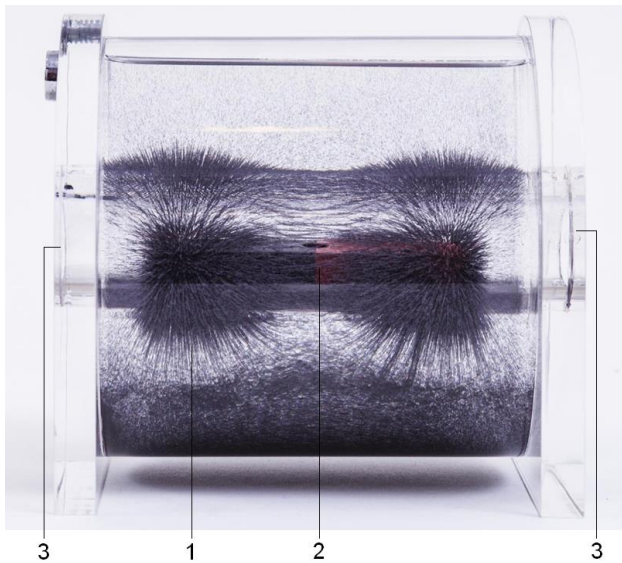


## Equipment for demonstrating magnetic field lines in 3D 1009765

### Instruction sheet

10/14 SP/ALF



- 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 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. An air bubble enclosed within the apparatus ensures that the iron filings are evenly distributed when the equipment is turned over.

#### 2. Technical data

|                |                             |
|----------------|-----------------------------|
| Dimensions:    | 120x110x110 mm <sup>3</sup> |
| Axis diameter: | 21 mm                       |
| Weight:        | 1 kg approx.                |

#### 3. Operation

Accessories required:

1 Cylindrical bar magnet AlNiCo 1003554

- Turn the equipment slowly around its lengthways axle till the iron filings are evenly spread throughout the liquid.
- Insert the cylindrical bar magnet through the centre of the hollow axis bore.
- Observe the alignment of the iron filings in a magnetic field.

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

- Alternatively the apparatus can be turned along with the magnet built into it. Make sure that the position of the magnet does not change.

**Note:**

- Do not expose the equipment for demonstrating magnetic field lines to direct sunlight for any lengthy period.