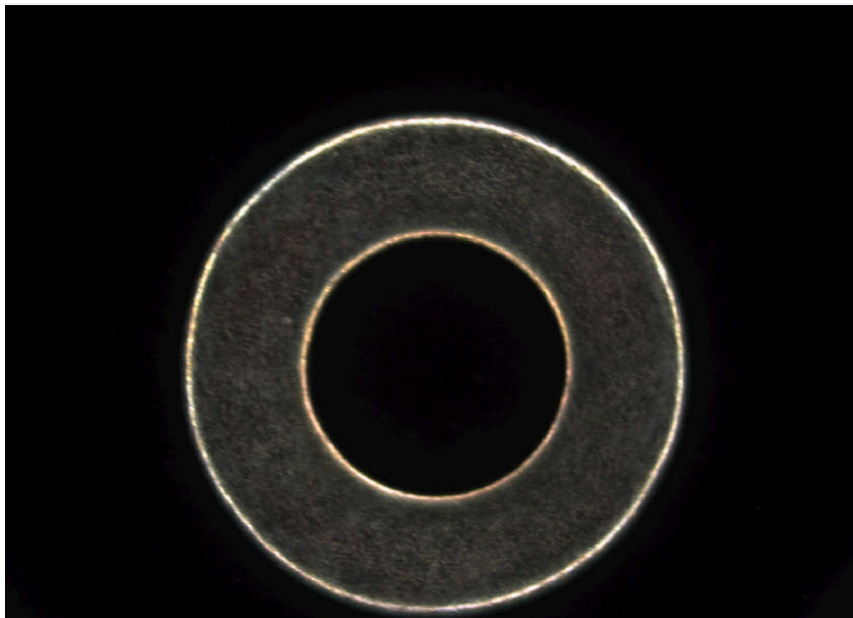




**Industrial Vision Systems**

• Innovation • Knowledge • Success •

**CAMERA BASED VISION INSPECTION SOLUTION  
FOR  
“WASHERS INSPECTION”**



**Tej Control Systems Pvt. Ltd.** Plot no 329/331, Satish Ind Engg, Road no 25, Wagle Ind Estate.  
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## **WASHER INSPECTION SYSTEM**

**WASHER INSPECTION SYSTEM** developed by the TIVS is a comprehensive inspection solution for the visual defects occurring in sample which is giving by you. The Inspection system is compact in design and can be easily integrated into existing production lines.

### **Highlights of the system**

- ✓ Designed to work in the industrial environment.
- ✓ Can be easily integrated into the existing machinery.
- ✓ Easy menu based programming. Doesn't require knowledge of programming languages like C or C++.
- ✓ Faster System Integration leading to Faster ROI.
- ✓ Optional data Capturing system to store and report shift wise data.

### **Standard Solution Offering**

The solution offering are strategically designed to suit the industry needs.

The system comprises of the following stations:

- Multiple Camera High Resolution based Inspection System.
- High speed Vision Capturing & processing System.
- High speed Strobe controlled Lighting system.
- LCD monitor for process monitoring.
- Programming console or mouse for programming the Vision System.
- High speed rejection system.
- PLC based control Station.
- Complete mounting accessories.
- Inspection station for inspection of various defects.
- Pneumatic Rejection Station for rejecting the defective samples.

**Optional:**

Data collection terminal to capture and store shift wise statistical information. The standard reporting features include:

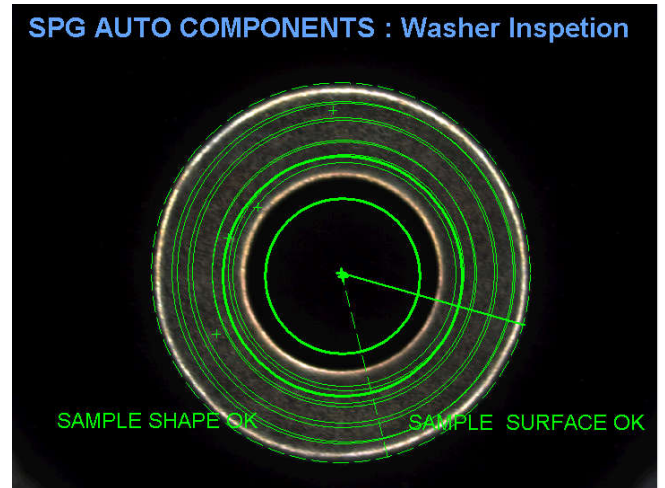
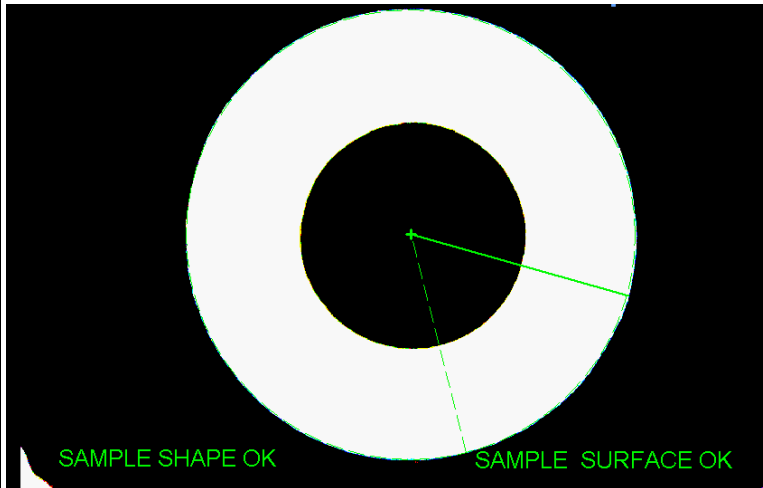
- a. Total Components inspected
- b. Total Components rejected
- c. Rejected components tabulated fault wise.
- d. Graphs and trends to show the performance of the system.

**SPECIFICATION:**

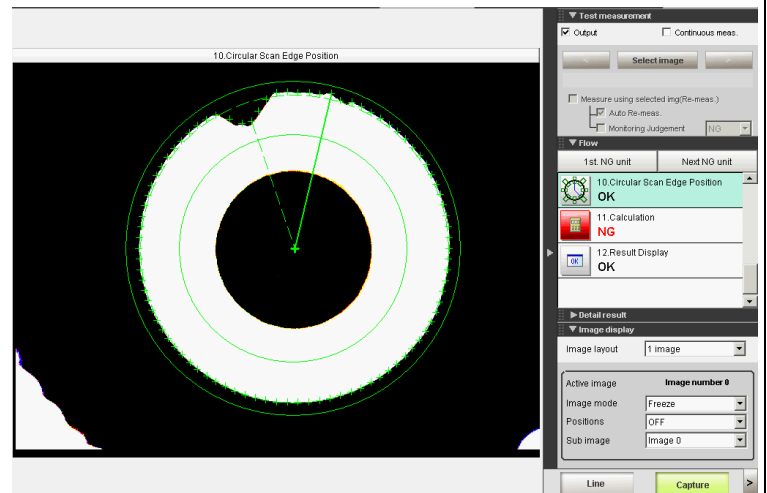
<b>INSPECTION CAPABILITY</b>	<ul style="list-style-type: none"><li>• Washer OD section cut off</li><li>• Washer ID absent</li><li>• Scratch marks / Pitting</li><li>• Dent marks</li><li>• Black spots on washer surfaces.</li><li>• Foreign Marks or cracks.</li></ul>
<b>SYSTEM SPEED</b>	100 - 120 samples/min.
<b>PRODUCTS TYPE</b>	As provided by customer.
<b>CAMERA</b>	Higher Range High resolution System With Controller.
<b>UTILITIES</b>	230V, 1-phase +E, 50 Hz, A.C.
<b>AIR PRESSURE</b>	Flow 50 LPM at 6 kg / cm <sup>2</sup> .

**BELOW DETAILS SHOWS THE CAMERA RESULT FOR OK & NG SAMPLES:**

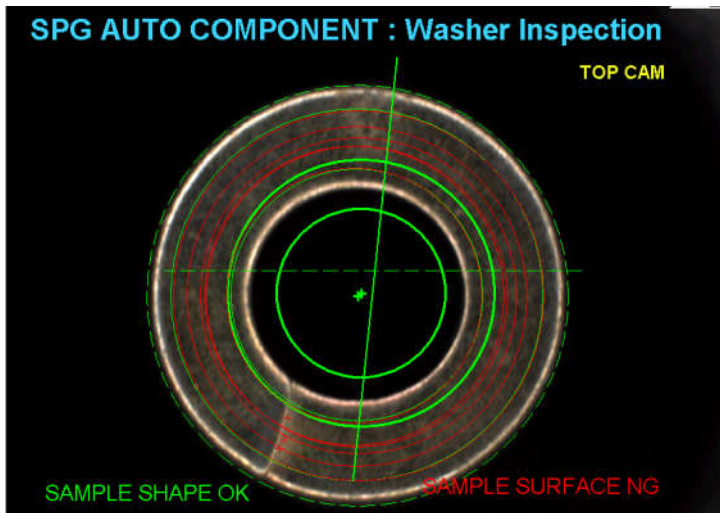
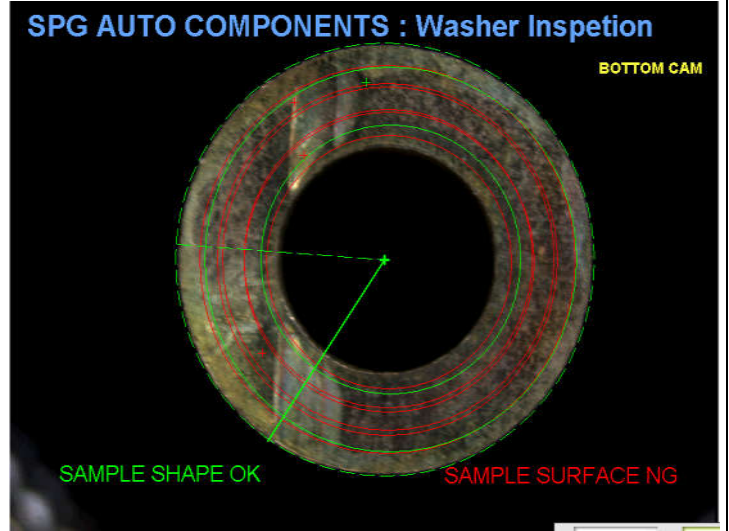
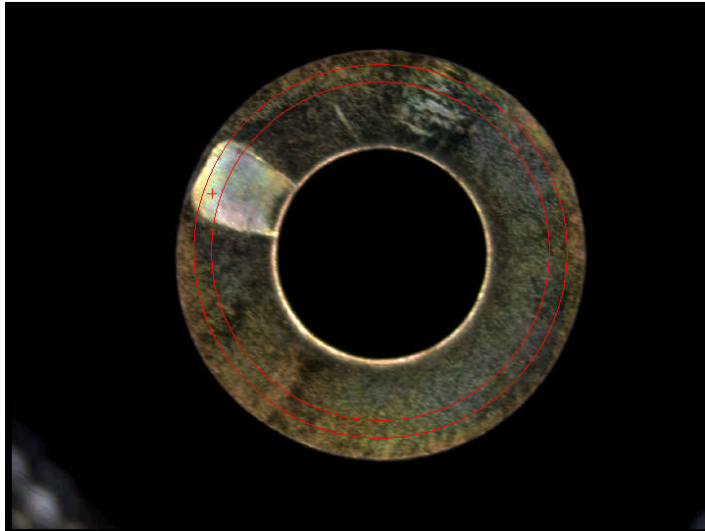
**OK SAMPLE FOR WASHER:-**



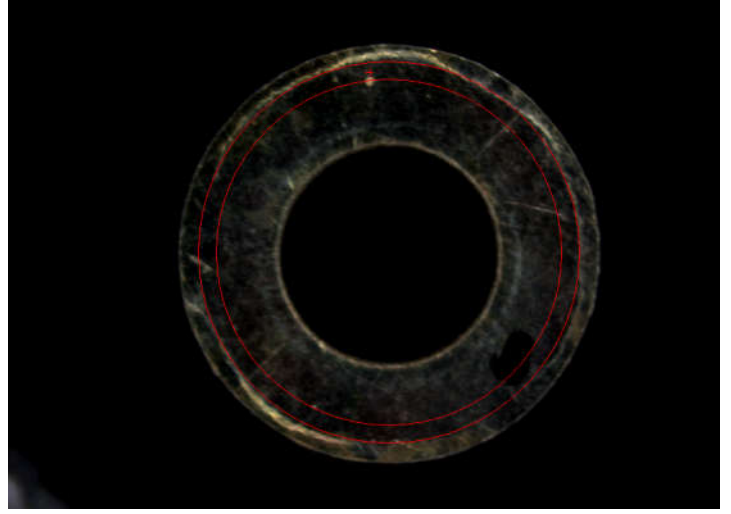
**BAD SAMPLE FOR WASHER:-**



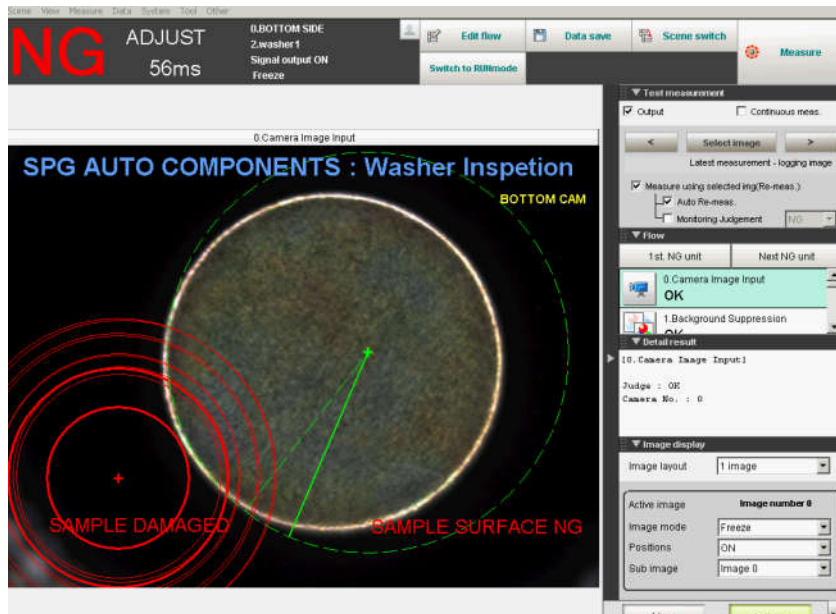
**WASHER OD SECTION CUT OFF**



**SCRATCH MARKS DENT MARKS**



## BLACK SPOTS / SURFACE PITTING ON WASHER SURFACE



## WASHER ID ABSENT

### CONCLUSION:

Camera System is able to check for all the defined parameters with a good degree of accuracy and consistency as required by the client.

## **Why Us**

TIVS is driven by the core values of service, integrity, and innovation. Our strength lies in our agility to adapt to a dynamic market, and our ability to transform m understanding your technology needs aligned to your business objectives. Our differentiator is in servicchallenges into successful market opportunities. Our capabilities target winning results by in our clients to make them win; when you talk to us, you will understand our technologists possess significant insight into your business processes, much better than many other service providers. We are renowned for our ability to provide products, solutions and implementation frameworks that are delivered through a strong focus on core business issues, strong process orientation and industry domain knowledge. We partner with our clients and implement solutions to successful completion, and ensure that they realize the desired business benefits.

We consistently focus on:

- \* Reducing the Total Cost of Ownership (TCO) for our customers
  - \* Understanding customer needs before making recommendations
  - \* Offering solutions based on specific customer needs
  - \* Creating an organization based on learning, innovation, and quality
  - \* Enabling employees to realize their full potential
  - \* Conducting ourselves with the highest sense of integrity
- 

### **For more information contact:**

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