



BACKER
CALESCO



LIFE SCIENCE SOLUTIONS

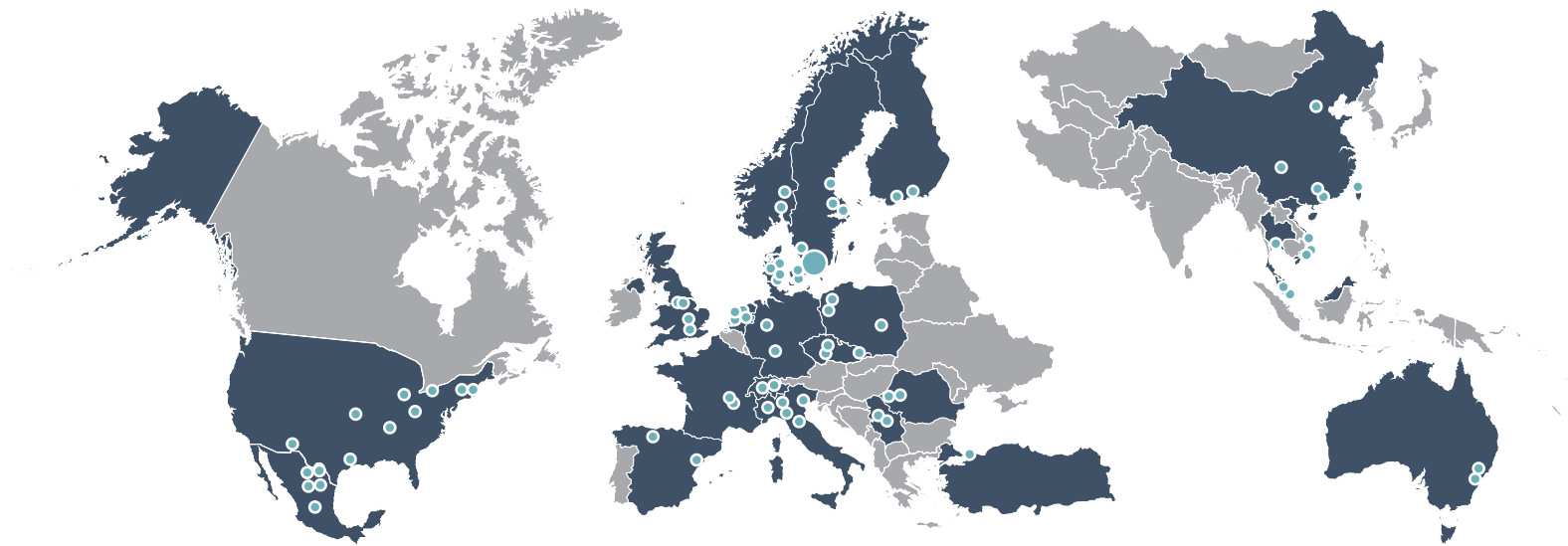
SAFETY · RELIABILITY · TEMPERATURE CONTROL

BACKER CALESCO

EVERYDAY · EVERYWHERE

Our heating products together with our measurement and control devices offer our customers complete solutions. Our engineers will not only suggest solutions, they can also take part in and contribute to your product development by using our advanced technical tools and lab facilities. Our extensive experience and competence as well as our reliable quality and service guarantee your success. Our ambition is to not only be a supplier, but your preferred partner.

Together we can make it happen!



NORTH AMERICA

EUROPE

ASIA/OCEANIA

MEMBER OF BACKER-GROUP

Backer develops, produces and sells customised solutions and components for electric heating, measurement and control. The original technology was stainless steel tubular elements. However, the constant growth of the Group, both organically and through acquisitions, has enabled the integration of several new technologies. Today the Group offers a far wider product range, with a vast number of technologies for several industry sectors and a large variety of applications.

PRODUCTION LOCATIONS

- Backer Calesco main office and production in Sweden
- Production facilities in China, Poland & Vietnam
- Sales office/warehouse in the US



Customised solutions

INDUSTRY SECTORS



AUTOMOTIVE



LIFE SCIENCE



RAILWAY



BATTERY



COMFORT



COMMERCIAL
EQUIPMENT

LIFE SCIENCE HEATING SOLUTIONS

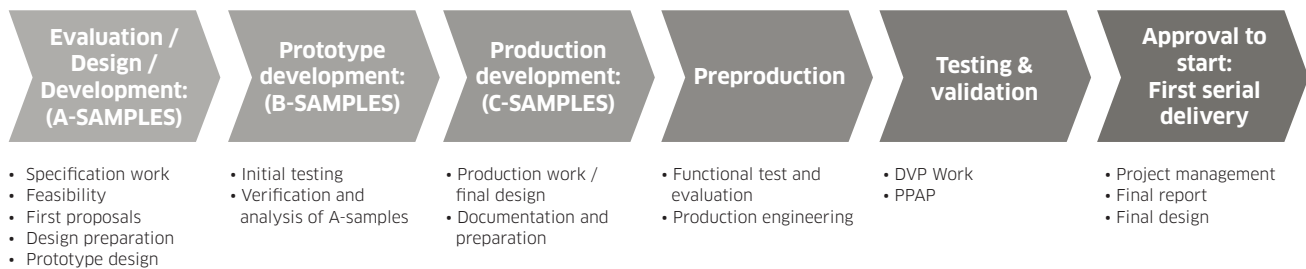
SAFETY · RELIABILITY · TEMPERATURE CONTROL

Backer Calesco supports many segments of the Life Science and analytic industry where precise heat and maintaining exact temperatures are important in many processes. We recognize the importance of technological advancements and are developing and designing heating solutions that will work in the medical field. Our knowledge and expertise in heating products will allow us to produce a heater that meets your heating specifications. Among our customers, you will find globally known companies.

Typical applications	Fluid heaters (Infusion)	Respirators
Magnetic stirrer	Dehumidifiers	Sterilization equipment
Autoclaves	DNA Analysis	Washing machines
Surgery beds	Laboratory research equipment	Intelligent controls

PRODUCT DEVELOPMENT

We work together in a gate model to make sure we reach target in cost and production SOP



DVP PERFORMANCE TESTING

- To validate the design, we perform the test needed to fulfil the specification
- Temperature profile (sensor and image)
- Resistance to climate and environment
- Electrical durability and resistance
- Specific customer requirements

QUALITY

We strive to deliver the highest quality products combined with a flexible way of working. This permeates the whole process including sales, product development, manufacturing, customer service and logistics. Backer Calesco delivers products that meet all relevant standards and tests, certifying products according to customer specifications. We are also able to carry out tests in modern labs, constantly improving our product performance and energy efficiency.

CERTIFICATIONS

Backer Calesco is certified:
ISO 9001 · ISO 14001 · IATF 16949

Our facilities in China, Poland & Vietnam are certified:
ISO 9001 · ISO 14001 · IATF 16949



Innovations for the future

A partnership with Backer Calesco gives you a dedicated team of designers, project engineers and technical experts in the fields of electric heating, measurement and control, ready to provide you with the optimal solutions for your needs.

HEATING COMPONENTS

FLEXIBLE FOIL ELEMENTS

Flexible, lightweight and space-saving

Flexible elements, or foil elements, offer many advantages, beside the fact that the material is flexible. Examples include the ability to have multiple circuits or multiple voltages in the same element, or the ease of locating a sensor. Foil elements provide excellent thermal transfer where you need it most. They are used in thermal control design to protect components under cold-case environmental conditions or to make up for heat that is not dissipated. Foil elements are a space-saving, efficient alternative to applications where precise heat and maintaining exact temperature are important. They are supplied in various materials such as Polyimide, Polyester, Silicon, PTC and Mica.



Infusion bag heaters

The heater is integrated into the bag and together with our temperature controller, the infusion liquid maintains the required temperature.



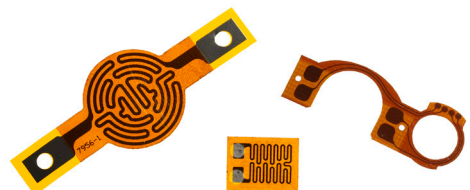
Defibrillator heaters

Our heater automatically starts to heat the cabinet when the temperature drops below 10° C to ensure that it functions even in cold environments. The heater is also supplied with LED lights and an integrated temperature control.



Anesthesia heaters

We customize the heat so it is exactly in the right spot, for both temperature and range. Vaporizing moisture and keeping the right climate are important. By using a flex foil with an integrated controller, we can optimize and ensure proper functioning.



Heaters for Alcolocks & Inhalators

Our heaters allow exact humidity control. With flexible foil, we can customize heaters in different shapes and very small sizes to fit your application perfectly.



Surgery beds/Incubator heaters

The operating table heater keeps the patient warm during an operation and the incubator heater warms newborns or premature babies and maintains a temperature of 37°C with the integrated temperature control.



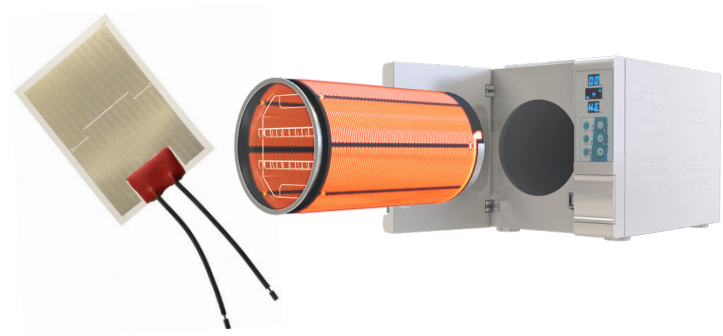
Packaging machine heaters

Process control is important in a modern production line. We can supply reliable heating solutions for plastic and packaging machines and for other equipment.



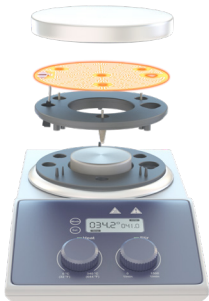
Test-tube heaters

Heaters for applications that require small, exact and direct heat. Our heaters are good for applications that need the heater to route around tubes and have different power zones.



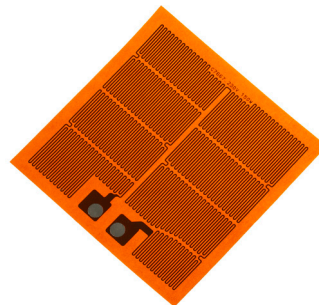
Autoclave heater

Our flexible foil heaters can be used as booster heaters and for applications such as autoclaves and vaporizers. Our heaters prevent dripping from the top of the vessel and speed up the cycling time.



Magnetic stirrer heaters

Our heaters are placed between the metal plates and maintain an even temperature. The heater is customized to provide a reliable, quick heating time for the stir plate.



In vitro fertilization heaters

Maintaining an exact temperature is critical. This can be achieved with a combination of foil heating and accurate temperature control.

TEMPERATURE MANAGEMENT

ELECTRONIC CONTROL SYSTEMS

Control and energy balance

Flexible foil heaters provide excellent thermal transfer where you need it most. Heaters are used in thermal control design to protect components under cold-case environmental conditions or to make up for heat that is not dissipated. It is usually necessary to arrange some form of control to ensure that the desired temperature is maintained; accurate temperature control is therefore needed. This can be achieved with electromechanical thermostats of bimetallic type when temperatures and surface ratings are low, while electronic thermostats are preferred when temperatures and surface loads are high. We can fit thermostats, temperature fuses and sensors of thermo element type, thermistors and resistance sensors directly to elements in accordance with customer specifications. This helps to ensure reliable control.

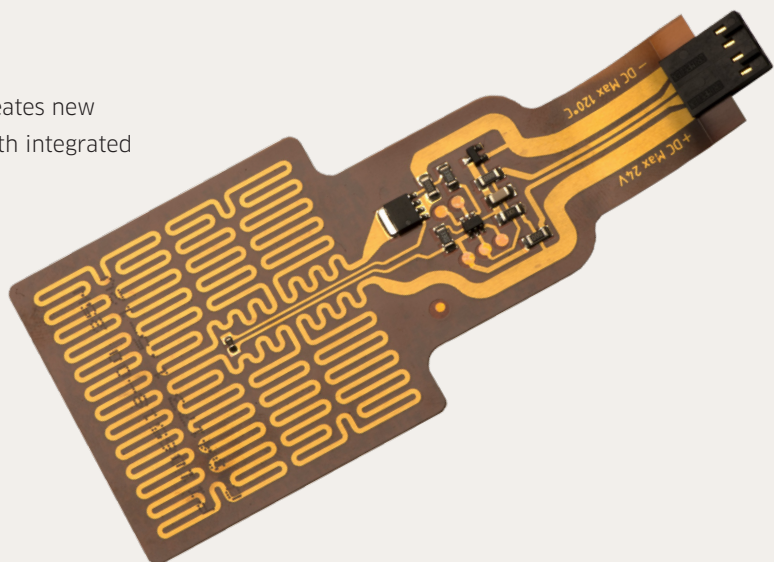
SMART HEATER!

Heater concept with integrated control

The demand for smart simple solutions creates new applications and we can offer solutions with integrated thermal controllers and sensors.

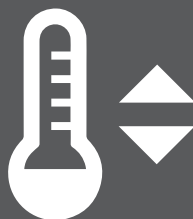
Typical components

- Thermostat
- Resistance controlled
- NTC
- PTC
- PT100/PT1000
- Thermocouple
- Overheat protection



HEATER

+



MEASUREMENT
& CONTROL

=



COMPLETE
SOLUTION



Customised solutions

Customers often come to us with an idea about a new project/solution, a need for our expertise or because they want to enter a partnership with us. We are more than happy to share our facilities, vast experience and expertise at this initial stage. The earlier we are involved in a project, the more we can control the optimisation of core issues, such as the choice of materials, components and technology, temperature control, energy consumption and sustainability, cost efficiency and compliance with all applicable norms, regulations and standards.



FOIL HEATING SOLUTIONS

Advantages

- Thin, flexible & lightweight
- Customised shapes
- Multiple temperature zones
- Simple assembly
- Quick heating
- Efficient heat transmission
- Low energy consumption
- High quality
- Wide material selection

Technical specifications

We offer standard products as well as customised solutions
Voltage: Up to 1000V
Power density: From 0 to 5W/cm²
Max. temperature: 600°C



Backer AB / Div. Calesco
Västra Ävägen 11
SE-734 51 Kolbäck, Sweden
Tel: +46 (0) 220 453 00
backercalesco.com

EVERYDAY · EVERYWHERE



Backer Heating Technologies, Inc.
1390 Gateway Drive
Elgin, IL 60124, USA
Tel: 847-931-1304
backerhti.com