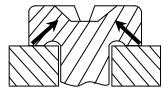


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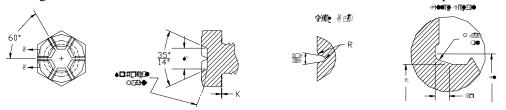
Place Bolts

(Type AA Hex Lock Bolts)

The special head design of Place Bolts is design to provide a "locking" action between the head of the bolt and the material being clamped. The combination of the recess under the head and the slots in the top of the head cause the head to flex as it is tightened. This creates a spring action in the head that provides additional elastic elongation that is not developed by standard hex head cap screws. This spring action provides increased resistance to loosening in high vibration applications.

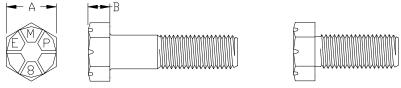


Earnest line of Place Bolts are made to the dimensional requirements of the General Motors standard for Type AA Hex Lock Bolts. The width across the flat dimensions for 5/8 and 3/4 Place Bolts are one wrench size smaller than standard hex head cap screws. This smaller head size can provide added clearance for tight applications. The tolerance on the height of the heads is also different for Place Bolts than standard hex cap screws.



Earnest Machine Products line of Place Bolts are manufactured from alloy steel and are through hardened to the Grade 8 strength level as specified in the Society of Automotive Engineers standard SAE J429

Tensile Strength of 150,000 psi Rockwell Hardness of Rc 33/39.



Comparison of head dimensions between "Place Bolt" and standard "Hex Head Cap Screws"

	A. Width Across Flats						B. Head Height					
Size	Place Bolt		11010	Standard HHCS			Place Bolt			Standard HHCS		
Size	Max	Min		Max	Min		Max	Min		Max	Min	
1/4	.437	.428		.437	.428		.135	.125		.163	.150	
5/16	.500	.489		.500	.489		.198	.188		.211	.195	
3/8	.562	.551		.562	.551		.260	.250		.243	.226	
7/16	.625	.612		.625	.612		.291	.281		.291	.272	
1/2	.750	.736		.750	.736		.327	.312		.323	.302	
5/8	.875	.860		.938	.922		.390	.375		.403	.378	
3/4	1.000	.983		1.125	1.100		.458	.438		.483	.455	