

Transmission Testing



PERFORMANCE IS A PROMISE. DURABILITY IS THE PROOF.

Don't let a flawless engine be crippled by a weak link. At Propulsion Systems Laboratory (PSL), we provide the rigorous, data-driven testing you need to ensure your transmission can handle the power. We push your drivetrain components to their absolute limits to uncover their true potential and guarantee their long-term reliability.

Partner with us to validate your design, mitigate risk, and deliver a transmission that shifts flawlessly under fire.

Our Specialized Transmission Testing Services

We provide a comprehensive suite of testing capabilities focused on one goal: delivering the actionable data you need to build a superior transmission.

Endurance Testing: Forging Long-Term Reliability

A transmission's reputation is proven over thousands of punishing shifts. Our specialized endurance testing subjects your transmissions to prolonged operation, simulating a full lifetime of demanding shift cycles and extreme torque loads to definitively evaluate long-term reliability and expose potential wear on gears, clutches, and seals before they reach the field.

- Benefit: Go to battle with proven drivetrain durability and mitigate the risk of costly, mission-ending mobility failures.

Shift Quality & Efficiency Mapping: Optimizing Power Delivery

Unlock the full potential of your powertrain. We conduct detailed mapping to optimize shift strategies, clutch engagement, and shift speed across the entire operating envelope. This is paired with precise measurements of efficiency to minimize parasitic losses and maximize power delivery to the ground.

- Benefit: Achieve seamless power delivery, superior control, and a critical competitive edge with a highly efficient and responsive drivetrain.

Development & Durability Analysis: Engineering for Robustness

The Decisive Edge is Engineered Here. In our controlled, repeatable test cell environment, we forge battlefield dominance. Through meticulous transmission development, component validation (gears, clutches, torque converters), and precision Transmission Control Module (TCM) calibration, we deliver unwavering reliability and optimized shifting your mission demands.

- Benefit: Eliminate variables, guarantee shift performance, ensure overmatch, enhance mechanical and thermal robustness, prevent unexpected failures, and extend the transmission's operational service life.