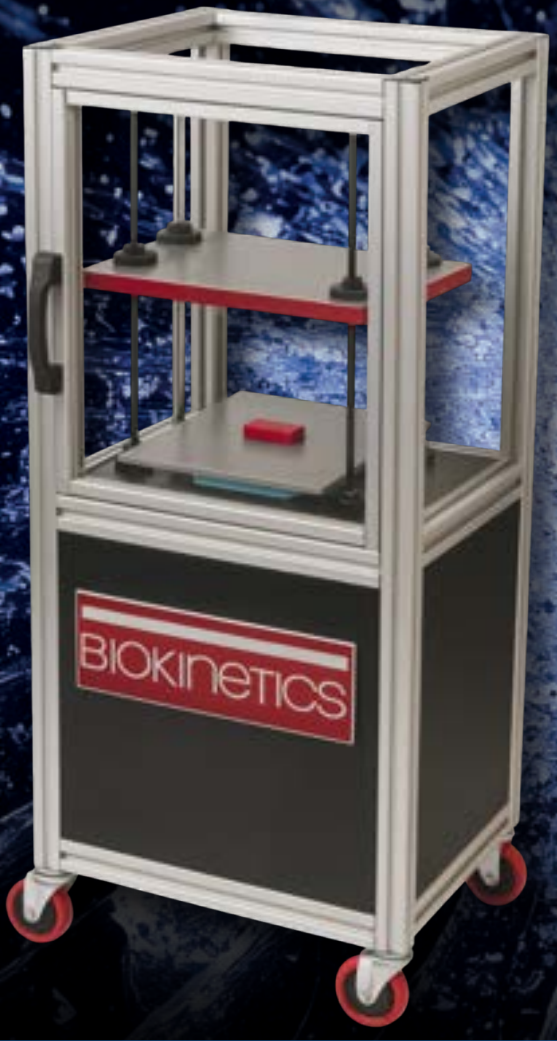
SYDOR

TECHNOLOGIES



BIOKINETICS HELMET STIFFNESS TESTER

COMPLEX MEASUREMENTS—CRITICAL RESULTS

FEATURES

- Computer controlled loading plates with feedback
- Can accommodate helmets with HxWxD dimensions of 0.4 x 0.35 x 0.4 m
- Custom enclosure on wheels for mobility

APPLICATIONS

- Evaluation of Rigidity & Shape Retention of a Helmet
- Durability, Resiliency & Impact Testing

ABOUT THE BIOKINETICS HELMET STIFFNESS TESTER

Biokinetics' Helmet Stiffness Tester (HST) evaluates the rigidity and shape retention of a helmet along its length, width and height. The measurements provide valuable insight into the durability, resiliency and impact distributive effectiveness of a helmet when subjected to normal loading conditions.

The stiffness of a helmet is determined by compressing the helmet along the specified loading direction between two parallel plates. The upper loading plate is controlled dynamically with integrated software and an electronically controlled motor. The lower support plate consists of a rigid steel platform supported by four load cells to measure the applied force. The HST custom software can compress the helmet cyclically between preset loads, monitor the amount of helmet compression and dynamically record the test measurements.

The test technician places thehelmet in the desired loading direction . Using the software program, the upper loading plate is slowly lowered until a specific initial pre-load has been applied. The software cycles from the pre-load to the final test load and then back to the pre-load. This loading cycle can be repeated to any number of desired cycles or until the helmet capacity is exceeded. The software allows for complete control of the pre-load, final load, number of cycles and the loading rate.

PRODUCT SPECIFICATIONS

- Software Automation: Data collection, data analysis, and reporting
- Dimensions (H x W x D): 1.6 x 0.7 x 0.6 m
- Weight: 180 kg
- Included Components: Desktop computer with color printer, data acquisition system, software program, motion controller, cables, 18" digital vernier caliper

Biokinetics

Sydor Technologies is a proud distributor for Biokinetics

COMPLEX MEASUREMENTS—CRITICAL RESULTS