Single-stage vacuum generator operation is based on the Venturi principle.

Supplying the generator with compressed air in *P*, vacuum will be generated at connection *U*, while both the supply and the sucked air will be released through *R*.

By interrupting the air supply in P, the vacuum effect in U will also stop.

Vacuum generators 15 01 10 and 15 03 10 are generally used for controlling vacuum cups, for gripping and handling non-porous objects and equipment with low capacity requirements.

They are fully made with anodised aluminium.







P=COMPRESSED AIR CONNECTION R=EXHAUST	U=VACUUM CONNECTION			0
Art.			15 01 10	
Quantity of sucked air	cum/h	2.7	2.8	2.8
Max. vacuum level	-KPa	55	70	83
Final pressure	mbar abs.	450	300	170
Supply pressure	bar (g)	4	5	6
Air consumption	NI/s	0.7	0.8	0.9
Working temperature	°C			-20 / +80
Noise level	dB(A)			63
Weight	g			140

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 = $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

The operation of these single-stage vacuum generators is based on the Venturi principle. Supplying the generator with compressed air in P, vacuum will be generated at connection U, while both the supply and the sucked air will be released through R. At the same time, the chamber contained in the generator is also supplied and, as soon as the supply in P is interrupted, it discharges the compressed air that had been collected in it through connection U, thus rapidly restoring the atmospheric pressure at the service.

If, for example, a vacuum cup is connected to the service U, thanks to this system it will disconnect much rapidly than with the vacuum generators described previously. They are fully made with anodised aluminium.







P=COMPRESSED AIR CONNECTION R=EXHAUST	U=VACUUM CONNECTION			P R
Art.			15 02 10	
Quantity of sucked air	cum/h	2.7	2.8	2.8
Max. vacuum level	-KPa	55	70	83
Final pressure	mbar abs.	450	300	170
Supply pressure	bar (g)	4	5	6
Air consumption	NI/s	0.7	0.8	0.9
Working temperature	°C			-20 / +80
Noise level	dB(A)			63
Weight	g			319
Spare parts				
Sealing kit	art.			00 15 500

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 = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

GAS-NPT thread adapters available at page 1.117





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

Art.	15 05 10 SX										
Quantity of sucked air	cum/h	12	12.2	12.5							
Max. vacuum level	-KPa	40	60	88							
Final pressure	mbar ass.	600	400	120							
Supply pressure	bar	2	3	3.4							
Air consumption	NI/s	3.7	5	5.5							
Working temperature	0°			-20 / +80							
Noise level	dBA			63							
Weight	g			306							
Spare p <mark>arts</mark>											
Silence <mark>r</mark>	art.			SSX 3/8"							

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 = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$



Single-stage vacuum generator with ejectors FVG 3-5 release applications Maximum supply pressure: 4 bar Available with the following capacities: 3-5 mc/h Maximum vacuum level: -85 KPa Excludable ejector Totally made of anodised aluminium Maximum performance even at low supply pressure Low energy consumption Ease of installation Reduced weight





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

Art.				FVG 3			FVG 5
Quantity of sucked air	cum/h	2.6	2.7	2.7	4.5	4.9	4.9
Max. vacuum level	-KPa	40	64	85	34	53	85
Final pressure	mbar ass.	600	360	150	660	470	150
Supply pressure	bar	2	3	4	2	3	4
Air consumption	NI/s	0.7	0.9	1.2	1.3	1.7	2.2
Working temperature	°C			-10 / +80			-10 / +80
Noise level	dBA			68			74
Weight	g			84			86

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 = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

This new range of vacuum generators also exploits the Venturi principle. Their distinctive feature compared with traditional vacuum generators are the two air and vacuum supply connections located in-line, while the exhaust connection of the sucked and exhaust air is orthogonal to them and it is located on the on the generator circumference. These vacuum generators are easy to disassemble, thus

allowing visibility and access to all the components. The advantages of these generators include reduced overall dimensions, easy maintenance and easy assembly to the vacuum cup supports or to the vacuum cup holders. As a standard, they are equipped with pressed stainless steel suction filtre and a special microfibre silencer, which is wrapped around the exhaust connection, making them particularly silent.

They are fully made with anodised aluminium.





P=COMPRESSED AIR CONNECTION R=EXHAUST U=VACUUM CONNECTION Art. PVP 1 0.9 Quantity of sucked air 1.0 1.0 cum/h -KPa 80 85 Max. vacuum level 60 **Final pressure** mbar abs. 400 200 150 Supply pressure bar (g) 3 4 5 Air consumption NI/s 0.5 0.6 0.8 °C -20 / +80 Working temperature **Noise level** dB(A) 62 Weight 44 g Spare parts 00 15 114 Silencer art. Suction filtre SP 1/4 I art.

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 = $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

The operation of these vacuum generators is also based on the Venturi principle.

Their distinctive feature compared with traditional vacuum generators are the two air and vacuum supply connections located in-line, while the exhaust connection of the sucked and exhaust air is orthogonal to them.

The advantages of these generators include reduced overall dimensions, easy maintenance and easy assembly. These vacuum generators can be assembled directly onto the vacuum cup supports or vacuum cup holders. They are fully made with anodised aluminium, except for the exhaust nozzle which is made with brass.







								F		R
P=COMPRESSED AI	R CONNECTION	R=EXH	AUST	U=VACUUM C	CONNECTION					
Art.				GV1			GV2			GV3
Quantity of sucked air	cum/h	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Max. vacuum level	-KPa	60	75	85	60	75	85	60	75	85
Final pressure	mbar abs.	400	250	150	400	250	150	400	250	150
Supply pressure	bar (g)	3	4	5	3	4	5	3	4	5
Air consumption	NI/s	0.5	0.6	0.7	0.5	0.6	0.7	0.5	0.6	0.7
Working temperature	0 °C			-20 / +80			-20 / +80			-20 / +80
Noise level	dB(A)			70			70			70
Weight	g			19			20			21
A				30			35			38
C	Ø			M5			G1/8"			G1/4"

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 = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

With their extremely reduced size and high performance, these single-stage vacuum generators operate exploiting the Venturi principle.Supplying the generator with compressed air in P, vacuum will be generated at connection U, while both the supply and the sucked air will be released through R.By interrupting the air supply in P, the vacuum effect in U will also stop. The vacuum generators described in this page are generally used for interconnecting vacuum cups, for gripping and handling nonporous objects and equipment with low capacity requirements. They are made with anodised aluminium, with aluminium ejectors (PVP05) or brass (PVP2 - PVP3).











P=COMPRESSED AIR CONNECTION		R=EXHAUST	U=VACUUM CO	ONNECTION						
Art.		PVP05								
Quantity of sucked air	cum/h	0.36	0.42	0.42	0.47	0.50	0.50			
Max. vacuum level	-KPa	22	33	42	48	61	82			
Final pressure	mbar ass.	780	670	580	520	390	180			
Supply pressure	bar	1	2	3	4	5	6			
Air consumption	NI/s	0.13	0.20	0.27	0.34	0.40	0.50			
Working temperature	°C					-20 /	′ +80			
Noise level	dBA					7	0			
Weight	g					1	4			

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 = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$



AIR CAPACITY (NI/s) AT DIFFERENT VACUUM LEVELS (-KPa)

A

Generator	Supply press.	Air consumption	Air capacity (NI/s) at different vacuum levels (-KPa)								Max. vacuum level	
art.	bar	NI/s	0	10	20	30	40	50	60	70	80	-KPa
PVP 05	6.0	0.5	0.138	0.105	0.08	0.06	0.04	0.03				82



EVACUATION TIME (ms/l=s/m3) AT DIFFERENT VACUUM LEVELS (-KPa)

Generator	Supply press.	Air consumption	Evacuation time (ms/I = s/m3) at different vacuum levels (-KPa)								Max. vacuum level
art.	bar	NI/s	10	20	30	40	50	60	70	80	-KPa
PVP 05	6.0	0.5	2000	4000	8000	10000	18000	48000	66000	104000	82



With their extremely reduced size and high performance, these single-stage vacuum generators operate exploiting the Venturi principle.

Supplying the generator with compressed air in P, vacuum will be generated at connection U, while both the supply and the sucked air will be released through R. By interrupting the air supply in P, the vacuum effect in U will also stop. The vacuum generators described in this page are generally used for interconnecting vacuum cups, for gripping and handling non-porous objects and equipment with low capacity requirements.

They are made with anodised aluminium with brass ejectors.









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

Art.			PVP 2	
Quantity of sucked air	cum/h	2.8	2.9	3.0
Max. vacuum level	-KPa	60	70	85
Final pressure	mbar abs.	400	300	150
Supply pressure	bar (g)	4	5	6
Air consumption	NI/s	0.7	0.9	1.0
Working temperature	°C			-20 / +80
Noise le <mark>vel</mark>	dB(A)			78
Weight	g			70

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 =
$$\frac{mm}{25.4}$$
; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$