



Thermal insulating jackets

quickly removable
heat insulating

POWERZ® is an innovative german company that is holding a leading position in the fields of engineering, production of non-metal expansion joints, and readily removable thermal insulation products.



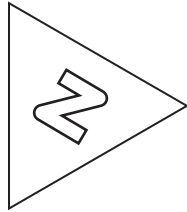
Using the cutting-edge international practices in the production of new materials, we develop high-quality readily removable thermal insulation products.

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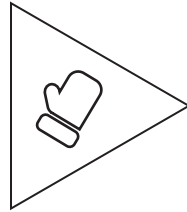
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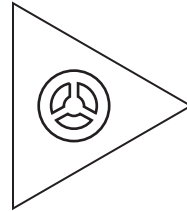
POWERZ® THERMAL INSULATING JACKETS: TYPES AND FUNCTIONS



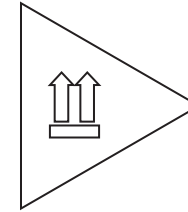
Thermal jackets for complex shape equipment



Active (heating) thermal insulating jackets



Thermal insulating jackets for shut-off valves and devices



Thermal insulating jackets for transport of foodstuff on europallets

Application area

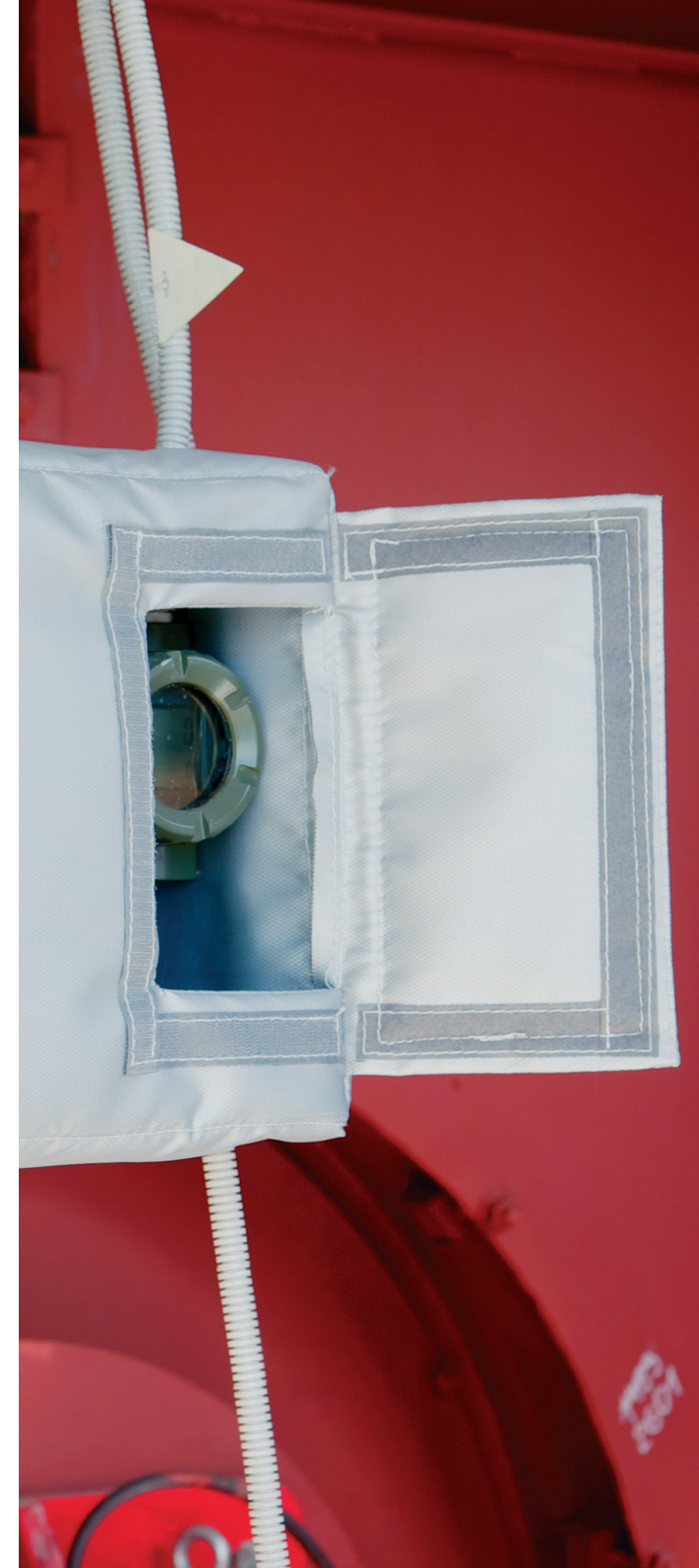
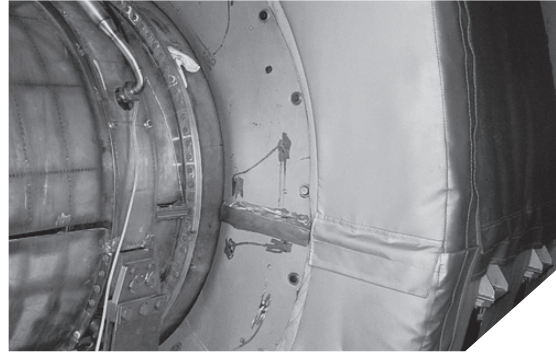
Maintaining of the specified media temperature drop or rise.
Control of the required temperature on the insulation surface.
Protection of the personnel against fire trauma and noise.
Protection of equipment in case of fire.
Control of the standard heat-flux density.
Prevention of freezing problems on the conveyance fluids.

Advantages

- ▶ Solutions can be developed for any task;
- ▶ Can be installed in hard-to-reach places;
- ▶ The finished product dimensions are close to the insulated product parameters to the greatest possible extent;
- ▶ The use of various fastener systems provides high flexibility in application and high erection speed;
- ▶ Installation does not require skilled personnel, equipment or tools.



- Gas turbine exhaust lines
- Pumping, compressor equipment
- Gas turbine equipment
- Wellhead equipment assemblies



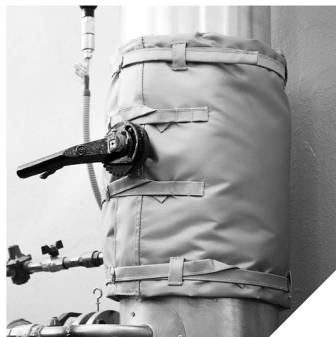
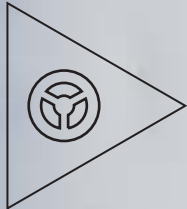
Application area

Thermal insulating jackets are used for complex shape or off-size equipment.
Can be operated in a -60°C to $+800^{\circ}\text{C}$ temperature range.
Made of a set of thermal insulating mats required for the specific conditions, attached by laces, belts, or sticky tape to one another.
Special chemically resistant materials are used for operation in aggressive environments.

Advantages

- ▶ Maximum match to the shape of the insulated object and minimum heat losses;
 - ▶ Selection of the optimal insulation materials and adjustment of their width/thickness to various areas of the insulated object;
 - ▶ Quick access to the elements during periodic maintenance, to the spy holes, including during sampling;
 - ▶ Highest accuracy of openings/recesses, holes for cable/pipe entries.
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POWERZ® THERMAL INSULATING JACKETS FOR COMPLEX SHAPE EQUIPMENT

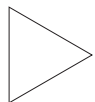


Application areas:

Advantages

They are used on stop valves for the convenience of inspection or periodic examination.
A perfect replacement for one-off insulation products from mineral wool with a metal jacket.
Can be operated in a -60°C to +550°C temperature range.

- ▶ Simple and quick mounting / dismantling;
- ▶ Provide protection for the personnel;
- ▶ Multiple use;
- ▶ Time saving in the inspection, examination, and repairs of equipment



This type of products provides for up to 80 mounting/dismounting cycles.



Insulation of stop-gate valves and ball valves

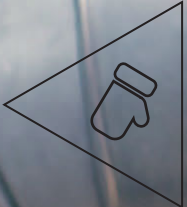


Insulation of filters and control valves



Can be used in any industry sector

POWERZ® THERMAL INSULATING JACKETS FOR SHUT-OFF VALVES AND DEVICES



Application area

Advantages

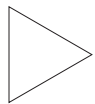
Extend the application temperature range for instrumentation, stop and control valve actuators, and pumping equipment drives.
 Save and distribute heat throughout the entire internal space. Depending on the task, can be furnished with various heating systems, heater cables, or heating elements attached to the internal surface.
 Complete with wiring junction boxes, thermostats, or heating controllers.

- ▶ Possibility of equipment use at extremely low temperatures;
- ▶ Quick mounting / dismantling together with the heating system;
- ▶ Reduction of heating energy consumption;
- ▶ Explosion-proof execution / custom design.



- Regions with an ambient temperature of down to -60°C
- Transport and storage of fluids subject to crystallisation or change in viscosity.

POWERZ® THERMAL INSULATING JACKETS FOR TRANSPORT OF FOODSTUFF ON EUROPALLETS



The guarantee period is 24 months from the commissioning date.

— Delivery of foodstuffs to outlets

— Short-term storage at mobile outlets

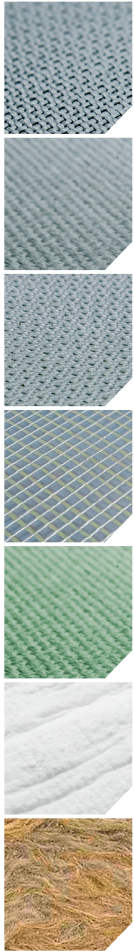
Application area

Enable reduction of foodstuffs exposure to the external environment and maintaining of their quality for a longer time.
Can be operated in a -20°C to +50°C temperature range.

Advantages

- ▶ Simultaneous transport of products with different requirements for the temperature conditions;
- ▶ Possibility of multiple use;
- ▶ Prevent both refrigeration and defrostation of products;
- ▶ Flexibility in solving tasks thanks to the use of various materials.

MATERIALS USED IN PRODUCTION



ELATEX-sil 2™

- Close-woven fibreglass with a double-side silicon coating
- Resistance to low temperatures
- Moisture resistance
- Application temperature -200°C

ELATEX-iso 500™

- Close-woven fibreglass
- Thermal resistance -500°C

ELATEX-iso Am™

- Close-woven fibreglass with reinforcement from non-rust steel mesh
- Thermal resistance -750°C

ELATEX-Cord™

- Non-rust steel mesh

ELATEX-fluor 700™

- Fibreglass with fluoroplastic coating
- Resistance to low temperatures
- Moisture resistance
- Application temperature -265°C

ELATEX-isoceram™

- Ceramic-wool-based thermal insulation
- Thermal resistance -1200°C

ELATEX-iso TH™

- Basalt-wool-based thermal insulation
- Thermal resistance -500°C



POWERZ® THERMAL INSULATING JACKETS: DESIGN AND PRODUCTION STAGES



Powerz® insulating jacket designing is carried out in three stages:

1

Preliminary design

2

Detailed design

3

Production

1

Selection of the optimal material for the insulated equipment.
Selection of the fastener system.
Project costing.
Lead time is up to three working days.
The result of the stage is a rough price and production time limits.

2

Exchange of drawings.
Adjustment of the medium parameters.
Selection of fasteners.
Finalisation.
Lead time is up to two working days.
The result is a finished product.

3

Making of individual prototype models according to drawings.
Materials cutting.
Fabrication.
Wadding.
Formation.
Stowage

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