

## PRODUCT PRESS RELEASE

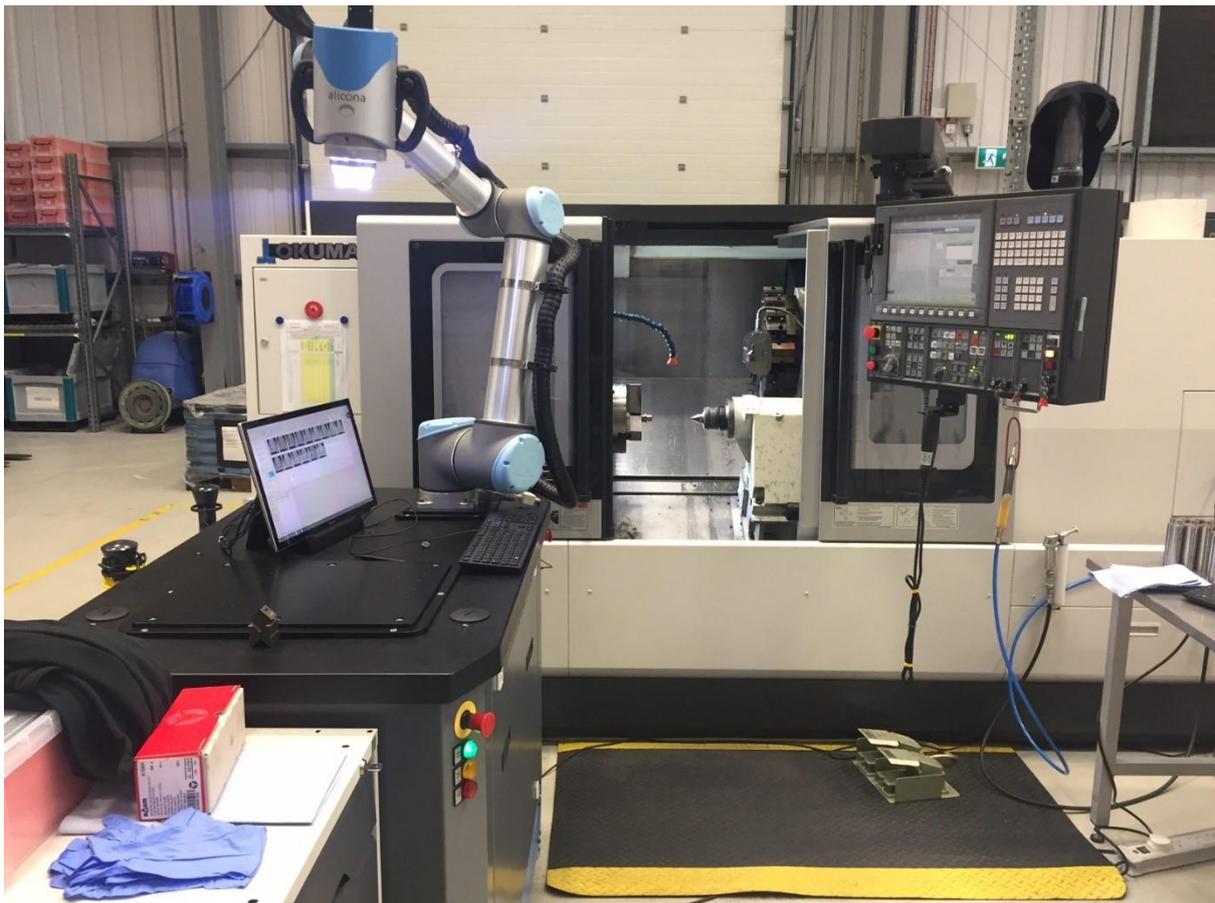
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Element Six increases testing capacity with an Alicona Optical Metrology System mounted on a Robot.



The Element Six Global Innovation Centre, based on the Harwell Campus in the UK, already use two Alicona Measurement Systems in the development of super materials for machining applications.

Continuing their close relationship with Alicona, Element Six has recently ordered one of their Compact Cobot optical measurement systems. It is being used, in conjunction with an Okuma turning centre, to automatically measure tool wear over varying test cycles.

The vision devised by Dr Wayne Leahy, Head of Applications at Element Six, has been to develop a process which transforms the efficiency of tool wear monitoring by eliminating the need to remove and check tool wear during the machining cycle.

Working closely with the development engineers at Alicona, a program was started to establish if a method could be created to achieve this. This was done by using existing measurement technology, in the form of an Alicona R25 sensor, and an integrated Compact Cobot system supplied by Alicona mounted alongside the Okuma turning centre.

The system interfaces with the turning centre allowing automatic tool inspection during the machining cycle. When the cycle is finished the machine tool doors open, the Cobot moves the measurement head to the measurement position and a measurement of the cutting tool and workpiece is made. The cycle is then repeated providing real time tool wear measurement.

Dr Leahy states, "At the moment the system delivers about 25% more capacity, on full integration the system will deliver 2-3 times the current capacity while at the same time improving quality and freeing up people to focus on processing and interpreting the data generated."

This unique combination of an optical 3D measurement system with a machine tool opens a unique perspective for on machine measurement. In addition to measuring cutting tools the Alicona system allows the measurement of machined features and surface finish, this opens the opportunity for on machine component measurement.

The compact cobot can be seen at MACH 2018 on the Alicona stand H7-48

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That's metrology!