

Special industrial solutions

SKF custom-engineered bearings and bearing units





Unique challenges require unique solutions

SKF custom bearings and units are engineered for your specific applications

Meeting the demand for increased productivity and cost efficiency often requires products that go beyond standard solutions. SKF helps you break through performance limitations with custom bearings and units engineered for your specific application and challenges.

From a single bearing to a complete system of components, SKF custom products can help you reach your goals to increase productivity, reduce energy costs, assembly costs and cost of ownership. These solutions can also help meet specific performance requirements.

Performance is in details – special features, unique solutions

SKF creates custom solutions with a wide-range of high performance components and features, including:

Materials and coatings

- Heat treatments optimized for application needs
- Wide options of surface treatments
- A variety of bearing steel grades
- Stainless steel rings and components

Bearing designs

- Hub bearing units with flanged and geared rings
- Special single and double row angular contact ball bearings
- Special single and double row deep groove ball bearings
- Belt tensioner units
- Assembled bearing sets

Special Seals

- Contact seals in different designs
- Labyrinth seals and metal shields
- Plastic removable shields
- Mud block seals
- Garter seals

Special Cages

- Pressed steel cages
- Riveted steel cages
- Stamped steel cages
- Machined brass cages
- Injection moulded snap-type cages



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Experts in specialization

No one has more years of experience in bearing design than SKF. Our engineers can custom design and build a single bearing, bearing unit or bearing set using extensive competencies in materials, design and manufacturing.

Partners in performance

Whether you are interested in improving reliability and performance, reducing energy consumption, reducing or eliminating bearing relubrication, reducing the need for maintenance, SKF can help.

We will partner with you to analyze your application, understand your goals, and create a solution to meet the needs of the application.

SKF experts have many well-proven solutions available to them that are application specific and cost-effective. Whether it is a different seal, unique lubrication solution, a special coating, or a customized bearing with special features, SKF can help you meet the needs of your application.

Dedicated manufacturing facilities

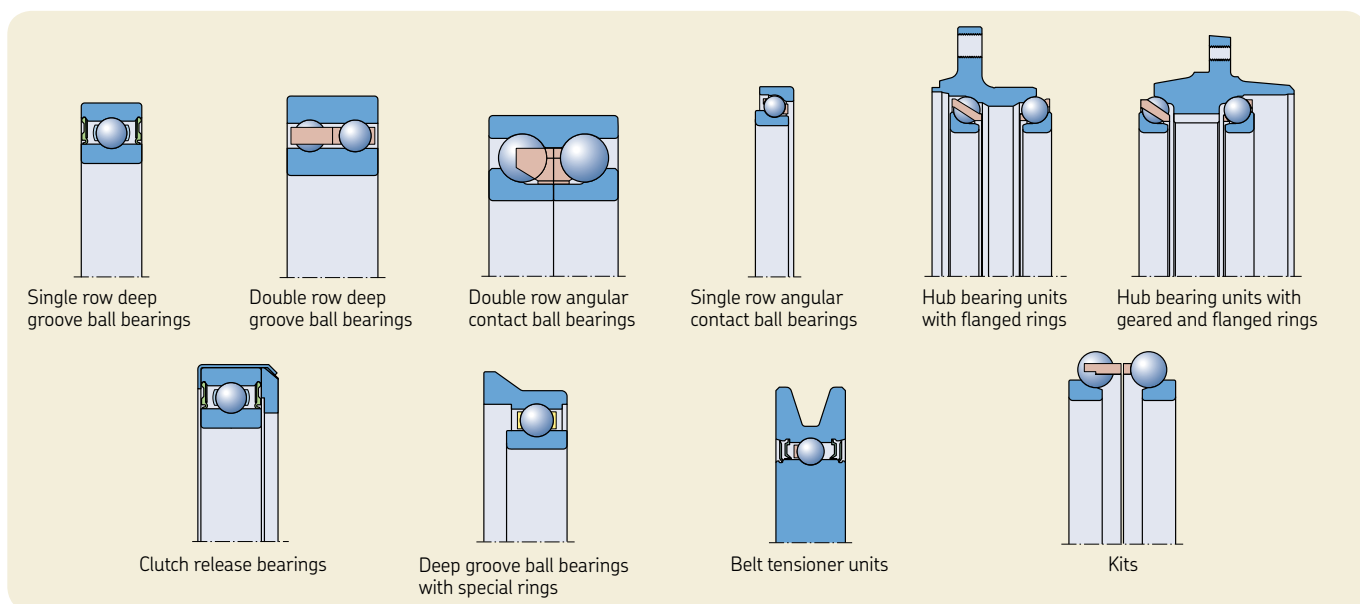
Creating unique solutions is something SKF takes seriously, which is why we established a design and manufacturing facilities focused on customized, niche products. Here, our product development professionals are dedicated to creating innovative customer solutions.

Production processes are structured for small batch manufacturing, and stringent quality control practices are implemented in all facets of design, manufacturing and testing.

Timely solutions

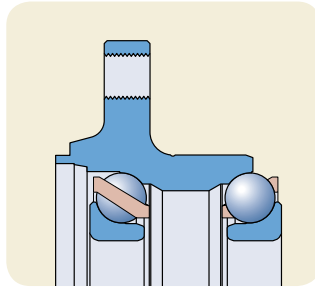
SKF also works with a wide and highly effective supplier network to assure the availability of specialized materials and components.

This enables SKF to deliver custom products in a timely manner that supports customer manufacturing goals and schedules.





Customized solutions

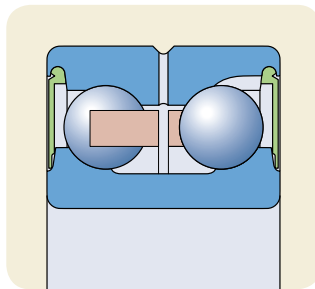
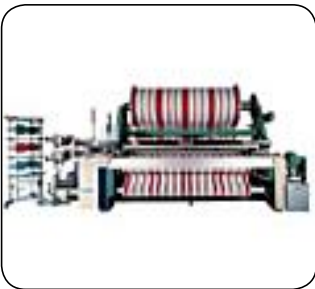


Flanged hub units for power transmission

Flanged hub units were developed to transmit power to planetary gear boxes in excavators and the wheel ends on tractors and other off-highway equipment.

The units incorporate a matched set of split inner rings and they are available with or without an internal gear. Stiffness, compact design, and easy and reliable mounting are the key advantages.

The units are ready-to-mount without any additional adjustments for preload.

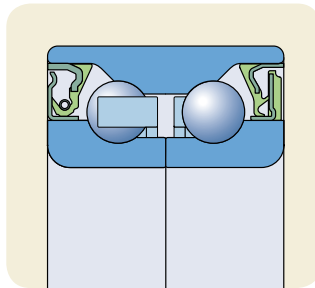


Clutch bearing for a loom

A sealed, double row angular contact ball bearing was an ideal solution to engage and disengage the clutch on a loom used in the textile industry.

The bearing is sealed and greased at the factory with a suitable wide temperature grease (-50 / +150 °C). The circumference of the outer ring has a relubrication feature to facilitate maintenance.

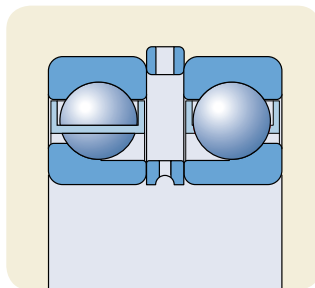
The design of the solution allows higher loads.



Sensor bearing for motorbikes

SKF developed a double row angular contact ball bearing with an integral sensor, for rear hubs on motorbikes.

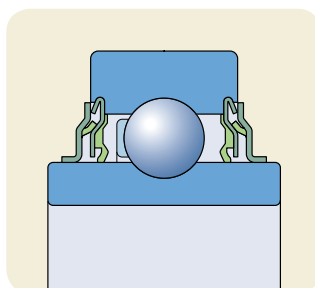
This mechatronic solution incorporates a highly effective sealing solution to keep lubricants in and contaminants out of the bearing.



Bearing for locomotive gearbox

SKF developed a large-size angular contact ball bearing for the intermediate shaft in a locomotive gearbox according to customer request.

The solution features two bearings arranged back-to-back with a spacer, brass cage and special design rings.

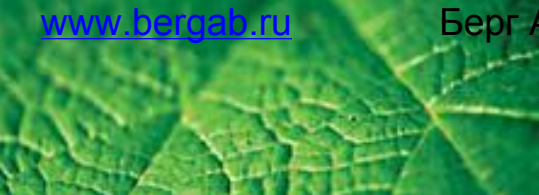


Stainless steel track roller for food machinery

A track roller bearing for food machinery was created by combining stainless steel components with food grade grease and food grade rubber seals.

The food grade rubber seals were designed to withstand extreme operating conditions and washdowns.

The SKF solution is greased for the life of the bearing.



SKF can help

With expertise in bearings, seals, mechatronics, lubrication systems and services, SKF is uniquely positioned to provide effective solutions to the challenges of your operation. While other companies may have competence in one or two of these areas, no other company can draw on all of these competencies to help you improve reliability and productivity.

SKF solutions help you extend service life and improve performance of hard-to-maintain equipment. We can provide expert consultancy and asset management services, proven condition monitoring technologies, maintenance tools, and training to help you to:

- Increase productivity
- Reduce time to market
- Improve energy efficiency
- Decrease maintenance
- Optimize designs

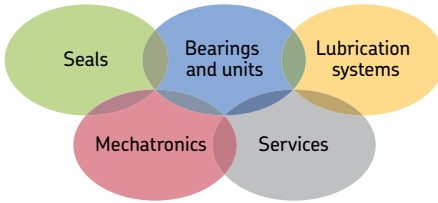
Energy efficient solutions

There are many ways that SKF can help customers to work in harmony with nature. SKF application-specific solutions are helping to reduce global energy consumption and CO₂ emissions.

Our knowledge and creativity is employed in developing energy-efficient products and systems:

- Bearings and sealing solutions
- Window system actuators that automatically react to sunlight
- Weight reducing fly-by-wire systems
- Mechatronic systems
- Enhanced lubrication systems





The Power of Knowledge Engineering

Drawing on five areas of competence and application-specific expertise amassed over more than 100 years, SKF brings innovative solutions to OEMs and production facilities in every major industry worldwide. These five competence areas include bearings and units, seals, lubrication systems, mechatronics (combining mechanics and electronics into intelligent systems), and a wide range of services, from 3-D computer modelling to advanced condition monitoring and reliability and asset management systems. A global presence provides SKF customers uniform quality standards and worldwide product availability.

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