





### BLOWER & VACUUM SYSTEMS FOR

# Renewable Natural Gas & Biogas

#### Blower & Vacuum Solutions for Key Industry Segments:



Biogas Production



Biogas Compression



Biogas Upgrading

Renewable Natural Gas (RNG) technologies are supplementing our energy supply while providing solutions for the world's biggest sustainability challenges including:

- Capturing landfill gas
- Transporting Renewable Natural Gas
- Supplementing existing energy infrastructure with usable Renewable Natural Gas
- Generating on-site energy for wastewater treatment and agricultural sites
- Upgrading and purifying biogas, converting it into usable energy (RNG)

## Hoffman & Lamson Multistage Centrifugal Blowers

A reliable, durable, and low-maintenance technology backed by a renowned global company and world-class service support team, Hoffman and Lamson multistage centrifugal blowers can be sized and customized for unique applications and feature:

- Motor sizes up to 3,000 hp
- Maximum pressure up to 24.7 psig
- Inlet capacity up to 41,000+ scfm
- Up to 10 impeller stages











## Nash Vacuum & Compression Portfolio

acuum and vacuum-pressure systems are often integral to biogas upgrading subprocesses including membrane separation, pressure swing and amine type system technologies. Boosting and low-pressure compressor systems are often integral to subprocesses of renewable gas production and compression.

Nash has time-tested, robust, and reliable technology that has near isothermal, non-contact design that is favorable for even the toughest corrosive and explosive gas processes, engineered to custom application demands. Nash boasts a renowned and proven portfolio of proven liquid ring vacuum portfolios including:

#### Vectra XL Liquid Ring

#### VACUUM PUMPS & COMPRESSORS

- Capacity 115 to 5,200 acfm (195 to 8,900 m3/h)
- 2-in-1 Vacuum-Compressor
- Vacuum Range to 1 inHgA (33mbarA)
- Pressure Range to 30psig (3barA)
- Materials of Construction: Ductile Iron, Stainless Steel

### Common Sub-Processes



#### Renewable Natural Gas & Biogas

- Anaerobic Digestion
- Membrane Separation
- Pressure Swing Adsorption (PSA)
- Gas Boosting
- Amine Scrubbing



#### Renewable Natural Gas

- Anaerobic Digestion
- Compression