

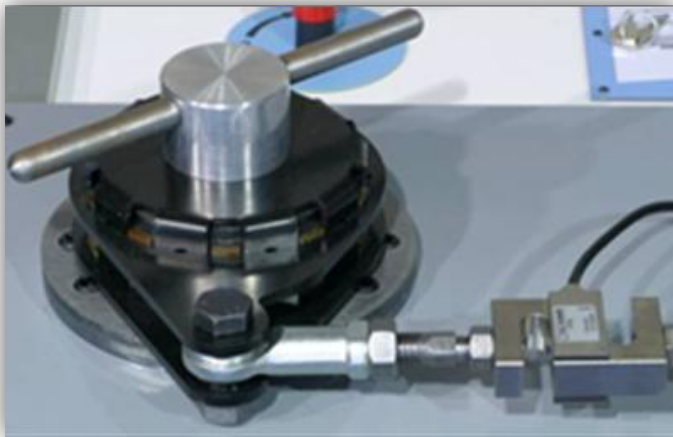
The MT-DAE from **EXXOTEST®** scale model is a training aid item with real elements that allows discovering an automotive electric power steering.

### OBJECTIVES

- Study operation of power steering from different parameters (vehicle's speed, normal mode, degraded mode).
- Visualize the forces exerted by the driver on the steering wheel by means of a torque sensor integrated in the electric engine.
- Study the consumption of the electric engine depending on the resistance imposed.
- Visualize the forces exerted by the assistance of the rack's electric engine by means of the force sensor.
- Measure and interpret the signals by means of a breakdown control board situated upstream of the ECU (voltage, amperage...).
- Diagnose a failure with the manufacturer tool on the system via the Diagnosis connection socket (anomaly introduced in the breakdown control board).



### DESIGN



This scale model consists of an aluminium frame on caster wheels with an electric power assisted rack and pinion steering system.

A multi-disc brake can be found at the rack end to recreate an effort which is measured with a sensor.

A control desk (showing the changing speed of the vehicle, the steering wheel torque sensor, the battery voltage, the force measured at the track arm).

With a breakdown control board any fuse-protected measuring point can be accessed

### SPECIFICATIONS

The elements assembled by **EXXOTEST®**:

- An aluminium frame on castor wheels.
- A 12V charger with a cut-out switch installed in the low part of the car frame.
- A board with information dials and adjusting buttons :
  - Vehicle's speed,
  - Torque exerted by the driver on the steering column,
  - Force measured along the track arm
  - Amperage absorbed by the power steering engine
  - Setting off the assistance



A measuring terminal board with protection fuses against breakdown. Shunting all the lines of the ECU and of added sensors.



**The real elements are:**

- The electric power steering rack and pinion, which is fixed on a strengthened steel piece connected to a multi-disc brake of adjustable pressure.
- The electric power steering ECU.
- A 12V battery placed in the low part of the aluminium frame.
- The EOBD diagnosis connection socket.

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**OTHER**

- Power supply: 220/110Vac – 50/60Hz.
- Size: 2950 X 1350 X 1500 mm
- Gross weight : 6,5 Kg (ready to ship).
- Net weight: 80 Kg
- Warranty: 2 years

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Find all **EXXOTEST®** products on the Internet: [www.exxotest.com](http://www.exxotest.com)