

## LA-309 General Purpose Laboratory Furnace

The RTC Model LA-309 Infrared Furnace is a small, general purpose furnace that has a number of options available to optimize its operation to meet the user's needs.

**Conveyor driven** for continuous operation, the furnace features a 3-zone 500°C near-infrared heating chamber (to 1000°C as an option).

**Clean air compatible** to Class 1000, the LA-309 can process substrates, wafers, PCBs, metal, ceramic, or glass parts for:

- Hybrid Thick Film Firing
- Package Sealing
- Epoxy Die Attach
- Polymer Curing
- Reflow Soldering

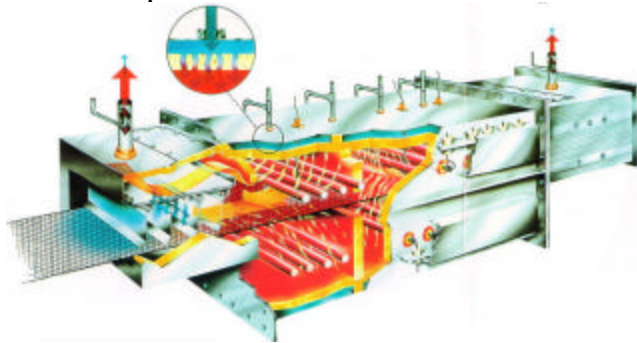


LA-309 furnace: 30 inches of heat, 9 inch wide belt.

- Frit (Glass) Sealing
- Brazing
- Annealing
- Tempering
- Metal Sintering

## Technology Benefits

**Temperature** is maintained with control thermocouples above the belt in each zone to quickly sense incoming cold mass. Quartz lamps inside the chamber instantaneously adjust their output to achieve tight temperature control. Each load sees the same temperature. No “dummy load” is required.



RTC's patented chambers deliver precise temperature profiles. Process atmospheres are ultra-clean and uniform.

**Process atmosphere** is controlled much like a clean room. Pressurized gas is pushed through a porous refractory as it enters the heating

chamber. A pre-heated, laminar flow process gas means a uniform, stable atmosphere. The process window becomes broad and repeatable.

**Fully featured** and compliant with industry standards, the LA-309 has the latest manufacturing equipment technology.



RTC's graphical user interface displays all furnace parameters in a simple, user-friendly format.



## ***LA-309 General Purpose Laboratory Furnace***

| <b>SPECIFICATIONS</b>                                                | <b>LA-309</b>                                             |
|----------------------------------------------------------------------|-----------------------------------------------------------|
| Parts Clearance (in, cm)                                             | 0.75-4, 1.9-10.2 (customer must specify clearance height) |
| Belt Width (in, cm)                                                  | 9.0, 23                                                   |
| Conveyor Speed (ipm, cm/min)                                         | 2-20, 5-51                                                |
| Load Station (in, cm)                                                | 15, 38                                                    |
| Unload Station (in, cm)                                              | 15, 38                                                    |
| Entrance Baffle (in, cm)                                             | 15, 38                                                    |
| Heated Length (in, cm)                                               | 30, 76                                                    |
| Number of Controlled Heated Zones                                    | 3, 4 optional                                             |
| Heat Up Time (minutes)                                               | 15                                                        |
| Maximum Operating Temperature                                        | 500°C, 1000°C optional                                    |
| Transition Tunnel (in, cm)                                           | 15, 38                                                    |
| Cooling Length (in, cm)                                              | 30, 76                                                    |
| Atmosphere Flow Rate: CDA, N <sub>2</sub> (scfh, m <sup>3</sup> /hr) | 600, 16.8 typical                                         |
| Electrical                                                           | 208V-480V, 3 phase, 50/60Hz                               |
| Process Exhaust, Venturi Assist                                      | 2                                                         |
| Power (KW) Peak, Typical                                             | 26, 15                                                    |
| Water Cooling Option (gpm-psi, lpm-kpa)                              | 5-50, 19-350                                              |
| Overall Length (in, cm)                                              | 123, 312                                                  |
| Overall Width (in, cm)                                               | 43, 109                                                   |
| Overall Height (in, cm)                                              | 68, 172                                                   |
| Weight Net (lbs, Kg)                                                 | 1600, 720                                                 |
| Weight Crated for Air/Ocean Shipment (lbs, Kg)                       | 2400, 1100                                                |

### ***Options***

- **Air Line Filter/Regulator**
- **4<sup>th</sup> Heated Controlled Zone**
- **Hermetically Sealed Chamber**
- **High Temp Operation (1000°C)**
- **Nichrome (80/20 alloy) Belt**
- **Lamp Element Monitor**
- **On-Screen Profiling System**
- **Over Temperature Shutdown**
- **Process Ready/Alarm Light Tower**
- **Ultrasonic Belt Cleaner with Dryer**
- **Uninterruptible Power Supply**
- **Cold Wall Water Cooling**
- **Forced Air Cooling**
- **Air Purification System**

Please visit our web site or call your local RTC representative to discuss your specific requirements

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