

**MD**  
**MUSTANG**  
DYNAMOMETER



***Dynamometer Hardware &  
Accessories Catalog***

**Ph: 330.963.5400 • Toll Free: 888.468.7826 • [www.mustangdyne.com](http://www.mustangdyne.com)**

# Hardware & Accessories

Mustang Dynamometer offers a complete line of dynamometer hardware, optional features and dyno accessories to allow you to easily gather and analyze critical engine parameters and optimize your dynamometer tuning capabilities. Mustang's standard data acquisition systems includes 8 analog I/O channels, with additional channels available upon request. All of Mustang's hardware has been designed for simple "Plug and Play" operation and is ready to use out of the box.

In addition to a full array of standard hardware and accessories, a number of optional features are available on most dyno models to accommodate special situations that you may face in your shop. We offer a host of above ground options, motorcycle adaptor kits, vehicle restraint options and other modular upgrades or optional equipment to allow you to always get the most out of your investment in your dynamometer.

## Roll-Around Shop Cabinet

Every Mustang Dynamometer system comes standard with a rugged roll-around shop cabinet for housing all of your valuable computer equipment and dyno hardware and accessories. The cabinet is mounted on a set of heavy-duty casters which allow you to easily move the work station around your shop and reposition your hardware exactly where you want it.

Mustang designed the cabinet to be the perfect place for organizing all of your hardware and peripheral equipment. For your operator PC, it has a storage area for the control PC, a pull-out keyboard drawer, and mounting hardware to allow you to firmly affix your monitor to the cabinet top. For your hardware, it is equipped with mounting brackets for your modules, drawers for tools and includes several brackets to allow you to coil hoses and cables and help keep things organized in your shop.



## Standard Vehicle Restraint Kit



## ***OBD-II Interface Module***

The OBD-II Module is a direct connection to the vehicle OBD-II port and allows you to capture virtually every critical engine parameter directly from your vehicle's computer into the PowerDyne Software. This convenient link is a "must have" piece of hardware for your dyno.



## ***SmartTach Engine RPM Module***

The SmartTach is a precision speed measurement instrument designed specifically for the development and testing environment. Among its many innovations is the capability to continuously measure speed from virtually any type of signal. From distributor or coil pack-type gasoline engines to diesel engines to electric motors, the SmartTach's flexibility makes it truly universal. The SmartTach reads any pulse input from a wide range of sources such as magnetic sensors, encoders, Electronic Control Unit outputs or ignition coils.



## ***Inductive RPM Pickup Sensor***

Measure engine speed by clamping the Inductive Pickup Sensor around a Secondary Ignition cable. While traditionally used on a Spark Plug wire, it can also be used on a coil wire to achieve improved measurement response. Inductive Pickup Sensors ship with a 12-foot cable.



## ***TachSensor***

The TachSensor is available for those situations where measurement of engine speed via an inductive probe is required. Just clamp the TachSensor around an Ignition Primary wire anywhere between the coil and the Electronic Control Unit. The TachSensor is available with a 12-foot cable or 30-foot cable.



## ***Optical RPM Pickup Sensor***

The Optical RPM Pickup works by monitoring light as it bounces off of a piece of reflective tape applied to a rotating object. Unaffected by electro magnetic interference, the Optical RPM Pickup works in many applications where inductive pickups may not.



# Hardware & Accessories



## ***Air/Fuel Ratio Exhaust Sensors***

Accurately determine exhaust gas mixture over a wide range of engine operating conditions with ultra-fast response time. Seamlessly integrates with your PowerDyne Controller and Data Acquisition System for graphing AFR against horsepower, torque and engine RPM. Dual channel AFR.



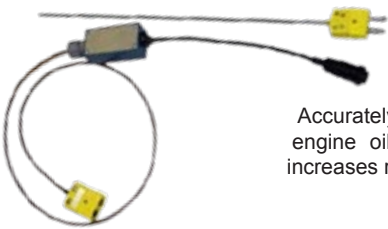
## ***Pressure Sensors***

Designed to provide a highly stable and accurate measurement of fluid and/or gas pressures. Enables you to graph various pressures against power, torque and engine rpm curves. (-15 to 15-psi, 30-psi, 60-psi, 100-psi, 0-2,000 psi).



## ***Exhaust Gas Temperature Sensor***

Developed specially for on track racing and dyno applications, these EGT have an exposed tip design to provide quick response. Installs using weld type compression fitting (included). Range: 32° - 1,830° F.



## ***Oil Temperature Sensor***

Accurately measure and monitor engine oil temperature. Closely monitoring engine oil temperature ensures your dyno runs are comparable and increases repeatability.



## ***Intake Air Temperature Sensor***

The Intake Air Temperature Sensor determines the temperature of the incoming air stream and feeds this data into the PowerDyne data acquisition for graphing against speed, power and torque figures.

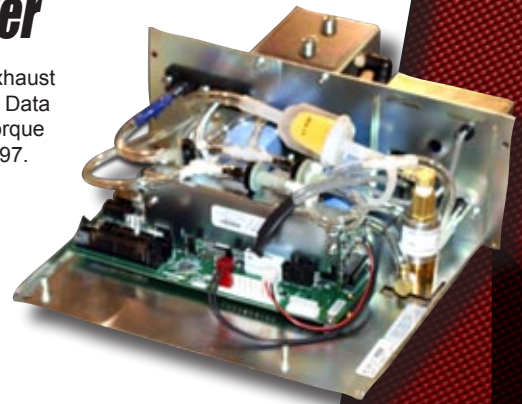
## ***Integrated Weather Station***

Mustang's Integrated Weather Station Module continuously monitors the atmospheric conditions of air temperature, relative humidity and barometric pressure in real-time, allowing the PowerDyne Software to automatically and continuously apply the appropriate correction factor to standard atmospheric conditions, thus increasing test accuracy and repeatability.



## ***Integrated 5 Gas Exhaust Analyzer***

Accurately measure the 5 major gases contained in vehicle exhaust stream. Seamlessly integrated with your PowerDyne Controller and Data Acquisition System for graphing each gas against horsepower, torque and engine RPM. Microprocessor controlled. Meet or exceeds BAR97.



## ***Diesel Opacity Smoke Meter***

Mustang's Diesel Opacity Smoke Meter is designed to measure particle content of a diesel engine exhaust. The analyzer is interfaced to the computer via RS-232 allowing automated testing and accurate smoke opacity analysis. The diesel opacity meter is designed as a reliable portable meter for light and heavy-duty diesel vehicles.



# Hardware & Accessories



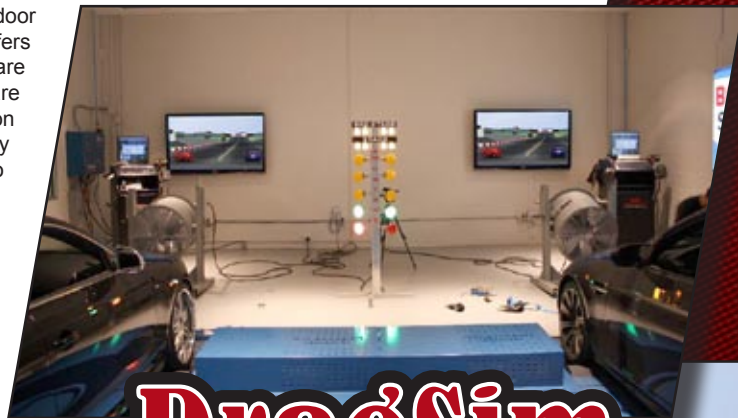
## *Integrated Drag Racing Timing System*

Mustang offers an integrated drag racing timing system that allows you to simulate real-world drag racing conditions right on your dyno. Integrated with the 1/4 Mile and 1/8 Mile Tests included with your PowerDyne Software, the addition of the timing system allow you to practice reaction times and add a new level of excitement to the shop. Indoor drag racing competitions on the dyno have proven to be an excellent way to draw a crowd and earn significant revenues from "Dyno Day" events.

Get the feel and performance of a quarter-mile pass—on the dyno—accurate to within 0.10 seconds and 1 MPH! Now you can duplicate a drag strip in the safety of the shop, regardless of the weather. The dyno supplies real drag strip data, too: reaction time, 60-foot time, 1/8-mile time & trap speed, and 1/4-mile time & trap speed, as well as torque and horsepower readings!

## *Real-time Dyno Drag Racing Animation Software*

For those shops that want to take indoor drag racing to the next level, Mustang offers a unique interactive drag racing software program called DragSim. This software allows the driver to see a real-time animation of the vehicle on a virtual drag strip or city street scene. Using feedback from the dyno controller, the animation is based on actual speed, timing and even displays reaction times and race results. This feature allows you to simulate 1/4 mile drag racing on the dyno like never before. There is even a side-by-side drag racing mode available and all runs are stored so they can be played back or posted to the web.



# DragSim



## Vehicle Engine Cooling Fans

When positioned in front of the test vehicle radiator, Mustang's Vehicle Cooling Fans generate sufficient air flow to simulate on road conditions for engine cooling purposes. Our most popular fan, the 10,800 Series Fan generates air flow of 10,800 CFM, while The 32,000 Series puts out 32,000 CFM. Additional options include automatic fan speed controller and adjustable fan height. Mustang offers a number of additional vehicle cooling fan sizes and configurations to fit virtually any application requirement.



32,000 CFM Cooling Fan

10,800 CFM Cooling Fan



Motorcycle/ATV Cooling Fans

## Vehicle Exhaust Removal Systems

The best way to protect mechanics and garage employees from the potentially harmful gases released from vehicles running on the dyno is to capture it at the source. This means directly at the tailpipe.

This process involves the capture of the fumes through suction hose, nozzles, hose storage mechanisms and LEV fans. Mustang offers a number of exhaust removal systems. The most commonly used systems use a Hose Reel, as reels are proven space saving devices and go along way in protecting the hose from abuse over time. These solutions are typically ordered with the appropriate hoses to suit the applications and can be further enhanced through the addition of optional tail-pipe adapters, extension booms & fans.



Mobile cart-mounted exhaust removal system.



Ceiling mounted exhaust removal system with retractable hose reel.

# Optional Features

## ***Motorcycle Testing Kit***

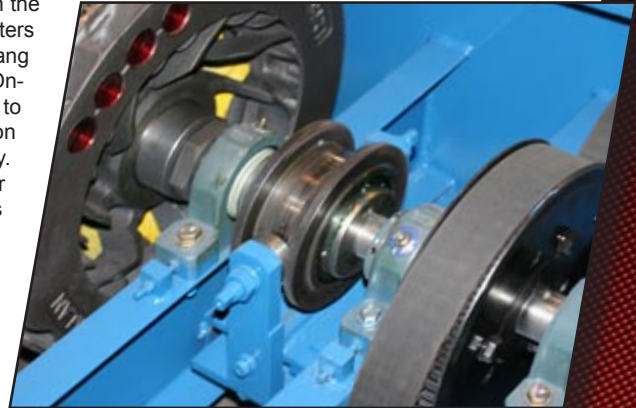
Mustang offers several designs of motorcycle testing restraint kits that allow your automotive dyno to double as a motorcycle dyno. Mustang can supply motorcycle kits for both in ground and above ground applications. Above ground kits are fabricated from high strength, light weight aluminum and can be easily move in and out of position for fast change overs. Adjustment of the tire restraint positioning can be either a manual or electric system. The optional electric adjustment system is pictured below left.





## ***AWD “On-Off” Coupler***

Switching between 2WD and AWD mode on the AWD-500 and AWD-1100 Series dynamometers is done with a simple click of the mouse. Mustang Dynamometer engineered an automatic “On-Off” coupler that is both robust and easy to control. An air piston and arm combination opens and closes a toothed coupling assembly. Engaging the system places the dynamometer in AWD mode, disengaging the coupling places the dynamometer in traditional 2WD mode. A real time saving feature.



## ***Axle Pull-Down Kit***

Mustang's Axle Pull-Down Kit allows you to apply increased downward pressure to the vehicle restraint system for superior traction to help prevent your wheels from slipping when boost kicks in or when nitrous oxide is used.



# ***Optional Features***

# Optional Features



## ***Above Ground 4-Post Lift Options***

As an alternative to pit-mounted, flush-floor installations, Mustang offers several four-post lift options for above ground installations. Shops with the space to accommodate a four-post lift can enjoy the advantages and extra utility that this installation can offer. Making adjustments and modifications right on the dyno allows you to see the results instantly without moving the vehicle. Mustang is proud to offer one-stop shopping for your dyno and lift requirements, saving you time and money and ensuring 100% compatibility. The lift option pictured here comes complete with stairs, platforms, swing-out tie-down arms and a heavy-duty railing system for added safety. Mustang also offers an economical, base 4-post lift package that does not include the stairs, railings and extra platforms that are shown here.

Speak to one of our Sales Engineers for more details on all of the available options for above ground applications. Mustang has a solution to fit your needs and your budget.



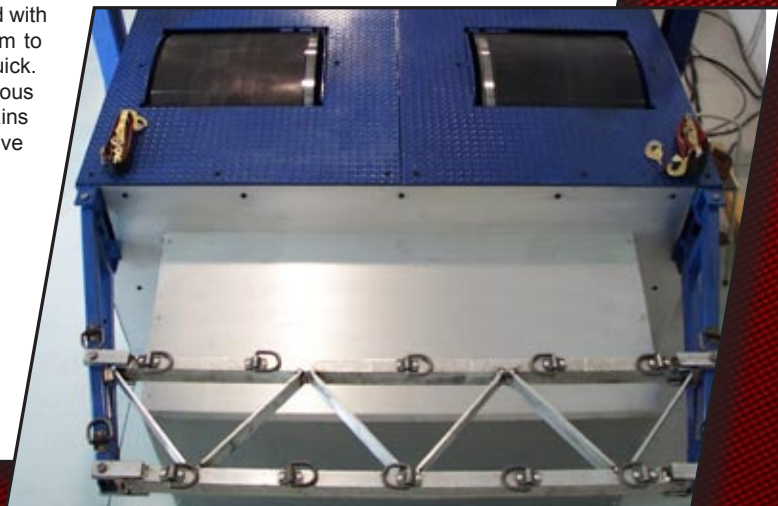
## ***Above Ground Ramp Packages***

Mustang offers several designs of above ground ramp packages for above ground and mobile installations. Ramp packages are available for all low-profile chassis dynamometer models upon request. Manufactured from high-strength aluminum material, Mustang's ramp packages are lightweight and easy to move in and out of position by a single person. We offer straight 14' ramps, ramp and platform combinations which allow you to test the vehicle in a level position, and two-sided ramps that allow you to pull cars onto the equipment from either direction. Ask a sales engineer for more details and a drawing of available ramp packages to fit your application.



## ***Above Ground Vehicle Restraint Systems***

Above ground installations can be equipped with a collapsible swing-out restraint arm system to make strapping vehicles down simple and quick. The restraint arms are equipped with numerous "D" rings for attaching ratchet straps or chains and can be collapsed when not in use to save space in your shop.



# ***Optional Features***

# MD<sup>®</sup> MUSTANG DYNAMOMETER

*A word about value*

Since its beginnings in 1975, Mustang Dynamometer has prided itself as offering the best value in the industry. We consider our customers our friends – without them we would not be here. When our customers buy a Mustang Dynamometer product, they not only purchase machinery, they also buy into our total commitment to customer service and satisfaction policy. As a customer, you have access to our marketing and advertising resources, our service department, our sales engineers and application specialists, our mechanical and electrical engineers, our software programmers, management staff, and all of our friends in the industry – as they are now your friends too. We are not the lowest priced product on the market, nor do we wish to be. We know the recipe for designing and building a quality dynamometer product - and cutting corners is not an option. On the same token, we are not over-priced. Instead, Mustang offers equipment to the performance market place that is of the best overall value – with the highest quality available at competitive pricing. After meeting with us and seeing our products in action, we know you will agree.

**1-888-468-7826**

*Post your videos*

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