

# Project Spotlights

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



## Mustang Advanced Engineering Delivers Multi-Function End-of-Line Dynamometer & ABS Brake Tester to Superior Controls For Testing Military MRAP 4x4 and 6x6 Vehicles.

Mustang Advanced Engineering recently delivered a turn-key End-of-Line multi-function test system to Superior Controls for the testing of the US Military's Mine Resistant Ambush Protected (MRAP) 4x4 and 6x6 vehicles as they come off the production line.

David Ganzhorn, MAE's Vice President of Sales, stated "Mustang's extensive previous experience and proven success in supplying similar EOL testing systems to a number of other heavy-duty truck manufacturers around the world was a key factor in being selected as the supplier of choice for this project."

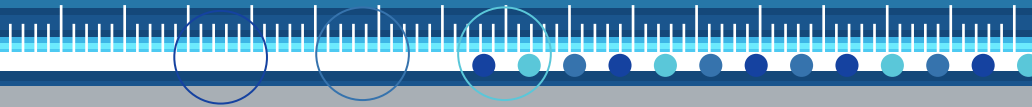
This comprehensive EOL testing system is the first of several systems to be supplied for the US Military, as they will be replacing most of their light and medium duty armored vehicles with the new generation of MRAP in order to better protect the US troops worldwide. The new EOL system performs an entire series of EOL functionality tests including vehicle performance tests, driving coarse test, exhaust brake testing, retarder testing, functional and visual test, ECU test and DTC evaluations via the dynamometer portion of the multi-function tester. The brake portion of the multi-function tester performs a complete interactive function braking system test of the foundation brakes and the ABS braking system. The comprehensive series of vehicle functional testing is designed to be performed with the vehicle remaining in a single position on the multi-function tester. The system is designed to perform an aggressive parking brake test.

Mustang worked with Superior Controls, Force Protection and the US Military to develop a comprehensive test system that identifies the majority of production assembly issues that would be found during "on-road" test driving of new vehicles.

"Superior Controls and the US Military are very pleased with the low maintenance of the test stand and its ability to perform the comprehensive ABS and Performance Testing on a vehicle in a single-position test stand." stated Donald Ganzhorn, Mustang's Executive Vice President and Chief Engineer.

In addition to the comprehensive testing of the vehicle performance and ABS Braking System, the system included a custom configuration of Mustang's Production Line Control Software and Data Acquisition System that will allow the US Military to standardize all its testing with standard reports and testing procedures. More importantly, the new control system directly communicates with the vehicle ECM to verify the vehicle's status.





## 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 in-process 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](http://www.mustangae.com).

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