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KINEX BEARINGS Bearings for Vibrating Devices

# BEARINGS FOR VIBRATING DEVICES

Precision and Durability for High-Vibration Applications



Vibrating devices, used across industries such as mining, construction, and material processing, require robust bearings capable of handling high radial and axial loads, frequent oscillations, and strong vibrations. Bearings used in these applications must endure heavy-duty conditions and maintain reliability under constant motion. Here's an overview of the most commonly used bearings in vibrating devices and their specific applications.

Single Row Cylindrical Roller Bearings

## **Double - Row Spherical Roller Bearings**



> Applications: Vibrating Screens, Shakers, Conveyors in Aggregate and Mining.

Spherical roller bearings are a top choice for vibrating devices due to their high load capacity and ability to handle misalignments caused by constant vibration. In vibrating screens, shakers, and conveyors, these bearings are subjected to continuous, intense vibrations. Spherical roller bearings can carry both radial and axial loads, making them ideal for high-impact applications, ensuring consistent performance and extended service life even in extreme conditions.



> Applications: Material Screeners, High-Speed Vibratory Motors, Crushing and Sorting Equipment.

Cylindrical roller bearings are frequently used in vibrating devices that operate at high speeds and require support for heavy radial loads. Their low friction and excellent loadcarrying capacity make them ideal for material screeners, high-speed vibratory motors, and other equipment subjected to consistent vibration. They allow for smooth operation and extended bearing life, crucial in applications with continuous oscillating motion.

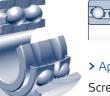
## Single Row Angular Contact Ball Bearings





> Applications: Vibratory Motors and Actuators, High-Precision Oscillating Tools, Unbalanced Motors in Shaker Tables.

## **Double Row Angular Contact Ball Bearings**



> Applications: Heavy-Duty Vibrating Screens, Conveyor Rollers in Vibratory Feeders, Crushers and Large Shakers, Vibratory Compactors.

Single-row angular contact ball bearings are primarily designed to support high-speed applications where combined radial and axial loads occur in one direction. In vibrating devices, they are often used when the axial load is applied in only one direction, or where multiple single-row bearings can be paired to support multidirectional loads. Double-row angular contact ball bearings are more robust and handle axial loads in both directions along with high radial loads, making them ideal for heavy-duty vibrating equipment. These bearings offer added stability, which is crucial in vibrating applications.

### Single Row Tapered Roller Bearings



> Applications: Vibratory Feeders, Oscillating Conveyors, Sorting Machines.

Tapered roller bearings are well-suited to applications where radial and axial loads are present simultaneously, such as vibratory feeders, oscillating conveyors, and sorting machines. These bearings excel under heavy loads and are designed to withstand the high-stress environment of vibrating devices. Their tapered design allows for better control over axial forces, ensuring stability and smooth operation under vibration.

#### Spherical Roller Thrust Bearings

Cylindrical Roller Thrust Bearings



## Needle Roller Bearings



> Applications: Compact Vibrating Mechanisms, Oscillating Tools, Compact Material Separators.

Needle roller bearings are compact and can handle heavy radial loads, making them ideal for compact vibrating mechanisms, oscillating tools, and small material separators. In high-frequency oscillating applications, needle roller bearings offer a low-profile solution that provides excellent support for radial forces.

Their compact design also makes them well-suited for equipment where space constraints exist.



## Single Row Deep Groove Ball Bearings



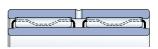


> Applications: Vibration Motors, Small Shaker Tables, Light-Duty Screening Equipment.

Deep groove ball bearings are used in smaller or lighter vibrating devices, such as vibration motors, small shaker tables, and light-duty screening equipment. These bearings offer smooth rotation with minimal friction, providing reliable performance in lower-load, high-speed applications. They can be sealed or shielded to protect against contaminants, making them suitable for devices that require consistent speed and vibration with minimal maintenance.

> Applications: Vertical Vibrating Shafts, Compressors and Compactors, High-Load Oscillating Applications.

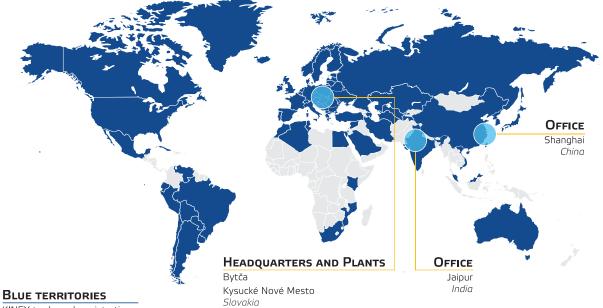
Thrust roller bearings are essential in applications with high axial loads, such as vertical vibrating shafts, compressors, and compactors. Their ability to support significant axial forces makes them ideal for equipment subjected to heavy thrust during oscillations. Thrust roller bearings ensure smooth operation even under continuous, high-load conditions, providing reliability and stability for equipment with large vibration forces.







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