SYDOR

TECHNOLOGIES

PERSONAL ARMOR STAB TEST RIG

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 PERSONAL ARMOR STAB TEST RIG

Sydor's Personal Armor Stab Test Rig 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 Personal Armor Stab Test Rig 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.

PRODUCT SPECIFICATIONS

- Drop Height: Approximately 2.5-5.5 meters
- Sabot Weight: 1900 ± 20 grams
- Impact Damping: Damping pads fitted in sabot
- Sample Mount: Strong, adjustable angle support
- Velocity Sensor: 25 mm prior to impact position by light beam breaking sensor, via fiber optic cables
- Velocity Sensor Output: Sydor's IRIS, other timing devices and chronometers available
- Sabot Lifter: Manual or electric
- Power: 110/240 VAC separate power unit
- Operating Temperature Lane: 0 to +40°C
- Mounting Arrangement: Wall or stand
- Calibration of Backing Material: Sydor's Clay Calibration RigKnives, Spikes, Composite Backing Packs Plastilina etc
- Consumbable Supplies: Knives, Spikes, Composite Backing Packs Plastilina etc
- Modifications Available: Inquire with special requests