SYDOR

TECHNOLOGIES

STAB TEST APPARATUS

COMPLEX MEASUREMENTS—CRITICAL RESULTS

FEATURES

- Meets common global testing standards
- Advanced solid state design
- Easy to use

APPLICATIONS

- Body Armor Evaluation
- Plate & shield perforation evaluation
- Ballistic Gel Testing
- Personal Armor Testing
- Civil security & police force protective equipment testing

ABOUT THE STAB TEST APPARATUS

The Stag Test Apparatus is designed for testing of personal armor and materials used to resist punctures made by knives or spikes. This testing is commonly carried out in conjunction with ballistic testing to ensure Civil Security and Police forces are protected against all potential hazards.

The Stab Test Apparatus is a drop rig design. In this set up, a knife or spike is mounted in a weighted carrier and dropped from a known height down a guidance column at the required impact energy. It is designed to enable stab testing according to two standards: the UK Police & Scientific Development Branch (PSDB) standard for Knife and Spike resistance and the US NIJ Standard 0115.00.

Knives and spikes of various designs can be mounted in the Drop Rig. In addition, items according to the provisional standard (prEN ISO 14876-2) as well as special designs can be mounted. The knife is guided down the drop tube with a constant orientation so that is is possible to make controlled impacts into borders between overlapping materials on the armor, as required by the standards.

A terminal velocity measurement system using fiber optic cables and a remote sensor box is also available. The photograph shows the latest design drop frame with extruded aluminum guides, knife "sabot" as well as part of the velocity measurement sensor. The Drop frame mounting has facilities to ensure it is straight and vertical, otherwise the velocities obtained will not be satisfactory.

The armor sample to be tested is normally supported by a composite backing pack. However, for curved armor, a backing of Roma Plastilina® may be built up in the tray provided. Samples may be positioned at various angles as required on a support platform.
This design may be adapted to meet updated UK HOSDB Specifications.

PRODUCT SPECIFICATIONS

- Drop Height: < 3.8 m
- Impact Energy: < 70 J
- Velocity Gate: Dual beam fibre optic ± 0.01 m/s
- Software: Biokinetics Stab Testing Software, installed on laptop (Windows 11)
- Part Number: STA-002
- Dimensions: W 1200 X D 900 X H 5800 mm
- Shipping Weight: 370 kg
- Electrical: 120 VAC @ 60 Hz / 240 VAC @ 50 Hz 200 W max. external, magnet 24 V DC
- Floor Space for Operation: W 1.33 x D 0.84 m
- Consumbable Supplies: Knives, Spikes, Composite Backing Packs Plastilina etc

Biokinetics

Sydor Technologies is a proud distributor for Biokinetics

COMPLEX MEASUREMENTS—CRITICAL RESULTS