FUSHENG

SA series - Screw Air Compressor

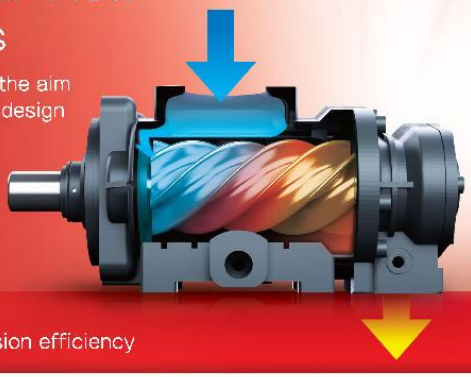
SA08 - 200 Standard series

eCOOL TECHNOLOGY

GREEN ENERGY LOVE THE EARTH

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



Highly Efficient Design

Intake valve

One valve serves as non-return valve, shut-off valve and modulation control valve (optional). The low pressure drop design optimizes air intake efficiency. The compressor adjusts itself automatically with the actual need for compressed air as it operates, allowing for more accurate control of unload pressure and thus greater energy efficiency.

Independent bearing

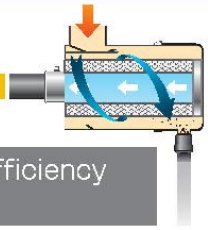
No more bearing lubrication by oil from secondary oil return pipe. The bearings are now lubricated by independent lubrication line. With the independent oil filter, the cleanness of lubricant is ensured.

All end faces sealed to completely remove the leakage

An environment-protective zinc-connector is mounted for connection and the end faces are sealed to completely remove the leakage.

Vibration reducing device

The vibrations are reduced efficiently as the compressor is operating. It also prevents the propagation of low-frequency noises through resonance of solid objects while prolonging the compressor's service life.



Safe and high-efficiency air filter system

- The big particle size of dust in the vacuumed air will follow the air whirl and fall into the rubber slot at front end of air filter casing instead of attaching to clog the surface of filtration core.
- The long service life filtration core is designed with large filtration area and smaller resistance against air suction to ensure that the pure air whirl is without impurities.
- The independent air intake and filtration path allows the colder air is sucked directly from the outside, making the air intake denser for better efficiency.

Eco- and User-friendly idea

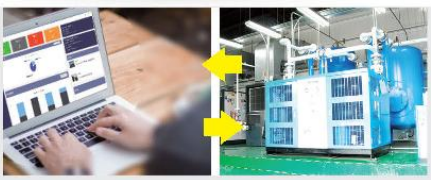
IE3 electric motor is used for all SA series screw compressor. It gives the compressor greater performance and better energy efficiency.

IE3 Motor inside

IoT smart real-time service system (optional)

The IoT compressor management system in the cloud platform realizes the unification of monitoring, malfunction diagnosis and servicing in one package. The messages of compressor malfunction and real-time status are sent to the designated professionals by SMS and email.

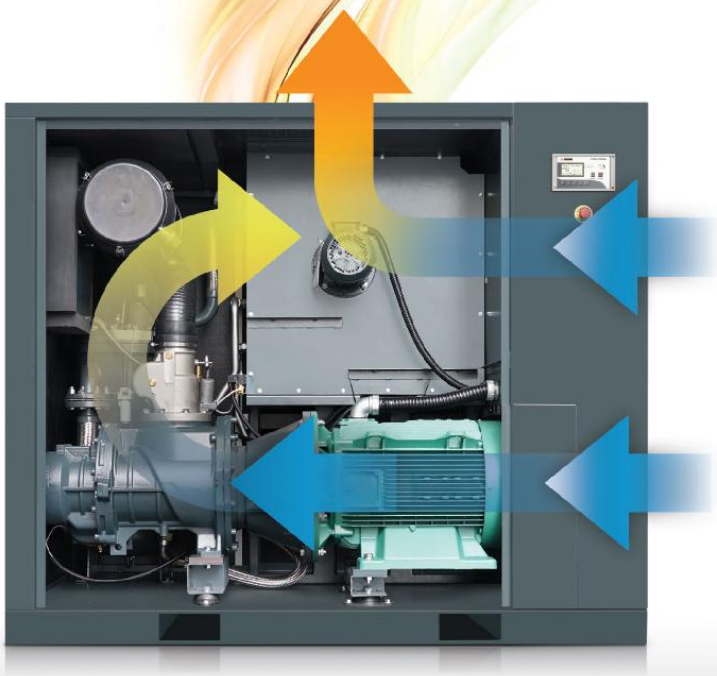
GoService



Unique cooling flow field for silence and efficiency

- With the centrifugal fan, cold air is sucked in directly from outside to cool the cooler, and hot air is dissipated out from the top; With the greater heat transfer surface, the cooler ensuring excellent cooling effect.
- During cooler cleaning, simply remove the cover without dismantle the air duct and doors.
- In the electric control box, the colder air is drawn in directly to ensure the best heat dissipation.
- Independent air intake line in the motor ensures that colder outside air is drawn to the motor directly, and a silencing design is added at the intake port.
- For water-cooled models, heavy duty tube cooler is introduced for its large capacity and outstanding cooling effects, perfect for high-temperature environment.
- The compressed air flows through the line smoothly with virtually no pressure drop. Water flows through the inner tube and air in outer tube. The straight-through design makes cleaning very easy.

- Dual fan design, one or two fans are activated depending on the ambient temperature. This design is equivalent to the combination of cooling fans and additional "mechanical frequency inversion." (available for 90kW series above)



Better noise control

Noise control is performed better now in SA series. Low-noise design is introduced to air filtering, independent air intake line of motor and cooling fans in addition to highly efficient vibration reducing device. Noises are minimized from the source.

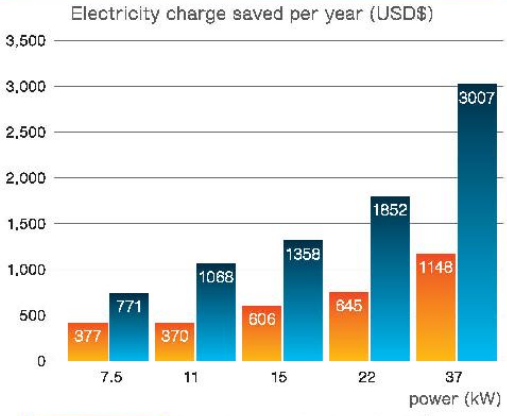
Highly efficient, easy-to-maintain oil separator

- The supersized oil separator design features a large separation area that reduces the pressure drop during the air/oil separation while providing better filtration, thus making the compressed air system more efficient.
- A patented rotating shaft design is adopted on the separator cover. The replacement of oil separator is made much easier.

IE3 Ultra-efficient Motor

The combination of brand-new SA series and the IE3 ultra-efficient motor means not only full-scale performance improvement but also significant reduction in operating costs.

Benefit of using IE3 Motor



Annual cost saving by using IE3 motor instead of IE1+

Annual cost saving by using IE3 motor instead of CNS2934

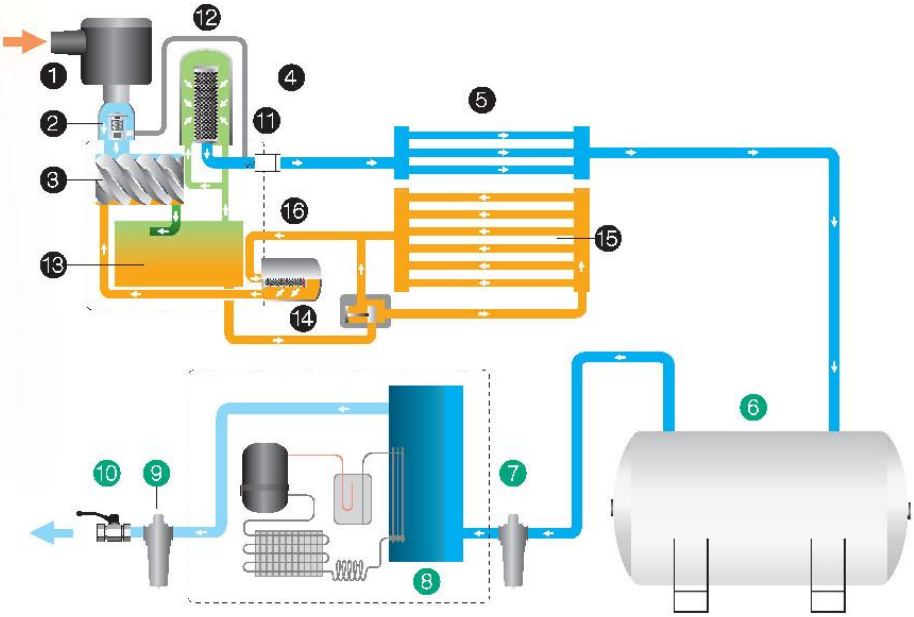
Comparing to air compressor 10 years ago (37kW), by using IE3 motor could save about USD$ 3,007 in electricity charge per year; Comparing to air compressor with IE1+ motor, by using IE3 motor could save about USD$ 1,148 in electricity charge per year.

*Based on 8000 operation hours per year, 1kWH=USD$ 1.10

Differences in efficiency of various grade of motors

CNS2934 is the standard of old version for 3-phase squirrel cage induction motor.

System flow chart



08-11

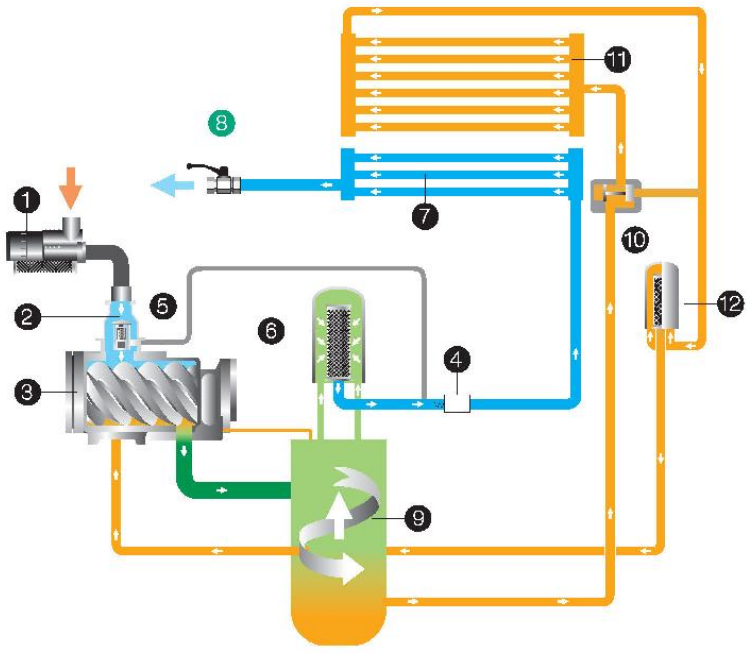
Air Flow

1. Air filter
2. Air inlet valve
3. Air compressor airend
4. Oil fine separator
5. After cooler
6. Air receiver (Optional)
7. Precision filter (Optional)
8. Refrigeration dryer (Optional)
9. Post precision filter (Available if required)
10. Compressed air outlet valve (Optional)
11. Minimum pressure valve (MPV)
12. Air inlet control piping

Oil Flow

13. Air/Oil separator tank
14. Thermal control valve
15. Oil cooler
16. Oil filter

15-37



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Oil Flow

9. Air/Oil separator tank
10. Thermal control valve
11. Oil cooler
12. Oil filter

Specification

SA standard series

Air Compressor

SA08-37

Configuration specifications

● Standard ○ Optional × Not available

Model	compressor	Dryer	Precision filter	Air receiver	inverter
SA	●	×	×	×	×
SA-R	●	●	○	×	×
SA-T	●	×	×	●	×
SA-F	●	●	○	●	×

Model	Working pressure	Delivery	Main motor power		Voltage	Lubricating oil volume	Compressed air outlet	Length	Width	Height	Weight	Noise
	barG	m³/min	kW	HP	V	Liter	inch	mm	mm	mm	kg	dB(A)
50Hz												
SA08	7	1.27	7.5	10	220 380 415	7.5	G 3/4	800 1200 1545 1545	670	1100 1100 1710 1710	275	64
SA08-R	8	1.18									358	63
SA08-T	10	0.99									415	
SA08-F	12	0.8									498	
SA11	7	1.82	11	15							285	65
SA11-R	8	1.7									368	
SA11-T	10	1.52									425	64
SA11-F	12	1.35									508	
SA15	7	2.5	15	20		15	G1	1250	880	1515	610	71
	8	2.3										
	10	2.1										70
	12	1.8										
SA22	7	3.9	22	30							670	72
	8	3.7										
	10	3.2										71
	12	2.8										70
SA37	7	6.6	37	50		18.5	G1 1/2	1350	940	1680	860	73
	8	6.3										72
	10	5.6										71
	12	4.9										70

*Noise value is measured pursuant to ISO 2151.

SA55-200

Model	Working pressure barG	Delivery m^3/min	Main motor power kW	Main motor power HP	Voltage V	Lubricating oil volume Liter	Compressed air outlet inch	Length mm	Width mm	Height mm	Weight kg	Noise dB(A)
50Hz												
SA55A	7	10.3	55	75	220 380 415	39	G2	2000	1250	1750	1640	74
SA55W	8	10.1									1690	
	10	8.4										
	12	7.6										
SA75A	7	14	75	100		52	G2	2180	1330	1850	2025	76
	8	12.8										
SA75W	10	11.8									2013	
	12	10.6										
SA90A	7	16.4	90	125		52	G2	2180	1330	1850	2120	76
	8	15.3										
SA90W	10	13.8									2108	
	12	12.4										
SA110A	7	21.0	110	150		80	3"Flange	2740	1710	1725	3000	75
	8	20.0										
SA110W	10	17.0									2900	
	12	15.3										
SA132A	7	25.2	132	175							3500	
	8	23.2										
SA132W	10	21.0									3400	
	12	18.3										
SA160A	7	29.2	160	215		120	4"Flange	2900	1860	1945	3700	78
	8	27.9										
SA160W	10	24.6									3600	
	12	21.9										
SA185A	7	32.6	185	250							3750	
	8	30.4										
SA185W	10	27.6									3650	
	12	25.3										
SA200A	7	35.2	200	270							3750	
	8	33.7										
SA200W	10	30.3									3650	
	12	27.7										

* Noise level is measured according to ISO 2151

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