



# Flexible Insulation Products

Acoustic  
Cold  
High Temperature  
Leak Indication  
Thermal  
Trace Heated  
Expansion

[www.powertherm.co.uk](http://www.powertherm.co.uk)



## Who we are

Powertherm is a multi-discipline industrial service provider, offering a comprehensive range of industry-renowned solutions. We operate in diverse and demanding markets, bringing innovation and over 30 years of experience and technical expertise to a global clientele.

Do it right, do it once: that's the Powertherm way. Our collaborative approach allows us to provide a tailored, bespoke solution to meet your own unique requirements and challenges. We are committed to continuous improvement, investing in industry-acclaimed training and technology. Whatever size the project, our teams uphold the same safety, quality, and environmental commitments and service delivery excellence.

You can rely on Powertherm to provide the trust, peace of mind and quality of service that you need to achieve your targets.

## Our Service

We have competently completed projects requiring flexible insulation solutions from bespoke single cover's to orders of over 2000 products - we take pride in our comprehensive in-house capabilities.

Flexible insulation products are flexible, both in the literal sense and because they can be quickly and easily removed and reinstalled. This is where PT FLEX - our branded product range - was derived from.

Our products come in all shapes, sizes, and specifications to suit every situation across a variety of industries. We have categorised our PT FLEX solutions into the following:

- › Acoustic
- › Cold
- › High Temperature (HT)
- › Leak Indication (LI)
- › Thermal
- › Trace Heated (TH)
- › Expansion

## In-house advanced manufacturing

From over 30 years experience manufacturing flexible insulation products we have the expertise and industry knowledge to provide the right solution for clients'.

We incorporate state-of-the-art machinery into our manufacturing process, and only use the highest quality materials in our finished products.

Fabrics and insulation materials offer protection from -50°C to over 1000°C: mineral wool, glass needle matt, body soluble ceramic blanket, aerogels, and closed-cell polyethylene foam for example.

We also have a variety of 'fastenings' that work when subject to the most demanding situations, Velcro, straps, 'D' rings, rope ties & wire/ eyelet systems.

A CNC ply-cutting machine is at our disposal - with 2D/ 3D design software - so fabrics are cut accurately, delivering high-quality. For large quantities we ensure products are identical and reduce costs through automation.

For those awkwardly shaped bespoke products, we have highly trained operatives that are vastly experienced in manufacturing our solutions by hand.



**"We are fully committed to creating safe working environments and optimising operational performance for our clients and their people"**

Paul Ashton | Managing Director

## Locations

Head Office:

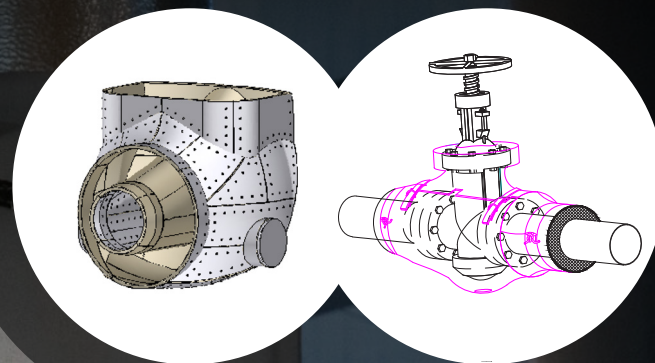
**Sheffield, Yorkshire**

- 1,315m<sup>2</sup> Sheet Metal & Insulation Manufacturing Facility
- 2,785m<sup>2</sup> Warehouse Capacity & Logistics Facility





Powertherm has the capabilities to provide computer-aided system designs



**Powertherm has the experience and competence to provide high-quality bespoke solutions to suit your unique requirements.**

## Why choose Powertherm

Powertherm combines a personal touch with solutions at scale. Through a single point of contact, we can assist in individual areas of asset management or offer a full end-to-end service for a project's lifetime.

**In-house manufacturing:** Our dedicated manufacturing teams pride themselves on delivering high-quality. Couple this with state-of-the-art machinery and tried and tested manufacturing techniques allows us to provide precisely engineered finished products.

**Uniquely sized:** We have the capabilities and competencies to deliver major value contracts, while forging accessible, personal contacts with our clients for immediate support.

**Extensive direct labour:** Our extensive labour pool enables us to scale up our services when required, providing rapid solutions for time-critical incidents like outages.

**In-house services:** We offer a comprehensive range of in-house services designed to optimise processes and offer additional, cost-effective solutions to your business.

### Capabilities:

- › Flexible insulation product designs
- › Material specifications
- › 2D / 3D CAD drawings
- › Thermal & acoustic surveys & calculations
- › Technical drawing take-offs including 3D models
- › Material & fabrication supply
- › Workforce supply
- › Site measuring, consultations, and inspections
- › CUI expertise and solutions
- › Winterisation surveys
- › End-to-end turnkey services: design, supply, install, maintain, and decommission

### Innovative solutions for:

- |                       |                      |
|-----------------------|----------------------|
| › Turbines            | › Flanges            |
| › Fans                | › Valves             |
| › Exhausts            | › Instruments        |
| › Pumps & flow meters | › Pump & flow meters |
| › Heat exchangers     | › Hoses              |
| › Vessels & tanks     | › Gas bottles        |
| › Hoppers             | › Fire hydrants      |
| › Expansion joints    | › Doorways           |

## What we do

Flexible insulation products are an innovative cost-effective solution compared to traditional lagging and cladding techniques. As well as being quick to install, they can also be easily removed for maintenance and reinstalled after.

This makes flexible insulation an ideal solution for when regular access is needed, and when inspection and maintenance programmes are a consideration.

We provide a turnkey service for our clients, our products come in all specifications to suit a variety of situations, with bespoke indoor and outdoor designs tailored for a perfect fit and better mechanical protection.

PT FLEX products reduce energy costs through energy conservation/ reduced heat loss. They can also reduce harmful levels of noise and protect personnel.



## Accreditations

Powertherm is a family-owned business, and we not only care for our people and yours but also the environment we work and live in.

We pride ourselves on the continuous improvement of our business and the way we operate. Our commitment to quality, sustainability, and safety is reflected in our wide range of industry-leading accreditations.





## Acoustic

PT FLEX Acoustic insulation covers are specifically designed to provide a significant reduction in noise and vibration.

Typically constructed from a mineral wool insulation layer and the inclusion of an acoustic barrier, our products provide a solution to your plant and equipment that produce harmful levels of noise and vibration. Depending on the required acoustic reduction, we provide acoustic barriers in different densities and work with clients to provide the right solution.

- › 5kg acoustic barrier offers 7 - 9 dB reduction
- › 10kg acoustic barrier offers 14 - 15 dB reduction

## Cold

Our expert teams understand the complexities when working with sub-ambient temperatures - our PT FLEX Cold solutions suit these requirements.

Silicone glass cloth (able to operate to -50°C) and insulation materials such as aerogels provide a structure that withstands freezing temperatures and stops equipment from freezing.

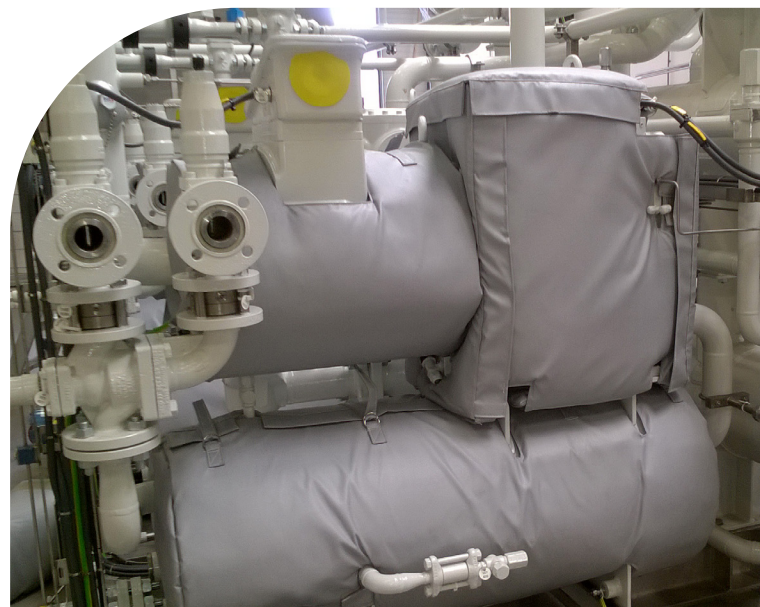
We can also manufacture flexible insulation covers/ jackets from Tri-sil coated glass cloth for weatherproofing for products required in extreme outdoor conditions like offshore oil & gas - we will however work to your unique requirements/ specification passing on our expertise in the process.

## High Temperature (HT)

High temperature applications require materials and the construction of those materials within the final product to be fit-for-purpose. Our range of PT FLEX HT products do just that.

- › Grey silicone glass cloth outer up to 250°C
- › HT glass cloth inner up to 750°C
- › Silica fabric inner up to 1000°C
- › Ceramic blanket insulation up to 1200°C
- › SS lacing hooks & straps with 'D' rings

These are just some of the specialist materials we have in our inventory that we use within the manufacturing our HT insulation covers. We are aware that from time-to-time bespoke requests may require materials that are even more innovative, and we will work with our suppliers to source such materials that meet your specification.



### Key applications

- › Pumps
- › Fans
- › Gearboxes
- › Compressors
- › Air ducts
- › Offshore applications
- › Chilled water lines
- › Petrochemical plants
- › Frost protection jackets
- › LNG installations
- › Turbine covers
- › Exhaust/ collector systems
- › High-pressure steam systems
- › High-temperature processes
- › Heat shields



## Leak Indication (LI)

Operating across industrial sectors we are well versed in industrial processes and the expected health & safety standards in industry.

Our PT FLEX LI products provide an innovative solution for assets like chemical fittings on high-pressure systems. Traditionally these fittings are left exposed, with metal spray guards, to help identify/protect from leaks. This raises a health and safety issue as a leak will spray outwards and could cause injury to personnel.

Installing our innovative solutions which are manufactured using silicone coated glass clothes that change colour when they come into contact with acidic/alkaline solutions means the underlying instrument will not only be insulated to maintain temperature and conserve energy (reducing costs) but also protect personnel through detecting and shielding from any potential leaks.

## Thermal

PT FLEX Thermal solutions are what our customers require most often, and we specialise in their design & manufacture.

Over decades of experience, we have provided countless thermal products to suit a wide range of applications. Generally, PT FLEX thermal:

- › Significantly reduce heat loss/energy costs
- › Reduce CO2 emissions
- › Provide mechanical protection
- › Protect personnel

Like all our PT FLEX solutions they are quick and easy to remove and reinstall. We can also manufacture products using PTFE glass clothes to provide chemical resistance and anti-static properties; suited to Atex classified applications.

## Trace Heated (TH)

Trace heating cable is sewn into pockets on the inside face of a flexible insulation cover to provide a heated solution - that's PT FLEX HT.

Junction boxes and thermostats can also be incorporated, or mounted remotely, to provide a total heated solution for temperature maintenance/ frost protection requirements in non-hazardous areas.

Our CompEx certified engineers also have the competence to design/install solutions for Atex classified areas - giving you peace of mind for hazardous rated applications.

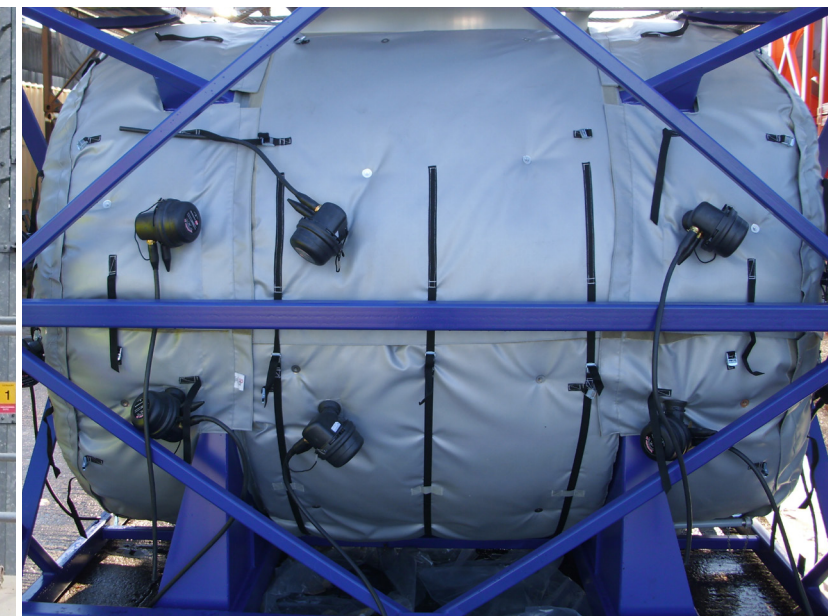
For larger assets like IBC containers that require longer length cabling, trace heating cable can be linked in series using easy to operate 'plugs' between sections of PT FLEX TH covers.

## Expansion

Our PT FLEX Expansion products play an important role in industrial/ commercial piping and ducting systems.

They are a multi-layer structured cover to suit extreme service conditions. Expansion joints can be made for a range of applications from air conditioning pipework operating at ambient temperatures, right up to boiler outlet ducting operating at 650°C+.

When ducting and piping is subjected to extreme and volatile conditions/ temperatures the substantial fluctuations cause thermal expansion/ terminal movement. If ducts and pipes don't have the ability to move, through expansion joints, your process will become damaged - our PT FLEX solutions will help.



### Key applications

- › Hot oil systems
- › Chemical processing systems
- › Petrochemical plants
- › Spray shields
- › High-pressure systems

- › Valves & flanges
- › HVAC & industrial use
- › Boiler houses
- › Tanks & vessels
- › Plant & equipment

- › Valve actuator covers
- › IBC containers/ tanks
- › Water hoses
- › Process control
- › Pumps

- › Boiler outlets
- › Air conditioning ducts
- › All process pipework and ducting 'connections'
- › Bellows





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**Our social media:**

