

## NELSON STUD WELDING

### *SPECIFICATION: Watertight Nuts*

Nelson 1/2-13 watertight nuts are used to attach wood decking to the railroad car floors or aircraft carrier decks. They are installed on standard Nelson CPL threaded studs. The CPL studs can be welded through pre-drilled holes in the wood by using ferrule tubing and long style chucks.

It is this application that prompted Ted Nelson to develop the stud welding process in 1939. His solution of stud welding through holes in wood, plastic, or other materials to steel base plate is still the quickest and most effective method of fabricating a variety of assemblies.

Nelson Watertight nuts are available with or without or zinc plated steel. They can be supplied with normal or locking threads. This self-locking feature is desirable on wood, which may expand and contract with changes in temperature or exposure to moisture. Railroad cars are also subject to severe vibration, which may loosen nuts, thus making the locking threads capability desirable in this application.

These nuts can also be used to install thick UHMW plastic sheets.

In addition to Nelson watertight nuts, specialty nuts can also be supplied for use on 1/4-20, 3/8-16, and 1/2-13 threaded studs.

Drive tool #518015000 is necessary for the installation of Watertight Nuts.

For similar function studs, see Nelson [CPL Partially Threaded studs](#) and [CFL Fully Threaded studs](#).

**When ordering, specify Thread Size, Description, Locking, Plating, Quantity, and Part Number**  
**Example: 1/2-13 Watertight Nut with self-locking threads; Mild Steel; 10,000 pieces; #101302244**

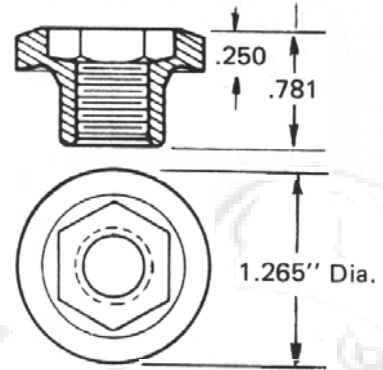
Part Description	Plating	Part Number
1/2-13 Watertight nut with self-locking thread	yes	101302274
1/2-13 Watertight nut with self-locking thread	no	101302244
1/2-13 Watertight nut with non-locking thread	yes	101302256
1/2-13 Watertight nut with non-locking thread	no	101302243

**MATERIALS:** Watertight Nuts are available only in Mild Steel. For specific grade information and physical and chemical properties, conforming standards, and information on plating and heat treating, please see [General Material Specifications](#)

**PLATING:** Watertight Nuts can be electrozinc plated to ASTM B633, Fe/Zn 8.

**THREADS:** Standard internal threads are UNC-2B.

### Watertight Nut



Visit our website [www.NelsonStudWelding.com](http://www.NelsonStudWelding.com) for a list of our standard stock products.