



VISION ENGINEERING PRODUCT BROCHURE 2020



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ERGONOMIC- VERSATILE- PRODUCTIVE

Mantis is an award-winning range of ergonomically designed, 3D stereo microscopes which offer exceptional operator comfort and superb 3D imaging.

The unmatched ergonomic design of Mantis allows your eyes and hands to work together naturally to reduce operator fatigue and eye strain. Less discomfort leads to improved efficiency and greater productivity even over longer sessions. Enhanced depth perception and access to peripheral vision mean easier working with tools and subjects.

Mantis Elite

A superior field of view, quick-change lens turret, and up to 20x magnification, makes this an ideal 3D stereo microscope for viewing and manipulation applications.

Mantis Elite-Cam HD

Featuring an integrated high-definition camera. Complete with video and image capture, annotation, display of custom overlays, and optional on-screen measurement software.

Mantis Compact

Ideal for viewing and manipulation applications, where operator comfort and a low magnification range (up to 8x) is needed. A UV version is also available.

Mantis Elite Optical data		
Objective lens	Working distance	Field of view
2x	160mm	57.0mm
4x	96mm	34.0mm
6x	68mm	23.0mm
6x SLWD*	112mm	20.0mm
8x	59mm	17.0mm
10x	54mm	13.5mm
15x	40mm	8.8mm
20x	29mm	6.5mm

*cannot be used together with 2x or 20x lens

Mantis Compact Optical data		
Objective lens	Working distance	Field of view
2x	167mm	45.0mm
4x	96mm	27.5mm
6x	73mm	19.2mm
8x	58.5mm	14.3mm



Mantis

Key Features

- 2x - 20x magnification stereo microscopes
- Superior ergonomics for improved productivity
- Quick change turret for flexible magnification
- Optimised for long working distance & large field of view
- Bright white, true colour, LED illumination
- Optional factory-integrated HD digital camera
- Inspect and document with ease
- Choice of stands and accessories to suit

Key Features

- Eyepiece-less high productivity stereo microscope
- 2.7x - 240x magnification capabilities
- Optimised for industrial applications and life science
- 10:1 zoom ratio with indexing lever
- 8-point LED ring-light with intensity control
- Rotating diffuser for contrast adjustment
- Range of camera and software options

LYNX EVO ERGONOMIC STEREO MICROSCOPE



WORK BETTER, FOR LONGER

The Lynx EVO stereo microscope was designed to increase productivity through superior ergonomics. Magnifications from 2.7x to 240x, make it ideal for a wide range of applications.

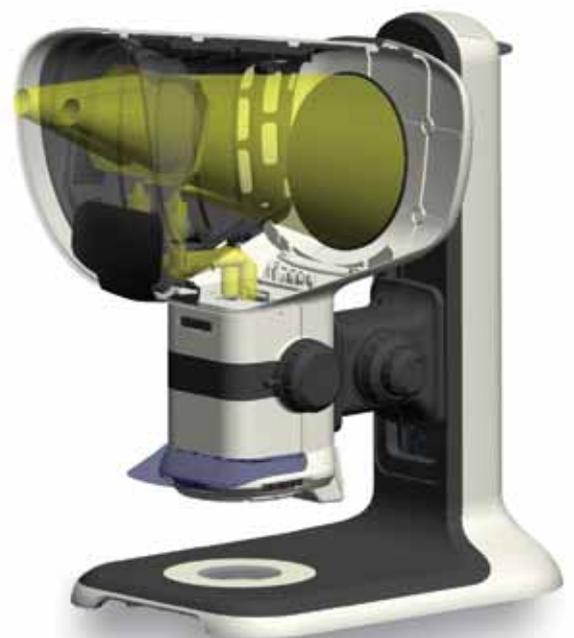


Health and productivity

The award-winning Lynx EVO delivers substantial benefits over traditional binocular microscopes, including the ability to wear spectacles or safety glasses, superior imaging with less eyestrain, freedom of head movement, better posture, dramatically improved operator comfort even for longer sessions. It all adds up to greater productivity, faster throughput, improved hand-eye co-ordination and fewer errors.

Dynascope technology for superior imaging

At its heart, there is a multi-lenticular disc which incorporates more than 3.5 million individual lenses, or 'lenticules', each just a few microns in diameter. The multi-lenticular disc spins at high speed to merge the millions of individual optical paths into a high-clarity, high contrast image.



Optical data with 2.0x multiplier

Objective lens	Magnification options*	Working distance	Field of view at min. zoom**	Field of view at max. zoom
0.45x	2.7x – 54x	176mm	55mm	2.7mm
0.62x	3.7x – 74x	128mm	40mm	2.0mm
1.0x	6x – 120x	75mm	25mm	1.2mm
1.5x	9x – 180x	42mm	16mm	0.8mm
2.0x	12x – 240x	29mm	12mm	0.6mm

*Maximum permissible range with multiplier engaged/disengaged

**With multiplier disengaged



Key features

- 3D digital inspection system with real depth perception
- More precise hand-eye coordination
- Unique eyepiece-less technology: lowering risk of infection
- Suitable for users wearing glasses or protective eyewear
- Enables real time remote monitoring and remote collaboration
- Improved comfort and productivity

DEEP REALITY VIEWER

THE FUTURE OF OPTICAL INSPECTION IS HERE



The incredible DRV-Z1 (Deep Reality Viewer) is the world's first and only digital stereo inspection system which creates full 3D HD images which float in front of your eyes.

A powerful combination

Ideal for inspection and manufacturing applications, the award-winning DRV-Z1 combines the capabilities of an optical stereo microscope with digital measuring technology, in a single unique system.

Magnifications of between 6.1x – 93x (additional 2x digital) with zoom capabilities are possible. Accurate on-screen measuring can be achieved with our powerful dimensioning software, such as ViPlus and DimensionOne.

Real time collaboration on a global scale

3D HD images can be shared across networks to other DRV systems in real time, for simultaneous remote viewing. Now your colleagues can view anything from sensitive subjects in strictly controlled environments though to newly made prototypes created thousands of miles away, without ever leaving the office.

Outstanding ease of use

DRV-Z1's glasses-free 3D experience with true depth perception, extra wide field of view, high definition resolution and excellent subject clarity make it a great choice for inspection applications which would otherwise be problematic using conventional technology.



Optical data with 2.0x multiplier				
Objective lens	Magnification options*	Working distance	Field of view at min. zoom**	Field of view at max. zoom
0.33x	6.1x - 61x	182mm	6.5mm / 3.7mm	65mm / 37mm
0.4x	7.4x - 74x	138mm	5.4mm / 3mm	54mm / 30mm
0.5x	9.3x - 93x	93mm	4.3mm / 2.4mm	43mm / 24mm

*Maximum permissible range with multiplier engaged/disengaged

** With multiplier disengaged

CAPABLE- POWERFUL - ADAPTABLE

EVO Cam II is a powerful, versatile, yet easy-to-use, high definition digital microscope.

Exceptional images

A 30:1 optical zoom range, delivering optical magnification up to 760x, lets you see the detail you need to really understand the subject. Use the digital zoom to increase this to an impressive 9,000x maximum magnification. Full HD video brings out every detail, and manual and automatic focusing gives you ultra-sharp images every time.

Consistency and versatility

Consistent quality inspections across multiple units, multiple users and multiple sites is easily achievable through a range of tools and by sharing of settings between units.

A customised solution

A 360° rotating viewer for looking all around the subject, focus stacking for bringing tall subjects into uniform focus, a UV ring light, sub-stage illumination and a range of filters all help you inspect a wider range of subjects. Add a floating stage for even greater precision and control, and choose from a wide range of stands to make EVO Cam II perfect for your application.

Precision objective lens data				
Objective lens	Magnification options	Working distance	Field of view at min. zoom	Field of view at max. zoom
0.45x	2.3x – 68x (816x)**	160mm	241mm x 134mm	7.8mm x 4.2mm
0.62x	3.1x – 93x (1124x)**	106mm	173mm x 96mm	5.5mm x 3.1mm
1.0x	5x – 151x (1814x)**	85mm	88mm x 57mm	3.5mm x 2.0mm

*with 24" monitor ** with 12x digital zoom



Key Features

- Exceptional full resolution 1080p image quality
- Optical magnification up to 300x
- Large field of view and long working distance
- Intuitive easy image capture and documentation
- Stand alone, wireless or PC connectivity
- Unique 360° rotating viewer
- Focus stacking

EVOCAM //

INSPECT ANYTHING, ANYWHERE

Camβ is Vision Engineering's portable, secure hand-held digital magnifier. Capable of 4x – 20x magnification, this robust go anywhere inspection and digital capture tool is ideal for use in the lab, around the factory or in the field.

- Secure digital images
- Accurate on screen measurements
- Controllable built-in lighting
- Useful training tool

Technical data (basic)	
Display	4.3" diagonal (109mm) high resolution colour display
Magnification	4x, 8x, 6x, 20x
Dimensions	238 x 88 x 22mm
Battery life	6 hours



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DUAL OPTICAL + VIDEO MEASURING SYSTEM



Swift PRO combines two measuring microscopes in a single, robust device, saving space and money.

Key Features

- 2 / 3-axis optical & video measuring system, ideal for measuring small intricate parts
- Fast and accurate measurements with video edge detection
- Seamlessly switch from video to optical measurement
- High resolution colour video camera

Use video measuring for bulk and routine work, where the edges of features can be easily identified. For more challenging subjects, with very low contrast between the feature and the background, switch to optical measurement.

Technical data				
Measuring stage	Measuring range	Height adjustment	Encoder resolution	Magnification options
200 x 100mm	X = 200mm Y = 100mm Z = 98mm*	100mm	X = 1µm Y = 1µm Z = 0.5µm*	10x, 20x, 50x, 100x

* 3-axis variant only.

MEASURE ANY SHAPE IN AN INSTANT

TVM is ideal for taking 2D measurements of multiple subjects, when fast throughput and ease of use are essential requirements, and a great choice for a shop floor non-contact measurement system.

TVM

Large field of view for fast throughput

Thanks to TVM's large 35mm field of view you can measure a wider range of samples in an instant. What's more, a large depth of field means focus is maintained.

Measure larger objects with a motorised stage

TVM can be equipped with a motorised stage that makes it easy to measure objects which don't fit into the field of view, offering much faster measurement than old style profile projectors.



Technical data				
Model	Measuring range (X,Y) FOV mode	Measuring range (X,Y) moving stage	Measurement uncertainty FOV mode	Measurement uncertainty moving stage
TVM20	18mm x 14mm (20mm diagonal)	200mm x 100mm	3µm	5+(9.54L/1000)µm
TVM35	28mm x 21mm (35mm diagonal)	200mm x 100mm	4µm	5+(9.54L/1000)µm

*Measured under controlled conditions

AUTOMATED 3-AXIS MEASUREMENT SYSTEM

LVC RANGE 3-AXIS MEASUREMENT SYSTEMS

LVC400 and LVC200 fully automated 3-axis measuring systems have the power and versatility to meet the needs of even the most demanding manufacturing environments.

With a measurement range of up to 400mm x 300mm x 200mm, they are ideal for measuring large components or, just as easily, batches of small components.

LVC



Key Features

- Great video image with 5MP USB3.0 camera
- Motorised zoom lens
- Intuitive yet powerful M3 software
- Touch probe and probe changer options
- Granite base for extra stability (LVC400 only)

Technical data					
Model	Measuring capacity (mm)	Measurement accuracy (X - Y)	Magnification options	Field of view at min. zoom	Field of view at max. zoom
LVC200	200mm x 150mm x 200mm	2.8 + (8L/1000) µm	~80x - 300x on 25" monitor	6.3mm x 4.7mm	1.4mm x 1.09mm
LVC400	400mm x 300mm x 200mm	2.5 + (7.32L/1000) µm	~80x - 300x on 25" monitor	6.3mm x 4.7mm	1.4mm x 1.09mm

HIGH ACCURACY AUTOMATED VIDEO + OPTICAL MEASURING SYSTEM

A great solution for precision engineers, Hawk Duo gives you the reliability and accuracy of an optical measuring microscope plus the practicality and repeatability of digital video measurement in one robust system. It's the perfect tool for any precision engineering application which demands accurate, automated measuring.



- Effortless accuracy
- High productivity and throughput
- Generous 200mm x 150mm measurement capacity
- Easy to use M-Series software
- Powerful productivity features
- Lighting options available

Technical data				
Measuring stage	Magnification options	Working distance	Field of view at min. zoom	Field of view at max. zoom
200 x 150mm 400 x 300mm	10x - 1000x	84mm (10x) - 3.4mm (1000x)	14.2mm (10x)	0.22mm (1000x)



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ROBUST, HIGH QUALITY MICROSCOPES

Whether you want a robust, high quality stereo microscope for a particular application, or you want to standardise on a single range with several models to choose from, Vision Engineering's SX Family of stereo microscopes should be at the top of your list.

One range. Two families. Exceptional choice.

SX Elite is a family of three Greenough microscopes offering magnifications of 190x and 200x – and working distances of up to 220mm – ideal for ideally suited for inspection, assembly and reworking tasks. SX80 and SX100 are CMO (common main objective) binocular stereo

microscopes, and offer a greater zoom range, higher magnifications and modular construction for more versatile configurations.

Both families offer solutions for high resolution image capture and access to optional software.



CAPABLE, DEPENDABLE BENCH MAGNIFIERS

With magnification ranging from 1.75x to 4.75x and superb optical quality throughout, the Vision LUXO range includes ESD and UV variants for specialist industry requirements.

Circus LED

- Magnification 3.5D and 5.0D
- Enclosed arm eliminates foreign object debris
- Full circle ring light with 0-99 light levels

Wave LED

- Magnification 3.5D and 5.0D
- Independently controlled, 3D illumination
- ESD, UV and ESD-UV versions available

KFM LED

- Magnification 3.0D and 5.0D
- Enclosed arm eliminates foreign object debris
- ESD versions available

LFM-G2 LED

- Magnification 3.0D and 5.0D
- Auto shut-off power saving feature
- Light-weight design



BenchKam

Digital camera solution for Vision LUXO bench magnifiers.

