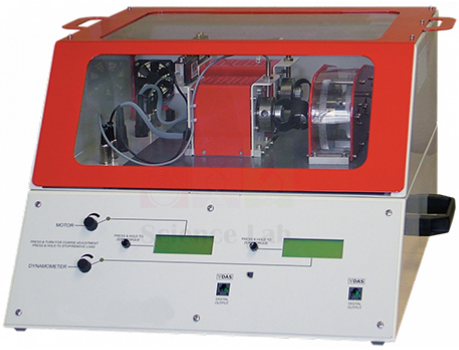
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Product Name :

Geared Systems

Product Code :

SLE/ETM/12



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Description :

Geared Systems (Product Code: SLE/ETM/12) is a bench-mounting base unit used to test the performance and efficiency of gear drives and other drive units under power in engineering laboratories. Students measure power in from a variable-speed, low-voltage motor and power out to an electromagnetic hysteresis dynamometer, and a three-shaft gear drive unit comes as standard. It is made by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, an OEM manufacturer of engineering lab equipment in India, at its own factory in Ambala.

Key Details

Parameter	Detail
Base unit	Bench-mounting; the main part of this set of products
Input (effort)	Variable-speed, low-voltage motor driving the input shaft
Output (load)	Dynamometer using electromagnetic braking and a hysteresis effect: variable load at constant torque irrespective of speed
Sensors	On the motor and dynamometer, measuring shaft speed and torque, and therefore power in and out
Torque measurement	Motor and dynamometer held in axial trunnions with race bearings, rotating freely against load cell sensors
Couplings	Flexible couplings with collets for quick and accurate alignment ofthe drive unit
Standard drive unit	Three-shaft gear drive unit
Other drive units	Optional (ask us)
Product code	SLE/ETM/12
Manufacturer	Jain Scientific Equipments Pvt Ltd (ScienceLab) — OEM
Country of origin	India (made in Ambala, Haryana)

What Is the Geared Systems Base Unit Used For?

Efficiency is the question every drive designer asks: how much of the power put into a gearbox actually reaches the output shaft? In a dynamic test on this base unit, the motor turns the input of the drive unit at a chosen speed while its input power is measured, and the dynamometer brakes the output while the output power is measured. Dividing one by the other gives efficiency, and repeating the run at other speeds and loads builds a full performance picture.

Because the hysteresis dynamometer holds a constant torque regardless of speed, students can change speed without the load drifting. The motor and dynamometer sit in trunnions and push against load cells, so torque readings come from the reaction on the housing. Flexible couplings with collets make it quick to swap the standard three-shaft gear drive for optional drive units, which suits engineering lab equipment for technical institutes that run several groups in one sessi

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