Biokinetics

OpenBox[™] - Ballistics Yaw Image Collection Hardware

Mirror system to collect ballistic projectiles and fragment images with a single video or still camera







OpenBox[™] Setup

Specifications

Yaw-HSV™ Pro Software

• Orthogonal images of projectiles are collected with user's camera(s) and mirrors located near the armour surface for determining yaw at strike surface.

• Mirrors are adjustable for different camera configurations and are easily replaced in case of spall damage.

• Yaw angle calculation, projectile speed, mirror setup, image corrections and system verification is provided with Biokinetics' Yaw-HSV™ Pro software.

• Reference jigs and a surrogate projectile provide precise alignment (in-bore laser required) and system verification. Can be conducted independently by the user.

 Integrated high-intensity LED backlights are mounted to the OpenBox[™] system for even backlighting of the projectile and good image accuracy.

• Typical frame rates for high-speed video of 25 kHz are required to capture multiple frames of the projectile. Single frame SLR cameras can be used with strobe backlight, trigger and timing circuits (not provided).

• Contact us for options to suit your particular camera and lab setup.

Typical camera setup:	HS video with focal length = 65 mm, distance to projectile = 750 mm, field of view resolution 768 x 786 pixels.	Compatible Projectiles:	Fragments: FSP, RCC from 2 to 64 grain Bullets: ≤ 50 caliber. (call for options with larger projectiles)
Software:	Yaw-HSV™ Pro software required for setup and yaw analysis.	Light Source:	Custom high-intensity white LED backlights, quantity 2.
Placement and Targeting:	Can be placed adjacent to the target surface. Requires tripod or horizontal surface for support. Optional pedestal available (contact for details).	Part Numbers:	OpenBox™: OYS-001 Backlight: OYL-001 In-bore laser: BYSL-001 Pedestal: OYP-001

Physical and Electrical

Dimensions:	OpenBox™ Frame, Mirrors, Backlights: W 584 x D 330 x H 558 mm, 14 kg (W 23 x D 13 x H 22 in.) (30 lb)	Alignment:	Integrated alignment gauges provided. Requires an in-bore laser.
Imaging Setup:	Mirror length = 250 mm (10 in) Centre of mirror to frame end nearest target = 203 mm (8 in)		

Warranty

All components: 1 year limited

(All specifications are subject to change)