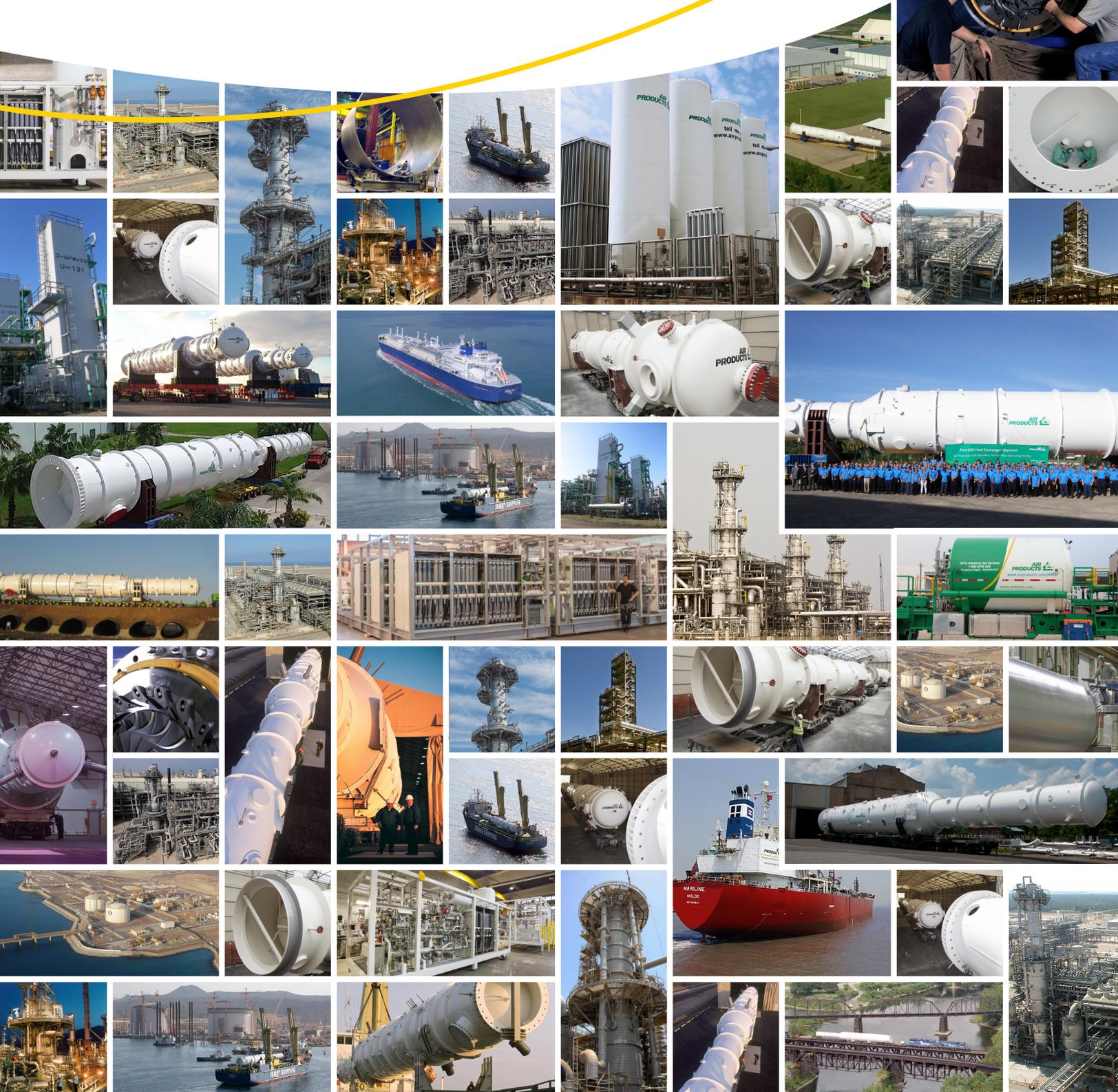


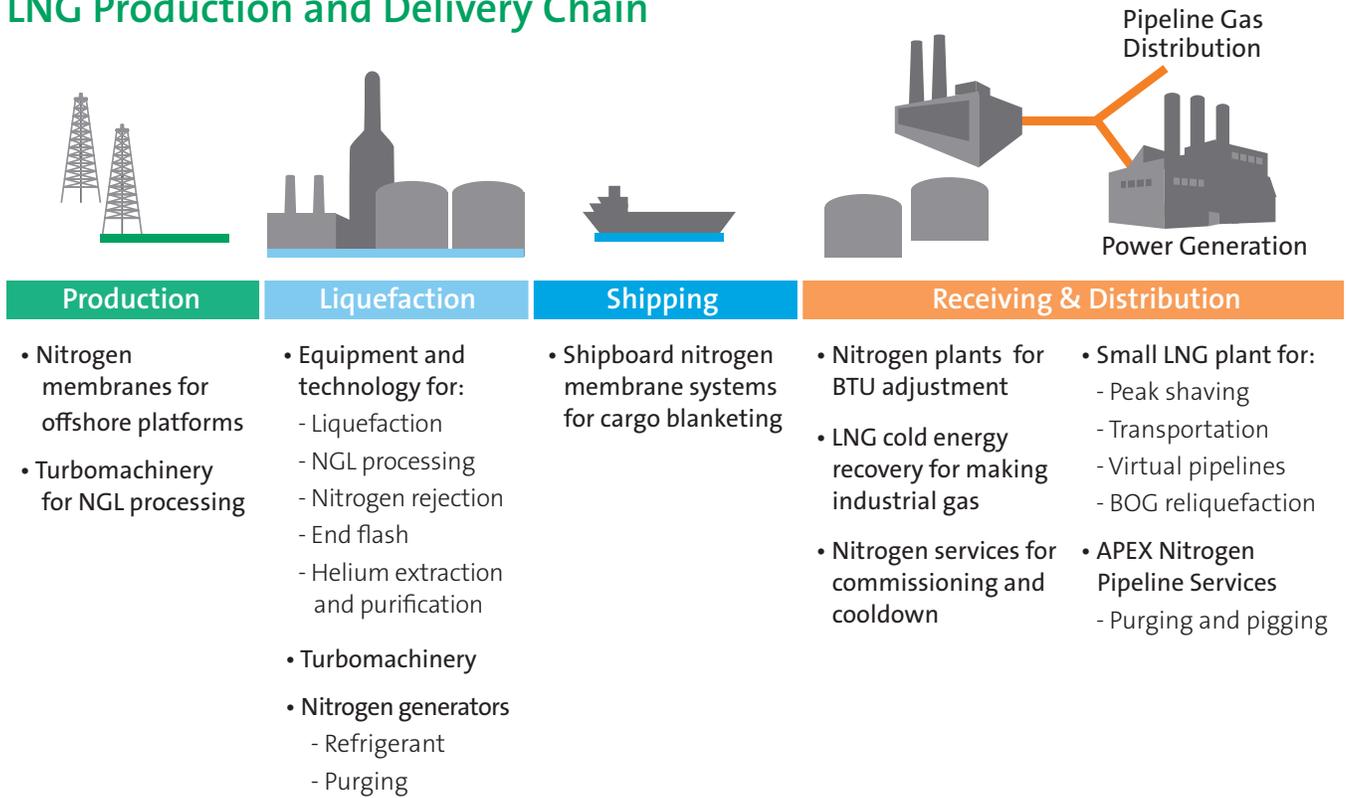
Air Products' Offerings to the LNG Industry



Liquefaction technology and related products and services for the design, construction, start-up, and operation of your on- or off-shore LNG facility.



LNG Production and Delivery Chain



Air Products' Membrane Solutions provides technology and equipment for on-site nitrogen generation in a wide range of energy industry applications including floating LNG platforms. These membranes have proven their durability during years of use in refineries, petrochemical plants and gas fields. Our nitrogen membranes satisfy the industry's need with a reliable high purity nitrogen supply that is mobile, low maintenance, scalable and flexibly configured.



Rotoflow draws on decades of operational know-how to design, build and support critical turbomachinery – helping customers reach their technology and performance targets more efficiently and reliably than ever before. Rotoflow offers support for all types of turbomachinery equipment and systems, from new equipment to field service, parts, repairs, upgrades, or rerates.



Liquefaction processes and equipment: Air Products offers a full range of liquefaction process options (see back page). Whether you require only a few tons per hour or millions of tons per year. Air Products has the process and equipment to serve your needs. In addition, and depending on the process, Air Products' equipment and supply may include our MCR® coil wound heat exchangers, cold boxes, and cryogenic turbomachinery including hydraulic turbines.



Cryogenic nitrogen generator plants producing nitrogen needed for BTU adjustment, purging and other requirements. Air Products has the technology, experience, and resources necessary to design, engineer, construct, and operate a cost-effective gas supply system for your specific application. Our range of nitrogen generators includes cryogenic, adsorption, and membrane technologies. We can meet all typical flow, pressure, and purity requirements where on-site gas generation is the best option.



LNG cold energy recovery: An air separation plant designed to liquefy air at low temperatures by using cold energy released during the LNG re-gasification process to produce industrial gas products. The plant brings tremendous environmental and energy efficiency benefits compared to conventional processes as this ASU plant consumes approximately 50 percent less electricity. Additionally, the use of LNG cold energy technology decreases carbon dioxide emissions by reducing electrical use in operation of the ASU.



Temporary and emergency bulk nitrogen supply: APEX Nitrogen Services for plant commissioning or cooldown. APEX nitrogen supply can save time and money by safely and economically meeting your nitrogen needs over a wide range of pressures and flow rates.



Small natural gas liquefaction systems produce up to 800 metric tpd (42 MMSCFD, or 0.3 MTA) of LNG for requirements such as peak shaving, transportation fuel, virtual pipelines or boil-off gas reliquefaction. Low cost and readily available refrigerants. Simple operation and superior turn-down efficiency. Modularized design minimizes construction costs.

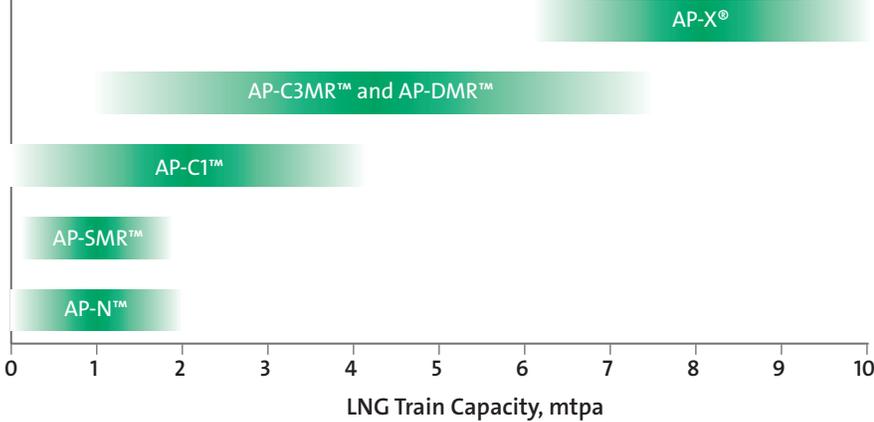


APEX Nitrogen Services for pipeline purging and pigging. With more than 40 years' experience in supporting pipeline operations, we focus our technical expertise on meeting your specific goals and requirements. Our self-contained pumping units arrive ready to hook up and start working. Our operators set up the equipment to supply the flow rates, pressures and temperatures for your job—and parameters can be adjusted quickly and easily.

Air Products' Liquefaction Process Options

Air Products offers a full range of liquefaction process options to serve the entire LNG industry. Whether you require only a few tons per hour or millions of tons per year, Air Products has the process and equipment to serve your needs.

Liquefaction Technology



LNG Process	Relative Efficiency
AP-X®	100
AP-C3MR™	100
AP-DMR™	100
AP-SMR™	88
AP-C1™	85
AP-N™	72

About Air Products

Air Products is a world-leading industrial gases company celebrating 80 years of operation. The company's core industrial gases business provides atmospheric and process gases and related equipment to manufacturing markets, including refining and petrochemical, metals, electronics, and food and beverage. Air Products is also the world's leading supplier of liquefied natural gas process technology and equipment.



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