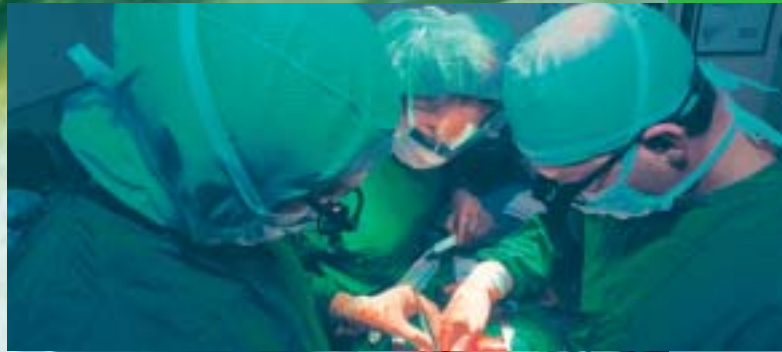




D15H – D22H – D37H
Oil-Free Rotary Screw Compressors



Intelligent Air Technology



Oil-Free Rotary Screw Compressors

The CompAir range of oil-free compressors can be relied upon to deliver a consistent flow of high quality, clean and economical compressed air.

Where contaminated compressed air can result in expensive product spoilage, you can rest assured that a CompAir oil-free compressor will eliminate oil-carryover in the compressed air supply. In addition, the removal of oil from the compression process enables compressed air users to operate with maximum environmental efficiency.

CompAir's oil-free pedigree

CompAir have been designing, manufacturing and supplying oil-free compressors for more than 80 years. With a product design that has evolved from single cylinder, oil-free reciprocating compressors to multi-stage, oil-free rotary compressors, CompAir has unrivalled experience in providing oil-free compressed air installations to industry.

CompAir oil-free compressors provide clean, high quality, oil-free compressed air to a diverse range of industries.

Industries, both large and small, rely on CompAir for a supply of consistently high quality compressed air, including automotive, aviation, petro-chemical, power generation, shipping and the utilities.

In situations where compressed air comes into direct contact with the products being manufactured: for example food and drink, pharmaceuticals, electronics and textiles, CompAir compressors have been helping clients meet their quality and production objectives for many years.

Ongoing investment in the latest design and manufacturing tools, and rigorous implementation of ISO 9001 approved quality systems, ensure you take delivery of a reliable, high quality product.

Factory performance and functional testing guarantee that your compressor will operate and perform perfectly.



Saves Energy

High output single screw compression element
Water injected for near isothermal compression
Efficient direct drive arrangement
High efficiency, IP55 drive motor

High Quality Air Output

100% oil-free construction
No oil in compressor = no oil in air
Clean, cool oil-free air guaranteed

Simplicity and Reliability

Established and proven single stage compression element
Simplified construction with no interstage or final air coolers
Dependable direct drive system
Reduced component count enhances reliability

Reduced Downtime and Easy Servicing

No oil or oil filter maintenance required
No oil related waste disposal costs
4000 hour service interval
Large doors provide easy access to all components

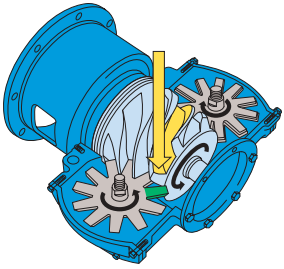
Monitoring and Control

Microprocessor based compressor control system
Clear text machine status display
Remote control
Accurate pressure transducer control



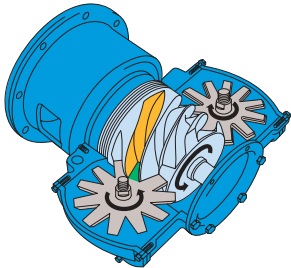
Easy Installation

Fully silenced package for low noise levels
Free standing package



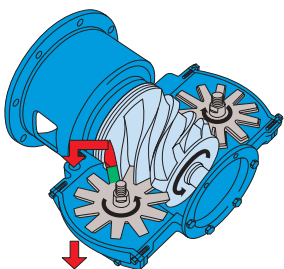
Intake

Atmospheric air enters the compression element and fills the flutes of the main rotor. The gate rotors engage with the flutes and form two compression chambers, above and below the main rotor.



Compression

The gate rotors automatically follow the rotation of the main rotor reducing the volume in the flutes and compressing the air along the compression chambers. Purified water injected into the compression element lubricates, seals and cools the process.



Discharge

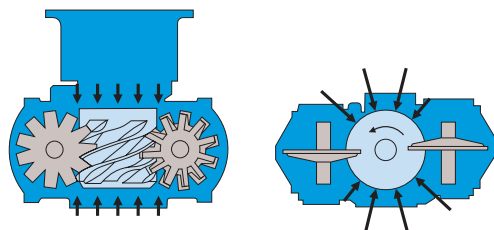
The compressed air and water mixture is discharged from the compression element and passes into a water separation vessel. The low temperature rise of the air means that a final air cooler is not necessary.

Extended surface water cooler provides efficient cooling and reliable operation in all operating conditions

Low noise radial cooling fans ventilate and cool the package and allow installation within the working environment

Enclosure filtration pre-filters air entering the compressor enclosure and maintains internal cleanliness and cooler performance

IP55, totally enclosed fan cooled high efficiency drive motor, flange coupled to the compression element for maximum drive efficiency



Radial loads act on both the top and underside of the main rotor. Axial loads act on both sides of the main rotor flutes. As a result compression loads are balanced and bearing loads are low.



Water purification system provides high quality injection water for lubricating, sealing and cooling the compression process

Fully integrated silenced package including cooler and water purification system reduces installation costs

Single stage, single screw water injected compression element delivers class leading energy efficiency, extended life and low lifetime operating costs. A two stage, heavy duty intake filter with 99.9% efficiency at 3 microns protects the compression element

A Reliable and Efficient Heart

At the heart of the compressor is an innovative single screw compression element, featuring a single main rotor with 6 flutes meshing with a pair of 11 tooth gate rotors, that is proven in thousands of installations.

Compression takes place in two chambers above and below the main rotor, as a result compression loads are balanced and bearing loads are significantly reduced. The low bearing loads extend compression element life and significantly reduce lifetime operating costs.

Water injected into the compression element provides lubrication, sealing and cooling. The superior cooling properties of water allows the compressor to operate at a low temperature providing near isothermal compression, low power consumption and class leading efficiency levels. A reverse osmosis membrane cartridge filters the injection water entering the compressor; as a result the water is always maintained at a high purity level.

Direct coupling of the drive motor to the compression element, without gears or drive belts, ensures perfect alignment and efficient power transmission with minimum drive losses.

100% Oil-Free Construction

Low operating temperatures and bearing loads enable maintenance free sealed bearings to be used, totally removing the need for lubricating oil in the compressor. 100% oil-free compression is therefore guaranteed and the maintenance and environmental costs associated with oil and oil filter changes are eradicated.

Intelligent Controls

The microprocessor based control system monitors and protects the compressor as well as giving indication of the operating parameters and machine status.



Control Panel

Control system features:

- Pressure and temperature displays
- Text status display
- Auto restart after power failure
- Service due indication
- Start-up protection
- Fault history store
- Remote start / stop input
- Group fault output
- Permanently stored default values
- Access code protected settings
- Real time clock allows timed starting and stopping
- RS485 communication port

The control system includes the ability to programme a timed pressure reduction, enabling a lower working pressure to be timer activated during evening or weekend operation for reduced energy consumption.

System pressure is monitored by a pressure transducer that provides precise pressure control and allows programming of pressure settings within a 0.2 bar differential for reduced energy consumption.

Thermostatic control of the cooling fan motor saves power when the compressor is in idle running mode.

Options

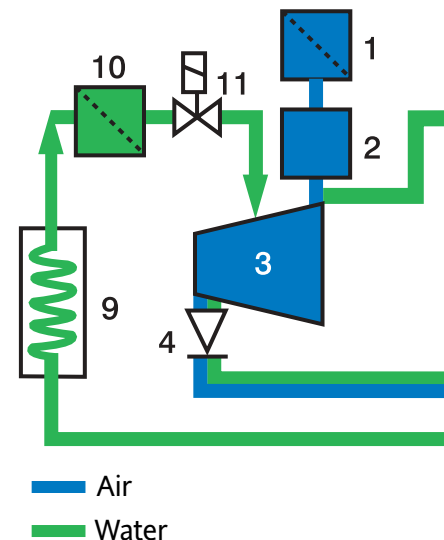
- Base load selector option allows CompAir compressors to control up to four other compressors in an installation (D37H only).

System Control

CompAir offers a range of electronic control panels that can sequence and control multiple compressor installations for maximum efficiency.

Peace of Mind

To ensure that your compressor operates reliably and efficiently throughout its service life a range of long-term service and full responsibility packages are available. These packages are tailored to meet your business needs and provide full visibility of lifetime maintenance costs as well as complete product support.



Technical Data

Model	Motor Rating kW	Max. Working Pressure bar g	Free Air Delivered at 7.0 bar g* m ³ /min	Dimensions			Noise Level dB(A)**	Weight kg
				Length mm	Width mm	Height mm		
D15H	15	8.0	2.30	1477	868	1511	73	610
D22H	22	8.0	3.61	1477	868	1511	73	660
D37H	37	8.0	6.04	1903	868	1541	74	1000

* At stated working pressure and measured and tested in accordance with Pneurop/Cagi PN2CPTC2 and ISO 1217 Edition 3 Annex C at the following reference conditions.

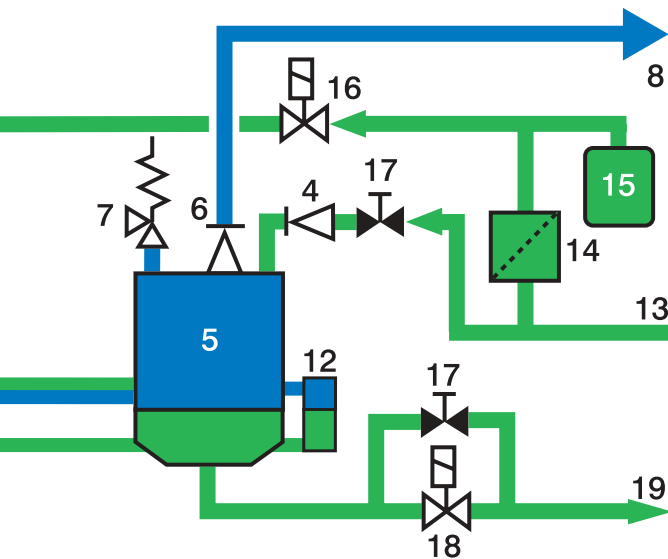
Air intake pressure – 1 bar a (14.5 psia)

Air intake temperature – 20°C (68°F)

Humidity – 0% (dry)

** Measured in accordance with Pneurop/Cagi PN8NTC2.3, tolerance +/- 3 dB(A)

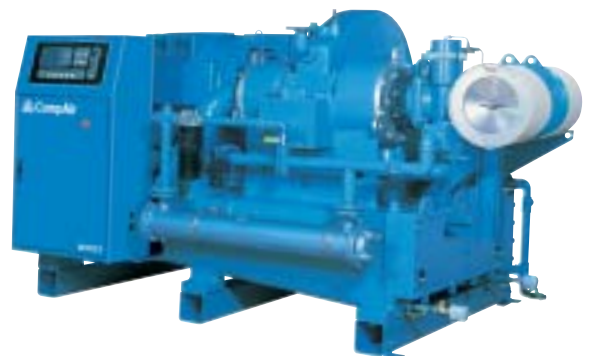
Key to diagram



- | | | | |
|---|---------------------------------------|----|----------------------------|
| 1 | Air Intake Filter | 10 | Water Filter |
| 2 | Intake Valve | 11 | Water Stop Valve |
| 3 | Compression Element | 12 | Water Level Switch |
| 4 | Non Return Valve | 13 | Mains Water Inlet |
| 5 | Separator | 14 | Water Purification System |
| 6 | Minimum Pressure/
Non Return Valve | 15 | Treated Water Storage Tank |
| 7 | Safety Valve | 16 | Water Make-up Valve |
| 8 | Air Delivery | 17 | Manual Valve |
| 9 | Water Cooler | 18 | Water Drain Valve |
| | | 19 | Water Drain Outlet |

CompAir Oil-Free Rotary Compressor Range

For applications that require larger volumes of high quality oil-free air CompAir offers oil-free rotary screw compressors in capacities from 7.53 to 42.4 m³/min and oil-free centrifugal compressors from 44.3 to 112.3 m³/min.



Intelligent Air Technology

Compressed air solutions for every application

Compressors

0.1 - 112m³/min
0.75 - 800kW

Lubricated

Rotary Vane
Single Stage Screw
Speed Regulated Screw
Piston
Portable

Oil-Free

Two Stage Screw
Water-Injected Screw
Piston
Portable
Turbo

Complete Accessories Programme

Filters and Dryers
Cooling Systems
Heat Recovery
Condensate Management
Air Receivers
Multi-Set Controllers
Lubricants

Value Added Services

Air Audit
Performance Reporting
Utility Air
Performance Contracting

Complete Service for Compressed Air Technology

Engineering of Complete Compressor Stations
Local Service Centres
Guaranteed Parts Availability



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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.

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