

## SINGLE-STAGE AND MULTI-FUNCTION VACUUM GENERATORS SERIES AVG

These generators are independent vacuum units that can control an entire vacuum gripping system. They have been specially designed for the AUTOMOTIVE sector and they are equipped with single ejectors that, given the same capacity as the multi-ejector generators, allow a quicker grip and, as a result, a greater compressed air consumption. As a standard, they are provided with a built-in pneumatic energy-saving device.

They are composed of an anodised aluminium monobloc structure, inside of which are installed the ejectors, the servo-controlled slide valve for the compressed air supply and are contained the vacuum chambers as well as the various connections.

On the outside, on the other hand, are installed:

- A bistable impulse solenoid valve for controlling the slide valve.
- A micro solenoid valve for blowing the exhaust compressed air.
- A flow regulator for dosing the exhaust compressed air.
- Two silencers for removing noise from the ejected air.
- An aluminium manifold provided with vacuum connections with built-in:
  - ° A pneumatic vacuum switch for managing the compressed air supply according to the set vacuum level (energy saving).
  - ° A check valve for maintaining the vacuum in case of electricity or compressed air failure.
  - ° A suction filter, easy to inspect through the transparent polycarbonate lid.

By providing an electric impulse to the two-position micro solenoid valve, the compressed air supply slide valve will be activated and vacuum will be created at the application.

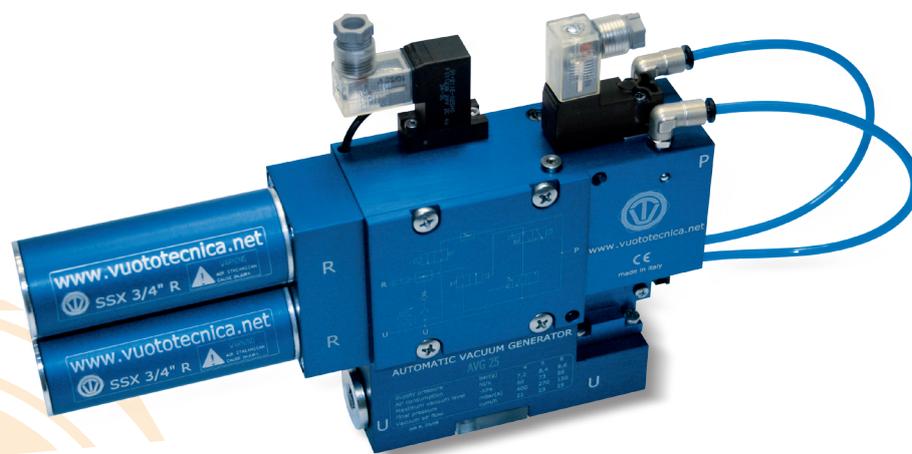
Once the preset maximum value has been reached, the pneumatic vacuum switch, acts on the slide valve and interrupts the compressed air supply, restoring it when the value returns below the minimum value.

Along with maintaining the vacuum level within the preset safety values, this modulation allows saving a considerable amount of compressed air, even in case of electricity failure. Once the work cycle is completed, an electric impulse deactivates the supply micro solenoid valve and, at the same time, the ejection micro solenoid valve for a quick restoration of the atmospheric pressure at the application.

AVG vacuum generators are set for the installation of a micro digital vacuum switch art. 12 05 11 at the application and, upon request, they can be supplied protection devices against shocks and accidental falls.

Also these vacuum generators can be installed in any position.

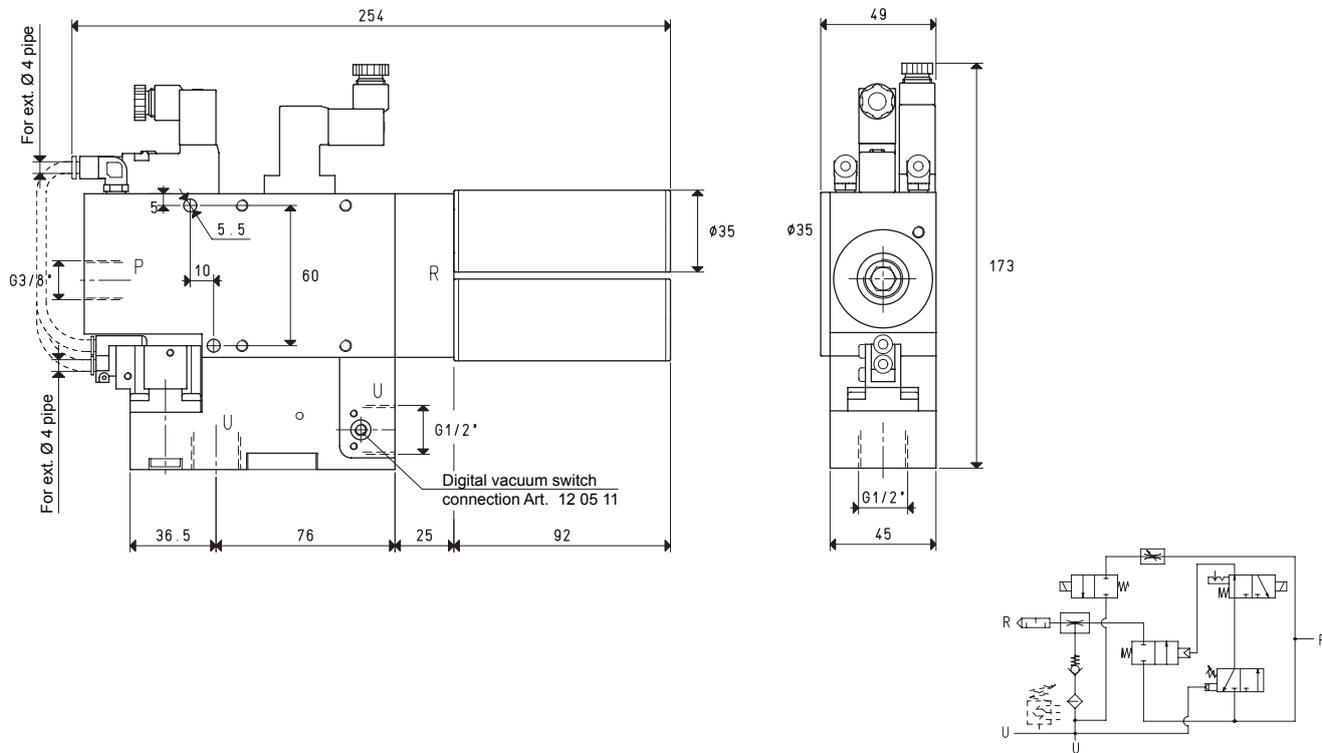
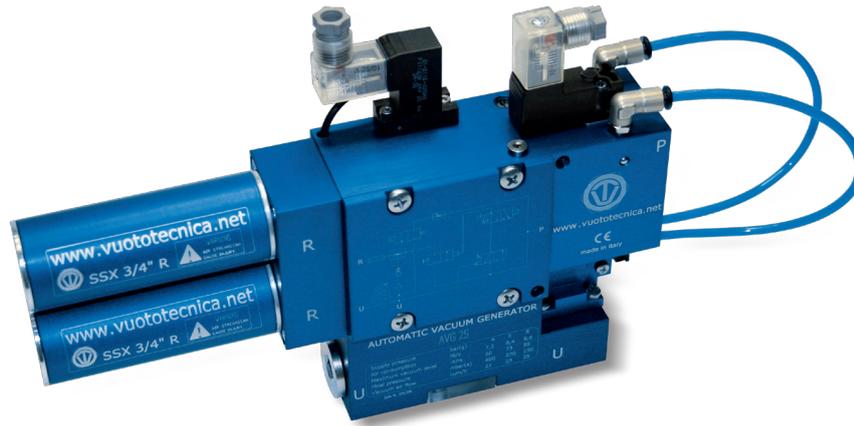
AVG vacuum generators are suited for controlling vacuum cup gripping systems, for handling sheet metal, glass, marble, ceramic, plastic, cardboard, wood, etc., and, in particular for the AUTOMOTIVE sector, which requires equipment with excellent performance and reduced overall dimensions and weight.



3D drawing available at [www.vuototecnica.net](http://www.vuototecnica.net)

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# SINGLE-STAGE AND MULTI-FUNCTION VACUUM GENERATORS AVG 18 and AVG 25



P=COMPRESSED AIR CONNECTION    R=EXHAUST    U=VACUUM CONNECTION

Art.		AVG 18	AVG 25
Max. quantity of sucked air	cum/h	16.5	17.0
Max. vacuum level	-KPa	60	70
Final pressure	mbar abs.	400	300
Supply pressure	bar (g)	4	5
Air consumption	NI/s	4.3	5.3
Max. quantity of air blown at 6 bar (g)	l/min	140	140
Bistable supply solenoid valve	NO/NC	NO/NC	NO/NC
Electric absorption	W	1	1
Ejection solenoid valve position	NC	NC	NC
Electric absorption	W	4	4
Supply voltage	V	24 DC	24 DC
Class of protection	IP	65	65
Working temperature	°C	-10 / +60	-10 / +60
Noise level	dB(A)	63	65
Weight	Kg	1.67	1.67

**Note:** To order the generator provided with digital vacuum switch, add the letter V to the code (e.g.: AVG 25 V).

**Note:** All the vacuum data indicated in the table are valid at the normal atmospheric pressure of 1013 mbar and are obtained with a constant supply pressure.

Conversion ratio: inch =  $\frac{\text{mm}}{25.4}$ ; pounds =  $\frac{\text{g}}{453.6}$  =  $\frac{\text{Kg}}{0.4536}$

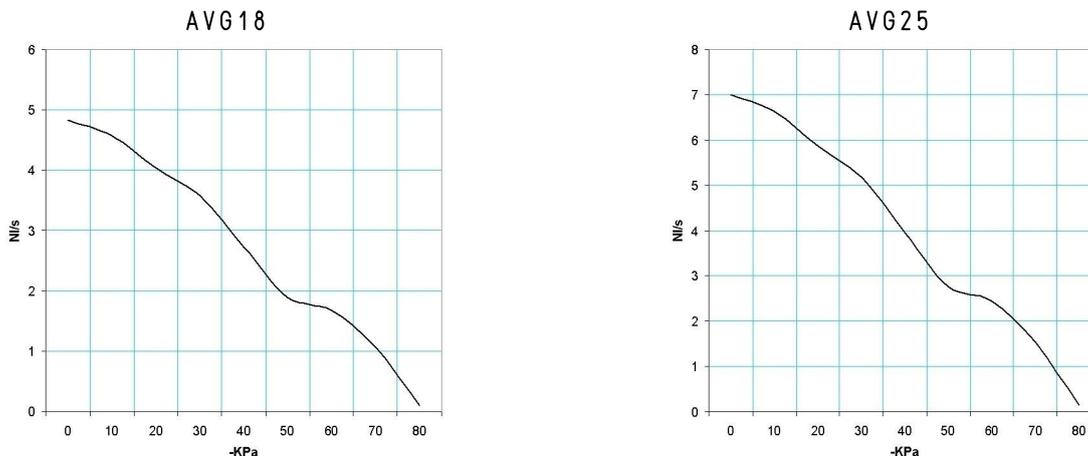
GAS-NPT thread adapters available at page 1.117

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3D drawing available at [www.vuototecnica.net](http://www.vuototecnica.net)

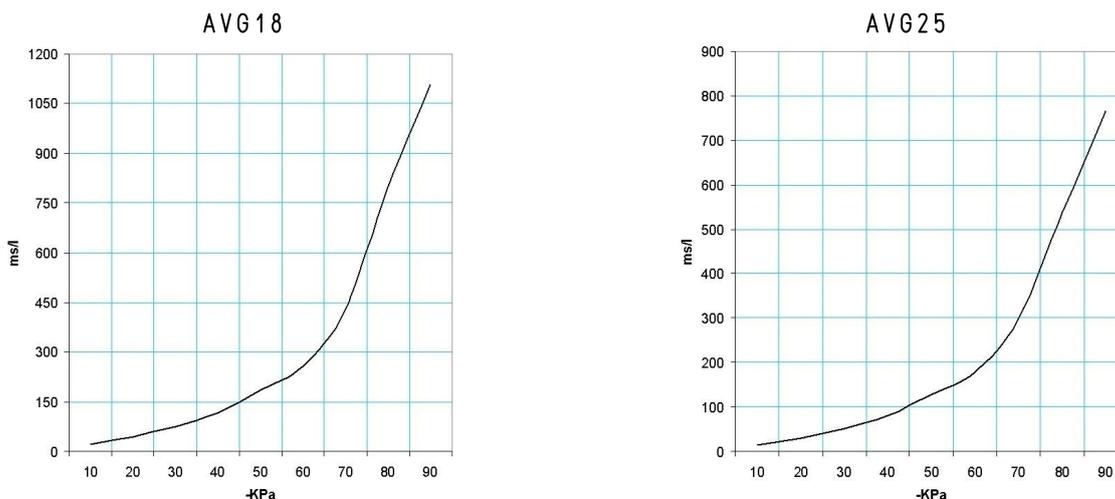
# SINGLE-STAGE AND MULTI-FUNCTION VACUUM GENERATORS AVG 18 and AVG 25

Air capacity (NI/s) at different vacuum levels (-Kpa)



Generator art.	Supply press. bar (g)	Air consumption NI/s	Air capacity (NI/s) at different vacuum levels (-KPa)										Max. vacuum level -KPa
			0	10	20	30	40	50	60	70	80		
<b>AVG 18</b>	6.0	6.4	4.83	4.58	4.04	3.58	2.72	1.90	1.68	1.07	0.10	85	
<b>AVG 25</b>	6.0	9.6	7.00	6.63	5.86	5.18	3.94	2.76	2.44	1.54	0.15	85	

Evacuation time (ms/l=s/m³) at different vacuum levels (-Kpa)



Generator art.	Supply press. bar (g)	Air consumption NI/s	Evacuation time (ms/l = s/m³) at different vacuum levels (-KPa)								Max. vacuum level -KPa	
			10	20	30	40	50	60	70	80		85
<b>AVG 18</b>	6.0	6.4	22	44	75	115	185	258	430	798	1107	85
<b>AVG 25</b>	6.0	9.6	15	30	52	80	128	178	297	538	764	85

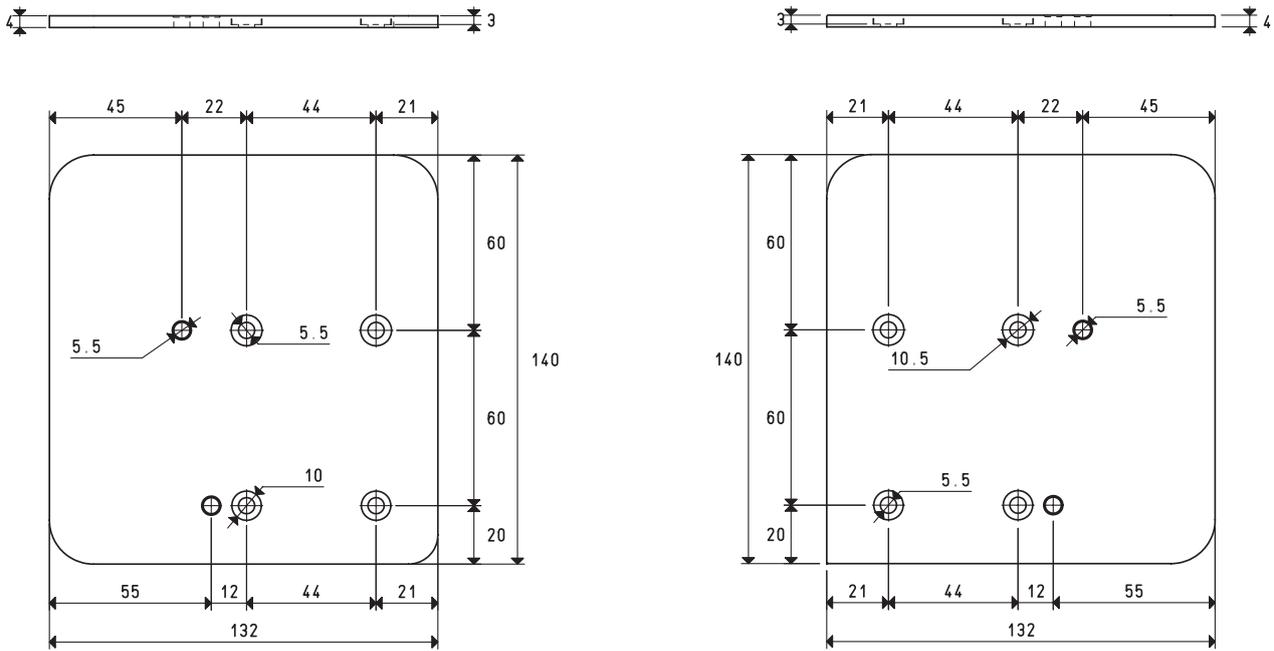
ACCESSORIES AND SPARE PARTS UPON REQUEST

Art.	AVG 18	AVG 25
Sealing kit	art. 00 KIT AVG 18	00 KIT AVG 25
Cables with solenoid valve connectors provided with built-in electronic device in the male M2 connector	art.	00 15 309
Exhaust silencer	art.	SSX 3/4 R
Rear aluminium shockproof protection plate	art.	00 15 271
Front aluminium shockproof protection plate	art.	00 15 272
Digital micro vacuum switch	art.	12 05 11
Bistable supply solenoid valve	art.	00 15 297
Blowing solenoid valve NC	art.	00 15 175

# SINGLE-STAGE AND MULTI-FUNCTION VACUUM GENERATORS AVG 18 P and AVG 25 P



## Protection devices



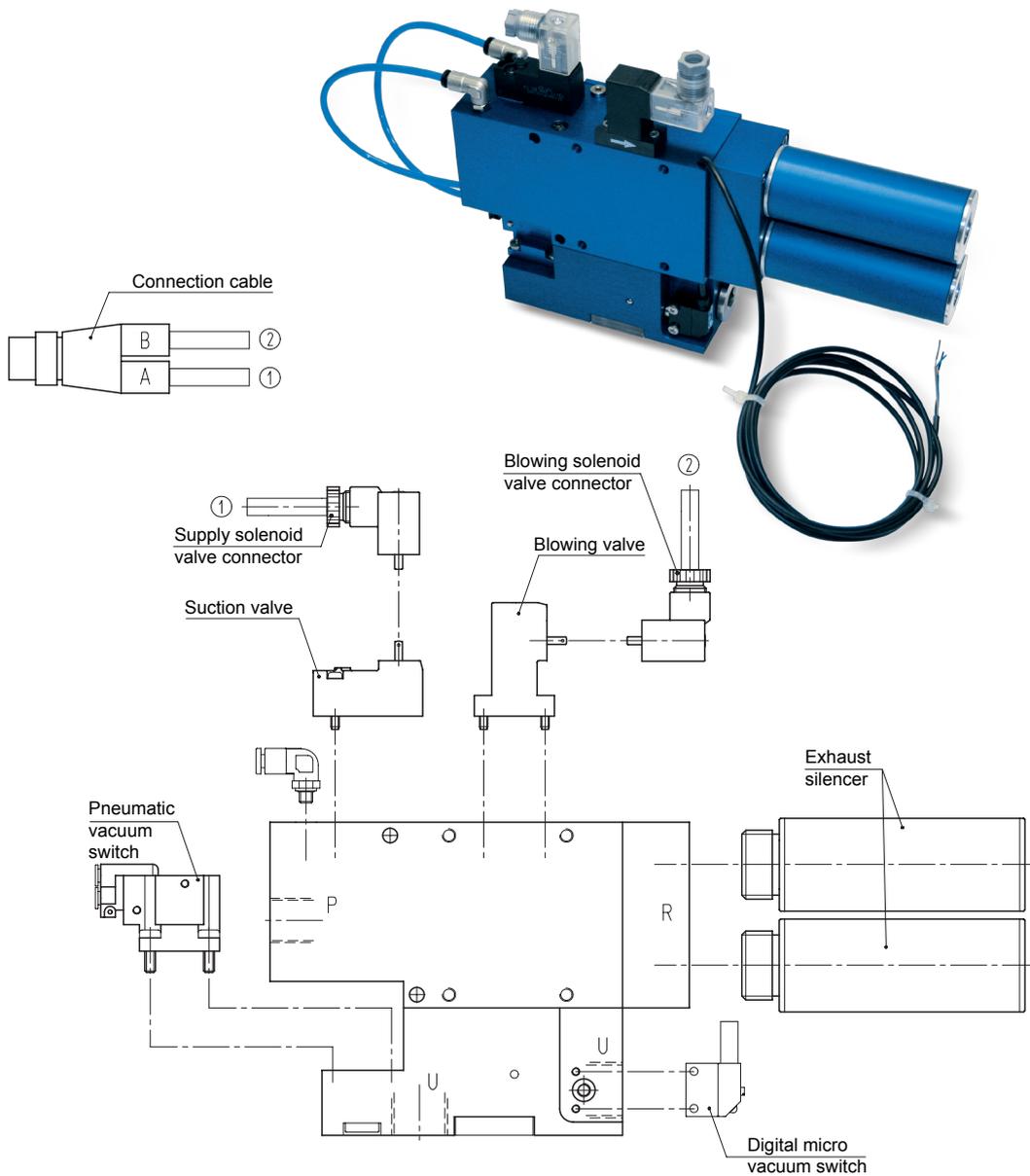
Art.	Description
00 15 271	Rear shockproof protection

Art.	Description
00 15 272	Front shockproof protection

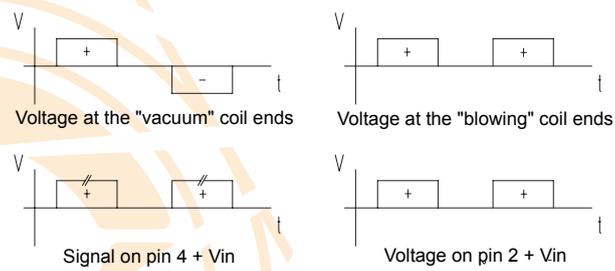
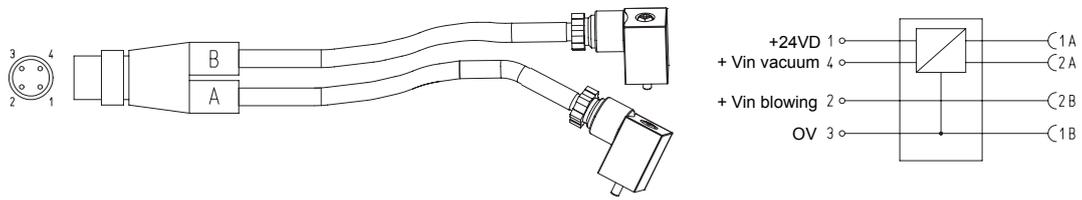
**Note:** To order the generator provided with digital vacuum switch, add the letter V to the code (e.g.: AVG 25 P V).

Conversion ratio: inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6}$  =  $\frac{\text{Kg}}{0.4536}$

# ACCESSORIES AND SPARE PARTS FOR SINGLE-STAGE AND MULTI-FUNCTION VACUUM GENERATORS SERIES AVG



## Cable with built-in electronic device



N°	Description
00 15 309	Cable with solenoid valve connectors with built-in electronic device in the male M12 connector.

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# ACCESSORIES AND SPARE PARTS FOR SINGLE-STAGE AND MULTI-FUNCTION VACUUM GENERATORS SERIES AVG

## Digital micro vacuum switch



Art.	Description
12 05 11	Digital micro vacuum switch

## Connector



Art.	Description
00 15 157	Connector with solenoid valve LED

## Bistable micro solenoid valve



Art.	Description
00 15 297	Bistable supply solenoid valve

## Micro solenoid valve NC



Art.	Description
00 15 175	Blowing solenoid valve NC

## Silencer



Art.	Description
SSX 3/4" R	Exhaust silencer