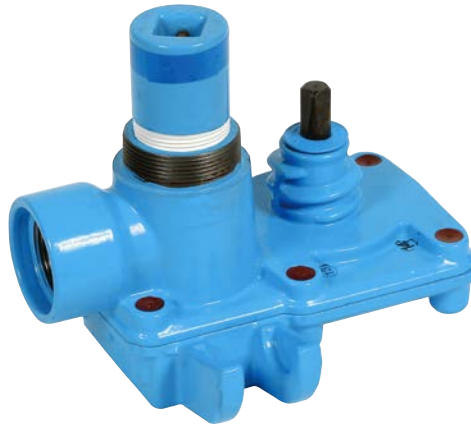


1. Intended use / Product description



Medium: Potable Water

Max. operating pressure: Potable Water 16 bar

Material: Housing: GJS 400, Hawle epoxy powder coating
Spindle, shut-off device, shut-off blade: stainless steel
Gaskets: EPDM according to the German Association for Gas and Water (DVGW) data sheet W 270

Universal Hawlinger for subsequent drilling are to be used for installation on cast iron, steel and AC pipes from DN65 - DN500. They are adapted to the main pipe by means of Hawle straps and saddle gaskets, Ord. No. 310-00 or Ord. No. 311-00 in the appropriate nominal width.

Type NA Hawlinger are used for the subsequent drilling of previously installed service connections. Subsequent drilling avoids water stagnation areas arising from delayed use of the house connections. This system does not require the main pipeline to be subsequently dug up for drilling purposes when the service connection is put into operation. The horizontal female thread outlet in accordance with DIN ISO 228-1 with sealing surface is used in combination with fittings with double O-ring sealing to connect service lines.

During installation and maintenance operations, the applicable standards and guidelines, accident prevention regulations and the regulations of professional associations are to be observed and complied with. Installation and maintenance operations should only be carried out by qualified personnel

2. Assembly



Open-end wrench SW 24, ratchet, torque wrench

2.1 Installing the pipe drilling saddle

1. Mount the Hawlinger on the main pipe using an appropriate Hawle strap.

Procedure for metallic pipes with sheathing in the area of the pipe drilling saddle:

The DVGW data sheet W333 Pipe drilling saddles and drilling procedure in water supply/9.2.2. Pipe sheathing for metal pipes must be complied with.

PE coating: The PE coating on pipes according to DIN 30674-1 remains on the pipe provided there is sufficient adhesion.

Cement mortar sheathing: The additional cement mortar sheathing on a PE-coated pipeline should be removed in the area of the pipe drilling saddle, unless the borehole wall is sealed by suitable means.

The cement mortar sheathing on cast iron pipes according to DIN 30672-2 remains on the pipe, as long as it complies with the contact with Potable Water (KTW) recommendations of the German Federal Environment Agency, and provided it exhibits sufficient adhesion and surface smoothness as well as low mortar porosity in the area of the pipe drilling saddle.

When removing protective sheathing, the unprotected pipe area between the Hawle strap, Hawlinger pipe drilling saddle and PE/cement mortar sheathing must be protected, once the pipe drilling saddle has been fitted, by means of secondary coating measures as recommended by the pipe manufacturer (e.g. suitable pipe lagging, heat shrink tubing solutions).

These guidelines apply unless the pipe manufacturers expressly recommend otherwise for their coated pipes.

2. The pipe surface must be free of dirt, soil or grease.
3. Place the Hawlinger pipe drilling saddle on the pipe.
4. Hook the Hawle strap on one side of the saddle body and bend it around the pipe.
5. Fit the second clamping jaw of the Hawle strap.
6. Tighten the hexagon head screws with the specified torque (60 - 70 Nm / max. 100 Nm) alternately and evenly. Do not use a key!
7. Perform a pressure test in an open pipe trench, observing the max. operating pressures in accordance with DVGW rules and standards.
To avoid residual water in the connecting pipeline, we recommend using a technical gas, such as nitrogen, for leak testing.
Once the leak test has been completed, a function check must be performed.

Note:

When applying the bituminous base course, the protective pipe and the extension spindle must be safeguarded against thermal impact.

We recommend the use of our surface box, Ord. No. 212, for subsequent drilling using the protective drilling conduit, and for operating the extension spindle.

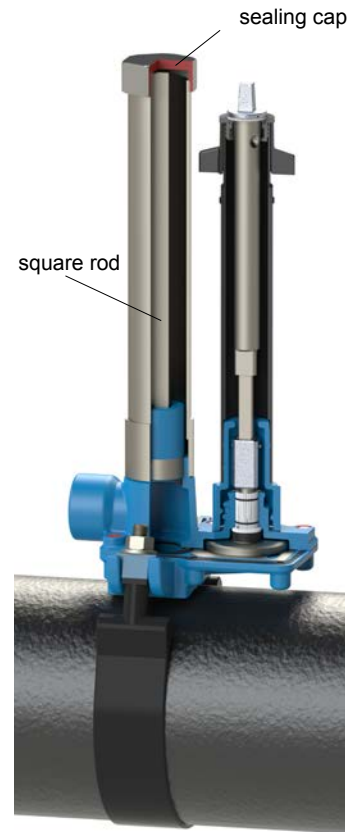


Image 1

2.2 Drilling procedure

1. Remove the surface box cover.
2. Remove the sealing cap of the 2" protective drilling conduit.
3. Unscrew plug with square rod.
4. Operate the Hawlinger pipe drilling saddle with the extension spindle to the open position (CAUTION: half turn, only)
5. Mount the pipe drilling device with extension on the steel pipe, and drill the main pipeline at operating pressure with the flushing valve open.
6. Withdraw the drill rod and close the flushing valve.
7. Operate the Hawlinger to the closed position.
(CAUTION: half turn, only).
Release pressure.
8. Disassemble the pipe drilling device.
9. Siphon off any residual water from the protective drilling conduit.
10. Seal the plug using hemp or Teflon tape.
11. Screw the sealing cap onto the galvanized steel pipe (2" protective drilling conduit).
12. Operate the Hawlinger to the open position using the extension spindle (CAUTION: half turn, only).
13. Close the rectangular surface box cover.

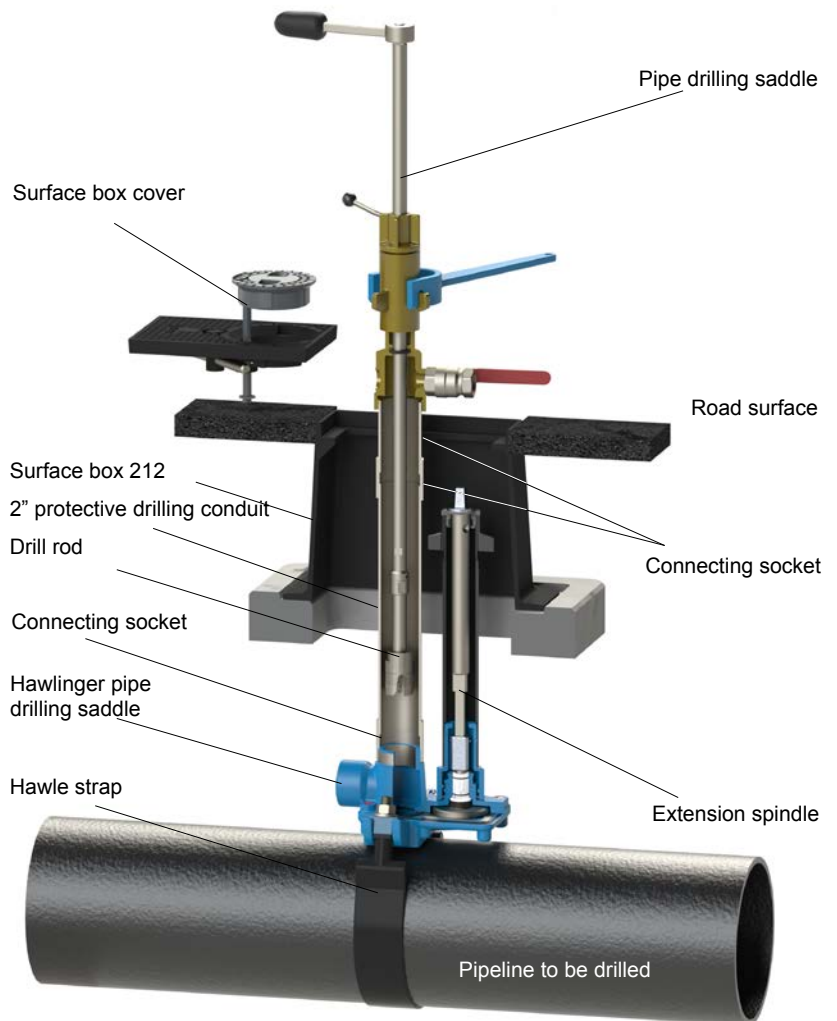


Image 2

Important: 2" protective drilling conduit, extension spindle, connecting sockets, sealing cap and square rod (see Image 1) are not included in the scope of delivery!
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Subject to change

3. Maintenance and Repair

Hawle pipe drilling saddles are maintenance-free.

4. Commissioning and Pressure Test

For pressure testing see 2.1 Installing the pipe drilling saddle/ 7. Pressure Test

If you have any other questions or if you need more information please contact:

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