

**DESCRIPTION**

**S**tereomicroscopes are optical microscopes that give a three-dimensional (3-D) view of a sample based on two zoom systems, tilted by the stereo angle and generally operate at low magnification. The 3-D image allows solid surfaces to be examined with greater clarity and permits the precise manipulation of samples during magnification.



Stereomicroscopes are used in food science, marine biology, embryology, environmental science, and forensic science. In pharmaceutical and biotechnology labs, stereomicroscopes are commonly used for magnifying biological samples such as plant tissues and organ samples. Wider industry applications include microsurgery, geology, and microelectronics, including the examination of circuit boards and microchips.

**Boom Stand Stereozoom Microscope is a heavy-duty, highly-flexible microscope designed for industrial applications.** This model is especially popular in the Quality Check, repair and engraving industries thanks to its ease-of-use and reliability. With its wide zoom range and universal-stand, this model will become an indispensable instrument in any workshop or lab.

### TECHNICAL SPECIFICATION

#### Optical System

- Greenough Stereoscopic with 10° convergence angle provide true stereo viewing, image flatness & depth of focus allowing for a three dimensional view of samples with Plan Achromatic optics.
- Excellent optical quality with high resolution, contrast and color fidelity, to provide clear & accurate images.
- All Optical components are made of Lead-free materials.

#### Observation Head: Binocular/Trinocular

- Observation head inclined at 30° or 35° or 45° rotatable at 180° in bonder arm.
- Vertical phototube for micro photography. (In Trinocular Head only)
- Inter-pupillary distance from 52mm to 76mm.
- Diopter adjustment ring on ocular tube of both eyes, range (-8 to +5).
- Have replaceable eyecups & support operators with spectacles.

#### Digital Imaging: (Optional)

- This microscope comes with a live-view HDMI camera designed specifically for microscopy. It's designed for live-view & Image Capturing –Video Recording capabilities, making it ideal for Quality Check and repair industries where on-screen monitoring is a necessity, and recording is must. It offers 1080pixel live-viewing over HDMI with super-smooth 60fps frame-rate. The included USB mouse allows you to control the camera through its easy-to-use interface. SD Card Storage facility to store the captured images and view on PC.
- Digital Magnification : 110X
- One Digital camera with USB mouse, HDMI Cable ,USB power cable and adapter

#### Eyepiece

- Focusable Compensating Lead Free Wide field 10X (paired) / F.N. 20/22/23/24mm, Rubber Eye shields/Guards, distortion- free, adjustable with exchangeable eyecup.
- Having proper pupil aberration control and appropriate positioning in the eye point for comfortable observation.
- Wide Field Eyepiece Pair 15X, 16X, 20X, 25X, 30X (Optional)

#### Objectives : (Thread Mounting Screw Type), Distortion- free

• Inbuilt Objective 1X, Resolution 225 lp/mm– 2.5 μm.
• Objective 0.5X, Working Distance 165mm-220mm (Optional)
• Objective 0.75X, Working Distance 117mm (Optional)
• Objective 1.5X, Working Distance 55-65mm (Optional)
• Objective 2X, Working Distance 30mm-45mm, Resolution 400lp/mm– 1.25 μm (Optional)

**Zoom Range (Optics) & Ratio :** Continuous or Click Stop Zoom  $0.7x \pm 0.1x$  to  $5.0x \pm 1.5x$  with Zoom ratio of 6.4 to 10:1 & high/low magnification stopper.

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**Magnification Range :**

- Optical Magnification:  $7X \pm 1X$  to  $50X \pm 15X$  (Standard)
- Total Optical Magnification :  $3.5X \pm 0.5X$  to  $300X \pm 90X$  (Combination of Optics)

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**Working Distance :** Long working distance of 100-120 mm for viewing and manipulation of samples without interchangeable optics.

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**Field of View (Depending Upon the Magnification Chosen) :** Possibility of 36 mm at lowest magnification to 4.9 mm at highest magnification .(Without Front Optics)

- Maximum 60mm (Combination of Optics)

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**Mechanical Body (Stand)**

- **The multi-pivoting, Double-arm boom stand OR Single-arm stand with swing arm provides a stable, flexible support system**, ideal for hands-on work. Allows movement along 3 Axis X-Y and Z. Use of a drop-down column allows the head to be positioned at virtually any angle. Ball-bearings provide smooth movement of the lateral arms, which can easily pivot the microscope out of the way when it is not needed. The heavy, steel base ensures the stability of the microscope, even when laden with attachments.
- Horizontal arm with ball bearings for smooth positioning, with locking ring, grease free run, adjustable stop for repeatable positioning, mountable focusing arm.
- Zoom body have  $180^\circ$  rotation Mechanism in stand bonder arm and  $90^\circ$  tilt in vertical direction.
  - Universal stand with Sturdy base and dual swivel feature.  
Swivel Range:
    - a)  $180^\circ$  swivel mechanism for bonder arm independent of horizontal arm
    - b)  $360^\circ$  swivel mechanism for horizontal arm around vertical column
  - Dimensions:
    - Total length of horizontal arm & bonder arm 650mm or Customized
    - Horizontal arm adjustment range 200-400mm
    - Vertical column/pillar: maximum 500mm or Customized
    - Vertical column/pillar diameter : 32 mm or Customized
    - Vertical height adjustment range 150-400mm
    - Base Dimensions 300mm X 250mm X 40 mm or Customized
    - Base Weight Minimum 15kg or Customized
    - Focusing through large knob on both sides with tension adjustment facility.
    - Focus adjustment stroke Minimum 50 mm
    - Provision to connect the ground lead wire to the stand base

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**Storage Ambient Conditions**

- Permissible Ambient Temperature :  $25^\circ \pm 15^\circ\text{C}$
- Permissible Humidity: Max. 75 % to  $+35^\circ\text{C}$  (without condensation)



- Highly durable made of made of High quality materials to withstand constant rough use and rough handling in a laboratory environment.
- The columns are rust-resistant, constructed from steel with chrome plating or stainless steel and have a smooth finish. All other metal components shall have appropriate coating or finish for protection against corrosion.
- Anti-mold Design to ensure protection from contamination while working in hot & humid environments

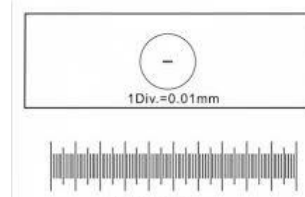
#### OPTIONAL ACCESSORIES



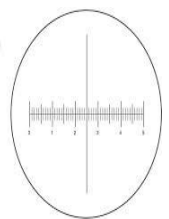
Fibre Optics  
Illumination Halogen



X- Y Movement Stage



Calibration Slide

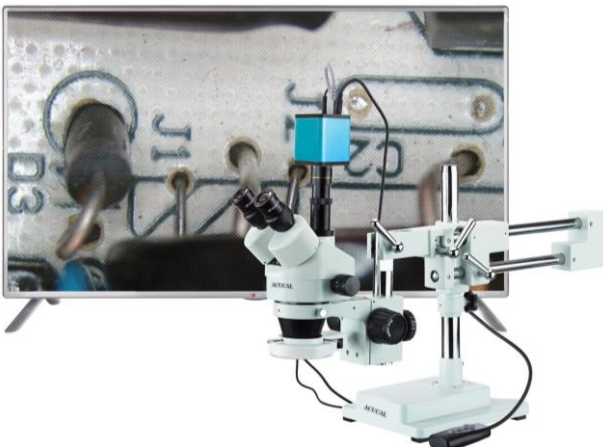


Micrometer Eye Piece

#### OPTIONAL ADDITIONAL OPTICS

- Eyepieces : WF 15X/Ø16 , WF 20X/Ø12 & WF30X/ Ø8
- Plan Auxiliary Objectives: 0.3X, 0.5X , 0.75X & 2X

#### AVAILABLE OPTIONS



**DUAL ARM BOOM STAND WITH  
DIGITAL IMAGING SYSTEM**



**SINGLE ARM BOOM STAND WITH  
DIGITAL IMAGING SYSTEM**