

Fusheng stands by your side with total solution of compressors and energy savings.







# SA<sup>+</sup> SERIES TWO STAGE ROTARY SCREW AIR COMPRESSORS 55~400kW



## SA 110

## Pursuing Excellence, Enriching Life

Since 1953, Fusheng has always adhered to the philosophy of "providing excellent prod ucts and services through innovation " in the optimization of product design, manufac turing 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 commit ment to these principles will benefit and enrich people's lives and bring a higher standard of excellence to the industry.



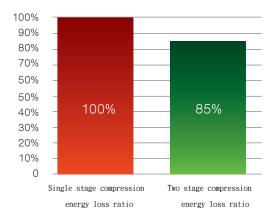
## Why choose two stage compressors?

Compare to single stage compression, high temperature air compressed at first stage of two stage compressor is cooled down by oil and air being constant compressed to reduce second stage inlet temperature. Entire compression process is close to isothermal compression which reduces energy loss. Pressure ratio for each stage of two stage compression is decreased and leakage between rotor seal is reduced significant ly. Outstanding increased airend volumetric efficiency optimized cost-efficiency ratio when operated in continuous full load.





Compare two stage and single stage compression with the same power, efficiency gains is up to about 15%, energy loss can be saved around 15% accordingly.



Energy-efficient two stage compression airend

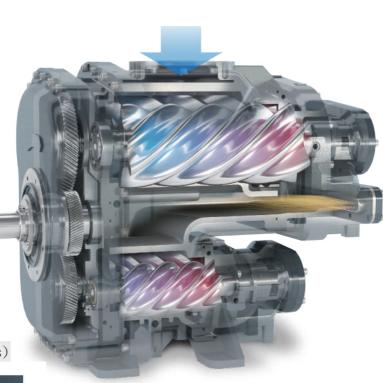
#### Energy-efficient two stage compression airend

- Precision gear drive and best rotator design get the outstanding energy saving perfor mance
- Cold oil is injected in between the first and second stage airend for cooling which realize the optimum cooling effect between stages. Through oil quantity control, efficiency is improved significantly and also maintains compressed air is above pressure dew point to eliminate formation of water and avoid the second stage airend corrosion and system oil emulsification issue at the same time.
- Upgrade optimized runner design mostly reduced the pressure loss and get the outstanding performance.

Independent bearing lubrication (≥75kW models)

- Bearing lubrication does not rely on oil vapor from second-ary return pipe but by using indepen dent lubrication piping.
- Equipped with separated oil filter which ensures cleanness of lubricating oil.





# Unique cooling flow field

- Air-cooled models use centrifugal fan which direct cooler air from external to cool cooler. Hot air is exhausted from top of assembly directly. Mean while 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.
- Water cooling model features heavy duty 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 tube design is easy to clean.

#### Efficient and environmentally friendly system design

- The system and structure layout follow the principle of high reliability, high efficiency and low noise.
- the end face to prevent leakage.
- Non-asbestos gasket with high temperature and pressure resistance to protect operators.

#### VSD Control fan

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VSD control fan design, fans are activated depending on the ambient temperature and running temperature. This design can adapt the temperature difference between different regions and is more efficiency.



## Super grade 1 efficient performance

FUSHENG two stage compressors have the high efficient performance. And from 45kW to 250kW models have the super high efficient performance which are high than Grade 1 efficiency standard.

# SA<sup>+</sup> SERIES

Two stage compressor



Adopt joint material that used trivalent blue and white environmental protection Zinc to prevent corrosion and seal

Motor, air filter and electric cabinet have the independent air inlet flow and air inlet duct also have low noise design.

### 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, easy to maintain oil separator



The supersized oil separator design features a larger separation area that reduce 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.

# FIT-S Intelligent control system

- Fairly self-explanatory interactive interface, supporting multiple languages
- Better anti-interference performance
- Remote on/off function
- RS485 communication can control multiple units in sequence
- Current monitor for main motor and blower motor
- Modular design for better expandability
- Configured with CAN network communication port

## SA+55~400 Two stage compressor datum

Model	Delivery	Working Press.	Rated Power	Compressed	Indicative dimension	Weight kg		
INIOUEI	m³/min	MPa	kW	air outlet	Air Cooling	Water Cooling	Air Cooling	Water Cooling
SA+55*-7T	12.8	0.7						
SA+55*-8T	12.0	0.8	55	2"	2400×1380×1850	2400×1380×1850	2355	2345
SA+55*-10T	10.69	1.0	55					
SA+55*-12T	9.40	1.25						
SA+75*-7T	17.66	0.7	75	2"	2400×1380×1850	2400×1380×1850	2475	2465
SA+75*-8T	16.5	0.8						
SA+75*-10T	14.73	1.0						
SA+75*-12T	12.98	1.25						
SA+90*-7T	20.0	0.7		DN80	2980×1800×1805	2980×1800×1805	3970	3870
SA+90*-8T	18.7	0.8	90					
SA+90*-10T	16.4	1.0	90					
SA+90*-12T	14.6	1.25						
SA+110*-7T	23.9	0.7				2980×1800×1805	4070	
SA+110*-8T	22.3	0.8	110	DN80	2980×1800×1805			3970
SA+110*-10T	19.6	1.0		DNOU				
SA+110*-12T	17.8	1.25						
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"\*" means air compressor cooling method; When "\*" is "A" means air cooling model. "W" means water cooling model.

Model	Delivery m <sup>3</sup> /min		Working Press.	orking Press.Rated Power		Indicative dimensions	Weight kg		
Moder	Air Cooling	Water Cooling	MPa	kW	air outlet	Air Cooling	Water Cooling	Air Cooling	Water Cooling
SA+132*-7T	28.3	28.3	0.7	132	DN100	3300×2120×1998		5050	4650
SA+132*-8T	26.7	26.7	0.8				2200 22120 21008		
SA+132*-10T	23.4	23.4	1.0	152			3300×2120×1996		
SA+132*-12T	21.5	21.5	1.25						
SA+160*-7T	34.9	34.9	0.7	160	DN100	3300×2120×1998	3300×2120×1998	5100	4700
SA+160*-8T	33.0	33.0	0.8						
SA+160*-10T	29.0	29.0	1.0						
SA+160*-12T	26.5	26.5	1.25						
SA+200*-7T	43.1	43.1	0.7		DN100	3700×2100×2100	3700×2100×2100	7000	6500
SA+200*-8T	40.5	40.5	0.8	200					
SA+200*-10T	35.0	35.0	1.0	200					
SA+200*-12T	31.0	31.0	1.25						
SA+250*-7T	54.3	54.3	0.7			3700×2100×2100	3700×2100×2100	7200	6700
SA+250*-8T	51.5	51.5	0.8	250	DN100				
SA+250*-10T	45.3	45.3	1.0		DNIOU				
SA+250*-12T	40.0	40.0	1.25						

Remarks: 1. "\*" means air compressor cooling method; When "\*" is "A" means air cooling model. "W" means water cooling model.

#### 2. SA+220-355 can choose 380V . 6000V . 10000V/50Hz motor. But the weight will be different, please contact FUSHENG.

Model	Delivery m³/min	Working Press. MPa	Rated Power kW	Compressed air outlet	Indicative dimensions (L X W X H) mm	Weight kg
SA+315W-7T	65.5	0.7				
SA+315W-8T	61.5	0.8	315	DN100	4500×2370×2250	8900
SA+315W-10T	53.8	1.0	315	DIVIOU	4500~2570~2250	0900
SA+315W-12T	47.6	1.25				
SA+355W-7T	70.8	0.7				
SA+355W-8T	66.5	0.8	355	DN100	4500×2370×2250	9100
SA+355W-10T	58.1	1.0	300	DIVIOU	4500~2570~2250	9100
SA+355W-12T	51.0	1.25				
SA+400W-7T	79.3	0.7				
SA+400W-8T	74.5	0.8	400	DN100	4500×2370×2250	9250
SA+400W-10T	67.4	1.0	400	DIVIOU	4000~2070~2200	9200
SA+400W-12T	61.3	1.25				

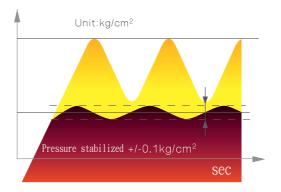
Remarks: 1. All are water cooling model.

2. The external dimensions and weight of SA+315~355 are all 6000V/50Hz motor models.

3. SA+220-355 can choose 380V < 6000V < 10000V/50Hz motor. But the weight will be different, please contact FUSHENG.

## Make Stabile Pressure For Energy Saving

Variable frequency control instantly responds to changes in air volume used by customers. Supply air pressure fluctuations are stable below ± 0.1kg/cm2.



## SAV+55~315 VSD Two stage compressor datum

Model	Delivery	Working Press.	Rated Power	Compressed air outlet	Indicative dimensior	Weigh	t kg	
INICACI	m³/min	MPa	kW		Air Cooling	Water Cooling	Air Cooling	Water Cooling
SAV+55*-7T	3.45~11.5	0.7						
SAV+55*-8T	3.21~10.7	0.8	55	2"	2400×1380×1850	2400×1380×1850	2410	2400
SAV+55*-10T	2.88~9.60	1.0	55					
SAV+55*-12T	2.55~8.50	1.25						
SAV+75*-7T	4.35~16.4	0.7	75	2"	2400×1380×1850	2400×1380×1850	2490	2480
SAV+75*-8T	4.08~15.4	0.8						
SAV+75*-10T	3.63~13.8	1.0						
SAV+75*-12T	3.15~12.2	1.25						
SAV+90*-7T	5.55~20.0	0.7		DN80	3250×1800×1805	3250×1800×1805	4070	3970
SAV+90*-8T	5.10~18.7	0.8	90					
SAV+90*-10T	4.38~16.4	1.0	90					
SAV+90*-12T	3.87~14.6	1.25						
SAV+110*-7T	6.75~23.7	0.7				3250×1800×1805	4170	4070
SAV+110*-8T	6.30~22.3	0.8	110	DN80	3250×1800×1805			
SAV+110*-10T	5.40~19.6	1.0	110	DINOU	3230X1000X1003			
SAV+110*-12T	4.68~17.8	1.25						

"\*" means air compressor cooling method; When "\*" is "A" means air cooling model. "W" means water cooling model.

Model	Delivery <b>m<sup>3</sup>/min</b>		Working Press.	Rated Power	Compressed	Indicative dimensions (L X W X H) mm		Weight kg	
	Air Cooling	Water Cooling	MPa	kW	air outlet	Air Cooling	Water Cooling	Air Cooling	Water Cooling
SAV+132*-7T	8.10~28.3	8.10~28.3	0.7						
SAV+132*-8T	7.50~26.7	7.50~26.7	0.8	132	DN100	2500 2120 2100	3500×2120×1998	4976	4800
SAV+132*-10T	6.60~23.4	6.60~23.4	1.0		DIVIOU	3300 ~ 2120 ~ 1990	3500×2120×1996	4970	4000
SAV+132*-12T	5.85~21.5	5.85~21.5	1.25						
SAV+160*-7T	10.35~34.9	10.35~34.9	0.7						
SAV+160*-8T	9.60~33.0	9.60~33.0	0.8	1.0	DN100	3500×2120×1998	3500×2120×1998	5150	4850
SAV+160*-10T	8.40~29.0	8.40~29.0	1.0						
SAV+160*-12T	7.35~26.5	7.35~26.5	1.25						
SAV+200*-7T	12.90~43.1	12.90~43.1	0.7						
SAV+200*-8T	12.00~40.5	12.00~40.5	0.8	200	DN100	3900×2100×2100	2000 ~ 2100 ~ 2100	7800	7300
SAV+200*-10T	10.65~35.0	10.65~35.0	1.0	200	DIVIOU	3900~2100~2100	3900~2100~2100	/ 800	7300
SAV+200*-12T	9.45~31.0	9.45~31.0	1.25						
SAV+250*-7T	16.29~54.3	16.29 54.3	0.7						
SAV+250*-8T	15.15~51.5	15.15~51.5	0.8	250	DN100	3900×2100×2100	3900×2100×2100	8100	7600
SAV+250*-10T	13.35~45.3	13.35~45.3	1.0		DIVIOU				
SAV+250*-12T	12.00~40.0	12.00~40.0	1.25						

"\*" means air compressor cooling method; When "\*" is "A" means air cooling model. "W" means water cooling model.

Model	Delivery m <sup>3</sup> /min	Working Press. MPa	Rated Power kW	Compressed air outlet	Indicative dimensions (L X W X H) mm	Weight kg	
SAV+315W-7T	18.90~65.5	0.7		DN100			
SAV+315W-8T	17.70~61.5	0.8	315		4200×2300×2300	8000	
SAV+315W-10T	16.05~53.8	1.0	315			8000	
SAV+315W-12T	14.34~47.6	1.25					

Remarks: 1. All are water cooling model.

3. SAV+315 utilized split-type VFD, the frequency conversion weight is 1000kg.

## SA<sup>+</sup> SERIES

Two stage compressor

### VSD Soft Start

Variable frequency soft start. smooth linear operation, no traditional direct start or star delta startup current, reduce the impact on the circuit, power, greatly extend the life of the contactor, motor and compressor body.

