

THERMO WELDING SYSTEMS



INTRODUCTION

Thermo welding, also known as exothermic bonding, thermite welding, and thermit welding, is a type of welding that uses molten metal to permanently unite conductors. To heat the metal, an exothermic reaction of a thermite composition is used, and no external source of heat or current is required. The heat is generated by an aluminothermic reaction between aluminium powder and a metal oxide.

Exothermic welds are particularly helpful for connecting incompatible metals. The procedure has the benefit of requiring no external heat source and operates by using a chemical exothermic reaction of a thermite composition (weld powder) to heat the conductors to the point where a low resistance, mechanically sound molecular bond is created once cooled.

ADVANTAGES

- Thermo welding is a simple and fast process of joining similar or dissimilar metals.
- This process is cheap, as no costly power supply is required.
- This process can be used at the places where power supply is not available.

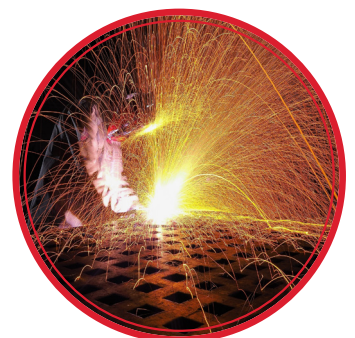
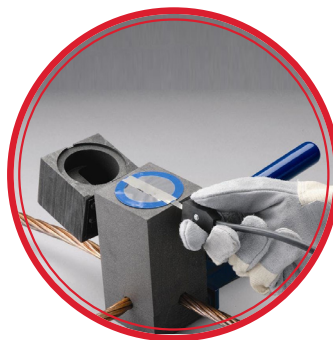


APPLICATION

- Very thick and heavy plates welding
- Joining rail roads, Pipes and Thick steel sections.
- Heavy castings and Gears repairing.
- Locomotive rails, Ship hulls etc.
- Welding cables made of copper.

EQUIPMENT

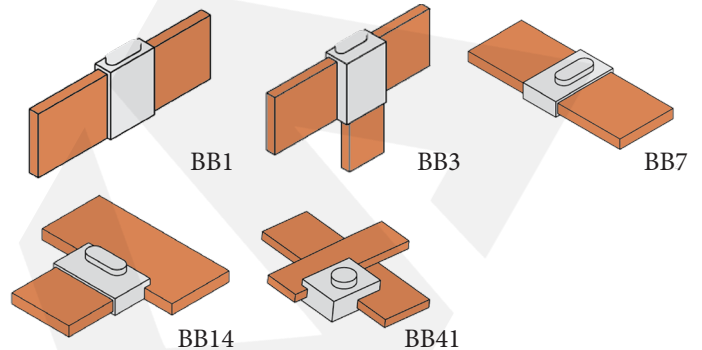
- Welding Powder
- Welding Mould
- Flint Gun
- Mould Sealer
- Corrosion Tape Strip
- Handle Clamp
- Igniter (Lighter)
- Mould Cleaning Scraper
- Mould Cleaning Brush



PRODUCT MOUNTING OPTIONS

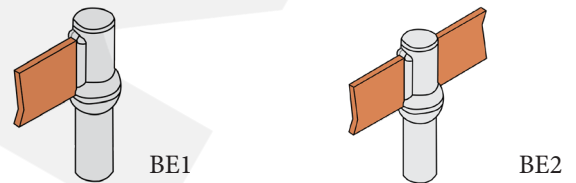
Bar to Bar

- **BB1:** Conductor size from 25x3 to 50x6mm
- **BB3:** Conductor size from 25x3 to 50x6mm
- **BB7:** Conductor size from 25x3 to 50x6mm
- **BB14:** Conductor size from 25x3 to 50x6mm
- **BB41:** Conductor size from 25x3 to 50x6mm (For both side)



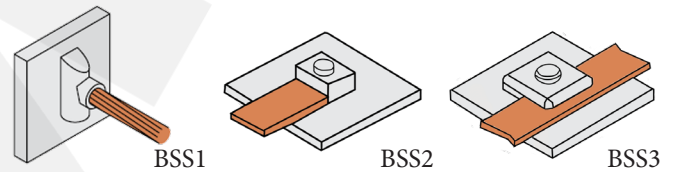
Bar to Earthing Rod

- **BE1:** Conductor size from 16 to 20mm and 25x3 to 50x5mm
- **BE2:** Conductor size from 16 to 20mm² and 25x3 to 50x5mm



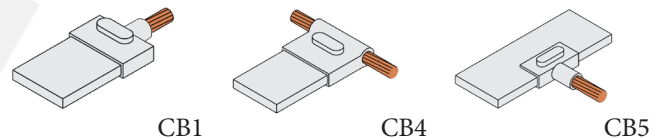
Bar to Steel Surface

- **BSS1:** Conductor size from 25x3 to 50x6mm
- **BSS2:** Conductor size from 25x3 to 50x5mm
- **BSS3:** Conductor size from 25x3 to 50x6mm



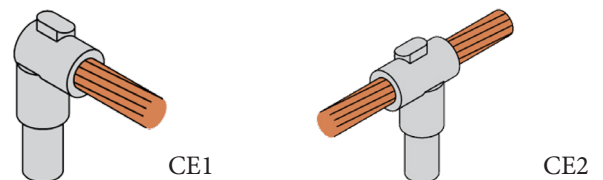
Cable to Bar

- **CB1:** Conductor size from 10 to 300mm² and 25x3 to 50x6mm
- **CB4:** Conductor size from 10 to 300mm² and 25x3 to 50x5mm
- **CB5:** Conductor size from 10 to 300mm² and 25x3 to 50x6mm



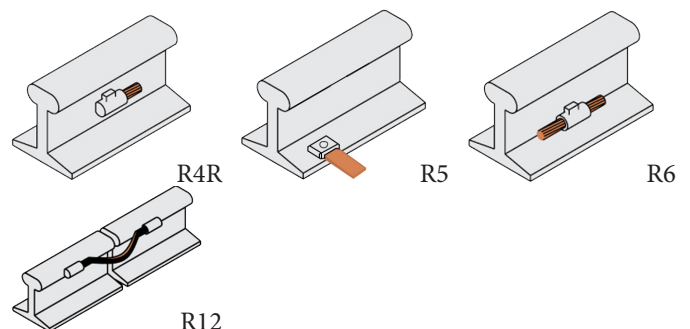
Cable to Earthing Rod

- **CE1:** Conductor size from 16 to 20mm and 16 to 300mm²
- **CE2:** Conductor size from 16 to 20mm and 8 to 300mm²



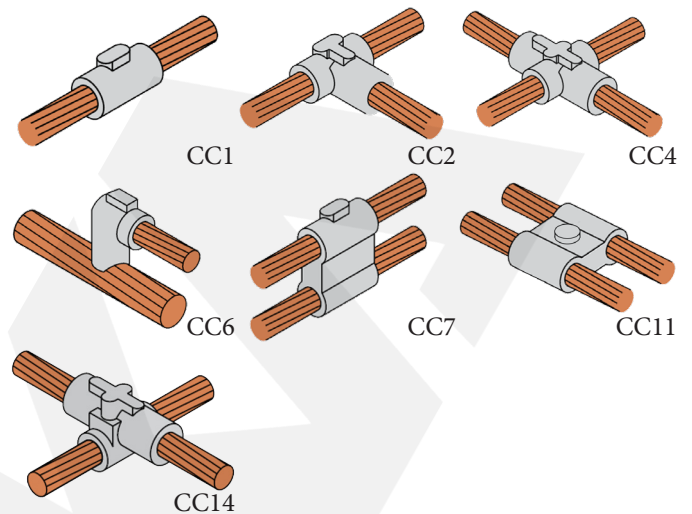
Cable To Rail

- **R4R:** Conductor size from 16 to 150
- **R5:** Conductor size from 16 to 150
- **R6:** Conductor size 25x3
- **R12:** Conductor size from 25 to 120



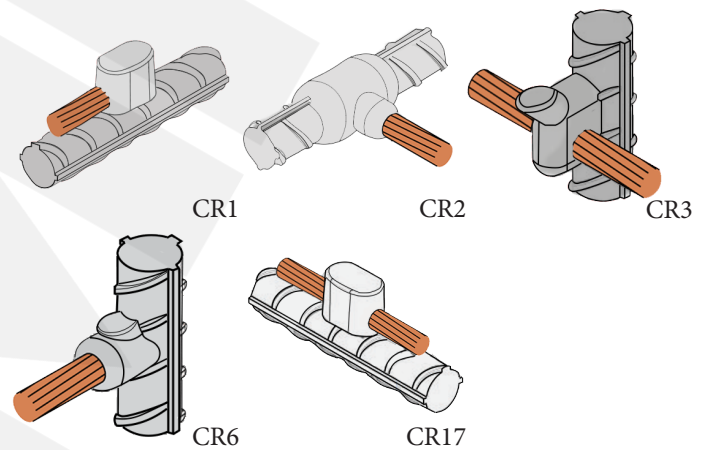
Cable to Cable

- **CC1:** Conductor size from 10 to 630 mm²
- **CC2:** Conductor size from 10 to 630 mm² and 10 to 630mm²
- **CC4:** Conductor size from 10 to 240 mm² and 10 to 240mm²
- **CC6:** Conductor size from 16 to 120 mm² and 16 to 120mm²
- **CC7:** Conductor size from 10 to 300 mm² and 10 to 300mm²
- **CC11:** Conductor size from 10 to 240 mm² and 10 to 240mm²
- **CC14:** Conductor size from 10 to 120 mm² and 10 to 120mm²



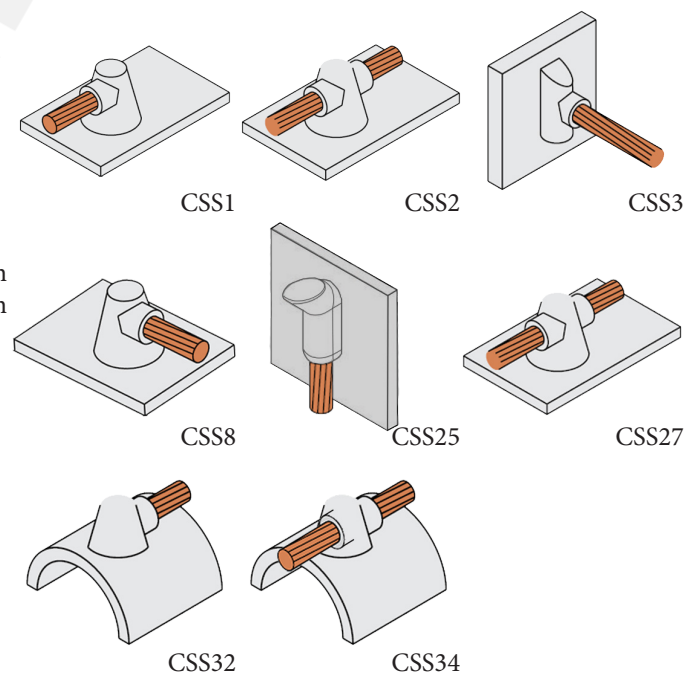
Cable to Reinforcement

- **CR1:** Conductor size from 20mm and 10 to 120mm²
- **CR2:** Conductor size from 16 to 30mm and 10 to 120mm²
- **CR3:** Conductor size from 10-40mm² and 10 to 120mm²
- **CR6:** Conductor size from 10-40mm² and 10 to 120mm²
- **CR17:** Conductor size from 20mm² and 10 to 120mm²



Cable To Steel Surface Or Pipe

- **CSS1:** Conductor size from 10 to 300mm²
- **CSS2:** Conductor size from 10 to 300mm²
- **CSS3:** Conductor size from 10 to 300mm²
- **CSS8:** Conductor size from 10 to 300mm²
- **CSS25:** Conductor size from 10 to 300mm²
- **CSS27:** Conductor size from 10 to 300mm²
- **CSS32:** Conductor size from 4 to 70mm² and <70 to >250mm
- **CSS34:** Conductor size from 4 to 50mm² and <70 to >250mm



Igniter (Lighter)



Mould Cleaning Brush



Mould Cleaning Scraper



Welding Powder



Welding Mould



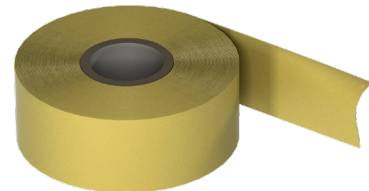
Flint Gun



Mould Sealer



Corrosion Tape Strip



Handle Clamp

