

VS Series—Variable Speed Control Rotary Screw Air Compressors

45–70 kW, VS 45/50/70



Efficiency

The VS series from Gardner Denver is the newest generation of variable speed rotary screw compressors. The time proven ENDURO®+ air end ensures that maximum reliability and the highest efficiency level are incorporated into these compact packages. The VS Series utilizes a rotor profile improvement that results in the lowest specific power over the widest operating range. We have minimized energy consumption throughout the entire package to bring you the lowest possible energy cost of operation.

Flexibility

The modern VS Series compressor packages are the *smarter solution* to your complex air system needs. The AirSmart™ controller maintains a target pressure band of +/- 1 psig through the entire operating range of 100%–20% of the compressor's capacity. 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 (kW/100 CFM). This feature benefits you in the form of energy cost savings. These packages have the option of an integrated refrigerated dryer that provides 3° C (37° F) dewpoint air at the discharge of the package.

Serviceability

The design of these packages assures the service points are readily accessible. The inlet valve is easy to access and has a simple design that minimizes the number of moving parts resulting in lower maintenance costs. The enclosure side doors are hinged and removable to allow complete access to all service points.

Proven Technology

Gardner Denver leads product development with new technologies such as Computational Fluid Dynamics, Finite Element Analysis and Infrared Thermography. These tools allow Gardner Denver to design and build smarter solutions to the complex needs of today's compressed air systems. With this technology, we have been able to simultaneously develop an efficient, flexible, reliable, compact and serviceable compressor.

GD
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Experience Proven Results™

Technical Data—VS Series

VS 45/50/70, 60 Hz



Gardner Denver Model	Rated Pressure		Capacity at Rated Pressure*		Motor power		Net weight		Air Outlet Size	Noise level**
	psig	bar	acfm	m ³ /min	hp	kW	lbs	kg	NPT	dBA
VS 45	100	7.0	308	8.7	60	45	3,180	1,443	1.5"	68
	125	8.6	269	7.6						
	150	10.3	239	6.8						
	175	12.1	206	5.8						
VS 50	100	7.0	348	9.9	67	50	3,180	1,443	2.0"	69
	125	8.6	322	9.1						
	150	10.3	290	8.2						
	175	12.1	245	6.9						
VS 70	100	7.0	436	12.3	94	70	3,180	1,443	2.0"	71
	125	8.6	395	11.2						
	150	10.3	359	10.2						
	175	12.1	318	9.0						

* Capacity measured in accordance with CAGI/PNEUROP acceptance test code PN2CPTC2.

** Noise level measured in accordance with ISO 2151.

Standard Equipment

- Air inlet filter
- Fully automatic capacity control: variable speed air production based on system air demand
- Gardner Denver AirSmart™ controller
- Easy to use operator interface
- Multiple languages
- High efficiency AC inverter drive
- TEAO electric motors: IP 55, F-class insulation and unlimited start/stop capability
- Smart thermal mixing oil control valve
- IP 54 control enclosure

- Emergency stop
- Safety devices for
 - Motor over temperature
 - Compressor over temperature
 - Compressor over pressure
 - Current limiter
- Alarms for
 - Air inlet filter ΔP
 - Oil separator element ΔP
 - Compressor over temperature (alarm at 225° F and tripping at 240° F)
 - Service interval
- Pressure relief valve
- Running condition indicators:
 - Pressures

- Temperatures
- Hour meter; total running hours, full load hours
- Automatic re-start after power failure
- Powder coated enclosure
- After cooler and moisture separator with automatic zero loss drain
- Integrated TEMPEST® compressor with ENDURO®+ air end
- Air or water-cooled cooling with 15° F CTD
- EMC filter VS 50/70 (575 V)

Optional Equipment

- Integrated dryer

- EMC filter (460 V)
 - Multiple lubricant options
 - Line reactor
 - Communications/ Sequencing module
 - Saltwater cooler
 - Seacoast cooler
 - Auto water temperature regulator
 - 575 Volt applications VS 50/70
- ## Auxiliary Equipment
- Multi-compressor controller for several compressors
 - Compressed air after treatment products

Gardner Denver®

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