

## Rotary Screw Air Compressors Electra-Saver®



### 200–350 HP, SAV 200/300/350 Variable Displacement Control

#### Turn Valve Part Load Technology

- The patented Turn Valve is the most efficient part load capacity control system in the industry.
- Kypho™ rotor design, coupled with turn valve technology, can reduce energy costs as much as 16%.
- 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 machining 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.
- Reduces pressure loss common with competitive separation designs

#### Simple Maintenance

- Wye-Delta reduced voltage starting minimizes power surges and eliminates costly power spikes.
- Easy access to air filter mounted directly to the inlet valve.

- Spin-on ten micron full-flow oil filters ensure longer lubricant life and protection for all working parts.
- Simplified access to air/oil separator

#### Heavy Duty Inlet Air Filter

- Standard canister-type filter on Electra-Saver units; usually an option with other manufacturers.
- Removes 99.9% airborne particulate five microns and larger.
- Extends lubricant life by almost 20%.

#### Acoustic Enclosures

- Optional acoustically treated steel enclosure with attenuation plenum provides quiet 77 dBA air cooled operation (73 dBA on water cooled units.)
- 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).

### Standard Equipment

- Turn Valve automatic capacity control airend
- Modulating inlet valve with selectable load/no load setting
- Intensive injection oil injection with quad port delivery
- D-flange mounted to Wye-Delta EPAct “energy efficient” drive motor:
  - 460 or 575 volt, 60 HZ, 3 phase, 1800 rpm, 1.15 S.F. ODP
  - 380 or 415 volt, 50 HZ, 3 phase, 1500 rpm, 1.15 S.F. ODP
- DX model includes 350 HP, oversized drive motor designed not to run into motor service factor @ 110 PSIG
- Airend and motor shafts coupled through a permanently aligned, cushion type flexible coupling
- Stainless steel control lines
- Unitized airend/motor assembly mounted to the compressor base with elastomeric, all-angle vibration isolators
- Heavy duty, all welded steel base with fork lift slots
- Heavy duty, canister type five micron inlet air filters
- ASME coded air/oil reservoir with Gardner Denver Eliminator™ separator element
- Air Cooled aftercooler and oil cooler are package mounted, industrial duty, high thermal transfer radiator type with thermally protected TEFC fan motor
- Water Cooled aftercooler and oil cooler are package mounted, heavy duty shell and tube heat exchangers
- Thermostatic oil mixing valve
- Moisture separator and trap, mounted
- Air/oil separator pressure relief valve
- Automatic blowdown valve through inlet filter
- Minimum discharge pressure/check valve
- All galvanized steel fittings and steel piping
- Stainless steel control line tubing
- Factory fill with AEON™ 9000SP rotary screw lubricant
- NEMA 12 electrical control enclosure includes Wye-Delta main motor starter, fan motor starter, control voltage transformer, ammeter, 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 Florescent 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
    - VFD Advisory lamps, light yellow on diagram, displays service for air filter, change separator, oil and oil filter change, low/high temperature, sequencing communication error, and high motor amps
    - VFD Protective shutdown lamps, light red on diagram, displays high temperature, low oil pressure, main motor overload, fan motor overload, high pressure, change separator, choice of one field-selectable message: high vibration, phase relay, motor protector, low voltage
  - Power interruption protection
  - High speed electronic modulation control
  - Thermally controlled fan motor on air cooled units
  - Contacts for remote start/stop operation plus remote monitoring

### Optional Equipment

- Quiet enclosure, 73 dBA water cooled, 77 dBA air cooled
- Remote mounted oil cooler and aftercooler for air-cooled models
- Alternate voltages, TEFC and high efficiency motors
- NEMA 4 control enclosure
- Seacoast (air cooled) or saltwater (water cooled) coolers
- Factory fill AEON™ 6000FG Food Grade Lubricant

### Performance 60 HZ, 200 - 350 HP

Motor HP/kW	Style	Model	Working Pressure		Air Delivery (1)	
			psig	bar	acfm	m <sup>3</sup> /min
200	SAV 200	EAU	100	6.9	974	27.58
			125	8.6	832	23.56
			150	10.3	735	20.81
250	SAV 250	EAU	100	6.9	1215	34.40
			125	8.6	1089	30.84
			150	10.3	950	26.90
300	SAV 300	EAU	100	6.9	1481	41.94
			125	8.6	1224	34.66
			150	10.3	1090	30.87
350	SAV 350 DX	EAU	100	6.9	1500	42.48
			110	7.6	1494	42.31

### Performance 50 HZ, 149 - 224 kW

200/ 149	SAV 200	EAU	100	6.9	974	27.58
			125	8.6	832	23.56
			150	10.3	640	18.12
250/ 185	SAV 250	EAU	100	6.9	1215	34.40
			125	8.6	1140	32.28
			150	10.3	900	25.49
300/ 224	SAV 300	EAU	100	6.9	1481	41.94
			125	8.6	1200	33.98
			150	10.3	940	26.62

### Dimensions/Weights

HP	Approximate Dimensions (2)				Approximate Shipping Weight (3)		
		Length	Width	Height		Enclosed	Open
200	in	124	72	74	lb	8064	7510
	mm	3150	1829	1880	kg	3658	3404
250	in	124	72	74	lb	8562	8008
	mm	3150	1829	1880	kg	3884	3632
300	in	124	72	74	lb	8666	8112
	mm	3150	1829	1880	kg	3931	3680
350DX (4)	in	124	72	74	lb	8812	8258
	mm	3150	1829	1880	kg	3997	3745

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.
4. Consult Customer Service for correct dimensions (500 Series motor frames are packaged in larger sizes due to voltage variations).

# Gardner Denver®

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