



THE LAB EQUIPMENT

Email : [sales@thelabequipment.com](mailto:sales@thelabequipment.com)

Phone: +91-8759245890

**Product Name :**

Emissivity Natural Convection And  
Radiation

**Product Code :**

SLE/EA/10



**Website:** <https://www.thelabequipment.com>, **Email:** [sales@thelabequipment.com](mailto:sales@thelabequipment.com)

plot. no.296. Sector 5. Vaishali. Ghaziabad. Uttar Pradesh 201010



THE LAB EQUIPMENT

Email : [sales@thelabequipment.com](mailto:sales@thelabequipment.com)

Phone: +91-8759245890

## Description :

- The Natural Convection and Radiation equipment allows the study of heat transfer at different pressures and vacuum. It shows the differences between radiation and natural 'free' convection.
- A small heated element hangs in the centre of a pressure vessel.
- Students can extrapolate the results down to a total vacuum (no convection).
- This allows them to isolate the heat transfer by radiation.
- The heater has a matt black surface.
- Attached to its surface is a thermocouple to measure the temperature.
- The vessel's inside is also black, and it has a thermocouple fitted to its wall to measure the temperature in the vessel.
- It allows students to find the emissivity of a surface and verify the Stefan-Boltzman equation.
- It also gives students an understanding of the non-dimensional characteristics using Nusselt, Grasof, Prandtl and Knudsen numbers.
- The vessel may be charged with compressed air up to 1 bar (gauge) or evacuated down to about 5 Pa (absolute).
- Instruments and a digital display measure and display the temperatures, pressures and power to the element.
- To give accurate measurements of pressure and vacuum, the equipment has two different pressure transducers - one for pressures above atmospheric and one for pressures below atmospheric.

Contact Science Lab for your Educational School Science Lab Equipments. We are best maths lab equipments manufacturers, maths lab kit india, maths lab kit suppliers, maths lab kits manufacturers, metal testing equipments, physics lab educational equipments.