

## Leave grain processing downtime in the dust.

## Made to take the pain out of grain.



NTN's superior bearing technology is built to withstand the harshest conditions so that you can keep your plant running at maximum production for a stronger bottom line and fewer unanticipated breakdowns.



## NTN brings more reliability to every step of your process.

From contamination resistant solutions to stainless steel options, we have the widest variety of durable and reliable product solutions for every stage of your process—all backed by the expert technical support, service and training to help you get the maximum value and reliability from your equipment, every day. So, whether your operation includes hammermills, roller mills or pellet mills and extruders... from shakers, flakers to sifters... or is filled with conveyors, NTN has everything you need to roll through your challenges.





## Performance-proven. OEM-trusted.

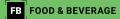


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#### NTN ULTAGE<sup>®</sup> Spherical Roller Bearings

From radial spherical bearings to heavy-duty mounted units, ULTAGE® series provides a new standard of performance for roller mill and hammermill applications





Day in and day out, crucial components like your fans, blowers and conveyors are subjected to high vibration, contamination, and heavy, uneven bearing loads—issues that can take down ordinary bearing components. But at NTN we designed our bearings to hold up to the most extreme forces your equipment can muster. This proven-tough performance is why so many of the world's leading OE manufacturers trust NTN bearings on their products.

## Bushel after bushel, NTN keeps grinding.

Even with the punishment that can break down seals and lead to compromising contamination, NTN bearings are built for the long haul. That's because they include unique features designed to resist contamination, extend lubrication life and handle heavy loads—so you can take these challenges in stride.



## FOR FINE DUST, EXTREME VIBRATION AND UNEVEN LOADS, NOTHING BEATS NTN.

#### PROTECT PRODUCTIVITY WITH THE ULTAGE<sup>®</sup> SERIES

Our new-generation ULTAGE® series bearings were created for added durability and reliability to take on tough working conditions and high seasonal demand. Delivering the ultimate in performance, NTN ULTAGE® combines special alloys capable of withstanding 392°F continuous ambient temperatures with an optimized roller complement and retainer design enabling the highest load capacity and allowable speed for a given bearing type and size.

# Leave costly service delays in the dust.

When a mission-critical component in your operation is compromised, you need the right replacement, and fast. With NTN, you have a partner who truly understands your need for speed. As a bearing manufacturer with the greatest amount of U.S.-based production, we have significant in-stock inventory and a wide distribution network which means you'll always have easy access to the parts you need, right when you need them.

#### NTN SPAW/SPW Mounted Roller Bearing Units

Superior seals and heavy-duty protection provides a major upgrade from standard SAFs in conveyors and bucket elevators

### **Key NTN products for grain processing**

#### **MOUNTED ROLLING BEARINGS**

#### NTN ULTRA-CLASS<sup>™</sup> SERIES

Our flagship mounted ball bearing line combines an elastomeric seal and flinger design to deliver optimum protection from both humidity and dust particles for conveyor applications.

- Heavy-duty construction: Solid-cast housings and robust steel cages for longer life
- Seals out contaminants: Premium protection due to unique flinger design and rubber seal
- **Best-in-class retention:** 7.5x longer set screw retention with NTN's exclusive ball-point set screws vs. cup-point
- **Corrosion-resistant:** Black-oxide coating provides improved rust resistance compared to standard, non-coated inserts
- **Easy installation:** Fully assembled units arrive factory sealed and pre-lubricated for easy installation
- Eliminate food contamination: Available with optional NSF H1 food grade grease

#### **NTN SENTINEL® SERIES**

Our mounted bearing units are designed to bring durability, flexibility and optimal protection in all your areas where food contamination is a concern.

- Available in both stainless steel and thermoplastic housings with stainless steel inserts
- Available with protective caps to help protect against a wide range of debris and contaminants
- Standard with NSF H1 grease
- Multiple housing styles and additional features available to provide design flexibility and to ensure compliance with FDA, USDA and OSHA standards

#### NTN SPAW/SPW Mounted Roller Bearing Units

Perfect for contamination-prone environments such as conditioners and conveyors, these units are engineered for quickest installation to keep your line up and running.

- **Speedy replacement:** Takes less than 1/4th of the installation time versus standard SAF split housings; ready for operation upon install
- **Longer life:** Heavy-duty one-piece ductile iron housing provides resistance to impact loads for longer bearing life and increased uptime; pre-lubricated bearings add additional protection



#### **SPHERICAL ROLLER BEARINGS (SRB)**

#### NTN ULTAGE<sup>®</sup> EM/EA Spherical Roller Bearings

The premium standard for spherical roller bearings, improving uptime in cracking, flaking and grinding applications.

- **Superior design:** Optimized internal geometry for higher load capacity, longer bearing life and improved misalignment capabilities
- **Improved bearing lubrication:** Improved roller and cage design to allow for better lubrication, minimal friction and consistent and even grease flow. Available in both steel and brass cages
- **Premium features:** High-quality steel, unique heat treatment (392°F) and precision surface finish create a more durable bearing with improved capacity and speed ratings
- Shaker screen versions (also available)

#### NTN ULTAGE® SAF Heavy-Duty Mounted Units

Provide solutions for conveyor systems and material handling equipment in harsh, severe environments.

- Extreme heavy duty: Premium housing, bolts and base provide maximum structural integrity to help withstand high impact and severe temperatures
- Maintenance friendly: Serialized cap and base, hardened steel ball guide and dowel rods ensure superior fit during installation and ease of disassembly
- **Premium features:** Machined H7 housing utilizes integrated flat spots and ports to reduce vibration and noise and allow for external monitoring and lubrication



#### **TAPERED ROLLER BEARINGS (TRB)**

Designed for pellet mills, extruders and flakers, our tapered roller bearings utilize conical rollers and raceways to deliver high capacity for radial and single thrust loads.

- Added reliability: Precise control of component heat treatment, dimensions and surface deliver more reliable bearing performance
- **Extended life:** Premium steels and heat treatments bring long-lasting performance

## **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.ntnamericas.com/trainingschool)



#### eKnowledge

WEB-BASED TRAINING PROGRAM

Six online product training modules covering different bearing types and nomenclature (www.ntnamericas.com/eknowledge)



#### NTN Bearing Finder

Customizable search tool featuring exhaustive data sets, comprehensive part interchanges and interactive CAD drawings (bearingfinder.ntnamericas.com)



#### Let us produce for you.

For all your on-site service and support needs with 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.





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