



# 100% Oil-Free - Guaranteed

Oil-Free Water-Injected Rotary  
Screw Compressors



**OilFREE**

Truly innovative oil-free compressed air technologies

**D15H-D110H**

Fixed Speed & Regulated Speed

# Guaranteed 100% air purity, that meets stringent quality standards - **always**

As manufacturers and suppliers of oil-free compressors for over 90 years, CompAir are committed to quality and innovation and understanding the customers' operational and business needs. Nowhere is this more apparent than in the development of our DH range.

Our oil-free compressors are helping industries across the globe to meet and exceed quality and production objectives in food and beverage, pharmaceutical, electronic, healthcare and power generation applications to name but a few.

Today, we remain at the forefront of oil-free compressor technology by understanding the challenges our customers face and by listening to their needs.

In addition, CompAir are committed to developing environmentally friendly solutions that are helping our customers meet the demands of climate change legislation - from cutting energy bills and operating more efficiently to reducing their carbon footprint. Please visit [www.compressingcarbon.com](http://www.compressingcarbon.com) for further information.

## Why Oil-Free?

### Contaminant Free... Risk Free

When you choose an oil-free DH range compressor from CompAir, you get a clean, reliable and cost-efficient air supply that benefits your business and your bottom line!

Air purity is critical for many applications where even the tiniest drop of oil can cause product spoilage or damage

production equipment. For this reason, the DH range from CompAir contains absolutely no oil anywhere in the compressor and has been **certified ISO 8573-1 Class Zero (2010) and silicone free**, making it better and safer with simply no risk of oil contamination.



## CompAir in action

Our oil-free solutions are proven in thousands of applications across the world, providing high quality, low cost air to manufacturers, processors and operators in a diverse range of industries including:

- Food and beverage
- Engineering & technology
- Pharmaceuticals
- Automotive
- Chemicals
- Electronics



“The DH range offers market-leading energy efficiency to minimise your carbon emissions whilst using no oil anywhere in the compressor – thus helping to demonstrate your ‘green’ credentials and increasing your market appeal.”

“Increasing pressures both commercial and legislative, demand lower environmental impact from your business – issues that our oil-free compressors meet head on.”

### CompAir DH - your resource for cost savings

The unique design achieves lower speeds combined with lower operating temperatures - both resulting in high efficiency and reduced component wear. Using a single-stage, direct-driven motor without gears or belts, maximises efficiency. Limiting the compressed air to the application demand with regulated speed ensures that no energy is wasted.



Truly innovative oil-free compressed air technologies

## CompAir in action

Improved reliability & reduced costs



Rohde & Schwarz GmbH & Co. KG embarked on a programme to upgrade its compressed air supply to CompAir’s oil-free DH compressors at its main production plant in Memmingen (Germany).

Improved production reliability and reduced compressed air costs have already been achieved, with fast payback and improved efficiency.

**“The extra investment costs pay for themselves through lower energy consumption and reduced maintenance expenditure”.**

**Alfred Ahon,**  
Manufacturing Technology Projects, Rohde & Schwarz.

# CompAir DH - delivering the highest quality, oil-free compressed air for all applications

## DH - advanced compression technology from CompAir

The use of absolutely no oil negates the issues of contaminated air. **No oil - no risks.**

- Single-stage, direct-driven compression element maximises efficiency and minimises maintenance
- High quality water injection lubricates, cools and seals the compression process, maximising efficiency
- No gearbox means no need for associated oil lubrication
- Low bearing loads and low speeds mean sealed-for-life bearings can be used, requiring no oil lubrication
- Regulated speed technology available to reduce energy costs
- Comprehensive control ensures safe and reliable operation and includes remote communication capability
- Fully packaged and silenced enclosure reduces noise and simplifies installation

## Benefit from high quality features

DH compressors have significantly fewer moving parts than comparable machines, meaning there is less to go wrong, while lower speeds and balanced bearing loads extend the compression element service life for low-cost operation.

With exceptionally low running temperatures of less than 60°C near isothermal compression is achieved.

This also eliminates the need of an internal aftercooler and associated power consumption reducing pressure drop to the minimum.



The largest cost component of a compressor during its lifetime is the power required to run it. CompAir incorporate energy-saving technologies at every stage of the design, delivering a compressor that works harder and smarter.

**COMPAIR DH - TRADITIONAL OIL-FREE TECHNOLOGY DOESN'T GET CLOSE**

	CompAir DH	Traditional Oil-Free
Oil	No ✓	Yes
Speed	Up to 3500rpm ✓	6000 - 25000rpm
Compression Temperature	60°C ✓	Up to 200°C
Compression Elements	1 ✓	2
Number of Gears	0 ✓	5-7
Number of Bearings	7 ✓	More than 15
Number of Seals	2 ✓	More than 15

**High efficiency water purification system**

Tried and tested reverse osmosis filtration, provides high quality purified water to lubricate, seal and cool the compression process.

Using a permeate pump the water required is reduced to a minimum.

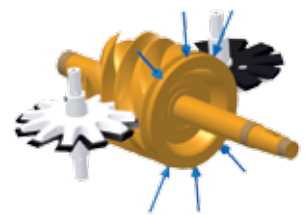


**Balanced Loads = Longest Life**

The compression loads are balanced resulting in low bearing loads and highest reliability.

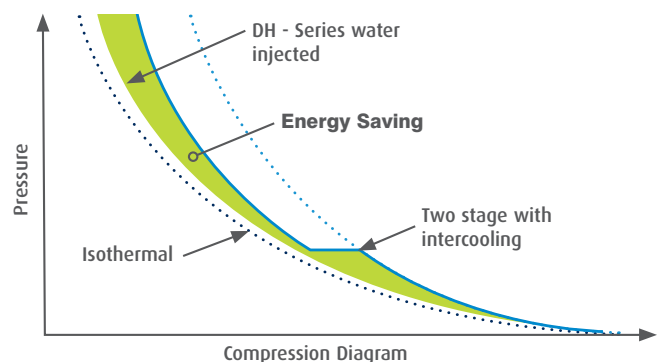


*Axial loads act on both sides of the main rotor.*



*Radial loads act on both the top and underside of the main rotor.*

**Energy Savings**



*Water injection means lower temperatures, and lower temperatures mean more efficient compression*

# Regulated speed technology offers maximum efficiency, cuts energy **AND** saves money

## Perfect response to your individual air demand

Regulated speed compressors from CompAir can efficiently and reliably handle the varying air demand. The right regulated speed compressor in the right application delivers significant energy savings and a stable air supply at constant pressure.

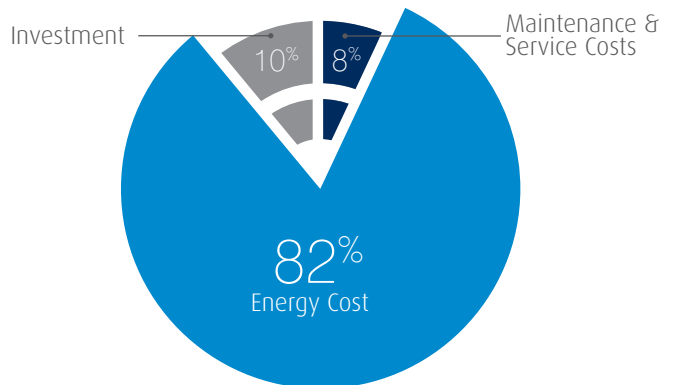
Maximum efficiency at any level of demand cuts energy costs and **saves money**.

- Excellent efficiency
- High reliability
- Low cost of ownership



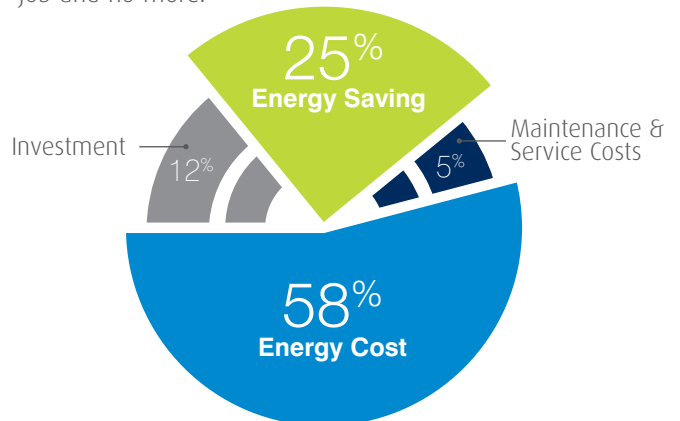
## Reduce the cost of ownership and minimise your energy consumption

The largest cost component of a compressor during its lifetime is the power required to run it.



A typical fixed speed compressor operating at 70% load.

Using a regulated speed compressor can easily save 25% energy as it consumes just the energy required to do the job and no more.



A variable speed compressor at 70% load.



## Delcos XL - Innovative touch screen compressor controller

The multilingual control system ensures safe and reliable operation and protects your investment by continuously monitoring the operational parameters - essential for reducing your running costs.

- Precise monitoring for exceptional operational reliability
- High resolution, easy-to-use touch-screen panel
- User-friendly clear structure
- Integrated SD card for in-depth analysis
- Trend diagrams for
  - Network pressure
  - Motor speed (regulated speed models)
  - On load hours / total running hours and average volume flow
  - Weekly average volume flow
- Optional base load sequencing



## CompAir in action

### Lowering energy costs for world's oldest brewery

A regulated speed, oil-free compressor from CompAir has helped the world's oldest brewery to achieve a **30% reduction** in its compressed air energy costs.



The brewery opted for a D22H RS compressor featuring PureAir Technology, generating **totally oil-free compressed air**, making it ideally suited for their stringent hygiene requirements.

Regulated speed drive technology matches compressor flow to demand with great efficiency meaning that the unit produces **ONLY the correct volume of air** required by the application at all times.

***"Together with CompAir we measured the power consumption of the system and found that the combination of the new compressor and the leak repairs has reduced our electricity consumption by around a third".***

**Gerd Abstreiter,**  
Engineering Manager, Weihenstephan Brewery.

# Simplified maintenance reduces life cycle costs

## Reduced maintenance

Our oil-free compressors are built to last, featuring robust designs and a simple construction, making them easier to maintain. We've also made them easy to operate, featuring a variety of control options to make sure that you are always in charge of your air supply.

## The DH range - for total peace of mind

- Significantly fewer moving parts means less to go wrong
- Lower speeds and balanced bearing loads extend the compression element service life to 36,000 hours for low-cost operation
- Cooler operating temperatures reduce component wear
- No oil or oil laden parts to dispose of, saving time and expense

## CompAir in action

### Increased efficiency & lower costs

The power and supply systems at MVV Energiedienstleistungen West GmbH, in Reken, Germany have been gradually audited over a few years with a view to reducing costs and saving resources.

Two CompAir DH compressors were chosen to replace the existing system - featuring PureAir Technology and generating totally oil-free compressed air.



***“Energy efficiency and excellent life cycle costs were important when choosing the new compressors, but the emphasis was also placed on the reliable generation of clean, oil-free compressed air as it is used as plant and process air for food production. The new, incredibly efficient machines represent an investment that will pay for itself through increased efficiency, reduced primary energy consumption and low maintenance costs”.***

**Andrew Bernemann,**  
Operations Manager, MVV





## Compressed air purification

A modern production system and process demands increasing levels of air quality. A CompAir compressed air system utilising the latest technology provides an energy efficient solution at lowest life cycle costs.

### Water Cyclone Separator X Series

Designed for efficient removal of bulk liquid contamination from compressed air.



### Compressed Air Filter CF Series

Efficient design for water, dust and particle removal.

### Condensate Drain Bekomat System

To drain compressed air condensate without loss of compressed air.



### Compressed Air Refrigerant Dryer

CompAir offer a full range of energy efficient and environmentally friendly stand alone refrigerant dryers.

## Nitrogen Generator

Designed to achieve maximum efficiency and gas quality.



### Heatless Desiccant Dryers

Series A\_XS and A\_TX.

### Heat Regenerative Desiccant Dryers

Series A\_TV and A\_RS.

## SmartAir Lite & SmartAir Master Multi Compressor Controllers

Sequencers for up to 12 units.



# Assure warranty - to ensure your peace of mind!



## assure™

First Class Compressor - First Class Warranty

The CompAir Assure Warranty and Service programmes will assure you up to 44,000 hours/6 years <sup>1)</sup> peace of mind, and is one of the most generous warranties available in the industry.

### Your benefits:

- The Assure warranty is totally free to the compressor owner <sup>2)</sup>
- The CompAir authorised service provider will deliver a guaranteed quality of service
- An Assure service agreement underpinning the warranty will enable accurate maintenance budgeting and cost of ownership
- The use of genuine CompAir parts and lubricants will maximise compressor life and efficiency

<sup>1)</sup> whichever is the soonest

<sup>2)</sup> subject to Terms & Conditions



Relax - you're in good company. From innovative warranties and technical support to rapid parts supply. CompAir's comprehensive Aftermarket programmes ensure optimal performance 365 days of the year.



### Genuine spare parts:

Enjoy complete peace of mind with CompAir!

Genuine CompAir spare parts and lubricants ensure that compressed air plant reliability and efficiency is maintained at the highest standards. CompAir spare parts and lubricants are distinguished by the following characteristics:

- Long service life, even under harshest conditions
- Minimal losses contributing to energy savings
- High reliability improving plant "up time"
- Products manufactured within the strictest Quality Assurance Systems

## CompAir DH - Technical Data

### Fixed Speed - Air And Water Cooled

Model	Cooling Method	Motor Rating (kW)	Working Pressure (bar g)		Free Air Delivered (m <sup>3</sup> /min)		Dimensions L x W x H (mm)	Noise Level dB(A)**	Weight (kg)
			8	10	8 bar g*	10 bar g*			
D15H	Air	15	8	10	2.30	1.80	1345 x 880 x 1612	68	672
	Water							65	624
D22H	Air	22	8	10	3.50	2.89	1345 x 880 x 1612	68	691
	Water							65	643
D37H	Air	37	8	10	5.86	5.04	1722 x 920 x 1659	71	960
	Water							61	860

### Regulated Speed - Air And Water Cooled

Model	Cooling Method	Motor Rating (kW)	Working Pressure (bar g)		Free Air Delivered (m <sup>3</sup> /min)		Dimensions L x W x H (mm)	Noise Level dB(A)** (70% load)	Weight (kg)
			Min.	Max.	Min.*	Max.*			
D15H RS	Air	15	5	10	0.32	2.34	1345 x 880 x 1612	67	687
	Water							64	639
D22H RS	Air	22	5	10	0.68	3.45	1345 x 880 x 1612	67	687
	Water							64	658
D37H RS	Air	37	5	10	1.09	6.87	1722 x 920 x 1659	71	995
	Water							60	895
D50H RS	Air	45	5	10	1.17	7.64	2158 x 1412 x 1971	73	1570
	Water							73	1490
D75H RS	Air	75	5	10	1.72	11.39	2158 x 1412 x 1971	75	1890
	Water							75	1810
D110H RS	Water	110	5	10	3.04	18.55	2158 x 1412 x 1971	72	2200

\* Data measured and stated in accordance with ISO 1217 Edition 4, Annex C & E at the following conditions: Air Intake Pressure 1 bar a / 14.5 psi; Air Intake Temperature 20° C / 68° F; Humidity 0 % (dry)

\*\* Measured in free field conditions in accordance with ISO 2151, tolerance ± 3 dB (A)



## CompAir in action

Premium air quality eliminates contamination



German bitter and liqueur producer Mast-Jägermeister installed a new bottling line at its Linden facility capable of producing 20,000 bottles per hour.

After assessing several manufacturers' systems, Jägermeister chose two CompAir D75H SR machines offering **completely oil-free** operation and **high energy efficiency**.

***"Our developers in Simmern combined their expertise in control and drive technology with water injected screw compression, developing an extremely cost effective operation with minimal service costs".***

**Werner Struck,**  
Mechanical Engineer, CompAir

# Innovative products & services

Trust CompAir to supply intelligent compressed air solutions



With over 200 years of engineering excellence, the CompAir brand offers an extensive range of highly reliable, energy efficient compressors and accessories to suit all applications.

An extensive network of dedicated CompAir sales companies and distributors across all continents provide global expertise with a truly local service, ensuring our advanced technology is backed up with the right support.

As part of the worldwide Gardner Denver operation, CompAir has consistently been at the forefront of compressed air systems development, culminating in some of the most energy efficient and low environmental impact compressors on the market today, helping customers achieve or surpass their sustainability targets.

## CompAir compressed air product range

### Advanced Compressor Technology Lubricated

- Rotary Screw
  - > Fixed and Regulated Speed
- Piston
- Portable

### Oil-Free

- Water Injected Screw
  - > Fixed and Regulated Speed
- Two Stage Screw
  - > Fixed and Regulated Speed
- Piston
- High Speed Centrifugal - Quantima®

### Complete Air Treatment Range

- Filter
- Refrigerant and Desiccant Dryer
- Condensate Management
- Heat of Compression Dryer
- Nitrogen Generator

### Modern Control Systems

- CompAir DELCOS Controllers
- SmartAir Master Sequencer

CompAir policy is one of continuous improvement and we therefore reserve the right to alter specifications and prices without prior notice. All products are sold subject to the Company's conditions of sale.

### Value Added Services

- Professional Air Audit
- Performance Reporting
- Leak Detection

### Leading Customer Support

- Custom Engineered Solutions
- Local Service Centres
- Genuine CompAir Parts and Lubricants

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