

Stereo & Industrial Microscopes

Also referred to as a dissection microscope, stereo microscopes are used for the 3d viewing of large objects such as rocks, fossils and electronic parts. Stereo microscopes produce an erect image composed of two separate optical paths, with each eye receives a slightly different image which is then processed by the brain to give the perception similar to what one would experience with normal eyesight.

A stereo microscope has a lower magnification (7X to 80X magnification) than a compound microscope (400X/1000X). However, the large field depth means more of the specimen in focus in 3D.

Step or Zoom Magnification:

There are two options for magnification on stereo microscopes: step magnification (pre-set increments) or zoom magnification (continuously magnify throughout the specified range).

Tri-Illumination System:

Top light: incident light (round or square shaped housing) is diagonally adjustable so that light shines directly onto the stage plate. Incident lighting is used for opaque specimens.

Bottom light: transmitted light is used for translucent specimens.

Lighting can be used individually or simultaneously for best results.

LED:

- Cool light source with long life
- Choose a light cluster of mini LEDs (light panel) for bright soft and even lighting

Supplementary Lenses with Diffraction Rating (simply screw them to the objective front lens mount):

- With power factors below 1 enlarge the field of view (reduce magnification) and achieve longer working distance
- With power factors above 1 increase the magnification to see finer details (smaller field of view, shorter working distance)

Eyepieces:

- Zoom stereo eyepieces can be focused to allow the compensation of the observer's visual defects
- High eye point eyepieces available for use with eyeglasses

- Eyepiece micrometers are available for measuring, counting or comparing. Look for them in accessories or related products for corresponding models

Industrial Stereo Microscopes:

For applications where industrial stereo microscopes are required, a base, arm stand and an illuminator will need to be selected. Take into consideration which of each will better suit your needs. There are several different types of each. Here are some of the choices for Arms & Stands:

A. Articulating Arm

- Hinged, spring-mounted arm promises versatility and provides ample space for the desired positioning over the bench top, saving valuable work space
- Industrial clamp stand with an adjustable counter-balanced arm, allows for easy, hand guided, and up-and-down movement
- Each movement is individually adjusted and precisely positioned. The microscope can briefly be brought into place and returned again without difficulty. It is designed to allow for maximum freedom of movement
- Microscope can be secured at any given height without affecting the sharpness and clarity of focus
- Includes a focusing arm peg mount. A tension screw secures the peg and can be adjusted around the vertical axis
- Ideal for observation of specimens that require a great deal of movement, or to cover a large sample working area



Articulating Arm Clamp Stand (VMI-IS5, VMI-IS7)

B. Single Arm Boom Stand

- The boom stand features safety tracks on the horizontal arm, and Delrin inserts in the focus block, to ensure smooth and precise movements
- The horizontal pole includes a focusing arm ($\frac{5}{8}$ peg bonder mount)
- Solid cross block, and brass inserts improve movement
- A friction collar secures the peg and allows the microscope to rotate around a vertical axis
- Perfect for routine inspection of large samples not requiring constant horizontal movement of the microscope

- Large and stable industrial stand is beneficial for covering wide, horizontal & vertical viewing areas
- Perfect for observation of large specimens. Rotating, swivelling, and tilting functionalities are sure to meet your specific viewing requirements



Single Arm Boom Stand (VMI-IS6N)

C. Double Arm Ball-Bearing Boom Stand

- Ball-bearings support the dual shaft horizontal arm, which allows the stand to glide back and forth effortlessly; enhancing freedom of movement
- Microscope can be positioned to various directions as needed
- Recommended choice for users seeking precise and stable movements
- Perfect for observation of large specimens. Rotating, swivelling, and tilting functionalities are sure to meet your specific viewing requirements
- Ideal for assembly or re-work



Double Arm Ball-Bearing Boom Stand (VMI-IS8N)

Industrial Bases



VMI-IS-B3-A1 Base



VMI-IS-B5 Base



VMI-IS-QZC Base



VMI-IS9T Base

Illuminators:

With Stereo Imaging, the correct illuminator is vital for proper investigation and inspection of specimens. Cool running illumination, such as LED, is the ideal choice as heat can cause irreversible damage, altering the specimen's appearance or structure.

Based on what type of application you will be using your Industrial Stereo Microscope for, choose between a variety of LED Ring Lights, Fluorescent Ring Lights and Fiber Optic Lights. Choose between gooseneck, spotlight or ring designs.