

Tolerances - ASTM A-500

Tolerances	Square & Rectangular Hollow Sections		
	ASTM A-500		
Outside Dimension	Largest Outside Dia. Across Flat in (mm)	Tolerance, plus & minus in (mm)	
	2 1/2 (63.5) and under	0.020 (0.50)	
	Over 2 1/2 to 3 1/2 (63.5 to 88.9), incl	0.025 (0.64)	
	Over 3 1/2 to 5 1/2 (88.9 to 139.7), incl	0.030 (0.76)	
Over 5 1/2 (139.7)	1%		
Thickness	Plus and minus 10% of nominal thickness, exclusive of weld area		
Tolerances of Length	Plus 2 in (50.8mm) and minus zero on ordered lengths. (Please specify if any lighter tolerances is required)		
Out of Roundness	-		
Concavity / Convexity	Shall not exceed the outside dimension tolerance		
Squareness of Size	Adjacent side may deviate from 90 degrees by plus and minus 2 degrees max.		
External Corner Profile	3T (max.)		
Twist	Specified Dia of Longest Side, in (mm)	Max. Twist in 3ft, in	Max. Twist in 1m, mm
	1 1/2 (38.1) and under	0.050	1.390
	Over 1 1/2 to 2 1/2 (38.1 to 63.5), incl	0.062	1.720
	Over 2 1/2 to 4 (63.5 to 101.6), incl	0.075	2.090
	Over 4 to 6 (101.6 to 152.4), incl	0.087	2.420
	Over 6 to 8 (152.4 to 203.2), incl	0.100	2.780
Over 8 (203.2)	0.112	3.110	
Straightness	1/8 in x Total Length in ft 5		
Mass	-		