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Product Name :

Proof Plane 20mm Dia

Product Code :

SLE/EAM/14



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Description :

Proof Plane 20mm Dia (Product Code: SLE/EAM/14) is a small circular metal plate on an insulating handle, used in electrostatics to pick up a sample of charge from a conductor and carry it to a detector. As the smallest plate in a range of three sizes, it is suited to sampling charge from small areas, for example when comparing different parts of a charged Van de Graaff dome. It is one of the simple but important physics lab instruments made by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, a physics instruments supplier in India, in Ambala.

Specifications

Parameter	Detail
Plate	Circular metal plate, 20 mm diameter
Handle	Insulating
Purpose	Transferring charge and investigating charge distribution in electrostatics
For use with	Van de Graaff generator
Other sizes in the range	40 mm and 60 mm diameter plates

Typical Use

Holding the proof plane by its handle, the student touches the plate against a charged conductor, lifts it away and brings it to the cap of an electroscope or into a Faraday's pail; the size of the response shows how much charge the plate collected. Repeating this at a sharply curved region and at a flatter region of the same conductor reveals that charge gathers more densely where the surface curves most, which is the principle behind lightning conductors and the point discharge seen on a Van de Graaff generator.

The 20 mm plate is the choice when you want to sample a small, well-defined patch of surface; the larger plates in the range collect more charge and give a bigger deflection. Always discharge the plate by touching it to earth between samples, hold it only by the handle, and keep the handle clean and dry, since grease or damp air lets charge leak away and spoils electrostatics results.

Manufacturer

ScienceLab proof planes are made by Jain Scientific Equipments Private Limited, a manufacturer of electrostatics and general physics apparatus based in Ambala, Haryana. The company profile explains more about the firm and its range.

Related Electricity and Magnetism Equipment

A proof plane needs a charge source and a detector; these items complete the set:

- Van de Graaff Generator — the charged conductor the proof plane is designed to sample.
- Van De Graaff Accessory Kit — includes a Faraday's pail and other items for electrostatics