Infinity Corrected Optical System

MT8500 SERIES

BRIGHTFIELD / DARKFIELD AND SIMPLE POLARIZATION UPRIGHT METALLURGICAL COMPOUND MICROSCOPES

MEIJITECHNO

METALLURGICAL SERIES

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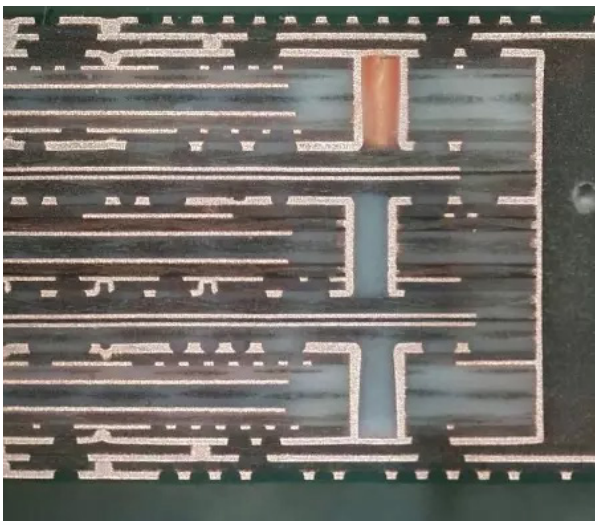
METALLURGICAL COMPOUND MICROSCOPES

UPRIGHT BRIGHTFIELD / DARKFIELD & SIMPLE POLARIZATION

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 (5×, 10×, 20×, 50×) and Super Widefield High Eyepoint eyepieces (10×, 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 - QUADRUPLE 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 - QUADRUPLE 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.

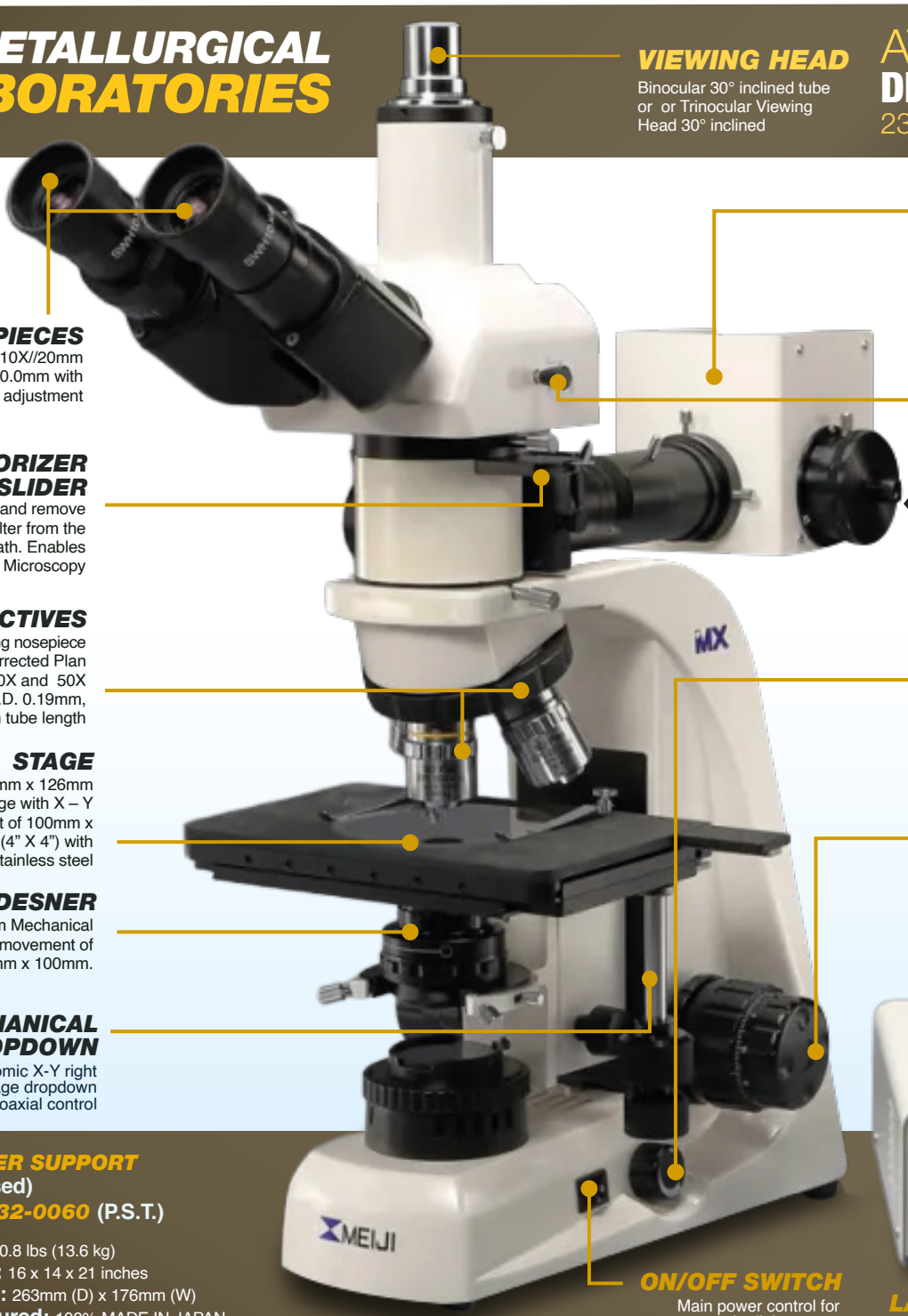
MODULAR DESIGN facilitates

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

POLORIZER 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

CONDESNER
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 Intesity 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 μm fine adjustments, 2 μm 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

HDMI-USB 2.0 CAMERAS WITH 11.8" MONITOR

Requiers 0.3 "C"-Mount Adapter Model MA151/35/03

HD1000-LITE-M	Affordable Color HD 5MP CMOS 15FPS/ HDMI/ USB 2.0 Camera/Annotation & Measurement Software with 11.8IN HDMI monitor.
HD1500T-M	Color HD 6MP CMOS 60FPS/ HDMI/ USB 2.0 Camera/Annotation & Metric Measurement Software with 11.8IN HDMI monitor.
HD1500MET-M	Color HD 6MP CMOS 60FPS/ HDMI/ USB 2.0 Camera/Annotation & Metric Measurement Software with 11.8IN HDMI monitor.
HD1500MET-AF-M	Autofocus HD 6MP CMOS 60FPS/ HDMI/ USB 2.0 Camera/Annotation & Metric Measurement Software with 11.8IN HDMI monitor.

HD1500MET-AF CAMERA

35mm PHOTOMICROSCOPY

Following three accessories are required for mounting a 35mm SLR camera body

1. The appropriate T-2 adapter ring for your SLR camera body

T2-1	Canon	**T2-6**	Olympus
T2-2	Minolta	**T2-7**	Contax, Yashika
T2-3	Pentax K	**T2-8**	Konica
T2-4	Pentax S	**T2-9**	Canon Eos
T2-5	Nikon	**T2-10**	Minolta Alpha / Maxim 2000

These adapter rings attach directly to your camera body's lens mount.

2. A photo eyepiece, available in the following magnifications:

MA512 2.5X magnification
MA500 3.3X magnification (with reticle mount)
MA508 5X magnification

The photo eyepiece performs the same function as a standard 35mm camera lens (i.e. focusing the image at the plane of the film).

3. One of two MA150 series camera attachments:

MA150/50 Straight-tube camera attachment

MA150/60 Camera attachment with built-in focusing eyepiece

These attachments are used to mount the camera with T2 adapter ring to the photo tube.

11.8IN HDMI MONITOR

EQUIPPED WITH USB 2.0, SD CARD

MA151/35/03 "C" MOUNT ADAPTER

MT7100L+ HD1500T-M+MA151/35/03

COMPONENTS AND ACCESSORIES FOR MT7000 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	Eyepiece micrometer, for grain sizing in steel (25mm)

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

MA279	Eyepiece micrometer, cross-line reticle, 19mm diameter
MA280	Eyepiece micrometer, 10mm line divided into 100 units, 19mm diameter (linear)
MA281	Eyepiece micrometer, 5mm line divided into 100 units, 19mm diameter (linear)
MA283	Eyepiece 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)

EYEPIECE MICROMETER
for grain sizing in steel (25mm)

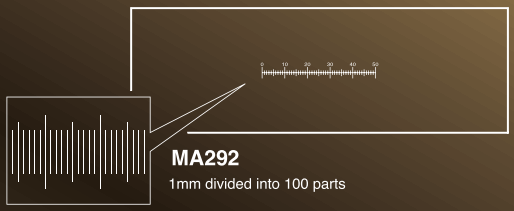
MA738

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

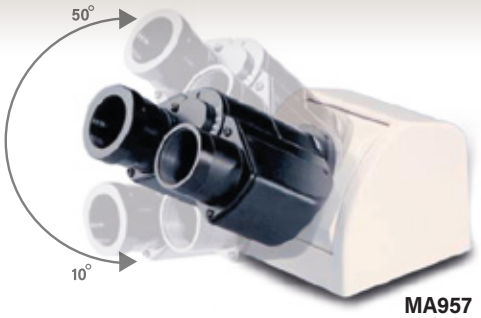
MT-PEL Pelican case with foam insert 21 ½ (L) x 16 ½ (W) x 12 ½ (D) for ML/MT/EM models with portable pullout handle and wheels for protection against vibration and shock (Optional)

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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