Customized machined seals

Capabilities

Sealing solutions from SKF

SKF is the global market and technology leader in high quality custom engineered sealing solutions offering a comprehensive range of machined seals for many industries to fit customers' requirements.

Machined sealing offer

SKF offers machined sealing solutions for fluid power, fluid handling and power transmission applications.

- In partnership with customers from the design phase to serial production with solutions tailor made to their needs
- Prompt manufacturing of seals and components up to 4 000 mm in diameter as one piece and larger using a special welding technique with short delivery times
- Virtually unlimited seal designs
- Extensive range of sealing materials including materials certified to or complying with a broad range of industry standards and regulations (FDA, NSF, KTW, NORSOK, NACE, etc.)

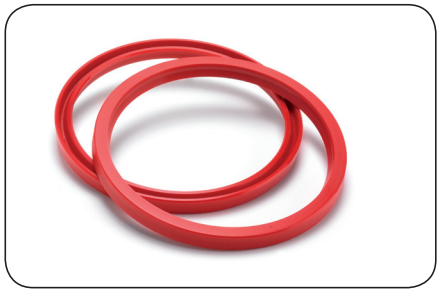
Flexibility and customer service

The innovative production system – SKF SEAL JET – reduces manufacturing and dispatch time to a minimum. Virtually any kind of seal for any conceivable application, in any dimension and design, can be produced. SKF operates more than 90 machining centres worldwide and aims to be located as close to the customer as possible. With local and global application engineering teams and research and development centres, SKF machined seals can be customized to meet the most stringent sealing requirements of many industries.

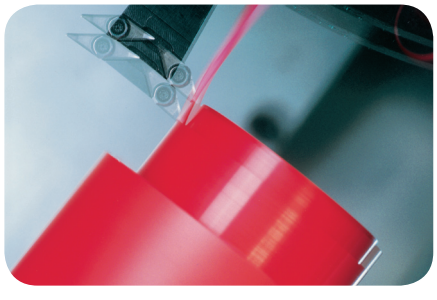
SKF SEAL JET technology

The SKF SEAL JET machines are developed and produced by SKF. This CNC controlled production system is based on proprietary software and specially developed machining tools for different polymeric materials. Large diameter machined seals, as used in applications like wind power plants, hydro power stations or heavy industry, with diameters up to 10 000 mm and larger are assembled using a special welding technique. This process allows on-site fitting and still provides the performance of an endless seal.

Machined seals



SKF SEAL JET system



SKF SEAL JET machine

Customized for your needs

Research and development

The design and development of high performance materials combined with testing and failure analysis are vital elements for successful seal development. SKF combines these elements with its extensive application knowledge, to offer solutions that are based on an understanding of sealing systems under various real conditions.

SKF continuously develops new customized materials and designs and operates its own testing facilities around the world to provide optimized sealing solutions that meet the sophisticated demands of many industries.

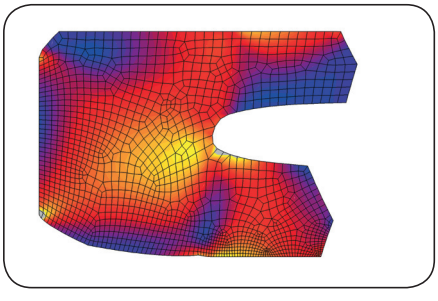
From prototype to serial production

SKF offers a unique and comprehensive consultancy service, providing the latest sealing technology. In cooperation with the customers, the operational requirements and applications are analyzed. All machined seals, whether standard or customized, are manufactured on demand without tooling costs or delays. SKF can produce all seals as a single item, in small quantities, or in larger quantities up to a couple of thousands, using the SKF SEAL JET machining technology. Larger quantities and high volume business are produced using moulding technologies.

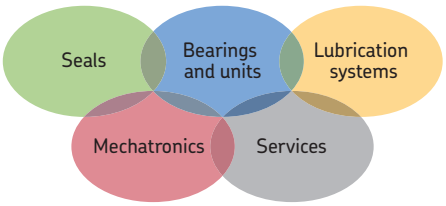
In many industries

The value of SKF machined seals is recognized in many industries:

- Cunstruction
- Fluid power
- Food and beverage
- Hydropower
- Machine tool
- Marine
- Metals
- Mining, mineral processing and cement
- Off highway vehicles
- Oil and gas
- Pharmaceutical
- Pulp and paper
- Water treatment
- Wind energy



Finite Elemente Analysis (FEA)
Finite Elemente Analysisis is used to simulate the impact of operating conditions, material selection and seal design on seal behaviour.



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.

This brochure was presented by:

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