



**MEIJI**  
TECHNO

# IM7000 Series

INVERTED METALLURGICAL MICROSCOPE



The camera attached to the microscope is  
Canon EOS 10D made by Canon Inc.

With Infinity Corrected Optical System  
For examination of mounted  
metallurgical specimens or  
for routine quality inspections





# IM7000 Series

## INVERTED METALLURGICAL MICROSCOPE

The Meiji Techno IM-7000 Series inverted metallurgical microscopes have a slim wedge shaped design that saves bench space and offers excellent stability. All of the IM-7000 Series controls are ergonomically positioned to provide comfort and extended ease of use for the operator. An integrated 6V/30W vertical Koehler halogen illuminator with a variable intensity control and automatic voltage sensing power supply provides excellent specimen illumination and contrast. The IM7000 Series is designed to meet your most diverse needs for materials research. Meiji's IM Series is well suited for examination of mounted metallurgical specimens or for routine quality inspections such as, microstructure analysis, various materials testing, QA and QC examination and photomicrography. The IM-7000 Series Microscopes offer crisp, distortion-free, high resolution images in multiple modes of operation and the built-in photo port on the front of the body makes image documentation quick and easy. Contrast methods available include: Brightfield and Polarized Light observation modes.

### GENERAL FEATURES & OPTIONS

#### Optical System:

All microscopes come standard with an infinity corrected optical design (F=200)

#### Viewing Heads:

Units are supplied with either a standard Siedentopf type binocular head inclined at 30° or a trinocular Siedentopf head inclined at 45°. Interpupillary distance is adjustable from 53mm to 75mm.

A graduated diopter adjustment is provided as a standard feature on the left eye-tube of all units.

#### Eyepieces:

Paired SWH10X, widefield, high eye-point eyepieces, F.N. 22, with a 25mm reticle mount is standard on all units. Optional SWH15X, SWH20X and SWH10X-F focusing eyepieces are available.

#### Nosepiece:

Quintuple, side facing nosepiece, with positive precision click stops.

#### Objectives:

Planachromat EPI 5X/0.10, EPI 10X/0.25, EPI 20X/0.40 and EPI 50X/0.75 are standard on all units. Optional Planachromat EPI 100X/0.90, W.D. 0.37mm is available.

#### Plain Stage:

A 180mm (X) x 245mm (Y) Plain Stage.

#### Optional Attachable Mechanical Stage:

112mm (X) x 72mm (Y) movement with drop down ergonomic coaxial controls.

#### Focusing Mechanism:

Ergonomically low positioned, coaxial coarse and fine focus knobs with adjustable tension control.

#### Range of Travel :

9mm total, 1.0mm up and 8mm down. Rotation of fine focus: 0.2mm per revolution.

#### Illumination:

A vertical Koehler illuminator equipped with 6V 30W Halogen bulb. Variable rheostat and automatic voltage sensing power supply are incorporated as standard.

#### Photo Port:

All models are equipped with a front mounted camera port suitable for CCD, 35mm SLR, or digital cameras. Optional camera adapters are available to facilitate a wide range of camera and video equipment.

#### Body:

Cast aluminum alloy body for rigidity and exceptional stability.





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### FEATURES COMMON TO ALL MODELS

- Exchangeable observation tubes. • Compact wedge shaped cast aluminum alloy frame for exceptional stability and a small footprint. Chemical resistant baked enamel finish. • Flexible and modular design for system expansion. • Low profile coaxial coarse and fine focus controls with tension adjustment. • Front mounted CCD, 35mm SLR, digital camera port. • Automatic voltage sensing power supply. Removable power cord.



Model IM7200

But with the following optional accessories:  
 MA875 Mechanical Stage,  
 DK3000 Color Digital Video Microscopy camera  
 MA869 35mm SLR Camera attachment  
 T2-9 Adapter ring for Canon EOS camera  
 Canon EOS camera

Model IM7100

### ORDERING INFORMATION

MODEL	BODY	OBJECTIVES	EYEPIECES	STAGE PLATE	ILLUMINATOR
IM7100	Binocular (Siedentopf type)	Plan EPI 5X Plan EPI 10X	SWH10X Eyepiece F.N.22 (2)	180mm (X)	Koehler Vertical Illuminator 6V,30W halogen Automatic voltage sensing power supply
IM7200	Trinocular (Siedentopf type)	Plan EPI 20X Plan EPI 50X		245mm (Y)	

### Specifications

• Footprint : 364mm (D) x 220mm (W) • Overall Dimensions : 485mm (D) x 411mm (H) x 220mm (W) • Shipping Weight : 23 lbs/10.5kg





# IM7000 Series

## INVERTED METALLURGICAL MICROSCOPE

### COMPONENTS & ACCESSORIES FOR IM7000 Series

#### VIEWING HEADS

- MA814** Siedentopf type binocular head, inclined at 30°. I.P. adjustment 53mm to 75mm graduated diopter on left eyetube (30mm I.D. eyetubes) (included in Model IM7000)
- MA816** Sidentopf type trinocular head, inclined at 45°. I.P. adjustment 53mm to 75mm graduated diopter on left eyetube (30mm I.D. eyetubes) (Included in Model IM7200)



#### OBJECTIVES

##### FEATURES OF EPI PLAN OBJECTIVES

Meiji Techno's EPI Plan objectives are made with extra-low-dispersion glass and utilize new advanced multilayer anti-reflection coatings. The advanced technology used in designing and creating the E Plan objective lenses result in an objective with a higher resolving power, higher image contrast, wider field of view, improved flatness of field, and a sharp image with a minimum of flare and ghosting. The E Plan objectives are color corrected for chromatic aberration in the red and blue regions of the spectrum and offer an exceptional flat field of view.

#### BRIGHTFIELD OBJECTIVES EPI PLANACHROMAT Infinity corrected F=200mm (Infinity/0)

Cat.No.	Mag.	N.A.	W.D.	F.L.
MA870	EPI 5X	0.10	20.9mm	40.0mm
MA871	EPI 10X	0.25	7.7mm	20.0mm
MA872	EPI 20X	0.40	5.6mm	10.0mm
MA873	EPI 50X	0.75	3.8mm	4.0mm
MA874	EPI 100X	0.90	3.7mm	2.0mm



#### SWH EYEPIECES

Meiji Techno's newly developed SWH Series Eyepieces are specifically designed to provide sharp, chromatic-aberration-free images with ultra flat fields of view. These specially designed, anti reflection coated, high eye-point eyepieces have been manufactured with large diameter lenses, more optical elements and a high eye-point to reduce eye fatigue and accommodate eyeglass wearers. The standard 10X SWH Series eyepiece has an eye relief of 20.7mm and a field number of 22mm. The SWH Series eyepieces are available in three different magnifications and come equipped with fold-down rubber eye-guards.

Cat.No.	Mag.	Field No.	Eye Relief	F.L.
MA817	SWH10X	22	20.7mm	25.0mm
WA818	SWH15X	16	16.4mm	16.67mm
MA819	SWH20X	12	11.5mm	12.5mm
MA859	SWH10X-F	22	20.7mm	25.0mm
	Focusing Widefield High Eyepoint			







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### DIGITAL CAMERA ADAPTERS, VIDEO, AND 35mm SLR CAMERA ATTACHMENT

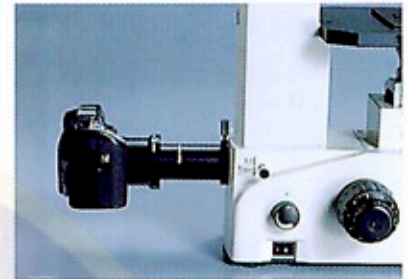
#### MA868 Digital Camera Adapter for IM7000 Series

(Requires a DC adapter ring for your specific model of camera which are listed below)

- DC-B6 For : Nikon Coolpix 5000
- DC-B13 For : NIKON Coolpix 5400
- DC-B7 For : Nikon Coolpix 5700,8700
- DC-B1 For : Olympus Camedia C-2000,C-2020,C-3000,C-3030,C-3040,C-4040,C-3100,C-4100,C-5050
- DC-B5 For : Olympus Camedia C-700,C-720,C-730,C-740,C-750,C-760,C-770
- DC-B4 For : Fuji Finepix S602,4900Z,6900Z,S5000
- DC-B2 For : Sony S70,S75,S85,CD300,CD400,CD500



MA868  
Digital Camera Adapter

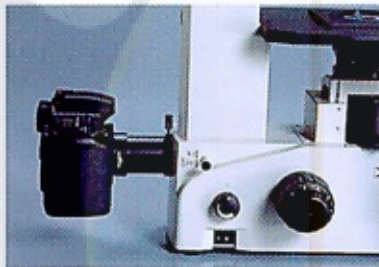


#### MA869 35mm SLR Camera Attachment for front photo port.

Magnification at film plane is 2.23X of objective in use. (Requires a T2 adapter ring for your specific model of camera which are listed below)



MA869  
35mm SLR Camera Attachment

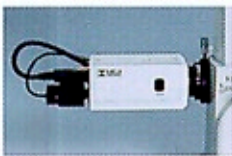


#### MA877 "C" mount camera adapter for CCD camera

(Magnification factor 0.66X).



MA877  
"C" mount adapter



#### MA150/50 35mm SLR Camera Attachment for Trinocular head

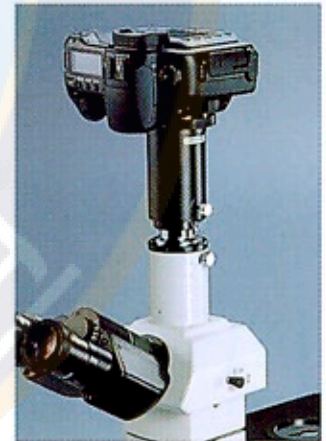
(Requires one of photo eyepieces and a T2 adapter ring for your specific model of camera listed below.)

##### Photo Eyepiece

- MA512 Photo eyepiece 2.5X  
(Magnifies objective power by 2.5X at the film plane)
- MA508 Photo eyepiece 5X  
(Magnifies objective power by 5X at the film plane)
- MA500 Photo eyepiece 3.3X  
(Magnifies objective power by 3.3X at the film plane, with reticle mount)

##### T-2 Adapter Ring

- T2-1 Adapter ring for CANON camera
- T2-2 Adapter ring for MINOLTA camera
- T2-3 Adapter ring for PENTAX K,RICOH-XR camera
- T2-4 Adapter ring for PENTAX S camera
- T2-5 Adapter ring for NIKON camera
- T2-6 Adapter ring for OLYMPUS camera
- T2-7 Adapter ring for CONTAX,YASHIKA camera
- T2-8 Adapter ring for KONICA camera
- T2-9 Adapter ring for CANON EOS camera
- T2-10 Adapter ring for MINOLTA  $\alpha$ , MAXIM 2000 camera



### CCD VIDEO & USB 2.0 DIGITAL CAMERAS

- CK3100N CCD Color TV camera. 1/3" CCD, 450 TV lines of resolution, NTSC system with DC12V adapter
- CK3100P CCD Color TV camera. 1/3" CCD, 450 TV lines of resolution, PAL system with DC12V adapter
- CK3900N CCD Color TV camera. 1/2" CCD, 450 TV lines of resolution, NTSC system with DC12V adapter
- CK3900P CCD Color TV camera. 1/2" CCD, 450 TV lines of resolution, PAL system with DC12V adapter



CK3900

#### DK3000

3.0 megapixel, color digital video microscopy camera with high speed USB 2.0 interface, 1/2 format 6.5mm x 4.9mm image sensor with 2048 x 1536 resolution.



DK3000





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### COMPONENTS & ACCESSORIES FOR IM7000 Series

#### ATTACHABLE MECHANICAL STAGE (Optional)



**MA875** Attachable Mechanical stage, 112mm (X) x 71mm (Y) movement, with drop-down coaxial right hand controls.

#### FILTERS

- MA475/05** LB100 Blue clear 20mm diameter filter in mount
- MA476** G533 Green clear 20mm diameter filter in mount
- MA774** ND50 Neutral density filter, 20mm diameter in mount
- MA497** Polarizing filter, 20mm diameter in mount



#### EYEPIECE MICROMETERS

(For use with MA817 SWH10X Eyepiece or MA859 SWH10X-F Focusing Eyepiece)

- MA523** Eyepiece micrometer, Cross-line reticule, 25mm diameter
- MA506** Eyepiece micrometer, 10mm divided into 100 units, 25mm diameter
- MA509** Eyepiece micrometer, 5mm divided into 100 units, 25mm diameter
- MA510** Eyepiece micrometer, 10mm square into 100 parts, 1.0mm square 25mm diameter
- MA542** Eyepiece micrometer, Cross-line with 0.1mm graduations, 25mm diameter
- MA738** Eyepiece micrometer, grain sizing in steel, 25mm diameter

#### STAGE MICROMETERS

- MA292** Metal stage micrometer, 0.01mm, for reflect light



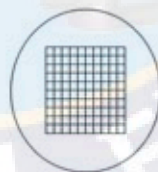
MA523



MA506



MA509



MA510



MA542



MA738

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