

Technology Spotlight

WERTH TOMOSCOPE XS

LATEST INVESTMENT

Recently, Plastikos approved plans to invest in a Werth Tomoscope XS. The \$400,000+ investment in Computed Tomography (CT) technology is a part of a continuous improvement plan to further increase accuracy and repeatability during validation and inspection phases of production. During evaluation, Plastikos' engineering team tested the CT scanning device extensively to evaluate the following criteria:

- » Complex features of components will now be able to be measured with the Tomoscope XS, that an optical measurement machine or touch probe cannot, due to the machine's ability to capture both external and internal features. Sectioning parts for measurement can be replaced with a non-destructive method for authenticating internal part geometry to a CAD model with the use of a CT scan to verify dimensions.
- » Time spent on investigating dimensional discrepancies and customer concerns, depending on the application, can now be reduced up to 95%. The Tomoscope XS can run a scan on parts and generate a custom report in minutes, rather than hours—reducing the need for several hours of measurement verification and generating reports—limiting human error.
- » Reverse engineering is also a possibility. The Tomoscope XS outputs a STL file which can be sent directly to our 3D printer.
- » The scanner can penetrate 8.5mm of steel, allowing for the ability to scan and measure steel in minutes to verify it before sampling—limiting the need and lead time for additional steel samples.

ENHANCED CAPABILITIES

- > REDUCTION OF UP TO 95% INSPECTION TIME DEPENDING ON THE APPLICATION
- > 100% OF HUMAN ERROR ELIMINATED DURING THE MEASUREMENT PROCESS
- > NON-DESTRUCTIVE TESTING ALTERNATIVE
- > MAXIMUM PERMISSIBLE ERROR DEPENDENT ON MATERIAL AND APPLICATION—NEVER GREATER THAN 6.5UM OVER 205MM— LESS THAN .0002"
- > DETAILED 3D SCANNING IN LESS THAN 5 MINUTES PER COMPONENT
- > CROSS SECTIONS TAKEN ON ANY AXIS THROUGH ANY SECTION OF A SCANNED IMAGE
- > 160 KILOVOLT X-RAY, CAPABLE OF PENETRATING 8.5MM OF STEEL

EXECUTIVE RESPONSE

"Plastikos' customers, over the years, have continued to source very difficult projects with challenging time-to-market requirements. Adding this technology will enable Plastikos to better support product development while also improving the efficiency of metrology once in production."

—Rob Cooney, Plastikos Manufacturing Manager



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