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CompAir

100% Oil-Free

Oil-Free Rotary Screw Compressors
Fixed & Regulated Speed (RS)

PureAir
ISO CLASS: ZERO PLUS SILICONE FREE

D37 - D75s
D37RS - D75sRS

Air and Water Cooled

Innovative Oil-Free
Compressed Air Technologies

When PureAir Technology is High Priority

There's a lot riding on the quality of your air. The presence of particles, condensate, oil and oil vapor in a compressed air system can lead to downtime, product spoilage and recall, damage to your brand reputation, or worse, harmed consumers and product liability.

For lower cost of ownership
Higher initial costs for oil-free systems are more than offset by lower operational and maintenance costs over a system's life to maintain the highest air quality

For reliability
A robust product and system design delivers top quality air, protecting sensitive downstream equipment, lowering maintenance and extending equipment life

ISO 8573 Class 0 Oil-Free Air
Class 0 is the most stringent air class defined by ISO 8573, part 1. Our oilfree compressors are certified Class 0 for no oil content by TUV to ensure your air quality exceeds specifications.

For productivity
The use of an oil-free Class 0 certified compressor guarantees contamination-free air, eliminating the risk of product spoilage and waste

For serviceability
Our oil-free equipment is designed specifically to make maintenance easy by providing clear access to consumable components

ISO 8573-1 Air Quality Classes	
Quality Class	Oil & Oil Vapor mg/m³
0	< 0.01
1	0.01
2	0.1
3	1
4	5

CompAir – The Compressed Air system provider you can trust

Analysis · Consulting · Project planning · Installation · Assure Service & Warranty · Maintenance · Original spare parts · iConn remote monitoring

What makes our oil free D Series screw compressors unique?

Highest productivity

- **Oil Free Class 0** certified air delivered for the most demanding industries
- **Intuitive Controller** with extensive events history and advanced connectivity

Optimum efficiency

- **RS models** with **HPM Motor Technology** exceeding the highest efficieny standard for power drives systems IES2
- **Hot Air Discharge option** for lowest pressure dew points without additional energy consumption via HOC dryer. Most models also compatible with the innovative Subfreeze Dryer Range
- **Energy Recovery System (ERS Ready)** option to conserve heat energy and **save thousands** per year

Maximum reliability

- Patented **Ultracoat™** treatment of rotors and internal parts of compression chamber to avoid corrosion
- **Stainless Steel robust piping** design on the cold side
- **Efficient inlet air filter** for the best care of the compressed air path
- **IP65** electrical fittings and control panel

Easy Serviceability

- Easy access to main components
- No special tools required
- **8000 hours coolant change interval**
- Free iConn inside
- Service and warranty programmes

Robust Long-Life Airend Design:

- ✓ **UltraCoat protection** - the most durable coating in the industry
- ✓ Precision machined gears
- ✓ Oversized bearings
- ✓ Stainless steel 2nd stage rotors
- ✓ Stainless steel, aluminium and treated piping on critical components

GERMAN ENGINEERING DESIGN & MANUFACTURE

At a glance

- Class Zero Oil FREE RotaryScrew Compressors
- Air- and Water-Cooled
- Fixed Speed and Variable Speed Models
- Air purity that meets the most stringent hygienic standards
- Outstanding reliability for demanding applications

- **Pressure range**
  7 to 10 bar
- **Volume flow**
  5.1 to 12.7 m³/min
- **Motor power**
  37 to 75 kW

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Main features & benefits

Advantages of Hybrid Permanent Magnet (HPM) vs other VSD Compressors

Constant efficiency

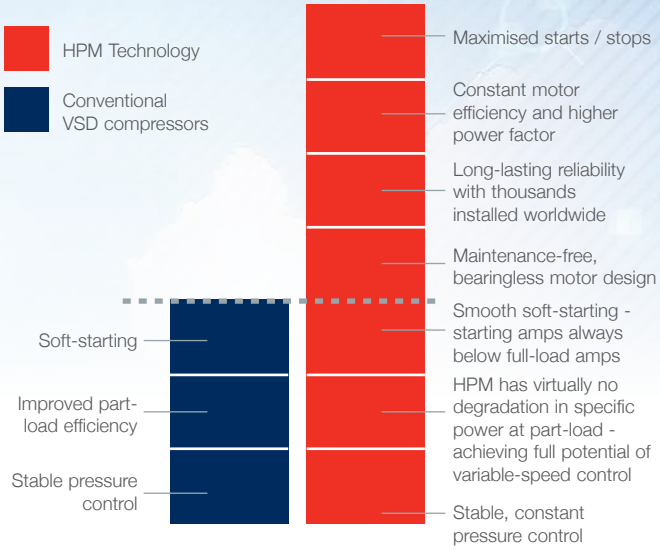
- More air across wider operating range with no increase in power consumption
- 95% efficiency at start up
- 95% efficiency maintained through entire speed range

Unlimited starts and stops

- Allows **immediate** shut down when there is no demand
- Absolutely **no** blowdown / unload time
- Durability validated by testing
- Compressor started / stopped 45,000 times in 3,000 hours, then returned to normal use

HPM Technology

HPM technology vs competitive VSD compressors



Advanced HPM Motors for RS models

- Best-in-Class motor efficiency
- 30% or more energy savings compared to conventional compressor control
- Unlimited starts and stops
- Increased motor life and reliability
- Low maintenance cost

Simple, Maintenance-Free Motor

- 60% fewer components than standard induction motor
- Virtually no wearing parts
  - No gears
  - No pulleys
  - No seal housing
  - No bearings
  - No shaft seal
  - No alignment
- Reduced service time and cost

Precision Wound Reliability

- Eliminates stator “hot spots”
- Motor runs cooler

Dual Vented Seals

- Stainless Steel Ring Seals
- Labyrinth Oil Seal
- Dual venting to Atmosphere
- **Class 0 certified** oil free air at anytime

Butterfly Inlet Valve

- Butterfly Type with Hydraulic Actuation Control Cylinder
- Does not require 8,000 hour replacement like pneumatically controlled diaphragm valves
- Solid Mechanical Linkage with Blow-Off Valve

> “The design of these packages ensures that the service points are readily accessible

Controller

- Large graphical user interface
- Intuitive web-like navigation
- Remote communications capability
- Integrated variable speed control
- Multiple connectivity options

Saving energy and protecting the environment

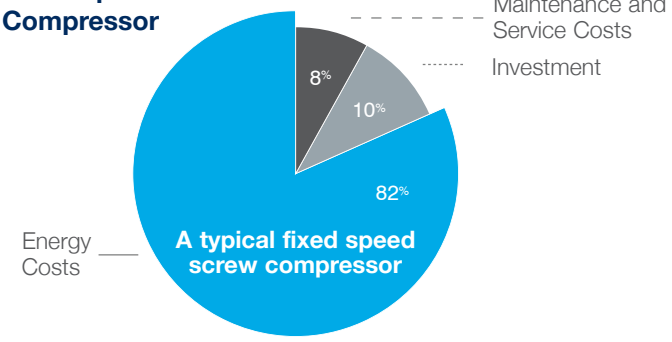
Over a period of five years, energy accounts for typically 80% of the total costs. However, this high share also means that there is considerable potential for savings.

Why Regulated Speed Compressors?

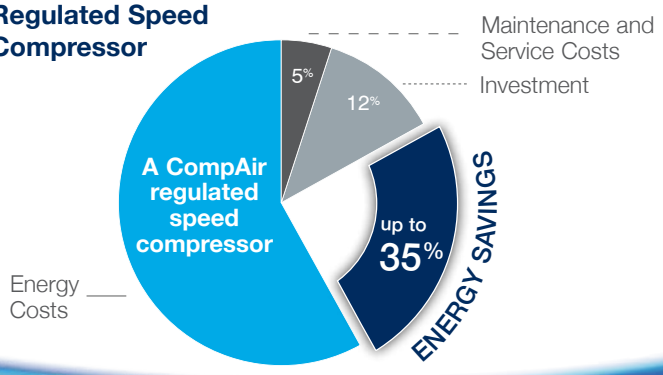
A regulated speed compressor can follow the load curve exactly and only produce as much air as is actually consumed. In this way idle load power consumption and blow-down losses are minimised and the total cost of ownership can be reduced significantly

Maintenance and Service Costs

Fixed Speed Compressor



Regulated Speed Compressor



effiDRIVE IES2 COMPLIANT

Perfect motor - drive - airend design

D-RS Series features a high efficient Power Drive System that exceeds the class **IES2 EN61800-9** requirements and assures high energy savings across broad flow range.

Wide regulation range

No cycles means substantial energy savings

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Why SmartAir compressed air management system?

Why SmartAir Master compressed air management system?

Energy management is crucial for all compressed air users, as the highest cost factor of a compressor is the energy to run it.

Base load sequencing

Compressed air systems typically comprise of multiple compressors delivering air to a common distribution system. The addition of the optional base load sequencing module will allow central control of up to four compressors matching delivery to the plant demand.

Why a profitable investment?

- Harmonises the workload of up to 12 fixed or regulated speed compressors including downstream
- Eliminates energy waste by tightening the network pressure to the narrowest pressure band
- Equalises the running hours for economic servicing and increased uptime
- Optimum performance and monitoring
- Increased plant productivity

Compressed Air Heat Recovery – a profitable investment!

Why Heat recovery

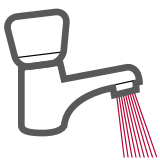
It is a thermodynamic fact that around 94% of the energy needed to run a compressor gets converted to heat. Without heat recovery, this heat is directly blown into the atmosphere.

The heat generated during compression is paid for as part of the process, then it creates additional costs as this heat needs to be removed by cooling fans. At the same time, most companies consume a lot of energy and money to generate hot process water, space heating or preheat water for steam generation.

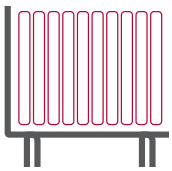
Given that compressed air systems account for 10% of all electricity used in industry, and energy is the largest single lifecycle cost of a compressor, it makes sense to recover this heat, save energy and reduce costs.

Your benefits

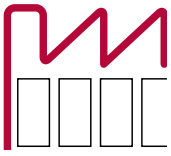
- Significant savings in energy costs
- Extremely short payback time
- Low investment costs payback - time typically less than 1 year
- Lower CO_2 emissions
- Turnkey solutions
- Easy installation and operation
- Small ecological footprint
- High reliability
- No impact on the compressed air supply
- Available for all water-cooled D Series models



Hot Water



Space Heating



Industrial Process

Steam Generation (pre-heating)

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Air Condensate Management

AirPlus

Compressed air treatment

A modern production system and process demands increasing levels of air quality, and compressed air operators need to ensure that the downstream equipment also delivers on it 100%.

Air Treatment Products

- ✓ Water Cyclone Separators
- ✓ Compressed Air Filters
- ✓ Condensate Drain System
- ✓ Compressed Air Refrigerant Dryer
- ✓ Heatless Desiccant Dryers
- ✓ Heat Regenerative Desiccant Dryers
- ✓ Heat-of-Compression Dryers (HOC)
- ✓ Subfreeze Dryers
- ✓ Nitrogen Generator

Assure

Protect your investment

Invest in your future with a Service & Warranty Agreement

Compressed air is critical to your operation. A proper maintenance strategy is crucial to avoiding unplanned, unbudgeted downtime and production interruptions. By choosing a Service agreement including an extended warranty you protect your investment.

It All Adds Up to Peace of Mind

Lower Cost of Ownership

Service and Warranty Agreements provide the most cost-effective solutions based on your customised maintenance strategy.

Quality Results

Factory trained technicians allows you to focus on your core business, while they take care of your compressor system.

Increased Uptime

Service Agreements help decrease unplanned downtime and costly production interruptions.

Efficient Energy Use

Peak system efficiency is achieved through properly performed maintenance and inspection.

Peace of Mind

A Service agreement ensures an extended warranty. Depends on duration.

Predictive Maintenance

iConn Compressed Air Service 4.0

The D-Series is equipped with iConn as standard. iConn is the smart, proactive real-time monitoring service that delivers in-depth and real-time knowledge on the system to compressed air users.

- ✓ Advanced remote analysis
- ✓ Predictive – evaluates historic data
- ✓ Maximises energy efficiency
- ✓ Optimises compressor performance
- ✓ Reduces downtime
- ✓ Works as an open standard
- ✓ Free on new compressors – can be retrofitted
- ✓ Proactive maintenance

...that is why you cannot ignore iConn!

CompAir genuine spare parts

Genuine CompAir parts and lubricants 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



Oil-Free Compressors for your Application

Technical Data

D37 – D75 Fixed Speed

Compressor Model	Cooling Method	Motor Rating [kW]	Nominal Pressure [bar g]			Free Air Delivered at Nominal Pressure [1] [m³/min]			Dimensions L x W x H [mm]	Noise Level [2] [dB(A)] [8 bar g]	Weight [kg]
						7 bar g	8.5 bar g	10 bar g			
D37	Air	37	7	8.5		6.0	5.1	-	2248 x 1372 x 1917	76	2387
	Water					6.0	5.2			76	2410
D45	Air	45	7	8.5		7.7	6.5	-	2248 x 1372 x 1917	76	2497
	Water					7.7	6.5			76	2520
D55	Air	55	7	8.5	10	9.6	8.8	7.7	2248 x 1372 x 1917	76	2577
	Water					9.6	8.8	7.8		76	2600
D75s	Air	75	7	8.5	10	12.7	11.6	10.7	2248 x 1372 x 1917	76	2682
	Water					12.7	11.7	10.8		76	2705

D37RS – D75RS Regulated Speed

Compressor Model	Cooling Method	Motor Rating [kW]	Nominal Pressure [bar g]	Free Air Delivered at Nominal Pressure [2] [m³/min]	Dimensions L x W x H [mm]	Noise Level [2] [dB(A)]	Weight [kg]
D37RS	Air	37	8.5	5.1	2080 x 1115 x 2070	65 - 74	1579
	Water					63 - 69	1624
D45RS	Air	45	8.5	6.3	2080 x 1115 x 2070	65 - 74	1579
	Water					63 - 69	1624
D55RS	Air	55	10	7.8	2078 x 1321 x 1947	76 - 80	2042
	Water					76 - 80	2042
D75sRS	Air	75	10	10.6	2078 x 1321 x 1947	76 - 80	2042
	Water					76 - 80	2042

[1] Data measured and stated in accordance with ISO 1217, Edition 4, Annex C and Annex E and the following conditions: Air Intake Pressure 1 bar a, Air Intake Temperature 20°C, Humidity 0 % (Dry).

[2] Measured in free field conditions in accordance with ISO 2151, tolerance ± 3dB (A).

CE

TÜV CERT DIN ISO 9001/ EN 29001 Certificate: 5168

CompAir

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 premium partners across all continents provide global expertise with a truly local service, ensuring our advanced technology is backed up with the right support.

CompAir has consistently been at the forefront of compressed air systems development, culminating in some of the most energy efficient and low environmental impact compressors 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
- Portable

Oil-Free

- Water Injected Screw
  - > Fixed and Regulated Speed
- Two Stage Screw
  - > Fixed and Regulated Speed
- Rotary Scroll
- Ultima®

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
- iConn - Smart Compressor Service

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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