



Linde Engineering North America Inc.

Linde Engineering North America Inc. (LENA) brings together the top tools, processes, and talents that we have to best serve our customers. For over 60 years, we have served the refining, gas processing, petrochemical, and chemical industries. We offer single source responsibility for technology, engineering, procurement and construction - T-EPC.



Ethylene furnaces supplied on an EPC basis by Linde Engineering North America Inc.

Global Plant Experience

Process plants are some of the largest and most sophisticated structures built. Customers worldwide trust Linde's unparalleled reliability, efficiency and competence. Our Houston location focuses on petrochemical, air separation, hydrogen/synthesis gas, and adsorption plants, while our Tulsa location provides process plants for liquefied natural gas, natural gas liquids, and gas processing.

- Engineering capabilities at all of our locations provide the most reliable process plants and fired equipment in the industry.
- Worldwide procurement maximizes value to our clients and ensures timely project delivery.
- LENA construction management teams are experienced professionals who demand high standards at each project site, with a goal to provide an incident-free workplace.
- As a member of The Linde Group, we have a global network of T-EPC resources.

Products and services

Air Separation

- Modular liquid and gaseous cryogenic nitrogen and oxygen generators
- Large gaseous cryogenic nitrogen and oxygen generators
- Liquid merchant plants capable of producing liquid oxygen, nitrogen and argon
- Maximum efficiency, robust operation and easy maintenance

Cryogenics

Our product line spans the entire spectrum of refrigeration and liquefaction requirements. Our offerings include small capacity systems with low-cost, piston-expander technology and sophisticated gas-bearing turbine expander technology. Linde has also built some of the largest cryogenic helium and hydrogen systems in the world.

Customer Service

Upgrades, revamps, and rebuilds maximize the life of our customers' valuable plant assets. We also provide construction services, commissioning and startup, operator training, maintenance programs, engineering studies, process modeling, and spare parts and equipment. We support our own brands and those of other OEMs. Our Customer Services and Construction groups in Houston, TX provide prompt support to our clients globally.

Gas Processing

- NGL and liquefied petroleum gas (LPG) recovery - using industry-standard RSV, GSP technologies or our STANDARD-PLUS™ technology, based on our CRYO-PLUS™ process.
- Our patented CRYO-PLUS™ process provides unparalleled ethylene, ethane, propylene, propane and heavier hydrocarbon liquid recovery efficiency in refining and petrochemical plants. In natural gas processing, it also provides a wider range of operations with a greater level of product recovery.



200 MM SCFD natural gas liquids (NGL) recovery plant.

Hydrogen and Synthesis Gas

- Steam reforming for light hydrocarbon feedstocks combined with Linde's pressure swing adsorption (PSA) systems for hydrogen purification
- Partial oxidation for heavy hydrocarbon feedstocks followed by a sequence of integrated process steps to shift, desulfurize and purify raw hydrogen. Pure oxygen for gasification is produced with a Linde air separation unit.
- Ammonia and purge gas recovery plants

Liquefied Natural Gas

- Standardized and modularized small- to mid-scale LNG plants - StarLNG™ feature a wide range of process variations while ensuring fast-track project execution.
- StarLNGL™, our integrated Liquefied Natural Gas (LNG) and Natural Gas Liquids (NGL) technology, uses proven design concepts to enhance LNG production in existing and new NGL recovery plants.
- LNG vaporizers

Modular Hydrogen Plants

Hydro-Chem, our division in Holly Springs, GA puts us foremost in pre-fabricated, skid-mounted steam reforming hydrogen plants, with typical capacities from below 0.2 to 11 MM SCFD.

Petrochemicals

LENA provides the most reliable petrochemical plants in the industry. Our cracking furnaces operate continually for up to five years without maintenance shutdowns, putting us 'top in class' as an ethylene plant supplier. Feed stock flexibility, energy efficiency, and low emissions are the hallmarks of our designs.

Process Furnaces and Fired Equipment

Selas Linde North America, a division of LENA located in Blue Bell, PA, engineers and supplies furnaces for ethylene and EDC cracking, hydrogen and synthesis gas reforming; fired heaters for petroleum refining and specialty chemical processing; traditional and flameless thermal oxidation systems; and LNG vaporizers.

Linde Engineering North America Inc.
12140 Wickchester Lane, Suite 300
Houston, TX 77079 USA
Phone +1 281-717-9090

6100 South Yale Avenue, Suite 1200
Tulsa, OK 74136 USA
Phone +1 918-477-1200

Selas Linde North America, A Division of Linde Engineering North America Inc.
Five Sentry Pkwy. East, Suite 300
Blue Bell, PA 19422 USA
Phone +1 610-834-0300

Hydro-Chem, A Division of Linde Engineering North America Inc.
125 Hickory Springs Industrial Drive
Canton, GA 30115