

6800 - Elektro magnetic shielding

Indoor transformer rooms

The frequency of these magnetic fields is typically 50/60 Hz
The MuFerro material is suitable for magnetic shielding in frequency ranges from 10 Hz to 100 KHz.

Customer benefits

- Cost-effective solution
- Up to 95% field-strength reduction or more
- Flexible design
- Measurement report
- 10-year guarantee

MuFerro combines permeable and satiety characteristics which makes it extremely suitable for screening low-frequency magnetic fields.



Indoor transformer rooms



Transformer rooms doors



Magnetic field strength measurement



MuFerro 6800 wall shielding

Why use magnetic shielding/screening?

Magnetic fields pose a serious threat to human health and wellbeing. For instance, research has shown that exposure to magnetic fields of 300nT or 0.003 Gauss significantly increases a person's chances of developing leukemia. And there are numerous other physical symptoms associated with exposure to magnetic fields, e.g. headaches, depression, and insomnia. For this reason the Health and Safety Codes in many countries recommend that for working spaces exposure should be 0.5 T=500 nT and for public spaces it should be 0.1 T=100nT.

Apart from their negative impact on health, strong magnetic fields can cause interference or damage to electronics in the direct vicinity of where the field is generated. Magnetic fields also interfere with sensitive measurements in hospitals and laboratories.

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Transformer room

Applications

- Transformer rooms (indoors or outdoors)
- Power plants
- Aluminium melting/production
- High-voltage labs
- Anything that creates strong magnetic fields (high currents)

Holland Shielding Systems B.V. can implement magnetic shielding even after the transformer has been put into place. For screening entire buildings, or rooms, the shielding material is applied to walls, ceilings and/or floors. This protects both people and electronics.

Measurement

Before the screening/shielding is ordered and installed, we can conduct a site survey (magnetic field strength measurement) for you. We not only measure the magnetic field strength but also locate its probable source. The measurement results are then presented in a report.



Measuring setup

Example of a project

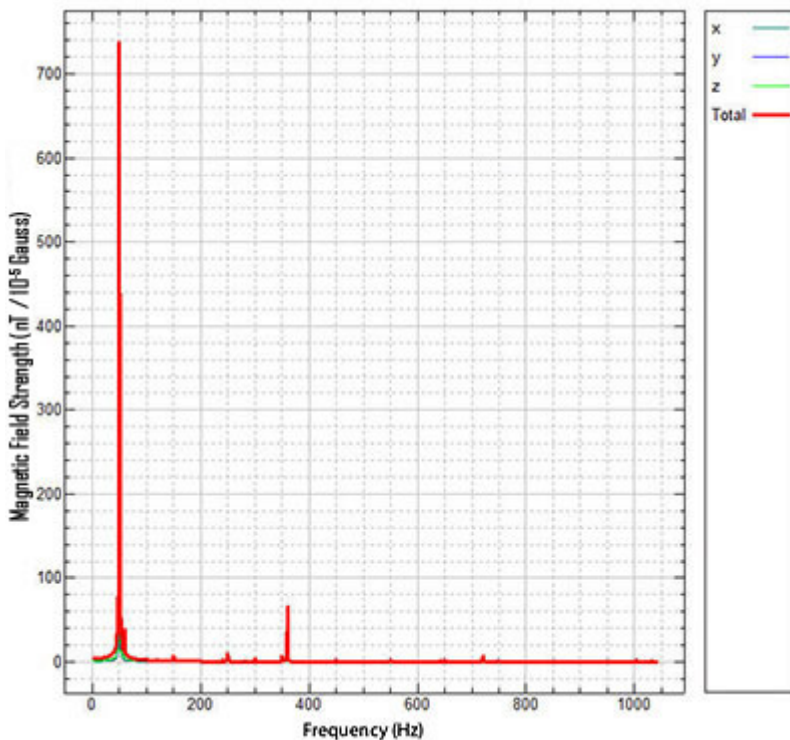
Due to space restrictions, one of our clients was forced to turn a room which had formerly been used for storage into an office space; this room was located on the floor above power transformers. However, powerful magnetic fields were noticed in that room which made the computer displays flicker, so we were asked to carry out a magnetic field measurement. It was found that the magnetic field strength was far above the standard referred to above - it was 750nTesla. This magnetic field was reduced by the installation of an umbrella construction of MuFerro 6800. Since completion of this project, the magnetic field has been reduced to only 80nTesla.

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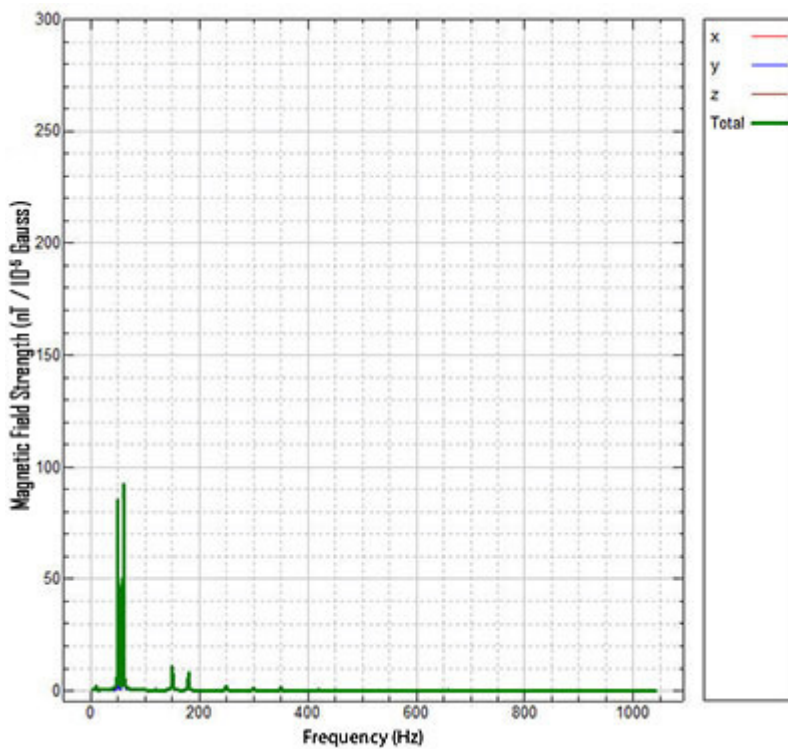
MuFerro 6800 ceiling umbrella construction

The graph below shows the magnetic fields in nano Tesla or 10^{-5} Gauss, before and after installation of magnetic shielding.



Measurement before installing MuFerro 6800 plating (750 nTesla)

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Measurement after installing MuFerro 6800 plating (80 nTesla)

The clients who have engaged us to place MuFerro 6800 shielding include:

Erasmus MC
University Medical Center Rotterdam



corus



Ministerie van Defensie

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If you want a quote for a low-frequency magnetic shielding with (MuFerro TM 6800) we ask you to send a drawing of the room concerned. You can also send you quotation request via e-mail to us. If you have questions please use our contact form to contact us.