



## Optimizing Your Aerospace Manufacturing Operations



# The Competitive Edge In Industrial Gases

*As a supplier of industrial gases, supply systems and related services to the aerospace industry, Praxair works every day to meet the quality, traceability, and reproducibility requirements of manufacturing processes. As the largest industrial gas supplier in the world, Praxair offers a wide range of supply options including packaged gases, pipeline and on-site. Our gases, supply systems and technical support are designed to aid our aerospace industry customers in these key processes and measurement parameters.*

## Praxair: Your Total Resource

- The largest industrial gas supplier in North America and one of the largest in the world
- Expertise in supply system design, installation, and maintenance support
- Flexible supply options including cylinders, on-site, bulk, microbulk, and pipelines
- Analytical and diagnostic resources, including specialty gases

## Gases Used In Aerospace Manufacturing

### Assembly

Welding (MIG, TIG, Plasma, Laser) – Ar, CO<sub>2</sub>, He, N<sub>2</sub>  
Autoclave Atmospheres – N<sub>2</sub>

### Windows

Glass Combustion, Float Bath Inerting – O<sub>2</sub>, N<sub>2</sub>, H<sub>2</sub>

### Lighting

Specialty Gases

### Tires – N<sub>2</sub>

### Engine Components

Heat Treating – N<sub>2</sub>, H<sub>2</sub>, Ar, C<sub>2</sub>H<sub>2</sub>  
Coatings – O<sub>2</sub>, H<sub>2</sub>, Ar, H<sub>2</sub>

### Electronics

Circuit Boards – N<sub>2</sub>

### Climate Control Systems

Welding, Cutting, Heat Treating – Ar, CO<sub>2</sub>, He, N<sub>2</sub>, O<sub>2</sub>

### Carbon Fibers

Manufacturing – N<sub>2</sub>





## Increase Quality and Reduce Costs

Our team can conduct a process evaluation at your facility to identify opportunities for productivity savings. Praxair's protective atmosphere systems offer measurable benefits over conventional, generated atmospheres. Additionally, Praxair offers a full portfolio of products for cutting and welding operations, including shielding gases, equipment, consumables and accessories. Praxair also offers a number of wear-resistant coatings and surface technologies to help parts last longer and resist corrosion. Praxair can help you increase quality and reduce costs for applications including:

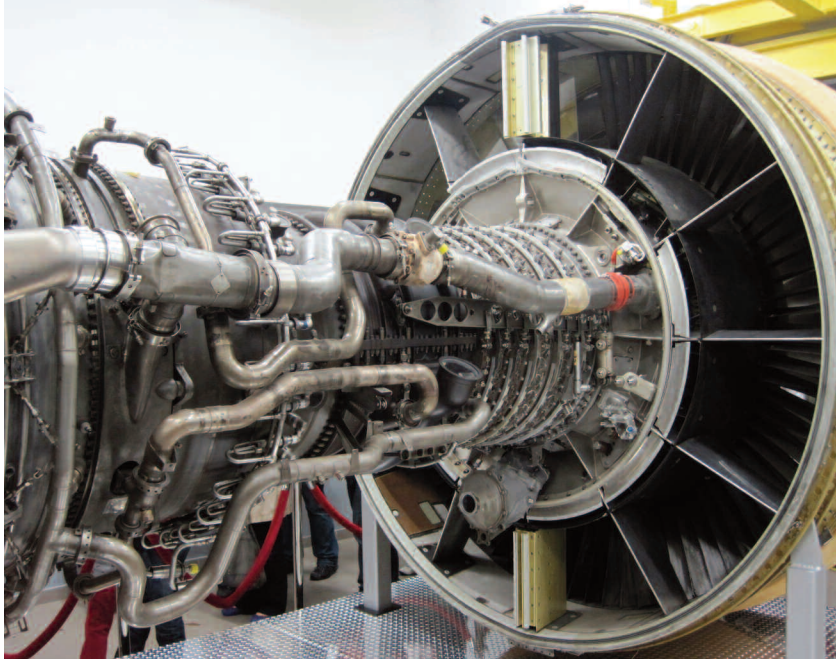
- Laser Welding Technology
- VOC Removal
- Heat Treating
- Starsolver® Productivity Program
- Cylinder Gas Management
- Autoclave Gas Supply Systems
- Injection molding
- Laminar Barrier Inerting
- Industrial gas systems
- Lithium Ion Batteries
- Carbon Fiber Manufacturing
- Coatings

## Strategic Alliances Benefit Our Customers

Praxair's alliances with Atmosphere Engineering (AE) and Super Systems, Inc. (SSi) allow our heat treating customers to have easy access to complete and precise furnace control. The offering incorporates Praxair gases, applications technologies and supply systems with process controllers, atmosphere sensor technology, and data acquisition software from Super Systems and precise furnace control panel systems from AE. The combined capabilities of Praxair, AE and SSi cover a broad spectrum of batch and continuous heat-treating processes such as carburizing, carbonitriding, neutral hardening, annealing, gas quenching and heat treatment under vacuum.

## Total Customer Service

Customer service and support is a cornerstone of Praxair's philosophy. When you choose Praxair, you get much more than gas and equipment. You have access to a full range of customer services at your fingertips to assist you with your needs.



## Experience Counts

As one of the oldest industrial gas companies in the world, Praxair has decades of experience in the aerospace industry. Whether you need help converting generator produced atmosphere systems to design, installation, and maintenance of cost-effective protective atmosphere supply systems, Praxair is focused on your success. For total capabilities from a single source, dedicated to helping you increase your output and improve your bottom line, call Praxair.

For more info, call 1-800-PRAXAIR or visit [www.praxair.com/aerospace](http://www.praxair.com/aerospace)



## Reliable Supply With The Praxair Supply Management Program

Customers participating in the Praxair Supply Management program benefit from our highly sophisticated distribution network of gas transportation vehicles and strategically located plants for fast, reliable response throughout North America. Praxair also has advanced remote telemetry technology that continually monitors your tank levels and automatically schedules the next delivery with the Praxair National Logistics Center in Tonawanda, N.Y.



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