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## Customer Reference Case

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Textile Industry

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TFO twister electric motor

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



# SKF E2 deep groove ball bearings reduce energy costs, extend service life, and provide 37-day payback.

*The Sangam Group, a textile company located in India, is an IS/ISO9001:2000 certified company that places a priority on product quality, and improvements in machinery, processes and energy usage. To improve the operation of their Two For One (TFO) Twister electric motor, Sangam installed SKF Energy Efficient (E2) bearings. The company realized energy savings, longer bearing service life and a payback of 37 days.*

The Sangam Group of Companies (SGC) is a leader in the global textile industry. Located in Bhilwara, India, the company is a manufacturer, exporter and supplier of world-class suiting, flock fabrics and yarn. The company is known for its technical expertise, state-of-the-art machinery and ultra-modern textile production processes

### **The challenge: Reduce energy use**

Sangam was interested in improving the energy efficiency of the electric motor in a Two For One (TFO) Twister, a textile machine that twists the yarn of natural and synthetic fibers. The 30 kW TFO Twister motor runs at 1 470 rpm, and operates 22 hours per day, 363 days per year.





Results of installing SKF E2 deep groove ball bearings have been so successful that Mr. Anoop Kumar, General Manager, will expand their use throughout Sangam.

### The solution: SKF Energy Efficient (E2) bearings

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

### The results: Savings in power and cost

Measured results of running the TFO Twister using SKF E2 bearings indicate that, under average conditions, Sangam will achieve a yearly energy saving of 2635,38 kWh for each motor. Additional cost savings were provided by the bearing's longer service life. Compared to the standard bearings previously used, the company calculated a payback period of just 37 days. Sangam General Manager Anoop Kumar Somani, noted that "... the E2 bearings give a power saving of 0,33 kW and a lowering of vibration and temperature during actual operation."

As a result of the success of the SKF Energy Efficient bearings, Sangam has ordered 136 E2 bearings to equip other electric motors and pumps in the Bhilwara plant.

### Application data

30 kW motor  
1 470 rpm

### Solution

SKF E2 deep groove ball bearings  
type E2.6312-2Z/C3

### Benefits

- Payback period of 37 days
- 2 635,38 kWh savings per year for each motor
- Increased bearing service life

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