

# Electra-Screw® Rotary Screw Air Compressors



## 40–50 HP, ES 40/50 Modulation Control

### **Rotors**

- Patented Kypho™ rotor profile is the most efficient in the industry.
- Precision milled to exact tolerances.
- 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.
- Simple, patented system for adjusting belt drives.

### **Acoustic Enclosures**

- Low overall noise level—less than 80 dBA with optional standard enclosure. Quiet enclosure option reduces sound to 76 dBA.
- Unrestricted access to airend and motor provided by lift-off panel.

### **Control Piping**

- Safe, corrosive-free compressor operation is a direct benefit from stainless steel control lines, a standard Gardner Denver feature.
- Never any plastic tubing, rubber hoses or black piping.

### **Mounted Aftercooler**

- The factory mounted, heavy-duty, air-cooled aftercooler and moisture separator with trap effectively reduces discharge air temperature to within 15° F of ambient.

### **AirSmart™ Microprocessor Controller**

- Most complete electronic control in its class with unsurpassed self-diagnostic, protective shutdown, service advisory and full text digital display capabilities.
- Built-in selectable automatic restart and optional sequencing (up to 8 units) functions make the AirSmart™ the most versatile standard compressor control available.

**GD**  
**GARDNER DENVER™**

*Experience Proven Results™*

### Standard Equipment

- Rotary Screw Compressor with modulating inlet valve
- 460 volt, 3 phase, 60 HZ, EISA “energy efficient”, 1800 RPM, 1.15 SF, ODP drive motor with Standard 5-Year Warranty
- Adjustable sliding motor base
- OSHA approved steel drive guard
- Rigid steel base with forklift slots
- Stainless steel control lines
- Five micron dry-type air inlet filter
- ASME air/oil reservoir with Eliminator™ air/oil separator
- Ten micron full flow oil filter
- Heavy-duty radiator-type oil cooler/aftercooler
- Moisture separator and trap
- Pressure relief valve
- Air/oil separator pressure relief valve
- Minimum discharge pressure/check valve
- Thermal mixing valve
- Automatic blowdown valve with muffler
- All galvanized steel pipe fittings and steel piping
- Factory fill AEON™ 4000 Rotary Screw Lubricant
- Modulating capacity control system with automatic Low Demand Mode reservoir blowdown
- NEMA 4 electrical control enclosure including:
  - Mounted/wired full-voltage magnetic motor starter
  - Control voltage transformer
  - Hourmeter
  - Emergency stop button
- AirSmart microprocessor controller
  - Low voltage 24 VDC operation
  - Two pressure transducer inputs
  - Sequence capability for control of up to eight AirSmart controlled compressors <sup>(4)</sup>
  - RS-232 Serial communications for local monitoring <sup>(4)</sup>
  - Ethernet communications for remote monitoring <sup>(4)</sup>

### Optional Equipment

- Acoustic sound enclosure
- Communications/sequencing module
- Wye-Delta motor and starter (230 and 460 volt only)
- Factory-fill AEON® 9000SP synthetic lubricant
- Factory-fill AEON® 6000FG Food Grade lubricant
- Factory-fill AEON® 9000TH High Temperature lubricant
- Factory-fill AEON® BIO Biodegradable lubricant
- Alternate voltages, TEFC or high efficiency motor



### Performance 60 HZ, 40 – 50 HP

Motor HP	Style	Model	Working Pressure		Air Delivery (1)	
			psig	bar	acfm	m <sup>3</sup> /min
40	ES 40	EDE	100	6.9	179	5.09
			125	8.6	148	4.19
			150	10.3	136	3.85
			175	12.0	110	3.11
50	ES 50	EDE	100	6.9	212	6.00
			125	8.6	185	5.24
			150	10.3	160	4.53
			175	12.0	139	3.93

### Dimensions/Weights

Motor HP	Approximate Dimensions (2)				Approximate Shipping Weight (3)	
		Length	Width	Height	Enclosed	Open
40	in	70	42	43.5	lb	1950
	mm	1778	1067	1105	kg	885
50	in	70	42	43.5	lb	2010
	mm	1778	1067	1105	kg	912

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. With optional communications/sequencing module.

# Gardner Denver®

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