

# *Advanced Engineering*

Testing Solutions

Modular Container Test Cells & Test Facilities





# Containerized Testing Facilities and Test Cells

Today's fast and ever-changing world requires that we plan for change and anticipate change as a normal course of business and life. By expecting and planning for change as inevitable, we can be better prepared to handle it and minimize the interruption and costliness often associated with change. Change can be a good thing when you are prepared for it, but when you are not, change can be painful, costly and very disruptive. Modern test engineers understand these concepts very well and have developed a preference and appreciation for highly flexible, modular and easily reconfigured testing facilities that allow them to easily adapt to the constantly changing testing requirements they face.



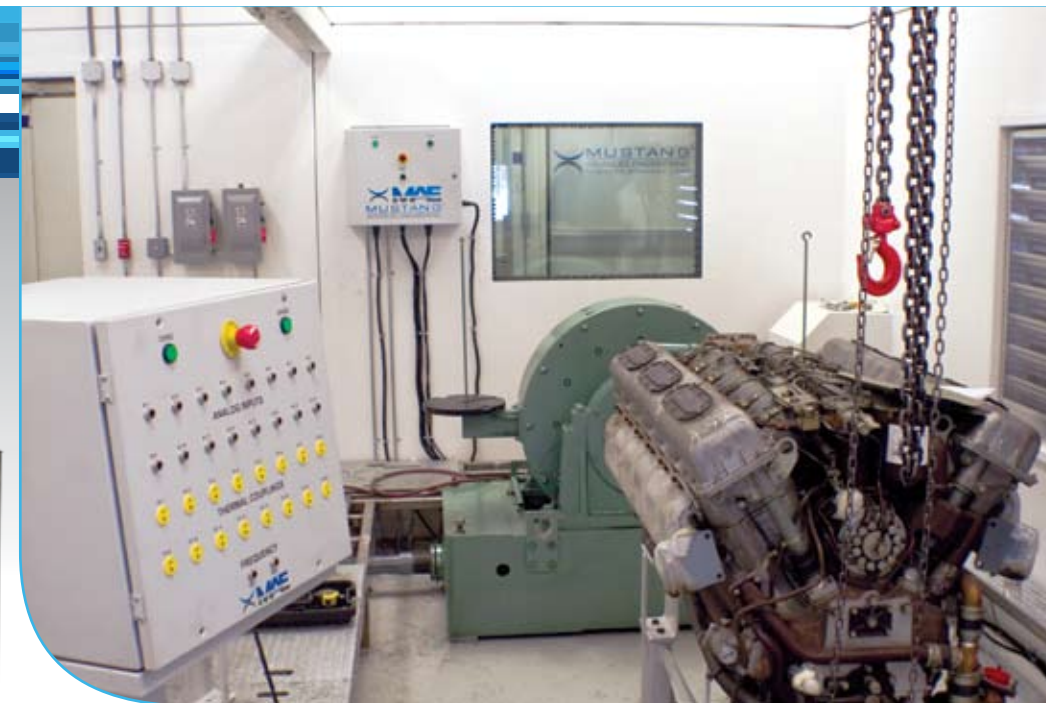
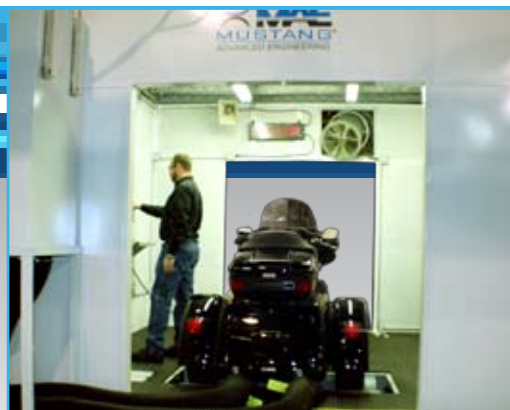
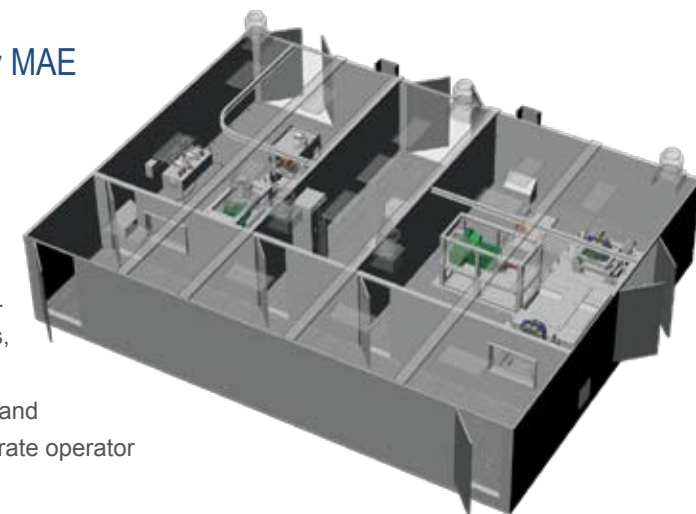
For many years now, the engineers at MAE have been working with test engineers all around the world. We understand the challenges they face when they are forced to relocate a test facility or modify a test cell to meet revised testing requirement. For years we have been working with these engineers to develop containerized solutions to address these specific challenges. As a result, today MAE offers a number of standard modular containerized test cells, from single containerized engine or transmission test cells, to containerized end-of-line multi-function production validation testers, to complete containerized multi-cell R&D test facilities. MAE's containerized test cells are self-contained and fully equipped with all the supply, monitoring and measurement units of a standard test cell facility in an easily transportable and modular containerized package.

MAE's containerized test cells have many distinct advantages including fast and cost-effective relocation of testing facilities, minimized building modification requirements and related expense, quicker "up and running" times, and highly flexible designs.

MAE is widely regarded as a leading global provider of modular containerized test systems for a wide range of test cell applications. In addition to being dynamometer and test cell experts, MAE employs a full staff of mechanical, electrical, software and systems integration engineers. Our "custom solutions" approach focuses all of our product, application and automation experience on your specific requirements. Our goal is to provide tailored solutions that optimize our customer's testing and development operations by providing intelligent containerized test cell designs. MAE's modular design concept allows for a high degree of scalability, from a simple single engine test cell to highly-complex and sophisticated multi-cell testing facilities.

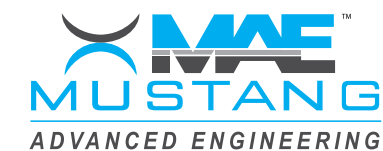
## The latest modular container test cells developed by MAE provide significant benefits including:

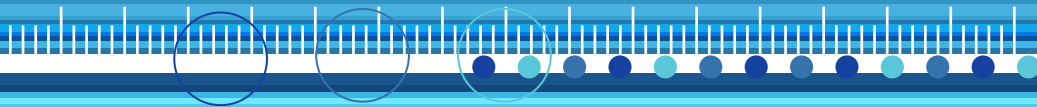
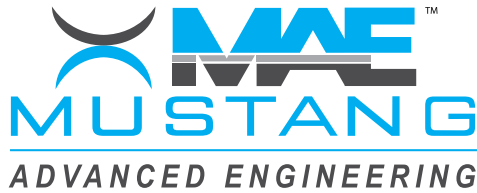
- Highly-flexible, modular designs allow multiple units to be assembled into a complete test facility on-site .
- Allows for fast and low-cost relocation of test facilities.
- Turnkey containerized test cells or complete facilities.
- Connection of service lines is only requirement once on-site.
- Self-contained systems can include air conditioning systems, exhaust extraction systems, water and coolant conditioning systems, compressed air system, fuel delivery, conditioning and measurement systems, fire extinguishing systems and separate operator control rooms and system facilities rooms.



## Global Market Leader

MAE offers a wide range of test stands to testing virtually anything and everything you can imagine. MAE has developed and installed some of the most advanced containerized testing facilities including cells for testing heavy-duty engines, military tank transmissions, motorcycles multi-function testers and various other applications. MAE has systems installed systems in virtually every corner of the globe and continuously provides technical support and service to an install base of literally thousands of test systems worldwide.





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## 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.