



AVEN



## Microscope Selection Guide

A step-by-step guide to creating your customized  
stereo-zoom microscope setup

# Let's Get Started

## Binocular Microscopes

Binocular microscopes are an excellent choice for high-volume inspection stations, parts and quality inspections, medical or scientific research, and most applications requiring high quality 3D images. All images are viewed through eyepieces for optimum, field of view, depth of field, clarity, and color. You cannot capture images using binocular microscopes.



## Trinocular Microscopes

Trinocular microscopes come have all the advantages of a binocular scope, as well as a trinocular port for attaching a camera. These scopes are ideal for operators who need both the depth of field provided by traditional eyepieces, and the option of capturing a 2D image for further study.



## Inspection Cameras

(Trinocular Microscopes Only)

By attaching an inspection camera onto the port of your trinocular microscope, you can view your inspection on a monitor and digitally save images. USB models connect to your computer and require software for image capture, measurement and annotation. HDMI cameras connect directly to an HD monitor and save images to a SD card or USB flash drive. Advanced HDMI cameras have integrated imaging/measurement software.



## Microscope Stands

**Pole stands** require a basic focus mount. They are not tiltable but can be adjusted vertically.



**Arm stands** require a tiltable arbor or E-arm focus mount, and can be adjusted horizontally and vertically.



## Illumination

Next, think about illumination. LED ringlights are ideal for lower range magnifications, while Fiberoptic Illuminators (FOI) provide more intensity and focus of light, and work well with high-range magnifications. Fiberoptic illuminators also save a significant amount of energy, making them better for both the environment and your budget.



**Articulating arm stands** require a tiltable arbor or E-arm focus mount, and can be adjusted horizontally and vertically. These stands can swivel 360\* and provide operators with the greatest range of working space.





Stereo Zoom

# Microscopes

## The AVEN Advantage

### Straight Light Path

Single light path with one bend prevents image distortion

### Greaseless Nylon Gears

Industrial strength gears with tight tolerances

### Custom Made Prisms

Prisms custom designed to fit precisely, eliminating gaps for dust and contamination







### Unibody Construction

Assures constant prism alignment

### Single Gear Objective Lens Movement

Keeps the objective lenses aligned for the life of the microscope



Model #	Description	Magnification	Working Distance
SPZ-50 	Best in class magnification range and working distance	6.7x-50x (3.35x-200x with optional lenses)	41mm-240mm
SPZH-50 	Ideal for any inspection application requiring high magnification	21x-135x (180x with optional lenses)	84mm
DSV-44 	Versatile body with large magnification range and working distance	2.5x-140x (45mm-150mm with optional lenses)	45mm-150mm
SPZV-50 	Best in class magnification range and working distance	6.7x-50x (3.35x-200x with optional lenses)	41mm-240mm
SPZHT-50 	Ideal for any inspection application requiring high magnification	21x-135x (180x with optional lenses)	84mm
DSZV-44 	Versatile body with large magnification range and working distance	2.5x-140x (45mm-150mm with optional lenses)	45mm-150mm

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# Stereo Zoom Microscope Selection Guide

## Bi-Nocular

SPZ-50



6.7x-50x Magnification

SPZH-135



21x-135x Magnification

DSZ-44



10x-44x Magnification

## Tri-Nocular

SPZV-50



6.7x-50x Magnification

SPZHT-135



21x-135x Magnification

DSZV-44



10x-44x Magnification

### Inspection Cameras



26100-243  
Mighty Cam 2.0



26100-244  
Mighty Cam 3.0



26100-245  
Mighty Cam CCD

USB Cameras



26100-253HD  
Mighty Cam HDMI



26100-254  
Mighty Cam HDMI  
With Built-in  
Software

HDMI Cameras

# Microscope Stands



26800B-512  
Pole Stand  
with Focus Mount  
& LED Illumination



26800B-570  
Heavy Duty  
Post Stand



26800B-519  
Single Arm Boom Stand  
w/Heavy Metal Base



26800B-534  
Dual Arm Boom Stand  
w/Heavy Metal Base



26800B-511  
Pole Stand  
with Focus Mount



26800B-555  
Light-Weight  
Articulating Arm Stand



26800B-560  
Standard  
Articulating Arm Stand

## Focus Mount Adapter



26800B-521  
Tiltable Arbor



26800B-518  
E-Arm  
Focus Mount

## Focus Mounts



26800B-207  
Focus Mount  
With Integrated  
LED Ring Light



26800B-517  
Focus Mount with Coarse and  
Fine Focus for DSZ, SPZ and  
NSW Series Microscope Bodies

# Illumination



26200B-214  
LED Ring Light  
w/ Polarizer



26200B-220  
Diffuse Axial LED  
Illuminator



26200B-217  
Pro Series 40 LED  
Ring Light



26200B-218  
Pro Series 80 LED  
Ring Light



26200B-211  
LED Ring Light  
60 LED



26200B-213  
Triple Color  
LED Ring Light



26200B-212  
LED Ring Light  
70 LED



26200A-300  
ProLux LED Fiber  
Optic Illuminator



26200A-402  
FOI Ring Light  
For Microscopes



26200A-523  
Dual Pipe Light  
Guide

Don't Forget



26800B-460  
LED Ring Light  
Adapter

Eye Pieces (optional)

Auxiliary Lenses (optional)



26800B-448  
DHW-10X



26800B-450  
DHW-20X



26800B-449  
DHW-15X



26800B-455  
10x with  
10:100mm Scale



26800B-456  
10x with 5:100mm



26800B-459  
10x w/10:100mm  
Scale Cross Hair

## Finished



26800B-461  
Auxiliary Lens 0.5x



26800B-462  
Auxiliary Lens 0.75x



26800B-463  
Auxiliary Lens 1.6x



26800B-464  
Auxiliary Lens 2.0x