

Infinity Corrected Optical System

MT7000 SERIES

METALLURGICAL COMPOUND MICROSCOPES FOR REFLECTED LIGHT OBSERVATION



METALLURGICAL SERIES

MT7000

MEIJITECHNO



METALLURGICAL COMPOUND MICROSCOPES

UPRIGHT BRIGHTFIELD COMPOUND SYSTEMS WITH INCIDENT LIGHT

THE MEIJI TECHNO MT7000 SERIES DELIVERS EXCEPTIONAL CLARITY AND PRECISION FOR METALLURGICAL ANALYSIS, FEATURING ICOS OPTICS, DURABLE CONSTRUCTION, AND BRIGHT LED ILLUMINATION—IDEAL FOR RESEARCH, INSPECTION, AND INDUSTRIAL APPLICATIONS.

The Meiji Techno MT7000 Series stands out as an exceptional choice for metallurgical applications due to its superior optical performance, precision engineering, and durable construction. Built around Meiji's renowned Infinity Corrected Optical System (ICOS), it delivers crystal-clear, high-contrast images essential for examining metal structures, grain boundaries, surface treatments, and other critical features with outstanding detail and accuracy. Its Plan Epi objectives ensure flat, distortion-free fields of view across the entire image—ideal for research, quality control, and industrial inspection environments.

In addition to optical excellence, the MT7000 Series combines ergonomic design, reliability, and adaptability. The ceramic-coated flat-top stage resists wear and corrosion, while smooth X-Y controls allow precise sample manipulation. Its LED or halogen illumination options provide stable, bright, and uniform lighting for reflective materials, ensuring consistent results even during long observation sessions. Manufactured in Japan and backed by a limited lifetime warranty, the MT7000 Series offers a professional-grade balance of performance, durability, and long-term value—making it a trusted tool for metallurgical laboratories and industrial inspection facilities worldwide.



BRIGHTFIELD & SIMPLE POLARIZATION MODELS - QUINTUPLE NOSEPIECE (HALOGEN)

MODEL	BODY	ILLUMINATOR	EYEPIECES	OBJECTIVES	STAGE	POWER SUPPLY
MT7000H	Binocular	VERTICAL KOEHLER 6V 30W HALOGEN INCIDENT ILLUMINATOR	SWH 10X F.N. 22 (O.D. 30mm) PAIRED	INFINITY CORRECTED OPTICAL SYSTEM F = 200mm	CERAMIC COATED FLAT-TOP X-Y MOVEMENT RIGHT HANDED DROP DOWN COAXIAL CONTROLS	AUTOMATIC VOLTAGE SENSING POWER SUPPLY 110V-240V
MT7000EH	Ergonomic Binocular					
MT7100H	Trinocular			PLAN EPI 5X PLAN EPI 10X PLAN EPI 20X PLAN EPI 50X		
MT7100EH	Ergonomic Trinocular					

BRIGHTFIELD & SIMPLE POLARIZATION MODELS - QUINTUPLE NOSEPIECE (LED)

MODEL	BODY	ILLUMINATOR	EYEPIECES	OBJECTIVES	STAGE	POWER SUPPLY
MT7000L	Binocular	VERTICAL KOEHLER LED ILLUMINATOR	SWH 10X F.N. 22 (O.D. 30mm) PAIRED	INFINITY CORRECTED OPTICAL SYSTEM F = 200mm	CERAMIC COATED FLAT-TOP X-Y MOVEMENT RIGHT HANDED DROP DOWN COAXIAL CONTROLS	AUTOMATIC VOLTAGE SENSING POWER SUPPLY 110V-240V
MT7000EL	Ergonomic Binocular					
MT7100L	Trinocular			PLAN EPI 5X PLAN EPI 10X PLAN EPI 20X PLAN EPI 50X		
MT7100EL	Ergonomic Trinocular					

"Models MT7000H/X , MT7100H/X , MT7000L/X , and MT7100L/X are also available with an *Extended Working Distance Binocular Head* featuring 50mm Z-axis travel clearance."



for **METALLURGICAL
LABORATORIES**

VIEWING HEAD

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

**ATTACHABLE
DIGITAL CAMERA**
23.2mm PHOTO PORT

**MODULAR
DESIGN** facilitates
ATTACHMENT OF A VARIETY OF ACCESSORIES

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, 40X 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.

ERGONOMICALLY DESIGNED
MANUFACTURED
IN **JAPAN**

Provides versatility and high quality images
Brightfield observation



ILLUMINATION

Vertical Koehler LED
illuminator, with lamphouse
centering screw, clear blue,
N.D. 50 neutral density filter
and polarizing filters in
metal mounts.

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

MECHANICAL DROPDOWN

Ergonomic X-Y right
handed stage dropdown
coaxial control

FOCUSING ADJUSTMENT

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

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)

ON/OFF SWITCH

Main power control for
the light source

(U.S.A Based)
CUSTOMER SUPPORT

1-(800) 832-0060 (P.S.T.)

DIGITAL CAMERAS FOR MICROSCOPY

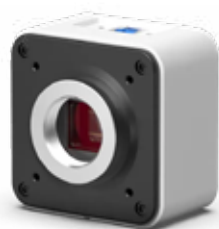
- CAM® V1700 (M)** Monochrome 8.3 MP 1/1.7" CMOS 44 f/s USB 3.0
Digital camera with resolution 3840x2160 pixels
- CAM® V3400** Color 5.1 MP 2/3" CCD 75 f/s USB 3.0
Digital camera with resolution 2464x2056 pixels
- CAM® V3200** Color 3.2 MP 1/1.8" CMOS 120 f/s USB 3.0
Digital camera with resolution 2064x1544 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 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)
- MA539** 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)



MT7100+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 MT7000 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)

PHASE CONTRAST OBJECTIVES

- MA870** ★ Plan Epi Objective 5X, N.A. 0.10, W.D. 20.9mm, F.N. 24
- MA871** ★ Plan Epi Objective 10X, N.A. 0.25, W.D. 7.7mm, F.N. 24
- MA872** ★ Plan Epi Objective 20X, N.A. 0.40, W.D. 5.6mm, F.N. 24
- MA873** ★ Plan Epi Objective 50X, N.A. 0.75, W.D. 0.38mm, F.N. 24
- MA874** Plan Epi Objective 100X, N.A. 0.90, W.D. 0.37mm, F.N. 24 (Optional)

BRIGHTFIELD LWD PLAN EPI OBJECTIVES (LONG WORKING DISTANCE)

- MA920** LWD Plan Epi Objective 20X, N.A. 0.40, W.D. 11.0mm, F.N. 24 (Optional)
- MA921** LWD Plan Epi Objective 50X, N.A. 0.55, W.D. 7.5mm, F.N. 24 (Optional)

ILLUMINATOR (HALOGEN) *INCLUDED ON HALOGEN MODELS ONLY

- MA927** ★ Vertical Koehler illuminator, 6V 30W Halogen lamp, with clear blue, (T.S.L./DISC) clear green N.D. 50 neutral density filter and polarizing filters in metal mounts. 100V~240V (Powered by transformer built into MT7000 Series stand)

ILLUMINATOR (LED) *INCLUDED ON LED MODELS ONLY

- MA927/L** ★ Vertical Koehler LED illuminator, with clear blue, N.D. 50 neutral density filter and polarizing filters in metal mounts. Auto voltage sensing AC adapter built into stand, 100V~240V.

FILTERS

- MA475/05** ★ Blue clear filter, 20mm diameter filter in metal mount, fits 25mm filter slot
- MA476** ★ Green clear filter, 20mm diameter filter in metal mount, fits 25mm filter slot (Included in all Halogen models)
- MA774** ★ N.D. 50 neutral density filter, 20mm diameter filter in metal mount, fits 25mm filter slot
- MA497** ★ Polarizing filter, 20mm diameter filter in metal mount, fits 25mm filter slot

STAGE *INCLUDED IN ALL MODELS

- MA941** ★ Ceramic coated flat-top stage, 191mm x 126mm, 100mm x 100mm X - Y movement, with right hand drop down coaxial controls (Included in all MT7000 Series Models)

BULBS AND FUSES (HALOGEN)

- MA326** Spare bulb 6V 30W halogen lamp for MT7000 and MT7100
- MA327** Spare fuse 3A for halogen illuminator for MT7000 and MT7100

BULBS AND FUSES (LED)

- PKL/LED-I/BULB** Spare bulb 5W for LED illuminator for MT7000L and MT7100L

- MA929** Spare fuse 0.5A for LED illuminator for MT7000L and MT7100L

POWER CORDS

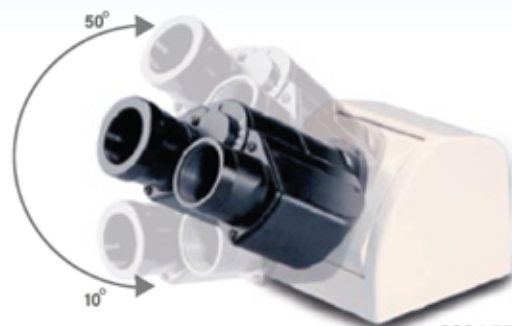
- MA809/10** ★ Removable AC Electric cord with plug for 115V Models (Included in all 115V models)
- MA809/20** Removable AC Electric cord with plug for 115V Models (Included in all 115V models)

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

- MA906** ★ Eyeshield for MA817 SWH10X eyepiece (each)
- MA701/05** ★ Dust cover for all MT7000 Series microscopes
- MA701AS** Anti-static and washable dust cover for MT4000, MT5000, MT7000, MT6100, MT6500, MT-50, MT-60, 22" x 21" size, blue color



MA957
ERGONOMIC HEAD (Tilts 10° to 50°)



MA927
VERTICAL KOEHLER ILLUMINATOR WITH HALOGEN LAMP 6V, 30W AND FILTERS



MA873
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 MT7000 Series,
scan this QR code.



- **Manufactured:** 100% MADE IN JAPAN
- **Weight:** 30.8 lbs (13.6 kg) • **Box Size:** 16 x 14 x 21 inches • **Footprint:** 263mm (D) x 176mm (W)
- **Binocular head:** 424.5 mm(D) x 471mm (H) x 210mm(W) (8.5kg)(30.8 lbs)
- **Trinocular head type:** 424.5 mm(D) x 526mm(H) x 210mm(W) (9.2kg)(33.35 lbs)
- **Binocular Ergonomic head type:** 424.5 mm(D) x 471mm (H) x 210mm(W) (8.5kg)(30.8 lbs)
- **Trinocular Ergonomic head type:** 424.5 mm(D) x 550mm(H) x 210mm(W) (9.6kg)(35.00 lbs)

MT7000 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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