Success Story

Industry: Cement

Application: Concrete Pipe Cutting

Cost Savings: € 38 400

Introduction

A customer was experiencing repeated bearing failure every 2-3 months, on the blade support of a concrete pipe slotting machine, with 8 hours downtime per failure. NSK Engineers examined the application and determined that ingress of concrete dust was causing premature failure of the bearings. NSK recommended changing to Molded-Oil bearings, which would give a better service life. This resulted in much improved performance with bearing life quadrupled from 2-3 months to 12 months.

Key Facts

- Concrete pipe slotting
- Bearing replacement every 2-3 months with 8 hours breakdown per failure
- Concrete dust environment
- NSK solution: Molded-Oil bearings
- Significant reduction in downtime and maintenance costs
- Quadrupled bearing life from 2-3 months to 12 months

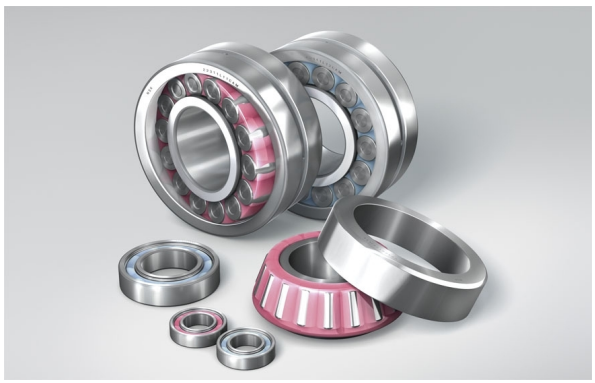
↑ Concrete pipe

Value Proposals

- The customer was experiencing poor performance of the bearing on a blade support for a concrete pipe slotting machine.
- A failed bearing analysis concluded that ingress of cement dust contaminating the grease was the route cause of premature bearing failure.
- An application review showed that the existing shielded Deep Groove Ball Bearings were inadequate.
- NSK recommended Molded-Oil bearings with a DDU seal.
- A trial was conducted and the results showed no failures in a 12 months period.
- This resulted in a significant reduction in maintenance costs, improved productivity and zero lost production providing a large cost saving for the customer.

Product Features

- Molded-Oil provides continuous supply of lubrication oil
- Stainless steel for corrosive environments
- Grease-free property with no oil refilling keeps operating environments clean
- Operating life more than twice as long as grease lubrication, in water or dust contaminated environments
- Contact-seal type available in standard inventory for ball bearings
- Achieves extended maintenance-free performance as Molded-Oil provides a continuous supply of lubricant
- Available for high speed applications
- Available in ball bearing, spherical roller bearing and tapered roller bearings types



↑ Molded-Oil

Cost Saving Breakdown

Before		Cost p.a.	NSK Solution	Cost p.a.
	4 failures per year		No failures over one year	
	8 hours downtime per failure €1.200 per hour downtime costs	€ 38.400	NSK Molded-Oil bearings operated without failure for 12 months	€ 0
Total Costs		**€ 38 400**		**€ 0**