

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



Place the part on the fixture and press a button.

The inspection result is obtained in less than a second!



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:

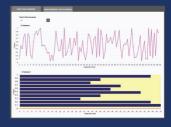
- 1. Run-out
- 2. Circularity
- 3. Cylindricity
- 4. Average, min. & max. diameter

Data Analytics



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

The system computes Cp / Cpk, 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.

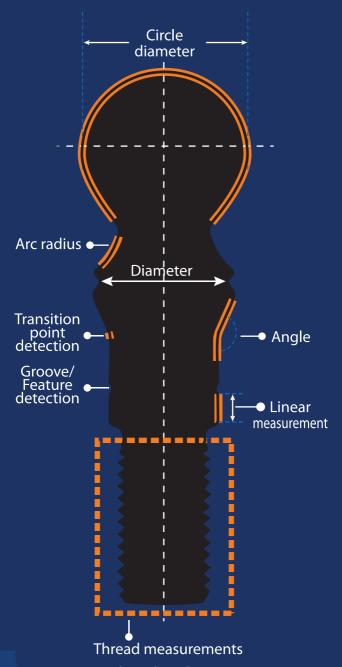
Standard Measurements: Angle between 3 points, angle between 2 lines, Radius & Diameter. **Detection:** O-Ring, Groove & Spoke.

Technical Specification

Data Sheet	
Max part length	90 mm
Accuracy	+/- 3 um
Repeatability	+/- 1.5 um
Machine Dimension	900 x 300 x 350mm
Machine Weight	15 kg
Working temperature	10° C to 50° C

Controller	
System type	Intergrated
Available ports	4 USB
	2 Ethernet
	1 HDMI
Power	230V AC input

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



- Thread pitch
- Outer diameter
- Inner diameter
- Thread angle



In the world of high-performance manufacturing, the collaboration between Zentron and Huras Stanzautomation brings together the best of automation, machine vision, and process engineering to offer an unparalleled value proposition: A one-stop solution for the entire stamping industry.



Founded in 1998, Huras is a family-owned European leader in stamping automation, hybrid part production, and process optimization. Its portfolio includes Servo Presses with precise, reproducible, energy-efficient control, Winding & De-coiler Machines, Laser-cutting and welding accessories, and advanced tool technologies - enabling customers to achieve best-in-class stamping performance.



Zentron, an innovation-driven Indian company, brings deep expertise in Machine Vision and embedded AI, transforming inspection and measurement with solutions like GTron for high-speed inline gauging, iMM for instant easurement, and Hortisort for vision-based fruit sorting.

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