

| Model | Scale Resolution | XY Accuracy | Z Accuracy | Measurement Capacity (mm) | Machine Dimensions (mm) |
|------------------|------------------|-------------|------------|---------------------------|-------------------------|
| Excel 501 HM/HC | 0.4 µm | 2.8+L/200 | 2.8+L/100 | 400X500x160 | 1200X1100X1550 |
| Excel 502 HM/HC | 0.4 µm | 3.1+L/200 | 3.3+L/100 | 400X500x250 | 1200X1100X1650 |
| Excel 501 UM/UC | 0.1 µm | 2.5+L/200 | 2.5+L/100 | 400X500x160 | 1200X1100X1550 |
| Excel 502 UM/UC | 0.1 µm | 2.8+L/200 | 3.0+L/100 | 400X500x250 | 1200X1100X1650 |
| Excel 661 HM/HC | 0.4 µm | 2.8+L/200 | 2.8+L/100 | 660x680x160 | 1311x1604x1608 |
| Excel 662 HM/HC | 0.4 µm | 3.1+L/200 | 3.3+L/100 | 660x680x250 | 1311x1604x1788 |
| Excel 661 UM/UC | 0.1 µm | 2.5+L/200 | 2.5+L/100 | 660x680x160 | 1311x1604x1608 |
| Excel 662 UM/UC | 0.1 µm | 2.8+L/200 | 3.0+L/100 | 660x680x250 | 1311x1604x1788 |
| Excel 664 UM/UC | 0.1 µm | 3.5+L/200 | 3.8+L/100 | 660x680x400 | 1311x1604x2088 |
| Excel 1051 UM/UC | 0.1 µm | 4.2+L/200 | 2.8+L/100 | 1050x1050x160 | 2000x1720x1608 |
| Excel 1052 UM/UC | 0.1 µm | 4.5+L/200 | 3.3+L/100 | 1050x1050x250 | 2000x1720x1788 |
| Excel 1054 UM/UC | 0.1 µm | 5.2+L/150 | 3.8+L/100 | 1050x1050x400 | 2000x1720x2088 |
| Excel 1601 UM/UC | 0.1 µm | 4.2+L/200 | 2.8+L/100 | 1050x1650x160 | 2600x1720x1608 |
| Excel 1602 UM/UC | 0.1 µm | 4.5+L/200 | 3.3+L/100 | 1050x1650x250 | 2600x1720x1788 |
| Excel 1604 UM/UC | 0.1 µm | 5.2+L/150 | 3.8+L/100 | 1050x1650x400 | 2600x1720x2088 |
| Excel 1651 UM/UC | 0.1 µm | 4.2+L/200 | 2.8+L/100 | 1250x1650x160 | 2600x1850x1608 |
| Excel 1652 UM/UC | 0.1 µm | 4.5+L/200 | 3.3+L/100 | 1250x1650x250 | 2600x1850x1788 |
| Excel 1654 UM/UC | 0.1 µm | 5.2+L/150 | 3.8+L/100 | 1250x1650x400 | 2600x1850x2088 |

Based on Micro-Vu Accuracy & Repeatability specification. Accuracy is in microns where L is length measured in mm. Z Accuracy is mechanical accuracy; focus accuracy depends on the part surface. Distributed weight capacity 100kg, all models. Additional weight capacity is possible with appropriate fixtures. On-screen magnification values depend on monitor size and resolution. Rights reserved to change product specifications without notice.

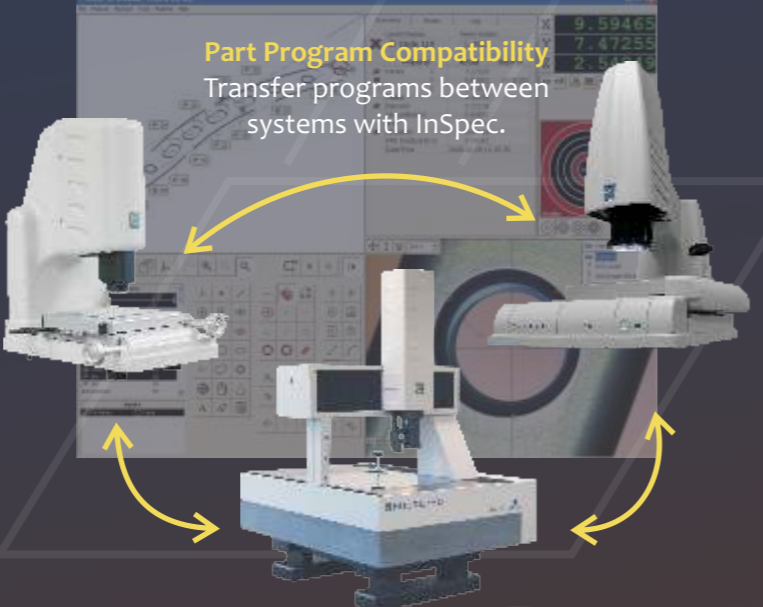
Multisensor
Vision
Touch
Laser



High Speed and Accuracy
 Advanced Zoom and Lighting
 Integrated Vision, Touch, and Laser
 Measure Multiple Parts and Extra Large Parts

Camera and Optics
 Digital, Hi-Res Video, Color (C series)
 Digital, Hi-Res Video, B&W (M series)
 19.5:1 Zoom Range, ~20x-390x (H Series)
 36:1 Zoom Range, ~15x-540x (U Series)
 Fast Servo Magnification Changes
 Instant Digital Magnification Changes

Non-Linear Calibration
 Ensures Highest Accuracy
 Standard for Stage and Optics
 Automated Calibrations



Part Program Compatibility
 Transfer programs between systems with InSpec.

- | | | | | | |
|-------------------------|-----------------------|--------------------------|----------------------|-------------------------------|------------------|
| Aerospace Components | Connectors | Fiber Optic Ferrules | Masks | Packaging | Stamped Parts |
| Appliance Parts | Consumer Electronics | Fittings | Medical Components | Plastic Molded Parts | Stencils |
| Automotive Components | Cutting Tools | Flex Circuits | Micro Machined Parts | Powdered/Sintered Metal Parts | Stents |
| Bearings and Brackets | Dental Implants | Gaskets and Seals | Molds | Parts | Threaded Holes |
| Bottles and Caps | Dies | Implants - Medical | Motor Laminates | Printed Labels | Tooling |
| Catheters | Electronic Components | LCD and Flat Panel Parts | Mylar Art Work | Rubber Parts | Watch Components |
| Component Placements | Extrusions | Lead Frames | Needles | Sheet Metal | Wire Connectors |
| Containers and Closures | Fasteners | Machined Metal Parts | O-Rings | Solar Panels | and more ... |

The Excel Multisensor Measuring Centers™ employ new technologies to provide high speed and accuracy on reliable and affordable measurement systems.

In addition to Vision capabilities, an Excel offers Touch Probe and Laser measurement capabilities. Touch Probe capabilities improve 3D measurement capabilities. Laser capabilities improve speed for scanning and Z height measurements.

With the multisensor capabilities, advanced digital and optical zoom, proprietary edge detection, and InSpec Metrology Software, the Excel Measuring Centers™ can handle demanding measurement applications.

The gantry style system accommodates large parts and fixtures of multiple parts while maintaining a relatively small footprint. The Excel series of machines measures parts up to 2.5 meters long and up to 100kg in weight.

Large XY Stage and Z Capacities

42 or 18 Channel Lighting

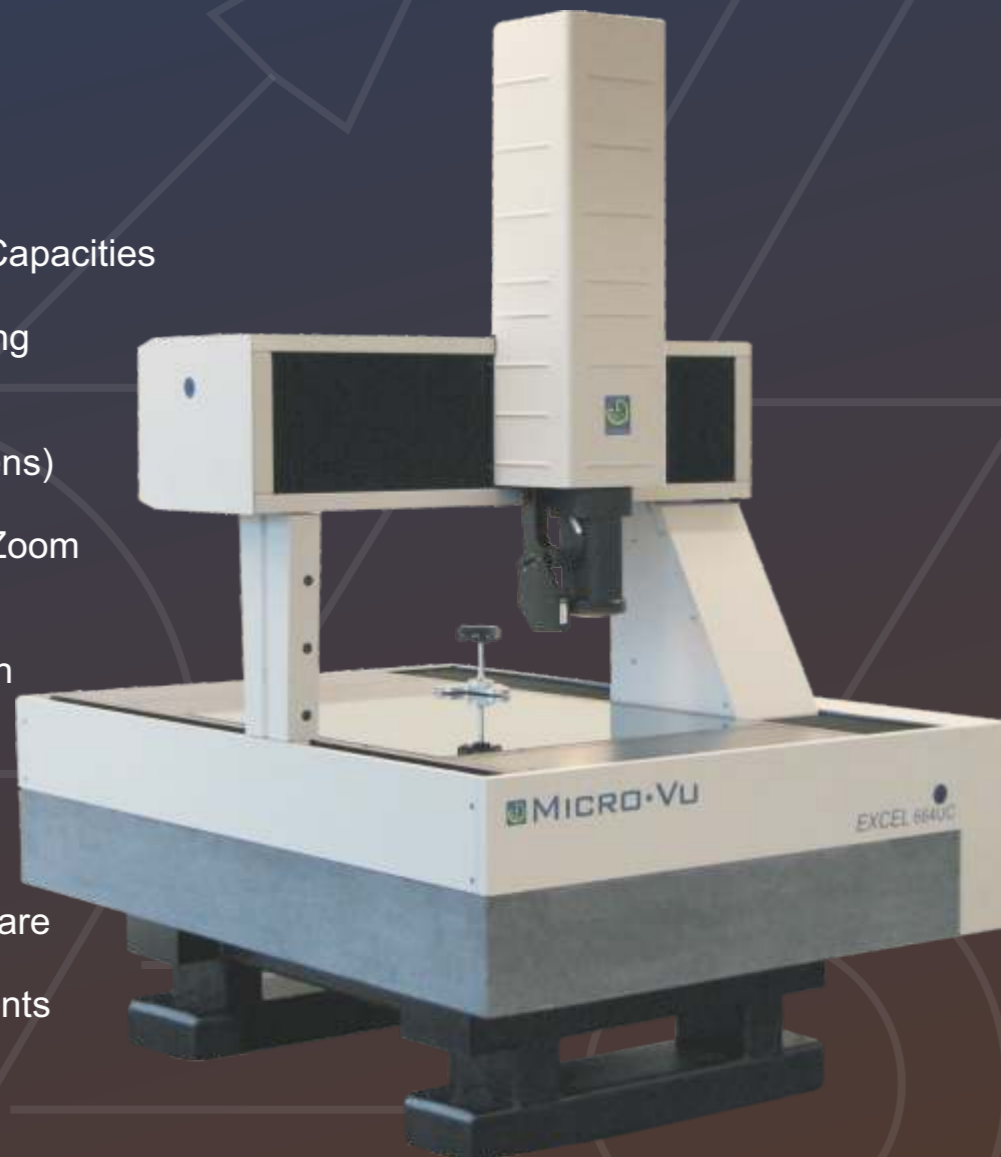
- Profile (Backlighting)
- Surface (Ring Light)
- Axial (Through the Lens)

Programmable Optical Zoom and 3x Digital Zoom

Stable Granite Base with Linear Bearing Design

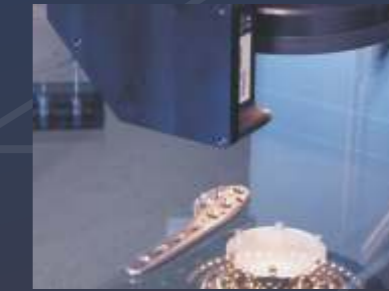
USB Connection to Computer

InSpec Metrology Software Seamlessly Integrates Multisensor Measurements



Touch Probe Ready

- Automated Probe Calibrations
- Automatic Approach Vectoring
- 4 and 6 Station Probe Racks



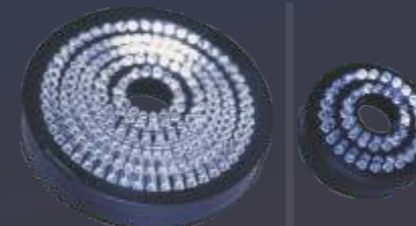
Laser Probe Ready

- Point and Path Data
- Graphical Range Display
- Automated Laser Calibrations



Rotary Indexer Ready

- Vertical and Horizontal Mounting
- Automated Rotary Calibration
- Faceplate and Chuck Included



Surface Ring Light

- Enhance Difficult-to-See Edges
- Directional Light from 27° to 75°
- Macro: 5 Rings, 8 Sectors, 40 Segments
- Standard: 2 Rings, 8 Sectors, 16 Segments
- Long and Short Working Distances



Lighting Features

- Intuitive Graphic Controls
- Ring, Sector, Segment Selection
- Long Life LEDs, ~10,000hrs
- White Lighting for Color
- Red Lighting for B&W

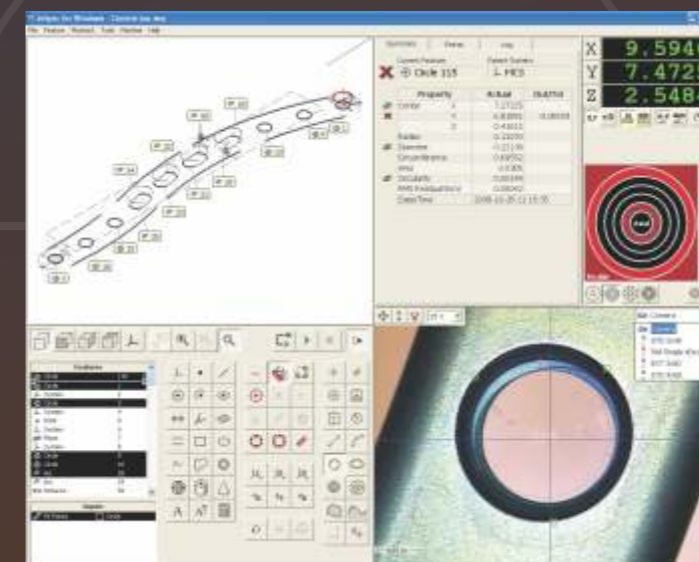


Automated Platen Ready

- Hold Flexible Parts Flat for Inspection
- Control Warp and Flex
- Improve Measurement Accuracy
- Automated Open and Close
- Available on Excel 600 Series

INSPEC METROLOGY SOFTWARE

- Powerful Yet Easy-to-Use
- Adaptive Vision Tools
- Point and Click Programming
- Easy Tolerancing and Reporting



Instant Vision Tool Editing

- Click-Drag Control Points and Boundaries

Results at a Glance

- Intuitive Layout by Design

Stored Snapshots

- Immediately Review and Edit Tools

Whisker Charts of Features

- View Data Point Distribution

OS and Computer Flexibility

- Compatibility by Design

CAD Import / Export

- Automatic Tool Constructions

Optics, Lighting, and Stage Calibrations

- Automated by Design