General information

Pipe drilling saddles

Hawle service valves and shut-off saddles for cast iron, steel and AC pipes are fitted with the Hawle strap system. This strap system allows the use of service valves/shut-off saddles for pipe diameters DN 65 up to DN 500 in the same design.

Adaptation to the appropriate pipe is via the holding strap and the saddle seal supplied with this strap. This strap system creates considerable savings in storage.

If the pipe outside diameter is unknown, a special universal holding strap can be used which is adapted on site (only for potable water pipelines).

For AC pipes for the protection of the pipe in conformity with DIN 3543-2, holding straps with a width of 75 - 90 mm (depending on the drilling diameter) must be used.
Therefore, the width of Hawle straps for AC pipes is generally 90 mm for all nominal widths.

For plastic pipes (PE and PVC pipes), service valves and saddles must be used with the HAKU system. The HAKU system is two metal half shells with Hawle epoxy powder coating, which are connected to each other by four bolts. HAKU half shells are calibrated by us to the outside pipe diameter of the plastic pipe. An impermissible malformation of the pipe is prevented when the half shells are connected by the metal stops. Sealing to the pipe is via inserted gaskets in the top- and bottom shell.

Depending on the outside pipe diameter, the half shells must be mounted up to the stop with the respective torque specified in the operating instructions.

Besides the numerous shut-off saddles without shut-off, there are available essentially four different drilling service valve systems with optional shut-off.

Design Variants

Pipe drilling saddle type Hawlinger®:
Drilling from above, shut-off effected by means of installed shut-off blade of stainless steel

Milling saddle:
Drilling from above by means of integrated drilling tool, with operational shut-off facility

Valve saddle:
Lateral drilling, shut-off effected by means of resilient-seated wedge

Clamp saddle with auxiliary shut-off facility:
Shut-off effected by means of a shut-off blade of stainless steel, lateral drilling or drilling from above possible

Pipe drilling saddle Hawlinger®

Service valves of the Hawlinger® type consist of the connecting body for the respective main pipe (e.g. Universal strap system for cast iron, steel and AC pipes, or HAKU system for PE, PVC pipes), the shut-off mechanism, consisting of a shut-off blade made of hard-rolled stainless steel, and the Hawlinger bonnet with the three main versions:

- an upper outlet (“A”)
- an upper outlet and an outlet 90° to the pipe direction (“U”)
- an upper outlet and an outlet in the pipe direction (“S”)

The outlets are executed as ZAK® sockets or with inside threading as desired.

ZAK 34 - corresponds to dimension 1”
ZAK 46 - corresponds to dimension 1 ½“
ZAK 69 - corresponds to dimension 2”

You can find more information on the ZAK® system in the chapter BAIO® & ZAK® system.

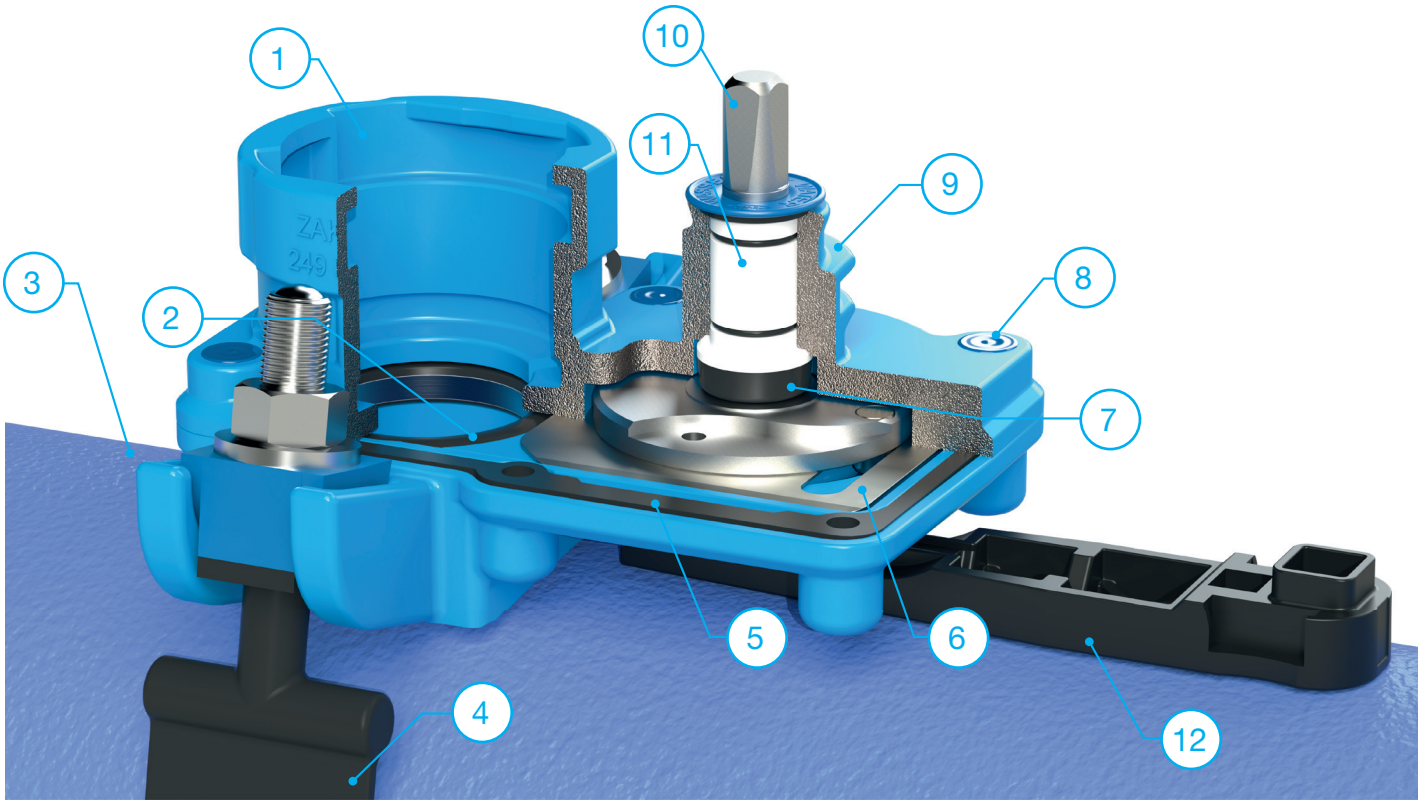

Figure: Universal Hawlinger 2” for DCI, steel, and AC pipes with vertical ZAK® 69 socket

No.	Component
1.	Body: GJS-400, Hawle epoxy powder coated
2.	O-ring
3.	DCI, steel and AC pipes
4.	Strap: fully vulcanized or stainless steel, with saddle gasket
5.	Chambered flat gasket
6.	Stainless steel shut-off blade
7.	Back seal

No.	Component
8.	Countersunk hexagon socket screw closed with sealing compound
9.	Round thread for receiving the DCI cover of the Hawle extension spindle
10.	Spindle with square 12.3 mm and shut-off blade driving mechanism of stainless steel, spindle bore upon request
11.	Bushing of POM
12.	UNI key for Hawlinger®

Technical Features Hawlinger®

- The completely free bore is opened and closed by a half-turn of the spindle
- Reliable shut-off function via the gate-driven shut-off blade with fixed stops
- Quick and easy installation via flexible strap or half-shell system
- Pinless fixing of the extension spindle via round thread
- Multiple connection- and outlet versions
- Long service life via Hawle epoxy powder coating and robust shut-off blade technology
- Spindle O-rings mounted on all sides in stainless material
- Back seal to relieve the double spindle gasket
- Corrosion-protected housing screw connection
- Closing operation: clockwise, 180° revolution
- Depending on version and corresponding gasket material, also suitable for gas (see supplement G under short number)

Automatic Drainage

When used in the field of potable water, all Hawlinger® pipe drilling saddles can be ordered with an additional drainage mechanism (type “E“) which is needed if the blocked pipe section is to be drained after closing the fitting. This is necessary if after the closing of the valve the shut-off pipe section is to be drained (e.g. valve below ventilation and air release valves, holiday homes etc.).

In the area of the drain hole, a sufficiently dimensioned seeping water drain packing must be installed.

Milling saddles

For plastic pipes (PE/PVC) there are milling saddles, which in comparison to the Hawlinger® system already have the required cutter/punch built in, so-called self-drillers.

Hawle milling saddles for PE/PVC pipes are fitted with integrated drilling tool (cutter/punch) and operational shut-off. An extra drilling machine is therefore not required.

The Hawle milling saddle is characterized by the robust O-ring shut-off mechanism and the double acting feed mechanism (advance to milling with high feed, milling with low feed).

The drilling and commissioning of the service connection pipeline can be carried out immediately when water is required (subsequent drilling), thus avoiding standing water.

Design variants

HAKU milling valve with horizontal ZAK® socket (313-00)

HAKU milling valve with horizontal PE fusion end (313-03)

HAKU milling saddle (with punch) for PE pipes with horizontal PE outlet (313-04)

Service valve with milling device (punch) and electrofusion saddle with horizontal PE fusion end (313-05)

Valve saddles

Hawle valve saddles are a combination of clamp saddle and service valve. They are mounted laterally on DCI, steel, and AC pipes of nominal widths DN 65 - DN 500 using the appropriate holding straps and saddle seals. Due to the integrated shut-off facility, the valve saddle allows an easy and quick drilling of the pipe by means of a drilling device, even with the pipe in service.

Technical Features

- Valve and saddle in one saves one connection
- No loss of pipe cover depth due to lateral drilling

Valve saddle for potable water

Valve saddle for sewage water

Clamp saddles/tapping saddles with auxiliary shut-off facility

Shut-off saddles with auxiliary shut-off device are used anywhere that a pipeline is provisionally required, e.g. after the drilling must be shut off, but no permanent shut-off valve is necessary.

Auxiliary shut-off is effected by means of a shut-off blade of stainless steel. After pulling the shut-off blade, the seat of the shut-off blade is sealed by mounting a sealing cover.