

Less downtime, more throughput

with SKF high temperature bearing technology

Higher temperatures, longer downtime

Bearings fitted in ovens with temperatures exceeding 180 °C and high levels of humidity are facing a number of challenges. The heat rapidly ages the bearing grease, thus if the bearing is not frequently re-lubricated wear of metal surfaces in the bearing contact areas will occur. High temperatures can even cause the grease to harden and impede the bearing's ability to rotate.

As a result, operating bearings in these environments means coping with persistent reliability issues and considerable downtime for maintenance. Preventing these issues places a serious burden on your maintenance staff. First, they'll have to wait for the oven to cool before accessing the equipment. Then, they'll need to remove the bearings, clean off existing or hardened grease as good practice, and then recharge with new grease. This can cost you up to a half production day depending on oven type and bearing positions – and must be repeated at regular intervals to keep the ovens functioning at peak performance. And with grease that can cost in excess of 1 000 Euro per kilogram, performing routine service on just a single oven quickly becomes an expensive process.



What if you could...

- Limit downtime and the related maintenance costs?
- Increase speed and throughput with elevated temperature – without increasing the need for frequent relubrication?
- Maximize bearing performance, even in the most extreme temperatures?

Turn high temperatures into an advantage

Your ovens need to run hot in order to help you meet rising production targets. But with higher temperatures comes more wear – and more downtime. To avoid these issues, you need a new approach – one that allows the environmental factors common in high-temperature applications to improve, rather than degrade, bearing performance and reliability.

Bearings for baking ovens are re-lubricated frequently. For example re-lubricating every 2 weeks using 1/2 kg of high temperature grease can cost 13 000 Euro and generate 52 kg of CO₂* associated with the production of the grease.

* assuming incineration after use

With SKF high-temperature bearings, you'll be able to run your ovens for longer without interruption, so you can increase throughput while reducing downtime and cost.

Increase reliability with relubrication-free technology

SKF high temperature bearings incorporate a fully crowned pure graphite cage, which permits just enough contact between the ball and cage to create a fine powder that coats the bearing's rolling elements, eliminating metal-to-metal contact – and the need for frequent relubrication. Because the graphite can withstand extreme heat – and uses the oven's inherent humidity to function properly – you can trust they'll perform optimally and relubrication-free in temperatures up to 350 °C.

Cut downtime and maintenance costs

By avoiding the need for repeated relubrication, you'll be able to significantly reduce the disruption and costs associated with planned downtime.



Deep groove ball bearings in VA 228 execution

Produce more without excessive maintenance

With bearings that thrive in extreme high temperature environments, it is possible to run your ovens hotter and faster than you could with traditional bearings. As a result, you can raise process temperature to accelerate throughput without excessive maintenance requirements.

What you gain

With SKF high-temperature bearings, you can:

- Feel confident that your bearings will perform optimally at extreme high temperatures
- Meet rising production targets without introducing more downtime
- Reduce maintenance-related expenses and redirect staff to more productive tasks
- Limit your environmental impact by reducing bearing grease and disposal of cloth and papers used to clean off bearing grease



Y-bearing units in VA228 execution

Bread maker increases reliability, saves time and money

Prior to working with SKF, the company's offload conveyor from the oven suffered repeated production halts. Replacing the bearings with SKF high-temperature bearing units gave the baker a much more predictable, reliable operation. By avoiding frequent relubrication, the company was able to run the conveyor much longer between routine maintenance periods – 36 months compared to just six. And in doing so, it redistributed its maintenance staff to other, higher-value tasks. Together, these advantages helped the baker see a return on its investment in just six months.

All numbers are rounded off and based on customer estimates. Your particular cost savings may vary.

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