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Comparison Microscope

Model S-35000-5MP





I Features and Applications:

Comparison microscope through optic amplification, observing images of left and right view field simultaneously, cutting and overlapping view field, macroscopically or microscopically compare two or more objects. Due to its sharp image and high resolution, minimal differences can be identified.

S-35000-5MP comparison microscope is a new product developed based on our years' experiences and adopting domestic and foreign essences. This product successfully solves the problem of width line's width and its identical adjusting (the technology of which tops national technology secreting program.), and so makes the main technology features of comparison microscope tops International advanced grade.

This model is an ideal instrument for police stations, procuratorial organs and courthouses to identify fingerprints, shot marks, tool traces, seals and writings, and for colleges and universities to use for educational purposes as well. It is also suitable for banks, archeological studies, electronics researches, biological science and agriculture.

II Specifications:

× Optic magnification range	2.5X-120X			
× Eyepiece	WF10X / Ф22mm , WF20X / Ф14mm			
X Objective:	0.8X 1X 2X 3X 4.8X			
X Objective view field diameter	Φ 2.5mm \sim Φ 70mm			
× Working distance	100mm			
※ Objective stage	dimension: 100mm			
	Moving range: X/51mm Y/51mm Z/54mm			
X Objective stage horizontal linkage range	51mm			
X Coarse moving range	51mm			
* New semiconductor light source illumination (brightness adjustable)				
X Illumination	Light Source A: Variable Intensity 12V 50W Halogen Light Source in Box Enclosure; Light Source B: Variable Intensity Fiber Optic Light Source provides Incredible Illumination with Two Separate 24V 150W			
× Power Supply	110V AC input, 24V DC stable voltage output, accords with International safe standard.			

III Ma	ain Tec	hnology	Parameters:
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total eve piece magnification		Visual Observing		Video Recording	Photographing			
objective view field (mm) objectives		10X/Ф22	20X/Ф12	Interface enlarges 0.57X	Interface enlarges 0.44X	Working Distance		
0.8X		10X/Ф28.6	19X/Ф15.6					
1.0X	Bridge	12X/Ф18.3	24X/Ф10					
2.0X	Body	24X/Ф11.5	48X/Ф6.25	Practical	Practical	100mm		
3.0X	1.2X	36X/Ф7.3	72X/Ф4	determination	determination			
4.8X		58X/Ф4.6	115X/Ф2.5					
When 0.4X(auxiliary objectives) group works with 0.8X objectives and 10X objectives, the total								

magnification turns to 4 X, visual observing view field closes to Φ 70mm.



Figure I

- 1 Binocular Head
- 2 Eyepiece
- 3 Video Head
- 4 Camera
- 5 Level
- 6 Width Line Adjusting Knob
- 7 Bridge Body
- 8 Adjusting Knob
- 9 Magnification Changing Knob
- 10 Working Table Lifting Knob
- 11 Base
- 12 Working Table Vertical, Horizontal Knob

- 13 Strong Light Source Adjusting Knob
- 14 Light Source Adjusting Knob
- 15 Switch
- 16 Coarse Adjusting Focus Knob
- 17 Horizontal Linkage Knob
- 18 Horizontal Working Table
- 19 Rotating, Tilting Working Table
- 20 Cold Light Source Optic Fiber
- 21 Cold Light Source Lens
- 22 Pedestal Bearing
- 23 50W Strong Light Source
- 24 locking screw
- 25 separation line window
- 26 locking screw
- 27polarized light device
- 28 0.4X. objective
- 29 bullet holder
- 30 transmission illuminator
- 31 magnification reticle
- 32 camera tube
- 33 coaxial light
- 34 and bear in Central
- 35 wave filter base

IV Product Details:

1. Head - Comparison Bridge

- 30° Inclined Trinocular Head with Two Photo/Video Ports. One port for still photography (use trinocular lever to divert light). One port for live video (always has light going to this port).
- Adjusts to the Distance Between your Eyes: 55 to 75mm Interpupillary Distance.
- Diopter Adjustment on Both Oculars to Correct for Your Specific Vision Needs.
- Adjustment screws on comparison bridge for adjusting the separation line width and separation line shape (if thicker on one end) on the split image view.

2. Eyepieces and Magnification

- Large Range of Magnifications from 4x up to 115x.
- Two Eyepiece Sets Included: 10x and 20x.
- Five Built-In Objectives on Rotary Selector Switchs: 0.8x, 1x, 2x, 3x, and 4.8x.
- Microscope Bridge Body Adds to Magnification by Factor of 1.2x.
- 10x Eyepiece Set Magnifications: 10x, 12x, 24x, 36x, 58x.
- 20x Eyepiece Set Magnifications: 19x, 24x, 48x, 72x, 115x.
- Install the Included 0.4x Bottom Screw-On Reduction Lens to Decrease Magnification! Use this Lens to Obtain Another Set of Magnifications for Each Eyepiece Set.
- Lowest Possible Magnification: Use the 10x Eyepiece and Bottom Reduction Lens: (0.8x Objective) (10x Eyepiece) (1.2 Bridge Factor) (0.4x Bottom Lens) = 3.8x Final Magnification. (Note: working distance will be long so some specimens with much height may not be focusable)
- Largest Possible Magnification: Use the 20x Eyepiece and Largest Power Objective: (4.8x Objective) (20x Eyepiece) (1.2 Bridge Factor) = 115x Final Magnification.
- Working Distance Approximately 105mm. Bottom lens 0.4x increases working distance.

3. Illumination

- Includes Two Illumination Methods.
- Light Source A: Variable Intensity 12V 50W Halogen Light Source in Box Enclosure. One halogen light mounted to each side, with a segmented arm position light.

- Light source has filter holder for accepting the included polarizing filters or colored filters.
- Light Source B: Variable Intensity Fiber Optic Light Source provides Incredible Illumination with Two Separate 12V 50W (100W total illumination power) lamps in the base light housing.
- Fiber Optic Cables come from base light housing and provide a Cool illumination on the mounting stage.
- Coaxial Illumination Feature: For illumination of the inside of a shell cartridge, inside of a hole, and some smooth surfaces, the coaxial illumination attachment is best. These attachments screw to the bottom of the objective lens and have openings for the fiber optic tips. The mirror the light downward, parallel to the optical light path.
- Transmitted Light Feature: Includes a stage attachment to provide light from the bottom, transmitting through the specimen. Useful for examining paper items, film negatives, money currency, postage stamps, fingerprints, etc. Use the side mounted box light source to shine on the transmitted light attachment's mirror to direct light under the specimen.

4. Stage Specifications

- Two Fully Rotatable Mechanical X-Y-Z Movable Stages, 65mm Diameter with Graduation Marks every 2for the Full 360°.
- X-Y Stage Movement Knobs Range of Movement: 51mm (X-Direction) x 51mm (Y-Direction) x 54mm (Z-Direction).
- Rack and Pinion Steel Gears with Knobs for Both X and Y Movements.
- Ball Socketed Inclinable Stages: Ball Socket Mounted Stages Provides Capability to Incline.
- Vice Type Mechanical Holder Attachments: Great for Holding Objects of Various Diameters, such as Bullets, Coins, and Industrial/Engineering Materials. Object can be Rotated as well as Inclined for Ease of Examining the Surfaces. Sits Directly on Stage. Two Included, One for Each Stage.

5. Filters - Light Collectors

- Side light sources have built-in filter holders.
- Color Filters Included: Red and Green.
- Polarizing Lens Filters: Polarized lens for mounting in the side lights with a corresponding polarized filter (called the analyzer) that mounts under the objective lens. This gives ability for doing cross polarization and is effective in increasing visual contrast on bright, shiny specimens, making it easier to see scratches and markings.

6. Focusing

- Focusing Knobs on Both Sides of Microscope.
- Stage Bridge Frame Focusing Knob Moves Both Stages Up/Down Simultaneously.
- Stage Bridge Frame Also has Coaxial Knob for Moving Both Stages Left/Right Simultaneously.
- Focusing Adjustment Travel Range for Bridge: 53mm. (Stage Bridge Frame Movement Distance Up/Down).
- Focusing Adjustment Travel Range for Stage: 53mm. (Individual Stage Movement Distance Up/Down).

7. Video Port and Camera Details

- High Resolution 5.0 MegaPixel Digital Camera System.
- Complete Digital Microscopy Solution Included.
- Capture high resolution digital microscope images, 2592 x 1944 pixels.
- View and record full motion live video microscope images. Frame rate: 30fps@2592 x 1944
- Computer connected digital microscope camera connects via USB2.0. Includes USB cable and MS Windows software.
- Includes measuring capability with the software.