

Taming the power of copper for decades...

RR Global is driven by team of highly skilled team and best technologies that integrate quality and innovation. The business sectors encompass a diverse spectrum of activities, offering a wide range of electrical to chemical and infrastructure products.

Being the largest copper fabricator in India, we realize the importance of copper purity and always strive to use the purest copper available for manufacturing.

Electrical Conductivity - An Utmost Feature

Electrical conductivity is mainly governed by chemical composition and the temper state of a conductor. RR products are made from registered cathodes of Grade “A” type LME having copper purity of 99.99%. This high purity input give RR products high electrical conductivity of 100% IACS (International Annealed Copper Standard). This level of high conductivity is desirable for accurately designing electrical instruments.

Formability - An Important Mechanical Property

RR products are made using smart process controls which impart fine grain structure to the final product. This fine grain structure gives good formability to bus bars, shows no cracks on bending and is suitable for making intricate parts of electrical machines.

Surface Finish & Flatness - A Visible Property

RR product line has glittering surface finish, a twist & bend free flatness. The extrusion drawing dies angle design, drawing machine and high quality dies gives RR products has a flawless shiny surface finish, matching all international standards and the right flatness for jointing purpose making it a perfect for connection application.

Property For Welding & Brazing

RR product line can be joined by soldering, brazing, oxyacetylene welding and gas shield arc welding without adverse effect.

Copper Strips, Rods & Bus Bars - An Express Way For Current Flow

Copper strips, rods & bus bars are made from OF grade (high conductivity oxygen free) copper rods, manufactured in house with full process control. They can be customized as per the requirement of the customers. The below mentioned standards cover electrical purpose and use of Cu strips, bus bars & rods.

Standards

Product / Standard	IS	EN	ASTM	BS
Strips & Bus Bars	1897	13601	B187	1432
Rods	613	13601	B187	1433

Size Range

Width	160 mm maximum
Thickness	25 mm maximum
Cross Section Area	2500 mm ² maximum #

- Width to thickness ratio 20:1 maximum

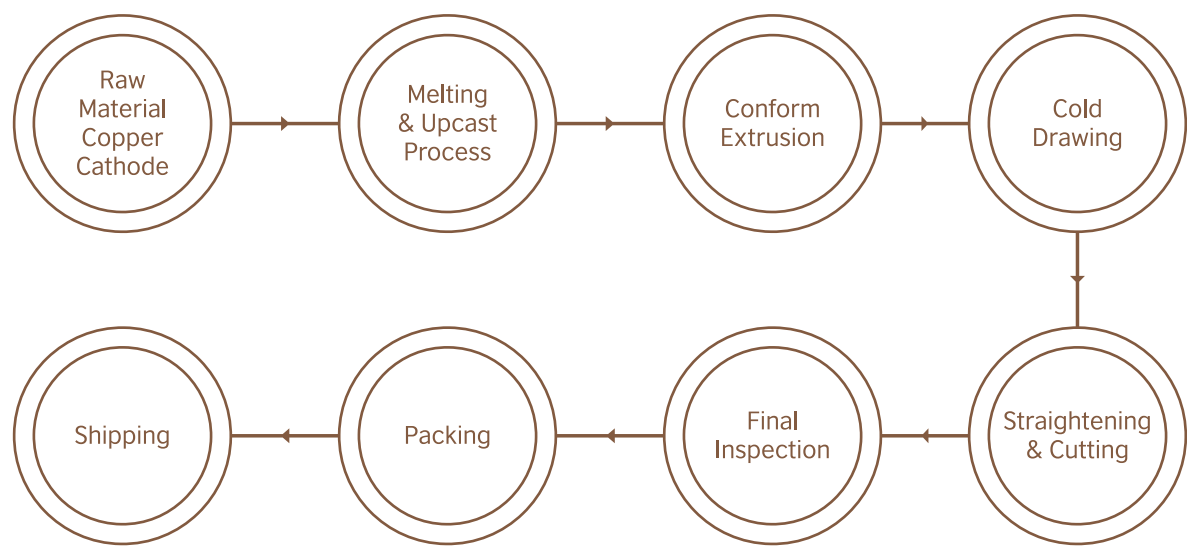
Properties

All products are imparted with required properties by high purity cathode through smart process control that match the governing standards.

Mechanical & Electrical Properties

Temper	Tensile Strength (MPa) (Min.)	Elongation (%) (Min.)	Hardness (HV)	Resistivity at 200 Ohm.mm ² /mtr. (Max.)	Conductivity (%) (Min.)
Annealed	200	35	40-65	0.017241	100.00
Half-Hard	250	15	66-90	0.017777	97.00
Hard	300	8	91-100	0.017777	97.00

Manufacturing Process Flow Chart



Shapes



Rectangle



Slightly Round Edges



Full Round Edges (FR)



Square Bars



Round Bars

Packing

Bars and rods wrapped with paper / plastic, then packed in bundle or wooden boxes.

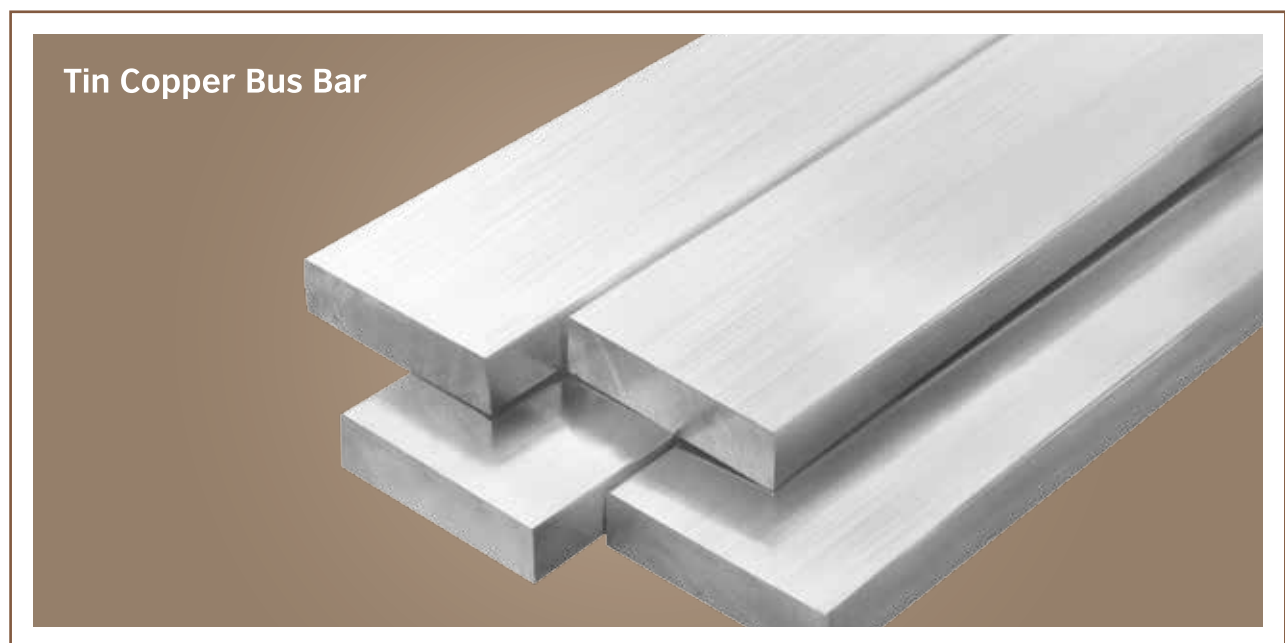
Size Range

		Thickness from 2 mm to 40 mm															
mm		2	3	4	5	6	8	10	12	15	20	25	30	35	40	45	50
Width from 10 mm to 160 mm	10																
	15																
	20																
	30																
	40																
	50																
	60																
	70																
	80																
	90																
	100																
	110																
	120																
	130																
	140																
	150																
	160																

ABOVE COMBINATION OF FLAT BARS WITH ROUNDED OR SQUARE OR FR EDGES

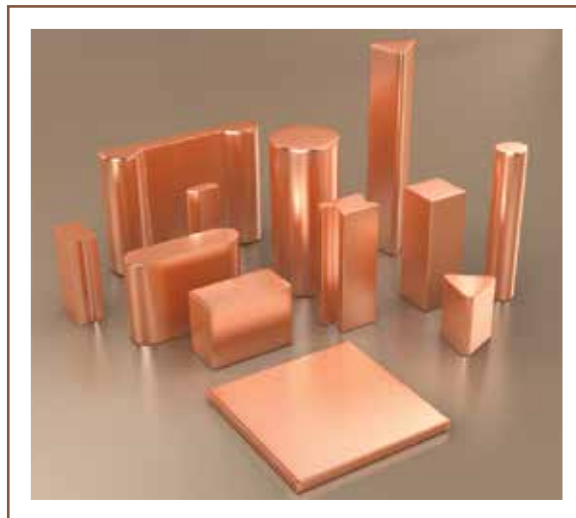
Tin Plating Process

- Tin plating process is done using 99.5% tin anode on a continuous plant with PLC smart process controls as per international standards.
 - It gives a shiny surface finish and provides protection from environmental surface corrosion.
 - Decreases joint resistance which increases jointing efficiency in electrical systems.
 - Controlled consistent coating thickness 3 to 10 microns as per customer specification.
 - Mill test certificate is provided for coating thickness and coating adhesion tests.
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Copper Rods / Profiles - Shapes To Match Intricacy of Use

Copper profiles are available as extruded and drawn versions for specific applications. Ideal extrusion and drawing die design gives flexibility of operations for sliding and intricate electrical contacts. Triangular and other shaped profiles are available for all electrical refining plants. Profiles in different shapes are available to facilitate ON-OFF operations for electrical switches. Various sizes ranging from 10 sq. mm. of copper rods / profiles are manufactured for rotor bars of submersible pumps.

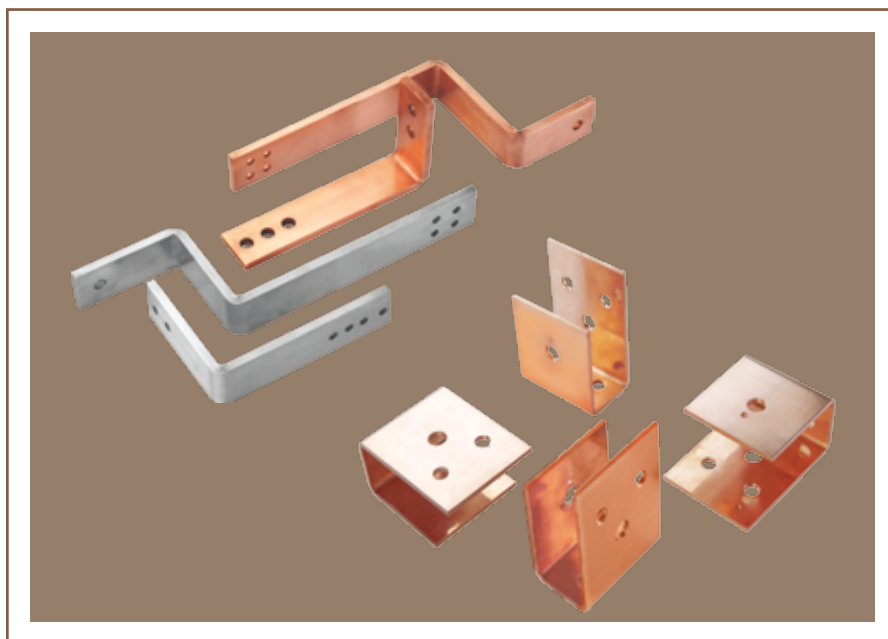


Fabricated Copper Bus Bars - Tailored For Ready To Use

Fabricated copper bus bars provide a quick, easy, convenient and economical solution for electrical part manufacturers. A team of skilled personnel & technologically smart machines for different operations, make RR fabricated copper bus bars ideal for direct use as required.

Fabrication Processes Include

- Punching
- Bending
- Brazing
- Tapping
- Cutting
- Tin Plating



With fabricated copper bus bars, there are many advantages like reduction of internal process scrap, process time, ease of installation, faster delivery, less machine maintenance, all leading to increase in profits. Fabricated copper bus bars provide a quick, convenient and economical solution for panel switchboard and switchgear makers.

A Fully Equipped Quality Testing Laboratory

A fully equipped modern testing laboratory installed with testing equipments to measure oxygen content, resistance, conductivity, hardness, profile shapes, micro structures, size etc. and an experienced technical team ensures high quality product range with a definitive quality and process plans.



OXYGEN ANALYZER



EDDY CURRENT CONDUCTIVITY METER

Certificate

Standard **ISO 9001:2015**

Certificate Registr. No. **85 100 001 09410**

Certificate Holder: **Mew Electricals Ltd.**
Plot No. 26/329 & 330, GIDC Estate,
Waghodia Dist., Vadodara – 391 760,
Gujarat, India.

Scope: **Manufacture of Super Enamelled Copper Wires,
Continuous up- cast (OF) Copper Rods, Bare
Copper Strips, Bus- bars, Rods, Profiles, Paper
Covered Round and Rectangular Conductors,
Tin Coated Copper Strips and Tin Coated Bus
Bars.**

Proof has been furnished by means of an audit that the
requirements of ISO 9001:2015 are met.

The due date for all future audits is 03 - 06 (dd.mm).

Validity: The certificate is valid from **2016-10-13** until **2018-07-01**.
First Certification 2009-09-24.



8510000109410

Bangalore 2016-10-13

The Certification Body of
TÜV Rheinland (India) Pvt. Ltd.

The validity of this certificate is subject to timely completion of Surveillance audits as agreed in the Contract.
The validity of the Certificate can be verified under www.tuv.com with the Identification No. 8510000109410

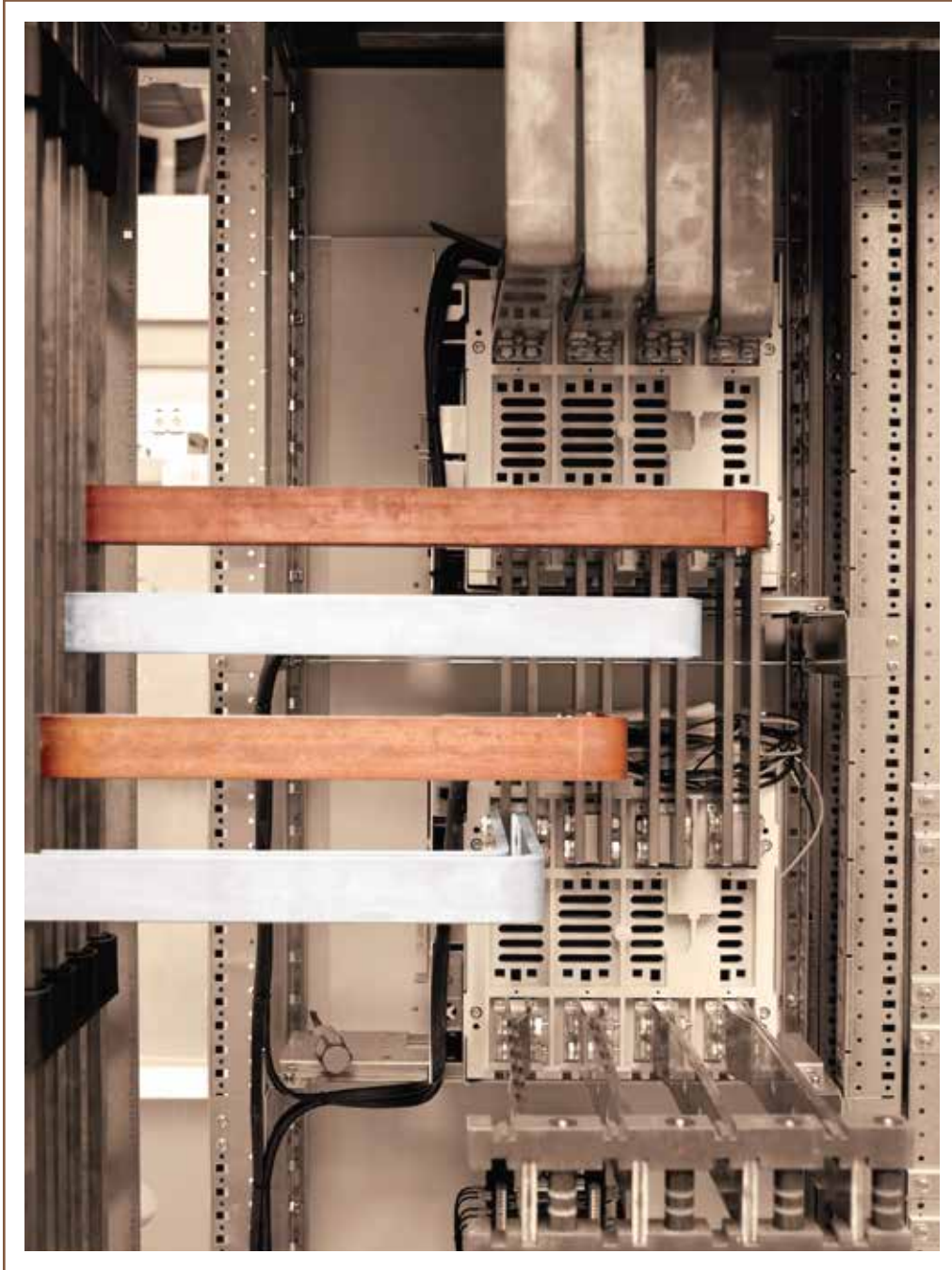
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www.tuv.com

TÜVRheinland®
Precisely Right.

Customer Benefits

- Reduces internal scrap
- Save processing time
- Ease of installation
- Enhances profit margins
- Reduces maintenance cost
- Quick delivery



High Quality And Easy Installation

Oxygen free copper as raw material & high tech machines ensure production of reliable & accurate bus bars to suit customer designs & specifications.



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