



LS SERIES

Oil-Flooded Rotary Screw Air Compressors

90–160 kW ■ 7/8/10/12.5 bar



LEGENDARY SULLAIR DURABILITY MEETS UNPRECEDENTED
SULLAIR PERFORMANCE

For more than 50 years, Sullair has built a reputation of durability.
Put simply—Sullair compressors last.

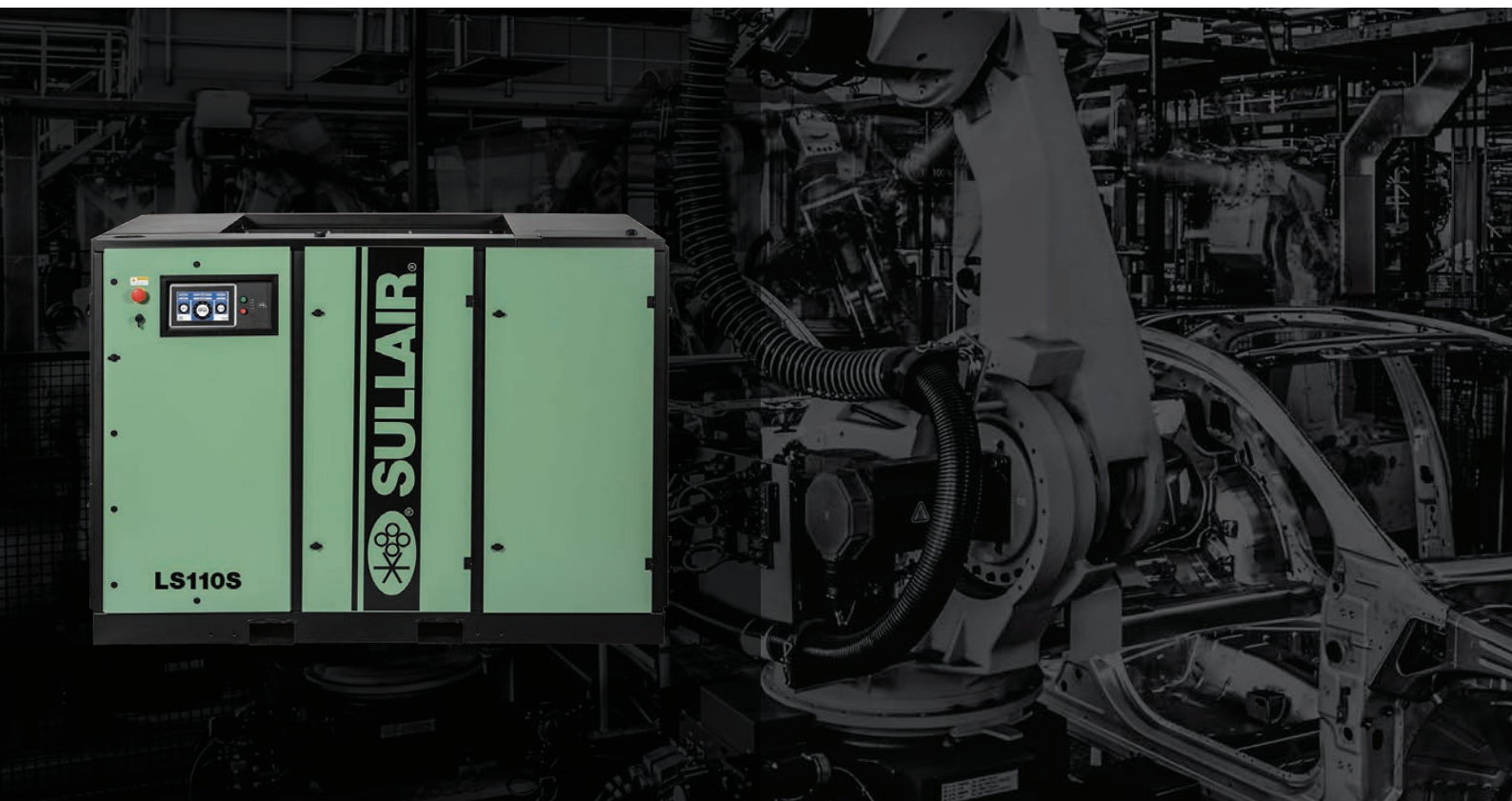
Sullair presents the LS Series of lubricated rotary screw compressors.
These machines combine our heritage of durability and reliability,
while adding unprecedented ease of use and performance benefits.

Available in kW ranges from 90 - 160.



- 
- **STEEL MILLS**
 - **TIRE PLANTS**
 - **AUTOMOTIVE**
 - **FORGING PLANTS**
 - **CHEMICAL PROCESSING**
 - **PAPER INDUSTRY**
 - **LARGE MANUFACTURING FACILITIES**





PRECISION PERFORMANCE

World-Class Efficiency

Less energy to power your compressors means more savings

- **Next Generation Sullair Air End:** Designed to be the most efficient Sullair Air End ever
- **Sullair Electronic Spiral Valve Technology:** Proven Sullair Spiral Valve performance now with more precision and control to help match capacity to system demand (*optional feature*)
- **Variable Speed Drive:** Provides maximum energy efficiency and operating consistency by adjusting the speed of the motor to match compressed air supply needed (*optional feature*)

Ease of Service & Use

Easier and more intuitive operating and servicing

- **10" Sullair Touch Screen Controller (STS):** Provides easy access to all key compressor performance parameters
- **AirLinx® Remote Connectivity:** Remote monitoring of compressor functions is fast and easy from any web-enabled device—computer, tablet or phone
- **Streamlined Service & Maintenance:** Enclosed unit features easily removable hinged door panels

Legendary Sullair Durability

Expect more uptime, for a longer time

- **Next Generation Sullair Air End:** Simplified design with the same bulletproof quality we've produced for decades
- **Standard TEFC Motor:** Offers increased protection against weather, dirt and moisture
- **World-Class Components:** Help ensure long life, even under extreme operating conditions
- **Standard Full Base Frame:** Helps keep dirt and dust out of the unit

SULLAIR 10-YEAR DIAMOND WARRANTY

The Sullair 10-Year Diamond Warranty provides comprehensive protection for Sullair lubricated rotary screw air compressors. This program distinguishes itself by covering all major components for new air compressors (with discharge pressures up to 150 psi):

10-Year Coverage:

Sullair Air End

5-Year Coverage:

Main motor
Fan motor
Aftercooler
Oil cooler
Separator vessel
Variable speed drive (if equipped)

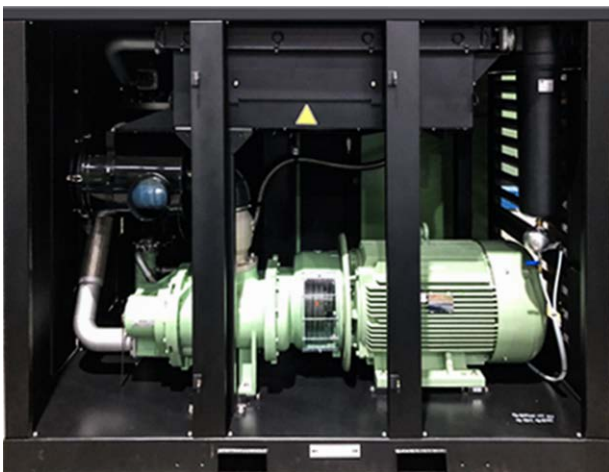


Maintaining the Sullair 10-Year Diamond Warranty requires using Genuine Sullair parts and Sullube®, as well as the oil sampling program. Restrictions apply.

PERFORMANCE MATTERS

THE HEART OF A SULLAIR COMPRESSOR

THE SULLAIR AIR END



Sullair has more than five decades with rotary screw technology, and we keep finding ways to improve it.

The next generation of Sullair Air Ends combines decades of experience in designing and manufacturing rotors—the most important part of the air end—with the latest in research and technology. Our next generation air end continues to feature asymmetrical rotors precision milled for ultimate performance. The Sullair Air End now includes:

- Simpler design for increased uptime. Sullair engineers have developed the latest generation of air ends with the optimal number of parts, using new casting technologies
- Larger rotor profile for increased efficiency

FEATURES THAT PERFORM. BENEFITS THAT COUNT.

A Sullair compressor is much greater than the sum of its parts. The LS 90 - 160 Series features a next generation package design, in which all components are specially designed, engineered and manufactured to perform at the highest levels.



Air End

The heart of all compressors, Sullair Air Ends are known worldwide for their durability. The next generation design features:

- Updated casting featuring internally ported lubricant passages
 - Asymmetrical rotors designed, engineered and manufactured in the USA
- Proven bearing design to extend bearing life

Sullair Air Ends are protected by the exclusive Sullair Diamond Warranty for 10 years*

Sullair Air-Fluid Separator

- Designed for low pressure drop, reducing energy requirements
- High-efficiency media maximizes oil removal from compressed air
- Low carryover (<4ppm) means fewer lubricant top-offs needed
- PED

Cooling System

- Heavy-duty, oversized cooling system designed for 46°C applications
- Easy-clean access panels designed in the package
- Separate oil cooler and aftercooler reduces imbalanced temperature loads

Motor

- TEFC premium efficiency motor (IE3)
 - TEFC super premium efficiency motor (IE4) available on select models
- Class F insulation, Class B rise for higher temperature operation

Capacity Control Options

- **Electronic Spiral Valve:** Proven Sullair Spiral Valve Technology—now with electronic precision and control to more tightly match supply to system demand
- **Variable Speed Drive (VSD):** Provides maximum energy efficiency and operating consistency by adjusting motor speed to match compressed air supply needs

Highest Quality Lubricants

- Genuine Sullube® standard
 - 10,000-hour, non-varnishing fluid protects and cleans your compressor
 - Polyglycol base provides optimal viscosity and helps optimize operating temperatures
- Optional PristineFG™ food-grade lubricant

Sullair Touch Screen (STS) Controller

- 10" color screen for easy viewing and intuitive operation
- Menu-driven screens offer easy access to compressor controls
- Integrated graphing and trending to analyze compressor performance
- Sequencing up to 16 compressors

AirLinx® Remote Monitoring

- Connect anywhere to keep an eye on compressor operation, and reduce the risk of unplanned downtime
- Monitor pressure and temperature, as well as running hours and service hours
- Alerts for service and warnings
- Data stored at 15-minute intervals
- Customizable reporting, from Basic to Advanced
- Real-time information through cellular connection

AirLinx optional on some models

Plus—the following features are standard on the LS Series:

- Wye-Delta starter
- Zero loss drain
- Phase monitor
- Enclosure with hinged panels—easily removable for service
- Full floor to help keep dust and debris out

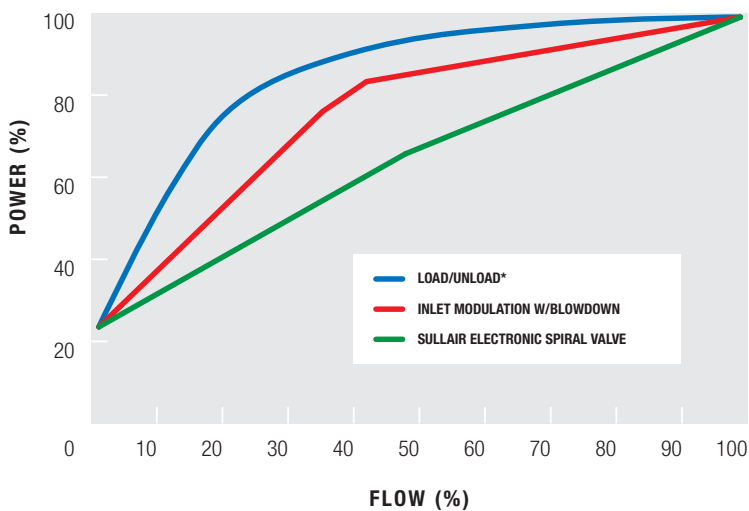


**Sullair Diamond Warranty applies to compressors with operating pressures up to 150 psi (10 bar). Maintaining the Sullair 10-Year Diamond Warranty requires using Sullair Genuine Parts and Sullube, as well as the oil sampling program. Restrictions apply.*

CAPACITY CONTROL OPTIONS

ELECTRONIC SPIRAL VALVE

COMPRESSOR PERFORMANCE COMPARISON



60 Hz model data used for graphic representative

The costs to operate an air compressor—especially energy costs—can quickly exceed the initial purchase price. Effectively matching compressor production capacity to your facility needs is the best way to save both energy and money.

Comparison powered by **AirSuite** 

* L/UL curve assumes 1 gal/cfm storage; 30 second blowdown
All power curves calculated using CAGI data.

Sullair Electronic Spiral Valve Technology

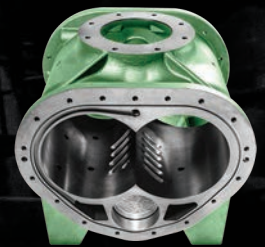
Sullair LS Series compressors are now available with Electronic Spiral Valve Technology. This feature combines the performance and reliability Sullair is known for in spiral valve technology with the ease and precision of touch screen controls.

Spiral valve technology represents an energy-efficient control scheme which helps match compressor displacement to demand. Managed by the Sullair Touch Screen Controller, the Electronic Spiral Valve maintains a tight 1 psi (<.1 bar) control band—closely matching machine supply to demand.

Variable Displacement Air End

Compressors with Electronic Spiral Valve feature a variable displacement air end. Compression volume is varied to suit air demand by progressively opening or closing internal bypass ports on the air end.

- Closed bypass ports utilize the entire length of the rotor and compression chamber
- Partially open and open bypass ports reduce the length of the rotor used for air compression, which in turn utilizes less energy



BYPASS PORTS IN STATOR

Rotors removed to show Bypass Ports

Spiral Valve Benefits

- Capacity is closely matched to system demand, reducing cycling time and extending component life
- Multiple spiral valve compressors may be sequenced to operate in synchronous fashion
- Up to 55% turndown capability with Electronic Spiral Valve
- Outstanding energy efficiency in all operating conditions, including:
 - High elevation
 - Dirty environments

CLOSED BYPASS PORTS

When the bypass ports are closed, the full compression chamber is used.



PARTIALLY OPEN BYPASS PORTS

With the bypass ports partially open, the compression chamber is shortened. Less intake air is fully compressed, saving energy.



OPEN BYPASS PORTS

Fully open bypass ports further shorten the compression chamber providing maximum turndown.



The Sullair LS Series is the first to offer Electronic Spiral Valve operation with Sullair compressors. Electronic Spiral Valves offer more precision when compared to manually operated spiral valves.

CAPACITY CONTROL OPTIONS

VARIABLE SPEED DRIVE

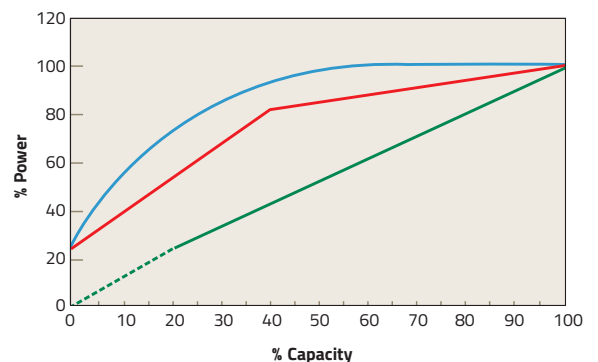
MAXIMIZE ENERGY EFFICIENCY AND OPERATING CONSISTENCY

Variable Speed Drive (VSD) allows a compressor to automatically adjust motor speed, matching output to demand.

Sullair Compressors with VSD Provide:

Excellent energy savings—only compressed air needed is produced

- Relief from potential peak demand charges
- Flexibility for future growth—both capacity and pressure may be varied
- Lowest life-cycle cost
- DC link choke
- Stable system pressure
 - Helps ensure consistent product quality
 - Reduced system air leaks
 - Reduced storage requirements



Reference: Compressed Air and Gas Handbook, 6th Edition, pages 221-223.

The chart is a representation of nominal 60 Hz control systems for generic comparative purposes. A detailed and accurate comparison of specific compressor models is available from your authorized distributor.

	Current	Recent	Lifetime
Capacity	702	413	413
Capacity %	100.0%	58.0%	58.0%
Power	137	89	89
Power %	100.0%	64.0%	64.0%
Hours		0:52hr	0:52hr
Total Delivery		21	21
Total Energy		77	77
Total Cost		5	5
Savings vs Load/Unload		1	1
Savings vs Inlet Modulation		0	0
Savings vs Variable Displacement		0	0

RESET

10 bar

YOUR COMPRESSED AIR SYSTEM CAN IMPROVE YOUR BOTTOM LINE:

35% Energy Savings Potential in the First Five Years

In just five years, the electrical power cost to operate a standard compressor can be more than six times greater than its purchase price.

Total Compressor Flexibility

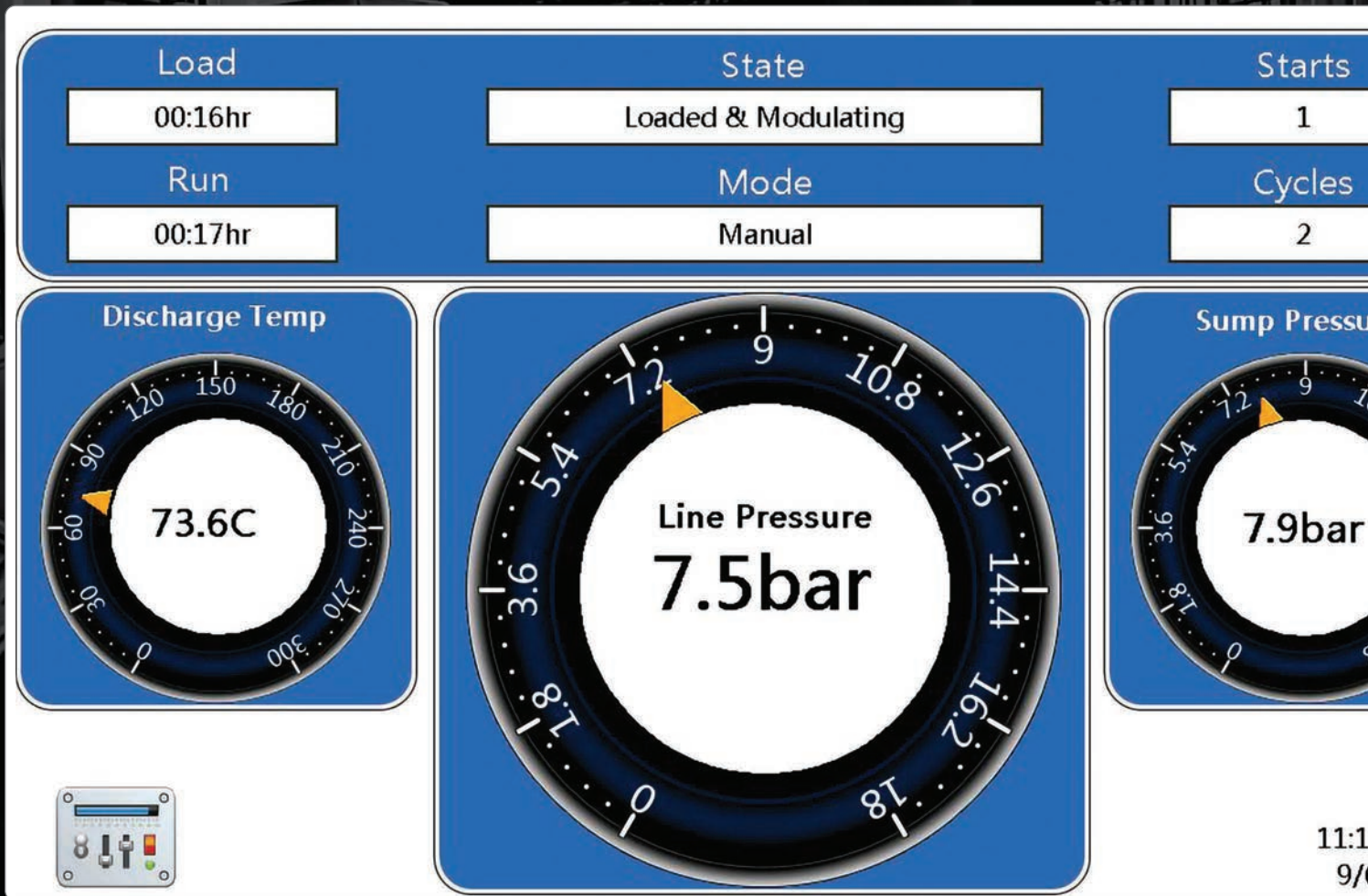
Sullair VSD compressors provide flexibility to vary both capacity and pressure. This allows you to “grow” your air system without adding more compressors.

Soft Start is Standard with Unlimited Starts and Stops

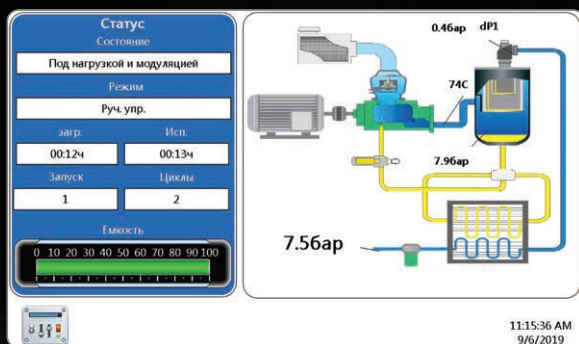
- No need for Wye Delta and other soft starters
- No need to control the number of hot or cold starts
- Unlimited starts and stops save electrical costs
- Avoids high electrical current at start-up

ULTIMATE IN USER CONTROL

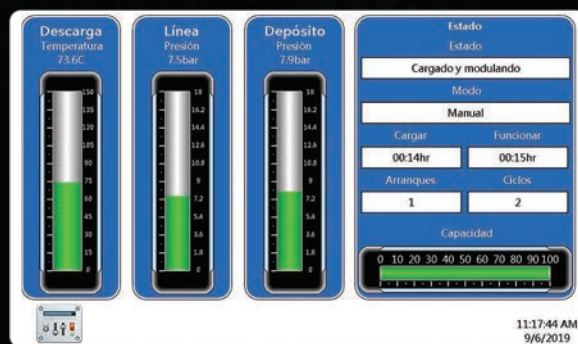
The Sullair Touch Screen (STS) Controller utilizes a large 10" color screen for easy viewing in any lighting conditions



Actual Size



Optional Mimic Screen



Optional Analog /Digital Screen



Menu-driven screens provide easy access to all compressor controls

- Support for sequencing up to 16 compressors
- More communication capabilities: Ethernet, ModBus RTU and ModBus TCP, Cellular (AirLinx service)
- Start/Stop scheduling with pressure control
- NEMA 4 environmental protection
- Discreet Start and Stop 22mm buttons
- Bright operating status LEDs even when display is dimmed
- Expandable I/O for additional sensor monitoring and output control
- Electronic Spiral Valve (if equipped) control for precise pressure regulation
- Supports power monitoring
- Trend graphing of operational parameters
- Most controller functions and adjustments via protected controller submenus
- New data download capabilities

AirLinx® Remote Monitoring

AirLinx enables you to stay connected to your compressor operations wherever you are. It provides automated service and fault alerts, as well as access to a portal where system performance can be viewed. AirLinx reduces the risk of unplanned downtime and ensures timely service.

AirLinx Service Features

- Pressure monitoring
- Compressor temperature monitoring
- Running hours and service hours monitoring
- Running hours monitoring
- Alerts for service and warnings breakdowns
- Data stored at 15-minute intervals

AirLinx optional on some models.

Provides VSD load profile graphing capabilities

- One year of data retained on the cloud

AirLinx can be customized to provide different service levels:

Basic: Email notifications for fault and warning conditions

Advanced: Tracking and visualizing all relevant performance parameters with reporting tools to support the management of the compressor system



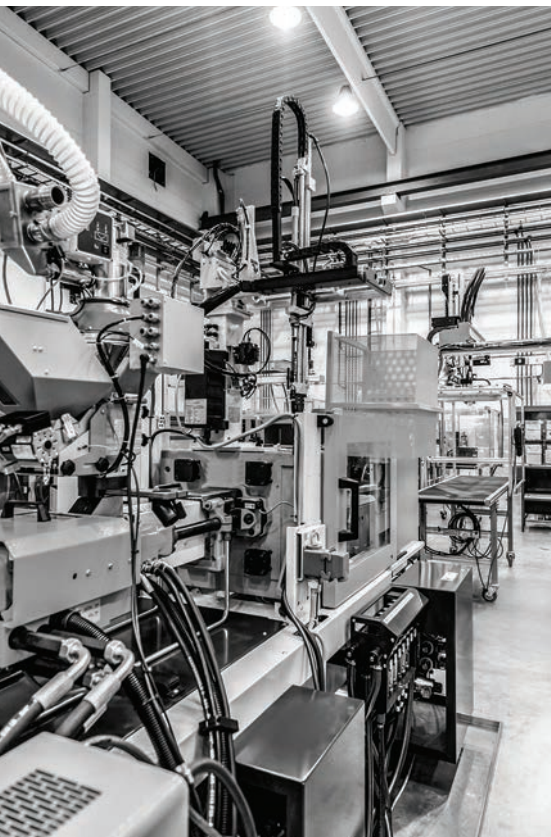


OPTIMIZING YOUR COMPRESSED AIR OPERATIONS

Sullair Air Treatment

A well-designed air treatment system has a number of critical stages, each contributing to the goal of clean, dry air. Sullair provides a comprehensive portfolio of options to help you achieve your air quality objectives.

- **Dryers**—refrigerated and desiccant—with flow capacities from .08 to 283.2+ m³/min, to help keep moisture out of your compressed air system
- **Filtration and Mist Eliminators**—designed to help keep contaminants out of the air stream
- **Oil/Water Separators**—designed to manage condensate discharge
- **Drains**—designed to remove condensate from compressors, dryers and filters
- **Flow Controllers**—designed to help minimize significant fluctuations in compressed air supply and demand



Energy costs associated with compressed air operations are typically one of the largest expenditures in a facility.

A Sullair air audit can help maximize your compressed air investment by identifying savings throughout your operations. It helps ensure that the right compressor, air treatment, piping and other features are properly specified—both today and in the future.

Sullair air audits are detailed reports providing information necessary to make sound decisions based on facts. Tailored around United States Department of Energy standards, Sullair air audits review the entire compressed air system, from supply to distribution to use.

GENUINE PARTS. ORIGINAL LUBRICANTS.

Sullair LS Series compressors feature Sullair Genuine Parts and Sullair Original Lubricants—designed, formulated and manufactured to optimize the operation of your Sullair compressor. Use of Sullair Genuine Parts and Sullair Original Lubricants helps keep your compressor operating efficiently while protecting your warranty.

Sullair Genuine Parts

Sullair Genuine Parts included in the Sullair LS Series:

- Sullair Oil Filters—designed to remove contaminants—extending the life of your compressor lubricant while helping to protect internal components

Contact your authorized Sullair distributor to learn more about Sullair Genuine Parts available for your Sullair compressor.



Sullair Service and Support

When you invest in a Sullair air compressor, you get more than just an asset in your facility—you get global service and support.

Sullair Authorized Distributors

Sullair Authorized Distributors span the globe, providing local service and support before, during and after the sale. Sullair Authorized Distributors offer:

- Sales and installation of complete compressed air systems and packages
- Air audits
- Preventive maintenance and service
- Emergency service

Sullair Authorized Distributors are your source for Sullair Genuine Parts and Genuine Sullair Fluids.

Sullair Service Department

The Sullair service department provides responsive, knowledgeable service, including on-site and factory-based technical assistance to Sullair customers around the globe.

Genuine Sullube® by Sullair

Sullube is an extended-life, polyglycol base, synthetic fluid for stationary rotary screw air compressors. Genuine Sullube is the standard factory fill for Sullair LS Series air compressors. Proven for more than a quarter century, this long-lasting fluid costs less per hour over your compressor's life.

Sullube prevents the formation of varnish—the leading cause of air end failure among rotary screw compressors—and keeps your compressors running exceptionally clean and cool. A well-running compressor is key to maintaining an efficient operation with more uptime.

- One of the longest useful lives in the industry—up to 10,000 hours
- High flash point for reliable and safe operation
- High thermal conductivity helps dissipate heat
- Environmentally friendly—compressor condensate is biodegradable

Optional Lubricants

PristineFG™ Food Grade Lubricant is designed for use in food, beverage and pharmaceutical applications. It meets USDA and FDA H1 requirements for use in food processing areas. PristineFG lasts up to 6000 hours, one of the longest useful lives of any food grade lubricant available.

ABOUT SULLAIR

For more than 50 years, Sullair has been on the leading edge of compressed air solutions. We were one of the first to execute rotary screw technology in our air compressors, and our machines are famous all over the world for their legendary durability. As the industry moves forward, Sullair will always be at the forefront with quality people, innovative solutions, and air compressors that are built to last.

Sullair was founded in Michigan City, Indiana in 1965, and has since expanded with a broad international network to serve customers in every corner of the globe. Sullair has offices in Chicago and manufacturing facilities in the United States and China — all ISO 9001 certified to ensure the highest quality standards in manufacturing. In addition, the Sullair Suzhou facility is ISO 14001 and OHSAS 18001 certified.

Sullair is A Hitachi Group Company



LUBRICATED ROTARY SCREW



OIL FREE ROTARY SCREW

**RELIABILITY.
DURABILITY.
PERFORMANCE.**

These are the pillars that drive the quality of Sullair compressors. It's a promise we keep with every machine we make.

RELIABILITY

Customers who work with Sullair have found that the intangibles make all the difference — things like trust, confidence, and peace of mind. They go to work every day having full faith in their equipment, as well as the knowledge that dedicated distributors and Sullair personnel have their back every step of the way.

DURABILITY

Bulletproof. Built to last. However you spin it, Sullair compressors are in it for the long haul, driven by the design of the legendary air end. In factories and shops all over the world, you'll find Sullair compressors that have stood the test of time, running consistently today like they did on day one.

PERFORMANCE

You have high expectations for your operations, and we make machines that share your work ethic. Sullair compressors do what they're supposed to do, and they do it extremely well for a very long time. And working with us means not only access to clean, quality air, but also the tools you need to optimize this vital resource.



TWO-STAGE LUBRICATED ROTARY SCREW



AIR TREATMENT

TECHNICAL SPECIFICATIONS

FOR MORE INFORMATION, CONTACT YOUR LOCAL AUTHORIZED SULLAIR DISTRIBUTOR.

SPECIFICATIONS		FREE AIR DELIVERY*			
MODEL	MOTOR	7 bar	8 bar	10 bar	12.5 bar
	kW	m ³ /min	m ³ /min	m ³ /min	m ³ /min
LS90	90	18.9	17.8	15.4	—
LS90S	90	18.9	17.8	15.4	—
LS90V	90	18.9	17.8	15.4	—
LS110	110	22.3	21.2	18.8	—
LS110S	110	22.3	21.2	18.8	—
LS110V	110	22.3	21.2	18.8	—
LS132	132	24.3	23.2	21.1	19.4
LS132S	132	24.3	23.2	21.1	19.4
LS132V	132	24.3	23.2	21.1	19.4
LS160	160	28.8	28.6	27.0	21.7
LS160S	160	28.8	28.6	27.0	21.7
LS160V	160	28.8	28.6	27.0	21.7

* Free Air Delivery measured in accordance with ISO1217, Annex C

DIMENSIONS								
MODEL	LENGTH		WIDTH		HEIGHT		WEIGHT	
	mm	in	mm	in	mm	in	kg	lbs
LS90	2509	99	1760	69	1773	70	2650	5830
LS110	2509	99	1760	69	1773	70	2730	6007
LS132	3150	124	2000	78.7	1880	74	3320	7302
LS160	3150	124	2000	78.7	1880	74	3570	7875

FEATURE	STANDARD	OPTIONAL
Lubricant	Sullube®	PristineFG™
Enclosure	Enclosed	—
Capacity Control Options	—	Electronic Spiral Valve or VSD
Starter/Starter Box	Wye-Delta/NEMA 4	—
Cooling	Air Cooled	Water Cooled
Drain	Zero Loss	—
Motor	TEFC	—
Controls	10" Sullair Touch Screen	—
Remote Monitoring	AirLinx®	—
Electrical Protection	Phase Monitor	—
Additional Options	—	Water Regulation Valve Water Solenoid Valve
Energy Recovery	—	Energy Recovery System

