

ADVANCED ENGINEERING

An MAE publication highlighting some of the latest advanced engineering projects.



## Mustang Advanced Engineering recently developed the MD-AC-1200-10K Engine Development & Durability Dynamometer.

The ever-present push for increased performance, fuel economy and durability and recent rule and policy changes taking place in regulated industries such as NASCAR combine to create serious challenges for engine developers. These challenges require well-developed test solutions. In response to these challenges, Mustang Dynamometer, in conjunction with Rockwell Automation, recently developed the MD-AC-1200-10K Engine Development & Durability Dynamometer.

The MD-AC-1200-10K is a state-of-the-art high performance test system that combines some of the industry's most advanced technologies along with Mustang's powerful TESTCell™ Automation Software to provide a truly advanced engine development tool. The system is powered by a 1200-hp variable AC motor and a regenerative AC controller from Rockwell Automation.

The MD-AC-1200-10K offers many advantages over competitive systems in the market. By utilizing high speed AC motors and an advanced control system, the MD-AC-1200-10K makes it possible to perform tests such as vehicle and track simulation that are simply impossible with competing systems employing older technology. A



1200-hp Electric AC Dynamometer with a Rockwell Automation Regenerative Drive has been selected as the dynamometer for the MD-AC-1200-10K primarily due to its superior response, load control accuracy, load stability, transient features, and full speed range capabilities (0-10,000 RPM). Through regeneration, the majority of the power absorbed by the dynamometer is returned to the user's power grid - resulting in a substantial reduction in operating costs associated with the test stand.







## **About MAE**

Mustang Advanced Engineering is a unique company whose expertise in the design and construction of custom test benches rivals just about any other company in the world. While custom chassis dynamometer systems have always been a large part of its core business, MAE has added a wide variety of products and has gained industry-leading expertise in nearly all types of dynamometer test benches including AC and eddy current engine dynamometer systems, transmission test benches, tow dynamometers and custom test benches of all types and sizes. The current MAE product range includes engine test cells, transmission test cells, custom chassis dynamometers, production and inprocess test systems, containerized test cells and complete powertrain test cells up to and including truly colossal 8 x 8 chassis dynamometer systems.

MAE is fortunate to possess very sophisticated engineering capabilities and talents that have developed over many years of doing business in the automotive, industrial and aerospace industries. While some of the engineering MAE does for clients is done on a consulting basis, what MAE truly does best is the design and construction of custom, turn-key testing systems. As a result, MAE has positioned itself as the supplier of choice when it comes to most types of custom dynamometers and test benches.

To learn more about how MAE can help solve your most demanding testing challenges contact one of our sales engineers or visit www.mustangae.com.

ISO 9001:2000 Certified

Offices Worldwide

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