

CABLES CONNECTION (CATHODIC PROTECTION)

GENERAL

In Cathodic Protection system, either in sacrificial CP system or Impressed current CP System, the cables such as header cable, bonding cable, monitoring cable etc needs to be connected to the pipeline, tank or any other intended structure for CP. The most commonly used methods for cable connections are as follows

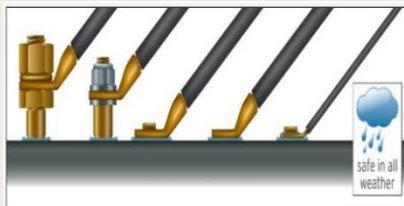
- Pin brazing and
- Thermit welding

PIN BRAZING

Pin brazing is effectual method to attach copper conductor cable to steel or metallic structure such as tank or pipelines, this method is particularly used to connect cables to pipelines including monitoring cable, header cable, bonding cables.

The pin brazing technique is based primarily upon Electric-arc silver soldering using a specially designed portable pin brazing unit, a hollow brazing pin containing silver solder and flux. The brazing process is initiated by depressing a trigger on the brazing gun.

There are two basic types of connection that can be made Threaded Type Connection using an M8, M10 or M12 Threaded Brazing Pin. A normal copper crimp lug (supplied separately) is attached to the stud and secured in place with locknuts and washers (included with pin). Direct Type Connection using an 8mm Direct Brazing Pin and a Pin Brazing cable lug, available to suit cable sizes 10mm² to 50mm² For each type of connection a ceramic ferrule is required for each braze in either 12mm (threaded connection) or 8mm (direct connection)



THERMIT WELDING

Thermit welding is cost effective method to attach copper conductor cable such as monitoring cable, header cable, bonding cables to pipelines or tanks or any other structure intended for CP. Thermit welding is a process where heat generated from an exothermic chemical reaction is used for the fusion. The chemical reaction aluminothermic process occurs between aluminium powder and metal oxide. The reaction generate a molten metal that acts as filler metal joining the work pieces on solidification.

Pre-packaged Weld Metal with Igniters		
Cathodic Protection	Cast Iron	Packed per box
TW15CPEZ	—	20
TW25CPEZ	TW25CIEZ	20
TW32CPEZ	TW32CIEZ	10
TW45CPEZ	TW45CIEZ	20
TW65CPEZ	TW65CIEZ	20

thermOweld® Weld Metal is sold in box quantities only

