



Stationary Product Overview

Sullair Global Facilities



**Commercial HQ
Chicago, Illinois**



**US Manufacturing
Michigan City, Indiana**
















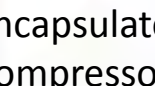


**Shenzhen Sullair Asia
Chiwan, China
+
Sullair Suzhou**



**Sullair /Champion Compressor
Hallam, Australia**

Sullair Product History

1960's	1970's	1980's	1990's	2000's to current
<p>Rotary Screw Industrial Compressor Introduced</p> 	<p>Air-end Manufacturing Begins</p> 	<p>Sullube™ Introduced</p> 	<p>Sullair Europe Established</p> 	<p>S-energy launch & redesign 30-75 kW</p> 
	<p>24KT™ Introduced</p> 	<p>2-Stage Tandems</p> 	<p>Sullair Asia Joint Venture</p> 	<p>Shoptek 4-110 kW</p>  
		<p>Rotary Screw Vacuum Systems</p> 	<p>Flow Controllers</p> 	<p>Refrigerated & Desiccant Dryers</p> 
		<p>Spiral Valve Technology</p> 		<p>AirMetrix</p> 
		<p>Encapsulated Compressors</p> 		

Accudyne Industries Companies History



Terminology

- Bar = pressure (also referred as PSIG in USA)
- dBA = decibel, sound level
- kW (also referred as Hp)



Sullair Stationary Air Power Systems

With our expertise in analyzing, managing and controlling compressed air since 1965, Sullair offers total compressed air solutions that help you reduce energy costs and improve productivity.

What does Sullair offer?

- Plant Air Audit Equipment
- Energy Efficient Products
- Compressed Air System Controls
- Monitoring Equipment to manage air systems
- Air distribution products
- After-purchase Support
- Full complement of OEM parts and lubricants

Stationary Compressor Profile



ES6 4-7.5 kW



C.E. ShopTek 4-110 kW



S-energy 11-75 kW



Large Electric Single Stage 90-260 kW
Two Stage 75-450 kW



Air Treatment



Oil Free Dry Screw
75-150 kW



Vacuum
4-15 kW



ShopTek™

4 - 110 kW



The Opportunity

- A great Better/Best Strategy
- Largest market opportunity
- Gateway to new markets
- New customer contacts
- Expanded Parts and Service business

ShopTek™ Target Markets:

- Automotive
 - Repair shops/body shops
 - Paint shops
 - Auto dealers
- Laundry/Dry Cleaning
- Woodworking/Cabinetry
- Tool & Dye
- Laboratories
- Screen Printing





ShopTek™

Nomenclature

Example: ST1510

- ST stands for ShopTek
- 15 is the Kw rating
- 10 is the pressure rating



Product Features



- C.E. TEFC (IP55) motor is standard
- Factory filled with 10,000 hour Genuine Sullube
- Fluid Carryover is < 2 PPM
- Environmental protection pan
- Reliable belt drive 4-15 kW
- Direct Drive 18.5-110 kW
- Variable Speed Drive (18.5-75 kW)
- Variable Speed Drive & Spiral Valve (90-110 kW)
- Continuous Duty
- Simple Installation
- Quiet Operation

Product Features

4 – 15 kW

- Conforms to C.E. norms
- Available in 8 Bar (*Conversion kit available for distributor to convert to 10 Bar*)
- Quiet & Compact with simple design
- Integrated full-voltage starter
- Value Priced (Entry-Level)
- Belt-Driven
- Easy to Maintain
- All-In-One Maintenance Kit
- MCC Controller
- After cooler (11-15 kW)



ShopTek™ 4 – 15 kW

Separator

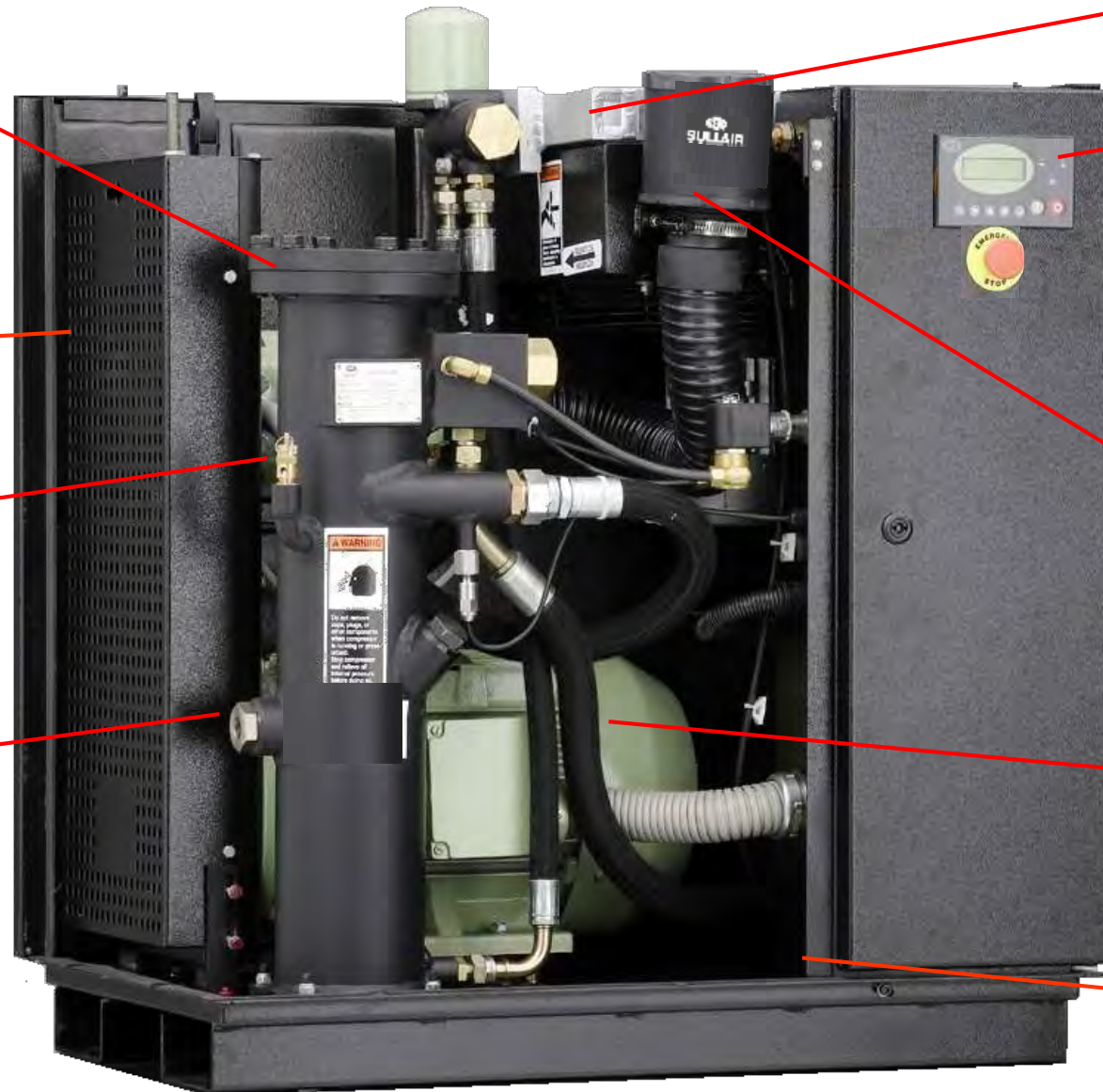
- C.E. certified receiver
- No tubing to disconnect
- “O” Ring seal prevents leaking
- Reduces service time
- Fluid sight glass

V-Belt System

- Protective belt guard
- Easily adjusted and aligned

Safety Relief Valve

Fluid Level Sight Glass



Fluid and Air Cooler(s)

- East access for maintenance
- Air cooled
- Aftercooler on 11 & 15 kW models

Control Panel

- Starter:
 - 4-7 kW: Full Voltage
 - 11-15 kW: Y-Delta
- Easy access to controls
- Electronic Controller
 - Matches output to demand
 - Clear and concise graphic display
 - Monitors status of key operating parameters

Heavy Duty Air Filter

- Protects key components from premature failure
- Extends separator, fluid filter and fluid life
- Easy access for maintenance

IP55 Motor

- IE3

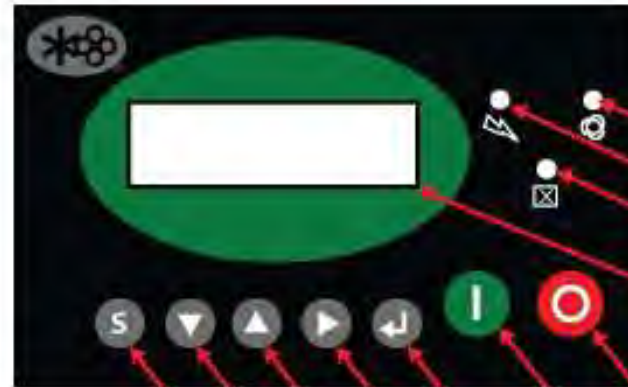
Environmental Protection Pan

- Fully-sealed
- Captures spills

MCC Controller

Monitors:

- Main motor electric current
- Temperature
- Pressure
- Run time
- Operating status using LCD and indicator light



1	Run Mode Indicator Light (Green)
2	Power On Indicator Light (Red)
3	Fault Warning Indicator Light (Red)
4	Display Panel
5	Stop Button
6	Start Button
7	Return/Reset Button
8	Cursor/Confirm Button
9	Up Button
10	Down Button
11	Set.Load.Unload Button

11 10 9 8 7 6 5

Belt Tensioning Device

- Part Number 02250176-016
- Offered as Service Tool
- Pricing available on SULLINET



Product Features

18.5 – 37 kW

- Conforms to C.E. norms
- Available in 8 & 10 Bar
- Wye-Delta Starter
- Optional Variable Speed Drive
- Quiet & Compact with simple design
- Value Priced (Entry-Level)
- Direct Drive
- Form, Fit, Finish
- Easy to Maintain
- All-In-One Maintenance Kit
- EC 2000 Controller (Fixed Speed)
- Deluxe Micro processor Controller (VSD)



ShopTek™

18.5 – 37 kW

Separator

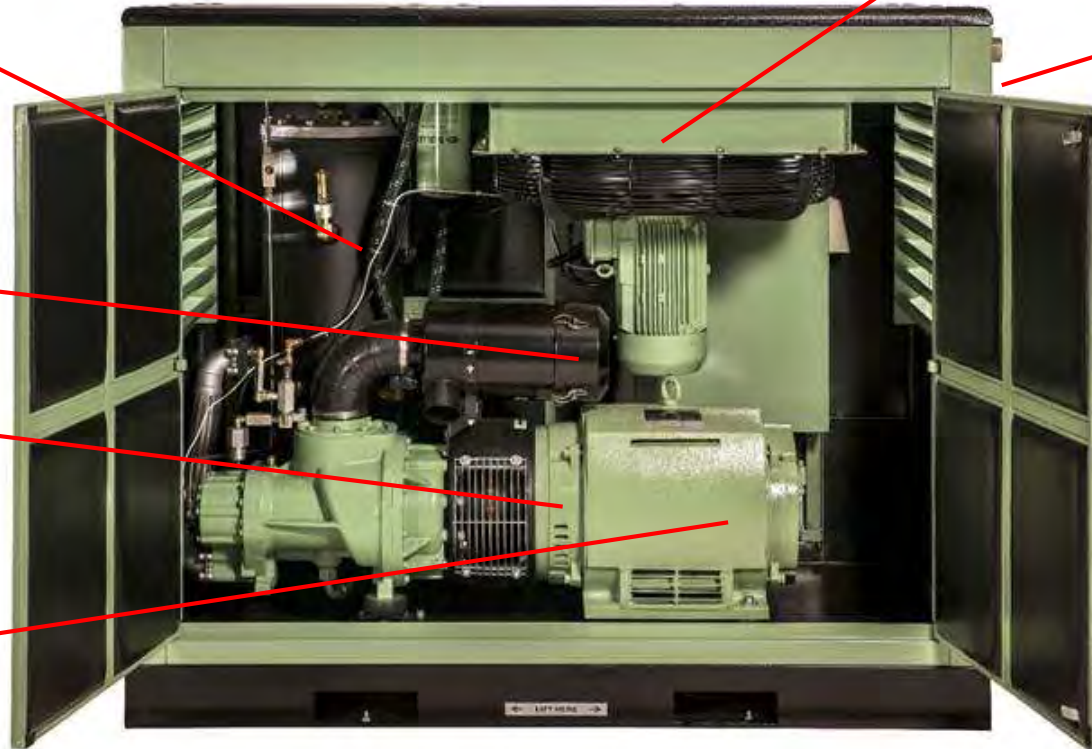
- C.E. certified receiver
- No tubing to disconnect
- “O” Ring seal prevents leaking
- Reduces service time
- Fluid sight glass

Heavy Duty Inlet Filter

Direct-coupled Gear Drive

IP55 Motor

- IE3



Fluid and Air Cooler(s)

- East access for maintenance
- Air cooled

Control Panel

- Y-Delta starter (fixed speed)
- Easy access to controls
- Electronic Controller
 - Matches output to demand
 - Clear and concise graphic display
 - Monitors status of key operating parameters

Variable Speed Drive

Optional VSD available provides flexibility to vary both capacity and pressure to better match compressed air demand and supply. Sullair Compressors with VSD provide:

- Stable system pressure
- Flexibility for future growth
- Excellent energy savings

Product Features

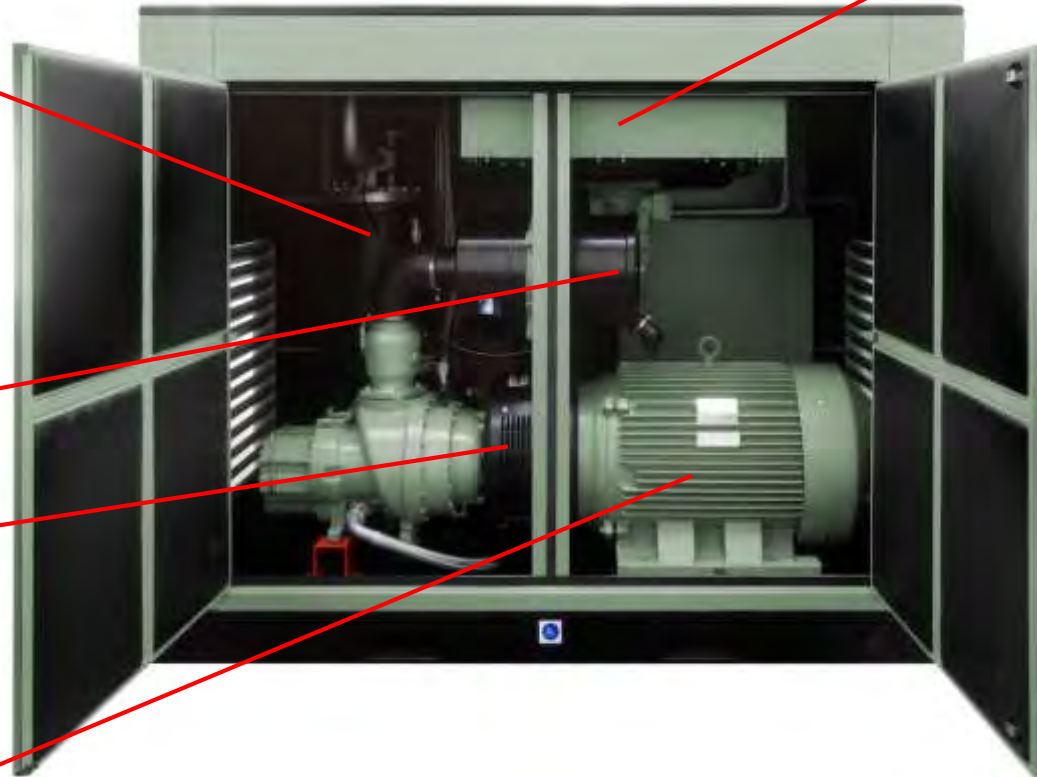
45 – 110 kW

- Conforms to C.E. norms
- Available in 8 & 10 Bar
- Available in Fixed Speed & Variable Speed Drive (45-75kW)
- Available in Fixed Speed, Spiral Valve or Variable Speed Drive & Spiral Valve (90-110kW)
- Quiet & Compact with simple design
- Value Priced (Entry-Level)
- Direct Drive
- Easy to Maintain
- All-In-One Maintenance Kit



ShopTek™

45 – 110 kW



Separator

- C.E. certified receiver
- High quality/low carryover
- Access panel for easy removal
- Fluid sight glass

Heavy Duty Inlet Filter

Direct-coupled Gear Drive

IP55 Motor

- IE3

Fluid and Air Cooler(s)

- East access for maintenance
- Air cooled

Control Panel

- Y-Delta starter (fixed speed)
- Easy access to controls
- Electronic Controller
 - Matches output to demand
 - Clear and concise graphic display
 - Monitors status of key operating parameters

Variable Speed Drive

Optional VSD available provides flexibility to vary both capacity and pressure to better match compressed air demand and supply.

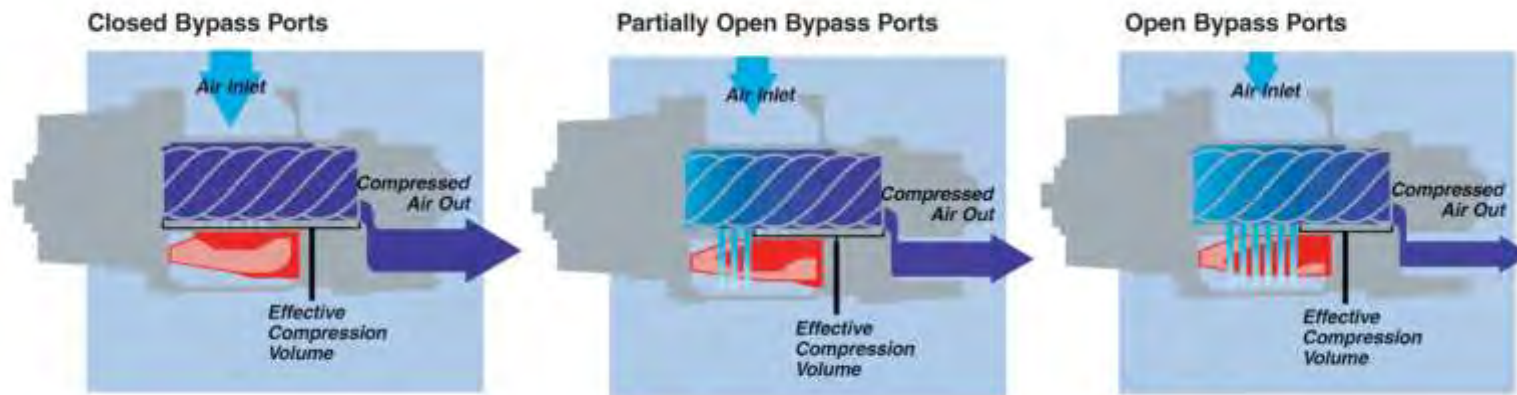
Sullair Compressors with VSD provide:

- Stable system pressure
- Flexibility for future growth
- Excellent energy savings

Spiral Valve

90 – 110 kW

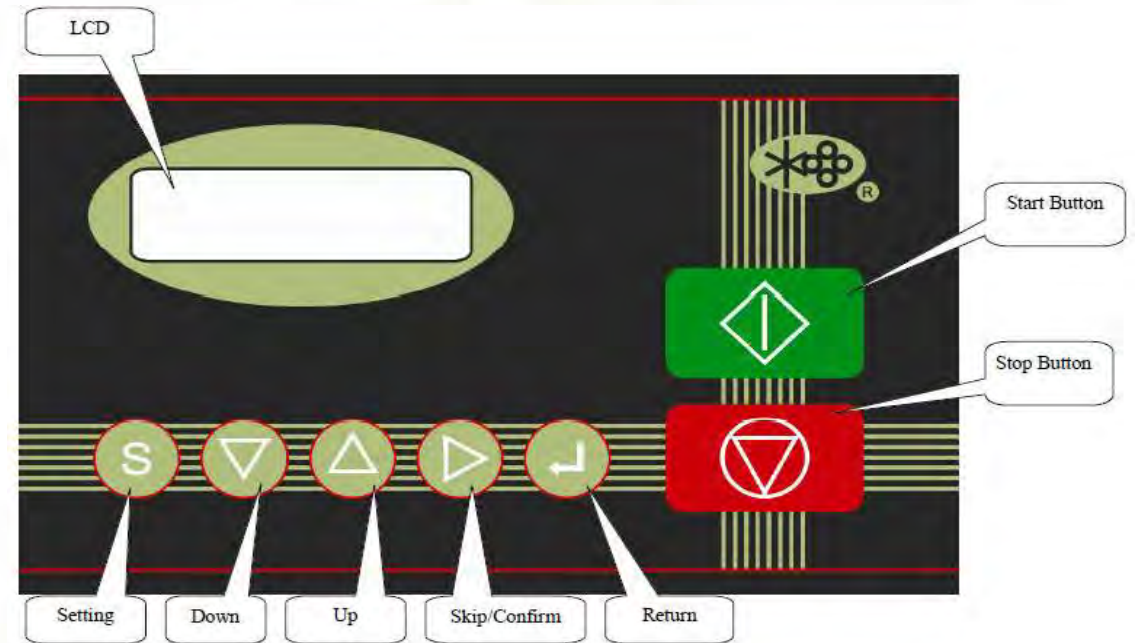
- The compression volume varies to suit the air demand by progressively opening or closing internal bypass ports on the air-end.
- Capacity is matched to system demand, reducing cycling time and extending component life.
- Part load capacity and efficiency can produce energy savings up to 17%.
- Variable Displacement Air End maintains system pressure to match plant air demand. Lower power consumption is achieved at the top end of capacity.
- Spiral valve compressors react quickly to plant demand change; provides most efficient part load control system to 50% output. Simple, cost effective and energy efficient controls alternative.



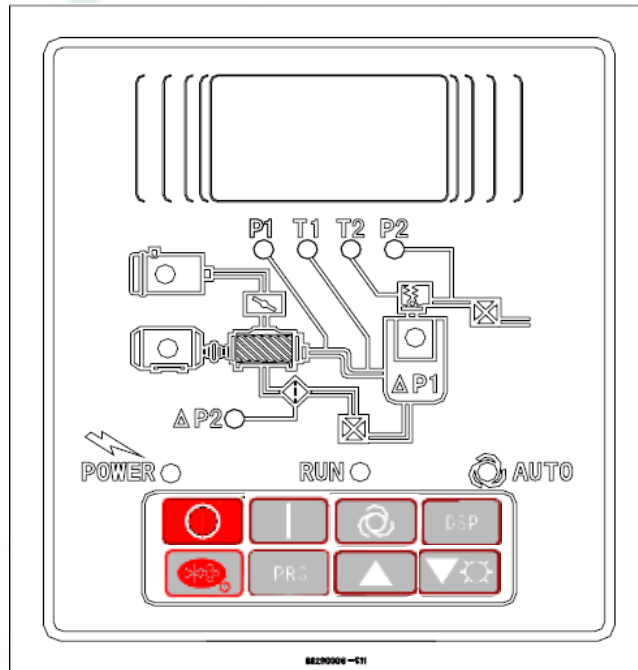
- Available on 90 & 110 kW C.E. ShopTek










Controller 18.5 - 110 kW (Fixed Speed) EC 2000

- Simple touchpad control
 - Easy adjustments
 - Password protected
 - Manual and automatic operation
 - Sequencing of up to 16 machines (ShopTek Only)
- Clear and concise graphic display
- Real time status and updates
- Safeties and shutdowns protect the compressor



Controller 18.5-110 kW (VSD) Deluxe Micro Processor



-  •STOP - Manually shut down the machine and eliminate the alarming
-  •MANUAL - Start up the machine at the operation mode and select manual operation Mode
-  •AUTO - Start up the machine in operation mode and select automatic operation mode
-  •DISPLAY- Display the pressure, temperature and other operation parameters
-  •PROGRAM - Press the key in operation mode to enter into the site parameter setup
-  •UP ARROW - Used to change the displayed parameters in Status Display Mode
-  •DOWN ARROW - Used to change the displayed parameters in Status Display Mode
-  •Sullair Mark key- to complete specific operations in combination with other keys.
-  Press this key to check back in parameter setup mode.

- Graphical LED warnings on Display
- Amps & Volts monitor
- Real Time clock
- Four line Status display

- Sequence capable
- Dual RS 485 Ports
- Two Analogue output ports
- Four LCD background colours
- Dew point warning

Literature



- Electronic copies available in multiple languages (4-37kW)
 - Currently English, French, Spanish, Polish
- 45-110kW – in the process of signing off and translating in above languages

Serviceability

- Easy to maintain layout with high efficiency air filter, fluid filter and fluid separator
- Removable door (4-15kW)
- Service access on 2 sides (18.5kW above)
- Fluid Filter and Air Filter differential indicators for easy identification of contamination

Emerald Warranty on ShopTek Effective ?

- 5 Years coverage on major components on units up to & including 10 Bar discharge. Conditional on the use of Sullair fluids and parts, and maintaining the machine in accordance with Sullair's recommended intervals & requirements.
- Covers Air End (except shaft seal, inlet valve, piping tubing & spiral valve actuator, oil pump & discharge check valve), Main Motor, Coolers, Controller and Air/Oil Separator Tank. On VSD models, the VSD is included.
- Changed to better differentiate the ShopTek from S-energy line

Maintenance Schedule

CUSTOMER care
by SULLAIR.

ShopTek Maintenance

ST4,5 & 7

	RECOMMENDED SPARE PARTS	COMPLETE PART REFERENCE	Kit Part N°.	KIT	Qty	Between 50h and 100h	1000 h (if indicated)	2000 h	4000 h	6000 h	8000 h or 1 Year	10000 h 1 Year	12000 h	14000 h	16000 h or 2 Years
SPARE PARTS	Replace either hourly or on time duration, whichever is soonest														
x = Replace or Service	Fluid Sullube (Pack 4 x 5 liters) *	02250180-260	02250181-422	A	0.25							x			x
	Fluid filter element		88290014-484	A	1	x	x	x	x	x	x	x	x	x	x
	Air filter element		88290014-486	A	1		x	x	x	x	x	x	x	x	x
	Separator element		88290015-049	A	1				x		x		x		x
	Return line filter (strainer)		88290015-890		1										x
	Kit rebuild, inlet valve		02250176-967		1										x
	Kit minimum pressure valve	02250046-338	02250050-612		1										x
	Kit Repair, Thermal valve, 85°C, < 12 bar	02250078-204	02250144-326		1										x
	Belt 400,500		88290016-410	B	2						x				x
	Belt 700		88290015-901	C	2						x				x
	KIT,MAINTENANCE ST 400,500		02250175-746	A+B											
	KIT,MAINTENANCE ST 700		02250175-747	A+C											
RECOMMENDED PARTS FOR STOCK															
	Solenoid valve	88290015-219	88290016-030												
	Kit, hose replacement		02250181-735												
	Kit, shaft seal replacement		02250179-875												
	Kit, wear sleeve replacement		02250181-451												
	Separator tank safety valve		68562951												
	Cooler comb,air fluid		88290014-903												
	Controller		88290018-640												

*machine capacity 4 L	4L
-----------------------	----

Check Operation & Maintenance Manual for the correct service procedure.

Please quote compressor model, serial number and B.O.M number when ordering spare parts.

Why Choose a Sullair ShopTek?

- ShopTek air compressors redefine industry standards for continuous duty compressors in the 4-110kW range.
- Compressed air is the 4th most demanded utility behind electricity- instrumental to keeping our customers in production. Products available in short lead times to reduce downtime.
- Designed with a small footprint and built to provide exceptional reliability and low maintenance
- High quality, lower cost product backed by our 5 year Emerald Warranty

Mini Test

- What are the pressures available in the C.E. ShopTek line?
 - 8 Bar for 4-15kW with conversion kit for distributor to convert to 10 Bar
 - 8 & 10 Bar for 18.5kW and above
- Name 3 of the typical applications for the ShopTek
 - Automotive (Repair shops/body shops, Paint shops, Auto dealers)
Laundry/Dry Cleaning, Woodworking/Cabinetry, Tool & Dye, Laboratories,
Screen Printing
- What are the benefits of a spiral valve?
 - Reduce energy consumption by 17%

ES-6

4 – 7 kW



ES Nomenclature

- Example: ES6-10H AC
 - ES stands for encapsulated screw
 - Encapsulated=combines motor, compressor unit, cooling unit and air-fluid separator into one fixed component.
 - 6 is for millimeter size of rotor (63mm)
 - 10 is the HP rating
 - H is the pressure rating (125 PSIG / 8 Bar)
 - AC stands for air cooled (not available with water cooled)

ES6 Product Highlights

- Ultra compact design- easy to install and service
- Standard Air End made in Michigan City, USA
- Low noise rating- 68 dBA with enclosure option
- Easy to read temperature and pressure gauges
- Modulation Control System
- < than 2 PPM Fluid Carryover
- Standard full voltage starter
- NEMA 1 Standard
- Heavy-duty air filter
- Sullube fill- standard
- Spin on fiberglass fluid filter



ES6 Options

- Sound enclosure
- 80 or 120 receiver tank
- RN dryer
- FXF filter
- Wye-delta starter



Sound enclosure option



Receiver tank with dryer options

ES6 Models

Model	kW	Bar	Hz
ES6	3.7	7, 8.6, 12	50
ES6	4.1	7, 10, 12	50
ES6	5.5	7, 8.6, 10 ,12	50
ES6	7.5	7, 8.6, 10 ,12	50



S-energy[®]

11-18.5 kW



Typical Applications

- Construction Trade
- Rendering Facilities
- Welding
- Mining
- Chemicals Industry
- Energy Industry
- Health Systems
- Paper-Processing
- Wood Processing
- Steel Mills and Foundries
- Plastics Industry
- Textiles Industry



1100e-1800e

Example: 1109e

-11 is the kW rating

-09 is the pressure rating in bar

-e is for encapsulated*

Encapsulation= compressor unit inside the bell housing. There is no separator tank, the separator element is also inside the bell housing

Product Highlights

- Available pressures: 7, 10 & 12 Bar
- Ultra compact design
 - Easy to install
 - Easy to service
- Noise rating as low as 66 dBA
- User friendly controls
 - WS Controller
 - Modulation control system
 - Simple operation



WS Controller

- Clear and concise graphic display
- Easily access critical operations information, including status, temperature, pressure and load/unload set points
- Use a Windows PC to remotely monitor, upgrade the software and change parameters
- Built-in sequencing of up to 16 machines. This includes WS controller and Supervisor Controller for Large Electric



Product Features



- Slow speed- 1800 rpm
- Cast iron construction
- NEMA TEFC design
- Direct coupled/flanged mounted
- Premium efficient motor
- Diamond Warranty

Product Options

- Nema 4 Starter (Wye-Delta)
- Cold weather package
- Weather hood
- Total package filtration
- Zero loss drains
- Other motors and starters
- Phase monitor



S-energy®

18.5 - 30 kW



S-energy® Nomenclature

1800-3000

Example: 2209V

-22 is the kW rating

-09 is the pressure rating in bar

-V is for Variable Speed Drive

Product Highlights and Features

- Available Pressures: 7,9,10 & 12 Bar
- Ultra compact design
 - Easy to install
 - Easy to service
- Noise ratings as low 66 dBA
- User Friendly Controls
 - WS Controller
 - Modulation Control System
 - Simple Operation
- Variable Speed Drive Available
- Sullair's Industry leading Airend with low restriction inlet valve
- Optimized fluid system that reduces fluid temperatures
- Premium efficient motors
- Low pressure drop air fluid separation system
- High efficiency fan

Product Options

- Nema 4 Starter (Wye-Delta)
- Cold Weather Package
- Weather hood*
- Storage Tanks
- Zero Loss Drain Valve
- Remote Air Intake
- Phase Monitor Relay



Benefits of S-energy to end users

- S-energy compressors can significantly reduce operating and energy costs over the compressor life cycle
- Proven air end with low-restriction inlet valve
- Premium efficient drive motor design
- Low pressure-drop air-fluid separation system to prevent energy loss
- Sullair delivers cost savings for the life of the product-how?
- Soft start standard- unlimited starts and stops
- 35% Energy Savings in the first 5 years
- Improved air filtration translates into:
 - Extended separator life
 - Improved filter life
 - Less lubricant contamination

Feature	ShopTek	S-energy
Feature	ShopTek	S-Energy
Drive	Belt/Gear	Gear
Sullube	Standard	Standard
Diamond Warranty	N/A	Standard
Low Sound Enclosure	75-80 dBa	66-71 dBa
Motor	Standard – Hebei (TEFC)	Standard – WEG (ODP)
Starter	Wye-Delta or VSD	Option
Heavy Duty Air Filter	1000 hours	2000 hours
Sullair Optimizer Air-Fluid Separator	N/A	Standard
Other Voltages	N/A	Option
Air cooled	Standard	Standard
Microprocessor Controller	MCC/EC/SCN	WS
Electrical Rating	IP 54	Nema 12
Modulation	Standard	Standard
VSD	Option	Option
Sequencing	N/A	Standard
Oil Carryover	<2ppm	<1.5ppm
Cold Weather Package	N/A	Option
Package Air Inlet Filter	N/A	Option
Phase Monitor Relay	N/A	Option
Remote Air Intake	N/A	Option
Zero Loss Drains	N/A	Option
Weather hood	N/A	Option

ShopTek 11-30 kW vs. S-energy?

- ShopTek:

- Standard package for customers needing compressed air
- No “bells and whistles”
- Reliable product
- No sequencing available
- 5 year factory Emerald Warranty
- Lots of stock available!

- S-energy:

- Enhanced package for when customers want more options
- “bells and whistles”
- Premium Sullair flagship product
- Also very reliable
- 10 year factory Diamond Warranty
- Stock and engineered ordering available



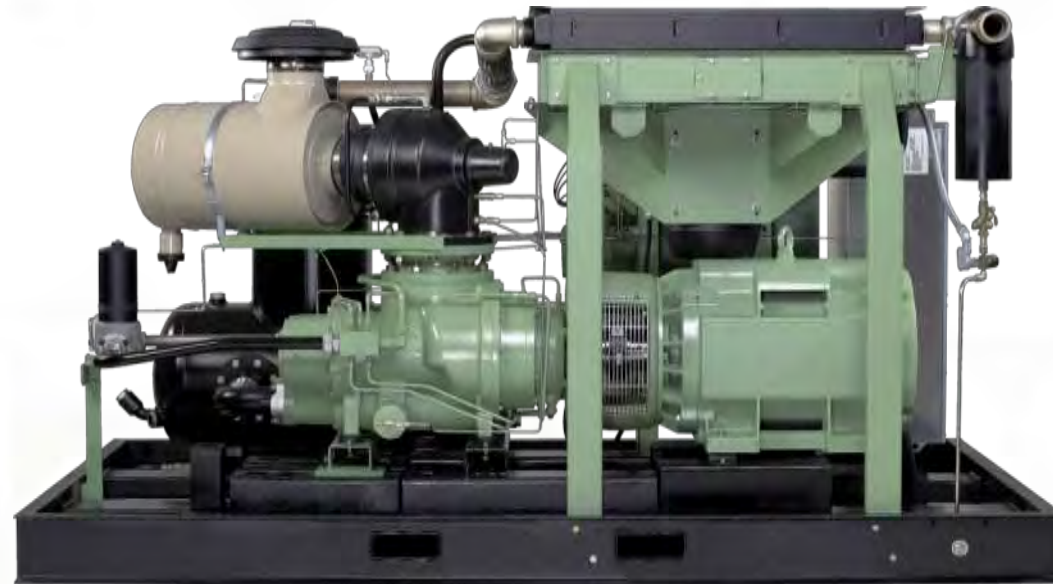
Model	kW	Bar	Hz
1100E	11	07,09,12	50
1500E	15	07,09,12	50
1800E	18.5	07,09,12	50
1800	18.5	07,09,10,12	50
2200	22	07,09,10,12	50
3000	30	07,09,10,12	50
1800V	18.5	07,09,10,12	50
2200V	22	07,09,10,12	50
3000V	30	07,09,10,12	50

Mini Test

- What does the « V » on the nomenclature mean?
 - VSD
- Name 3 typical applications for the S-Energy?
 - Construction Trade, Rendering Facilities, Welding, Mining, Chemicals Industry, Energy Industry, Health Systems, Paper-Processing, Wood Processing, Steel Mills and Foundries, Plastics Industry, Textiles Industry
- What are the available kW on the ES6 & S-Energy range?
 - From 11 to 30kW

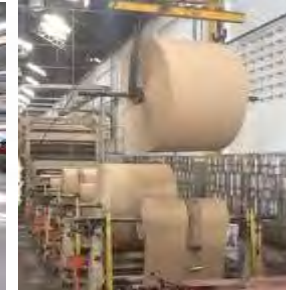
Single Stage Large Electric

93-261 kW



Large Electric Applications

- Steel Mills
- Tire Plants
- Automotive
- Forging Plants
- Chemical Processing
- Paper Industry
- Large Manufacturing Facilities

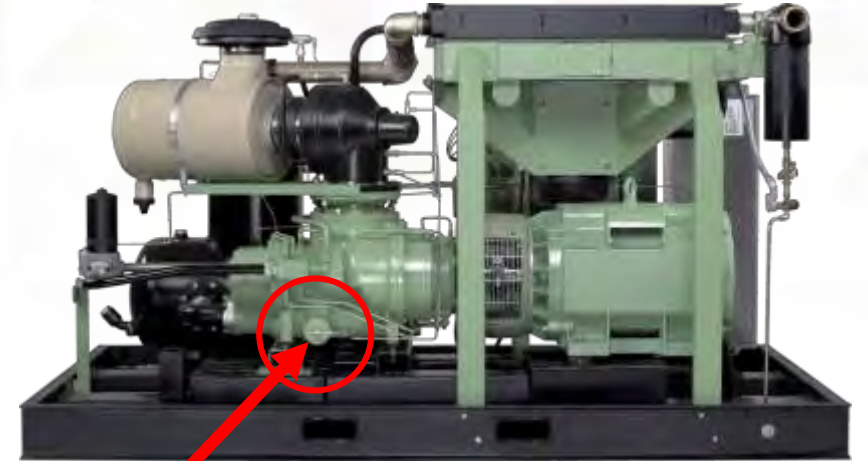
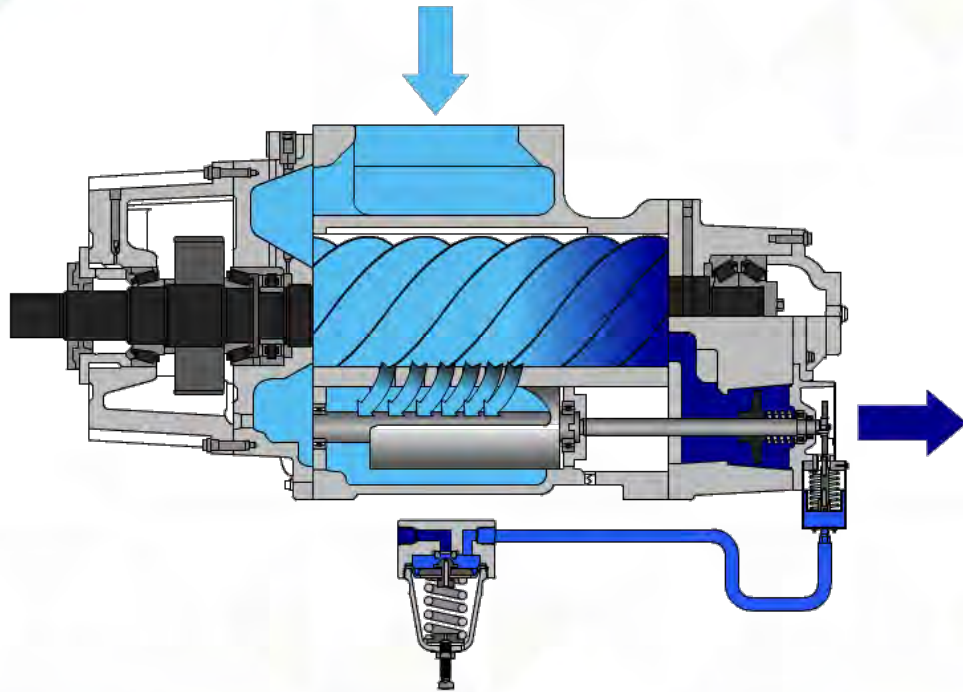


Single Stage Large Electric Nomenclature

- Example: LS200S-200H
 - LS stands for Lubricated Screw
 - 200 is the size of rotors in millimeters
 - S stands for stretched rotors
 - 200H is the horsepower
 - VCC stands for Variable Capacity Control (spiral valve)
 - V stand for Variable Speed Drive (with spiral valve)

Product Features

Spiral Valve



Compressed air volume is varied by rotating the spiral valve, which opens and closes by-pass ports in the stator, and returns air to suction rather than compressing it. By matching compressor displacement with output need, this energy-saving system uses up to 17% less power.

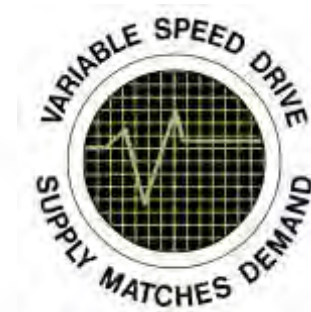
Product Features

Large Electric with Sullair Smart Technology:

- Excellent energy savings
- Possible utility company rebate
- Alleviation from electrical harmonics
- Stable system pressure
- Consistent product quality
- Lowest five-year life-cycle costs
- Flexibility for future growth
- NEMA 12 rated



**SULLAIR
SMART
TECHNOLOGY**



Product Options

- Enclosure
- Cold weather package*
- High ambient package
- Low pressure machines
- Phase monitor relay
- Optional motor configurations
- Zero loss drains
- Weather hood
- Water solenoid valve
- Water regulating valve
- Heat recovery EES
- Remote cooling package

* Not available on VSD Models





Supervisor Controller™

- Computer compatible Micro-processor controller with simple graphic illustration
- Lead-lag and sequencing of up to 16 compressors, no external box required. Can sequence with WS controller
- Monitors key functions and safety shutdowns including fault history with sensor readings
- On-demand readout of all operating and maintenance conditions
- Manual or automatic start-stop operation
- Auto power failure restart
- Service and preventive maintenance schedule
- “Help” key provides built-in troubleshooting
- Remote monitoring capability
- Easily updated flash memory





Two Stage / Tandem Large Electric

75-450 kW



Two Stage / Tandem Nomenclature

Example: TS32S-400H

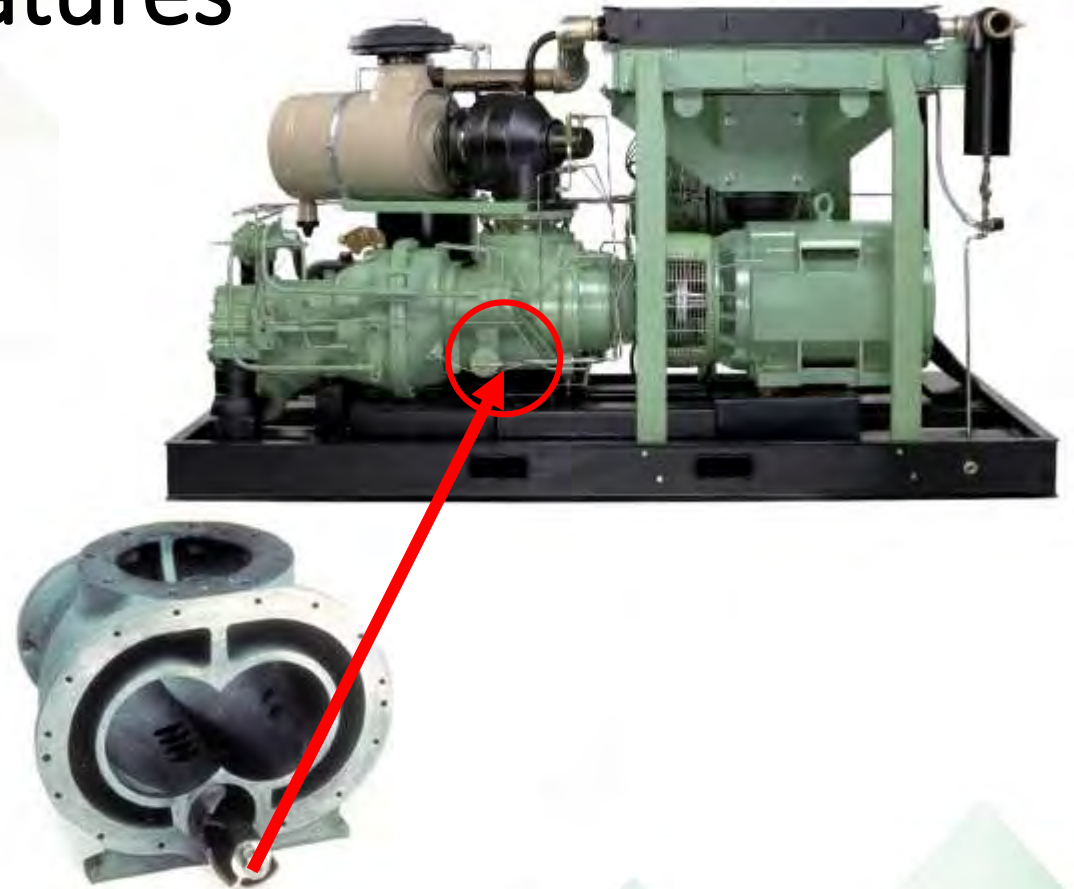
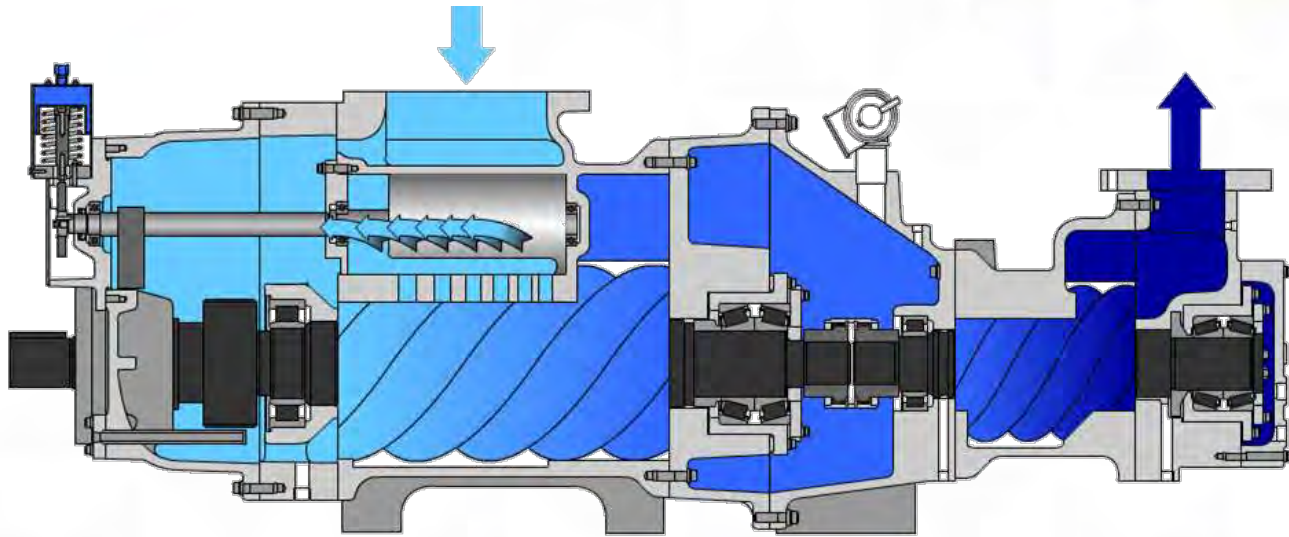
- TS stands for Tandem Screw
- 32 is the size of the rotors in millimeters (321 mm)
- S stands for stretched rotors
- 400 is the horsepower
- H is 125psig
- V stands for Variable Speed Drive (with spiral valve) V320TS

Product Highlights

- Two sets of rotors arranged in unique end-to-end design that achieves higher efficiencies than other two-stage rotor arrangements
- Often provides a two-year payback in energy savings compared to a single-stage compressor
- Significantly exceeds the life of the average single-stage compressor
- Bearing loads reduced to 1/3 of those on a single stage
- Reduced pressure difference across each stage facilitates reduction in leakage

Product Features

Spiral Valve



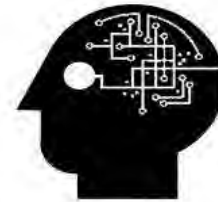
Compressed air volume is varied by rotating the spiral valve, which opens and closes by-pass ports in the stator, and returns air to suction rather than compressing it. Tandem Compressors match compressor displacement with output need using up to 30% less power.

Product Features

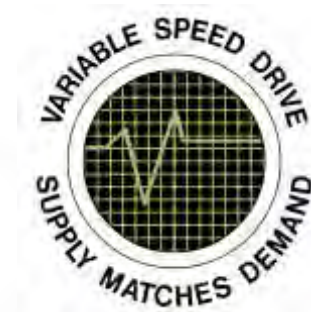
Tandem with VSD Sullair Smart Technology:

- Excellent energy savings
- Sullair Smart Technology
- Possible utility company rebate
- Alleviation from electrical harmonics
- Stable system pressure
- Consistent product quality
- Lowest five-year life-cycle costs
- Flexibility for future growth
- NEMA 12 rated*

* TS-32 rated NEMA 1



**SULLAIR
SMART
TECHNOLOGY**



Product Options

- Enclosure
- Cold weather package*
- High ambient package
- Low pressure machines
- Phase monitor relay
- Optional motor configurations
- Zero loss drains**
- Weather hood***
- Water solenoid valve
- Water regulating valve
- Heat recovery EES****
- Remote cooling package



* Not available on VSD Models

** Standard on TS-32

*** Not available on TS-32

**** Not available on 500 – 600 HP



Supervisor Controller™

- Computer compatible Micro-processor controller with simple graphic illustration
- Lead-lag and sequencing of up to 16 compressors, no external box required. Sequencing with WS controller
- Monitors key functions and safety shutdowns including fault history with sensor readings
- On-demand readout of all operating and maintenance conditions
- Manual or automatic start-stop operation
- Auto power failure restart
- Service and preventive maintenance schedule
- “Help” key provides built-in troubleshooting
- Remote monitoring capability
- Easily updated flash memory



Air Treatment Products

- Refrigerated Dryers
 - (RN) Non Cycling 5-325 SCFM
 - (RD) Digital Cycling 400-6000 SCFM
 - (RC) True Cycling 150-3000 SCFM
 - (RH) High Temperature 15-100 SCFM
- Desiccant
 - (DMD) Modular 3-240 SCFM
 - (DHL) Heatless 80-5000 SCFM
 - (DEX) Externally Heated 200-3500 SCFM
 - (DBP) Blower Purge 500-10,000 SCFM
- Filters
 - (FX & FH) Standard Pipeline Filter
 - (FW) Flange / Welded Filters
 - (ELM) Mist Eliminators
- Drains and Oil Water Separators
 - (SP) Oil Water Separators
 - (TD & ZLD) Zero Loss and Timer Drains



Vacuum Products

- **Models**

- VS 10 - 4, 5, 7.5, 11 kW
- VS 12 - 11, 15 kW
- VS 16 - 20, 30, 37 kW
- VS 20 - 45, 55 kW
- VS 25 - 55, 75 kW
- VS 32 - 90, 110, 150 kW



Vacuum Applications

- Hospitals
- Printing
- Food Processing
- Plastics
- Woodworking





 **SULLAIR**[®]

SULLAIR[®]
powered by **IHI**

Sullair Oil-Free Products

OFC - Scroll – Michigan City Build

- 5 – 40HP
- 94 – 145 PSIG
- Air Cooled Only
 - Fixed Speed
- Special customer design is Not Possible



DS13 – USA Build

- 100 – 200HP
- 100 – 150 PSIG
- Air Cooled and Water Cooled
 - DR13 Rental Package
- Fixed Speed and Loose Ship VSD
- Special customer design is Possible



OFS13-18 – China Build

- 100 – 350HP
- 100 – 150 PSIG
- Water Cooled – Air Cooled 4th Quarter 2017
 - Fixed Speed and Mounted VSD
 - Special customer design is Not Possible



Centrifugal T-Series – China Build

- 200 – 2,300HP
- 20 – 225 PSIG
- Water Cooled
- Fixed Speed Only
- Special customer design is Possible



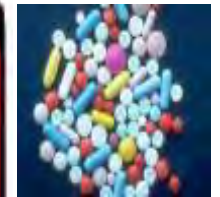
Centrifugal “f”-Series – China Build

- 500 – 30,000HP
- 20 – 700 PSIG
- Water Cooled
- Fixed Speed Only
- Special customer design is Standard



Typical Oil-Free Applications

- Large air consumers
- Pharmaceuticals
- Food/beverage
- Power gen
- Metallurgical
- Petrochemical
- Industrial gases
- Glass
- Electronics
- Snowmaking
- Mining
- Textiles
- Chemicals
- General Manufacturing



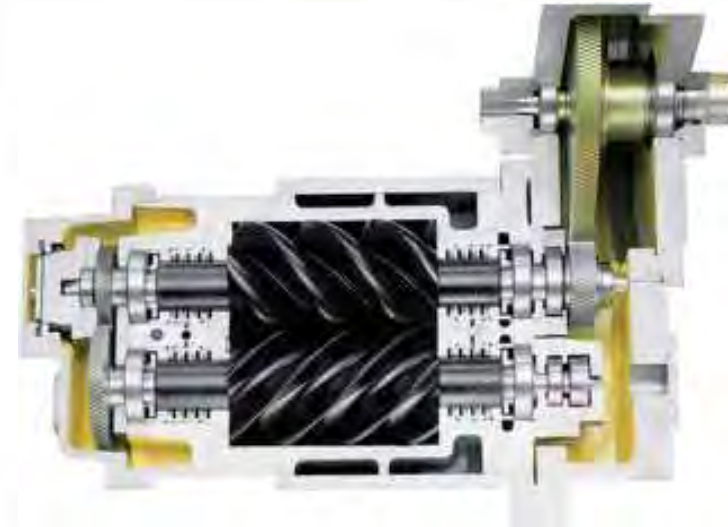
DS Air End Design

Gear Box:

- The two individual stages are flanged mounted to a common speed-increasing gearbox with a common bull gear which drives each stage pinion for its optimum performance.

Rotors and Rotor Housings:

- Rotors are high efficiency asymmetrical profile that are coated to inhibit corrosion and prohibit contamination. The coating is approved by the U.S. Food and Drug Administration (FDA) as a food-grade (PTFE) to ensure contaminant-free conditions.
- 100% oil-free air
- AGMA 12 precision drive gears are designed to extend air end life.
- Element speeds are much lower than the critical speed
- Stainless steel high pressure elements



DS Air End Design

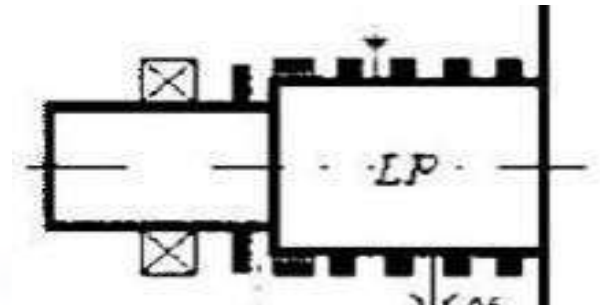
Bearing

(4) Floating carbon ring air seals - with stainless steel lantern ensure 100% oil-free operation

- (4) roller bearings
- (2) angular contact ball bearings (Axial Radial Thrust)
- No thrust piston
- SKF high precision, anti-friction bearings with an L10 design life of over 100,000 hours

Seal

- (4) floating carbon ring air seals - with stainless steel lantern ensure 100% oil-free operation
- Reverse flow thread labyrinth oil seal
- Optional buffer gas seal for nitrogen compressor application



DS Main Motor & Coupling

- **Motor**

- ODP premium efficient motor
- Class “F” insulation
- Flanged mounted
- Proper alignment guaranteed
- TEFC IP55 motor option available



- **Coupling**

- Flexible elastomer coupling
- Safety guard



DS Control Panel

- **Sullair Supervisor Controller**
 - Accurately monitors and controls the compressor
 - Built-in sequencing capabilities for automatic load sharing
 - Constantly displays essential functions and applicable alarms



DS Variable Speed Drive

- **VSD Drive**
 - 70% turn down from full load to improve operating efficiency
 - Fan cooled
 - Integrated converter with EMC filter ensures operation unstable electrical conditions



Sullair Industry Leading Warranty

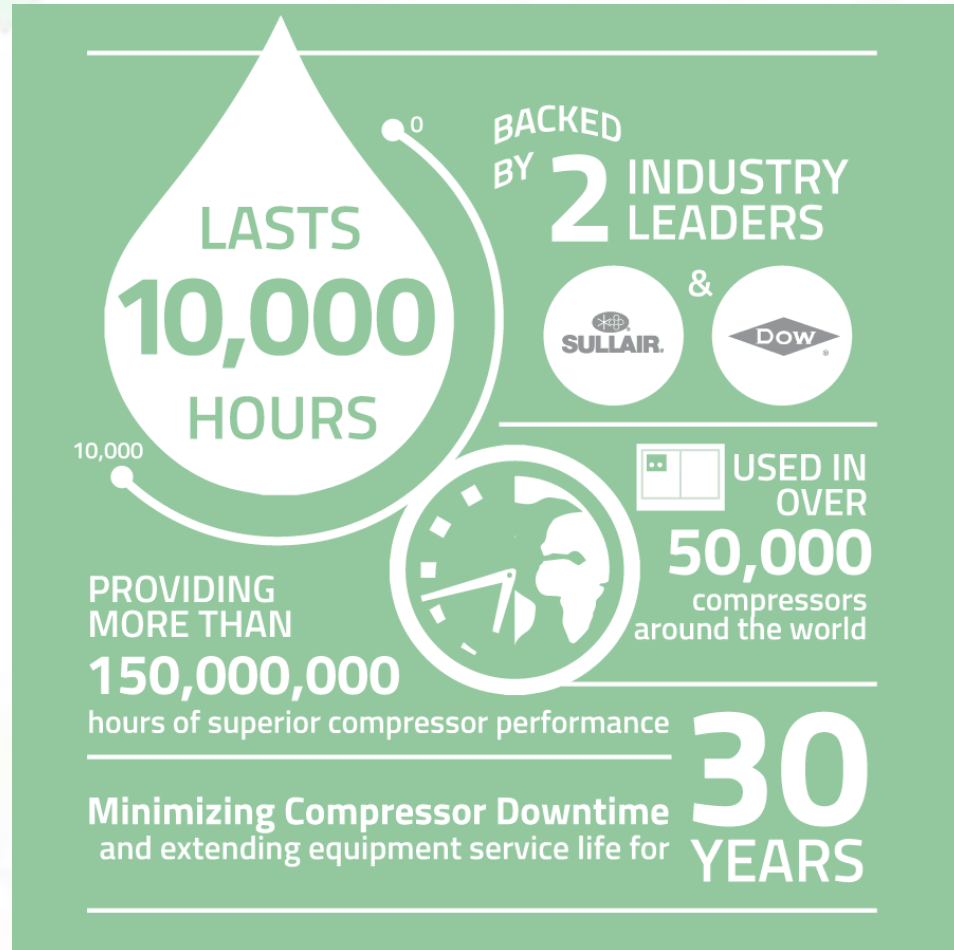
- Oil Flooded Air Compressor Warranty
 - 10 Year Air End Warranty (150 PSI and Below ordered after 1/1/14)
Covers: Air end, standard freight, labor, mileage, & travel time
 - 5 Year Major Component Warranty
Covers: Motor, Cooler, Sump Tank, VSD, Controller
- Air Treatment Warranty
 - 1 Year Bumper to Bumper Warranty
 - Five (5) year warranty on major components
With installation with recommended filter(s)
 - Items covered
 - Cycling & Non Cycling Refrigerated; Compressor, heat exchanger, and condenser.
 - High Temperature Refrigerated; Compressor, heat exchanger, condenser and after cooler
 - Desiccant twin towers; tanks and valve housing, stainless steel screens.
 - Modular Desiccant; Aluminum tower and valve body.
Filters Housings



Sullube



Sullube



- 10,000 hours of life - the most in the industry
- Backed by 2 industry leaders - Sullair and The Dow Chemical Company
- Used in over 50,000 compressors around the globe, providing more than 150,000,000 hours of superior compressor performance
- 30-year track record of minimizing compressor downtime and extending equipment service life



Why Choose Sullair?

- Industry Leading 10 Year Air End Warranty
- Industry Leading 5 Year Air Treatment Warranty
- Energy Efficient Products- most reliable 2 stage machines, extensive VSD & Spiral Valve Technology
- Non Proprietary Components- off shelf motors and standard VSD's
- Industry's lowest oil carryover
- Lowest overall life cycle cost
- Factory Authorized End User Training in State of the Art Facility

Thank You!
Any questions?