Installation Guidance

June 2013

Puriton System

Protecting Drinking Water

Pipe Surface Preparation & Electrofusion Jointing Guidance
Puriton Mains Pipe 90mm to 180mm

Safety

Minimum recommended personal protection equipment

The surface of the electrofusion fitting will become hot during the electrofusion process. Do not touch the fitting until the full cooling cycle has elapsed.

If there is aluminium swarf or debris on the prepared pipe surface, do not attempt to make the electrofusion joint. Failure to comply may result in electrical shorting and/ or premature failure of the electrofusion joint.

A visual check of all electrical components including the generator, electronic control unit and all cables should be made to ensure that they are in good working order and fit for use. Follow the supplier's recommendations. Do not use the electrofusion fitting if electrical terminal connections are damaged.

When removing the cutting swarf, use the round nose snips to cut, DO NOT pull with bare hands

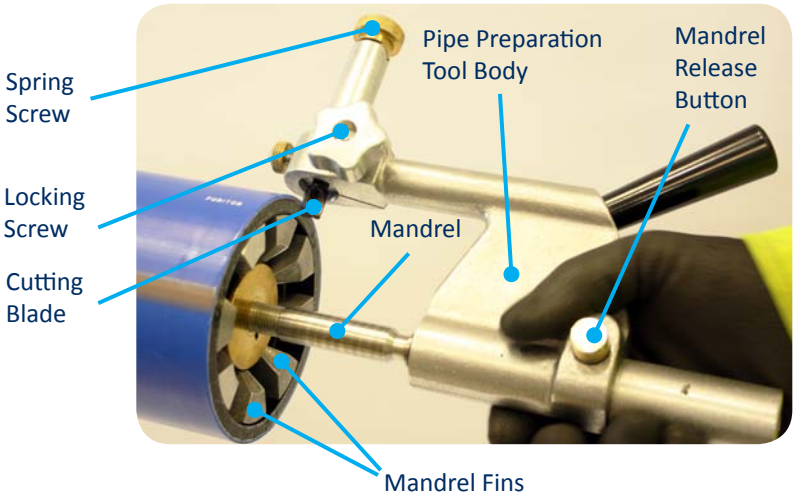
Equipment

Marker Pen | Inspection Mirror | Round Nose Snips | Measuring Tape | Pipe Cutter | Clamps | Pipe Surface Preparation Tool | Electrofusion Unit

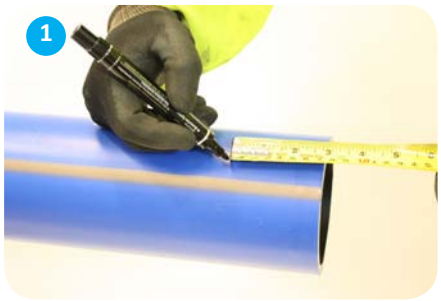
BEFORE MAKING A CONNECTION TO THE PURITON PIPE, ENSURE THAT THE PIPE SURFACE IS CLEAN AND FREE FROM DAMAGE

To ensure that the barrier protection of the Puriton system is maintained, only Puriton fittings should be used with Puriton pipe. The use of non-Puriton fittings may compromise the barrier properties of the system

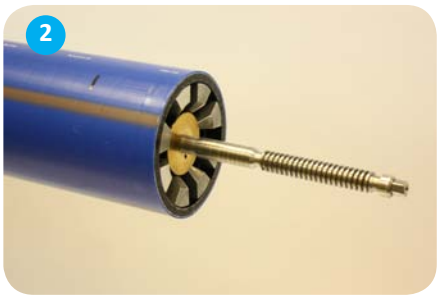
Pipe Surface Preparation for Electrofusion Jointing



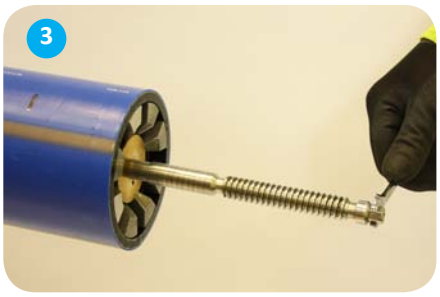
A 2-pass surface preparation process is used for electrofusion jointing of Puriton pipes



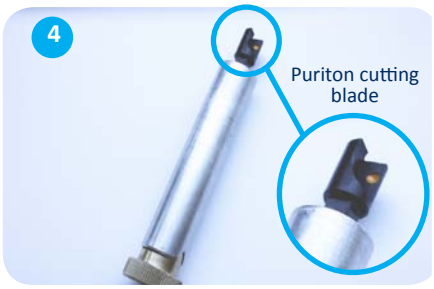
Ensure the pipe is cut square. Measure the fitting insertion depth and mark the pipe



Select the correct size tooling for the pipe diameter. Insert the mandrel into the pipe, as shown, ensuring that the mandrel fins are equally spaced and flush with the pipe end.

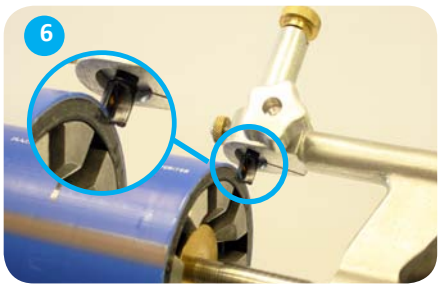


Using a 10mm ring spanner, secure but do not overtighten the mandrel as this will distort the pipe



FIRST PASS: Select the Puriton cutting blade (identified by the indent) and insert into the pipe surface preparation tool body

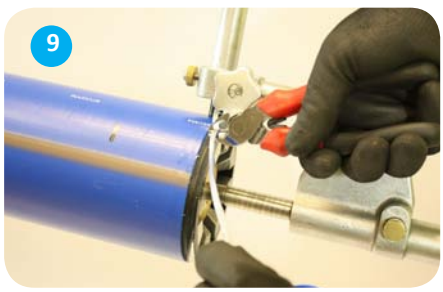
Depress the mandrel release button and place the body of the Puriton surface preparation tool onto the thread of the expanding plug.



Rotate the spring screw into position, loosen the locking screw and lower the blade to be in contact with the pipe end

Tighten the locking screw and rotate the spring screw intop position

Rotate the tool continuously in an anti-clockwise direction. This will remove the Puriton skin and aluminium layer



To prevent the swarf contaminating the pipe, cut using the round nose snips at regular intervals

Pipe Surface Preparation for Electrofusion Jointing

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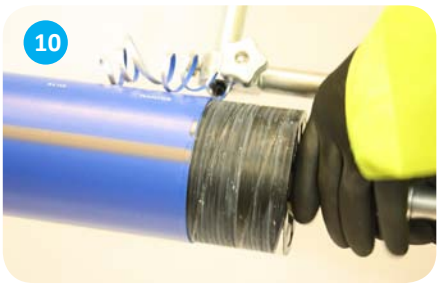
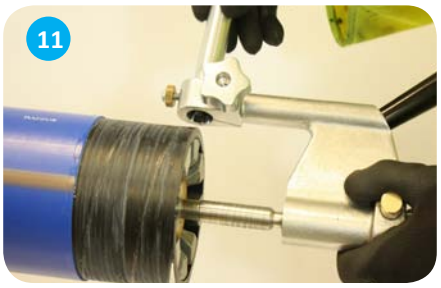
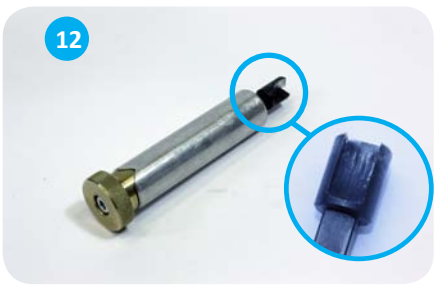


Continue until the fitting insertion depth mark is reached.
NOTE: do not remove the barrier layer beyond the socket insertion depth. Failure to comply will reduce the barrier properties of the system



Loosen the locking screw to lift the cutter clear off the pipe.

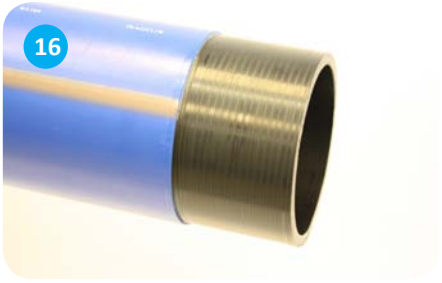


SECOND PASS: Select the standard polyethylene surface preparation tool post and blade and position into the tool body
NOTE: Do not attempt a second pass with the Puriton cutting blade

Repeat steps 5 to 7

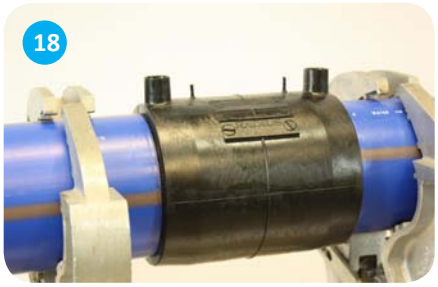
Rotate the tool continuously in an anti-clockwise direction. This will remove a continuous layer of polyethylene swarf

To prevent the swarf contaminating the pipe, cut using the round nose snips



Inspect the pipe surface. If there is any debris, dirt or aluminium on the surface, then the prepared end should be cut back and the surface preparation process must be repeatead

Place the fitting in its bag on the pipe end. This will avoid pipe surface contamination. Repeat the pipe surface preparation process for the second pipe



Remove the packaging from the fitting and fully insert the second pipe into the socket. Alignment clamps should be used and the electrofusion joint made using industry best practice procedure

- During the second pass, a sign of good surface preparation is the removal of a continuous layer of polyethylene swarf
- After the second pass, if there is any debris, dirt or aluminium on the pipe surface, then the prepared end should be cut back and the surface preparation process must be repeated
- If there is aluminium swarf or debris on the prepared surface, do not attempt to make the electrofusion joint. Failure to comply may result in electrical shorting and/or premature failure of the electrofusion joint
- There is no requirement to wrap electrofusion joints with aluminium tape
- After the fusion cycle, allow the electrofusion fitting to cool with the clamps in place

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