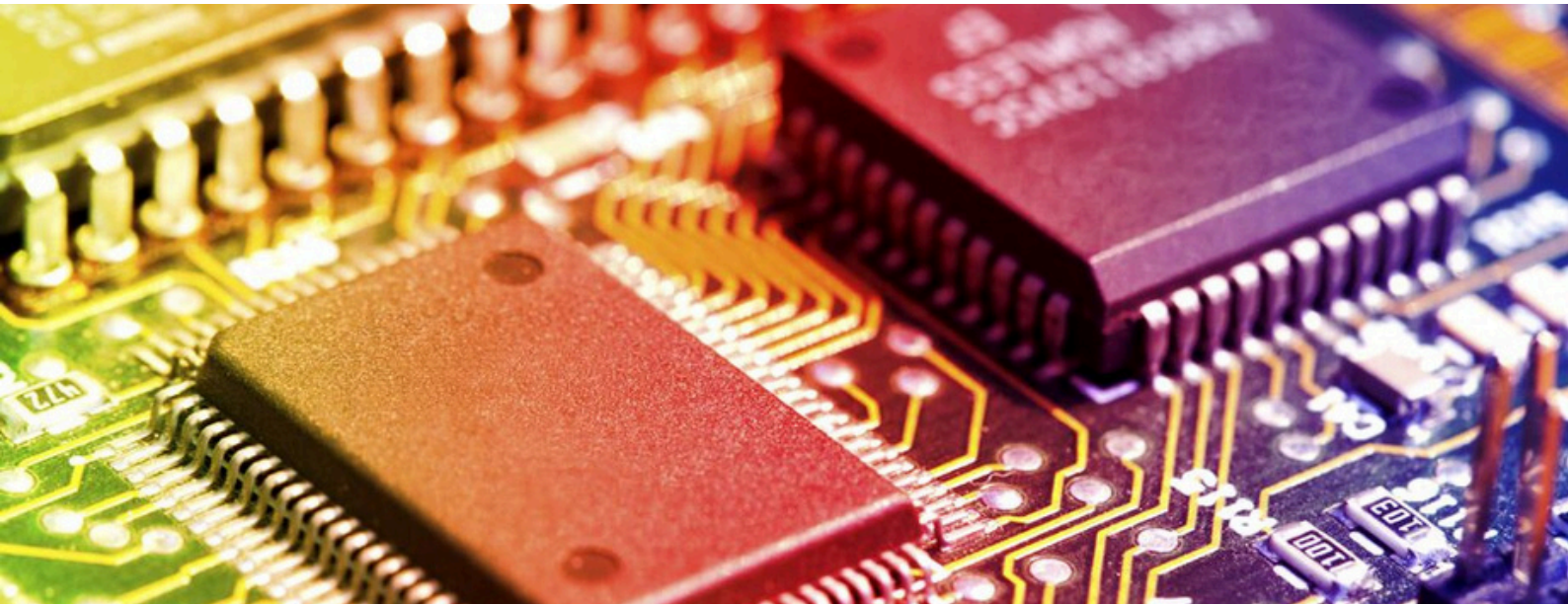




# Reflow Soldering

Nitrogen, equipment and expertise



It's easy to see  
the advantage

- ✔ Decrease nitrogen (N<sub>2</sub>) use
- ✔ Control atmosphere quality
- ✔ Minimise reflow oven adjustments

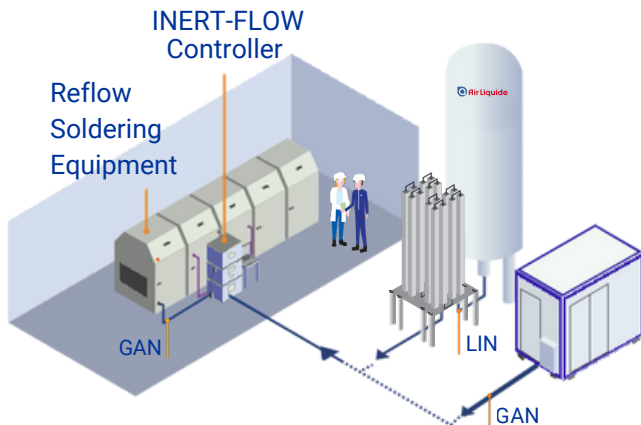
## For Semiconductor Packaging and Electronic Manufacturing

Oxidation reaction and poor wettability during reflow soldering weakens electronic solder joints. To offset these side effects during reflow soldering, using nitrogen to inert the atmosphere during semiconductor packaging or printed circuit board (PCB) assembly has become a globally-accepted practice.

Air Liquide offers a comprehensive retrofit solution designed to help you create and carefully maintain an inert atmosphere into your reflow oven. This includes quality nitrogen and delivery equipment—all backed by a network of expertise in semiconductor and electronic manufacturing—to help you improve solder wettability and reduce oxidation. For you, this means increased efficiency, savings and optimal solder joints.

# Our INERT-FLOW Solution

Customised solution to optimise your gas consumption, limit defects, and safely maintain your process.



Air Liquide calculates your N<sub>2</sub> requirements to ensure optimal performance of your wave process. With a variety of supply modes and reliable delivery, you get quality nitrogen whenever and wherever you need it.



INERT-FLOW is a patented, automatic-control system designed to carefully monitor the inert atmosphere quality of your reflow oven. The system is suitable for oxygen-level ranking from 0 to 3,000 ppm.



Air Liquide application engineers work with you—from system audit to efficient design and build to implementation and maintenance. All while backed by a global network of experts.



We offer a complete solution designed to help you manage your supply chain better, increase efficiencies and save time. Our smart supply chain solution options give you complete visibility into your inventory and usage.

## 100% Monitoring of Residual Oxygen Levels (ROL)

The internal atmosphere quality of the reflow oven is adjusted throughout the day with INERT-FLOW from Air Liquide. The system acts as a virtual operator by checking and adjusting the ROL in the reflow zone to maintain specifications and optimise performance.

## 100% Automatic Adjustments to your Reflow Oven

The INERT-FLOW system is easy to operate. Installation does not need any modifications or maintenance of your reflow oven. Just set the system to the required ROL and it automatically adjusts as it monitors your N<sub>2</sub> level.

## 5-15% Decrease in N<sub>2</sub> Use

With constant detection, monitoring and regulation of the nitrogen flow to maintain the required ROL inside the reflow oven, your consumption decreases and you use only what you need.

## If you want to reduce your carbon footprint

**ECO CHILLER** is our heat exchanger system that allows you to recycle the cold of liquid cryogen vaporisation back into your cooling system.

- Reduce process emissions
- Save energy
- Reduce gas waste



## Contact us

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