

DELL

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AccuvaLEAD

Discover more with the

Accuva LEAP

Laxco Expandable Advanced Platform Fluorescence Microscope

BROCHURE



INTRODUCTION

Laxco has been a trusted provider of high-precision, cutting-edge optical instruments and microscopes for over 30 years. Our products serve a wide range of applications, including education, clinical, life science research, and industrial fields.

Driven by engineering excellence and breakthrough innovation, we offer cost-effective solutions and are recognized as one of the most reliable suppliers in the industry. Our instruments are built on a legacy of technical strength, disciplined manufacturing, and advanced engineering.

With over 20 patents in lighting, optics, and design, our products feature unique innovations that address challenges others often overlook. Product development is based in Washington state, where our in-house team of electrical, mechanical, and optical engineers leads the way in design and innovation.

Accuva LEAP

Don't settle for less. Equip your lab with technology that works as hard as you do.

CONTRAST METHODS



BRIGHTFIELD Ideal for stained samples



FLUORESCENCE View fluorochrome stained cells and structure



PHASE CONTRAST View unstained live cells



Ideal for locating the focal plane or area of interest when imaging in fluorescence

DARKFIELD CONTRAST



Advancing Microscopy In Alignment with Your Scientific Vision



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Future-forward Flexibility

Engineered with long-term research needs in mind, the Accuva offers future-ready flexibility to support your evolving scientific objectives. Begin with a reliable phase contrast microscope and as your research demands grow, seamlessly upgrade to advanced functionalities — including Laser Microdissection and Cell Pick and Distribution. All enhancements are enabled through effortless, modular integration.

Full Motorization

Accuva LEAP offers advanced motorization features designed to streamline research workflows:

- Motorized stage movement in the X and Y directions for precise sample navigation
- Motorized focusing along the Z-axis for accurate depth control
- Motorized fluorescence turret for effortless
 switching between fluorescence channels
- Motorized objective turret enabling automated selection among six different objective lenses, accommodating a range of magnifications and numerical apertures

These features collectively enhance automation, accuracy, and ease-of-use, making Accuva LEAP ideal for high-throughput and precision imaging applications.

Real-time Imaging

Real-time monitoring of protein interactions and dynamic cellular processes is enabled through integrated time-lapse and video imaging capabilities. Optimized imaging conditions ensure reliable assessment of cell integrity and viability, allowing for the acquisition of high-resolution, publicationquality images with minimal need for repeat experiments.

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Single Point of Contact

The Accuva LEAP system is designed, manufactured, and assembled in the USA by Laxco, ensuring a unified source for sales, technical support, and service. This integrated approach streamlines communication and support, providing researchers with reliable and efficient assistance throughout the system's lifecycle.

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Expandable Fluorescence Capabilities

The system includes a single multi-wavelength filter cube (R/G/B) that supports Red, Green, and Blue fluorescence channels within one optical path. For enhanced flexibility, the system can be customized to accommodate additional fluorescence cubes, enabling tailored configurations to meet specific experimental requirements.

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Accuva LEAP Software

The Accuva LEAP software comes fully integrated with the system, providing centralized control of all motorized components — including stage movement, focus, objective and fluorescence turret control — as well as comprehensive imaging acquisition and management. Designed with an intuitive user interface, the software requires minimal training, enabling researchers to efficiently conduct complex imaging workflows with ease and precision.



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Customizable to Evolving Research Needs

Laxco offers individualized system customization and engineering support to ensure the Accuva LEAP platform adapts to the demands of expanding research workflows. Whether integrating a stage-top incubator or implementing user-specific hardware or software modifications, Laxco's in-house team of software, mechanical, and electrical engineers provides end-to-end support for tailored solutions.

Workflow Optimization

The Accuva LEAP system is engineered to optimize efficiency, accuracy, and productivity in research workflows. This is achieved through the automation of repetitive tasks via motorized functions, the seamless integration of equipment with both hardware and software, and the optimization of resource allocation, including time, reagents, and personnel. By enhancing reproducibility and data quality, the system minimizes the potential for human error and reduces time spent on manual processes. The overarching goal of the Accuva LEAP is to allow researchers to focus on data analysis and discovery, rather than labor-intensive, inefficient procedures.

High-performance Imaging

Accuva LEAP is equipped with a cooled monochrome CCD camera engineered for advanced imaging across brightfield, phase contrast, darkfield, and fluorescence modalities. The cooling mechanism significantly reduces thermal noise, allowing for high sensitivity and high-resolution image acquisition, ideal for publication-quality data in both qualitative and quantitative studies.

The camera features a Sony CX285AQ Interline CCD sensor with a 1360 × 1024 pixel array, delivering excellent image clarity and contrast. It supports both still image capture and real-time video imaging, providing flexibility for dynamic cellular process monitoring and time-lapse studies. This fully integrated solution ensures consistent imaging performance across a broad range of research applications.







ACCUVA LEAP SOFTWARE

User-friendly Software Tailored for Researchers

Simplify your workflow with Laxco Accuva™ Software Included with every instrument, Accuva™ Software streamlines the fluorescence / phase image capture process with an intuitive, click-based interface. Gain full control of system operations effortlessly.

KEY FEATURES AND BENEFITS

- Stage Translation
 Navigate samples with smooth, precise control
- Slide and Objective Selection Easily switch between slides and objectives for different specimen types and magnifications
- Focus and Illumination Fine-tune focus and light intensity for crystal-clear imaging
- Camera Settings Customize image capture for detailed documentation and analysis

Accuva takes the complexity out of microscopy, allowing you to focus on what matters most – your research.





SPECIFICATIONS

| Illumination | High-intensity LED illumination system |
|------------------|---|
| Objectives | 2x, 4x, 10x, 20x, 40x, 60x objectives |
| Stage | Motorized, trackball-actuated in X and Y axis with 1 µm precision Stage inserts for 3 traditional slides (75 x 26 mm), 2 large-format slides (75 x 50 mm), or 1 Petri dish (50 x 7 mm) |
| Contrast methods | Brightfield, Phase Contrast Optional: Fluorescence (LED) and Darkfield |
| Computer | Onboard PC (Intel [™] NUC) with Microsoft [™] Windows [™] 10 software |
| Display | 24" Ultra HD display |





MICROSCOPES REDEFINED

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