Screw Compressors

ESM 23 – 29 Fixed Speed &
VS 23 – 29 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 23-29 / VS 23-29 Series.

The new range 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.

Advanced design

Premium efficiency air end

The high output compression element with slow rotational speed reduces energy costs. In addition to this, the innovative design of the integrated oil filter and oil regulation valve ensures external hoses are reduced to a minimum to guarantee the highest levels of quality and reliability are achieved.

Energy saving electric motor

The compressors are equipped with an energy saving high efficiency electric motor which reduces CO_2 emissions.

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. The vessel has a hinged cover for easy maintenance.

High modern control system

GD Pilot control system for reliability and simplicity of operation.

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

- **Discharge/line pressure display**
- **Oil temperature display**
- **Total hours run and loaded hours**
- **Service due indicator**
- **Enhanced fault log monitor**
- **Real time clock**
- **Timer controlled Stop/Start**
- **Remote Stop Start**
- **Auto restart on power failure**
- **Second pressure setting**
- **Status indication**
- **RS485 - Modbus RTU**

Small installation footprint & integrated dryer concept

All models ESM/VS 23-29 are available with an integrated dryer . This option comes complete with a dryer and water separator, both fitted with zero loss drains, to eliminate expensive air loss and maximise energy efficiency.

Thanks to ESD control the dryer only use energy when the system actually needs compressed air unlike conventional dryers which continue to consume energy even when the system is off load. These features save energy and considerably enhances the reliability of the compressed air supply.

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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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.

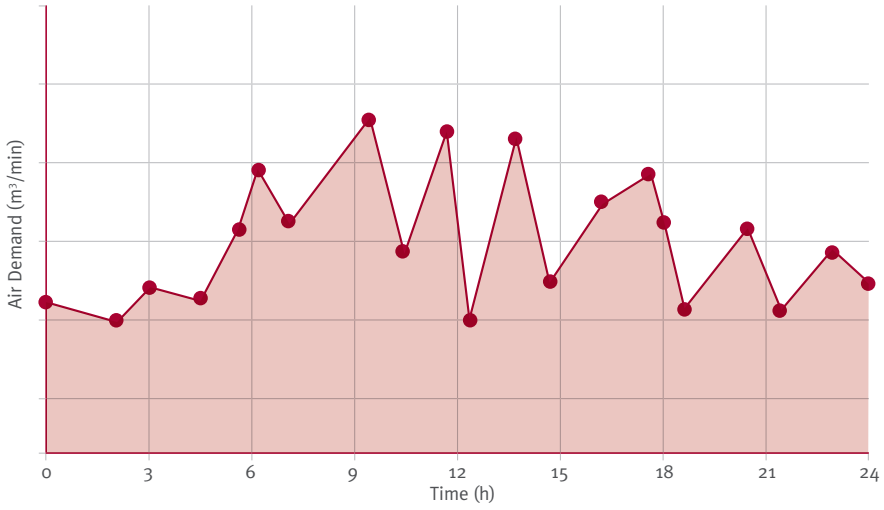
"THE VS SERIES SAVES MONEY AND MAXIMIZES PLANT PRODUCTIVITY— IT'S LIKE HAVING SEVERAL EFFICIENT COMPRESSORS IN ONE. SMART!"

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.

Variable speed — A matched motor, direct drive and air end

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.

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 20 - 100 % capacity range, the VS Series features the market's quickest and widest response to air demand changes.

Your Benefits during varying air demand:

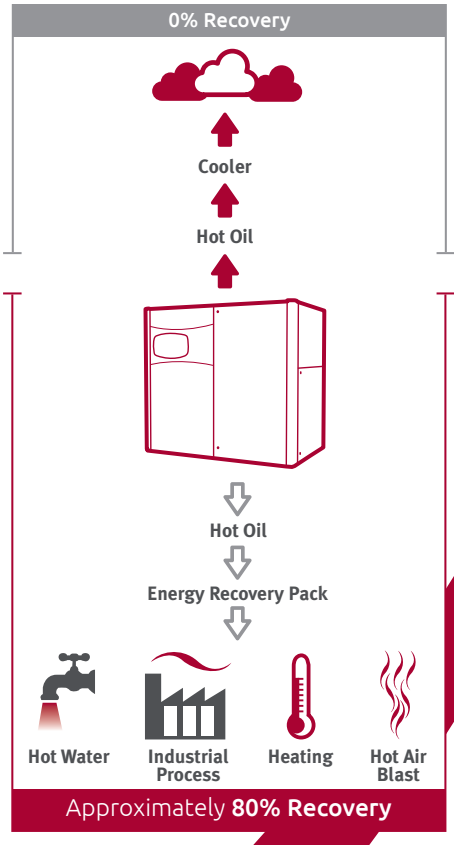
- **Reduced wear and tear on inlet and discharge valve components**
- **No shock bearing loads for the air end**
- **Minimized pulsating load (full load pressure/of load pressure) for all pressurised components within compressor package (oil receiver, hoses etc.)**

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**

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**

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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.

Service friendly design

- **Short servicing times**
- **Long service intervals**
- **Reduced service costs**

First class accessibility

- **Panels and covers easily removable with quick-release catches**

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

GD 5 Years **Extended Warranty**

Our Total Commitment to Quality Free of worry

GD provides 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 5 years warranty will become a way of life "working when you need it" to provide maximum uptime AND peace of mind.

Genuine Parts

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.

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

Technical **data**

ESM 23 – ESM 29 - Fixed Speed Screw Compressors

Gardner Denver model	Nominal pressure	Drive motor	FAD[1]	Noise level[2], 1m dB(A)	Weight	Dimensions
	bar g	kW	m³/min		kg	L x W x H mm
ESM 23	7.5	22	4.16	67	650	1345 x 880 x 1612
	10		3.46			
	13		2.99			
ESM 26	7.5	26	4.48	68	677	1345 x 880 x 1612
	10		4.14			
	13		3.44			
ESM 29	7.5	30	5.52	69	681	1345 x 880 x 1612
	10		4.82			
	13		4.12			

ESM 23 F – ESM 29 F - Fixed Speed Screw Compressors with Integrated Dryer

Gardner Denver model	Pressure dew point[3]	Weight	Dimensions
	°C	kg	L x W x H mm
ESM 23 F	5	840	1675 x 880 x 1612
ESM 26 F	5	867	1675 x 880 x 1612
ESM 29 F	5	871	1675 x 880 x 1612

VS 23 – VS 29 - Variable Speed Screw Compressors

Gardner Denver model	Min - Max Pressure	Drive motor	FAD[1] at 7.5 bar g	FAD[1] at 10 bar g	FAD[1] at 13 bar g	Noise level at 100% load[2], 1m dB(A)	Weight	Dimensions
	bar g	kW	m³/min	m³/min	m³/min		kg	L x W x H mm
VS 23	5 - 13	22	1.12 - 4.13	1.06 - 3.74	1.24 - 3.10	70	681	1345 x 880 x 1612
VS 26	5 - 13	26	1.12 - 4.79	1.06 - 4.36	0.96 - 3.74	71	708	1345 x 880 x 1612
VS 29	5 - 13	30	1.12 - 5.42	1.06 - 4.86	0.96 - 4.05	72	712	1345 x 880 x 1612

VS 23 F – VS 29 F - Variable Speed Screw Compressors with Integrated Dryer

Gardner Denver model	Pressure dew point[3]	Weight	Dimensions
	°C	kg	L x W x H mm
VS 23 F	5	871	1675 x 880 x 1612
VS 26 F	5	898	1675 x 880 x 1612
VS 29 F	5	902	1675 x 880 x 1612

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

ESM / VS models

ESM / VS models with dryer option

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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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