



‡Length of a step bolt is measured from the underhead bearing surface to the extreme end of the bolt.

STEP BOLTS										ANSI/ASME B18.5	
Nominal Size	E		A		H		O		P		
	Body Diameter		Head Diameter		Head Height		Square Width		Square Depth		
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	
10	0.199	0.182	0.656	0.625	0.114	0.094	0.199	0.185	0.125	0.094	
1/4	0.260	0.237	0.844	0.813	0.145	0.125	0.260	0.245	0.156	0.125	
5/16	0.324	0.298	1.031	1.000	0.176	0.156	0.324	0.307	0.187	0.156	
3/8	0.388	0.360	1.219	1.188	0.208	0.188	0.388	0.368	0.219	0.188	

  

Tolerance on Length	Nominal Bolt Size	Nominal Bolt Length		
		Up to 1 in., incl.	Over 1 in. to 2-1/2 in., incl.	Over 2-1/2 in. to 4 in., incl.
	No. 10 thru 3/8	+0.02, -0.03	+0.02, -0.04	+0.04, -0.06

<b>Description</b>	Similar to a carriage bolt in bearing surface and square-neck design, but with a wider, lower-profile, round head.
<b>Applications/ Advantages</b>	Preferred for use where wood is bolted down as decking--the larger diameter head of the step bolt will not pull through the soft wood. Smooth, low, rounded head permits unrestricted movement over the surface.
<b>Material</b>	AISI 1006 - 1050 or equivalent steel.
<b>Hardness</b>	No. 10 through 3/8 in. diameter, all lengths: Rockwell B70 - B100
<b>Proof Load</b>	No. 10 through 3/8 in. diameter, all lengths: 33,000 psi.
<b>Yield Strength</b>	No. 10 through 3/8 in. diameter, all lengths: 36,000 psi. minimum
<b>Tensile Strength</b>	No. 10 through 3/8 in. diameter, all lengths: 54,000 psi. minimum
<b>Elongation</b>	18% minimum (all sizes)
<b>Reduction of Area</b>	35% minimum (all sizes)
<b>Minimum Thread Length</b>	The minimum length of thread shall be equal to twice the basic bolt diameter plus 0.25 in..
<b>Plating</b>	See Appendix-A for plating information.