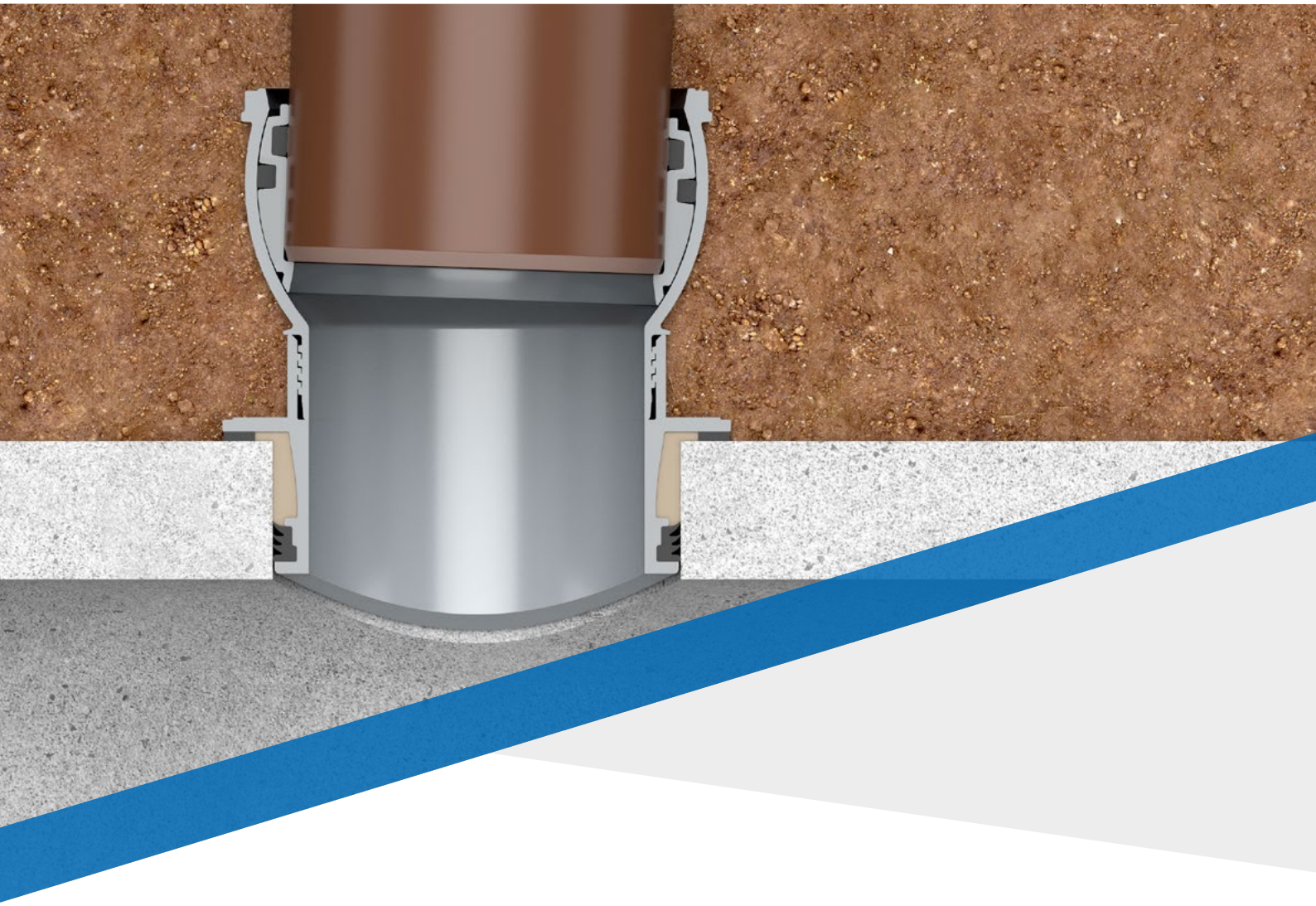
Funke Gruppe



Becon® Junction DN/OD 160

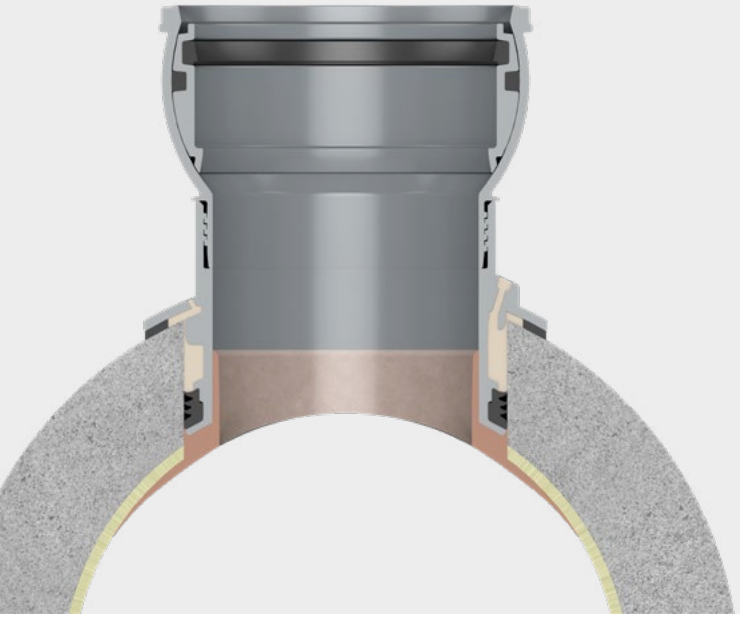
The perfect solution for concrete and reinforced concrete

bio-attributed

Adjustable from 0° to 11°

Becon® Junction DN/OD 160

Lateral connections made easy



The background

The installation of a lateral connection to connect lateral pipes to existing or new concrete and reinforced concrete pipes must be quick and easy. In addition, the component must have sufficient strength against external load effects and be permanently watertight. When drilling into concrete and reinforced concrete pipes, the static load-bearing capacity of the drilled pipe must also be taken into account. The larger the drillhole or the higher the ratio of the drillhole diameter to the main pipe diameter, the greater the influence on the stability of a concrete pipe. The Becon® Junction was developed with these requirements in mind.

The product

With the Becon® Junction, lateral pipes or lateral inlets can be integrated quickly, easily and economically in concrete and reinforced concrete pipes with circular cross-section or with flat base in accordance with DIN EN 1916:2003-04 - for new installation as well as for retrofitting. The Becon® Junction has an intregrated socket DN/OD 160 and is available for main pipes DN 225, 300, 400, 500/600. The small drilling dimension of only 172 mm ensures that the statics of the concrete pipe are only minimally weakened. In addition, drilling the hole is easier than with larger drilling diameters.

The integrated clamps made of chrome-nickel steels (V2A/1.4301) ensure misalign and pull-out safety.

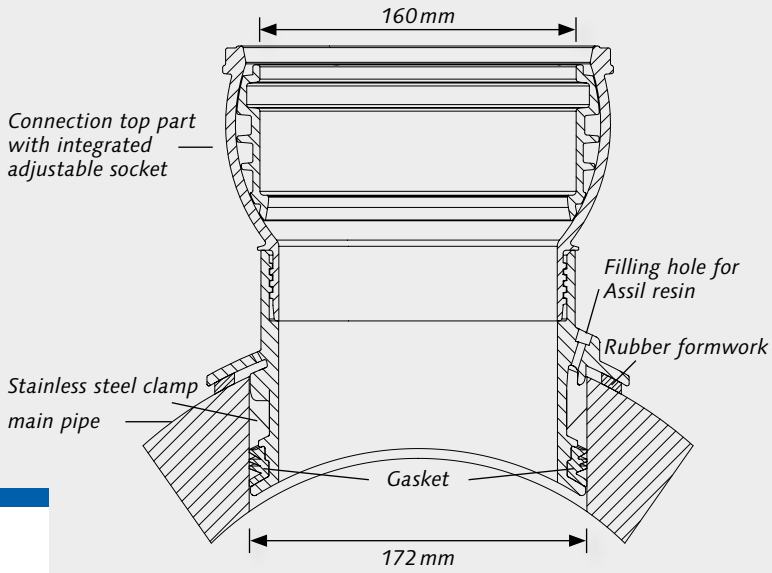
The resin is used to protect the exposed reinforcement of the soffit in reinforced concrete pipes. The injected two-component resin protects the exposed reinforcement of the reveal in reinforced concrete pipes so that no corrosion occurs. The patented clips in combination with the injected two-component resin ensure that the Becon® Junction is anchored in the drilled soffit after professional installation and is resistant to pull-out and shear loads.

The Becon® Junction has an integrated adjustable socket. It ensures that lateral pipes can be adjusted within a range of 0° to 11°.

Scope of delivery incl. two-component resin

Becon® Junction with adjustable socket

Becon® Junction with adjustable socket 0° to 11°



The Becon® Junction is equipped with a socket DN/ OD 160 according to DIN EN 1401 and has an integrated ball joint. It ensures that lateral pipes can be adjusted in a range from 0° to 11°.

Advantages

- Precise subsequent connection to concrete and reinforced concrete pipes at 90°
- Drilling diameter of only 172 mm
- Compact design, easy and quick to install
- The integrated adjustable socket can accommodate a stepless bending of up to 11° without any tension
- Firm fit due to patented stainless steel clamps in combination with the injected Assil resin
- Corrosion protection with Assil resin
- Ideally suitable for rehabilitation and relining with glue hat profiles into lateral sections or resin grouting - as PVC-U is suitable for adhesives.

Certification

The Becon® connection was subjected to extensive tests in the factory and in 3rd party test laboratories. The injected Assil resin demonstrably protects the exposed reinforcement of reinforced concrete pipes against corrosion. The installed Becon® Junction is tested according to DIN 4060:2016-07.

Becon® Junction DN/OD 160 with adjustable socket 0° to 11°

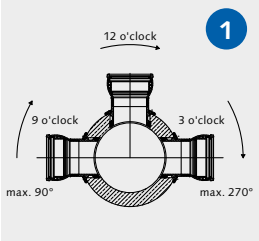
Main Pipe DN	Junction DN/OD	Drill mm	Wall Thickness Main Pipe minimum mm	Code
225	160	172	40	1601650005
300	160	172	55	1601650006
400	160	172	70	1601650007
500/600	160	172	80	1601650008

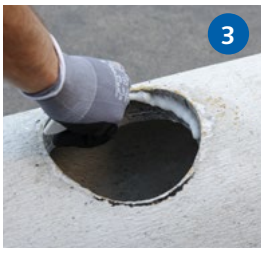
Delivery includes lubricant and Assil resin. IMPORTANT: The top part is pre-assembled at the factory and does not need to be tightened with the threaded spanner.

Becon® Junction DN/OD 160

Brief installation instructions

You can find the detailed installation instructions here:





The hole is to be drilled centrically to the pipe axle at an angle of 90°. The manufacturer recommends drilling based pipes at 9, 12 or 3 o'clock and circular pipes between 9 and 3 o`clock position. (1)

After drilling the core hole (172 +/- 1 mm), the lower edges of the hole must be deburred. Chipping must be avoided at all costs during drilling. In addition, the feed rate of the drill bit must be halted in the last third of the drilling process. The drill hole is cleaned afterwards. Check nominal size of the Becon® Junction suits main pipe ID. (2)

In the next step, apply lubricant to drill hole and seal of the Becon® Junction. The resin filling opening must be at the same height or above the inspection opening. (3-5)

The junction must be positioned precisely on the pipe **(note: the arrows on the junction indicate the direction of flow of the main pipe)**. (6)

As soon as the junction is positioned, it is pressed into the reveal. Due to the clips, the position of the junction cannot be changed or pulled out later. (7)

Next, remove the screw cap from the cartridge, screw on the mixing tube and insert it with the adapter into the cartridge gun. (8)

The tip of the mixing tube is inserted into the 8 mm opening at the junction and the cartridge is quickly emptied under uniform pressure. (9)

Excess resin pushes itself outwards. Cartridge and mixing tube remain in the filling opening until the resin is evenly distributed after approx. five minutes. (10)

ATTENTION!

Junction and cartridges must be stored frost-proof and dry. During application, the material temperature should not fall below + 5 °C! The resin is tack-free after approx. 20 minutes and cured after two hours. Fresh resin splashes can be removed with PU cleaner, acetone or similar. Pipes can be connected immediately, as the reaction of the resin does not affect the construction work.

08-2024 / 2.000 Technical changes reserved.

This document is a translation of the German brochure. All mentioned approvals and standards pertain to those in Germany. For details on the corresponding approvals and standards in your country, please contact us.

Funke Kunststoffe GmbH
Germany
Tel.: +49 2388 3071-0
info@funkegruppe.de
www.funkegruppe.com