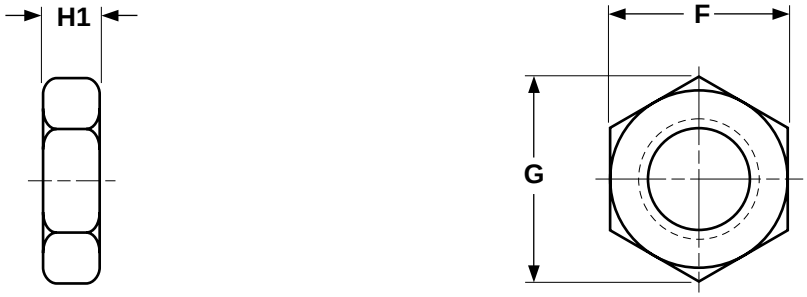
Nuts — *Hex Jam* — Steel & Stainless



Hex Jam Nuts

ANSI/ASME B18.2.2-1987

Nominal or Basic Major Diameter of Thread		F			G		H1		
		Width Across Flats			Width Across Corners		Thickness of Hex Jam Nuts		
		Basic	Max	Min	Max	Min	Basic	Max	Min
1/4	0.2500	7/16	0.438	0.428	0.505	0.488	5/32	0.163	0.150
5/16	0.3125	1/2	0.500	0.489	0.577	0.557	3/16	0.195	0.180
3/8	0.3750	9/16	0.562	0.551	0.650	0.628	7/32	0.227	0.210
7/16	0.4375	11/16	0.688	0.675	0.794	0.768	1/4	0.260	0.240
1/2	0.5000	3/4	0.750	0.736	0.866	0.840	5/16	0.323	0.302
9/16	0.5625	7/8	0.875	0.861	1.010	0.982	5/16	0.324	0.301
5/8	0.6250	15/16	0.938	0.922	1.083	1.051	3/8	0.387	0.363
3/4	0.7500	1-1/8	1.125	1.088	1.299	1.240	27/64	0.446	0.398
7/8	0.8750	1-5/16	1.312	1.269	1.516	1.447	31/64	0.510	0.458
1	1.0000	1-1/2	1.500	1.450	1.732	1.653	35/64	0.575	0.519
1-1/8	1.1250	1-11/16	1.688	1.631	1.949	1.859	39/64	0.639	0.579
1-1/4	1.2500	1-7/8	1.875	1.812	2.165	2.066	23/32	0.751	0.687
1-3/8	1.3750	2-1/16	2.062	1.994	2.382	2.273	25/32	0.815	0.747
1-1/2	1.5000	2-1/4	2.250	2.175	2.598	2.480	27/32	0.880	0.808
1-3/4	1.7500	2-5/8	2.625	2.538	3.031	2.893	31/32	1.009	0.929
2	2.0000	3	3.000	2.900	3.464	3.306	1-3/32	1.138	1.050
2-1/4	2.2500	3-1/2	3.500	3.388	4.041	3.862	1-13/64	1.251	1.155
2-1/2	2.5000	3-7/8	3.875	3.750	4.474	4.275	1-29/64	1.505	1.401

Description	A six-sided internally threaded fastener which is only 2/3 the thickness of a full form nut.
Applications/ Advantages	Jam nuts are tightened against the work surface and a finished or heavy hex nut is tightened against the jam nut to keep it from loosening.
Material	**Steel:** Nuts shall be made from a low carbon steel which conforms to the following chemical composition requirements-- *Carbon:* 0.47% maximum; *Phosphorus:* 0.12% maximum; *Sulfur:* 0.23% maximum. **Stainless:** Nuts shall be made from one of the following austenitic alloys: 303, 303Se, 304, XM7, all of which have a chromium content of 18% and a nickel content of 8%.
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.
Core Hardness	**Steel:** Rockwell B68 - C32 **Stainless:** Rockwell B95 - C32
Proof Load	**Steel:** Coarse thread-- 54,000 psi.; Fine thread-- 48,000 psi. **Stainless:** 1/4 through 1/2"-- 60,000 psi.
Plating	See Appendix-A for information about the plating of steel jam nuts.