

# Electra-Saver® Rotary Screw Air Compressors



**350–500 HP, SAV 350/400/500  
Variable Displacement Control**



#### **Turn Valve Part Load Technology**

- The patented Turn Valve is the most efficient part load capacity control system in the industry.
- Capable of reducing energy costs as much as 16%.
- At 65% load capacity, system requires only 75% of full load horsepower.
- Automatically compresses exactly the right amount of air required, assuring maximum efficiency and energy savings.

#### **Highly Efficient, Slow Turning Airend**

- Patented Kypho™ profile rotors are precision machined on advanced technology CNC matching centers for unrivaled performance.
- Increased bearing life (L-10 life in excess of 100,000 hours) due to large tapered roller bearings.

#### **Eliminator™ Air/Oil Separator**

- Eliminator™ has TWICE the surface area of conventional separators for better separation and longer life.
- Lowest carry-over in the industry—less than two parts per million, measured BEFORE the aftercooler, at 100 PSIG (6.9 bar), full load operation.

#### **Quality Components for Maximum Durability and Performance**

- Spin-on ten micron full-flow oil filters insure longer lubricant life and protection for all working parts.
- Rugged welded steel base solidly supports package without the need for additional foundation requirements.

#### **Standard Duty Inlet Air Filter**

- Standard panel-type filter on Electra-Saver units.
- Removes airborne particulate ten microns and larger.
- Extends lubricant life by almost 20%.

#### **Acoustic Enclosures**

- Robust vibration-free steel base.
- Unrestricted access to all primary service points for easy maintenance and cleaning.

#### **Auto Sentry® ES+ Solid State Electronic Controller**

- Most sophisticated, technically advanced microprocessor based control system in the compressor industry.
- Every control option available in the industry is standard on the Gardner Denver Auto Sentry® ES+ controller.
- More self-diagnostic capability than any other rotary screw compressor.
- Built-in ability to sequence up to eight compressors.
- User friendly readout. No codes to decipher. Digital and full text Vacuum Fluorescent Display (VFD).

**GD**  
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*Experience Proven Results*

## Standard Equipment

- Turn Valve automatic capacity control airend with modulating inlet valve
- Gear driven, D-flange mounted airend
- 460 volt, 60 HZ, 3 phase, 1800 RPM, 1.15 S.F., ODP, OR 380/415 volt, 50 HZ, 3 phase, 1500 RPM, 1.15 S.F., ODP D-flange motor, suitable for Wye-Delta starting
- Ten micron, panel type inlet air filter
- Airend and motor shafts coupled with permanently aligned, resilient cushion-type flexible coupling
- Unitized airend-motor assembly mounted to the compressor base with all angle, elastomer, vibration isolators
- Partial acoustic sound enclosure
- ASME coded air/oil reservoir with Eliminator™ separator
- Oil cooler/aftercooler:
  - Air cooled models - heavy duty radiator-type with thermally controlled, totally enclosed fan motor with remote mount NEMA 1 starter
  - Water cooled models - shell/tube heat exchanger
- Thermostatic oil mixing valve
- Moisture separator and trap
- Ten micron, full flow oil filter
- Corrosion resistant control lines and flow piping
- Robust steel base with hook eyes for crane lifting
- Pressure relief valve and discharge check valve
- Automatic blowdown valve with muffler
- Minimum discharge pressure valve
- All galvanized steel fittings and steel piping
- Corrosion resistant control line tubing
- Full sound attenuating enclosure (optional on domestic units)
- Factory fill with AEON™ 4000SP synthetic lubricant
- NEMA 12 control/electrical enclosure includes:
  - Control voltage transformer
  - Auto Sentry™ ES+ controller
  - U.L. listed and CSA certified electrics
- Auto Sentry™ ES+ microprocessor based, fully programmable touch pad controller with the following functions:
  - Full text Vacuum Fluorescent Display (VFD) with interactive compressor diagram
  - Operating mode selection: constant run, low demand with reservoir blowdown, automatic stop/start with timed blowdown and sequence (up to 8 units), all with modulating inlet valve or load/no load control
  - Emergency stop button
  - Complete system diagnostics through VFD:
    - Displays for hourmeter, loaded hours, total runtime, discharge air temperature, system/reservoir pressure, separator differential pressure and motor amps
    - Advisory lamps for air filter service, change separator, oil and oil filter change, low/high temperature, sequencing communication error and high motor amps
    - Protective shutdown lamps for high temperature, low oil pressure, main/fan motor overload, high pressure, change separator, choice of one field-selectable message
      - high vibration, phase relay, motor protector, low voltage
  - Power interruption relay
  - High speed electronic modulation control
  - Thermally controlled fan motor on air cooled units
  - Contacts for remote start/stop operation plus remote monitoring

## Optional Equipment

- Electro-Pneumatic Control System
- Automatic water temperature regulator
- Magnetic water control valve
- NEMA 4 (IP-66) control box enclosure
- Elevated oil cooler with remote mount NEMA 4 starter
- Factory fill AEON™ 6000FG Food Grade Lubricant
- Seacoast (air-cooled) coolers

## Performance 60 HZ, 350–500 HP

Motor HP/kW	Style	Model	Working Pressure		Air Delivery <sup>(1)</sup>	
			psig	bar	acfm	m <sup>3</sup> /min
350	SAV 350	EAY	100	6.9	1684	50.99
			125	8.6	1434	43.04
			150	10.3	1200	33.98
400	SAV 400	EAY	100	6.9	1943	58.62
			125	8.6	1652	50.40
			150	10.3	1500	42.48
500	SAV 500	EAY	100	6.9	2459	73.06
			125	8.6	2118	62.30
			150	10.3	1700	48.14

## Performance 50 HZ, 261–373 kW

350/ 261	SAV 350	EAY	100	6.9	1800	50.99
			125	8.6	1390	39.36
			150	10.3	1120	31.72
400/ 298	SAV 400	EAY	100	6.9	2070	58.62
			125	8.6	1670	47.29
			150	10.3	1310	37.10
500/ 373	SAV 500	EAY	100	6.9	2580	73.06
			125	8.6	2050	58.05
			150	10.3	1700	48.14

## Dimensions/Weights

HP	Approximate Dimensions <sup>(2)</sup>				Approximate Shipping Weight <sup>(3)</sup>	
		Length	Width	Height		Enclosed
350	in	153	84	77	lb	13,300
	mm	3886	2,134	1,956	kg	6,040
400	in	153	84	77	lb	13,700
	mm	3886	2,134	1,956	kg	6,230
500	in	153	84	77	lb	14,000
	mm	3886	2,134	1,956	kg	6,360

1. Capacity measured in accordance with CAGI/PNEUROP acceptance test code PN2CPTC2.
2. Dimensions shown are nominal for all unenclosed models and for quiet enclosed water cooled models. Width on all quiet enclosed air cooled models is 90" (2286 mm).
3. Weights shown are for air cooled models less shipping skid. Water cooled models weigh slightly less.

# Gardner Denver®

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Member

