



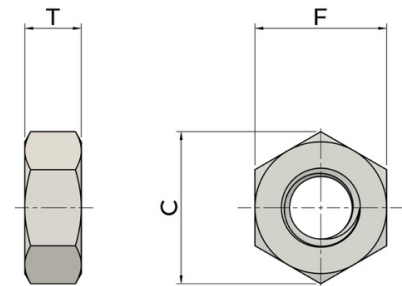
PRODUCT DATA SHEET

USA/CA: brightonBEST.com Europe: brightonBEST.org AU: brightonBEST.com.au NZ: brightonBEST.co.nz Brazil: brightonBEST.com.br

Heavy Hex Nuts – Inch Series

1.0 Dimensions: As Per ASME B18.2.2.

Nominal Size or Basic Major Diameter of Thread	F		C		T	
	Width Across Flats		Width Across Corners		Thickness	
	Max	Min	Max	Min	Max	Min
1/4	0.500	0.488	0.577	0.556	0.250	0.218
5/16	0.562	0.546	0.650	0.622	0.314	0.280
3/8	0.688	0.669	0.794	0.763	0.377	0.341
7/16	0.750	0.728	0.866	0.830	0.441	0.403
1/2	0.875	0.850	1.010	0.969	0.504	0.464
9/16	0.938	0.909	1.083	1.037	0.568	0.526
5/8	1.062	1.031	1.227	1.175	0.631	0.587
3/4	1.250	1.212	1.443	1.382	0.758	0.710
7/8	1.438	1.394	1.660	1.589	0.885	0.833
1	1.625	1.575	1.876	1.796	1.012	0.956
1-1/8	1.812	1.756	2.093	2.002	1.139	1.079
1-1/4	2.000	1.938	2.309	2.209	1.251	1.187
1-3/8	2.188	2.119	2.526	2.416	1.378	1.310
1-1/2	2.375	2.300	2.742	2.622	1.505	1.433
1-5/8	2.562	2.481	2.959	2.828	1.632	1.556
1-3/4	2.750	2.662	3.175	3.035	1.759	1.679
1-7/8	2.938	2.844	3.392	3.242	1.886	1.802
2	3.125	3.025	3.608	3.449	2.013	1.925
2-1/4	3.500	3.388	4.041	3.862	2.251	2.155
2-1/2	3.875	3.750	4.474	4.275	2.505	2.401
2-3/4	4.250	4.112	4.907	4.688	2.759	2.647
3	4.625	4.475	5.340	5.102	3.013	2.893
3-1/4	5.000	4.838	5.774	5.515	3.252	3.124
3-1/2	5.375	5.200	6.207	5.928	3.506	3.370
3-3/4	5.750	5.562	6.640	6.341	3.760	3.616
4	6.125	5.925	7.073	6.755	4.014	3.862



Notes : Thread Class Of Fit : Plain and Zinc plated : 2B. Hot Dip Galvanized (HDG) : Over size tapped. Checked with special over size plug gage or HDG mating bolts.



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2.0 Difference Between Hex Nut and Heavy Hex Nuts

The dimensions like width across flats, width across corners and nut thickness are larger for heavy hex nuts, when compared to hex nuts.

3.0 Mechanical Properties

3.1 Steel

1KSI = 1000 PSI

Grade ↙ Feature →	A		C		DH		2H		
Standard	ASTM A563		ASTM A563		ASTM A563		ASTM A194 / A194M or ASME SA-194/SA-194M		
Hardness Rockwell	Min	Max	Min	Max	Min	Max	Sizes 1-1/2" including		Sizes Over 1-1/2"
	B68	C32	B78	C38	C24	C38	Min C24	Max C35	Max C35
Proof Load Strength	Plain & Zinc Plated UNC,8UN,6UN & Coarser Pitch Threads: 100 KSI or 100,000 PSI UNF,12UN & Finer Pitch Threads: 90 KSI or 90,000 PSI	Hot Dip Galvanized UNC,8UN,6UN & Coarser Pitch Threads: 75 KSI or 75,000 PSI UNF,12UN & Finer Pitch Threads: 68 KSI or 68,000 PSI	All Finishes 144 KSI or 144,000 PSI		Plain & Zinc Plated 175 KSI or 175,000 PSI	Hot Dip Galvanized 150 KSI or 150,000 PSI	Plain & Zinc Plated 175 KSI or 175,000 PSI		Hot Dip Galvanized 150 KSI or 150,000 PSI
Grade Marking	A		C		DH		Plain : 2H Zinc Plated & Hot Dip Galvanized: 2H ZN.		

Notes: The nuts will also have manufacturer's marking on the head in addition to the grade marking as mentioned in the table.



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3.2 Stainless Steel – ASTM F594

Classification		Condition	Proof Load Strength KSI	Rockwell Hardness	Grade Marking
Type	Nominal Size				
18-8	1/4 to 5/8 incl	CW1	108 Minimum	B95 to C35	F594C
	3/4 to 1 -1/2 incl	CW2	92 Minimum	B80 to C35	F594D
316	1/4 to 5/8 incl	CW1	108 Minimum	B95 to C35	F594G
	3/4 to 1 -1/2 incl	CW2	92 Minimum	B80 to C35	F594H

Notes: The nuts will also have manufacturer’s marking on the head in addition to the grade marking as mentioned in the table. Nuts will be Passivated.

4.0 Surface Finish: Plain/Zinc/HDG. Zinc & HDG details given in table below:

Properties	Zinc	Zinc Yellow	Hot Dip Galvanized
Type	Trivalent (Cr+3)	Hexavalent (Cr+6)	RoHS Compliant
Color	Clear	Yellow	
Minimum Coating Thickness	0.0001”/3 Microns or 0.0002”/5 Microns	0.0001”/3 Microns or 0.0002”/5 Microns	Sizes 3/8” & Under : 0.0017” (43 microns) Sizes Over 3/8 “ 0.0020” (50 Microns)
Specification	ASTM F1941/F1941M Fe/Zn 3AN or Fe/Zn 5AN	ASTM F1941/F1941M Fe/Zn 3C or Fe/Zn 5C	ASTM F2329/F2329M or ASTM A153/A153M

Notes:

- 1) Hot Dip Galvanized nuts may be supplied with wax & colored dye. Wax is colorless and the colored dye is only a pigment added to the wax, to visually indicate that the nuts have gone through waxing process.
- 2) Hot Dip Galvanized nuts are tapped oversize after the galvanizing process is carried out. This is done to accommodate the thick hot dip galvanizing coating on the mating bolts. The oversize tapping allowance followed, is as per ASTM A563 standard.