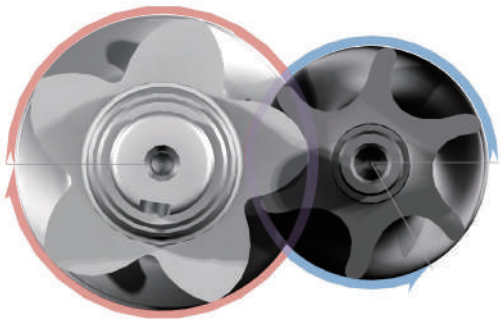
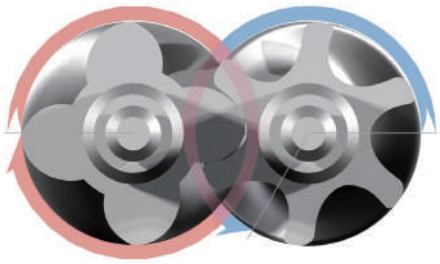
SA SERIES SCREW AIR COMPRESSORS

15~250kW

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.

SMELL 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.

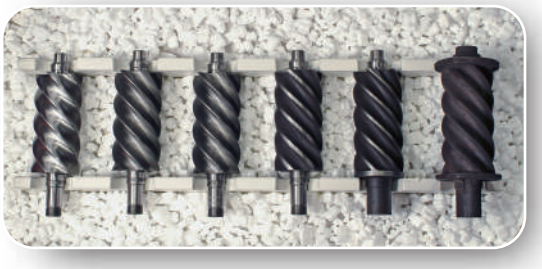
- Because the main and auxiliary rotors are made of different materials, fusheng company prepared and used two sets of processing equipment for those material.

PRECISION EQUIPMENT MAKES HIGH ACCURATE ROTOR

- Fabricated with HOLROYD rotor processing machine from UK, refined with KAPP、KLINGELNBERG 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.



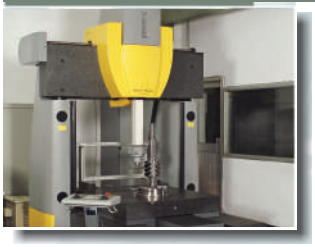
British HOLROYD rotor processing machine

German KAPP precision rotor grinding machine

Japan special CNC processing machine for enclosure

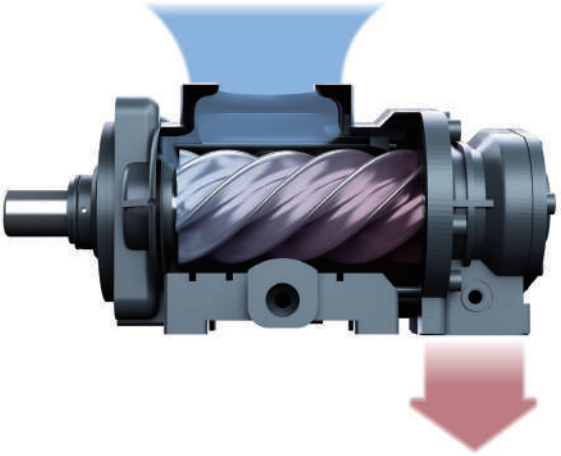
Cutter finishing machine

German ZEISS three-coordinate measuring machine



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.



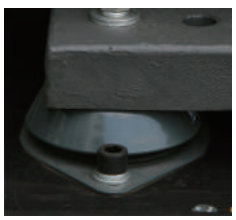
ADVANCED,THOUGHTFUL OVERALL DESIGN

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 parallelconnection 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 viaRS485 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, fu sheng SA series has a more efficient performance.

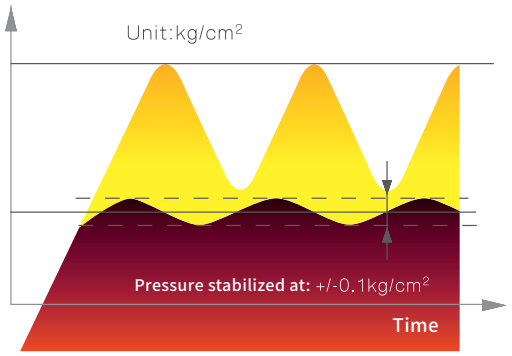
AIR COOLED MODELS LARGE AREA EFFICIENT COOLING

- Oversized oil cooler and air cooler ensure low Δt of 6 – 80C. The cooling fan is designed to ensure low noise operation, while ensuring highest heat removal
- Oil temperature is maintained at lowest possible levels even during tropical summer conditions, thereby extending the oil and oil separator life by about 30%. This ensures reduced cost of operations and maintenance.

FUSHENG

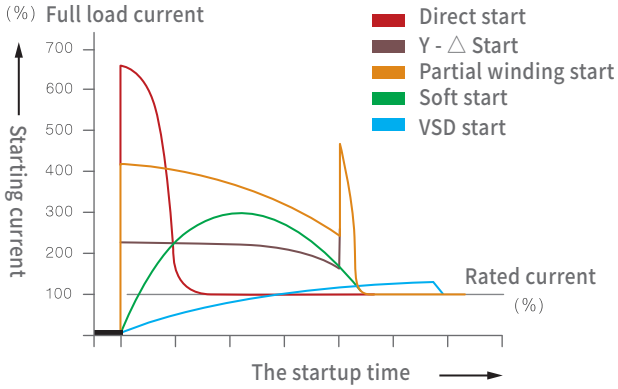
Constant pressure gas supply

The VSD control can immediately reflect the change of air volume used by customers, and the fluctuation of air supply pressure is stable below ± 0.1kg/cm, No need for setting of 1-2kg/cm² pressure difference between the loadinf / unload-ing.



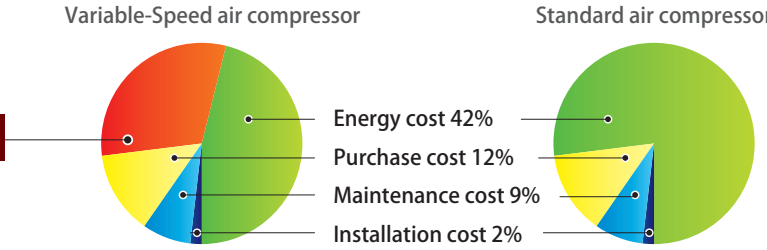
VSD TECHNOLOGY

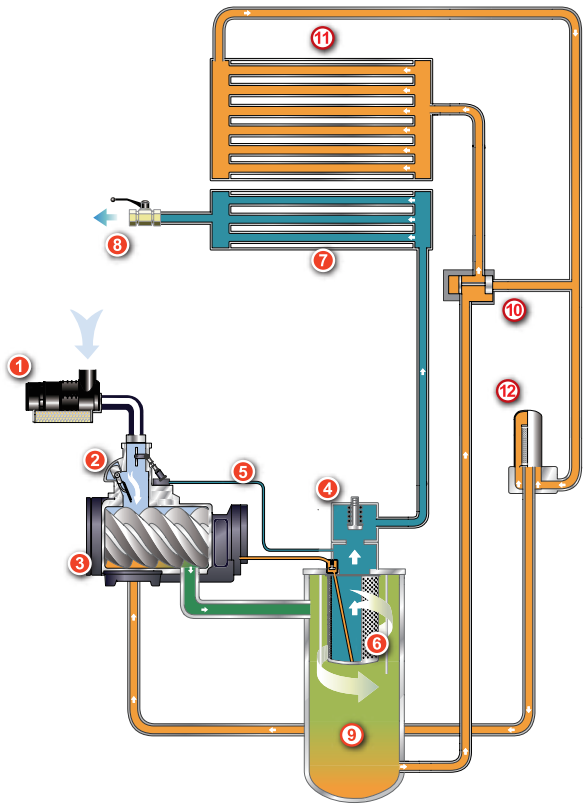
The soft starting capaility of Fusheng' s VSD reduces inrush current requirement, decreasing your power demand and increasing energy saving.



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

Substantial Energy Saving of 35%





System flow chart

Air Flow

1. Air filter
2. Air inlet valve
3. Air compressor airend
4. Minimum pressure valve(MPV)
5. Air inlet control piping
6. Oil fine separator
7. After cooler
8. Air outlet valve

Oil Flow

9. Oil separator tank
10. Thermal control valve
11. Oil cooler
12. Oil filte

SA15~200 series screw compressor (Fixed Speed)

Model	Delivery m^3/min	Working pressure MPa	Main motor power kW	Compressed air outlet	Indicative dimensions			Weight
					L mm	W mm	H mm	kg
SA15A-7-C	2.50	0.7	15	1"	1080	880	1298	480
SA15A-8-C	2.30	0.8						
SA15A-10-C	2.00	1.0						
SA15A-12-C	1.70	1.25						
SA18A-7-C	3.05	0.7	18.5	1"	1080	880	1298	520
SA18A-8-C	2.80	0.8						
SA18A-10-C	2.60	1.0						
SA18A-12-C	2.15	1.25						
SA22A-7-C	4.00	0.7	22	1"	1080	880	1298	600
SA22A-8-C	3.70	0.8						
SA22A-10-C	3.20	1.0						
SA22A-12-C	2.66	1.25						
SA30A-7-C	5.40	0.7	30	1-1/2"	1280	980	1450	880
SA30A-8-C	5.10	0.8						
SA30A-10-C	4.50	1.0						
SA30A-12-C	3.80	1.25						
SA37A-7-C	6.60	0.7	37	1-1/2"	1280	980	1450	920
SA37A-8-C	6.20	0.8						
SA37A-10-C	5.50	1.0						
SA37A-12-C	4.80	1.25						
SA45A-7-C	7.70	0.7	45	2"	1280	1180	1680	1080
SA45A-8-C	7.20	0.8						
SA45A-10-C	6.40	1.0						
SA45A-12-C	5.70	1.25						
SA55A/W-7-C	11.4	0.7	55	2"	2250	1344/1544	1694	2250
SA55A/W-8-C	10.6	0.8						
SA55A/W-10-C	9.30	1.0						
SA55A/W-12-C	8.30	1.25						
SA75A/W-7-C	13.8	0.7	75	2"	2250	1344/1544	1694	2380
SA75A/W-8-C	13.0	0.8						
SA75A/W-10-C	11.4	1.0						
SA75A/W-12-C	10.1	1.25						
SA90A/W-7-C	15.8	0.7	90	2"	2250	1344/1544	1694	3145
SA90A/W-8-C	14.8	0.8						
SA90A/W-10-C	13.2	1.0						
SA90A/W-12-C	11.7	1.25						
SA110A/W-7-C	20.0	0.7	110	DN80	2700	1650	1800	3195/2870
SA110A/W-8-C	18.8	0.8						
SA110A/W-10-C	16.7	1.0						
SA110A/W-12-C	14.6	1.25						
SA132A/W-7-C	25.5	0.7	132	DN80	2800	1900	1800	3780/3730
SA132A/W-8-C	24.0	0.8						
SA132A/W-10-C	21.0	1.0						
SA132A/W-12-C	18.5	1.25						
SA160A/W-7C	31.0	0.7	160	DN100	3200	2000	2000	4470/4510
SA160A/W-8-C	29.2	0.8						
SA160A/W-10-C	26.0	1.0						
SA160A/W-12-C	23.0	1.25						
SA200A/W-7-C	37.5	0.7	200	DN100	3200	2000	2000	4610/4650
SA200A/W-8-C	37.0	0.8						
SA200A/W-10-C	32.5	1.0						
SA200A/W-12-C	29.2	1.25						
SA250A/W-7-C	47.0/49.0	0.7	250	DN100	3520	2290	2030	6000
SA250A/W-8-C	44.5/45.5	0.8						
SA250A/W-10-C	39.0/40.6	1.0						
SA250A/W-12-C	34.8/36.0	1.25						

SAV22~250 series screw compressor (Variable Speed)

Model	Delivery m^3/min	Working pressure MPa	Main motor power kW	Compressed air outlet	Indicative dimensions			Weight
					L mm	W mm	H mm	kg
SAV22A-7-C	1.60~4.00	0.7	22	1"	1430	880	1298	630
SAV22A-8-C	1.48~3.70	0.8						
SAV22A-10-C	1.28~3.20	1.0						
SAV22A-12-C	1.12~2.80	1.25						
SAV37A-7-C	2.56~6.40	0.7	37	1-1/2"	1630	980	1450	970
SAV37A-8-C	2.36~5.90	0.8						
SAV37A-10-C	2.10~5.25	1.0						
SAV37A-12-C	1.84~4.60	1.25						
SAV45A-7-C	2.92~7.30	0.7	45	2"	1460	1280	1680	1180
SAV45A-8-C	2.72~6.80	0.8						
SAV45A-10-C	2.36~5.90	1.0						
SAV45A-12-C	2.06~5.15	1.25						
SAV55A/W-7-C	4.04~10.1	0.7	55	2"	2250	1344/1544	1694	2250
SAV55A/W-8-C	3.84~9.60	0.8						
SAV55A/W-10-C	3.28~8.20	1.0						
SAV55A/W-12-C	2.88~7.20	1.25						
SAV75A/W-7-C	4.96~12.4	0.7	75	2"	2250	1344/1544	1694	2380
SAV75A/W-8-C	4.76~11.9	0.8						
SAV75A/W-10-C	4.20~10.5	1.0						
SAV75A/W-12-C	3.68~9.20	1.25						
SAV90A/W-7-C	6.00~15.0	0.7	90	2"	2250	1344/1544	1694	2450
SAV90A/W-8-C	5.60~14.0	0.8						
SAV90A/W-10-C	4.84~12.1	1.0						
SAV90A/W-12-C	4.28~10.7	1.25						
SAV110A/W-7-C	5.55~18.5	0.7	110	DN80	2600	1750	1850	2660/2590
SAV110A/W-8-C	5.10~17.0	0.8						
SAV110A/W-10-C	4.50~15.0	1.0						
SAV110A/W-12-C	3.90~13.0	1.25						
SAV132A-7-C	6.75~22.5	0.7	132	DN80	2800	1800	1850	3200
SAV132A-8-C	6.30~21.0	0.8						
SAV132A-10-C	5.40~18.0	1.0						
SAV132A-12-C	4.80~16.0	1.25						
SAV132W-7-C	6.75~22.5	0.7	132	DN80	2800	1800	1850	3130
SAV132W-8-C	6.45~21.5	0.8						
SAV132W-10-C	5.70~19.0	1.0						
SAV132W-12-C	5.10~17.0	1.25						
SAV160A-7-C	8.40~28.0	0.7	160	DN100	2900	1800	2150	4150
SAV160A-8-C	7.95~26.5	0.8						
SAV160A-10-C	6.90~23.0	1.0						
SAV160A-12-C	6.15~20.5	1.25						
SAV160W-7C	8.64~28.8	0.7	160	DN100	2900	1800	2000	4190
SAV160W-8-C	8.10~27.0	0.8						
SAV160W-10-C	7.20~24.0	1.0						
SAV160W-12-C	6.45~21.5	1.25						
SAV200A-7-C	10.5~35.0	0.7	200	DN100	2900	1800	2150	4180
SAV200A-8-C	9.75~32.5	0.8						
SAV200A-10-C	8.70~29.0	1.0						
SAV200A-12-C	7.80~26.0	1.25						
SAV200W-7-C	10.8~36.0	0.7	200	DN100	2900	1800	2000	4220
SAV200W-8-C	10.2~34.0	0.8						
SAV200W-10-C	9.00~30.0	1.0						
SAV200W-12-C	8.10~27.0	1.25						
SAV250A-7-C	13.35~44.5	0.7	250	DN100	3870	2290	2030	6500
SAV250A-8-C	12.75~42.5	0.8						
SAV250A-10-C	11.10~37.0	1.0						
SAV250A-12-C	10.05~33.5	1.25						
SAV250W-7-C	13.80~46.0	0.7	250	DN100	3870	2290	2030	6500
SAV250W-8-C	13.50~45.0	0.8						
SAV250W-10-C	12.00~40.0	1.0						
SAV250W-12-C	10.95~36.5	1.25						

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