

## PROCEDURES

### ELECTROFUSION

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#### 4.0 PURPOSE

This section covers the methods used when joining PE plastic pipe by means of electrofusion.

#### 4.1 GENERAL

The electrofusion method is an acceptable means for joining two dissimilar PE pipes.

#### 4.2 ELECTROFUSION JOINING PROCEDURES

This procedure describes how to join polyethylene 2406 pipe using electrofusion couplings.

##### A. Equipment Required

1. Approved electrofusion power supply and controls
2. Electrofusion couplings
3. Pipe peeling tool or scraping tool
4. Alignment clamp
5. Clean cotton rag or paper towels
6. Marking pencil
7. Extension Cord - 50 feet long, 12-gauge minimum.  
(Cords over 100 feet not recommended)

##### B. Procedure

**NOTE:** Cleanliness is a must! Coupling should remain in bag until Step 4. Pipe ends shall be kept clean, dry and free from any contaminates.

- 1 Prepare the pipe ends. The pipe ends shall be clean, undamaged and squarely cut.
- 2 Using the coupling's centerline as a guide, mark one-half of the coupling length on each pipe end, using a marking pencil.
3. Using an approved pipe peeler, remove the oxidation layer from the surface area of the pipe to be fused, up to the previously made marks. A continuous ribbon should be removed when peeler is used. (Do not peel over the marks. Chamfer the end of the pipe if the coupling fits tight.)

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4. Remove the coupling from the package and slide the coupling fully onto one pipe end. Butt the pipe ends together. The space between the butted ends shall not exceed 1/4". Center the coupling by sliding it back onto the second pipe, making sure it is properly centered and the pipes are butted together.

**CAUTION:** To avoid contaminating fusion areas do not touch inside of couplings. If pipe surface becomes contaminated, clean by wiping with a clean paper towel and rubbing alcohol.

5. With the control unit disconnected from 120 VAC power source, connect the fusion leads to the fitting. Be sure connections are clean and tight.
6. Follow instructions on the manufacturer's fusion controls and activate the fusion process.
7. Allow the appropriate cooling time as required by the manufacturer. The fusion leads may be removed during the cooling process. Clamps shall not be removed until the coupling has sufficiently cooled.
8. A visual inspection during and after the fusion process shall be conducted to identify problems such as smoking or melted plastic running out of the coupling. If such problems occur, cut out the coupling and start over.
9. When coupling has cooled per manufacturer's specifications, pressure test or soap test connections as required in Section H-3 of this manual.