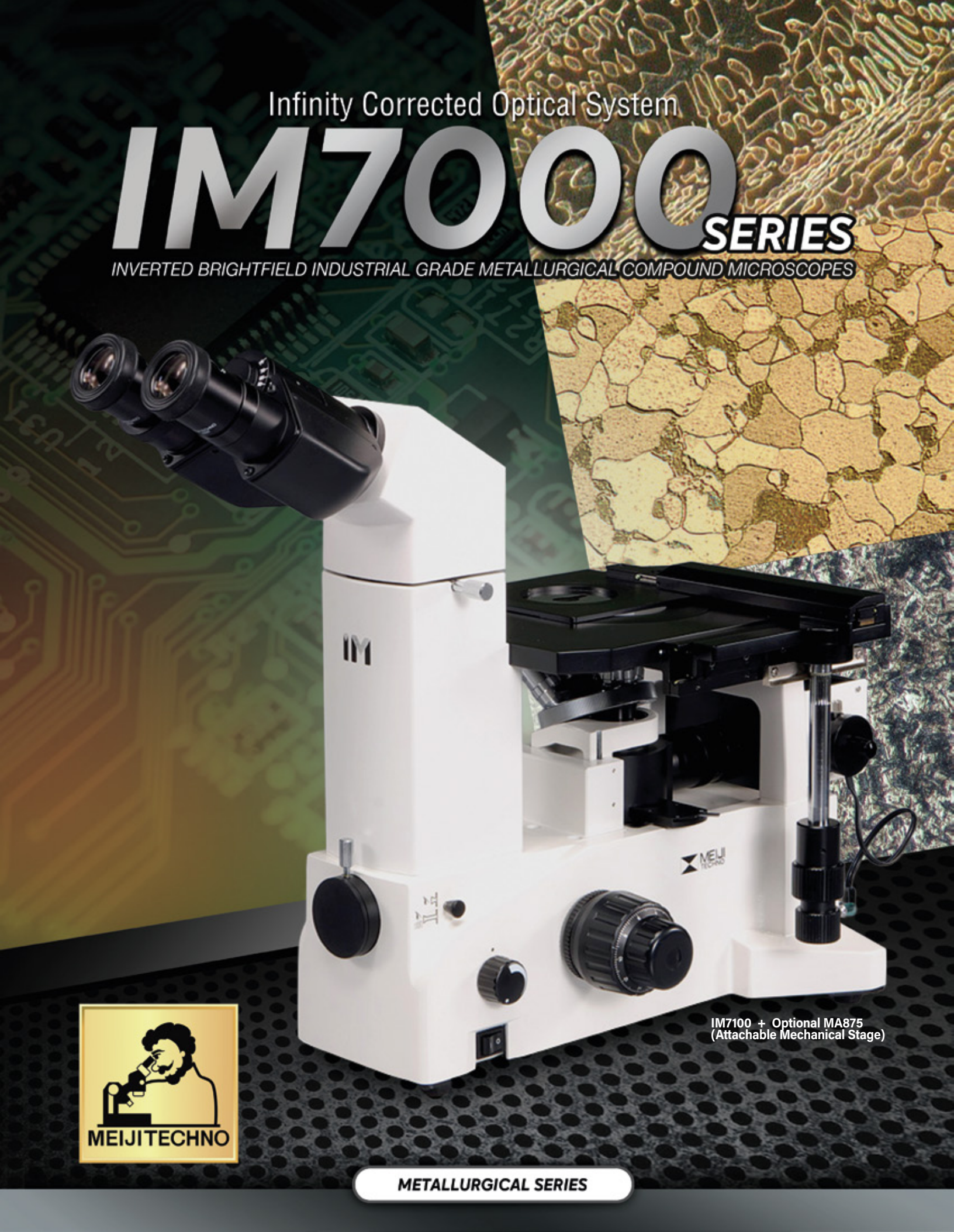
Infinity Corrected Optical System

IM7000 SERIES

INVERTED BRIGHTFIELD INDUSTRIAL GRADE METALLURGICAL COMPOUND MICROSCOPES



IM7100 + Optional MA875
(Attachable Mechanical Stage)

MEIJITECHNO

METALLURGICAL SERIES

IM7000 METALLURGICAL SERIES

MEIJI TECHNO

INVERTED BRIGHTFIELD INDUSTRIAL GRADE COMPOUND MICROSCOPES

EQUIPPED WITH INFINITY CORRECTED OPTICAL SYSTEM F=200MM

THE IM7000 SERIES INVERTED METALLURGICAL MICROSCOPES ARE ENGINEERED FOR PROFESSIONALS WHO DEMAND PRECISION, CLARITY, AND UNCOMPROMISING PERFORMANCE IN MATERIAL ANALYSIS. BUILT ON A STABLE CAST-ALUMINUM TRIANGULAR FRAME.

The IM7100 and IM7200 deliver exceptional durability and vibration resistance—critical for achieving ultra-sharp images at higher magnifications. With ergonomically placed controls, Siedentopf viewing heads, and smooth coaxial focusing, these systems ensure user comfort during long inspection sessions. Their integrated 6V, 30W Vertical Koehler Halogen Illuminator provides brilliant, uniform lighting, supported by included Blue, Green, Neutral Density, and Polarizing filters for enhanced contrast. Designed for bright, high-resolution imaging, the IM7000 Series offers unmatched reliability for microstructure evaluation, routine metallurgical inspection, QA/QC testing, and high-quality photomicrography. The built-in front photoport makes image documentation fast and seamless—perfect for digital workflows in modern laboratories.

At the core of the IM7000 Series is an advanced Infinity Corrected Optical System (F=200mm) paired with a quintuple nosepiece and high-performance Planachromat EPI objectives (5X, 10X, 20X, 50X). This combination delivers crisp, distortion-free results with superb resolution across all magnifications. The spacious 180mm x 245mm stage with smooth travel and optional mechanical stage enhances sample handling for mounted specimens and metallographic analysis. Designed to grow with the user's needs, the IM7000 Series supports a wide range of accessories—including digital cameras, C-mount adapters, micrometers, and polarizing components—making it a powerful, flexible platform for research, industry, and advanced inspection environments. From its precision engineering to its expandable capability, the IM7000 Series sets a new benchmark for performance and value in inverted metallurgical microscopy.

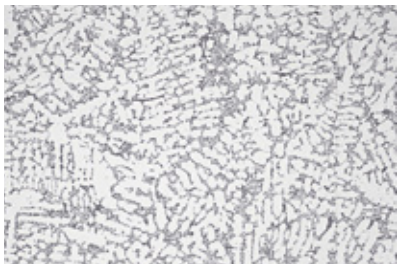


IMAGE OF ALUMINUM ALLOY AT 100X

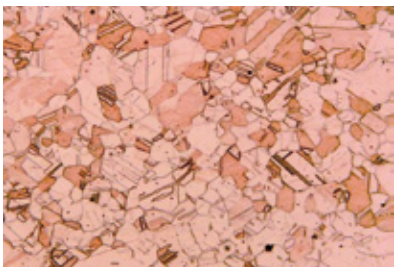


IMAGE OF COPPER ALLOY AT 100X

IM7100H (FRONTAL VIEW)

INVERTED BRIGHTFIELD INDUSTRIAL GRADE COMPOUND MICROSCOPES - QUINTUPLE NOSEPIECE

MODEL	BODY	ILLUMINATOR	EYEPIECES	OBJECTIVES	STAGE	POWER SUPPLY
IM7100H	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 Planachromat E5X Planachromat E10X Planachromat E20X Planachromat E50X	245mm x 180mm STAGE WITH CIRCULAR INSERT (109mm DIAMETER ANODIZED RING)	AUTOMATIC VOLTAGE SENSING POWER SUPPLY 110V-240V
IM7100E	Ergonomic Binocular					
IM7200H	Ergonomic Trinocular					

Designed for professionals who inspect large or heavy metal samples with precision. Its inverted design allows easy viewing of polished surfaces without repositioning bulky components. This makes it ideal for industrial QC labs, manufacturing environments, and materials research applications.

IDEAL FOR RESEARCH, INSPECTION, AND INDUSTRIAL APPLICATIONS.

for METALLOGRAPHIC INSPECTIONS

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

MODULAR DESIGN facilitates
ATTACHMENT OF A VARIETY OF ACCESSORIES

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

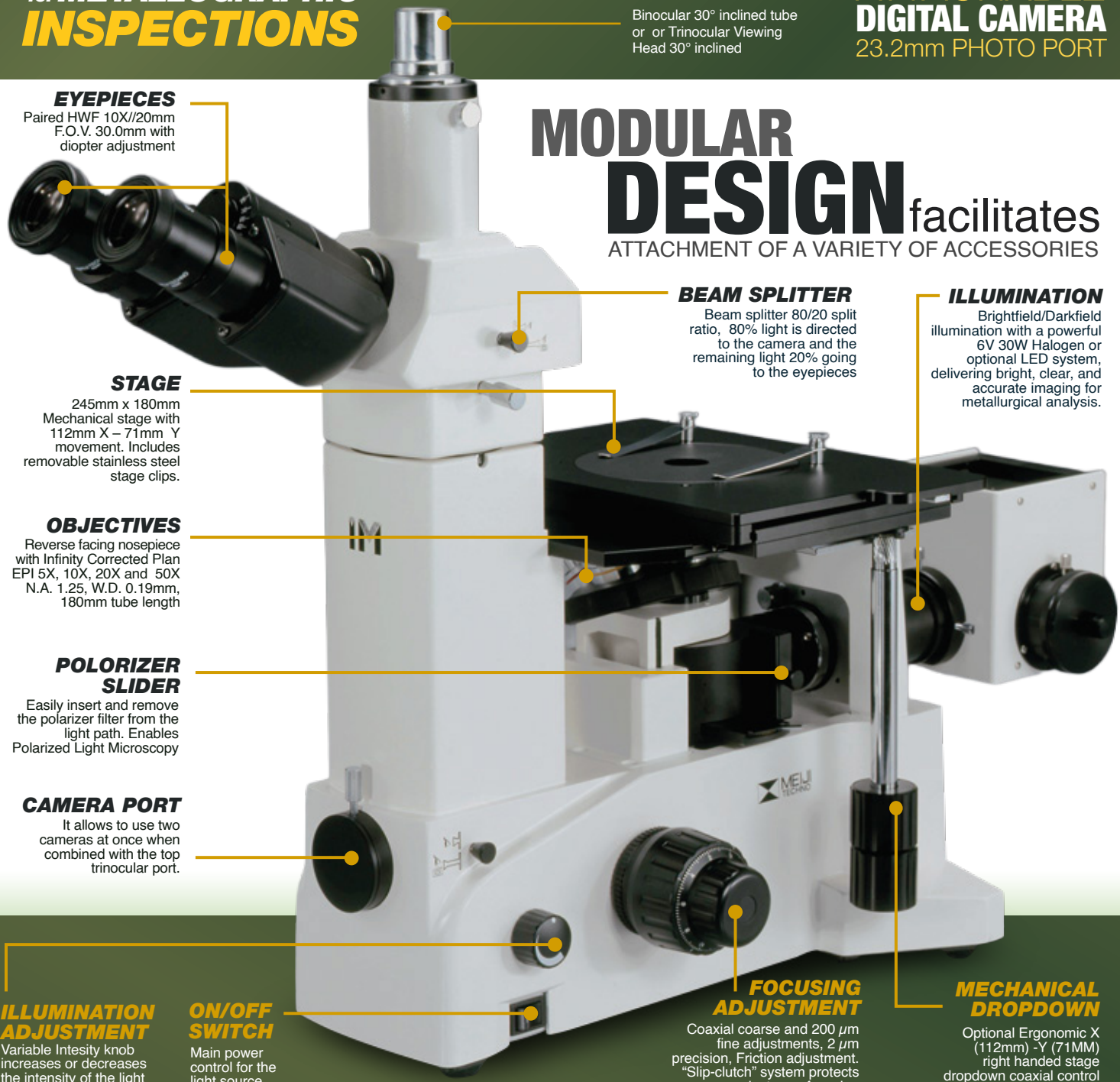
ILLUMINATION
Brightfield/Darkfield illumination with a powerful 6V 30W Halogen or optional LED system, delivering bright, clear, and accurate imaging for metallurgical analysis.

STAGE
245mm x 180mm Mechanical stage with 112mm X – 71mm Y movement. Includes removable stainless steel stage clips.

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

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

CAMERA PORT
It allows to use two cameras at once when combined with the top trinocular port.



ILLUMINATION ADJUSTMENT
Variable Intesity knob increases or decreases the intensity of the light source.

ON/OFF SWITCH
Main power control for the light source

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

MECHANICAL DROPDOWN
Optional Ergonomic X (112mm) -Y (71MM) right handed stage dropdown coaxial control

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 came ra 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 th e photo tube.

CAMERA ADAPTERS FOR C-MOUNT TYPE CAMERAS (OPTIONAL)

MA541 C-Mount type camera adapter for CCD/CMOS camera (No internal lens) (Magnification factor of 0.66X from IM7000 Series front camera port)

CAMERA ADAPTERS FOR 35MM TYPE CAMERAS

MA541 C-Mount type camera adapter for CCD/CMOS camera (No internal lens) (Magnification factor of 0.66X from IM7000 Series front camera port)

11.8IN HDMI MONITOR

EQUIPPED WITH USB 2.0, SD CARD

MA151/35/03 "C" MOUNT ADAPTER

IM7200H+ 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

MA541 Photo framing reticle for SWF10X eyepiece

MA738 Eyepiece micrometer, for grain sizing in steel (25mm)

EYEPIECE MICROMETER
for grain sizing in steel (25mm)

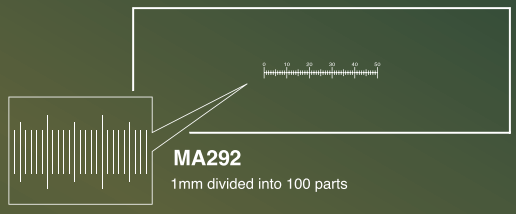
MA738

MA523

MA506

MA509

MA542



MA292
1mm divided into 100 parts

COMPONENTS AND ACCESSORIES FOR IM7000 SERIES

The Items marked with a Star (★) are included

VIEWING HEAD (without eyepieces)

MA814/05 ★Siedentopf type binocular head, inclined at 30°, I.P. adjustment 53mm to 75mm graduated diopter on left eyetube (30mm I.D. eyetubes) with depolarizer (*Included in Model IM7100)

MA816/15 ★Siedentopf type trinocular head, inclined at 30°, I.P. adjustment 53mm to 75mm graduated diopter on left eyetube (30mm I.D. eyetubes) with depolarize Includes 80/20 beam splitter (100% to eyetubes or 80% to photo 20% to eyetube) Non-Erect, Inverted image (*Included in Model IM7200)

MA957/20 ★Ergonomic binocular head, erect image, inclination adjustable vertically from 10° to 50° (With depolarizer) (*Included in IM7100E)

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)

EYEPIECE MICROMETERS (19MM DIAMETER, FOR USE WITH MA818 & MA819 EYEPIECE)

MA223 0.50" divided into 50 units, 19mm diameter

MA279 Cross-line reticle, 19mm diameter

MA280 10mm divided into 100 units, 19mm diameter

MA281 5mm divided into 100 units, 19mm diameter

MA282 10mm square into 400 parts, 0.5mm square, 19mm diameter

MA283 10mm square into 100 parts, 1.0mm square, 19mm diameter

MA539 Cross-line with 0.1mm graduations, 19mm diameter

MA253 Cross-line with dotted lines, 19mm diameter

MA254 Walton & Beckett reticle, 19mm diameter

BRIGHTFIELD/DARKFIELD PLAN EPI OBJECTIVES

MA870 ★Planachromat E5X ∞ objective N.A. 0.10, F.L. 40.0, W.D. 20.9

MA871 ★Planachromat E10X ∞ objective N.A. 0.25, F.L. 20.0, W.D. 07.7

MA872 ★Planachromat E20X ∞ objective N.A. 0.40, F.L. 20.0, W.D. 05.6

MA873 ★Planachromat E50X ∞ objective N.A. 0.75, F.L. 04.0, W.D. 0.38

MA874 Planachromat E100X ∞ objective N.A. 0.90, F.L. 02.0, W.D. 0.34 (Optional)

FILTERS

MA475/05 ★LB100 Blue clear 20mm diameter filter in metal mount, fits 25mm filter slot

MA476 ★G533 Green clear 20mm diameter filter in metal mount, fits 25mm filter slot

MA774 ★ND 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 MICROMETER (GLASS AND METAL)

MA285 1mm divided into 100 units, 0.01mm (Glass), 1" x 3" slide

MA286 0.04" divided into 40 units, 0.001" (Glass), 1" x 3" slide

MA287 Ruling 0.01mm square (20 horizontal lines of 1mm long with 20 vertical lines of 1mm long crossed perpendicularly constructing a square of 0.2mm at the center with distance of 0.01mm between lines) (Glass)

MA292 Metal stage micrometer, 0.01mm, for reflected light (Metal)

MA186 Stage micrometer for checking alignment of stereo microscopes (Glass/Acrylic)

MA187 Stage micrometer 10mm divided into 100 units, 0.1mm (Glass)

STAGES (FIXED 245mm x 180mm STAGE IS INCLUDED WITH STAND) (With circular insert - 109mm diameter black anodized ring with 63.8mm silver keyhole insert)

MA875 Attachable mechanical stage, 112mm (X) x 71mm (Y) movement, with drop down right hand coaxial controls (Optional) (Requires MA876 stage insert)

MA876 Metal stage plate insert for MA875 attachable mechanical stage for IM7000 Series (Circular Insert - 74.94mm diameter black anodized ring with 63.8mm silver keyhole insert)

MISCELLANEOUS

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 220V models (Included in all 220V models)

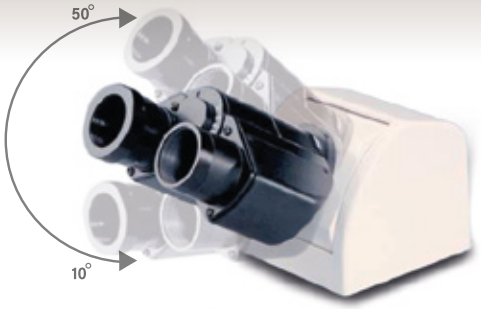
MA326 Spare halogen bulb, 6V 30W

MA327 Fuse 3A, replacement

MA714 Dust cover for IM7000 Series

MA714AS Anti-static and washable dust cover for IM7000, IM7500, TC5100, TC5500 and MC systems, 11" x 25" x 26", blue color

MA906 Eyeshields for MA817 SWH10X eyepieces (each)



MA957/20
ERGONOMIC HEAD (Tilts 10° to 50°)

MA816/15
TRINOCULAR HEAD INCLINED AT 30°

MA859
SWF 10X-F, FOCUSING WIDEFIELD

MA928
PLANACHROMAT E50X ∞ OBJECTIVE W.D. 0.38

For further information about the IM7000 Series, scan this QR code.

100% MADE IN JAPAN

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

• **Weight:** 33lbs (9.06kg) • **Box Size:** 16 x 14 x 21 inches • **Footprint:364mm (D) x 220mm (W)** · **Manufactured:** 100% MADE IN JAPAN

IM7000 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

MEIJI TECHNO

ISO9001

091 A

Accredited by RvA