

Stereo Viewing Systems

for a wide range of dental inspection,
material rework and colour matching tasks

The Mantis family from Vision Engineering Ltd is a unique range of patented optical systems without eyepieces, for intricate tasks requiring superb quality viewing over long 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. The latest generation of Mantis incorporates the most modern advances in optical design, moulded plastics and LED illumination.

The Mantis family of stereo microscope includes the Mantis Compact with up to x8 magnification, the higher specification Mantis Elite with up to x20 magnification, and the Mantis Elite-Cam variant with factory- integrated camera.



Mantis Compact eyepieceless viewer with universal stand option



Dental Technology

Dental technology is an application area that increasingly favours the Mantis for inspecting the accuracy of what the natural eye perceives. There are many areas within dental technology that require magnification, including the inspection of dies, patterns, castings for fit and passivity of spans and porcelain for cracks, chips and surface finish. Finished crowns can also be checked under the Mantis where colour rendition is at an optimum with the true colour LED illumination.

In addition to being used for carrying out inspection tasks, Mantis is also used when modifying fine detail. A long working distance enables the operator to work comfortably under magnification. It is important in dental technology to make sure any modifications are carried out accurately in order to prevent loss of fit. Mantis provides ergonomic advantages, preventing eye fatigue and muscle strain, thus allowing the user to work comfortably for longer periods.

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.

- High value, low investment system, eyepieceless stereo viewer
- x2, x4, x6, and x8 magnification options (single quick change objectives)

Mantis Elite

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

- High value, high specification system, with superb optical performance
- x2 - x20 magnification options - turret allows fast switching between low magnification inspection and high magnification fine detail tasks

Mantis Elite-Cam

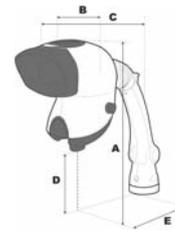
Mantis Elite-Cam is a variant of the successful Mantis Elite stereo microscope, with an internally integrated USB2.0 camera allowing effortless image capture.

- Image capture software allows for storage & reference
- Variety of image capture formats including: BMP, JPEG and PNG

Technical Specifications

Mantis Compact - Patented optical technology allows operators freedom of head movement for superb ergonomics and hand-eye co-ordination, with the ability to wear glasses if required. Operators can increase productivity and improve quality, at an affordable price. x2, x4, x6, and x8 magnification options.

- High value, low investment system
- x2, x4, x6 and x8 quick change objectives
- Bright white, true colour, LED illumination providing up to 10,000 hours of shadow-free viewing
- Flexible swing arm with small footprint



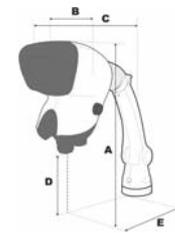
A = 395mm - 605mm
 B = 213mm
 C = 565mm - 775mm
 D = 90mm - 300mm
 E = 335mm - 545mm

Optical Data		
Objective Lenses	Working Distance	Field of View
x2	167mm	45.0mm
x4	96mm	27.5mm
x6	73mm	19.2mm
x8	58.5mm	14.3mm

Lighting Data		
Light intensity measured at subject plane with colour correction filters.		
20 LEDs	9,400 LUX	10,000 hours

Mantis Elite - Superb optical performance with magnification options up to x20, makes Mantis Elite a perfect alternative to more traditional stereo microscopes. Large fields of view and generous working distances allow for a wide range of inspection, preparation and manipulation tasks to be carried out, all with exceptional hand-eye co-ordination.

- High value, high specification 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
- Bright white, true colour, LED illumination providing up to 10,000 hours of shadow-free viewing



A = 415mm - 624mm
 B = 212mm
 C = 593mm - 802mm
 D = 83mm - 292mm
 E = 352mm - 622mm

Optical Data		
Objective Lenses	Working Distance	Field of View
x2	160mm	57.0mm
x4	96mm	34.0mm
x6	68mm	23.0mm
x6 SLWD*	112mm	20.0mm
x8	59mm	17.0mm
x10	54mm	13.5mm
x15	40mm	8.8mm
x20	29mm	6.5mm

Lighting Data		
Light intensity measured at subject plane with colour correction filters.		
24 LEDs	11,000 LUX	10,000 hours

* Cannot be used together with x2 or x20 objective lens

Mantis Elite-Cam - Mantis Elite-Cam comprises 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.

- Comprises of a Mantis Elite optical head, with factory integrated digital camera.
- Includes standard image capture software, advanced software options available
- Compatible with all Mantis Elite options & accessories



Elite-Cam includes
USB cable, 1 metre
Standard image capture software
Installation CD

† Please contact us for current specification

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