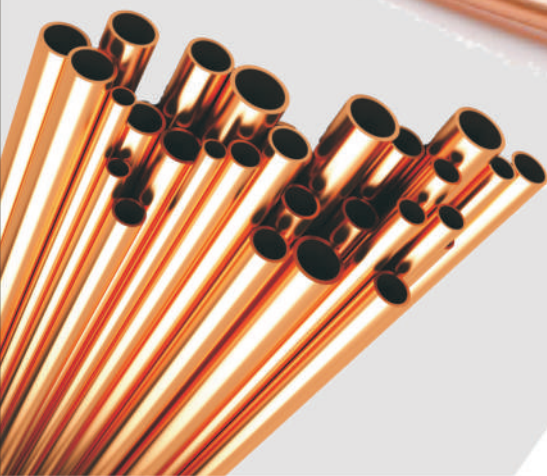


Manufacturer & Exporter of Copper and Copper Alloy Products



MTC GROUP

MERCURE METALS & ALLOYS PVT LTD.

Enterprise's Principle

“Mercure is committed to provide complete range of Copper & Copper base alloy products to its clients and assist the clients in getting best quality raw materials which is most suitable to their requirements.

The endeavor at Mercure is always to exceed the expectation of the client so as to keep resetting our Quality & Service goals higher and higher implementing the Total Quality Management System.”

About Us

Mercure Metals & Alloys Pvt. Ltd is a Joint Venture between Indigo Group and MTC Group. Indigo group who forayed into the enterprise knowledge of manufacturing & exporting copper & copper alloys products which is very well accepted in Domestic & International market for high degree of customer's loyalty and satisfaction. MTC group is a worldwide renowned group into the base metal importing, trading & stocking across 9 locations with 18 facilities in India and also possessing its presence in International countries like USA, UK, UAE & Singapore. MTC Group widespread forum & experience brings the best quality raw material most suitable to Mercure requirements.

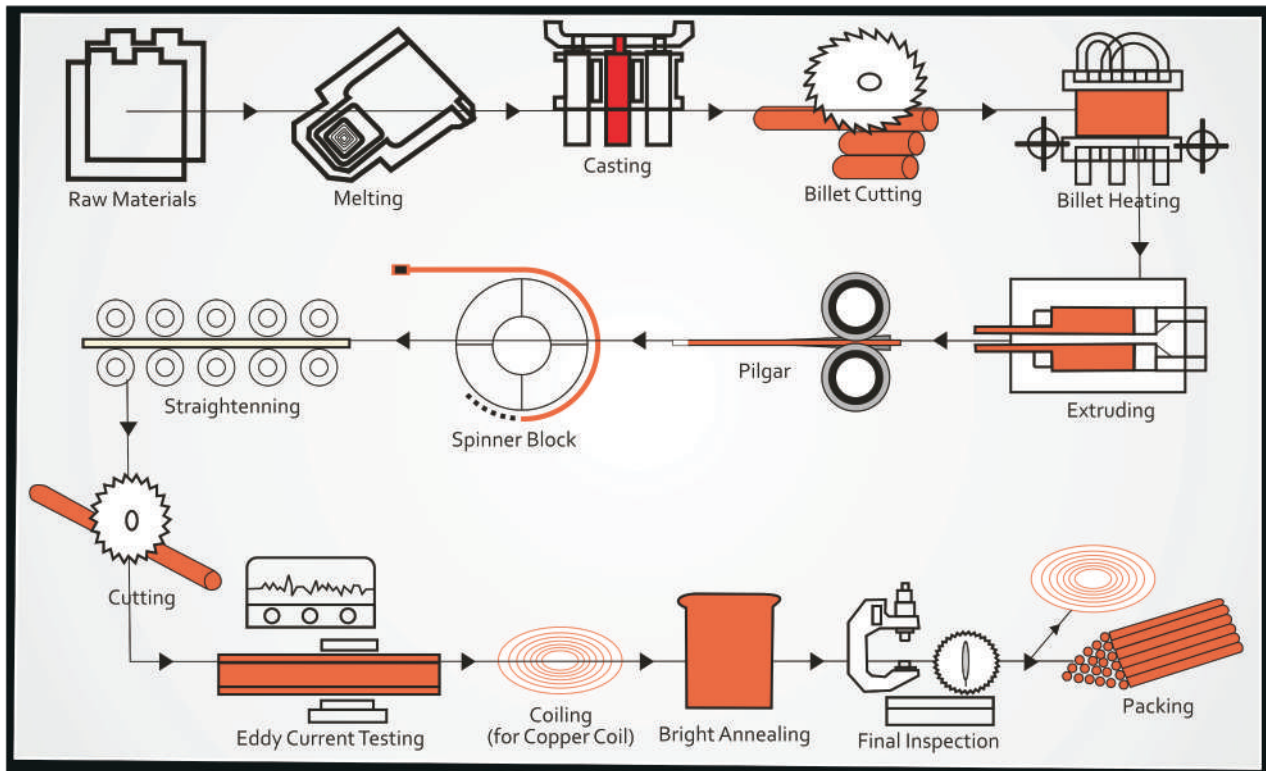
The synergy between these 2 iconic groups has resulted in producing World Class Quality Copper products at most competitive price. Mercure plant is equipped with most advanced technological process which brings best quality products. Mercure Metal is India's leading manufacturer company for Copper & Copper Alloy Tubes & Pipes with annual production of around 10000 MT. The products of Mercure Metals and Alloys have always been priority for the customers in Air conditioning, Oil & Gas and Plumbing Industry. Our brand name INDIGO is approved by various Public & Private undertakings. INDIGO is also approved by Daikin, Blue Star, LG, Mitsubishi, Voltas, Samsung & Hitachi to supply Copper Tubes for VRV/VRF projects PAN India.

We are also India's first copper tube company to be BIS approved and Green-Product certified by CII.

Mercure Metal is also well known in India as the biggest importer & stockist for LWC (Level Wound Coil) in plain & inner grooved (IGT) from companies like Hailiang Copper & Jintian Copper. Our huge inventory supports in time delivery to all Condensers Cooling Coil & Air Handling Unit (AHU) manufacturers. We keep ready stock at our location based in Gujarat & Delhi which allows buyers to buy material at current LME & USD which helps them in diluting their risk of high volatility. Our ready stock & just in time delivery benefits buyers to get away with planning & keeping inventory for Copper tubes in their yards which helps in place saving & also financial allocations.



Manufacturing Process for Copper & Copper Base Alloy Products



At Mercure highly advanced technological processes are used to manufacture products which involve Melting in induction furnaces, Extrusion by 1600 metric tonne oil hydraulic extrusion press, Cold drawing by pilger mills, sophisticated drawbenches & modern bull blocks, Intermediate process annealing by gas fired furnaces, Final annealing by bright annealing furnaces, Straightening & coiling process, & final inspection & testing

Incoming Raw Material is tested in laboratory and then issued to melting shop. This material is molten cast in watercooled molds. The cast logs are cut into billets of suitable length. These billets are pre-heated to proper extrusion temperature and extruded into mother Tube/ Rods/ Section undergo pickling, if required. Then undergo pointing, cold drawing and if required intermediate annealing. The Tubes, Rods, Sections are straightened. Tubes undergo Eddy current testing/ Hydrostatic t testing. The products undergo annealing if customer require them in soft temper or drawn further if required Half hard/ Hard Temper. The finished products undergo visual check, Dimensional check, Flaring, Flattening test, physical properties, and grain size test are also carried out before packing and despatch.

Quality Testing

Product quality has been one of the hallmarks at Mercure. Each product line undergoes a battery of stringent and sophisticated quality control tests to ensure that every batch of product is of the highest quality.

- ◆ Chemical Analysis
- ◆ Physical Analysis
- ◆ Hardness testing
- ◆ Hydrostatic testing
- ◆ Pneumatic testing
- ◆ Stress corrosion testing
- ◆ Dimensional inspection
- ◆ Destructive testing flattening, Drift test
- ◆ Bend test
- ◆ NDT Eddy Current Testing



Eco-friendly CFC-free Refrigerant Compatible & "ROHs Compliant" Copper Tubes for ACR

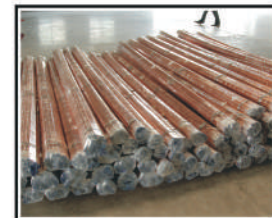
We would like to introduce ourselves as manufactures of "INDIGO COPPER TUBES" for VRV/VRF Application. Our Brand Name "INDIGO" is approved by Daikin, Samsung, LG, Voltas, Carrier, Blue Star & Mitsubishi as a premium vendor of Copper Tubes for VRV/VRF and non VRV applications.

Mercure Metals has once again spearheaded in developing and introducing eco-friendly CFC- free compatible and RoHS compliant copper tubes to help Indian industry for speedy phase out usage of CFC's.

Indigo Green Copper Tubes ensures consistent quality ACR grade Copper tubes for new generation high-end VRV/VRF/Multi-V/DVM Plus/City Multi high efficiency and large capacity Air-conditioning systems

Indigo Green Copper Tubes are produced by using

- ♦ Floating Mandrel technique during Re-drawing, for 360 degree consistent CONCENTRIC TUBES.
- ♦ Total loss lubricant during Re-drawing and Inert atmospheric vacuum type Bright annealing furnace for ultra clean tubes with low residual content below 0.038 gm/sq.mtr.
- ♦ Advanced Eddy Current Testing for defect-free 100% flawless tubes
- ♦ Electronic Temperature and Process controlled Bright Annealing process for consistent Hardness uniformity along the entire tube length, circumference and bright mirror finish
- ♦ R410A Refrigerant Compatible Copper Tubes.



We also manufacture RoHS Compliant Mother Copper Tubes for Producing CFC-Free Compatible Copper Tubes

INDIGO Pipes has a unique manufacturing process and laboratory to confirm that the total residue does not exceed 0.03g/m² as specified in EN12735-1 ASTM B280. After cleaning all tubes are individually end-capped to maintain their internal cleanliness. All straight tubes are manufactured in 5.8mts/3mts length for ease of movement and are bundled and wrapped in plastic for maximum protection. Individual coils are also wrapped in Plastic, packed into Cardboard Cartons in Wooden Boxes

Indigo Copper Pipes meets the mandatory inspection requirements

| | |
|----------------------|---|
| Chemical Composition | Copper + Silver = minimum 99.90%, Phosphorous = minimum 0.015. max 0.040% |
| Carbon content Test | Window based software determines the content of carbon on the inner surface of copper tubes and fittings using combustion method. |
| Tensile Strength | INDIGO pipes have been tested to the best of its tensile strength keeping in mind all the testing norms in the industry |
| Non-Destructive Test | Each tube is subjected to an Eddy current test for detection of local defects |

Technical Specification Copper Tubes

| Standard | JIS H3300 | ASTM B-68 | BS 2871 PART 3 | DIN 1785 | IS 2501 | BS 2871 PART 2 | IS 2501 |
|-----------------------|-------------------------------|-----------------------------|-----------------------------|-----------|--------------------------------|----------------------------|--------------------------------|
| Symbol | C 12200 | C 12200 | C 106 | SfCu 25 | DHP IS191 PART VIII | C 101 | ETP COPPER |
| Cu | 99.9 Min | 99.9 Min | 99.85 Min | 99.9 Min | 99.8 Min | 99.90** Min | 99.90** Min |
| Sn | - | - | 0.01 Max | - | 0.01 | - | - |
| Pb | - | - | 0.01 Max | - | 0.01 | 0.005 | 0.005 |
| Ni | - | - | 0.10 Max | 0.01 Max | 0.10 Max | - | - |
| Fe | - | - | 0.03 Max | - | 0.03 | - | - |
| As | - | 0.01 Max | 0.05 Max | - | 0.05 | - | - |
| P | 0.015-.040 | 0.015-.040 | 0.013-.050 | .015-.040 | 0.015-0.10 | - | - |
| Total Impurities Max. | - | - | 0.06* | - | 0.06 | 0.03* | 0.03* |
| Condition | O 1/2H H | 050 - 060 | M1/2H O | F 25 | O,1/2H,HD | O M | O,1/2H,HD |
| Yield Strength N/mm2 | - | - | - | 150-240 | - | - | - |
| Tensile N/mm2 | 205 Min 245-325 315Max. | - | - | 250 Min | 205Min 235Min 235Min 280Min | 200 - 250 Min. 270 Min. | 205Min 235Min 265Min 280Min |
| Elongation % | 40% Min. | - | - | 30% Min. | 25% | 40% Min. | 25% Min |
| Hardness HV 5 | - | - | 105 Min 80-100 60 Max | - | - | 100 Max 60 Max | 40% Min 25% Min |
| Grain Size Mm (75X) | 0.25-0.06- | 0.015- 0040 0.040 Min | 0.05 Max | - | - | - | - |

Size used for VRV Air-Conditioning Tubing

| SR. No. | SIZE (MM) | SIZE (INCHES) | TOLERANCE IN OD | THICKNESS IN MM | TOLERANCE IN THICK | TEMPER | LENGTH | WEIGHT | MAX WORKING PRESSURE IN MPA | BURSTING PRESSURE IN MPS |
|---------|-----------|---------------|-----------------|-----------------|--------------------|---------------|--------|--------|-----------------------------|--------------------------|
| 1 | 6.4 MM | 1/4" | +/-0.08 MM | 0.80 MM | +/-0.10 MM | 0-COIL FORM | 50' | 1.875 | 13.80 | 68.3 |
| 2 | 9.5 MM | 3/8" | +/-0.08 MM | 0.80 MM | +/-0.10 MM | 0-COIL FORM | 50' | 2.975 | 8.40 | 41.5 |
| 3 | 12.7 MM | 1/2" | +/-0.08 MM | 0.80 MM | +/-0.10 MM | 0-COIL FORM | 50' | 4.050 | 6.00 | 29.5 |
| 4 | 15.9 MM | 5/8" | +/-0.09 MM | 1.00 MM | +/-0.15 MM | 0-COIL FORM | 50' | 6.300 | 5.90 | 29.5 |
| 5 | 19.1 MM | 3/4" | +/-0.09 MM | 0.80 MM | +/-0.15 MM | 1/2 HARD-TUBE | 10' | 1.240 | 12.5 | 22.9 |
| 6 | 22.2 MM | 7/8" | +/-0.12 MM | 0.80 MM | +/-0.15 MM | 1/2 HARD-TUBE | 10' | 1.460 | 10.6 | 19.4 |
| 7 | 25.4 MM | 1" | +/-0.12 MM | 0.88 MM | +/-0.15 MM | 1/2 HARD-TUBE | 10' | 1.840 | 10.2 | 18.6 |
| 8 | 28.6 MM | 1.1/8" | +/-0.12 MM | 1.00 MM | +/-0.15 MM | 1/2 HARD-TUBE | 10' | 2.330 | 10.3 | 18.8 |
| 9 | 31.8 MM | 1.1/4" | +/-0.12 MM | 1.10 MM | +/-0.15 MM | 1/2 HARD-TUBE | 10' | 2.880 | 10.2 | 18.6 |
| 10 | 34.9 MM | 1.3/8" | +/-0.12 MM | 1.21 MM | +/-0.15 MM | 1/2 HARD-TUBE | 10' | 3.480 | 10.2 | 18.6 |
| 11 | 38.1 MM | 1.1/2" | +/-0.12 MM | 1.32 MM | +/-0.15 MM | 1/2 HARD-TUBE | 10' | 4.150 | 10.2 | 18.6 |
| 12 | 41.3 MM | 1.5/8" | +/-0.12 MM | 1.43 MM | +/-0.15 MM | 1/2 HARD-TUBE | 10' | 4.840 | 10.2 | 18.6 |

Light weight sizes used for Air-Conditioning Application

| SR. NO. | SIZE | THICKNESS IN MM | TEMPER | LENGTH | APROX WEIGHT PER NO. IN KGS |
|---------|---------|-----------------|-------------|--------|-----------------------------|
| 1 | 6.4 MM | 0.65 MM | 0-COIL FORM | 50' | 1.5 |
| 2 | 9.5 MM | 0.65 MM | 0-COIL FORM | 50' | 2.5 |
| 3 | 12.7 MM | 0.71 MM | 0-COIL FORM | 50' | 3.5 |
| 4 | 15.9 MM | 0.71 MM | 0-COIL FORM | 50' | 4.5 |
| 5 | 19.1 MM | 0.81 MM | 0-COIL FORM | 50' | 6.4 |
| 6 | 19.1 MM | 1.00 MM | HARD-TUBE | 10' | 1.6 |
| 7 | 22.2 MM | 1.00 MM | HARD-TUBE | 10' | 1.8 |
| 8 | 25.4 MM | 1.00 MM | HARD-TUBE | 10' | 2.1 |
| 9 | 28.6 MM | 1.00 MM | HARD-TUBE | 10' | 2.4 |
| 10 | 31.8 MM | 1.10 MM | HARD-TUBE | 10' | 2.9 |
| 11 | 34.9 MM | 1.20 MM | HARD-TUBE | 10' | 3.5 |
| 12 | 38.1 MM | 1.35 MM | HARD-TUBE | 10' | 4.3 |
| 13 | 41.3 MM | 1.45 MM | HARD-TUBE | 10' | 5 |
| 14 | 44.5 MM | 1.55 MM | HARD-TUBE | 10' | 5.8 |

Product Range

An impressive product range is the first step towards entering a competitive global market.

At Mercure we are committed to providing our client with the best quality raw material most suitable to their requirements. We offer a spectrum of Copper & Copper base alloy products which are manufactured using premium quality raw materials with the best manufacturing techniques following series of stringent quality controlled measures. Our products have varied application in Industries such as Airconditioning & Refrigeration, Plumbing & Waterlines, Medical gas, Instrumentation, Electricals, Defence, Gen.Engineering, Oil & Gas, Dessalination Plants, Architectural & Furniture work. Mercure produces Copper & Copper alloy products as per National & International standard based on customers specification.

GRADE

COPPER :

DHP, DLP, ETP, OFHC, DOW, Tellurium Copper,

BRASS :

63/37Brass, 70/30 Brass, 85/15 Brass, Admiralty Brass, Aluminium Brass, Naval Brass, Arsenic Brass, Aluminium Bronze, Lead Brass, Forging Brass, High Tensile Brass.

CUPRO NICKEL :

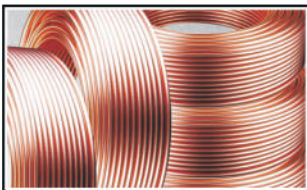
95/5, 90/10 & 70/30 Alloys.

Copper & Copper Alloy Tubes in Straight & Coil Form



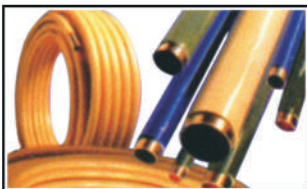
Bright Annealed
Pancake Coils:

| | | |
|-----------|---|-----------------------------------|
| Sizes | : | 1/4"(6.35mm) to 7/8"(22.22mm) |
| Length | : | 50ft11 O0ft |
| Thickness | : | 10 s.w.g(3.2mm) to 27s.w.g(0.4mm) |
| Temper | : | O |



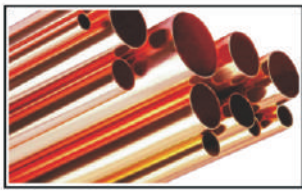
L.W.C(Level Wound
Coils) :

| | | |
|-----------|---|---------------------------------------|
| Sizes | : | 1/4"(6.34mm)OD to 3/4" (19.05mm) OD |
| Length | : | In continues length upto 1400mtrs |
| Thickness | : | 18 s.w.g (1.21mm) to 31 s.w.g(0.27mm) |
| Temper | : | O |



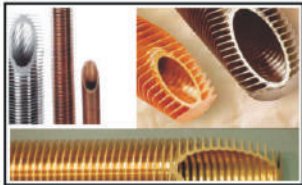
P. V. C. (Poly Vinyl
Chloride) Coated Tubes
& Coils :

| | | |
|-----------|---|---|
| Sizes | : | 1/8"(3.2mm)OD to 1" (25.4mm)OD |
| Length | : | In cut length from 2mtr to 14mtr In continues length from 15mtr to 1000mtr |
| Temper | : | O for soft coils H/HH for straight pipes |
| P.V.C | : | 0.5mm to 2mm |
| Thickness | : | |



Straight Pipes & Tubes :

| | | |
|-----------|---|----------------------------|
| Sizes | : | 2mm OD to 250mm OD |
| Length | : | Up to 10mtr or as required |
| Thickness | : | 0.30mm to 20mm |
| Temper | : | O/HH/H |



Finned Tubes :
(19/26 fins per inch)

| | | |
|-----------|---|--|
| Sizes | : | 5/8"(15.8mm)OD & 3/4"(19.044mm)OD |
| Length | : | Specific length or up to 10 mtr |
| Thickness | : | 1.6mm to 1.2mm |
| Temper | : | HH |
| Type | : | Intergroove Integrally Finned Tubes Internally Grooved Tubes, Outer grooved Finned Tubes, Spiral Finned Tubes. |



Tubes for Plumbing & Medical Gases:

| | | |
|-----------|---|--|
| Sizes | : | 6mm OD to 159mm OD |
| Thickness | : | 0.5mm to 2.5mm as per Table X, Table Y, Table Z |
| Length | : | 10 Feet or as required |
| Temper | : | H/HH |



Cappillary Tubes :

| | | |
|-----------|---|--------------------------------|
| Sizes | : | 0.030"ID to 0.090" ID |
| Thickness | : | 0.7mm to 0.4mm |
| Length | : | 100ft standard or upto 500mtrs |
| Temper | : | O |



Copper & Copper Alloy Fittings :

| | | |
|--------|---|--|
| Sizes | : | 6mm to 250mm |
| Shapes | : | Elbows, Tees, Couplings, Reducers or any non standard type. |
| Types | : | Seamless, Welded, Flared, Unflared Shouldered, Threaded |
| Grade | : | Copper, CuproNickel, Brass, Gunmetal etc |



Pre-Insulated Tube:

| | | |
|------------|---|---------------------------------|
| Sizes | : | 1/4" to 3/4" |
| Tube | : | 1.6mm to 0.5mm |
| Thickness | : | |
| Insulation | : | 6mm to 25mm |
| Thickness | : | |
| Length | : | 3mtr to 30mtr or any fix length |



MERCURE METALS & ALLOYS PVT LTD.

MERCURE METALS AND ALLOYS PRIVATE LIMITED

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