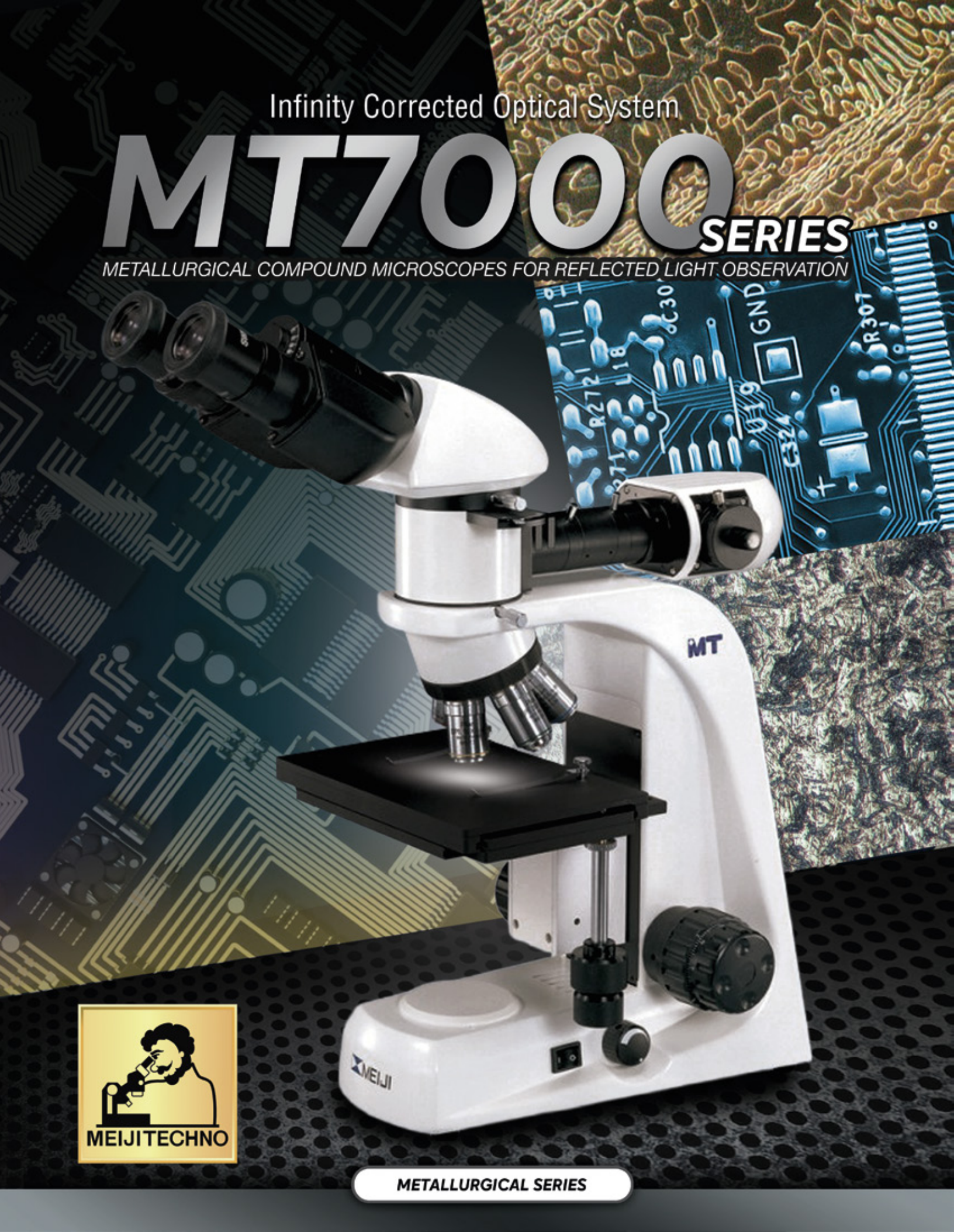
Infinity Corrected Optical System

MT7000 SERIES

METALLURGICAL COMPOUND MICROSCOPES FOR REFLECTED LIGHT OBSERVATION



MEIJITECHNO

METALLURGICAL SERIES

MT7000 SERIES

MEIJI TECHNO

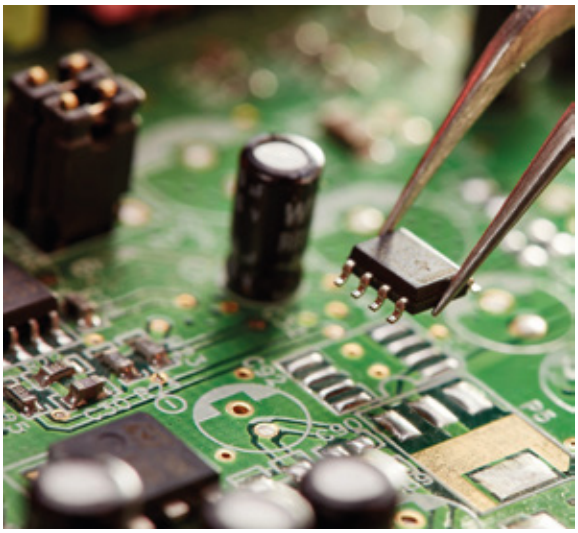
METALLURGICAL COMPOUND MICROSCOPES

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 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	AUTOMATIC VOLTAGE SENSING POWER SUPPLY 110V-240V
MT7000EH	Ergonomic Binocular					
MT7100H	Trinocular					
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 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	AUTOMATIC VOLTAGE SENSING POWER SUPPLY 110V-240V
MT7000EL	Ergonomic Binocular					
MT7100L	Trinocular					
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

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, 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.

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 μm fine adjustments, 2 μm precision, Friction adjustment. "Slip-clutch" system protects against over-focusing

ERGONOMICALLY DESIGNED
MANUFACTURED IN JAPAN

Provides versatility and high quality images Brightfield observation

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

ON/OFF SWITCH
Main power control for the light source

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)

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)

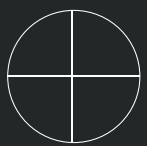
MA279	Eyepiece micrometer, cross-line reticle, 19mm diameter
MA280	Eyepiece micrometer, 10mm line divided into 100 units, 19mm diameter (linear)
MA281	Eyepiece micrometer, 5mm line divided into 100 units, 19mm diameter (linear)
MA539	Eyepiece micrometer, 10mm square divided into 100 parts, each square 80.00 1.0mm, 19mm diameter (Graphic paper style)

STAGE MICROMETERS

MA292	Metal stage micrometer, 1mm divided into 100 units, 0.01mm (linear) (Optional)

EYEPIECE MICROMETER
for grain sizing in steel (25mm)

MA738

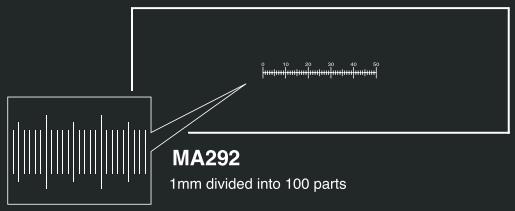


MA523

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

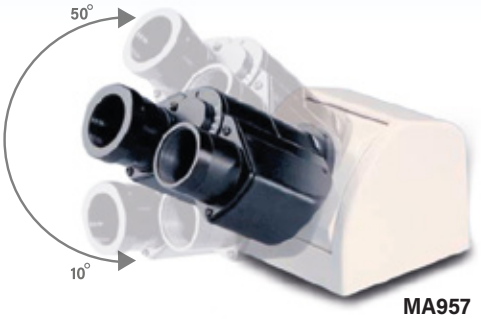
MT-PEL Pelican case with foam insert 21 ½ (L) x 16 ½ (W) x 12 ½ (D) for ML/MT/EM models with portable pullout handle and wheels for protection against vibration and shock (Optional)

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.O.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

Agent:

MEIJI TECHNO CO.,LTD.

322-1, Chikumazawa Miyoshi-machi,
Iruma-gun Saitama 354-0043, Japan
Tel : (0)49-259-0111 Fax : (0)49-259-0113
E-mail : meiji@meijitechno.co.jp
http://www.meijitechno.co.jp

MEIJI TECHNO AMERICA

591 Division St., Campbell CA 95008
Tel: **408-226-3454** Fax: **408-226-0900**
Toll free : 800-832-0060
Make your order at:
E-mail: **admin**@meijitechno.com
General Questions:
info@meijitechno.com
sales@meijitechno.com
http://www.meijitechno.com

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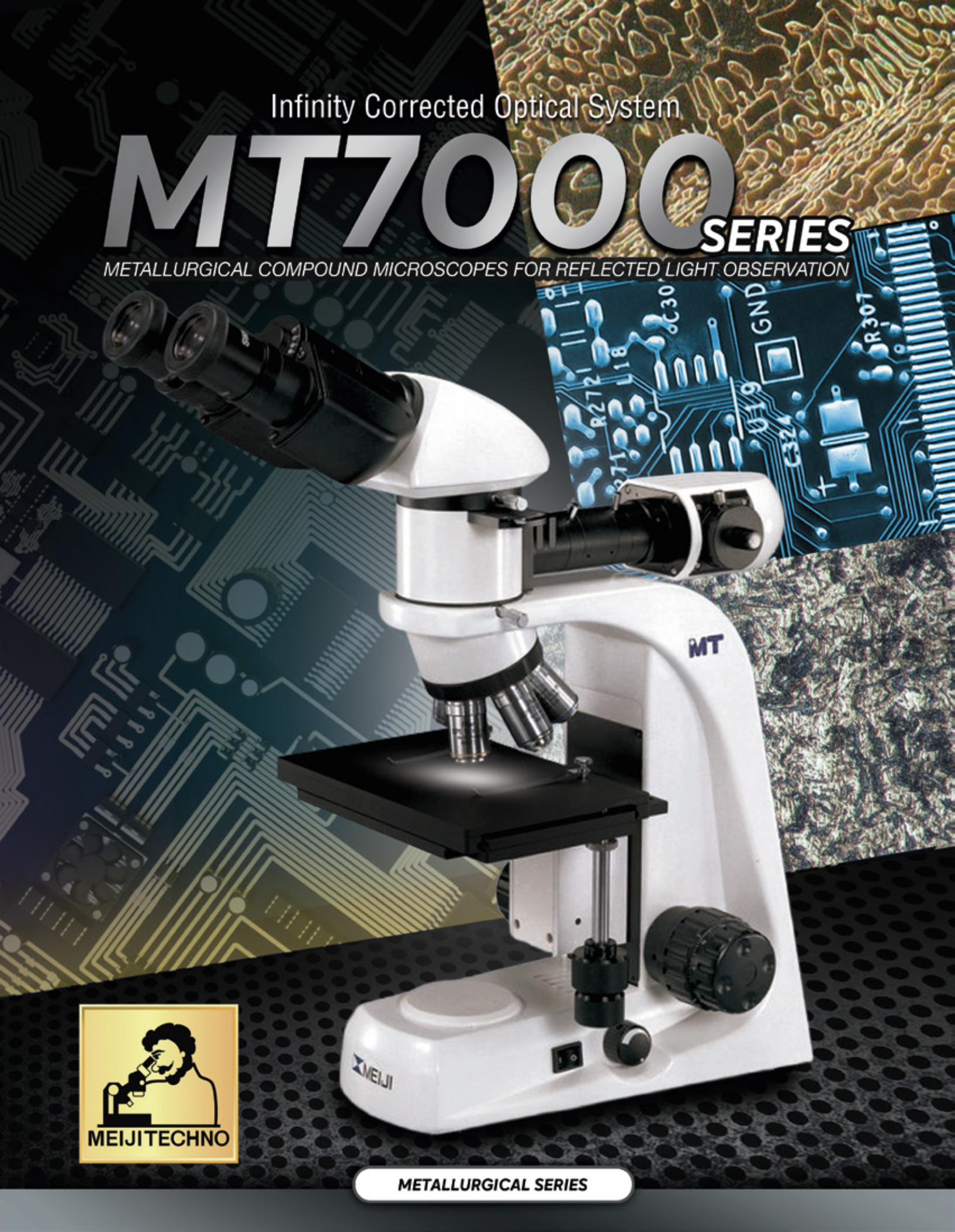
Infinity Corrected Optical System

MT7000 SERIES

METALLURGICAL COMPOUND MICROSCOPES FOR REFLECTED LIGHT OBSERVATION



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