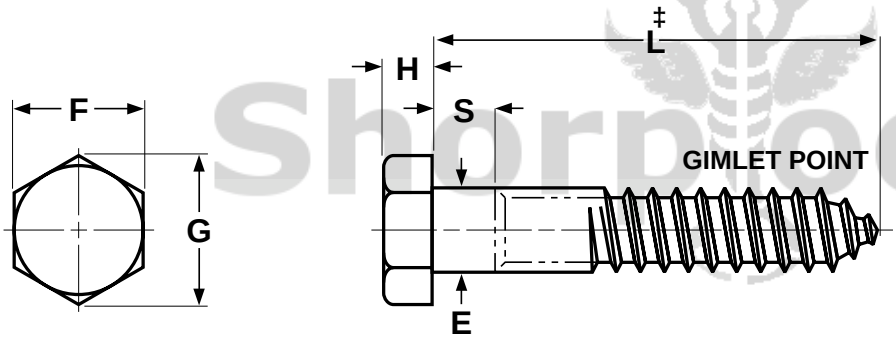


Hex Lag Screws

ASME B18.2.1-1996

Basic Product Diameter		Threads Per Inch	E		F			G		H			S
			Body or Shoulder Diameter		Width Across Flats			Width Across Corners		Head Height			Shoulder Length
			Max	Min	Basic	Max	Min	Max	Min	Basic	Max	Min	Min
No. 10	0.1900	11	0.199	0.178	9/32	0.281	0.271	0.323	0.309	1/8	0.140	0.110	0.094
1/4	0.2500	10	0.260	0.237	7/16	0.438	0.425	0.505	0.484	11/64	0.188	0.150	0.094
5/16	0.3125	9	0.324	0.298	1/2	0.500	0.484	0.577	0.552	7/32	0.235	0.195	0.125
3/8	0.3750	7	0.388	0.360	9/16	0.562	0.544	0.650	0.620	1/4	0.268	0.226	0.125
7/16	0.4375	7	0.452	0.421	5/8	0.625	0.603	0.722	0.687	19/64	0.316	0.272	0.156
1/2	0.5000	6	0.515	0.482	3/4	0.750	0.725	0.866	0.826	11/32	0.364	0.302	0.156
5/8	0.6250	5	0.642	0.605	15/16	0.938	0.906	1.083	1.033	27/64	0.444	0.378	0.312
3/4	0.7500	4-1/2	0.768	0.729	1-1/8	1.125	1.088	1.299	1.240	1/2	0.524	0.455	0.375
7/8	0.8750	4	0.895	0.852	1-5/16	1.312	1.269	1.516	1.447	37/64	0.604	0.531	0.375

Tolerance on Length	Nominal Screw Size	Nominal Screw Length	
		Thru 6 in.	Over 6 in.
	1/2 and smaller	±0.12	±0.25
	Over 1/2	±0.25	±0.25

‡Length of a lag screw is measured from the underhead bearing surface to the extreme end of the screw.

Description	A full-bodied bolt with hex head, spaced threads and a gimlet point.
Applications/ Advantages	**Steel, Electro-plated Zinc:** For use in wood in non-corrosive environments. **Steel, Hot-Dip Galvanized:** For use in corrosive environments. **Stainless:** Has superior corrosion resistance to galvanized steel bolts.
Material	**Steel:** AISI 1006 - 1022 or equivalent steel. **Stainless:** 18-8 stainless.
Heat Treatment	**Stainless:** The austenitic alloys develop their strength through work hardening during the fastener manufacturing process, as seen from the hardness properties below. The only heat treatment normally available on austenitic stainless alloys is annealing, which is done at approximately 1900°F to a dead soft condition and is not normally thermally reversible.
Hardness	**Steel:** Rockwell B70 - B100. **Stainless:** 1/4 through 1/2 in. diameter-- Rockwell B95 - C32.
Tensile Strength	**Steel:** 60,000 psi. minimum **Stainless:** 100,000 - 125,000 psi. (approximate)
Minimum Thread Length	The minimum length of thread shall be equal to 1/2 the nominal screw length plus 0.50 in., or 5.00 in., whichever is shorter. Screws too short for this formula shall be threaded as close to the head as practicable.
Plating	See Appendix-A for information on the plating of steel lag bolts.