BRIGHT RENEWABLES PRODUCTS

Our product line

Request information

Biogas upgrading: PurePac

Biogas upgrading systems with membrane technology.

CO2 Liquefaction: CarboPac-L

CO2 liquefaction systems for the production of food-grade liquid CO2.

Biomethane liquefaction: LiquiPac (BioLNG)

Biomethane liquefaction systems to liquefy biomethane and for the production of bioLNG.

Virtual pipeline / bio-CNG: PurePac-CNG

Biomethane compression systems for the production of bioCNG.

Pure Pac Product Range

PurePac Compact

A modular and compact biogas puification solution. Suitable for all industries and the implementation of a CO2 liquefaction system.

Biogas flow

100 - 750 Nm3/hr (62 - 467 SCFM)

Electrical consumption

0.26 kWh/Nm3 of raw biogas

Methane recovery

≥ 99.5%

PurePac Medium

An efficacious and relatively compact size for biomethane production. Suitable for all industries and the add-on of a CO2 liquefaction plant.

Biogas flow

750 - 1,500 Nm3/hr (467 - 935 SCFM)

Electrical consumption

0.26 kWh/Nm3 of raw biogas

Methane recovery

≥ 99,5%

PurePac Grand

Request information

The answer to large-scale biogas upgrading. Suitable for all industries with the possibility to integrate CO2 liquefaction technology.

Biogas flow

1,500 - 12,000 Nm3/hr (935 - 7477 SCFM) (and higher possible)

Electrical consumption

0.26 kWh/Nm3 of raw biogas

Methane recovery

≥ 99.5%

Key benefits

- Easily integrated with any biogas plant
- Proven & sustainable membrane technology
- High separation efficiency
- On site and operational as soon as under 30 weeks
- Upgrading of biogas using membrane technology (PurePac)
- Upgrading of landfill gas using membrane + PSA technology
- Prefab & standardized units with extensive biogas treatment
- Gas-to-grid, bioCNG/LNG, & bioCO2
- CO2 liquefaction system easily integrated
- In-house service & maintenance for biogas upgrading + all add-on technologies

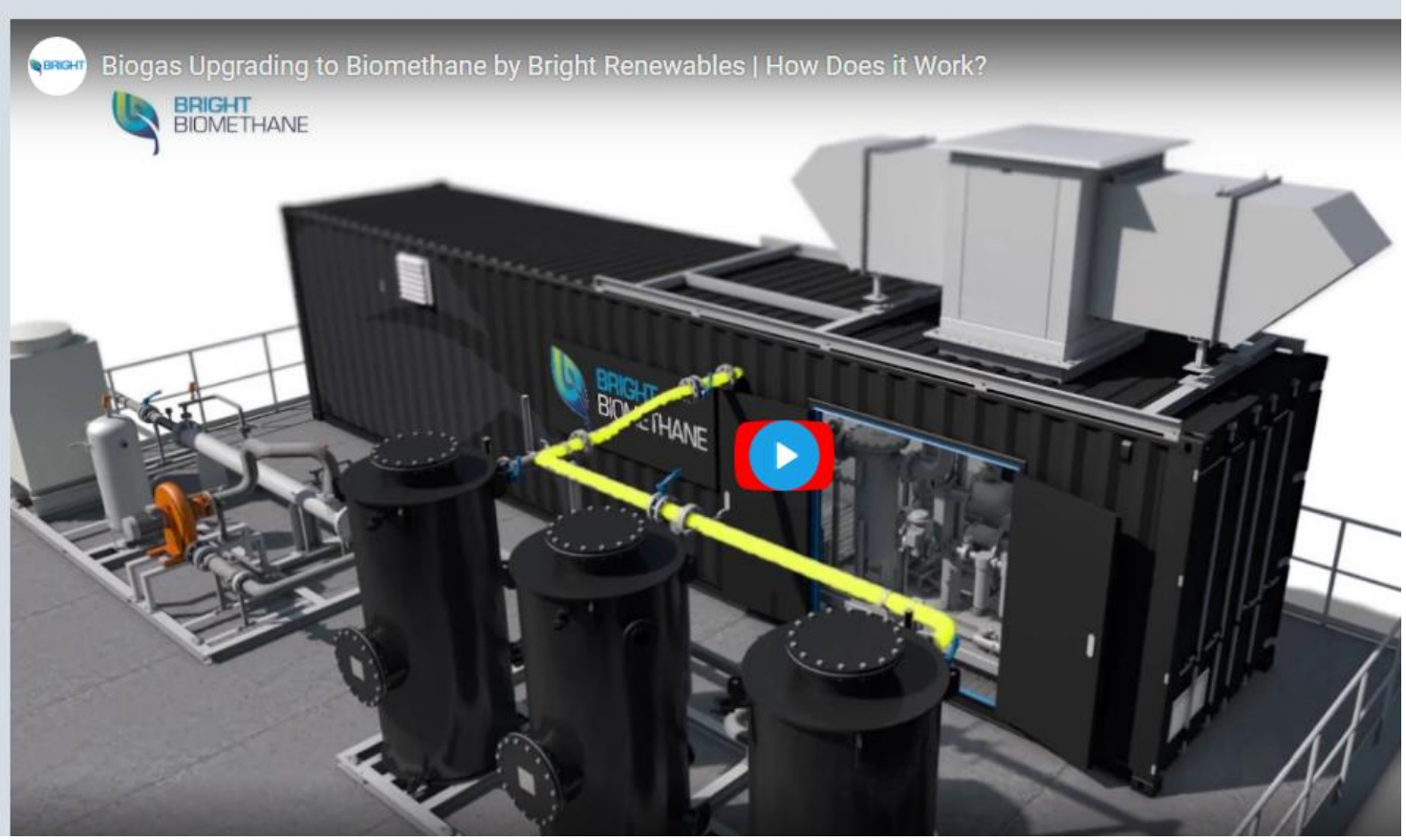
PurePac product specifications

Request information

	PurePac Compact	PurePac Medium	PurePac Grand
End-product			
Biomethane / RNG (grid injection)	✓	✓	✓
Bio-CO2 (CO2 liquefaction)	✓	✓	✓
Bio-CNG (virtual pipeline)	✓	✓	✓
Bio-LNG		✓	✓
Features			
Capacity biogas flow	100-750 Nm3/hr (62 - 467 SCFM)	750-1,500 Nm3/hr (467 - 935 SCFM)	1,500 - 12,000 Nm3/hr (935 - 7477 SCFM)

Features			
Capacity biogas flow	100-750 Nm3/hr (62 - 467 SCFM)	750-1,500 Nm3/hr (467 - 935 SCFM)	1,500 - 12,000 Nm3/hr (935 - 7477 SCFM)
Technology	Membrane separation	Membrane separation	Membrane separation
Efficiency	≥ 99.5%	≥ 99.5%	≥ 99.5%
Methane slip	≤ 0.5%	≤ 0.5%	≤ 0.5%
Methane slip with CO2 liquefaction	≤ 0.1%	≤ 0.1%	≤ 0.1%
Electrical comsumption	0.26 kWh/Nm3 of raw biogas	0.26 kWh/Nm3 of raw biogas	0.26 kWh/Nm3 of raw biogas
Electrical consumption with our UltraLow-E design	Only in combination with PurePac Medium	0.17 kWh/Nm3 of raw biogas	Only in combination with PurePac Medium

https://www.bright-renewables.com/solutions/renewable-gas/biogas-upgrading/



Request in

PurePac biogas upgrader

The PurePac is our well-proven biogas upgrader to purify biogas and landfill gas. Biogas upgrading is a very attractive alternative compared to using a combined heat and power (CHP) system that generates electricity and heat. Our range of PurePacs for biogas upgrading is an essential add-on for all types of new and existing biogas plants in any industry. Additionally, our CO2 liquefaction system can be added for the production of liquid food-grade bioCO2 further boosting the efficiency of the biogas upgrading process and improving the carbon intensity (CI) score.

UltraLow-E: Lowest electrical consumption

In addition to our standardized PurePac, we offer the UltraLow-E design of our proven biogas upgrader system. This system in combination with our CO2 liquefier is able to reach the lowest electrical consumption of as low as 0.17 kWh/Nm3 of raw biogas. Aside from higher sustainability, this results in lower electricity consumption, and lower operating costs, and can qualify for (higher) subsidies and incentives.

Short leadtime & high operational availability

By standardizing processes and utilizing our in-house production facility for prefabrication of our biogas upgrading systems, we are able to shorten lead times, operationalizing projects in just 30 weeks. Designed for compatibility with both new and existing facilities, our systems are prefabricated, modular, and boast over 97% operational availability.

Patented smart control system

Our biogas upgrading systems wouldn't work as excellent without its smart operating system that ensures biomethane-to-grid within a few minutes after start-up. It also ensures the highest up-time, i.e., the Wobbe-index and methane range can be quickly adjusted without disconnecting from the grid. Continuous monitoring and actively adjusting the flow and quality of the biomethane ensures a stable quality of the product gas and low maintenance. If in need of maintenance, our in-house service team provides 24/7 support for all our technologies, ensuring prompt and efficient assistance.

Comprehensive service & maintenance

Our comprehensive expertise in biogas upgrading technology is enhanced by in-depth in-house service and maintenance across all our technologies, ensuring high operational availability and continuous production processes. Through predictive maintenance, we use real-time sensor data to prevent equipment failure and downtime. We proactively identify issues to minimize downtime and ensure high plant availability.