



Biogas compression and clean-up unit for 100 SCFM

The Molecular Gate Technology offered by Guild Associates has been provided for over 35 projects with pipeline quality gas for pipeline, CNG and LNG produced. Since 2011 a small scale “MicroGate” system has been in operation in upgrading wastewater digester gas to high purity methane. The MicroGate design is a standard design with the feed compression and gas purification equipment mounted on a skid ready for easy installation and deployment.

The technology is noted for the benefits of:

- Single step removal of impurities
- All media is regenerated – no need for replacement
- H₂S completely removed from any level
- Siloxanes removed to non-detectable levels
- Chlorine and Fluorine compounds removed to non-detectable levels
- Dehydration to CNG requirements in the same unit and no separate dryer required
- No chillers used
- Dry system operation with no waste product other than condensed water from compression

The simplicity of operation is critical for small scale plants that may not get the attention that larger plants can justify. Operation simplicity includes:

- Automatic start-up and shutdown at a push of a button
- Automatic product purity control without operator attention

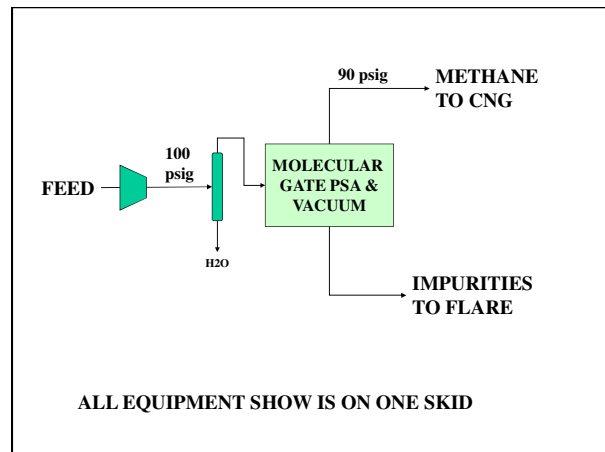
The gas compression and fabrication is by Guild Associates of Ohio with all equipment provided by Guild with sole-source responsibility.

Production of Small Scale CNG from Landfill and Digester Gas with Single Step Purification

Remote monitoring by Guild is available for troubleshooting and operator support.

Guild’s longest running Molecular Gate system has reached its 10-year anniversary with the same adsorbent and performance. The MicroGate system offered is built upon Guild’s 15 landfill and digester projects with flows to 12,000 SCFM and the well proven technology has now been scaled down for smaller flows.

The system operates by compressing the feed using an on-skid compressor to 100 psig where all impurities are adsorbed and high purity methane is produced at 90 psig. The product methane is then routed to a CNG station for compression and dispensing. Impurities are desorbed through an on skid vacuum pump. The system offers high methane recovery with the rejected impurities sent to the plant flare for destruction.



About Guild Associates

Guild provides adsorption and catalyst systems to a variety of markets, as well as shop fabricated engineered systems. Guild Associates is the licensee of the Molecular Gate™ technology originally developed by Engelhard Corporation (now a part of the BASF Group) and has provided all systems to date.

Contact

To learn more about Molecular Gate technology contact Michael Mitariten by phone, at 908-752-6420 or by email at mike@moleculargate.com. You can also visit us on the Internet at www.moleculargate.com.

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