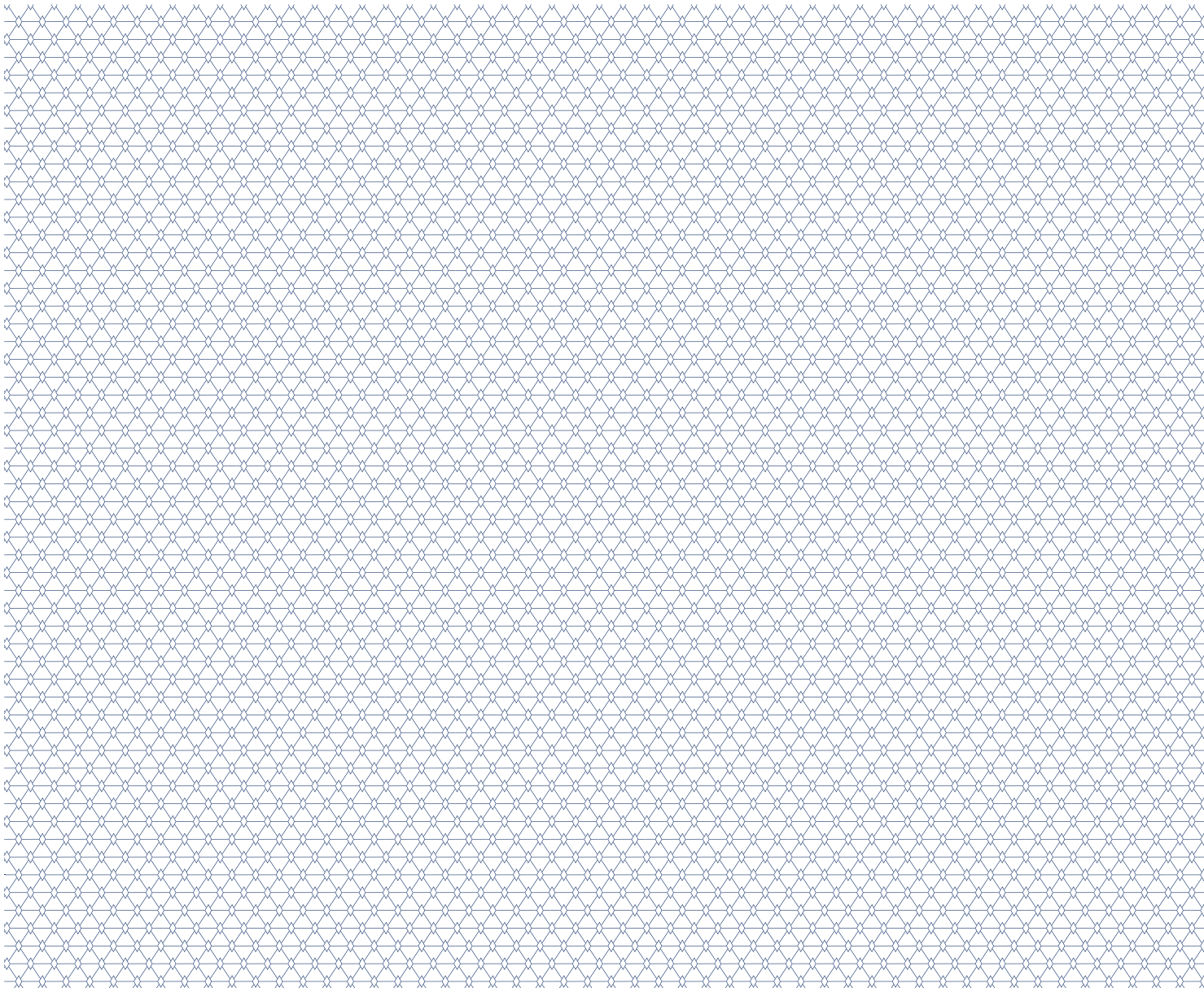
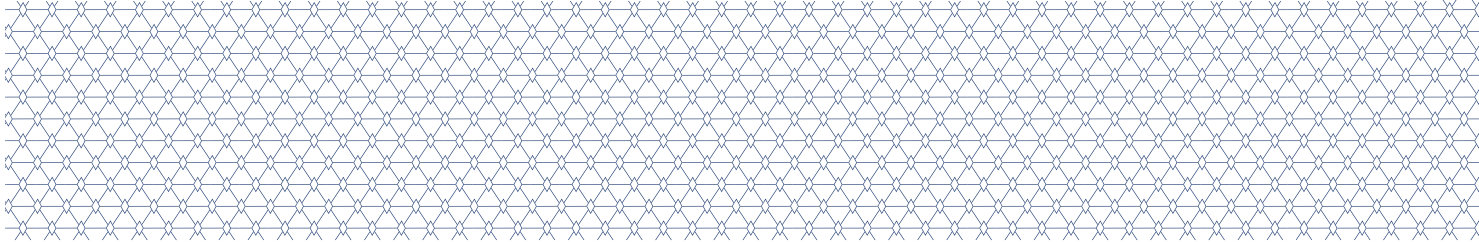




REMOVABLE INSULATION THERMAL JACKETING





INTRODUCTION

Thermal insulation has a very important function to conserve energy. During the past decades, the importance of energy conservation was often overlooked and neglected mainly due to the fact that energy was relatively cheap and plentiful.

The price of resources today is 10 to 15 times fold of what they were 30 years ago. The heat loss during the conversion process of energy resources such as Gas, Coal, and Fuel (gasoline, oil, etc.) into heat, chemicals or electricity is often disregarded and not counted as an actual waste since there is no specific method to measure this. In actuality, heat loss may impose not only financial and safety risks, but also environmental risks as they are closely linked to the contribution of Global Warming.

As a countermeasure against the above issues, PT Fleksindo Wijaya Teknik introduces 3Star Removable Thermal Insulation Jacketing that is able to provide the maximum energy conservation or to maintain the temperature types of equipment with irregular or complex surfaces such as Pipes, Fittings, Valves, Ductings, Tanks, Exhaust Engines, Heat Exchangers, Gas Turbines, Steam Turbines, Pumps, and Expansion Joints.

GLOSSARY OF TERMS

Hot Face

The inside surface area of a removable / reuseable insulation cover. The materials in direct contact with the item being covered.

Cold Face

The Outside surface area of a removable / reusable insulation cover. The materials exposed to atmospheric and ambient temperature conditions.

One-Piece Construction

A removable / reusable insulation cover that is designed and fabricated to be installed as one unit rather than two or more components requiring separate installation to comprise the finished cover.

Inside Seam

A seam which is turned to the inside of a cover shell, so as not to show on the outside.

Outside Seam

A sewn seam which is not turned to the inside of a cover shell but remains exposed to the outside.

Closing Seam

The final seam that is sewn on a cover after the shell has been filled with the core insulation.

Parting Faces

The edges of a removable / reusable insulation cover which butt together when the cover is installed and secured.

Terminal Ends

The ends or tops of a removable / reusable insulation cover which are drawn down around adjacent insulation, valve packing stems, pump flange nozzles, etc.

Gusset Construction

Fabrication of a removable / reusable insulation cover using inside seams to achieve square edges on the cover rather than rounded edges.

Core Unit

The insulating material(s) inside a removable / reusable insulation covers.

Tie Down/Anchor Straps

Straps used in conjunction with buckles to secure removable / reusable insulation covers in place when they are installed on the items being insulated.

3STAR REMOVABLE THERMAL INSULATION JACKETING

Are fabricated from flexible insulation materials enclosed in fabric or metal mesh containment. The seams are machine-sewn with a special thread that is able to withstand the skin temperature without degradation.

3Star Removable Thermal Insulation Jacketing are carefully designed with 3D modeling and fabricated by our skilled craftsmen in such a manner for ease of installation and uninstallation, ensuring shortened downtime of labor and maintenance.

The Following factors need to be carefully considered and studied prior to design and select the right Removable Insulation Jacketing:

- Locations
- Exposure to elements (i.e. water, chemicals, debris, etc.)
- Ambient temperatures
- Maximum temperature range of the applications
- Safety requirements (if any)
- Touch temperature or outer surface temperature requirements
- Space limitation
- Frequency of insulation requirements
- Sound retention (if required)
- Aesthetic preferences (e.g. color)
- Regulatory requirements, etc.

Apart from the designed aspects in order to make the 3Star Removable Insulation Thermal Jacketing fit properly, it is wrapped snugly around the parts and other protrusions might be present.

3Star Removable Insulation Thermal Jacketing use a wide range of materials to suit the customer budget restrictions or those looking for maximum performance. Our materials (enclosure), fastening system and fillers that we use for the Jacketing are able to survive the industrial handling and thermal / chemical exposure visible on each particular application.



FASTENING SYSTEM



STAINLESS STEEL LACING WIRE

The most economical option which provides a good fastening, standard lacing, long-lasting, and rugged.

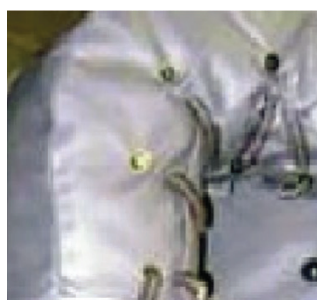
Temperature Limit : <649°C



SILICONE STRAPS WITH D RING OR BUCKLES RINGS

The most economical option which provides a good fastening, standard lacing, long-lasting, and rugged.

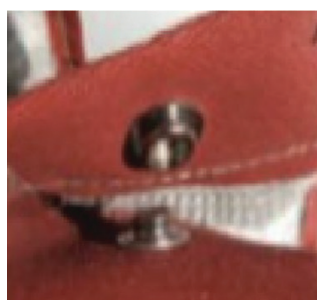
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SPRINGS

Easy for installation and removal, quick assembly/disassembly, minimum labour, higher cost compare to the lacing wire.

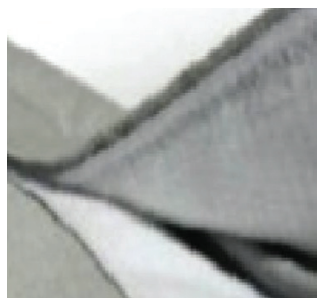
Temperature Limit : <649°C



SNAP

Easy to snap on and off, high-temperature resistance and do not have curved surfaces.

Temperature Limit : <649°C



VELCRO

The easiest installation and removal, very low-temperature resistance, not suitable for a heavy blanket, normally used in combination with another fastening model.

Temperature Limit : <120°C

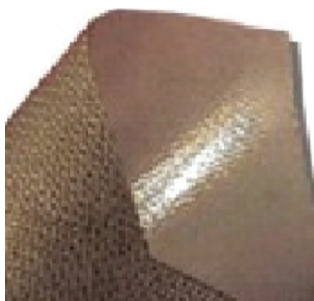
ENCLOSURE



PTFE COATED FIBERGLASS FABRIC

Successfully used in Insulation Jacketing since 1985; a special coating technology for industrial purposes, severe chemical and temperature exposure; easily sewn; flame retardant for hot or cold covers.

Temperature Limit : <649°C



SILICONE COATED FIBERGLASS FABRIC

Successfully used in Insulation Jacketing since 1985; incorporates thick and rugged coating, flame retardant, easily sewn; lower temperature and chemical exposure capability compared to PTFE coated fabric and the most economical option.

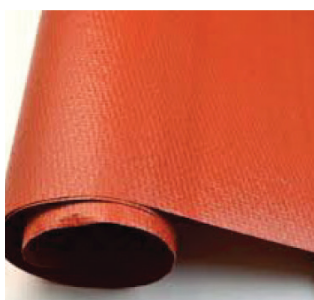
Temperature Limit : 260°C



LAMINATED PTFE/TEXTILE COMPOSITES

Designed for harsh and wet insulation jacketing applications, PTFE film is laminated to one side of the composite to enhance the chemical protection. Successfully used since 1988.

Temperature Limit : <649°C



LFP™ CROSSFILM™

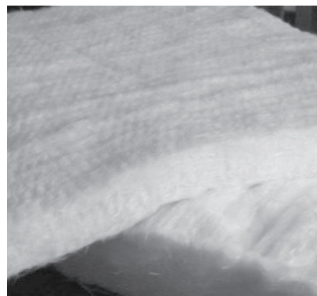
An award-winning material breakthrough for the most challenging insulation jacketing applications; flexible, tear-resistant, 100% PTFE material, proven to be unaffected by complete immersion in wet chemical environments since its invention in 1993; easily sewn or heat sealed. The most advanced material for insulation jacketing.

Temperature Limit : <649°C

Note

Optional; we can also offer stainless steel or Inconel knitted mesh as the cover material (hot/cold) or as reinforcement for outer covers where rocks, debris or damage resistance is needed

FILLERS/INSULATIONS



FIBERGLASS NEEDLE MAT

One of the typical materials suitable for insulation or filler of jacketing applications with temperatures below 649°C. Odorless and does not contribute to metal corrosion. Resists decay, mold, and vermin. Excellent sound absorption property.

Temperature Limit : 649°C



CERAMIC BLANKET OR NEEDLE FELT

Very good thermal property; very ideal for high-temperature application or even low-temperature application where an excellent insulation value is needed.

Temperature Limit : 1200°C

