Screw Compressors

ESM 30 – 132 Fixed Speed &
VS 30 – 132 Variable Speed



Rely on GD to provide the perfect fit

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The **perfect fit** to maximise productivity

The growing industrial demand for compressed air requires compressor manufacturers to provide more reliable, economic and versatile compressors within a small footprint. Gardner Denver addresses these requirements, with the introduction of the new ESM / VS 30–132 series.

The ESM / VS 30–132 series of air compressors features the latest in technology, innovation and engineering.

Low dBA level, small footprint, high efficiency and easy service are standard benefits with the ESM / VS series.

- **Designed and manufactured in accordance with ISO standards, the ESM / VS series meets the industry's expectations of the highest quality standards**



Advanced design

The ESM / VS 30–132 series is specifically designed to meet the demands for continuous 24-hour use and absolute uptime, as required in critical industrial processes.

Innovative design delivers great benefits:

- **Efficiency**
- **Low Noise Operation**
- **Advanced Control System**
- **Modern Cooling System**
- **Easy Maintenance**

Thousands of our air-ends are in operation world-wide, proving that the heart of the ESM / VS 30–132 series can stand the test of time.



Efficient Gardner Denver air-ends

Without an efficient, durable air-end, a unique compressor design means nothing. That's why Gardner Denver designs and manufactures this critical component to exacting standards.



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.

A proven track record of service-life up to 6,000 hours in the most rugged operating environments.

Extended life time
Maximum protection for internal components.

Protect your investment
Gardner Denver recommends regular oil sampling and analysis provided by GD to ensure the highest level of protection against component failure.

"Green" advantage

- **Extended drain intervals**
- **Energy savings as a result of optimum operation under demanding temperature conditions**
- **Make considerable savings on your energy bill**

AEON 9000 SP

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A **perfectly matched design** of motor, direct drive & air-end

The efficient motor/drive/air-end combination are designed to reduce the specific power, which benefits you in the form of energy cost savings. Additionally, Gardner Denver is using TEFC IP55, high efficiency motors.



ESM / VS 55–132

An automatic motor lubrication system increases bearing life and is maintenance free.

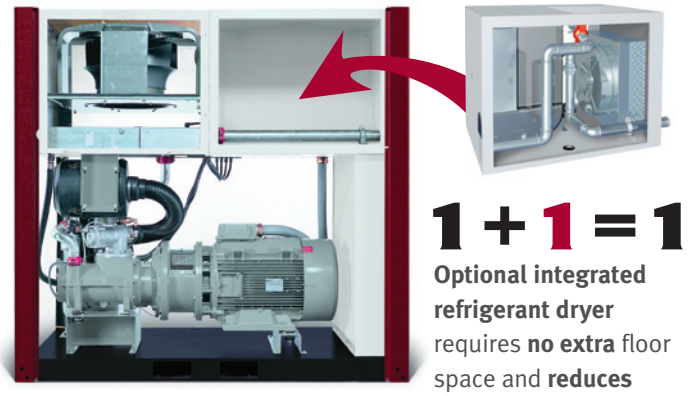
- **Utilising the premium sized air-end with optimised rotor tip speed, the compressor works more efficiently and furthermore lowers the noise level. This delivers an additional 8% energy savings for ESM50/80 models of the extended 45/75 kW class.**

Small installation footprint & integrated dryer concept (ESM 30-80 series)

Thanks to the advanced compressor concept, the required footprint is reduced to a minimum.

The optional integrated refrigerant dryer reduces both extra installations and the required floor space, making the compressor easier to install.

- **Optimised cooling**
- **Low installation costs**
- **Same dimensions with integrated dryer option**



1 + 1 = 1

Optional integrated refrigerant dryer requires **no extra** floor space and **reduces extra** installations.



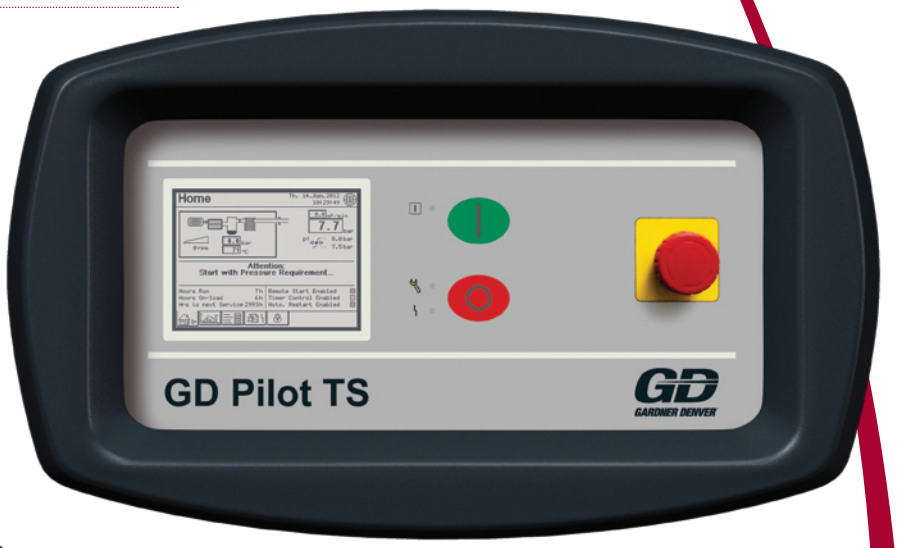
Optimised cooling system

High efficiency radial fan

The radial fan concept represents quiet and efficient operation. Additionally, peripheral speed means low noise and the power consumption is up to 50 percent lower than a comparable axial fan. Another advantage is the high residual thrust (stable curve) that allows the use of exhaust ducting with a pressure drop of up to 130 Pa. Also, the oversized after coolers used in the ESM / VS 30–132 series ensure an optimum cooling and discharge temperature.

Everything under control - **“GD Pilot TS”** touch screen controller

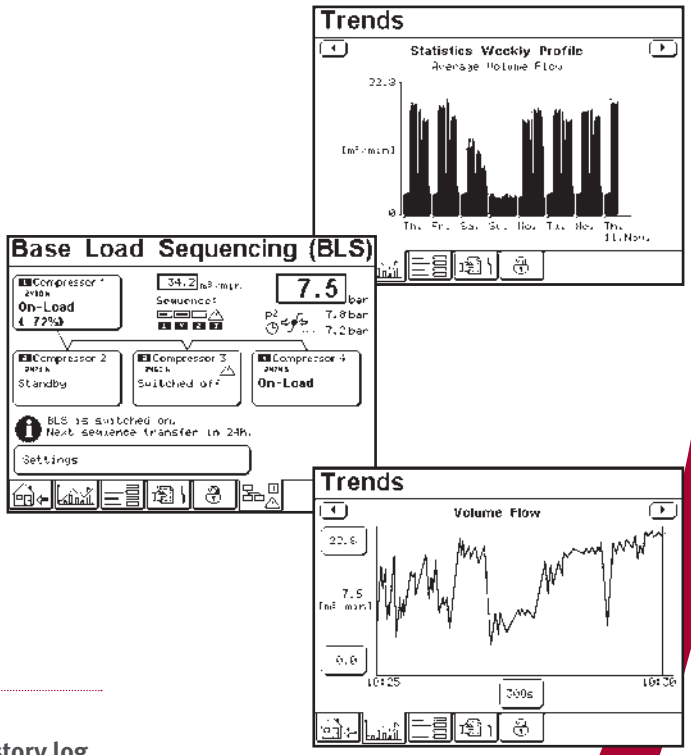
The “GD Pilot TS” with its high resolution touch screen display is extremely user friendly and self-explanatory. All functions are clearly structured in five main menus and are intuitively visual.



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.

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**



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**
- **Optional SD Card**
  - stores several run characteristics

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VS series: Our compressor solution for **varying air demand**

Typically, air demand in a plant varies widely throughout the day. In addition, fluctuations can occur from shift-to-shift, weekday-to-weekend, and season-to-season. Pressure requirements can also change from machine-to-machine or from one application to another. You need someone to evaluate your unique, often complex requirements and recommend a tailored solution.

The VS variable speed compressor - one smart solution

Variable speed compressors can efficiently and reliably handle the varying air demand found in most plant air systems. These compressors speed up and slow down to match air supply to air demand as it fluctuates.



The right variable speed compressor for the application delivers significant energy savings and a stable consistent air supply.

"THE VS SERIES SAVES MONEY AND MAXIMISES PLANT PRODUCTIVITY— IT'S LIKE HAVING SEVERAL EFFICIENT COMPRESSORS IN ONE. SMART!"

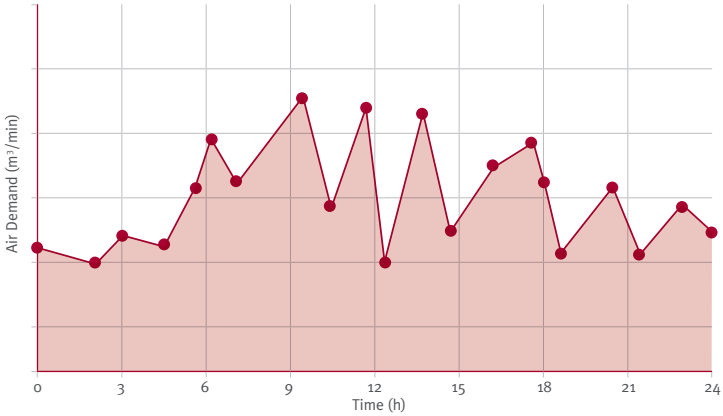
The VS compressor is an efficient and versatile solution even for the most demanding industrial applications and carries all of the Gardner Denver features and benefits associated with reliable, easy to use operations and high efficiency.

The Gardner Denver air-end ensures that maximum reliability and the highest efficiency level are incorporated into these packages. The variable speed drive/motor/compressor combination and the controller are designed to meet the varying demands of your system at the lowest possible specific power, which benefits you in the form of energy cost savings.

The perfect fit to **variable air demand**

- **The right variable speed compressor in the right application delivers significant energy savings and a stable consistent air supply**

AIR DEMAND CAN VARY DRAMATICALLY DURING A 24HR PERIOD



Reduced wear and tear thanks to **wide regulation range**



Superb flexibility comes as standard with the VS series.

With a wide capacity range, the VS series features the market's quickest and widest response to air demand changes.

Your benefits during varying air demand:

- **Reduced wear and tear on inlet and discharge valve components**
- **No shock bearing loads for the air-end**
- **Minimised pulsating load (full load pressure/off load pressure) for all pressurised components within compressor package (oil receiver, hoses etc.)**



Tried and tested inverter concept

- **Integrated in the electric cabinet**
- **Protected from dust by replaceable inlet filters**
- **Maximum reliability by optimised cooling system**
- **Ensures high availability and long life time**

Save even more energy with our unique compressed air management system

GD Connect 12 sequencer with up to 35% energy savings!

- **Easy to install**
- **Improved performance and efficiency**
- **Simple to operate**
- **Detailed management reports**



GD Connect 12

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 12" management system is essential.

The **GD Connect 12 can intelligently control up to 12** fixed speed or variable speed compressors.

- **Intelligently selecting the right combination of compressors**
- **It reduces energy consumption by tightening the network pressure to the smallest possible band**

Each 1 bar decrease potentially results in a 6% reduction in energy consumption and as much as 25% decrease in air leakage losses.

- **Keeping off load running to the absolute minimum**

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Reduce your carbon footprint and **save even more money**

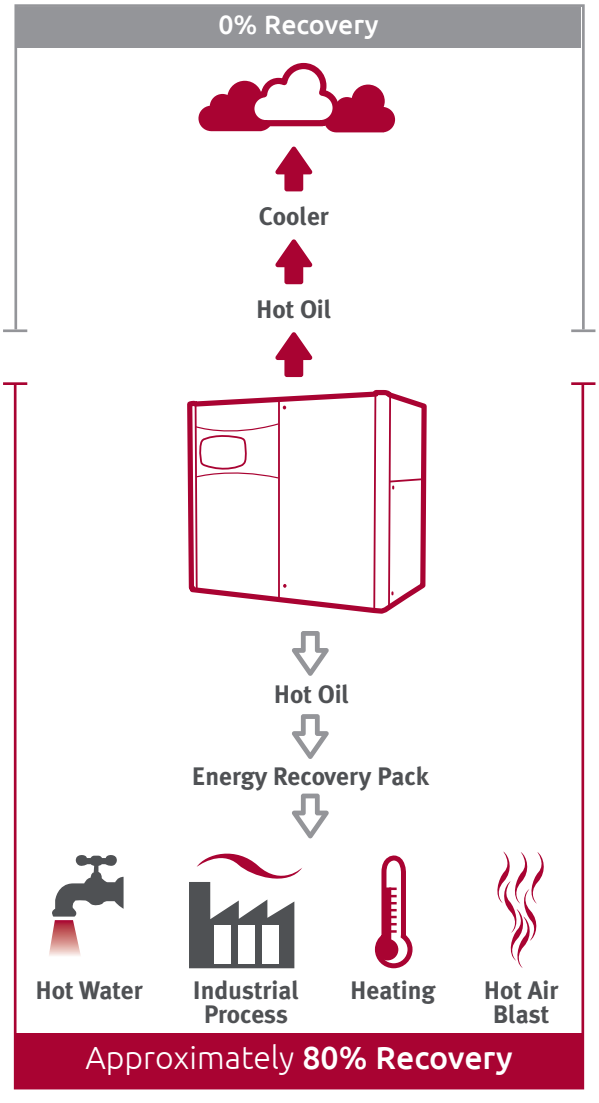
with our optional heat recovery system

Re-use heat for industrial processes, heating systems, hot water and hot air!

Gardner Denver utilises heat recovery systems to maximise efficiency by recovering energy generated during compressed air production.

- **As much as 90% of all energy used can be recovered and utilised**
- **Thermostatic control maintains desired temperature in the compressor**
- **Available factory fitted or as a retrofit kit**



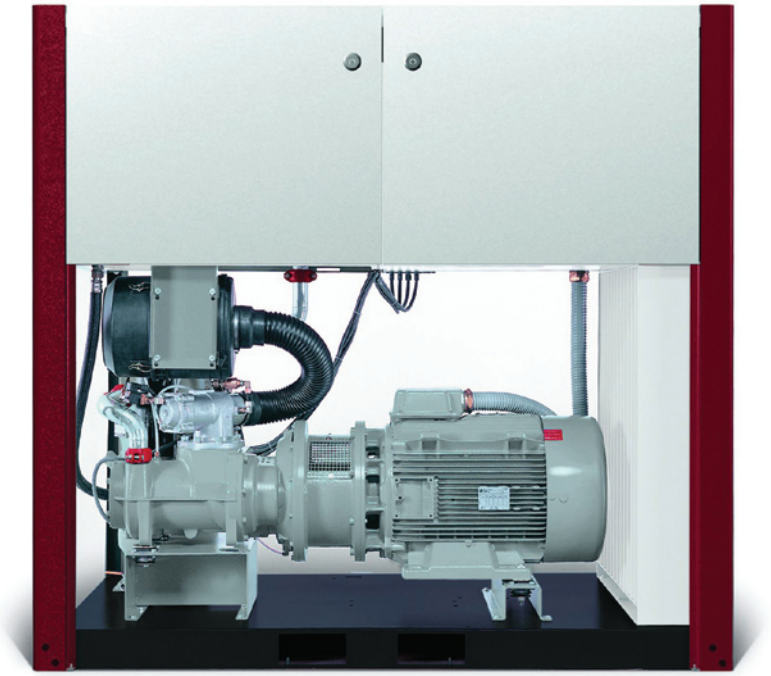


Scan to view our heat recovery video

Easy servicing

The design of these packages assures 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 also lowers maintenance costs.





"THE USE OF GENUINE GD PARTS AND LUBRICANTS WILL MAXIMISE YOUR COMPRESSOR'S LIFE AND EFFICIENCY."

Genuine GD Parts – The perfect fit for **maximum performance** and **best efficiency**

The vast experience and knowledge of GD's highly qualified air specialists, coupled with the use of genuine GD parts and quality consumables that are guaranteed to perform, ensures the best possible efficiency from your GD air system.

Through our global network of authorised distributors, Gardner Denver provides world class maintenance and service support with a team of highly trained and skilled compressor service technicians. From emergency call outs to scheduled preventative maintenance and remote monitoring of compressed air operating parameters, we can tailor a compressed air service package to meet the needs of any application - ensuring our customers have the best possible support around the clock, seven days a week.



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GD 5 Years Extended Warranty

Protect 5 - our **total commitment** to quality and **worry free** ownership

PROTECT 5 years

Extended Warranty for GD Compressors

GD 5 Years Warranty - a simple and free of charge extended warranty scheme from GD - once again, taking the industry standard and making it better.

"GD DISTRIBUTORS PROVIDE WORLD CLASS MAINTENANCE AND SERVICE SUPPORT WITH A TEAM OF HIGHLY TRAINED AND SKILLED COMPRESSOR SERVICE TECHNICIANS"



GD provides **Protect 5 - an extended warranty cover on your compressor** for 5 years with GD's authorised service providers delivering a guaranteed quality service*.

We believe that the GD **Protect 5 will become a way of life "working when you need it" to provide maximum uptime AND peace of mind.**

Protect 5 – a simple and free of charge extended warranty scheme from GD.

* Terms and conditions apply. Contact your nearest authorised service provider for full details.

Technical **data**

VS 30 – VS 132 - Variable Speed Screw Compressors

Gardner Denver model	Nominal pressure	Drive motor	FAD[1]	Noise level[2],	Weight	Dimensions
	bar g	kW	m³/min	1m dB(A)	kg	L x W x H mm
VS 30	7.5	30	1.34 - 5.50	68	925	1722 x 920 x 1659
	10		1.30 - 5.07			
VS 37	7.5	37	1.48 - 6.86	70	952	
	10		1.44 - 6.36			
	13		2.19 - 5.52			
VS 45	7.5	45	1.48 - 7.95	73	974	
	10		1.44 - 7.38			
	13		1.78 - 6.44			
VS 55	7.5	55	2.44 - 10.24	71	1726	2158 x 1223 x 1971
	10		2.37 - 9.50			
VS 75	7.5	75	2.26 - 13.64	75	1800	
	10		2.23 - 12.63			
	13		3.07 - 11.21			
VS 90	7.5	90	4.77 - 17.63	74	2768	2337 x 1368 x 2039
	10		4.72 - 16.19			
	13		5.71 - 13.58			
VS 110	7.5	110	4.77 - 20.71	76	2770	
	10		4.72 - 19.24			
	13		5.20 - 16.49			
VS 132	7.5	132	4.77 - 22.73	77	2786	
	10		4.72 - 21.18			
	13		5.19 - 18.20			

ESM 30 – ESM 132 - Fixed Speed Screw Compressors

Gardner Denver model	Nominal pressure	Drive motor	FAD[1]	Noise level[2], 1m	Weight	Dimensions
	bar g	kW	m³/min	dB(A)	kg	L x W x H mm
ESM 30	7.5	30	5.76	67	923	1722 x 920 x 1659
	10		5.03			
	13		4.30			
ESM 37	7.5	37	7.01	68	966	
	10		6.19			
	13		5.32			
ESM 45	7.5	45	8.01	69	988	
	10		7.02			
	13		6.13			
ESM 50	7.5	45	8.67	67	1055	
	10		7.42			
ESM 55	7.5	55	10.71	69	1725	2158 x 1223 x 1971
	10		9.54			
	13		8.27			
ESM 75	7.5	75	13.76	72	1765	
	10		12.48			
	13		10.51			
ESM 80	7.5	75	14.75	69	2010	
	10		12.32			
ESM 90	7.5	90	17.48	73	2513	2337 x 1368 x 2039
	10		15.52			
	13		13.48			
ESM 110	7.5	110	20.80	75	2614	
	10		18.67			
	13		16.22			
ESM 132	7.5	132	22.89	76	2778	
	10		21.29			
	13		18.59			

ESM 30F - ESM 80 F - Fixed Speed Screw Compressors with Integrated Dryer

Gardner Denver model	Nominal pressure	Pressure dew point[3]	Weight	Dimensions
	bar g	°C	kg	L x W x H mm
ESM 30 F	7.5/10/13	3	1033	1722 x 920 x 1659
ESM 37 F	7.5/10/13	3	1086	
ESM 45 F	7.5/10/13	4/3/3	1108	
ESM 50 F	7.5/10	4/3	1175	
ESM 55 F	7.5/10/13	3	1853	2158 x 1223 x 1971
ESM 75 F	7.5/10/13	3	1904	
ESM 80 F	7.5/10	3	2149	

1) Data measured and stated in accordance with ISO1217, Ed. 4, Annex C & Annex E at the following conditions and the following working pressures are used: 7.5 bar models at 7 bar, 10 bar models at 9 bar and 13 bar models at 12 bar.
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 +/– 3 dB

3) Data refer to ISO 7183, working pressure of 7 bar, inlet temperature 35°C and ambient temperature 25°C

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Whatever your request – GD has **The Smart Solution**!



The **GD rotary screw compressor** range from 2.2 – 500 kW, are designed to meet the highest requirements which the modern work environment and machine operators place on them. As a result, the GD compressors are extremely energy efficient, quiet and reliable. These compressors continue to further strengthen Gardner Denver's success story – variable and fixed speed compressor technologies available.



The OIL FREE **GD EnviroAire** range from 15 – 110 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, particularly for those customers operating in sterile environments – variable and fixed speed compressor technologies available.

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.



Our Product range's consist of:

- **Refrigerant Dryers.**
- **Desiccant Dryers.**
- **Condensate Management.**
- **Oil / Water Separation Systems.**



Compressors 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.

- **The modern GD Connect 12 air management system can intelligently control up to 12 fixed speed or variable speed compressors.**
- **The simple GD Connect 4 air system is the ideal control solution for smaller compressed air stations, and will intelligently control up to 4 fixed speed compressors.**

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

Gardner Denver

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www.gardnerdenverproducts.com

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