CASE STUDY

Foreign Object Damage Inspected with LaserGauge®

THE CHALLENGE

A medical device manufacturer was experiencing foreign object damage (FOD) to exterior surfaces of implantable modules during and after the manufacturing process. The damage was in the form of slight dents and scratches, less than 0.005” in depth, but the deformations had to be measured to determine if the part was usable, repairable, or needed to be scrapped.

The current method of inspection was time consuming and the measurement results were not always repeatable. Parts had to be taken from the manufacturing area to a measurement station where visual methods and mechanical instruments were used.

THE SOLUTION

A LaserGauge® HS410 sensor with a 0.250" field-of-view was chosen for the application because of its vertical scanning accuracy of ±0.00025-inch. Coupled with the battery powered LG1200 graphical controller, the portable system allowed inspectors to make the measurements immediately when the defect was identified.

The LaserGauge® system provides the inspectors the ability to take measurements and analyze the results anywhere within the plant in a matter of seconds. Measurements are displayed in the data table and color-coded to indicate in or out-of-spec conditions.

Measurement results and surface profile images are saved for documentation purposes and for subsequent analysis.

Using the LaserGauge® system, the company was able to save time and money by quickly identifying the parts that could be repaired rather than scrapped.

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