

Impact Test System (Eye Wear)

The **SABRE Ballistics** Impact Test System is designed to test civilian eyewear and facial protection equipment to internationally recognised standards such as BS EN 166 and ANSI Z87.1-2003. SABRE also manufactures higher energy impact systems for testing military and police protection equipment.

The system comprises a compressed air driven projector (gun), a velocity measurement system and an impact chamber.

The “gun” is normally equipped to project 6mm or ¼” steel balls at the chosen equipment under test. Velocities depend on the test required, but are typically required from 40 to 195 m/s. The velocity is controlled by adjusting the regulated air pressure. The projectiles are loaded into the barrel via an easily operated sliding breech.

A velocity measurement sensor system is fitted at the muzzle of the barrel. The projectiles are detected by two sensors spaced a short distance apart. As the projectile passes the sensors, it breaks a light beam across its path. The time the projectile takes to travel between the two sensors is used to determine the velocity. The sensors utilise fibre optic cables and are located away from the impact area to avoid the risk of damage.

The velocity sensor signals are led to a PC via a specially designed interface. A version of the SABRE IRIS computer system and software is used for velocity calculation and record keeping. It is an easy to use Windows application and several languages are supported.

The equipment being tested (normally spectacles, face shields or eye protection visors) are mounted on a headform, which is housed in an impact chamber. This contains the projectiles after impact.

The headform is mounted on a vertical and horizontal slide system, so it can be moved and rotated to allow any desired impact point and angle.



INTEGRATED SYSTEM

EASY & FAST OPERATION

TESTING TO US & EUROPEAN STANDARDS

SEVERAL LANGUAGES AVAILABLE (IRIS)

INTERLOCKS FOR ADDED SAFETY

Secondary safety features include a remotely fired projector which is “interlocked” with the breech and impact chamber to minimise the risk of an accidental discharge while a projectile is being loaded or the chamber door is open.

Please note that in some countries, the higher energy versions may require special permits.

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