

**LS Series  
Rotary Screw Air Compressors  
150 HP to 350 HP**



*LS-25  
150-200 HP*

*LS-25S  
250-350 HP*

**They go on,  
and on, and on...**

# THE SULLAIR LS-25 RELIABILITY, PERFORMANCE

## Continuous duty

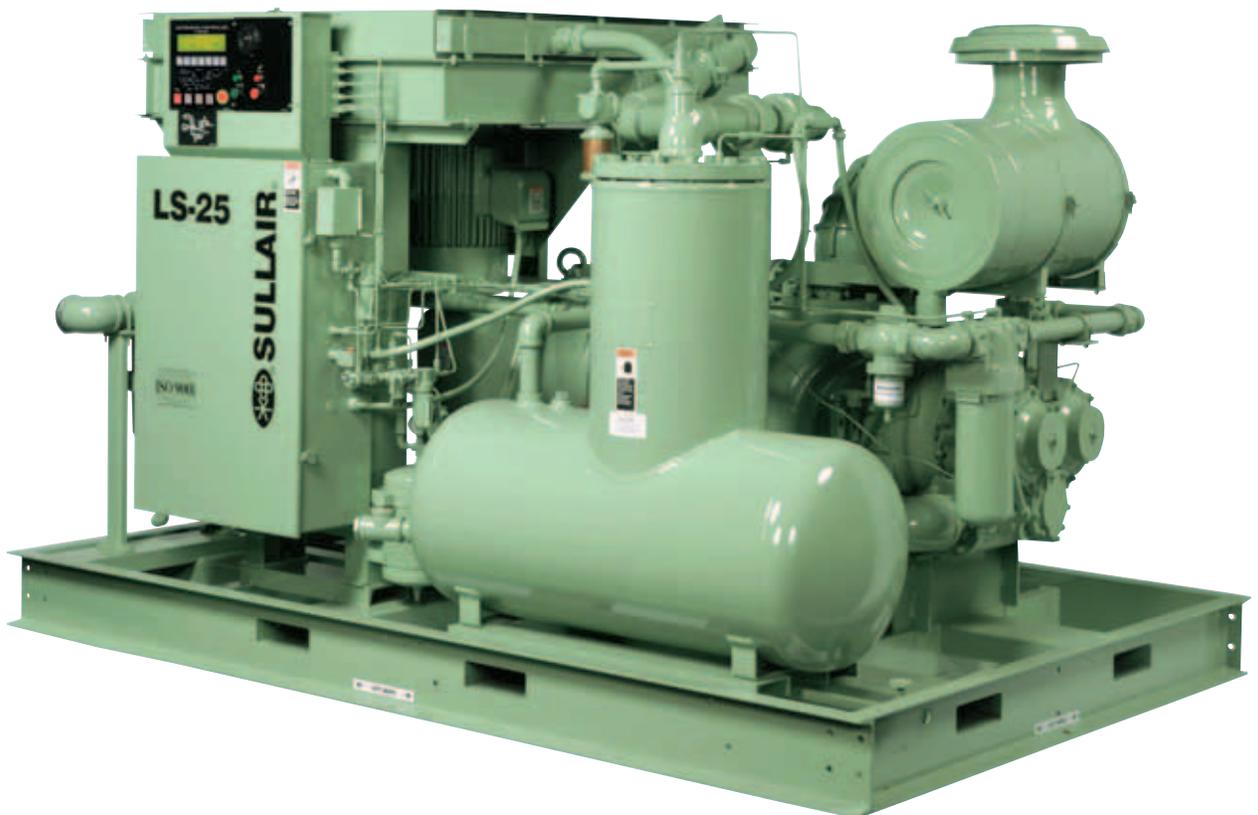
Sullair models LS-25 and LS-255 have established themselves as outstanding compressors in the 150 to 350 horsepower range. They offer the inherent reliability of Sullair's rotary screw design to provide continuous-duty performance. Components of every Sullair compressor have been carefully selected to assure complete reliability.

## Rotary screw dependability

These LS models use a single-stage rotary screw air-end, featuring Sullair's rugged bearing design: tapered roller bearings on the discharge end and cylindrical roller bearings on the inlet, for high load-carrying capacity. On standard models, the air end is warranted for a period of **5 years**<sup>(1)</sup>. On 24KT™ models, the air end is warranted for **10 years**<sup>(2)</sup>.

<sup>(1)</sup> Sullair's 5-year warranty includes motor, air/fluid receiver and cooler(s). "L" and "H" models only.

<sup>(2)</sup> Sullair's 24KT warranty includes 5-years on the motor, air/fluid receiver and cooler(s).



# AND LS-25S SERIES. E, AND A PROVEN DESIGN.

## Lower maintenance costs

As a result of Sullair's rugged, time-proven design, the LS Series requires only minimum maintenance for optimum performance. There are no troublesome belts or expensive bull gear arrangements to wear out or replace.

## Broad operating range

LS-25 and LS-25S compressors, which are fluid lubricated and cooled, are available in 150 to 350 horsepower, with capacities from 690 to 1615 acfm and pressure ratings of 100 to 175 psig.



# THE SULLAIR LS-

## **Superior package design**

SAE O-ring fittings standard.  
Number of fittings reduced.  
Aftercooler, moisture separator  
and trap.  
With or without enclosure.

## **① Sullair Supervisor™ Controller**

State-of-the-art technology.  
Four-line, full text display.  
Accurately monitors and con-  
trols the compressor.  
Allows sequencing of multiple  
compressors and communica-  
tion capability.  
Maintenance information built  
into the controller.

## **② Cooling**

Air-cooled units have updraft  
coolers for easy installation  
and heat recovery capability.  
Water-cooled units use shell and  
tube heat exchanger.

## **③ Multi-stage air/fluid separation**

Dual nested Optimizer™ separa-  
tor elements, reduce fluid  
carry-over to less than 2 ppm,  
lowering make-up fluid costs.  
Lower initial pressure drop for  
greater efficiency and extend-  
ed element life.

## **④ Fiberglass fluid filter**

Aircraft-quality media provides  
better filtration.  
Up to 20% more efficient than  
conventional paper elements.  
Lengthens life of the compressor.

## **⑤ Optimalair™ intake air filter**

Includes remote air intake  
connection.  
Protects premature failure of key  
components.  
Extends separator, fluid filter and  
fluid life.



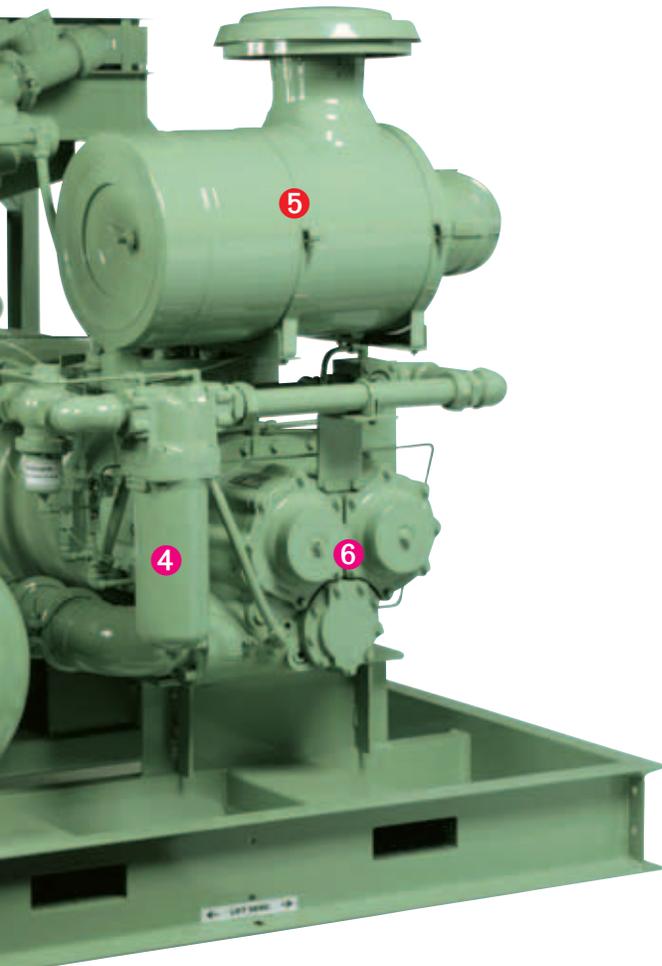
# 25 COMPRESSOR.

## 6 Reliable Sullair air-end

Longer average bearing life,  
designed for more than 100,000  
hours of service

## Flange-mounted motor and air-end

NEMA frame design.  
Provides positive alignment.  
Optimizes bearing life of air-end  
and motor.



## Select one of these long- life fluids...

***Sullube™ is factory fill.***

5-year air end warranty.  
Biodegradable.  
One year/8000 hour service life.  
Reduces fluid disposal costs.

***24KT™ is optional.***

10-year air-end warranty.  
Eliminates annual fluid changes  
and disposal costs.

***Free fluid sampling and analy-  
sis program with either fluid.***

## Sullair's Versatile Control System

Matches output to demand.  
Stabilizes system pressure.  
Minimizes need for an air receiver.  
Extends package life.

## Spiral Valve Capacity Control (optional)

Lowers part-load operating costs.  
Reduces cycling duty on package  
components.

## Premium efficient motor

Improved energy conservation.  
5-year warranty.  
Direct coupled design for extended  
bearing life.  
250,000-hour insulation life.

## Bearing Fluid Reservoirs

Ensure fluid is available at startup.  
Extends air end life.

# THE SULLAIR LS-2

## **Superior package design**

Designed for continuous duty. Aftercooler, moisture separator and trap. Air-cooled or water-cooled models are available.

### **1 Sullair Supervisor™ Controller**

State-of-the-art technology. Four-line, full text display. Accurately monitors and controls the compressor. Computer-based controller allows sequencing of multiple compressors and communication capability. Service and preventative maintenance information built into the controller.

### **2 Multi-stage air/fluid separation**

Dual nested Optimizer™ separator elements, reduce fluid carry-over to less than 1 ppm. Reduced carryover lowers make-up fluid costs. Pleated Optimizer elements lower initial pressure drop for greater efficiency and extend life of the elements.

### **3 Fiberglass fluid filter**

Aircraft-quality media provides better filtration.

Up to 20% more efficient than conventional paper elements. Lengthens compressor life.

### **4 Optimalair™ intake air filter**

Includes remote air intake connection. Protects premature failure of key components. Extends separator, fluid filter and fluid life.



# 5S COMPRESSORS.

## 5 The reliable Sullair air-end

Longer average bearing life, designed for more than 100,000 hours of service.

## Bearing Fluid Reservoirs

Ensure fluid is available at startup. Extends air-end life.

## Premium efficient motor (Optional)

Improved energy conservation. 5-year warranty.

Direct coupled design for extended bearing life.  
250,000-hour insulation life.  
NEMA frame design.

## Select one of these long-life fluids...

**Sullube™ is factory fill.**

5-year air-end warranty.  
Biodegradable.  
One year/8000 hour service life.  
Reduces fluid disposal costs.

**24KT™ is optional.**

10-year air-end warranty.  
Eliminates annual fluid changes and disposal costs.

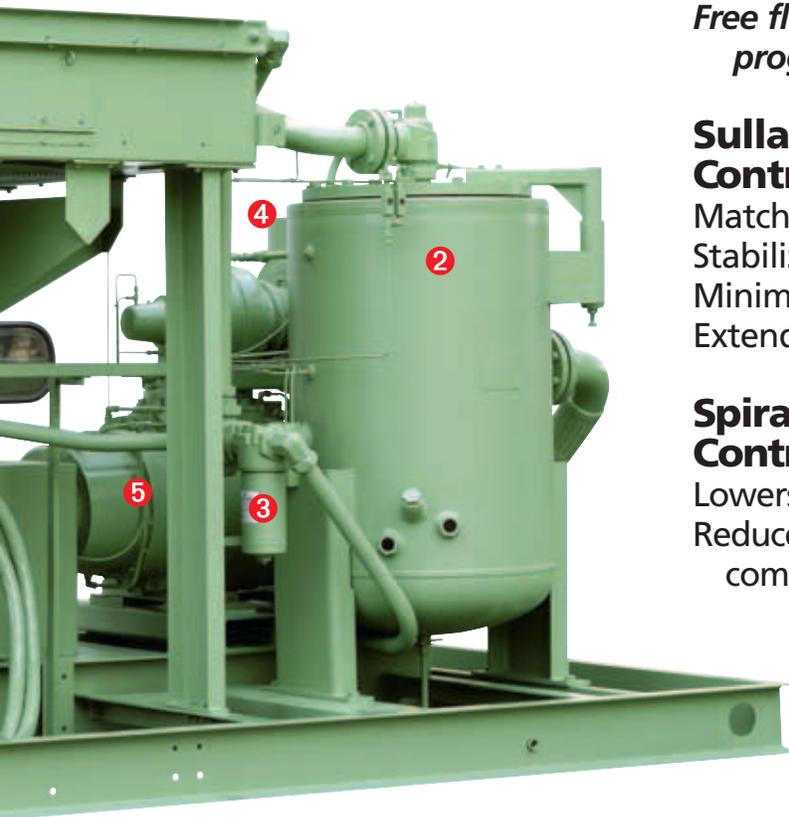
**Free fluid sampling and analysis program with either fluid.**

## Sullair's Versatile Control System

Matches output to demand.  
Stabilizes system pressure.  
Minimizes need for an air receiver.  
Extends package life.

## Spiral Valve Capacity Control (Optional)

Lowers part-load operating costs.  
Reduces cycling duty on package components.



# THE RELIABLE SULLAIR AIR-END

## Decades of proven reliability are testimony to the quality of the Sullair air-end.

Although the principle of rotary screw compression remains the



same, Sullair is continually improving materials, engineering and design of its air-ends and compressor packages.

## No loss of capacity or efficiency

Sullair air-ends have only two major moving parts: the rotors. Contact occurs only on a lubricated pitchline. Wear is virtually eliminated. As a result, Sullair compressors do not lose capacity or efficiency.

## Longer air-end life

Controlled pressure lubrication assures a reliable supply of fluid to rotating elements.

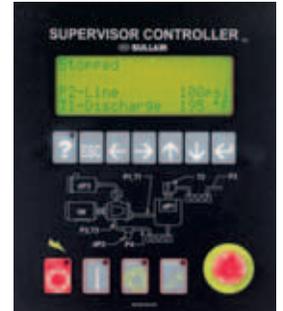
## Lower operating costs

Discharge port matches ratios of volume and operating pressure for maximum efficiency. Axial air inlet avoids preheating inlet air for further savings.

# SULLAIR SUPERVISOR™ CONTROLLER

## Compatible, user-friendly

This state-of-the-art, computer-compatible microprocessor controller has a four-line, full text display and an easy-to-read keypad.



## Featuring:

- Constant readout of pressure and temperature.
- On-demand readout of all operating and maintenance conditions.
- Monitors key functions and safety shutdowns.
- Power failure auto re-start.
- Dual control, provides automatic start-stop operation.
- Lead-lag and sequencing with multiple compressors.
- Service and preventative maintenance schedule.
- "Run," "Loaded" and "Consumable Parts" hours.
- Fault history with sensor readings.
- "Help" key provides built-in trouble shooting.

## Two-way communications

RS 485 communications port allows remote input of operating parameters and output of actual readings.

# SULLUBE™ LONG-LIFE COMPRESSOR FLUID

## Environmentally compatible

Sullube™ is a biodegradable fluid that is recyclable. Low levels of Sullube carried over in condensate may be accepted for direct sewer disposal without additional separation/equipment. Contact local authorities for approval.

## 8,000-hour fluid

Because Sullube can operate for three full shifts for one year, labor related to fluid change-out and associated downtime costs during this time are virtually eliminated.

## Non-varnishing

Because of its unique chemical formulation, Sullube will not varnish.

## Longer fluid life

Unique additive package maintains desired characteristics over a wide range of operating conditions for extended periods.



# 24KT™ FLUID AND THE 10-YEAR WARRANTY

## 10-year air-end warranty

24KT fluid formulation is so revolutionary, Sullair is the only compressor manufacturer to offer this unprecedented warranty.

## Routine fluid disposal costs are eliminated

There is no foreseeable end to the useful life of 24KT fluid, when used according to Sullair recommendations. Fluid-related maintenance costs are drastically reduced.

## 24KT Fluid extends compressor component life

24KT is chemically inert and does not break down or varnish. It works clean. Filters, separators and coolers will not plug. Bearings last longer. Associated labor costs are also reduced.

## Compressor operates at peak performance

Constant viscosity insures excellent lubrication to all rotating parts.



# SULLAIR'S AIR QUALITY GUARANTEE. A GUARANTEE THAT'S AS GOOD AS GOLD.

## The Sullair System.

The Sullair System matches a Sullair compressor, a Sullair dryer and Sullair filters. Dry air is filtered to remove atmospheric particulate, aerosols and other pollutants to provide compressed air for general purposes to the most critical application.

## Two levels of air quality.

Sullair recognizes that the requirements for air quality vary according to each compressed air application. For this reason, we provide Systems that achieve two distinct levels of air quality.



## Level 1.

This System consists of a Sullair compressor and Sullair MPF and MPH or PF/PH filters. The compressed air from this system contains particulates no larger than .01 micron, including coalesced liquid water and lubricants. Maximum remaining oil aerosol content is 0.01 parts per million by weight (ppm/w) @ 70°F, including oil vapor. The air from this Sullair System meets the most stringent ISO standard (ISO 8573.1, Class 1) for air quality.

## Level 2.

Level 2 offers the highest quality compressed air for critical applications. The air from this Sullair System exceeds the ISO standard (ISO 8573.1, Class 1) for air quality using the MPC or PC filter. The System includes a Sullair compressor and Sullair MPF, MPH and MPC or PF, PH and PC filters. The odor-free compressed air from this system contains particulates no larger than 0.01 micron, including water and oil aerosol content of 0.01 ppm/w @ 70°F. The remaining oil vapor content is less than 0.003 ppm/w.

## Select the System.

Select the level to meet your plant requirements. Be assured that the quality of air you specify will remain consistent for the life of the equipment. Sullair guarantees it. And that's as good as gold.

# STANDARD AND OPTIONAL EQUIPMENT

	LS-25 150-200 HP	LS-25S 250-350 HP
Sullair Supervisor Controller	●	●
Direct Coupled	●	●
Highly Efficient Air/Fluid Separation	●	●
Spin-On Fiberglass Fluid Filter	●	●
Sullair's Versatile Control System	●	●
TEAO Premium Efficiency Fan Motor	●	●
Emerald 5-year Health Assurance <sup>(1)</sup>	●	●
Optimalair™ Intake Filter	●	●
Sullube 8000 Hour Compressor Fluid	●	●
Optimizer Separator	●	●
Bearing Fluid Reservoirs	●	●
Wye Delta Starter	●	●
ODP Premium Efficiency Motor	●	●
Energy Efficient Motor	NA	●
Spiral Valve	●	●
Food Grade Compressor Fluid	●	●
Solid State Starter	●	●
Full Voltage Starter	●	●
TEFC Premium Efficiency Motor	●	●
24KT (10-Year air-end Warranty) <sup>(2)</sup>	●	●
Sound Attenuating Enclosure	●	●
Cold Weather Package	●	●
Water-cooled	●	●
Energy Efficiency System—EES	●	●

● = Standard    ● = Option

<sup>(1)</sup> Sullair's 5-year warranty includes motor, air/fluid receiver and cooler(s). "L" and "H" models only.

<sup>(2)</sup> Sullair's 24KT warranty includes 5-years on the motor, air/fluid receiver and cooler(s).

# SPECIFICATIONS 60HZ

LS-25	150L	150H	200L	200H	200HH*	200XH*
<b>Compressor performance</b>						
Capacity (acfm)	730	690	1000	835	708	694
Full Load Pressure (psig)	100	125	100	125	150	175
Motor (hp)	150	150	200	200	200	200
<b>Dimensions and Weight, Enclosure, Air-Cooled</b>						
Length (in)	96	96	110	110	96	96
Width (in)	62	62	72	72	62	62
Height (in)	68	68	68	68	68	68
Weight (lb)	6600	6600	7400	7400	6820	6820

LS-25S	250L	250H	300L	300H	350L	350H
<b>Compressor Performance</b>						
Capacity (acfm)	1218	1075	1480	1330	1615	1460
Full Load Pressure (psig)	100	125	100	125	100	125
Motor (hp)	250	250	300	300	350	350
<b>Dimensions and Weight, Enclosure, Air-Cooled</b>						
Length (in)	154	154	154	154	154	154
Width (in)	78	78	78	78	78	78
Height (in)	86	86	86	86	86	86
Weight (lb)	10760	10760	10760	10760	11110	11110

\* HH and XH models not available with 24KT.

Sullair is committed to a program of continuous improvement. Features and specifications may change without notice.

## YOU CAN FURTHER MAXIMIZE YOUR AIR QUALITY WITH THE SULLAIR SYSTEM

This compressor is one of several compressed air products that comprise the Sullair System. The System includes oil-free and lubricated compressors, compressed air dryers, filters and other

related contaminant-removal accessories working together to deliver superior performance and energy efficiency.



**Moisture Removal**  
To 35°F-50°F dewpoint, -40°F optional.



**Particulate Removal**  
Provides the highest standard ISO 8573.1 quality air.



**Oil/Water Separation**  
For safe disposal of compressor fluids.



**Condensation Removal**  
Of liquids with zero air loss.



To help compressed air users reduce their energy costs and improve their productivity, Sullair offers AirMetrix solutions to analyze, manage, and control total compressed air systems. AirMetrix solutions include: energy efficiency products, compressed air system controls, monitoring and management systems, air distribution products, and air system audits.

**For information on Sullair products and services, please contact your local Sullair distributor.**



Sullair is pleased to be ISO certified by Lloyd's Register Quality Company



[www.sullair.com](http://www.sullair.com)

**SULLAIR CORPORATION**, 3700 E. Michigan Blvd., Michigan City, IN 46360 Telephone: 1-800-367-6737

SIP-6000 Specifications subject to change without notice. © Copyright 2004 Sullair Corporation. All rights reserved. E/10/04/2  
® The color green is a registered trademark of Sullair Corporation.



Printed on recycled paper.