

Achieving Smart Machining With On-Machine Metrology



Capturing metrology data on machine tools where parts are made creates a singular opportunity to identify machine-based changes as they occur and adjust them in real time.

It has become a generalized belief that good metrology measurements must be achieved in a clean and static quality department on coordinate measuring machines (CMMs). The production equipment and environment is just too noisy and dirty.

This is not the case. Capturing metrology data on machine tools where parts are made creates a singular opportunity for using that data to identify machine-based changes as they occur and adjust them in real time. The results are more good parts per shift, longer-lasting machines and tools, and the ability to share data throughout the factory -- all significant production advantages on equipment you already own. This is the definition of Smart Machining.

From CMM to CNC Manufacturing companies straightforward reasons:

- To avoid releasing an
- To maintain quality
duce good parts
- To create SPC (statist
es that maintain and improve t

External CMMs have become a standard over time, but necessitate removing equipment, fixturing it in a CNC, turning the part to production. These steps take time and introduce human or automation equipment. The main reason remains true even though some