

MPE PEOPLE

MPE honoured again as Awards Finalists

MPE has been headlined as Finalist at three major awards – The Manufacturer MX Awards, the Knowsley Business Awards and The Insider International Trade Awards [Read More >](#)



Spotlight on Gillam Prescott

Former apprentice Gillam Prescott is a Trainee Manufacturing Technician at MPE, now working on project sales orders for large filters in the Projects Manufacturing cell [Read More >](#)



MPE ACTIVITY & TECHNOLOGY

Is on-time delivery a thing of the past?

Bucking the industry trend, MPE has countered the challenges of price and supply chain pressures on its client base to achieve an average on-time delivery as high as 95% [Read More >](#)



US trading relationship & varistor patent

In August 2022 MPE commenced direct trading with its key clients in the USA. MPE was also granted US patents for its revolutionary new feedthrough varistor system [Read More >](#)



MPE DISTRIBUTORS

MPE flies flag across European show season

MPE's distributors have been exhibiting at key trade shows Eurosatory in France (Euromip), EMV in Germany (Electrade) and MSPO in Poland (Radiotechnika and SACA Europe) [Read More >](#)



SACA UK Finalists in Business Awards

MPE's gold level distribution partners SACA UK are a Finalist in the Business-of-the-Year category of the Knowsley Business Awards sponsored by the Chamber of Commerce [Read More >](#)



MPE APPLICATIONS

HEMP shelters from Jaxon for the DoD

Jaxon Engineering has constructed and supplied a number of modular, HEMP hardened shelters for a US Department of Defense program, each incorporating MPE's HEMP filters [Read More >](#)



TEMPEST security for engine test chamber

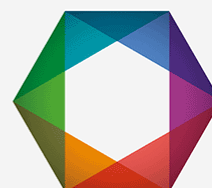
MPE's territory distribution partner Euromip has provided an advanced MPE TEMPEST power line filter solution for a prestigious vehicle engine test chamber in France [Read More >](#)



FAST FACTS ON MPE LTD

- Trading for over 97 years, MPE employs more than 60 people.
- MPE has designed and manufactured in excess of 10,000,000 high performance protection filters and feedthrough capacitors across the last 30 years.

- Many products in continuous service for more than 25 years.
- MPE's portfolio spans over 20,000 custom designs.
- MPE is certified to the ISO 9001:2015 quality standard, and its products meet all applicable defence, safety and regulatory standards.



For comprehensive information about MPE's products and services, contact the Sales and Marketing Department, MPE Ltd, Hammond Road, Knowsley Industrial Park, Liverpool, L33 7UL, U.K.
Tel +44 (0)151 632 9100. Email sales@mpe.co.uk. Website www.mpe.co.uk

If you have a friend or colleague who you think might find the MPE Company Bulletin informative, then why not forward it to them?



Company Bulletin

for EMC, EMP, HEMP & TEMPEST Protection

Issue 29



The Manufacturer MX Awards



The Knowsley Business Awards



MPE honoured again as Awards Finalists

Celebrating a period of very significant and sustained growth, MPE has once again been headlined as the Finalists at three major business and industry awards events in 2022.

First of these is the prestigious Manufacturer MX Awards. Having secured the Award for International Business in 2019, MPE has been shortlisted as Finalist for the identical honour in 2022. This achievement recognises the company's substantial growth over the past three years and its commitment to – and sheer passion for – export and international trade.

The shortlisting followed MPE's cross-examination by a judging panel at the historical headquarters of the Institution of Mechanical Engineers in Westminster, London, last September. The Manufacturer MX Awards Ceremony and Gala Dinner are being held on Thursday 17th November in the Exhibition Centre Liverpool at the Albert Dock.

Then, a week later, MPE is a Finalist in the Knowsley Business Awards. These long-established business awards are held annually to recognise the achievements of all manufacturers and service providers in the Knowsley industrial and commercial heartland of Merseyside.

MPE has been shortlisted in the Medium Business of the Year, for businesses with 50 to 250 employees. Winners will be announced at a Gala Awards evening being staged on Thursday 24th November 2022 in the Grand Marquee of Knowsley Safari Park.

On top of these Awards nominations is MPE's shortlisting as a Finalist for Insider Media Ltd's 2022 North-West International Trade Awards. MPE is a Finalist in the category "International Company of the Year under £20m turnover".

Now in their eleventh year, the Insider Awards are designed to showcase and reward the achievements of pioneers and innovators and the global success stories throughout the North-West region of England. So, as the culmination of a rigorous assessment by an independent business and industry judging panel in October, the Awards ceremony for the selected Finalists will be a black tie event at the Lowry Hotel, Manchester, on Thursday 1st December.

Considered in their entirety, these Awards nominations represent a highly impressive and well-deserved recognition of MPE's talented team and its recent achievements.



The Insider International Trade Awards



Spotlight on Gillam Prescott

Gillam Prescott is employed as a Trainee Manufacturing Technician, working in the Manufacturing Engineering Department at MPE. He is currently engaged on project sales orders, as a member of the team in MPE's dedicated Projects Manufacturing cell. There Gillam is becoming conversant with best manufacturing techniques and how to apply them to some of MPE's largest filters.

Gillam joined MPE in August 2017 at the age of 18 on a three-year apprenticeship in conjunction with the North West Training Council (NWTTC), being schooled in all aspects of MPE filter assembly and testing. That included learning how to read and understand MPE's engineering drawings and circuit diagrams and how to interpret datasheets to build and test filters at each stage of manufacture, up to and including final test.

Through long-established vocational training providers NWTTC and their affiliated College, Gillam studied, on a day release basis, Electronic and Electrical Engineering to BTEC Level 2. This was a workshop and classroom based program conducted over two years.

Then, in his third year in 2020, Gillam attained BTEC Level 3 and an NVQ. Gillam achieved distinction in all eleven modules. They included mathematics, electronic measurement and testing, electronic circuits and devices, and mechanical principles.

In September 2020 Gillam Prescott's original three-year apprenticeship was completed, and he was upgraded to an Apprentice Manufacturing Technician, increasing his three-year apprenticeship to five years.

Again through training providers NWTTC and their College, Gillam studied on a day release basis for a BTEC Higher National Certificate (HNC) in Electronic and Electrical Engineering. In the summer of 2022, Gillam completed the final year of his studies and earned distinction in all his modules.

In September 2022 Gillam's five-year apprenticeship was completed, and he has now progressed to Trainee Manufacturing Technician on a two-year training program.



Gillam Prescott



Has just-in-time had its day in automotive assembly plants?



Large HEMP filter order being shipped from MPE



Fully laden container ships arrive in dock

Is on-time delivery a thing of the past?

We increasingly regard on-time delivery as a thing of the past, with much of our manufacturing industry now suffering extended lead-times for supply, product shortages and frequent last-minute changes to schedules.

Arguably “just-in-time” inventory management has had its day in, for example, automotive production, owing to the restricted supply of components and subsystems required for assembly. The lack of semiconductor chips for electronic control units is well known.

Nevertheless, since 2019 MPE as a company has worked long and hard to mitigate the impacts which current price and supply chain pressures have exerted on its own international and UK client base and to achieve an average on-time delivery as high as 95%.

Such pressures, coupled with the company’s unprecedented period of growth, have indeed presented some of the greatest challenges that MPE has ever faced. Since the start of 2019 MPE has seen an almost 50% increase in output.

Regular dialogue has been critical with clients and integrators of MPE’s EMC, EMP, HEMP and TEMPEST filter solutions. Equally, keeping in close touch with critical suppliers every step of the way has allowed MPE to plan its own procurement and stockholding with accuracy, ensuring that manufacturing schedules have been maintained.

In addition MPE has sought to expand its supply base and migrate to more local suppliers wherever possible. Such expansion has proved to be a key element in reducing the risk of stock shortages or production issues.

MPE has also increased its stockholding of single-source or long lead-time components – as buffer stock retained either at MPE’s facility or at the supplier’s premises.

Meanwhile unforeseeable delays in the shipping of component materials to MPE and of finished product to clients can be caused by transportation issues, the dearth of shipping containers, and both increased protocols and the lack of trained staff at dockside. So for these areas MPE employs ship tracking applications to provide weekly, and even daily, logistics reports.

Accordingly, despite all the immense challenges described, across 2021 MPE achieved a 94% on-time delivery in full to the day and a 96% on-time delivery in full to the week against the original acknowledgement dates. At MPE, on-time delivery is a reality and not a pipe dream.



Ground-breaking varistor transient suppression technology pioneered by MPE: exceptional speed of operation is vital for safeguarding against incoming electromagnetic pulse threats



A batch of large high-current HEMP protection filters in final assembly at MPE



Array of EMP protection filters installed on an EMP shield



US trading relationship & varistor patent

In a move away from its previous model, August 2022 saw MPE commence direct trading relationships with its key clients in the USA. Alongside this, MPE was also granted patents in the USA for its novel varistor technologies.

As for other territories around the world, for many years MPE utilised an authorised distribution partner in the USA. This strategy proved successful – particularly in developing initial relationships, establishing a track record for the MPE brand and generating sales within the US defence industry. However, with sales into the USA having grown significantly and with the USA now often representing MPE's largest export territory, MPE again reviewed its USA strategy.

More than ten years on from first trading in the USA, MPE now maintains deep and established relationships with many clients in the USA. Different to many other export territories which it serves, almost all sales into the USA are project-related and require extensive design work and technical dialogue.

Therefore the new direct working relationships with clients ensure that lines of communication are clear, and MPE can be even more agile and responsive than its previous operating model allowed.

Importantly in conjunction with this strategic change, MPE has also been granted patents in the USA for its ground-breaking new varistor technologies. These USA patent grants follow on from the patents awarded to MPE for the same technologies in Europe and the UK in July 2019.

The family of patents granted in the USA (US 11,398,704 B2) relates to MPE's latest feedthrough varistor system, which has a thermally activated override. Speed is of the essence in safeguarding against incoming electromagnetic pulses. This new product not only dramatically increases switch-on speed by reducing circuit inductance, but also provides a safe and complete disconnection of the system from the circuit in the event of the varistor degrading.

These technologies can be used in EMP and directed energy protection devices. MPE is now completing all necessary research and development work, so as to fully introduce these breakthrough technologies into the EMP filter solutions it manufactures on a regular basis. This will ensure that the company remains a world leader for years to come in the critical area of varistor transient suppression technology for electromagnetic pulse.

Further information on MPE's EMP protection products compliant with Mil-Std-188-125 can be found at www.mpe.co.uk/category/heap or by emailing MPE's technical team at sales@mpe.co.uk



The Euromip team on their stand at Eurosatory 2022 in Paris



MPE exhibited with Electrade at the EMV electromagnetic compatibility event in Cologne



Views of the Radiotechnika stand at MSPO 2022 in Kielce, Poland

MPE flies flag across European show season

Supporting its bronze level distribution partner for France, Euromip, MPE participated in Eurosatory 2022 in June. Held as usual at Paris Nord Villepinte, the event welcomed over 62,000 visitors from 150 countries across five days. After a four-year absence due to the Covid pandemic, the 27th biennial Eurosatory land defence and security exhibition was eagerly awaited.

MPE is currently involved in mission-critical projects in France and, as well as displaying a selection from MPE's product portfolio on their stand, the show provided an excellent platform for MPE and Euromip (www.euromip.com) to hold key project meetings with clients and end-users.

MPE next attended EMV 2022 in Cologne from July 12th to 14th. EMV is one of the world's premier electromagnetic compatibility events, with visitors able to learn, network and train at the exhibition, scientific conference and workshops.

Sharing the stand at EMV with Electrade (www.electrade.com), its bronze level distributor for Germany, MPE welcomed a steady stream of visitors from across Europe and further afield, including South Africa and the USA. Meetings arranged over the three days have already led to MPE securing project work and orders from new clients.

In September, two of MPE's territory distributors exhibited at the MSPO event held in the city of Kielce, southern Poland. MSPO is the largest trade fair dedicated to defence systems and equipment in Central and Eastern Europe. Established in 1993, the show brings together over 400 exhibitors from some 30 countries annually and attracts more than 13,000 visitors.

Radiotechnika, MPE's bronze level distributor for Poland, again booked a large stand there and showcased a broad range of MPE's products. Radiotechnika (www.radiotechnika.com.pl) is one of MPE's longest-serving distribution partners, and Poland represents one of MPE's most important European markets, in fact one of its top ten export territories worldwide.

In contrast, SACA Europe, MPE's distributor for a number of Eastern European territories, is one of MPE's newest partners. Having signed an agreement with MPE in June 2021, SACA Europe (www.sacaeurope.com) has been rapidly establishing itself as a strong presence in its countries of operation. The display and discussion of MPE products at this year's MSPO have been valuable in building and strengthening client relationships.

Next on the exhibition calendar for MPE are the SAHA Expo and Electronica. The SAHA Expo is being staged from 25th to 28th October in Istanbul. MPE's gold level distribution partner for Turkey, IMCA, will have a large stand, and Paul Currie from MPE will be attending in support.

Electronica, the world's leading trade fair and conference for electronics, takes place in Munich from November 15th to 18th. Paul Currie and John Jephcott of MPE will be present alongside their distributor Electrade, conducting meetings with specifiers, consultants, system integrators and end-users alike.



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SACA UK Finalists in Business Awards

In only their second year of trading, SACA UK, MPE's gold level distribution partners for the UK, have been shortlisted as Finalists for a prestigious business growth award.

SACA UK are a Finalist in the Business-of-the-Year category of the long-established Knowsley Business Awards sponsored by the Knowsley, Liverpool, Chamber of Commerce. This accolade recognises the company's significant and sustained growth over the past two years.

After starting up in November 2021 in the thick of the Covid pandemic, SACA UK promote and distribute on an exclusive basis a portfolio of niche electronics products. These are specifically designed for use in aerospace, avionics, defence, industrial, medical and transport applications.

SACA UK currently represent 16 specialist suppliers of high-performance, high-reliability, electronics products. Their innovative lines are sourced from market-leading global brands and include filters, connectors, microwave components, position encoders, motion sensors and parts for embedded systems.

Over the last two years, SACA UK have completed extensive policy and process work in order to attain both ISO9001:2015 and Cyber Essentials certification. Attainment of ISO9001 certification calls for extensive documentation submission and demands regular audits conducted by an independent body.

Cyber Essentials certification requires that all IT systems – including individual email systems, firewalls, PCs, laptops, servers and virus protection – are independently audited and reviewed. This independent audit is repeated on an annual basis.

SACA UK have already established widespread brand recognition and an enviable track record of success. Their commitment to understanding individual customers' specific project requirements – and tailoring solutions to meet the most demanding specifications – differentiates SACA UK from the majority of UK distributors of electronics components.

Accordingly SACA UK's sales grew by 90% during the first twelve months of trading and have grown by a further 50% so far during 2022, with revenues now well in excess of £1 million per annum.

The Business Awards celebrate the energy, determination and success of organisations and individuals in Knowsley who are making a valuable contribution to the local and regional economy. The ceremony has grown in popularity year-on-year and is the largest of its kind in the Liverpool City region. Winners will be announced at a gala Awards evening to be staged on Thursday 24th November 2022 in the Grand Marquee at Knowsley Safari Park.

You can access fuller information on SACA UK at www.sacauk.com. Alternatively contact the SACA UK team via either +44 (0)151 632 9190 or info@sacauk.com.



Gold Partner





HEMP shelters from Jaxon for the DoD

During 2021 and 2022 Jaxon Engineering & Maintenance constructed and supplied a number of modular, HEMP hardened shelters for a United States Department of Defense (DoD) program. Each of these modular shelters incorporated a suite of MPE's high-performance HEMP filters.

Providing turnkey electromagnetic pulse (EMP) shielding products and services to the DoD and to commercial customers alike, Jaxon, a specialist Mil-Std test house, are one of the most trusted providers of HEMP advice, testing and integration in the USA.



Having always been based in Colorado Springs and following rapid and significant growth over the previous three-year period, Jaxon moved in 2021 to a new, purpose-built facility in their city, which is located on the edge of the Southern Rocky Mountains. The new facility provides a larger area to accommodate their expanded team and an increased manufacturing capability to manage the numerous programs now being serviced.

Designed and manufactured to be fully compliant with Mil-Std-188-125, filter selection was a critical element of Jaxon's HEMP shelter program for the DoD. MPE filters were specified because of their proven track record of high reliability in the field. MPE's product solutions included power line filters ranging from 32A to 200A alongside other AC and DC control line filters. They were supplied through 2021 and 2022, with 100% on-time delivery ensuring that program schedules were maintained.

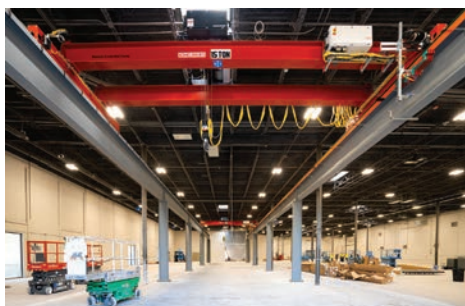
Jaxon have constructed many modular hardened shelters for a US DoD program, incorporating suites of MPE's high-performance HEMP power line and AC and DC control line filters. Two MPE power line filters are located on the left wall of the shelter pictured above.

Furthermore MPE is currently manufacturing another large filter order for supply to Jaxon in late 2022. These filters will be integrated into a hardened operations centre being constructed by Jaxon for a commercial utility provider, with the project due to be completed in the first quarter of 2023.



The new reception area for Jaxon Engineering & Maintenance at Colorado Springs

For details of MPE's world-leading high-performance HEMP filter products check out www.mpe.co.uk/category/heap or email MPE at sales@mpe.co.uk. Further information on Jaxon Engineering & Maintenance can be found at www.jaxon-em.com or by calling the company direct at Colorado Springs on (001) 719 484 8750 or emailing info@jaxon-em.com



The construction facility at Jaxon during fit-out

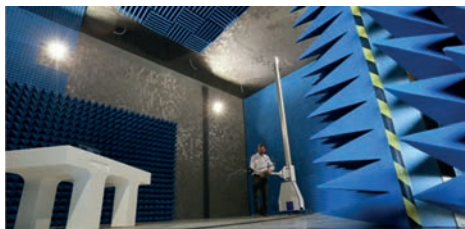




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Environmental test chamber in France for the design and validation of vehicle engines



The MPE TEMPEST power line filter in situ

Bronze Partner

EUROMIP
Delivering expertise

TEMPEST security for engine test chamber

In the summer of 2022 MPE's bronze level distribution partner for France – Euromip based at Vélizy-Villacoublay, south-west of Paris – supplied an advanced MPE TEMPEST power line filter solution for a prestigious engine test chamber application in France.

The end-user client is a major industrial group of six companies spread over 16 sites across France. These sites boast over 36,000 m² of laboratory facilities for the specialist environmental testing of a broad spectrum of products ranging from children's toys to mission-critical defence equipment.

Having joined in 2019, one of their newest group companies specialises in testing related to the design and validation of vehicle engines (electric, hybrid and fossil fuel combustion), and this requirement demanded MPE's high-performance filter solutions.

A 1200A 1500V DC TEMPEST power line filter was supplied for installation. This filter from MPE's High Voltage DC Power Line range has an overarching asymmetric insertion loss of 100dB across 100kHz to over 10GHz.

Following a rigorous due diligence selection process, Euromip was selected as the provider for this critical application on account of the company's expertise, technical capabilities, wide-ranging accreditations and established track record of supply.

MPE has now worked closely with Euromip for more than 20 years, supplying thousands of products to the French market. Together they represent the most experienced and reliable partnership for providing EMC, EMP and TEMPEST protection solutions in sectors such as public utilities, testing, defence, aerospace and transportation.

Further information on MPE's world-leading high-performance TEMPEST filters can be found at: www.mpe.co.uk/category/tempest and on the company's high-voltage DC power line filters at: www.mpe.co.uk/products/1500vdc-power-line-filter-range. Alternatively please email the MPE team at sales@mpe.co.uk

For more information on Euromip, check out www.euromip.com or email their technical team at: expertise@euromip.com