CANUSA-CPS
Corrosion Protection & Sealing

TBK-60

Heat-Shrinkable corrosion and mechanical protection system for pipeline field joints during horizontal directional drilling

Product Description

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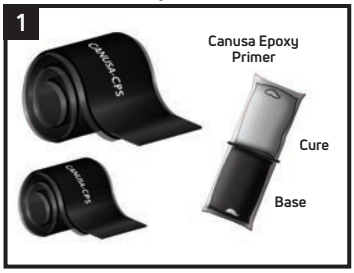

Canusa's Directional Drilling Kits - TBK systems are composed of two sleeves and epoxy kit(s). The epoxy kit(s) includes: application accessories, latex gloves and pre-measured quantities of Canusa Epoxy Primer.

Equipment List

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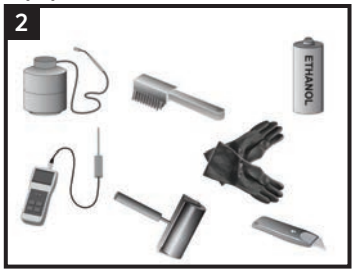

Canusa torch, propane tank, hose & regulator; Temperature measuring device, roller, knife; Appropriate surface abrasion device, solvent; Standard safety equipment (gloves, goggles, hard hat, etc.)

Flame Intensity & Torch Size

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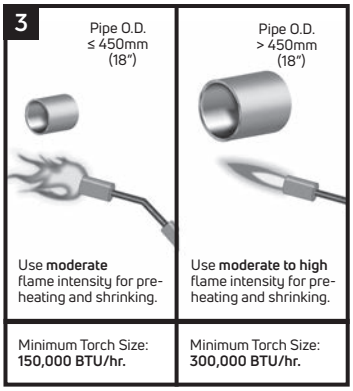

Surface Preparation

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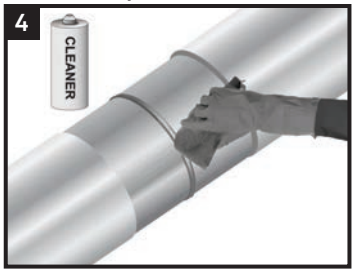

Clean exposed steel and adjacent pipe coating with an approved solvent (Acetone, MEK, Alcohol >96%) to remove the presence of oil, grease, and other contaminants if present. Ensure that the pipe is dry prior to mechanical cleaning.

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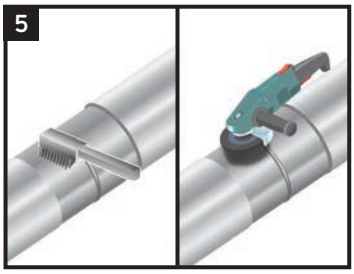

The steel surface should be cleaned using a hand or power wire brush to a minimum St 2 finish prior to coating application. Severely contaminated surfaces should be thoroughly cleaned by abrasive blasting to a "medium blast" Sa 2 surface. Factory coating edges should be abraded for a minimum width of 225 mm (9") from the cutback edge or tie-ins to existing coatings using abrasive paper or a grinder with a 40-60 grit flap wheel disc and should be beveled to eliminate the vertical edge. After cleaning, wipe clean or air blast the steel surface and pipe coating to remove foreign contaminants.

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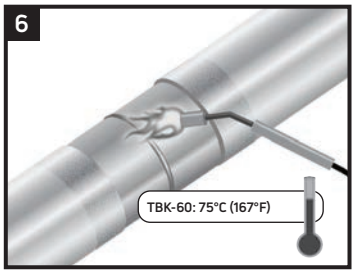

Pre-heat the cutback area and abraded coating to the required temperature with the appropriate propane torch. Ensure the correct temperature has been reached using a temperature measuring device. If a film develops on the mainline coating because of preheat, use a surface abrasion tool to remove it.

Primary Sleeve Installation

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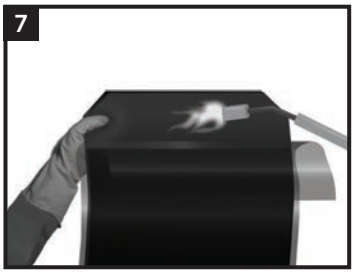

Using the wider sleeve, partially remove the release liner and gently heat the underlap approximately 150 mm (6") from the edge.

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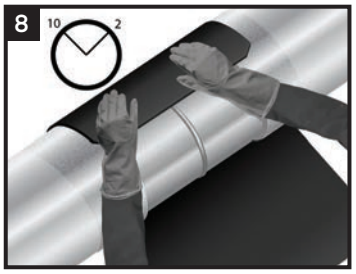

Centre the sleeve over the joint so that the sleeve overlaps between the 10 and 2 o'clock positions. Press the underlap firmly into place. Remove the remaining release liner.

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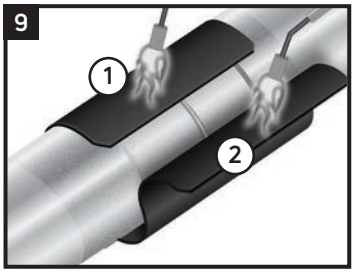

Wrap the sleeve loosely around the pipe, ensuring the appropriate overlap. Gently heat the backing of the underlap (1) and the adhesive side of the overlap (2).

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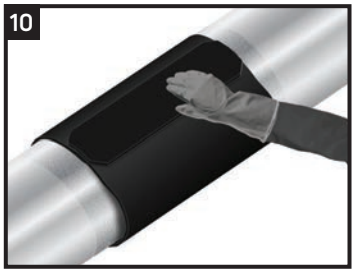

Press the closure firmly into place. Gently heat the closure and pat it down with a gloved hand. Repeating this procedure, move from one side to the other. Smooth any wrinkles by gently working them outward from the centre of the closure with a roller.

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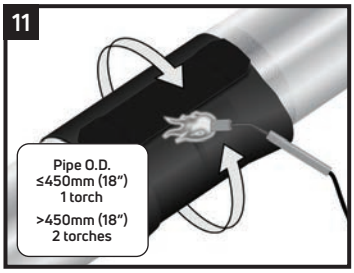

Using the appropriate sized torch, begin at the centre of the sleeve and heat circumferentially around the pipe. Use broad strokes. If utilizing two torches, operators should work on opposite sides of pipe.

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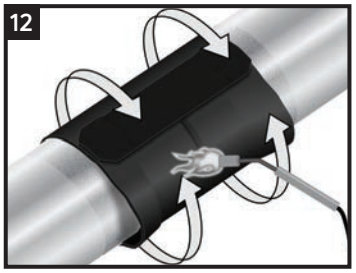
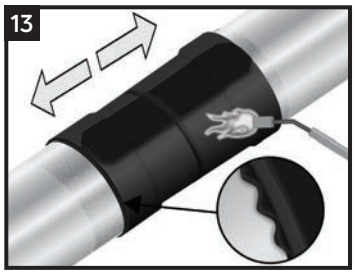
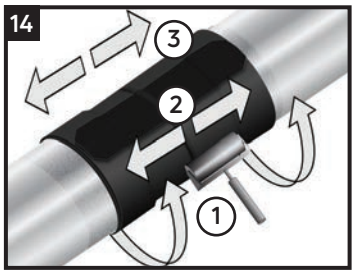


Continue heating from the centre toward one end of the sleeve until recovery is complete. In a similar manner, heat and shrink the remaining side.

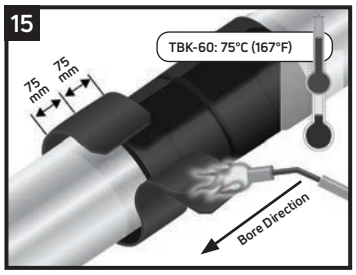
Sacrificial Sleeve Installation



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.

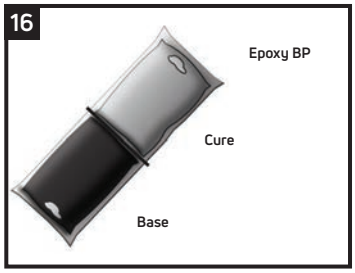


While the sleeve is still hot and soft, use a hand roller to gently roll the sleeve surface and push any trapped air up and out of the sleeve, as shown above. Continue the procedure by also firmly rolling the closure with long horizontal strokes from the weld outwards.



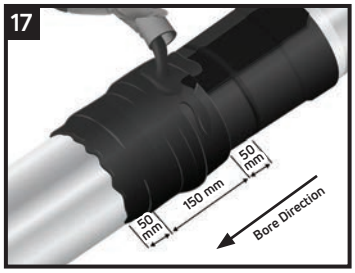
Ensure that the front 100 mm (4") of the first sleeve and 100 mm (4") onto the coating is at the required temperature. Completely remove any release liners from the 150 mm (6") Wrap the 150 mm (6") sacrificial sleeve so that half of the sleeve overlaps the first sleeve and half of the sleeve extends onto the coating. Position the closure on the opposite side of the pipe relative to the first sleeve closure. Recover the sleeve as in steps 10 to 14.

Epoxy Primer

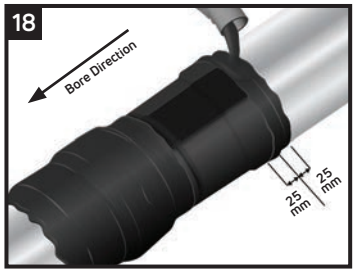


Follow the Preparation, Mixing and Application instructions provided with the supplied Canusa Epoxy Pack.

Epoxy (Topcoat) Application

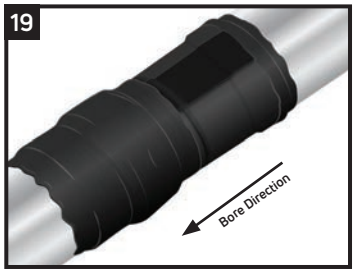


When the sleeve is between 15 - 40°C, apply epoxy over the sacrificial sleeve to form a wear cone; covering 50 mm (2") onto the pipe coating, the entire sacrificial sleeve and 50 mm (2") onto the first sleeve. **Epoxy applied should thoroughly cover the edge of the sleeves.**



Apply epoxy to trailing edge of first sleeve; 25mm (1") onto sleeve, 25 mm (1") onto adjacent coating. **Epoxy applied should thoroughly cover the edge of the sleeves.** It is best to allow the epoxy to cure at ambient temperature. If necessary, use a low flame to cure epoxy. **Cover the entire sleeve with any leftover epoxy.**

Prior to Pulling



Visually inspect the installed system to ensure that:

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

Allow the epoxy overcoat to be completely cured and the installed system to cool to minimum 45°C (115°F) prior to pulling.

Storage & Safety Guidelines

To ensure maximum performance, store Canusa products in a dry, ventilated area. Keep products sealed in original cartons and avoid exposure to direct sunlight, rain, snow, dust or other adverse environmental elements. Avoid prolonged storage at temperatures above 35°C (95°F) or below -20°C (-4°F). Product installation should be done in accordance with local health and safety regulations.

These installation instructions are intended as a guide for standard products. Consult your Canusa representative for specific projects or unique applications at info@canusacps.com.

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Quality Management system registered to ISO 9001

Part No. 99060-178

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