

#### DESCRIPTION

**S**tereomicroscopes are optical microscopes that give a three-dimensional (3-D) view of a sample and generally operate at low magnification. Stereo Zoom Microscope can provide crystal clear sharp images with high resolution and good depth within a broad field of view. Once brought in focus, image remains clear and sharp throughout the whole zoom range.



ACUCAL Stereo Zoom Microscopes are used in *Drosophila* research, Fly and zebra fish work, *C elegans* research work, Colony Morphology food science, marine biology, embryology, environmental science, and forensic science.

These microscopes are also utilized in various disciplines such as education (biology, chemistry, botany, geology, and zoology), medicine, and pathology. Stereomicroscopes are generally used in various industries like the semiconductor business, circuits, metallurgy, textiles, microsurgery, geology, and microelectronics and different enterprises that require assembly and assessment of miniature parts including the examination of circuit boards and microchips.

Stereomicroscopes are irreplaceable in countless numbers of applications ranging from the production business, quality control, and materials research to forensics, biotechnology, genetic sciences, food science, marine biology, embryology, environmental science, and almost all fields of biomedical research. The microscope is also used extensively in zoology, botany, entomology, histology, geology, mineralogy, and archaeology and dermatology tools of research and anatomy. It can also assist the palaeontologists during the procedure of cleaning and studying fossils.

### TECHNICAL SPECIFICATION

#### Optical System

- Greenough Upright Optical Stereoscopic System provide true stereo viewing, allowing for a three dimensional view of samples.
- Excellent optical quality with high resolution, contrast and color fidelity, to provide clear & accurate images.

#### Observation Head

- Binocular/Trinocular Observation head inclined at 45° rotatable at 360° and lockable in any desired position.
- In Trinocular Head : Vertical phototube for micro photography with built – in C-mount 0.55 x magnification lens. Light Distribution is 50:50% for simultaneous view on Microscope & Computer.
- Diopter adjustment ring on both ocular tube ( $\pm 5$ ).
- Inter-pupillary distance from 52mm to 76mm.

#### Eyepiece

- Focusable Compensating Lead Free Extra Wide field 10X (paired) / Field of view & Field number F.N. 20mm or 22mm with Diopter adjustment facility in both eyepieces, Rubber Eye shields/Guards, distortion- free, adjustable with exchangeable eyecup.
- Super Widefield Eyepiece outer mounting barrel diameter or Inner diameter of ocular sleeve (eyetube) 30mm .
- Having proper pupil aberration control and appropriate positioning in the eye point for comfortable observation. Anti-fungal & anti reflected coated.

ACUSZMPEP15X16	• Focusable Extra Wide field 15X (paired) F.O.V.16mm, Field Number 16 (Optional)
ACUSZMPEP20X12	• Focusable Extra Wide field 20X (paired) F.O.V.12mm, Field Number 12 (Optional)
ACUSZMPEP30X8	• Focusable Extra Wide field 30X (paired) F.O.V.8mm, Field Number 8 (Optional)
ACUSZMPMEP	• Micrometer Eyepiece, Magnification 10X, Least Count 0.1mm(Optional)

**Zooming Range & Ratio :** Continous Zoom  $0.7x \pm 0.1x$  to  $5.0x \pm 0.5x$  with Zoom ratio of 6.4:1

**Objective (Thread Mounting Screw Type):** Achromatic or PLAN Achromatic or PLAN Apochromatic Infinity-corrected, lead-free, Distortion- free

ACUSZMOBJ1XA	• Objective 1X (Inbuilt)
ACUSZMOBJ0.5X	• Objective 0.5X (Optional)
ACUSZMOBJ1.5X	• Objective 1.5X (Optional)
ACUSZMOBJ2X	• Objective 2X (Optional)

**Magnification Range :**  $7X \pm 1X$  to  $50X \pm 5X$  (Standard)

**Total Magnification :**  $3.5X \pm 0.5X$  to  $300X \pm 30X$  (Combination of Optics)

**Working Distance :** 100 mm for viewing and manipulation of samples without interchangeable optics.

**Resolution :** 170lp/mm

#### Mechanical Body

- Track stand with fan type big base, sturdy pillar with small footprint & Clip for holding specimen. Metal Pillar Stand Finished with Stain Resistant Enamel
- Base size is 285mm X 238mm X 40mm.
- Base specimen plate size  $\Phi 125$  mm (Glass & Black-White).
- Focusing through large knob on both sides with tension adjustment facility & Focus Stroke 50mm.

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#### Illumination System

- Incident and transmitted light systems with White LED lamps.
- Regulated power supply for both lights with separate brightness controls (Dimmer) membrane switch allowing Integrated, Independent or combined incident and transmitted light.
- Uniform and consistent illumination across the entire field of view.
- Incident/Reflected Light : 3.3/10 Watt LED 30° oblique illumination.
- LED Service Life : Approx 30000 hours
- Light Quality: Homogeneous daylight (6000-6500°K). Free of UV and IR emissions.
- Incident Light : Choice of 2 methods Max intensity with 5 LEDs & Top light with 03 LED's
- Rechargeable Battery (Optional).
- Additional Reflected /Incident Illumination through Ring Light and Double Gooseneck illumination system (Optional).

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**Electronics :** Universal Input 220± 20 volts, 50-60Hz, single phase AC supply.

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**Standard Accessories :** Operating Manual, Dust Vinyl Cover, Guarantee Card & Styrofoam Molded pack with outer cardboard box.

#### FEATURES

- High quality optical components, providing sharp Crisp Crystal Clear Original True Color erect image and striking contrast image and ensure flat image at big depth of field & High Resolution and excellent stereoscopic effect.
- Ease the tiredness with ergonomic design & Accurate Alignment Ensuring Fatigue-Free Comfortable Observation.
- Optics and accessories are made with Eco-friendly Lead & Arsenic Free material.
- With LED light for both incident and transmitted illumination, Providing even illumination .
- Tailored for industrial site inspection. Very Rugged, easy to use & simple to maintain.
- Anti-electrostatic for higher yields.
- With complete eyepieces, objectives and accessories it is an ideal instrument for industry assembling, inspection and teaching field.
- Highly durable made of made of High quality materials to withstand constant rough use and rough handling in a laboratory environment.
- Air Tight & Anti-mold Design to ensure protection from contamination while working in hot & humid environments.
- Once brought in focus, image remains clear and sharp throughout the whole zoom range.
- Erect Sharp Stereo Images over a Super Wide field of View.

#### OPTIONAL ACCESSORIES



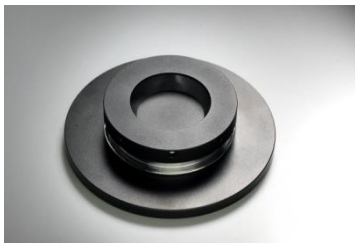
Fibre Optics Illumination  
LED or Halogen



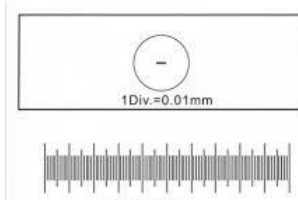
Ring Illuminator :  
LED or Fluorescent



Polarizer/Analyzer



Dark Field Attachment



Calibration Slide



Micrometer Eye Piece

- Eyepieces & Objectives



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