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

Air Saver Unit

An environmentally friendly solution to reducing air consumption.

Catalogue PDE2672TCUK February 2015

Parker

ENGINEERING YOUR SUCCESS.

Contents Page

Important !
Before carrying out any service work, ensure that the Air Saver Unit has been vented.
Remove the primary supply air hose to ensure total disconnection of the air supply before dismantling valves or blank connection blocks.

NB !
All technical data in this catalogue is typical only.

The air quality is decisive for the valve life: see ISO 8573.

WARNING

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.
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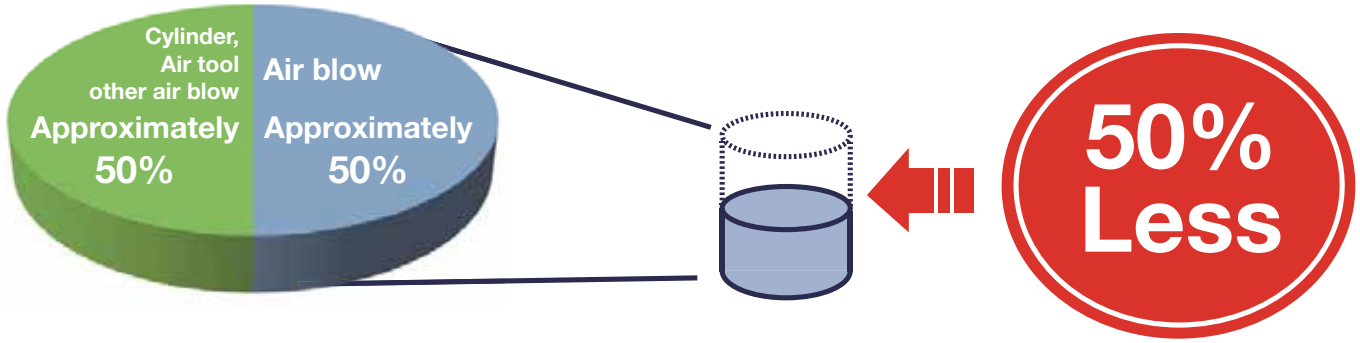
SALE CONDITIONS

The items described in this document are available for sale by Parker Hannifin Corporation, its subsidiaries or its authorized distributors. Any sale contract entered into by Parker will be governed by the provisions stated in Parker's standard terms and conditions of sale (copy available upon request).

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

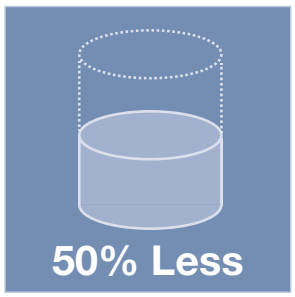
The air Saver Unit can reduce air consumption by up to 50% and improves blow efficiency in air blow applications.



When using an Air Saver Unit several significant benefits can be achieved. Air blowing accounts for almost 50% of all compressed air used in plants. By using switching valve technology the Air Saver Unit can reduce air consumption by up to 50%!

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

VMS200 Series | ASC/ASO500 Series | VMS2000 Series | ASV5000 Series



Typical Savings*:
(*100 off ASC500 Units 8 hours/day for 20 days)

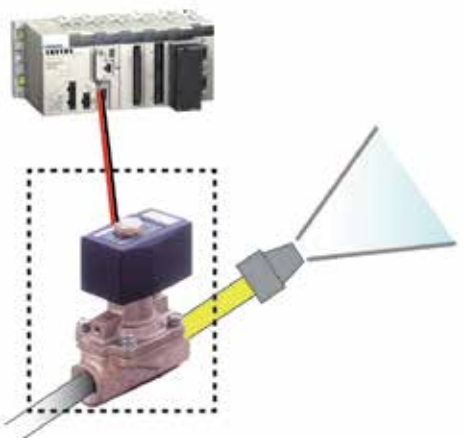
	Without Air Saver	With Air Saver
Power Consumption	**53,600kW/month**	**26,800kW/month**
CO2 Discharge	**17t**	**8.5t**
Cost	**7 164 €/month**	**3 618 €/month**

Your estimated Air Saver Unit cost reduction per year = €42 890.52

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

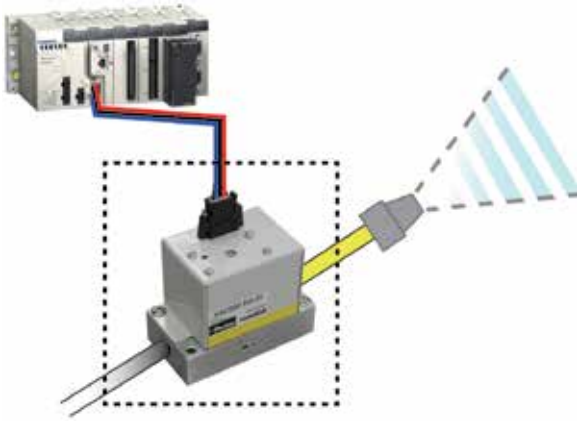
- When using an electrically operated solenoid valve to control the air blow, an Air Saver Unit can quickly and easily be retrofitted providing an immediate reduction in air consumption with no changes to the PLC programme.

<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.



- When using manual valves such as ball valves…
  ASV200, ASV500 & ASV2000 do not need electrical power. Simply installing 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

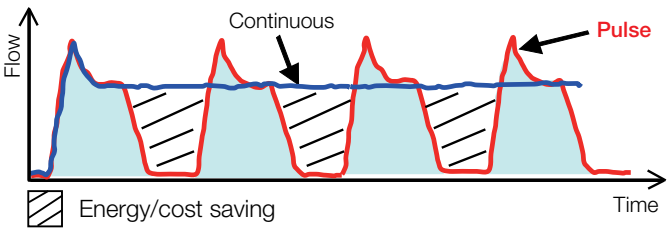
"When we tested ASV5000, we achieved about 55% reduction of our air consumption.
As air blow efficiency was improved, we planned to use more Air Saver Units for other areas in the plant".

[Company B] Manufacturer for office document machines

"We are working on energy-saving activities. In those activities, we decided to use an 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".

Pulsing air technology reduces 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.



Order Code

WP	AS	V	2000	-	AA	-	17

Grease	
Blank	Standard grease
WP	Petrolatum grease (for painting applications.)

Series	
AS	Air Saver Unit

Operation method / Function	
V	Pneumatic operated Normally Closed.
C	Electrical actuated. Normal Close. (ASC500 only)
O	Electrical actuated. Normal Open. (ASO500 only)

Type / Flow rate	
200	2-position, internal air pilot / 200 liter/min
500	2-position, single solenoid / 500 liter/min
2000	2-position, external air pilot / 2000 liter/min
5000	2-position, external air pilot / 5000 liter/min
13000	2-position, extrenal air pilot / 13000 liter/min
15000	2-position, external air pilot / 15000 liter/min

Operation / Voltage	
AA	Pneumatic operated (WP)ASV200, 2000, 5000, ASV13000 and 15000)
1W	Electrical operated 24VDC (ASC/O500)

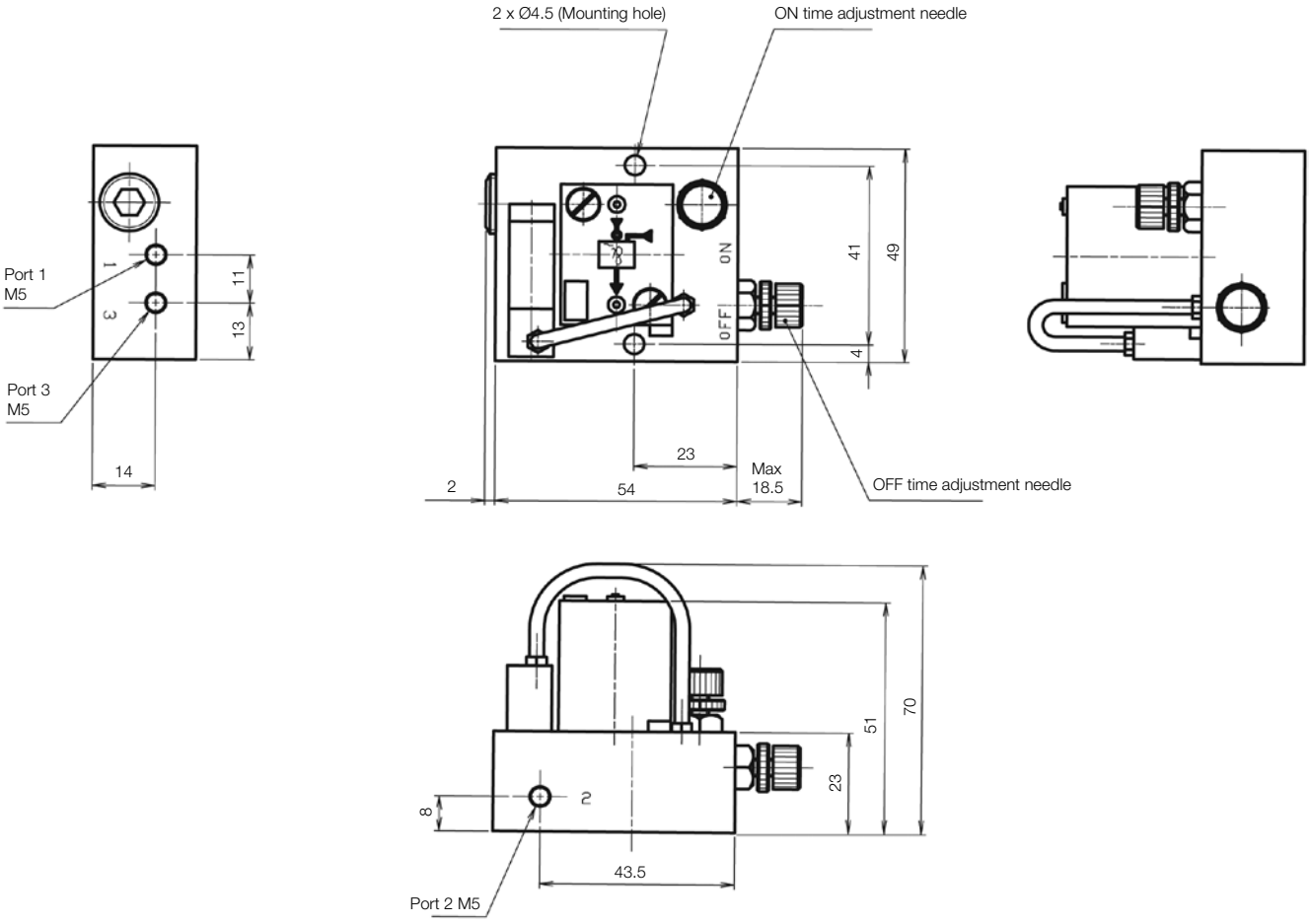
Note: Cable with e-CON connector (Model No. ASC-D24-CL10) will be ordered separately.

Port Size	
M5	M5 (ASV200 only)
10	BSPP 1/8 (ASC/O500 only)
17	BSPP 3/8 (ASV2000 only)
21	BSPP 1/2 (ASV5000 only)
34	BSPP 1 (ASV13000 only)
42	BSPP 1 1/4 (ASV15000 only)

Specifications

								
	ASV200	**ASV2000**	**ASV5000**	**ASV13000**	**ASV15000**	**ASC500**	**ASO500**	**Unit**
Function	Normally closed						Normally open	
Fluid	Non lubricated air							
Flow (at 5 bar)	150	2000	5000	13000	15000	450	450	l/min (ANR)
Port size	M5	3/8	1/2	1"	1 1/4"	1/8	1/8	BSPP
Operating temperature	-5 to +50							° C
Pressure range	3 - 8	0 - 8				2 - 7	2 - 5	Bar
Pilot air supply	3 - 8	3 - 8				Internal pilot		Bar
Blow	Pulse blow					Pulse/Continuous blow		
Rated voltage	Electrical power is not necessary					DC 24 V		V
Power consumption	-					1.2 W		W
Grade of Insulation	-					JIS grade E		
Permissible voltage fluctuation	-					± 10		%
Wiring	-					e-CON standard 4 pole sockets		

ASV200-AA-M5



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 is recommended for exhaust port.

Ordering Instructions

WP	AS	V	200	-	AA	-	M5

Grease	
Blank	Standard grease
WP	Petrolatum grease (for painting applications.)

Type / Flow rate	
200	2-position, internal air pilot / 200 liter/min (ASV200 only)

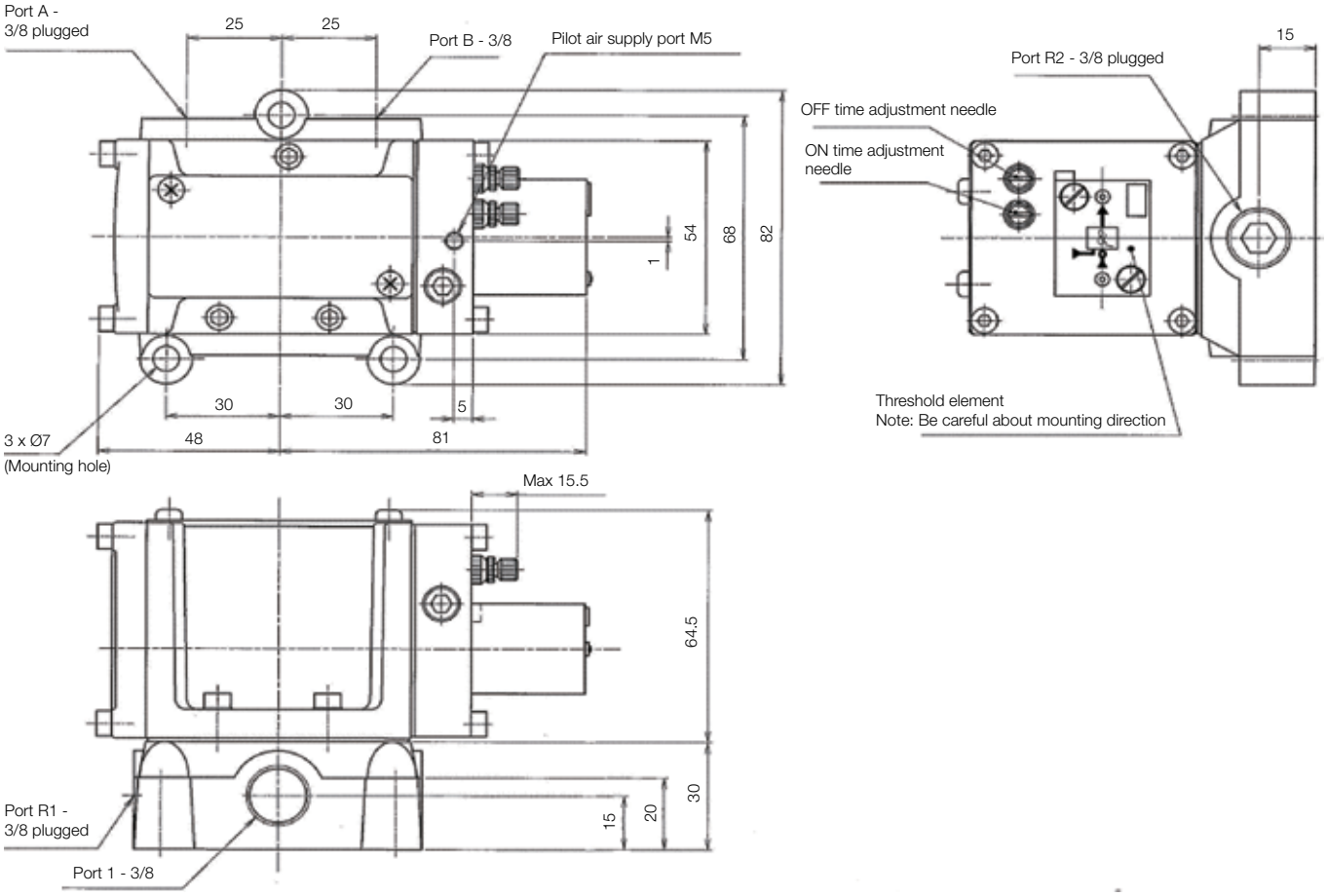
Port Size	
M5	M5 (ASV200 only)

Series	
AS	Air Saver Unit

Operation method / Function	
V	Pneumatic operated Normally Closed.

Operation / Voltage	
AA	Pneumatic operated (WP)ASV200, 2000, 5000, ASV13000 and 15000)

ASV2000-AA-17



Piping

Port P Supply port (Compressor side)
Port B Output port (Blow nozzle side)
Pilot air supply port

Ordering Instructions

WP	AS	V	2000	-	AA	-	17

Grease	
Blank	Standard grease
WP	Petrolatum grease (for painting applications.)

Type / Flow rate	
2000	2-position, external air pilot / 2000 liter/min (ASV2000 only)

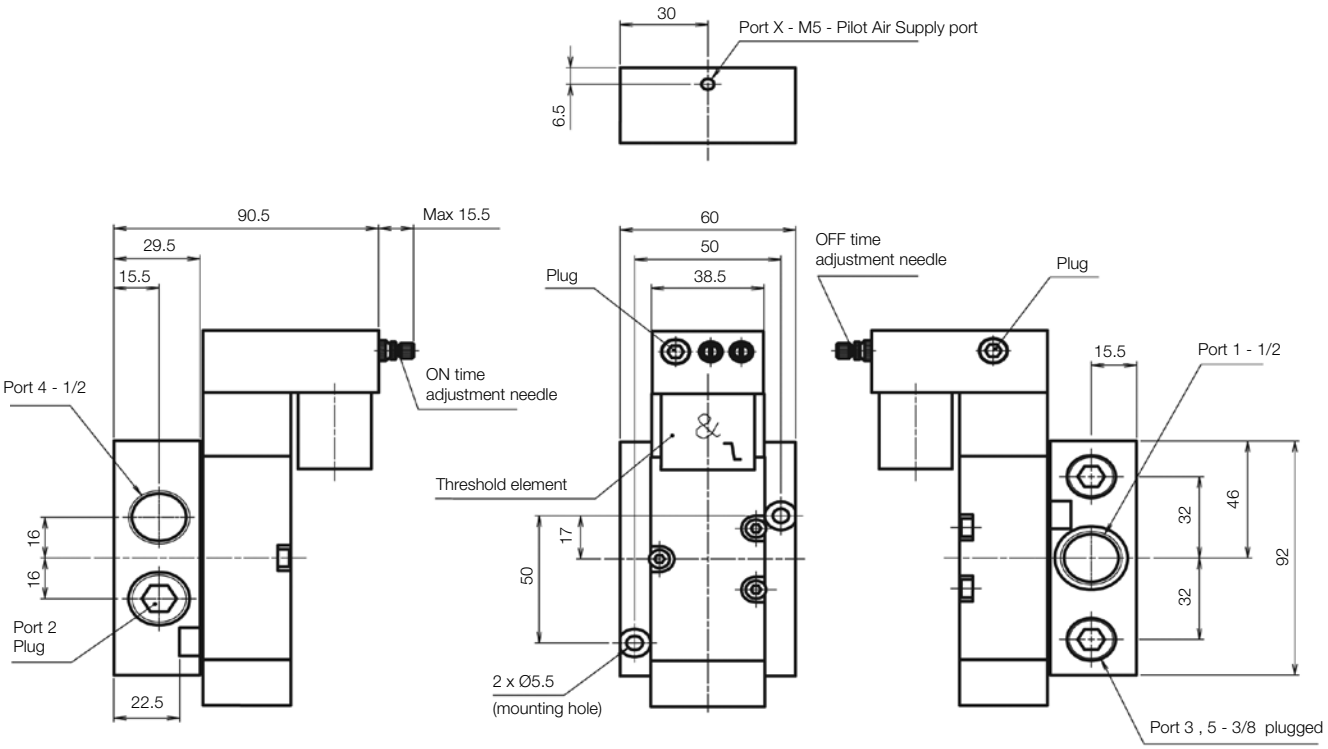
Port Size	
17	BSPP 3/8 (ASV2000 only)

Series	
AS	Air Saver Unit

Operation method / Function	
V	Pneumatic operated Normally Closed.

Operation / Voltage	
AA	Pneumatic operated (WP)ASV200, 2000, 5000, ASV13000 and 15000)

ASV5000-AA-21



Piping

Port 1 Supply port (Compressor side)
Port 4 Output port (Blow nozzle side)
Port X Pilot Air Supply port

Ordering Instructions

WP AS V 5000 - AA - 21

Grease	
Blank	Standard grease
WP	Petrolatum grease (for painting applications.)

Type / Flow rate	
5000	2-position, external air pilot / 5000 liter/min (ASV5000 only)

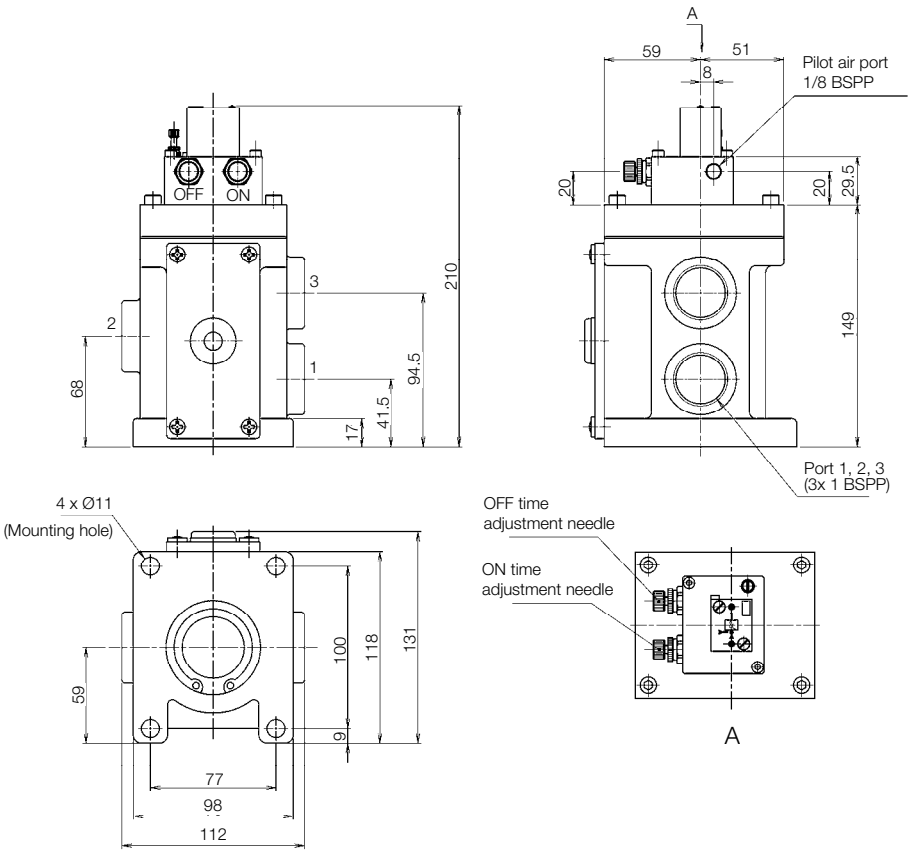
Port Size	
21	BSPP 1/2 (ASV5000 only)

Series	
AS	Air Saver Unit

Operation method / Function	
V	Pneumatic operated Normally Closed.

Operation / Voltage	
AA	Pneumatic operated (WP)ASV200, 2000, 5000, ASV13000 and 15000)

ASV13000-AA-34



Piping

Port 1: Supply port (NC) (Compressor side)
Port 2: Output port (Blow nozzle side)
Port 3: Supply port (NO) (Compressor side)
Pilot Air Supply port: 1/8

Ordering Instructions

WP	AS	V	13000	-	AA	-	34

Grease	
Blank	Standard grease
WP	Petrolatum grease (for painting applications.)

Type / Flow rate	
13000	2-position, extrenal air pilot / 13000 liter/min (ASV13000 only)

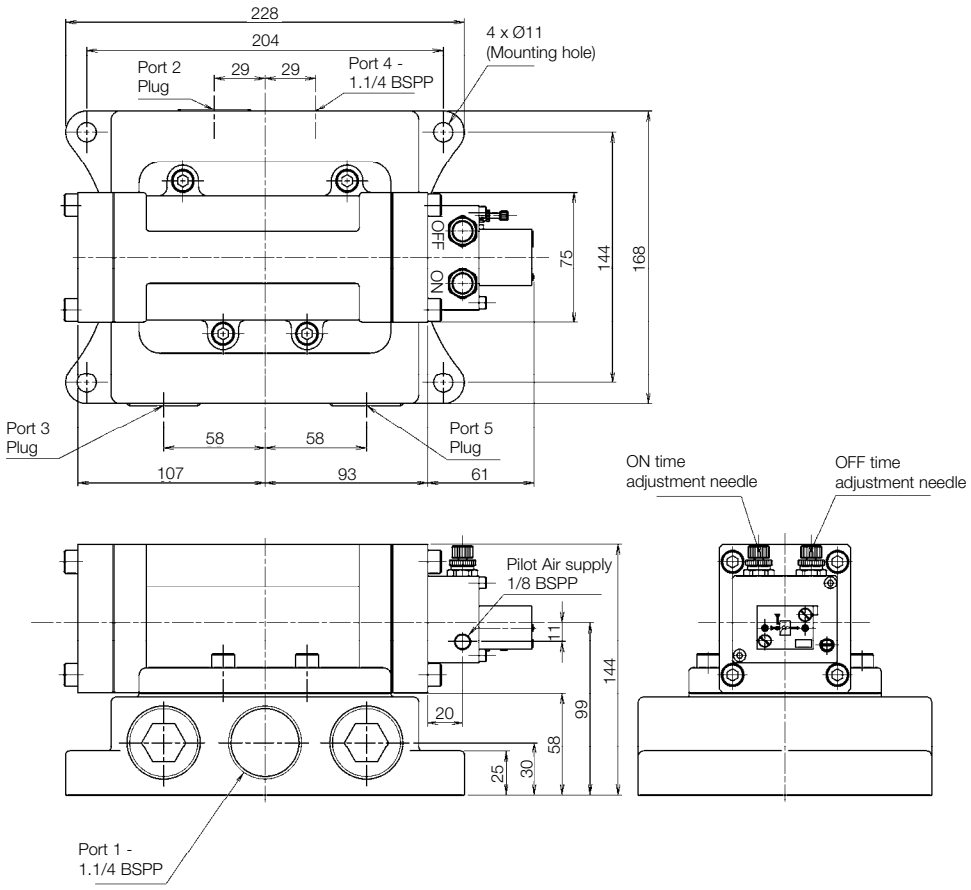
Port Size	
34	BSPP 1 (ASV13000 only)

Series	
AS	Air Saver Unit

Operation method / Function	
V	Pneumatic operated Normally Closed.

Operation / Voltage	
AA	Pneumatic operated (WP)ASV200, 2000, 5000, ASV13000 and 15000)

ASV15000-AA-42



Piping

Port 1: Supply port (Compressor side)
Port 2: Plug (1.1/4)
Port 3: Plug (1.1/4)
Port 4: Output port (Blow nozzle side)
Pilot air supply port: 1/8

Ordering Instructions

WP	AS	V	15000	-	AA	-	42

Grease	
Blank	Standard grease
WP	Petrolatum grease (for painting applications.)

Type / Flow rate	
15000	2-position, external air pilot / 15000 liter/min (ASV15000 only)

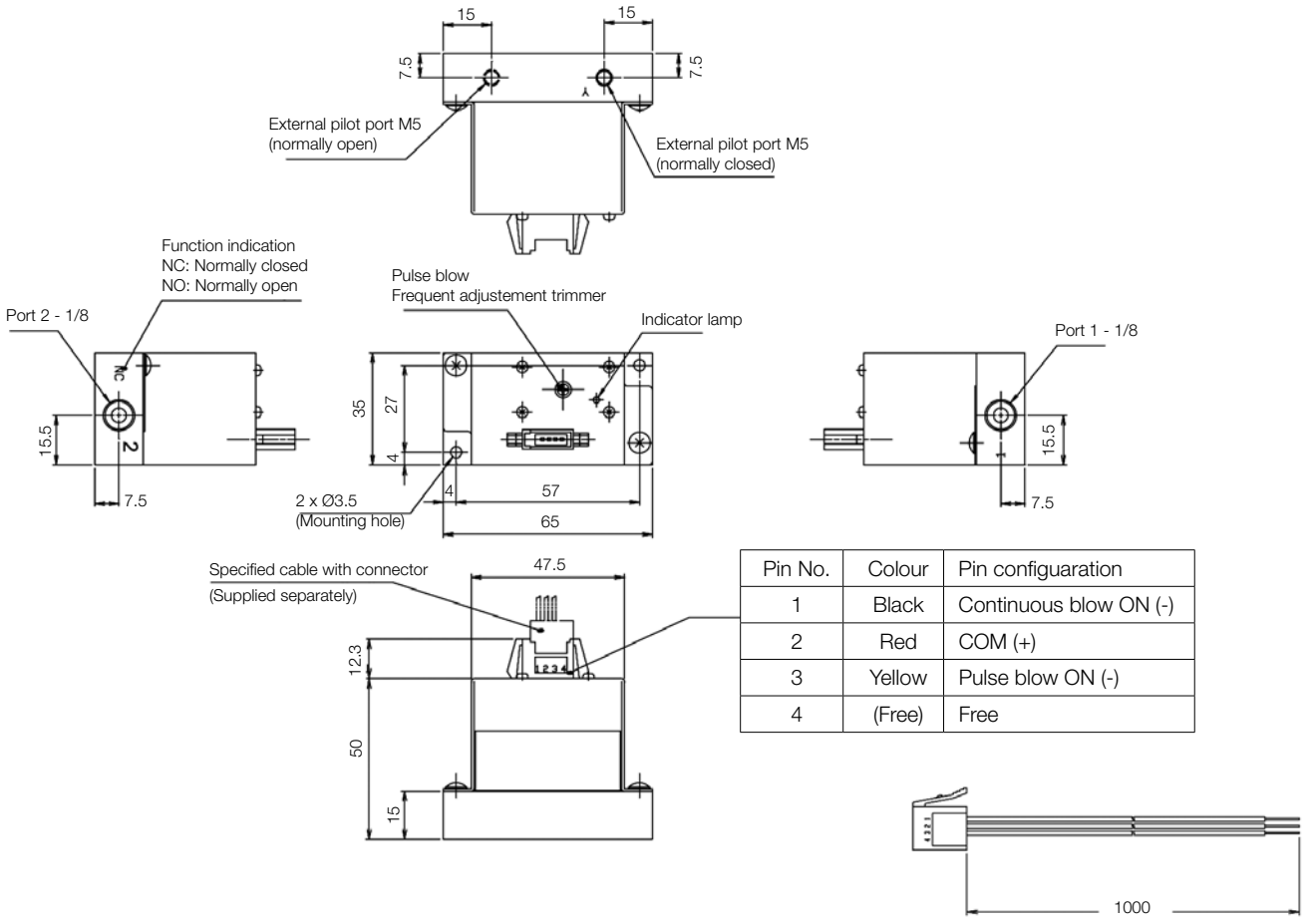
Port Size	
42	BSPP 1 1/4 (ASV15000 only)

Series	
AS	Air Saver Unit

Operation method / Function	
V	Pneumatic operated Normally Closed.

Operation / Voltage	
AA	Pneumatic operated (WP)ASV200, 2000, 5000, ASV13000 and 15000)

ASC500-1W-10 / ASO500-1W-10



Pin No.	Colour	Pin configuaration
1	Black	Continuous blow ON (-)
2	Red	COM (+)
3	Yellow	Pulse blow ON (-)
4	(Free)	Free

*Cable with specific connector "ASC-D24-CL10"
(AWG26 ASC/ASO in common)

Piping

Port 1 Supply port (Compressor side)
Port 2 Output port (Blow nozzle side)
Y port Pilot exhaust port

* In order to avoid dust, it is recommended to attach an air muffler.

Ordering Instructions

AS | **C** | **500** | **-** | **1W** | **-** | **10**

Series	
AS	Air Saver Unit

Type / Flow rate	
500	2-position, single solenoid / 500 liter/min (ASC/O500 only)

Port Size	
10	BSPP 1/8 (ASC/O500 only)

Operation method / Function	
C	Electrical actuated. Normal Close. (ASC500 only)
O	Electrical actuated. Normal Open. (ASO500 only)

Operation / Voltage	
1W	Electrical operated 24VDC (ASC/O500)

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

Applications

Cleaning blow before assembly

Paint spraying

Swarf removal

Car Painting Process

Drying applications

Swarf removal

Can be used in many applications where air blow is a requirement

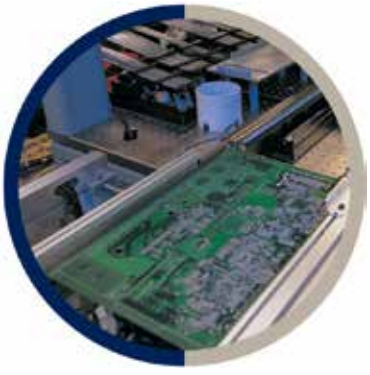
PET bottle transfer

Cooling application

Ionizer dust removal

Assist blow for PET bottle transfer

Electrical parts

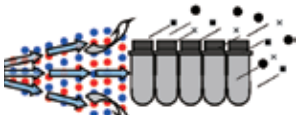
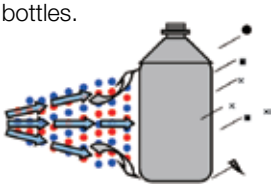
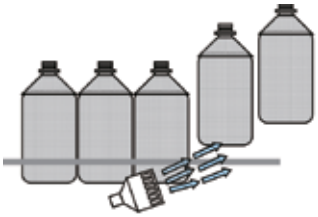
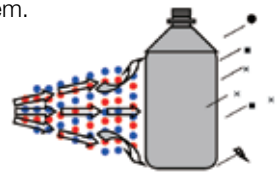
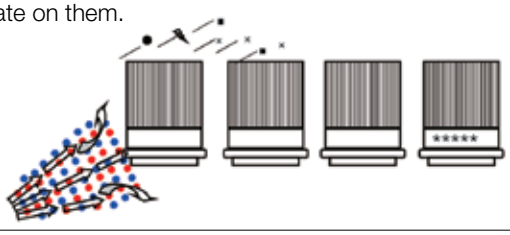


Liquid removal after the manufacturing process

Applications

Air Saver Unit
ASC500/ASO500 Series

Pneumatic Solutions Beverage and Bottle Plants

Process	Application	Advantage
Before blow moulding PET bottles	Pulse ionized blow by Air Saving Unit in order to remove particles before PET bottles are molded. 	Pulse ionized blow and its blast of each pulse increase to remove particles effectively.
Afte blow molding PET bottles	Cleaning blow for particles that attach to the blow molded PET bottles. 	Reducing about 40% of consumption air.
Conveying PET bottles	Assisting blow to convey PET bottles 	Reducing about 40% of consumption air.
	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.

Selection of Air Saver Unit

Guide data for the correct selection of an Air Saver unit for blow applications.

Please take into account the two variables:

- System operation pressure (bar)
- Required air consumption of nozzle or set of nozzles (l/min) to be controlled with one Air Saver Valve

Colour coding indicates correct Air Saver Unit

ASU200
ASU500
ASU2000
ASU5000
ASU13000
ASU15000

Nozzle Ø (mm2)	Nozzle Ø (mm)	Air consumption (liter/min) System pressure (bar) 2	3	4	5	6	7	8
0.0	**0.1**		0,4	0,5	0,5	0,6	0,7	0,8
0.0	**0.2**		1,5	1,8	2,2	2,5	2,9	3,2
0.1	**0.3**		3,3	4,1	4,9	5,7	6,5	7,3
0.2	**0.5**		9,1	11	14	16	18	20
0.8	**1.0**		36	45	54	63	72	81
1.8	**1.5**		82	102	122	142	162	183
3.1	**2.0**		145	181	217	252	288	324
7.1	**3.0**	245	326	406	487	568	649	730
12.6	**4.0**	436	579	723	865	1,010	1,150	1,300
19.6	**5.0**	681	905	1,130	1,350	1,580	1,800	2,030
28.3	**6.0**	981	1,304	1,630	1,950	2,270	2,600	2,920
35.8	**7.0**	1,334	1,774	2,214	2,537	3,092	3,513	3,975
50.2	**8.0**	1,750	2,320	2,890	3,460	4,040	4,620	5,190
63.6	**9.0**	2,206	2,933	3,659	4,193	5,112	5,836	6,571
78.5	**10.0**	2,720	3,620	4,520	5,410	6,310	7,210	8,110
95.0	**11.0**	3,295	4,381	5,466	6,264	7,636	8,718	9,815
113.0	**12.0**	3,920	5,220	6,500	7,780	9,090	10,400	11,680
132.7	**13.0**	4,602	6,119	7,634	8,749	10,665	12,177	13,709
153.9	**14.0**	5,337	7,097	8,854	10,146	12,369	14,122	15,899
176.6	**15.0**	6,130	8,150	10,200	12,200	14,200	16,200	18,250
201.0	**16.0**	6,971	9,269	11,565	13,252	16,155	18,445	20,766
226.9	**17.0**	7,870	10,464	13,055	14,961	18,238	20,823	23,443
254.3	**18.0**	8,823	11,731	14,636	16,772	20,446	23,345	26,282
283.4	**19.0**	9,830	13,071	16,308	18,688	22,781	26,011	29,284
314.0	**20.0**	10,900	14,500	18,100	21,700	25,200	28,800	32,400
346.2	**21.0**	12,009	15,967	19,922	22,829	27,830	31,775	35,773
379.9	**22.0**	13,180	17,524	21,864	25,055	30,543	34,873	39,261
415.3	**23.0**	14,405	19,153	23,897	27,385	33,383	38,116	42,912
452.2	**24.0**	15,685	20,855	26,020	29,818	36,349	41,502	46,724
490.6	**25.0**	17,000	22,600	28,200	33,800	39,500	45,000	50,700

Reduced performance flow capacity of 10% is applied
Consider min. operating pressure (see tech specs on page 5)
Consider min. pilot air pressure (see tech specs on page 5)

Parker Energy Saving Solutions

Companies that use Parker hydraulics, pneumatics, filtration, fluid connectors and electromechanical products enjoy the highest levels of Parker's expertise including program management, training and engineering support.

Air Tools

P3X

Design with air tool applications in mind, the P3X air preparation unit offers advanced nano-mist lubrication ensuring improved productivity through:

- Optimum tool performance.
- Extended tool life.
- Longer intervals between tool services.
- Reduced oil consumption through flow optimisation.

Powertrain

Drive Controlled Pump

- **Reducing energy consumption by up to 50%:** Replacing conventional hydraulics in machine tool application.
- **Solving space constraints by up to 20%:** Machine footprint reductions due to overall system efficiency and performance.
- **Improved cycle times of up to 36%** through increased control.
- **Saving cost:** Software simulation uses hydraulic footprint snapshot calculations to produce POI data.

Welding cells

Water Retract Actuator

Significantly reduces water wastage during welding tip changes which helps reduce hazardous water spillages thus improving welding quality.

Electromechanical Products

- **Optimising performance,** precision and reliability.
- **Improving efficiency over** conventional technologies.
- **Saving space** with market leading performance.
- **One control platform:** highly capable motion control solutions, sharing common variable speed drive and hydraulic control platforms. Real multi technology solutions saving energy and simplifying production.

Facilities

Variable Speed Drive

Through the application of Parker's knowledge and experience, the benefits of variable speed drive technology can be applied to:

- Fan, Pump, Hydraulic System and Power Generation.
- Leading the way in Energy Grid-Tie and Storage solutions.
- **Energy recovery and savings of up to 50%** are placed in your control through Parker system expertise.

Safety Blow Gun: Safe, Clean and Efficient

- 80dB operation
- Automatic pressure reduction
- Up to **40% energy saving**

Solved in one product:
A simple way to save cost and improve safety.

Parker is your One Stop, Global Partner

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