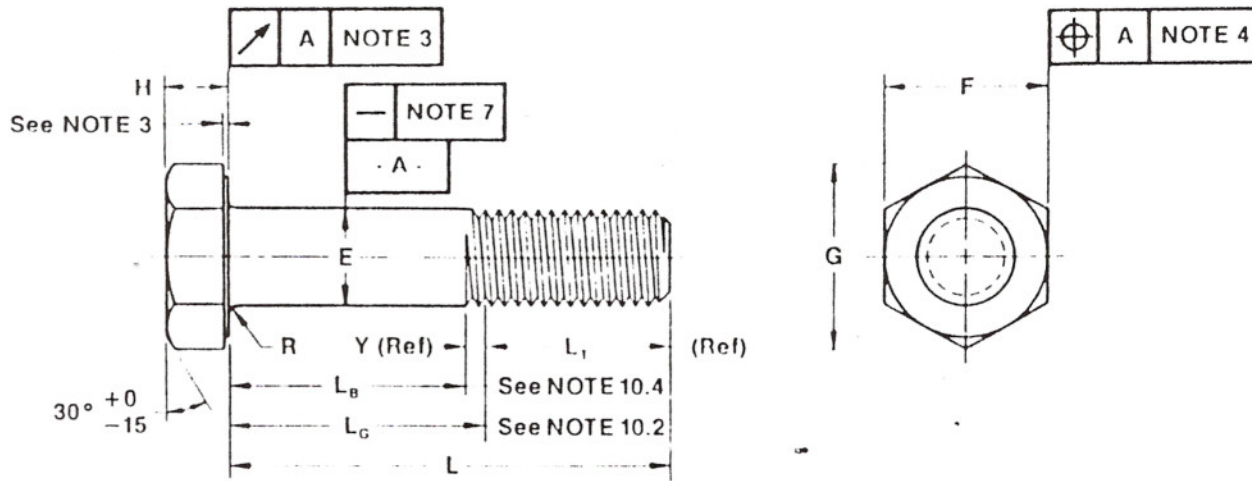


HEAVY HEX STRUCTURAL BOLTS

ANSI/ASME
B18.2.1
1981



Dimensions of Heavy Hex Structural Bolts

Nominal Size or Basic Product Dia	E		F			G		H			R		L_T	Y	Runout of Bearing Surface FIM	
	Body Dia		Width Across Flats			Width Across Corners		Height			Radius of Fillet		Thread Length	Transi- tion Thread Length		
	Max	Min	Basic	Max	Min	Max	Min	Basic	Max	Min	Max	Min	Basic	Max		
1/2	0.5000	0.515	0.482	7/8	0.875	0.850	1.010	0.969	5/16	0.323	0.302	0.031	0.009	1.00	0.19	0.016
5/8	0.6250	0.642	0.605	1-1/16	1.062	1.031	1.227	1.175	25/64	0.403	0.378	0.062	0.021	1.25	0.22	0.019
3/4	0.7500	0.768	0.729	1-1/4	1.250	1.212	1.443	1.387	15/32	0.483	0.455	0.062	0.021	1.38	0.25	0.022
7/8	0.8750	0.895	0.852	1-7/16	1.438	1.394	1.660	1.589	35/64	0.563	0.531	0.062	0.031	1.50	0.28	0.025
1	1.0000	1.022	0.976	1-5/8	1.625	1.575	1.876	1.795	39/64	0.627	0.591	0.093	0.062	1.75	0.31	0.028
1-1/8	1.1250	1.149	1.098	1-13/16	1.812	1.756	2.093	2.002	11/16	0.718	0.658	0.093	0.062	2.00	0.34	0.032
1-1/4	1.2500	1.277	1.223	2	2.000	1.938	2.309	2.209	25/32	0.813	0.749	0.093	0.062	2.00	0.38	0.035
1-3/8	1.3750	1.404	1.345	2-3/16	2.188	2.119	2.526	2.416	27/32	0.878	0.810	0.093	0.062	2.25	0.44	0.038
1-1/2	1.5000	1.531	1.470	2-3/8	2.375	2.300	2.742	2.622	15/16	0.974	0.902	0.093	0.062	2.25	0.44	0.041
See Notes	15, 16	5		2										10.3	10.5	3

Notes for Heavy Hex Structural Bolts:

- 1. Top of Head.** Top of head shall be full form and chamfered or rounded with the diameter of chamfer circle or start of rounding being equal to the maximum width across flats, within a tolerance of minus 15 percent.
- 2. Head Taper.** Maximum width across flats shall not be exceeded. No transverse section through the head between 25 and 75 percent of actual head height as measured from the bearing surface shall be less than the minimum width across flats.

- 3. Bearing Surface.** Bearing surface shall be flat and washer faced. Diameter of bearing surface shall be equal to the maximum width across flats within a tolerance of minus 10 percent.

Thickness of the washer face shall be not less than 0.015 in. nor greater than 0.025 in. for bolt sizes 3/4 in. and smaller and not less than 0.015 in. nor greater than 0.035 in. for sizes larger than 3/4 in.

The plane of the bearing surface shall be perpendicular to the axis of the body within the FIM limits specified. Measurement of FIM shall be made as close to the periphery of the