

Texas State Technical College

Bringing real-world vehicle testing into the classroom with two rolling-road systems



Mustang's MD-AWD-150-SE rolling road at Texas State Technical College

Preparing Future Auto Technicians With Two Rolling Road Systems by Mustang

As automotive technology continues to evolve, so does the role of the automotive technician. Today's technicians need more than traditional mechanical skills. They must understand diagnostics, electronic controls, vehicle data, driver-assistance systems, hybrid and electric vehicle technology, and increasingly complex vehicle systems.

Texas State Technical College (TSTC) is preparing students for this changing industry by combining hands-on training with modern, professional-grade equipment.

At TSTC's Fort Bend campus, the Automotive Technology program is part of the Transportation Technology Center, which also supports Diesel Equipment Technology and Auto Collision Management. The Automotive program began serving students in the new facility during the 2025 academic year.

As a newer program, TSTC has focused on building its curriculum around modern technology and hands-on learning. As part of that effort, the college selected two Mustang Dynamometer rolling-road/chassis dynamometer systems for its automotive training facility.



Bringing Real-World Testing into the Classroom

For TSTC, the Mustang systems are more than shop equipment. They provide instructors with a controlled environment where students can observe vehicle operation, perform testing, analyze data, and connect classroom theory to actual vehicle behavior.

"The industry has changed significantly," explains Jose Reyna, Program Team Lead of the Transportation Technology Center at TSTC. "Today's technicians need more than traditional mechanical repair skills."

The rolling roads allow instructors to demonstrate vehicle operation under controlled conditions while students observe live data and see how the vehicle responds. This hands-on approach helps students develop diagnostic thinking by connecting test results to actual vehicle behavior.





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- Jose Reyna,
Program Team Lead of the
Transportation Technology Center
at Texas State Technical College

Why Mustang?

When selecting a dynamometer, TSTC wanted equipment that could support professional-level instruction while being practical for repeated student use.

"Mustang stood out because it provided a professional-grade training tool that fit the direction of our Automotive program," says Reyna.

Mustang's reputation in dynamometer and rolling-road technology gave the college confidence that the systems could support both current instruction and future program growth.

For TSTC, the equipment needed to do more than look impressive. It needed to support instructors, withstand regular use, and help students develop skills that translate directly to the workplace.

Supporting Modern Automotive Education

The Mustang dynamometers were integrated into the hands-on laboratory environment at the Fort Bend Transportation Technology Center. Instructors can use the systems for demonstrations and applied learning related to diagnostics, powertrain operation, drivability, and modern vehicle systems.

Students can observe vehicle behavior, watch data change during testing, ask questions, and connect what they see to concepts learned in the classroom. This creates a more

engaging learning experience while reinforcing the importance of testing, evidence, and proper diagnostic procedures.

Preparing Students for the Workforce

Today's automotive employers need technicians who can think critically, understand data, follow proper testing procedures, and diagnose problems effectively. The Mustang rolling roads give TSTC students hands-on exposure to those skills before they enter the workforce.

"The Mustang equipment gives students and instructors a controlled way to observe vehicle operation under realistic conditions, gather data, and connect classroom theory to what is actually happening with the vehicle. Even as vehicle technology continues to change, that type of controlled hands-on testing remains valuable for preparing students for modern shops," Reyna says.

By working with modern testing equipment, students gain confidence and a better understanding of how vehicles operate under real-world conditions.

An Investment in the Future

TSTC recommends that other technical schools considering a dynamometer view the equipment as an instructional investment, not simply another piece of shop equipment.

With two Mustang Dynamometer rolling-road systems at its Fort Bend campus, TSTC is giving the next generation of automotive technicians an opportunity to learn with advanced testing technology and develop skills they can take directly into the modern automotive workforce.

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