

Gardner
Denver

ROTARY SCREW, CENTRIFUGAL, SCROLL & RECIPROCATING

Oil-Free Compressor Solutions

PureAir
ISO CLASS: ZERO PLUS SILICONE FREE

100% Oil-Free Compressed Air Guaranteed



Think of It As the Best Compressed Air Insurance You Can Get

As manufacturers and suppliers of compressors for over 150 years, Gardner Denver is committed to quality and innovation and understanding the customers' operational and business needs. Nowhere is this more apparent than in the development of our PureAir oil-free product portfolio.

Our oil-free compressors are helping industries across the globe to meet and exceed quality and production objectives in food and beverage, pharmaceutical, electronic, healthcare and power generation applications to name but a few.

Today, we remain at the forefront of oil-free compressor technology with breakthrough innovations such as Ultima and Quantima.

Broadest Range of Oil-Free Compressed Air Technology

Air purity is critical for many applications where even the smallest drop of oil can cause product spoilage or damage production equipment. Depending on the application, one specific compressed air technology might provide advantages over another technology. Gardner Denver gives you the flexibility of several different oil-free/oil-less technologies to match your requirements.

When you choose Gardner Denver you are guaranteed to receive the best possible solution for your specific application including the downstream equipment. Gardner Denver offers all the common oil-free technologies, and has introduced technologies which are completely unique in the market.

No Matter What the Application, Gardner Denver has the **Perfect Oil-Free Solution**

PureAir

ISO CLASS: ZERO PLUS SILICONE FREE



**BEST
IN
CLASS**

Benefits of Oil-Free Compressed Air



ZERO RISK OF CONTAMINATION

Some processes need clean, dry, oil-free air and cannot risk contamination. With an oil-free compressor you get peace of mind, both in your system and for your business.



LOWER MAINTENANCE COST & ENERGY SAVINGS

A true oil-free compressor does not have oil in the compression chamber. This minimizes downstream filtration requirements and pressure drops, which directly translates into energy savings and total cost of ownership reductions.



WORRY-FREE OPERATION

Air treatment systems and process equipment can be damaged by oil-laden compressed air, which can then affect sensitive electronic components causing unnecessary downtime and expense.



INCREASED SUSTAINABILITY

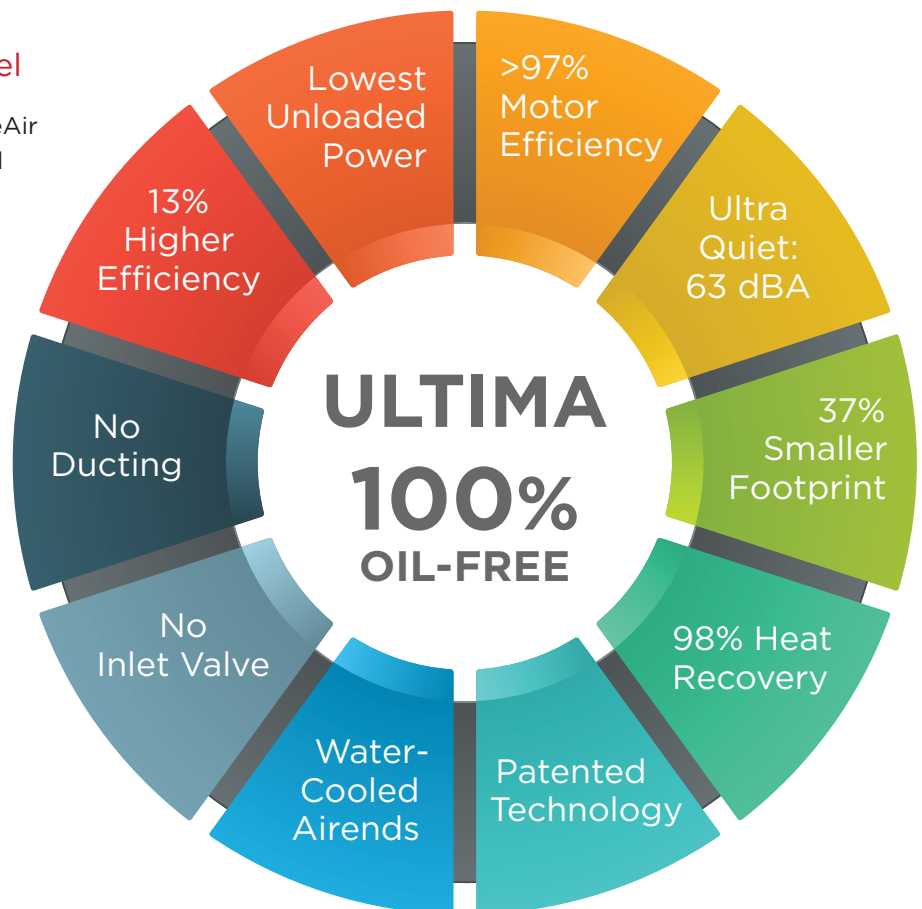
With high quality, contaminant-free air, you can be sure that you are making your compressed air system as streamlined and efficient as possible.



ULTIMATE Oil-Free Efficiency

Ultima™ Delivers on Every Level

Ultima is a ground-breaking oil-free PureAir compressor. The unique design of this all new compressor range from Gardner Denver utilizes a low pressure and high pressure dry screw airend—each airend is individually driven by a variable speed, permanent magnet synchronous motor, offering exceptional levels of efficiency versus traditional oil-free technology. Considering that the highest cost in the lifecycle of a compressor is the energy to run it, the unique design of Ultima has allowed us to combine the ultimate performance with the ultimate efficiency, and still deliver a footprint 37% smaller than a conventional two-stage oil-free compressor. To ensure optimum performance the Ultima comes standard with iConn remote data analytics.





A Revolution in Dry Screw Compressor Technology

ULTIMA

Oil-free two-stage variable speed screw compressor with two permanent magnet motors



Pressure Range
58-145 psi



Volume Flow
236-850 cfm



Motor Power
75-160 kW

Superior Heat Recovery

- All the major components in the Ultima are water-cooled providing more efficient performance
- Approximately 94% of the energy used in a compressor is converted into heat. The closed loop cooling system in the Ultima cools all of the major components, removing heat from the motors, inverters and airends
- Ultima cooling philosophy maximizes energy recovery from the complete compressor package
- Ultima recovers 98% of the heat generated (approximately 12% more than standard), which can be used for other processes, reducing the building HVAC load
- Outlet water temperatures up to 194°F
- Heat recovery connections are standard





Energy Saving Performance **Delivered**

Outstanding Reliability for Demanding Applications

The new two-stage oil-free screw compressor range has been designed with a focus on reliability in demanding applications. The innovative construction delivers state-of-the-art performance, in-depth control and outstanding durability. The sophisticated GD Pilot TS controller protects your investment by continuously monitoring operational parameters. Gardner Denver's unique airend design works at constant low temperature levels and lowers the compressor's lifecycle costs. With easy servicing and full warranty coverage, operators eliminate all possible risks to their business.

Gardner Denver EnviroAire T/TVS Series Compressors utilize state-of-the-art design and manufacturing to ensure very tight tolerances thereby increasing

efficiency. In addition, the rotors and housing are covered with a unique hard coating that ensures long-lasting performance. This combination results in little or no performance decay even after 40,000 hours of operation, saving thousands in utility expenses.




The EnviroAire T & TVS Series

- High efficiency two stage airend design
- Premium efficiency motor
- High ambient temperatures of up to 113°F
- GD Pilot TS touch screen controller with enhanced monitoring
- Unique closed cooling water circuit for airend cooling
- Connected with iConn remote data analytics
- Long life rotor coating minimizes performance loss

EnviroAire T & TVS

Oil-free two-stage fixed & variable speed dry screw compressor

State-of-the-art performance through **high efficiency** components, low pressure losses, low temperatures and user-friendly control

-  **Pressure Range**
58-145 psi
-  **Volume Flow**
313-1804 cfm
-  **Motor Power**
75-315 kW

Perfect Control—Perfect Performance



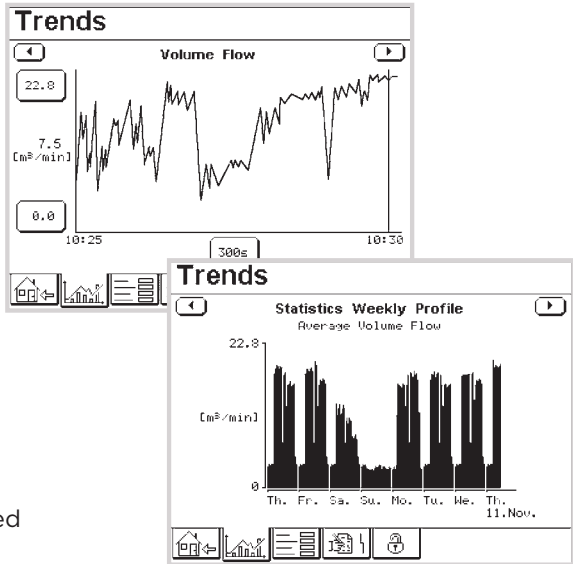
GD Pilot TS innovative touch screen compressor controller

Easy Servicing

The design of these packages ensures that the service points are readily accessible. The enclosure side doors are hinged and removable to allow complete access to all service points. The reduced number of moving parts further lowers the maintenance costs.

Trend Diagrams

With the ability to display detailed system analysis in the form of trend diagrams and graphs, operating parameters can be precisely set to maximize efficiency.





ZERO RISK
of Contamination

Gardner Denver
QUANTIMA
LOWEST
TOTAL COST
OF OWNERSHIP

25%
LOWER
Maintenance Cost

QUIET
69 dBA
6 dBA lower than competitive units

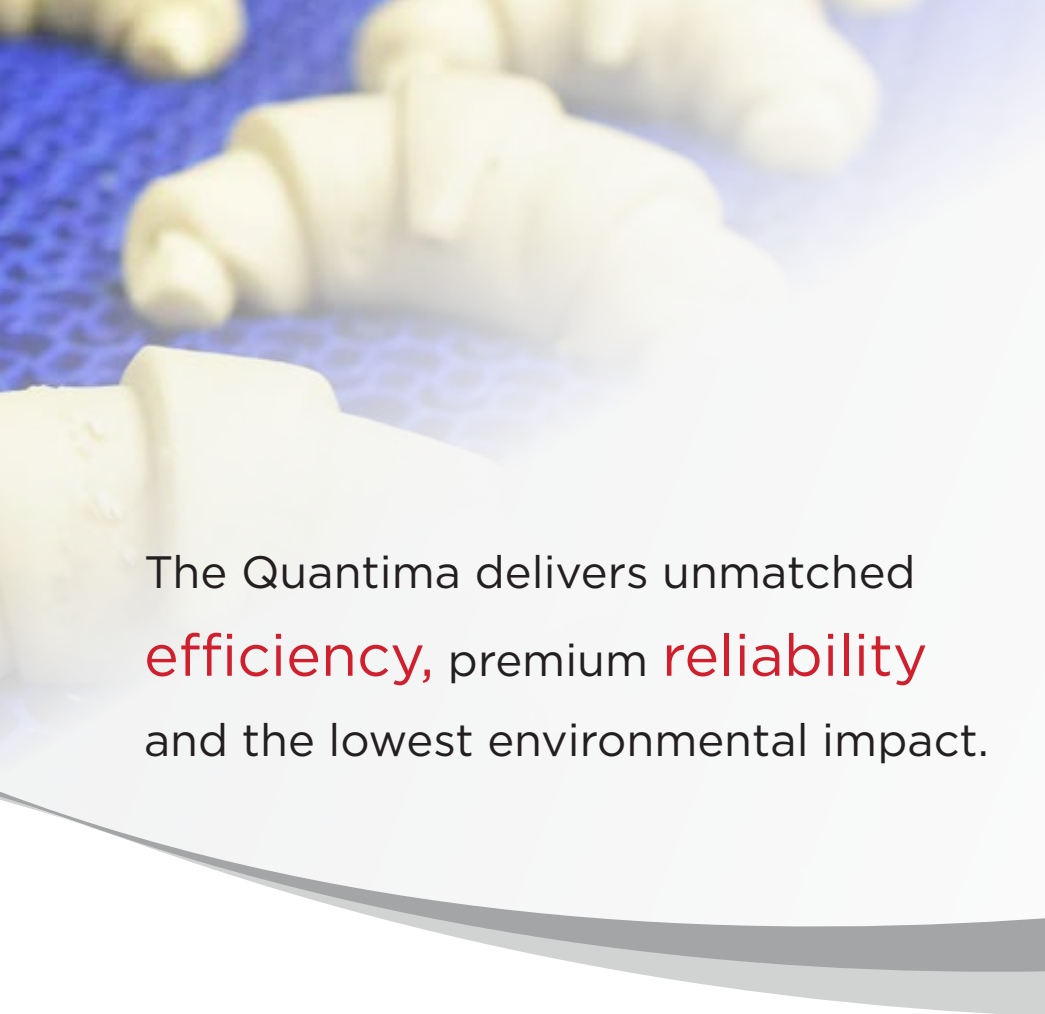
\$10,000
per year or more in
Annual Energy
SAVINGS*

SMALLEST
Footprint

Unprecedented Energy Savings

The two-stage variable speed centrifugal Quantima provides unmatched efficiency due to its low level of energy consumption and it's incredibly low off load power consumption. At 400 HP, the Quantima off-load power is 2.5% of full load power or 7.5 kW while comparable compressors have an off load power of 15 to 70% of their full load power.

These off load power savings, along with better efficiency result in up to 25% lower energy consumption when compared to a two-stage variable speed oil-free rotary screw compressor. This lower energy consumption can translate into annual energy savings of \$10,000/year or more.



Quantima

Oil-less two stage variable speed centrifugal compressor

The Quantima delivers unmatched **efficiency**, premium **reliability** and the lowest environmental impact.



Pressure Range
78-116 psi



Volume Flow
386-1796 cfm



Motor Power
300-400 hp

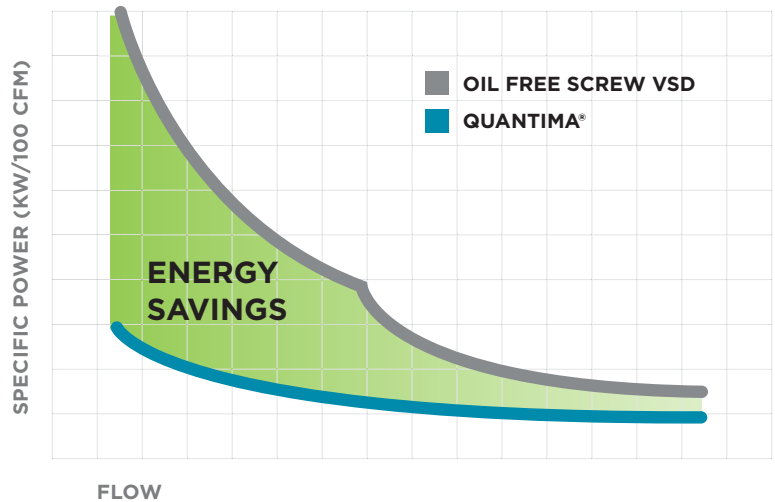
Reduced Maintenance Cost

The design of the Quantima features only one rotating part suspended in air by a magnetic field. There are no rotor timing gears, no gearbox to drive the compression stages and therefore no oil required for lubrication. As a result, there is no oil or oil filter to replace and dispose, providing significant savings on maintenance costs.

With competitive rotary dry screw technologies the airend elements have a limited life span and will lose performance over time and may require replacement in as little as 40,000 hours of operation. For a plant that operates 24/7 that can occur in just 6 years! The elements can cost upwards of \$50,000 not to mention the labor and downtime to install them.

Quantima does not lose performance over time, and will not require an element change to maintain efficiency. This translates into savings of up to 25% on maintenance costs.

Lowest Energy across the entire flow range



- Variable speed technology efficiently matches output to requirement minimizing off-load running
- Industry-leading efficiency due to no gearbox and no contact parts
- Energy savings of up to 25% and more are easily achievable



EnviroAire VS: Sets the Standard for Air Purity

The unique design achieves lower speeds combined with lower operating temperatures—both resulting in higher efficiency and reduced component wear. Using a single-stage, direct-drive motor without gears or belts, maximizes efficiency. Limiting the compressed air to the application demand with variable speed ensures that flow is matched to demand, minimizing energy consumption.

Delivering the Highest Quality, Oil-Less Compressed Air for All Applications

- Oil-less design means zero risk for contamination
- Single-stage, direct-driven compression element maximizes efficiency and minimizes maintenance
- High quality water injection lubricates, cools and seals the compression chamber, maximizing efficiency
- Variable speed technology reduces energy costs
- Fully packaged and silenced enclosure reduces noise and simplifies installation
- Comprehensive control ensures safe and reliable operation and includes remote communication capability
- Connected with iConn remote data analytics

EnviroAire VS

Oil-less single-stage
variable speed screw
compressor



Pressure Range
72-145 psi



Volume Flow
13-655 cfm



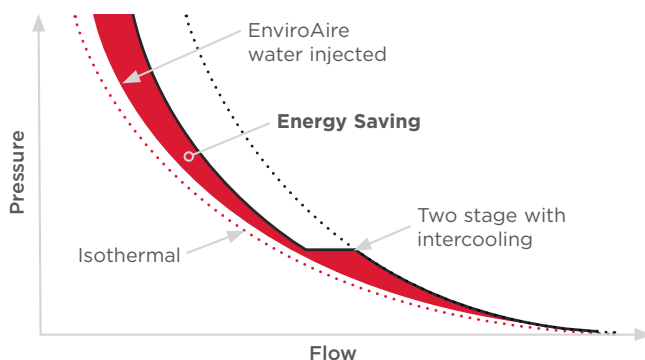
Motor Power
15-110 kW

Gardner Denver incorporates energy-saving technologies at every stage of the design, delivering a compressor that works harder and smarter.

Energy Savings

Water injection means lower temperatures, lower temperatures means more efficient compression.

Compression Diagram



Perfect Response to Your Individual Air Demand

Variable speed compressors from Gardner Denver can efficiently and reliably handle varying air demand. The right variable speed compressor in the right application, delivers significant energy savings and a stable air supply at constant pressure.

Reduced Maintenance

Our oil-free compressors are built to last, featuring robust designs and a simple construction, making them easier to maintain. We've also made them easy to operate, featuring a variety of control options that put you in charge of your air supply.

EnviroAire VS—for Total Peace of Mind

- Significantly fewer moving parts means less to go wrong
- Lower speeds and balanced bearing loads extend the compression element service life for low-cost operation
- Cooler operating temperatures reduce component wear and increase efficiency
- No oil or oil laden parts to dispose of, saving time and expense



Industrial



Medical



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

The new EnviroAire S & ES Series of oil-free scroll compressors from Gardner Denver deliver the highest air quality level possible.

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.

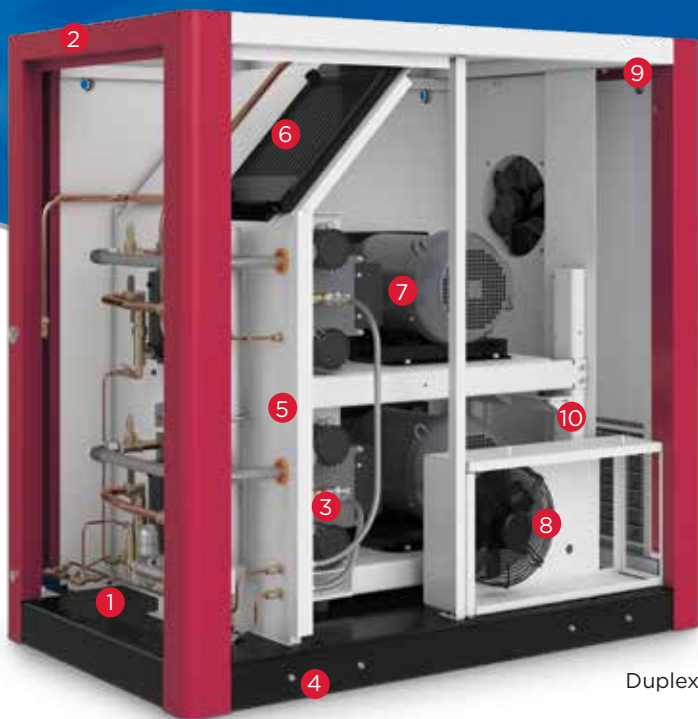
The S & ES Series

- 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

Compressor Configuration

Depending on the application requirements, the versatile EnviroAire S Series from Gardner Denver 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.

Compressor Configuration: Maximum Flexibility from sophisticated modular design



Duplex

Controlling & Monitoring

The EnviroAire S & ES Series from Gardner Denver are 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.

The optional Deluxe HMI control from Gardner Denver has easy to use navigation and friendly graphics that deliver interactive and intuitive information at your fingertips. With an integral web server, via ModBus TCP Ethernet connection, these controllers provide visibility to the scroll compressor system from any computer or mobile device with internet connection.

EnviroAire S & ES

Oil-free
scroll compressor



Pressure Settings

116 & 140 psi



Volume Flow

7-126 cfm



Motor Power

3-40 hp



- 1 Automatic Condensate Drain
- 2 Rigid Framework
- 3 5 Micron Inlet Filter
- 4 Fork Slots for Easy Handling
- 5 Unique Chambered Design - Maximized 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



V & W Series



MTO II

Durable Reciprocating Compressors

Gardner Denver is changing the way the world uses oil-free compressed air. With oil-less reciprocating compressors that can run 24 hours a day, Gardner Denver has eliminated the need for over-sizing and back-up units that add unnecessary expense. The craftsmanship of the MTO II and V&W Series products are nothing short of the best in the industry. Whether it's healthcare, instrumentation, or laboratory applications, the need for pure, environmentally clean compressed air is rapidly expanding. Gardner Denver is the proven choice for oil-free air.

- Long lasting cast iron, plated cylinders
- PTFE guide rings prevent the pistons from contact, raise efficiency and provide maximum life
- Cast iron heads and spring-loaded valves with stainless steel cages, phosphoric bronze seats and steel discs keep your compressor running cool and offer a longer operating life. Note: CCE10 pumps use steel reed valves
- Strong ductile iron crankshafts are mounted with long-lasting ball bearings and balanced for durability
- Large cooling fan and low compressor speeds keep the crankcase, cylinders and heads running cool, reducing wear and increasing the life of the unit

The unique design of both the MTO II and V&W Series assures long life and productivity, low maintenance, high durability and pure, oil-less air

All MTO II and V & W compressors are engineered as 100% duty cycle, V-belt driven packaged units with:

- Inlet Air Filter Silencers
- Enclosed Belt Guards
- Electric Motor
- Discharge Line Unloader Solenoid Valves
- Pressure Relief Valves
- Tank-mounted models include horizontal air receivers that are ASME coded. NFPA Level 1 and 3 compliant systems as well as grade "D" breathing air packages are available.

MTO II

Oil-less single stage reciprocating compressor



Maximum Pressure
100 psi



Volume Flow
1.7-31.2 cfm



Motor Power
0.75-5 hp

V & W Series

Oil-less single- & two-stage reciprocating compressor



Maximum Pressure
175 psi



Volume Flow
15.8-96 cfm



Motor Power
5-15 hp

The leader in every market we serve
by continuously improving all business processes
with a focus on innovation and velocity

**Gardner
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GDC-PAOF-FAM 2nd Ed. 7/18

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