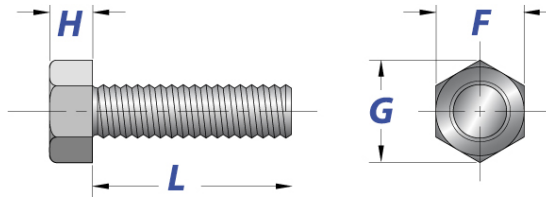


Fully Threaded Hex Tap Bolts: Dimensions & Specifications





Fully Threaded Hex Tap Bolts: Head & Thread Dimensions (ASME B18.2.1-1996)

Nominal or Basic Product Diameter	Width Across Flats (F)			Width Across Corners (G)		Head Height (H)		
	Basic	Max	Min	Max	Min	Basic	Max	Min
1/4	7/16	.438	.428	.505	.488	5/32	.163	.150
5/16	1/2	.500	.489	.577	.557	13/64	.211	.195
3/8	9/16	.562	.551	.650	.628	15/64	.243	.226
7/16	5/8	.625	.612	.722	.698	9/32	.291	.272
1/2	3/4	.750	.736	.866	.840	5/16	.323	.302
9/16	13/16	.812	.798	.938	.910	23/64	.371	.348
5/8	15/16	.938	.922	1.083	1.051	25/64	.403	.378
3/4	1-1/8	1.125	1.100	1.299	1.254	15/32	.483	.455
7/8	1-5/16	1.312	1.269	1.516	1.447	37/64	.604	.531
1	1-1/2	1.500	1.450	1.732	1.653	43/64	.700	.591
1-1/4	1-7/8	1.875	1.812	2.165	2.066	27/32	.876	.749

Fully Threaded Hex Tap Bolts: Tolerance on Length

Nominal Screw Size	Nominal Screw Length				
	Up to 1"	Over 1" - 2-1/2"	Over 2-1/2" - 4"	Over 4" - 6"	Longer than 6"
1/4 - 3/8	-.03	-.04	-.06	-.10	-.18
7/16 & 1/2	-.03	-.06	-.08	-.10	-.18
9/16 - 3/4	-.03	-.08	-.10	-.10	-.18
7/8 and 1	-	-.10	-.14	-.16	-.20
1-1/4	-	-.12	-.16	-.18	-.22

Fully Threaded Hex Tap Bolts: Performance & Mechanical Stats (Grades 2, 5 & 8)

	Grade 2 	Grade 5 	Grade 8 
Description	A low carbon, hex tap bolt with a machined point, which is fully threaded.	A medium carbon steel hex tap bolt with a machined point, which is fully threaded.	A medium carbon alloy steel steel, heat treated, hex tap bolt with a machined point, which is fully threaded.
Applications	Used in drilled and tapped holes which are threaded full length.	Used to mount motors to machinery - also used in automotive and truck repair.	Used in automotive and fleet industries where greater tensile strength is required than can be met by a Grade-5 Hex Tap Bolt.
Material	AISI 1006-1025 or equivalent	AISI 1030-1541 or equivalent medium carbon steel. Alloy 4037 is acceptable.	Medium carbon alloy steel. Diameters 1/4-7/16" AISI 1541 steel is acceptable.
Heat Treatment		Heat treated, oil or water quenched, tempered at 800 Deg (F) min.	Heat treated, oil quenched, tempered at 800 Deg (F) min.
Core Hardness	Rockwell B80-B100	Rockwell C25-C34	Rockwell C33-C39
Surface Hardness		Rockwell 30N54 max	Rockwell 30N58.6 max
Proof Load	55,000 psi	85,000 psi	120,000 psi
Yield Strength	57,000 psi min.	92,000 psi min.	130,000 psi min
Tensile Strength	74,000 psi min.	120,000 psi min	150,000 psi min
Elongation	18% min	14% min	12% min
Reduction of Area	35% min	35% min	35% min