



100% OIL LESS - Variable Speed
Oil-less rotary screw compressors

⇒ D15H RS – D110H SR



Engineered to Save



Oil-Less Rotary Screw Compressors

THE COMPAIR RANGE OF OIL-LESS 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 has 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-less compressors provide clean, high quality, oil-free compressed air to a diverse range of industries.

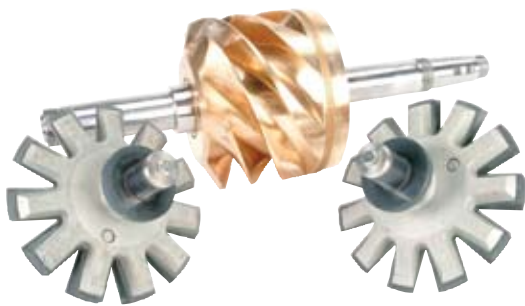
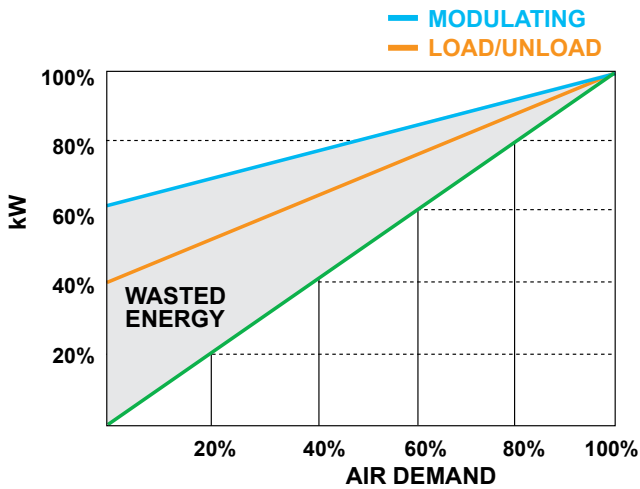
Industries, both large and small, rely on CompAir for a supply of consistently high quality compressed air, including automotive, aviation, petro-chemical, power generation, shipping and the utilities.

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.





Components NOT Found in the DH

- Oil
- Oil Separator
- Oil Removal Filters
- Gearbox
- Starting Inrush Current

VARIABLE SPEED SAVES ENERGY

High output single screw compression element
 Water injected for near isothermal compression
 Efficient direct drive arrangement
 High efficiency, IP55 drive motor, Variable Speed – saves energy

HIGH QUALITY AIR OUTPUT

100% oil-less 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

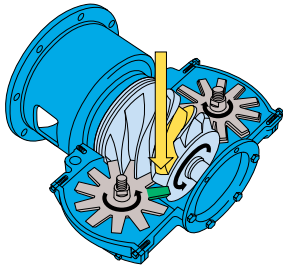
MONITORING AND CONTROL

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



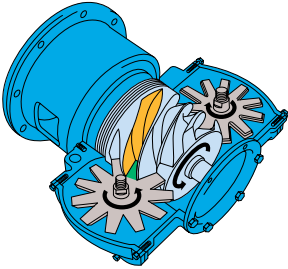
EASY INSTALLATION

Fully silenced package for low noise levels
 Free standing package



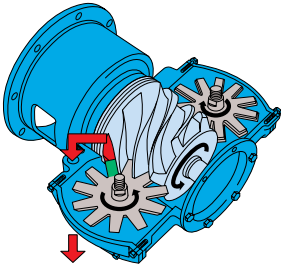
Intake

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

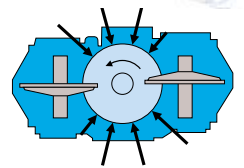
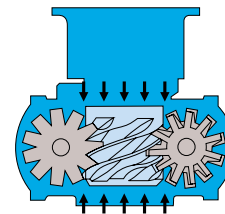
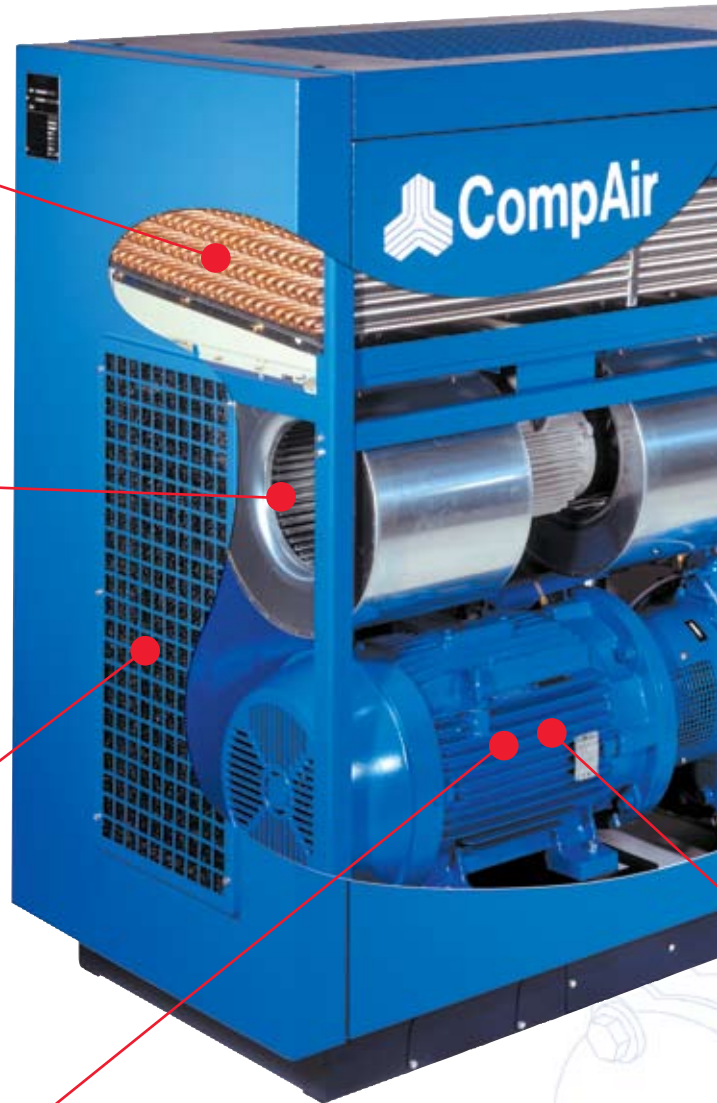
The compressed air and water mixture is discharged from the compression element and passes into a water separation vessel. The low temperature rise of the air means that a final air cooler is not necessary.

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
 20 and 30 HP Models have frequency inverter. 50, 67, 100 and 150 HP models use the "SR" Switched Reluctance drive system



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

All models are Variable Speed. The speed of the motor and thus the output of the compressor is adjusted to match your changing demands. Meaning you use just the energy you need and no more.

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-Less 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.



D37H SR – D110H SR

Combining leading-edge technologies of SR drives and water injected oil-less screws for maximum efficiency

New 3-phase motor with increased performance TEFC construction IP55 affects

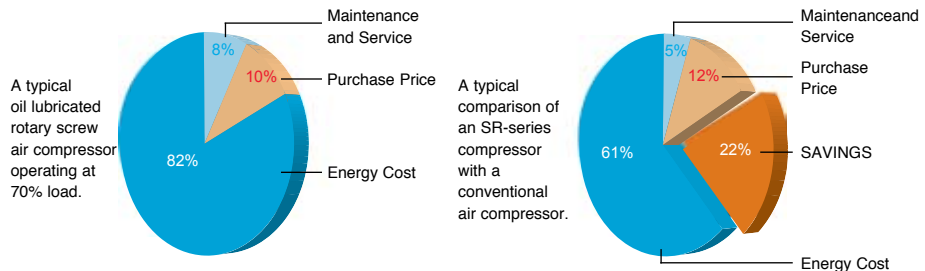
- High reliability
- High energy efficiency
- Nominal max. power is continuously available



The water-injected screw is better suited for VSD application than a dry screw.



Annual Cost of Ownership



D15H RS – D22H RS

D37H SR – D110H SR

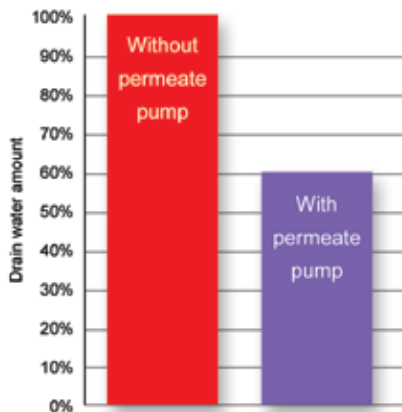
High efficiency filtration system with permeate pump reduced operating costs

The water purification system using a reverse osmosis membrane filtration system provides the high quality injection water.

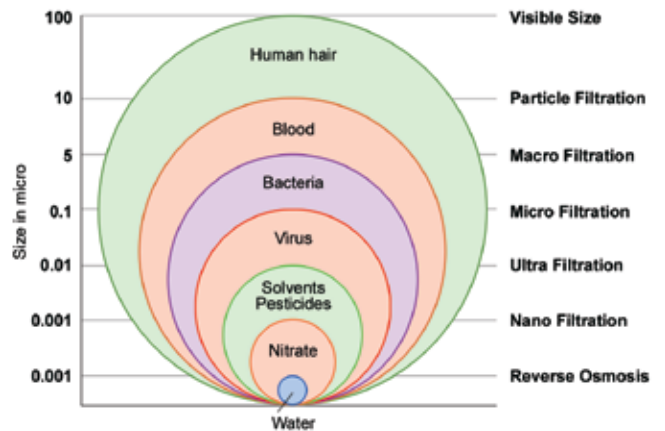
By the employment of a permeate pump CompAir reduces the necessary water requirement and thus the operating costs.



Comparison drain water amount Osmosis unit
water net pressure 3.5 bar/50psi



Size of Filtration



TECHNICAL DATA

Model	Motor	Working Pressure psi g		Free Air Delivered at 100 psi g		Dimensions (Inches)			Noise level db (A)**	Weight lbs.	
	Rating HP	MIN	MAX	MIN	MAX	Length	Width	Height		Air Cooled	Water Cooled
D15H RS	20	73	145	24	81	66	34.2	59.5	74	1510	1356
D22H RS	30	73	145	38	120	66	34.2	59.5	75	1631	1433
D37H SR	50	73	145	43	225	67.8	36.2	65.3	73	2138	1918
D50H SR	67	75	145	72	264	85	55.6	77.6	72	4080	3859
D75H SR	100	75	145	123	416	85	55.6	77.6	75	4410	4190
D110H SR	150	75	145	116	634	85	55.6	77.6	75	–	4630

* At stated working pressure and measured and tested in accordance with Pneurop / Cagi PN2CPTC2 and Iso 1217 Edition 3 Annexe 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)

NFPA 99 Compliant Medical Air Package Available

*** All technical data shown are for air-cooled units except for D110HSR which is water-cooled.

Performance Assurance

If any DH unit doesn't perform as stated, we will buy the unit back within the first 12 months after purchase.



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 Program

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



www.CompAir.com sales@CompAir.com

CompAir USA
1301 North Euclid Avenue
Princeton, IL 61356
United States of America
Tel (866) 994-8807
Fax (800) 443-7790

CompAir Canada
871 Cranberry Court
Oakville, Ontario L6L 6J7
Canada
Tel (905) 847-0688
Fax (905) 847-8124

Member



Please recycle after use.