OUR HEAD OFFICE AND PLANT ARE CERTIFIED TO BOTH ISO 9001 AND ISO 14001.

Niigata plant:
Shimo Aozu, Tsubame-city, Niigata-prefecture, Japan.

ISO 9001
ISO 14001

ISO9001 : JQA-0581
ISO14001 : JQA-EM4670

⚠ SAFETY

Before use, please read the operation manual carefully and use the machine safely in order to prevent an accident and failure. Please make sure to perform daily and/or periodic check.

AIRMAN®

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E-mail: sales@airman-asia.com

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DISTRIBUTOR :

Screw Compressor
SAS / SMS Series

AIRMAN®

Screw Compressor
PROAIR AS Series

[Indoor installation type / Outdoor installation type]

Air-Cooled, Oil-Lubricated **15 kW / 22 kW / 37 kW**

Outdoor installation type SMS37ESD

Indoor installation type SAS22VD

Design registered

HOKUETSU INDUSTRIES CO., LTD.

PROAIR AS Series that goes one step higher than others, aiming for the higher energy efficiency and environment friendly performance.

AIRMAN continues to lead the air compressor industry of a diverse range of service environments in all kinds of applications.
We are pleased to announce the launch of PROAIR AS Series which achieves entirely new levels of high efficiency and energy-saving performance. We will continue to be the first to meet customer needs by delivering the ultimate in high performance.

We develop products with top priority given to the compressor life cycle cost (LCC), and our entire group maintain this top priority to ensure customer satisfaction at all stages from installation to after-sales service.

Outdoor installation type SMS37EVD　　Indoor installation type SAS37SD

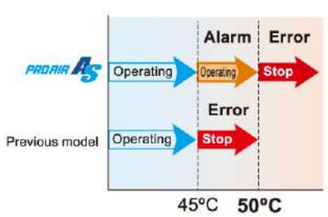
Introducing new AS rotors for a large increase in air delivery.

The number of male rotors has been increased from 4 to 5, and with improved rotor profile.
By optimizing the screw rotor profile that is at the heart of the compressor and making fine-tuned improvements to the compressor unit, we have achieved the highest level of air delivery in the class.

Operates at ambient temperatures up to 50ºC with standard specifications.

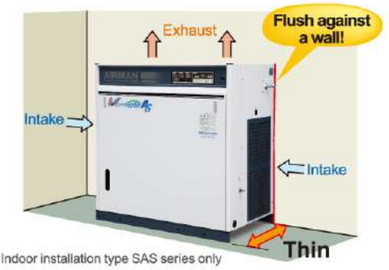
Improvements to the cooler and fan cooling system, and to dryer performance, allow this system to operate at ambient temperatures up to 50ºC.

* If continuous operation over long periods occurs in an environment where the ambient temperature exceeds 40ºC, the lifetimes of the lubrication oil, electronics, O-rings, and other components will be shortened from their usual values.



Slim, space-saving design for effective use of space

The compact design can be installed flush against a wall. There is no intake port on the back of the machine and all basic maintenance can be performed from the front and right sides.



* Indoor installation type SAS series only

Type / Output	Outdoor installation type [SMS]			Indoor installation type [SAS]		
	Inverter	2-position control	Regulator	Inverter	2-position control	Regulator
15 kW	SMS15EVD	SMS15ESD	SMS15ERD	SAS15VD	SAS15SD	SAS15RD
22 kW	SMS22EVD	SMS22ESD	SMS22ERD	SAS22VD	SAS22SD	SAS22RD
37 kW	SMS37EVD	SMS37ESD	SMS37ERD	SAS37VD	SAS37SD	SAS37RD

Prevent overheating and make effective use of space.

Features and advantages of the SMS [outdoor installation type].

Output \ Type	Outdoor installation type		
	Inverter	2-position control	Regulator
15 kW	SMS15EVD	SMS15ESD	SMS15ERD
22 kW	SMS22EVD	SMS22ESD	SMS22ERD
37 kW	SMS37EVD	SMS37ESD	SMS37ERD


| SMS15ESD |


| SMS22EVD |


| SMS37ERD |

Low noise

The use of a low-noise enclosure with improved intake and exhaust duct structures results in a lower noise level.

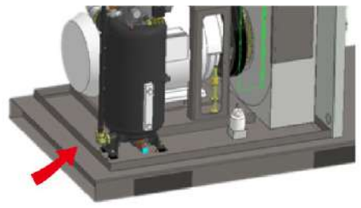
Units: dB (A)

* Noise values are converted to values for anechoic chamber conditions during full-load operation, at a point 1.5 m in front of the machine (control side) and a height of 1.0 m. The noise value when the machine is actually installed will vary largely depending on the installation environment (effects of surrounding reverberation, etc.). Noise values are also different during airflow control operation.

Oil fence function (22/37 kW)

In the event that oil leaks onto the frame, the oil fence will prevent oil from flowing out of the machine.

* This function does not guarantee the prevention of all oil leakage.



Special hood for outdoor use

A special hood is used to minimize the intrusion of rainwater into the machine.

■Special seal

The top cover and door seal utilize the same type of press-fit seal that is used in automobiles. A structure with raised sides also blocks the entry of rainwater.

■Louver structure

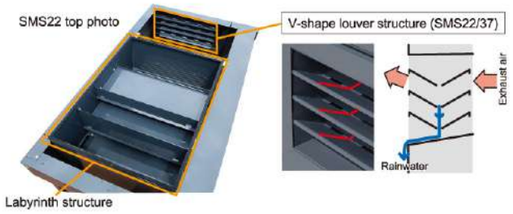
The cooling air intake port uses a louver structure to reduce the possibility of rainwater intrusion.

■Waterproofing washers and stainless steel bolts

Bolts are made of stainless steel to resist corrosion. The top cover uses water-proofing washers that prevent rainwater from entering the bolt holes.

■Rain trap package

A labyrinth structure is used for the compressor-side intake and exhaust ports, and a V-shape louver structure (SMS22/37) is used on the dryer-side exhaust port, creating a path for intruding rainwater to flow back out of the machine. The labyrinth structure and V-shape louver structure also reduce the machine noise.



Advantages of outdoor installation types

Achieve full compressor performance

- Optimal installation environment (cool, little dust, little mist)
- Prevent overheating in the summer.
- Prevent the reduction in air delivery caused by rising temperatures.
- Prevent intake of dust in the plant and oil smoke from machine tools.

Large reduction in installation cost

- Ducts and ventilation fans are not required.
- Structures such as compressor room are not necessary.
- Because the machine is air-cooled and includes a dryer, it can be easily relocated.
- It can be installed close to the load to minimize pressure loss.
- Because it can be installed outdoors, additional units can be easily installed. (Can be completed without upgrading existing units.)

A better environment inside the plant

- Exhaust heat is discharged directly outside.
- Exhaust heat can be used to supplement plant heating. (Duct work is required.)
- Machine heat does not affect the plant air conditioning.
- Compressor noise does not echo in the plant.
- Because the air source is outdoor air, compression efficiency is higher.

A wide range of options

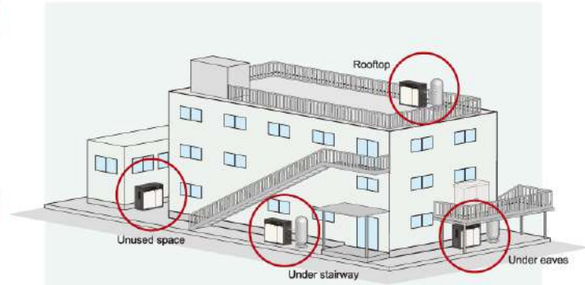
- Can be used in cold-weather regions.
- Allows pressure changes and use with different voltages.
- Remote control for easy operation from indoors.

Effective use of space

- Can be installed on rooftops.
- Can be installed underneath stairways or in other unused spaces.
- No changes to the plant layout are necessary.
- Maintenance space can be easily ensured.

Easy maintenance

- Cooler can be cleaned easily.
- Oil changes can be completed quickly.
- A simple removable large door allows easy everyday maintenance.
- Full-open top cover (3.7-15 kW)
- Minimizes trouble caused by contaminants from the plant.



Installation examples

We offer a lineup of outdoor installation types, including 3.7 kW-75 kW oil-lubricated (SMS) machines and 37 kW-75 kW oil-free machines.


Component manufacturing plant: SMS11ED x 1


Manufacturing plant: SMS8ED x 1, SMS11ED x 2


Manufacturing plant: SMS15SD x 2

* Photos show previous models.


Food product plant: SMAD37PD (oil-free) x 2

Features of V type (Inverter type)

This inverter control "V type" compressor achieves the most excellent energy savings in its horsepower range. Newly developed AS rotors coupled directly to an IPM motor in its built-in structure achieved 8-15% increased air capacity compared with conventional models. Together with inverter controlling system, it provides the most excellent energy savings.

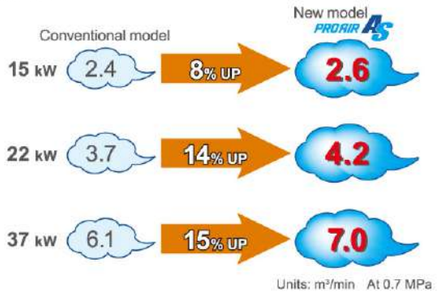
Type	Air control system		Energy saving system		
V Inverter type	Inverter control	+	Purge control	+	Automatic start/stop

Outdoor installation type
| SMS22EVD |

Indoor installation type
| SAS15VD |

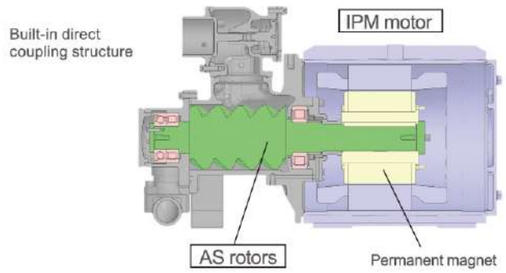
Large increase in air delivery — P Features and benefits

Newly developed AS rotors achieve greater performance and higher efficiency, and provides the highest level of air delivery in its class.



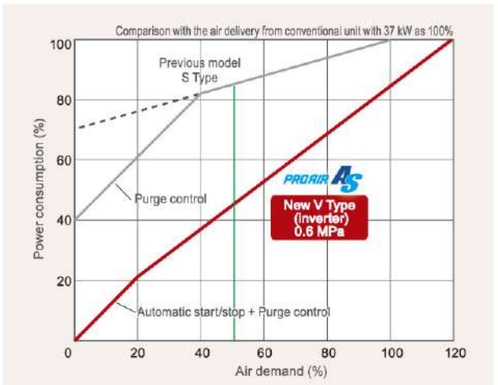
Built-in direct coupling structure (22/37 kW)

IPM (Interior Permanent Magnet) motor provides more efficient performance than premium efficiency motors.
Achieved no transmission loss by built-in direct coupling structure, excellent energy-saving performance.

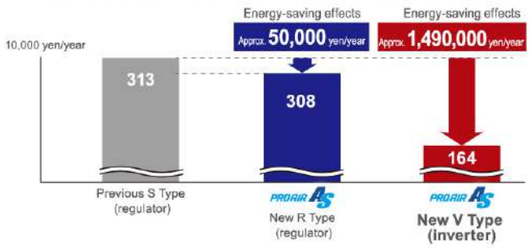


Energy-saving effects — P Features and benefits

Newly developed AS rotors coupled IPM motor provide more efficient and energy savings than conventional models.



Example: 37 kW model annual energy cost (air demand 50%)



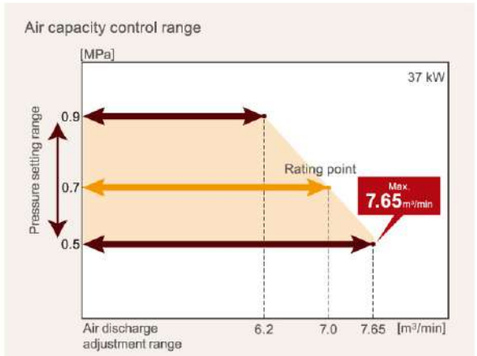
Example of annual energy costs — Units: 10,000s yen/year

Type / Class	15 kW	22 kW	37 kW
Previous S Type	132	194	313
New R Type	131 [△1]	193 [△1]	308 [△5]
New V Type	84 [△48]	101 [△93]	164 [△149]

Conditions Air delivery: 3.0 m³/min (50% load with conventional unit), pressure: inverter type 0.6 MPa/regulator type 0.7 MPa, dryer OFF, electricity cost: 15 yen/kWh, operating time: 6,000 hrs/year

Super-wide range control — P Features and benefits

The use of a high-efficiency AS rotors and motor expands the control range. Any pressure can be set in the range of 0.5-0.9 MPa (in increments of 0.01 MPa).



Max. pressure ⇔ Max. air discharge [m³/min]

	15 kW	22 kW	37 kW
0.9 MPa*	2.35 [90%]	3.75 [89%]	6.2 [89%]
0.7 MPa	2.6 [100%]	4.2 [100%]	7.0 [100%]
0.6 MPa	2.7 [104%]	4.45 [106%]	7.4 [106%]
0.5 MPa	**2.8 [108%]**	**4.7 [112%]**	**7.65 [109%]**

* 0.85 MPa with the 15 kW model. 0.9 MPa with the 22 kW and 37 kW models.
* Values in [ ] indicate the percentage increase in air discharge when the air discharge at 0.7 MPa is 100%.

Air delivery boost function

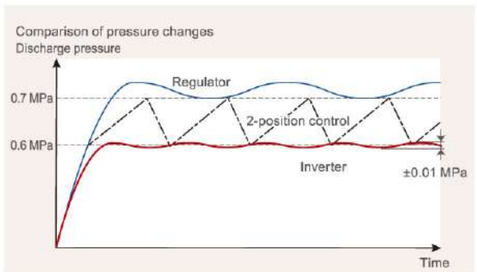
The amount of air delivery is increased by lowering the set pressure and increasing the maximum operating speed.

Air pressure boost function

Air delivery pressure can be set up to 0.9 MPa, and the operating speed is adjusted automatically according to the set air pressure. The air pressure can be set easily from the operation panel.

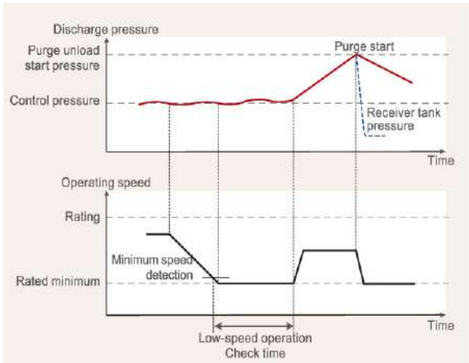
Constant pressure control

Inverter control allows constant pressure control with minute pressure fluctuations in the order of ±0.01 MPa.



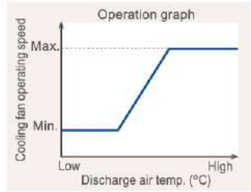
Purge control — Patent pending

When the air demand decreases and the minimum operation speed continues for a certain length of time, the operating speed is increased to quickly raise air delivery pressure and transition to purge operation in order to save energy.



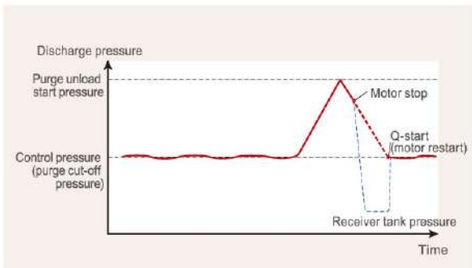
Inverter control also for the cooling fan (22/37 kW)

Controlling the cooling fan operating speed with the inverter by detecting the air delivery temperature, motor winding temperature, and outside air temperature. It results in saving energy, noise reduction, and extending oil lifetime.



Q-start

Depending on the changes in the air demand value, the system saves energy by automatically stopping operation by the predictions of the stop time.
It also increases the pressure in the service air before stopping, extending the stop time and saving energy. When the air delivery pressure decreases to the control pressure, the system restarts without any delay, preventing the line pressure from decreasing.



2-position control S Type and regulator R Type that achieves the highest level of air delivery capacity in its class.

The use of new high-efficiency AS rotors greatly increases the amount of air delivery.

Type	Air control system	Energy-saving mechanism
S 2-position control type	2-position control + A.C.C.S.	+ Purge control + Automatic start/stop
R Regulator type	Regulator control	+ Purge control + Automatic start/stop

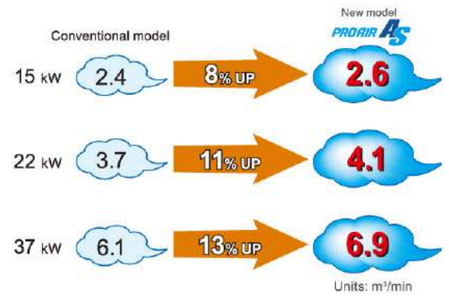
Outdoor installation type
| SMS15ESD |

Indoor installation type
| SAS37RD |

Large increase in air discharge

P Features and benefits

The development of a new AS rotors and greatly improved basic performance result in the highest level of air discharge in its class.



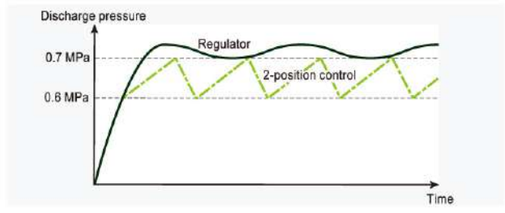
Airflow control

2-position control S Type

The intake-air capacity is controlled in 2 steps: open (load) and closed (unload).

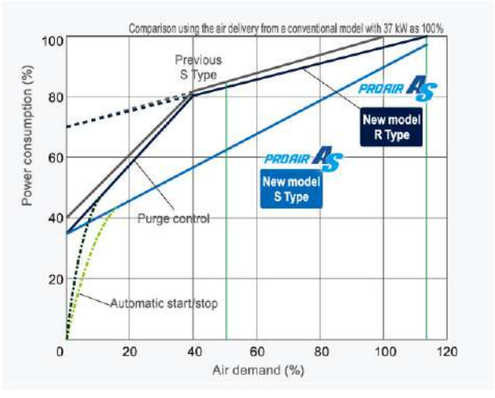
Regulator control R Type

The intake-air capacity is controlled without steps within the range of 0 - 100%.

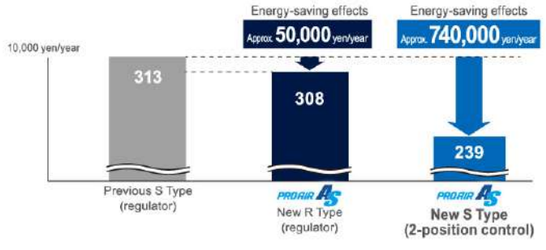


Energy-saving effects

The high-efficiency new AS rotors save more energy when compared with conventional models.



Example: 37 kW model annual energy cost (air demand 50%)



Example of annual energy costs Units: 10,000s yen/year

Type / Class	15 kW	22 kW	37 kW
Previous S Type	132	194	313
New R Type	131 [△1]	193 [△1]	308 [△5]
New S Type	104 [△28]	147 [△47]	239 [△74]

Conditions Air discharge: 3.0 m³/min (previous model 50% load) Dryer: OFF
Electricity cost: 15 yen/kWh Operating time: 6,000 hrs/year

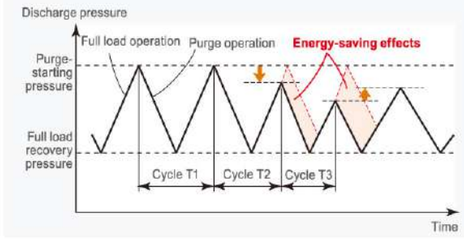
* Figures for new S type is the case when additional air receiver tank of sufficient capacity for storage is connected. If the air receiver tank is not big enough, energy saving effect will be less.

Energy-saving function

Various energy saving functions are available as standard.

A.C.C.S. (AIRMAN Computer Control System) S Type

The unload-starting pressure is adjusted automatically according to the air demand to save energy.



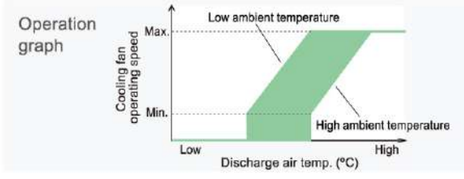
The purge start pressure is automatically adjusted to keep cycle time T within 30 - 50 sec. By reducing pressure maximum 0.06 MPa, it produces energy saving up to 3%.

ECO LED

This LED blinks to indicate ECO operation is in service while in A.C.C.S. operation.

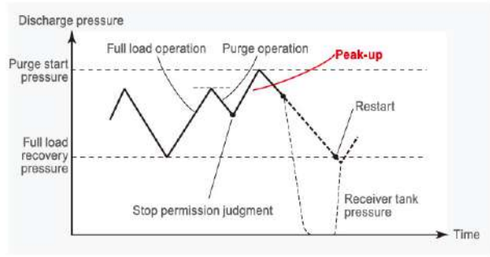
Cooling fan inverter control (22/37 kW)

Using discharge air temperature sensor and ambient temperature sensor to optimize cooling fan speed with inverter control, it provides energy savings, reducing noises and ensuring long oil lifetime.



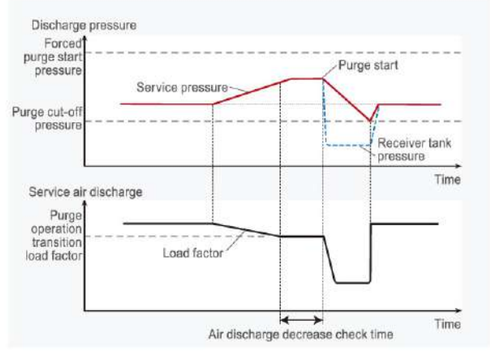
Peak-up start/stop S Type

When the air demand is reduced, stop time is predicted during purge operation, operation is determined to be stopped soon. Stop time is extended by increasing discharge pressure temporarily (Peak-up) to save the power and reduce the load on the motor at restart.



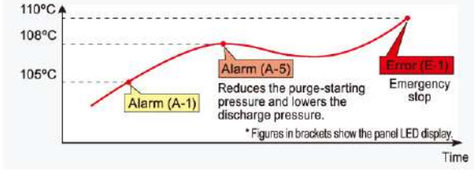
Purge control R Type

When the air demand is reduced and the load factor is remained below the purge operating transition load factor for a certain length of time, the system transits to purge operation in order to save energy.



Discharge air temperature: 3-stage detection S Type

Discharge air temperature is detected at 3 stages when abnormal temperature rising. To lower discharge air temperature, purge-starting pressure is reduced when the 2nd alarm is triggered.



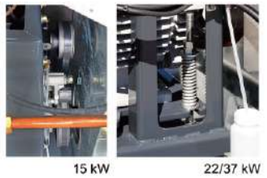
Maintenance-free belt

The using of a belt drive system in the 15 kW model, and a belt automatic tensioner in the 22 and 37 kW models, provides maintenance-free performance and a further improvement in reliability.

Belt tension
Adjustment not necessary

Belt
Improved reliability

Pulley
Improved corrosion prevention



15 kW 22/37 kW

Aiming for a new generation of higher efficiency, energy-saving performance, and resistance to environmental conditions

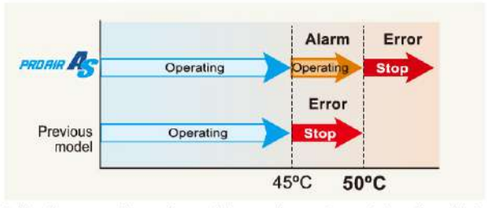
Advanced functions

Includes a variety of advanced functions, including the ability to operate at ambient temperatures of 50°C.

Standard equipment available for 50°C ambient temperatures

P Features and benefits

Improvements to the cooler and fan cooling system, and to dryer performance, allow this system to operate at ambient temperatures up to 50°C.

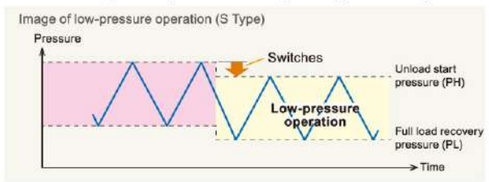


* If continuous operation over long periods occurs in an environment where the ambient temperature exceeds 40°C, the lifetimes of the lubrication oil, electronics, O-rings, and other components will be shortened from their usual values.

Low-pressure operation (pressure 2-stage switching) function

When the low discharge pressure is not a problem, switch to low-pressure operation to save energy.

- At night time and other times when the low discharge pressure is not a problem
- When multiple compressors are operating alternately



0.7→0.6 MPa

7% energy savings

Pressure setting range: 0.02 - 0.2 MPa

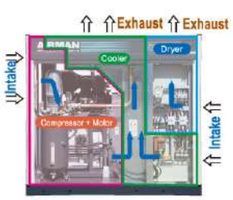
Switching method

- Operating switch on the operation panel
- External contact signal (low-pressure operation when ON)

* In the case of an R type, 2-position control occurs when low-pressure operation is selected.

3-box structure

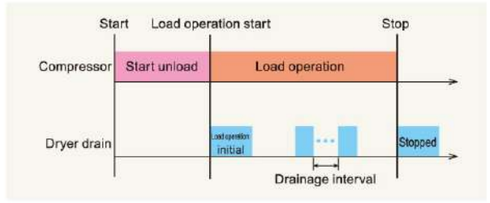
3-box structure provides excellent cooling and noise prevention effects. Compressor chamber and dryer chamber are completely separated, preventing dryer temperature rising.



Dryer drain system

Patented

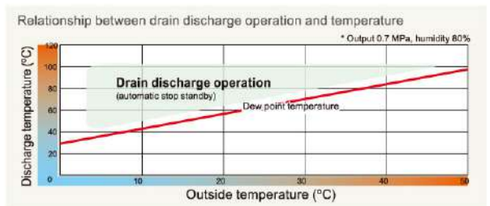
The dryer drain controls the drain interval by determining the amount of drain based on the outside air temperature and load operating time. After the start unload operation and when stopped, drain occurs at fixed intervals in order to prevent fluid from accumulating in the drain.



Original drain processing

Industry's first

The dew point is estimated from the outside air temperature, and operation continues until the discharge air temperature exceeds the dew point. This allows faster and more reliable drain operation than with conventional models, and it eliminates troublesome manual drain work.



Low pressure-loss dryer

The dryer uses a stainless steel plate heat exchanger that features lower pressure loss than conventional models, as well as excellent durability.

Pressure loss: 0.005 MPa (approximately 1.2% energy savings)

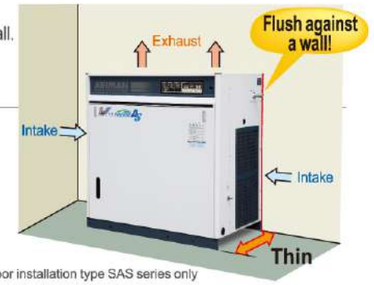
Compact design

The compact design can be installed flush against a wall.

Slim design and Space saving

P Features and benefits

There is no intake port on the rear of the machine, and all basic maintenance can be performed from the front and right side. As a result, the machine can be installed flush up against a wall.
The compact and slim design with internal dryer also minimizes the required installation space.



* Indoor installation type SAS series only

Easy maintenance

Daily check and periodical maintenance can be carried out easily.

Daily check

(1) Oil level gauge
Daily check Oil level check

(2) Dust filter
Daily check Check for dirt and clogging

(3) Coolant pressure gauge
Daily check Pressure check

(4) Oil cooler / after-cooler
(5) Air filter
(6) Oil filter
(7) Cartridge-type separator
(8) Drain valve
(9) Inverter (V Type)
Start panel (S/R type)

V Type (inverter control)

SAS22VD

Easy maintenance

Start/stop can be performed with a single touch using display button

In addition to the front door, the side cover can also be easily removed for easy maintenance.

● Oil separator: 1 year

● Air filter: 1 year

● Compressor oil: 1 year

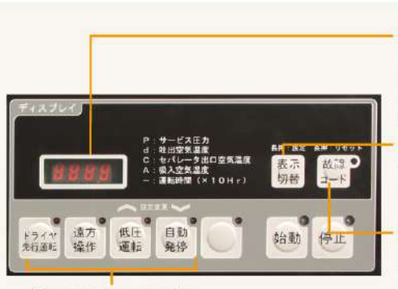
● Oil filter: 1 year

* Operating time: 6,000 hours/1 year

Use of Long-Life SP
The compressor oil is Long-Life SP providing excellent high performance and cost savings.

Easy operation

Start/stop can be performed with a single touch using display button.



LED display (4 digits)
Displays the service air pressure, discharge air temperature, separator outlet air temperature, operating time, and outside air temperature.

Change display
Press and hold the switch to display the data setting code.

Failure code
If the switch is turned ON while the lamp is blinking, the failure code is displayed.

* The design of the 15 kW model is different.

Operating mode

Dryer starts before operation
Clean air is supplied beginning from the moment the compressor starts.

Remote control
A terminal block for start/stop, error display output, and other purposes is installed as standard.

Restart after instantaneous power outage
When an instantaneous power outage of approximately 2 seconds occurs, operation is restarted automatically approximately 30 seconds after power is restored.

Outdoor installation type – SMS series

■ 15 kW specification | Outdoor installation type

	Item \ Model		SMS15EVD-E Inverter	SMS15ESD-5E/6E 2-position control	SMS15ERD-5E/6E Regulator
15 kW	Compressor: Model		Rotating screw type, 1-stage compressed oil cooling		
	Compressor: Air Delivery *1	m³/min	2.6 (2.8 - 2.35)	2.6 [2.35] [2.15]	2.6 [2.35] [2.15]
	Compressor: Working pressure *2	MPa	0.7 (0.5 - 0.85)	0.7 [0.85] [0.93]	0.7 [0.85] [0.9]
	Compressor: Capacity control system		Inverter control + Purge control + Automatic start/stop	2-position control + A.C.C.S. + Purge control + Automatic start/stop	Regulator + Purge control + Automatic start/stop
	Compressor: Intake conditions		Atmospheric pressure, -15 - 40°C *7		
	Compressor: Lubricant oil capacity *3	L	9		
	Compressor: Discharge air pipe diameter	A	25 (1B)		
	Compressor: Cooling fan output	kW	–		
	Motor: Model		Fully-enclosed, external fan, 3-phase squirrel cage induction motor		
	Motor: Output	kW	15 (S.F = 1.08)		
	Motor: Frequency	Hz	Both 50/60	50/60	50/60
	Motor: Voltage	V	200/200•220 [400/400•440]		
	Motor: No. of poles	P	4		
	Motor: Starting system		Inverter	Direct input	Direct input
	Dimension and weight: Overall width	mm	1,320		
	Dimension and weight: Overall depth	mm	700		
	Dimension and weight: Overall height	mm	1,310		
	Dimension and weight: Weight *4	kg	500 (470)	485 (445)	485 (445)
	Dimension and weight: Noise level *5	dB[A]	58		
	Dryer: Input	kW	0.512/0.592•0.604		
	Dryer: Outlet dew point *6	°C	10 (under pressure)		
	Dryer: Coolant and control system		R407C / capillary tube		

■ 22 kW specification | Outdoor installation type

	Item \ Model		SMS22EVD-E Inverter	SMS22ESD-5E/6E 2-position control	SMS22ERD-5E/6E Regulator
22 kW	Compressor: Model		Rotating screw type, 1-stage compressed oil cooling		
	Compressor: Air Delivery *1	m³/min	4.2 (4.7 - 3.75)	4.1 [3.6] [3.4]	4.1 [3.6] [3.4]
	Compressor: Working pressure *2	MPa	0.7 (0.5 - 0.9)	0.7 [0.85] [0.93]	0.7 [0.85] [0.9]
	Compressor: Capacity control system		Inverter control + Purge control + Automatic start/stop	2-position control + A.C.C.S. + Purge control + Automatic start/stop	Regulator + Purge control + Automatic start/stop
	Compressor: Intake conditions		Atmospheric pressure, -15 - 40°C *7		
	Compressor: Lubricant oil capacity *3	L	13		
	Compressor: Discharge air pipe diameter	A	25 (1B)		
	Compressor: Cooling fan output	kW	0.75		
	Motor: Model		Fully-enclosed, external fan, 3-phase squirrel cage induction motor	Fully-enclosed, external fan, 3-phase squirrel cage induction motor	
	Motor: Output	kW	22 (S.F = 1.1)		
	Motor: Frequency	Hz	Both 50/60	50/60	50/60
	Motor: Voltage	V	200/200•220 [400/400•440]		
	Motor: No. of poles	P	6	4	4
	Motor: Starting system		Inverter	Star delta	Star delta
	Dimension and weight: Overall width	mm	1,590		
	Dimension and weight: Overall depth	mm	850		
	Dimension and weight: Overall height	mm	1,570		
	Dimension and weight: Weight *4	kg	645 (605)	780 (740)	780 (740)
	Dimension and weight: Noise level *5	dB[A]	54	56	56
	Dryer: Input	kW	1.16/1.43•1.47		
	Dryer: Outlet dew point *6	°C	10 (under pressure)		
	Dryer: Coolant and control system		R407C / capillary tube		

■ 37 kW specification | Outdoor installation type

	Item \ Model		SMS37EVD-E Inverter	SMS37ESD-5E/6E 2-position control	SMS37ERD-5E/6E Regulator
37 kW	Compressor: Model		Rotating screw type, 1-stage compressed oil cooling		
	Compressor: Air Delivery *1	m³/min	7.0 (7.65 - 6.2)	6.9 [6.2] [5.9]	6.9 [6.2] [5.9]
	Compressor: Working pressure *2	MPa	0.7 (0.5 - 0.9)	0.7 [0.85] [0.93]	0.7 [0.85] [0.9]
	Compressor: Capacity control system		Inverter control + Purge control + Automatic start/stop	2-position control + A.C.C.S. + Purge control + Automatic start/stop	Regulator + Purge control + Automatic start/stop
	Compressor: Intake conditions		Atmospheric pressure, -15 - 40°C *7		
	Compressor: Lubricant oil capacity *3	L	18	20	20
	Compressor: Discharge air pipe diameter	A	40 (1 1/2B)		
	Compressor: Cooling fan output	kW	1.5		
	Motor: Model		Totally-enclosed IPM 3 phase synchronous motor	Fully-enclosed, external fan, 3-phase squirrel cage induction motor	
	Motor: Output	kW	37 (S.F = 1.1)		
	Motor: Frequency	Hz	Both 50/60	50/60	50/60
	Motor: Voltage	V	200/200•220 [400/400•440]		
	Motor: No. of poles	P	6	4	4
	Motor: Starting system		Inverter	Star delta	Star delta
	Dimension and weight: Overall width	mm	1,840		
	Dimension and weight: Overall depth	mm	960		
	Dimension and weight: Overall height	mm	1,630		
	Dimension and weight: Weight *4	kg	945(875)	1,100 (1,030)	1,100 (1,030)
	Dimension and weight: Noise level *5	dB[A]	58		
	Dryer: Input	kW	1.1/1.3		
	Dryer: Outlet dew point *6	°C	10 (under pressure)		
	Dryer: Coolant and control system		R407C / capillary tube		

*1: Air delivery is converted at intake conditions at atmospheric pressure and 30°C. As for guaranteed value, please ask us if necessary.
*2: Inverter model figures in parentheses ( ) are the setting range. 2-position control and regulator model figures in brackets [ ] are the values for high-pressure specifications (option at time of manufacture).
*3: Be sure to use Long-Life SP genuine Hokuetsu compressor oil.
*4: Figures in brackets show those of the unit without dryer.

Indoor installation type – SAS Series

■ 15 kW specification | Indoor installation type

	Item \ Model		SAS15VD-E Inverter	SAS15SD-5E/6E 2-position control	SAS15RD-5E/6E Regulator
15 kW	Compressor: Model		Rotating screw type, 1-stage compressed oil cooling		
	Compressor: Air Delivery *1	m³/min	2.6 (2.8 - 2.35)	2.6 [2.35] [2.15]	2.6 [2.35] [2.15]
	Compressor: Working pressure *2	MPa	0.7 (0.5 - 0.85)	0.7 [0.85] [0.93]	0.7 [0.85] [0.9]
	Compressor: Capacity control system		Inverter control + Purge control + Automatic start/stop	2-position control + A.C.C.S. + Purge control + Automatic start/stop	Regulator + Purge control + Automatic start/stop
	Compressor: Intake conditions		Atmospheric pressure, 2 - 40°C *7		
	Compressor: Lubricant oil capacity *3	L	9		
	Compressor: Discharge air pipe diameter	A	25 (1B)		
	Compressor: Cooling fan output	kW	–		
	Motor: Model		Fully-enclosed, external fan, 3-phase squirrel cage induction motor		
	Motor: Output	kW	15 (S.F = 1.08)		
	Motor: Frequency	Hz	Both 50/60	50/60	50/60
	Motor: Voltage	V	200/200•220 [400/400•440]		
	Motor: No. of poles	P	4		
	Motor: Starting system		Inverter	Direct input	Direct input
	Dimension and weight: Overall width	mm	1,160		
	Dimension and weight: Overall depth	mm	670		
	Dimension and weight: Overall height	mm	1,270		
	Dimension and weight: Weight *4	kg	465(430)	445 (420)	445 (420)
	Dimension and weight: Noise level *5	dB[A]	58		
	Dryer: Input	kW	0.512/0.592•0.604		
	Dryer: Outlet dew point *6	°C	10 (under pressure)		
	Dryer: Coolant and control system		R407C / capillary tube		

■ 22 kW specification | Indoor installation type

	Item \ Model		SAS22VD-E Inverter	SAS22SD-5E/6E 2-position control	SAS22RD-5E/6E Regulator
22 kW	Compressor: Model		Rotating screw type, 1-stage compressed oil cooling		
	Compressor: Air Delivery *1	m³/min	4.2 (4.7 - 3.75)	4.1 [3.6] [3.4]	4.1 [3.6] [3.4]
	Compressor: Working pressure *2	MPa	0.7 (0.5 - 0.9)	0.7 [0.85] [0.93]	0.7 [0.85] [0.9]
	Compressor: Capacity control system		Inverter control + Purge control + Automatic start/stop	2-position control + A.C.C.S. + Purge control + Automatic start/stop	Regulator + Purge control + Automatic start/stop
	Compressor: Intake conditions		Atmospheric pressure, 2 - 40°C		
	Compressor: Lubricant oil capacity *3	L	13		
	Compressor: Discharge air pipe diameter	A	25 (1B)		
	Compressor: Cooling fan output	kW	0.75		
	Motor: Model		Totally-enclosed IPM 3 phase synchronous motor	Fully-enclosed, external fan, 3-phase squirrel cage induction motor	
	Motor: Output	kW	22 (S.F = 1.1)		
	Motor: Frequency	Hz	Both 50/60	50/60	50/60
	Motor: Voltage	V	200/200•220 [400/400•440]		
	Motor: No. of poles	P	6	4	4
	Motor: Starting system		Inverter	Star delta	Star delta
	Dimension and weight: Overall width	mm	1,380		
	Dimension and weight: Overall depth	mm	780		
	Dimension and weight: Overall height	mm	1,420		
	Dimension and weight: Weight *4	kg	540 (500)	685 (645)	685 (645)
	Dimension and weight: Noise level *5	dB[A]	57		
	Dryer: Input	kW	1.16/1.43•1.47		
	Dryer: Outlet dew point *6	°C	10 (under pressure)		
	Dryer: Coolant and control system		R407C / capillary tube		

■ 37 kW specification | Indoor installation type

	Item \ Model		SAS37VD-E Inverter	SAS37SD-5E/6E 2-position control	SAS37RD-5E/6E Regulator
37 kW	Compressor: Model		Rotating screw type, 1-stage compressed oil cooling		
	Compressor: Air Delivery *1	m³/min	7.0 (7.65 - 6.2)	6.9 [6.2] [5.9]	6.9 [6.2] [5.9]
	Compressor: Working pressure *2	MPa	0.7 (0.5 - 0.9)	0.7 [0.85] [0.93]	0.7 [0.85] [0.9]
	Compressor: Capacity control system		Inverter control + Purge control + Automatic start/stop	2-position control + A.C.C.S. + Purge control + Automatic start/stop	Regulator + Purge control + Automatic start/stop
	Compressor: Intake conditions		Atmospheric pressure, 2 - 40°C		
	Compressor: Lubricant oil capacity *3	L	18	20	20
	Compressor: Discharge air pipe diameter	A	40 (1 1/2B)		
	Compressor: Cooling fan output	kW	1.5		
	Motor: Model		Totally-enclosed IPM 3 phase synchronous motor	Fully-enclosed, external fan, 3-phase squirrel cage induction motor	
	Motor: Output	kW	37 (S.F = 1.1)		
	Motor: Frequency	Hz	Both 50/60	50/60	50/60
	Motor: Voltage	V	200/200•220 [400/400•440]		
	Motor: No. of poles	P	6	4	4
	Motor: Starting system		Inverter	Star delta	Star delta
	Dimension and weight: Overall width	mm	1,620		
	Dimension and weight: Overall depth	mm	890		
	Dimension and weight: Overall height	mm	1,530		
	Dimension and weight: Weight *4	kg	820 (750)	990 (920)	990 (920)
	Dimension and weight: Noise level *5	dB[A]	59		
	Dryer: Input	kW	1.1/1.3		
	Dryer: Outlet dew point *6	°C	10 (under pressure)		
	Dryer: Coolant and control system		R407C / capillary tube		

*5: Noise level is measured at the distance of 1.5m (front) and 1.0m high from unit as full load. Depending on the installation environment (effects of surrounding reverberation, etc.), the noise level when the system is actually installed may be higher than the level indicated here. The noise level also changes when the capacity control operation is in effect.
*6: Outlet dew point is the one at ambient temperature of 30°C.
*7: When using in cold weather regions (0°C or below), the optional tape heater is required (cold weather region specifications).
* A separate air tank with sufficient capacity must be installed.

Optional specifications

Air pressure / Voltage / Capacity control / Dryer

Model		Item	Pressure			Voltage		Airflow control			Dryer	
			0.7 MPa	0.85 MPa	0.93 MPa	200/220V	400/440V	Inverter	2-position control	Regulator (intake closed)	Internal	None
Indoor installation type	V Type	SAS15VD	●: 0.5 - 0.85 MPa			●	□	●	–	–	●	–
		SAS22VD	●: 0.5 - 0.9 MPa			●	□	●	–	–	●	□
		SAS37VD	●: 0.5 - 0.9 MPa			●	□	●	–	–	●	□
	S Type	SAS15SD	●	□	□	●	□	–	●	–	●	□
		SAS22SD	●	□	□	●	□	–	●	–	●	□
		SAS37SD	●	□	□	●	□	–	●	–	●	□
	R Type	SAS15RD	●	□	□(0.9 MPa)	●	□	–	–	●	●	□
		SAS22RD	●	□	□(0.9 MPa)	●	□	–	–	●	●	□
		SAS37RD	●	□	□(0.9 MPa)	●	□	–	–	●	●	□
Outdoor installation type	V Type	SMS15EVD	●: 0.5 - 0.85 MPa			●	□	●	–	–	●	–
		SMS22EVD	●: 0.5 - 0.9 MPa			●	□	●	–	–	●	□
		SMS37EVD	●: 0.5 - 0.9 MPa			●	□	●	–	–	●	□
	S Type	SMS15ESD	●	□	□	●	□	–	●	–	●	□
		SMS22ESD	●	□	□	●	□	–	●	–	●	□
		SMS37ESD	●	□	□	●	□	–	●	–	●	□
	R Type	SMS15ERD	●	□	□(0.9 MPa)	●	□	–	–	●	●	□
		SMS22ERD	●	□	□(0.9 MPa)	●	□	–	–	●	●	□
		SMS37ERD	●	□	□(0.9 MPa)	●	□	–	–	●	●	□

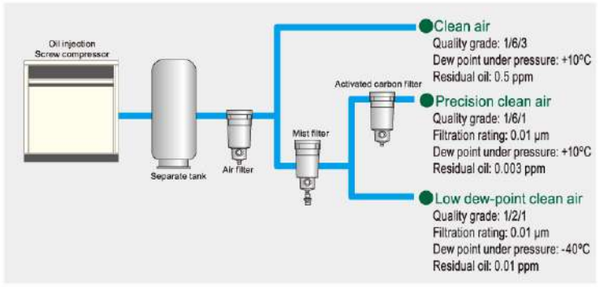
●: Standard specifications □: Option at time of production

Colored touchscreen

Operating modes, pressure settings, failure history, schedule operation, and other functions can be checked and configured from the colored touchscreen.

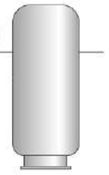
Filter

The combination of filter and dryer best suited for the purpose of use can be used in order to supply even higher quality clean air.



Additional air receiver tank

Additional air receiver tank is available.



Drain processor

The oil contained in dryer drain that is discharged from the compressor is absorbed by a special filter, reducing it to an oil content at or below 5 mg/L (the drain standard under the Water Pollution Prevention Law). Drain processing costs are greatly reduced.

SMS [outdoor installation type] options

Cold weather region specifications

In cold weather regions (0°C or below), a tape heater must be installed to prevent the drain from freezing.

Dust filter

Prevents large dust, insects, and other substances from entering the machine. The filter can be replaced easily.

Multi-duct

Allows the exhaust direction to be changed. Also prevents snow accumulation and reduces noise.

Multi-unit control

Multi-unit control system that starts operation from the compressor with the shortest operating time, and stops operation beginning from the compressor with the longest operating time, making it possible to equalize the compressor operating times.

1 Selection of the first unit to operate
When the start button is turned ON at any compressor, that unit becomes the starting unit and multi-unit control operation is started.

2 Skip function
Compressors where a failure has occurred or compressors not configured for the multi-unit control mode are automatically excluded from the multi-unit control circle.

3 Fixed full-load function
Capacity control is performed at the compressor that started first among the operating units, and the other units are fixed at full-load operation.

Image of multi-unit control system