

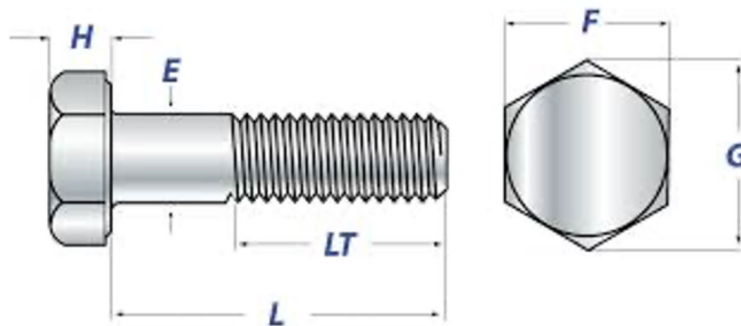


# CONQUEST

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## STRUCTURAL HEAVY HEX HEAD BOLTS INCH SERIES

1.0 DIMENSIONS: ASME B18.2.6.



Nominal Size or Basic Product Diameter	E		F		G		H		LT
	Body Diameter		Width Across Flats		Width Across Corners		Head Height		Thread Length
	Max	Min	Max	Min	Max	Min	Max	Min	Ref
1/2	0.515	0.482	0.875	0.850	1.010	0.969	0.323	0.302	1.00
5/8	0.642	0.605	1.062	1.031	1.227	1.175	0.403	0.378	1.25
3/4	0.768	0.729	1.250	1.212	1.443	1.383	0.483	0.455	1.38
7/8	0.895	0.852	1.438	1.394	1.660	1.589	0.563	0.531	1.50
1	1.022	0.976	1.625	1.575	1.876	1.796	0.627	0.591	1.75
1-1/8	1.149	1.098	1.812	1.756	2.093	2.002	0.718	0.658	2.00
1-1/4	1.277	1.223	2.000	1.938	2.309	2.209	0.813	0.749	2.00
1-3/8	1.404	1.345	2.188	2.119	2.526	2.416	0.878	0.810	2.25
1-1/2	1.531	1.470	2.375	2.300	2.742	2.622	0.974	0.902	2.25

**Notes:** Dimensions of structural bolts are same as that of heavy hex head cap screws. The only difference is that the structural bolts have a longer body length & shorter thread length, when compared to heavy hex head cap screw. Therefore, even though the mechanical properties of SAE J429 grade 5 & 8 are similar to structural grades A325 & A490, a standard heavy hex head cap screws should not be used in place of structural bolts.

Thread Class of Fit: Plain Finish: 2A. Hot Dip Galvanized Finish: 2A before coating.



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## STRUCTURAL HEAVY HEX BOLTS INCH SERIES 2.0 MECHANICAL PROPERTIES (FOR FULL SIZE BOLT TESTING)

### 2.1 Steel Type I

Standard: ASTM F3125/F3125M

Grade	Hardness	Tensile Strength	Proof Load	Grade Marking
A325	Up to 1 Inch : Length less than 2D : HRC 25 to 34. Length 2D and longer : HRC 34 Maximum. Above 1 inch : Length less than 3D : HRC 25 to 34. Length 3D and longer : HRC 34 Maximum.	Minimum 120,000 PSI.	Minimum 85,000 PSI	A325
A490	Up to 1 Inch : Length less than 2D : HRC 33 to 38. Length 2D and longer : HRC 38 Maximum. Above 1 inch : Length less than 3D : HRC 33 to 38. Length 3D and longer : HRC 38 Maximum.	Minimum 150,000 PSI and Maximum 173,000 PSI.	Minimum 120,000 PSI	A490

**Notes:** Bolts will have manufacturer's identification marking in addition to the grade marking mentioned in the Table.

### 3.0 Surface Finish:

**A325:** Plain and Hot Dip Galvanized. Hot Dip Galvanized as per ASTM F2329/F2329M or ASTM A153/A153M. RoHS compliant. Coating thickness for diameters 3/8 " & below : minimum 0.0017" (43 microns) and for diameters above 3/8" " minimum 0.0020" (50 microns).

**A490:** Plain.