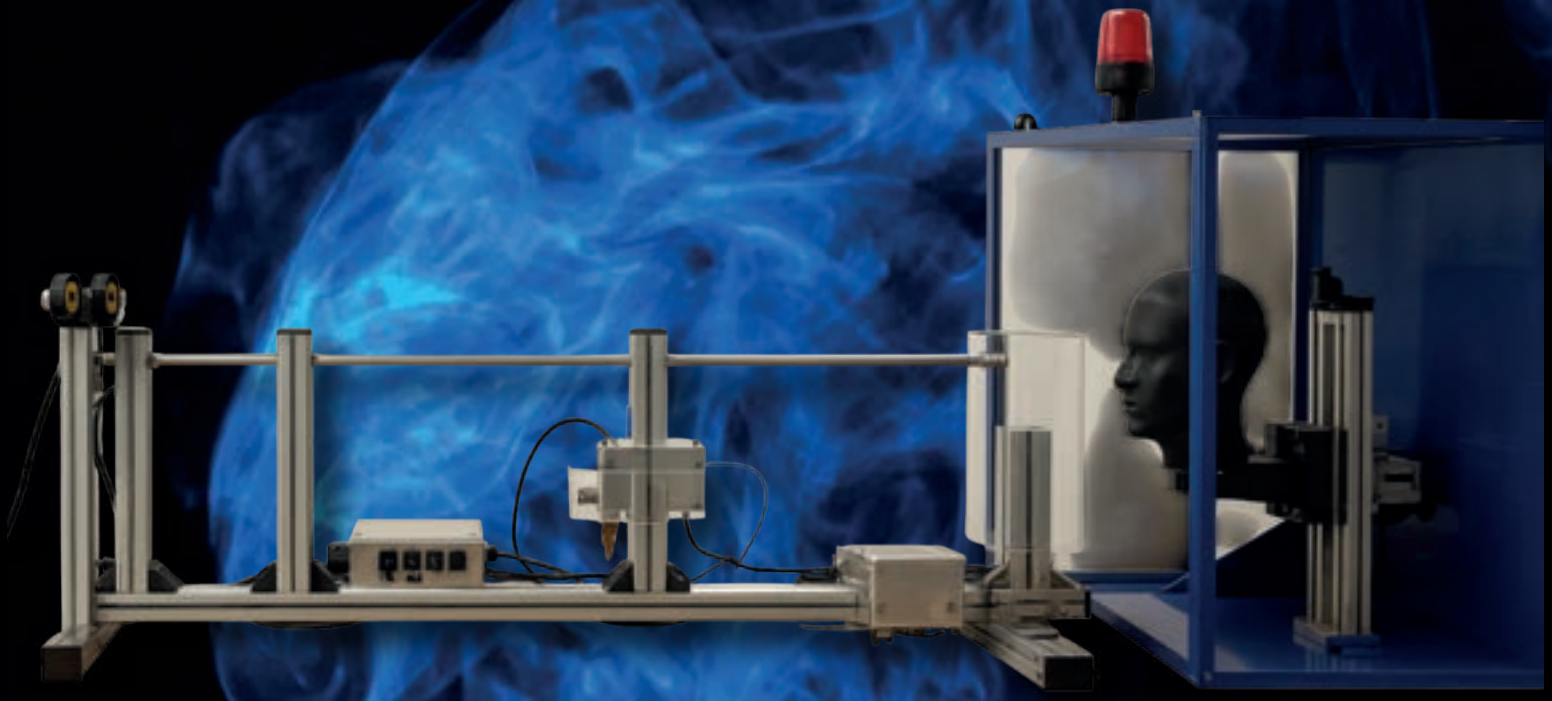
SYDOR

TECHNOLOGIES



EYEWEAR TESTING GAS GUN

COMPLEX MEASUREMENTS—CRITICAL RESULTS

FEATURES

- Typical speed of 417 m/s (helium at 125 bar)
- Typical speed of 225 m/s (compress air at 120 bar)
- Systems can reach pressures of 200 - 225 bar
- Sydor does not provide supplied air

APPLICATIONS

- Eyewear impact testing
- Facial protection impact testing
- Any testing requiring conforming to ANSI Z87.1 Levels 1 to 3

ABOUT THE EYEWEAR TESTING GAS GUN

The Eyewear Testing Gas Gun is designed to test impact on eyewear and facial protection equipment to internationally recognized standards such as ANSI Z87.1. The system is comprised of a compressed gas driven launcher, a velocity measurement system and a target chamber.

The launcher is equipped with a 6.1 mm bore barrel to project 6 mm (US .25") steel balls at the chosen eye protection under test. Projectile velocities depend on the test required but with the Eyewear Testing Gas Gun typical speeds of 40 m/s up to 450 m/s can be achieved, depending on the type of gas and pressure used.

A velocity measurement system is fitted at the muzzle of the barrel. The projectiles are detected by two sensors spaced at 150 mm apart. As the projectile passes the sensors it breaks a light beam. the time taken for the projectile to pass between the two sensors is used to determine the velocity using Sydor's Integrated Range instrumentation System.

The personal protective equipment being tested is mounted on a headform (not included with the system) which is housed in an impact chamber. This chamber is used to contain the projectiles after impact along with any spalling. The headform is mounted on a vertical and horizontal slide system so it can be positioned along the x and y axis and rotated around the Y axis as needed. Safety features such as an interlock on the impact chamber can be included upon request.

PRODUCT SPECIFICATIONS

- Projector Type: Compressed gas operated system
- Gases: Compressed air and helium (max 225 bar)
- Projector Bore Size: 6.1 mm
- Firing Method: Electronically controlled air valve
- Mounting: Requires about 2 m of bench space
- Power Requirements: 220 - 240 VAC (110 VAC can be supplied with a special order)
- Air Line Requirements: At least 8 bar oil free air line to activate pilot valve. Pulse projector gas is normally supplied via compressed gas bottle