



**TerraWeld®**

**Grounding Solutions  
Surge Protection  
Lightning Protection**

# EXOTHERMIC WELDING SYSTEMS

## TerraWeld®



**TerraWeld® provides permanent welded connections for lightning protection and grounding systems. Using no external heat source, it is the preferred portable, easy to use, and dependable exothermic weld recommended by IEEE and IEC regulations.**

## Exothermic Welding Systems

The TerraWeld® Exothermic Welding System provides the ultimate in permanent molecular bonding. The process of exothermic welding, in which no external source of heat or power is required, is the universally preferred method of making electrical connections of copper-to-copper or copper-to-steel. Lightning protection and grounding systems require connections that maintain current carrying capacity exceeding that of the conductors used in the system. TerraWeld® connections provide higher fusing capacity than the conductors to which they are bonded. System resistance, impedance, and ampacity relate directly to functionality, safety, and regulatory compliance. TerraWeld® meets these challenges and delivers assurance.

TerraWeld® connections provide performance superior to all existing surface-to-surface mechanical retention connectors. Pressure type connections are susceptible to variation, aging, corrosion, and failure--not TerraWeld®. One click of the starter forges a visually inspectable, uniformly conductive, corrosion resistant, continuous solid metal bonding at the molecular level resulting in the only connection which will not loosen or increase in resistance over the lifetime of the installation.

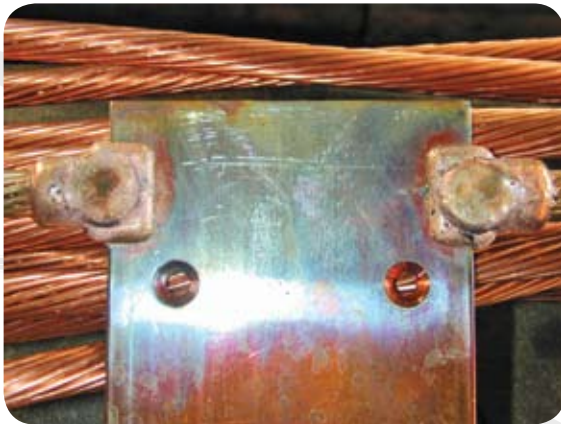
ALLTEC's hermetically sealed metallized pouch design is unique in the industry. Containing premeasured granular metallic particles with a separate sealed tube of starting powder, the materials are not in contact and may be safely handled, stored, and transported. Users may confidently and comfortably drop a few packages in their pocket before heading to a site, and rely on its capability even after prolonged exposure to the elements. TerraWeld® works when others won't.

The TerraWeld® Exothermic Welding System uses a light-weight, clamp-on graphite mold to safely position and contain any weld required. The exothermic reaction creates an intense miniature furnace with temperatures exceeding 2,500 °F, instantly producing molten metal which flows into the weld cavity, filling any available space. Moments later the mold may be removed in preparation for the next weld.



## Features

- Meets or exceeds:
  - UL 467- listed
  - IEEE 80, 837, and 1100
  - NF C 15-100
  - NEC Article 250
  - National Electrical Safety Code (NESC)
  - BS 6651
- Simple and cost effective
- Easy visual inspection of connection
- Repeated high fault current tolerant
- Highly Conductive
- Corrosion Resistant
- Weld does not loosen or deteriorate with age
- Portable and easy to use
- No special skills required
- Requires no external heat source
- Innovative, moisture proof packaging
- Extended shelf life
- Quick response custom molds
- Innovative mold designs reduce labor
- Extended mold life from high quality materials
- National and International Distribution



## Using Any of These Materials

- Copper
- Steel rail
- Common steel
- Columbium
- Bronze
- Wrought iron
- Copper-clad steel
- Commercially pure iron
- Stainless steel
- Monel
- Niobium
- Brass
- Silicon bronze

## Range of Mold Designs for Wire/Cable Combinations

- #10 –through- 1000mcm AWG
- 8mm<sup>2</sup> –through- 1000mm<sup>2</sup> IEC

## Typical Applications

- Cable to cable splices, T's, X's, parallel connections, etc.
- Wire grid to ground rod, cable to rod, steel sheets and pipes, and rod to rod splices
- Tap conductor to vertical/horizontal pipe, flat surface, or plate
- Through conductor to vertical/horizontal pipe, flat surface, or plate
- Bus bar, and wire to rail connections
- Solid or stranded cable, metal tape, re-bar, and terminal lug connections.





#### **WORLD HEADQUARTERS**

**64 CATALYST DRIVE  
CANTON, NORTH CAROLINA 28716 USA**

**PHONE: +1 828-646-9290  
TOLL FREE: +1 800-203-2658 (U.S.)  
FAX: +1 828-646-9527**

**EMAIL: [INFO@ALLTECCORP.COM](mailto:INFO@ALLTECCORP.COM)**

#### **FAR EAST REGIONAL HEADQUARTERS**

**UNIT D, 11/ FLOOR, YIP CHEUNG CENTRE  
10 FUNG YIP STREET, CHAI WAN  
HONG KONG**

**TEL: +852 2898 9213  
FAX: +852 2556 9522**

**EMAIL: [FAREAST-CONTACT@ALLTECCORP.COM](mailto:FAREAST-CONTACT@ALLTECCORP.COM)**

#### **SOUTH ASIA REGIONAL HEADQUARTERS**

**D 8/2, GROUND FLOOR  
OKHLA INDUSTRIAL AREA, PHASE - I  
NEW DELHI - 110 020, INDIA**

**PHONE: +91 11 41665994  
FAX: +91 11 41665997**

**EMAIL: [ALLTEC-SA@ALLTECCORP.COM](mailto:ALLTEC-SA@ALLTECCORP.COM)**