

Engine Housing Dimension Inspection



Client

Our Client started in 1993 as a consultancy.

The Company quickly zeroed in on 'Optical White light Scanning' from Rexcan-III to bring in latest technologies at the doorstep of Indian Industry in the field of Scanning, Measuring and Product Development.


Problem Faced

- Checking the dimensions of various parts present on engine housings.
- Checking the dimensions to 0.5 mm accuracy. (Since this process consumes more time and is usually an error prone task, the customer wanted to automate the system.)


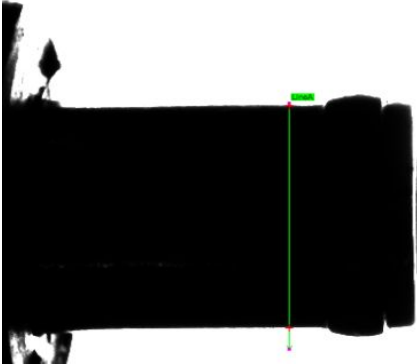
Technology introduced by Qualitas Technologies

Since it is a measurement based application, we opted for the normal rule-based system i.e., Sherlock. Sherlock provides very powerful algorithms for measurements with satisfactory accuracy. The algorithms provided by Sherlock are easy to configure and use and results can be obtained easily.

Solution

- We developed the solution with backlight illumination. Since it was a measurement application, with backlight, we could get sharp edges and there won't be any distractions in the image as we captured the shadow of it.
 - Image acquisition was done with a camera mounted on top and the component was placed horizontally on a diffused panel light.
 - The objective could be achieved by the use of an edge detection algorithm on the line ROI.
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Images

<i>Captured Image</i>	<i>Annotated Image</i>
	

Results

The results obtained were accurate to 0.5 mm accuracy.

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