



MINIATURE HEX NUTS AND FLAT WASHERS

08/31/2011

HEX NUTS

Our Hex Nuts are stocked in Brass and #303 Stainless Steel in miniature numbered sizes only. Standards for the UNM sizes were never established as the prevailing opinion was that there would be no demand for them. Our experience with miniature numbered items indicates otherwise. UNM Nuts can be made to order, but a minimum quantity is very expensive.

Using Nuts in conjunction with our screws in an assembly can be more economical than tapping and gaging a threaded hole; where feasible and space is not critical. This is also especially practical for holding a stack of components together. Assembly and disassembly is usually quicker and an optimum metal to metal engagement is assured by our strict thread gaging control of screw and Nut.

The Nuts are designed to provide two pitches of engagement. This will usually provide sufficient strength to break the screw before stripping the Nut on like materials. Two pitches should also protrude beyond the end of the Nut to assure full threads are engaged (the end of the screws are chamfered for easier assembly and make threading possible with screw machine production methods)

Hex Nuts are designed with double chamfers on both the tapped holes and the hex surfaces to provide a burr free part. This means fewer assembly problems and the ability to enter the tapped hole from either end. The tapped holes are held perpendicular to both faces of the nut to insure proper seating of the nut face and ease of assembly. All dimensions and threads are measured to aerospace standards. The parts are then cleaned and tumbled to remove all oil and chips, as well as producing a bright, smooth finish. Brass Nuts have an anti tarnish coating and can be plated with many types finishes. MORRIS makes small socket wrenches (nut drivers) with a design to allow lesser clearances (see useful information 04/30/10) than other types. The nuts can also be picked up from a flat surface and will hold in the wrench to the point of insertion.

Other shapes and configurations can be made to order. In addition to the expensive special order and tooling costs, special drawn material (except rounds) may be required which could exceed the cost of making the parts. Other tapped parts, including knurled inserts for molding or pressing into plastic parts, are available to order.

Nuts can also be used as a head for a screw made when it is assembled on our one foot threaded rod cut to lengths that are not stock or too long for screw machine manufacture. If necessary, they can be secured with Loctite (R) or other locking method.

FLAT WASHERS

Flat Washers can be used for many purposes, but the primary application is to provide a greater clamping surface for the assembly. They also allow the screws to be flush with their surface as they clear the part threads, which may not be possible in a tapped hole which cannot be chamfered deep enough for clearance. They can also be used as a standoff (either single or in multiples) to provide a space between stacked components.



MORRIS

J.I. MORRIS COMPANY

394 Elm Street • Southbridge, Massachusetts 01550

TEL: 508-764-4394 | FAX: 508-764-7350

Our Washers are screw machined and not stamped. This means they are held to closer dimensional tolerances and surfaces are flat and not bowed. The hole and outside diameter are concentric and are chamfered on the sides to make them free from burrs. They are available from stock in brass and #303 stainless in the miniature numbered sizes 000, 00, 0, 1 and 2.

Specials can be made to expensive special order in diameters up to .250" O.D., as small as .020" I.D. and .010" thick. A minimum section of .010" between O.D. and I.D. is required.

Copyright J.I. Morris Co. 2011