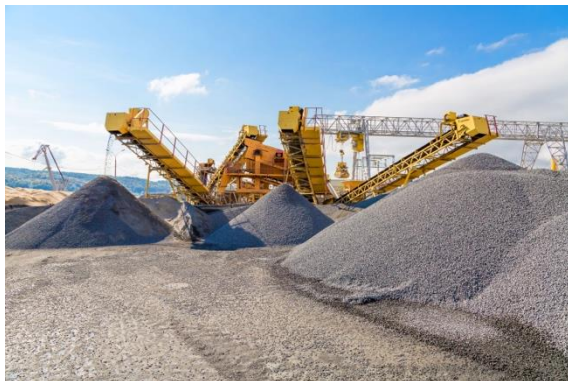


## NTN-SNR'S EF800 RANGE IDEALLY SUITED TO THE NEEDS OF THE MINING AND QUARRYING INDUSTRIES

Over the past 25 years, NTN-SNR has established itself as one of the world leaders in the design and manufacturing of bearings in the mining and quarrying sector. And, more particularly thanks to its EF800 spherical roller bearing range, today with the latest ULTAGE optimised design. With its massive brass cage, this bearing withstands the severe conditions that facilities are subjected to while increasing their productivity.

### MINING AND QUARRYING: DEMANDING INDUSTRIES

Mining activity is highly challenging for machinery. Facilities, such as screens, crushers and grinders, work as a continuous process and for extended periods of time. Placed outdoors, they are rarely protected from adverse weather conditions. In addition to environmental requirements, the machinery puts the spherical roller bearings to the test. An integral part of facilities, the machinery is the first to be subjected to adverse conditions of use, including heavy loads, major and repeated impacts and vibrations, radial accelerations, centrifugal force. It is therefore vital that those bearings be technically well thought out and of impeccable resistance over the long term.



With this in mind and in the face of very strong demand, NTN-SNR launched the EF800 series. This range has naturally evolved with the latest design of ULTAGE spherical roller bearings, created to meet the most severe conditions of mining facilities. Available in the market for the last 25 years, its unique features helped it become the reference in this sector. Today, most bearings used for those very difficult applications are spherical roller bearings. The mining sector is therefore a strategic market for NTN-SNR.

### BRASS: A STRATEGIC CHOICE

The specificity of the EF800 range developed by NTN-SNR is not only its design but also the materials chosen to create it. Based on the experience gained while working on vibratory mechanisms, such as screens, NTN-SNR had the opportunity to see that a massive brass cage was the most appropriate solution. In the mining sector, in which facilities withstand very high stress, brass is therefore essential. More ductile, it can absorb impacts and vibrations, two elements that get worse as the screens, crushers and grinders rapidly fall into disrepair as a result of severe conditions. For example, the initial dimensions of housings and shafts very quickly change.



Thanks to its ductility, brass also allows for preventive maintenance. In the event of an advanced state of wear of a bearing, a brass cage will not break suddenly, rather will emit a specific sound, indicating it will soon need to be replaced. Potentially severe collateral damage linked to the failure of a bearing can thus be prevented. The shaft and housings can for example be damaged and entail costs that are much higher than that of the mere replacement of the bearing.

### A UNIQUE ULTAGE-LABEL DESIGN

Aware of the issues experienced with high-vibration applications, NTN-SNR redesigned its spherical roller bearings. Its EF800 range thus offers maximised performance levels that perfectly meet the requirements of the mining and quarrying industries.

- **Quality materials:** Combined with high-performance steels, NTN-SNR decided to choose a massive brass cage not only because of its ductility, but also for its self-lubricating properties that help reduce overheating at high speeds.

- **Controlled heat treatments:** NTN-SNR's know-how guarantees increased wear resistance of bearings as well as dimensional stability up to 200°C.
- **Efficient cage design, a key element of the bearing:** For this premium range, NTN-SNR optimised the guiding of its cages thanks to a system consisting of a contoured pocket centred on rollers. By ensuring increased stability of the rolling housings even under the most severe load conditions, this design makes the use of a guide ring unnecessary. In this way, risks of seizing due to thermal expansion are reduced. Since the volume available is greater, this design also allows improved lubricant circulation within the bearing and further reduces heat build-up.

Thanks to the unique ULTAGE-label design that allows unified load distribution, the EF800 spherical roller bearing established itself as a robust solution, which can withstand higher stress levels. The range offers the highest dynamic load capacities compared with the leading players' solutions available in the European market, and guarantees superior resistance for very severe applications.<sup>1</sup>

#### ULTAGE quality label

The ULTAGE label is the product of two combined concepts: "Ultimate" and "Stage". It offers longer service life, higher rotation speeds, lower maintenance costs, and enhanced environmental protection. NTN-SNR offers the widest range of ULTAGE-label spherical roller bearings in the market, from 25 mm bore diameter to 2,180 mm outside diameter.

## A RANGE THAT OFFERS A MULTITUDE OF BENEFITS

The first version of the EF800 range was placed on the market in 1995; it has since been widely tried and tested and has been recognised as one of the best ranges for the mining industry. Manufactured in the NTN-SNR Italian plant, the high reliability of those bearings has been demonstrated in very harsh applications with major loads and vibrations in highly polluted environments.

This range offers improved performance levels for many features:

- **Delayed wear** thanks to higher resistance to impacts and vibrations, and decreased heat build-up due to the design and materials used.
- **Increased capacity:** the bearings of the EF800 range allow for speed limits that are 20% higher and load capacities 24% higher than conventional bearings.
- **Doubled duration life**, which means for users that equipment will break less and, as a result, lead to fewer production shutdowns.
- **Preventive maintenance** possible to predict the replacement of a worn bearing and prevent extra costs linked to collateral damage.

## PRESS CONTACTS:



- MIDNIGHT PURPLE

Emilie Deslandes  
[edeslandes@midnightpurple.fr](mailto:edeslandes@midnightpurple.fr)  
 +33 (0)6 71 24 17 01

Camille Huze  
[chuze@midnightpurple.fr](mailto:chuze@midnightpurple.fr)  
 +33 (0)1 53 20 49 03

- NTN-SNR

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

<sup>1</sup> Study conducted in 2021, based on the three main players in the European market