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CLEANER, LONGER-LASTING BEARINGS: LUBSOLID™ SNR TECHNOLOGY FOR ALL INDUSTRIAL MARKETS



NTN Europe is extending bearing life with its LUBSOLID™ solid lubricant technology, which it now offers to all sectors of industry. To meet growing demand, it has just opened a second dedicated production line at one of its sites in Annecy (74).

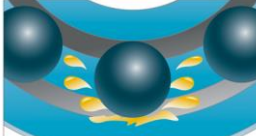
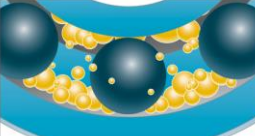
LUBSOLID™ technology

Developed in the 1990s for the textile industry, LUBSOLID™ is a solid lubricant, filling the entire free space of the bearing. A large quantity of oil is stored in a porous polymer matrix.

A polymer is a substance made up of macromolecules, themselves formed from monomer units linked together by covalent bonds.

The polymer matrix functions as a structure that retains, distributes and reabsorbs the lubricant as the bearing operates.

Under the effect of thermal and mechanical stress, the matrix slowly releases the oil, whose solid consistency enables the rolling elements to be permanently lubricated. The oil is then reabsorbed by the matrix when the bearing is at a standstill.

<p>Bearing operation with standard grease</p> 	<p>Operation with solid lubrication</p> 
<p>Under the effect of mechanical and thermal stress, the grease is laminated and pushed away from the contact between the rolling body and the raceway. This loss requires frequent re-greasing.</p>	<p>Solid lubrication cannot be ejected; it continuously supplies oil to the core of the bearing. This eliminates all downtime and re-greasing.</p>

Reliable lubrication extends bearing life without relubrication. 70% of bearing failures are due to poor lubrication: too much or too little lubricant, lubrication frequencies not respected, wrong choice of grease or immiscible lubricants.



The benefits of this solution are numerous:

- **Increased equipment life and reliability:** bearing life can be increased by up to 20 times thanks to the absence of metal-to-metal contact, the cause of premature failure known as FEB (False Brinell Effect).
- **Increased protection against environmental pollution:** the consistency of LUBSOLID™ provides extra protection, in addition to sealing the bearing.
- **Improved cleanliness of the production line:** the solid formulation prevents lubricant leaks.
- **Reduced operating and maintenance costs:** re-greasing operations are eliminated and bearing maintenance intervals are extended, ensuring optimum availability of production equipment.
- **Contributing to sustainable development and environmental protection:** this solution reduces the consumption of bearings and grease, and prevents oil leaks into the environment.

Technology available for all industrial markets

Over the years, NTN Europe has developed and evolved its lubrication technology to enable many industrial companies, manufacturers and users to meet the challenges they face.

Almost all bearings marketed under the SNR brand are now eligible for LUBSOLID™, as it is possible to fill ball and insert, needle, spherical and cylindrical roller bearings. The width of the bearing must be less than or equal to 65mm and its outside diameter between 20 and 110mm. NTN Europe's teams can, however, carry out a specific study for bearings of smaller or larger sizes.

NTN Europe has established itself as a privileged partner thanks to its expertise and knowledge of its customers' needs. In addition to its wide range of standard products, the company is able to offer a number of specific products designed in close collaboration with market players. These products enable it to respond perfectly to the constraints of each machine and partner.

Each development requires an analysis of specific constraints in order to propose bearings that meet the strict requirements of different applications.

A new dedicated production line

In most cases, this technology does not require any special design of the part. It therefore offers the possibility of switching from a greased bearing to a LUBSOLID™ bearing, and can be offered to a large number of manufacturers.



Building on the success of its solid solution and in response to growing demand from its customers and prospects, NTN Europe is investing in a new line dedicated to filling bearings with the LUBSOLID™ formulation for the European market. This line, installed at its Meythet site (France), offers greater production flexibility since tooling costs have been considerably reduced. This opens up the technology to smaller production batches and new markets.

LUBSOLID™ technology has gradually been adapted to the needs and expectations of other sectors and is now being used by other players in a wide range of fields, including the food, cycle, conveying and agricultural machinery industries. It can also be used to overcome constraints in the waste processing and packaging industries, for example.

SENTINEL™ , the range dedicated to the food market, equipped exclusively with LUBSOLID technology.

High-pressure washing, cleaning agents, humidity, fine particles, hygiene standards, high production rates, ..., the food industry is an environment with severe constraints. This is why, from 2017, NTN Europe has decided to offer its LUBSOLID™ technology to this market. A dedicated range is offered under the name SENTINEL™ , with :

- A different lubricant formulation - NSF-H1 certified - to meet the very strict health standards in force;
- Stainless steel bearings to resist corrosion.

The bearings and assemblies on offer address recurring problems in the sector, such as the need for cleanliness, labour shortages and hard-to-reach bearing lubrication areas.

About NTN Europe

NTN Corporation, a Japanese group founded in 1918, is a world leader in bearings, transmission seals, linear modules, distribution rollers, suspension parts, associated services and training.

The Group is present on every continent, with more than 23,000 employees, 73 production sites and 118 sales offices. In 2023, it generated sales of 5.5 billion euros.

In Europe, its subsidiary NTN Europe operates in all industrial, automotive and aerospace markets.

NTN has an R&D centre and 15 production sites in Europe, employing nearly 5,500 people.

At the end of March 2023, NTN Europe had achieved 1.3 billion euros in annual sales.

NTN Europe applies the Group's philosophy "Make the world Nameraka", which reflects the Group's know-how, leadership and vision for the future.

www.ntn-snr.com

Contacts

NTN Europe

Abelia Dekindt
abelia.dekindt@ntn-snr.fr
+33 (0)4 50 65 97 89

Press

Action Media - Blandine Bernier-Léturgeon
rp@actionmedia.fr
+33 (0)6 03 39 73 39