

# Measuring device allows speedy multi-tasking

Measuring tools can be a time-consuming task which cannot be neglected without compromising the quality of a company's products. A Swiss toolmaker is using a new machine said to combine speed, precision and being able to perform several functions at the same time.

Measurement technology is evolving. Issues like uneven pitch, different groove groups or varying differential angles of twist present new challenges for measurement experts such as Benedict Lochmatter. He is a technology coach at Fraisa, a cutting tool manufacturer specialising in milling tools, drills, taps and indexable inserts. The company has its headquarters in Bellach, Switzerland with offices in Hungary, Germany and the USA.

## Improving inspection processes in grinding shop

The firm needed to improve inspection processes in its high-precision grinding shop and was looking for a device that could measure the circumference and face of tools at the same time. "We scoured the market and decided that

what we needed was a new microscope. But then we learned about Zoller's Pombasic universal tool inspection machine at the Control 2014 trade fair," he says.

Zoller cites rapid measurement speed, ease of use and concise documentation as the main advantages of its device. Kadir Kilic, head of Fraisa's high-precision grinding shop claims that the Pombasic's ease of use compares favourably with the 'Elephant' technology made famous by the 'Genius' universal measurement machine. "The Pombasic's large monitor and high resolution makes work more comfortable. It's easier on the eyes than working with a microscope," he says.

At Fraisa, the Pombasic is used mainly for random measurements in the series production of metal cutting tools. It's said to allow for a wide range of diameters and lengths of tools to have their

face geometries and circumferences measured at the same time, a process that Kilic claims to take less than a minute in some cases. "A test log and screenshot are also generated," he adds. The machine is set up centrally in Fraisa's high-precision grinding shop. The company claims its shop staff needed just one brief training session to get used to the new technology, owing to the device's intuitive interface.

## Performing automatic and manual measurements

Combining manual and automatic measurement processes is another claimed advantage as all tool parameters required by the drawing can be precisely measured as specified. In practice, all input or tool parameters entered from the grinding machine's profile program are checked and can be included in the testing log. For each measuring task, at least three measurement variants are available. In manual mode, axes are moved by hand while the machine automatically measures the contours. Alternatively, cross-hair mode can be used to determine the geometry.

The basis for the measurement precision of the Pombasic is claimed to lie in its robust construction and high-precision guides with an integrated distance measurement system, and speed is what is said to set the machine apart from other precision measurement devices. "Since we manufacture precision tools, it's important to us that we consider not only the manufacturing process but also the measurement technology," concludes Adrian Hangartner, head of production at Fraisa.



Source: Zoller

"The large monitor with sharp resolution makes work considerably easier," Kadir Kilic, head of Fraisa's grinding shop about Zoller's Pombasic.

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