



# Keep your cold mill running cool.





# Roll with the highest quality bearings.



If you know metals, you know the durable bearings of NTN. For more than 35 years, we've been delivering long-term value and exceptional product quality to metals manufacturing OEM equipment installed worldwide. Built specifically for the highly-loaded and contaminated environment of your operation, our quality bearings are backed by a team of metals experts who can help with design, training and support— everything needed to keep you running longer, faster and stronger.



## Tapered Roller Bearings

Available in a wide variety of standard and metric size with optimized internal geometry and running accuracy for tension/pay off reels, slitters and coiler mandrels.



### 2-Row Tapered Roller Thrust Bearings

Optimized internal geometry to ensure the highest load capacity is achieved to support high thrust loads in both work rolls and back up rolls.

### 4-Row Tapered Roller Bearings

Made with a wide variety of features to keep contaminants out and lubrication in that include RustGuard® and engineered face seals for mill stand work roll support.

### 4-Row Cylindrical Roller Bearings

Made from the cleanest steel that is treated and formed with the highest quality processes, including options like case carburized, carbonitriding and/or phosphate coating, for mill stand back up roll support in tandem mills and galvanizing/coating mills.

# TAKING ON THE BIGGEST BEARING KILLERS

## PICKLING ACID. TANDEM OILS. COATING FLUID.

Even under these harsh fluid contaminants, NTN bearings are built to operate continuously. That's because we engineer our bearings to last with design features that minimize contamination infiltration and extend lubricant life – so you can cold roll non-stop.



# We're right at home in the most punishing applications.



## ULTAGE®

### The ULTAGE Advantage

Combining premium-grade materials, optimized design and precision manufacturing, ULTAGE is the new generation of high-performance bearings from NTN that delivers unmatched service life, the highest limiting speeds and the best load capacities on the market to maximize the productivity of your equipment.

Encompassing a wide variety of key bearing types such as spherical roller, cylindrical roller, tapered roller, heavy-duty mounted roller, angular contact and radial ball bearings, the ULTAGE line of superior, high-performance bearings from NTN delivers:

- **Extended service life** for better return on our end-users' investment.
- **Greater performance**, longer production and less downtime.
- **Dependable product availability**, thanks to a wide, robust distribution network.
- **Extras that go beyond** a standard offering, including on-site and web-based technical training, installation support, digital resources and more.



We design our bearings to outlast the competition in all cold rolling applications; including pickle lines, tandem mills, continuous anneal lines, and coating lines. Our ULTAGE® series takes NTN performance to great heights — setting a new standard as the hardest-working, highest-capacity bearings on the market.



### **Tapered Roller Bearings (TRB)**

Providing higher load capacity, higher speed and longer service life for:

- Mill Drive Gearboxes
- Mill Stand Work Rolls
- Transfer Rolls



### **ULTAGE® Spherical Roller Bearings (SRB)**

Delivering superior performance for increased throughput in:

- Coating Line Tension Rolls
- Mill Drive Gearboxes
- Line Support Rolls



### **Cylindrical Roller Bearings (CRB)**

Offering unmatched capacity and high-speed rotational performance for applications including:

- Mill Stand Back Up Rolls
- Mill Drive Gearboxes
- Mill Drive Motors



### **ULTAGE® SAFD Pillow Blocks**

Heavy duty mounted units deliver unmatched heat resistance in tough applications like:

- Continuous-Process Line Rolls
- Rollout Tables
- Line Shaft Supports

# Bringing your team up to speed.

At NTN, we are your supplier for success. And we know that achieving more uptime and improving plant efficiency starts with educating your people. That's why NTN offers custom training programs covering bearing selection, installation and maintenance. With both online and on-site training options available, it's easier than ever to give your people the know-how they need to be their best.



## In stock, on time and just a call away.

When a critical component in your operation is compromised, you need the right replacement fast, with no hassles. As one of the largest bearing manufacturers in the U.S., we have a wide network of distributors who provide 24/7 product support and availability. Unplanned downtime can be kept to a minimum and you can be back up and running quickly.



# Meet the lineup that's setting new standards.

## NTN ULTAGE® SPHERICAL ROLLER BEARINGS

Made from premium steel and larger rollers for 65% increase in capacity, resulting in up to 5x longer service life over conventional bearings in tension rolls for pickling, annealing and coating lines.

- **SUPERIOR DESIGN**

Optimized surface finish and incorporate high-performance, window-type pressed steel cage without the center guide ring for higher rigidity, stability and better lubrication flow through the bearing

- **PREMIUM FEATURES**

Our special heat treatment process allows for dimensional stability of the bearing up to 200°C (392°F) all while maintaining high hardness

- **VARIETY OF OPTIONS**

Stocked inventory and capabilities of producing most ISO variants with a breadth of cage and clearance options

## NTN TAPERED ROLLER BEARINGS

Developed to last longer in low-lubrication, high shock loading applications such as mill stand work rolls and mill drive gearboxes.

- **IMPROVED DESIGN**

Optimized roller crowning, special heat treatment and super-finished rollers and raceways improve bearing life, running accuracy and load ratings

- **INCREASED DURABILITY**

Engineered improvements allow increased limiting speeds and extend maintenance intervals

- **BUILT TOUGHER**

Optional case carburization reduces the effects of shock loading and increases life when debris intrudes roller path

## NTN CYLINDRICAL ROLLER BEARINGS

Delivering the highest standard in load capacity and high-speed performance for mill stand back up rolls and mill drive gearboxes.

- **TOP PERFORMANCE**

Accommodates heavy radial loads, rapid acceleration and high speeds of long product mill applications

- **VARIOUS ARRANGEMENTS**

Engineered to allow interchangeability of inner rings and outer ring assemblies

- **IMPROVED STRENGTH**

Internal geometry modifications allow for higher reliability and extended maintenance intervals



## NTN DEEP GROOVE BALL BEARINGS

Designed to withstand the abuse of high-speed, high-torque applications for pumps and motors.

- **EXTENDED LIFE**

TMB material and heat treatment options provides higher load, lighter weight and ultimately longer bearing life

- **MAXIMUM PROTECTION**

Various seal options, engineered to keep contamination out and keep lubrication in

- **VARIOUS CONFIGURATIONS**

Variety of internal and external design options available to maximize production

## NTN ULTAGE® SAFD MOUNTED UNITS

Outlasting the shock-loaded elements for continuous-process line rolls and shaft support applications.

- **EXTREME HEAVY DUTY**

Premium housing, bolts and base provide maximum structural integrity to help withstand high impact and severe temperatures

- **MAINTENANCE FRIENDLY**

Serialized cap & base and hardened steel ball guide ensure superior fit during installation and simplifies disassembly

- **FLEXIBLE CONFIGURATION**

Accommodates tapered bore insert bearings with adapters and stabilizing rings

## CONSTANT VELOCITY JOINTS

With superior sealing options, our CVJs are designed to last in the harshest environments.

- **EXTENDED SERVICE INTERVAL**

Seal structure and environment conditions enable prolonged maintenance-free operation

- **QUICKER INSTALL**

No axis alignment required with self-aligning feature

- **CORROSION PROTECTION**

Stainless steel middle shaft option provides excellent corrosion defense

# Beyond Bearings

Training. Installation Support.  
Troubleshooting. And more.

When you choose NTN, your team is equipped with all the necessary tools and resources to get the job done right. From installation to problem solving, we'll be there with the hands-on support you need to take on your toughest challenges. This includes extra services such as:



## Technical Training Unit

On-site, mobile training unit offering specialized, hands-on instruction from NTN engineers



## Product Training School

Three days of in-depth instruction from NTN engineers at headquarters  
([go.ntnamerica.com/trainingschool](http://go.ntnamerica.com/trainingschool))



## eKnowledge

WEB-BASED TRAINING PROGRAM

Six online product training modules covering different bearing types and nomenclature  
([www.ntnamerica.com/eknowledge](http://www.ntnamerica.com/eknowledge))



## NTN Bearing Finder

Customizable search tool featuring exhaustive data sets, comprehensive part interchanges and interactive CAD drawings  
([bearingfinder.ntnamerica.com](http://bearingfinder.ntnamerica.com))



## We won't give you the cold shoulder.

For all your on-site service and support needs including proper product selection, installation training and troubleshooting/problem solving, contact your local NTN Sales Representative or call **1-800-323-2358**.

For additional technical questions, email [eng@ntnamerica.com](mailto:eng@ntnamerica.com).



**METALS MANUFACTURING**



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