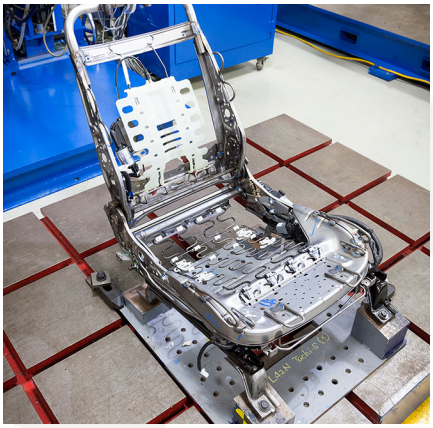
AUTOMOTIVE SEAT TESTING

A Full Range of Automotive Seat Testing Services



Reliable Results to Reduce Your Risk

Tachi-S provides the most reliable testing data possible to verify all your safety, durability and comfort specifications. Using the most advanced technology and equipment, our experienced testing team produces consistent results to help you create the comfortable, high-quality seats your customers demand and deserve.

At Tachi-S, we pride ourselves on being flexible, responsive, and easy-to-work with. We're 100% dedicated to meeting your requirements, schedule and budget. Plus, Tachi-S Engineering U.S.A. Inc. is A2LA Accredited - Mechanical - Certificate No. 0755.01, so you can be confident that your results will be accurate.

Two Testing Locations

Tachi-S maintains automotive seat testing facilities in Farmington Hills, MI, and Aguascalientes, Mexico—where we feature our Servo High-G Sled which enables you to simulate conditions that occur during automotive collisions, including frontal, rear, offset and side impacts.

- Seat & Safety Restraint Reliability
- Environmental Simulation
- Comfort
- Strength
- Vibration
- Ingress/Egress
- Flammability
- Fatigue/Fracture
- Durability
- Airbag Deployment

CALL
248-478-5050

Tachi-S Engineering USA Inc.

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TESTING CAPABILITIES & SPECIFICATIONS

TEST	SPECIFICATIONS	DESCRIPTION
Seat & Safety Restraint Reliability	**Seatbelt Anchorage** • FMVSS 210/ UN R • UNECE 14 • JSS 22-6 **Complete Seat and Seatback anchorage** • FMVSS 207 • JSS 22-3-2 **Headrest** • FMVSS 202 • FMVSS 202a • UNECE 17 • JSS 22-2 • JSS 22-3 • JSS 22-4 • JSS 22-6	Servo High G-Sled simulates conditions during automotive collisions (frontal, rear, offset and side impacts). Headrest static strength measures the rearward angular displacement of occupant's head relative to the displaced torso line. Headrest pendulum and horizontal impact measures impact protection for occupants.
Ingress/Egress	• Customer Specific	Simulates occupant's movements while entering/exiting vehicle. Evaluation criteria usually visual—wear patterns, general durability of seat covering, foam, structure.
Environmental Simulation	• FMVSS 302 • Customer Specific	High temperature testing, high humidity, rapid temperature change rates, or combined environmental testing with altitude simulation. Temperature can be varied to -73°C to 180°C
Flammability Testing	• ASTM D5132 • SAE J369 • FMVSS 302 • JIS D1201	Measures burn rate and burn resistance of automotive interior materials
Comfort/ Indentation Force Deflection (IFD)	• JASO B408 • ASTM D3574 • Customer Specific	Measures foam firmness, seat surface hardness, static spring constant, hysteresis loss ratio.
Fatigue/Fracture	• Customer Specific	Evaluates integrity of total seat frame and its components.
Tensile Strength	• JASO B408 • ASTM D3574 • Customer Specific	Checks tensile strength of thread, fabrics, foams, sew strength, peel strength (for bonded materials) & more.
Durability	• Customer Specific	Tests structural integrity.
Vibration	• Customer Specific	Determines vibration damping, resonance frequency and durability characteristics of a seat assembly.
Airbag Deployment	• Customer Specific	Integrated airbag firing can test for deployment location (seam/middle/side/back), time to first tear, time to full inflation and time for coverage of certain zones.
IIHS Vehicle LATCH Evaluation	• Lower Anchors and Tethers for Children (LATCH)	Determines adherence to LATCH requirements which make it easier for parents to install child restraints.
3D Scanning/ Coordinate Measuring	• Hip Point • Contour & Dimensional Inspection	Inspects components & assemblies, documenting large volume spaces or structures in 3D. Enables dimensional checks, hip points, and contours of seats.

NOTE: These testing and evaluation procedures are designed to meet or exceed all global automotive industry and federal regulations/standards, including European Certification Testing and customer specific requirements.

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