



D15H (RS) – D37H (RS) D50H SR – D75H SR
Oil-Less Rotary Screw Compressors



Intelligent Air Technology



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 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-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.



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

Simple to Check

According to the ordinance on industrial safety and health (BetrSichV, Germany) Maximum inspection validity period of 5 years

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

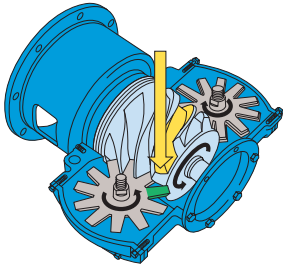
Monitoring and Control

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



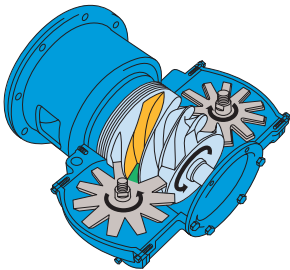
Easy Installation

Fully silenced package for low noise levels
Free standing package



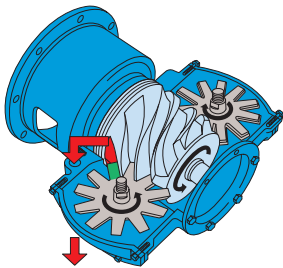
Intake

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

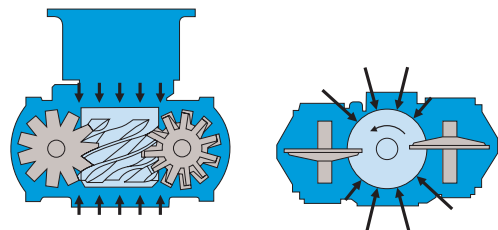
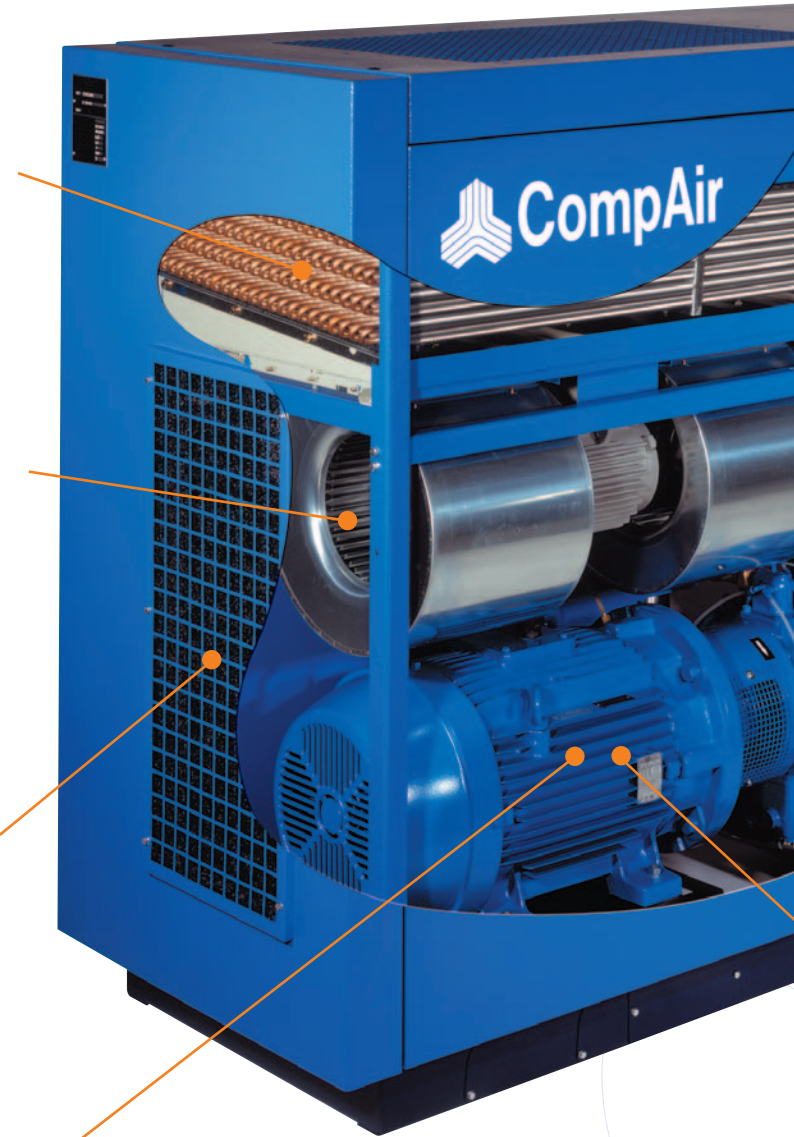
The compressed air and water mixture is discharged from the compression element and passes into a water separation vessel. The low temperature rise of the air means that a final air cooler is not necessary.

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. The models in the 15, 22 and 37 kW can also be controlled by an optional frequency inverter. 50 and 75 kW 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 can be built as speed-regulated versions. 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.



D50H SR – D75H SR

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

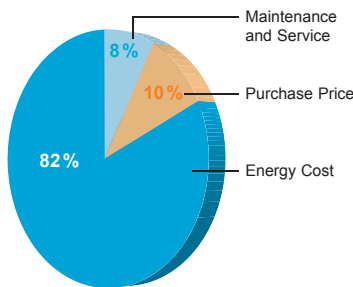
New 3-phase motor with increased performance TEFC construction IP55 effects

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

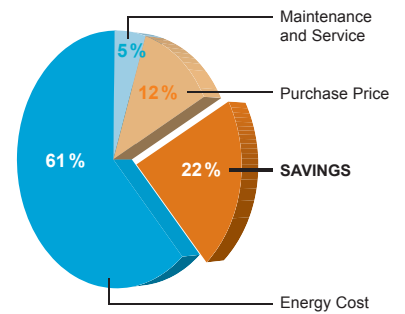


Annual Cost of Ownership

A typical oil lubricated rotary screw air compressor operating at 70% load.



A typical comparison of an SR-series compressor with a conventional air compressor.



D15H (RS) – D37H (RS) D50 H SR – D75H SR

High efficiency filtration system with permeate pump reduced operating costs

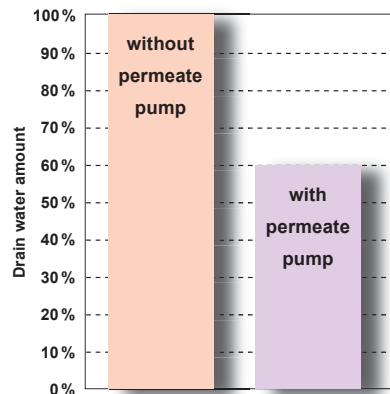
The water purification system using a reverse osmosis membrane filtration system provides the high quality injection water.

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

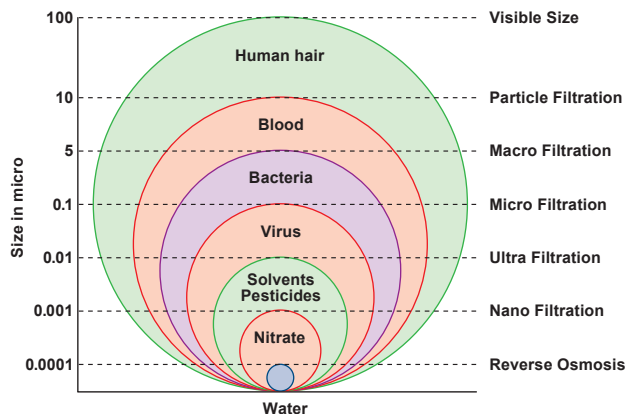


Comparison drain water amount Osmosis unit

water net pressure 3.5 bar/50 psi



Size of Filtration



Technical Data

Model	Motor Rating kW	Working Pressure bar g		Free Air Delivered at 8.0* bar g m ³ /min		Dimensions			Noise level dB(A)**	Weight kg
						Length mm	Width mm	Height mm		
D15H	15	10		2.48		1477	868	1511	72	610
D22H	22	10		3.54		1477	868	1511	73	660
D37H	37	10		5.89		1903	868	1541	74	1000

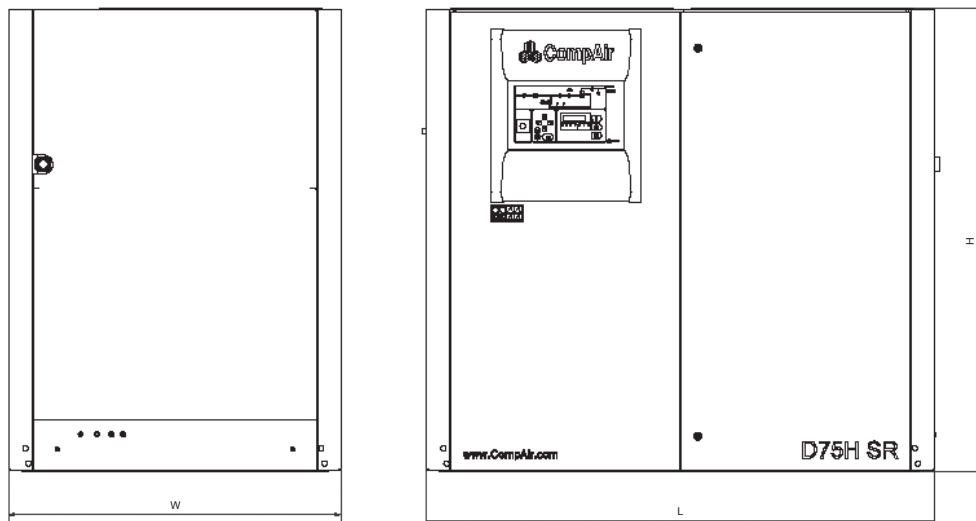
Technical Data – Variable Speed

Model	Motor Rating kW	Working Pressure bar g		Free Air Delivered at 7.0* bar g m ³ /min		Dimensions			Noise level dB(A)**	Weight kg
		Min	Max	Min	Max	Length mm	Width mm	Height mm		
D15H RS	15	5	10	0.91	2.53	1677	868	1511	72	685
D22H RS	22	5	10	1.30	3.61	1677	868	1511	73	740
D37H RS	37	5	10	2.19	6.07	2103	868	1541	74	1095
D50H SR	50	5	10	2.07	7.75	2158	1412	1971	75	1850
D75H SR	75	5	10	3.65	11.99	2158	1412	1971	78	2250

* 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
 Air intake temperature – 20 °C
 Humidity – 0 % (dry)

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

Technical Data



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



www.CompAir.com
Email sales@compair.com



TAHAS Tazyikli Hava Sanayi ve Ticaret A.S.
I. Karaoglanoglu Cad. No: 25/4
34418 Seyrantepe, Istanbul Turkey
Tel: +90 212 284 93 33 Fax: +90 212 282 64 93
Web Site: www.tahas.com E-Mail: info@tahas.com

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.

Brochure re-order ref: 98700 – 533GB 10/05 B&N

