

Includes **NEW**  
image capture option

*Vision*  
ENGINEERING



Mantis

## Stereo Viewing Systems

Superior imaging for a wide range of inspection & rework tasks

- Patented optical technology for fatigue-free viewing and superb image quality
- Wide range of magnification options (to x20)
- Long working distances; large depths of field
- Shadow-free true color LED illumination

**Mantis Compact** is a high value, low investment stereo viewer which excels in the low magnification range for inspection or manipulation tasks where bench magnifiers have traditionally been used.

Patented optical technology allows operators freedom of head movement for superb ergonomics and hand-eye coordination, with the ability to wear glasses if required. Operators can increase productivity and improve quality, at an affordable price.

- High value, low investment system
- Superior ergonomics for improved productivity and increased output
- Long working distances for easy sample manipulation and rework
- x2, x4, x6 and x8 quick change objectives
- Bright white, true color, LED illumination providing up to 10,000 hours of shadow-free viewing
- Superb hand-eye coordination for inspection and manipulation tasks
- Patented eyepieceless optics maximize head freedom providing superb ergonomics and reduced eye fatigue



Mantis Compact, with counterbalanced universal stand, for flexibility and ease of use.



Articulated arm, designed specifically for applications requiring extended reach, without compromising stability.



High stability bench stand, with integral focus and dimmable substage illumination.

## Options



### Floating Stage

Provides smooth and sensitive control allowing for samples to be accurately inspected. For use with bench stand only.



### UV Lighting

For UV inspection applications and fast and accurate fault detection.



### Secondary Link Arm

A secondary link increases total reach of articulated arm to 33.3" (847.5mm) and provides added flexibility and maneuverability.



### Floor Stand

Ideal for inspection where subjects are immobile or require a standing position. For use in conjunction with articulated arm. Lift, swing, tilt and rotate capabilities.

## Optical Data

Objective Lenses	Working Distance	Field of View
x2	6.57" (167mm)	1.77" (45.0mm)
x4	3.78" (96mm)	1.08" (27.5mm)
x6	2.87" (73mm)	0.76" (19.2mm)
x8	2.30" (58.5mm)	0.56" (14.3mm)

## Accessories

Lens protection caps  
Dust cover  
Replacement LED array

**Mantis Elite** is a high performance stereo microscope, offering superb optical performance with magnification options up to x20, making it a perfect alternative to more traditional stereo microscopes.

Large fields of view and generous working distances permit a wide range of inspection, preparation and manipulation tasks, all with exceptional hand-eye coordination.



Mantis Elite, with counterbalanced universal stand for flexibility and ease of use.



Articulated arm, designed specifically for applications requiring extended reach, without compromising stability.

Optical Data		
Objective Lenses	Working Distance	Field of View
x2	6.29" (160mm)	2.24" (57.0mm)
x4	3.78" (96mm)	1.34" (34.0mm)
x6	2.68" (68mm)	0.91" (23.0mm)
x6 SLWD*	4.41" (112mm)	0.79" (20.0mm)
x8	2.32" (59mm)	0.67" (17.0mm)
x10	2.13" (54mm)	0.53" (13.5mm)
x15	1.57" (40mm)	0.35" (8.8mm)
x20	1.14" (29mm)	0.25" (6.5mm)

Accessories
Lens protection caps
Dust cover
Replacement LED array

\* cannot be used together with x2 or x20 lens

- High value, high specification patented design with superb optical performance
- x2 - x20 magnification options with quick change turret allows users to switch between low magnification inspection and high magnification fine detail tasks
- Patented eyepieceless optics maximize head freedom providing superb ergonomics and minimal eye fatigue
- Superior ergonomics for improved productivity and increased output
- Superb hand-eye coordination for inspection and manipulation tasks
- Bright white, true color, LED illumination providing up to 10,000 hours of shadow-free viewing
- Long working distance and large field of view for easy sample manipulation and rework



High stability bench stand with integral focus, dimmable substage illumination and floating stage (optional).

## Options



### Floating Stage

Provides smooth and sensitive control allowing for samples to be accurately inspected. For use with bench stand only.



### Episcopic Illuminator

Through-the-lens illumination for the inspection of bore holes and complex internal/external features. Iris control for precise light positioning.



### UV Lighting

Switchable UV white light illumination for UV inspection applications and fast and accurate fault detection.



### Secondary Link Arm

A secondary link increases total reach of articulated arm to 33.3" (847.5mm) and provides added flexibility and maneuverability.



### Floor Stand

Ideal for inspection where subjects are immobile or require a standing position. For use in conjunction with articulated arm. Lift, swing, tilt and rotate capabilities.

**Mantis Elite-Cam** is a variant of the successful Mantis Elite stereo microscope, with an internally integrated USB2.0 camera allowing effortless image capture and documentation.

Mantis Elite-Cam is comprised of a standard Mantis Elite, with a factory-integrated digital camera, bringing image capture capabilities to the outstanding eyepieceless optics of Mantis. Mantis Elite-Cam offers superb optical performance with the ability to capture and archive images effortlessly.



Competitively priced Mantis Elite-Cam complete with integrated USB2.0 camera\*

- Comprised of a Mantis Elite optical head, with factory integrated and sealed high resolution<sup>†</sup> USB2.0 camera
- Permanently engaged digital camera permits simultaneous optical and digital viewing
- Image projection capability ideal for training purposes
- USB2.0 connectivity with easy-to-use PC-based software
- Simple image capture software allows for storage, reference and electronic communication
- Variety of image capture formats including: .bmp, .jpg and .png
- Compatible with Mantis Elite options & accessories

#### Optical Data

See Mantis Elite

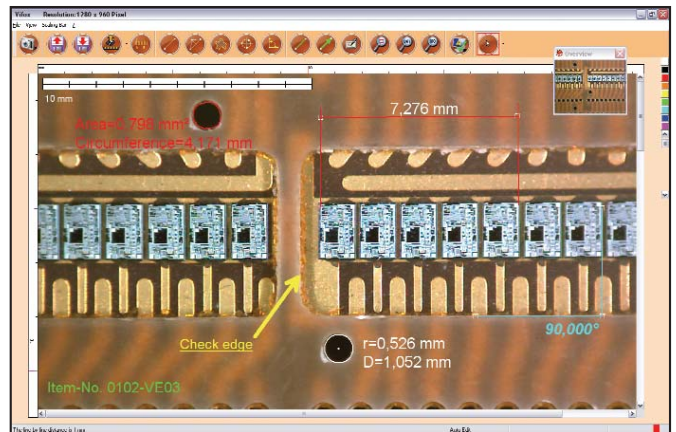
#### Elite-Cam includes

USB cable, 3 foot  
Standard image capture software  
Installation CD

\* PC not supplied

† Please contact us for current specification

## Image Solutions Software Option



*Image Solutions* software includes:

2D measurement functions, comprehensive measuring options, clear graphic presentation, simple calibration, with scale bars and labelling.

*Image Solutions* is an **Imaging and Measurement** software option for Mantis Elite-Cam, providing fast, precise imaging of your samples and components.

The intuitive *Image Solutions* software can measure (2D) lines, circles, areas, angles and more, with clear graphic presentation and simple calibration..

- **Plug & play USB 2.0 interface**
- **Full screen live display** - Live video display at full screen with interactively adjustable camera settings
- **One click video capturing** - Capture images, time lapse sequences and movies
- **Live annotation** - Unique "live label" annotation tools. Draw text and arrows on top of live image
- **Measurement capability** - Quick measurements of defects. Stored calibrations allow distance, radius/diameter, angle measurements immediately printed on image

## Capture, Document

- ✓ Live video display with one button capture
- ✓ Store in multiple formats i.e. .jpg, .bmp, .tif
- ✓ Store still image and video clips
- ✓ Fast measurement tools on live image
- ✓ Simple text, arrow, and drawing tools
- ✓ One click print and E-mail system



## Mantis... Compact, or Elite?

Vision Engineering has designed and manufactured world class optical systems since 1958.

The Mantis family is comprised of a unique range of patented optical systems without eyepieces, for intricate tasks requiring superb quality viewing over extended periods of time.

Mantis is in use in tens of thousands of sites worldwide and has become the accepted standard for ergonomics and high performance magnification.

### Mantis Compact

Mantis Compact excels in the low magnification range for inspection or manipulation tasks where bench magnifiers have traditionally been used. Mantis Compact has a small footprint and low investment cost giving a superb price/performance ratio.

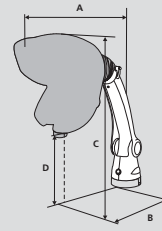


### Mantis Elite

Mantis Elite has enhanced optical performance, including higher magnification, a large field of view plus long working distances, making it a perfect alternative to traditional stereo microscopes for a wide range of inspection, preparation and manipulation tasks requiring hand-eye coordination. Mantis Elite also has an enhanced range of options, including digital image capture with the Mantis Elite-Cam variant.



#### Universal Stand



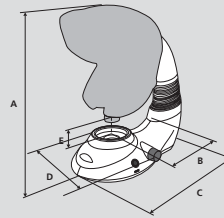
##### Mantis Compact

**Dimensions:**  
A = 22.24" (565mm) - 30.51" (775mm)  
B = 13.19" (335mm) - 21.46" (545mm)  
C = 15.55" (395mm) - 23.82" (605mm)  
D = 3.94" (110mm) - 12.60" (320mm)  
**Unpacked weight:**  
Head 4.63 lbs (2.1kg) Stand 9.92 lbs (3.3kg)  
**Packed weight:**  
Head 9.04 lbs (4.1kg) Stand 9.92 lbs (4.6kg)

##### Mantis Elite

**Dimensions:**  
A = 23.35" (593mm) - 31.57" (802mm)  
B = 13.86" (352mm) - 24.49" (622mm)  
C = 16.34" (415mm) - 24.57" (624mm)  
D = 4.06" (103mm) - 12.28" (312mm)  
**Unpacked weight:**  
Head 6.61 lbs (3.0kg) Stand 7.26 lbs (3.3kg)  
**Packed weight:**  
Head 11.02 lbs (5.0kg) Stand 10.14 lbs (4.6kg)

#### Bench Stand



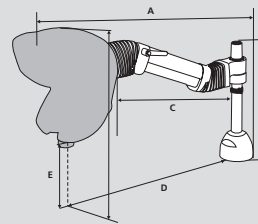
##### Mantis Compact

**Dimensions:**  
A = 20.71" (526mm) - 25.24" (641mm)  
B = 7.80" (198mm)  
C = 19.17" (487mm)  
D = 12.01" (305mm)  
E = 4.84" (123mm) - 9.37" (238mm)  
**Unpacked weight:**  
Head 4.63 lbs (2.1kg) Stand 9.92 lbs (4.5kg)  
**Packed weight:**  
Head 9.04 lbs (4.1kg) Stand 17.42 lbs (7.9kg)

##### Mantis Elite

**Dimensions:**  
A = 21.18" (538mm) - 25.71" (653mm)  
B = 7.80" (198mm)  
C = 19.17" (487mm)  
D = 12.01" (305mm)  
E = 4.80" (122mm) - 9.33" (237mm)  
**Unpacked weight:**  
Head 6.61 lbs (3.0kg) Stand 9.92 lbs (4.5kg)  
**Packed weight:**  
Head 11.02 lbs (5.0kg) Stand 17.42 lbs (7.9kg)

#### Articulated Arm



##### Mantis Compact

**Dimensions:**  
A = 34.65" (880mm)  
B = 16.93" (430mm)  
C = 20.08" (510mm)  
D = 25.59" (650mm)  
E = 11.42" (290mm)  
**Unpacked weight:**  
Head 4.63 lbs (2.1kg) Stand 24.25 lbs (11kg)  
**Packed weight:**  
Head 9.04 lbs (4.1kg) Stand 29.76 lbs (13.5kg)

##### Mantis Elite

**Dimensions:**  
A = 34.65" (880mm)  
B = 16.93" (430mm)  
C = 20.08" (510mm)  
D = 25.59" (650mm)  
E = 11.42" (290mm)  
**Unpacked weight:**  
Head 6.61 lbs (3.0kg) Stand 24.25 lbs (11kg)  
**Packed weight:**  
Head 11.02 lbs (5.0kg) Stand 29.76 lbs (13.5kg)

#### Illumination

**Note:** All Mantis use a 9V DC external plug transformer, available in all worldwide plug configurations.

##### Mantis Compact

Lighting Data		
Light intensity measured at subject plane with color correction filters.		
20 LEDs	9,400 LUX	Up to 10,000 hours
Substage illumination (bench stand only)		
13 LEDs	1,200 - 4,000 LUX	Up to 10,000 hours

##### Mantis Elite

Lighting Data		
Light intensity measured at subject plane with color correction filters.		
24 LEDs	11,000 LUX	Up to 10,000 hours
Substage illumination (bench stand only)		
13 LEDs	1,200 - 4,000 LUX	Up to 10,000 hours



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

## 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 authorized distributor, or visit our website.

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