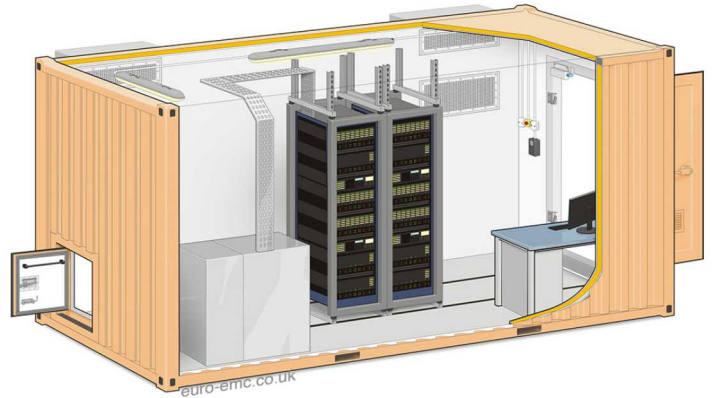


## RF Shielded Containers

Where a user needs EMP (Electro-Magnetic Pulse), Tempest Protection or RF (Radio Frequency) Shielding, for example for military communications, EEP can use all their shielding skills and products to produce highly effective shielded containers to meet all worldwide performance standards.

Our containers are built to various performance specifications and fitted out to a variety of levels as dictated by the user. Additionally EEP can supply specialist EMP shielded items such as doors and filters to other container manufacturers.

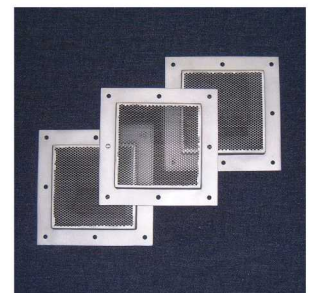


## Waveguides

Waveguide Vents are also a crucial component for any shielded building, room or enclosure, as they allow air to pass through whilst still attenuating radiated interference. As such, EEP design, manufacture and install a wide range of steel and aluminium Waveguide Vents specifically for all shielding applications.

Waveguide Vents meet the shielding attenuation requirements for EMPP, as per **Mil Std 188-125** and **Def Stan 59-188**.

Mil Std 188-125, Part 2 is a military document titled HIGH ALTITUDE ELECTROMAGNETIC PULSE (HEMP) PROTECTION FOR GROUND-BASED C4I FACILITIES PERFORMING CRITICAL, TIME URGENT MISSIONS – PART 2 TRANSPORTABLE SYSTEMS. This describes the protection and testing required for these types of facilities.



## RF (Radio Frequency) Shielded Doors for Containers

European EMC Products design and manufacture a wide range of RF Shielded Doors to fit into ISO type containers. These doors can be used for a wide variety of applications and meet all worldwide performance standards.

### RF Performance

Typical Electric and Planewave Mode 10 MHz to 10 GHz 40 - 80 dB

### Shielding Effectiveness

The shielding effectiveness (SE) of an RF shield is defined by the ratio of signals strengths inside and outside of the shield, ie how much does the shield reduce the signal. To make this easier to use it is expressed as a ratio in dB (decibels).

### Shielding effectiveness (dB) = $20 \log V1/V2$ .

Shielding Effectiveness is achieved using copper beryllium contacts to maintain continuous electrical conductivity between the door and frame.

V1 is the signal strength outside the shielding and V2 the signal strength inside the shield. As SE is expressed logarithmically it is important to note these ratios:

20dB is a reduction by a factor of 10

40 dB is a reduction by a factor of 100

60 dB is a reduction by a factor of 1,000

### An RF Shielded Door consists of the following:

- Single leaf knife edge door with manual 2 point latching mechanism.
- Mounting point, Hasp and staple for padlock.
- Door Leaf; Galvanised steel, unpainted.
- Door Frame; Mild steel primer painted, or finished with hard wearing paint.
- Latch cover box and hinges, powder coated black.
- 2 part weather seals

