

**1. Intended use / Product description**

**Medium:** Potable water / sewage

**Max. Betriebsdruck:**

PE 100	PN 16
PE 80	PN 12,5
PE-X	PN 12,5

**Material:** Body: GJS-250 (GGG-400) / Hawle epoxy powder-coated  
 Grip ring: Delrin  
 O-ring: EPDM  
 Support liner: POM

Hawle push-fit fittings with detachable taper ring acc. to GW 335 - B4 and/or DIN 8076.  
 For underground pipeline construction and in distribution systems for both drinking water supply and wastewater disposal ( no application in installation ).  
 For PE pipes (DIN 8074/EN 12201) and PE-X (DIN 16893) and on request, also for PVC pipes (DIN EN ISO 1452-2).

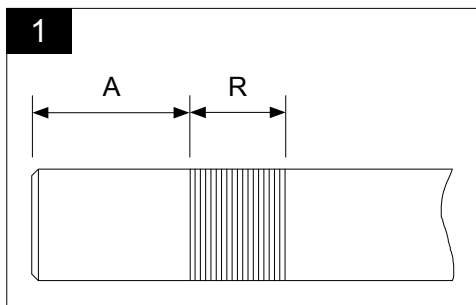
The reliable sealing to the pipe is accomplished through a large-volume O-ring of highly elastic rubber. The pipe is kept by the respective grip ring. The even distribution of the retaining forces ensures that no notch stress is transferred to the pipe. When the pipe is subjected to pulling forces, the grip ring is pulled into the conical chamber, which increases the tensile strength of the connection.  
 Cast fittings with internal or external threads should not be combined with components made of more precious materials (especially brass) in order to avoid contact corrosion.

**⚠ Caution:** With multiple use of the fitting, the grip ring and, if applicable, the O-ring must be replaced.  
 When connecting PE pipes a support liner must always be used.

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 be performed by qualified personnel only.

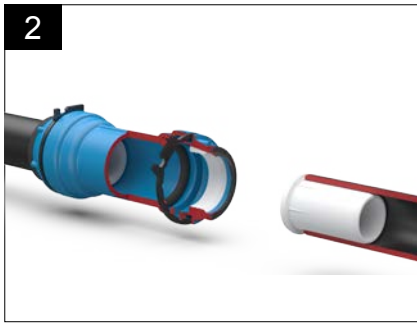
**2. Installation**

**2.1 Installation**

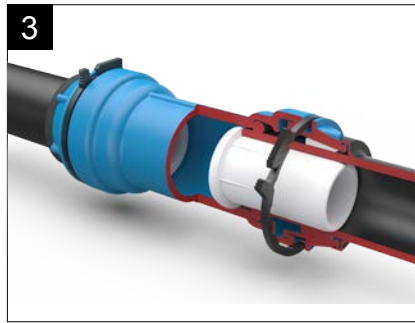


ISO fitting	Roughening area R in mm	
	A	R
d 32	33,0	18,0
d 40	34,0	24,0
d 50	34,5	26,5
d 63	52,5	30,0

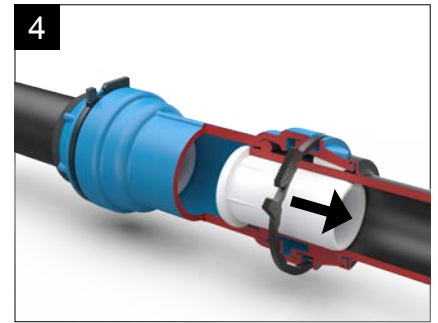
In case of pipes with very smooth surfaces (e.g. PE-X pipes) we recommend roughening the pipe end only in the area of the grip ring (see table) perpendicular to the pipe axis!



Use pipe end without notches and grooves on the surface. Cut pipe straight with sharp PE shears. Insert the support liner into the PE pipe as far as it will go. When using the included Hawle POM support liner, only deburr the cut surface ( Chamfering tool Ord.No. 600-00 or Chamfering tool Ord.No. 598-00 ). When using MS support liners, the tube should be chamfered at 30 °.

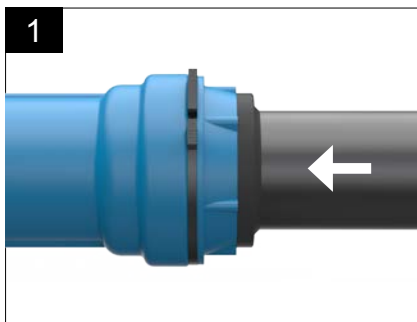


The pipe and fitting must be clean and free from lubricants. Mark the push-in length at the pipe. Please note: Before installation, check the push-fit fitting for being complete (O-ring and grip ring), and for the correct seat of the O-ring and grip ring! Push on the push-fit fitting completely by turning and wiggling it. To facilitate installation, use only clear water or Hawle installation spray (no grease or soap)!

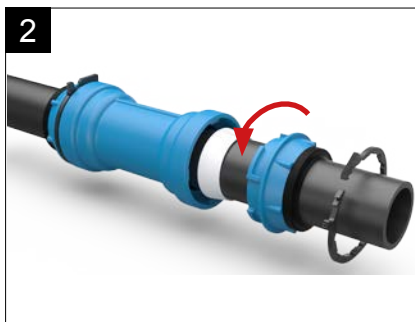


Check tensile strength and leak tightness by performing a pressure test.

## 2.2 Dismantling



Relieve the fitting or pipe in mounting direction: (short jerk)!



Remove the retaining ring. Unscrew the taper ring (blue cast iron ring) with locking key Ord. No. 609-00.

If the fitting is used again, exchange the grip ring. Check the O-ring gasket and, if necessary, exchange it, too

## 3. Servicing and maintenance

Hawle push-fit fittings with detachable taper ring are maintenance-free.

## 4. Commissioning and pressure-testing

After the successful installation, the unit has to be pressure-tested in the open trench observing the maximum operating pressures acc. to the DVGW regulations.

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

Hawle Armaturen GmbH  
 - Application Engineering -  
 Liegnitzer Str. 6  
 83395 Freilassing / Germany  
 Telephone: +49 (0)8654 6303-0  
 Telefax: +49 (0)8654 6303-222  
 E-mail: [info@hawle.de](mailto:info@hawle.de)  
 Web: [www.hawle.de](http://www.hawle.de)