



■ DYNAMIC TECHNOLOGICAL SOLUTIONS FOR THE WORLD'S MOST CHALLENGING ENVIRONMENTS



# DMS NUCLEAR

DMS Nuclear designs and delivers pioneering engineering and technical solutions for use within the world's most challenging environments.

We design, manufacture, commission and support specialist technological systems and components that meet the demands of forward-thinking nuclear sector clients. Our solutions support the entire project lifecycle

and fulfil the exacting standards of precision, quality and safety that our clients depend on us to achieve.

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## TECHNOLOGICAL SOLUTIONS THAT ENHANCE AND IMPROVE THE WORLD'S MOST DISCERNING ORGANISATIONS

Our reputation is built on trusted expertise and a commitment

to developing and engineering groundbreaking technological solutions that enhance and improve the operational processes of the world's most discerning organisations.

DMS Nuclear is changing the way organisations perform.

DMS Nuclear creates bespoke technical solutions and concepts that have been embraced by nuclear power organisations around the world. We are helping to make their processes safer, more secure and sufficiently robust to withstand the rigours and expectations of industry's most formidable processes and business-critical applications.

In addition to the conceptual turnkey solutions we have devised for industry, the bespoke equipment and systems we design and engineer are fulfilling the demands of challenging sectors that cannot be met by conventional machinery manufacturers. From simple

production items to complex, large-scale process systems, every piece of equipment comprises the highest quality components and is manufactured to our benchmarked standards of production. DMS Nuclear supports this equipment from design to decommission phase.

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## WE SUPPORT SOLUTIONS WITH AN UNRIVALLED 24/7 EXPERTISE THAT'S AVAILABLE FROM DESIGN TO DECOMMISSION AND BEYOND

We have also designed and developed a portfolio of RF (radio frequency), dielectric welding systems that are increasing operational

efficiency, reliability, safety and security across market sectors. These solutions are tailored, cost-effective and designed to deliver outstanding results across small, medium and large-scale projects, throughout every phase of the lifecycle. We support these solutions with an unrivalled 24/7 expertise that's available from design to decommission and beyond.

We also share a commitment to innovation through collaboration with trusted partners who respect our passion for technical excellence and have the skills and resources that complement our own. Together, we have inspired technical progress.



# TECHNOLOGICAL INNOVATION. WORLD-CLASS EXPERTISE. HARNESSSED.

## BESPOKE SOLUTIONS



We design, build and commission bespoke and highly specialist technical solutions that suit the exacting requirements of the international nuclear sector.

Our capabilities embrace all engineering disciplines and we have devoted years of research and

product development to creating cost-effective, industry-leading systems, products, processes and concepts for a wide range of applications.

Today, our bespoke technical solutions, including specialist RF welding equipment, are in use in

environments around the world where precision, safety and performance is critical to operational success. We also rely on niche RF technologies to manufacture precision engineered products and components that meet the exact requirements of complex operational environments.

## DIELECTRIC WELDING



Dielectric welding is also known as RF welding, HF welding and plastic welding and is a specialist heating method used for welding non-conductive materials, including plastics, flexible PVC, PU and other materials.

The materials to be welded are placed between a live and a ground electrode, pressure is applied to the electrodes and an RF generator

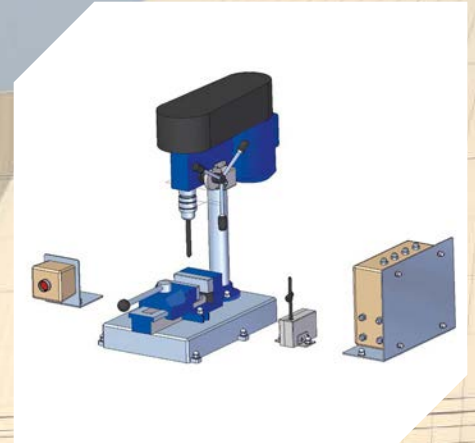
then applies an alternating field at 27.12MHz across the electrodes. This process causes the molecules within the material to oscillate, which generates heat. The heat generated causes the material to weld and, because the surface of the material is cooled during the hot tooling process that conducts heat into the material, the result is a stronger weld interface, a perfect outer surface and a precision engineered and entirely

durable end product. We use this in many forms but typically for sealing glove-port bags containing low level radioactive nuclear waste.

This is a remarkably simple and cost-effective solid-state technology and we're using it to develop and manufacture components and products for the nuclear industry and other sectors that can draw on our specialist solutions.



# HIGH PERFORMANCE PROTECTION FOR THE NUCLEAR INDUSTRY



DMS Nuclear designs and delivers powerful specialised technologies, components and systems for the nuclear industry.

Our technical expertise and niche design and manufacturing capabilities have helped deliver solutions that are being used at every stage of the sector's decommissioning, reprocessing, nuclear waste management and manufacturing processes.

For example, DMS Nuclear has created cost-effective, highly efficient storage systems and techniques that meet the needs of organisations who deal with low-level radioactive nuclear waste. When waste is dispensed into PVC storage bags, our specialist

welding equipment and processes ensure the bags can be RF welded to produce a watertight, airtight and permanent seal to meet the stringent storage and security criteria of the world's most demanding repositories.

## WE ARE TRUSTED BY SOME OF THE WORLD'S MOST PROMINENT NUCLEAR ORGANISATIONS

This raft of niche nuclear waste storage solutions has been developed over many years and, today, we are tasked with designing engineered welding systems and industrial processes that complement and support the operations of a sector in which we have excelled to international acclaim.

The nuclear industry represents a challenging and uniquely hazardous environment and one in which security, safety and reliability of product is critical to operational success.

DMS Nuclear is accredited to ISO9001:2008 standard and our operations perform to benchmarked standards of health, safety, quality and environmental performance. It follows, then, that we are trusted by some of the world's most prominent nuclear organisations to support lifecycle projects that are based on specialist technical systems and products that are designed to endure.



# FULL LIFE CYCLE SUPPORT

DMS Nuclear's highly skilled team supports our bespoke solutions from initial concept and design to final decommissioning phase and including the following phases.

>> REQUEST FOR QUOTE (RFQ)  
CONSULTATION PHASE  
PROPOSAL  
DESIGN  
INSPECTION AND TEST PLAN  
3D MODELLING, 2D DRAWINGS,  
VISUALISATION AND SIMULATION  
DESIGN REVIEW  
MANUFACTURE  
CUSTOMER ACCEPTANCE  
DELIVERY  
SITE ACCEPTANCE  
PROJECT TEAM INSPECTION  
COMMISSIONING  
SUPPORT AND MAINTENANCE  
FINAL DECOMMISSIONING ■

Throughout the entire project lifecycle our project management team are accessible and on hand to support every phase. We are there from start to finish, from design to final decommission, for the full life cycle and into the projects of the future.

# UNRIVALLED EXPERTISE. TRUSTED SOLUTIONS.

Clients across the world rely on DMS Nuclear. We produce world-class solutions and support for the most challenging environments, including nuclear, medical, automotive, packaging and manufacturing and we deliver innovative technical success in every project we undertake. It's what we're recognised internationally for.

Our research and development expertise in this field is unsurpassed, we work to benchmarked standards of health and safety, quality and environment and we're accredited to ISO9001:2008 standard. We're trusted to deliver each project on time and within budget and, when our projects are commissioned, the expertise of our project management

and technical teams continues to support our clients to ensure that our products and systems maintain optimum performance and super-efficiency.

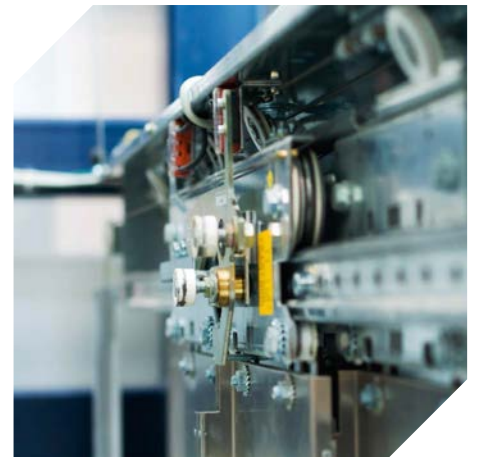
## CLIENTS ACROSS THE WORLD RELY ON DMS NUCLEAR. WE PRODUCE WORLD-CLASS SOLUTIONS AND SUPPORT THE MOST CHALLENGING ENVIRONMENTS

We also believe in the power of collaboration to perfect and enhance our skill set and enhance our product offering. When it is appropriate to do so, we partner with experts in the requisite technology fields to deliver specialist engineered solutions for

organisations in our primary market sectors. We only collaborate with partners who share our commitment to quality and accreditation to at least ISO 9001 standard.

Above all, we are committed to innovation. We are inspired by our teams' ability to research, design and develop novel processes and techniques that are helping to change the way organisations work in the most demanding environments known to man.

Now, we'd like to inspire you.







■ NOW, WE'D LIKE TO INSPIRE YOU

# CONTACT

**TELEPHONE:**

+44 (0)1489 576600

**FAX:**

+44 (0)1489 579500

**EMAIL:**

info@dmsnuclear.com

**ADDRESS:**

25 Barnes Wallis Road  
Fareham  
Hampshire  
PO15 5TT

**COMPANY NUMBER:**

5292055