

Equipment for demonstrating magnetic field lines in 3D U8491925

Instruction sheet

01/11 SP



- 1 Iron filings
- 2 Bar magnet (not included)
- 3 Bore opening

1. Description

The equipment is used to visually demonstrate the magnetic field lines of a cylindrical bar magnet. The plexiglass vessel with a hollow axial bore is filled with iron filings in a special high-viscosity fluid. After inserting the magnet, the iron filings, hitherto uniformly distributed in the fluid, are aligned according to the magnetic flux. A pocket of air inside the body ensures that the iron filings can once again be distributed evenly when the equipment is shaken thoroughly.

2. Technical data

Dimensions:	140 x 140 x 120 mm ³
Axis diameter:	21 mm
Weight:	1.48 kg approx.

3. Accessories required

1 Cylindrical bar magnet	U8495210
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4. Experiment procedure

- Thoroughly shake the device.
- Owing to the trapped pocket of air, the iron filings are evenly distributed within the vessel.
- Insert the cylindrical bar magnet through the centre of the hollow axis bore.
 - Without changing the position of the magnet, slowly turn the device till all the iron filings have attached themselves around the magnet.

The field lines are demonstrated by the alignment of the iron filings and can thus be clearly identified.

