



SA SERIES SCREW AIR COMPRESSORS

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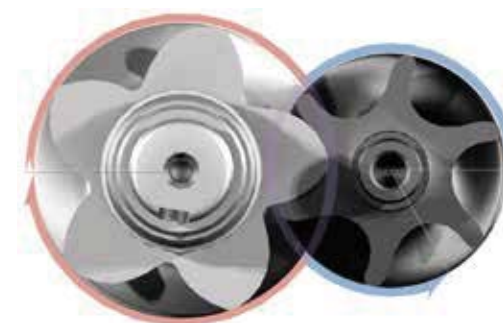


SA SERIES SCREW AIR COMPRESSORS
220~400kW

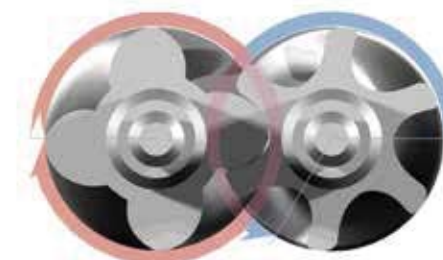




OUTSTANDING PERFORMANCE COMES FROM A STRONG HEART



Positive/negative rotor drop



Positive/negative rotor drop of traditional four-to-six tooth profile

LOW DROP, HIGH EFFICIENCY

- As shown in the left figure, drop of tooth profile is 25% less than four-to-six gear ratio. Low drop means effective compression efficiency and thermal efficiency can be greatly improved.

EQUIVALENT RIGIDITY

- Primary rotor has high rotating speed and larger diameter and secondary rotor has lower rotating speed and smaller diameter. Diameter ratio and rotating speed ratio of rotor is in direct proportion. Such design makes rigidity of two rotors exactly equal.

SMALL LEAKAGE AREA

- Larger rotor brings smaller leakage area which enhanced compression efficiency further.

Material is the premise of reliable guarantee

- The male rotor be a driven rotor of the screw air compressor body, which needs extremely high strength. For this purpose, we use high strength alloy steel; Since the female rotor is a stressed rotor, we use cast iron with excellent wear resistance and toughness. The rotor life and reliability are improved.
- Because the main and auxiliary rotors are made of different materials, fusheng company prepared and used two sets of processing equipment for those material.

PRECISION EQUIPMENT MAKES HIGH ACCURATE ROTOR

- Fabricated with HOLROYD rotor processing machine from UK, refined with KAPP、KLINGEL-NBERG precision rotor grinding machine, the tooth profile precision is up to 0.005mm and surface roughness can reach Ra 0.1-0.2 μm.

- Inspected with German ZELSS, LEITZ three-coordinate measuring machine.

- Even under continuous running condition, rotor maintains the best clearance value and is stable and efficient.



British HOLROYD rotor processing machine



German KAPP precision rotor grinding machine



Japan special CNC processing machine for enclosure



Cutter finishing machine



German ZEISS three-coordinate measuring machine



Pursuing Excellence, Enriching Life

Since 1953, Fusheng has always adhered to the philosophy of “providing excellent products and services through innovation” in the optimization of product design, manufacturing processes, and customer service with the ISO9001 quality management system. We believe our “visible quality process” is the key. Our products are sold in more than 60 countries around the world and have earned a notable reputation for providing extraordinary added value to our customers.

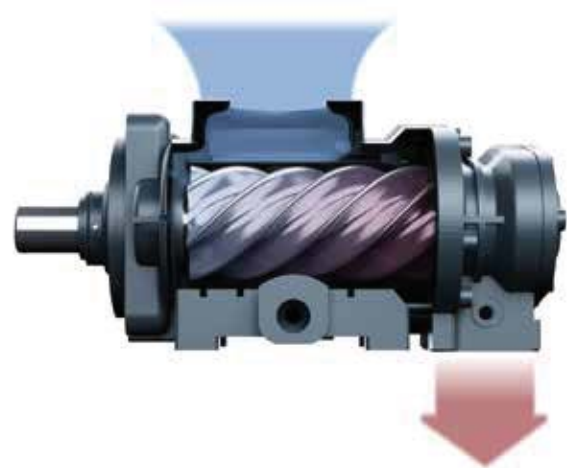
To internationalize our marketing coverage, we have established production facilities in Taiwan, China (Beijing, Shanghai, Zhongshan), Vietnam, The U.S.(Pittsburg, St. Louis), Germany, Spain and India, as well as branch offices in Thailand, Malaysia and Indonesia. Our well-established distribution channels ensure the highest quality service to our valued customers-worldwide.

Our continued pursuit of precision and perfection, the drive for optimum quality, and exceedingly high expectations for personable and enthusiastic customer service, will always be our ultimate goals and measures of success. We believe our sincere commitment to these principles will benefit and enrich people's lives and bring a higher standard of excellence to the industry.

High Efficiency Airend Induce Air Flow from Axial and Radial directions

- Fusheng's global R&D center in Germany is established with the aim to improve gear profile, volume efficiency and energy saving design and increase operating efficiency at low rpm.
- The axial air intake and exhausting design reduces axial imbalance effectively, and brings the following advantages for airend design:

- More balanced air compression
- Fully utilize effective rotor length to maximize the compression efficiency
- Longer service life of airend and bearings.
- Lower operational noise level.



ADVANCED, THOUGHTFUL OVERALL DESIGN



AIR INLET VALVE

- Large volume, low pressure drop design to ensure highest air intake efficiency. Air intake is automatically adjusted according to the customer demand to ensure best efficiency and energy savings.



MULTIPLE PARALLEL OIL FILTER

- Multiple oil filters with parallel connection are able to filter impurities and degradation effectively, and ensure maximum service life of airend.



UNIT BUFFER DEVICE

- Effectively reduces the vibrations of the running unit and eliminates resonances. Also results in improved service life of other components and lower noise.

GoService platform(optional)



- Compressor IoT Smart Service platform on Cloud enables integration of monitoring, troubleshooting and maintenance. Send compressor fault information and operation status to specified technician via SMS and e-mail timely

HIGH EFFICIENCY OIL SEPARATOR

- Extra large oil tank optimizes internal pressure ratios and stabilizes the air pressure effectively
- High efficiency air-oil separation is achieved through a 3 stage process that includes cyclonic separation, gravitation separation and finally, separation at the cartridge. Oil content of the compressed air is controlled at an ideal level, not only to provide you clean air, but also to reduce oil consumption.



AIMS CONTROLLER

- We provide an attentive controller interface which allows you to control the compressor easily and quickly.
- The clear and user friendly window gives prompts for operation and maintenance. The controller can be programmed in many languages and the software is upgradeable.
- Simple text signals, on a real time basis, tell you what to do and when.
- Select data and controls can be duplicated in customers control system via RS485 port (available in select models).
- Suitable for multi-compressor control.



Efficient and environmentally friendly system design

- The system and structure layout follow the principle of high reliability, high efficiency and low noise.
- Adopt joint material that used Zinc to prevent corrosion and seal the end face to prevent leakage.
- Non-asbestos gasket with high temperature and pressure resistance to protect operators.
- From the design concept to the application of various components, fusheng SA series has a more efficient performance.

High Efficient Cooler



Water Cooling model

- Water cooling model features heavy duty shell and tube cooler with excellent cooling result and is suitable for high temperature environments. Compressed air passed at a time without pressure drop.

- Water goes inside of tube while air goes outside. Straight tuber design is easy to clean. Reduce maintenance downtime.

Air Cooled models

- Air-cooled models use centrifugal fan which direct cooler air from external to cool cooler. Hot air is exhausted from top of assembly directly. Meanwhile suction hole of centrifugal air blower located inside machine exhausts hot air directly to keep lower temperature within compressor and reduce operation noise. Only cover removal is needed for cleaning air cooling cooler instead of removing/installing air duct cover.

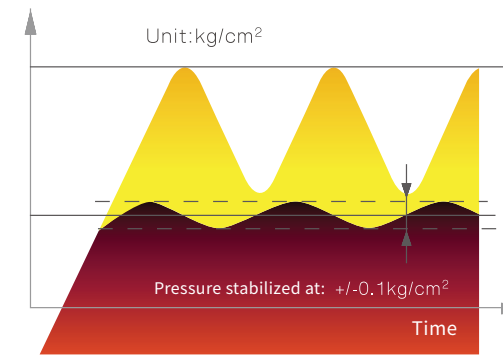


SA250~400 series screw compressor (Fixed Speed)

Model	Delivery m ³ /min	Working pressure MPa	Voltage/frequency V/Hz	Main motor power kW	Indicative dimensions(L×W×H) mm		Weight kg	
					Air Cooling	Water Cooling	Air Cooling	Water Cooling
SA250°C	47.0	0.7	380/50	250	3520×2290×2030	3520×2290×2030	6000	6000
	44.5	0.8						
	39.0	1.0						
	34.8	1.25						
	47.0	0.7	6000/50	250	3520×2290×2030	3520×2290×2030	6500	6500
	44.5	0.8						
	39.0	1.0						
	34.8	1.25						
	47.0	0.7	10000/50	250	3520×2290×2030	3520×2290×2030	6650	6650
	44.5	0.8						
	39.0	1.0						
	34.8	1.25						
SA315°C	54.0	0.7	6000/50	315	5300×2300×2300	4200×2300×2300	9000	7900
	50.0	0.8						
	44.0	1.0						
	39.0	1.25	10000/50	315	5300×2300×2300	4200×2300×2300	9850	8900
	54.0	0.7						
	50.0	0.8						
SA355°C	61.0	0.7	6000/50	355	5300×2300×2300	4200×2300×2300	9000	7900
	57.0	0.8						
	50.0	1.0						
	45.0	1.25	10000/50	355	5300×2300×2300	4200×2300×2300	9850	8900
	61.0	0.7						
	57.0	0.8						
SA400°C	70.0	0.7	6000/50	400	5300×2300×2300	4200×2300×2300	9000	8000
	64.0	0.8						
	56.3	1.0						
	50.4	1.25						
	70.0	0.7	10000/50	400	5300×2300×2300	4200×2300×2300	10000	9000
	64.0	0.8						
	56.3	1.0						
	50.4	1.25						

Constant pressure gas supply

The VSD control can immediately reflect the change of air volume used by customers, and the fluctuation of air supply pressure is stable below $\pm 0.1\text{kg/cm}^2$. No need for setting of 1-2kg/cm² pressure difference between the loadinf / unloading.

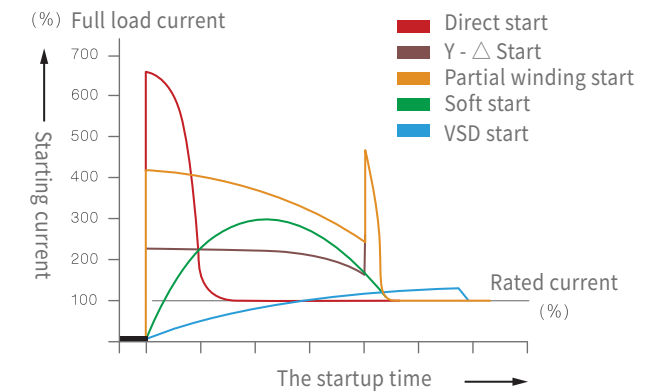


The variable-speed air compressor is able to save operation cost up to 35% in its service life.

Substantial Energy Saving of 35%

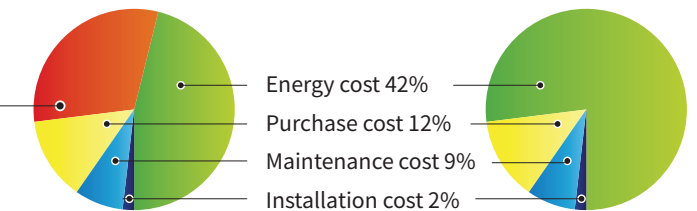
VSD TECHNOLOGY

The soft starting capability of Fusheng's VSD reduces inrush current requirement, decreasing your power demand and increasing energy saving.



Variable-Speed air compressor

Standard air compressor



SAV250~315 series screw compressor (Variable Speed)

Model	Delivery m ³ /min	Working pressure MPa	Voltage/frequency V/Hz	Main motor power kW	Indicative dimensions(L×W×H) mm	Weight kg
SAV250AC	13.35~44.5	0.7	380/50	250	3870×2290×2030	6500
	12.75~42.5	0.8				
	11.10~37.0	1.0				
	10.05~33.5	1.25				
SAV250WC	13.80~46.0	0.7	380/50	250	4500×2300×2300	6500
	13.50~45.0	0.8				
	12.00~40.0	1.0				
SAV315WC	10.95~36.5	1.25	380/50	315	4500×2300×2300	8000
	16.08~53.6	0.7				
	14.94~49.8	0.8				
	12.90~43.0	1.0				
	11.70~39.0	1.25				

“*” means air compressor cooling method; When “*” is “A”, means air cooling model. When “*” is “W”, means watercooling model.