

# Oil-Free Rotary Screw Air Compressors

75-150 kW ■ 100-200 Horsepower



- Quality Oil-Free Air
- Proven Sullair Reliability
- Energy Efficient
- Minimal Maintenance



# Sullair Capabilities

## Sullair Leadership

Since 1965, Sullair has been recognized around the world as an innovator and a leader in rotary screw compression 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

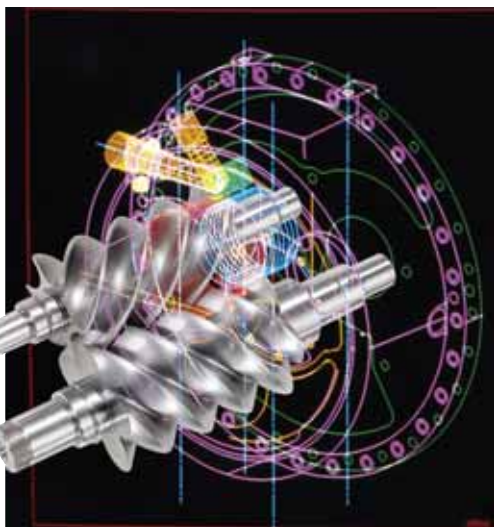
Utilizing the most modern technologies, equipment and advanced manufacturing techniques, Sullair designs, manufactures, assembles, and tests the most advanced compressed air products in the industry. Sullair products are known around the world for their universally applicable design, outstanding craftsmanship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

## Sullair's Statistical Process Control

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

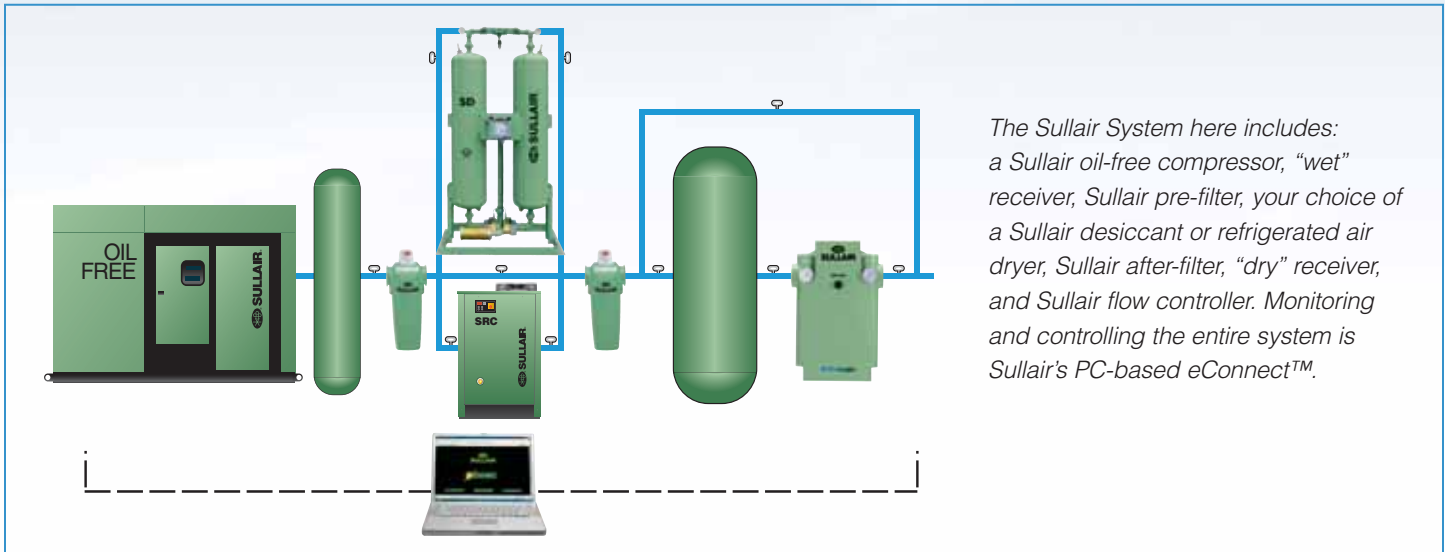


# Sullair Air System Solutions

Sullair offers air system solutions—a **total compressed air system**—to help compressed air users reduce energy costs and improve productivity

by analyzing, managing and controlling total compressed air systems. Sullair's air system solutions include: plant air system audits,

energy efficient products, compressed air system controls, monitoring and management systems, air distribution products, and after-purchase support.



## Oil-Free Compression and Rotary Screw Dependability

### Sullair reliability

The Sullair reputation for designing and delivering quality products lives on through the DS oil-free offering. The DS has a proven track record of installations in various industries that require a reliable machine that can deliver quality oil-free air for the most critical processes.

### Oil-free compression

The Sullair oil-free compressor provides critical quality oil-free air for sensitive applications like food and beverage, pharmaceutical, chemical, textile and electronics production.

### No contaminating particles

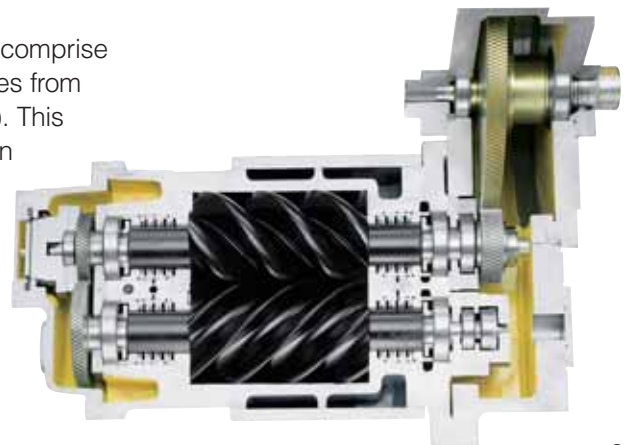
The industry leading Optimalair™ inlet air filter exclusively from Sullair prevents contamination from entering the machine and the contamination is avoided internally by utilizing timing gears which prevents rotor contact. By preventing rotor contact the risk of creating particles that could enter the air stream is completely avoided.

### Flexible product range

The DS oil-free compressors comprise a range of flows and pressures from 100 to 200 hp (75 to 150 kW). This two-stage rotary screw design features intercooling between the stages for increased operating efficiency. Air- or water-cooled models are available.

### Sullair keeps it simple

The rotary screw mechanism is the simplest method of compressing air. In developing the DS Series, Sullair utilized over 40 years of experience and expertise in lubricated rotary screws and applied it to oil-free compressors. The result is a compressor that's easy to operate and maintain, because Sullair rotary screw simplicity is built in.



# Exceptional Design and Rotary Screw Expertise

## Sullair Supervisor II Microprocessor

This state-of-the-art microprocessor has a simple graphical illustration of the monitored functions and an easy-to-use keypad.

- Precisely monitors load/unload control
- Phase monitor relay protects the unit from poor quality electricity
- Power failure restart mechanism will restart the machine in the event of a power failure or can be disabled
- Choice of languages and numerical units. Select English, Spanish, German, French or Italian languages and metric or English units.
- Malfunction alert: Operator is alerted to malfunction by an alarm and flashing indicators, showing first out indication of the initial problem
- Stop/Reset key: This built-in safeguard prevents accidental starting



- Two-way communications: RS 485 communications port allows for remote input of desired operating parameters and output of actual readings.
- Built-in sequencing capabilities for automatic load sharing
- Accurately monitors and controls the compressor
- Constantly displays essential functions

## Premium Efficiency Motor

- Exceeds EPACT (Energy Policy Act) 1997 standard
- Reduces electrical costs

## NEMA 4 Panel

- Extends component life by protecting from surrounding elements like water and debris

## Three Stage Intake Filter

- Providing superior filtration
- 99.9% efficient per SAE J726 (Society of Automotive Engineers)



**Vibration isolation mounts under the motor and compressor provides vibration-free operation.**

# Come Together in Sullair Oil-Free Compressors

## Minimal Maintenance

- No interim intervention required
- Annual maintenance only

## Enclosure with Removable Panels

- Quick-release panels for easy maintenance
- Multi-layer foam insulation reduces noise levels to 78 dBA
- Enhanced package appearance

## Gear-Driven Oil Pump

- Gear-driven oil pump ensures lubrication at startup; no motor-driven oil pump required

## First- and Second-Stage Silencer/Dampers

- Reduce noise and flow pulsations
- Protect compressor and system

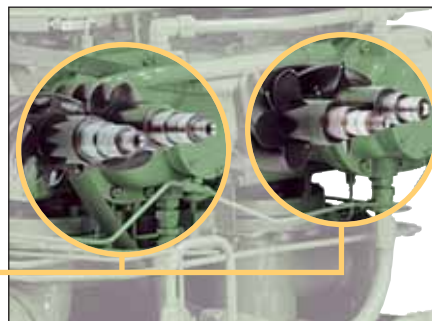
## Sullair Optimalair™ Air Filter

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



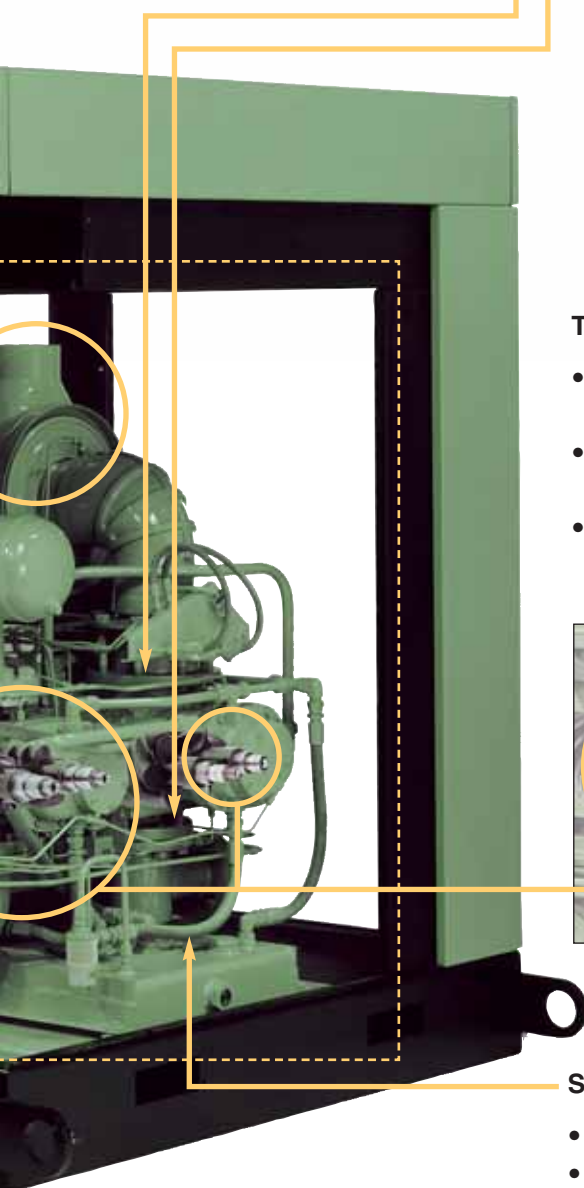
## The Two-Stage Air End

- AGMA 12 precision drive gears are designed to extend air end life
- Carbon ring seals ensure sealing without damage to the shaft
- Sullair's exclusive five-year air end warranty



## Stainless Steel Control Tubing

- Highly resistant to corrosion
- Extends component life



# Built-In Features Provide Important Benefits

## Separate, easy-to-adjust valves

The DS oil-free compressor has separate inlet and blow down valves of simple, rugged design for easy adjustment and maintenance. These individual valves, unlike some integral designs, do not use critical pressure balancing holes that could clog and malfunction. In the unlikely event of valve damage, replacement is easy and inexpensive, since these valves are separate assemblies. No expensive repair kits are required.



## Reliable rotary screw air end

The compressor air end is designed and built by Sullair, a manufacturer that has specialized in rotary screw technology since 1965. Sullair has been delivering oil-free machines since 1981.

The rotor assembly is the heart of any screw compressor. For its screw compressors, Sullair has designed extremely heavy-duty rotors. Using bearings with an L10 life of over 100,000 hours, the Sullair DS compressor is one of the most rugged oil-free designs.



Rotors and rotor housings are precision coated to inhibit corrosion and prohibit contamination. The coating is approved by the U.S. Food and Drug Administration as a food-grade PTFE, to ensure contaminant-free conditions.

Vibration monitoring for predictive maintenance. Precision ground accelerometer connections allow customers to monitor air end bearing condition and predict compressor maintenance needs.

Proven reliability, backed by a 5 year air end warranty.

## Choice of air-cooled or water-cooled models

The DS oil-free compressor is available with either air-cooling or water-cooling. The air-cooled model uses high efficiency modular fin and tube aluminum heat exchangers. If damaged, each section can be



replaced individually to reduce maintenance costs. The water-cooled model uses non-proprietary shell and tube heat exchangers which are interchangeable on the first and second stage. Stainless steel cooler tubes are standard for greater corrosion resistance.



# Technical Specifications: Oil-Free Compressor

## DA-13 Oil Free 60 Hz: Air-Cooled Performance

Model	Motor HP	Pressure (PSI)	Capacity (ACFM)
DA-13 100L	100	100	430
DA-13 100H	100	125	428
DA-13 125L	125	100	518
DA-13 125H	125	125	533
DA-13 125HH	125	150	427
DA-13 150L	150	100	641
DA-13 150H	150	125	640
DA-13 150HH	150	150	517
DA-13 200L	200	100	785
DA-13 200H	200	125	785
DA-13 200HH	200	150	639

## DW-13 Oil Free 60 Hz: Water-Cooled Performance

Model	Motor HP	Pressure (PSI)	Capacity (ACFM)
DW-13 100L	100	100	448
DW-13 100H	100	125	447
DW-13 125L	125	100	534
DW-13 125H	125	125	533
DW-13 125HH	125	150	446
DW-13 150L	150	100	655
DW-13 150H	150	125	655
DW-13 150HH	150	150	532
DW-13 200L	200	100	801
DW-13 200H	200	125	801
DW-13 200HH	200	150	654

## Dimensions and Weights

Models	Length inches	Width inches	Height inches	Weight lbs	Discharge Connection	dBA Rating*	Moisture Drain Connection
<b>DA-13, Air-Cooled:</b>							
DA-13 100	136	65	78	6780	2" NPT	78	1/4" NPT
DA-13 125	136	65	78	7016	2" NPT	78	1/4" NPT
DA-13 150	136	65	78	7150	2" NPT	78	1/4" NPT
DA-13 200	136	65	78	7396	2" NPT	78	1/4" NPT
<b>DW-13, Water-Cooled:</b>							
DW-13 100	136	65	78	6643	2" NPT	78	1/4" NPT
DW-13 125	136	65	78	6880	2" NPT	78	1/4" NPT
DW-13 150	136	65	78	7010	2" NPT	78	1/4" NPT
DW-13 200	136	65	78	7260	2" NPT	78	1/4" NPT

\*At 1 Meter

Capacity per CAGI / PNEUROP PN2CPTC2 (Annex C to ISO 1217)

Data subject to change without notice.

# Global Support. Local Solutions.



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Sullair offers air system solutions to help compressed air users reduce their energy costs and improve their productivity by analyzing, managing and controlling total compressed air systems. Information on the compressed air system tailored to your specific needs can be obtained by contacting your local Sullair Distributor. To acquire local distributor contact information visit Sullair online at [www.Sullair.com](http://www.Sullair.com) or call 1-800-SULLAIR.



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