

Banbros

Believes in Quality

METALLURGICAL MICROSCOPE



- Value
- Versatility
- Performance



THE PRECISION MEASUREMENT PEOPLE


BMU-101

BMU-102

BMU Series upright metallurgical microscopes are suitable to observe surfaces of opaque object or transparent object. They are equipped with long working distance plan achromatic objectives and wide field eyepieces, provided excellent optical quality and operation performance.

Enable selection of the illumination mode, such as reflected, transmitted and reflected light working independently or synchronously, achieved the request of different sample checking. They are the ideal instruments in research work for metallography, mineralogy, precision engineering, electronics, etc.

SPECIFICATIONS:

MODEL	BMU-101	BMU-102
Eyepieces	Wide Field WF 10x (Field Number Ø18mm)	
Objective	PL L5X/0.12 Work Distance: 18.3mm PL L10X/0.25 Work Distance: 8.8mm PL L40X/0.60 (Spring) Work Distance: 3.7mm PL L60X/0.75 (Spring) Work Distance: 1.34mm	
Magnification	50x, 100x, 400x & 600x (Optional upto 2000x)	
Eyepiece Tube	30° Trinocular, Inclination 30° and integrated analyzer	
Epi- illumination Unit	6V 20W, halogen lamp, brightness control. Integrated field, aperture diaphragm and filter switch device, puller polarizer Equipped with Y,B,G Filters with ground glass	
Transmitted illumination System	Not Applicable	NA.1.25 Abbe condenser Rack & pinion adjustable
Focus system division of fine focusing: 2µm	Coaxial coarse/fine focus system, with tensional adjustable and up stop, minimum	
Stage	Double layer mechanical (size: 185mm x 140mm, moving range: 75mm x 50mm)	


BMU-110 BD

BMU-110

BMU-110 Series Upright Metallurgical Microscopes are suitable to observe surfaces of opaque object or transparent object. They are equipped with excellent UIS optical and modularization function design, that provides excellent optical quality and operation performance, update system expediently and provides observation in reflected or transmitted and mixed illumination, polarizing observation, dark field observation.

These are the ideal instruments in research work metallography, mineralogy, precision engineering, electronics, etc.

SPECIFICATIONS:

MODEL	BMU-110 BD	BMU-110 B	BMU-110
Eyepieces	Wide Field WF 10x (Field Number Ø22mm)		
Infinity Plan Achromatic Objective	Equipped with bright & dark field objectives PL L5X/0.12 BD PL L10X/0.25 BD PL L20X/0.40 BD PL L40X/0.60 BD	Equipped with bright field objectives PL L5X/0.12 PL L10X/0.25 PL L40X/0.60 PL L60X/0.70	
Magnification	50x, 100x, 200x & 400x (Optional upto 2000x)	50x, 100x, 400x & 600x (Optional upto 2000x)	
Eyepiece Tube	Trinocular inclined 30°, can be shot in 100% light flux.		
Epi- illumination Unit	12V 50W, halogen lamp, adjustable brightness Equipped with Y,B,G Filters with ground glass	6V 30W, halogen lamp, adjustable brightness	
	Integrated field diaphragm, aperture diaphragm and filter switching device, Push-pull type analyzer with polarizer		
Transmitted illumination	12V 30W, halogen lamp, adjustable brightness	6V 30W, halogen lamp, adjustable brightness	Not Applicable
	Equipped with Blue filter and frosted glass		
Focus system	Coaxial coarse/fine focus system, with tension adjustable and up stop, minimum division of fine focusing : 2µm.		
Stage	Double layer mechanical (size: 185mm x 140mm, moving range: 75mm x 50mm)		


BMI-110 BD / BMI-110B

Inverted Metallurgical Microscopes is equipped with excellent UIS optical system and modularization function design so that update system expediently and archived polarization, dark filed observation. Compact and steady main frame body is embodiment for the shock resistance. The ideal ergonomic design is adopted in this unit and has easier operation and wider space.

This is ideal optical instrument for micro observation in metallographic structure and surface morphology. It is suitable for research in metallography, mineralogy, precision engineering, etc.

SPECIFICATIONS:

MODEL	BMI-110 BD	BMI-110 B
Eyepieces	Wide Field WF 10x (Field Number Ø22mm)	
Infinity Plan Achromatic Objective	(Equipped with bright & dark field objectives) PL L5X/0.12 BD PL L10X/0.25 BD PL L20X/0.40 BD PL L50X/0.70 BD	(Equipped with bright field objectives) PL L10X/0.25 PL L20X/0.40 PL L50X/0.70 (Spring) PL L100X/0.85 (Dry) (Spring)
Magnification	50x, 100x, 200x & 500x (Optional upto 2000x)	100x, 200x, 500x & 1000x (Optional upto 2000x)
Eyepiece Tube	Inclination 45° and interpupillary distance: 53-75mm.	
Focus system	Coaxial coarse/fine focus with tension adjustable, minimum division of fine focusing: 2µm.	
Stage	Mechanical stage Overall Size: 242mm X 200mm and Moving Range: 30mm X 30mm. Rotundity and rotatable stage size: maximum measurement is Ø130mm and minimum clear aperture is less then Ø20mm.	
Illumination Unit	12V 50W, halogen lamp, adjustable brightness	6V 30W, halogen lamp, adjustable brightness
	Integrated field diaphragm, aperture diaphragm and system polarizer Equipped with frosted glass and yellow, green and Blue Filter.	


BCE-PW130

BCE-PW300/500

This is a high-resolution camera, which can Displays the image immediately on computer or notebook PC attached, can provide support for detail image demonstration and analysis/application, including following functions.

SPECIFICATIONS:

Model	BCE-PW130	BCE-PW300	BCE-PW500
Image Sensor	1.3 Mega Pixel CMOS Chips	3.0 Mega Pixel CMOS Chips	5.0 Mega Pixel CMOS Chips
Max Pixels	1280 X 1024 Pixels	2048 X 1536 Pixels	2592 X 1944 Pixels
Interface	USB2.0 (Standard)		
Exposure	Automatic		
Saved Picture File format	BMP & JPG		
System Requirement	Windows 2000 or XP or 2007		
Software	Scopephoto Senior micro-imaging Software (For BCE-PW300 / 500)		


BMI-102 A

BMI-101A

BMI Series Inverted Metallurgical Microscopes are equipped with excellent plan achromatic objectives and wide field eyepieces, the illumination mode is Kohler, so that the field is uniform. The instrument design is very compact in structure, to make the operation easy and affordable. This is ideal optical instrument for micro observation in metallographic structure and surface morphology. It is suitable for research in metallography, mineralogy, precision engineering, etc.

SPECIFICATIONS:

MODEL	BMI-101	BMI-101 A	BMI-102A
Viewing Head	Binocular	Trinocular	Trinocular
Eyepieces	Wide Field WF 10x / Ø18mm		High-point , extra wide field EWF10x/ Ø20mm
Objective	Plan Achromatic PL L10X/0.25 PL L20X/0.40 (Spring) PL L40X/0.60 (Spring)		Infinite Plan Achromatic 4X/ 0.1 10X/ 0.25 20X/ 0.40 (Spring) 40X/ 0.60 (Spring)
Magnification	100x, 200x & 400x (Standard), Can be increased upto 2000x		
Focus system	Coaxial coarse/fine focus with tension adjustable and low stop, minimum division of fine focusing: 2µm.		
Illumination Unit	6V - 20W, halogen lamp, brightness adjustable. Integrated field diaphragm, aperture diaphragm.		
Filter	Blue, Yellow, Green and Ground Glass		
Polarization Attachment	-		Polarizer and analyzer, An integrate device for polarizer and analyzer

Microstructure Characterizer Software offers following modules:

- Grain Size Measurement and Distribution Plots (Automatic and Manual modes)
- Volume Fraction (Automatic and Manual modes)
- Inclusion Rating (Automatic and Manual modes)
- Graphite Morphology (Automatic and Manual modes)
- Nodularity Assessment
- Bulk or micro Hardness Measurement and generating profile
- Particle Size Measurement and generating histogram of size distribution
- Linear and Angular Dimensioning.
- Percent of "Delta Ferrite" phase present in the microstructure for colour metallography.
- Acquire images manually from one or more files.
- Increasing image detail using the filtering and enhancement tools.
- Create reports in 'Rich Text Format' or 'Custom Made' as per users' choice.
- Easy to operate - One Touch Calibration for different image resolutions.

It installs easily. Using combination of different tools of MiC, you can characterize different types of materials' images by measuring different aspects of the microstructure.

