

# **Biogas Solutions**

Wittig Rotary Vane Compressors





# Wittig Rotary Vane Solutions

Wittig is a trusted name in Biogas compressor design. Biogas is increasing in worldwide importance as a recognised renewable energy source. Biogas production provides a significant contribution to future energy supplies, replacing more and more existing fossil-fuel sources such as coal, oil and natural gas.

We have developed our industrial gas compressors, renowned for their reliability and maintainability, into a market-leading range of compressors, specifically designed for the Biogas market.

### Rotary Vane Technology

- High volumetric efficiency allows low speed of only 900 - 1780 r/min
- 2 bearings no axial forces
- Very low heat loss
- Low energy consumption
- Bearings can be changed on site
- Perfect lubrication with oil film between vanes and housing (no wear)
- Pulsation free compression
- Low Maintenance
- · High durability

## Wittig RO G

Our RO G Rotary Vane Gas Compressors are powerful and outstandingly reliable. Designed for long lifetime, safe operation and minimum maintenance, they are the perfect solution for every biogas upgrading process or for feeding gas into the grid.

These compressors with direct drive, can be either water-cooled or air-cooled and are designed for handling a wide range of gas applications with a volume flow up to 3,000 m³/h and 16 bar overpressure. The simple and rugged design has few rotating parts, a small footprint, no need for a foundation, offers low noise and vibration, and is certified ATEX category 2.

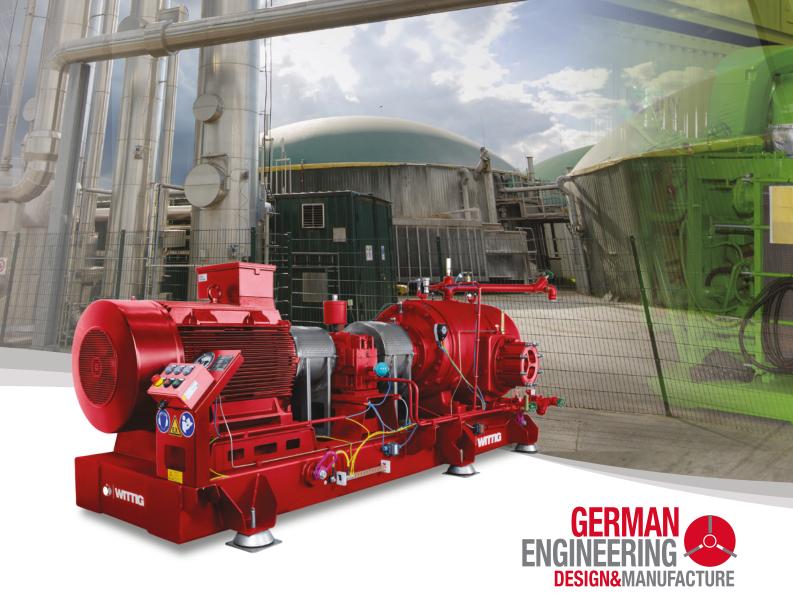


Wittig design, plan and manufacture complete system solutions for numerous gas and offshore applications, to customer specific requirements, including implementation of dedicated solutions to fulfil extraordinary demands.

- Suction-side inlet pressure up to 5 bar (abs.)
- Maximum compression pressure 17 bar (abs.)
- Optimal energy efficiency at a specified operating point
- Maximum reduction of residual oil content to 0.003 mg / m³ using post-filters
- Frequency controllable between 30 and 60 Hz
- Limp-home capability
- Single shaft
- Low rotational speed: 1,480 rpm

## Rotary Vane Technology

- High volumetric efficiency allows low speed of only 1480 rpm
- 2 bearings no axial forces
- Very low heat loss
- Low energy consumption
- Perfect lubrication with oil film between vanes and housing (no wear)
- Pulsation free compression
- Simple and easy to maintain
- High durability
- Up to 100,000 operating hours without overhaul



## Wittig L-GK and RVA G

Wittig L-GK gas compressors for biogas applications are available in sizes ranging from 20 to 100 with a capacity from 119 to 540 m³/hr and with operating pressures from 1.5 to 3.5 bar (abs). These oil-lubricated compressors are air cooled, driven by a built-in electrical motor with V-belt drive. The compressor is cooled by a separate cooling air blower in the acoustic hood.

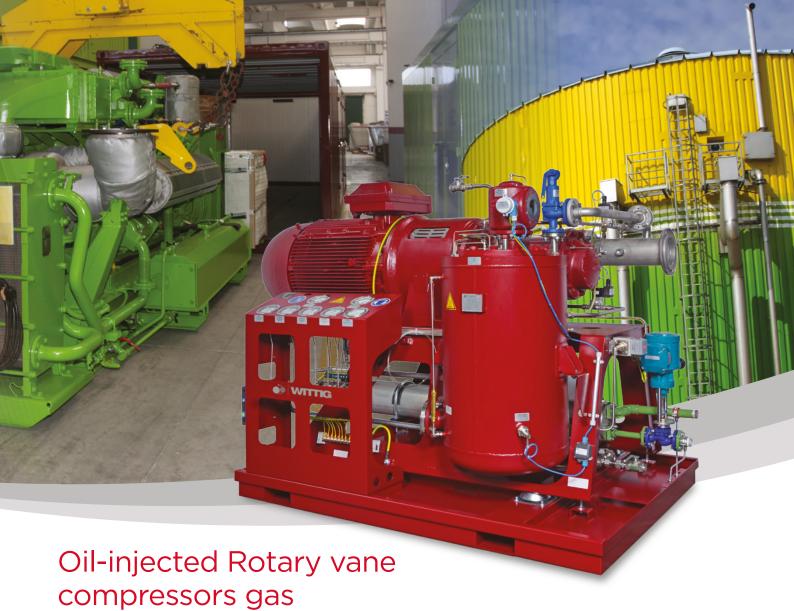
With a small footprint and designed for long-life with minimal maintenance, these compressors are suitable for handling dirty gases such as bio, landfill and sewage gases. The compact unit can be installed without the need for a foundation, with components mounted on a main frame with rubber-metal bonded elements to reduce vibrations. The electrical control panel is wired to terminal boxes.

The RVA G series is also oil-lubricated, with direct drive and a capacity from 505 to 5,262 m<sup>3</sup>/hr.

Its operating pressure is from 1.5 to 3.5 bar (abs) and they are water-cooled. The heat generated during operation is removed by cooling water, which flows through the compressor housing from the bottom to the top. Suitable for compressing purified gas, it provides outstanding operating reliability with a dynamic oil film between vanes and the inner wall of the compressor housing as well as low rpm and self-centring rotor.

### **Technology Benefits**

- Reliable
- Resistant and robust
- Minimal wear and maintenance
- Long lifetime
- Full range of accessories
- No loss of volume flow throughout the lifetime
- Certified ATEX category 2



## L-GK and RVA G

• Flow rate from 120 to 5,262 m<sup>3</sup>/h

with ATEX certification

- Long service life
- Low maintenance
- No foundation needed
- High availability
- ATEX category 2

#### **RO G**

- Flow rate from 60 3,000 m<sup>3</sup>/h
- Low vibration
- No foundation needed
- Low maintenance
- Reliable
- ATEX category 2

### Performance





# Genuine parts and professional services delivering total peace of mind

Ingersoll Rand's vast international network of engineers, service professionals and distribution, ensures total peace of mind with quality genuine spare parts and lubricants designed for optimum performance and efficiency – despatched within hours of ordering – supplied and fitted by maintenance experts who work as part of your team.

Genuine parts and professional services that guarantee more uptime, better performance and deliver value for money that affects your bottom line.

- Replacement part deliveries within 24 hours for stocked parts
- Service kits
- Personalised maintenance and service contracts
- Complete and fully qualified overhauls of your compressed air system
- Service training of customers with competent advice in the construction, operation and maintenance of machinery

Rotary vane technology - designed, manufactured and supplied by Wittig.

# INGERSOLL RAND The Ultimate Technology Choice

Ingersoll Rand designs, manufactures, markets and services rotary screw, reciprocating and sliding vane compressors in addition to multistage and positive displacement, centrifugal and blowers.

The end market sectors served by Ingersoll Rand are primarily industrial manufacturing, transportation, energy, mining, construction, environmental, plus food and beverage. Ingersoll Rand delivers the broadest range of compressors and vacuum products, in a wide array of technologies, to end-user and OEM customers worldwide.

Ingersoll Rand policy is one of continuous improvement and we therefore reserve the right to alter specifications and prices without prior notice.

#### Certified by:



ATEX Identification
II inside 2G c IIB T3
II outside 2G c IIB T3









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