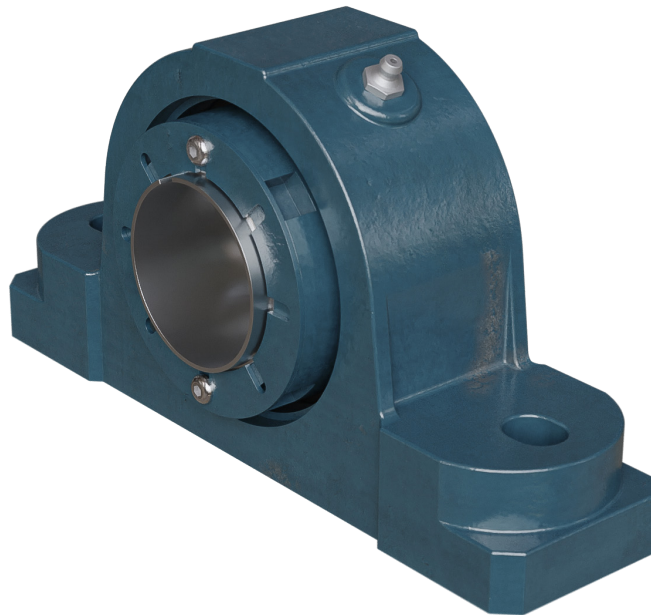


REPLACEMENT & AFTERMARKET

SPHERICAL BEARINGS



Collaborate / Create / Convey

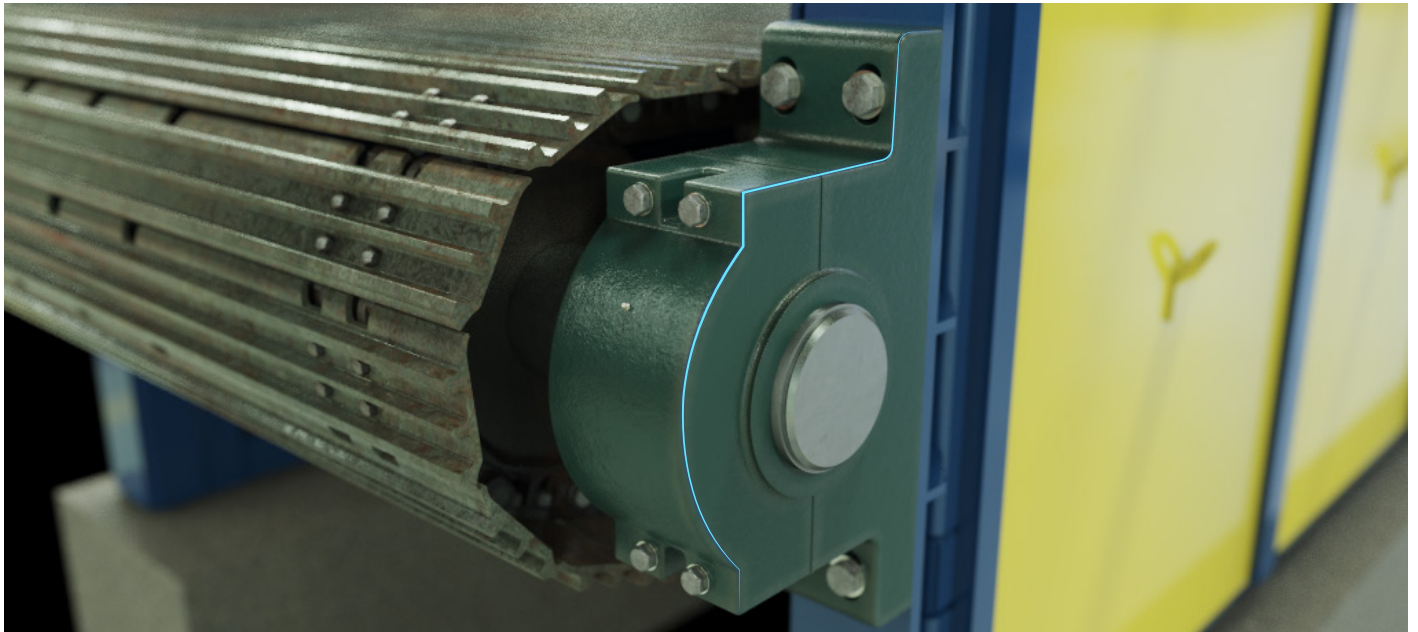
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SPHERICAL BEARINGS



Spherical Bearings

Conveyor pulleys experience heavy belt tensions and material loads that induce shaft deflection and misalignment. Left unaddressed, these continuous mechanical forces compromise rigid components, leading to accelerated wear on raceways, potential shaft marking, and system failure.

Factory-assembled spherical roller bearings utilize barrel-shaped rollers to provide high radial load capacity and self-alignment capabilities. Engineered in pillow block, flange, and take-up housing configurations, these units secure standard conveyor shafts across drive, tail, and idler applications. Each unit features precision-machined housings and pre-lubricated inserts to maintain load distribution and contamination defense in demanding environments.

APPLICATIONS



Waste & Recycling

Built for demanding waste and recycling conveyors, flange bearings ensure stable alignment under heavy loads and contamination. Sealed against debris and moisture, they deliver reliable 24/7 performance with reduced maintenance.



Aggregate Processing

Heavy dust environments and substantial shock loads threaten standard seals and rolling elements during conveyor startup. Triple-lip seals exclude heavy particulate contamination while case-hardened rollers tolerate sudden radial load spikes.



Mining Operations

Custom transfer chutes demand precise redirection of material flow from a single feed to multiple discharge points. Pivot-mounted bearings facilitate accurate structural rotation while resisting contamination from constant aggregate flow.



Turntable Conveyors

Extreme contamination accelerates internal wear on open components. Pre-lubricated sealed designs protect internal raceways from moisture and debris.



Transfer Stations

Continuous material flow creates constant radial stress and potential shaft deflection. Double-row spherical rollers maintain load distribution during misalignment events up to 2°.

KEY FEATURES

01

Eccentric Collar Mechanism:

Provides a radial adjustment range for compensating mounting variations and facilitating precision pulley alignment before final lockdown.

02

Adapter Sleeve Mounting System:

Expands the bearing inner ring over tapered sleeves to create secure interference fits without requiring precise shaft machining.

03

Trident Triple-Lip Sealing:

Deploys three-stage contamination barriers to exclude dust and moisture in extreme material handling environments.



04

Double-Row Spherical Roller Configuration:

Utilizes barrel-shaped rollers to provide 1° to 2° of misalignment tolerance while carrying substantial radial loads.

05

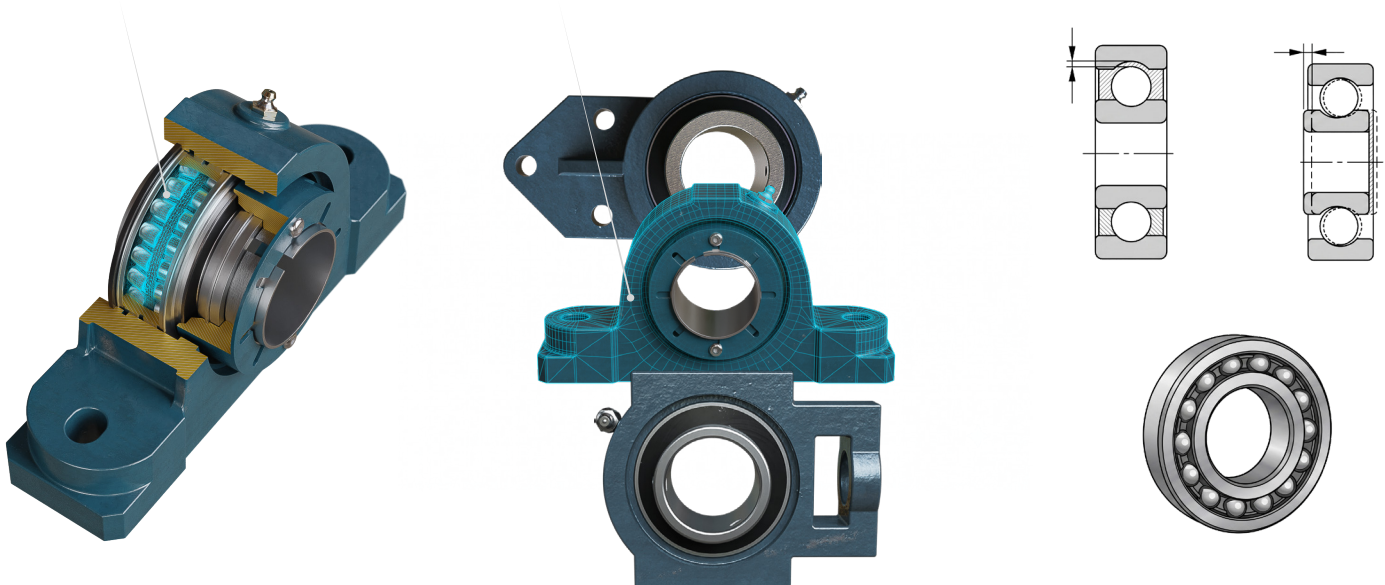
Multi-Format Housing Configurations:

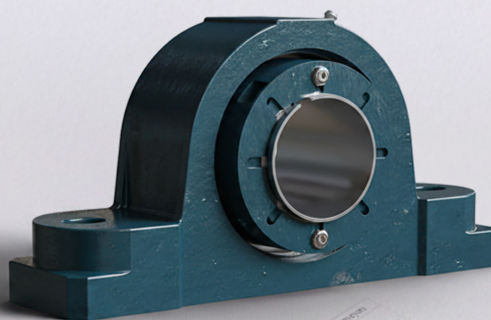
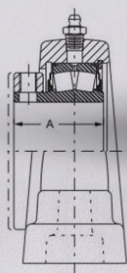
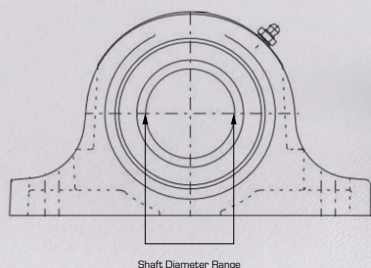
Available in pillow block for horizontal bases, flange for vertical surfaces, and narrow or wide slot take-up frames for belt tensioning.

06

C3 and C4 Internal Clearance:

Provides additional internal space between rolling elements and raceways to accommodate thermal expansion and shaft deflection.

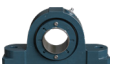




SPHERICAL BEARINGS SPECIFICATIONS

Parameter	Standard Specification	Extended / Custom Options
Shaft Diameter Range	1-3/8" to 10"	Contact Engineering
Misalignment Tolerance	-1° to +2°	N/A
Operating Temperature	-20°F to 250°F	Up to 400°F (Specialty seals)
Housing Materials	Cast iron	Ductile iron, cast steel, stainless steel, composite
Seal Types	Trident triple-lip, labyrinth	Taconite (Bearing isolators)
Set Screw Spacing	65°	N/A
Note: Relubrication intervals vary by condition; temperatures exceeding 180°F indicate insufficient lubrication or excessive loading.		

Bearing Configuration

Image	Housing Type	Mounting Plane	Structural Function	Compatible Positions
	Pillow Block	Horizontal	Mounts on pedestals parallel to mounting surface	Drive shafts, tail shafts, idlers
	Flange (2, 3, or 4-bolt)	Vertical	Mounts against walls with shaft perpendicular to plane	Compact spaces, heavy-duty applications
	Take-up	Adjustable / Sliding	Slides within frames to maintain proper belt tension	Tail pulleys, tensioning systems

THE ENGINEERING ADVANTAGE

This section outlines the manufacturing methodology behind spherical bearings, covering housing design and internal geometry to ensure precise fit and extended service life.

Precision-Machined Base Construction:

Maintains consistent base-to-center height dimensions and exact mounting bolt hole patterns to distribute loads evenly across the cast iron frame.

Interference Fit Clearance Calculation:

Calculates thermal expansion margins via C3 or C4 clearance ratings to prevent bearing preload when operating temperatures rise.

Non-Contact Labyrinth Isolation:

Utilizes bearing isolators to prevent contamination ingress while allowing internal pressure equalization in extreme environments.

Set Screw Spacing Geometry:

Positions locking set screws at 65° spacing configurations to optimally distribute clamping forces across the shaft surface.



CONTACT INFORMATION

OUR ENGINEERS WILL SPEC THE EXACT PART FOR YOUR SYSTEM

For product specifications, engineering support, or order inquiries, please contact our team using the information provided below. Our specialists are available to ensure accurate recommendations and efficient service for your application requirements.

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