



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 April 2015




ENGINEERING YOUR SUCCESS.


<b>Contents</b>	<b>Page</b>
Features .....	3 - 4
Order Code .....	5
Specifications .....	5
Dimensions - ASV-200-AA-M5 .....	6
Dimensions - ASV-2000-AA-17 .....	7
Dimensions - ASV-5000-AA-21 .....	8
Dimensions - ASV-13000-AA-34 .....	9
Dimensions - ASV-15000-AA-42 .....	10
Dimensions - ASC500-1W-10 / ASO500-1W-10 .....	11
Applications .....	12
Applications - ASC500/ASO500 .....	13
Selection of Air Saver Unit .....	14



**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.  
 This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information concerning the product or system in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met. The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Parker Hannifin Corporation and its subsidiaries at any time without notice.

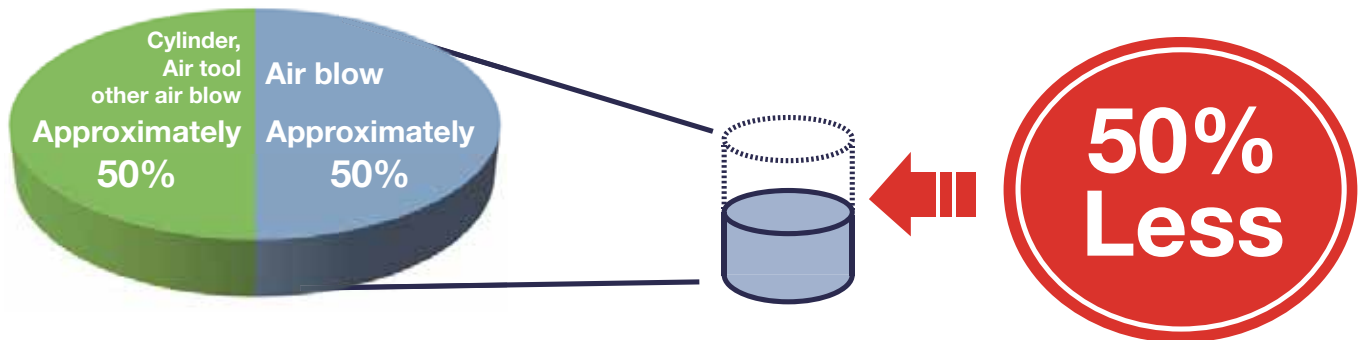
**SALE CONDITIONS**

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.**

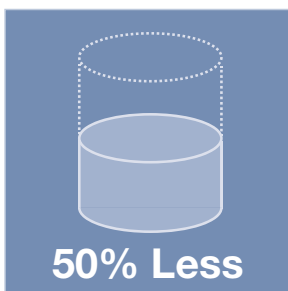


When using an Air Saver Unit several significant benefits can be achieved. Air blowing accounts for almost 50% of all compressed air used in plants. By using switching valve technology the Air Saver Unit can reduce air consumption by up to 50%!

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



ASV200 Series    ASC/ASO500 Series    ASV2000 Series    ASV5000 Series



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

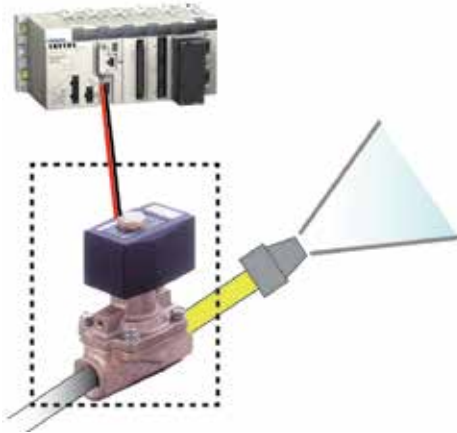
	Without Air Saver	With Air Saver
Power Consumption	53,600kW/month	26,800kW/month
CO2 Discharge	17t	8.5t
Cost	7 164 €/month	3 618 €/month

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

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

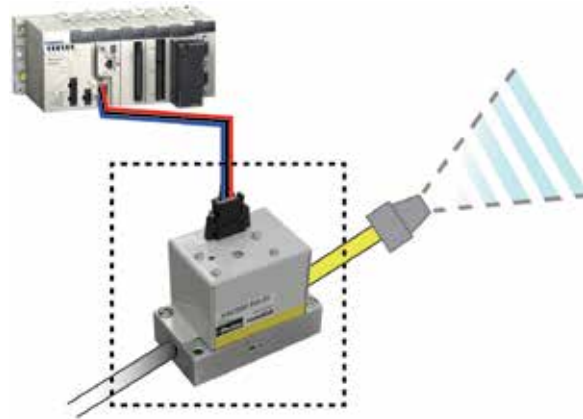
- When using an electrically operated solenoid valve to control the air blow, an Air Saver Unit can quickly and easily be retrofitted providing an immediate reduction in air consumption with no changes to the PLC programme.

<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>



■ **Realised 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.

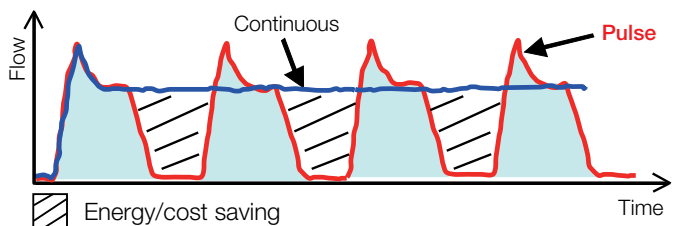
As air blow efficiency was improved, we planned to use more Air Saver Units for other areas in the plant".

**[Company B] Manufacturer of 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**

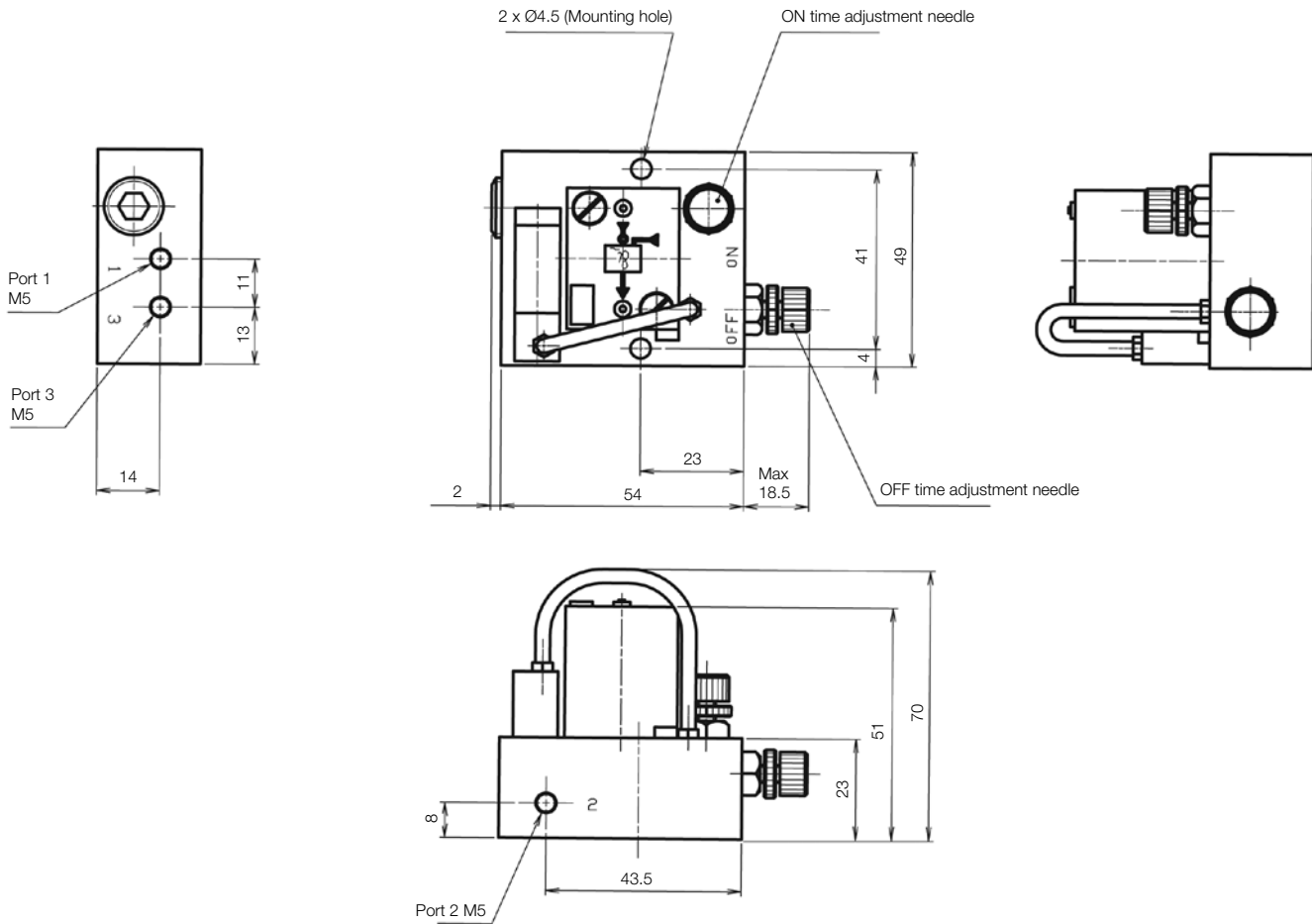
Grease		Type / Flow rate		Port Size	
<b>Blank</b>	Standard grease	<b>200</b>	2-position, internal air pilot / 200 liter/min	<b>M5</b>	M5 (ASV200 only)
<b>WP</b>	Petrolatum grease (for painting applications.)	<b>500</b>	2-position, single solenoid / 500 liter/min	<b>10</b>	BSPP 1/8 (ASC/O500 only)
<b>Series</b>		<b>2000</b>	2-position, external air pilot / 2000 liter/min	<b>17</b>	BSPP 3/8 (ASV2000 only)
<b>AS</b>	Air Saver Unit	<b>5000</b>	2-position, external air pilot / 5000 liter/min	<b>21</b>	BSPP 1/2 (ASV5000 only)
<b>Operation method / Function</b>		<b>13000</b>	2-position, external air pilot / 13000 liter/min	<b>34</b>	BSPP 1 (ASV13000 only)
<b>V</b>	Pneumatic operated Normally Closed.	<b>15000</b>	2-position, external air pilot / 15000 liter/min	<b>42</b>	BSPP 1 1/4 (ASV15000 only)
<b>C</b>	Electrical actuated. Normal Close. (ASC500 only)	<b>Operation / Voltage</b>			
<b>O</b>	Electrical actuated. Normal Open. (ASO500 only)	<b>AA</b>	Pneumatic operated (WP)ASV200, 2000, 5000, ASV13000 and 15000)		
		<b>1W</b>	Electrical operated 24VDC (ASC/O500)		

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

## Specifications

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

**ASV200-AA-M5**

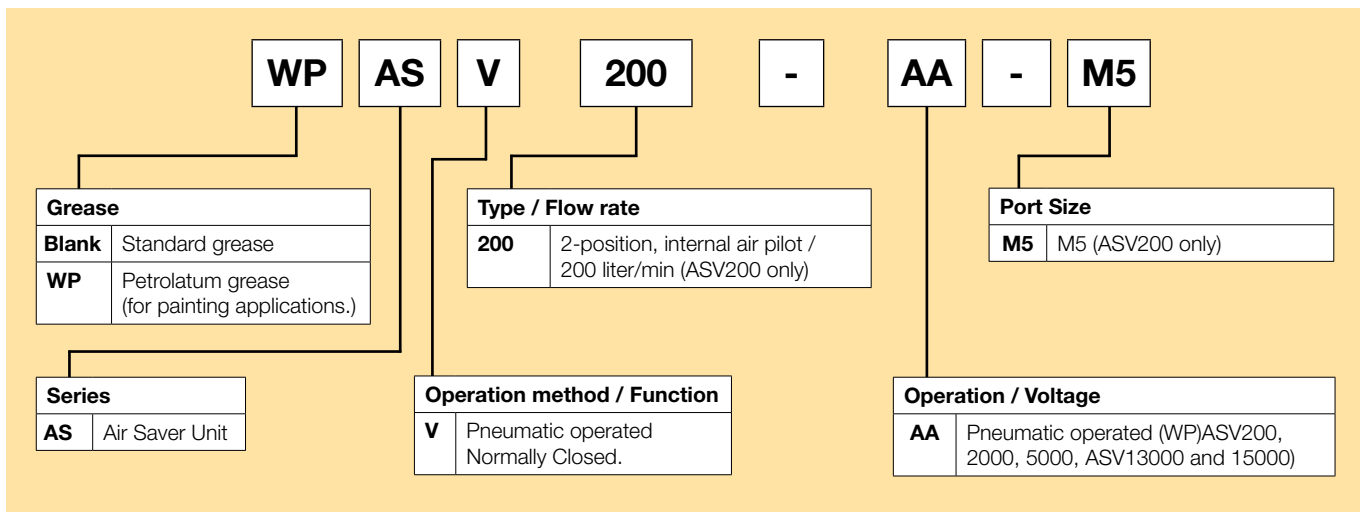


**Piping**

- Port 1 Supply port (Compressor side)
- Port 2 Output port (Blow nozzle side)
- Port 3 Exhaust port\*

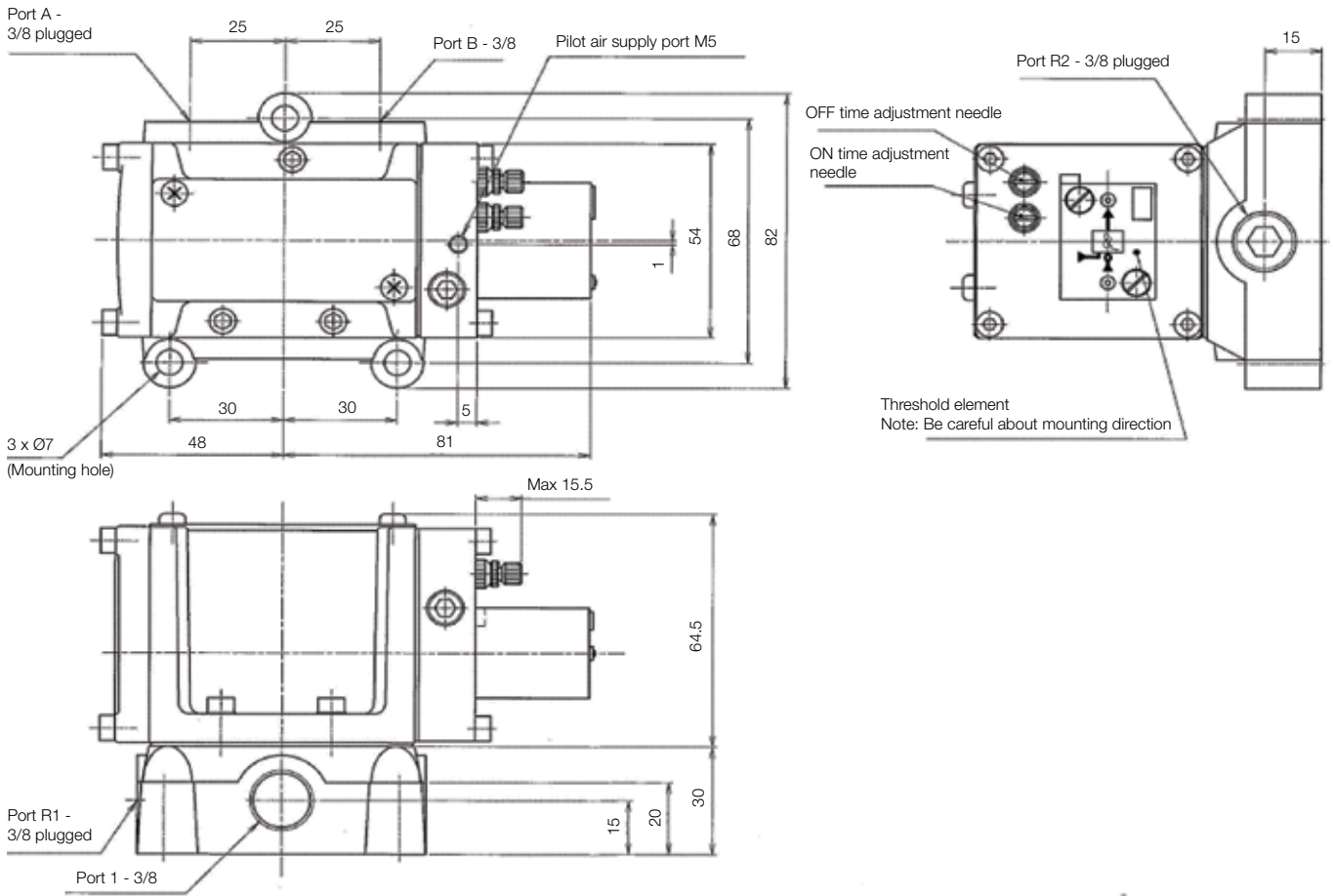
\* In order to keep out dust, the air muffler is recommended for exhaust port.

**Ordering Instructions**





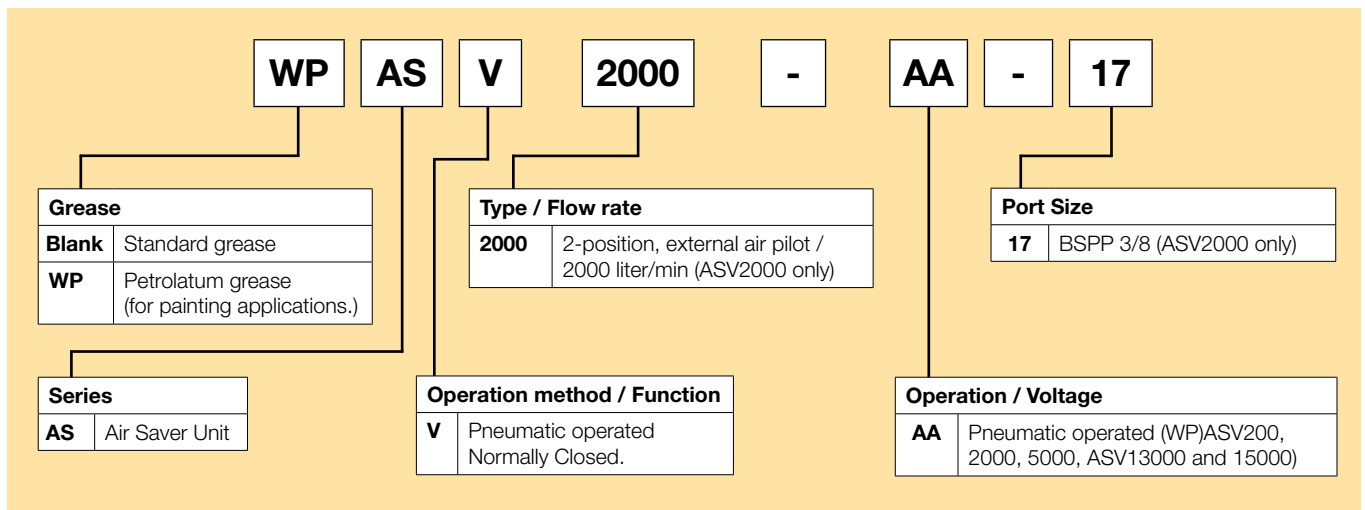
**ASV2000-AA-17**



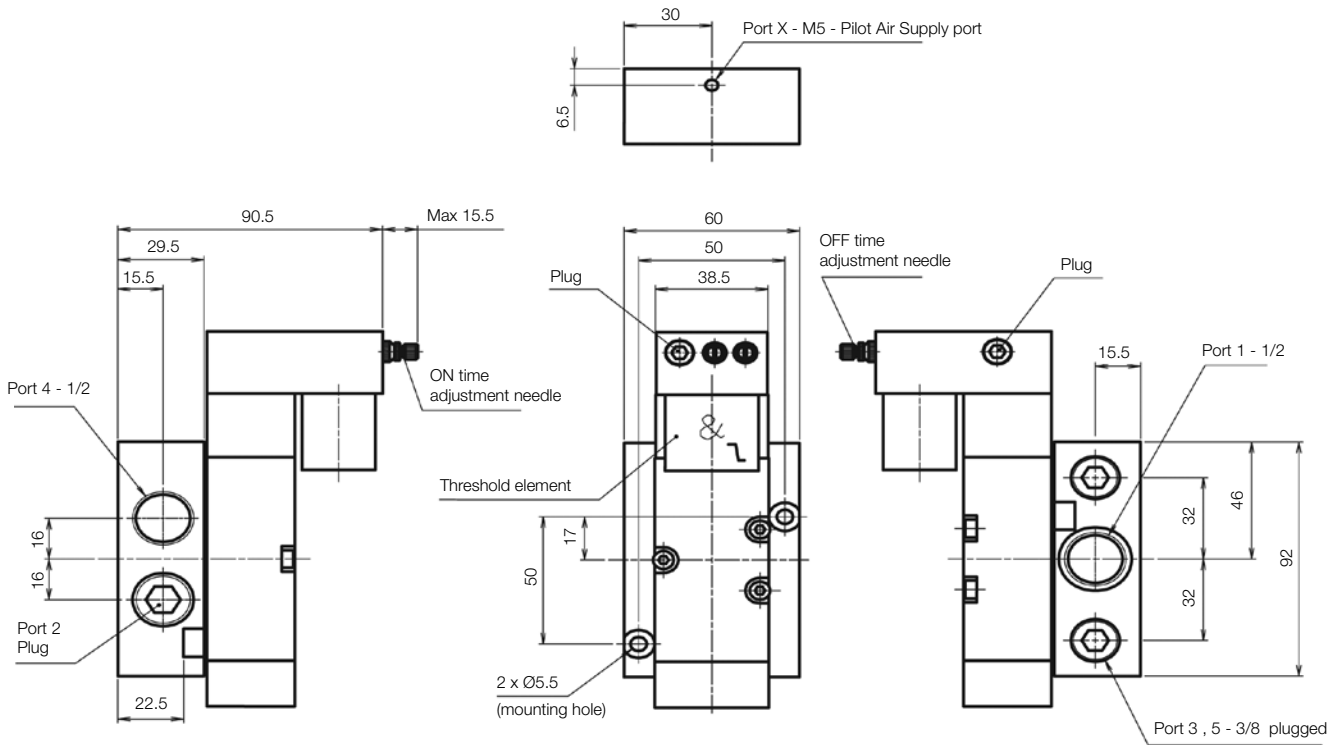
**Piping**

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

**Ordering Instructions**



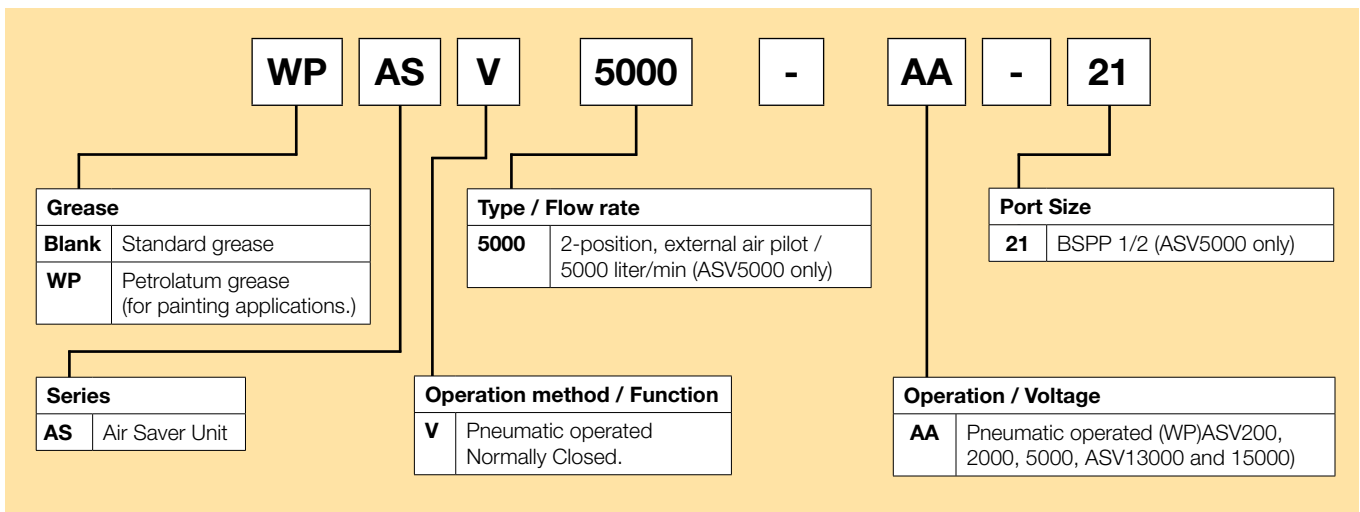
**ASV5000-AA-21**



**Piping**

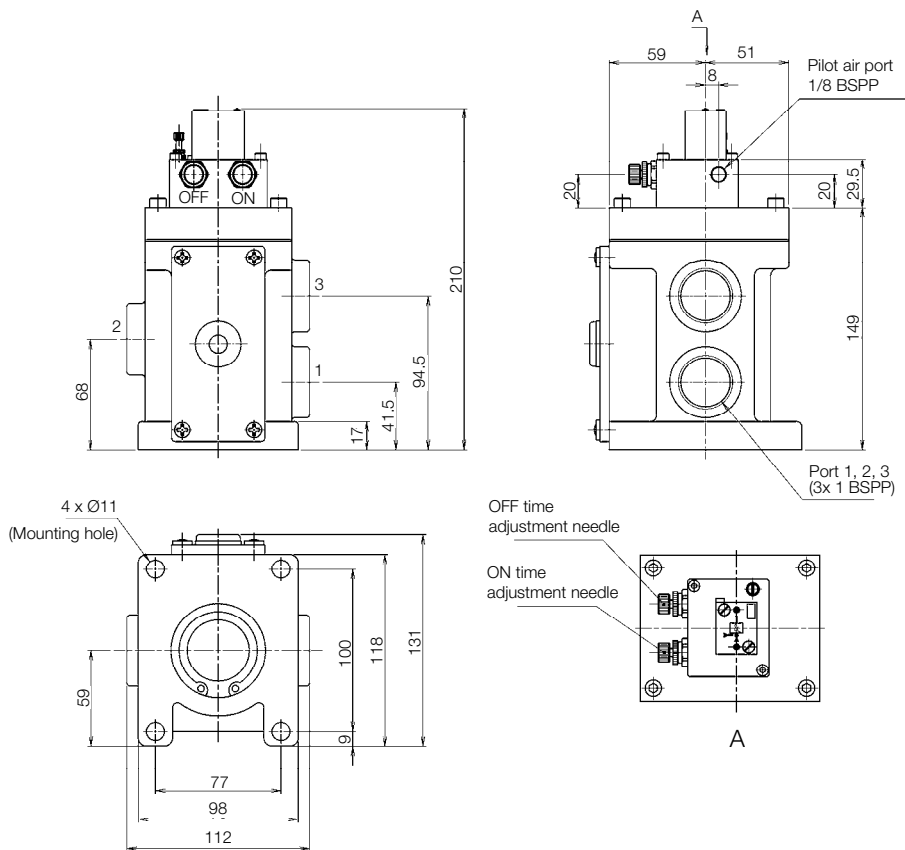
- Port 1 Supply port (Compressor side)
- Port 4 Output port (Blow nozzle side)
- Port X Pilot Air Supply port

**Ordering Instructions**





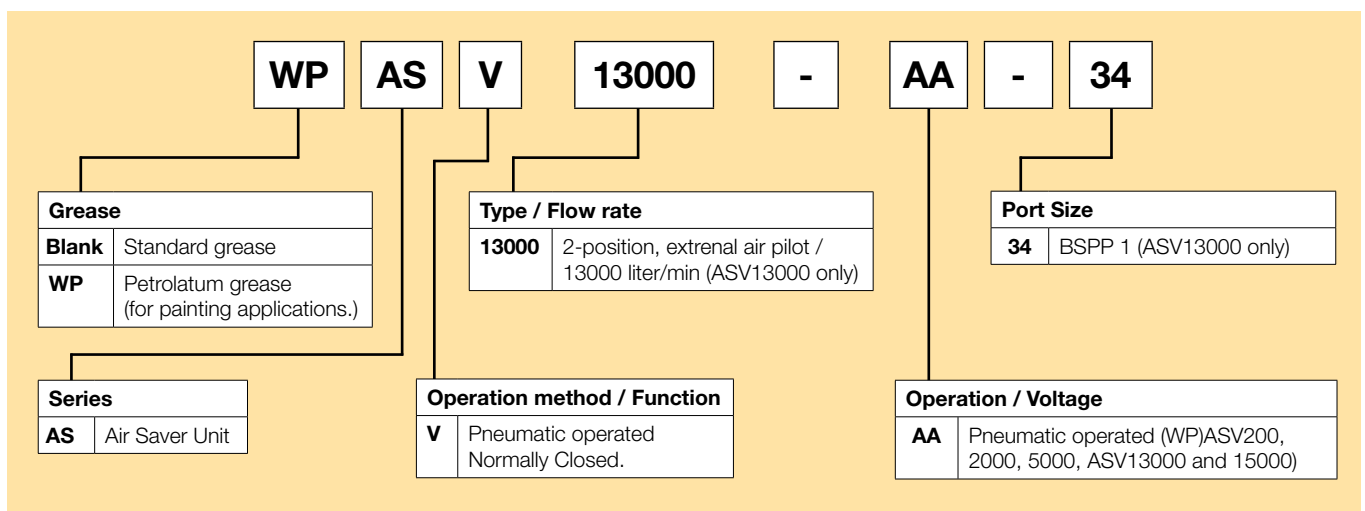
**ASV13000-AA-34**



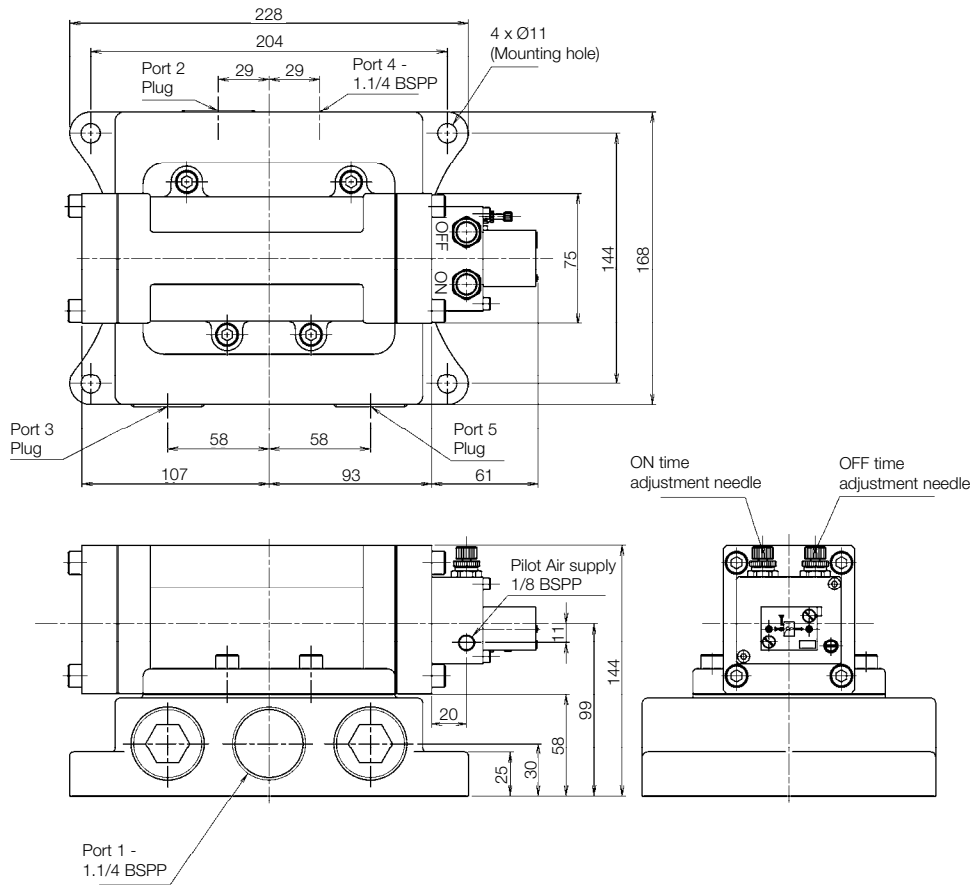
**Piping**

- 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**



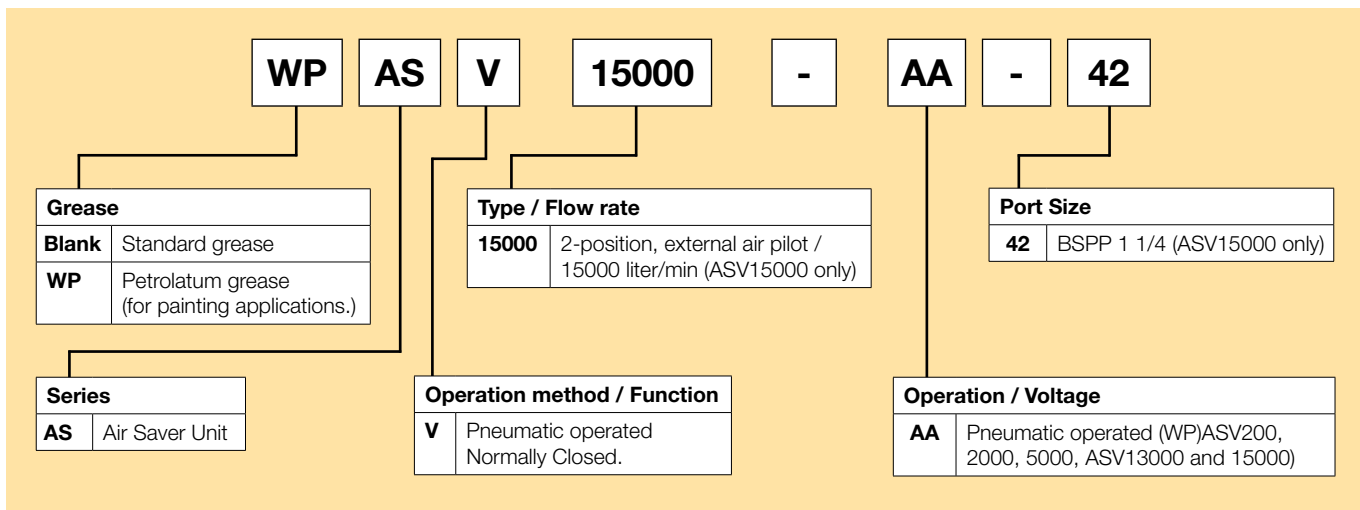
**ASV15000-AA-42**



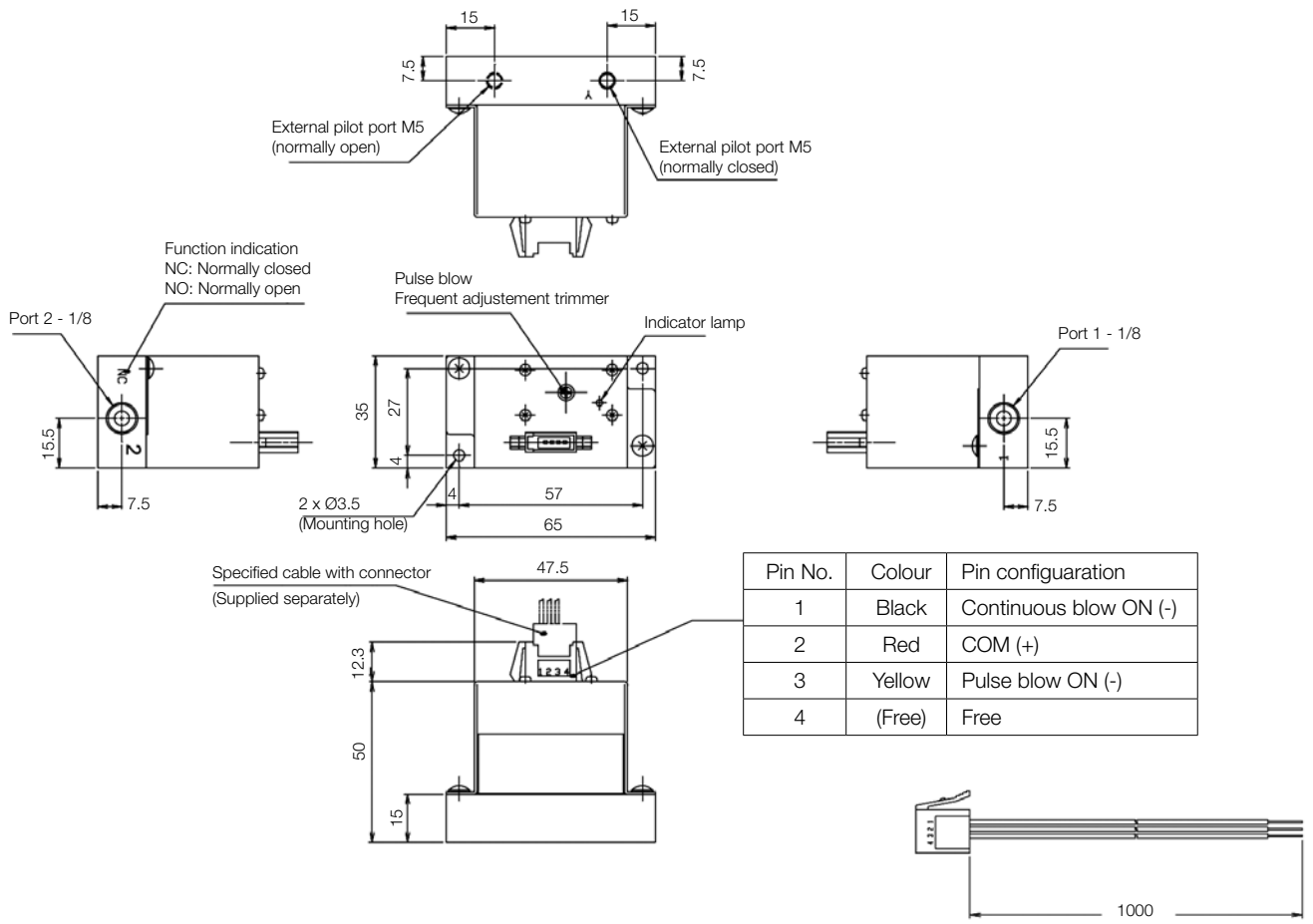
**Piping**

- 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**



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



Pin No.	Colour	Pin configuration
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**

<b>AS</b>	<b>C</b>	<b>500</b>	<b>-</b>	<b>1W</b>	<b>-</b>	<b>10</b>
<b>Series</b>		<b>Type / Flow rate</b>		<b>Operation method / Function</b>		<b>Port Size</b>
AS Air Saver Unit		500 2-position, single solenoid / 500 liter/min (ASC/O500 only)		C Electrical actuated. Normal Close. (ASC500 only) O Electrical actuated. Normal Open. (ASO500 only)		10 BSPP 1/8 (ASC/O500 only)
				<b>Operation / Voltage</b>		
				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



Liquid removal after the manufacturing process



Electrical parts



■ **Applications**

**Air Saver Unit**  
**ASC500/ASO500 Series**



**Pneumatic Solutions Beverage and Bottle Plants**

Process	Application	Advantage
Before blow moulding PET bottles	<p>Pulse ionized blow by Air Saving Unit in order to remove particles before PET bottles are moulded.</p>	Pulse ionized blow and its blast of each pulse increase to remove particles effectively.
After blow moulding PET bottles	<p>Cleaning blow for particles that attach to the blow moulded PET bottles.</p>	Reducing about 40% of consumption air.
Conveying PET bottles	<p>Assisting blow to convey PET bottles</p>	Reducing about 40% of consumption air.
	<p>Escape blow for PET bottles when the line is stopped.</p>	Reducing about 40% of consumption air.
	<p>Pulse ionized blow for PET bottles before pasting labels on them.</p>	Pulse blow and its blast of each pulse increase to remove particles effectively.
Printing machine	<p>Pulse ionized blow for bottles or caps before printing date on them.</p>	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 (mm <sup>2</sup> )	Air consumption (liter/min)							
	Nozzle Ø (mm)	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

Designed 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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### European Product Information Centre

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