

# VST Series: Two Stage, Variable Speed Control Rotary Screw Air Compressors



110–180 kW, VST 110/150/180

## Efficiency

Gardner Denver designed and built this product using the latest technology for optimizing the energy efficiency of the entire package. Computational Fluid Dynamics (CFD) was used to minimize pressure drop and optimize volumetric efficiency. Finite Element Analysis (FEA) allowed critical components to be reviewed for strength and durability. Thermography allowed us to design the most effective cooling system for the package. **The result: Least operational power cost resulting in bottom line profit to your company.**

## Flexibility

The combination of the new AirSmart™ controller with Variable Frequency Drives provides you with a compressor that will meet all of your variable pressure and flow requirements with no interruptions. The controller allows the operator to change the target pressure of the unit with the touch of a button. The variable speed control matches the output of the compressor package to the exact requirements of your system demand. **The result: Maximum flexibility with minimum energy costs resulting in bottom line profit to your company.**

## Serviceability

Gardner Denver designed this product with maximum “up time” in mind. The layout of the enclosure, the electronics and the mechanical components minimizes the time required for “normal” maintenance items as well as major mechanical components. **The result: Minimum labor required for maintenance resulting in bottom line profit to your company.**

**GD**  
GARDNER DENVER™

*Experience Proven Results™*

## Technical Data—VST Series

### VST 110/150/180 (150/200/250 HP), 60 Hz



Gardner Denver Model	Rated Pressure		Capacity at Rated Pressure*		Motor power		Net weight		Air Outlet Size	Noise level**
	psig	bar	acfm	m <sup>3</sup> /min	hp	kW	lbs	kg	NPT	dBA
VST 110	100	6.9	816	23.1	150	110	11,000	4,990	3"	75
	125	8.6	751	21.3						
	150	10.3	707	20.0						
	175	12.1	663	18.8						
VST 150	100	6.9	1050	29.7	200	150	11,000	4,990	3"	78
	125	8.6	986	27.9						
	150	10.3	921	26.1						
	175	12.1	877	24.8						
VST 180	100	6.9	1382	39.1	250	180	11,000	4,990	3"	81
	125	8.6	1285	36.4						
	150	10.3	1210	34.3						
	175	12.1	1082	30.6						

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

\*\* Noise level measured in accordance with ISO 2151.

#### Standard Equipment

- Direct Drive, Non-Geared energy efficient airend design
- Optimized drive/motor/airend combinations for maximum efficiency of both compression stages
- Innovative AirSmart controller monitors and controls the unit to obtain optimum efficiency
- Multi-language capability in controller interface
- IP54 rated control enclosure with filters
- TEFC inverter duty 460 volt motor design, Class F insulation, rated at 45° C ambient operation

- Air/oil separation to < 2 ppm per ISO 8573-2
- Unlimited motor "Starts" due to drive design
- Pressure relief valve
- Centrifugal cooling fan driven by variable speed drive/motor combination
- After-cooler designed for 15° F CTD
- Efficient moisture separator with "Float" drain
- Enclosure designed to minimize noise emissions
- Factory fill of AEON™ 9000TH synthetic lubricant

- AirSmart controller features:
  - Extremely user friendly programming
  - Operation modes: Automatic or Start/Stop operation
  - 4 x 20 character LCD display with LED back lighting
  - Adjustable Maintenance advisories
  - Programmable "Distributor Contact Information" for maintenance
  - Maintenance advisories include part number
  - Easy to navigate to additional screens
  - Indicates capacity level at a glance

#### Optional Equipment

- Line reactors
- EMC filter
- Watercooled
- Communications/Sequence Module
- AEON 600FG-68 High Temp Food Grade Lubricant
- Auto water temperature regulator

# Gardner Denver®

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Please recycle after use.