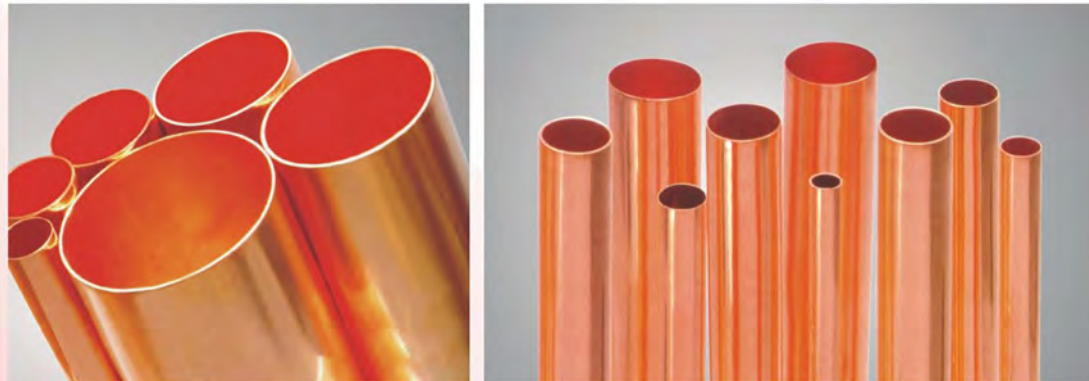


COPPER TUBE SERIES

- COPPER TUBES

The main purposes :

Water, Gas, Sanitation, Air Conditioning, Refrigeration, Fire Protection And General Purposes.

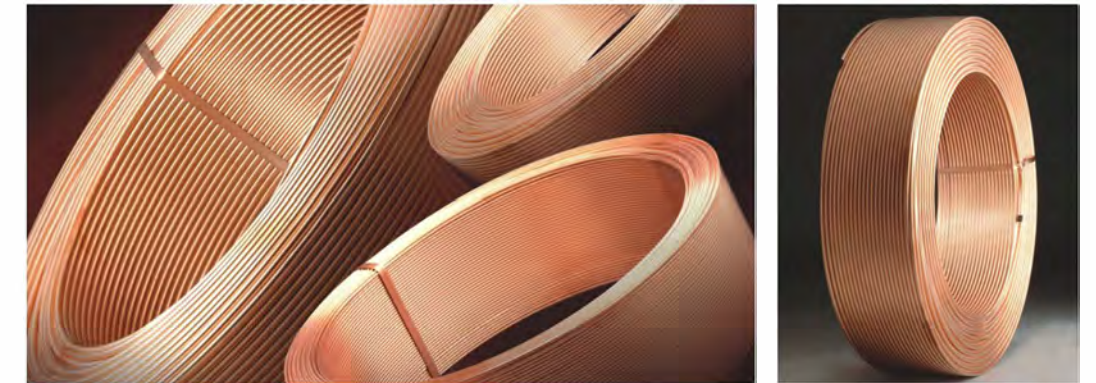


◆ standard and copper Alloy No.

Standard	Alloy No.	Temper				Chemical composition Cu%
JIS H3300	C1220	H	1/2H	OL	O	Minimum 99.90
JIS H3300						
BS2871	C106	H	1/2H	/	O	
EN12735-2	CU-DHP	Y0 80	/	Y0 40	Y0 35	
EN12735-1	or CW024A	R360 R290	R250	/	R220	
EN1057		R360 R290	R250	/	R220	
EN12449	CU-DHP	R360 R290	R250	/	R220/R200	
	or CW024A	H110 H095	H070	/	H040	
DIN	SF-Cu	F36	F25	F22	O	
ASTM	B68	/	/	O 50	O 60	
	B88	H58				
	B75	H80和H58	H55	O 50	O 60	
	B280	H58	/		O 60	
	B743-92a	H58	/	O 50	O 60	

COPPER TUBE SERIES

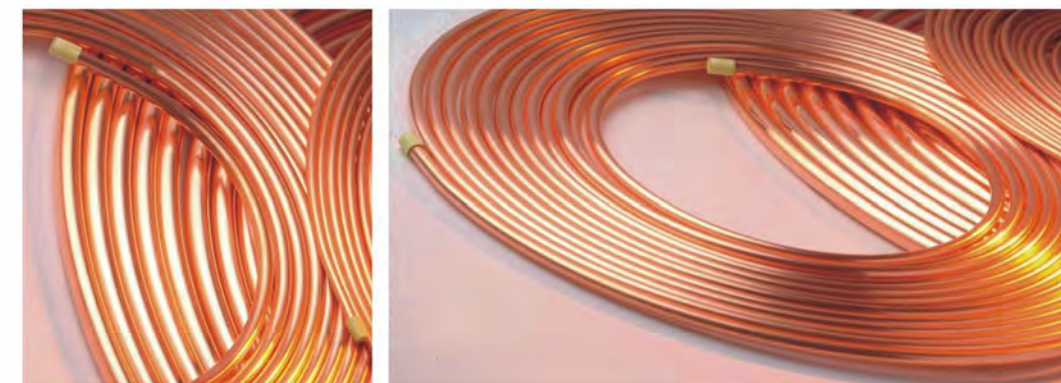
- LWC FOR ACR SERIES (PLAIN)



◆ Specifications (FOR REFERENCE ONLY)

OD		WALL THICKNESS		COIL WEIGHT	
mm	inch	mm	inch	kg	lbs
3.8	5/32	0.28-0.60	0.011-0.024	90-130 130-180 >180(as per customer's requirements)	200-300 300-400 >400(as per customer's requirements)
4.76	3/16	0.28-0.81	0.011-0.032		
6.35	1/4	0.28-1.07	0.011-0.042		
7.94	5/16	0.28-1.5	0.011-0.059		
9.52	3/8	0.28-1.5	0.011-0.059		
12.7	1/2	0.35-2.00	0.014-0.079		
15.88	5/8	0.46-2.00	0.018-0.079		
19.05	3/4	0.71-2.00	0.028-0.079		
22.22	7/8	0.89-2.00	0.035-0.079		

• PANCAKE COILS SERIES

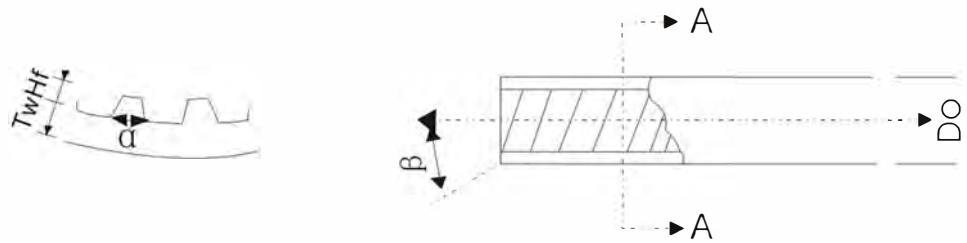
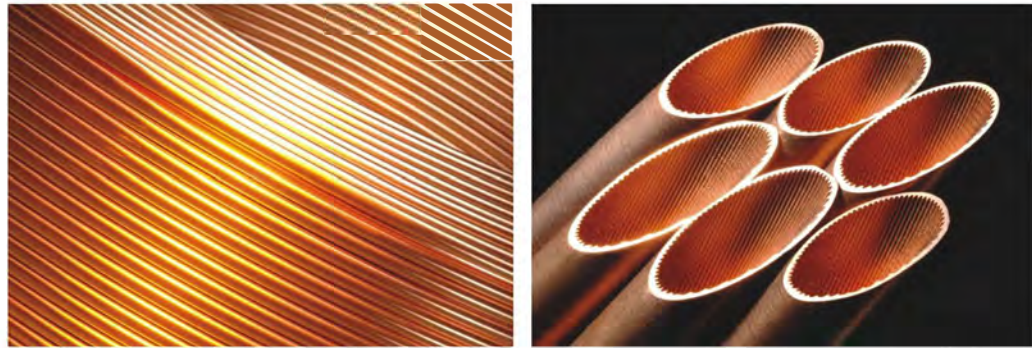


◆ Specifications

O.D(inch)	Thickness (inch)	Length(ft)
1/8" to 1 1/8"	0.014" to 0.059"	≤100

COPPER TUBE SERIES

- LWC FOR ACR SERIES (INNER GROOVED)

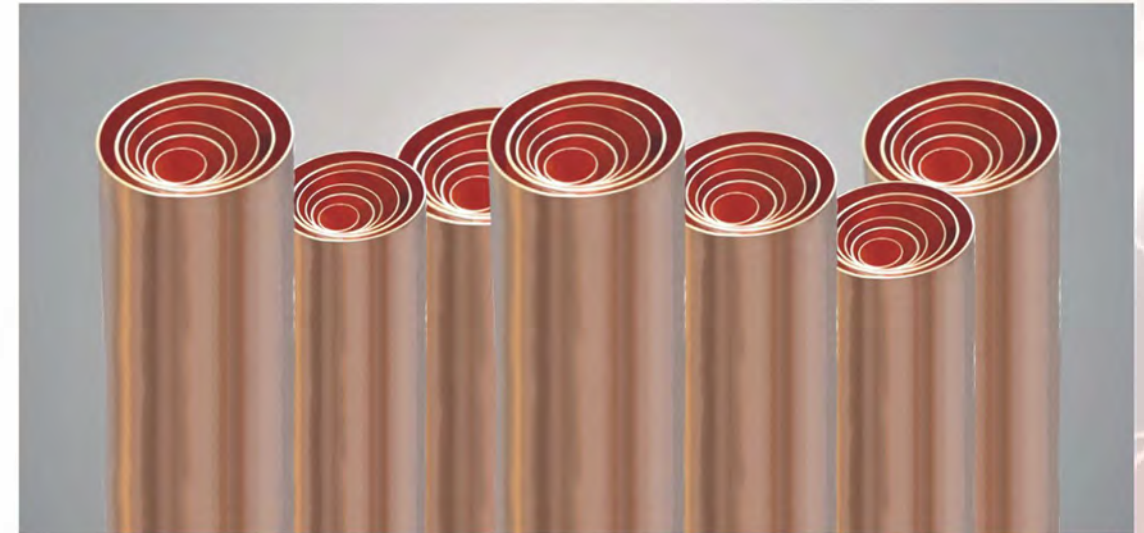


◆ Specifications (FOR REFERENCE ONLY)

Specifications	Unit weight	O.D.	I.D.	Bottom Wall Thickness Tw	Fin Groove Depth Hf	Total Wall Thickness	Apex Angle	Helix Angle	Number of Tooth
φ5.00×0.20+0.15-18°	33	5.00	4.30	0.20	0.15	0.35	40	18	40
φ7.00×0.25+0.10-15°	52	7.00	6.30	0.25	0.10	0.35	40	15	65
φ7.00×0.25+0.18-18°	57	7.00	6.14	0.25	0.18	0.43	40	18	50
φ7.00×0.25+0.22-16°	58	7.00	6.06	0.25	0.22	0.47	22	16	54
φ7.00×0.27+0.15-18°	60	7.00	6.16	0.27	0.15	0.42	53	18	60
φ7.94×0.25+0.18-18°	65	7.94	7.08	0.25	0.18	0.43	40	18	50
φ7.94×0.25+0.20-18°	66	7.94	7.04	0.25	0.20	0.45	40	18	50
φ7.94×0.26+0.17-18°	66	7.94	7.08	0.26	0.17	0.43	40	18	50
φ7.94×0.28+0.20-18°	72	7.94	6.98	0.28	0.20	0.48	40	18	50
φ7.94×0.30+0.20-18°	76	7.94	6.94	0.30	0.20	0.50	40	18	50
φ9.52×0.27+0.16-18°	82	9.52	8.66	0.27	0.16	0.43	30	18	70
φ9.52×0.28+0.12-15°	80	9.52	8.72	0.28	0.12	0.40	53	15	65
φ9.52×0.28+0.15-18°	83	9.52	8.66	0.28	0.15	0.43	53	18	60
φ9.52×0.28+0.15-25°	88	9.52	8.66	0.28	0.15	0.43	90	25	65
φ9.52×0.28+0.20-18°	85	9.52	8.56	0.28	0.20	0.48	25	18	55
φ9.52×0.28+0.20-18°	88	9.52	8.56	0.28	0.20	0.48	40	18	60
φ9.52×0.30+0.20-18°	90	9.52	8.52	0.30	0.20	0.50	30	18	60
φ9.52×0.30+0.20-18°	94	9.52	8.52	0.30	0.20	0.50	53	18	60
φ9.52×0.34+0.15-25°	104	9.52	8.54	0.34	0.15	0.49	90	25	65
φ9.52×0.40+0.25-18°	123	9.52	8.22	0.40	0.25	0.65	40	18	60
φ12.00×0.36+0.25-18°	140	12.00	10.78	0.36	0.25	0.61	40	18	70
φ12.70×0.35+0.25-18°	155	12.70	11.50	0.35	0.25	0.60	53	18	70
φ12.70×0.40+0.25-18°	170	12.70	11.40	0.40	0.25	0.65	53	18	70
φ12.70×0.50+0.25-18°	201	12.70	11.20	0.50	0.25	0.75	53	18	75
φ12.75×0.36+0.21/0.25-20°	150	12.75	11.53	0.36	0.25	0.61	48	20	70

COPPER TUBE SERIES

- STRAIGHT TUBES SERIES



◆ Specifications

Thickness O.D.	0.013" to 0.023"	0.023" to 0.031"	0.031" to 0.039"	0.039" to 0.047"	0.047" to 0.059"	0.059" to 0.078"	0.078" to 0.12"	0.12" to 0.16"	0.16" to 0.22"	0.22" to 0.27"	0.27" to 0.37"
1/4" to 1/2"	○	○	○	○	○						
1/2" to 3/4"	○	○	○	○	○	○					
3/4" to 1"	○	○	○	○	○	○	○	○			
1" to 1-3/8"		○	○	○	○	○	○	○	○		
1-3/8" to 1-1/2"			○	○	○	○	○	○	○		
1-1/2" to 1-19/20"			○	○	○	○	○	○	○	○	
1-19/20" to 2-1/2"			○	○	○	○	○	○	○	○	
2-1/2" to 2-3/4"				○	○	○	○	○	○	○	○
2-3/4" to 3-3/8"				○	○	○	○	○	○	○	○
3-3/8" to 4"					○	○	○	○	○	○	○
4" to 5-3/8"						○	○	○	○	○	○
5-3/8" to 6-1/4"							○	○	○	○	○
6-1/4" to 8-5/8"								○	○		

COPPER TUBE SERIES

- PACKING WAYS (LWC)

	Packing ways	Wooden pallets	Plates		Way of placing strings		Winding way		Hailiang	Neutral
			Cardboard Reels	Reels (I.D.Payout)	Draw from I.D.	Draw from O.D.	Clockwise	Anti-Clockwise		
Hailiang	General packing	☐	☐	☐		☐	☐	☐	☐	
	Simple Packing	☐						☐	☐	
	Draw from I.D.Packing	☐		☐	☐		☐	☐	☐	
	General double pallets packing	☐	☐	☐			☐	☐	☐	
Neutral	General packing	☐	☐	☐		☐	☐			☐
	Simple Packing	☐		☐			☐	☐		☐
	Draw from I.D.Packing	☐			☐			☐		☐
	General double pallets packing	☐	☐	☐			☐	☐		☐



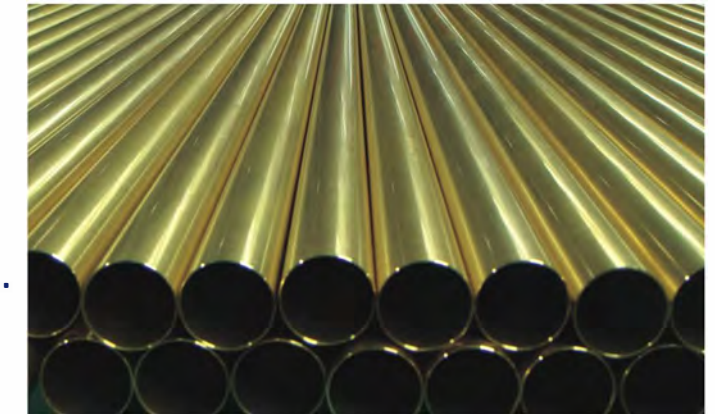
General Packing



General Doubled Pallets Packing(X+X)

COPPER ALLOY SERIES

- BRASS STRAIGHT TUBE



The main purposes :

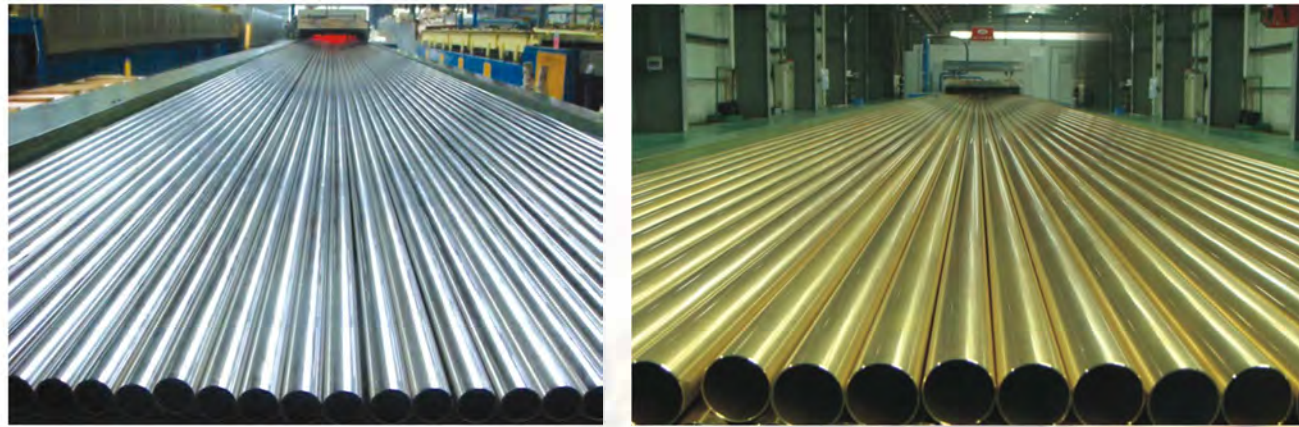
Buildings, Sanitation,
Marine, Desalt Sea Water Etc.

◆ The main standard and copper Alloy No.

Standard	Copper Alloy No.	Temper
ASTMB111	C44300	O 61
	C68700	O 61
	C70600	O 61/H55
	C71500	O 61
	C71640	O 61/Hr50
JISH3300	C4430	O
	C6870	O
	C7060	O
	C7150	O
	C7164	O
BS EN12451 (BS2871)	CuZn28Sn1As(CZ111)	R320/H060/R360/H080
	CuZn20A12As(CZ110)	R340/H070/R390/H085
	CuNi10Fe1Mn(CN102)	R290/H075/R310/H105/R480/H150
	CuNi30Fe1Mn(CN107)	R370/H090/R480/H120
	CuNi30Fe2Mn2(CN102)	R420/H090
ASTMB135	C33000	O 1/2H H
	C28000	
	C27000/C27200/C27400	
	C26000/C26200/C26800	
	C23000	

COPPER ALLOY SERIES

• HIGH ACCURACY COPPER ALLOY TUBE



- Main Products:**
- Admiralty Brass Tube C44300
 - Al-Brass Tube C68700
 - CuNi Tube C70600
 - CuNi Tube C71500/C71640

Total Capacity: 50000 tons/year

Specification scope of high accuracy copper alloy tube

O.D.(mm)	Thickness (Unit:mm)										Length(mm)	
	0.4	0.4-1.0	1.0-2.0	2.0-3.0	3.0-4.0	4.0-5.0	5.0-6.0	6.0-7.0	7.0-8.0	8.0-10.0		10.0-12.0
4.74-10	○	○										≤25000
>10-20	○	○	○	○	○							≤25000
>20-50		○	○	○	○	○	○	○	○	○		≤25000
>50-100			○	○	○	○	○	○	○	○		≤15000
>100-200				○	○	○	○	○	○	○		≤12000
>200-300					○	○	○	○	○	○		≤6000
>300-419					○	○	○	○	○	○		≤6000

Chemical composition of high accuracy copper alloy tube

Standard	Name	Copper AlloyNo	Chemical Composition (%)													
			Cu	Sn	Pb	Fe	Al	Zn	Mn	Ni	As	C	Co	P	S	Others
ASTM B111	Admiralty Brass Tube	C44300	70.0-73.0	0.9-1.2	≤0.07	≤0.06	-	Remainder	-	-	0.02-0.06	-	-	-	-	-
	Al-Brass Tube	C68700	76.0-79.0	-	≤0.07	≤0.06	1.8-2.5	Remainder	-	-	0.02-0.06	-	-	-	-	-
	90-10 CuNi Tube	C70600	Remainder	-	≤0.05	1.0-1.8	-	≤1.0	≤1.0	9.0-11.0	-	-	-	-	-	-
	70-30 CuNi Tube	C71500	Remainder	-	≤0.05	0.04-1.0	-	≤1.0	≤1.0	29.0-33.0	-	-	-	-	-	-
	66/30/2/2 CuNi Tube	C71640	Remainder	-	≤0.05	1.7-2.3	-	≤1.0	1.5-2.5	29.0-32.0	≤0.06	-	-	≤0.03	-	-
JIS H3300	Condenser Brass Tube	C4430	70.0-73.0	0.9-1.2	≤0.05	≤0.05	-	Remainder	-	-	0.02-0.06	-	-	-	-	-
		C6870	76.0-79.0	-	≤0.05	≤0.05	1.8-2.5	Remainder	-	-	0.02-0.06	-	-	-	-	-
	Condenser CuNi Tube	C7060	Remainder	-	≤0.05	1.0-1.8	-	≤0.50	0.20-1.0	9.0-11.0	-	-	-	-	-	Cu+Fe+Mn+Ni ≥99.5
		C7150	Remainder	-	≤0.05	0.04-1.0	-	≤0.50	0.20-1.0	29.0-33.0	-	-	-	-	-	Cu+Fe+Mn+Ni ≥99.5
		C7164	Remainder	-	≤0.05	1.7-2.3	-	≤0.50	1.5-2.5	29.0-32.0	-	-	-	-	-	Cu+Fe+Mn+Ni ≥99.5
BS EN12451 (BS2871)	Condenser Brass Tube	CuZn28Sn1As (CZ111)	70.0-72.5	0.9-1.3	≤0.05	≤0.07	-	Remainder	≤0.1	≤0.1	0.02-0.06	-	≤0.01	-	≤0.03	
		CuZn20Al2As (CZ110)	76.0-79.0	-	≤0.05	≤0.07	1.8-2.3	Remainder	≤0.1	≤0.1	0.02-0.06	-	≤0.01	-	≤0.03	
	Condenser CuNi Tube	CuNi10Fe1Mn (CN102)	Remainder	≤0.03	≤0.02	1.0-2.0	-	≤0.50	0.50-1.0	9.0-11.0	-	≤0.05	≤0.1	≤0.02	≤0.05	≤0.2
	Condenser CuNi Tube	CuNi30Fe1Mn (CN107)	Remainder	≤0.05	≤0.02	0.40-1.0	-	≤0.50	0.50-1.5	30.0-32.0	-	≤0.05	≤0.1	≤0.02	≤0.05	≤0.2
		CuNi30Fe1Mn (CN108)	Remainder	≤0.05	≤0.02	1.5-2.5	-	≤0.50	1.5-2.5	29.0-32.0	-	≤0.05	≤0.1	≤0.02	≤0.05	≤0.2

COPPER ALLOY SERIES

- BRASS STRAIGHT TUBE



Thickness O.D.	0.019" to 0.023"	0.023" to 0.031"	0.031" to 0.039"	0.039" to 0.047"	0.047" to 0.059"	0.059" to 0.078"	0.078" to 0.12"	0.12" to 0.16"
1/4" to 1/2"	○	○	○	○	○			
1/2" to 3/4"	○	○	○	○	○	○		
3/4" to 1"		○	○	○	○	○	○	
1" to 1-3/8"			○	○	○	○	○	○
1-3/8" to 2"				○	○	○	○	○
2" to 2-3/4"				○	○	○	○	

- PACKING WAYS



FITTING SERIES

- COPPER FITTING

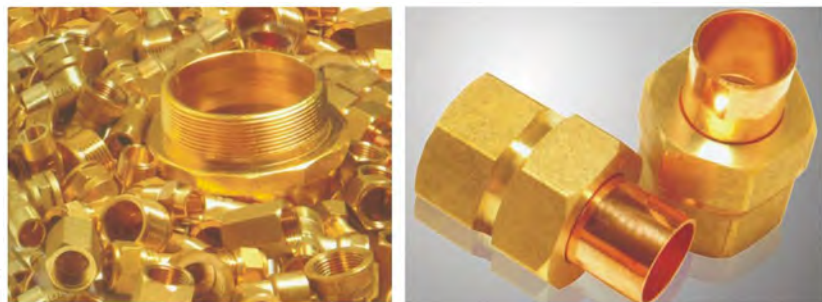
The main purposes:
Air Conditioning,
Water, Gas Etc.



SPECIFICATION	NOMAL SIZE (inch)	STANDARD
45° Elbow C×C	1/8 to 6	ASME B 16.22
90° Elbow C×C	1/8 to 2×11/2	
90° Long Elbow C×C	1/8 to 4	
Coupling w/Stop C×C Dimple	1/8 to 8	
Coupling Less /Stop C×C Dimple	1/8 to 5	
Flush Bushings FTG×C	1/4×1/8 to 2×11/2	
Coupling w/Stop rolled	1/8 to 8	
Reducing coupling w/stop C×C	5/8×1/4 to 6×3	
Fitting Reducer FTG×C	5/8×1/4 to 4×11/4	
TUBE STRAP	1/8 to 2	
Fitting End Plugs	3/8 to 1 1/4	
45° Street Elbow FTG×C	1/8 to 4	
90° Street Elbow FTG×C	1/4 to 4	
90° Street Long Elbow FTG×C	1/8 to 3	
TEE C×C×C	1/8 to 8	
P-TRAP	1/2 to 2	
U-BEND	1 to 2	
CAP	1/8 to 6	
MALE ADAPTER C×M	1/4×1/8 to 2×2	
REDUCING TEE	1/4×1/8 to 8×8×4	
FEMALE ADAPTER C×F	3/8×3/8 to 2×2	
UNION BTASS	3/8 to 1	
FEMALE ADAPTER FTG×F	1/4×1/4 to 2-1/2×2-3/8	
MALE ADAPTER FTG×M	1/4×1/4 to 2-1/2×2-3/8	
45° Equal Elbow C×C E10ECC	8 to 308	EN1254-1
90° Equal Elbow C×C HLE11ECC	6 to 308	
45° Street Elbow FTG×C E13EFC	8 to 159	
90° Street Elbow FTG×C E14EFC	6 to 219	
90° Long Radius Street Elbow C×FTG E15ELFC	12 to 108	
90° Long Radius Elbow C×C E12ELLC	12 to 108	
Cross C×C×C×C E60CCCC	15 22 28 35	
Equal Tee C×C×C E30TCC	6 to 308	
Reducing Tee C×C×C E31TRC	42×42×42 to 219×219×159	
Stop End E40CAP	8 to 159	
Reducing Coupler C×C E21RRC	15×10 to 219×108	
Fitting Reducer C× FTGE22RCF	16×12 to 219×159	
Equal Coupler C×C E20CC	C6 to 308	

FITTING SERIES

- BRASS FITTING



◆ Fitting series

Brass capillary fitting			
Male Coupling		Female Coupling	
15mm×1/2" M	22mm×3/4" M	15mm×1/2" F	22mm×3/4" F
28mm×1" M	15mm×3/4" M	28mm×1" F	15mm×3/4" F
22mm×1" M			
Male Elbow		Female Elbow	
15mm×1/2" M	22mm×3/4" M	15mm×1/2" F	22mm×3/4" F
28mm×1" M	15mm×3/4" M	28mm×1" F	15mm×3/4" F
Female Tee		Wall Plated Elbow	
15mm×15×1/2" F	22mm×22×3/4" F	15mm×1/2" F	
28mm×28×1" F		22mm×3/4" F	

◆ Brass compression fitting

Male Coupling and Female Coupling			
15mm×1/2" M/F		22mm×3/4" M/F	
28mm×1" M/F		15mm×3/4" M/F	
Coupling		Male Elbow	
15mm×15mm	22mm×22mm	15mm×1/2" M	22mm×3/4" M
28mm×28mm	22mm×15mm	28mm×1" M	15mm×3/4" M
28mm×22mm			
Female Elbow		Elbow	
15mm×1/2" F	22mm×3/4" F	15mm×15mm	22mm×22mm
28mm×1" F	15mm×3/4" F	28mm×28mm	22mm×15mm
28mm×22mm			
Tee		Wall Plated Elbow	
15mm×15mm×1/2" F		15mm×1/2" F 22mm×3/4" F	
22mm×22mm×3/4" F			
22mm×22mm×1/2" F			
28mm×28mm×1" F			
15mm×15mm×15mm			
22mm×22mm×22mm			
28mm×28mm×28mm			
22mm×22mm×15mm			
22mm×15mm×22mm			

◆ Threaded fitting

Nipple F×M	Cap	Coupling M×M
3/8" 1/2" 3/4" 1"	3/8" 1/2" 3/4" 1"	3/8" 1/2" 3/4" 1"
Coupling F×F	Coupling M×F	Elbow F×F
3/8" 1/2" 3/4" 1"	3/8" 1/2" 3/4" 1"	3/8" 1/2" 3/4" 1"
Elbow M×F	Elbow M×M	Tee F×F×F
3/8" 1/2" 3/4" 1"	3/8" 1/2" 3/4" 1"	3/8" 1/2" 3/4" 1"
Reducing Bush F×F		Reducing Adapter M×M
1/2" ×3/8" 3/4" ×1/2"		1/2" ×3/8" 3/4" ×1/2"
1" ×1/2" 1" ×3/4"		1" ×1/2"
1 1/4" ×3/4" 1 1/4" ×1/2"		1 1/4" ×3/4" 1 1/4" ×1/2"
3 Piece Adapter M×F	3 Piece Adapter F×F	3 Piece Adapter M×M
3/8" 1/2" 3/4" 1"	3/8" 1/2" 3/4" 1"	3/8" 1/2" 3/4" 1"
3 Piece Elbow M×M		NUT
3/8" 1/2" 3/4" 1"		16×1/2" 20×3/4"
Female Adapter		
1/2" F×1/2" /16	1/2" F×3/4" /20	3/4" F×3/4" /20
Male Elbow		Female Elbow
1/2" /16×1/2" /16		1/2" F×1/2" /16 3/4" F×1/2" /16
3/4" /20×3/4" /20		1/2" F×3/4" /20 3/4" F×3/4" /20
Female Tee		
1/2" /16×1/2" F×1/2" /16 3/4" /20×1/2" F×3/4" /20		
3/4" /20×3/4" F×3/4" /20		
Male Tee		
1/2" /16×1/2" ×1/2" /16		
3/4" /20×1/2" ×3/4" /20		

INSULATED COPPER TUBES PLASTIC-COATED COPPER TUBES

The main purposes :
Air Conditioning,
Water, Gas Etc.



◆ Standard size (inch)

Type	Size d2xt2/d1xt1	O.D. of the tube d1d2d3	Thickness of Insulator t1t2t3t4	Length	Material	Weight Pounds/feet
-P2320	1/4" x 0.032	1.02" 0.87" 1.89"	0.35" 0.2"	30ft to 100ft	0	0.233
-P2330	3/8" x 0.032	1.30" 0.87" 2.17"	0.394" 0.2"	30ft to 100ft	0	0.286
-P2420	1/4" x 0.032	1.42" 0.87" 2.29"	0.394" 0.2"	30ft to 100ft	0	0.390
-P2430	1/2" x 0.032	1.54" 1.02" 2.56"	0.394" 0.2"	30ft to 100ft	0	0.440
-P2520	1/4" x 0.032 5/8" x 0.039	1.54" 1.30" 2.84"	0.394" 0.2"	30ft to 100ft	0	0.569
-P3520	3/8" x 0.032 5/8" x 0.039	1.54" 1.30" 2.84"	0.394" 0.2"	30ft to 100ft	0	0.629
-P3620	3/8" x 0.032 3/4" x 0.039	1.54" 1.30" 2.84"	0.394" 0.2"	30ft to 100ft	0	0.629
-P4620	1/2" x 0.032 3/4" x 0.039	1.54" 1.30" 2.84"	0.394" 0.2"	30ft to 100ft	0	0.629

PLASTIC-COATED COPPER TUBES ARE MADE ACCORDING TO EN1057 OR ASTM B88

DN (mm)	OD (mm)	Thickness (mm)	Gear-shaped loop (mm)	Parallel loop (mm)	Foam (mm)	Maximum deviation (mm)	Length	Maximum deviation (mm)
15	15	0.7	18.6	17	21.5	±0.20	2.9 to 5.8	0 to +10
20	22	0.9	25.6	24	28.5			
25	28		31.6	30				
32	35	1.2		37.6		±0.30	2.9 to 5.8	0 to +10
40	42			44.6				
50	54			56.8				
65	67			69.8				
80	76	1.5		78.8		±0.50		

SMALL FURBISHED BRASS ROD SERIES

- SMALL FURBISHED BRASS RODS

The main purposes :

Air Conditioning, Electricity, Machinery Etc.



Designation,Chemical Composition Of Small Furbished Brass Rods

Copper Alloy No.		Designation	Width or Diameter (mm)
JIS	UNS		
C2700	C27000	-	
C2800	C28000	-	
-	C34000 C34500 C35000 C35300	ASTM B453	
-	C36000	ASTM B16	
C3601	C36000	-	Round Rod 5 to 80
C3602	C36000	-	
C3603	-	-	
C3604	-	-	
C3605	-	-	
C3712	C37100	-	Square Rod Hexi Rod 12 to 40
C3771	C37700	-	
C4622	C46200	-	
C4641	C46400	-	
	C48500	ASTM B21	
	C67300	ASTM B138	
	C67600		
C6782			
C6783			