

# Anti-Vibration, Sound & Heat Shield Components

Providing solutions to a variety of NVH and BSR issues



Protecting People, Property and our Planet

**The unique features of our knitted mesh isolator product range offer unique advantages in energy absorption, vibration reduction, sound attenuation and heat dissipation.**

These cost-effective knitted mesh components, are used extensively in harsh process environments, by our global first-tier and OEM customers, to absorb heat, sound and/or vibration energy. Typical applications are found in automotive heat shields and exhaust systems, and as vibration isolators or silencers in the aerospace, marine and air-tool industries.



## Principles of Operation

During the wire mesh knitting process, loops are created that act as tiny springs that return to their original shape after they have been subjected to partial compression.

The properties of knitted mesh include very high levels of resilience, and elastic characteristics that allow the wire loops to move in several directions simultaneously. The components vibrate when subjected to sound energy, and the conversion of sound energy to thermal energy results in a sound damping or silencing effect.

Compressing knitted mesh in a die, creates a structure incorporating intricate passages, that presents a tortuous path to air, which then attenuates sound by absorption.

These features enable knitted mesh to absorb heat, sound and vibration energy far more effectively than alternative, and invariably more expensive, solutions.

## Features & Benefits

- Effective absorption of heat, sound and vibration energy
- High resilience: withstands extreme shock loadings
- High corrosion and temperature resistance
- More cost-effective than alternative solutions
- Available in circular, rectangular and cylindrical form
- Bespoke designs and state-of-the-art test facilities
- Low cost tooling and rapid prototyping

## Quality Assurance

KnitMesh Technologies® is accredited to:  
ISO 9001:2015, ISO 14001:2015, ISO 45001:2018,  
PAS 99:2012 and IATF 16949:2016



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