

# RKB SOLID OIL BEARINGS

**RKB**  
BEARING INDUSTRIES  
SWITZERLAND



## RKB: the Swiss Premium-Class Bearing Manufacturer

The RKB Bearing Industries Group, a Swiss-based manufacturing organization, has been a key player in the bearing industry since 1936.

Leveraging decades of experience, RKB possesses the specialized knowledge and skills required to design and produce industrial bearings from 1 mm bore diameter to over 2.000 mm outer diameter.

With a global distribution footprint reaching over 70 countries, RKB provides value-driven solutions characterized by impressive operational adaptability, top-tier services, huge stock reserves, quick shipping times, and the hallmark quality expected of a premium bearing provider.



RKB Show-Box 903.1  
with solid oil bearing

## RKB Bearings with solid oil

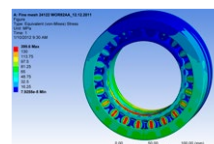
RKB bearings with solid oil, suffix W64, are lubricated for life and cannot be relubricated. Inside the bearing free volume is moulded a microporous composite polymer that leaves only small clearance with the cage and rolling elements.

All the voids of the polymer are filled with oil. RKB solid oil bearings are the most efficient and reliable solution when bearings are subjected to wet and contaminated environments, reducing machine breakdowns.



## Engineering and Manufacturing Solutions at Your Service!

- Technical consultancy
- Application analysis and feasibility study
- Engineering and design
- Advanced calculations
- FEM and semi-analytical simulations
- Project co-engineering
- Product customization and optimization
- Advanced and flexible manufacturing technology
- Qualified on-field assistance



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## Types available (W64/W64T150/W64HT)

- Spherical roller bearings, 222/223 series available on request
- Single row tapered roller bearings available on request (metric and inch sizes)
- Insert bearings available on request
- Available also for higher working temperature:
  - RKB W64/T150 for maximum working temperature of 150°C
  - RKB W64/HT for maximum working temperature of 300°C, with graphite solid oil and rings stabilized S3

## Dimensional range

- ID (inner ring bore dia.) > 40 mm
- OD (outer ring outer dia.) < 200 mm

## Main industries and applications

- Food and beverage, marine and shipyard, material handling and process industry
- Typical applications are conveyors and pinch rolls in metal industry

## Technical notes and warnings

RKB standard W64 bearings are composed by microporous composite polymer and fully synthetic ISO VG 150 oil. Different oil types are available on request (types for high working temperature, W64T150 and W64HT, have special high viscosity lubricants)

The applicable temperature range for continuous operation of RKB standard solid oil bearings is -40°C to +85 °C. RKB standard W64 bearings can be heated only with induction heater (max. 100°C) but not with oil bath.

The RKB solid oil bearing limiting speed is lower than standard bearing types. A rule of thumb for estimating the RKB solid oil bearing limiting speed is:

- Spherical roller bearings:  $n \cdot dm < 85\,000$
- Tapered roller bearings:  $n \cdot dm < 45\,000$
- Deep groove ball bearings:  $n \cdot dm < 300\,000$

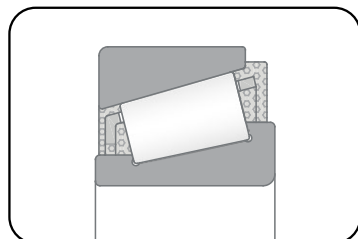
Where:  $n$ , rotational speed in rpm, and  $dm = (d+D)/2$ , bearing pitch diameter in mm.

For more demanding applications, please contact RKB TTU service.

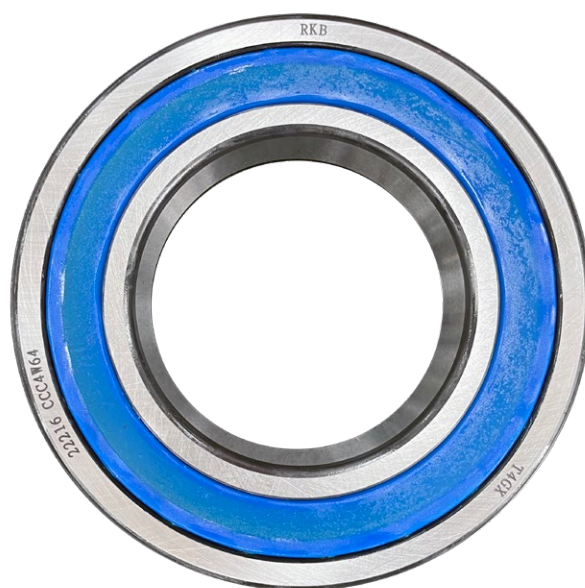
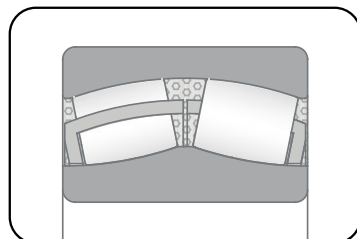
On request, RKB solid oil bearings are available also for food industry, with food grade oil. RKB W64 bearings MUST not be cleaned with any solvent.

## Special designs and variants

Type **TS/W64**



Type **222/223 series W64**



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