

Success Story

Industry: Electric Motors

Application: Electric Motor

Cost Savings: 11,500 euros

Introduction

A German company for maintenance and repair of electric equipment was experiencing a short service life of Standard bearings used in electric motors. NSK was asked to find a solution to this problem in order to increase the service life time. NSK performed an Application Review and bearing examination which showed that the bearings were being subjected to external contamination causing premature failure. NSK recommended the use of Sealed Super Precision Bearings. This had a significant Impact on a reduction in bearing failures and an increase in service life from 4 months to more than 12 months.

Key Facts

- Maintenance and repair of electric equipment
- Open Super Precision Bearings used
- Service lifetime only 4 months
- External contamination caused premature failure
- Request to increase service life time
- NSK solution: Sealed Super Precision Bearings
- 3 times longer service life



↑ Electric Motor

Value Proposals

- NSK performed an Application Review showing that the bearings were failing prematurely due to contamination ingress
- Recommendation to use Sealed Super Precision Bearings
- Bearing performance and reliability improved
- Bearing life time increased to more than 12 months
- Customer benefited from reduced maintenance costs
- Cost saving realised



Product Features

- Time saving: Bearing mounting time 4 x faster & contamination through poor handling eliminated
- Non-contact seals provide valuable protection; reducing raceway and ball surface wear, noise and vibration, lubricant breakdown
- No speed reduction due to non-contact seals
- Sealed bearings prevent grease migration in vertical spindles, promote temperature stability and provide higher accuracy machining
- Longer grease life: extended by 50% with sealed bearings



↑ Sealed Super Precision Bearings

Cost Saving Breakdown

Before	Cost p.a.	NSK Solution	Cost p.a.
 Costs of assembly and disassembly	€ 10.200	No costs of assembly and disassembly for more than 12 months	€ 0
 Costs of lubrication	€ 1.300	No costs of lubrication for more than 12 months	€ 0
Total Costs	€ 11.500		€ 0