# **Air Saver Unit**

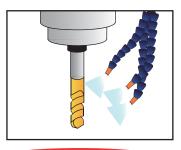




# Improving Productivity for Machine Tool Applications!

The Air Saver is the ideal solution for improving the air blow efficiency on "Machine Tool" applications. By creating pulsed air, the Air Saver Unit improves the removal of chips and cutting oil during the blow process. By pulsing the air, significant reductions in air consumption are also achieved.

Additional electronics integration or sequence program adjustments are not necessary.



- Improves removal of chips
- Improves removal of cutting fluid
- Reduces overall cycle time

# **Effective Result**

Example: Machining process of Automotive parts manufacture, company "C."

		Existing machinery	After installation of Air Saver Unit, "ASV5000"	
Installation image			ASV5000	
	Annual electrical power reduction	1,540kWh/year	770kWh/year	
Result	Annual air reduction	140 ℓ /min	70 ℓ /min	
	Annual CO <sub>2</sub> reduction	0.23 t CO <sub>2</sub> /year		



Air Saver Unit lead to 50% air consumption reduction



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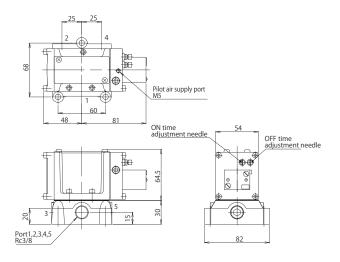
## **Specifications**

Model No.	Unit	ASV2000-AA-03 (Note1)	ASV5000-AA-04 (Note1)
Function		External air pilot operated	
Media		Non-lubricated air	
Flow	ℓ/min(ANR)	2000	5000
Operating temperature	°C	-5 ~ 50 (Note2)	
Operating pressure range	MPa	0 ~ 0.8	
External pilot supply pressure	MPa	0.3 ~ 0.8	
Blow method		Pulse	
Port size		Rc3/8	Rc1/2
Rated voltage	V	Electricity is not necessary	

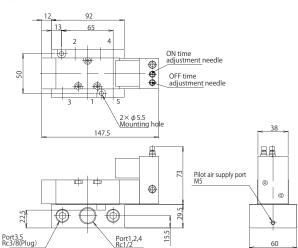
<sup>(</sup>注 1) External pilot air is necessary for operation, and it should be more than 0.3MPa.

### **Dimensions**

ASV2000-AA-03



#### ASV5000-AA-04



Unit (mm)

## Peripheral products

# General Purpose Fluid Control Solenoid Valve WV series

- Apply DC12V、DC24V、AC100V、AC200V
- O Piping: Rc1/8, 1/4
- O Lead wire type



# New Nano Mist Technology Lubricator, "P3X series" for air tool efficiency.

- Make nano-meter size lubrication oil
- Oil filling during operation
- © Reduction of oil filling cycle to compensate productivity
- ©Protects air tools through accurate self-regulating lubrication

- •The contents of this brochure are as of Oct, 2014.
- •Contents/specifications in this brochure are subject to change without notice in order to improve the products.

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<sup>(</sup>注 2) In case of using Air Saver Unit under 5°C, completely dry air by air dryer shall be supplied to prevent from freezing.

<sup>\*</sup>BSPP port (G thread) is available. Please consult Kuroda Pneumatics LTD

# **Air Saver Unit**

# - New Product -High Flow Type

ASV15000 & ASV13000 are ideal for "Cleaning/Washing Machinery" Applications to reduce air consumption and improve air blow efficiency. Pulse blow from Air Saver Unit contributes reduction of air consumption up to 50% and improvement of blow efficiency.

- Electric construction or sequence program adjustments are not necessary in order to install Air Saver Unit.
- Pulse frequency can be easily adjusted by built-in ON/OFF adjustment needles.
- Easy to install! Just pipe and install Air Saver Unit between solenoid valve for blow and blow nozzles.



Result

The case example of blow cleaning machinery of Automotive parts manufacturer, company "A."

		Current machinery	After installation of Air Saver Unit, "ASV13000"		
Installation image		Solenoid valve for blow	Pilot air Install Air Saver Unit between the valve and nozzles.		
C	Operating pressure	0.4MPa			
Condition	Manufacturing hours per day	16 hours			
tion	Manufacturing days per month	20 days			
of air	Cycle time	120 seconds			
of air blow	Duration of air blowing cycle	Continuous air blow: 60 seconds	Pulse blow: 60 seconds *		
<	Daily air discharge	4749Nm³	2849Nm³		



Annual air generation cost: US\$10,281/year (CO2: 28.72t) Cost projection period: approx. 2 to 3 months.



\* 1Hz

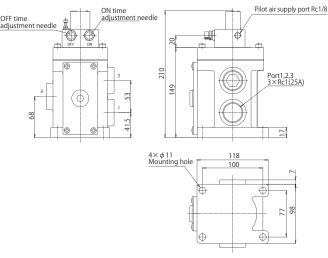
## **Specifications**

Model No.	Unit	ASV13000-AA-25A	ASV15000-AA-32A
Function		External air pilot operated	
Media		Non-lubricated air	
Flow	ℓ/min(ANR)	13000	15000
Operating temperature	$^{\circ}$	-5 ∼ 50 <sup>(Note1)</sup>	
External pilot supply pressure	MPa	0~0.8	
Blow method	MPa	0.3 ~ 0.8	
Port size		Pulse	
Rated voltage		Rc1	Rc1 • 1/4
Electricity is not necessary	V	Electricity is not necessary	
List price	¥	95,000	120,000

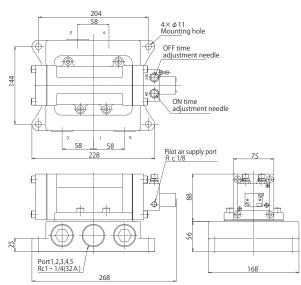
Note 1) In case of using Air Saver Unit under  $5^{\circ}$ C, completely dry air by air dryer shall be supplied to prevent from freezing.

### **Dimensions**

ASV13000-AA-25A



#### ASV15000-AA-32A



### **Peripheral products**

#### Manual valve: HV series

HV series manual valve can control Air Saver Unit directly.



#### General Purpose Fluid Control Solenoid Valve: NKV-F, J321G series

Variety of product range for various kind of operating fluid.



#### Modular type FRL: P3N series

P3N series have various functions and suits various air preparation demands.

Unit (mm)



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Note 2) List price is on July, 2014.

Note 3) External pilot air is necessary for operation, and it should be more than 0.3MPa.

Note 4) Pulse and continuous blow can be manually changed by Continuous/Pulse change valve.

# **Air Saver Unit**

# **Suitable Application!**

Air Saver Unit is ideal for improvement of assist blow for "Parts Feeder"! Air Saver Unit contributes to reduce air consumption from assist blow to avoid moment stop and jamming of parts on Parts Feeder up to 50%.

- Electric construction or sequence program adjustment are not necessary in order to install Air Saver Unit.
- ♦ Pulse frequency can be easily adjusted by buit-in ON/OFF adjustment needles.
- **♦** Easy to install! Just pipe and install Air Saver Unit between solenoid valve for blow and blow nozzles.









The case example of parts assembly machine manufacturer, company "B."

		Current machinery	After installation of Air Saver Unit, "ASV5000."	
Installation image				
CC	Operating pressure	0.4MPa		
Condition	Manufacturing hours per day	8 hours		
	Manufacturing days per month	20 days		
of air blow	Nozzle size	Two points, Internal $\phi$ 4, External $\phi$ 6		
	Duration of air blowing cycle	Continuous blow: 60 sec	Pulse blow 60 sec *	
ĕ	Daily air discharge	421Nm³	211Nm³	



\* 1Hz

Estimated annual air saving cost per machine: US\$1,783/year

(CO2: 6.3t)

(Ref.2.4JPY per air cost)



## **Specifications**

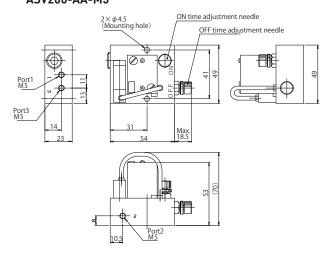
Model No.	Unit	ASV200-AA-M5	ASV2000-AA-03 (Note 1)	ASV5000-AA-04 <sup>Note 1)</sup>
Function		Internal air pilot operated External air pilot operated		
Media		Non-lubricated air		
Flow at 0.5MPa	ℓ/min(ANR)	150	2000	5000
Operating temperature	$^{\circ}$	-5-~50 (Note2)		
Operating pressure range	MPa	0.3 ~ 0.7 0~0.8		0.8
External pilot supply pressure range	MPa	- 0.3~0.8		·0.8
Blow method		Pulse		
Port size(1,2)		M5	Rc3/8	Rc1/2
Rated voltage	V	Electricity is not necessary		

Note 1) External pilot air is necessary for operation, and it should be more than 0.3MPa.

Note 2) In case of using Air Saver Unit under 5°C, completely dry air by air dryer shall be supplied to prevent from freezing.

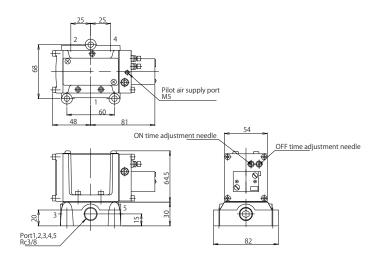
## **Dimensions**

#### ASV200-AA-M5

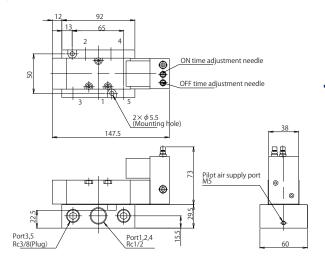


#### ASV2000-AA-03

単位 (mm)



#### ASV5000-AA-04



# **Peripheral products**

#### Parker Global FRL/ P31,32,33 series

It has various function and suits various air preparation demands.

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