



COMPRESSOR TECHNOLOGY PIONEERS

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Vert is a technology pioneer, advancing one of the biggest innovations in the compressor industry for over 40 years.

The patented Vert Conical Rotary Compressor (CRC) technology is unique in the market place and offers the potential for a significant step change in output and end user benefits.

Vert partners with some of the world's biggest brands to develop and integrate the CRC technology into new applications to deliver the perfect combination of end user benefits.

## AT THE FOREFRONT OF INDUSTRY CHANGE

The radical design of the Vert CRC technology differs from traditional compression methods. Instead of rotating screws placed side by side to generate compressed air, the CRC technology places one rotor inside the other. This pioneering approach has re-defined conventional engineering and manufacturing knowledge and has been achieved via a combination of complex algorithms, computing power and advanced machining.

The Vert CRC technology offers a unique combination of benefits and capabilities.

## UNIQUE RESULTS

### Productivity

#### High pressure ratio in a single

**stage** - Gas compression up to a 25:1 pressure ratio for a compact, lightweight system package.

#### Compact space envelope -

Lightweight with a geometry scalable over three orders of magnitude.

Validated performance from 0.4cc to 500cc displacement, power from 20W to 15KW.

**High output** - Proven 100% duty cycle.

### Responsiveness

#### Flat specific power response

**across the rpm** range independent of pressure. Efficient operation across a wide speed range, ideal for variable speed drive.

#### High volumetric efficiency -

Stable flow versus pressure. The lack of stator means that unlike twin screw designs the CRC maintains efficiency even at small scale, sub 2kW size.

#### Wide speed range proven > 5:1

Flow can be matched to demand using a variable speed drive.

### Low noise and vibration

#### Inherently balanced motion

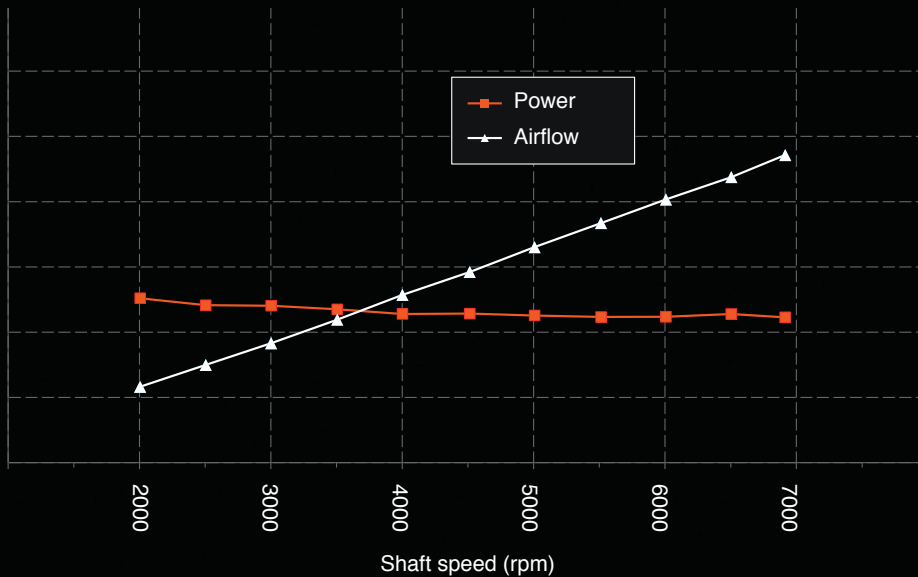
**characteristics** allows for ease of integration without the need for sound damping materials.



## TECHNICAL SPECIFICATIONS

### Vert Rotors CRC.40

Specific power and consumption and air flow at 8 bar discharge pressure.

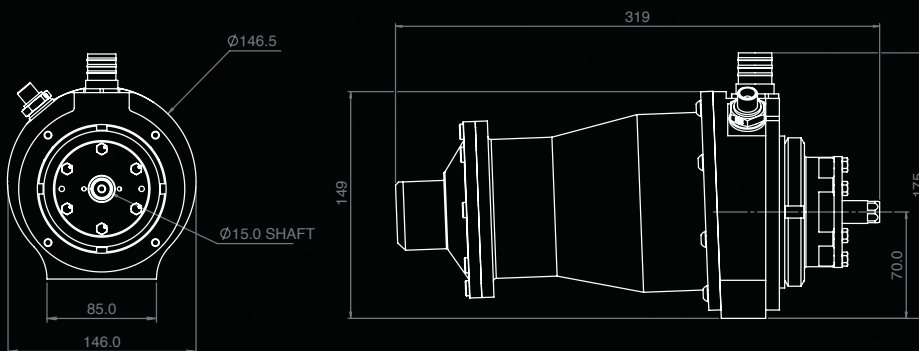


## PARTNER WITH THE PIONEERS

The Vert engineering team is passionate, driven and capable of tackling the most complex of engineering challenges. Vert regularly partners with some of the world's biggest brands to unlock novel applications for the conical rotary compression technology. These include projects with the European Space Agency, leading motorsport and aerospace manufacturers, the Defence, Science & Technology Laboratory, manufacturers of refrigeration systems and world leading suspension manufacturers.

### CRC.60 Air End

Max Pressure	10bar	Power	1.6kW
Flow	150lpm	Weight	7500g
Shaft Speed	3,000rpm	Oil injected, Air cooled	



## CONTACT US

To find out more about how the CRC technology could benefit your customers and to explore future collaboration opportunities, contact us.



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