

We produce Faraday cages, shielded chambers and other shielding components like:

- Power & signal filters (see pages 58 & 59)
- Waveguides, shielded doors (see page 52)
- Windows (see page 45)
- Shielded ventilation panels (see pages 60 & 61). In addition we produce, TEMPEST equipment for crypto communication and even welded EMP bunkers. We have a large standard range in stock and we can deliver to the cage building industry in mere days. We also design items according to the client's wishes, with very short delivery times.

Wall covering system (Mu-copper)

Mu-Copper foil has high attenuation properties in the electrical field (up to 120 dB) as well as in the magnetic field (see shielding performance table). It is easy to apply, like wallpaper, thanks to its special adhesive for walls, ceilings and floors. The interior finish can be plaster board, foam tiles or plywood.

The 0.12 mm thick Mu-Copper is used to transform regular rooms into shielded rooms; it has excellent shielding performance even at low frequencies. The system is easy to mount on shielded doors with clamping devices. The standard width of Mu-Copper is 1000 mm and the foil can be delivered on rolls or ready-made sheets.

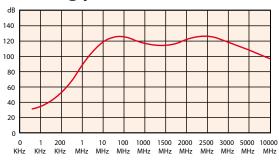
Overlap options

For the joints you can use a 50 mm overlap. For extra high performance you can fully solder the joint or use a seaming /copper tape with a conductive self-adhesive to apply over the joints.

Advantages

- · Cost-effective / takes up little space
- Light weight / high floor load
- Can be constructed with local labor
- Standard interior finish possible like plasterboard
- Can be delivered with 10 year guarantee
- Maintenance free
- Delivery with turnkey measurement report

Shielding performance



Basic values for the material and Mu-copper cage

Field	Frequency	Mu-Copper
Н	1 kHz	22 dB
Н	10 kHz	35 dB
Н	200 kHz	68 dB
E	10 kHz	99 dB
E	200 kHz	127 dB
E	1 MHz	125 dB
E	18 MHz	101 dB
Р	400 MHz	120 dB
Р	1 GHz	110 dB
Р	10 GHz	120 dB
Shielding performance of mu-Copper foil 0,12mm thick		

You can create a Faraday cage with high shielding performance yourself in an economic way, using local labor. This is possible in existing buildings as well as in new ones, without loss of space. Depending on the quality of the doors, vent panels, filters and/or windows used, attenuation levels up to 80-100 dB in the E-field can be realized. When more layers are applied, it is possible to achieve over 120 dB.



Wall paper system + ceiling

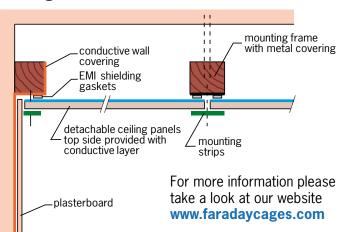
Mu-copper Faraday cages



The system can be used with a detachable or fixed ceiling to separate existing ducts and cables from the shielded room.



Ceiling construction



Applications

- Server rooms
- EMC test rooms
- Computer rooms
- Medical examination rooms
- MRI, EEG, EMG & EVP
- Rooms for physiotherapy
- Radar protection/Airport
- TEMPEST Sites
- Military EMC protection
- Board room shielding
- Industrial espionage/ Secure room
- Buildings for intelligence agencies





Modified RF Shielded Door

When a lower performance 40-60 dB is acceptable we can retrofit your existing door. The doors will be equipped with gaskets on top and sides, while the bottom is provided with a conductive copper brush and doorstep.

Modification is possible for both swing and sliding doors. (For more informative see page 52)



Components

In addition to EM shielded doors and windows, the screened rooms can be equipped with the following components:

- Shielded doors (see page 52)
- Shielded windows (see page 45)
- Shielded ventilation panels (see page 60)
- Power and signal filters (see page 58)

When necessary we also offer shielding solutions for water pipes, medical gases and ventilation.