

# Industrial compression for the renewable natural gas (RNG) industry

*Reliable solutions to support the transition to clean energy*

## Navigate the RNG landscape

The growing RNG sector has wide variability in application requirements — from gas quality specifications and feedstocks to utility negotiations and local and federal incentives. With multiple parties and stakeholders often involved in biogas-to-RNG project implementation, selecting technologies that minimize risks and maximize processing uptime is essential.

Vilter single screw gas (VSG/VSSG) compression technology is engineered to deliver the uptime and dependability needed for a robust and successful RNG plant. With more than 145 RNG plants using Vilter single screw compression technology in North America, Vilter is a proven choice for RNG application reliability.

## Sustainability tailwinds drive RNG adoption

Global, federal and local initiatives are underway to reduce dependency on carbon-intensive fossil fuels. Leading private companies are making sustainability pledges that target the decarbonization of plants, processes and operations. As a result, the demand for RNG projects is forecasted to experience continued exponential growth over the next decade.

Many industries can participate in upgrading biogas to renewable natural gas, including dairy farms, landfill plants, wastewater treatment plants, food waste sites and ethanol plants. These projects have a shared requirement for robust and reliable compression solutions with the flexibility to support efficient turn-down at various processing stages.

## Vilter VSG/VSSG specifications and advantages:

- Valves and flow controls are customizable within the portfolio, with nominal cubic feet per minute (CFM) ranges from 301 to 3001.
- Slide valve control enables turn down to 20%
- 2:20 compression ratios
- Low total cost of ownership (TCO)
  - Ease of serviceability
  - Balanced axial and radial forces exert minimal forces on the bearings
  - Lower loads on shaft seals yield longer seal life





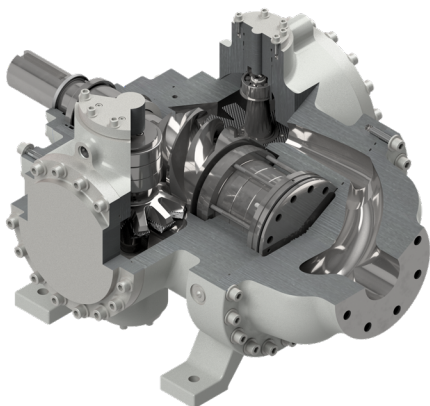
## ***Portfolio designed to solve RNG application challenges***

Vilter is a proven leader in single-screw compression technology, but our expertise doesn't end there. We offer a full range of solutions for RNG applications:

- Blower skids to boost the initial biogas, maintain pressure across contaminant removal and optimize inlet pressure to the feed gas compressor.
- Low- and high-pressure chilling skids to dehydrate the biogas upstream and downstream of the feed gas compressor
- Single-screw feed gas compression technology to pressurize the biogas upstream of carbon dioxide removal processes
- Single screw compressors to remove nitrogen — via recycle, vacuum or feed gas compressor types, depending on the technology
- Single-screw product gas compression technology to boost the biomethane to pipeline pressure, including Vilter's high-pressure, low-displacement compressor
- Fuel gas booster to provide pressurized biogas to a gas turbine for combined heat and power (CHP) applications
- Liquefied Natural Gas (LNG) boil-off gas compression

### ***Industries served:***

- Landfill gas
- Food waste
- Dairy farms
- Wastewater treatment plants
- Ethanol plants



**To learn more, visit [copeland.com](https://www.copeland.com)**

25145 EN FL VL RNG Capabilities ©2025 Copeland LP.

**VILTER**  
by **COPELAND**