

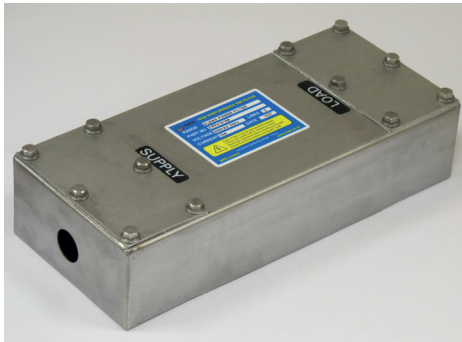


**MPE**  
Quality, Reliability, Performance

## Company Bulletin

for EMC, EMP & TEMPEST Protection

### Issue 8



### EMP & TEMPEST protection for Norway

Throughout the past 20 years, Norshield A/S of Os i Østerdalen, Norway ([www.norshield.no](http://www.norshield.no)) have been asked to consult, specify and install a wide variety of custom applications for electromagnetic shielding protection across the Norwegian territory. These applications have included EMP and TEMPEST protection for both the commercial and defence sectors.

Whilst the vast majority of applications are confidential and so cannot be specifically named, the most common applications have been shielded chambers and shielded cabinets to service fixed installations within defence applications as well as for power and utility customers. Amongst these customers, the common theme has been the requirement for high performance either to demanding military standards or for the achievement of high insertion losses across the full frequency spectrum.

An interesting example of such an application is a recent project in which Norshield have been delivering a high-performance solution to a customer within the commercial sector. The requirement saw the need for the filter to have a high level of attenuation in the EMP and TEMPEST range, whilst mechanically having project-specific paint requirements and all being contained within a minimum space envelope.

MPE therefore developed and delivered a custom filter for Norshield which was derived from the well-established DS41016 16A CleanPower filter.

Electrically the filter developed was customised to provide a higher level of attenuation, whilst mechanically the filter was designed to accommodate the additional electrical componentry to achieve this high attenuation within a similar footprint as the DS41016. Within the iterative design process and dialogue with the customer, the filter was then further customised with a bespoke earth stud – resulting in a significant saving in installation time on site – and painted in accordance with an application-specific requirement.

Pictured is the DS41016 16A CleanPower filter from which the custom filter was derived.

For further information on the MPE CleanPower filter range – single-phase and three-phase at current ratings of 16A, 32A and 63A – you can download the current page from the MPE website [www.mpe.co.uk/products/clean-power-filters/](http://www.mpe.co.uk/products/clean-power-filters/)