



*All About Electrical Safety*

# **JAMWELD**

**Exothermic Welding System**

**Ensuring Long Term Integrity to  
Electrical Joints**



*Leading the Nation - towards Electrical Safety*

## About JMV

JMV LPS Limited is a veteran name in delivering electrical safety products in almost every segment of the industry with utmost quality. We are the emerging market leader & manufacturer of world class Grounding System, Exothermic Welding System, Lightning Protection System and Surge Protection Devices from designing till installation. Our multiple manufacturing units and production lines are equipped with state of art facilities resulting into a quality product. We are nationwide recognized leader for designing & delivering most accurate customize solution for projects of national & international repute.

## JMV Certifications

JMV LPS Limited is an ISO 9001 and ISO 14001 certified organization adhere to give quality products without any harmful impact on environment. Our product range is tested and approved by various national and international testing bodies. Our Grounding & Bonding System is CPRI tested and UL approved. We offer 100% RoHS compliant earth enhancing compound which is designed as per IEC-62651-7. Owing to the high quality of our finished products we have received CE Certification for them.



## JAMWELD- An Exothermic Welding System

Connections reliability is critical to the long term integrity of electrical system. We observe that over the period of time due to ageing, low maintenance and environmental conditions these connection or joints get corroded/rusted or loosen and become low performing joints.

JAMWELD, an Exothermic Welding System has come up as a robust solution for these problems. As per IEEE std. 837 & UL 467, Exothermic Welding is the globally accepted method to make permanent, reliable and safe connections for electrical installations. It is a highly proficient method for making electrical connections between two or more conductors. An Exothermic Welding System is highly portable as it does not require any external source of heat to make joints. JAMWELD provides strong in permanent molecular bonding among metallic conductors that doesn't loosen and deteriorate with age.

## Advantages

- **Ageing Free:** JAMWELD offers in permanent molecularly bonding connections which doesn't get affected by ageing and provides more life to the connections than the life of the conductor.
- **Corrosion Free:** JAMWELD provides high corrosion resistant to the connections that doesn't get corroded early due to changing environmental connections.
- **Cost-effective:** A cost effective solution as it lasts for years based on fit and forget technology and does not need to repair connections frequently.
- **Highly Portable :** JAMWELD offers portability & it does not require any external power source to make electrical joints.
- **Tolerant to repeated fault currents:** The connections will withstand repeated high current surges (faults) without deterioration of joints.
- **Current Carrying Capacity:** JAMWELD has a current carrying capacity equal to that of the conductor.

*Simplifies the Process for Making Joints*



## Technical Features of JAMWELD

**Reliability:** The molecular bonding offers complete surface contact hence an electrolyte cannot penetrate between the conductors which provide integrity to the joints.

**Corrosive Environments:** Permanent molecular bonding protects against humid or chemical environments to the bonds directly buried in the ground.

**Ability to Withstand High Current:** The melting temperature of JAMWELD connection is higher than the melting temperature of copper (1083°C) hence offer high fault current carrying capacity.

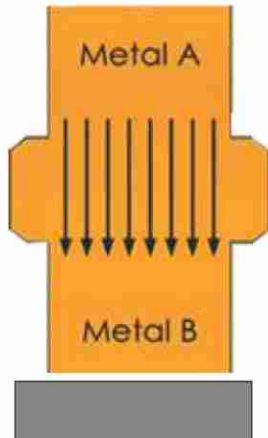
**Conductivity:** The JAMWELD connections form a solid bond around the conductors assuring continuity.

**Cross-section Improves Performance:** JAMWELD joints has cross section greater than the conductors to be joined which improves the performance of joints under fault conditions.

### Exothermic Weld Joints Vs Mechanical Joints

#### Exothermic Welding

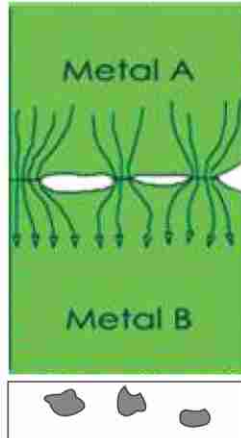
100% Contact Surface Area



Exothermic Welded joint provides 100% contact surface area.

#### Bolting/Clamping/Crimping

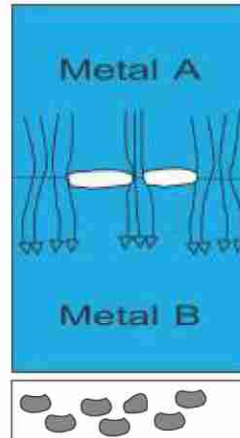
13-15% Contact Surface Area



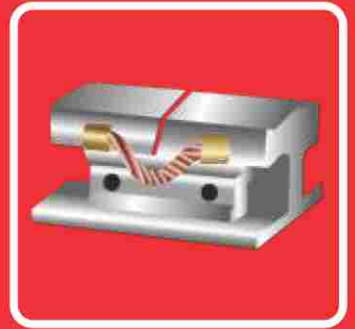
Above joint shows a significant gaps between the appear contact surface and the actual surface.

#### Brazing/Welding

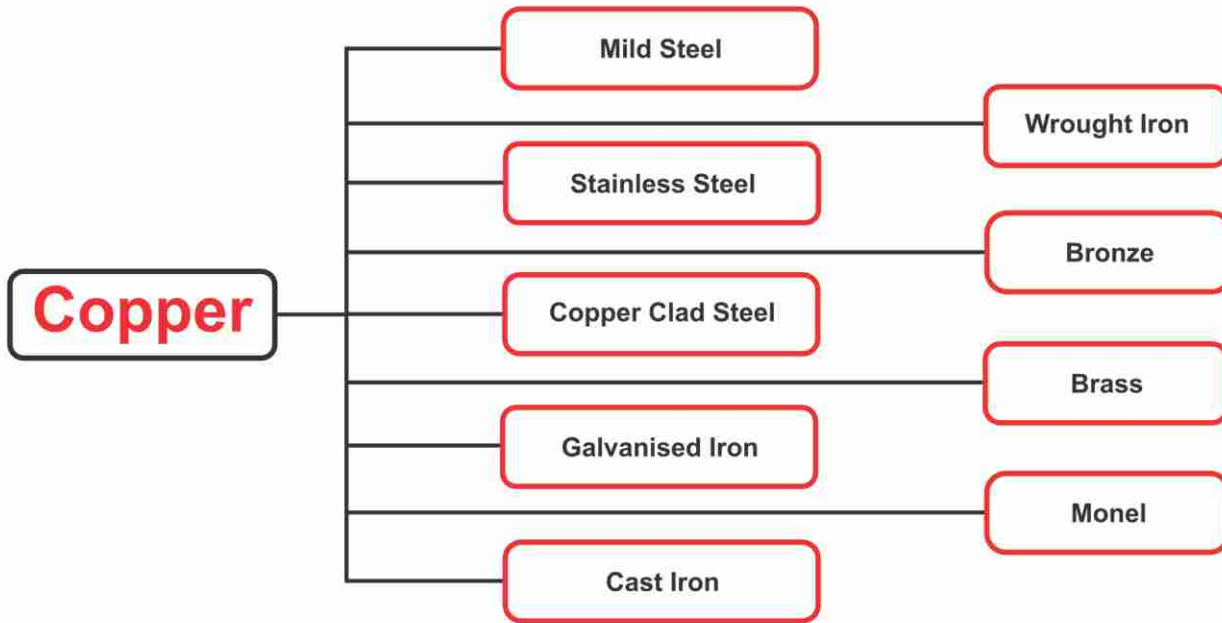
10-25% Contact Surface Area



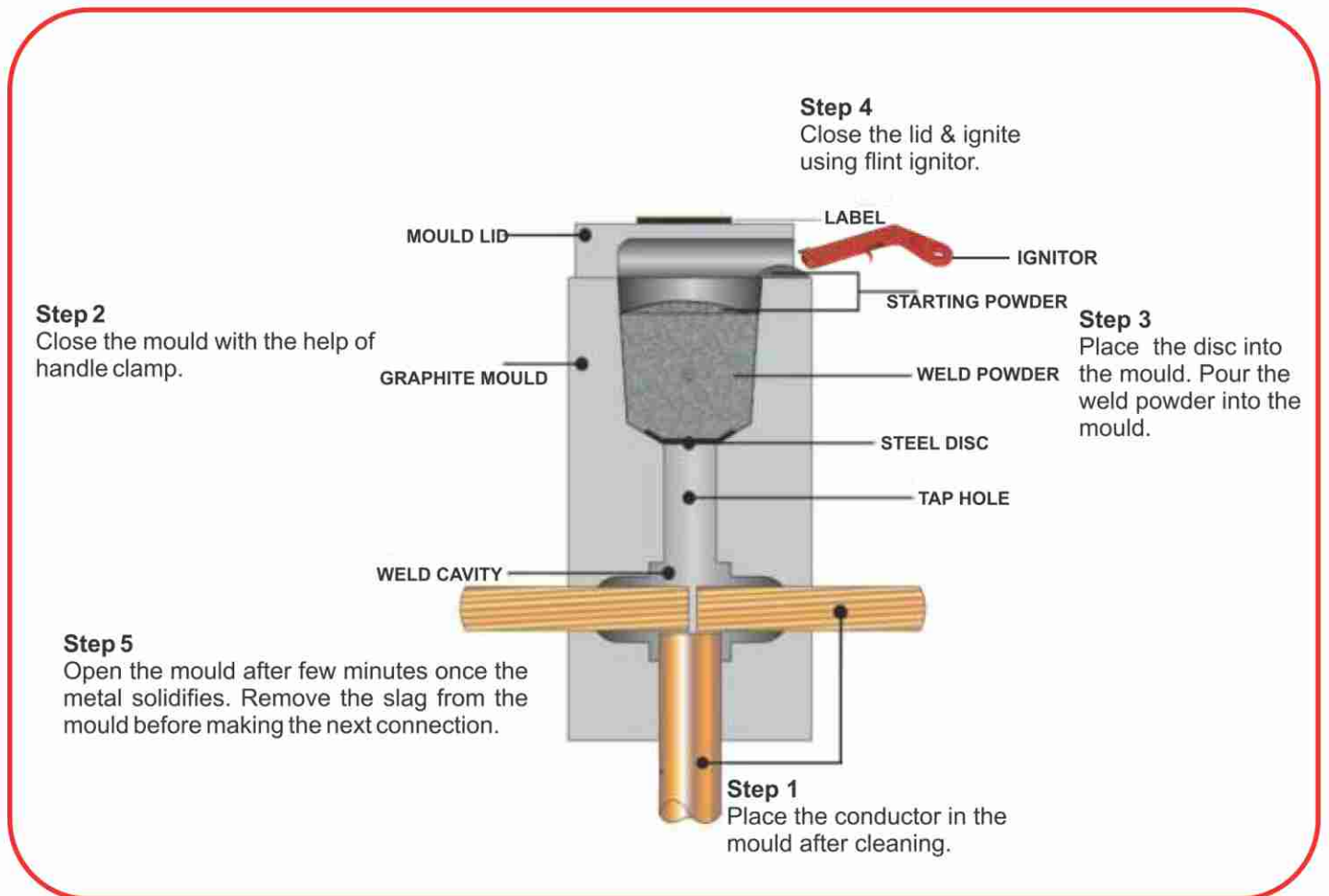
Parameters	Exothermic	Bolting/Clamping/ Crimping	Brazing/Welding
Contact Surface Area	100%	8-13 %	10-25 %
Temperature Bearing Capacity	More than 1083C	up to 250C	up to 350C
Mechanical Interface	Connection doesn't loosen with time	Get loosen over the period of time	Degrade or loosen with passing time
Corrosion	Offers long life and joints will not deteriorate with age.	Get corroded with time due to aging and low maintenance.	Get rusted over the period of time due to environmental conditions.



## Exothermic Welding System is best suitable for following metals:



## Process of making Exothermic Joints



*Increases Flexibility in Hard-to-Reach Areas*

## JAMWELD Kit

### Moulds

A Graphite Mould is used for making exothermic welding connections. It is made up of high quality graphite suitable for superior quality welding work. The connection mould is designed to last upto 100 connections. This will vary according to the care given the mould during use. We offer the dimensional accuracy for making any type of joints along with size as per the customers demand.



### Mould Handle Clamp

The Handle Clamp is required to hold the mould tightly at the time of making joints. These handle clamps offers grip to the mould and made up of high quality raw material. It can be use for multiple times and demand no repair. There are different types of clamps for different moulds. It is light in weight, handy in nature, rust-proof and tare used for two part moulds.



### Exothermic Welding Powder

Exothermic Welding Powder is the most reliable and consistently-performing welding material available with us. Our welding material is specially packaged in moisture-resistant plastic cartridges with special closure caps. All sizes of welding powder are available. Standard Size Packing available- 25 Grams, 40 Grams, 60 Grams, 90 Grams, 120 Grams, 150 Grams, 200 Grams, 250 Grams etc.



### Brush

**There are two types of brushes used in Exothermic welding process:**

**Soft Brush** is use to clean mould welding cavity because its shape is very sensitive and there should not be any damage while using Brush.

**Hard Brush** is use to clean other section of mould. It is useful for removing the slag from the mold after the welding connection is completed.



### Flint Gun

It is designed with the advantages of safety and convenience. It is used to ignite Starting Powder in order to result in exothermic reaction. We recommend one Flint Gun for every 100 Shots



### Disc

Discs are very important and used to seal the tap hole. This disc acts as a timing device to allow the welding powder to heat at proper temperature and allowing the molten copper to a point where it would weld metal to enter the weld gravity before ignition.



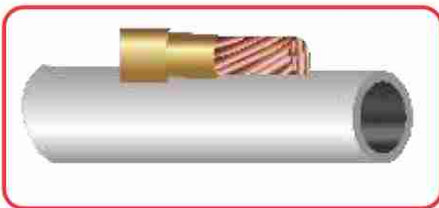
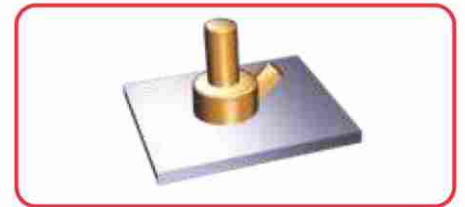
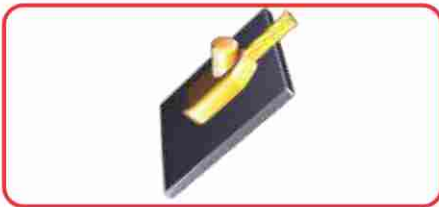
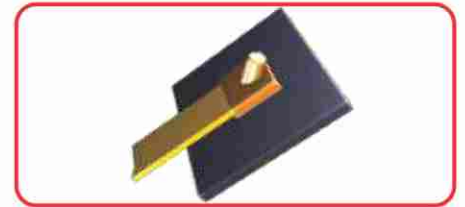
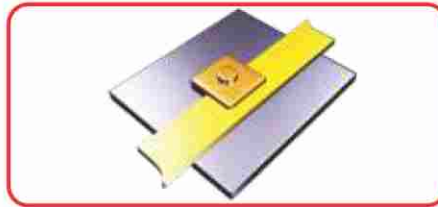
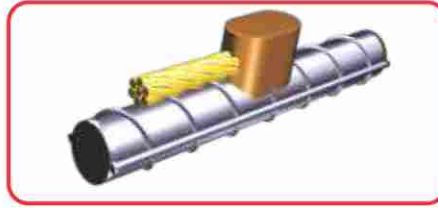
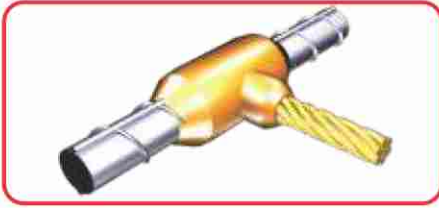
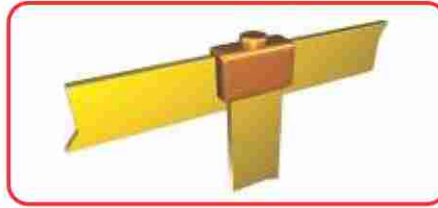
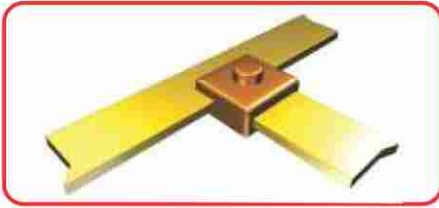
### Slag Removal Spade

Slag Removal Spades are useful for removing the slag after making a electrical connections – especially useful with horizontally split moulds.





## Types of Joints



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*Complies with all regulations for functionality & safety*