A precise, high speed metrology and inspection system for processing complex geometries in just a fraction of time versus a traditional CMM.

**SPECIFICATIONS**

**SYSTEM PERFORMANCE**

| ISO 10360 MPE | 2µm +L/100 |

**SCANNING**

| Part Volume (max) | 380 x 380 x 380 mm (L x W x H) |
| Scanning Travel | 380 x 380 x 380 mm (X-Y-Z) |
| Part Weight (max) | 10 kg, CG within 100 mm of Theta rotation axis |
| Form Measurements | Straightness, Flatness, Circularity, Cylindricity |
| Orientation Measurements | Parallelism, Perpendicularity, Angularity |
| Location Measurements | Position, Profile, Concentricity, Symmetry |

**MACHINE SIZE**

| System Dimensions (W x D x H) | 2,400 (95in) x 1,600 (63in) x 1,900 mm (73in) |
| System Weight | 3,550 kg (7,825 lbs) |

**ENVIRONMENTAL**

| Temperature (Transport/Storage) | 15°C (59°F) to 40°C (104°F) |
| Temperature (Operational) | 18°C (64.4°F) to 22°C (71.6°F) |
| Rate of Change | 2°C (3.6°F) per hour |

**ELECTRICAL SUPPLY**

| Electrical Service | 208/230/240VAC, 50/60Hz |
| 30A, 1-PHASE + GND |

**PNEUMATIC SUPPLY**

| Required Operating Pressure | 0.59MPa (85 psi) |
| Maximum Machine Inlet Pressure | 0.68MPa (95 psi) |
| Consumption | 280 l/min (9.9 SCFM) |
| Clean Dry Air (CDA) Requirement | ISO Class 3-3-3 (ISO 8573-1) |
| With Optional Conditioning Module | ISO Class 3-3-3 |

**SOFTWARE**

| OS | Windows |
| System Software | DWF ZeroTouch® application |
| Analysis Software | Metrolog X4, PolyWorks Inspector |
| Reference Model Data Formats | STP, IGS |

**KEY INDUSTRIES**

Aerospace, Medical Devices, Precision Manufacturing, Automotive

DWFritz Metrology is a global provider of high-speed, non-contact metrology and inspection platforms for advanced manufacturing. The company designs, builds, and supports engineer-to-order automation systems, as well as provides world-class build-to-print manufacturing capabilities.
INNOVATIVE TECHNOLOGY FOR SPEED AND ACCURACY

By leveraging more than four decades of developing high precision automation and metrology solutions, DWFritz Metrology is now launching the next generation of high speed, non-contact metrology platforms.

KEY BENEFITS
- One system captures multiple measurements simultaneously in a fraction of time versus a traditional CMM
- Easy creation of part inspection plans saves measurement times of different parts
- Micron-level precision non-contact metrology with high repeatability
- Ease of part placement reduces setup time per part
- In situ calibration improves repeatability
- Fast identification of production defects, enabling adjustment of upstream processes to reduce waste
- Highly configurable and optimized for each manufacturer’s specific application

KEY FEATURES
- Captures precision point cloud data to construct complex 3D profiles
- Advanced analytics integration with application specific tools
- GD&T measurements, including complex geometries such as chamfers, knife edges, undercuts and bores
- Defect detection capabilities
- Configurable metrology sensor bridge, including:
  - Laser and chromatic confocal sensors
  - High resolution cameras with multispectral lighting
- Additional options include:
  - Automatic part registration
  - Barcode scanning that automatically loads inspection part plan from MES
  - Microenvironment for temperature control
- Automatic part load/unload robot integration

KEY INDUSTRIES
- Aerospace
  - Turbine blades
  - Gears
  - Shrouds
  - Impellers
  - Diffusers
  - Compressor blades
  - Blisks
- Medical Devices
  - Dental implants
  - Medical implants (ocular, spinal, orthopedic)
  - Surgical and general instruments
  - Prostheses
  - Prosthetics (mandibular, cranial, osteo)
- Precision Manufacturing
  - Precision tools, die molds, and bearings
  - Parts and assemblies with electropolished surface
  - Machine parts with complex geometries
  - Parts with sealing surface
- Automotive
  - Powertrain components
  - Gears and sprockets
  - Clutches
  - Pistons
  - Bearings
  - Brake components
  - Valve bodies
  - Gasket surfaces
- Aerospace
  - Aircraft components
  - Engine parts
  - Control systems

ZeroTouch® ZTM-333 uses multiple non-contact sensors to simultaneously capture 3D dimensional data, creating a high precision point cloud to measure part dimensions in a few minutes, instead of longer cycle times like traditional coordinate measuring machines (CMMs). Setup and measurement also takes only minutes. Part inspection planning replaces programming and takes hours instead of days, with intuitive drag and drop functionality.

ZeroTouch ZTM-333 is an innovative, multipurpose measurement platform that combines multiple sensor technologies with custom multispectral lighting and deep learning software in one footprint. ZeroTouch’s rugged industrial design offers the accuracy, precision and speed that manufacturers need to optimize inspection cycle time in production environments.

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