

PROJECTINA

VISONX

# SEE THE DIFFERENCE WITH OUR BALLISTIC COMPARISON MICROSCOPE



projectina®



## PROJECTINA VISIONX IS THE MOST POWERFUL AND EFFECTIVE BALLISTICS ANALYSIS TOOL IN THE INDUSTRY.

And with years of superior optical expertise behind its design, VisionX provides unprecedented comfort and clarity — a difference you can feel as well as see.

### SUPERIOR OPTICAL IMAGE QUALITY

BALLISTIC  
MICROSCOPE THAT  
CAN ALSO BE USED  
FOR TOOL TRACE  
EXAMINATION



**MOTORIZED  
BULLET HOLDERS**  
THAT CAN BE  
ROTATED IN ANY  
AXIS

**CENTRALIZED  
CONTROLS**  
SO EXAMINERS  
DON'T HAVE TO  
SHIFT THEIR EYES  
FROM THE  
BINOCULAR



**EASY CHECK**  
MULTIPLE, FULLY  
AUTOMATIC AND  
PERSONALIZED  
SETTINGS WITH  
ONE CLICK.



**MAGNIFICATION**  
UP TO 243x



**LIVE CAMERAS**  
USB 3.0



**SUPERIOR  
ILLUMINATION**  
ALL-LED LIGHTING



**LARGE IMAGE  
RECORDING**  
FULLY AUTOMATED



**REMOTE  
COLLABORATION**  
FOR UNPRECEDENTED  
COLLABORATION  
AMONG EXAMINERS



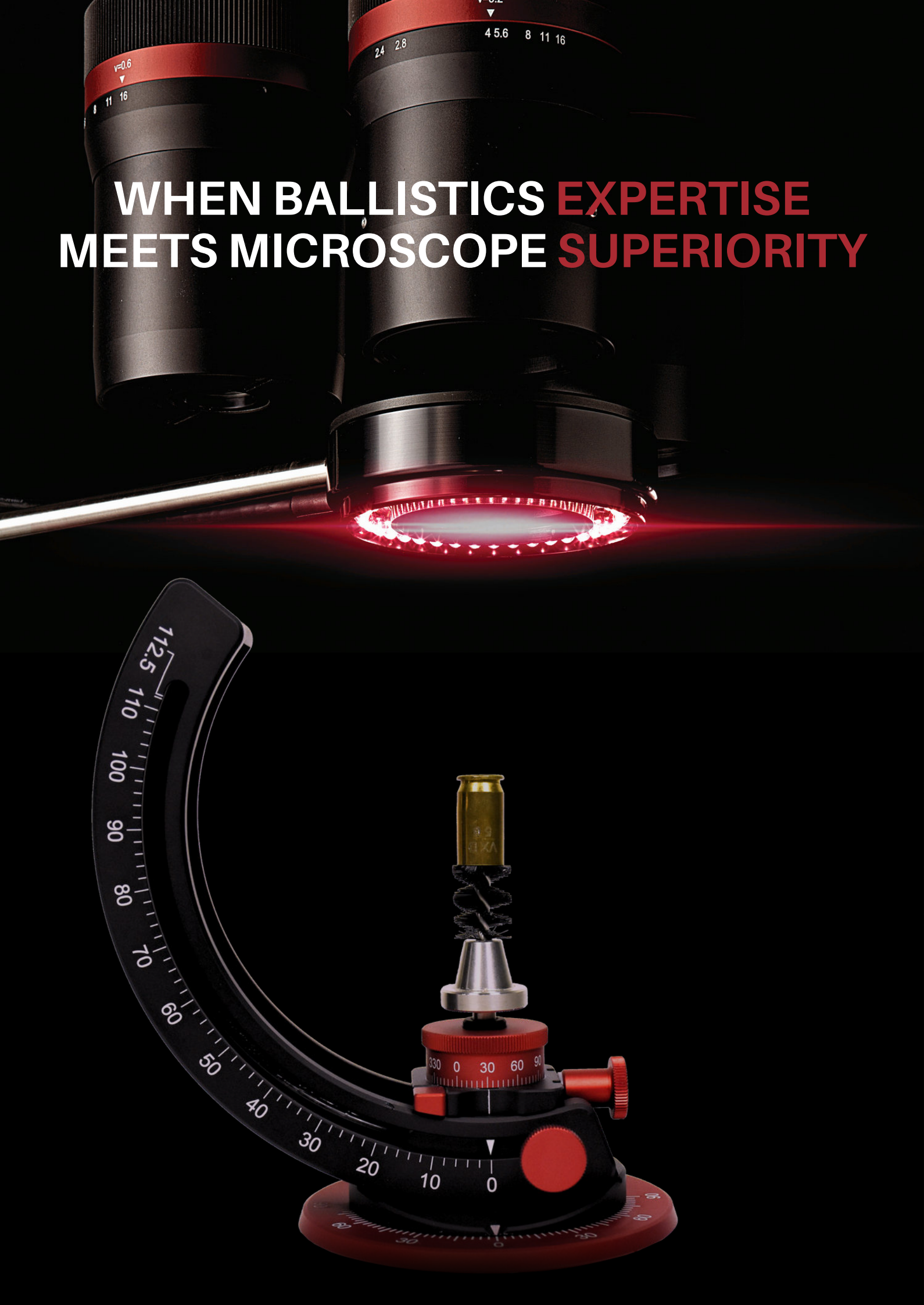
**LARGE OBJECTIVES**  
FOR BETTER  
IMAGING AND  
LARGER FIELD OF  
VIEW



**MOTORIZED  
BINOCULAR HEIGHT**  
FOR MORE  
COMFORTABLE  
EXAMINATION

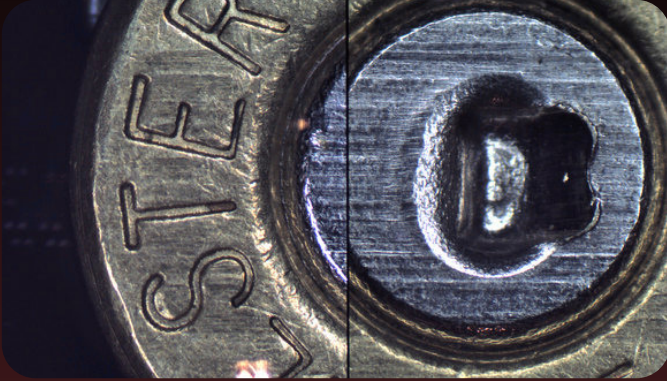


**LIGHTING CHANGES**  
ARE FAST AND  
INSTANTLY  
REPLICATED FROM  
ONE SIDE TO THE  
OTHER



**WHEN BALLISTICS EXPERTISE  
MEETS MICROSCOPE SUPERIORITY**

# REVOLUTIONARY DESIGN



## SUPERIOR OPTICS

Projectina's exceptional optical design provides unparalleled visual accuracy, with **razor-sharp images** at 1.3x to 243x magnification. Apochromatically corrected with adjustable apertures, the objectives were designed with superior viewing in mind. Each objective provides **three fixed and precisely matched magnification levels**, for optimum reproducibility at the touch of a button.



## FULL CONTROL AT YOUR FINGERTIPS

**Real-time, intuitive controls** provide motorized stage movements in three planes (X/Y/Z), allowing for synchronized or separate movements. Motorized magnification changes and objective turret rotation are completely synchronized and precisely matched, **providing effortless viewing with a variety of different image views**.





## ERGONOMICS & COMFORT

The examiner's comfort and workflow were the driving considerations behind the innovative static comparison bridge. The binoculars are positioned at a **30-degree viewing angle**, which studies have shown to be the optimum ergonomic angle. The examiner can then comfortably adjust the binoculars to the desired height. **Height positioning is motorized** and can be **automatically preset** so examiners of different heights can quickly change places.

## UNPRECEDENTED WORKING DISTANCE

With its revolutionary design, VisionX boasts the **industry's largest working distance** of up to 233 mm (9.2 in), allowing it to accommodate larger pieces of evidence and provide a larger field of view. Freeing up the examination workspace also allows for more flexibility in the positioning of evidence and light sources, enabling the examiner to notice details that could be missed when using other microscopes.

## FLEXIBLE ACCESSORIES & SUPERIOR LIGHTING

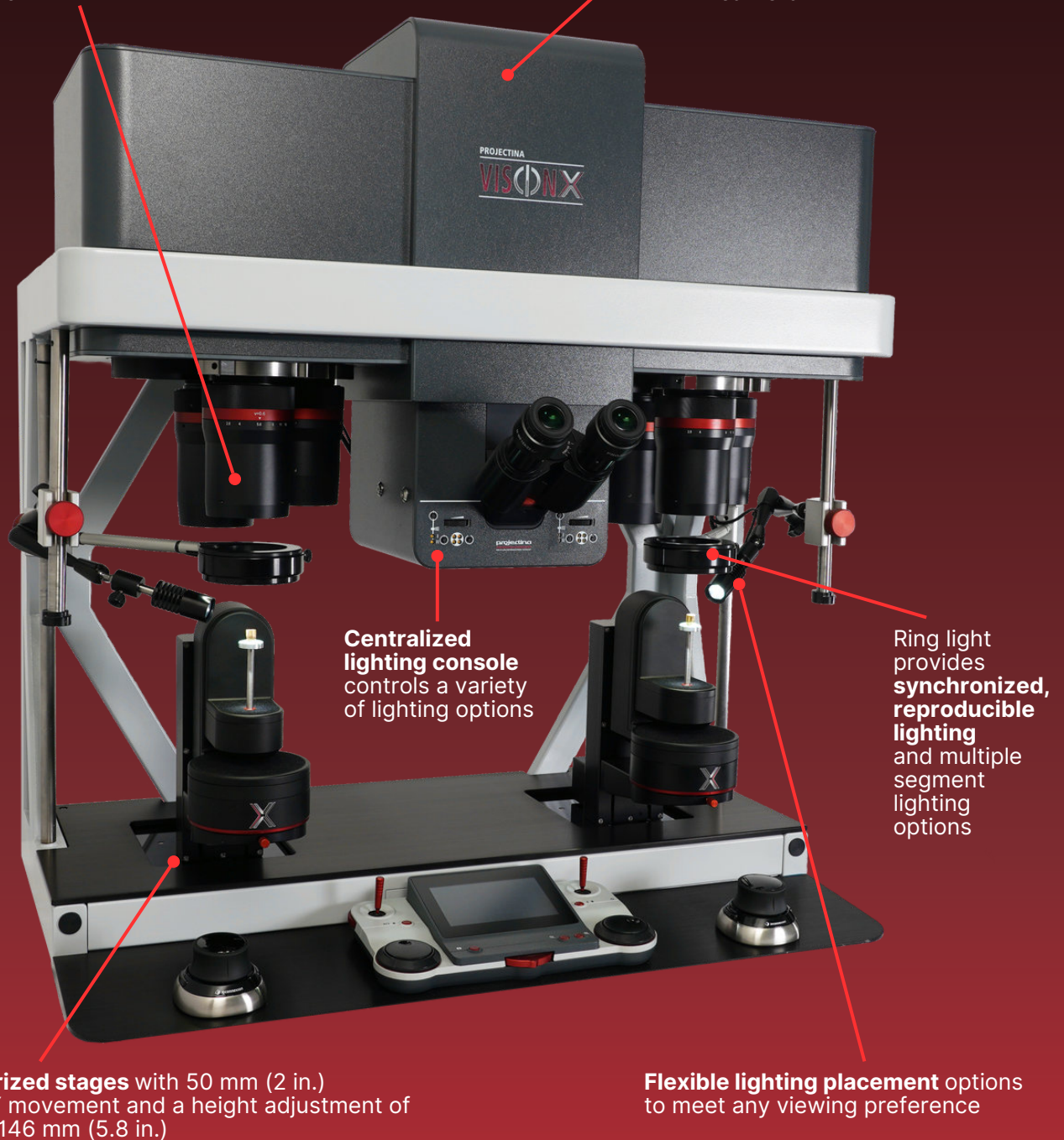
Evidence handling is easier and more flexible than ever before with supports allowing for **360 degrees of rotation and the tilting of evidence of virtually any size**. The examiner can use the full ring light or select any segment to simulate side lighting, while maintaining synchronized, consistent viewing on both sides with the push of a button, removing the guesswork and struggle for optimal positioning.

# ULTIMATE COMFORT

**Synchronized, three-step magnification** changers provide optical 1.3x to 243x magnification

Parfocal and parcentric objectives operate without the need to **refocus** or **recenter** over the entire range of magnification

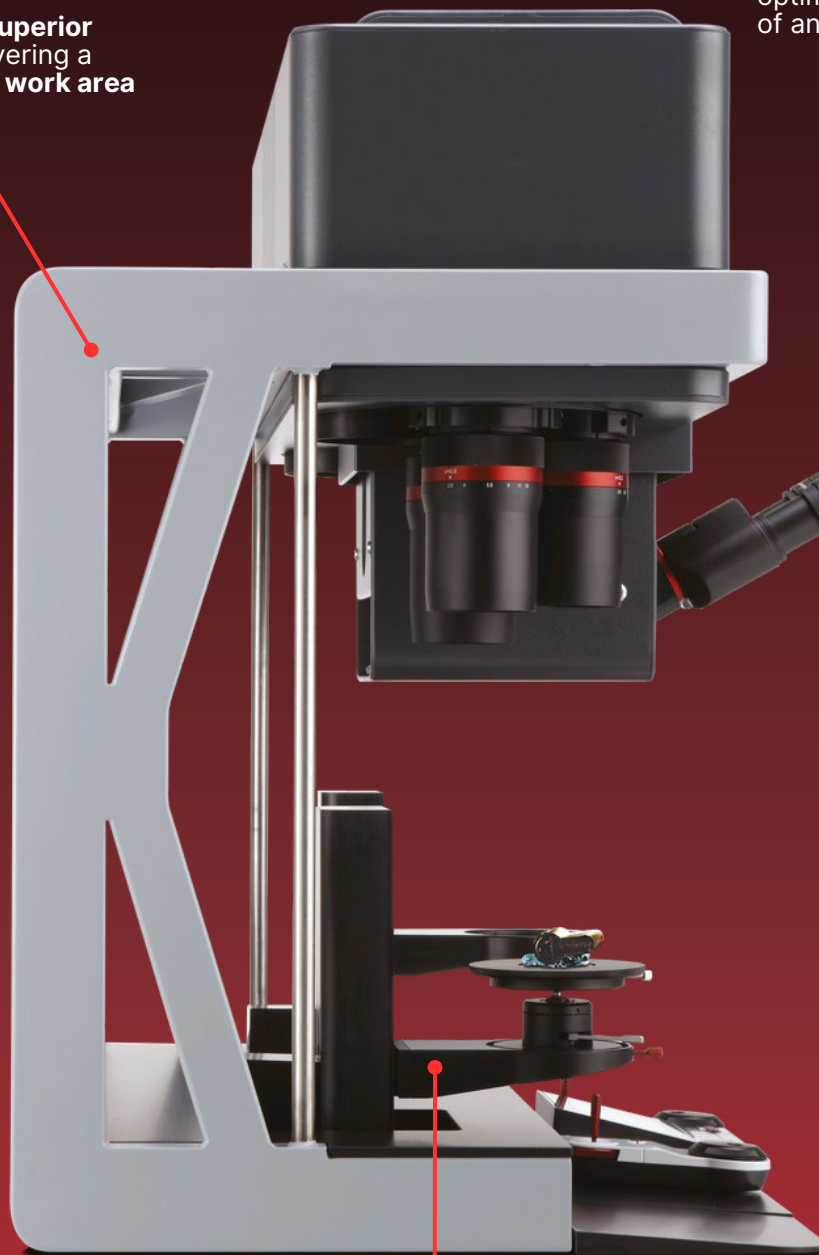
Revolutionary static comparison bridge, with advanced optical module for **clear, simultaneous viewing** through the binoculars or on-screen with the live camera



# COMPLETE CLARITY

Frame design for **superior stability** while delivering a **clean, uncluttered work area**

Innovative binocular design with **motorized height adjustment** and **constant 30-degree viewing angle** for optimum comfort for examiners of any height



Stage adapters provide **quick and easy swapping of accessories** to accommodate almost any evidence size and position

# EFFORTLESS CONTROL

Joysticks for real-time, intuitive, and user-friendly **synchronized stage movements**

Quick and easy access to user presets for one-touch binocular height adjustment specific to each examiner



Viewing options for Full Left, Full Right, Transparent Overlay and Adjustable Split with smooth scrolling dividing line for sliding across parallel regions of interest

One-touch, synchronized magnification changes

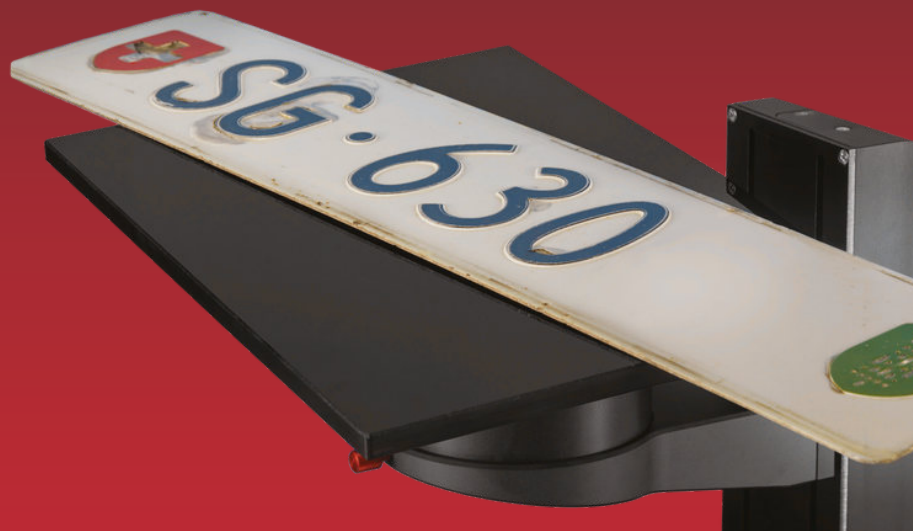
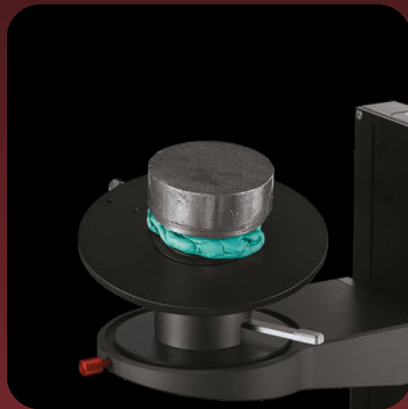
Separate **jog wheels for coarse, fine and super-fine focus adjustment**, ideally located to minimize hand-over-wrist movements and increase the examiner's comfort

# VISIONX FOR TOOLMARKS

Examining toolmarks has never been easier or more flexible. With up to 233 mm of free working distance, the VisionX can accommodate larger pieces of evidence in their entirety, saving time and minimizing the risks associated with modifying evidence so it can fit on the microscope.

Desired lighting for virtually any type or size of toolmark, including incident, oblique and grazing illumination is easy to achieve thanks to multiple mounting possibilities and LED ringlight, spotlight and fluorescent-style lighting options.

Accessories such as plasticine mounts of varied sizes, iris clamps, grip holders and a tilting stage ensure examiners are well equipped to mount even the largest, or most difficult and deformed item.





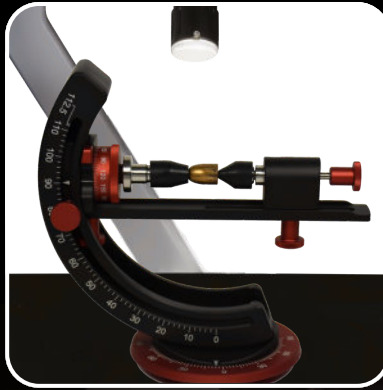
# MULTIPLE LIGHTING OPTIONS FOR OPTIMAL VIEWING

The true test of any microscope goes beyond ergonomics and accessories. Lighting and the ability to clearly view and measure fine marks and minute traces are paramount. The VisionX comparison microscope includes a flexible, state-of-the-art illumination system that eliminates unwanted reflections and allows for the easy and consistent lighting of objects, regardless of shape, size, surface, and structure. Several lighting options and accessories are available.



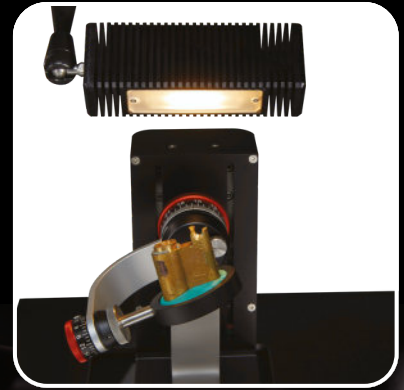
## LED RING LIGHT

The LED ring light allows for full ring, partial and segment illumination, providing fully reproducible lighting on both stages and identical viewing conditions.



## HIGH POWER SPOTLIGHT

Flexible arms and multiple rods make it possible to position the high-power LED spotlight at almost any angle.



## FLUORESCENT-STYLE LED

An innovative shadow-free, warm LED light provides long-lasting, fluorescent-style lighting ideal for viewing toolmarks.



**Diffusers, polarizers, and filters** are also available in order to customize any of these lighting options to the examiner's preferences and applications.

# FLEXIBLE, PRECISE AND INNOVATIVE ACCESSORIES

FOR BALLISTIC AND TOOLMARK EVIDENCE HANDLING



**BULLET HOLDER**  
Universal bullet holder for  
360° bullet rotation of  
pristine or damaged bullets



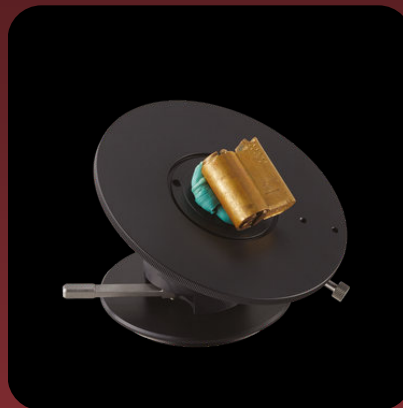
**ASSORTED SIZE CARTRIDGE  
CASE HOLDERS**  
Assorted size brush mount  
cartridge case holder set for  
pristine or deformed  
cartridge cases



**UNIVERSAL HOLDER**  
Universal iris holder for  
viewing smaller objects at  
any angle



**CLAMP HOLDER**  
Universal grip clamp for  
deformed, large or oddly  
shaped items



**BALL-MOUNTED ROTATING/  
TILTING STAGE**  
Rotating and tilting ball-  
mounted platform for larger  
objects and toolmarks



**PLASTICINE SUPPORT**  
Plasticine support for  
mounting deformed, small or  
oddly shaped items



# MOTORIZED WORKBENCH

Fully motorized, with an approximate height range adjustment of 35 cm (13 in.), the VisionX adjustable workbench completes the design for full ergonomic comfort. A small panel that slides out from under the tabletop controls bench height at the touch of a button. Examiners can also easily save their height preferences with automatic presets.



|                 |             |
|-----------------|-------------|
| TABLETOP:       | 160 x 70 cm |
| MINIMUM HEIGHT: | 68 cm       |
| MAXIMUM HEIGHT: | 102 cm      |

# CONNECT AND COLLABORATE

While traditional comparison microscope software is designed to provide the tools required for report creation and image management, the VisionX software goes a step further, giving the examiner complete microscope control directly from the workstation. This intuitive and user-friendly software includes all the functions an examiner is accustomed to, with additional modules and viewing options to enhance and streamline the examination process.

## INTUITIVE DESIGN WITH MICROSCOPE CONTROL

VisionX's fully motorized stages and magnification changers can be controlled directly from the software using intuitive and userfriendly controls, giving the examiner the ability to make quick changes to images prior to capture without having to go back and forth from the workstation to the binoculars, saving time and effort. Lighting and focus can be adjusted, and, with a single click, the auto-focus feature controls the microscope and finds the optimum focal point.

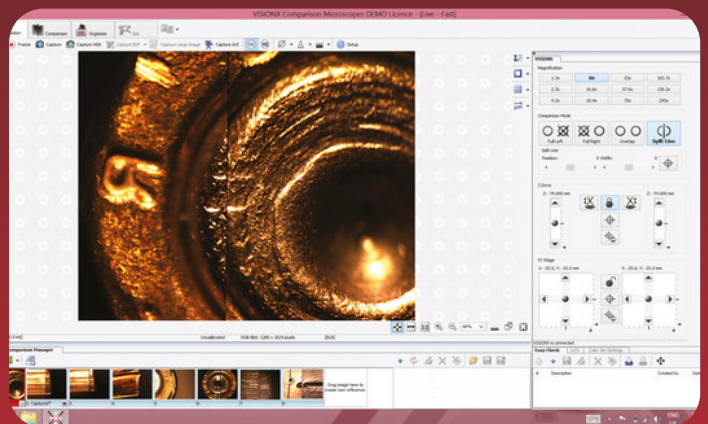
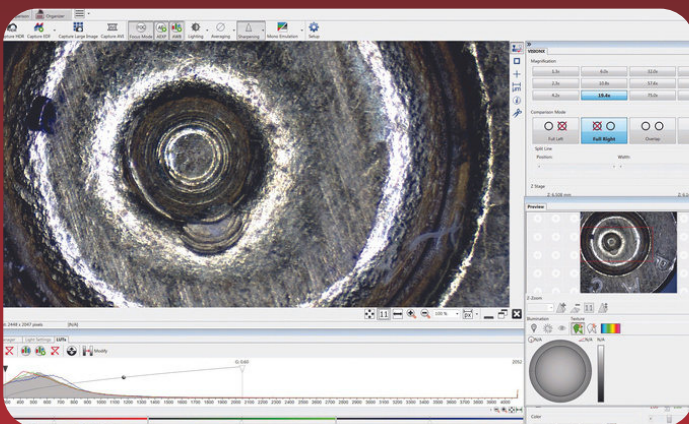
## FULL SUITE OF ANALYSIS TOOLS

Annotations and text can be easily applied to images for reporting, printing, and filing purposes. As well, the Measurement module provides values that can be validated by international standards, including NIST traceable standards.

## REMOTE COLLABORATION

With its software suite and fully motorized microscope controls, VisionX allows for unprecedented collaboration among examiners. In essence, an examiner at location A can assist an examiner at location B, by inviting them to view or take control of their screen and microscope functions. Doing so facilitates peer reviews and the viewing of hits across jurisdictions saving costs, and reducing the time required to confirm or dismiss potential matches. This cooperative environment can accelerate the leadgeneration process and increase collaboration across borders.

The ability to collaborate remotely can also enhance training. Imagine a trainer based in one location being able to take control of a student's microscope hundreds of miles away. Lower training costs mean more coaching opportunities, faster learning and more highly trained staff. High-speed network connectivity between sites or Internet access is necessary.



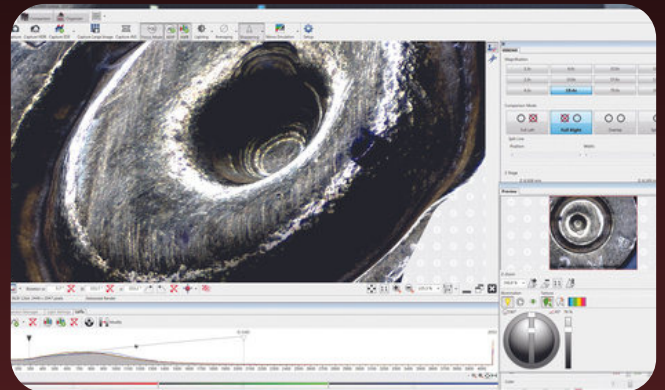
# OUTSTANDING SOFTWARE FEATURES

## EXTENDED DEPTH OF FOCUS (EDF)

The Extended Depth of Focus module is a unique way of viewing an all-in-focus 3D image. The examiner simply maps the upper and lower limits of the desired area to capture, and the software does the rest. The result is a 3D image that can be tilted and rotated and can provide more visual detail than provided by an image in simple 2D.

## AUTO MATCH FUNCTION

The VisionX software includes various Match Functions including Auto Match which is automatically activated when 2 images are opened.



## MOTORIZED EFFICIENCY AND ERGONOMIC COMFORT

The new VisionX **Motorized Universal Holder** provides precise, motorized rotation on three axes using the included SpaceMouse® controller or via software.

- **Faster, more efficient examination**  
Intuitive, motorized control of rotation, tilt and twist of bullets or cartridge cases. Examination is seamless, without ever looking away from the binocular or screen.
- **More comfortable examination over longer periods**  
The Spacemouse controller allows the examiner to maintain ergonomic hand, wrist and elbow position, completely eliminating uncomfortable upward motion to manually rotate evidence.





# TECHNICAL SPECIFICATIONS

| OBJECTIVE | MAGNIFICATION<br>WITH EYEPIECE<br>10x/22 | FOV<br>(field of view<br>in mm) | WORKING DISTANCE<br>(mm) |
|-----------|------------------------------------------|---------------------------------|--------------------------|
| 0.13x     | 1.3                                      | 169                             | 233                      |
|           | 2.3                                      | 94                              |                          |
|           | 4.2                                      | 52                              |                          |
| 0.6x      | 6                                        | 36                              | 116                      |
|           | 10.8                                     | 20                              |                          |
|           | 19.4                                     | 11                              |                          |
| 3.2x      | 32                                       | 6.9                             | 120                      |
|           | 57.6                                     | 3.8                             |                          |
|           | 104                                      | 2.1                             |                          |
| 7.5x      | 75                                       | 2.9                             | 95                       |
|           | 135                                      | 1.6                             |                          |
|           | 243                                      | 0.9                             |                          |

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