Success Story

Industry: Machine Tools

Application: Centreless Grinding

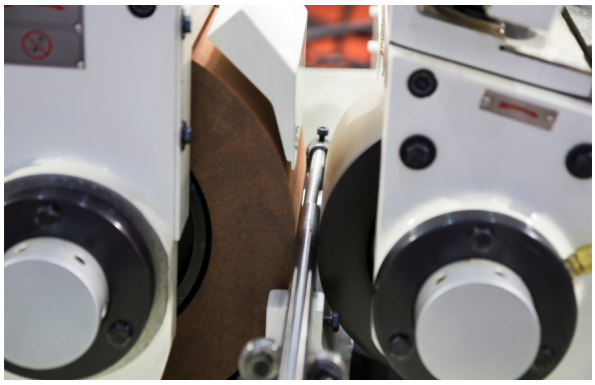
Cost Savings: € 33 600

Introduction

Within an engineering manufacturing plant, a centreless grinding machine was experiencing shape errors. The engineers suspected that some of the bearings within the spindle arrangement were faulty. Initial readings were taken by NSK Condition Monitoring Service (CMS) while the machine was still in a running condition to assess the health of the bearings. This CMS service helped to identify the root cause of the machine problem and save time on unnecessary investigative maintenance and machine down time stripping down good components.

Key Facts

- Bearing and motor details for the CMS analysis was as follows :
- The wheel spindle motor is rated at 15 HP
- The wheel spindle speed is adjustable from 50 to 6000 rpm
- The wheel spindle bearings are made up from 8 various bearings sizes
- NSK Solution: Condition Monitoring Service (CMS) with detailled analysis to identify bearings and associated components health. NSK performed a full analyse of the running grinding machine
- The CMS service indicated there were no concerns from the spindle bearings



↑ Machine Tools

Value Proposals

- An NSK expert performed an Condition Monitoring Service (CMS) on the running grinding machine
- The test indicated there was no issue of concern from the spindle bearings
- This now allows the maintenance engineers to focus their time in other areas
- 2 days to strip the spindle and investigate the potential bearing problem was avoided, along with the associated loss of production from that production cell

Product Features

- Live assessment of a machine's condition and health while the 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 methond of detecting the signs of machine wear
- On-site support from NSK Engineers
- Assurance that NSK as a full ragne supplier can help with the provision of critical bearing and linear motion spares

↑ Condition Monitoring Service (CMS)

Cost Saving Breakdown

Before		Cost p.a.	NSK Solution	Cost p.a.
	1 x engineer per shift for 2 days - total 32 hours at € 50 / hr	€ 1.600	No investigative maintenance required	€ 0
	2 shifts @ 8hrs per day x 2 days @ €1K/hr lost productivity	€ 32.000	No machine downtime	€ 0
Total Costs		**€ 33 600**		**€ 0**