



APPLICATION REPORT

MIDDEX // PROCESS MONITORING

Tool breakage monitoring WK2

Speedy troubleshooting thanks to excellent collaboration

Maximum quality is an absolute must for effective industrial production. Middex-Electronic GmbH offers innovative solutions to support this goal. Due to the shortage of qualified personnel, automatic monitoring of machining processes is becoming increasingly crucial. This is especially important in 24/7 production to prevent defective workpieces. Professional customer service is imperative when processes do not function as they should. This is demonstrated in a recent practical example.

Problem solving for our customer

A company from Oberndorf a.N. was searching for an automation solution to immediately stop its machines in the event of drill breakage during machining. Costly rejects can then be reduced to one piece. The company found that using tactile tool breakage monitoring systems was the perfect solution for their needs. The customer was impressed by the products offered by Middex-Electronic from Rottweil and opted for the WK2 "All-rounder" system for tool monitoring. The WK2 features a simple and clever design that allowed the customer to install and set it up without any assistance.

However, there was one challenge that required the help of Middex-Electronic. While commissioning the tool breakage monitoring systems in several machines, one of the systems simply did not function properly. A Gildemeister GMC 20 machine continuously issued an error message of "insufficient probe travel" or "Middex defective". The employee in charge of the machine line promptly contacted Middex-Electronic for assistance.

An expert was sent to identify and clear the fault. Prior to the arrival of the expert, everything was prepared on the machine, so that work could begin immediately.

The following situation took place on-site: The probe was moving and the machine stopped as soon as no drill was detected. At the same time, the system displayed "...Middex defective". The expert had an assumption very quickly and was able to locate the fault within a short time. While installing the control unit, two connections were swapped. Instead of scanning for the drill with the corresponding command from the machine, the probe learned with every movement. However, this is only necessary once after setting up the system and aligning the probe at the start of series production.

As soon as the connections were corrected, everything functioned smoothly. The machine resumed normal operation and is now working perfectly with the tool breakage monitoring system from Middex-Electronic GmbH.

The collaboration between the company and the Middex expert during troubleshooting was outstanding, and the desired solution was achieved quickly. Middex-Electronic GmbH kindly covered the costs of this service call, which also enhanced the customer's knowledge, enabling the company's employees to independently integrate additional products.

Middex-Electronic maintains close communication with the customer to provide immediate support should any issues arise. The company from Oberndorf a. N. has found a perfect partner in Middex-Electronic GmbH to minimise production waste.

Data

Middex Product

Monitoring system: WK2

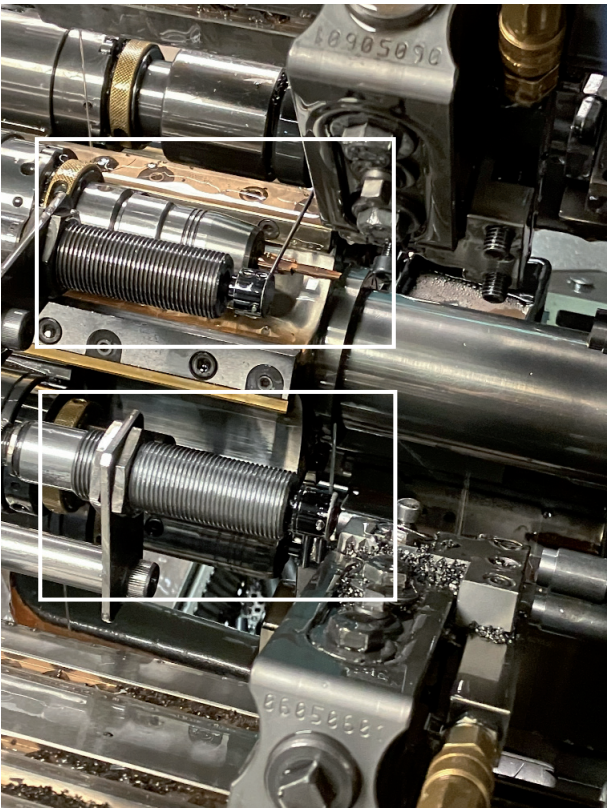
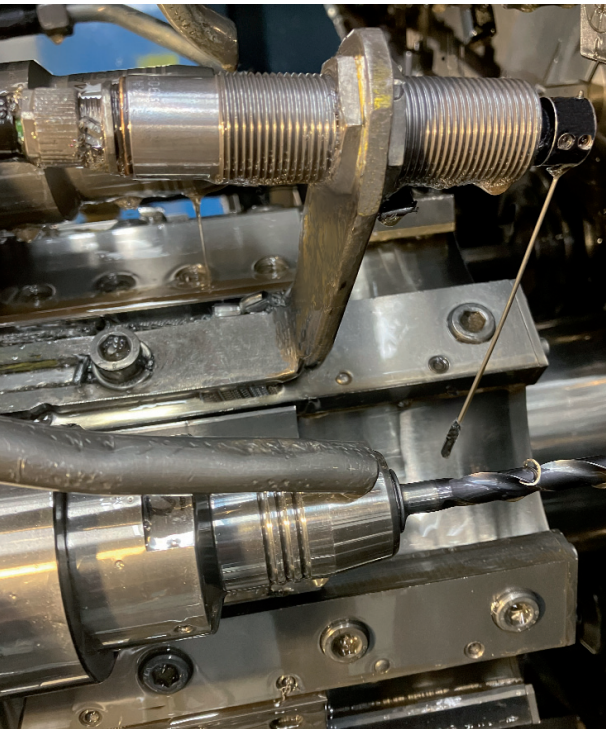
Function: Monitoring of tools

Multi-spindle automatic lathe

Manufacturer: Gildemeister

Model no. GMC 20

Control system: Fanuc



WK2 – the All-rounder In summary:

- Ideal for monitoring tools, workpieces, or clearances
- Scanning direction right or left
- Absolutely leak-proof under the most challenging conditions

