



2014.08.27 Linde completes coldbox installations at major plant site in Texas | Linde US Industrial Gases



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- Centerpiece of Linde’s largest air separation facility in the U.S.
- Part of a \$250 million+ investment

Murray Hill and New Providence, N.J., August 27, 2014 – Linde has completed installation of three coldboxes which are the centerpiece of its air separation unit under construction in La Porte, Texas. The ASU is part of more than \$250 million [Linde North America](#) is investing to build a state-of-the art air separation unit (ASU), a new gasification train and supporting equipment and facilities in La Porte.

“Installation of the three coldboxes at the site is a major milestone in the construction process,” said Chuck Brooks, head of project execution, North America. “The coldbox is the nerve center of the plant. It’s where the cryogenic distillation of air takes place to separate the major components of the air – oxygen, nitrogen and argon.” The coldbox contains all the equipment needed for the separation process -- heat exchangers, distillation columns and associated valves and piping, all of which are heavily insulated.

“The coldboxes, two of which are about 20 stories high, had an interesting journey to the installation site -- a journey that required remarkable engineering design and execution,” said Brooks. The heat exchangers and columns were fabricated at Linde shops in Schalchen, Germany, and trucked to Bremen where the coldboxes were fabricated. The boxes were then shipped to Houston where they were transferred to barges.

The coldboxes arrived by barge which required dredging of a channel and construction of a ramp for a tracked vehicle to move them from the barge to the plant site. Ramp construction began with driving pilings to underpin the ramp because it needed the ability to safely support the weight of the coldboxes. Once off the barge and onto the remote-control operated tracked vehicle, the coldboxes inched their way to the site.

“Linde engineers ensured the safety of the project every step of the way,” Brooks said.

When fully on-stream in early 2015, the ASU will be the largest operated by Linde in the U.S. Linde is also adding a new gasification unit and supporting modifications to the world’s largest gas-based partial oxidation complex for the production of syngas products for petrochemicals.

The oxygen and nitrogen produced by the new ASU will supply the gasification assets at the La Porte site. The new gasifier will convert natural gas into syngas

and constituent products such as carbon monoxide, hydrogen and carbon dioxide which are used to produce methanol, downstream chemicals and cleaner transportation fuels. The syngas products will be shipped by pipeline to key customers. Linde also owns and operates three additional large, partial oxidation facilities that manufacture syngas products using Linde's world-leading syngas processing technologies and know-how.

For an overview of the entire construction project, go to:

<http://www.lindeus.com/en/linde-houston/index.html>.

Linde North America is a member of The Linde Group, a world leading gases and engineering company. In the 2013 financial year, The Linde Group generated revenue of \$23.1 billion (EUR 16.655 bn), making it the largest gases and engineering company in the world with approximately 63,500 employees working in more than 100 countries worldwide. The strategy of The Linde Group is geared towards long-term profitable growth and focuses on the expansion of its international business with forward-looking products and services. Linde acts responsibly towards its shareholders, business partners, employees, society and the environment – in every one of its business areas, regions and locations across the globe. The company is committed to technologies and products that unite the goals of customer value and sustainable development.

For more information, see The Linde Group online at www.linde.com.

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