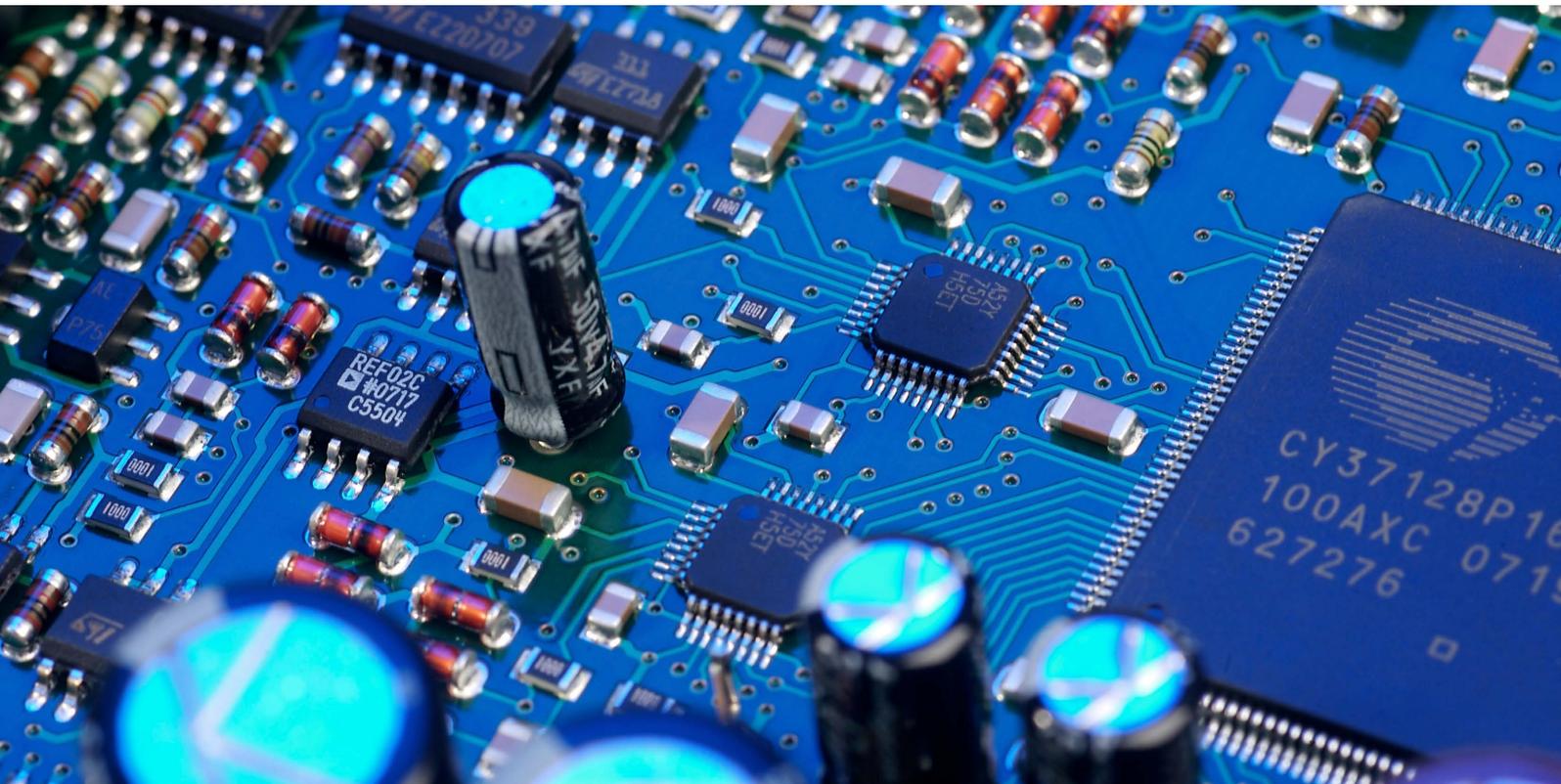


# Simply doubling up on efficiency

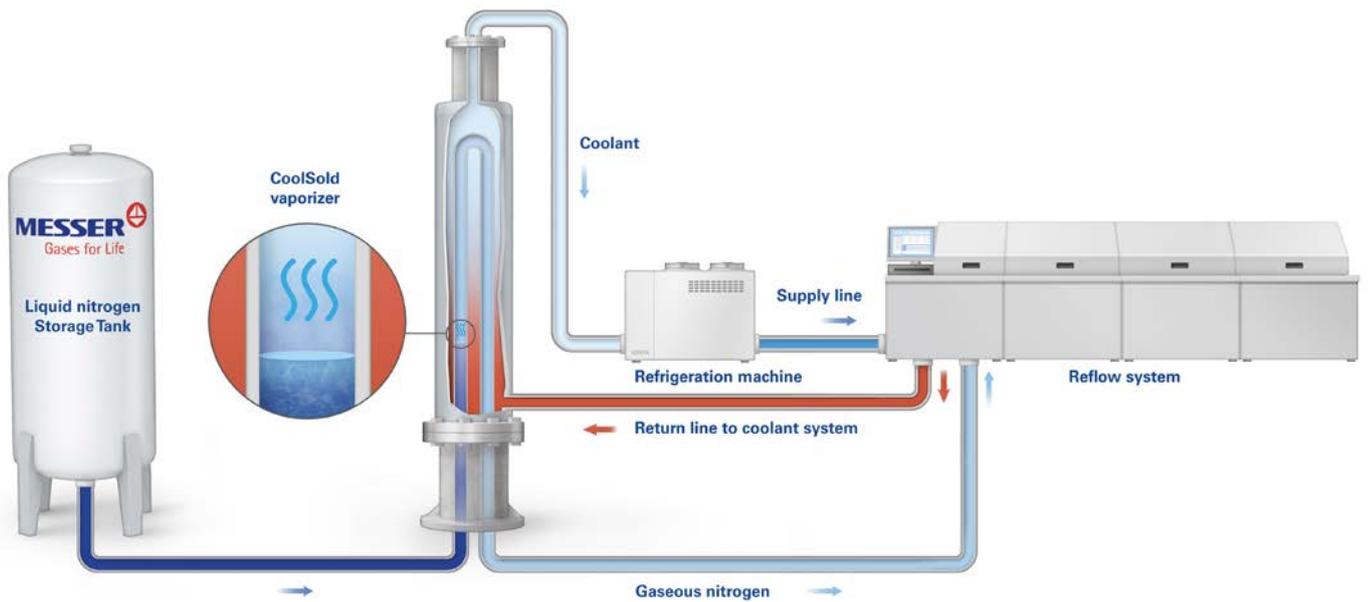
CoolSold reduces costs and CO<sub>2</sub> emissions for PCB soldering



Modern circuit boards are becoming increasingly efficient performers. One of the key factors here is the production process: printed circuit boards are soldered under inert gas which prevents residues in gaseous or droplet form. The inert gas used in this process is gaseous nitrogen (N<sub>2</sub>). Its cooling energy subsequently escapes into the atmosphere largely unused.

## **Cold with dual use**

Thanks to the CoolSold process from Messer, the cooling energy of the nitrogen is also used to cool the soldering system's condensation filters. As a consequence, the electrical cooling units for filter cooling, which are a feature of such soldering systems, are used much less frequently. This is reflected in reduced power consumption, resulting in lower costs and CO<sub>2</sub> emissions.



Straightforward retrofit: system layout with CoolSold components

## Best practice:

### Seidel Elektronik GmbH

Just how well CoolSold works is demonstrated by its use at a Messer customer's plant which specialises in the manufacture of electronic and mechatronic products. The CoolSold process was introduced here recently and is delivering impressive results\*:

<b>Energy saving:</b>	31.000 kWh per year
<b>CO<sub>2</sub> reduction:</b>	19.000 kg per annum
<b>Cost saving:</b>	37 per cent
<b>Amortisation period:</b>	< 1 year

\* Figures are specific to this customer and may vary depending on the application.



## Making use of existing plant and equipment

The technical modifications associated with the use of the CoolSold process are manageable: the cooling circuits for the inert gas atmosphere and the filter system, which were previously operated separately, are connected with each other via a heat exchanger. The nitrogen source – a liquid nitrogen tank – is already in place anyway due to production requirements. All that remains are the costs for the heat exchanger and the associated piping, which will pay for themselves within a short period of time.

## Your benefits at a glance:

- Lower energy costs
- Lower CO<sub>2</sub> emissions
- Rapid amortisation of conversion costs
- Reliable technology

If you have any questions regarding the CoolSold process or would like an individual consultation with our application experts, please do not hesitate to contact us.



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