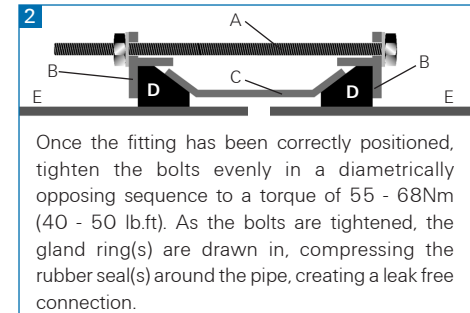
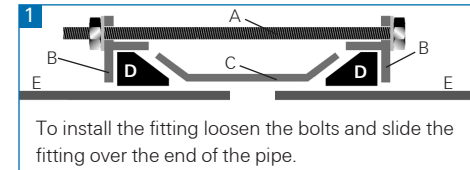


Mains Connections - UPE Universal Range

UPE Universal Couplings - Handy Hints for Installers

1. For convenience, we recommend the use of a 19mm ($\frac{3}{4}$ ") ratchet ring spanner or square drive ratchet with a long tube socket be used with these fittings.
2. Installers are encouraged, through experience, to have a feel for the tightening torque required.
3. UPE universal couplings are generally supplied assembled towards the top of their stated tolerance range and will generally not need to be loosened to fit most pipes. However, if the coupling as supplied will not fit over the pipe first ensure the correct coupling tolerance range is being used then loosen the bolts and pull the end rings and rubber seal away from the body (barrel) so the internal circumference of the seal can expand.
4. In extreme cases of a tight fit the coupling can be disassembled, the rubber seals lubricated, then the end ring and seals slid over the two pipe ends before reassembling the coupling centrally over the pipe gap.
5. Conversely, if the pipes to be joined are at the bottom end of the coupling tolerance some pre-tightening of the bolts can be done outside the trench - use a pipe off-cut to ensure the coupling will still be able to slide over the pipe.



- | | |
|----|---------------|
| A. | Bolt |
| B. | End Ring |
| C. | Coupling Body |
| D. | Rubber Seal |
| E. | Pipe |

Understanding Universal Couplings

First developed in 1974, UPE universal couplings have a wide tolerance range due to their innovative seal design. Instead of a simple 'O' ring that will only fit one pipe size, in section the UPE seal is wedge shaped and matched in profile to the flare on the ends of the body. The diagrams above (figure 1. before tightening and figure 2. after tightening) show that as the bolts are tightened the seal is forced down the taper of the body until it seals against the pipes.

The function of the bolts is only to compress the rubber, for which M12 size corrosion resistant bolts are adequate. (Bolts are Sheraplex coated Mild Steel or Stainless Steel).

Mains Connections for Rigid Pipes - 40mm - 300mm **UPE Universal Range**

Universal Couplings

Installation Instructions for UPE Universal Couplings up to DN300

All UPE fittings are supplied ready assembled and pre lubricated allowing for efficient installation on site.

Preparation

1. Select the correct size and type of coupling (straight or stepped) for the pipes to be joined.
2. Ensure the pipes to be connected are clean, round and free from deep scratches, scores or other general imperfections that may prevent an effective seal.
3. Ensure the relative angle between the axes of the two pipes does not exceed 6° and any lateral offset is negligible.

Assembly Procedure

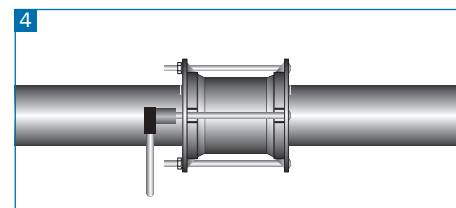
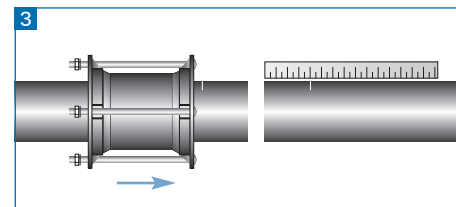
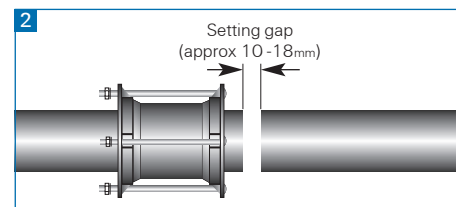
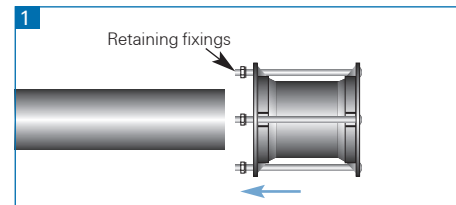
1. Slide the coupling over one of the pipes to be connected
2. Line up the other pipe end maintaining a setting gap of 10 - 18mm
3. Mark the pipe to ensure the coupling will be centred over the setting gap
4. Locate the coupling over the marks on the pipe and tighten the fastening nuts in a diametrically opposed sequence to a torque of 55 - 68Nm (40 - 50 lb.ft).

NB

Universal Couplings are not fully end load restrained. Please ensure adequate restraint is provided.

In addition to the above the installer should ensure relevant industry standards and codes of practice are followed.

Universal couplings are not recommended for use on PE pipe.



Mains Connections for Rigid Pipes - 40mm - 300mm
UPE Universal Range