

Gardner Denver

Premium compressor design & industry leading warranty

7 to 11 kW
Fixed Speed & Variable Speed

PROTECT **10**
years

Extended Warranty for GD Compressors



Reliability & efficiency
without compromise



Good - Better - Best efficiency

The ESM and VS Series from Gardner Denver

Well known in the industry for quality and reliability, Gardner Denver continuously develops and expands the ESM / VS Series to achieve optimum performance and efficiency and maximum flexibility. The wide range of screw compressors from 7 to 11 kW includes fixed and variable speed models, high efficiency e-models and is available as airstation including receiver and refrigerant dryer.

Standard Range Fixed & Variable Speed

- ▶ **Pressure range**
5 to 13 bar
- ▶ **Volume flow**
0.43 to 1.59 m³/min
- ▶ **Motor power**
7.5 to 11 kW



e Range Fixed & Variable Speed

- ▶ **Pressure range**
5 to 13 bar
- ▶ **Volume flow**
0.41 to 1.87 m³/min
- ▶ **Motor power**
7.5 to 11 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 ensure that operating costs will remain low throughout the compressor's life.

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

The dryers too are designed and manufactured in-house – the customer designed heat exchangers and patented control board delivering the very best combination of high efficiency, low pressure drop and small footprint.

* Whichever is soonest

“Known for reliability, continuously developed in **efficiency**, extended with flexibility, **unmatched** in terms of warranty.”

PROTECT **10**
years

Extended Warranty for GD Compressors

Under the new Protect 10 warranty, which is completely free of charge, the airends are **covered 10 years** and **up to 44,000 hours**.



The right product to do the job

Standard range ESM/VS 7 to 11
Fixed & variable speed

Based on the individual customer requirements, the compressors can be combined with different options to provide maximum flexibility. The combined versions including receiver or/and dryer are space saving solution – ideal where floor space is precious.

- Compressor base mounted
- Complete package including compressor, dryer and receiver

The stand alone compressors feature a very compact design with a class-leading footprint of just 0.4 m². In the combination with dryer and receiver the floor space can be optimised, in addition the installation is very easy.

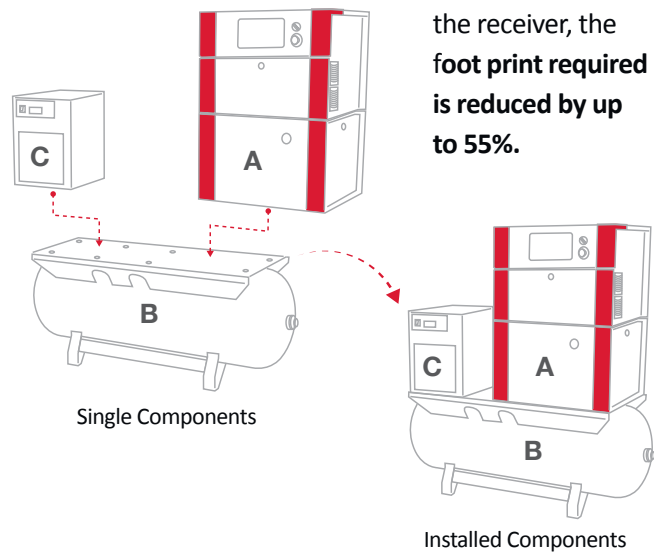
In-house made airend

The high quality airends use state-of-the-art manufacturing techniques. They are designed with focus on reliability and efficiency. The rotors are accurate and thoroughly checked and measured by a computerised control system. The airends achieve a flat specific power consumption curve, which enables efficient use in wide rpm range.

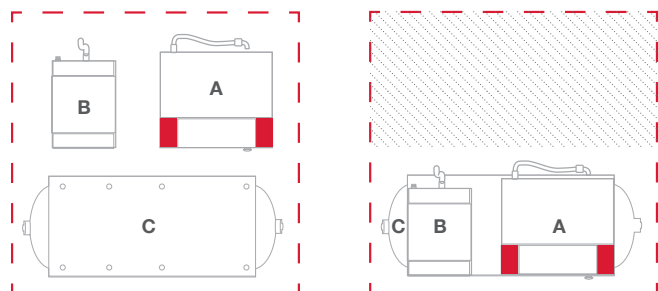
Small foot print



By mounting the components on the receiver, the **foot print required is reduced by up to 55%.**



Top view



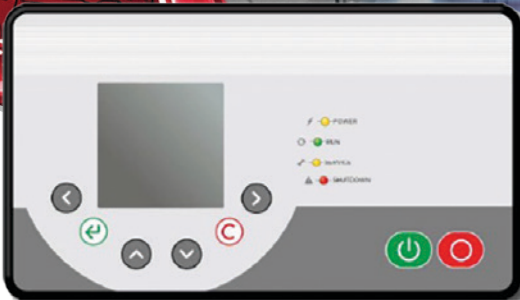
Minimum floor space required

$A + B + C = 1.25 \text{ m}^2$ (ESM/VS 07 - L11)

$A + B + C = 3.9 \text{ m}^2$



This range of screw compressors allows for ambient temperatures up to 46°C. The generously sized ventilation system ensures optimum cooling, low outlet air temperatures.



New advanced controller C-PRO 2.0 Ensures reliable operation and protecting your investment by continuously monitoring the operational parameters

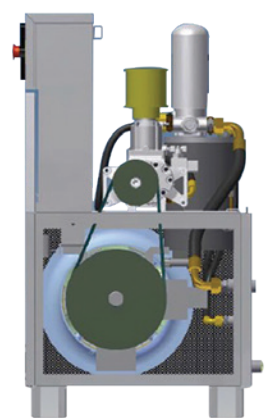
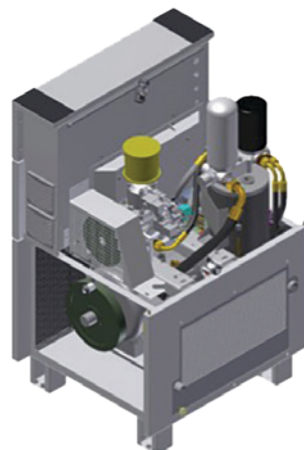
The C-PRO 2.0 controller is designed to make the operators' interface with the variable speed drive transparent. This new generation controller features extra functions for variable speed compressors like drive status display and flexible PID setting according the application. You don't need to be an expert on variable speed drives to operate your compressor. The controller takes care of the details and automatically adjusts the compressor performance to meet your changing air system demands - saving you energy. Changing the discharge pressure is as easy as pressing a button.

- 3 analog inputs
- Multi-language
- Standard sequence control up to 8 units (up to 7 units fixed speed & 1 variable speed)
- Standard Modbus
- 15 failure records in memory
- Continuous system monitoring

Highly Efficient Motors

The range is equipped with reliable and highly efficient electric motors.

- International efficiency class 2 (IE3) as a standard
- IP 55 enclosure
- Full performance up to 46°C ambient temperature



Belt Auto Tensioning system

Easy maintenance

The compressors are designed to ensure easy access to the maintenance points. The panels can be easily removed and the limited number of moving parts reduces service costs.

The automate tensioning of the belt assures long life of the belt, less maintenance and noise reduction.



Best efficiency – Made in Germany

e-Range highly efficient compressors, fixed and variable speed

The e-range of the ESM/VS Series are designed and manufactured in the Center of Excellence in Simmern, Germany. The most important component of a compressor, the airend, is also produced on this site. The engineering team develop airends which perfectly match the compressor requirements and achieve highest performance and efficiency levels. The engineering and manufacturing teams are proud to build this range, which is known in the market not only for the efficiency but also for the flexibility it offers. The compressors are available mounted on a receiver and with a dryer, making providing a compact solution and minimum space requirement.



GERMAN 
ENGINEERING 
DESIGN&MANUFACTURE

A design concept based on reliability and flexibility

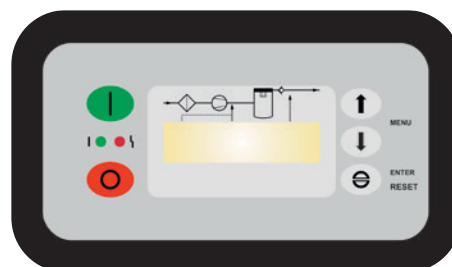
- ▶ **Fully integrated airend**
The advanced design of the high efficiency airend allows operation at low rotational speeds, and consequently lowers the energy costs. The innovative integrated design, including oil separation, oil filter and thermostatic valve, reduces the number of external hoses and components offering excellent reliability.
- ▶ **Combined air/oil cooler**
Equipped with a bypass for rapid warm-up and control of the oil temperature, reducing wear, eliminating condensate in the compressor system and providing low air discharge temperature.
- ▶ **High efficiency electric motor**
The compressors are equipped with an energy saving IE3 electric motor.
- ▶ **Automatic belt tensioning system**
The maintenance-free system provides automatic and accurate belt tension and extends the belt life.
- ▶ **Factory-filled lubricant**
Reduces service costs by extending the oil change period to up to 4,000 hours.
- ▶ **Low noise levels**
Allows the compressor to be placed at the point of use.
- ▶ **Up to 45°C ambient temperature**
Reliable operation, even in challenging environments.



GD PILOT Compressor controller

The control system ensures reliable operation and protects the investment by continuously monitoring operational parameters. The GD PILOT also has the capability to have programmable inputs and outputs, control additional equipment as well as providing the following features in clear readable text:

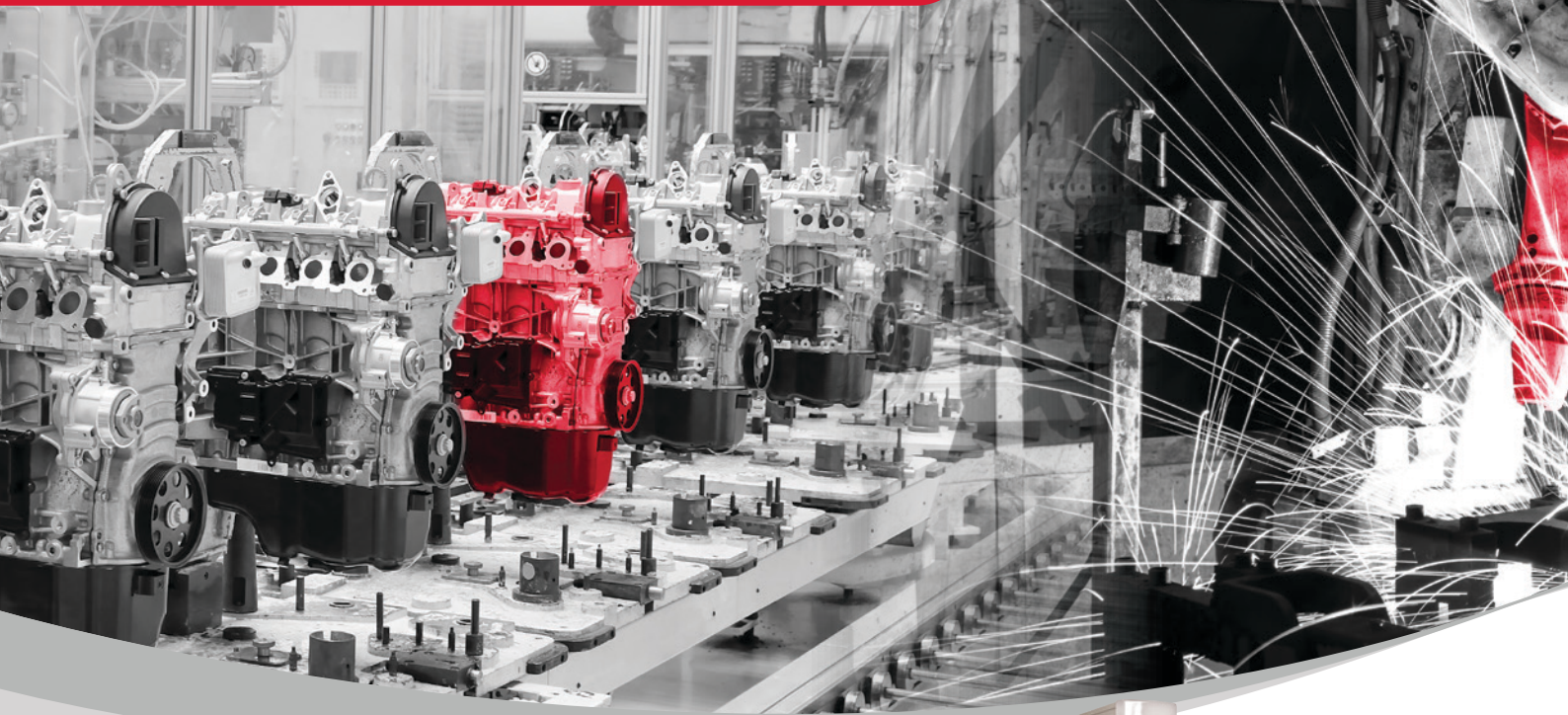
- Discharge/line pressure display
- Air/oil temperature display
- Total hours run and under load
- Service due indicator
- Enhanced fault log monitor
- Real time clock
- Timer controlled stop/start
- Remote start/stop
- Auto restart after power failure
- Second pressure setting
- Status indication
- RS485 - Modbus RTU



Ergonomic controller positioning

Controller can be positioned on top or front of the compressor.

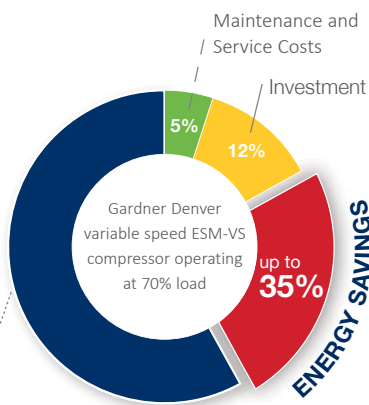




The perfect response to individual air demand

Regulated 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 regulated speed technology.



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

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 System**
- **Compressed Air Refrigerant Dryer**
- **Heatless Desiccant Dryers**
- **Heat Regenerative Desiccant Dryers**
- **Nitrogen Generator**
- **GD Connect 12 Multi Compressor Controllers**



The best investment protection you can get

10 Years Warranty!

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



PROTECT **10** years

Extended Warranty for GD Compressors

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

Standard Range

ESM 07 - 11 Fixed Speed

Gardner Denver model	Nominal Pressure	Drive Motor	FAD ¹⁾		Noise Level ²⁾	Weight	Dimensions L x W x H
	bar g		m ³ /min	dB(A)			
ESM07	7	7.5	1.14		70	205	667 x 630 x 1050
	8		0.99				
	10		0.97				
	13		0.80				
ESM11	7	11	1.59		70	219	667 x 630 x 1050
	8		1.58				
	10		1.39				
	13		1.14				

VS 07 - 11 Variable Speed

Gardner Denver model	Nominal Pressure	Drive Motor	FAD ¹⁾		Noise Level ²⁾ at 70% Load	Weight	Dimensions L x W x H
	bar g		min.	max.			
VS07	7	7.5	0.45	1.13	67	225	667 x 630 x 1050
	8		0.46	0.98			
	10		0.43	0.95			
	13		0.45	0.77			
VS11	7	7.5	0.53	1.58	67	234	667 x 630 x 1050
	8		0.52	1.56			
	10		0.51	1.39			
	13		0.49	1.07			

ESM / VS 07 - 11 Airstation

Gardner Denver model	Nominal Pressure	Refrigeration Dryer ³⁾	FAD ¹⁾	Air Outlet	Weight	Dimensions L x W x H
	bar g		Min - Max			
ESM07 / VS07	7	✓	270 litres	RP 3/4"	340 / 360	1540 x 676 x 1550
			500 litres		405 / 425	1885 x 700 x 1643
	8		270 litres		340 / 360	1540 x 676 x 1550
			500 litres		405 / 425	1885 x 700 x 1643
	10		270 litres		340 / 360	1540 x 676 x 1550
			500 litres		405 / 425	1885 x 700 x 1643
ESM11 / VS11	7	✓	270 litres	RP 3/4"	354 / 369	1540 x 676 x 1550
			500 litres		419 / 434	1885 x 700 x 1643
	8		270 litres		354 / 369	1540 x 676 x 1550
			500 litres		419 / 434	1885 x 700 x 1643
	10		270 litres		354 / 369	1540 x 676 x 1550
			500 litres		419 / 434	1885 x 700 x 1643



e - Range

ESM 07^e - 11^e Fixed Speed

Gardner Denver model	Nominal Pressure	Drive Motor kW	FAD ¹⁾		Noise Level ²⁾ dB(A)	Weight kg	Dimensions L x W x H mm
	bar g		m ³ /min				
ESM07 ^e	7.5	7.5	1.30		70	215	667 x 630 x 1050
	10		1.06				
	13		0.85				
ESM11 ^e	7.5	11	1.87		70	225	667 x 630 x 1050
	10		1.61				
	13		1.32				

VS 07^e - 11^e Variable Speed

Gardner Denver model	Nominal Pressure	Drive Motor kW	FAD ¹⁾ m ³ /min		Noise Level at 70% load ²⁾ dB(A)	Weight kg	Dimensions L x W x H mm
	bar g		min.	max.			
VS07 ^e	7.5	7.5	0.48	1.26	63	222	667 x 630 x 1050
	10		0.44	1.01			
	13		0.41	0.83			
VS11 ^e	7.5	11	0.63	1.81	64	231	667 x 630 x 1050
	10		0.64	1.56			
	13		0.57	1.26			

ESM / VS 07^e - 11^e Airstation

Gardner Denver model	Nominal Pressure	Refrigeration Dryer ³⁾	Air Receiver	Air Outlet	Weight kg	Dimensions L x W x H mm
	bar g		Volume	dB(A)		
ESM07 ^e / VS07 ^e	7.5	✓	270 litres	RP ¾"	336 / 353	1541 x 695 x 1577
	10					
ESM11 ^e / VS11 ^e	7.5	✓	270 litres	RP ¾"	350 / 362	1541 x 695 x 1577
	10					

¹⁾ Data measured and stated in accordance with ISO 1217 Ed. 4, Annex C & 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 and ISO 9614-2, tolerance ± 3 dB(A).

³⁾ The refrigerant dryer requires a separate electric supply. Data refer to DIN ISO 7183, 8573-1:2010 (class 4, pressure dew point 3° C). For further specifications please refer to refrigerant dryer documentation.

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 – 315 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.