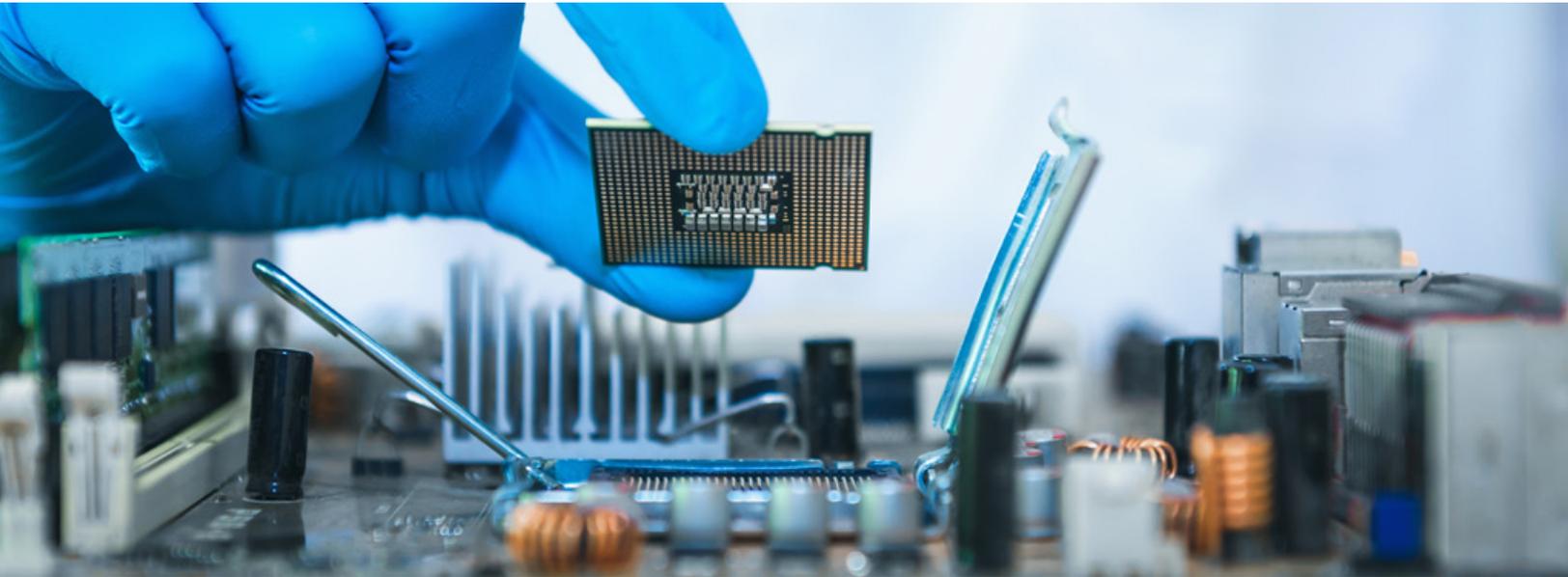


## Wave Soldering

Nitrogen, equipment and expertise



- Control atmosphere quality
- Reduce dross and flux
- Decrease nitrogen use

### For electronic components manufacturing

Oxidation reaction, poor wettability and high peak temperature during wave soldering of printed circuit boards (PCBs) weakens electronic solder joints. To offset these side effects during wave soldering, using quality nitrogen to inert the atmosphere during assembly has become a globally-accepted practice.

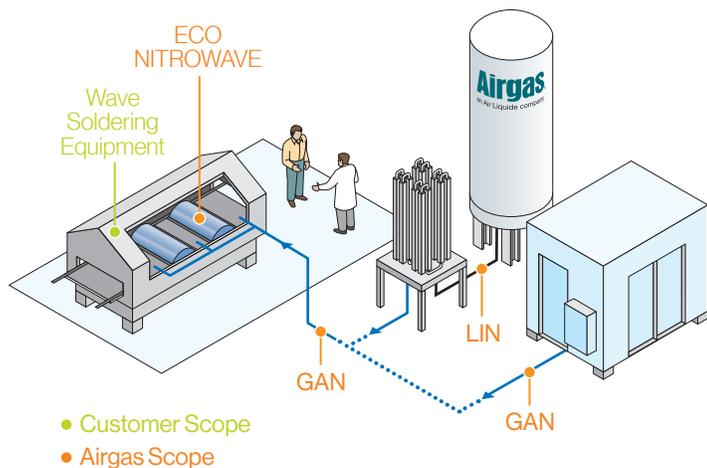
Airgas, an Air Liquide company, offers a comprehensive retrofit solution designed to help you create and carefully maintain an inert atmosphere during wave soldering. This includes quality nitrogen and delivery equipment — all backed by a network of expertise in electronic components manufacturing —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

# Wave Soldering

Nitrogen, equipment and expertise

## Our solution

Customized solution to optimize your gas consumption, limit defects, and safely maintain your process



## It's easy to see the advantage

up to **90%** reduced dross

Dross consists of mostly tin oxide mixed with good solder. Through specific blanketing performed with an Airgas retrofit solution, dross formation in your equipment is reduced dramatically.

up to **40%** reduced flux consumption

Fluxes are chemical cleaners sprayed on the PCB. With the optimal inerting achieved by an Airgas retrofit solution, oxides are reduced and solder wettability improves significantly.

up to **40%** reduced soldering joint defects

The quality of the soldering process depends largely upon the ability of the molten metal to stick or wet on the other surface. With Airgas, the surface tension is significantly increased on the wave of molten alloy, improving wetting and reducing soldering joint defects.



From liquid storage to an on-site gas production system, your nitrogen requirements are carefully calculated by our team to ensure optimized performance of your wave process. With a variety of supply modes and reliable supply you get the quality nitrogen you need, when and where you need it.



ECO NITROWAVE is a patented system that diffuses nitrogen through plenums for optimal inerting of the solder pot to consistently ensure a low level of residual oxygen within the wave process. Hot nitrogen increases the heat transfer to the PCB and avoids clogging of the diffuser.



Tap into the full support of Airgas application engineers, backed by a global network of experts, who are dedicated to work with you — from system audit to efficient design and build to implementation and maintenance.



With a team of more than 70 QSSP- and OSHA 30-certified safety specialists, get the right safety products and services to help keep your team safe and compliant.



Airgas offers a complete supply chain solution designed to help you improve management of your supply chain, increase efficiencies and save time. As a single-source supplier, our smart supply chain solution options give you complete visibility into your inventory and usage.

Ask us how we can help you decrease your carbon footprint:

- Reduce process emissions
- Save energy
- Reduce gas waste



**ECO CHILLER:** Our new heat exchanger system that allows you to recycle the cold of liquid cryogen vaporization back into your cooling system.