



The Metrology Family



Full range of patented optical and video measuring systems, ranging from easy-to-operate manual configurations to automated video edge detection measuring platforms.



Kestrel 2-Axis Optical Measuring Microscope

The Kestrel non-contact measuring microscope utilises Vision Engineering's patented Dynascope™ technology. Dynascope™ technology offers the user a superior image of the subject making it easy to accurately measure small intricate parts.

- High value, low investment 2-axis optical measurement system
- Patented optical image clearly defines edges, offering superb resolution and contrast
- 150mm x 100mm measuring stage capacity
- Powerful and intuitive QC-200 digital microprocessor delivers simple, fast results with ease
- x10, x20 and x50 magnification options

Vision Engineering's Kestrel measuring microscope provides fast, simple and accurate measurement of precision component parts, in a configuration that is ideally suited to shop-floor use.

From simple manual, single-feature operation to more complex component part measurement, Kestrel combines high resolution, high contrast images with an intuitive microprocessor to deliver accuracy and simplicity for a wide range of measuring applications.



Kestrel 2-axis optical measuring microscope with 150mm x 100mm measuring stage and QC-200 digital microprocessor

Peregrine 2-Axis Optical & Video Measuring Microscope

The Peregrine non-contact measuring microscope utilises Vision Engineering's patented Dynascope™ technology together with an advanced touch-screen video microprocessor, providing the benefit of both optical and video measurement.

- 2-axis optical and video measurement system
- Patented optical image clearly defines edges, offering superb resolution and contrast
- 150mm x 100mm measuring stage capacity
- Powerful and intuitive touch-screen video microprocessor delivers simple, fast results with amazing simplicity
- x10, x20 and x50 magnification options

Peregrine empowers users with options of optical and/or video measurement, providing the ability to perform high accuracy optical measurements for difficult-to-view subjects and critical parts, or higher volume video measurements for high contrast subjects or batch routines.

From manual, single-feature operation to higher throughput video edge detection measurements, Peregrine optimises measurement routines to deliver accuracy and simplicity for a wide range of measuring applications.



Peregrine 2-axis optical and video measuring microscope with 150mm x 100mm measuring stage and QC-300 touch-screen video microprocessor



Merlin 2-Axis Video Measuring Microscope



Merlin 2-axis video measuring microscope with 150mm x 100mm measuring stage and QC-300 touch-screen video microprocessor

Vision Engineering's Merlin video measuring system combines a state-of-the-art touch-screen video microprocessor with amazing simplicity, to deliver superb accuracy and repeatability, no matter how many operators use the system.

- 2-axis video measuring system
- Powerful and intuitive touch-screen video microprocessor delivers simple, fast results with amazing simplicity
- 150mm x 100mm measuring stage capacity
- High resolution video camera provides enhanced component edge definition of a wide range of metal, plastic and other precision components
- x10, x20 and x50 magnification options

Vision Engineering's Merlin video measuring system provides fast and accurate 2-axis measurement of precision component parts, suitable for both shop-floor quality control and manufacturing inspection applications.

From simple, single-feature operation to multi-point video edge detection measurements, Merlin combines amazing simplicity with high accuracy and repeatability for a wide range of measuring applications. The simplicity of Merlin allows consistent results to be obtained no matter how many operators use the system, so you can have complete confidence in your results.

What's right for me?

Optical Measurement				Video Measurement			
<ul style="list-style-type: none"> ▪ Optical measurement for highest levels of accuracy, difficult-to-view/one-off features, or critical measurements ▪ Patented high resolution optical images ideal for low contrast, difficult-to-view components, complex features, or simultaneous visual inspection 				<ul style="list-style-type: none"> ▪ Video edge detection (VED) for enhanced throughput measurements ▪ Ideal for high contrast components, batch routines, measurement of form features, or features both inside and outside the field of view 			
System	Processor	Sensor	Measuring Range (X,Y)	Measuring Range (Z) †	Measuring Uncertainty	Magnification Options	
Kestrel	QC-200	Optical	150mm x 100mm	-	$U_{95}2D = 7+(6.5L/1000)\mu m$ ●	x10, x20, x50	
Peregrine	QC-300 VED	Optical and Video	150mm x 100mm	-	$U_{95}2D = 7+(6.5L/1000)\mu m$ ●	x10, x20, x50	
Merlin	QC-300 VED	Video	150mm x 100mm	-	$U_{95}2D = 5+(6.5L/1000)\mu m$ ●	x10, x20, x50	
Hawk	QC-200	Optical	150mm x 150mm	202mm - 255mm	$U_{95}2D = 4+(5.5L/1000)\mu m$ ▲	x10, x20, x50, x100 x200, x500, x1000	
			200mm x 150mm	202mm - 255mm	$U_{95}2D = 2+(4.5L/1000)\mu m$ ▲		
			300mm x 225mm	40mm - 89mm* ●	$U_{95}2D = 15+(6.5L/1000)\mu m$ ▲		
			400mm x 300mm	40mm - 89mm* ●	$U_{95}2D = 15+(8.5L/1000)\mu m$ ▲		
Hawk	QC-300 VED	Optical and Video	150mm x 150mm	202mm - 255mm	$U_{95}2D = 4+(5.5L/1000)\mu m$ ▲	x10, x20, x50, x100 x200, x500, x1000	
			200mm x 150mm	202mm - 255mm	$U_{95}2D = 2+(4.5L/1000)\mu m$ ▲		
			300mm x 225mm	40mm - 89mm* ●	$U_{95}2D = 15+(6.5L/1000)\mu m$ ▲		
			400mm x 300mm	40mm - 89mm* ●	$U_{95}2D = 15+(8.5L/1000)\mu m$ ▲		
Hawk	QC-5000	Optical	150mm x 150mm	202mm - 255mm	$U_{95}2D = 4+(5.5L/1000)\mu m$ ▲	x10, x20, x50, x100 x200, x500, x1000	
			200mm x 150mm	202mm - 255mm	$U_{95}2D = 2+(4.5L/1000)\mu m$ ▲		
			300mm x 225mm	40mm - 89mm* ●	$U_{95}2D = 15+(6.5L/1000)\mu m$ ▲		
			400mm x 300mm	40mm - 89mm* ●	$U_{95}2D = 15+(8.5L/1000)\mu m$ ▲		
Hawk	QC-5000 VED	Optical and Video	150mm x 150mm	202mm - 255mm	$U_{95}2D = 4+(5.5L/1000)\mu m$ ▲	x10, x20, x50, x100 x200, x500, x1000	
			200mm x 150mm	202mm - 255mm	$U_{95}2D = 2+(4.5L/1000)\mu m$ ▲		
			300mm x 225mm	40mm - 89mm* ●	$U_{95}2D = 15+(6.5L/1000)\mu m$ ▲		
			400mm x 300mm	40mm - 89mm* ●	$U_{95}2D = 15+(8.5L/1000)\mu m$ ▲		

* distance can be increased with the addition of a stand extension.
 ● where L = measured length in mm (x50 system magnification, controlled 20°C, using traceable chrome on glass grid artefact, with intersection points at the standard measuring plane).
 ▲ where L = measured length in mm (x200 system magnification, controlled 20°C, using traceable chrome on glass grid artefact, with intersection points at the standard measuring plane).
 † configuration dependent (min. based on using 1x macro lens and max. based on using ringlight and 5x lens).



Hawk family of 3-Axis Optical & Video Measuring Microscopes

The Hawk family of non-contact measuring microscopes have been designed for companies who demand the highest levels of manufacturing quality. Hawk systems range from simple optical measuring microscopes, to video edge detection measuring platforms, all delivering high accuracy, repeatable measurements.

Modular in design, all Hawk systems are available with a wide range of high specification, precision measuring stage options, plus a choice of data processors, ranging from simple-to-operate digital readouts, to powerful PC-based metrology software, allowing you to tailor the exact system for your individual requirements.

- High repeatable accuracy 3-axis measurements
- Patented optical image clearly defines edges, offering superb resolution and contrast
- Powerful and intuitive microprocessors deliver simple, fast results
- Optional video edge detection for higher throughput measurements
- Wide range of system configurations and options



Large Capacity Measuring Stage
available in two sizes:

- 300 x 225mm
- 400 x 300mm

Precision Measuring Stage
150 x 150mm

High Precision Measuring Stage
200 x 150mm

Hawk Systems with QC-200 offer high resolution 3-axis optical measurement of 2-D features, including coloured or transparent plastics, with simple-to-operate data processor and standard reporting capabilities. The QC-200 digital microprocessor is the ideal control interface for all routine 2-D measurement and reporting functions.

Hawk Systems with QC-300 VED combine both optical and/or video measurement techniques into a simple, 3-axis measuring platform, with touch-screen colour display, integral image capture and standard reporting capabilities. The QC-300 video microprocessor utilises advanced measurement tools to simplify complex work steps and reduce operator error.

Hawk Systems with QC-5000 are ideal for high accuracy 3-axis optical measurement of 3-D features. PC-based metrology software offers powerful data processing and analysis tools, with advanced reporting and input/output capabilities. QC-5000 features an array of tools to simplify complex work steps and reduce repetitive measurements, with an intuitive interface, including drag-and-drop data fields, macros and database templates.

Hawk Systems with QC-5000 VED offer a highly flexible 3-axis measurement solution, with both optical and/or video measurement techniques, advanced PC-based data processing and reporting and motorised and automated stage options. QC-5000 VED metrology software features an array of powerful video measurement tools to simplify complex work steps, reduce repetitive measurements and increase throughput.



Vision Engineering manufactures a complete range of ergonomic stand-alone non-contact measuring systems.

Founded in 1958, Vision Engineering Ltd. has built a reputation of innovative design, world-leading optical technology and ergonomically advanced products. Vision Engineering's range of non-contact measurement systems represents the very best in industry-proven solutions and leading-edge technologies.

Worldwide Training, Service & Support

Vision Engineering has a network of international offices throughout Europe, Asia and North America, supported by a network of over 120 fully trained distributor partners. User training, application development, service, calibration and support is available for every measurement system, ensuring the highest levels of accuracy and productivity are maintained.

Measuring Stage Calibration, with NLEC

Measuring stages of all types will naturally display minute mechanical differences due to normal variations in component and manufacturing tolerances. Non-Linear Error Correction (NLEC) is the most accurate correction method available and uses a software algorithm to calculate and correct any errors across the measuring stage. All of Vision Engineering's measuring stages are factory calibrated with NLEC prior to installation.

Traceability to International Standards

Vision Engineering's measuring stage calibrations are internationally traceable to National Measurement Standards (NMS) through the Mutual Recognition Agreement (MRA), ensuring full compliance with quality standards, including ISO9000.



See It – Measure It ...

Vision Engineering's patented Dynascope™ image projection technology delivers high contrast, microscope resolution images, of complex component parts. Difficult-to-view features such as low contrast black or white plastics, materials of different colours and textures, or transparent parts may all be viewed in intricate detail - something not always possible with profile projectors or video-based systems. The superb optical clarity also allows detailed visual inspection to be performed simultaneously.

Want to know more?

To receive detailed product brochures contact your local Vision Engineering representative or visit our website:

www.visioneng.com/measurement



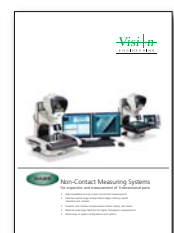
Kestrel



Merlin



Peregrine



Hawk





Vision Engineering manufactures a comprehensive range of ergonomic stand-alone mono and stereo microscopes as well as a complete line of non-contact measuring systems.

For more information...

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