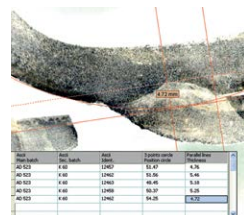
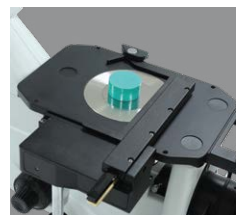




INVERTED METALLURGICAL MICROSCOPE

IMM 902



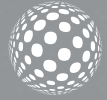


1
QUARTER CENTURY OF
EXPERIENCE

LENSION

902

IMM 902



Inverted microscopes are useful for observing metallographic samples such as welded, casting, steel parts at the bottom of a large container upon a conventional microscope. IMM 902 is engineered and designed to be your ideal solution for fast and reliable routine inspections, with the exclusive illumination system. A particularly simple and ingenious optical design allows stable alignments and smooth and accurate movements.

IMM 902 is routine inverted microscope with IOS LWD U-PLAN MET objectives for material science and metallographic applications, combining a sturdy yet compact structure with dedicated components required in this field, like the no cover glass objectives working without cover slide ideal for metallographic samples and other opaque specimens.



SPECIFICATIONS

Observation mode: Brightfield, simple polarized light on incident light.

Epi-illumination: Halogen 12 V/50 W with brightness control. With aperture and field (centreable) diaphragms.

Head: Trinocular [2-position 100/0, 50/50], 45° inclined.

Interpupillary distance: Adjustable between 50 and 75 mm.

Dioptric adjustment: On the left eyepiece tube.

Eyepieces: WF10x/22 mm, high eye-point

Nosepiece: 5-positions revolving nosepiece, rotation on ball bearings.

Objectives:

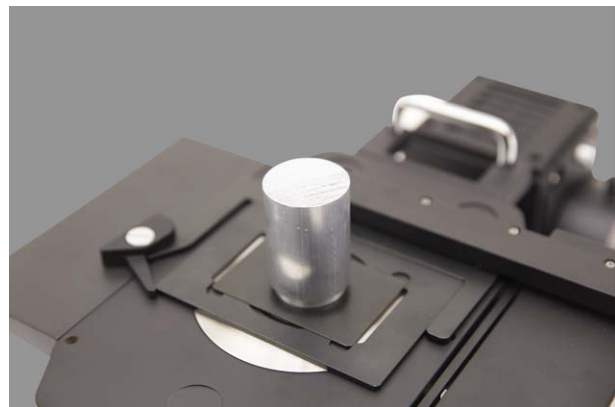
IOS LWD U-PLAN MET 5x/0.15
IOS LWD U-PLAN MET 10x/0.30
IOS LWD U-PLAN MET 20x/0.45
IOS LWD U-PLAN MET 50x/0.55
All with anti-fungus treatment.

Specimen stage: Fixed stage, 250x160 mm, with metal stage insert.

Focusing: Coaxial coarse (adjustable tension) and fine focusing mechanism.

Dimensions: Height [mm] 39
Width [mm] 230
Depth [mm] 680

Weight: 9 kg



Coaxial coarse (adjustable tension) and fine focusing mechanism

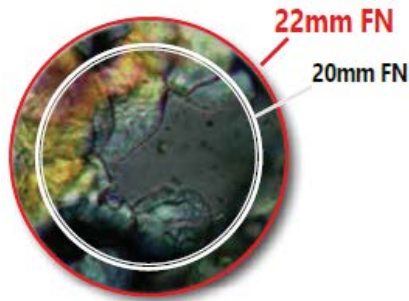


WF10x/22 mm high eye-point eyepiece with dioptic and interpupillary adjustment

FEATURES & BENEFITS

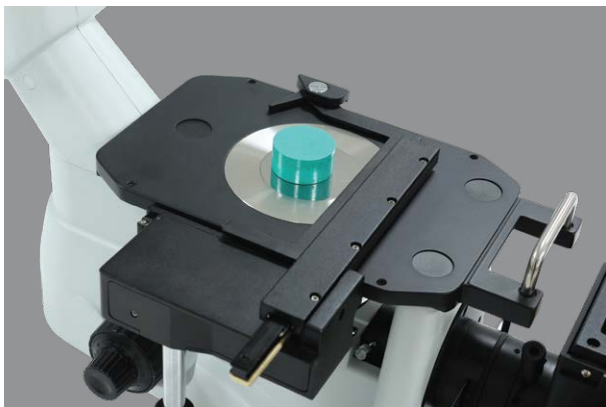
Large Specimen View (22 mm Field of View)

22mm field of view is offering comfortable use. This means that an extra wide area of the sample can be inspected and allows a natural and easy view, particularly needed in a laboratory environment.



Smart Design For The Daily Routine

Removable condenser to increase the working distance. Mechanical stage and side extensions for great comfort (as optional). Different inserts available according to the container used (as optional).



Good Eyesight For Good Image Analysis

WF10x/22 eyepieces for large specimen view. Comfortable rubber cup to get rid of annoying external light. High eye-point for glasses wearers, dioptic adjustment (left eyepiece) to compensate for differences between two eyes. 50–75mm interpupillary adjustment to compensate distance difference between two eyes.

Coarse And Fine Focusing

Coaxial coarse (adjustable tension) and fine focusing mechanism with limit stop to prevent the contact between objective and specimen.



XY movement 120x78mm



5-Positions Nosepiece



Fixed stage, 250x160 mm, with metal stage insert



Coaxial coarse (adjustable tension) and fine focusing mechanism

Monitoring The Image Instantly

Trinocular port to be always updated with the latest technology cameras, even in the future. Modern C-mount focusable professional adapters for all kinds of cameras.

High Quality Objectives For Material Science

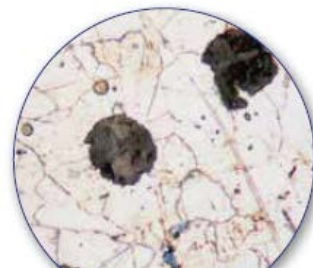
IOS LWD U-PLAN MET objectives for material science and metallographic applications, combining a sturdy yet compact structure with dedicated components required in this field, like no cover glass objectives working without cover slide ideal for metallographic samples and other opaque specimens. A particularly simple and ingenious optical design allows stable alignments and smooth and accurate movements.



IOS LWD U-PLAN MET (5x, 10x, 20x, 50x) Objectives. 100x is optional

Brightfield, Simple Polarized Light On Incident Light

With brightfield observation mode to view specimen is very simple and easy use with fewer adjustment needed.



CAST IRON BRIGHTFIELD

Order no: 60 05

60 25 — Holder for metallurgical samples (15 mm hole)

60 45 — Mechanical stage, IMM 902

62 42 — Eyepiece WF15x/16mm

62 53 — Eyepiece micrometer PL10x/22mm

60 41 — 26x76mm micrometric slide. R:1mm, div:0,01mm

60 55 — Objective 100x/0,80 (dry)

60 74 — Photo adapter for IMAGINE HARDWARE SET, 0.5x focusable

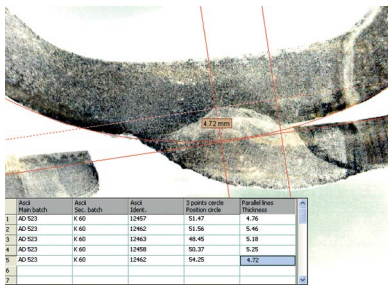
60 65 — 12V/50W halogen bulb

IMAGE ANALYSIS

MESURA 200

IMAGIN MESURA 200 allows you to view the live microscope image, compare it with stored images and if necessary save it to the system. Several databases can be created according to the customers, projects, materials or specimens.

IMAGIN MESURA 200 has several measurement tools for performing manual measurements of lines, curves, angles, areas etc. after which they can be saved and archived. Many application areas exist like "Weld Assessments, Macro analysis, PCB component measurements etc.



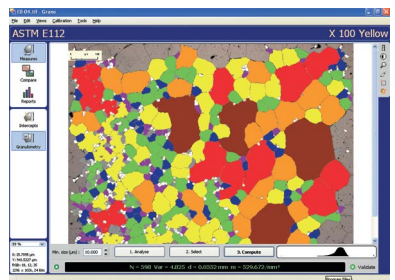
With 'Annotation' facility, it is possible to add comments, graphics, arrows etc. directly on the image allowing you to label specific areas of interest.

IMAGIN MESURA 200 allows you to design your own template or select one of METKON's standard templates for "Report Generation" where the text and images are automatically placed. When required, it is also possible to transfer data directly to Excel for further processing.

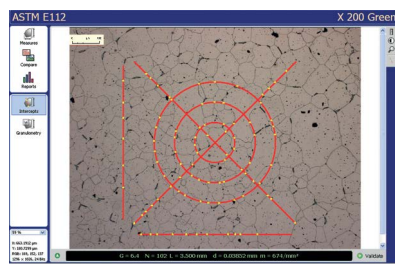
GRANO 200

Customer requirements for imaging applications increase in parallel to the complexity of material applications in research field as well as in industry.

IMAGIN GRANO module has been designed for automatic measurement of grain size according to ASTM E112 and EN ISO 643. Firstly, the grain boundaries are detected after which the grain size can be calculated in different ways;

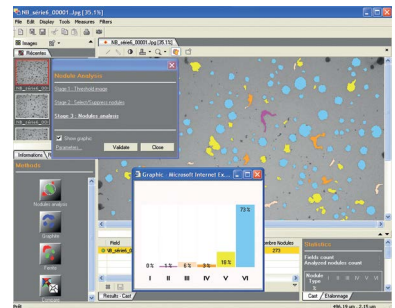


"Intercept Method" counts the number of intersection in each field and the grain size is calculated by Abrams 3-circle or Linear Equations. "Area Method" determines the size of each individual grain by area after which the grains are categorized for the calculation of fractions.



NODULA 200

IMAGIN Modular Imaging System offers flexibility to the customer to select and build his own system according to his individual needs. More modules can be added at any time when needs grow.



IMAGIN NODULA 200 module is designed for the analysis of graphite in cast irons especially in Ductile and Gray Iron Foundries and Quality Control Labs. Nodularity assessment is made by percent count and nodules proportion. It is also possible to measure "Area percent ferrite, Area percent graphite and Area percent Pearlite". Archiving of all images with calibration and generating Reports creates an additional advantage to increase productivity and repeatability.

SPECIFICATIONS

IMAGIN Hardware Set

CMOS Color Camera, Resolution 5.0 M. Pixels with Interpole Mod USB2 - PC Interface, C Mount - Microscope Interface. Including DUROLINE, IMM or PST adapter according to application.

Order No: 66 10

IMAGIN MESURA 200

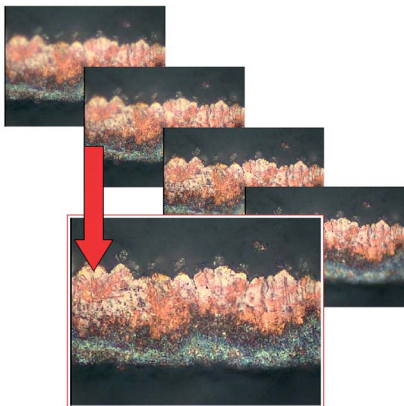
Image capture, Image archiving, Image enhancement, Calibration, measure Length, thickness, width, angle, radius, curve perimeter, area. Multi Image Alignment, Multi Focus Function. Phase content analysis, Add Text & Marker Arrow and Calibration Scale, Image annotation, Image report generator, Automatically measurements and threshold function, Direct transfer to Excel.

Order No: 66 02

IMAGIN GRANO 200

Image capture, save and calibration, Grain sizing software in compliance with ASTM E1382 / E112 and EN ISO 643, Horizontal, vertical, diagonal or circles interception methods. Instant detection of Grain Boundaries, Powerful report generator, Direct transfer to Excel.

Order No: 66 04



IMAGIN NODULA 200

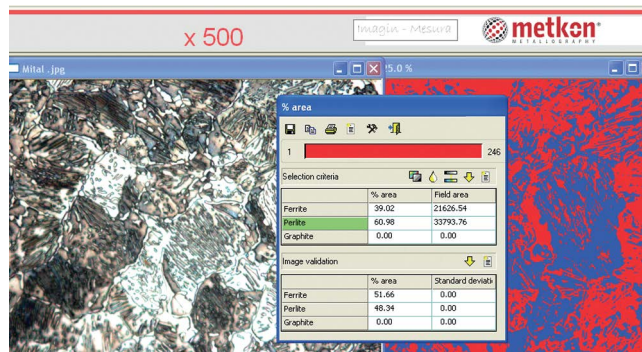
Image capture, save and calibration, Graphite nodules automatically detected and colored with regards to shape and size, Cast iron analysis in compliance with ASTM A247 including nodularity, Ferrite / Perlite fraction. Automatically count Sphericity %, gray iron flakes, calculates percent, graphite and classifies the flakes by size. Powerful report generator, Direct transfer to Excel.

Order No: 66 05

IMAGIN TRIO

A complete set for image analysis. Including IMAGIN Hardware Set and all software modules (IMAGIN MESURA 200, IMAGIN GRANO 200 ve IMAGIN GRANO 200).

Order No: 66 07



* Other voltages and frequencies available upon request. Please state when ordering. All specifications are subject to change without notice.

