Biokinetics



## Helmet Drop Carriage

Adjustable drop carriage for head and helmet blunt force impact studies with increased positioning range





- Developed for head impact studies involving linear and rotational kinematics in six degrees of freedom suitable with instrumented head forms (e.g., 3-2-2-2 or ARS).
- Extended range of impact sites and neck orientations are possible while reducing carriage interference of the helmet fitted with peripherals (e.g., NVG, mandible guards, comm systems).
- Impacts to the crown, front, side, and rear are possible with available range of neck orientations: 0°-90° fore-aft, 0°-360° rotation.
- Helps maintain the contact point with the anvil for most orientations unlike pivoting cantilevered systems.
- Accommodates a Hybrid III 50<sup>th</sup> percentile male head and neck assembly.
- Works with Biokinetics' square-tube drop tower.
  Full turnkey drop tower system (tube, carriage, stop clamp, anvil, pedestal, sensors, DAQ, software) is available upon request.
- Indexed arc adjustments (2.5°) for repeatable and quick positioning. Indexed neck rotation scale provided.
- Robust design for higher severity impacts.

## Specifications

Range of Adjustment:	$0^{\circ}$ -90° fore-aft plane, $0^{\circ}$ -360° rotation	Head and Neck Attachment:	Accommodates Hybrid III 50 <sup>th</sup> percentile male head and neck assembly.
Setup Requirements:	Fits to Biokinetics' monorail drop tower with carriage brake stop.	Part Number:	HDC-001

## Physical

Dimensions: V	N 550 x D 480 x H 175 mm	Weight:	10.5 kg (excluding head and neck)
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## Warranty

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(All specifications are subject to change)