

# FU SHENG SAV Series Variable Speed Drive Technology

## MOST SIGNIFICANT TECHNOLOGICAL ADVANCE

SA SERIES SCREW COMPRESSOR WITH INVERTER VARIABLE SPEED CONTROL MAXIMIZES EFFICIENCY ON A WIDE SCALE OF AIR DEMAND FLUCTUATION.



### Features :

■ IN POWER RANGE FROM 22~220kW

### ENERGY SAVING

ICU control unit in combination with D.I.C.S.(Digital Intelligent Control System) accurately reduces energy consumption by providing required motor speed to meet your demand, resulting in significant 20-40% energy cost saving.

### CONSTANT PRESSURE

Air delivery of SAV compressor can be matched to actual air demand as indicated by the system pressure at constant working pressure sustained by ICU control unit within  $\pm 0.1$  bar range.

### OUTSTANDING EFFICIENCY

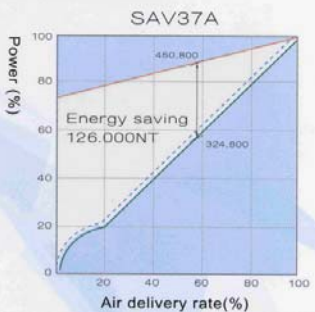
D.I.C.S. optimizes modulation control range from 25~100% providing ability to precisely match power consumption with air demand.

### BUILT FOR RELIABILITY

SAV compressor applies large, 5 to 6 patented rotor profile, with reliable and durable bearings selected and low speed rotation, which makes the compressor best solution for continuous 100% duty-cycle operation. FS-600 high quality lubricant contributes to extended service life of compressor unit.

### Practical energy saving calculation example

Following graph (calculation) is based on air demand standing at 60%, with electricity cost of 2.1 NTD/kWh and 6000 operational hours/year



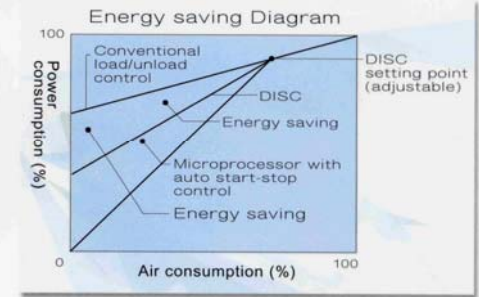
MODEL	SAV37A
Energy saving (kW)	10.0
CO <sub>2</sub> reduction (kgC)	1.2
Electricity cost saving (thousand NTD/year)	126

CO<sub>2</sub> emission volume calculation:  
 CO<sub>2</sub> emission volume = Electric power consumption × 0.12  
 Absorption rate of one hectare of forest: 6,000 kgC/year  
 Emission rate of SAV37A: 7,200kgC/year

— Conventional unloading  
 - - - Working pressure 7 kg/cm<sup>2</sup>(0.69MPa)  
 . . . Working pressure 9.5 kg/cm<sup>2</sup>(0.93MPa)

### DICS (Digital Intelligent Control System) Energy Saving

- Compressed air consumption decrease
- Air system pressure increases
- ICU control unit sends signal
- Inverter output frequency decreases
- Electrical motor rpm decreases
- Output pressure decreases and stabilizes on the set working pressure value



### SAV Specifications

Model		SAV22A	SAV37A	SAV55A	SAV75A	SAV110A	SAV132A
Voltage	Volt	200-230, 380-460V					
Output power	KW/HP	22/30	37/50	55/75	75/100	110/150	150/200
Working	kgf/cm <sup>2</sup> G	7~9					
Control of Pressure		ICU controller + Inverter constant pressure control					
Control Range	%	25~100					
Air Delivery	m <sup>3</sup> /min	3.7~3.2	6.5~5.5	10.5~9.3	14~12.2	21~19.1	26~22.7
Inlet Pressure & Temperature		2~45°C at/atm					
Electrical Motor		30/TEFC/IP54/SF1.15					
Starter		Inverter					
Drive		Coupling					
Cooling		Air-cooled					
Discharge Air Temperature		≤ Environment temperature + 15°C					
Outlet Pipe	inch	1"	1 1/2"	2"		4"	
Dimensions	Standard	1600x870x1665	1790x968x1745	2150x1400x1740	2250x1450x1840	2982x2050x2300	
	Microprocessor	1700x970x1665	1890x1048x1945	2455x1450x2040	2455x1450x2040	2982x2050x2300	

Model		SAV55W	SAV75W	SAV110W	SAV132W	SAV150W	SAV185W	SAV220W
Voltage	Volt	200~230, 380~460						
Output power	KW/HP	55/75	75/100	110/150	132/175	150/200	182/250	220/300
Working	kgf/cm <sup>2</sup> G	7~9						
Control of Pressure		ICU controller + Inverter constant pressure control						
Control Range	%	25~100						
Air Delivery	m <sup>3</sup> /min	10.5~9.3	14~12.2	21~19.1	26~22.7	29~25.1	35~30.9	42~37
Inlet Pressure & Temperature		2~45°C at/atm						
Electrical Motor		30/TEFC/IP54/SF1.15						
Starter		Inverter						
Drive		Coupling						
Cooling		Water-cooled						
Discharge Air Temperature		≤ Environment temperature + 15°C						
Outlet Pipe	inch	2			4			
Dimensions	Standard	2300x1920x1655		2900x2225x1500		3300x2400x2000		
	Microprocessor	2300x1920x1655		2900x2225x1500		3300x2400x2000		



FU SHENG INDUSTRIAL CO., LTD