

## Ballistics test equipment

### Description

The apparatus comprises essentially three main parts:

An adjustable headform mounted in an impact resistant chamber.

A pneumatic circuit, including a semi-automatic ball loading mechanism, a barrel and necessary controls. Aiming of the ball is aided by a laser, projecting a spot on to the target area.

An electrical circuit, including the ball speed measurement system.

The rig is capable of projecting a 6mm diameter steel ball at a range of velocities from 12 - 200 m/s.

The equipment is of self-contained, bench mounted, stainless steel construction. The door to the test chamber is interlocked and fitted with polycarbonate panels to enable viewing of tests.

The headform position is adjustable; forward/backward and side to side on slides, up/down on a screw (hand wheel), and with rotation about the vertical axis.

The rig incorporates a semi-automatic breech, to supply balls to the barrel and automatic collection of spent balls to the centre of the test chamber. The propulsion is generated by compressed air, with a precision pressure regulator and gauge. All operating controls are easily accessible at the front of the unit.

The control circuit incorporates adjustable gas pulse duration, safety interlocking and reset and fire buttons. The ball speed is verified by light source and photocell detection units; with the velocity indicated by a digital display.



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## **Ballistics test equipment (continued)**

### **Services required**

Bench mounted  
110/230 volts AC, 50/60Hz, mains electricity  
Compressed air at a pressure of up to 6 bar

### **Consumables**

6 mm steel balls (twenty are supplied with each rig)  
Sacrificial sheet of polycarbonate for set-up (one sheet is provided)

### **Optional extras**

A medium sized headform is supplied as standard, the small sized headform is available as an optional extra.  
We can supply a trolley for mounting the rig on. This enables the rig to be moved around the test area.

### **Approximate size & weight**

190 x 120 x 70 cm, 100 kg

### **Relevant standards**

EN 168:2001, clause 9.1.2  
ANSI/ISEA Z87.1:2015, clause 9.12.2 and figure E1  
AS/NZS 1337-1:2010, appendices L, M, N and O  
ISO 12311:2013  
ISO 12312-1:2013, Part 1