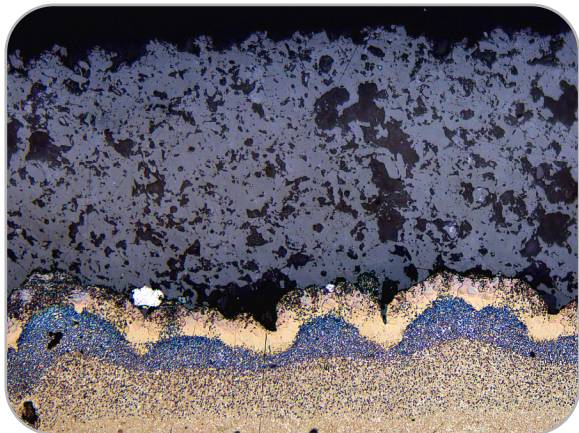
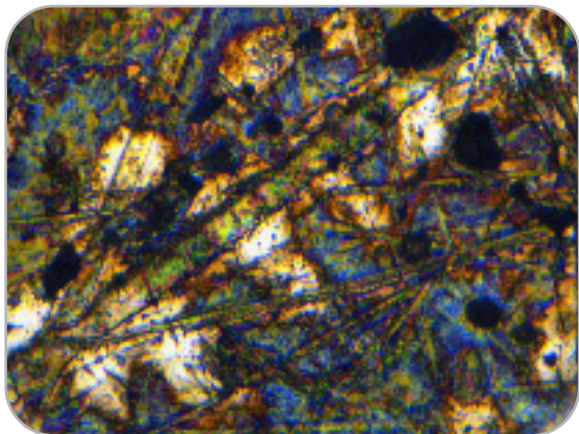
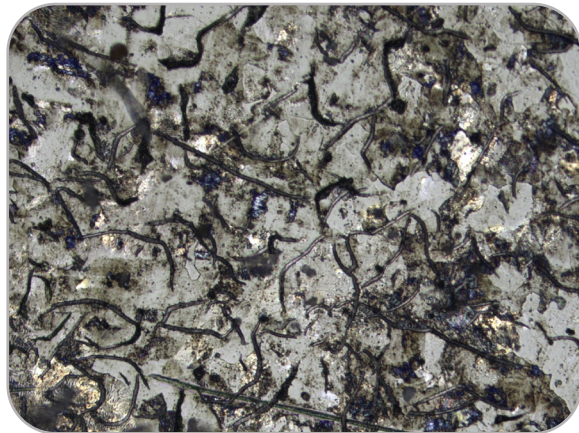
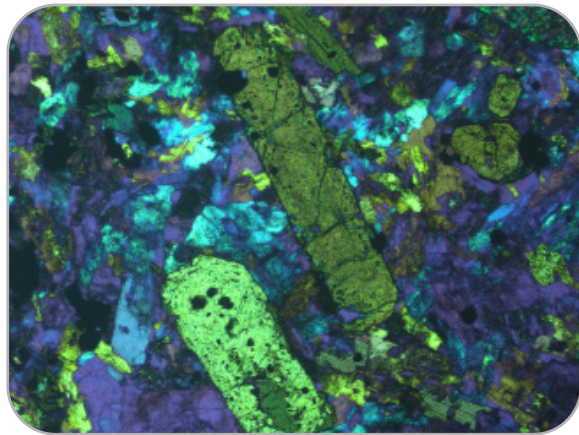


Designed to support a wide variety of observation methods including brightfield, darkfield, polarized light and DIC.



Inverted  
Metallurgical  
Microscope  
CAT# 15000-BD



## Versatile, Ergonomic, & Energy Efficient

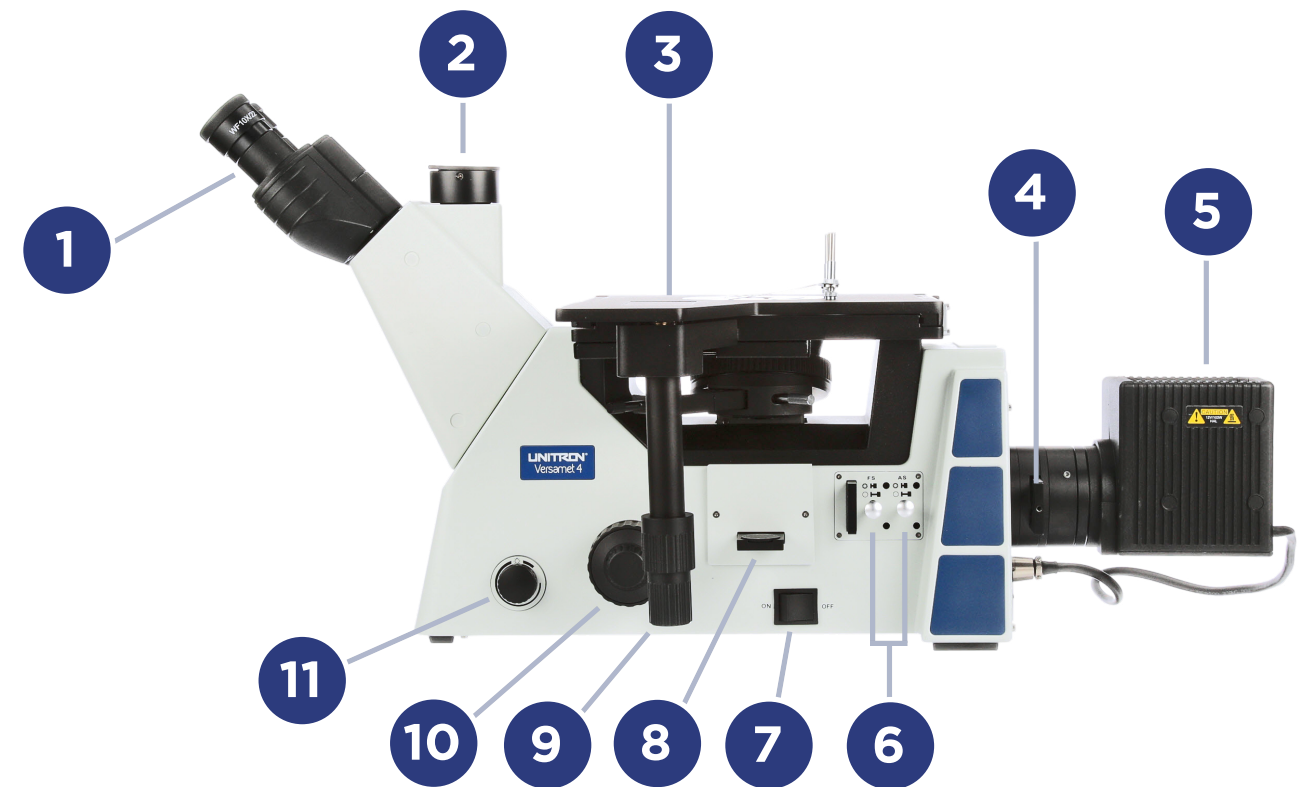
The Versamet 4 inverted metallurgical microscope is designed to support a variety of observation methods including brightfield, darkfield, polarized light and DIC.

This versatile and configurable microscope is widely applied in metallurgy, smelt, heat treatment, raw material inspection, material processing, food safety evaluation, medical/clinical testing and geological testing applications.

Digital capabilities make the Versamet 4 Series an outstanding choice for today's modern metallurgist.

- Advanced LWD M Infinity Plan Achromatic optics provide outstanding image resolution and clarity
- The ergonomic viewing head and low-position focus knobs and stage controls offer stable and comfortable operation
- Ø12mm & Ø25mm teardrop stage plate inserts and crescent-shaped stage plate insert allow for rotation of high magnification objectives
- Encoded quintuple nosepiece with integrated slot for DIC (*DIC component not included*)
- The smart ECO illumination system saves energy by automatically turning the illuminator off when the microscope is not in use
- With a wide range of optional c-mount adapters, the Versamet 4 can easily be connected to our Excelis HD or Teledyne Lumenera® digital cameras for easy image viewing, capture and processing.

## Key Features



Versamet 4 shown with optional *Excelis™* HD camera (CAT# AU-600-HD) and c-mount adapter (CAT# 00-2010-35)



1. WF 10x/22mm focusing eyepieces
2. Trinocular viewing head with imaging port
3. Three-layer mechanical stage
4. Color filter slider
5. 12 volt 100 watt halogen illuminator
6. Field and Aperture diaphragm levers
7. On/Off power switch
8. Polarizer
9. X-Y coaxial stage controls
10. Coaxial coarse and fine focus
11. Illuminator intensity control
12. Optional camera & c-mount (*not included*)
13. Light path selector
14. Smart Eco system indicator
15. BF/DF lever
16. Quintuple nosepiece
17. Vernier scale

## Specifications

<b>Optical System</b>	Infinity color corrected optical system
<b>Viewing Head</b>	Trinocular head, 45° inclined, interpupillary distance adjustment: 50-75mm, Viewing split = 100% binocular or 100% trinocular
<b>Eyepieces</b>	WF 10x/22mm focusing eyepieces with eyeguards, accepts reticle Optional: WF 15x/16mm focusing eyepieces, accepts reticle; WF 20x/12.5mm focusing eyepieces
<b>Objectives</b>	Infinity M LWD BF/DF Plan Achromat 5x, 10x, 20x, and semi-apo 50x metallurgical objectives
<b>Nosepiece</b>	Encoded brightfield and darkfield quintuple nosepiece with DIC slot
<b>Frame</b>	Reflected, inverted metallurgical frame; coaxial fine and coarse focusing system Coarse range: 9mm (6.5mm up and 2.5 down), Fine precision: 0.002mm; BF/DF slider Polarizer, and 360° rotating analyzer
<b>Illumination</b>	12 volt/100 watt halogen illuminator with variable intensity and light indicator; external transformer: 100v - 240v input, 12v5A output; ECO infrared induction sensor; adjustable and centerable field iris diaphragm and aperture diaphragm; ø32mm LBD, yellow and green filters
<b>Stage</b>	240 x 250mm integrated three-layer mechanical stage; movement range: 50 x 50mm; X-Y Vernier scales; low-position right-handed stage controls; ø12mm and ø25mm teardrop stage plate inserts, crescent-shaped stage plate insert to allow for rotation of high magnification objectives;
<b>Optional Accessories</b>	DIC slider Filters: ø32mm blue, and frosted Excelis™ and Teledyne Lumenera® cameras with measurement and materials software C-mount adapters: 0.35x, 0.50x, 0.65x, and 1.0x with focus adjustments Reticles: crossline, grid, Austenite grain size and custom patterns are available Stage micrometers, Metric (mm) and English (inches) with NIST traceability are available
<b>Warranty</b>	5 year limited warranty for parts and labor; 1 year warranty on electronic components and LED bulb



**METRICAL Metallurgical & Materials Analysis Software** (sold separately, CAT# 14625-USB) provides computer-aided quantitative analysis results in accordance with ISO and ASTM technical standards.

- **Grain Size:** ASTM E-112, E-930, E1181, ISO 643-03, JIS G 0551-05 BS 490 DIN 643-03, IS-4748-88, SIS 111101 GOST 5639-82
- **Non-Metallic Graphite:** ASTM E-1245 E ASTM E45-97, ISO 4163-82, DIN 50602
- **Decarburization:** ASTM E1077, ISO 3887, JIS-0557-98 BS-6617, IS-7754 DIN 50192
- **Porosity:** ASTM 247
- **Dendrites and Hardness analysis (Brinell and Vickers)**
- **Live measurement**

Streamlines image capture, measurement and enhancement, live measurement and accuracy of results. Includes modules for Grain Size, Porosity, Segmentation, Decarburization, SG Iron / Nodularity, Gray Iron, Carbide banding, and more.

**Camera included:** includes 5MP, USB 3.0 camera. Requires 0.65x adapter (sold separately). Compatible with Windows 10 or higher. See Metrical brochure for PC requirements.

Metrical software shown on a computer monitor (not included) with included 5MP USB 3.0 camera, and c-mount adapter (CAT# 00-2010-65, sold separately).



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