

Includes **NEW**
image capture option



Mantis

Stereo Viewing Systems

for a wide range of inspection and material 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.



Mantis Compact, with counter-balanced 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 | 6.57" (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 |

- 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 **NEW x8 objective**
- 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



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 capability.

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 counter-balanced universal stand for flexibility and ease of use.



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

- 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 capability.

| 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

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[†] 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 allows for storage, reference and electronic communication
- Variety of image capture formats including: BMP, JPEG and PNG
- Compatible with all Mantis Elite options & accessories

| Optical Data | |
|--------------|------------------|
| | See Mantis Elite |

| Elite-Cam includes: | |
|------------------------|--|
| USB Cable, 3 foot | |
| Image capture software | |
| Installation CD | |

* PC not supplied
[†] Please contact us for current specification

Unlike other Mantis, which have an upright optical path, the **Mantis Macro** provides straight through in-line viewing which makes the coordination of hand and eye even easier.

Mantis Macro offers a straight through in-line view of the subject, similar in operation to a bench magnifier but with increased magnification and optical clarity. It is ideal for tasks which require exceptional hand-eye coordination and increased magnification.



Mantis Macro, with counter-balanced universal stand and 30° tilting head facility, for flexibility and ease of use. Straight through in-line view for optimal hand-eye coordination and maximum working distance.

- Patented eyepieceless optical technology expands the exit pupil, providing head freedom and eye relief for excellent ergonomics
- Straight through in-line optical path offers superb hand-eye coordination for inspection and manipulation tasks
- x2.5 – x5.0 magnification with quick change turret allows user to switch between magnifications
- Superior ergonomics for improved productivity and increased output
- Long working distance and large field of view for easy sample manipulation and rework
- Bright white, true color, LED illumination providing up to 10,000 hours of shadow-free viewing

| Optical Data | | |
|------------------|------------------|----------------|
| Objective Lenses | Working Distance | Field of View |
| x2.5 | 4.86" (116mm) | 1.91" (48.6mm) |
| x5.0 | 2.59" (66mm) | 1.93" (23.8mm) |

| Accessories | |
|-----------------------|--|
| Lens protection caps | |
| Dust cover | |
| Replacement LED array | |

Mantis... Compact, Elite, Macro?

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, providing a superb price/performance ratio.



Mantis Elite

Mantis Elite offers a wider, higher performance specification including high magnification, large field of view, long working distance and head tilt capability. Mantis Elite provides enhanced optical performance, making it a perfect alternative to traditional stereo microscopes for a wide range of inspection, preparation and manipulation tasks requiring hand-eye coordination.

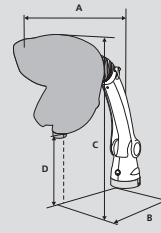


Mantis Macro

Mantis Macro offers a straight through in-line view of the subject, similar in operation to a bench magnifier, but with increased optical clarity and magnification. Mantis Macro offers a comparatively high magnification for an in-line viewer making it ideal for tasks which require exceptional hand-eye coordination and increased magnification.



Universal Stand



Mantis Compact

Dimensions:
A = 565mm - 775mm
B = 335mm - 545mm
C = 395mm - 605mm
D = 110mm - 320mm

Unpacked weight:
Head 2.1kg Stand 3.3kg

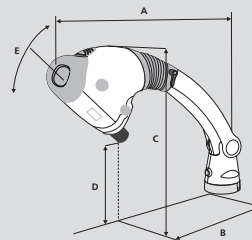
Packed weight:
Head 4.1kg Stand 4.6kg

Mantis Elite

Dimensions:
A = 593mm - 802mm
B = 352mm - 622mm
C = 415mm - 624mm
D = 103mm - 312mm

Unpacked weight:
Head 3.0kg Stand 3.3kg

Packed weight:
Head 5.0kg Stand 4.6kg



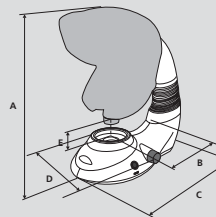
Mantis Macro

Dimensions:
A = 500mm - 700mm
B = 260mm - 450mm
C = 350mm - 570mm
D = 75mm - 300mm
E = 20° - 50°

Unpacked weight:
Head 2.6kg Stand 3.3kg

Packed weight:
Head 4.9kg Stand 4.6kg

Bench Stand



Mantis Compact

Dimensions:
A = 526mm - 641mm
B = 198mm
C = 487mm
D = 305mm
E = 123mm - 238mm

Unpacked weight:
Head 2.1kg Stand 4.5kg

Packed weight:
Head 4.1kg Stand 7.9kg

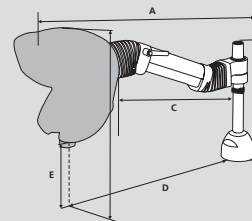
Mantis Elite

Dimensions:
A = 538mm - 653mm
B = 198mm
C = 487mm
D = 305mm
E = 122mm - 237mm

Unpacked weight:
Head 3.0kg Stand 4.5kg

Packed weight:
Head 5.0kg Stand 7.9kg

Articulated Arm



Mantis Compact

Dimensions:
A = 880mm
B = 430mm
C = 510mm
D = 650mm
E = 290mm

Unpacked weight:
Head 2.1kg Stand 11kg

Packed weight:
Head 4.1kg Stand 13.5kg

Mantis Elite

Dimensions:
A = 880mm
B = 430mm
C = 510mm
D = 650mm
E = 290mm

Unpacked weight:
Head 3.0kg Stand 11kg

Packed weight:
Head 5.0kg Stand 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 |

Mantis Macro

| Lighting Data | | |
|--|-----------|--------------------|
| Light intensity measured at subject plane with color correction filters. | | |
| 40 LEDs | 9,500 LUX | Up to 10,000 hours |



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...

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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