

# **SB-V**<sub>SERIES</sub> BELT DRIVEN VARIABLE SPEED BASE MOUNTED ROTARY SCREW AIR COMPRESSOR

# 30-75hp (18.5-55Kw)

**Motor Power** 

# 2020-8780L/Min (70-310cfm)

Air Delivery

# 08/10/13bar (116/145/188 psi)

**Operating Pressure** 

#### **DESCRIPTION**

The PACE Pneumatics SB-V series Variable Speed Air Compressor, delivers users cutting-edge performance.

Our engineering and pioneering technology ensures a compact, easy-to-use system, pairing a small footprint with a noticeable power efficiency and a significant long life-cycle.

Take advantage of:

Total function control through a user-friendly electronic board.

Extremely low noise levels as well as reduced maintenance costs and times.

Reduced overall dimensions and simplified installation are a winning card to overcome space problems.

# **APPLICATIONS**

- Large Scale Manufacturing
- Farming
- Mining
- Engineering
- -Waste and Recycling







### WHY SHOULD YOU BE USING A VARIABLE SPEED DRIVE COMPRESSOR.

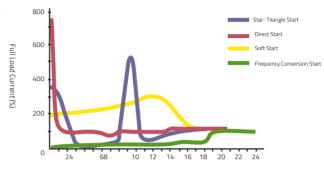
With the principle of stabilizing the voltage, the rotary speed is change according to fluctuation of air demand from the end users to achieved energy saving. Focus Industrial's SB-V Series Variable Speed Drive (VSD) air compressor have the advantages of high efficient performance, absolute reliability, low energy consumption and facilitation for maintenance.

- Accurate discharge pressure (lower than 0.1 bar).
- Exceptional energy efficiency.
- Prolonged lifetime as lower operation speed when partial load.
- Super low noise output.
- Soft start eliminates peak current.
- Inter-useable 50Hz and 60Hz.
- Special unload function offers maximum security and variety of operation modes

## **Starting and Running**

As shown in the pictures, we can see the Variable Speed Drive Compressor starts out slowly and then accelerates. This starting mode is more steady than the soft starting, and totally prevents the current peak from occurring.

After reaching the nominal pressure, the VSD compressor will switch over to variable speed operation. VSD Compressors ensures the output of the demand air quantity under the steady pressure, preventing the energy wastage that occurs during fixed speed loading and unloading operations.

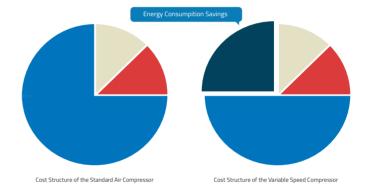


Start-up Time (in seconds)

#### **Cost Comparison**

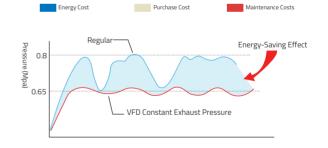
Under stable delivery pressure principle, Focus Industrial's PR Series Variable Speed Drive Air Compressors can accurately the rotor speed of the air end according to the change of used air flow; and only supply necessary air flow. At the same time, it only consumes the energy needed for the compressed air and save energy consumption.

The saved energy costs is more than the initial cost of the compressor itself.



# **Steady Pressure and Economical Electricity**

The picture shows the pressure comparison runs between common air compressor and VSD air compressors. Common air compressors can frequently load and unload between usable pressure and the hysterisis pressure of 1.5 bar at all time, however, this will pay for 10.5% electricity waste brought by 1.5 bar difference on the condition that inverter control are always at usable pressure. (say 1 bar increase will waste 7% electricity.) In addition, it will consume 45% more during idling and standby. Hence, air supply at steady pressure help electricity saving and can avoid unfavorable elements taken to production due to short of machine lie and unstable pressure when loading and unloading.



## **Steady Pressure and Economical Electricity**

Focus Industrial SB-V Series VSD Air Compressors carry the latest modularised inverters with high performance. The inverter is OEM by domestic and overseas suppliers, complying with Focus Industrial's standards. The inverter automatically matches with motor, read and check real-time parameters if motor, and keep the best match between inverter and motor.

Inital setting can be for the inverter at cutting off motor and load The inverter can automatically unload the motor. Not influenced by the power grid wave, the inverter can automatically compensate output voltage to motor rated voltage less than 10%

It can be achieved with an inverter that drives the frequency of multiple compressors to achieve linkage control, allowing:

- Perfect hitch protection function can help broad protection of the inverter and motor.
- Slight moment fluctuation, fast speed compensation, strong anti loading concussion, with inserted reactor.

- Multi speed function and inserted PLC function can auto control to multi frequency logic.
- Steady output frequency and strong anti-interfearance ability, which has passed laboratory certification.
- Personalised functions
- Starting rotary speed of 0.5HZ/150% (switched virtual circuit)
- Speed range: 1:100, remarkable energy savings
- Steady speed precision versus standard drive. Overload ability allows: 150% rated current for 60 seconds and 180% current for 1 second.

Allowing for equipment testing to be conducted safely.







# **FEATURES**



#### **COMPACT AIR ENDS**

Manufactured with the objective of an efficient and long-lasting steady performance, all of our air-ends guarantee a better air flowrate with minimum energy consumption.

Equipped with hard wearing bearings and highly sophisticated machined components these air-ends make an extremely low level of noise during their work phase and require very low maintenance costs.



# **BELT DRIVEN DESIGN**

Coupling of electrical engine with compression unit has to guarantee driving stabililty during a work phase. The plate system with a sliding electrical motor is designed to prevent stress to rotating parts.

Our machines, utilises of a poly-v belt-driven system with cast-iron taper-hub pulleys, always ensures the utmost reliability in any work condition and limits power loss with low noise level



# **HIGH EFFICIENCY RADIATORS**

Design with a wide exchange surface, to maintain a low level of flows and air even in an conditions with high ambient temperatures.

Constructed from Vacuum-brazed radiators in aluminum alloy with highly efficient tubular parts.



#### **NEAR SILENT OPERATION**

PACE Pneumatics SB Series Air Compressors are fitted with double thickness soundproofing foam with fire retardant and oil resistant characteristics for maximum protection and easy cleaning.



#### **HIGH PERFORMANCE ELECTRIC MOTOR**

The electric motor used by the SB Series Air Compressors is PREMIUM EFFICIENCY IE3: it guarantees compliance with the minimum efficiency requirements (MEPS) specified by the EU community.

This first-class performance guarantees energy savings over time and the best in class reliability of a high standard certified product.



#### **ELECTRONIC CONTROL BOARD**

Based on direct, user-friendly reading, it runs all the machine functions safely through a microprocessor, from control of safety alarms (oil temperature, electrical engine, control of cooling electrical fan, maintenance time) to command systems (start-stop, alarm reset).

The access to all microprocessor functions is protected by password (supplied only to authorized staff).



#### **AIR SYSTEM AIR FILTRATION**

Engineered to be easily disassembled and cleaned, this component is of vital importance for a long-lasting air intake filter maintenance and air-end performance.

#### **VARIABLE SPEED MOTORS SPECIFICATIONS**

Model	Motor Power (Kw/hp)	Max Pressure (bar/psi)	Air Flow (cfm/ L/min)	VOLTAGE (V/Hz/Ph)	Weight (kg)	Dimensions (L x W x H)
SB-V250	18.5/20	08/116	98/2950	400/50/3	360	1660 x 760 x 1420
		10/145	85/2510			
		13/188	70/2020			
SB-V300	22/30	08/116	124/3700	400/50/3	420	1660 x 760 x 1420
		10/145	106/3475			
		13/188	86/2800			
SB-V400	30/40	08/116	166/4710	400/50/3	530	1660 x 760 x 1420
		10/145	144/4470			
		13/188	120/3600			
SB-V500	37/50	08/116	220/5800	400/50/3	960	2040 x 980 x 1800
		10/145	193/5510			
		13/188	165/4560			
SB-V600	45/50	08/116	260/7380	400/50/3	1070	2040 x 980 x 1800
		10/145	230/6570			
		13/188	200/5660			
SB-V750	55/75	08/116	310/8780	400/50/3	1220	2040 x 980 x 1800
		10/145	270/7600			
		13/188	225/6350			