

Living up to Life

*Leica*

MICROSYSTEMS

## Leica M50, M60 and M80

A fresh face for the laboratory and production: the Leica routine stereomicroscopes are creating a sensation, combining Leica's legendary optical quality, many smart ergonomic solutions and the extensive Leica accessories program.





# Routine microscopy: different challenges every day

The optical brilliance and wide range of accessories make the Leica M50, M60 and M80 the ideal routine stereomicroscopes for quality assurance and similar industrial applications.

The Leica **M50** stereomicroscope includes precise, reproducible magnification steps for repeated examinations, measurements, drawing or photography of samples under identical scales and conditions. The five easily detectable position levels can be set without moving the eyes from the eyepieces. This ensures that the results remain comparable at all times without great effort.

The Leica **M60** and **M80** zoom stereomicroscopes can be used for a wide range of routine applications with switchable grid levels. The large working distance and brilliant imaging power show the finest details of your specimens without losing the field of view over large workpieces.

Common to all three microscopes is the Leica range of accessories. Whether the work requires a variety of illumination types, a wide selection of objectives, or a swinging-arm stand - Leica Microsystems has a solution for everything!

## LEICA M50 AND M60

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- Magnification range 6.3 – 40 ×
- Five defined, step magnification levels (M50)
- Seven switchable, locking zoom levels
- High depth of field for observing samples over an extended area

## LEICA M80

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

## BENEFITS OF LEICA ROUTINE STEREOMICROSCOPES

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- Modular product range: optimum adaptation of the microscope for the application
- Parfocally matched optical system: The sharpness remains constant when the magnification is changed
- Field number 23 for an even greater overview
- Easy integration into existing equipment thanks to a 76 mm standard interface
- Ergonomic design: best possible adaptation of the instrument to the user
- ESD-dissipating design helps prevent damage caused by electrostatic discharge
- Focus column with integrated cable channel keeps the workplace uncluttered

# Humans as the reference

## Ergonomic accessories for Leica routine stereomicroscopes

Ergonomically designed workstations and work processes are essential for the well-being of people in the workstation. The right presentation of the work environment increases motivation and performance; when correctly applied, ergonomically designed instrumentation can make a strong contribution to increased productivity and improved profitability.

The investment cost for ergonomically designed workstations amortizes quickly and can provide long-term benefits for a company: better performance, a higher work product quality and, last but not least, also fewer absences.

### The correct posture

Routine work at a microscope while sitting with an incorrect posture can cause tension in the muscles of the neck and back 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.

When matching the viewing height of the microscope to the physical height of a user, a few millimeters are crucial; just the wrong head posture could lead to headaches, neck pain and decreased performance. Using a tube with variable viewing heights such as Leica Microsystems' new ergobinocular tube can solve this problem with a few simple twists of the user's wrist.

### ERGONOMICS

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- Ergonomic design at the workplace improves employee well-being, motivation and performance.
- Ergonomics can directly affect profitability. Initially higher investments in ergonomics pay off quickly.

### LEICA ERGONOMIC ACCESSORIES

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- ErgoWedge® ±15°
- ErgoTube® 10° – 50°
- ErgoTube® 45°
- Straight Tube
- ErgoModule® 30 mm – 120 mm
- ErgoWedge® 5° – 25°
- ErgoWedge® ± 15°
- Manual and motorized cross-stage
- SmartTouch™







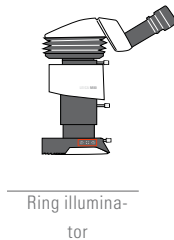
# The best illumination

## Leica LED system illumination for the greatest flexibility

With the **LED3000** series, Leica Microsystems offers a wide spectrum of special LED illuminators for the Leica M50/M60/M80 routine stereomicroscopes. In addition to the composition of the sample, the information to be gained is most critical for selecting the right illuminator. Depending on the application and task, one or the other illuminator may provide the desired results. With a lifetime of over 50,000 hours, maintenance costs and downtime shrink.

### LEICA LED3000 RL

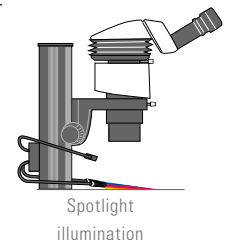
The compact Leica LED3000 RL ring illuminator uses the latest generation of LEDs and an LED auxiliary lens specially developed by Leica. This increases the brightness and homogeneity of the illumination. Conveniently adjustable segments are used to gain new data about the specimen without having to move it.



### LEICA LED3000 SLI™

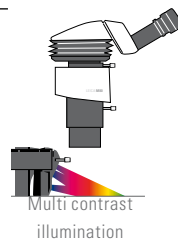
The double-armed gooseneck with integrated LED spotlights can be put into any imaginable position – outstretched for very flat oblique light (side light) for strong shading, up to high-angle incident light with minimal shading.

The operating concept is one-of-a-kind: The control for the light intensity is located on a separate gooseneck. This allows for ergonomic positioning depending on the user's preference.



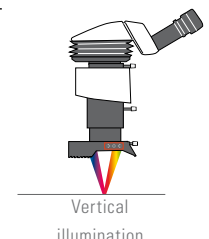
### LEICA LED3000 MCI™

For Leica MCI™ illuminators, the flat angle of the oblique incident light creates a particularly high contrast for viewing the specimen: the finest unevenness and defects are visible this way, such as scratches and dust particles. The settings are fully reproducible.



### LEICA LED3000 NVI™

The LED3000 NVI™ illumination is primarily used for viewing recesses and bores, since the light falls nearly vertically onto the specimen. Unlike coaxial illumination, the LED3000 NVI™ is also suited for uneven specimens and specimens that have no reflections.



# The right base for your work

## Leica Microsystems' stereomicroscope bases

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, time-consuming processes. These are just some applications that require an optical inspection system with a large working distance, easily reproducible settings and, depending on the type of samples, specialized accessories such as stands and illumination.

### INCIDENT LIGHT OR TRANSMITTED LIGHT?

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Leica Microsystems has a wide range of different bases to select from depending on whether the user is 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 swinging-arm stands. Leica TL bases are available for the Leica M-series: with normal transmitted light, dark field or the Rottermann Contrast™ method depending on the model. The top-of-the-line model Leica TL5000 Ergo captivates with built-in LED technology and a particularly flat design.

### ANTISTATIC COATING

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

### LEICA XL UNIVERSAL BASE FOR EXTRA LARGE WORKPIECES

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The Leica XL Universal Base provides a stationary stereomicroscopy workstation large enough for the inspection of large samples such as 300 mm wafers or engine pistons.

It is compatible with all M-Series columns, and with an adapter to all columns of the swinging-arm series. The optional XL cross-stage has a traverse path of 300 × 300 mm. This corresponds to the dimensions of a long-playing record. Even large workpieces can be examined gently and ESD-protected.

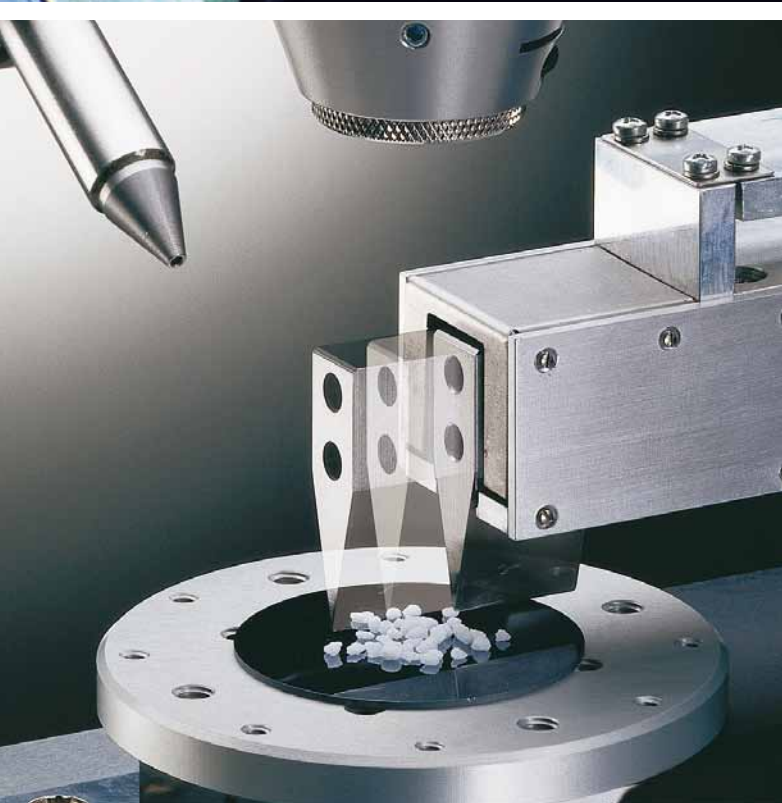
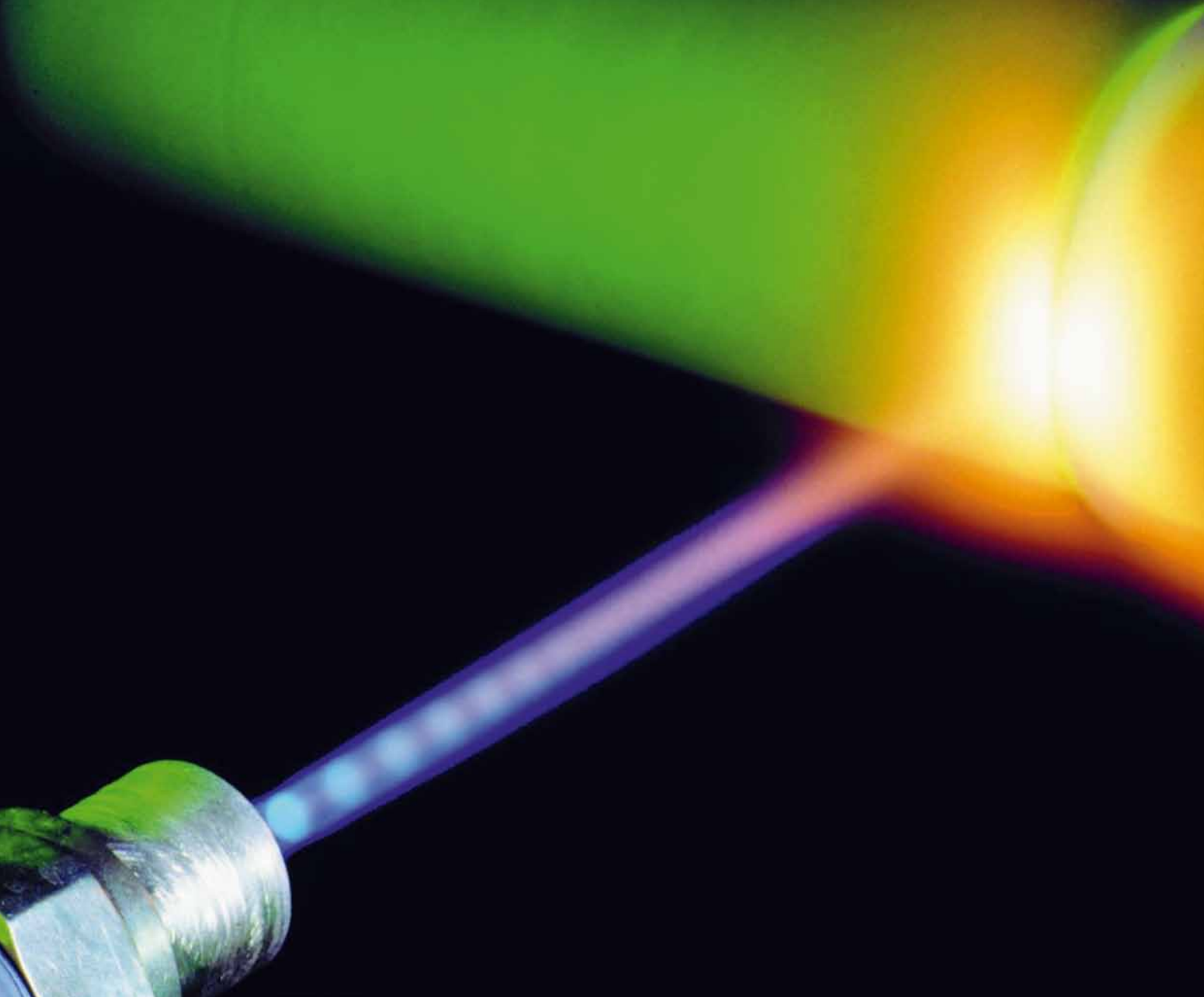
### LEICA STEREOMICROSCOPE BASES

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- Small, medium and large Leica incident light bases for printed circuit boards, metal workpieces, opaque research samples etc.
- Leica XL Universal Base for large workpieces, with optional XL cross-stage travel paths of up to 300 × 300 mm
- Leica swing arm and flex-arm stand for examining airplane parts or works of art, for example
- Leica TL series transmitted light bases for a wide variety of transmitted light methods and a wide spectrum of applications in biology and industry







# Precision and adaptability

## Leica stereomicroscopes in OEM production

Original Equipment Manufacturers can ensure success 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, without taking up excessive space, and invisibly. They must also offer optimum image quality, ease of viewing and simple operation and operate reliably, smoothly and accurately over the long term.

Leica engineers are available to assist in making integration smooth and simple and are pleased to answer any questions about the range of accessories or about customized solutions.

### LEICA STEREOMICROSCOPES – ADVANTAGES FOR INDUSTRIAL PRODUCTION

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- Simple, space-saving attachment to bonders, probes, machines, and systems
- Tilttable and 360° rotatable
- Excellent price-performance ratio
- Modular design adjusts to precise mechanical requirements
- Selection of five magnification levels, 6.3:1 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

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.**

Leica Microsystems operates globally 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 Novocastro™ reagents, Leica Microsystems creates better patient care through rapid turnaround, diagnostic confidence, and close customer collaboration.

#### MEDICAL DIVISION

The Leica Microsystems Medical 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.

Leica Microsystems – an international company with a strong network of worldwide customer services:

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