

VIC-3D + BLUE HAWK

Simple. Powerful. Fully-Integrated.

3D digital image correlation is a technique that relies on a precise relationship between two cameras. For decades, researchers have spent countless hours in the pursuit of the perfect stereo angle and exact focus. In a growing number of applications, repetitive testing is required, and researchers are calling on DIC to provide precise, non-contact strain and deformation measurements in successive, identical tests. In these scenarios, valuable testing time is lost to necessary but laborious camera setup and adjustments. After an extensive testing and iterative design process, we are proud to introduce the Blue Hawk system.

With robust Schneider-Kreuznach lenses and a carbon-composite stereo beam, the Blue Hawk provides a lightweight but incredibly sturdy, easily calibrated, fixed-focus, ready-to-use system which is unmatched in its class, when paired with the powerful VIC-3D DIC software.



OTHER BLUE HAWK FEATURES

- Fixed-focus design for reliable repeatability (perfect for materials testing)
- Focusable LED for polarized light or fluorescence technique
- Interchangeable lenses provide easy field-of-view adjustment
- FOV: 40 to 400 mm; $> 7,5 \mu\text{m}/\text{px}$ pixel resolution; $> \pm 75 \text{ nm}$ deformation sensitivity

Compared to the variety of fixed field-of-view (FOV) DIC options available, VIC-3D with the Blue Hawk system offers more adjustability without compromising convenience, so researchers can measure a wide variety of applications with minimal adjustment. Once the FOV preference is set (with easy lens/baseline adjustments to pre-determined fixed locations), the system can be used repeatedly with the same stereo calibration model. This combination of precision and repeatability produces highly accurate results with an unmatched level of convenience.

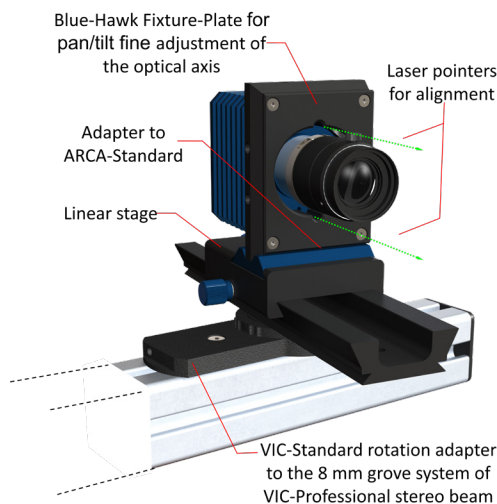
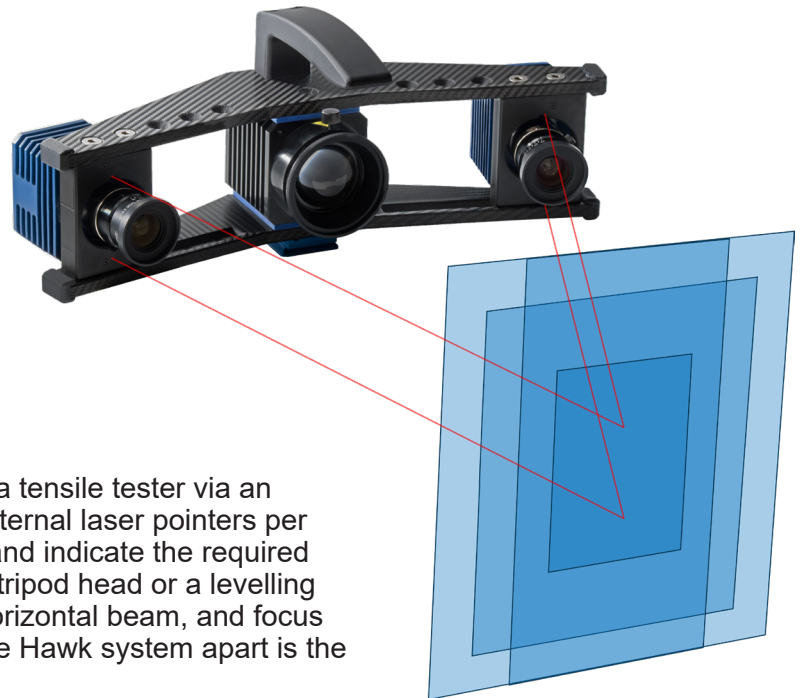


Rigid Calibration

The Blue-Hawk is designed for repetitive DIC testing for fixed FOV applications. Due to its super-rigid architecture, the system can be calibrated once and then used for multiple DIC tests at various locations over long periods of time. Need to set up the system for more testing with a different FOV? Not a problem with an easy-change optical procedure that also allows the base line to be adjust to 4 different positions.

Diverse Setup Possibilities

The Blue Hawk system can be mounted directly on a tensile tester via an adjustable arm, or it can be used on a tripod. Two internal laser pointers per camera assist with alignment to the specimen axis and indicate the required working distance. Alignment is performed using the tripod head or a levelling adapter. The working distance is preset using the horizontal beam, and focus is fine-tuned using a linear stage. What sets the Blue Hawk system apart is the shear range of setup possibilities.



Standard Resolution:

2.9 Mpx @ 144 fps

FOV:

34 mm x 26 mm
(50mm lenses)

220 mm x 167 mm
(25mm lenses)

High-resolution:

24.6 Mpx @ 17 fps

FOV:

75 mm x 64 mm
(50mm lenses)

360 mm x 312 mm
(25mm lenses)

Lens options:

16mm, 25mm, 35mm, 40mm, 50mm, 60mm

