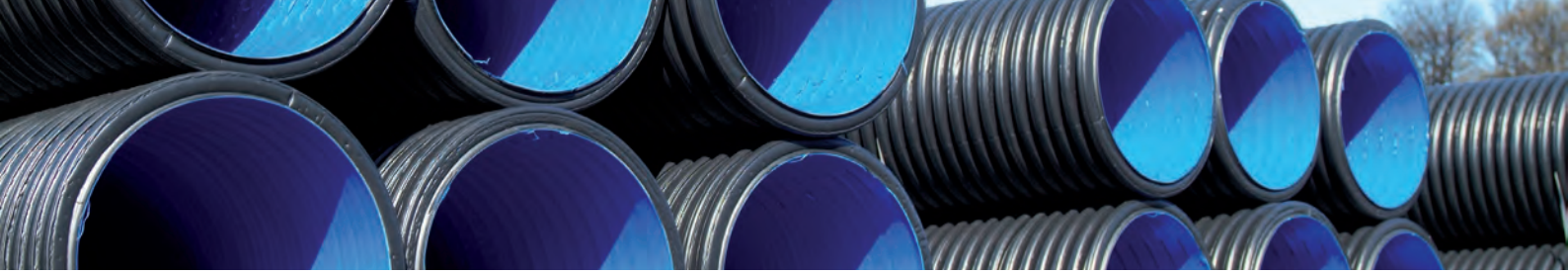


A Guide to Air Testing and Jointing

Polypipe

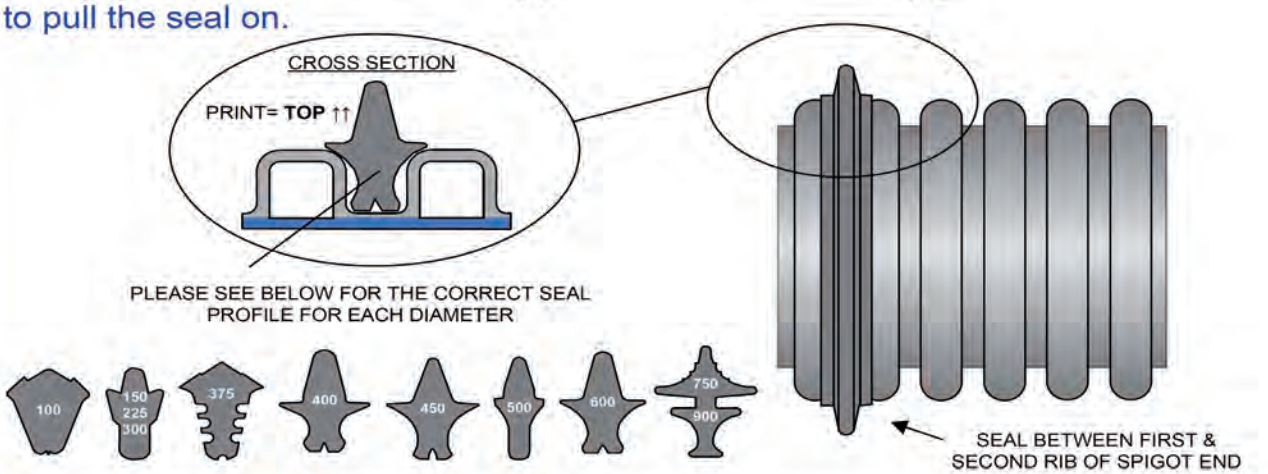
Seal Position & Orientation

STEP 1 – Seal Position & Orientation

RIDGIDRAIN Ø100mm – Ø900mm

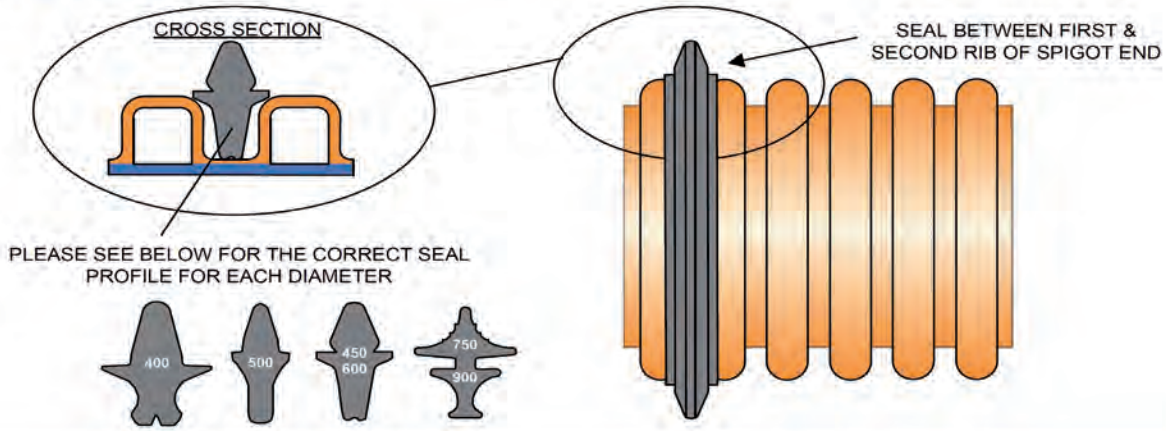
(100mm, 150mm, 225mm & 300mm SEALS ALSO USED FOR RIDGIDUCT POWER CLASS 2 & MOTORWAY COMMUNICATIONS SEALED SYSTEMS)

Place the seal in the first recess of the spigot end of the pipe in the orientation shown below. Lubricant can be applied to the end of the spigot to make it easier to pull the seal on.



RIDGISEWER Ø400mm – Ø900mm

Place the seal in the first recess of the spigot end of the pipe in the orientation shown below. Lubricant can be applied to the end of the spigot to make it easier to pull the seal on.



Polypipe Civils,
Charnwood Business Park, Loughborough, Leicestershire LE11 1LE
Tel: +44 (0)1509 615100 Fax: +44 (0)1509 610215
Email: civils@polypipe.com

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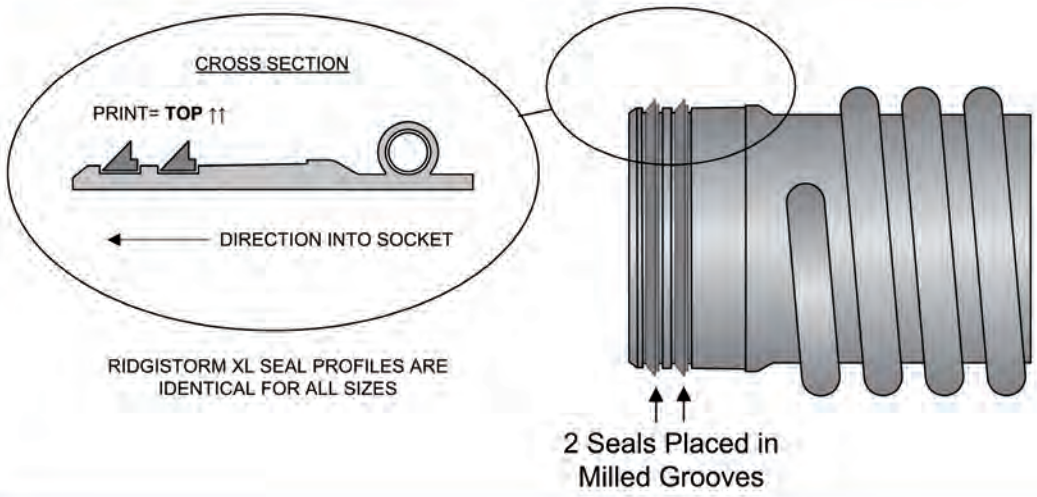
Step 1 & 2

Seal Position & Orientation (continued)

RIDGISTORM XL Ø750mm – Ø1800mm

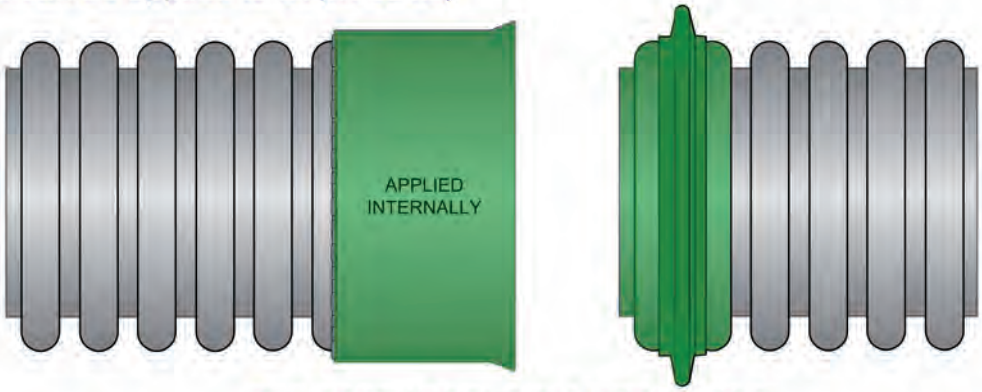
Place the seals in the milled groves of the spigot. Lubricant can be applied to the end of the spigot to make it easier to pull the seal on.



Step 2

Application of Lubricant

Ensure the socket & spigot are free from dirt & stones, clean if necessary. Apply a liberal amount of Polypipe lubricant all around the spigot end, seal & inside of the socket as shown below. (Ridgidrain is shown in the diagram below but same method can be applied to all products)



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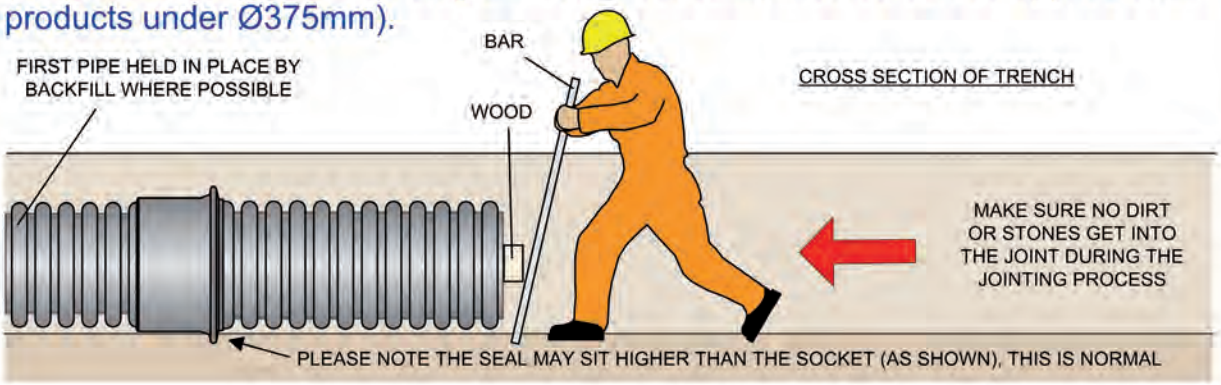
Step 3

Jointing

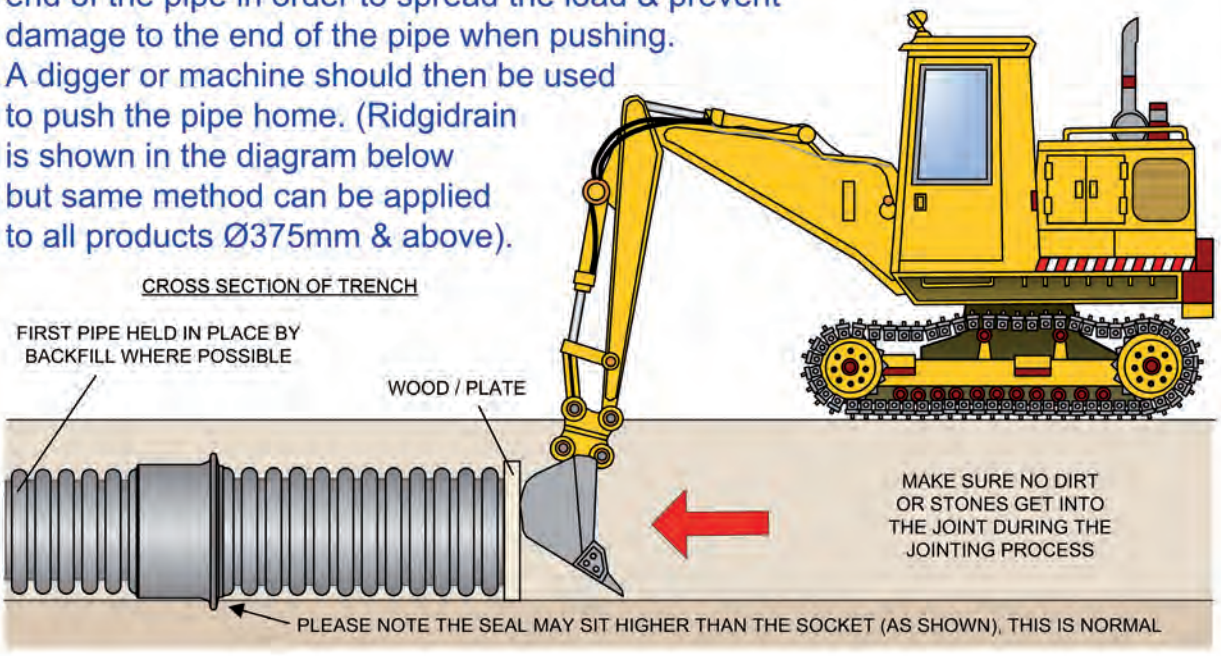
NON MECHANICALLY JOINTING PIPES UNDER Ø375mm

It may be possible with smaller sizes to simply push the pipes together by hand, if this is not possible a lever bar can be used. Place the pipe against the socket & put a piece of wood across the end of the pipe to spread the load & prevent damage, use a bar to lever the pipe home as shown below.
(Ridgidrain is shown in the diagram below but same method can be applied to all products under Ø375mm).



MECHANICALLY JOINTING Ø375mm & ABOVE

Place the pipe against the socket, wood or a plate should then be added to the end of the pipe in order to spread the load & prevent damage to the end of the pipe when pushing.
A digger or machine should then be used to push the pipe home. (Ridgidrain is shown in the diagram below but same method can be applied to all products Ø375mm & above).



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Charnwood Business Park, Loughborough, Leicestershire LE11 1LE
Tel: +44 (0)1509 615100 Fax: +44 (0)1509 610215
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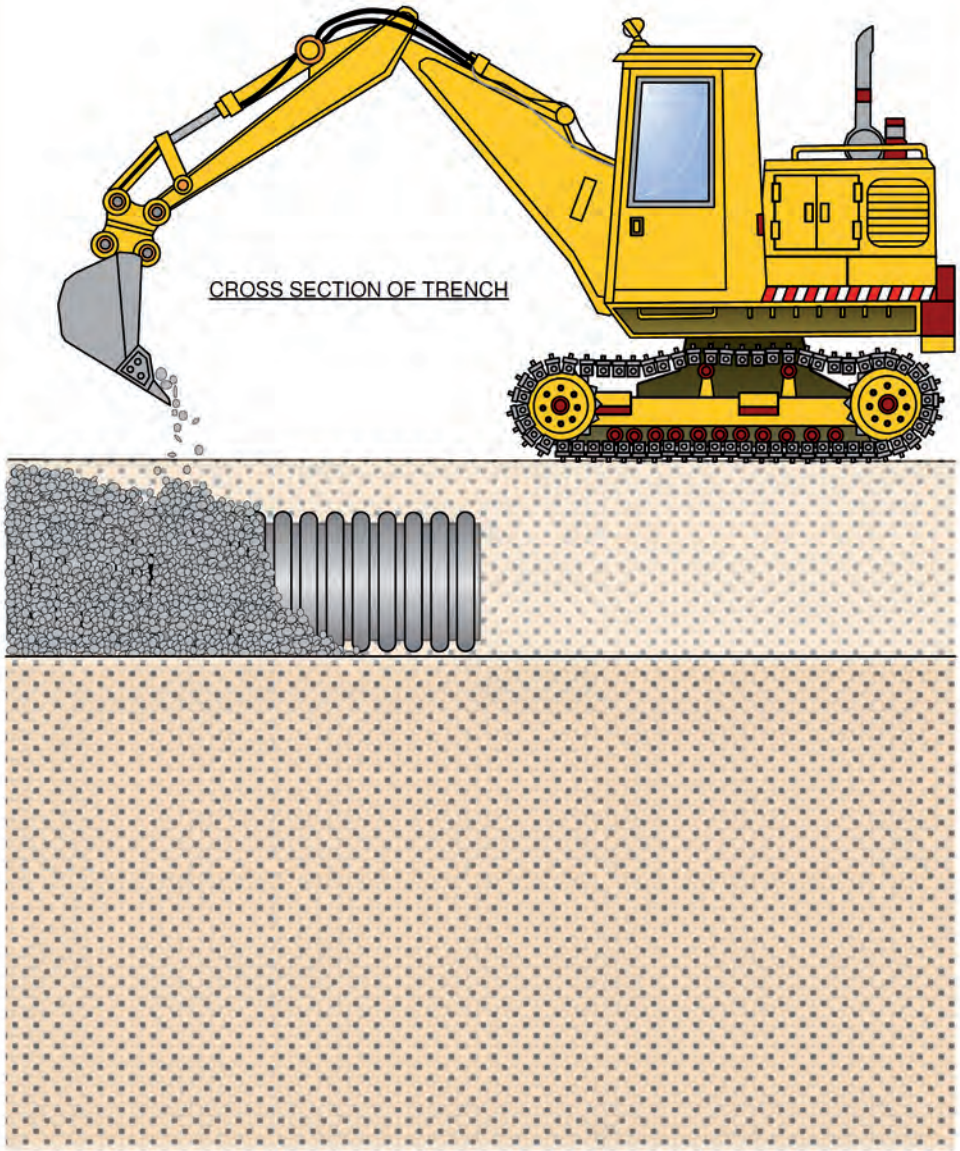
Step 4

Backfill



Backfill over the new joint in order to hold it in place.

Joints should not be left for long periods without backfill or unsecured.

If you find that the pipes are creeping out as soon as the machine is removed leave the machine in place holding the pipe while backfill is applied to the joint.

(Ridgidrain is shown in the diagram but same method can be applied to all products within this guide)

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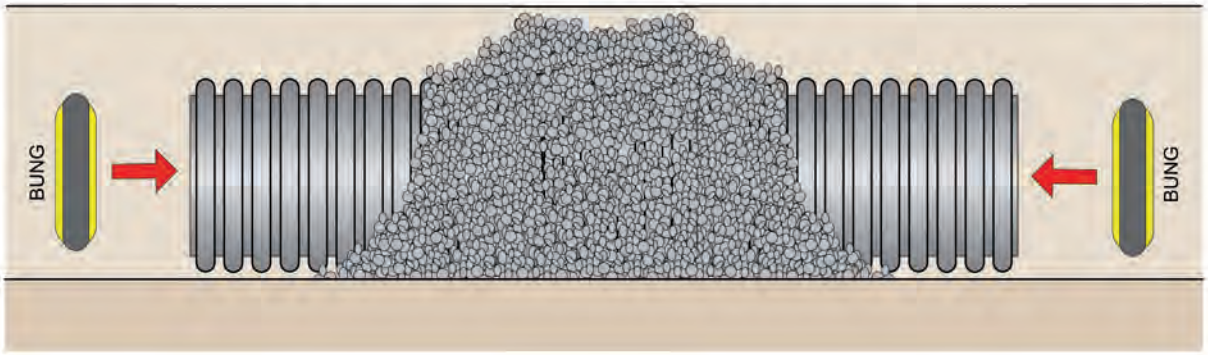
Insert Bungs

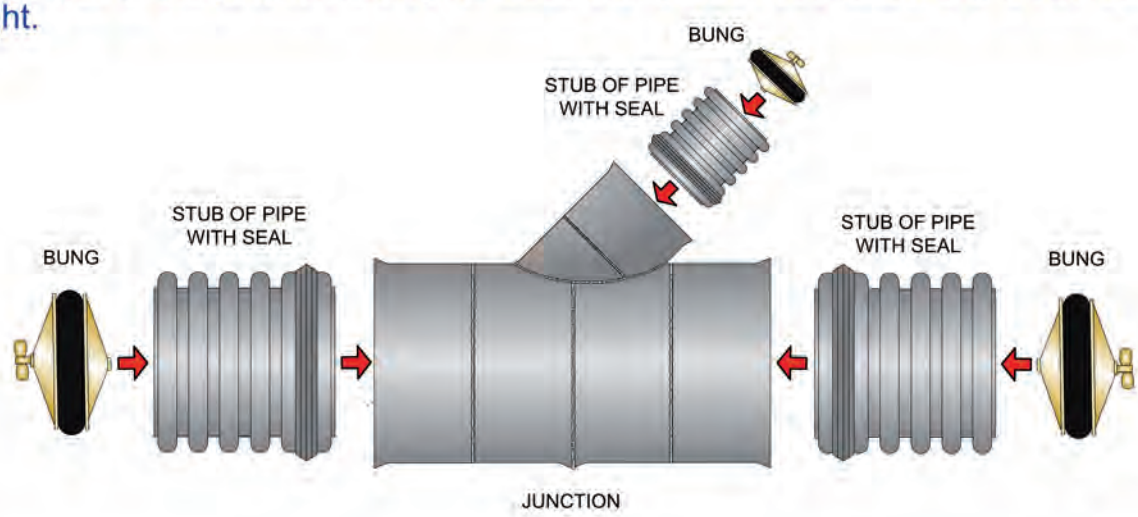
Insert bungs into each end of the pipeline leaving a 25mm gap from the bung to the end of the pipe, also ensure that any other spouts are bunged & held in place.

Inflatable Bungs:
Check the bungs to ensure the rubber is in good condition, not cracked & free from dirt. Check the inflation & test ports are in good condition & do not hiss when blown up.

Steel Bungs:
Check the bungs to ensure the rubber is in good condition, not cracked & free from dirt. Also check there is no damage to the bung and the cap screwed to the end of the centre port is tight & sealed (PTFE tape can be applied to the screw threads between the bung ports & nozzle/blanking to improve the seal).



NOTE:
When testing junctions the bungs must be placed inside stubs of pipe as shown below NOT on the blue inner wall of the junction itself. This is because the inner wall of the junction is only for Structural & Aesthetic reasons & is not leak tight.



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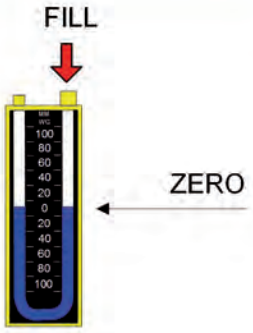
Air Test Procedure

STEP 6 – Air Test Procedure *(Sewers for Adoption 7th Edition & MCHW)*

Check the U Gauge/Manometer is not damaged then fill up with water to the zero point.

Connect the U Gauge/Manometer to the bung with the connection port.

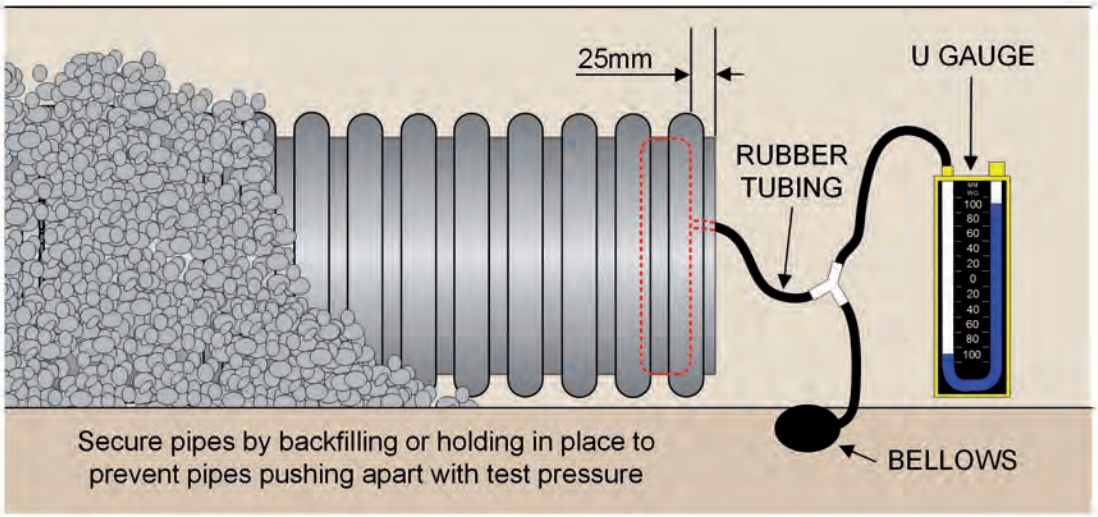
Increase the pressure using the bellows or other means until the gauge reads 100mm/wg (0.01bar)



Allow pressure to stabilise for around 5 minutes increasing the pressure to 100mm/wg if it drops

Record any change in pressure over a 5min period. Without any further pumping it should not drop below 75mm/wg (should not loose more than 25%).

Alternate test methods may also be used in accordance with CESWI 7th Edition & BS EN 1610 where required.



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Air Test Fault Finding

Print this sheet off & use it as a check sheet, each of the ☑ red boxes can be ticked to eliminate the possible causes of an air test failure.

- ☐ Check that the bungs are secured square in the end of the pipe leaving a gap of about 25mm from the end of the pipe.
- ☐ On inflatable bungs check that they are inflated to the correct pressure.
- ☐ On steel bungs check the screw threads are well lubricated & done up tight, check there is a rubber washer inside the nozzle & blanking plates that screw onto the end of the ports in the bungs (PTFE tape can be applied to the threads between these to improve the seal).
- ☐ Check the Manometer (U gauge) is not damaged & is filled with water to the zero mark.
- ☐ Check that the air test tubing & bellows are not perished or damaged & are connected securely to the bung & the Manometer (U gauge).
- ☐ Check that the pipes are being held in place & are not creeping apart due to the test pressure.
- ☐ Check that the seals are the correct type & are being placed in the correct location (see page 1 & 2)
- ☐ Check that lubricant is being applied during the jointing process, lack of lubricant can cause the seal to roll over due to increased friction.
- ☐ Check that there is no damage or dirt on the socket or spigot.
- ☐ On exposed pipes under test ensure changes in temperature do not affect the test. Example: There is cloud cover at the start of the test, the cloud then clears & the sun comes out which heats the pipe, the air inside the pipe expands making the pressure increase, the opposite to this happens when the pipe is cooled.

Water with detergent (washing up liquid) can be applied to connections in the bungs, around the edges of the bungs, to the joint, around weld & any area you suspect has leak in order to identify a problem. Apply the water to the area you need to check then increase the pressure in the assembly as you would for an air test, if you see bubbles wipe them away & re-apply water & pressure to see if they re-appear, if so you have identified the leak.

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