

SKF

*SKF Explorer
Spherical Roller Thrust Bearings*



*The new world standard
for endurance and performance
in spherical roller thrust bearings*

Introducing SKF Explorer sphe

A spherical roller thrust bearing so superior,
it will change the way the world works.



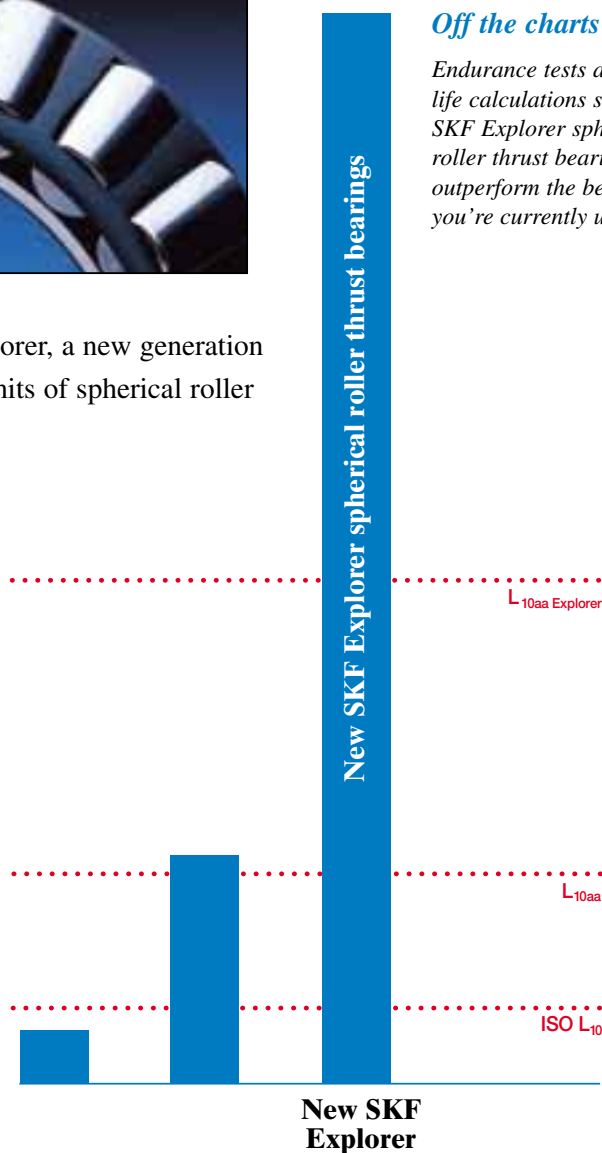
spherical roller thrust bearings

Imagine a new spherical roller thrust bearing so much better than any other that its endurance life is several times longer than that of its nearest rival – a bearing so durable that it will revolutionize maintenance schedules – a bearing so advanced, it will open up a world of new options for design engineers creating the next generation of industrial machinery.



SKF® engineers did. And the result is SKF Explorer, a new generation of bearings that literally redefines the design limits of spherical roller thrust bearings.

To find out how you can benefit from the superior endurance and unmatched performance of SKF Explorer spherical roller thrust bearings, read on.



For design engineers, new options

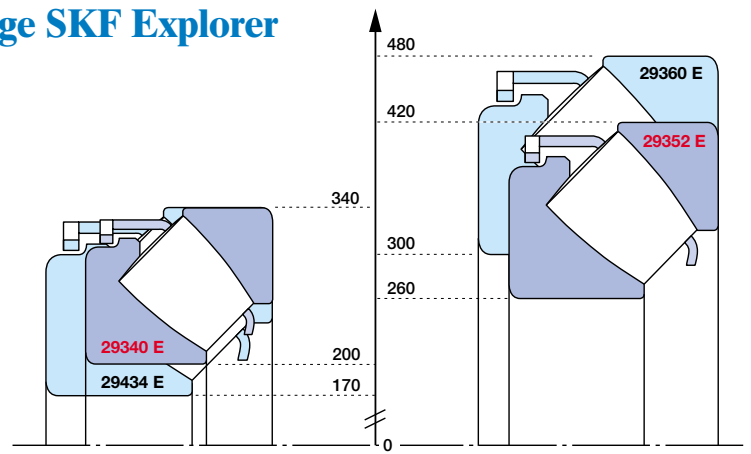
Over the years, manufacturing and materials research and process improvements have enabled machine components to get smaller without decreasing power output. With each developmental milestone, engineers were given a choice: Either downsize the application or increase power output.

The new generation of SKF Explorer spherical roller thrust bearings represents the next significant improvement in performance. But this is not just a short jump to the next level. This is a quantum leap in bearing performance. Tests have shown that these spherical roller thrust bearings *can last up to three times longer than the bearing you're currently using.*

Advantage SKF Explorer

OE options

The illustration shows two design options made possible by changing from earlier bearings to SKF Explorer bearings. The example on the left illustrates a stiffer design. The one on the right illustrates downsizing possibilities. Significant improvements are realized in both examples.



Same outside diameter

Same outside diameter but larger bore diameter provides increased shaft stiffness and 34 % mass reduction.

Smaller bore diameter

Smaller bore diameter and smaller outside diameter provides 12 % higher speed capability and 35 % mass reduction.



Downsizing with no downside

Because SKF Explorer bearings have a higher load rating than conventional bearings of the same size, engineers can use a smaller SKF Explorer bearing to do the same job. This opens the door to new designs that are lighter and more energy-efficient.

s for powering up or sizing down

The longer bearing service life of SKF Explorer spherical roller thrust bearings opens up a new world of possibilities. If you size-down with an SKF Explorer bearing, not only will you be able to increase uptime, reduce noise and vibration, but you'll also be able to build value into each component by increasing speed, improving service

intervals, reducing heat and power consumption and controlling your customer's maintenance costs.

Power-up or size-down – the option you choose will depend on whether you're developing a new design or making improvements within existing parameters.

Increase service life of existing designs

Replace the existing bearing with an SKF Explorer bearing of equal size to:

- Increase life
- Increase machine uptime
- Increase safety factor
- Reduce maintenance costs

Maintain power output of new designs

Use a smaller bearing of SKF Explorer quality to:

- Reduce overall machine dimensions to save on material costs and weight
- Extend speed range
 - Achieve smoother, quieter operation
 - Reduce friction and energy consumption
 - Reduce lubricant usage

Increase power output of existing designs

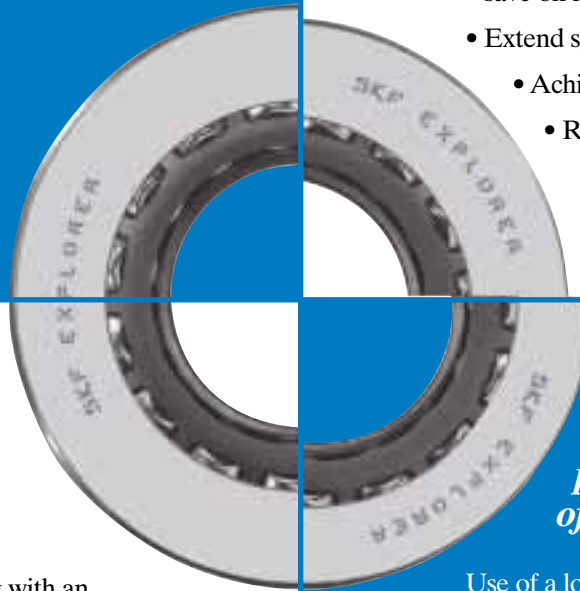
Replace the existing bearing with an SKF Explorer bearing of equal size maintaining the same service life and machine uptime to:

- Increase power density (output)
- Avoid costly redesign

Increase power density of new designs

Use of a lower cross section SKF Explorer bearing with the same outside diameter to:

- Use a stronger or even hollow shaft
- Achieve a stiffer and more cost effective design
- Increase system life due to higher stiffness



For maintenance engineers, a new 1

It's unrealistic to think that one day every piece of rotating equipment in manufacturing and processing facilities will come equipped with SKF Explorer bearings. But you will be pleased to know that you can replace existing bearings with SKF Explorer bearings, because they are dimensionally interchangeable.

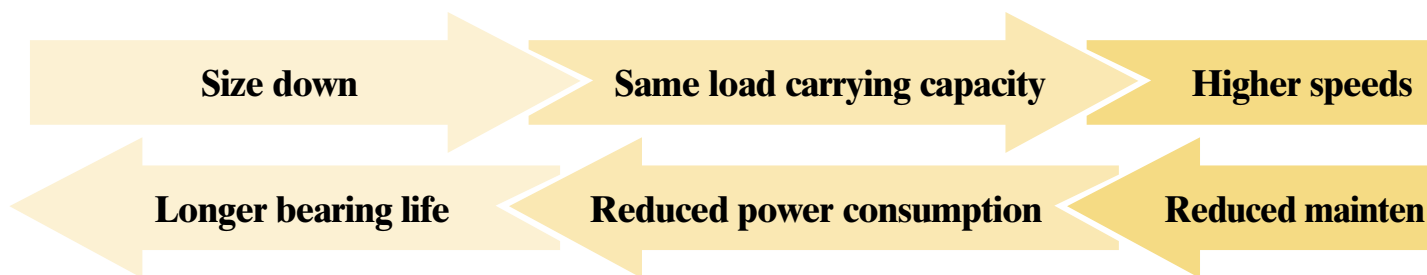
Advantages of SKF Explorer bearings over conventional designs

If you're replacing a conventional bearing with an SKF Explorer bearing, the SKF Explorer bearing

will run quieter and longer – much longer than the bearing you just replaced.

If you buy new machinery that has been sized-down with an SKF Explorer bearing, you'll see the benefits immediately. Your new machine will run quieter and cooler with less vibration. It will consume less power, require less maintenance, and run longer.

So the next time you're replacing a bearing or specifying the bearings for a new piece of equipment, ask for SKF Explorer bearings.



Typical applications for SKF Explorer spherical roller thrust bearings



Industrial transmissions

Existing gearbox designs can be powered up considerably with the high-performance SKF Explorer bearings.



Marine applications

The extremely reliable and high-performance characteristics of SKF Explorer bearings are ideal for these demanding applications.

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Extruders

The use of SKF Explorer bearings in existing machines gives more uptime and less maintenance.



Pulp & paper equipment

Replacing existing bearings in refiners with SKF Explorer bearings will increase uptime and reduce maintenance costs.



Injection moulding machines

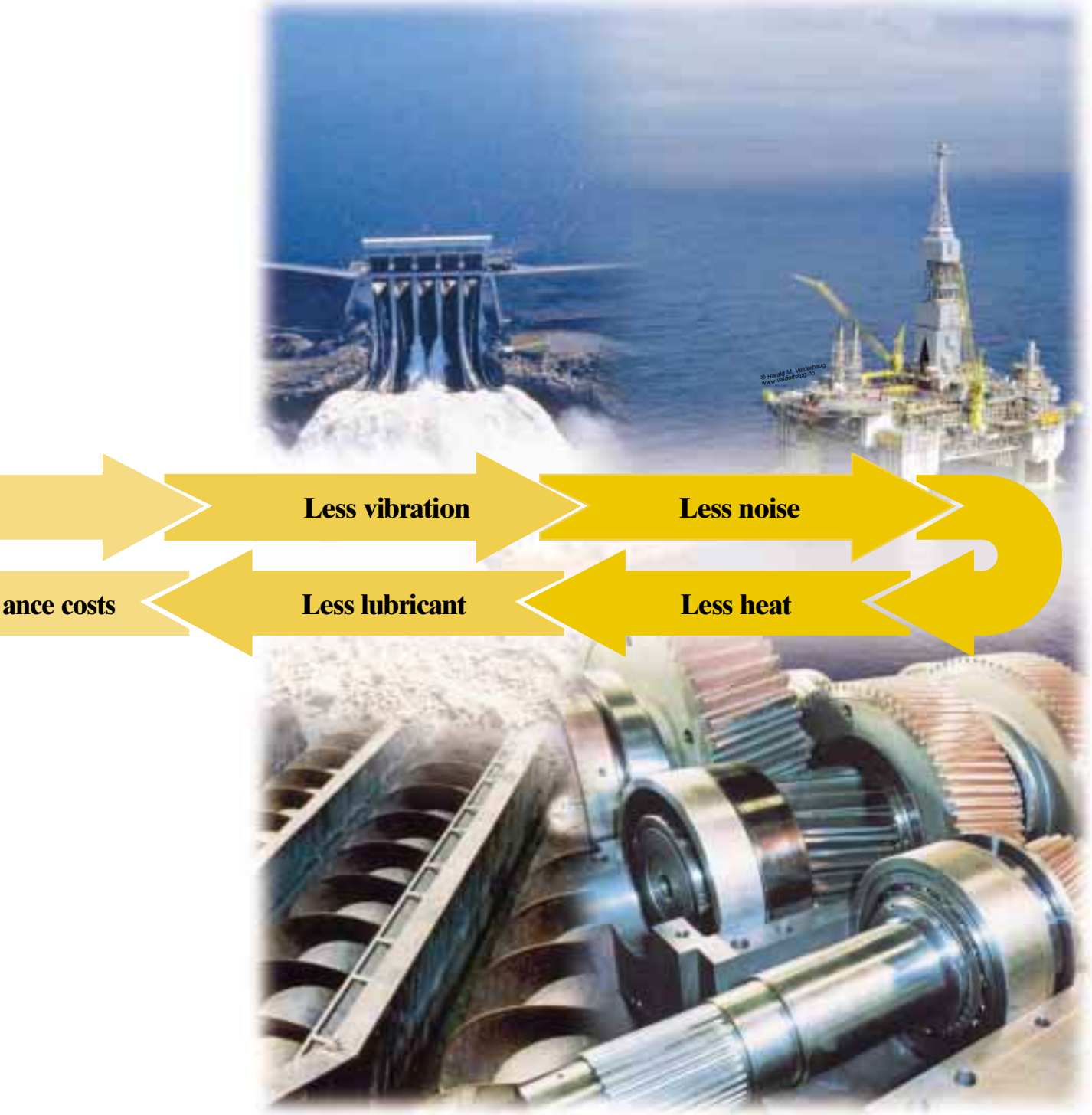
Using an SKF Explorer bearing in an existing machine increases uptime and decreases maintenance.



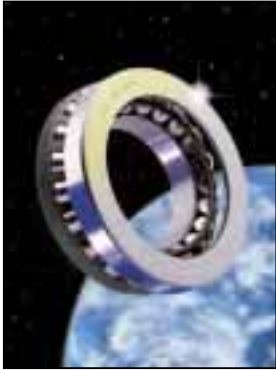
Mining & construction equipment

Resistance to wear and damage even under marginal lubrication conditions make SKF Explorer bearings ideal for these extreme environments.

level of performance and endurance



SKF Explorer spherical roller thrust bearings are dimensionally interchangeable with other spherical roller thrust bearings since they conform to the ISO Dimension Plan. Ideal applications include: gearboxes, extruders, refiners, marine propulsion, cranes, bridges, turbines, pumps, large electrical machines and mills. The designation (part number) has not been changed so ordering is easy.



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Spherical Roller
Thrust Bearings

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Publication **5220 E**

Printed in Estonia

www.skf.com/explorer