



# ZeroTouch®

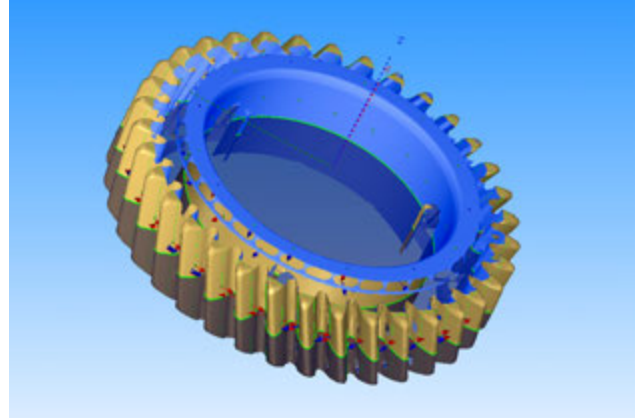
ZTG-2580

## NON-CONTACT 3D GEAR INSPECTION SYSTEM

**A high-speed, precision inspection machine for 100% near-line or inline gear inspections.**

ZeroTouch® ZTG-2580 is a non-contact gear inspection system that generates a 3D point cloud, providing manufacturers with real-time metrology and inspection data to optimize production processes and improve ROI.

### Measuring an Infinity of Involute



### KEY BENEFITS

- Much faster inspection times when compared to traditional gear measurement technologies
- 100% inspection of gears and teeth geometries with measurement cycle times from 30 seconds per part
- Installed in the immediate vicinity of the production line
- Faulty gears stopped before going to final assembly
- Simple interface with manufacturing process through integrated loading and unloading robot
- Fast identification of production defects, enabling adjustment of upstream processes to reduce waste
- 3D inspection of complex geometries using multiple sensors

### KEY FEATURES

- Captures dense precision point cloud data with speed and accuracy
- Advanced analytics integration with application specific tools
- Profile, helix, pitch, and runout measurements
- Surface defect detection and characterization capabilities
- Multiple laser line triangulation metrology sensors
- Real-time data capture and storage for SPC analysis

# DW



# ZeroTouch<sup>®</sup>

## ZTG-2580

### HIGH-SPEED PRECISION GEAR INSPECTION

#### SPECIFICATIONS

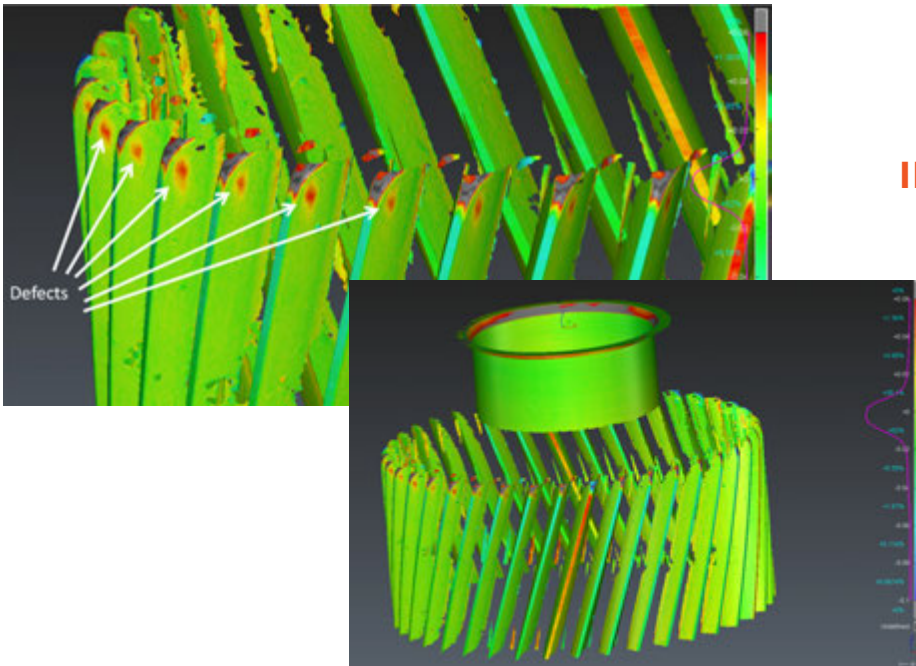
Gear Dimensions <sup>1</sup>	
External ring	80 mm max. diameter
Part height	Up to 25 mm
Inspection Speed	~30 seconds (typical cycle times)
Tolerances	5-10µm
Surface Defect Detection	250µm (minimum defect size)
Measurements	Profile evaluations (F $\alpha$ -fH $\alpha$ -ff $\alpha$ -C $\alpha$ ) Helix evaluations (F $\beta$ -fH $\beta$ -ff $\beta$ -C $\beta$ ) Pitch and roundness evaluations (Fp-fp-Fr) Diameter over balls (Mdk)
System Dimensions	1,219 x 1,397 x 2,108 mm (W x D x H) (48 in x 55 in x 83 in)
System Weight	2,000 kg (4,400 lbs)

<sup>1</sup> Gear dimensions only reflect the current system. Systems for larger gear sizes are in development.

#### Multiple Non-contact Sensors



#### Surface Defect Detection



#### KEY INDUSTRIES



Aerospace



Precision Manufacturing



Automotive

# DWFRITZ<sup>®</sup>

M E T R O L O G Y

DWFritz Metrology, a wholly owned subsidiary of DWFritz Automation, is a global provider of high-speed, non-contact metrology and inspection platforms for advanced manufacturing. DWFritz Automation designs, builds, and supports engineer-to-order automation systems, as well as provides world-class build-to-print manufacturing capabilities.

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