

COPPER TUBE DATA

TYPE DWV

O.D.	NOM	WT/FT	FT/BUNDLE	WALL	RATED INTERNAL WORKING PRESSURE (PSIG)			
					150°F	200°F	300°F	400°F
1.375	1-1/4	.650	100	.040	275	260	260	160
1.625	1-1/2	.809	100	.042	245	235	225	145
2.125	2	1.07		.042	185	175	170	110
3.125	3	1.69		.045	135	125	125	80
4.125	4	2.87		.058	130	120	120	80
5.125	5	4.43		.072	130	120	120	80
6.125	6	6.10		.083	130	120	120	70

REFRIGERATION SERVICE TUBE

O.D.	SIZE WALL	RATED INTERNAL WORKING PRESSURE (PSI)				SHIPPING INFORMATION				
		150°F	200°F	300°F	400°F	50 FT.			100 FT.	
						COIL DIA	WT/COIL	COIL/MASTER	COIL DIA	WT/COIL
1/8	.030	2660	2450	2080	1570	11-1/2"	1.74	10	17"	3.48
3/16	.030	1690	1560	1320	1000	11-7/8"	2.88	10	18-3/4"	5.76
1/4	.030	1230	1130	970	720	13-7/8"	4.02	10	18-3/4"	8.04
5/16	.032	1040	960	820	610	15-1/2"	5.45	10	20"	10.90
3/8	.032	860	790	670	500	17-1/2"	6.70	10	22"	13.40
1/2	.032	630	580	490	370	20"	9.10	5	25-1/4"	18.20
5/8	.035	540	500	430	320	21-3/4"	12.55	5	25-1/2"	25.10
3/4	.035	440	400	350	260	23-1/2"	15.25	3	29"	30.50
7/8	.045	500	460	390	300	27-1/2"	22.75	3	32-1/4"	45.50
1-1/8	.050	430	400	340	250	34-1/2"	32.75	-	38-1/2"	65.50
1-3/8	.055	390	360	300	230	39-1/2"	44.20	-	45"	88.40
1-5/8	.060	370	340	280	220	39-1/2"	57.00	-	48"	114.00

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:

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

P = Allowable pressure, PSIG @ 150°F S = 5100 PSIG annealed
 S = Allowable stress, PSIG @ 200°F S = 4800 PSIG annealed
 t = Minimum wall thickness, inches @ 300°F S = 4700 PSIG annealed
 D = Outside diameter, inches @ 400°F S = 3000 PSIG annealed

All ratings listed for types K, L, M, DWV and refrigeration service tube in the preceding charts are calculated for tube in the annealed condition. These values should be used when soldering, brazing or welding is employed for joining components in a system. While the ratings for hard drawn tube are substantially higher, they should only be used for systems using properly designed flare or compression mechanical joints, since joining by any heating process might anneal (soften) the tube.

In designing a system, careful consideration should also be given to joint ratings as well as those of the components.

TEMPERATURE-PRESSURE RATING OF SOLDERED JOINTS

ALLOY USED FOR JOINTS	SERVICE TEMPERATURE F°	WATER AND NON-CORROSIVE LIQUIDS AND GASES				SATURATED STEAM
		STANDARD TUBE SIZE, TYPES K, L AND M				
		1/4 TO 1 INCL.	1-1/4 TO 2 INCL.	2-1/2 TO 4 INCL.	5 TO 8 INCL.	ALL
95 - 5 Tin-Antimony Solder (a)	100	500	400	300	270	-
	150	400	350	275	250	-
	200	300	250	200	180	-
	250	200	175	150	135	15
Brazing Alloys (Melting at or above 1000°F)	100-150-200	(b)	(b)	(b)	(b)	-
	250	300	210	170	150	-
	350	270	190	150	150	120

NOTE: Ratings are those given in ASME/ANSI Standard B16.22 "Wrought Copper and Copper Alloy Solder Joint Pressure Fittings" and ANSI B16.18 "Cast Copper Alloy Solder Joint Pressure Fittings."

(a) Solder alloys are covered by ASTM Standard Specification B32.

(b) Rated internal pressure is that of tube or fittings being joined (whichever is less).

Note: Safe Drinking Water Act Amendment of 1986 prohibits the use of any solder having a lead content in excess of 0.2% for potable water systems.