

Earnest Technical Bulletin

Nylon Insert Lock Nuts

Heavy Hex - NU Series

Earnest Machine Products line of NU Nylon Insert Lock Nuts are manufactured from carbon steel with dimensions that are comparable to heavy hex nuts. The locking ring is made from polyamide (nylon) to ensure that the locking feature is maintained in a wide variety of severe service conditions. The physical characteristics of nylon make it an excellent choice as self-locking material. The combination of its tensile strength, elastic recovery, chemical resistance, temperature resistance and impact resistance enables nylon insert lock nuts to resist vibrations and impact forces while maintaining the applied preload on the fastener.

When the mating bolt is inserted into the nylon insert, the threads compress the nylon. The elastic properties of the nylon then cause the nylon to flow into the threads creating a locking action a full 360° around the thread. This full engagement of the threads by the nylon material provides a dampening effect when subjected to impact loading.

Physical Properties of Nylon 6/6:

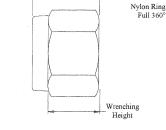
Operating Temperature: 250° F Chemicals that nylon is resistance to:

Organic Acids Solvents
Oil Organic Salts
Caustics Mineral Salts

Nylon Ring
Full 360°

Cross Sectional View





Size	Width Across Flats	Thickness	Wrenching
	(Nom)	(Max)	Height (ref)
1/4"	1/2	.390	.290
5/16"	9/16	.453	.335
3/8"	11/16	.562	.392
7/16"	3/4	.609	.464
1/2"	7/8	.718	.544
9/16"	15/16	.812	.655
5/8"	1 1/16	.874	.677
3/4"	1 1/4	1.015	.790
7/8"	1 7/16	1.140	.883
1"	1 5/8	1.312	1.000
1 1/8"	1 13/16	1.469	1.096
1 1/4"	2	1.672	1.250
1 3/8"	2 3/16	1.828	1.376
1 1/2"	2 3/8	2.023	1.413
1 3/4"	2 3/4	2.344	1.830
2"	3 1/8	2.437	1.750
2 1/4"	3 1/2	2.844	2.063
2 1/2"	4	3.172	2.475
2 3/4"	4	3.156	2.350
3"	4 5/8	3 704	2.750