

Project Spotlights

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

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Mustang Advanced Engineering Delivers Custom Engineered Dynamometer For Testing Moving Armor Target Vehicles to Meggitt Defense Systems Caswell.

Mustang Advanced Engineering recently delivered a custom dynamometer to Meggitt Defense Systems Caswell for the testing of three different-sized Moving Armor Target (MAT) Vehicles ranging in size from 600 lbs to 3,200 lbs, each having a different wheel configurations and track widths and a series of electromagnetic trip sensors.

The dynamometer supplied by MAE was designed to enable MDS Caswell to perform road-load simulated acceleration testing as well as to apply simulated loads for constant velocity testing. The dynamometer was custom engineered to enable it to test three different moving target vehicles including, Moving Armor Target (MAT) model DP62, Elevated (MAT) model DP63, and the Moving Infantry Target (MIT) model DP28.

In addition to providing the engineering support for the design of the custom chassis dynamometer's track, roller and vehicle restrain systems, Mustang's needed to design a system to remotely trip various electromagnetic sensors located on the different MAT vehicles. To accomplish this and meet MDS Caswell's requirements for this functionality, the engineers at MAE incorporated a series of air cylinders to enable the sensors to be tripped as required.



"For this project Mustang had to think out of the box a bit and be creative to come up with a system that was capable of handling such unique vehicles and testing requirements. Our engineers did a great job of handling all of the unique challenges this project threw at them and provided a design and system that exceeded our customers expectations." stated Vice President of Sales, David Ganzhorn.



The MDS Caswell MAT vehicles are used to simulate a tank or other vehicle for live fire training and qualification programs. It provides training in detecting, identifying and firing upon moving tank targets under simulated combat conditions and is capable of lifting all full-scale flank targets.



About MAE

Mustang Advanced Engineering is a leading provider of comprehensive testing solutions for the development and testing of engines, powertrain systems and complete vehicles. Founded in 1975, Mustang has long been a trusted source of expertise in measurement and testing technologies for the global industrial market. World-class product offerings, custom design support and technical assistance, backed by a dedicated factory service team, has positioned MAE among the global leaders in providing advanced testing solutions.

MAE's "custom solutions" approach focuses all of our product, application and automation experience on your specific measurement and testing requirements. Our goal is to provide tailored solutions that optimize our customers testing and development operations by providing intelligent system designs coupled with outstanding technical expertise and world-class customer support. MAE provides specialized testing systems designed for the customer's specific application - from engine, transmission, powertrain, hybrid, racing, and component testing applications. MAE's modular design philosophy allows for a high degree of scalability, from simple durability testing to highly sophisticated and complex powertrain development test cells.

As a full service supplier/partner, MAE offers a wide array of services to customers all over the world. Working with your staff, our experienced team of engineers uses the latest solid modeling CAD and CAE software and offers a comprehensive resource for your testing design and development needs. Our engineers specialize in finding the most practical and economical solutions for new or unusual testing applications. Whether your application is fully conceived or you need a design partner, the engineers at Mustang Advanced Engineering invite you to tap into their decades of experience in testing and measurement systems development.

As a global leader in the design, manufacturing, and integration of advanced testing and measurement systems, MAE has delivered and continually supports literally thousands of test systems to virtually every corner of the globe.

Our mission is to achieve the highest possible level of customer satisfaction by providing innovative technical solutions and product designs and by striving to achieve perfection in product quality, delivery and service. At MAE, our customers are our highest priority - we do everything in our power to satisfy our customers. Our entire organization understands that the customer comes first and nothing else is more important.

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.

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