

S-energy®

Lubricated Rotary Screw Air Compressors

Constant Speed and Variable Speed Drives

18-75 kW ■ 25-100 Horsepower



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


SULLAIR®
Always air. Always there.®

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

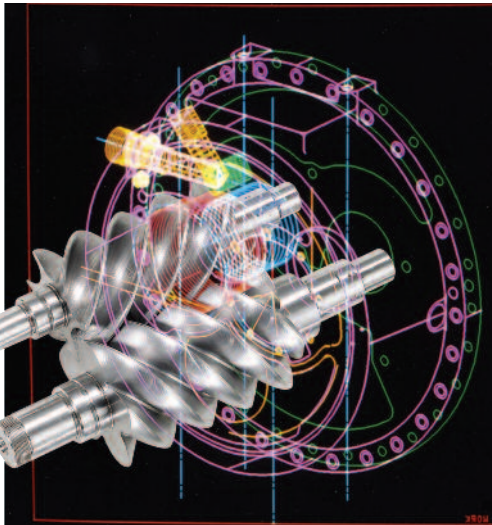
Utilizing the most modern technologies, equipment and advanced manufacturing techniques, Sullair designs, manufactures, assembles, and tests the most innovative compressed air and vacuum products in the industry. Sullair products are known around the world for their universally applicable design, outstanding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

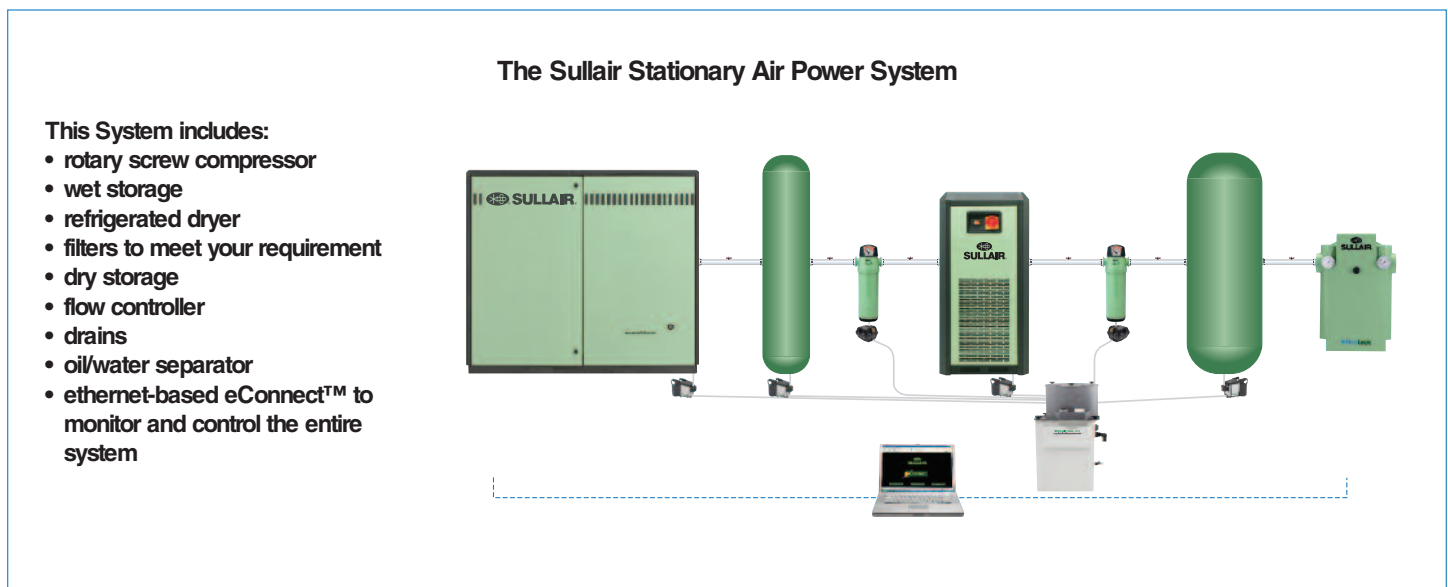


Sullair Stationary Air Power Systems

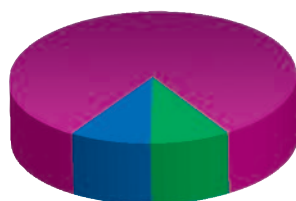
Sullair offers total compressed air systems to help compressed air users reduce energy costs and improve productivity by analyzing, managing and controlling their compressed air systems.

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.



Sullair Reduces Your Life-Cycle Costs



- Equipment
- Maintenance
- Electricity

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 significantly 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 lubricant contamination

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

Features and Benefits That Set Sullair Apart

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

Standard Features

- Low restriction 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 4 standard
- WS microprocessor standard
- Smallest footprint in its class
- Quietest in its class, as low as 67 dBA
- 12 unique serviceability features
- Environmental, health, and safety design features
- Sullube®—8000-hour, non-varnishing, biodegradable compressor fluid
- Optimalair™ air filter provides 10 times better filtration than other filters

Quiet Design

This Sullair *S-energy* Series incorporates many design features to reduce the noise of the machine:

- Air end, motor, and receiver tank 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

- All the maintenance is performed from one side, reducing the amount of clearance and floor space typically required

Options

- Choice of air- or water-cooled*
- 24KT™ 10-year air end warranty
- Cold weather package
- Weather hood
- Total package filtration
- Other motors and starters
- Heat recovery

*Water-cooled available on 40-100 hp



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

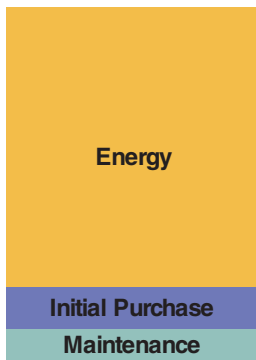
The Sullair Compressors with **VSD** Provide:

- Excellent energy savings
- Relief from potential peak demand charges
- Possible utility company rebate
- DC link choke or 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

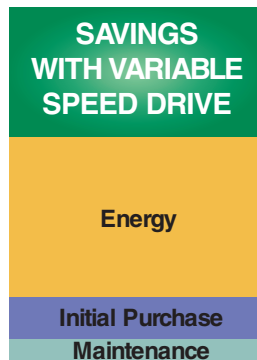
Your Compressed Air System Can Improve Your Bottom Line: 35% Energy Savings in the First Five Years

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

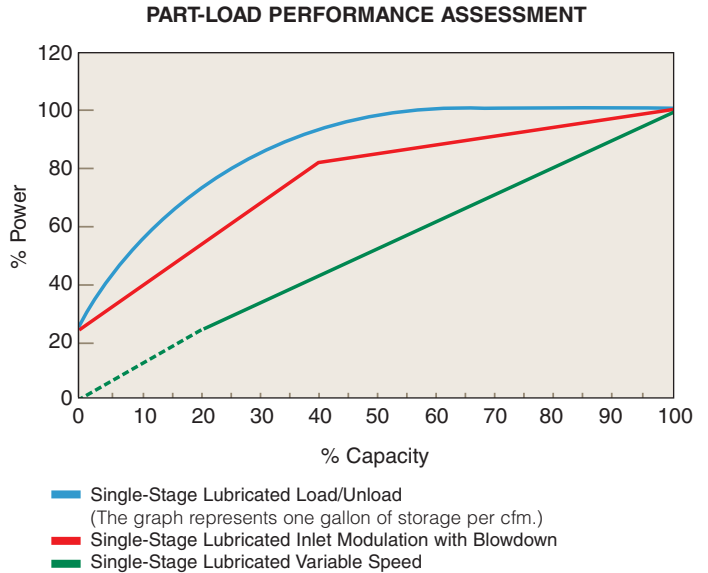


Sullair's VSD Compressors



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.

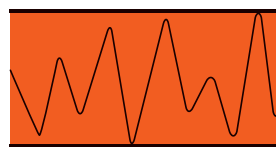


Reference: Compressed Air and Gas Handbook, 6th Edition, pages 221-223.

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 VSD 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

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

Total Compressor Flexibility

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



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.

Sullair Optimizer™ Air-Fluid Separator

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



Fiberglass Fluid Filter

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

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 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



Environmental Protection Pan

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

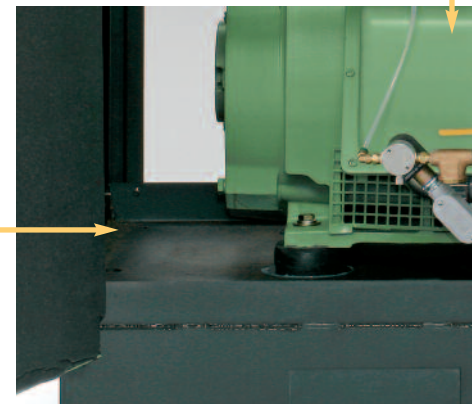
Quick Access to Cooler

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



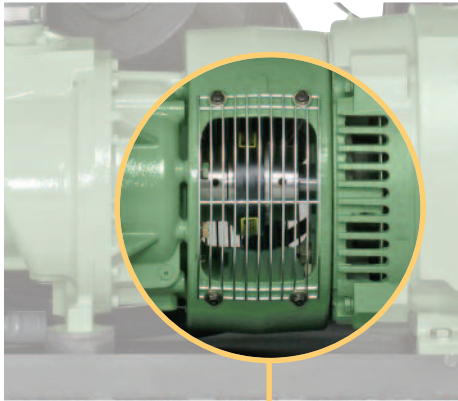
Sullair Motor Features

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



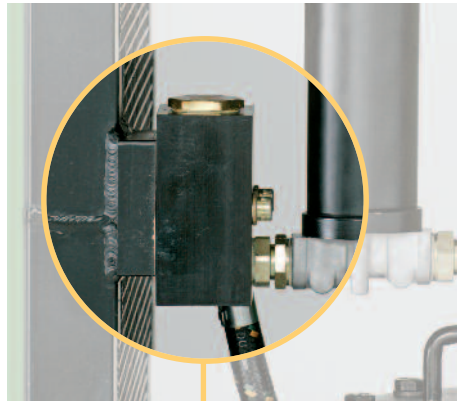
Drive Coupling Element

Easy access through a large opening and a wrap-flex element allows change without disturbing the hubs.



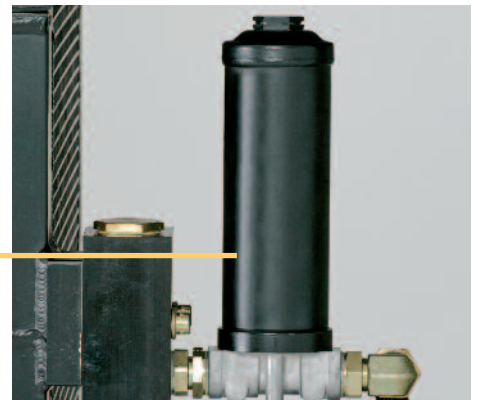
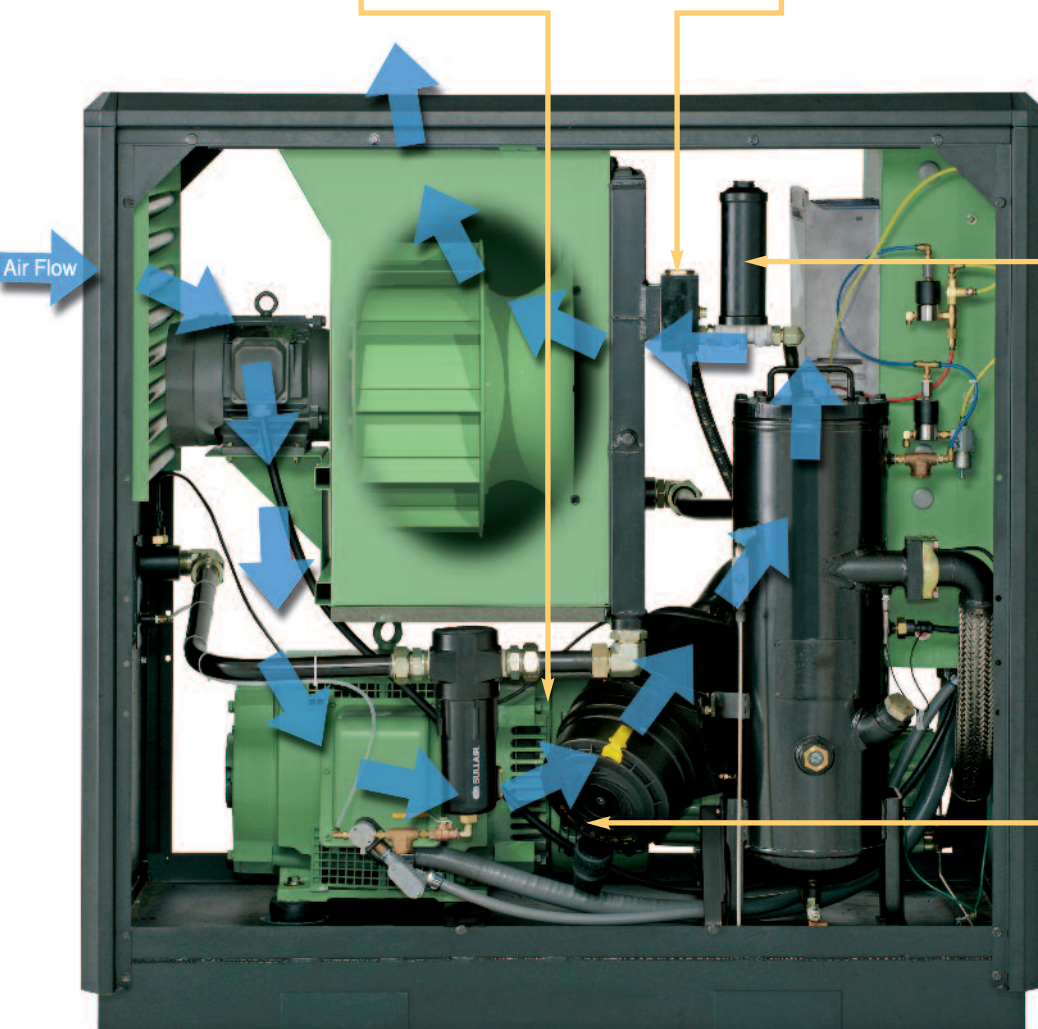
Quick Thermostat Change

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



Improved Separator Maintenance

Simply unbolt the lid and lift it off using the handle. No tubing to disconnect, prevents leaking and saves service time.



Simplified Filter Change

The fluid filter is in an inverted position to minimize lubricant loss during filter changes.



Sullair's Variable Capacity Control Technology

How the Spiral Valve Operation Works

The compression volume varies to suit the air demand by progressively opening or closing internal bypass ports on the air end.

Capacity is matched to system demand, reducing cycling time and extending component life.

Part-load capacity and efficiency can produce energy savings up to 17%.

Variable Displacement Air End

Sullair's variable displacement air end maintains system pressure to

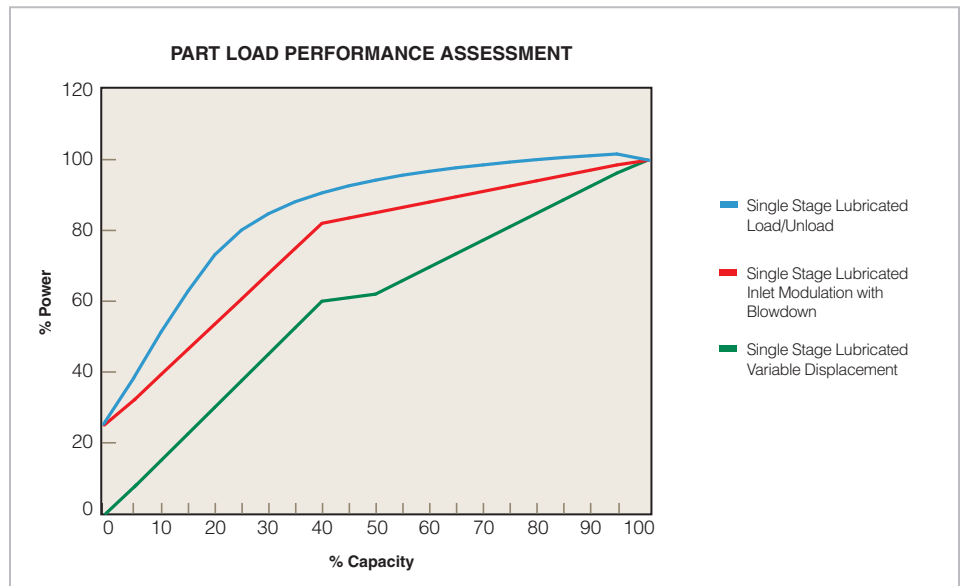
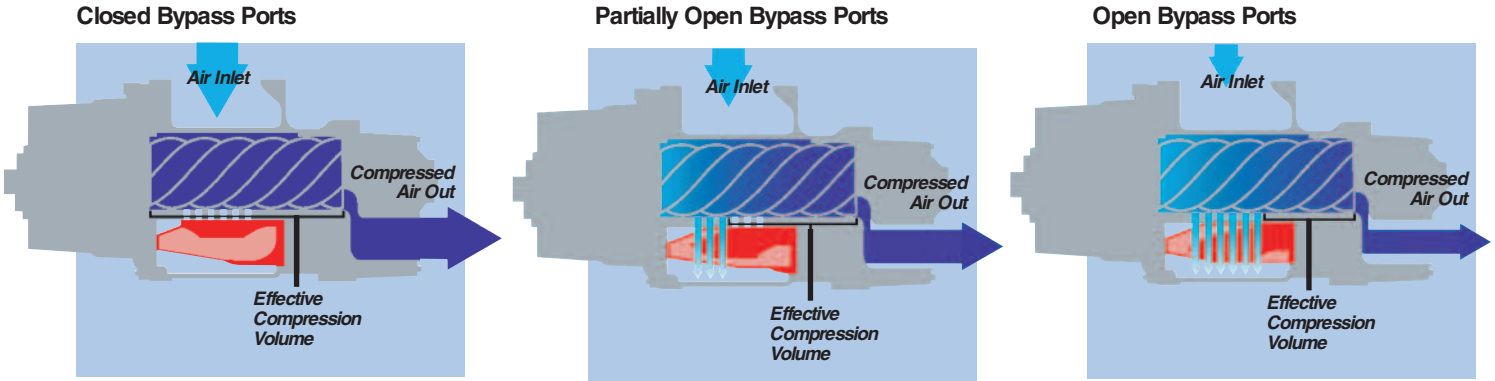
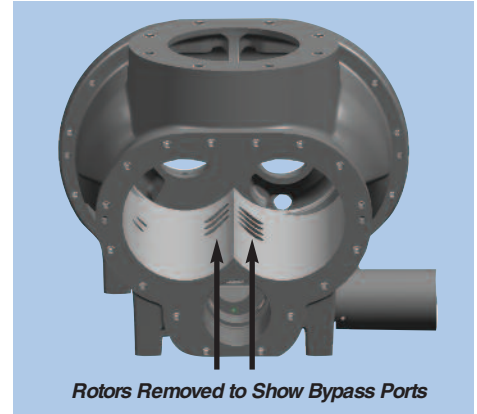
the plant to match air demand. Since the VCC compressors use large, efficient, slow running rotors, a lower power consumption is achieved at the top end of capacity. Oil foaming does not occur, air is not wasted to atmosphere, and bearings last longer.

The motor and air end run at optimum speed and therefore maintain optimum efficiency throughout the full variable output range.

Sullair VCC compressors react quickly to rapid changes in demand. The effective rotor length is progressively reduced as the demand is reduced which provides the most efficient part-

load control system to 50% output. This system is extremely simple and provides a cost effective, energy efficient control alternative.

Bypass Ports in Stator



The *S-energy*® Performance Air System

Clean, Dry Air is Essential

Quality air treatment — the removal of condensate and particulate — is essential. When cooled, vapor in compressed air will condense. The removal of condensate and particulate is essential for quality air. First, the air must be dry. Vapor in compressed air will condense when cooled. 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 Performance Air System

The Performance Air System includes a *S-energy*® compressor and a Sullair 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 Performance Air System is simple to install and, because of its small footprint, requires a minimum amount of floor space.

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.

Technical Specifications

60Hz Motor Frequency			Full-Load Capacities ***								Weight		Discharge Connect	dBA †
Model*	Motor		100 psig	7 bar	125 psig	9 bar	150 psig	10 bar	175 psig	12 bar	lbs	kg		
	hp	kW	acfm	m³/min	acfm	m³/min	acfm	m³/min	acfm	m³/min				
1800	25	18	119	3.37	106	3.00	96	2.71	85	2.40	1420	644	1-1/2" NPT	67
1800V	25	18	107	3.05	99	2.80	90	2.54	81	2.30	1461	663	1-1/2" NPT	67
2200	30	22	140	3.96	127	3.59	111	3.14	104	2.94	1450	658	1-1/2" NPT	67
2200V	30	22	138	3.90	125	3.54	115	3.25	105	2.97	1491	676	1-1/2" NPT	67
3000	40	30	-	-	163	4.61	148	4.19	138	3.90	1615	733	1-1/2" NPT	69
3000V	40	30	-	-	163	4.61	150	4.24	140	3.96	1654	750	1-1/2" NPT	69
4500P	60	45	303	8.58	260	7.36	233	6.59	-	-	2815	1277	2" NPT	72
4500PV	60	45	305	8.63	269	7.61	-	-	-	-	2952	1339	2" NPT	72
4500PS	60	45	310	8.77	276	7.81	-	-	-	-	2957	1341	2" NPT	70
5500	75	55	376	10.64	344	9.74	296	8.38	276	7.81	2886	1309	2" NPT	72
5500V	75	55	377	10.67	341	9.65	306	8.66	278	7.87	2963	1344	2" NPT	72
5500PS	75	55	387	10.96	349	9.88	-	-	-	-	3028	1374	2" NPT	70
7500	100	75	490	13.87	444	12.57	397	11.24	369	10.45	3213	1457	2" NPT	73
7500V	100	75	493	13.96	454	12.85	415	11.75	381	10.79	3405	1545	2" NPT	73
7500P	100	75	500	14.16	457	12.94	418	11.83	371	10.50	3280	1488	2" NPT	71
7500PV	100	75	500	14.16	457	12.94	420	11.89	394	11.15	3472	1575	2" NPT	71
7500PS	100	75	500	14.16	457	12.94	418	11.83	371	10.50	3355	1522	2" NPT	71

50Hz Motor Frequency			Full-Load Capacities ***								Weight		Discharge Connect	dBA †
Model *	Motor		7 bar	100 psig	9 bar	125 psig	10 bar	150 psig	12 bar	175 psig	kg	lbs		
	kW	hp	m³/min	acfm	m³/min	acfm	m³/min	acfm	m³/min	acfm				
1800	18	25	3.09	109	2.86	101	2.55	90	2.38	84	644	1420	1-1/2" NPT	67
1800V	18	25	3.09	109	2.86	101	2.55	90	2.38	84	663	1461	1-1/2" NPT	67
2200	22	30	3.77	133	3.43	121	3.03	107	2.89	102	658	1450	1-1/2" NPT	67
2200V	22	30	3.79	134	3.45	122	3.05	108	2.89	102	676	1491	1-1/2" NPT	67
3000	30	40	4.98	176	4.30	152	4.05	143	3.74	132	733	1615	1-1/2" NPT	69
3000V	30	40	4.98	176	4.30	152	4.05	143	3.77	133	750	1654	1-1/2" NPT	69
4500P	45	60	8.15	288	7.64	270	6.82	241	-	-	1277	2815	2" NPT	72
4500PV	45	60	8.33	294	7.33	259	-	-	-	-	1339	2952	2" NPT	72
4500PS	45	60	8.20	290	7.70	273	-	-	-	-	1341	2957	2" NPT	70
5500	55	75	10.47	370	9.37	331	7.98	282	7.56	267	1309	2886	2" NPT	72
5500V	55	75	10.28	363	9.32	329	8.39	296	7.62	269	1344	2963	2" NPT	72
5500PS	55	75	10.00	354	9.40	332	-	-	-	-	1374	3028	2" NPT	70
7500	75	100	13.30	470	12.43	439	11.63	411	10.30	364	1457	3213	2" NPT	73
7500V	75	100	13.45	475	12.40	438	11.33	400	10.39	367	1545	3405	2" NPT	73
7500P	75	100	13.90	491	12.50	443	11.50	405	10.50	369	1488	3280	2" NPT	71
7500PV	75	100	13.56	479	12.38	437	11.55	408	10.67	377	1575	3472	2" NPT	71
7500PS	75	100	13.90	491	12.50	443	11.50	405	10.50	369	1522	3355	2" NPT	71

* Model Variations: V = Variable Speed Drive; P = Premium Air End; S = Spiral Valve † dBA at 1 meter.

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

Dimensions Models	Length		Width		Height	
	in	mm	in	mm	in	mm
1800, 1800V, 2200, 2200V, 3000, 3000V	53.2	1351	31.5	800	53.2	1351
4500P, 4500PV, 4500PS, 5500, 5500V, 5500PS, 7500, 7500V, 7500P, 7500PV, 7500PS	78.7	1999	43.3	1100	68.9	1750

www.sullair.com



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