



## Air Saver / Success Stories for Automotive Market

The Energy saving and CO<sub>2</sub> reduction products

aerospace  
climate control  
electromechanical  
filtration  
fluid & gas handling  
hydraulics  
**pneumatics**  
process control  
sealing & shielding



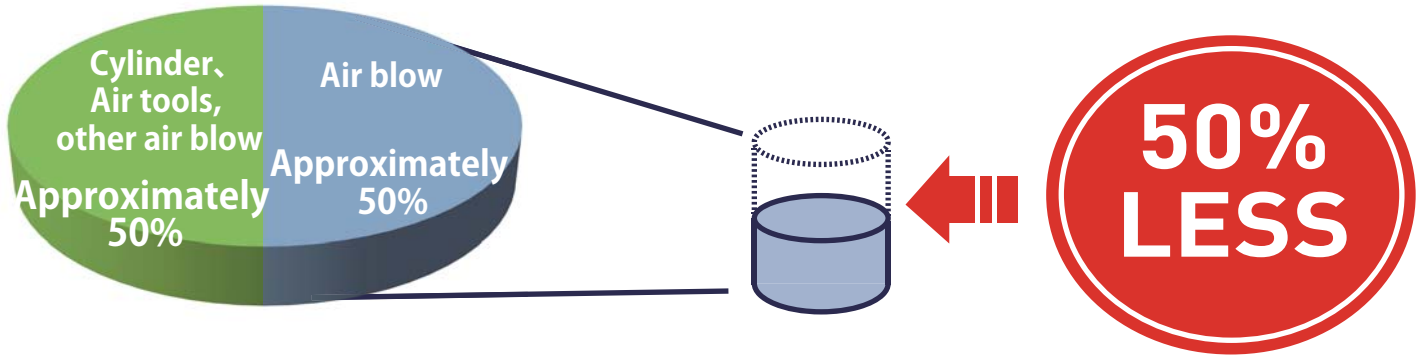
**KURODA**

ENGINEERING YOUR SUCCESS.

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.



■ Savings example (Using 100 ASC500, Unit 8 hours/day and 20 days)

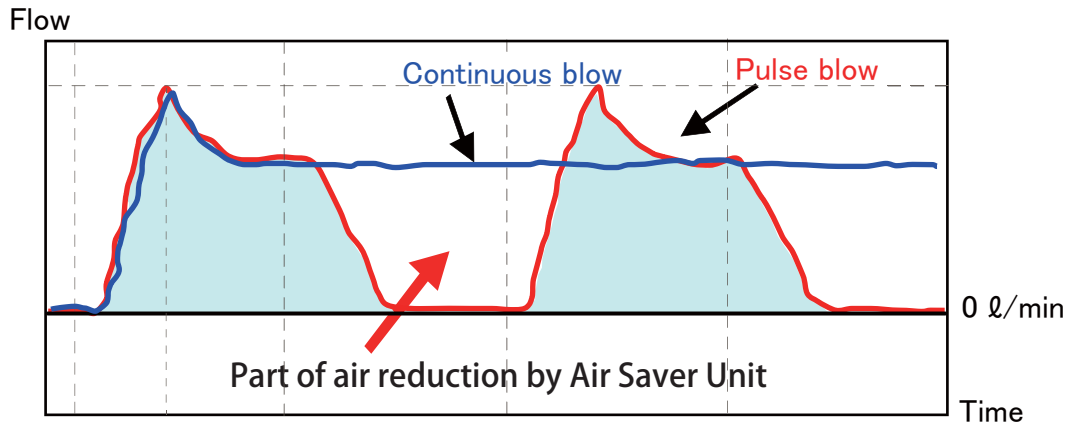
Power Consumption
CO <sub>2</sub> discharge
Cost

**53,600kW/month ⇒ 26,800kW/month**  
**17 t ⇒ 8.5 t**  
**USD9,700/month ⇒ USD4,900/month**

**Total air saver unit cost reduction per year = USD\$58,100**

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

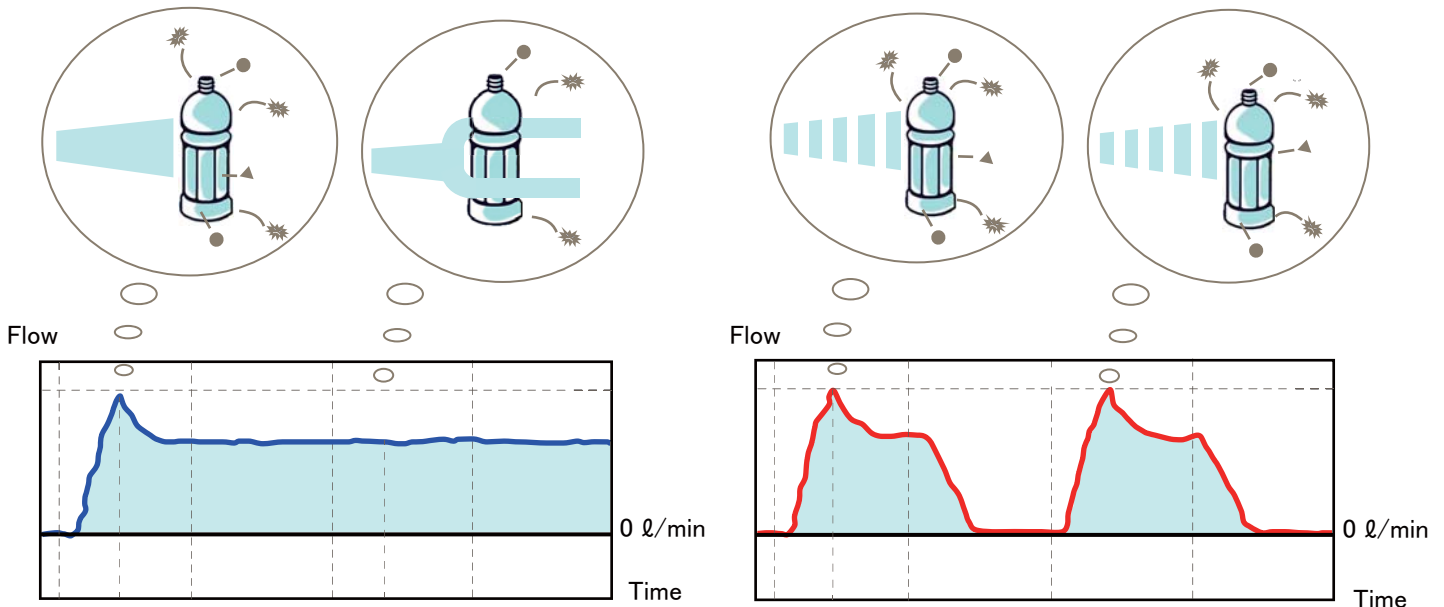
The Air saver unit is a valve that converts a continuous air blow to a pulsed air blow without the need for any other external control. Air is blown with a series of ON and OFF pulses. When the blow is OFF, there is no air consumption. This is how the air saver unit contributes to reduction in air consumption.



## ■ Air blow efficiency is improved.

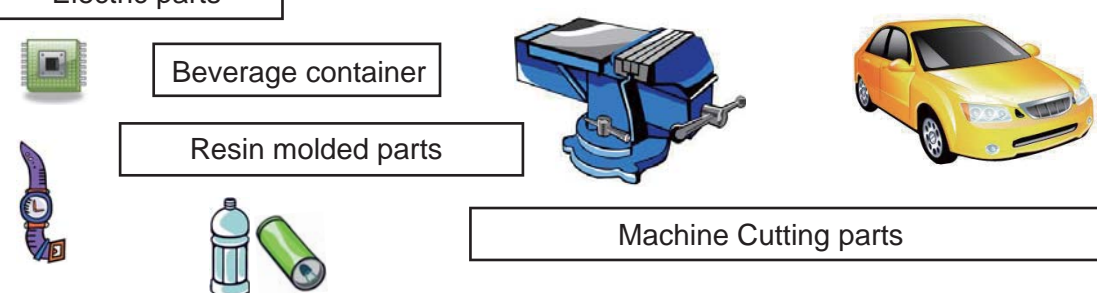
Continuous air blow

Pulsed air blow



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

## ■ 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	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">Electric parts</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">Beverage container</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">Resin molded parts</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">Machine Cutting parts</div> </div> 					
Application	Diselectrification, blowing dust, Handling assist, Blowing of cutting dust.					

## ■ Specifications

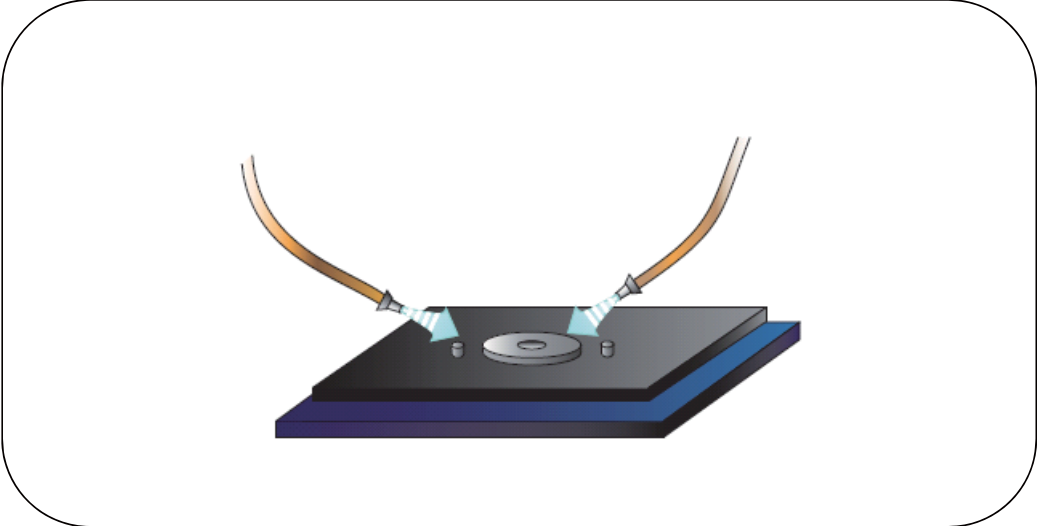
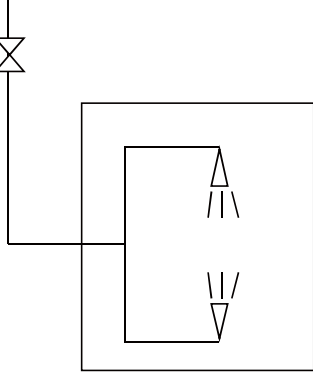
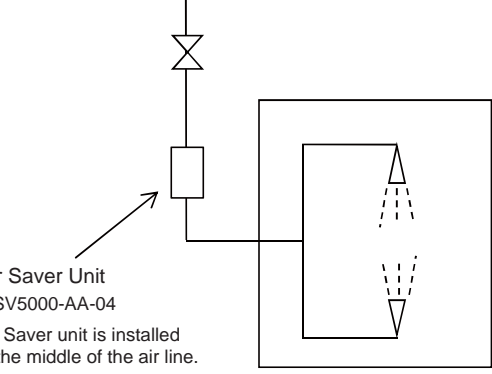
	Unit	ASV200	ASC500	ASO500	ASV2000	ASV5000	ASV13000	ASV15000
Function		Normally closed		Normally opened	Normally closed			
Fluid		Non-lubricated air						
Flow (at 0.5MPa)	ℓ/min(ANR)	150	450	450	2000	5000	13000	15000
Operating temperature	°C	-5 ~ 50 Note 1)						
Pressure range	MPa	0.3 ~ 0.8	0.2 ~ 0.7 <small>Note 2)</small>	0.2 ~ 0.5 <small>Note 2)</small>	0 ~ 0.8			
Pilot air supply	MPa	0.3 ~ 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		-			

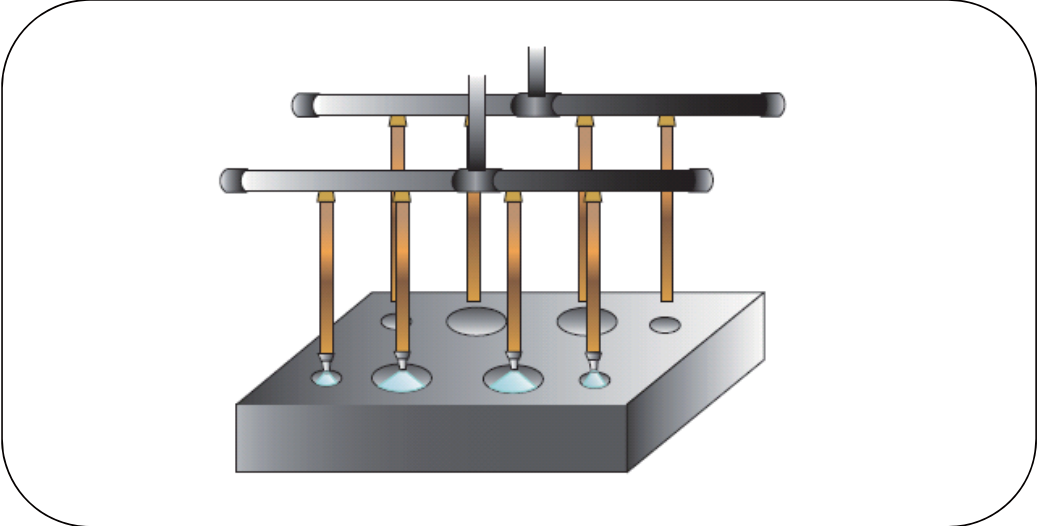
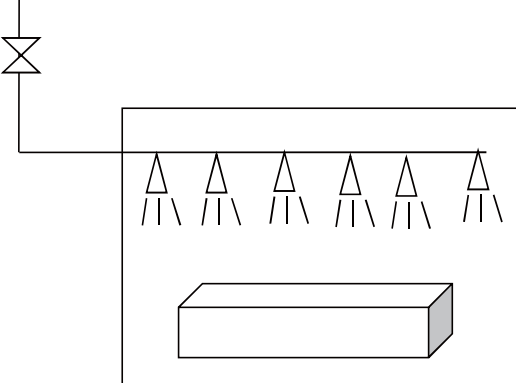
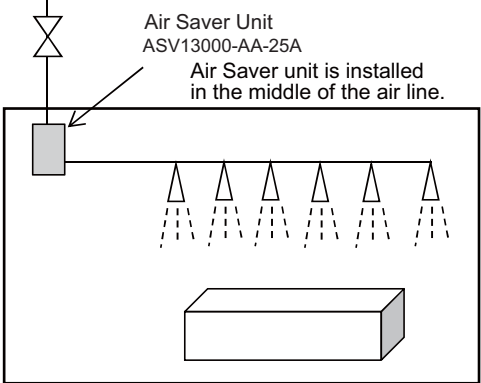
Note 1) In case of using the Unit under 5°C, complete dry air by air dryer shall be supplied to prevent from freezing.

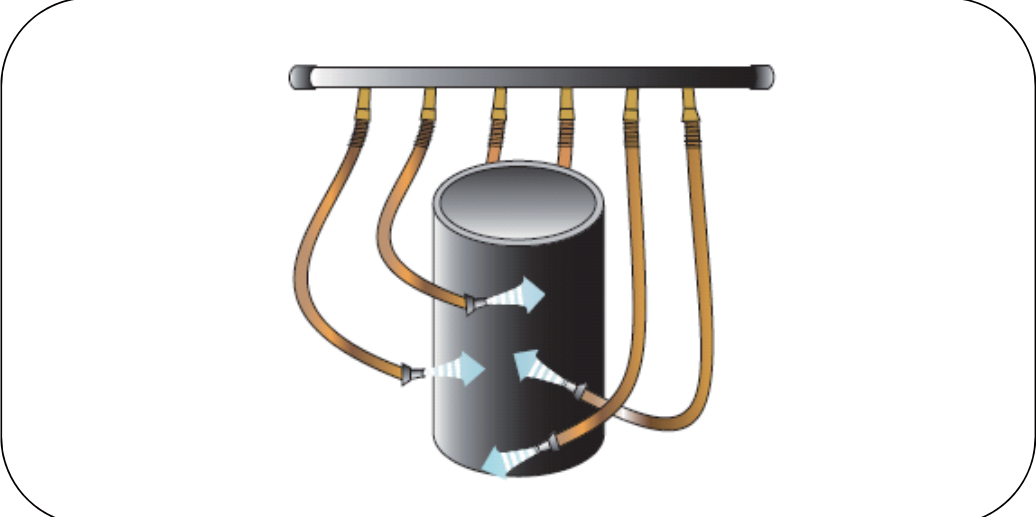
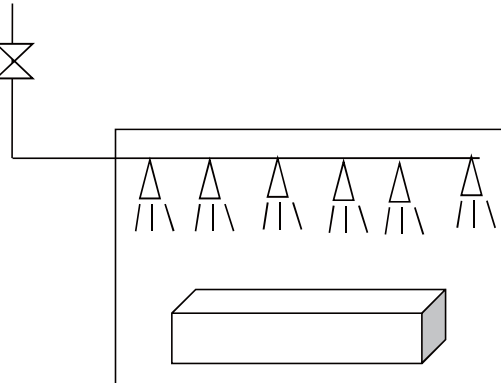
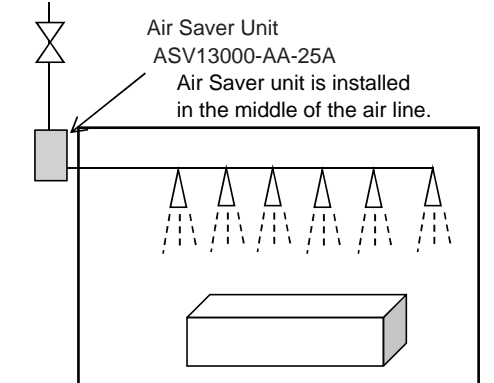
Note 2) Please note that supply air for port 1 should be more than 0.2MPa.

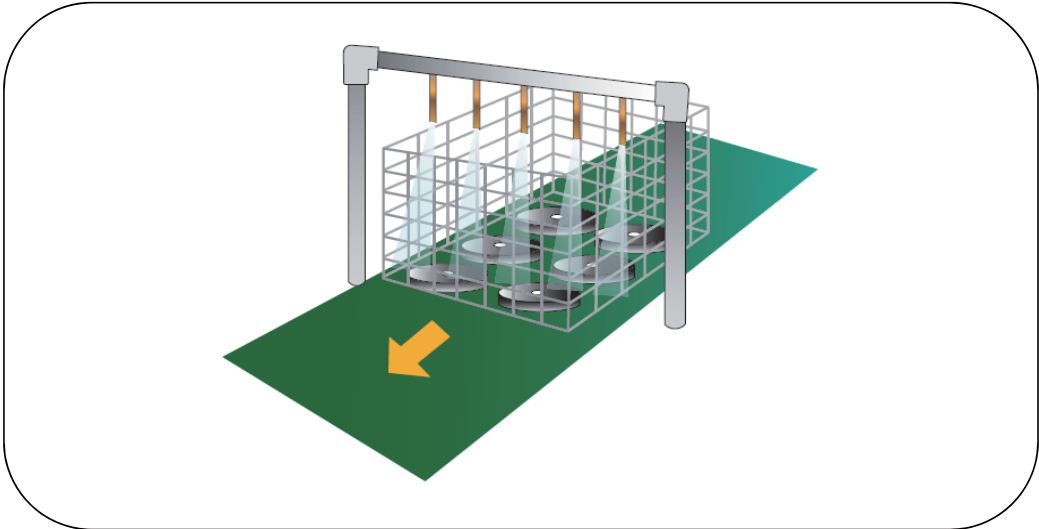
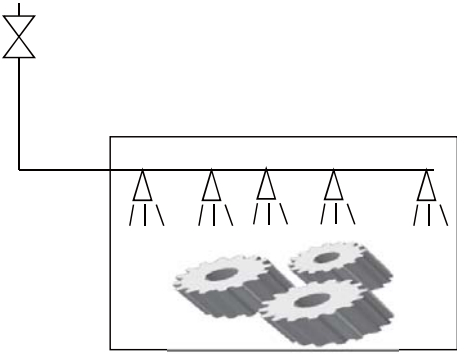
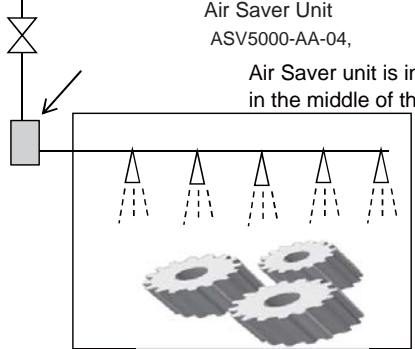
Note 3) Please note that supply air for port 1 should be more than 0.3MPa.



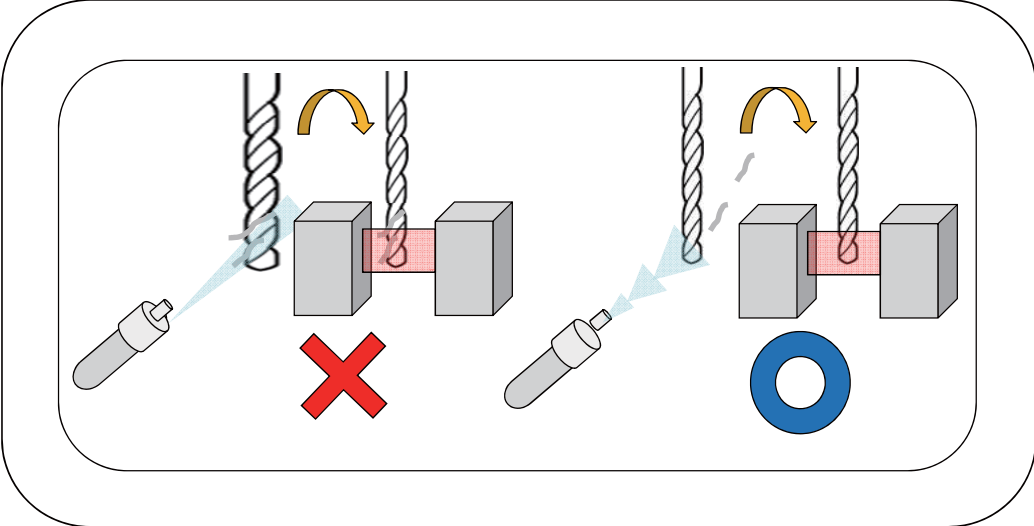
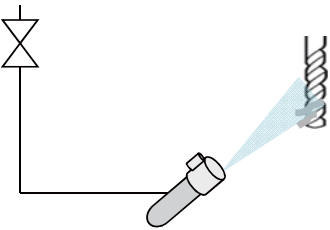
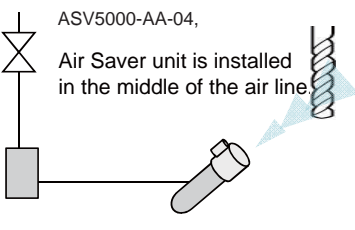
No. 1	<b>Air blow for assembly of precision electronics parts for car</b>															
How to use	Remove dust from assembly line of precision electronics parts because dust cause malfunction.															
The reason why the customer chose	Air reduction effective is obvious without electrical construction to use Air Saver Unit.															
Implementation example	<p>Just before assembly precision electronics parts, remove dust by air blow.</p>  <div style="display: flex; justify-content: space-around;"> <div data-bbox="316 1093 657 1503"> <p><b>Old line</b></p>  </div> <div data-bbox="699 1093 1219 1503"> <p><b>New line with Air Saver Unit</b></p>  <p>Air Saver Unit ASV5000-AA-04 Air Saver unit is installed in the middle of the air line.</p> </div> </div> <table border="0" style="width: 100%; margin-top: 10px;"> <tr> <td style="width: 50%;"><b>Condition of air blow</b></td> <td style="width: 50%;"><b>Condition of air blow</b></td> </tr> <tr> <td>Operating pressure : 0.4MPa</td> <td>Operating pressure : 0.4MPa</td> </tr> <tr> <td>Manufacturing hours per day : 16 hours</td> <td>Manufacturing hours per day : 16 hours</td> </tr> <tr> <td>Manufacturing days per month: 20 days</td> <td>Manufacturing days per month: 20 days</td> </tr> <tr> <td>Cycle time : 30 sec</td> <td>Cycle time : 30 sec</td> </tr> <tr> <td>Duration of air blow : 4 sec</td> <td>Duration of air blow : 4 sec (ON:50%, OFF:50%)</td> </tr> <tr> <td>Air consumption : 116 ℓ /cycle</td> <td>Air consumption : 58 ℓ /cycle</td> </tr> </table>		<b>Condition of air blow</b>	<b>Condition of air blow</b>	Operating pressure : 0.4MPa	Operating pressure : 0.4MPa	Manufacturing hours per day : 16 hours	Manufacturing hours per day : 16 hours	Manufacturing days per month: 20 days	Manufacturing days per month: 20 days	Cycle time : 30 sec	Cycle time : 30 sec	Duration of air blow : 4 sec	Duration of air blow : 4 sec (ON:50%, OFF:50%)	Air consumption : 116 ℓ /cycle	Air consumption : 58 ℓ /cycle
<b>Condition of air blow</b>	<b>Condition of air blow</b>															
Operating pressure : 0.4MPa	Operating pressure : 0.4MPa															
Manufacturing hours per day : 16 hours	Manufacturing hours per day : 16 hours															
Manufacturing days per month: 20 days	Manufacturing days per month: 20 days															
Cycle time : 30 sec	Cycle time : 30 sec															
Duration of air blow : 4 sec	Duration of air blow : 4 sec (ON:50%, OFF:50%)															
Air consumption : 116 ℓ /cycle	Air consumption : 58 ℓ /cycle															
Impact of installation of Air Saver Unit	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>▲ Old line Air consumption per year 53,637Nm<sup>3</sup> (CO2 emission: 3.38 ton)</p> </td> <td style="width: 50%; vertical-align: top;"> <p>▲ After installation of Air Saver unit Air consumption per year 26,819Nm<sup>3</sup> (CO2 emission: 1.69 ton)</p> </td> </tr> </table>		<p>▲ Old line Air consumption per year 53,637Nm<sup>3</sup> (CO2 emission: 3.38 ton)</p>	<p>▲ After installation of Air Saver unit Air consumption per year 26,819Nm<sup>3</sup> (CO2 emission: 1.69 ton)</p>												
	<p>▲ Old line Air consumption per year 53,637Nm<sup>3</sup> (CO2 emission: 3.38 ton)</p>	<p>▲ After installation of Air Saver unit Air consumption per year 26,819Nm<sup>3</sup> (CO2 emission: 1.69 ton)</p>														
Impact of yearly air reduction (ref. 2.4JPY/Air cost) = 64,300JPY/year	Percent of air reduction = about 50%	Cost projection period = about 10 months														

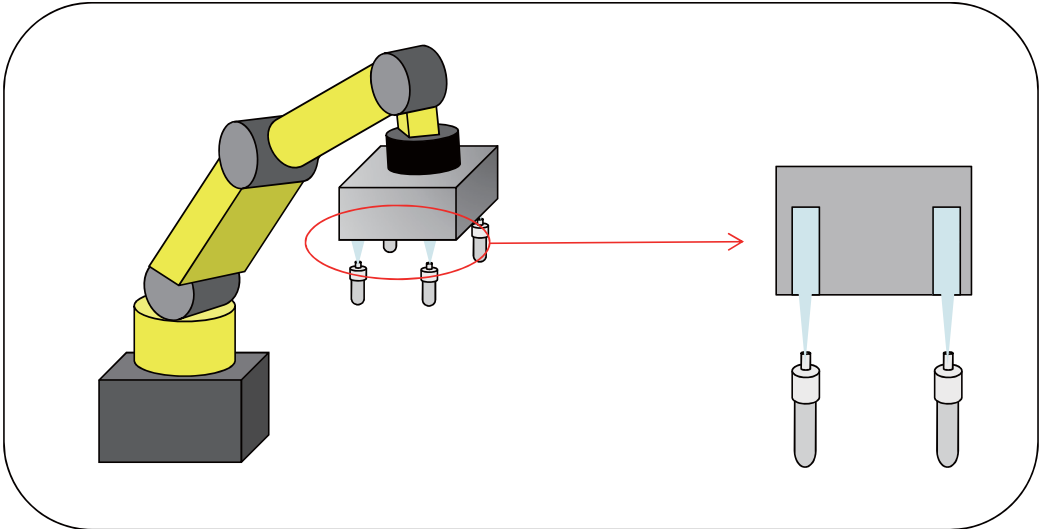
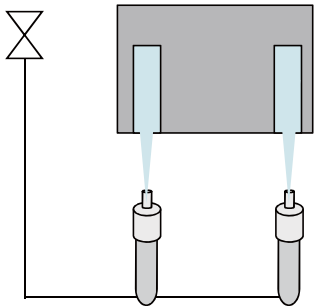
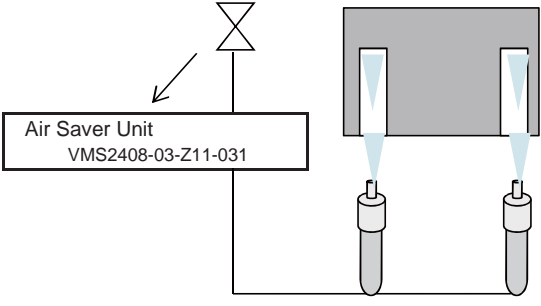
No. 2	<b>Blow off liquid cleaner from cast parts after the manufacturing process</b>		
How to use	Cutting powder is removed by liquid cleaner. Air blow is for removing liquid cleaner.		
The reason why the customer chose	Possible to reduce running cost of current manufacturing line without electrical construction.		
Implementation example	<p>Liquid cleaner have to be removed to keep the quality. Send the next process without liquid cleaner.</p>  <div style="display: flex; justify-content: space-around;"> <div data-bbox="309 1093 826 1518"> <p><b>Old line</b></p>  <p><b>Condition of air blow</b></p> <p>Operating pressure : 0.4MPa  Manufacturing hours per day : 16 hours  Manufacturing days per month: 20 days  Cycle time : 60 sec  Duration of air blow : 10 sec  Air consumption : 1,649 ℓ /cycle</p> </div> <div data-bbox="868 1093 1350 1518"> <p><b>New line with Air Saver Unit</b></p>  <p><b>Condition of air blow</b></p> <p>Operating pressure : 0.4MPa  Manufacturing hours per day : 16 hours  Manufacturing days per month: 20 days  Cycle time : 60 sec  Duration of air blow : 10 sec (ON:60%, OFF:40%)  Air consumption : 989 ℓ /cycle</p> </div> </div>		
Impact of installation of Air Saver Unit	▲ Old line Air consumption per year 379,930Nm <sup>3</sup> (CO2 emission: 23.9 ton)		▲ After installation of Air Saver unit Air consumption per year 227,958Nm <sup>3</sup> (CO2 emission: 14.3 ton)
	Impact of yearly air reduction (ref. 2.4JPY/Air cost) = 257,000JPY/year	Percent of air reduction = about 40%	Cost projection period = about 9 months

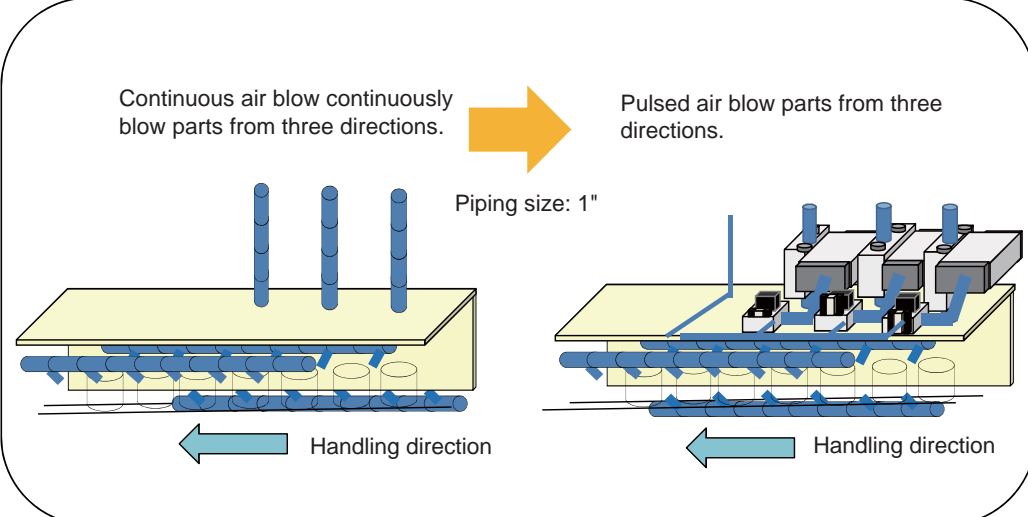
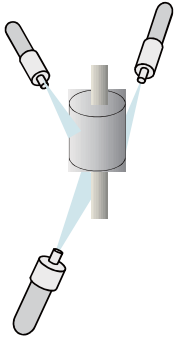
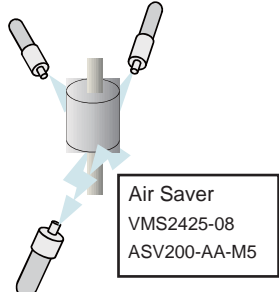
No. 3	<b>Dust removal for resin parts surface after polishing process</b>				
How to use	Air blow remove resin powder caused by polishing process of resin parts				
The reason why the customer chose	Possible to expect running cost reduction with only piping construction of the line.				
Implementation example	<p>It is important to remove resin powder that cause quality problems.</p>  <div style="display: flex; justify-content: space-around;"> <div data-bbox="311 1086 837 1523"> <p><b>Old line</b></p>  </div> <div data-bbox="853 1086 1380 1523"> <p><b>New line with Air Saver Unit</b></p>  <p style="font-size: small;">Air Saver Unit ASV13000-AA-25A Air Saver unit is installed in the middle of the air line.</p> </div> </div> <table border="0" style="width: 100%; margin-top: 10px;"> <tr> <td style="width: 50%; vertical-align: top;"> <p><b>Condition of air blow</b></p> <p>Operating pressure : 0.4MPa  Manufacturing hours per day : 16 hours  Manufacturing days per month: 20 days  Cycle time : 60 sec  Duration of air blow : 10 sec  Air consumption : 1,649 ℓ /cycle</p> </td> <td style="width: 50%; vertical-align: top;"> <p><b>Condition of air blow</b></p> <p>Operating pressure : 0.4MPa  Manufacturing hours per day : 16 hours  Manufacturing days per month: 20 days  Cycle time : 60 sec  Duration of air blow : 10 sec (ON:60%, OFF:40%)  Air consumption : 989 ℓ /cycle</p> </td> </tr> </table>			<p><b>Condition of air blow</b></p> <p>Operating pressure : 0.4MPa  Manufacturing hours per day : 16 hours  Manufacturing days per month: 20 days  Cycle time : 60 sec  Duration of air blow : 10 sec  Air consumption : 1,649 ℓ /cycle</p>	<p><b>Condition of air blow</b></p> <p>Operating pressure : 0.4MPa  Manufacturing hours per day : 16 hours  Manufacturing days per month: 20 days  Cycle time : 60 sec  Duration of air blow : 10 sec (ON:60%, OFF:40%)  Air consumption : 989 ℓ /cycle</p>
<p><b>Condition of air blow</b></p> <p>Operating pressure : 0.4MPa  Manufacturing hours per day : 16 hours  Manufacturing days per month: 20 days  Cycle time : 60 sec  Duration of air blow : 10 sec  Air consumption : 1,649 ℓ /cycle</p>	<p><b>Condition of air blow</b></p> <p>Operating pressure : 0.4MPa  Manufacturing hours per day : 16 hours  Manufacturing days per month: 20 days  Cycle time : 60 sec  Duration of air blow : 10 sec (ON:60%, OFF:40%)  Air consumption : 989 ℓ /cycle</p>				
Impact of installation of Air Saver Unit	<p>▲ Old line</p> <p>Air consumption per year 379,930Nm<sup>3</sup> (CO<sub>2</sub> emission: 23.9 ton)</p>		<p>▲ After installation of Air Saver unit</p> <p>Air consumption per year 227,958Nm<sup>3</sup> (CO<sub>2</sub> emission: 14.3 ton)</p>		
	<p>Impact of yearly air reduction (ref. 2.4JPY/Air cost) =365,000JPY/year</p>	<p>Percent of air reduction = about 42%</p>	<p>Cost projection period = about 7 months</p>		

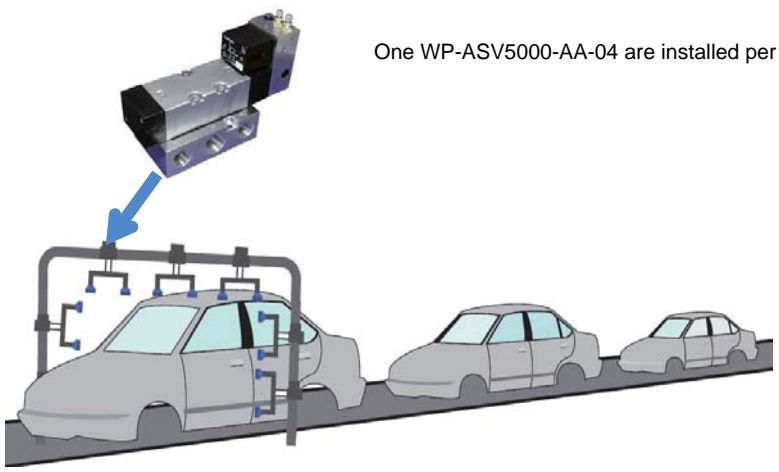
No. 4	<b>Remove cleaning liquid from gear wheel parts</b>				
How to use	When gear wheels are produced, cutting dust is removed by cleaning liquid. Air blow is necessary for removing cleaning liquid.				
The reason why the customer chose	Possible to reduce running cost with only installing Air Saver unit for current manufacturing line				
Implementation example	<p>It is important to remove resin powder that cause quality problems.</p>  <div style="display: flex; justify-content: space-around;"> <div data-bbox="288 1093 774 1496"> <p><b>Old line</b></p>  </div> <div data-bbox="774 1093 1386 1496"> <p><b>New line with Air Saver Unit</b></p> <p>Air Saver Unit ASV5000-AA-04, Air Saver unit is installed in the middle of the air line.</p>  </div> </div> <table border="0" style="width: 100%; margin-top: 10px;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>Condition of air blow</p> <p>Operating pressure : 0.4MPa</p> <p>Manufacturing hours per day : 16 hours</p> <p>Manufacturing days per month: 20 days</p> <p>Cycle time : 60 sec</p> <p>Duration of air blow : 10 sec</p> <p>Air consumption : 1,019 ℓ /cycle</p> </td> <td style="width: 50%; vertical-align: top;"> <p>Condition of air blow</p> <p>Operating pressure : 0.4MPa</p> <p>Manufacturing hours per day : 16 hours</p> <p>Manufacturing days per month: 20 days</p> <p>Cycle time : 2 min</p> <p>Duration of air blow : 15 sec (ON:60%, OFF:40%)</p> <p>Air consumption : 611 ℓ /cycle</p> </td> </tr> </table>			<p>Condition of air blow</p> <p>Operating pressure : 0.4MPa</p> <p>Manufacturing hours per day : 16 hours</p> <p>Manufacturing days per month: 20 days</p> <p>Cycle time : 60 sec</p> <p>Duration of air blow : 10 sec</p> <p>Air consumption : 1,019 ℓ /cycle</p>	<p>Condition of air blow</p> <p>Operating pressure : 0.4MPa</p> <p>Manufacturing hours per day : 16 hours</p> <p>Manufacturing days per month: 20 days</p> <p>Cycle time : 2 min</p> <p>Duration of air blow : 15 sec (ON:60%, OFF:40%)</p> <p>Air consumption : 611 ℓ /cycle</p>
<p>Condition of air blow</p> <p>Operating pressure : 0.4MPa</p> <p>Manufacturing hours per day : 16 hours</p> <p>Manufacturing days per month: 20 days</p> <p>Cycle time : 60 sec</p> <p>Duration of air blow : 10 sec</p> <p>Air consumption : 1,019 ℓ /cycle</p>	<p>Condition of air blow</p> <p>Operating pressure : 0.4MPa</p> <p>Manufacturing hours per day : 16 hours</p> <p>Manufacturing days per month: 20 days</p> <p>Cycle time : 2 min</p> <p>Duration of air blow : 15 sec (ON:60%, OFF:40%)</p> <p>Air consumption : 611 ℓ /cycle</p>				
Impact of installation of Air Saver Unit	<p>▲ Old line</p> <p>Air consumption per year 117,300Nm<sup>3</sup> (CO2 emission: 7.39 ton)</p>		<p>▲ After installation of Air Saver unit</p> <p>Air consumption per year 70,400Nm<sup>3</sup> (CO2 emission 4.44 ton)</p>		
	Impact of yearly air reduction (ref. 2.4JPY/Air cost) =112,000 JPY/year	Percent of air reduction = about 40%	Cost projection period = about 6 months		

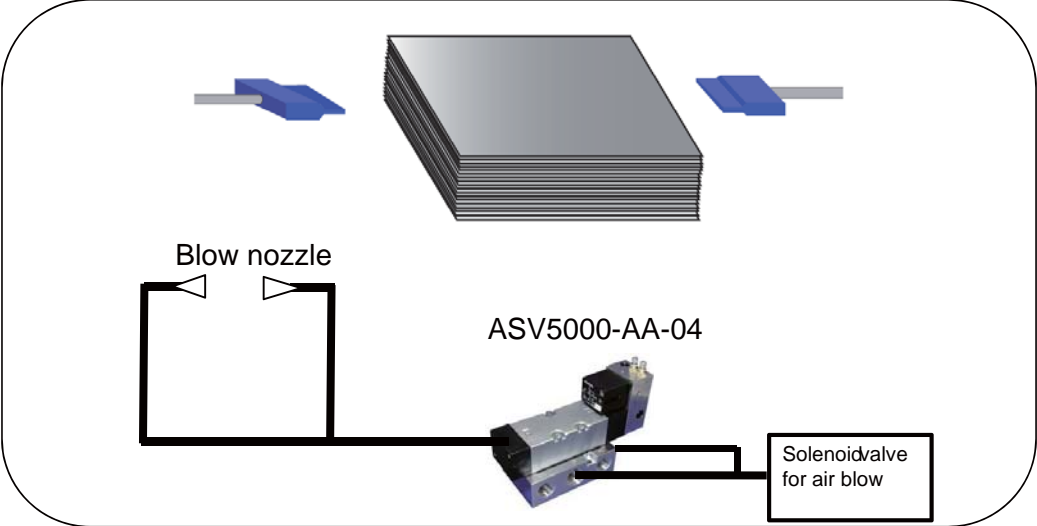


No. 5	<b>Cleaning drill tip</b>		
How to use	When machine tools machine are operated, inspection for wear of drill tip are done by every operation. Inspection cannot be accurate with drill tip with cutting dust. In order to remove cutting dust from drill tip, automatic air blow is done.		
The reason why the customer chose	Removal effectiveness are improved with installing Air Saver Unit for automatic air blow		
Implementation example	<div style="text-align: center;">  </div> <div style="display: flex; justify-content: space-around;"> <div style="width: 45%;"> <p><b>Old line</b></p>  <p>Condition of air blow</p> <p>Operating pressure : 0.6MPa  Manufacturing hours per day : 16 hours  Manufacturing days per month: 20 days  Cycle time : 5 min  Duration of air blow : 5 sec  Air consumption : 204 ℓ/cycle</p> <p>Operating condition</p> <p>Operation stop frequency : 50 times  Handling time for operation stop: 5 min</p> </div> <div style="width: 45%;"> <p><b>New line with Air Saver Unit</b></p> <p>Air Saver Unit ASV5000-AA-04, Air Saver unit is installed in the middle of the air line</p>  <p>Condition of air blow</p> <p>Operating pressure : 0.6MPa  Manufacturing hours per day : 16 hours  Manufacturing days per month: 20 days  Cycle time : 5 min  Duration of air blow : 5 sec (ON:60%, OFF:40%)  Air consumption : 188 ℓ/cycle</p> <p>Operating condition</p> <p>Operation stop frequency : 3 times  Handling time for operation stop: 5 min</p> </div> </div>		
Impact of installation of Air Saver Unit	▲ Old line Loss of operation stop 3,000 min/year		▲ After installation of Air Saver unit Loss of operation stop 180 min/year
	Impact of yearly air reduction (ref. 2.4JPY/Air cost) = 9,000 JPY/year Impact of reducing working (ref. 100JPY/work)= 282,000 JPY/year Total 291,000 JPY/year	Percent of air reduction = about 40%	Cost projection period = about 2 months

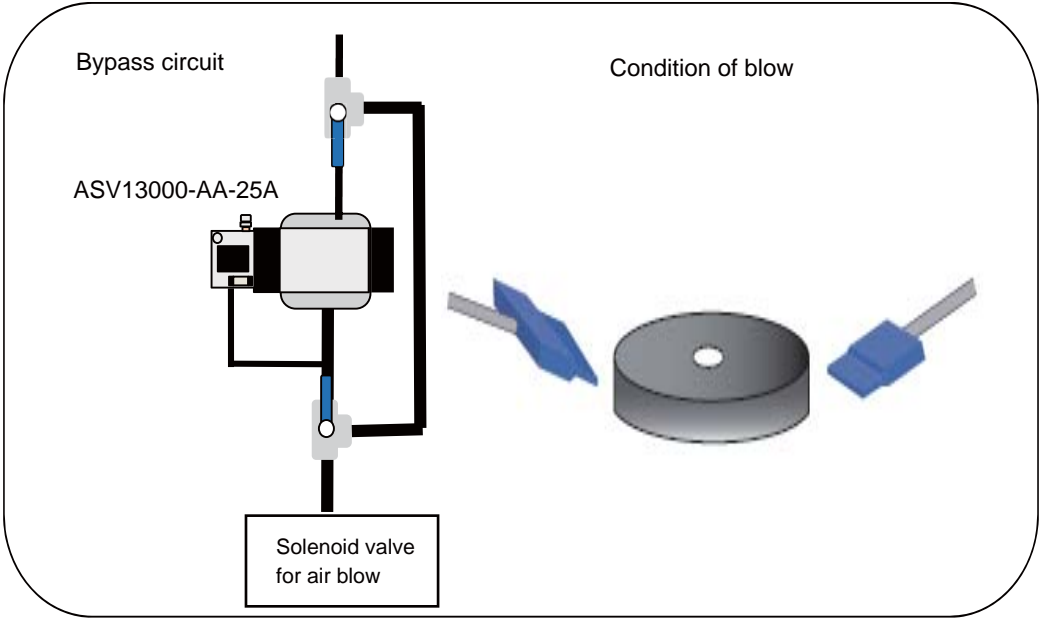
No. 6	<b>Air blow for bolt hole</b>		
How to use	Bolt hole is blind hole, and cleaning liquid tend to remain in the bolt hole. Remained cleaning liquid make quality problem. After automatic blow process, workers make air blow to remove cleaning liquid from bolt hole completely.		
The reason why the customer chose	Pulse blow is more effective to remove remained cleaning liquid from bolt hole. Pulse adjustment is easy.		
Implementation example	<div style="text-align: center;">  </div> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><b>Old line</b></p>  <p><b>Condition of air blow</b>        Operating pressure: 0.5MPa        Manufacturing hours per day: 16 hours        Manufacturing days per month: 20 days        Cycle time: 1 min        Duration of air blow : 4 sec        Air consumption: 105 ℓ /cycle</p> </div> <div style="text-align: center;"> <p><b>New line with Air Saver Unit</b></p>  <p><b>Condition of air blow</b>        Operating pressure: 0.5MPa        Manufacturing hours per day: 16 hours        Manufacturing days per month: 20 days        Cycle time: 1 min        Duration of air blow : 4 sec (ON:60%, OFF:40%)        Air consumption: 63 ℓ /cycle</p> </div> </div>		
Impact of installation of Air Saver Unit	<p>▲ Old line        Air consumption per year        26,819Nm<sup>3</sup> (CO2 emission: 1.69 ton)</p>		<p>▲ After installation of Air Saver unit        Air consumption per year        13,409Nm<sup>3</sup> (CO2 emission: 0.84 ton)</p>
	Impact of yearly air reduction (ref. 2.4JPY/Air cost) = 32,000 JPY/year	Percent of air reduction = about 50%	Cost projection period = about 12 months

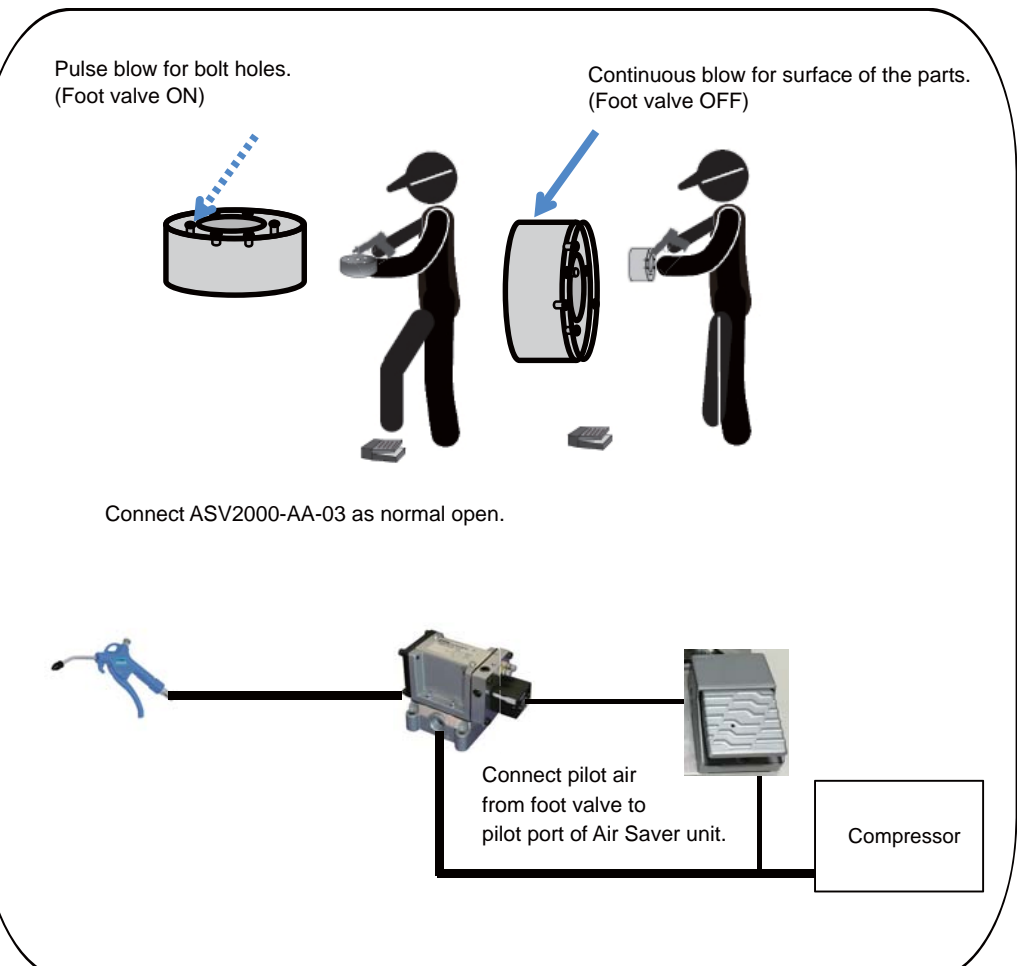
No. 7	<b>Air blow for parts handling process</b>		
How to use	Air blow is used for parts after washing to remove liquid during the parts are handling on the conveyor. Air blow is continuously operated during the line is moving. The customer want to reduce air consumption without doing electrical construction.		
The reason why the customer chose	Much amount of air consumption have been reduced only installing Air Saver unit on their current air line.		
Implementation example	<div style="text-align: center;">  <p>Continuous air blow continuously blow parts from three directions. <span style="color: orange; font-size: 2em;">➔</span> Pulsed air blow parts from three directions.</p> <p>Piping size: 1"</p> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;"> <p>Old line</p>  <p>Condition of air blow</p> <p>Operating pressure : 0.4MPa  Manufacturing hours per day : 20 hours  Manufacturing days per month: 20 days  Cycle time : 5 sec  Duration of air blow : 5 sec  Air Consumption : 825 ℓ</p> </div> <div style="text-align: center;"> <p>New line with Air Saver Unit</p>  <p>Air Saver VMS2425-08 ASV200-AA-M5</p> <p>Condition of air blow</p> <p>Operating pressure : 0.4MPa  Manufacturing hours per day : 20 hours  Manufacturing days per month: 20 days  Cycle time : 5 sec  Duration of air blow : 3 sec (ON: 60%, OFF: 40%)  Air Consumption : 454 ℓ</p> </div> </div>		
Impact of installation of Air Saver Unit	<p>▲ Old line</p> <p>Air consumption per year 858,275 Nm<sup>3</sup> (CO2 emission: 54.07 ton)</p>		<p>▲ After installation of Air Saver unit</p> <p>Air consumption per year 472,052 Nm<sup>3</sup> CO2 emission: 29.74 ton)</p>
	Impact of yearly air reduction (Ref. 2.4 JPY / Air cost) = 926,937 JPY / year	Percent of air reduction = about 45%	Cost projection period = about 3.8 months

No. 8	<b>Air blow for automotive body before the painting process</b>				
How to use	Remove dust and liquid before the painting process to improve painting quality.				
The reason why the customer chose	The customer could keep the quality of painting and save much amount of air. Usual grease from air equipment make trouble for painting process. "WP-ASV5000" is a model that use white petrolatum as lubrication. This model for painting process.				
Implementation example	<div style="border: 1px solid black; border-radius: 15px; padding: 10px; margin-bottom: 20px;">  <p style="text-align: right;">One WP-ASV5000-AA-04 are installed per two to four nozzles.</p> </div> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> <p>Condition of air blow</p> <p>Operating pressure: 0.5MPa  Manufacturing hours per day: 16 hours  Manufacturing days per month: 20 days  Cycle time: 60 sec  Duration time: 45 sec  Air consumption: 3,520Nm<sup>3</sup>/day</p> </td> <td style="width: 50%; border: none;"> <p>Condition of air blow</p> <p>Operating pressure: 0.5MPa  Manufacturing hours per day: 16 hours  Manufacturing days per month: 20 days  Cycle time: 60 sec  Duration time: 45 sec  Air consumption: 2,112Nm<sup>3</sup>/day</p> </td> </tr> </table>			<p>Condition of air blow</p> <p>Operating pressure: 0.5MPa  Manufacturing hours per day: 16 hours  Manufacturing days per month: 20 days  Cycle time: 60 sec  Duration time: 45 sec  Air consumption: 3,520Nm<sup>3</sup>/day</p>	<p>Condition of air blow</p> <p>Operating pressure: 0.5MPa  Manufacturing hours per day: 16 hours  Manufacturing days per month: 20 days  Cycle time: 60 sec  Duration time: 45 sec  Air consumption: 2,112Nm<sup>3</sup>/day</p>
<p>Condition of air blow</p> <p>Operating pressure: 0.5MPa  Manufacturing hours per day: 16 hours  Manufacturing days per month: 20 days  Cycle time: 60 sec  Duration time: 45 sec  Air consumption: 3,520Nm<sup>3</sup>/day</p>	<p>Condition of air blow</p> <p>Operating pressure: 0.5MPa  Manufacturing hours per day: 16 hours  Manufacturing days per month: 20 days  Cycle time: 60 sec  Duration time: 45 sec  Air consumption: 2,112Nm<sup>3</sup>/day</p>				
Impact of installation of Air Saver Unit	<p>▲ Old line</p> <p>Air consumption per year  5,913,492Nm<sup>3</sup> (CO2 emission: 372 ton)</p>		<p>▲ After installation of Air Saver unit</p> <p>Air consumption per year  3,548,095Nm<sup>3</sup> (CO2 emission: 223 ton)</p>		
	<p>Impact of yearly air reduction  (Ref. 2.4 JPY / Air cost)  = 5,676,953JPY / Year</p>	<p>Percent of air reduction  = about 40%</p>	<p>Cost projection period  = about 3.5 months</p>		

No. 9	<b>Air blow for picking up single plate from pile of parts.</b>				
How to use	Air blow is sued when single plate is picked up from the pile of parts. Much amount of air is used during the operation in this process.				
The reason why the customer chose	Much amount of air reduction are realized only installing Air Saver Unit into the current line.				
Implementation example	<div style="text-align: center;">  </div> <table border="0" style="width: 100%; margin-top: 20px;"> <tr> <td style="width: 50%; vertical-align: top;"> <p><b>Old line</b></p> <p>Condition of air blow</p> <p>Operating pressure: 0.4MPa Manufacturing hours per day: 16 hours Manufacturing days per month: 20 days</p> <p>Duration time: 16 hours Air consumption: 782 Nm<sup>3</sup>/day</p> </td> <td style="width: 50%; vertical-align: top;"> <p><b>New line with Air Saver Unit</b></p> <p>Condition of air blow</p> <p>Operating pressure: 0.4MPa Manufacturing hours per day: 16 hours Manufacturing days per month: 20 days</p> <p>Duration time: 16 hours Air consumption: 469 Nm<sup>3</sup>/day</p> </td> </tr> </table>			<p><b>Old line</b></p> <p>Condition of air blow</p> <p>Operating pressure: 0.4MPa Manufacturing hours per day: 16 hours Manufacturing days per month: 20 days</p> <p>Duration time: 16 hours Air consumption: 782 Nm<sup>3</sup>/day</p>	<p><b>New line with Air Saver Unit</b></p> <p>Condition of air blow</p> <p>Operating pressure: 0.4MPa Manufacturing hours per day: 16 hours Manufacturing days per month: 20 days</p> <p>Duration time: 16 hours Air consumption: 469 Nm<sup>3</sup>/day</p>
<p><b>Old line</b></p> <p>Condition of air blow</p> <p>Operating pressure: 0.4MPa Manufacturing hours per day: 16 hours Manufacturing days per month: 20 days</p> <p>Duration time: 16 hours Air consumption: 782 Nm<sup>3</sup>/day</p>	<p><b>New line with Air Saver Unit</b></p> <p>Condition of air blow</p> <p>Operating pressure: 0.4MPa Manufacturing hours per day: 16 hours Manufacturing days per month: 20 days</p> <p>Duration time: 16 hours Air consumption: 469 Nm<sup>3</sup>/day</p>				
Impact of installation of Air Saver Unit	▲ Old line Air consumption per year 187,430 Nm <sup>3</sup> (CO2 emission: 11.8 ton)		▲ After installation of Air Saver unit Air consumption per year 112,638 Nm <sup>3</sup> (CO2 emission: 7 ton)		
	Impact of yearly air reduction (Ref. 2.4 JPY / Air cost) = 180,221 JPY / Year	Percent of air reduction = about 40%	Cost projection period = about 7 months		



No. 10	<b>Air blow for parts of power train</b>				
How to use	Air blow is used to remove dust and liquid for power train parts. Especially, parts for bottom of power train have to be blown off carefully to remove dust and liquid.				
The reason why the customer chose	Air Saver unit is easy to be installed and contributed reduction of much amount of air consumption. The customer made bypass circuit to maintenance of the line.				
Implementation example	<div style="text-align: center;">  </div> <table border="0" style="width: 100%; margin-top: 20px;"> <tr> <td style="width: 50%; vertical-align: top;"> <p><b>Old line</b></p> <p>Condition of air blow</p> <p>Operating pressure : 0.5MPa  Manufacturing hours per day : 16 hours  Manufacturing days per month: 20 days  Cycle time : 50 sec  Duration of air blow : 28 sec  Air consumption : 2,993 Nm<sup>3</sup> /day</p> </td> <td style="width: 50%; vertical-align: top;"> <p><b>New line with Air Saver Unit</b></p> <p>Condition of air blow</p> <p>Operating pressure : 0.5MPa  Manufacturing hours per day : 16 hours  Manufacturing days per month: 20 days  Cycle time : 50 sec  Duration of air blow : 28 sec  Air consumption : 2,347 Nm<sup>3</sup> /day</p> </td> </tr> </table>			<p><b>Old line</b></p> <p>Condition of air blow</p> <p>Operating pressure : 0.5MPa  Manufacturing hours per day : 16 hours  Manufacturing days per month: 20 days  Cycle time : 50 sec  Duration of air blow : 28 sec  Air consumption : 2,993 Nm<sup>3</sup> /day</p>	<p><b>New line with Air Saver Unit</b></p> <p>Condition of air blow</p> <p>Operating pressure : 0.5MPa  Manufacturing hours per day : 16 hours  Manufacturing days per month: 20 days  Cycle time : 50 sec  Duration of air blow : 28 sec  Air consumption : 2,347 Nm<sup>3</sup> /day</p>
<p><b>Old line</b></p> <p>Condition of air blow</p> <p>Operating pressure : 0.5MPa  Manufacturing hours per day : 16 hours  Manufacturing days per month: 20 days  Cycle time : 50 sec  Duration of air blow : 28 sec  Air consumption : 2,993 Nm<sup>3</sup> /day</p>	<p><b>New line with Air Saver Unit</b></p> <p>Condition of air blow</p> <p>Operating pressure : 0.5MPa  Manufacturing hours per day : 16 hours  Manufacturing days per month: 20 days  Cycle time : 50 sec  Duration of air blow : 28 sec  Air consumption : 2,347 Nm<sup>3</sup> /day</p>				
Impact of installation of Air Saver Unit	<p>▲ Old line</p> <p>Air consumption per year  703,987 Nm<sup>3</sup> (CO2 emission: 44.3 ton)</p>		<p>▲ After installation of Air Saver unit</p> <p>Air consumption per year  563,190 Nm<sup>3</sup> (CO2 emission: 35.4 ton)</p>		
	Impact of yearly air reduction (Ref. 2.4 JPY / Air cost) = 337,914JPY /Year	Percent of air reduction = about 20%	Cost projection period = about 2.5 months		

No. 11	<b>Manual air blow for car parts by air gun</b>		
How to use	Manual air blow is used for remove dust from car parts. The customer figured out that pulse blow is effective to blow bolt holes, and continuous blow is effective for the surface of the parts.		
The reason why the customer chose	As workers can change pulse blow and continuous blow depending on blow target, Air Saver unit is very effective for their application. And, it contribute to reduce much amount of air consumption.		
Implementation example	<div style="text-align: center;">  <p>Pulse blow for bolt holes. (Foot valve ON)</p> <p>Continuous blow for surface of the parts. (Foot valve OFF)</p> <p>Connect ASV2000-AA-03 as normal open.</p> <p>Connect pilot air from foot valve to pilot port of Air Saver unit.</p> <p>Compressor</p> </div>		
	▲ Old line		▲ After installation of Air Saver unit
	The amount of air consumption and working time per one aluminum block parts		
Impact of installation of Air Saver Unit	Air consumption: 2.29 ℓ /sec, Working time: 5.5 sec		Air consumption: 1.93 ℓ /sec, Working time: 7.6 sec
	Other positive effect: It reduce whistle noise from the blow gun	Percent of air reduction = about 40%	Cost projection period = about 2.5 months

# Parker Worldwide

## Europe, Middle East, Africa

AE – United Arab Emirates,  
Dubai  
Tel: +971 4 8127100  
parker.me@parker.com

AT – Austria, Wiener Neustadt  
Tel: +43 (0)2622 23501-0  
parker.austria@parker.com

AT – Eastern Europe, Wiener  
Neustadt  
Tel: +43 (0)2622 23501 900  
parker.easteurope@parker.com

AZ – Azerbaijan, Baku  
Tel: +994 50 2233 458  
parker.azerbaijan@parker.com

BE/LU – Belgium, Nivelles  
Tel: +32 (0)67 280 900  
parker.belgium@parker.com

BY – Belarus, Minsk  
Tel: +375 17 209 9399  
parker.belarus@parker.com

CH – Switzerland, Etoy  
Tel: +41 (0)21 821 87 00  
parker.switzerland@parker.com

CZ – Czech Republic, Klecany  
Tel: +420 284 083 111  
parker.czechrepublic@parker.com

DE – Germany, Kaarst  
Tel: +49 (0)2131 4016 0  
parker.germany@parker.com

DK – Denmark, Ballerup  
Tel: +45 43 56 04 00  
parker.denmark@parker.com

ES – Spain, Madrid  
Tel: +34 902 330 001  
parker.spain@parker.com

FI – Finland, Vantaa  
Tel: +358 (0)20 753 2500  
parker.finland@parker.com

FR – France, Contamine s/Arve  
Tel: +33 (0)4 50 25 80 25  
parker.france@parker.com

GR – Greece, Athens  
Tel: +30 210 933 6450  
parker.greece@parker.com

HU – Hungary, Budapest  
Tel: +36 1 220 4155  
parker.hungary@parker.com

IE – Ireland, Dublin  
Tel: +353 (0)1 466 6370  
parker.ireland@parker.com

IT – Italy, Corsico (MI)  
Tel: +39 02 45 19 21  
parker.italy@parker.com

KZ – Kazakhstan, Almaty  
Tel: +7 7272 505 800  
parker.easteurope@parker.com

NL – The Netherlands, Oldenzaal  
Tel: +31 (0)541 585 000  
parker.nl@parker.com

NO – Norway, Asker  
Tel: +47 66 75 34 00  
parker.norway@parker.com

PL – Poland, Warsaw  
Tel: +48 (0)22 573 24 00  
parker.poland@parker.com

PT – Portugal, Leca da Palmeira  
Tel: +351 22 999 7360  
parker.portugal@parker.com

RO – Romania, Bucharest  
Tel: +40 21 252 1382  
parker.romania@parker.com

RU – Russia, Moscow  
Tel: +7 495 645-2156  
parker.russia@parker.com

SE – Sweden, Spånga  
Tel: +46 (0)8 59 79 50 00  
parker.sweden@parker.com

SK – Slovakia, Banská Bystrica  
Tel: +421 484 162 252  
parker.slovakia@parker.com

SL – Slovenia, Novo Mesto  
Tel: +386 7 337 6650  
parker.slovenia@parker.com

TR – Turkey, Istanbul  
Tel: +90 216 4997081  
parker.turkey@parker.com

UA – Ukraine, Kiev  
Tel: +380 44 494 2731  
parker.ukraine@parker.com

UK – United Kingdom, Warwick  
Tel: +44 (0)1926 317 878  
parker.uk@parker.com

ZA – South Africa, Kempton Park  
Tel: +27 (0)11 961 0700  
parker.southafrica@parker.com

## North America

CA – Canada, Milton, Ontario  
Tel: +1 905 693 3000

US – USA, Cleveland  
Tel: +1 216 896 3000

## Asia Pacific

AU – Australia, Castle Hill  
Tel: +61 (0)2-9634 7777

CN – China, Shanghai  
Tel: +86 21 2899 5000

HK – Hong Kong  
Tel: +852 2428 8008

IN – India, Mumbai  
Tel: +91 22 6513 7081-85

JP – Japan, Chiba  
Tel: +81 (0)45 479 64 2282  
sales@kpl.parker.com

KR – South Korea, Seoul  
Tel: +82 2 559 0400

MY – Malaysia, Shah Alam  
Tel: +60 3 7849 0800

NZ – New Zealand, Mt Wellington  
Tel: +64 9 574 1744

SG – Singapore  
Tel: +65 6887 6300

TH – Thailand, Bangkok  
Tel: +662 186 7000 99

TW – Taiwan, Taipei  
Tel: +886 2 229 8 8987

ID – Indonesia, Tangerang  
Tel: +62 21 7588 1906

VN – Vietnam, Ho Chi Minh  
Tel: +84 3775 4651

## South America

AR – Argentina, Buenos Aires  
Tel: +54 3327 44 4129

BR – Brazil, Sao Jose dos Campos  
Tel: +55 800 727 5374

CL – Chile, Santiago  
Tel: +56 2 623 1216

MX – Mexico, Apodaca  
Tel: +52 81 8156 6000

## Kuroda Pneumatics LTD.

Customer Service  
Phone +81-479-64-2282  
FAX +81-479-64-2291  
kpl\_sales@parker.com

www.parkerkuroda.com

