

Focus: Hydraulic Housing

Challenge: Hydraulic housing components present a unique measurement challenge. This casting consists of a number of bores, profiles and surfaces located deep down inside the housing. Traditionally such parts could be measured with a CMM, but tactile measurement is a time-consuming process. For fast measurement of this part, optics and a laser with a long working distance are needed.

The Multisensor Advantage: The OGP[®] SmartScope[®] Quest[™] 300 combines the working distance, sensors and accuracy needed to measure the hydraulic housing. The Quest 300 equipped with the TeleStar[®] Plus long working distance laser is ideal for measuring recessed surfaces up to 8" deep.

Optical, laser and tactile sensors measure all features. Video detects and measures edges, grooves and circular features. Telecentric zoom optics provide a large FOV and high precision focus measurement. The TeleStar Plus TTL laser provides for scanning surface profiles, and when coupled with a 0.5x laser lens, yields an impressive working distance for reaching deep into bases and recesses. SP25 Scanning Probe is used for tactile scanning of both known and unknown surfaces. OGP MeasureMind[®] 3D MultiSensor metrology software allows all three of these sensors to be used in a single routine.

The Result: The SmartScope Quest 300 with MeasureMind[®] 3D software successfully measured the hydraulic housing part in a fraction of the time needed to do it on a CMM. Quest 300 provided fast and accurate measurements for the hydraulic housing part, while allowing all measurements to be made with a single setup.

