

SECURING YOUR FUTURE

REDUCING RISK AND INCREASING MECHANICAL
INTEGRITY WITHIN THE OIL & GAS INDUSTRY



Smart and reliable
solutions for bolted
connections



NORD-LOCK GROUP

65+
COUNTRIES

25+
OFFICES WORLDWIDE

600+
EMPLOYEES

6
PRODUCTION PLANTS

6
TECHNICAL CENTERS



SECURING YOUR FUTURE

Nord-Lock Group offers a wide range of technologies for smarter bolting, increased safety, improved mechanical precision or ease of use. Our engineering solutions have been used extensively throughout the oil and gas industry for decades. The best bolted joint design, tightening procedures and effective maintenance schedules are all critical to efficient operations.



MECHANICAL INTEGRITY

The need for regular maintenance must be minimized. Any downtime should be limited to reduce operational expenses and increase production rate.

Focus on Lifetime Costs



RELIABILITY

We make sure your bolted connections survive the long-term effects of the prevailing conditions. Either vibration, flexing, shock loading, fatigue or corrosion.

Focus on Lifetime Reliability

NEW DESIGNS & CONSTRUCTION

Any structure or equipment used in the oil & gas industry will be subjected to severe conditions and harsh environments. Our technical engineers can provide complete joint calculation, vibration testing and validation. We offer support in dimension selection, fatigue considerations, friction testing and finite element analysis, ensuring correct preload and tension.



PRODUCTIVITY

Bolted connections must be quick and easy to assemble and maintain using simple tools, and provide preload accuracy.

Focus on Simplicity



SAFETY

Minimize the safety risks involved in the assembly, operation and maintenance of any bolted connection, thereby improving occupational safety.

Focus on HSE

MAINTENANCE, REPAIR & OPERATIONS (MRO)

Many companies and individuals are working with existing assets and equipment in very challenging conditions. Fundamentally, the design is difficult to change, but the bolting technology can often be significantly improved.

If you are responsible for MRO and struggle with bolted connections that continually require time consuming and costly maintenance, cause non-productive downtime, or are potentially dangerous, we would like to help you find a better solution.



EXTENSIVE ENGINEERING SUPPORT

We strongly believe that providing high quality local engineering support is vital. Whether looking at an existing problem, providing training, or designing completely unique engineering solutions, we would like to work with you.

Our engineers can provide joint calculations, hardness testing, finite element and joint failure analysis, Junker vibration testing and many more services.



DROPS

DROPPED OBJECTS
PREVENTION SCHEME

PREVENTION OF DROPPED OBJECTS

Objects dropped from height are an unfortunate reality at many worksites. Industry reports conclude that the root cause of many dropped objects is a failure to properly secure nuts and bolts against loosening. Traditional securing methods such as for example spring washer, double nuts, nylon insert nut are falling out of favor as they can loosen over time. Look for DNV GL and Lloyds Type Approval when considering the effectiveness of any bolt securing system for use in the offshore industry.

In recent years there has been much work done to eradicate dropped objects, and when considering the securing of fasteners, the Nord-Lock Group has been leading from the front. We have been active members of DROPS for many years and support the offshore industry in its work to prevent dropped objects.



TRUSTED QUALITY



THE INDUSTRY'S MOST CERTIFIED SOLUTIONS

The Nord-Lock Group offers the most extensive industry specific Type Approval Certification and qualification for their range of systems and bolting solutions.



FULL TRACEABILITY

Our production processes are verified to ensure optimal performance according to minimum tolerances to secure the final properties of our bolting solutions. Our products are fully traceable down to raw material.

RELIABLE & SMART SOLUTIONS FOR YOUR APPLICATION

CASE STORIES



Securing of Anodes to FPSO Hull | 2019 | Equinor ASA | Norway

Utilizes wedge-locking technology to prevent bolted connections from loosening even under extreme vibrations. Enables reduced need for retightening & withstands extreme environments with high corrosion and thermal expansion.



NORD-LOCK



Precise preload of Heat Exchanger | 2019 | Repsol | Malaysia

Custom made H650 tensioners for medium temperatures with Xylan coating, designed for a heat exchanger. Faster and precise pretensioning of bolts without the use of hydraulics. The coating for longer built-in endurance for severely corrosive environments.



SUPERBOLT



Large Oil Valve Bonnet | Cameron Grove | Italy/UK

A tailor-made set of 6 large bolt tensioners, each weighing of 200 kg, for a very large oil valve bonnet with 18 x M150 bolts. Custom built $\varnothing 2000$ mm strong steel plate for easy lifting, precise positioning and safer operations.



BOLTIGHT



Crane Arm Riser Handling | 2019 | MHWirth AS | Norway/Poland

Pivot pin technology installed directly into lugs of crane arm ($\varnothing 140$ and $\varnothing 150$ mm). Prevents and upholds the formation of the moving axle. Over time this will ensure easy assembly, cost-efficient maintenance and quick dis-assembly for any service or refurbishments.



Expander

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