Vision
ENGINEERING

SX Family of Stereo Microscopes

Quality microscopes for industry and life sciences

- Competitive family of microscopes with first-class performance
- Precision optics deliver high resolution, flat field and high contrast images
- Wide range of magnification, stand and accessory options allow easy customization for a wide range of applications
- Long-life, true color LED illumination

SX25

Entry-level Stereo Microscope

The SX25 is a high quality, entry-level stereo microscope, designed to provide outstanding value without compromising performance. The SX25 is the ideal solution for routine life science and industrial applications, or for educational use, with a robust design and a range of stand and magnification options.

- ✓ **Low cost without sacrificing quality**
- ✓ **Robust and easy to use**

SX25 Overview

For high quality optical performance, you need high quality optics. The SX25 delivers high resolution, flat field imaging, without compromising performance. A range of stand and magnification options ensure that there is a tailored configuration for your application, making the SX25 highly versatile and ideal for all routine life science and industrial tasks.

The SX25 incorporates LED illumination, precision optics and over 50 years of optical manufacturing experience.

- High quality, entry-level stereo zoom microscope
- x10 – x45* stereo zoom magnification (x180 max.)
- Wide range of stand options and configurations
- Quality optical performance, without compromise

* with standard x1.0 objective

Options

LED Ringlight

For use with bench stand models, where additional surface illumination is required (required option with boom mount variants).

Polarization Set

Polarizing filters can be accommodated with bench stand configurations.

Eyepieces	Objective Lens	Zoom Range	Working Distance
x10/20 E.W.	x0.5	x5 - x22.5	7.09" (180mm)
x10/20 E.W.	x0.75	x7.5 - x33.8	4.72" (120mm)
x10/20 E.W.	x1.0*	x10 - x45	3.82" (97mm)
x10/20 E.W.	x2.0	x20 - x90	1.18"(30mm)
x15/16 W.F.	x0.5	x7.5 - x33.6	7.09" (180mm)
x15/16 W.F.	x0.75	x11.3 - x50.6	4.72" (120mm)
x15/16 W.F.	x1.0*	x15 - x67.5	3.82" (97mm)
x15/16 W.F.	x2.0	x30 - x135	1.18"(30mm)
x20/11 W.F.	x0.5	x10 - x45	7.09" (180mm)
x20/11 W.F.	x0.75	x15 - x67.5	4.72" (120mm)
x20/11 W.F.	x1.0*	x20 - x90	3.82" (97mm)
x20/11 W.F.	x2.0	x40 - x180	1.18" (30mm)

* Standard objective

Boom Mount, ideal for larger specimens

- Stable platform base, or mounted directly to the user's work surface.
- Enhanced freedom of movement.

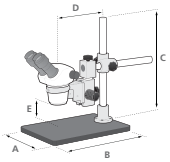
Bench Stand, compact and versatile

- Low-profile base optimizes ergonomics for reduced operator fatigue.
- Built-in transformer with intensity adjustment for both surface and substage illumination.

Dual Arm Boom, for enhanced flexibility

- Designed specifically for applications requiring extended reach, without compromising stability.
- Easy adjustability allows precise positioning and alignment.

Dimensions

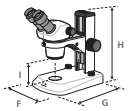


Boom Mount

A = 10.83" (275mm)
B = 15.55" (395mm)
C = 19.09" (485mm)
D = 17.40" (442mm) max.
E = 11.61" (295mm) max. (less working distance)♦

♦ with x1.0 objective

Dimensions

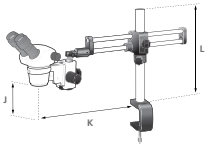


Bench Stand

F = 7.20" (183mm)
G = 9.84" (250mm)
H = 11.22" (285mm)
I = 6.10" (155mm) max. (less working distance)♦

♦ with x1.0 objective

Dimensions



Dual Arm Boom

J = 12.80" (325mm) max. (less working distance)♦
K = 26.38" (670mm) max.
L = 15.94" (405mm)

♦ with x1.0 objective

Selecting your SX...

	SX25	SX45	SX80	SX100
Optical Details				
Standard Magnification Range	x10 - x45	x8 - x50	x8 - x64	x8 - x80
Maximum Capable Magnification	x5 - x180	x4 - x200	x4 - x256	x4 - x320
Zoom Ratio	4.5:1	6.3:1	8:1	10:1
Working Distance (standard)♦	3.82" (97mm)	4.53" (115mm)	3.07" (78mm)	3.07" (78mm)
Working Distance (maximum)	7.09" (180mm)	8.66" (220mm)	5.12" (130mm)	5.12" (130mm)
Optical Principle	Greenough	Greenough	CMO	CMO
Accessory Options				
Image Capture	-	✓[1]	✓[2]	✓[2]
Imaging Software	-	✓	✓	✓
Floating Stage	-	✓	✓	✓
Polarization Filter Set	✓	✓	✓	✓
Double Iris Diaphragm	-	-	✓	✓
Measurement / Comparison Graticule	✓	✓	✓	✓
Fine Focus Adjustment	-	-	✓	✓
Stand Options				
Bench Stand	■			
Boom Mount	■			
Dual Arm Boom	■			
Articulated Arm	■		-	-

♦ Using x1.0 objective lens. For use with bench stand only.
✓[1] With trinocular head option.
✓[2] With modular photo tube option.
Option

SX45

Greenough Stereo Microscope

Designed as an affordable stereo zoom microscope, the SX45 with its long working distance, precision optics and compact design is the perfect solution to many industrial and biological applications. A wide array of optional accessories allows for further tailoring to individual requirements.

With more than 50 years experience in design and manufacture of high performance optical systems, Vision Engineering's SX45 delivers value, performance and flexibility.

SX45 Overview

The SX45 provides high quality stereo viewing, ideal for both industry and life sciences, with an extra-long working distance for assembly, manipulation, re-work, dissection, or simple inspection tasks. Additionally, a wide range of stand options and accessories allow tailoring to suit individual requirements.

Optical Performance

- Precision optics deliver high resolution, flat field and high contrast images with long working distances and large depth of field
- 22mm Field Number (standard) eyepieces with eyepiece dioptre setting
- Interpupillary distance adjustment (2.05" to 2.59")

- Affordable stereo zoom microscope with first-class performance
- x8 – x50* (6.3:1 zoom ratio) click-stop stereo zoom magnification (x200 max.)
- Wide range of options and configurations
- Extra long working distance 4.53" (115mm)*

* with standard x1.0 objective

Options

Image Capture & Archive

Trinocular head option permits the use of digital / video camera.

Multimedia solutions are available for image archiving, acquisition, analysis and documentation.

LED Ringlight

For use with bench stand models, where additional surface illumination is required (required option with boom mount variants).

Floating Stage

For use with bench stand models, the floating stage provides smooth sample control, ideal for inspection tasks.

Polarization Set

Polarizing filters can be accommodated with bench stand configurations.

Eyepieces	Objective Lens	Zoom Range	Working Distance
x10/22 F.N.	x0.5*	x4 - x25	8.69" (220.6mm)
x10/22 F.N.	x1.0	x8 - x50	4.53" (115.0mm)
x10/22 F.N.	x2.0	x16 - x100	2.26" (57.5mm)
x15/16 F.N.	x0.5*	x6 - x37.5	8.69" (220.6mm)
x15/16 F.N.	x1.0	x12 - x75	4.53" (115.0mm)
x15/16 F.N.	x2.0	x24 - x150	2.26" (57.5mm)
x20/13 F.N.	x0.5*	x8 - x50	8.69" (220.6mm)
x20/13 F.N.	x1.0	x16 - x100	4.53" (115.0mm)
x20/13 F.N.	x2.0	x32 - x200	2.26" (57.5mm)

* stand extension required when using x0.5 objective lens with bench stand model to accommodate increased working distance.

Bench Stand, compact and versatile

- Low-profile base optimizes ergonomics for reduced operator fatigue.
- Built-in transformer with intensity adjustment for both surface and substage illumination.

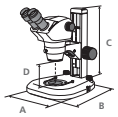
Dual Arm Boom, ideal for larger specimens

- Stable platform base, or mounted directly to the user's work surface.
- Enhanced freedom of movement.

Articulated Arm, for enhanced flexibility

- Designed specifically for applications requiring extended reach, without compromising stability.
- Multi-point adjustability allows precise positioning and alignment.

Dimensions

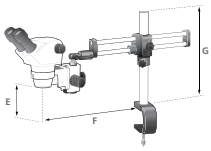


Bench Stand

A = 9.45" (240mm)
B = 11.22" (285mm)
C = 11.81" (300mm)
D = 8.46" (215mm) max. (less working distance)♦

♦ with x1.0 objective

Dimensions

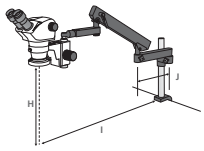


Dual Arm Boom

E = 13.39" (340mm) max. (less working distance)♦
F = 26.38" (670mm) max.
G = 15.94" (405mm)

♦ with x1.0 objective

Dimensions



Articulated Arm

H = 23.62" (600mm) max. (less working distance)♦
I = 37.40" (950mm) max.
J = 12.00" (305mm), removable

♦ with x1.0 objective

Selecting your SX...

	SX25	SX45	SX80	SX100
Optical Details				
Standard Magnification Range	x10 - x45	x8 - x50	x8 - x64	x8 - x80
Maximum Capable Magnification	x5 - x180	x4 - x200	x4 - x256	x4 - x320
Zoom Ratio	4.5:1	6.3:1	8:1	10:1
Working Distance (standard)♦	3.82" (97mm)	4.53" (115mm)	3.07" (78mm)	3.07" (78mm)
Working Distance (maximum)	7.09" (180mm)	8.66" (220mm)	5.12" (130mm)	5.12" (130mm)
Optical Principle	Greenough	Greenough	CMO	CMO
Accessory Options				
Image Capture	-	✓[1]	✓[2]	✓[2]
Imaging Software	-	✓	✓	✓
Floating Stage	-	✓	✓	✓
Polarization Filter Set	✓	✓	✓	✓
Double Iris Diaphragm	-	-	✓	✓
Measurement / Comparison Graticule	✓	✓	✓	✓
Fine Focus Adjustment	-	-	✓	✓
Stand Options				
Bench Stand		■		
Boom Mount		■		
Dual Arm Boom		■		
Articulated Arm		■	-	-

♦ Using x1.0 objective lens. For use with bench stand only.
✓[1] With trinocular head option.
✓[2] With modular photo tube option.
Option

SX80&SX100

CMO Stereo Microscopes

The SX80 and SX100 incorporate over 50 years of proven optical experience in a high quality CMO-series stereo zoom microscope. With exceptional optics, the modular SX80 and SX100 deliver superb image quality at a competitive price, with a wide array of options providing complete flexibility.

- High optical quality CMO stereo microscope
- Precision optics deliver high resolution, flat field and high contrast images with long working distances and large depth of field
- **SX80**: x8 - x64 standard magnification range (x256 max.)
- **SX100**: x8 - x80 standard magnification range (x320 max.)
- Modular systems for specific applications

SX80 Overview

The SX80 provides high quality stereo viewing, ideal for both industry and life sciences, with a long working distance for easy assembly, manipulation, re-work, dissection, or simple inspection tasks.

With an 8:1 zoom ratio, the SX80 has a standard magnification range of x8 - x64 (x256 max.) allowing fast and accurate viewing of all subjects. A compact, modular design allows accessories to be added to the configuration, without loss of clarity or contrast through the common main objective.

Eyepieces	Objective Lens	Zoom Range	Working Distance
x10/22 F.N.	x0.5	x4 - x32	5.12" (130mm)
x10/22 F.N.	x1.0	x8 - x64	3.07" (78mm)
x10/22 F.N.	x2.0	x16 - x128	1.28" (32.5mm)
x15/16 F.N.	x0.5	x6 - x48	5.12" (130mm)
x15/16 F.N.	x1.0	x12 - x96	3.07" (78mm)
x15/16 F.N.	x2.0	x24 - x192	1.28" (32.5mm)
x20/13 F.N.	x0.5	x8 - x64	5.12" (130mm)
x20/13 F.N.	x1.0	x16 - x128	3.07" (78mm)
x20/13 F.N.	x2.0	x32 - x256	1.28" (32.5mm)

SX100 Overview

The high precision optics of the SX100 provide a 10:1 zoom ratio and a standard magnification range of x8 - x80 (x320 max.), providing high performance stereo magnification, while maintaining a long working distance.

A fine focus option provides users with advanced capabilities for critical examination, allowing operators to quickly switch between manipulation and high magnification inspection tasks, allowing for parts to be reworked accurately to pass stringent quality standards.

Eyepieces	Objective Lens	Zoom Range	Working Distance
x10/22 F.N.	x0.5	x4 - x40	5.12" (130mm)
x10/22 F.N.	x1.0	x8 - x80	3.07" (78mm)
x10/22 F.N.	x2.0	x16 - x160	1.28" (32.5mm)
x15/16 F.N.	x0.5	x6 - x60	5.12" (130mm)
x15/16 F.N.	x1.0	x12 - x120	3.07" (78mm)
x15/16 F.N.	x2.0	x24 - x240	1.28" (32.5mm)
x20/13 F.N.	x0.5	x8 - x80	5.12" (130mm)
x20/13 F.N.	x1.0	x16 - x120	3.07" (78mm)
x20/13 F.N.	x2.0	x32 - x320	1.28" (32.5mm)

All SX80 and SX100 objectives lenses are plan achromat.

Options

Floating Stage

For use with bench stand models, the floating stage provides smooth sample control, ideal for inspection tasks.

Coarse and Fine Focus Adjustment

For precise focus control at higher magnifications.

Polarization Set

Polarizing filters can be accommodated with bench stand configurations.

Image Capture & Archive

Photo tube option permits the use of digital / video camera.

Multimedia solutions are available for image archiving, acquisition, analysis and documentation.

LED Ringlight

For use with bench stand models, where additional surface illumination is required (required option with boom mount variants).

Double Iris Diaphragm

Enabling the size of the internal numerical aperture to be changed on both optical paths, providing greater depth of field throughout the zoom range.

Boom Mount, ideal for larger specimens

- Stable platform base, or mounted directly to the user's work surface.
- Enhanced freedom of movement.

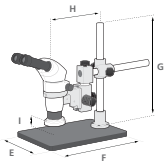
Bench Stand, compact and versatile

- Low-profile base optimizes ergonomics for reduced operator fatigue.
- Built-in transformer with intensity adjustment for both surface and substage illumination.
- Fine focus option for enhanced precision and control.

Dual Arm Boom, for enhanced flexibility

- Designed specifically for applications requiring extended reach, without compromising stability.
- Easy adjustability allows precise positioning and alignment.

Dimensions

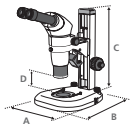


Boom Mount

E = 10.83" (275mm)
F = 15.55" (395mm)
G = 19.09" (485mm)
H = 17.40" (442mm) max.
I = 9.06" (230mm) max. (less working distance)♦

♦ with x1.0 objective

Dimensions

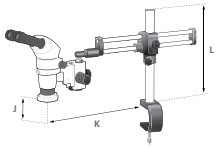


Bench Stand

A = 9.45" (240mm)
B = 11.22" (285mm)
C = 13.78" (350mm)
D = 7.68" (195mm) max. (less working distance)♦

♦ with x1.0 objective

Dimensions



Dual Arm Boom

J = 9.65" (245mm) max. (less working distance)♦
K = 26.38" (670mm) max.
L = 15.94" (405mm)

♦ with x1.0 objective

Selecting your SX...

	SX25	SX45	SX80	SX100
Optical Details				
Standard Magnification Range	x10 - x45	x8 - x50	x8 - x64	x8 - x80
Maximum Capable Magnification	x5 - x180	x4 - x200	x4 - x256	x4 - x320
Zoom Ratio	4.5:1	6.3:1	8:1	10:1
Working Distance (standard)♦	3.82" (97mm)	4.53" (115mm)	3.07" (78mm)	3.07" (78mm)
Working Distance (maximum)	7.09" (180mm)	8.66" (220mm)	5.12" (130mm)	5.12" (130mm)
Optical Principle	Greenough	Greenough	CMO	CMO
Accessory Options				
Image Capture	-	✓[1]	✓[2]	✓[2]
Imaging Software	-	✓	✓	✓
Floating Stage	-	✓	✓	✓
Polarization Filter Set	✓	✓	✓	✓
Double Iris Diaphragm	-	-	✓	✓
Measurement / Comparison Graticule	✓	✓	✓	✓
Fine Focus Adjustment	-	-	✓	✓
Stand Options				
Bench Stand			■	■
Boom Mount			■	■
Dual Arm Boom			■	■
Articulated Arm			-	-

♦ Using x1.0 objective lens. For use with bench stand only.
✓[1] With trinocular head option.
✓[2] With modular photo tube option.
Option

Vision Engineering manufactures a comprehensive range of ergonomic stereo microscopes as well as a complete line of optical and video non-contact measuring systems.

For more information...

Vision Engineering has a network of offices and technical distributors around the world. For more information, please contact your Vision Engineering branch, local authorized distributor, or visit our website.

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