



# DWFritz AMP 3100

## Advanced Metrology Platform for High Volume Inspection

### Automated high speed inspection system ideal for small parts manufacturing

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Designed for 100% inspection of high volume manufacturing, the AMP 3100 non-contact metrology platform features a cutting-edge machine vision system, lasers, custom lighting and advanced robotics.



AMP 3100 - Front View

#### Key Benefits

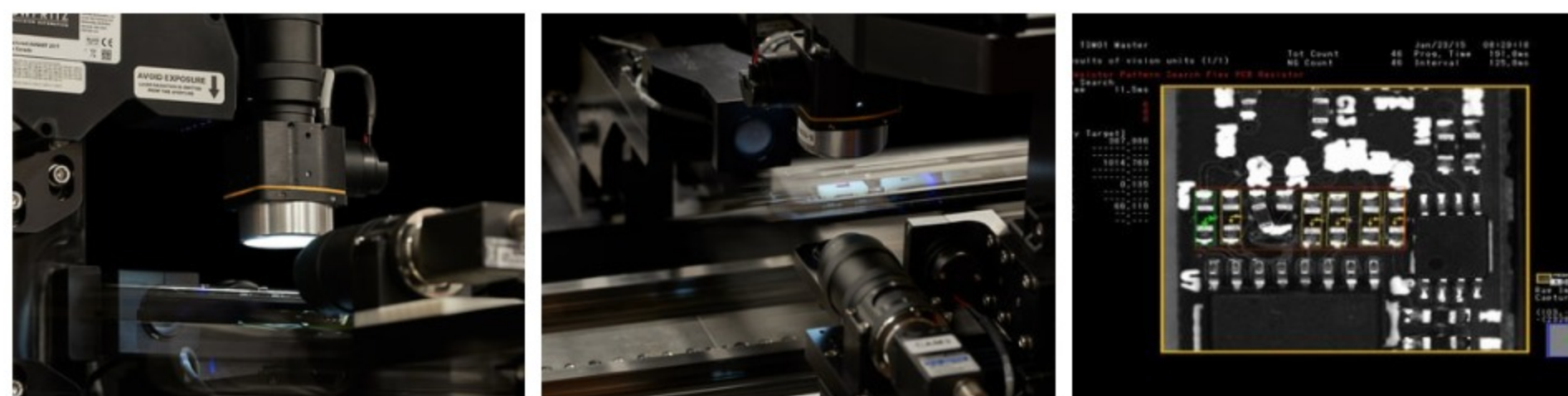
- Precision non-contact metrology with high repeatability
- Multisensor system captures multiple simultaneous measurements
- High throughput with processing speeds that exceed 4 parts per second
- Generates data for SPC, process optimization and integration with MES
- Decreases manufacturing and inspection costs per part
- Highly configurable and optimized for manufacturer's specific application

#### Key Features

- Metrology platform captures dimensional and angular measurements, and 3D profiles
- Cosmetic inspection for defects
- Color and gloss measurements
- Customizable platform for manufacturer's application, including:
  - 3D lasers and high resolution cameras
  - Multispectral lighting
  - Fixturing and material handling
  - Binning options
  - Pre- and post-metrology assembly and processing options, including laser marking
  - Inspection part programming



AMP 3100 - Side View



#### Innovative Technology

**High speed sensor system with optimal optics and lighting**  
Using a patented DWFritz laser system, the AMP 3100 scans 3D profiles at a high speed, precisely measuring the most intricate parts with high gauge repeatability and reproducibility (GRR).

**Data driven insights optimize manufacturing efficiency**  
Manufacturers can analyze data in real-time to perform effective root cause analysis to adjust or improve upstream and downstream processes. Statistical process control (SPC) data can drive warnings to reduce variability and scrap.

**Highly configurable control software**  
Using inspection part programming, manufacturers can easily enter measurement and tolerance specifications as well as settings for vision, laser, strobe and data views.

[BROCHURE](#)

[PRODUCT BRIEF](#)



#### Applications



##### Automotive

- Sensors
- LEDs
- Connectors
- Specialty Fasteners



##### Consumer Electronics

- SD Cards



##### Medical Devices

- Nozzles and Orifices
- Suture Needles
- Medical Implants
- Dental Implants



##### Semiconductors

- MEMS Devices

#### Key Specifications

Work volume	200 x 200 x 200 mm (L x W x H)
X-axis	0.7 to 1.0 m active [ $\pm 1 \mu$ repeatability]
Y-axis	Per requirements [ $\pm 1 \mu$ repeatability]
Z-axis	Per requirements [ $\pm 1 \mu$ repeatability]
Options	<ul style="list-style-type: none"> <li>• Flexible input and output options (tray, conveyor, bin and process module interface)</li> <li>• Pre- and post-metrology assembly and processing options, such as adhesives, coatings and laser marking</li> <li>• Binning</li> <li>• 3D point cloud rendering</li> </ul>

#### Resources

[Download DWFritz white papers](#)