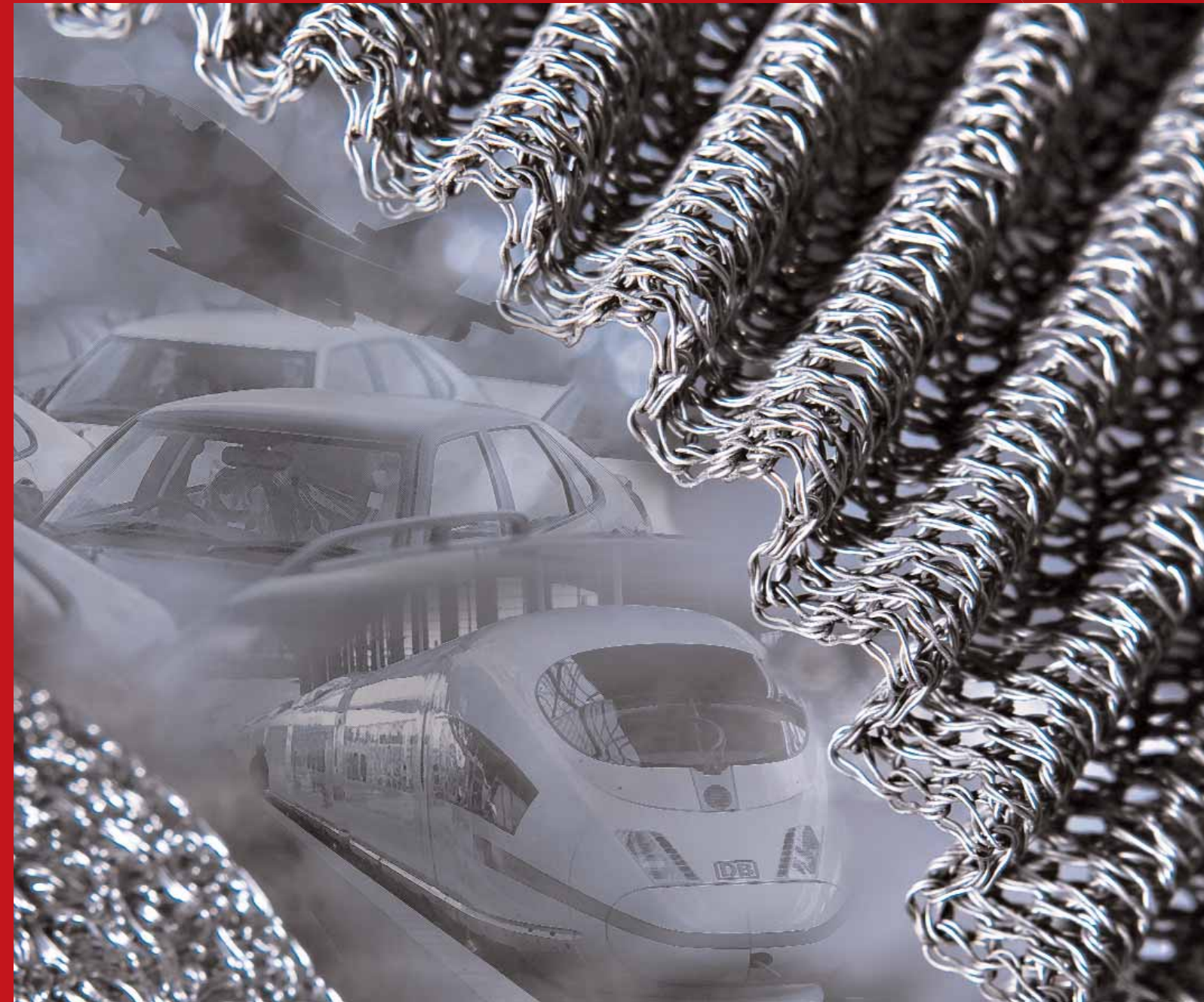


Leading the world in knitted mesh technologies



**KnitMesh Technologies Limited**  
Greenfield  
Flintshire  
United Kingdom  
CH8 9DP

T +44 (0) 1352 717600  
F +44 (0) 1352 714909  
E [sales@knitmeshtechnologies.com](mailto:sales@knitmeshtechnologies.com)

**KnitMesh SA (Pty) Ltd**  
PO Box 4204  
Korsten  
Port Elizabeth 6014  
South Africa

T +27 (0) 414 082500  
F +44 (0) 414 844354  
E [sales@knitmeshtechnologies.co.za](mailto:sales@knitmeshtechnologies.co.za)



## Introducing the experts in technical knitted mesh products



Welcome to KnitMesh Technologies®, the acknowledged technical leaders in the design and manufacture of innovative mesh solutions for an extensive range of industrial applications and environmental conditions.

Established in 1957 – and now part of The Greenfield Group – we work closely with customers from a bewildering array of sectors to solve some of industry's most challenging manufacturing problems. We operate facilities in the UK, South Africa, China and the USA, allowing us to offer a global product design and manufacturing service.

Our products include vibration control, sound attenuation and sealing technologies for harsh environments; filtration for liquids and gases; industrial / catering cleaning equipment and EMC shielding.

Our clients span the automotive, electronics, aerospace, military, marine, commercial, telecommunications, medical, enclosure and technical fabrics industries.

With considerable experience and research expertise, we are able to offer first-class technical advice regarding the design and application of knitted mesh for a wide range of situations. Our accreditations include: ISO 9001, TS 16949, ISO 14001, OHSAS 18001.

We operate a rapid sample service and can quickly provide materials for analysis and testing.

Over the following pages, we provide a brief insight into our products and capabilities.

To find out more, please visit our website or call **+44 (0) 1352 717600**.

[www.knitmeshtechnologies.com](http://www.knitmeshtechnologies.com)

## About our knitted mesh technologies

Knitted mesh is manufactured as a flattened knitted tube of any material available as a filament (e.g. metal wires, plastics, glass fibres, carbon fibres etc.) forming a continuous strip of double layer mesh up to 1000mm wide. This mesh can then be onward-processed into a wide range of specialised engineered products.

Knitted mesh can be produced in a variety of stitch patterns. Additionally, metal meshes can also be crimped in a diagonal or herringbone pattern.

This allows the free volume and specific surface area of filters to be adjusted to suit pressure drop limitations and efficiency requirements. Wires and other filaments can be flattened to increase specific surface area and efficiency.

Any material that can be drawn or spun into filament form can be used to produce a knitted mesh structure for use in the manufacture of our products including:

- Stainless steel – grades 304L, 316L, 321, 310 and 310S are typical – for long life, temperature and corrosion resistance
- Galvanised steel – for low-cost, less demanding applications
- Aluminium – for numerous aerospace, military and nuclear applications
- Copper – in compressed form, for breathers and nickel filters
- Nickel and copper nickel alloys – for use in marine or saline environments
- Polypropylene – lightweight, inexpensive and corrosion resistant
- Hostafon\* and Teflon FEP† – fluoro polymers for excellent performance in acidic environments
- Glass wool and Teflon† – for the filtration of very fine particles
- Plastic / multi-filaments – for high-efficiency applications and noise reduction



\* Hostafon is a registered trademark of Special Metals Corporation USA

† Teflon is a registered trademark of Dupont USA



# Knitted mesh innovations for the automotive industry

KnitMesh Technologies has been involved with the international automotive industry for over 40 years.

Working with both OEMs, and first/second-tier suppliers we enjoy an outstanding reputation for the quality and reliability of our products.

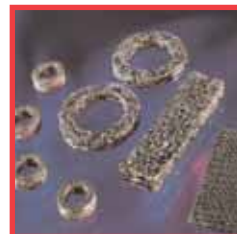
Proudly meeting TS16949 – the automotive industry standard – some of these products are shown below.



**Engine breathers**  
– knitted wire air/oil separator elements and oil filler cap breathers for use in automotive, marine and other applications. Meet the latest environmental standards



**Manifold gaskets**  
– knitted mesh gaskets, both with and without flexible graphite, for use in exhaust manifold mounting seals and system joints



**Anti-vibration, sound attenuation & heat shields**  
– highly effective absorbers of heat, noise and vibration energy for use in exhaust systems. Able to withstand very high shock loadings



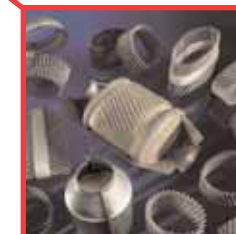
**Exhaust decoupling rings and mesh bellows sleeves**  
– rings are used in decoupling joints / load support assemblies to absorb vibration, take up thermal expansion and reduce noise. Bellows sleeves reduce vibration/noise



**Brake components**  
– a wide range of mesh filters and breathers for heavy goods vehicle braking systems



**Catalytic converter seals**  
– prevent gas erosion of delicate ceramic honeycomb bricks and intumescent mats. Prevent gas bypass around brick and inner catalytic converter shell



**Catalytic converter mesh wraps**  
– used to protect the delicate honeycomb ceramic brick within a catalytic converter from shock and vibration damage



**Silencer and muffler packing**  
– stainless steel wire wool tubes or pads designed to encapsulate the perforated tube within mufflers to retain basalt / glass wool and enhance performance



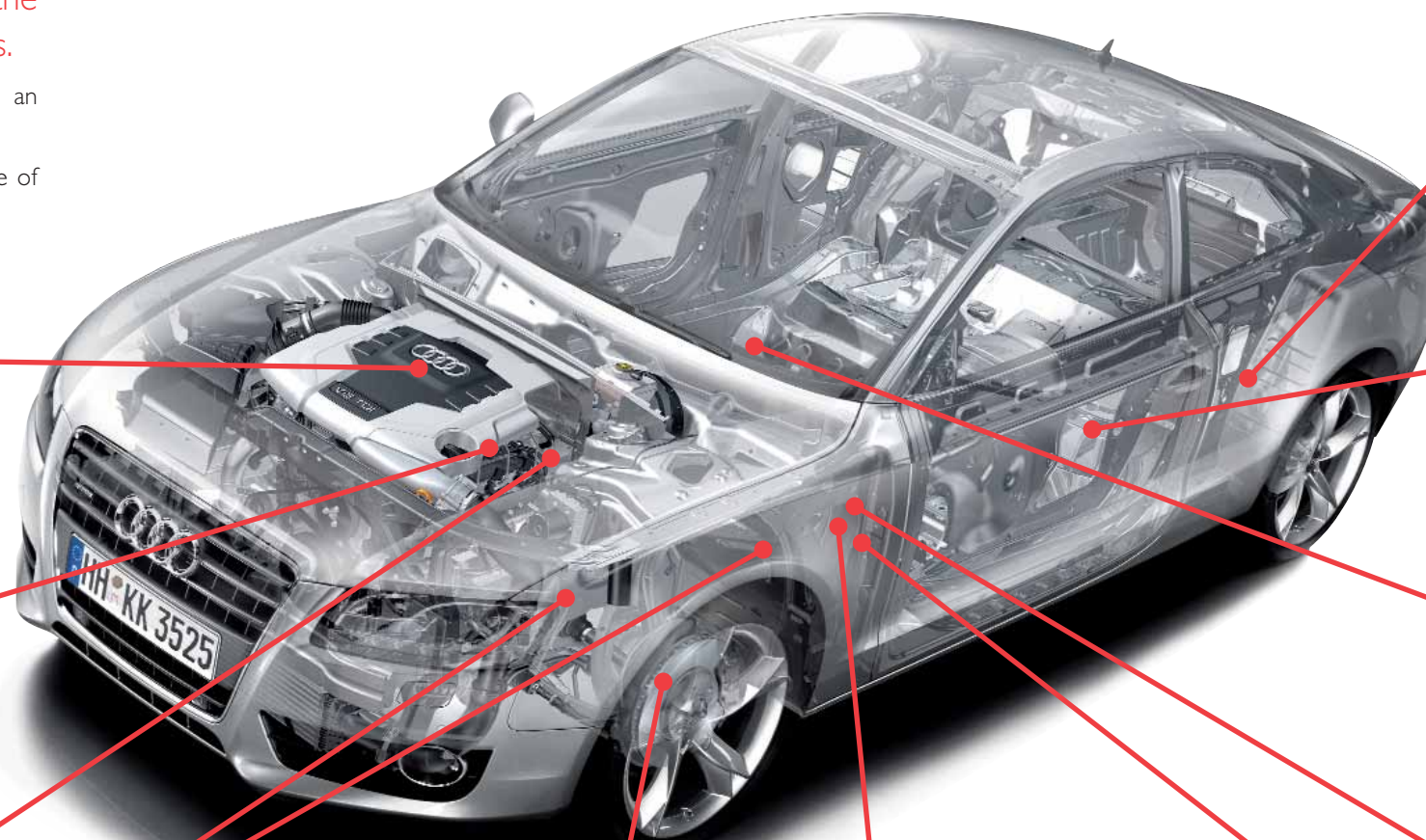
**Spacer rings and air gap seals**  
– used extensively to reduce vibration and noise on dual pipe and down pipe exhaust systems by maintaining a constant gap between pipes



**Airbag filters**  
– prevent incandescent particles from entering or damaging an airbag and cool the expanding gas following actuation



**Separation rings**  
– twin brick catalytic converters require a component to keep apart the two ceramic honeycomb bricks at a constant gap. Using a metallic knitted wire mesh separation ring ensures the gap is consistent and consequently prevents gas erosion of intumescent mats.



## Engineered for innovation

### Special products

Covering a wide range of forms, KnitMesh special products are found in many different industries and applications.

Knitted mesh in lay-flat stocking form is produced for anti-vandal and anti-stab protections. It is also used for plastic extrusion die cleaning, filtration products, grease filters, insulation blanket covering and industrial, catering and domestic cleaning applications.

Wire compacted to create compressed elements is used in a variety of industries for vibration damping, sound attenuation, heat transfer and high performance sealing.

All-metal, resilient knitted wire cores are used within high temperature sealing gaskets on furnace and oven doors, as well as in the aerospace and marine industries.

### Filtration

With its unique structure of interlocking loops, KnitMesh offers significant advantages over other materials in air and liquid filtration.

Knitted mesh filters can be produced in any metallic/non-metallic material that can be drawn into a filament. Forms include: mesh rolls, circular and rectangular pads, complete filters and compressed elements.

Where necessary, metal alloys or plastics can be supplied that are highly resistant to corrosion and can withstand temperatures well in excess of 1000°C.

- Lint filters on washing machine outlet pipes
- Paint spray plant air outlets
- Intake filters on air compressors
- Bag separator layers or elements in dust collection systems
- Noise attenuating filters in air tools
- Kitchen appliance grease filters
- Coarse dust pre-filters in heating and ventilating systems



## Outstanding technical leadership



### EMC Shielding

The very nature of today's industrial control technologies necessitates the need for the control of electromagnetic interference (EMI). Additionally, suppliers of products causing EMI need to comply with the electromagnetic compatibility directive.

With over 40 years' expertise in EMC shielding, KnitMesh designs, develops and manufactures products to meet the needs of numerous organisations across the electronics, aerospace, military, commercial, telecommunications, medical, test equipment and enclosure industries.

These products include:

- Compressed gaskets
- EMC / weather shield gaskets
- Shielding tape
- Mesh / elastomer gaskets
- Knitted wire tapes
- All metal gaskets

### The KnitMesh Technologies Data Centre

Accessible via our website, our data centre provides access to considerable technical information about our products and solutions. Visit our data centre at [www.knitmeshtechnologies.com](http://www.knitmeshtechnologies.com)

