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PURCHASE
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Professional
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Coatings Rust & Corrosion Grading Image Analyzer

After accelerated aging or natural exposure in corrosive environments, coatings often develop various forms of deterioration, collectively referred to as "defects." These defects can be categorized primarily into blistering, rusting, cracking, flaking, etc. According to ISO 4628-3 *Paints and VarnishesEvaluation of degradation of coatingsDesignation of quantity and size of defects, and of intensity of uniform changes in appearancePart 3: Assessment of degree of rusting,* the severity of corrosion is assessed based on two key factors: **Quantity of defects** (percentage of affected area); **Size of defects** (dimensions). Currently, defect evaluation is primarily conducted through visual inspection by experienced technicians. However, this method presents significant challenges due to subjectivity and operational difficulties:

· Technicians often struggle to quickly and accurately quantify defects (count, size, density, area).

· Inconsistencies arise between different inspectors due to varying judgment criteria.

The **BGD 355/1 Coating Rust & Corrosion Grading Image Analyzer**, developed by **Biuged**, resolves these issues effectively. This intelligent instrument automates rust/corrosion area detection through AI-powered image recognition, supporting both fully automatic and interactive user-guided modes. Its core components include a high-resolution camera, a LED illumination system and a motorized sample tray.

Samples (up to 150mm× 70mm) are placed on the tray for ultra-HD imaging, then analyzed via deep learning-based computer vision algorithms. The system not only precisely measures rusted areas but also automatically grades results per relevant standards, significantly improving repeatability and comparability of corrosion evaluations.

Features:

- Complies with ISO 4628-3, ASTM D610
- Rapid large-area scanning detects rust defects within seconds, enhancing efficiency.
- AI image processing reduces human error and manual workload.
- Automated data storage enables traceable quality analysis and process optimization.
- Flexible modes: Full-auto recognition or interactive manual selection for varied scenarios.

Main Technical Parameters:
★ Max Sample Area: 150mm× 70mm
★ Camera Resolution: 15μm
★ Measurement Time: <30s per scan
★ Tray Speed: 40mm/s
★ Light Source: White LED
★ Language: English/Chinese
★ Operating Conditions: 5℃–40℃; ≤80% RH (non–condensing at 35℃)
★ Interfaces: 2×USB 3.0 (500mA)
★ Minimum System Requirements: Windows 10/11 (64–bit), 12th Gen Intel i5 (or equivalent), 8GB RAM, NVIDIA GPU (≥8GB VRAM)
★ Power Consumption: 150W
★ Dimensions (L×W×H): 450mm× 350mm× 350mm
★ Weight: 20kg
★ **Order Information:**
BGD 355/1---Coating Rust & Corrosion Grading Image Analyzer



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