THE NUTTY COMPANY INC
FASTENER SPECIALISTS SINCE 1977

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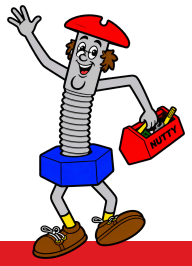
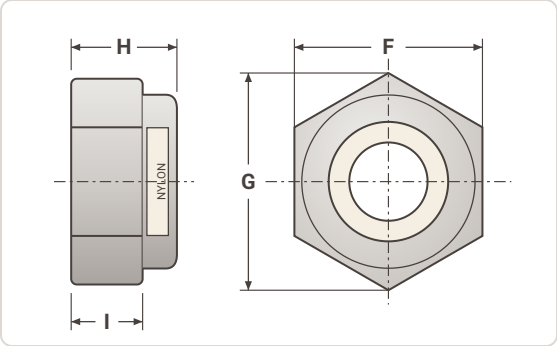


PRODUCT DATA SHEET

Nylon Insert Lock Nuts – Inch Series

1.0 Dimensions As per ASME B18.16.6 (inches)



- **Also known as:** Nylocs, nylon lock nuts or aircraft nuts.
- **Dimensions:** as per ASME B18.16.6 (style NM #2–#10, style NE 1/4"–1-1/2").
- **How it locks:** a nylon ring in the top of the nut grips the bolt threads and resists loosening from vibration.
- **F** = across flats **H** = overall thickness **I** = hex side height **G** = across corners
- **Stocked in:** Grade 2 zinc plated, Grade 8 yellow zinc plated and 18-8 stainless steel.

Nominal Size	F – Width Across Flats			H – Thickness		I – Side Height	G – Across Corners	Stocked Thread Series		
	Basic	Max	Min	Max	Min	Ref	Ref	Gr 2 Zinc	Gr 8 Yellow	Stainless
#2	1/4	0.251	0.243	0.153	0.133	0.081	0.268	UNC	–	UNC
#4	1/4	0.251	0.243	0.153	0.133	0.081	0.268	UNC	–	UNC
#5	1/4	0.251	0.243	0.153	0.133	0.081	0.268	–	–	–
#6	5/16	0.313	0.305	0.188	0.168	0.103	0.339	UNC	–	UNC
#8	11/32	0.345	0.336	0.239	0.219	0.140	0.374	UNC	–	UNC
#10	3/8	0.376	0.367	0.249	0.229	0.140	0.410	UNC / UNF	–	UNC / UNF
1/4	7/16	0.439	0.430	0.328	0.298	0.225	0.482	UNC / UNF	UNC / UNF	UNC / UNF
5/16	1/2	0.502	0.492	0.359	0.329	0.250	0.552	UNC / UNF	UNC / UNF	UNC / UNF
3/8	9/16	0.564	0.553	0.468	0.438	0.335	0.622	UNC / UNF	UNC / UNF	UNC / UNF
7/16	5/8	0.627	0.616	0.468	0.438	0.324	0.698	UNC / UNF	UNC / UNF	UNC / UNF
1/2	3/4	0.752	0.741	0.609	0.579	0.464	0.837	UNC / UNF	UNC / UNF	UNC / UNF
9/16	7/8	0.877	0.865	0.656	0.626	0.469	0.978	UNC / UNF	UNC / UNF	–
5/8	15/16	0.940	0.928	0.765	0.735	0.593	1.051	UNC / UNF	UNC / UNF	UNC / UNF
3/4	1-1/16	1.064	1.052	0.890	0.860	0.742	1.191	UNC / UNF	UNC / UNF	UNC / UNF
7/8	1-1/4	1.252	1.239	0.999	0.969	0.790	1.403	UNC / UNF	UNC / UNF	UNC / UNF
1	1-7/16	1.440	1.427	1.078	1.016	0.825	1.615	UNC / UNF	UNC / UNF	UNC / UNF
1-1/8	1-5/8	1.627	1.614	1.203	1.141	0.930	1.826	UNC / UNF	UNC	UNC
1-1/4	1-13/16	1.815	1.801	1.422	1.360	1.125	2.038	UNC / UNF	UNC	UNC
1-3/8	2	2.008	1.973	1.609	1.547	1.282	–	UNC / UNF	–	–
1-1/2	2-3/16	2.197	2.159	1.640	1.578	1.313	2.444	UNC / UNF	UNC	UNC

Dimensions in inches. #12-24 is also stocked in Grade 2 zinc and stainless. Sizes without a stocked thread series are available on request – call or email for pricing.

2.0 Material & Mechanical Properties

Property	Grade 2 – Zinc Plated	Grade 8 – Yellow Zinc Plated	18-8 Stainless Steel
Nut body material	Low carbon steel	Medium carbon alloy steel, heat treated	18-8 (304) stainless steel
Specification	ASME B18.16.6	ASME B18.16.6	ASTM F594 Group 1, condition CW Dimensions per ASME B18.16.6
Hardness	Per ASME B18.16.6	Per ASME B18.16.6	Rockwell B95 to C35
Locking insert	Nylon 6/6 ring	Nylon 6/6 ring	Nylon 6/6 ring
Thread class of fit	2B (UNC / UNF)	2B (UNC / UNF)	2B (UNC / UNF)

APPLICATION NOTES

- Service temperature: nylon insert nuts are rated from -58°F to 248°F (-50°C to +120°C). For higher temperatures use an all-metal prevailing torque (Stover) lock nut.
- The bolt or stud should extend at least 1 to 2 full threads past the nut so the nylon insert fully engages the threads.
- Locking torque drops each time the nut is removed. For critical joints, replace nylon insert lock nuts rather than reusing them.
- Stainless steel nuts on stainless bolts can gall (seize) when tightened quickly. Tighten at a slow, even speed.

GRADE 2 ZINC PLATED

GRADE 8 YELLOW ZINC

18-8 STAINLESS STEEL

3.0 Surface Finish Zinc / Yellow Zinc / Stainless

Properties	Zinc (Grade 2)	Yellow Zinc (Grade 8)	Stainless Steel (18-8)
Type	Trivalent (Cr+3)	Hexavalent (Cr+6) or Trivalent (Cr+3)	Plain – no coating
Color	Clear	Yellow	Natural stainless
Minimum Coating Thickness	0.0001" / 3 microns or 0.0002" / 5 microns	0.0001" / 3 microns or 0.0002" / 5 microns	–
Specification	ASTM F1941/F1941M Fe/Zn 3AN or Fe/Zn 5AN	ASTM F1941/F1941M Fe/Zn 3C or Fe/Zn 5C	ASTM F594 Group 1

Disclaimer: The above is a compilation of data from various industry standards. The Nutty Company, Inc. has made every effort to present the data accurately. However, The Nutty Company, Inc. cannot be held liable for any claim traceable to any errors, typographical or otherwise, contained herein.

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