

Lateral Connections

Unisaddle FA150B



The Flexseal FA150B is used to connect a DN150 lateral pipe into a large diameter thick walled sewer or surface water pipe.

Twistable collar accommodates specific pipe wall thicknesses, making this product universal to many different main pipes.

For main pipes DN450 and above, with a minimum wall thickness of 50mm.

- Fits any DN150 lateral pipe in conjunction with a Flexseal Multibush
- Lower cost in comparison to junctions
- Accepts a deflection on the lateral pipe of 15°
- Withstands an internal pressure of 1 bar
- No adhesives, sealant or concrete required
- Lightweight, easy to handle for quick installation
- No need to excavate around the pipe and disrupt the pipe bedding
- WRC Approved™



Flexseal's Unisaddle FA150U is also available for similar applications.

	Material
Saddle body	EPDM elastomer conforming to BS EN681-1: 1996
Saddle sleeve	Industrial grade ABS plastic
Clamp band	Austenitic stainless steel grade 1.4301 (304)
Min wall thickness required	50mm
Lateral pipe deflection	15°
Maximum internal pressure	1 bar / 14.50 psi
Maximum vertical Load	2 Tonne
Lateral pipe shear loading	25 bar / 362 psi
Max jetting pressure	3,000 PSI
Cored hole size	172mm
Drill requirements	Hilti DD160 - DD2-- or equivalent Wet Coring Drill 1 ^{1/4} " UNC female boss for connection to the drilling rig. 13 tooth segments. Some drills will require an Adaptor to connect the core bit.
Approvals	WRC Approved Document PT/243/0405 for the connection of laterals onto main concrete gravity sewers in the range DN450 - DN1500
Conforms to	<p>Sewers for Adoption 7th Edition "Saddle Connections can be used, but only when the internal diameter of the host pipe is at least 150mm greater than the internal diameter of the branch pipe" (for a 150mm lateral pipe main sewer must be 300mm and above)</p> <p>A Guide to Sewerage Operational Practices "The hole in the main sewer should only be made using a circular diamond core cutter..."</p> <p>BSEN 1610:1998 Construction and Testing of Drains and Sewers "The saddle fitting should be positioned on the upper half of the pipe, preferably with its axis at 45° to the vertical plane through the axis of the pipe."</p>

FA150B Saddle

Connecting pipes of different outside diameters

The Flexseal Multibush (MB150), which is manufactured to the requirements of BS EN295-4: 1995, is recommended.



Pipe OD	Multibush (MB150)	Pipe Material	Illustration
160-166mm	12mm Folded	DN150 Quantum, Cast Iron (SMU, SML, Ensign), 160mm PVC	
170-177mm	8mm Large End	DN150 Ductile Iron, Ultra-Rib. Cast Iron (Drain)	
178mm	4mm Small End	Supersleve, Twinwall Plastic	
180-190mm	No Bush	Salt Glazed Clay	

Fitting Instructions

6 easy steps



1. Diamond core a 172mm hole at the selected position into the concrete pipe. Ensure the pipe wall and surrounding area is clean and free from slurry/debris and measure the wall thickness.
2. Remove the internal locking sleeve from the saddle body. Adjust the threaded collar on the outer sleeve so that it measures 10mm less than the thickness of the pipe.
3. Position the saddle in the hole ensuring it sits 10mm away from the internal wall of the pipe. This is achieved by placing your hand inside and feeling the inside of the pipe wall.
4. Break off the tabs from the locking sleeve and lubricate using water. Place the locking sleeve into the saddle body and line up the arrows. Push the sleeve into the bore of the saddle.
5. Drive the locking sleeve evenly around the circumference until fully locked. It is recommended that a wooden block is used when using a hammer to lock the saddle into position.
6. Insert the pipe into the fitted saddle and tighten the clamp band to the recommended torque. Use a Multibush (MB150) if required.

Note: A diamond cored hole of 172mm (+1 / -0mm) should be cored using the correct equipment.