

Infinity Corrected Optical System

MT8500 **SERIES**

BRIGHTFIELD / DARKFIELD AND SIMPLE POLARIZATION UPRIGHT METALLURGICAL COMPOUND MICROSCOPES



METALLURGICAL SERIES

MT8500

MEIJITECHNO



METALLURGICAL COMPOUND MICROSCOPES

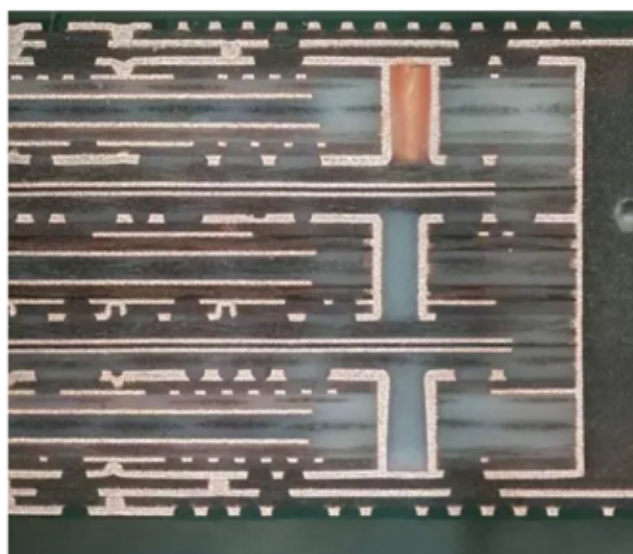
UPRIGHT BRIGHTFIELD / DARKFIELD & SIMPLE POLARIZATION

SERIES

THE MEIJI TECHNO MT8500 SERIES SETS A NEW BENCHMARK IN METALLURGICAL MICROSCOPY, COMBINING EXCEPTIONAL OPTICAL PERFORMANCE WITH ERGONOMIC DESIGN. PERFECT FOR INDUSTRIAL INSPECTION AND RESEARCH, IT DELIVERS UNMATCHED ACCURACY, RELIABILITY, AND CRYSTAL-CLEAR IMAGING FOR THE MOST DEMANDING APPLICATIONS.

The Meiji Techno MT8500 Series represents the perfect balance between Japanese craftsmanship, optical innovation, and ergonomic design. Built for professional material analysis and industrial inspection, this advanced metallurgical microscope delivers bright, high-contrast images through Meiji's Infinity Corrected Optical System (F = 200 mm). Equipped for Brightfield, Darkfield, and Simple Polarization observation, it ensures unmatched clarity and accuracy when examining metals, alloys, coatings, and other solid specimens.

Each system—available in binocular or trinocular configurations—features a durable ceramic-coated stage, smooth X-Y coaxial controls, and powerful 12 V/50 W Halogen or optional LED illumination for superior image quality. The MT8500 includes Plan Epi BD objectives (5x, 10x, 20x, 50x) and Super Widefield High Eyepoint eyepieces (10x, FN 22) for maximum resolution and comfort. With its modular build, optional ergonomic heads, and full range of digital camera attachments, the MT8500 Series offers precision, adaptability, and reliability—making it a trusted choice for laboratories that demand excellence in every detail.



BRIGHTFIELD / DARKFIELD & SIMPLE POLARIZATION - QUADRUPLER NOSEPIECE (HALOGEN)

MODEL	BODY	ILLUMINATOR	EYEPIECES	OBJECTIVES	STAGE	CONDENSER
MT8520H	Binocular	VERTICAL KOEHLER 12V 50W Halogen BF/DF and POL ILLUMINATOR	SWH 10X F.N. 22 (O.D. 30mm) PAIRED	INFINITY CORRECTED OPTICAL SYSTEM F = 200mm PLAN EPI 5X PLAN EPI 10X PLAN EPI 20X PLAN EPI 50X	CERAMIC COATED FLAT-TOP X-Y MOVEMENT RIGHT HANDED DROP DOWN COAXIAL CONTROLS	SUBSTAGE CONDENSER WITH IRIS DIAPHRAGM, DOVETAIL MOUNT
MT8520EH	Ergonomic Binocular					
MT8530EH	Ergonomic Trinocular					

BRIGHTFIELD / DARKFIELD & SIMPLE POLARIZATION - QUADRUPLER NOSEPIECE (LED) - 3 WATT

MODEL	BODY	ILLUMINATOR	EYEPIECES	OBJECTIVES	STAGE	CONDENSER
MT8520L	Binocular	VERTICALKOEHLER INCIDENT LED BF/DF and POL ILLUMINATOR	SWH 10X F.N. 22 (O.D. 30mm) PAIRED	INFINITY CORRECTED OPTICAL SYSTEM F = 200mm PLAN EPI 5X PLAN EPI 10X PLAN EPI 20X PLAN EPI 50X	CERAMIC COATED FLAT-TOP X-Y MOVEMENT RIGHT HANDED DROP DOWN COAXIAL CONTROLS	SUBSTAGE CONDENSER WITH IRIS DIAPHRAGM, DOVETAIL MOUNT
MT8530EL	Ergonomic Binocular					
MT8530EL	Ergonomic Trinocular					

The MT8520 and MT8530 Series are upright Brightfield/Darkfield incident light metallurgical microscopes. These series employ all new and improved Plan Episcopic optical system. Meiji Techno's ICOS™ (Infinity Corrected Optical System) makes observing and evaluating metallurgical specimens fast and easy while delivering an excellent cost-to-performance ratio. The systems provide exceptionally bright, crisp images, good color rendition and superior flat field of view.



IDEAL FOR RESEARCH, INSPECTION,
AND INDUSTRIAL APPLICATIONS.

MODULAR DESIGN facilitates

ATTACHMENT OF A VARIETY OF ACCESSORIES



for METALLURGICAL LABORATORIES

VIEWING HEAD

Binocular 30° inclined tube
or or Trinocular Viewing
Head 30° inclined

ATTACHABLE DIGITAL CAMERA

23.2mm PHOTO PORT

EYEPIECES

Paired HWF 10X/20mm
F.O.V. 30.0mm with
diopter adjustment

POLARIZER SLIDER

Easily insert and remove
the polarizer filter from the
light path. Enables
Polarized Light Microscopy

OBJECTIVES

Reverse facing nosepiece
with Infinity Corrected Plan
EPI 5X, 10X, 20X and 50X
N.A. 1.25, W.D. 0.19mm,
180mm tube length

STAGE

191mm x 126mm
Mechanical stage with X – Y
movement of 100mm x
100mm (4" X 4") with
removable stainless steel

CONDENSER

191mm x 126mm Mechanical
stage with X – Y movement of
100mm x 100mm.

MECHANICAL DROPDOWN

Ergonomic X-Y right
handed stage dropdown
coaxial control

ILLUMINATION

Brightfield/Darkfield
illumination with a powerful
12V 50W Halogen or
optional LED system,
delivering bright, clear, and
accurate imaging for
metallurgical analysis.

BEAM SPLITTER

Beam splitter 80/20 split ratio,
80% light is directed to the
camera and the remaining light
20% going to the eyepieces

INTEGRATED AUTOMATIC VOLTAGE SENSING POWER SUPPLY WITH LOCALIZED POWER CORDSET

ILLUMINATION ADJUSTMENT

Variable Intensity knob increases
or decreases the intensity of the
light source. By fine-tuning the
intensity, you can balance
brightness and contrast to see
structures more clearly)

FOCUSING ADJUSTMENT

Coaxial coarse and 200 μ m
fine adjustments, 2 μ m
precision, Friction adjustment.
"Slip-clutch" system protects
against over-focusing

ON/OFF SWITCH

Main power control for
the light source

REFLECTED LAMPHOUSE CONTROL WITH LED LIGHT

CUSTOMER SUPPORT (U.S.A Based) 1-(800) 832-0060 (P.S.T.)

- Weight: 30.8 lbs (13.6 kg)
- Box Size: 16 x 14 x 21 inches
- Footprint: 263mm (D) x 176mm (W)
- Manufactured: 100% MADE IN JAPAN

DIGITAL CAMERAS FOR MICROSCOPY

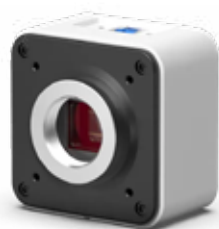
CAM® V1700 (M)	Monochrome 8.3 MP 1/1.7" CMOS 44 f/s USB 3.0 Digital camera with resolution 3840x2160 pixels
CAM® V3400	Color 5.1 MP 2/3" CCD 75 f/s USB 3.0 Digital camera with resolution 2464x2056 pixels
CAM® V3200	Color 3.2 MP 1/1.8" CMOS 120 f/s USB 3.0 Digital camera with resolution 2064x1544 pixels
CAM® V1400	Color 20 MP 1" CMOS 15 f/s USB 3.0 Digital camera with resolution 5472x3648 pixels
CAM® V1200 (C) HD	Color digital HD camera with monitor 6 MP 1/2.8" CMOS USB 3.0 Resolution 3264x1836 pixels Built-in 11.6" LCD screen Video record: 1080p high definition format



CAM® V1700 (M)



CAM® V1200 (C) HD



CAM® V1400



C MOUNT ADAPTERS

MA151/35/03	C" mount adapter with 0.3X lens
MA151/35/04	C" mount adapter with 0.45X lens
MA151/35/15	C" mount adapter with 1.0X lens
MA151/35/20	C" mount adapter with 0.7X lens
MA151/35/25	C" mount adapter with 2.5X lens
MA151/35/30	C" mount adapter with 1.5X lens
MA151/MT05	C" mount adapter with 0.5X lens



MA151/35/05 C-Mount
Adapter with 0.5X lens

COMPONENTS AND ACCESSORIES FOR MT8500 SERIES

EYEPIECE MICROMETERS (25MM DIAMETER) FOR USE WITH MA817 OR MA859 EYEPIECE)

MA523	Cross-line reticle, 25mm diameter
MA506	10mm divided into 100 units, 25mm diameter
MA509	5mm divided into 100 units, 25mm diameter
MA524	10mm square into 400 parts, 0.5mm square, 25mm diameter
MA510	10mm square into 100 parts, 1.0mm square, 25mm diameter
MA542	Cross-line with 0.1mm graduation, 25mm diameter
MA738	Eye piece micrometer, for grain sizing in steel (25mm)

EYEPIECE MICROMETERS (19mm diameter for use with MA818 or MA819 eyepieces)

MA279	Eye piece micrometer, cross-line reticle, 19mm diameter
MA280	Eye piece micrometer, 10mm line divided into 100 units, 19mm diameter (linear)
MA281	Eye piece micrometer, 5mm line divided into 100 units, 19mm diameter (linear)
MA283	Eye piece micrometer, 10mm square divided into 100 parts, each square 80.00 1.0mm, 19mm diameter (Graphic paper style)

STAGE MICROMETERS

MA292	Metal stage micrometer, 1mm divided into 100 units, 0.01mm (linear) (Optional)
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MT8530+CAM V1200 HD+MA151/35/05

**EYEPIECE
MICROMETER**
for grain sizing in steel (25mm)



MA738



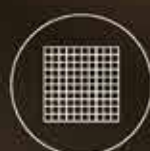
MA523



MA506



MA509



MA542



MA292
1mm divided into 100 parts

COMPONENTS AND ACCESSORIES FOR MT8500 SERIES

The Items marked with a Star (★) are included

VIEWING HEAD (without eyepieces)

- MA815** ★ Binocular head - Siedentopf type, I.P. adjustment 53mm to 75mm, graduated diopter on left eyetube (30.0mm I.D. eyetube). Inclined at 30°
- MA816** ★ Trinocular head - Siedentopf type, I.P. adjustment 53mm to 75mm, graduated diopter on left eyetube (30.0mm I.D. eyetube). Inclined at 30°
- MA957** ★ Ergonomic tilting binocular head - Adjustable vertically from 10° to 50° (Included in MT7000EH, MT7100EH, MT7000EL and MT7100EL models)
- MA979** ★ Trinocular head - Siedentopf type, erect image with sliding 0/100 beam splitter, inclined at 30°, I.P. adjustment 53mm to 75mm, graduated diopter on left eyetube.

EYEPIECES

- MA817** ★ SWH 10X, widefield, high eyepoint eyepiece (each) Field No. 22 (MA817 accepts 25mm diameter reticle)
- MA818** SWH 15X, widefield, high eyepoint eyepiece (each) Field No. 16 (MA818 accepts 19mm diameter reticle)
- MA819** SWH 20X, widefield, high eyepoint eyepiece (each) Field No. 12 (MA819 accepts 19mm diameter reticle)
- MA859** SWF 10X-F, focusing widefield, high eyepoint eyepiece (each) Field No. 22 (MA859 accepts 25mm diameter reticle)

BRIGHTFIELD/DARKFIELD PLAN EPI OBJECTIVES

- MA923** ★ Plan Epi Objective BD5X, N.A. 0.10, W.D. 17.0mm, F.N. 22
- MA924** ★ Plan Epi Objective BD10X, N.A. 0.25, W.D. 7.48mm, F.N. 22
- MA925** ★ Plan Epi Objective BD20X, N.A. 0.40, W.D. 4.30mm, F.N. 22
- MA926** ★ Plan Epi Objective BD50X, N.A. 0.75, W.D. 0.38mm, F.N. 22
- MA686/05** Adapter to mount RMS thread objective to BF/DF nosepiece

ILLUMINATOR (HALOGEN) *INCLUDED ON HALOGEN MODELS ONLY

- MA928** ★ Vertical LED BF/DF/POL Koehler illuminator, 12V 50W Halogen lamp, with clear blue, clear green, ND 50, neutral density filter, and polarizing filters in metal mounts 100V~240V, powered by automatic voltage sensing transformer built into MT7500 Series stand
- MA928/05** ★ Electronic transformer with automatic voltage sensing capability for MA928 in separate case (Input 100V~240V, Output 12V, 50W) (*Included on Halogen models only)

ILLUMINATOR (LED) *INCLUDED ON LED MODELS ONLY

- MA928/L** ★ Vertical Köhler illuminator, with infinity tube lens, focal length 200mm, LED with clear blue, clear green, ND 25, neutral density filter, and polarizing filters in metal mounts 100V~240V (Without transformer/power supply)
- MA928/05L** ★ Auto voltage sensing power supply for MA928/L provided in separate case (Input 100V~240V) (*Included on LED models only)

FILTERS

- MA275/25** ★ Blue clear filter, 19.5mm diameter filter in metal mount, fits 30mm filter slot
- MA275/30** ★ Green clear filter, 19.5mm diameter filter in metal mount, fits 30mm filter slot (Included in all Halogen models)
- MA275/50** ★ N.D.50 neutral density filter, 19.5mm diameter filter in metal mount, fits 30mm filter slot
- MA959** ★ Polarizing filter, 19.5mm diameter filter in metal mount, fits 30mm filter slot

STAGE

- MA942** ★ Ceramic coated flat-top stage, 191mm x 126mm, 100mm x 100mm X - Y movement, with right hand drop down coaxial controls and 94.5mm diameter clear glass stage plate (Included in Model MT8520 and MT8530)

CONDENSER

- MA910/05** ★ Substage condenser with iris diaphragm, dovetail mount.

BULBS AND FUSES

- MA275/05** ★ Spare bulb 6V 30W halogen lamp for MT7000 and MT7100
- MA327** ★ Spare fuse 3A for halogen illuminator for MT7000 and MT7100
- LED/SP-1** ★ Spare bulb 5W for LED illuminator for MT7000L and MT7100L
- MA929** ★ Spare fuse 0.5A for LED illuminator for MT7000L and MT7100L

POWER CORDS

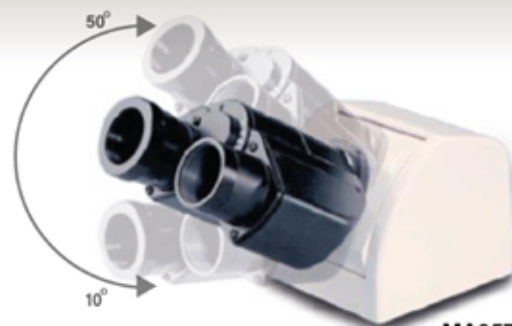
- MA809/10** Removable AC Electric cord with plug for 115V Models (Included in all 115V models)
- MA809/20** Removable AC Electric cord with plug for 115V Models (Included in all 115V models)

CARRYING CASE

- MT-PEL** Pelican case with foam insert 21 ½ (L) x 16 ½ (W) x 12 ½ (D) for ML/MT/EM models with portable pullout handle and wheels for protection against vibration and shock (Optional)

MISCELLANEOUS

- MA686/05** ★ EAdapter to mount RMS thread objective to MT7500/MT8500 nosepiece
- MA709** ★ Dust cover for all MT8500 Series models
- MA709AS** Anti-static and washable dust cover for MT7500, MT8500, MT9900, and MT9400 9" x 19" x 23", blue color



MA957

ERGONOMIC HEAD (Tilts 10° to 50°)



MA928

VERTICAL KOEHLER HALOGEN ILLUMINATOR



MA926

PLAN EPI OBJECTIVE 50X (W.D.0.38MM)



MT-PEL

(OPTIONAL) PELICAN CASE WITH FOAM INSERT 21 ½ (L) X 16 ½ (W) X 12 ½ (D)



For further information
about the MT8500 Series,
scan this QR code.



100% MADE IN JAPAN

MT8500 SERIES MICROSCOPES

"Your trusted tool for metallurgical laboratories and industrial inspection facilities worldwide."

Specifications and design subject to change without notice for improvements

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