

I-TURN



**One Touch,
Instant Inspection
for Turned Components**

I-Turn

I-Turn is a table top, machine-vision based precision gauging system to inspect the dimensions of turned components.

- ✓ 100 % reliable inspection
- ✓ Zero defect dispatch
- ✓ Complete data of all the inspected parts
- ✓ Real-time report generation
- ✓ Ease of use
- ✓ Reduced human resource

One Touch, Instant Inspection



Just place the part on the fixture and press a button.

The inspection result is obtained in less than 2 seconds!



Rotary Fixture

Rotary table enables 3D measurement and measurement across multiple planes. This ensures the inspection of all the dimensions of a turned component.

Measurements included are:

1. Run-out
2. Circularity
3. Cylindricity
4. Average, min. & max. diameter

Data Analytics



The system compiles measurement values and part images to generate real time part & batch reports.

The system computes C_p / C_{pk} , averages & trends with graphical representation that helps in tracking the production process in real time.



Measurement Algorithms

GD&T: True position, Symmetry, Straightness, Parallelism, Circularity, Cylindricity, Concentricity & Perpendicularity.

Thread Measurements: Pitch, Angle, Inner diameter & Outer diameter.

Linear Measurements: Line - line , Point - point, Point - line, Vertical/Horizontal point/Line to point/Line, Circle to circle, Circle to point, Circle to line, Average clamp, Max clamp, Min clamp & Circular clamp.

Standard Measurements: Angle between 3 points, angle between 2 lines, Radius & Diameter.

Detection: O-Ring, Groove & Spoke.

Technical Specification

Data Sheet

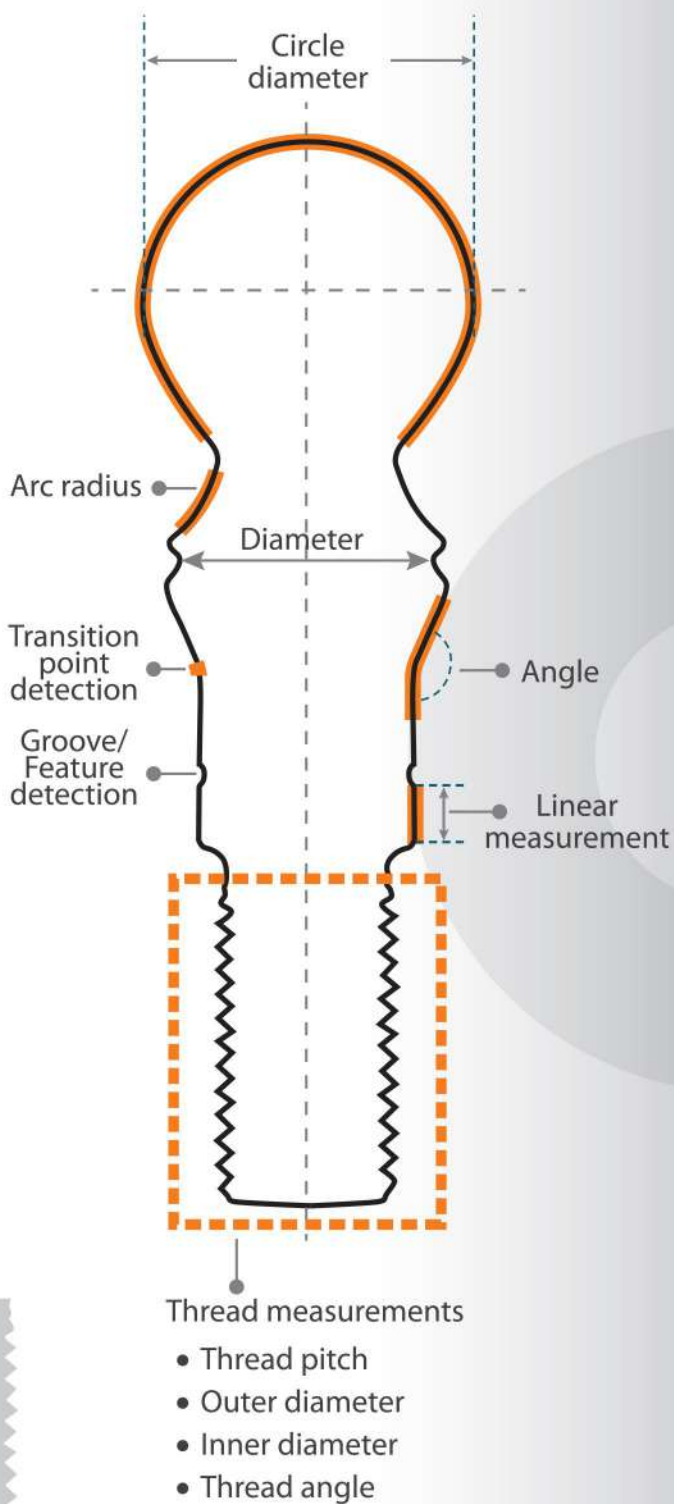
Max part length	90 mm
Accuracy	+/- 4 um
Repeatability	+/- 2 um

Controller

Available ports	4 USB 2 Ethernet 1 HDMI
Power	230V AC input

Machine dimension	1080 x 370 x 400 mm
Working temperature	10° C to 50° C

Note: Quoted accuracy and repeatability values are from measurements made on NABL certified slip gauge under ambient operating temperature of 21° C +/- 1° C.



COMPANY PROFILE

Zentron Labs focuses on building integrated machine-vision solutions. We have diverse expertise in optics, mechatronics, algorithms and software. We have the ability to customize practical workable solutions that meet customer needs. Our solutions are implemented in many factory locations across the country for multiple industry segments.



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 **enVision Progress**

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