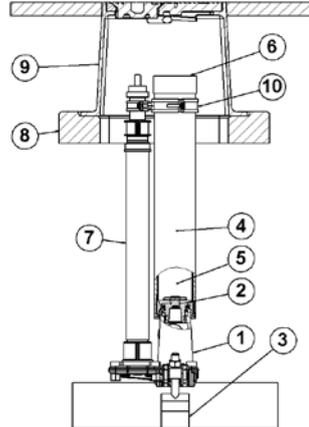


1. Intended use/Product description



- 1: Universal-Hawlinger ZAK
- 2: ZAK-plug
- 3: Strap
- 4: PE-guide pipe
- 5: Aluminium pipe support
- 6: Pipe protection cap
- 7: Telescopic extension spindle (pipe cover depth 1,30 - 2,00 m)
- 8: Base plate
- 9: Surface box
- 10: Pipe retaining clips

Important: Items 3, 8 and 9 are not included in the scope of delivery!

Medium: Potable Water

Max. operating pressure: 16 bar

Material:

Body: GJS-400, Hawle epoxy powder coating

Spindle, shut-off device, shut-off blade: stainless steel

Gaskets: EPDM acc. to DVGW-worksheet 270

Universal-Hawlinger for later drilling are to be used for installation on cast iron, steel and AC pipes from DN65 - DN 500. Adjusting to the main pipe is achieved by means of retaining strap and saddle gasket (Order No. 310 or Order No. 311) in the corresponding nominal width.

Type „NA“ Hawlinger® are used for the later drilling of previously installed service connections. The stringent demands on hygiene, in particular the requirements of DIN 1988 (avoidance of dead water zones), are thus consistently implemented. Subsequent excavation for drilling the main pipeline when commissioning the service connection is not necessary with this system.

The horizontal ZAK® outlet is used, in combination with fittings, for the connection of house service pipes.

We recommend the use of our surface box Order No. 212 for later drilling via the drilling conduit and for actuating the extension spindle.

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 may only be performed by qualified personnel.

2. Installation

2.1 Installing the pipe drilling saddle

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

The DVGW leaflet W333, Pipe Drilling Saddles and Drilling Procedure in Water Supply/9.2.2. Pipe Sheathing for Metal Pipes must be observed.

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

Cement mortar (CM) 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 CM sheathing on cast iron pipes according to DIN 30672-2 also remains on the pipe, if it complies with Plastics and Drinking Water (KTW) quality standards and provided that there is sufficient adhesion and surface smoothness as well as low mortar porosity in the area of the pipe drilling saddle.

When removing protective sleeves, the unprotected pipe area between clamping bracket, service valve and PE/CM sheathing must be protected after installing the pipe drilling saddle by means of secondary sheathing measures in accordance with the raw material manufacturer's recommendations (e.g. suitable winding tape or shrink hose solutions).

These instructions apply unless the pipe manufacturers expressly recommend otherwise for their sheathed pipes.

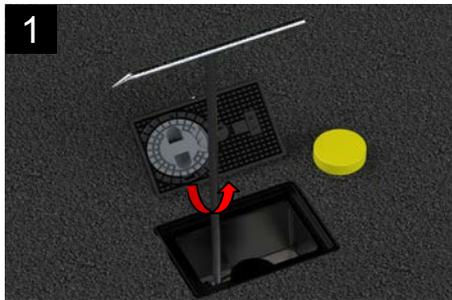
2. Free the surface of the pipe of any dirt, soil or grease.
3. Fit the service valve.
4. Hook the bracket on one side of the saddle body and bend it around the pipe.
5. Fit the second clamping jaw.
6. Tighten the hexagon head screws with the specified torque (60 - 70 Nm / max. 100 Nm) alternately and evenly. Do not use an extension!
7. To adjust the pipe drilling saddle to the required pipe cover depth
 - Remove the pipe retaining clips, item no. 10, and the pipe protection cap, item no. 6, to shorten
 - Shorten the protection pipe
 - Refit the pipe retaining clips, item no. 10 and the pipe protection cap, item no. 6
8. Establish house connection
9. Perform leak test according to DVGW guidelines.



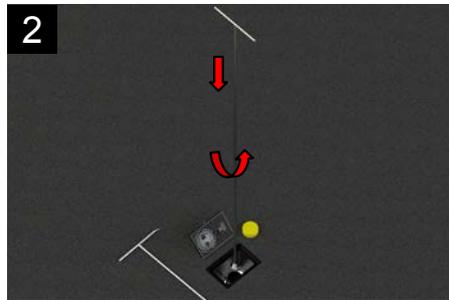
Note:

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

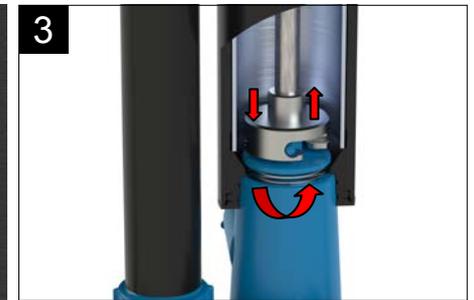
2.2 Installation procedure



Remove the surface box cover. Take off the pipe protection cap. Open Hawlinger by turning to the left using the valve key.



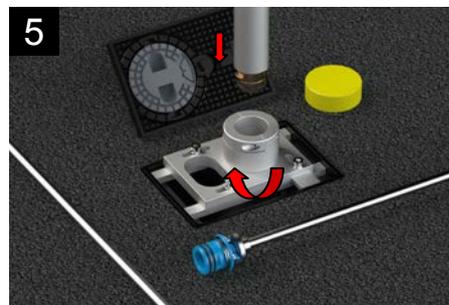
Remove the ZAK plug. For this purpose insert plug key into the standpipe and turn until the locking lugs engage.



Press the key down firmly countering the resistance of the spring and friction. Then turn to the left until stop and withdraw the plug.



Insert clamping unit into the box frame and position centrally above the standpipe.



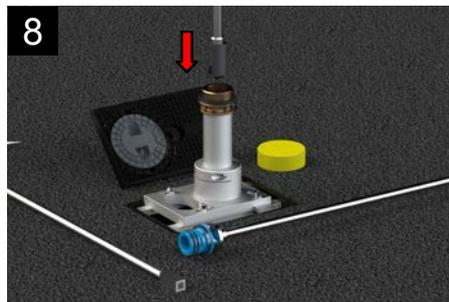
Insert the drilling pipe through the clamping unit into the standpipe. Push the drilling tube into the ZAK outlet of the Hawlinger and turn clockwise (90°) to lock.



Pull the drilling pipe upwards to prevent it from being inadvertently unlocked, and clamp it by tightening the hexagon socket screws (M8).



Secure the position of the clamping unit by tightening the hexagon socket screws (M10).



Slide the drill rod* up to the pipe surface.

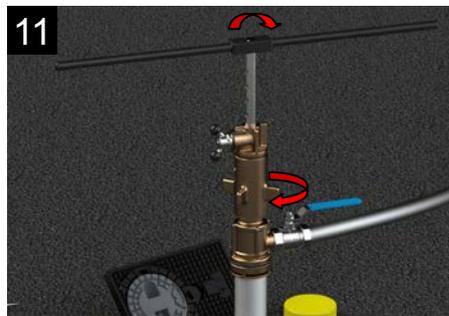


Slide the drilling device over the drill rod and screw onto the threaded adapter.

* When utilising the Hawle „Hawloamat“ drilling device, drill rod L = 1,800 mm, Ord. No. 831 900 0002, and drill rod extension, Ord. No. 831 200 1050, must be used.



Fix the drill rod by tightening the clamping screw. Attach the flushing hose to the drilling device and move the flushing valve to the open position.

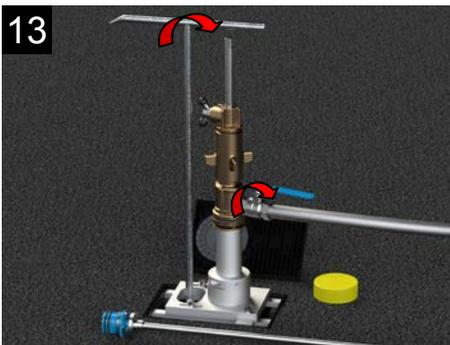


Place a suitable drive (ratchet, electric, etc.) on the drill rod and drill with feed. Follow the drilling instructions of the drilling device.

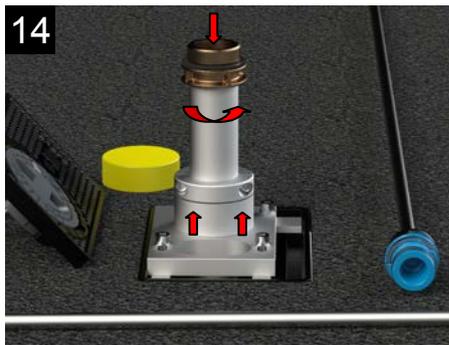


Slowly loosen the clamping screw of the drill rod on the drilling device and pull the drill rod upwards.

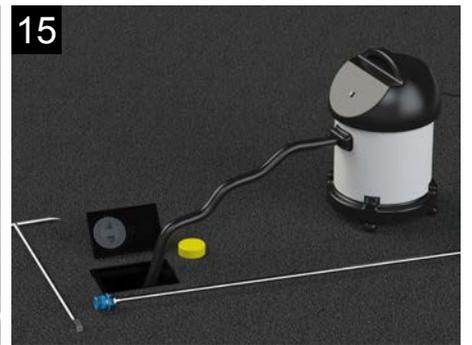
Caution: The drill rod can travel upwards at high speed if the system pressure is high enough. Apply manual force to counteract, and ensure that the head is out of the danger zone.



Flush any residual swarf from the drilling area and close the flushing valve. Then close the Hawlinger using a valve key above the extension spindle by turning it clockwise until stop.



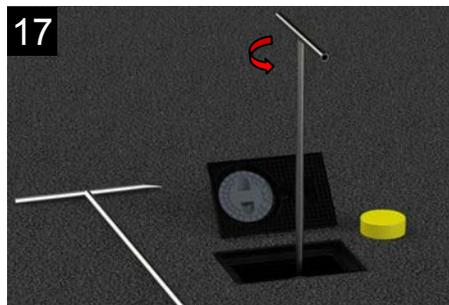
Remove the flushing hose from the drilling unit, unscrew the drilling unit and pull out the drill. Loosen the clamping screw (M8) on the clamp. Press the drilling pipe downwards and unlock by turning anticlockwise (90°), and remove it along with the clamping unit.



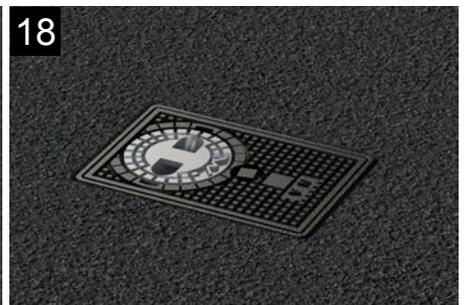
Empty the standpipe and Hawlinger using a suitable suction device.



Insert the ZAK plug with key into the Hawlinger socket, press downwards and lock by turning clockwise (90°). Then secure the unlocking mechanism by lifting the key.



Check the unlocking safety mechanism without compression and tensile load on key and ZAK plug by turning anticlockwise.



Fit the pipe protection cap one by one. Fit the surface box cover.

3. Maintenance

Hawlinger for later drilling are maintenance-free.

4. Commissioning/Pressure test

After successful installation, a pressure test must be carried out in accordance with DVGW regulations.

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

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