



# OIL FREE COMPRESSORS

75-350 HP \ 100% OIL FREE AIR \ INDUSTRIAL ELECTRIC COMPRESSOR





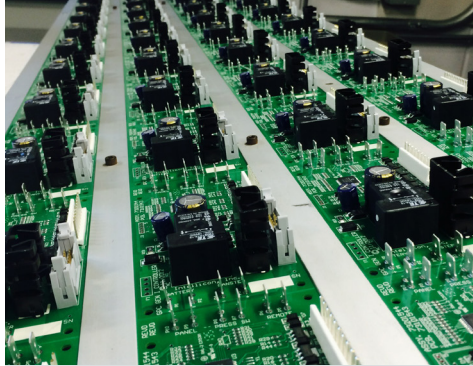
# High Quality Air: Something to Consider When Choosing a Compressed Air System

## Food & Beverage



The use of oil-free compressors in the food and beverage industry greatly reduces the risk of contamination during the production process.

## Electronics



High purity compressed air is crucial to the electronics industry. Any water and oil in compressed air can lead to increased downtime and rejection rate.

## Pharmaceutical



The Pharmaceutical industry has incredibly strict requirements when it comes to compressed air. One hundred percent oil free air must be used for production.

## Chemical



From start to finish, the chemical production process requires the highest level of purity in their compressed air, minimizing any chance of contamination during production.

## Textiles



Modern high-tech air-jet looms need high purity, 100% oil-free pure compressed air for production.

## Power



In the power industry, compressed air is preferred by the majority of plant designers. Designers prefer these machines due to reliability and quality of air.

The quality of compressed air can be divided into many levels. Compression of dust in the air, water, oil and oil mist content may result in the increase of downtime, rejection rate, the rise of product recall, damage to the brand image, the loss of interest from customers and the effect on productivity. No matter what industry you belong to, the need for high quality compressed air, complex as it may be, is always a factor when helping minimize potential risk.

# The Compressor

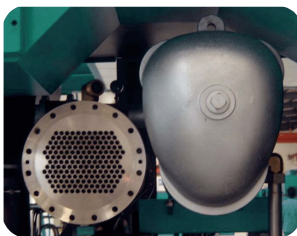
The unit is a fixed dry double-screw bi-level compressor. The structure is an air end, motor, oil filter, cooler and controlling system. All pipelines are installed on a rigid frame and placed in a special box with soundproof materials.

## Components

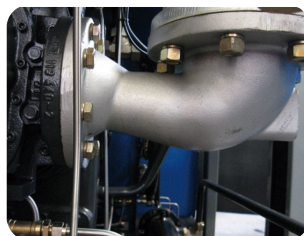
1. 1st Stage Screw Air End
2. 2nd Stage Screw Air End
3. Middle Cooler
4. Aftercooler
5. Inlet Valve
6. Silencer
7. Oil Filter
8. Air Discharge

## Enclosure

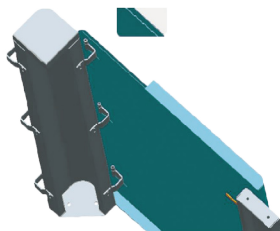
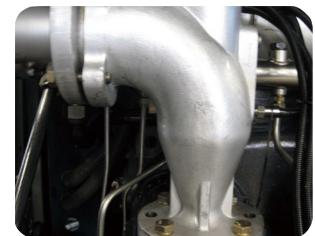
Sullivan-Palatek compressors are designed to be maintenance friendly. All components are easily accessible via double skin hinged doors. This also reduces noise levels. Components are mounted on a substantial base that can be moved by a fork lift truck. The air ends, gearbox and motor are mounted on WVIF anti vibration mounts to ensure low vibration and noise levels.



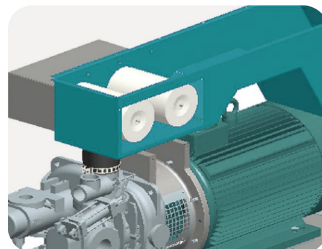
Star fins, to enhance heat conductivity; Anti-Corrosion stainless steel tube, aluminum alloy shell body; High ambient temperature design to keep ideal running conditions



Venture stainless steel tube can prevent high frequency noise due to air flowing pulse and vibration



Venture stainless steel tube can prevent high frequency noise due to air flowing pulse and vibration



Independent inlet silencer box ensures the suction temperature of the air filter is equal to the environment temperature



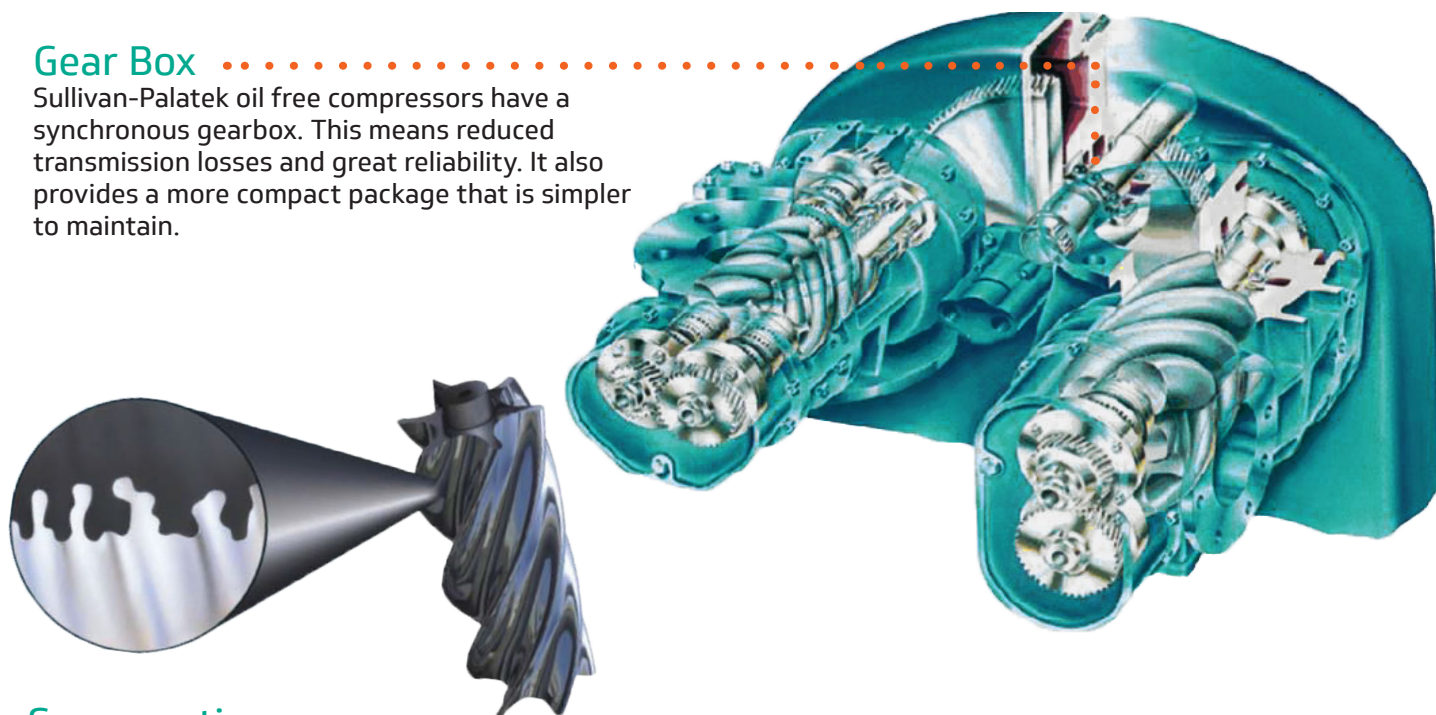
Efficient inlet valve adopts leading hydraulic regulating mechanism instead of pneumatic regulating mechanism, which reduces failure. This decreases the amount of repair time and maintenance costs.



# Oil Free Air End

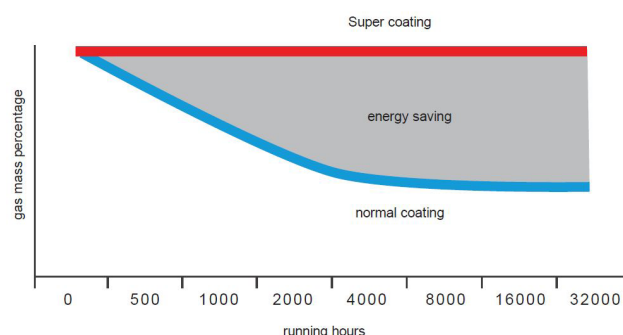
## Gear Box

Sullivan-Palatek oil free compressors have a synchronous gearbox. This means reduced transmission losses and great reliability. It also provides a more compact package that is simpler to maintain.



## Supercoating

Each Sullivan-Palatek oil free screw compressor rotor and air end shell surface is thoroughly supercoated through a special process to ensure that the coating adheres firmly to the exterior. Supercoating reduces power consumption and extends the life of the stainless steel rotors. The strong coating adhesion and high temperature resistance ensures there is no reduction in performance with age. This also prevents rust and particulate contamination. Unique labyrinth seals ensure the rotors truly are oil free. These high quality 2 stage screws ensure high efficiency, durability, low noise levels and efficiency improvements of 5-10%.



## Leading Technology

Durable 2 stage compressing air ends include two pairs of rotors, a durable ball bearing system, stainless steel air seal and uniquely designed labyrinth seal. All these special designs are durable, highly efficient and reliable.

## Dry Oil-free Science

Since oil-free screw air compressors were released to the public, over 100,000 pairs of oil-free rotors have been produced. They are widely applied to all kinds of industries, especially in pharmacy, food and beverage, electronics and textiles.

## Double Seals

Dry oil-free screw air compressors adopt unique stainless steel gas seal and labyrinth oil seal. Double seals ensure production of absolute oil-free compressed air.

## Stainless Steel Rotor

Sullivan-Palatek is the first to use stainless steel as 2nd stage rotor material, which ensures the life of the air end and reliable running of air compressors.

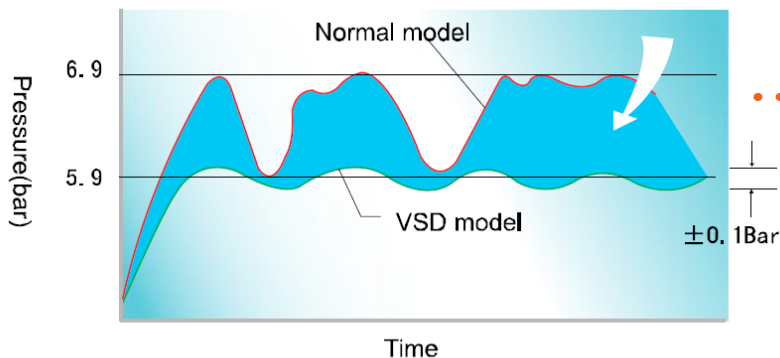
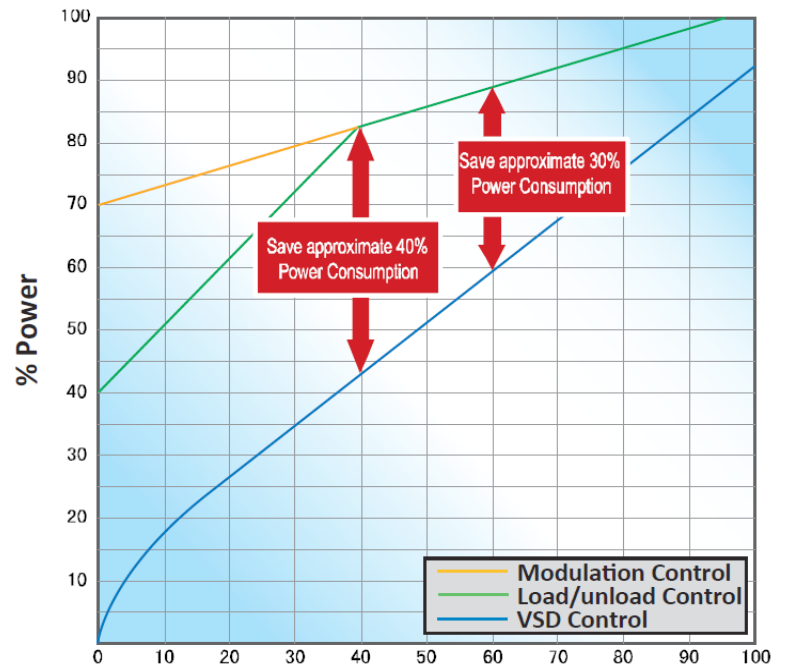
# VSD Technology

## VFD (VARIABLE SPEED DRIVE)

uses sensorless flux vector control to achieve full motor torque at all speeds. Sullivan-Palatek uses a well proven range of VSD's to achieve turn down speeds as low as 30%.

## ENERGY SAVINGS

A Sullivan-Palatek variable speed compressor often results in energy reductions of over 30%.

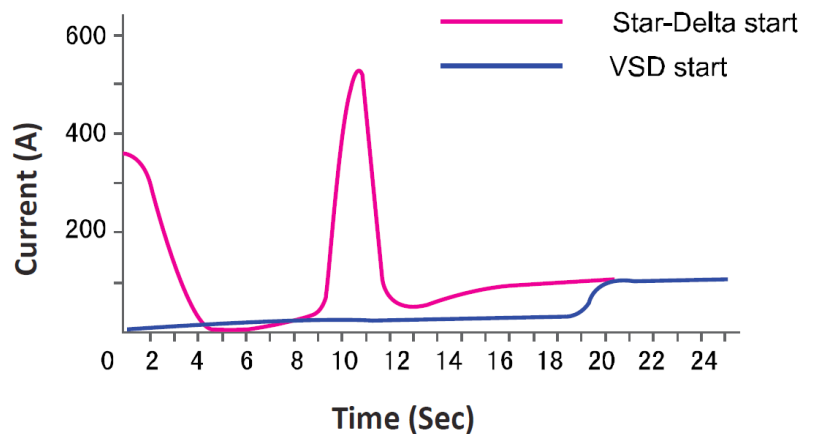


## PRESSURE CONTROL

The low turn down variable speed drive ensures pressure is regulated to give improved pressure control over traditional load/unload control. This enables network pressure reduction and additional power savings.

## Zero Inrush Starting

The VSD also provides a consistent soft start to reduce peak start currents, allowing unlimited start/stops. It also has the benefit of less mechanical stress to the compressor.



## Double Seals

Oil-free rotary screw air compressors adopt a unique stainless steel gas seal and labyrinth oil seal. Double seals ensure production of absolute oil-free compressed air.

# SPECIFICATIONS

| Model       | KW  | HP  | Capacity (CFM) | Pressure (psi) | Dimensions (in)<br>L x W x H | Weight (lbs)<br>dry | Air outlet size (in) |
|-------------|-----|-----|----------------|----------------|------------------------------|---------------------|----------------------|
| SPDS75-100  | 55  | 75  | 295            | 100            | 87 x 60 x 74                 | 6063                | 2                    |
| SPDS75-116  | 55  | 75  | 295            | 116            | 87 x 60 x 74                 | 6063                | 2                    |
| SPDS75-145  | 55  | 75  | 267            | 145            | 87 x 60 x 74                 | 6063                | 2                    |
| SPDS100-100 | 75  | 100 | 420            | 100            | 87 x 60 x 74                 | 6173                | 2                    |
| SPDS100-116 | 75  | 100 | 419            | 116            | 87 x 60 x 74                 | 6173                | 2                    |
| SPDS100-145 | 75  | 100 | 346            | 145            | 87 x 60 x 74                 | 6173                | 2                    |
| SPDS125-100 | 93  | 125 | 515            | 100            | 113 x 74 x 74                | 7496                | 2 1/2                |
| SPDS125-116 | 93  | 125 | 514            | 116            | 113 x 74 x 74                | 7496                | 2 1/2                |
| SPDS125-145 | 93  | 125 | 417            | 145            | 113 x 74 x 74                | 7496                | 2 1/2                |
| SPDS150-100 | 112 | 150 | 683            | 100            | 113 x 74 x 74                | 7716                | 2 1/2                |
| SPDS150-116 | 112 | 150 | 577            | 116            | 113 x 74 x 74                | 7716                | 2 1/2                |
| SPDS150-145 | 112 | 150 | 578            | 145            | 113 x 74 x 74                | 7716                | 2 1/2                |
| SPDS200-100 | 150 | 200 | 820            | 100            | 113 x 74 x 74                | 7716                | 2 1/2                |
| SPDS200-116 | 150 | 200 | 819            | 116            | 113 x 74 x 74                | 7716                | 2 1/2                |
| SPDS200-145 | 150 | 200 | 771            | 145            | 113 x 74 x 74                | 7716                | 2 1/2                |
| SPDS250-100 | 186 | 250 | 1045           | 100            | 113 x 74 x 74                | 7716                | 2 1/2                |
| SPDS250-116 | 186 | 250 | 1044           | 116            | 113 x 74 x 74                | 7716                | 2 1/2                |
| SPDS250-145 | 186 | 250 | 946            | 145            | 113 x 74 x 74                | 7716                | 2 1/2                |
| SPDS300-100 | 224 | 300 | 1378           | 100            | 132 x 90 x 82                | 7716                | 4                    |
| SPDS300-116 | 224 | 300 | 1376           | 116            | 132 x 90 x 82                | 7716                | 4                    |
| SPDS300-145 | 224 | 300 | 1153           | 145            | 132 x 90 x 82                | 7716                | 4                    |
| SPDS350-100 | 261 | 350 | 1741           | 100            | 132 x 90 x 82                | 7816                | 4                    |
| SPDS350-116 | 261 | 350 | 1572           | 116            | 132 x 90 x 82                | 7816                | 4                    |
| SPDS350-145 | 261 | 350 | 1469           | 145            | 132 x 90 x 82                | 7816                | 4                    |

*Specifications are subject to change without prior notice*

All Dry Screws have accoustical sound enclosure as standard. Sound levels below ~ 80 ± dB(A)

\*Both air cooling and water cooling are available for 75-150 hp. Water cooled ONLY for 200 hp and above.

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