

## OCTOPUS GRIPPING SYSTEM COMPOSITION AND RELATIVE IDENTIFICATION CODES

The OCTOPUS systems described in the following pages are equipped, as a standard, with suction plates PX. Should you want to replace these plates with others with different features you will have to modify the identification codes as described below.

Example regarding a composition of a standard OCTOPUS system with a 300x400 mm gripping surface:

	Vacuum generator (to be ordered separately)	art. PVP 150 MD
	OCTUPUS system base box	art. SO 30 40
	With suction plate PX With suction plate P2X	art. SO 30 40 X art. SO 30 40 2X
	With suction plate PX and shut-off valves With suction plate P2X and shut-off valves	art. SO 30 40 XE art. SO 30 40 2XE
	With suction plate PY With suction plate P2Y	art. SO 30 40 Y art. SO 30 40 2Y
	With suction plate PY and shut-off valves With suction plate P2Y and shut-off valves	art. SO 30 40 Y2E art. SO 30 40 2Y2E
	With suction plate PZ With suction plate P2Z	art. SO 30 40 Z art. SO 30 40 2Z
	With suction plate PV (1/8" vacuum cup supports included; vacuum cups not included)	art. SO 30 40 V
	With suction plate PV and shut-off valves (1/8" vacuum cup supports included; vacuum cups not included)	art. SO 30 40 VE
	With suction plate P2V (1/4" vacuum cup supports included; vacuum cups not included)	art. SO 30 40 2V
	With suction plate P2V and shut-off valves (1/4" vacuum cup supports included; vacuum cups not included)	art. SO 30 40 2V2E
	With suction plate PJ	art. SO 30 40 J



## OCTOPUS GRIPPING SYSTEM COMPOSITION AND RELATIVE IDENTIFICATION CODES

*Example regarding a composition of an OCTOPUS system with a suction plate P2Y equipped with vacuum generator:*

*n° 1 PVP 150 MD*

*n° 1 SO 30 40 2Y*

*Example regarding a composition of an OCTOPUS system with suction plate P2V equipped with silicon vacuum cups and a vacuum generator:*

*n° 1 PVP 150 MD*

*n° 1 SO 30 40 2V*

*n° 36 01 40 42 S*

*Example regarding a composition of an OCTOPUS system with suction plate PX and shut-off valves equipped with vacuum generator:*

*n° 1 PVP 150 MD*

*n° 1 SO 30 40 XE*

### VACUUM GENERATORS USED ON OCTOPUS SYSTEMS

The standard OCTOPUS gripping system generators indicated in the tables, despite not being built-in the system, have been carefully selected following the assessment the best ratio between performance and compressed air consumption; To replace them with others with different features, please contact our technical department.

### FIXING AND CONNECTION ALTERNATIVES

The OCTOPUS system can be connected to a remotely installed vacuum generator or to an alternative vacuum source by fixing one of the special flanged support described in the following pages instead of the generator.



# OCTOPUS GRIPPING SYSTEM

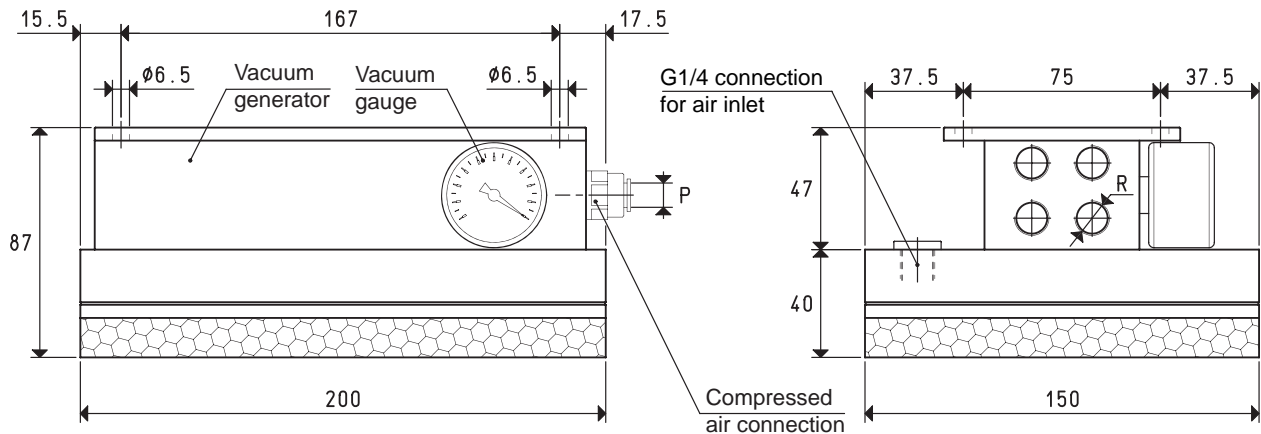
The OCTOPUS system is our answer to the ever increasing requirements of operational flexibility for palletising robots and vacuum gripping systems in general. This system, in fact, it allows gripping objects of any shape and feature, provided that they do not have an excessive transpiration, without having to change or place vacuum cups, and even when their surface occupies only 5% of the whole suction plate. The maximum weight of the load to be lifted will obviously be proportional to the gripping system.

- The standard OCTOPUS systems described in these pages are composed of:
- A compressed air-fed vacuum generator as shown in the picture and in the drawing, that has to be ordered separately, since it is not included in the code.
  - An anodised aluminium box, open on one side, with a built-in micro-fine stainless steel mesh filtre on the suction inlet to protect the vacuum generator, very easy to inspect. On the outside of the box there are one or more connections for the possible installation of control devices or solenoid valves for a prompt restoration of the atmospheric pressure on its inside.
  - A suction plate sealing the box also made with anodised aluminium and coated with a special perforated foam rubber.

This suction plate perfectly adapts itself to any surface, either smooth, rough or uneven.

With the same system, for instance, it is possible to grip and handle cardboard boxes and the wooden pallet that supports it.

These OCTOPUS systems can be supplied, upon request, with other dimensions, suction plates and vacuum generators than those indicated in the tables.



Art.		S0 15 20 MX
Suction plate	art.	PX 15 20
Gripping force	Kg	21.2
Vacuum generator	art.	PVP 25 MX
Max. supply pressure	bar (g)	6
Max. vacuum level	-KPa	90
Air consumption at 6 bar (g)	NI/s	3.2
Quantity of sucked air	cum/h	31.0
Working temperature	°C	-20 / +80
Weight	Kg	2.1
P Compressed air pipe connection	ext. Ø	8
R Exhaust connection	Ø	N° 4 x G1/4"

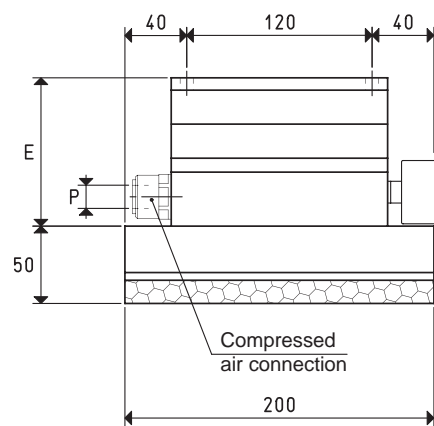
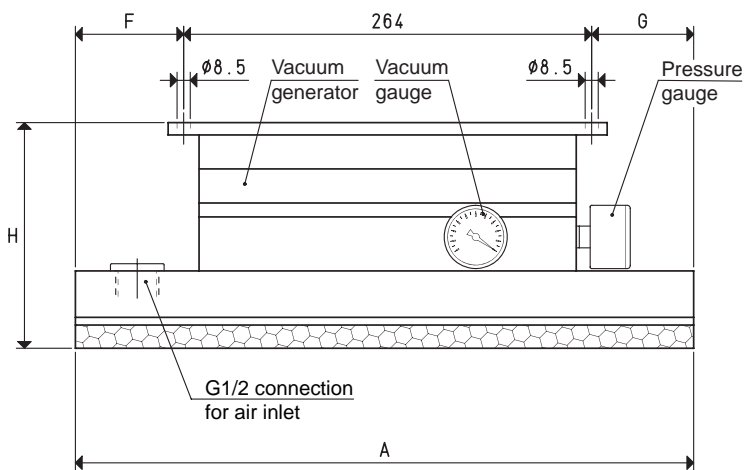
**Note:** The code S0 15 20 X exclusively identifies the OCTOPUS system base box with the associated suction plate PX.

The vacuum generator indicated in the table is not integral part of the OCTOPUS system and therefore, must be ordered separately with its proper code.

All the values shown in the table are valid at a normal atmospheric pressure of 1013 mbar and obtained with a constant supply pressure.

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

OCTOPUS GRIPPING SYSTEM

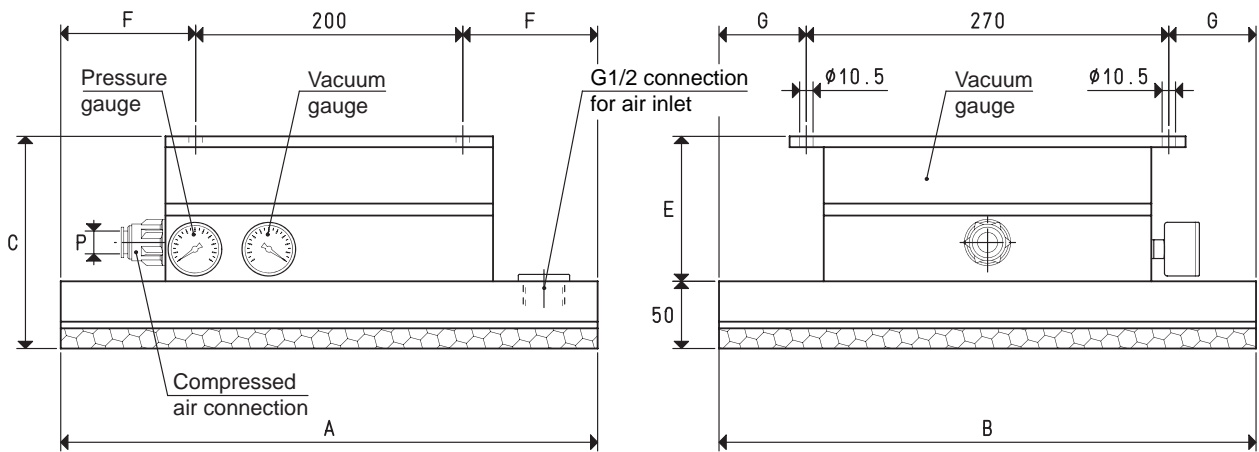


Art.		SO 20 30 X	SO 20 40 X	SO 20 60 X
Suction plate	art.	PX 20 30	PX 20 40	PX 20 60
Gripping force	Kg	42.4	56.6	84.8
Vacuum generator	art.	PVP 100 M	PVP 140 M	PVP 200 M
Max. supply pressure	bar (g)	6	6	6
Max. vacuum level	-kPa	90	90	90
Air consumption at 6 bar (g)	NI/s	9.8	13.0	19.4
Quantity of sucked air	cum/h	108.0	152.0	200.0
Working temperature	°C	-20 / +80	-20 / +80	-20 / +80
Weight	Kg	7.0	8.6	10.7
A		300	400	600
E		74	96	96
F		20	70	170
G		16	66	166
H		124	146	146
P	Compressed air pipe connection	ext. Ø 15	15	15

**Note:** The code SO... X exclusively identifies the OCTOPUS system base box with the associated suction plate PX.  
The vacuum generator indicated in the table is not integral part of the OCTOPUS system and therefore, must be ordered separately with its proper code.  
All the values shown in the table are valid at a normal atmospheric pressure of 1013 mbar and obtained with a constant supply pressure.



# OCTOPUS VACUUM GRIPPING SYSTEM



Art.		SO 30 30 X	SO 30 40 X	SO 30 50 X	SO 40 40 X	SO 40 60 X
<b>Suction plate</b>	art.	PX 30 30	PX 30 40	PX 30 50	PX 40 40	PX 40 60
<b>Gripping force</b>	Kg	63.6	84.8	106.0	113.1	169.6
<b>Vacuum generator</b>	art.	PVP 150 MD	PVP 150 MD	PVP 300 MD	PVP 300 MD	PVP 300 MD
<b>Max. supply pressure</b>	bar (g)	6	6	6	6	6
<b>Max. vacuum level</b>	-KPa	90	90	90	90	90
<b>Air consumption at 6 bar (g)</b>	NI/s	16.0	16.0	32.0	32.0	32.0
<b>Quantity of sucked air</b>	cum/h	200.0	200.0	400.0	400.0	400.0
<b>Working temperature</b>	°C	-20 / +80	-20 / +80	-20 / +80	-20 / +80	-20 / +80
<b>Weight</b>	Kg	11.5	12.5	15.0	17.0	19.0
<b>A</b>		300	400	500	400	600
<b>B</b>		300	300	300	400	400
<b>C</b>		138	138	158	158	158
<b>E</b>		88	88	108	108	108
<b>F</b>		50	100	150	100	200
<b>G</b>		15	15	15	65	65
<b>P</b>	Compressed air pipe connection	ext. Ø 15	15	15	15	15

**Note:** The code SO... X exclusively identifies the OCTOPUS system base box with the associated suction plate PX.

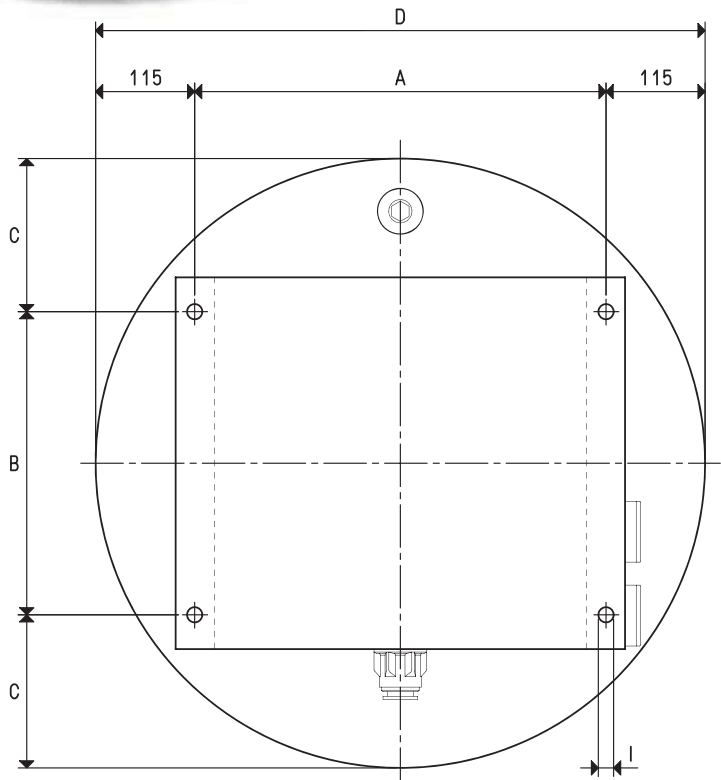
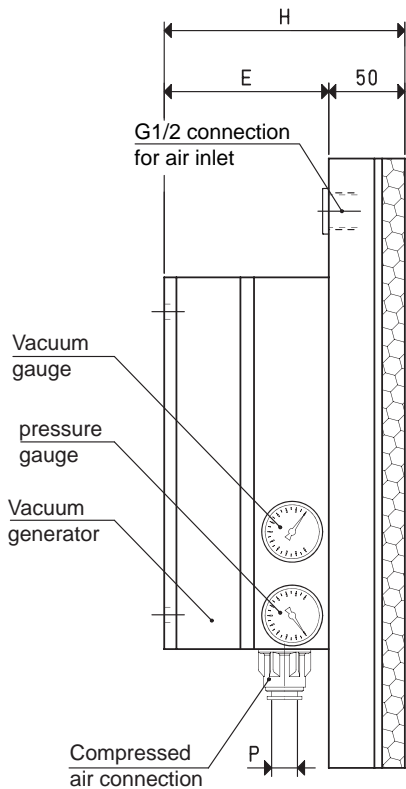
The vacuum generator indicated in the table is not integral part of the OCTOPUS system and therefore, must be ordered separately with its proper code.

All the values shown in the table are valid at a normal atmospheric pressure of 1013 mbar and obtained with a constant supply pressure.

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



OCTOPUS GRIPPING SYSTEM

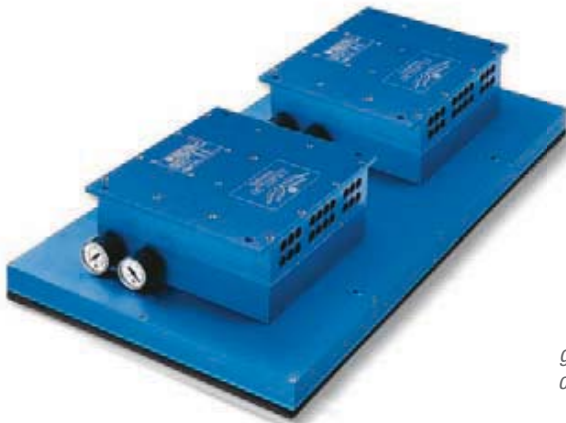


Art.		S0 D0 35 X	S0 D0 50 X
Suction plate	art.	PX D0 35	PX D0 50
Gripping force	Kg	65.4	139.6
Vacuum generator	art.	PVP 170 M	PVP 300 MD
Max. supply pressure	bar (g)	6	6
Max. vacuum level	-KPa	90	90
Air consumption at 6 bar (g)	NI/s	16.3	32.0
Quantity of sucked air	cum/h	182.0	400.0
Working temperature	°C	-20 / +80	-20 / +80
Weight	Kg	9.5	17.0
A		120	270
B		264	200
C		43	150
D	Ø	350	500
E		96	108
H		146	158
I	Ø	8.5	10.5
P	Compressed air pipe connection	ext. Ø 15	15

**Note:** The code S0 D0 .. X exclusively identifies the OCTOPUS system base box with the associated suction plate PX.  
The vacuum generator indicated in the table is not integral part of the OCTOPUS system and therefore, must be ordered separately with its proper code.  
All the values shown in the table are valid at a normal atmospheric pressure of 1013 mbar and obtained with a constant supply pressure.



## OCTOPUS VACUUM GRIPPING SYSTEM



The OCTOPUS system is our answer to the ever increasing requirements of operational flexibility for palletising robots and vacuum gripping systems in general. This system, in fact, it allows gripping objects of any shape and feature, provided that they do not have an excessive transpiration, without having to change or place vacuum cups, and even when their surface occupies only 5% of the whole suction plate. The maximum weight of the load to be lifted will obviously be proportional to the gripping system.

The standard OCTOPUS systems described in this page are composed of:

- Two compressed air-fed vacuum generators, as shown in the picture and in the drawing, that has to be ordered separately, since they are not included in the code.

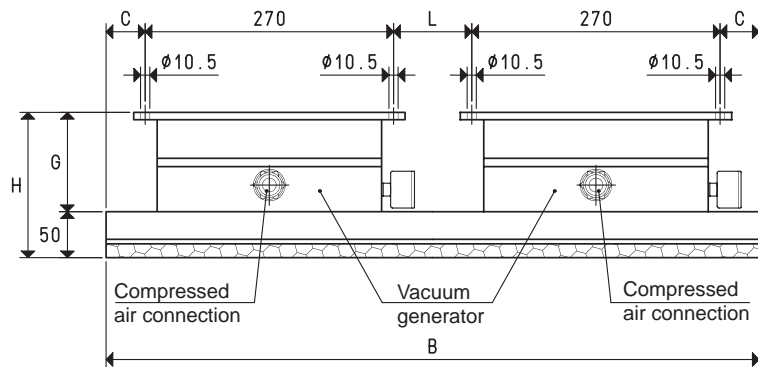
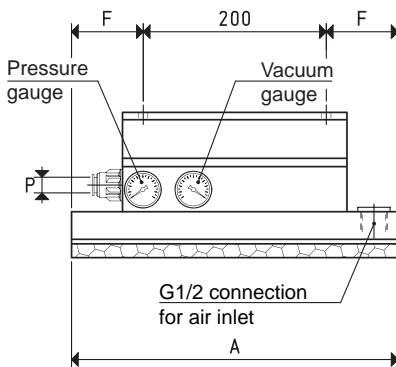
- An anodised aluminium box, open on one side, with two built-in micro-fine stainless steel mesh filters on the suction inlet to protect the vacuum generator, very easy to inspect. On the outside of the box there are one or more connections for the possible installation of control devices o solenoid valves for a prompt restoration of the atmospheric pressure on its inside.

- Un suction plate sealing the box, also made with anodised aluminium and coated with a special perforated foam rubber.

The suction plate perfectly adapts itself to any surface, either smooth, rough or uneven.

With the same system, for instance, it is possible to grip and handle cardboard boxes and the wooden pallet that supports it.

These OCTOPUS systems can be supplied, upon request, with other dimensions, suction plates and vacuum generators than those indicated in the tables.



Art.		SO 40 100 X	SO 60 80 X	SO 60 120 X	SO 80 100 X
<b>Suction plate</b>	art.	PX 40 100	PX 60 80	PX 60 120	PX 80 100
<b>Gripping force</b>	Kg	282.6	339.2	508.7	597.4
<b>N° 2 vacuum generators</b>	art.	PVP 300 MD	PVP 300 MD	PVP 450 MD	PVP 450 MD
<b>Max. supply pressure</b>	bar (g)	6	6	6	6
<b>Max. vacuum level</b>	-KPa	90	90	90	90
<b>Air consumption at 6 bar (g)</b>	NI/s	64.0	64.0	95.6	95.6
<b>Quantity of sucked air</b>	cum/h	800.0	800.0	1160	1160
<b>Working temperature</b>	°C	-20 / +80	-20 / +80	-20 / +80	-20 / +80
<b>Weight</b>	Kg	34.0	37.5	50.0	53.5
<b>A</b>		400	600	600	800
<b>B</b>		1000	800	1200	1000
<b>C</b>		120	70	170	120
<b>F</b>		100	200	200	300
<b>G</b>		108	108	130	130
<b>H</b>		158	158	180	180
<b>L</b>		220	120	320	220
<b>P</b>	Compressed air pipe connection	ext. Ø	15	22	22

**Note:** The code SO... X exclusively identifies the OCTOPUS system base box with the associated suction plate PX.

The vacuum generator indicated in the table is not integral part of the OCTOPUS system and therefore, must be ordered separately with its proper code.

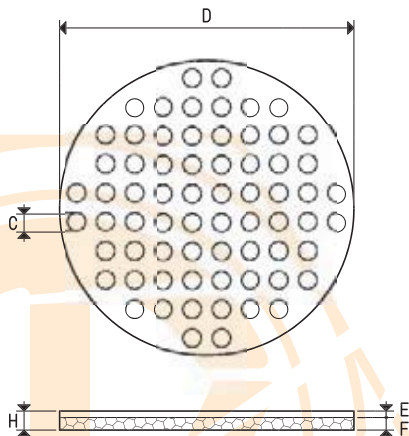
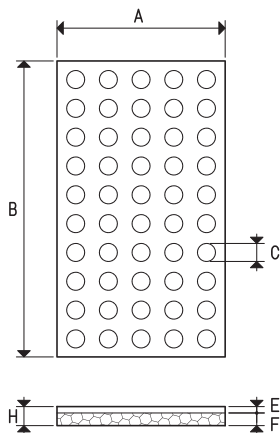
All the values shown in the table are valid at a normal atmospheric pressure of 1013 mbar and obtained with a constant supply pressure.

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



STANDARD SUCTION PLATES PX AND P2X FOR OCTOPUS SYSTEMS

The suction plates PX described in this page are installed, as a standard, on all OCTOPUS systems and, therefore, can be supplied as a spare part. They are made with anodised aluminium and coated with special perforated foam rubber with two types of thickness: 15 mm, for suction plates of the PX range; 30 mm, for special suction plates of the P2X range. Their lifting force has been calculated considering a minimum vacuum level of -75 Kpa, the overall perforated surface on the foam rubber and a safety factor 3.



Art.	Force Kg	A	B	C Ø	D Ø	E	F	H	Weight Kg
PX 15 20	21.2	150	200	15	---	5	15	20	0.40
PX 20 30	42.4	200	300	15	---	5	15	20	0.80
PX 20 40	56.6	200	400	15	---	5	15	20	1.10
PX 20 60	84.8	200	600	15	---	5	15	20	1.70
PX 30 30	63.6	300	300	15	---	5	15	20	1.30
PX 30 40	84.8	300	400	15	---	5	15	20	1.70
PX 30 50	106.0	300	500	15	---	5	15	20	2.10
PX 40 40	113.1	400	400	15	---	5	15	20	2.20
PX 40 60	169.6	400	600	15	---	5	15	20	3.40
PX 40 100	282.6	400	1000	15	---	5	15	20	5.60
PX 60 80	339.2	600	800	15	---	5	15	20	6.70
PX 60 120	508.7	600	1200	15	---	5	15	20	10.10
PX 80 100	597.4	800	1000	15	---	5	15	20	11.30
PX D0 35	65.4	---	---	15	350	5	15	20	1.30
PX D0 50	139.6	---	---	15	500	5	15	20	2.30

P2X 15 20	21.2	150	200	15	---	5	30	35	0.44
P2X 20 30	42.4	200	300	15	---	5	30	35	0.89
P2X 20 40	56.6	200	400	15	---	5	30	35	1.21
P2X 20 60	84.8	200	600	15	---	5	30	35	1.77
P2X 30 30	63.6	300	300	15	---	5	30	35	1.36
P2X 30 40	84.8	300	400	15	---	5	30	35	1.78
P2X 30 50	106.0	300	500	15	---	5	30	35	2.22
P2X 40 40	113.1	400	400	15	---	5	30	35	2.41
P2X 40 60	169.6	400	600	15	---	5	30	35	3.55
P2X 40 100	282.6	400	1000	15	---	5	30	35	5.96
P2X 60 80	339.2	600	800	15	---	5	30	35	7.18
P2X 60 120	508.7	600	1200	15	---	5	30	35	10.73
P2X 80 100	597.4	800	1000	15	---	5	30	35	11.93
P2X D0 35	65.4	---	---	15	350	5	30	35	1.49
P2X D0 50	139.6	---	---	15	500	5	30	35	2.48

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



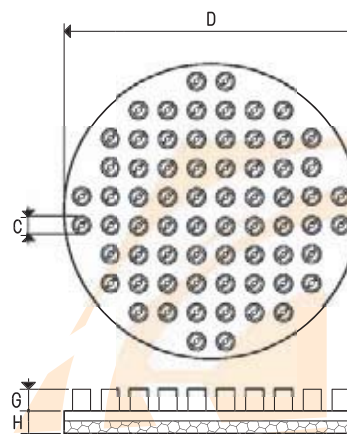
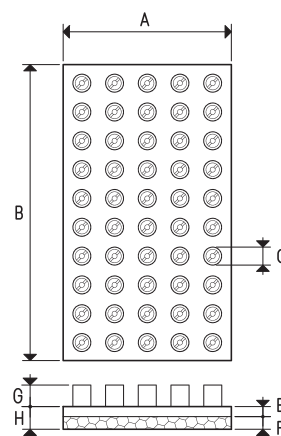


## STANDARD SUCTION PLATES WITH SHUT-OFF VALVES PXE AND P2XE, FOR OCTOPUS SYSTEMS

The suction plates described in this page are the same as the previously described ones. Their distinctive features are the shut-off valves inserted in each hole. In absence of an object to grip or in case of a defective grip of the foam rubber, the shut-off valves automatically close the suction inlet, thus preventing the vacuum level from decreasing on the other gripping holes. This feature allows reducing the vacuum generator capacity compared to the standard OCTOPUS systems, all to the benefit of energy saving.



Art.	Force Kg	A	B	C Ø	D Ø	E	F	G	H	Nr. of Valves	Weight Kg
PXE 20 30	42.4	200	300	15	---	10	15	18	25	96	1.76
PXE 20 40	56.6	200	400	15	---	10	15	18	25	128	2.38
PXE 20 60	84.8	200	600	15	---	10	15	18	25	192	3.62
PXE 30 30	63.6	300	300	15	---	10	15	18	25	144	2.74
PXE 30 40	84.8	300	400	15	---	10	15	18	25	192	3.62
PXE 30 50	106.0	300	500	15	---	10	15	18	25	240	4.50
PXE 40 40	113.1	400	400	15	---	10	15	18	25	256	4.76
PXE 40 60	169.6	400	600	15	---	10	15	18	25	384	7.24
PXE 40 100	282.6	400	1000	15	---	10	15	18	25	656	12.16
PXE 60 80	339.2	600	800	15	---	10	15	18	25	768	14.38
PXE 60 120	508.7	600	1200	15	---	10	15	18	25	1176	21.86
PXE 80 100	597.4	800	1000	15	---	10	15	18	25	1353	24.83
PXE D0 35	65.4	---	---	15	350	10	15	18	25	148	2.78
PXE D0 50	139.6	---	---	15	500	10	15	18	25	308	5.38
P2XE 20 30	42.4	200	300	15	---	10	30	18	40	96	1.85
P2XE 20 40	56.6	200	400	15	---	10	30	18	40	128	2.49
P2XE 20 60	84.8	200	600	15	---	10	30	18	40	192	3.69
P2XE 30 30	63.6	300	300	15	---	10	30	18	40	144	2.80
P2XE 30 40	84.8	300	400	15	---	10	30	18	40	192	3.70
P2XE 30 50	106.0	300	500	15	---	10	30	18	40	240	4.62
P2XE 40 40	113.1	400	400	15	---	10	30	18	40	256	4.97
P2XE 40 60	169.6	400	600	15	---	10	30	18	40	384	7.24
P2XE 40 100	282.6	400	1000	15	---	10	30	18	40	656	12.52
P2XE 60 80	339.2	600	800	15	---	10	30	18	40	768	14.86
P2XE 60 120	508.7	600	1200	15	---	10	30	18	40	1176	22.49
P2XE 80 100	597.4	800	1000	15	---	10	30	18	40	1353	25.46
P2XE D0 35	65.4	---	---	15	350	10	30	18	40	148	2.97
P2XE D0 50	139.6	---	---	15	500	10	30	18	40	308	5.56



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



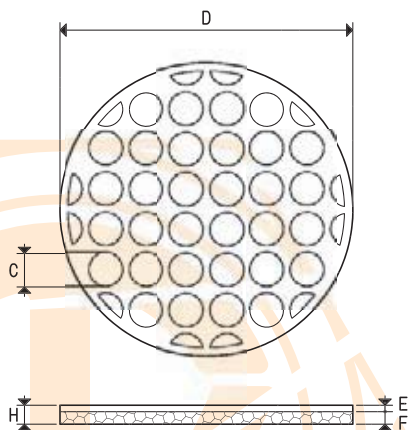
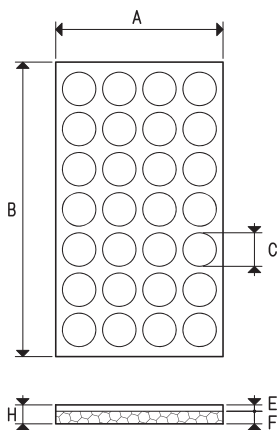
SPECIAL SUCTION PLATES PY AND P2Y FOR OCTOPUS SYSTEMS

Compared to the standard ones, these suction plates, given the same gripping surface, develop a greater force (art. PY) and can grip even very rough and uneven surfaces (art. P2Y).

They are made with anodised aluminium and coated with special perforated foam rubber, with two types of thickness, upon request.

They are perfectly interchangeable with the standard suction plates.

Their lifting force has been calculated considering a minimum vacuum level of -75 Kpa, the overall perforated surface on the foam rubber and a safety factor 3.



Art.	Force Kg	A	B	C Ø	D Ø	E	F	H	Weight Kg
PY 15 20	37.7	150	200	40	---	5	15	20	0.39
PY 20 30	75.4	200	300	40	---	5	15	20	0.78
PY 20 40	100.5	200	400	40	---	5	15	20	1.07
PY 20 60	150.8	200	600	40	---	5	15	20	1.66
PY 30 30	113.0	300	300	40	---	5	15	20	1.27
PY 30 40	150.8	300	400	40	---	5	15	20	1.65
PY 30 50	188.4	300	500	40	---	5	15	20	2.04
PY 40 40	201.0	400	400	40	---	5	15	20	2.14
PY 40 60	301.5	400	600	40	---	5	15	20	3.35
PY 40 100	502.4	400	1000	40	---	5	15	20	5.50
PY 60 80	602.9	600	800	40	---	5	15	20	6.61
PY 60 120	904.4	600	1200	40	---	5	15	20	10.01
PY 80 100	1037.3	800	1000	40	---	5	15	20	11.24
PY D0 35	100.5	---	---	40	350	5	15	20	1.25
PY D0 50	213.5	---	---	40	500	5	15	20	2.24
P2Y 15 20	37.7	200	200	40	---	5	30	35	0.42
P2Y 20 30	75.4	200	300	40	---	5	30	35	0.85
P2Y 20 40	100.5	200	400	40	---	5	30	35	1.15
P2Y 20 60	150.8	200	600	40	---	5	30	35	1.69
P2Y 30 30	113.0	300	300	40	---	5	30	35	1.30
P2Y 30 40	150.8	300	400	40	---	5	30	35	1.68
P2Y 30 50	188.4	300	500	40	---	5	30	35	2.10
P2Y 40 40	201.0	400	400	40	---	5	30	35	2.29
P2Y 40 60	301.5	400	600	40	---	5	30	35	3.45
P2Y 40 100	502.4	400	1000	40	---	5	30	35	5.80
P2Y 60 80	602.9	600	800	40	---	5	30	35	7.01
P2Y 60 120	904.4	600	1200	40	---	5	30	35	10.60
P2Y 80 100	1037.3	800	1000	40	---	5	30	35	11.81
P2Y D0 35	100.5	---	---	40	350	5	30	35	1.39
P2Y D0 50	213.5	---	---	40	500	5	30	35	2.36

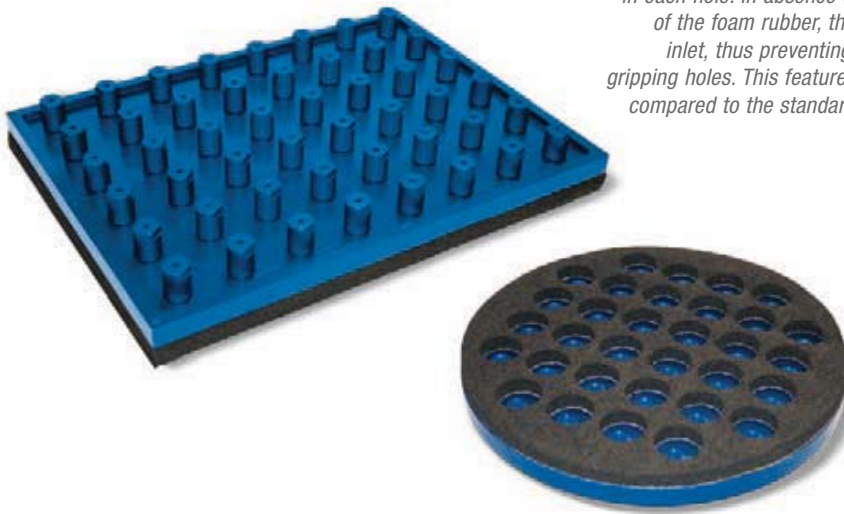
3D drawings available at [www.vuototecnica.net](http://www.vuototecnica.net)

9.10

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

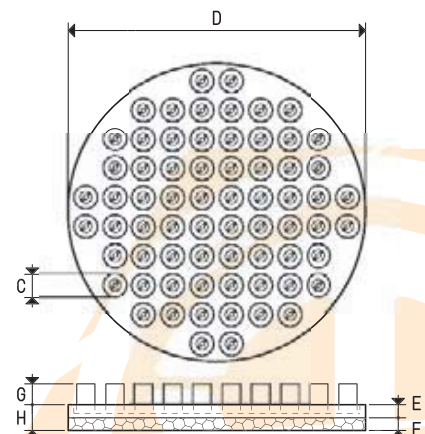
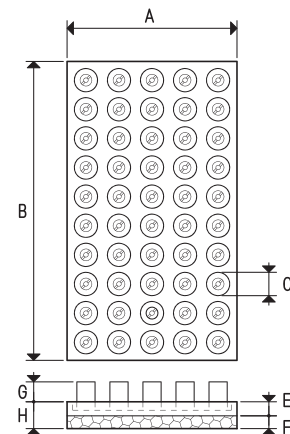


## SPECIAL SUCTION PLATES WITH SHUT-OFF VALVES PY2E AND P2Y2E, FOR OCTOPUS SYSTEMS



The suction plates described in this page are the same as the previously described ones. Their distinctive features are the shut-off valves inserted in each hole. In absence of an object to grip or in case of a defective grip of the foam rubber, the shut-off valves automatically close the suction inlet, thus preventing the vacuum level from decreasing on the other gripping holes. This feature allows reducing the vacuum generator capacity compared to the standard OCTOPUS systems, all to the benefit of energy saving.

Art.	Force Kg	A	B	C Ø	D Ø	E	F	G	H	Nr. of Valves	Weight Kg
PY2E 20 30	75.4	200	300	40	---	17	15	18	32	24	1.26
PY2E 20 40	100.5	200	400	40	---	17	15	18	32	32	1.71
PY2E 20 60	150.8	200	600	40	---	17	15	18	32	48	2.62
PY2E 30 30	113.0	300	300	40	---	17	15	18	32	36	1.99
PY2E 30 40	150.8	300	400	40	---	17	15	18	32	48	2.61
PY2E 30 50	188.4	300	500	40	---	17	15	18	32	60	3.24
PY2E 40 40	201.0	400	400	40	---	17	15	18	32	64	3.42
PY2E 40 60	301.5	400	600	40	---	17	15	18	32	96	5.27
PY2E 40 100	502.4	400	1000	40	---	17	15	18	32	160	8.70
PY2E 60 80	602.9	600	800	40	---	17	15	18	32	192	10.45
PY2E 60 120	904.4	600	1200	40	---	17	15	18	32	288	15.77
PY2E 80 100	1037.3	800	1000	40	---	17	15	18	32	320	17.64
PY2E D0 35	100.5	---	---	40	350	17	15	18	32	32	1.89
PY2E D0 50	213.5	---	---	40	500	17	15	18	32	76	3.76
P2Y2E 20 30	75.4	200	300	40	---	17	30	18	47	24	1.33
P2Y2E 20 40	100.5	200	400	40	---	17	30	18	47	32	1.79
P2Y2E 20 60	150.8	200	600	40	---	17	30	18	47	48	2.65
P2Y2E 30 30	113.0	300	300	40	---	17	30	18	47	36	2.02
P2Y2E 30 40	150.8	300	400	40	---	17	30	18	47	48	2.64
P2Y2E 30 50	188.4	300	500	40	---	17	30	18	47	60	3.30
P2Y2E 40 40	201.0	400	400	40	---	17	30	18	47	64	3.57
P2Y2E 40 60	301.5	400	600	40	---	17	30	18	47	96	5.37
P2Y2E 40 100	502.4	400	1000	40	---	17	30	18	47	160	9.00
P2Y2E 60 80	602.9	600	800	40	---	17	30	18	47	192	10.85
P2Y2E 60 120	904.4	600	1200	40	---	17	30	18	47	288	16.36
P2Y2E 80 100	1037.3	800	1000	40	---	17	30	18	47	320	18.21
P2Y2E D0 35	100.5	---	---	40	350	17	30	18	47	32	2.03
P2Y2E D0 50	213.5	---	---	40	500	17	30	18	47	76	3.88



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

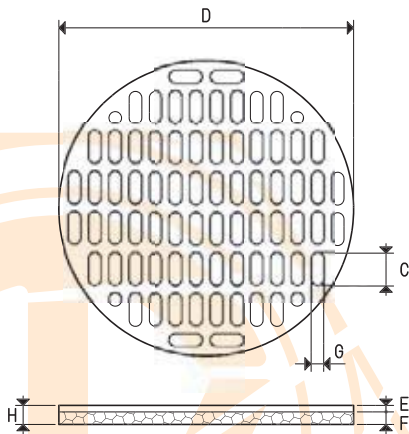
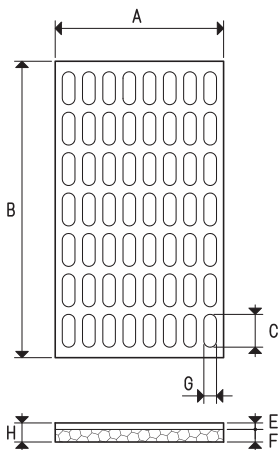


SPECIAL SUCTION PLATES PZ AND P2Z, FOR OCTOPUS SYSTEMS

Among all the suction plates described up to now, these are the ones which develop the greatest lifting force given the same gripping surface and vacuum level. Moreover, the P2Z version is also able to grip very rough and uneven surfaces.

They are made with light alloys and coated with special foam rubber with slot holes, with two types of thickness. They are perfectly interchangeable with the standard suction plates.

Their lifting force has been calculated considering a minimum vacuum level of -75 Kpa, The overall surface of the slot holes on the foam rubber and a safety factor 3.



Art.	Force Kg	A	B	C Ø	D Ø	E	F	G	H	Weight Kg
PZ 15 20	41.0	150	200	42	---	5	15	18	20	0.40
PZ 20 30	82.4	200	300	42	---	5	15	18	20	0.80
PZ 20 40	109.8	200	400	42	---	5	15	18	20	1.09
PZ 20 60	164.7	200	600	42	---	5	15	18	20	1.68
PZ 30 30	123.5	300	300	42	---	5	15	18	20	1.28
PZ 30 40	164.7	300	400	42	---	5	15	18	20	1.67
PZ 30 50	206.0	300	500	42	---	5	15	18	20	2.06
PZ 40 40	219.6	400	400	42	---	5	15	18	20	2.17
PZ 40 60	329.4	400	600	42	---	5	15	18	20	3.38
PZ 40 100	549.0	400	1000	42	---	5	15	18	20	5.54
PZ 60 80	658.8	600	800	42	---	5	15	18	20	6.64
PZ 60 120	988.3	600	1200	42	---	5	15	18	20	10.05
PZ 80 100	1143.1	800	1000	42	---	5	15	18	20	11.30
PZ D0 35	126.9	---	---	42	350	5	15	18	20	1.26
PZ D0 50	271.1	---	---	42	500	5	15	18	20	2.26
P2Z 15 20	41.0	200	200	42	---	5	30	18	35	0.44
P2Z 20 30	82.4	200	300	42	---	5	30	18	35	0.88
P2Z 20 40	109.8	200	400	42	---	5	30	18	35	1.18
P2Z 20 60	164.7	200	600	42	---	5	30	18	35	1.72
P2Z 30 30	123.5	300	300	42	---	5	30	18	35	1.33
P2Z 30 40	164.7	300	400	42	---	5	30	18	35	1.71
P2Z 30 50	206.0	300	500	42	---	5	30	18	35	2.14
P2Z 40 40	219.6	400	400	42	---	5	30	18	35	2.32
P2Z 40 60	329.4	400	600	42	---	5	30	18	35	3.48
P2Z 40 100	549.0	400	1000	42	---	5	30	18	35	5.84
P2Z 60 80	658.8	600	800	42	---	5	30	18	35	7.05
P2Z 60 120	988.3	600	1200	42	---	5	30	18	35	10.64
P2Z 80 100	1143.1	800	1000	42	---	5	30	18	35	11.85
P2Z D0 35	126.9	---	---	42	350	5	30	18	35	1.42
P2Z D0 50	271.1	---	---	42	500	5	30	18	35	2.39

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



## VACUUM CUP SUCTION PLATES PV and P2V, FOR OCTOPUS SYSTEMS



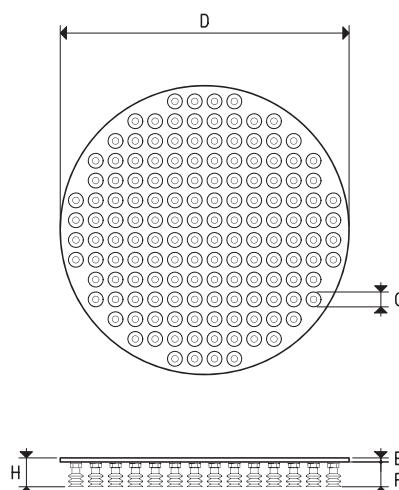
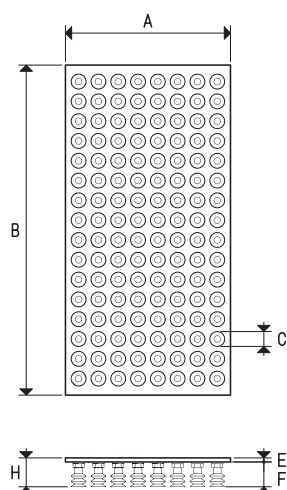
These suction plates provided with vacuum cups have been designed to ensure a better grip on uneven and very flexible surfaces (pasta or candy bags, blister or skin-film packs, thin cardboard boxes, etc.), which are difficult to grip with suction plates coated with foam rubber.

We recommend using bellows cups. Thanks to their great flexibility, they adapt themselves to any gripping surface, following its profiles and movements during the lifting phase, guaranteeing a firm and safe grip. They are made with anodised aluminium, as are the vacuum cup supports screwed onto them, which are 1/8" gas supports for the PV version and 1/4" gas for the P2V version.

The cups are cold assembled onto the supports with no adhesives and can be provided in other compounds. Also these suction plates are perfectly interchangeable with the standard ones.

Their lifting force has been calculated considering a minimum vacuum level of -75 Kpa, the overall vacuum cup surface and a safety factor 3.

Upon request, they can be provided with different cups, as long as the diameter does not exceed 22 mm for the PV suction plates and 45 mm for the P2V ones.



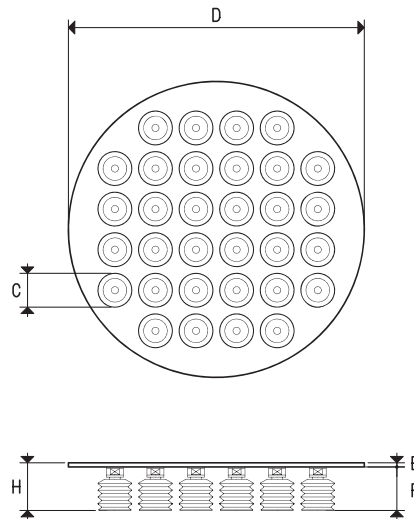
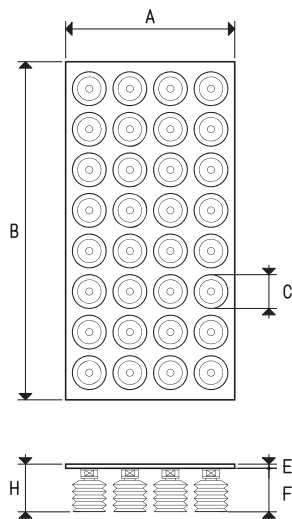
Art.	Force Kg	A	B	C Ø	D Ø	E	F	H	Example Vacuum cup art.	Nr. of cups	Weight Kg
<b>PV 15 20</b>	30.2	150	200	18	---	5	36	41	01 18 29	48	0.54
<b>PV 20 30</b>	60.5	200	300	18	---	5	36	41	01 18 29	96	1.13
<b>PV 20 40</b>	80.6	200	400	18	---	5	36	41	01 18 29	128	1.54
<b>PV 20 60</b>	121.0	200	600	18	---	5	36	41	01 18 29	192	2.37
<b>PV 30 30</b>	90.7	300	300	18	---	5	36	41	01 18 29	144	1.80
<b>PV 30 40</b>	121.0	300	400	18	---	5	36	41	01 18 29	192	2.37
<b>PV 30 50</b>	151.2	300	500	18	---	5	36	41	01 18 29	240	2.94
<b>PV 40 40</b>	167.0	400	400	18	---	5	36	41	01 18 29	256	3.09
<b>PV 40 60</b>	242.0	400	600	18	---	5	36	41	01 18 29	384	4.74
<b>PV 40 100</b>	413.3	400	1000	18	---	5	36	41	01 18 29	656	7.89
<b>PV 60 80</b>	483.9	600	800	18	---	5	36	41	01 18 29	768	9.38
<b>PV 60 120</b>	740.8	600	1200	18	---	5	36	41	01 18 29	1176	14.21
<b>PV 80 100</b>	852.4	800	1000	18	---	5	36	41	01 18 29	1353	16.03
<b>PV D0 35</b>	93.2	---	---	18	350	5	36	41	01 18 29	148	1.81
<b>PV D0 50</b>	194.0	---	---	18	500	5	36	41	01 18 29	308	3.37

**Note:** The code PV... exclusively indicates the suction plate with the vacuum cup supports screwed on it.

The vacuum cups indicated in the table or freely chosen are not integral part of the suction plate and therefore, must be ordered separately.



VACUUM CUP SUCTION PLATES P2V, FOR OCTOPUS SYSTEMS



Art.	Force Kg	A	B	C Ø	D Ø	E	F	H	Example Vacuum cup art.	Nr. of cups	Weight Kg
P2V 15 20	37.7	150	200	40	---	5	51.5	56.5	01 40 42	12	0.56
P2V 20 30	75.4	200	300	40	---	5	51.5	56.5	01 40 42	24	1.12
P2V 20 40	100.5	200	400	40	---	5	51.5	56.5	01 40 42	32	1.67
P2V 20 60	150.8	200	600	40	---	5	51.5	56.5	01 40 42	48	2.24
P2V 30 30	113.0	300	300	40	---	5	51.5	56.5	01 40 42	36	1.68
P2V 30 40	150.8	300	400	40	---	5	51.5	56.5	01 40 42	48	2.24
P2V 30 50	188.4	300	500	40	---	5	51.5	56.5	01 40 42	60	2.80
P2V 40 40	201.0	400	400	40	---	5	51.5	56.5	01 40 42	64	3.34
P2V 40 60	301.5	400	600	40	---	5	51.5	56.5	01 40 42	96	4.48
P2V 40 100	502.4	400	1000	40	---	5	51.5	56.5	01 40 42	160	8.35
P2V 60 80	602.9	600	800	40	---	5	51.5	56.5	01 40 42	192	8.96
P2V 60 120	904.3	600	1200	40	---	5	51.5	56.5	01 40 42	288	13.44
P2V 80 100	1004.8	800	1000	40	---	5	51.5	56.5	01 40 42	320	16.70
P2V D0 35	100.5	---	---	40	350	5	51.5	56.5	01 40 42	32	1.67
P2V D0 50	213.5	---	---	40	500	5	51.5	56.5	01 40 42	76	3.17

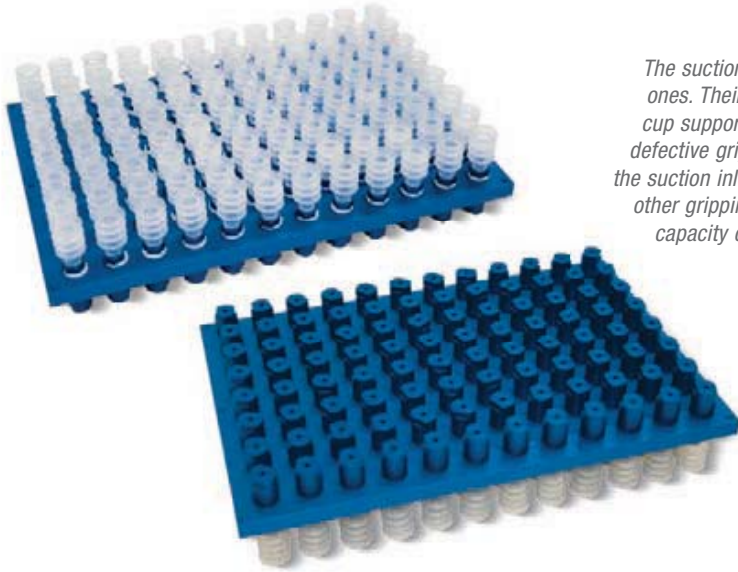
**Note:** The code P2V... exclusively indicates the suction plate with the vacuum cup supports screwed on it.

The vacuum cups indicated in the table or freely chosen are not integral part of the suction plate and therefore, must be ordered separately.

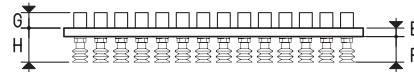
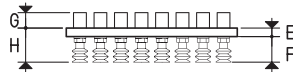
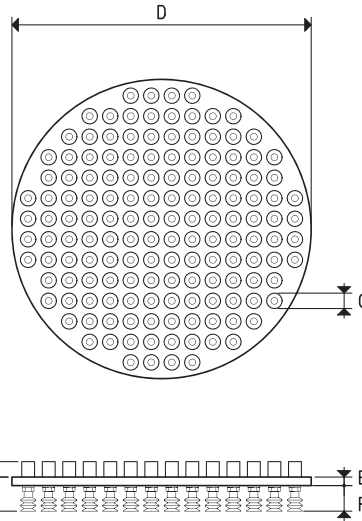
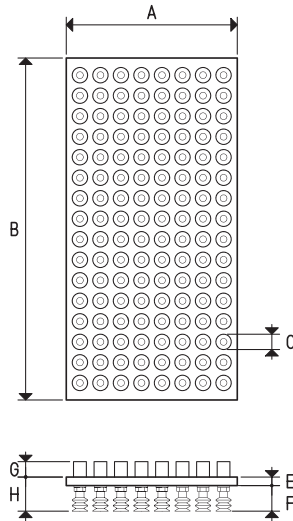




## VACUUM CUP SUCTION PLATES WITH SHUT-OFF VALVES PVE and P2V2E, FOR OCTOPUS SYSTEMS



The suction plates described in this page are the same as the previous ones. Their distinctive features are the shut-off valves inserted in each cup support connection. In absence of an object to grip or in case of a defective grip of the foam rubber, the shut-off valves automatically close the suction inlet, thus preventing the vacuum level from decreasing on the other gripping holes. This feature allows reducing the vacuum generator capacity compared to the OCTOPUS systems without valves, all to the benefit of energy saving.

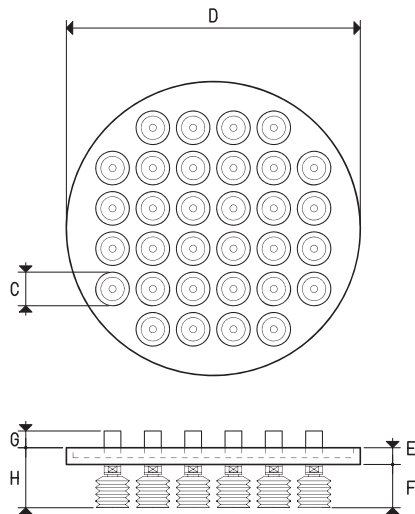
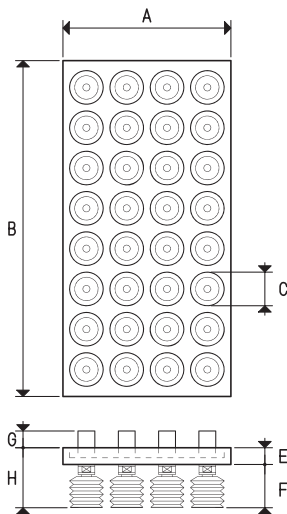


Art.	Force	A	B	C	D	E	F	G	H	Example	Nr. of Valves and cups	Weight
	Kg			Ø	Ø					Vacuum cup art.		Kg
<b>PVE 20 30</b>	60.5	200	300	18	---	10	36	18	46	01 18 29	96	2.09
<b>PVE 20 40</b>	80.6	200	400	18	---	10	36	18	46	01 18 29	128	2.82
<b>PVE 20 60</b>	121.0	200	600	18	---	10	36	18	46	01 18 29	192	4.18
<b>PVE 30 30</b>	90.7	300	300	18	---	10	36	18	46	01 18 29	144	3.24
<b>PVE 30 40</b>	121.0	300	400	18	---	10	36	18	46	01 18 29	192	4.18
<b>PVE 30 50</b>	151.2	300	500	18	---	10	36	18	46	01 18 29	240	6.27
<b>PVE 40 40</b>	167.0	400	400	18	---	10	36	18	46	01 18 29	256	5.64
<b>PVE 40 60</b>	242.0	400	600	18	---	10	36	18	46	01 18 29	384	8.36
<b>PVE 40 100</b>	413.3	400	1000	18	---	10	36	18	46	01 18 29	656	14.45
<b>PVE 60 80</b>	483.9	600	800	18	---	10	36	18	46	01 18 29	768	17.06
<b>PVE 60 120</b>	740.8	600	1200	18	---	10	36	18	46	01 18 29	1176	25.97
<b>PVE 80 100</b>	852.4	800	1000	18	---	10	36	18	46	01 18 29	1353	29.56
<b>PVE DO 35</b>	93.2	---	---	18	350	10	36	18	46	01 18 29	148	3.29
<b>PVE DO 50</b>	194.0	---	---	18	500	10	36	18	46	01 18 29	308	6.45

**Note:** The code PVE... exclusively indicates the suction plate with the vacuum cup supports screwed on it and the built-in shut-off valves.

The vacuum cups indicated in the table or freely chosen are not integral part of the suction plate and therefore, must be ordered separately.

VACUUM CUP SUCTION PLATES WITH SHUT-OFF VALVES P2V2E,  
FOR OCTOPUS SYSTEMS



Art.	Force	A	B	C	D	E	F	G	H	Example	Nr. of Valves and cups	Weight
	Kg			Ø	Ø					Vacuum cup art.		Kg
P2V2E 20 30	75.4	200	300	40	---	17	51.5	18	68.5	01 40 42	24	1.60
P2V2E 20 40	100.5	200	400	40	---	17	51.5	18	68.5	01 40 42	32	2.31
P2V2E 20 60	150.8	200	600	40	---	17	51.5	18	68.5	01 40 42	48	3.20
P2V2E 30 30	113.0	300	300	40	---	17	51.5	18	68.5	01 40 42	36	2.40
P2V2E 30 40	150.8	300	400	40	---	17	51.5	18	68.5	01 40 42	48	3.20
P2V2E 30 50	188.4	300	500	40	---	17	51.5	18	68.5	01 40 42	60	4.00
P2V2E 40 40	201.0	400	400	40	---	17	51.5	18	68.5	01 40 42	64	4.62
P2V2E 40 60	301.5	400	600	40	---	17	51.5	18	68.5	01 40 42	96	6.40
P2V2E 40 100	502.4	400	1000	40	---	17	51.5	18	68.5	01 40 42	160	11.55
P2V2E 60 80	602.9	600	800	40	---	17	51.5	18	68.5	01 40 42	192	12.80
P2V2E 60 120	904.3	600	1200	40	---	17	51.5	18	68.5	01 40 42	288	19.20
P2V2E 80 100	1004.8	800	1000	40	---	17	51.5	18	68.5	01 40 42	320	23.10
P2V2E D0 35	100.5	---	---	40	350	17	51.5	18	68.5	01 40 42	32	2.31
P2V2E D0 50	213.5	---	---	40	500	17	51.5	18	68.5	01 40 42	76	4.53

**Note:** The code P2V2E... exclusively indicates the suction plate with the vacuum cup supports screwed on it and the built-in shut-off valves.

The vacuum cups indicated in the table or freely chosen are not integral part of the suction plate and therefore, must be ordered separately.

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



## BAG GRIPPING SUCTION PLATES PJ, FOR OCTOPUS SYSTEMS



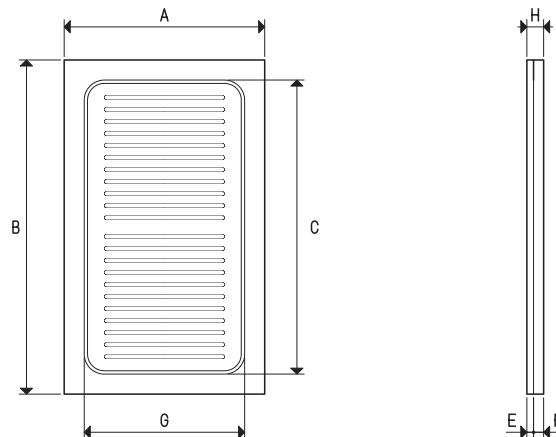
*These suction plates have been designed to allow gripping paper or plastic bags containing powders, granulated products, bulk products or liquids.*

*These suction plates are associated with OCTOPUS systems that fully exploit their performance.*

*They are made with anodised aluminium and are provided with a special foam rubber seal. They are perfectly interchangeable with the OCTOPUS system standard suction plates.*

*The shapes of the seal and the face allow reducing bag deformation in the gripping phase, reducing vacuum loss to the minimum and guaranteeing the largest gripping surface possible.*

*Their lifting force has been calculated considering a minimum vacuum level of -75 Kpa, the overall gripping surface enclosed in the seal and a safety factor 3.*



Art.	Force Kg	A	B	C	E	F	G	H	Weight Kg
<b>PJ 15 20</b>	24.6	150	200	160	10	15	110	40	0.46
<b>PJ 20 30</b>	73.4	200	300	230	10	30	130	40	0.92
<b>PJ 20 40</b>	106.0	200	400	330	10	30	130	40	1.25
<b>PJ 20 60</b>	171.0	200	600	530	10	30	130	40	1.84
<b>PJ 30 40</b>	188.4	300	400	330	10	30	230	40	1.84
<b>PJ 30 50</b>	246.0	300	500	430	10	30	230	40	2.30
<b>PJ 40 60</b>	436.0	400	600	530	10	30	330	40	3.68

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



# FLANGED FIXING SUPPORT, FOR OCTOPUS SYSTEMS WITHOUT VACUUM GENERATOR

The fixing supports described in this page have been designed to connect an OCTOPUS system to a remotely installed vacuum generator or to an alternative vacuum source.

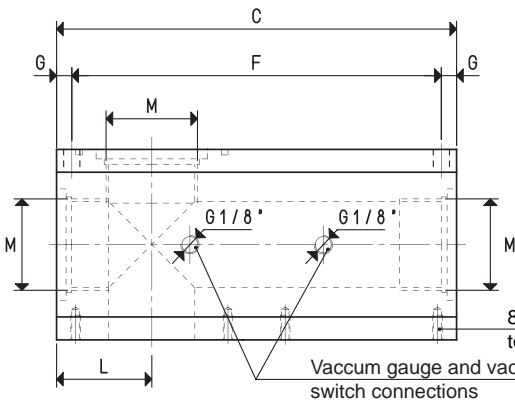
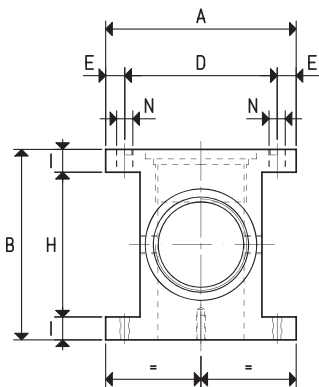
The anodised aluminium supports are provided with two flanges: one to fix the OCTOPUS system instead of the vacuum generator and the other to connect it to the machine.

They are also equipped with connectors for direct connection to the OCTOPUS system, to the generator or to the alternative vacuum source, as well as to the vacuum level reading and control devices. The unused connections may be closed with special metal caps which they are equipped with.

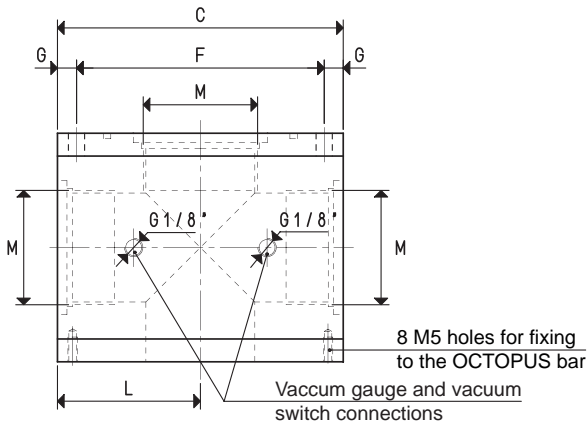
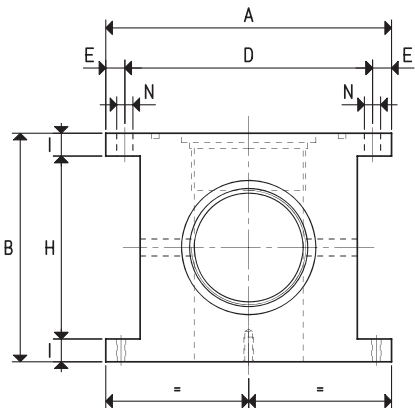
The flanged fixing supports are currently available in the versions described in this page and are suited for OCTOPUS systems that use the vacuum generators indicates next to the article:

- Art. SO 00 02 PVP 100 ÷ 200M
- Art. SO 00 05 PVP 150 ÷ 300MD
- Art. SO 00 06 PVP 450 ÷ 600MD

*Note: The vacuum gauges and switches in the picture are not integral part of the supports.*



Art.S0 00 02



Art.S0 00 05  
Art.S0 00 06

Art.	A	B	C	D	E	F	G	H	I	L	M	N	Weight Kg
SO 00 02	100	100	210	80	10	194	8	76	12	50	G1" 1/2	8.5	2.8
SO 00 05	150	120	150	130	10	134	8	96	12	75	G2"	8.5	4.2
SO 00 06	150	145	150	130	10	134	8	121	12	75	G2" 1/2	8.5	4.3



## OCTOPUS VACUUM GRIPPING BARS

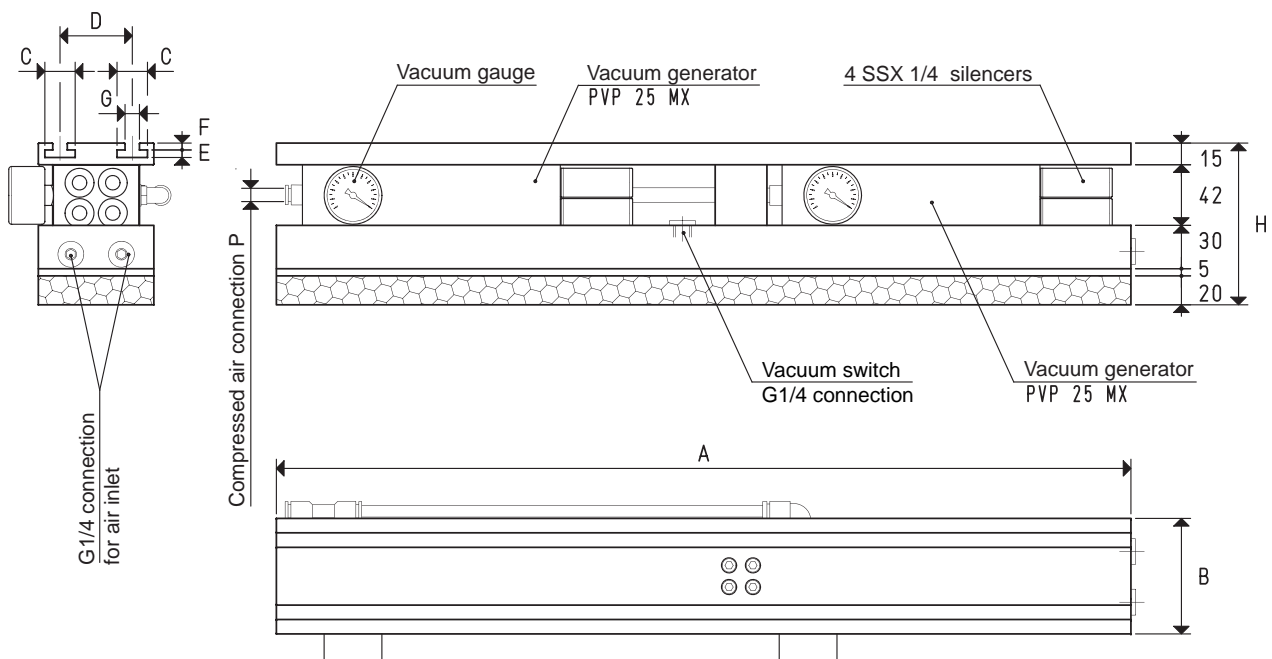
OCTOPUS vacuum gripping bars are our answer to the ever increasing requirements of palletisation robots operational flexibility.

They are composed of:

- A slotted fixing plate, to allow a quick installation onto the machine and an easy placement with respect to the load to be lifted;
- Two or three compressed air-fed vacuum generators, according to their size;
- A box made with light alloy, sealed by a suction plate coated with special perforated foam rubber.

The suction plate perfectly adapts itself to any surface, either smooth, rough or uneven.

These bars allow gripping objects of any shape and feature, provided that they do not have an excessive transpiration, without having to change or place vacuum cups and even when their surface does not occupy the entire suction plate. The maximum weight of the load to be lifted will obviously be proportional with the gripping surface. The connections provided for are four: one provided with quick coupler, for supplying compressed air to the vacuum generator; one for the possible installation of a vacuum switch, and two, closed by a threaded cap, for the air inlet inside the OCTOPUS bar in the discharge phase, for a prompt restoration of the atmospheric pressure.



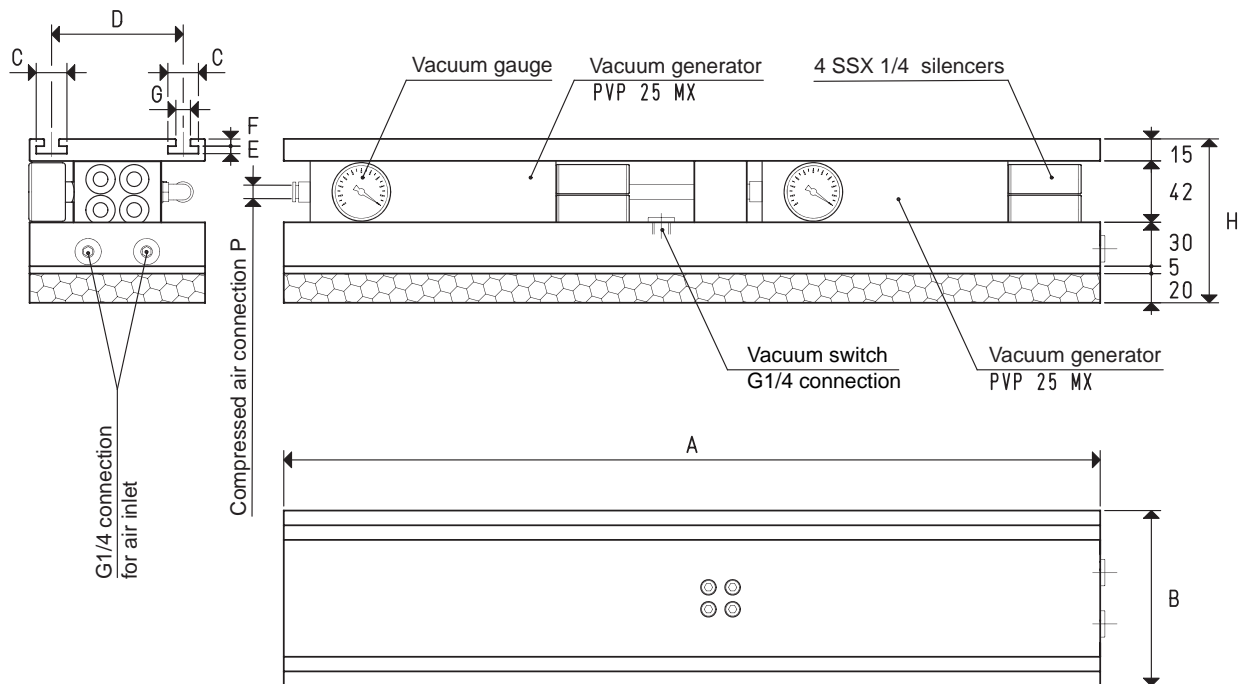
Art.		BO 08 60 X	BO 08 80 X
<b>Suction plate</b>	art.	PX 08 60	PX 08 80
<b>Gripping force</b>	Kg	31.7	42.2
<b>N° 2 vacuum generators</b>	art.	PVP 25 MX	PVP 25 MX
<b>Max. supply pressure</b>	bar (g)	6	6
<b>Max. vacuum level</b>	-KPa	90	90
<b>Air consumption at 6 bar (g)</b>	NI/s	6.4	6.4
<b>Quantity of sucked air</b>	cum/h	62	62
<b>Working temperature</b>	°C	-20 / +80	-20 / +80
<b>Weight</b>	Kg	6	8
<b>A</b>		600	800
<b>B</b>		80	80
<b>C</b>		21	21
<b>D</b>		50	50
<b>E</b>		5.2	5.2
<b>F</b>		4.8	4.8
<b>G</b>		10	10
<b>H</b>		112	112
<b>P</b>	Compressed air pipe connection ext. Ø	8	8

**Note:** The code BO 08 .. X, identifies the OCTOPUS **bar (g)** base box with the associated suction plate PX, the slotted support plate and the vacuum generators indicated in the table.

All the values shown in the table are valid at a normal atmospheric pressure of 1013 mbar and obtained with a constant supply pressure.

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

OCTOPUS GRIPPING BAR

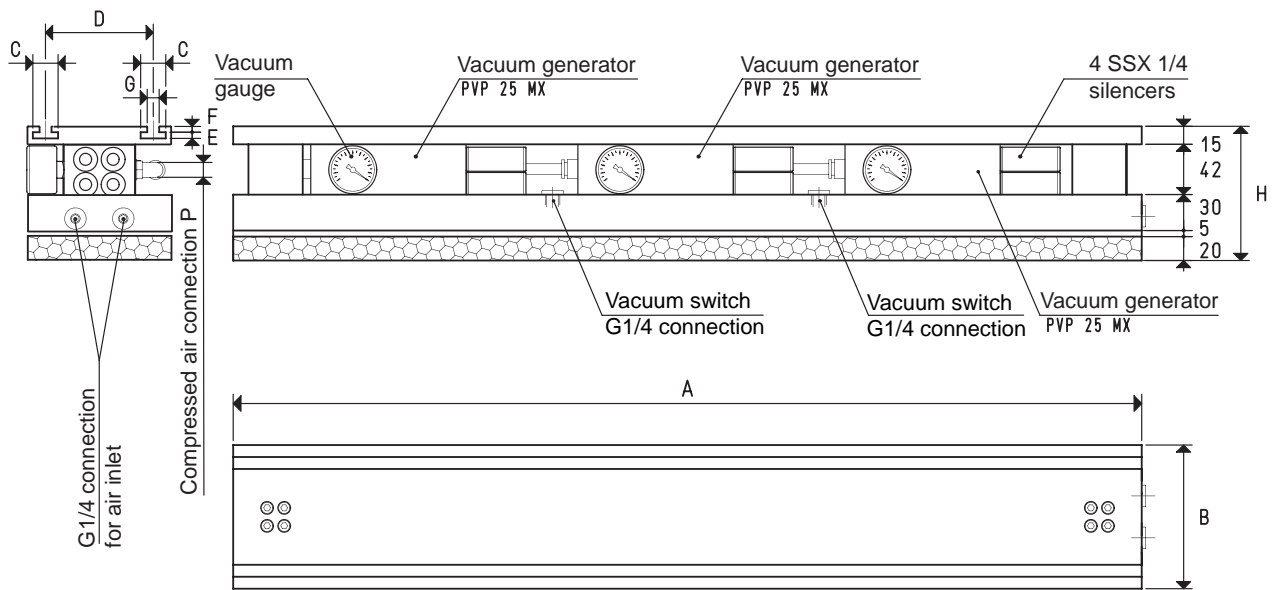


Art.		B0 12 60 X	B0 12 80 X
Suction plate	art.	PX 12 60	PX 12 80
Gripping force	Kg	42.2	56.3
N° 2 vacuum generators	art.	PVP 25 MX	PVP 25 MX
Max. supply pressure	bar (g)	6	6
Max. vacuum level	-KPa	90	90
Air consumption at 6 bar (g)	NI/s	6.4	6.4
Quantity of sucked air	cum/h	62	62
Working temperature	°C	-20 / +80	-20 / +80
Weight	Kg	8.1	10.8
A		600	800
B		120	120
C		21	21
D		90	90
E		5.2	5.2
F		4.8	4.8
G		10	10
H		112	112
P	Compressed air pipe connection	ext. Ø 8	8

**Note:** The code B0 12 .. X, identifies the OCTOPUS bar (g) base box with the associated suction plate PX, the slotted support plate and the vacuum generators indicated in the table.  
All the values shown in the table are valid at a normal atmospheric pressure of 1013 mbar and obtained with a constant supply pressure.







Art.		BO 12 100 X	BO 12 120 X
Suction plate	art.	PX 12 100	PX 12 120
Gripping force	Kg	70.4	86.2
N° 3 vacuum generators	art.	PVP 25 MX	PVP 25 MX
Max. supply pressure	bar (g)	6	6
Max. vacuum level	-KPa	90	90
Air consumption at 6 bar (g)	NI/s	9.6	9.6
Quantity of sucked air	cum/h	93	93
Working temperature	°C	-20 / +80	-20 / +80
Weight	Kg	14.5	17.4
A		1000	1200
B		120	120
C		21	21
D		90	90
E		5.2	5.2
F		4.8	4.8
G		10	10
H		112	112
P	Compressed air pipe connection ext. Ø	8	8

**Note:** The code BO 12 .. X, identifies the OCTOPUS bar base box with the associated suction plate PX, the slotted support plate and the vacuum generators indicated in the table.

All the values shown in the table are valid at a normal atmospheric pressure of 1013 mbar and obtained with a constant supply pressure.

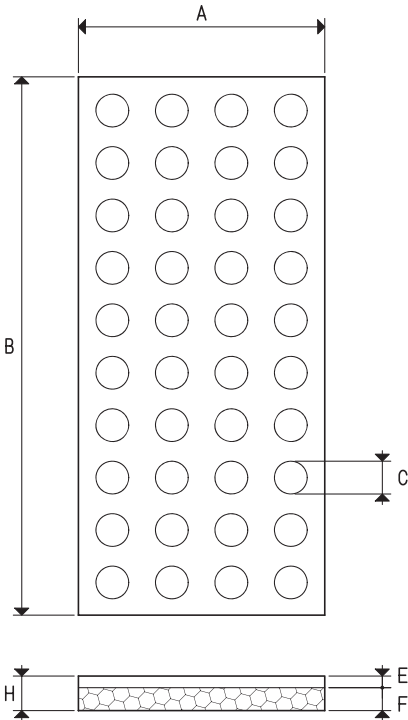
3D drawings available at [www.vuototecnica.net](http://www.vuototecnica.net)



STANDARD SUCTION PLATES PX E P2X, FOR OCTOPUS GRIPPING BARS

The suction plates PX described in this page are installed, as a standard, on all OCTOPUS gripping bars and, therefore, they can be supplied as a spare part.

They are made with anodised aluminium and coated with special perforated foam rubber, with two types of thickness: 20 mm with suction plates of the PX range, 30 mm for special suction plates of the P2X range. Their lifting force has been calculated considering a minimum vacuum level of -75 Kpa, the overall perforated surface on the foam rubber and a safety factor 3.



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

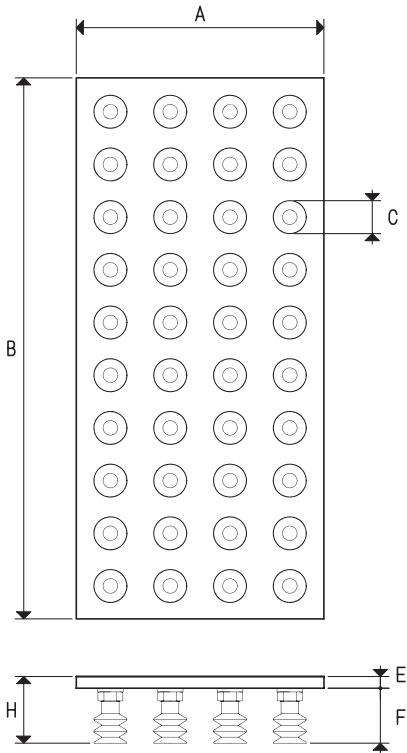
Art.	Force Kg	A	B	C Ø	E	F	H	Weight Kg
PX 08 60	31.7	80	600	15	5	20	25	0.70
PX 08 80	42.2	80	800	15	5	20	25	0.94
PX 12 60	42.2	120	600	15	5	20	25	1.06
PX 12 80	56.3	120	800	15	5	20	25	1.41
PX 12 100	70.4	120	1000	15	5	20	25	1.76
PX 12 120	86.2	120	1200	15	5	20	25	2.11
P2X 08 60	31.7	80	600	15	5	30	35	0.72
P2X 08 80	42.2	80	800	15	5	30	35	0.96
P2X 12 60	42.2	120	600	15	5	30	35	1.08
P2X 12 80	56.3	120	800	15	5	30	35	1.44
P2X 12 100	70.4	120	1000	15	5	30	35	1.80
P2X 12 120	86.2	120	1200	15	5	30	35	2.17



VACUUM CUP SUCTION PLATES PV FOR OCTOPUS GRIPPING BARS



These suction plates provided with vacuum cups have been designed to ensure a better grip on uneven and very flexible surfaces (pasta or candy bags, blister or skin-film packs, thin cardboard boxes, etc.), which are difficult to grip with suction plates coated with foam rubber. We recommend using bellow cups. Thanks to their great flexibility, they adapt themselves to any gripping surface, following its profiles and movements during the lifting phase, guaranteeing a firm and safe grip. They are made with anodised aluminium, as are the 1/8" vacuum cup supports screwed onto them. The cups are cold assembled onto the supports with no adhesives and can be provided in other compounds. Also these suction plates are perfectly interchangeable with the standard ones. Their lifting force has been calculated considering a minimum vacuum level of -75 Kpa, the overall vacuum cup surface and a safety factor 3. Upon request, they can be provided with different cups, as long as the diameter does not exceed 22 mm.



Art.	Force Kg	A	B	C Ø	E	F	H	Example Vacuum cup art.	Nr. of cups	Weight Kg
PV 08 60	45.4	80	600	18	5	36	41	01 18 29	72	0.83
PV 08 80	60.5	80	800	18	5	36	41	01 18 29	96	1.26
PV 12 60	60.5	120	600	18	5	36	41	01 18 29	96	1.42
PV 12 80	80.6	120	800	18	5	36	41	01 18 29	128	1.90
PV 12 100	100.8	120	1000	18	5	36	41	01 18 29	160	2.37
PV 12 120	121.0	120	1200	18	5	36	41	01 18 29	192	2.84

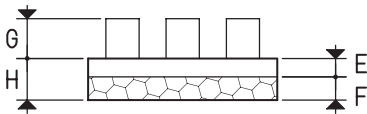
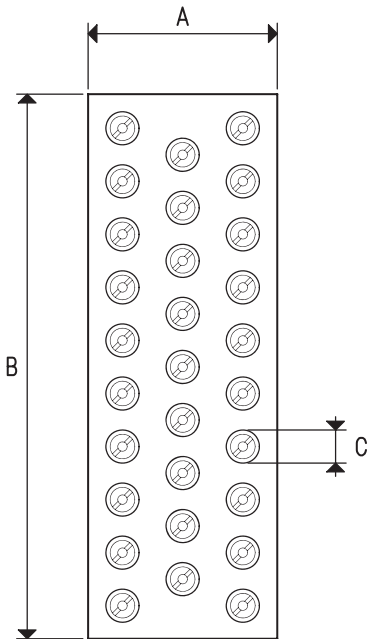
**Note:** The code PV.. exclusively indicates the suction plate with the vacuum cup supports screwed on it.  
The vacuum cups indicated in the table or freely chosen are not integral part of the suction plate and therefore, must be ordered separately.

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



SUCTION PLATES WITH SHUT-OFF VALVES PXE and P2XE,  
FOR OCTOPUS GRIPPING BARS

The suction plates described in this page are the same as the previously described ones. Their distinctive features are the shut-off valves inserted in each cup support connection. In absence of an object to grip or in case of a defective grip of the foam rubber, the shut-off valves automatically close the suction inlet, thus preventing the vacuum level from decreasing on the other gripping holes. This feature allows reducing the vacuum generator capacity compared to the OCTOPUS systems without valves, all to the benefit of energy saving.



Art.	Force Kg	A	B	C Ø	E	F	G	H	Nr. of Valves	Weight Kg
PXE 08 60	43.7	80	600	20	10	20	18	25	56	1.69
PXE 08 80	60.0	80	800	20	10	20	18	25	77	2.25
PXE 12 60	42.1	120	600	20	10	20	18	25	54	2.53
PXE 12 80	57.7	120	800	20	10	20	18	25	74	3.38
PXE 12 100	73.3	120	1000	20	10	20	18	25	94	4.22
PXE 12 120	88.9	120	1200	20	10	20	18	25	114	5.07
P2XE 08 60	43.7	80	600	20	10	30	18	40	56	1.72
P2XE 08 80	60.0	80	800	20	10	30	18	40	77	2.29
P2XE 12 60	42.1	120	600	20	10	30	18	40	54	2.58
P2XE 12 80	57.7	120	800	20	10	30	18	40	74	3.44
P2XE 12 100	73.3	120	1000	20	10	30	18	40	94	4.30
P2XE 12 120	88.9	120	1200	20	10	30	18	40	114	5.16



## LOCKING PLATES, FOR OCTOPUS GRIPPING BARS WITHOUT VACUUM GENERATOR

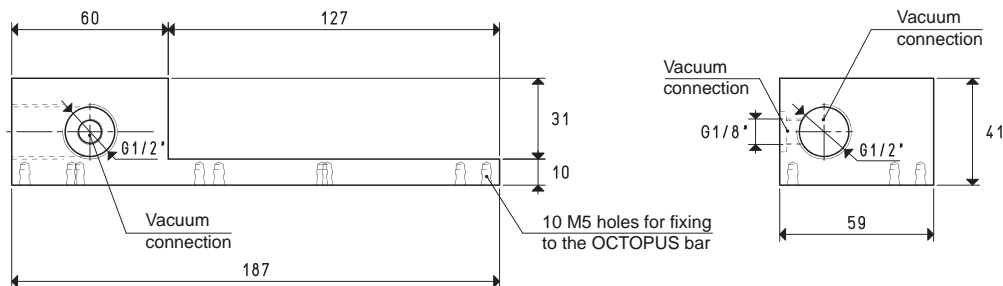
The locking plate with manifold described in this page has been designed to connect an OCTOPUS gripping bar to a remotely installed vacuum generator or to an alternative vacuum source.

This anodised aluminium plate is fixed with screws to the body of the OCTOPUS bar, instead of the generator. The manifold is equipped with connectors for a direct connection to the OCTOPUS bar, to the generator or to the alternative vacuum source, as well as to vacuum level reading and control devices. The unused connections can be closed with special metal caps which they are equipped with.

The locking plate with manifold is suited for any kind of OCTOPUS gripping bar that uses PVP 12 MX and PVP 25 MX vacuum generators.



Art.	For OCTOPUS gripping bars
00 BO 07	BO 08 60 X
	BO 08 80 X
	BO 12 60 X
	BO 12 80 X
	BO 12 100 X
	BO 12 120 X



## LOCKING PLATES FOR, OCTOPUS GRIPPING BARS WITHOUT VACUUM GENERATOR

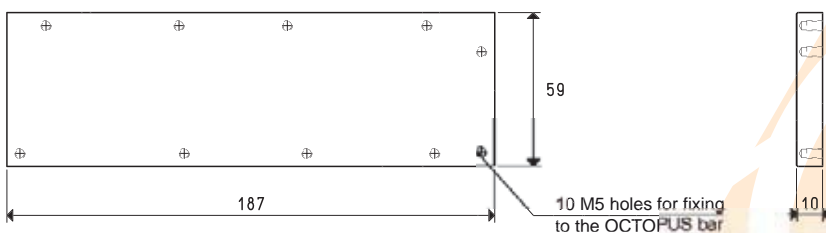
The locking plate described in this page has been created to close the suction holes on the OCTOPUS bar body and left free by the removal of the vacuum generator.

This anodised aluminium plate is fixed with screws to the OCTOPUS bar instead of the generator. The gasket provides perfect seal.

The locking plate with manifold is suited for any kind of OCTOPUS gripping bar that uses PVP 12 MX and PVP 25 MX vacuum generators.



Art.	For OCTOPUS gripping bars
00 BO 06	BO 08 60 X
	BO 08 80 X
	BO 12 60 X
	BO 12 80 X
	BO 12 100 X
	BO 12 120 X



## ACCESSORIES AND SPARE PARTS FOR OCTOPUS GRIPPING SYSTEMS AND BARS

### Digital vacuum switch with 1/8" axial gas coupler



Art.	Description
12 10 10	Digital vacuum switch

### Electric cable with axial connector



Art.	Description
00 12 20	Digital vacuum switch electric connection cable with axial connector

### Electric cable with radial connector



Art.	Description
00 12 21	Digital vacuum switch electric connection cable with radial connector

### Vacuum gauge Ø 40 mm with 1/8" axial gas coupler



Art.	Description
09 03 15	Vacuum gauge

### Pressure gauge Ø 40 mm with 1/8" axial gas coupler



Art.	Description
09 03 25	Pressure gauge





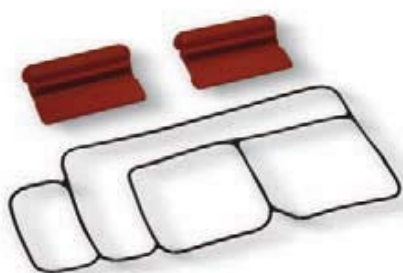
## SPARE PARTS FOR OCTOPUS GRIPPING SYSTEMS AND BARS

### Silencer



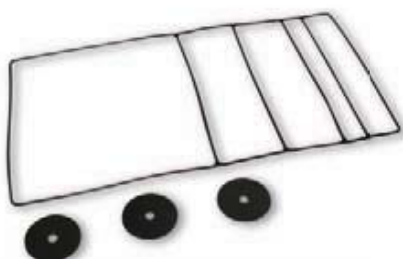
Art.	For generator art.
SSX 1/4"	PVP 25 MX

### Sealing kit and reed valves

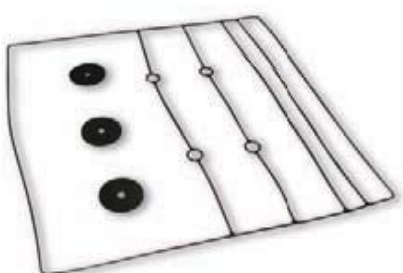


Art.	For generator art.
00 KIT PVP 25 MX	PVP 25 MX

### Sealing kit and disc valves



Art.	For generator art.
00 KIT PVP 100 M	PVP 100 M
00 KIT PVP 140 M	PVP 140 M
00 KIT PVP 170 M	PVP 170 M
00 KIT PVP 200 M	PVP 200 M



Art.	For generator art.
00 KIT PVP 150 MD	PVP 150 MD
00 KIT PVP 300 MD	PVP 300 MD
00 KIT PVP 450 MD	PVP 450 MD



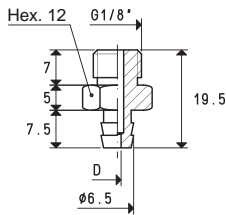
SPARE PARTS FOR OCTOPUS GRIPPING SYSTEMS AND BARS

Stainless steel disc filtre

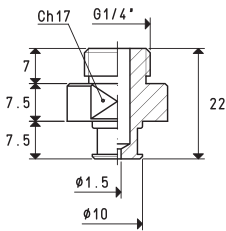


Art.	For OCTOPUS system	
	D Ø	Ø
00 SO 05	25	SO 15 20 - BO 08 60 - BO 08 80
		BO 12 60 - BO 12 80 - BO 12 100 - BO 12 120
00 SO 10	50	SO 20 30 - SO 20 40 - SO 20 60 - SO DO 35
00 SO 14	80	SO 30 30 - SO 30 40 - SO 30 50 - SO 40 40
		SO 40 60 - SO DO 50 - SO 40 100 - SO 60 80
		SO 60 120 - SO 80 100

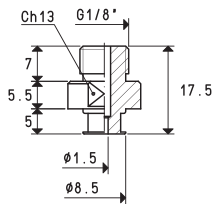
Cup supports



Art.	Weight		Support material	For cup art.
	D Ø	g		
00 08 157	1.5	4	aluminium	01 18 29
00 08 178	2.5	4	aluminium	01 18 29

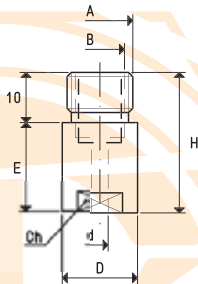


Art.	Weight		Support material	For cup art.
	g			
00 08 158	8		aluminium	01 40 42



Art.	Weight		Support material	For cup art.
	g			
00 08 170	4		aluminium	01 20 23

Shut-off valves



Art.	A Ø	B Ø	d Ø	D Ø	E	H	Ch	Weight g	Support material
14 01 06	G1/4"	G1/8"	3.25	15	18	28	12	10	aluminium
14 01 07	G3/8"	G1/4"	4.50	20	25	35	17	24	aluminium

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

9.28

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

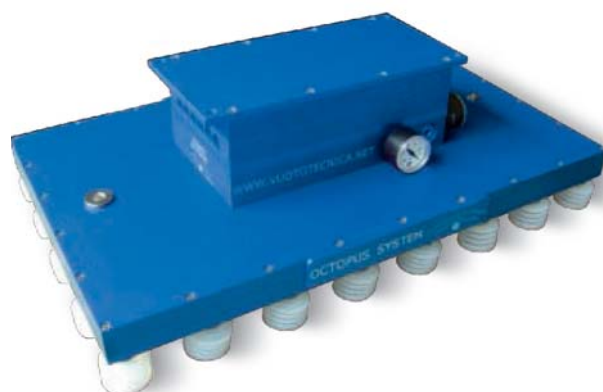
GAS-NPT thread adapters available at page 1.117



## OCTOPUS GRIPPING SYSTEM SPECIAL EXECUTIONS



mm 270x420 - SO 27 42 2V



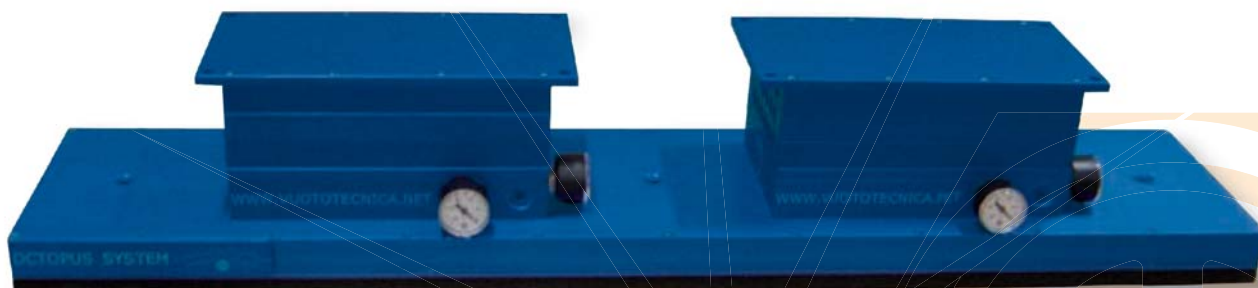
mm 330x550 - SO 33 55 2V



mm Ø 100 - SO DO 10 X



mm 70x200 - SO 07 20 X



mm 200x1000 - SO 20 100 X

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



## OCTOPUS GRIPPING SYSTEM SPECIAL EXECUTIONS



mm 300x360 with fixing support - SO 30 36 X



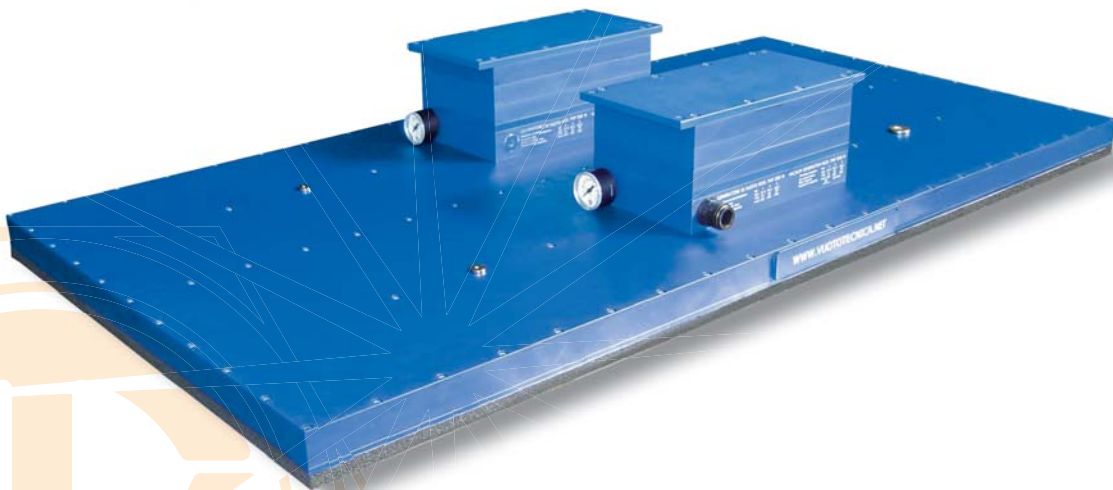
mm 70x140 with digital vacuum switch - SO 07 14 V



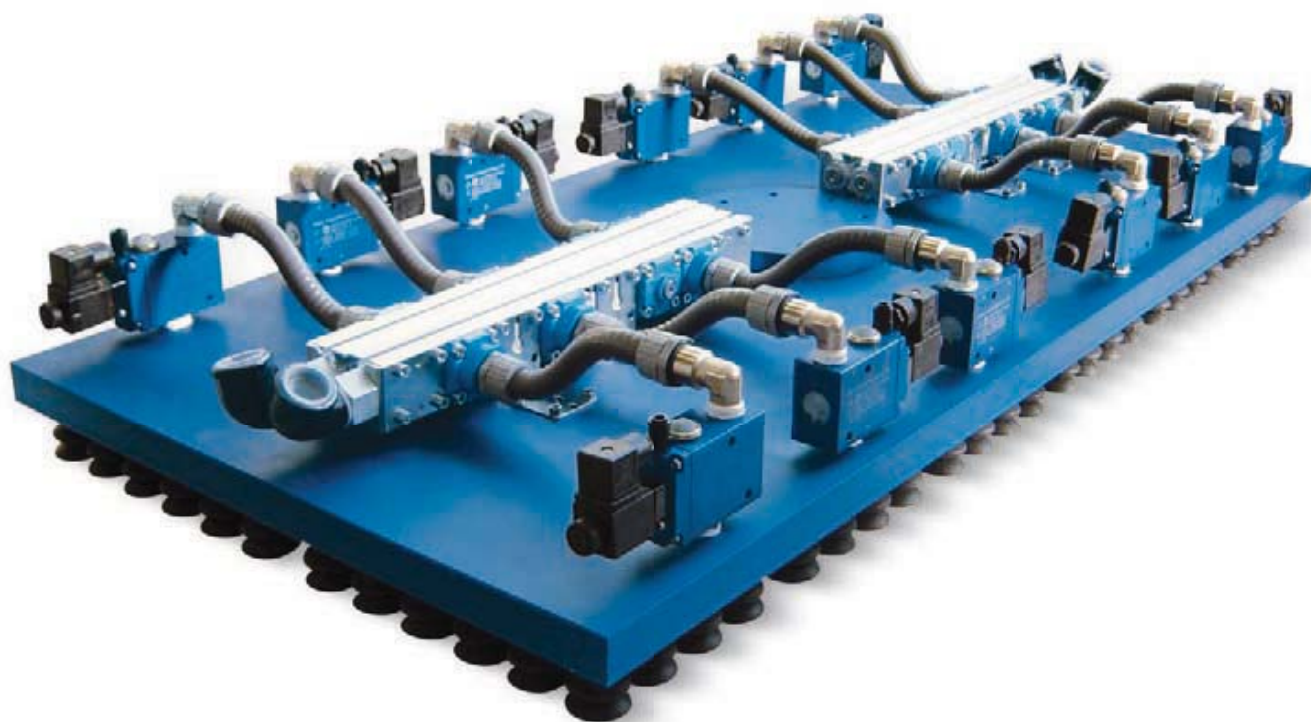
mm 210x360 SO 21 36 V  
with 3 independent chambers



mm Ø400 with fixing support and vacuum interception  
solenoid valve - SO DO 40 V



mm 600x1200 with 2 independent chambers - SO 60 120 X



mm 620x1240 with 12 independent chambers - SO 62 127 2V



## GRAPHIC DIVISION – PRODUCT DESCRIPTION

### TABLES FOR PNEUMATIC PUMPS SELECTION

SMALL PNEUMATIC SUCTION PUMPS ART. PA 3 and PA 7

SMALL PNEUMATIC SUCTION PUMPS ART. PA 10, PA 14 and PA 18

PNEUMATIC SUCTION PUMPS ART. PA 40, PA 70 and PA 100

PNEUMATIC SUCTION PUMPS ART. PA 140, PA 170 and PA 200

PNEUMATIC SUCTION PUMPS ART. PA 250 and PA 300

SMALL PNEUMATIC BLOWING PUMPS ART. PS 3 and PS 7

SMALL PNEUMATIC BLOWING PUMPS ART. PS 10, PS 14 and PS 18

PNEUMATIC BLOWING PUMPS ART. PS 40, PS 70 and PS 100

PNEUMATIC BLOWING PUMPS ART. PS 140, PS 170 and PS 200

PNEUMATIC BLOWING PUMPS ART. PS 250 and PS 300

SMALL PNEUMATIC COMBINED SUCTION AND BLOWING PUMPS PS:

ART. PA 3 ÷ 7 WITH PS 3 ÷ 7

ART. PA 10 ÷ 18 WITH PS 10 ÷ 18

PNEUMATIC COMBINED SUCTION AND BLOWING PUMPS:

ART. PA 40 ÷ 100 CON PS 40 ÷ 100

ART. PA 140 ÷ 200 CON PS 140 ÷ 200

ART. PA 250 ÷ 300 CON PS 250 ÷ 300

SUCTION AND BLOWING SYSTEM AS

PNEUMATIC PUMP HOLDING SUPPORTS

PNEUMATIC PUMP SUCTION FILTRES

PNEUMATIC PUMP SPARE PARTS

VACUUM CYLINDERS

DISC CUPS

PAG. 10.01

PAG. 10.02

PAG. 10.03

PAG. 10.04

PAG. 10.05

PAG. 10.06

PAG. 10.07

PAG. 10.08

PAG. 10.09

PAG. 10.10

PAG. 10.11

PAG. 10.12

PAG. 10.13

PAG. 10.14

PAG. 10.15

PAG. 10.16

PAG. 10.17

PAG. 10.18

PAG. 10.19

PAG. 10.20

PAG. 10.21 ÷ 10.22

PAG. 10.23

PAG. 10.24





The experience and production capacity of Vuototecnica has originated a division specially dedicated to the graphics and printing sector. A reference entity, ranging from engineering to services, that offers innovative and advantageous technical solutions under every point of view: performance, reliability, duration and operational economy. A significant demonstration of the Graphic Division specialisation is represented by the new range of products among which:

### PNEUMATIC SUCTION AND BLOWING PUMPS

These state of the art multi-ejector (multi-stage) pumps are very versatile and can either suck or blow, according to the requirements, thus representing a true evolution compared to the traditional rotating vane pumps. These pumps feature state of the art ejectors and boast an exceptional ratio between the amount of consumed air and sucked (or generated) air, all to the benefit of operational consumption. Moreover, they adjust the vacuum (or pressure) level and capacity according to the air supply pressure. The state of the art hi-tech materials have considerably reduced the weight allowing them to be installed directly on the machine. The Vuototecnica research centre has focused its attention on noise reduction, with solutions that provide for full soundproofing and no moving parts, thus prolonging duration and eliminating any vibration. Furthermore, these pumps are based on the Venturi principle which exploits the compressed air kinetic energy via in-line ejectors and, therefore, do not develop heat. The excellent compressed air and sucked filtration allows blowing air free from oil vapours, water condensation and impurities, between the sheets of paper to be separated and in the work environment, causing no pollution. Other assets of this safe and competitive technology include a minimal maintenance, limited to a regular filtre cleaning operation, and a reliability with no comparison. The pneumatic suction and blowing pumps are described in the following pages.

### VACUUM CYLINDERS

By assembling a vacuum cup onto their perforated stem and creating a vacuum, the cup will quickly come into contact with the sheet or the object to be handled and it will automatically lift it, holding it until the vacuum is excluded. For all these features, this range of cylinders combined with cups are particularly recommended for separating sheets of paper or plastic. The advantages include: high speed operation, automatic compensation of the height of the objects to be lifted, non-rotating stems and extremely easy fixing. These vacuum cylinders are described in the following pages.

### CUPS

They come in a large variety of shapes and sizes, to guarantee a quick and safe grip and they can be provided in anti-abrasion natural para rubber, nitrile or oil-resistant rubber, silicon, Viton, polyurethane and other compounds, according to the requirements. Vacuum cups are described in detail in Chapter 1; this chapter, however, will focus on the disc cups only.



**Low air consumption and limited weight.**  
**Surprisingly silent operation and total absence of heat.**  
**Great respect for the work environment and minimal maintenance.**



## TABLES FOR SUCTION PUMPS SELECTION

Max. suction capacity generated by a corresponding electric pump	Max. vacuum generated by a corresponding electric pump							
	-0.1 bar (g)	-0.2 bar (g)	-0.3 bar (g)	-0.4 bar (g)	-0.5 bar (g)	-0.6 bar (g)	-0.7 bar (g)	-0.8 bar (g)
	-10 KPa	-20 KPa	-30 KPa	-40 KPa	-50 KPa	-60 KPa	-70 KPa	-80 KPa
10 cum/h	PA 40	PA 40	PA 40	PA 40	PA 40	PA 40	PA 40	PA 40
15 cum/h	PA 40	PA 40	PA 40	PA 40	PA 40	PA 40	PA 40	PA 70
20 cum/h	PA 40	PA 40	PA 40	PA 40	PA 40	PA 40	PA 70	PA 70
25 cum/h	PA 40	PA 40	PA 40	PA 40	PA 40	PA 70	PA 70	PA 70
30 cum/h	PA 40	PA 40	PA 40	PA 40	PA 70	PA 70	PA 70	PA 100
40 cum/h	PA 40	PA 70	PA 70	PA 70	PA 70	PA 100	PA 100	PA 140
60 cum/h	PA 70	PA 70	PA 70	PA 70	PA 100	PA 140	PA 140	PA 170
80 cum/h	PA 100	PA 100	PA 100	PA 100	PA 140	PA 140	PA 170	PA 200
100 cum/h	PA 100	PA 100	PA 100	PA 100	PA 140	PA 170	PA 200	PA 250
120 cum/h	PA 140	PA 140	PA 140	PA 140	PA 170	PA 200	PA 250	PA 300
140 cum/h	PA 140	PA 140	PA 140	PA 140	PA 200	PA 250	PA 300	-- ---
160 cum/h	PA 170	PA 170	PA 170	PA 200	PA 250	PA 300	-- ---	-- ---
180 cum/h	PA 170	PA 170	PA 200	PA 250	PA 300	-- ---	-- ---	-- ---
200 cum/h	PA 200	PA 200	PA 200	PA 250	PA 300	-- ---	-- ---	-- ---
250 cum/h	PA 250	PA 300	PA 300	PA 300	-- ---	-- ---	-- ---	-- ---
300 cum/h	PA 300	PA 300	PA 300	-- ---	-- ---	-- ---	-- ---	-- ---

E.g.: To replace an electric pump with a capacity of 80 cum/h and a residual vacuum of 0.6 bar (g).

Cross the line "80 cum/h" with the column "0.6 bar (g)" column in the table. At the intersection point, you will find that PA 140 is the ideal pump for the replacement.

## TABLES FOR BLOWING PUMPS SELECTION

Max. blowing capacity generated by a corresponding electric pump	Max. overpressure generated by a corresponding electric pump							
	+0.1 bar (g)	+0.2 bar (g)	+0.3 bar (g)	+0.4 bar (g)	+0.5 bar (g)	+0.6 bar (g)	+0.7 bar (g)	+0.8 bar (g)
	+10 KPa	+20 KPa	+30 KPa	+40 KPa	+50 KPa	+60 KPa	+70 KPa	+80 KPa
25 cum/h	PS 40	PS 40	PS 40	PS 40	PS 40	PS 40	PS 40	PS 40
30 cum/h	PS 40	PS 40	PS 40	PS 40	PS 40	PS 40	PS 40	PS 40
40 cum/h	PS 40	PS 40	PS 40	PS 40	PS 40	PS 40	PS 40	PS 40
60 cum/h	PS 70	PS 70	PS 70	PS 70	PS 70	PS 70	PS 70	PS 70
80 cum/h	PS 70	PS 70	PS 70	PS 70	PS 70	PS 70	PS 70	PS 70
100 cum/h	PS 70	PS 70	PS 70	PS 70	PS 70	PS 70	PS 100	PS 100
120 cum/h	PS 100	PS 100	PS 100	PS 100	PS 100	PS 100	PS 100	PS 100
140 cum/h	PS 100	PS 100	PS 100	PS 100	PS 100	PS 100	PS 100	PS 140
160 cum/h	PS 140	PS 140	PS 140	PS 140	PS 140	PS 140	PS 140	PS 140
180 cum/h	PS 140	PS 140	PS 140	PS 140	PS 140	PS 140	PS 140	PS 140
200 cum/h	PS 140	PS 140	PS 140	PS 140	PS 140	PS 140	PS 170	PS 170
250 cum/h	PS 200	PS 200	PS 200	PS 200	PS 200	PS 250	PS 250	PS 250
300 cum/h	PS 250	PS 250	PS 250	PS 250	PS 250	PS 300	PS 300	PS 300
350 cum/h	PS 300	PS 300	PS 300	PS 300	PS 300	PS 300	PS 300	PS 300
400 cum/h	PS 300	PS 300	PS 300	PS 300	PS 300	PS 300	-- ---	-- ---

E.g.: To replace an electric pump with a capacity of 80 cum/h and an overpressure of 0.6 bar (g).

Cross the line "80 cum/h" with the column "0.6 bar (g)" column in the table. At the intersection point, you will find that PS 70 is the ideal pump for the replacement.



## SMALL PNEUMATIC SUCTION PUMPS PA



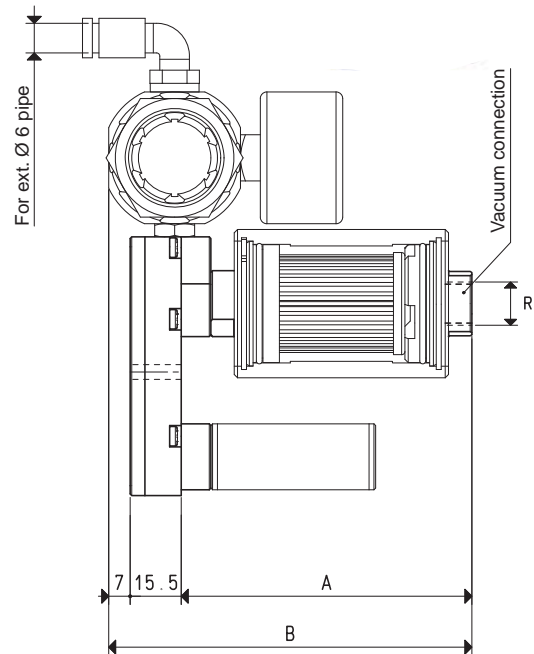
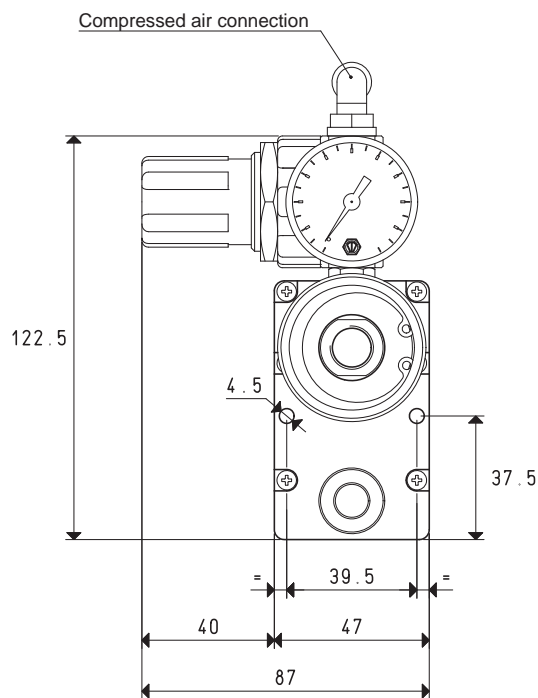
The assembly of a pressure adjuster equipped with pressure gauge and of an FCL filtre on the suction inlet connection of a vacuum generator of the M .. SSX range has allowed creating these small pneumatic suction pumps. Their main features include reduced overall dimensions compared to their technical performance.

The vacuum level and capacity can be adjusted according to the supply air pressure. These pumps are supplied by compressed air with a pressure ranging from 1 to 5 bar (g) and they can produce a maximum vacuum of 85% and a suction capacity between 2 and 18 cum/h, measured at a normal atmospheric pressure of 1013 mbar.

Being based on the Venturi principle, these pumps do not develop heat.

An SSX silencer screwed onto the pump exhaust ensures a silent operation. The filtre equipped with a microporous cartridge is located on the suction inlet connection and can keep the finest dust and impurities.

Thanks to their static operating principle, maintenance is reduced to a simple regular cleaning of the filtre.



Art.		PA 3				
Supply pressure	bar (g)	1	2	3	4	5
Max. vacuum level	-KPa	20	42	62	80	85
Air consumption	NI/s	0.2	0.4	0.5	0.7	0.8
Quantity of sucked air	cum/h	2.0	2.5	3.0	3.4	3.6
A				88		
B				110.5		
R	Ø			G1/4"		
Weight	Kg			0.45		
Art.		PA 7				
Supply pressure	bar (g)	1	2	3	4	5
Max. vacuum level	-KPa	20	42	62	80	85
Air consumption	NI/s	0.4	0.6	0.8	1.2	1.4
Quantity of sucked air	cum/h	3.0	4.0	5.4	5.8	6.2
A				89		
B				111.5		
R				G3/8"		
Weight	Kg			0.46		
Working temperature	°C			-20 / +80		

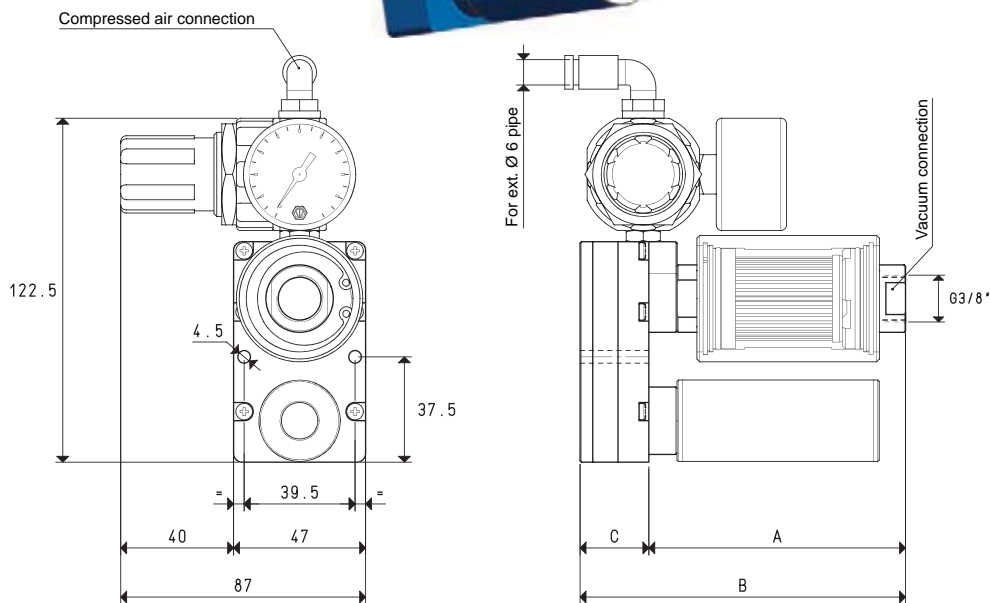
**Note:** All the values in the table are valid at a normal atmospheric pressure of 1013 mbar and obtained with a constant supply pressure.

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

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

SMALL PNEUMATIC SUCTION PUMPS PA 10, PA 14 and PA 18



Art.		PA 10				
Supply pressure	bar (g)	1	2	3	4	5
Max. vacuum level	-KPa	20	42	62	80	85
Air consumption	NI/s	0.5	0.9	1.2	1.6	1.9
Quantity of sucked air	cum/h	4.0	6.0	7.7	8.5	9.4
A				94		
B				118.5		
C				24.5		
Weight	Kg			0.59		

Art.		PA 14				
Supply pressure	bar (g)	1	2	3	4	5
Max. vacuum level	-KPa	20	42	62	80	85
Air consumption	NI/s	0.9	1.3	1.7	2.1	2.5
Quantity of sucked air	cum/h	6.0	8.0	10.2	11.5	12.6
A				94		
B				118.5		
C				24.5		
Weight	Kg			0.60		

Art.		PA 18				
Supply pressure	bar (g)	1	2	3	4	5
Max. vacuum level	-KPa	20	42	62	80	85
Air consumption	NI/s	1.2	1.7	2.3	2.9	3.6
Quantity of sucked air	cum/h	8.0	11.5	14.8	16.5	18.0
A				102		
B				136.5		
C				34.5		
Weight	Kg			0.62		
Working temperature	°C			-20 / +80		

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

10.04

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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## SMALL PNEUMATIC SUCTION PUMPS PA



A state of the art range of ejectors has allowed creating this range of pneumatic suction pumps featuring an excellent ratio between the amount of consumed air and sucked air, as well as the ability to adjust the vacuum level and capacity according to the supply air pressure.

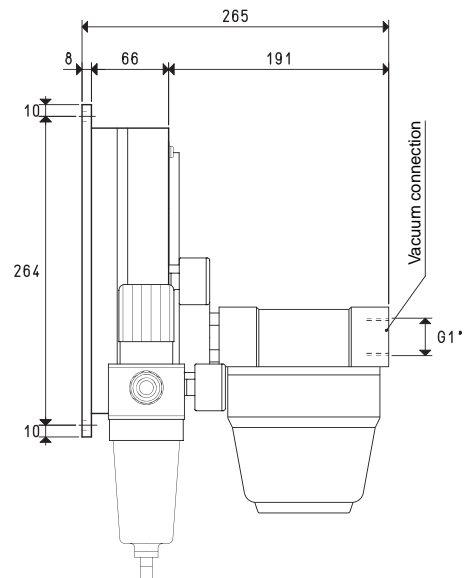
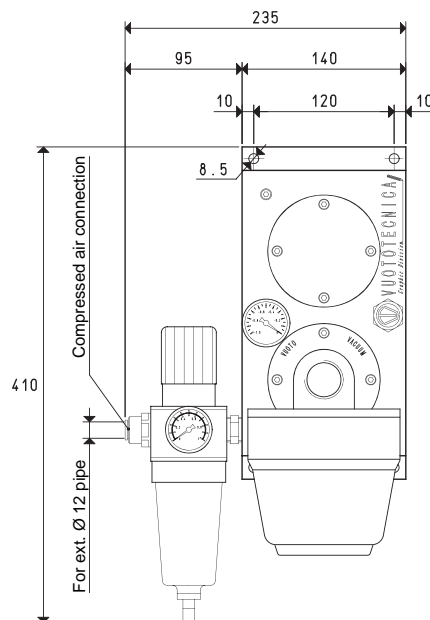
These pumps are supplied by compressed air with a pressure ranging from 1 to 6 bar (g), and they can produce a maximum vacuum of 90% and a suction capacity between 15 and 320 cum/h, measured at a normal atmospheric pressure of 1013 mbar.

When designing these pumps our attention was focused on noise. In fact, they are perfectly soundproofed and there are no moving parts subject to wear and vibrations. All this results in an extremely silent operation.

Moreover, being based on the Venturi principle, they do not develop heat. As a standard, they are equipped with a filtre/pressure reducer unit for the supply air and a filtre with microporous cartridge located on the suction inlet connection which can keep the finest dust and impurities.

The excellent compressed air and sucked filtration allows blowing air free from oil vapours, water condensation and impurities in the work environment, causing no pollution.

The use of light alloys for making these pumps has allowed a considerable reduction of their weight thus allowing them to be directly installed onto the machine. Thanks to their static operating principle, maintenance is reduced to a simple regular cleaning of the filters.



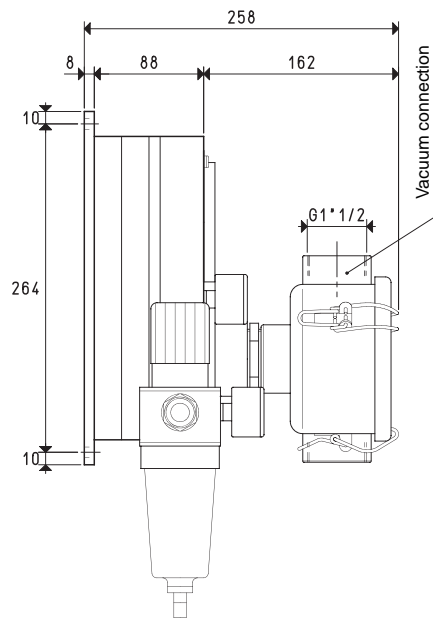
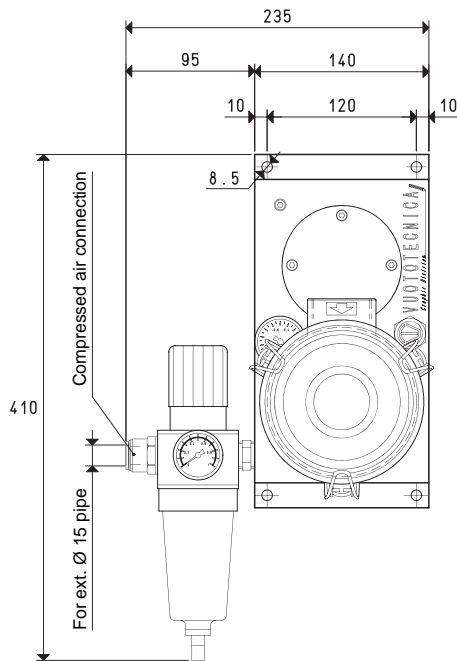
Art.		PA 40					
Supply pressure	bar (g)	1	2	3	4	5	6
Max. vacuum level	-KPa	14	30	46	65	82	90
Air consumption	NI/s	1.0	1.5	2.0	2.3	2.7	3.2
Quantity of sucked air	cum/h	15	23	30	36	39	42
Weight	Kg	6.2					
Art.		PA 70					
Supply pressure	bar (g)	1	2	3	4	5	6
Max. vacuum level	-KPa	14	30	46	65	82	90
Air consumption	NI/s	2.0	3.0	4.1	4.9	5.7	6.6
Quantity of sucked air	cum/h	29	47	58	65	73	80
Weight	Kg	6.2					
Art.		PA 100					
Supply pressure	bar (g)	1	2	3	4	5	6
Max. vacuum level	-KPa	11	28	45	65	82	90
Air consumption	NI/s	3.0	4.6	6.2	7.2	8.5	9.8
Quantity of sucked air	cum/h	28	57	75	88	98	108
Weight	Kg	6.2					
Working temperature	°C	-20 / +80					

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

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



PNEUMATIC SUCTION PUMPS PA 140, PA 170 e PA 200



Art.		PA 140					
Supply pressure	bar (g)	1	2	3	4	5	6
Max. vacuum level	-KPa	15	35	55	70	85	90
Air consumption	NI/s	4.1	6.2	8.3	9.6	11.4	13.0
Quantity of sucked air	cum/h	45	80	106	125	140	152
Weight	Kg	7.2					
Art.		PA 170					
Supply pressure	bar (g)	1	2	3	4	5	6
Max. vacuum level	-KPa	15	35	55	70	85	90
Air consumption	NI/s	5.1	7.7	10.3	12.1	14.2	16.3
Quantity of sucked air	cum/h	53	98	128	150	168	182
Weight	Kg	7.2					
Art.		PA 200					
Supply pressure	bar (g)	1	2	3	4	5	6
Max. vacuum level	-KPa	15	35	55	70	85	90
Air consumption	NI/s	6.0	9.1	12.2	14.2	16.9	19.4
Quantity of sucked air	cum/h	60	110	142	170	188	200
Weight	Kg	7.2					
Working temperature	°C	-20 / +80					

**Note:** All the values in the table are valid at a normal atmospheric pressure of 1013 mbar (g) and obtained with a constant supply pressure.

10.06

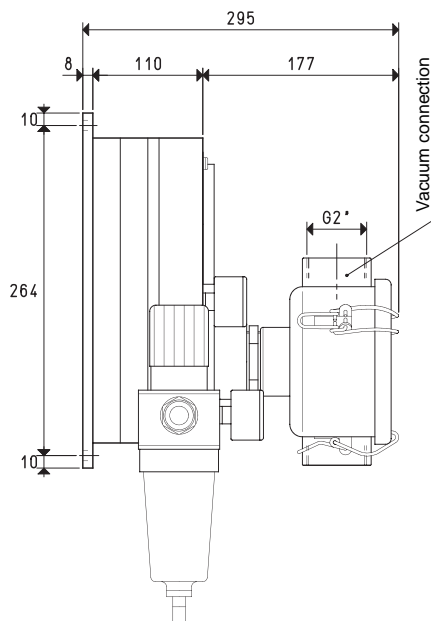
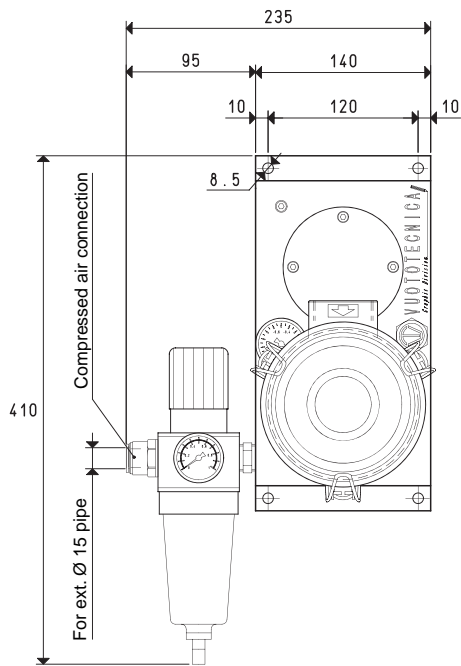
Conversion ratio: inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

GAS-NPT thread adapters available at page 1.117





PNEUMATIC SUCTION PUMPS PA 250 and PA 300



Art.		PA 250					
Supply pressure	bar (g)	1	2	3	4	5	6
Max. vacuum level	-KPa	15	35	55	70	85	90
Air consumption	NI/s	7.5	11.2	15.0	17.3	20.7	24.0
Quantity of sucked air	cum/h	100	145	190	224	252	280
Weight	Kg	8.1					
Art.		PA 300					
Supply pressure	bar (g)	1	2	3	4	5	6
Max. vacuum level	-KPa	15	35	55	70	85	90
Air consumption	NI/s	9.0	13.5	18.1	20.4	24.8	29.0
Quantity of sucked air	cum/h	106	160	213	240	290	320
Weight	Kg	8.1					
Working temperature	°C	-20 / +80					

Note: All the values in the table are valid at a normal atmospheric pressure of 1013 mbar (g) and obtained with a constant supply pressure.

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



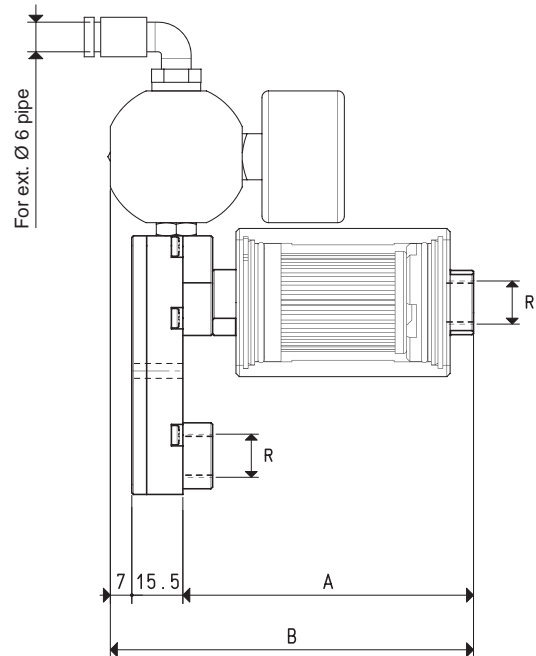
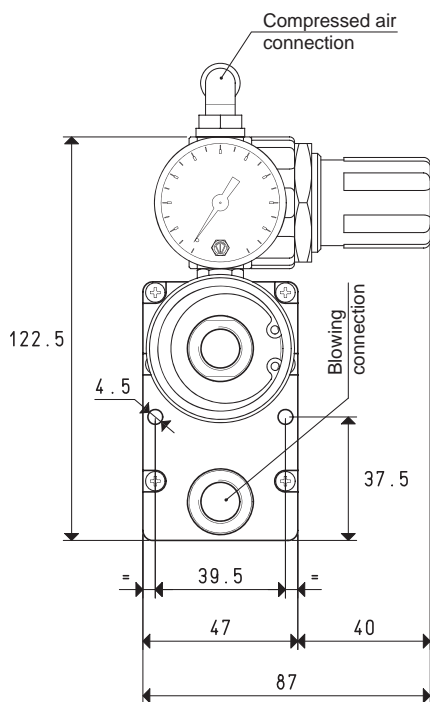
SMALL PNEUMATIC BLOWING PUMPS PS

The assembly of a pressure adjuster equipped with pressure gauge and of an FCL filtre on the suction inlet connection of a vacuum generator of the M .. SSX range has allowed creating these small pneumatic suction pumps. Their main features include reduced overall dimensions compared to their technical performance.

The vacuum level and capacity can be adjusted according to the supply air pressure. These pumps are supplied by compressed air with a pressure ranging from 1 to 5 bar (g) and they can produce a maximum pressure of 0.7 bar (g) and a blowing capacity between 2.7 and 31 cum/h, measured at a normal atmospheric pressure of 1013 mbar. Being based on the Venturi principle, they do not develop heat.

The filtre equipped with microporous cartridge located on the air inlet connection can keep the finest dust and impurities.

Thanks to their static operating principle, maintenance is reduced to a simple regular cleaning of the filtre.

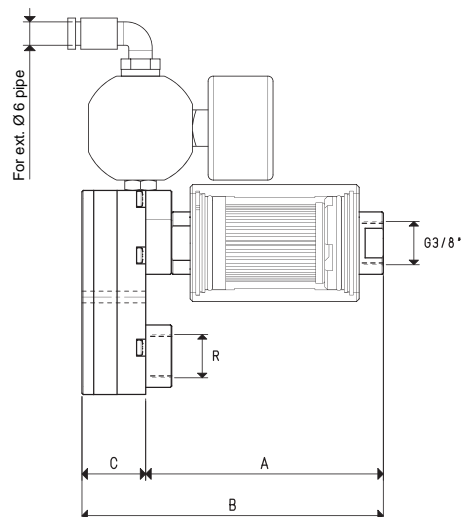
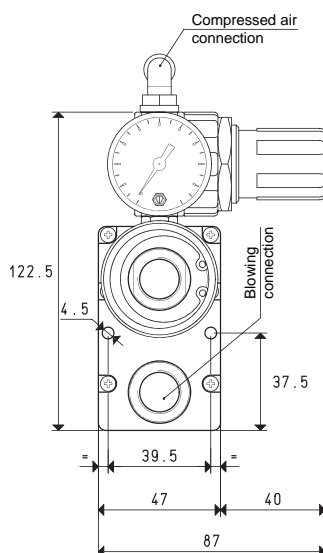
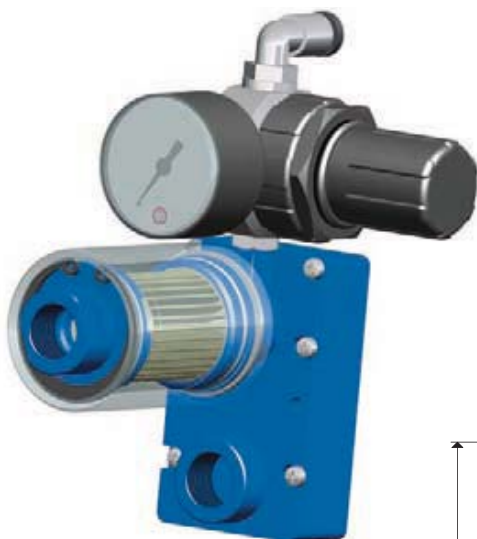


Art.		PS 3				
Supply pressure	bar (g)	1	2	3	4	5
Max. blowing pressure	bar (g)	0.1	0.2	0.3	0.5	0.7
Air consumption	NI/s	0.2	0.4	0.5	0.7	0.8
Quantity of blown air	cum/h	2.7	3.9	4.8	5.9	6.5
A		88				
B		110.5				
R	Ø	G1/4"				
Weight	Kg	0.44				
Art.		PS 7				
Supply pressure	bar (g)	1	2	3	4	5
Max. blowing pressure	bar (g)	0.1	0.2	0.3	0.5	0.7
Air consumption	NI/s	0.4	0.6	0.8	1.2	1.4
Quantity of blown air	cum/h	4.4	6.1	8.2	10.1	11.2
A		89				
B		111.5				
R		G3/8"				
Weight	Kg	0.45				
Working temperature	°C	-20 / +80				

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

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

## SMALL PNEUMATIC BLOWING PUMPS PS 10, PS 14 and PS 18



Art.		PS 10				
Supply pressure	bar (g)	1	2	3	4	5
Max. blowing pressure	-KPa	0.1	0.2	0.3	0.5	0.7
Air consumption	NI/s	0.5	0.9	1.2	1.6	1.9
Quantity of blown air	cum/h	5.8	9.2	12.0	14.2	16.2
A				94		
B				118.5		
C				24.5		
R				G3/8"		
Weight	Kg			0.49		
Art.		PS 14				
Supply pressure	bar (g)	1	2	3	4	5
Max. blowing pressure	-KPa	0.1	0.2	0.3	0.5	0.7
Air consumption	NI/s	0.9	1.3	1.7	2.1	2.5
Quantity of blown air	cum/h	9.2	12.6	16.3	19.0	21.6
A				94		
B				118.5		
C				24.5		
R				G3/8"		
Weight	Kg			0.50		
Working temperature		PS 18				
Supply pressure	bar (g)	1	2	3	4	5
Max. blowing pressure	-KPa	0.1	0.2	0.3	0.5	0.7
Air consumption	NI/s	1.2	1.7	2.3	2.9	3.6
Quantity of blown air	cum/h	12.3	17.6	23.0	26.9	31.0
A				94		
B				128.5		
C				34.5		
R				G1/2"		
Weight	Kg			0.52		
Working temperature	°C			-20 / +80		

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

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

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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

10.09



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## PNEUMATIC BLOWING PUMPS PS

A state of the art range of ejectors has allowed creating this range of pneumatic blowing pumps featuring an excellent ratio between the amount of consumed air and sucked air, as well as the ability to adjust the vacuum level and capacity according to the supply air pressure.

These pumps are supplied by compressed air with a pressure ranging from 1 to 6 bar (g) and can produce a maximum pressure of 0.8 bar (g) and a blowing capacity between 18 and 425 cum/h, measured at a normal atmospheric pressure of 1013 mbar.

When designing these pumps our attention was focused on noise. In fact, they are perfectly soundproofed and there are no moving parts subject to wear and vibrations. All this results in an extremely silent operation.

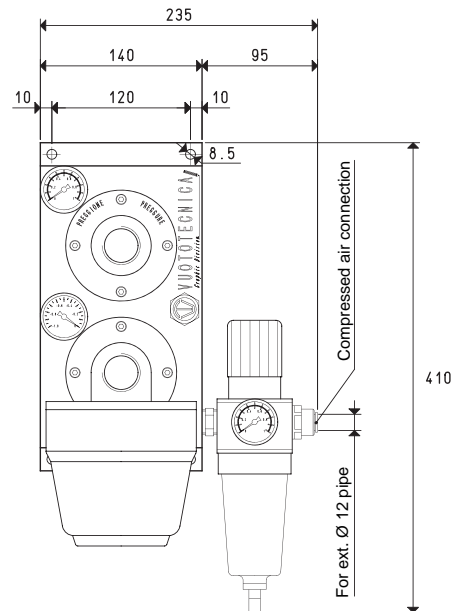
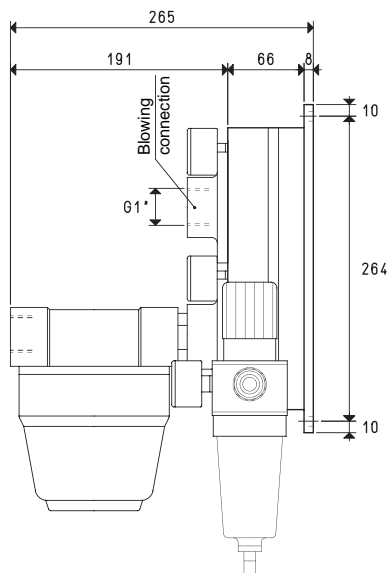
Moreover, being based on the Venturi principle, they do not develop heat.

As a standard, they are equipped with a filtre-pressure reducer unit for the supply air and a filtre with microporous cartridge located on the air inlet connection, which can keep the finest dust and impurities.

The excellent compressed air and sucked filtration allows blowing air free from oil vapours, water condensation and impurities in the work environment, causing no pollution.

The use of light alloys for making these pumps has allowed a considerable reduction of their weight thus allowing them to be directly installed onto the machine.

Thanks to their static operating principle, maintenance is reduced to a simple regular cleaning of the filters.



Art.		PS 40					
Supply pressure	bar (g)	1	2	3	4	5	6
Max. blowing pressure	bar (g)	0.1	0.2	0.3	0.5	0.7	0.8
Air consumption	NI/s	1.0	1.5	2.0	2.3	2.7	3.2
Quantity of blown air	cum/h	18	28	37	44	48	53
Weight	Kg	6.3					
Art.		PS 70					
Supply pressure	bar (g)	1	2	3	4	5	6
Max. blowing pressure	bar (g)	0.1	0.2	0.3	0.5	0.7	0.8
Air consumption	NI/s	2.0	3.0	4.1	4.9	5.7	6.6
Quantity of blown air	cum/h	36	57	72	83	93	104
Weight	Kg	6.3					
Art.		PS 100					
Supply pressure	bar (g)	1	2	3	4	5	6
Max. blowing pressure	bar (g)	0.1	0.2	0.3	0.5	0.7	0.8
Air consumption	NI/s	3.0	4.6	6.2	7.2	8.5	9.8
Quantity of blown air	cum/h	38	73	97	114	129	144
Weight	Kg	6.3					
Working temperature	°C	-20 / +80					

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

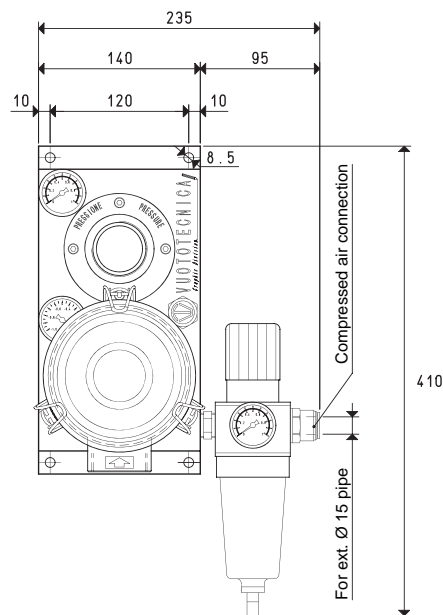
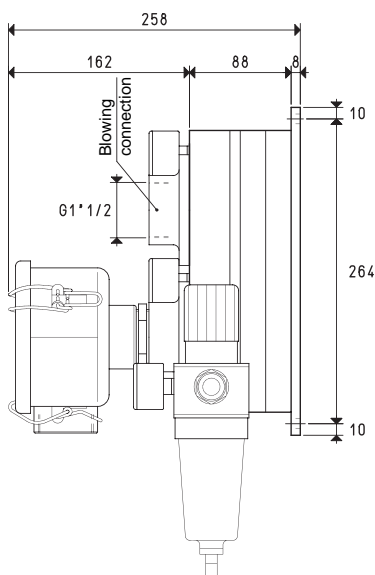
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Conversion ratio: inch =  $\frac{\text{mm}}{25.4}$ ; pounds =  $\frac{\text{g}}{453.6}$  =  $\frac{\text{Kg}}{0.4536}$

GAS-NPT thread adapters available at page 1.117



PNEUMATIC BLOWING PUMPS PS 140, PS 170 and PS 200

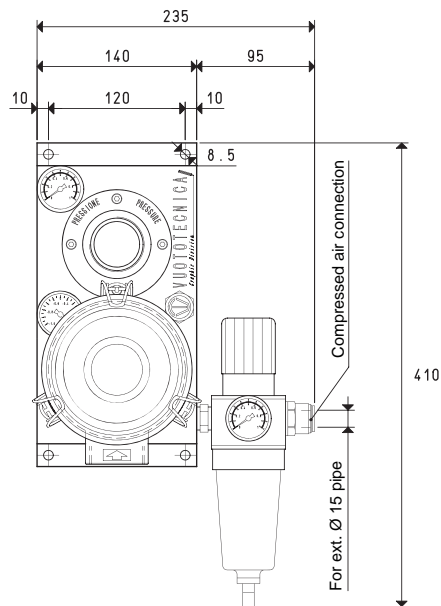
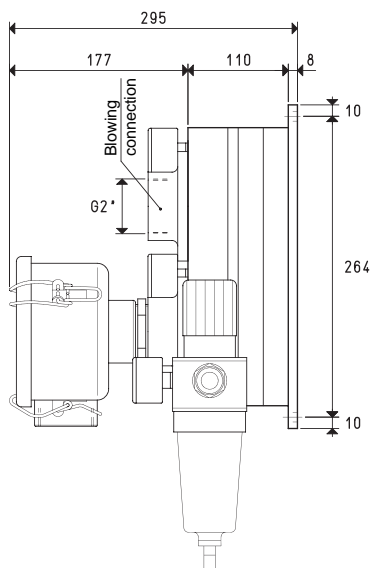


Art.		PS 140					
Supply pressure	bar (g)	1	2	3	4	5	6
Max. blowing pressure	bar (g)	0.1	0.2	0.3	0.5	0.7	0.8
Air consumption	NI/s	4.1	6.2	8.3	9.6	11.4	13.0
Quantity of blown air	cum/h	59	102	135	160	181	199
Weight	Kg	7.3					
Art.		PS 170					
Supply pressure	bar (g)	1	2	3	4	5	6
Max. blowing pressure	bar (g)	0.1	0.2	0.3	0.5	0.7	0.8
Air consumption	NI/s	5.1	7.7	10.3	12.1	14.2	16.3
Quantity of blown air	cum/h	71	125	165	194	219	240
Weight	Kg	7.3					
Art.		PS 200					
Supply pressure	bar (g)	1	2	3	4	5	6
Max. blowing pressure	bar (g)	0.1	0.2	0.3	0.5	0.7	0.8
Air consumption	NI/s	6.0	9.1	12.2	14.2	16.9	19.4
Quantity of blown air	cum/h	81	142	185	221	249	270
Weight	Kg	7.3					
Working temperature	°C	-20 / +80					

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

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

PNEUMATIC BLOWING PUMPS PS 250 and PS 300



Art.		PS 250					
Supply pressure	bar (g)	1	2	3	4	5	6
Max. blowing pressure	bar (g)	0.1	0.2	0.3	0.5	0.7	0.8
Air consumption	NI/s	7.5	11.2	15.0	17.3	20.7	24.0
Quantity of blown air	cum/h	127	185	244	286	327	366
Weight	Kg	8.2					
Art.		PS 300					
Supply pressure	bar (g)	1	2	3	4	5	6
Max. blowing pressure	bar (g)	0.1	0.2	0.3	0.5	0.7	0.8
Air consumption	NI/s	9.0	13.5	18.1	20.4	24.8	29.0
Quantity of blown air	cum/h	138	208	278	313	379	424
Weight	Kg	8.2					
Working temperature	°C	-20 / +80					

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

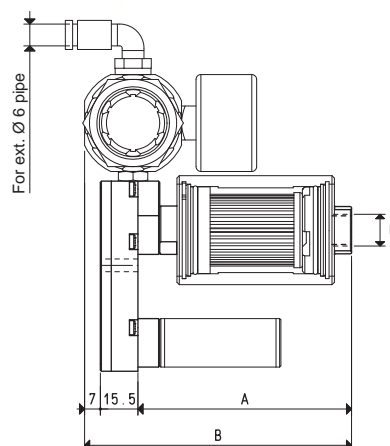
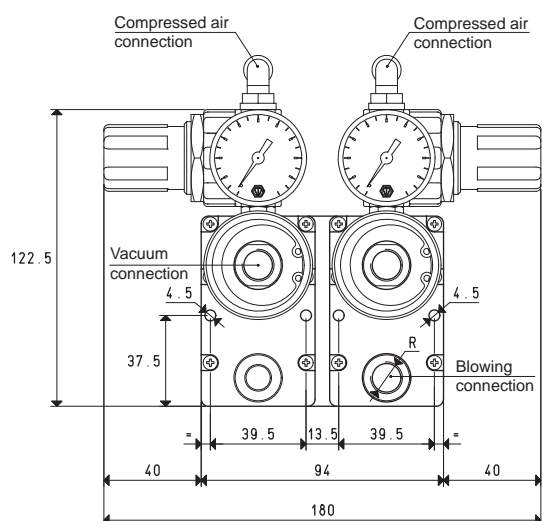
3D drawings available at [www.vuototecnica.net](http://www.vuototecnica.net)





## SMALL PNEUMATIC COMBINED SUCTION AND BLOWING PUMPS PS

All the small pneumatic suction and blowing pumps previously described can be combined regardless of their suction or blowing capacity. Given the enormous number of possible combinations, for space reasons, this catalogue only describes combinations of pumps with the same size.



PA 3							PS 3						
Art.		1	2	3	4	5	Art.		1	2	3	4	5
Supply pressure	bar (g)						Supply pressure	bar (g)					
Max. vacuum level	-KPa	20	42	62	80	85	Max. blowing pressure	bar (g)	0.1	0.2	0.3	0.5	0.7
Air consumption	NI/s	0.2	0.4	0.5	0.7	0.8	Air consumption	NI/s	0.2	0.4	0.5	0.7	0.8
Quantity of sucked air	cum/h	2.0	2.5	3.0	3.4	3.6	Quantity of blown air	cum/h	2.7	3.9	4.8	5.9	6.5
A				88			A				88		
B				110.5			B				110.5		
R	Ø			G1/4"			R	Ø			G1/4"		
Weight	Kg			0.45			Weight	Kg			0.44		

PA 7							PS 7						
Art.		1	2	3	4	5	Art.		1	2	3	4	5
Supply pressure	bar (g)						Supply pressure	bar (g)					
Max. vacuum level	-KPa	20	42	62	80	85	Max. blowing pressure	bar (g)	0.1	0.2	0.3	0.5	0.7
Air consumption	NI/s	0.4	0.6	0.8	1.2	1.4	Air consumption	NI/s	0.4	0.6	0.8	1.2	1.4
Quantity of sucked air	cum/h	3.0	4.0	5.4	5.8	6.2	Quantity of blown air	cum/h	4.4	6.1	8.2	10.1	11.2
A				88			A				88		
B				110.5			B				110.5		
R	Ø			G3/8"			R	Ø			G3/8"		
Weight	Kg			0.46			Weight	Kg			0.45		
Working temperature	°C			-20 / +80			Working temperature	°C			-20 / +80		

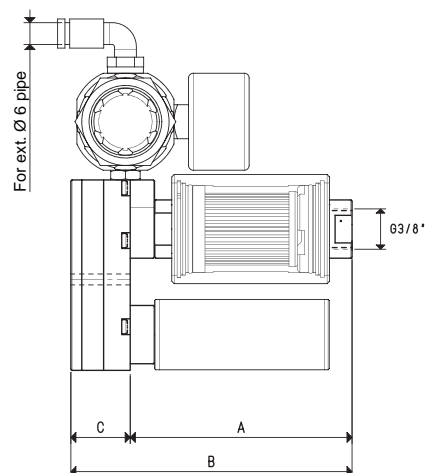
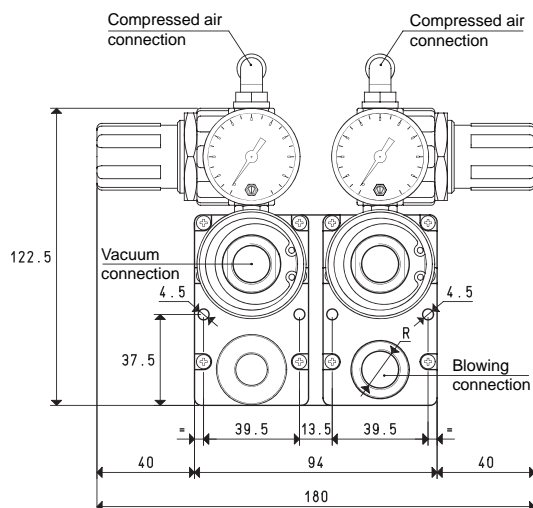
Note: All the values in the table are valid at a normal atmospheric pressure of 1013 mbar and obtained with a constant supply pressure.

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

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

## SMALL PNEUMATIC COMBINED SUCTION PUMPS PA and BLOWING PUMPS PS



PA 10						PS 10							
Art.		1	2	3	4	5	Art.		1	2	3	4	5
Supply pressure	bar (g)						Supply pressure	bar (g)					
Max. vacuum level	-KPa	20	42	62	80	85	Max. blowing pressure	bar (g)	0.1	0.2	0.3	0.5	0.7
Air consumption	NI/s	0.5	0.9	1.2	1.6	1.9	Air consumption	NI/s	0.5	0.9	1.2	1.6	1.9
Quantity of sucked air	cum/h	4.0	6.0	7.7	8.5	9.4	Quantity of blown air	cum/h	5.8	9.2	12.0	14.2	16.2
A				94			A				94		
B				118.5			B				118.5		
C				24.5			C				24.5		
							R	Ø			G3/8"		
Weight	Kg			0.59			Weight	Kg			0.49		

PA 14						PS 14							
Art.		1	2	3	4	5	Art.		1	2	3	4	5
Supply pressure	bar (g)						Supply pressure	bar (g)					
Max. vacuum level	-KPa	20	42	62	80	85	Max. blowing pressure	bar (g)	0.1	0.2	0.3	0.5	0.7
Air consumption	NI/s	0.9	1.3	1.7	2.1	2.5	Air consumption	NI/s	0.9	1.3	1.7	2.1	2.5
Quantity of sucked air	cum/h	6.0	8.0	10.2	11.5	12.6	Quantity of blown air	cum/h	9.2	12.6	16.3	19.0	21.6
A				94			A				94		
B				118.5			B				118.5		
C				24.5			C				24.5		
							R	Ø			G3/8"		
Weight	Kg			0.60			Weight	Kg			0.50		

PA 18						PS 18							
Art.		1	2	3	4	5	Art.		1	2	3	4	5
Supply pressure	bar (g)						Supply pressure	bar (g)					
Max. vacuum level	-KPa	20	42	62	80	85	Max. blowing pressure	bar (g)	0.1	0.2	0.3	0.5	0.7
Air consumption	NI/s	1.2	1.7	2.3	2.9	3.6	Air consumption	NI/s	1.2	1.7	2.3	2.9	3.6
Quantity of sucked air	cum/h	8.0	11.5	14.8	16.5	18.0	Quantity of blown air	cum/h	12.3	17.6	23.0	26.9	31.0
A				94			A				94		
B				128.5			B				128.5		
C				34.5			C				34.5		
							R	Ø			G1/2"		
Weight	Kg			0.62			Weight	Kg			0.52		
Working temperature	°C			-20 / +80			Working temperature	°C			-20 / +80		

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

10.14

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

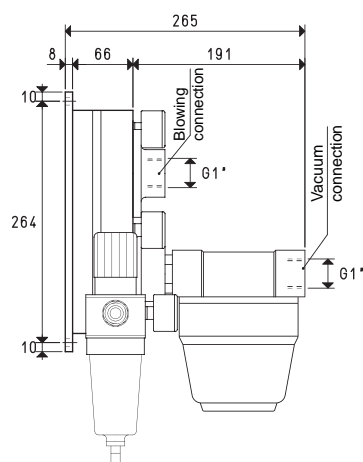
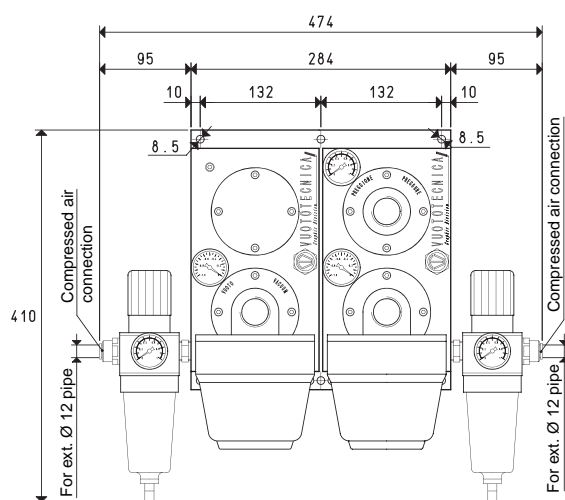


10



## PNEUMATIC COMBINED SUCTION PUMP PA and BLOWING PUMP PS

All the small pneumatic suction and blowing pumps previously described can be combined regardless of their suction or blowing capacity. Given the enormous number of possible combinations, for space reasons, this catalogue only describes combinations of pumps with the same size.



Art.		PA 40						Art.		PS 40					
Supply pressure	bar (g)	1	2	3	4	5	6	Supply pressure	bar (g)	1	2	3	4	5	6
Max. vacuum level	-KPa	14	30	46	65	82	90	Max. blowing pressure	bar (g)	0.1	0.2	0.3	0.5	0.7	0.8
Air consumption	NI/s	1.0	1.5	2.0	2.3	2.7	3.2	Air consumption	NI/s	1.0	1.5	2.0	2.3	2.7	3.2
Quantity of sucked air	cum/h	15	23	30	36	39	42	Quantity of blown air	cum/h	18	28	37	44	48	53
Weight	Kg	6.2						Weight	Kg	6.3					
Art.		PA 70						Art.		PS 70					
Supply pressure	bar (g)	1	2	3	4	5	6	Supply pressure	bar (g)	1	2	3	4	5	6
Max. vacuum level	-KPa	14	30	46	65	82	90	Max. blowing pressure	bar (g)	0.1	0.2	0.3	0.5	0.7	0.8
Air consumption	NI/s	2.0	3.0	4.1	4.9	5.7	6.6	Air consumption	NI/s	2.0	3.0	4.1	4.9	5.7	6.6
Quantity of sucked air	cum/h	29	47	58	65	73	80	Quantity of blown air	cum/h	36	57	72	83	93	104
Weight	Kg	6.2						Weight	Kg	6.3					
Art.		PA 100						Art.		PS 100					
Supply pressure	bar (g)	1	2	3	4	5	6	Supply pressure	bar (g)	1	2	3	4	5	6
Max. vacuum level	-KPa	11	28	45	65	82	90	Max. blowing pressure	bar (g)	0.1	0.2	0.3	0.5	0.7	0.8
Air consumption	NI/s	3.0	4.6	6.2	7.2	8.5	9.8	Air consumption	NI/s	3.0	4.6	6.2	7.2	8.5	9.8
Quantity of sucked air	cum/h	28	57	75	88	98	108	Quantity of blown air	cum/h	38	73	97	114	129	144
Weight	Kg	6.2						Weight	Kg	6.3					
Working temperature	°C	-20 / +80						Working temperature	°C	-20 / +80					

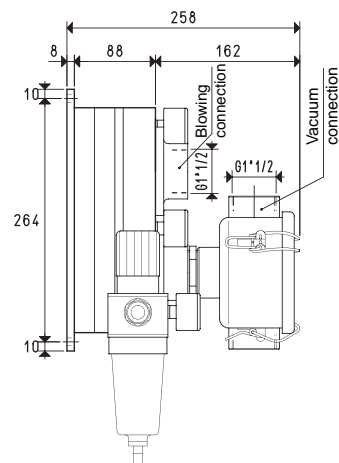
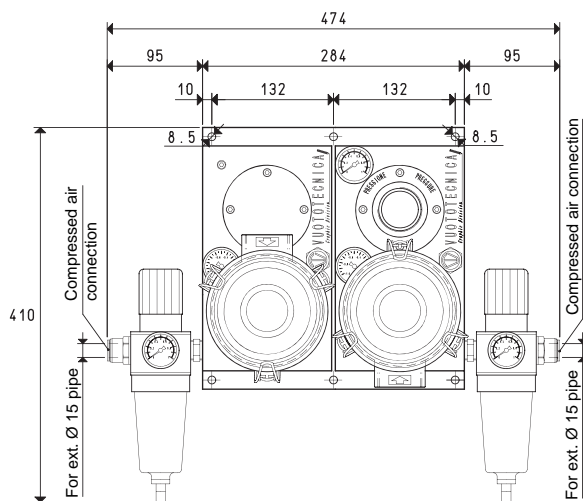
Note: All the values in the table are valid at a normal atmospheric pressure of 1013 mbar and obtained with a constant supply pressure.

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

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

PNEUMATIC COMBINED SUCTION AND BLOWING PUMPS  
PA 140 ÷ 200 WITH PS 140 ÷ 200



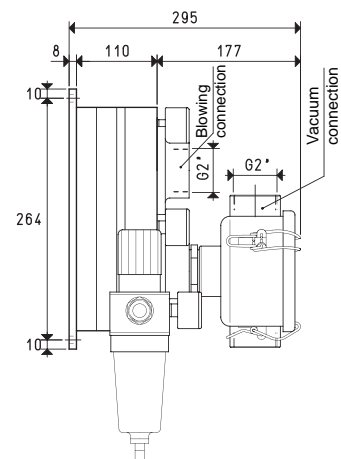
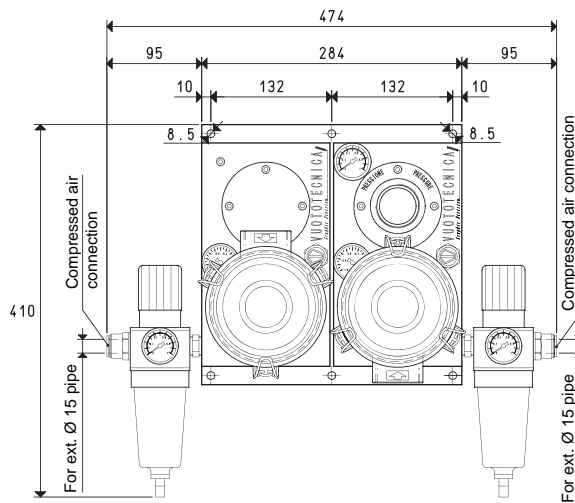
Art.		PA 140						Art.		PS 140					
Supply pressure	bar (g)	1	2	3	4	5	6	Supply pressure	bar (g)	1	2	3	4	5	6
Max. vacuum level	-KPa	15	35	55	70	85	90	Max. blowing pressure	bar (g)	0.1	0.2	0.3	0.5	0.7	0.8
Air consumption	NI/s	4.1	6.2	8.3	9.6	11.4	13.0	Air consumption	NI/s	4.1	6.2	8.3	9.6	11.4	13.0
Quantity of sucked air	cum/h	45	80	106	125	140	152	Quantity of blown air	cum/h	59	102	135	160	181	199
Weight	Kg	7.2						Weight	Kg	7.3					
Art.		PA 170						Art.		PS 170					
Supply pressure	bar (g)	1	2	3	4	5	6	Supply pressure	bar (g)	1	2	3	4	5	6
Max. vacuum level	-KPa	15	35	55	70	85	90	Max. blowing pressure	bar (g)	0.1	0.2	0.3	0.5	0.7	0.8
Air consumption	NI/s	5.1	7.7	10.3	12.1	14.2	16.3	Air consumption	NI/s	5.1	7.7	10.3	12.1	14.2	16.3
Quantity of sucked air	cum/h	53	98	128	150	168	182	Quantity of blown air	cum/h	71	125	165	194	219	240
Weight	Kg	7.2						Weight	Kg	7.3					
Art.		PA 200						Art.		PS 200					
Supply pressure	bar (g)	1	2	3	4	5	6	Supply pressure	bar (g)	1	2	3	4	5	6
Max. vacuum level	-KPa	15	35	55	70	85	90	Max. blowing pressure	bar (g)	0.1	0.2	0.3	0.5	0.7	0.8
Air consumption	NI/s	6.0	9.1	12.2	14.2	16.9	19.4	Air consumption	NI/s	6.0	9.1	12.2	14.2	16.9	19.4
Quantity of sucked air	cum/h	60	110	142	170	188	200	Quantity of blown air	cum/h	81	142	185	221	249	270
Weight	Kg	7.2						Weight	Kg	7.3					
Working temperature	°C	-20 / +80						Working temperature	°C	-20 / +80					

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



# PNEUMATIC COMBINED SUCTION AND BLOWING PUMPS

## PA 250 ÷ 300 WITH PS 250 ÷ 300



Art.		PA 250						Art.		PS 250					
Supply pressure	bar (g)	1	2	3	4	5	6	Supply pressure	bar (g)	1	2	3	4	5	6
Max. vacuum level	-KPa	15	35	55	70	85	90	Max. blowing pressure	bar (g)	0.1	0.2	0.3	0.5	0.7	0.8
Air consumption	NI/s	7.5	11.2	15.0	17.3	20.7	24.0	Air consumption	NI/s	7.5	11.2	15.0	17.3	20.7	24.0
Quantity of sucked air	cum/h	100	145	190	224	252	280	Quantity of blown air	cum/h	127	185	244	286	327	366
Weight	Kg	8.1						Weight	Kg	8.2					
Art.		PA 300						Art.		PS 300					
Supply pressure	bar (g)	1	2	3	4	5	6	Supply pressure	bar (g)	1	2	3	4	5	6
Max. vacuum level	-KPa	15	35	55	70	85	90	Max. blowing pressure	bar (g)	0.1	0.2	0.3	0.5	0.7	0.8
Air consumption	NI/s	9.0	13.5	18.1	20.4	24.8	29.0	Air consumption	NI/s	9.0	13.5	18.1	20.4	24.8	29.0
Quantity of sucked air	cum/h	106	160	213	240	290	320	Quantity of blown air	cum/h	138	208	278	313	379	424
Weight	Kg	8.1						Weight	Kg	8.2					
Working temperature	°C	-20 / +80						Working temperature	°C	-20 / +80					

**Note:** All the values in the table are valid at a normal atmospheric pressure of 1013 mbar and 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

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



SUCTION AND BLOWING SYSTEM AS

With the suction and blowing system AS we have tried to provide the printing industry with an answer to most of their requirements regarding the management of paper during the printing process, i.e.:

- The concentration of all the necessary pumps and commands on one single piece.
- An ever increasing printing quality thanks to individually controlled pumps.
- An increase of productivity resulting from the configuration and use of individual pumps.
- Reduced machine idle state due to the pneumatic pumps based on the Venturi principle.
- An improvement of the work environment thanks to the noise reduction, absence of heat and the emission of air free of oil vapours, water condensation and impurities between the sheets of paper to be separated and in the work environment.
- Energy saving due to a low compressed air consumption compared to the amount of sucked (or generated) air.
- Maintenance reduced to a regular cleaning of the filters.

The suction and blowing system AS is composed of a metal, easy-to-place cabinet, inside of which the combined pneumatic pumps PA and PS are located with the supply compressed air interception and adjustment valves.

The suction and blowing capacities of the pumps are determined according to the client's requirements or to technical specifications of the machine manufacturer.

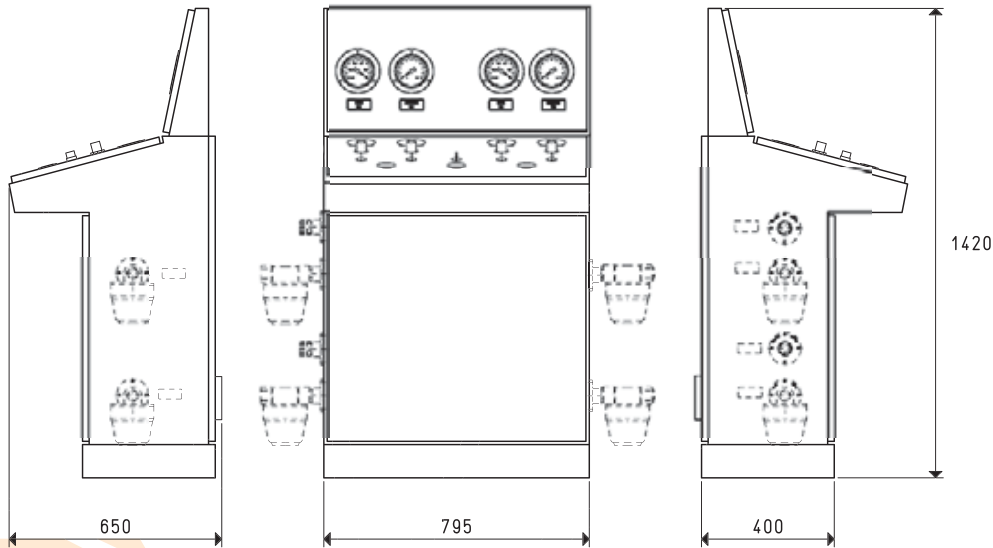
At the sides of the cabinet are located the blowing and suction connectors for the connection to the application, as well as the filters equipped with microporous cartridge against fine dust.

On the control panel are installed:

- The pneumatic main switch for supply compressed air interception with a pressure gauge for a direct reading of the line pressure.
- The pneumatic switches for supply compressed air interception of every single pump.
- The pressure reducers with relative pressure gauges for adjusting the compressed air of every single pump. The vacuum (or pressure) level as well as the pump capacity can be adjusted according to the supply air pressure.
- Vacuum gauges and pressure gauges for a direct reading of the vacuum and pressure at the application.
- Vacuum gauges for controlling the clogging level of the PS pump filters.

All our pneumatic suction and blowing pumps can be combined regardless of their suction and blowing capacity and can be installed inside the system cabinet.

Given the enormous number of possible combinations, this catalogue only describes combinations of pumps with the same size.



Art.	Set for:	Weight Kg
AS 4	4 pumps PA / PS	120

**Note:** The filters are not integral part of the system, but they are the same filters installed on PA/PS pumps on the outside of the cabinet.

To order the complete system, all you have to do is add the art. of the chosen PA and PS pumps to the art. AS 4.

E.g.: n°1 AS 4  
n°1 PA 100    n°1 PS 140  
n°1 PA 170    n°1 PS 200

You can install up to 4 pumps on the AS 4 system, regardless of their size and suction or blowing function.



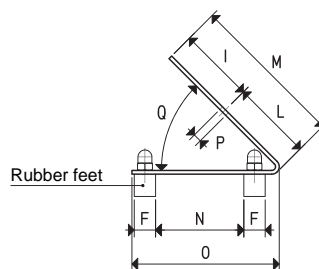
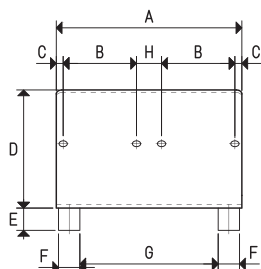


PNEUMATIC SUCTION AND BLOWING PUMP SUPPORTS

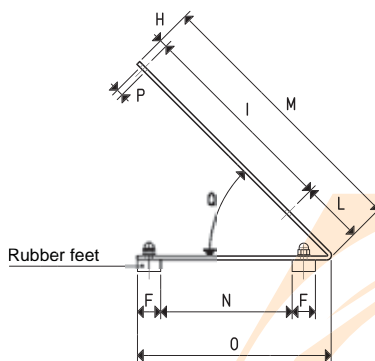
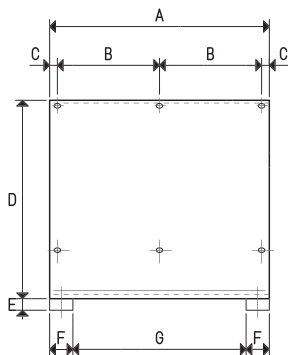
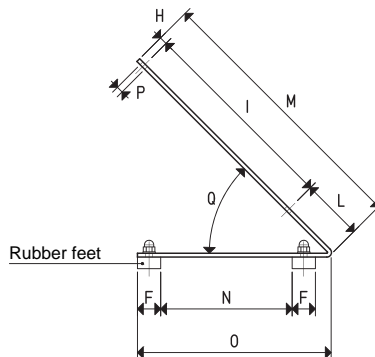
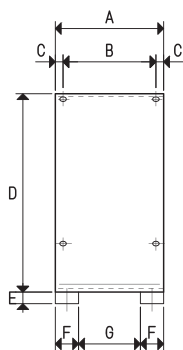
The supports described in this page have been designed to allow a quick assembly of the pneumatic suction and blowing pumps and their easy placement on the machine.

They are made with a sturdy satinated stainless sheet steel and are equipped with anti-slip and anti-vibration rubber feet.

These supports are currently available for single pneumatic pumps and for the combined ones.



Art.	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	Weight
						Ø								Ø		Kg
GR DIV 03	100	39.5	3.75	64	12	11.5	74.5	13.5	41	43	84	47.5	79	4.5	45°	0.1



Art.	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	Weight
						Ø								Ø		Kg
GR DIV 01	140	120	10	270	15	30	80	10	264	81	355	170	250	8.5	45°	2.1
GR DIV 02	284	132	10	270	15	30	224	10	264	81	355	170	250	8.5	45°	4.2

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

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



## PNEUMATIC AND BLOWING PUMPS SUCTION FILTRES

To allow the pneumatic suction and blowing pumps to work even in very dusty environments it is necessary to use these filters that, installed on the suction inlet connection, can keep the finest dust and impurities and affecting the capacity in a negligible manner.

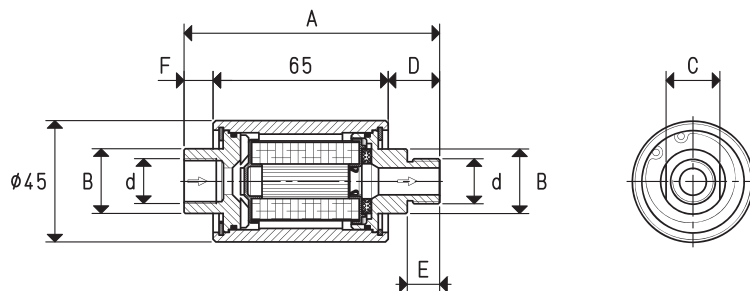
The filtering cartridges, in fact, are made with a special treated paper with a porosity level of  $5 \div 7$  micron, and pleated to increase the filtering surface.

FCL filters are composed of a transparent plexiglas cylindrical body inside of which is located the filtering cartridge locked by two anodised aluminium flanges that are kept in place by seeger rings, inside of which the threaded connectors and the seals are housed.

The filters can be inspected by simply removing one of the two flanges.

The container of the filtering element FP is made with plastic and it is screwed onto the blue plastic lid; a gasket located between the two elements ensures a perfect seal.

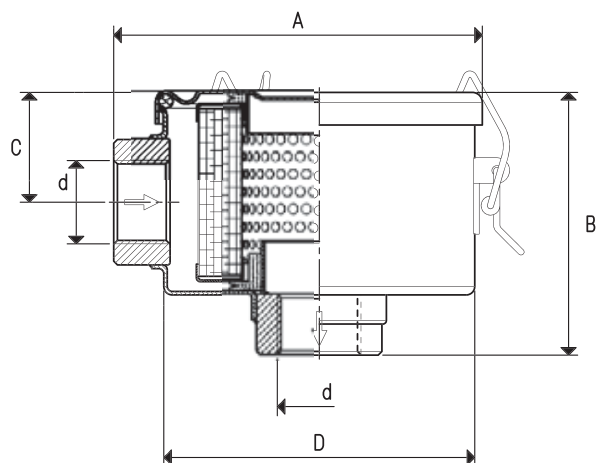
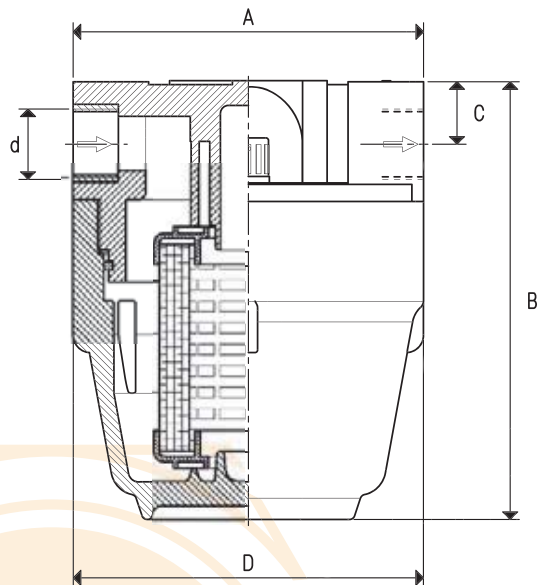
The container of the filtering element FC, as well as its lid, are made with sheet steel and varnished with a special oxidation-resistant treatment. A gasket between the lid and the container ensures a perfect vacuum seal, while the release clamps on the container allow a quick opening of the lid to check or replace the filtering cartridge.



Art.	d Ø	A	B Ø	C	D	E	F	Max. capacity cum/h	For pumps art.	Weight Kg	Spare cartridge art.
<b>FCL 1 MF</b>	G1/4"	91.2	20	17	19.1	12	7.1	5	PA - PS 3	0.12	00 FCL 03
<b>FCL 2 MF</b>	G3/8"	93.4	24	20	19.1	12	9.3	20	PA - PS 7 - 10 - 14 - 18	0.14	00 FCL 03

Art. FP 30/4/SP

Art. FC 38  
Art. FC 55



Art.	d Ø	A	B	C	D Ø	Max. capacity cum/h	For pumps art.	Weight Kg	Spare cartridge art.
<b>FP 30/4/SP</b>	G1"	145	169	24	130	100	PA - PS 40 ÷ 100	1.00	SP/4
<b>FC 38</b>	G1" 1/2	143	101	45	120	200	PA - PS 140 ÷ 200	0.95	00 FC 15
<b>FC 55</b>	G2"	143	170	79	120	300	PA - PS 250 ÷ 300	1.29	00 FC 33

10.20

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



10



## Vacuum gauge Ø 40 mm with 1/8" coaxial gas coupler



Art.	For pneumatic pumps
09 03 15	PA - PS 40 ÷ 300

## Pressure gauge Ø 40 mm with 1/8" coaxial gas coupler



Art.	bar	For pneumatic pumps
09 03 20	1 ÷ 10	All
09 03 25	1 ÷ 1.6	PS 40 ÷ 300

## 1/8" gas pressure reducer



Art.	For pneumatic pumps
MREG 1-08	PA 3 - 7 - 10 - 14 - 18 PS 3 - 7 - 10 - 14 - 18

## 1/2" gas filtre/pressure reducer



Art.	For pneumatic pumps
FR4-08-05-S	PA 40 - 70 - 100 - 140 - 170 - 200 - 250 - 300 PS 40 - 70 - 100 - 140 - 170 - 200 - 250 - 300



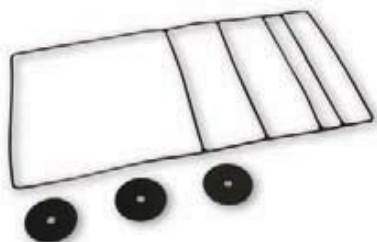
## PNEUMATIC PUMP SPARE PARTS

### Sealing kit and reed valves



Art.	For pneumatic pumps art.
00 KIT M 3	PA 3 - PS 3
00 KIT M 7	PA 7 - PS 7
00 KIT M 10	PA 10 - PS 10
00 KIT M 14	PA 14 - PS 14
00 KIT M 18	PA 18 - PS 18

### Sealing kit and disc valves



Art.	For pneumatic pumps art.
00 KIT PVP 40 M	PA 40 - PS 40
00 KIT PVP 70 M	PA 70 - PS 70
00 KIT PVP 100 M	PA 100 - PS 100
00 KIT PVP 140 M	PA 140 - PS 140
00 KIT PVP 170 M	PA 170 - PS 170
00 KIT PVP 200 M	PA 200 - PS 200
00 KIT PVP 250 M	PA 250 - PS 250
00 KIT PVP 300 M	PA 300 - PS 300

### Exhaust silencers SSX



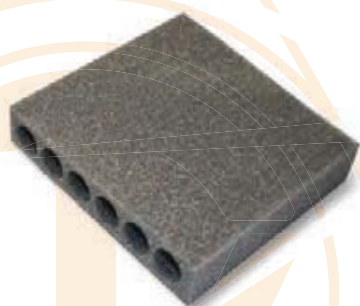
Art.	For pneumatic pumps
SSX 1/4"	PA 3
SSX 3/8"	PA 7 - 10 - 14
SSX 1/2"	PA 18

### Sound absorbing material on the exhaust



Art.	For pneumatic pumps art.	Quantity
00 15 110	PA 40 - PS 40	N°1 piece
	PA 70 - PS 70	N°1 piece
	PA 100 - PS 100	N°1 piece
	PA 140 - PS 140	N°1 piece
	PA 170 - PS 170	N°1 piece
	PA 200 - PS 200	N°1 piece
	PA 250 - PS 250	N°1 piece
	PA 300 - PS 300	N°1 piece

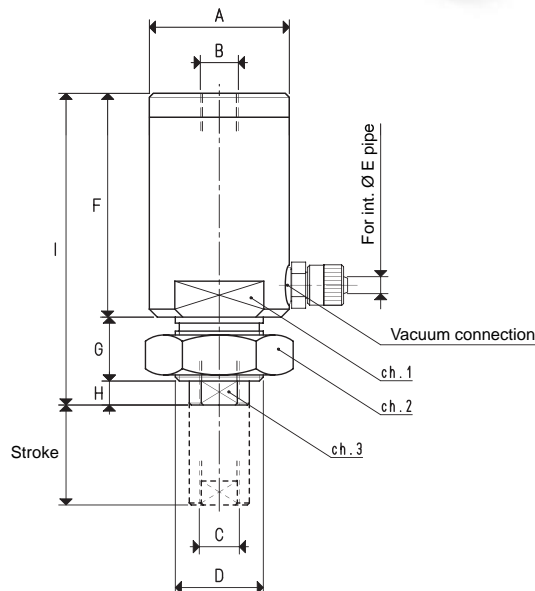
### Sound absorbing material on ejectors



Art.	For pneumatic pumps art.	Quantity
00 15 111	PA 40 - PS 40	N°1 piece
	PA 70 - PS 70	N°1 piece
	PA 100 - PS 100	N°1 piece
	PA 140 - PS 140	N°2 pieces
	PA 170 - PS 170	N°2 pieces
	PA 200 - PS 200	N°2 pieces
	PA 250 - PS 250	N°3 pieces
	PA 300 - PS 300	N°3 pieces



## VACUUM CYLINDERS



The cylinders described in this page are vacuum operated. By creating vacuum in the cylinder front chamber, the stem, which is solidly connected to the piston, comes out overcoming the opposing spring force.

The piston is pushed by the air at atmospheric pressure that gets into the cylinder's rear chamber through the hollow stem.

The greater the pressure differential between the front chamber under vacuum and the rear chamber at atmospheric pressure, and the larger the piston thrust force will be.

The stem returns into position in two ways:

- 1) By preventing the atmospheric air from entering through the stem hole and with the vacuum inserted, the pressure differential inside the cylinder is removed. Under this condition, the thrust spring and the atmospheric pressure forces prevail on the stem which is thus pushed into its initial position.
- 2) By excluding the vacuum, the atmospheric pressure is restored in both the cylinder chambers. Also in this case, being the pressure differential removed, the stem returns to its initial position pushed by the thrust spring.

The first of these two methods is the true operating principle for which this cylinder has been designed. In fact, by assembling a vacuum cup on the cylinder hollow stem and creating a vacuum, the cup will rapidly come into contact with the object to be handled and it will automatically lift it keeping the grip until the vacuum is excluded.

For this feature, vacuum cylinders associated with vacuum cups are recommended for gripping and handling machined, moulded or thermoformed objects, as well as for separating sheets of paper or plastic, sheet steel, etc. and lifting printed circuits or thin plastic panels.

The advantages offered by these vacuum cylinders include: brief and quick cycles controlled by only one valve for vacuum interception; automatic compensation of the height of the objects to be gripped with no compression on them; non-rotating piston and an extremely easy fixing. They are fully made with anodised aluminium and are equipped with a special self-lubricating technopolymer bush which guarantees long duration.

Art.		25 05 10	25 10 10	25 15 10
Stroke	mm	17	25	30
Thrusting force at -KPa 80	Kg	2.0	4.3	12.0
Lifting force at -KPa 80	Kg	0.45	1.0	2.5
Minimum cycle time	sec	0.3	0.4	0.6
Min. vacuum level	-KPa	60	60	60
Min. capacity necessary	Nl/1'	15	30	90
Working temperature	°C	5 ÷ 80	5 ÷ 80	5 ÷ 80
Weight	g	55	145	515
A	Ø	24	35	59
B	Ø	M 6	G1/8"	M 10
C	Ø	M 5	G1/8"	G1/4"
D	Ø	M 16 x 1.5	M 22 x 1.5	M 40 x 1.5
E	Pipe vacuum connection	Ø int.	4	4
F		39.5	56	66
G		12	16	17
H		4	6	9
I		55.5	78	92
Ch. 1		19	27	50
Ch. 2		24	32	55
Ch. 3		8	12	17

**Note:** By adding the letters PZ to the code, the cylinder will be supplied with technopolymer piston (E.g.: 25 05 10 PZ).

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

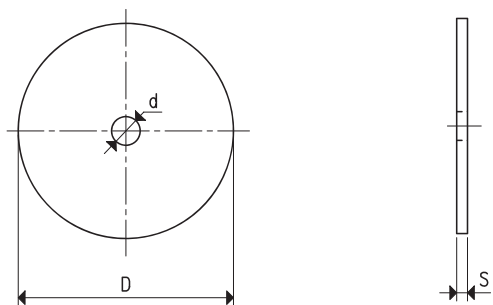
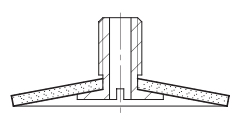
GAS-NPT thread adapters available at page 1.117

DISC CUPS

Apart from some standard rubber discs, these articles are generally produced upon specific request by the client and for a minimum amount to be specified in the offer phase.

They can be die-cut from sheets or moulded in nitrile rubber, in natural para rubber, silicon or special compounds. They can also be made with reinforced rubber or polyurethane.

The discs described above are used in the printing industry, as an alternative to vacuum cups, for gripping and handling sheets of paper, cardboard or plastic.



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

Art.	D	d	S
	Ø	Ø	
01 17 31	17	3.5	0.8
01 30 41	30	4.0	1.5
01 57 81	57	8.5	1.3



## SPECIAL PRODUCTS

DEGASSIFIERS  
MOBILE DEGASSIFIERS WITH WHEELS AND HANDLE  
ELECTRIC EQUIPMENT FOR VACUUM TEST  
PNEUMATIC EQUIPMENT FOR VACUUM TEST  
SUCTION UNITS WITH SYPHON FILTRE GA FS 5 and GA FS 10  
SUCTION UNITS WITH SYPHON FILTRE GA FS 20 ES ÷ GA FS 30 ES  
SAFETY SUCTION UNITS WITH SYPHON FILTRE  
LIQUID-SUCKING PUMPSETS

PAG. 11.01  
PAG. 11.02  
PAG. 11.03  
PAG. 11.04  
PAG. 11.05  
PAG. 11.06  
PAG. 11.07  
PAG. 11.08

# DEGASSIFIERS

The function of degassifiers is to suck the air bubbles that remain in the synthetic resin or composite material mixes and in silicon or similar compounds during their preparation. The presence of bubbles, in fact causes a drastic reduction of their technical features and negatively affects their appearance.

Degassifiers are composed of:

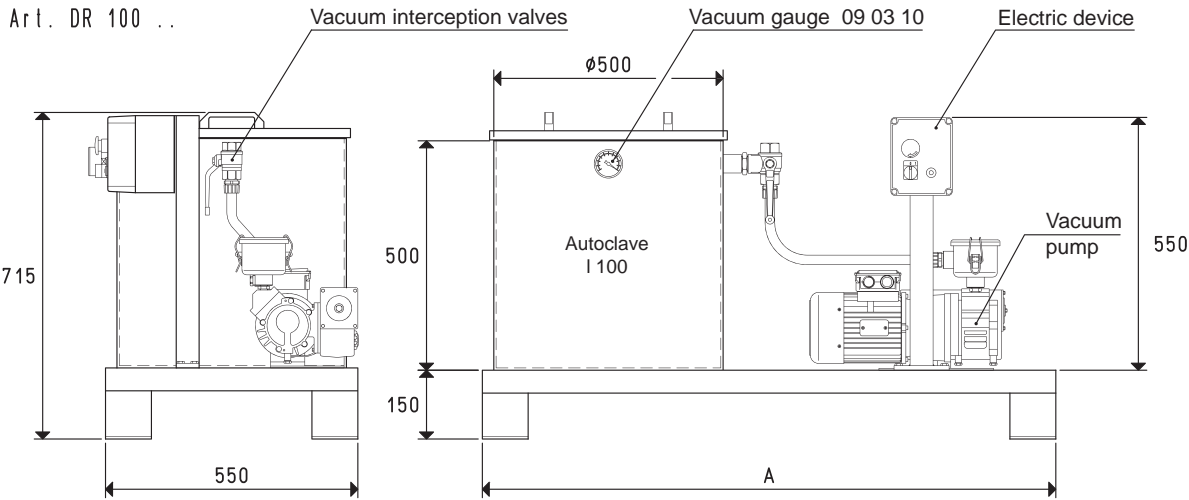
- One or two welded sheet steel autoclaves, featuring a perfect vacuum seal, equipped with transparent methacrylate lids that can be manually removed.
- An oil-bath rotating vane pump for high vacuum.
- One or two vacuum switches for a direct reading of the vacuum level in the autoclave.
- One or two three-way manual valves for vacuum interception.
- A switchgear enclosed in a special protective casing.
- A profiled steel frame for assembling all the components.

Inside the autoclave, the degassifiers can reach a final vacuum level equal to 99.5 %. With small modifications and with the aid of insulating or waterproofing resins these degassifiers can be used for vacuum-impregnating windings for electric motors, transformers, electric coils, etc.

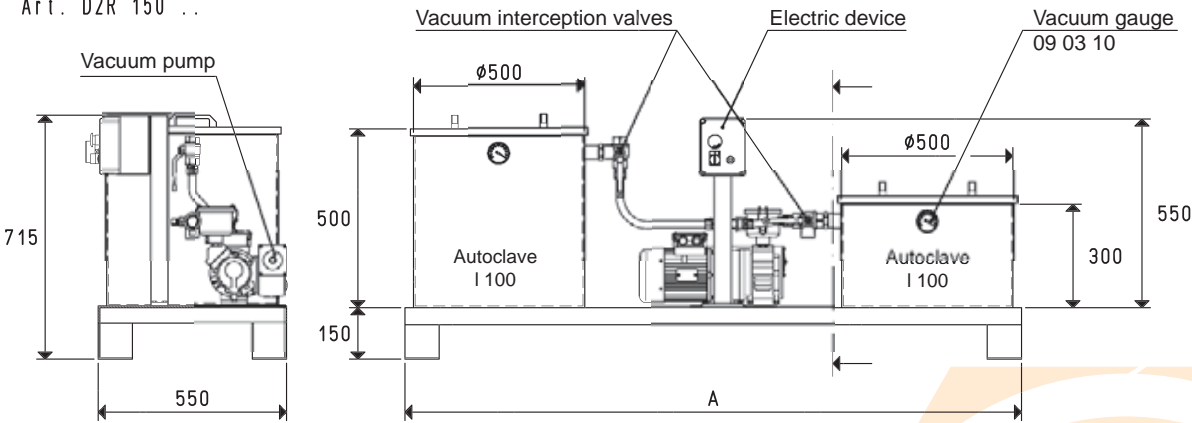
Upon request they can also be supplied in different versions.



Art. DR 100 ..



Art. D2R 150 ..



Art.	Autoclaves Litres	Pump mod.	Motor execution Volt	Motor power Kw	Switchgear art.	A	Weight Kg
DR 100 01	100	MV 20A	3 ~ 230/400-50Hz	0.75	DR 100 90	1250	62.0
DR 100 02	100	MV 40A	3 ~ 230/400-50Hz	1.10	DR 100 90	1250	85.5
D2R 150 01	100+50	MV 20A	3 ~ 230/400-50Hz	0.75	DR 100 90	1800	82.0
D2R 150 02	100+50	MV 40A	3 ~ 230/400-50Hz	1.10	DR 100 90	1800	105.5

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

MOBILE SYSTEM FOR RESIN VACUUM INFUSION

This system has been designed for allowing resin vacuum infusion moulding and composite fibre vacuum forming.

The system is composed of:

- A welded sheet steel autoclave featuring a perfect vacuum seal, equipped with a transparent methacrylate lid that can be manually removed.
- An oil-bath rotating vane pump, for high vacuum.
- A reducer for adjusting the required vacuum level.
- A vacuum gauge, for a direct reading of the vacuum level in the autoclave.
- A three-way manual valve for pump vacuum interception and for restoring the atmospheric pressure inside the autoclave.
- A two-way valve for vacuum interception at the application.
- A switchgear, enclosed in a special protective casing.
- A profiled steel frame for assembling all the components mounted on wheels.
- A handle to move and place it.

Resin vacuum infusion moulding is carried out connecting the connector controlled by the two-way manual valve to the mould.

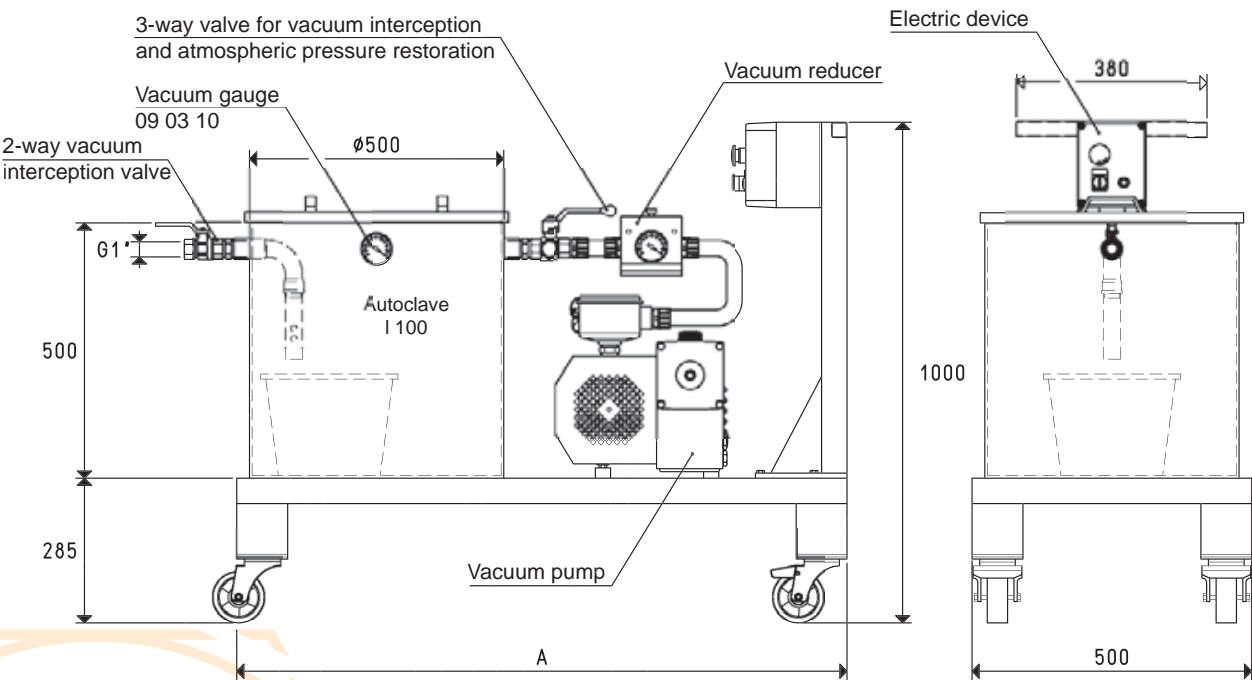
The resin inside its container is sucked via the vacuum inside the mould, until it's totally full. The resin in excess is collectes in the autoclave.

The same connector can be connected to the vacuum press bag for forming composite fibres.

The installed vacuum pumps allow reaching a maximum vacuum level of 99.5% inside the autoclave. Therefore, this device can also be used as a degassifier.

The vacuum reducer allows adjusting the vacuum level within a minimum value of 20% a maximum value of 99.5%.

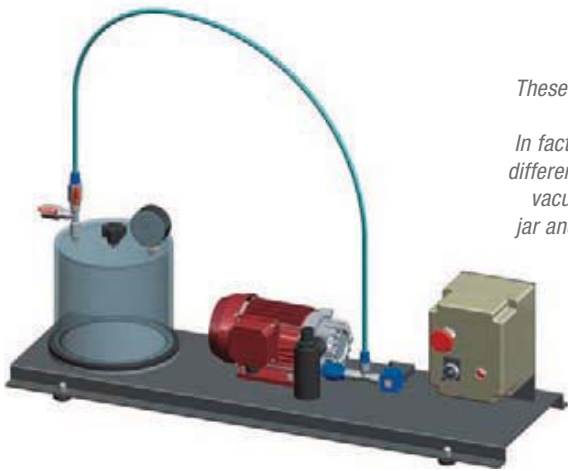
Upon request, they can be supplied in different versions.



Art.	Autoclave Litres	Pump mod.	Motor execution Volt	Motor power Kw	Switchgear art.	A	Weight Kg
DR 100 M 01	100	MV 20A	3 ~ 230/400-50Hz	0.75	DR 100 90	1100	64.0
DR 100 M 02	100	MV 40A	3 ~ 230/400-50Hz	1.10	DR 100 90	1200	87.5



# SWITCHGEARS FOR VACUUM TESTS



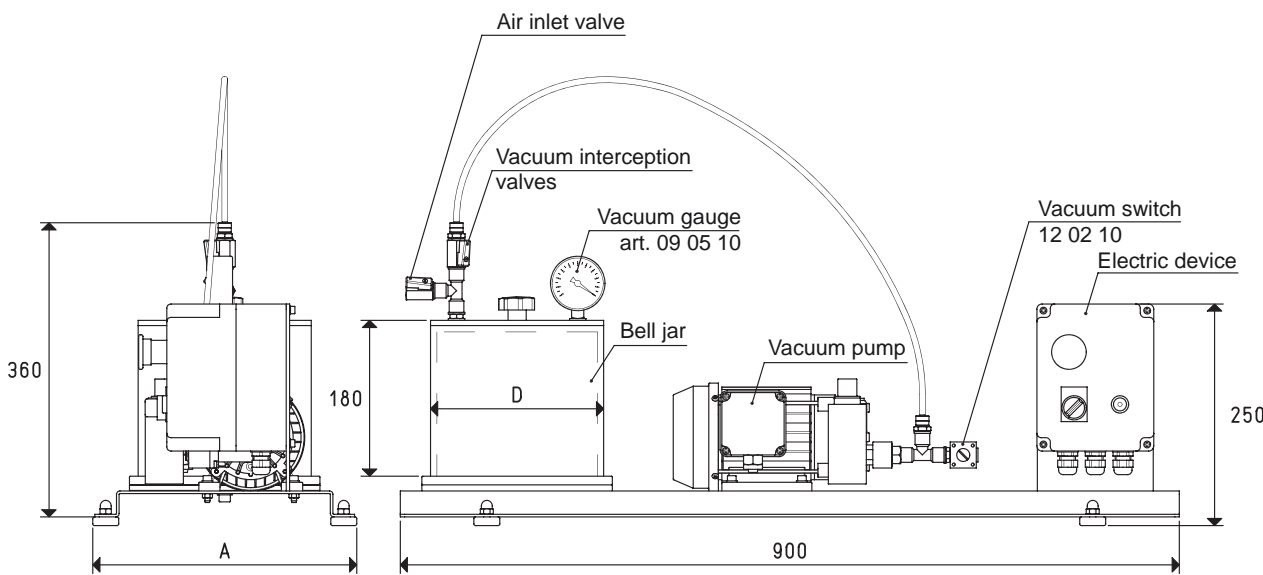
These devices have been created for testing the weldings and, therefore, the sealing of cellophane or PVC wrappings for food products. In fact, the wrapping placed inside a bell jar tends to inflate because of the pressure differential created between the air at atmospheric pressure contained inside and the vacuum created inside the bell jar. The higher the vacuum level reached in the bell jar and the greater the thrust that the air contained in the wrapping will exert on the walls and, therefore, on the weldings.

The devices for vacuum tests are composed of:

- A mobile transparent plexiglas bell jar.
- A support surface with seal.
- A dry rotating vane vacuum pump.
- Two 2-way manual valves for vacuum interception.
- A vacuum gauge for a direct reading of the vacuum level.
- A mini vacuum switch for vacuum level adjustment.
- A switchgear enclosed in a special protective casing.
- A bent sheet steel frame with anti-vibration feet for assembling all the components.

The vacuum level that can be reached inside the bell jar depends on the pump installed.

The test values are adjustable and can be automatically repeated. They can be supplied in different versions upon request.



Art.	Bell jar Litres	Pump mod.	Motor execution Volt	Motor power Kw	Switchgear art.	A	D Ø	Weight Kg
ATS 05	5.5	VTS 4M	1 ~ 230-50Hz	0.18	D0 06 95	300	200	21.5
ATS 20	21.5	VTS 10M	1 ~ 230-50Hz	0.30	D0 06 95	500	400	29.5

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



PNEUMATIC DEVICES FOR VACUUM TESTS

The function of these devices is to test the welding sealing in flow-pack, cellophane or food product wrappings.

They are composed of:

- A transparent plexiglass cylindrical container into which the water is poured and the vacuum is created.
- A mobile transparent plexiglas lid with, on its lower part, a perforated disc fixed via a pin which is for keeping the flow-pack wrapping submerged in the water, in the container and on its upper part, the instruments for managing and controlling the vacuum.
- A multiple ejector multi-stage vacuum generator.
- A check valve located on the generator suction inlet to prevent the air from returning into the container when the generator is not in operation.
- A sleeve valve for compressed air interception.
- A supply compressed air reducer equipped with pressure gauge.
- A 2-way manual valve for restoring the atmospheric pressure inside the container.

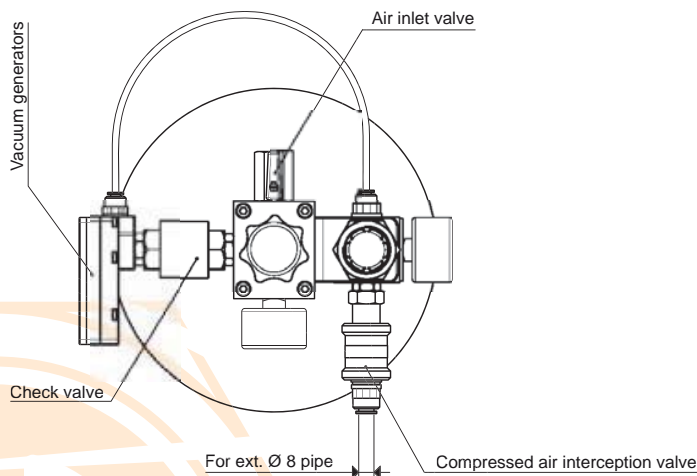
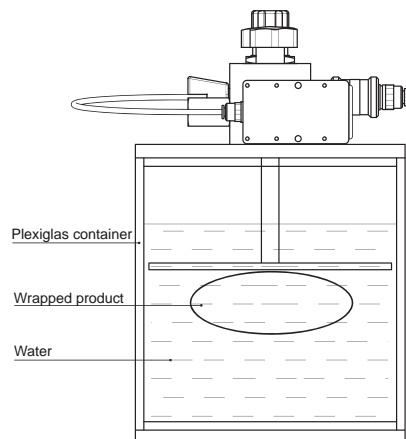
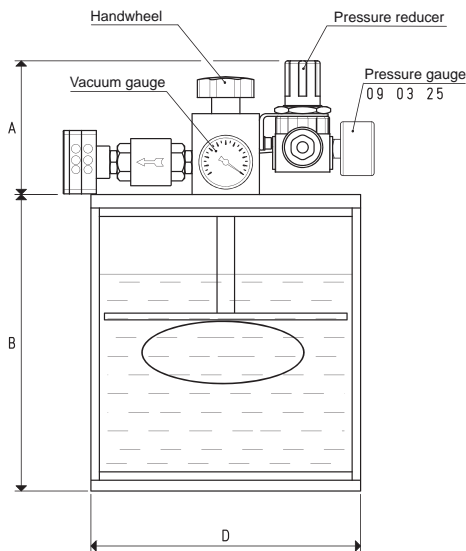
The wrapping submerged in the water in the container tends to inflate because of the pressure differential produced between the air at atmospheric pressure on its inside and the vacuum created in the container. The higher the vacuum level reached in the bell jar and the greater the thrust that the air contained in the wrapping will exert on the walls and, therefore, on the weldings.

Any air leak from the wrapping due to a defecting welding is proved by bubbles that indicate the exact point of the welding that's leaking.

The vacuum level that can be reached inside the bell jar depends on the pump installed.

The test values are adjustable and can be automatically repeated.

They can be supplied in different versions upon request.



Art.	Container Litres	A	B	D Ø	Generator art.	Vacuum gauge art.	Weight Kg
ATP 02	6.0	100	220	220	M10	09 03 15	5.0

11.04

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



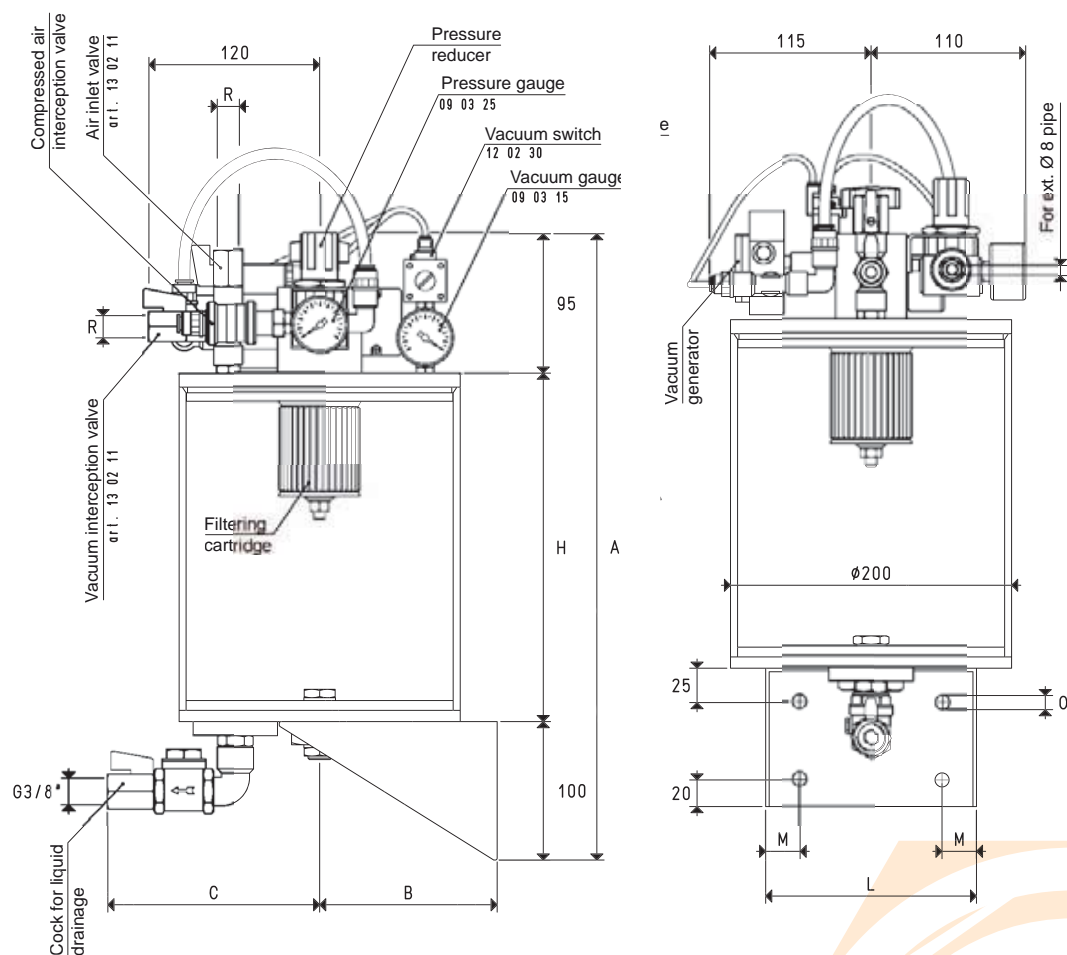
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*These devices are composed of:*

- The vacuum level, preset with the vacuum switch, is automatically maintained in the plexiglas container. These suction units with syphone filtre are suited for vacuum cup clamping systems for gripping glass, marble, granite, light alloys and in all those cases with a considerable presence of refrigerating liquids. They are also recommended for sucking creamy or muddy substances, hard to handle with traditional pumps. These suction assemblies are fed by compressed air at a pressure of 4÷6 bar (g) only.

*Upon request they can also be supplied in different versions.*



Art.	A	B	C	H	L	M	O	R	Vacuum generator art.	Capacity	Weight
							Ø	Ø		l	Kg
<b>GA FS 5</b>	445	130	175	250	150	25	10	G3/8"	M14	6.0	6.0
<b>GA FS 10</b>	535	130	175	340	150	25	10	G3/8"	M14	8.5	6.5

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



SUCTION UNITS WITH SYPHON FILTRE GA FS 20 ES ÷ GA FS 30 ES

These suction units with syphon filters share the same features and functions as the previous ones; their distinctive features are their size and the type of generator installed.

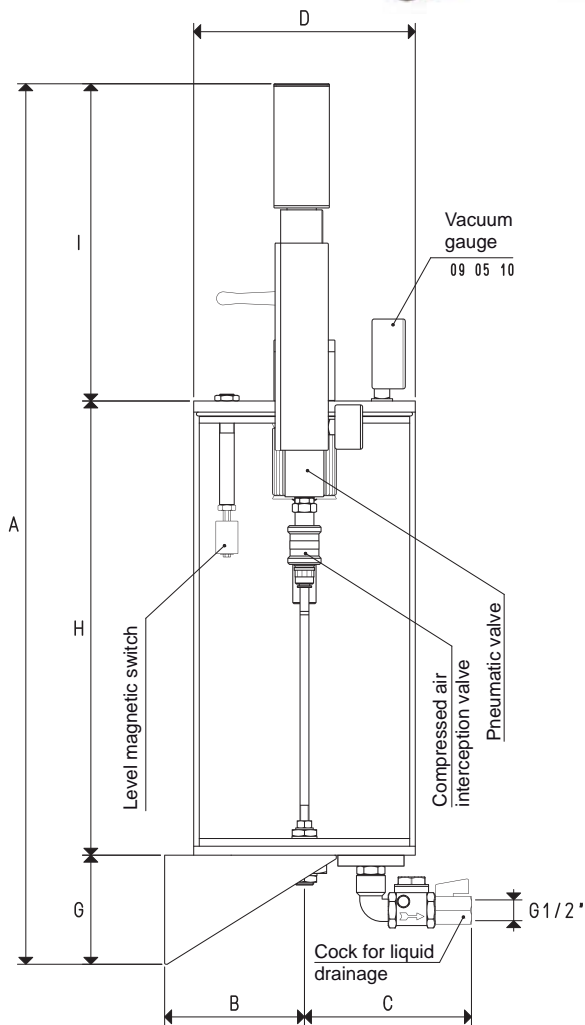
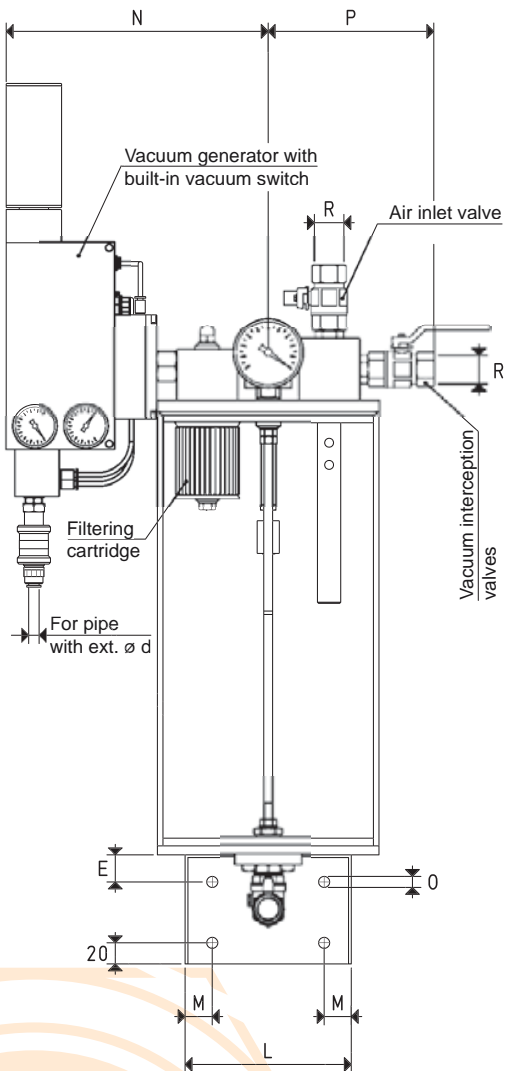
These devices are composed of:

- A standard syphon filtre already described in Chapter 5.
- A compressed air-operated multi-stage vacuum generator with a built-in energy-saving system ES.
- A vacuum gauge for a direct reading of the vacuum level in the container.
- A sleeve valve for compressed air interception.

The vacuum level, preset with the vacuum switch, is automatically maintained in the plexiglas container. These suction units with syphons are suited for vacuum cup clamping systems for gripping glass, marble, granite, light alloys and in all those cases with a considerable presence of refrigerating liquids.

They are also recommended for sucking They are also recommended for sucking creamy or muddy substances, hard to handle with traditional pumps.

These suction assemblies are fed by compressed air at a pressure of 4÷6 bar (g) only. Upon request they can also be supplied in different versions.



Art.	A		B	C	d	D	E	G	H	I	L	M	N	O	P	R	Vacuum generator art.	Capacity	Weight
					Ø	Ø								Ø		Ø		l	Kg
GA FS 20 ES	795	130	175	8	200	25	100	410	290	150	25	240	10	145	G1/2"	PVP 25MDX ES	10.5	9.5	
GA FS 25 ES	745	150	195	8	240	25	100	510	290	170	30	270	11	180	G3/4"	PVP 50MDX ES	19.5	12.0	
GA FS 30 ES	885	190	225	12	300	30	120	610	330	200	40	310	11	220	G1"	PVP 75MDX ES	38.0	22.0	

11.06

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



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## SAFETY SUCTION UNITS WITH SYPHON FILTRE



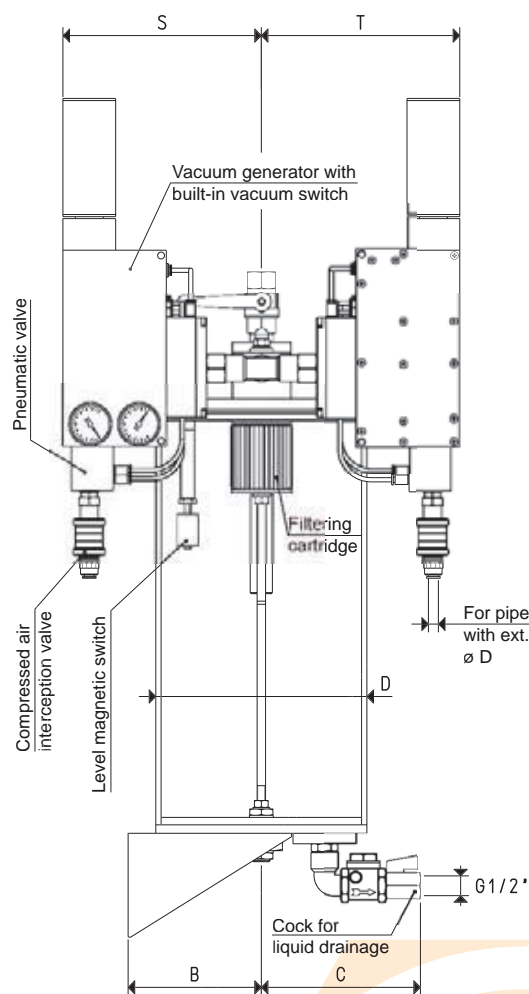
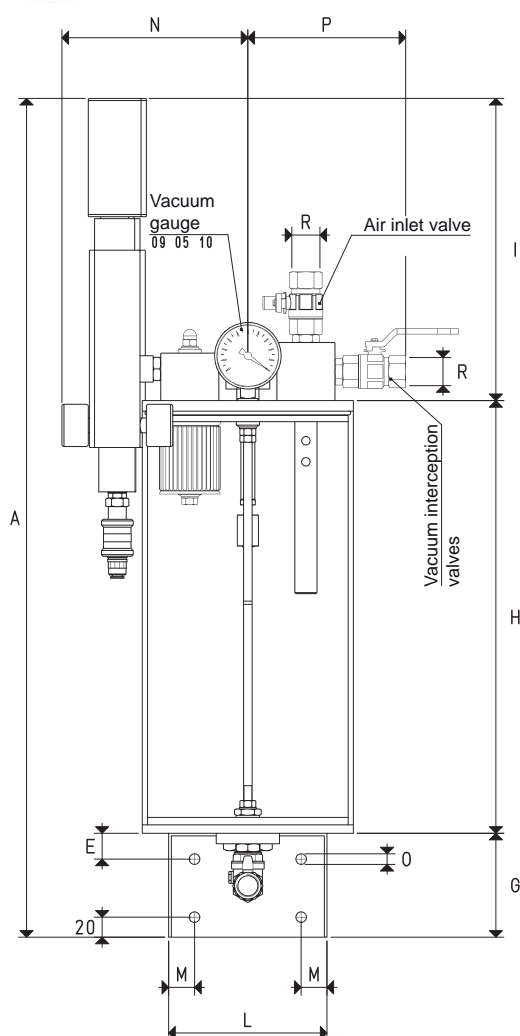
These units have the same functions as the previous ones, but they differ for their automation and composition. In fact, these devices are composed of:

- A standard syphon filtre already described in Chapter 5.
- Two compressed air-operated multistage vacuum generators with built-in energy-saving system ES.
- A vacuum gauge for a direct reading of the vacuum level in the container.
- Two sleeve valves for compressed air interception.

These safety suction units normally provide for the operation of one vacuum generator with subsequent automatic insertion of the other one for higher consumptions and when, for whatever reason, the plant vacuum level goes below the preset minimum value. All this also guarantees continuous operation even in presence of a vacuum generator breakdown. The vacuum level, preset with the vacuum switch, is automatically maintained in the plexiglas container. These suction units with syphone filtre are suited for vacuum cup clamping systems for gripping glass, marble, granite, light alloys and in all those cases with a considerable presence of refrigerating liquids.

They are also recommended for sucking They are also recommended for sucking creamy or muddy substances, hard to handle with traditional pumps.

These suction assemblies are fed by compressed air at a pressure of 4÷6 bar (g) only. Upon request they can also be supplied in different versions.



Art.	A	B	C	d	D	E	G	H	I	L	M	N	O	P	R	S	T	N° 2 vacuum generators art.	Capacity l	Weight Kg
				Ø	Ø								Ø	Ø						
<b>GAS FS 20 ES</b>	795	130	175	8	200	25	100	410	290	150	25	175	10	145	G1/2"	188	188	PVP 25 MDX ES	10.5	11.5
<b>GAS FS 25 ES</b>	745	150	195	8	240	25	100	510	290	170	30	175	11	180	G3/4"	188	188	PVP 50 MDX ES	19.5	14.0
<b>GAS FS 30 ES</b>	885	190	225	12	300	30	120	610	330	200	40	190	11	220	G1"	201	201	PVP 75 MDX ES	38.0	24.0

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

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

11.07



## LIQUID-SUCKING PUMPSETS

These pumpsets are for sucking liquids and collect them inside their tanks. The maximum level difference that can be exceeded is approximately 9 metres.

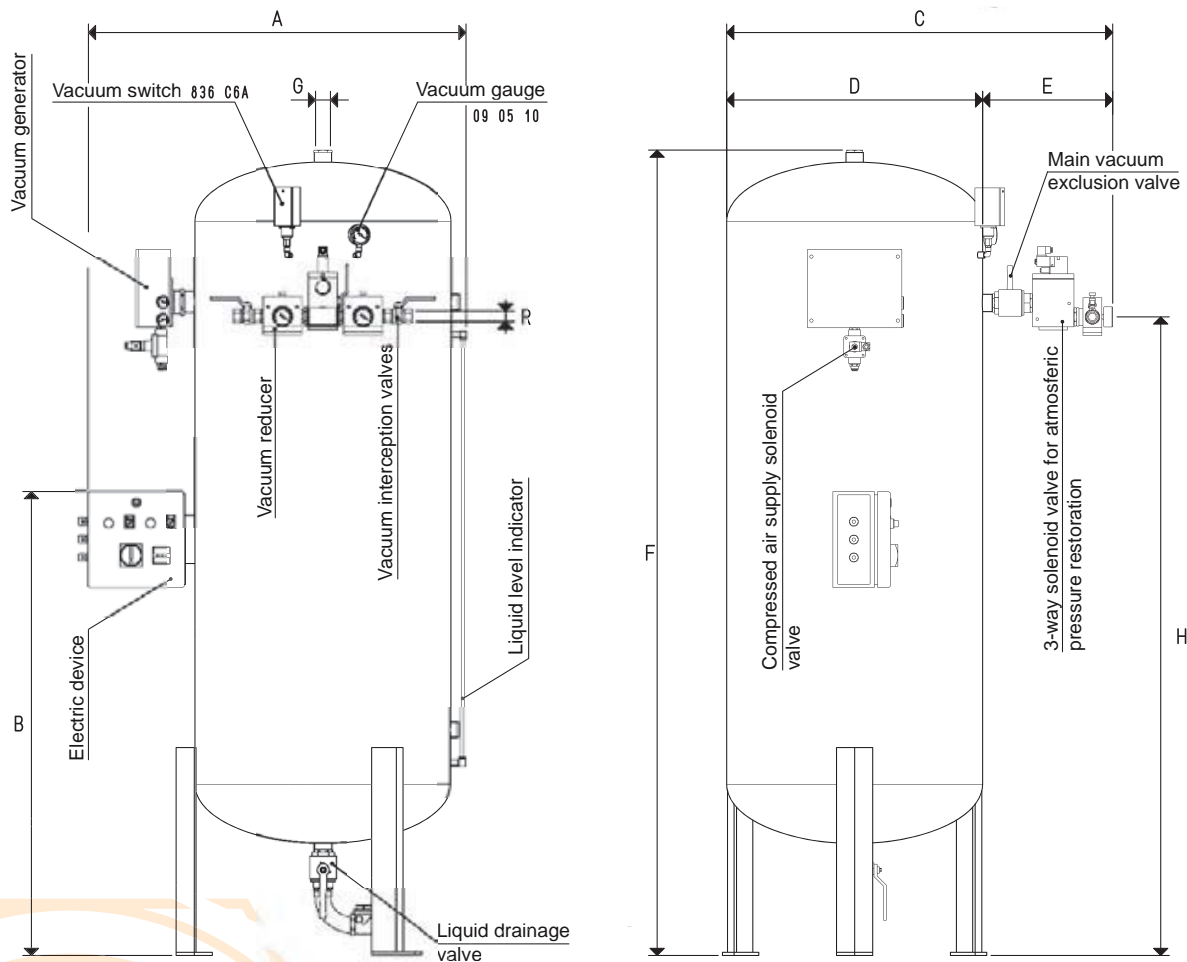
They are composed of:

- A welded sheet steel large-capacity tank.
- A compressed-air operated multi-stage vacuum generator.
- A vacuum switch for adjusting the vacuum level within which to operate.
- A vacuum gauge for a direct reading of the vacuum level in the tank.
- A liquid level visual indicator light.
- Two magnetic switches for minimum and maximum liquid level.
- A three-way solenoid valve line for restoring the atmospheric pressure in the tank, with consequent automatic drainage of the accumulated liquid.
- Two vacuum reducers for vacuum level adjustment at the application.
- Three manual valves for vacuum interception.
- A switchgear enclosed in a special protective casing for manual or automatic operation selection.

Liquid-sucking pumpsets are normally used for extracting the water contained in washing machine and dishwasher filters that cannot be automatically drained after their commissioning.

They are also recommended for transferring dense liquids and creamy or muddy substances.

Upon request, they can be supplied in other versions.



Art.	Capacity	A	B	C	D	E	F	G	H	R	Vacuum generator art.	Switchgear art.	Voltage Volt	Weight Kg
<b>DVL 150</b>	150	780	900	700	400	300	1600	G1"	1220	G3/8"	PVP 75 MDXR	DVL 150 90	1 ~ 230-50Hz	63
<b>DVL 300</b>	300	880	1150	800	500	300	1890	G2"	1470	G3/8"	PVP 140 MR	DVL 150 90	1 ~ 230-50Hz	75
<b>DVL 500</b>	500	980	1450	1000	600	400	2220	G2"	1800	G1/2"	PVP 250 MR	DVL 150 90	1 ~ 230-50Hz	165
<b>DVL 1000</b>	1000	1180	1450	1200	800	400	2480	G3"	2000	G1"	PVP 300 MDR	DVL 150 90	1 ~ 230-50Hz	214

11.08

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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