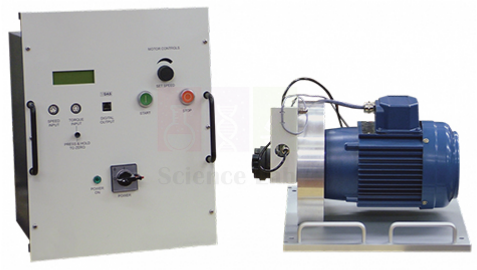
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Product Name :

Universal Dynamometer

Product Code :

SLE/EFM/06



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Description :

The **Universal Dynamometer** (Product Code: SLE/EFM/06) is the shared drive and measuring unit for the Fluid Power machines. It pairs a trunnion-mounted induction motor, which reacts against a strain gauge load cell, with a motor drive and display unit that digitally shows speed, torque and shaft power. Because it couples directly to each machine, students spend their time taking readings rather than fitting belts and pulleys. It is manufactured by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, Ambala, as part of our test and measuring instrument range for engineering teaching labs.

Specifications

Parameter	Detail
Main parts	Electric dynamometer; motor drive and display unit
Dynamometer	Induction motor, trunnion-mounted to move freely against a strain gauge load cell
Drive electronics	Variable-speed a.c. inverter drive with signal conditioning
Displayed readings	Speed, torque and shaft power (digital)
Speed sensing	Inductive sensor on the shaft
Torque sensing	Load cell
Base plate	Precision-machined, holding the motor and sensors, with location points for accurate, repeatable alignment onto each Fluid Power module
Coupling	Jaw-type coupling with a rubber element, common to all Fluid Power machines
Controls	Motor stop, start and speed controls on the front of the drive and display unit
Instrument power	Outlets on the back supply the instruments provided with the Fluid Power modules

Typical Use

In a Fluid Power lab the dynamometer is lifted onto whichever module is scheduled for the day — a pump, a compressor or another machine — and dropped onto the base-plate location points so the shaft lines up with the machine's jaw coupling. Students then set the speed from the front panel and read torque, speed and shaft power directly. Because the motor is trunnion-mounted, the reaction torque on its casing is exactly what the load cell senses, so the displayed torque is the torque delivered to the machine; combining it with the machine's own flow and pressure readings gives input power, output power and efficiency.

For institutions choosing TVET lab equipment in India, one dynamometer serving many modules is an economical way to build a complete fluid machines laboratory. The instrument outlets on the rear p
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