

Equipment and modifications



Extend plant life

Enhance productivity, reliability and efficiency

Cost-effective, safe, practical solutions

Solutions for Air Products' and other manufacturers' plants

Guaranteed delivery, efficiency and availability



“Your air separation or natural gas processing plant plays a key role in your operations. If it’s not at peak performance, you could be throwing money out the window. If your plant is more than five years old, you might benefit from new technology—advanced controls, new sieve materials, front-end upgrade or even a plant debottleneck.”

Matthew Nelson,
Americas Regional Manager,
Equipment Sales & Plant Support

What you don't know might be costing you money

Maybe ordinary wear and tear is taking its toll on your air separation, or natural gas processing plant. Maybe your needs have changed and you want more flexibility. Maybe you need to cut operating costs or increase productivity. With decades of engineering and operational experience behind us, Air Products can provide practical, cost-effective ways to help you meet your goals.

We help keep customers up and running. For example, we helped a copper producer reduce downtime on its 15-year-old reversing heat exchanger air separation unit by 15 percent with the addition of a front-end cleanup system using our pressure-swing adsorption technology. We started with a plant analysis and feasibility study, and then provided a custom design. We also suggested additional modifications to improve efficiency and performance. Once the plant was installed, our team provided field commissioning and start-up services.

We also helped a gas supplier that was low on inventory pinpoint the problem within 24 hours. We installed high-thrust-capacity, high-lubricity bearings; replaced a faulty expander wheel with a fully machined impeller; recoated the shroud and shaft; and rebalanced, reassembled and spin-tested the unit to get the customer up to full production in less than a week.

What we can offer

Plant expansions and debottlenecking

- Installation of oxygen, hydrogen and natural gas compressors, liquefiers, metering stations, purge systems
- Control system upgrades and replacements

Compressor upgrades, overhauls and relocations

- Troubleshooting
- Review of aerodynamic/rotor dynamic performance
- Installation of water wash systems
- Replacement of intercoolers and compressor wheels

Front-end system retrofits and replacements

- Upgrade to molecular sieve cleanup systems
- Application of new technology for improved performance
- Adsorbent replacements

Expander upgrades and enhancements

- Overhauls
- Development of custom expander turbines for applications with specialized process or equipment parameters

Column and heat exchanger upgrades and enhancements

- Column and product take-off modifications
- Spiral wound and plate and fin heat exchanger repairs and replacements

Storage and vaporization

- Storage upgrades
- Vaporizer system replacements

Idle asset disposition and deployment

- Plant mothballing and/or restart for Air Products or other manufacturers' plants
- Comprehensive inventory of used parts and equipment for sale

What does this mean for your operation?

Your plant can run at optimal efficiency

- Benefits include reduced energy costs, higher reliability, greater safety and extended plant life

Increased productivity benefits your business

- We can suggest economical modifications that can make a significant and measurable impact on plant productivity
- Increased plant productivity can positively impact downstream operations

You can put the project in our hands with complete confidence

- We provide turnkey services, including engineering support
- Over seven decades, we have designed, built, operated, maintained and modified thousands of process plants worldwide



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For more information, please contact us at:

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