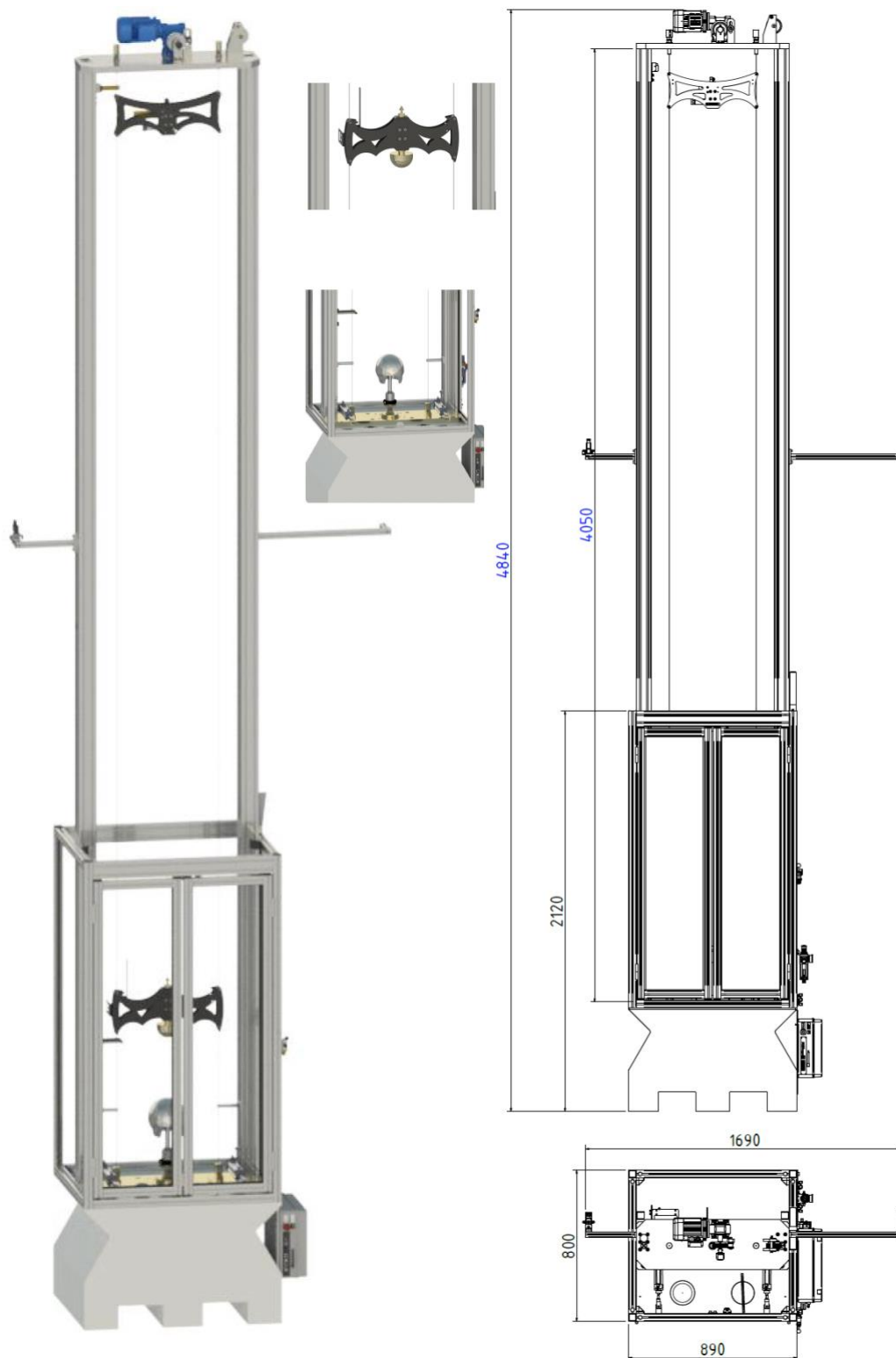


1011	MAU 1002/2W/ALU/SF/WH (Workers Helmets)	Twin-wire shock absorption test equipment, guided-drop mass and transmitted-force method (EN 397/812 /12492 or similar), load cell and headform support, base and electric plant included, 4m aluminium × 2 (80×80 mm) column frame, 2 impactors, protection cage, automatic doors.
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Technical data sheet :

System Overview

- **Application:** Twin-wire shock absorption test equipment utilizing the guided-drop mass and transmitted-force method.
- **Compliance:** Fully compliant with EN 397, EN 812, EN 12492, and similar standards.
- **Configuration:** 4.4-meter height version featuring a double column frame made of 120×80 mm aluminium profiles. Included in the standard configuration are the structural base, electrical system, load cell and headform support, 2 impactor masses, and a full safety cage equipped with automatic doors.

Technical Features

- **Chassis Frame:** Heavy-duty construction from aluminium ITEM profiles (120×80 mm, 80×40 mm, and 40×40 mm).
- **Sub-Base Plate:** 30 mm thickness zinc-plated steel plate, secured to the main frame via high-tensile screws.
- **Main Ballast Base:** Steel enclosure filled with concrete; total ballast mass: 700 kg.
- **Drop Parameters:** Maximum vertical drop height up to 2.7 m, yielding an impact velocity of 7 m/s.
- **Guidance System:** Twin-wire system utilizing Ø 3 mm C70 high-tensile steel cables equipped with an integrated tensioning mechanism.
- **Leveling System:** Adjustable base equipped with 14 grub screws (Ø 16 mm) for precise vertical alignment.
- **Frame Anchoring:** Secured to the structural base via 8 bolts (Ø 16 mm thread).
- **Enclosure Safety Door:** Automated protective door driven by twin pneumatic cylinders. Features a transparent polycarbonate front viewing panel and 3 mm polycarbonate lateral shielding. Integrated safety interlock switch prevents drop execution when doors are open.
- **Lift Carriage:** Precision water-jet cut Ergal 75 (aluminium alloy) plates. Equipped with a pneumatic automatic release system, complete with dedicated solenoid valve, limit switches, and photoelectric sensors.
- **Catch Mechanism:** Automatic drop carriage latching/hooks system operational during descent phases.
- **Drop Carriage:** Precision assembly made from water-jet cut Ergal 75 plates featuring a central core body (total base mass: 2 kg), engineered to accept modular drop masses.
- **Instrumentation Support:** Three-part load cell support structure featuring an integrated cell preloading system.
- **Headform Positioning:** Headform holder specialized for EN 397 testing (headform sold separately), equipped with a dedicated clamping device.
- **Impactor Masses:** Two C40 steel impactor masses supplied standard: Flat (Ø 130 mm) and Hemispherical (R 50 mm).
- **Hoist System:** Electric motor assembly with pulley and encoder for precise positioning of carriages to preselected drop heights.
- **Electrical Integration:** Complete electrical distribution system fully concealed and routed inside the structural aluminium profiles.
- **Pneumatics:** Complete pneumatic control circuit equipped with an integrated analog pressure gauge.
- **Velocity Measurement:** High-frequency infrared photoelectric barrier device for precise speed monitoring.
- **Calibration:** MEP pad supplied for impact data verification, including a dedicated load cell adapter.
- **Surface Treatment:** Anodized and triple zinc-plated finishes for enhanced corrosion resistance.

Technical Data & Installation Requirements

- **System Weight:** 190 kg (net weight, excluding the 700 kg concrete ballast base).
- **Overall Dimensions (L × W × H):** 800 × 1690 × 4840 mm.