

SKF Explorer four-row tapered roller bearings for work rolls

Features

- Four separate outer rings for even load distribution
- Heat and wear-resistant, low-friction seal
- Highly homogenous, low-oxygen steel for robust durability

Benefits

- A new level of work roll design freedom
- Improved reliability
- Increased service life
- Reduced maintenance costs

Applications

- Work rolls in rolling mills



Interchangeable, open or closed

For work roll applications, choosing between open or sealed bearings has always involved compromise. Sealed bearings keep contaminants out, but they reduce load carrying capacity. Open bearings can handle heavier loads, but are exposed to contamination. In both scenarios, bearing service life suffers.

SKF Explorer four-row tapered roller bearings for work rolls eliminate these performance trade-offs. Thanks to an upgraded design, both open and sealed variants of SKF Explorer four-row tapered roller bearings are identical dimensionally and in load carrying capacity, making them completely interchangeable.

Match bearings to work demands

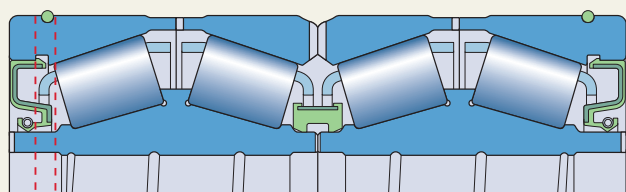
With SKF Explorer four-row tapered roller bearings, rolling mills now have several ways to match bearing design to specific work roll application demands:

- Replace current open bearings with the new open design
- Replace new open bearings with the optimized seal design with no compromise in performance or service life
- Convert new open bearings to sealed versions at a later stage with an easy-to-assemble sealing kit

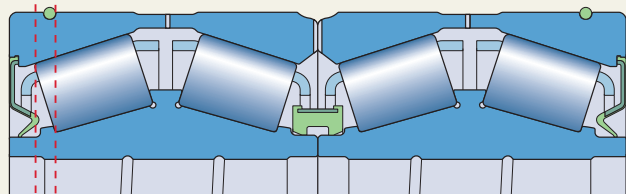


Fig. 1

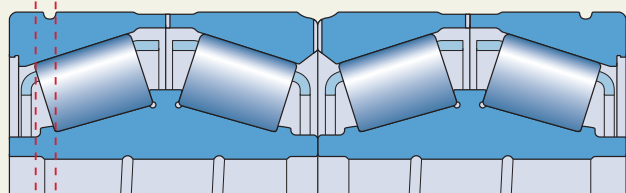
Interchangeability



Previous sealed design



New sealed design



New open design

Identical loads and dimensions

Thanks to a compact, optimized seal design, SKF Explorer four-row tapered roller bearings have larger rollers with a greater basic dynamic load rating C for both open and sealed variants. Both share the same outer dimensions, giving mills the freedom to use either open or closed bearings as the application requires (→ fig. 1).

Diagram 1

Oxygen content

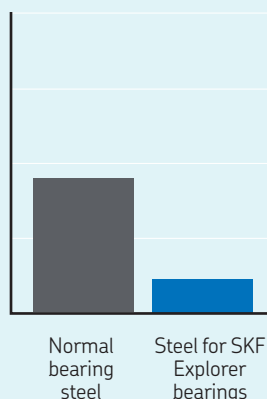
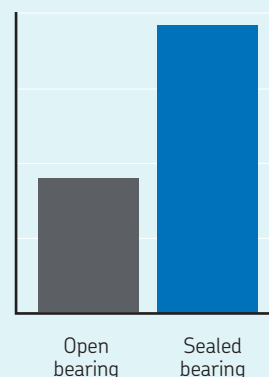


Diagram 2

Relative service life for work roll bearings



High quality, low-oxygen steel

SKF Explorer four-row tapered roller bearings for work rolls feature highly homogenous steel manufactured with an extremely low oxygen content (→ diagram 1). The result is improved strength, durability and ultimately, longer service life.

Sealed for longer service life

Manufactured with a heat- and wear-resistant material, the optimized seals in SKF Explorer four-row tapered roller bearings provide improved performance compared to the previous design.

Seal lip friction and operating temperature are reduced, while thermal and chemical stability helps the seal withstand high sliding velocities. Both upgrades boost seal performance and service life, improving bearing lubrication and running conditions to extend bearing service life in work rolls (→ diagram 2).

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