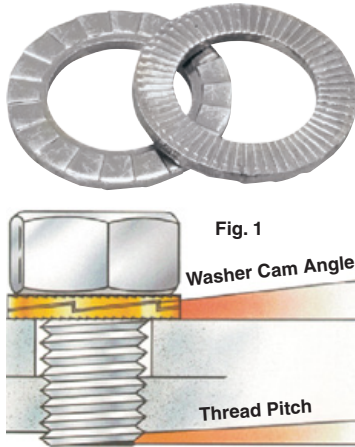


# Product Information Report

## NORD-LOCK® Self-Locking Washers



**NORD-LOCK®**  
Bolt securing systems



### Overview

NORD-LOCK® is a unique washer assembly which locks using tension instead of friction. This is because the rise of the ramps (cams) between the two washers is greater than the pitch of the bolt (See Fig. 1).

In addition, there are radial teeth or serrations on the opposite side. When the bolt and/or nut is tightened, the teeth grip and seat the mating surfaces. The washer is locked in place, allowing movement only across the face of the cams.

Note: When NORD-LOCK® washers are used, you must apply 20% more torque when installing. Also, this product is supplied as one glued pair to ensure proper assembly.

### Features/Benefits

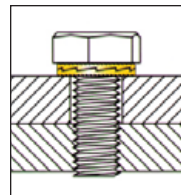
- Resists loosening caused by vibration and dynamic loads
- Eliminates the need for lock washers, flat washers, and thread-locking chemicals
- Ease of assembly and disassembly
- Locking function is not lost by lubrication
- Positive locking at low or high pre-load levels
- Same temperature characteristics as standard fasteners
- Minimal surface marring or scratching

### Applications

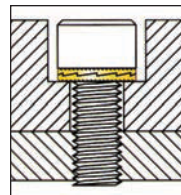
NORD-LOCK® washers can be used in virtually any application where vibration is a problem. Applications include, but are not limited to:

- Construction equipment
- Automotive
- Agriculture
- Rock crushers
- Manufacturing
- Mining
- Oil industry
- Railroad
- Trucking
- Utilities
- Power plants
- Appliances

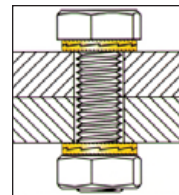
### Assembly



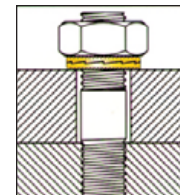
Can be used on standard or high grade fasteners



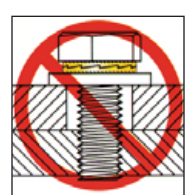
Can also be used in counter-bored holes



Secures fasteners in through-holes



Use NORD-LOCK® washers to lock the nut and there is no need for adhesives to lock the stud bolt



DO NOT use with washers that are not locked in place