



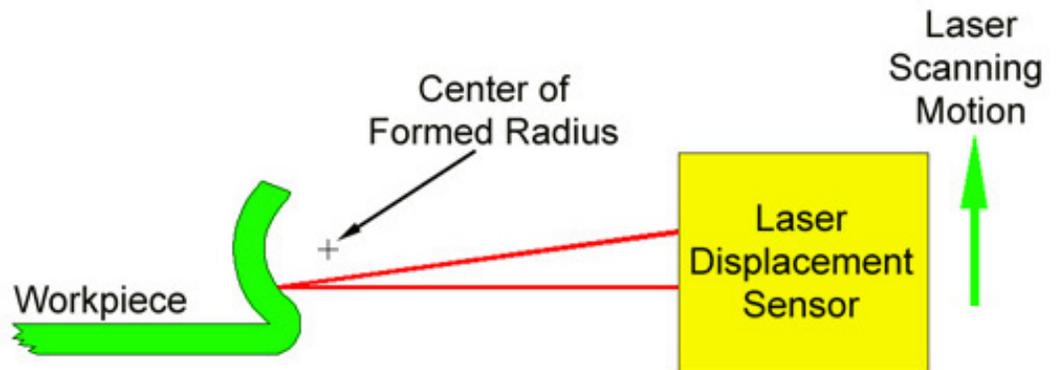
A Problem Solver Application Bulletin

Measuring Part Feature Profiles

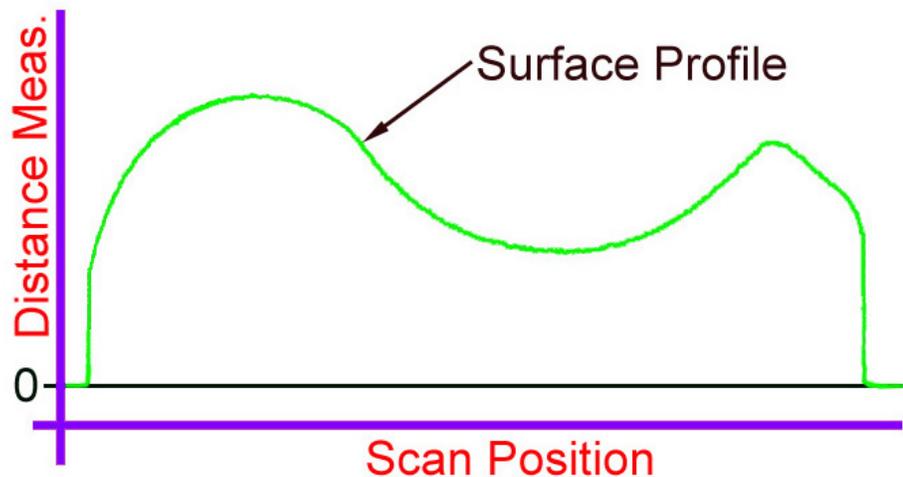
The **Signature Technologies SA-2000 “SAM”** module, and **Signature Technologies “SAMview™”** Software package can be used to non-contact evaluation of specific features on manufactured parts. This can include dimensional profiling of each and every part in process!

The illustrated method can perform the same type of test continuously as the part is manufactured and optionally perform adjustments to the process to maintain the parts within specification.

The system works by scanning the work piece with a triangulation laser to capture the surface profile.



A high quality laser must be used because of the relatively severe angles encountered on the measured surface as shown. Differential measuring for “on the fly” measurement is also possible with multiple laser units. Post processing of the measured data also gives the ability to confirm that the radius is properly formed, and is a true radius. If the radius is true, then the center of the radius can be developed in both horizontal and vertical axes.



Multiple sensors can be used in cases where there are several different

features to measure, or where multiple measurements are required to insure proper formation of a single feature. The **SAM™** module can handle inputs in groups of 8 up to 56 total points.

Signature Technologies can supply a wide variety of solutions to various manufacturing process problems dealing with measurement, verification of properties, tool condition, and machine health. We can also “close the loop” by performing process adjustments in response to specific variations in force,

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location, or shape of the work piece, as well as more simple controls which can track and reject specific parts which don't meet specific quality criteria.

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