



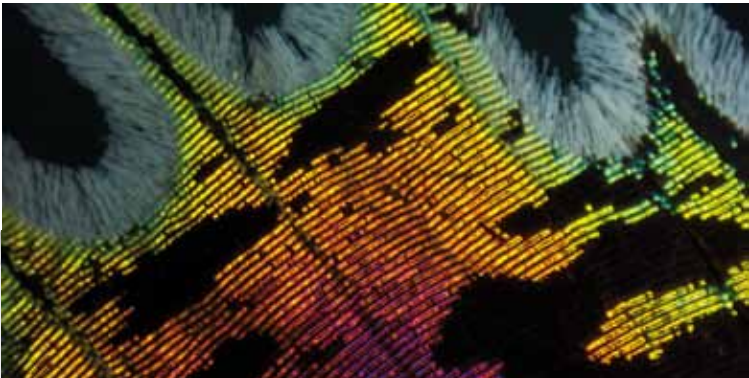
Motic[®]

MORE THAN MICROSCOPY

SMZ168

**Versatile
Stereo Microscope
Solution**





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Versatile Stereo Microscope Solution

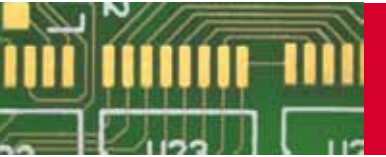


The **SMZ168** Stereo Zoom microscope represents the **top-of-the-line** model in Motic's successful SMZ Series of stereo microscopes. From industrial quality control to biological preparation work, the SMZ168 is a durable workhorse model ready for a variety of applications.

Its **Greenough optical system** comes with a large **zoom range of 6.7:1, parfocal at all magnifications**. An impressive 3-dimensional upright image, combined with an industry leading **working distance of 113mm** in its standard configuration, allows easy manipulation of the sample.

The SMZ168 can convert easily into a complete documentation station by combining it with a member of the Moticam camera series.





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Zoom range

The standard configuration of a 6.7:1 zoom ratio enables a total magnification of 7.5X-50X. The complete optical system is designed for **parfocality through the complete zoom range**. To increase the model's magnification range there is a selection of **auxiliary objectives and eyepieces available**.

Auxiliary objectives

The **standard configuration** of the SMZ168 has a **working distance of 113mm**. Higher magnifications can be achieved by using the following auxiliary objectives:

Magnification	W.D. (mm)	Max. Field diameter (with 10X eyepiece)
1.5X	50	20.4
2.0X	34	15.3

To get a larger overview the customer may choose between the following options:

Magnification	W.D. (mm)	Max. Field diameter (with 10X eyepiece)
0.3X	324	102.2
0.5X	192	61.3
0.63X	156	48.7
0.75X	127	40.9

Eyepieces

The SMZ168's **standard Widefield 10X/23mm** eyepieces come with rubber eye guards to minimize stray light. Spectacle wearers will also appreciate the **dioptric adjustment of +/- 5 dpt** on each eyepiece tube.

Alternative magnifications:

Description	F.N.
Widefield WF 5X	23
Widefield WF 6.25X	23
Widefield WF 15X	17
Widefield WF 20X	13
Widefield WF 30X	8
Widefield WF 32X	8



3-D Image

Motic's SMZ168 is based on the Greenough Optical System. With separated optical paths for both eyes, SMZ168 delivers **impressive images**, distortion-free, with an uncompromised **high resolving power (220 lp/mm in standard configuration)**.

Working distance

The SMZ-168 provides a large **working distance of 113 mm**, which can be easily **extended to 324 mm** (with auxiliary objective 0.3X). Objective magnifications lower than 1X may be compensated by using high magnification eyepieces (up to 32X).



Standard packages

The standard packages of Motic's SMZ168 come as **Binocular** or **Trinocular** versions with **35° viewing angle**, 10X eyepieces and standard 1X objective. Both standard zoom bodies can be combined with a **Plain stand** (without illumination) or with a **Transmitted light stand**.

Description	SMZ-168-BP	SMZ-168-BL	SMZ-168-BLED	SMZ-168-TP	SMZ-168-TL	SMZ-168-TLED
Binocular Zoom Body	●	●	●			
Trinocular Zoom Body				●	●	●
Head holder/focusing drive with incident light halogen 12V/10W		●			●	
Head holder/focusing drive with incident light LED			●			●
Head holder/focusing drive without incident light	●			●		
Plain Stand	●			●		
Stand with transmitted light halogen 12V/10W		●			●	
Stand with transmitted light LED			●			●

Modularity

Besides standard packages, the SMZ168 also offers a **modular component system**. Stands, optical setup with objectives/eyepieces and further accessories can be combined to freely build to the end-users application requirements. The standard stands can be replaced by one of the following stand options:



Articulated boom stand, clamp version

Universal stand, round base

Ball bearing boom stand, square base

Illumination

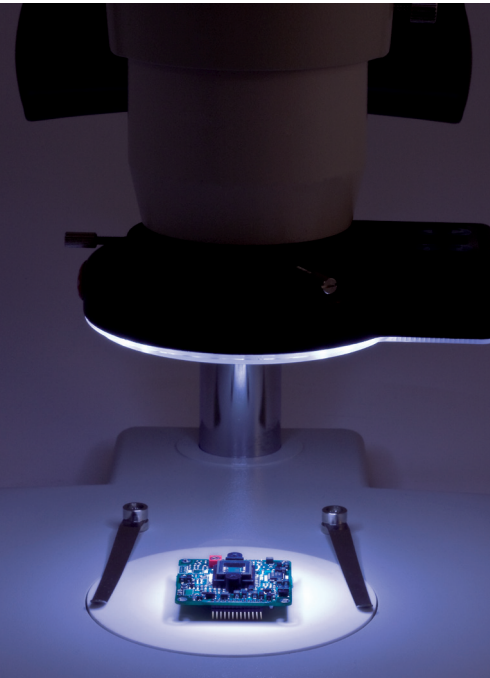
Illumination is one of the most critical elements for the proper use of a stereo microscope. The **built-in illumination of the basic stands** provide the **most compact** options. For more demanding samples, a more powerful solution may be required.

The available ring lights are:

LED ring illumination 60T-B dimmable, 6800K color temperature (CE)

LED ring illumination 60T dimmable and segmentable, 6500K color temperature (CE)

A **more powerful solution** is provided by the **Motic Cold light source MLC-150**.



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Documentation

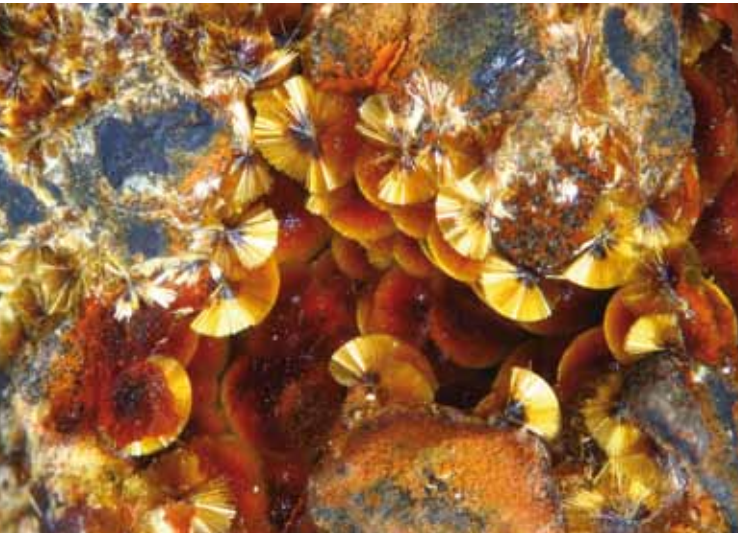
Accurate image documentation is becoming an industry standard, and is an important part in the makeup of the SMZ168

Standard Photomicrography

The adaptation of a traditional single lens reflex camera (SLR), today mostly digital, requires a Trinocular version of the SMZ168. This setup delivers **high resolution images of small fields**.

Digital Documentation

A more convenient setup is provided through **Motic's philosophy of easy image digitalization**. The combination of a SMZ168 with a member of the Moticam Series of digital cameras delivers **excellent live images**. All **Motic cameras come equipped with software** to transform the SMZ168 into an analysis and documentation workstation. The Trinocular SMZ168 allows the use of **different camera adapters**, depending on the **chip size** of the camera in use.



General Specifications

- Greenough Optical System
- Achromatic optics with anti-fungus treatment
- Widefield binocular/trinocular 35° observation tube (light distribution 0:100 left eyetube/trinotube in photo position)
- Widefield high eyepoint eyepieces, WF 10X/23 with diopter adjustment on both eyepiece tubes +/- 5dpt
- Interpupillary distance 52-75mm
- Zoom 6.7:1; 5 clickstops
- 7.5X-50X Standard magnification
- Working distance 113mm

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