



Metal Alloys Corporation

Manufacturer & Exporter of Copper and Copper Alloys Products

Regd. Office & Plant

6 & 7, Lakhabaval, R O. Khodiyar Colony, Jamnagar-361 006. Gujarat (INDIA)
Tel.: +91-288-2889251 /52, Fax: +91-288-2889223, Cell: +91-9924443396

Email: info@metalalloyscorp.com • web: www.metalalloyscorp.com

Corporate Office

A/2, North View Apartment, Sub Plot-IV, St. Xavier's College Road, Navrangpura,
AHMEDABAD - 380 009. Gujarat (INDIA)
Tel. +91-79-26300054/0197 • Fax : +91-79-26302231 • M.: 98250 95960



Nearest Domestic Air Port : Jamnagar - 3 kms.
Nearest International Air Port : Ahmedabad 325 kms.



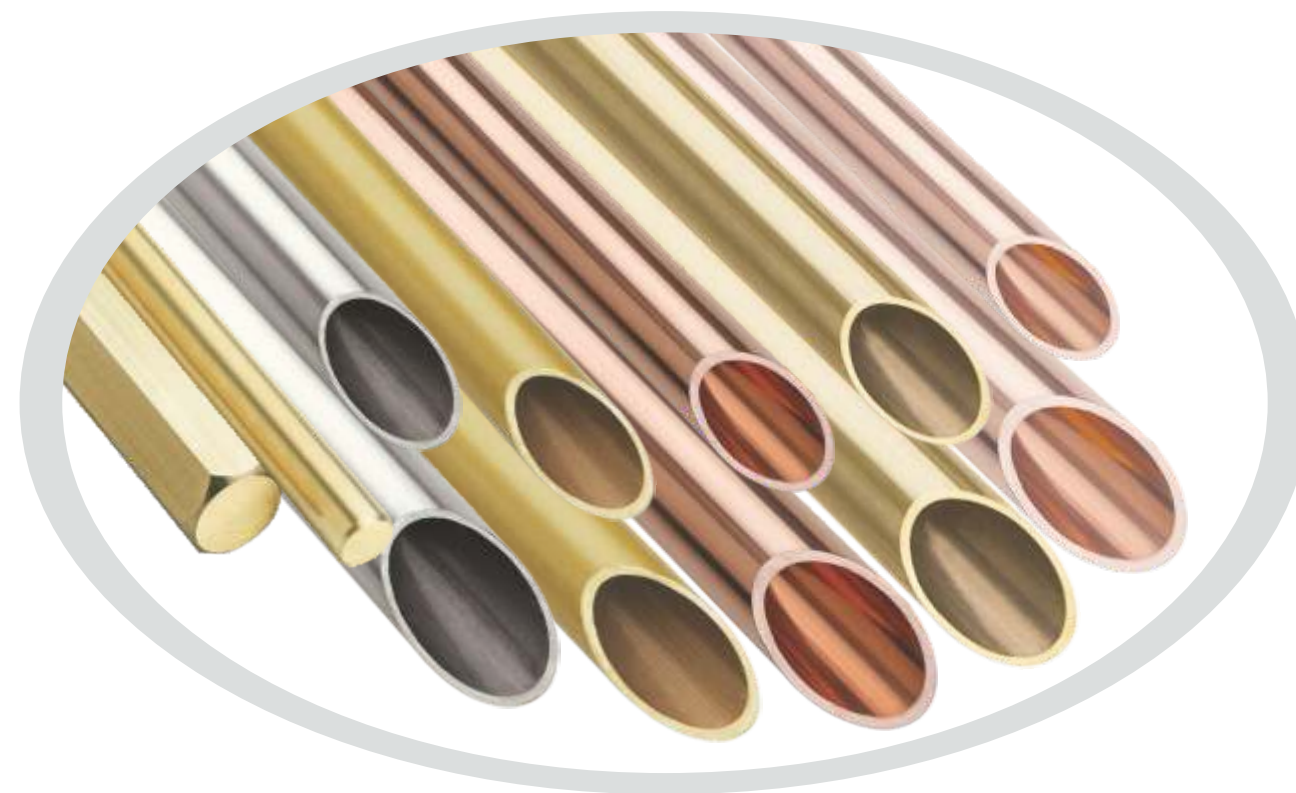
Nearest Port : Kandla - 222 kms., Mundra - 300 kms.



Metal Alloys Corporation

Quality, Technology & Vision at its Best

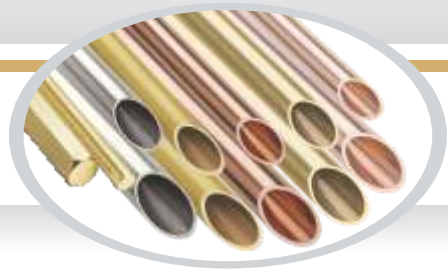
World Class Sourcing Solution for Copper & Copper Alloys Products



www.metalalloyscorp.com

An ISO 9001 Certified Company





Copper & Copper Alloys

Seamless Tubes & Solids



ENGINEERS INDIA LIMITED
(A Govt. of India Undertaking)

We are...

Metal Alloys Corporation - One of the leading manufacturer of Copper and Copper Alloys Cast, Extruded and Drawn products, viz. Billets/Ingots, Mother Shells, Tubes/Pipes, Hollow/Solid Rods, Sections, Profiles etc.

QUALITY:

METALCO is an ISO 9001 Certified unit having sophisticated quality control & quality assurance systems along with an ultra modern chemical & physical testing laboratory having Computerized Spectroscopic Analyzer for precise alloying, Multi - Range Microscope for micro structure examination, Eddy Current Testing, Hydraulic Pressure Testing etc.

TECHNOLOGY:

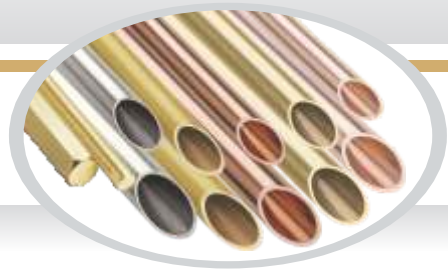
METALCO - with a production capacity of 6000 MT per annum sprawls across an area of 150,000 sq. ft. with a unique design of the constructed area of 60,000 sq. ft. which maximizes productivity & enables us to transfer benefits of the large scale operations to the customers. In order to consistently manufacture international quality products, the company has employed a dedicated team of highly qualified and experienced Engineers and Management Professionals.

VISION:

The vision of the management & the technical expertise of entrepreneurs led to the design, construction and installation of state of art manufacturing facility for casting, extrusion, pilgering, cold drawing, finishing, inspection and testing, under one roof.

Our Pride





Copper & Copper Alloys

Products & Products Details

METALCO Specializes in manufacturing following Copper & Copper Alloys Seamless Tubes for Heat Exchangers & Condensers.



● ADMIRALTY BRASS

Admiralty Brass is generally used with fresh, clean waters free from suspended abrasive solids and Originating from rivers lakes and canals. It may also be used with brackish or even saline water. The inhibitive action of Arsenic Protects Admiralty Brass from dezincification and the fully annealed alloy can also withstand stress-corrosion cracking.

Admiralty Brass used in Heat exchangers & Condensers, Automobile Industry, General Engineering Purposes, Industrial Refrigeration, Radiator, Evaporator copper Tubes.

● ALUMINUM BRASS

Aluminum Brass is generally used with brackish or sea water. Through its arsenic inhibition, it is virtually immune from dezincification and when fully annealed, also practically free from stress corrosion racking. Aluminum Brass Tubing which are preferred across the globe owing to its superior quality, durability and accurate dimensions.

Aluminum Brass used in Heat exchangers & Condensers, Automobile Industry, Industrial Refrigeration Oil Burner Tube, Radiator, General Engineering Purposes, Evaporator.



● 90/10 COPPER NICKEL

90/10 Copper Nickel is widely used in sea water. It has very good corrosion resistance to clean or moderately polluted marine or estuary water, even containing dissolved incondensable gases Known for their flexibility, high corrosion resistance, superior tensile strength, trouble free installation and maintenance.

Excellent corrosion resistant to turbulently used in condensers for coastal power plants, petroleum refineries and chemical plants.

● 70/30 COPPER NICKEL

Our 70/30 Copper Nickel Tubes are sturdy in construction dimensionally accurate, corrosion resistant, easy to install and maintenance free. Available in different standard specifications, the tubes can also be customized as per the clients' specifications at nominal prices.

High impingement corrosion resistant to brackish sea water at velocities upto 3 to 4 m/sec used in desalination plants and other sea water condenser application.



● FINNED TUBES / PIPES

METALCO offers different finned tubes: Integral Fin Tubes (Low Fin Tubes) and External Fin Tubes (High Fin Tubes) Low Fin (Integral) Tubes tension wound finned tubes, copper fin tubes, embedded finned tubes, extruded finned and low finned Tubes. Tension wound finned tubes are formed by winding a strip made of Aluminum or copper around the tube under tension. The strip winding technology provides different types of fins: L-fin, LL fin, KL fin, G-Fin. High Fin, are obtained by roll forming the outer surface of a plain tube. This process results in an increase in strength of the finned sections, whereas the plain ends and lands remain soft. The fin density ranges from 19 fins per inch to 26 fins per inch. The finned tubes quality is assured by hydrostatic and pneumatic tests

● U-BEND TUBES / PIPES

METALCO manufactures U-Bend tubes confirming to the international Standards and as per the customer requirements. These tubes have been added to our product range so to offer added value to our esteemed customers. Roundness, Straightness, Uniformity of the wall thickness and inner and outer surface of the tube are the unique features so as to make them suitable for intended.

Applications. U-bend tubes are mainly used to enhance the design of heat exchangers & Condensers.



Seamless Tubes & Solids



Products & Products Details

METALCO Specializes in manufacturing following Copper & Copper Alloys Tubes for Sugar, Air - Conditioning, Refrigeration, U Tube Bundle, Finned Tubes



● DHP / DLP COPPER TUBES

We are one of the leading manufacturers, exporters and suppliers of a large array of DHP/ DLP Copper Tubes These are used in different industries due to their flawless quality, durable finish standards rigid construction, reliable performance and corrosion & wear resistance.

General Engineering Purpose & Electrical Component.

● 70/30 SUGAR BRASS TUBE

Being the leaders in the industry, we are engaged in manufacturing and exporting a varied assortment of 70/30 Brass Tubes, Condenser Tubes. Precisely manufactured using premium grade raw materials that are sourced from trusted & reliable dealers, the brass tubes offered by us are used in various industries including, sugar & general engineering. Our 70/30 Brass Tubes are sturdy in construction, easy to install, durable, corrosion proof and offered at nominal costs.

Our Tubes are used in Sugar Industries, Plumbing & Fittings, Furniture, Hand Pumps and Ammunitions.



● 63/37 BRASS TUBES

We are one of the leading manufacturers, exporters and suppliers of a complete line of 63/37 Brass Tubes. These are manufactured by adept technicians in accordance to the set domain guidelines & norms to ensure excellent performance, durability, rugged construction, reliable operation and corrosion resistance. We offer Tubes with polish & mirror finished Surface.

Tubes are specially for Faucets & Sanitary, Plumbing & Fittings, Furniture and Hand Pumps.

● DZR (LOW LEADED BRASS) / ECO BRASS

The DZR Brass or Eco Brass of products carefully finds a balance between lead free compliance strategies and the reviling necessity of remaining competitive and maintaining productivity. As opposed to other lead free or low lead alternatives; DZR / Eco Brass has taken a more customer-centric approach when it developed its lead free alloys and assembled the products. Instead of simply replacing the lead with potentially. **used in Potable water components, fixtures & applications, plumbing applications & systems, Forged products requiring lead free &/or dezincification compliance** We are manufacturers and develop dezincification-resistant alloys which retain the appreciated properties of free-machining brass on the one hand and the excellent, lowcost workability into turned or forged parts on the other.



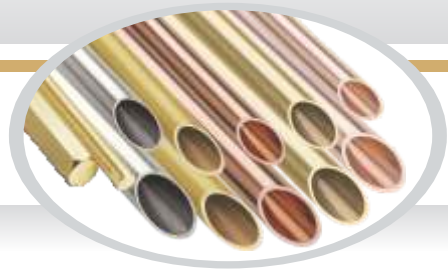
● HIGH TENSILE BRASS HOLLOW

Metalco is the world's biggest producer of high-tensile brass, these alloys meet the more and more complex requirements given by specific applications. The material properties of brass alloys can be influenced very effectively by alloying additional elements such as aluminum, manganese, silicon, nickel, tin. The so-called high-tensile brass alloys show a modified microstructure resulting in optimized and custom-tailored material properties.

● LEADED BRASS HOLLOW / PIPES

We are manufacturer of brass hollow rods and brass hollow bar with wide range of inner and outer diameters, alloys & grades. These rods and bars are said to be the best alternative for machined parts which has bore like cable glands, brass sleeves, valves and various other brass components which has bore in its center. **Industry using hollow rods are Precision Components, hardware, cable glands, automobile electronic parts. industrial valves, defense components watch case Marine Industry and sanitary parts industry.** Hollow bars are very thick seamless tubes that can be used as machining stock instead of solid bar. They offer a cost effective alternative for the manufacture of various turned components used in the automotive industry. Metal Alloys Corp. can supply Hollow Bars in standard or customized grades of Copper and copper Alloys





Copper & Copper Alloys

Our Special Products



● TUBE FOR BEARING CAGE MANUFACTURER

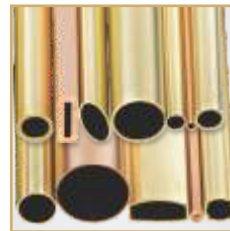
Metal Alloys Corporation is one of the world largest and most diversified manufacturers of specialized seamless tubes. We produce seamless tubes ranging from an outside diameter of 8 mm to 110 mm.

These Tubes are used in manufacturing different Bearing Cages such as Taper Roller Bearings Cage, Spherical Roller Bearing Cage, Ball and Cylindrical Roller Bearing Cages Etc. These Bearing cages finds its application in the bearing for construction machinery gear construction, vehicle manufacture, rolling mills & railway wagons.They are suitable for applications which require high-speed rotation, low vibration, and low noise as in transmissions, electric motors & generators, pumps, compressors, gear boxes, drive elevators, textile machinery, printing machinery and two wheeler axles.

● TUBES FOR FAUCETS & SANITARY

A Copper and Zinc Alloy containing small amount of Arsenic. This is added as an inhibitor against dezincification. The alloy exhibits a good combination of strength and ductility and is commonly selected whenever excellent cold working properties, bright finish and relatively low cost are desirable. Severe environment must be considered to predict corrosion behavior. The alloy is often used for variety of deep drawn components.

We provide a complete range of sizes and types, engineered to exact specifications to meet the highest standards of performance. with buffing, polishing and bending specially for Faucets and sanitary We offer these tubes in different shapes, Round, Square, Rectangle, D-Profile, octagon and profiles.



● TUBES FOR SHIPBUILDING / MARINE & NAVAL APPLICATIONS

Metal Alloys Corporation is proud to serve the marine and naval industry. For decades, seawater pipe systems made of cupronickel alloys have been put to successful use on seagoing vessels and offshore production unit like platforms, drilling rigs and semisubmersible FPSO's. The chemical composition of CuNi 90/10 and CuNi 70/30 cupronickel alloys meet the requirements for all the main international standards. Please read our brochure for more information and specifics.

Metal Alloys Corporation sells alloy 706/7062 copper nickel. Copper nickel is most commonly used for marine applications because of its high seawater corrosion resistance and anti-biofouling properties. 706/7062 copper nickel offers the best characteristics for marine hardware and can be formed, bent, and welded. This product is available in pipe, tube and Rods product forms cut to your specifications. 706/7062 copper nickel has excellent soldering, brazing, gas shielded arc welding, and butt weld fabrication properties.

● TUBES FOR SYNCHRONIZER RINGS MANUFACTURER

We Supplies Tubes / Hollows for Synchronizer Rings manufacturer, this synchronizer rings can be used in highly stressed transmissions, Gears We have a state-of-the-art production unit that is well equipped with latest technology and sophisticated machines. Our workforce comprises of skilled professionals, experts and laborious workers. Our professionals contribute comprehensive knowledge to meet our clients' specifications and maximize their satisfaction. These are machined in line with the set industry standards using qualitative raw materials that are sourced from authentic vendors of the domain.

These Tubes are of Grade : CuZn36MnAl2Si1, CuZn37Mn3Al2PbSi1, CuZn30Mn8Al3Si1NiCr and as per CuZn40(DIN), MBA2 Cr.



● TUBES FOR FITTINGS, FLANGES & ELBOWS

Metal Alloys corporation provide Tubes/pipes which are used in fittings and flanges, we supplied Tubes/Pipes for manufacturer of Flanges & fittings which are used in plumbing, heating and related mechanical applications. air conditioning systems as well as drainage, waste and vent piping for use in residential, commercial, industrial and institutional applications.

Our range of Tubes and Pipes can produce as per your drawings and specifications.

● BRASS TUBES FOR WATER-LUBRICATED BEARINGS

METALCO manufactures Brass Tubes, Naval Brasses & Leaded Brasses for the Water-Lubricate Bearing manufacturer which confirming to the international Standards and as per the customer requirements. These tubes have been added to our product range so to offer added value to our esteemed customers. This Water-Lubricate Bearings offer an alternative solution to the ever growing concerns of environmental restrictions, the high costs of maintenance and the replacement in today's marine industry.



Seamless Tubes & Solids

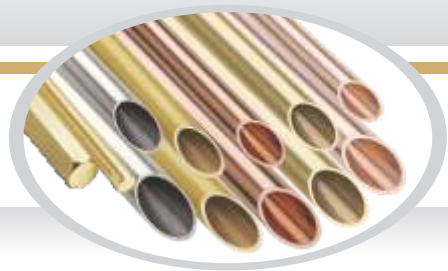


Capabilities

Production range : TUBES / RODS / HEX / SQUARE / FLAT / PROFILE / HOLLOW

Tubes	6.35 mm to 110 mm
Round Wires	1 mm to 8 mm
Round Rods	6 mm to 250 mm
Hex	5 mm to 60 mm
Square	4 mm to 60 mm
Flat	5 mm Min Thickness and Max Width 120 mm
Profile	As per Customer Drawing
Hollow Rods	Min Bore size 20 MM and Max OD 130 mm

Condenser Tubes Ingots / Billets / Mother tubes / Pilger Tubes / Finished Tubes / Finned Tubes / U-Bend Tubes / Rods	Admiralty Brass Aluminum Brass Aluminum Bronze	ASTM B 111 C 44300/ ASME SB 111 C 44300 / BS 2871 Part 3 CZ - 111 / EN 12451 CuZn28 Sn1As - CW 706R / NFA 51 102 CuZn29Sn1 / JIS H 3300 C 4430 ASTM B 111 C 68700/ ASME SB 111 C 68700 / BS 2871 PART 3 CZ - 110 / EN 12451 CuZn20 AL2As-CW 702R / NFA 51 102 CuZn22 Al2 / JIS H - 3300 C 6870 / ASTM B 111 C60800 / ASME SB 111 C 60800 / EN 12451 CuAl5As / CW300G
Cupro Nickel Ingots / Billets/ Mother tubes / Pilger Tubes / Finished Tubes / Finned Tubes / U-Bend Tubes / Rods	70/30 copper Nickel 90/10 Copper Nickel 95/5 Copper Nickel	ASTM B 111 C 71500 / ASME SB 111 C 71500/ BS 2871 part 3 CN 107 / EN 12451 CuNi 30 Fe 1 Mn - CW 354H,CW 353H / NFA 51 102 CuNi 30 Fe 1 Mn / JIS H 3300 C 7150 / ASTM B 111 C 70600 / ASME SB 111 C 70600 / BS 2871 Part 3 CN 102/ EN 12451 CuNi10 Fe 1Mn - CW 352H / NFA51 102 CuNi10 Fe1Mn / JIS H 3300 C 7060 ASTM B 111 C 70400/ ASME SB 111 C 70400 / BS 2870 CN 101/ ISO 1635 CuNi5Fe1MN/ JIS C 2532 GCN10 / DIN CuNi5fe / DIN 17658 20862
Copper Ingots / Billets / Mother tubes / Pilger Tubes / Finished Tubes / Finned Tubes / U-Bend Tubes / Rods/ Pancake Coils	DHP Copper DLP Copper EC / ETP Copper Other Copper	ASTM B 68 C 12200/ ASTM B 75 DLP C12000/ BS 2871 Part 2 C 101 / BS 2871 Part 3 C 106 / EN 12451 DHP - CW 024A / JIS H3300 C 1220 ASTM B 68 C 12200/ ASTM B 75 DLP C12000 / BS 2871 Part 2 C 101 / BS 2871 Part 3 C 106/ EN 12451 DHP - CW 023A / JIS H3300 C 1220 ASTM B 68 C 12200/ ASTM B 75 DLP C12000 / BS 2871 Part 2 C 101 / BS 2871 Part 3 C 106 / EN 12451 DHP- CW 004A / JIS H3300 C 1220 Beryllium & Chromium Copper, Cadmium Copper, Sulphur Copper, Arsenic Copper, Tellurium Copper, Zirconium Copper, Commercial Copper
Lead Free Brass Ingots / Billets / Mother tubes/ Pilger Tubes / Finished Tubes / Rods (Solid and Hollows) - Hex/ Rectangles/ Square / Profile	70/30 Brass 65/35 Brass 63/37 Brass 60/40 Brass Red Brass Naval Brass	ASTM B 135 C 26000 / BS 2871 Part 3 CZ - 126 / EN 12449 CuZn30As CW 505L / NFA 51 102 CuZn30 / JIS H 3300 C 2600 / AS 1572 26130 ASTM B 135 C27000 / CuZn35 / BS Cz107 ASTM B135 C 27000 / JIS H33000 C 2700 / ISO 1637 CuZn37, ASTM C27200, IS4413 grade I&II / EN 12449 CW 507L IS 4170/67 ASTM C36500, CZ109, JIS3250H C-2800 ASTM B135 C 23000 / BS 2870 CZ 102 / EN 12449 CW 502L /JIS H3300 C 2300 ASTM C69400, C69430 Is291 Grade I or II / BS 2874 CZ 112 / JIS 3250 C4622 / ASTM C48200, C48500, C46200, C46400 / En 12167 CW 714R
DZR Brass Eco Brass/DZR Brass (Dezincification Resistant Brass) Rods (Solid and Hollows) - Hex/ Rectangles/ Square/ Profile	Lead Free Brass Dezincification Resistant Brass Copper-Lead-Zinc Alloys Low Leaded Brass Leaded Muntz Metal DZR Forging Brass	C27450, ISO CuZn37, EN CW508L, UNS C35200, BS CZ132, EN CW602N JIS C36300, ISO CuZn37, EN CW508L JIS C33000, ISO C330, EN CW705R C36500,EN CW610N, ISO CuZn40Pb C48600, ISO CuZn28Sn1, EN CuZn28Sn1As, BS CZ 111, JIS C4430, Russian L62-1
Leaded Brasses Rods (Solid and Hollows) - Hex/ Rectangles/ Square/ Profile	Free Cutting Brass Forging Brass High Tensile Brass Rivetting Brass Nickel Silver	ASTM B 455 / B 16 C 38500 / C 36000/ BS 2874 CZ - 121Pb3 or Cz124 / IS319 Grade I / II/ III/ JIS3250 H C3604 or C3602/CW 614N/CW 603N ASTM B 124 C37700/ BS 2874 CZ 122/ IS 3488 Forging Brass / CW 608N IS 320 HT1 or Ht2 / BS 2874 CZ114 or Cz115 / JIS 3250H C6782 or C6783,BS1001-Type I&II, IS 8737 - II IS 4170 CuZn40 / BS 2874 Cz109 / JIS 3250 H C2800/ ASTM B171 C 36500/ IS 4413 CuZn37 / BS 2872 CZ108,CZ 131 IS 10757 Nickel Silver / BS 2874 Ns 101 / ASTM 79830 / Nm3 / Nm6 / C79830
Bronze Ingots / Billets/ Mother tubes/ Pilger Tubes/ Finished Tubes/ Rods (Solid and Hollows) - Hex/ Rectangles/ Square/ Profile	Tin Bronze Aluminum Bronze Aluminum Silicon Bronze Leaded Commercial Bronze Phosphros Bronze Manganese Bronze Nickel Alu. Bronze	ASTM B30 C92600, C92600, PB102, BS1400 (Pb1), BS 1400 GI ASTM B 111 C60800 / ASME SB 111 C 60800 / EN 12451 CuAl5As / CW200G/C61400/ C95400/61800 C62300/ C62400/ C62500/ C95200/ C95900 / CuAl11Ni5Fe5, BS1400-AB1 & AB2,BS2874 CA104 & Ca103 ASTM B 150 C 64200 / SAE J 463 C 64200/C63600 / C65620 / C65100 / C65500 / C65610 ASTM B 140 C31400 ASTM B103 C 51000 / SAE J 463 C 51000 / BS 2874 PB 102 / CW 451K C67300 / C67500 / C66800 / C67400 / C67600 / C86200 / C67000, BS 1400/ HTB - 3 C63000 / C63020 / C63200 / C95510 / C95500 / C95520/ CuAl10Ni5Fe4 / CW307G / C95800 / C96900 IS 10569: 1983 - Grade I,II & III

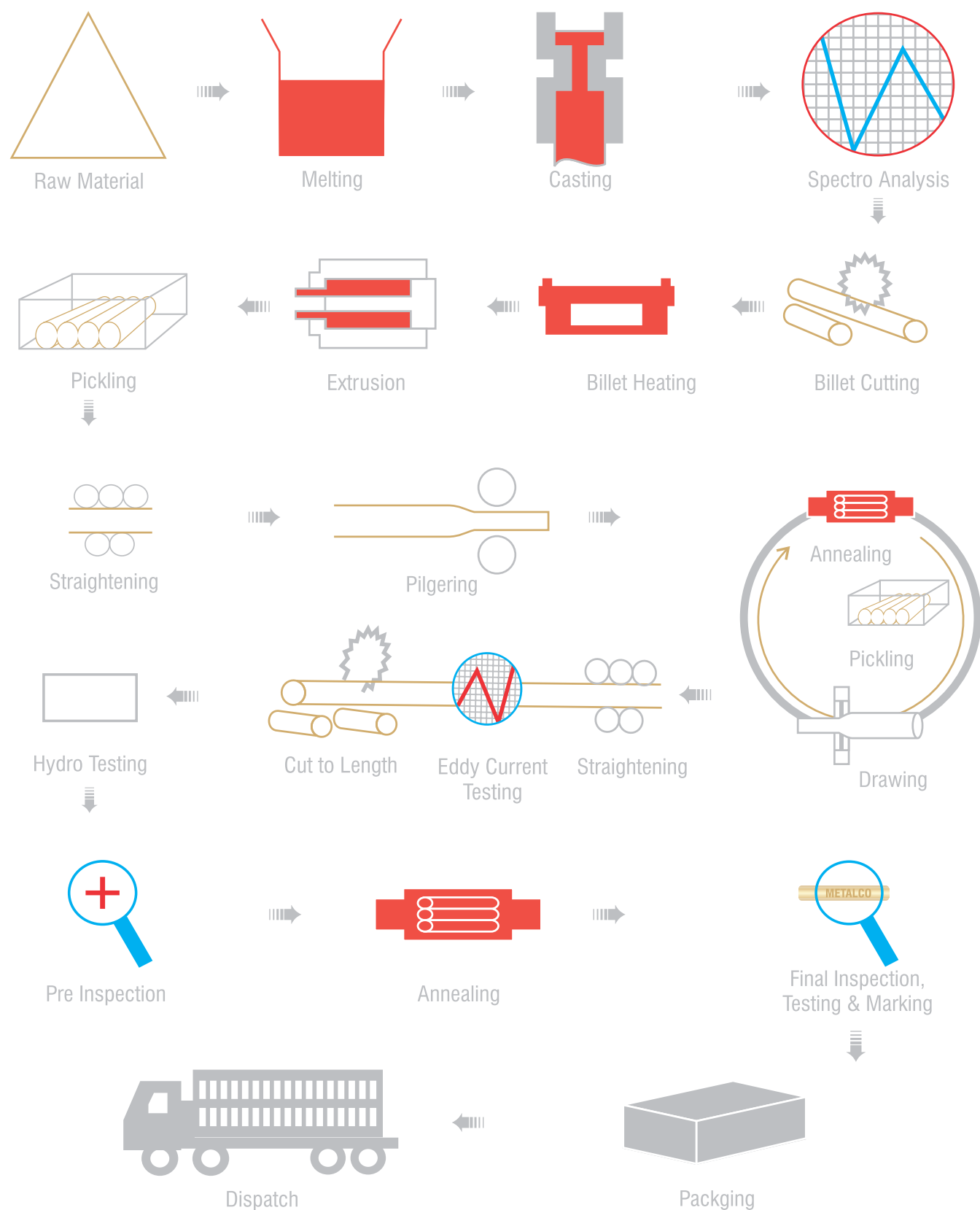


Copper & Copper Alloys

Seamless Tubes & Solids



Process flow chart



Our Plant

Coreless Type Induction Melting Furnace



Horizontal Oil Hydraulic Extrusion Press



PLC Controlled Draw Benches



Cold Pilger Mill



Eddy Current Testing Machine



Hydraulic Pressure Testing Machine

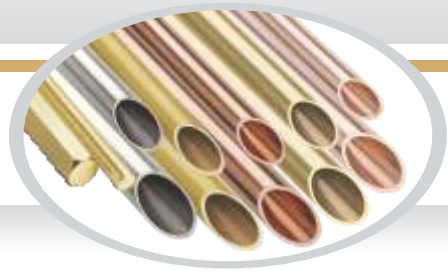


Superior Quality Packing



Roller Hearth Bright Annealing Furnace





Copper & Copper Alloys

Seamless Tubes & Solids



Our Quality Control

Optical Emission Spectrometer



Chemical Laboratory



Universal Testing Machine



Hardness Testing Machine



PROCESS EQUIPMENTS

- Coreless Type Induction Melting Furnace
- Channel Type Induction Melting Furnace
- Gas Fired Billet Heater
- 1250/160 M.T. Horizontal Oil Hydraulic Extrusion Press
- Mannesmann Make Cold Pilger Mill
- Roller Hearth Bright Annealing Furnaces
- PLC Controlled Draw Benches
- Straightening Machine

QUALITY CONTROL EQUIPMENTS

- Optical Emission Spectrometer.
- Universal Testing Machine
- Rockwell Cum Brinell Hardness Tester
- Brinell Cum Vickers Hardness Tester Machine
- Conductivity Meter
- Metallurgical Microscope
- Eddy Current Testing Machine
- Hydraulic Pressure Testing Machine
- Chemical Laboratory

UTILITY

- Diesel Generating Sets
- High Pressure Air Compressors
- Stretch Wrapping Machine
- PLC based RO plant for industrial water supply
- Cooling Towers
- EOT Cranes.

Industrial Application



Refinery



Power Plants



Heat Exchangers



Defence



Petrochemicals



Automobiles



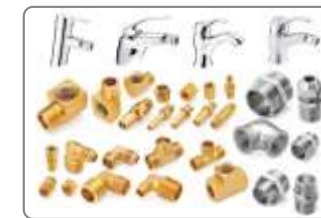
Fittings, Flanges & Elbows



Ship Building



Cable Gland



Faucets & Sanitary Fittings



Ball Bearing Cages



Lugs



Copper Tubes for Isolators



Synchronizing Rings



HTB Busings



Gears

Industries We Serve

- Sugar Mills
- Synchronizing Rings Manufacturer
- Railways Engine Components
- Fittings, Flanges & Elow Manufacturer
- Electrical Motors Manufacturers
- Automobiles Parts Manufacturers
- Scientific Equipments Manufacturers
- Petro Chemical Industries & Refinery
- Ball Bearing Industries Manufacturers
- Air Conditioning Plants Manufacturers
- Electronic and Electric Components & Equipments
- Telecommunications Components Manufacturers
- Facucets & Sanitary Fittings
- Thermal and Nuclear Power Plants
- Transformer & Switch Gears
- Surgical Equipments Manufacturers
- Watches & Time Piece Manufacturers
- Air Crafts Components manufacturers
- Agricultural Equipments Manufacturers
- Electrical & Water Meters Manufacturers
- L.P.G. & Industrial Valves Manufacturers
- Sanitary Hardware Fitting Manufacturers
- Ship Building / Naval Dock Components
- Condenser & Heat Exchanger Manufacturers
- Heat Exchangers Manufacturers
- Defence
- Fertilizers
- Cement