



# MD-3DQC

## Inspection Microscope

### TECHNICAL SPECIFICATIONS

#### SYSTEM

<b>Technology</b>	Non Contact White light Interferometry
<b>Scanner</b>	Closed Loop linear servo
<b>Field of View</b>	86x64µm to 1411x1058µm
<b>Illuminator</b>	Integrated long-life one watt white-light LED
<b>Objective mounting</b>	Threaded objective
<b>Controls</b>	Computer GUI
<b>Part viewing</b>	On-screen display standard
<b>Fine focus travel</b>	20mm of travel
<b>Camera</b>	Industrial VGA 24 bit color
<b>Dimensions (HWD)</b>	8.5" x 8" x 3.5"
<b>Weight</b>	215.9 x 203.2 x 88.9mm 4.33kg/9.53lbs
<b>Input voltage</b>	100/240 VAC, 50/60 Hz
<b>Computer</b>	High-performance Dual-core based CPU with LCD monitor (laptop available)
<b>Software</b>	MicroDynamics' µScan

#### ACCESSORIES

<b>Objectives</b>	Infinite Conjugate interferometric objectives; 2x, 4x, 10x, 20x, 40x, BoreScope
<b>Part Stage</b>	Tooling and fixturing engineered per application
<b>Measurement</b>	Lateral Calibration standard
<b>Standards</b>	Precision lateral calibration standard SIC reference flat

#### PERFORMANCE

<b>Vertical Scan Range</b>	≤ 500µm
<b>Vertical Res.</b>	≤ 10nm
<b>Lateral Res.</b>	0.13 to 2.21 µm, objective dependent
<b>Data scan rate</b>	≤ 20µm/sec
<b>Maximum Data Points</b>	307, 200
<b>Step Height</b>	Accuracy ≤ +/- 0.5% Repeatability ≤ .05% @ 1σ
<b>Capabilities</b>	Automatic Depth, Volume, Screen count, surface roughness (Sa, Sq, Sskew, Skurtosis, Ra, Rt, Rz, Yrms), wall widths, dot coverage
<b>Presentation</b>	2D and 3D graphics, Real time visualization, tabular data Manual feature measurement tools, semi-automated cross section With measurement tools, image capture, and composite Ancillary images

#### TEST PART CHARACTERISTICS

<b>Material</b>	Various surfaces: opaque, transparent. Coated Uncoated, specular and non specular
<b>Applications</b>	Surface Roughness of any substrate (including soft and fragile Materials); surface characterization; ceramic and metallic anilox; Mechanical, laser, and etched gravure, flexo and litho plate evaluation

#### ENVIRONMENTAL REQUIREMENTS

<b>Temperature</b>	15 to 30°C (59 to 86°F)
<b>Rate of Temp Change</b>	<1.0°C (1.8°) per 15 min
<b>Humidity</b>	5-95% relative, noncondensing
<b>Vibration Isolation</b>	Required for vibration frequencies in the Range of 1 Hz to 120 Hz



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