



European EMC Products Ltd

## RF SHIELDED ROOMS FOR MAGNETIC RESONANCE IMAGING (MRI)

### Magnetic resonance imaging (MRI)

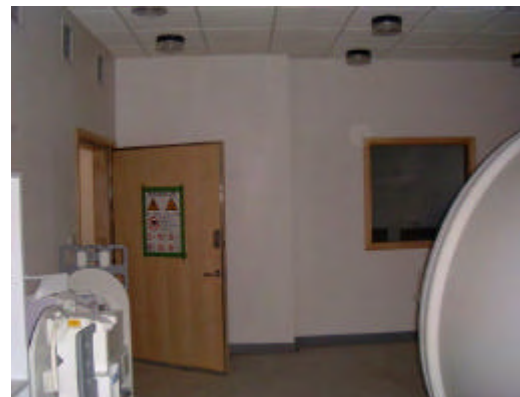
Magnetic Resonance Imaging (MRI) is a sophisticated imaging system that provides high-resolution images of the body without the use of ionising radiation. When a patient is placed in a magnetic resonance scanner, a powerful magnetic field causes all the protons in the body to align in the same direction. Radio frequency pulses are then emitted by a gradient coil at certain intervals and cause the protons to deflect by various degrees. This process results in a signal that is picked up by a receiver coil and then converted by means of a computer to produce a digital image.

The majority of MRI scanners are placed inside Radio Frequency (RF) rooms to prevent external interference affecting the signals that produce the final images. This type of RF shielding is not designed to contain the magnetic fields from the scanner, if these low frequency fields need to be shielded a different approach is needed, see separate datasheet.

EEP design, supply and install RF shielded rooms for MRI facilities, usually from copper but other materials can be used if required. EEP also offer a full installation and testing service and have many years experience working with scanner manufacturers and main contractors.



MRI suite during installation



Completed MRI suite



MRI control desk looking into room through RF window



MRI suite after installation of internal linings and the scanner

### European EMC Products Limited

Unit 8 : Saffron Business Centre : Elizabeth Way : Saffron Walden : Essex : CB10 2NL

Registered in England Number 3209118 : VAT Number 676 5479 78

Tel + 44 1799 523073 : Fax + 44 1799 521191

Email : [info@euro-emc.co.uk](mailto:info@euro-emc.co.uk) : Web : <http://www.euro-emc.co.uk>