

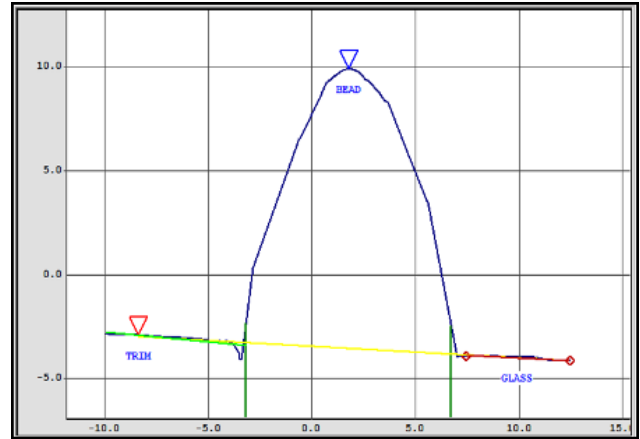
CASE STUDY

Adhesive Bead Height Inspected with LaserGauge®

THE CHALLENGE

An automotive manufacturer was experiencing water leaks around the windshield seal after final assembly. A robotic dispenser was programmed to apply a fixed amount of sealant; but as the nozzle became dirty or clogged, the adhesive material applied to the surface was not a consistent shape. When the adhesive hardened, the inconsistent shape caused irregularities in the seal.

To verify that a consistent amount of adhesive was being applied, the height and width of the sealant bead needed to be measured. The polyurethane sealant had to be measured immediately after being applied, while it was still hot, and before the windshield was pressed into place. Each vehicle had to be inspected quickly as it continued to move down the assembly line.



THE SOLUTION

A LaserGauge® HS702 DSP sensor with a 1.2" field-of-view was chosen for the application because of its processing speed, light weight, and its portability.

A special standoff was developed to make it easy for the inspector to position the sensor at the correct height over the sealant bead. Inspectors were able to make each measurement within a couple of seconds and the in or out-of-spec condition was shown by a color-coded GO/NO-GO indicator.

Using the LaserGauge® HS702 sensor, the manufacturer was able to quickly identify if the amount of the sealant was sufficient to prevent water leaks and to monitor the condition of the application equipment.