

by Gardner Denver

# 100% Oil-Free - Guaranteed

Premium Oil-Free Rotary Scroll Compressors



Innovative oil-free compressed air technologies

SO4 - S15D Single & Multi Stage



# Specialist in oil-free technologies



# Cutting edge technology development

CompAir have been at the forefront of oil-free compressor design and manufacture for over 90 years, and are committed to quality, innovation and understanding the customers' individual business and operational requirements. Not only meeting, but exceeding quality and production objectives for industries across the globe, our oil-free compressors are used in food and beverage, pharmaceutical, electronic, healthcare and power generation applications to name just a few.

Today, CompAir remain a frontrunner in the development of innovative oil-free compressor technology, by listening to and understanding our customers' needs and challenges. Committed to developing environmentally friendly solutions, we ensure that our customers meet the demands of climate change legislation - reducing their carbon footprints by cutting energy bills and simply operating more efficiently.







# Contaminant free. Risk free. 100% Oil-free

Compressed air purity is crucial for many industry sectors, such as medical, research and biotechnology. The new S-Series of oil-free scroll compressors from CompAir does not use any oil anywhere in the compressor and has been certified ISO 8573-1 Class 0 and silicone free, which represents the highest air quality level possible.

Class	Concentration total oil (aerosol, liquid, vapour) mg/m³
0	As specified by the equipment user or supplier and more stringent than class 1
1	≤ 0.01
2	≤ 0.1
3	≤ 1
4	≤ 5

In addition to the fulfilment of legal requirements, the oil-free scroll technology reduces the costs of ownership by avoiding oil filter replacements, oil condensate treatment and energy to combat the pressure loss caused by filtration.

### The new S-Series from CompAir

- 100% oil-free design
- High reliability
- Continuous operation, 100% duty cycle
- Energy efficient
- Low vibration and sound levels
- Compact design
- Low maintenance due to less moving parts

Maximum flexibility from sophisticated modular design

55

# **Compressor configuration**

Depending on the application requirements, the versatile S-Series from CompAir is available in various kW sizes. The scroll compressor range starts with Simplex units at 4, 6 and 8 kW and the Duplex units with 7, 11 and 15 kW. The compressor design features a very clean, simple and serviceable layout.



# Industries with applications requiring oil-free air:

### Transportation

 traditional and hybrid trucks, transit buses, school buses and trains



Food & Beverage



### Medical/Healthcare

- instrument air and breathing air



**Electronics** 



### Biotechnology

- laboratory equipment



**Commercial Printing** 



#### **Automotive**

- painting



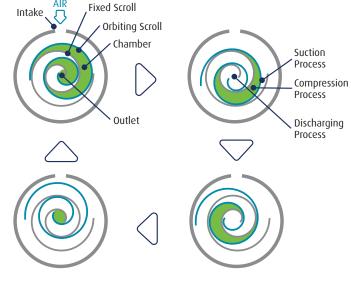
**Drug Manufacture** 

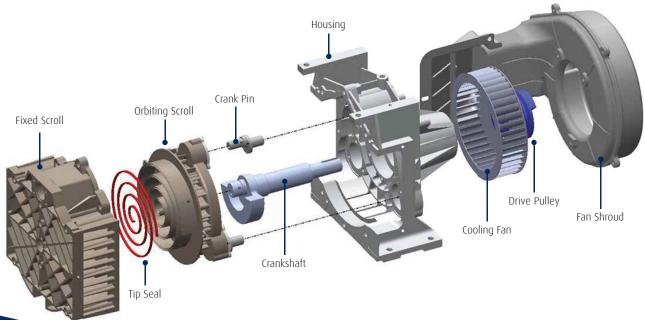




# Scroll compression explained

- An orbiting (rotating) scroll and fixed scroll housing are mated to create the compression chambers
- The continual movement of the orbiting scroll moves atmospheric air from the intake toward the center, compressing the air into progressively smaller areas
- The compressed air is directed to the center discharge port of the compressor
- Discharge pressure is accomplished during multiple stages of compression, resulting in a continuous intake suction and discharge







Duplex

- 1 Automatic Condensate Drain
- 2 Rigid Framework
- 3 5 Micron Inlet Filter
- 4 Fork Slots for Easy Handling
- 5 Unique Chambered Design -Maximised Cooling and Serviceability
- 6 Large Industrial Aftercoolers
- 7 Premium Efficient TEFC Motor
- 8 High Volume Cooling Fan
- 9 Low Noise Sound Enclosure
- 10 Internal Vibration Isolators





# Controlling and Monitoring

The S-Series from CompAir is available with different controller options. The Simplex versions can be either equipped with the basic relay panel or optionally with the Deluxe HMI electronic controller.



- NEMA 1, UL508A Labeled Panel
- Magnetic Contactor with Overload Protection
- 115V Control Circuit Transformer with Fusing
- Door Mounted TOA Switch
- Green Power On Light
- Emergency Stop
- Reset Button
- Run Time Meter
- Pressure Gauge

The optional Deluxe HMI control from CompAir has easy to use navigation and friendly graphics that deliver interactive and intuitive information at your fingertips.

With a built in integral webserver, via ModBus TCP Ethernet connection, these controllers provide visibility to the scroll compressor system from any computer or mobile device with internet connection.



#### **Deluxe HMI**

- 3.5" Full Color Touch Screen
- PLC Controlled
- Lead/Lag Control with Forced Alternation
- System Capacity and Operation Trending
- 26 Language Options
- 24VDC Power Supply with Fusing
- System Run Time Meter
- Alarm/Fault Log
- System Discharge Pressure
- Pump Discharge Temperature
- System Maintenance Timers
- Integral Webserver
- Modbus TCP Interface over Ethernet



# CompAir - Compressed air solutions

Modern production systems and processes demand increasing levels of air quality. A CompAir compressed air system utilising the latest technology provides an energy efficient solution at lowest life cycle costs. Implementing heat recovery and sequencers further help to maximise the efficiency.

The right filtration and drying systems ensure that the equipment remains protected. Using CompAir nitrogen generators provides many advantages over traditional outsourced supplies, such as greater flexibility and significant impact on time and costs.



# CompAir S-Series – Technical Data Simplex

Model	Nominal Pressure	Drive Motor	FAD at 8 bar g*	FAD at 10 bar g*	Noise level	Dimensions	Weight
	[bar g]	[kW]	[m³/hr]	[m³/hr]	[dB(A)]	L x W x H [mm]	[kg]
\$04	8 / 10	4	23.6	21.2	65	1168 x 686 x 711	315
\$06	8 / 10	5.5	34.5	26.0	70	1168 x 762 x 711	352
\$08	8 / 10	7.5	53.0	41.3	73	1168 x 762 x 711	367

#### **Duplex**

Model	Nominal Pressure	Drive Motor	FAD at 8 bar g*	FAD at 10 bar g*	Noise level	Dimensions	Weight
	[bar g]	[kW]	[m³/hr]	[m³/hr]	[dB(A)]	L x W x H [mm]	[kg]
S07D	8 / 10	7	47.2	42.5	64	1420 x 864 x 1404	562
S11D	8 / 10	11	69.0	52.0	68	1422 x 864 x 1397	599
S15D	8 / 10	15	106.0	82.6	71	1422 x 864 x 1397	615

<sup>\*</sup> 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)





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



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# Global experience - truly local service

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.



### 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

- 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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