CompAir

SUSTAINABLE MANUFACTURING

100% Oil-Free

Oil-Free Rotary Screw Compressors

Fixed & **Regulated Speed** (RS)

PureAir

ISO CLASS: ZERO PLUS SILICONE FREE

Assure iConn

Innovative Oil-Free
Compressed Air Technologies

DX90-DX160
DX90RS-DX160RS

Air and Water Cooled

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 vapour 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. Eliminate these risks with the oil-free DX-Series.

For lower cost of ownership
Oil-free systems deliver lower operational and maintenance costs over a system's life, while still maintaining the highest quality of compressed air.

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 DX90-160 (RS) screw compressors unique?

- ✓ State-of-the-Art Airend
- ✓ Up to **8%** higher flow compared to industry standard
- ✓ Dedicated 7.5, 8.5 and 10.5 bar models
- ✓ Up to **7%** (Fixed Speed) **& 5%** (Variable Speed) **energy reduction**
- ✓ Variable speed models with **turndown** rates of up to **71%**
- ✓ Wide variety of pre-engineered and **customised options**
- ✓ Further savings with optional **heat recovery**
- ✓ **Free iConn inside**
- ✓ **ASSURE Service** Program with different coverage options

The Airend – How we build reliability into every detail

Compressor rotors take a beating. Over time, their surfaces can deteriorate, leading to reduced air flow and increasing risk of corrosion.

CompAir eliminates this problem with UltraCoat, an advanced rotor and housing protection process that ensures the most durable coating, with unmatched adhesion properties and temperature resistance.

In conjunction with a second-stage stainless steel rotor, UltraCoat delivers greater reliability in performance and air quality, rotor longevity, increased uptime, and reduced energy costs.

The optimised 2-stage airend design is a maintenance-free, sealed drive system which enhances reliability and improves efficiency.

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**
  7.5 to 10.5 bar
- **Volume flow**
  6.7 to 28.3 m³/min
- **Motor power**
  90 to 160 kW

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Main features & benefits

Best-in-Class Efficiency

With a 14% improvement in energy efficiency and a 9% improvement in delivered capacity, our new DX 90 - 160 Series offers unmatched performance and efficiency. Their design is optimised with an analytics-modelled airflow and piping system, as well as water jacketed air end cooling and IE5, ultra-premium efficiency motor technology for VSD packages. You can also enjoy massive turndown with an integrated variable speed drive and condition-based variable speed fan blower control, helping to maximise your productivity and efficiency.

Market-Leading Reliability

Every design aspect incorporated into the oil-free DX 90 - 160 series has been optimised for ultimate reliability! From their UltraCoat™ mechanically bonded coating to reduce corrosion, smart no-loss drain, pneumatic blowdown and hydraulic inlet valve to their free-floating cooling system, V-Shield technology and the premium efficiency IE5 motors used in the RS models, you can enjoy total peace of mind!

Flexible Design Options

Our compressors offer air-cooled and water-cooled configurations, fixed and regulated speed, different pressure variants, extreme ambient temperature options, high dust filtration and outdoor modifications for harsh environments and many more to best match your application.

Reducing Lifecycle Costs

Long-life consumables allow for reduced maintenance and lifecycle costs, but if maintenance is required, wear items such as filters and heat exchangers are all easily accessible! Our DX 90 - 160 models also have other innovative components designed to reduce lifecycle costs, including hinged removable doors, which allow for safe and easy maintenance and package pre-filtration to keep dust and dirt out of your system.

Higher Rated Cooling Capacity

Our compressor systems are designed for operation at ambient conditions up to 46°C. This provides an additional cooling margin for trouble-free operation at higher temperatures, and again contributes to the overall reliability and efficiency of the compressor package

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

Advanced Compressor Control - The New Delcos i 10 Controller

Our new advanced Delcos i 10 controller offers real-time information with an easy-to-use, customer-friendly controller interface. With built-in graphical trending, you can gain expert insights into your compressor's activity, allowing for optimum operation. Also, managing energy consumption has never been so easy, with its optional energy monitoring system and comprehensive energy dashboard, which displays consumption, cost and efficiency data. This way, the Delcos i 10 is able to quickly provide energy consumption data for analysis, as well as an easy-to-find summary for energy monitoring.

Reduce Maintenance Costs, Save Energy & Maximise Sustainability

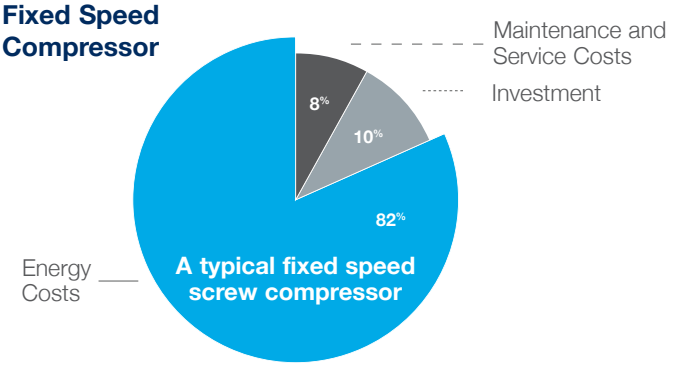
Did you know that over 5 years, energy accounts for typically 80% of the total costs of a compressor? However, this high percentage also provides the opportunity for considerable savings. Our Delcos i 10 can help with this, but so can integrating a regulated speed compressor.

Why Regulated Speed Compressors?

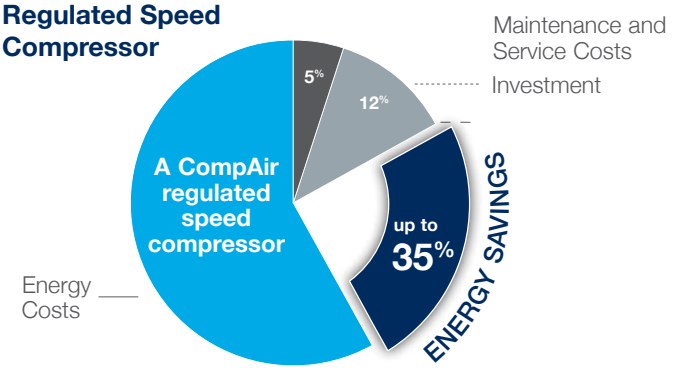
At CompAir, we fully integrate matched variable speed drives with the appropriate motors to maximise the efficiency and reliability of your systems. Our high-performance IE5 Hybrid Reluctance Motor (HRM) provides wide turndown, as well as the ability to turn off immediately at minimum speed, eliminating the need to continue running unloaded. Regulated speed compressors are known to provide the highest possible energy savings when delivering 100% oil-free, reliable, clean air.

Maintenance and Service Costs

Fixed Speed Compressor



Regulated Speed Compressor



Achieve up to 35% Savings over traditional fixed speed

Fixed speed compressors usually require a larger control band, while RS compressors operate much closer to the target pressure. Every 1 bar (over required pressure costs an additional 7% in power!

effiDRIVE IES2 COMPLIANT

Perfect motor - drive - airend design

DX-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.

Long life ultra premium efficiency IE5 motors used on the RS models contribute to world-class package efficiency levels to IEC 60034-30-2, at any load.

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

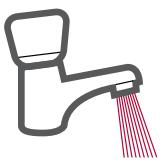
It is a thermodynamic fact that around 94% of the energy needed to run a compressor gets converted to heat. Without heat recovery, this heat is directly blown into the atmosphere.

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.

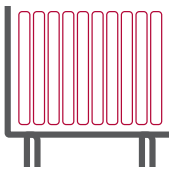
Given that compressed air systems account for 10% of all electricity used in industry, and energy is the largest single lifecycle cost of a compressor, it makes sense to recover this heat, save energy and reduce costs.

Your benefits

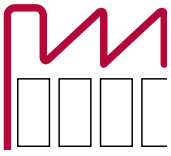
- Significant savings in energy costs
- Extremely short payback time
- Low investment costs payback - time typically less than 1 year
- Lower CO_2 emissions
- Turnkey solutions
- Easy installation and operation
- Small ecological footprint
- High reliability
- No impact on the compressed air supply
-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



Hot Water



Space Heating



Industrial Process

Steam Generation (pre-heating)

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Air Condensate Management

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%.

Filtration

Removes free water, dirt particles and aerosols.

Adsorption dryer

High-quality ISO Class 1, 2 and 3 for water- and oil-free compressed air used in the pharmaceutical, food and beverage, electronics and power generation industries.

Refrigeration dryer / Subfreeze

Dried compressed air for ISO quality classes 3 and 4.

Condensate management

Electronic, timed and mechanical float traps used in all compressed air systems for the discharge of liquid condensate. Oil/water separators for the efficient disposal of compressed air condensates.

Gas Generation

Nitrogen generators in different construction. Customized solutions and aerosols.

Carbon Towers

Eliminates oil vapor and hydrocarbons to 0.003mg/m^3.

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!

Assure Genuine Parts

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

DX90 – 160 Fixed Speed

Compressor Model	Cooling Method	Motor Rating	Nominal Pressure			Free Air Delivered [1] [m³/min]			Dimensions L x W x H	Noise Level [2] [dB(A)]	Weight
		[kW]	7.5 bar g	8.5 bar g	10.5 bar g	7 bar g	8 bar g	10 bar g	[mm]	8 bar g	[kg]
DX90	Air	90	•	•	•	17.4	16.7	14.6	2712 x 1825 x 2200	78	3441
	Water					17.6	16.7	14.9		75	3309
DX110	Air	110	•	•	•	21.0	20.1	18.2		78	3678
	Water					21.2	20.3	18.4		75	3546
DX132	Air	132	•	•	•	24.7	23.7	21.8		78	3932
	Water					24.9	23.9	22.0		75	3800
DX160	Air	160	•	•	•	28.1	28.0	25.9		78	3934
	Water					28.3	28.0	26.1		75	3802

DX90 – 160RS Regulated Speed

Compressor Model	Cooling Method	Motor Rating	Nominal Pressure	Free Air Delivered at 7 bar g [1] [m³/min]		Dimensions L x W x H	Noise Level [2] [dB(A)]	Weight
		[kW]	bar g	min	max	[mm]	8 bar g	[kg]
DX90RS	Air	90	10.7	7.0	17.2	2712 x 1825 x 2200	64 - 78	3297
	Water			7.3	17.4		62 - 75	3165
DX110RS	Air	110	10.7	7.0	19.7		64 - 78	3297
	Water			7.3	19.9		62 - 75	3165
DX132RS	Air	132	10.7	6.7	24.2		64 - 78	3297
	Water			6.9	24.4		62 - 75	3165
DX160RS	Air	160	10.7	6.7	26.7		64 - 78	3297
	Water			6.9	26.9		62 - 75	3165

[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).

Global experience - truly local service

A leading global manufacturer of a wide range of world-class compressed air solutions, CompAir is dedicated to providing a complete solution for our industry partners. From the latest advances in oil-free and oil-lubricated technologies to a complete range of downstream equipment, air treatment and accessories.

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
- Vane

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 Plus 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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