

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
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Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

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HEATRON

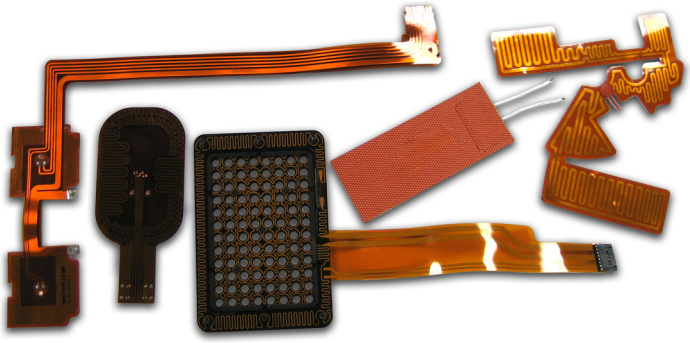
INNOVATIVE HEATING SOLUTIONS

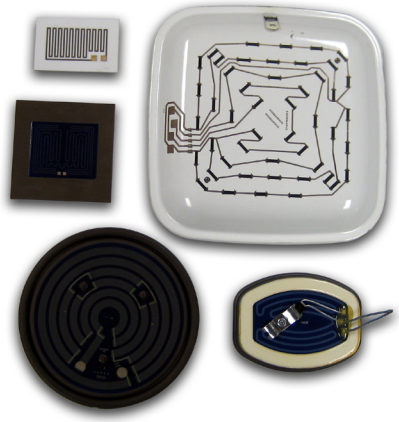
Data Sheet

Heatron's Semiconductor Process Heater Technologies

Flexible Heater Technologies

HEATFLEX Flexible Heaters offer unparalleled design and application advantages over other more conventional heating elements. HEATFLEX heaters are unique in their ability to be engineered for each application. These lightweight, extremely efficient elements provide heat only where it's needed. In addition HEATFLEX elements can be manufactured in an infinite number of shapes and sizes. This flexibility in design and manufacturability has allowed Heatron to excel. New applications for HEATFLEX heaters are discovered everyday by Heatron as well as its valuable customers.





Thick Film Heater Technologies

Heatron uses its proprietary Elpor® system to electrically insulate metal substrates. The thick film heaters provide very fast temperature response and uniformity in a low-profile heater. Thick film heaters are ideal semiconductor applications where space is limited, where conventional heaters cannot be used, when heat output needs to be profiled across the surface, or in high watt-density applications.

Thick film technology originated as hybrid circuits for military and automotive applications because of its high reliability. The term "thick film" relates to the circuit or heating element that is deposited via screen printing (0.0005" thick) on the substrate. Inks made by mixing ceramics and metals (known as Cermet inks) are used to make the resistors and conductors. Typically, these are metallic materials such as silver, gold, silver palladium, gold platinum, copper, and ruthenium. Ceramic inks are also used for the dielectric layer (glass under the circuit) and for encapsulates over the circuit layers.

Cartridge Heater Technologies

The Heatron HEATROD offers a wide range of application advantages. With watt densities ranging over 200 watts per square inch and a multitude of lead configurations, the HEATROD offers solutions where fast, efficient heat transfer is required. The incorporation of controlled heat profiles and thermal controls reduce temperature variations.

CastIn Heater Technologies

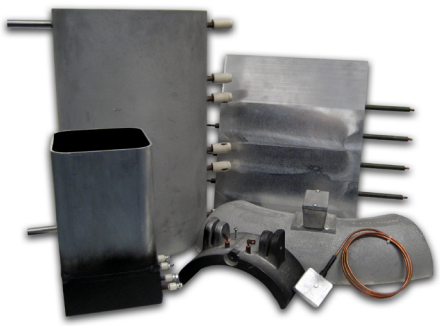
Heatron's line of CAST IN Aluminum and Bronze industrial heating elements and cast parts are available in standard and custom sizes specially suited for a wide variety of applications. Our state of the art foundry, machining center, and our ISO9001 Registered quality system ensures your satisfaction.

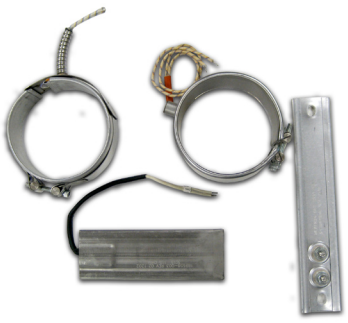
Band and Strip Heater Technologies

Heatron's Band and Strip Heaters use rugged tubular heating elements embedded in an aluminum extrusion for fast heat transfer, even heat distribution, and long life.

The band features Heatron's clamping design for fast and easy installation on cylindrical heating applications.







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Process Gas Delivery and Foreline Heater Systems

From the gas cabinet to the scrubber, Heatron offers a complete line of flexible heating solutions to fit your semiconductor heating needs. All of these heating solutions are manufactured under an ISO 9001 registered quality system to ensure that your solution gives you the fit and function you need the first time. Control over the manufacturing process and a uniform temperature gradient assures improved performance while minimizing particulate build-up inside the lines, reducing system down-time. These solutions meet both agency and industry safety standards by using silicon high temperature, fire-safe materials.



Features and Benefits

- **Modular System**
  - this reduces on-site inventory and ensures a consistent fit
- **Uniform Heating to 200°C**
  - eliminates cold spots that result in condensation and particle build-up
- **Cleanroom and Chase Compatibility**
  - clean heaters will not contribute to the particle generation
- **Ease of Installation**
  - reduces downtime during installation
- **Many Standard Lengths Available**
  - ensures quick delivery and consistent fit
- **Trimable Options Available**
  - helps ensure complete line coverage
- **Standard Gasline Heating from ¼" (6mm), Exhaust and Foreline Heaters from 1 ½" – 4" (38mm – 102mm)**
  - provides maximum coverage of applications; with custom products available
- **Components meet a Combination of UL, CE and SEMI S2-93 Safety Requirements**
  - ensures personal safety
- **ISO 9001 Quality System**
  - consistent product performance
- **All Silicone Rubber Construction**
  - The use of materials with a minimum of 94HB flame rating with 94 V-O material optional, which will help maintain facility safety



Specifications

- Glass reinforced silicone rubber fabric for the heater and outer jacket
- Minimum of 2 watts per square inch
- ¼" and ½" silicone foam insulation
- Snap closures with Velcro option
- Built-in, auto-reset high-limit thermostat
- 120VAC or 240VAC standard with other voltages available
- Parallel electrical connection which allows the heaters to be daisy-chained
- Type K Thermocouple standard with other options available
- Con-x-all, moisture resistant connectors are standard for most applications with other options available

Applications

- Silicone Nitride
- Vacuum Lines
- Aluminum Etch
- Vacuum Chambers
- Tungsten Etch
- Gas Lines / Gas Panels
- CVD
- Exhaust and Forelines



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Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

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We're here to make your life easier. How can we help you today?

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