

# NORD-LOCK®

*Bolt securing system*



# Exceptional value

**In vehicle technology, forestry, processing, railroad, construction and any critical application worldwide – the NORD-LOCK Bolt Securing System ensures security, thus averting expensive warranty claims and maintenance costs.**


The company – founded in Sweden in 1982 with the radical vision of developing the world's most effective bolt locking system.

The challenge – to bring a new product to the market, to continuously improve the design and become the best bolt securing system available.

The people – we employ the most talented and innovative staff, fostering a close teamwork, with an ambition to solve the most demanding joint problems.

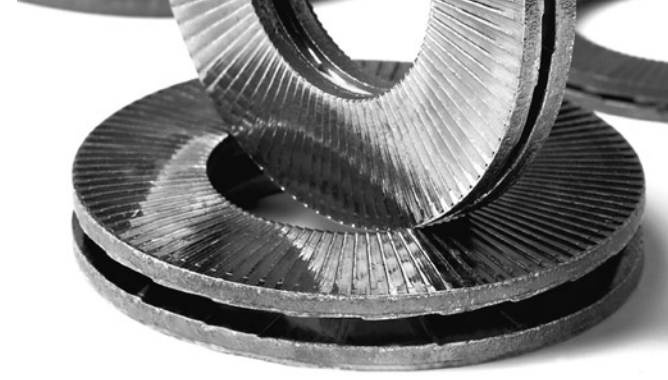
The outcome – NORD-LOCK, the world's best bolt securing system.





The best proof of NORD-LOCK is real-life testing. NORD-LOCK will supply samples, free of charge, so that clients can test the product on the spot with technical aid from our engineers and test facilities. The result is low whole of life cost, higher profitability and reduced maintenance downtime.

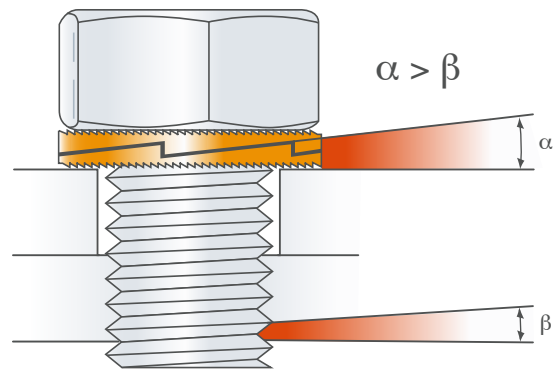
# The angle that works



**NORD-LOCK is a bolt securing system that does not use traditional techniques to secure the fastener, and yet it is a safe locking system.**

This proven wedge-locking method meeting DIN 25201 utilises tension instead of friction to secure a bolted joint, making it superior to traditional methods.

The NORD-LOCK bolt securing system incorporates a pair of washers that have cam faces on one side with the cam angle " $\alpha$ " greater than the thread pitch " $\beta$ ". In addition, there are radial teeth on the opposite sides. The pre-assembled washers are installed in pairs, cam face to cam face.

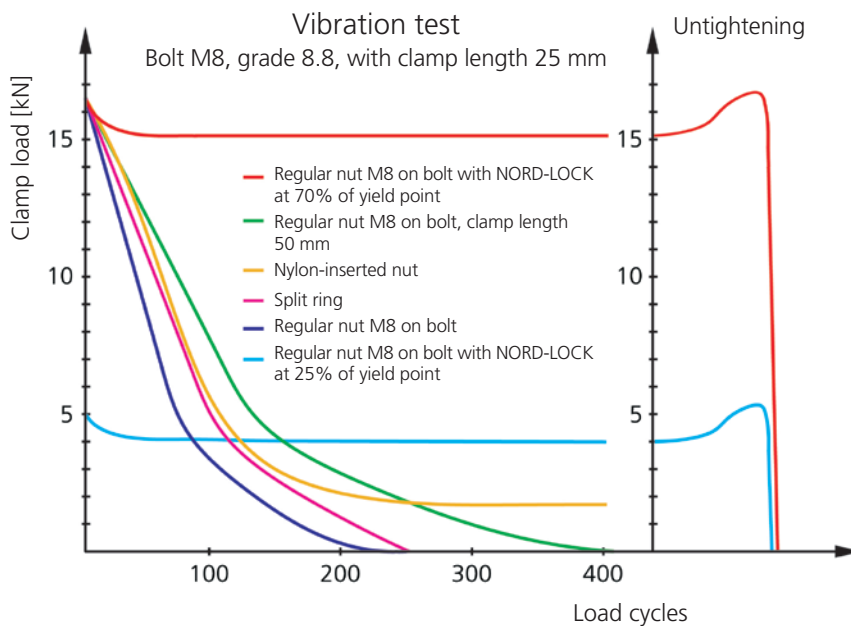


When the bolt and/or nut is tightened the teeth of the NORD-LOCK washers grip and lock the mating surfaces allowing movement only across the cam faces. Any rotation of the bolt/nut is blocked by the wedge effect of the cams. NORD-LOCK safely secures bolted joints exposed to vibration and dynamic loads.



# The proof

For testing and comparing the security of bolted joints, a Junker vibration test meeting DIN 65151 is an excellent method. In a Junker test the bolted joint is subjected to transverse movements while the tension is being continuously measured by a load cell.



The diagram displays NORD-LOCK's superior performance. Most of the commonly used locking devices show limited or no holding performance when exposed to vibration. Whereas bolted joints secured with NORD-LOCK washers only lose some of the initial preload due to normal settlements between the contact surfaces. NORD-LOCK's unique wedge-locking function is proved by the clear increase in clamp load during untightening.

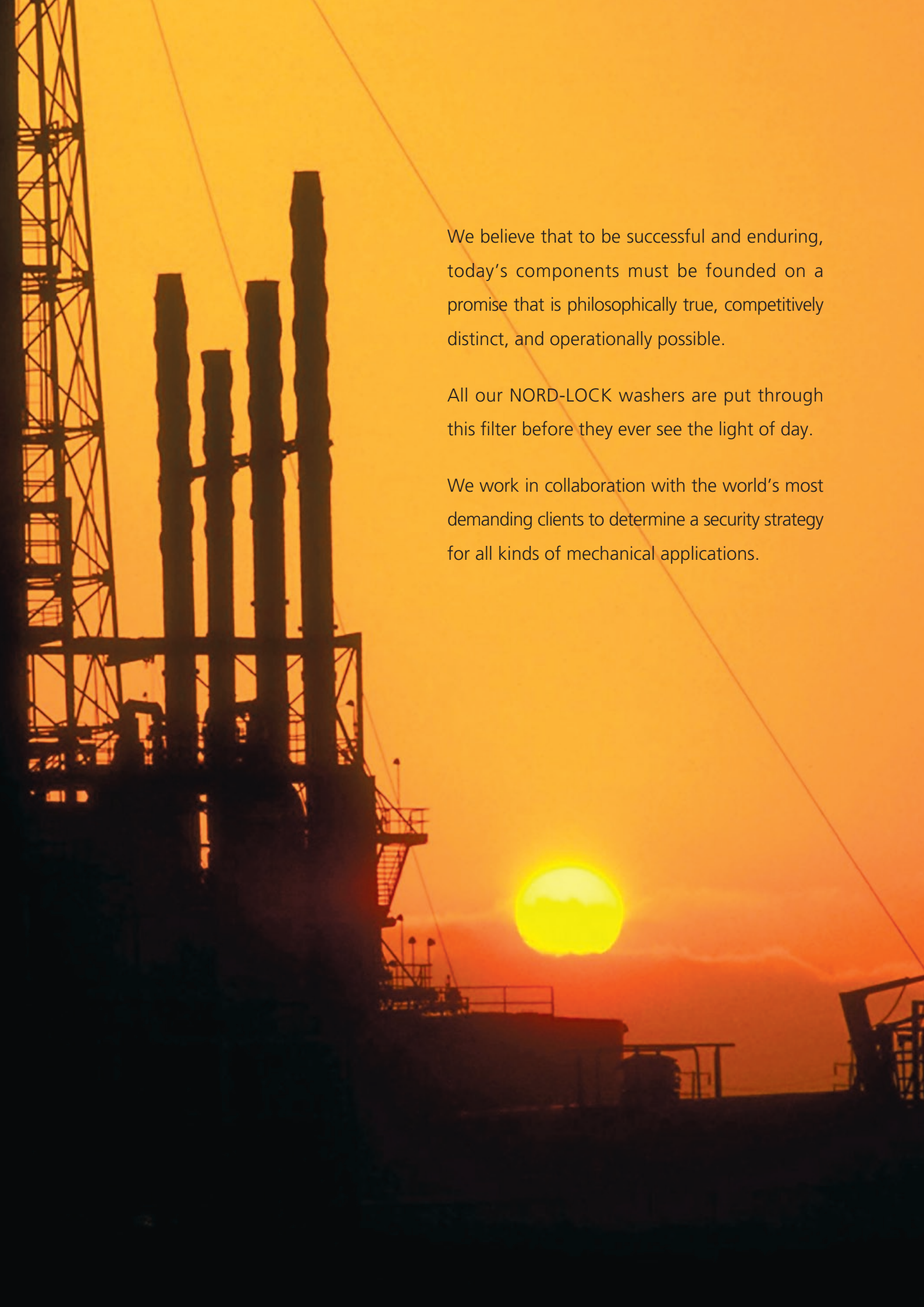
# Focus on quality

**Safety, security and quality have been our key words since the founding of NORD-LOCK. We have full traceability and control on all processes. Test certificates are provided free of charge upon request. NORD-LOCK is a proud holder of the ISO 9001 and ISO 14001 certificate. Our washers have been put to the test by several independent authorities, e.g. Technischer Überwachungsverein (TÜV), Deutsches Institut für Bautechnik (DIBT) and Det Norske Veritas (DNV).**

The built-in security of NORD-LOCK washers ensures safe locking of bolted joints. The reliability of the NORD-LOCK products helps to improve our customers' productivity and profitability. Furthermore, quick and easy assembly and dismantling cuts downtime, making it the optimum solution for machinery requiring regular maintenance.

To optimise the design of bolted joints and verify their locking function, many companies take advantage of the customized tests NORD-LOCK offers at its in-house test laboratories. Contact us today to learn how we can assist you in finding your ultimate bolt locking solution.



The background of the entire page is a photograph of an industrial facility, likely an oil or gas rig, silhouetted against a bright orange and yellow sunset sky. The sun is a large, glowing orb in the lower right quadrant. Several tall, vertical structures, possibly distillation columns or chimneys, are visible on the left side of the frame. A complex network of pipes and structural steel is also visible. The overall mood is industrial and dramatic.

We believe that to be successful and enduring, today's components must be founded on a promise that is philosophically true, competitively distinct, and operationally possible.

All our NORD-LOCK washers are put through this filter before they ever see the light of day.

We work in collaboration with the world's most demanding clients to determine a security strategy for all kinds of mechanical applications.

# Let's enter a partnership

Clients are partners in our process of making the world's best locking washer. The more we know about each other, the better the result.

Questions? Call us! We are always happy to let you take a closer look at NORD-LOCK.



**NORD-LOCK®**  
*Bolt securing system*

AUTHORIZED DISTRIBUTOR

[www.nord-lock.com](http://www.nord-lock.com)