

The produced Nitrous Oxide needs to be stored. The most suitable form of storage is the liquid state of the gas. Therefore, liquefaction is needed. It is possible to store on high or low pressure depending on the type of usage. LP (low pressure) system provides a simpler solution for further upgrades. Since the plant working pressure is also LP, additional systems/ equipment (e.g. Ultra High Purity Unit, ISO Container/Tanker filling) can be added easily. If the purpose is only cylinder filling, HP (high pressure) is preferred as it requires a process line with fewer components.

The commonly used LP is for the higher amount of storage and delivery for the electronics industry and possible for cylinder filling. The HP is preferred for Medical Cylinder filling. The liquefaction is performed after the Production Unit. In both ways, the liquefied Nitrous Oxide is forwarded into the LP or HP Storage Units. Now Linde introduces both the high pressure (HP) and the low pressure (LP) solution for the liquefaction of Nitrous Oxide.







High-Pressure Liquefier

The HP Liquefier Unit (min. 45 barg) includes a specially designed Heat Exchanger with the required equipment. Normally it is part of the N₂O Production Unit located after the Dryer and cooled by chilled water.





Low-Pressure Liquefier & Refrigerator

The LP Liquefier Unit (max. 20 barg) Heat Exchanger installed on the Tank, and a Refrigerator Unit is required to provide the cooling temperature.

What can we offer?

- Designed especially for N₂O storage.
- Tank control and monitoring system.
- Integration into the plant control system.
- Operation safety design according to high-level standards and experience.

Why choose us?

- Experience as manufacturer and as a user.
- Integrated solution.
- High quality.
- More than 50 plants in operation worldwide.
- Reliable equipment with long service life.

