



## Hot Nitrogen



### Overview Statement

Linde Services Canada Inc. provides hot nitrogen to help you cut downtime dramatically for accelerated vessel drying and for fast, effective hydrocarbon stripping for catalyst regeneration and activation. Our mobile nitrogen pumping units can perform jobs typically beyond the scope of plant nitrogen supplies and are capable of high flow (up to 15,300 m<sup>3</sup>/540,000 scfh per hour per unit), high pressure (up to 68,950 kPa/10,000 psi), and high temperatures (up to 316°C, 600°F).

Hot stripping with nitrogen reduces the concentrations of CO at elevated temperatures, thereby helping guard against toxic nickel carbonyl formation. Pure, dry, inert nitrogen also helps to free reactors of other contaminants and provides an excellent alternative to clean hydrogen.

During accelerated dry outs, the -62°C (-80°F) dew point of nitrogen promotes efficient removal of moisture from process systems which translates into time and money savings.

In addition to hot stripping and accelerated drying, we are able to address a multitude of other hot nitrogen application needs, with a host of application specialists at your service.

- Cut downtime dramatically with accelerated drying and faster stripping.
- Pure, dry, inert nitrogen helps free the reactor of contaminants.
- When clean hydrogen is in short supply, nitrogen provides an excellent substitute.

### Specifications

In addition to providing temperatures up to 316°C (600°F) for catalyst regeneration, our mobile nitrogen pumping equipment can combine velocity and temperature to accelerate your vessel drying process.

High flow (up to 15,300 m<sup>3</sup>/540,000 scfh per hour per unit), high pressure (68,950 kPa / 10,000 psi, and high temperatures (up to 316°C, 600°F)

Flow rates as low as 1130 m<sup>3</sup>/40,000 scf scf per hour, pressure as low as 0 psi, temperatures as low as -196°C (-320°F).

**Applications** Some of our more typical applications for hot nitrogen include the following:

- Accelerated dry out using hot nitrogen
- Chloride absorber stripping
- Clay treating
- Catalyst regeneration and activation
- HF alkylation acid stripping
- Accelerated Reformer drying and stripping

Using nitrogen, we can also hot strip almost any fixed-bed reactor that has been difficult to clear up hydrocarbons.



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**Contact Linde Today:** To contact Linde and learn more about our services, please visit us at [www.lindecana.ca/services](http://www.lindecana.ca/services), email us at [LSCL@linde.com](mailto:LSCL@linde.com), call in western Canada **866.443.3491** or call in eastern Canada **888.332.4066**.

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