



SHREE EXTRUSIONS LIMITED

Quality, Technology & Vision at it's Best
World Class Sourcing Solution for Copper Alloys Products



An ISO 9001-2015 Certified Company
Laboratory Accredited By **NABL**



Extruded Copper and Copper Base Alloys Rods, Hollows Rods,
Wires, Sections, Ingots, Tubes & Components / Parts As per IS, BS, DIN, JIS,
ASTMB, GOST & All Other International Specifications



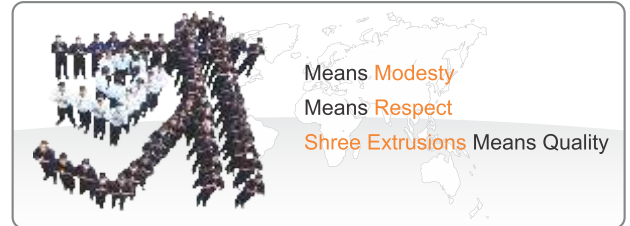
NABL / ISO : 17025
Accreditation Number T - 1719/1720





Quality

Shree Extrusions Ltd. is an ISO 9001:2015 certified company with NABL Accreditation Lab as per ISO/IEC 17025 : 2005, T-1719 & T-1720. Our product are as per **ROHS** and **Reach** Compliance with sophisticated quality control equipments & quality assurance Systems using modern latest equipments like Spectrometer, Eddy current Testing, Metallurgical Microscope, Impact Testing Conductivity Meters, Mercurous Nitrate Test, Profile Projector, LPT Test, Computerized UTM.



Technology

Shree Extrusion Ltd. with years of Experience is meeting the needs of diverse Industries by offering Copper & Copper alloys wires, rods & tubes. Combining technology & Innovation. Our aim is to be the leader in the industry with the use of latest technologies & machinery. We offer improved range of products meeting world class standards as per IS, BS, DIN, JIS, ASTM, GOST & All other international specifications.



Vision

Shree Extrusions Ltd. with a production capacity of 6000 MT per annum sprawls across an area of 100000 Sq ft. with unique design of constructed area of 70000 Sq ft. which maximizes productivity it 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.



Certification & Achievements

- Our Laboratory has been approved by NABL & DGQA
- Garden Reach Shipbuilders & Engineers Limited, Calcutta
- Material Organization Mumbai, Vishakhapatnam, Khamaria
- Hindustan Shipyard Ltd., Vishakhapatnam
- Gun Carriage Factory, Jabalpur
- Ordinance Factory, Katni / Khamaria / Dumdum
- Mazagon Dock Limited, Mumbai
- Naval Dockyard, Mumbai
- Ship Building Centre, Vishakhapatnam
- Bharat Heavy Electricals Ltd.
- Gun & Shell Factory, Cossipore
- Metal & Steel Factory, Kolkata

Our Cliente



Product Range



Solids and Profiles



Wires



Tubes



Ingots

Industrial Application



Valves



Fasteners



Tyre Tube Valves



Faucet & Sanitary Wares



Connectors



Electrical Fittings



Ball Bearing Cages



Gears



Petrochemicals



Ball Pen Tips Industries



Bushings



Ship Buildings



Neutralinks



Earthing Accessories



Locks



Isolators



Railways



Armaments & Aviations



Bronze Fasteners



Sanitary Fittings



Brass Wires

We are engaged in manufacturing of Superior quality of brass wires that are available varied sizes for meeting the demands of our clients. Brass wire widely finds application in fasteners, Rivets, Domestic Application, Auto motive Engineering, Intricate parts such as Clock Components, Precision Components, Screws, Nuts & Bolts, Gears, Pinions, Electronic Parts, Precision Components Machining with Riveting Operation, Cold Heading, Forging, End Pressing & Bending. We manufacture Wires in **Riveting Brass, Free Cutting Brass and Lead Free Brass.**



Brass Rods

The range of Brass Rods manufactured by us is valued for its excellent cutting & drilling performance, high conductivity, mechanical strength and corrosion resistance. These Brass Rods find applications in various sectors like LPG Valves, Industrial Valves, Electric & Electronics Components, Fittings, Hose Fittings, Hardware, Lock Bodies, Hinges. We offer Rods In **Forging Brass, High Tensile Brass, Riveting Brass, Free Cutting Brass, Naval Brass and Lead Free Brass.**

Brass Hollow Rods & Tubes

Brass Hollow Rods manufacture significant economic advantages, by way of removing the need for drilling operations and reducing the boring out of the parts. Brass Hollow Rods find applications in making of taps, valves (plumbing-heating industry), Hose Fitting, Cable Gland & many components that require boring, Automobile Industry for Synchronizer Ring, Bearing Cage and Brass Retainer, General Engineering Purposes, Arsenic Brass Tubes for Sugar Industries, Tubes for Evaporators & Coolers, Heat Exchanger, Brass Tubes for Sanitary Fittings & Accessories and Brass Tubes For Agriculture Equipment, Furniture & Lighting Fixtures, We manufacture Hollow Rods in **Forging Brass, High Tensile Brass, Riveting Brass, Free Cutting Brass, Naval Brass, Lead Free Brass.** We also offer **70/30 Brass Tubes, 63/37 Brass Tubes, Admiralty Brass Tubes and Aluminum Brass Tubes.**



Brass Flats & Profiles

We manufacture Brass Flats & Profiles in various sizes for any specific use requested by the customer, from very simple to the most complex shapes. These Brass Flat & Profiles are widely used in Interior decoration, Buildings, Furnishings, Doors, Windows and various engineering application. We offer Brass Flats & Profiles in **Forging Brass, High Tensile Brass, Riveting Brass, Free Cutting Brass, Naval Brass and Lead Free Brass.**

Bronze Rods

Bronze is harder than copper as a result of alloying the metal with Tin, Nickel & Lead. Bronze is also more fusible (i.e. more readily melted) and easier to cast. It is also harder than pure iron and far more resistant to corrosion. Bronze is substitute of Iron in tools & weapons. Bronzes are finding increasing use in chemical, Petrochemical, Desalination Plant, Ship Building, Power Generation, Aircraft, Automotive and Railway Engineering. We offer Bronze Rods in **Aluminum Bronze, Aluminum Silicon Bronze, Phosphorus Bronze and Lead Bronze.**



Brass Wires for Ball Pen Tips

The entire range of Brass wire for Leaded Ball Pen Tip is manufactured using finest quality of Raw Material from reliable and certified sources from market. These wires are valued for their resistivity against Ink & Moisture, longer operational life, low maintenance and strength. We also specialize in field of customization to manufacture complete client satisfaction for production of various types of tips. We manufacture special Brass wire **SBP (Shree Ball Pen), Ms58 and RT61.**

Nickel Silver Wires for Ball Pen Tips

Nickel Silver wire is a copper alloy with Copper, Nickel, Lead & Manganese. We manufacture a premium quality range of Nickel Silver Wire for Ball Pen Tip, which is acknowledged for its corrosion resistance, high strength and high conductivity. Due to our high-powered conductivity Eddy current tests. We have been able to fabricate and export defect less range of **Nickel Silver Wire, NM3 and NM6**



Brass Brazing Wires & Rods

Copper alloys are base metal alloys used for high temperature brazing of various steels or tungsten carbide. Brass Brazing is Cost effective alternative to silver brazing alloys wherein high joint strength can be readily achieved. Some alloys also manufacture excellent corrosion resistance with thermal and electrical conductivity. We manufacture these alloys in standard composition suitable for specific application. We manufacture **Silicon Brass Brazing and Silicon Manganese Brass Brazing**.

Brass Flat Wires

We provide high quality Brass Flat Wire with Bright surface finishing and brass color widely used in Zipper Industries suitable for teeth formation, bending and punching work, top and bottom stopper. Also suitable for electronic industries for punching work. We manufacture **Lead Free Brass Flat Wires (Lead controlled in PPM) 60/40, 63/37, 65/35 and 70/30**.



Copper Alloy Rods, Profiles & Tubes

Copper Rods & Profile are alloys of metals with copper as their major component. Our range of Copper Rods & Profiles is available in various shapes like round, square and hex. These alloys are offered at Competitive prices and are known for their high conductivity, corrosion resistant and fine finish. Copper alloy Rods are used in General Engineering Purpose, High Electrical and Thermal Conductors, Switches, Terminals, Gaskets, Nails, Rivets, Electrode holders for resistance welding machines arc furnaces, Components & Parts requiring high temperature & Corrosion Resistance, High softening switch components, cold Headed Torch tips, Nozzles for Burners etc. We manufacture **High Conductivity Copper Cadmium Copper, Leadless Copper Sulphur Copper in DLP, DHP, ETP and Commercial Copper**.

Copper Nickel Wire / Resistance Wire

We manufacture resistance heating alloys in wire form making it possible to select the most appropriate grade and size for various respective applications such as Heating Cables, Fuses, Shunts, Resistors and various types of Controllers. Resulting in optimum end product performance. We manufacture **CuNi2.2, CuNi6 and CuNi11**.



Copper Nickel Tubes & Rods.

Copper Nickel Tube is mainly preferred when the severity of service condition (Cooling water, steam, condensate, temperature etc.) is such as to virtually rule out all other copper metals. Due to its hardness and to the type of oxide whereby its surfaced is self protected and widely used in sea water. It has very good corrosion resistance to clean or moderately polluted marine of estuary water, even containing dissolved incondensable gases. This alloy is virtually immune from stress-corrosion cracking and hot spot denickelification. We manufacture Copper Nickel **70/30, 90/10 and 95/5**.



Tellurium Copper

Tellurium Copper's resistance to Hydrogen embrittlement combined with its high electrical and thermal conductivity make it the ideal choice for electrical application requiring extensive machining, corrosion resistance, and for hot forged products.

The cutting properties of copper are enhanced significantly by creating a copper alloy with the addition of 0.5% tellurium which is adapted for use in high-speed automatic screw machines. On a machinability rating scale with 100% equal to free-cutting brass, Copper 145 Tellurium has a machinability rating scale of 85-90%, compared to pure copper which has a machinability rating scale of approximately 20%. Which increased efficiency on manual and automatic production line as well as a significantly longer tool life.



Copper Chromium Zirconium

C18150- CuCrZr mostly required in form of rods/flats/profiles/parts It is an excellent and unique copper alloy with high electrical conductivity, hardness, and ductility, moderate strength, and excellent resistance to softening at elevated temperatures. The addition of 0.1% zirconium (Zr) and 1.0% chromium (Cr) to copper results in a heat treatable alloy which may be solution treated and subsequently aged to produce these desirable properties. Furthermore, many evidences shows that **C18150 can provide less sticking and resisting deformation longer than counterparts in some specific like Welding electrodes holder, Circuit breakers part, Trolley Wires for railways.**

Chromium Copper

Chromium copper contains 0.6 to 1.2% Cr. The chromium copper alloys are used for their high strength, corrosion resistance and electrical conductivity. These alloys are age hardenable, which in this case means that a change in properties occurs at elevated temperature due to the precipitation of chromium out of the solid solution.

It is used in applications such as resistance welding electrodes, seam welding wheels, switch gears, cable connectors, circuit breaker parts, molds, spot welding tips, and electrical and thermal conductors that require strength.



Manganese Bronze

This is a high strength leaded silicon manganese bronze with typically good bearing qualities. This alloy maintains high impact resistance with excellent machinability making it well suited for clutch bearings, shaft bushings, sleeve bearings, thrust bearings, pump parts, drive shafts, bearing pins, wear plates, gears and cams. Resists squashing out under high loads and extreme wear applications also serve fastener, automobile industries (Connecting rod – gear) and marine industry.

Leaded Commercial Bronze

This alloy is excellent machinability and has higher electrical and thermal conductivity than standard brass. With a natural corrosion resistance C31400 contains 89% Copper, 2% Lead, and Remaining Zink The most common fabrication process for the C314 is machining and thus it finds use in hardware electrical, fasteners, connectors and other industrial application like pickling crates, fixtures and racks.



Silicon Bronze

C65100 is an engineering alloy at least as resistant to corrosion as copper itself, but much stronger, and with good fatigue endurance. It is noted for its brazeability, Weldable strength, corrosion resistance and electrical properties. It is readily joined by all types of resistance.

C65100 finds its broadest use as rod and wire for cold headed and roll threaded bolts, screws. Which have unusually high strength and toughness, freedom from embrittlement, and a high degree of corrosion resistance to all types of water, saline fogs, and a wide variety of other corrosives.

The alloy is also used for cable connectors, mast tangs, deck, pilot house hardware, equipment, water tanks for pleasure and commercial crafts. It is also one of the best copper alloys for pole line hardware and oil industries



NABL & ISO Certificate



ISO/IEC17025:2005
Accreditation Number T-1719



ISO/IEC17025:2005
Accreditation Number T-1720



ISO 9001:2008
Certificate No.101172-2011-AQ-IND-NABCB Rev-01

Quality Control / R & D

Optical Emission Spectrometer



Impact Testing Machine



Chemical Laboratory



Universal Testing Machine



Hardness Testing Machine



Microscope Grain Tester



PROCESS EQUIPMENTS

- Induction Furnaces
- Oil Fired Furnaces
- Hydraulic Extrusion Press
- Annealing Furnaces
- Inverted Heavy Wire Drawing Machine
- Tandem Wire Drawing Machine
- Multi Die Wire Drawing Machine
- Single Drum Wire Drawing Machine
- PLC Control Rod Drawing Machine
- Straightening Cutting & Rilling Line
- Flattening Mill
- Chamfering & Inspection Line

QUALITY CONTROL EQUIPMENTS

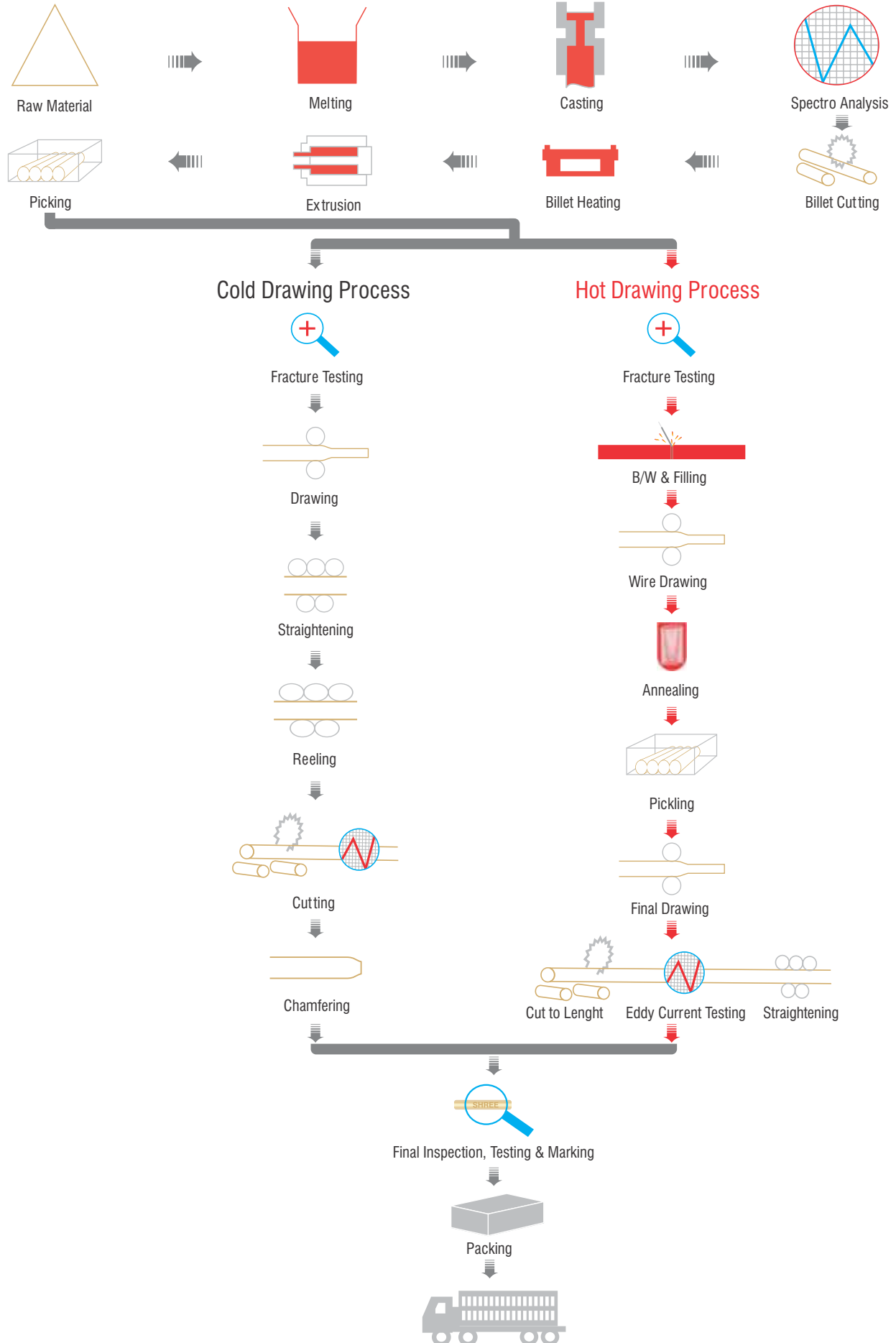
- Spectrometer of Spark emission Technology (ROHS Compliance (SWITZERLAND))
- Eddy Current Testing Machine (GERMAN)
- Metallurgical Microscope With CCTV attachment (JAPAN) Hardness Tester
- Impact Testing Machine
- Conductivity Meters
- Ultrasonic Testing Machine
- Mercurous Nitrate Test
- Profile Projector
- Liquid Penetration Test
- Computerized Ultimate Tensile Measurement Tester
- Hardness Tester (Heavy)
- Micro Hardness Tester

UTILITY

- Diesel Generators
- High Pressure Air Compressors
- Pickling Tanks
- Stretch Wrapping Machine for Quality Packing
- PLC Based RO Plant for Industrial Water Supply
- Cooling Towers
- EOT Cranes
- Hydraulic Loader Dock
- Stores
- Lathe/Grinding/Shaper Machine
- Die Room for TC Extrusion / Draw Die
- Diamond Die Polishing / Recondition Unit
- Maintenance



Process flow chart





Plant & Machinery

Coreless Type Induction Melting Furnace



Horizontal Oil Hydraulic Extrusion Press



Wires



BULL BLOCK (WIRE DRAWING)



Eddy Current Testing Machine



Rods



PLC Controlled Draw Benches



Superior Quality Packing





Capabilities

Production range: Rods / Wires / Hex / Tubes / Square / Flat / Profiles / Hollows

Tubes	6.35 mm to 110 mm
Round Wires	0.6 mm to 11 mm
Round Rods	1.2 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

Leaded Brasses Wires/Rods/Solids and Hollows/Hex/ Rectangles/square/ Flat/Profiles	Free Cutting Brass	ASTM B 455/ B 16 C 38500 / C36000 / BS 2874 CZ-121Pb3, Cz124 Grade I/II/III/ JIS 3250 H C3604, C3602 IS-319-I & II, BS-249, CW607N, CW603N, CW614N
	Forging Brass	ASTM B 124 C37700 / BS 2874 CZ 122 / IS 3488 Forging Brass / CW608N
	High Tensile Brass	IS 320 HT1 or HT2 HTB-3 / BS 2874 CZ114 & Cz115 / JIS 3250H C6782 or C6873, BS1001-Type I&II, IS 8737-II CW713R, CW708R, CZ135
	Riveting Brass	IS 4170 CuZn40 BS 2874 Cz109 / JIS 3250H C2800 / ASTM B171 C36500 / IS 4413 CuZn37 / BS 2872 CZ 108, Cz131 / CW509L / CW610L
	Nickel Silver	IS 10757 Nickel Silver / BS 2874 Ns101 / ASTM 79830 / NM3 / Nm6 / CW402J
Lead Free Brasses Ingots/Billets/Finished Tubes/Wires/ Rods Solids and Hollows/Hex/ Rectangles/Square/Flat/Profiles	70/30 Brass	ASTM B 135 C26000/ BS 2871 Part 3 CZ- 126/EN 12451 CuZn30As/ NFA 51 102 CuZn30 / JIS H 3300 C2600 / As 1572 26130 / CW505L
	65/35 Brass	ASTM B 135 C27000/CuZn35/ BS Cz107 / CW507L
	63/37 Brass	ASTM B 135 C27000 / JIS H 33000 C 2700 / ISO 1637 CuZn37, ASTM C27200, C27400, IS4413 grade I & II, CW508L / CW705R
	60/40 Brass	IS 4170 / 67 ASTM C36500, CZ109, JIS3250H C-2800 / CW610N
	Red Brass	ASTM B 135 C 23000 / BS 2870 CZ 102 / JIS H3300 C 2300 ASTM C69400, C69430 / CW502L
Bronze Wires/Rods Solids and Hollows/Hex/ Rectangles/square/Flat/Profiles	Naval Brass	IS291 Grade I & II / BS 2874 CZ 112/ JIS 3250 C4622/ ASTM C48200, C48500, C46200, C46400 / CW711R / CW714R
	DZR / ECO Brass	C27450 / C35200 / C36300 / C36500 / CW610L
	Tin Bronze	ASTM B30 C92600, C92600, PB102, BS1400 (Pb1), BS 1400 GI
	Aluminum Bronze	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 / CW300GCW303G
	Silicon Bronze	C65620 / C65100 / C65300 / C65500 / C65610 / CW301G / CW115C / CW116C
Copper Ingots/Billets /Finished Tubes/Finned Tubes/U-Bend Tubes/Rods/Hex/ Square/Flat/Profiles	Alu. Silicon Bronze	ASTM B 150 C 64200 / SAE J 463 C 64200 / C63600 /
	Lead Comm. Bronze	ASTM B 140 C31400
	Phosphorous Bronze	ASTM B103 C 51000/ SAE J 463 C51000/ BS2874 PB 102
	Manganese Bronze	C67300 / C67500/ C66800/ C67400/ C67600/ C86200/ C67000 / CW704R
	Nickel Alu. Bronze	C63000/ C63020/ C63200/ C95510/ C95510/ C95500/ C95520/ CuAl10Ni5Fe4 / CW307G/ C95800/ C96900 IS 10569: 1983 - Grade I, II & III / CW308G
Cupro Nickel Ingots/Billets/Finished Tubes/ Finned Tubes/U-Bend Tubes/Wires/Rods/Hex /Rectangles/Square/Flats/Profiles	DHP / DLP / EC/ ETP Copper	ASTM B 68 C12200/ ASTM B 75 DLP C12000/ BS 2871 Part 2 C 101/ BS 2871 Part 3 C 106/ EN 12451 DHP/ JIS H3300 C 1220
	Tellurium Copper	C14500
	Copper Chromium Zirconium	C18150
	Chromium Copper	C18200
	Other Copper	Beryllium & Cadmium Copper, Sulphur & Arsenic Copper, Commercial Copper / CW105C / CW106C / CW114C / CW120C
Brass for Condensers & Heat exchangers Ingots/Billets /Finished Tubes/Finned Tubes/U-Bend Tubes/Rods/Hex/ Square/Flats	70/30 Copper Nickel	ASTM B 111 C71500/ ASME SB 111 C71500/ BS 2871part 3 CN 107/EN 12451 CuNi30Fe1Mn/ / CW354H NFA 51 102 CuNi30Fe1Mn/ JIS H 3300 C7150
	90/10 Copper Nickel	ASTM B 111 C70600/ ASME SB 111 C 70600/ BS 2871 part 3 CN 102/EN 12451 CuNi10 Fe1Mn/ NFA51 102 CuNi 10 Fe1Mn/ JIS H 3300 C7060 / CW352H
	95/5 Copper Nickel	ASTM B 111 C 70400/ ASME SB 111 C70400/ BS 2870 CN 101/ISO 1635 CuNi5Fe1Mn/ JIS C 2532 / GCN10
	CuNi2.2	ASTM C70200
	CuNi6	ASTM C70500
Brass for Condensers & Heat exchangers Ingots/Billets /Finished Tubes/Finned Tubes/U-Bend Tubes/Rods/Hex/ Square/Flats	CuNi11	ASTM C70800
	Admiralty Brass	ASTM B 111 C44300/ ASME SB C44300/ BS 2871 Part 3 CZ-111/EN 12451 CuZn28 Sn1As/ JIS H 3300 C 4430 / CW706R
Brass for Condensers & Heat exchangers Ingots/Billets /Finished Tubes/Finned Tubes/U-Bend Tubes/Rods/Hex/ Square/Flats	Aluminum Brass	ASTM B 111 C68700/ ASME SB 111 C68700/ BS 2871 Part 3 CZ-110/EN 12451 CuZn20 AL2As/ NFA 51 102 CuZn22AL2 / JIS H 3300 C6870 / CW702R
	Aluminum Bronze	ASTM B 111 C 60800/ ASME SB 111 C60800/ EN 12451 CuAl5As/ CW200G / CW300G



Equivalent specification sheet for International Standards

BRASS ALLOYS

CATEGORY/STANDARD	ASTM	BS	EN	JIS	DIN	ISO
LEADED BRASS						
High Leaded Brass	C34500	CZ131 / CZ119	CW601N/CuZn35Pb2	C3560	2.0331	CuZn34Pb2
Forging Brass	C37700	CZ120	CW608N, CW617N	C3771 BE	2.038	1634-CuZn38Pb2
Threaded Rolling Brass	C35300	CZ119	CW606N	H3260(92)C3501 W	CuZn44Pb2	1639-CuZn43Pb2
Free Cutting Muntz Metal	C37000	CZ124	CW607N	H3100(92)C3713	2.0372	
Free Machining Brass	C36000	CZ124	CW603N	C3601	2.0375	CuZn36Pb3
Architectural Bronze	C38500	CZ121	CW614N	C3603	CuZn39Pb3	1637-CuZn39Pb3
Architectural Bronze	C38000	CZ122	CW618N	H3100 C3561	CuZn39Pb2	1634-CuZn39Sn1
NAVAL BRASS						
Naval Brass	C46200	CZ112		H3100(92)C4621 P		
Naval Brass	C46400	CZ114	CW719R	H3100(92)C4640 BE	2.053	1634-CuZn38Sn1
Naval Brass	C48200		CW714R		CuZn37Pb1Sn1	426-1 CuZn37pb1Sn1
Naval Brass	C48500	CZ134	CW711R		2.0371	CuZn39Pb2Sn
NICKEL SILVER BRASS						
Nickel Silver Brass	C77400					
Nickel Silver Brass	C77600					
Nickel Silver Brass	C79800		CW400J		2.077	1637-CuNi10Zn42Pb2
Nickel Silver	C79860		CW407J CW408J		2.075	CuNi12Zn37Mn6Pb2
YELLOW BRASS						
Cartridge Brass Yellow Brass	C26000	CZ106	CW505L	H3250(92)C2600 BE	2.0265	CuZn30
Yellow Brass	C27000	CZ107	CW507L	H3250(92) C2700 BE	2.0335	CuZn36
Yellow Brass	C27200	CZ108	CW507L	H3100(92)C2720	2.0321,CuZn37;	CuZn361637-CuZn37
Yellow Brass	C27400	CZ108	CW508L	H3100(92)C2720	CuZn37	1634 -CuZn37
Yellow Brass	C27450	CZ109	CW509L	-	2.036	CuZn37
Yellow Brass	C27451	-	-	-	-	-
Yellow Brass	C28500		CW510L			CuZn42
HIGH TENSILE BRASS						
Other Brass	-	BS1400 HTB1	CC765S	-	2.034	CuZn35Mn2AlFe1-C
High Tensile Brass	-	IS:304 HTB2	-	-	-	CuZn36Al4FeMn
High Tensile Brass	-	BS1400 HTB3	CC762S	-	CuZn35Al5	CuZn25Al5Mn4Fe3-C
High Tensile Brass	-	CZ115	CW722 R	-	-	-
High Tensile Brass	-	CZ135	CW713 R	C6782	2.055	-
High Tensile Brass	C67500	CZ114	CW721 R	-	-	CuZn39AlFeMn
DZR BRASS (DEZINCIFICATION RESISTANT BRASS) / LOW LEADED BRASS						
Lead Free Brass	C27450	CZ121				CuZn37
Muntz Metal	C28000	CZ109	CW509L	C2801	CuZn40	1634-CuZn40
Low Leaded Brass	C33000		CW705R			C330
DZR Brass	C35330	CZ132	CW602N		2.0375	CuZn36Pb2As
Dezincification Resistant Forging Brass	C48600	CZ111		C4430	2.0371	CuZn28Sn1
Copper-Lead-Zinc Alloy	C36300		CW508L			CuZn37
Leaded Muntz Metal	C36500	CZ123	CW610N			1634 - CuZn40Pb
OTHER BRASS						
Aluminum Brass	C68700	CZ110	CW702R	H3300(92) C6870 T	2.046	
Admiralty Brass	C44300	CZ111	CW706R	H3100(92) C4430 P/R	2.047	CuZn28Sn1
Manganese Brass	C66800	CZ110	-	-	-	-
Manganese Brass	C66700					
Silicon Brass	-	-	CW708 R	-	2.049/CuZn31Si	-
Silicon Red Brass	C69400					
Silicon Red Brass	C69430					



Equivalent specification sheet for International Standards

BRONZE ALLOYS

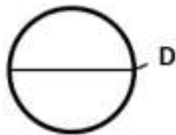

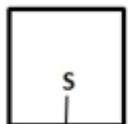
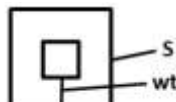


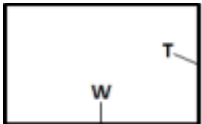

CATEGORY/STANDARD	ASTM	BS	EN	JIS	DIN	ISO
ALUMINUM BRONZE						
Aluminum Bronze	C61400	CA106	CW303G	H3100(92) C6140 P	2.0932	1634-CuAl8Fe3
Aluminum Bronze	C62500	Ca103				
Aluminum Bronze	C61800		CW305G	Z3341(93)-YCuAl	2.094	1640 -CuAl10Fe
Aluminum Bronze "9A"	C95200		CC331G		2.0941	1338-CuAl10Fe2
Aluminum Bronze	C62300	CA103	CW306G	H3100(92) C6161 BE/BD/BF	2.0966	CuAl10Fe3
Aluminum Bronze "9C"	C95400	AB1-C		H5114		
Aluminum Bronze	C62400	Ca106				
Aluminum Bronze	C95900	CW304G		H5111-BC1	2.0962	4382-2 - CuSn8P
SILICON ALUMINUM BRONZE						
Silicon Aluminum Bronze	C63600					CuAl3Si
Silicon Bronze (AMS 4616)	C65620		CW009A			CuSi3Fe2Sn3
Silicon Aluminum Bronze	C64200	CA107	CW301G		CuAl7Si2	CuAl7Si2
Low Silicon Bronze "B"	C65100		CW115C		2.049	1187-CuSi1
High Silicon Bronze "A"	C65500	CS101	CW116C		2.1525	R1187-CuSi3Mn1
MANGANESE BRONZE						
Manganese Bronze	C66800					
Manganese Bronze	C67500	CZ114	CW721 R	-	-	CuZn39AlFeMn
Manganese Bronze B	C67000		CW400J		2.077	1637CuNi10Zn42Pb2
Manganese Bronze	C67600					
Manganese Bronze	C67300	-	-	-	2.0525	-
Manganese Bronze	C86200					
NICKEL ALUMINUM BRONZE						
Nickel Aluminum Bronze	C63000	CA104,CA105	CW307G	H3100(92) C6280 P	2.0966	1634-2CuAl10Ni5Fe4
Alpha Nickel Aluminum Bronze	C95800	CA104	AB1	H2206(00) AlBCIn2	2.0976	CuAl10Fe5Ni5
Nickel Aluminum Bronze	C63020	CA104	CW307G	H3100 C6301	2.0978	1338- CuAl11Ni5Fe5
Nickel Tin Bronze Spinodal	C96900		CW302G			
Nickel Aluminum Bronze	C63200	CA104	CW307G	CAC303 (HBsC3)	2.0978	1637-CuAl10Fe5Ni5
Nickel Aluminum Bronze 9D	C95500	AB2-C	CC333G	H2206(00)-AlBCIn3	2.094	1338-CuAl10Fe5Ni5
NES 833 - Nickel Aluminum Bronze	C62730	CA 104	CW307G	C6301	2.0966	CuAl10Ni5Fe4
LEADED COMMERCIAL BRONZE						
Leaded Commercial Bronze	C31400					CuZn9Pb2
Nickel Leaded Commercial	C31600					
PHOSPHORUS BRONZE						
Phosphorus Bronze	C51000	PB102	CW451K	C5102 / 3270	CuSn4	1634-CuSn5
Phosphorus Bronze	C53400		CW458K	H3270(92) C5341 B	CuSn5Pb1	CuSn5Pb1
Phosphorus Bronze	C51080			H3110(92) C5102 P/R		
Phosphorus Bronze	C51800		CW457K	H3270(92) C5102 B	CuSn4Te1P	
Phosphorus Bronze	C51900	PB103	CW452K	H3110(92) C5191 P/R	2.1025	CuSn6
Phosphorus Bronze	C51980	C11			2.102	CuSn6
Phosphorus Bronze	C52100	PB104	CW453K	H3110(92) C5212 P/R	2.101/2.103	CuSn8
Phosphorus Bronze	C52180		CW460K	Z3441(93) YCuSn B		CuSn8P
Phosphorus Bronze	C52900					
Phosphorus Bronze	C52400	PB1			2.105	427 - CuSn10
Phosphorus Bronze	C52480					
Phosphorus Bronze	C90710	PB1	CC481K			
Phosphorus Bronze	C90810	PB2	CuSn12 / CC483K		CuSn12	

Equivalent specification sheet for International Standards

COPPER ALLOYS

CATEGORY/STANDARD	ASTM	BS	EN	JIS	DIN	ISO
Chromium Zirconium Copper						
Zirconium Copper	C15000		CW120C	Z3234(99)-CuZr	2.158	CuZr
Copper Chromium Nickel Silicon	C18000	DTD498	CW111C		2.0855	CuNi2Si
Copper Chromium Zirconium	C18150	CC102	CW106C		2.1293	CuCr12Zr
Chromium Copper	C18200	CC101	CW105C		2.1291	1640-CuCr1
COPPER NICKEL						
CuNi2.2	C70200					
CuNi11	C70800					
Copper Nickel 95/5	C70400	CN101		C2532-GCN10		
Copper Nickel	C71500	CN107	CW354H	H3300(92)-C7164 T	2.0882	1634-CuNi30Mn1Fe
CuNi6	C70500	Cn102				
Copper Nickel 90/10	C70600	CN102	CW352H	Z3341(93)-YCuNi-1	2.0872	1634-CuNi10Fe1Mn
OTHER COPPER						
Electrolytic Tough Pitch (ETP)	C11000	C101	CW004A	H3250(92)-C1100 BE	2.006	R1337-CuETP
Phosphorus Deoxidized	C12000	C106	CW009A	H3300(92)-C1201 T	2.0076	Cu-DLP
Tellurium Copper	C14500	C109	CW118C		2.1546	1637-CuTe
Low Leaded Nickel Copper	C19140					CuNiPbP
Leaded Nickel Copper	C19160					CuNi1Pb1P

USEFUL BASIC INFORMATION / CONVERSION CHART

UNIT	METER	FOOT	INCH	CM	MM
1 Meter =	1	3.28	39.37	100	1000
1 Foot =	0.304878	1	12	30.48	304.8
1 Inch =	0.254	0.08333	1	2.54	25.4
1 Cm =	0.01	0.0328	0.3937	1	10
1 mm =	0.001	0.00328	0.03937	0.1	1
UNIT	Kgs.	Pound/ Lbs.	Grams	Ounce	
1 Kg =	1	2.2046	1000	35.274	
1 Pound / LBS =	0.4536	1	453.6	16	
1 Gram =	0.001	0.0022046	1	0.03527	
1 Ounce =	0.0283	0.0625	28.35	1	
Weight Per Meter (Solid Bars)	Formula		Weight/Meter (Hollows)	Formula	
Round 	$(\text{Dia} \times \text{Dia} \times 0.785 \times \text{density}) / 1000$		Round Hollow 	$(\text{OD} - \text{wt}) \times \text{wt} \times \text{density} \times 0.00314$ Note: OD = outer diameter wt = Wall Thickness => $(\text{OD} - \text{ID}) / 2$	
Square 	$(S \times S \times \text{density}) / 1000$ Note: S = size of square		Square Hollow 	$4(S - \text{wt}) \times \text{wt} \times \text{density} / 1000$ Note: S = Size of Square, wt = Wall Thickness	
Hexagon 	$(\text{AF} \times \text{AF} \times 0.866 \times \text{Density}) / 1000$ Note: AF = Across Flats		Hexagonal Hollow 	$[(\text{AF} \times \text{AF} \times 0.866) - (\text{Dia} \times \text{Dia} \times 0.785)] \times \text{Density} / 1000$ Note: AF = Across Flat Size of Hexagon Dia = Diameter of Round Hollow inside	
Flat 	$(t \times w \times \text{density}) / 1000$ Note: t = thickness and w = width		"Flat Hollow" 	i) $\text{TW} - \text{tw} \times \text{density} / 1000$ ii) If wall thickness is provided: $[\text{TW} - (\text{T} - 2\text{wt})(\text{W} - 2\text{wt})] \times \text{density} / 1000$ Note: TW is Outer Thickness x Width and tw is INNER Thickness x Width wt is wall thickness	



Parts Division : Precision Turned & Forged Componets

Electrical & Electronics Componentes



Brass & Bronze Fasteners



Automobile Components



Brass, Bronze Bushes & Components





Shree's Capabilities To Comply With Customer's Finish Product Requirements

Plastic Moldings Inserts



Pipe Fittings Parts



Brass Neutral Bar & Terminal Bar



Brass Distribution Blocks



Brass Sliding Blocks



Brass Cable Glands



Transformer Parts



Earthing Accessories





SHREE EXTRUSIONS LIMITED

Quality, Technology & Vision at it's Best

MANUFACTURERS OF COPPER BASE ALLOYS, RODS, WIRES, FLATS, SECTIONS, INGOTS & TUBES

Registered Office and Factory:

217/218, GIDC Phase-II, Okha Rajkot Road, Dared, Jamnagar - 361 004 Gujarat (INDIA)

Phone : +91 288 2730118 / 7878527575 Fax : +91 288 2730583 Sales : 9328105170 / 72 / 73

E-mail: mail@shree-extrusion.com • Web: www.shree-extrusions.com

Corporate Office:

Ahmedabad, Gujarat (India) Ph.: +91 98250 95960, 7878567575



Nearest Domestic Air Port : Jamnagar - 3 kms.

Nearest International Air Port : Ahmedabad 325 kms.



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

Follow us on :



Publication Date : 10-01-2017