

ZMM-45B Monocular Zoom Microscope

The ZMM-45B is a unit that affords a 45° eyetube versus the straight optical frame of most monocular microscopes. It offers a longer Working Distance, Larger Magnification Range and Larger Field of Views.

It has many uses. In manufacturing wherein these qualities are desirable such as assembly of miniature parts, alignment of Fibre Optic Cables, alignment on wafer slicing machines, and many other miniature electronic applications, checking castings for "Blow Holes", castings for metal structure, or any other application wherein a large range of magnifications in a single unit is helpful with or without the cross hair.

The Universal stand for the ZMM-45B allow for complete rotation of the microscope frame within its ring frameholder. The stand itself allows for any position of the microscope from vertical to horizontal or any intermediate point.

The ZMM-45B comes standard with the .75X to 3X Zoom Objective with the 20X Eyepiece. This allows for 15X to 60X Magnification. The purchase of the supplemental 10X Eyepiece allows a decrease from 7.5X to 30X Magnification. The further addition of the 2X objective lens allows magnification up to 120X.

The ZMM-45B can be made video compatible by purchasing the TSTVA-12 Video Adapter. The use of the Video adapter will not make the microscope parfocal, which means you would have to adjust the focus when changing the magnification with the optical zoom.

ZMM-45B shown in the horizontal position.



ZMM-45B shown in the vertical position.



Ordering Information

Model Number	Description
ZMM-45B	Monocular Zoom Microscope
MZMEP10XZMM45B	10X Eyepiece for ZMM-45B
MZMCHREP10X	10X Cross Hair Eyepiece for ZMM-45B
MZMCHREP20X	20X Cross Hair Eyepiece for ZMM-45B
MZMOBJ2X	2X Auxillary Objective for ZMM-45B
TSTVA-12	"C" Mount Video Adapter
FOI-150	150 W 120 V Fiberoptic Illuminator
RI-34	Fiberoptic Ring Light

ADVANTAGES OF ZMM-45B:

PILLAR STAND: Base 5" tapers to 4" in front casting. Post is 7.5" long by .500" diameter. Extra rods 5.5", 3" and 2.5" long respectively.

BODY: Rack and Pinion focusing arrangement with adjustments possible 11" vertically by combining the long rods or 9" horizontally from vertical post by combining one short rod and one long rod.

MICROSCOPE FRAME: Vertical section 6.50" long with the 4.625" long eyetube bent at a 45° angle to the main microscope frame with a plus or minus two diopters.

EYEPIECE: 20X standard, 10X Optional, color coated

IMAGE: Optically correct.

OBJECTIVE: Zoom type internal objective with a 1:4 ratio with a 2X optional supplemental objective.

TABLE OF MAGNIFICATION AND FIELD OF VIEW

WITH STANDARD ZOOM OBJECTIVE									WITH SUPPLEMENTAL 2X OBJECTIVE								
WORK. DIST.	10X EYEPIECE OPTIONAL				20X EYEPIECE STANDARD				WORK. DIST.	10X EYEPIECE OPTIONAL				20X EYEPIECE STANDARD			
	INCH	MAG.	RES.*	Field of View	Depth of Field	MAG.	RES.*	Field of View		Depth of Field	INCH	MAG.	RES.*	Field of View	Depth of Field	MAG.	RES.*
4.72"	7.5X	40.3	.966"	.460"	15X	57	.574"	.400"	2.276"	15X	80.6	.472"	.250"	30X	128	.287"	.090"
4.72"	10X	50.8	.748"	.386"	20X	71.8	.433"	.340"	2.276"	20X	102	.354"	.180"	40X	161	.217"	.070"
4.72"	15X	71.8	.496"	.300"	30X	102	.287"	.280"	2.276"	30X	144	.236"	.150"	60X	181	.142"	.050"
4.72"	20X	102	.374"	.284"	40X	114	.216"	.200"	2.276"	40X	161	.177"	.100"	80X	203	.106"	.040"
4.72"	25X	114	.299"	.177"	50X	123	.173"	.120"	2.276"	50X	181	.141"	.060"	100X	300	.087"	.030"
4.72"	30X	128	.248"	.169"	60X	144	.141"	.063"	2.276"	60X	203	.118"	.030"	120X	400	.071"	.025"

*Resolution line pairs per millimeter

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