



MUELLER-XINGRONG®

COPPER TUBE



Tube supplied to ASTM Standards is a minimum of 99,9 percent pure copper.

Introduction

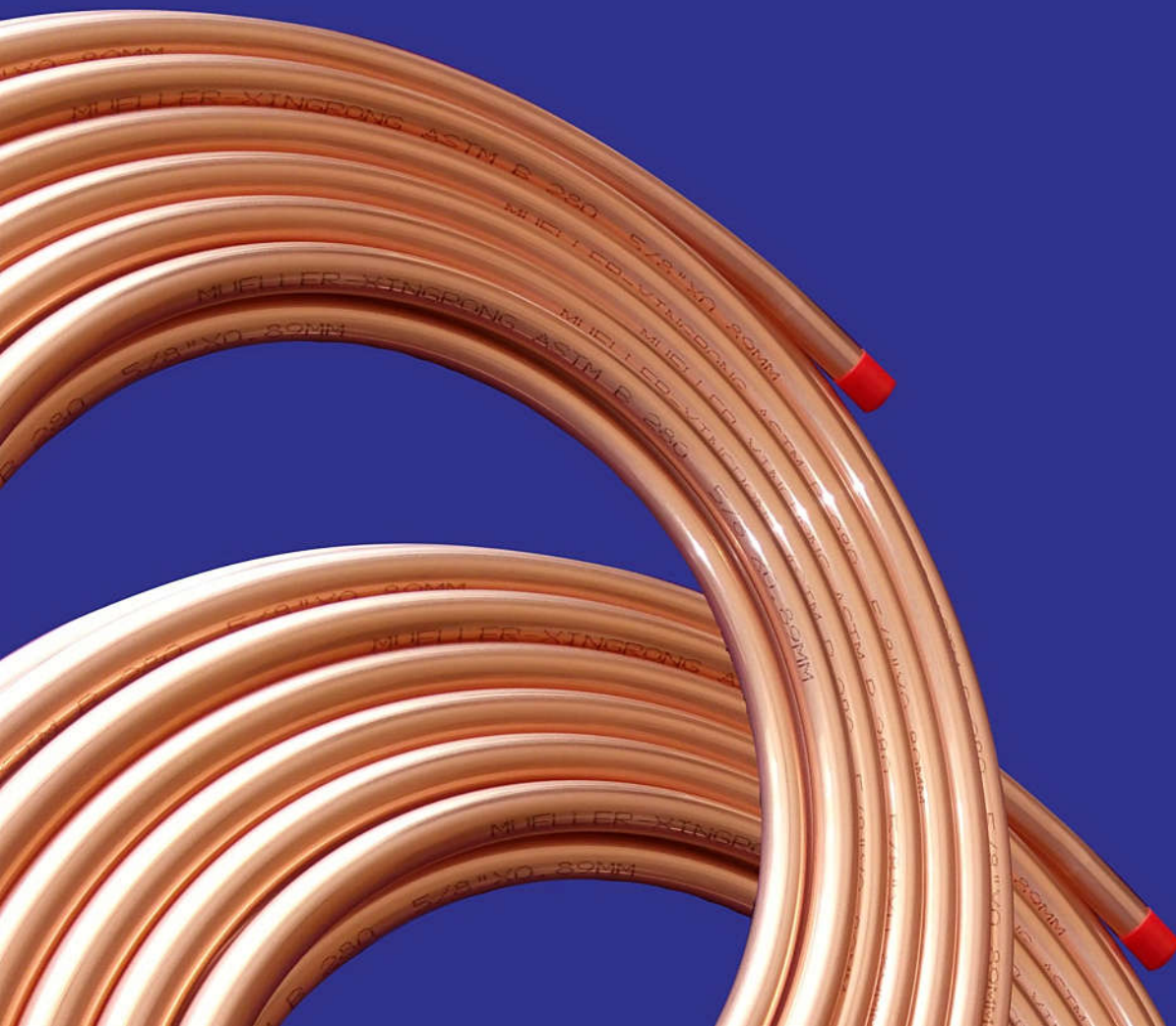
The use of copper tube in air conditioning and refrigeration has grown steadily in the last few decades. As a material needed to help increase operating efficiency, and copper has been filling the need.

Customers that wanted to lower operating expenses as well as use environmentally appliances, choosing systems that utilize the superior heat transfer characteristics of copper is a wise decision.

Sizing, installation layout, fitting, and joining must be done properly to ensure that the system runs effectively and efficiently. During installation, it is important to prevent moisture, dirt, and other contaminants from entering the system. Those foreign particles will effect the performance of the system, may even cause damage to some of the components inside.

The Advantages Of Copper

1. Copper support extreme temperature ranges, from summer to winter.
2. Copper has excellent corrosion resistance.
3. Copper is economical and lightweight, so it can save the installation time, material and overall cost.
4. Copper is formable, can be bent and formed easily to minimize the use of fittings.
5. Copper is easily to join with capillary fittings if needed.
6. Copper is safe and will not burn, support combustion, and decompose to toxic gases.
7. Copper is dependable, our copper tube is manufactured to defined standard.
8. Copper is 100% recyclable without degeneration in content or properties.



MUELLER-XINGRONG® COPPER TUBE ASTM B 280

For : Air Conditioning, Refrigeration, and Natural Gas

For Annealed Coil Copper Tubes

Standard Size Inch	Outside Diameter Inch (mm)	Wall Thickness Inch (mm)	Weight, lb/ft (kg/m)	*Safe Working Internal Pressures PSI (KPa) 150°F
1/8	0.125 (3.18)	0.030 (0.76)	0.0347 (0.0516)	2613 (18013)
3/16	0.187 (4.76)	0.030 (0.76)	0.0575 (0.0856)	1645 (11340)
1/4	0.250 (6.35)	0.030 (0.76)	0.0804 (0.120)	1195 (8238)
5/16	0.312 (7.92)	0.032 (0.81)	0.109 (0.162)	1017 (7011)
3/8	0.375 (9.52)	0.032 (0.81)	0.134 (0.199)	836 (5763)
1/2	0.500 (12.7)	0.032 (0.81)	0.182 (0.271)	618 (4260)
5/8	0.625 (15.9)	0.035 (0.89)	0.251 (0.373)	525 (3619)
3/4	0.750 (19.1)	0.035 (0.89)	0.305 (0.454)	435 (2999)
7/8	0.875 (22.3)	0.045 (1.14)	0.455 (0.677)	495 (3412)
1 1/8	1.125 (28.6)	0.050 (1.27)	0.665 (0.975)	420 (2895)
1 3/8	1.375 (34.9)	0.055 (1.40)	0.884 (1.32)	373 (2571)
1 5/8	1.625 (41.3)	0.060 (1.52)	1.14 (1.70)	347 (2392)

Note : Tubes are supplied in 15 meter for annealed coil copper tubes

For Hard Drawn Straight Length Cooper Tubes

Standard Size Inch	Outside Diameter Inch (mm)	Wall Thickness Inch (mm)	Weight, lb/ft (kg/m)	*Safe Working Internal Pressures PSI (KPa) 150°F
3/8	0.375 (9.52)	0.030 (0.76)	0.126 (0.187)	1371 (9451)
1/2	0.500 (12.7)	0.035 (0.89)	0.198 (0.295)	1172 (8079)
5/8	0.625 (15.9)	0.040 (1.02)	0.285 (0.424)	1085 (7479)
3/4	0.750 (19.1)	0.042 (1.07)	0.362 (0.539)	949 (6543)
7/8	0.875 (22.3)	0.045 (1.14)	0.455 (0.677)	875 (6032)
1 1/8	1.125 (28.6)	0.050 (1.27)	0.655 (0.975)	743 (5122)
1 3/8	1.375 (34.9)	0.055 (1.40)	0.884 (1.32)	660 (4550)
1 5/8	1.625 (41.3)	0.060 (1.52)	1.14 (1.70)	614 (4232)
2 1/8	2.125 (54.0)	0.070 (1.78)	1.75 (2.60)	546 (3764)
2 5/8	2.625 (66.7)	0.080 (2.03)	2.48 (3.69)	504 (3474)
3 1/8	3.125 (79.4)	0.090 (2.29)	3.33 (4.96)	476 (3281)
3 5/8	3.625 (92.1)	0.100 (2.54)	4.29 (6.38)	455 (3136)
4 1/8	4.125 (105)	0.110 (2.79)	5.38 (8.01)	440 (3033)

Note : Tubes are supplied in 5.8 meter for straight copper tubes

TECHNICAL DATA

Values of allowable internal working pressure for copper tube in service are based on the formula from ANSI B31, Standard Code for Pressure Piping :

$$P = \frac{2 S t m}{D \max - 0.8 t m}$$

P = Allowable pressure
S = Allowable stress
T = Wall thickness
D max = Outside diameter

@ 150°F S = 5100 PSIG annealed
@ 300°F S = 4700 PSIG annealed
@ 150°F S = 9000 PSIG hard drawn
@ 300°F S = 8700 PSIG hard drawn



MXR
MUELLER-XINGRONG
COPPER TUBE

MUELLER-XINGRONG® COPPER TUBE AS 1571

For : Air Conditioning, Refrigeration

For Annealed Coil Copper Tubes

Standard Size Inch	Outside Diameter Inch (mm)	Wall Thickness Inch (mm)	Nominal (kg/m)	Safe Working Internal Pressure PSI (Kpa) 150°F
1/4	0.250 (6.35)	0.022 (0.56)	0.091	987 (6807)
1/4	0.250 (6.35)	0.024 (0.61)	0.098	1084 (7476)
1/4	0.250 (6.35)	0.028 (0.71)	0.113	1284 (8855)
3/8	0.375 (9.53)	0.022 (0.56)	0.141	637 (4393)
3/8	0.375 (9.53)	0.024 (0.61)	0.153	698 (4814)
3/8	0.375 (9.53)	0.028 (0.71)	0.176	821 (5662)
1/2	0.500 (12.70)	0.022 (0.56)	0.191	471 (3248)
1/2	0.500 (12.70)	0.024 (0.61)	0.207	515 (3552)
1/2	0.500 (12.70)	0.026 (0.66)	0.223	559 (3855)
1/2	0.500 (12.70)	0.028 (0.71)	0.239	604 (4165)
5/8	0.625 (15.88)	0.022 (0.56)	0.241	373 (2572)
5/8	0.625 (15.88)	0.024 (0.61)	0.262	407 (2807)
5/8	0.625 (15.88)	0.028 (0.71)	0.303	477 (3290)
3/4	0.750 (19.05)	0.024 (0.61)	0.316	337 (2324)
3/4	0.750 (19.05)	0.028 (0.71)	0.366	395 (2724)

Note : Tubes are supplied in 15 meter for annealed coil copper tubes

For Straight Length Copper Tubes

Standard Size Inch	Outside Diameter Inch (mm)	Wall Thickness Inch (mm)	Nominal (kg/m)	Safe Working Internal Pressure PSI (Kpa) 150°F
3/8	0.375 (9.53)	0.024 (0.61)	0.153	698 (4814)
3/8	0.375 (9.53)	0.028 (0.71)	0.176	822 (5669)
1/2	0.500 (12.70)	0.028 (0.71)	0.239	604 (4165)
5/8	0.625 (15.88)	0.028 (0.71)	0.303	478 (3297)
3/4	0.750 (19.05)	0.028 (0.71)	0.366	395 (2724)
7/8	0.875 (22.23)	0.028 (0.71)	0.429	337 (2324)
1	1.000 (25.40)	0.028 (0.71)	0.493	293 (2021)
1	1.000 (25.40)	0.032 (0.81)	0.560	336 (2317)
1	1.000 (25.40)	0.048 (1.22)	0.829	515 (3552)
1 1/8	1.125 (28.58)	0.028 (0.71)	0.556	260 (1793)
1 1/8	1.125 (28.58)	0.032 (0.81)	0.632	298 (2055)
1 1/8	1.125 (28.58)	0.035 (0.90)	0.700	332 (2290)
1 1/4	1.250 (31.75)	0.032 (0.81)	0.704	267 (1841)
1 1/4	1.250 (31.75)	0.036 (0.91)	0.789	301 (2076)
1 1/4	1.250 (31.75)	0.048 (1.22)	1.047	408 (2814)
1 3/8	1.375 (34.93)	0.032 (0.81)	0.776	242 (1669)
1 3/8	1.375 (34.93)	0.036 (0.91)	0.870	273 (1883)
1 5/8	1.625 (41.28)	0.036 (0.91)	1.032	230 (1586)
2 1/8	2.125 (53.98)	0.036 (0.91)	1.357	175 (1207)
2 5/8	2.625 (66.68)	0.048 (1.22)	2.244	190 (1310)
3 1/8	3.125 (79.38)	0.072 (1.83)	3.988	241 (1662)

Note : Tubes are supplied in 5.8 meter for straight copper tubes



MUELLER-XINGRONG® COPPER TUBE ASTM B 88

**For : Domestic Water Service and Distribution, Plumbing, Fire Protection,
Solar, Fuel/Fuel Oil, HVAC, Snow Melt, Natural Gas and LP Gas.**

	Nominal Size, Inch	Dimensions			*Safe Working Internal Pressures				Nominal Weight, Kilograms per Metre
		Actual (Inch)		Wall Thickness Inch (mm)	Hard Drawn				
		Outside Diameter	Diameter		PSI		KPa		
					150°F	300°F	150°F	300°F	
TYPE K	1/4	0.375	3/8	0.035 (0.89)	1612	1558	11112	10740	0.216
	3/8	0.500	1/2	0.049 (1.24)	1695	1638	11684	11292	0.400
	1/2	0.625	5/8	0.049 (1.24)	1337	1293	9216	8913	0.512
	5/8	0.750	3/4	0.049 (1.24)	1104	1067	7610	7355	0.623
	3/4	0.875	7/8	0.065 (1.65)	1278	1236	8809	8520	0.955
	1	1.125	1 1/8	0.065 (1.65)	982	949	6769	6542	1.249
	1 1/4	1.375	1 3/8	0.065 (1.65)	797	771	5494	5315	1.544
	1 1/2	1.625	1 5/8	0.072 (1.83)	742	717	5115	4943	2.028
	2	2.125	2 1/8	0.083 (2.11)	652	630	4494	4343	3.074
	2 1/2	2.625	2 5/8	0.095 (2.41)	597	577	4115	3978	4.359
	3	3.125	3 1/8	0.109 (2.77)	578	559	3984	3854	5.962
	3 1/2	3.625	3 5/8	0.120 (3.05)	549	530	3784	3654	7.628
	4	4.125	4 1/8	0.134 (3.40)	540	522	3722	3598	9.699
	5	5.125	5 1/8	0.160 (4.06)	517	500	3564	3447	14.407
	6	6.125	6 1/8	0.192 (4.88)	520	502	3584	3461	20.659
	8	8.125	8 1/8	0.271 (6.88)	553	535	3812	3688	38.600

Note : Tubes are supplied in 5.8 meter for straight length copper tubes

TYPE L	1/4	0.375	3/8	0.030 (0.76)	1367	1322	9423	9113	0.188
	3/8	0.500	1/2	0.035 (0.89)	1168	1129	8051	7783	0.295
	1/2	0.625	5/8	0.040 (1.02)	1082	1046	7458	7211	0.425
	5/8	0.750	3/4	0.042 (1.07)	947	916	6528	6315	0.539
	3/4	0.875	7/8	0.045 (1.14)	873	844	6018	5818	0.667
	1	1.125	1 1/8	0.050 (1.27)	741	717	5108	4943	0.975
	1 1/4	1.375	1 3/8	0.055 (1.40)	658	636	4536	4384	1.317
	1 1/2	1.625	1 5/8	0.060 (1.52)	613	592	4226	4081	1.703
	2	2.125	2 1/8	0.070 (1.78)	545	527	3757	3633	2.609
	2 1/2	2.625	2 5/8	0.080 (2.03)	504	487	3474	3357	3.692
	3	3.125	3 1/8	0.090 (2.29)	476	460	3281	3171	4.954
	3 1/2	3.625	3 5/8	0.100 (2.54)	455	440	3136	3033	6.393
	4	4.125	4 1/8	0.110 (2.79)	440	425	3033	2930	8.010
	5	5.125	5 1/8	0.125 (3.18)	404	390	2785	2689	11.353
	6	6.125	6 1/8	0.140 (3.56)	376	364	2592	2509	15.196
	8	8.125	8 1/8	0.200 (5.08)	406	392	2799	2702	28.745

Note : Tubes are supplied in 5.8 meter for straight length copper tubes

TYPE M	3/8	0.500	1/2	0.025 (0.64)	855	827	5894	5701	0.215
	1/2	0.625	5/8	0.028 (0.71)	741	716	5108	4936	0.303
	3/4	0.875	7/8	0.032 (0.81)	611	590	4212	4067	0.489
	1	1.125	1 1/8	0.035 (0.89)	506	489	3488	3371	0.692
	1 1/4	1.375	1 3/8	0.042 (1.07)	507	490	3495	3378	1.015
	1 1/2	1.625	1 5/8	0.049 (1.24)	497	480	3426	3309	1.400
	2	2.125	2 1/8	0.058 (1.47)	448	433	2088	2985	2.174
	2 1/2	2.625	2 5/8	0.065 (1.65)	411	397	2833	2737	3.018
	3	3.125	3 1/8	0.072 (1.83)	380	367	2619	2530	3.986
	3 1/2	3.625	3 5/8	0.083 (2.11)	378	366	2606	2523	5.332
	4	4.125	4 1/8	0.095 (2.41)	377	364	2599	2509	6.943
	5	5.125	5 1/8	0.109 (2.77)	349	338	2406	2330	9.915
	6	6.125	6 1/8	0.122 (3.10)	328	317	2261	2185	13.282
	8	8.125	8 1/8	0.170 (4.32)	344	332	2371	2289	24.525

Note : Tubes are supplied in 5.8 meter for straight length copper tubes



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**Copper Fitting
For ASTM B280**



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