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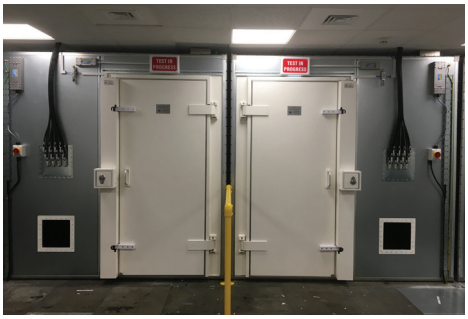
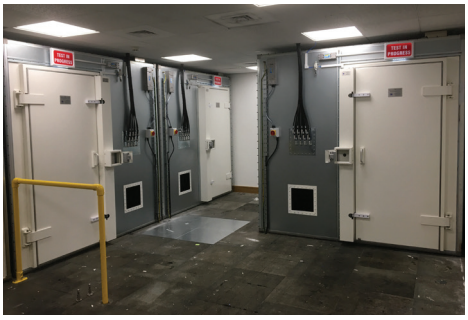
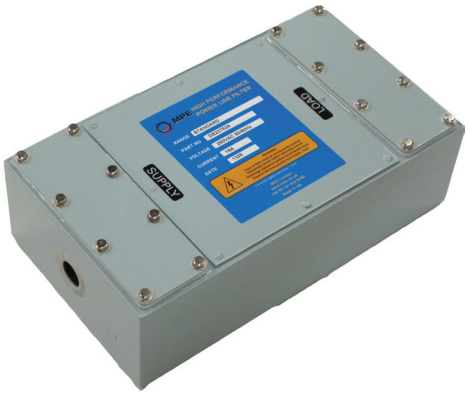




NTD Shielding Services application of custom-designed RFI shielded chambers. Each houses a comprehensive electrical wiring system with incoming power lines located behind a pneumatic door as pictured here.



16A MPE high-performance EMC power line filter

Filtering RFI shielded chambers for major telecomms provider

During the summer of 2019 a suite of NTD Shielding Services high-performance RF chambers were installed in Slough, Berkshire, for a major UK telecommunications network provider. Supporting this project were a diverse range of MPE's high-performance EMC filters, which were installed into NTD's RFI shielded chambers as part of the overall integrated systems solution.

A detailed requirements review and extensive design phase were undertaken by NTD and MPE. Following this, five sets of MPE filters, each for a specific and different application, were provided by MPE for installation within the five high-performance RFI chambers.

NTD is a UK-based, world-leading manufacturer and supplier of high-performance EMC chambers, EMI chambers, antenna chambers, RF chambers, Faraday cages, 5G solutions and EMC test and measurement equipment. NTD specialises in providing bespoke integrated turnkey solutions for EMC chambers, antenna chambers, EMI chambers and Faraday cages, complemented by an internationally renowned range of EMC/RF test and measurement systems and many other EMC/RF related products.

Based in the north-west of England, NTD designs, manufactures and installs the highest quality and most advanced RFI, EMC and antenna test chambers and integrated testing solutions with practicality, user friendliness, high performance and cost-effectiveness in mind.

Each of the five custom-designed RFI chambers measures 2.4m (H) x 2.4m (L) x 2.4m (W) and features: a single knife-edge, high-performance, pneumatically operated door, additional security keypad entry for authorised users only, internal office-type linings and fixtures, a comprehensive electrical wiring system including power lines, emergency stops to all circuits, air conditioning and controls, RF connections, fibre-to-data media converters, digital telephone lines, and control lines for equipment such as warning lights to indicate "Test In Progress" status.

MPE's EMC filters were specified to ensure the high performance of the RFI shield and also the EMC compliance of the whole electrical system and each of its incoming lines. The power line filters manufactured by MPE for this application provide 100dB of insertion loss performance across a full frequency range to more than 20GHz. A total of five MPE filters were installed identically in each chamber including power line filters up to 32A and MPE's advanced control line and digital telephone line filter products.

From the start of fabrication to the conclusion of installation, the project was completed in just over 12 weeks, with all five chambers being signed off and handed over in September 2019.

Details of all of MPE's EMC solutions are set out on the product pages of the company website www.mpe.co.uk/products. Alternatively, email sales@mpe.co.uk to reach out to MPE's team of technical experts dedicated to EMC applications and seek their advice on the projects in which you are involved. Meanwhile you can view a wealth of information about NTD Shielding Services at www.ntdshielding.co.uk, or email sales@ntdshielding.co.uk.