

Copper & Copper Alloys Tubes

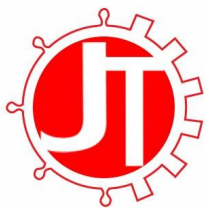
Copper Tubes		
Symbol	Standard	Product Application
C 12200	ASTM B 68	Defense, Refrigeration, Air Conditioning, Plumbing, Engineering application, Electrical conductors and Bus bars
DLP C12000	ASTM B 75	
C 110	BS 2871 Part 2	
C 106	BS 2871 Part 3	
DHP	EN12451	
C 1220	JIS H3300	

Alloy	Symbol	Standard	Product Application
95/5 CuNi	C70400	ASTM B-111	Chillers, Heat Exchangers & Condensers, Power Plants, Refineries, Desalination Plants, Ship Building & Ship Repairs, Defense
80/20 CuNi	C71000	ASTM B-111	
Cunifer	C71640	ASTM B-111	

90/10 Copper Nickel Tubes		
Symbol	Standard	Product Application
C70600	ASTM B-111	Chillers, Heat Exchangers & Condensers, Power Plants, Refineries, Desalination Plants, Ship Building & Ship Repairs, Defense
CN 102	BS 2871 Pt 3	
CuNi10Fe1Mn	EN 12451	
CuNi10Fe1Mn	NFA51 102	
C7060	JIS H 3300	
C7060X	EEMUA Pub 144:1987	
NES 779 Pt 3	NES 779 Pt 3	

70/30 Copper Nickel Tubes		
Symbol	Standard	Product Application
C71500	ASTM B111	High Capacity Power Plants, Ship Building & Ship Repairs, Heat Exchangers & Condensers, Distiller Tubes, Evaporators, Ferrules
CN107	BS 2871 Pt 3	
CuNi30Fe1Mn	EN 12451	
CuNi30Fe1Mn	NFA 51 102	
C7150	JIS H 3300	

Admiralty Brass Tubes		
Symbol	Standard	Product Application
C44300	ASTM B-111	Heat Exchangers, Refineries, Power Plants, Desalination Plants, Ship Building & Ship Repairs, Condensers, Ferrules
CZ -111	BS 2871 Pt 3	
CuZn28Sn1As	EN 12451	
CuZn29Sn1	NFA 51 102	
C4430	JIS H 3300	



Aluminium Brass Tubes		
Symbol	Standard	Product Application
C68700	ASTM B-111	Heat Exchangers, Refineries, Power Plants, Desalination Plants, Ship Building & Ship Repairs, Condensers, Distiller, Ferrules
CZ -110	BS 2871 Pt 3	
CuZn20Al2As	EN 12451	
CuZn22Al2	NFA 51 102	
C6870	JIS H 3300	

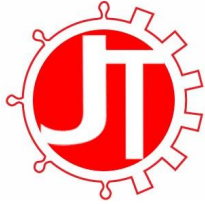
Arsenic Aluminium Bronze Tubes		
Symbol	Standard	Product Application
C 60800	ASTM B111	Heat Exchangers in chemical Industry, Desalination Plants, Refineries, Ship Building & Ship Repairs
CuAl5As CW200G	EN 12451	

70/30 Brass Tubes		
Symbol	Standard	Product Application
C 26000	ASTM B-135	Sugar Industry, Plumbing, Furniture, General Engineering, Ammunition, Bore, Hole Tubes
CZ -126	BS 2871 Pt 3	
CuZn30As	EN 12451	
CuZn30	NFA 51 102	
C 2600	JIS H 3300	
AS 1572	AS 1572	

63/37 Brass Tubes		
Symbol	Standard	Product Application
C27200	ASTM B-135	General Engineering Ammunition, Bore Hole Tubes, Architectural
C 2700	JIS H 3300	
CuZn37	DIN 17671	

90/10 Brass Tubes		
Symbol	Standard	Product Application
C 22000	ASTM B 111	Defense, Bushes, Driving Bands
CuZn10	EN 12451	

Naval Brass Tubes		
Symbol	Standard	Product Application
C46400	ASTM B-111	Marine , Defense, Bushes
CZ – 112	BS 2874	
CuZn40Sn	DIN 17665	

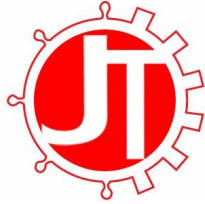


Size Range - Tubes

Tube Sizes in Copper Nickel Alloys (C704, C706, C710, C715, C71640)			
Condenser/Heat Exchangers Application		General Engineering Application	
OD	WT	OD	WT
6.35 mm- 30mm	0.40 mm – 2.5 mm	30 mm – 219 mm	1.0 mm – 5.0 mm
0.25” – 1.81”	0.019” – 0.098”	1.181” – 8.622”	0.039” – 0.197”

Tubes Sizes in Copper and Brass Alloys (C443, C687, C260, C270)			
Condenser/Heat Exchangers Application		General Engineering Application	
OD	WT	OD	WT
6.35 mm- 30mm	0.71 mm – 3.0 mm	30 mm – 219 mm	1.0 mm – 5.0 mm
0.25” – 1.81”	0.027” – 0.118”	1.181” – 8.622”	0.039” – 0.197”

We also manufacture customer specific sizes

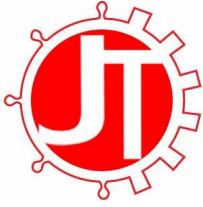


FINNED TUBES

Types of Finned Tubes	No. Of Fins
Low Finned Tubes	19 & 26 FPI
Enhanced Surface Finned Tubes	

Alloy	Symbol	Standard	Product Application
DHP Copper	C12200	ASTM B359 / ASME SB359	Heat Exchangers, Condensers & Chillers
95/5 CuNi	C71000		
90/10 CuNi	C70400		
70/30 CuNi	C71500		
Admiralty	C44300		
Aluminium	C68700		

Finned Tube Sizes in Copper and Brass Alloys (C122, C710, C704, C715, C443, C687)		
OD	WT	Length
14 mm – 25 mm	0.70 mm Min.	20 mtr. Max.



BIMETALLIC TUBES

FORMS: STRAIGHT TUBES
INTEGRAL FIN TUBES

STANDARDS: ASTM, ASME, BS, EN, JIS

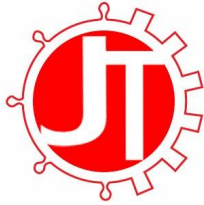


OUTER TUBE MATERIAL		INNER TUBE MATERIAL		
DLP COPPER DHP COPPER 90/10 COPPER NICKEL 95/5 COPPER NICKEL 70/30 COPPER NICKEL ADMIRALTY BRASS ALUMINIUM BRASS CARBON STEEL		DLP COPPER DHP COPPER 90/10 COPPER NICKEL 95/5 COPPER NICKEL 70/30 COPPER NICKEL ADMIRALTY BRASS ALUMINIUM BRASS		
SIZE RANGE:				
OUTSIDE DIAMETER	OUTSIDE THICKNESS	INNER DIAMETER	INNER THICKNESS	LENGTH
15 mm – 40 mm	1.0 mm – 3.0 mm	15 mm – 40 mm	0.7 mm – 2.0 mm	Upto 12 meter
0.591" – 1.575"	0.039" – 0.118"	0.591" – 1.575"	0.028" – 0.079"	Upto 470"



Flat Bars/Bus Bars

Flats/Bus Bars	The edges can be produced flat or round with desired lengths
Material Grades	<ul style="list-style-type: none">• Various grades of plain Brass• High conductivity electrolytic tough pitch (ETP Cu)• Silver bearing copper (Cu+Ag)• Phosphorus deoxidized Copper (DHP & DLP Cu)
Size Range	Width: 0.984" – 6.693" Thickness: 0.118" – 0.394"
Standards	ASTM, BS, EN DIN, IS, JIS, DSTAN
Applications	Electrical and Electronic Industry including generation, Transmission & Distribution of Electricity, Transformers, Telecommunications, Lightning Protection, Motors, Electronics & Automotive Parts, Magnetic Coils etc., Automobiles, Construction, Defense Industries etc.



Specialized Copper Alloy Wires

Brass Alloys				
Alloy	Grade	Related Standard	Size Range	Product Application
90/10	CuZn10	ASTM B -134 EN 12166	0.80 mm – 15.00 mm	Fasteners, Rivets, Jewelry, Spectacles, EDM Wires, Musical Instruments, Electronic Items, Automobiles, Nuts, Bolts, Screws, Architectural Applications
70/30	CuZn30			
63/37	CuZn37			
60/40	CuZn40			

Phosphor Bronze Alloys				
Alloy	Grade	Related Standard	Size Range	Product Application
-	CuSn5Pb1	ASTM B -134, EN 12166	0.80 mm – 15.00 mm	Springs, Plated Wire, Musical Instruments, Anchor wire for tooth brush, connectors, Washers
PB 5%	CuSn5			
PB 6%	CuSn6			

Nickel Silver Alloys				
Alloy	Grade	Related Standard	Size Range	Product Application
NS 103	CuNi10Zn27	ASTM B 206, ASTM B 151, EN 12166	0.80 mm – 15.00 mm	Springs, Relays, Musical Instruments, Measuring Equipments, Electrical, Writing Instruments, Brazing
NS 104	CuNi12Zn24			
NS 106	CuNi18Zn20			
NS 107	CuNi18Zn27			
NS 111	CuNi12Zn25Pb1			

Copper Nickel Alloys				
Alloy	Grade	Related Standard	Size Range	Product Applications
90/10	CuNi10Fe	ASTM B 151, EN 12166, EN 12163	0.80 mm – 15.00 mm	Nuts, Bolts, Screws, Rivets, Offshore, Shipbuilding, Heating, High Temperature Application
80/20	CuNi20			
70/30	CuNi30Se			

Copper & Copper Alloy Welding Wires				
Alloy	Grade	Related Standard	Size Range	Product Application
ERCu	C18980	AWS 5.7, DIN 1733, EN 14640, DN 17664	0.80 mm – 6.00 mm	Welding of Impellers, Propellers, Gears, Shafts, Refrigeration, Air conditioning
ERCuSn5	C51800			
ERCuNi10	C70610			
ERCuNi30	C71581			



Cast, Extruded and Drawn Semis (Hollows, Sections, Profiles and Rods)

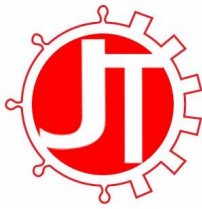
Size Range: Extruded & Drawn Rods: 16 mm to 80 mm
 Extruded Rods: 3.15" to 5.91"
 Extruded & Drawn Hollows: OD 2.56" to 6.69"
 WT 0.276" to 0.789"

Aluminium Bronze		
Alloy Designation	Specification	Product Application
CA 103 C62300	BS 2874 AMS 4635 ASTM B150	Aerospace: Landing Gears, Wheel Bearings, Bushings, Hydraulic Actuators, Wing & Tail Actuators Oil & Gas - Bearing Surfaces, Wear Plates, Guides, Pipe Welding Back-Up Shoes Marine - Ship Building, Covers for Marine Hardware Other Industrial - Bearing Segments, Bushings, Bearings, Worm Gears, Spur Gears, High Strength Clamps, Fasteners - Large Hold Down Screws, Nuts
CA104 CuAl11Ni5Fe5 UA11N	BS B23 BS 2874 NF L14-706	
C63000 UA10N CuAl10Ni5Fe4 CW307G	AMS 4640 ASTM B150 NF L14-705 BS EN 12163:2011	
C63020 CW308G CuAl11Ni6Fe5	ASTM B150 BS EN 12163:2011 DIN 17665 / 2.0978	
CuAl8Fe3	DIN 17665 / 2.0932	
CuAl9Ni3Fe2	GAM MM11	

Size Range for following Alloys: 0.25" – 10"

Copper Nickel			
Alloy	Grade	Related Standard	Product Applications
90/10 Copper Nickel	C70600	NES 780 Pt 2, MIL C 15726 F, ASTM B-151, EN 12163	Marine Hardware, Flanges, Oil & Gas, Welding Rings
70/30 Copper Nickel	C71500		

Nickel Silver			
Alloy	Grade	Related Standard	Product Application
N.S. 104	C74500	ASTM B -151, EN 12163	Guards, Pins, Nuts, Automobile Parts, Springs, Zippers, Musical Instruments, Spectacles, Ammunition
N.S. 105	C75200		
N.S. 106	C75200		
N.S. 107	C76400		
CW403J	-		
CW409J	-		



Manganese Bronze		
Alloy	Related Standard	Product Application
CuZn40Al2	CY – 1, CY - 2	Synchronizer rings for Automobiles
MBA 2		
MBA 2 – Cr		
MBA 2 - Co		

Phosphor Bronze		
Alloy	Related Standard	Product Application
P.B. 4% CuSn4	EN 12166, ASTM B-139	Washers, Fasteners, Switch Parts, Electrical Connectors & Precision Equipment Parts, Welding Rods, Springs
P.B. 5% CuSn5		
P.B. 6% CuSn6		
P.B. 8% CuSn8		
P.B. 10%		

Tellurium Copper		
Alloy	Related Standard	Product Application
C14510	ASTM B 301, BS 2874	Electric connectors, Switchgear Components, Gas Cutting Nozzles

Brasses			
Alloy	Grade	Related Standard	Product Application
95/5 Brass	C21000	BS 2874, ASTM B-21, B-135, B-43, DIN 17665, JIS H3250	Condenser Components, Marine Hardware, Welding Rods, Rivet, Valves, Piston, Rods
90/10 Brass	C22000		
80/20 Brass	C24000		
70/30 Brass	C26000		
63/37 Brass	C27400		
Naval Brass	C46400		



Copper Alloy Fittings Range			
Product	Specification	Product Range	Size Range
Flanges	ASTM, EEMUA, BS, DIN, etc	Weld Neck. Slip-On Threaded Socket Weld Lapped Blind	Upto 8" 150# and 300#
Butt-Weld	ASTM, EEMUA, BS, DIN, etc	Elbows : Hot formed & Cold formed both in long/short radius categories. (45° 90° & 180°) Reducers : Concentric & Eccentric. Caps Tees : Seamless & Forged, both in Equal & Reducing categories Stub-Ends Nipples : Concentric and Eccentric Swaged Nipples	Elbows : Upto 8" Reducers : Upto 12" End Caps : Upto 12" Tees : Upto 2" Stub-Ends : Upto 8" Swaged Nipples : Upto 4"
Socket Weld	ASTM, EEMUA, BS, DIN, etc	Elbows : 45 degree and 90 degree forged Tees : Equal and reducing forged. Caps Coupling : Half, Full and Reducing. Inserts. O-Lets.	Upto 2"
Threaded	ASTM, EEMUA, BS, DIN, etc	Plugs Nipples Unions Bushes O-Lets Tees : Equal and reducing forged Coupling Connectors Adaptors Caps Elbows : 45° and 90° forged	Upto 2"