



Company Bulletin

for EMC, EMP, HEMP & TEMPEST Protection

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1200A MPE HEMP filter



Shock testing of MPE HEMP filter in the Spiez Laboratory



Here the vertical axis (z) of the MPE filter is being tested at the Spiez Laboratory on their large VESPA servohydraulic vertical shock tester, which can handle test objects weighing up to 10t

Preventing shocks in Switzerland

MPE has manufactured and supplied a suite of high-performance HEMP filters for installation within a Government project in Switzerland. The application presented MPE with some very challenging mechanical requirements.

The project required that the filters supplied were not only fully compliant with the widely adopted HEMP standard Mil-Std-188-125-1&2, but were also proven as being able to withstand seismic shocks of up to 16G, in compliance with a specific Swiss mechanical shock standard.

Accordingly MPE completed an involved design process over a six-month timeframe. This resulted in the realisation of a suite of custom high-performance HEMP filters, ranging from 16A through to 4800A. Electrically, these filters were soundly based upon MPE's existing award-winning and well-proven HEMP filter designs but, in a first for MPE, were mechanically capable of withstanding shocks of up to 16G.

On completion of the detailed design work at MPE, a sample of each filter type was provided for PCI testing at Armasuisse, the Federal Office for Defence Procurement in Switzerland, followed by shock-testing at the Spiez Laboratory, a division of the Federal Office for Civil Protection (FOCP).

The filters tested included variants measuring almost two metres in length and weighing 300kg. Mechanically each filter was shock-tested in three axes (x, y, z) and in each direction, with six shocks applied therefore to each filter in total. Testing was undertaken over a two-month period, with the outcome being a comprehensive report confirming that all of the MPE custom filter variants were fully compliant.

With the testing successfully completed, a full complement of filters were supplied for installations within the project, and the filters have been in faultless operation for a period of five years. After the initial project, these specialised types of custom HEMP filter have been incorporated into several other, more recent projects in the Swiss market, with hundreds of units now supplied by MPE.

Information on MPE's innovative and world-leading ranges of HEMP filters can be found at www.mpe.co.uk/category/hemp, whilst, for details of the custom 16G HEMP filters supplied, email the expert MPE technical team at sales@mpe.co.uk or call +44 151 632 9100.



armasuisse