

# Sealed SKF Explorer spherical roller bearings

Protected for superior field performance

*Now with improved performance  
of small sealed spherical roller  
bearings*





# Superior protection for longer



When SKF invented the spherical roller bearing in 1919, it opened a new world of possibilities for industrial applications. The self-aligning capabilities of this breakthrough design enabled longer bearing life in the most demanding applications.

With the introduction of sealed spherical roller bearings, service life in contaminated environments can be significantly increased. Pre-lubricated with a specially formulated grease and sealed with highly effective contact seals, these bearings can in many applications be considered lubricated for the life of the bearing. By eliminating or extending relubrication intervals, sealed SKF spherical roller bearings can significantly reduce the costs to purchase, apply and dispose of grease.



# life and reduced maintenance



## Up to four times the rating life of open bearings

In a typically contaminated environment, a sealed bearing has a rating life of up to four times that with an open bearing. Longer service life leads to more productive and profitable operation.

## Benefits include:

- Significantly increased uptime
- Substantially reduced need for maintenance
- Reduced grease consumption and disposal cost
- Less environmental impact
- Improved worker safety

# Small sealed SKF spherical roller bearings

## Less maintenance, longer life

Sealed SKF Explorer spherical roller bearings can significantly increase bearing service life in contaminated environments. These bearings are pre-lubricated with a specially formulated grease and sealed with highly effective contact seals. The seals protect the bearing and lubricant from contaminants that might otherwise cause premature bearing failure.

In many applications, these bearings can be considered lubricated for the life of the bearing. By eliminating or extending relubrication intervals, these bearings can significantly reduce the cost to purchase, apply and dispose of grease. Reduced maintenance costs will, in many cases, substantially reduce the total cost of ownership of an application.

## Half the friction, twice the speed

With a new design that results in up to 50% less seal friction, SKF's small sealed spherical roller bearings (shown in blue colour in **diagram 1**) reduce operating temperatures by as much as 20 °C (36 °F) (→ **diagram 2**), enabling us to double the limiting speed rating. As a result, more applications can benefit from the superior contamination protection of sealed SKF spherical roller bearings.

Sealed spherical roller bearings are suitable for a wide range of applications including elevators, off-highway and agricultural machinery, fans and fluid machinery, food and beverage equipment, conveyors and some small electric motors.

## Additional benefits:

- Total bearing friction reduced by as much as 20%
- Relubrication intervals can be up to twice as long
- Grease usage can be reduced significantly
- In many applications the bearing can be considered relubrication-free for the life of the bearing, reducing maintenance costs

Diagram 1

Sealed SKF spherical roller bearing range

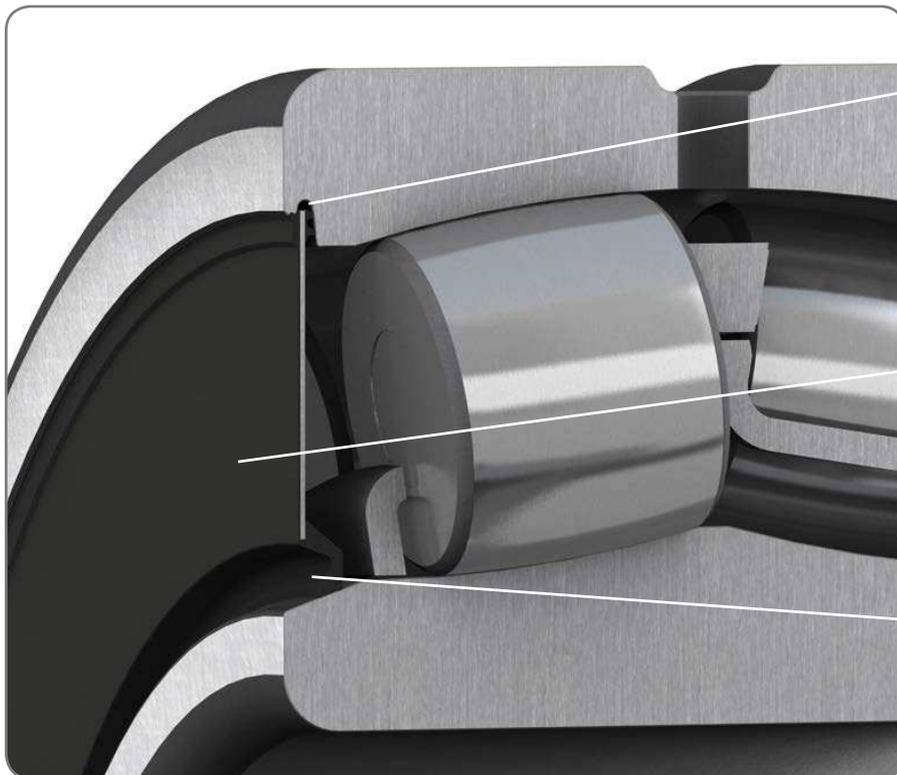
d [mm]	Series								Size	
	213	222	223	230	231	232	239	240		241
25		↔								05
30		↔								06
35		↔								07
40		↔	↔							08
45		↔	↔							09
50		↔	↔							10
55		↔	↔							11
60		↔	↔							12
65		↔	↔							13
70		↔	↔							14
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200										40
220										44
240										48
260										52
280										56
300										60
320										64
340										68
360							1)			72
380										76
400										80
420							1)			84
440										88
460							1)			92

- = Open spherical roller bearings available
- = Open and sealed spherical roller bearings available, designation suffix 2CS
- = Open and sealed spherical roller bearings available, designation suffix 2RS
- ↔ Sealed bearing is slightly wider than open bearing

1) Can be delivered with some restrictions, please contact your sales representative.

# Bearings with improved performance

## Sealed SKF spherical roller bearing with designation suffix RS



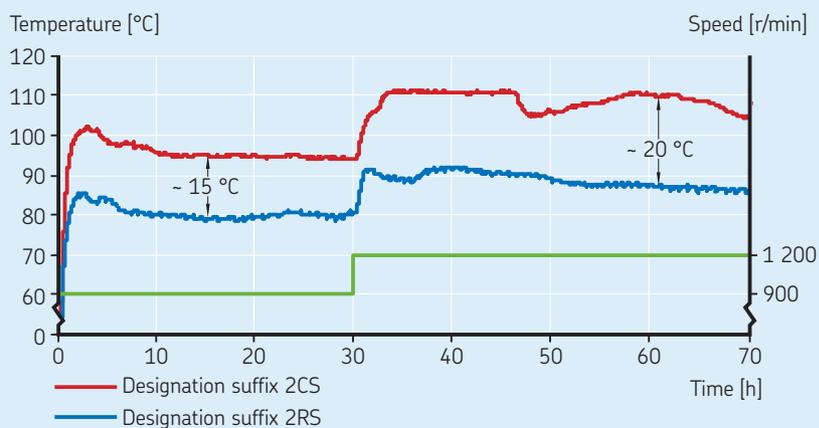
New seal groove design to improve seal anchorage for a better fit

Rubberized side face, more resistant to scratches and corrosion

New seal lip with optimized seal lip pressure – reducing seal friction by up to 50%

Diagram 2

### Sealed SKF spherical roller bearing operating temperature



### Test conditions:

Bearings: 23022-2CS/VT143 and 23022-2RS/VT143

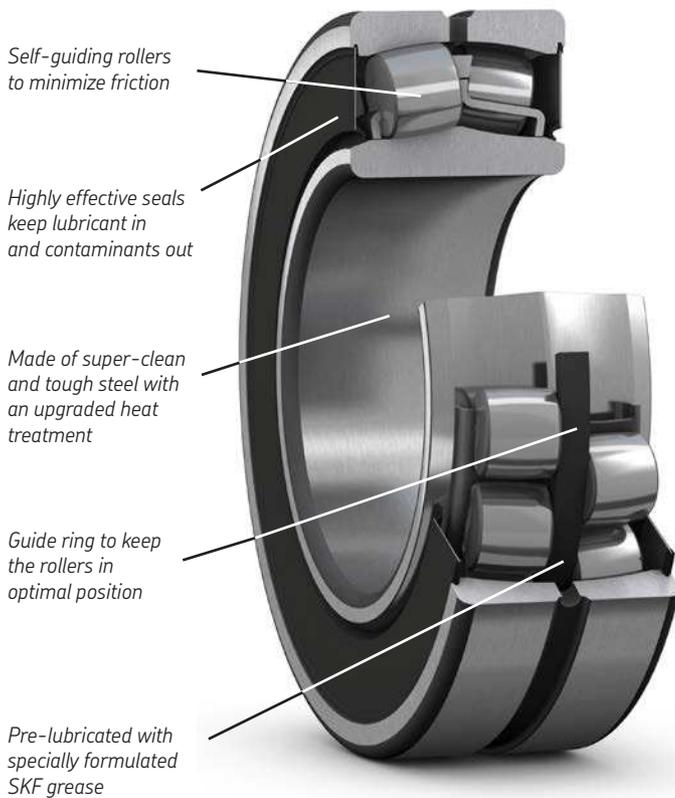
Load:  $C/P = 10$ , pure radial load

Speed: 900 r/min and 1 200 r/min

Temperature measured on outer ring

The reduced seal friction of the bearings with improved performance (designation suffix RS) results in lower operating temperature, enabling extended relubrication intervals.

# Protecting bearings and profits

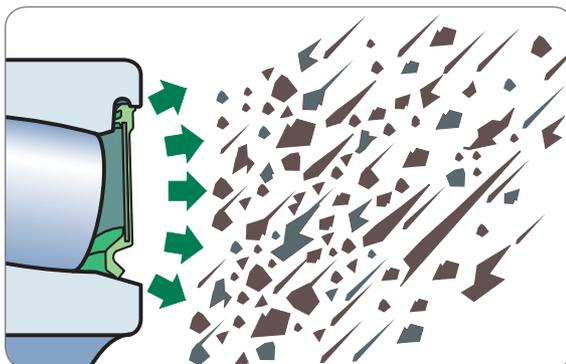


Your choice of bearings has a direct effect on your bottom line. SKF makes that choice easy with a range of bearings that deliver optimal performance for virtually any application.

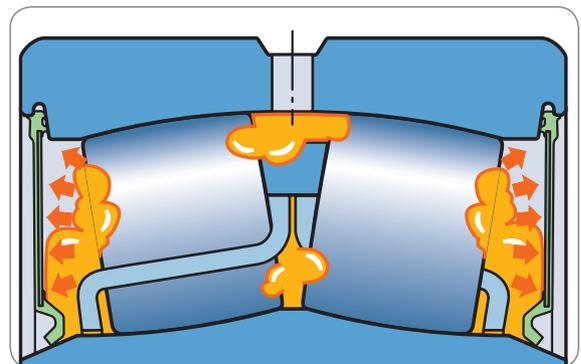
Sealed SKF Explorer spherical roller bearings can significantly increase bearing service life in contaminated environments. These bearings are pre-lubricated with a specially formulated bearing grease and sealed with highly effective contact seals. The seals protect the bearing and lubricant from contaminants that might otherwise cause premature bearing failure.

In many applications, these bearings can be considered lubricated for the life of the bearing. By eliminating or extending relubrication intervals, these bearings can significantly reduce the cost to purchase, apply and dispose of grease. Reduced maintenance costs can, in many cases, substantially reduce the total cost of ownership of an application.

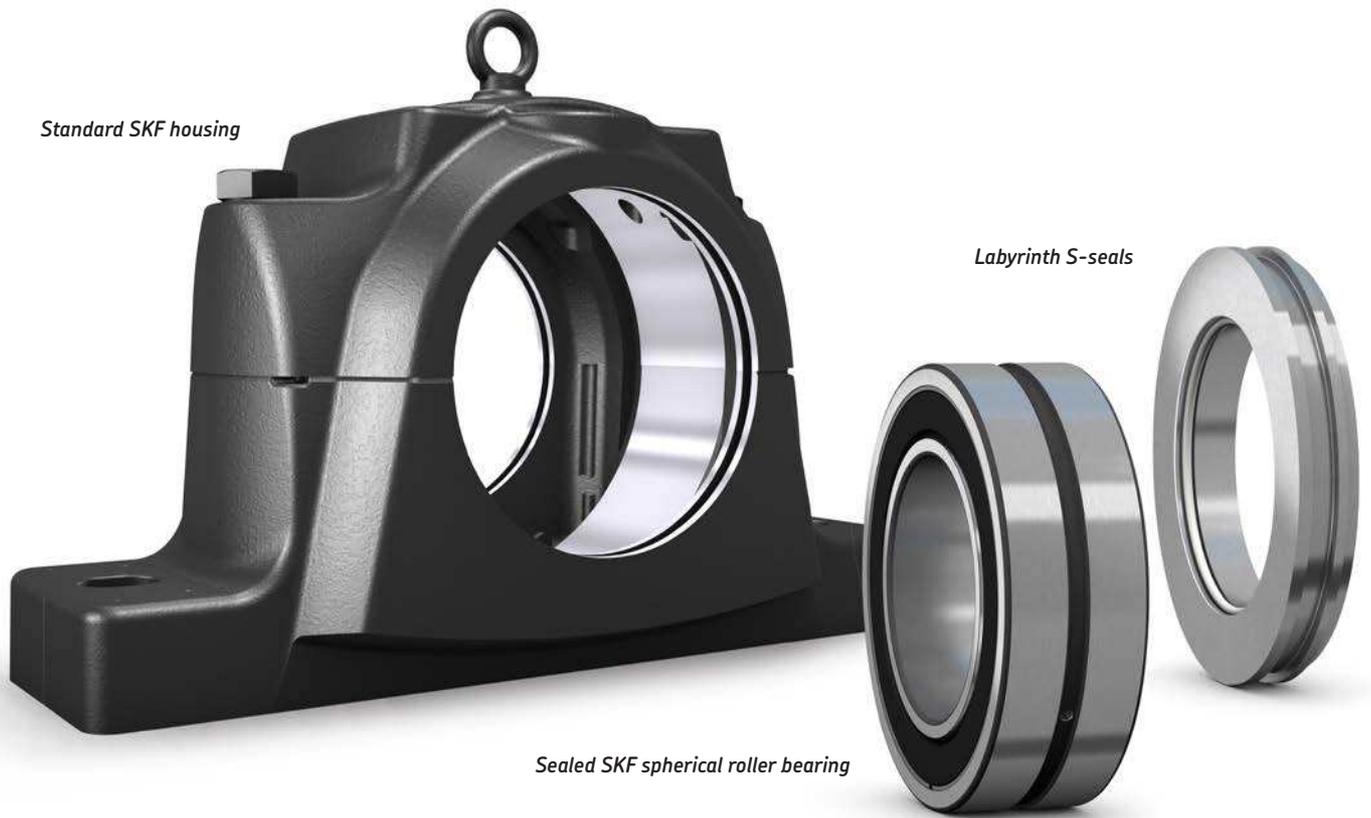
The SKF range of sealed spherical roller bearings is the widest among all manufacturers.



*The highly effective contact seals keep contaminants out*

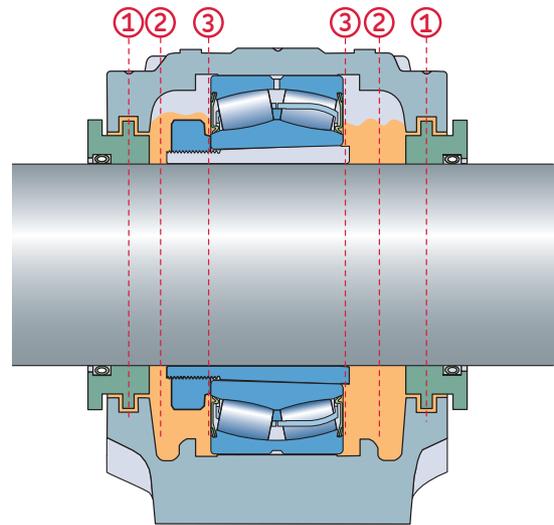


*The seals keep the lubricant inside of the bearing, extending relubrication intervals*



## The SKF Three-Barrier Solution

For the harshest operating environments, SKF recommends the three-barrier solution, which consists of a standard SKF housing, a sealed SKF spherical roller bearing and labyrinth seals. This cost-effective bundle of products can extend bearing service life without complicated and expensive sealing arrangements. By protecting the bearing during assembly and operation, the system provides optimum bearing life while requiring minimal maintenance.



- 1 SKF labyrinth S-seals – standard, cost-effective housing seals are proven to prevent the ingress of contaminants.
- 2 Grease – SKF recommends filling the housing with biodegradable SKF LGGB2 grease to act as a contamination barrier.
- 3 Integral bearing seals – the highly effective seals of sealed SKF spherical roller bearings help keep lubricant in and contaminants out of the bearing.

For more information about SKF Explorer bearings,  
see your SKF representative or visit [skf.com/srb](http://skf.com/srb)

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The SKF logo is displayed in white, bold, uppercase letters on a blue background. The letters are spaced out, and a registered trademark symbol (®) is located at the bottom right of the 'F'.