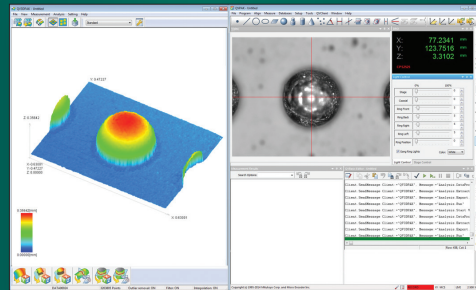


QVPAK

QVPAK has evolved to the most powerful version yet with the QV Easy Editor. The modeless operation and concise simple interface require no specialized knowledge. Along with the proven power of QV BasicEditor for customization and communication, QVPAK satisfies all user levels.

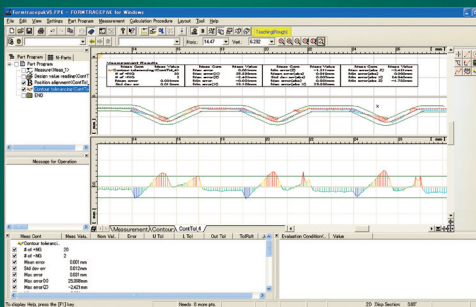
- All required measuring tool corrections can be made from the video window.
- Programming is fast, easy and interactive



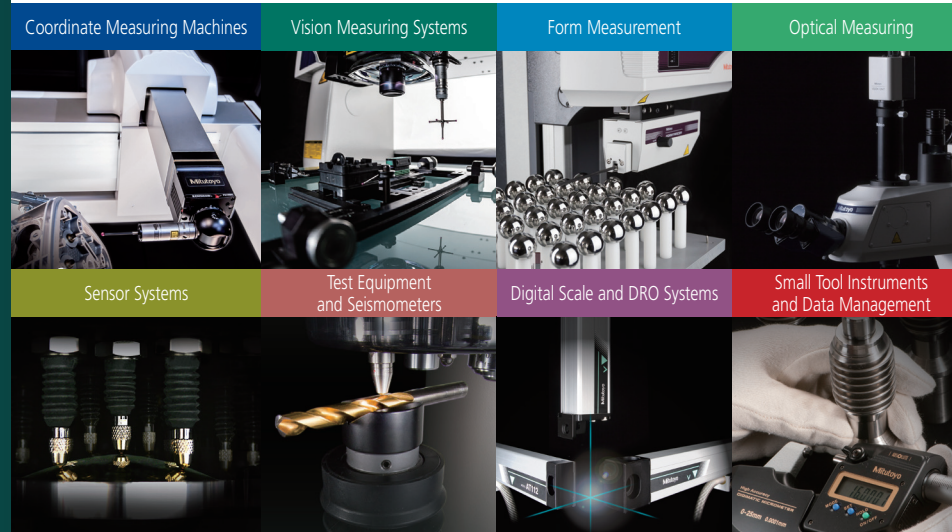
QV3DPAK

FormtracePak-AP Profile Analysis Software

- Using the same full-featured software available with our form equipment, Mitutoyo provides this fully programmable 2D analysis comparison software.
- Compare to nominal CAD models
- Export to CAD for reverse engineering
- Graphical dimensional measurement and tolerancing
- Custom graphical reporting and layouts
- Full connectivity to MeasurLink SPC software



Contour-tolerancing in FormtracePak (optional)



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Introducing Mitutoyo's Full Line of Vision Measuring Equipment

- M³ Solution Centers:**
- Aurora, Illinois (Headquarters)
 - Boston, Massachusetts
 - Charlotte, North Carolina
 - Cincinnati, Ohio
 - Detroit, Michigan
 - Los Angeles, California
 - Birmingham, Alabama
 - Seattle, Washington
 - Houston, Texas

Quick Scope

Manual Vision Measuring System

- XYZ measurement
- 0.1µm resolution glass scales
- Quick-release stage movement for easy traversing over large area
- USB color camera
- Optical zoom system 8:1
- Full FOV measurement
- Triple source lighting is standard
 - Stage, ring, coaxial
- Five stage sizes up to 16" x 8" with 6" Z measurement range
- Fully programmable zoom and lighting
- Real-time editing
- SPC data macros and export included



Quick Image

Telecentric All-in-Focus System

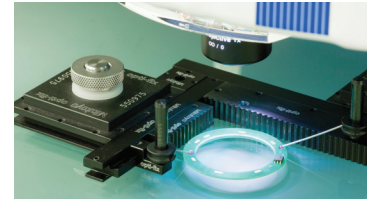
- Single-click measurement
- Full FOV measurement
- Auto-part orientation recognition
- Large FOV 32mm (1.25")
- USB color camera
- Quick-release stage movement for easy traversing over large area
- Triple source lighting is standard
 - Stage, ring, coaxial
 - Multi-segment ring light
- Five stage sizes up to 16" x 8"
- On-screen - Pass/fail measurement



Fixture Kits

Opti-Fix Modular Clamping System for Optical Systems

Six unique kit designs for large and small workpieces. Safe and non-marking work-holding designed and manufactured by Mitutoyo. Support for flat, flexible and cylindrical parts with unobstructed access to the optical measurement path. Easy load, unload and setup.



Quick Vision Active (2.0µm)

New Design CNC Vision Measuring System

- Available in two sizes: 200 and 400 mm
- High-accuracy fixed-bridge design
- USB high-resolution color camera
- Newly designed zoom system with interchangeable optics
- Vision and touch available
- Field retrofitable
- 3D measurement system and software
- 0.1 µm resolution glass scales



QV Apex (1.5µm)

CNC Vision Measuring System

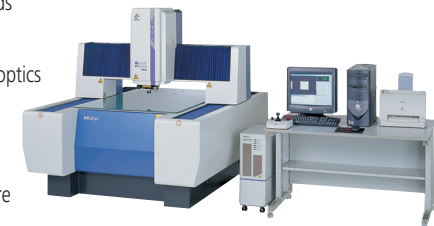
- Available in three sizes 300, 400 and 600 mm, all achieving 1.5 µm accuracy
- Fixed-bridge design for maximum repeatability, acceleration, stiffness and accuracy
- Programmable ring light with parabolic mirror design and modifiable angle of incidence to maximize work-piece illumination
- Includes pattern focus optical enhancement hardware to measure translucent and reflective parts



QV ACCEL (2.0µm)

Large-format CNC Vision Measuring System

- Moving bridge design uses high-speed acceleration with high throughput to meet production inspection needs
- Large-format stage with best-in-class accuracy
- High-resolution color camera
- Newly designed zoom system with interchangeable optics
- Vision and touch available
- Field retrofitable
- Available in sizes from 800 to 2,000 mm
- 0.1 µm resolution glass scales
- Includes pattern focus optical enhancement hardware to measure translucent and reflective parts



QV STREAM PLUS (1.5µm)

CNC Non-stop Vision Measuring System

- Up to 12x faster than conventional systems using strobe-pulse illumination with image capture technique (20mm/sec)
- Add TAF (Tracking Auto Focus) to provide automatic part Z-axis workpiece focusing
- Automatic and asynchronous image processing
- Examples: electronic packaging, metal stamping and plastics
- Includes pattern focus optical enhancement hardware to measure translucent and reflective parts



QV Hyper (0.8µm)

High-accuracy CNC Vision Measuring System

- Sub-micron (0.8 µm) accuracy vision measurement system
- High-resolution 0.02 µm scale system with ultra-low linear thermal expansion
- LED illumination with interchangeable objectives to achieve high accuracy / high magnification measurements
- Includes real-time temperature compensation
- Includes pattern focus optical enhancement hardware to measure translucent and reflective parts



ULTRA QV (0.25µm)

Ultra-high Accuracy CNC Vision Measuring System

- Highest in-class accuracy of 0.25µm
- Minimize straightness errors with precision air-bearing linear guide system
- Scale resolution of 0.01 µm scale system with ultra-low linear thermal expansion
- Halogen lighting with 3X magnification turret and interchangeable objectives
- Includes real-time temperature compensation
- Includes pattern focus optical enhancement hardware to measure translucent and reflective parts

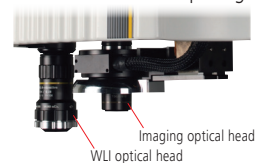


White Light Interferometer*

- Delivered on a hyper-accuracy platform.
- High-accuracy measurement of surfaces, roughness and analysis of line and space measurements of circuit boards / packages

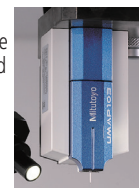
** Factory install option

** Includes vibration dampening system



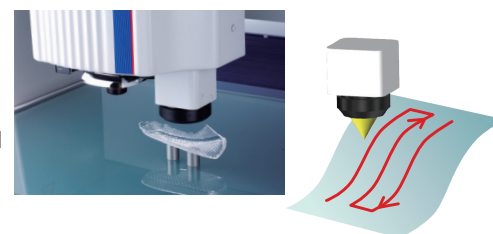
UMAP Probing System**

- Available micro-probe measurement systems are delivered on a hyper- and ultra-accuracy platform.
- Interchangeable microprobes from 15µm to 300µm in diameter
- Unmatched repeatability
- High-aspect ratio stylus family
- Ultra-low force measurements
- 3D measurement for micro geometry
- ** Factory Install option on (Hyper/Ultra)



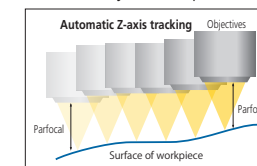
CPS Probe (Chromatic Point Sensor)**

- Chromatic confocal displacement sensor
- Uses chromatic aberration principle to achieve steep wall non-contact contour measurement
- High-mirrored and translucent surface measurement is possible
- Fully programmable unit with small spot size and long working distance to ensure high resolution
- Patented automatic lighting adjustment allows scanning of varying surface materials in a single setup
- ** Factory Install option on (Apex/Hyper)



Tracking Auto Focus (TAF)**

- TAF is a through-the-lens laser-based sensor that focus tracks Z surface to reduce or eliminate traditional move-and-measure video focusing
- Drastically improves measurement throughput
- ** Factory Install option on (Apex/Hyper)



* Available with QV Apex series

Touch-Trigger Probe

- Quick Vision Series models can be delivered or retrofitted with a touch-trigger probe that allows feature measurement of items unable to be measured by vision methods alone.
- TP-20 or TP-200 probe types are available
- Kits include: calibration ring/sphere, rack, probes & modules

