

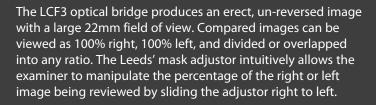
# LCF3 Comparison Microscope



The LCF3 Firearms & Tool Marks Comparison Microscope is a robust and powerful system offering outstanding performance, ergonomic comfort, and incredible versatility. Leeds has designed the system incorporating feedback from the first hand experience of forensic examiners.

## Performance

The LCF3 is built with world-class Olympus apochromatically corrected optics, providing crisp, aberration-free, high-resolution images. A matched pair of zoom-based macro bodies are integrated into each LCF3 system providing a 16:1 zoom ratio, built-in aperture diaphragms, a parcentric and parfocal optical system, and 14 matched magnification positions in the zoom range of 6x – 102x with 11 positions being in the range of 6x – 56x. Each matched magnification position is specifically certified to match between both optical paths and is certified utilizing standards that are traceable to NIST (National Institute of Standards and Technology) sources and include an ISO/IEC 17025:2017 accredited Certification of Magnification Match. Optional additional objectives are available for the LCF3 microscope, including the Leeds 1x Ultra-widefield objective.













# LCF3 Firearms & Tool Marks Comparison Microscope



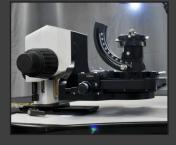
Ergonomic comfort is a key component in the design and engineering of the LCF3. From the bean-shaped table cutout, to the beveled edge and tapering table edge, to the portable touchpad controls for table leg, column height, and lighting controls, to the tiltable binocular head, this microscope has the end user's comfort in mind.



Low profile stages help maintain an ergonomic viewing position and places the X and Y controls near the coarse and fine focus knobs. These mechanical stages and focus units are positioned to minimize repetitive handover-wrist motions. The stage mounts are placed on adjustable posts, allowing the stages to be remove from the work surface, to accommodate large samples.







The Leeds Universal Holder is a unique feature to the LCF3, offering a single service tool to assist in examining various

sized bullets and cartridge casings. In addition, Leeds offers a number of interchangeable sample holders for tool mark examination.





.40-cartridge casing held by the outside diameter



A single axis LCD measuring scale allows for direct reading of point-to-point measurement of lands, grooves, and tool marks. The scale is capable of measuring in inch or metric units with a .0005"/0.01mm resolution. Use of this LCD scale eliminates

the need for measurements that require stage verniers, eyepiece micrometers, or an air gap method. A N.I.S.T. traceable, ISO/IEC 17025:2017 accredited, Certificate of Calibration is provided with every LCD scale at installation.



# Firearms & Tool Marks Comparison Microscope Optional Accessories





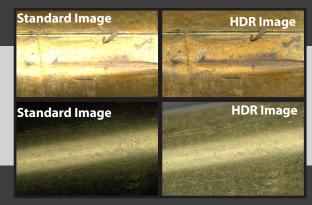








Leed Quick Change Kit Add this mounting for easy swapping out of objectives





#### **LCF-CMOS5-HDR CAMERA**

Leeds Special HDR Camera optimized for bullets and cartridge cases. It has a unique high dynamic range mode to eliminate glare and more accurately capture what is seen through the eye pieces.





#### **Leeds Ultra-Widefield Objective**

.18x objective, largest FOV at 170mm. Continuous 1.35x to 27x parfocal zoom range. WD of 106.5mm. Easily swap out different objectives with the use of Leeds Quick Change kit.

## Sample Holders



Magnetized Shell Holder Sold as a Pair



White Contrast Disk for Universal Holder
Sold as a Pair



Mega Holder



**Wax Platten Holder** 



**Ball Pivot Positioner Large** 



**Ball Pivot Vise Holder** 



Illuminator Reflector mounted on flexible tube arm, Sold as a Pair



On-Center Holder



**Reflected Document Holder** 

# POST MOUNTS | SHELVING | PIN MOUNTS & EYEPIECE HOLDER

## Monitor Post Mount Post can be

Post can be attached to the back of the table and can be oriented either to the right, the left or middle

of table.





Keyboard & PC Mounts
Easily attach to the microscope table leg (either right or left) and can be adjusted

to desired height.

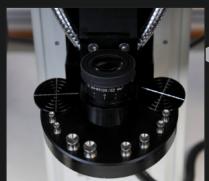


Extension table fits the left or right side of the LCF3-station, includes a neoprene pad insert, and Leeds unique lip anti-roll off lip.

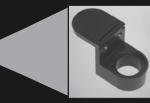


LCF 16" shelf attached to the LCF3

#### LEEDS EYEPIECE AND PIN MOUNT HOLDER



Pin Mount Holder Tray, attaches to eyepiece holder (required when adding on).



Eyepiece Holder, attached to the LCF column & supports the pin mount holder.



Set of Pin Mount, Pairs



**Eyepiece Set** 



Includes 10x eyepiece, Widefield focusing 10x, & 10x Crosshair.

## LIGHTING OPTIONS

### **LEEDS FLUORESCENT QUAD-TUBE LIGHTS**



LCF2 Fluorescent Kit **Cross Bar Mount** 



LCF2 Fluorescent Light Stage Mount

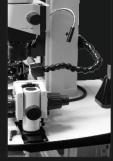
### **LEEDS LED LIGHT STIX**





**STAGE MOUNT** articulated arm attachment, stage mount





flexible tube arm, column mount. **LCF3 ONLY** 





**COLUMN MOUNT CROSS BAR MOUNT** flexible tube arm, column mount

### **QUAD-TUBE REPLACEMENT**



Fluorescent Quad-tube, color-matched pair of replacement Bulbs. Sold as set of 2.



**TWIN-TUBE REPLACEMENT** 



Twin-tube **Fluorescent** replacement Bulbs, Sold as set of 2.





**Light Guide Positioner** 

Used to record and duplicate the distance from sample, height, angle of illumination, and rotary position. Useful for reverse lighting technique.



Bifurcated Fiber Optic Light Guide



Diffuser Lens



Focusing Spot Lens



Reflector attaches to station



Front mount attaches to LCF column



LCF Fiber Optic Cable



Front mount & Fiber Optic Cable



Bullet shown without Reflector vs. with Reflector

## Miscellaneous Accessories



LCF3-SCALE

Upgraded scale to replace previous versions of LCF scales.



**LCF-COVER**Dust Cover for LCF



**Leeds Calibration Kit**Magnification matching kit

# Casters | Anti-Vibration Feet



Anti-vibration Pads, sold as set of 4, for LCF2 or LCF3



Leveling Caster, Sold as set of 4



Anti-vibration feet, Sold as set of 4 for LCF or LCF3



High deflection anti-vibration feet, Sold as set of 4 for LCF3

