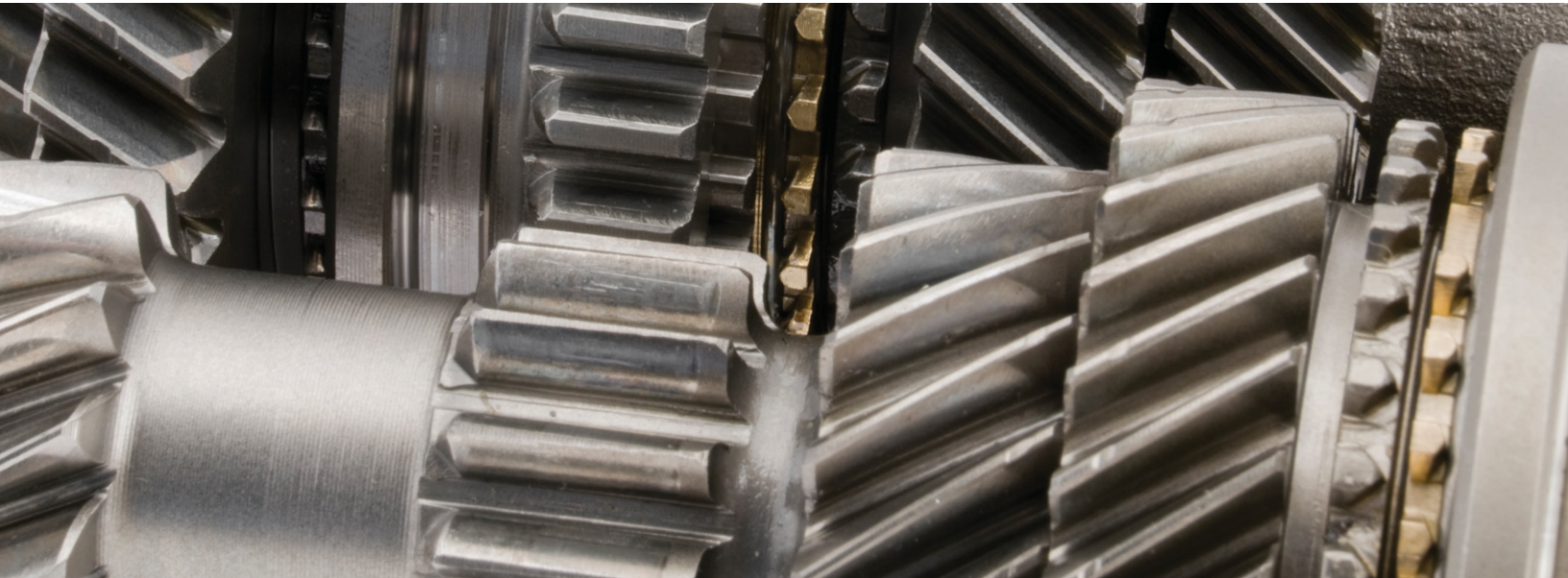


## Heat Treating Solutions

### Low-pressure carburizing



- Uninterrupted acetylene supply
- Nitrogen delivered up to 450 psi without the need for a compressor
- Reduce maintenance and operating costs
- Decrease capital requirements

### One solution for carburizing and quenching your parts

Airgas, an Air Liquide company, has designed a process solution to answer the specific requirements for low-pressure carburizing your parts. The Airgas solution efficiently supplies uninterrupted acetylene for carburizing and high-pressure nitrogen for quenching, both at the correct pressures and flows to meet the strict demands required by your heat treatment process.

In addition, Airgas is known for providing personalized, local service backed by strong national resources with more than 1,100 locations nationwide. We'll find the right solution for you when and where you need it.

# Innovative solutions for heat treat challenges

- **Low-pressure carburizing technologies**
- **Vacuum treatments with high-pressure gas quenching**

The Airgas low-pressure carburizing solution provides an uninterrupted supply of acetylene via an automatic changeover and flow monitoring system. This PLC-based system ensures adequate acetylene supply at all times to meet instantaneous peak demands without overdrawing your cylinders.

In addition, our system offers an effective solution to deliver nitrogen at the required pressure into the buffer tank prior to the quench cycle. This high-pressure quench solution features a supply system with no moving parts, delivers nitrogen at pressures up to 450 psi, and does not require a gas compressor.

Airgas provides total engineering support services including system design and startup, monitoring and analyzing your furnace, and complete turnkey operations.

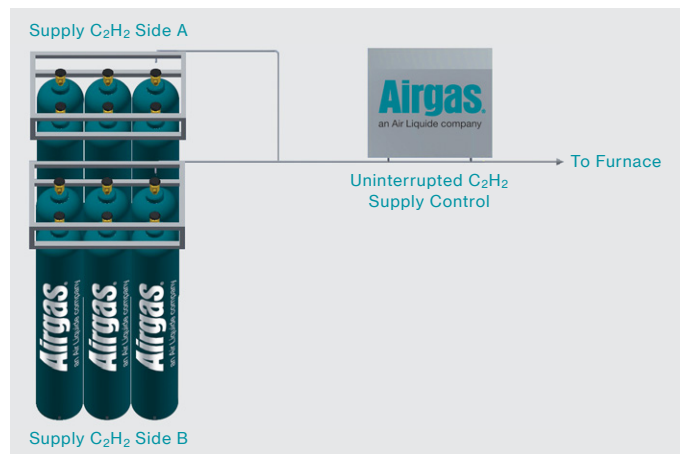
Operation and safety training audits are also offered to safeguard your workplace. Accessory equipment and other gases are available. With the industry's largest national footprint, we provide personalized and local service so you have what you need to get the job done.



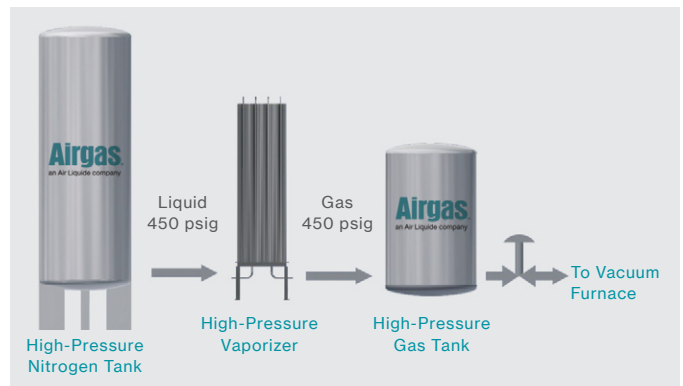
Acetylene cradles



Liquid nitrogen tank



Acetylene cradle installation



High-pressure gas quench to the vacuum furnace