



Standard Part

Hex Nuts – Flange, Inch, ZND, Grade 5, Non-Preferred

STPE160

87366956

Rev M

Page 1 of 4

1. SCOPE

The fasteners defined by this specification are non-preferred Flange Hex Nuts grade 5 with coarse (UNC) threads.

When a standard is referenced in a drawing or specification, it is understood that the reference is to the latest revision of the standard, unless stated otherwise.

2. PART DESCRIPTION

Typical part description for CAD drawings and BOM's entered by Standards:

NUT, FLANGE 1/2-13 GR5 PLN

For cross-reference listing of company part numbers, go to CNH Catalogue.

3. RELATED DOCUMENTS

3.1 REFERENCE STANDARDS

CNH STPA020—Fastener Finishes and Material Specifications

CNH MAT0310—Zinc Plating

ANSI/ASME B1.1—Unified Inch Screw Threads

ANSI/ASME B18.2.2—Nuts for General Applications: Hex Flange Nuts

IFI 145—Hex Flange nuts and Large Hex Flange Nuts

SAE J122—Surface Discontinuities on Nuts

SAE J995—Mechanical and Material Requirements for Steel Nuts

3.2 REPLACED STANDARDS

Case E-100—Hex Flange Nuts General Specification

Case E-101—Hex Flange Nuts Non-Preferred

NH FNHA-1-B-360.00—Hex Flange Nuts, Grade 5, ZnCr Plated, Coarse Threads

4. REQUIREMENTS

4.1 MATERIAL

Material per CNH STPA020. Steel hex Nuts, grade 5 shall be marked according to SAE J995.

4.2 PREFERRED PARTS POLICY

Steel hex nuts, grade 2 are NOT recommended for new designs.

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4.3 MECHANICAL DIMENSIONS

Hex Nut thread geometry shall conform to IFI 145 or ANSI/ASME B18.2.2 (see below Tables 1 and 2).

4.4 SURFACE DISCONTINUITIES

All products under this specification shall be free from burrs, seams, laps, loose scale, irregular surfaces and any defects affecting their serviceability per SAE J122 (Surface Discontinuities on Nuts).

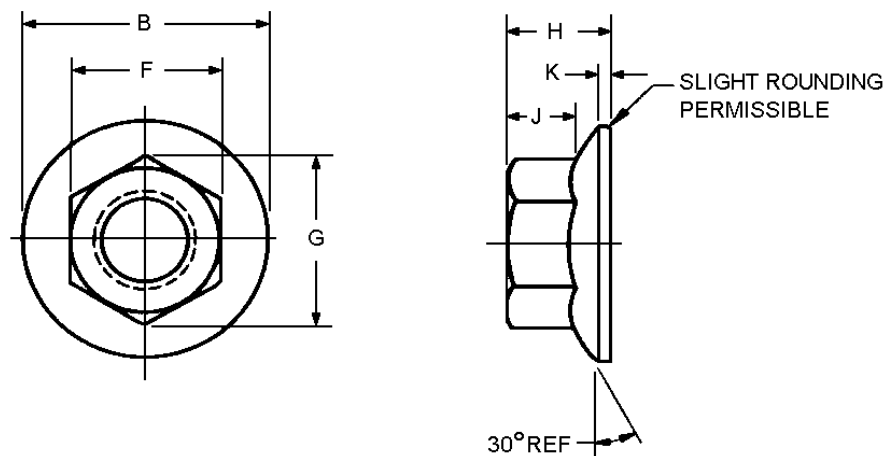


Table 1a. General Dimensions – Hex Flange Nuts (Inch)

Nominal Size		1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8*
		.25	.312	.375	.4375	.50	.625	.75	0.875
Proof Load – lb.		3,800	6,300	9,300	---	17,000	27,100	---	---
Tensile Strength Area – sq. in.		.0318	.0524	.0775	---	.1419	.226	---	---
Width Across Flats - F	Max	.438	.500	.562	.688	.750	.938	1.125	1.312
	Min	.428	.489	.551	.675	.736	.922	1.088	1.269
Width Across Corners - G	Max	.505	.577	.650	.794	.866	1.083	1.299	1.516
	Min	.488	.557	.628	.768	.840	1.051	1.240	1.465
Flange Diameter - B	Max	.594	.680	.750	.937	1.031	1.281	1.500	1.750
	Min	.574	.660	.728	.91	1.000	1.248	1.460	1.700
Thickness - H	Max	.236	.283	.347	.395	.458	.569	.675	0.787
	Min	.222	.268	.330	.375	.437	.545	.627	0.737
Wrenching Length - J	Max	.14	.17	.23	.26	.31	.40	.46	---
Flange Thickness -K	Min	.04	.04	.04	.04	.05	.05	.06	.10

* 7/8 is non-standard size but are available commercially.



Standard Part

Hex Nuts – Flange, Inch, ZND, Grade 5, Non-Preferred

STPE160
87366956
Rev M
Page 3 of 4

Table 1b. General Dimensions – Large Hex Flange Nuts (Inch)

Nominal Size		#1/2	#5/8
		.50	.625
Proof Load – lb.		---	---
Tensile Strength Area – sq. in.		---	---
Width Across Flats - F	Max	.750	.938
	Min	.736	.922
Width Across Corners - G	Max	.866	1.083
	Min	.840	1.051
Flange Diameter - B	Max	1.205	1.360
	Min	1.175	1.280
Thickness - H	Max	.515	.640
	Min	.485	.600
Wrenching Length - J	Max	.29	.42
Flange Thickness -K	Min	.06	.06

Large Flange



Standard Part

Hex Nuts – Flange, Inch, ZND, Grade 5, Non-Preferred

STPE160
87366956
Rev M
Page 4 of 4

Table 2. Hex Flange Nuts (Inch), Grades 5 and 8, Non-Preferred

Nominal Diameter	Threads per Inch	Material	Nut Finish			
			DOR	PHC	ZND	PLN
1/4	20	5			86624020	
1/4	20	SST				47798956
5/16	18	5	87343913		86521605	
5/16	24&	5			47529032	
3/8	16	5	87343914		86521606	
3/8	16	8	51695464	87779095		
7/16	14	8	51695465			
1/2	13	5	87343922		86521607	
1/2	13	8	87343924		86544265	
#1/2	13	8			84479321	
#1/2	20&	5			48102095	
5/8	11	5			86521608	
5/8	11	8	51695463		87303346	
5/8	18&	5			87010568	
5/8	18&	8			280569	
#5/8	11	5			92172258	
3/4	10	5			86511835	
3/4	10	8			84490435	
3/4	16&	8			9790660	
7/8	14&	8			47655317	

Large Flange
& Fine Pitch UNF-2B