



M50 and M50RT Series

Brightfield / Darkfield Metallurgical Microscopes



M50 / M50RT Brightfield / Darkfield Metallurgical Microscope Features

Semi APO BD/DF MET Infinity Corrected Objectives



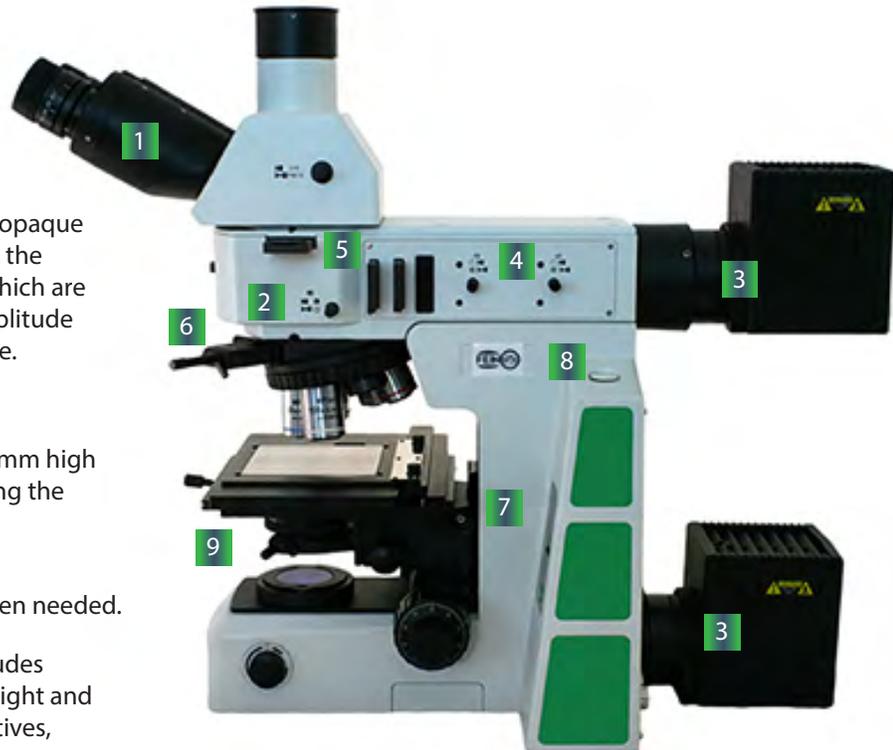
Part #	Objective	N.A.	W.D. (mm)
BD-SAPO-5	5x	0.15	13.5
BD-SAPO-10	10x	0.30	10.9
BD-SAPO-20	20x	0.45	3.2
BD-SAPO-50	50x	0.80	1.3
BD-SAPO-100	100x	0.90	1.0

Semi APO BF MET Infinity Corrected Objectives

Part #	Objective	N.A.	W.D. (mm)
BF-SAPO-M5	5x	0.15	19.5
BF-SAPO-M10	10x	0.30	10.9
BF-SAPO-M20	20x	0.50	3.2
BF-SAPO-M50	50x	0.80	1.2
BF-SAPO-M100	100x	0.90	1.0



- 1 Ergonomically inclined head with eyetubes at 30° places user in the best working position, creating less tension and fatigue. Interpupillary distance is adjustable from 54-75mm.
- 2 Koehler reflected illumination system.
- 3 12v 100W halogen light provides bright and even illumination.
- 4 Pull levers for adjusting field diaphragm and aperture diaphragm. Stray light can be eliminated, resulting in a higher clarity image.
- 5 Simple polarization includes polarizer and 360° rotatable analyzer.
- 6 DIC is instrumental when viewing highly reflective and opaque specimens. Slopes, valleys, and other discontinuities on the surface of the sample create optical path differences, which are transformed by reflective light DIC microscopy into amplitude or intensity variations that create a topographical profile.
- 7 M50RT reflected and transmitted light microscope can accommodate a 28mm sample height. M50 reflected light microscope can accommodate a 78mm high sample when dropping the stage 50mm by repositioning the screw in the stage holder.
- 8 M4 allen wrench for all microscope set screws stored in microscope frame making sure it is always available when needed.
- 9 M50RT reflected and transmitted light microscope includes condenser with swing-out lens for maximized focused light and the ability to adjust numerical aperture to match objectives, resulting in higher image clarity and resolution.



M50 Series Metallurgical BF/DF Microscope Models

M50 Reflected Light BD Metallurgical Microscope



Both models available in binocular and trinocular.

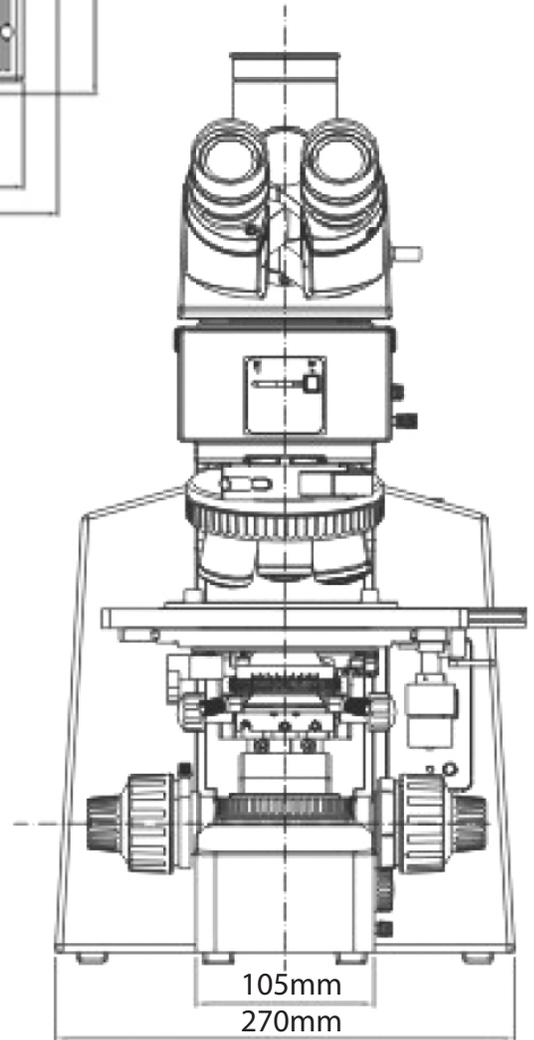
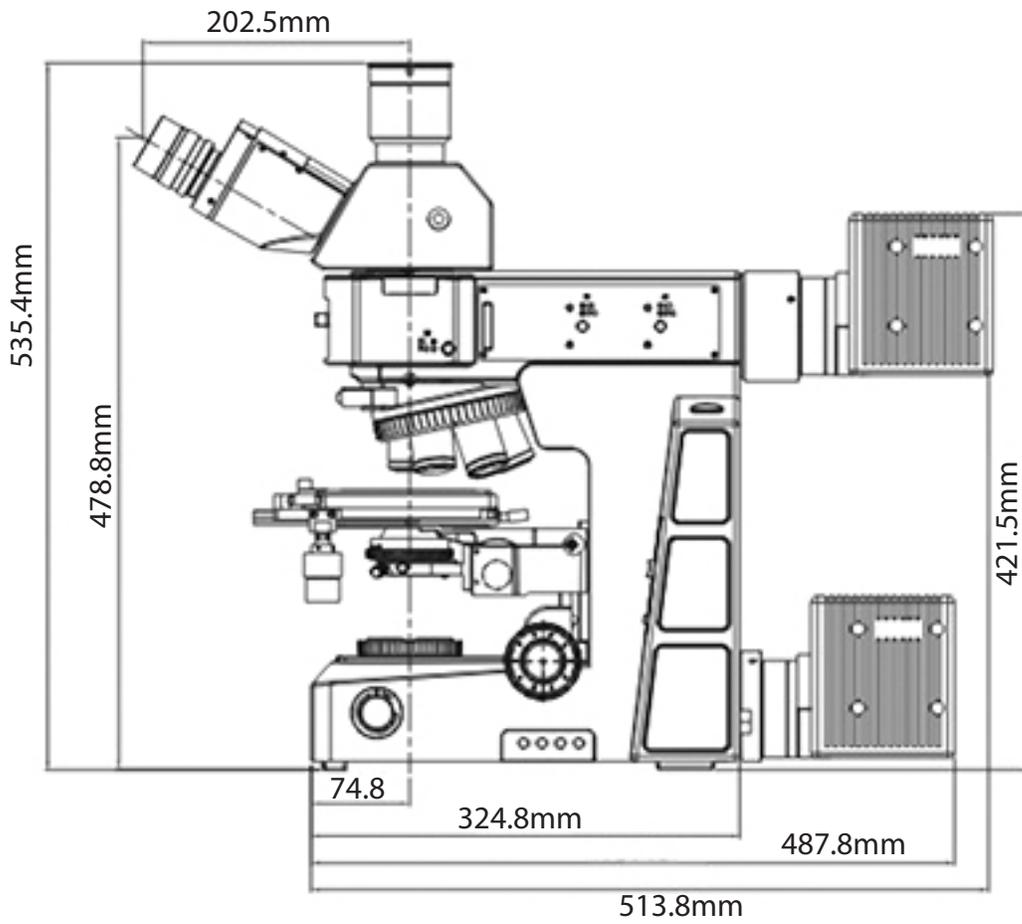
M50RT Reflected & Transmitted Light BD Metallurgical Microscope



M50 / M50RT BD Metallurgical Microscope Specifications

Observation	Brightfield, darkfield, polarization, DIC.
Optical System	Infinity color corrected optical system.
Viewing Head	30° inclined binocular head, interpupillary distance adjustable 50~76mm.
	30° inclined trinocular head (erect image), interpupillary distance adjustable 50~76mm, beam splitter ratio = 100:0, 0:100.
Eyepieces	High eyepoint WF PL10x / 25mm, eyepiece diopter of ±5. Reticle retaining ring for 27mm diameter reticle.
Objective Lenses	Semi APO Brightfield / Darkfield Metallurgical Infinity Corrected 5x, 10x, 20x, 50x, 100x.
	Semi APO Brightfield Metallurgical Infinity Corrected 5x, 10x, 20x, 50x, 100x.
Nosepiece	Inclined sextuple nosepiece for brightfield / darkfield, with DIC slot.
Focus Adjustment	M50RT (reflected & transmitted frame): coaxial focus system with tension adjustment and upper-limit device, coarse range: 33mm, fine precision: 0.001mm. Stage can be adjusted up and down. Maximum sample height = 28mm.
	M50 (reflected frame): coaxial focus system with tension adjustment and upper-limit device, coarse range: 33mm, fine precision: 0.001mm. Stage can be adjusted up and down. Maximum sample height = 78mm.
Stage	M50RT (reflected & transmitted frame): 4" double layer mechanical stage with X/Y coaxial adjustment. Moving range = 105mm (X) x 102mm (Y). Transmitted illumination range = 96mm x 96mm. Y-axis locking mechanism. Includes glass plate for transmitted light.
	M50 (reflected frame): 4" double layer mechanical stage with X/Y coaxial adjustment. Moving range = 105mm (X) x 102mm (Y). Includes metal plate. Y-axis locking mechanism.
Reflected Illumination	Wide range voltage 100V~240V. Reflected lamp house with pre-centered 12v 100w halogen lamp. Koehler illuminator with center adjustable field and aperture diaphragm.
Transmitted Illumination	Wide range voltage 100V~240V. Transmitted lamp house with pre-centered 12v 100w halogen lamp. Koehler illuminator with center adjustable field and aperture diaphragm. Switch between reflected / transmitted light. Built-in LBD, ND6, ND25 filters.
Polarization	Rotatable 360° analyzer and polarizer sliders fit in slots on reflected illuminator arm. Polarizer fits over transmitted light on M50RT.
Condenser	M50RT (reflected and transmitted frame): N.A. 0.90 swing-out achromatic condenser with center adjustable aperture iris diaphragm.
Body	Digital control of the light dimmer, with intensity setting and reset function.
C-Mount Adapters	C- Mount camera adapters 0.5x, 0.65x, 1.0x.
Filters	Reflected light empty filter sliders available.
	Transmitted light built-in filters: LBD, ND6, ND25 and blank filter slider.
Reticles	Variety of 27mm Ø reticles available including: grid, ruler, cross-line, etc. Metric or inches.

M50 / M50RT BD Metallurgical Microscope Diagram



info@feinoptic.com