RF Shielded Pipe Penetrations for Viewing & Inspection









RF Shielded Enclosures may contain equipment that needs visual monitoring without opening the door and compromising the RF performance. Where the RF performance is low an RF shielded window is the best option. However, for high performance, ie EMPP (Electro-Magnetic Pulse Protection) enclosures a window is not an option.

In these cases, RF Electrical Filters or an RF Pipe Penetration should be considered. This datasheet details the use of RF Shielded Pipe Penetrations. Alternative information is available on RF Power Filters.





Surge Suppression Filter Unit with Lid Removed

Installed Surge Suppression Filter Unit

Small RF Pipe Penetrations in an EMPP Surge Suppression Filter Unit

RF (Radio Frequency) Shielded Pipe Penetrations are designed to allow air or liquids to pass through whilst maintaining the RF attenuation of the structure. This is achieved by the waveguide beyond cut-off principle. The ratio of pipe diameter and length will vary depending on the attenuation requirements and upper frequency limits.

To monitor, a warning light can be installed which can be viewed via looking through a suitable RF pipe penetration. However, it must be remembered the view through the pipe will be very directional.

EEP can design, manufacture and install a wide range of penetrations which include Fibre Optic Pipe Penetrations, Gas and Water Pipes and Air Conditioning Ducts.



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About Us

Established in 1996, European EMC Products (EEP) are an established British company whose experience and understanding of the science of shielding makes it an ideal partner in whom you can place your trust with confidence. The purpose of installing EEP shielding systems is to protect people and equipment against the threats posed by electromagnetic and radio frequency (RF) interference, radiation, magnetic fields and electromagnetic pulses. Our diverse range of turnkey products and services, including design, project management, testing and consultancy are delivered across multiple sectors to an international client base.

Quality

European EMC Products Limited are registered to BS EN ISO 9001:2015, Certificate Number FS38901. Registered Scope: The design, assembly, installation, servicing and testing of RF Shielded Structures and equipment including EMI Shielding, Blast Doors, Gas Tight Doors and specialised mobile Electromagnetic Pulse Protection (EMPP) containers.

Radio Frequency, Magnetic Shielding and Quench systems for MRI (Magnetic Resonance Imaging) scanners.

The design, assembly and installation of Ionising Radiation Protection facilities.

The design, manufacture and installation of LED lighting systems for medical applications.

EEP Filters Limited are registered to BS EN ISO 9001:2015, Certificate Number FS38901.

Registered Scope: The design, manufacture, management of installation and testing of high performance EMC and EMP Power and Data Line Filters.

Disclaimer

NB: All the information provided within this datasheet is for reference only. Product specifications are subject to change without notice.

