

RKB TECHNICAL DOCUMENTS

TECHNICAL FICHES

GENERAL AND PARTS DRAWINGS

GENERAL CATALOGUE

TECHNICAL TABLES

TRACEABILITY REPORTS

CO-ENGINEERING PROJECTS

QUALITY CONFORMITY DATA SHEETS

INSPECTION CERTIFICATE DATA SHEETS

MAIN TECHNICAL DATA SHEETS

RATING LIFE CALCULATIONS

LABORATORY ANALYSES

TECHNICAL REPORTS

With a solid knowledge and extensive expertise in rolling bearings, **RKB** can provide you with a comprehensive engineering support for the reliability and suitability of your applications. Do not hesitate to contact our Technical Department through the worldwide network of **RKB** official partners and distributors.



RKB
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The Alternative Power



POWER TRANSMISSION

ENGINEERED IN SWITZERLAND
TECHNOLOGICAL BEARINGS



Printed in Switzerland on environmentally friendly paper

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**RKB BEARINGS FOR
THE POWER TRANSMISSION INDUSTRY**



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**RKB BEARINGS FOR
THE POWER TRANSMISSION INDUSTRY**



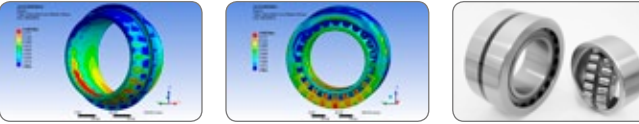
RKB
BEARING INDUSTRIES
The Alternative Power

The Swiss Bearing Manufacturer


The **RKB** Bearing Industries Group is the Swiss manufacturing organization operating in the bearing industry for over 70 years, with an area of 90.000 sqm, 135 million euros of tangible assets, and a monthly production capacity exceeding 350 tons of machined steel. The experience gained over the years provides **RKB** with the know-how and expertise necessary for the development and production of technological valued-added bearings up to 1925 mm outer diameter, particularly for the heavy industry. Thanks to its pioneer business model, based on a vertically integrated system, **RKB** offers reliable cost-effective solutions, with extreme operational flexibility, leading-edge service, huge stock availability (more than 35 million euros of standard and special rolling bearings), short delivery time and the top quality typical of a consistent premium-class bearing source. With a worldwide distribution network and exports to more than 50 countries, **RKB** is globally recognized as *"The Alternative Power"* in the bearing industry.

CONCRETE MIXER GEARBOX

- Bearing internal geometry optimized through Finite Element Analysis to sustain additional loads and friction at low operating speeds (max 20 rpm)
- Increased permissible misalignment up to $\pm 6^\circ$ (Wider Outer Ring) in transit mixer concrete gearbox
- Premium steel class for higher reliability and extended service life
- Special heat treatments to decrease incidence of cracking
- Safety factor (S_o) > 2,5
- Design life (L_{10m}) > 2,6 million revolutions \approx 10 years service




Main RKB bearings: T3 Segment - Spherical roller bearings WOR design



FRONT AND REAR AXLES OF DUMP TRUCKS

- Single-row taper roller bearings for dumper transmission (wheel hubs of front and rear axles)
- Up to 300 mm inner diameter and 422 mm outer diameter
- E-Type design and execution for high load capacity, higher accuracy and shock resistance
- Rating life (L_{10}) > 100000 km of the vehicle




Main RKB bearings: T3 Segment - Single-row taper roller bearings



| # | BEARING TYPE |
|---------|-----------------------------------------------------------|
| SEA. 1 | Full complement cylindrical roller bearings NCF 18 series |
| SEA. 2 | Full complement cylindrical roller bearings NCF 18 series |
| SEA. 3 | Patented wet cylindrical roller bearings R18 series |
| SEA. 4 | Patented wet cylindrical roller bearings R18 series |
| SEA. 5 | Spherical roller bearings |
| SEA. 6 | Spherical roller bearings |
| SEA. 7 | Single row cylindrical roller bearings N2 series |
| SEA. 8 | Single row cylindrical roller bearings N2 series |
| SEA. 9 | Single row cylindrical roller bearings N2 series |
| SEA. 10 | Single row cylindrical roller bearings N2 series |
| SEA. 11 | Single row taper roller bearings |

Main RKB bearings: T3 Segment - Technological bearings



WIND MULTIPLICATORS

- Technological bearings for speed multipliers used in medium and high power wind turbines (over 850 kW)
- Maximum reliability required due to the application conditions
- Bearing optimization through RKB R&D activity



Main RKB bearings: T3 Segment - Technological bearings



GEARBOX FOR THE CITY BUS ON TYRES 'PHILEAS'

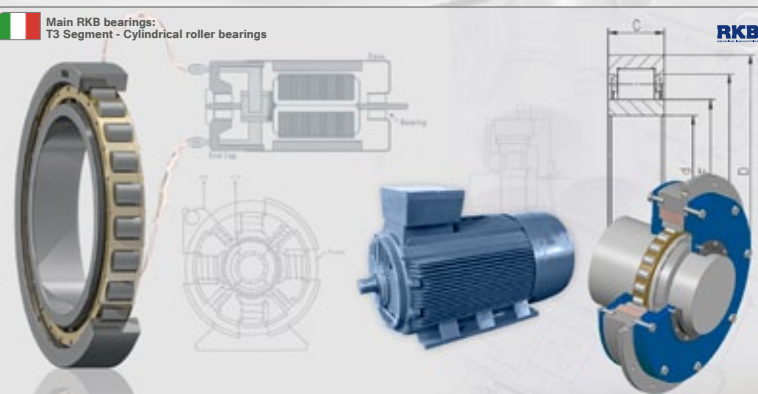
- Application optimized taper and cylindrical roller bearings
- Up to 280 mm inner diameter
- Required operating life (L_{10m}) > 1,8 million kilometers of the vehicle



MOTION CONTROL DRIVERS AND MOTORS

- Cylindrical roller bearings and deep groove ball bearings for traction motors
- Up to 320 mm inner diameter

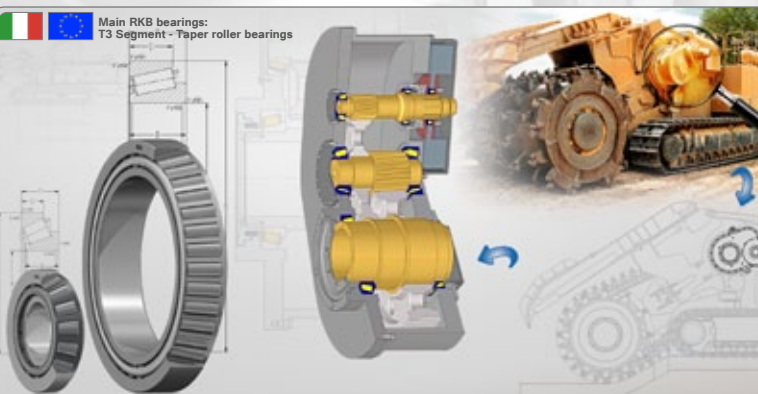
Main RKB bearings: T3 Segment - Cylindrical roller bearings



TRENCH FLYWHEEL GEARBOX

- E-Type design taper roller bearings with optimized inner geometry for high load capacity and precise axial adjustment on shafting
- Low-speed shaft of 240 mm diameter with highly productive trenching requirements
- RKB Bainite Treatment (HB) to support heavy shock loads

Main RKB bearings: T3 Segment - Taper roller bearings



RESEARCH AND DEVELOPMENT



ADVANCED MANUFACTURING TECHNOLOGY



MULTILEVEL QUALITY CONTROLS



PREMIUM QUALITY ROLLING BEARINGS



SPECIAL PROJECTS



SERVICE AND ASSISTANCE



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