# Press release

Annecy (Haute-Savoie, France), 15 December 2017

**All the mechatronics experience in NTN-SNR magnetic sensors: from ASB® to MONITOR'IT®**

# NTN-SNR launches MONITOR'IT® for an even more effective monitoring of industrial facilities

**NTN-SNR is to launch its range of MONITOR'IT® diagnostic equipment. For use in industrial facilities it utilises magnetic sensor encoder technology. This offers diagnostic information that previously was very difficult to collect in vibratory applications. Advantages of the MONITORIT'IT system are fewer sensors are required than in other systems, faults at very low speeds , at distance or even in vibratory environments can be detected. NTN-SNR can therefore provide a new solution for monitoring production processes in many varied industries including: - paper mills, mines, quarries, cement production, steel industry, and wind turbine generators. MONITOR'IT® systems can also be configured to combine magnetic and vibratory technologies to offer a more comprehensive diagnostics of all possible faults. With MONITOR'IT®, NTN-SNR's expertise in the field of magnetic sensors and mechatronics benefits all industrial markets leading to enhanced productivity.**

## Detecting more with NTN-SNR magnetic sensors

### Meeting specific monitoring requirements

NTN-SNR's MONITOR'IT® utilizes mechatronics and magnetic sensor-encoder technology to meet specific monitoring requirements for industrial components and processing machinery. Magnetic sensors can accurately take measurements from 5 rpm without the need to be mounted directly on the bearing. "*These two specific features of the MONITOR'IT® technology enables us to provide solutions for many processes in cement works, steelworks, paper mills, food-processing, and many more. Secondly it gives the ability to take accurate measurements in challenging conditions, even in harsh, excessively hot or wet environments for sensors*", says Frédéric Guerre-Chaley, MONITOR'IT® project leader. The magnetic sensor replaces vibratory analysis in demanding environments, mines and quarries for instance, which produce too many vibrations and "noise" for conventional sensors to work. Another key

## NTN-SNR, an innovator and expert in magnetic technology

The magnetic technology developed specifically by NTN-SNR very accurately measures variations in the functioning of rotating parts. The slightest fault in a rotating system part will affect the rotation of the shaft. The magnetic sensor measures in real time the multidirectional magnetic field emitted by the rotating shaft and returns a clear and intelligible image of the entire kinematic chain (see diagram).

NTN-SNR was one of the innovators of this magnetic sensor-encoder technology when it created ASB® in 1997, which has since become an international standard in the automotive industry. We have developed this same technology for several years, both for increasingly smart bearings with NTN-SNR's Sensor range for car manufacturers and industry and for measurement and diagnostics purposes. **With MONITOR'IT®, NTN-SNR deploys its mechatronics expertise aimed at all industrial markets.**

benefit of MONITOR'IT® is that it only requires half as many sensors for an equivalent monitoring range. A single system can monitor up to 8 machines.

**A device conceived for the customer**

Validation phases with pilot customers covering all the processes offered by MONITOR'IT® have taken place. In addition to the wide scope of diagnostic information offered by MONITOR'IT®, the ease of use was also highlighted. Diagnostic data is transmitted wirelessly to a secure NTN-SNR server where it is processed using an algorithm. The customer can view the results with two warning levels indicated. The information is simultaneously analysed by NTN-SNR experts who are in contact with the customer. This constant dialogue optimizes the monitoring and facilitates preventive maintenance to take place, ensuring increased productivity.

## A broad range tailored to various monitoring needs

With its ***MONITOR'IT® Expert*** systems, NTN-SNR combines two technologies, magnetic and vibratory, for the maximum range of diagnostic information, from bearings to structural defects. Magnetic measurements are taken from 5 rpm also this system allows the magnetic sensor to be placed several metres away from the component being monitored, for hard-to-reach areas or in harsh environments. ***MONITOR'IT® Focus*** offers magnetic analysis alone for bearings and gears with the same low speed and sensor placement characteristics. Lastly, NTN-SNR has designed the ***MONITOR'IT® Custom***, which can be adapted to customer specific requirements.

### The MONITOR'IT range

**MONITOR'IT® Expert**

- 8 magnetic inputs, 4 vibratory inputs
- Extended diagnostics of bearings, gears, structure, imbalance, misalignment, lubrication.
- Magnetic target from 40 to 400 mm in diameter

**MONITOR'IT® Focus**

- 8 magnetic inputs
- Targeted measurements of bearings and gears from 5 rpm
- Magnetic target from 40 to 400 mm in diameter

**MONITOR'IT® Custom**

- Up to 20 magnetic and vibratory inputs adaptable to any configuration

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***NTN-SNR ROULEMENTS, headquartered in Annecy (Haute-Savoie, France), belongs to Japanese Group NTN Corporation, a global leader in bearings. NTN-SNR manages and develops all NTN's activities for the EMEA region and Brazil. NTN-SNR, a major force as a designer, developer and manufacturer of bearings and sub-assemblies for the automotive sector, industry and aeronautics, offers a comprehensive range by also developing maintenance services and solutions. NTN-SNR employs 4,225 people at nine production sites, including six in France, as well as 18 sales offices.***

PRESS CONTACT: Florian Porzyc- +33 (0) 4 50 65 97 89 – florian.porzyc@ntn-snr.fr
Abelia Dekindt- +33 (0) 4 50 65 30 60 – abelia.dekindt@ntn-snr.fr