

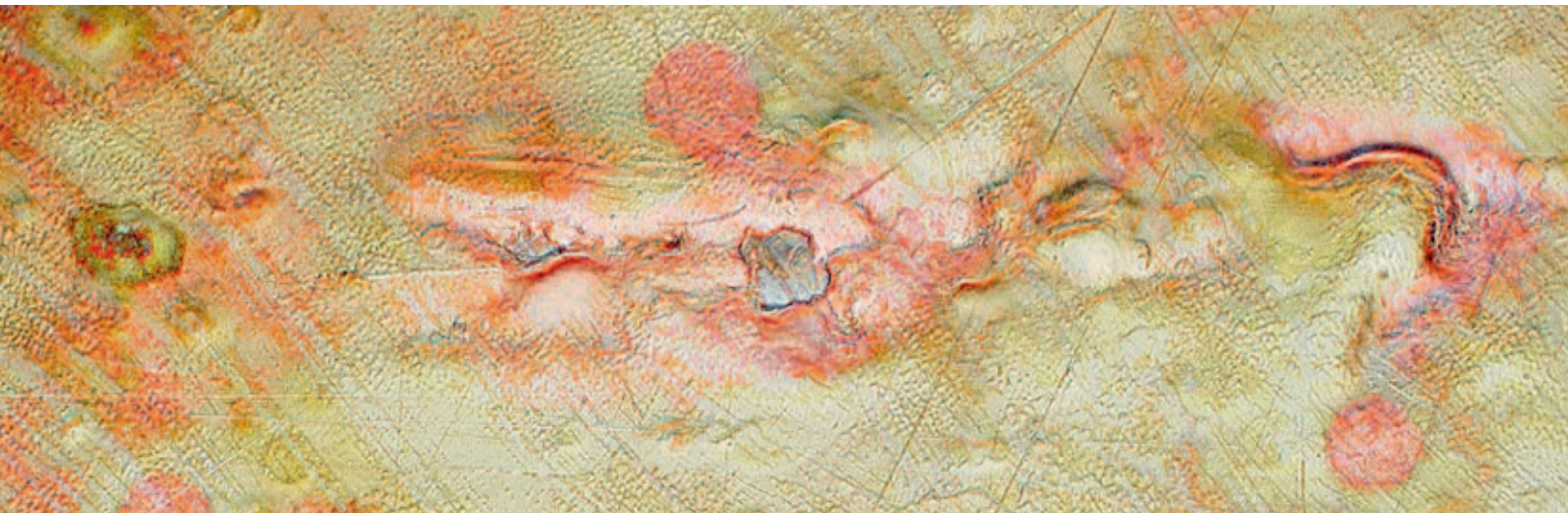
Living up to Life

Leica
MICROSYSTEMS

Leica DVM2500 and DVM5000 HD

Leica Digital Microscopes – Mobility and Speed for Industrial Quality Control





Digital Microscopy

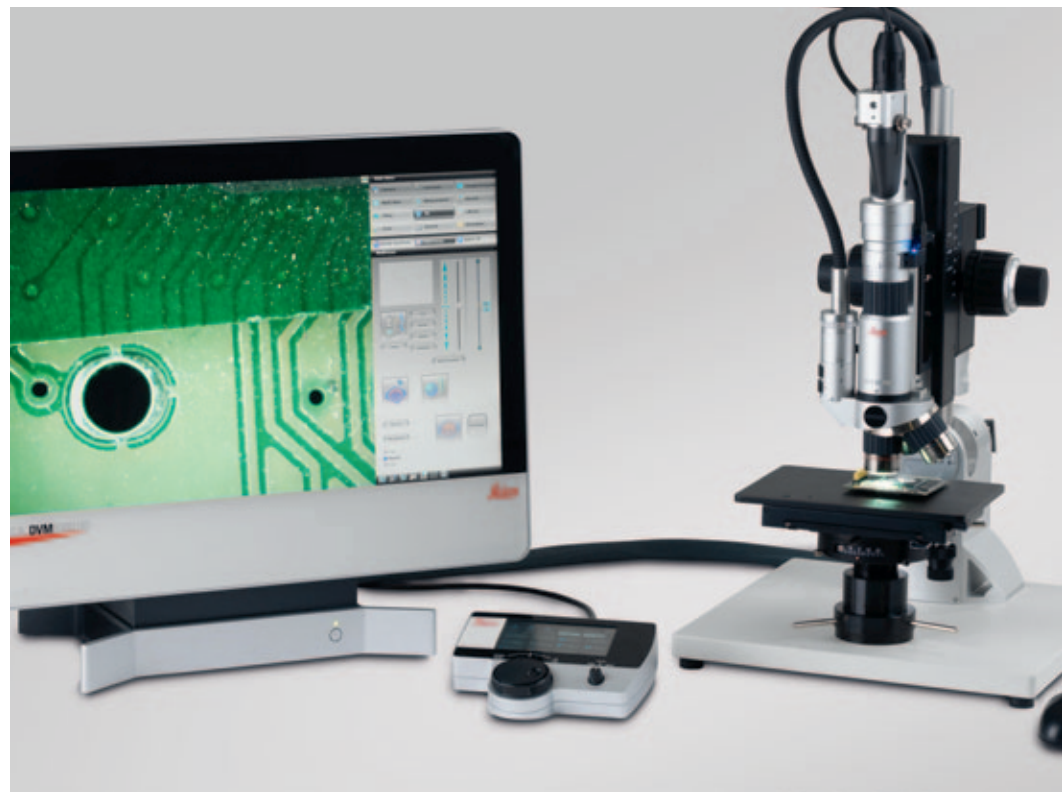
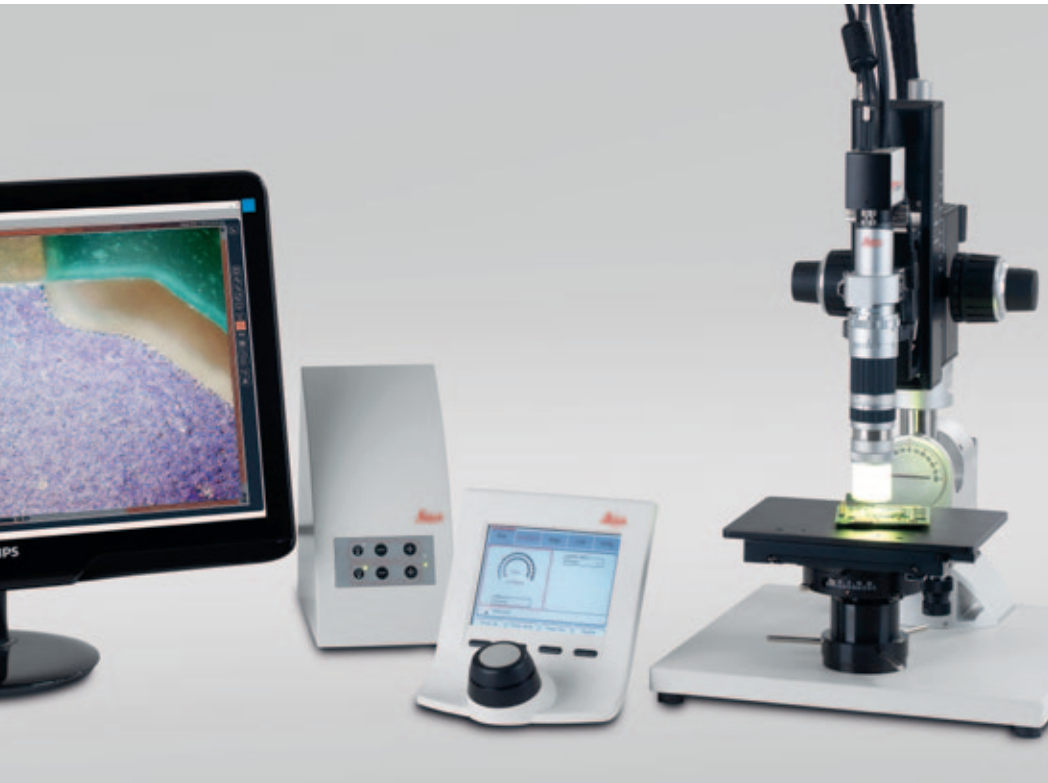
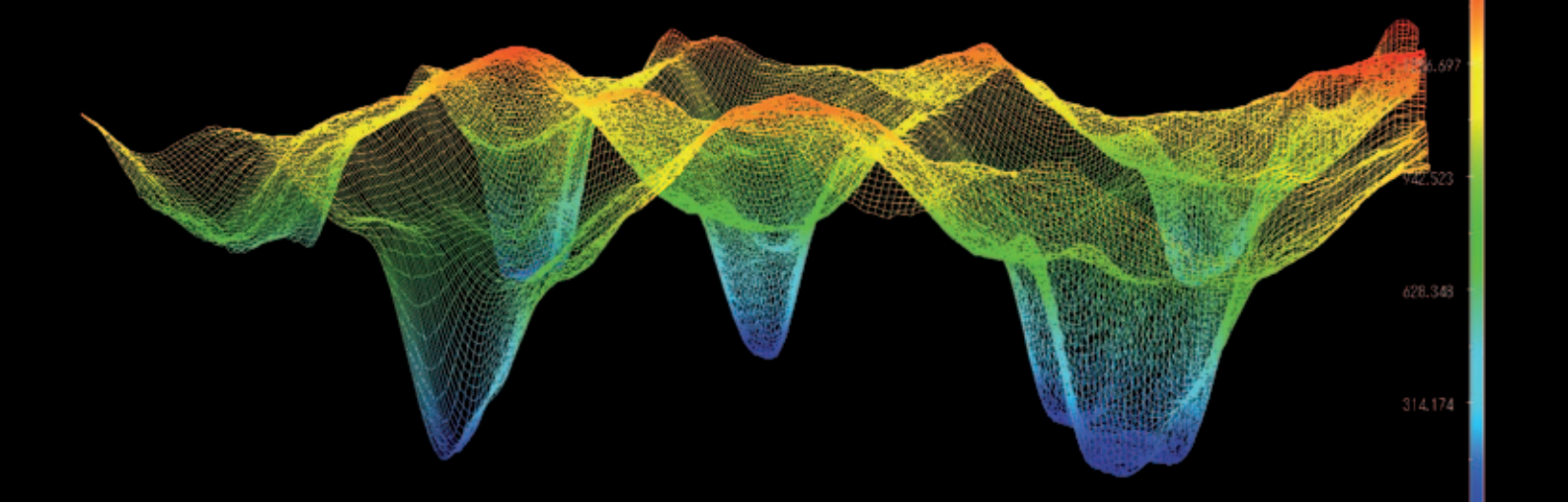
The new dimension of quality control

Digital technologies have revolutionized both our working and everyday lives in many respects, and no end to these innovations is in sight. In particular, industrial quality control – which places the most stringent requirements on macroscopic and microscopic imaging and image processing – benefits from innovative digital technology. Digital microscopes from Leica Microsystems open new horizons of mobility and speed. For many applications, they offer an ideal supplement to traditional quality control methods.

With digital microscopy, an image is displayed directly on a high-resolution monitor, so you do not have to look through an eyepiece. The streamlined zoom optics reach difficult-to-access surfaces, allowing the nondestructive inspection of even large stationary parts, which can be examined using traditional microscope techniques only with great effort. Leica DVM Digital Microscopes not only feature outstanding optical quality, they also show their strength in a wide variety of quantitative analysis options – whether it be 2D analyses or advanced 3D surface measurements.

WHICH MICROSCOPE IS RIGHT FOR YOU?

Digital microscopy offers clear advantages for a wide variety of quality inspection tasks. Fracture analysis, analysis of inclined or vertical surfaces, and onsite inspection of large parts such as turbine rotors, are just a few examples where the benefits of digital microscopy make the biggest difference. With comprehensive application knowledge and one of the most extensive product lines of industrial microscopes, Leica Microsystems can create the best system for your needs. We provide onsite consultation to demonstrate which solution is best for your application.



Two Systems with Many Benefits

The Leica DVM2500 and DVM5000 HD digital microscope solutions offer a range of configurations – from the modular starter model to the intelligent, portable, all-in-one system. Both systems share an extensive range of components and accessories for your application specifications. A digital microscope system from Leica Microsystems opens up entirely new possibilities for precise, effective quality control.

LEICA DVM2500

- Uses the modular **Leica Application Suite (LAS) and Leica MAP software packages**, which include, among other features, automated image analysis, and real-time enhancement of the object field and depth of field
- Versatile configuration, as a cost-effective entry-level solution or high-performance 3D analysis tool
- Easy reporting with individual templates in **Leica MAP** and Microsoft Excel
- Compatibility with standard Windows PCs and easy network integration

LEICA DVM5000 HD

- Preconfigured, portable, complete imaging system
- Complete software package for 2D measuring and 3D analysis
- Fast drafting and processing of 3D surface models
- Slim, space-saving design with integrated, high-contrast HD screen



Leica DVM2500

The flexible, universal digital microscope

The Leica DVM2500 features outstanding flexibility and an open design. In its basic configuration, it is the ideal entry-into the world of digital quality control.

This modular system uses standard Leica components and features zoom optics with a digital camera and software that are designed specifically for the digital microscope. As a result, the Leica DVM2500 provides you with the flexibility to choose the right digital solution for your needs from a comprehensive range of products and accessories. Moreover, Leica Application Suite (LAS) offers a wide variety of software modules for different analysis and evaluation tasks. Leica MAP, for example is high-performance software for the analysis of 3D models. The final documentation of analysis results can be directly printed (LAS, MAP) or processed further using Microsoft Office programs (LAS).

LEICA DVM2500

- 2.11 megapixel camera with up to 29 frames/second in the live image for optimum information yield and a high-quality image
- Portable when combined with LAS and Windows laptop
- FireWire B-IEEE1394.b interface
- Maintenance-free LED illumination for color-neutral imaging

SMARTTOUCH™ CONTROL UNIT

- Intuitive, easy-to-use system with ergonomic SmartTouch™ control
- All system-related data can be configured by touching the screen
- User interface available in seven languages

LEICA APPLICATION SUITE & LEICA MAP

- Image analysis, which can be automated with macros
- Create 3D models in Leica LAS Montage
- Easy report functions using configurable templates
- Modular, upgradeable software for current and future applications
- Compatible with your IT standards

Leica DVM5000 HD

The portable, all-in-one system

The microscope that moves to the sample

The compact, highly integrated Leica DVM5000 HD meets all the requirements for high performance digital microscopy. A high-contrast HD monitor, LED illuminator, and all drive controls are integrated with the main unit. Together with the compact zoom systems, the Leica DVM5000 HD is a mobile, portable system.

Precise, reliable, and efficient

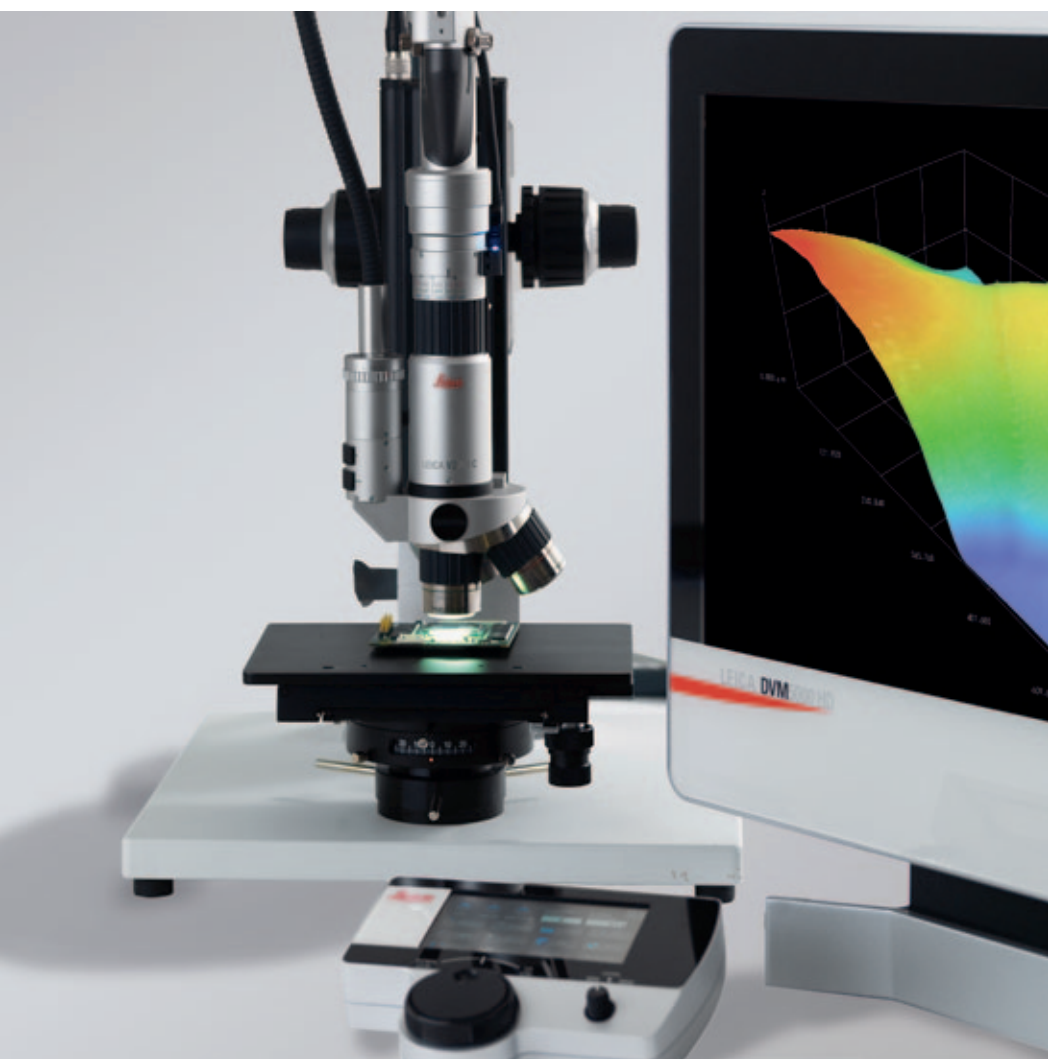
The components are carefully matched. With its very fast camera, 24 frames/second, and high-resolution focus drive, 3D surface models are created instantant, and complex 3D composite models over areas larger than the image field, are immediately available. The optimized user interface enables you to concentrate entirely on the work of analysis. Intelligent functions, such as autofocus with just one click of a mouse, can increase productivity. The durable LED illumination and slim camera without movable parts make the durable Leica DVM5000 HD ideal for demanding long-term use.

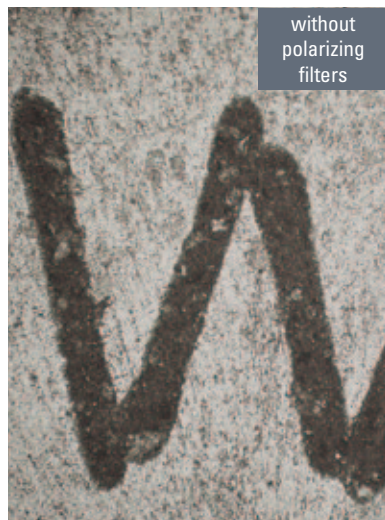
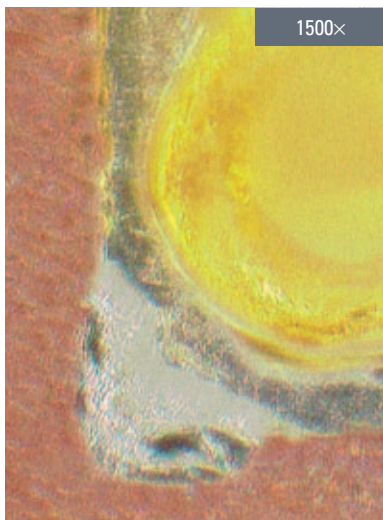
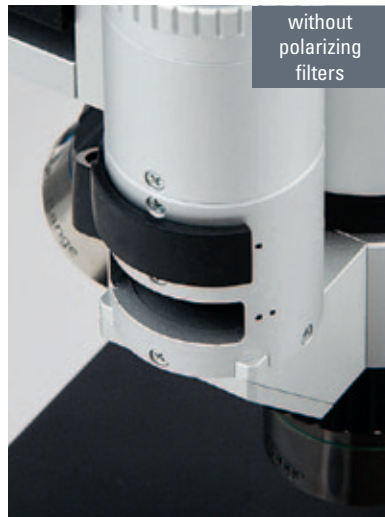
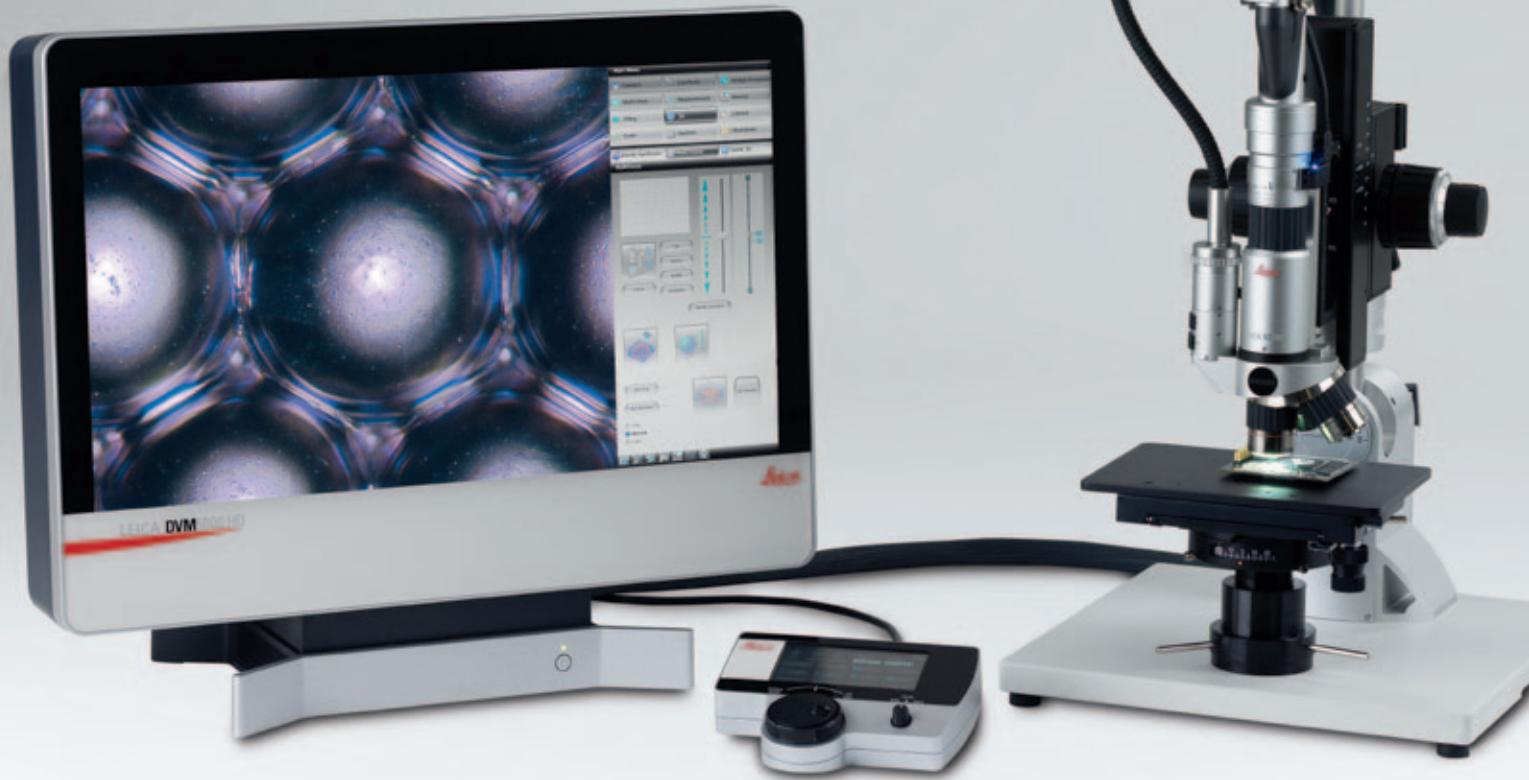
MEGAPIXELS ARE NOT EVERYTHING

The camera with the most megapixels will not necessarily be the best. The application as well as the microscope's optical performance determine which camera is best suited for the optimal imaging results.

LEICA DVM5000 HD

- All-in-one imaging and analysis system with HD display, for mobile use
- Streamlined optics make it possible to reach even difficult-to-access sample areas
- Camera unit with integrated anti-blur feature
- High-performance 3D image acquisition and analysis
- Roughness analysis and evaluation of profile cuts
- Control unit with touchscreen operation
- Optimized Leica DVM digital camera with 2.11 megapixels for best image results





Leica VZ700 C

Cutting-edge in digital imaging efficiency

The Leica VZ700 C optical system combines a 7:1 zoom range with three permanently mounted objectives to provide an effective magnification ratio of 70:1. This zoom optics system can be used with the Leica DVM2500 and DVM5000 HD digital microscopes. The wide zoom range enables the user to work very efficiently at variable magnifications. With its parfocal objectives, a continuous 10 mm ergonomic working distance is achieved over the entire 35 to 2500× magnification range. This corresponds to an object field width of 8 mm to 0.12 mm. The integrated ACS coding detects the zoom setting and selected objective, which simplifies operation and results in correct measurements.

LEICA VZ700 C

- Suitable for the Leica DVM2500 and DVM5000 HD
- Magnification range from 35× to 2500×
- Zoom with 3 objectives
- Two illumination modes – incident light, dark-field ring illumination, or any setting in between
- Illumination adapter for various contrast methods
- Encoded zoom for automatic recording of the magnification
- Parfocal objectives with a long working distance – no refocusing during magnification change
- Parcentric objectives mean faster change from overview to enlarged detail

ILLUMINATION SETTING

The Leica VZ700 C's illuminator can be freely adjusted between coaxial incident light and dark-field ring illumination. This makes setting the optimum contrast as easy as turning an adjustment ring.



Leica VZ75 C and VZ80 C

Powerful, flexible zoom systems

With an extensive product line of accessories and adapters, the Leica VZ75 C and VZ80 C zoom systems meet a wide range of application needs.

Both systems have an 8:1 zoom range with automatic encoding (optional), an integrated iris diaphragm, fine focus control, and integrated illuminator.

With the available adapters, various contrast methods are produced in the illuminator (diffuse and coaxial incident light, dark field, polarization), the magnification can vary ($2\times/0.3\times/0.4\times$), and the rotary head gives an oblique view of the sample from all sides.

360° – a clear view all around

A motorized 360° rotating head is available for both zoom systems. This enables a sample to be viewed from all sides in real time at angles from 25° to 55°. This 360° swing around the sample can be video recorded and have its direction and speed adjusted for precise analysis.

LEICA VZ75 C

- Compact and ideal for mobile applications
- 8:1 zoom, 20× – 160× magnification (with adapter: 6× – 320×)
- Adapters are screwed on

LEICA VZ80 C

- Multifunctional zoom system
- 8:1 zoom, 50× – 400× magnification (with adapter: 20× – 800×)
- Snap-on adapter interface for easy adapter change with one hand
- Extensive product line of accessories





Leica Digital Microscopy for a Wide Range of Applications

Accessories for enhanced performance

With a wide range of zoom systems, Leica DVM digital microscopes adapt to a wide variety of applications.

Leica VZ100 C

For outstanding imaging performance at the highest magnification, the Leica VZ100 C is the optical system of choice. The 10:1 zoom can be combined with six different objectives from 35× to 700× magnification range. The 350× and 700× objectives in particular, when combined with the high-resolution motorized focus, produce precise 3D surface models.

Leica VZ10 MC

The Leica VZ10 MC macro lens has two modes. In zoom mode with of 5× to 50× magnification, object fields are shown with a width of up to 61 mm. Macro mode is for low magnification imaging; the distance between the lens and samples determines the image detail that is revealed.

Leica VZ18 BGA

Leica DVM digital microscopes can be upgraded with the Leica VZ18 BGA lens for checking soldered joints of installed SMD components on printed circuit boards, for example.

Leica DVM Tilting Stand

With the Leica DVM tilting stand, you can adjust the ideal angle for viewing a sample with a few twists of the wrist. The stand itself can be freely locked into place in a range of angles from 0° to 180°. The height-adjustable x/y-stage can freely rotate 360° for an all-around view of a sample.

