



REDUCE RE-GREASING IN WAFER BISCUIT OVENS

INDUSTRY:

Food & Beverage

APPLICATION:

Wafer Biscuit Oven

COMPONENT:

Baking Plate Bearings

LOCATION:

Malaysia



BACKGROUND

A Nye affiliate in Asia, noticed an increase in production downtimes for the wafer baking industry. Representatives approached a wafer baking company in Malaysia that validated their observations. This company was experiencing costly production downtimes due to daily regreasing of wafer baking plate bearings. The bearings had high grease consumption rates, thus leading to high failure rates. When the machines were in operation, the bearings were extremely noisy. The daily regreasing was a tedious manual operation, so the company wanted our affiliate's assistance in replacing the existing grease with a high temperature, NSF H1 & Halal certified lubricant.

CHALLENGES

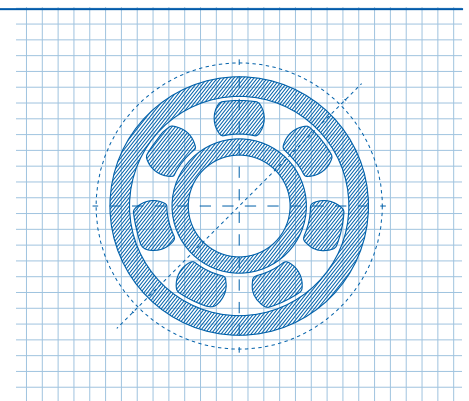
- Can the lubricant reduce grease consumption rates and operation noise?
- Lubricant must be NSF H1 and Halal Certified for incidental food contact.
- Lubricant must operate at temperatures up to 180°C.

SOLUTION

UNIFLOR™ 4622R-FG

A PTFE thickened, heavy viscosity, completely fluorinated grease.

- Excellent high temperature performance
- NSF H1, Kosher and Halal Certified
- Heavy viscosity for severe service bearing use



RESULTS

The company's internal test determined that Uniflor™ 4622R-FG lasted a full eight weeks, a significant increase over the daily failure rate experienced with the competitor lubricant. The customer chose to purchase Uniflor™ 4622R-FG and are now regreasing every four weeks, opposed to daily. The ovens are experiencing a smoother, quieter operation with no bearing failure. The lubricant reduced grease consumption, resulting in reduction in labor for regreasing and downtimes, ultimately leading to cost reduction for the company.

Typical Properties

Base Oil Properties	Conditions	Uniflor™ 4622R-FG	Test Method
Chemistry	–	PFPE/PTFE	–
Temperature Range	–	-20 to 260 °C	–
Kinematic Viscosity	40 °C	495 cSt	ASTM D445
	100 °C	45.5 cSt	ASTM D445
Grease Properties			
Oil Separation	24 h, 100 °C	4.1%	ASTM D6184
Evaporation	24 h, 100 °C	0%	CTM*
4 Ball Wear (1h, 1200RPM)	40 kg Load, 75 °C	0.49 mm	ASTM D2266
SKF EMCOR Bearing Corrosion	168 h	0-1 (none to trace)	ASTM D6138

*CTM: Nye Company Test Method

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Nye Lubricants is a leader in the innovation, formulation and provision of synthetic lubricants, enabling and improving breakthrough products and critical new technologies. We bring proven experience, deep technical knowledge and customer focus to solve our customers' toughest challenges, adding tangible value to products in a wide range of industries and applications.

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