



AWADUCT FLEX-CONNECT PIPE COUPLER

Simply flexible when connecting sewer pipes

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Valid from June 2016

THE PIPE COUPLER FROM REHAU

Universal. Safe. Economical.

Possible applications include flexurally rigid and flexible pipes. Smooth, ribbed or corrugated pipes can be connected to each other without additional compensating rings.



"Airbag seal" made of Q-TE-C

Universal

One coupler for all applications. More flexibility on the construction site, as the right solution is already on site.

AWADUCT FLEX-CONNECT

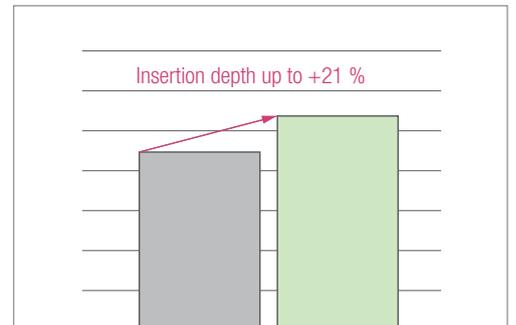
- connects pipes with different
- outer diameters
- wall thicknesses
- materials
- surface structures



Q-TE-C Sample before (left) and after contact with water

Safe

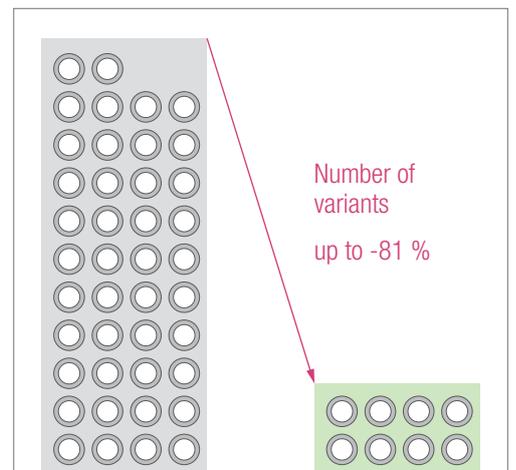
Tested leak-tightness up to 2.5 bar
 "Airbag seal" made of Q-TE-C to seal leakages
 Reliable connection thanks to deeper insertion depth
 Extra wide stainless steel bands for additional safety



Commercially available AWADUCT FLEX-CONNECT

Economical

Saves time: Easy and fast assembly saves a lot of time on the construction site
 Saves costs: Reduced number of variants ensures particularly low stock keeping costs



AWADUCT FLEX-CONNECT PIPE COUPLER

One coupler for all applications

The universal coupling from REHAU can connect gravity sewer/stormwater pipes of almost all materials:



- Ribbed pipes
- GRP pipes
- Corrugated pipes
- PP pipes
- Concrete and reinforced concrete pipes
- Vitrified clay pipes
- PVC pipes
- PE pipes
- Fibre cement pipes
- SML pipes
- Cast iron pipes

Simple and ingenious. Assembled within a few minutes!



Pushing on.



Tightening.



Finished.

Product range

Art. no.	Type	Clamping range [mm]	Insertion depth [mm]
102417-001	110	110 - 145	85
102418-001	125	123 - 162	85
102419-001	160	160 - 200	85
102423-001*	200	200 - 260	105
102424-001*	250	250 - 330	105
102425-001*	315	300 - 385	105
102426-001**	400	380 - 500	130
102427-001**	500	485 - 620	130
102428-001**	630	615 - 695	130

THE PIPE COUPLER FROM REHAU

Universal. Safe. Economical.

AWADUCT FLEX-CONNECT PIPE COUPLER achieves the highest degree of robustness, flexibility and reliability due to the use of top-class materials such as Polypropylene (PP), EPDM and Stainless Steel.



- 1 Stainless steel tightening bands
- 2 "Airbag seal" made of Q-TE-C
- 3 EPDM sealing sleeve
- 4 Flexible support pipe made of RAU-PP segments connected with each other

Quality and Certifications

AWADUCT FLEX-CONNECT PIPE COUPLER is independently tested and approved by leading laboratories and authorities. Tests are carried out according to relevant standards such as German General Building inspectorate approval DIBT Z-42.5-511 as well as British standard BS EN 295-4:2013.

DIBt certified.



AWADUCT FLEX-CONNECT PIPE COUPLER

1. Installation instructions AWADUCT FLEX-CONNECT

See chapter 2.3 for information about the installation with EAR and chapter 3 for information about the installation with a tightening tool



Installation information:

Ensure that cleanliness is maintained during the installation!

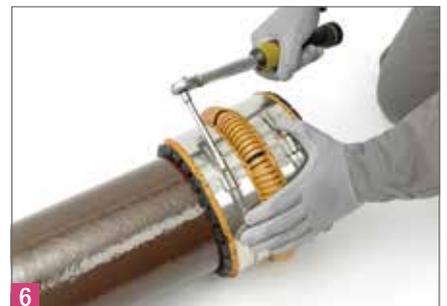
- The AWADUCT FLEX-CONNECT pipe coupler with its "Airbag seal" made of Q-TE-C is to be stored protected against moisture and in a dry place until immediately prior to installation in order to avoid accidental swelling of the Q-TE-C seal.
- Check whether your AWADUCT FLEX-CONNECT set is complete: couplers consist of a black sealing sleeve, orange segment ring, 2 stainless steel tightening bands and lubricant
- If it is necessary to remove the tightening bands, they have to be installed in such a way that the tightening band end positioned at the bottom is always located in the overlapping direction of the segments to prevent the tightening band end from slipping underneath the segments

- Ensure that the loose tightening band end (end without tightening jack) does not slip between the tightening jack and the corresponding tightening band end.
- Prior to the installation, ensure that the outer diameters of the pipes to be connected are within the clamping range of the coupler. The clamping range is stated on the label
- You require a torque wrench (10 – 25 Nm) and an 8 mm socket wrench insert for the installation
- Screw as slowly as possible if using a cordless screwdriver, at the most shortly before the sleeve makes contact with the pipe

Article no.	Type	Clamping range [mm]	Insertion depth [mm]
102417-001	110	110 - 145	85
102418-001	125	123 - 162	85
102419-001	160	160 - 200	85
102423-001	200	200 - 260	105
102424-001	250	250 - 330	105
102425-001	315	300 - 385	105
102426-001	400	380 - 460	130
102427-001	500	490 - 570	130
102428-001	630	615 - 695	130



Maintain a clean environment! Ensure no dirt enters the tightening jacks.



Proceed as follows:

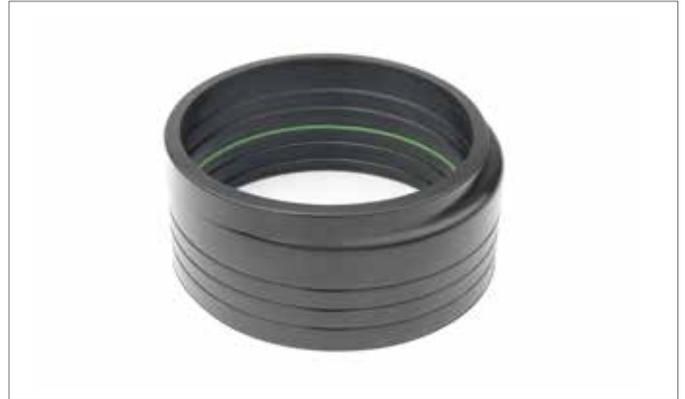
- 1 The insertion depth can be seen on the label or it can be determined by measuring the distance to the lip protruding in the centre.
- 2 The insertion depth has to be marked on both pipes.
- 3 Following this, coat the spigot end up to the marking with a thin layer of lubricant.
Important: Adapt both ends of the pipe coupler approximately to the larger pipe diameter by alternately tightening the two tightening bands.
- 4 As soon as the sleeve makes contact with the pipe, it is mandatory to use a torque wrench.
- 5 Push the pipe coupler up to the marking onto the larger pipe. Ensure that the tightening jacks are easily accessible when pushing them on.
- 6 Tighten the tightening jack on the larger pipe with 15 Nm.
- 7 Following this, insert the smaller pipe up to the mark.
- 8 Tighten the tightening jack on the smaller pipe using 15 Nm.
- 9 Finished.



Please note:

- Installation, backfilling and compacting of the excavation pit has to be carried out in compliance with local and national rules, standards and guidelines
- For ribbed, corrugated and structured pipes, ensure that the relevant ribs, corrugations and lugs do not get deformed during the installation as sufficient compression and permanent leak-tightness cannot be ensured otherwise
- Prior to installing/assembling AWADUCT FLEX-CONNECT at temperatures below 0°C, we recommend to store the pipe coupler at room temperature as otherwise it cannot be guaranteed that it is fully functional

Standard EN 476 "General requirements for components used in drains and sewers" requires: that pipe connections up to DN/OD 315 or DN/ID 300 do not exceed an invert step of 6 mm (corresponds to an internal diameter difference of 12 mm).

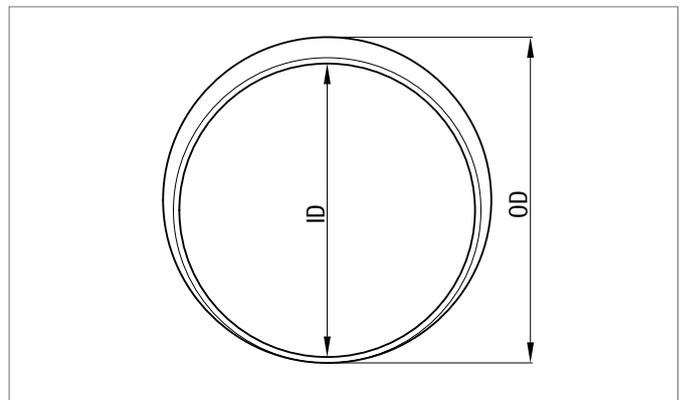


2 Off-centre compensating ring (EAR)

2.1 When is an EAR required?

Off-centre adapter ring for polymer pipes to reduce a possible step on the pipe invert when connecting different pipes.

We recommend to use an EAR when connecting polymer pipes with pipes made of other materials if the difference of the internal diameters of the two pipes exceeds 12 mm.

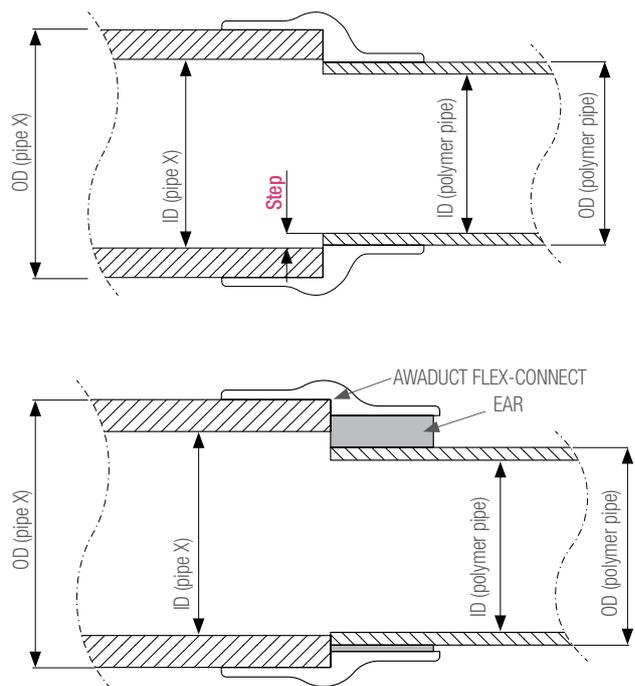


Pipe connection with AWADUCT FLEX-CONNECT		Use of an EAR if the internal diameter difference ID (pipe X) - ID (polymer pipe):
Type 200 (200 to 260 mm)	≤ 12 mm no EAR required	12-26 mm with EAR 200
Type 250 (250 to 330 mm)	≤ 12 mm no EAR required	12-32 mm with EAR 250
Type 315 (300 to 385 mm)	≤ 12 mm no EAR required	12-26 mm with EAR 315

Article no.	Type	ID [mm]	OD [mm]
404826-001	EAR 200	200	222
404827-001	EAR 250	250	278
404828-001	EAR 315	315	339

2.2 Installation example with EAR

Example: a vitrified clay pipe DN 200 is connected with a PP pipe DN 200 using AWADUCT FLEX-CONNECT type 200. The vitrified clay pipe has an internal diameter of 205 mm. The PP pipe has an internal diameter of 183 mm. This results in an internal diameter difference of 22 mm. The resulting step in the event of a centric connection would correspond to 11 mm. Due to this reason, the use of an EAR is recommended, which can considerably reduce the invert step.



2.3 Information for the installation of AWADUCT FLEX-CONNECT with EAR

Installation with EAR in order to reduce the invert step

Carry out the installation as shown in chapter 1.

1 The EAR is pushed onto the polymer pipe up to the stopper lip on the ear by using silicone-free lubricant if required. An EAR can be fitted to pipes with an external diameter of 200 mm, 250 mm or 315 mm (e.g. made of PP, PVC or PE).

2 The arrow (marking of the upper crowning point) has to point upwards.

3 Coat the outer surface of the EAR with a thin layer of lubricant.

4 Ensure when subsequently connecting the pipes that the pipe pre-installed with the EAR is inserted up to the insertion depth marking as per the installation instruction AWADUCT FLEX-CONNECT (chapter 1) and the marking of the upper crowning point still points upwards.



3. Information for the installation of AWADUCT FLEX-CONNECT with tightening tool (for tightening bands with two tightening jacks each)

1 In order to install pipe couplers, whose tightening bands have two tightening jacks each, i.e. AWADUCT FLEX-CONNECT type 250 and larger, you require the tightening tool to fix the tightening bands.

2 Hook the T-shaped retaining foot underneath the tightening jacks first. Then hook the tip into the channel slot on the tightening band.

3 Tighten the tightening tool using the torque wrench with the torque stated in the table below.

	Type 250	Type 315	Type 400	Type 500	Type 630
Torque on tightening tool	20 Nm	20 Nm	20 Nm	22 Nm	22 Nm
Torque on the tightening jacks	15 Nm				

4 Alternately tighten both tightening jacks with the torque stated in the above table.

5 Loosen and remove the tightening tool.

6 Finished!



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