Stereo Microscope
Type: ACUSM

DESCRIPTION

Stereo, stereoscopic or dissecting microscope is an optical microscope variant designed for low magnification observation of a sample.

The instrument uses two separate optical paths with two objectives and eyepieces to provide slightly different viewing angles to the left and right eyes. This arrangement produces a three-dimensional visualization of the sample being examined.

The stereo microscope is often used to study the surfaces of solid specimens or to carry out close work such as dissection, microsurgery, watch-making, circuit board manufacture or inspection, and fracture surfaces and forensic engineering. They are thus widely used in manufacturing industry for manufacture, inspection and quality control. Stereo microscopes are essential tools in entomology. Designed for high-precision dissection and inspection of biological and geological specimens.

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TECHNICAL SPECIFICATION

Optical System & Design

- Greenough Stereoscopic with Achromatic optics
- Sturdy, lightweight metal base with a vertical pillar stand including a dioptric correction adjustment on the eyepiece tube.
- Built-in hand grip integrated into the stand design for safe handling and easy transport within the classroom or field
- Robust construction with high-quality optical glass components for long-term educational use

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Observation Head : Binocular

- Observation head inclined at Ergonomic 45° rotatable at 360°, inclined viewing tubes ensure comfortable observation during extended lab sessions
- Diopter adjustment ring on Right ocular tube (±5).
- Inter-pupillary distance from 48mm to 75mm to accommodate different users.

Eyepiece : Compensating type ensure a large, brilliant field of view

- Wide field 10X (paired).
- Optional: 15X & 20X

Objectives: dual-magnification objective system (Fixed Achromatic) providing crisp, high-contrast images.

Precisely designed long working distance objectives to allow for the manipulation of larger tools or specimens

- 1X , WD: 115mm, F.O.V.: 18mm
- 2X , WD: 90mm, F.O.V.: 9mm
- 3X , WD: 65mm, F.O.V.: 6mm
- 4X , WD: 45mm, F.O.V.: 4.5mm

Total Magnification Range (depending upon combination of optics) : 10X to 80X

Mechanical Stage

- Track stand with base & two stainless steel spring clips for secure positioning of samples & holding specimen.
- Base specimen plate size Φ65 mm. Glass, Milky & Includes a reversible black and white stage plate to enhance contrast for both light and dark-colored specimens.

Focusing : bilateral coarse focusing knobs with smooth rack and pinion movement for precise specimen alignment.

Illumination System : for clear and consistent visibility of the specimen surface

- Reflected and transmitted light systems with Halogen/ LED lamps.
- Regulated power supply for both lights with separate brightness controls.
- AA battery operation for portable/field use without requiring a direct AC outlet. (Optional)

Standard Accessories : Operating Manual, Dust Cover, Guarantee Card and Styrofoam Molded pack.

FEATURES

1. ***Stereo Microscopes*** *enable 3D viewing of specimens visible to the naked eye. They are commonly known as Low Power or Dissecting Microscopes. An estimated 99% of stereo applications employ less than 50x magnification. Use them for viewing insects, crystals, plant life, circuit boards etc.*

2. ***Dual Power Magnification:*** *Dual Power stereo microscopes provide two or more fixed levels of magnification at a more affordable price, without sacrificing optic quality. The two most common types are 10x/30x and 20x/40x. Simply rotate the objective housing to click into the desired level of magnification. Dual power are excellent starter microscopes.*

3. ***Zoom Magnification*** *enables you to zoom, conveniently through a magnification range, similar to binoculars or an SLR camera. Some have detents or click stops at intervals through the zoom range so that you can quickly return to a precise level of magnification in the zoom range.*

4. ***Focusing:*** *When viewing a solid or opaque object, only use the incident (top) light. Use the bottom (transmitted) light for more transparent specimens. Most stereo microscope applications require only the top light.*

5. ***Barlow Lens:*** *You can use an optional Barlow or Accessory Lens to alter the focal length of your microscope, and therefore, the magnification power, field of view and working distance. A 0.5x Barlow lens, for example will halve a given level of magnification while doubling the working distance.*