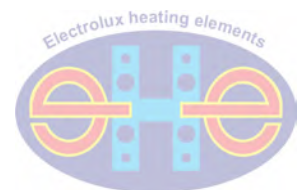


INFRARED LAMPS

ELECTROLUX®

Your Original Manufacturer & Authorized Provider
of Parts & Services for all 1984-2012 Electrolux



FROM NOW ON you are going to have a reliable engineering partner...

Applied Sciences Not Art

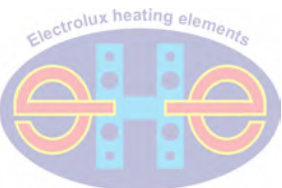
This brochure presents the most comprehensive infrared product line available in the industry. It is a small showcase of our lamps as well as a brief description of our engineering analysis capabilities and infrared imaging testing system. We encourage you to visit emittedenergy.com or call us at 513.752.9999 for these products.

For your convenience, four main groups of lamps were identified and shown separately: Single, Ring, Twin and Contouring. Each group has a unique set of geometrical characteristics that can be exploited to better heat any given surface. All groups share these physical characteristics that make these lamps unique: instantaneous heat, high infrared transmittance, integrated gold and ceramic reflectors, short and medium wavelengths.

Infrared heating is always a very complex physical proposition. It involves several branches of Physics, Chemistry, Materials and Computational Sciences. This may appear an insurmountable task to just heat a simple part but with the right engineering tools, this task can be easily managed.

Our tools include high speed infrared imaging systems and advanced computational fluid and heat transfer software.

Thank you for partnering with us. We look forward to assisting you in your work and applications with our unprecedented quality products and engineering support.



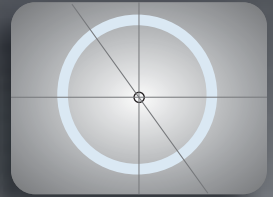
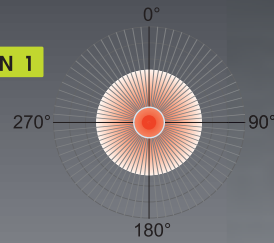
HEAT MANAGEMENT

The half-hemisphere reflective layer can be positioned in the outer surface of the quartz glass tube to direct the heat rays toward the center of the ring.

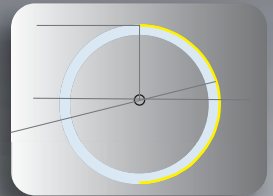


Quartz glass in a tube form is a marvelous material. You can bend it, deform or make it to follow a 3D contour and still contain one of the most powerful heating element, tungsten. By adding a reflective layer in its exterior surface, you can re-direct the infrared heat towards a given direction increasing the heating efficiency up to 50%.

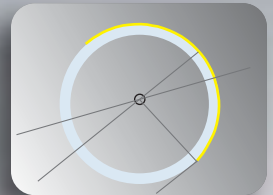
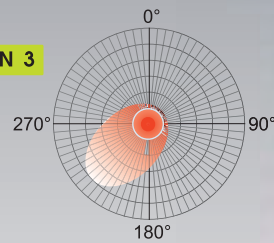
OPTION 1



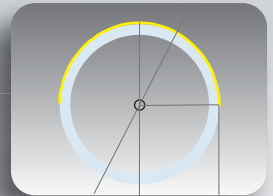
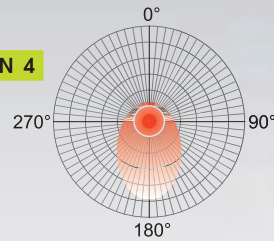
OPTION 2



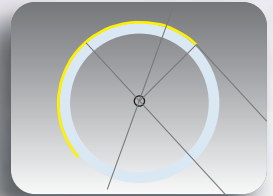
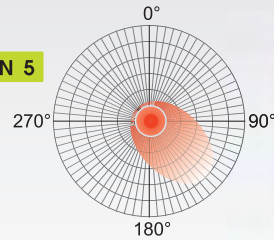
OPTION 3



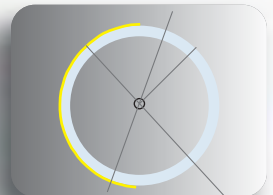
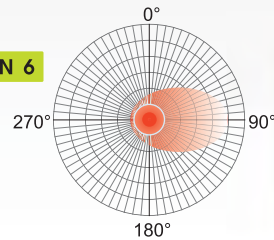
OPTION 4



OPTION 5



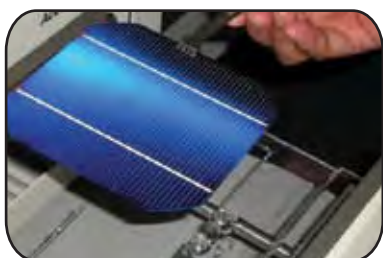
OPTION 6



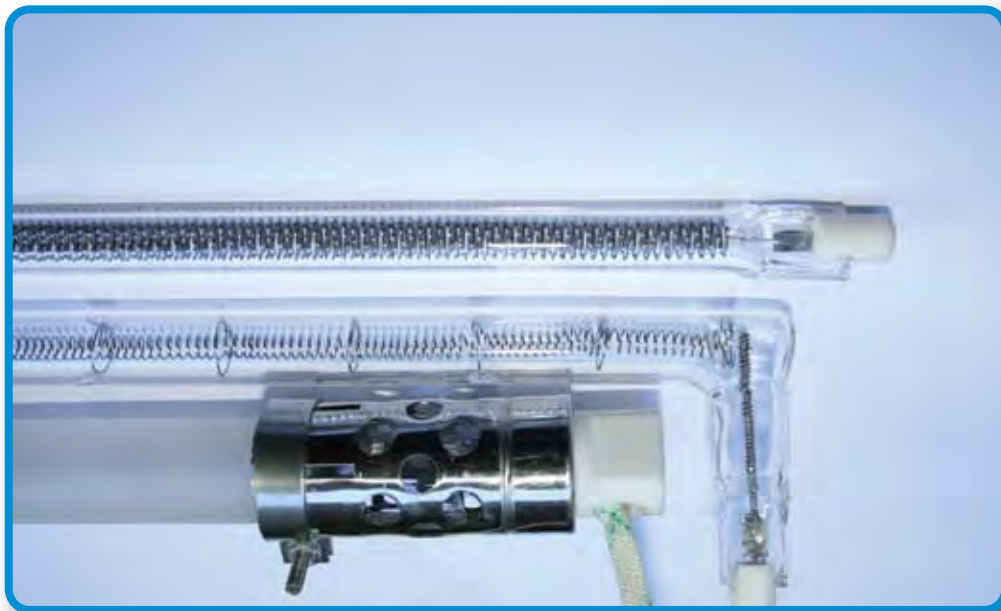
Electrolux heating elements



SINGLE LAMPS



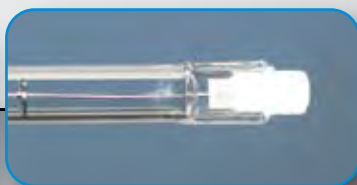
Most Popular single lamp design offered in a variety of sizes, end terminations, coil materials and reflective layers. High power densities can easily be achieved by arrays of continuous lamps emitting at specific short or medium wavelengths.



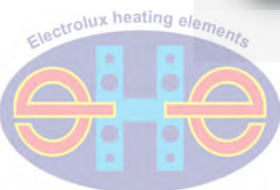
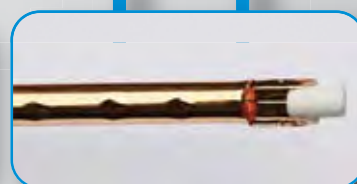
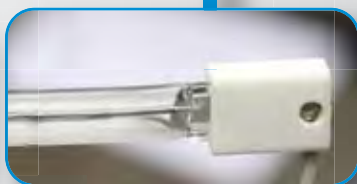
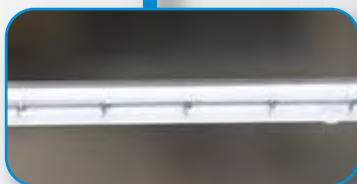
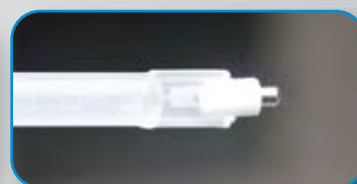
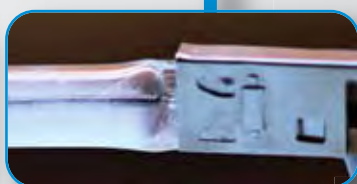
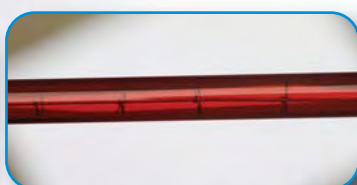
- Available in all standard tube materials, diameters, lengths, end terminations, reflective layer and power densities
- Instantaneous heating rates in short-wave tungsten-halogen lamps
- Instantaneous heating rates in medium-wave tungsten-halogen lamps with the porcupine or star type coil
- Very fast heating rates in medium-wave carbon lamps
- Available with two optional integrated gold and white reflective surface layers
- Service life up to 5,000 hours when temperatures at the contact area is maintained below 345°C and the quartz glass tube's temperature is maintained below 1400°C
- Dimmable

Electrolux heating elements





We offer all standard end terminations for the tungsten-halogen, tungsten medium-wave and carbon lamps. Options for the tube material are clear, translucent and ruby.



RING LAMPS



Ideal designs for flat circular form applications that require instantaneous heat in compact sizes. The integrated reflective layers found in these lamps allow a better management of the emitted heat by directing it to the precise surface of the part.



- Available in all standard shapes and power for the Food, Plastics and many other industries
- Instantaneous heating rates in short-wave tungsten-halogen lamps
- Very fast heating rates in medium-wave carbon lamps
- Available with six optional integrated gold and white reflective surface layers
- Service life up to 5,000 hours when temperatures at the contact area is maintained below 345°C and the quartz glass tube's temperature is maintained below 1400°C
- Dimmable

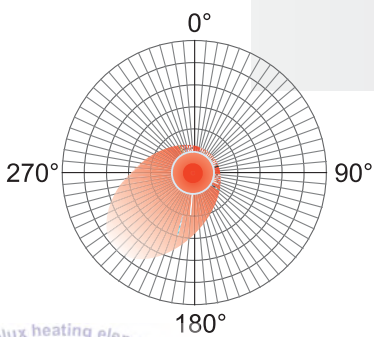
Electrolux heating elements





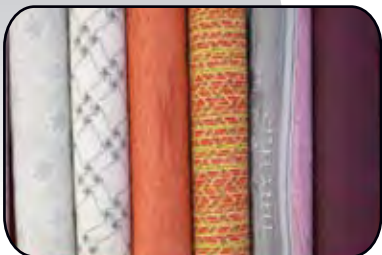
INDUSTRIES

Aerospace
Automotive
Defense
Electronics
Food
Glass
Medical
Print & Paper
Plastics
Semi-conductor
Textiles
Wood



Electrolux heating elements

PRECISE INFRARED HEATING



Designs that make a difference



CONTOUR LAMPS



What if your heating application is other than a **FLAT BLACK SURFACE?**



- Available in all standard tube materials, diameters, lengths, end terminations, reflective layer and power densities
- Instantaneous heating rates in short-wave tungsten-halogen lamps
- Instantaneous heating rates in medium-wave tungsten-halogen lamps with the porcupine or star type coil
- Very fast heating rates in medium-wave carbon lamps
- Available with two optional integrated gold and white reflective surface layers
- Service life up to 5,000 hours when temperatures at the contact area is maintained below 345°C and the quartz glass tube's temperature is maintained below 1400°C
- Dimmable

Electrolux heating elements



HEAT following shape™



TWIN LAMPS



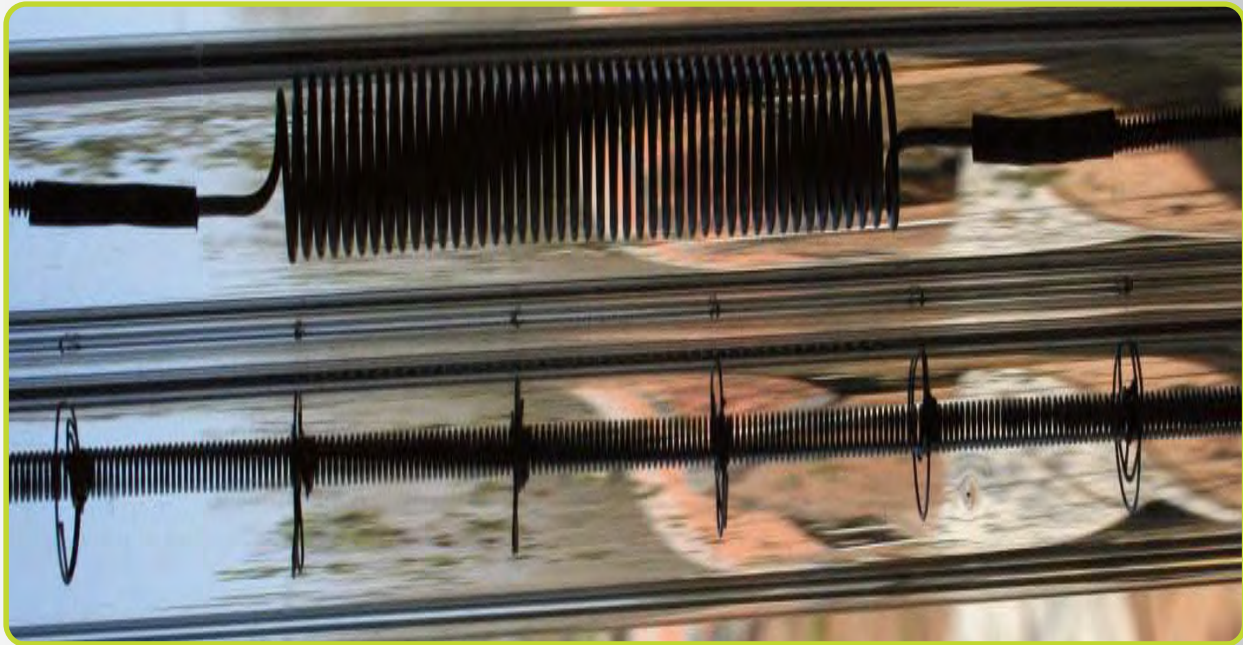
Endless Possibilities The most powerful yet versatile infrared emitter in the market capable of generating short-short, medium-medium or short-medium wavelengths.



- Available in all standard cross-section dimensions, lengths, reflective layer and power densities
- Instantaneous heating rates in short-wave tungsten-halogen lamps
- Instantaneous heating rates in medium-wave tungsten-halogen lamps with the porcupine or star type coil
- Very fast heating rates in medium-wave carbon lamps
- Available with two optional integrated gold and white reflective surface layers
- Service life up to 5,000 hours when temperatures at the contact area is maintained below 345°C and the quartz glass tube's temperature is maintained below 1400°C
- Dimmable

Electrolux heating elements





The H-iron design of the twin quartz glass tube provides superior mechanical stability for long infrared emitters--up to a length of 6 meters and, at the same time, it provides us with a unique opportunity of utilizing both openings as energy sources emitting at same or at different power levels or wavelengths.

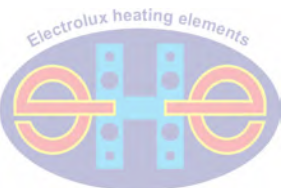
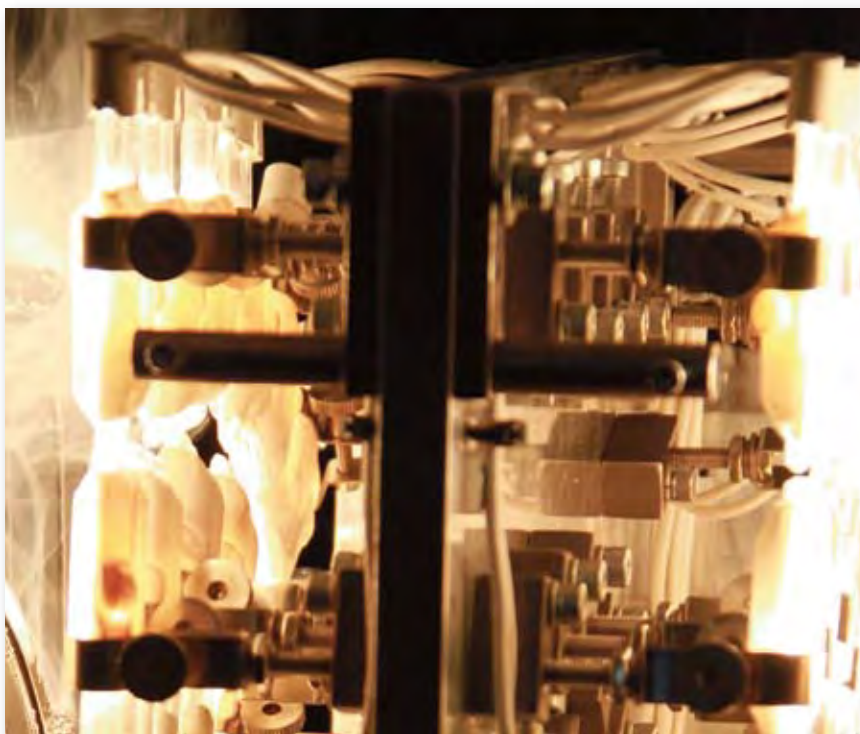
***Our goal
at Emitted Energy
is threesome:***

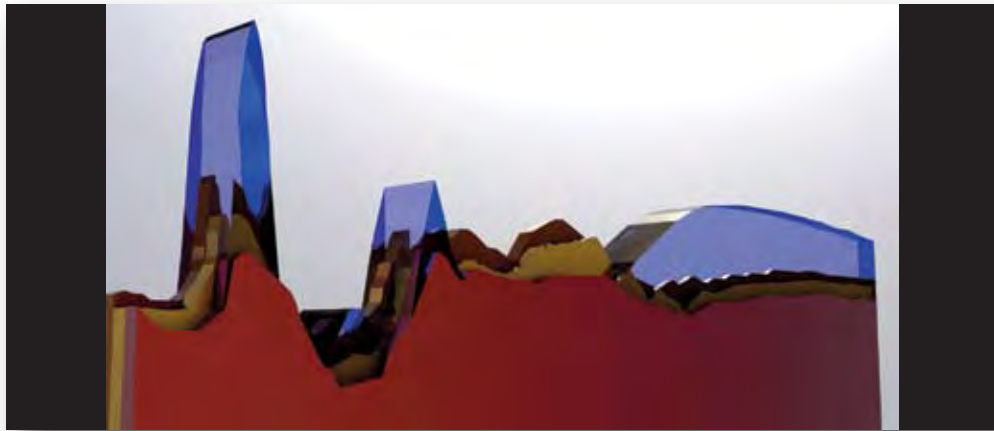
First, we try to understand the phenomenological effects that infrared causes on the materials from a theoretical point of view; second, we employed advanced mathematical simulation to predict behavior under changing conditions and third, we employ high speed infrared imaging to detect even the slightest temperature variations during the testing phase.

ADVANCED ENGINEERING

Applied Sciences Not Art

The notion that infrared heating is a form of art rather than an exact science still prevails in many industries. Infrared heating applications are in general, very complex physical phenomena that requires a deep understanding of several branches of Physics and other exact sciences. With the right scientific approach and engineering tools it becomes possible to predict or to measure the temperature distribution even for the most complex applications.





Simulation & Analysis Tools

Advanced heat transfer and fluid dynamic modeling for radiation, electric heating and enclosure assemblies:

- Advanced Thermo-Optical Software
- 3D Flow Analysis
- Structural Analysis
- Radiation Analysis

Emitted Energy's ability to accurately model and simulate challenging thermal management problems encapsulated infinite 3D assemblies provides a valuable insight about the thermal, structural and flow effects that are acting upon each component of the assembly.

This specialized information can realize significant cost savings by reducing the amount of prototypes and product testing.

Faster, safer products through simulation.

High and Ultra-High Speed Thermography

The fast heating rates of shortwave IR lamps combined with their enormous power density levels makes it almost impossible to analyze a system under steady state conditions. It is imperative that high-speed infrared imaging be employed to capture true heat transients that otherwise will be missed by undersampling.

Emitted Energy employs the most advanced infrared imaging systems for research and product development to provide technical support to our customers worldwide.



OUR **PEOPLE**

OUR **QUALITY**

OUR **SUPPORT**

OUR **SOLUTIONS**

