



SKF fan upgrade services help fans take the heat

Benefits

- Boost fan performance and reliability
- Reduce operating and maintenance costs
- Eliminate unplanned downtime
- Reduce power consumption
- Reduce vibration and operating temperatures
- Extend bearing lubricant life
- Increase bearing and seal service life

Typical applications

- Hot gas fans
- High speed process fans



Are you setting your fans and blowers up for failure?

To help meet ambitious productivity goals, many mills are increasing the operating speeds of their fans and blowers. But higher speeds mean higher temperatures, which fans with conventional bearing systems and lubrication methods can't handle. The result is an increase in fan failures, downtime, and maintenance costs, while productivity goals become even harder to achieve.



Take a “systems approach” to fan reliability and performance

SKF provides mills with a single-source, “systems approach” to heat-related problems in fans and blowers. Following an assessment to determine the cause of fan failures or maintenance issues, SKF fan upgrade recommendations typically will involve a combination of these solutions:

Self-aligning bearing systems

The SKF self-aligning bearing system incorporates a CARB toroidal roller bearing and a spherical roller bearing. This system operates with lowest bearing loads, hence lower friction, temperature and vibration levels, and enables higher speeds.

Plummer block housings and seals

SKF housings and seals maximize service life by combining stiffness, highly accurate machined surfaces, and an ability to dissipate heat from the bearing.

Lubrication solutions

SKF centralized lubrication systems supply lubricant from a central source to individual lubrication points. SKF circulating oil lubrication systems deliver a constant flow of filtered, temperature-controlled oil to bearings. Both reduce bearing temperatures, improve service life and reliability, and cut power consumption.

Maintenance and reliability services

From basic condition monitoring to Predictive Maintenance and Operator Driven Reliability, SKF can implement



and conduct ongoing reliability programmes, or equip and train maintenance teams to do so independently.

For more information about SKF products and solutions for industrial fans, contact your SKF Authorized Distributor.





Increase the return on your maintenance investment with SKF

The whole idea behind the SKF 360° Solution is to help you get more out of your plant machinery and equipment investment. This may mean lowering your maintenance costs, raising your productivity, or both! Here is an example of the SKF 360° Solution at work in the pulp and paper industry.

SKF solutions bring increased MTBF for a critical fan

A large paper mill in the United States was faced with changing out bearings in a critical fan every three months. The fan was an emissions fan, handling vent gases that are regulated by U.S. Environmental Protection Agency (EPA) standards.

The maintenance team at the mill first looked to SKF for the SKF total fan shaft solution to increase the MTBF of the critical fan. Instead, SKF encouraged the customer to install an even more effective solution, the SKF fan upgrade service – a unique combination of an SKF spherical roller bearing and a CARB bearing installed in new SAF housings, and an SKF circulating oil lubrication system (manufactured by Vogel). The fan upgrade also included balancing of the DVG blower.

The SKF fan upgrade service solution brought tremendous, immediate results for the mill, including extended MTBF to 16 months! And the solution is still running to this day! In addition to gains in uptime, the SKF fan upgrade service also contributed greatly to reducing the risk of \$25 000 fines from the EPA resulting from downtime of more than four hours.

Furthermore, the mill reported a significant reduction in temperatures and reduced vibration levels. And the extended maintenance intervals resulted in increased productivity and output, and improved product quality.



Summary

Investment in new SKF solutions	\$24 150
Total maintenance, repair and downtime savings	\$140 909
Total net savings	\$116 759
ROI (16 months)	483%

ROI calculations are from the SKF Documented Solutions Programme. Your particular cost savings may vary. Contact SKF or your Authorized Distributor for more details.

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