Engineered to Save

L45SR - L75SR - L120SR
Speed Regulated Rotary Screw Compressors
Speed Regulated Rotary Screw Compressors

Reliable compressed air provided at maximum efficiency under all operating conditions with quick, economical servicing as standard.

The CompAir LSR Series of rotary screw air compressors incorporates a variable speed switched reluctance drive system of outstanding efficiency, offering the ability to precisely match power consumption with air demand.

Maximum efficiency at any level of demand cuts energy costs and saves money

The ability to precisely match output to demand allows the compressors to consume exactly the right amount of energy to do the job, and no more. This is achieved by varying the speed of the drive motor with a level of efficiency which cannot be matched by any other conventional variable speed drive system.

In addition, precise pressure control and smooth acceleration and deceleration of rotary components extends service life improving payback on your investment.

Proven and dependable switched reluctance drive systems in a new application concept

CompAir’s switched reluctance drive systems offer the most significant technological advance in rotary drives since the inception of the induction motor over a century ago and, combined with the latest features for control and monitoring, overcome many of the commonly accepted disadvantages of induction motors, still used in many applications today.

LSR Series compressors are able to accurately maintain a set pressure while responding instantly to changes in air demand. Maintaining air system pressure at an exact pre-set level eliminates the need to operate within pressure bands, enhancing efficiency still further. The quality of your process or product can also be improved with the guarantee of constant, unchanging air system pressure.
Saves Energy Costs
Regulates compressor speed to match output to system demand. Eliminates run-on time during periods of low system demand. Eliminates over pressurization.

Implements Process or Product Quality
Constant pressure air supply.

Unique Switched Reluctance Drive System
Higher efficiency than alternative variable speed drives. Simple motor and controller design. Established, proven and reliable.

Reduces Electrical and Mechanical Loads
Soft starting with no current peaks.

Economical to Maintain
Grouped service components reduce down time and simplify servicing.

Easy to Install and Operate
Low noise level, free standing and simple operator controls.

The LSR Series of compressors are designed to operate effectively as stand alone units or in conjunction with other compressor packages to provide maximum air efficiency at all times.
Remarkable energy savings
Air compressors are designed to be capable of performing continuously at maximum output capacity and the CompAir LSR Series is no exception.

Surveys show, however, that maximum capacity is only required at limited, peak times with a majority of air compressors operating at an average 50% - 70% of full capacity. Below maximum capacity is where the true energy saving potential of the LSR Series can be realized.

With energy consumption in near perfect proportion to demand, the energy wasted with conventional regulation systems can be saved. Combine this energy saving concept with the CompAir designed, developed and manufactured compression element, giving high air output for minimum power consumption, and you have a formidable duo with significant energy saving potential.
Enhanced reliability
The CompAir Switched Reluctance drive systems are inherently soft starting, with smooth and controlled acceleration and deceleration, reducing stress on mechanical and electrical components. Compared to conventional variable speed drives, the electronically controlled regulation of the LSR Series simplifies system construction resulting in a ‘less to go wrong’ enhanced reliability concept.

Quality you can rely on
An ISO9001 certified design and manufacturing process, continuously audited by our internal auditors ensures a high quality and reliable product.

Easy to install
The compressor’s small installation footprint, lifting slots and vertical air discharge simplify installation.

Easy starting
All conventional motor drive systems require a high starting peak current. The LSR Series compressor drive system, however, is able to start without any increase in power supply current above normal running levels, reducing stress on the site power supply system and eliminating peak current energy cost penalties.

Easy to operate
The compressor controller continuously protects your investment by monitoring every vital operational parameter. Once installed and commissioned, just tell any of the LSR Series compressors what pressure you require and press the start button.
Easy to maintain
The compressor is designed to help reduce maintenance costs. It will provide you with advance indication of service requirements allowing you to schedule maintenance at convenient times.

Servicing is simple, quick and economical. All routine maintenance parts are conveniently grouped behind the hinged and removable service door, providing instant access and reducing service times.

LSR Series compressors represent CompAir’s commitment to providing innovative and high technology solutions for complete compressed air systems.

Typical Air/Oil Flow Diagram

L45SR
L75SR
L120SR
### Technical Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Drive Motor HP</th>
<th>Drive Max Free Air Delivered Minimum-Maximum cfm</th>
<th>Dimensions (ins.)</th>
<th>Noise Level** (at 70% Load)</th>
<th>Weight lbs.</th>
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### Key to diagrams

1. Switched Reluctance Motor Controller
2. Switched Reluctance Motor
3. Air Intake Filter
4. Non Return Valve
5. Temperature Sensor
6. Air Compression Element
7. Reclaimer Vessel
8. Air/Oil Separator Element
9. Minimum Pressure Non Return Valve
10. Oil Cooler
11. Air Cooler
12. Oil Filters
13. Pressure Sensor

### Annual Cost of Ownership

- **Compressed Air:** 82%
- **Oil:** 6%
- **Air:** 10%
- **Compressed Air/Oil:** 2%

- **A typical oil lubricated rotary screw air compressor operating at 70% load.**
- **SAVINGS:** 21%
- **Energy Cost:** 62%
- **Maintenance and Service:** 22%
- **Purchase Price:** 5%

- **A typical comparison of an LSR Series compressor with a conventional air compressor.**
- **Energy Cost:** 62%
- **Maintenance and Service:** 22%
- **Purchase Price:** 5%
- **SAVINGS:** 21%

- **Maintenance and Service:** 30%
Intelligent Air Technology

Compressed air solutions for every application

Compressors
Up to 2750 cfm
1 - 604 hp
Up to 6000 psi

Lubricated
Rotary Vane
Single Stage Screw
Speed Regulated Screw
Piston
Portable

Oil-Free
Two Stage Screw
Water-Sealed Screw
Piston
Portable

Complete Accessories Program
Filters and Dryers
Cooling Systems
Heat Recovery
Condensate Management
Air Receivers
Multi-Set Controllers
Lubricants

Value Added Services
Air Audit
Performance Reporting
Utility Air
Performance Contracting

Complete Service for Compressed Air Technology
Engineering of Complete Compressor Stations
Local Service Centers
Guaranteed Parts Availability

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