

- Visual viewing of the grain and domain structure of magnetic materials
- Fast testing on all smooth magnetic surfaces
- Mobile application

Measuring categories
Display of domain structure
Display of grain structure

## Domain Viewer DV 90

## Function

The domain viewer is a device to enable fast visual display of the domain structure of magnetic materials and is particularly suitable for viewing oriented electrical steel sheets.

In the window ( 90 mm diameter) of the viewer the domain structure of the material is made visible. Any magnetic discontinuity can be identified by means of a magnetic fluid between a transparent plastic window and a thin membrane. When the viewer is placed on a smooth magnetic surface, the magnetic particles align themselves on the Bloch-walls of the grains of the magnetic material and so create a picture of the domain structure. This process is generated by applying a vertically magnetic field.

The domain viewer contains a water-based magnetic liquid. To achieve best possible performance the device is fitted with a membrane which is extremely thin but nevertheless strong and flexible enough in normal use.

The portable device is easy to use and provides fast results even with coated materials.

## Grain viewer GV 1000

For strip steel a grain viewer is available. Its function is comparable to that of the domain viewer.

The viewer enables visual inspection of the grain structure in strip widths and is especially suitable for inspecting grain-oriented electrical steel.

The grain viewer detects magnetic discontinuities on flat surfaces and enables inspection without prior preparation of test samples.

## Technical Data

| Application | flat magnetic surfaces <br> (sheet steel, magnetic strip etc.) |
| :--- | :--- |
| Window size | domain viewer: $\varnothing 90 \mathrm{~mm}$ <br> grain viewer: $1,200 \mathrm{~mm} \times 150 \mathrm{~mm}$ |
| Membrane thickness | $25 \mu \mathrm{~m}$ |
| Contents DV 90 | domain viewer with magnetizing winding, funnel, <br> power supply pack, manual, carrying case |
| Dimensions of case DV 90 | $300 \mathrm{~mm} \times 250 \mathrm{~mm} \times 50 \mathrm{~mm} \mathrm{(L} \mathrm{\times W} \mathrm{\times H)}$ |
| Power supply | power supply unit: $220 \mathrm{~V}, 50 \mathrm{~Hz}$ |



Domain viewer


Domain viewer, case


Grain viewer


Detail of grain viewer

Other measuring systems
Electrical Steel: C510
Electrical Steel: MPG 200 D
Inline: EBA
Surface Resistance: Franklin Tester

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