

**Z850 Zoom  
Stereo Microscope Series**



# UNITRON® Z850

## High Performance Optics, Unsurpassed Ergonomics,

The Z850 Series is a versatile, high performance, ergonomically designed zoom stereo microscope ruggedly built to withstand years of heavy usage. With a zoom ratio of 6.3:1 the Z850 provides superior optical performance at an affordable price. Key features include:

- Binocular or trinocular viewing heads are inclined 45° and can rotate 360°.
- A best-in-class 8x to 50x magnification range with click-stops at 1x, 2x, 3x, 4x and 5x to ensure quick and consistent measurement results.
- 115mm working distance allows easy access to specimens.
- WF10x/22mm and WF15x/15mm field of view eyepieces with built-in diopter adjuster allow the image and reticle to be brought into focus at the same time. WF20x/12mm eyepieces with built-in diopter adjuster are also available, but without a reticle holder.
- Utilizing advanced design techniques the Z850's assembly is airtight preventing contamination from dust, water, oil or other particles leading to cost savings in maintenance.
- Z850 stereo bodies are made of anti-electrostatic materials allowing the microscope to discharge static electricity build-up almost instantly.
- An anti-mold design, in addition to being air tight, allows the Z850 to be used in areas of high heat and humidity without concern.



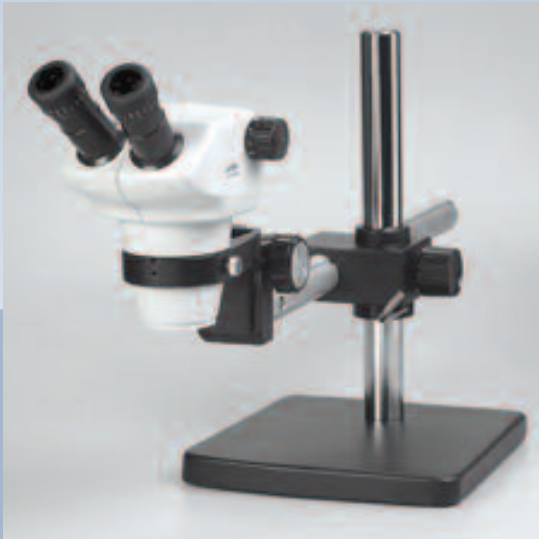
### Plain Focusing Stand Cat# 13130-Trinocular

The Plain Focusing Stand's thin design helps keep sample positions low resulting in increased user comfort. The focus mount is easily removable and can be positioned at two different points on the dovetail to offer maximum flexibility when working with small or large size samples. The trinocular Z850 is pictured with an optional Micrometrics™ CCD camera and c- mount adapter.



### LED Illuminator Stand Cat# 13101-Binocular

Simultaneous variable reflected and transmitted LED illumination can be utilized on this stand. The compact, thin design of the base allows users to keep sample positions low and maintains easy accessibility to the variable light controls. The reflected LED illuminator is powered by a 12 volt 2 watt LED system and the transmitted LED illuminator by a 12 volt 4 watt LED system. Both light sources are variable and controlled by a universal power supply (110v – 240v).



### Boom Stand / Cat# 13105-Binocular

A variety of stands are available for the inspection of large size specimens. The boom stand features safety tracks on the horizontal arm and Delrin® inserts in the focus block to ensure smooth, precise movements.



### Ball Bearing Boom Stand Cat# 13136-Trinocular

For users seeking precise, stable movements the ball bearing boom stand is the recommended choice. Sturdy and ruggedly built the ball bearing boom stand is ideal for observation applications where magnification adjustment and the ability to move across a sample are important considerations. The trinocular Z850 is pictured with an optional Micrometrics™ CCD camera and c- mount adapter.



### Articulating Swing Arm Stand Cat# 13107-Binocular

Designed for maximum freedom and flexibility this stand will deliver the adjustability you need. Ideal for the inspection of specimens that require a lot of movement or to scan a large sample area, the articulating arm can be easily adjusted into hard to reach positions and moved easily out of the way.



### Diascopic/Embryo Transfer Stand Cat# 13103-Binocular

This cost-effective transmitted illumination stand provides bright, even illumination across the entire magnification range. A tiltable mirror provides direct and oblique illumination for low contrast specimens. This unit can be configured with either a 6v20w halogen illuminator or 150 watt fiber optic illuminator.

# UNITRON® Z850

## Z850 SPECIFICATIONS

### VIEWING BODY

|  |  |
|--|--|
| <b>Optical System</b>                      | Twin zooming objective   |
| <b>Viewing Bodies</b>                      | Binocular or Trinocular with 50/50 light split   |
| <b>ESD Protection</b>                      | Viewing body is made from anti-electrostatic materials   |
| <b>Anti-Mold</b>                           | Anti-mold and airtight design  |
| <b>Magnification</b>                       | 0.8x to 5.0x with click stops at 1x, 2x, 3x, 4x and 5x   |
| <b>Zoom Ratio</b>                          | 6.3:1  |
| <b>Working Distance</b>                    | 115mm (4.5 inches)   |
| <b>Viewing Angle</b>                       | 45 degrees   |
| <b>Interpupillary Distance Adjustment</b>  | 52mm - 75mm  |
| <b>Camera Adaptability</b>                 | 0.4x or 0.5x c-mount adapters, photo tube  |
| <b>Eyepieces (with diopter adjustment)</b> | WF10x/22mm with reticle holder (reticle size: 27mm), WF15x/16mm with reticle holder (reticle size: 20mm), WF20x/12.5mm |
| <b>Auxiliary Objectives</b>                | 0.5x (211mm working distance) and 2.0x (43.5mm working distance)   |

### STANDS

|   |   |
|---|---|
| <b>Plain Focusing Stand</b>                                     | 76mm focus mount diameter, 100mm focusing stroke, 240mm (l) x 290mm (d) x 318mm (h), 125mm black & white plate  |
| <b>LED Reflected/ Transmitted Illuminated Stand</b>             | 76mm focus mount diameter, 100mm focusing stroke, 240mm (l) x 292mm (d) x 318mm (h), 100mm clear glass and black & white plate. Variable Transmitted & Reflected LED illumination. Average LED life expectancy - 7,000 hours, Color temperature: 6200° - 7000° Kelvin |
| <b>Diascopic Stand with Transmitted Illumination Attachment</b> | 76mm focus mount diameter, 100mm focusing stroke, 255mm (l) x 310mm (d) x 382mm (h), 280 mm clear glass plate. Tilttable mirror provides direct and oblique illumination. Choice of 6v20w halogen or 150w fiber optic illuminators                                    |
| <b>Pole Stand</b>   | 76mm focus mount diameter, 305mm pole height, 193mm focusing stroke, 240mm (l) x 290mm (d) x 318mm (h), 125mm black & white plate   |
| <b>Boom Stand</b>   | Base dimensions: 254mm x 254mm (10" x 10"), Vertical Post - 365mm, Horizontal Post - 518mm. Physical weight 37 lbs.   |
| <b>Ball Bearing Boom Stand</b>                                  | Base dimensions: 254mm x 254mm (10" x 10"), Vertical Post - 394mm, Horizontal Post - 585mm. Physical weight 42 lbs.   |
| <b>FlexArm/Swing Arm Stand</b>                                  | The Swinging Arm has a 3 foot scanable range and a lockable 14.5" vertical motion range with an adjustable counterbalanced support. Horizontal or vertical clamp mount  |

### OPTIONAL ACCESSORIES

|                              |   |
|------------------------------|---|
| <b>Light Sources</b>         | LED ring & fluorescent ring lights, Fiber Optic illuminators    |
| <b>Digital Camera System</b> | Micrometrics® CCD and CMOS cameras with image analysis software |

### OPTICAL DATA

| Auxiliary Objective | Working Distance (mm) | EYEPIECE            |                   |                     |                   |                     |                   |
|---------------------|-----------------------|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|
|                     |                       | WF10X/22            |                   | WF15X/16            |                   | WF20X/12.5          |                   |
|                     |                       | Total magnification | Visual Field (mm) | Total magnification | Visual Field (mm) | Total magnification | Visual Field (mm) |
|                     | 115                   | 8-50X               | 27.5-4.4          | 12-75X              | 20.0-3.2          | 16-100X             | 15.6-2.5          |
| 0.5X                | 211                   | 4-25X               | 55.0-8.8          | 6-37.5X             | 40.0-6.4          | 8-50X               | 31.2-5.0          |
| 2X                  | 43.5                  | 16-100X             | 13.8-2.2          | 24-150X             | 10.0-1.6          | 32-200X             | 7.8-1.3           |

## UNITRON®

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