



Oil-less Rotary Scroll Compressors

SE Series 3-40 HP

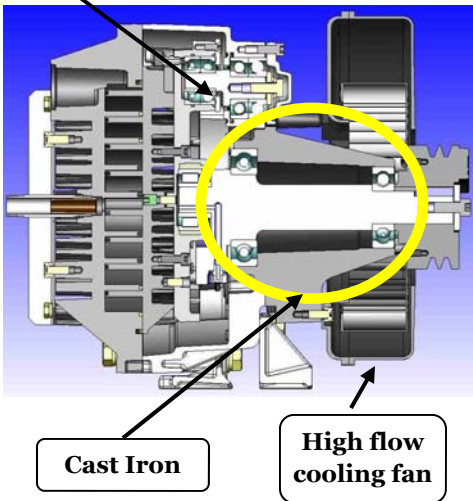


..... Advancing the art of scroll technology since 1991



Powerex introduced the first dry scroll to the US oil-less compressor market in 1989. Our technology and expertise in clean, dry air systems is unmatched. Powerex manufactures compressors, pumps, air receivers, control panels, air dryers, dew point monitors, and more, to provide a total system approach to your air compressor needs. All facilities are ISO9001 registered so you can be assured of the highest quality. The enclosed scroll compressors feature compact footprints, energy efficient operation, low maintenance, and environmentally friendly design, all in one complete package.

**Patented grease-able pin crank bearings**



### TECHNOLOGY AND INNOVATION

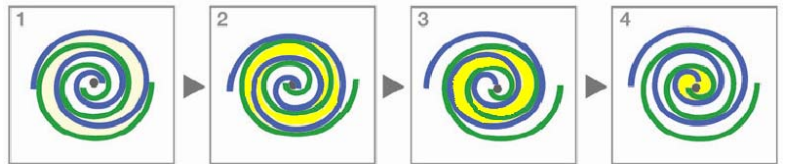
The best ideas seem so simple. The rotary design has few moving parts making it reliable and easier to maintain. The self lubricating tip seals, and absence of a gearbox means the pump is truly 100% oil free.

As the leaders in scroll pump technology, our latest design incorporates several innovative features:

- Main bearings are housed in durable cast iron instead of aluminum which prevents fretting and premature failure of the bearing race. This pump can be operated at 100% duty with confidence.
- A patented bearing re-grease feature also allows maintenance from the front side of the pump.
- The patented tip seal design yields the highest flow rates and longevity of any other dry scroll compressor.
- The improved efficiency and cooling results in lower operating temperatures.
- Extremely low vibration

## 3-5 HP Simplex Models

- Extremely quiet sound enclosure: 49-51 dB(A)
- 3-5 HP systems are UL/CSA Certified<sup>1</sup>
- Integral 13 gallon tank ASME / CRN
- Inlet filtration with replaceable element
- Front mounted control panel includes:
  - On / Off switch
  - Power on light
  - High temperature shutdown with indication light
  - Run time hour meter
  - Pressure gauge
  - Automatic start/stop operation
  - Control voltage starter with motor overload protection
- Internal vibration isolators
- Air-cooled aftercooler
- ODP Motor



### COMPRESSION PRINCIPLE

As the orbiting scroll orbits from No.1 to No.4 position, a crescent-shaped cavity is gradually reduced, compressing the air and exhausting it through the final discharge point at the center.

### SOUND ENCLOSURE CABINET

Each system is packaged in a rigid steel frame with powder coated panels and lined with sound deadening insulation. The low noise levels are unmatched in the industry and allow the compressor to be installed right at the point of use. Our small footprint maximizes your floor space.



### ELIMINATE WASTE

With no oil in the compressor you can rest assured that you are doing your part for the environment.

<sup>1</sup>— With the exception of 5 HP single phase units, which only have a UL508A listed control panel.

## Multiplex Models 10 to 40 HP



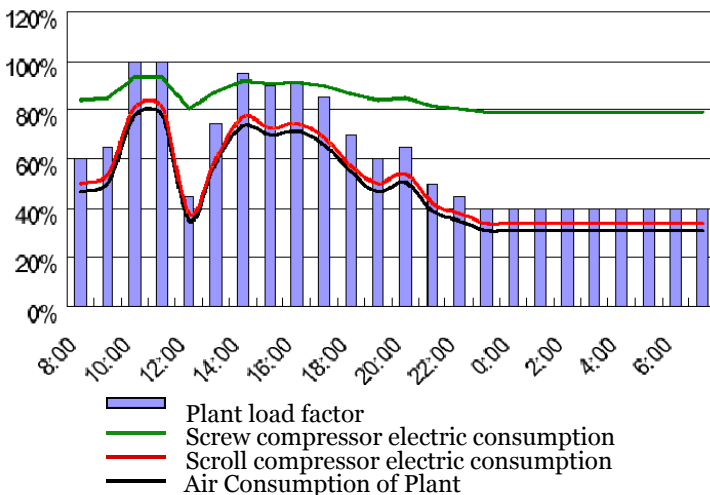
- Extremely quiet sound enclosure: 53-60 dB(A)
- 10-20 HP systems are UL/CSA Certified
- Front Mounted Control Panel includes:
  - On / Off switch
  - Power on light
  - Touch screen digital display
  - Run time hour meter for each pump
  - High air temperature shutdown with indication on the display
  - Full voltage starter with overload protection
  - Maintenance counter with alarm warning display
  - System pressure display
  - General compressor fault with remote contacts
  - Automatic start/stop control with energy saving Variable-Pump-Drive system
- Internal vibration isolators
- Inlet filtration with replaceable elements
- Air-cooled aftercooler for each compressor
- TEFC Motor

### REDUNDANCY

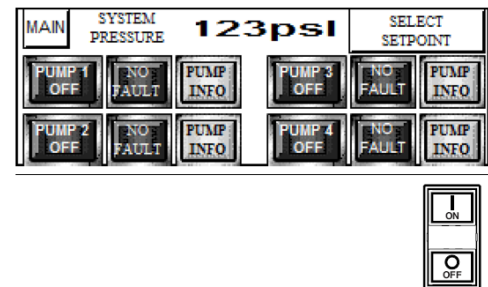
It's built right in with our multiple pump design, eliminating the need to purchase an additional compressor.

### SAVE ENERGY

With the Powerex Variable-Pump-Drive system, each compressor pump is automatically staged on/off individually based on actual system demand. Energy efficiency is maximized at all usage levels. Lead compressor status will alternate every time a pump is called for, or every 10 minutes, whichever comes first. This will maintain equal run hours and extend maintenance intervals.



The graph shows the relationship of daily air consumption of the plant and the corresponding electrical consumption of the compressor. When air consumption fluctuates the variable pump drive control logic is much more efficient.



### ADVANCED CONTROLS 10-40 HP

The system display shows current operating conditions, pump run status, system pressure, run hours, and alarms. The onboard diagnostic system constantly monitors the system and alerts the user of any problems or service required. Advanced control logic determines when to stage compressors to yield maximum energy efficiency.

### TOTAL SYSTEM APPROACH

We know how critical the air purity is for your application and can provide a complete solution. From individual components to complete turnkey packaged systems with air receivers, desiccant or refrigerated air dryers, filtration down to .01 micron, air quality monitoring and more.

# ENGINEERING SPECIFICATIONS

Model	Installed Motor HP	Maximum Pressure PSIG*	Performance SCFM @ 100 PSIG	Operating Pressure PSIG**	Noise Level dB(A)	Integral Receiver Gallons	Discharge Connection	Dimensions L x W x H Inches	Weight of Unit (lbs.)
SES0308 <sup>1,2</sup>	3	116	8.8	95-115	49	13	3/8"	34 x 21 x 33	310
SES0508 <sup>1,2</sup>	5	116	15.2	95-115	51	13	3/8"	34 x 21 x 33	335
SED1007	10	116	30.5	90-116	53	-	1"	38 x 26 x 61	825
SET1507	15	116	45.7	90-116	56	-	1"	38 x 26 x 61	965
SEQ2007	20	116	61	90-116	58	-	1"	38 x 26 x 61	1125
SEH3007	30	116	91.5	90-116	59	-	1"	38 x 58 x 62	1640
SEO4007	40	116	122	90-116	60	-	1"	38 x 58 x 62	2000

Model	Installed Motor HP	Maximum Pressure PSIG*	Performance SCFM @ 145 PSIG	Operating Pressure PSIG**	Noise Level dB(A)	Integral Receiver Gallons	Discharge Connection	Dimensions L x W x H Inches	Weight of Unit (lbs.)
SES0308HP <sup>1,2</sup>	3	145	7.1	115-145	49	13	3/8"	34 x 21 x 33	310
SES0508HP <sup>1,2</sup>	5	145	12.5	115-145	51	13	3/8"	34 x 21 x 33	335
SED1007HP	10	145	25	119-145	53	-	1"	38 x 26 x 61	825
SET1507HP	15	145	37.5	119-145	56	-	1"	38 x 26 x 61	965
SEQ2007HP	20	145	50	119-145	58	-	1"	38 x 26 x 61	1125
SEH3007HP	30	145	75	119-145	59	-	1"	38 x 58 x 62	1640
SEO4007HP	40	145	100	119-145	60	-	1"	38 x 58 x 62	2000

<sup>1</sup> Single phase models use motors that require input voltage of 230V.

<sup>2</sup> Single phase 3HP units will require the installation of an additional 30 gal. external tank and 5HP units will require the installation of an additional 60 gal. external tank

\*Performance and maximum pressure shown at sea level conditions.

\*\* Operating pressure range adjustable (consult factory for parameters).

## ACCESSORIES AND OPTIONS

- Air Receivers 30— 600 Gallon
- Corrosion resistant tank lining
- Auto tank drains
- Desiccant air treatment systems
- Refrigerated air treatment systems
- Remote inlet filters
- Master lead/lag controllers for multiple cabinets
- NFPA 99 Compliant Systems
- Laboratory system packaging
- Air quality monitors (CO, Dew point)
- Special motors (premium efficient, 50Hz)



150 Production Drive, Harrison, Ohio 45030  
 Telephone:(888)769-7979 Fax: (513)367-3125  
 www. Powerexinc.com

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