



# V3000 Macro-Scope Defect Review System

An Innovative Macro and Micro Wafer Inspection

## Benefits

- Complete macro and micro wafer inspection on one defect review system
- System can be configured with up to six different light sources to catch nearly all macro wafer defects
- Powerful database management software that can be used for wafer tracking and analysis of defects
- Perfect ergonomic design reduces operator fatigue

## Features

- Advanced defect review system for 50 mm – 300 mm wafers
- Comes standard with Leica DM8000 microscope
- Automated image capture
- High speed motorized stage
- Dual cassette
- Front and backside wafer inspection
- High throughput central robot with dual end effector
- Cassette mapping
- PC Windows-based interface
- CE Mark

## Options

- Backside inspection
- Dual-size bridging
- Wafer alignment
- SECS/GEM compliance
- Contact C&D for more options

## Description

The V3000 Macro-Scope Defect Review System is a powerful, easy-to-use, dual-cassette, all-in-one wafer inspection system that is able to handle both macro and micro inspection of wafers. The system enables the operator to easily spot defects during macro inspection and then, with a few simple key strokes, clicks of the buttons, or touches on the screen, seamlessly move the substrate to the microscope for detailed inspections. It combines the capabilities of macro inspection and microscope inspection in one powerful integrated system. The V3000 offers great performance, reliability, energy efficiency, and low cost of ownership.



Model V3000





## Bright light macro inspection

After wafer alignment and OCR reading are performed, the robot transfers the wafer to the bright light station. The bright light macro station enables the operator to rapidly inspect wafers for scratches, resist striations, particles, hotspots, and other wafer defects. The bright light station can be configured with a combination of up to 6 different light types that have been specifically selected to illuminate different types of wafer defects. The 3-axis gimble chuck can be manipulated to tilt and spin, allowing the operator view of the wafer at different angles and rotation speeds under different lights. If an operator detects a wafer defect, the location and type of defect are marked on the touchscreen monitor for further inspection under the microscope.

- Up to six different light sources
- Wafer flipping for backside inspection
- 3-Axis gimble chuck for tilt, rotate, and spin
- Camera captures full image of wafer

## Microscope inspection

After the bright light macro inspection, the robot seamlessly moves the wafer to the microscope. The intuitive and technologically advanced V3000 software commands the motorized stage to move the wafer under the objective for a high magnification image of the defect found during the macro inspection step.

- Comes standard with powerful Leica DM8000 microscope
- Precision XY motorized stage
- Optional Leica camera with advanced software suite for line measurement, high magnification capture of defect, and annotation capability.



## Powerful ergonomic design



The design of the V3000 allows operators to perform wafer inspections in a safe and ergonomic environment, enhancing performance and maximizing productivity. The slight angle of the cassette platform enables ergonomic loading and unloading of cassettes. The macro and micro inspection controls are easy to reach and the displays are adjustable for easy viewing.

## Powerful database management

The system stores wafer IDs, locations and images of defects, and a host of other information that can be used for wafer tracking and analysis of wafer defects.

- Wafer image storage and retrieval
- Defect logging
- Defect classification

## System footprint

