

PROCEDURE: Joint Reinstatement

Permapipe Systems joint reinstatement kits make joint reinstatement a simple step by step task. Simply follow the steps to ensure fully encapsulated carrier pipe, with no chance of vapour seal issues.

Materials Required: Joint reinstatement kit, drill with Phillips head driving bit, clear packing tape

PPE Required: Safety glasses

Step 1: Test carrier pipe in a manner which ensures the integrity of the joint (note that the below image represents a welded joint. The same principle applies for grooved or flanged joints)



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Step 2: Select the reinstatement kit which corresponds with the joint to be reinstated. The bottles clearly state what size reinstatement the kit is for, as shown below;

Description of appropriate reinstatement



The full kit should contain the following;

- Chemical bottles for Part A and Part B
- Set of latex gloves and screws for fixing wrap
- Rolled galvanised wrap
- Heat shrink (underground only)
- Heat shrink closure strip (underground only)

Below is the full kit required to complete an underground joint;



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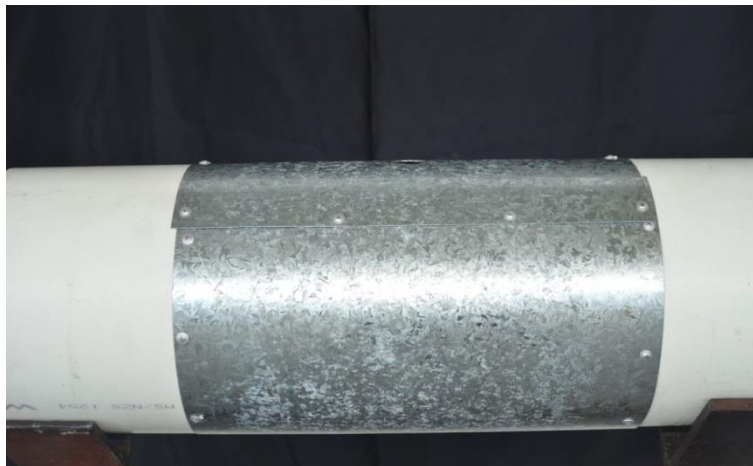
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Step 3: Attach the metal sheathe to the case using the screws provided, and a driver with a Phillips bit ensuring that the pour hole is located at the top.

Start at the top and work around until the sheath is attached.



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Step 4: Put on latex gloves and ensure adequate eyewear is used. Pour part B of chemical (small bottle) into part A of chemical (large bottle) and shake vigorously for 20 seconds.

WARNING: mixing the two chemicals creates a reaction which gives off a gas, which will pressurize the bottle, DO NOT shake the bottle for longer than the recommended time, and remove cap as soon as shaking has finished.



Step 5: Pour contents of bottle into pour hole. It is important to pour this in as quickly as safely possible, as the chemical reacts, it will eventually thicken and become harder to pour, and may result in an inadequate amount of chemical entering in order to completely encapsulated the carrier pipe, and fill the reinstatement void.



As the foam reacts, its volume will increase filling the reinstatement void.

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Step 6: Apply clear tape around the pipe, leave enough of a gap in the pour hole to let the gas escape. Once the foam looks close to the pour hole, complete taping the pour hole.



The above method completes the **above ground** reinstatement procedure. The following steps are also required to complete the **underground** reinstatement procedure.

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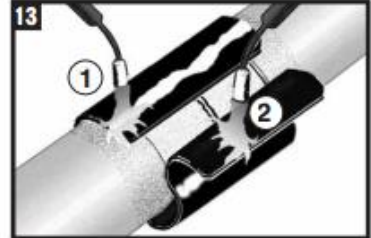
Sleeve Installation



Partially remove the release liner and gently heat the underlap approximately 150 mm (6") from the edge.



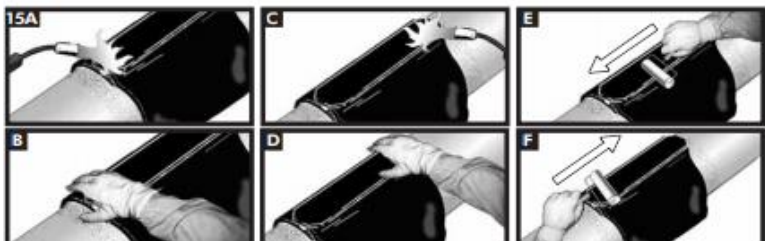
Centre the sleeve over the joint so that the sleeve overlaps between the 10 and 2 o'clock positions. Press the underlap firmly into place and remove the remaining release liner.



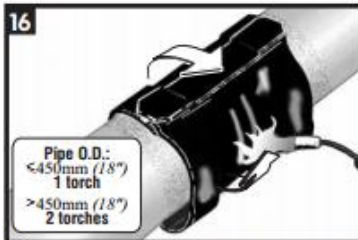
Wrap the sleeve loosely around the pipe, ensuring the appropriate overlap. Gently heat the backing of the underlap and the adhesive side of the overlap. Press the overlap into place.



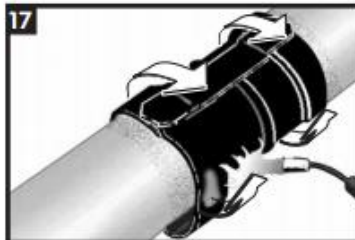
Remove any release liners from the closure. Centre the closure on the overlapping sleeve. Press down firmly.



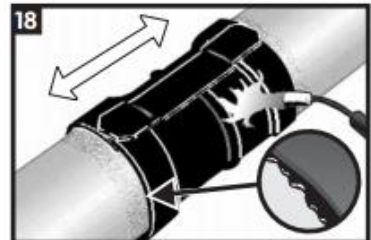
Gently heat the closure and pat it down with a gloved hand. Repeating this procedure, move from one side to the other. Smooth any wrinkles by gently working them outward from the centre of the closure with a roller.



Using the appropriate sized torch, begin at the centre of the sleeve and heat circumferentially around the pipe. Use broad strokes. If utilizing two torches, operators should work on opposite sides of pipe.



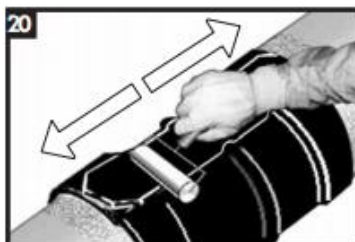
Continue heating from the centre toward one end of the sleeve until recovery is complete. In a similar manner, heat and shrink the remaining side.



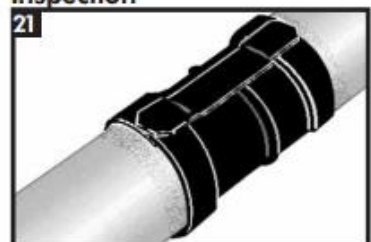
Shrinking has been completed when the adhesive begins to ooze at the sleeve edges all around the circumference. Finish shrinking the sleeve with long horizontal strokes over the entire surface to ensure a uniform bond.



While the sleeve is still hot and soft, use a hand roller to gently roll the sleeve surface and push any trapped air up and out of the sleeve, as shown above. If necessary, reheat to roll out air.



Continue the procedure by also firmly rolling the closure with long horizontal strokes from the weld outwards.



Visually inspect the installed sleeve for the following:

- Sleeve is in full contact with the steel joint.
- Adhesive flows beyond both sleeve edges.
- No cracks or holes in sleeve backing.

Backfilling Guidelines

After shrinking is complete, allow the sleeve to cool for 2 hours prior to lowering and backfilling. To prevent damage to the sleeve, use selected backfill material, (no sharp stones or large particles) otherwise an extruded polyethylene mesh or other suitable shield should be used.

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