



Non-Contact Measuring Microscope for precision measurement & inspection

- 2-axis non-contact measurement, ideal for measuring 2-D features of small, intricate parts
- Patented optical image clearly defines edges, offering superb resolution and contrast
- High accuracy, low investment system
- High resolution video measurement variant for higher throughput measurements



FM 557119

Vision Engineering Ltd has been certified for the quality management system ISO 9001:2008.

2-Axis Non-Contact Measuring System

Kestrel Elite is a rugged, high accuracy measuring microscope, ideally suited for shop-floor production use, providing simple and accurate measurement of precision component parts.

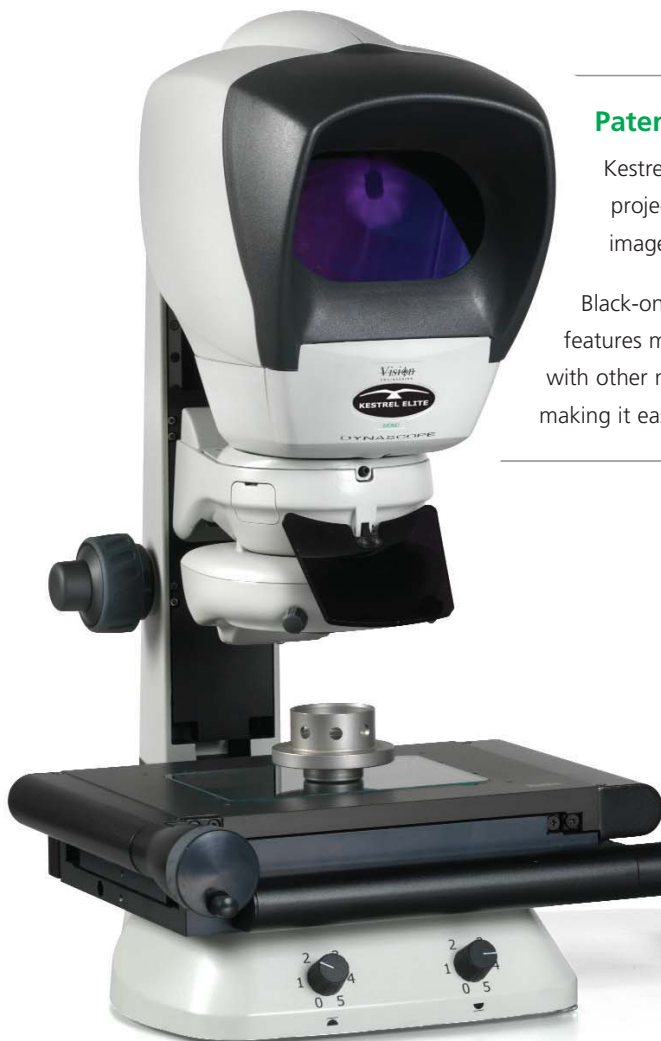
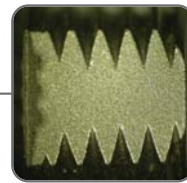
Kestrel Elite is a high accuracy, low investment system, designed to transform your measurement and inspection capabilities. From simple single-feature operation, to more complex component part measurement, Kestrel Elite combines high resolution, high contrast images with intuitive microprocessors to deliver accuracy and simplicity for a wide range of measuring applications.

Upgrade your measurement and inspection capabilities ...

See It – Measure It ...

Small, intricate parts, even difficult-to-view samples, such as black or white parts, or transparent plastics can be viewed in microscope-resolution detail through Kestrel Elite's patented optical viewing head, making accurate measurement easy. The superb optical clarity also allows detailed visual inspection to be performed simultaneously.

- 2-axis non-contact measurement, ideal for measuring 2-D features of small, intricate parts
- Patented optical image clearly defines edges, offering superb resolution and contrast
- High accuracy, low investment system
- High performance stand, optimised for multi-plane measurements
- Choice of rugged and intuitive microprocessor, ideal for shop-floor use, or state-of-the-art touch-screen tablet PC
- High resolution video measurement variant, for higher throughput measurements



Patented Dynascope™ Technology

Kestrel Elite utilises Vision Engineering's patented Dynascope™ optical projection technology. Dynascope™ technology offers the user a superior image of the subject.

Black-on-black? White-on-white? Transparent subjects? Difficult-to-view features may all be viewed in intricate detail – something not possible with other measuring devices such as profile projectors or video-based systems – making it easy to take accurate measurements.



Kestrel Elite with rugged microprocessor illustrated. Touch-screen tablet PC software option available.

5 reasons to choose Kestrel Elite

Small footprint, big impact

Kestrel Elite is the perfect starting point to upgrade your measurement and inspection capabilities and improve your quality control routines... on a budget. With space at a premium, Kestrel Elite doesn't take up much room, yet can make a big difference to your production quality.

Simple. Rugged. Precise.

Kestrel Elite's robust, dynamically engineered design reduces stress points to optimise measurement accuracy. Rugged in construction, the unit has been designed to cope with the demands of a busy production environment and includes Vision Engineering's proven 150mm x 100mm precision measuring stage.

The stage comes complete with factory-set Non-Linear Error Correction (NLEC) calibration to ensure optimum accuracy, traceable to international standards for the purposes of ISO9000.

Multi-plane measurements

Kestrel Elite is a 2-axis measuring system optimised for multi-plane measurement, with a high stability stand using a precision engineered bearing assembly.

Many users need to measure in X and Y axis, but at different heights. Kestrel Elite is specifically designed to maximise X,Y measurement accuracy at different plane heights.

Patented optical imaging

Kestrel Elite is a true optical measuring microscope. Unprocessed, high resolution, true-colour images are viewed through the ergonomic eyepieceless viewing head in complete comfort. No uncomfortable microscope eyepieces!

Dual optical and video measurement variant

Choose the Kestrel Elite-Cam variant and add video measurement capabilities. Both optical and video measurements occur seamlessly, in the same routine, without interruption, so you can choose the best measurement method without delay.

- Optical measurement for critical, difficult-to-view features or one-off measurements
- Video measurement for routine measurement of high contrast parts



Kestrel Elite with touch-screen tablet PC illustrated. Touch-screen PC option available.

Data Processing and Reporting

Choice of robust microprocessor, specifically designed for use on the shop floor, or touch-screen tablet PC measurement software.

Touch-screen tablet PC

The touch-screen tablet PC combines the power of 'next generation' measurement software with enhanced networking and reporting capabilities.

With simplicity at its core, the intuitive software can be used by shift workers or advanced users alike, simplifying complex work steps, with advanced features as standard.

Key Features

- **PC connectivity** - for integration with network printers and Microsoft Office applications such as Excel
- **Touch-2-measure functionality** - for quick measurement, with a simple touch of the screen
- **Part view measurement** - measurements can be taken from one measured feature to the next



Robust microprocessor

A durable microprocessor offers rugged simplicity, ideal for shop floor use, reducing operator error, whilst minimising training time.

Key Features

- **Durability** - robust outercasing allows for the microprocessor to be used on the shop floor
- **Ease of use** - requires minimal training time, while reducing operator error and increasing productivity
- **Quick, accurate 2-axis measurement** - fundamental functionality, simple 2-axis measurement.



Technical details

Measurement Uncertainty

Uncertainty formula $U_{95}2D = 7 + (6.5L/1000)\mu\text{m}$, where L = length in mm, using controlled conditions with 100x magnification at the standard measuring plane.

Increased accuracies may be obtained over shorter measuring lengths.

Optics

Patented twin pupil monoscopic, infinity corrected optical system, with pre-centered crossline graticule to both eyes.

- Option of custom designed graticule, pre-centered to one eye

Magnification Options (System Total)

- Quick change magnification options - 10x, 20x, 50x, 100x

Measuring Stage

Precision measuring stage, with factory completed Non-Linear Error Correction (NLEC) calibration as standard.

Measuring Range (X, Y)

- 150mm x 100mm (10kg maximum load)

Height adjustment

100mm of height adjustment for multi plane measurement.

Encoder Resolution

X = 1 μm Y = 1 μm

Illumination

Choice of twin semi-coaxial spot lamps, or cool, corrected color temperature LED surface illumination.

- Surface and substage illumination options enable adjustment of lighting to suit any application.
- Substage illumination provides the ability to measure in profile.



Precision manufactured in the EU

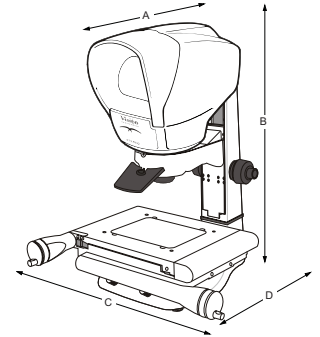
Dimensions

Dimensions

A = 490mm
B = 695mm
C = 430mm (150mm x 100mm stage)
D = 390mm (150mm x 100mm stage)

Weights

	Unpacked
Head	4kg
Stage	10.5kg
Stand	6kg



For more information...

Vision Engineering has a network of offices and technical distributors around the world. For more information, please contact your Vision Engineering branch, local authorised distributor, or visit our website.

Distributor

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