

New biogas purification system

Up to 1,000 Nm³/h



More than 15 years of Air Liquide biogas purification experience and expertise working for you

Biogas is a renewable energy produced during anaerobic digestion. Composed entirely of methane and carbon dioxide, biogas can be efficiently converted into biomethane through purification processes.

Biomethane is an ethical energy source that can replace fossil natural gas.



Thanks to the development of several technological building blocks, including membranes for separating CO₂, our solutions enable the purification of all types of biogas so that they can be injected into a natural gas grid, used to produce vehicle fuel or liquid biomethane, and produce

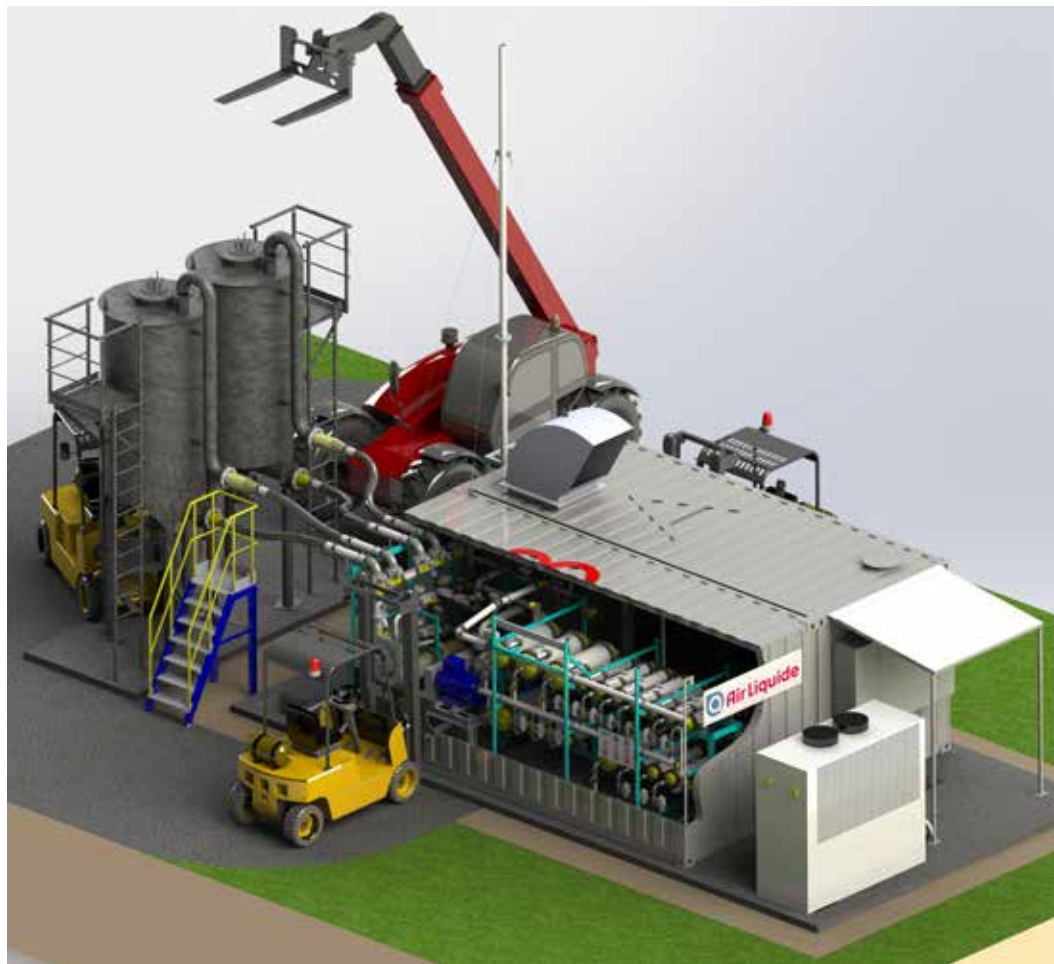
renewable hydrogen. The modular systems designed and developed by Air Liquide are upgradable biogas processing plants for applications that use 100 to several thousand cubic meters per hour (100 to 10,000 Nm³/h).

Air Liquide group's recognized expertise in the field of industrial

gases, as well as its experience in biogas purification are major assets for the success of your projects. Air Liquide has 19 biomethane production units and designed and installed around 100 biogas purification units worldwide.

New biogas purifier, up to 1,000 Nm³/h

Operating principle



Air Liquide is widening its line of biogas purification solutions with a purifier developed for projects with a capacity of up to 1,000 Nm³/h. With more than 15 years' experience, this new solution is suitable for agricultural or industrial projects producing biogas with the characteristics presented below.



Key Benefits

- Small footprint (< 60 m²)
- Quick and easy to install
- Low total energy consumption: < 0.27 kWh/Nm³
- Optimized investment
- Low operating costs
- Possible injection of biomethane into the low-pressure and high-pressure networks
- Easy to maintain
- On-site and remote supervision (PC / Mac / tablet / smartphone)
- Quick and easy to upgrade biogas treatment capacity to up to 1,000 Nm³/h (addition of membranes depending on the project phase)
- Proprietary Air Liquide membrane technology
- Delivery on site in under eight months

Related services

- Remote maintenance
- Hotline 24/7
- Spare parts
- Operating support and expertise
- Training

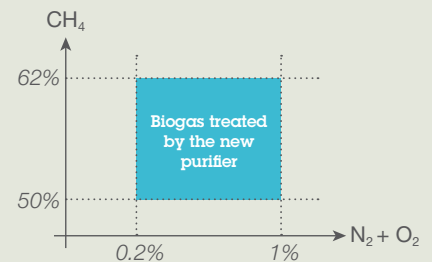
Biogas purifiers range

Crude biogas treatment capacity (Nm³/h)

200	New generation of biogas purifiers 500 Nm³/h
300	
400	
500	
600	
700	New generation of biogas purifiers 1,000 Nm³/h
800	
900	
1,000	High flow biogas purifiers
1,500	
3,000	
4,000	

Composition of crude biogas

- H₂S up to 200 ppm
- VOCs up to 100 mg/Nm³h
- 50% < Level of CH₄ < 62%
- 0.2% < Level of N₂ + O₂ < 1%



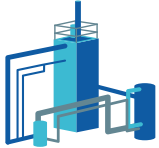
The new purifier's specifications

- Extraction rate > 99.5%
- Electrical consumption < 0.27 kWh/Nm³ of biogas

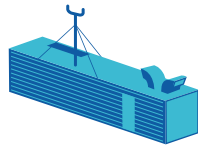




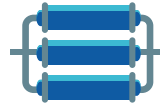
Key figures



1.3 terawatt-hour
of biomethane production
capacity per year



15+ years
of experience
in biogas upgrading



30+ years
of experience
in membrane production



100+ years
of experience
in gas separation

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