S-energy_®

Encapsulated Rotary Screw Air Compressors

Constant Speed Drives and Variable Speed Drives
11-18 kW • 15-25 Horsepower



- Reliable
- Quiet
- Energy efficient
- Small footprint
- Easy to maintain



Sullair Capabilities

Sullair Leadership

Since 1965, Sullair has been recognized around the world as an innovator and a leader in rotary screw compression and vacuum technology. For more than 40 years, Sullair has designed and manufactured its own rotors and air end assemblies at the corporate headquarters in Michigan City, Indiana.

The award-winning rotary screw design sets the industry standards and delivers the quality and reliability one expects from a leader.

Sullair Technology

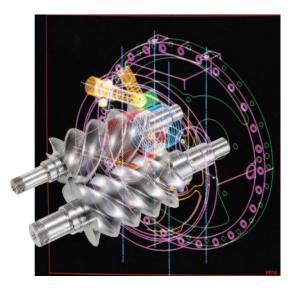
Utilizing the most modern technologies, equipment and advanced manufacturing techniques, Sullair designs, manufactures, assembles, and tests the most innovative compressed air and vacuum products in the industry. Sullair products are known around the world for their universally applicable design, outstanding craftsmanship and superior quality.

Sullair's Statistical Process Control

Sullair's Statistical Process Control (SPC) system monitors rotor quality standards to assure consistent compressor and vacuum performance.

Sullair's Commitment to Innovation

Underlying Sullair's leadership is a dedication to excellence and a commitment to innovation. Sullair is constantly exploring new ideas and seeking new ways to meet industry's need for increasingly energy efficient compressed air and vacuum solutions.









Sullair Stationary Air Power Systems

Sullair offers total compressed air systems to help compressed air users reduce energy costs and improve productivity by analyzing, managing and controlling their compressed air systems.

Sullair's air systems include: plant air audits, energy efficient products, compressed air system controls, equipment to monitor and manage systems, air distribution products, and after-purchase support.

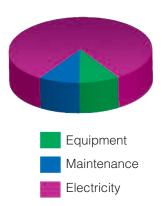
Each component of the system is carefully matched for capacity and pressure to provide maximum performance and energy efficiency. A total Sullair system provides the user with an air quality guarantee.

This System includes:

- · rotary screw compressor
- · wet storage
- · refrigerated dryer
- · filters to meet your requirement
- · dry storage
- · flow controller
- drains
- · oil/water separator
- ethernet-based eConnect[™] to monitor and control the entire system

The Sullair Stationary Air Power System

Sullair Reduces Your Life-Cycle Costs



Air Compressor Life Cycle Costs

According to *Best Practices for Compressed Air Systems*,
Compressed Air Challenge, Second Edition, 2007, energy costs now

represent 82% of the total operating expenses. Energy savings from Sullair *S-energy* compressors can dramatically reduce life cycle costs.

The Sullair **S-energy** compressors significantly reduce operating and energy costs over the entire compressor life cycle. Contributing to the energy savings are:

- Sullair's proven air end with the low restriction inlet valve
- High efficiency fan
- Low pressure drop air-fluid separation system to prevent energy loss

Sullair designs deliver cost savings for the life of the product. Improved air filtration translates into:

- Extended separator life
- Improved fluid filter life
- Less fluid contamination

To reduce fluid disposal costs, we offer our biodegradable Sullube® 8000-hour fluid, or 24KT™, a longlife fluid that never needs changing.

Features and Benefits That Set Sullair Apart

These Sullair compressors provide more performance and efficiency than other compressors in this horsepower range and set new standards in virtually every category.

Standard Features

- Totally Enclosed Fan Cooled motor (TEFC)
- Low life cycle costs including long-life bearings, rotors, and consumable parts
- Less than 2 ppm fluid carryover
- Excellent motor cooling design characteristics for longer motor life
- Sequencing standard
- NEMA 12 standard on the Variable Speed Drive models, NEMA 4 is standard on the Constant Speed Drive models
- WS Controller microprocessor standard
- Smallest footprint in its class
- Quietest in its class, as low as 66 dBA
- Numerous unique service features
- Environmental, health, and safety design features
- Sullube®—8000-hour, nonvarnishing, biodegradable compressor fluid
- Optimalair® air filter provides ten times better filtration than other filters
- Total package filtration optional on Constant Speed Drive, standard on Variable Speed Drive

Quiet Design

This Sullair S-energy. Series incorporates many design features that contribute to its quiet operation:

- Integrated air end and motor are mounted on rubber isolators
- Insulated intake and exhaust louvers
- Low-noise fan

In fact, these compressors are so quiet they can be installed anywhere in your facility.

The Smallest Footprint in Its Class

These Sullair **S-energy** Series compressors meet the need for a smaller footprint.

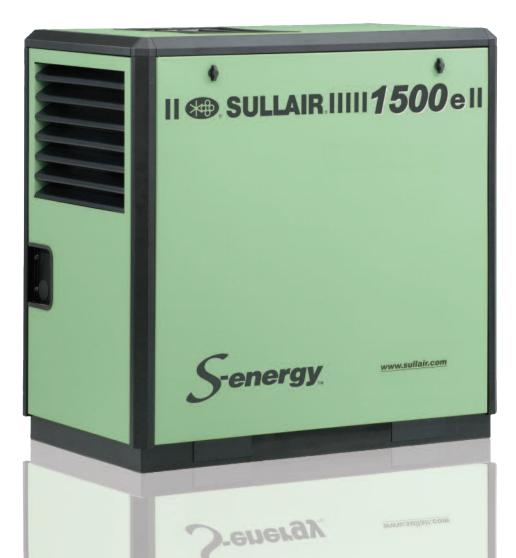
- More compact than any similar compressor on the market
- Easy access to maintenance areas

Variable Speed Drive Options

• 24KT™ 10-year air end warranty

Constant Speed Drive Options

- 24KT[™] ten-year air end warranty
- Cold weather package
- Weather hood
- · Other motors and starters
- Total package filtration



For the Maximum Energy Efficiency and Operating Consistency, Sullair Air Compressors with V5D

The Sullair Compressors with **V5D** Provide:

- Excellent energy savings
- Relief from potential peak demand charges
- Possible utility company rebate
- DC link Choke with 3% Line Reactor Included (Model/Voltage Specific)
- Stable system pressure
- Consistent product quality
- Reduced system air leaks
- Reduced storage requirements
- Flexibility for future growth
- Lowest 5-year life cycle cost

Your Compressed Air System Can Improve Your Bottom Line: 35% Energy Savings 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.

Standard Compressors



Sullair's VSD Compressors



Total Compressor Flexibility

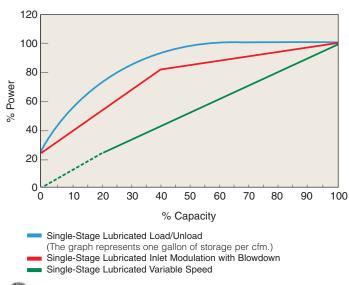
Sullair's **V5D** compressors provides the flexibility to vary both capacity and pressure. This flexibility makes it possible to "grow" your air system without adding more compressors.



Variable Speed Drive is the Superior Alternative to Other **Compressor Control Systems**

The chart below is a representation of 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.

PART-LOAD PERFORMANCE ASSESSMENT





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

Stable System Pressure Improves the Consistency of Your **Process to Reduce Product Rejects**

- · Lowers air system leaks
- Reduces system storage requirements
- Provides increased energy savings to increase profits

Standard Compressors

Sullair's **V5D** 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

VSD Avoids Potential Peak Demand Charges

V5D compressors provide the highest power factor over the entire frequency range, often avoiding utility company penalties.

S-energy Series Compressors are Easiest to Maintain

Before we designed these compressors, we reviewed every aspect of product development with the customer and the maintenance staff in mind. The result is Sullair reliability in the most compact, most robust, most maintenance-friendly and quietest compressor package available on the market.

Multiple features of the *S-energy*. Series revolutionize the compressor's serviceability and provide for a cleaner, safer work environment and cost effective compressor. Standard maintenance can all be performed from this side.

WS Microprocessor Control System



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

- The graphic display is clear and concise
- Get the critical operations information more easily, including status, temperature, pressure, and load/unload set points
- Use a Windows PC to remotely monitor, upgrade the software, and set up changes
- Built-In sequencing of up to 16 machines

Sullair Optimizer™ Air-Fluid Separator

- High efficiency molded media
- Lower pressure drop reduces power consumption
- Less that 1 ppm carryover reduces cost of make-up fluid



Fiberglass Fluid Filter

- Coreless, nonmetallic design means easy disposal
- 20% more efficient than common cellulose media
- Better filtration lengthens the life of the compressor unit



Sullair Optimalair™ Air Filter

- Provides the finest inlet filtration in the industry (.4 micron)
- Keeps fluid clean and extends life of internal components
- Reduces pressure drop during operating life, resulting in energy savings

Sullair Motor Features:

- Slow speed—1800 rpm
- Cast iron construction
- NEMA TEFC design
- Direct coupled/flange mounted
- Most comprehensive warranty in the industry



Environmental Protection Pan

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

Convenient Separator Element

The separator is conveniently located for easy service. There is no tubing to disconnect, which prevents leaking and saves service time.



Sight Glasses

The fluid fill and operating fluid level indicator sight glasses are conveniently located for easy access.



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.



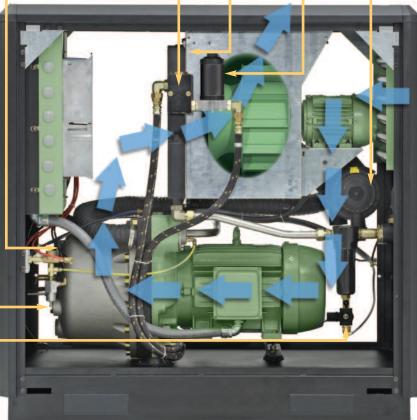
Simplified Filter Change

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









Sullair Air Quality Guarantee

Two Levels of Air Quality

Sullair recognizes that the requirements for air quality vary according to each compressed air application. For this reason, Sullair provides compressed air systems that achieve two distinct levels of air quality and a guarantee for each.

Sullair Stationary Air Power System

The Sullair Stationary Air Power System matches a Sullair compressor, a Sullair dryer and Sullair filters. Sullair assures that its System will meet specific performance levels throughout its operational life. We offer a one-year test/review period, backed by a purchase refund guarantee, to verify the performance of the Sullair System.

Select the System

Select the air quality level to meet your plant air or process requirements. You

can be assured that the quality of air from the Sullair System you specify will remain consistent for the life of the equipment. Sullair guarantees it... and that's as good as gold.

The Sullair Oil-Free Air Quality Guarantee

The System consists of a Sullair compressor, Sullair dryer, and Sullair

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 oil vapor and Class 2 for particulate) for air quality.

The Sullair Critical Air Quality Guarantee

The compressed air from this Sullair System exceeds the ISO standard (ISO 8573.1, Class 1 for oil vapor and Class 2 for particulate). The System includes a Sullair compressor, Sullair dryer, and Sullair 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 parts per million by weight (ppm/w) @ 70°F. The remaining oil vapor content is less than 0.003 ppm/w.

To get more information on Sullair's Air Quality Guarantee, please contact your Sullair distributor.

These Systems are not intended to remove carbon monoxide, methyl isocyanate or other noxious, corrosive or toxic gases, vapors or fumes. The System does not provide breathing air.



The *S*-energy_® with Integral Dryer

Clean, Dry Air is Essential

Quality air treatment, the removal of condensate and particulate, is essential. When cooled, water vapor in compressed air will condense. Without removing the condensate, moisture in the air stream can damage your total compressed air system, product, or process. To protect your plant air system and air-using equipment, particulate must be removed by filtration. Sullair filters will provide this protection and improve the quality of your product or process. Proper filtration will also reduce your compressed air energy costs.

The Sullair Solution

The solution is the Sullair *S-energy*_® compressor with integral dryer. The System includes a *S-energy*_® compressor and an integral dryer. We've taken the guesswork out of putting your System together. All components of the System have been perfectly matched and sized to provide maximum performance, without paying for more than you need. Plus, the *S-energy*_® compressor with integral dryer is simple to install and, because of its small footprint, requires a minimum amount of floor space.

Benefits of a Performance Air System with Integral Dryer Include:

- Advanced 3-in-1 heat exchanger module
- Oversized demister separator
- Low pressure drop
- Environmentally friendly refrigerant



A Concern for the Environment

Mindful of our natural resources that are used to create and supply electrical energy, Sullair is focused on conservation and committed to providing air compressors that will use this energy most efficiently.

Other environmental features of the **S-energy**. Series compressors include:

- Fully-sealed protection pan that will contain compressor fluid should any spill while servicing
- Coreless fluid filter of non-metallic design that can be either incinerated or crushed, virtually eliminating disposal concerns and expense
- Sullair's environmentally compatible fluid, Sullube[®], is biodegradable
- We've reduced the cost and environmental impact of fluid disposal by offering 24KT™, a life long fluid that never needs changing

- Low fluid capacity reduces overall fluid costs and disposal issues
- Health and safety issues are addressed by utilizing a low noise fan design, reducing the sound level to as low as 66 dBA, for worker comfort. Additionally, Sullair mounts air end, motor, and receiver on rubber isolators and insulates intake and exhaust louvers

The Industry's Most Comprehensive Warranties

Confirming Sullair's rugged design and commitment to customer satisfaction, all new lubricated stationary air compressors (with discharge pressures up to 150 psig) shipped from Sullair's US operations include comprehensive Extended Warranty coverage. This comprehensive warranty includes parts and labor covering:

- 10 Years on the air end
- 5 Years on the motor, VSD, air/fluid receiver, oil cooler and aftercooler



Most standard compressors are eligible.



A unique design suitable for specific applications and environments.

Sullair Oil-Free and Critical Air Guarantee

Sullair matches the ideal 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 air applications.

Technical Specifications

60Hz	60Hz Motor Frequency Constant Speed Drive Performance Full-Load Capacities ***															
	Mo	otor	100 psig	7 bar	125 psig	9 bar	150 psig	10 bar	175 psig	12 bar	Weight		Weight **		Discharge	dBA †
Model*	hp	kW	acfm	m³/min	acfm	m³/min	acfm	m³/min	acfm	m³/min	lbs	kg	lbs	kg	Connect	
1100e	15	11	68.5	1.93	60.2	1.70	-	-	43.7	1.23	1044	474	1194	541	1-1/2" NPT	66
1500e	20	14.7	-	-	79.2	2.24	-	-	61.5	1.74	1098	498	1248	566	1-1/2" NPT	66.5
1800e	25	18.4	-	-	99.3	2.81	-	-	78.5	2.22	1122	509	1323	600	1-1/2" NPT	67

60Hz	Motor Fr	equency	Va	Variable Speed Drive Performance Full-Load Capacities ***												
	Motor 10		100 psig	7 bar	125 psig	9 bar	150 psig	10 bar	175 psig	12 bar	Weight		Weight **		Discharge	dBA †
Model*	hp	kW	acfm	m³/min	acfm	m³/min	acfm	m³/min	acfm	m³/min	lbs	kg	lbs	kg	Connect	
1100eV	15	11	69.2	1.95	59.1	1.67	50.6	1.43	46.4	1.31	1078	489	1228	557	1-1/2" NPT	66
1500eV	20	14.7	90.9	2.57	80.9	2.29	69.6	1.97	64.8	1.83	1132	513	1282	581	1-1/2" NPT	66.5
1800eV	25	18.4	107.8	3.05	99.8	2.82	90.2	2.55	81.3	2.30	1156	524	1357	615	1-1/2" NPT	67

Constant Speed Drive Performance Full-Load Capacities ***																
	Motor		7 bar	100 psig	9 bar	125 psig	10 bar	150 psig	12 bar	175 psig	Weight		Weight **		Discharge	dBA †
Model*	kW	hp	m³/min	acfm	m³/min	acfm	m³/min	acfm	m³/min	acfm	kw	lbs	lbs	kg	Connect	
1100e	11	15	1.88	66.5	-	-	1.38	48.8	1.02	36.1	474	1044	541	1194	1-1/2" NPT	66
1500e 🥋	14.7	20	2.37	83.8	-	-	1.83	7 64.8	1.72	60.6	498	1098	566	1248	1-1/2" NPT	66.5
1800e	18.4	25	2.78	98.3	-	-	2.31	81.7	2.16	76.4	509	1122	600	1323	1-1/2" NPT	67

50Hz Motor Frequency Variable Speed Drive Performance Full-Load Capacities ***																
	Mo	otor	7 bar 100 p		9 bar	125 psig	10 bar	150 psig	12 bar	175 psig	Weight		Weight **		Discharge	dBA †
Model*	kW	hp	m³/min	acfm	m³/min	acfm	m³/min	acfm	m³/min	acfm	kg	lbs	kg	lbs	Connect	
1100eV	11	15	1.87	66.0	1.60	56.5	1.37	48.0	1.26	44.5	489	1078	557	1228	1-1/2" NPT	66
1500eV	14.7	20	2.49	86.6	2.19	77.3	1.92	67.8	1.67	58.9	513	1132	581	1282	1-1/2" NPT	66.5

^{*} Model Variations: V = Variable Speed Drive; e = Encapulated

** Weight with integral dryer. † dBA at 1 meter.

*** Capacity per CAGI / PNEUROP PN2CPTC2 (Annex C to ISO 1217) Moisture Drain Connection at 1/4" NPT.

Dimensions	Lei	ngth	Leng	th ††	Width		Height	
Models	in	mm	in	mm	in	mm	in	mm
1100e, 1500e, 1800e, 1100eV, 1500eV, 1800eV	53.2	1351	63.0	1600	31.5	800	53.2	1351

^{††} Length with integral dryer. Information and data are subject to change without notice.

Sullair's Compressed Air Products

www.sullair.com



Fundamental to Sullair's leadership is a dedication to reduce not only the amount of natural resources consumed to create energy, but to minimize environmental impact, in both the manufacture and use of all our products. We are constantly exploring new ideas and seeking new technologies to meet the ever-increasing need for high quality, energy-efficient compressed air products and environmental sustainability.



© Copyright 2014 Sullair. All rights reserved. The color green is a registered trademark of Sullair. Specifications subject to change without notice. LS08EN 1402R

