AVALON VISION SOLUTIONS
Your Business, Our Vision

Application TM1:
Metal Part Gauging

Problem: A manufacturer of machined metal parts needed an automatic method of gauging the diameter of processed parts.

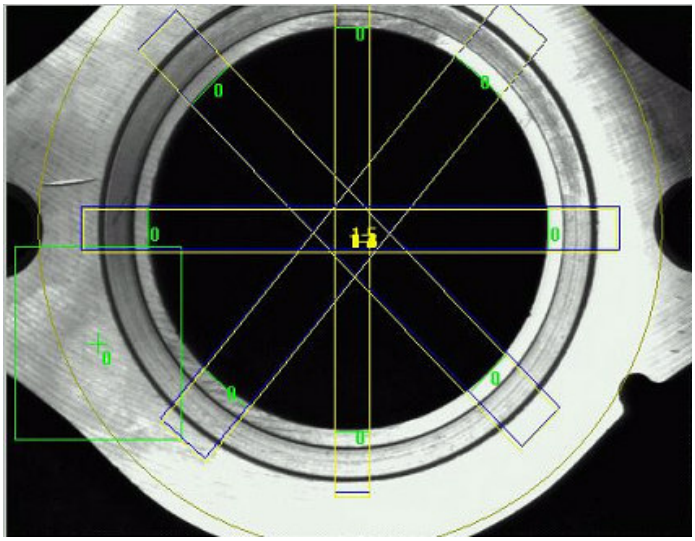

Figure 1: Top-lit Metal Part

Solution: Stand-alone inspection system installed onto a fabricated inspection fixture (QSInspector). Diffuse fluorescent back light illumination lighting the part from the bottom. One camera with a FOV of 100mm (Resolution approximately 0.02mm). Cycle time: 2 sec.

The part number of the inspected part is selected from a Windows recipe menu. Parts are automatically indexed into an inspection station by existing material handling system. A Part-In-Place signal triggers the camera to acquire an image. Software tools detect the various attributes. After all attributes are verified, a digital output is sent to the material handling system for either acceptance or rejection.

Avalon Vision Solutions is a full-service provider of machine vision applications. The company's product line is designed to run on industry standard Windows XP operating systems. Ruggedized industrial PC's are implemented into real world plant floor applications with hardened cameras and lighting to accommodate the demands created in the manufacturing environment. Exceptionally easy and intuitive interfaces enable shop floor personnel to operate the systems with minimal training. There are three application areas the company excels at in implementations. Over 450 plants in North America have in excess of 2,000 systems running in mission critical applications.

Figure 2: QSInspector

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