

Rotary Screw Air Compressors

Electra-Screw®



100 HP, ES 100+ Modulation Control

Direct Drive Non-Geared Airend

- Long-life cylindrical and tapered roller bearings ensure reliable, consistent operation.
- Permanent airend to motor connection via rigid, C-flange mounting.
- 6-8% improved full load operating efficiency provided by patented intensive injection lubrication system.

Rotors

- Patented Kypho™ rotor profile is the most efficient in the industry.
- Ground rotors using the latest technology provide top performance.
- Long-life cylindrical and tapered roller bearings ensure reliable, consistent operation.
- Extended bearing life due to vibration-free performance—a result of matched rotors and the highest quality 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.

Simple Maintenance

- Simplified access to air/oil separator requiring no piping removal to change separator elements. This reduces maintenance time by 90%!
- Easy access to the full-flow, ten micron oil filter, reduces time to complete periodic oil filter changes.

Acoustic Enclosures

- Low overall noise level—less than 80 dBA with optional low sound enclosure.
- Unrestricted access to airend and motor provided by lift-off panel.

Auto-Sentry® ES+ Series Solid State Electronic Controller

- Most sophisticated, technically advanced microprocessor based control system in the compressor industry—with simple user interface.
- 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.

Standard Equipment

- Direct drive, non-geared, C-flange mounted airend
- Modulating, vertical inlet valve
- Heavy duty, five micron, dry canister type inlet air filter mounted directly to the vertical inlet valve
- 460 volt, 3 phase, 60 HZ, EPAAct “energy efficient,” 1.15 S.F., ODP drive motor
- Airend and drive motor are coupled through a permanently aligned, resilient cushion-type flexible coupling
- Stainless steel control lines
- Unitized airend/motor assembly mounted to the compressor base with all angle elastomer vibration isolators
- ASME coded air/oil reservoir with exclusive Gardner Denver Eliminator™ separator element
- Oil cooler/aftercooler:
 - Air cooled models - heavy duty radiator type with thermally controlled totally enclosed fan motor
 - Water cooled models - shell and tube heat exchanger
- Thermostatic oil mixing valve
- Package mounted moisture separator and trap
- Ten micron full-flow oil filter
- Rigid steel base with forklift slots
- Air/oil separator pressure relief valve
- Automatic blowdown valve through inlet filter
- Minimum discharge pressure/check valve
- Lube system includes all galvanized steel fittings and piping
- Factory fill with AEON® 4000 Rotary Screw Lubricant (AEON® 9000SP International)
- Modulating capacity control system with automatic Low Demand Mode reservoir blowdown
- NEMA 12 electrical control enclosure including:
 - Mounted full voltage magnetic drive motor starter
 - Auto Sentry® ES+ microprocessor based controller
 - Control voltage transformer and hourmeter
 - Emergency stop push button
 - Fan motor starter
 - C.S.A. recognized electrical components and wiring
- 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 run-time, 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 plus remote monitoring

Optional Equipment

- Full acoustic enclosure with access doors
- NEMA 4 (IP66) control enclosure
- Seacoast (air-cooled) or salt water (water-cooled) coolers
- Factory fill AEON® 6000FG Food Grade synthetic lubricant
- Factory fill AEON® 9000SP synthetic lubricant
- Alternate voltages, TEFC or high efficiency motors
- Remote mounted air cooled aftercooler

Performance 60 HZ, 100 HP

Motor HP	Style	Model	Working Pressure		Air Delivery (1)	
			psig	bar	acfm	m ³ /min
100	ES 100+	ERH	100	6.9	475	13.5
			125	8.6	435	12.3

Dimensions/Weights

HP	Approximate Dimensions (2)				Approximate Shipping Weight (3)		
		Length	Width	Height	Enclosed	Open	
100	in	90	55	60	lb	3275	2825
	mm	2286	1422	1702	kg	1484	1280

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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