

Gardner Denver

Premium compressor design & industry leading warranty

ESM 90 - 132 Fixed Speed
VS 90 - 132 Variable Speed
ESM 90^e - 132^e Fixed Speed



Reliability & efficiency
without compromise



Quality pays off

The ESM, VS and E Series from Gardner Denver

Well known in the industry for quality and reliability, Gardner Denver continuously develops the ESM, VS and E Series achieving cutting edge performance and efficiency. All models are optionally available with integrated heat recovery.

► **Pressure range**
5 to 13 bar

► **Volume flow**
5.3 to 24.8 m³/min

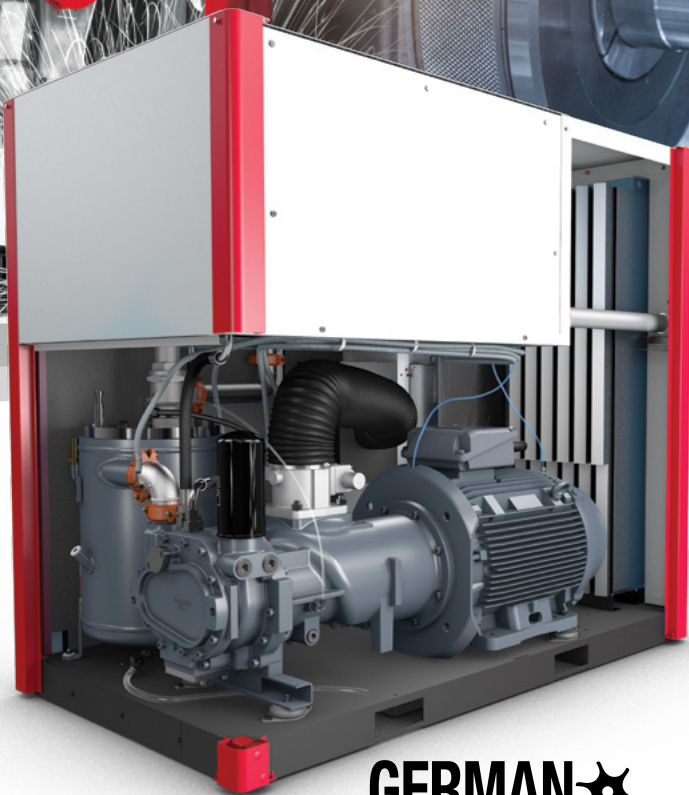
► **Motor power**
90 to 132 kW

Engineering excellence

Compressors are more than just a financial investment, they are a key component in ensuring that manufacturers, processors and operators receive consistent, high quality low cost air.

The screw compression element is the heart of the compressor and therefore Gardner Denver keeps the design and manufacture in-house, using the latest CNC rotor grinding machinery, coupled with online laser technology.

The resulting reliability and performance ensures that operating costs will remain low throughout the compressor's life.



GERMAN 
ENGINEERING
DESIGN&MANUFACTURE

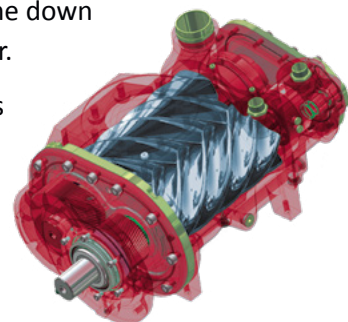
Premium efficiency airend

The **new highly efficient airend** delivers the highest quality compressed air at a low rotational speed, to help minimise the unit's energy consumption and achieve **excellent performance**.

The **semi integrated airend** design with integrated oil filter and oil regulation valve means fewer external components and pipework, taking less physical space, eliminating the risk of leakage and ease the maintenance.

The innovative design of the fail safe shaft seal, ensures highest levels of quality and reliability are achieved minimising the down time of the compressor.

Our top quality airends are covered by the new **10 years warranty** and up to 44,000 hours.



“Lowest operational costs thanks to a 6% efficiency increase.”

GD Pilot TS innovative touch screen compressor controller

The GD Pilot TS with its high resolution touch screen display is extremely user-friendly and self-explanatory.

All functions are clearly structured in five main menus and are intuitively visual. The multilingual GD Pilot TS control system ensures reliable operation and protects your investment by continuously monitoring the operational parameters, which is essential for reducing your running costs.

Exceptional reliability & performance

Innovative Oil regulation valve

Special designed by Gardner Denver's engineering team this integrated valve:

- Eliminates the risk of condensate to avoid corrosion and extends oil's life time
- Depending on the working conditions improves efficiency up to **5% for the variable speed models** and **premium efficiency (e) models**
- Improves low running speeds

Large surface after cooler

Optimum cooling to ensure low operating and discharge temperatures.

High performance separator filter

Two stage filtration ensures highest quality air is delivered to your system (< 3ppm oil carryover). The vessel has a hinged cover for easy maintenance.

High efficiency electric motor

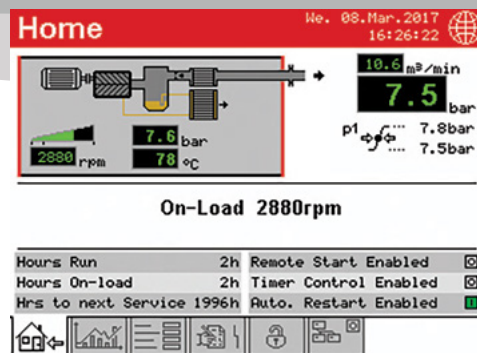
The compressors are equipped with a premium high-efficiency electric motor.

Automatic motor lubrication

Increases bearing life and is maintenance free.

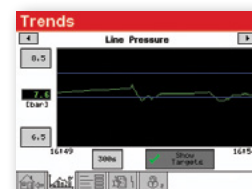
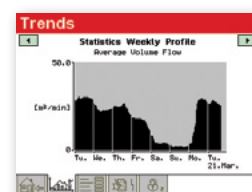
Highest quality connections

Solid hoses and pipe connections with viton victaulic couplings increase reliability and are easy to maintain.



Features & functions

- Home Page – instant overview of the compressor status
- Real Time Clock – allows pre-setting of compressor starting/stopping
- Second Pressure Setting
- Integrated Cooling and Dryer Control
- Fault History Log – for in-depth analysis
- Remote Control via Programmable Inputs
- Auto Restart after Power Failure
- Optional Base Load Sequencing
- SD Card – stores several run characteristics
- iConn enabled



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 maximise efficiency.

- Line / Network Pressure
- Motor Speed (Variable Speed)
- On Load Hours / Total Hours Run & Average Volume Flow
- Weekly Average Volume Flow



Energy Efficiency Boosters

Upgrades for maximum efficiency

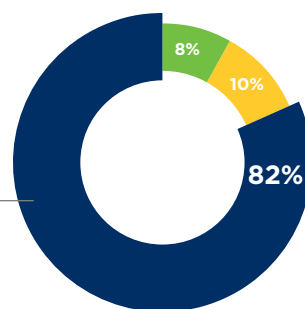
Gardner Denver's portfolio of oil lubricated compressors from 90 to 132 kW includes fixed and regulates speed models, and additionally e-models featuring an even higher efficiency. The maximum efficiency can be achieved by adding the integrated heat recovery.

Variable speed compressors

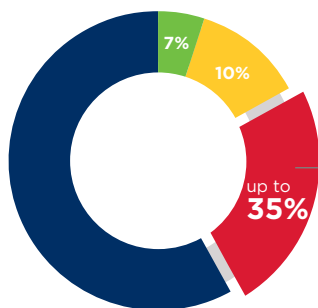
Variable speed compressors from Gardner Denver can efficiently and reliably handle the varying air demand found in most plant air systems.

The annual cost of ownership can be significantly reduced using Variable speed technology.

A typical oil lubricated rotary screw air compressor



A Gardner Denver variable speed compressor



Gardner Denver VS features are your benefits

The VS Series products are designed to obtain the greatest efficiency across the entire operating range.

- **Wide regulation range**
No cycles means substantial energy savings
- **Perfect motor - drive - airend design**
High efficiency across broad flow range

e-models - Market leading energy efficiency

The e-models feature a class leading efficiency of up to **2.5 %** compared to the standard models. With a new technology including an IE4 electric motor and an automatic oil regulation valve these models can save up to **€ 2,500 energy costs a year**.

Add further value

Integrated heat recovery

Significant energy and costs savings can be achieved with Gardner Denver's efficient integrated heat recovery system. It can be either factory fitted or supplied as retrofit kit including all necessary pipe-work and fittings.



Hot Water



Heating



Industrial Process



Hot Air Blast

“Gardner Denver lubricated rotary screw compressors incorporate the very **latest technological advances** and guarantee a continuous supply of high quality compressed air.”



iConn Industry 4.0 solution

The ESM, VS and E Series are equipped with iConn as a standard. iConn is the smart, proactive real-time monitoring service that delivers in-depth and real-time knowledge on the system to our compressed air users. It enables accurate production planning and total peace-of-mind protection, generating insight and statistics that keep users informed on performance, at the same time highlighting potential issues before they become a problem.

- Condition based monitoring
- Predictive maintenance required
- Full Air Manufacturing Control Optimisation
- External data pattern integration

The synthetic efficiency advantage with Gardner Denver AEON™ 9000 SP lubricant as a standard

A unique synthetic lubricant designed specifically to maximise compressor efficiency and provide optimum lubricity.

Extended life time

Maximum protection for internal components.



Compressed air purification

A modern production system and process demands increasing levels of air quality. A Gardner Denver compressed air system utilising the latest technology provides an energy efficient solution at lowest life cycle costs.

- **Water Cyclone Separator**
- **Compressed Air Filter**
- **Condensate Drain**
- **Compressed Air Refrigerant Dryer**
- **Heatless Desiccant Dryers**
- **Heat Regenerative Desiccant Dryer**
- **Nitrogen Generator**
- **GD Connect 12 Plus Multi Compressor Controller**



The **best investment protection** you can get



10 Years Warranty!

The Gardner Denver Protect 10 Warranty and Service programmes will protect you up to 44,000 hours/10 years ¹. It is one of the most generous warranties available in the industry affording you total piece of mind.

Your benefits:

- The Protect 10 warranty is totally free to the compressor owner ²
- The Gardner Denver authorised service provider will deliver a guaranteed quality of service
- The Protect 10 service agreement underpinning the warranty will enable accurate maintenance, budgeting and cost of ownership
- The use of genuine Gardner Denver parts and lubricants will maximise compressor life and efficiency

¹ Warranty duration is limited to 6 years/44,000 hours on the whole package, 10 years/44,000 hours on the air end. Whichever is the soonest.

² subject to Terms & Conditions

Compact design – easy installation

The small footprint reduces the space required for installation.

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.

Gardner Denver genuine spare parts

Enjoy complete peace of mind.

Genuine Gardner Denver parts and lubricants ensure that compressed air plant reliability and efficiency is maintained at the highest standards. Gardner Denver spare parts and lubricants are distinguished by:

- Long service life, even under harshest conditions
- Minimum losses contributing to energy savings
- High reliability improves plant up-time
- Products manufactured with the strictest Quality Assurance Systems





Technical data

ESM 90 - 132 Fixed Speed Screw Compressors

| Gardner Denver model | Nominal Pressure | Drive Motor | FAD ¹⁾ | Noise Level ²⁾ | Weight | Dimensions L x W x H |
|----------------------|------------------|-------------|---------------------|---------------------------|--------|----------------------|
| | bar g | kW | m ³ /min | dB(A) | kg | mm |
| ESM90 | 7.5 | 90 | 18.16 | 73 | 2513 | 2337 x 1368 x 2039 |
| | 10 | | 15.51 | | | |
| | 13 | | 13.52 | | | |
| ESM110 | 7.5 | 110 | 21.60 | 75 | 2614 | 2337 x 1368 x 2039 |
| | 10 | | 18.85 | | | |
| | 13 | | 16.47 | | | |
| ESM132 | 7.5 | 132 | 24.79 | 76 | 2778 | 2337 x 1368 x 2039 |
| | 10 | | 21.51 | | | |
| | 13 | | 18.70 | | | |

VS 90 - 132 Variable Speed Screw Compressors

| Gardner Denver model | Nominal Pressure | Drive Motor | FAD ¹⁾ Min - Max | Noise Level ²⁾ at 70% Load | Weight | Dimensions L x W x H |
|----------------------|------------------|-------------|-----------------------------|---------------------------------------|--------|----------------------|
| | bar g | kW | m ³ /min | dB(A) | kg | mm |
| VS90 | 5 - 13 | 90 | 5.26 - 18.16 | 72 | 2768 | 2337 x 1368 x 2039 |
| VS110 | 5 - 13 | 110 | 5.26 - 21.51 | 72 | 2770 | 2337 x 1368 x 2039 |
| VS132 | 5 - 13 | 132 | 5.26 - 24.76 | 74 | 2786 | 2337 x 1368 x 2039 |

ESM 90^e - 132^e Fixed Speed Screw Compressors

| Gardner Denver model | Nominal Pressure | Drive Motor | FAD ¹⁾ | Noise Level ²⁾ | Weight | Dimensions L x W x H |
|----------------------|------------------|-------------|---------------------|---------------------------|--------|----------------------|
| | bar g | kW | m ³ /min | dB(A) | kg | mm |
| ESM90 ^e | 7.5 10 | 90 | 18.16 15.51 | 73 | 2513 | 2337 x 1368 x 2039 |
| ESM110 ^e | 7.5 10 | 110 | 21.60 18.85 | 75 | 2614 | 2337 x 1368 x 2039 |
| ESM132 ^e | 7.5 10 | 132 | 24.79 21.51 | 76 | 2778 | 2337 x 1368 x 2039 |

NOT AVAILABLE IN 60HZ

All models are also available as WATER COOLED versions, for technical specifications please refer to the water cooled technical information sheets.

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 Expertise

The GD rotary screw compressor range from 2.2 – 500 kW, available in both variable and fixed speed compression technologies, are designed to meet the highest requirements which the modern work environment and machine operators place on them.



The oil-free EnviroAire range from 15 – 355 kW provides high quality and energy efficient compressed air for use in a wide range of applications. The totally oil-free design eliminates the issue of contaminated air, reducing the risk and associated cost of product spoilage and rework.



A modern production system and process demands increasing levels of air quality. Our complete **Air Treatment Range** ensures the highest product quality and efficient operation.



Compressor systems are typically comprised of multiple compressors delivering air to a common header. The combined capacity of these machines is generally greater than the maximum site demand. To ensure the system is operated to the highest levels of efficiency, the **GD Connect** air management system is essential.



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www.gardnerdenver.com/gdproducts

For additional information please contact
Gardner Denver or your local representative.

Specifications subject to change without notice.