CYLINDRICAL
ROLLER BEARINGS

designed to go further

NTN SNR

www.ntn-snr.com

With You

NTN-SNR
THE STRENGTH OF A GROUP

As expert in managing the life cycle of a product, NTN in Europe is characterised by the proximity and commitment of its teams. We anticipate development projects on your strategic markets. Our engineers design with you solutions adapted to the most demanding applications, in fields such as railways, robotics or textile.

NTN-SNR leads you towards reliability and performance.

The product

Designed to withstand high radial loads, our cylindrical roller bearings are available in 1, 2 or 4 rows, with crossed, high precision or complement rollers. 4 cage designs are available in different materials: steel, brass or polyamide. Our teams are there to advise you and optimise these multiple combinations.

The range

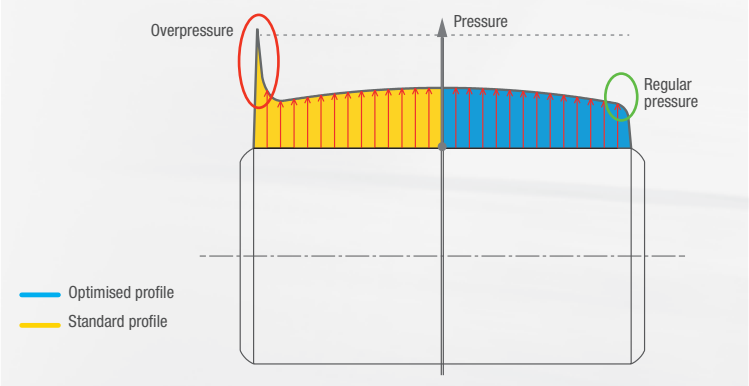
Dimensions of up to 500mm inner diameter for the N, NU, NJ, NUP and double row NNU, NN series.
Double row series without cage: SL01, SL02 and SL04.
Single row series without cage: SL18, SL19 on request.
Suffixes to be retained: E for bearings of optimised capacity, G15 and T2X for polyamide cages.
For more information, refer to our catalogues!

3 REASONS TO CHOOSE OUR CYLINDRICAL ROLLER BEARINGS

THE QUALITY OF OUR DESIGN

To guarantee an optimum distribution of contact pressure in loading and thereby help improve the service life, NTN-SNR is working on the performance of the roller-rings contact.

Contact pressure on rollers:



Pierre Bronquard / Design Expert

«Formerly with straight contact lines, NTN-SNR's cylindrical rollers currently have optimised profiles to limit contact overpressure at the edges (edge effects). As a result, the overall service life of the bearing is directly increased, even in the case of applications with a certain level of misalignment.»

THE CONTROL OF OUR SURFACE CONDITIONS

The finishing process with lapping rod formerly known as «Superfinishing» enables surface condition values to be obtained (roughness Ra) of a dozen nanometres (in comparison, a standard turning process produces a roughness of 1 to 2 µm i.e. 1000 to 2000 nanometres). Such a performance lowers the friction levels to a minimum and thus improves the torque.

Furthermore, a low surface roughness favours the formation of the oil film between components. This film is vital as it prevents metal-metal contact, a source of spalling.

André Mulatier
Superfinishing Process Expert

«We have a real expertise in superfinishing processes and we provide equipment for these with almost 400 dedicated machines.
To better understand the interest of superfinishing, compare the 2 photos opposite. We clearly see the mirror effect on the right one where the raceway is superfinished.
Once the bearing is assembled, this detail is no longer visible to the customer. It is no less critical. Beware of low range products that would outwardly seem identical...»

Ground raceway

Superfinished raceway mirror effect

THE PERFORMANCE OF OUR CAGES

There are 4 main types of cages, Polyamide and Brass in two parts for standard bearings, Steel and Massiv brass for particularly loaded bearings (vibrations, accelerations, impacts, etc.). The choice of cages is made based on constraints and the environment in which they will be installed (the various advantages below).

Polyamide

- Centering on rolling elements only
- Temperatures < 120°C

Brass in two parts

- Centering on rolling elements only

Steel

- Centering on rolling elements only
- Good oil circulation

Massiv brass

- Centering on rings or rolling elements
- High speed application

Other applications that we are proud of:

Machine tools: MAZAK high-precision spindle bearings

Textile: STÄUBLI shed forming system roller

Steel: ThyssenKrupp Steel Europe AG sintering machine

Transmission: ZF epicycloid reducer

NTN-SNR ROULEMENTS - 1 rue des Usines - 74000 Annecy
RCS ANNECY B 325 821 072 - Code APE 2815Z - Code NACE 28.15
www.ntn-snr.com

NTN SNR With You