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by Gardner Denver

# Air on the move

Compressed air for the Transit industry



Global transit solutions  
[www.hydrovaneproducts.com](http://www.hydrovaneproducts.com)

# Quiet, compact & reliable by design



## Design, expertise & support from the compressed air experts

Over many years, Hydrovane has developed expertise, knowledge and know-how through collaboration with some of the world's biggest vehicle manufacturers to design, manufacture and implement commercially viable packages of the highest quality, backed up by Gardner Denver, a leading global manufacturer of critical flow products.



## Delivering compressed air performance

We understand that the transit industry has high expectations of its vehicles, relying on them to operate hour after hour, carrying billions of tonnes of cargo and passengers each year. New legislation, regulations and evolving customer demands are changing the landscape of this sector, delivering ever-changing challenges for vehicle manufacturers. These include the ever-present need to reduce energy consumption and harmful emissions whilst still meeting load demands.





## Meeting the demands of next generation transit vehicles

Compressed air is key to the safe and reliable operation of critical applications on most commercial vehicles. However, new hybrid-electric vehicles (HEVs) and fully-electric vehicles (FEVs) demand much more of their sub-systems than current diesel counterparts. Weight, size, noise and the fuel-source have all been redefined.

## Upgrade your compressed air technology

Technology regarded as the industry standard is now seen as too heavy, too noisy, too large and too reliant on larger capacity cooling systems. Compressed air solutions must supply more applications, whilst now consuming less energy and space. Quiet HEV and FEV engines no longer mask the sound of compressors, therefore, lower noise technologies must be utilised. These vehicles also require a smaller footprint to meet space and weight requirements.



Intercity

Hybrid

Electric

Electric Hybrid



# Rotary Vane Technology from Hydrovane

The compressor for Transit  
Industry applications



## Our next generation of compressor solutions

Our next generation of transit compressors are perfectly suited to applications within modern transit vehicles. Quiet, compact and reliable, they will complement the new Hybrid and Electric vehicles being deployed to help reduce CO<sub>2</sub> and noise pollution.



### Reliable by Design

#### Direct Drive

No gears. No belts. Up to 100,000+ operating hours due to its simple integral design.

#### High quality air

Clean, dry and pulse free straight from outlet means less downstream equipment required.

### Quiet Efficiency

#### Delivering energy savings

Specific Performance and Energy Efficiency levels lower than alternative technologies. Variable flow enables optimised motor performance providing even greater savings and efficiency improvements for your vehicles.

#### Quiet as standard

With noise levels as low as 62dB (A) a Hydrovane can be located within the adjacent cabin with no loss of passenger comfort.



## No stress, just pressure

### Built to last

Long-life components allow Hydrovane transit compressors to offer the lowest life-cycle costs, reducing the cost of vehicle maintenance and downtime.

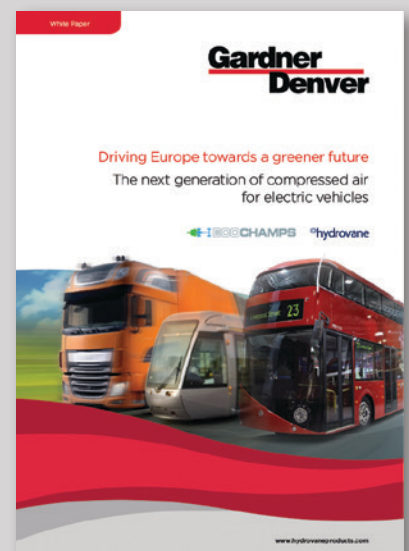
### Easily installed & maintained

Our solutions are designed to be easily install and routinely maintained in the field.

## Whitepaper | The ECOCHAMPS: Horizon 2020 project

A €28.5 million project, known as ECOCHAMPS, is the work of 26 partners drawn from six European countries with the aim of making 'hybrid vehicles more attractive to buyers by developing ways to improve their performance and lower prices - increasing Europe's competitiveness in the market.'

Read our whitepaper to learn more about ECOCHAMPS and the development of next generation of transit compressors that are helping to realise this goal.





# Hydrovane

Redefining the transit compressor solution



## Our numbers add up

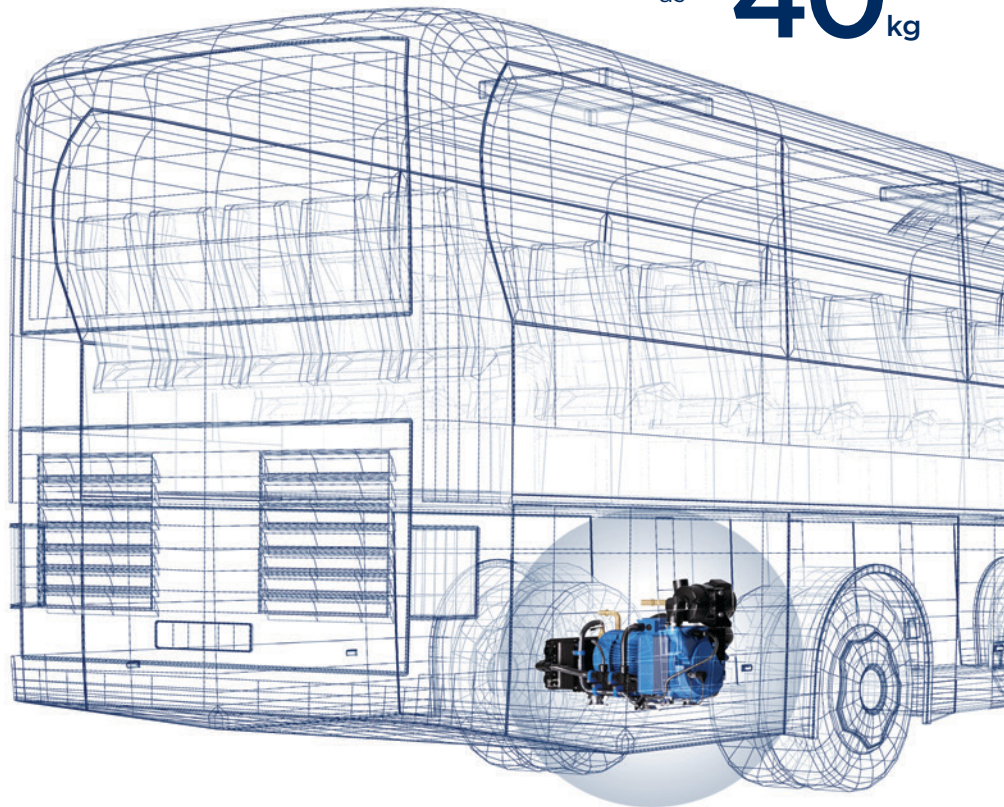
Our innovative compact design, clever use of materials and direct drive principles combine to reduce the overall weight, energy consumption and noise output of our Hydrovane transit compressors far below those of similar conventional package compressors.

Packages can weigh as little as **40** kg

**24v-  
850v**   
packages available

Flow Rates Between **70 & 600**  L/Min

Pressure ranges between   
**7 to 13.5** bar g



Over **500,000**   
Hydrovanes installed world wide





## Small on size, big on performance

### The lowest weight to air output ratio

Hydrovane Transit compressors offer the lowest weight to air output ratio of any transit compressor on the market.

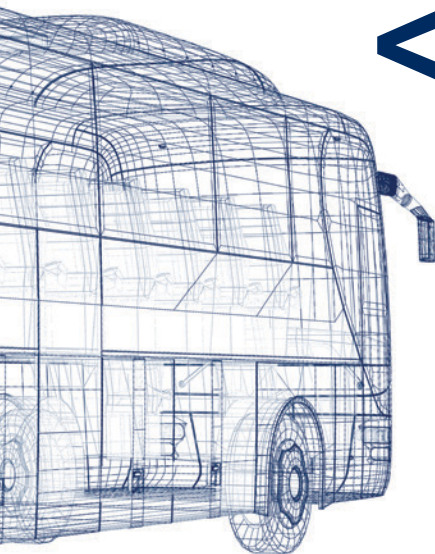
### Design integration not interruption

Small package footprint allows for integration where space is at a premium.

**20%**  
Smaller air ends providing overall reduced package size

Market Leading Final Oil Content of

**<3**  PPM



Less than **72**  dB(A)

Contributing to overall vehicle fuel savings of up to

**40%** 

by removing direct drive ancillaries from the engine

## Case Study

### Gardner Denver helps iconic London bus fleet go green

The 'New Bus for London' (NBFL) project set out to replace the existing diesel bus with greener double-decker buses, that were more fuel efficient and environmentally friendly. Based on the iconic Routemaster, the NBFL project required the next generation buses to be 40 per cent more fuel efficient than their diesel counterparts.

Learn more about how Gardner Denver helped to achieve these ambitious targets.



# Global coverage. Local support.

Hydrovane Transit Modules combine advanced rotary vane air compressor technology with the latest packaging designs suitable for all transit applications.

## Design, expertise & support from the compressed air experts

Our compact, light weight and highly reliable compressed air solutions are easily adapted to your design by our transit sector experts, ensuring optimum performance no matter what your requirements.

## Unique benefits ideal for transit applications

Vane technology offers considerable and unique benefits when it comes to transit vehicle applications. Redefining transit compressor offering and expectations and meeting the demands of new HEV and FEV vehicles.

## Our Transit Mission

Reduce our  
environmental impact



Compressors have a role to play in reducing their impact on the environment. We offer highly efficient, ultra quiet solutions as standard, supporting the industries drive towards a zero impact solution.

Deliver total compressed  
air performance



Our compressors are designed to deliver reliable, efficient performance hour after hour, mile after mile. Rigorous testing and design ensures you can guarantee compressed air performance.

Improve passenger  
comfort



Our vibration free, ultra quiet solutions offer unequalled performance and passenger comfort, reducing overall ambient noise omitted by your compressed air supply. We strive to continually keep noise to an absolute minimum.

Follow us on  
#GDTransit



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Global transit solutions from

**Gardner  
Denver**