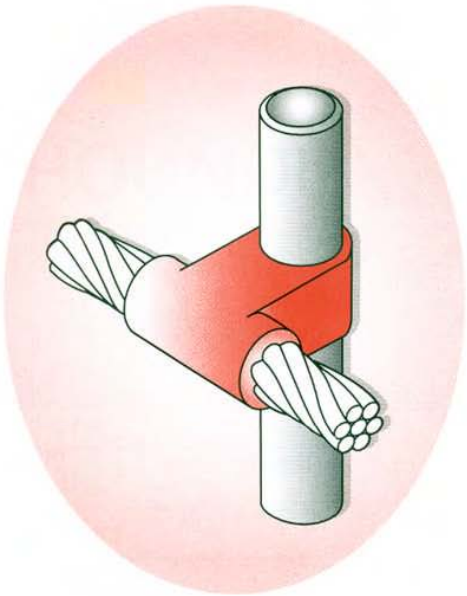
ELECTROWELD



EXOTHERMIC WELDING CONNECTION

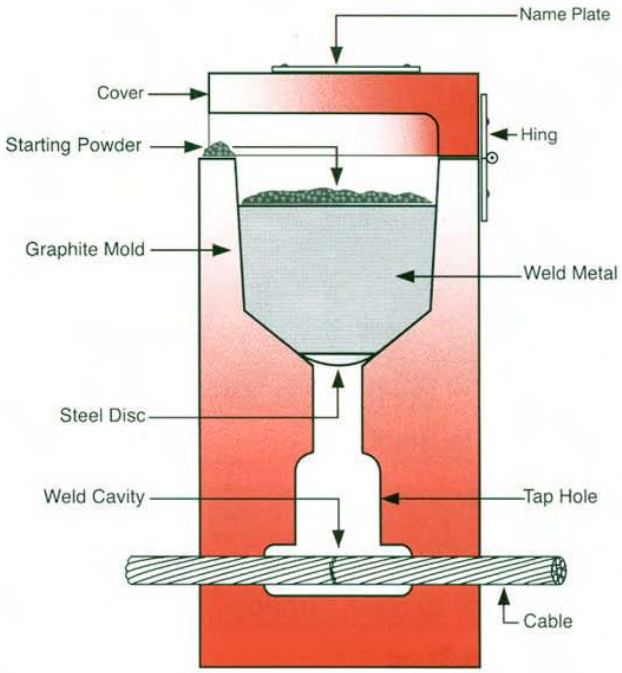
"ELECTROWELD" Exothermic welding connections can provide a well-designed ground system safety of personal tops the list, followed by equipment protection, signal reference quality, return path for faults and/or surges and static dissipation. In order to meet these objectives, ground system inter-connections must maintain a low contact resistance often under adverse condition, for the expected life of the ground system. Connections in a ground network are subject to severe corrosion, high mechanical stress due to electromagnetic forces, and repid thermal heating due to high current magnitudes during fault conditions.

"ELECTROWELD" Exothermic welding connections test compliance to standards as.

- NEMA PUB No. CC1-1982 "Electric Power connection for substations"
- IEEE STD 837-1989 "IEEE Standard for qualifying permanent connections used in substation grounding"

"ELECTROWELD" Exothermic welding powder use finely divided aluminium. Partical as the reducing agent with copper oxide to produce the following chemical reaction.

$$2Al + 3CuO \xrightarrow{\text{SUPER HEAT } 4{,}000^{\circ}F} 3Cu + Al_2O_3$$



CROSS SECTION

This reaction generates a tremendous amount of heat i.e is exothermic is nature,with the molten metals reaching temperatues of approximately 4000°F

Material Name	Spec. Chemical	Identity
Copper Oxide	CAS 1317-39-1	Cu_2O
Copper Oxide	CAS 1317-38-0	CuO
Alumimun	CAS 7429-90-5	Al
Copper	CAS 7440-50-8	Cu

"ELECTROWELD" Mould are made from high quality graphite with high thermal shock and the majority design mould have at least twice the cross section area of the conductors being joined and equivalent or greater current carrying capacity. Because the connection is a fusion of high conductivity high copper content in excess 90%

"ELECTROWELD" Exothermic weld connection can use with many application.

- Grounding system for power plant transmission line, Telecommunication, Building
- Cathodic protection
- Railway signaling system.
- etc.

ELECTROLINE. MANUFACTURING COMPANY
Tel: +966 4 3917239
Fax: +966 4 3917229
E-mail: info@electrolines.org