

# Drake Style Lock Nuts

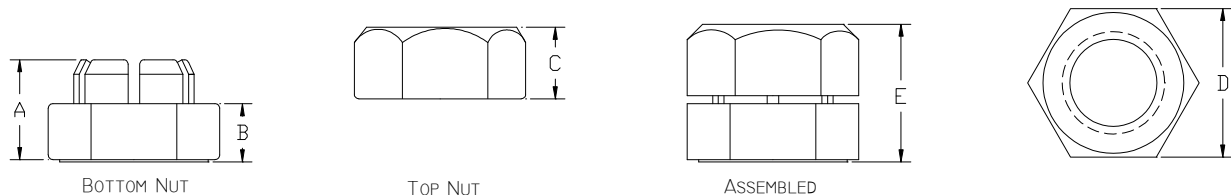
The Drake lock nut is a two piece free spinning lock nut that can be positioned anywhere along the length of the threaded part and then locked into place. It can also be installed by initially tightening into place the bottom portion of the nut (portion that looks like a castle nut), developing the desired clamp load on the bolt or stud, and the top nut is then assembled onto the bottom nut to lock the nut to the thread. This special two piece design provides superior holding power as compared to “prevailing torque” style lock nuts in high vibration applications.

The Drake Nut is designed to be used on threaded fasteners up to 125,000 psi in tensile strength (ASTM A193 B7 Threaded Rod and SAE J429 Grade 5 Cap Screws or Studs).

The Drake Nut’s proprietary two piece design and its heat treated carbon steel material develops clamping loads similar to the same size of a Grade 5 jam nut. The wedging action that is developed when the top nut is tightened down onto the bottom nuts develops greater prevailing torque than are developed by standard lock nut designs.

The flexible slotted crown of the lower nut is compressed inwards toward the axis of the bolt by tightening the upper nut, thus clamping the lower nut to the bolt. The two halves of the nut are not drawn completely together; the main contact area between the two halves is on their mating beveled surfaces. This prevents the overheating and galling that occurs with standard lock nuts and makes this style nut reusable.

The Drake Nut is ideal for use in applications requiring high vibration resistance such as stationary power plant engines, diesel engine and many other applications.



Size	Thickness (Bottom Nut)	Hex Thickness (Bottom Nut)	Thickness (Top Nut)	Width Across Flats	Total Thickness (when assembled)	Torque Bottom Nut		Torque Top Nut	
	A	B	C	D	E	in-lb	ft-lb	in-lb	ft-lb
1/4 – 28	.250	.125	.200	7/16	.450	66	5.5	33	2.7
5/16 – 24	.300	.150	.250	1/2	.500	132	11	66	5.5
3/8 – 24	.350	.170	.280	9/16	.550	234	19.5	117	9.7
7/16 – 20	.400	.225	.340	5/8	.625	372	31	136	11.3
1/2 – 20	.500	.280	.350	3/4	.700	570	47.5	235	19.6
5/8 – 18	.600	.330	.450	7/8	.875	1140	95	520	43.3
3/4 – 16	.750	.425	.540	1 1/16	1.088	1980	165	990	82.5
7/8 - 14	.875	.510	.640	1 1/4	1.400	3180	265	1590	132.5

The torques listed in the above table are intended for use on male threads that have a minimum tensile strength of 120,000 psi and a yield strength of at least 85,000 psi. For lower strength studs (low carbon steel, grade 2, A307, etc) a reduction in torque will be required.

Installation: Tightening nut onto a solid surface;

Install bottom nut to torque shown in table above. Install top nut to the torque listed above.

Tightening nut in middle of threaded rod as a stop nut:

Position bottom nut at desired location on thread. While holding bottom nut with wrench, torque top nut onto bottom nut using the top nut torque listed in table above.