

# Services for the Metals Processing industry

## Expertise beyond gas production and delivery

**Air Products expertise goes far beyond gas production and delivery. As a leading global supplier of technical gases to the metals industry we have developed a range of services, systems and solutions designed specifically to help you improve product consistency, reduce capital investment and significantly lower maintenance requirements.**

### Experience, understanding and solutions

With over 50 years of technical knowledge and experience, we understand current and future industry needs and the challenges you may face. Our experienced team of application engineers and research and design specialists can work closely with you to develop and implement comprehensive, cost-effective solutions to optimize your production process. And, with NFPA compliant solutions and a safer working environment you're guaranteed complete peace of mind.

Our range of services for the metals processing industry includes:

- Safety training
- Process audit and optimisation
- Technical facilities
- Installation and enabling equipment.

### Safety training

At Air Products nothing is more important than safety. We pride ourselves on our commitment to safety and are dedicated to improving not only our own safety performance, but our customers' too.

We like to ensure that you have the knowledge and ability to maintain a safe operations and have developed a range of safety programs, tailored to fit your needs. Some of the most popular areas include:

- Management of bulk gas installations
- Properties of industrial gases
- Risks in confined spaces
- Risks of flammable and toxic gases
- General regulations associated with the use of flammable atmospheres.



### Process audits and optimization

Audits are essential to helping customers realize all the benefits of industrial gases in their operations. Your Air Products team is professionally equipped to handle on-site process reviews and audits.

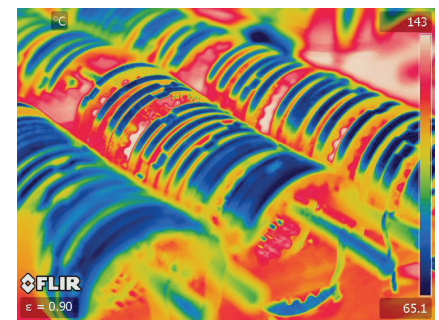
In addition to ensuring your gas supply is tailored to your needs we can help ensure you achieve optimal efficiency and energy consumption in your production process.

Our audits cover the key areas in your processes including:

- Understanding atmosphere flow rate and composition and the effect on product quality
- Measurement and analysis of heat treatment atmospheres
- Basic NFPA compliance assessment
- Economic evaluation of atmosphere modes of supply
- Houseline piping evaluation

### Energy audits

Air Products energy audits can help you uncover areas where you can make savings by identifying the opportunities to reduce your costs and improve your energy efficiency.



## Metallurgical lab facilities

At Air Products we continually invest in our research and development capabilities. In addition to our experts visiting your production site we also have the capabilities to carry out extensive testing and analysis at our own facilities in Allentown, Pennsylvania

Our broad range of metals focused services includes:

- Microstructure analysis
- Macrohardness/Microhardness testing
- Material identification and elemental analysis
- Optical profilometry
- Surface analysis
- Failure analysis
- Corrosion testing
- New process evaluation

## Customer benefits

- Improved quality
- Optimized atmosphere flow rates or compositions
- Reduced rejects
- Reduced operating costs
- Safety advice

## Applications equipment

Our expert audits may identify needs that could be met with Air Products applications equipment. With a full portfolio of services and technologies, such as dew point monitoring systems, gas density sensors, gas flow control and analysis panels, we ensure that our systems and your equipment is designed and installed to meet relevant standards and performs as efficiently as possible, through:

- Manuals (including O&M)
- Installation, commissioning, and start-up support
- Functionality tests
- Staff training on hazards and fundamental requirements



**For more information on any of our service offerings, or to speak with one of our experts, contact us.**

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