

SPZ PARALLEL ZOOM STEREO MICROSCOPE

The SPZ series of stereozoom microscopes feature the latest generation parallel optical system design to provide clear, sharp images over the entire field of view at all magnification levels. To further enhance the exceptional performance of the SPZ, an ergonomic tilting head is available to increase operator comfort and performance.

The infinity corrected design allows interchanging of various modules to optimize the microscope for your application. The SPZ series is an excellent choice for teaching, research, electronic testing and assembly.



SPZ Series Parallel Zoom Stereo Microscopes
 SPZ600
 SPZ800
 SPZ1000

Features:

- **Modular Design:** The SPZ series incorporates an infinity corrected optical design which allows interchanging of components and insertion of additional modules, such as a photo-port, to customize the microscope to your exact requirements. This also assures upgradeability in the future should your requirements change.
- **Parallel optical system:** The left and right optical paths are parallel in this system, sharing a common objective lens. All optical components have broadband AR (anti-reflection) coatings at all interference surfaces. These features provide:
 - Flat field imaging for sharp, in-focus observation from image edge to edge.
 - Large field of view (fov).
 - Wide stereo view angle with an excellent depth of field.
 - Imaged surfaces are well defined with accurate color reproduction.
 - Parfocality and parcentration over the entire zoom range.
- **Zoom Control:** The zoom control knobs are positioned for superior ergonomics and provide low friction operation. Detents are at all major zoom magnifications.
- **Optional ergonomic tilting view head** for improved operator comfort and to greatly reduce the neckstrain associated with microscope use over extended periods of time.
- The eyepiece offers a wide diopter adjustment range to ensure accurate parfocal operation for all users. A measurement reticle or pointer can also be installed in the eyepiece.

Specifications

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|---|---|
| • Zoom Range of Zoom Body: 0.8X-5X, 0.8X-6.5X, 0.8X-8X | • Zoom Ratios: 1:6.3, 1:8, 1:10 |
| • Max. Optic Magnification: 2.4X-250X / (SPZ600 body)
2.4X-325X / (SPZ800 Body);
2.4X-400X / (SPZ1000 Body) | • Field of View: 1.1mm-100mm / (SPZ600);
0.85mm-100mm / (SPZ800)
0.69mm-100mm / (SPZ1000) |
| • Eyetube Inclination: 20° or 0°-35° (ergonomic head) | • Working Distance: 32.5mm-280mm |
| • Interpupillary Adjustment: 55mm-75mm | • Eyepiece Diopter Correction: ±5 Diopter |
| • Optional Adjustable Eyepieces: 10X, 15X, 20X and 25X. | • Optional Auxiliary Lenses: 0.3X, 0.5X, 1X and 2X. |



- ① Parallel Zoom Body (1:8; 1:10; 1:6.3)
- ② 20° Parallel Binocular
- ③ 0°-35° Adjustable Parallel Binocular

- ④ True-Trinocular Image Port
- ⑤ Eyepieces
- ⑥ Objective Lens

- ⑦ Coupler Adapter

1:6.3 Parallel Zoom Body

Objective Lens	Working Distance (mm)	Eyepieces							
		10X(Φ24mm)		15X(Φ16mm)		20X(Φ12mm)		25X(Φ11mm)	
		Mag.	FOV (mm)	Mag.	FOV (mm)	Mag.	FOV (mm)	Mag.	FOV (mm)
0.3X	280	2.4X-15X	100-16	3.6X-22.5X	66.7-10.67	4.8X-30X	50-8	6X-37.5X	45.8-7.33
0.5X	126	4X-25X	60-9.6	6X-37.5X	40-6.4	8X-50X	30-4.8	10X-62.5X	27.5-4.4
1X	78	8X-50X	30-4.8	12X-75X	20-3.2	16X-100X	15-2.4	20X-125X	13.75-2.2
2X	32.5	16X-100X	15-2.4	24X-150X	10-1.6	32X-200X	7.5-1.2	40X-250X	6.88-1.1

1:8 Parallel Zoom Body

Objective Lens	Working Distance (mm)	Eyepieces							
		10X(Φ24mm)		15X(Φ16mm)		20X(Φ12mm)		25X(Φ11mm)	
		Mag.	FOV (mm)	Mag.	FOV (mm)	Mag.	FOV (mm)	Mag.	FOV (mm)
0.3X	280	2.4X-19.5X	100-12.3	3.6X-29.3X	66.7-8.2	4.8X-39X	50-6.15	6X-48.75X	45.8-5.64
0.5X	126	4X-32.5X	60-7.4	6X-52X	40-4.9	8X-65X	30-3.7	10X-81.25X	27.5-3.38
1X	78	8X-65X	30-3.7	12X-97.5X	20-2.5	16X-130X	15-1.85	20X-162.5X	13.75-1.69
2X	32.5	16X-130X	15-1.85	24X-195X	10-1.23	32X-260X	7.5-0.9	40X-325X	6.88-0.85

1:10 Parallel Zoom Body

Objective Lens	Working Distance (mm)	Eyepieces							
		10X(Φ24mm)		15X(Φ16mm)		20X(Φ12mm)		25X(Φ11mm)	
		Mag.	FOV (mm)	Mag.	FOV (mm)	Mag.	FOV (mm)	Mag.	FOV (mm)
0.3X	280	2.4X-24X	100-10	3.6X-36X	66.7-6.67	4.8X-48X	50-5	6X-60X	45.8-4.58
0.5X	126	4X-40X	60-6	6X-60X	40-4	8X-80X	30-3	10X-100X	27.5-2.75
1X	78	8X-80X	30-3	12X-120X	20-2	16X-160X	15-1.5	20X-200X	13.75-1.38
2X	32.5	16X-160X	15-1.5	24X-240X	10-1	32X-320X	7.5-0.75	40X-400X	6.88-0.69

Preconfigured Sample Systems

Note: Displayed items are optional. (●Inclusion; ○Exclusion)

SPZ600-1 6.3:1 Binocular Stereo Microscope System

- SPZ600 6.3:1 zoom body, PA402101 20° binocular head
- PA403101 10x adjustable eyepiece (pr), PA404101 1x Plan Achromat Objective Lens, SA202201 basic track stand (illumination systems available separately)
- Models: SPZ600-2 (with SA204111 LED Dual illuminated track stand)
SPZ600-3 (with SA231101 boom arm stand and SA251101 76mm focus arm)

SPZ600-1T 6.3:1 Trinocular Stereo Microscope System

- SPZ600 6.3:1 zoom body, PA402101 20° binocular head, PA405101 True-trinocular image port, PA406101 0.5x camera adapter, PA406200 coupler adapter
- PA403101 10x adjustable eyepiece (pr), PA404101 1x Plan Achromat Objective Lens, SA202201 basic track stand (illumination systems available separately)
- Models: SPZ600-2T (with SA204111 LED Dual illuminated track stand)
SPZ600-3T (with SA231101 boom arm stand and SA251101 76mm focus arm)



SPZ600-2 Parallel Zoom Stereo Microscope

SPZ800-1E 8:1 Ergonomic Binocular Stereo Microscope System

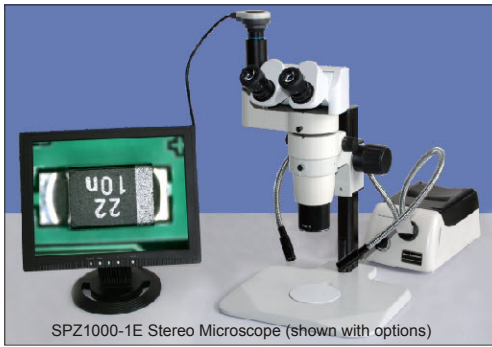
- SPZ800 8:1 zoom body, PA402102 0-35° ergonomic binocular head
- PA403101 10x adjustable eyepiece (pr), PA404101 1x Plan Achromat Objective Lens, SA202201 basic track stand (illumination systems available separately)
- Models: SPZ800-2E (with SA204111 LED Dual illuminated track stand)
SPZ800-3E (with SA231101 boom arm stand and SA251101 76mm focus arm)

SPZ800-1ET 8:1 Ergonomic Trinocular Stereo Microscope System

- SPZ800 8:1 zoom body, PA402102 0-35° ergonomic binocular head, PA405101 True-trinocular image port, PA406101 0.5x camera adapter, PA406200 coupler adapter
- PA403101 10x adjustable eyepiece (pr), PA404101 1x Plan Achromat Objective Lens, SA202201 basic track stand (illumination systems available separately)
- Models: SPZ800-2ET (with SA204111 LED Dual illuminated track stand)
SPZ800-3ET (with SA231101 boom arm stand and SA251101 76mm focus arm)



SPZ800-1ET Ergonomic Trinocular Stereo Microscope



SPZ1000-1E 10:1 Ergonomic Binocular Stereo Microscope System

- SPZ1000 10:1 zoom body, PA402102 0-35° ergonomic binocular head
- PA403101 10x adjustable eyepiece (pr), PA404101 1x Plan Achromat Objective Lens, SA202201 basic track stand (illumination systems available separately)
- Models: SPZ1000-2E (with SA204111 LED Dual illuminated track stand)
SPZ1000-3E (with SA231101 boom arm stand and SA251101 76mm focus arm)

SPZ1000-1TE 10:1 Ergonomic Trinocular Stereo Microscope System

- SPZ1000 10:1 zoom body, PA402102 0-35° ergonomic binocular head, PA405101 True-trinocular image port, PA406101 0.5x camera adapter, PA406200 coupler adapter
- PA403101 10x adjustable eyepiece (pr), PA404101 1x Plan Achromat Objective Lens, SA202201 basic track stand (illumination systems available separately)
- Models: SPZ1000-2TE (with SA204111 LED Dual illuminated track stand)
SPZ1000-3TE (with SA231101 boom arm stand and SA251101 76mm focus arm)



SPZ1000-1 10:1 Binocular Stereo Microscope System

- SPZ1000 10:1 zoom body, PA402101 20° binocular head
- PA403101 10x adjustable eyepiece (pr), PA404101 1x Plan Achromat Objective Lens, SA202201 basic track stand (illumination systems available separately)
- Models: SPZ1000-2 (with SA204111 LED Dual illuminated track stand)
SPZ1000-3 (with SA231101 boom arm stand and SA251101 76mm focus arm)

SPZ1000-1T 10:1 Trinocular Stereo Microscope System

- SPZ1000 10:1 zoom body, PA402101 20° binocular head, PA405101 True-trinocular image port, PA406101 0.5x camera adapter, PA406200 coupler adapter
- PA403101 10x adjustable eyepiece (pr), PA404101 1x Plan Achromat Objective Lens, SA202201 basic track stand (illumination systems available separately)
- Models: SPZ1000-2T (with SA204111 LED Dual illuminated track stand)
SPZ1000-3T (with SA231101 boom arm stand and SA251101 76mm focus arm)

Picture Preview	P/N	Name	Description
	SPZ600	1:6.3 Parallel Zoom Body	SPZ Series Parallel Zoom Stereo Microscope, Zoom range 0.8X-5X, zoom ratio 1:6.3, with two horizontal zoom knobs.
	SPZ800	1:8 Parallel Zoom Body	SPZ Series Parallel Zoom Stereo Microscope, Zoom range 0.8X-6.5X, zoom ratio 1:8, with two horizontal zoom knobs.
	SPZ1000	1:10 Parallel Zoom Body	SPZ Series Parallel Zoom Stereo Microscope, Zoom range 0.8X-8X, zoom ratio 1:10, with two horizontal zoom knobs.
	PA402101	20° Parallel Binocular	20° Parallel Binocular Head. For SPZ series Parallel Zoom Stereo Microscope.
	PA402102	0°-35° Adjustable Parallel Binocular	0°-35° Adjustable Parallel Binocular Head. For SPZ series Parallel Zoom Stereo Microscope.
	PA403101	10X Adjustable Eyepieces (Pair)	Wide Field 10X Eyepieces, with adjustable eyepiece diopter correction, 24mm field of view, the tube outside dia. 30mm. For SPZ Series of Stereo Microscopes.
	PA403102	15X Adjustable Eyepieces (Pair)	Wide Field 15X Eyepieces, with adjustable eyepiece diopter correction, 16mm field of view, the tube outside dia. 30mm. For SPZ Series of Stereo Microscopes.
	PA403103	20X Adjustable Eyepieces (Pair)	Wide Field 20X Eyepieces, with adjustable eyepiece diopter correction, 12mm field of view, the tube outside dia. 30mm. For SPZ Series of Stereo Microscopes.
	PA403104	25X Adjustable Eyepieces (Pair)	Wide Field 25X Eyepieces, with adjustable eyepiece diopter correction, 11mm field of view, the tube outside dia. 30mm. For SPZ Series of Stereo Microscopes.
	PA404101	1X Objective Lens	Plan achromatic design, N.A. 0.09, outside dia. 60mm, working distance 78mm, for SPZ Parallel Stereo Zoom Microscope.
	PA404102	0.3X Objective Lens	Achromatic achromatic design, N.A. 0.03, outside dia. 60mm, working distance 280mm, for SPZ Parallel Stereo Zoom Microscope.
	PA404103	0.5X Objective Lens	Plan apochromat design, N.A. 0.05, outside dia. 60mm, working distance 126mm, for SPZ Parallel Stereo Zoom Microscope.
	PA404104	2X Objective Lens	Plan achromatic design, N.A. 0.2, outside dia. 60mm, working distance 32.5mm, for SPZ Parallel Stereo Zoom Microscope.
	PA405101	True-Trinocular Image Port	For SPZ Series of Parallel Zoom Stereo Microscope.
	PA405201	True-Trinocular Image Port II	For SPZ Series of Parallel Zoom Stereo Microscope.
	PA406101	0.5X Coupler	For SPZ Series of Parallel Zoom Stereo Microscope.
	PA406102	1X Coupler	For SPZ Series of Parallel Zoom Stereo Microscope.
	PA406200	Coupler Adapter	For SPZ Series of Parallel Zoom Stereo Microscope.
	PA408101	Iris Diaphragm	For SPZ Series of Parallel Zoom Stereo Microscope.

SPZ Stereo Parallel Zoom System Diagram

