



Hydrogen Plant Support Services, from the Global Leader in Hydrogen Production

Put Air Products hydrogen expertise to work for you

Air Products can add value throughout your hydrogen plant

Put our hydrogen expertise to work for you.

Convection section

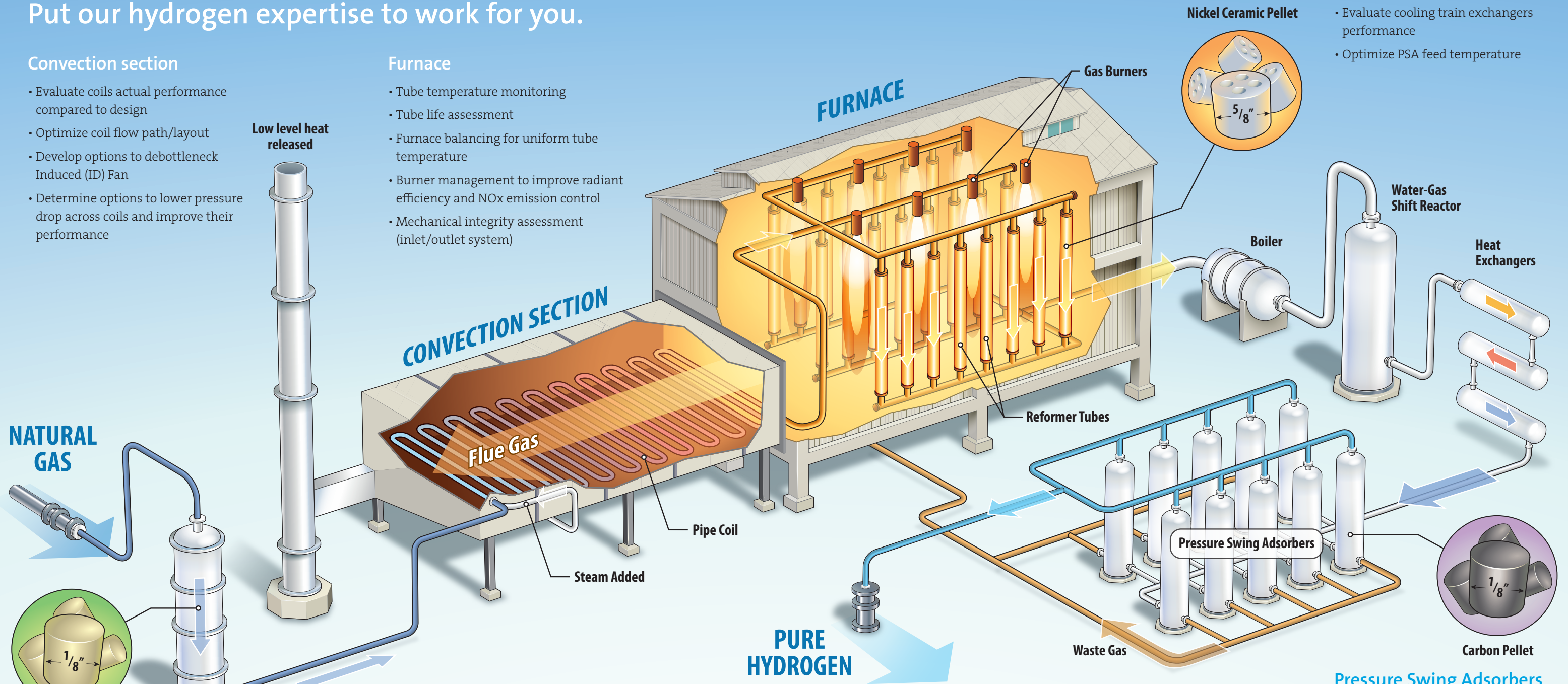
- Evaluate coils actual performance compared to design
- Optimize coil flow path/layout
- Develop options to debottleneck Induced (ID) Fan
- Determine options to lower pressure drop across coils and improve their performance

Furnace

- Tube temperature monitoring
- Tube life assessment
- Furnace balancing for uniform tube temperature
- Burner management to improve radiant efficiency and NOx emission control
- Mechanical integrity assessment (inlet/outlet system)

Syngas Cooling Train

- Optimize shift reactors
- Evaluate cooling train exchangers performance
- Optimize PSA feed temperature



Zinc Oxide Pellet

Sulfur Removal Vessel

Feedstock purification

- Optimize to process a wide variety of SMR feeds (e.g. refinery off-gas, refinery fuel gas, heavy hydrocarbons, liquid feeds, LPG, butane)
- Feed gas impurities testing (e.g. sulfur, chlorides, mercaptans)

Overall Hydrogen Plant Services

- Reliability and productivity plant assessments
- Complete plant performance test at maximum and minimum production rates
- Fouling and corrosion assessment
- Plant compression system evaluation
- Emergency services/troubleshooting
- Safety audits
- Preventative maintenance programs

No other industrial gas company produces as much hydrogen as Air Products.

Pressure Swing Adsorbers (PSAs)

- Capacity and recovery optimization (cycle time, control system assessment)
- Purge gas composition/flow optimization to reduce oxygen swings in reformer furnace
- Adsorbent degradation assessment
- On-site adsorbent replacement/upgrade Advisory Services



Why call Air Products?

- Air Products is the world's leading third party provider of hydrogen.
- We operate over 100 hydrogen plants and have extensive operating experience, over 1500 years.

Chances are, we've experienced and solved the same problems you are having at your plant.

For more information,
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