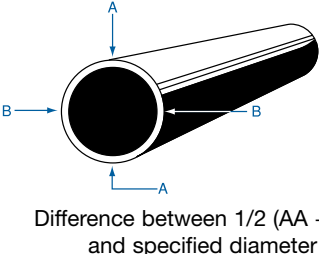
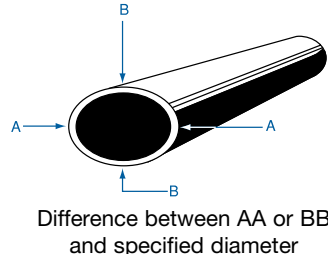


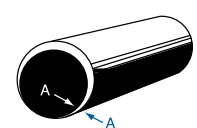
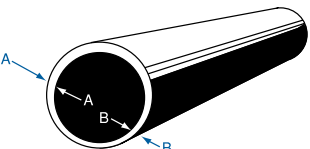
ALUMINUM TOLERANCES

EXTRUDED TUBE TOLERANCES

DIAMETER Round tube

Specified Diameter (in.)	TOLERANCE ² (in. plus and minus)	
	Allowable Deviation of Mean Diameter ³ from Specified Diameter (Size)  Difference between 1/2 (AA + BB) and specified diameter	Allowable Deviation of Diameter at Any Point from Specified Diameter ⁴  Difference between AA or BB and specified diameter
Col. 1	Col. 2	Col. 3
	Alloys ⁷	Alloys ⁷
0.500–0.999	0.010	0.020
1.000–1.999	0.012	0.025
2.000–3.999	0.015	0.030
4.000–5.999	0.025	0.050
6.000–7.999	0.035	0.075
8.000–9.999	0.045	0.100
10.000–11.999	0.055	0.125
12.000–13.999	0.065	0.150

WALL THICKNESS Round Tube

Specified Wall Thickness ⁶ (in.)	TOLERANCE ^{1,2} (in. plus and minus)				Allowable Deviation of Wall Thickness at Any Point from Mean Wall Thickness ⁵ (Eccentricity)  Difference between AA and mean wall thickness
	Allowable Deviation of Mean Wall Thickness ⁵ from Specified Wall Thickness  Difference between 1/2 (AA + BB) and specified wall thickness				
	Outside Diameter (in.)				
Col. 1	Under 1.250	1.250–2.999	3.000–4.999	5.000 and over	Col. 6
	Col. 2	Col. 3	Col. 4	Col. 5	All Alloys
	Alloys ⁷	Alloys ⁷	Alloys ⁷	Alloys ⁷	
Under 0.047	0.006	—	—	—	Plus and minus 10% of mean wall thickness max. ± 0.060 min. ± 0.010
0.047–0.061	0.007	0.008	0.008	0.010	
0.062–0.077	0.008	0.008	0.009	0.012	
0.078–0.124	0.009	0.009	0.010	0.015	
0.125–0.249	0.009	0.009	0.013	0.020	
0.250–0.374	0.011	0.011	0.016	0.025	
0.375–0.499	—	0.015	0.021	0.035	±0.120
0.500–0.749	—	0.020	0.028	0.045	
0.750–0.999	—	—	0.035	0.055	
1.000–1.499	—	—	0.045	0.065	
1.500–2.000	—	—	—	0.075	
2.001–2.499	—	—	—	0.085	
2.500–2.999	—	—	—	0.095	
3.000–3.499	—	—	—	0.105	
3.500–4.000	—	—	—	0.115	

For all numbered footnotes see top of page 73.

ALUMINUM TOLERANCES

EXTRUDED TUBE TOLERANCES

Footnotes

- ¹ When outside diameter, inside diameter, and wall thickness (or their equivalent dimensions in other than round tube) are all specified, standard tolerances are applicable to any two of these dimensions, but not to all three. When both outside and inside diameters or inside diameter and wall thickness are specified, the tolerance applicable to the specific or calculated O.D. dimension shall also apply to the I.D. dimension.
- ² When a dimension tolerance is specified other than as an equal bilateral tolerance, the value of the standard tolerance is that which would apply to the mean of the maximum and minimum dimensions permissible under the tolerance for the dimension under consideration.
- ³ Mean diameter is the average of two diameter measurements taken at right angles to each other at any point along the length.
- ⁴ Not applicable in the annealed (0) temper or if wall thickness is less than 2-1/2 percent of the outside diameter or equivalent round diameter. The equivalent round diameter is the diameter of a circle having a circumference equal to the perimeter of the tube.
- ⁵ The mean wall thickness of round tube is the average of two measurements taken opposite each other. The mean wall thickness of other-than-round tube is the average of two measurements taken opposite each other at approximate center line of tube and perpendicular to the longitudinal axis of the cross section.
- ⁶ When dimensions specified are outside and inside, rather than wall thickness itself, allowable deviation at any point (eccentricity) applies to mean wall thickness.
- ⁷ Limited to the following alloys: 6005, 6061, 6063, 6101, 6262.