

PROJECT SPOTLIGHT

University of Windsor - E-Mobility Dynamometer



Mustang Mustang Advanced Engineering (MAE), an American manufacturer of quality, industry-leading, testing equipment especially for electric vehicle testing for research and development. MAE's most recent e-mobility dyno is the installation at the University of Windsor in Ontario, Canada. The MAE-AWD-500-AC/EC-LEGACY-BG chassis dynamometer was a custom-built piece of testing equipment to meet the school's requirements for research into electric vehicles, including BEV, PHEV, and FCEV. MAE was contacted because of their significant background in designing and building custom testing equipment for a wide variety of vehicles.

The University of Windsor is regionally connected with the automotive industry and since 1996 has partnered with Stellaris to establish the Automotive Research and Development Centre (ARDC), home to some of the most innovative research and expertise in areas such as cybersecurity, autonomous and connected vehicles, sensors, sustainability, data and AI, supply chains, and greenhouse growing conditions.

and mechanics. Mustang's testing equipment is used at a variety of universities and technical schools throughout the world. One such institution is the University of Windsor. When looking for a dynamometer as a training tool for their automotive technical school and for the research and development of the vehicles of the future, they turned to Mustang Advanced Engineering for the right dyno for their needs. The product recommended is a dynamometer that could handle the torque and loading from a performance vehicle to a large diesel truck to the high horsepower of an electric vehicle, such as a Tesla.



AC Motor, Eddy Current and Inertia Fly-wheel design

SNAPSHOT

Project: E-Mobility Dynamometer
Customer: University of Windsor
Where: Windsor, Ontario, Canada
Purpose: Chassis Dynamometer for Research and Development of electric vehicles.

Mustang has been a proud supporter of the training and education of future engineers



Features and benefits:

- Mechanically-linked AWD design
- Multiple AC motor & EC PAU size combinations
- Regeneration testing with AC motor
- Emissions & hybrid development
- Calibration & certification
- Precision inertia simulation
- ABS braking/ESC skid simulation
- Thermal imaging & vibration analysis
- Battery power measurement available
- SAE J2264 road load derivations compliant within +/-3 lbs
- Customizable software and data acquisition package

“MAE continues to supply dynamometers for both research and development of electric vehicles and also for the education market and University of Windsor is both of these,” said David Ganzhorn, V.P. Sales at Mustang Advanced Engineering. “And the school is getting the benefits of a certification grade chassis dynamometer at the fraction of the price.” added Ganzhorn.

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*- David Ganzhorn,
V.P. Sales at MAE*



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About MAE

Mustang Advanced Engineering is a leading supplier of advanced, custom engineered testing and measurement systems. Located in Twinsburg, Ohio since 1986, MAE delivers world-class testing solutions, custom design support, technical assistance, backed by a dedicated factory service team, making them a trusted source of expertise for the global industrial market. Visit MustangAE.com for more information. Follow them on Facebook, Twitter, LinkedIn, and Instagram

