
Customer reference case

Healthcare manufacturing

Cold water pump motor

SKF Energy Efficient (E2) performance class deep groove ball bearings



SKF E2 deep groove ball bearings provide power savings and 17-day payback period

Energy use by industrial equipment is under increased scrutiny across all market segments, as manufacturers search for ways to reduce costs and energy consumption, while enhancing machine operation. GlaxoSmithKline Consumer Healthcare Ltd. tested SKF Energy Efficient (E2) performance class deep groove ball bearings in a cold water pump motor. The results confirmed the predicted savings potential, providing significant cost reductions, energy savings and a 17-day payback.

GlaxoSmithKline is a world leader in the global pharmaceutical market, developing and manufacturing a broad range of products including prescription and over-the-counter medicines, dental and smoking control products, and nutritional drinks. The company has established a strategic priority which includes re-shaping manufacturing by improving site efficiency, streamlining processes and seizing opportunities to do more with less.

The challenge: Reduce costs and energy usage

At the GlaxoSmithKline Consumer Healthcare Ltd. plant in Nabha, Punjab, managers wanted to reduce the energy usage in the plant's cold water pump motors. The 22 kW motors were running at a speed of 2 990 rpm. The company was interested in testing the performance of SKF E2 deep groove ball bearings to prove that they would help reduce energy consumption.



The solution: SKF Energy Efficient deep groove ball bearings

SKF Energy Efficient (E2) bearings feature an optimized design balance between the internal geometry, grease and cage. The bearing is designed to lower friction by 30%-50% compared with SKF standard bearings, and to offer substantial reductions in cost and energy usage. The design enables lower operating temperatures, increased service life and higher operating speeds.

The result: Cost and power savings

GlaxoSmithKline Consumer Healthcare Ltd. achieved the predicted benefits. Mr. Pardeep S. Bhamra, Manager of Engineering, states, "I want to confirm that by using the SKF E2 bearings in our 22 kW motors we are able to save 0,56 kW. This is fully in line with that which was estimated by SKF."

The change to SKF E2 bearings on the 22 kW motors resulted in their 2,5% efficiency increase and annual energy savings of 4 583,6 kWh per motor.

Compared to the bearings previously used, GlaxoSmithKline Consumer Healthcare Ltd. is achieving a payback period of just 17 days. The company is now installing the SKF E2 deep groove ball bearings in all of their cold water pump motors within the Nabha facility. Additionally, the team is keen to expand the usage of SKF E2 bearings in other equipment as well.



Based on positive results, Mr. Pardeep S. Bhamra, Manager of Engineering, will expand the use of SKF E2 bearings in plant equipment.

Application data

22 kW motor
2 990 rpm

Solution

SKF E2 deep groove ball bearing
designation: E2.6310-2Z/C3

Benefits

- 17-day payback period
- 4 583,6 kWh savings per year for each motor
- Longer bearing service life

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