



Greenlane® Biogas Upgrading System



- Standardised units easy to install
- Water only, solvent free
- Methane yield of 99% achievable
- Biogas heavily contaminated with H_2S can be upgraded
- Optimization of energy used in the process

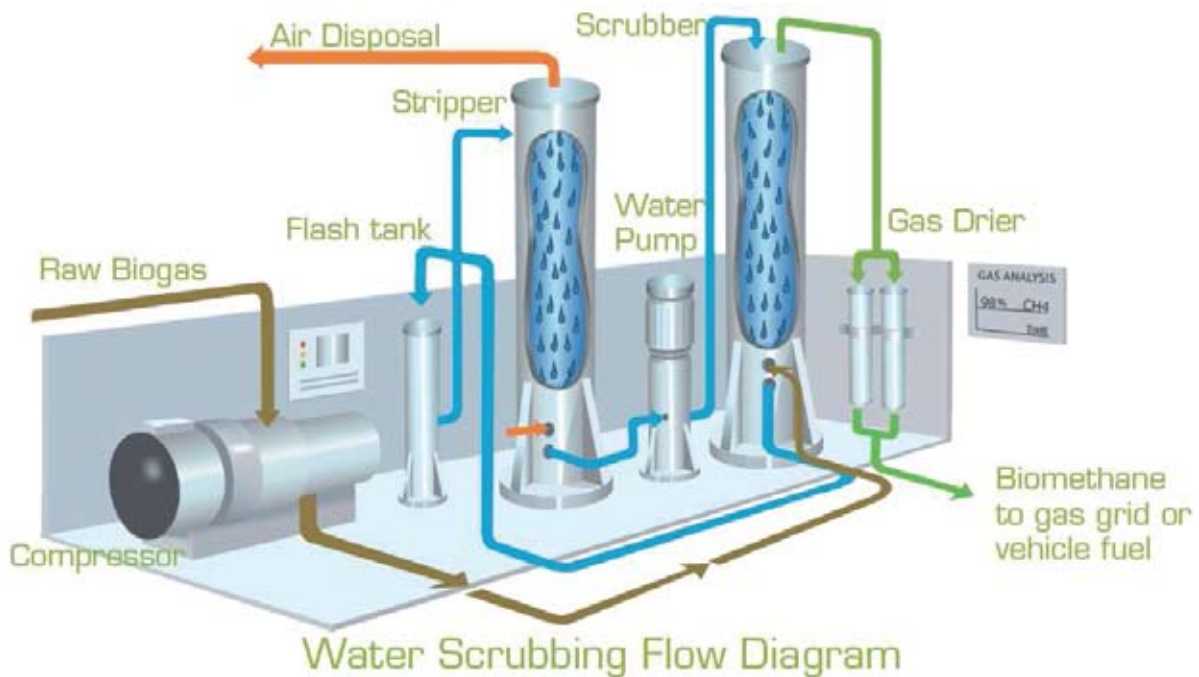


- Carbon dioxide neutral fuel
- Clean, renewable fuel locally produced

Greenlane upgrades raw biogas to produce clean renewable biomethane fuel from refuse, effluent and biodegradable matter. Development and implementation of biogas upgrading and environmental technology is a major driver for the Flotech Group.

Technology in Focus

Greenlane® CSFR (Compression-Scrubbing-Flash-Recovery) is an advanced, energy efficient biogas upgrading system that uses pressurised water scrubbing to remove carbon dioxide and hydrogen sulphide from raw biogas to produce biomethane.



Greenlane® Product Range

Standard biogas upgrading systems available through Greenlane®.

Model Name	Nominal Capacity Nm ³ /h Raw Gas	Capacity Range Nm ³ /h	Estimated Plot Dimensions Containerised Length/Width/Height	Estimated Weight (Tonnes)	
				Shipping	Operating
Manuka	80	00 - 80	6.1 x 2.5 x 12.3 [1 x 20']	7	8
Manuka+	130	00 - 130	6.1 x 2.5 x 12.3 [1 x 20']	7,5	8,5
Kanuka	300	100 - 300	6.1 x 2.5 x 12.3 [1 x 20']	9	11
Rimu	800	300 - 800	12.2 x 5.0 x 14.8 [1 x 40']	18	22
Matai	1200	400 - 1200	23.0 x 2.5 x 14.8 [1 x 40' + skid]	32	38
Totara	2000	650 - 2000	24.0 x 2.5 x 15.4 [1 x 40' + skid]	40	48

Above data is subject to change without notice. Specifications, estimated performance and utility consumption figures to be confirmed at time of order.

Benefits of Greenlane® Biogas Upgrading System



Use of water as the scrubbing agent: The water scrubbing process upgrades raw biogas to vehicle fuel or pipeline standards efficiently, and with less impact on the environment. Biomethane quality exceeds recognised international vehicle fuel standards (e.g. Swedish Standard 15 54 38).

Hydrogen Sulphide: An innovative, patented “polishing” process has been proven to reduce H₂S carryover to 0.1 ppm.

Siloxanes: The Greenlane® system removes most siloxanes from raw biogas. Siloxane removal is essential for reliable use of compressed biomethane in internal combustion engines.

Oil: Greenlane® biomethane is oil free. For oil-lubricated compressors, options are available for biodegradable vegetable-based lubricants.

Energy efficiency: Gas compression, water flow rate and temperature determine not only the performance of the system but also its size and energy efficiency. All of these parameters are optimised to obtain the best system performance at lowest cost and best energy efficiency. A turbo recovery system is used on larger units to further improve specific energy consumption.

Innovative Greenlane® Manuka and Kanuka containerised “plug and play” unit offers spacious compact design, high energy efficiency, reduced footprint area, easy installation and serviceability at affordable price.

Towards the Triple Bottom Line: Choosing the Right Alternative



The path to reliable energy at modest cost: Whether you are a community, a farmer, a biogas producer or a constructor of gas production systems, our upgrading systems are designed to ensure that you or your customer will receive the benefits of biomethane produced to specification at the lowest possible operating cost.

From organic waste and agricultural biomass to cleaner air:

Biomethane has the great advantage of being produced locally. It can be used as high quality gas for industry, to heat houses, schools and workplaces, to supplement pipeline gas and as vehicle fuel.

Turning an environmental problem into a profitable business: Biogas derived from waste provides commercial opportunities for disposal services. Farmers, small and large businesses thus have an opportunity to engage in carbon trading activities.



Greenlane®



AfterCare®
TECHNICAL SUPPORT

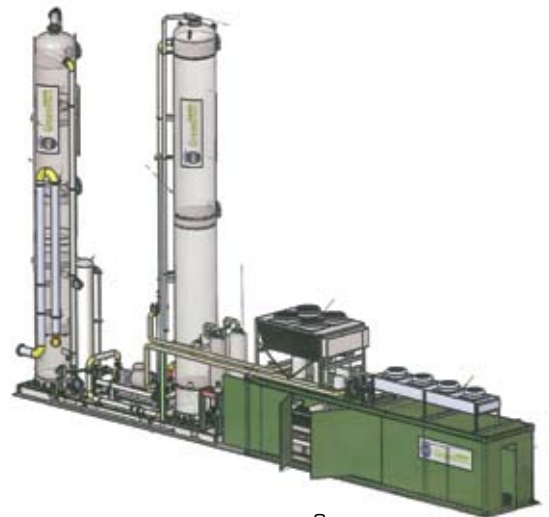
Through our AfterCare division, we offer professional commissioning and start-up services as well as long-term maintenance and spares part support, to ensure that equipment operates safely and at peak efficiency throughout its lifetime.

Unsurpassed Track Record

Greenlane has more than 20 years experience in biogas upgrading. Experience and know-how has allowed us to be selected as technology provider for the development of the world's largest biogas upgrading projects.



Marquette France Greenlane Manuka 80 Nm³/h



Greenlane Totara 2000Nm³/h

