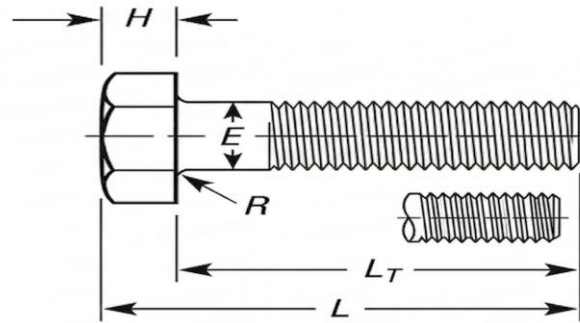
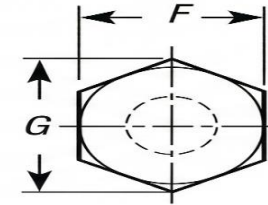


Bolt with
Reduced Diameter
Body



Bolt with
Full-Length Thread



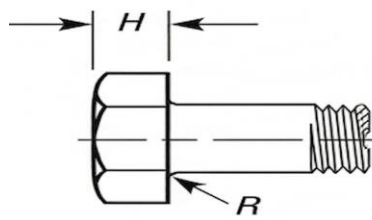
Hex Head

Dimensions of Hex Bolts

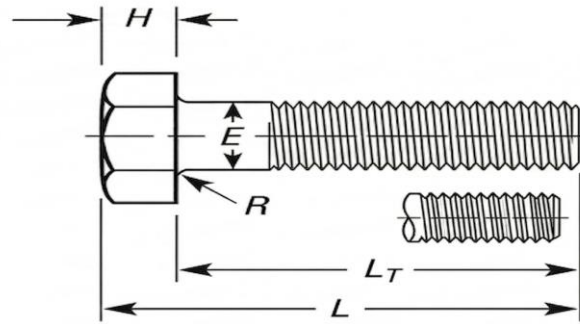
ANSI B 18.2.1-2012

Nominal Size or Basic Product Diameter		E		F			G		H			R		L _T	
		Full-size Body Diameter		Width Across Flats			Width Across Corners		Height			Radius of Fillet		Nominal Thread Length for Bolt Lengths	
		Max.	Min.	Basic	Max.	Min.	Max.	Min.	Basic	Max.	Min.	Max.	Min.	6 in. and Shorter	Over 6 in.
1/4	0.2500	0.260	0.237	7/16	0.438	0.425	0.505	0.484	11/64	0.188	0.150	0.03	0.01	0.750	1.000
5/16	0.3125	0.324	0.298	1/2	0.500	0.484	0.577	0.552	7/32	0.235	0.195	0.03	0.01	0.875	1.125
3/8	0.3750	0.388	0.360	9/16	0.562	0.544	0.650	0.620	1/4	0.268	0.226	0.03	0.01	1.000	1.250
7/16	0.4375	0.452	0.421	5/8	0.625	0.603	0.722	0.687	19/64	0.316	0.272	0.03	0.01	1.125	1.375
1/2	0.5000	0.515	0.482	3/4	0.750	0.725	0.866	0.826	11/32	0.364	0.302	0.03	0.01	1.250	1.500
5/8	0.6250	0.642	0.605	15/16	0.938	0.906	1.083	1.033	27/64	0.444	0.378	0.06	0.02	1.500	1.750
3/4	0.7500	0.768	0.729	1-1/8	1.125	1.088	1.299	1.240	1/2	0.524	0.455	0.06	0.02	1.750	2.000
7/8	0.8750	0.895	0.852	1-5/16	1.312	1.269	1.516	1.447	37/64	0.604	0.531	0.06	0.02	2.000	2.250
1	1.0000	1.022	0.976	1-1/2	1.500	1.450	1.732	1.653	43/64	0.700	0.591	0.09	0.03	2.250	2.500
1-1/8	1.1250	1.149	1.098	1-11/16	1.688	1.631	1.949	1.859	3/4	0.780	0.658	0.09	0.03	2.500	2.750
1-1/4	1.2500	1.277	1.223	1-7/8	1.875	1.812	2.165	2.066	27/32	0.876	0.749	0.09	0.03	2.750	3.000
1-3/8	1.3750	1.404	1.345	2-1/16	2.062	1.994	2.382	2.273	29/32	0.940	0.810	0.09	0.03	3.000	3.250
1-1/2	1.5000	1.531	1.470	2-1/4	2.250	2.175	2.598	2.480	1	1.036	0.902	0.09	0.03	3.250	3.500
1-5/8	1.6250	1.658	1.591	2-7/16	2.438	2.356	2.815	2.616	1-3/32	1.116	0.978	0.09	0.03	3.500	3.750

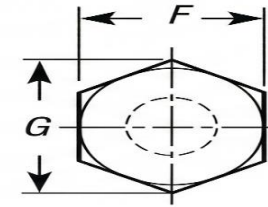
NOTE: ALL DIMENSIONS ARE IN INCHES.



Bolt with
Reduced Diameter
Body



Bolt with
Full-Length Thread



Hex Head

Dimensions of Hex Bolts

ANSI B 18.2.1-2012

Nominal Size or Basic Product Diameter		E		F			G		H			R		L _T	
		Full-size Body Diameter		Width Across Flats			Width Across Corners		Height			Radius of Fillet		Nominal Thread Length for Bolt Lengths	
		Max.	Min.	Basic	Max.	Min.	Max.	Min.	Basic	Max.	Min.	Max.	Min.	6 in. and Shorter	Over 6 in.
1-3/4	1.7500	1.785	1.716	2-5/8	2.625	2.538	3.031	2.893	1-5/32	1.196	1.054	0.12	0.04	3.750	4.000
1-7/8	1.8750	1.912	1.839	2-13/16	2.812	2.719	3.248	3.099	1-1/4	1.276	1.130	0.12	0.04	4.000	4.250
2	2.0000	2.039	1.964	3	3.000	2.900	3.464	3.306	1-11/32	1.388	1.175	0.12	0.04	4.250	4.500
2-1/4	2.2500	2.305	2.214	3-3/8	3.375	3.262	3.897	3.719	1-1/2	1.548	1.327	0.19	0.06	4.750	5.000
2-1/2	2.5000	2.559	2.461	3-3/4	3.750	3.625	4.330	4.133	1-21/32	1.708	1.479	0.19	0.06	5.250	5.500
2-3/4	2.7500	2.827	2.711	4-1/8	4.125	3.988	4.763	4.546	1-13/16	1.869	1.632	0.19	0.06	5.750	6.000
3	3.0000	3.081	2.961	4-1/2	4.500	4.350	5.196	4.959	2	2.060	1.815	0.19	0.06	6.250	6.500
3-1/4	3.2500	3.335	3.210	4-7/8	4.875	4.712	5.629	5.372	2-3/16	2.251	1.936	0.19	0.06	6.750	7.000
3-1/2	3.5000	3.589	3.461	5-1/4	5.250	5.075	6.062	5.786	2-5/16	2.380	2.057	0.19	0.06	7.250	7.500
3-3/4	3.7500	3.858	3.726	5-5/8	5.625	5.437	6.495	6.198	2-1/2	2.572	2.241	0.19	0.06	7.750	8.000
4	4.0000	4.111	3.975	6	6.000	5.800	6.928	6.612	2-11/16	2.764	2.424	0.19	0.06	8.250	8.500

NOTE: ALL DIMENSIONS ARE IN INCHES.