

# TOLERANCES

## ALUMINUM DRAWN TUBE — ROUND

### Diameter Tolerances/Plus & Minus, Inches

Allowable Deviation of Mean Diam. from Size	Allowable Deviation of Diam. from Size at any Point				
			Not	Heat	Annld.
			Treated	Treated	
Up thru 0.500	.003	.003	.006	.018	
0.501 - 1.000	.004	.004	.008	.018	
1.001 - 2.000	.005	.005	.010	.030	
2.001 - 3.000	.006	.006	.012	.036	
3.001 - 5.000	.008	.008	.016	.048	
5.001 - 6.000	.010	.010	.020	.060	
6.001 - 8.000	.015	.015	.030	.090	
8.001 - 10.000	.020	.020	.040	.012	
10.001 - 12.000	.025	.025	.050	.150	

## TOLERANCES

### Wall Tolerances/Plus & Minus, Inches

Allowable Deviation of Mean Diam. from Size	Allowable Deviation of Diam. from Size at any Point		
	Non-Heat- Treatable		Heat Treatable
0.010 - 0.035	.002	.002	
0.036 - 0.049	.003	.003	
0.050 - 0.083	.004	.004	±10% of specified
0.084 - 0.120	.005	.006	wall
0.121 - 0.203	.006	.008	±.003" minimum
0.204 - 0.300	.008	.012	
0.301 - 0.375	.015	.020	
0.376 - 0.500	.020	.030	

## TOLERANCES

### ALUMINUM EXTRUDED TUBE-ROUND

#### Diameter Tolerance/Plus & Minus, Inches

Diam. Inches (Size)	Deviation from Size of Mean Diam.		Deviation of Diam. from Size at any Point	
	5083, 5086 5454	Other Alloys	5083, 5086 5454	Other Alloys
0.500 - 0.999	.015	.010	.030	.020
1.000 - 1.999	.018	.012	.038	.025
2.000 - 3.999	.023	.015	.045	.030
4.000 - 5.999	.038	.025	.075	.050
6.000 - 7.999	.053	.035	.113	.075
8.000 - 9.999	.068	.045	.150	.100
10.000 - 11.999	.083	.055	.188	.125
12.000 - 13.999	.098	.065	.225	.150
14.000 - 15.999	.113	.075	.263	.175
16.000 - 17.999	.128	.085	.300	.200

### Wall Tolerances/Plus & Minus, Inches

#### Allowable Deviation of Mean Wall from Specified Wall

Spec. Wall Inches	Under 1.250 OD		1.250-2.999 OD		3.000-4.999 OD		5.000 and over	
	5083 5086 5454	Other Alloys	5083 5086 5454	Other Alloys	5083 5086 5454	Other Alloys	5083 5086 5454	Other Alloys
Under 0.047	.009	.006	—	—	—	—	—	—
0.047-0.061	.011	.007	.012	.008	.012	.088	.015	.010
0.062-0.077	.012	.008	.012	.008	.014	.009	.018	.012
0.078-0.124	.014	.009	.014	.009	.015	.010	.023	.015
0.125-0.249	.014	.009	.014	.009	.020	.013	.030	.020
0.250-0.374	.017	.011	.017	.011	.024	.016	.038	.025
0.375-0.499	—	—	.023	.015	.032	.021	.053	.035
0.500-0.749	—	—	.030	.020	.042	.028	.068	.045
0.750-0.999	—	—	—	—	.053	.035	.083	.055
1.000-1.499	—	—	—	—	.068	.045	.098	.065
1.500-2.000	—	—	—	—	—	—	.113	.075
2.001-2.499	—	—	—	—	—	—	.128	.085
2.500-2.999	—	—	—	—	—	—	.143	.095
3.000-3.499	—	—	—	—	—	—	.158	.105
3.500-4.000	—	—	—	—	—	—	.173	.115

#### Allowable Wall Deviation at any point (Eccentricity)

2" Wall & Under:	Plus & minus 10% of mean wall .060" maximum, .010" minimum
Over 2"	±.120"