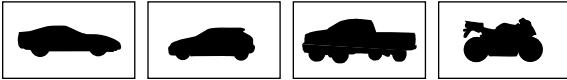
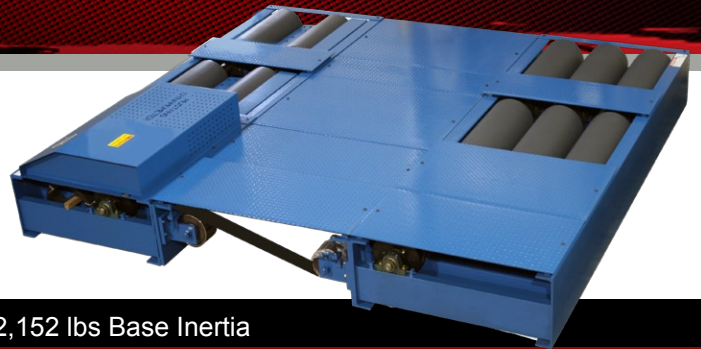




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MD-AWD-500

12.625" Rolls, 150-mph, 3,000-hp, 900-hp Peak Absorption, 2,152 lbs Base Inertia



THE MD-AWD-500. Mechanically linked AWD performance dynamometer.

With the AWD Performance Segment growing at such an astonishing rate, Mustang designed the AWD-500 Series to accommodate a broad range of AWD and two-wheel drive vehicles - including AWD cars and trucks, diesel trucks, 2WD cars and even motorcycles.

The key to designing an AWD dynamometer properly is to understand the methods currently being used by manufacturers in the field of AWD drivetrain technology. A dynamometer that can accommodate various types of AWD vehicle transmissions and wheelbases without excessive complication and, more importantly, without risking damage to a client's AWD system is paramount.

Full time AWD vehicles are designed to provide maximum performance regardless of road conditions. In cases where traction is less than ideal, a vehicle may be designed to improve stability and traction at the expense of power. This means adding torque to a spinning wheel or retarding of timing. In order to properly test an AWD vehicle for peak performance, an AWD chassis dynamometer must be able to simulate ideal road-load conditions to the vehicle. This approach allows the vehicle to be evaluated under "optimum" operational conditions; whereby torque is distributed to the vehicle's tires in the same manner that would normally occur when a vehicle has equal traction at all four drive wheels, and is therefore operating at peak efficiency.

To achieve this, Mustang's AWD-500 Series incorporates an internal drive system that synchronizes the front and back rollers to simulate a flat, dry road condition. Synchronization, or linkage, insures that the front and rear rollers are always spinning at precisely the same road speed. This process eliminates the possibility of activating a vehicle's traction control system and also insures that a vehicle's torque management system is operating under the assumption that the vehicle is not skidding, turning or slipping.

Specifications

Horsepower:	3,000 hp peak measurement capacity AWD mode 900/1,800-hp peak absorption (SE/DE model)
Loading Device:	Air-cooled eddy current power absorber (model MDK-250)
Inertia:	2,152 lbs. / 1,190 lbs. (nominal)
Max Speed:	190 mph (2WD Mode) / 150 mph (AWD Mode)
Controls:	Closed Loop Digital Controller with WindowsXP based PowerDyne Software. Includes Patented Virtual Road Simulation Technology (RST)
Rolls/Wheelbase:	Precision machined & dynamically balanced, knurled rolls Belted for bi-directional capability 12.625" diameter balanced rolls 31" face length 18" inner track width 80" outer track width (98" optional) 88-118" standard wheelbase (longer wheelbase available)
Transmission:	Heavy-duty, industrial-fiber belt drive with mechanical disconnect
Roll Decelerator:	Allows vehicle deceleration without use of vehicle brakes. Eddy Current PAU used to decelerate rollers.
Air Requirements:	80 PSI, dry, regulated, oil free
Power Requirements:	115 VAC, single phase, 60 Hz, 15 Amps (computer) 230 VAC, single phase, 60 Hz, 40 Amps (dynamometer) 230 VAC, three phase, 60 Hz, 40 Amps (DE model)
Axle Weight:	6,000 lbs. maximum 1 axle
Shipping Weight:	9,000 lbs. (dynamometer weight only)

Options & Hardware

- SmartTach Engine RPM
- Temperature Sensors
- Pressure Sensors
- Weather Station
- Air to Fuel Ratio Modules
- 5 Gas Analyzer
- Optical RPM Pick-up
- DE Upgrade
- Above Ground Kit
- Opacity Meter
- Above Ground Ramps
- Vehicle Pull Down Kit
- Integrated Xmas Tree
- Motorcycle Kit
- OBD Interface
- On-Site Training
- Touchscreen Interface
- Vehicle Cooling Fan
- TS1 Coil Pickup