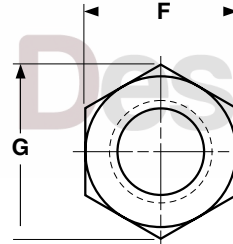


# Nuts

# Hex Jam

Steel: Grades 2, 5, 8  
& 18-8 Stainless



Fasteners By Design Inc.

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	

<b>Description</b>	A six-sided internally threaded fastener which is only 2/3 the thickness of a full form nut.			
<b>Applications/Advantages</b>	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.			
<b>Material</b>	<i>Low Carbon</i>	<i>Grade-5</i>	<i>Grade-8</i>	<i>Stainless</i>
	Nuts shall be made from a low carbon steel which conforms to the following chemical composition requirements-- <b>Carbon:</b> 0.47% maximum; <b>Phosphorus:</b> 0.12% maximum; <b>Sulfur:</b> 0.23% maximum.	Nuts shall be made from a medium carbon steel which conforms to the following chemical composition requirements-- <b>Carbon:</b> 0.55% maximum; <b>Manganese:</b> 0.30% minimum; <b>Phosphorus:</b> 0.05% maximum; <b>Sulfur:</b> 0.15% maximum.	Nuts shall be made from a high alloy steel which conforms to the following chemical composition requirements-- <b>Carbon:</b> 0.55% maximum; <b>Manganese:</b> 0.30% minimum; <b>Phosphorus:</b> 0.04% maximum; <b>Sulfur:</b> 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%.
<b>Core Hardness</b>	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
<b>Proof Load</b>	<b>Coarse thread:</b> 54,000 psi.; <b>Fine thread:</b> 48,000 psi.	<b>Coarse, 1/4 thru 1":</b> 72,000 psi. <b>Coarse, over 1 thru 1-1/2":</b> 63,000 psi. <b>Fine, 1/4 thru 1":</b> 65,000 psi. <b>Fine, over 1 thru 1-1/2":</b> 57,000 psi.	90,000 psi.	1/4 through 1/2"-- 60,000 psi.
<b>Plating</b>	See Appendix-A for information about the plating of steel jam nuts.			