Praxair, Inc. and United Process Controls

*Working together to help you obtain improved performance results in heat treatment applications.*
United Process Controls (UPC) and Praxair, Inc. signed a joint marketing in an effort to help customers obtain traceable and repeatable performance results for heat treatment applications. While each of the companies operate independently, working together allows Praxair and UPC to offer their customers access to an advanced and precise furnace control package, a wide range of industrial gas options and expertise to enhance their experience.

**Praxair Gas & UPC Gas Mixing Systems**

Praxair and UPC’s product offerings cover a broad spectrum of batch and continuous heat treating processes. These processes include carburizing, carbonitriding, neutral hardening, annealing, gas quenching and more. Regardless of the application you are using, the combination of the right gases and the right system help improve your process. Ensuring a proper mixed gas ratio is paramount for achieving continuous, precise, and reproducible results for heat treat applications. UPC’s control panel systems are the first with built-in flow rate calculations to automatically set the nitrogen and hydrogen flow rates based on a desired hydrogen concentration percentage. UPC’s systems also incorporate a full-color touch screen interface with an integrated paperless chart recorder to track flow rates, furnace temperature, dew point, and other variables as necessary. Along with Praxair’s industrial gases, UPC’s systems can advance processes so that there will be fewer parts to rerun, rework, or scrap entirely.

Both United Process Controls and Praxair have the resources to work directly with you and can offer the technical support for your heat treating process. Working with reliable sources for your industrial gas needs and control panels is essential to helping you attain better results.

**Praxair Offerings**

A variety of gases:
- Hydrogen
- Nitrogen
- Argon
- Helium
- Chemical Acetylene & more!

Integrated gas supply capability:
- Cylinder
- Liquid
- Onsite

Reliable product supply:
- Nationwide network of air separation plants
- National logistics systems
- Tracker automated product delivery systems

**UPC Offerings**

UPC offers a wide range of product options, including:

Industrial Flow Controls:
- Waukee Flo-Meter™ & FurnaceMeter™: Precision flow measurement and control equipment

Industrial Sensors:
- Oxygen/Carbon probes
- FurnaceDoctor – 3-Gas Analyzer (CO, CO₂, CH₄)
- AtmoSense™: Individual Gas Analyzers (Dew Point, CO, CO₂, CH₄, O₂)

H₂Smart™

Controls and Software
- Protherm Controllers
- Supervisory Systems (PT-9800)
- PLC Based Solutions
- HT-Tools (Simulation Software)
## Praxair & UPC Benefits Summary

### UPC Control Panels

**Simpler Process**
- Dial-in flow and gas ratio
- No control panel maintenance

**Flexibility**
- Customized control panels to meet your needs
- Set H₂ ratio to optimize process and cost
- Variable ratios for multiple furnace products

**Higher Quality Products**
- Continuous, precise, reproducible atmosphere
- Less post processing

### Praxair Gases & Gas Supply Systems

**Lower Cost Process**
- Low capital and processing costs
- Eliminate generator caused downtime

**Flexibility**
- Properly sized supply system to meet your needs
- Operating flexibility and ease of operation
- 24/7 Supply system service and general information

**Maintenance**
- Reduce maintenance and repair costs
- Shutdown capability, no extensive production loss

Reap the benefits that Praxair and UPC offer and let them help you reach your application goals. Praxair and UPC can provide you with a complete gas supply system and control panel design, assist with the installation, provide qualified field support for your process start-ups and fine-tuning, and offer you analytical and diagnostic resources, as needed.
Safety

Safety is an important component of both Praxair and UPC’s day-to-day activities. They make every effort to inform both their employees and customers of best safety practices. At Praxair, you can count on them to deliver quality gases and services, as well as their commitment to operate safely and reliably every step of the way. They hold themselves to the goal of zero recordable injuries and zero lost workday cases across their entire business and they strive to meet this goal every day. In addition, they provide safety material required for their products and equipment.

At UPC, they work closely with their customers to design and engineer systems that are sized correctly for the desired gas flow rates and applications. All UPC mixing panels are built to meet, NFPA 86 safety guidelines. UPC incorporates safety devices such as air flow switches, high and low gas pressure switches, over-temperature limiting devices, and integrated nitrogen purge. They also provide the necessary information to use their products safely.

Quality

Quality is an important to maintain the satisfaction of our customers and theirs. UPC works with customers from all different industries to help them meet several quality and specification standards including NADCAP aerospace heat treating standards, CQI-9 American Automotive standards for quality, and other national/international specifications.

Praxair works with customers to evaluate their industrial gas purity system requirements and can provide a variety of options to meet those needs.

About UPC

United Process Controls, Inc. designs and manufactures industrial flow measurement and atmosphere control products. Their strength is to integrate extensive process control experience with their knowledge of fluid dynamics and advanced flow control techniques to provide complete solutions for their customers. The goal is to continually develop and support systems that optimize the quality, safety, and control of each process while at the same time minimizing gas and fluid consumption to reduce production cost and eliminate energy waste.

About Praxair

Praxair, Inc. is the largest industrial gases company in North and South America and one of the largest worldwide. The company produces, sells and distributes atmospheric, process and specialty gases. The gases are available in a variety of purities and supply systems, depending on volumes required.

We’re here for you!

United Process Controls and Praxair are committed to your satisfaction every step of the way. Please visit the websites or call to learn more about how United Process Controls and Praxair’s expertise can help you obtain traceable and repeatable performance results for heat treatment applications.