Self-standing modular Faraday cage
Superior screening of RF signals, e.g. for R&D, TEMPEST and Testing purposes.
The modular Faraday cage is designed to meet or even exceed the vast majority of shielding requirements. The system is constructed of shielded modular panels, available in either standard-sized or custom-designed panels to meet exacting specifications in government, industry, research and development, university or hospital use. The system is completely self-standing (independent of the host building). The modular panels can be shipped and assembled by the customer or under supervision of our engineers, anywhere in the world.

Applications
- RF measurements
- EMC test labs
- Wireless product testing
- Server rooms
- TEMPEST / Sensitive information protection
- HEMP & EMP protection
- Neuroscience laboratories
- Cellular communication devices
- Immunity & emission test chambers
- Anechoic chambers

High shielding performance
The shielded enclosure consists of shielding panels made of 2mm MuFerro steel; the panels are galvanized which gives the enclosure excellent resistance to corrosion. Amucor 6800 gaskets between the panels help to maintain shielding attenuation. The modular shielding does not contain any wooden parts that could be adversely affected by variations in temperature or moisture. The panels provide high shielding effectiveness, maintain electrical continuity, and are corrosion resistant. This results in high levels of attenuation without deterioration.

Shielding performance (dB)

Smooth exterior, functional interior
The panels are bolted together along their edges on the inside, leaving a smooth exterior. Lighting, bus bar and furnishings can be mounted directly on the bendings of the panel interiors. Versions for direct attachment of ferrite and RF pyramidal absorbers can also be supplied, to create an echo-free (anechoic) test chamber.

EM shielded doors before testing

Self-standing construction

High performance shielded modular panels (with functional interior)
Modular/anechoic cages

High performance in a wide frequency range

Benefits

• Self-standing construction
• High shielding performance without deterioration
• Easy to mount with local skilled workers
• Easy to modify, enlarge or reinstall
• Many sizes from stock, specials within a few weeks
• Optionally supplied as a kit for assembly by the user
• Optionally with 10 years guarantee & maintenance

Options

All options listed directly below can be customized, e.g. with an automatic sliding door, double leaf door, customized shielded ventilation panels, different dimensions, etc.

• Shielded honeycomb ventilation panels
• Shielded doors
• Shielded water piping and gases
• Lightweight version
• Entry panel fitted with:
  ▪ Power filters, single +N or three phase +N (specify amps, voltage and frequency)
  ▪ Feed through signal filters
  ▪ Wave guides for passage of fiber-optic cables
  ▪ Feed trough penetration (e.g. SMA or BNC connector
  ▪ Grounding bolt

Anechoic chambers

Our anechoic chambers are constructed as shielded rooms. All over the walls and the ceiling, absorbing materials and/or ferrite tiles are attached. The anechoic chambers show superb shielding performance and are mainly applied in EM emission testing according to commercial and military standards. The anechoic chambers are used to perform compliant radiated immunity tests in accordance to EMC-standards such as IEC / EN 61000-4-3. They provide a full compliance immunity test site for the frequency range of 30 to 1000 MHz. Also suitable for future free space emission test, pr EN 50147-3. We also build open area test sites.

Standard door dimensions

<table>
<thead>
<tr>
<th>Dimensions (mm) Shielded Doors</th>
<th>Lenght (mm)</th>
<th>Width (mm)</th>
<th>Height (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>880 x 2100</td>
<td>1090</td>
<td>1170</td>
<td>2315 / 2800 / 3405</td>
</tr>
<tr>
<td>1000 x 2100</td>
<td>1090</td>
<td>2260</td>
<td>2315 / 2800 / 3405</td>
</tr>
<tr>
<td>1600 x 2100</td>
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</tr>
<tr>
<td></td>
<td>5450</td>
<td>5530</td>
<td>2315 / 2800 / 3405</td>
</tr>
</tbody>
</table>

Easy modification

The modular Faraday cage can be modified, enlarged or reinstalled very easily with conventional hand power tools. Corner panels are identical to the intermediate joints, and have reliable shielding attenuation equal to that of the rest of the enclosure. Examples of panel joints are shown below.

Construction details

[Diagram showing panel connections with Amucor gasket and bolt]