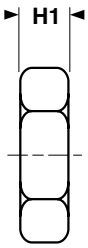
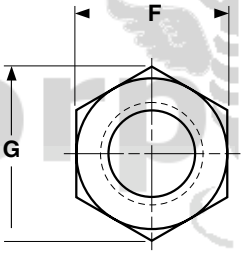
Nuts

Hex Jam

Steel: Grades 2, 5, 8 & 18-8 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	***Low Carbon***	***Grade-5***	***Grade-8***	***Stainless***
	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.	Nuts shall be made from a medium carbon steel which conforms to the following chemical composition requirements-- ***Carbon***: 0.55% maximum; ***Manganese***: 0.30% minimum; ***Phosphorus***: 0.05% maximum; ***Sulfur***: 0.15% maximum.	Nuts shall be made from a high alloy steel which conforms to the following chemical composition requirements-- ***Carbon***: 0.55% maximum; ***Manganese***: 0.30% minimum; ***Phosphorus***: 0.04% maximum; ***Sulfur***: 0.05% maximum.	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%.
Core Hardness	***1/4 thru 1-1/2":*** Rockwell C32 maximum	***1/4 thru 1-1/2":*** Rockwell C32 maximum	***1/4 thru 5/8":*** Rockwell C24-32 ***Over 5/8 thru 1":*** Rockwell C26-34 ***Over 1 thru 1-1/2":*** Rockwell C26-36	Rockwell B95 - C32
Proof Load	***Coarse thread:*** 54,000 psi.; ***Fine thread:*** 48,000 psi.	***Coarse, 1/4 thru 1":*** 72,000 psi. ***Coarse, over 1 thru 1-1/2":*** 63,000 psi. ***Fine, 1/4 thru 1":*** 65,000 psi. ***Fine, over 1 thru 1-1/2":*** 57,000 psi.	90,000 psi.	1/4 through 1/2"-- 60,000 psi.
Plating	See Appendix-A for information about the plating of steel jam nuts.			