# RACHNA METAL INDUSTRIES PVT. LTD.

Since 1978 . . . .

#### AN ISO 9001 COMPANY















## RACHNA METAL INDUSTRIES P. LTD.

Copper & Copper Base Alloys, Sheet, Strips, Busbar and Circles

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# OUR **FACILITIES**

#### **MELTING & CASTING**

450 KW/1TON **Induction Furnace** 

Gas Fired Furnace 750 KG

#### **UPCASTER**

▶ 12 Line Rod Upcaster Unit 260 KW

## **HOT MACHINE**

- Hot Rolling Mill (56"Barrel Length)
- Hot Furnace

#### **ANNEALING FURNACE**

- Gas Fired Billets Pre Heating Furnace
- Gas Fired Roller Furnace
- Vacuum Bright Pot Annealing Furnace Electrical

- **COLD ROLLING MILL (SHEETS & CIRCLES)** 3 High Mill -56"(Barrel Length)
- 4 High Mill- 32" (Barrel Length)
- 4 High Mill- 22"(Barrel Length)
- 2 High Mill- 32"(Pinch Pass)

#### **COLD ROLLING MILL (STRIPS & BUSBARS)**

► Strip Rolling Mill - 3

### **EXTRUSION**

- Continuous Extrusion Plant For Twin Strips & Rod- $(20\text{mm}^2 - 400\text{mm}^2)$  i.e. max  $(40 \times 10)$
- Continuous Extrusion Plant For Strip & Rods- $(100 \text{mm}^2 - 2400 \text{mm}^2)$  i.e. max  $(120 \times 20)$

#### **DRAW**

- Draw bench 2
- Pointing Machine 1
- Bull Block 2

#### **STRAIGHTENING MILL FOR (SHEETS)**

- Straightening Mill 18"(0.3mm To 1.5mm Thickness)
- Straightening Mill 50"(1.6mm To 5.0mm Thickness)
- Straightening Mill 50" (6mm To 16mm Thickness)
- Power Press (16mm To 100mm Thickness)

#### **STRAIGHTENING MILL FOR STRIPS**

Straightening Mill - 2

#### **ALLIED EQUIPMENTS**

- Shearing Machines 5
- Circle Cutting 2
- Bandsaw 2

#### **WORKSHOP**

Lathe, Milling, Drilling, Grinding, Welding

#### **CAPTIVE POWER**

- 800 KVA D.G SET
- 500 KVA D.G SET
- 125 KVA D.G SET





## P R O C E S S



#### MANUFACTURING PROCESS FOR BUSBAR







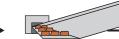
































Raw Material

Extrusion

Bull Block

Cold Rolling

Annealing

Pickling Draw Bench

Straightening

Final Inspection

Packing

Shipping

# SHEETS & **CIRCLES**

#### **COPPER COLD ROLLED SHEETS**

**Standard Sizes Thickness** 1000mm x 2000mm 1.2mm to 16mm 1250mm x 1250mm 1.2mm to 16mm 1250mm x 2500mm 1.2mm to 10mm 14" x 48" 0.3mm to 25mm Copper sheets also available in different sizes as per your requirement.

#### **COPPER / BRASS HOT ROLLED PLATES**

**Thickness** Sizes 1080 mm x 1080mm 40mm 1000mm x 1000mm 30mm 900mm x 1000mm 40mm 750mm x 1000mm 50mm 600mm x 600mm 125mm 400mm x 1000mm 75mm 330mm x 1000mm 100mm

#### **COPPER / BRASS CIRCLES / TRAY CIRCLES** (Cold Rolled)

Diameter Thickness 0.3mm to 25mm 3" (76.2mm) to 8" (203.2mm) 8" (203,2mm) to 1300mm 1.2mm to 25mm 1350mm to 2500mm (In 2 pcs) 1.2mm to 12mm Hardness (Soft, ¼Hard ½Hard) as per your requirement.

#### **COPPER / BRASS CIRCLES (Hot Rolled) & MACHINING**

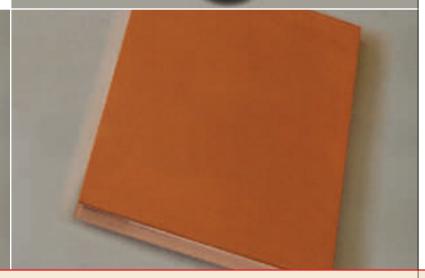
Diameter Thickness Q1000mm 25mm 0 750mm 45mm Q 450mm 70mm Q 325mm 100mm

#### Copper / Brass flange

Max OD (150mm to 1000mm) ID Circle (50mm to 900mm)

#### **GRADES**

Oxygen Free High Conductivity Copper (OFHC) Electrolytic Tough Pitch (ETP) Phophorus Deoxidized Copper (DHP) Deoxidized Low Phosphorus (DLP)



## BUS BAR/STRIPS **FLATS & WIRES**

#### **COPPER FLATS & STRIPS**

- ▶ Width 6mm To 225mm
- ► Thickness 0.5mm To 50mm
- Available In Straight Lengths / Coils

#### **COPPER FLATS**

- ▶ Width 200mm To 500mm
- ► Thickness 3mm To 30mm
- Available In Hacksaw Cut & Shearing Cut



#### **TIN PLATED BUS BARS**

Specification:

Tin-plated copper bus bars are manufactured as per International Standards such as JIS, DIN, BS and ASTM.

In-house tin-plating Process:

controlled

by computerized system

The Purity of Coating

Material:

Tin anode, 99.5% up Coating Thickness: 3, 5 or 10 microns

and as per customer's requirement upto 50

microns

Mill Test Certificate: - Adhesion Test

- Tin Thickness Test

#### **COPPER BRAIDED STRIPS**

- Thickness Width
- ▶ (10mm To 200mm) (1mm To 25mm)

#### **COPPER TWISTED WIRE ROPE**

2mm To 80mm Dia

#### **COPPER BREADED WIRE ROPE**

2mm To 80mm Dia

#### **COPPER WIRES**

- Outer diameter (0.2mm To 6mm)
- Available In Coils

### **COPPER PROFILES**

**Square Corner** 

**Round Corner** 

**Full Round** 

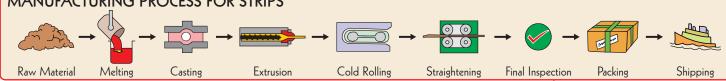


Available In All Shapes & Sizes As Per Customers

Requirement

- Oxygen Free High Conductivity Copper (OFHC)
- Electrolytic Tough Pitch Copper (ETP)
- And Various Other Grades







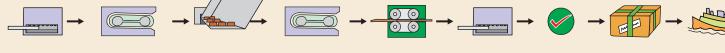












Annealing

MANUFACTURING PROCESS FOR SHEETS

Billet Cutting

Again Cold Rolling

Final Cold Rolling

# TUBES, PIPES

#### **BRASS TUBE (Round)**

Outer Diameter (3mm To 100mm)

& RODS

- Wall Thickness (0.2mm To 12mm depending on outer diameter of tubes)
- Available in straight lengths

## **COPPER TUBES (Round)**

- Outer Diameter (3mm to 150mm)
- Wall Thickness (0.2mm to 16mm depending on outer diameter of tubes)

We also manufacture Fin Tubes

### **COPPER RODS (Round/Square/Hexa)**

- Outer Diameter/Across flat (5mm To 100mm)
- Available In Straight Lengths/Coils

## **GRADES**

- Oxygen Free High Conductivity Copper (OFHC)
- Electrolytic Tough Pitch Copper (ETP)
- Phosphorus Deoxidized Copper (DHP)
- Deoxidized Low Phosphorous (DLP)

## ROCESS



#### **PACKING**

Sea Worthy Corrosion Protection For Shipments

- ▶ Wooden boxes with steel strapping
- ► Corrugated cardboard boxes with corner padding
- ► Wooden/steel traverse wound spools
- Coils wrapped in vci paper and palletized

#### **SHIPPING**

Factory stuffed and sealed in 20' containers as per customers choice



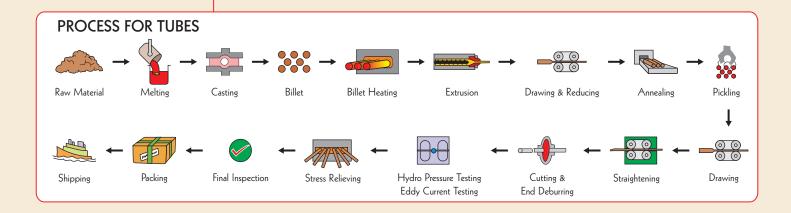












## **APPLICATIONS**

#### **SHEETS & CIRCLES**

- Heat Exchanger & Condensors
- Home Appliances
- Distillery Plant
- Sugar Industries
- Agriculture Plants
- Electrical Industry

#### **FLATS STRIPS AND WIRES**

- Automobiles and Railways
- Wide Range of Uses in Electrical Industry, e.g.
  Switchgear, Connectors
- Transformers and Circuit Beaker Terminals
- ☐ Electrical Holders and Clamps
- Defence Industry

#### **TUBES**

- Refrigeration & Airconditioning
- Petroleum & Chemical Industries
- Furniture & Decorative Industries
- Agriculture Industries
- Home Appliances

## **OUR TESTING FACILITIES**

#### **CHEMICAL ANALYSIS**

- Spectrometer with oxygen Analyzer
- Electro Analyser

#### **NON-DESTRUCTIVE TESTING**

- Eddy Current Machine
- Hydraulic Test
- Pneumatic Test

#### PHYSICAL TESTING

- Universal Testing Machine
- Tensile Testing Machine
- Rockwell & Brinell Hardness Tester
- Vickers Hardness Tester
- Conductivity Meter

#### **METALLURGICAL TESTING**

Matallographic Test (Polarized Light Attachment)



# **QUALITY**

#### Quality assurance:

Quality Assurance is an integral part of RMI. We ensure that we are able to deliver high quality products time and time again. All our valued customers including public sector giants like Bharat Heavy Electricals Limited and Power Grid Corporation of Limited have awarded us consistently ensuring the high quality of our products.







All our products pass through stringent quality testing procedures and inspections. We have an efficient quality control system in place. Quality control begins by checking raw materials for compliance with specifications. All products are inspected at all stages of manufacturing for defect free surface quality and dimensional tolerances. Our plant has maintained ISO9001:2000, a certification of quality management systems maintained by the International Organization of Standardization and administered by certification and accreditation bodies.

Our endeavor is to create a culture of total quality where continuous improvement of our processes and our products become a way of life, enabling us to reduce the environmental impact of our production processes and promote initiatives in environmental protection and social responsibility, in the interests of future generations. We adjust and adapt to the changing need of our customers and remain dedicated to serve them to the best of our ability.







