

APPLICATION SYSTEMS

Gawkar Industrial Estate,
Panch Pakhadi Service Road,
Thane - 400602. Mah. India
Ph No - +91 9323724866 / 022 32420541/ 25383001
E mail: applicationsystems@gmail.com
aplicationsystems@yahoo.co.in

Dynamometer is loading device for performance & endurance test of Engines, Motors, Gear boxes, Cordon shaft, Starter motors, Alternators, bearings, all types of rotating machines, etc & other mechanical transmission devices. Our manufacturing range includes Eddy Current Dynamometers, Powder Dynamometers. AC regenerative Dynamometers & Tandom Pneumatic Dynamometers, Test Benches & Test rigs.

EDDY CURRENT DYNAMOMETER - Water cooled.

Power rating : 0.18 KW to 900 KW.

Max Torque : 400 KgM (4000Nm)

Max Speed : 18000 RPM

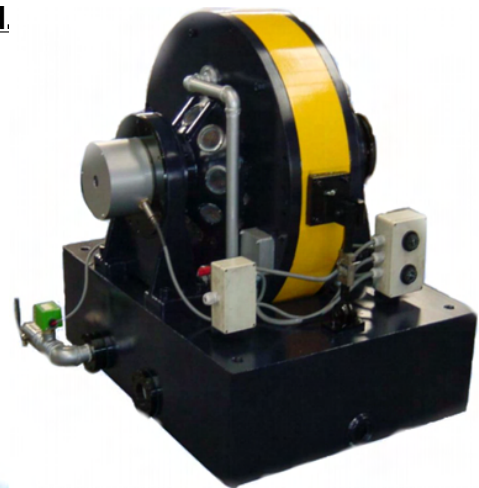
Water Flow & : Depends on KW rating
Pressure

Speed Sensor : AC Tachogenerartor or
Proximity with toothed wheel.

Speed Indication : Digital Indicator

Torque Sensor : Load cell or Rotary
Torque Sensor.

Torque Indicator : Digital Indicator
with Zero, Span,
Calibration presets.



EDDY CURRENT DYNAMOMETER - Self cooled.

Power rating : 0.18 KW to 55 KW.

Max Torque : 37 KgM (370 Nm)

Max Speed : 2,000 RPM

Cooling : Self Cooled

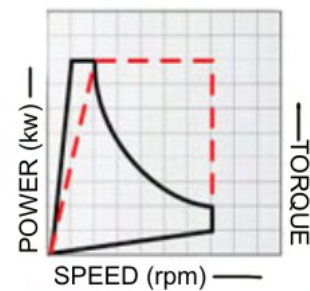
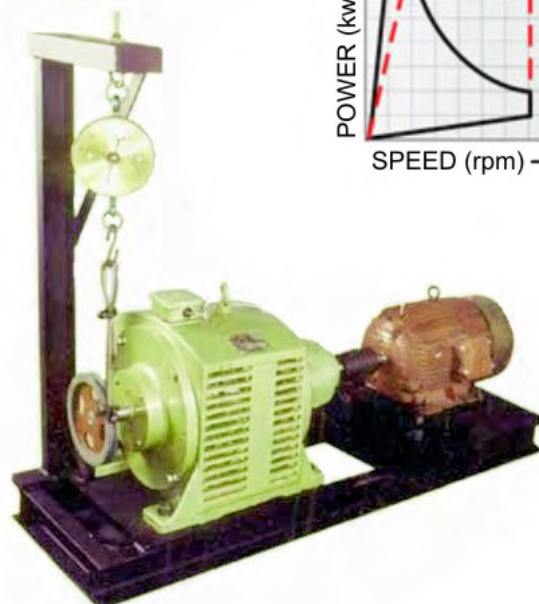
Speed Sensor : AC Tachogenerartor

Speed Indication : Digital Indicator

Torque Sensor : Spring Balance with
Pulley & rope, Load cell or Rotary

Torque Sensor

Torque Indicator : Spring Balance Of
Digital Indicator with Zero, Span,
Calibration presets.



APPLICATION SYSTEMS

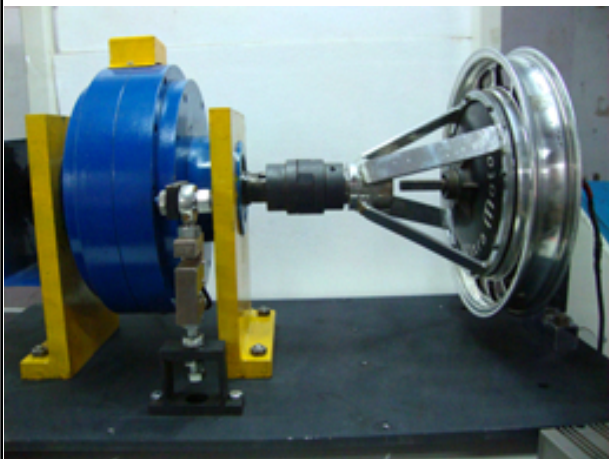
Salient features:

Available in different speed ranges

Suitable for loading prime movers that develop torque, gradually increasing with speed or constant torque over mid-to-high speed ranges

PRODUCT HIGHLIGHTS

- Same capacity in bi-directional operation.
- Excellent stability.
- Better accuracy.
- Easier and smoother load control.
- Suitable for remote control.
- Instantaneous response to load control, ideally suited for all types of governing Tests.
- Very little down time and maintenance.
- Low noise-levels. Quiet operation.
- Direct reversibility of direction.
- Longer life because of low wear and tear of moving parts.
- Extremely rugged construction.
- Small and compact.
- Wide range of power and speed.
- Excellent mechanical stability



APPLICATION SYSTEMS

POWDER DYNAMOMETER

Powder dynamometers develop torque on the basis of electro-mechanical principles wherein the torque developed is independent of speed. The braking torque is infinitely adjustable through the medium of fine magnetic powder under the influence of the controlled magnetic field. These dynamometers are ideal for testing motors from zero speed, transmissions and machines demanding high torque at low speeds.

- Set torque is fairly stable right down to zero speed
- Speeds of operation up to 3000 rpm, depending on the model
- Low inertia, dynamically balanced rotors
- Low residual torque as specified for each model
- Available in water-cooled models

Features:

- Torque ratings: 2.5 Nm to 1000 Nm
- Power absorption: 250 W to 24 kW
- Speed: Up to 4000 rpm depending on the model
- Set torque: Stable right down to zero speed
- Compact, high torque-to-inertia ratio



Specification:

Power rating : 0.18 KW to 10 KW.

Torque : 0.25 KgM to 1000 KgM

Max Speed : 1500 RPM

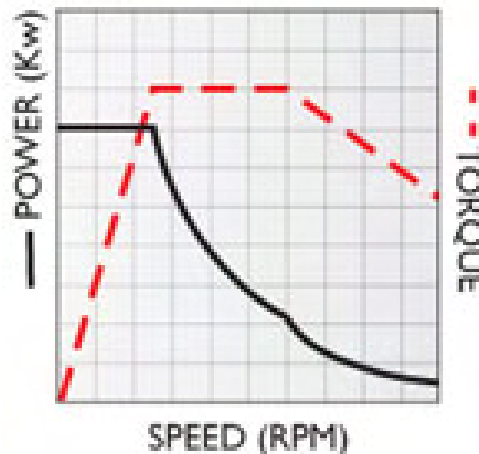
Cooling : Self Or Water Cooling

Speed Sensor : AC Tachogenerator or Proximity with toothed Wheel.

Speed Indication : Digital Indicator

Torque Sensor : Load cell or Rotary Torque Sensor.

Torque Indicator : Digital Indicator with Zero, Span, Calibration presets.

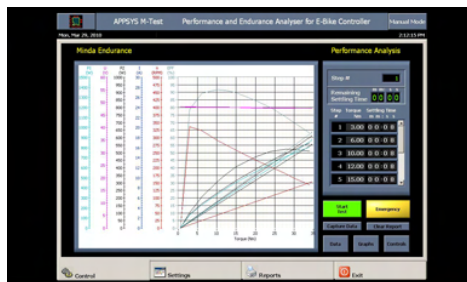
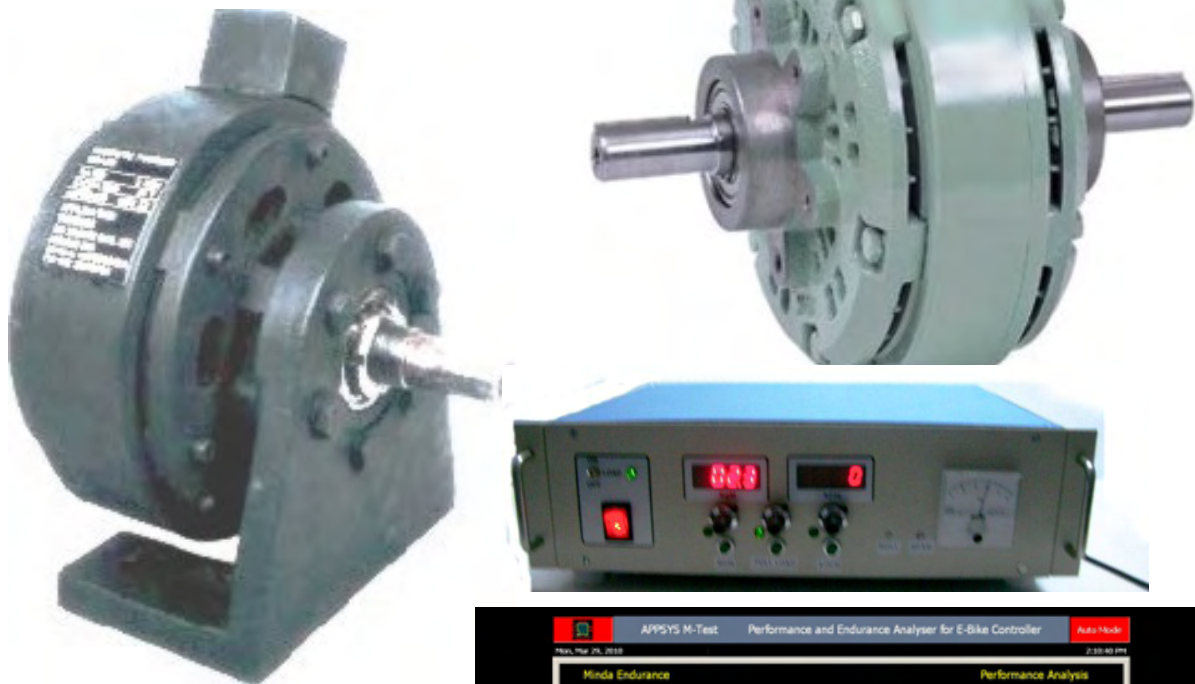


APPLICATION SYSTEMS

Water Cooled Powder Dynamometers



Self Cooled Powder Dynamometers



APPLICATION SYSTEMS

AC DYNAMOMETER

The energy-efficient AC dynamometers are highly versatile and can operate in both motoring and absorption modes. These dynamometers are ideal for transient studies and for loading from true no-load to stall conditions.

Features:

- Energy-efficient
- Fast response and high degree of control stability
- Direct measurement of friction / system losses
- Ratings up to 750 kW
- Inertia and vehicle road-load pattern simulation
- Trunnion mounted or with in-line torque sensor

PNEUMATIC DYNAMOMETER

Salient Features

- Fairly stable set torque right down to zero speed
- Speed of operation up to 2000 rpm, depending on the model
- Low inertia, dynamically balanced rotors
- Low residual torque, as specified for each model
- Bi-directional operation

Built-in filter-regulator and electric/pneumatic converter



Pneumatic Dynamometers

APPLICATION SYSTEMS

Test Benches

• Engine Test Stands

For the evaluation of

- Engine Torque v/s Speed Characteristics
- Brake Horse Power (BHP)
- Frictional Horse Power (FHP)
- Indicated Horse Power (IHP)
- Fuel consumption at rated torque
- Mechanical efficiency
- Thermal Efficiency
- Air-fuel ratio

• Motor Test Rigs

Test rigs are designed to provide a self-contained platform to conduct a comprehensive range of validation tests on motors. They consist of a low-vibration structure on casters, suitably rated application-specific dynamometer such as AC dynamometer or Magnetic Powder dynamometer, suitable sensors, special fixtures for clamping of different types of motors, coupling arrangement, safety guards and interlocks.

PC-based intelligent control system, integral to the test bench, ensures proper sequencing of tests and recording of data for analysis and outputting various information in the form of tabulated and performance graphs. The automated test sequences can be performed by selecting appropriate set up Menu on the dedicated PC-based control system

• Transmission Test Rigs

For the evaluation of

Chassis, Gear boxes, Axles, Shafts, Bearings, Belts, Chains etc.



Please contact us with details for drawings.