

## High Shrink KLOX

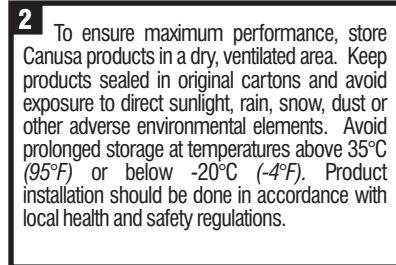
High shrink, one-piece, protective sleeve with pre-attached closure for flange joints

### Product Description



The Canusa High Shrink KLOX is configured with a pre-attached closure. The adhesive is protected from contamination by an inner liner. The Canusa High Shrink KLOX is used with flange joint applications.

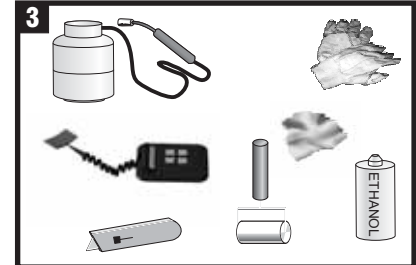
### Storage & Safety Guidelines



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.

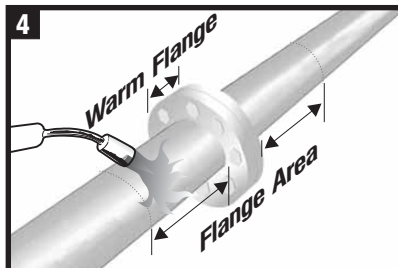
These installation instructions are intended as a guide for standard products. Consult your Canusa representative for specific projects or unique applications.

### Equipment List



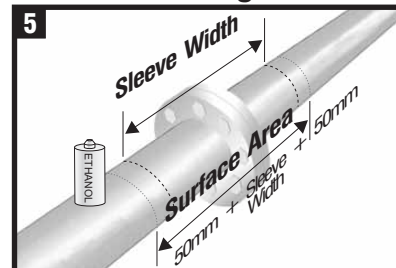
Propane tank & torch, Regulator & Hose  
 Appropriate tools for surface abrasion  
 Knife, roller, rags & solvent cleanser  
 Temperature measuring device  
 Standard safety equipment; gloves, goggles, hard hat, etc.

### Pre-Warm



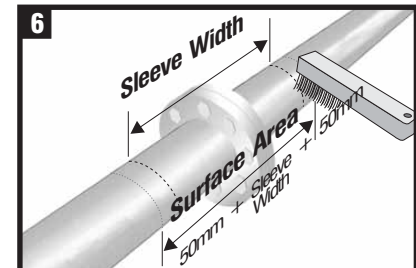
Using the torch and a medium flame, pre-warm and dry the entire sleeve width + 25 mm (1") on each side. Take precaution not to damage the rubber flange seal.

### Solvent Cleaning



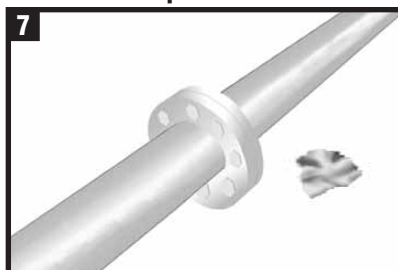
Clean exposed steel and adjacent pipe coating with a solvent cleanser to remove the presence of oil, grease and other contaminants.

### Surface Abrasion



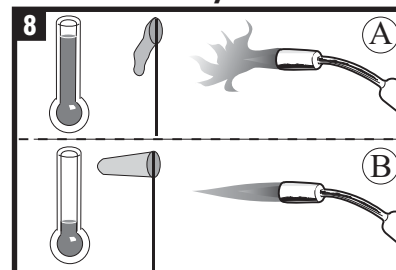
Prepare the joint area and adjacent pipe coating to a distance of 50mm (2") beyond each edge of sleeve width by abrading the surface with a wire brush.

### Surface Preparation



Wipe clean or air blast the joint area and pipe coating to remove foreign contaminants.

### Flame Intensity & Torch Size

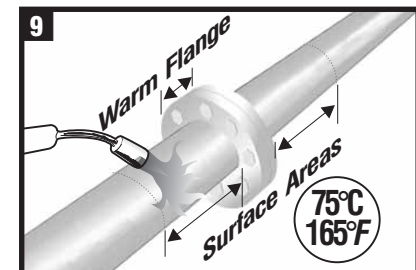


Adjust the flame according to outside conditions.

- a. Use yellow flame for low wind, higher temperatures
- b. Use blue flame for high wind, lower temperatures

Always aim the torch perpendicular to the pipe and move in a circumferential direction.

### Pre-Heat

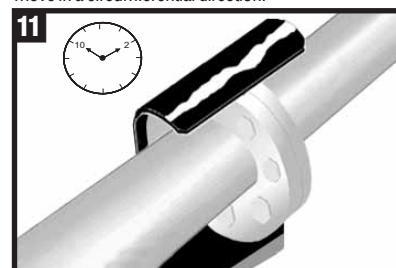


Pre-heat the pipe surface areas to a minimum temperature of 75°C (165°F). Using a temperature measuring device, ensure that the correct temperature is reached on the steel and at least 50mm (2") on each side of the sleeve. Take pre-cautions to not damage the rubber flange seal.

### 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.



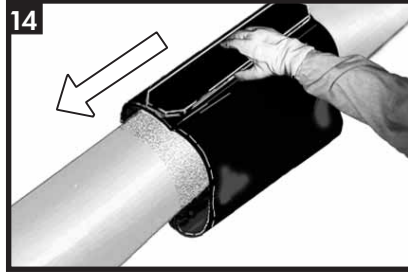
Wrap the KLOX sleeve around the flange, ensuring 15mm gap at flange bottom. Remove the release liner from the adhesive coated closure.

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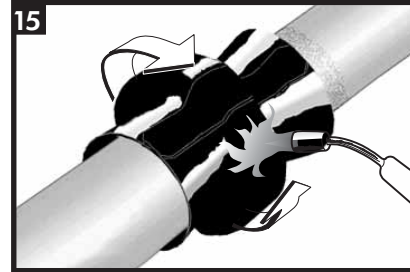
## Sleeve Installation Cont'd



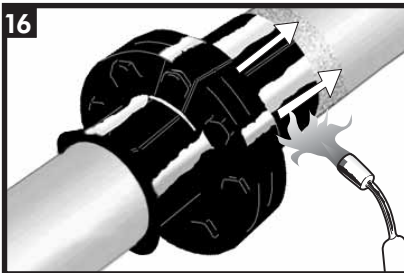
Do not heat the overlap or the adhesive coated closure. The closure is designed to hold the sleeve in place without preheating. Finish wrapping by firmly pressing the overlap and closure into place.



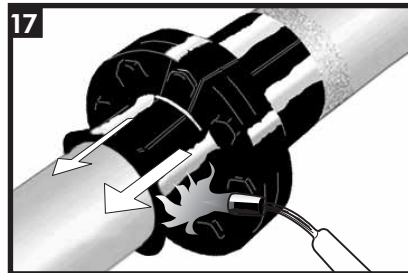
Use a gloved hand to press the entire closure surface down firmly. Ensure contact of the closure with the underlying sleeve, over the entire sleeve width.



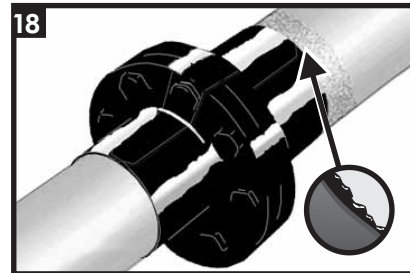
Using broad strokes, begin shrinking the KLOX sleeve around the entire circumference of the flange. Press the edges of the closure down with a gloved hand to fuse the closure to the underlying sleeve backing. Continue heating from the centre of the sleeve until sleeve recovery is completed around the flange.



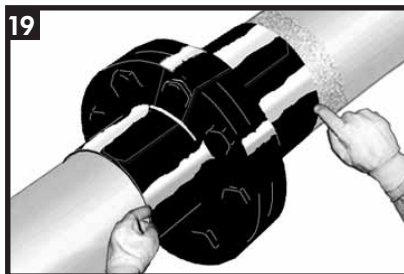
If the closure lifts while shrinking, secure it with a gloved hand. Continue heating from the centre toward one end of the sleeve until recovery is complete. With a gloved hand, continue to secure the edges of the closure.



In a similar manner, heat and shrink the remaining side. Use a gloved hand to smooth any closure wrinkles.

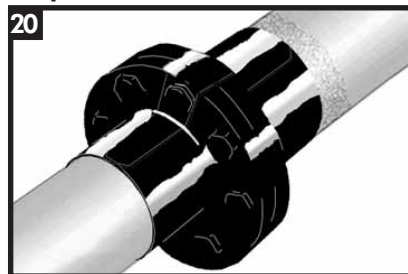


Use a gloved hand to press down the closure area adjacent to the flange, assisting the sleeve recovery. Shrinking has been completed when the adhesive begins to ooze at the sleeve edges all around the circumference.



Lightly heat the entire sleeve and use a gloved hand to make sure the KLOX conforms to the shape of the flange and the main pipe. After the sleeve is fully recovered, use a roller to maximize the closure contact to the sleeve. Use a gloved hand to test the sleeve for adequate adhesive "wetting-out".

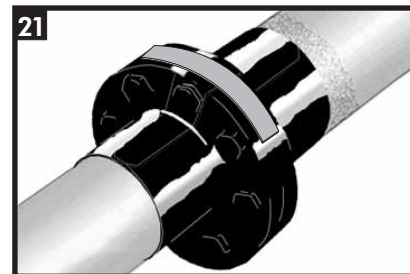
## Inspection



Visually inspect the installed sleeve for the following:

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

## Tab Seal



A reinforcing tab seal, with a recommended length of 300mm, is installed on the flange profile circumferentially (centered across the closure) in the following situations:

- the product will not be buried within 48 hours of installation.

- ambient temperatures prior to burial exceed 25°C

The tab seal is intended to secure the KLOX product as the product cools and hardens into a sealed continuous barrier.

## Backfilling Guidelines

22 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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