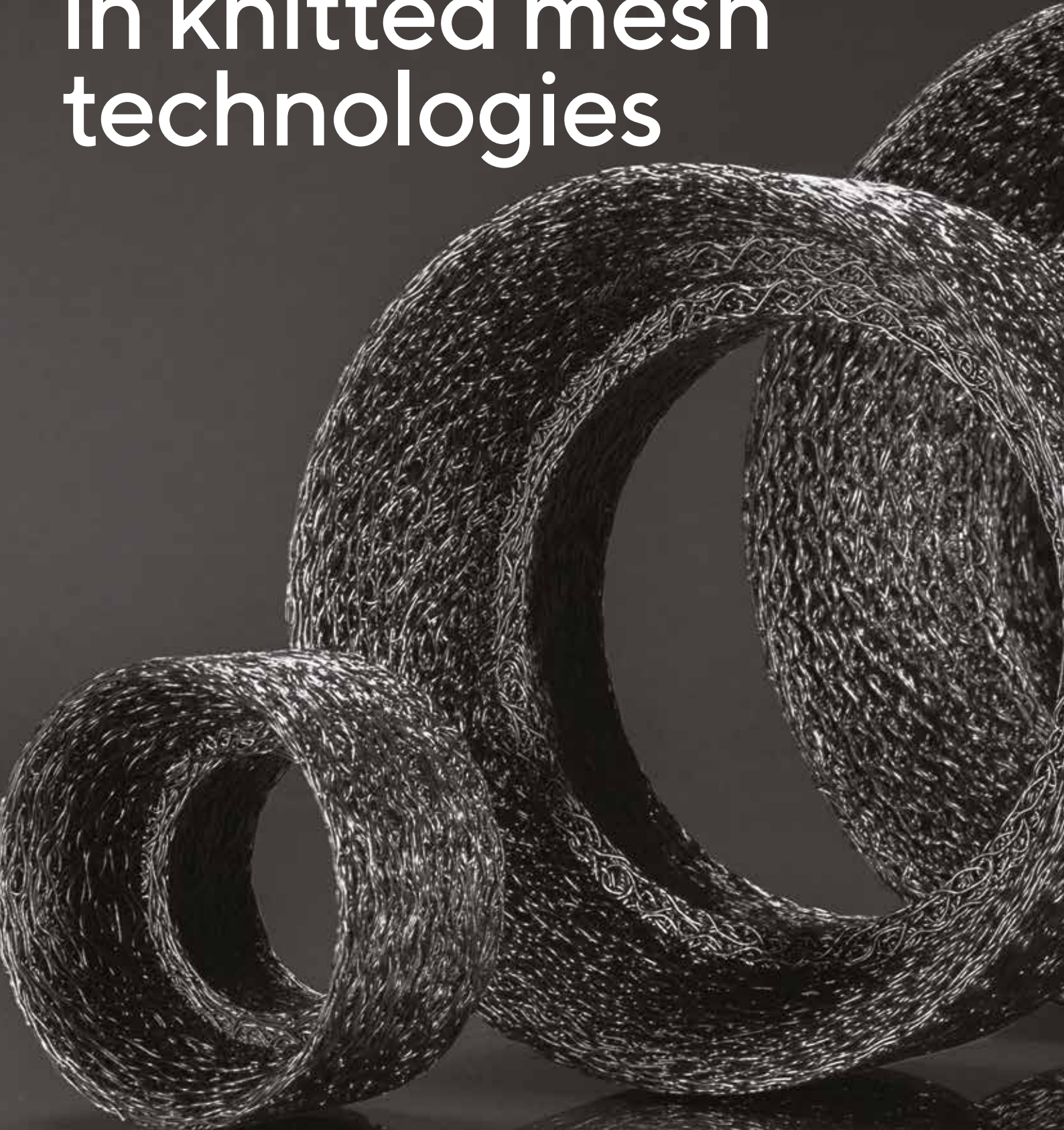


# Leading the world in knitted mesh technologies





# An introduction to Knitmesh Technologies

KnitMesh Technologies started life over 80 years ago producing components for non-automotive applications. In that time a huge range of products have been developed for countless applications in virtually every industry sector. The properties of knitted mesh are almost infinite, and our team of engineers and manufacturing specialists are well versed in the design and development of bespoke solutions for customers who are often market leaders in their own sectors.

Over many decades KnitMesh have developed an enviable reputation for the supply of precision knitted mesh components that meet the exacting needs of their world-class customer base. The products are knitted from a wide range of metallic, mineral or synthetic raw materials and then processed to deliver the specific properties required to meet the demands of the customer's individual application. KnitMesh go further than simply meeting the required international quality standards and customer expectations, by continually innovating and investing in state-of-the-art design, production and testing capabilities.

## Experts in mesh

Our engineers are at their best when working closely with customers to solve their challenging technical problems. With state-of-the-art production and testing facilities in the UK, as well as a manufacturing centre in India, KnitMesh is well placed to support your product development needs.

Our technical team have extensive experience of working with customers across all industrial and commercial sectors.

We're more than just a manufacturer - we're your long-term technology partner.

# About our knitted mesh

Knitted mesh is produced from a metal, mineral or synthetic wire or filament that is processed into a structure of interlocking loops. KnitMesh produce a wide range of products incorporating unique properties that have proven suitable for use in even the most extreme operating environments.

## Main properties:



Flexible & Malleable



Energy Absorbing



Variable Porosity



High Resilience



High Strength



EMC/RFI Screening



Harsh Environments



Aesthetically Pleasing



High Surface Area



Low Cost



Electronically Conductive



Encapsulates & Protects



Environmentally Friendly



Material Versatility



# Innovations for industry

Working with customers who are world-class in their chosen fields, KnitMesh Technologies supplies highly innovative products to many national and global organisations across the automotive, electronics, aerospace, military, commercial, industrial consumables, telecommunications, medical, test equipment and enclosure industries.



## < Aerospace

Our knitted wire mesh is the ideal choice for aerospace applications where few materials will withstand the challenging environmental conditions typically encountered. Commercial, military and general aviation aircraft all use wire mesh in their critical systems. These include filtration for aviation castings, incorporation in composite materials, temperature resilient cores for airframe door, window and hatch seals, and support bushings for engine fuel injector pipes.

## Filtration

KnitMesh manufactures mesh with a unique interlocking asymmetrical wire loop structure that offers many advantages over other materials used in air or liquid filtration and mist elimination or de-misting. Our knitting processes produce materials that, when layered, spiral-wound or compressed, create a tortuous path that, whilst exhibiting minimal pressure drop, is highly effective for both particle capture and the elimination of entrained materials and droplets in fluid flows.



^ Oil & Gas

KnitMesh Technologies is a long-standing and respected supplier to the oil and gas sector. We use our extensive manufacturing and product testing capabilities to offer a wide range of knitted wire mesh products. Capable of operating at extreme temperatures (high and low), as well as in corrosive and hostile environments, previous oil and gas applications have included: HVAC, flame arresting, spark arresting, filtration, mist elimination (demisting), gas detection, hazard signalling and insulation.



^ Electronics & Telecoms

Modern electronic technologies require security and protection against electromagnetic interference (EMI) and radio frequency interference (RFI). With over 60 years of expertise in Electromagnetic Compatibility (EMC) shielding, KnitMesh designs, develops and manufactures a wide range of high-resilience knitted mesh products that meet the suppression needs of the electronics, aerospace, military, commercial, telecommunications and medical industries.

Mining

KnitMesh wire mesh can be designed and developed with our customers to provide customised equipment for a diverse range of applications in both surface (open cast) and underground mining. With safety being of critical importance, our high-quality knitted wire mesh products are used throughout the world to help ensure safe working conditions and optimum productivity in these most challenging environments.



^ Military

KnitMesh offers an extensive range of specialist knitted wire mesh products that will satisfy the safety-critical needs of many defence applications. The special challenges posed by demanding military applications require high performance materials that are lightweight and able to perform in harsh environments. Being self-extinguishing, our products are characterised by their flame resistance, shock resistance and low outgassing. All of our metal meshes are fundamentally inert and inherently safe.

> Animal Enclosures

Our knitted wire mesh forms a strong, lightweight and flexible barrier which is ideally suited to the unique requirements of aviaries and animal enclosures. Unlike heavy rigid barriers, the unique energy absorbing properties of our lightweight knitted wire mesh provides a forgiving containment media that minimises injury, whilst still protecting the animals or birds from the environment and dangerous predators or pests.

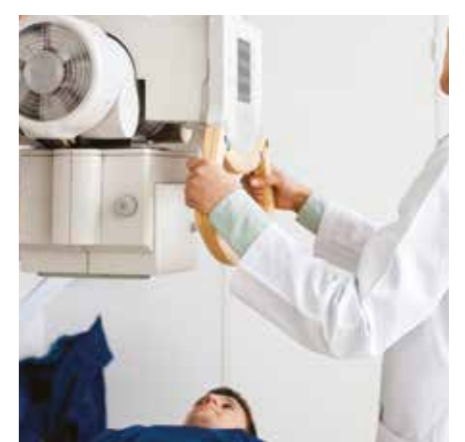


^ Electrochemical

Our knitted wire mesh has many uses in both existing and new horizon electrochemical industries such as fuel cell production and the latest generation of battery developments. Crimped knitted mesh is a conductive, compressible fabric, where its resilience, heat and corrosion resistance and excellent geometric properties render it an ideal media for the electrical contact and compensation elements used in alkaline electrolysis processes within the chlor-alkali, fuel cell, power-to-gas and the water electrolysis industrial sectors.

> Composites

KnitMesh Technologies works closely with a range of advanced materials and component manufacturers that require products that are lightweight and strong. These raw materials are often used in composites that are engineered specifically for use in the harshest environments. Applications range from composite support layers and forming devices, to physical barriers in security composites as well as mesh and graphite combinations for use as valve seals.



^ Medical

KnitMesh wire mesh is an extremely versatile material that lends itself perfectly for use in the fields of medicine, medical research and healthcare equipment. We have worked with research organisations engaged in the development of medical implants and stents, tissue cultivation and prostheses, as well as supplying to manufacturers of complex medical equipment ranging from body scanners to X-ray devices and nebulisers.



### ^ Marine

We offer a range of knitted wire mesh products for use in aggressive marine applications. Their reliable performance in these harsh environments and safety-critical conditions have led to our products being specified by the Royal Navy and the RNLI. They feature in fire control systems in engine rooms, flame arresters in survival equipment, gaskets and tapes for Electromagnetic Compatibility (EMC) screening or electrical sealing of marine electronic equipment, and sea mist filters used in engine room air intakes.

### > Cleaning

The knitted mesh in our KleenKnit™ family of products - manufactured in both flattened and round wire - is ideal for use in a wide variety of cleaning applications. Available in an extensive array of materials, grades and sizes, the KleenKnit™ range is used widely across industrial (particularly plastics extrusion) janitorial, professional and domestic catering, hospitality and DIY/decorating applications.

### Design

Knitted wire mesh is a product that can be varied by material type, size and profile, and which offers the creative industries a unique resource of infinite variety. Our mesh may have had its origins in the industrial domain, but it has since been embraced by artists, designers, architects and DIY enthusiasts. Across the creative world, knitted wire mesh is renowned for its unique, low-cost and added-value functionality.



### ^ Transport

Our wire mesh is used extensively within the transport industry. Examples include anti-vibration and acoustic control components for use in mass transit systems e.g. floating floors and seat support in railway and subway rolling stock. Applications also include anti-slash composite fabrics for use against vandalism in passenger seating or illegal entry into curtain-sider (Tautliner) trucks. Knitted mesh offers a unique combination of high-strength and low-weight that makes it the preferred choice.



For more information on any of our products, please don't hesitate to contact us.

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