



## 1. Intended use / product description:

	Order No. 313-00	Order No. 313-01	Order No. 313-03	Order No. 313-04
				
Scope of application:	PE pipes PE80 and PE100 (EN 12201/DIN 8074) PVC pipes (DIN EN ISO 1452-2)	PE pipes PE80 and PE100 (EN 12201/DIN 8074)	PE pipes PE 80 and PE 100 (EN 12201/DIN 8074) and PVC-pipes (DIN EN ISO 1452-2)	PE pipes PE80 and PE100 (EN 12201/DIN 8074)
	PE, SDR 11: d 63 - d 225 PE, SDR 17: d 63 - d 315 PVC, PN 10: d 63 - d 280 PVC, PN 16: d 63 - d 160	PE, SDR 11: d 63 - d 225 PE, SDR 17: d 63 - d 315	PE, SDR 11: d 63 - d 225 PE, SDR 17: d 63 - d 315 PVC, PN 10: d 63 - d 280 PVC, PN 16: d 63 - d 160	PE, SDR 11: d 63 - d 225 PE, SDR 17: d 63 - d 315
Version:	with milling pre-drilled: 35 mm	with punch bore: 25 mm	with milling pre-drilled: 35 mm	with punch bore: 25 mm
Abgang:	ZAK 46 90° to the pipe direction for combination with ZAK® spigot end fittings for connection of service connection pipelines		PE d40 / d50, 90° to pipe direction for combination with plug-in fitting or welding into PE pipelines using electrofusion or mirror welding processes.	

**Medium:** Potable water

**Max. operating pressure:** 16 bar

**Material:** Milling saddle: Red brass\*, Hawle epoxy powder coated  
HAKU-Drilling saddle: GJS-400, Hawle epoxy powder coated  
Puncher/Milling cutter: Brass  
PE-Outlet: PE100, SDR11

HAKU milling saddle with HAKU half shells for assembly on PE pipes (EN 12201, DIN 8074)  
The two half shells are calibrated exactly to the respective outside diameter. An inadmissible deformation of the pipe is prevented by the metallic stops when the half shells are connected.

Hawle milling saddles are equipped with an integrated drilling tool and a shut-off device. This makes it possible to drill pipelines made of PE even under operating pressure. The drilling and commissioning of the service connection pipeline can be carried out immediately if there is a need for water (subsequent drilling).

In order to ensure perfect drilling, the drilling tool is fed at a high feed rate until shortly before material engagement. During the actual drilling process, a low feed rate is used. For infeed and drilling process approx. 27 turns are necessary.

The service shut-off is ensured by a profile seal which is immersed in a cylindrical sealing surface.

When laying, installing the pipes and during maintenance, it is necessary to refer to and comply with applicable standards and regulations, accident prevention regulations and regulations from trade associations. Installation, assembly and maintenance should only be carried out by qualified personnel.

## 2. Installation

	Wrench, Torque
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1. Clean the pipe surface (free of dirt, earth and grease).
2. Place HAKU half shells around the pipe.
3. Tighten the hexagonal bolts evenly crosswise to the metal stop with the torque specified below.

Do not use an extension!

With any aged pipes with oversize, tighten HAKU with two longer screws if necessary.

- d 63 – d 140: M10 max.32 Nm
- d 160 – d 225: M12 max.56 Nm
- d 250 – d 315: M16 max. 130 Nm

## **2.1 Drilling process**

Do not change the milling position before the drilling process.  
Valve is delivered in drilling position.

Perform drilling with uniform closing movement.

## **3. Service and maintenance**

Hawle milling saddles are maintenance free.

## **4. Commissioning and pressure testing**

After successful installation, a pressure test must be carried out in an open pipe trench, observing the maximum operating pressures in accordance with DVGW regulations.

\* Brass/red brass components > 0.1% lead acc. to Regulation (EU) No. 1907/2006 (REACH Regulation)

[Should you have questions or need further information, please contact:](#)

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