

Motic®

SMZ-168 SERIES

ADVANCED ZOOM STEREO MICROSCOPES

The SMZ-168 series provides a zoom ratio of 1:6.7 with excellent optical performance, ultra long working distance, unbeatable depth of view as well as an extra large and comfortable working surface.



SMZ-168-BL



SMZ-168-TL with
Moticam 1300

SMZ-168 SERIES ADVANCED ZOOM STEREO MICROSCOPES

Motic introduces a new series of zoom stereo microscope -- the SMZ-168 series with continuous zoom range from 0.75X to 5X, complete image parfocality, 23mm field of view and using Motic's established high-performance optics with amazing clarity and depth of view.

The Zoom Body

35° inclined and 360° rotating head for flexible and comfortable viewing

Eyepiece : Standard WF10X / 23mm

Diopter adjustment for both eyepiece tubes : ±5

Adjustable interpupillary distance from 52mm to 79mm

Zoom range : 0.75X - 5X

Zoom ratio : 1 : 6.7

Working distance : 113mm

- Binocular zoom body [AX66.02601]
- Trinocular zoom body [AX68.02601]



SMZ-168-BL
Stereo Microscopes

The Focusing Block

Ball bearing type focusing mechanism provides an accurate, smooth and stable focusing system with focusing range 50mm.

- Focusing block with incident light 12V/10W (halogen) (**works only with AX40.00005 base stand) [AX66.02605A]
- Focusing block without incident light [AX66.02605B]

The Base Stand

Streamlined base stand provides maximum working surface.

- Streamlined base stand [SW01.09K3]
- Streamlined base stand with transmitted light 12V/10W (halogen), intensity control and universal power input 100V - 240V [AX40.00005]



SMZ-168-TL
Stereo Microscopes

SMZ-168 Series Advanced Zoom Stereo Microscopes Standard Configuration

	Order No.	SMZ-168BP	SMZ-168BL	SMZ-168TP	SMZ-168TL
Binocular zoom body	AX66.02601	●	●		
Trinocular zoom body	AX68.02601			●	●
Head holder with incident light halogen 12V/10W (**works only with AX40.00002**)	AX66.02605A		●		●
Head holder without incident light	AX66.02605B	●		●	
Streamlined base stand	SW01.09K3	●		●	
Streamlined base stand with transmitted light halogen 12V/10W	AK40.00007		●		●

Choices of base stands

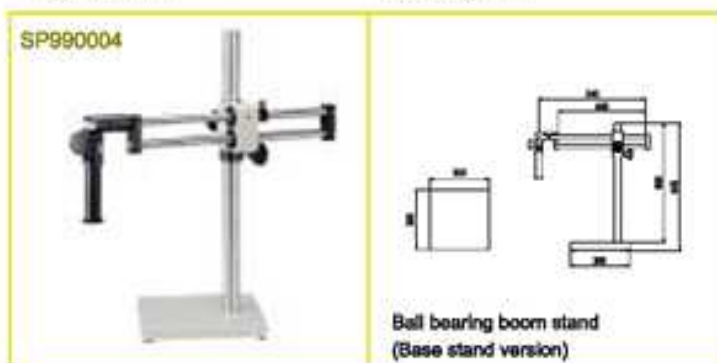
- 2105 - Universal stand [SW01.09K1]
- 2105S - Special universal stand [SW01.09K4]
- 2107K - Articulating arm boom stand - Base stand version [SP99.0003]
- 2108K - Ball bearing boom stand - Base stand version [SP99.0004]
- 2109K - Articulating arm boom stand - Table clamp version [SP99.0005]
- 2110K - Ball bearing boom stand - Table clamp version [SP99.0006]



- | | |
|--|---|
| <p>2105 Universal Stand</p> <ul style="list-style-type: none"> ■ Diameter of base 38mm ■ Diameter of vertical pole 25mm ■ Height of pole 200mm ■ Diameter of pole for focusing mount 32mm | <p>2105S Special Universal Stand</p> <ul style="list-style-type: none"> ■ Length of base 250mm ■ Height of pole 373mm ■ Width of base 250mm ■ Diameter of pole for focusing mount 32mm |
|--|---|



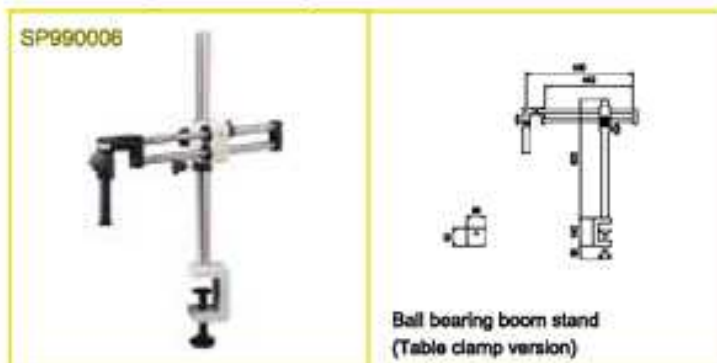
- 2107K Articulating Arm Boom Stand**
- Diameter of vertical pole 36mm
 - Diameter of pole for focusing mount 32mm



- 2108K Ball Bearing Boom Stand**
- Diameter of vertical pole 36mm
 - Diameter of pole for focusing mount 32mm



- 2109K Articulating Arm Boom Stand**
- Diameter of vertical pole 36mm
 - Diameter of pole for focusing mount 32mm



- 2110K Ball Bearing Boom Stand**
- Diameter of vertical pole 36mm
 - Diameter of pole for focusing mount 32mm

A Complete Range Of Accessories

Eyepiece

- | | |
|----------------|-------------|
| WF5X / 23mm | [SG02T0606] |
| WF6.25X / 23mm | [SG02T0103] |
| WF10X / 21mm | [SG02T0219] |
| SWF 10X / 23mm | [SG02T0214] |
| WF15X / 17mm | [SG02T0314] |
| WF20X / 13mm | [SG02T0406] |
| WF30X / 8mm | [SG02T0701] |
| WF32X / 8mm | [SG02T0502] |



■ Eyepiece

Micrometer eyepiece

WF10X 360° : 10° [SG02T0211]

WF10X 14mm : 0.2mm [SG02T0212]

WF10X 14mm : 0.1mm (with cross hair) [SG02T0213]

WF20X 10mm : 0.1mm (with cross hair) [SG02T0403]

Additional objectives

0.3X Objective (W.D. 343mm) [AX8602607]

0.5X Objective (W.D. 200mm) [AX8602608]

0.75X Objective (W.D. 130mm) [AX8602609]

1.5X Objective (W.D. 54mm) [AX8602610]

2X Objective (W.D. 34.5mm) [AX8602611]

Gliding stage [SW010308]

The easy to glide motion provides the possibility of rotating the specimen 360°.

Polarizing equipment [SP080013K]

Both analyzer and polarizer can be rotated 360°. Ideal for viewing minerals with polarizing effect.

Darkfield attachment [SP090001]

Provides the possibility of viewing specimens not suitable for usual brightfield microscopy.

Jewellery clamp [SW0199B3]

Specially designed clamp for viewing jewellery.

Photo adapter [AX8602603]

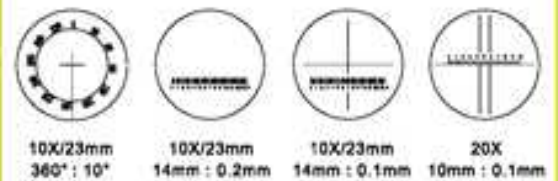
2x photo eyepiece for use with standard 35mm SLR cameras (fits T2 mount of different brands of cameras).

CCD adapter [AX8602602]

For use with 1/3" CCD camera, standard magnification 0.3x.

Fluorescent Ring Light [AX8602632]

Fix onto the objective by the adaptor or additional objective(s), 220–240V / 12W.



■ Micrometer eyepiece



■ Additional objectives



■ Gliding stage



■ Polarizing equipment



■ Darkfield attachment



■ Jewellery clamp



■ CCD adapter



■ Photo adapter



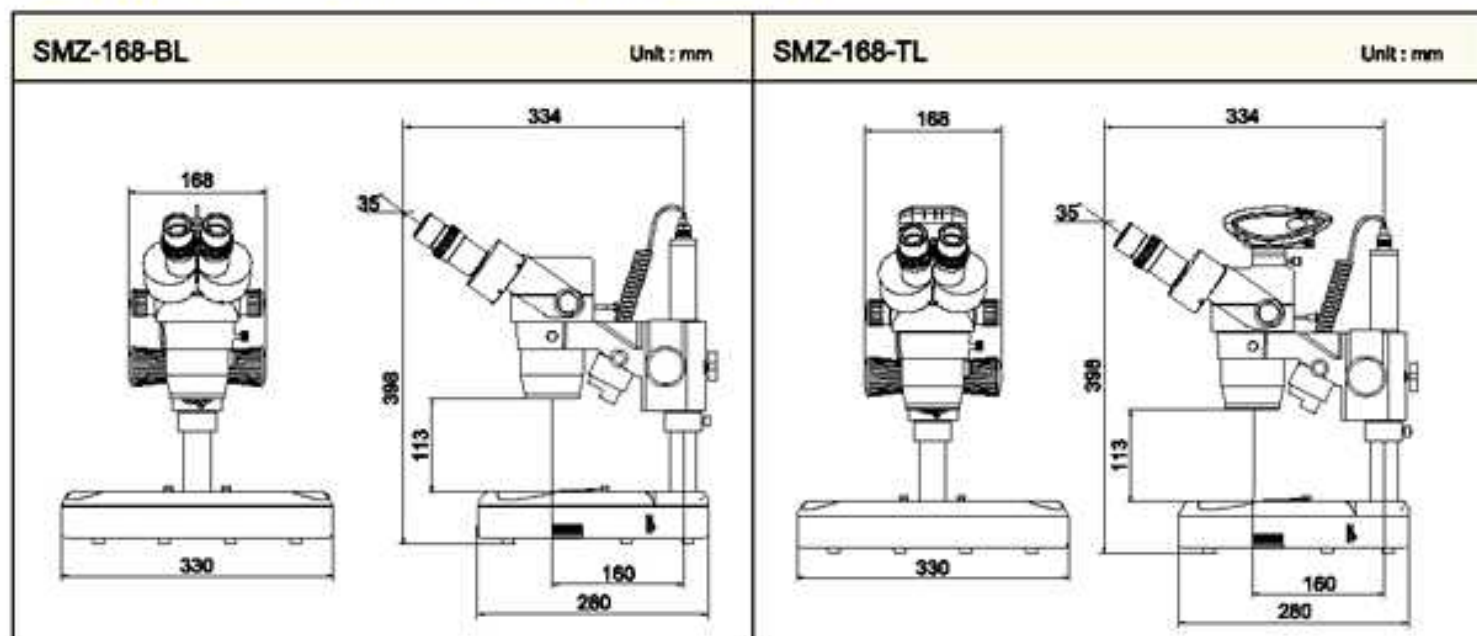
■ Fluorescent Ring Light

SMZ-168 Series Optical Data for Advanced Stereo Microscope

Eyepiece	Magnification	Standard Objective		Additional Objectives									
				0.3X		0.5X		0.75X		1.5X		2X	
		113mm		343mm		200mm		130mm		54mm		34.5mm	
	M	FD (mm)	M	FD (mm)	M	FD (mm)	M	FD (mm)	M	FD (mm)	M	FD (mm)	
5X/23	0.75X	3.8X	30.7	1.1X	102.2	1.9X	61.3	2.8X	40.9	5.6X	20.4	7.5X	15.3
	1X	5X	23	1.5X	76.7	2.5X	46	3.8X	30.7	7.5X	15.3	10X	11.5
	2X	10X	11.5	3 X	38.3	5X	23	7.5X	15.3	15X	7.7	20X	5.8
	3X	15X	7.7	4.5X	25.6	7.5X	15.3	11.3X	10.2	22.5X	5.1	30X	3.8
	4X	20X	5.8	6X	19.2	10X	11.5	15.0X	7.7	30X	3.8	40X	2.9
6.25X/23	0.75X	4.7X	30.7	1.4X	102.2	2.3X	61.3	3.5X	40.9	7X	20.4	9.4X	15.3
	1X	6.3X	23	1.9X	76.7	3.1X	46	4.7X	30.7	9.4X	15.3	12.5X	11.5
	2X	12.5X	11.5	3.8X	38.3	6.3X	23	9.4X	15.3	18.8X	7.7	25X	5.8
	3X	18.8X	7.7	5.6X	25.6	9.4X	15.3	14.1X	10.2	28.1X	5.1	37.5X	3.8
	4X	25X	5.8	7.5X	19.2	12.5X	11.5	18.8X	7.7	37.5X	3.8	50X	2.9
10X/23	0.75X	7.5X	30.7	2.3X	102.2	3.8X	61.3	5.6X	40.9	11.3X	20.4	15X	15.3
	1X	10X	23	3X	76.7	5X	46	7.5X	30.7	15X	15.3	20X	11.5
	2X	20X	11.5	6X	38.3	10X	23	15X	15.3	30X	7.7	40X	5.8
	3X	30X	7.7	9X	25.6	15X	15.3	22.5X	10.2	45X	5.1	60X	3.8
	4X	40X	5.8	12X	19.2	20X	11.5	30X	7.7	60X	3.8	80X	2.9
10X/21	0.75X	7.5X	28	2.3X	93.3	3.8X	56	5.6X	37.3	11.3X	18.7	15X	14
	1X	10X	21	3X	70	5X	42	7.5X	28.0	15X	14	20X	10.5
	2X	20X	10.5	6X	35	10X	21	15X	14.0	30X	7	40X	5.3
	3X	30X	7	9X	23.3	15X	14	22.5X	9.3	45X	4.7	60X	3.5
	4X	40X	5.3	12X	17.5	20X	10.5	30X	7.0	60X	3.5	80X	2.6
15X/17	0.75X	11.3X	22.7	3.4X	75.6	5.6X	45.3	8.4X	30.2	16.9X	15.1	22.5X	11.3
	1X	15X	17	4.5X	56.7	7.5 X	34	11.3X	22.7	22.5X	11.3	30X	8.5
	2X	30X	8.5	9X	28.3	15X	17	22.5X	11.3	45X	5.7	60X	4.3
	3X	45X	5.7	13.5X	18.9	22.5X	11.3	33.8X	7.6	67.5X	3.8	90X	2.8
	4X	60X	4.3	18X	14.2	30X	8.5	45X	5.7	90X	2.8	120X	2.1
20X/13	0.75X	15X	17.3	4.5X	57.8	7.5X	34.7	11.3X	23.1	22.5X	11.6	30X	8.7
	1X	20X	13	6X	43.3	10X	26	15X	17.3	30X	8.7	40X	6.5
	2X	40X	6.5	12X	21.7	20X	13	30X	8.7	60X	4.3	80X	3.3
	3X	60X	4.3	18X	14.4	30X	8.7	45X	5.8	90X	2.9	120X	2.2
	4X	80X	3.3	24X	10.8	40X	6.5	60X	4.3	120X	2.2	160X	1.6
30X/8	0.75X	22.5X	10.7	6.8X	35.6	11.3X	21.3	16.9X	14.2	33.8X	7.1	45X	5.3
	1X	30X	8	9X	26.7	15X	16	22.5X	10.7	45X	5.3	60X	4
	2X	60X	4	18X	13.3	30X	8	45X	5.3	90X	2.7	120X	2
	3X	90X	2.7	27X	8.9	45X	5.3	67.5X	3.6	135X	1.8	180X	1.3
	4X	120X	2	36X	6.7	60X	4	90X	2.7	180X	1.3	240X	1
32X/8	0.75X	24X	10.7	7.2X	35.6	12X	21.3	18.0X	14.2	36X	7.1	48X	5.3
	1X	32X	8	9.6X	26.7	16X	16	24.0X	10.7	48X	5.3	64X	4
	2X	64X	4	19.2X	13.3	32X	8.0	48.0X	5.3	96X	2.7	128X	2
	3X	96X	2.7	28.8X	8.9	48X	5.3	72.0X	3.6	144X	1.8	192X	1.3
	4X	128X	2	38.4X	6.7	64X	4	96.0X	2.7	192X	1.3	256X	1
	5X	160X	1.6	48X	5.3	80X	3.2	120.0X	2.1	240X	1.1	320X	0.8

Note : "M" represents Magnification, "FD" represents Field Diameter.

SMZ-168 Series Dimensions Information



SMZ-168 Series

	SMZ-168-BP/BL	SMZ-168-TP/TL
Optical System	Greenough	Greenough
Total magnification	2.25X~320X	2.25X~320X
Zoom body magnification	0.75X~5X	0.75X~5X
Zoom ratio	1 : 6.7	1 : 6.7
Eyepiece	WF10X/23 High eyepoint	WF10X/23 High eyepoint
Interpupillary distance	52mm~79 mm	52mm~79 mm
Diopter adjustment	±5°	±5°
Observation angle	35°	35°
Working distance	113 mm	113 mm
Choice of eyepiece	WF5X/23; WF6.25X/23; WF10X/21; WF15X/17; WF20X/13; WF30X/8; WF32X/8	WF5X/23; WF6.25X/23; WF10X/21; WF15X/17; WF20X/13; WF30X/8; WF32X/8
Additional objectives available	0.3X WD=343 mm 0.5X WD=200 mm 0.75X WD=130 mm 1.5X WD=54 mm 2X WD=34.5 mm	0.3X WD=343 mm 0.5X WD=200 mm 0.75X WD=130 mm 1.5X WD=54 mm 2X WD=34.5 mm
Max. magnification	320X	320X
Max. field of view	102 mm	102 mm
Max. working distance	343 mm	343 mm
Top light	12V/10W Halogen	12V/10W Halogen
Bottom light	12V/10W Halogen	12V/10W Halogen
Photo and Video adapter	/	Photo & Video adapter 1/3" CCD available

SMZ-168 Series System Diagram

