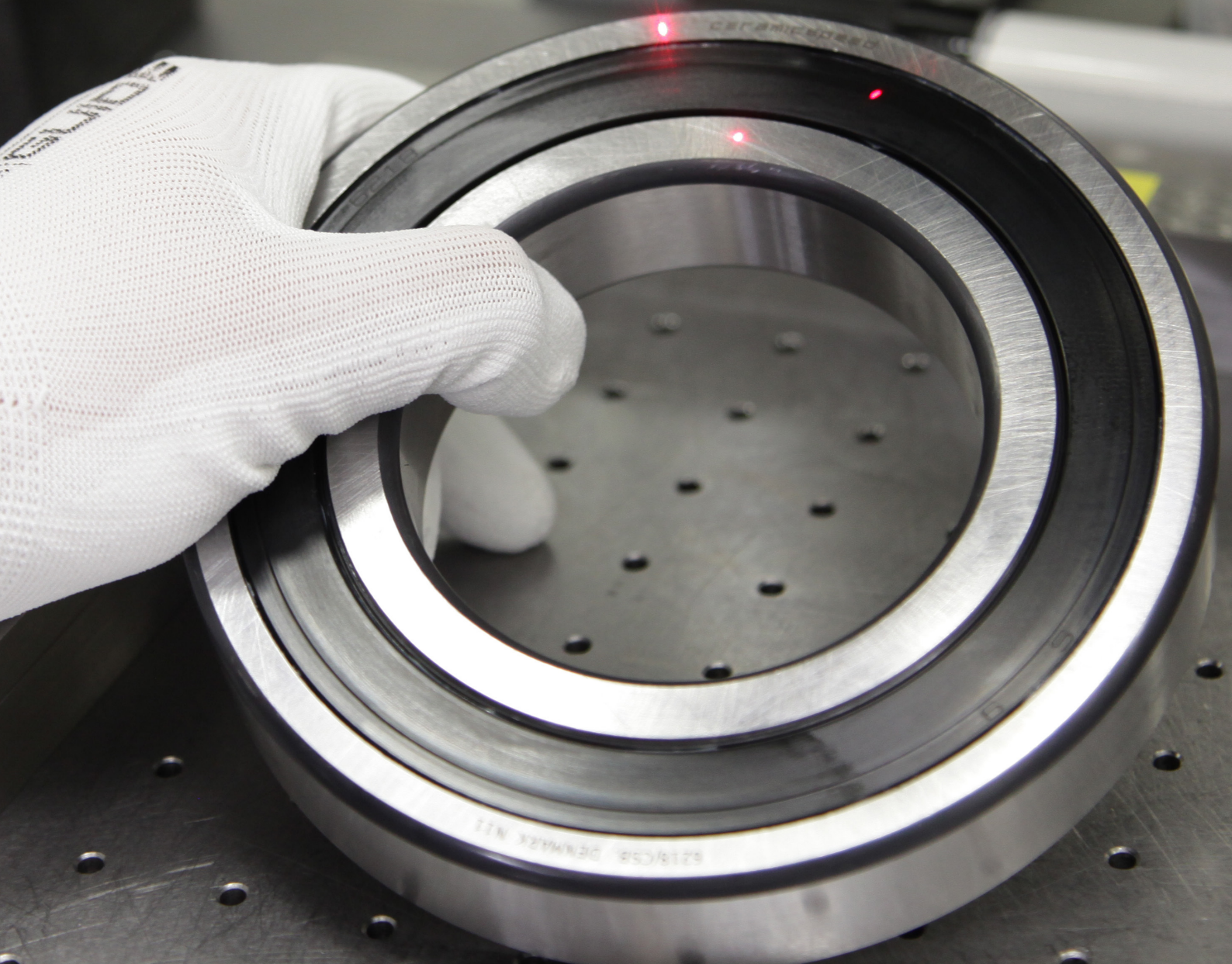

Case Study

Electric Motor - Dairy Production



CERAMICSPEED

Reduced bearing temperature and doubling bearing life

One of Denmark's largest dairies has implemented CeramicSpeed bearings to increase durability and improve efficiency. The dairy has production facilities in several countries and employs over 19.000 people worldwide

Problem

The dairy faced sizeable issues with the durability of steel bearings they were using in a specific motor. The products manufactured by the dairy contain many small particles that penetrate the bearings subsequently reducing the bearing life. Along with high bearing temperatures this lead to many control shutdowns and became detrimental to efficient operation.

Solution

CeramicSpeed Insulate bearings are non-conductive as the ceramic balls in the bearing have a resistivity of 15 kV per mm. Our insulate series is the best defence against damage caused by stray currents. In addition to being protected from the passage of electrical currents, the operating temperature in hybrid bearings is approximately 10-20 °C lower than conventional bearings.

Result

The dairy has now reduced the bearing temperature with 15°C, which has decreased production shutdown considerably. By using CeramicSpeed bearings with ceramic balls the bearings now have a higher resistance towards corrosion and contamination which has increased the bearing life of the bearings by 400%.

Technical Highlights

- Suitable for Contaminated environment with small particles.
- Rotation speed: 2800-3200 RPM
- Bearing temperature: 38°C-60°C
- Lubrication: FDA approved grease

