The right choice for your high performance solution.

SKF Explorer deep groove ball bearings

Better performing, longer lasting, smoother running.

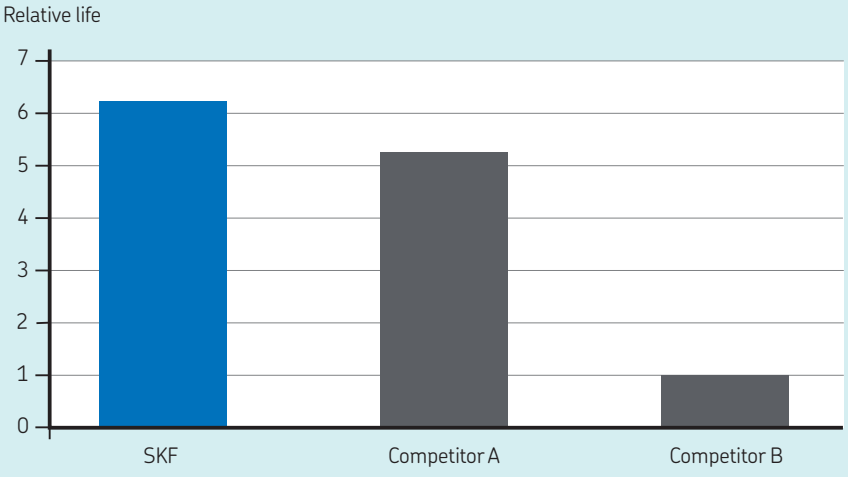
Failure of critical process machinery is expensive. It can result in costs of up to thousands of dollars per hour in lost production.

Downtime doesn't just hurt the companies that depend on these machines, it also impacts the companies that manufacture them. OEMs selling failure-prone machines risk damaging their reputations and losing business to their competitors.

Yet this can be avoided. By using a more robust bearing, you can improve service life and have longer trouble-free machine operation with lower operating costs. Life test results shown below confirm the superior behaviour of SKF Explorer deep groove ball bearings in comparison to two competitors' solutions.

The SKF Explorer deep groove ball bearing ticks all the boxes. This is the range that delivers the performance levels that reduce downtime. The range that's been manufactured to world-class specifications. The range that's capable and versatile enough to answer "yes", no matter how much you ask of it.

Life test results for SKF Explorer deep groove ball bearings compared with two competitors' products



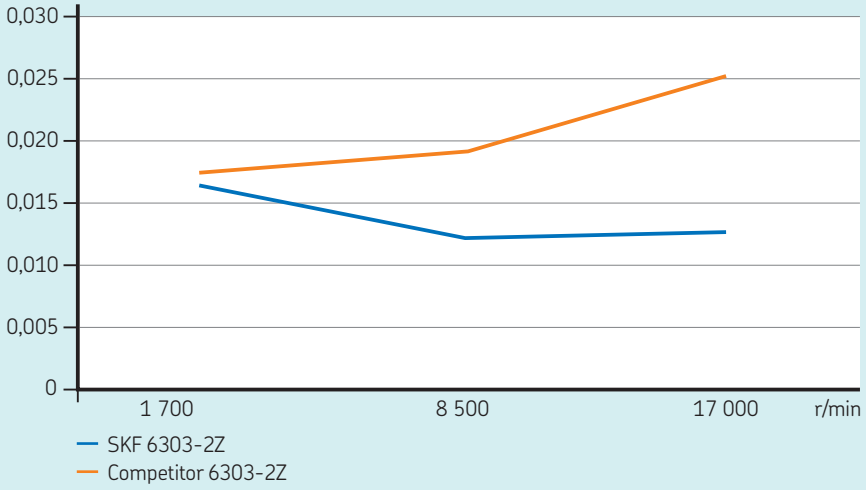
Test conditions: Speed: 6 000 r/min | Radial load: 18 kN | Bearing type: 6309

More reliable and more versatile

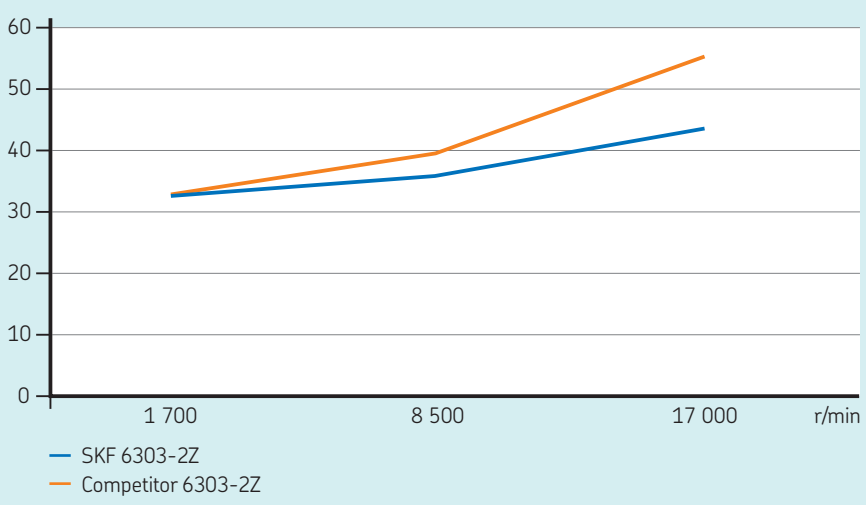
When it comes to performance, SKF Explorer deep groove ball bearings lead the way. They run more smoothly, more quietly, at cooler temperatures, and for longer than typical deep groove ball bearings.

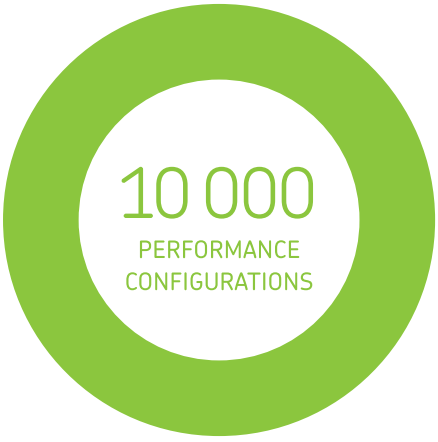
SKF-specified steel has a higher resistance to fatigue. And with the capacity to handle greater loads, SKF offers you a high performing solution that is available as a catalogue offering and versatile enough to be used in many different applications.

Lower friction than competitor bearings



Lower running temperature than competitor bearings





Performance fine-tuned for your application

Beyond our catalogue offering, SKF Explorer deep groove ball bearings are a great choice when there is a specific type of performance that you need in your application. Take into account all of our different seals, greases and other customizable features and you will find that there are more than 10 000 possible variants involving our product. This brings you as close as possible to the exact performance mix that you need in your application, whatever it may be.

Robust seals for longer service life

Ball bearing seals are a key factor in durability. That's why we have extended the range of sizes that are available with our unique RSH seals, which reduce maintenance costs and help your machine run longer. They are designed to provide excellent sealing efficiency as well as improved grease retention and exclusion of water and contaminants.

We are continuously improving the SKF Explorer deep groove ball bearing – RSH seals included. For larger bearing sizes, the seals have optimized vent holes, which eliminate the risk of a vacuum effect caused by low internal pressure – and do so without compromising sealing efficiency. We have also redesigned the seal groove in the outer ring of the bearing to enhance the performance of the seals. Both of these developments contribute to longer service life.

Manufacturing precision

SKF Explorer deep groove ball bearings are produced to ISO class 6 tolerances – which is better than the ISO Normal tolerances – contributing to a consistent outcome when mounting in the application. They also achieve a lower total run-out, minimizing vibration and heat generation.

Tried, tested and trusted around the world

SKF Explorer deep groove ball bearings are our most widely used bearing type in industry today. Compatible with a wide range of machinery, they are available in many variants and sizes.

Each is made with high quality steel for robustness and offers premium performance in demanding applications – for example, where there are high loads, high rotation speeds, or polluted environments.

Capping device performance for SKF Explorer deep groove ball bearings

Requirement	Shields	Non-contact seals	Low-friction seals		Contact seals	
	Z	RZ	RSL	RST	RSH	RS1
Low friction	+++	+++	++	++	○	○
High speed	+++	+++	+++	+	○	○
Grease retention	○	+	+++	+++	+++	++
Dust exclusion	○	+	++	++	+++	+++
Water exclusion						
static	–	–	○	+++	+++	++
dynamic	–	–	○	+	++	+
high pressure	–	–	○	○	+++	○

Symbols:
+++ = best
++ = very good
+ = good
○ = fair
- = not recommended

Customization options

Here are some of the features that we can customize to help you get the very best out of your bearing in your application:

More options for enhanced seal efficiency

The right protection means you can extend bearing life with better performance in areas like friction, speed, grease retention, dust exclusion and water exclusion. The SKF Explorer deep groove ball bearing offers a wide range of sealing options, including RSH, metallic shields, contact seals such as RS1 and the low-friction RST. These can help you achieve the specific performance you need in your application.

Optimized lubricant options

The lubrication requirements of an SKF Explorer deep groove ball bearing can vary depending on the application and its operating conditions. The catalogue offer is available with a multi-purpose grease suitable for a wide range of conditions. This lubricant is just one option in a wide range of bearing greases available to meet different performance needs, including application-specific greases such as food grade grease and alternative lubricants such as Solid Oil.

Grease performance for SKF Explorer deep groove ball bearings

Grease	Description	Application examples	Special conditions	GPF
MT33	General purpose industrial and automotive	Any standard application: electric motor, pump, fans, conveyors, gearboxes, etc.	Vertical shaft, outer ring rotation, vibrating conditions	1
MT47	General purpose industrial and automotive		Low noise	1
LHT23	Wide temperature, low noise	Low noise electric motors and fans	Vibrating conditions	2
LT	Low temperature, extremely high speed	Textile spinning mills		1
WT	Wide temperature, high performance	High temperature electric motors	Oscillating movement, outer ring rotation	4
GJN	General purpose polyurea grease	Applications for US market		2
HT	Wide temperature polyurea grease	High temperature fans		2
GE2	Wide temperature, high performance, low friction	Low friction electric motors and pumps	Low noise, vibrating conditions	2
GFJ	Food compatible, long life	Food processing equipment		1

GPF = Grease performance factor. For more information, refer to the *Rolling bearings* catalogue.

The right cage for your application

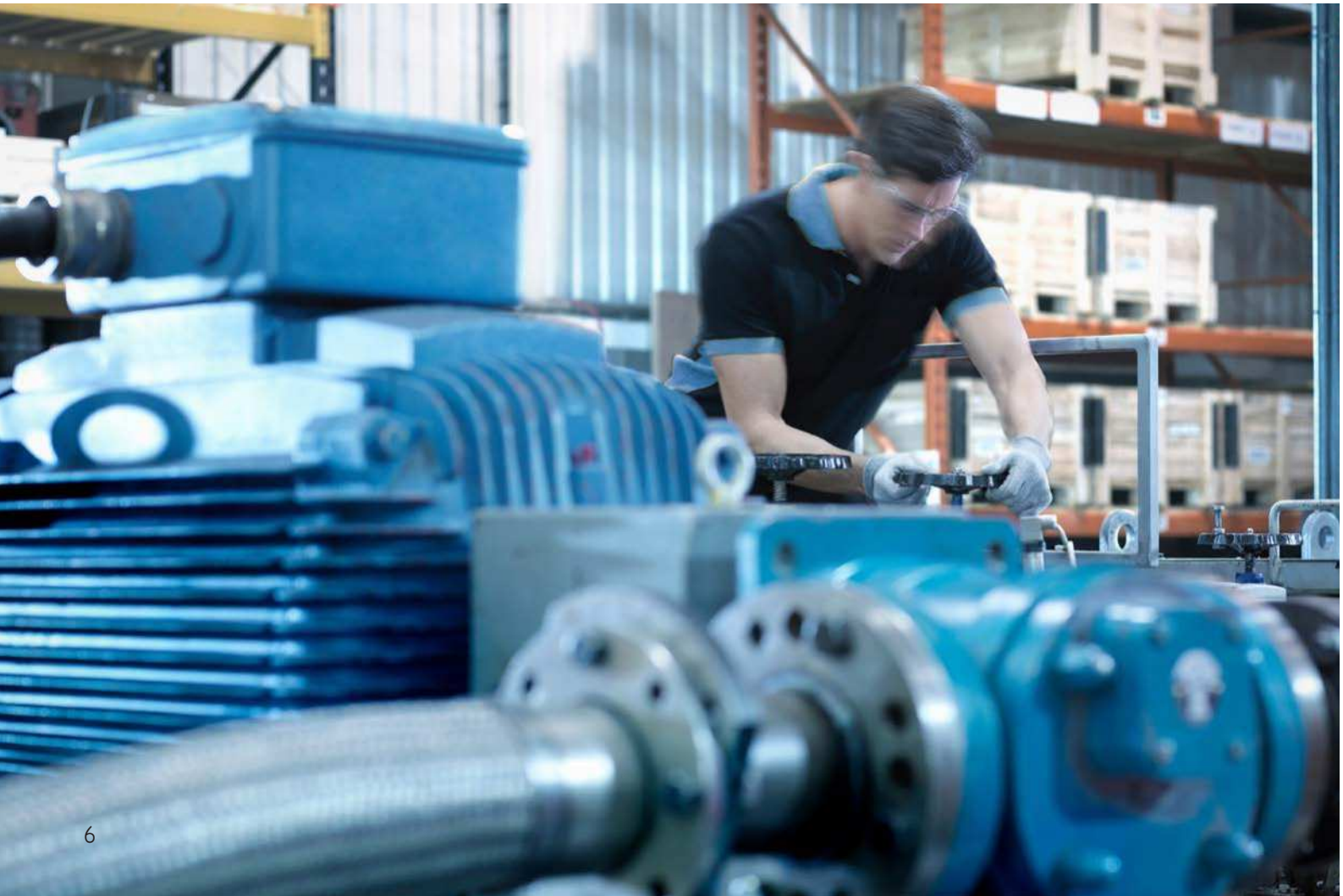
If you're looking for exceptional performance in applications running at high speeds, or with high acceleration or high ambient temperatures, choosing the right cage can make all the difference. The SKF Explorer deep groove ball bearing offers several cage alternatives that can help meet your specific requirements.

Heat stabilization

If the normal operating temperatures of the application are higher than 120 °C, consider a bearing with a higher stabilization class to deliver an even longer service life, in addition to allowing for the appropriate selection of cage, lubrication and sealing.

SKF Explorer deep groove ball bearing cage designs and materials

Application examples	Cage type		Description	Benefits
All standard applications: electric motor, pump, fans, conveyors, gearboxes, etc.	Steel cage		Pressed steel cage, standard cage, no suffix	Cost-effective, low noise
Industrial electrical generators, screw compressors	Brass cage		Machined brass cage, M suffix	High speed, high temperature
Vehicle electric systems (eg, alternators)	Polymer cage		Polymer cage, TN9 or TN2 suffix	High speed, good behaviour under vibration, limited risk of bearing seizure



Upgrade to the ultimate all-rounder

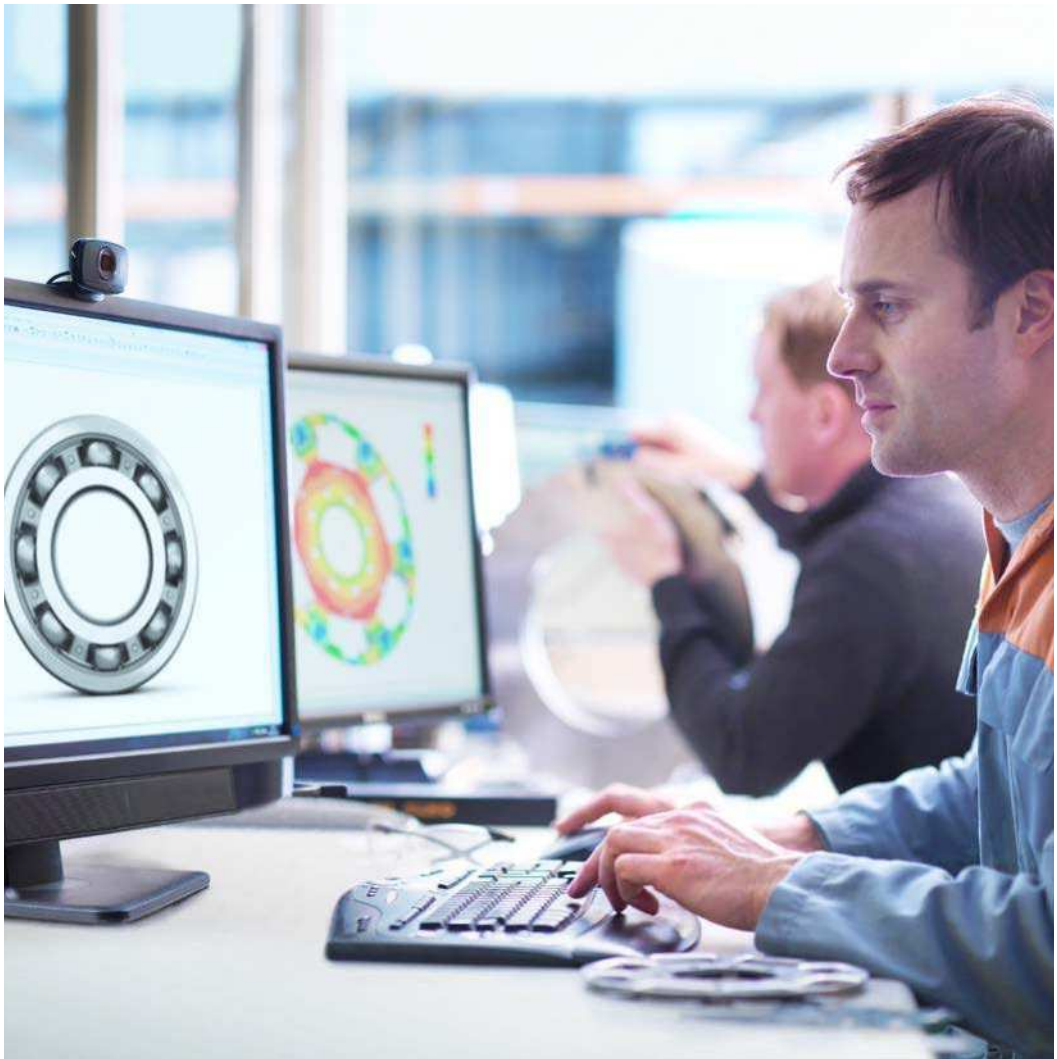
For practically every application, the SKF Explorer deep groove ball bearing is the simple off-the-shelf solution that can deliver quieter, cooler performance with lower friction and longer service life. The SKF Explorer deep groove ball bearing is typically included in distributors' bearing assortments, making it readily available worldwide.

- Easily interchangeable with original bearings
- Ready stock availability

Find a solution that's up to your challenge

Whatever your specific performance requirements, the SKF Explorer deep groove ball bearing is ready to meet the challenge. More robust than typical deep groove ball bearings, it is highly customizable, with many different possible combinations of components. This allows you to find the optimum configuration to deliver the kind of high performance you need – whether that's exceptional durability, for example, or lower friction.

- Customizable performance
- 10 000 possible configurations



Here to help you perform

When you choose SKF Explorer deep groove ball bearings, you can look forward to the technical quality and end-to-end support of an established industry leader. From global customer service to expert application support, you can count on us to help you perform as smoothly and efficiently as possible.

For more information, please visit skf.com and contact your local SKF representative.

skf.com

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