



GEM-Utilities Ltd

Insulation Jackets

Heat saving for difficult to cover Boiler Room Pipe-work

Product Specification

Bill of Material (BOM)

Base Cloth:

Silicone Grey Rubber Coated Glass Cloth, Style 8590SR148

Fabric weight:

(480 grms/M²)

Fabric Thickness:

(0.40 mm)

Temperature Resistance for continuous uses up to 220 °C

Features:

- 50 mm mineral infill
- Normex, Kevlar Thread
- Nomex Draw Cord
- Velcro

Fabrication:

- All covers are sewn
- Covers conform to the configuration of the items been insulated
- Covers include openings for all protrusions such as pipes, packing glands, control valves
- All pipe work identifiers are left intact
- Covers are designed so that no force bending or folding the cover is necessary for installation
- Three inch flaps at terminal ends can be provided to over lap adjacent covers
- Parting seems are at the installed low points of the cover to allow drainage

Insulation Infill:

- The insulation infill is fabricated in one piece wherever possible
- To prevent insulation settlement, purpose made quilting pins are used to secure insulation
- Insulating infill with more than one piece has staggered joints to prevent hot spots and heat loss



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With the current increased costs of fossil fuels there is an ever increasing focus on minimising energy loss in the built environment.

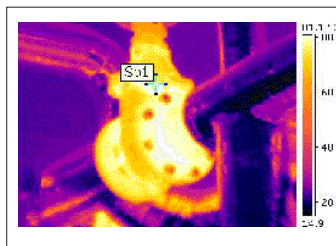
The Boiler Room is generally regarded as the energy centre of the building. It is worth while to make every effort to retain as much heat in the boiler house pipe-work as possible ready for distribution into the building.

A warm or hot boiler house is loosing heat to the environment. Expensive fossil fuel has been burnt to create this heat.

GEM's insulation jackets provide exceptional heat saving for those difficult to cover aspects of boiler room pipe-work.

Heat loss calculations

All heat loss calculations are based on one valve losing the equivalent amount of heat as one metre of the same un-insulated pipe. (Energy Efficiency Best Practice Programme recommendations, EEBPP).



Benefits

- Significant reduction of heat loss from boilers to surrounding air
- Reduces energy costs (average size boiler house circa €3,000 PA)
- Personal Protection from Heat Fatigue and Possible Burns
- Heat protection for Boiler Room Equipment (industry standard <32°C)
- Improved delivery of Hot Water

Features

- 50 mm mineral infill
- Normex, Kevlar Thread
- Nomex Draw Cord
- Velcro closures
- Non-asbestos
- Resistant to most chemical attacks
- Non combustible
- Easily cleaned
- Quick fitting and easy release
- Heat resistant < 220°C (Higher resistance covers available)
- Good mechanical wear resistance

GEM Service

- Initial pipe-work survey
- All large 70°C - 80°C exposed pipe-work is measured
- A complete bespoke specification is drawn up
- A University purpose designed Energy Calculator is used to assess annual savings
- A costing is given with built in Return on Investment (normally <12 months)
- Covers are delivered on site
- Fitting is completed by GEM
- Boiler house temperatures are logged before, during and after fitting

Applications:

Flanges, Gate Valves, Screw Valves, Strainers, Control Valves, 3-way Valves, Calorifier Manifolds, Plate Heat Exchangers, Header Ends.

Low Temperature Hot Water Calculations (Example)

Operating Temperature	80°C Standard LPHW
Operating Hours (PA)	8760 (e.g. Leisure Centre)
Emissions Un-lagged (W/M ²)	671
Emissions Lagged (W/M ²)	43