



NORD-LOCK® WASHERS

Nord-Lock washers secure bolted joints with tension instead of friction. It is a high quality product with documented success in many industries worldwide.

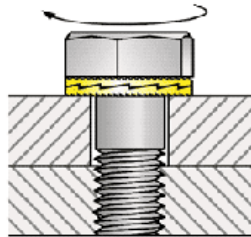
Anti vibrations Nord-Lock® washers

Nord-Lock washers are easy and effective to use while ensuring structural security for applications exposed to vibration and dynamic loads. Installing the washers : the pre-assembled washers are installed in pairs, cam face to cam face.

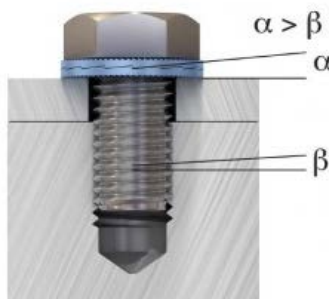
Tightening : Tighten Nord-Lock washers with standard tools.

Untightening : untightening Nord-Lock washers is as simple as tightening. Note that since the locking function is not based on increased friction, the untightening torque is generally lower than the tightening torque. Therefore it is not possible to measure off torque as verification of locking function.

Reusing Nord-Lock : Nord-Lock washers can normally be reused. As with all fasteners, they should be inspected for wear before reassembly. Make sure that the washers are reinstalled correctly cam face to cam face.



*Nord-Lock washers system
under the screw's head*



Nord-Lock washers secure bolted joints with tension instead of friction. The system is comprised of a pair of washers that has cams on one side and radial teeth on the opposite side. Since the cam angle 'α' is greater than the thread pitch 'β' a wedge effect is created by the cams, preventing the bolt from rotating loose.

Product benefits :

- Reusable (up to about **50 times**) – in addition, Nord-Lock washers do not affect the reusability of fasteners
- Maintains high clamp load and thereby ensures the function of the joint
- Quick and easy to install and remove with standard tools
- Locking function not affected by lubrication
- Defined and uniform friction conditions which result in a more accurate preload
- Same temperature characteristics as standard bolt / nut

- The washers are hardened and can support and distribute great loads
- Washers with enlarged outer diameter available for flanged bolts / nuts
- High corrosion resistance
- Can be used with fasteners up to grade 12.9 (ASTM A574)
- Reliable locking, even for joints with short clamp length
- Secures fasteners at both high and low preloads
- No retightening needed
- Verifiable locking function
- Elegant solution and problem solving – modern engineering

Nord-Lock® is a brand mark of Nord-Lock AB.

Website here : www.nord-lock.com

Users in aviation : Boeing, Lockheed Martin, Northrop Grumman

=> **Propellers manufacturers' users : Sensenich, Neuform**

Hélices E-PROPS is using NORD-LOCK® washers for its carbon hubs (propellers for ultralights / aircraft).

These washers which assure the tightening must be positioned **under the head of the screw.**

Any other assembly systems does not guarantee an optimal tightening.

