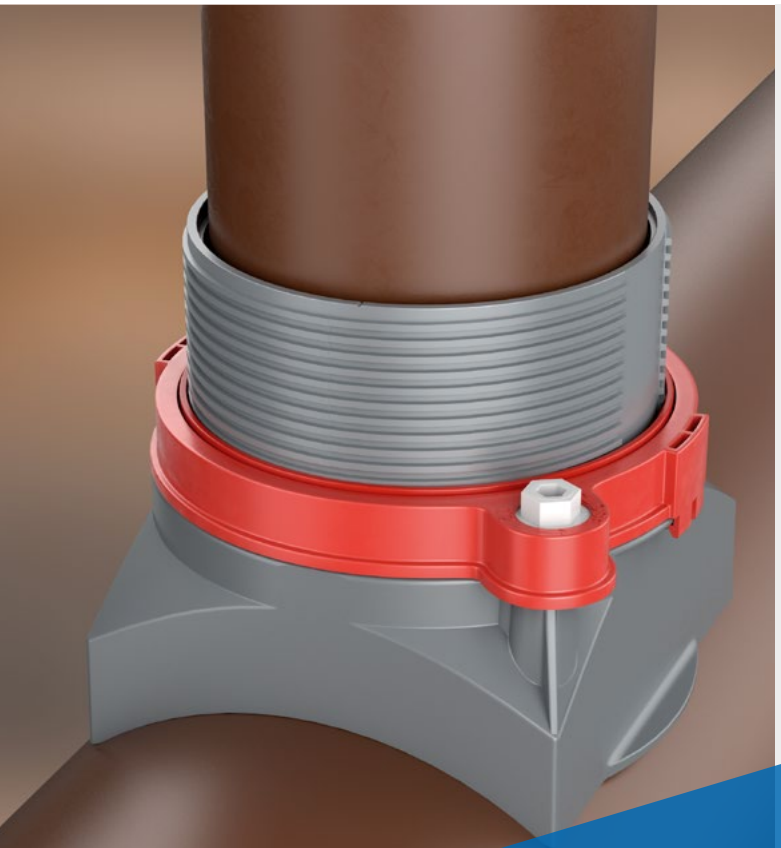
Funke Gruppe



Funke VPS Turbo
DN/OD 160

**Create sewer connections –
now even safer and faster**

bio attributed PVC-U

Funke VPS Turbo

Precise connection from DN 300 to 2400

Connection to concrete pipe

Connection to vitrified clay pipe

Connection to plastic pipe

The lateral connection of sewer connection pipes to existing main pipes is an essential factor in drainage systems. Precise execution and a permanently tight and mechanically resilient connection are particularly important for retrofitted connections. The challenge lies in the different pipe materials, such as concrete, vitrified clay or plastic, as well as in varying wall thicknesses and pipe dimensions.

The product

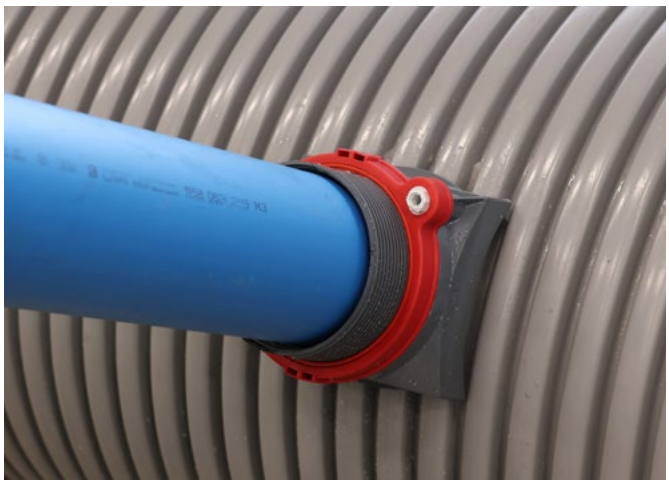
The Funke VPS Turbo is a solution for such tasks, designed for retrofitting into sewer pipes with nominal diameters from DN 300 to DN 2400 – regardless of the wall thickness and material of the main pipe.

Even if the main pipe is not standardized and/or cannot be precisely defined in advance, lateral connection with the Funke VPS Turbo is quick and easy. Installation requires no special tools, only a cordless drill (at least 18V battery) with an SW19 socket. A specially developed shear bolt ensures the required tightening torque and thus the contact pressure of the seal.

Form-fitting and force-fitting

The design of the Funke VPS Turbo is based on a combination of a support structure, a sealing collar and a specially constructed seal. The sealing collar adapts continuously to the inner contour of the drill hole edge in the main pipe. This adaptation allows it to follow the curvature along the drill edge and form an even surface. This creates a seam-

Funke VPS Turbo Type A and Type B



Connection to profiled pipe

Scope of delivery: Funke VPS Turbo, special lubricant, brush and installation instructions

Funke VPS Turbo

Item no.	Item description	Pipe wall thickness min.	max.	Main pipes DN	Core bore mm	Connection DN/OD
1601850027	Funke VPS Turbo Type A DN/OD 160	50 mm	120 mm*	300–2400	187–189	160
1601850028	Funke VPS Turbo Type B DN/OD 160	7 mm	80 mm*			

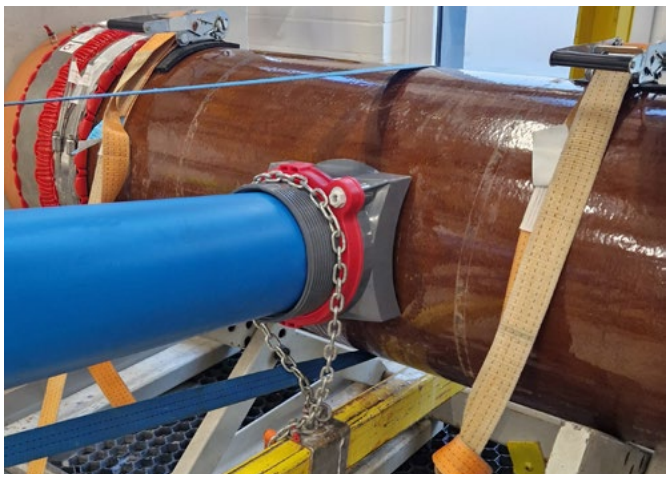
** Above this pipe wall thickness, at least one extension piece must be used.*

Extension piece for VPS Turbo

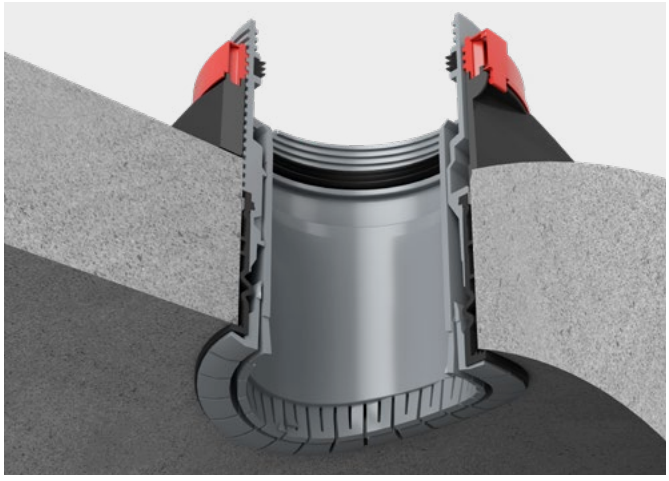
Item no.	Item description	Useful length
1601850005	Funke VPS extension piece DN/OD 160	70 mm

Advantages

- Retrofitting into sewer pipes with nominal diameters of DN 300–2400
- For wall thicknesses from 7 mm
- Suitable for almost all wall thicknesses, wall geometries and pipe materials
- Compact design
- Core bore size DN/OD 160: 187–189 mm
- The connection is form- and force fitting to the main pipe and cannot be pulled out
- The flexible sealing collar is adjustable in three-dimensions
- The connection pipe of the socket can be angled continuously from 0° to 7°
- Simple, quick and secure installation using a cordless drill



Leak test in accordance with DIN 4060



Optimal fit of the Funke VPS Turbo in the drill hole

less connection that also has a stabilizing effect. A seal is located below the flexible sealing collar, which is pressed evenly and flat during installation.

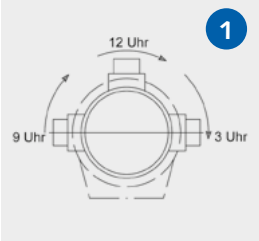
The interaction of these components results in a form-fitting and force-fitting connection with the main pipe. This supports both the tightness and the mechanical safety of the connection. It also prevents the connection from being pulled out of the main pipe.

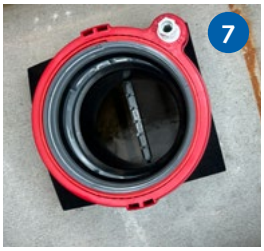
Funke VPS Turbo

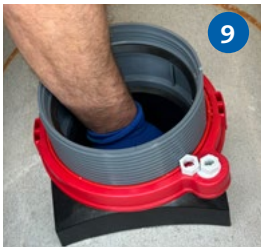
Quick guide to installation

All information about Funke sewer connections made of bio-attributed PVC-U can be found here:

Detailed installation instructions can be found at www.funkegruppe.com







1. For **plastic and GRP pipes**, use a drill bit with a centring pin. Drill centrally at a 90-degree angle to the pipe axis. Circular pipes may be drilled in the apex or transom area between 9 o'clock and 3 o'clock; for pipes with base and/or apex reinforcement, it is recommended to drill at 9, 12 or 3 o'clock. **The Funke VPS Turbo must not be installed below the 3 or 9 o'clock positions! 2.** For **plastic and GRP pipes**, mark the centre of the hole and then pre-drill with a 10 mm HSS twist drill bit. Then insert the guide pin of the drill bit into the pre-drilled hole, drill the core hole, carefully deburr the edges and check the hole diameter (187–189 mm). Drilling work on **concrete and stoneware pipes** may only be carried out with guided, professionally fixed drilling equipment. Pipes with base or crown reinforcement must be drilled at 9, 12 or 3 o'clock. After a test drilling, the uniform wall thickness of the drill hole must be checked. In the last third, the feed rate is reduced to prevent chipping. The drill bit must be completely immersed in the pipe cross-section so that no burrs remain. In the case of reinforced concrete pipes, cut reinforcement must be treated with a corrosion protection agent. We recommend RL 2 in 1 Aqua rust protection paint from Friedrich Pietzcker (provided by the customer). Extension pieces are required once certain wall thicknesses are exceeded: for type A, from a wall thickness > 120 mm, and for type B, from a wall thickness > 80 mm. **3 + 4.** In the next step, coat the connection seal and the borehole with a special lubricant **(use the lubricant supplied!)**. Then press the connection into the hole, ensuring that the inner push rod is at a 90-degree angle to the pipe axis. It is important that the lower seal retracts and slides into the hole without pushing itself up. If necessary, the seal can be pushed in slightly by hand or the connection can be moved back and forth slightly while pressing it in. **5 + 6 + 7**. The connection is then pressed towards the centre of the main pipe using the push rod inside the connection. This pushes it further into the hole. As soon as you hear an audible "click" and the clamping sleeve cannot be pushed any further, it is locked in place. Check that the seal is fully unfolded by feeling around it. **8.** Using the cordless drill (19 mm socket), turn the first or upper nut **counterclockwise** until the screw breaks off. **Important:** If the process does not run smoothly, the first or second nut must be tightened with a left-turning torque wrench (16 Nm). For type B, ensure that the two lateral centring tongues are fully inserted into the drill hole and that the long sides are flush with the pipe. **9.** After securing the connection, loosen the inner push rod by turning it around its own axis and pull it out. **10.** Check inside the main pipe to ensure that the seal is flush. Finally, visually inspect the finished connection from the inside and outside.

03-2026 Subject to technical changes.

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