

## Success Story

Industry: Automotive Production

Application: Mixing Machine

**Cost Savings: € 7 500**

### Introduction

A tyre manufacturer detected clearance inside bearings on his mixing machine. He was ready to stop the machine and dismount the bearings. After consultation with NSK, an AIP expert visited the site to perform a vibration analysis to judge the bearings condition. It showed that the bearings were in good condition and the identified clearance was inside the running tolerances. This permitted the customer to continue use of the selected bearings, avoiding production downtime and additional maintenance costs.

### Key Facts

- Mixing machine
- Clearance detected during routine control
- NSK Solution: Condition Monitoring Service (CMS) with detailed analysis to identify bearings and associated components condition. NSK performed a full vibration analysis of the running mixing machine
- The results showed that the bearings were in good condition and no issues were identified. Clearance detected was not critical, so the machine could be used longer, allowing a significant extension of the machine lifetime
- Significant costs were saved because it was not necessary to dismount the bearings which would generate a production downtime and high costs of maintenance



↑ Mixing Machine for Tyre Manufacturing

### Value Proposals

- An NSK expert performed an initial inspection of the mixing machine indicating that a spot condition monitoring analysis was recommended
- The NSK engineer conducted a Condition Monitoring review including all technical data, measurement conditions and explanations of spectrum analysis
- No issue was detected on the bearings, avoiding machine maintenance
- The initial clearance issue was not critical so the machine could run further without line stop resulting in cost savings

## Product Features

- Live assessment of a machines condition and health while machine is still in operation
- Predicted life of the critical components inside a machine allowing the customer to plan maintenance more accurately
- Early warning of problems occurring in machinery. Condition Monitoring is the most sensitive and long reaching method of detecting the signs of machine wear
- On-site support from NSK engineers
- Assurance that NSK as a full range supplier can help with the provision of critical bearing and linear motion spares
- Performance improvements and operational cost savings



↑ Condition Monitoring Service (CMS)

## Cost Saving Breakdown

Before	Cost p.a.	NSK Solution	Cost p.a.
 Machine downtime costs	€ 5.000	No machine downtime	€ 0
 Maintenance costs	€ 2.500	No maintenance costs	€ 0
<b>Total Costs</b>	<b>€ 7 500</b>		<b>€ 0</b>