



IND

ME 2000MET SERIES

INVERTED METALLURGICAL MICROSCOPE



CONTENTS ME2000MET CATALOGUE

INTRODUCTION	02
THE MECHANICS	04
THE OPTICS	06
THE ILLUMINATION	08
DOCUMENTATION	10
SPECIFICATIONS	12

With the new ME2000MET, Metavis introduces an Inverted Metallurgical micro-scope dedicated to the inspection of bulky samples in automotive, machinery and steel industry. Large metal pieces or die casting parts, too large to be treated with an upright microscope model, can easily be examined to perform failure analysis, material research and quality control.

METAVIS's CCIS® optics, an advanced Infinity concept with maximum flexibility, provides new Brightfield/Darkfield objectives with Long Working distances for the inspection of massive opaque samples. High quality glasses and anti-reflex coating ensure superb image quality.

The robust 3-plate stage allows smooth scanning of the specimen.

A powerful 100W Halogen light source allows easy performance of Brightfield, Darkfield and POL contrast.

The complete ME2000MET microscope is manufactured in accordance with current RoHS standards. To protect the system from fungus growth in high-humidity environments, an anti-fungus treatment is applied to all parts of the microscope.



ME2000MET

INVERTED METALLURGICAL MICROSCOPE



THE MECHANICS

STAND & STAGE | EYEPiece TUBES



INTRODUCTION

THE MECHANICS

THE OPTICS

THE ILLUMINATION

DOCUMENTATION

SPECIFICATIONS

05

ROBUST MANUFACTURING QUALITY FOR A LONG LIFETIME

Metavis's ME2000MET incorporates maximum reliability in any aspect of its mechanics. The sturdy microscope stand follows all needs for a prolonged effortless operation. The ball-bearing 5-fold nosepiece for M32 objective thread guarantees proper parcentration and comfortable objective change.

The scratch resistant 3-plate stage has an extended surface area of 280x180mm, with a travel range of 50x50mm for safe and fast inspection purposes.

The eyepiece tube with 45° viewing angle and 48-75mm interpupillary distance guarantees relaxed viewing for hours. The extended "butterfly" movement increases the viewing height for individual positioning by 40mm. Light split with activated Trino port is 20/80.



THE OPTICS

OBJECTIVES | EYEPIECES

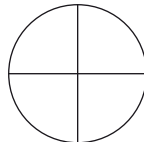


INTRODUCTION
THE MECHANICS
THE OPTICS
THE ILLUMINATION
DOCUMENTATION
SPECIFICATIONS

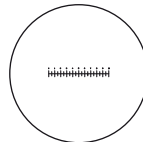
NEW BF/DF OBJECTIVES FOR METALLURGY

Metavis's superb CCIS® Infinity concept has created a set of new BF/DF objectives, especially meant for metallurgical samples. Long working distances are verified throughout this class of LM Plan Achromats. Aberration-free images with improved field flatness and resolution are delivered by multi-layer coated glass lenses. All BF lenses from the BA310MET program can be used without parfocality restrictions by adapter rings.

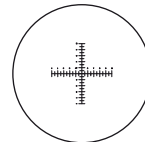
The standard eyepieces N-WF 10X/20 with high eyepoint for eyeglass wearers provide consistent diopter adjustment for both eyes. All reticles from the BA series of Upright microscopes can be used.



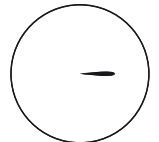
Plain crosshair



Graduated linear hair
0.1mm/10mm



Graduated cross hair
0.1mm/10mm



Reticle with pointer



THE ILLUMINATION

LIGHT SOURCE | LIGHT MEMORY FUNCTION





In addition to the standard package, the ME2000MET offers a set of polarizer & analyzer for simple POL contrast. The rotatable analyzer ensures the perfect setting of crossed POL filters.



DOCUMENTATION

STANDARD PHOTOMICROGRAPHY | DIGITAL DOCUMENTATION





A FLEXIBLE UPGRADE FOR DIGITAL RESULTS

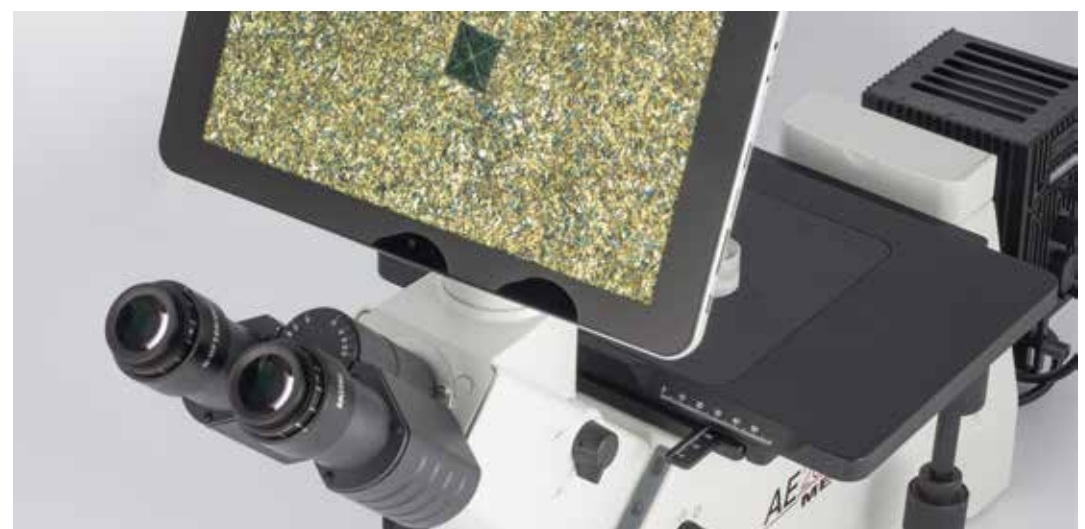
Documentation of image results is a standard task in industrial quality control. The ME2000MET is accessible by the traditional photomicrography and the more flexible C-mount camera approach.

The Trinocular version of the ME2000MET is recommended for a convenient camera adaption. The adaptation of SLR camera consists of a mechanical adapter combined with a photo eyepiece (2.5X or 4X). The necessary T2 adapter specifically fits to the camera model and is supplied by photo specialist shops.

The Metacam series of digital C-mount cameras delivers excellent live images, ready for presentations and further storage. All Metavis cameras come equipped with proprietary software to transform the ME2000MET into an analysis and documentation station.

For limited top landing bench, Metacam 580 is ideal for the presentation of High Resolution images on an HDMI screen without a computer. The wireless models Metacam X and X2 are dedicated to run under tablet and smartphone control through our "MetaConnect" App. Our tablet cameras with touch screen in first instance work as a fixed monitor solution, but may also create a hotspot for remote tablet/smartphone access.

METACAM TABLET SOLUTIONS



SPECIFICATIONS

ME2000MET STANDARD CONFIGURATION & OPTIONAL ACCESSORIES



General Specifications



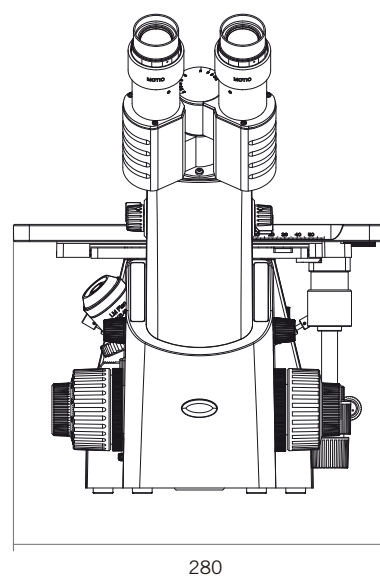
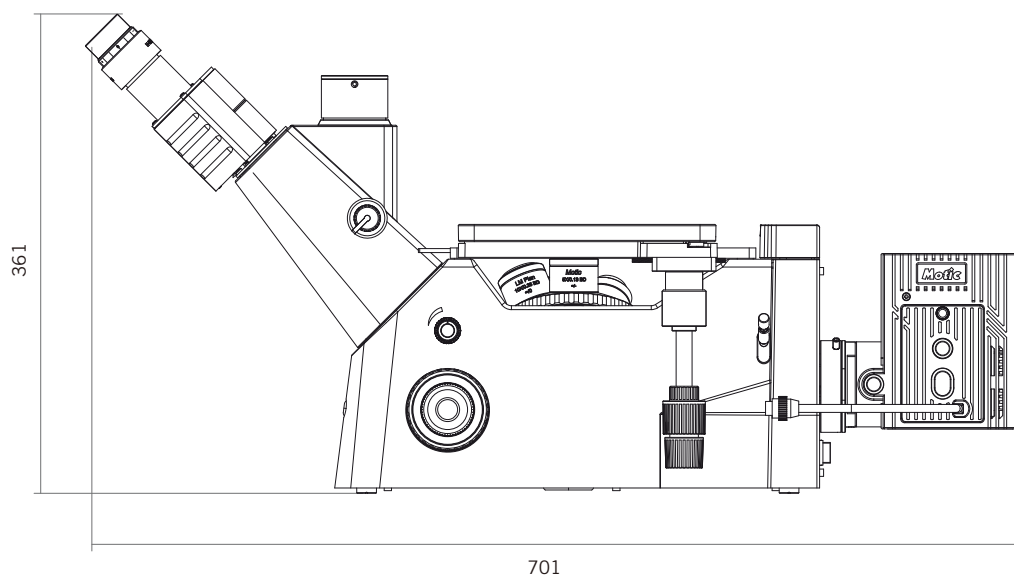
Optional Configuration

Optical system	CCIS®	
Observation system	Swiveling 360° with 45° inclination	
Interpupillary distance (mm)	48-75	
Eyepieces	N-WF 10X/20	N-WF 12.5X/18; N-WF 15X/16
Eyepieces diopter adjustment	+/- 5 dpt	
Reticles (Ø25mm)		Crosshair 10mm/100 divisions Crossed double scale 10mm/100 divisions Pointer
Trino light split	20/80	
Nosepiece	Quintuple, side orientated	
Objective mounting thread RMS standard (W 4/5" X 1/36")	No; M32	RMS objectives per adapter ring
LM Plan Achromat objectives	LM BF/DF 5X/0.13; 10X/0.25; 20X/0.4; 50X/0.55	LM BF 5X/0.13; 10X/0.25; 20X/0.4; 50X/0.55; 100X/0.8; LM BF/DF 100X/0.8
3-plate x/y stage (mm)	280 x 180	
x/y Travel range	50 x 50	
Focus mechanism	Coaxial; tension adjustment	
Fine focus precision (µm)	2	
Z-axis movement of nosepiece (mm)	8	
Illumination	12V/100W Halogen	
Halogen / LED interchangeability	No	
Illumination position	External	
Auto ON/OFF	Yes	
BF/DF Light manager	Yes	
Transformer	12V/100W; external	
Power supply	110-240V (CE)	
Filters	Blue	Green, Didymium
Dimensions (mm)	701 x 280 x 361	
Weight (Kg)	13,9	
Contrast techniques		
Brightfield	Yes	
Darkfield	Yes	
POL contrast		Yes

SPECIFICATIONS

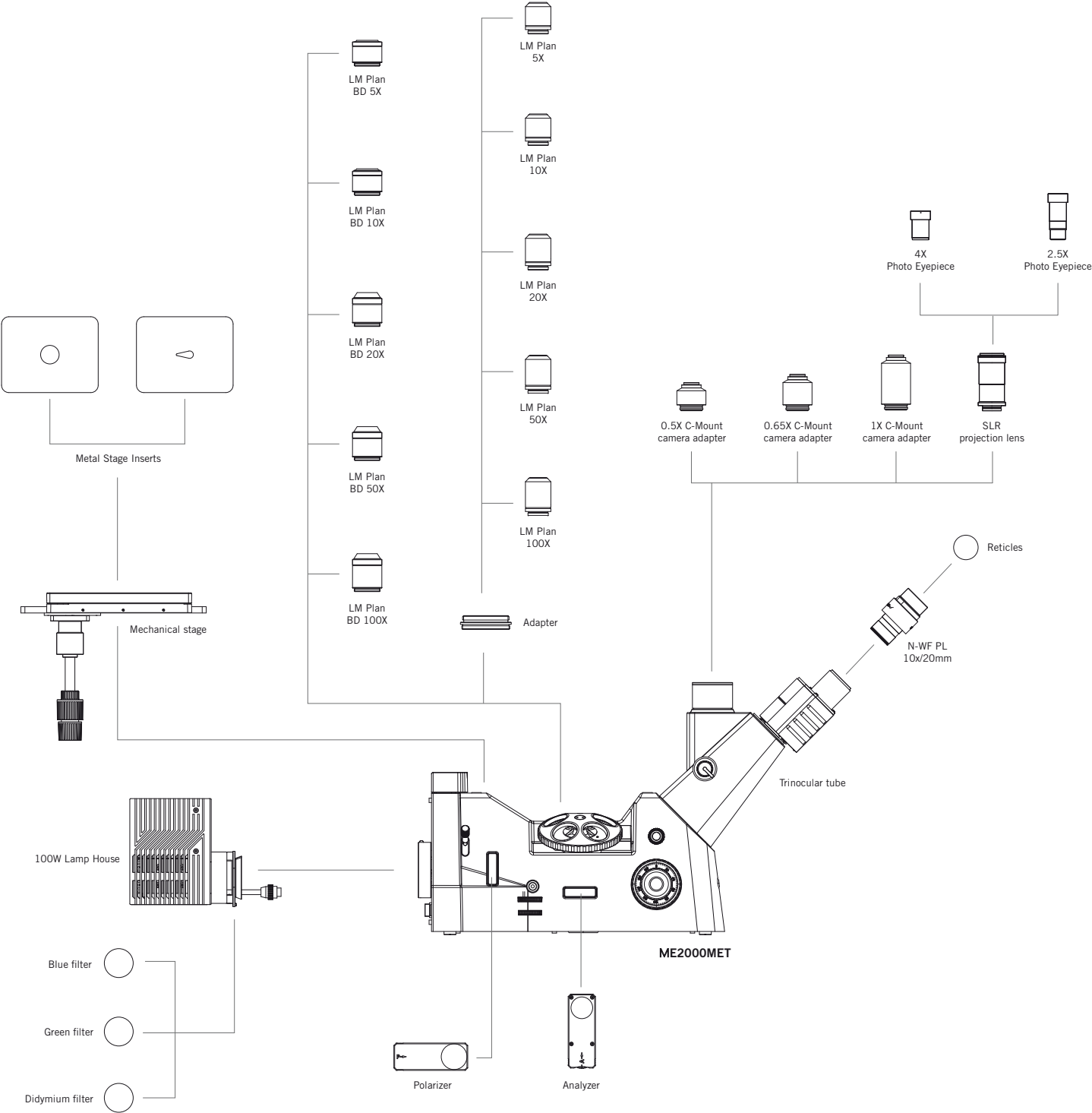
ME2000MET

SCHEMATIC DIAGRAMS (units: mm)



SPECIFICATIONS

ME2000MET SYSTEM DIAGRAMS (units: mm)



HIGHLIGHTS

OPTICS | ILLUMINATION | MECHANICS



OPTICS

New Brightfield/Darkfield objectives

Especially meant for metallurgical samples and for the inspection of massive opaque samples. High quality glasses and anti-reflex coating ensure superb image quality.

ILLUMINATION

Powerful 100W Halogen light source

Easy performance of Brightfield, Darkfield and POL contrast.

IR sensor - Sleep mode

An IR motion sensor detects the user and automatically turns off the microscope when it is left for more than 15 minutes. By returning to the instrument, the power is reactivated.

Eye protection mechanism

This ergonomic feature automatically drives down the illumination intensity when changing from Darkfield to Brightfield and thus avoids a potential glare.

MECHANICS

Scratch resistant 3-plate stage

With an extended surface area of 280x180mm, and a travel range of 50x50mm for safe and fast inspection purposes.