



Customized Microtomy for Materials Research and Industrial Quality Assurance

Leica
MICROSYSTEMS

Microtomes for section-based control of Materials

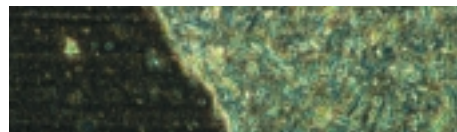
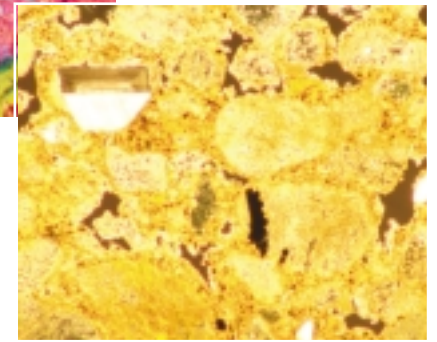
Proven Concepts with Innovative Details

Leica always develops laboratory equipment in close cooperation with end users to ensure that their experiences are considered in the design of all new instruments. This is also the case for our robust new series of Leica RM2200 microtomes with high cutting force: numerous details offer comfortable and flexible solutions for day-to-day practice, improving an already proven concept and making it even more user-friendly.

The fully motorized Leica microtomes for the material and quality assurance laboratory, Leica RM2255 and RM2265 are equipped with an exceptionally smooth-running handwheel. Both can also be operated manually, i.e. the user has a full two-in-one solution, a motor driven microtome for hands-free-operation that can be used manually when the need arises.

The Leica Microsystems microtome family is ideally complemented by a comprehensive series of laboratory instruments for industrial quality control. Examples are the Leica SM2500 heavy-duty sliding microtome that can be fitted with the optional ultramilling attachment Leica SP2600 for preparation of particularly high-quality specimen surfaces or the saw microtome Leica SP1600 sectioning extremely hard and brittle materials, and, of course, the Leica microscopes.

Whether for polymeric or chemical materials, lacquer and paint analysis, cable manufacturing or in paper industry – Leica Microsystems offers individual system solutions to comply with the stringent demands of a modern industrial laboratory.



Precision

Precision

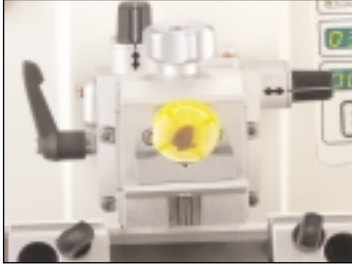
■ A new, extensive range of special accessories tailors the Leica RM2265 microtome to meet individual needs by selecting accessories designed to optimize the sectioning performance of any specimen, e.g. a stereomicroscope carrier, large-field magnifier, or Leica LN22 liquid nitrogen freezing chamber.

■ To section small specimens a cutting window can be selected to suit the length of the sample. Within the selected limits, sectioning is performed at a low speed. Outside these limits, the sample moves at a substantially higher speed to optimize the work throughput.



Comfort

■ This novel orientation mechanism sets new standards of precision. Guided by visual indicators, the adjustment of calibrated controls makes it easy to orient a specimen to an exact zero position or to a measurable variable on the x/y axis.

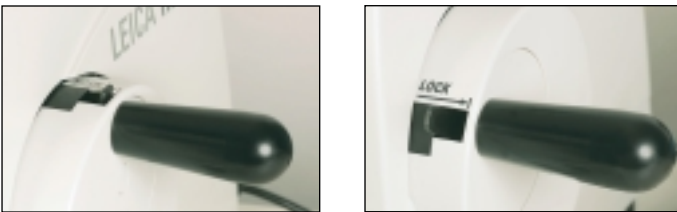


■ Suitable to the application, the section waste tray is available in two sizes, small and large. It is held in position by magnets and can be easily removed for cleaning purposes. A new optional accessory for the large waste tray is a pair of special wrist cushions which protect your wrists and make sectioning more comfortable.



Safety

■ An additional integrated lock mechanism locks the handwheel and thus the specimen cylinder in the uppermost position – an important contribution for enhanced user safety when changing the specimen or the knife.



■ Changing specimen blocks is now especially safe with the new knife holder E equipped with a hinged safety knife guard.



Utmost Flexibility

■ The easy-to-exchange cassette clamps and holders for different shapes of samples comprise small specimen clamps, foils clamps and round specimen clamps with a range of collets. They provide utmost flexibility to section industrial specimens or resin embedded specimens in cassettes of any size. The knife holder base is suitable for holding various disposable blade or reusable knife holders.



Leica LN22 freezing device

■ The deep temperature sectioning system has been specifically designed for use with the Leica RM2265 microtome. Even the most demanding specimen can be precisely sectioned in a thickness range from 0.25 μm to 100 μm at temperatures down to $-150\text{ }^{\circ}\text{C}$. A typical application is thin sectioning of elastomer samples in the rubber industry.





LEICA RM2265

Leica Design by Werner Höbl



Leica CM1850

The versatile Leica CM1850 cryostat with optimized power-saving cooling system is very easy to use and guarantees excellent sectioning results. It is the solution of choice for cutting foils and multi-layer foils at temperatures down to $-35\text{ }^{\circ}\text{C}$. This is a fast method without complex and time consuming embedding processes for rapid result generation.



Leica SM2000R

The robust Leica SM2000R is an instrument for a variety of applications in all laboratories where industrial materials, e.g. wood, need to be sectioned. Maintenance-free vertical cross roller bearing slide ways make the sledge movement of this instrument extremely smooth. Its sturdy construction gives it qualities that ensure excellent, reproducible sectioning results.



Leica SM2500

The Leica SM2500 large-surface, heavy-duty sectioning system is the standard universal microtome for all sectioning applications in the industrial laboratory. Hard and/or large-surface specimens up to $250 \times 200\text{ mm}$ can be sectioned. The wide range of accessories specially designed for preparation of industrial specimens with very high cutting forces make the Leica SM2500 the ideal instrument for any application in the control of materials, e.g. soft plastics like cable coatings or hard specimens like metal sheets coated with layers of soft lacquer



Leica SP2600 Ultramilling Attachment

The Leica SM2500 can be fitted with the ultramilling attachment Leica SP2600. Instead of preparing thin sections for transmitted light microscopy, a polished mirror-like surface is prepared for examination under reflected light. An application example: In the metallographical industry the milling of gold, silver, aluminium and copper is done without the need of embedding the specimen prior to the preparation.



Leica SP1600

The Leica SP1600 saw microtome is specially designed for the cutting of extremely hard and brittle industrial materials such as mineralogical and geological samples, glass-fibers and ceramics or porcelain with a maximum size of 35 mm in diameter. Even materials such as steel, titanium or bioceramics cause no problems in the preparation with the Leica SP1600 Saw Microtome.

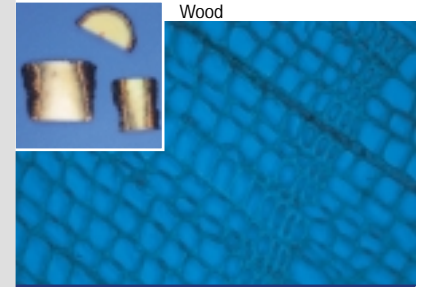


Leica VT1000S

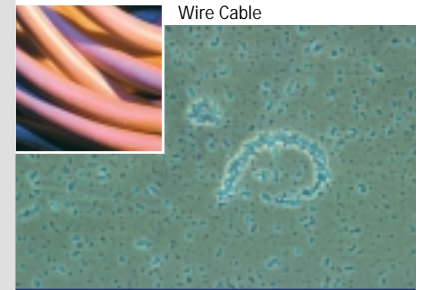
The Leica VT1000 S vibrating blade microtome incorporates useful application oriented features and has been designed to meet the sectioning demands in specific industrial materials quality control markets, e.g. foam or paper industry.



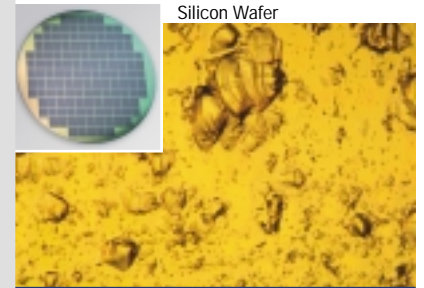
Milk Pack



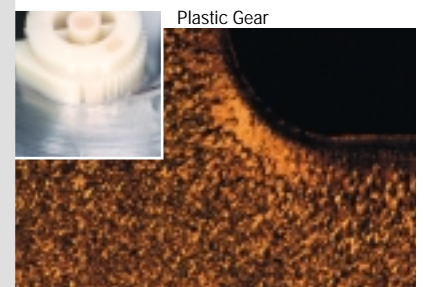
Wood



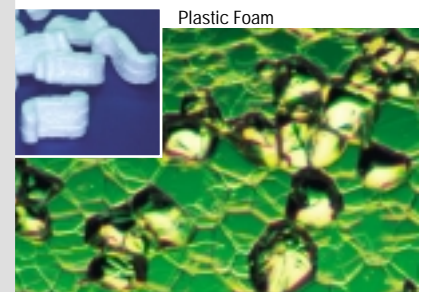
Wire Cable



Silicon Wafer



Plastic Gear



Plastic Foam

Leica Microsystems – the brand for outstanding products

Leica Microsystems' mission is to be the world's first-choice provider of innovative solutions to our customers' needs for vision, measurement, lithography and analysis of microstructures.

Leica, the leading brand for microscopes and scientific instruments, developed from five brand names, all with a long tradition: Wild, Leitz, Reichert, Jung and Cambridge Instruments. Yet Leica symbolizes innovation as well as tradition.

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

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and representatives of Leica Microsystems
in more than 100 countries.

The companies of the Leica Microsystems Group operate internationally in four business segments, where we rank with the market leaders.

● Microscopy Systems

Our expertise in microscopy is the basis for all our solutions for visualization, measurement and analysis of microstructures in life sciences and industry. With confocal laser technology and image analysis systems, we provide three-dimensional viewing facilities and offer new solutions for cytogenetics, pathology and materials sciences.

● Specimen Preparation


We provide comprehensive systems and services for clinical histo- and cytopathology applications, biomedical research and industrial quality assurance. Our product range includes instruments, systems and consumables for tissue infiltration and embedding, microtomes and cryostats as well as automated stainers and coverslippers.

● Medical Equipment

Innovative technologies in our surgical microscopes offer new therapeutic approaches in microsurgery.

● Semiconductor Equipment

Our automated, leading-edge measurement and inspection systems and our E-beam lithography systems make us the first choice supplier for semiconductor manufacturers all over the world.

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