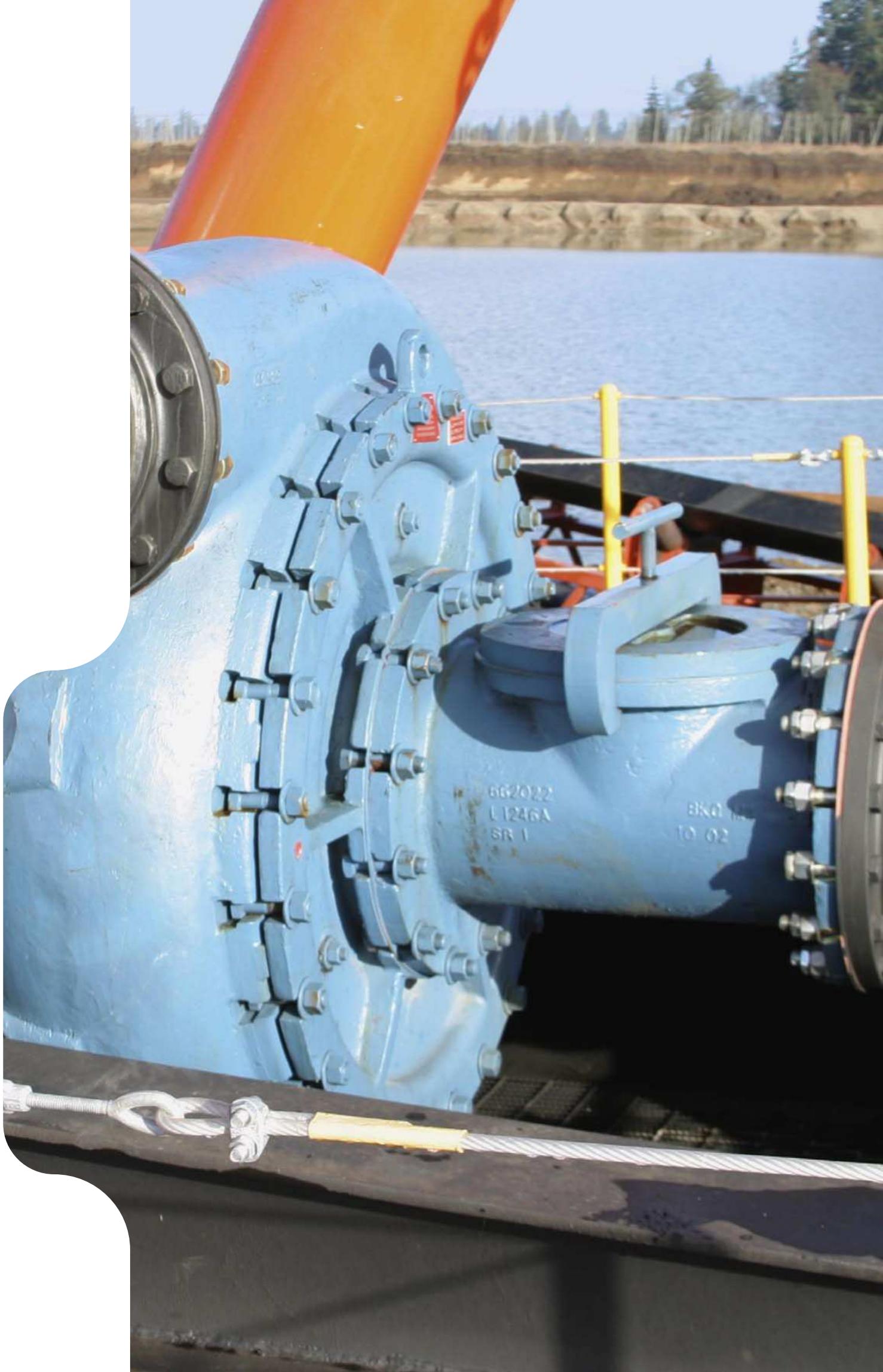


The system solution for slurry pumps.

Improve performance of reliability with solutions from SKF





# Minimize the effects of cavitation and impeller wear with integrated performance solutions

**The Reality:** It's no secret that slurry pump performance is significantly affected by impeller wear and cavitation. Whether the pump is heavy-duty or light-duty, horizontal or vertical in design, the fact is that abrasive solids, corrosives and voids in the fluid can cause excessive impeller wear and severe damage. A fact that is not as well recognized is the significant effect that impeller wear has on the performance and reliability of other mechanical components.

**The Result:** Whether caused by cavitation or abrasion, impeller damage can cause a chain reaction that leads directly to the bearing system. As the impeller wears, it creates an imbalance, causing excessive vibrations and eventually, shaft deflections. These vibrations and shaft deflections increase the loads on the bearings and seals. Unpredictable flow behavior and elevated temperatures can further stress the system, causing the seal to leak and the bearings to fail.

**The Remedy:** SKF offers a total system of solutions to help slurry pump designers increase mean time between failure (MTBF) and enhance reliability by minimizing the bearing-related effects of cavitation, impeller wear, unpredictable flow behavior and elevated temperatures. From bearing arrangements to lubrication systems, installation techniques and condition monitoring, SKF application engineers can help you build performance and reliability into your pump designs, while adding value to the total product offering.

# A system solution. A single source of reliability

SKF understands the impact that a well performing bearing system has on pump reliability. Our expertise in all elements affecting pump performance enables us to provide solutions that can enhance reliability. Just as importantly, we offer a single source of responsibility from design through implementation.

## Forgiving bearings for unforgiving applications

SKF Explorer class bearings are the industry standard for quality and resistance to wear and damage. With these state-of-the-art bearings, SKF application engineers can work with you to maximize the performance of the bearing and seal arrangements to better accommodate vibrations, fluctuations in flow and elevated temperatures.

As your development partner, these application engineers can also recommend ways to reduce the number of bearing combinations and variants used in different pump models and sizes.

## Keep bearings lubricated automatically

SKF lubrication systems respond to the challenge of maintaining proper lubricant levels in harsh, often inaccessible areas. The SKF oil leveler system, for example, automatically adjusts the oil level in the housing to reduce both maintenance and downtime.

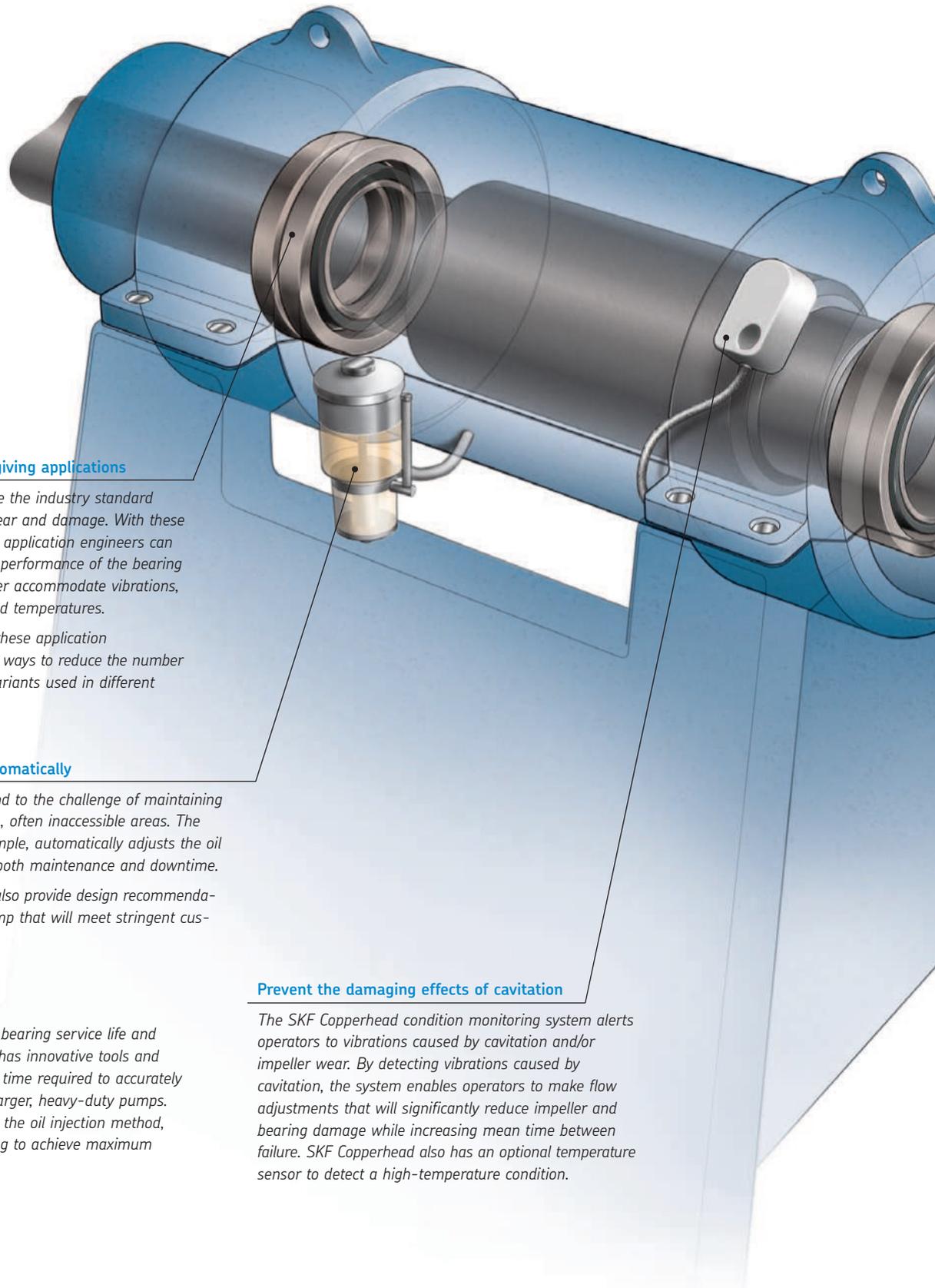
SKF application engineers can also provide design recommendations for a greased-for-life pump that will meet stringent customer requirements.

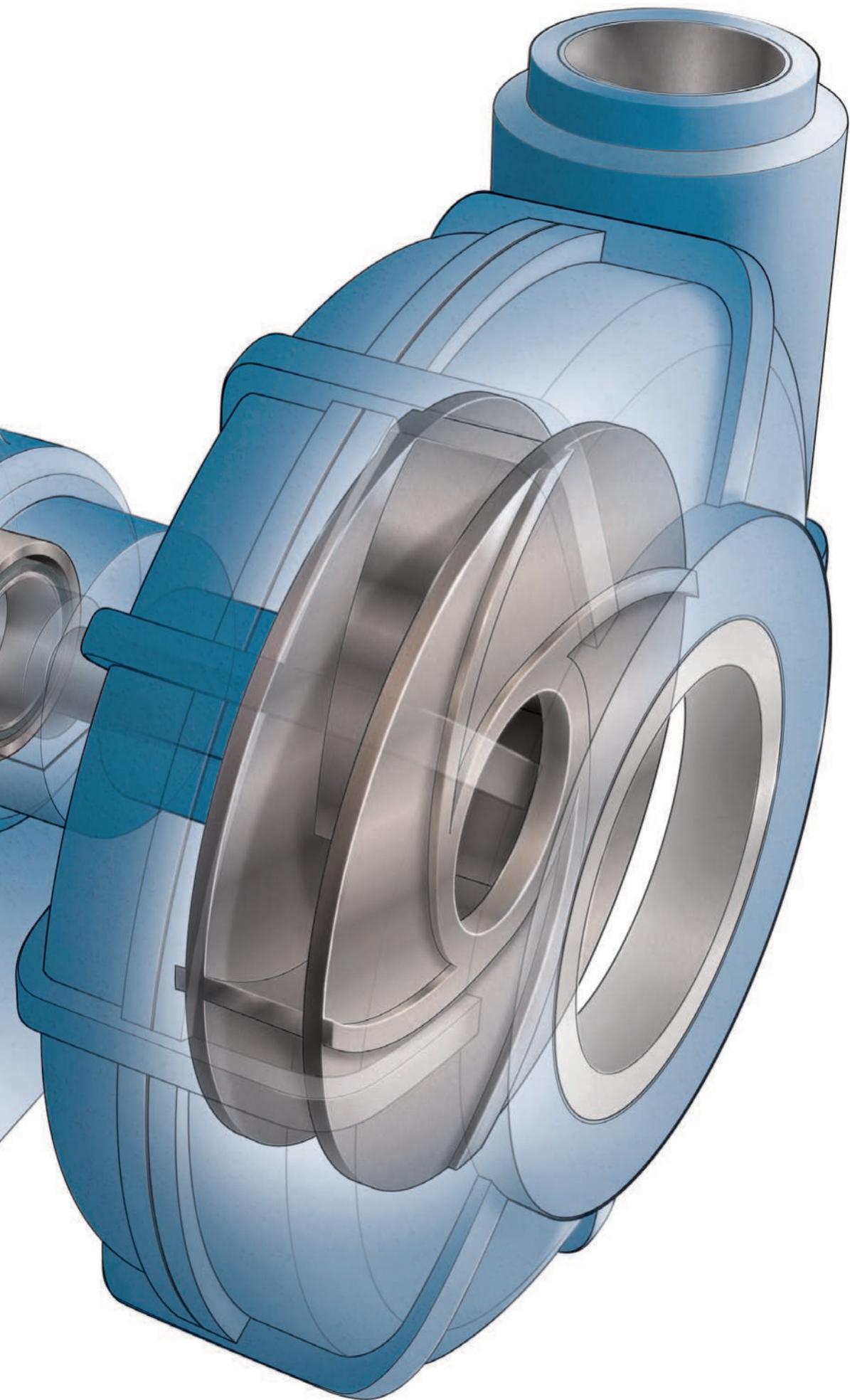
## Install maximum service life

Proper installation is critical to bearing service life and performance. As a result, SKF has innovative tools and techniques that will reduce the time required to accurately mount bearings, especially in larger, heavy-duty pumps. Using SKF tapered sleeves and the oil injection method, installers will enable the bearing to achieve maximum performance and service life.

## Prevent the damaging effects of cavitation

The SKF Copperhead condition monitoring system alerts operators to vibrations caused by cavitation and/or impeller wear. By detecting vibrations caused by cavitation, the system enables operators to make flow adjustments that will significantly reduce impeller and bearing damage while increasing mean time between failure. SKF Copperhead also has an optional temperature sensor to detect a high-temperature condition.





# Explore the possibilities

**Improve your product's performance with SKF engineering and application knowledge, design and testing expertise, and a wide range of solutions.**

Your customers are continually raising their expectations of product performance and reliability – demanding equipment that consumes less energy, runs quieter, faster and longer, and requires less maintenance. Frequently, this also means lighter, more compact designs.

To meet these growing challenges and stay competitive, you need a trusted source of knowledge and application experience to provide you with solutions that work.

And for long-term results, you need a working partner that offers one source of responsibility from concept to completion. That source is SKF.

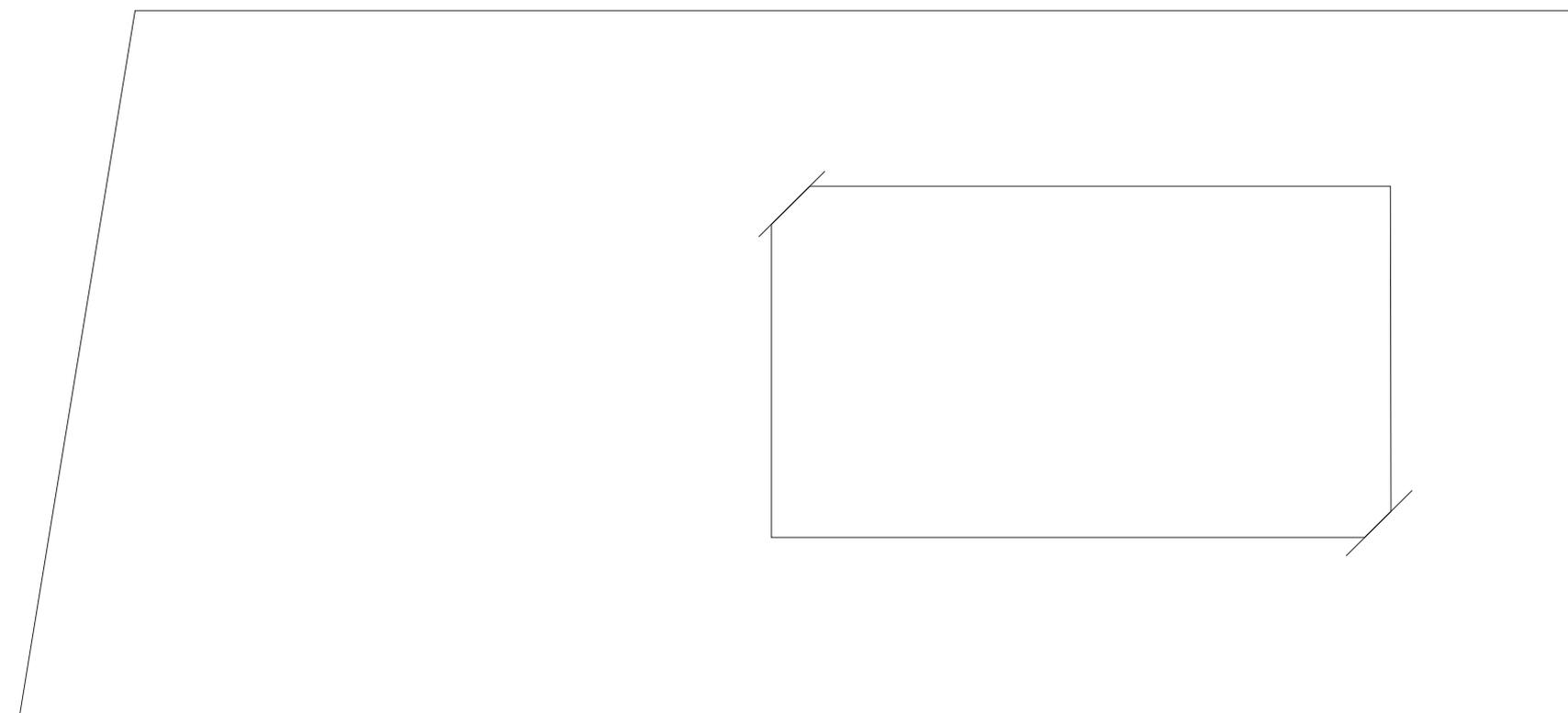
## **Knowledgeable solutions**

From a position as the world's leading bearing manufacturer, SKF has evolved to being a provider of cost-effective and knowledgeable solutions. You can take advantage of SKF knowledge through our proprietary services and software to shorten the time required to develop and test your product.

SKF knowledge-engineering services, for example, include life calculation analysis, dynamic systems modelling, and 3-dimensional virtual test rigs to simulate and troubleshoot system vibration. SKF product solutions go beyond bearings, housings and seals, to include complete lubrication systems, industry-leading condition monitoring systems, advanced linear and rotary actuation systems, and unique solutions in mechatronics – combining mechanical and electronic elements in a single design.

## **Install with confidence**

When you install SKF products, it tells your customers that your resources include the best in state-of-the-art technology, and that your products contain some of the very best components available on the market.





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