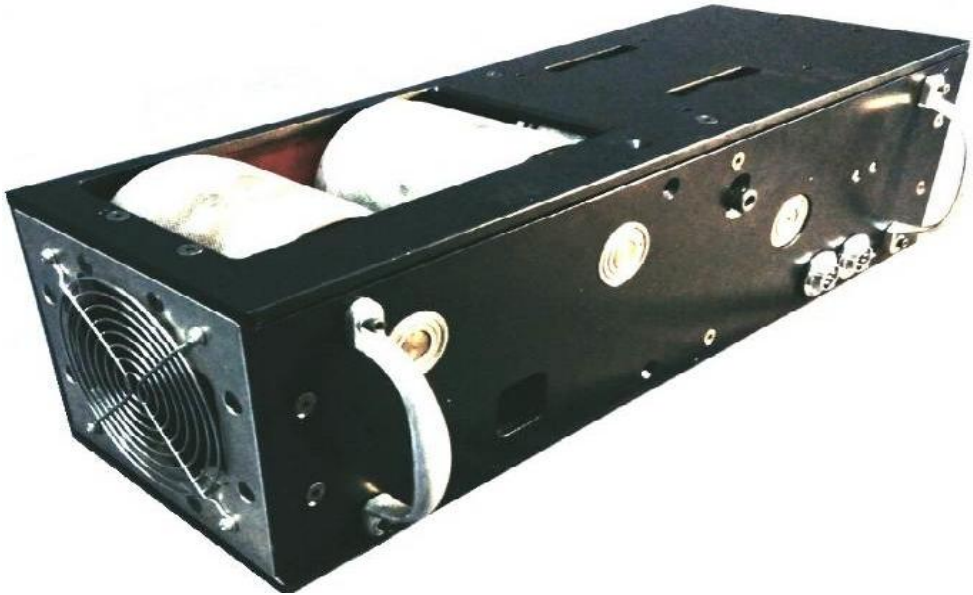


# HYPERMILEAGE CHASSIS DYNAMOMETER

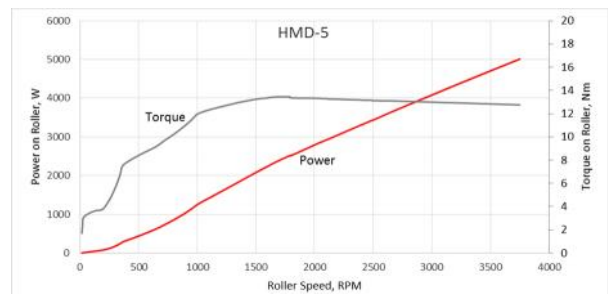
Model HMD-5



This very compact chassis dynamometer can extract over 5kW of mechanical power from a "Hypermilage" competition vehicle, small motorcycle and electric bicycle. It is lightweight and compact size make it easily transportable, even in a carry-on luggage. The air-cooled eddy current dynamometer requires no external cooling and is easy to install and use. The sophisticated controller can operate the dynamometer from the front panel or from a computer via the Remote Mode. Control modes include Manual Load, Speed, Torque and Road Load control. The dynamometer can hold the vehicle under test at a given test speed for tuning, or fuel consumption measurements, or mimic actual road load conditions. A throttle position controller is included which outputs an analog Throttle Position command. Addition inputs are included for Data Acquisition, Display and Logging.

## FEATURES

- Dynamometer weights only 18kg
- 5kW peak mechanical power absorption
- 90kph (60mph) top speed
- 21 x 15 x 50 cm size fits carry-on luggage
- 5th Generation controller included
- Integrated DAQ Input Channels for Logging
- Power is Circuit Breaker Protected
- Free computer software for Graphic Display
- 1 Year Warranty Included



**Laboratory Exercise Manual Included with Labs, Quizzes and sample data**

# HYPERMILEAGE CHASSIS DYNAMOMETER

Model HMD-5



Connects in Second



Fits in 24" Luggage



Run and Troubleshoot on Dyno

## SPECIFICATIONS

### PHYSICAL

Weight: 18kg (Dyno), 8kg (Controller)

LxWxH: 500 x 210 x 152 mm

### MAINS POWER

Voltage: 120/240VAC

Frequency: 50/60Hz

Current Draw: 10/5A max

### CONTROLLER OUTPUT

Controller Power: 200W (50V, 3A)

Coms: 9600 baud, 8bit, NP

### DYNO

Mechanical Power: 5kW @4,000 rpm

Torque: 12Nm max

Roller: 10cm diameter

Speed: Hall Effect, 5V excitation  
8 pulses per revolution  
4,000 rpm, 75kph maximum

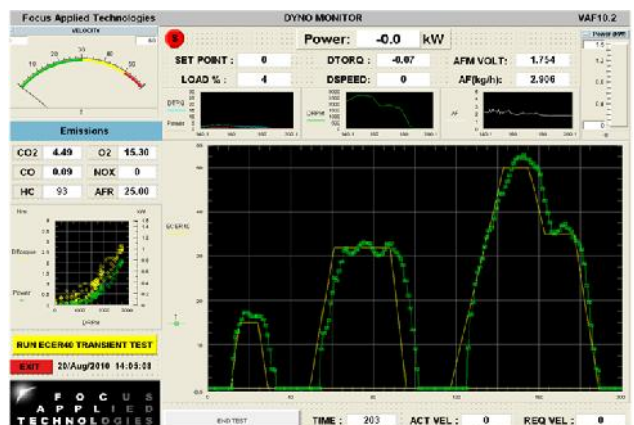
Load Cell: 35Nm, 350 ohm  
4-wire Wheatstone bridge  
5 or 10V excitation

### ENVIRONMENTAL

Temp: 10 to 40° C Operational  
0 to 50° C Non-Operational

Humidity: 5 to 90% Non-condensing  
Shock/Vibe: <10g

The Chassis Dynamometer is extensively used by vehicle manufacturers for quality control and R&D organizations for troubleshooting tough problems, as it can hold the bike at a constant load or speed, unlike inertial dynos. Road load mode can simulate road performance for drive cycle testing for emissions or fuel consumption certification testing.



### OPTIONS

- Detachable Nose/Wheel Clamp
- Wide Band O2 (AFR) sensor
- Digital Fuel Scale
- 5-Gas Analyzer
- Current/Voltage Clamp Meter