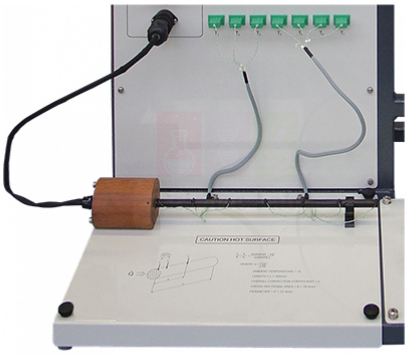
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Product Name :

Extended Surface Heat Transfer

Product Code :

SLE/EA/24



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Description :

Extended Surface Heat Transfer (Product Code: SLE/EA/24) is a fin experiment used to study how heat conducts along a thin solid bar and escapes to the surroundings by natural convection and radiation in engineering laboratories. The bar is heated at one end, has a matt black coating for a predictable emissivity, and carries thermocouples at equally spaced intervals along its surface. It is made by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, an OEM manufacturer of lab equipment for technical institutes, at its own factory in Ambala, India.

Key Details

Parameter	Detail
Test piece	Thin solid bar with an electric heater at one end
Surface finish	Matt black coating for a consistent and predictable emissivity value
Temperature measurement	Thermocouples along the bar surface at equally spacedintervals
Heat transfer modes	Conduction along the bar; loss to the local surroundings by natural convection and radiation
Mounting	Base plate with a clear schematic of the experiment layout
Connections	Heater and thermocouples connect to sockets on the Heat Transfer Experiments Base Unit
Learning approach	Initial test results are used to predict temperatures and heat flow along the bar
Product code	SLE/EA/24
Manufacturer	Jain Scientific Equipments Pvt Ltd (ScienceLab) — OEM
Country of origin	India (made in Ambala, Haryana)

What Is the Extended Surface Heat Transfer Apparatus Used For?

Fins on engine cylinders and heat sinks on electronics work on the same principle as this bar. Students connect the heater and thermocouples to the base unit, let the bar reach a steady state and record the temperature at each point, then plot the temperature profile along its length and compare it with fin theory, including fin efficiency.

Because the matt black coating gives a known emissivity, the radiation share of the heat loss can be calculated and separated from natural convection. Students then use their first results to predict temperatures and heat flow for a new condition and test the prediction, which makes it dependable lab equipment for college heat transfer courses in India.

What to Specify When Ordering

- Whether you need the Heat Transfer Experiments Base Unit, since the heater and thermocouples plug into its sockets