

# DWFritz Defect Detection System

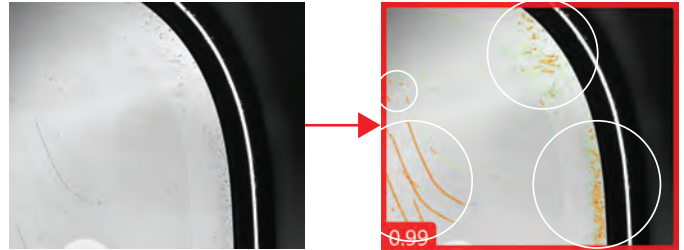
SMART INSPECTION IN SECONDS

**Deep learning based defect detection system identifies surface imperfections with speed, reliability and precision**

Featuring deep learning technology, the DWFritz Defect Detection System quickly identifies defective or anomalous parts, helping manufacturers reduce costs and meet consumer quality expectations.



## High-Definition Inspection Images



Smartphone glass defect

Detected by system

## KEY BENEFITS

- Flexible inspection system combines advanced machine vision with deep learning algorithms
- Surface defect detection distinguishes desired features from anomalies while tolerating natural variations in complex patterns
- Detects defects on glossy, shiny or rough surfaces
- Easy setup and operation with automatic orientation of part for inspection
- Provides precise part placement without marring the part surface
- Rapid inspection part programming allows for efficient setup of different part configurations
- Identifies production defects in real-time, enabling adjustment of upstream processes to reduce waste
- Available as a standalone system or as an option on other DWFritz metrology and assembly systems

## KEY FEATURES

- High powered GPU image processing system
- High resolution camera with global shutter optimizes field of view and measurement precision
- Custom multispectral lighting and strobe controller
- Custom fixturing and part handling capabilities

# DWF

# DWFritz Defect Detection System

IMPROVE QUALITY WHILE REDUCING MANUFACTURING COSTS

## SPECIFICATIONS

Work volume	203 x 135 x 6 mm (L x W x H)
X-axis	600 mm [ $\pm 2 \mu$ repeatability]
Y-axis	220 mm [ $\pm 2 \mu$ repeatability]
Z-axis	10 mm [ $\pm 2 \mu$ repeatability]
Theta-axis	$\infty$ , 5 $\mu$ runout
Payload	0-5 kg range
Pitch	180° [ $\pm 0.004^\circ$ positional accuracy]
Lighting	Custom strobe, bright field, dark field, coaxial
Camera	5 MP [3.45 $\mu$ resolution]
Electrical service	208-240 VAC 50/60 Hz 15A, 1-Phase
CDA/AIR service	142 l/min [5 CFM] @ 0.55 MPa [80 psi]
System dimensions	112 x 70 x 209 cm (W x D x H)
System weight	725 kg (1600 lbs)
System controllers	High performance industrial PC operator station with touch screen and secondary display screen
Options	Barcode reader



## KEY INDUSTRIES



Automotive



Consumer Electronics



Medical Devices



Aerospace



Semiconductors



Energy Storage

# DWFRITZ®

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DWFritz Automation is a leading, global provider of high precision automation solutions for advanced high volume manufacturing. The company develops, designs, builds and supports engineered-to-order automation systems, specializing in high speed complex inspections to enhance product quality.