

Infinity Corrected Optical System

IM7000 **SERIES**

INVERTED BRIGHTFIELD INDUSTRIAL GRADE METALLURGICAL COMPOUND MICROSCOPES



IM7100 + Optional MA875
(Attachable Mechanical Stage)

MEIJITECHNO



METALLURGICAL SERIES

IM7000

MEIJITECHNO



METALLURGICAL SERIES

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.



IM7100H (FRONTAL VIEW)

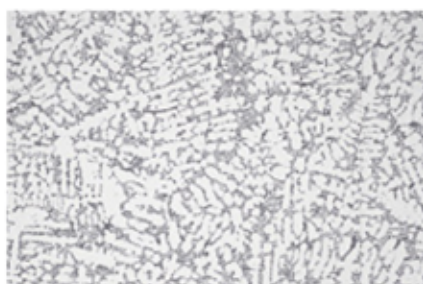


IMAGE OF ALUMINUM ALLOY AT 100X

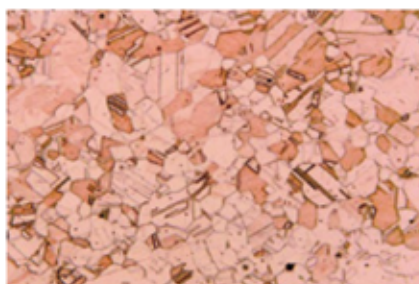


IMAGE OF COPPER ALLOY AT 100X

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	245mm x 180mm STAGE WITH CIRCULAR INSERT (109mm DIAMETER ANODIZED RING)	AUTOMATIC VOLTAGE SENSING POWER SUPPLY 110V-240V
IM7100E	Ergonomic Binocular			Planachromat E5X Planachromat E10X Planachromat E20X Planachromat E50X		
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

MODULAR DESIGN facilitates ATTACHMENT OF A VARIETY OF ACCESSORIES

EYEPIECES

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

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

POLARIZER 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.

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.

ILLUMINATION ADJUSTMENT

Variable Intensity 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 μ m
fine adjustments, 2 μ m
precision. Friction adjustment.
"Slip-clutch" system protects
against over-focusing

MECHANICAL DROPDOWN

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

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

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



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)



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

IM 7200+CAM V1200 HD+MA151/35/05

EYEPIECE MICROMETER
for grain sizing in steel (25mm)



MA738



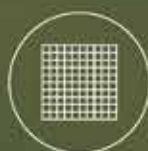
MA523



MA506



MA509



MA542



MA292

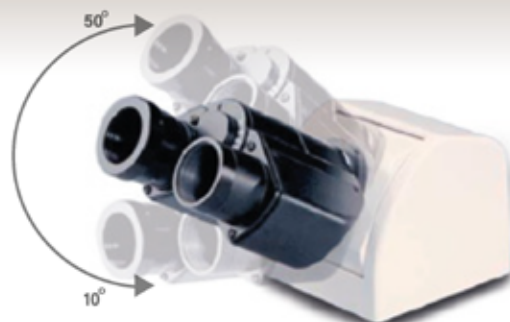
1mm divided into 100 parts

COMPONENTS AND ACCESSORIES FOR 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)



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

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



MA816/15
TRINOCULAR HEAD INCLINED AT 30°

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)



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

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