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Ethane Liquefaction

AP-LC2[™] Process

Liquefy ethane efficiently using Air Products' cryogenic expertise.



Air Products' CWHEs have a robust design and offer quick, smooth start-ups.

Features/benefits

- Optimized cycle for maximum efficiency
- Proven safe and reliable coil wound exchangers (CWHEs)
- Efficient turndown
- Effective removal of other hydrocarbons, if needed
- Can be provided as a stand-alone ethane liquefier or as part of a multi-product liquefaction system, including natural gas
- Established EPC (Engineering & Procurement Contractor) relationships enhance project performance
- Robust designs and quick, smooth start-up supported by 50+ years of gas liquefaction design and operating experience
- Operation team training available
- Liquefaction performance optimization program available, putting Air Products' expertise at your fingertips

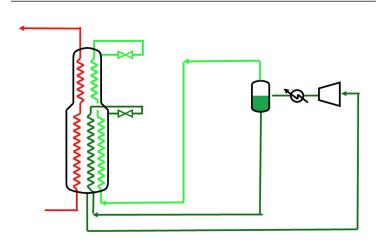


Figure 1: AP-LC2TM Ethane Liquefaction Process



Air Products' coil wound heat exchangers are proven safe and reliable.

Air Products listens to our customers. They asked for an efficient ethane liquefaction process and we delivered! Building on our LNG technology developed over **50+ years**, we created a simple and efficient ethane liquefaction process.



Best solution to transport ethane:

- U.S. Ethane production is increasing and estimated to reach over 2.5 million barrels per day
- Shipping gaseous ethane to customers can be a challenge
- Liquefaction increases density by a factor of 425
- Solution: ship the liquefied ethane
- Standard liquefier designs for 30,000 to 130,000 bpd
- Custom designs available for higher capacities

About Air Products

Air Products is a world-leading industrial gases company with more than 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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