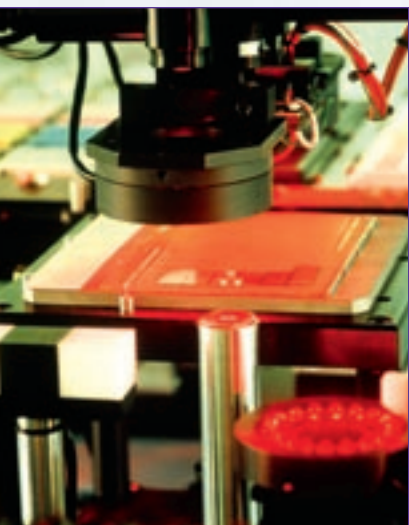




An Extra Degree of ValueSM

Process Electric Heat and Control





Ogden is the responsive source of reliable process heat and control products.

Ogden has spent the last 60 years refining precision manufacturing and harnessing innovative technology to deliver the hottest, most dependable heat and control solutions in the industry. So, whether your application is routine or unusual, we have the right product - stock or custom, to fit your process. A global network, high-quality products, great service and unconditional support are part of our culture, so let us know what in the world you need. and where in the world you need it.

OGDEN is hard at work in diverse industries such as:

Aerospace	Dairy	Packaging	Semiconductor
Automotive	Graphic Arts	Petrochemical	Textiles
Chemical	Heat Treating	Refining	Transportation
Communications	Manufacturing	Pharmaceutical	Utilities
Electrical and	Medical	Plastics	Waste Water
Electronic	Metal Finishing	Pulp and Paper	
Food/Beverage	Mining	Rubber	



Ogden Process Heat and Control Solutions

Large Inventory: We provide many ready-to-ship heat and control component products. Most can be modified to meet specific application requirements and can ship the same or next day.

Fast Delivery: For standard or custom products, delivery is prompt. Manufacturing flexibility offers fast responses to meet emergency situations and our quick-ship programs get it there when you need it.

Custom Engineering: By combining heat, sensor and control components, Ogden designs and manufactures systems based on your unique process requirements.

Heating Systems and Assemblies: Custom or Standard

OGDEN's professional engineering staff can design a complete skid-mounted or packaged system configured from stock or custom components. Our mechanical and thermal engineering experts will specify your system based upon your unique process requirements, including temperature parameters, pressure factors, corrosion conditions, metallurgical compatibility and other critical considerations.





Flanged Immersion Heaters

Designed for use in large capacity vessels, OGDEN Flanged Immersion Heaters are created by brazing or welding from 3 to 60 tubular heaters or Mighty-Blade elements into 3" to 14" standard pipe flanges.

- Numerous watt densities
- Moisture and explosion resistant terminal enclosures
- Special flange ratings and flange materials available



Pipe Plug Immersion Heaters

Typically used in small to medium sized tanks or containers, Pipe Plug Immersion Heaters consist of a tubular heater or Mighty-Blade brazed or welded to a steel, brass or stainless steel 1"– 2½" NPT pipe plug.

- Available with built-in thermostats
- Liquid tight or third-party approved explosion resistant terminal enclosures
- Multiple sheath material and watt density combinations available



Tubular Heaters

Most versatile of all electric heating elements, the Tubular Heater can be formed into virtually any shape for solid, liquid and gas heating applications.

- Wide range of sizes, sheath materials, ratings and terminations
- Available in lengths from 8 inches to 40 feet
- Available in diameters from .210 to .625
- Finned Tubular Heater ratings up to 67 watts per square inch for air heating



Mighty-Blade® Process Heaters

Improves heat transfer to the process by increasing the natural convective flow of materials.

- .275" x 1" flat profile provides 50% more surface area per linear inch than round elements
- More wattage in less space
- Much lower watt densities than with round elements
- Lower element temperatures
- Single or 3-phase, 3-heat or dual voltage



Circulation Heaters

OGDEN Circulation Heaters consist of an immersion heater, heating chamber, mounting brackets, and inlet and outlet piping

- Designed for connection to processes from pre-heating fuel oil to pumping viscosity, closed-loop heat transfer systems or boosting the temperature of a gas
- Standard ratings range from 1.5 to 465 kW
- Various watt densities, sheath materials, chamber materials and pressure ratings suitable for heating materials such as: process, solution or clean water; corrosive liquids; oils with varying viscosity; air and gas



ETR Temperature Controls

Provide leading edge technology for the most flexible, temperature controls available. Industry standard, 1/8, 1/16 and 1/32 DIN sizes are available.

- Automatic tuning of PID parameters
- Ogden's Smarter Logic®
- Fast programming and set up
- Universal input
- UL, cUL, CSA, and CE agency approvals
- Communications capabilities
- Security features



Over-the Side Immersion Heaters

Designed to be used in tanks where flanged or pipe plug immersion heaters cannot be installed, portability is required or where heaters must be removed for cleaning without emptying the tank

- Several styles available for a wide range of applications



Process Air Heaters

Can supply air or gas temperatures to 1200°F using tubular or finned tubular heaters.

- Standard ratings from 5 kW to 370 kW are available
- Easily adapted to existing equipment or ready to install in ductwork
- Often specified in forced air dryers, recirculating ovens, autoclaves and heat treating equipment



Strip Heaters

For tanks, platens and other surface heating applications, freeze and moisture protection in control cabinets and infinite other industrial and commercial applications, OGDEN's extremely rugged construction offers outstanding performance in the most demanding situations.

HD Strip Heater: design supplies quick transfer of heat from the resistance element to the sheath for long heater life

- 3/8" thickness provides rigidity for secure clamping

Finned HD Strip Heaters: available for convection heating or for processes heating a high velocity air stream

Mighty-Tuff Strip Heaters: thin, rugged and produce sheath temperatures up to 1400°F at up to 100 watts per square inch

- Can significantly improve strip heater performance

Mica Strip Heaters: provide versatile, efficient and economical solutions to a wide range of surface heating applications

The Channel Heater: stainless steel sheath is seamless

- Excellent heat transfer from all sides of the Channel Heater is obtainable when installed in milled slots in platens, dies or molds



Radiant Heaters

Flat Panel Infrared Heaters: The maximum efficiency of **Black Body Ceramic Infrared Heaters** converts almost every watt of applied energy to radiant energy

- Highly efficient - as much as 80% of applied energy is converted into radiant energy
- Easily installed and arranged to create heat patterns for any radiant heating process
- Uniform, wide area coverage in sizes from 4 – 24" wide and from 6 – 48" long
- Several emitter surface materials available
- Standard ratings range from 725 watts to 14.4 kW.

HR Radiant Process Heater Assemblies: Generate a uniform band of radiant heat to the process

- Heated lengths from 16-1/2" to 77"
- Ratings from 600 to 7200 watts standard

Quartz Heaters: Golden-Ray, and Quartz Lamp heaters provide a broad selection of standard radiant heater solutions.

- Wide array of styles
- Quartz tube

Black Body Ceramic Infrared Heaters: Converts almost every watt of applied energy to radiant energy.

- Parabolic or flat profile, rectangular or round shapes
- Mounted in housings or panels
- Easily installed or arranged
- **Chameleon Ceramic Infrared Heaters** change colors when processing temperatures are reached



Flexible Heaters

Silicone Rubber Flexible heaters are useful in applications requiring low to medium temperatures. Rugged construction is chemical and moisture resistant. Complex shapes, contours and three-dimensional patterns are limited only by the imagination of the designer.

- Conform easily
- Wire wound or etched-foil element
- Wide range of watt densities
- Low-profile
- Lightweight
- Built-in thermostats
- Built-in sensors
- Multiple mounting configurations
- Drum heaters and enclosure heaters are standard products.

Fast deliveries available with Ogden's Quick Ship Program



Band Heaters

OGDEN's selection of Band Heaters address countless cylindrical surface heating applications.

- **Mighty-Tuff®** Band Heaters will outlast most any other band heater in demanding, high temperature applications where high watt densities are required.
- **Aluma-Flex™** Band Heaters transfer heat quickly and are virtually indestructible in application temperatures to 650°F.
- **Mighty-Miser®** Insulated Ceramic Band Heaters feature high-temperature capabilities and significant energy savings.
- **The Mica Band** Heater is the most economical cylindrical surface heater. The thin profile provides quick heat transfer in applications to 800°F.

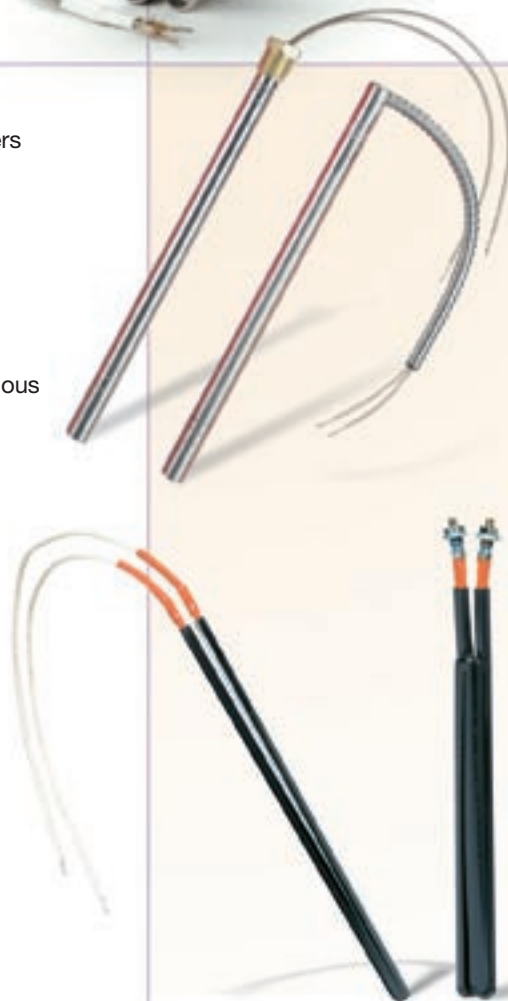


Cartridge Heaters

With the highest possible watt density and temperature capabilities, Ogden cartridge heaters are the ideal choice where an intense concentration of heat is required.

- **The Mighty Watt®**
 - Nickel-Chromium resistance wire wound precisely on a MgO core
 - INCOLOY® sheath ensures maximum protection against high-temperature oxidation and corrosion.
- **The Mighty Watt Plus®**
 - The "plus" is the option to add nine different lead modifications to hundreds of various stock items to create thousands of possible combinations.
- **Bullet®**
 - For low to medium watt density applications up to 1000°F
 - Economical option when high watt density performance is not necessary
- **SST/QST**
 - Designed specifically for platen, die, or mold heating applications where the holes are poorly drilled or worn with age.
 - Split sheath design expands to create uniform conductive heat transfer
- **Maxi-Zone®**
 - INCONEL® 600 sheath for temperatures up to 2000°F/1095°C
 - Exact, uniform temperatures with 2 or 3 independently controllable zones.

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Your local distributor:



Process Electric Heat and Control

847-593-8050 phone
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www.OgdenMfg.com

