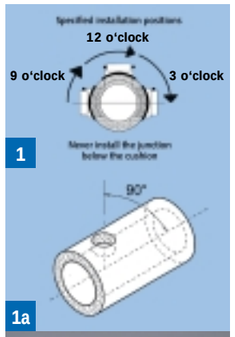
Installation instructions for the FABEKUN® junction with adjustable socket.



1 1a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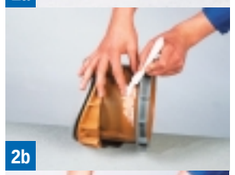
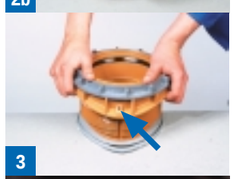
2a


2b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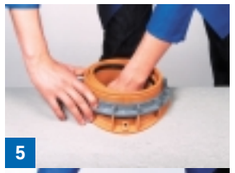
The drilled hole should be made centrally at 90 degrees.
We recommend that pipes with a flat base be drilled at 9, 12 or 3 o'clock and fully round pipes between 9 and 3 o'clock **(1 + 1a)**. After correctly completing the core drilling (200 ± 1 mm for connecting a DN 160 saddle), the edges at the bottom end of the bore must be deburred. The drilling must be always carried out without any flaking. For the last third of the drilling, halve the feed of the drill bit. Clean the drilled hole **(2)**. Before installation always check the nominal sizes of the junction and the main pipe (stamped on the base). Smear the seal and thread with the lubricant provided **(2a + 2b)**. Raise the distance ring, grip the threaded ring and push the junction piece into the hole **(3 + 4)**. The arrow in **Picture 3** shows the filling hole in the distance ring for the ASSIL expansion resin. Pull up the junction saddle piece with one hand and with the other screw down the grey threaded ring **(5)**.
With DN 160 junction, the direction of flow is shown by the curvature of the distance ring. The direction of flow in the pipe must match the radius of the junction. The groove in the junction piece acts as a guide for the distance ring and must face upwards **(3)**. Tighten the threaded ring with the threaded ring spanner so that the bottom seal is compressed firmly between the junction and the pipe **(6)**.
The threaded-ring spanner can be obtained from the manufacturer.
Check that the bottom seal and the top distance ring are seated correctly **(7)**. The junction is fitted with a coupler for DN 160 FABEKUN® HS pipes and KG pipes. Adapters are available for other pipes.

Applying the ASSIL expansion resin.
The bonding surfaces must be free of grease and dust. Remove the dust cap on the cartridge, screw on the mixer tube and fit the cartridge into the gun **(8)**. Insert the black adaptor (one in every carton). Insert the point of the mixer tube into the 8 mm Ø hole in the distance ring and quickly empty the cartridge using a uniform pressure **(9)**. Excessive resin will force itself outwards. Leave the cartridge and the mixing tube in the filling hole until resin has been uniformly distributed, after around five minutes **(10)**. Carry out a "touch test". If expansion resin has escaped inwards, tighten once more with the threaded-ring spanner **(11)**. For site protection or pressure tests.

The following quantities of expansion resin are needed:
DN 250 - 600/160 junctions = 1 cartridge
DN 700 - 1200/160 junctions = 2 cartridges

N.B.
Store the junction and cartridges in a dry frost-free place. When using, the temperature of the material should not go below + 5° C. After about 20 minutes the resin is no longer tacky and after two hours it is completely hardened. Fresh resin splashes can be removed with PU cleaner, Acetone etc. Work can continue immediately as the reaction of the resin is not impaired by the construction work.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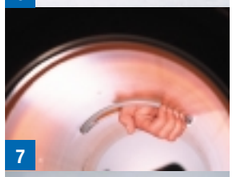
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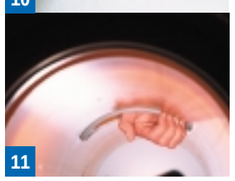
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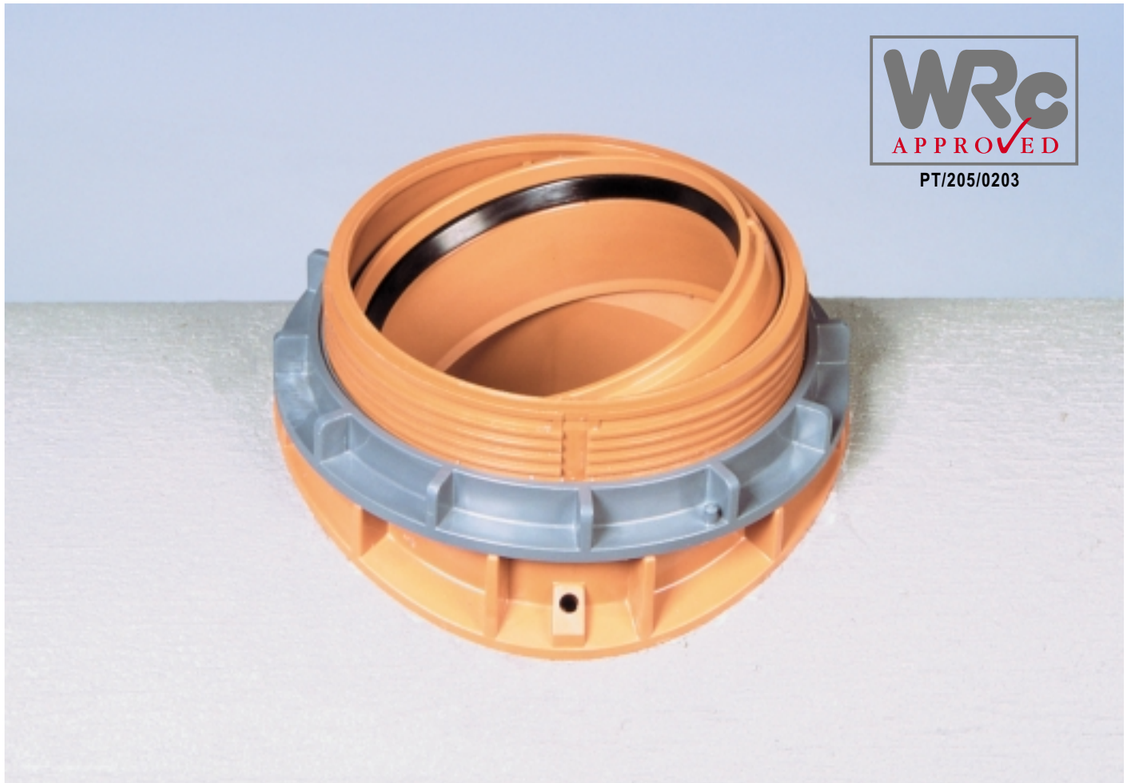
Funke Gruppe

. . . "Lateral pipes must be manufactured and connected so that they can allow for movement. Possible settlement and the loadings this can impose in the area of the joint must be allowed for.". . . .

The FABEKUN® Junction with adjustable socket from 0°-13°

The better way to make a permanent connection



FABEKUN®
Sewerage Systems

The essential functions of the FABEKUN® Junction have been optimised!

The FABEKUN® Junction has been developed further to offer improved advantages. The fitting has been successful in use and its benefits are unquestioned. Easy to handle, it is suitable for all regular pipe diameters (DN 250 - DN 2400, with a DN 160 connection, DN 400 - DN 2400 with a DN 200 connection). Architects, local authorities and contractors now have the ability to make permanent sealed connections, quickly and cost effectively.

The new modified FABEKUN® Junction with adjustable DN 160 socket is an innovative new development. The socket can be adjusted between 0° - 13°.

It combines the functions of the FABEKUN® Junction with the FABEKUN® adjustable socket in a single moulded component. With the new three-dimensional seal, it fits the internal radius of the main pipe securely and accurately. The integral adjustable socket allows the lateral pipe to be angled between 0° - 13° and also compensates for the different settling characteristics of the varying types of pipes.

Hints on installation: The adjustable socket allows for up 5° lateral deflection for the connected pipe with the remaining 8° used to compensate for different settling characteristics, allowing for a flexible connection over time of varying types of pipes.

Further points:
Due to its design the junction offers specifers and installers a wide range of benefits due to its quick and simple installation allowing for trouble free connections. The special three dimension new bottom seal ring locates the junction perfectly to the inner wall of the main pipe.

Correct Coredrilling.

Junction is in the right position but not compressed.

Junction is compressed and the sealing is complete.

Correct installation of the junction.

Junction is installed in a concrete pipe connecting a DN 160 mm diameter FABEKUN®-HS-Pipe carrying waste water.

The FABEKUN® Junction with adjustable socket can be used for concrete pipes in accordance with DIN 4032 (BS5911 UK standard) and for ferroconcrete pipes in accordance with DIN 4035 vitrified clay pipe to BS EN 295.

Using the injected two-part resin, the junction is firmly anchored into the drilled hole in the concrete pipes and the exposed reinforcement in the curvature of ferroconcrete pipes is protected so that no corrosion can occur. This has been proven by a range of tests at the Federal Institute for Material Research and Testing, Berlin (BAM) and confirmed by the Institute for Building Technology, Berlin (Certificate No.: Z-42.1-306)

Cross section through a test piece.

Steel surface below the expansion resin layer in an immersion trial.

Unprotected steel surface subjected to an immersion trial.

Supply Range and Accessories
Each junction is packaged in a box as a set. Spanners for the threaded ring, and the cartridge gun can be obtained from the manufacturer.

Installation kit

Supply range

Threaded-ring spanner

Technical data

Junction type	Branch HS/KG DN	D i Internal diameter (mm)	L 1 Total length (mm)	Drilled hole ± 1 mm (mm)	Pipe wall thickness max. (mm)
250*	160	160	270	200	115
300	160	160	195	200	100
400	160	160	205	200	120
500 - 600	160	160	205	200	130
700 - 1200	160	160	255	200	190
400 / 200*	200	200	350	257	120
500 - 600*	200	200	350	257	140
700 - 1000*	200	200	420	257	220
1200 - 2400*	200	200	440	257	250

**without adjustable socket*

WRc APPROVED PT/205/0203 · Northumbrian Water · Yorkshire Water · United Utilities · Southern Water · Dŵr Cymru Welsh Water · Thames Water · Severn Trent Water

Approved in the U.K. by WRC, Anglian Water, Thames Water, United Utilities, Northumbrian Water, Yorkshire Water, Severn Trent Water, Southern Water, Welsh Water and South West Water.

FABEKUN® Sewerage Systems

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