



REVOLUTIONARY COMPRESSOR TECHNOLOGY



LOW NOISE.

HIGH PRESSURE.

REMARKABLE RESPONSIVENESS

VERT **IS A TECHNOLOGY PIONEER**

designing and manufacturing innovative Conical Rotary Compressors. VERT is the global leader in conical rotary technology.

Our mission is to drive innovation in the world of compressed air in order to:

- ◆ **Produce a low noise rotary compressor**
- ◆ **Achieve a high absolute pressure ratio**
- ◆ **Produce an ultra responsive flow to power input**

DISRUPTIVE CRC TECHNOLOGY

The innovative VERT approach has defied conventional engineering wisdom to create a truly disruptive technology. Similar to a twin-screw compressor in that there are two rotors, the novel step is placing one rotor inside the other, instead of side by side in a separate housing. Air or other gasses are drawn in at the larger-diameter suction end of the device and pushed through the compressor to the discharge end. As the gas travels along the rotors, the volume of the chamber reduces and therefore pressure increases.

VERT CRC technology is able to achieve an impressive single stage pressure ratio of up to 25:1, significantly more than that of most commercially available compressors.

The technology is agnostic to different gasses and VERT has used R134A refrigerant and operated the compressor as a refrigeration device.

THE VERT A100 CONICAL ROTARY COMPRESSOR



KEY FEATURES

- 10 bar(g) pressure
- 100 lpm air flow
- 1.3kW power
- 36kg weight
- 62dBA
- Low vibration
- 100% duty cycle

KEY PRODUCT BENEFITS

Decentralised air usage

removes issues related to pressure drops and air leakage found in centralised systems, saving capex and energy costs.

Responsive 100% Duty cycle

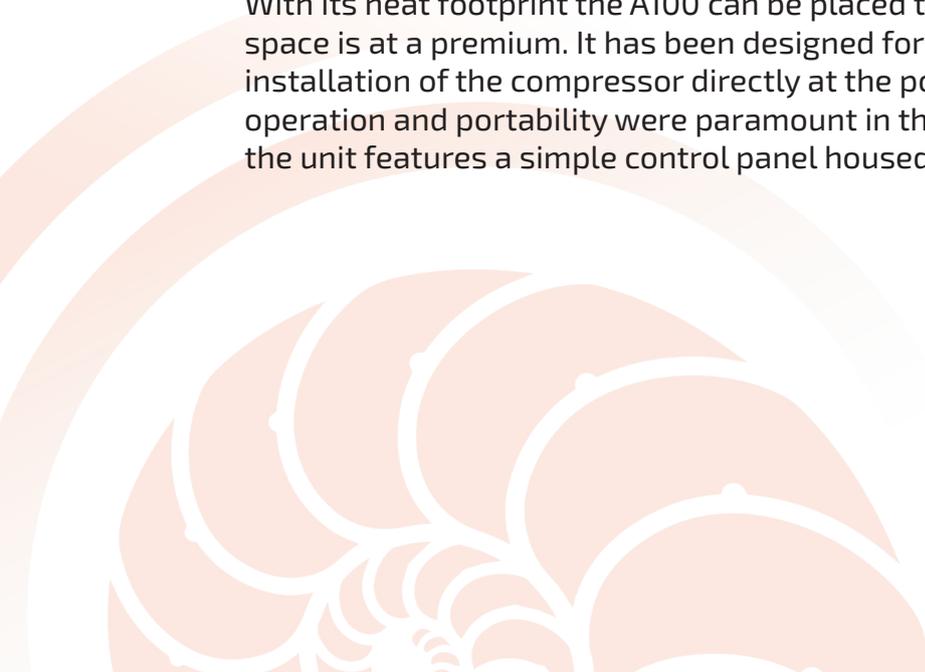
The VERT A100 efficiently operates at a continuous 100% duty cycle ensuring the constant provision of compressed air.

Innovative, quiet technology for low noise environments

The VERT A100 compressor is ideal for operation in environments where sound levels cannot be compromised. The A100's impressively low 62dBA noise characteristics means the compressor can be confidently installed in locations such as offices, workshops and laboratories where low noise is an advantage.

Compact, lightweight, portable design

With its neat footprint the A100 can be placed to work on site even where space is at a premium. It has been designed for the quick and efficient installation of the compressor directly at the point of use. Ease of operation and portability were paramount in the design of the A100 and the unit features a simple control panel housed within a stylish package.



DESIGN FEATURES

Responsive: VERT rotor geometry results in dynamically responsive system over a wide rpm range

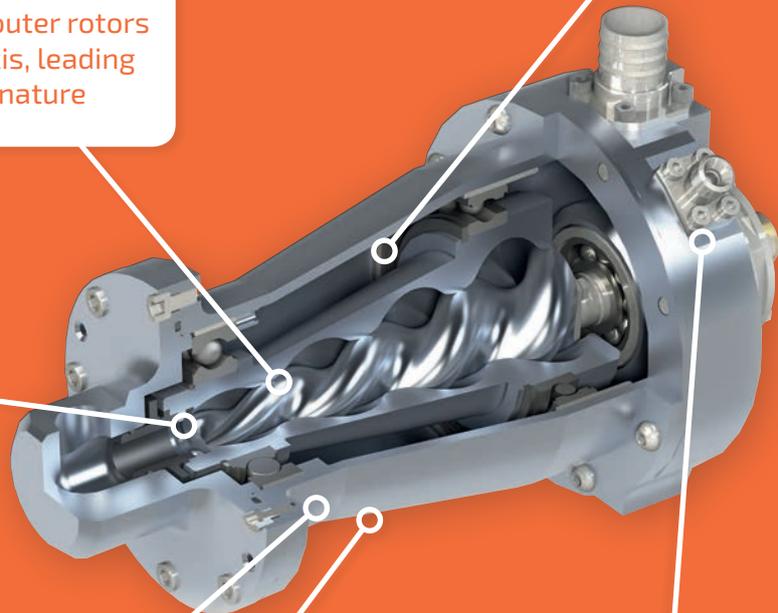
Quiet: Inner and outer rotors rotate on fixed axis, leading to a low noise signature

High pressure: Unique conical rotary design compresses gas up to a 25:1 pressure ratio

Lightweight architecture used throughout

Compact: The inner and outer rotors are housed in a compact package reducing space requirements

Oil cooling leads to 100% duty cycle and a durable product



A100

TECHNICAL SPECIFICATIONS

KEY FEATURES

Pressure	Air Flow	Power	Voltage	Weight	Duty Cycle
10bar(g)	100lpm	1.3kW	220-240V	36kg	100%

PRODUCT SPECIFICATIONS

Product	A100 air compressor	Mobility	Telescopic handle & wheels
Voltage	230V AC 50Hz	Dry weight	36kg
Power	1.3kW	Flow rate	100lpm @10bar FAD @50Hz
Max Current	10A	Dimensions	585 x 364 x 460mm
Max Pressure	10 bar(g) (145 psig)	Cooling	Oil injection, air cooled
Air out port	1/4" quick release plug	Regulator	0-10bar, integrated
Noise level	62dBA	Air tank	4l integrated

DEVELOPMENT PROJECTS

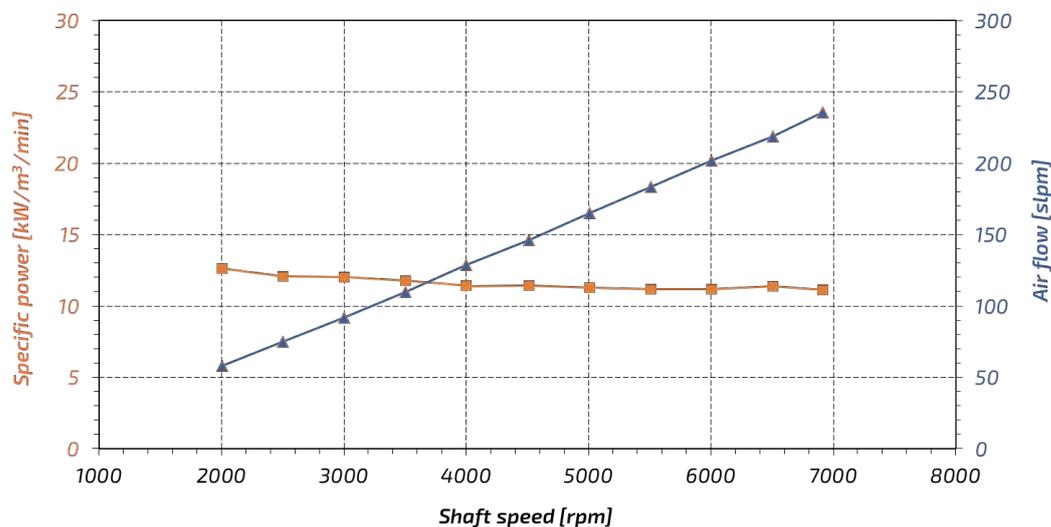
VERT specialises in new development projects to explore novel applications for this unique technology. VERT is able to scale its compressors to very small form factors. The lack of stator means that unlike twin screw designs the CRC maintains efficiency even sub 2kW size.

Our engineers work with many world class companies on research and development programmes, these include projects with the European Space Agency, a leading motorsport powertrain manufacturer, The Defence Science & Technology Laboratory, world leading suspension component manufacturers and manufacturers of refrigeration systems.

REMARKABLE RESULTS

The VERT Conical Rotary Compressor technology achieves a remarkably flat specific power response across the rpm range, independent of pressure. **This is produced as a result of the innovative method for compressing air within the inner and outer rotors.**

Specific power consumption and air flow at 8 bar discharge pressure



*Contact us to find out more about VERT
Compressors and to partner with us
on our unique technology.*

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