

Success Story

Industry: Automotive Production

Application: Conveyor for Tyre Manufacturing

Cost Savings: € 14 800

Introduction

A wellknown tyre manufacturer had unexpected bearing failures on a conveyor belt during the tyre manufacturing. After only a few weeks of running, the conveyor bearings were damaged. An NSK Engineer analysed the bearing condition, revealing that open type bearings were installed allowing contamination to enter. NSK recommended to use sealed bearings with low torque in order to avoid additional loads. A trial was implemented and the recommended bearings significantly increased the lifetime of the bearings.

Key Facts

- Conveyor for Tyre Manufacturing
- Start of new machine
- Unexpected bearing failures after only a few weeks of running
- The analysis showed that the original open type bearing design was not appropriate for maintenance reliability
- NSK Solution: Sealed Bearings (VV) with low torque
- Due to low torque the machine setup and running conditions were not affected
- Due to the sealed bearing solution significant maintenance costs were saved



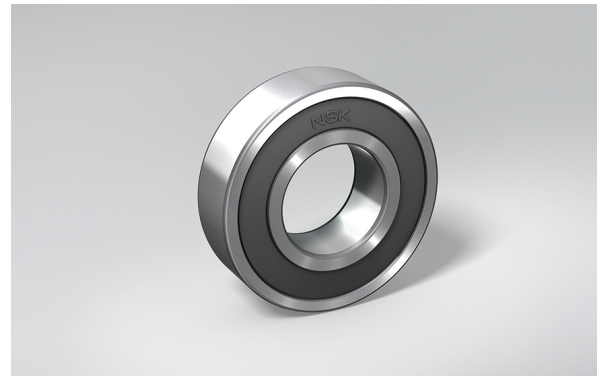
↑ Conveyor for Tyre Manufacturing

Value Proposals

- An NSK expert performed an initial inspection and created a detailed report on the application
- The originally used open type bearing were not appropriate for this application
- NSK recommended to use sealed bearings (VV non contact seals)
- No issue was detected after trials with new bearing
- Mounting of bearings was reliable and quick

Product Features

- Trouble-free operation
- Patented labyrinth constructions ensures the highest levels of sealing
- Low torque, ensures low power loss too
- Sealing material environmentally friendly nitrile rubber
- Dustproofing: good
- Torque: very low
- Constant revolutions: high
- Protection against lubrication leakage: good



↑ Deep Groove Ball Bearing - VV seal

Cost Saving Breakdown

Before	Cost p.a.	NSK Solution	Cost p.a.
 Mounting time 100 hours with hourly rate 80 € / hour80 conveyors	€ 8.000	No mounting time necessary	€ 0
 Maintenance costs	€ 5.000	Maintenance costs reduced	€ 0
 Study & Report : equivalent to 10 hours of work	€ 1.800	Saving on study a report	€ 0
Total Costs	€ 14 800		€ 0