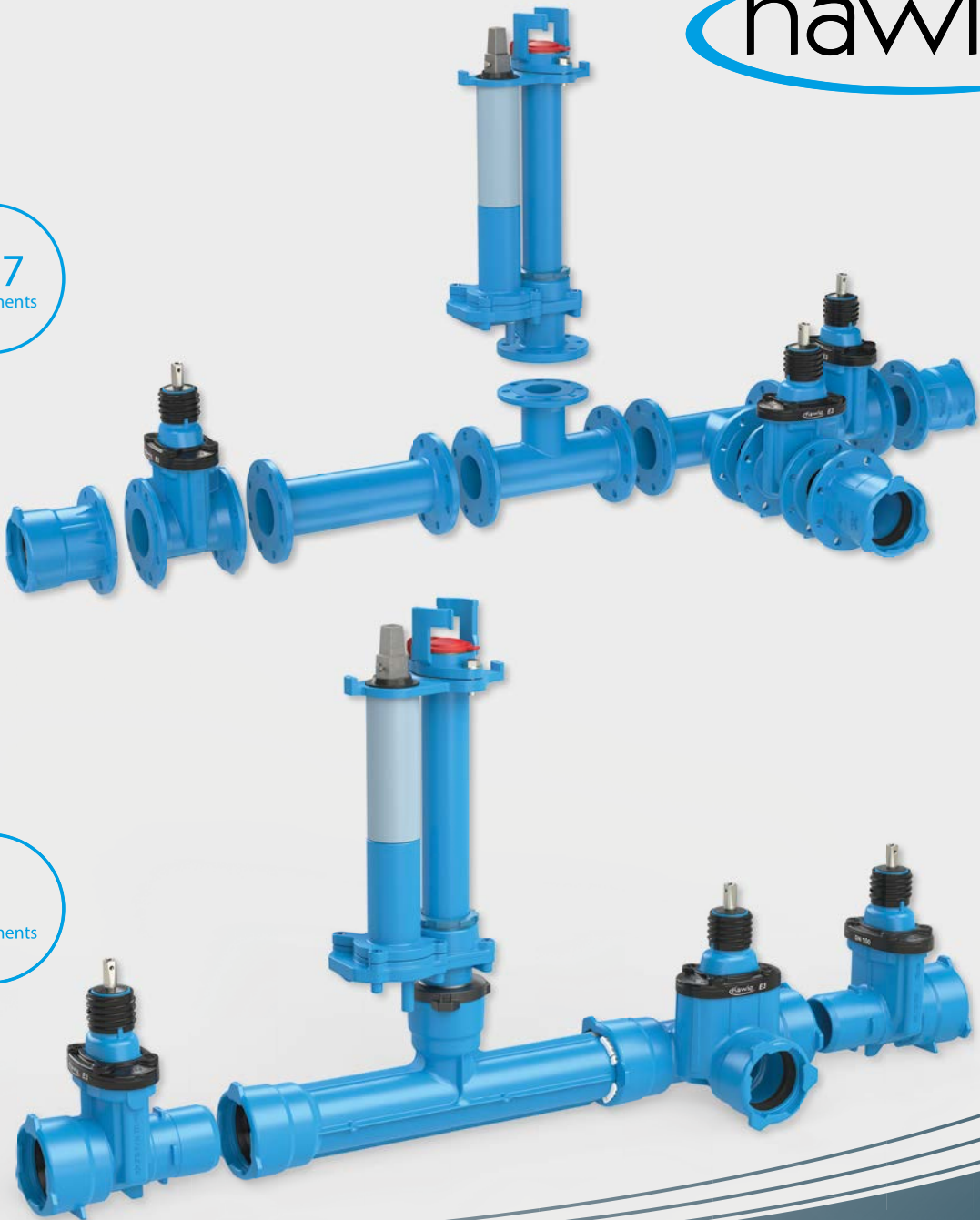


307  
components



7  
components



BAIO<sup>®</sup>-System or Flange-System

The comparison is worthwhile

# Explanations

The scope of medium can be restricted within the product data sheets. In case of any inquiry or order point out the medium of each project.

In case of any questions, don't hesitate to contact our application engineers.



potable water products



sewage water products



gas products



In general our products are subject to the statutory warranty period of two years from the day of delivery by Hawle. Due to the high quality of Hawle products we are able to offer you an extended warranty period of 5 years for our products. Further information for potable water products: [www.hawle.de/en/warranty-extension](http://www.hawle.de/en/warranty-extension)



Further information of „10 years quality warranty“ for potable water products: [www.hawle.de/en/10-years-quality-warranty](http://www.hawle.de/en/10-years-quality-warranty)

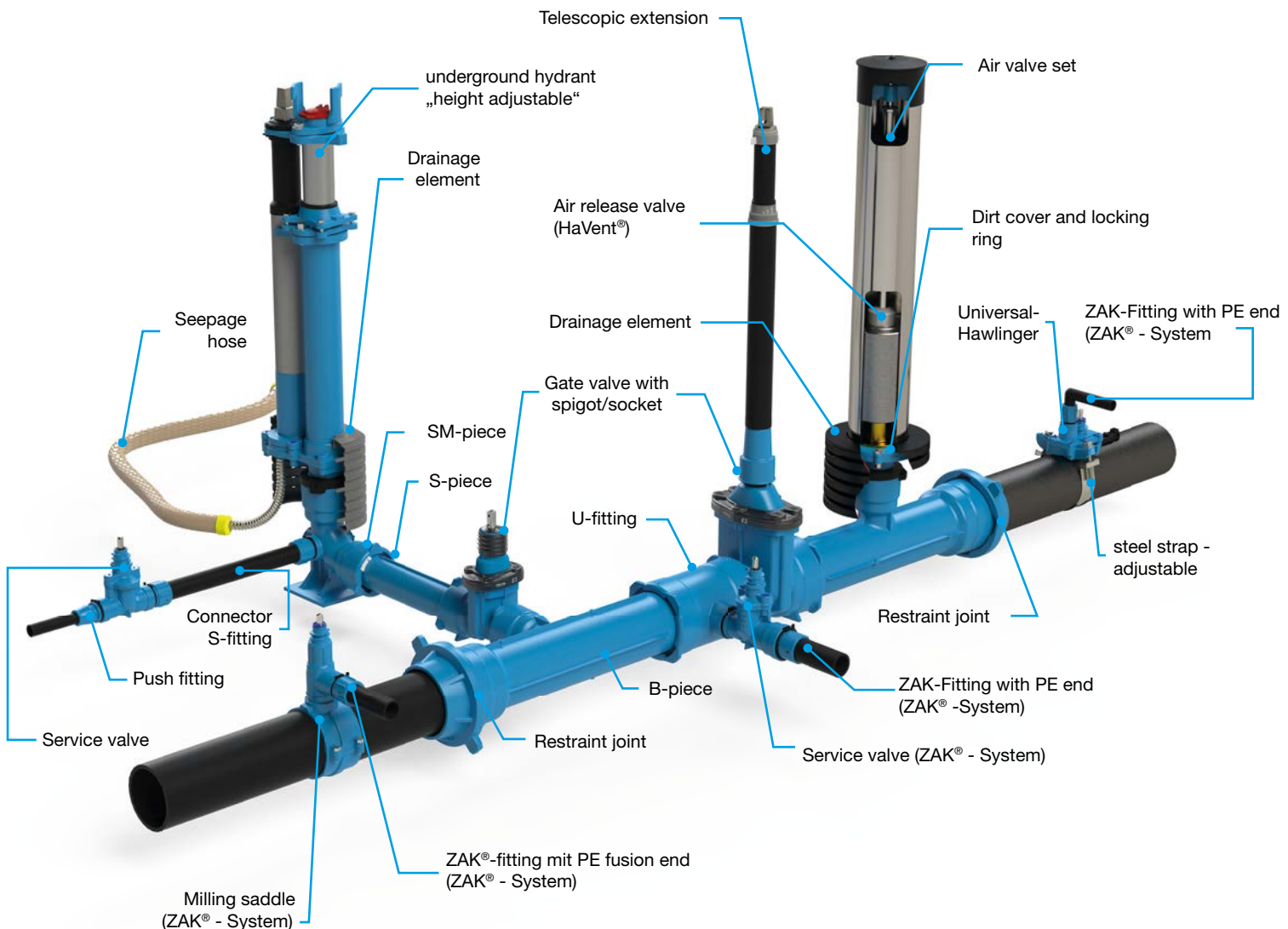
# Significant advantages of Threadless Connection

For decades, the connection of pipes and pipe fittings in buried pipeline construction has been mainly effected via 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 in 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 affording customers 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 was also the basis of the Hawle ZAK® system for the service line sector to provide for a long service life of the service system in this field, too. Meanwhile, both connection technologies 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. Beside the technical advantages of the threadless connection technology, the economic benefits of this push-fit socket technology must be emphasized. In case of the Hawle BAIO® system, the savings are due to the compact design facilitating storage and transport, as well as the considerably shorter installation times compared with conventional flanged and welded connections.



# Technical Features of the BAIO®-System

A Comparison of the BAIO®-System with flanged fittings

Flange-System: 307 components



BAIO®-System: 7 components



## Technical features of the BAIO®-System:

- Medium: drinking water, sewage and gas
- Nominal widths 80 - DN 300
- Max. operating pressure 16 bar
- Easy and time-saving installation
- Low number of components and connections
- Push-fit socket connection can be bended to all sides (up to 3° per spigot/socket connection)
- Stress-relieved when installed
- Low storage costs
- Restraint joint with Hawle Stop without the need for earthing
- integral high-quality corrosion protection due to Hawle epoxy powder coating
- Universal use with CI, steel\*, PE, PVC and AC\*\* pipes (\* with steel welding tail 452-01, \*\* with Cut-in socket fitting 530-01 and 530-03)



























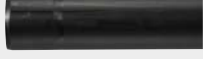









\*\*\* Support liners must be used when connecting PE pipes.

ONE socket - FOUR pipe types: cast iron, PVC, PE and steel (use 452-01 steel weld-in ends). Depending on the type of pipe, different seals and restraining joints are to be used for force locking pipes longitudinally and compactly in BAIO® sockets. Please note the following overview

# 1 Push-fit Socket - 4 Types of Pipes



BAIO®-socket

seal	grip ring	locking ring	pipetype
BLD® 	Grip ring PE 	Hawle-Stop 	ductile iron pipe DN 80 - DN 200 
BLD® 	express ring 	BAIO®-Sit 	ductile iron pipe DN 250 - DN 300 
GKS 	grip ring „corundum“ 	Hawle-Stop 	PVC pipe DN 80 - DN 200 
GKS 	brass ring sliding ring  	BAIO®-Sit 	PVC pipe DN 250 - DN 300 
GKS 	grip ring 	Hawle-Stop 	support liner PE/PEX pipe DN 80 - DN 200  
GKS 	grip ring 	BAIO®-Sit 	support liner PE/PEX pipe DN 250 - DN 300  
GKS 	electrofusion socket 	BAIO®-E-Stop 	support liner PE pipe  
BBD 	Blutop- grip ring 	Hawle-Stop 	Blutop pipe 

# BAIO<sup>®</sup>-System or Flange-System

## 1 individual components: BAIO<sup>®</sup>-System



1 x MMB Combi-T gate valve

## 137 individual components: Flange-System



1 x T-fitting

32 x Bolts

1 x Gate valve

32 x Nuts

3 x EU-fitting

64 x Washers

4 x Flat gaskets

# BAIO<sup>®</sup>-System or Flange-System

## 1 individual components: BAIO<sup>®</sup>-System



1 x MMB Combi- T gate valve

## 69 individual components: Flange-System



1 x Double socket tee

16 x Bolts

1 x Gate valve

16 x Nuts

1 x EU-fitting

32 x Washers

2 x Flat gaskets

# BAIO®-System or Flange-System

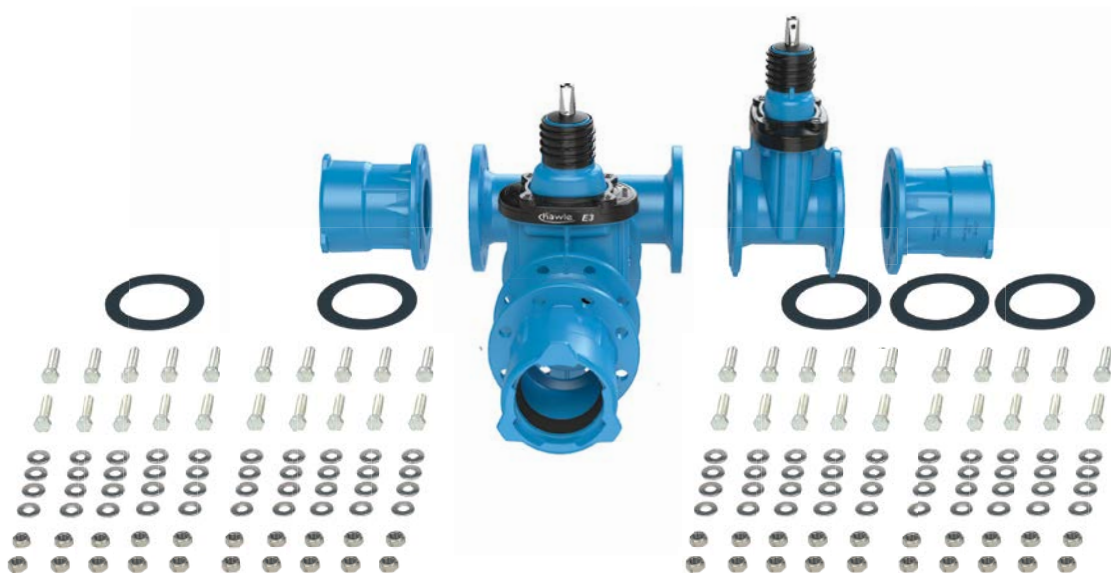
## 2 individual components: BAIO®-System



1 x MMB Combi- T gate valve

1 x HSM gate valve

## 171 individual components: Flange-System



1 x T-fitting

40 x Bolts

2 x Gate valves

40 x Nuts

3 x EU-fitting

80 x Washers

5 x Flat gaskets



# BAIO<sup>®</sup>-System or Flange-System

## 1 individual components: BAIO<sup>®</sup>-System



1 x Gate valve

## 69 individual components: Flange-System



1 x Gate valve

16 x Bolts

2 x EU-fitting

16 x Nuts

2 x Flat gaskets

32 x Washers

# BAIO<sup>®</sup>-System or Flange-System

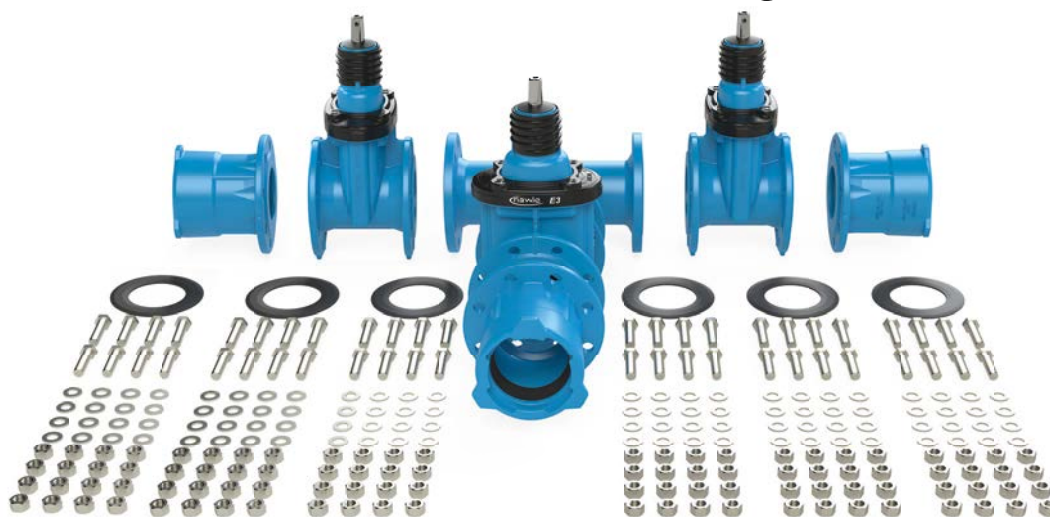
## 3 individual components: BAIO<sup>®</sup>-System



1 x MMB Combi- T gate valve

2 x HSM gate valve

## 205 individual components: Flange-System



1 x T-fitting

48 x Bolts

3 x Gate valves

48 x Nuts

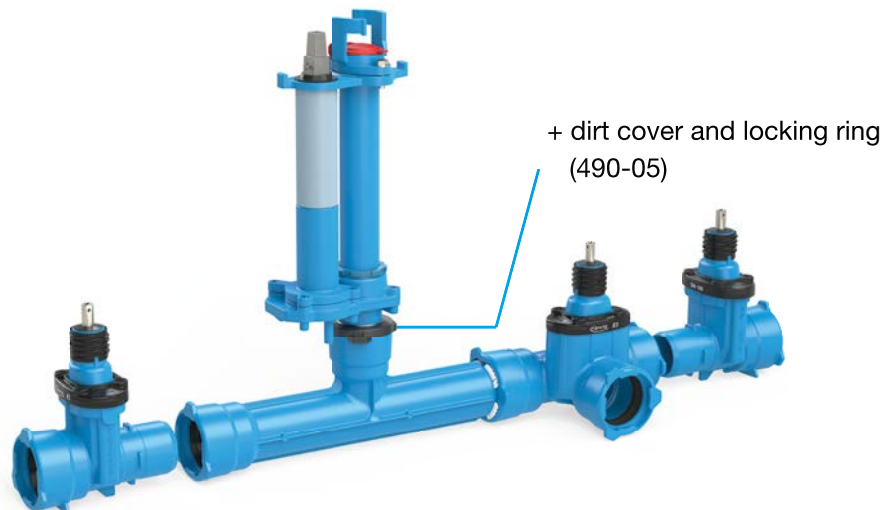
3 x EU-fitting

96 x Washers

6 x Flat gaskets

# BAIO<sup>®</sup>-System or Flange-System

## 5 individual components: BAIO<sup>®</sup>-System



1 x Combi- T gate valve

1 x Underground hydrant

1 x Standard tee

2 x Gate valve with spigot/socket

## 307 individual components: Flange-System



2 x T-fitting

9 x Flat gasket

1 x Flanged pipe fitting

72 x Bolts

3 x Gate valves

72 x Nuts

3 x EU-fitting

144 x Washers

1 x Underground hydrant



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