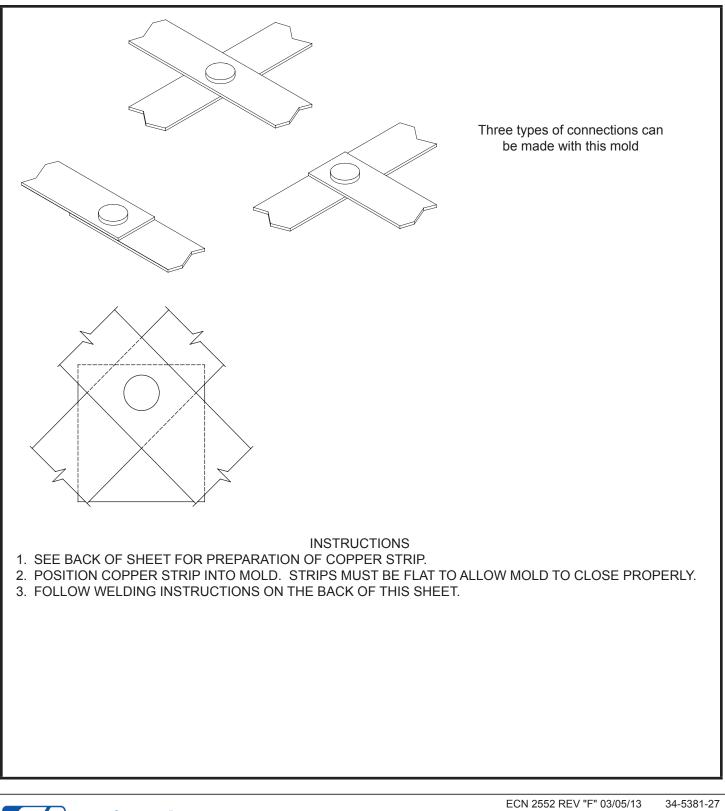
# thermOweld®

# INSTRUCTIONS FOR THERMOWELD GROUNDING CONNECTIONS - TYPE BB-46 MOLDS (LOW EMISSION)





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#### **GENERAL SAFETY INSTRUCTIONS**

- 1. Always wear proper clothing, safety glasses and gloves when exothermic welding.
- 2. Only weld items mold is designed for.
- 3. Do not use worn or broken molds which could cause leakage of molten weld metal.
- 4. Make sure that the material being welded fits in the mold properly and that the mold will close tightly around them.
- 5. Do not alter molds or accessories without factory authorization.
- 6. Avoid breathing concentrations of smoke, as it may be hazardous to your health.
- 7. Avoid contact with hot materials.
- 8. Remove or protect fire hazards in the welding area.
- 9. Avoid moisture and contaminants in the mold and materials being welded. Contact of molten weld metal with moisture or contaminants may cause weld metal to spew out of mold.
- 10. When welding to pipe or vessels, you should consider the following:
  - a. the effect welding may have on structural members and thin wall pipe or vessels.
  - b. pipe or vessels that are pressurized or contain (or have contained) flammable, explosive or hazardous materials should be evaluated in the case of a meltthrough or hot molten weld metal coming in contact with any flammable, explosive or hazardous materials.
- 11. Failure to abide by the above and follow welding procedures may result in improper welds, damage to the material being welded or create hazardous situations for the individual.

## PREPARATION OF BUS BAR, LUGS & COPPER STRIP

- 1. Bus bar and lugs must be bright, clean and dry on all surfaces that are within the weld area in the mold.
- 2. Use a file or card cloth brush to remove oxides.

#### WELDING PROCEDURE

- 1. Check mold tag for material to be welded and proper cartridge size to use.
- 2. Make sure all surfaces and conductors are clean, dry and are the proper sizes for the mold's application per mold tag.
- Molds can be dried by heating to approximately 250°F. Molds may be dried with a hand operated butane torch or by firing a charge in the mold before making the desired weld.
- 4. Position mold onto conductor(s). See other included instruction sheet for positioning conductors. Lock mold with handle clamps or frame, which ever is the case.
- 5. Place filter pad into lid
- Insert steel disk being sure it is directly centered over the tap hole. Failure to insert disk into mold or failure to seat the disk properly can create an improper weld and may cause mold to spew weld metal.
- Pour proper weld cartridge(s) into the crucible being careful not to upset the steel disk. Use of wrong weld cartridge can cause improper welds or damage to molds.
- 8. Insert the EZ Lite ignitor in the connector of thermOweld EZ Lite Remote™ Unit. Place the ignitor from the side of the mold.
- 9. Place gasket on top of mold and ignitor.
- 10. Close lid and secure with latch.
- 11. Before ignition, verify conductor positioning and that mold is closed completely.
- STAND CLEAR: Turn the power button to the ON position on the EZ Lite Remote<sup>™</sup> Unit. Press the "operate" button until the exothermic reaction is initiated
- 13. **CAUTION**: Wait approximately 30 seconds before opening cover to allow smoke to settle and super heated gasses to cool. Failure to do so can allow hot gasses to escape and flash which may cause burns to the operator.
- 14. Unlatch lid and slowly open. Clean mold before firing again. Filter pad and gasket life is four connections. After four connections, remove filter pad and gasket and replace them with new ones.
- 15. To clean the mold, use a natural bristle brush, soft cloth or newspaper before making next weld. On horizontally split molds, use a small diameter rod or screw driver to remove slag from tap hole. Caution should be used when cleaning molds to avoid burns from contact with hot mold.

### DO NOT USE WIRE BRUSH TO CLEAN MOLD!

- NOTE: 1. Proper cartridge size is marked on mold tag and shown on the bottom of the cartridge tube.
  - Cartridge size is the approximate weight of the powder in grams. When the cartridge size specified is not available, two or more smaller cartridges or part of a larger cartridge may be used.
  - 3. Handle Clamp adjustments may be made by removing cotter pin and clevis pin and turning eye bolt one turn clockwise to tighten or one turn counter clockwise to loosen.

