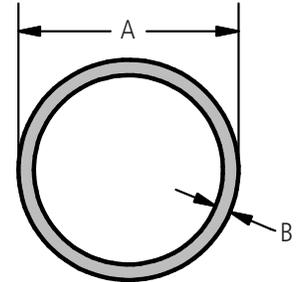


### Seamless Bus Tube

Seamless bus tube is a round, hollow material manufactured to a specific outside diameter (O.D.) and wall thickness. It is produced to meet specific end user requirements. Tubing is described by the actual outside diameter and wall thickness, i.e. 8" O.D. x 0.500" Wall aluminum tubing.

Outdoor tubular bus is generally made of 6063-T6 alloy because of its excellent mechanical and electrical properties and is readily available. 6061-T6 tubular conductor is used where very high strength and lower conductivity is required.



Note: For seamless bus tube sizes not listed, contact the AFL Commercial Team.

Outside Diameter of Tube	Wall Thickness	Area	Weight
in	in	sq in	lb/ft
A	B		
8	0.250	6.09	7.16
8	0.375	8.98	10.56
8	0.500	11.78	13.85
8	0.625	14.48	17.03
9	0.250	6.87	8.08
9	0.375	10.16	11.95
9	0.500	13.35	15.70
9	0.625	16.44	19.34

Outside Diameter of Tube	Wall Thickness	Area	Weight
in	in	sq in	lb/ft
A	B		
10	0.312	9.50	11.17
10	0.375	11.34	13.33
10	0.500	14.92	17.55
10	0.625	18.41	21.65
12	0.312	11.46	13.47
12	0.375	13.70	16.11
12	0.500	18.06	21.24
12	0.625	22.33	26.27

#### Ordering Instructions:

##### Step 1: Choose Outside Diameter

Outside Diameter	Diameter Code
8	80D
9	90D
10	100D
12	120D

##### Step 2: Choose Wall Thickness

Wall Thickness	Thickness Code
1/4"	250W
5/16"	312W
3/8"	375W
1/2"	500W
5/8"	625W

##### Step 3: Choose Alloy

Alloy Number	Alloy Code
6061	X
6063	Y
6101	Z

##### Step 4: Choose Temper

Temper	Temper Code
T6	T6
T61	T61
T63	T63

##### Step 5: Choose Packaging

Package Type	Package Code
Bare - Bat - Bundle (BBB)	B
EHV	E

See pictures on page 3

##### Step 6: Build Catalog Number

Outside Diameter + Wall Thickness + Alloy Code + Temper + Package Code

Example: To order 8 inch OD 1/2" wall 6101-T61 Alloy Bus Pipe with BBB packaging

80D + 500W + Z + T61 + B

Completed Catalog Number is 80D500WZT61B.

## Physical & Electrical Properties of Large Diameter Round Tube Amperes for 6101-T61 Alloy 57% IACS Conductivity

A Outside diameter in	B Wall thickness in	Area Sq In	Weight lb/ft	Moment of Inertia I in <sup>4</sup>	Inductive Reactance 1 ft spacing 60 Hz-Xa microhms/ft	DC Resistance at 20°C microhms/ft	Rac/Rda at 70°C	AC Resistance at 70°C 60 Hz microhms/ft	Current Rating 60 Hz Amp	
									Indoor	Outdoor
8	0.250	6.09	7.16	45.70	25.80	2.348	1.006	2.8070	3805	4720
8	0.375	8.98	10.56	65.44	26.00	1.591	1.030	1.9470	4555	5645
8	0.500	11.78	13.85	83.20	26.20	1.213	1.091	1.5730	5045	6250
8	0.625	14.48	17.03	99.20	26.50	0.987	1.206	1.4140	5190	6435
9	0.250	6.87	8.08	65.80	23.20	2.079	1.006	2.4860	4255	5245
9	0.375	10.16	11.95	94.70	23.30	1.406	1.030	1.7220	5100	6285
9	0.500	13.35	15.70	121.00	23.40	1.070	1.092	1.3890	5650	6965
9	0.625	16.44	19.34	145.00	23.60	0.869	1.308	1.2480	5980	7370
10	0.312	9.50	11.17	111.50	20.60	1.505	1.015	1.8140	5185	6355
10	0.375	11.34	13.33	131.50	20.70	1.260	1.031	1.5430	5635	6910
10	0.500	14.92	17.55	168.80	20.90	0.958	1.092	1.2430	6255	7670
10	0.625	18.41	21.65	203.10	21.00	0.776	1.210	1.1160	6640	8140
12	0.312	11.46	13.47	195.80	16.30	1.247	1.015	1.5040	6155	7480
12	0.375	13.70	16.11	231.60	16.40	1.043	1.031	1.2780	6685	8125
12	0.500	18.06	21.24	299.20	16.60	0.791	1.093	1.0280	7415	9015
12	0.625	22.33	26.27	362.30	16.70	0.640	1.213	0.9219	7850	9545

**Notes:**

1. Current ratings listed in the Tables are based on 30°C temperature rise over 40°C ambient horizontally mounted conductors, with spacing sufficient to eliminate proximity effects, generally assumed not to be significant if spacing is 18 in. or over. Conduction of heat by supporting structures and taps can appreciably affect the ratings.
2. Conductors with a 2ft/sec crosswind. Nominal oxidized surface (e=0.50)
3. Current Ratings for direct current are close to those of alternating current for all except the larger sizes; and for them, the increase for dc bus is about 1.5 percent.