



## 100% Oil-Free - Guaranteed

Oil-Free Water-Injected Rotary  
Screw Compressors

**PureAir**  
ISO CLASS: ZERO PLUS SILICONE FREE



Innovative oil-free  
compressed air technologies

**D15H – D37H**  
**D15HRS – D110HRS**

Air and Water Cooled

# 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.

▶ **Pressure range**  
5 to 10 bar

▶ **Volume flow**  
0.32 to 18.55 m<sup>3</sup>/min

▶ **Motor power**  
15 to 110 kW

## 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 smallest 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 & beverage
- Engineering & technology
- Pharmaceuticals
- Automotive
- Chemicals
- Electronics

View application examples and case studies on [www.compair.com](http://www.compair.com)



“

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.

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## 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

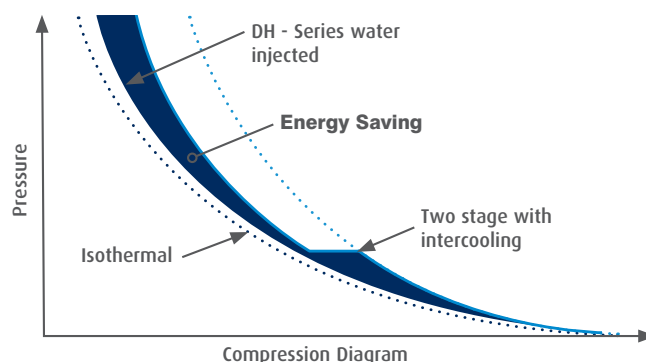
DH compressors have significantly fewer moving parts than comparable machines, meaning there is less to go wrong, while lower speeds and balanced bearing loads extend the compression element service life for low-cost operation.

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

This also eliminates the need for an internal aftercooler and the associated power consumption reduces pressure drop to a minimum.

## Energy Savings

Water injection means lower temperatures, and lower temperatures means more efficient compression.



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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.

”

## Less is more

CompAir DH - traditional oil-free technology doesn't get close.

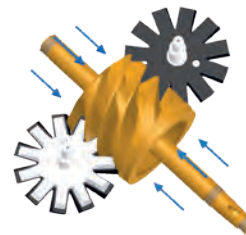
	CompAir DH	Traditional Oil-Free
Oil	No ✓	Yes
Speed	Up to 3500rpm ✓	6000 - 25000rpm
Compression Temperature	60°C ✓	Up to 200°C
Compression Elements	1 ✓	2
Number of Gears	0 ✓	5 - 7
Number of Bearings	7 ✓	More than 15
Number of Seals	2 ✓	More than 15

## Components not found in a DH-Series compressor

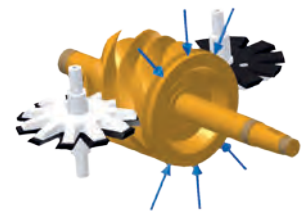
- Oil
- Oil separator
- Gearbox
- Oil removal filters
- Aftercooler
- Oil pump
- Complex seal arrangements

## 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.*

## 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.



# 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 varying air demand. The right regulated speed compressor in the right application, delivers significant energy savings and a stable air supply at constant pressure.

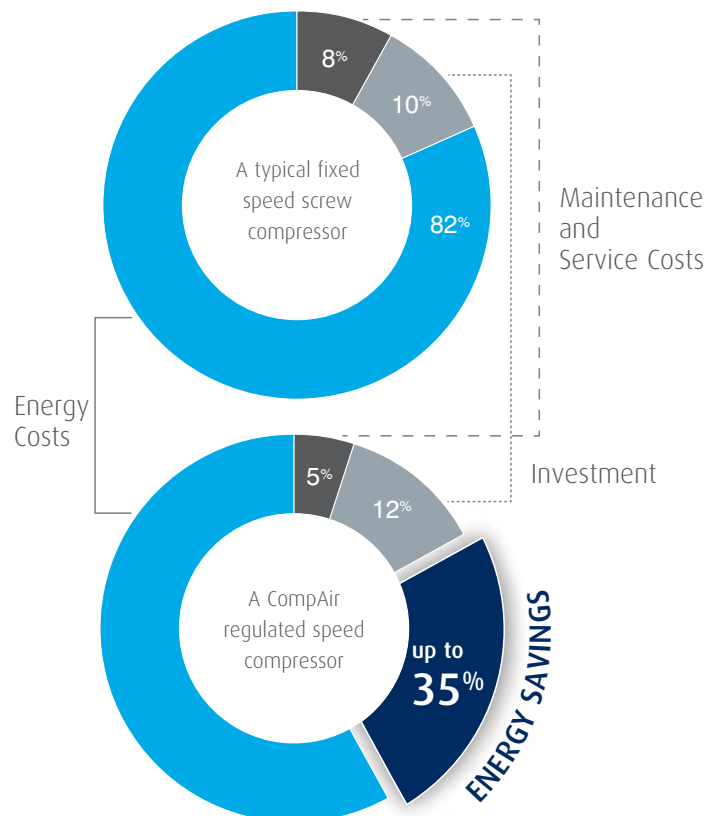
Maximum efficiency at any level of demand cuts energy costs and saves money.

- 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.



Using a regulated speed compressor can easily save 35% energy as it consumes just the energy required to do the job and no more.

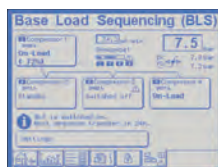




## Delcos XL - Innovative touch screen compressor controller

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

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 L75RS 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



## 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.



### Bekomat Condensate Drain and Oil-Water-Separation Systems

To drain compressed air condensate without loss of compressed air and separate any filtered oil to meet all the requirements of the Water Ecology Act and of other relevant provisions.



### Compressed Air Refrigerant Dryer

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

### Heatless Desiccant Dryers

Series A\_XS and A\_TX.

### Heat Regenerative Desiccant Dryers

Series A\_TV and A\_RS.



### Nitrogen Generator

On-site industrial nitrogen gas generation using the factory compressed air. Designed to achieve maximum efficiency and gas quality.

### SmartAir Master Multi Compressor Controller

With CompAir's advanced demand responsive sequencer SmartAir Master, the efficiency of the compressor stations with up to twelve compressors including downstream equipment can be maximised.



# Protect your investment

## PureCARE

PUREAIR SERVICING & MAINTENANCE PROGRAMME



### PureCARE

Specifically developed to support our oil-free product range, the CompAir PureCARE service programmes go beyond traditional service schemes to ensure uninterrupted quality compressed air supply coupled with optimum compressor performance, giving you peace of mind for your production and budgeting processes.

PureCARE Service plans are delivered by factory-trained CompAir technicians specifically to keep your oil-free compressed air system at peak performance, supported by the unrivalled quality and performance of CompAir genuine parts. Each PureCare Service plan is tailored to your specific application and site circumstances, ensuring system reliability and productivity at optimum cost.

### Compact design – easy installation

The small footprint reduces the space required for installation.

### Easy servicing

The design of these packages ensures that the service points are readily accessible. The enclosure side doors are hinged and removable to allow complete access to all service points. The reduced number of moving parts further lowers the maintenance costs.

### CompAir genuine spare parts

#### Enjoy complete peace of mind.

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

- Long service life, even under harshest conditions
- Minimum losses contributing to energy savings
- High reliability improving plant up-time
- Products manufactured with 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 [m³/min]		Dimensions L x W x H [mm]	Noise Level [dB(A)]**	Weight [kg]
					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 [m³/min]		Dimensions L x W x H [mm]	Noise Level at 70% load [dB(A)]**	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								1490
D75H RS	Air	75	5	10	1.72	11.39	2158 x 1412 x 1971	75	1890
	Water								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)





# Global experience – truly local service



Our Sales and Service trade counter in High Wycombe. 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 environment impact compressor 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®
- Rotary Scroll

### Complete Air Treatment Range

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

### Modern Control Systems

- CompAir DELCOS Controllers
- SmartAir Master Sequencer

### Value Added Services

- Professional Air Audit
- Performance Reporting
- Leak Detection

### Leading Customer Support

- Custom Engineered Solutions
- Genuine CompAir Parts and Lubricants



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