

1005

MAU
1002/2W/STEEL/SLT

Twin-wire shock absorption testing system specifically engineered for sliding and oblique impact tests in accordance with ECE and FIA Method A. This high-performance rig features a double 10-meter steel column frame for superior stability. The system includes a heavy-duty steel plate base and a dedicated electrical system. The machine is enclosed in a safety cage with manual single door with locks .



Technical Specification Datasheet

System Overview

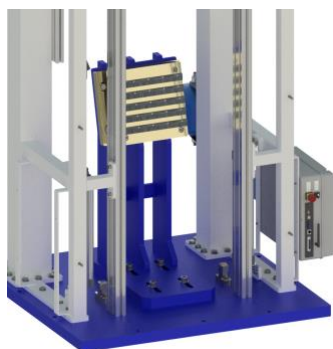
- **Application:** Twin-wire shock absorption testing system specifically engineered for sliding and oblique impact tests.
- **Compliance:** Fully compliant with ECE and FIA Method A standards.
- **Configuration:** High-performance drop version featuring a double steel column frame. Standard supply includes a heavy-duty steel plate base, integrated electrical system, 2 interchangeable impact testing plates, and a full safety protection enclosure equipped with a manual single door with locks.

Technical Features

- **Chassis Frame:** Double-column structure constructed from robust welded square steel tubes (120×120×5 mm) with a painted finish; total frame height: 6.5 m.
- **Base Plate:** Heavy-duty structural steel plate foundation.
- **Drop Parameters:** Maximum vertical drop height up to 5 m, yielding an impact velocity of 11.8 m/s.
- **Impact Interface:** Two specialized and easily interchangeable impact testing plates supplied:
 - One plate engineered with six-step grids manufactured from ground steel.
 - One smooth plate optimized for mounting abrasive sandpaper.
- **Guidance System:** Twin-wire guidance system utilizing Ø 3 mm C70 steel cables, equipped with an integrated tensioning mechanism actuated by heavy-duty flat springs.
- **Safety Enclosure:** Full safety protection cage constructed from structural aluminium profiles and panels, fitted with 3 mm thick impact-resistant polycarbonate sheets.
- **Deceleration Brake:** Twin pneumatic cylinders installed on both sides of the chassis frame to securely brake the carriage after helmet impact.
- **Drop Carriage:** High-hardness, precision assembly fully CNC-machined from Ergal 75 aluminium alloy.
- **Hoist System:** Fully motorized winch assembly featuring an integrated pulley and electronic encoder, driven by automated variable-frequency inverter technology.
- **Lift Carriage:** Dedicated hoisting carriage manufactured from Ergal 75 and steel, featuring an automated pneumatic release system driven by a dedicated pneumatic cylinder.
- **Catch Mechanism:** Automated drop carriage latching and hooking system, operational during descent phases.
- **Electrical & Pneumatic Integration:** Complete electrical and pneumatic distribution networks fully integrated into the system.
- **Velocity Measurement:** Speed control monitoring device utilizing a high-frequency infrared photoelectric barrier combined with a laser diode emitter.

Technical Data & Installation Requirements

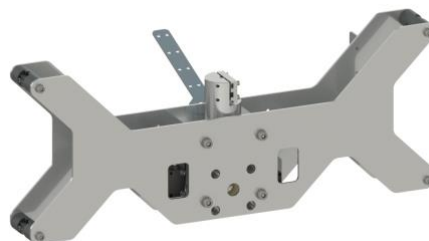
- **System Weight:** 500 kg.
- **Overall Footprint & Dimensions (W × D × H):** 1600 × 1063 × 6740 mm.



Inclined base for test



Drop carriage



Lift carriage