



The Head Restraint Performance Test system is a fully electrical test bench able to evaluate structural strength and stiffness of seats, their backs, anchorages and headrest.

The heavy-duty system is a cost-efficient solution, capable of testing up to 3 seats simultaneously and independently.

The system has been designed according to the following regulations:

- FMVSS 202a, FMVSS 202
- ECE R17.10, R17, R25
- GTR 7
- EEC Dir 78/932
- GB 11550 – 2009, GB 15083 – 2019
- IS 15546
- AIS 016, AIS 023

- ✓ Servo Electrical Actuators: Fully electrical solution
- ✓ Low Maintenance
- ✓ Height Retention Test included
- ✓ Precise programmable high performances load rate control
- ✓ Motorized movement range for easy placement in front of seats or vehicle section
- ✓ Easy-to-use control system with a powerful user-friendly software
- ✓ High resolution (16 bit) and high accuracy for all range of loads (torque, force)
- ✓ Real Time Close control loop in force and position
- ✓ Very narrow central load station < 240 mm
- ✓ H-point laser alignment tool (Easy config. of R-H points)



Head Restraint Performance Test System



Since 2015...From 1995



Main Loading Specification:

- Back Station Moment: Up to 5000 Nm (17 kN)
- Back Station actuator Stroke: 0° - 80°
- Head-form actuator force: Up to 2.0 kN
- Head-form actuator Stroke: 700 mm
- Height Retention Test Force: Up to 1.0 kN
- Height Retention Stroke: 400 mm



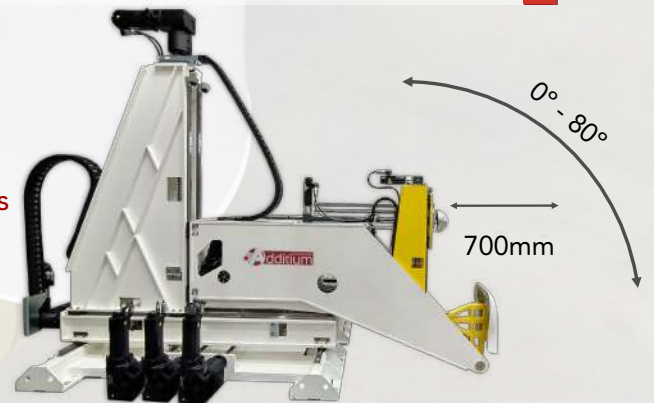
Regulation ranges for each of the 3 load stations (all independent)

- H-point X regulation: 600 mm (50 - 650 mm)
 - H-point Y regulation: 500 mm (240 - 740 mm)
 - H-point Z height regulation: 650 mm (200 - 850 mm)
 - Headform X regulation: 700 mm (-240 - 460 mm)
 - Head form Z regulation: 400 mm (640 - 1040 mm)
 - Back Angle regulation: 80° (0° - 80°)
- * Minimum lateral separation between two lateral stations: 240 mm
* Position accuracy: 0.1 mm / Angle accuracy: 0.05°



Instrumentation:

- Head displacement: 3 x displacement sensors
- Height retention: 3 x displ. sensors + 3 x load cells
- Head force: 3 x load cells
- Back angle: 3 x angle sensor
- Back force: 3 x load cell



New approach to the automotive safety testing

Additium Technologies is an engineering company formed by professionals with more than 25 years in direct experience on the design, manufacturing, commissioning and support of custom made test systems all over the world.

「 **ADDED value Passive Safety Test Systems** 」

www.additium.com
Loches 66, N-4
28925 Alcorcón, Madrid,
SPAIN
info@additium.com
Phone: +34 910 612 763

