General information

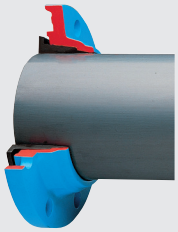
Economy flanges, fittings, special fittings

The so-called “economy flange” and the subsequently developed two-chamber flanges were in 1948 the first products to be developed by Hawle.

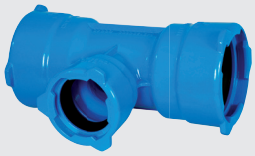
This flange program has been continually developed over the years. Today a wide variety of two-chamber flanges is available for connecting the most varied pipe materials and outside pipe diameters. There are two-chamber flanges in full-restraint and non-full-restraint versions.

Over and above this the Hawle fitting program consists of the BAIO®, “System 2000” and “Synoflex” systems.
Special fittings complete the product portfolio.

Versions



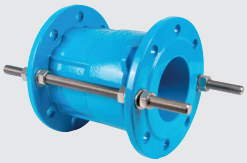
Two-chamber flange



BAIO® fitting

System 2000 fitting

Synoflex fitting



Special fitting with flange

Connection versions

BAIO® system

The Hawle BAIO® system is a simple and time-saving mechanical pipe connection. The BAIO® socket allows BAIO® gate valves and BAIO® fittings to be fitted to one another and to pipes.

A wide product range of gate valves, fittings and valves such as hydrants and ventilation and air release valve sets with BAIO® connection is available. Transitions to the flange system, to the ZAK® system and to multi-range sockets are also available. The range is constantly being expanded.

The BAIO® socket is suitable for four types of pie: Ductile iron, PVC, PE and steel pipe (with cast iron outside diameter). BAIO® plug-in sleeves are supplied as standard with the BLD® seal (BAIO® lip seal). It is to be used in the water sector when connecting BAIO® spigots, ductile iron pipes and PE tails in BAIO® sockets. For PE and PVC pipes the GKS seal is to be used. When connecting PE pipes, Hawle support liners are always to be used. Depending on the pipe material an appropriate restraint is required, which consists of an interlocking ring and a clamping ring. In the gas sector the appropriate gas-tight gaskets must be used.

Medium (dependent upon component): Potable water, sewage water, gas

You can find further information on the BAIO® system under General Information.

Flange joints

Fixed flange system

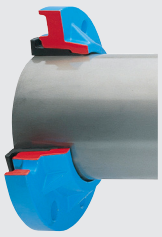
The flange sheet hole pattern is produced in compliance with DIN EN 1092-2. In plant construction, flange connection is the most common method used to connect vales and fittings to one another. In underground installation however, increasingly alternative connection techniques are used, since these better satisfy the increased requirements for valves and fittings installed in the ground.

Medium: potable water, sewage water

Loose flange system

Besides fixed flanges there is the system with restraint loose flanges The dismantling joint is especially suitable for the replacement of existing fittings. The flat gasket (barrel gasket) is already included in the loose flange, thus avoiding expensive wedging up between the flanges.

Medium: potable water, sewage water

Two-chamber flange	Ord. no.	for pipe type:
	710-00	Ductile iron pipes
	713-00	Steel pipes
	550-00	PE/PVC pipes (restraint)
	560-00	PVC pipes
	760-01	Ductile iron pipes (restraint)
	760-02	Steel pipes (restraint)

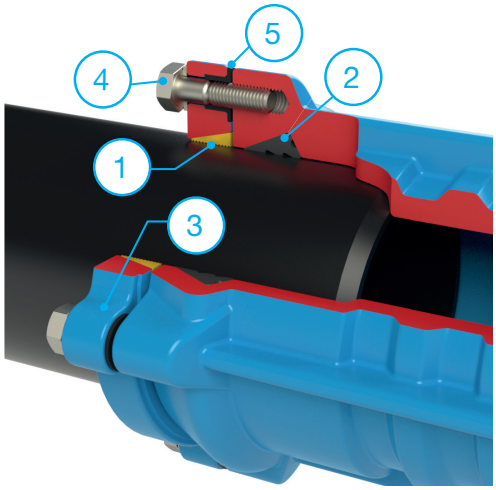
Required bolt lengths for the connection between fixed flange and flange fitting

Fixed flange DN	Bolt dimension		Number of bolts		Bolt length in mm for ord. no.				
	PN 10	PN 16	PN 10	PN 16	710-00/ 713-00	550-00	560-00	760-01	760-02
50	M 16	M 16	4	4	70	60	70	90	80
65	M 16	M 16	4	4	70	70	70	100	80
80	M 16	M 16	8	8	70	70	70	100	80
100	M 16	M 16	8	8	70	70	70	100	80
125	M 16	M 16	8	8	80	70	80	100	80
150	M 20	M 20	8	8	80	70	80	140	100
200	M 20	M 20	8	12	80	-	80	140	100
250	M 20	M 24	12	12	90	-	90	140	-
300	M 20	M 24	12	12	90	-	90	140	-
350	M 20	M 24	16	16	-	-	-	-	-
400	M 24	M 27	16	16	-	-	-	-	-

System 2000

The “System 2000” is suitable for PE and PVC pipes. When using PE pipes the “System 2000” is an easy to assemble and economical alternative to welded joint technology. Inserting the plastic pipe into the “System 2000” socket and then tightening the locking ring creates a restraint connection tight up to 16 bar. The use of a support liner is stipulated for thin-walled PE pipes (≥ SDR 21) and with negative pressure pipelines.

Medium: potable water, sewage water

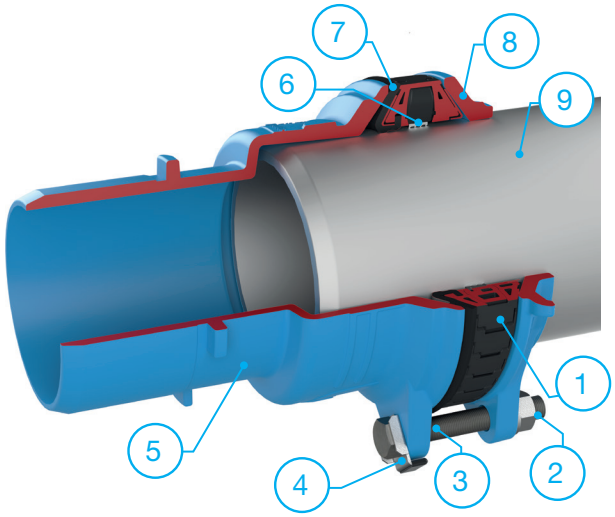


1. Clamping ring
2. Lip seal
3. Locking ring
4. Hexagonal bolt
5. Distance bush

Synoflex

Hawle Synoflex is suitable for the restraint connection of all common types of pipe in water supply. The widest range of pipes (steel, cast iron, PE, PVC, AC) can be connected with corrosion protection with the aid of the patented Synoflex system. When connecting AC pipes, a restraint connection is not ensured. However, the gripping elements need not be removed. Not suitable for stainless steel pipes. By simply pressing together the quick-clamping lugs the Synoflex-ring is easily adapted to the pipe. In addition the Synoflex socket can take an angle compensation of up to 4° of the pipe axes.

Medium: potable water, sewage water



1. Synoflex ring
2. Bolts and nuts
3. Spacer sleeves
4. Bolt head anti-twist protection
5. Body
6. Steel grip ring
7. Seal
8. Locking ring
9. Pipe

When connecting PE pipes a support liner (ord. no. 590-00) must be used.