

## Why SKF?

# SKF Explorer spherical roller thrust bearings



### Common applications

- Gearboxes
- Extruders and injection molding machines
- Metalworking machinery
- Mining and construction equipment
- Pulp and paper processing equipment
- Marine propulsion machinery
- Wind and water turbines
- Cranes and bridges

By design, spherical roller thrust bearings can accommodate substantial radial loads and very heavy thrust loads, making them excellent for applications where there are combined loads. One spherical roller thrust bearing can do the work of a radial bearing and a thrust bearing, thereby reducing overall bearing arrangement weight, size, and costs.

Spherical roller thrust bearings are also self-aligning, which means they are the only thrust bearings that can accommodate misalignment and shaft deflections. SKF Explorer spherical roller thrust bearings have proven to be so robust that they can last several times longer than other spherical roller thrust bearings.

### Upgraded self-aligning SKF Explorer bearings

SKF Explorer spherical roller thrust bearings have been upgraded to a new level of performance, featuring a combination of high-quality steel and an improved heat treatment. Upgraded SKF Explorer spherical roller thrust bearings provide longer service life, particularly in applications where there are high levels of contamination or poor lubrication conditions.

### Product features

- Made of super-clean and tough upgraded steel
- Optimized roller flange contact
- Highest load rating density of all thrust bearings

### User benefits

- Lower operating temperature
- Reduced noise and vibration levels
- Increased bearing life
- Increased wear and contamination resistance
- Excellent high speed performance



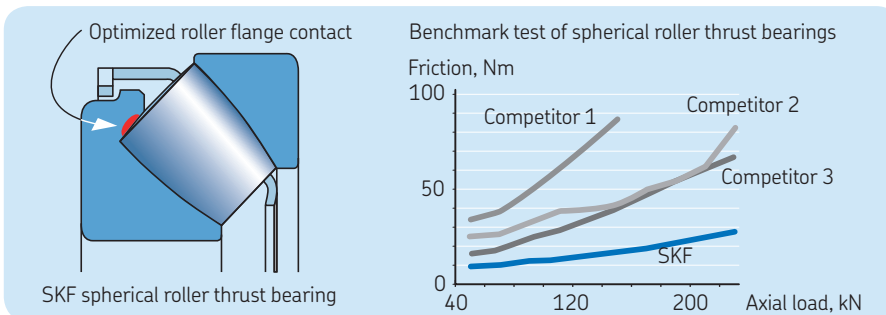
### SKF Explorer performance class upgrade

The upgraded self-aligning bearings are identified on the packaging, and the bearing outer rings are marked "WR".

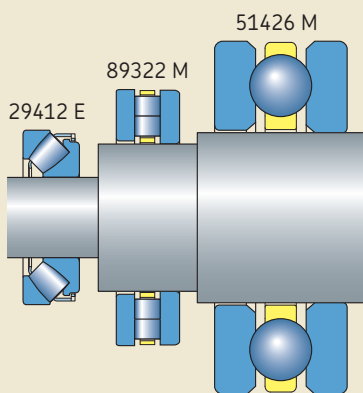


### Optimum contact

Optimum contact between the rollers and flange means very low internal friction, enabling SKF spherical roller thrust bearings to operate from very slow to very high speeds – up to three times the reference speed under certain conditions.



### A size comparison of thrust bearings with the same basic rating life



Spherical roller thrust bearings have the highest load rating density of all thrust bearings. This can considerably reduce machine weight, size and cost!

### Widest range on the market

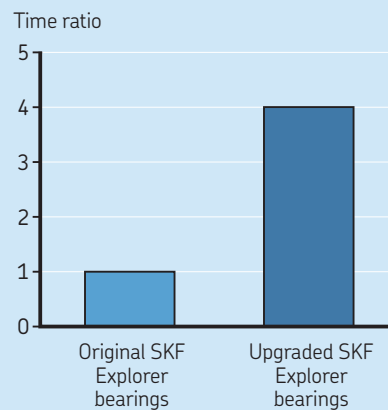
SKF offers the industry's widest range of spherical roller thrust bearings, plus custom designs for specific applications.



### Increased flange robustness

Diagram 1

#### Flange crack test – Time to failure



Test conditions  
Bearings: 29432 E  
Lubricant: Mobil DTE 220  
 $\kappa = 3$   
Load: 400 kN  
Speed: 320 r/min

For more information about spherical roller thrust bearings, go to [skf.com/bearings](http://skf.com/bearings)

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