

ELECTRIC DRIVELINE UNIT TESTING

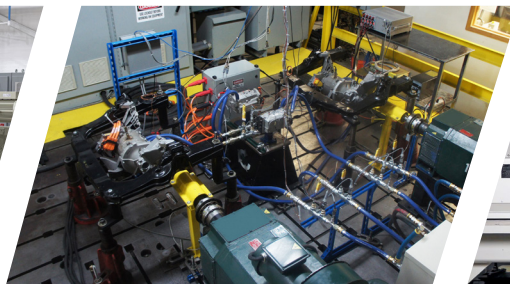
YOUR CHALLENGES

As the automotive industry transitions to cleaner mobility solutions, OEMs and suppliers face increasing pressure to electrify propulsion systems while ensuring reliability and safety.

As the market demands higher performance and efficiency, precise and comprehensive testing becomes crucial to meet these expectations. At UTAC, we understand these challenges and are committed to supporting our customers in facing this paradigm shift. Our state-of-the-art test centers are equipped with AC dynamometers that incorporate the latest inverter and control technology, facilitating precise control and allowing us to conduct a vast range of testing needs, from steady-state conditions to highly dynamic trace profiles.



At UTAC, we specialize in providing advanced testing solutions for driveline components, driveline systems, and vehicle electrification. Our dedicated team ensures you receive accurate and timely results, empowering you to bring safe, reliable electrified products to the market with confidence. We are here to provide the results you need when you need them.



OUR COMMITMENTS



EXPERTISE

UTAC offers recognized expertise in mechanical, electrical, and controls engineering for electric driveline testing. With advanced testing capabilities and proven know-how, **we help you validate the performance and safety of your electrified mobility solutions** in full compliance with regulatory standards.



COST EFFICIENCY

UTAC is your **unique solution provider**, offering quality, flexible, and efficient services for all testing scenarios. Our **state-of-the-art facilities** help you **avoid unnecessary costs while delivering precise results**.



COMPETITIVE EDGE

UTAC gives you a competitive advantage by **keeping you informed on upcoming regulatory changes**. Actively participating in key industry working groups, **we provide strategic insights** to keep you ahead in technological and regulatory evolutions.

OUR SOLUTIONS

Our unmatched expertise in electric driveline unit testing, tailored specifically for the automotive industry, ensures comprehensive performance and safety validation, empowering our clients to deliver reliable and cutting-edge electrified vehicles in a rapidly evolving market.



TESTED COMPONENTS

- EV motor
- Alternator / generator
- Inverter
- Transmission
- Driveshaft (CV-prop)
- RDU
- FDU
- T-case
- PTU
- BeamAxle
- Gearboxes
- Clutches
- Electrified axles and drive units



TESTED TYPES

- EV calibration
- EV simulation
- Battery simulation
- Road load simulation
- Torque pulsation (engine simulation)
- Thermal and non-thermal efficiency mapping
- Gear fatigue
- Torque bias
- Seizure
- Durability
- Key life
- Impact testing
- Thermal Durability
- ECE r85

OUR CAPABILITIES AT A GLANCE

- Dyno power range: 15 kW to 1 100 kW
- Speed range: 0 to 25,000 RPM
- Torque range: 0 to 40,000 Nm - Up to 80,000 TOT (for axles). Full torque at zero rpm
- DC voltage: 0 to 1100 VDC
- DC power: 0 to 1200 kW
- DC current 0 to 1200 A with capability to parallel for higher current
- Environmental chamber temperature range: -60°C to 180°C



For more information:



contact@utac.com

Advancing Mobility **since 1924**

YOUR NEEDS

Safer **Cleaner** **Regulations** **Digital** **Tracks**

OUR LOCATIONS

USA • UK • France • Finland • Italy • Romania
Morocco • China • Japan • Korea



utac.com