

# VISION INSPECTION SOLUTION FOR FLANGE INSPECTION





#### FLANGE INSPECTION SYSTEM

**FLANGE INSPECTION SYSTEM** Developed by the TIVS is a comprehensive inspection solution for the Determination of various visual defects occurring in Components. The Inspection system is compact in design and can be easily integrated into existing production lines. The system is programmed to identify common faults emanating from the production and automatically reject the defective components.

#### Highlights of the system

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

6.

#### **Standard Solution Offering**

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

#### The system comprises of the following stations:

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

### **Optional:**

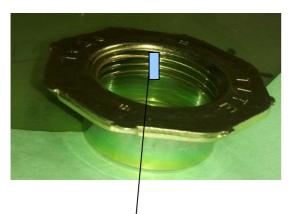
Data collection terminal to capture and store shift wise statistical information. The standard reporting features include:

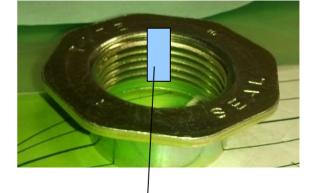
- 1. Total Components inspected
- 2. Total Components rejected
- 3. Rejected components tabulated fault wise.
- 4. Graphs and trends to show the performance of the system.

#### **SYSTEM DETAILS:**

INSPECTION CAPABILITIES	<ul> <li>Out Pieces</li> <li>Full thread</li> <li>Bend.</li> <li>Milling moke.</li> <li>Without Threaded.</li> </ul>
SYSTEM ACCURACY	100 Micron.
SYSTEM SPEED	2500 samples / min.
PRODUCTS TYPE	Flange samples.
CAMERA	0.3 MP low resolution camera.
LENS	12mm Variable focal.
ILLUMINATION	Shower white direct light.

## **Camera results for good and bad flange samples:**

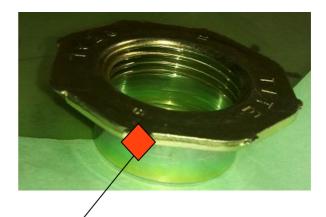




Good Sample

Bad sample:-Full Thread successfully detected by camera

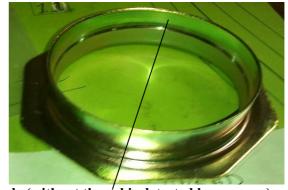




Good Sample

Bad sample:-Out pcs is not detected by camera





**Good Sample (With thread)** 

Bad sample (without thread is detected by camera.)



**Good Sample (without bend)** 



Bad Sample (with bend is not detected by camera)



**Good Sample** 



Bad sample (Milling moke is detected by camera)

<u>Conclusion</u>:- we have check all the above mention defect but defect no.1 and defect no.3 is not detected by camera. Other defect has successfully done.

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 challenges into successful market opportunities.

Our capabilities target winning results by understanding your technology needs aligned to your business

objectives. Our differentiator is in servicing 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

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