



Cost-cutting solutions for wafer baking ovens

Benefits

- Increased production with reduced need for maintenance
- Environmentally friendly (no dripping grease)
- Reduced cost due to elimination of grease disposal
- Increased productivity – achievable with higher speed oven throughput
- Ease of replacement, quick retro-fit

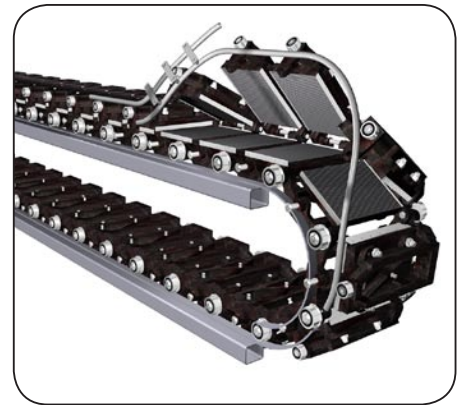
Typical applications

- Continuous wafer baking ovens for:
 - Hebenstreit machines
 - HAAS machines

Reduce downtime and lubrication costs with SKF high-temperature wafer oven bearing units

Automatic wafer baking ovens operate at extremely high temperatures. Bearings in the carrier wheels and top roller units need frequent re-lubrication with expensive food grade grease to help ensure reliability in operation. Ineffective or poor lubrication can lead to bearing reliability issues. Humidity and back draft in the process create a corrosive atmosphere, contributing to high oxidation levels which can affect bearing life. Frequent, costly shutdowns are necessary to relubricate or replace bearings. The combination of expensive grease, bearings and lost production can significantly reduce profitability.

SKF high-temperature carrier wheels and top roller units for wafer baking ovens are equipped with a unique graphite cage which is self-lubricating and requires no maintenance. Since dripping grease is eliminated, no clean-up is required. The bearings are temperature rated up to 350 °C (660 °F),



and are of a double-shielded design, manufactured from high-quality steel and have a manganese phosphate coating. SKF wafer oven units can operate without maintenance for >40 000 hours (4 1/2 years of 24/7 operation) at shaft speeds up to 100 r/min. The result is the elimination of expensive grease and the opportunity to increase uptime and throughput, reduce maintenance costs and improve profitability.

Available in both manganese phosphate and steel finish, these high-temperature bearing units can provide maintenance-free operation for >40 000 hours.





Increase the return on your maintenance investment with SKF

The whole idea behind the SKF 360° Solution programme is to help you get more out of your plant machinery. Whether your goals include lowering maintenance costs, raising productivity, or improving safety, hygiene and sustainability, SKF can assist. Following is an example of the SKF 360° Solution programme at work in the food and beverage industries.

Wafer producer reduces maintenance costs and increases productivity

A major wafer manufacturer was shutting down his process every 16 weeks to relubricate the oven's deep-groove ball bearings with expensive food-grade grease. 26 hours per year were lost in downtime. Production was also impacted by the temperature limits of the bearing grease, which did not allow higher process temperatures and increased oven throughput speed. The result was high maintenance costs, less than optimum productivity, and reduced profitability.

SKF offered a solution that eliminated the need for grease and offered the potential for increased output. The oven was upgraded with the installation of SKF high-temperature wafer oven bearing units. The units require no lubrication and have the capability of running at higher temperatures than conventional greased bearings.

By upgrading to the SKF unit, the manufacturer experienced higher production rates, and eliminated eight shutdown days per year related to maintenance on the carrier wheels and top roller positions.



Photo courtesy of Haas Wafermaschinen

SKF wafer oven units can significantly reduce maintenance costs and improve line efficiency

Summary*

Value of increased productivity resulting from higher speed oven throughput.	€ 20 000
Savings by eliminating re-greasing related materials and labour costs	€ 53 000
Increased production due to elimination of 26 hours of maintenance	€ 10 000
Total savings	€ 83 000

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

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