

# S-energy... Series Variable Speed Drive Air Compressors

1800V | 2200V | 3000V | 3000PV | 3700V | 4500V

Reliable • Variable Speed Drive • Energy Efficient • Lower Overall Costs





# The Next Revolution in Compressor Design

Since its inception in 1965, Sullair has been an industry leader in rotary screw technology. Our award-winning Rotary Screw design has set the industry standard and delivers the quality and reliability you depend on from Sullair.

For over forty years, we have offered reliable compressed air solutions to fit every need. So you can count on Sullair to deliver the next revolution in compressor design: the Sullair Senergy. Series compressors.

These additions to our quality compressor family are truly revolutionary: Sullair reliability in the most energy efficient, maintenance-friendly, quiet, and compact compressor package available on the market.

This series of reliable Sullair compressors sets the standard in virtually every category:

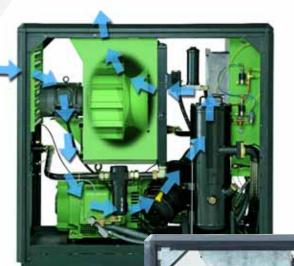
- reliability
- · life cycle costs
- variable speed drive
   microprocessor technology
- · energy efficiency
- · low sound levels

# Reliable

# **Integrated Package Design Significantly Increases Uptime**

- Air End
  - Industry standard for nearly half a century
  - Features tapered bearing arrangement: high load capacity, time proven design
  - Precision ground rotors provide consistent performance
  - Features controlled pressure lubrication and bearing fluid reservoir
  - Integrated inlet valve provides better CFM performance
- Motor
  - Features premium efficient motors
  - Covered by Sullair's Ultra Emerald Five-Year Compressor Health Assurance Warranty

- Cooling Air Flow
  - Driven by centrifugal cooling fan
  - Keeps compressor package cool
  - Protects key components
  - Better distributes air to the cooler
- Optimalair Inlet Filter
  - Provides finest inlet filtration in the industry (.4 microns using Fine Fiber Technology)
  - Keeps fluid clean and extends life of other internal components
  - Reduces pressure drop throughout the operating life, resulting in energy savings
  - Extends package life as a result of total package engineering—from inlet to discharge



Model shown: 3700V



Model shown: 2200V

# **Sullair Compressors with Smart Technology**

When you invest in Sullair's **Senergy** compressors, operating consistency and energy efficiency are your dividends. That's just the beginning.

### Compressors with Sullair Smart Technology provide:

- Excellent energy savings
- Relief from potential peak demand charges
- Alleviation from electrical harmonics
- Stable system pressure
- Consistent product quality
- · Reduced system air leaks
- Reduced storage requirements
- Flexibility for future growth
- Lowest five-year life cycle cost
- Potential utility company rebate

Stable system pressure improves the consistency of your process and product to reduce product rejects, in addition to:

- Fewer air system leaks
- Reduced system storage requirements
- Increased energy savings for increased profits



Conventional System Pressure



# power factor over the entire frequency range, often avoiding utility company penalties.

### Soft Start is Standard

Charges

• Eliminate the need for Wye Delta and other soft starter

Variable Speed Drive Avoids Potential Peak Demand

The Sullair **Senergy** compressors provide the highest

Avoid high electrical current at start-up

# **Unlimited Starts and Stops**

- No need to control the number of hot or cold starts
- Unlimited starts and stops save electrical costs

# Total Compressor Flexibility Automatically with Safety Built In

Sullair's Variable Speed Drive provides the flexibility to vary both capacity and pressure. This flexibility makes it possible to "grow" your air system without adding another compressor.



For Today, Tomorrow, and the Future

# The Sullair Variable Speed Drive

# **Sullair Smart Technology Gives You**

- Simplicity
- Reliability
- Flexibility
- System protection

# Simplicity: User-Friendly

- User-friendly set-up via WS microprocessor
- Simplified user interface and adjustment
- Reduced number of components
- Instantaneous access to all cumulative "Vital Statistics"

# Flexibility: Pressure/Capacity

- Enter three parameters:
  - Unload Pressure
  - Load Pressure
  - Required Pressure
- You set the pressure; Sullair Smart Technology takes care of the rest

# Reliability

- Designed from the frame up as a complete package
   not built with a variety of off-the-shelf components
- Serial communication between WS Controller and VSD eliminates the need for hard wired relays

# System Protection: Built-in Harmonic Filtration is Standard

- Harmonic filters protect and lengthen the life of all compressor components, as well as other electrical devices on your power grid
- Provides cleaner power to the motor
- Sullair has your system in mind by furnishing this protection at no additional cost to you (It's an expensive add-on from other manufacturers)
- Avoid purchasing additional costly corrective devices

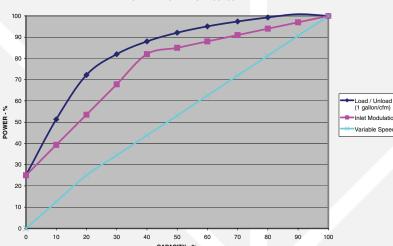
# **Energy Efficient**

This compressor series is more energy efficient than similar compressors, thanks to:

- Sullair's proven air-end with integrated inlet valve
- Optimized fluid system that reduces fluid temperatures
- Premium efficient motors
- Low pressure drop air-fluid separation system
- High efficiency centrifugal fan

Considering that energy costs represent 77% of the total cost of owning compressors, these savings significantly reduce total life cycle costs.

### PART LOAD PERFORMANCE ASSESSMENT



Variable Speed Drive is the superior alternative to other compressor control systems. The chart above represents the nominal control systems for generic comparative purposes. A detailed and accurate comparison of specific compressor models is available from your Sullair representative or authorized distributor.

### Lower Overall Costs for the Life of Your Machine

The highly efficient Optimalair Inlet Filter provides filtration that is 10 times better than the standard cellulose media air filters commonly used in the industry, which translates into:

- Longer air filter life
- Extended separator life
- Improved fluid filter life
- Less lubricant contamination
- Improved compressor performance—not compromised by a clogged inlet filter

Low fluid capacity coupled with our less than 1 ppm\* carryover reduce the overall fluid and disposal costs:

- Standard Sullube™ lubricant is biodegradable
- Optional 24KT™ lubricant requires no lubricant changes
- Sullair's SRF and food grade lubricants are also available

# **Total Life Cycle Costs**

Energy savings are maximized when the compressor doesn't have to overcome high pressure drop conditions. This Series provides significant savings over standard compressors.

# Standard Compressors SAVINGS Energy Energy Initial Purchase Maintenance Maintenance

# Simplified Microprocessor Delivers Critical Information

With the simplified WS microprocessor, there are no complicated menus to manage.

- Two large start/stop buttons are used in conjunction with three smaller ones to navigate the system and adjust settings
- The WS microprocessor controls the variable speed drive
- The graphic display is clear and concise, making it easy to read and simple to understand
- Get required, critical operations information easily, including:
  - status
  - temperature
  - pressure
  - load/unload set points



You can also use a Windows PC to remotely monitor, upgrade the software, and set up changes. The microprocessor has WSPC interface capability and also features:

- Service maintenance reminders
- Remote monitoring capability
- Built-in sequencing of up to 16 machines with the full load solenoid valve
- Real-time clock
- Upgradability
- Warnings
- Protection alarm

# **Best-in-Class!**

### Quiet

This compressor series incorporates many design features that reduce the noise of the machine:

- Air-end, motor, and receiver tank mounted on rubber isolators
- Insulated intake and exhaust louvers
- Low noise centrifugal fan
- Fully-insulated enclosure

In fact, it's so quiet (67 dba for 1800V, and 68 dba for 3700V) that these compressors can even be used at the point-of-use.

# Clean, Ergonomic Enclosure is Standard

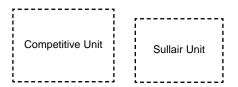
The enclosure was designed with an eye toward form, fit, and finish.

- The enclosure is an integral part of every machine
- Expertly designed package allows for easy service and further reduces noise
- Skeleton structure supports the cooler pack, starter, and outer panels
- Beveled edges and corners provide the clean look of an ergonomically designed package

# The Smallest Footprint in its Class

This Sullair compressor series meets the smaller footprint needs for point-of-use compressors.

- Measures only 62" x 34.5" x 61.5" more compact than any similar compressor\*
- Fits through a standard 36-inch door, simplifying installation
- Clearance and floor space typically required are reduced by serviceability from one side of the machine



\* 1800V & 2200V measure only 53.2" x 31.5" x 53.2"

# **Features & Options**

### Standard Features

- Integrated inlet valve for better CFM performance
- Low life cycle costs including long-life bearings, rotors, and consumable parts
- Less than 1 ppm\* fluid carryover
- Excellent motor cooling design characteristics for longer motor life
- Sequencing standard
- NEMA 12 standard
- WS microprocessor standard
- Smallest footprint in its class
- Quietest in its class: as low as 67 dba

- Easy-maintenance coupling handles torque at start-up
- Numerous unique serviceability enhancements
- Environmental Health & Safety design
- Sullube<sup>™</sup> 8000 hour non-varnishing biodegradable compressor fluid
- Total package filtration
- Optimalair Inlet Filter: 10 times the filtration versus other filters

# **Options**

- Air-cooled or water-cooled
- 24KT<sup>™</sup>(10-year air-end warranty)

# **Easy to Maintain**

Multiple features of the *S*-energy Series revolutionize the compressor's serviceability and provide for a cleaner, safer work environment and cost-effective compressor.



# Unimpeded Access to Inside the Compressor

Open the canopy doors, or completely remove them, for unimpeded access to the inside of the compressor.
Standard maintenance can all be performed from this side.



# Simplified Filter Change

Changing the air and fluid filters is simpler than ever. The fluid filter is in an inverted position to minimize lubricant loss during filter changes.



# Electric Solenoid Drain

This Series features an electric solenoid drain with an easy-to-clean strainer that improves reliability. Energy-saving zero loss drains are also available.



### **Quick Access to Cooler**

With the removal of just a few bolts, the cooler slides out on rails for easy routine cleaning.



# Quick Thermostat Change

To change the thermostat, simply thread the old thermostat out, and the new one in.



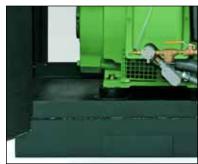
# Improved Separator Element

To service the separator, simply unbolt the lid and lift it off using the handle. There's no tubing to disconnect, which prevents leaking and saves service time.



# Drive Coupling Element

The drive coupling element service is made simple with a large access opening and a wrap-flex element that can be changed without disturbing the hubs.



# Environmental Protection Pan

This Series features a fully sealed environmental protection pan to capture spills that may occur during servicing.

# Plus . . .

• Check the fluid level directly from the front panel without opening the machine\*

# All That, Plus Better for the Environment Too

- Low-noise fan helps reduce the machine's noise level to as low as 67 dba, important when on the plant floor
- Fully-sealed environmental protection pan contains fluid should any drips occur while servicing
- Coreless filter with non-metallic design can either be incinerated or crushed, virtually eliminating disposal issues
- Environmentally compatible Sullube<sup>™</sup> is a biodegradable lubricant
- 24KT™ lubricant requires no lubricant changes
- Low fluid capacity reduces overall fluid costs and disposal issues



# The Most Comprehensive Warranties in the Industry

Our confidence in the high quality workmanship, materials, and components of Sullair products allows us to offer the most unique warranty coverage: A comprehensive five-year protection package. Sullair is the only manufacturer to offer this unprecedented warranty. Simply complete and return your startup card to activate your warranty. No kits or spare parts agreements required.

### **Ultra Emerald Five-Year Compressor Warranty**



With the Ultra Emerald Warranty, you get all the benefits of Sullair's Emerald Five-Year Compressor Health Assurance, with the added benefit of our Variable Speed Drive

(VSD). Sullair compressors with VSD keep working at maximum efficiency for longer life and lower energy costs.

### 24KT™ Ten-Year Warranty



When you use the 24KT™ compressor fluid, the Sullair 24KT™ System carries an unprecedented ten-year warranty on the Sullair air-end. You receive the benefits of our five-year coverage on all other major components.

### **Oil Free Guarantee**

Sullair matches the best combination of compressor, dryer, and filters to remove atmospheric particulate, aerosols, and other pollutants to provide two levels of air quality—from general purpose to the most critical applications.

# **Specifications: 60 Hz Horsepower Rated**

1800V - 25 Horsepower Motor	1807 <b>V</b>	1809V	1810V	1812V
Compressor Performance*				
Full Load Pressure (psig)	100	125	150	175
Capacity at Full Load Pressure (acfm)	116	105	96	87

2200V - 30 Horsepower Motor	2207V	2209V	2210V	2212V
Compressor Performance*				
Full Load Pressure (psig)	100	125	150	175
Capacity at Full Load Pressure (acfm)	138	125	115	105

3000V - 40 Horsepower Motor	3007V	3009V	3010V	3012V
Compressor Performance*				
Full Load Pressure (psig)	100	125	150	175
Capacity at Full Load Pressure (acfm)	182	167	152	141

3000PV - 40 Horsepower Motor	3007PV	3009PV	3010PV	3012PV
Compressor Performance*				
Full Load Pressure (psig)	100	125	150	175
Capacity at Full Load Pressure (acfm)	200	180	163	148

3700V - 50 Horsepower Motor	3707V	3709V	3710V	3712V
Compressor Performance*				
Full Load Pressure (psig)	100	125	150	175
Capacity at Full Load Pressure (acfm)	249	225	202	183

4500V - 60 Horsepower Motor	4509V	4510V	4512V
Compressor Performance*			
Full Load Pressure (psig)	125	150	175
Capacity at Full Load Pressure (acfm)	260	238	222

Model	1800 <b>V</b>	2200V	3000 <b>V</b>	3000PV	3700V	4500 <b>V</b>
dBA Ratings at 1 Meter (	Гурісаl)					
Air-cooled w/enclosure	67	67	68	68	68	69
Dimensions & Weights w/Enclosure – Uncrated (Crated)						
Length - inches	53.2 (60)	53.2 (60)	62 (68)	62 (68)	62 (68)	62 (68)
Width - inches	31.5 (40.5)	31.5 (40.5)	34.5 (49.5)	34.5 (49.5)	34.5 (49.5)	34.5 (49.5)
Height - inches	53.2 (62)	53.2 (62)	61.5 (76)	61.5 (76)	61.5 (76)	61.5 (76)
Weight - lbs.	1461 (1691)	1491 (1721)	1818 (2224)	2050 (2380)	2100 (2430)	2300 (2630)
Discharge Connection**	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
Moisture Drain Connection	n** 1/4	1/4	1/4	1/4	1/4	1/4

All models available in: 460V and 575V

NOTE: Data subject to change without notice.

<sup>\*</sup>Capacity per CAGI / PNEUROP PN2CPTC2 (Annex C to ISO 1217.)
\*\*in. NPT



# **Air Audits**

Sullair air audits review your entire compressed air system to identify ways to maximize efficiency; reduce waste; and reduce utility, maintenance, and equipment costs. And, Sullair is the only compressor manufacturer to offer three levels of air system audits that address the Department of Energy's standard levels — walk-through, assessment, and audit.



# System Monitoring

Sullair's eConnect™ remotely monitors and diagnoses the health of your compressed air equipment. Using only a computer and a web browser, the status of your entire system can be viewed from anywhere in the world. System monitoring also helps in preventive maintenance and trend analysis.



# **Core Products**

No one gives you more ways to efficiently produce clean air power than Sullair. Compressors are the heart of our business, and our reputation for reliability is reflected in our entire industrial compressor range, from 5 to 600 hp. Sullair also offers a wide range of dryers and filters for contaminant removal, as well as a range of rotary screw vacuum systems.



# Customer Care *by SULLAIR*™

Our Customer Care program gives you a complete package of all the system maintenance resources you need, and our training programs teach you how to properly operate, maintain, and service Sullair equipment. Our global customer support network gives you high-speed access to genuine Sullair service parts and responsive, knowledgeable service.

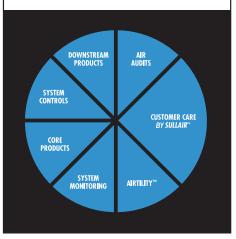


# AirTility™

Sullair's AirTility™ is the industry's most comprehensive air outsourcing solution. Think of AirTility™ for your compressed air system just as you think of the electrical and water systems at your facility — as a utility. AirTility™ is for those who want a reliable, safe compressed air system with no capital expenditures and no maintenance worries.



Sullair offers AirMetrix<sup>™</sup> solutions that help reduce energy costs and improve productivity by analyzing, managing, and controlling the total compressed air system.





# **System Controls**

Compressed air system controls match compressed air supply with system demand, and let you take a total systems approach to the most efficient production, distribution, and use of compressed air. Proper control is essential to efficient system operation and high performance.



# **Downstream Products**

Sullair — and our distributor partners — are complete systems solutions providers for the demand side of your compressed air system. From the filter, regulator, and lubricator to the piping system and storage tanks, we provide a complete range of equipment and expertise to help keep your system at peak productivity.

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



### www.sullair.com

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