



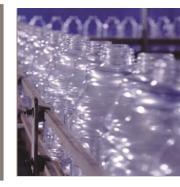
aerospace
climate control
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# Air Saver Unit

The power saving and  $CO_2$  reduction products

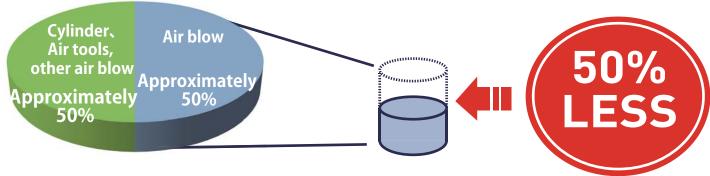




An easy solution to your environmental protection efforts! The air saving unit contributes to power savings and CO2 reduction.

### **Air Saver Unit ASC/ASV Series**

The Air Saver Unit can reduce air consumption by up to 50% and improves blow efficiency in air blow applications.



When an air saver unit is used, several positive effects can be expected.

Air blow accounts for almost 50% of all compressed air used in plants. The air saver unit with a switching valve technology for air blow. Can reduce air consumption by up to 50%!

- Large reductions in plant air consumption.
- Savings in plant compressor power consumption.
- Reduction in plant CO<sub>2</sub> emissions.
- Big contribution to energy-saving activities.







ASV200 Series ASC/ASO500 Series ASV2000 Series ASV5000 Series









Savings example (Using 1 ASV5000, Unit 8 hours/day and 20 days)

Flow

4,888 NL/min ⇒ 2,444 NL/min

CO, discharge

14.8 t ⇒ 7.4 t

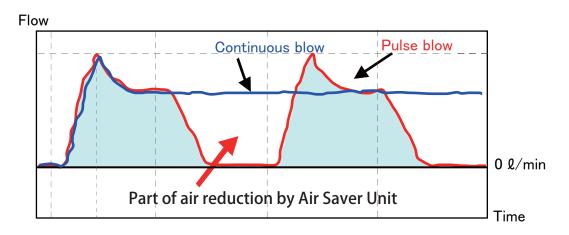
Cost

USD 384/month ⇒ USD 192/month

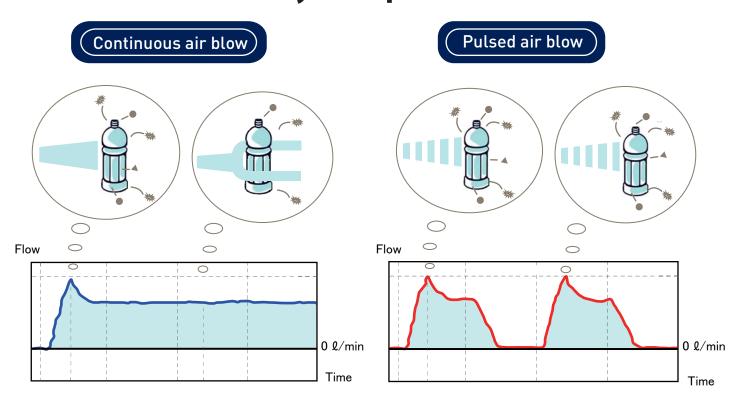
Total air saver unit cost reduction per year = USD\$2,304

### Pulsed air by Air Saver Unit reduces air consumption.

The Air saver unit is a valve that converts a continuous air blow to a pulsed air blow without the need for any other external control. Air is blown with a series of ON and OFF pulses. When the blow is OFF, there is no air consumption. This is how the air saver unit contributes to reduction in air consumption.



# ■ Air blow efficiency is improved.



Compared to continuous air blow, the pulsed air blow hits the work repeatedly, improving the efficiency of the air blow.

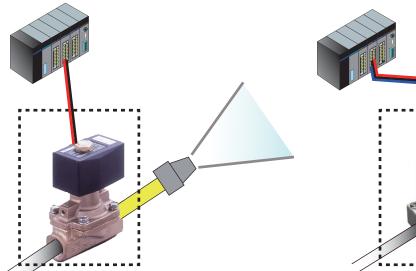
### Installation is simple and reduction in air consumption can be realized immediately.

 When using a solenoid valve to control air blow, the air saver unit can replace this valve which will provide you immediate reduction in air consumption with no change to your PLC.

<Before introduction of the unit.>

<After introduction of the unit.>

- Easy to install. Only changing the current solenoid valve to Air Saver Unit.
- · Program change of controller is not necessary.

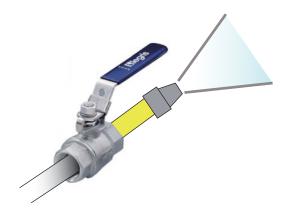


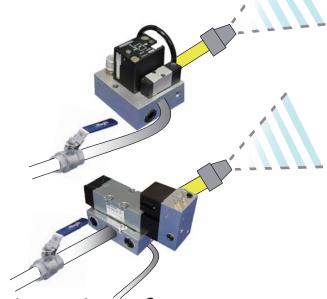


ASV200, ASV500 & ASV2000 do not need electrical power. Installation of the unit brings immediate reduction in air consumption and improved efficiency.

<Before introduction of the unit.>

<After introduction of the unit.;





# ■ Realized the effect of the unit! Voice of customers.

[Company A] Food & beverage related manufacturer

[Company B] Manufacturer for office document machines

"When we tested ASV5000, we achieved about 55% reduction of our air consumption.

As air blow efficiency was improved, we planned to use more Air Saver Units for other areas in the plant."

"We are working on energy-saving activities. In those activities, we decided to use Air Saver Unit. We have more than 100 points of air blow, and we could reduce 42% of our air consumption by using this unit."

### Variations

Series	ASV200	ASC/ASO500	ASV2000	ASV5000	ASV13000	ASV15000	
Flow(l/min)	150	450	2000	5000	13000	15000	
Port size	M5	Rc1/8	Rc3/8	Rc1/2	1" (25A)	1 1/4" (32A)	
Target works	Electric parts  Beverage container  Resin molded parts  Machine Cutting parts						
Application	Diselectrifica	Diselectrification, blowing dust, Handling assist, Blowing of cutting dust.					

### Specifications

	Unit	ASV200	ASC500	ASO500	ASV2000	ASV5000	ASV13000	ASV15000
Function		Normally closed Normally opened		Normally closed				
Fluid		Non-lubricated air				_		
Flow (at 0.5MPa)	ℓ/min(ANR)	150	450	450	2000	5000	13000	15000
Operating temperature	°C		-5 <b>~</b> 50 Note 1)					
Pressure range	MPa	0.3 ~ 0.8	$0.2 \sim 0.7$ $0.2 \sim 0.5$ Note 2)		0 ~ 0.8			
Pilot air supply	MPa	0.3 ~ 0.8	0.8 Internal pilot		0.3 ~ 0.8 Note 3)			
Blow		Pulse blow	Pulse/ Continuous blow		Pulse blow			
Port size (1,2)		M5	Rc1/8	Rc1/8	Rc3/8	Rc1/2	Rc1(25A)	Rc1 1/4(32A
Rated voltage	V	Power is not necessary	DC24V		Power is not necessary			
Power consumption	W	-	1.2W					
Grade of Insulation		-	JIS grade E		-			
Permissible voltage fluctuation	%	-	±10					
Wiring		-	e-con standard 4 pole sockets		-			

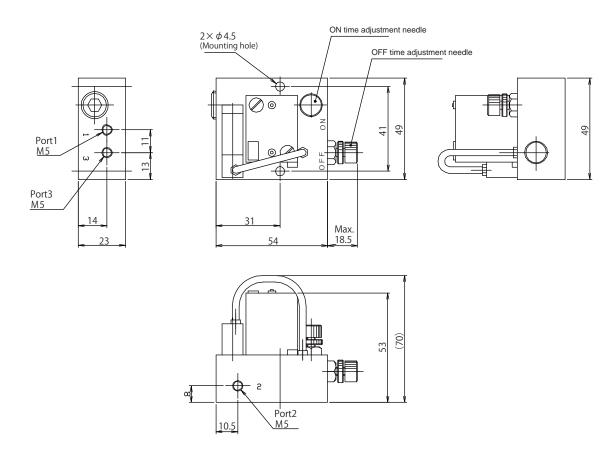
Note 1) In case of using the Unit under 5°C, complete dry air by air dryer shall be supplied to prevent from freezing.

Note 2) Please note that supply air for port 1 should be more than 0.2MPa.

Note 3) Please note that supply air for port 1 should be more than 0.3MPa.

Note 4) Cable with e-CON connector (Model No. ASC-D24-CL10) will be ordered separately.

ASV200-AA-M5 Unit(mm)



《Piping》

Port 1: Supply port (Compressor side) Port 2: Output port (Blow nozzle side)

Port 3: Exhaust port\* \*In order to keep out dust, the air muffler (Model No. SL-M5) is recommended for exhaust port.

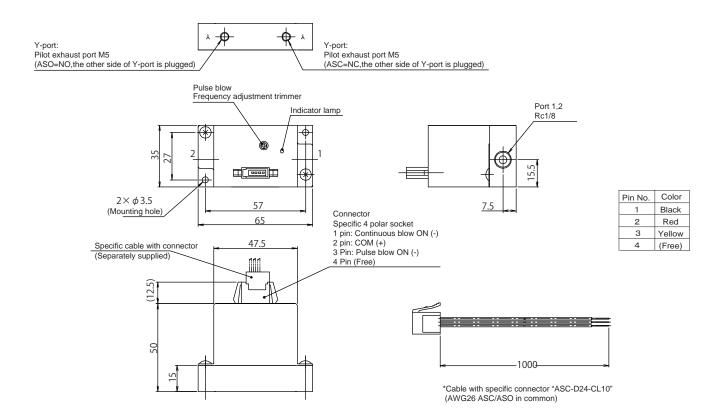
#### **Ordering Instructions**

$$\frac{ASV200}{1} - \frac{AA}{2} - \frac{M5}{3}$$

① Model No. ASV200 (Normal close, 2-position)

② Voltage/Wiring AA: All air (Electricity is not necessary)

3 Port size M5



《Piping》

Port1: Supply port (Compressor side) Port 2: Output port (Blow nozzle side)

Y port: Pilot exhaust port \*In order to avoid dust, air muffler is recommended to attach.

《Power distribution/Air output》 Continuous blow: Pin 1 (-), Pin 2 (+)

#### **Ordering Instructions**

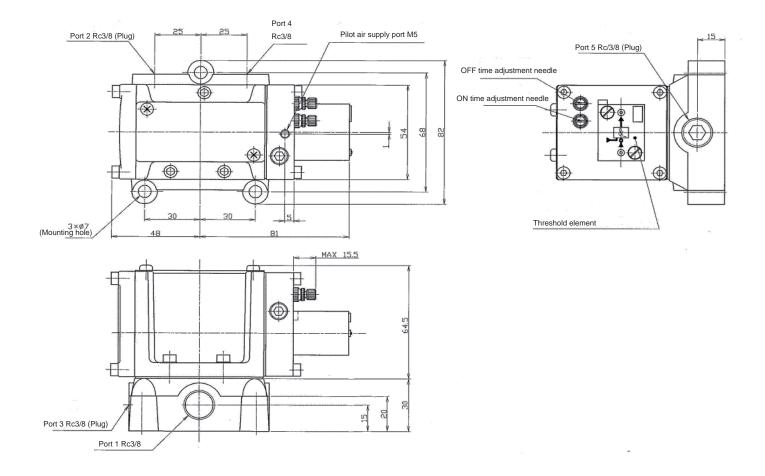
① Model No. ASC500: Normal close (2-position single solenoid)

ASO500: Normal open (2-position single solenoid)

2 Voltage/Wiring 1W: 24VDC, e-CON standard 4-polar socket

③ Port size 01: Rc1/8

Note: Cable with e-CON connector (Model No. ASC-D24-CL10) will be ordered separately.



《Piping》

Port 1: Supply port (Compressor side)

Port 4: Output port (Blow nozzle side)

Pilot air supply port

#### **Ordering Instructions**

<u>ASV2000</u> - <u>AA</u> - <u>03</u>

1 2

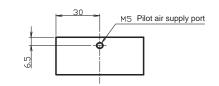
① Model No. ASV2000: Normal close (2-position)

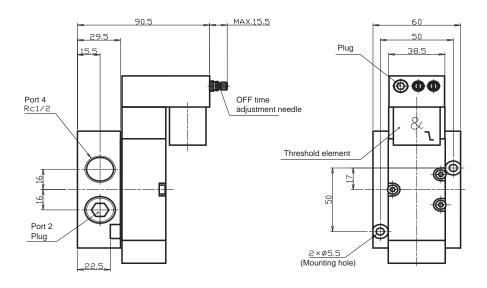
② Voltage/Wiring AA: All air (Electricity is not necessary)

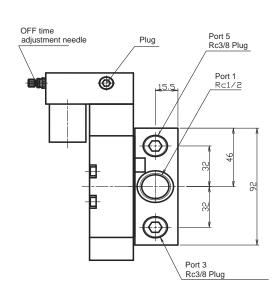
③ Port size Normark: without sub-base

03 : Rc3/8

ASV5000-AA-04 Unit(mm)







《Piping》

Port 1: Supply port (Compressor side)

Port 4: Output port (Blow nozzle side)

Pilot air supply port

#### **Ordering Instructions**

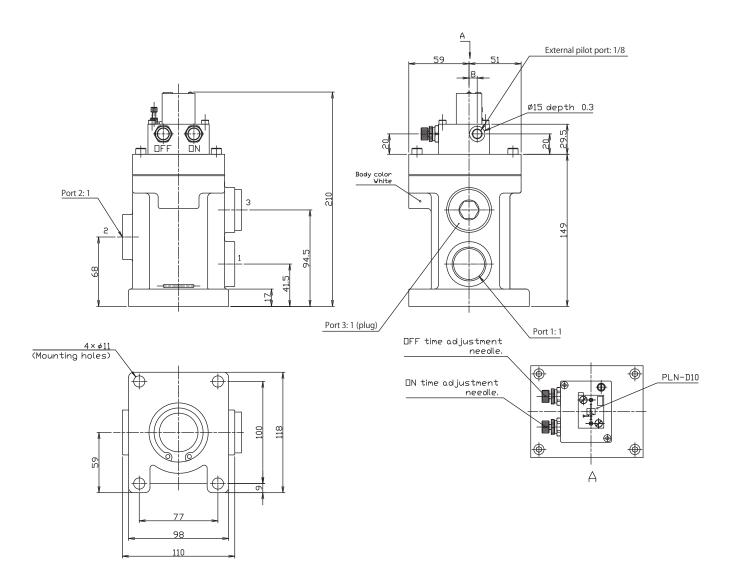
<u>ASV5000</u> - <u>AA</u> - <u>04</u> <u>3</u>

① Model No. ASV5000 (2-position, Single)

② Voltage/Wiring AA: All air (Electricity is not necessary)

③ Port size No mark: without sub-base

04 : Rc1/2



《Piping》

Port 1 : Supply port (Compressor side) Port 2 : Output port (Blow nozzle side)

Pilot air supply port

#### **Ordering Instructions**

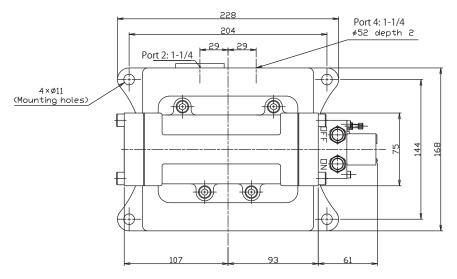
<u>ASV1300</u>0 - <u>AA</u> - <u>25A</u> (3)

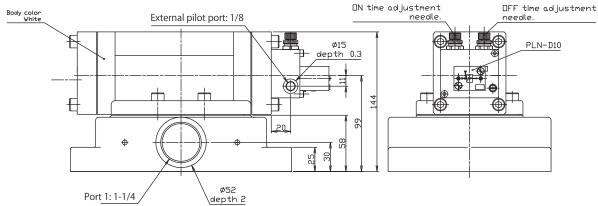
① Model No. ASV13000 : Normal close (2-position)

② Voltage/Wiring AA: All air (Electricity is not necessary)

③ Port size 25A: Rc1

ASV15000-AA-32A Unit(mm)





《Piping》

Port 1: Supply port (Compressor side) Port 2: Output port (Blow nozzle side)

Pilot air supply port

#### **Ordering Instructions**

<u>ASV15000</u> - <u>AA</u> - <u>32A</u> (2) (3)

① Model No. ASV15000 : Normal close (2-position)

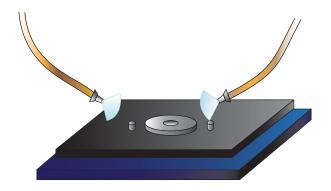
② Voltage/Wiring AA: All air (Electricity is not necessary)

3 Port size Normark: without sub-base

32A: Rc1 1/4

### **Applications**

Cleaning blow before assembly



Drying applications

Swarf removal



Swarf removal

PET bottle transfer

Can be used in many applications where air blow is requirement

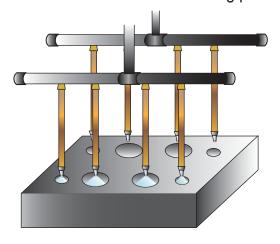
Cooling application

Ionizer
Dust removal

Assist blow for PET bottle transfer



Liquid removal after the manufacturing process



# Applications



### Pneumatic Solutions Beverage and Bottle Plants

Process	Application	Advantage
Before blow molding PET bottles	Pulse ionized blow by Air Saving Unit in order to remove particles before PET bottle are molded.	Pulse ionized blow and its blast of each pulse increase to remove particles effectively.
After blow molding PET bottles	Cleaning blow for particles that attach to the blow molded PET bottles	Reducing about 40% of consumption air.
	Assisting blow to convey PET bottles.	Reducing about 40% of consumption air.
Conveying PET bottles	Escape blow for PET bottles when the line is stopped.	Reducing about 40% of consumption air.
	Pulse ionized blow for PET bottles before pasting labels on them.	Pulse blow and its blast of each pulse increase to remove particles effectively.
Printing machine	Pulse ionized blow for bottles or caps before printing date on them.	Pulse blow and its blast of each pulse increase to remove particles effectively.

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