

**Quality Control of Stampers  
and Masters for All Optical Disc Formats**  
*High-Resolution Stamper  
and Master Inspection System*



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The VCC.ism-L+ high-resolution optical inspection system is a quality assurance system for inspecting stampers and masters for all optical disc formats, including DVD-RAM with headers and MO with sector marks (optional). The automatic optical inspection is superior to the currently used visual or microscopic inspection, enabling a **continuous and steady quality control** of new and used stampers.

The inspection system consists of an **optics head** mounted in a stand-alone box and a connected PC for **high-speed evaluation and visualization**. The stampers are retained on the turntable by magnetic force. Easily exchangeable center pins are provided to comply with different center hole sizes of the stampers. An additional centering unit is available for the inspection of glass masters. Optionally the inspection of stampers without center hole is possible.

## Specific Dr. Schenk measurement technology

- Microscopic image of defects with true-greyscale display
- User-friendly operator interface for manual operation, with hotkeys for various functions
- Automatic detection of various types of local, local cumulated and global cumulated defects
- Plug and play operation with pre-set inspection parameters for all disc types
- Simple inspection parameter modification, 30 editable parameter sets
- Short-term (FIFO) and long-term (backup) database, each for up to 200 inspection results
- Print-screen function for all displays, print-list function for numerical output of results, print-to file function for all outputs; color printer included in the scope of supply
- Input of stamper identification comment for each inspection
- Barcode reader function for code 39 and code 128
- Presentation of barcode location as reference for easy visual defect finding
- Highly sophisticated pattern recognition software for header detection of structured stampers or glass masters like for DVD-RAM and MO (optional)
- Automatic light-power adaptation to comply with the different reflectivities of stampers and glass masters
- Closed-loop control for illumination intensity assures constant sensitivity
- Closed-loop control for camera gain assures constant defect detection
- Easy lamp exchange through pre-aligned illumination replacement

## Technical Data

LINE-SCAN CAMERA	4096 pixels
RADIAL PIXEL RESOLUTION	< 11 $\mu\text{m}$
TANGENTIAL RESOLUTION	9 $\mu\text{m}$ @ 5 sec. runtime (recommended)
SCANNING RANGE	from radius 18 to 62 mm
ILLUMINATION	Long-life krypton micro illumination (5 W) Lifetime: > 6 months
COMPUTER OPERATING SYSTEM	Highly reliable LINUX-based system
POWER SUPPLY	115/240 V AC, 50/60 Hz, max. 300 VA (incl. PC)