



Leica M50 and M80

A fresh face for the laboratory and production line: the Leica Routine stereomicroscopes will impress you with the legendary Leica optical quality, many clever ergonomic solutions and the comprehensive Leica range of accessories.

Living up to Life

Leica
MICROSYSTEMS

M50 features

- Magnification range 6.3 – 40×
- Five defined, locking magnification levels
- High depth of field for observing objects over an extended area

M80 features

- Zoom range 7.5 – 60×
- Eight switchable, locking zoom levels
- Optics with excellent contrast for detailed view of the specimen

Common features

- Modular product range: optimum adaptation of the microscope for the application
- Parfocally matched optical system: the sharpness remains constant when the magnification is adjusted
- Field number 23 for an even greater overview
- 76mm standard interface for quick and simple integration
- Wide range of achromatic and planachromatic objectives
- Ergonomic design: best possible adaptation of the instrument to the user
- ESD design prevents damage caused by static discharge
- Focusing column with integrated cable channel keeps the workplace tidy

The New Leica M Series

The introduction of the Leica M50 and M80 adds two new high-quality routine stereomicroscopes to the proven M-Series range from Leica Microsystems. The optical brilliance and the wide range of accessories make them the ideal microscopes for quality assurance and similar industrial applications.

Magnification in stages or zoom

The Leica M50 stereomicroscope includes precisely reproducible magnification levels for repeated examinations, measurements, drawing or photography of objects under absolutely identical conditions. The five easily selectable positions can be set without removing the eyes from the eyepieces. This ensures that your results remain comparable at all times without great efforts.

The Leica M80 stereomicroscope can be used for a wide range of routine applications with the 8:1 zoom and switchable ratchet steps. The large working distance and the brilliant imaging power show you the finest details of your specimens without losing your overview of large workpieces.

Common to both microscopes is the Leica range of accessories. Whether you need a variety of illumination types, a wide selection of objectives or the Leica swingarm system – there is a solution for everything!

Do you already own stereomicroscopic equipment and are thinking of switching to Leica? No problem! Leica M50 and M80 fit into microscope carriers with a diameter of 76mm and are therefore compatible with many suppliers. You can simply continue to use your components and add the proven Leica stereomicroscopes.

Left side: Leica M50 with small swingarm stand
Right side: Leica M80 with incident-light base

Routine microscopy: different challenges every day



Ergonomics

- Ergonomics in the workplace improves welfare, motivation and performance for employees
- Ergonomics translates directly to the bottom line
- Higher investments in ergonomics are amortized very quickly

Leica ErgoModule®

- ErgoWedge® ±15°
- ErgoTube® 10° – 50°
- ErgoTube® 45°
- Straight Tube
- ErgoModule® 30mm – 120 mm
- ErgoWedge® 5° – 25°
- ErgoWedge® ±15°
- man. & mot. mechanical stage
- SmartTouch™
- Motorized focusing drive

Humans as the reference

Ergonomically designed workstation and work processes are essential for the welfare of people in the workplace. The correct design of the work environment improves the motivation and performance of employees. When correctly applied, they make a strong contribution to increased productivity and improve the bottom line.

Occupational medical studies show that workstations with optical equipment place high demands on the posture, hands and eyes. Compared to computer workstations, microscope workstations are much more demanding for users.

The higher investment costs for ergonomically designed workstations are amortized very quickly and are a long-term benefit for all involved with improved performance, higher quality work results and not least less time off.

The correct viewing height

When the viewing height of the microscope is matched with the physical height of the user, a few millimeters are crucial. If the user has to change his head position to use the instrument, his entire body will assume an unnatural posture, which may cause headaches, a stiff neck, and reduced work performance. A tube with variable viewing heights such as the new ergobinocular tube solves this problem with a few simple twists of the wrist.

The correct posture

Routine work while seated at the microscope can cause tension in the neck and back muscles, and in the worst case even postural defects of the spine. All the control elements of Leica stereomicroscopes are arranged for the greatest possible comfort of the user. In this way, they actively combat muscle tension and fatigue.



LED illumination

- Minimum maintenance with LED service life of 50,000 h
- Realistic image with color temperature similar to daylight
- Constant color temperature over the complete brightness range
- Uncluttered workplace with compact design
- Silent operation without fan

KL200 LED /

L2 illumination system

- Illumination system based on fiber-optics for the greatest possible range of applications
- Modular design: easy to replace and exchange
- Compact, integrated design

LED3000 NVI™

- Precise, shadow-free inspection of recesses
- Significantly brighter as a cold-light source with 150W
- Simple assembly on all \varnothing 58mm objectives
- Suitable for working distances from 60 to 150mm
- Operation directly at the device

LED5000 CXI™

- Integrated coaxial illumination for observation of flat, reflective surfaces, e.g. material fault analysis
- Brightness 3–4× greater than comparable cold-light source with 150W
- Operation directly on the device
- Settings saved with image and can be recalled later

The correct illumination

Large selection of different illumination

Only the correct illumination exploits the full power of a microscope – it gives you the maximum possible information from your specimens. The type of illumination is completely oriented to the object under observation: depending on whether you are viewing large, high-relief specimens or reflective metal surfaces for material faults, near-vertical or goose-neck illumination will give you completely different information and as a result completely different results.

The modular **Leica L2 cold-light** source is one of the most powerful and compact light sources in its class and is suitable for a wide range of applications in industry. In addition to the diagonal illumination with one-armed or two-armed light guides accessories, other illumination methods are available. The Leica L2 can be coupled directly to the stand. The range also includes the powerful **Leica KL200 LED**. It operates as backpack or standalone illumination like the Leica L2, but the LEDs generate a very bright, natural light.

New and unique: the **Leica LED3000 NVI™**. Optimized for routine stereomicroscopy, this illumination is the ideal solution for viewing holes, indentations or gun barrels.

The **Leica LED5000 range** is another central component in the complete Leica stereomicroscope system. The most recent addition to this series is a fully integrated coaxial illumination. Two integrated high-power LEDs ensure excellent illumination while the data exchange for reading and controlling the settings is conducted over one single cable. In combination with the coarse/fine focusing drive all digital signals are bundled at the foot of the focusing column, digitally processed and sent to the Leica Application Suite (LAS) software. You can read all the information that was saved with the image. This allows you to reproduce recurring experiments with just a few clicks of the mouse.



LEICA M80

Leica

PLAN 1.0x

Leica Stereo Bases

Incident-light bases

- Small incident-light base
- Compact standard incident-light base

Transmitted-light bases

- Small incident-light base with optional transmitted-light base
- TL Series (ST, BFD, RC™, RCI™) with different transmitted-light types for all requirements

Swingarm stands

- For all applications with a large radius of action or that require space for large specimens
- Various equipment options for different tasks and attachments
- ESD equipment prevents damage caused by electrostatic discharge

XL Universal Plate

- Stationary incident-light base
- Ample space for very large specimens
- Optional gliding stage with 300×300mm traverse path
- Compatible with all Leica stereo-microscope columns
- Separate ESD socket for safety from electrostatic discharge

Stereomicroscopes are required in the electronics industry for visual inspection of large printed circuit boards. The surfaces of engine pistons are optically inspected for quality during manufacture. Dental laboratories fabricate and test implants, dental crowns and dentures in complex and time-consuming processes. These are all just some examples that represent numerous applications that require a large working distance, easily reproducible settings and, depending on the type of specimens, special accessories such as stands and illumination.

Leica Microsystems offers the perfect solution for all of these cases with the swingarm stand series and modular routine microscopy line. The large extension of the swingarm, the available attached load, the connection for the focusing arm with its wide range of adjustment options or the outstanding damping action are only a few of the numerous features. They enable the user to work under ergonomic conditions, even in unusual working situations, with plenty of space for objects, tools and work equipment.

Leica M50 with S-Series incident-light base and transmitted-light base



Leica M50 with small swingarm stand



The right base for your work

Antistatic coating for sensitive components

When inspecting printed circuit boards and their extremely sensitive components it is important to avoid any risk of damage from electrostatic discharge. Leica products show their strength in this field with their ESD equipment: they have antistatic coatings and prevent the build-up of electrostatic charges.

Incident light or transmitted light?

You have a wide range of different bases to select from depending on whether you are inspecting the surfaces of workpieces or viewing thin objects in transmitted light. The small incident-light base with optional transmitted-light base is a flexible alternative to the Leica swingarm stands. And of course all Leica TL bases are available: normal transmitted light, dark field or the Rottermann Contrast™ process.

XL base for XL workpieces

A new addition to the Leica swingarm series is the Leica XL universal base. It gives you a stationary stereomicroscopy workstation large enough to use for inspection of large specimens such as engine pistons. It is compatible with all M-Series columns, and with an adapter to all columns of the swingarm series. The optional XL mechanical stage has a traverse path of $300 \times 300\text{mm}$ – this corresponds to the dimensions of a 300mm-wafer. Even large workpieces can be inspected and (with a corresponding socket at the back of the stage) protected against ESD.

Leica M80 with standard swingarm stand



Leica M80 with XL universal base and XL extension



Leica OEM products

- Space-saving adaptation to bonders, probes, etc.
- Simple operation
- Fatigue-free viewing and working
- Continuously reliable, smooth-operating and accurate
- Excellent price-performance ratio

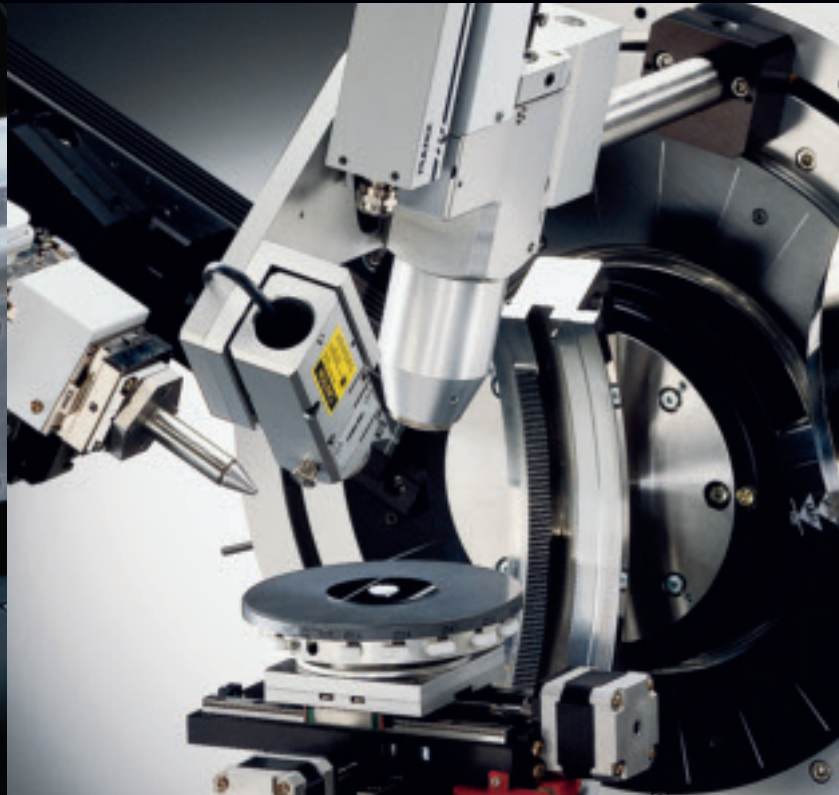
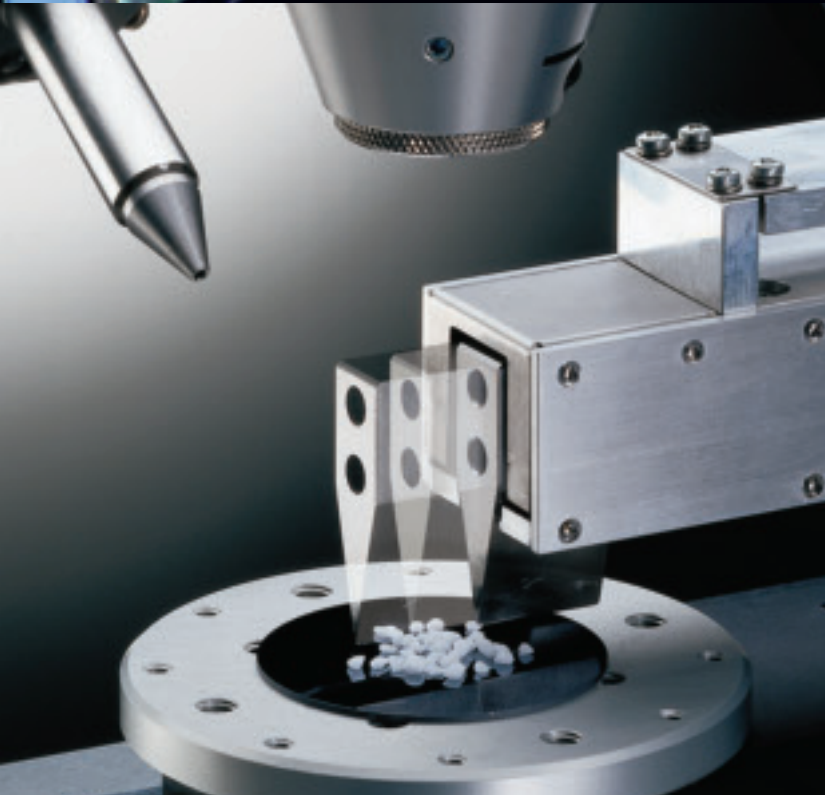
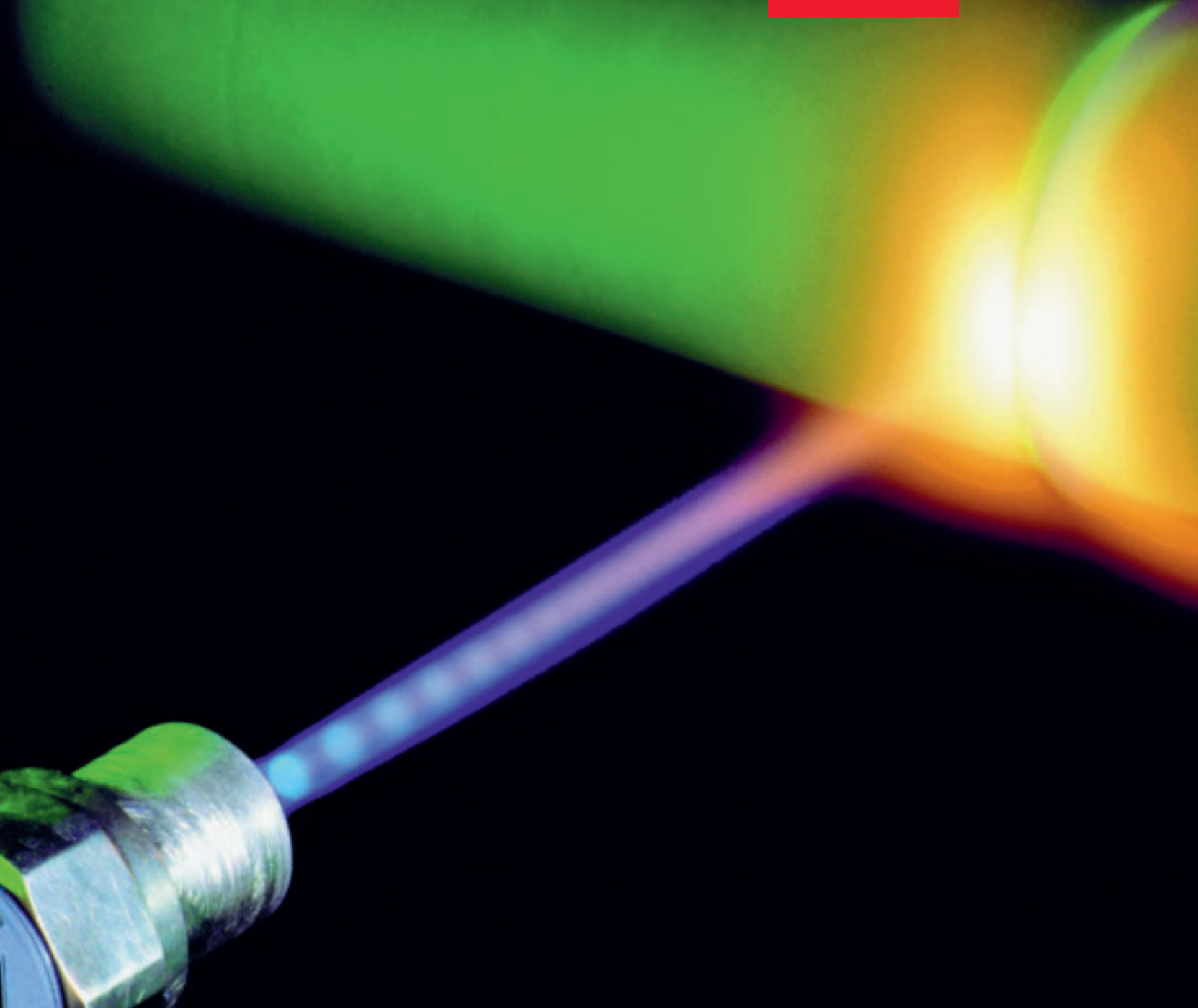
In the heart of the machine

As an Original Equipment Manufacturer you can ensure the success of your company with profitable and competitive production or testing plants. An important system component is a high quality stereomicroscope, which ensures reliable results during assembly, machining and testing. This requires powerful stereomicroscopes that can be integrated into your machines without difficulty or without taking up excessive space. They must also offer optimum image quality, ease of viewing and simple operation, while operating reliably, smoothly and accurately over the long term.

Leica stereomicroscopes – obvious advantages for your production

- Simple, space-saving attachment to bonders, probes, machines and systems
- Tilttable and 360° rotatable
- Excellent price-performance ratio
- Modular design for optimum adjustment for the mechanical requirements
- Selection among five magnification levels or 8:1 zoom
- Very large fields of view and large working distances
- Clear, sharp, undistorted, flat, high-contrast images
- Optimum chromatic correction
- Simple operation for fatigue-free viewing and working
- Ergonomical accessories for optimum viewing comfort
- Continuously reliable, smooth-operating and accurate

Leica engineers are available to assist you to make integration smooth and simple. We will be pleased to answer any questions about our range of accessories or about customized solutions.



“With the user, for the user”

Leica Microsystems

Leica Microsystems operates internationally in four divisions, where we rank with the market leaders.

• Life Science Division

The Leica Microsystems Life Science Division supports the imaging needs of the scientific community with advanced innovation and technical expertise for the visualization, measurement, and analysis of microstructures. Our strong focus on understanding scientific applications puts Leica Microsystems' customers at the leading edge of science.

• Industry Division

The Leica Microsystems Industry Division's focus is to support customers' pursuit of the highest quality end result. Leica Microsystems provide the best and most innovative imaging systems to see, measure, and analyze the microstructures in routine and research industrial applications, materials science, quality control, forensic science investigation, and educational applications.

• Biosystems Division

The Leica Microsystems Biosystems Division brings histopathology labs and researchers the highest-quality, most comprehensive product range. From patient to pathologist, the range includes the ideal product for each histology step and high-productivity workflow solutions for the entire lab. With complete histology systems featuring innovative automation and Novocastra™ reagents, Leica Microsystems creates better patient care through rapid turnaround, diagnostic confidence, and close customer collaboration.

• Surgical Division

The Leica Microsystems Surgical Division's focus is to partner with and support surgeons and their care of patients with the highest-quality, most innovative surgical microscope technology today and into the future.

The statement by Ernst Leitz in 1907, “with the user, for the user,” describes the fruitful collaboration with end users and driving force of innovation at Leica Microsystems. We have developed five brand values to live up to this tradition: Pioneering, High-end Quality, Team Spirit, Dedication to Science, and Continuous Improvement. For us, living up to these values means: **Living up to Life.**

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and representatives in more than 100 countries

In accordance with the ISO 9001 certificate, Leica Microsystems (Switzerland) Ltd, Industry Division, has at its disposal a management system that meets the requirements of the international standard for quality management. In addition, production meets the requirements of the international standard ISO 14001 for environmental management.