# CCI Thermal
## Technologies INC.
### Heating and Filtration Solutions
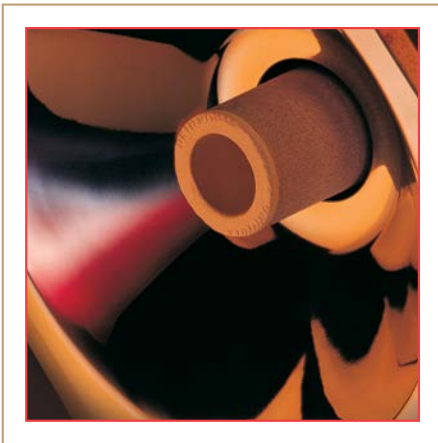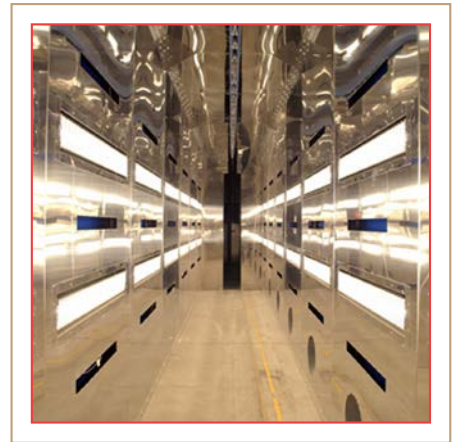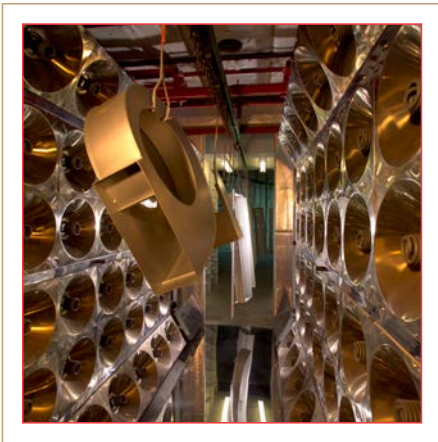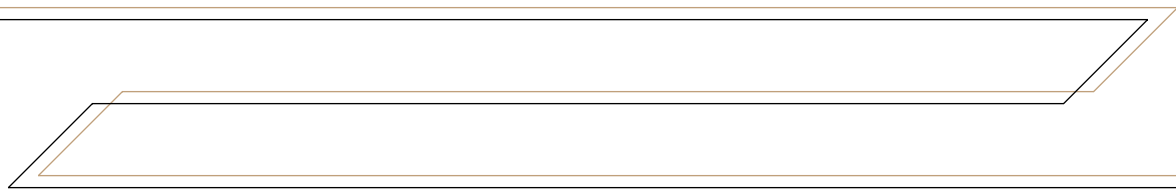


# DriQuik™
## Infrared Oven Components

**CCI Thermal**
Technologies INC.
Heating and Filtration Solutions

BEST MANAGED COMPANIES
Platinum member
CANADA'S

As a leader in heating and filtration solutions, CCI Thermal Technologies Inc. is committed to ongoing research, product development and above all, excellence in customer service.  With facilities across North America, CCI Thermal manufactures six of the top brands in industrial heating in addition to a comprehensive line of engineered industrial filtration products including:

**Cata-Dyne™**
Explosion-Proof Gas Catalytic Heaters

**Caloritech™**
Engineered Electric Heat

**3L Filters™**
Engineered Filtration Systems

**Ruffneck™**
Heaters for the Harshest Environments

**Fastrax™**
Track and Switch Heaters

**Norseman™**
Electric Explosion-Proof Heaters

**DriQuik™**
Infrared Oven Components

## Contents

# A Commitment to Quality for 60 Years

## The Industry Leader

DriQuik™ sets the standard for electric and gas infrared drying oven components. Our company pioneered radiant oven technology in the 1930's and today we design and manufacture heating components and replacement parts for finishing systems that cover the short, medium and long wave infrared spectrum.

## What is Infrared Energy?

Infrared radiation is a form of electromagnetic energy that is generated by the vibration and rotation of atoms and molecules within all objects with temperatures above absolute zero (0°Kelvin; -459°F; or -273°C). Electromagnetic energy, which travels at the speed of light (186,000 miles per second), is comprised of waves that can be measured both electrically and magnetically.

Infrared (literally meaning "below" or "beyond" the red) is located between the visible and microwave portions of the electromagnetic spectrum and shares many of the same properties of visible light, except it has a longer wavelength. When infrared waves encounter a solid object they can be reflected (bounce off), diffracted (scattered), refracted (bent), transmitted (pass through), or absorbed by the object. Several of these effects can take place at the same time.

## Infrared Curing of Coatings

Infrared curing, as occurs in an industrial oven application, applies radiant energy to the receiver, or part surfaces, by direct transmission from the emitter. Some of the energy emitted will be reflected off of the part surface, some will be absorbed into the coating and some is transmitted into the substrate. This direct transfer of energy creates an immediate reaction in the coating, quickly elevating the coating temperature. Cross-linking at the molecular level is rapidly enhanced once the surface is exposed to the emitter.

## Why Use Infrared?

**Infrared is smart.** It heats what needs to be heated – your product or its coating, not the surrounding air.

**Infrared is direct.** It takes less time and energy to do the job.

**Infrared is versatile.** It handles a huge variety of finishing applications, from oddly shaped and configured pieces to demanding substrates and tricky coatings.

## What Does This Mean to You?
- Higher production rates
- Lower operating costs
- Minimal equipment footprint
- High quality parts
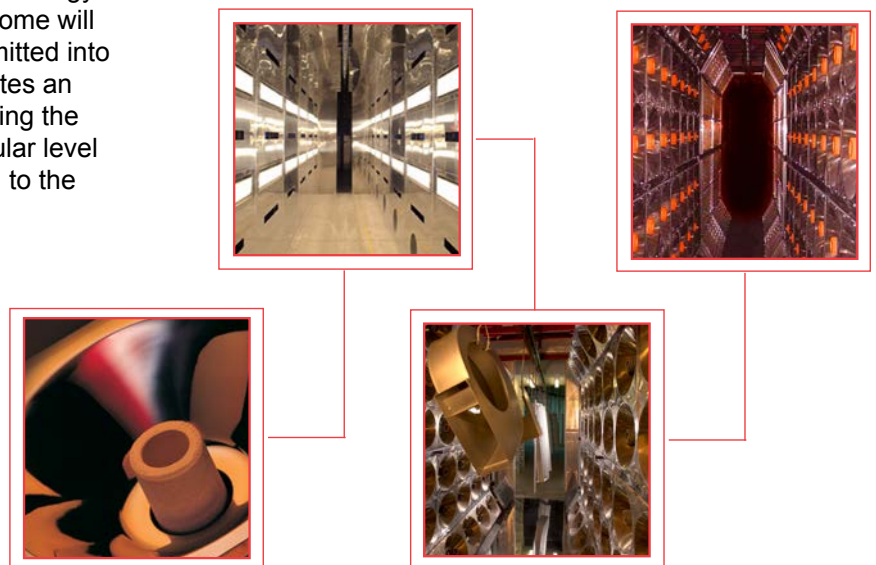
# The QuikCONE Heaters
## ELECTRIC CERAMIC LONG WAVELENGTH



The QuikCONE heater has been at the forefront of the DriQuik™ product offerings since its inception in 1946.

## Emitter

- Utilizes a high-grade nichrome wire that is helically wrapped around a scientifically engineered ceramic cone-shaped core and encased in a high-mass, hardened sand slurry, creating a durable, highly efficient, long wave infrared emitter.
- Offered in a variety of wattages:
    - 500W, 650W, 750W, 1000W in the #2 and #4 series
    - 1000W, 1300W, 1500W in the BR series
- Offered in a variety of voltages (for convenient series wiring):
    - 95V for 380-volt system (four in series)
    - 104V for 208-volt system (two in series)
    - 120V for 240-volt and 480-volt system (two or four in series)
    - 150V for 600-volt system (four in series)

## Heater Section (Figure 1 & 2)

- Each emitter mounted within an independent polished stainless steel parabolic reflector, enabling a superior uniform heat pattern.
- Offered in two reflector sizes:
    - 10.5 in x 10.5 in (267 mm x 267 mm) (#2 and #4 series)
    - 15 in x 15 in (381 mm x 381 mm) (BR series)
- Modular industrial heater sections comprised of multiple emitters, either two or four per section.

- Reflector and emitter assembly mounted within a formed steel housing, which is finished in a durable textured polyester powder coat.
    - #2 series, 10.5 in x 21 in (267 mm x 533 mm), contains two emitters
    - #4 series, 10.5 in x 42 in (267 mm x 1067 mm), contains four emitters
    - BR30, 15 in x 30 in (381 mm x 762 mm) contains two emitters
    - BR60, 15 in x 60 in (381 mm x 1524 mm), contains four emitters
- Standard back-loading design for safe and convenient maintenance access (front-loading configuration available upon request).

## Uses and Benefits

- A variety of available emitter wattages and standard heater sizes.
- The even heat patterning produced through the cone-shaped emitter and parabolic reflector makes the QuikCONE heater most popular for heat sensitive substrates such as wood and plastic.
- The modular design and sturdy emitter allows the QuikCONE heater to be configured in virtually any pattern.
- Most effective on wet coats (water-based or solvent based) and with substrate temperatures requiring temperatures of 300ºF (149°C) and below, though capable in some instances of curing standard high temperature powder coat on light gage materials.
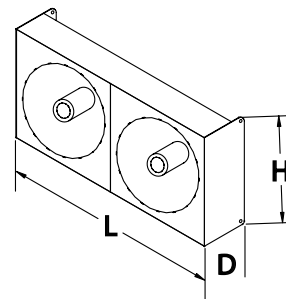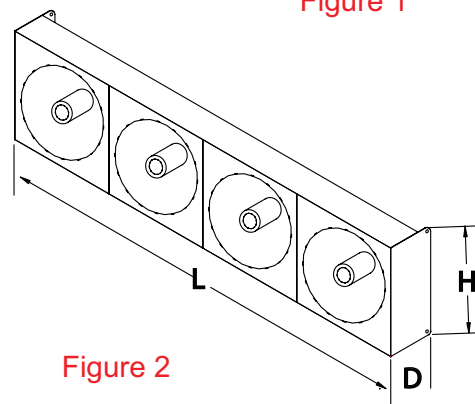


Figure 1



Figure 2

## Heater Section Specifications

| Part No. | Description | Input (kW) | Size- in (mm) | | | Fig. No. |
|---|---|---|---|---|---|---|
| | | | **L** | **H** | **D** | |
| 4005-08-001 | #2-series, 1000W, 208V | 2.0 | 21 (533) | 10.5 (267) | 5.5 (140) | 1 |
| 4005-08-004 | #2-series, 750W, 208V | 1.5 | 21 (533) | 10.5 (267) | 5.5 (140) | 1 |
| 4005-08-005 | #2-series, 1000W, 240V | 2.0 | 21 (533) | 10.5 (267) | 5.5 (140) | 1 |
| 4005-08-007 | #2-series, 500W, 240V | 1.0 | 21 (533) | 10.5 (267) | 5.5 (140) | 1 |
| 4005-08-008 | #2-series, 650W, 240V | 1.3 | 21 (533) | 10.5 (267) | 5.5 (140) | 1 |
| 4005-08-009 | #2-series, 750W, 240V | 1.5 | 21 (533) | 10.5 (267) | 5.5 (140) | 1 |
| 4005-07-001 | #4-series, 1000W, 208V | 4.0 | 42 (1067) | 10.5 (267) | 5.5 (140) | 2 |
| 4005-07-004 | #4-series, 750W, 208V | 3.0 | 42 (1067) | 10.5 (267) | 5.5 (140) | 2 |
| 4005-07-005 | #4-series, 1000W, 240V/480V* | 4.0 | 42 (1067) | 10.5 (267) | 5.5 (140) | 2 |
| 4005-07-007 | #4-series, 500W, 240V/480V* | 2.0 | 42 (1067) | 10.5 (267) | 5.5 (140) | 2 |
| 4005-07-008 | #4-series, 650W, 240V/480V* | 2.6 | 42 (1067) | 10.5 (267) | 5.5 (140) | 2 |
| 4005-07-009 | #4-series, 750W, 240V/480V* | 3.0 | 42 (1067) | 10.5 (267) | 5.5 (140) | 2 |
| 4005-07-010 | #4-series, 1000W, 600V | 4.0 | 42 (1067) | 10.5 (267) | 5.5 (140) | 2 |
| 4005-07-013 | #4-series, 750W, 600V | 3.0 | 42 (1067) | 10.5 (267) | 5.5 (140) | 2 |
| 4005-06-001 | BR30-series, 1000W, 208V | 2.0 | 30 (762) | 15.0 (381) | 6.5 (165) | 1 |
| 4005-06-003 | BR30-series, 1500W, 208V | 3.0 | 30 (762) | 15.0 (381) | 6.5 (165) | 1 |
| 4005-06-005 | BR30-series, 1000W, 240V | 2.0 | 30 (762) | 15.0 (381) | 6.5 (165) | 1 |
| 4005-06-006 | BR30-series, 1300W, 240V | 2.6 | 30 (762) | 15.0 (381) | 6.5 (165) | 1 |
| 4005-06-007 | BR30-series, 1500W, 240V | 3.0 | 30 (762) | 15.0 (381) | 6.5 (165) | 1 |
| 4005-05-001 | BR60-series, 1000W, 208V | 4.0 | 60 (1524) | 15.0 (381) | 6.5 (165) | 2 |
| 4005-05-003 | BR60-series, 1500W, 208V | 6.0 | 60 (1524) | 15.0 (381) | 6.5 (165) | 2 |
| 4005-05-005 | BR60-series, 1000W, 240V/480V* | 4.0 | 60 (1524) | 15.0 (381) | 6.5 (165) | 2 |
| 4005-05-006 | BR60-series, 1300W, 240V/480V* | 5.2 | 60 (1524) | 15.0 (381) | 6.5 (165) | 2 |
| 4005-05-007 | BR60-series, 1500W, 240V/480V* | 6.0 | 60 (1524) | 15.0 (381) | 6.5 (165) | 2 |
| 4005-05-009 | BR60-series, 1000W, 600V | 4.0 | 60 (1524) | 15.0 (381) | 6.5 (165) | 2 |
| 4005-05-011 | BR60-series, 1500W, 600V | 6.0 | 60 (1524) | 15.0 (381) | 6.5 (165) | 2 |

**Note:** * Specify Required Voltage

## Emitter Specifications

| Part No. | Description |
|---|---|
| 4030-04-010 | BR-series, 1000W, 104V |
| 4030-04-015 | BR-series, 1500W, 104V |
| 4030-12-010 | BR-series, 1000W, 120V |
| 4030-12-013 | BR-series, 1300W, 120V |
| 4030-12-015 | BR-series, 1500W, 120V |
| 4030-15-010 | BR-series, 1000W, 150V |
| 4030-15-015 | BR-series, 1500W, 150V |
| 4032-04-010 | #4-series, 1000W, 104V |
| 4032-04-075 | #4-series, 750W, 104V |
| 4032-12-010 | #4-series, 1000W, 120V |
| 4032-12-050 | #4-series, 500W, 120V |
| 4032-12-065 | #4-series, 650W, 120V |
| 4032-12-075 | #4-series, 750W, 120V |
| 4032-15-010 | #4-series, 1000W, 150V |
| 4032-15-075 | #4-series, 750W, 150V |

## Reflector Specifications

| Part No. | Description |
|---|---|
| 4006-01-002 | #4-series, 10.5 in (267 mm) Stainless Steel Reflector |
| 4006-01-004 | BR-series, 15 in (381 mm) Stainless Steel Reflector |
| 4010-01-002 | #4-series Emitter Backplate |
| 4010-01-004 | BR-series Emitter Backplate |
| 3037-01-009 | Terminal Block |
| 4036-01-001 | QuikCONE Emitter Installation Kit |

# The QuikSILVER Heaters

## ELECTRIC QUARTZ MEDIUM WAVELENGTH

### Heater Section (Figure 1 & 2)

- "Dual Reflector" system, as the emitters - with the built-in primary platinum-backed reflector - are mounted within a bright-annealed stainless steel secondary reflector, enabling virtually all the medium wavelength infrared energy to be efficiently utilized.
- Offered in two reflector sizes:
  - 15 in x 30 in (381 mm x 762 mm) (BR30 series)
  - 15 in x 60 in (381 mm x 1524 mm) (BR60 series)
- Modular industrial heater sections comprised of multiple emitters; two, four or six emitters per section.
- Reflector and emitter assembly mounted within a formed steel housing, which is finished in a durable textured polyester powder coat.
- Standard front-loading design for convenient access, including the "quik-snap" emitter-mounting feature for easy maintenance.
- Includes a stainless steel mesh guard, protecting the quartz tubes without affecting the transfer efficiency of the medium-wave infrared to the substrate.

### Uses and Benefits

- The even heat patterning, produced through the tubular-shaped emitters and dual reflector system, makes the QuikSILVER heater popular on heat sensitive substrates such as those found in the automotive industry on interior/exterior plastic components and in the woodworking industry on fine wood cabinet doors.
- Most effective in applications requiring surface temperatures in the 120°F to 325°F (49°C to 163°C) range, such as various wet coat finish systems, particularly on wood and plastic substrates.

With its quick response capability, rapid heat-up and instantaneous cool down, the QuikSILVER heater allows for pinpoint control accuracy on heat sensitive substrates in continuous process finishing systems.

### Emitter

- A reliable nickel chromium resistance coil housed in a quartz tube, non-vertical burn design.
- Platinum primary reflector providing a reflective power on par with pure gold and the superior durability that only platinum can offer.
- Offered in a variety of wattages:
  - 900W, 1000W in the BR30 series
  - 1000W, 1500W, 1800W, 2200W in the BR60 series
- Offered in a variety of voltages (for convenient series wiring):
  - 240V for 240-volt and 480-volt systems
  (one or two in series)
  - 300V for 600-volt system (two in series)
- Emitter temperatures to 1700ºF (927°C), within the medium wavelength range.

## Heater Section Specifications

| Part No. | Description | Input (kW) | Size- in (mm) | | | Fig. No. |
|---|---|---|---|---|---|---|
| | | | **L** | **H** | **D** | |
| 4005-16-001 | BR30-series, QT6, 900W, 240V/480V* | 5.4 | 30 (762) | 15 (381) | 6.5 (165) | 1 |
| 4005-16-002 | BR30-series, QT6, 1000W, 240V/480V* | 6.0 | 30 (762) | 15 (381) | 6.5 (165) | 1 |
| 4005-16-003 | BR30-series, QT4, 1000W, 240V/480V* | 4.0 | 30 (762) | 15 (381) | 6.5 (165) | 1 |
| 4005-16-005 | BR30-series, QT4, 900W, 240V/480V* | 3.6 | 30 (762) | 15 (381) | 6.5 (165) | 1 |
| 4005-13-001 | BR60-series, QT6, 1800W, 600V | 10.8 | 60 (1524) | 15 (381) | 6.5 (165) | 2 |
| 4005-13-002 | BR60-series, QT6, 2200W, 240V/480V* | 13.2 | 60 (1524) | 15 (381) | 6.5 (165) | 2 |
| 4005-13-003 | BR60-series, QT6, 1000W, 240V/480V* | 6.0 | 60 (1524) | 15 (381) | 6.5 (165) | 2 |
| 4005-13-004 | BR60-series, QT6, 1500W, 240V/480V* | 9.0 | 60 (1524) | 15 (381) | 6.5 (165) | 2 |
| 4005-13-005 | BR60-series, QT6, 1800W, 240V/480V* | 10.8 | 60 (1524) | 15 (381) | 6.5 (165) | 2 |
| 4005-14-001 | BR60-series, QT4, 1800W, 600V | 7.2 | 60 (1524) | 15 (381) | 6.5 (165) | 2 |
| 4005-14-002 | BR60-series, QT4, 2200W, 240V/480V* | 8.8 | 60 (1524) | 15 (381) | 6.5 (165) | 2 |
| 4005-14-003 | BR60-series, QT4, 1000W, 240V/480V* | 4.0 | 60 (1524) | 15 (381) | 6.5 (165) | 2 |
| 4005-14-004 | BR60-series, QT4, 1500W, 240V/480V* | 6.0 | 60 (1524) | 15 (381) | 6.5 (165) | 2 |
| 4005-14-005 | BR60-series, QT4, 1800W, 240V/480V* | 7.2 | 60 (1524) | 15 (381) | 6.5 (165) | 2 |

**Note:** * Specify Required Voltage

## Emitter Specifications

| Part No. | Description |
|---|---|
| 4025-09-001 | BR30-series, 900W, 300V |
| 4025-09-003 | BR30-series, 900W, 240V |
| 4025-09-005 | BR30-series, 900W, 208V |
| 4025-10-002 | BR30-series, 1000W, 240V |
| 4025-18-001 | BR60-series, 1800W, 300V |
| 4025-22-001 | BR60-series, 2200W, 240V |
| 4026-10-002 | BR60-series, 1000W, 240V |
| 4026-15-004 | BR60-series, 1500W, 240V |
| 4026-18-006 | BR60-series, 1800W, 240V |

## Miscellaneous Components

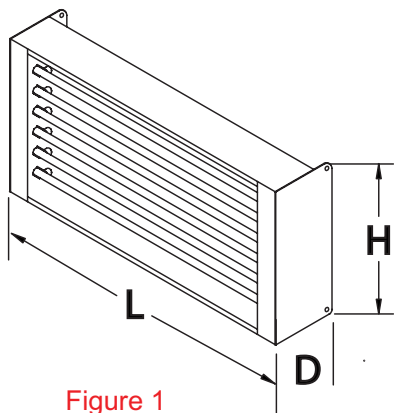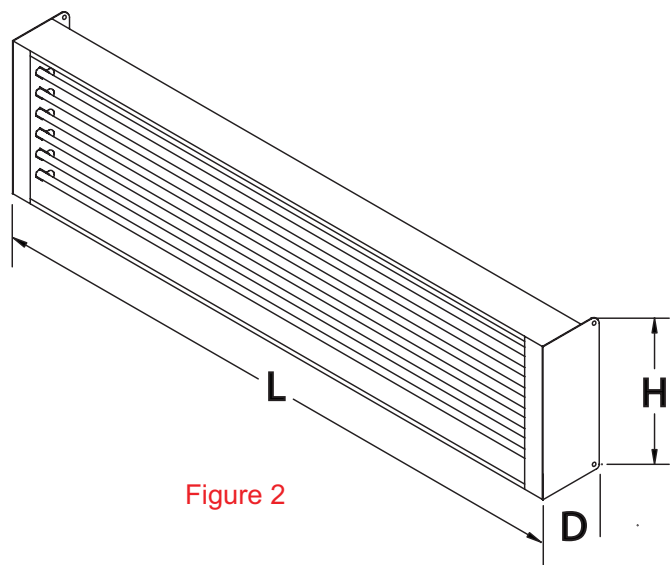| Part No. | Description |
|---|---|
| 4005-04-001 | Quartz Tube Clip Kit |
| 4024-01-002 | BR60-series, QT Stainless Steel Wire Guard |
| 4024-01-003 | BR30-series, QT Stainless Steel Wire Guard |
| 4006-01-909 | BR30-series, Stainless Steel Reflector |
| 4006-01-910 | BR60-series, Stainless Steel Reflector |
| 3037-01-006 | Terminal Block |



Figure 1



Figure 2

# The QuikCOIL Heaters
## ELECTRIC TUBULAR ELEMENT MEDIUM WAVELENGTH



The QuikCOIL heater has become a popular upgrade to our traditional product offerings. Its durability and versatility have entrusted this heater to numerous coating manufacturers for use in many applications across several markets.

## Emitter

- This unique incoloy® sheathed tubular element, with a nickel chromium resistance coil packed in magnesium oxide, has been engineered to exact watt density specifications to assure consistent temperatures and optimum radiant heat transfer efficiencies.
- Offered in a variety of wattages:
  - 750W, 1000W in the #2 and #4 series
  - 750W, 1500W, 2000W in the BR series
- Offered in a variety of voltages (for convenient series wiring):
  - 208V for 208-volt system
  - 240V for 240-volt and 480-volt systems (one or two in series)
  - 300V for 600-volt system (two in series)
- Emitter temperatures to 1500°F (816°C), within the medium wavelength range.

## Heater Section (Figure 1 & 2)

- Each emitter is mounted within an independent polished stainless steel parabolic reflector, to produce a superior uniform heat pattern.
- Offered in two reflector sizes:
  - 10.5 in x 10.5 in (267 mm x 267 mm) (#2 and #4 series)
  - 15 in x 15 in (381 mm x 381 mm) (BR series)
- Modular industrial heater sections comprised of multiple emitters, either two or four per section.

- Reflector and emitter assembly mounted within a formed steel housing, which is finished in a durable textured powder coat.
  - #2 series, 10.5 in x 21 in (267 mm x 533 mm), contains two emitters
  - #4 series, 10.5 in x 42 in (267 mm x 1067 mm), contains four emitters
  - BR30, 15 in x 30 in (381 mm x 762 mm), contains two emitters
  - BR60, 15 in x 60 in (381 mm 1524 mm), contains four emitters
- Standard back-loading design for safe and convenient maintenance access (front-loading configuration available upon request).

## Uses and Benefits

- The variety of emitter wattages and standard heater sizes makes the QuikCOIL one of the more versatile, yet affordable, in the DriQuik™ product line.
- The even heat patterning produced through the coil-shaped emitter and parabolic reflector makes the QuikCOIL heater popular on substrates with complex geometric part profiles.
- The modular design and sturdy emitter allows the QuikCOIL heaters to be configured in virtually any pattern throughout numerous processes.
- Most effective in applications requiring surface temperatures in the 250ºF to 450ºF (121°C to 232°C) range, such as in high solids or powder coat finish systems.
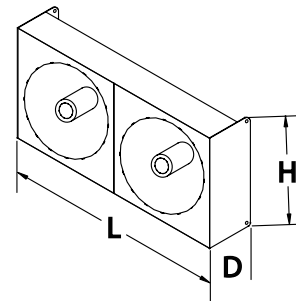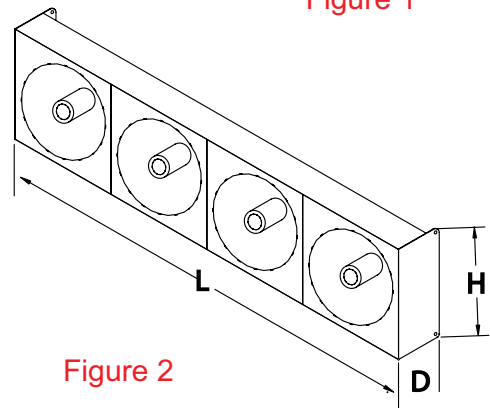


Figure 1



Figure 2

## Heater Section Specifications

| Part No. | Description | Input (kW) | Size- in (mm) | | | Fig. No. |
|---|---|---|---|---|---|---|
| | | | L | H | D | |
| 4005-15-017 | #2-series, 1000W, 240V/480V* | 2.0 | 21 (53.3) | 10.5 (267) | 5.5 (140) | 1 |
| 4005-15-023 | #2-series, 750W, 240V/480V* | 1.5 | 21 (53.3) | 10.5 (267) | 5.5 (140) | 1 |
| 4005-15-005 | #4-series, 750W, 208V | 3.0 | 42 (1067) | 10.5 (267) | 5.5 (140) | 2 |
| 4005-15-006 | #4-series, 1000W, 208V | 4.0 | 42 (1067) | 10.5 (267) | 5.5 (140) | 2 |
| 4005-15-002 | #4-series, 750W, 240V/480V* | 3.0 | 42 (1067) | 10.5 (267) | 5.5 (140) | 2 |
| 4005-15-003 | #4-series, 1000W, 240V/480V* | 4.0 | 42 (1067) | 10.5 (267) | 5.5 (140) | 2 |
| 4005-15-014 | #4-series, 1000W, 600V | 4.0 | 42 (1067) | 10.5 (267) | 5.5 (140) | 2 |
| 4005-15-016 | #4-series, 750W, 600V | 3.0 | 42 (1067) | 10.5 (267) | 5.5 (140) | 2 |
| 4005-15-008 | BR30-series, 2000W, 240V/480V* | 4.0 | 30 (762) | 15.0 (381) | 6.5 (165) | 1 |
| 4005-15-011 | BR30-series, 1500W, 240V/480V* | 3.0 | 30 (762) | 15.0 (381) | 6.5 (165) | 1 |
| 4005-15-020 | BR30-series, 1500W, 600V | 3.0 | 30 (762) | 15.0 (381) | 6.5 (165) | 1 |
| 4005-15-012 | BR60-series, 2000W, 240V/480V* | 8.0 | 60 (1524) | 15.0 (381) | 6.5 (165) | 2 |
| 4005-15-013 | BR60-series, 1500W, 240V/480V* | 6.0 | 60 (1524) | 15.0 (381) | 6.5 (165) | 2 |
| 4005-15-018 | BR60-series, 750W, 240V/480V* | 3.0 | 60 (1524) | 15.0 (381) | 6.5 (165) | 2 |
| 4005-15-010 | BR60-series, 1500W, 600V | 6.0 | 60 (1524) | 15.0 (381) | 6.5 (165) | 2 |

**Note:** * Specify Required Voltage

## Emitter Specifications

| Part No. | Description |
|---|---|
| IXI14844-03 | BR-series, 2000W, 240V |
| IXI14844-04 | BR-series, 1500W, 240V |
| IXI14844-05 | BR-series, 1500W, 300V |
| IXI14844-07 | BR-series, 2000W, 208V |
| IXI14844-09 | BR-series, 750W, 240V |
| IXI14985-03 | #4-series, 1000W, 240V |
| IXI14985-05 | #4-series, 750W, 240V |
| IXI14985-06 | #4-series, 1000W, 208V |
| IXI14985-07 | #4-series, 750W, 208V |
| IXI14985-08 | #4-series, 1000W, 300V |
| IXI14985-09 | #4-series, 750W, 300V |

## Miscellaneous Components

| Part No. | Description |
|---|---|
| 4006-01-002 | #4-series, 10.5 in (267 mm) Stainless Steel Reflector |
| 4006-01-004 | BR-series, 15 in (381 mm) Stainless Steel Reflector |
| 4010-01-002 | #4-series Emitter Backplate |
| 4010-01-004 | BR-series Emitter Backplate |
| 3037-01-009 | Terminal Block |
| 4036-01-002 | QuikCOIL Emitter Installation Kit |

# The QuikLITE™ Heaters
## ELECTRIC HALOGEN SHORT WAVELENGTH LOW DENSITY



## Uses and Benefits

- The even heat patterning produced through the halogen bulb-based emitters, with the dual reflector system, makes the QuikLITE™ heater popular on heat sensitive substrates, such as those found in the woodworking industry on fine custom wood cabinet doors.
- Most effective in applications requiring surface temperatures in the 100ºF to 180ºF (38°C to 82°C) range, such as various solvent-based or water-based finish systems, particularly on wood and plastic substrates.
- Instant on/off response times makes the QuikLITE™ heater "substrate friendly", with no fear of heat damage to the product during line stoppages.

### Heater Section Specifications

| Part No. | Description | Input (kW) | Size - in (mm) | | | Fig. No. |
|---|---|---|---|---|---|---|
| | | | L | H | D | |
| 4035-01-001 | QLI-2500 | 2.5 | 29.25 (743) | 5.25 (133) | 2.75 (70) | 1 |

### Emitter Specifications

| Part No. | Description |
|---|---|
| 4001-01-009 | QL-series, Halogen, 2500W, 480V |
| 4001-01-015 | QL-series, Halogen, 2500W, 600V |

### Miscellaneous Components

| Part No. | Description |
|---|---|
| 4035-08-002 | QL-series, Bulb Holder |
| 4035-06-002 | QL-series, Wire Guard |

With its rapid response capability and standardized design, the QuikLITE™ heater can provide a cost effective quick curing solution for lower temperature applications and for dimensionally complex parts.

## Emitter

- A transparent quartz bulb, with a tungsten (T-3) filament and a built-in high temperature ceramic primary reflector, creating a long life near (short) wave infrared lamp.
- Located in the .75 to 1.5 micron band on the Electromagnetic Spectrum.
- Adheres to the "Halogen Cycle" – a chemical reaction whereby evaporated tungsten particles are returned to the filament, keeping the blackening of the bulb wall and/or the thinning of the tungsten filament to a very minimum.
- Offered in a singular 2500-watt bulb.
- Offered in 480V and 600V.

## Heater Section (Figure 1)

- "Dual Reflector" - with the built-in primary ceramic-backed reflector - is mounted within an anodized extruded aluminum secondary reflector, enabling virtually all the near (short) wave infrared heat to be efficiently focused.
- The heater section, with dimensions of approximately 5.25 in (H) x 29.25 in (L) x 2.75 in (D) (133 mm x 743 mm x 70 mm), includes a single 2500-watt bulb, with a fully adjustable reflector and protected by a removable aluminum mesh guard.
- Standard front-loading design for convenient access, including the "quik-snap" emitter-technology feature for easy maintenance.
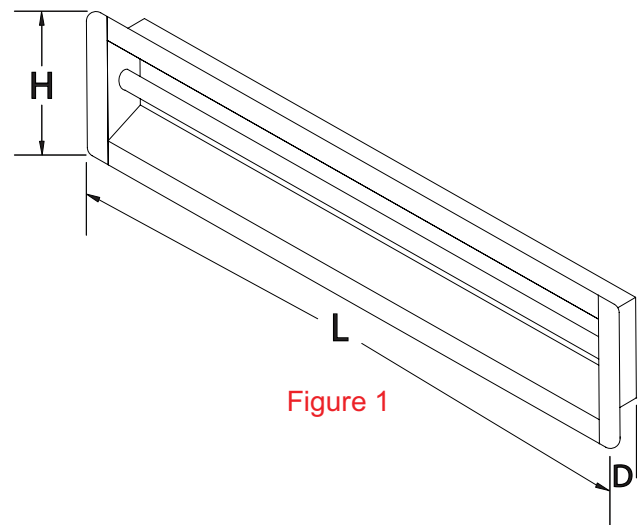


Figure 1

# The QuikKILN Heaters

## ELECTRIC HALOGEN SHORT WAVELENGTH HIGH DENSITY

### Heater Section (Figure 1)

- Engineered to maximize halogen T-3 bulb life
    - Bulb seal area temperature of 300°F (149°C)
    - Bulb sheath temperatures below 900°F (482°C)
- Emitter assembly is mounted in a formed stainless steel housing.
- Curing solution for applications where the part temperature maximum limit is 800°F (427°C) or below.
- Suited for high-speed applications.

### Uses and Benefits

- Instantaneous thermal adjustment.
- Process times faster than other infrared technologies.
- Reduces dwell time, eliminating the heat sink problems experienced with convection ovens.
- Most effective on substrates requiring temperatures of 500°F (260°C) and above, though capable of curing standard lower temperature applications at a high rate of speed.

QuikKILN high-intensity heaters are representative of our ongoing commitment to product development, taking infrared into previously uncharted high-temperature and high-speed applications.

### Emitter

- Halogen T-3 bulb
    - Ceramic primary reflector applied to the rear half of the bulb to direct the bulk of the infrared energy to the work piece.
- Offered in a variety of wattages:
    - 1600W, 2500W, in the SS series
- 480V is standard - Offered in a variety of voltages upon request.

### Heater Section Specifications

| Part No. | Description | Size - in (mm) | | | Fig. No. |
|---|---|---|---|---|---|
| | | L | H | D | |
| 4005-02-001 | SS-series, 1600W (Holds 1, 2 or 3 Bulbs), 480V | 19.25 (489) | 5 (127) | 2.75 (70) | 1 |
| 4005-02-002 | SS-series, 2500W (Holds 1, 2 or 3 Bulbs), 480V | 29.25 (743) | 5 (127) | 2.75 (70) | 1 |

### Emitter Specifications

| Part No. | Description |
|---|---|
| 4001-01-004 | SS-series, 1600W, 480V, Clear Halogen w/Ceramic Backing |
| 4001-01-013 | SS-series, 2500W, 480V, Clear Halogen w/Ceramic Backing |

### Miscellaneous Components

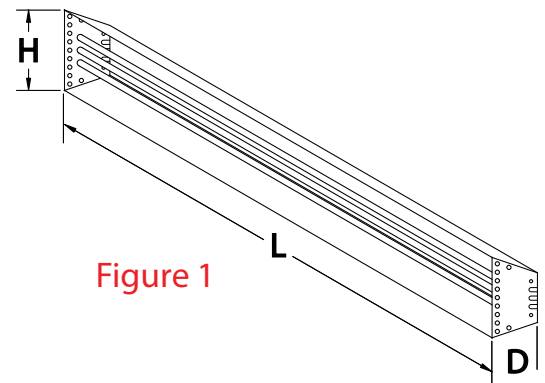| Part No. | Description |
|---|---|
| 4006-01-007 | SS-series, 1600W, Reflector |
| 4005-02-006 | SS-series, 2500W, Reflector |
| 3037-01-010 | SS-series, Hi-Temp Terminal Block |

Figure 1

# Cata-Dyne™ Heaters

## FLAMELESS GAS CATALYTIC LONG WAVELENGTH



The Cata-Dyne™ gas catalytic heater is versatile from low to high density infrared applications. The large emissive surface area allows processing of extremely geometrically complex objects.

## Emitter

- Flameless catalytic gas thermoreactor panel
  - All major components produced in our own facilities
  - Patented catalysts are manufactured in our Edmonton, Alberta facility
  - Preheat tubular elements are manufactured in our Orillia, Ontario facility
- Assembled and tested in our Cata-Dyne™ facility in Edmonton, Alberta under an internationally recognized ISO:9001 quality management system.
- Two categories of flameless catalytic gas infrared emitters, both with CSA and FM certifications:
  - **Series WX** (explosion-proof emitters) certified by CSA, CE/ ATEX and FM for Class I, Division I, Group D hazardous area applications. 33% more energy efficient than any competitive emitter.
  - **Series G** (high performance hot catalyst emitters) certified CSA and FM for non-hazardous area applications. The hottest certified catalytic gas emitter on the market.
- Environmentally friendly – unlike normal combustion, both series of Cata-Dyne™ emitters produce only trace amounts of nitrogen oxides due to their low operating temperatures.
  - Multiple Btu input ratings available (5,000 and 6,000 Btu/hr per cu ft.).
- Offered in a variety of preheat voltages.
- Natural gas (NG) or propane (LPG) configurations.
- Variety of mounting bracket options.
- Choice of snap switch, thermocouple or thermoswitch emitter monitoring devices.

## Uses and Benefits

- The multiple available emitter Btu/hr input ratings and variety of standard emitter sizes allow the Cata-Dyne™ emitter to be a very versatile curing solution.
- The Cata-Dyne™ emitter long wavelength technology possessing massive emissive surface area capable of processing highly complex geometric part profiles.
- Process times typically four times faster than convection, resulting in less equipment and floor space requirement.
- Most effective on curing complex shapes.
- Available in 10 standard sizes for industrial and explosion-proof locations.

### Emitter Specifications

| Industrial Oven Emitter Sizes (in) | Input Rating (Btu/hr) | |
|---|---|---|
| | WX Series | G Series |
| 12 x 36 | 15,000 | 18,000 |
| 12 x 48 | 20,000 | 24,000 |
| 12 x 60 | 25,000 | 30,000 |
| 12 x 72 | 30,000 | 36,000 |
| 18 x 48 | 30,000 | 36,000 |
| 18 x 60 | 37,500 | 45,000 |
| 18 x 72 | 45,000 | 54,000 |
| 24 x 48 | 40,000 | 48,000 |
| 24 x 60 | 50,000 | 60,000 |
| 24 x 72 | 60,000 | 72,000 |

### Miscellaneous Components

| Part No. | Description |
|---|---|
| TS-52P32S440 | Snap Switch |
| IN-E-TCS-K-240 | Thermocouple, K-Type, Front |
| THMCPL-01 | Thermocouple, Mechanical for SSOV |
| THMCPL-02 | Thermocouple, K-Type, Single Pole, Back |

## To Order, Specify:

- Series (WX or G)
- Heater Size
- Preheat Voltage
- Thermal Sensor Type
- Catalyst Pad (WX or G)
- Fuel Type & Rating (i.e. Natural @ 7"WC or Propane @ 11"WC)
- Required Certification (CSA, FM, CE, ATEX)
- Bracket Style (i.e. Short Side, Long Side, Perimeter Side, Perimeter Back)

## Control Panel - Custom Engineered Control Packages

The ability to precisely control every facet of production may be one of the most critical aspects of your operation, and one of the greatest advantages of choosing a QuikCOMMAND panel. From the very simple panel to state-of-the-art PLC controlled systems in multi-door enclosures, QuikCOMMAND panels can be custom-designed and built to suit your needs.

### Features and Benefits

- Custom designed per your application and specifications
- Built complete and 100% tested prior to shipment to eliminate costly on-site troubleshooting
- Reduced operating cost
- UL listed panel shop
- Automation specialists available for consultation, start-up assistance and technical support

### Options

- Integrated booth and gun controls, lighting, conveyor controls
- PLC (Programmable Logic Controller)
    - PLC programming
- Operator interface display (Text or Touch Screen)
    - Operator Interface display programming
- SCR controllers with digital output display
- VFD (Variable Frequency Drives) for motor control
- Photo-eyes
- Processor-based with user-friendly touch control pad and multiple process recipes
- Automatic part identification and recipe selection
- Non-contact pyrometers for temperature verification or closed loop applications
- SCADA and network compatible.
- Automatic electronic booth airflow/pressure balancing utilizing transducers.

# NOTES

DriQuik™

# NOTES

## CCI Thermal Technologies Inc.
### Heating and Filtration Solutions

As a leader in advanced heating and filtration solutions with facilities across North America, CCI Thermal Technologies Inc. manufactures six of the top brands in industrial heating in addition to a comprehensive line of engineered industrial filtration products including:

## Cata-Dyne™ . . . . .
### Explosion-Proof Gas Catalytic Heaters

Cata-Dyne™ is the industry standard in infrared gas catalytic heaters, enclosures, pipeline systems and accessories. Customers across a wide range of industries rely on Cata-Dyne™ to supply them with safe, reliable, efficient and versatile infrared catalytic heating equipment for a variety of applications in both hazardous and non-hazardous environments.

Ruffneck™ is renowned for its rugged, reliable and versatile heavy-duty explosion-proof heaters, heating systems and heating accessories. Ruffneck™ has a long and proud history of supplying quality heating products for the harshest industrial environments to a worldwide customer base for over 30 years. Ruffneck™ is well-known in the industry for its "ship the heat in a week" policy, where 95% of all standard orders are shipped within one week of order placement.

## . . . Ruffneck™
### Heaters for the Harshest Environments

## Caloritech™ . . . . . .
### Engineered Electric Heat

Caloritech™ electric heaters, heating elements and heating accessories are well-known in the industry for their quality, reliability, performance and versatility. In addition to standard "off the shelf" industrial heaters and heating systems components, Caloritech™ also offers engineered heating solutions custom designed, manufactured and tested to satisfy customer specifications. No matter what your application or environment, Caloritech™ has a solution to fit your heating needs.

3L Filters™ has satisfied the most demanding industrial filtration requirements for over 40 years. A broad range of standard and custom products includes liquid filters, strainers, separators, pressure vessels, and engineered products and systems. 3L Filters™ has special expertise for nuclear, petrochemical, water treatment and environmental applications.

## . . . . . . . 3L Filters™
### Engineered Filtration Systems

## Norseman™ . . . . .
### Electric Explosion-Proof Heaters

Norseman™ is the most technologically advanced line of explosion-proof electric air heaters and heating accessories, including both forced air heaters and natural convection heaters, as well as unit heaters, panel heaters and thermostats. Norseman™ offers innovative, low maintenance solutions for a wide range of applications in a variety of industrial and commercial environments. Custom engineered heaters or heating systems are available for specialized applications.

Fastrax® has manufactured railroad track and switch heating since 1995. Fastrax® engineers complete heating packages for the rail industry. Fastrax® track and switch heaters are designed to provide the most efficient heat transfer on rail equipment and components for the coldest environments. In addition to heaters, Fastrax® manufactures fully automatic energy saving controls to complete the rail heating system.

## . . . . . . . . . . Fastrax™
### Track and Switch Heaters

## DriQuik™ . . . . . . . . . .
### Infrared Oven Components

DriQuik™ provides components for infrared drying ovens. DriQuik™ utilizes a pioneered radiant oven technology established in the 1930s providing the industry standard in infrared radiant heating components.

### VISIT WWW.CCITHERMAL.COM FOR DETAILED PRODUCT INFORMATION.