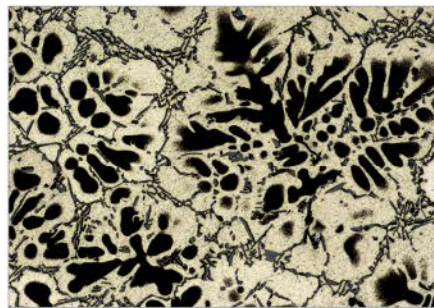


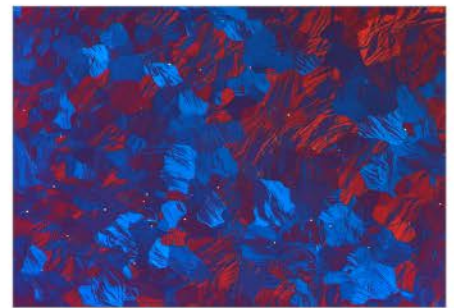


ZEISS Axio Vert.A1

Your Inverted, All Contrast Microscope for Materials



Aluminium alloy imaged with brightfield reflected light. Recognizing grain boundaries, you can draw conclusions on grain sizes, phases and structural constituents.



Magnesium imaged with polarization contrast. In polarized light, the individual grains of crystal lattice will show their characteristic colors.

Courtesy of Allied High Tech Products Inc.

Highlights

Axio Vert.A1 allows you to examine large, heavy samples, using a wide range of classic and advanced contrast methods. Switch easily between brightfield, darkfield, DIC, C-DIC, fluorescence and polarization contrast in reflected light. In transmitted light, use brightfield, polarization and phase contrast. Or combine several contrast methods for the maximum amount of information.

The 5x encoded nosepiece turret recognizes a change of objectives automatically. It also enables the use of a light manager to save and recover light intensity values. You quantify your structure efficiently, evaluate the properties and quality of your materials. Gain valuable new understanding and optimize preparation or production processes.

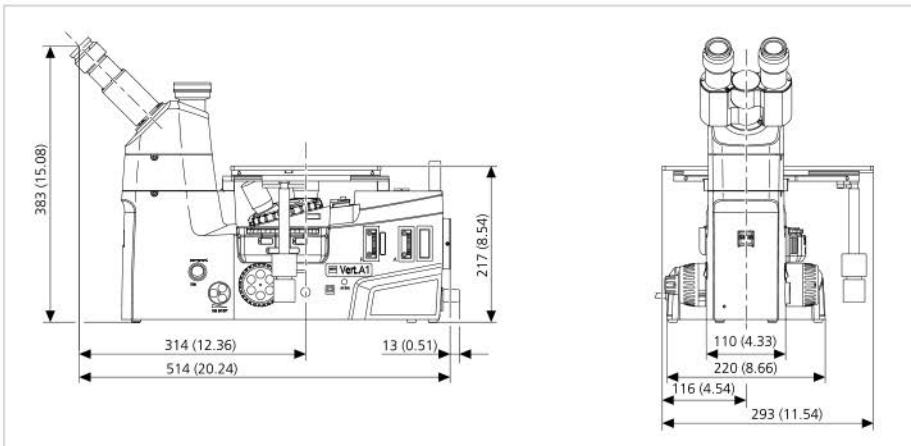
- Fast imaging with a wide range of objectives
- 5x nosepiece turret automatically recognizes a change of objective and therefore magnification
- 4x reflector turret provides all common contrast methods
 - Switch in reflected light between brightfield, darkfield, DIC, C-DIC, fluorescence and polarization contrast.
 - Switch to transmitted light illumination and work with brightfield, polarization or phase contrast.
- Use reticles and structure comparison disks for measuring and counting.
- ZEISS AxioVision Software modules for grain size, phase analysis, layer thickness and interactive measurement
- Optional eco mode - automatic switch-off after 15 minutes of inactivity
- Link Axio Vert.A1 to your PC via USB

Every Contrast Technique for Your Applications

- Analyze the microstructures of etched surfaces – identify grain boundaries and draw conclusions on grain sizes, phases and structural constituents.
- Detect impurities and structural constituents, such as graphite in cast iron, prior to etching.
- Investigate mechanical surface faults, fracture sites, porosities and inclusions – they all show up along with cracks, scratches and cavities.
- Analyze the structure of anisotropic materials such as magnesium, aluminum, bronze and brass. In polarized light, the individual grains of crystal lattice show their characteristic color.

ZEISS Axio Vert.A1

Your Inverted, All Contrast Microscope for Materials



Special Features:

- Binocular tube, focusing, drive knobs and lower part of stand made from skin-friendly polymers

Suitable Applications:

- Analysis of structure and structural defects
- Measurement of layer thicknesses and geometric properties
- Analysis of dark samples with minor reflection differences
- Analysis of anisotropic samples
- Thin section samples: Assess synthetic recyclates, spatial distribution of polymer mixtures; examine crystallinity differences, structural differences, thermal damage, processing influences, cavities, inclusions and internal mechanical tensions of part-crystalline polymer materials.
- Identification of specific phases and minerals
- Identification, quantity and particle size distribution of asbestos fibers

Accessories Available:

- Various stages
- Various binocular phototubes
- Various spacer and ergo tubes

Technical Data

Stand	Inverted manual reflected light microscope Optional: carrier for transmitted light illumination	
Dimensions (W x D x H)	220 x 560 x 355 mm	
Weight	10.3 kg	
Eyeieces	Field number 23 (W-PI 10x/23 br foc) diameter: 30 mm	
Objective turret	5 position H-D, DIC (encoded)	
Illumination	Hal 100 (Halogen) VIS-LED (LED)	Output: 100 W, controllability: continuous, ≤ 1.5 to 12 V Output: 20 W, voltage: 0 to 12 V DC, LED risk group 1 acc. to DIN EN 62471:2009, wavelength: 400 – 700 nm
Contrast methods	Reflected light Transmitted light Reflector turret	Brightfield, darkfield, DIC, C-DIC, fluorescence, polarization Brightfield, polarization, phase contrast 4x reflector turret for Push&Click reflector modules
Tubes	Binocular tube 45°, 23 Binocular phototube, left 45°, 23 (50:50) Binocular phototube, 45°, 23 (50:50) Binocular ergotube, 30° - 60°, 23	
Spacer Tubes	Photo spacer tubes, H=50 mm, left Ergo adapter, H=25 mm Ergo adapter, H=50 mm	
Stages	Mechanical stage 40 x 40 with various stage diaphragms Gliding stage including stage inserts Scanning stage 130 x 85, mot P, CAN with various holders	