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C-vision®
Video Contour Projector®



THE BEST OF BOTH WORLDS.

The **c-vision** Video Contour Projector® combines the speed and accuracy of a video measurement system with the rugged capacity of an optical comparator to create the world's best shop-floor measuring tools.

Tough

Optical comparators are a mainstay of shop-floor measurement. Their tough construction and big viewing screen make measurements fast and easy.

Fast

Traditional video measurement systems offer the high magnification and the speed of automatic measurement.

Accurate

c-vision brings you the best of both worlds—the rugged, proven design of a profile projector and the accuracy of a precision video measurement system. With a 16 to 1 magnification ratio and fully telecentric optics, **c-vision** lets you see an entire 3-inch part without moving the worktable, and still measure fine details down to 0.003 inches accurately.

Reliable

c-vision offers the rugged construction and high reliability you expect from Quality Vision International – the leader in non-contact measurement systems for nearly 70 years.

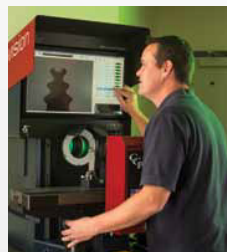


c-vision
floor model

*Benchtop model shown on previous page



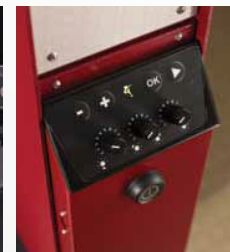
c-vision offers high load carrying capacity and the open work envelope of a horizontal comparator. The floor model offers a load capacity of up to 300 pounds.



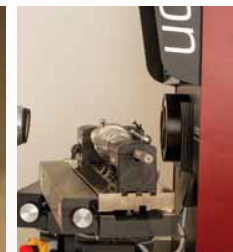
The touchscreen interface is perfect for the shop floor. Just touch the image to enlarge, pan, measure or edit.



Optional rotary stages automatically bring features of interest into view.



Operator controls are simple and easy to reach.

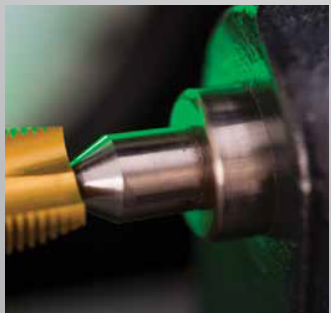


Helix stage motion of up to $\pm 9.5^\circ$ allows the table to pivot for correct thread profile measurements

A True Shop Floor Measuring Machine.

c-vision offers rugged construction and simple controls that make it ideal for use right on the shop floor. Hardened worktables, fully enclosed optics and industrialized controls stand up to harsh environments.

c-vision has an open work envelope that makes it easy to load or unload large, heavy parts. Completely telecentric optics create crisp images that make measurements easy. Just load a part and simply push a button to measure your part instantly.



C-VISION

Innovative Optics.

c-vision dual magnification, telecentric optical system offers the convenience of a full 3-inch field of view, and the resolution to measure small features accurately.

The heart of **c-vision** optics is the oversized front receiving lens which creates the large field of view. The optics are fully telecentric, ensuring accurate size measurements throughout the field.

The QVI® digital megapixel camera measures the entire field of view in one snapshot, enabling dozens of features to be measured at once. Instantly available electronic zoom settings enable inspection of small features up-close.

For small feature sizes, high optical magnification is needed to achieve the optical resolution required for high accuracy measurement. **c-vision** switches to high magnification at the touch of a button - with industry proven automatic AccuCentric® calibration to ensure accuracy.

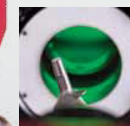
Red: Low Magnification
Blue: High Magnification
Green & Purple: AccuCentric



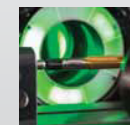
Switch instantly between low and high magnification, and use digital zoom to zero in for a closer look. Low magnification has a full 3-inch field of view - equivalent to a 30-inch optical comparator with a 10X lens. Optical magnification and digital zoom together provides a huge 16 to 1 magnification range.



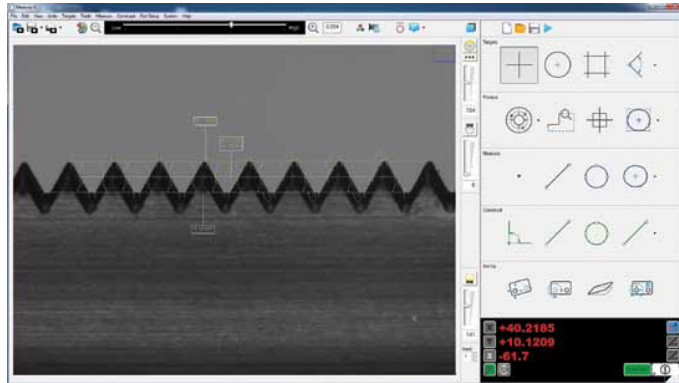
Patented AccuCentric® auto-calibration automatically confirms magnification with every mag-lens change.



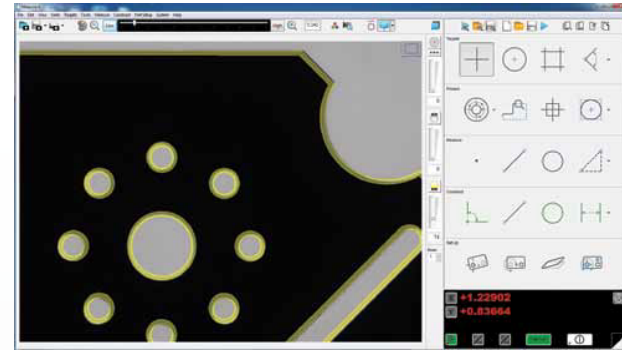
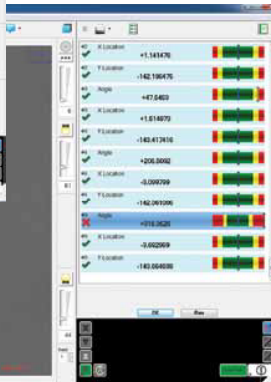
TruLight® all-LED illumination sources are designed to complement the **c-vision** unique wide field optics. Backlight and square-on internal surface lights fill the field of view with uniform, bright light to pick up the smallest details.



The 8-sector programmable ring light highlights surface details, allowing measurements of features that standard optical comparators are unable to detect with conventional surface light.



Large video window with large touch icons.



Digital CAD overlay

Measure-X® 2D CAD Overlay replaces traditional comparator charts by projecting the nominal part profile on the live image for easy comparison. Optional CAD Navigator™ allows entire automatic measurement routines to be created automatically – direct from CAD.

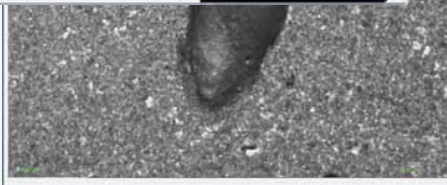
Built For The Shop Floor

Measure-X® 2D is leading-edge measurement software designed for the shop floor. Its touchscreen interface has a simplified layout for running routines or walk-up and measure operations. The "Page Turn" feature switches to the full feature layout with everything you need for building customized routines.



Live Output Window

The live output window tracks the results and provides instant feedback on any features that are out of tolerance.



Instant Feedback With Edit And Tolerances

The unique shop-floor step editor allows quick entry of nominals and tolerances on a single screen, with live update of tolerance condition pictograms for every dimension. All dimensions and GD&T steps update in real time as you build the routine.

SIMPLE. COMPLETE. MEASURE-X® 2D

Measure-X 2D from QVI® makes **c-vision** measurement systems the perfect choice for shop floor measurement. Measure-X 2D is powerful measurement software with easy to use shop-floor capabilities.

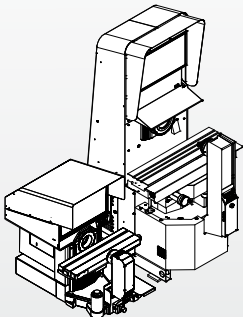




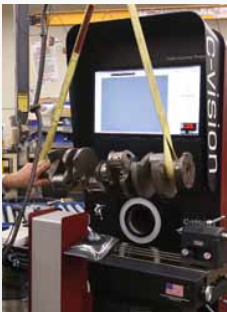
Select The System That Fits *Your* Needs.

Both **c-vision** models offer an open work envelope to allow for easy part handling, even loading and unloading parts with an overhead crane. Fully motorized stages with high speed drives, manual fine focus, and helix angle adjustment allow a full range of motion to handle almost any measurement task.

Both **c-vision** models offer compact footprints with full functionality. The floor model **c-vision** is designed to handle larger parts up to 300 pounds, and the benchtop is designed for smaller parts up to 60 pounds. **c-vision** is built tough to ensure rugged durability even in the harshest shop environment.



Compact Footprint
c-vision benchtop and floor models require minimum floor space.



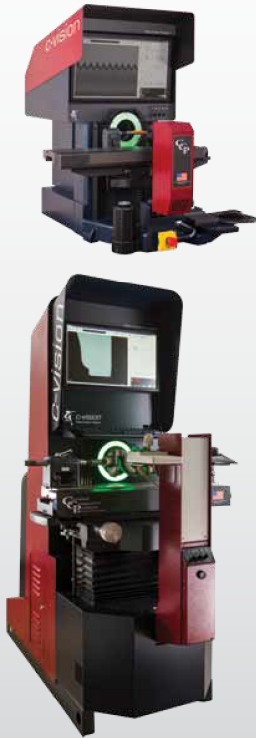
High Payload Capacity
c-vision benchtop supports up to 60 pounds, and the floor model handles up to 300 pounds.



Easy service access
c-vision models feature easy access to optics and electronics for convenient service access.



Versatile Workholding
c-vision worktables accept a wide variety of standard contour projector fixtures and tooling to handle any part.



c-vision benchtop model

	Standard	Optional
XYZ Travel Range	15" x 6" x 2"	18" x 6" x 2"
Helix Angle Range	±7.5° with pivoting worktable assembly and zero stop	
Throat Clearance	10.75"	
XY Scale Resolution	0.00004"	
XY Drive System	Motorized with variable speed joystick control	
Worktable	Hardcoat anodized aluminum with dovetail slot	
Recommended Maximum Load Capacity	60 lbs	
Optics	Dual Magnification, fully telecentric, long depth of field	
FOV Size (with digital zoom)	Low Mag: 3" - 0.75" High Mag: 0.75" - 0.19"	

c-vision floor model model

	Standard	Optional
XYZ Travel Range	15" x 9" x 2"	18" x 9" x 2"
Helix Angle Range	±9.5° with pivoting worktable assembly and zero stop	
Throat Clearance	19.25"	
XY Scale Resolution	0.00004"	
XY Drive System	Motorized with variable speed joystick control	
Worktable	Cast iron with dovetail slots and electro-less Ni plating	
Recommended Maximum Load Capacity	300 lbs	
Optics	Dual Magnification, fully telecentric, long depth of field	
FOV Size (with digital zoom)	Low Mag: 3" - 0.75" High Mag: 0.75" - 0.19"	



c-vision Can Measure It.

c-vision's unique wide field zoom and QVI®'s Measure-X® 2D software let you measure virtually any machined, formed, turned or cast part. The large field of view allows measurements of outside dimensions and profiles, while digital and optical zoom enables measurements of fine features.

Versatile imaging and full automation make **c-vision** ideal for everything from simple measurements to critical dimensions with tight tolerances.



Aerospace



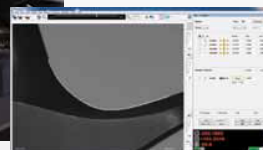
Aerospace parts often have complex shapes, critical dimensions and tight tolerances. **c-vision** handles these requirements easily, with a high payload capacity, large helix motion and full featured measurement software.



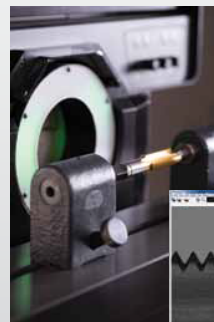
Medical



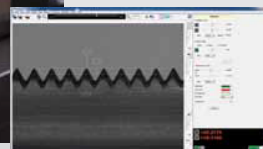
Medical devices such as orthopedic implants are designed to match the human form, with organic curves controlled by unconstrained profile tolerances. Measure-X® provides the tools for **c-vision** to measure these complex shapes and apply the geometric tolerances correctly.

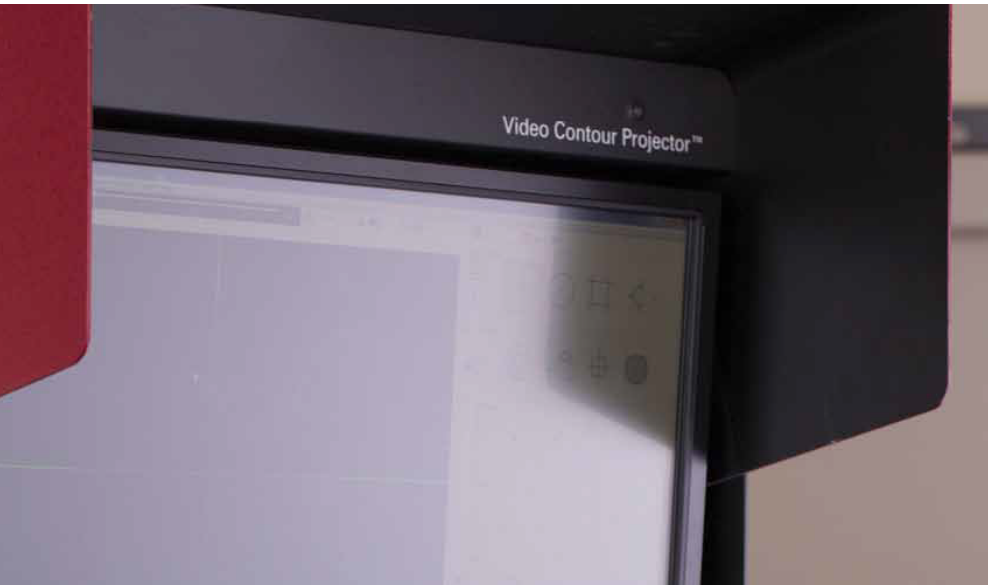


Manufacturing



Large castings, turned shafts and cylinders and other machined and formed parts are equally at home on the **c-vision**. The large throat clearance and generous XY measurement range let you measure most anything you can make in your shop.





Shop Floor Measurements Made Easy.



Calibration Made Easy

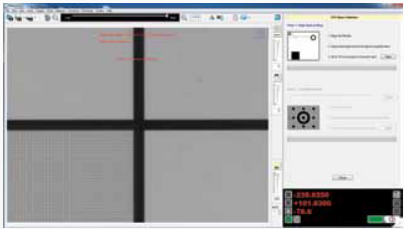


XY Stage Calibration Artifact

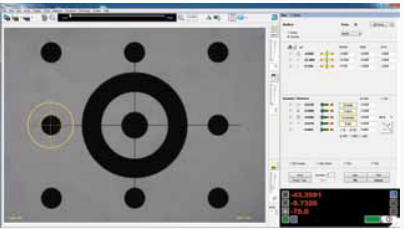
c-vision has the tools you need for routine calibration. The patented AccuCentric® internal calibration confirms optical calibration whenever the optical mag lens is switched between high and low.

The included field of view calibration artifact provides a complete, non-linear error map of the entire field of view, for comprehensive feature size calibration.

XY stage calibration is also fully automatic using the optional stage calibration grid. No special software or tools are needed for routine periodic accuracy verification and calibration to factory standards.



Optional XY Stage Calibration Artifact



Standard Field of View Calibration Artifact

Optional Accessories For Every Measurement



Ring Light - 8-sector ring light provides oblique directional lighting to pick up surface detail



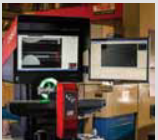
Overhead Curtains -block overhead lighting that can influence part measurements



Extended Travel - Standard stage travel can be extended up to 18 inches on both **c-vision** models



Standard Fixturing - choose from a range of centers, vee-blocks, rotary fixtures and clamps

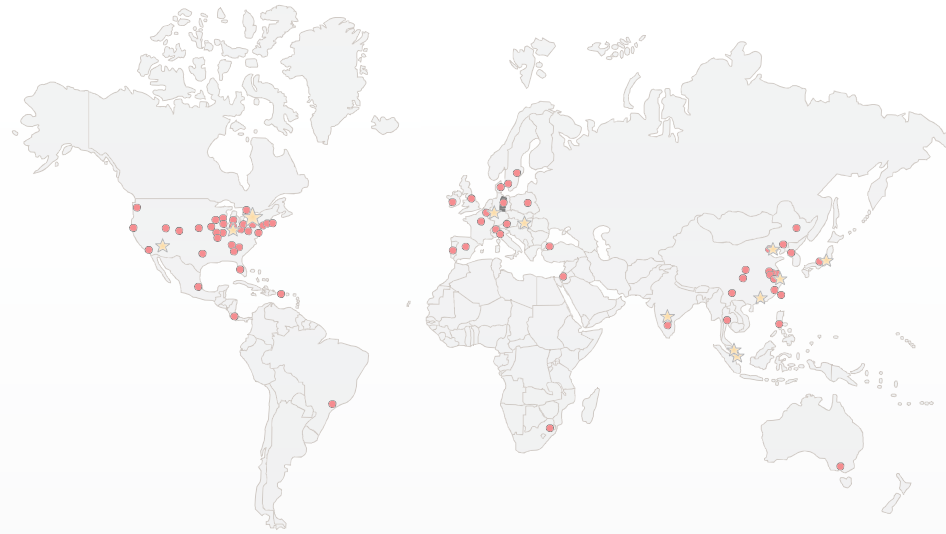


Dual Monitor - A second flat screen display can be added for dual monitor interface using Measure-X® 2D or optional add on software



Optional Software - MeasureFit®, SmartReport®, SmartTree, CAD Navigator and Measure-X® offline

*Optional MeasureFit shown



QUALITY VISION INTERNATIONAL – Precision for People®

Quality Vision International (QVI®) is the world's largest vision metrology company. Founded in 1945, QVI is the world leader in optical, electronic and software technologies for vision and multisensor measuring systems.

Precision for People is more than just our slogan. It's our commitment to delivering our worldwide customers precision metrology systems designed with the people who use them in mind. Precision for People - it's what we stand for.



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