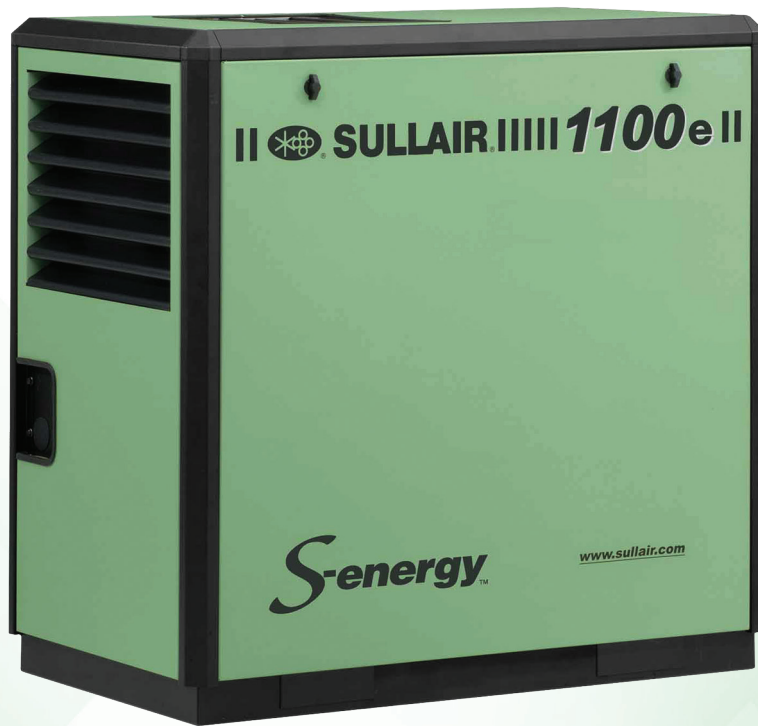


# S-energy®

## Encapsulated Rotary Screw Air Compressors

Constant Speed Drives and Variable Speed Drives

11–18 kW | 15–25 hp



**SULLAIR®**

*Always air. Always there.®*

# 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 assure the highest quality standards in manufacturing. In addition, Sullair Suzhou and Shenzhen facilities are ISO9001, ISO14001 and OHSAS 18001 certified.*

## 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 50 years, Sullair has designed and manufactured its own rotors and air end assemblies 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.

### **STATISTICAL PROCESS CONTROL**

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

### **COMMITMENT TO INNOVATION**

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

# S-ENERGY® ENCAPSULATED ROTARY SCREW AIR COMPRESSORS

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

## FEATURES AND BENEFITS

### 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™ 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
- Genuine Sullube® 10,000-hour, non-varnishing, 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.

### Constant Speed Drive Options

- Cold weather package
- Weather hood
- Other motors and starters
- Total package filtration

# S-ENERGY® SERIES COMPRESSORS ARE EASY TO MAINTAIN

Before we designed the S-energy compressors, we reviewed every aspect of product development with our customers and maintenance staff in mind. The result is Sullair reliability in a compact, robust, maintenance-friendly and quiet package.

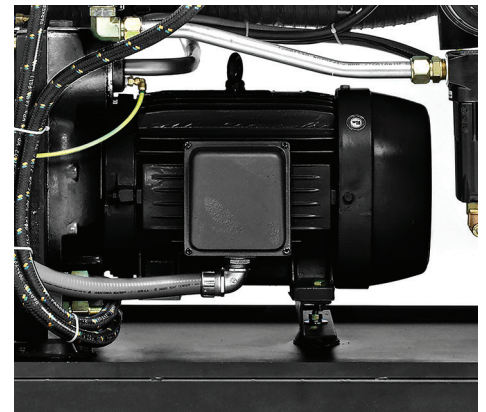
Multiple features of the S-energy units revolutionize the compressor's serviceability and provide a cleaner, safer work environment and cost-effective compressor. Standard maintenance can all be performed from one side.



### WS Controller™

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

- Clear and concise graphic display
- Get critical operations information 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 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

S-energy units feature a fully sealed environmental protection pan to capture spills that may occur during servicing.



### Sullair Optimizer™ Air-Fluid Separator

- High-efficiency 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



### 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

### 1. Convenient Separator Element

The separator is conveniently located for easy service. With no tubing to disconnect, leaks are prevented and service time is minimized.

### 2. Sight Glasses

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

### 3. 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.

### 4. Quick Access to Cooler

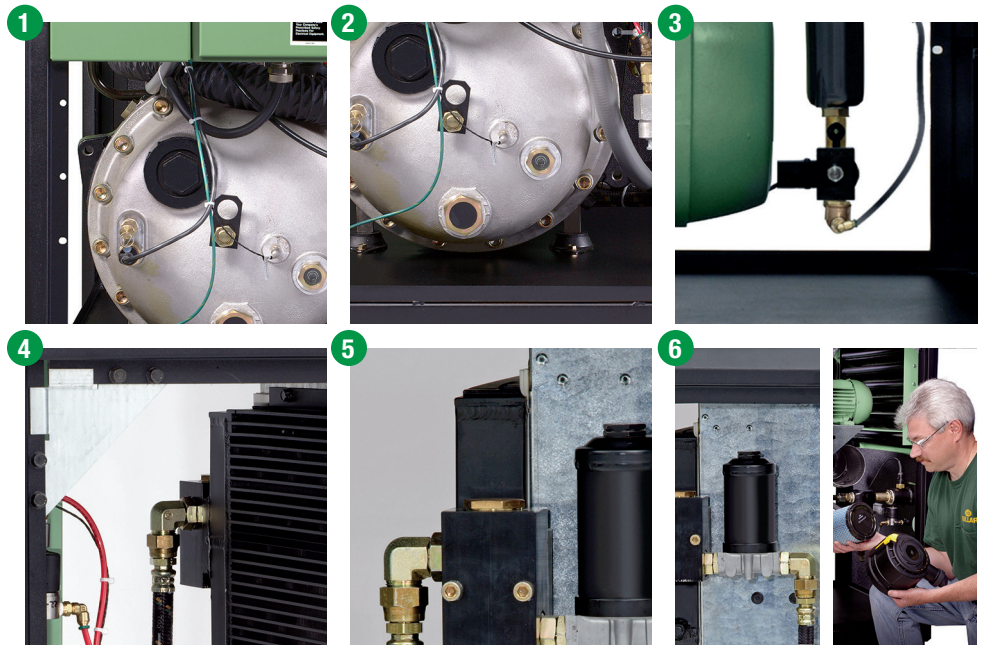
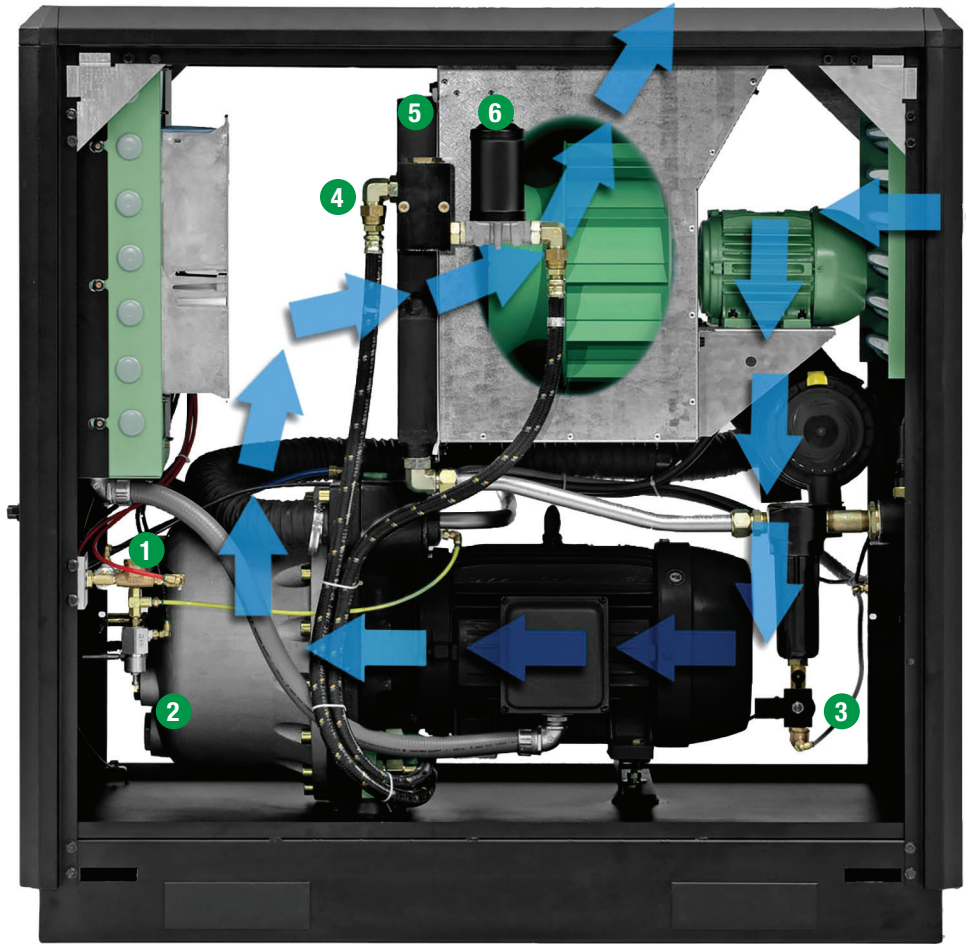
With the removal of just a few bolts, the cooler slides out on rails for easy routine cleaning.

### 5. Quick Thermostat Change

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

### 6. 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.



### 10-year Diamond Warranty

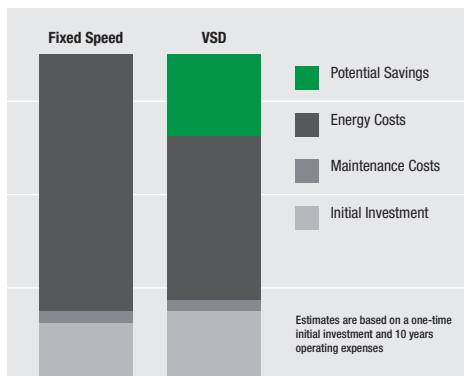
Confirming our rugged design and commitment to customer satisfaction, all new Sullair S-energy® stationary air compressors plus select other models (with discharge pressures up to 150 psig) include the exclusive 10-year Diamond Warranty. The comprehensive warranty covers:

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

# SULLAIR VSD AIR COMPRESSORS

## Sullair compressors with VSD 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
- Low five-year life cycle cost



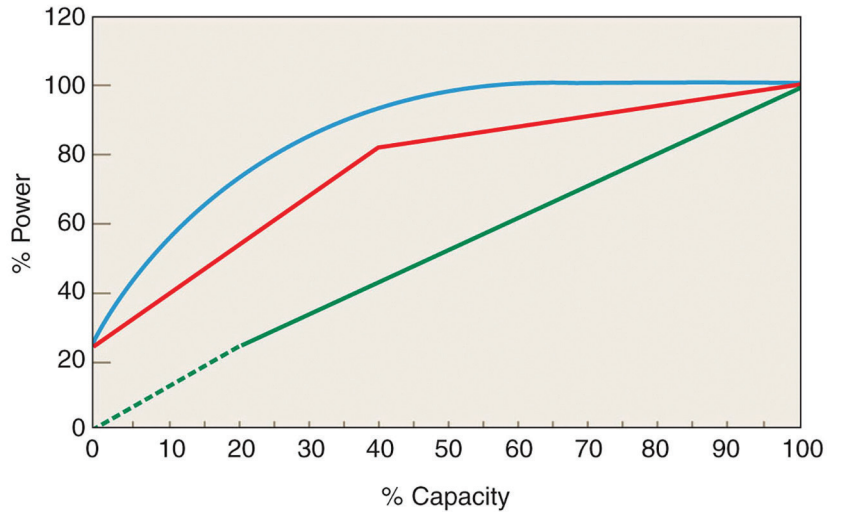
## Your Compressed Air System Can Improve Your Bottom Line

In just ten 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 the flexibility to vary both capacity and pressure. This flexibility makes it possible to “grow” your air system without adding more compressors.

## PART-LOAD PERFORMANCE ASSESSMENT



- Single-Stage Lubricated Load/Unload (The graph represents one gallon of storage per cfm.)
- Single-Stage Lubricated Inlet Modulation with Blowdown
- Single-Stage Lubricated Variable Speed

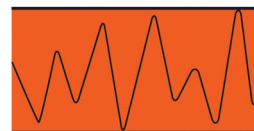


Reference: Compressed Air and Gas Handbook, 6th Edition, pages 221-224.

## Variable Speed Drive is the Superior Alternative

The chart above 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.

### Standard Compressors



### Sullair VSD Compressors



## 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

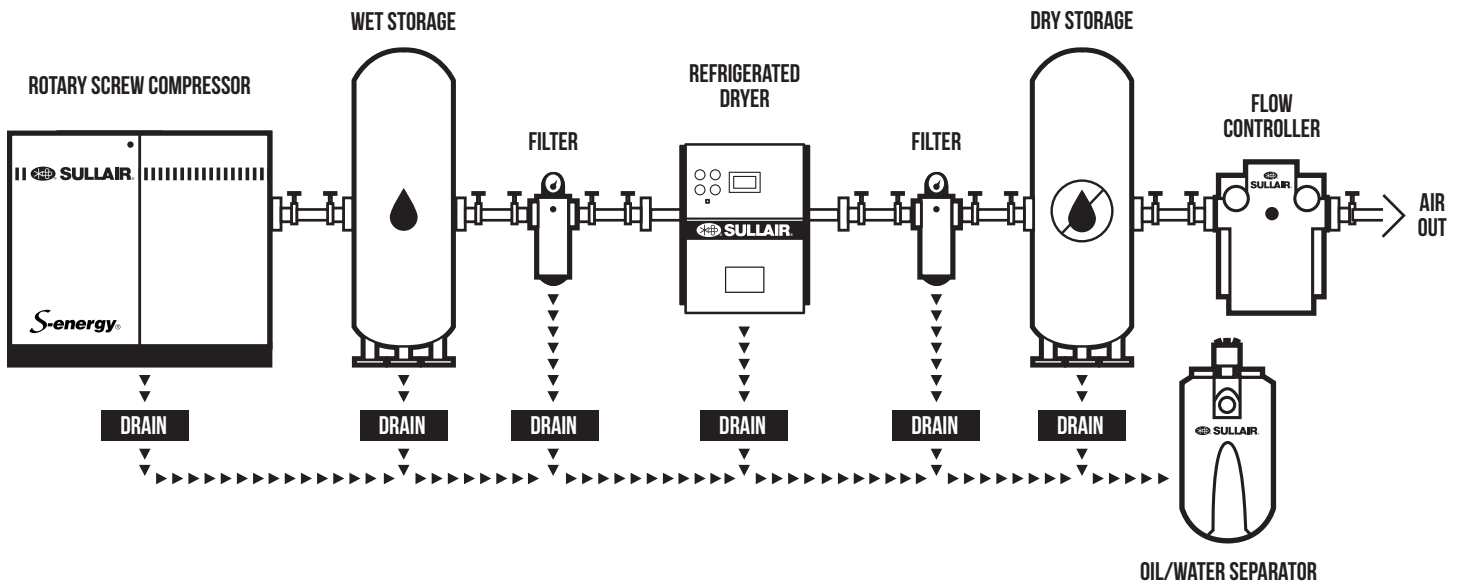
## Soft Start is Standard with Unlimited Starts and Stops

- 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.

# 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 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.

## The system includes:

- Rotary screw compressor
- Wet storage
- Refrigerated dryer or desiccant dryer
- Filters to meet your requirement
- Dry storage
- Flow controller
- Drains
- Oil/water separator

## 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.

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

- Proven Sullair air end with a 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 Genuine Sullube® 10,000-hour fluid.

# TECHNICAL SPECIFICATIONS

60HZ MOTOR FREQUENCY	MOTOR		CONSTANT SPEED DRIVE PERFORMANCE FULL-LOAD CAPACITIES **								WEIGHT		DISCHARGE CONNECT	dBA†
	Model*	hp	kW	100 PSI acfm	7 bar m <sup>3</sup> /min	125 PSI acfm	9 bar m <sup>3</sup> /min	150 PSI acfm	10 bar m <sup>3</sup> /min	175 PSI acfm	12 bar m <sup>3</sup> /min	lbs		
1100e	15	11	68.5	1.93	60.2	1.70	-	-	43.7	1.23	1044	474	1½" NPT	66
1500e	20	14.7	-	-	79.2	2.24	-	-	61.5	1.74	1098	498	1½" NPT	66.5
1800e	25	18.4	-	-	99.3	2.81	-	-	78.5	2.22	1122	509	1½" NPT	67

60HZ MOTOR FREQUENCY	MOTOR		VARIABLE SPEED DRIVE PERFORMANCE FULL-LOAD CAPACITIES **								WEIGHT		DISCHARGE CONNECT	dBA†
	Model*	hp	kW	100 PSI acfm	7 bar m <sup>3</sup> /min	125 PSI acfm	9 bar m <sup>3</sup> /min	150 PSI acfm	10 bar m <sup>3</sup> /min	175 PSI acfm	12 bar m <sup>3</sup> /min	lbs		
1100eV	15	11	69.2	1.95	59.1	1.67	50.6	1.43	46.4	1.31	1078	489	1½" NPT	66
1500eV	20	14.7	90.9	2.57	80.9	2.29	69.6	1.97	64.8	1.83	1132	513	1½" 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	1½" NPT	67

50HZ MOTOR FREQUENCY	MOTOR		CONSTANT SPEED DRIVE PERFORMANCE FULL-LOAD CAPACITIES **								WEIGHT		DISCHARGE CONNECT	dBA†
	Model*	hp	kW	100 PSI acfm	7 bar m <sup>3</sup> /min	125 PSI acfm	9 bar m <sup>3</sup> /min	150 PSI acfm	10 bar m <sup>3</sup> /min	175 PSI acfm	12 bar m <sup>3</sup> /min	lbs		
1100e	11	15	66.5	1.88	-	-	48.8	1.38	36.1	1.02	1044	474	1½" NPT	66
1500e	14.7	20	83.8	2.37	-	-	64.8	1.83	60.6	1.72	1098	498	1½" NPT	66.5
1800e	18.4	25	98.3	2.78	-	-	81.7	2.31	76.4	2.16	1122	509	1½" NPT	67

50HZ MOTOR FREQUENCY	MOTOR		VARIABLE SPEED DRIVE PERFORMANCE FULL-LOAD CAPACITIES **								WEIGHT		DISCHARGE CONNECT	dBA†
	Model*	hp	kW	100 PSI acfm	7 bar m <sup>3</sup> /min	125 PSI acfm	9 bar m <sup>3</sup> /min	150 PSI acfm	10 bar m <sup>3</sup> /min	175 PSI acfm	12 bar m <sup>3</sup> /min	lbs		
1100eV	11	15	66.0	1.87	56.5	1.60	48.0	1.37	44.5	1.26	1078	489	1½" NPT	66
1500eV	14.7	20	86.6	2.49	77.3	2.19	67.8	1.92	58.9	1.67	1132	513	1½" NPT	66.5

DIMENSIONS	LENGTH		WIDTH		WEIGHT		
	Model*	in	mm	in	mm	lbs	kg
1100e, 1500e, 1800e, 1100eV, 1500eV, 1800eV	53.2	1351	31.5	800	1351	532	

\* Model Variations: V = Variable Speed Drive; e = Encapsulated

\*\* Capacity per CAGI / PNEUROPN2CPTC2 (Annex C to ISO 1217)

Moisture Drain Connection at ¼" NPT

† dBA at 1 meter

Information and data are subject to change without notice.

For more information, contact your local authorized Sullair distributor.