



High-Density Cartridge Heaters

Cartridge heaters from Freek for demanding technical applications

Non-uniform temperature profile? Failures and machine downtime caused by faulty cartridge heaters?

*Freek high-performance cartridge heaters for high **precision**, maximum **efficiency** and process **reliability***



Our cartridge heaters stand for rapid heat-up, precise temperature control and long service life. Thanks to a high-grade stainless-steel sheath and highly compacted magnesium oxide (MgO) insulation, they are **robust**, **safe** and **reliable** even at elevated temperatures. With diameters from **4 to 31.8 mm**, a wide range of lengths and termination styles, we offer solutions that integrate seamlessly into your application. Whether toolmaking, plastics processing or liquid heating, our cartridge heaters ensure uniform heat distribution and maximum efficiency.

Square cartridge heaters in a bendable design enable contour- and surface-proximate installation positions, for example in sealing tools or hot plates. Further variants and options - such as miniature cartridge heaters down to 3 mm diameter, special sheath materials, integrated thermocouples, specific power distribution, separate heating zones, and high-temperature-resistant, moisture-protected or vacuum-compatible terminations - allow you to find the right solution for every heating task, especially **for demanding applications that permit no compromise.**

Your **benefits** at a glance

- **Customised solutions** for your specific application
- **Robust and long-lasting** thanks to highly compacted MgO and a stainless-steel sheath
- **Flexibly configurable** in size, power and terminations
- **Precision-manufactured** for tight tolerances and uniform heating
- **Broadly applicable** in plastics/packaging technology and mechanical engineering
- **Short lead times** thanks to proven standards and flexible manufacturing

Applications

- Plastics processing
- Packaging machines
- Mechanical engineering
- Laboratory and process technology
- Liquid heating
- Hot plates

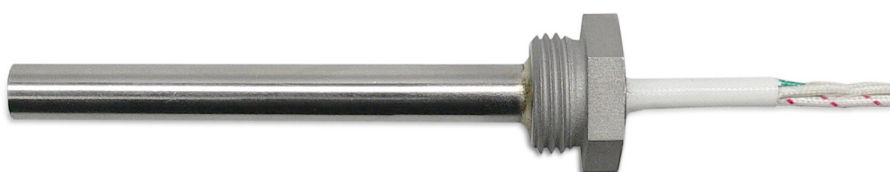
Application Example: Precise Temperature in the Analyzer

Requirement:

In an analytical instrument at a medical-technology client, standard cartridge heaters caused temperature deviations and inaccurate measurement results.

Our Solution:

Freek developed a **miniature cartridge heater with an integrated thermocouple**, precisely matched to the existing bore. Result: Uniform heating with a homogeneous temperature profile for precise analyses and reliable continuous operation.



Any questions? I'm happy to advise you personally!



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