



SAV Series  
Permanent Magnet Variable Frequency  
Screw Air Compressor

## SAV Series

Permanent Magnet Variable Frequency  
Screw Air Compressor

4~37kW



Pursuing Excellence,  
Enriching Life





### Solar photovoltaic

Pressure: 0.85 MPa  
 Pressure dew point:  $\leq -40^{\circ}\text{C}$   
 Dust particles:  $\leq 4.5$  microns



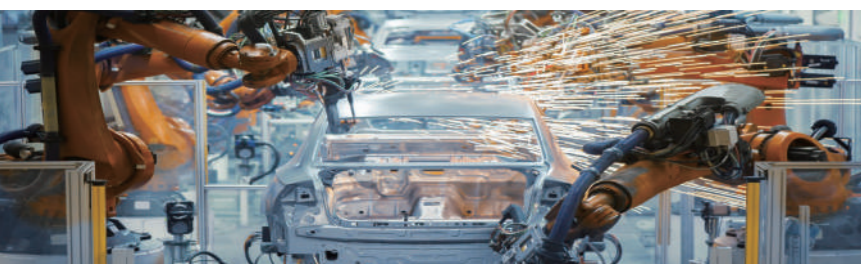
### Lithium battery industry

Pressure: 0.4~0.7 MPa  
 Pressure dew point:  $\leq -40^{\circ}\text{C} \sim 70^{\circ}\text{C}$   
 Dust particles:  $\leq 4.5$  microns



### Electronic manufacturing

Pressure: 0.4~0.7 MPa  
 Pressure dew point:  $\leq -40^{\circ}\text{C}$   
 Dust particles:  $\leq 4.5$  microns  
 Oil content:  $< 0.01\text{ppm}$



### Automobile manufacturing

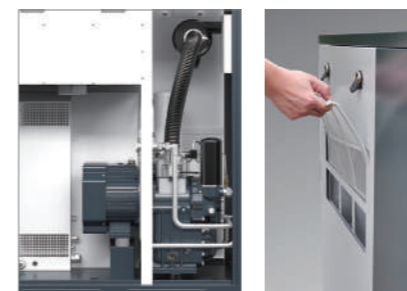
Pressure: 0.4~0.7 MPa  
 Pressure dew point:  $\leq -2 \sim 10^{\circ}\text{C}$   
 $\leq -40^{\circ}\text{C}$  (Spray coating)  
 Dust particles:  $\leq 4.5$  microns  
 Oil content:  $< 0.01\text{ppm}$

### On-site type compressed-air station

- The SA on-site series is closer to the point of air consumption which fundamentally reduces pipeline losses; it is easy to install, plug, and play.
- An integral series of permanent magnet variable frequency air compressors, including the standard, tank-integrated, and full-performance models, are highly efficient in energy saving to meet various requirements. The full-performance models are equipped with an advanced refrigeration air dryer and precision filter to directly provide a clean air source.
- The process of the full-performance unit is optimal for air compression: air compressor - air storage tank - refrigeration air dryer.
- Compact and lightweight plus reduced footprint creates an ideal operating environment for customers.

### Easy positioning

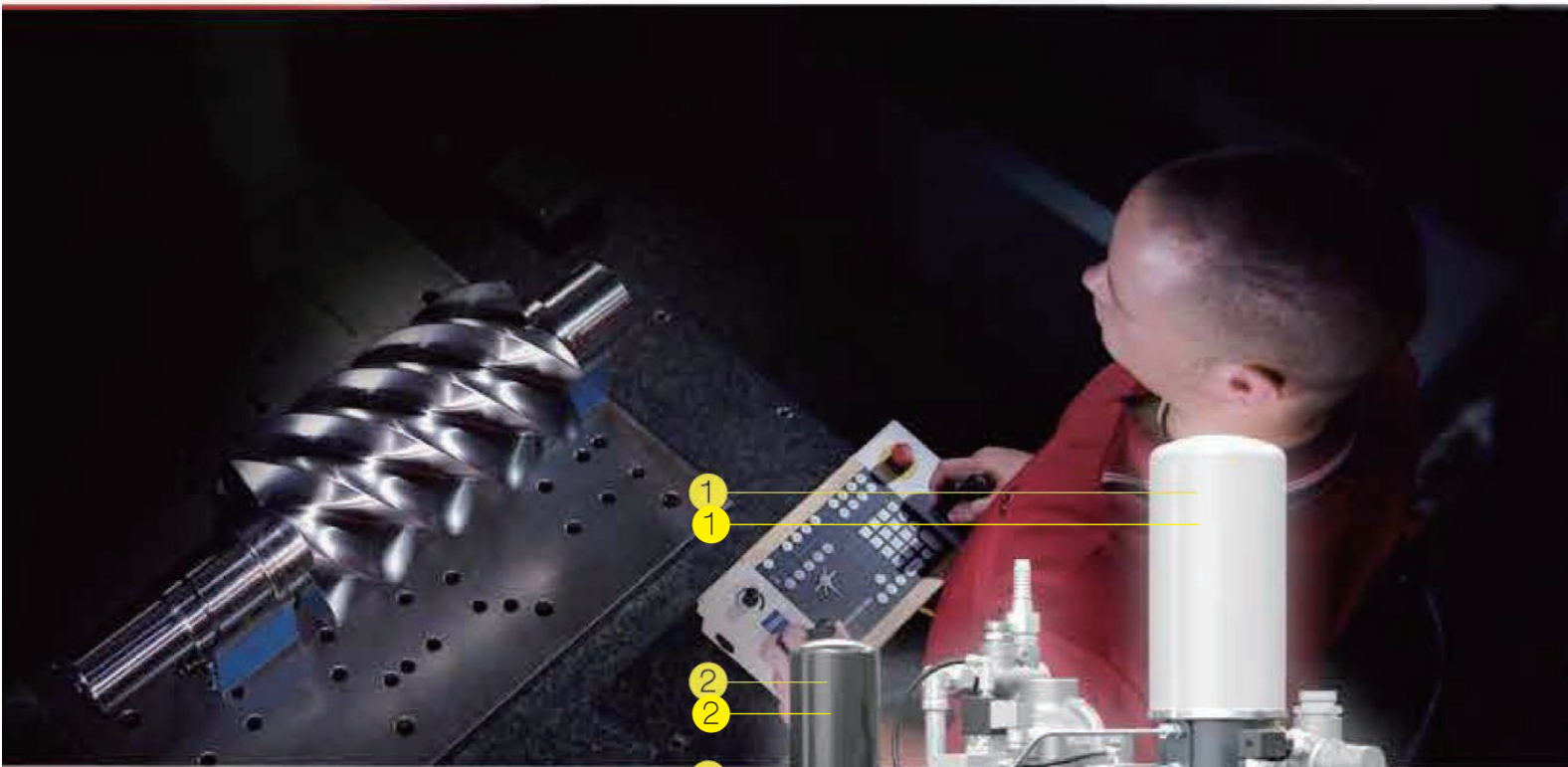
No forklift is needed for the standard unit or full-performance unit. You can use a pallet jacket to easily move it through a narrow space to the job site for placement.



### Easy maintenance

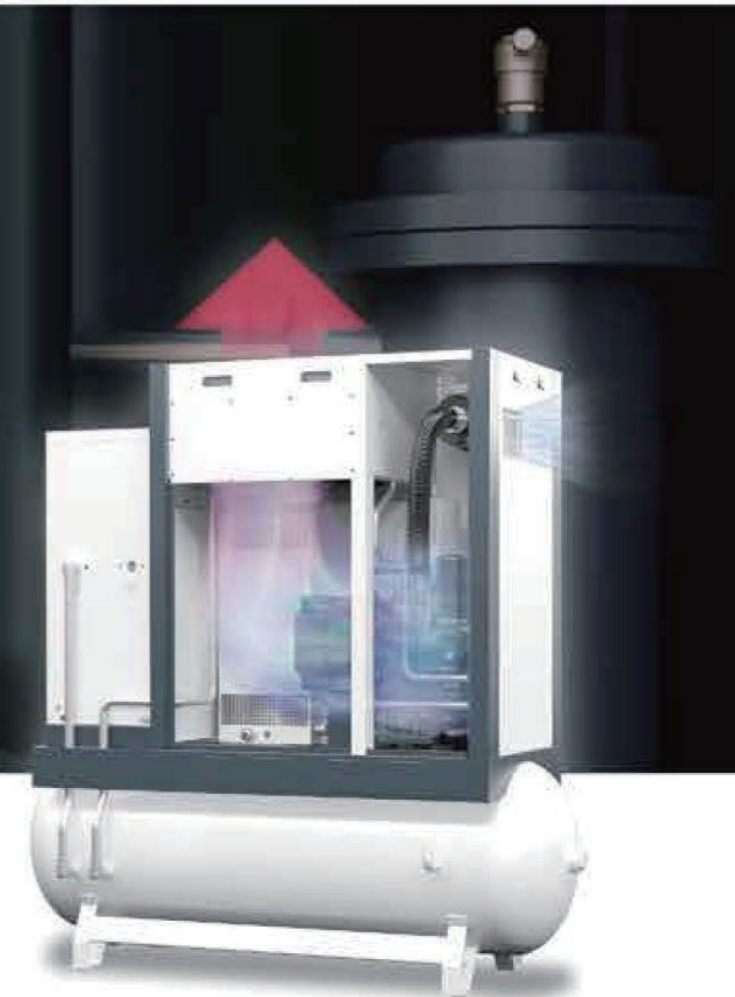
Despite its compact size, it reserves sufficient space for maintenance. An extra filter screen is installed that can effectively block the entry of dust.





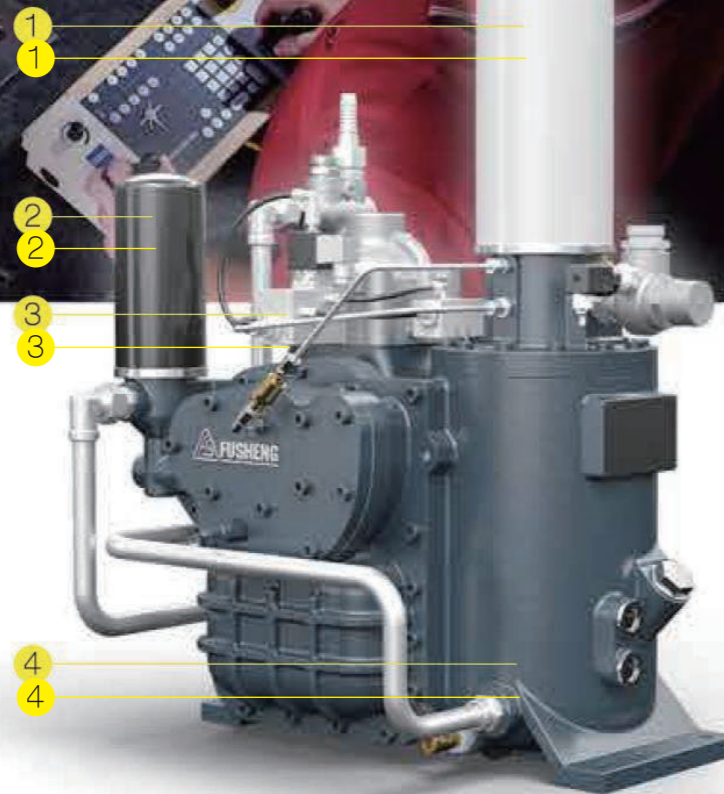
## Unique cooling flow field

- The separate configuration for the hot and cold chambers is to leave the cooler at a higher temperature to an independent chamber for thermal separation.
- The optimized design of the independent air intake duct and exclusive air suction box significantly attenuates the air suction noise, and it can directly suck in the cooler air from outside to enhance the density of air suction and better suction efficiency.
- The frequency inverter and electronic control have respective cooling channels to ensure that the integrated control unit operates at a suitable temperature stably and efficiently.



## High-performance integrated compressor assembly

- An integral air compressor system is designed with high-degree integration, high energy efficiency, and low noise to integrate the screw compressor unit, oil mist separation drum, oil fine separator, oil filter, air filter, and air intake valve all-in-one, except the cooling system and motor.
- Easy maintenance is available for the three externally mounted filters, which leaves no internal piping loss. A sufficient maintenance space is also provided for the compact and lightweight air compressor.



## Energy-saving, highly efficient, and environmentally friendly system design

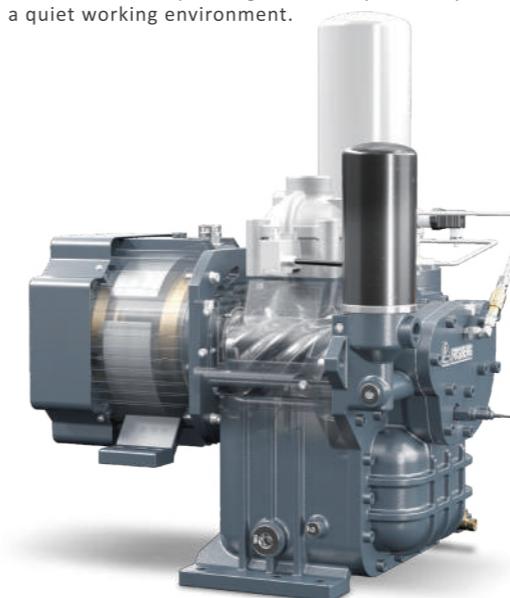
- The system and structural configuration follow the principles of high reliability, high efficiency, and low noise.
- The trivalent blue-white environmentally friendly zinc connector with end face sealed is used to prevent leakage.
- The permanent magnet variable frequency control is available for the whole series to save energy for you from the first minute of use.

### Lower operating noise

- For the structure of the main compressor assembly and the configuration of the cooling air duct, or the architecture of the entire system, our design eliminates the noise from the sound source to obtain a performance of lower operating noise and provides you with a quiet working environment.

### Higher energy efficiency grade, less footprint

- From the design concept to the practical application of various components, the SA on-site series has more efficient performance and a higher energy-saving grade. Its integrated design leads to less area occupation.



### Permanent magnet variable frequency, coaxial drive

- The integral and coaxial design enables the high-efficiency permanent magnet motor and the rotor to increase the transmission efficiency and improve the speed-governing effectiveness of variable frequency.
- The permanent magnet is made of powerful neodymium iron boron material, which makes the regulation of variable frequency more precise, and no demagnetization phenomenon will arise from running the air compressor under extreme temperatures.
- Forced air-cooling is designed for heat dissipation of the motor that can further cool the operating temperature of the permanent magnet, prolong the service life, and ensure a reliable energy-saving effect.

### 1 Oil fine separator

- External mounting design for easy replacement. It controls the oil content in the compressed air as the finished product within a very ideal range. It has an outstanding oil fine separation effect and a long service life.

### 3 Air intake valve

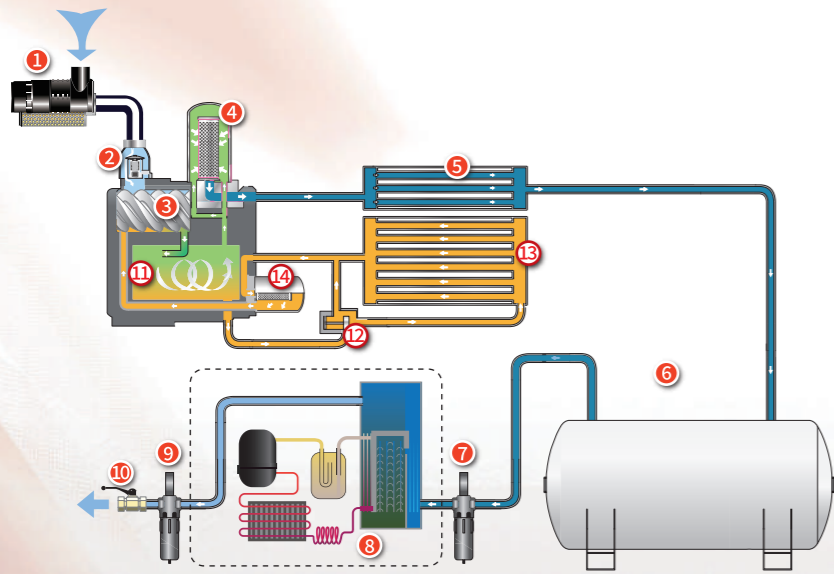
- Its streamlined flow channel design minimizes pressure loss, turbulence, and noise. Also, its large valve size and low-pressure drop plus the functions of nonreturn and oil cut-off, etc., ensure safety, reliability, high efficiency, and energy saving.

### 2 Oil filter

- External mounting design for easy replacement. Its high-quality filter elements can effectively filter out the impurities and oil-degrading substances in the lubricating oil, and protect the service life of moving parts for the air compressor.

### 4 Oil mist separation drum

- It is integrated as one assembly, and although it is compact, it functions as an independent oil mist separation drum. The compressor models with a power of over 18.5 kW are designed with a vertically integrated drum to ensure the precision of the initial separation of the compressed air before entering the oil fine separator.



Process chart

Air circuit

1. Air intake filter
2. Air intake valve
3. Compressor main assembly
4. Oil fine separator
5. Aftercooler
6. Air storage tank (optional)
7. Precise filter (optional)
8. Refrigeration air dryer (optional)
9. Post precise filter (extra mounting per request)
10. Air outlet

Oil circuit

11. Oil and air separator
12. Thermal control valve
13. Oil cooler
14. Oil filter



SAV Series on-site type permanent magnet variable frequency screw air compressor – Standard models

Model	Working pressure MPa	Delivery m <sup>3</sup> /min	Motor power kW	Compressed air Outlet size	Overall dimensions			Weight kg
					Length mm	Width mm	Height mm	
SAV04A	0.5-1.25	0.13-0.74	4	G1/2	790	640	1000	240
SAV06A	0.5-1.25	0.16-0.93	5.5	G1/2	790	640	1000	270
SAV08A	0.5-1.25	0.25-1.42	7.5	G3/4	1090	700	1120	350
SAV11A	0.5-1.25	0.38-1.93	11	G3/4	1090	700	1120	380
SAV15A	0.5-1.25	0.40-2.68	15	G3/4	1090	700	1120	410
SAV18A	0.5-1.25	0.68-3.57	18.5	G1	1130	740	1380	500
SAV22A	0.5-1.25	0.82-4.09	22	G1	1130	740	1380	520
SAV30A	0.5-1.25	1.27-6.37	30	G1-1/2	1040	880	1600	670
SAV37A	0.5-1.25	1.50-7.80	37	G1-1/2	1040	880	1600	680

SAV Series on-site type permanent magnet variable frequency screw air compressor - Full-performance models

Model	Working pressure MPa	Delivery m <sup>3</sup> /min	Motor power kW	Compressed air Outlet size	Air storage tank L	Overall dimensions			Weight kg
						Length mm	Width mm	Height mm	
SAV04AF	0.5-1.25	0.13-0.74	4	G3/4	270	1530	640	1520	530
SAV06AF	0.5-1.25	0.16-0.93	5.5	G3/4	270	1530	640	1520	550
SAV08AF	0.5-1.25	0.25-1.42	7.5	G3/4	270	1530	700	1640	640
SAV11AF	0.5-1.25	0.38-1.93	11	G3/4	270	1530	700	1640	660
SAV15AF	0.5-1.25	0.40-2.68	15	G3/4	270	1530	700	1640	680
SAV18AF	0.5-1.25	0.68-3.57	18.5	G1	500	1860	740	1980	780
SAV22AF	0.5-1.25	0.82-4.09	22	G1	500	1860	740	1980	800


SAV04-15AF model is configured with a 270L air storage tank as standard; a 500L air storage tank is available as an optional; but its overall dimensions and weight will vary. The full-performance models are integrated the air storage tank, refrigeration air dryer, and the Grade-1 precise filter. To add more stages of filter is available according to the practical need.

SAV Series on-site type permanent magnet variable frequency screw air compressor – Tank-integrated models


Model	Working pressure MPa	Delivery m <sup>3</sup> /min	Motor power kW	Compressed air Outlet size	Air storage tank L	Overall dimensions			Weight kg
						Length mm	Width mm	Height mm	
SAV04AP	0.5-1.25	0.13-0.74	4	G1/2	270	1530	640	1520	380
SAV06AP	0.5-1.25	0.16-0.93	5.5	G1/2	270	1530	640	1520	420
SAV08AP	0.5-1.25	0.25-1.42	7.5	G3/4	270	1530	700	1640	540
SAV11AP	0.5-1.25	0.38-1.93	11	G3/4	270	1530	700	1640	560
SAV15AP	0.5-1.25	0.40-2.68	15	G3/4	270	1530	700	1640	580
SAV18AP	0.5-1.25	0.68-3.57	18.5	G1	500	1860	740	1980	700
SAV22AP	0.5-1.25	0.82-4.09	22	G1	500	1860	740	1980	720

SAV04-15AP model is configured with a 270L air storage tank as standard; a 500L air storage tank is available as an option; but its overall dimensions and weight will vary.


Configuration table



Standard models



Tank-integrated models



Full-performance models

	Air compressor unit	Air storage tank	Refrigeration air dryer	Built-in precision filter*
Standard models	●	×	×	×
Tank-integrated Models	●	Standard configuration	×	×
Full-performance Models	●	Standard configuration	●	●