



Leica S8 APO



Leica S6 D



Leica S6 T



Leica S6



Leica S6 E



Leica S4 E

Your Line of Sight

Leica StereoZoom® – Quality Stereomicroscopes

The complete program for assembly, quality control, OEM,
research and training

Living up to Life

Leica

MICROSYSTEMS

Leading Edge Technology at a Reasonable Price

For over 150 years Leica Microsystems has been dedicated to producing optical instruments of the finest quality. Since 1849, Leica has created microscopes held in high esteem by researchers and technology companies throughout the world. Leica has earned a reputation for creating instruments that offer a technological edge, increased efficiency, and greater customer success; values that pay for themselves in the long run. Today, the legendary Leica name has become synonymous with innovative, high quality, and precision manufactured optics. In this grand tradition, Leica proudly introduces the StereoZoom® line – Your Line of Sight.

Developed with the know-how of our customers

The Leica StereoZoom® line was developed in collaboration with well-known companies along with experts from the fields of science, education and criminology. The specific know-how of our customers and the technological expertise of Leica Microsystems produced a stereomicroscope line that combines all the advantages of the Greenough optical system with the performance characteristics expected of a Leica microscope. The result is a line of stereomicroscopes that exemplify high quality optics, robust and reliable mechanics, and comfortable user interfaces, all at a reasonable price!

A comprehensive line for all applications

Leica's StereoZoom® line offers an affordable and comprehensive stereomicroscope program for all applications, from manufacturing quality inspection and assembly, OEM integration, and student laboratory use, to exacting research and development tasks. The Leica L2 integrated cold light illumination system provides optimized illumination and a compact, modern system design.

Wherever your passions lie, the Leica StereoZoom® line has the features to make them ... Your Line of Sight.

www.leica-microsystems.com – the first address for stereomicroscopy

Visit our exciting website and experience a smart on-screen presentation. Customize, test and even own your Leica StereoZoom® with just a few mouse clicks – online!

StereoZoom® is a trademark registered in the Principal Register of the US Patent and Trademark Office.



Leica S6 E with 38° viewing angle
on transmitted-light stand



Greenough Based Optical Systems

The optical system of the Leica StereoZoom® line consists of two beam paths converging at 12°. The lens pairs are positioned closely together, giving the stereomicroscopes a very "slender" design. This offers the advantages of accommodating a small space requirement for use on bonders and in machine applications, unobstructed specimen access, plenty of space for tools, and a completely free view of the sample. The Greenough system permits cost-effective correction of aberrations, such as chromasia, image field curvature and distortion. The Leica StereoZoom® line uses the optimally corrected lens center for the image. This provides high optical performance with large, level, non-distorted fields of view and chromatically optimized, high-contrast images.



The slim and compact outfit:
Leica S6 E with incident-light stand
and Leica L2 cold light source

Leica Design by Christophe Apothéloz



Leica S8 APO
 Low-priced high-performance
 stereomicroscope with
 apochromatic 8:1 zoom



Leica S6 D
 High resolution for
 video and photo

Only the Leica StereoZoom® line offers

- Maximum 36.5mm object field – reduced sample handling and inspection times
- Versions with 38° or 60° viewing angle – promotes proper posture and improved comfort
- Ergonomic objectives for optimized viewing height
- World’s most advanced ESD protection – Leica S6 T “Terminator”
- Transmitted light base with adjustable reflector – flexible and cost effective illumination
- 40× eyepieces for eyeglass wearers – highest magnification available for demanding samples
- Fluorescence illumination
- World’s best: Leica S8 APO, the first stereomicroscope with apochromatic Greenough system

NEW: Three ergonomic swing arm stands for your big projects.

Leica S8 APO with apochromatic 8:1 zoom for the highest requirements

- Apochromatic optics system
- Apochromatic objectives
- Maximum resolution 600 lp/mm
- 10×–80× magnification, working distance 75mm*
- Video/photo output
- Adjustable upper and lower zoom magnification stops
- Eyepieces for eyeglass wearers
- ESD safe construction (antistatic)

Leica S6 D with 6.3:1 zoom and video/photo output

- Ergonomic 38° viewing angle
- 6.3×–40× magnification, working distance 110mm, object field diameter 36.5mm*
- Adjustable upper and lower zoom magnification stops
- 6 achromatic supplemental objectives
- Ergonomic objectives for variable viewing height, magnification and working distance
- Eyepieces for eyeglass wearers
- ESD safe construction (antistatic)

Leica S6T “Terminator” with 6.3:1 zoom

- Ergonomic 38° viewing angle
- 6.3×–40× magnification, working distance 110mm, object field diameter 36.5mm*
- Dissipative surface for optimal ESD protection
- Adjustable upper and lower zoom magnification stops
- 6 achromatic supplemental objectives
- Ergonomic objectives for variable viewing height, magnification and working distance
- Eyepieces for eyeglass wearers

* Basic equipment without objective, with 10× eyepieces

Your Line of Sight



Leica S6 T
Dissipative for sensitive
electronic components



Leica S6
For OEM with ergonomic
viewing angle



Leica S6 E
High productivity
for routine tasks



Leica S4 E
Low-priced, expandable,
powerful for assembly
and schools

Leica S6 E with 6.3:1 zoom

- Ergonomic 38° viewing angle
- 6.3×–40× magnification, working distance 110mm, object field diameter 36.5mm*
- Adjustable upper and lower zoom magnification stops
- 6 achromatic supplemental objectives
- Ergonomic objectives for variable viewing height, magnification and working distance
- Eyepieces for eyeglass wearers
- ESD safe construction (antistatic)

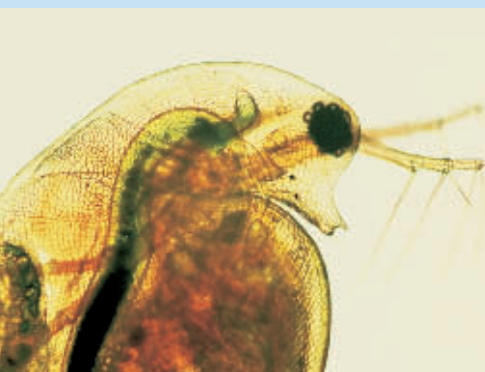
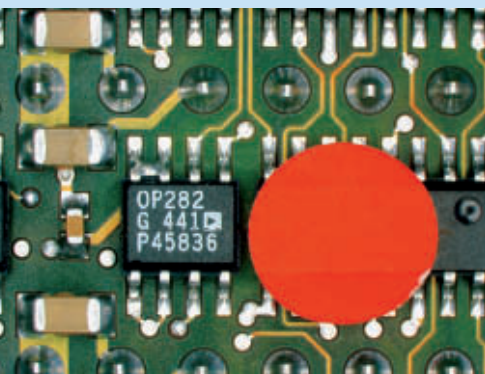
Leica S6 with 6.3:1 zoom and 60° viewing angle

- Ergonomic 60° viewing angle on tilted stereomicroscope
- 6.3×–40× magnification, working distance 110mm, object field diameter 36.5mm*
- Adjustable upper and lower zoom magnification stops
- 6 achromatic supplemental objectives
- Ergonomic objectives for variable viewing height, magnification and working distance
- Eyepieces for eyeglass wearers
- ESD safe construction (antistatic)

Leica S4 E with 4.8:1 zoom

- Ergonomic 38° viewing angle
- 6.3×–30× magnification, working distance 110mm, object field diameter 36.5mm*
- The only instrument in its class with 2 ergonomic objectives for variable viewing height, magnification and working distance
- 6 achromatic supplemental objectives
- Eyepieces for eyeglass wearers
- ESD safe construction (antistatic)

See New Horizons with Improved Optics



For individualists: colored or with
your company logo

An Eye for Details

You expect fast, accurate viewing, positive and effortless identification of details, reliable results in repetitive inspections, and room to use tools and work on the sample. The Leica StereoZoom® line exceeds your expectations with:

- World-class Leica optics designed to produce high resolution, high contrast images, that provide more information about the sample.
- A Greenough-based optical design that produces a flat image field (planar correction), optimal color transmission (chromatic correction) and allows more of the specimen to be in focus at once (depth of field).
- The largest object field (36.5mm) of any instrument in its class reduces the need for sample handling and improves inspection times.
- Adjustable upper and lower zoom magnification stops (available on S6 models and on S8 APO), allow repeat inspections at two user-defined magnifications.
- Large working distance (110mm from microscope to specimen), providing ample space for manipulation.
- Leica S8 APO, a fully apochromatic corrected instrument that delivers an incredible 600 lp/mm (approx. 1 micrometer) resolution and a maximum magnification of 640×. Never before has such high performance been available in a cost effective Greenough design instrument.
- New large zoom knobs, a handy detail.

Built to Last

Stereomicroscopes are used in some of the harshest and most critical industrial and laboratory environments in the world. Whether it is a semiconductor manufacturer's clean room or a laboratory's biological containment hood, Leica has built the StereoZoom® line for years of trouble-free use:

- A single cam design guarantees smooth, precise control of the zoom optics.
- Leica's patented magnetic mounting system maintains proper alignment of the optics during zoom adjustments.
- Robust outer casings made with our patented *ZeroStat* polymers provide years of maintenance-free protection against electrostatic discharge (ESD). *ZeroStat* protection is not diminished by scratches and will not chip or flake off onto your sample.

Tailored Performance

With the StereoZoom® line, you select precisely the performance you need.

- Even the basic Leica S4 E model with 4.8:1 zoom for routine inspections gives you access to the entire assortment of accessories.
- The four Leica StereoZoom® S6 models with 6.3:1 zoom are available with either a 38° or 60° viewing angle, video/photo tube, or our patented Terminator version for critical applications involving ESD sensitive components.
- The unique performance of Leica S8 APO with 8:1 zoom and integrated phototube is perfect for exacting applications, especially digital documentation and image archival and analysis.
- New swing arm stands offer ample room for large objects. Various adjustments enable the workstation to be arranged as required.

Leica S6 E with 38° viewing angle
on swivel arm stand



The Value of Versatility

Money Well Spent

The purchase of a stereomicroscope is a long term investment in the future. That is why Leica uses a modular design for all of our stereomicroscopes. This time tested and proven design allows you to individually equip each stereomicroscope with the appropriate accessories that will optimize its performance for your application. Money well spent means you only make the investment necessary to service your current need and rest assured that your Leica StereoZoom® can grow to service future needs with only minimum additional cost. The ability to create optimized systems that grow with your organization's inspection needs is another reason why Leica StereoZooms® are ... Your Line of Sight.

Modest Space Requirements

The economical sizing of the StereoZoom® line and Leica L2 cold light source creates workstations that use minimum amounts of bench space, fit neatly into storage cabinets or laminar flow hoods, and integrate easily into OEM manufacturers fabrication and test stations. The lightweight nature of the Leica StereoZoom® stereomicroscopes and L2 cold light source allows them to be easily carried from one workstation to another and provides greater stability on "boom" style stands and OEM focus mounts.

Integration Made Easy

The Leica L2 cold light source attaches to a wide variety of stands via specialized mounting brackets that are simple and intuitive to use. When used with a "boom" style swing arm stand, the L2 can be attached to the vertical or horizontal column, whichever is more convenient. On basic incident light and transmitted light (including mirror base) stands, the L2 bracket mounts to the rear of the stand, attaching to the focus column where it meets the base.

Three new swing arm stands offer ergonomic conditions

The new line consists of three modular versions: the ESD swing arm stand, the standard swing arm stand with easy-glide horizontal arm and the large swing arm stand with easy-glide horizontal arm and rack crank for comfortable height positioning. They offer ample room for examination and manipulation of large specimens (rocks, metal castings, circuit boards). The wide extension range of the horizontal arm, its load capacity, the wide variety of adaptation options, and outstanding vibration damping behavior are just a few of the many new feature details.



Ergonomic objective 0.6x–0.75x on Leica S6 E, working distances 77mm to 137mm



Leica S6 with 60° ergonomic viewing angle on mountable focus drive, tiltable, for OEM



New: Standard swing arm stand



Ergonomics Enhance Productivity

We understand that a comfortable work environment reduces fatigue related inspection errors and increases workers productivity, health, and job satisfaction. That's why the StereoZoom® line is designed with the consideration of modern ergonomics.

Visibly Better

From the first time you use the StereoZoom®, you will be delighted with the large, flat (planar) object field, and clear, sharp images. The finest details are clearly visible and the optical design allows the stereomicroscope to be used for long periods without causing eyestrain. The StereoZoom® S4 E and S6 models offer the largest object field (36.5mm) of any instrument in their respective classes. More of the sample can be inspected without the need for handling.

Clip-on soft eyecups prevent eye-infections when several users are working with the same instrument.

Proper Posture Avoids Pain

Proper posture at the workstation is essential to avoid the troublesome aches associated with muscle fatigue. That is why the Leica StereoZoom® line has an ergonomic 38° viewing angle (except Leica S6). The S6 model has a 60° viewing angle to maintain an optimum viewing height in instances where the entire stereomicroscope needs to be inclined, such as on a wire bonder or prober station.

ErgoLenses with variable working distances

Also available for the Leica S4 E and S6 models are two optional ergonomic objectives with variable working distances in the ranges of 77mm–137mm (0.6×–0.75×) and 48mm–98mm (0.7×–1.0×). These ErgoObjectives permit fine adjustments of working distance and viewing height without time consuming lens changes.



Large working distance



Transmitted light base and universal light guide for oblique transmitted illumination



Vertical illumination for high relief slide preparations and for brightening depressions and holes



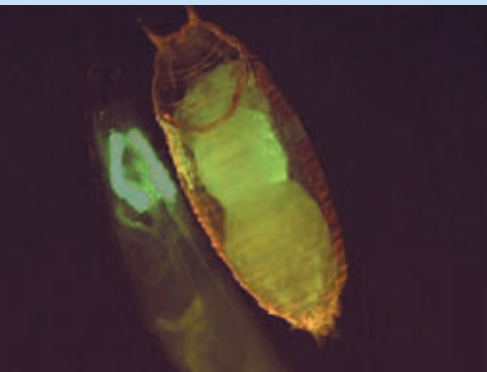
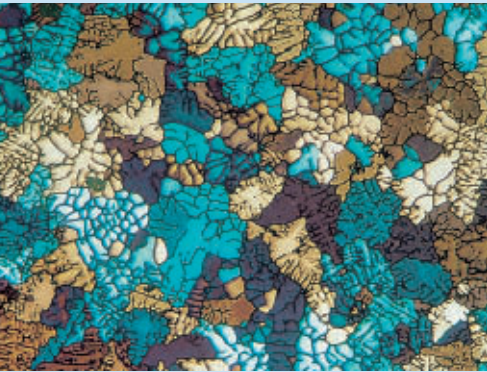
Attachment for vertical/oblique observation: 360° view without tilting or rotating the object



New: swingarm stand ESD

Leica StereoZoom® S8 APO

Pinnacle of Performance



The Leica StereoZoom® S8 APO is the only high performance Greenough style stereomicroscope with a fully apochromatic corrected optics system. Combined with the available apochromatic corrected supplemental objectives (0.63×, 1.6×, and 2.0×), the result is the top performing Greenough style stereomicroscope in the world today! The 8:1 zoom magnification system in concert with the variety of available eyepieces and supplemental objectives produces magnifications from 3.2×–640× (10×–80× standard magnification) and achieves an incredible 600 lp/mm resolution. This means that the S8 APO can effectively image specimens approaching 1 micrometer in size, an accomplishment previously achieved only by stereomicroscopes costing two to three times as much!

The Focal Point of Knowledge

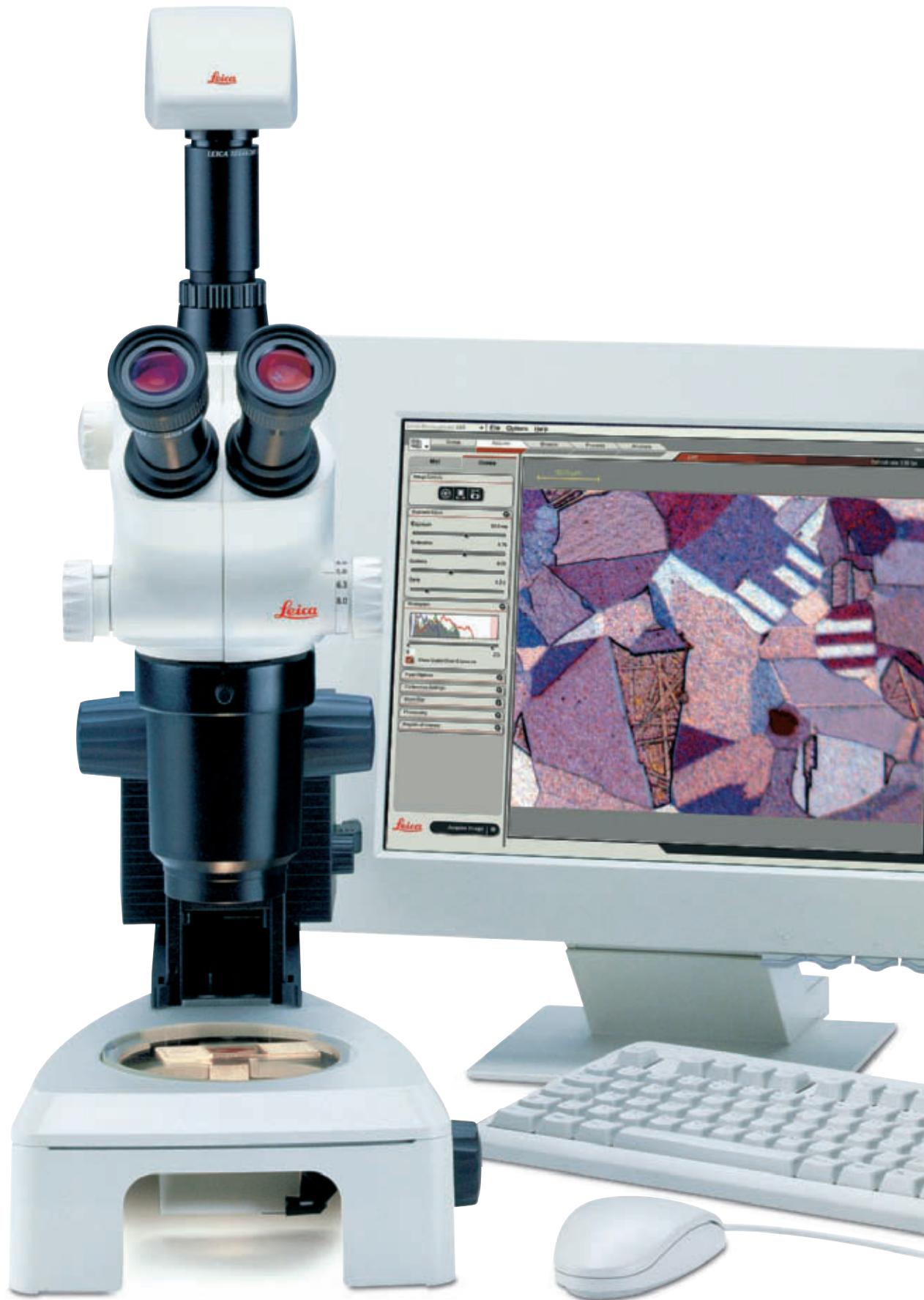
Apochromatic optics provide the user with the most precise information. That's why Leica Microsystems corrects chromatic aberrations to eliminate any interfering color fringes and render even the finest details ultra sharp. Contrast, brilliance, sharpness, resolution, color fidelity and reproduction accuracy are unsurpassed. The benefit of apochromatic correction is best witnessed with specimens that have fine, low contrasting structures such as large animal cells, plant cilia, or metallic microelectronic structures. The increased optical performance of an apochromatic system allows you to see the details of the structure or differentiate between two closely spaced structures. Researchers and engineers engaged in critical applications such as microinjection or fine pitch wire bonding will find that it makes a world of difference in their work.

Benefit as a Principle

The StereoZoom® S8 APO is a powerhouse of performance and an economical way to make sure that your stereomicroscope optimizes the capabilities of your camera and analysis software. The user benefits from the excellent image quality of the Leica S8 APO when documenting valuable work results and can photograph, film, record, or transmit important processes. With the built-in video/photo tube, Leica S8 APO is ready to be adapted to professional digital image recording systems.



Leica S8 APO with Leica L5 FL fluorescent system



Leica S8 APO StereoZoom® with
Leica Digital Camera System on
transmitted light stand

Complete Solutions for Digital Imaging

The integrated phototubes of the Leica S6 D and S8 APO allow easy and rapid camera assembly. The beam splitter diverts 100% of the available light to the camera, fulfilling the high light requirements of sophisticated digital cameras. Of course conventional film and analog video cameras achieve outstanding results as well.

Digital imaging and analysis

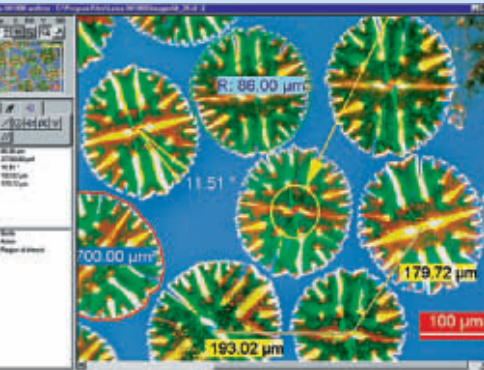
From stereomicroscope to digital camera, including application software, Leica Microsystems offers customer-specific complete solutions for professional image acquisition, archiving, analysis, processing, presentation or print. A series of professional FireWire camera systems for PC and Mac are available as well as image management and analysis software.

Leica Application Suite, the new powerful software concept

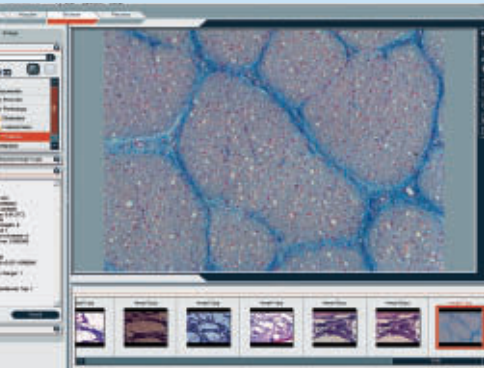
LAS is the new Leica interface that represents the operating environment for digital cameras. LAS optimizes the recording, analysis and editing of digital images in the biosciences, clinical and industrial sector. The easy to learn and easy to use software suite is supplied with all Leica DFC camera and contains "core functions" such as image display and basic image editing.

Leica Image Manager

The Leica Image Manager brings efficiency and economy to the fields of scientific photography and microscopy as well as for industrial image recording and processing. The Leica Image Manager equips you with sophisticated proven image management software that provides a multitude of options for Image Measurement, Image Compare, Image Processing, Image Assembly, Presentation and MultiFocus.



Leica Image Manager for professional archiving, handling and analyzing of electronic images



Intuitive Leica camera software



The perfect digital camera for all Leica Stereomicroscopes without video/photo output:
Leica DC150 with 8 Mpixel

Optimized Illumination

Leica L2 compact Cold Light Source

The Leica L2 cold light source provides optimized illumination to specimens. Powerful and compact, the Leica L2 is the high capacity partner for the StereoZoom® line and is suitable for all applications in industry and science. The Leica L2 is extremely versatile and has a large assortment of fiber optic light guides to choose from, supporting various lighting techniques such as coaxial, spot, and near vertical as well as the more conventional incident oblique and transmitted light methods.

The Leica L2 can be directly coupled with your stereomicroscope to form an integrated system with low space requirements and is constructed of the same ZeroStat antistatic polymer as the Leica StereoZoom® stereomicroscopes (for detailed information, see brochure M1-288-0).

Leica LED1000 – the latest illumination technology

The LED illumination (Light-Emitting-Diode) is ideal for routine tasks in industrial and lab settings where high light intensity with minimum heat development is required. The following advantages distinguish this illumination technology: color temperature 5000°K (daylight!), no UV radiation, extremely long life, nearly maintenance-free, free of ripple and flicker, noise-free, vibration-free operation and a compact lightweight design. The modular concept of the LED1000 offers ring illuminator and spot and extensive accessories for a variety of applications. Ring illuminator and spot are antistatic.

Leica L5 FL – cold-light fluorescent system

Leica L5 FL is a powerful luminous fluorescent system for blue or green fluorescence. Leica L5 FL simplifies the daily routine tasks in the lab and is also suitable for training, forensics and industrial stereo-fluorescence applications. The equipment consists of a comfortable high-performance cold-light source, fiber-optic light guide, illumination optics and filter holder. A filter wheel as well as filter changers allow for very quick changes between fluorescence and bright-field observation. The luminous 250-W cold-light reflector bulb guarantees intensive, outstanding fluorescent images. The color temperature measures a perfect 3350°K and can be monitored via LCD. For details, see brochure M1-205-1.



Coaxial illumination for reflective, flat objects like polished metal components, wafers, chips, or layered surfaces

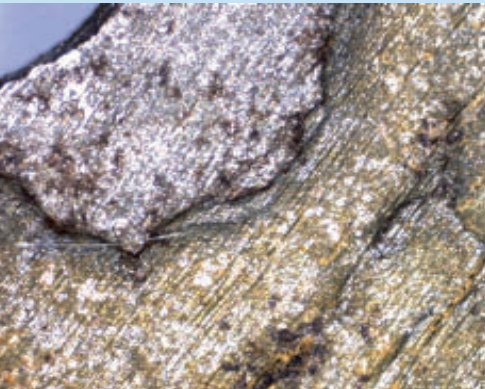


Leica LED1000 – Spot

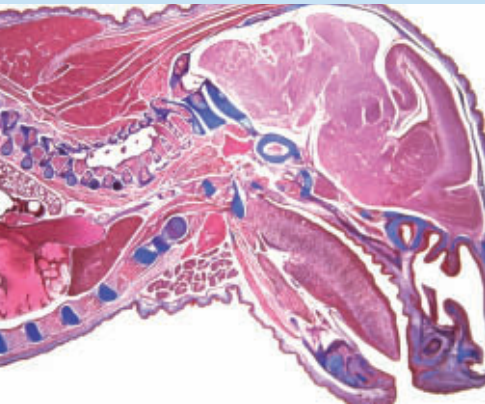


Leica L5 FL fluorescent system

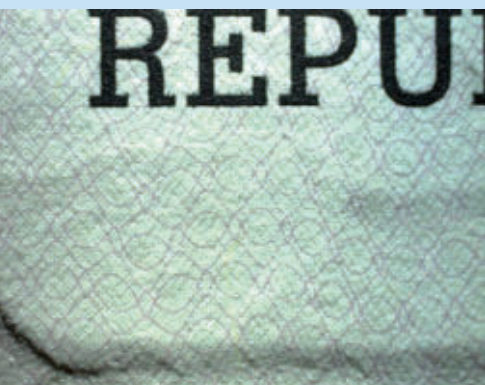
Powerful LED Illumination



Corrosion of metal



Mouse (cross-section)



Identity documents examination

The high quality Leica LED2000/LED2500 illumination stands are so robust they are suitable for almost any environment.

The LED2000 stand suits all incident light applications to provide a cost effective solution where no transmitted light is needed. With five illumination options available, you can choose exactly where and how much incident light you want to apply to your sample. This can range from applying all 7 LED's to achieve full brightness, a 4 point top light for shadow free illumination, 2 side LED's for improved contrast or 1 oblique LED where a semi-dark illumination is required. Each illumination option also provides a dimming control to allow brightness levels to be fully optimized to individual needs. With the light manager touch panel, each setting can be selected and easily reproduced.

The Leica LED2500 includes both incident and transmitted light capabilities, which can either be used together or controlled individually. With a 60mm active light diameter, the LED2500 is perfect for performing detailed inspections with consistent light levels across samples with a large field of view. The 5500° K color temperature also means that specimens can be examined with true color reproduction.

Moveable Arc Illumination

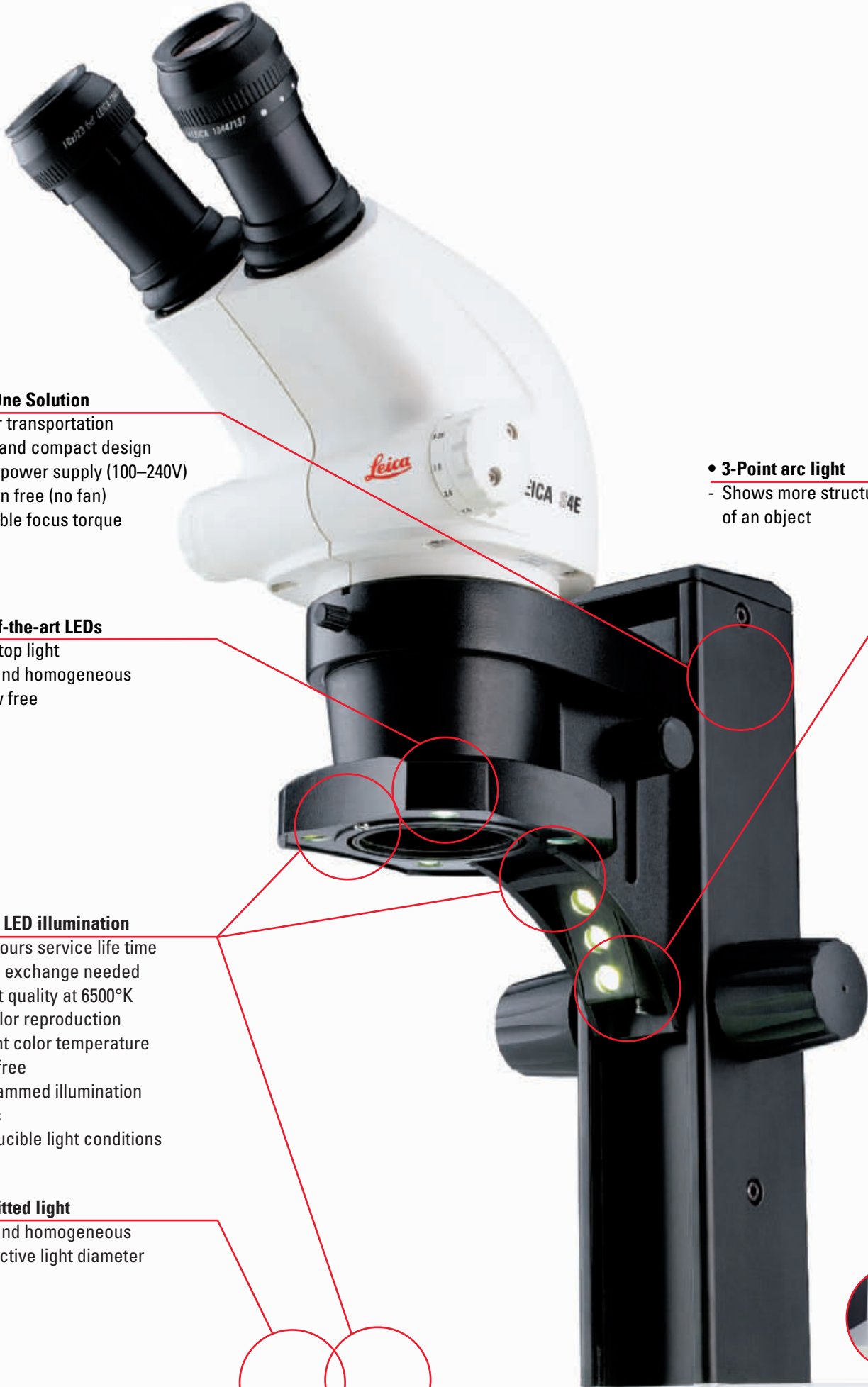
The LED2000/LED2500 provides an adjustable arc illumination, which is perfect for increasing the contrast level to exactly meet your requirements. This can be optimised for 1.0× (none), 1.6× and 2.0× supplemental lenses to achieve the desired results.

Maintenance Free

LED's have a lifespan of at least 25 000 hours and maintain a constant color temperature. The light-emitting diodes are preferable over traditional incandescent light. Due to intelligent heat dissipation, the Leica LED2000/LED2500 bases do not require a fan. This ensures that light vibrations do not hinder the inspection of a sample.

Clear as Daylight

The Leica LED2000 and LED2500 use the latest LED technology that closely resembles the light spectrum of daylight. As a result of "Pulse Width Modulation" (PWM), the color temperature remains constant during the complete dimming range. Thus, there is no need to readjust the white balance of a camera making the complete system easier to handle.



• **All-in-One Solution**

- Easy for transportation
- Robust and compact design
- Built-in power supply (100–240V)
- Vibration free (no fan)
- Adjustable focus torque

• **3-Point arc light**

- Shows more structures of an object

• **State-of-the-art LEDs**

- 4-point top light
- Bright and homogeneous
- Shadow free

• **Built-in LED illumination**

- 25 000 hours service life time
- No bulb exchange needed
- Daylight quality at 6500°K
- True color reproduction
- Constant color temperature
- Flicker free
- 5 programmed illumination settings
- Reproducible light conditions

• **Transmitted light**

- Bright and homogeneous
- 60mm active light diameter

• **Easy illumination control**

- 5 different programmed settings



Leica StereoZoom® – Your Line of Sight at a Glance

	Leica S4 E	Leica S6	Leica S6 E	Leica S6 T	Leica S6 D	Leica S8 APO
Optics system	Greenough	Greenough	Greenough	Greenough	Greenough	Greenough apochromatic
Viewing angle	38°	60°	38°	38°	38°	38°
Zoom	4.8:1	6.3:1	6.3:1	6.3:1	6.3:1	8:1
Magnification (basic equipment)	6.3x–30x	6.3x–40x	6.3x–40x	6.3x–40x	6.3x–40x	10x–80x
Maximum resolution	372 lp/mm	432 lp/mm	432 lp/mm	432 lp/mm	432 lp/mm	600 lp/mm
Maximum numeric aperture	0.124	0.144	0.144	0.144	0.144	0.2
Working distance (basic equipment)	110mm					75mm
Object field Ø (basic equipment)	36.5mm					23mm
Adjustable zoom limits		2	2	2	2	2
Video/photo tube					yes	yes
Standard objectives	Achromats 0.32x, 0.5x, 0.63x, 0.75x, 1.6x, 2x					Apochromats 0.63x, 1.6x, 2x Achromat 0.32x
Ergonomic objectives	0.6x–0.75x / 77–137mm, 0.7x–1x / 48–98mm					
Adjustable objective	0.3x–0.4x / 200–350mm					
Patented ESD protection	antistatic	antistatic	antistatic	conductive, Terminator	antistatic	antistatic
Ergonomic wide field eyepieces (standard and for eyeglasses)	10x, 16x, 20x, 25x, 40x, fixed and adjustable clip-on, angular, soft eyecups					
Illumination	Compact cold light source Leica L2, antistatic / Leica LED1000 (Laser-Emitting-Diode illumination) Leica L5 FL cold-light fluorescence system LED2000/2500: Power LED's, 1.2Watt (4 LED for ring light, 3 for oblique) Incident light (4-point ring light and oblique illumination) Transmitted light (LED2500 only)					
Digital Imaging Systems	Complete range from standard camera for universal use up to high-end camera for PC and Mac; modular software for professional archiving, processing and analysis					

For detailed technical information and data, see brochure M1-188-4.

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.