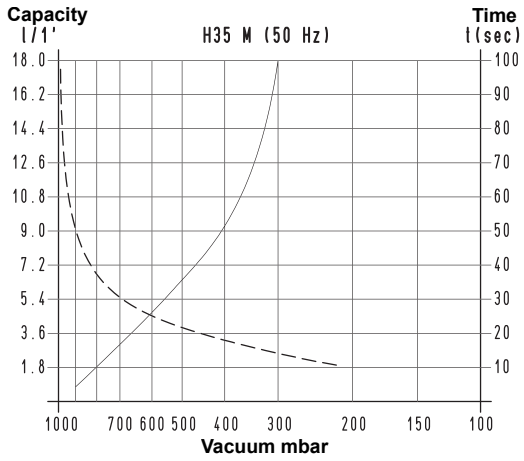
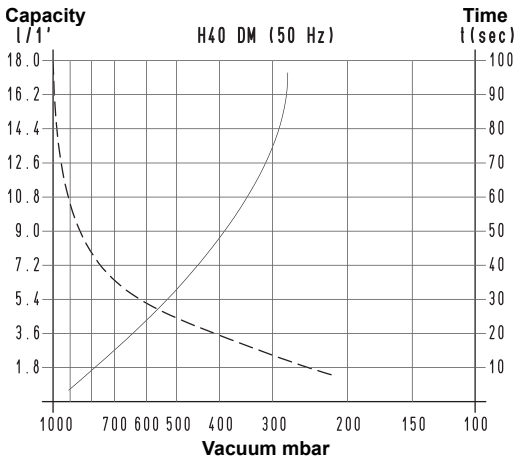
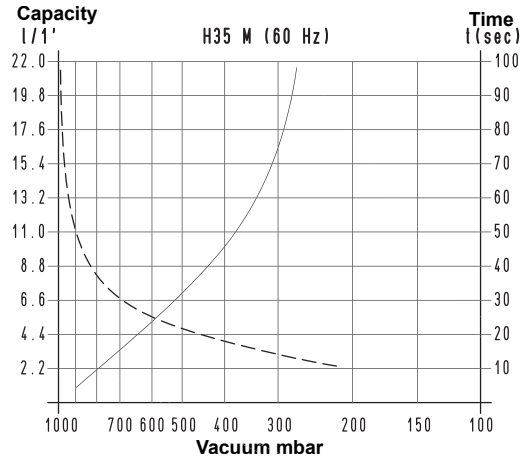
VACUUM PUMPS AND PUMPSETS

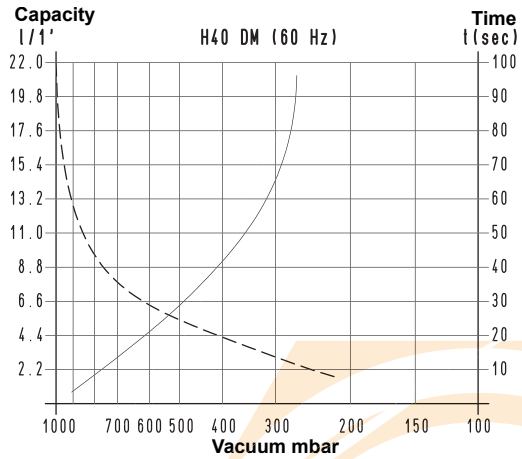
MEMBRANE VACUUM MINI PUMPS

The mini pumps described in this page are membrane-type. They can be used both as vacuum pumps and compressors. In the latter version they can supply compressed air 100% oil-free up to a maximum 2 bar (g) pressure.
They are composed of:
- An air-cooled single-phase electric motor with protection class IP 00 (assembly execution).
- A pump body made of plastic corrosion-resistant material, complete with fittings at both suction and blowing ports.
- A Viton membrane, resistant to wear and corrosion, solidly connected to a connecting rod.
- A connecting rod with built-in "long life" bearing activated by a balanced eccentric system fitted on the motor shaft.
- An aluminium support for fixing the pump.
They are available in the versions with single and double head to be used in series or in parallel.
Membrane vacuum mini pumps are very silent (≤ 50dB(A)), they have reduced vibrations and can be installed in any position.
Lubrication-free, they require no maintenance.
Thanks to their minimal overall dimensions and reduced weight, they are particularly indicated for being installed on portable equipment.
They are suited for a discontinuous and non-intense use.







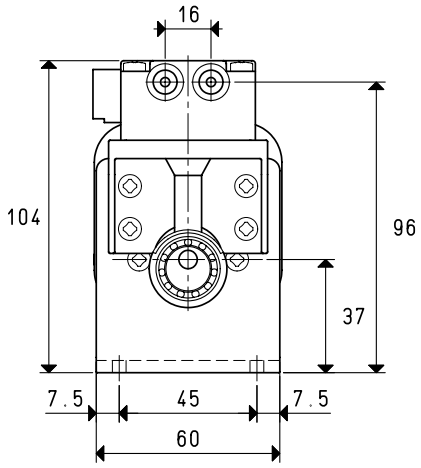


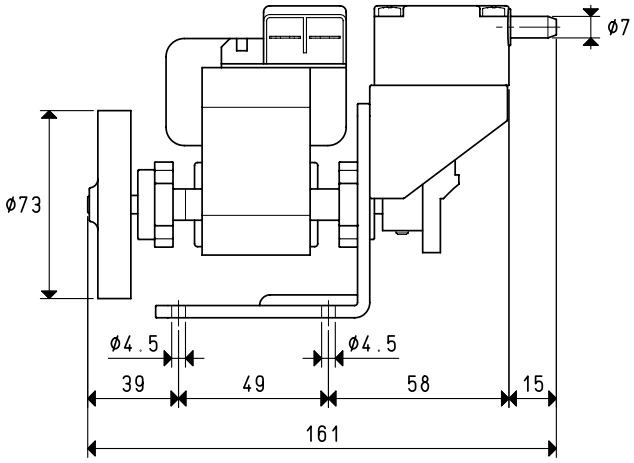
To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{6}$

– – – Curve regarding capacity (referring to a 1013 bar pressure)
——— Curve regarding the emptying of a 6-litre volume

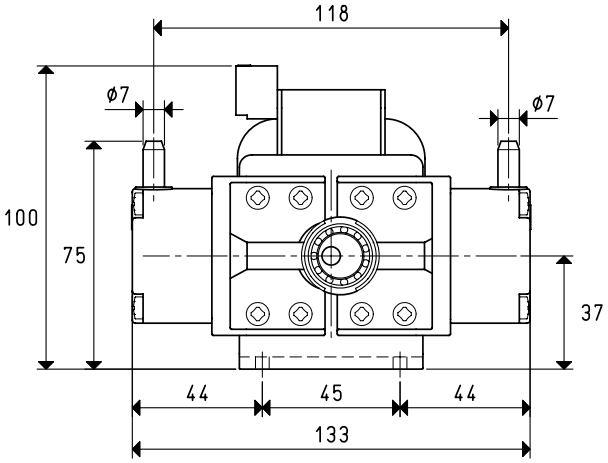
V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)

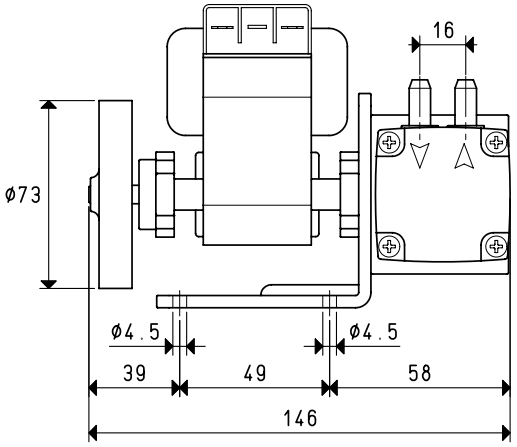
H 35 M





H 40 DM

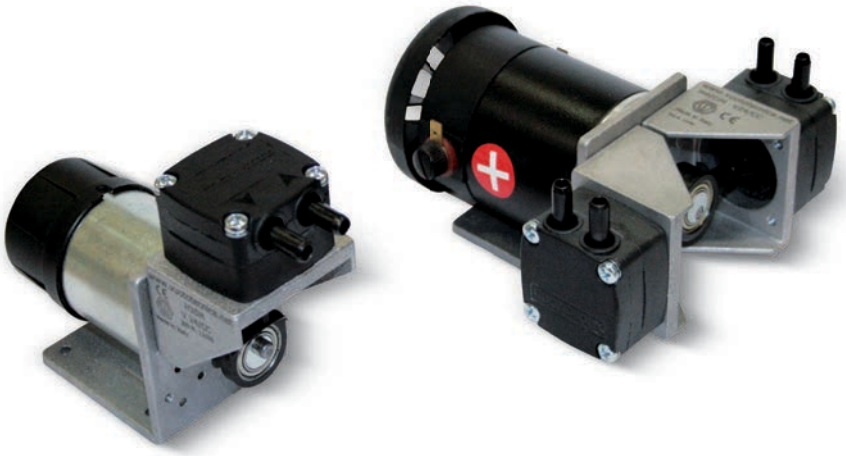


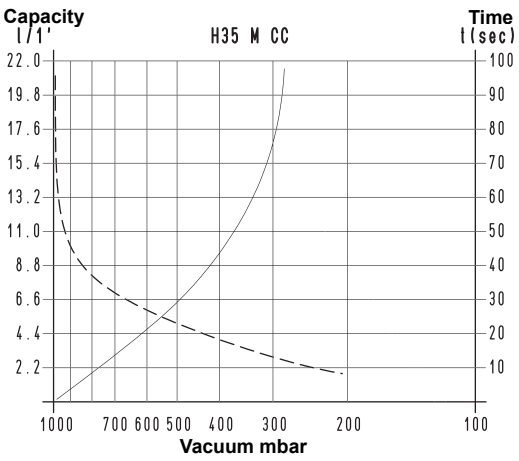


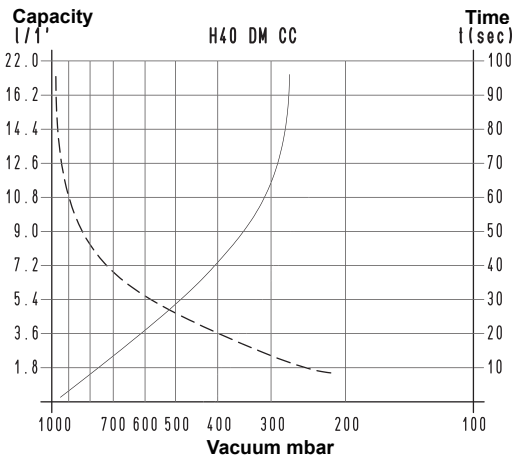
Art.		H35 M		H40 DM	
Frequency		50Hz	60Hz	50Hz	60Hz
Nominal capacity:					
Connection in series	l / 1'	17.5	21.0	18.0	21.5
Connection in parallel	l / 1'	=	=	18.0 + 18.0	21.5 + 21.5
Final pressure:					
Connection in series	mbar abs.	200		60	
Connection in parallel	mbar abs.	=		160	
Max. pressure	bar (g)	2		2	
Motor execution	1~	230 ± 10%		230 ± 10%	
Volt					
Motor power	1~	15	18	16.5	20
Watt					
Electric absorption	A	0.60		0.80	
Rotation speed	rev/min $^{-1}$	2800	3300	2800	3300
Noise level	dB(A)	≤ 50		≤ 50	
Max. weight	Kg	1.3		1.6	
Accessories and spare parts					
Membrane	art.	00 H35M 15		00 H40DM 15	
Lid with fittings	art.	00 H35M 16		00 H40DM 20	

Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

The mini pumps described in this page are the same as the previously described ones, only with a DC motor instead of AC.
The performance is practically the same.







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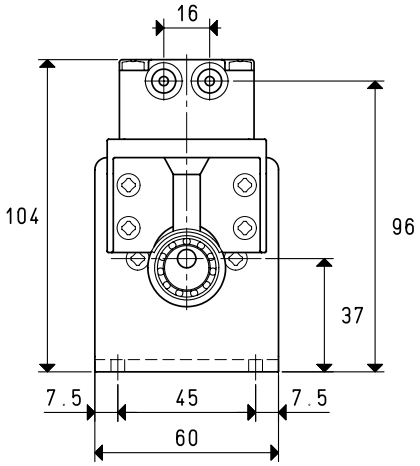
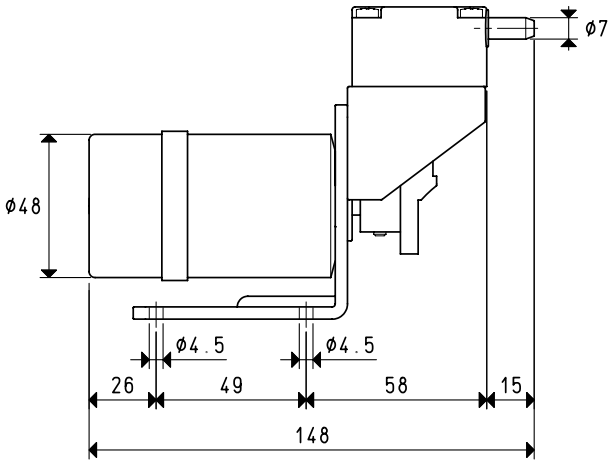
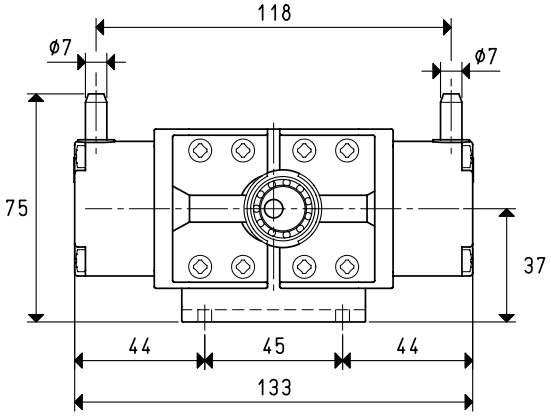
MEMBRANE VACUUM MINI PUMPS WITH DC MOTOR

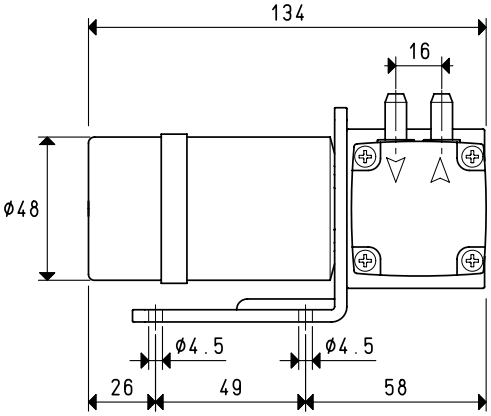
H 35 M CC





H 40 DM CC



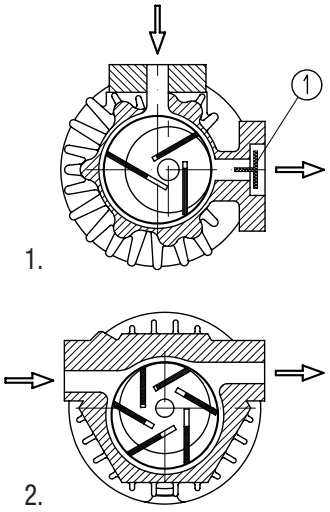


Art.		H35 M CC	H40 DM CC
Nominal capacity:			
Connection in series	l / 1'	21.5	20.0
Connection in parallel	l / 1'	=	20.0 + 20.0
Final pressure:			
Connection in series	mbar abs.	200	60
Connection in parallel	mbar abs.	=	160
Max. pressure	bar (g)	2	2
Motor execution	Volt	24 CC	24 CC
Motor power	Watt	6	20
Electric absorption	A	0.80	1.50
Rotation speed	rev/min^{-1}	3000	3000
Noise level	dB(A)	≤ 50	≤ 50
Max. weight	Kg	0.62	1.19
Accessories and spare parts			
Membrane	art.	00 H35M 15	00 H40DM 15
Lid with fittings	art.	00 H35M 16	00 H40DM 20

3D drawings available at **www.vuototecnica.net**

Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

Operation principle



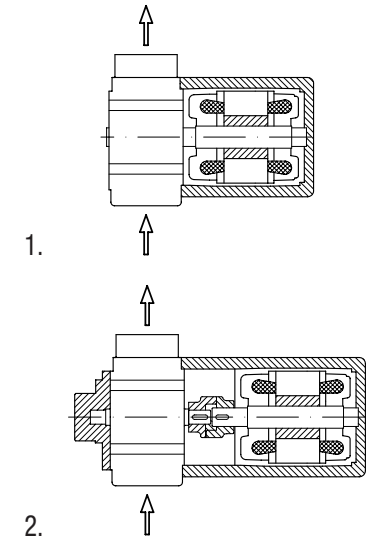
The rotor rotates eccentrically inside a stator and it has grooves in which the vanes move freely and are pushed against the stator inside wall due to the centrifugal force, thus creating as many chambers as the number of vanes. During rotation, the volume of these chambers varies according to their position with respect to the eccentric axis. The chamber volume increase makes the air inside of them expand, thus creating vacuum (suction phase); the volume reduction, on the other hand, generates air compression (exhaust or delvery phase).

The internal design is the same for both rotating compressors and vacuum pumps.

We have created two different sucked air conveying principles for our pumps. Figure 1 shows a three-vane rotary system with exhaust valve (1). This system is especially used in high vacuum applications.

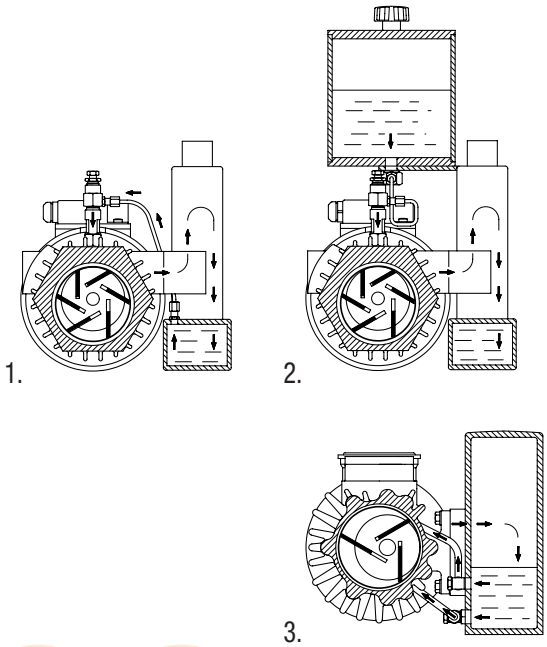
Figure 2 shows a six-vane (therefore with more chambers) rotary system which is mainly used for low vacuum applications.

Rotor housing



In the smaller and more compact pumps, the rotor is cantilevered-fitted on the motor shaft end (fig.1), while in the high power versions or in those with frequent start-ups, the rotor is supported by bearings on both sides (fig. 2). In the latter case, the pump and the electric motor are two independent units and the two shafts are coupled via an elastic transmission joint.

Lubrication systems



The main lubrication systems we use are by vacuum with oil recycle or disposable oil for vacuum pumps of the VTL series and oil-bath for pumps of the MV series.

*As for **oil recycle lubrication** (fig.1), the oil sucked in the working chamber via adjustable oilers that control the flow, is drained together with the sucked air into the recovery tank and it is separated from the air through a special filtre contained in it and put in circulation again.*

*As for the **disposable oil lubrication** (fig.2), the lubricating oil is contained in a special transparent container controlled by a magnetic level switch, and follows the same path as the one described above, only it is collected in the recovery tank without being put in circulation again. This lubrication system is recommended when the sucked air contains water condensation, solvent vapours or anything else that can effect the oil properties.*

*As for the **oil-bath lubrication** (fig.3), the oil is sucked in the chamber directly from the recovery tank via calibrated nozzles that control the quantity, and it is kept and separated from the air in the exhaust phase via special microfibre deoiling cartridges located in the tank.*

With this lubrication system, the quantity of oil in circulation is much higher than the previous two systems. This results in a better sealing between stator and rotor and lower friction between the rotating parts and the fixed ones, as well as in an increase of the vacuum level, lower heating and less noise.

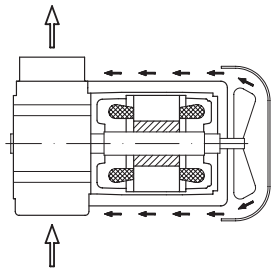
ROTARY VANE VACUUM PUMPS – GENERAL DESCRIPTION

Dry vacuum pumps

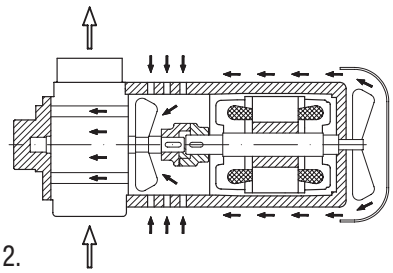
The particular conformation of the chamber and the special graphite with which the vanes and the locking flanges are made, allow these pumps to operate with no need for lubrication.
These pumps are ***not recommended*** *when the fluid to be sucked contains vapours and water or oil condensation.*

Cooling

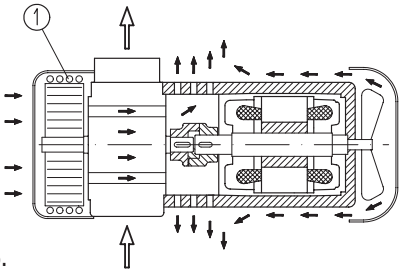
The pump cooling system we use is by airflow on their surface. The heat developed by the pump is dispersed from the external surface which is specially finned, via the electric motor fan in the smaller pumps, and by a radial fan fitted on the pump shaft while in the larger ones. Pumps with capacities from 100 cum/h upwards, are also equipped with a serpentine radiator (1). In this case, the lubrication oil, which passes through the radiator before entering the chamber, is cooled by the radial fan that sucks the cooling air through the radiator, thus allowing a further reduction of the heat developed by the pump.



1.



2.



3.

Used materials

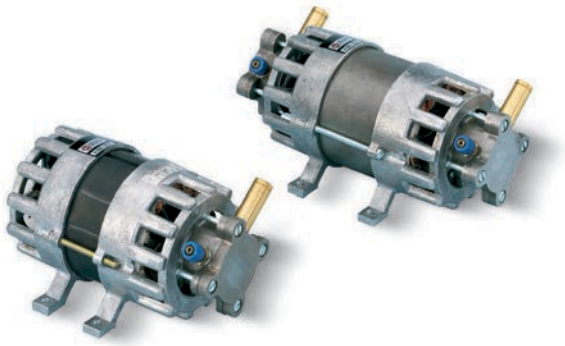
The pump stator and flanges are made with spheroidal cast iron, the transmission shaft and the rotor are made with carbon steel, while the vanes are made with carbon or glass fibre for the lubricated pumps and with graphite for the dry ones.

Electric motors

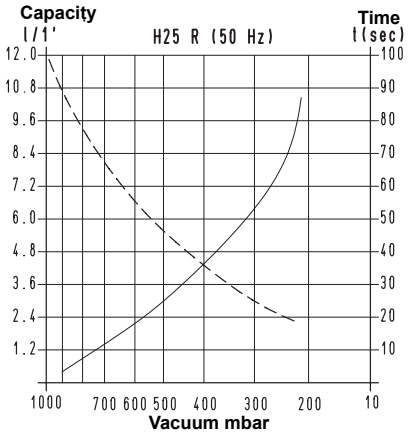
All vacuum pumps with capacity up to 20 cum/h can be supplied either with three-phase or single-phase electric motor, while those with higher capacity can only be equipped with three-phase electric motors. As a standard, all the pumps are equipped with multi-voltage electric motor, in compliance with CE standards. Upon request, they can be supplied with motors in compliance with UL-CSA and with special voltages and frequencies.

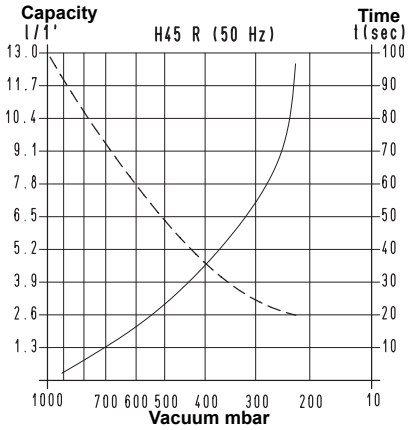
Certifications

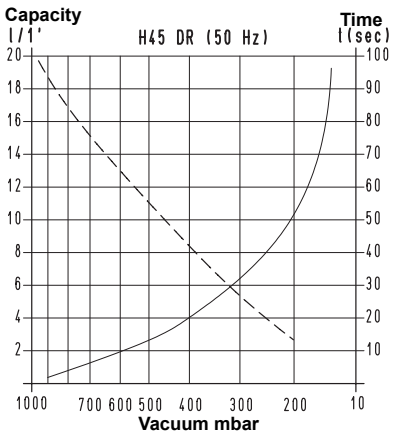
The design and manufacture of our vacuum pumps comply with European Directives on safety. In fact, every identification showing the pump technical data has the CE marking. Moreover, a ***Declaration of conformity*** *with the 98/37/CE Machinery Directive and subsequent modifications is always annexed to the Use and Maintenance guide.*

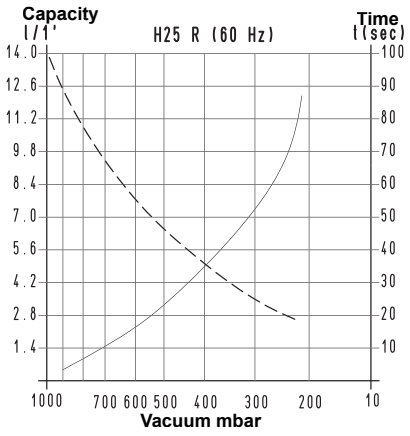


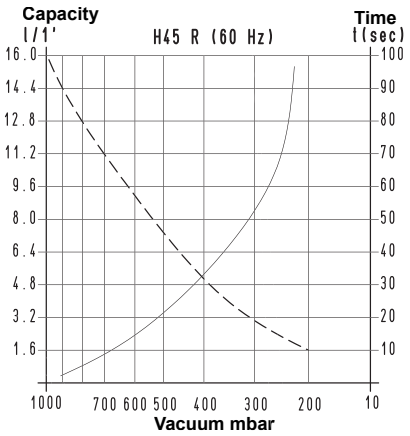
These rotating vane mini vacuum pumps, when needed, can be used even for compressing air. They are composed of a single-phase induction electric motor with condenser, a sintered metal self-lubricating stator, a white metal rotor fitted onto the motor shaft and slotted for housing the hardened steel vanes and a silencer on the exhaust. The operation principle is the same as that of the larger series of vane vacuum pumps. They are noiseless and lubrication-free and require no maintenance. Thanks to their minimal overall dimensions and their reduced weight, they are particularly suited for being installed on portable equipment. They are suitable for discontinuous, non-intense use.

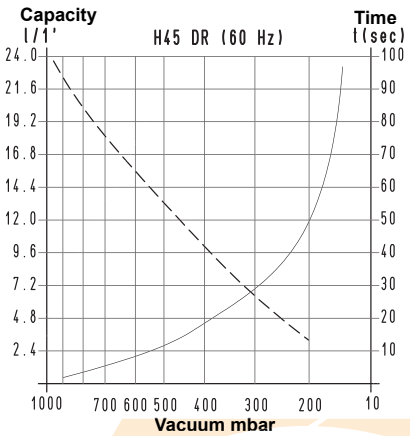












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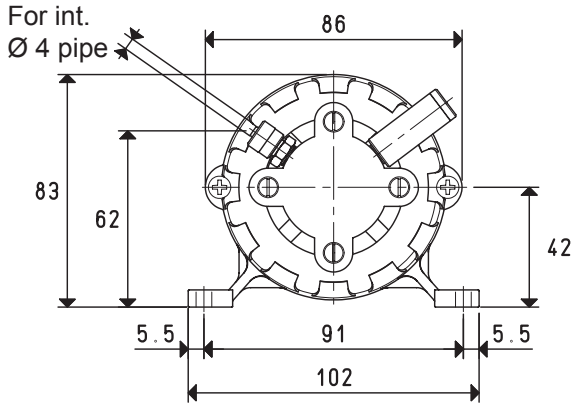
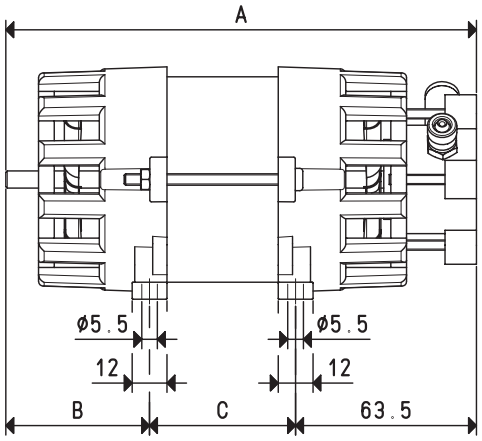
t : Time obtained in the table (sec)

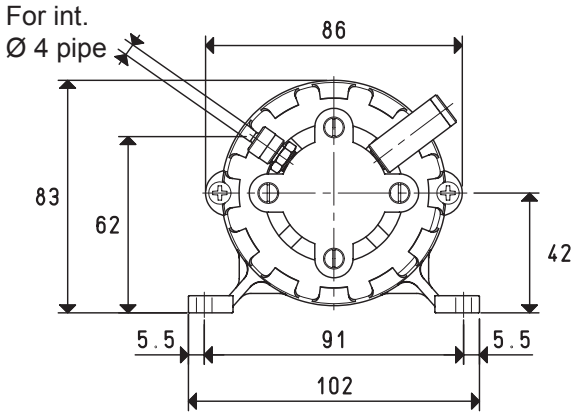
– – – Curve regarding capacity (referring to a 1013 bar pressure)
——— Curve regarding the emptying of a 6-litre volume

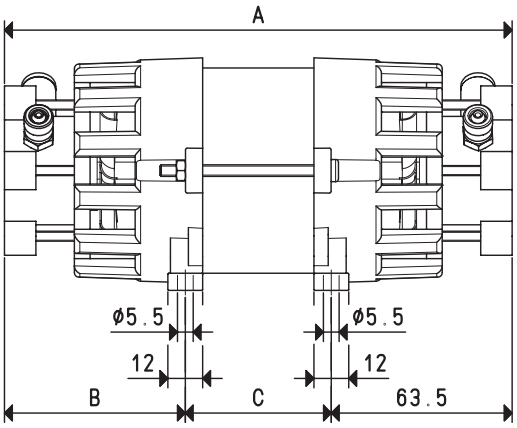
H 25 R
H 45 R





H 45 DR





Art.		H25 R		H45 R		H45 DR	
Frequency		50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
Nominal capacity:							
Connection in series	l / 1'	11.5	13.8	13.0	15.5	11.0	13.2
Connection in parallel	l / 1'	=	=	=	=	10 + 10	12 + 12
Final pressure:							
Connection in series	mbar abs.	150		200		40	
Connection in parallel	mbar abs.	=		=		150	
Max. pressure	bar (g)	2		2		2	
Motor execution	1~	230 ± 10%		230 ± 10%		230 ± 10%	
Volt							
Motor power	1~	28	33.5	35	42	40	48
Watt							
Condenser	uF	2.50		3.15		3.15	
Electric absorption	A	1.2		1.5		1.8	
Rotation speed	rev/min^{-1}	2800	3300	2800	3300	2800	3300
Noise level	dB(A)	≤ 60		≤ 60		≤ 60	
Max. weight	Kg	1.45		2.0		2.1	
A		148		165		180	
B		45.5		47.5		63.5	
C		38		53		53	
Accessories and spare parts							
Vanes	art.	n° 10 00 H25R 03		n° 10 00 H45R 02		n° 20 00 H25R 03	
Silencer filtre	art.	FB 1		FB 1		FB 1	
Fittings	art.	RMM5		RMM5		RMM5	

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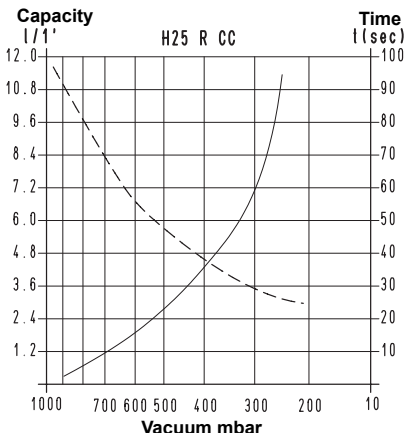

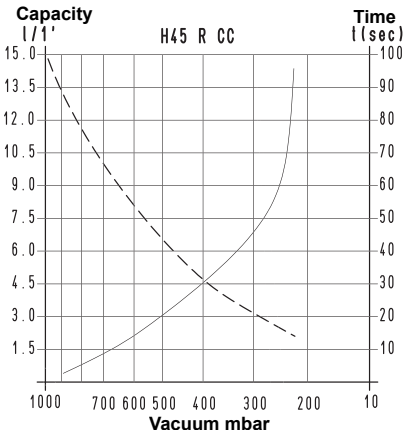

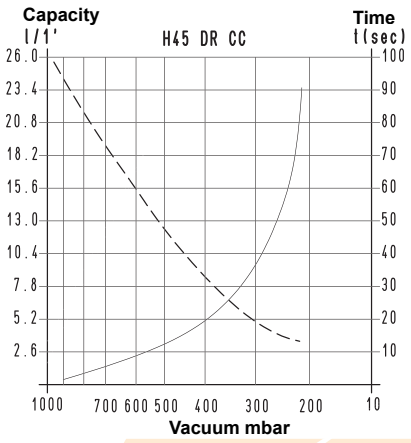

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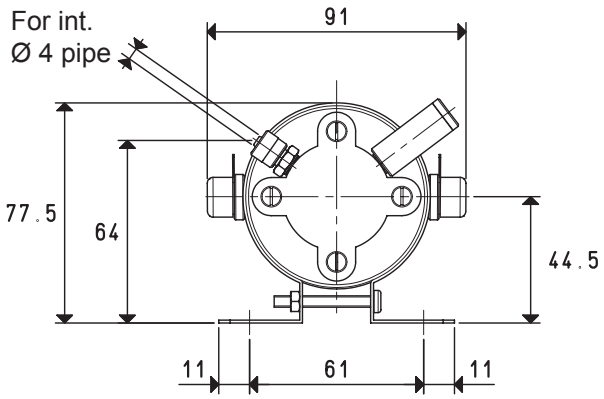
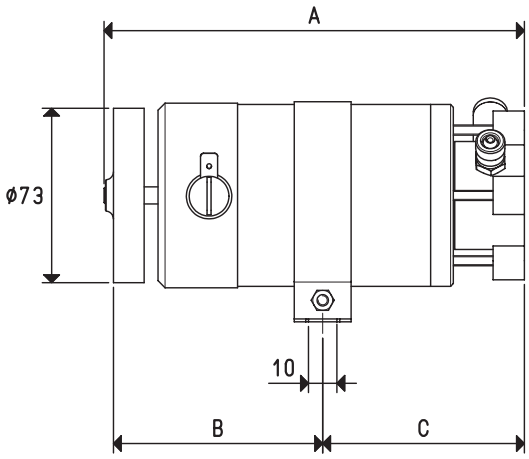
——— Curve regarding the emptying of a 6-litre volume

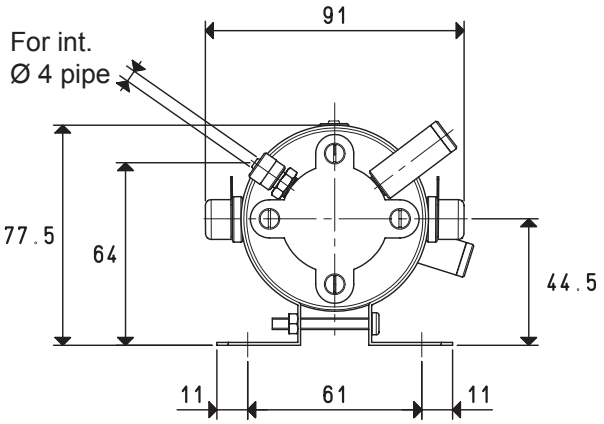
VANE MINI VACUUM PUMPS
WITH DC MOTOR

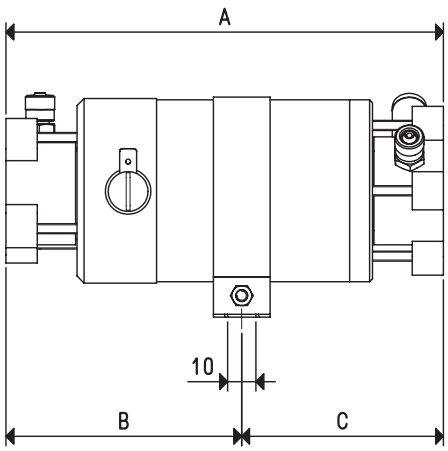
H 25 R CC
H 45 R CC





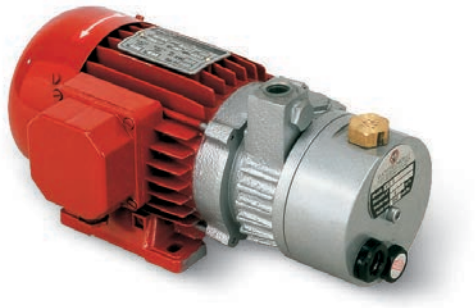
H 45 DR CC



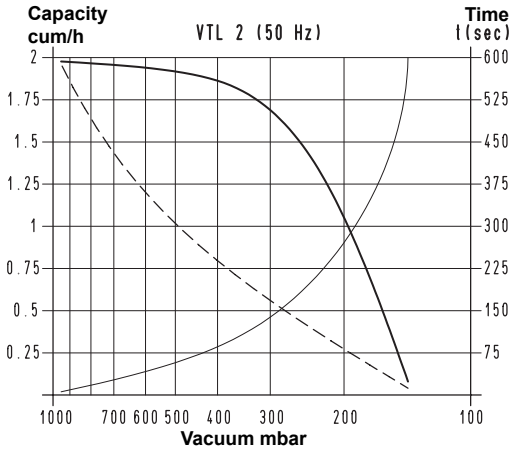


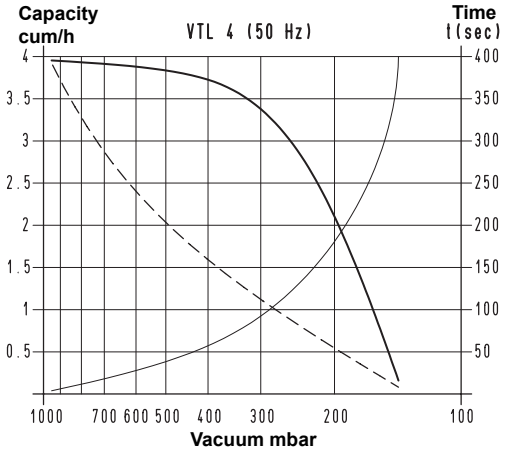
Art.		H25 R CC	H45 R CC	H45 DR CC
Nominal capacity:				
Connection in series	l/ 1'	11.5	14.5	13.5
Connection in parallel	l/ 1'	=	=	13 + 13
Final pressure:				
Connection in series	mbar abs.	200	200	60
Connection in parallel	mbar abs.	=	=	200
Max. pressure	bar (g)	2	2	2
Motor execution	Volt	24 CC	24 CC	24 CC
Motor power	Watt	20	24	30
Electric absorption A	1.5	1.6	1.8	
Rotation speed	rev/min^{-1}	3000	3000	3000
Noise level	dB(A)	≤ 60	≤ 60	≤ 60
Max. weight	Kg	0.96	1.29	1.44
A		130	148	154
B		57	77	83
C		73	71	71
Accessories and spare parts				
Vanes	art.	n° 10 00 H25R 03	n° 10 00 H45R 02	n° 20 00 H25R 03
Silencer filtre	art.	FB 1	FB 1	FB 1
Fittings	art.	RMM5	RMM5	RMM5

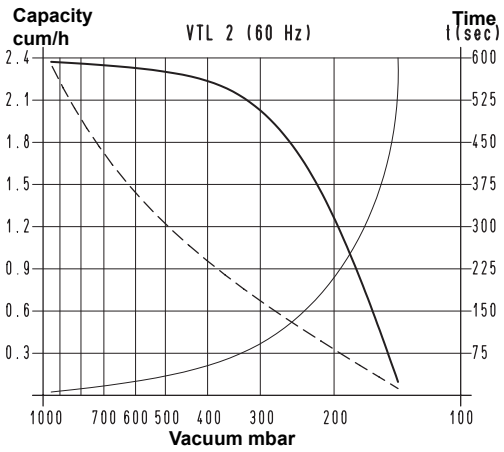
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

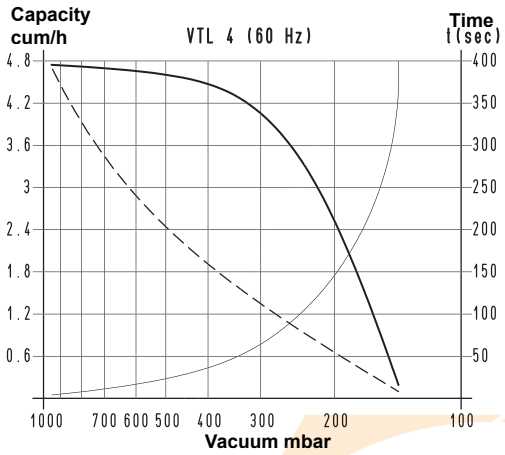


These small vacuum pumps have a suction capacity of 2 and 4 cum/h
They feature a wick lubrication with oil recirculation, while the rotor, which is cantilevered-fitted on the motor shaft, allows reducing the overall dimensions to the minimum.
The motor and the pump are cooled by the motor fan (surface cooling).
The pumps are equipped with a small tank in line with the pump, which contains the lubrication oil as well as a separator filtre to prevent oil mists and to reduce noise.
We strongly recommend installing a check valve and a filtre on the suction inlet.
Pumps VTL 2 and 4 can also be supplied with single-phase electric motor.





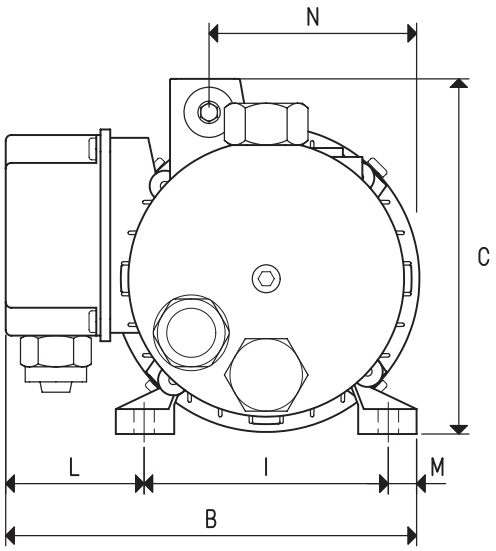


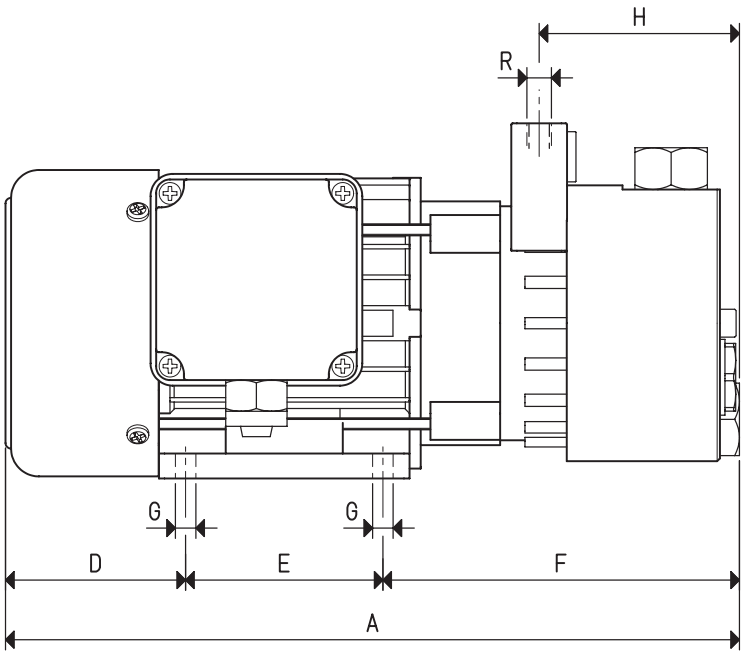


To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

——— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
——— Curve regarding the emptying of a 100-litre volume

V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)



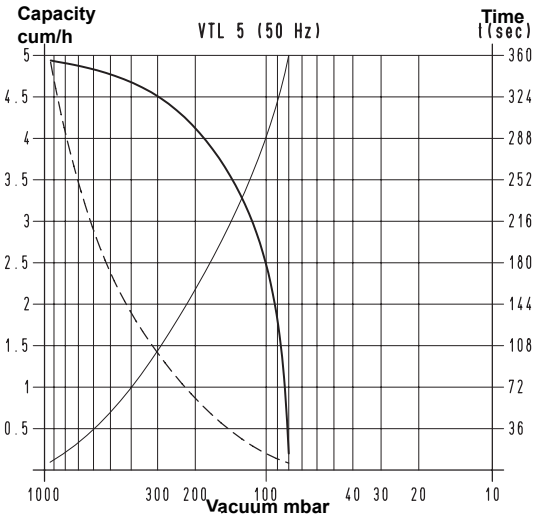


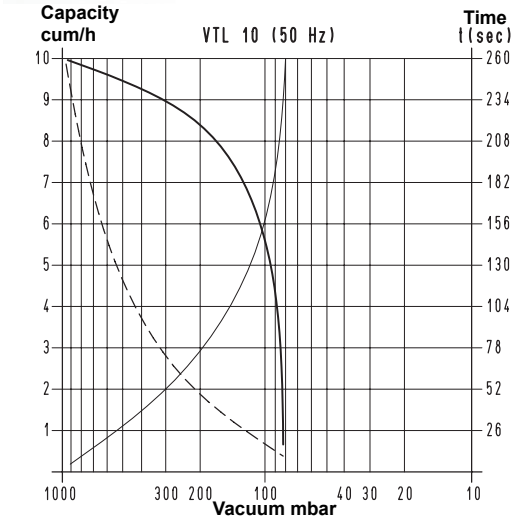
Art.		VTL 2		VTL 4	
Frequency		50Hz	60Hz	50Hz	60Hz
Capacity	m^3/h	2.0	2.4	4.0	4.8
Final pressure	mbar abs.	150		150	
Motor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%
Volt	1~	230±10%		230±10%	
Motor power	3~	0.13	0.15	0.18	0.21
Kw	1~	0.13	0.15	0.15	0.18
Motor protection	IP	54		54	
Rotation speed	rev/min^{-1}	2800	3300	2800	3300
Motor shape		Special		Special	
Motor size		56		63	
Noise level	dB(A)	62	65	62	65
Max. weight	3~	5.7		7.3	
Kg	1~	6.0		7.5	
A		260		285	
B		145		160	
C		126		132	
D		62		66	
E		71		80	
F		127		139	
G	Ø	6.5		7.5	
H		72		80	
I		90		100	
L		43		48	
M		12		12	
N		76		86	
R	Ø gas	G1/4"		G3/8"	
Accessories and spare parts					
Oil load	l	0.05		0.05	
Synthetic oil	VT OIL	ISO 32		ISO 32	
4 vanes	art.	00 VTL 02 10		00 VTL 04 10	
Sealing kit	art.	00 KIT VTL 02		00 KIT VTL 04	
Check valve	art.	10 01 15		10 02 15	
Suction filtre	art.	FB 5		FB 10/FC 10	

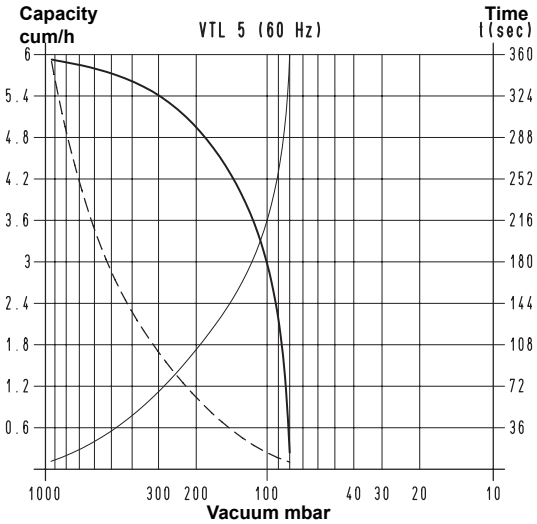
Note: The pump will be supplied with single-phase electric motor by adding the letter M to the article (E.g.: VTL 2 M).

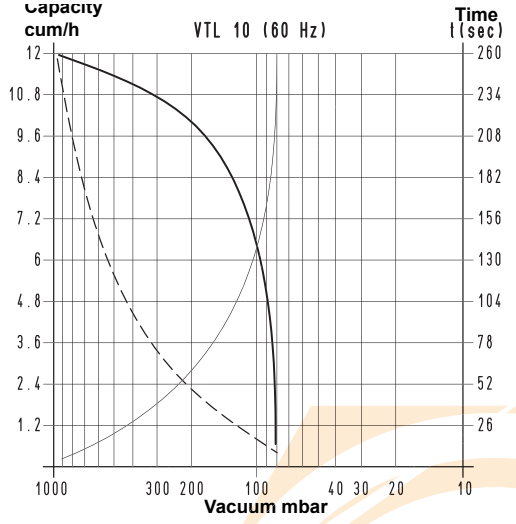
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

These vacuum pumps have a suction capacity of 5 and 10 cum/h.
The vacuum lubrication with oil recirculation can be adjusted via an oiler located in correspondence of the suction inlet.
The rotor is cantilevered-fitted on the motor shaft and, as a result, the overall dimensions are reduced.
The motor and the pump are cooled by the motor fan (surface cooling).
An oil recovery tank is installed on the pump exhaust. This tank contains a separator filtre that prevents oil mists and reduces noise.
We strongly recommend installing a check valve and a filtre on the suction inlet.
Pumps VTL 5 and 10 can also be supplied with a single-phase electric motor.





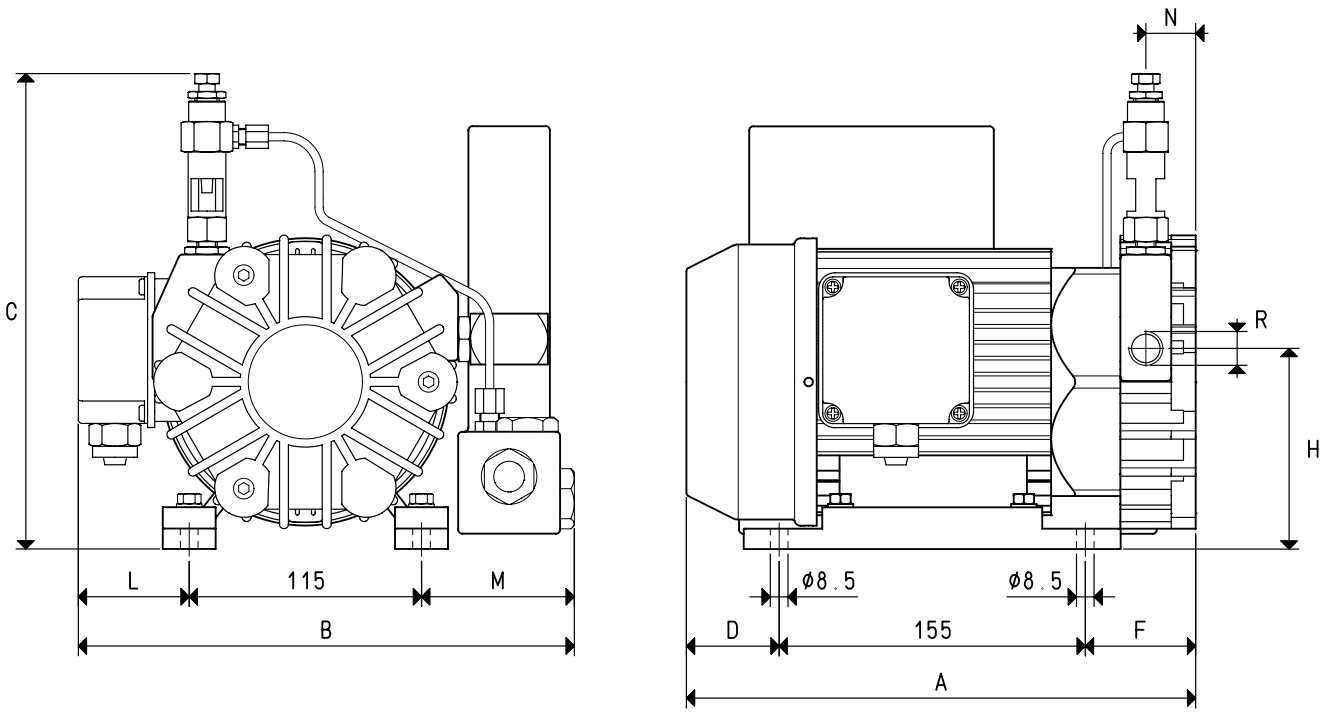




To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

——— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
——— Curve regarding the emptying of a 100-litre volume

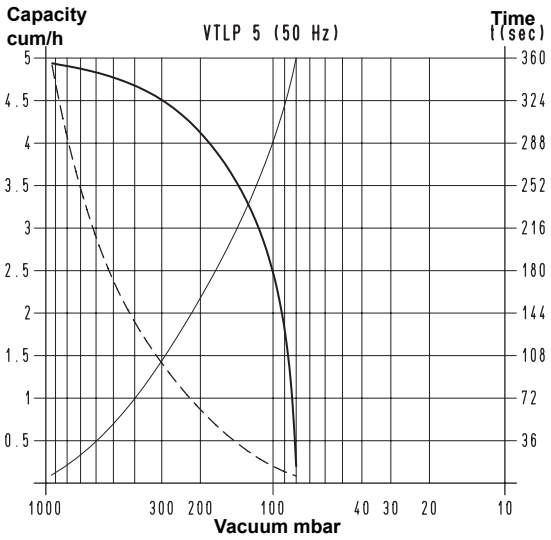
V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)

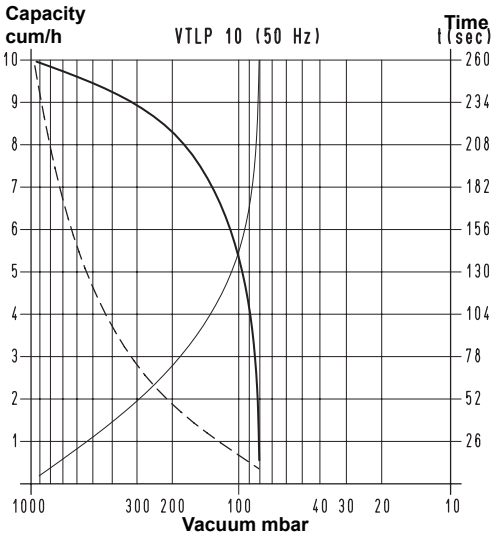


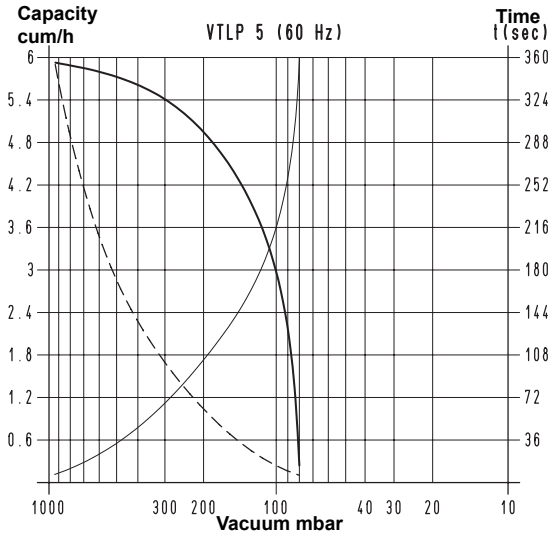
Art.		VTL 5		VTL 10	
Frequency		50Hz	60Hz	50Hz	60Hz
Capacity	m^3/h	5.0	6.0	10.0	12.0
Final pressure	mbar abs.	80		80	
Motor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%
Volt	1~	230±10%		230±10%	
Motor power	3~	0.25	0.30	0.35	0.40
Kw	1~	0.25	0.30	0.25	0.30
Motor protection	IP	54		54	
Rotation speed	rev/min^{-1}	1450	1740	1450	1740
Motor shape		Special		Special	
Motor size		71		71	
Noise level	dB(A)	62	64	62	64
Max. weight	3~	14.5		20.5	
Kg	1~	15.0		21.0	
A		260		310	
B		245		262	
C		245		245	
D		52		70	
F		53		85	
H		122		122	
L		45		45	
M		85		102	
N		27		52	
R	Ø gas	G3/8"		G1/2"	
Accessories and spare parts					
Oil load	l	0.25		0.40	
Synthetic oil	VT OIL	ISO 32		ISO 32	
6 vanes	art.	00 VTL 05 10		00 VTL 10 10	
Sealing kit	art.	00 KIT VTL 05		00 KIT VTL 10	
Check valve	art.	10 02 10		10 03 10	
Suction filtre	art.	FB 10/FC 10		FB 20/FC 20	
Adjustable drip oiler	art.	00 VTL 00 11		00 VTL 00 11	

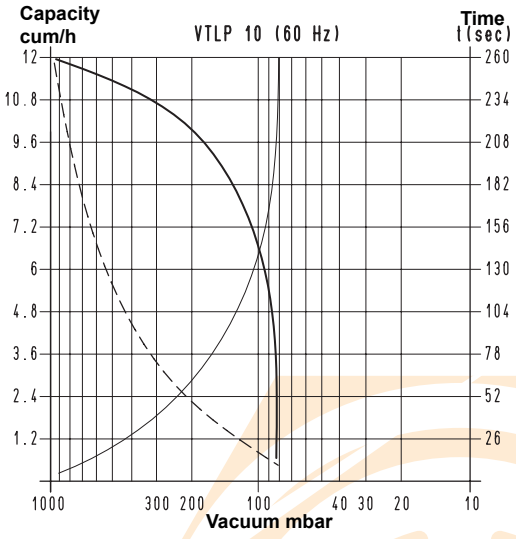
Note: The pump will be supplied with single-phase electric motor by adding the letter M to the article (E.g.: VTL 5 M).

Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6







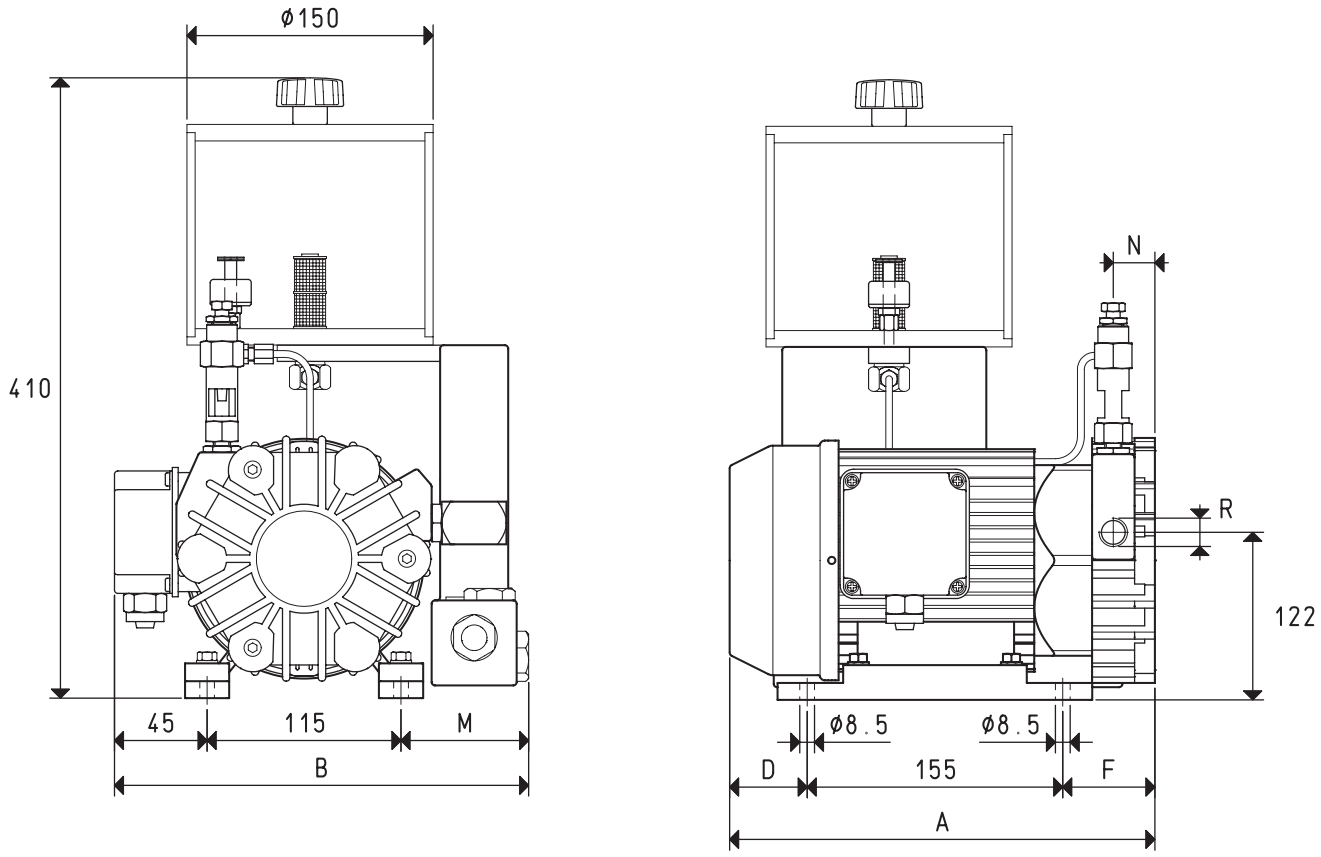


To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

—— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
—— Curve regarding the emptying of a 100-litre volume

V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)

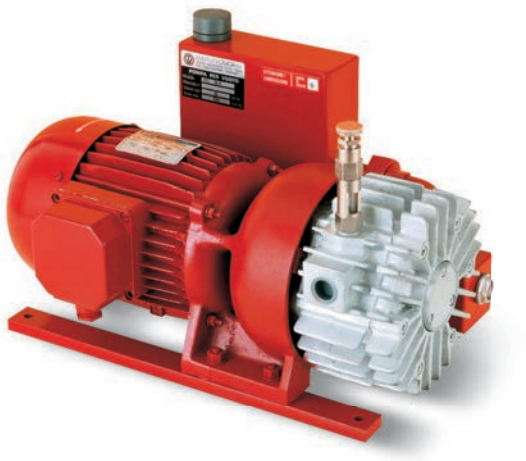
VACUUM PUMPS VTL 5 AND 10



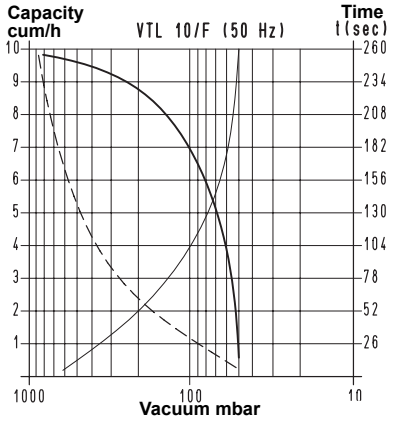
Art.		VTLP 5		VTLP 10	
Frequency		50Hz	60Hz	50Hz	60Hz
Capacity	m^3/h	5.0	6.0	10.0	12.0
Final pressure	mbar abs.	80		80	
Motor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%
Volt	1~	230±10%		230±10%	
Motor power	3~	0.25	0.30	0.35	0.40
Kw	1~	0.25	0.30	0.25	0.30
Motor protection	IP	54		54	
Rotation speed	rev/min^{-1}	1450	1740	1450	1740
Motor shape		Special		Special	
Motor size		71		71	
Noise level	dB(A)	62	64	62	64
Max. weight	3~	15.6		21.6	
Kg	1~	16.1		22.1	
A		260		310	
B		245		262	
D		52		70	
F		53		85	
M		85		102	
N		27		52	
R	Ø gas	G3/8"		G1/2"	
Accessories and spare parts					
Oil load	l	1.8		1.8	
Synthetic oil	VT OIL	ISO 32		ISO 32	
6 vanes	art.	00 VTL 05 10		00 VTL 10 10	
Sealing kit	art.	00 KIT VTL 05		00 KIT VTL 10	
Check valve	art.	10 02 10		10 03 10	
Suction filtre	art.	FB 10/FC 10		FB 20/FC 20	
Oil level switch	art.	00 LP VTL 99		00 LP VTL 99	
Oil filtre	art.	00 LP VTL 40		00 LP VTL 40	
Adjustable drip oiler	art.	00 VTL 00 11		00 VTL 00 11	

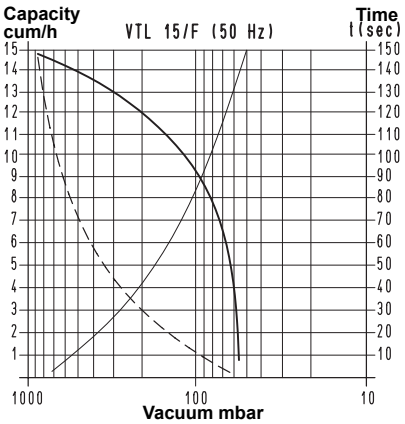
Note: The pump will be supplied with single-phase electric motor by adding the letter M to the article (E.g.: VTLP 5 M).

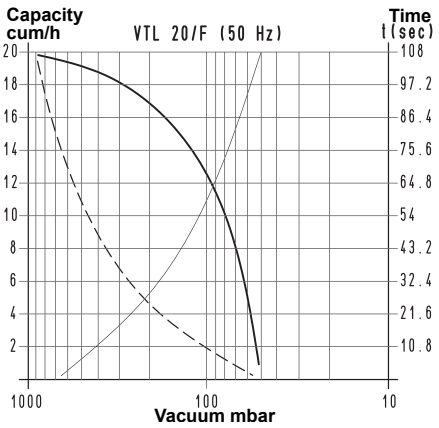
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

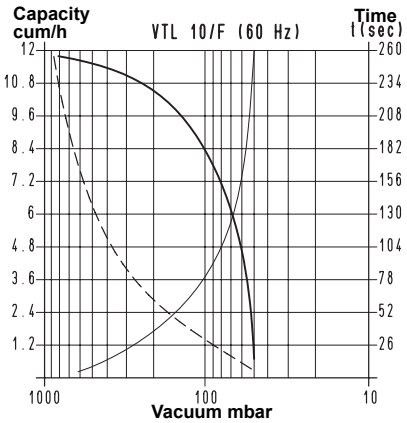


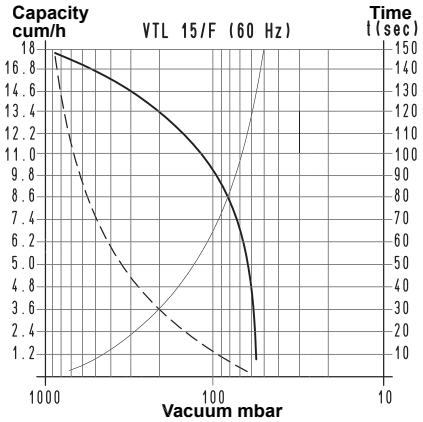
These vacuum pumps having a suction capacity of 10, 15 and 20 cum/h. The vacuum lubrication with oil recirculation can be adjusted via an oiler located in correspondence of the suction inlet.
The rotor is cantilevered-fitted on the motor shaft and supported by independent bearings housed in the two pump flanges.
The pump is surface cooled. Heat is dispersed from the outer surface, suitably finned, by means of a radial fan placed between motor and pump. An oil recovery tank is installed on the pump exhaust. This tank contains a separator filtre that prevents oil mists and reduces noise.
We strongly recommend installing a check valve and a filtre on the suction inlet.
Also this range of pumps can be supplied with single-phase electric motors.

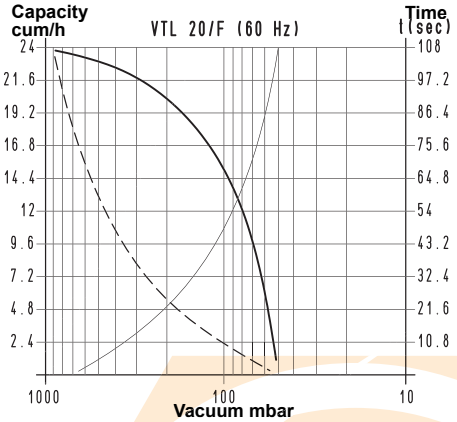








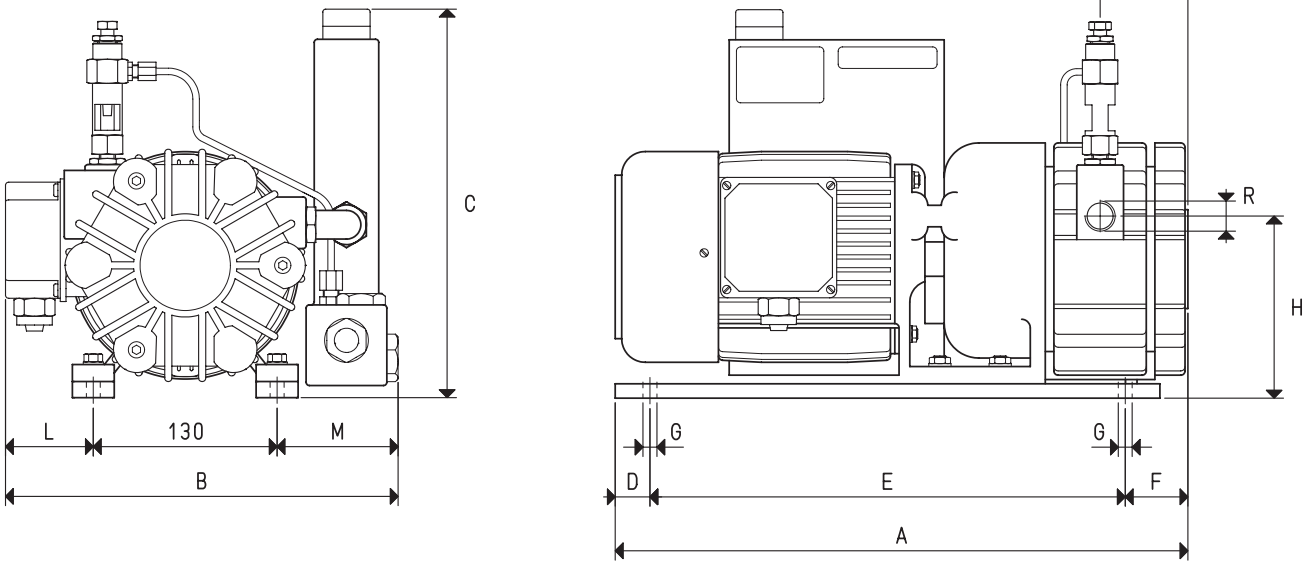




To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

——— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
——— Curve regarding the emptying of a 100-litre volume

V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)



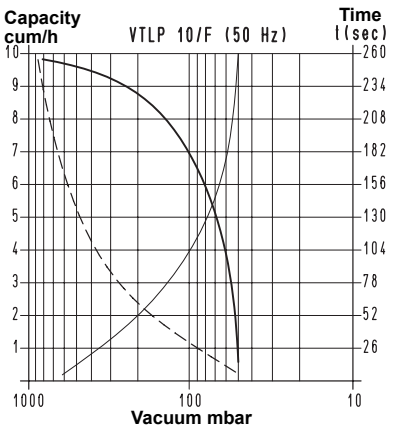
Art.		VTL 10/F		VTL 15/F		VTL 20/F	
Frequency		50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
Capacity	m^3/h	10.0	12.0	15.0	18.0	20.0	24.0
Final pressure	mbar abs.	50		50		50	
Motor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%	230/400±10%	275/480±10%
Volt	1~	230±10%		230±10%		230±10%	
Motor power	3~	0.55	0.66	0.55	0.66	0.88	1.05
Kw	1~	0.55	0.66	0.55	0.66	0.66	0.80
Motor protection	IP	54		54		54	
Rotation speed	rev/min^{-1}	1450	1740	1450	1740	1450	1740
Motor shape		Special		Special		Special	
Motor size		80		80		80	
Noise level	dB(A)	62	64	63	65	64	66
Max. weight	3~	25.0		27.0		30.0	
Kg	1~	25.5		27.5		30.5	
A		385		405		425	
B		285		285		285	
C		259		259		259	
D		25		25		25	
E		340		340		340	
F		20		40		60	
H		133		133		133	
L		55		55		55	
M		100		100		100	
N		53		63		73	
R	Ø gas	G1/2"		G1/2"		G1/2"	
Accessories and spare parts							
Oil load	l	0.4		0.5		0.65	
Synthetic oil	VT OIL	ISO 68		ISO 68		ISO 68	
6 vanes	art.	00 VTL 10F 10		00 VTL 15F 10		00 VTL 20F 10	
Sealing kit	art.	00 KIT VTL 10F		00 KIT VTL 15F		00 KIT VTL 20F	
Check valve	art.	10 03 10		10 03 10		10 03 10	
Suction filtre	art.	FB 20/FC 20		FB 20/FC 20		FB 20/FC 20	
Adjustable drip oiler	art.	00 VTL 00 11		00 VTL 00 11		00 VTL 00 11	

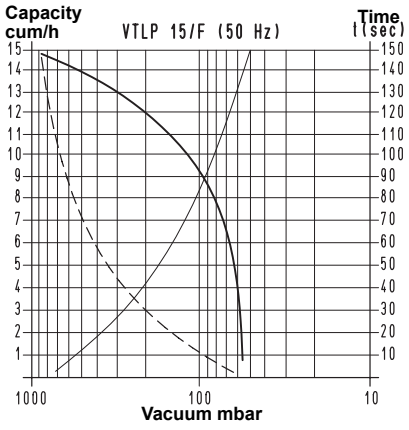
Note: The pump will be supplied with single-phase electric motor by adding the letter M to the article (E.g.: VTL 10/F M).

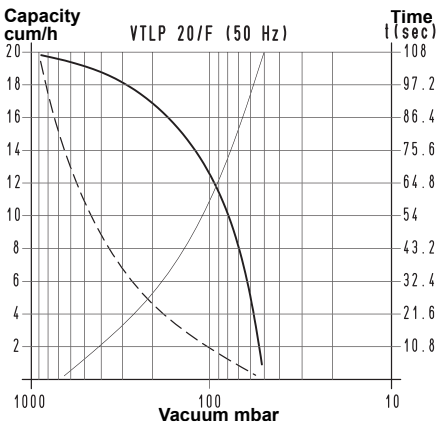
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

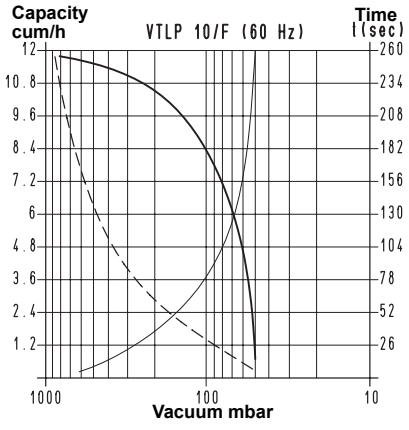
VACUUM PUMPS VTLP 10/F, 15/F and 20/F WITH DISPOSABLE LUBRICATION

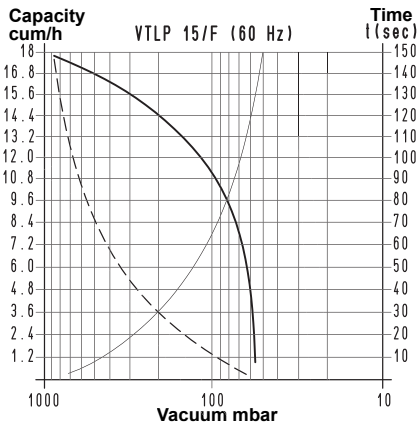
These vacuum pumps having a suction capacity of 10, 15 and 20 cum/h. The vacuum lubrication with oil recirculation can be adjusted via an oiler located in correspondence of the suction inlet.
The rotor is cantilevered-fitted on the motor shaft and supported by independent bearings housed in the two pump flanges.
The pump is surface cooled. Heat is dispersed from the outer surface, suitably finned, by means of a radial fan placed between motor and pump. An oil recovery tank is installed on the pump exhaust. This tank contains a separator filtre that prevents oil mists and reduces noise.
A safety valve is also installed on the tank for the automatic drainage of the exhaust oil when not regularly drained.
The lubrication oil is contained in a special transparent container, fixed to the pump via its support, and controlled by a magnetic level switch.
In pumps with disposable lubrication, the oil is sucked in the pump through an adjustable drip oiler and drained together with the sucked air in the recovery tank, without being put in circulation again. These pumps are necessary when the air to be sucked contains water condensation, solvent vapours or anything else that could effect oil properties.
We strongly recommend installing a check valve and a filtre on the suction inlet.
Also this range of pumps can be supplied with single-phase electric motors.

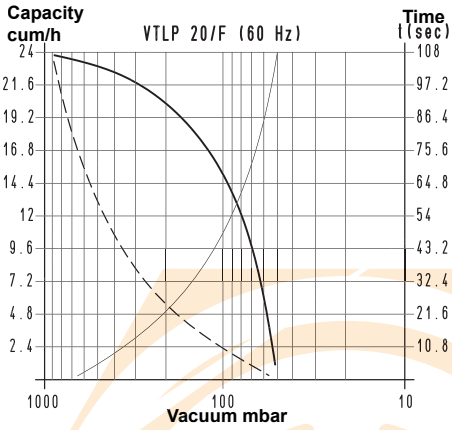










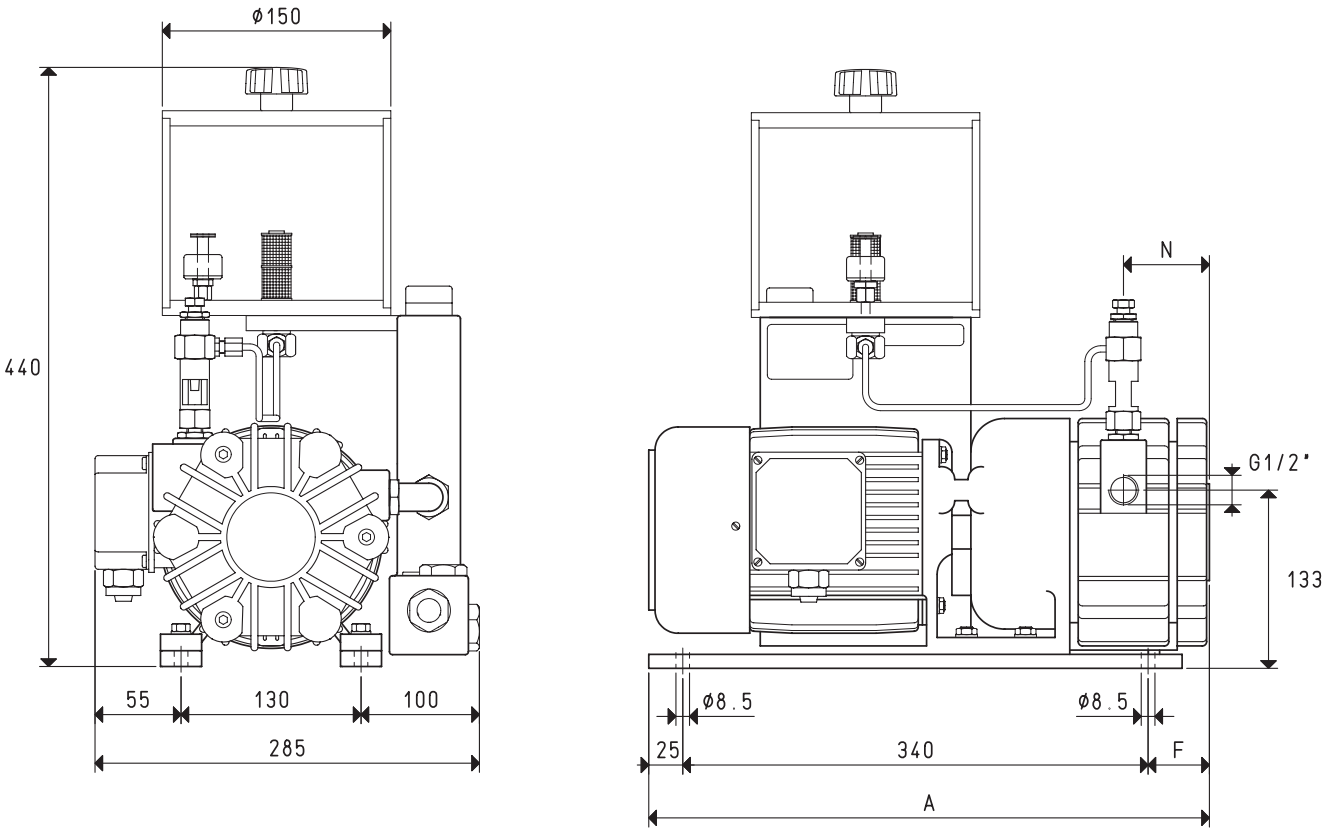


To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

——— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
——— Curve regarding the emptying of a 100-litre volume

V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)

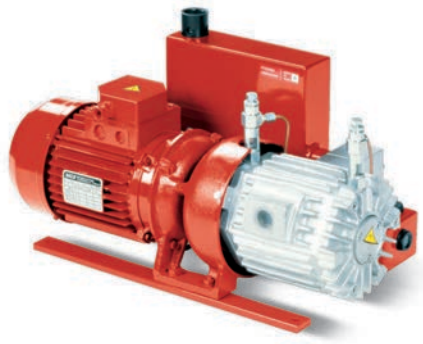
VACUUM PUMPS VTL 10/F, 15/F and 20/F



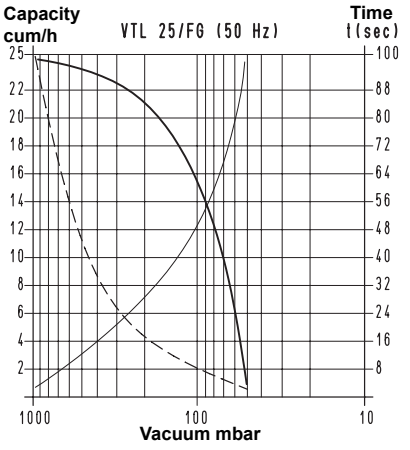
Art.		VTLP 10/F		VTLP 15/F		VTLP 20/F	
Frequency		50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
Capacity	m^3/h	10.0	12.0	15.0	18.0	20.0	24.0
Final pressure	mbar abs.	50		50		50	
Motor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%	230/400±10%	275/480 ±10%
Volt	1~	230±10%		230±10%		230±10%	
Motor power	3~	0.55	0.66	0.55	0.66	0.88	1.05
Kw	1~	0.55	0.66	0.55	0.66	0.66	0.80
Motor protection	IP	54		54		54	
Rotation speed	rev/min^{-1}	1450	1740	1450	1740	1450	1740
Motor shape		Special		Special		Special	
Motor size		80		80		80	
Noise level	dB(A)	62	64	63	65	64	66
Max. weight	3~	26.1		28.1		31.1	
Kg	1~	26.6		28.6		31.6	
A		385		405		425	
F		20		40		60	
N		53		63		73	
Accessories and spare parts							
Oil load	l	1.8		1.8		1.8	
Synthetic oil	VT OIL	ISO 68		ISO 68		ISO 68	
6 vanes	art.	00 VTL 10F 10		00 VTL 15F 10		00 VTL 20F 10	
Sealing kit	art.	00 KIT VTL 10F		00 KIT VTL 15F		00 KIT VTL 20F	
Check valve	art.	10 03 10		10 03 10		10 03 10	
Suction filtre	art.	FB 20/FC 20		FB 20/FC 20		FB 20/FC 20	
Oil level switch	art.	00 LP VTL 99		00 LP VTL 99		00 LP VTL 99	
Oil filtre	art.	00 LP VTL 40		00 LP VTL 40		00 LP VTL 40	
Adjustable drip oiler	art.	00 VTL 00 11		00 VTL 00 11		00 VTL 00 11	

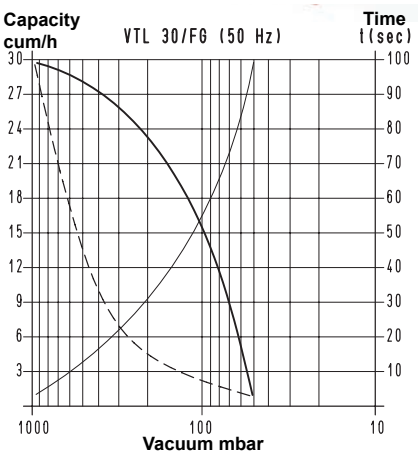
Note: The pump will be supplied with single-phase electric motor by adding the letter M to the article (E.g.: VTLP 10/F M).

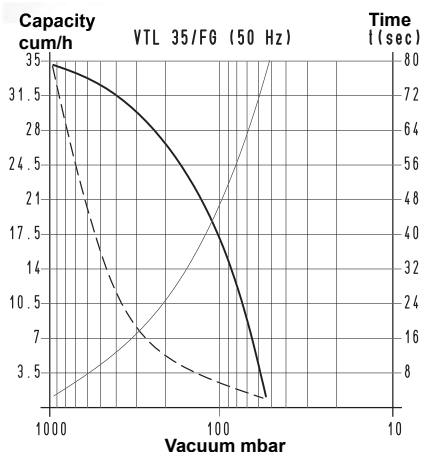
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

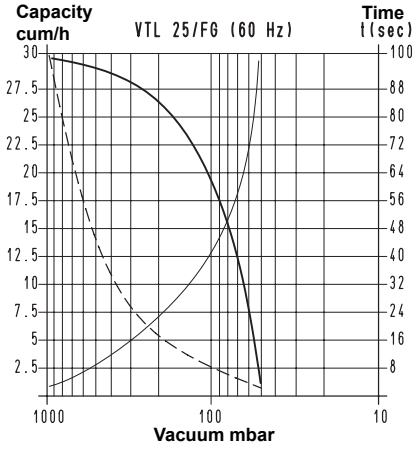


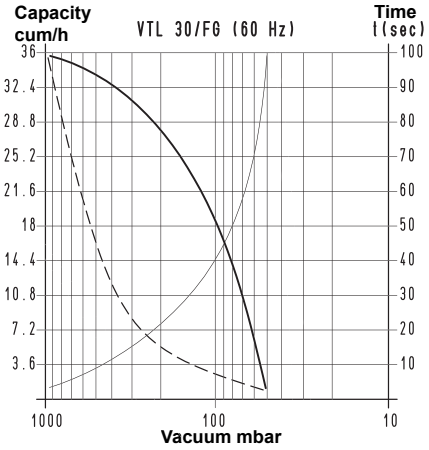
These vacuum pumps have a suction capacity of 10, 15 and 20 cum/h. The vacuum lubrication with oil recirculation is adjusted via two oilers located in correspondence of the support bearings. The rotor is cantilevered-fitted on the motor shaft and supported by independent bearings housed in the two pump flanges. The pump and the electric motor are, therefore, two independent units and fixed onto a special support and connected to each other via an elastic transmission joint. All this allows using standard electric motors, in the shapes and sizes indicated in the table. The pump is surface cooled. Heat is dispersed from the outer surface, suitably finned, by means of a radial fan placed between motor and pump. An oil recovery tank is installed on the pump exhaust. This tank contains a separator filtre that prevents oil mists and reduces noise. We strongly recommend installing a check valve and a filtre on the suction inlet. These pumps are supplied with three-phase electric motors only.

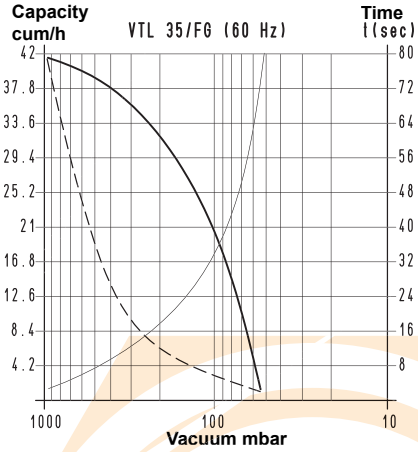








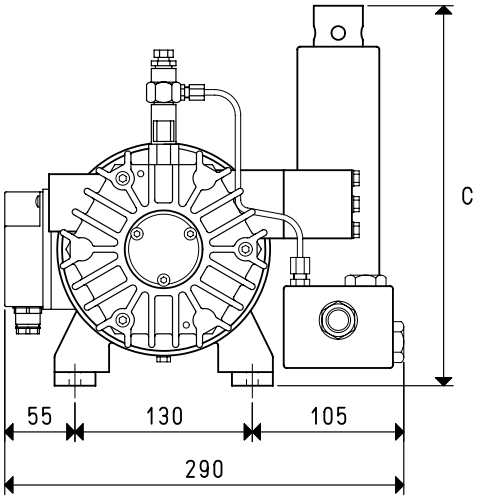


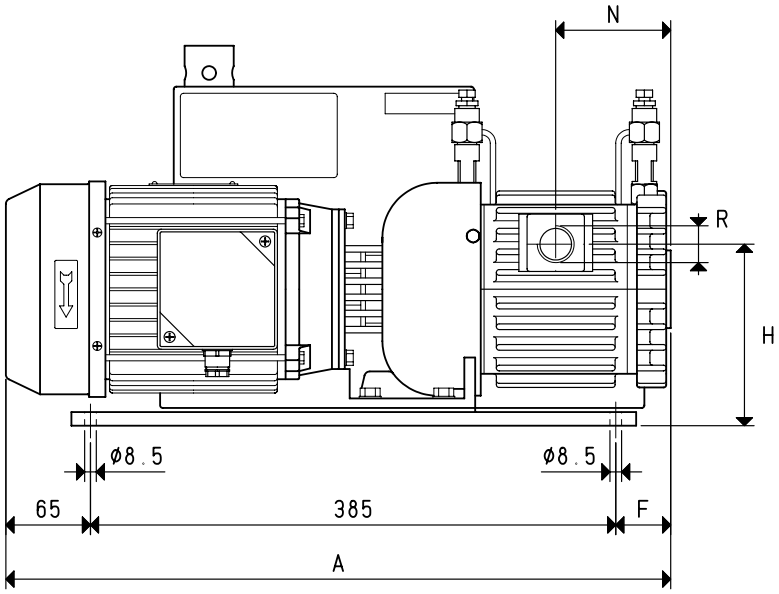


To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

——— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
——— Curve regarding the emptying of a 100-litre volume

V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)



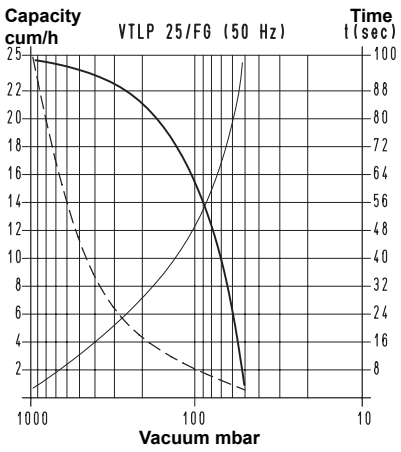


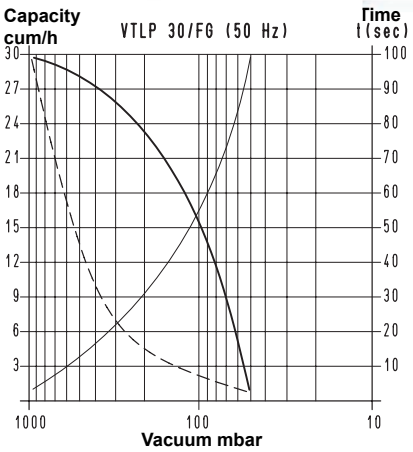
Art.		VTL 25/FG		VTL 30/FG		VTL 35/FG	
Frequency		50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
Capacity	m^3/h	25.0	30.0	30.0	36.0	35.0	42.0
Final pressure	mbar abs.	50		50		50	
Motor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%	230/400±10%	275/480 ±10%
Volt							
Motor power	3~	0.88	1.05	1.00	1.20	1.00	1.20
Kw							
Motor protection	IP	54		54		54	
Rotation speed	rev/min^{-1}	1450	1740	1450	1740	1450	1740
Motor shape		B14		B14		B14	
Motor size		80		80		80	
Noise level	dB(A)	64	66	65	67	65	67
Max. weight	3~	31.0		35.0		37.0	
Kg							
A		470		490		510	
C		280		280		280	
F		20		40		60	
H		133		133		133	
N		73		83		93	
R	Ø gas	G3/4"		G3/4"		G3/4"	
Accessories and spare parts							
Oil load	l	0.65		0.85		0.85	
Synthetic oil	VT OIL	ISO 68		ISO 68		ISO 68	
6 vanes	art.	00 VTL 25FG 10		00 VTL 30FG 10		00 VTL 35FG 10	
Sealing kit	art.	00 KIT VTL 25FG		00 KIT VTL 30FG		00 KIT VTL 35FG	
Check valve	art.	10 04 10		10 04 10		10 04 10	
Suction filtre	art.	FB 25/FC 25		FB 25/FC 25		FB 25/FC 25	
Adjustable drip oiler	art.	00 VTL 00 11		00 VTL 00 11		00 VTL 00 11	

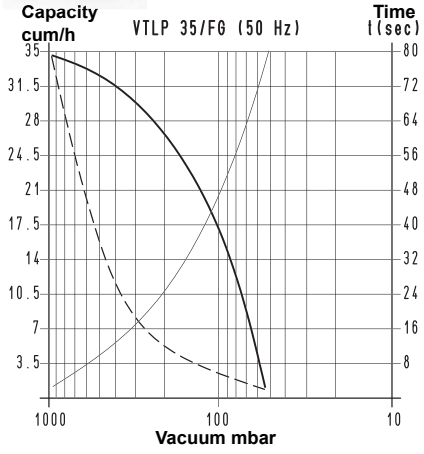
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

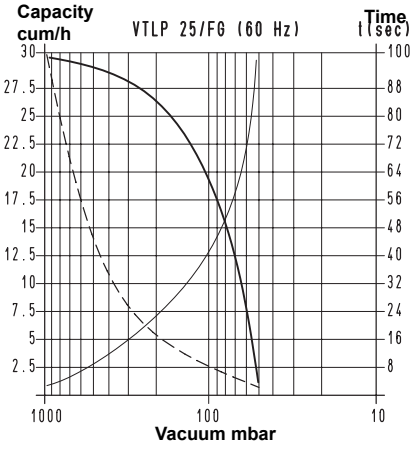
VACUUM PUMPS VTL 25/FG, 30/FG and 35/FG WITH DISPOSABLE LUBRICATION

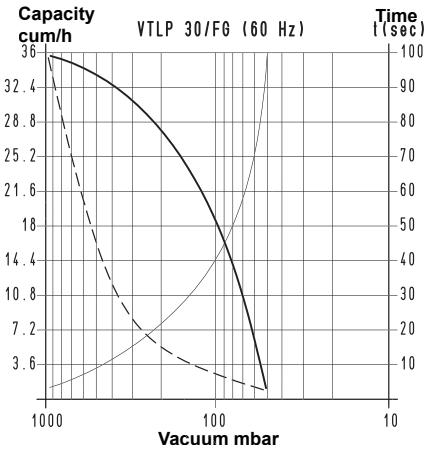
These vacuum pumps have a suction capacity of 25, 30 and 35 cum/h.
The vacuum lubrication with oil recirculation is adjusted via two oilers located in correspondence of the support bearings.
The rotor is cantilevered-fitted on the motor shaft and supported by independent bearings housed in the two pump flanges.
The pump and the electric motor are, therefore, two independent units and fixed onto a special support and connected to each other via an elastic transmission joint.
All this allows using standard electric motors, in the shapes and sizes indicated in the table.
The pump is surface cooled. Heat is dispersed from the outer surface, suitably finned, by means of a radial fan placed between motor and pump.
An oil recovery tank is installed on the pump exhaust. This tank contains a separator filtre that prevents oil mists and reduces noise.
A safety valve is also installed on the tank for the automatic drainage of the exhaust oil when not regularly drained.
The lubrication oil is contained in a special transparent container, fixed to the pump via its support, and controlled by a magnetic level switch.
In pumps with disposable lubrication, the oil is sucked in the pump through an adjustable drip oiler and drained together with the sucked air in the recovery tank, without being put in circulation again. These pumps are necessary when the air to be sucked contains water condensation, solvent vapours or anything else that could effect oil properties.
We strongly recommend installing a check valve and a filtre on the suction inlet.
These pumps are supplied with three-phase electric motors only.

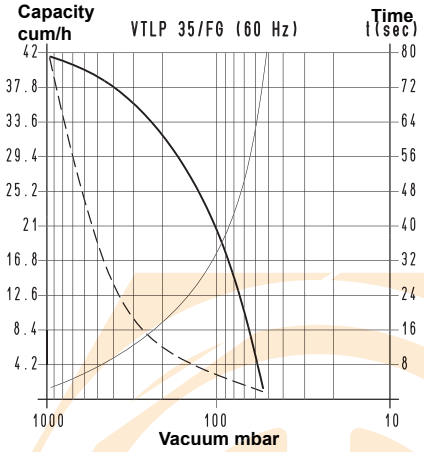










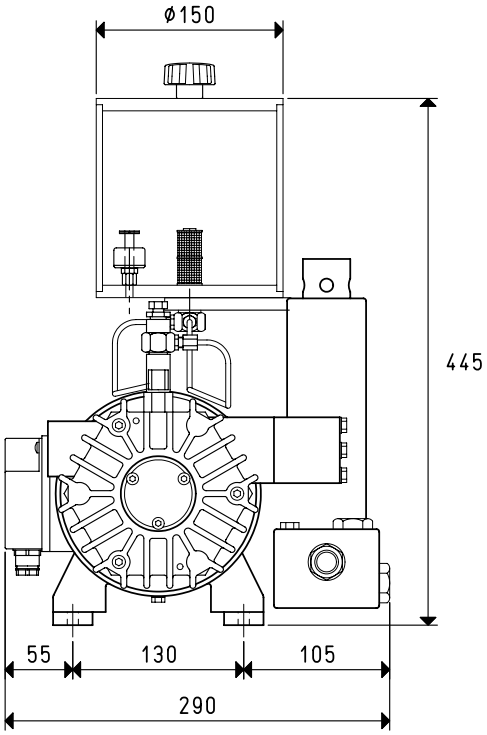


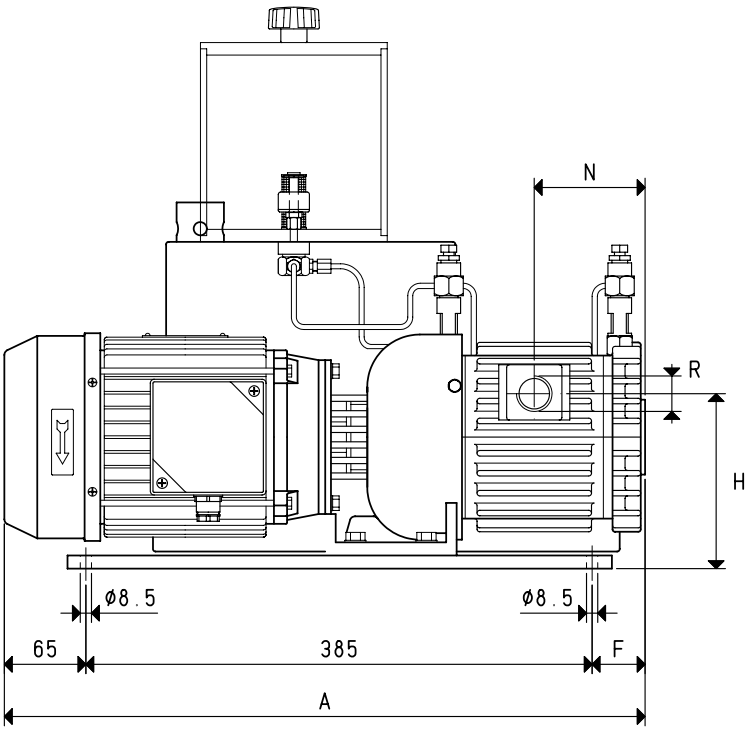
To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

——— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
——— Curve regarding the emptying of a 100-litre volume

V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)

VACUUM PUMPS VTLP 25/FG, 30/FG and 35/FG

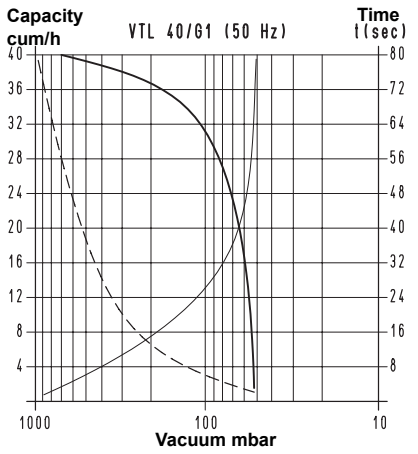


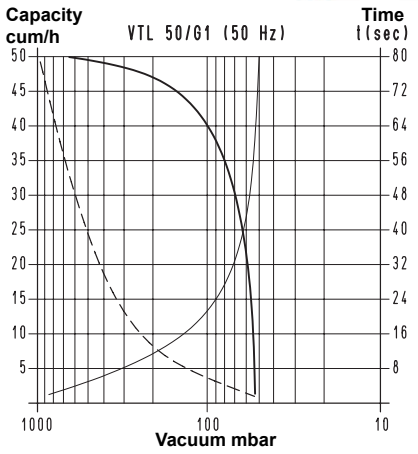


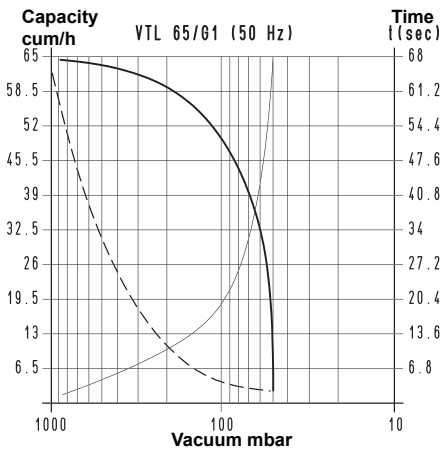
Art.		VTLP 25/FG		VTLP 30/FG		VTLP 35/FG	
Frequency		50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
Capacity	m^3/h	25.0	30.0	30.0	36.0	35.0	42.0
Final pressure	mbar abs.	50		50		50	
Motor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%	230/400±10%	275/480 ±10%
Volt							
Motor power	3~	0.88	1.05	1.00	1.20	1.00	1.20
Kw							
Motor protection	IP	54		54		54	
Rotation speed	rev/min^{-1}	1450	1740	1450	1740	1450	1740
Motor shape		B14		B14		B14	
Motor size		80		80		80	
Noise level	dB(A)	64	66	65	67	65	67
Max. weight	3~	32.0		36.0		38.0	
Kg							
A		470		490		510	
F		20		40		60	
H		133		133		133	
N		73		83		93	
R	Ø gas	G3/4"		G3/4"		G3/4"	
Accessories and spare parts							
Oil load	l	1.8		1.8		1.8	
Synthetic oil	VT OIL	ISO 68		ISO 68		ISO 68	
6 vanes	art.	00 VTL 25FG 10		00 VTL 30FG 10		00 VTL 35FG 10	
Sealing kit	art.	00 KIT VTL 25FG		00 KIT VTL 30FG		00 KIT VTL 35FG	
Check valve	art.	10 04 10		10 04 10		10 04 10	
Suction filtre	art.	FB 25/FC 25		FB 25/FC 25		FB 25/FC 25	
Oil level switch	art.	00 LP VTL 99		00 LP VTL 99		00 LP VTL 99	
Oil filtre	art.	00 LP VTL 40		00 LP VTL 40		00 LP VTL 40	
Adjustable drip oiler	art.	00 VTL 00 11		00 VTL 00 11		00 VTL 00 11	

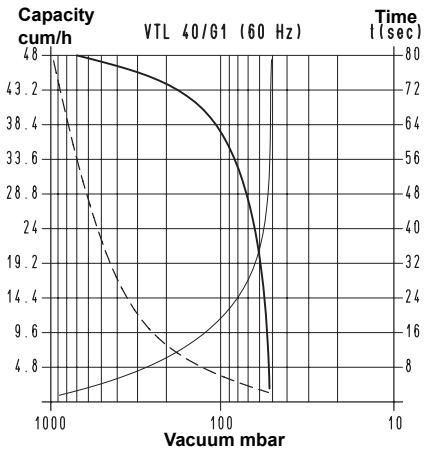
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

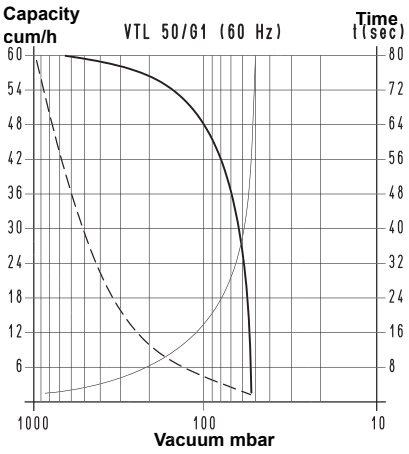
These vacuum pumps have a suction capacity of 40, 50, 65, 75, 90 and 105 cum/h. The vacuum lubrication with oil recirculation is adjusted via two oilers located in correspondence of the support bearings.
The rotor is fitted on the motor shaft and supported by independent bearings housed in the two pump flanges. The pump and the electric motor are, therefore, two independent units and fixed onto a special support and connected to each other via an elastic transmission joint.
All this allows using standard electric motors, in the shapes and sizes indicated in the table.
The pump is surface cooled. Heat is dispersed from the outer surface, suitably finned, by means of a radial fan placed between motor and pump.
An oil recovery tank is installed on the pump exhaust. This tank contains a separator filtre that prevents oil mists and reduces noise.
An oil recovery tank is installed on the pump exhaust. This tank contains a separator filtre that prevents oil mists and reduces noise.
A check valve and a filtre must be installed on the suction inlet.
These pumps are supplied with three-phase electric motors only.

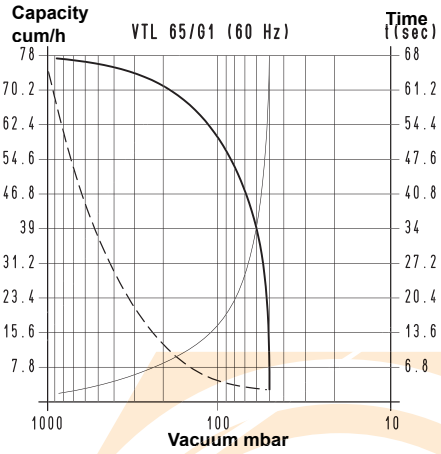








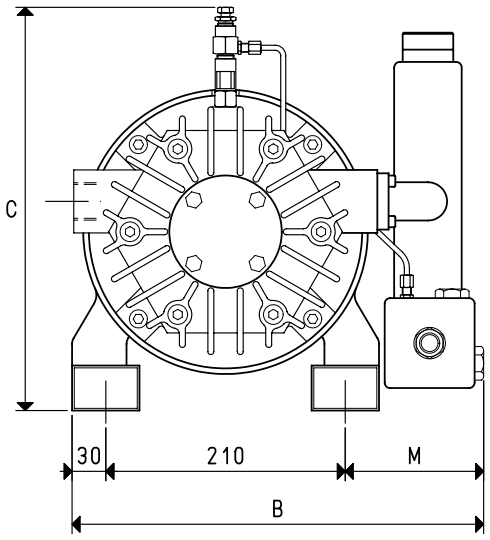


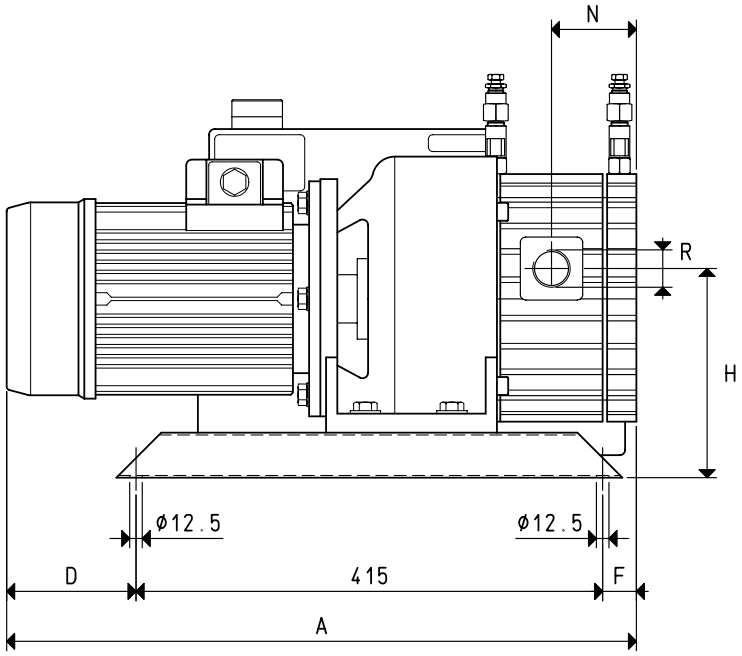


To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

——— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
——— Curve regarding the emptying of a 100-litre volume

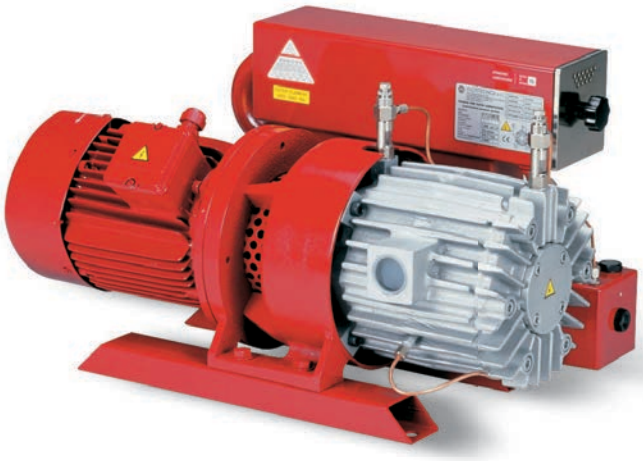
V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)

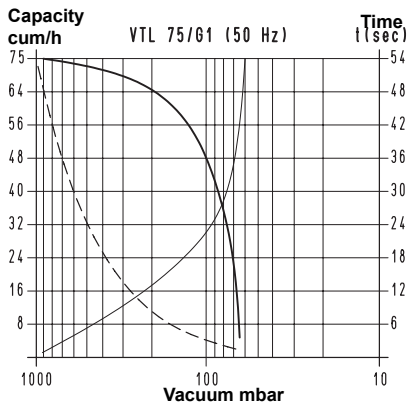


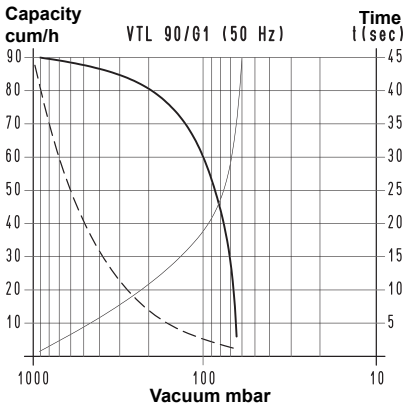


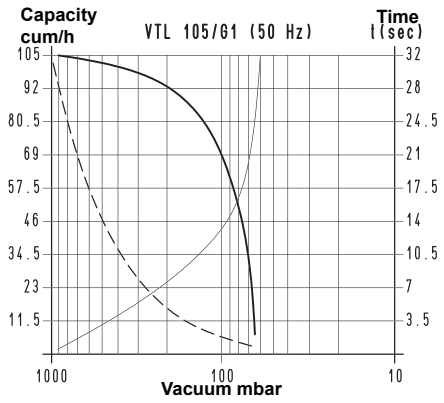
Art.		VTL 40/G1		VTL 50/G1		VTL 65/G1	
Frequency		50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
Capacity	m^3/h	40.0	48.0	50.0	60.0	65.0	78.0
Final pressure	mbar abs.	50		50		50	
Motor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%	230/400±10%	275/480 ±10%
Volt							
Motor power	3~	1.10	1.35	1.50	1.80	1.50	1.80
Kw							
Motor protection	IP	54		54		54	
Rotation speed	rev/min^{-1}	1450	1740	1450	1740	1450	1740
Motor shape		B5		B5		B5	
Motor size		90		90		90	
Noise level	dB(A)	68	70	68	70	70	72
Max. weight	3~	51.0		54.0		71.0	
Kg							
A		520		560		580	
B		365		365		365	
C		350		350		350	
D		60		115		120	
F		45		30		45	
H		186		186		186	
M		125		125		125	
N		70		80		80	
R	Ø gas	G1"		G1"		G1"	
Accessories and spare parts							
Oil load	l	0.85		1.00		1.00	
Synthetic oil	VT OIL	ISO 100		ISO 100		ISO 100	
6 vanes	art.	00 VTL 40G1 10		00 VTL 50G1 10		00 VTL 65G1 10	
Sealing kit	art.	00 KIT VTL 40G1		00 KIT VTL 50G1		00 KIT VTL 65 G1	
Check valve	art.	10 05 10		10 05 10		10 05 10	
Suction filtre	art.	FB 30/FC 30		FB 30/FC 30		FB 30/FC 30	
Adjustable drip oiler	art.	00 VTL 00 11		00 VTL 00 11		00 VTL 00 11	

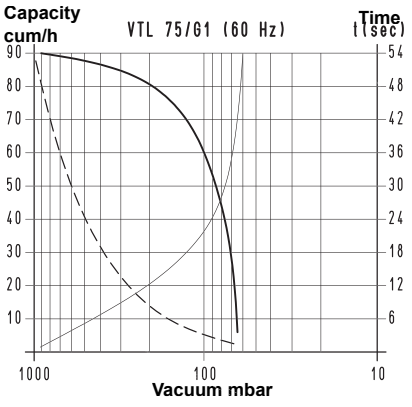
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

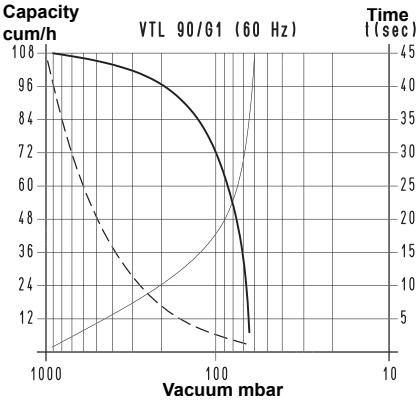


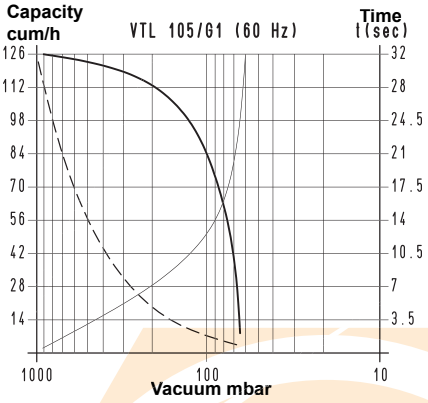








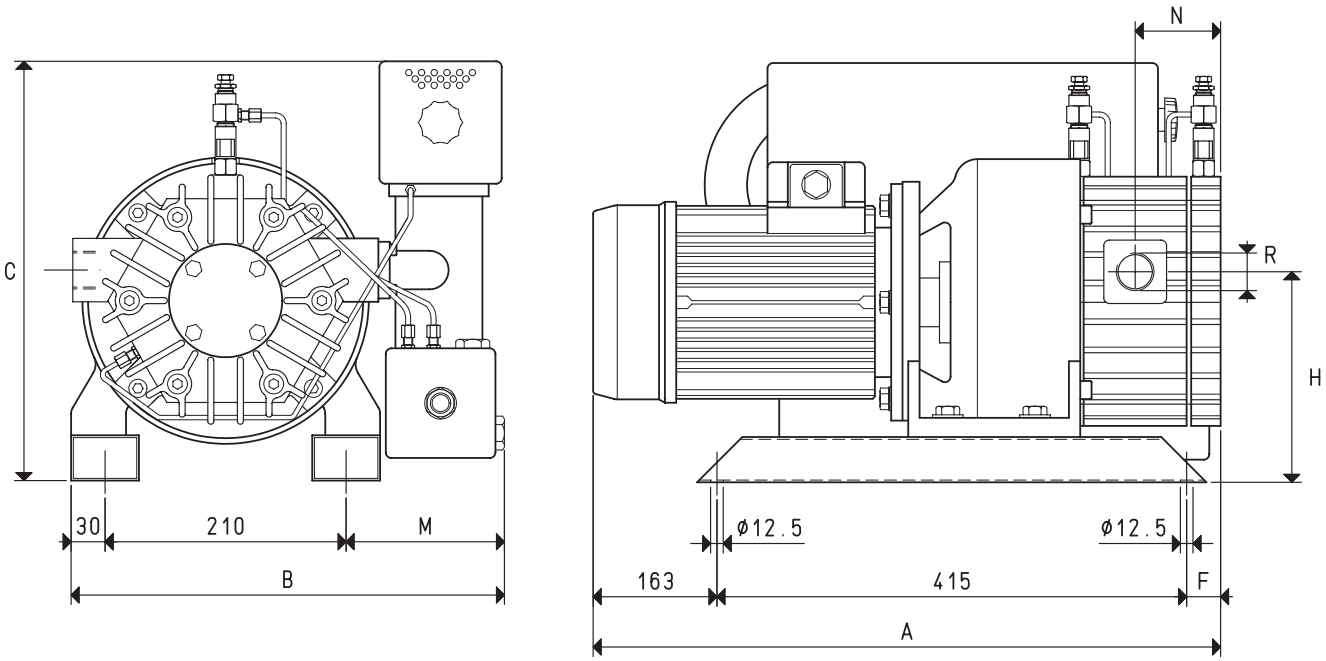




To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

——— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
——— Curve regarding the emptying of a 100-litre volume

V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)



Art.		VTL 75/G1		VTL 90/G1		VTL 105/G1	
Frequency		50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
Capacity	m^3/h	75.0	90.0	90.0	108.0	105.0	126.0
Final pressure	mbar abs.	50		50		50	
Motor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%	230/400±10%	275/480 ±10%
Volt							
Motor power	3~	2.20	2.70	3.00	3.60	3.00	3.60
Kw							
Motor protection	IP	54		54		54	
Rotation speed	rev/min^{-1}	1450	1740	1450	1740	1450	1740
Motor shape		B5		B5		B5	
Motor size		100		100		100	
Noise level	dB(A)	70	72	71	73	72	74
Max. weight	3~	76.5		84.0		97.6	
Kg							
A		640		660		690	
B		385		400		400	
C		400		400		445	
F		62		82		112	
H		186		186		186	
M		145		150		160	
N		80		92		122	
R	Ø gas	G1"1/4		G1"1/4		G1"1/2	
Accessories and spare parts							
Oil load	l	2.0		2.6		2.6	
Synthetic oil	VT OIL	ISO 100		ISO 100		ISO 100	
Deoiling cartridge	art.	00 VTL 75G1 29		00 VTL 90G1 29		00 VTL 105G1 29	
6 vanes	art.	00 VTL 75G1 10		00 VTL 90G1 10		00 VTL 105G1 10	
Sealing kit	art.	00 KIT VTL 75G1		00 KIT VTL 90G1		00 KIT VTL 105G1	
Check valve	art.	10 06 10		10 06 10		10 07 10	
Suction filtre	art.	FB 40/FC 40		FB 40/FC 40		FB 50/FC 50	
Adjustable drip oiler	art.	00 VTL 00 11		00 VTL 00 11		00 VTL 00 11	

3D drawings available at **www.vuototecnica.net**

Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= m x 0.0295; psi= bar (g) x 14.6

VACUUM PUMPS VTLP 40/G1 ÷ 105/G1, WITH DISPOSABLE LUBRICATION

These vane vacuum pumps have a suction capacity of 40, 50, 65, 75, 90 and 105 cum/h. The vacuum lubrication with oil recirculation is adjusted via two oilers located in correspondence of the support bearings.

The rotor is fitted on the motor shaft and supported by independent bearings housed in the two pump flanges. The pump and the electric motor are, therefore, two independent units and fixed onto a special support and connected to each other via an elastic transmission joint.

All this allows using standard electric motors, in the shapes and sizes indicated in the table.

he pump is surface cooled. Heat is dispersed from the outer surface, suitably finned, by means of a radial fan placed between motor and pump.

An oil recovery tank is installed on the pump exhaust. This tank contains a separator filtre that prevents oil mists and reduces noise.

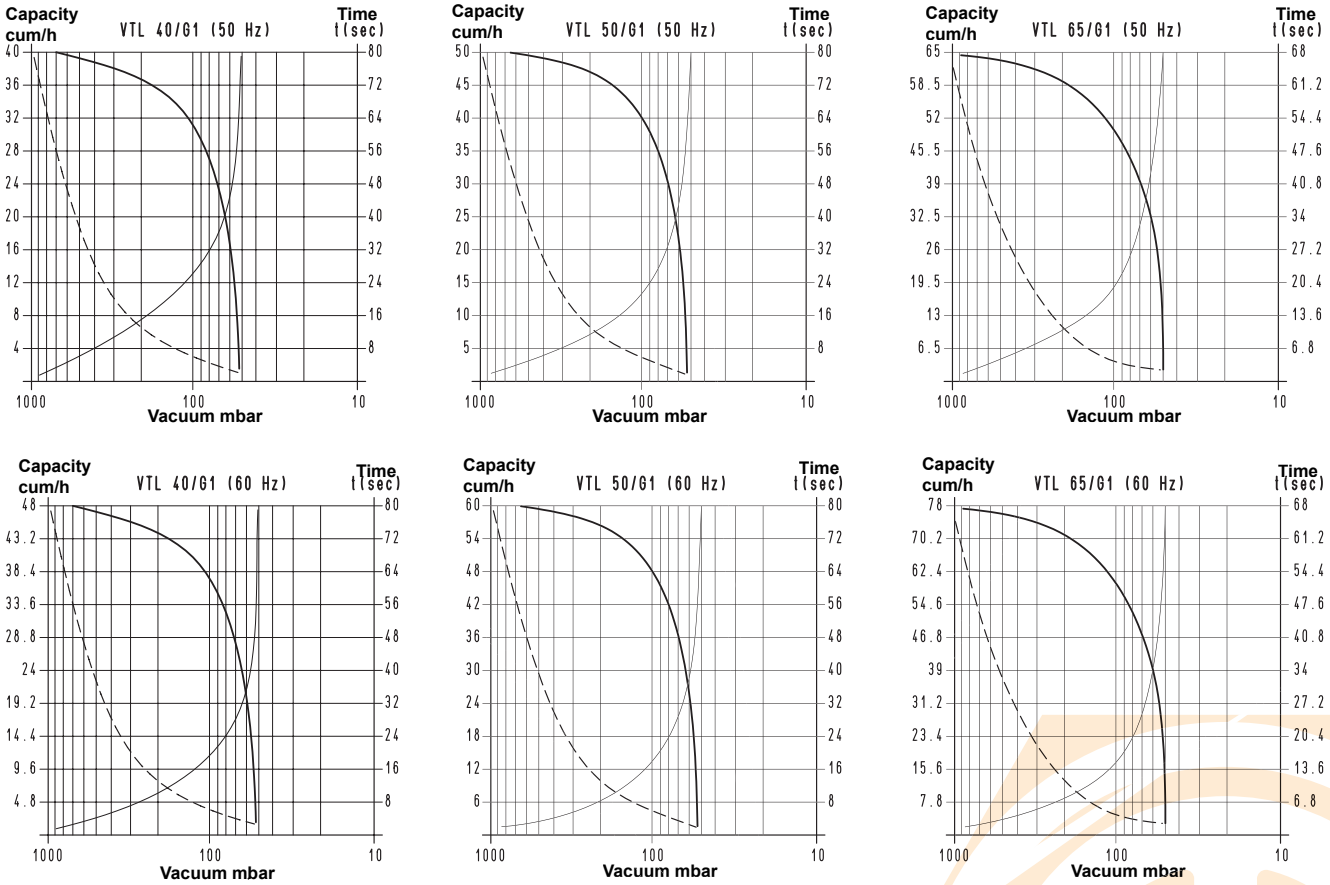
A safety valve is also installed on the tank for the automatic drainage of the exhaust oil when not regularly drained.

The lubrication oil is contained in a special transparent container, fixed to the pump via its support, and controlled by a magnetic level switch.

In pumps with disposable lubrication, the oil is sucked in the pump through an adjustable drip oiler and drained together with the sucked air in the recovery tank, without being put in circulation again. These pumps are necessary when the air to be sucked contains water condensation, solvent vapours or anything else that could effect oil properties.

A check valve and a filtre must be installed on the suction inlet.

These pumps are supplied with three-phase electric motors only.

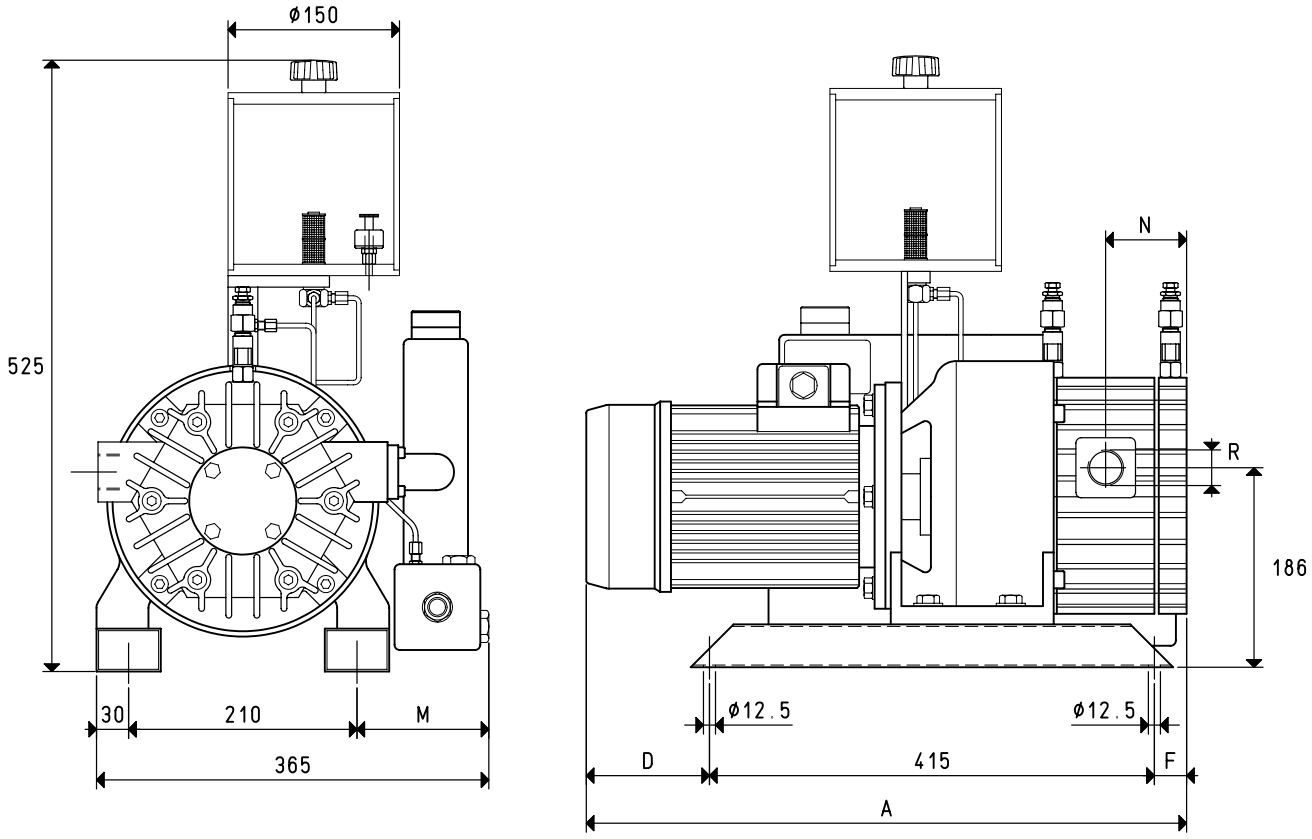


To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

——— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
——— Curve regarding the emptying of a 100-litre volume

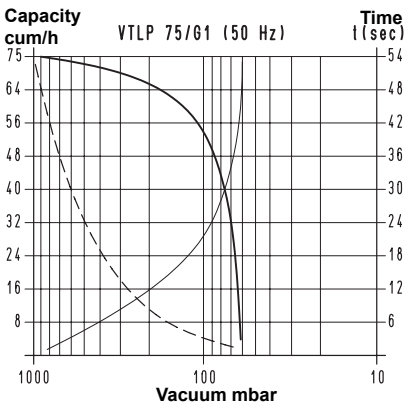
V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)

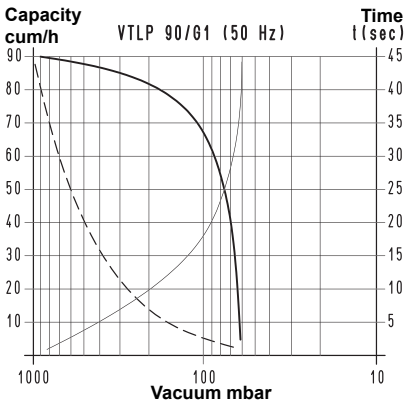
VACUUM PUMPS VTLP 40/G1, 50/G1 and 65/G1

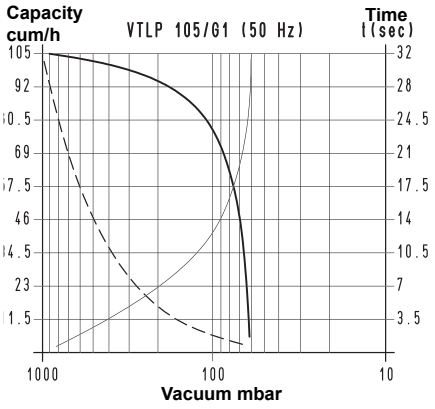


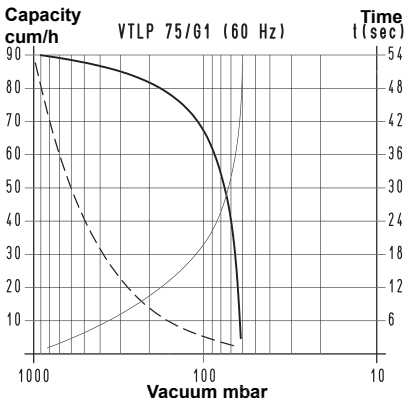
Art.		VTLP 40/G1		VTLP 50/G1		VTLP 65/G1	
Frequency		50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
Capacity	m^3/h	40.0	48.0	50.0	60.0	65.0	78.0
Final pressure	mbar abs.	50		50		50	
Motor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%	230/400±10%	275/480 ±10%
Volt							
Motor power	3~	1.10	1.35	1.50	1.80	1.50	1.80
Kw							
Motor protection	IP	54		54		54	
Rotation speed	rev/min^{-1}	1450	1740	1450	1740	1450	1740
Motor shape		B5		B5		B5	
Motor size		90		90		90	
Noise level	dB(A)	68	70	68	70	70	72
Max. weight	3~	52.5		55.1		72.1	
Kg							
A		520		560		580	
D		60		115		120	
F		45		30		45	
M		125		125		125	
N		70		80		80	
R	Ø gas	G1"		G1"		G1"	
Accessories and spare parts							
Oil load	l	1.80		1.80		1.80	
Synthetic oil	VT OIL	ISO 100		ISO 100		ISO 100	
6 vanes	art.	00 VTL 40G1 10		00 VTL 50G1 10		00 VTL 65G1 10	
Sealing kit	art.	00 KIT VTL 40G1		00 KIT VTL 50G1		00 KIT VTL 65G1	
Check valve	art.	10 05 10		10 05 10		10 05 10	
Suction filtre	art.	FB 30/FC 30		FB 30/FC 30		FB 30/FC 30	
Oil level switch	art.	00 LP VTL 99		00 LP VTL 99		00 LP VTL 99	
Oil filtre	art.	00 LP VTL 40		00 LP VTL 40		00 LP VTL 40	
Adjustable drip oiler	art.	00 VTL 00 11		00 VTL 00 11		00 VTL 00 11	

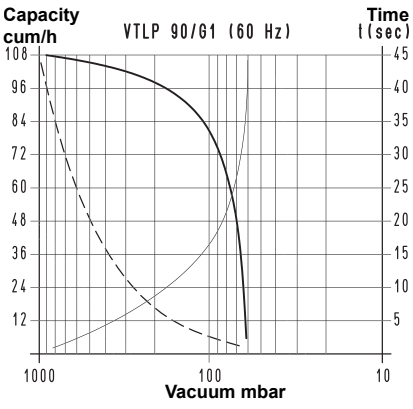
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

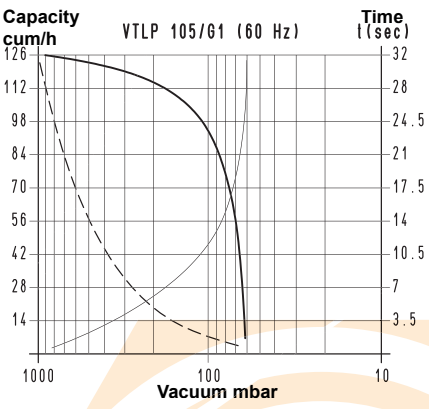










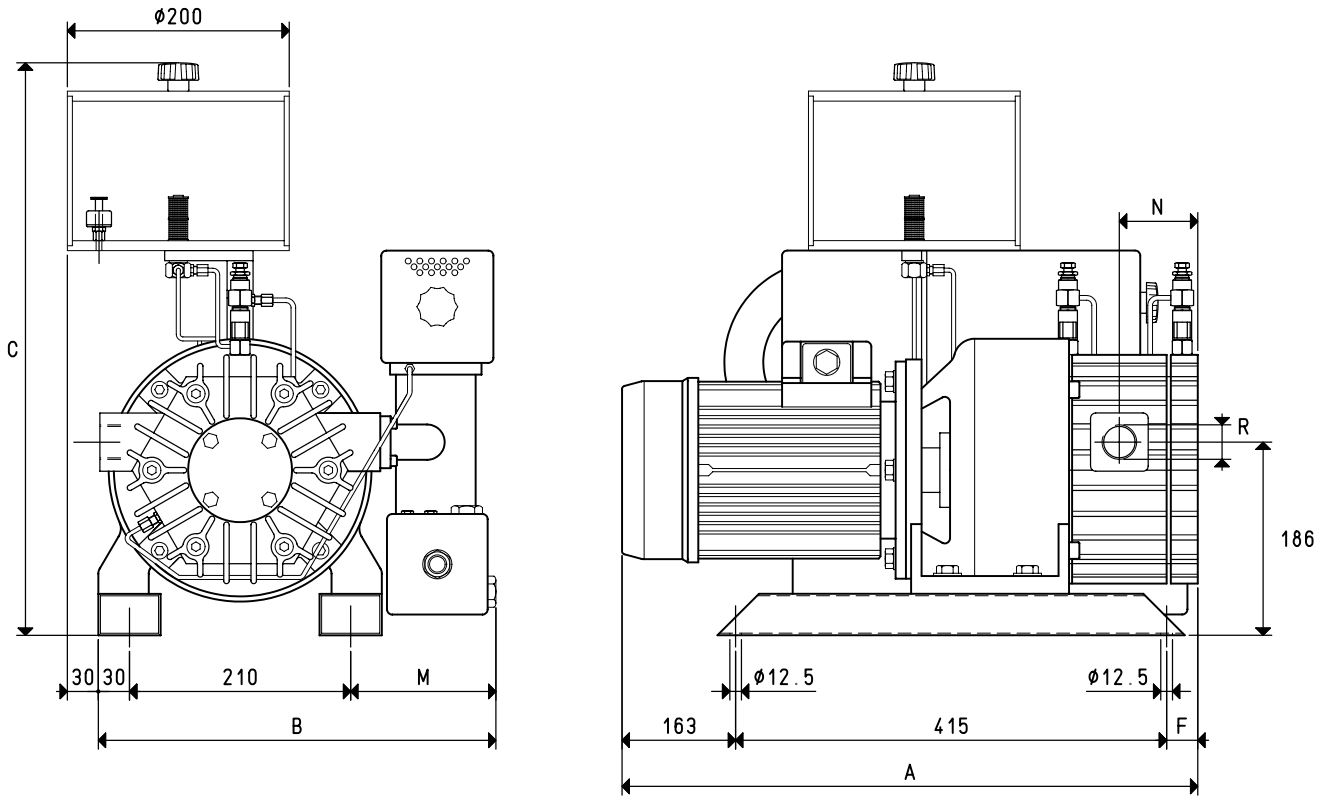


To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

——— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
——— Curve regarding the emptying of a 100-litre volume

V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)

VACUUM PUMPS VTLP 75/G1, 90/G1 e 105/G1

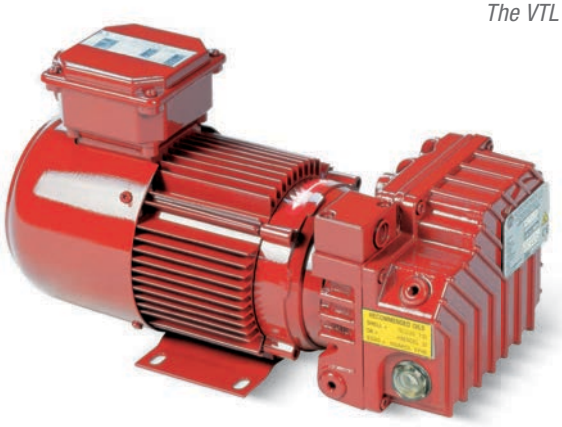


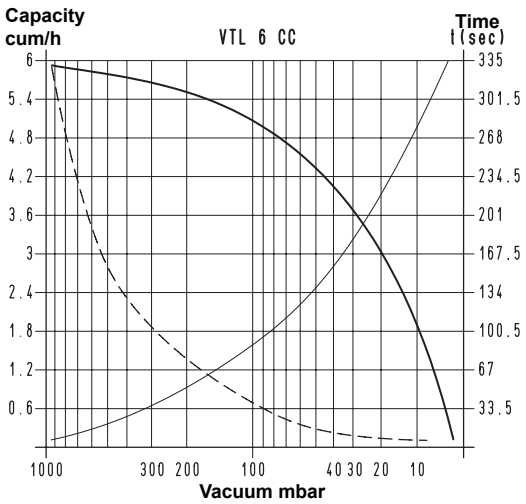
Art.		VTLP 75/G1		VTLP 90/G1		VTLP 105/G1	
Frequency		50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
Capacity	m^3/h	75.0	90.0	90.0	108.0	105.0	126.0
Final pressure	mbar abs.	50		50		50	
Motor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%	230/400±10%	275/480 ±10%
Volt							
Motor protection	IP	54		54		54	
Motor power	3~	2.20	2.70	3.00	3.60	3.00	3.60
Kw							
Rotation speed	rev/min^{-1}	1450	1740	1450	1740	1450	1740
Motor shape		B5		B5		B5	
Motor size		100		100		100	
Noise level	dB(A)	70	72	71	73	72	74
Max. weight	3~	78.3		85.8		99.4	
Kg							
A		640		660		690	
B		415		430		430	
C		575		575		620	
F		62		82		112	
M		145		150		160	
N		80		92		122	
R	Ø gas	G1 1/4"		G1 1/4"		G1 1/2"	
Accessories and spare parts							
Oil load	l	3.8		3.8		3.8	
Synthetic oil	VT OIL	ISO 100		ISO 100		ISO 100	
Deoiling cartridge	art.	00 VTL 75G1 29		00 VTL 90G1 29		00 VTL 105G1 29	
6 vanes	art.	00 VTL 75G1 10		00 VTL 90 G110		00 VTL 105 G110	
Sealing kit	art.	00 KIT VTL 75G1		00 KIT VTL 90G1		00 KIT VTL 105G1	
Check valve	art.	10 06 10		10 06 10		10 07 10	
Suction filtre	art.	FB 40/FC 40		FB 40/FC 40		FB 50/FC 50	
Oil level switch	art.	00 LP VTL 99		00 LP VTL 99		00 LP VTL 99	
Oil filtre	art.	00 LP VTL 40		00 LP VTL 40		00 LP VTL 40	
Adjustable drip oiler	art.	00 VTL 00 11		00 VTL 00 11		00 VTL 00 11	

Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

VACUUM PUMP VTL 6 DC
WITH DC MOTOR

The extremely reduced size, the excellent final vacuum level that can be reached and the DC electric motor are the main features of this rotating vane vacuum pump. The internal vacuum lubrication is with oil recirculation.
Both the motor and the pump are cooled my the motor pump (surface cooling).
The pump is equipped with a small tank in line with its axis, which contains the lubrication oil and a condensation separator that prevents exhaust oil mists and reduces noise. A check valve on the suction inlet is integral part of the pump. Upon request, it can be supplied with a special filtre.
The VTL 6 DC pump can only be supplied with a DC motor (service S1) conform with the EMC (89/336/CEE) Directive.



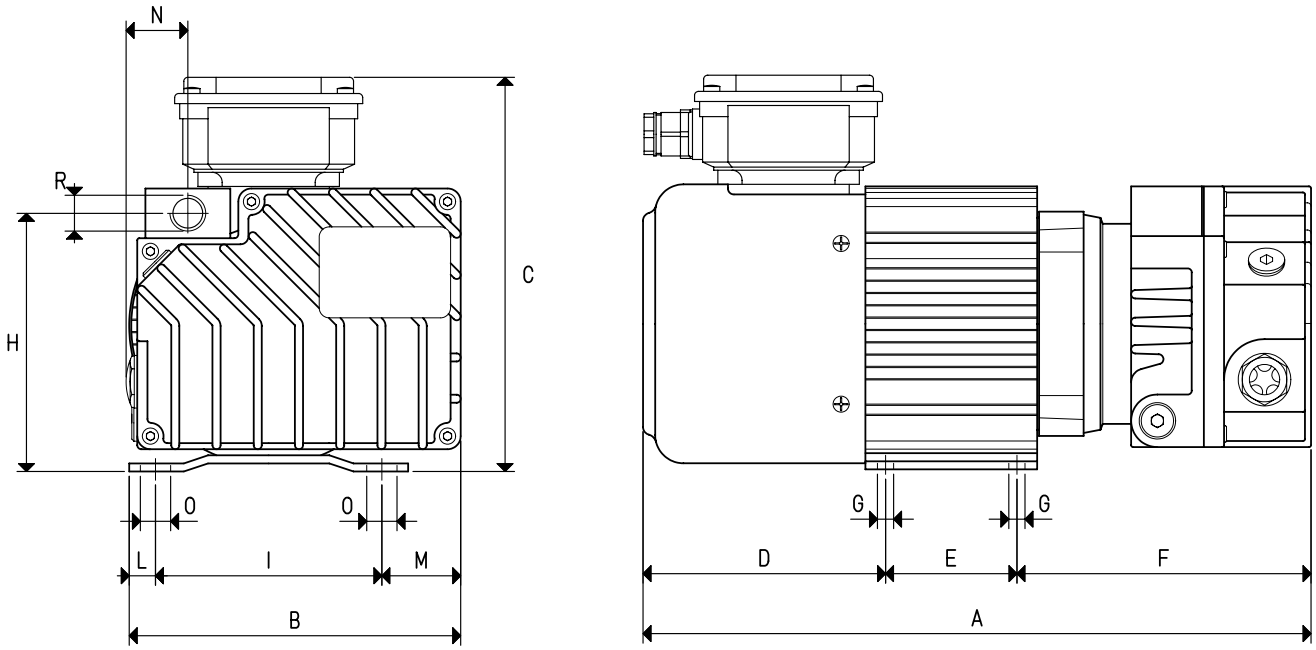


To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

——— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
——— Curve regarding the emptying of a 100-litre volume

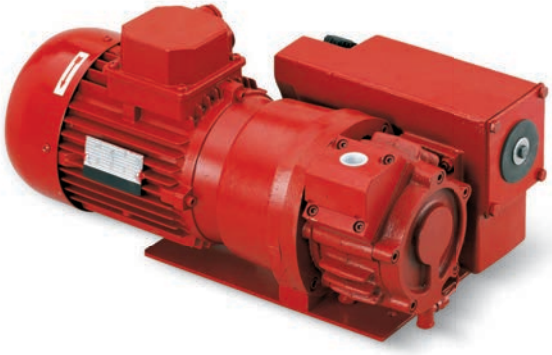
V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)

VACUUM PUMP VTL 6 DC
WITH DC MOTOR

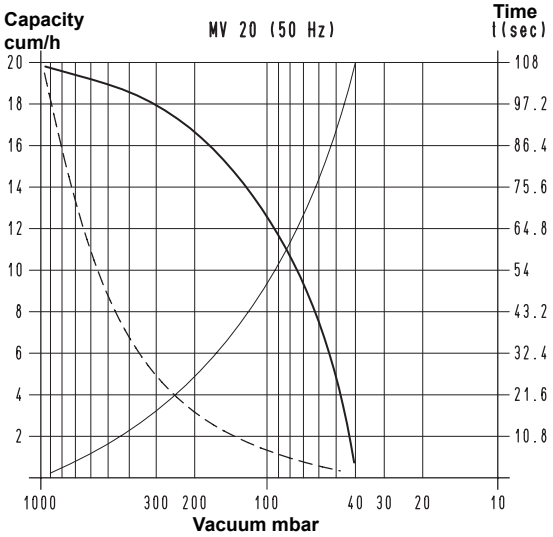


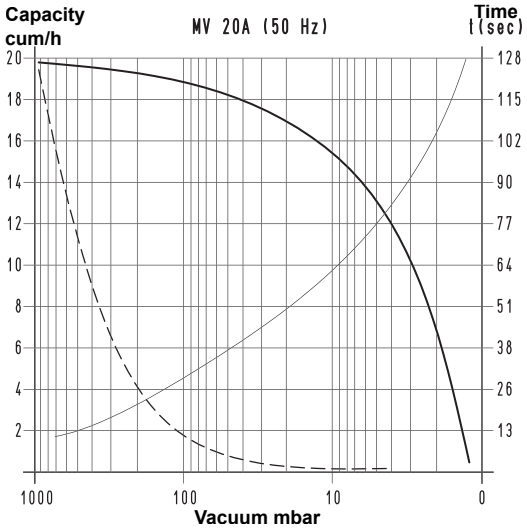
Art.		VTL 6 CC
Capacity	m^3/h	6
Final pressure	mbar abs.	2
Motor execution	Volt	24 CC
Motor power	Kw	0.28
Max. absorption at 24 V CC	A	15
Motor protection	IP	54
Rotation speed	rev/min^{-1}	3000
Motor shape		Special
Motor size		71
Noise level	dB(A)	68
Max. weight	Kg	10.5
A		335
B		168
C		195
D		124
E		65
F		146
G		8
H		128
I		112
L		12
M		44
N		32
O		14.5
R	Ø gas	G3/8"
Accessories and spare parts		
Oil load	l	0.20
Synthetic oil	VT OIL	ISO 32
3 vanes	art.	00 VTL 06 10
Sealing kit	art.	00 KIT VTL 06
Check valve	art.	Built-in
Suction filtre	art.	FB 10/FC 10

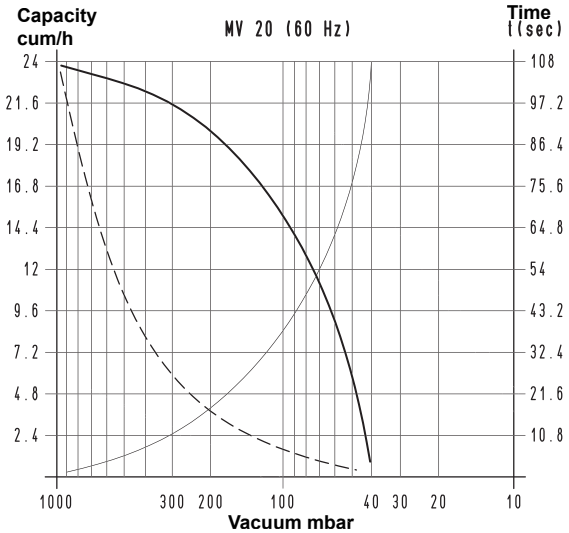
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

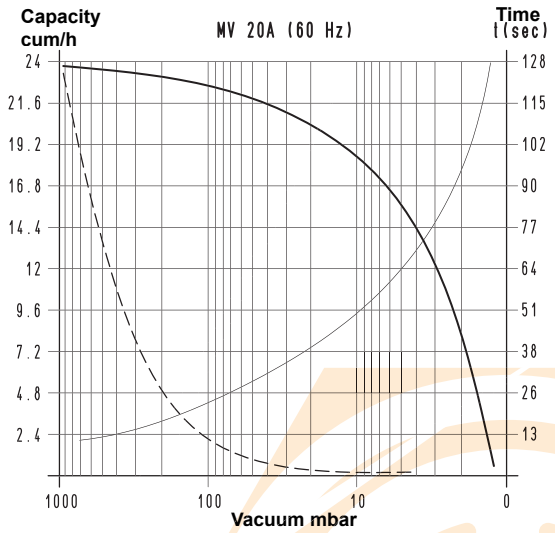


The single-stage oil-bath vane vacuum pumps of the MV series are activated by a standard electric motor coupled together via an elastic transmission joint. A centrifugal fan cantilevered-fitted onto the pump shaft guarantees the right airflow for cooling the pump unit (forced surface cooling).
A large oil recovery tank with built-in microfibre deoiling cartridges, located on the pump exhaust, serves as a silencer and as a fume collector.
The oil contained in the system lubricates, cools and seals the rotating and the fixed parts of the pumps.
The standard check valve on the suction inlet is integral part of the pumps. Upon request, a filtre for trapping possible impurities can also be provided. Pumps included between the MV 20 and the MV 100 are set for the installation of a gas ballast valve (upon request) which allows for a high compatibility to water vapour. In the other pumps, starting from MV 160R up to MV 300R, the built-in gas ballast valve is a standard.
The features described above associated with a strong and compact construction make the pumps of the MV series suitable for continuous and intense use.







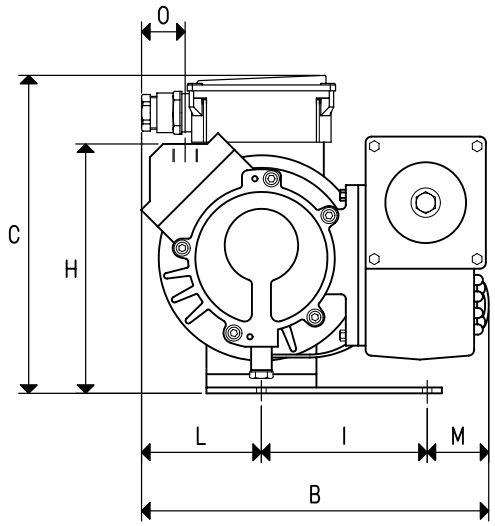


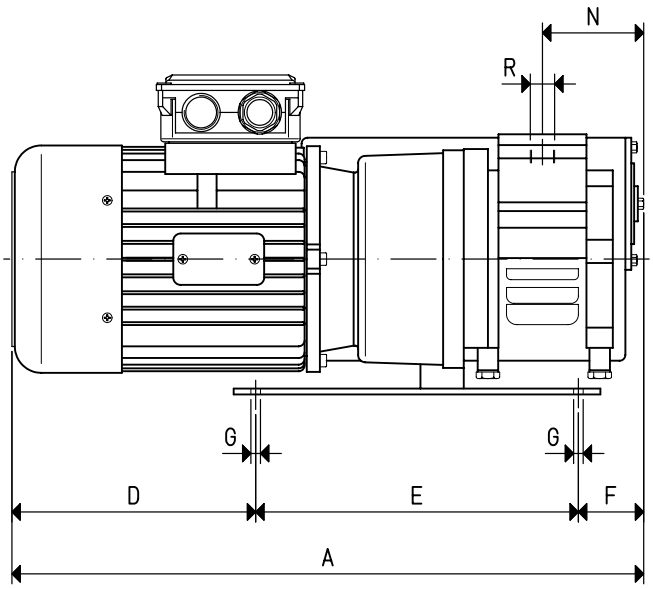
To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

——— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
——— Curve regarding the emptying of a 100-litre volume

V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)

OIL-BATH VACUUM PUMPS
MV 20 AND MV 20A

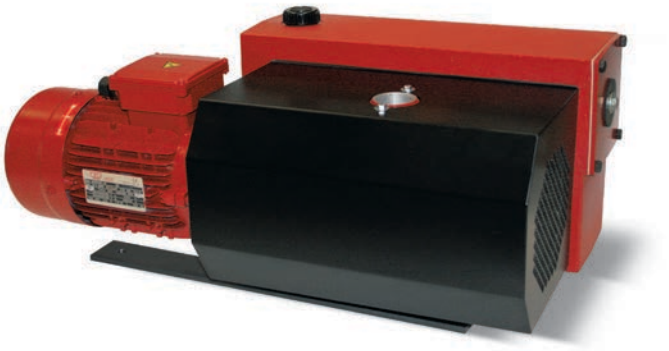


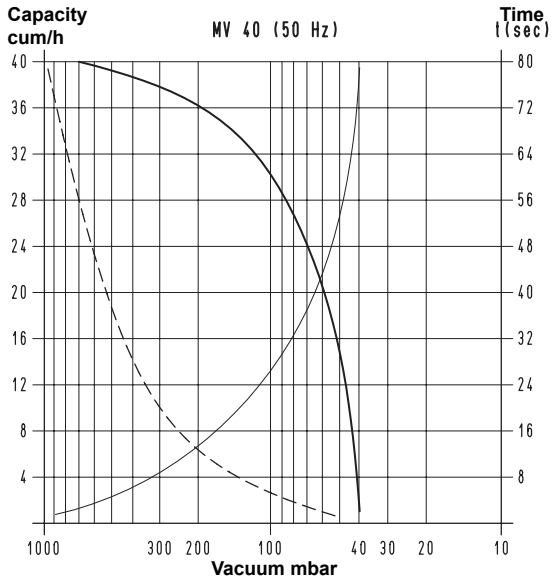


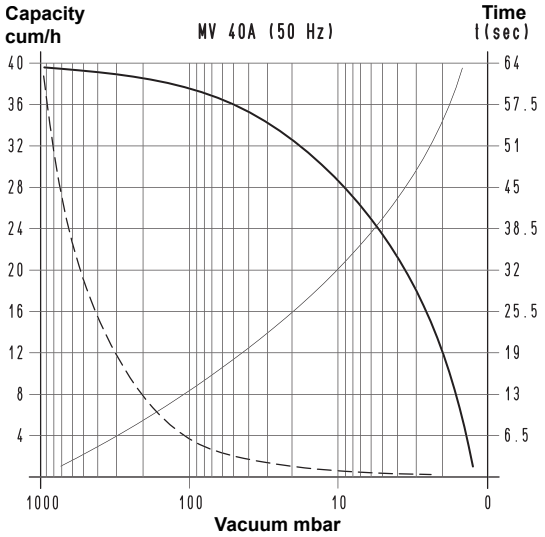
Art.		MV 20		MV 20A	
Frequency		50Hz	60Hz	50Hz	60Hz
Capacity	m^3/h	20.0	24.0	20.0	24.0
Final pressure	mbar abs.	40		0.7	
Motor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%
Volt	1~	230±10%		230±10%	
Motor power	3~	0.75	0.90	0.75	0.90
Kw	1~	0.75	0.90	0.75	0.90
Motor protection	IP	55		55	
Rotation speed	rev/min^{-1}	2800	3350	2800	3350
Motor shape		B14		B14	
Motor size		80		80	
Noise level	dB(A)	64	66	64	66
Max. weight	3~	21.5		21.5	
Kg	1~	22.0		22.0	
A		425		425	
B		235		235	
C		215		215	
D		145		145	
E		220		220	
F		60		60	
G	Ø	6.5		6.5	
H		170		170	
I		113		113	
L		82		82	
M		40		40	
N		60		60	
O		30		30	
R	Ø gas	G1/2"		G1/2"	
Accessories and spare parts					
Oil load	l	0.70		0.70	
Synthetic oil	VT OIL	ISO 68		ISO 68	
Deoiling cartridge	art.	00 MV 20 11		00 MV 20 11	
3 vanes	art.	00 MV 20 10		00 MV 20 10	
Sealing kit	art.	00 KIT MV 20		00 KIT MV 20	
Check valve	art.	Built-in		Built-in	
Suction filtre	art.	FC 20		FC 20	
Ballast valve	art.	VZ 01		VZ 01	

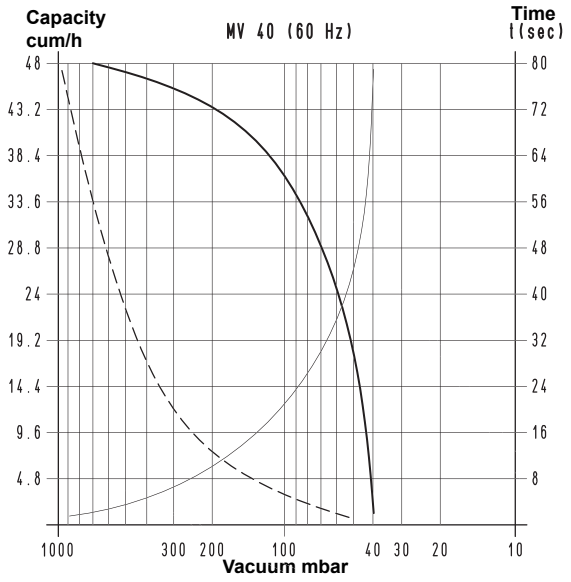
Note: The pump will be supplied with single-phase electric motor by adding the letter M to the article (E.g.: MV 20 M).

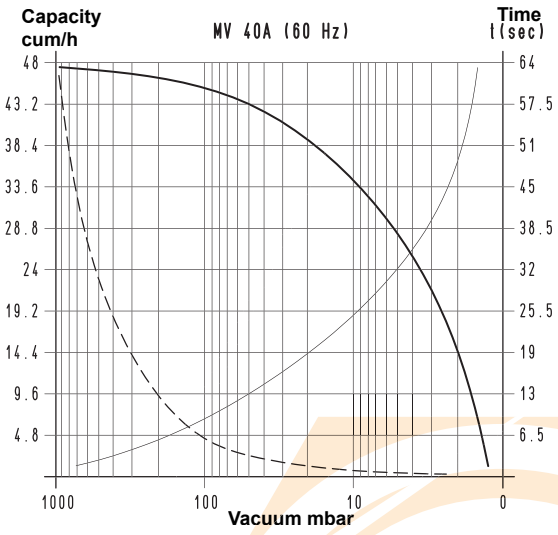
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6









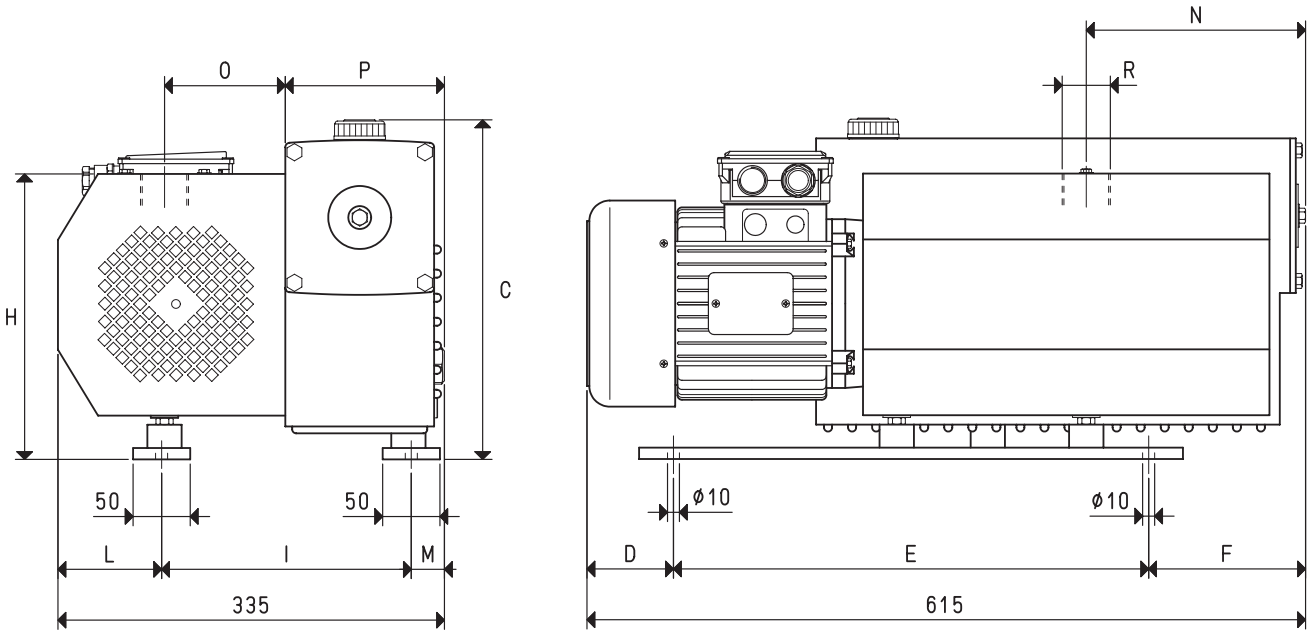


To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

——— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
——— Curve regarding the emptying of a 100-litre volume

V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)

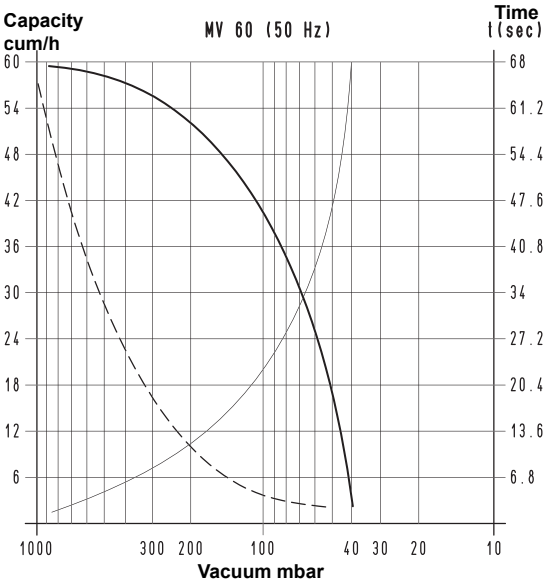
OIL-BATH VACUUM PUMPS
MV 40 AND MV 40A

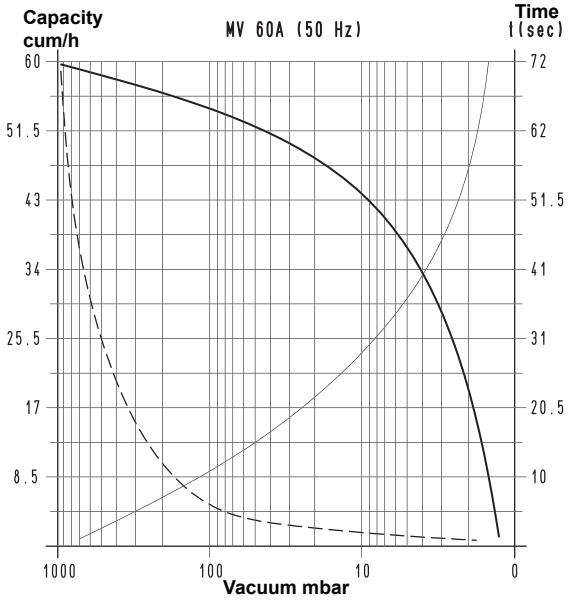


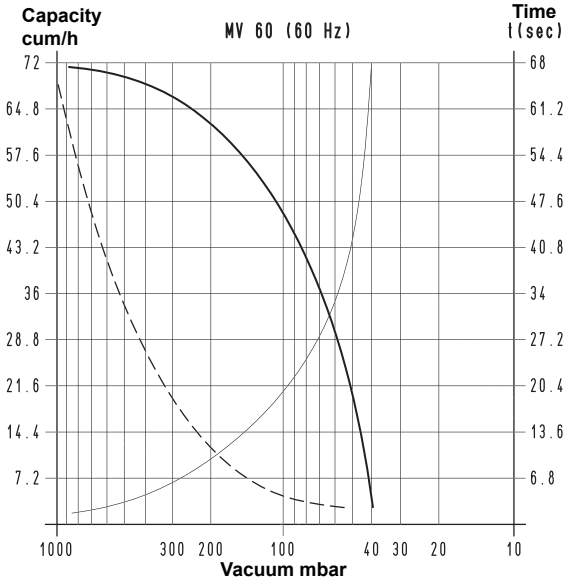
Art.		MV 40		MV 40A	
Frequency		50Hz	60Hz	50Hz	60Hz
Capacity	m^3/h	40.0	48.0	40.0	48.0
Final pressure	mbar abs.	40		0.7	
Motor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%
Volt					
Motor power	3~	1.10	1.35	1.10	1.35
Kw					
Motor protection	IP	55		55	
Rotation speed	rev/min^{-1}	1450	1740	1450	1740
Motor shape		B14		B14	
Motor size		90		90	
Noise level	dB(A)	66	68	66	68
Max. weight	3~	45.0		45.0	
Kg					
C		295		295	
D		63		63	
E		415		415	
F		137		137	
H		245		245	
I		210		210	
L		91		91	
M		34		34	
N		188		188	
O		100		100	
P		140		140	
R	Ø gas	G1"1/4		G1"1/4	
Accessories and spare parts					
Oil load	l	2.00		2.00	
Synthetic oil	VT OIL	ISO 68		ISO 68	
Deoiling cartridge	art.	00 MV 40 50		00 MV 40 50	
3 vanes	art.	00 MV 40 10		00 MV 40 10	
Sealing kit	art.	00 KIT MV 40		00 KIT MV 40	
Check valve	art.	Built-in		Built-in	
Suction filtre	art.	FC 35		FC 35	
Ballast valve	art.	VZ 02		VZ 02	

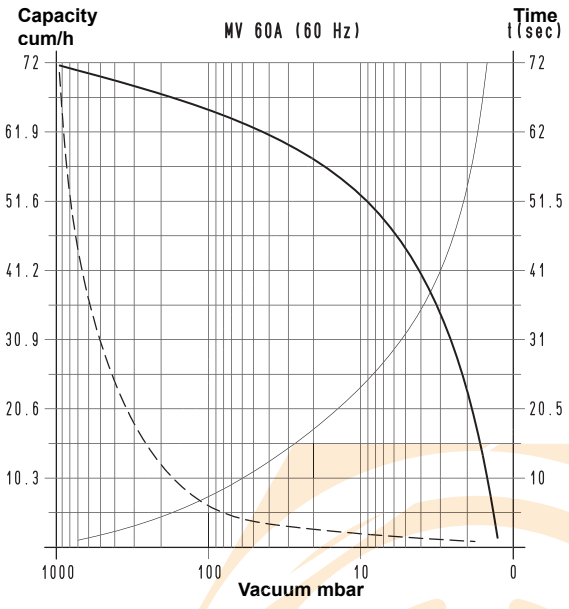
3D drawings available at **www.vuototecnica.net**

Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6







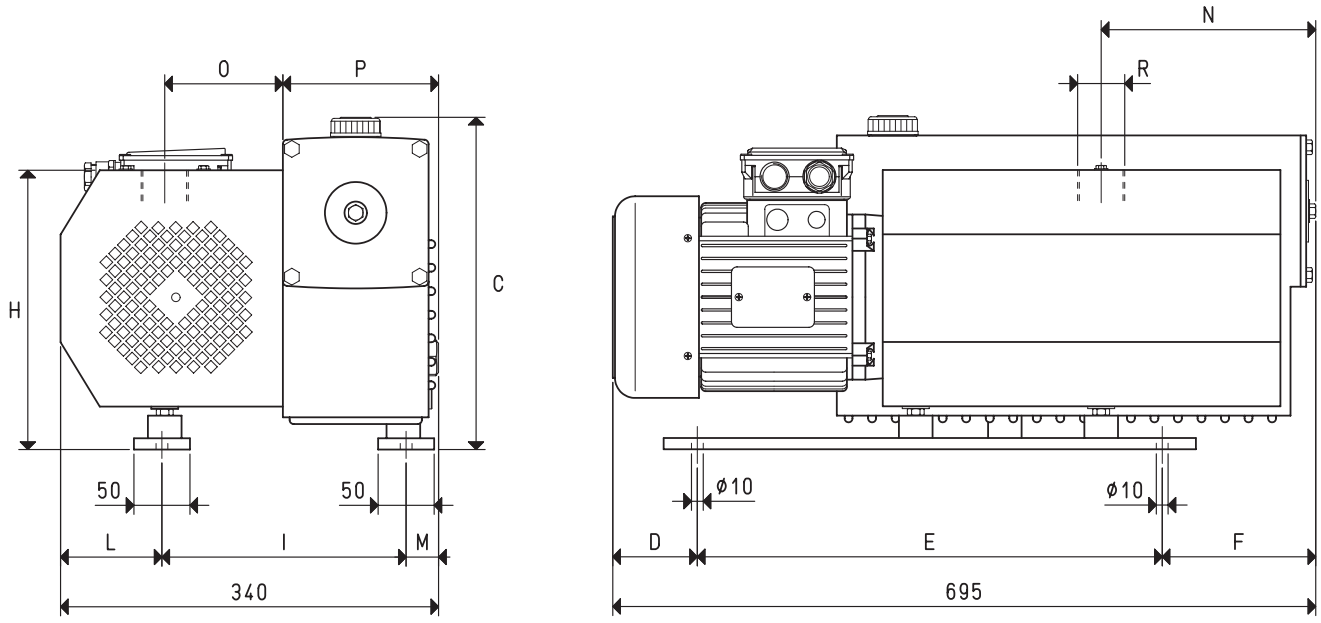


To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

——— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
——— Curve regarding the emptying of a 100-litre volume

V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)

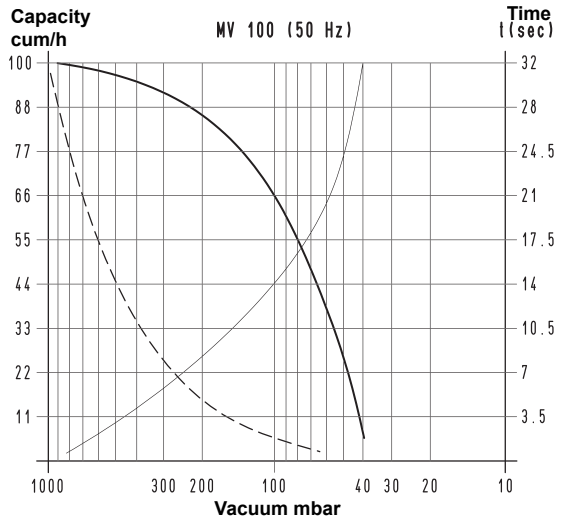
OIL-BATH VACUUM PUMPS
MV 60 and MV 60A

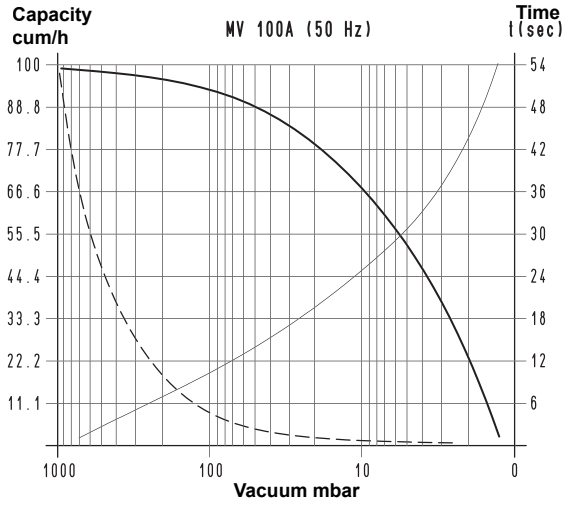


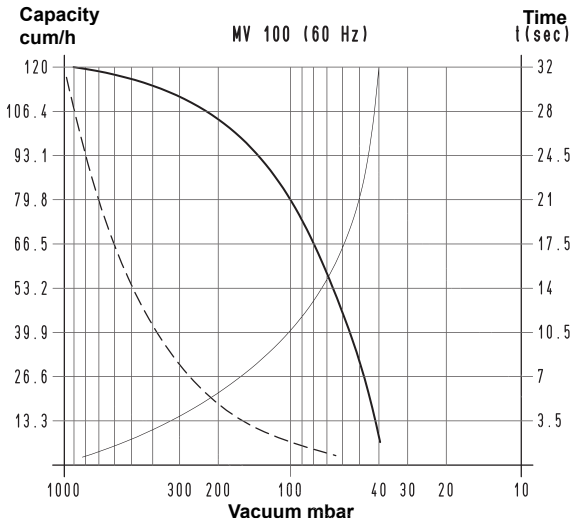
Art.		MV 60		MV 60A	
Frequency		50Hz	60Hz	50Hz	60Hz
Capacity	m^3/h	60.0	72.0	60.0	72.0
Final pressure	mbar abs.	40		0.7	
Motor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%
Volt					
Motor power	3~	1.50	1.80	1.50	1.80
Kw					
Motor protection	IP	55		55	
Rotation speed	rev/min^{-1}	1450	1740	1450	1740
Motor shape		B14		B14	
Motor size		90		90	
Noise level	dB(A)	68	70	68	70
Max. weight	3~	53.0		53.0	
Kg					
C		300		300	
D		150		150	
E		415		415	
F		130		130	
H		248		248	
I		210		210	
L		100		100	
M		30		30	
N		184		184	
O		100		100	
P		140		140	
R	Ø gas	G1"1/4		G1"1/4	
Accessories and spare parts					
Oil load	l	2.00		2.00	
Synthetic oil	VT OIL	ISO 68		ISO 68	
Deoiling cartridge	art.	00 MV 60 50		00 MV 60 50	
3 vanes	art.	00 MV 60 10		00 MV 60 10	
Sealing kit	art.	00 KIT MV 60		00 KIT MV 60	
Check valve	art.	Built-in		Built-in	
Suction filtre	art.	FC 35		FC 35	
Ballast valve	art.	VZ 02		VZ 02	

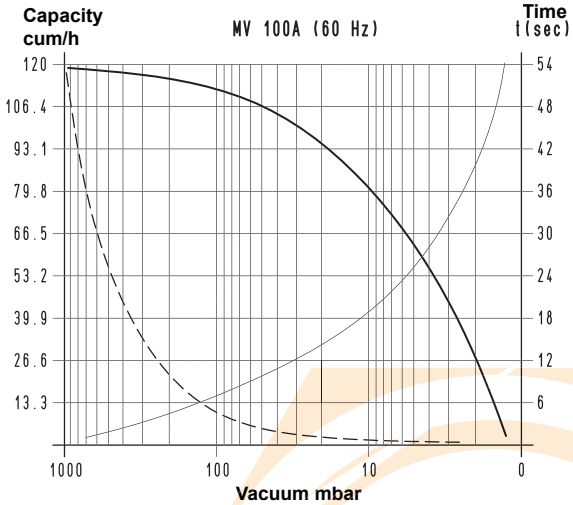
3D drawings available at **www.vuototecnica.net**

Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6







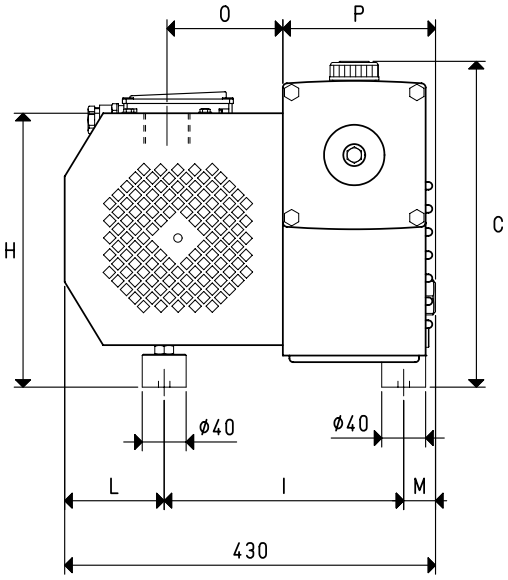


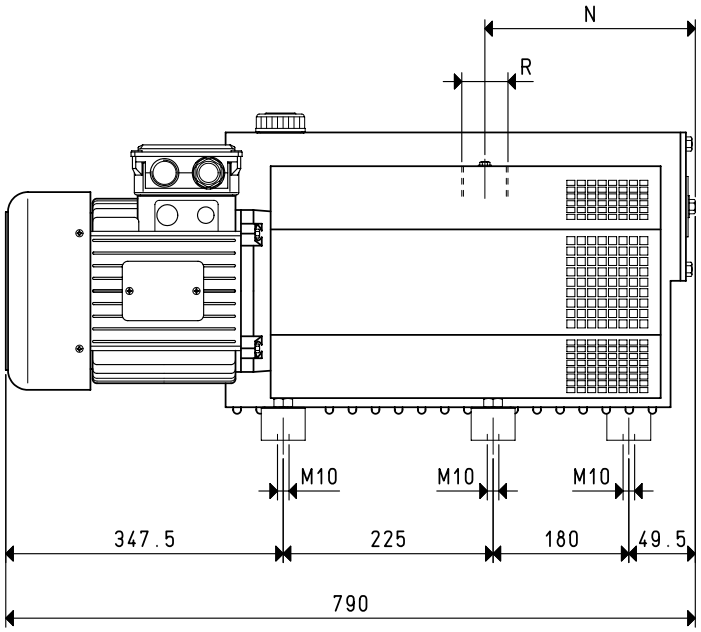
To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

——— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
——— Curve regarding the emptying of a 100-litre volume

V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)

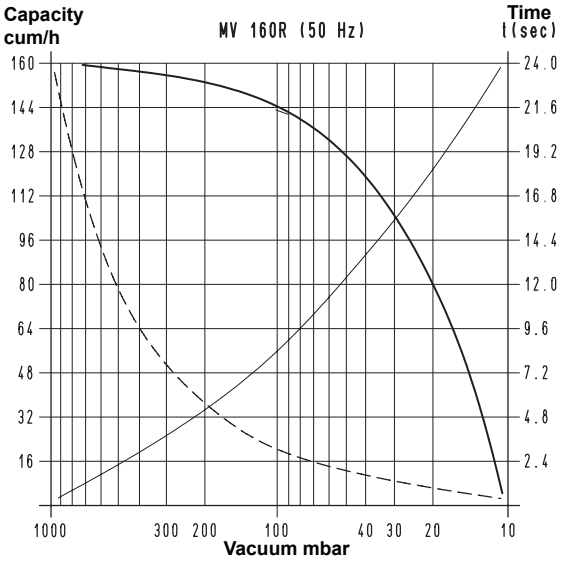
OIL-BATH VACUUM PUMPS
MV 100 and MV 100A

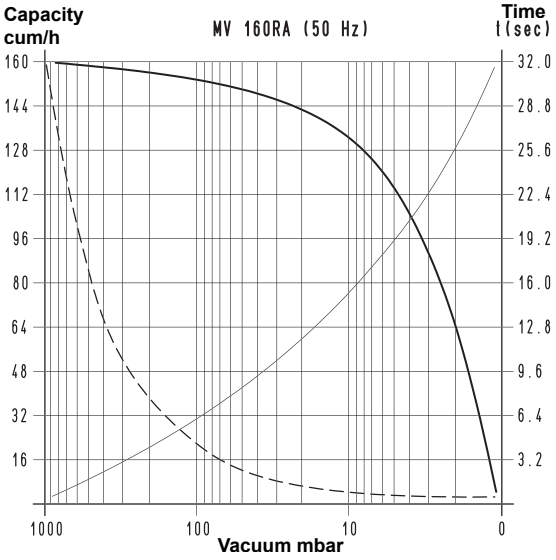


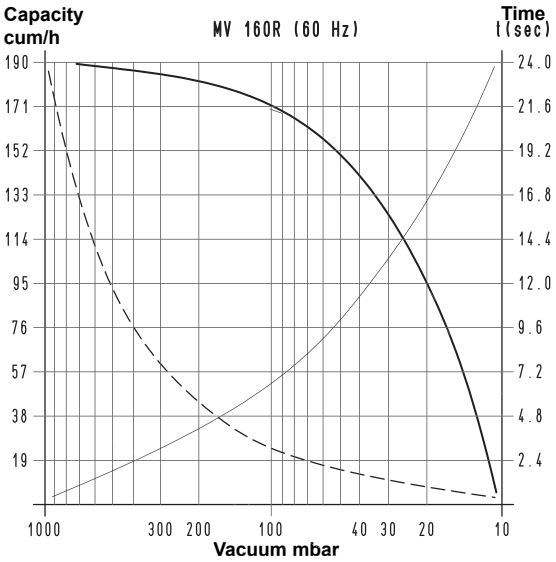


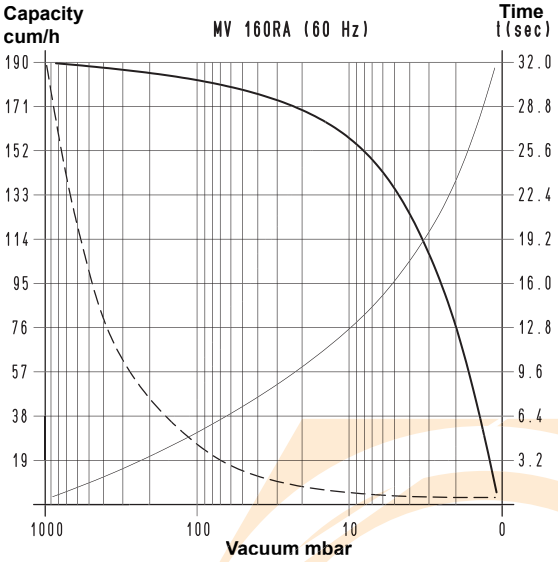
Art.		MV 100		MV 100A	
Frequency		50Hz	60Hz	50Hz	60Hz
Capacity	m^3/h	100.0	120.0	100.0	120.0
Final pressure	mbar abs.	40		0.7	
Motor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%
Volt					
Motor power	3~	2.20	2.70	2.20	2.70
Kw					
Motor protection	IP	55		55	
Rotation speed	rev/min^{-1}	1450	1740	1450	1740
Motor shape		B14		B14	
Motor size		100		100	
Noise level	dB(A)	68	70	68	70
Max. weight	3~	80.0		80.0	
Kg					
C		330		330	
H		290		290	
I		275		275	
L		115		115	
M		40		40	
N		240		240	
O		130		130	
P		180		180	
R	Ø gas	G1"1/4		G1"1/4	
Accessories and spare parts					
Oil load	l	3.50		3.50	
Synthetic oil	VT OIL	ISO 100		ISO 100	
2 deoiling cartridges	art.	00 MV 100 06		00 MV 100 06	
3 vanes	art.	00 MV 100 10		00 MV 100 10	
Sealing kit	art.	00 KIT MV 100		00 KIT MV 100	
Check valve	art.	Built-in		Built-in	
Suction filtre	art.	FC 35		FC 35	
Ballast valve	art.	VZ 02		VZ 02	

Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6







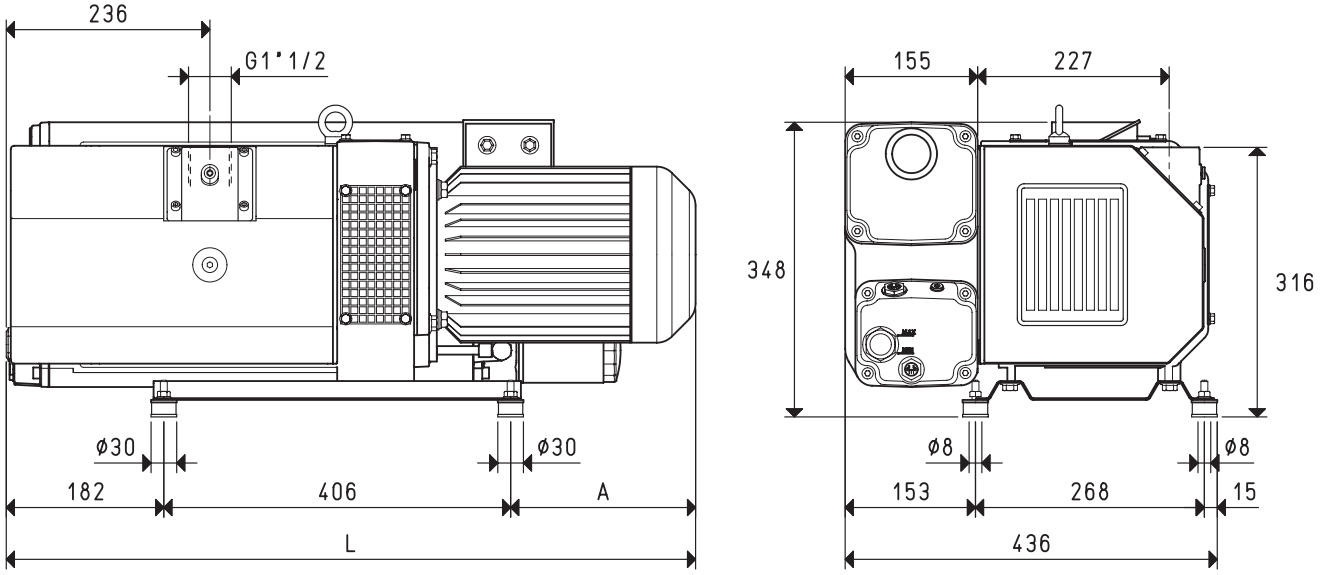


To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

——— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
——— Curve regarding the emptying of a 100-litre volume

V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)

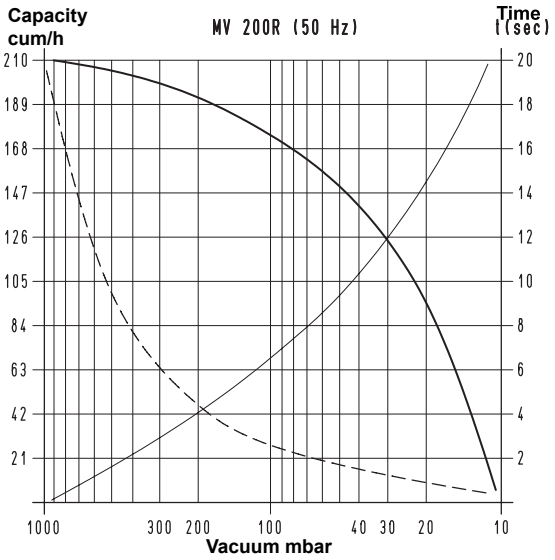
OIL-BATH VACUUM PUMPS
MV 160R and MV 160RA

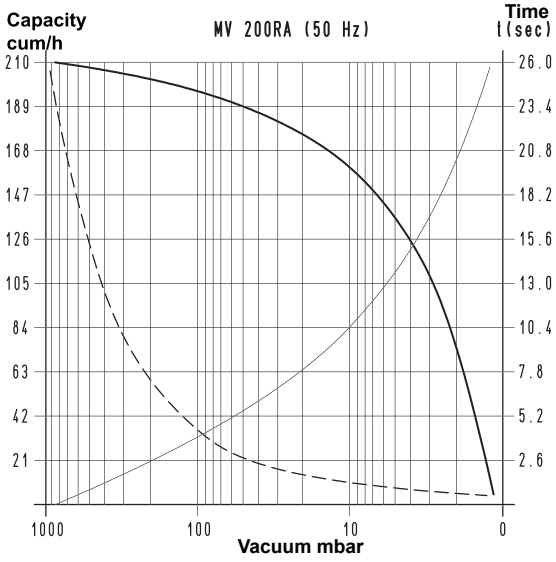


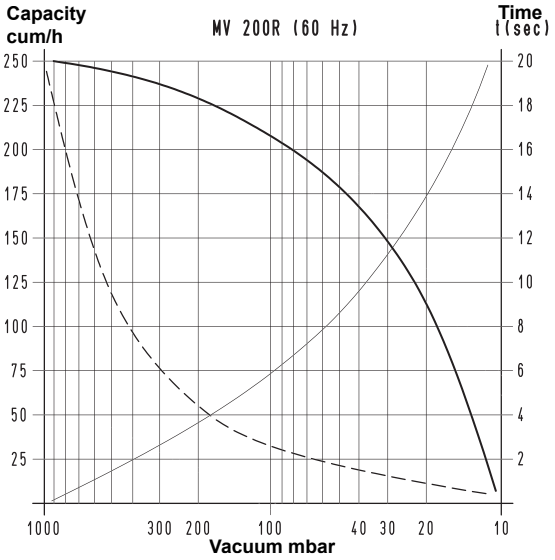
Art.		MV 160R		MV 160RA	
Frequency		50Hz	60Hz	50Hz	60Hz
Capacity	m^3/h	150	180	150	180
Final pressure	mbar abs.	10		0.5	
Motor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%
Volt					
Motor power	3~	3.0	4.0	3.0	4.0
Kw					
Motor protection	IP	55		55	
Rotation speed	rev/min^{-1}	1500	1800	1500	1800
Motor shape		B5		B5	
Motor size		100		100	
Noise level	dB(A)	71	72	71	72
Max. weight	3~	104	110	104	110
Kg					
A		217	226	217	226
L		805	814	805	814
Accessories and spare parts					
Oil load	l	3.0		3.0	
Synthetic oil	VT OIL	ISO 100		ISO 100	
2 deoiling cartridges	art.	00 MV 160R 06		00 MV 160R 06	
3 vanes	art.	00 MV 160R 10		00 MV 160R 10	
Sealing kit	art.	00 KIT MV 160R		00 KIT MV 160R	
Check valve	art.	Built-in		Built-in	
Oil filtre	art.	00 MV 160R 07		00 MV 160R 07	
Suction filtre	art.	FC 50		FC 50	
Ballast valve	art.	Built-in		Built-in	

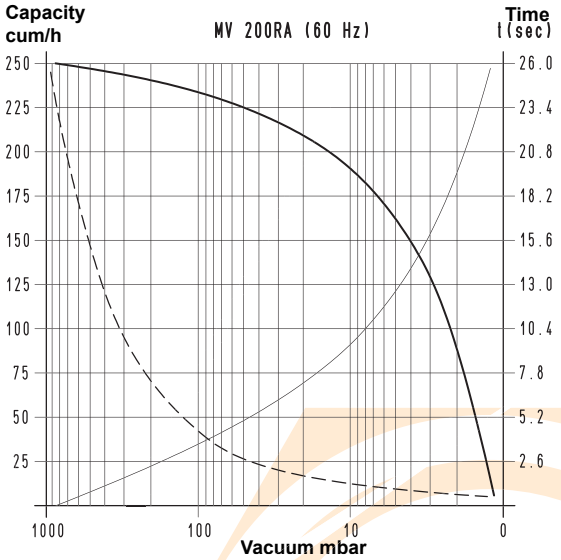
3D drawings available at **www.vuototecnica.net**

Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6





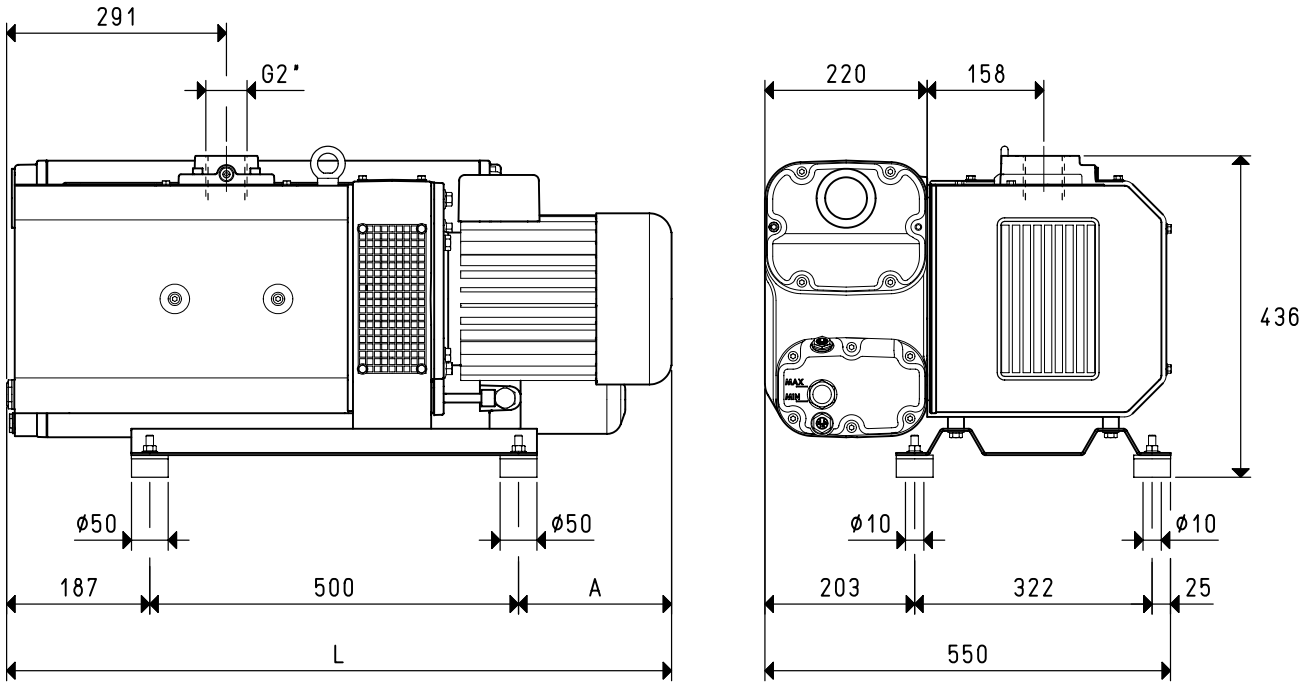




To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

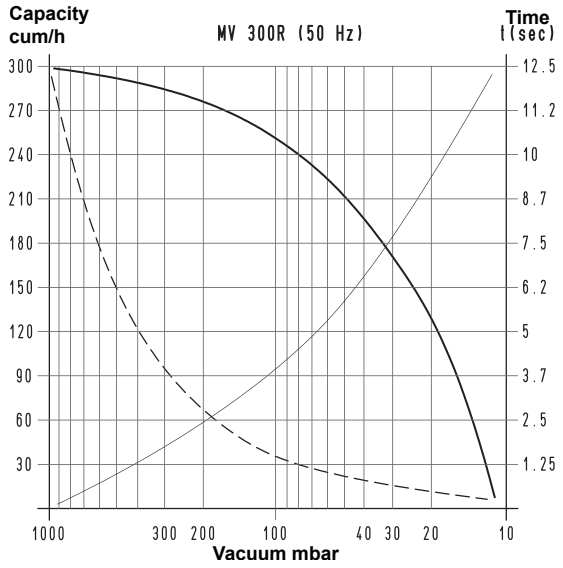
——— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
——— Curve regarding the emptying of a 100-litre volume

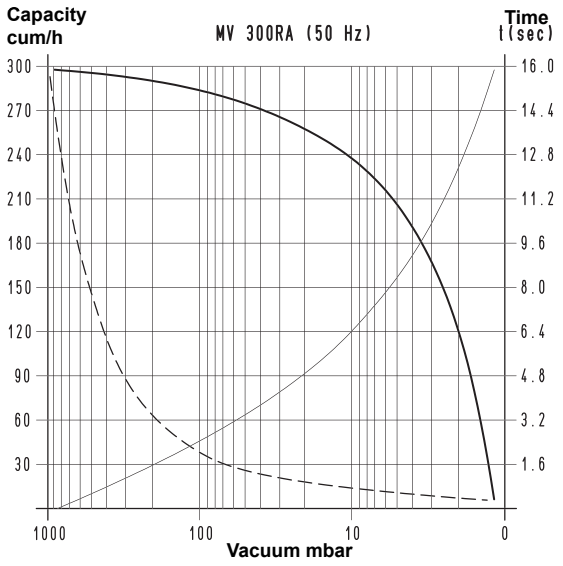
V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)

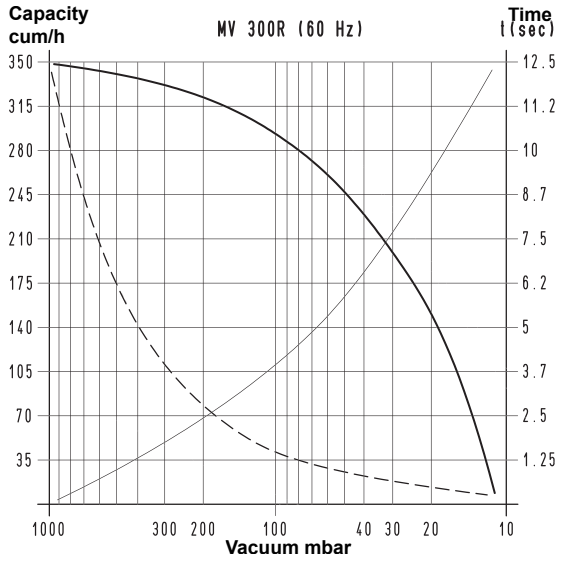


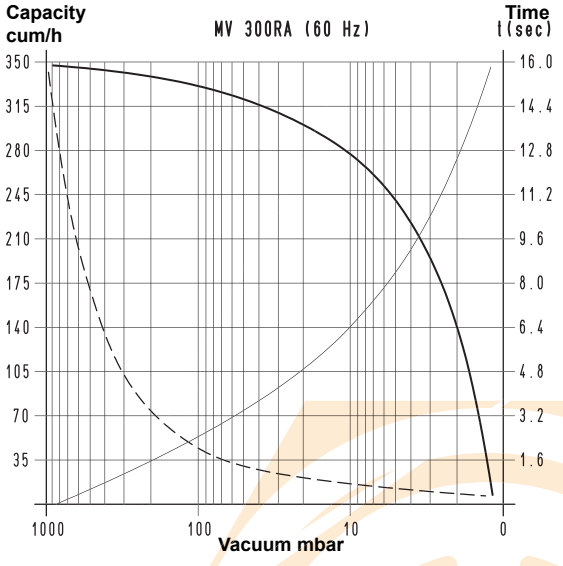
Art.		MV 200R		MV 200RA	
Frequency		50Hz	60Hz	50Hz	60Hz
Capacity	m^3/h	205	245	205	245
Final pressure	mbar abs.	10		0.5	
Motor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%
Volt					
Motor power	3~	4.0	5.5	4.0	5.5
Kw					
Motor protection	IP	55		55	
Rotation speed	rev/min^{-1}	1500	1800	1500	1800
Motor shape		B5		B5	
Motor size		112		112	
Noise level	dB(A)	70	72	70	72
Max. weight	3~	161	171	161	171
Kg					
A		208	257	208	257
L		895	944	895	944
Accessories and spare parts					
Oil load	l	7.0		7.0	
Synthetic oil	VT OIL	ISO 100		ISO 100	
2 deoiling cartridges	art.	00 MV 200R 50		00 MV 200R 50	
3 vanes	art.	00 MV 200R 10		00 MV 200R 10	
Sealing kit	art.	00 KIT MV 200R		00 KIT MV 200R	
Check valve	art.	Built-in		Built-in	
Oil filtre	art.	00 MV 200R 07		00 MV 200R 07	
Suction filtre	art.	FC 60		FC 60	
Ballast valve	art.	Built-in		Built-in	

Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6







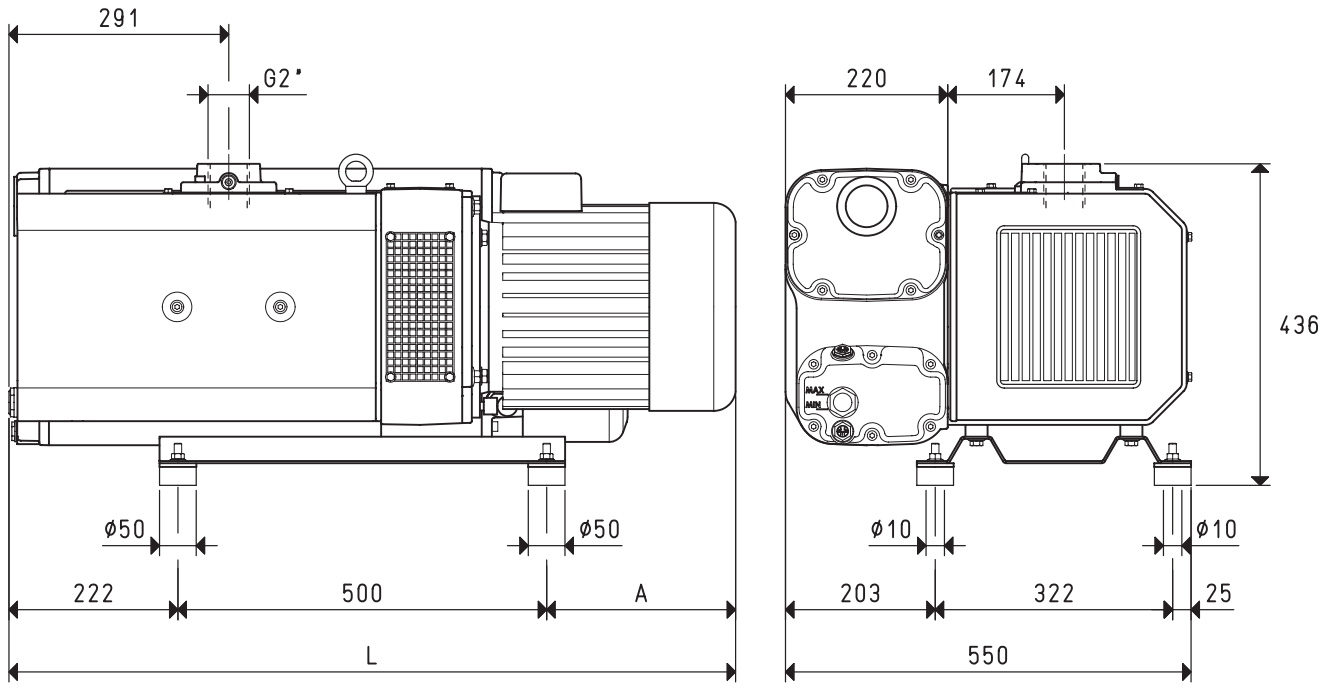


To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

——— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
——— Curve regarding the emptying of a 100-litre volume

V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)

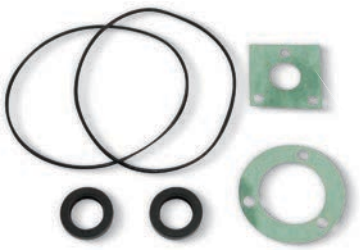
OIL-BATH VACUUM PUMPS
MV 300R and MV 300RA



Art.		MV 300R		MV300RA	
Frequency		50Hz	60Hz	50Hz	60Hz
Capacity	m^3/h	300	350	300	350
Final pressure	mbar abs.	10		0.5	
Motor execution	3~	400/650±10%	480/828±10%	400/650±10%	480/828±10%
Volt					
Motor power	3~	5.5	7.5	5.5	7.5
Kw					
Motor protection	IP	55		55	
Rotation speed	rev/min^{-1}	1500	1800	1500	1800
Motor shape		B5		B5	
Motor size		112		112	
Noise level	dB(A)	71	73	71	73
Max. weight	3~	188	192	188	192
Kg					
A		257		297	
L		979		1019	
Accessories and spare parts					
Oil load	l	7.0		7.0	
Synthetic oil	VT OIL	ISO 100		ISO 100	
3 deoiling cartridges	art.	00 MV 300R 50		00 MV 300R 50	
3 vanes	art.	00 MV 300R 10		00 MV 300R 10	
Sealing kit	art.	00 KIT MV 300R		00 KIT MV 300R	
Check valve	art.	Built-in		Built-in	
Oil filtre	art.	00 MV 300R 07		00 MV 300R 07	
Suction filtre	art.	FC 60		FC 60	
Ballast valve	art.	Built-in		Built-in	

Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

	Art.	Quantity	For pump art.
Fibre vanes	00 VTL 02 10	4	VTL 2
	00 VTL 04 10	4	VTL 4
	00 VTL 05 10	6	VTL 5
	00 VTL 10 10	6	VTL 10
	00 VTL 10F 10	6	VTL 10/F
	00 VTL 15F 10	6	VTL 15/F
	00 VTL 20F 10	6	VTL 20/F
	00 VTL 25FG 10	6	VTL 25/FG
	00 VTL 30FG 10	6	VTL 30/FG
	00 VTL 35FG 10	6	VTL 35/FG
	00 VTL 40G1 10	6	VTL 40/G1
	00 VTL 50G1 10	6	VTL 50/G1
	00 VTL 65G1 10	6	VTL 65/G1
	00 VTL 75G1 10	6	VTL 75/G1
	00 VTL 90G1 10	6	VTL 90/G1
	00 VTL 105G1 10	6	VTL 105/G1
	00 VTL 06 10	3	VTL 6 CC
	00 MV 20 10	3	MV 20
	00 MV 40 10	3	MV 40
	00 MV 60 10	3	MV 60
	00 MV 100 10	3	MV 100
	00 MV 160R 10	3	MV 160R
	00 MV 200R 10	3	MV 200R
	00 MV 300R 10	3	MV 300R
Sealing kits	00 KIT VTL 02	1	VTL 2
	00 KIT VTL 04	1	VTL 4
	00 KIT VTL 05	1	VTL 5
	00 KIT VTL 10	1	VTL 10
	00 KIT VTL 10F	1	VTL 10/F
	00 KIT VTL 15F	1	VTL 15/F
	00 KIT VTL 20F	1	VTL 20/F
	00 KIT VTL 25FG	1	VTL 25/FG
	00 KIT VTL 30FG	1	VTL 30/FG
	00 KIT VTL 35FG	1	VTL 35/FG
	00 KIT VTL 40G1	1	VTL 40/G1
	00 KIT VTL 50G1	1	VTL 50/G1
	00 KIT VTL 65G1	1	VTL 65/G1
	00 KIT VTL 75G1	1	VTL 75/G1
	00 KIT VTL 90G1	1	VTL 90/G1
	00 KIT VTL 105G1	1	VTL 105/G1
	00 KIT VTL 06	1	VTL 6 CC
	00 KIT MV 20	1	MV 20
	00 KIT MV 40	1	MV 40
	00 KIT MV 60	1	MV 60
	00 KIT MV 100	1	MV 100
	00 KIT MV 160R	1	MV 160R
	00 KIT MV 200R	1	MV 200R
	00 KIT MV 300R	1	MV 300R



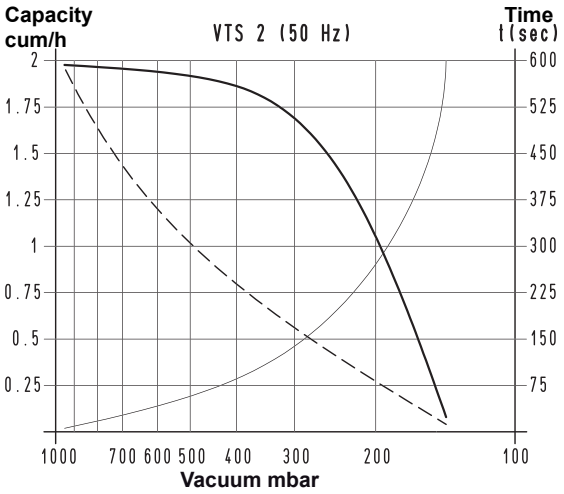
LUBRICATED VACUUM PUMP ACCESSORIES AND SPARE PARTS

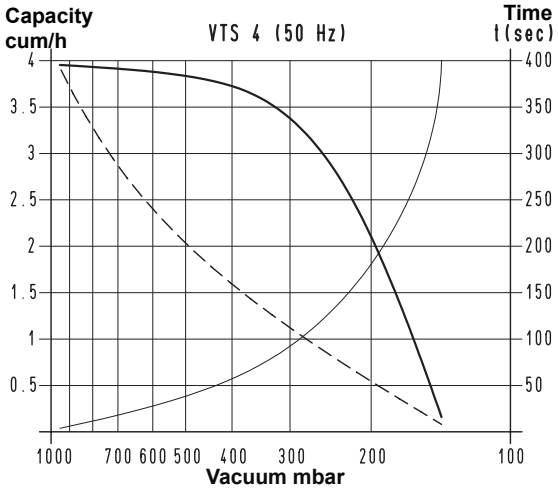
	Art.	Quantity	For pump art.
Check valves	10 01 15	1	VTL 2
	10 02 15	1	VTL 4
	10 02 10	1	VTL 5
	10 03 10	1	VTL 10
			VTL 10/F
			VTL 15/F
			VTL 20/F
	10 04 10	1	VTL 25/FG
			VTL 30/FG
			VTL 35/FG
	10 05 10	1	VTL 40/G1
			VTL 50/G1
			VTL 65/G1
	10 06 10	1	VTL 75/G1
			VTL 90/G1
	10 07 10	1	VTL 105/G1
Suction filtres	FB 5	1	VTL 2
	FB 10	1	VTL 4
			VTL 5
			VTL 6 CC
	FB 20	1	VTL 10
			VTL 10/F
			VTL 15/F
			VTL 20/F
	FB 25	1	VTL 25/FG
			VTL 30/FG
			VTL 35/FG
	FB 30	1	VTL 40/G1
			VTL 50/G1
			VTL 65/G1
	FB 40	1	VTL 75/G1
			VTL 90/G1
	FB 50	1	VTL 105/G1
	FC 10	1	VTL 4
			VTL 5
			VTL 6 CC
	FC 20	1	VTL 10
			VTL 10/F
			VTL 15/F
			VTL 20/F
			MV 20
			MV 20A
	FC 25	1	VTL 25/FG
			VTL 30/FG
			VTL 35/FG
	FC 30	1	VTL 40/G1
			VTL 50/G1
			VTL 65/G1
	FC 35	1	MV 40
			MV 40A
			MV 60
			MV 60A
			MV 100
			MV 100A
	FC 40	1	VTL 75/G1
			VTL 90/G1
	FC 50	1	VTL 105/G1
			MV 160R
			MV 160RA
	FC 60	1	MV 200R
			MV 200RA
			MV 300R
			MV 300RA

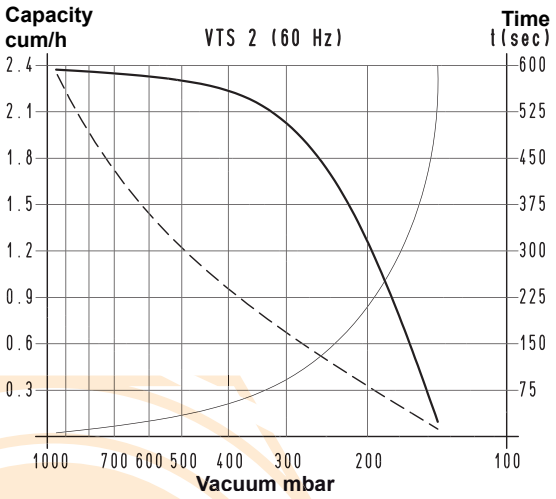
	Art.	Quantity	For pump art.
Adjustable drip oiler	00 VTL 00 11		VTL - All
			VTLP - All
			
Oil level switch	00 LP VTL 99		VTLP - All
Oil filtre	00 LP VTL 40		VTLP - All
	00 MV 160R 07		MV 160R
	00 MV 200R 07		MV 200R
	00 MV 300R 07		MV 300R
Deoiling cartridge	00 VTL 75G1 29	1	VTL 75/G1
	00 VTL 90G1 29	1	VTL 90/G1
	00 VTL 105G1 29	1	VTL 105/G1
	00 MV 20 11	1	MV 20
			MV 20A
	00 MV 40 50	1	MV 40
			MV 40A
	00 MV 60 50	1	MV 60
			MV 60A
	00 MV 100 06	2	MV 100
			MV 100A
	00 MV 160R 06	2	MV 160R
			MV 160RA
	00 MV 200R 50	2	MV 200R
			MV 200RA
	00 MV 300R 50	3	MV 300R
			MV 300RA
Ballast valve	VZ 01	1	MV 20
			MV 20A
	VZ 02	1	MV40
			MV 40A
			MV 60
			MV 60A
			MV 100
			MV 100A
Mineral oil	ISO 32 - 68 - 100 - 150 - 220		Packages of l 2 - 5 - 10
Synthetic oil	VT OIL 32 - 68 - 100		Packages of l 2 - 5 - 10
Non-toxic synthetic oil for food industry	VT OIL FI 68 - 100		Packages of l 2 - 5 - 10
			

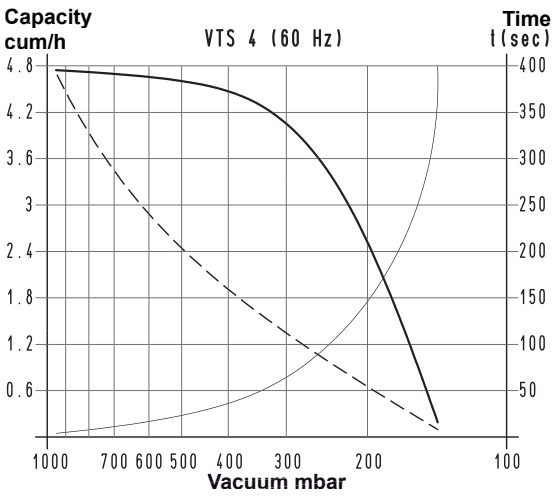
DRY VACUUM PUMPS VTS 2 AND 4

These small dry vacuum pumps have a suction capacity of 2 and 4 cum/h. The particular shape of the working chamber and the special graphite, with which the locking flanges and vanes are made, allow these pumps to operate with no lubrication.
The rotor is cantilevered-fitted on the motor shaft, thus reducing overall dimensions to the minimum. The motor and the pump are cooled by the motor fan (surface cooling).
A filtre that functions as a silencer is installed on the suction inlet.
We strongly recommend installing a filtre on the suction inlet against possible impurities. These pumps are ***not recommended*** *when the fluid to be sucked contains water or oil vapours or condensations.*
Vacuum pumps VTS 2 and 4 can also be supplied with single-phase electric motor.





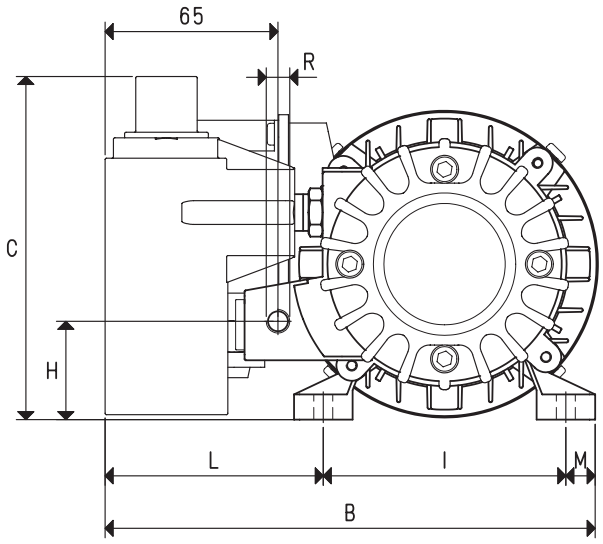


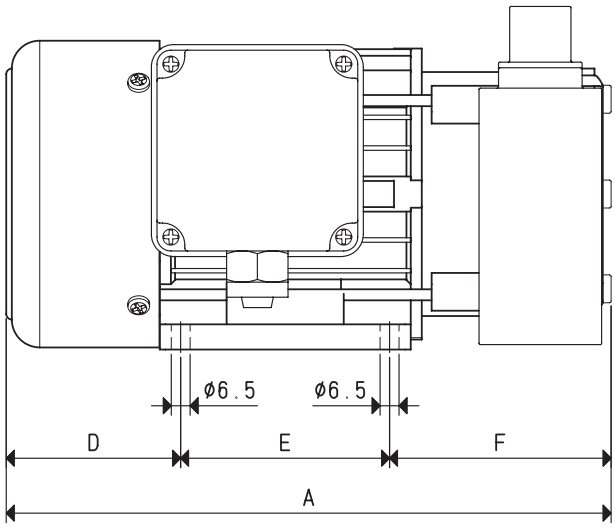


To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

——— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
——— Curve regarding the emptying of a 100-litre volume

V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)





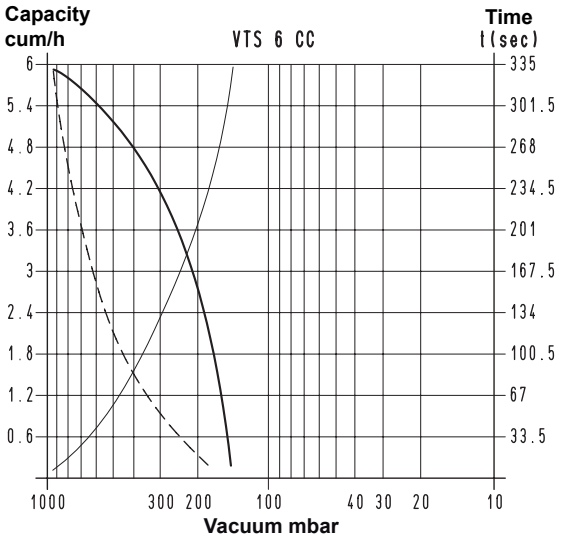
Art.		VTS 2		VTS 4	
Frequency		50Hz	60Hz	50Hz	60Hz
Capacity	m^3/h	2.0	2.4	4.0	4.8
Final pressure	mbar abs.	150		150	
Motor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%
Volt	1~	230±10%		230±10%	
Motor power	3~	0.13	0.15	0.15	0.18
Kw	1~	0.13	0.15	0.15	0.18
Motor protection	IP	54		54	
Rotation speed	rev/min^{-1}	2800	3300	2800	3300
Motor shape		Special		Special	
Motor size		56		63	
Noise level	dB(A)	64	66	64	66
Max. weight	3~	5.3		6.8	
Kg	1~	5.5		7.0	
A		217		251	
B		180		186	
C		121		131	
D		66		78	
E		71		81	
F		80		92	
H		35		45	
I		90		100	
L		79		73	
M		11		13	
R	Ø gas	G1/4"		G1/4"	
Accessories and spare parts					
4 graphite vanes	art.	00 VTS 02 10		00 VTS 04 10	
Perforated graphite disc	art.	00 VTS 02 12		00 VTS 02 12	
Non-perforated graphite disc	art.	00 VTS 02 16		00 VTS 02 16	
Sealing kit	art.	00 KIT VTS 02		00 KIT VTS 04	
Check valve	art.	10 01 15		10 01 15	
Suction filtre	art.	FB 5		FB 5	

Note: The pump will be supplied with single-phase electric motor by adding the letter M to the article (E.g.: VTS 2 M).

Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

DRY VACUUM PUMPS VTS 6 DC WITH DC MOTOR

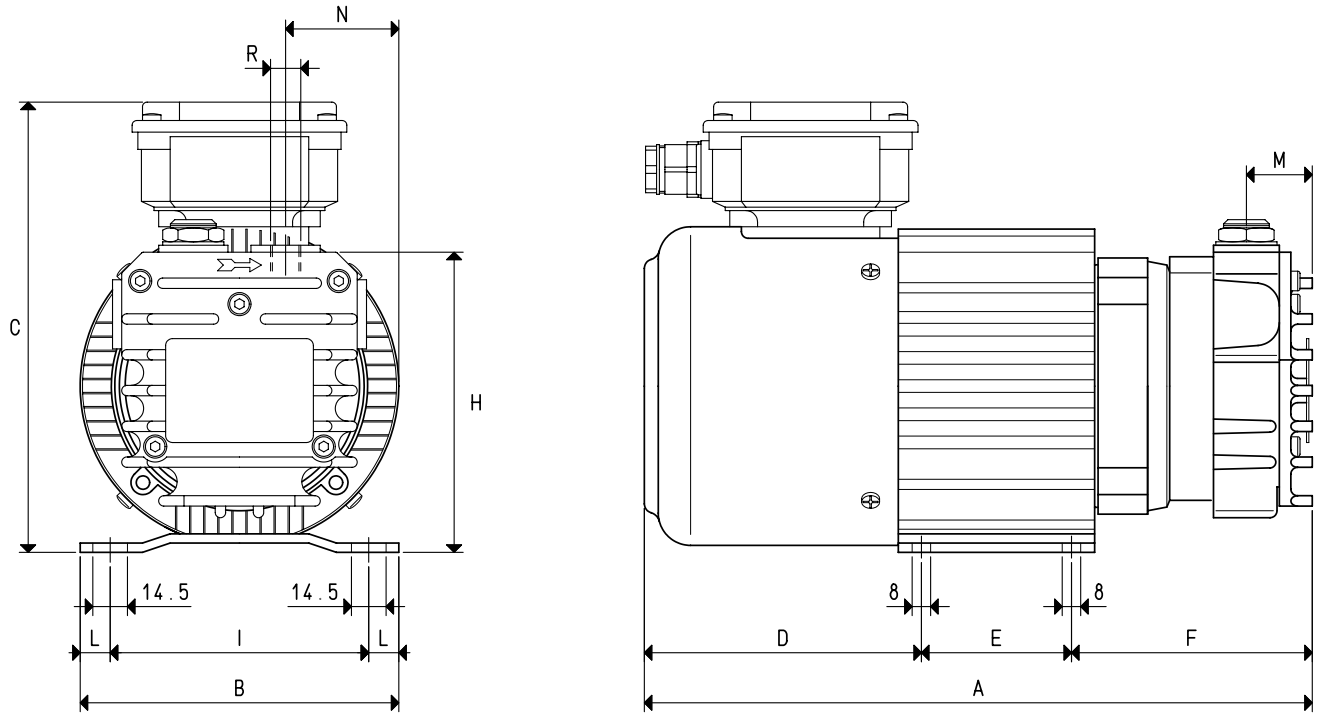
The extremely reduced size, the excellent final vacuum level that can be reached, the total absence of lubrication and the DC motor with which it is equipped, are the main features of this rotating vane vacuum pump.
This pump has a monobloc structure with the rotor fitted directly on the motor shaft. Both the motor and the pump are cooled by the motor fan (surface cooling).
A filtre that functions as a silencer is installed on the suction inlet.
We strongly recommend installing a filtre on the suction inlet against possible impurities. These pumps are ***not recommended*** *when the fluid to be sucked contains water or oil vapours or condensations.*
Pumps VTS 6 DC can only be supplied with DC motor (service S1) conform with the EMC (89/336/EEC) Directive.



To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

—— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
—— Curve regarding the emptying of a 100-litre volume

V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)

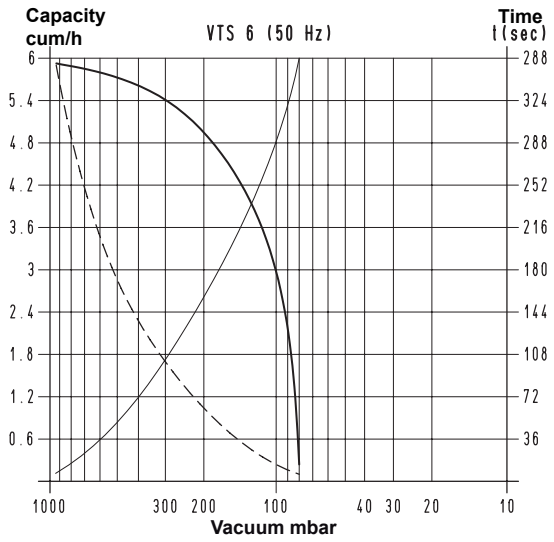


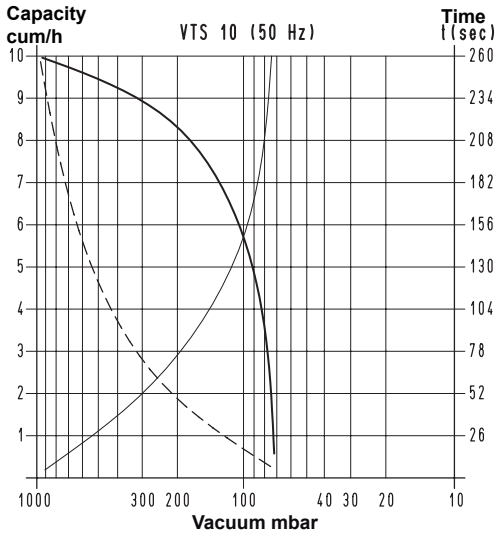
Art.		VTS 6 CC
Capacity	m^3/h	6.0
Final pressure	mbar abs.	150
Motor execution	Volt	24 CC
Motor power	Kw	0.28
Max. absorption at 24V/CC	A	15
Motor protection	IP	54
Rotation speed	rev/min^{-1}	3000
Motor shape		Special
Motor size		71
Noise level	dB(A)	72
Max. weight	Kg	9.5
A		290
B		136
C		193
D		124
E		65
F		101
H		131
I		112
L		12
M		28
N		48
R	Ø gas	G1/4"
Accessories and spare parts		
4 vanes	art.	00 VTS 06 CC 10
Sealing kit	art.	00 KIT VTS 06 CC
Check valve	art.	10 01 15
Suction filtre	art.	FB 5

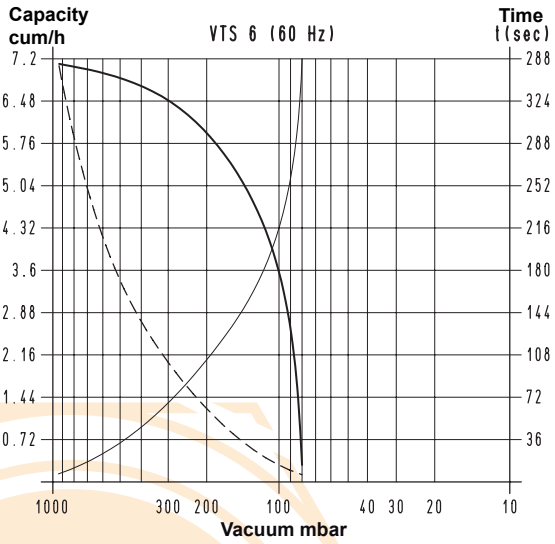
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

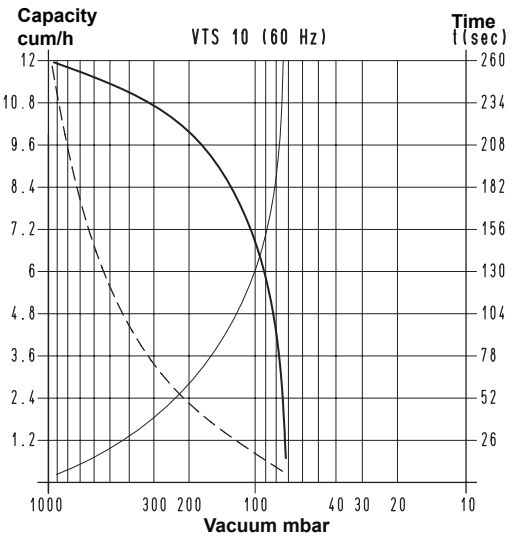
DRY VACUUM PUMPS VTS 6 and 10

These dry vacuum pumps have a suction capacity of 6 and 10 cum/h. The particular shape of the working chamber and the special graphite, with which the locking flanges and vanes are made, allow these pumps to operate without any lubrication.
The rotor is cantilevered-fitted on the motor shaft, thus reducing overall dimensions to the minimum. The motor and the pump are cooled by the motor fan (surface cooling).
A filtre that functions as a silencer is installed on the suction inlet..
We strongly recommend installing a filtre on the suction inlet against possible impurities. These pumps are ***not recommended*** *when the fluid to be sucked contains water or oil vapours or condensations.*
Pumps VTS 6 and 10 can also be supplied with single-phase electric motor.





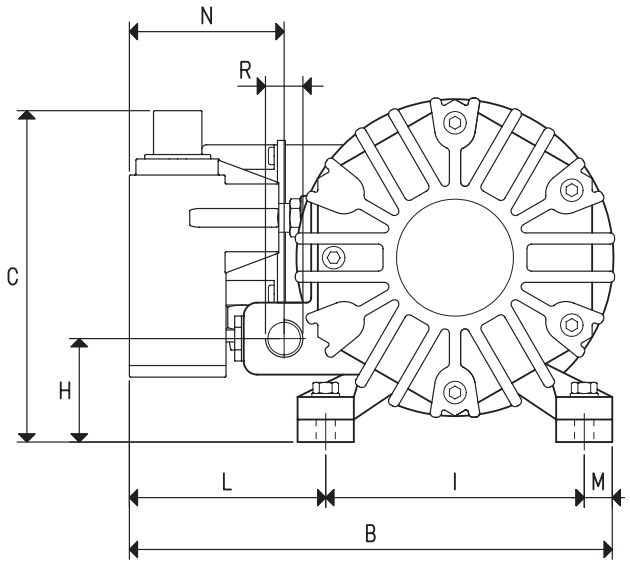


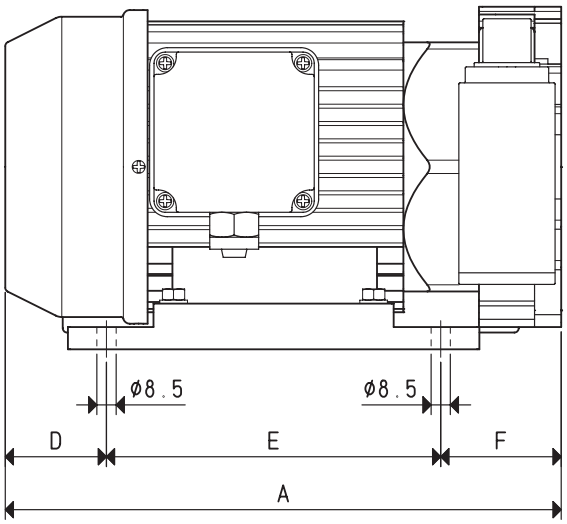


To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

——— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
——— Curve regarding the emptying of a 100-litre volume

V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)





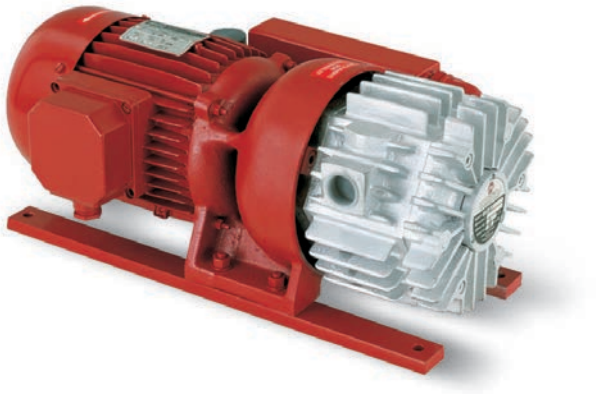
Art.		VTS 6		VTS 10	
Frequency		50Hz	60Hz	50Hz	60Hz
Capacity	m^3/h	6.0	7.2	10.0	12.0
Final pressure	mbar abs.	80		80	
Motor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%
Volt	1~	230±10%		230±10%	
Motor power	3~	0.25	0.30	0.35	0.40
Kw	1~	0.18	0.21	0.25	0.30
Motor protection	IP	54		54	
Rotation speed	rev/min^{-1}	1450	1740	1450	1740
Motor shape		Special		Special	
Motor size		71		71	
Noise level	dB(A)	64	66	64	66
Max. weight	3~	11.8		15.0	
Kg	1~	12.0		15.2	
A		268		298	
B		210		180	
C		156		156	
D		55		55	
E		155		155	
F		58		88	
H		43		53	
I		115		115	
L		82.5		52.5	
M		12.5		12.5	
N		68		13	
R	Ø gas	G1/4"		G3/8"	
Accessories and spare parts					
6 graphite vanes	art.	00 VTS 06 10		00 VTS 10 10	
Front graphite disc	art.	00 VTS 06 08		00 VTS 10 12	
Rear graphite disc	art.	00 VTS 06 13		00 VTS 10 19	
Sealing kit	art.	00 KIT VTS 06		00 KIT VTS 10	
Check valve	art.	10 01 15		10 02 10	
Suction filtre	art.	FB 5		FB 10/FC 10	

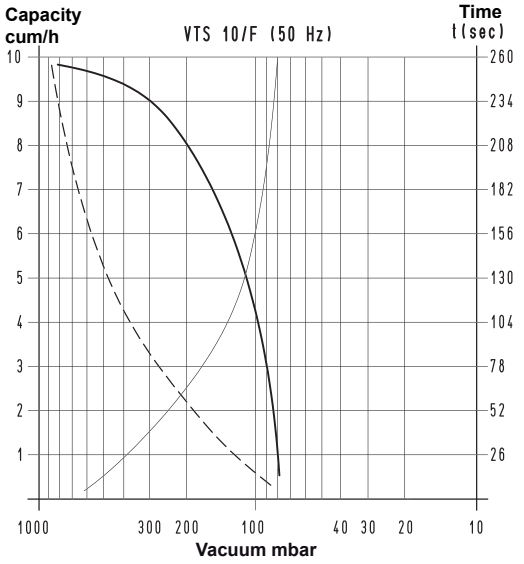
Note: The pump will be supplied with single-phase electric motor by adding the letter M to the article (E.g.: VTS 6 M).

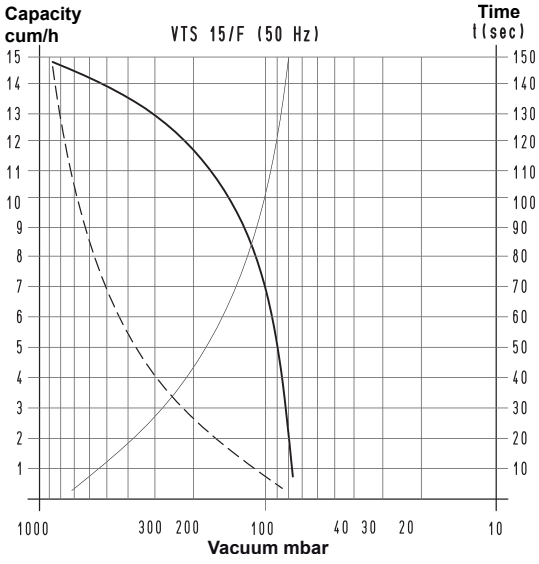
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

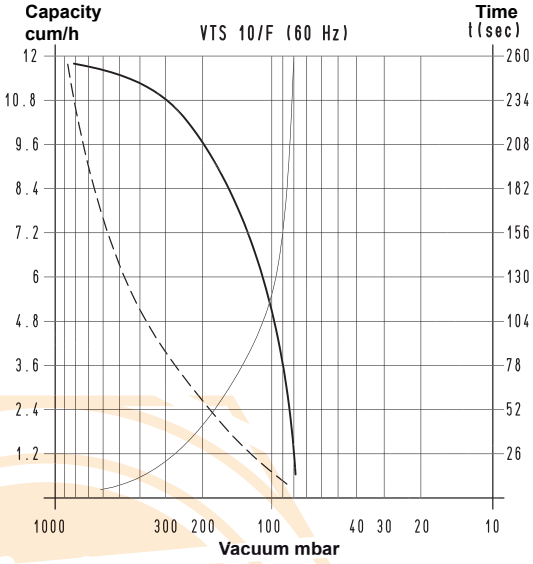
DRY VACUUM PUMPS VTS 10/F, 15/F, 20/F and 25/F

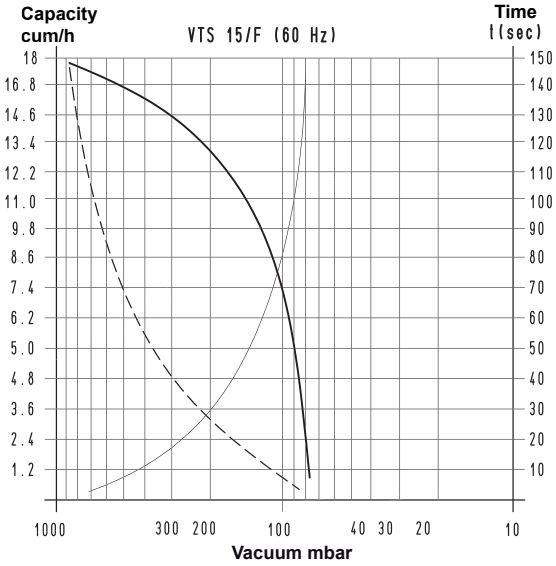
These lubrication-free rotating vane vacuum pumps have a suction capacity of 10, 15, 20 and 25 cum/h. The particular shape of the working chamber and the special graphite, with which the locking flanges and vanes are made, allow these pumps to operate with no lubrication.
The pump rotor is fitted on the motor shaft and supported by independent bearings located on both the pump locking flanges.
The pump is surface-cooled; the heat is dispersed from the especially finned external surface by a radial fan located between the motor and the pump.
A filtre that functions as a silencer is installed on the suction inlet..
We strongly recommend installing a filtre on the suction inlet against possible impurities. These pumps are ***not recommended*** *when the fluid to be sucked contains water or oil vapours or condensations.*
This range of pumps can be also supplied with single-phase electric motors.







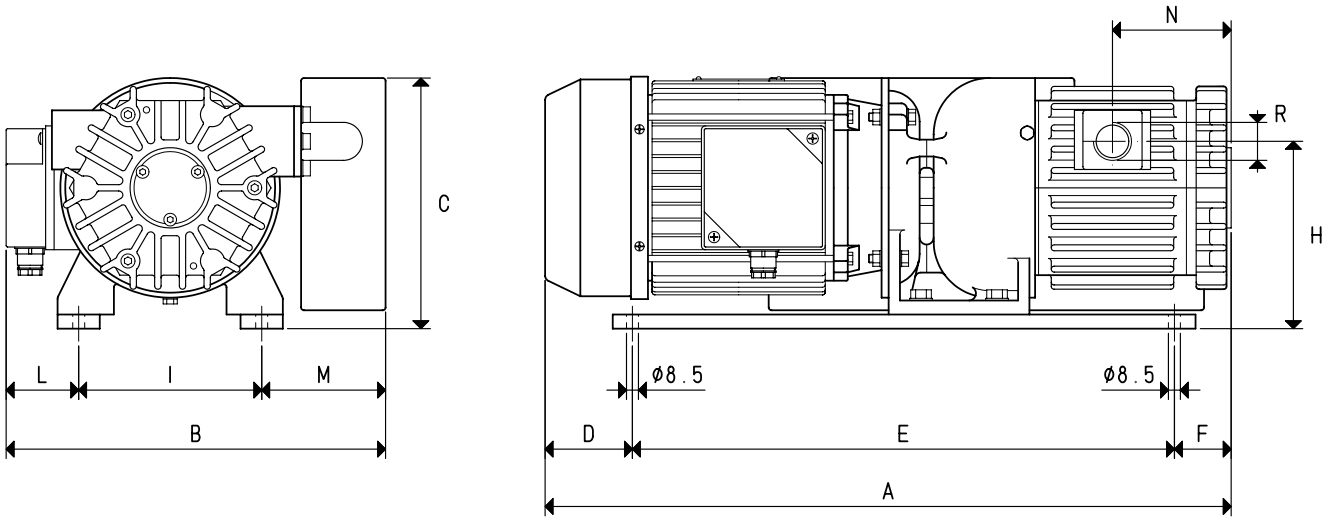




To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

——— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
——— Curve regarding the emptying of a 100-litre volume

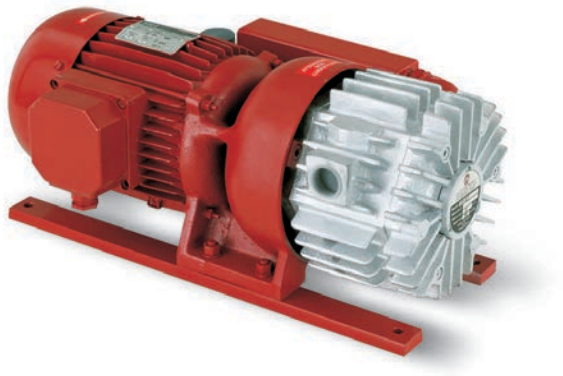
V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)

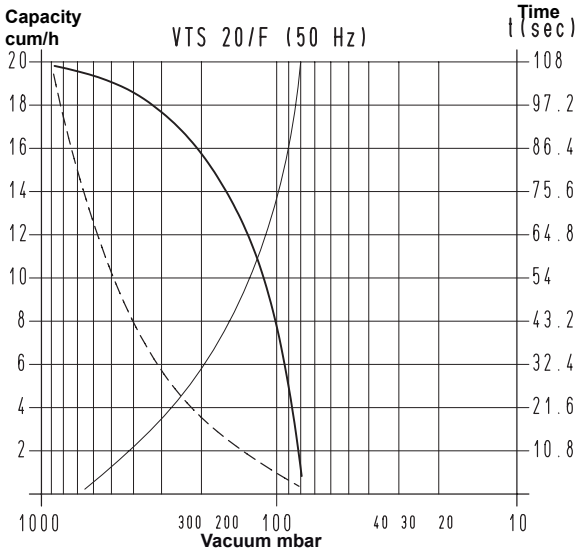


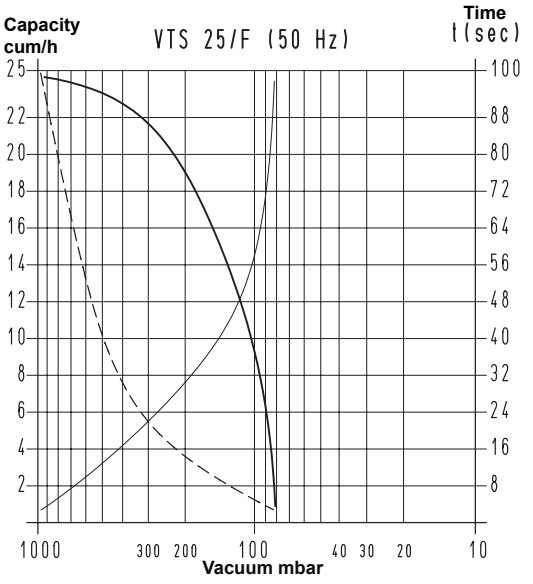
Art.		VTS 10/F		VTS 15/F	
Frequency		50Hz	60Hz	50Hz	60Hz
Capacity	m^3/h	10.0	12.0	15.0	18.0
Final pressure	mbar abs.	80		80	
Motor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%
Volt	1~	230±10%		230±10%	
Motor power	3~	0.55	0.66	0.55	0.66
Kw	1~	0.55	0.66	0.55	0.66
Motor protection	IP	54		54	
Rotation speed	rev/min^{-1}	1450	1740	1450	1740
Motor shape		Special		Special	
Motor size		80		80	
Noise level	dB(A)	64	66	65	67
Max. weight	3~	22.1		24.1	
Kg	1~	22.5		24.5	
A		388		408	
B		260		260	
C		187		187	
D		24		24	
E		340		340	
F		24		44	
H		133		133	
I		130		130	
L		55		55	
M		75		75	
N		53		63	
R	Ø gas	G1/2"		G1/2"	
Accessories and spare parts					
6 graphite vanes	art.	00 VTS 10F 10		00 VTS 15F 10	
Front graphite disc	art.	00 VTS 10F 21		00 VTS 10F 21	
Rear graphite disc	art.	00 VTS 10F 21		00 VTS 10F 21	
Sealing kit	art.	00 KIT VTS 10F		00 KIT VTS 15F	
Check valve	art.	10 03 10		10 03 10	
Suction filtre	art.	FB 20/FC 20		FB 20/FC 20	

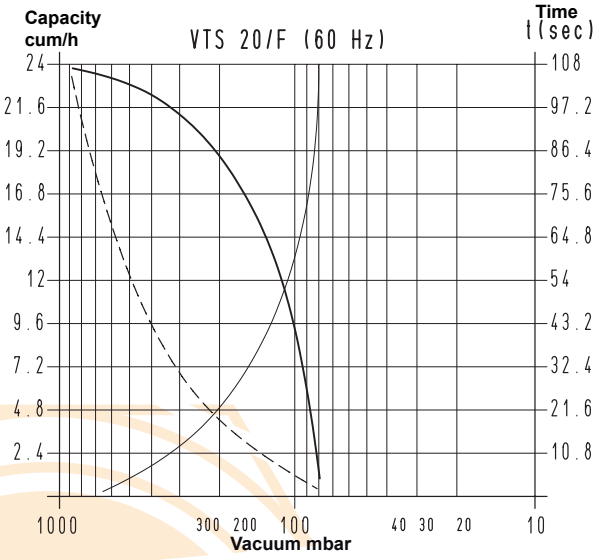
Note: The pump will be supplied with single-phase electric motor by adding the letter M to the article (E.g.: VTS 10/F M).

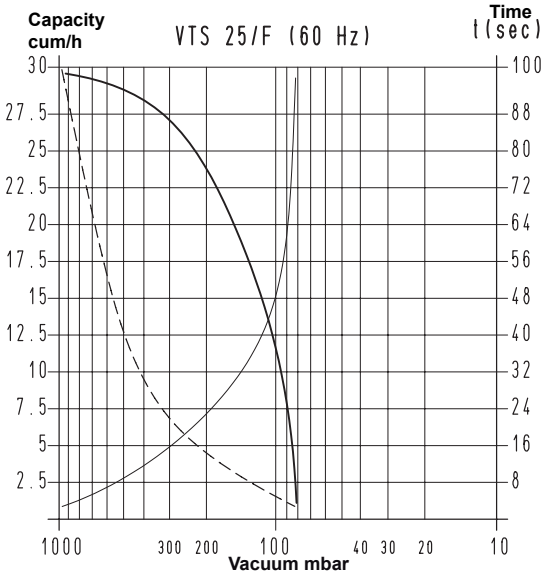
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6







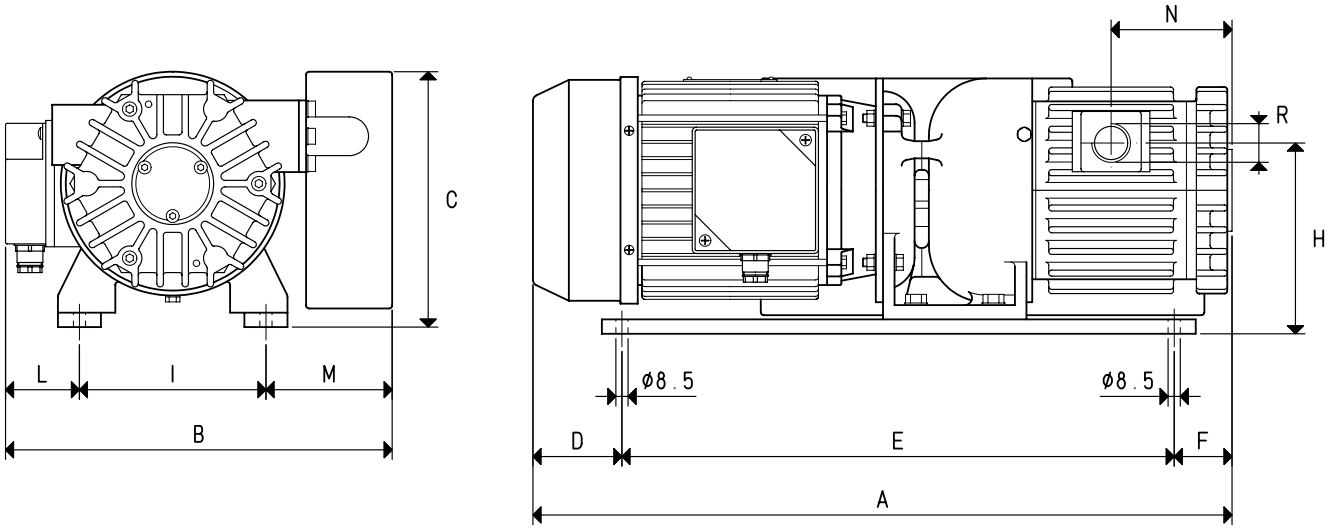




To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

—— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
—— Curve regarding the emptying of a 100-litre volume

V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)



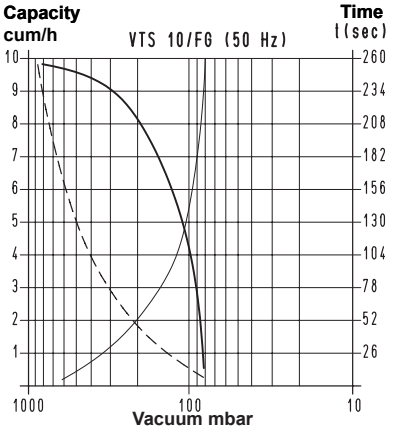
Art.		VTS 20/F		VTS 25/F	
Frequency		50Hz	60Hz	50Hz	60Hz
Capacity	m^3/h	20.0	24.0	25.0	30.0
Final pressure	mbar abs.	80		80	
Motor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%
Volt	1~	230±10%		230±10%	
Motor power	3~	0.88	1.05	0.88	1.05
Kw	1~	0.88	1.05	0.88	1.05
Motor protection	IP	54		54	
Rotation speed	rev/min^{-1}	1450	1740	1450	1740
Motor shape		Special		Special	
Motor size		80		80	
Noise level	dB(A)	65	67	65	67
Max. weight	3~	27.4		28.1	
Kg	1~	27.9		28.6	
A		428		428	
B		260		260	
C		187		187	
D		24		24	
E		340		385	
F		64		19	
H		133		133	
I		130		130	
L		55		55	
M		75		75	
N		73		73	
R	Ø gas	G1/2"		G3/4"	
Accessories and spare parts					
6 graphite vanes	art.	00 VTS 20F 10		00 VTS 25F 10	
Front graphite disc	art.	00 VTS 10F 21		00 VTS 10F 21	
Rear graphite disc	art.	00 VTS 10F 21		00 VTS 10F 21	
Sealing kit	art.	00 KIT VTS 20F		00 KIT VTS 25F	
Check valve	art.	10 03 10		10 04 10	
Suction filtre	art.	FB 20/FC 20		FB 25/FC 25	

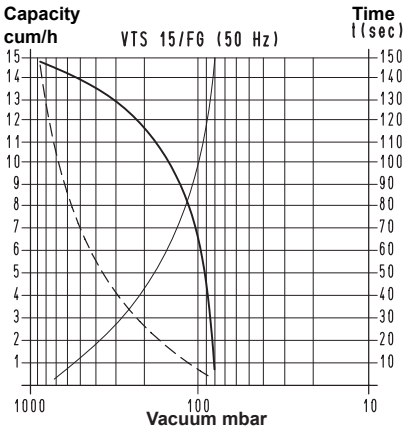
Note: The pump will be supplied with single-phase electric motor by adding the letter M to the article (E.g.: VTS 20/F M).

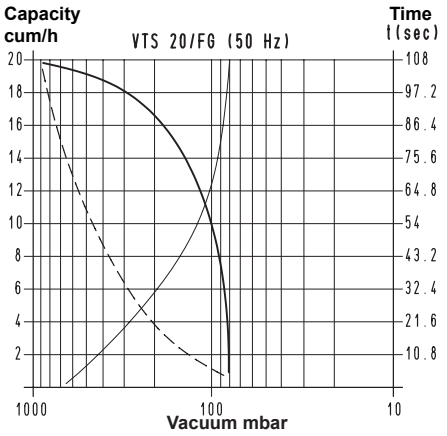
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

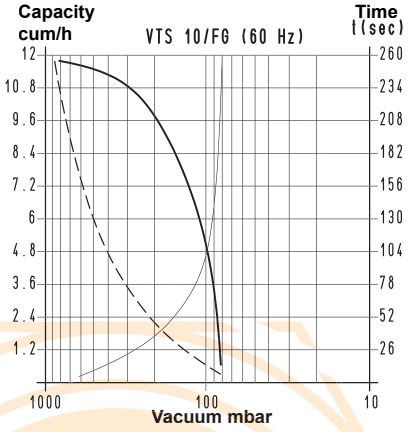
DRY VACUUM PUMPS VTS 10/FG ÷ 35/FG

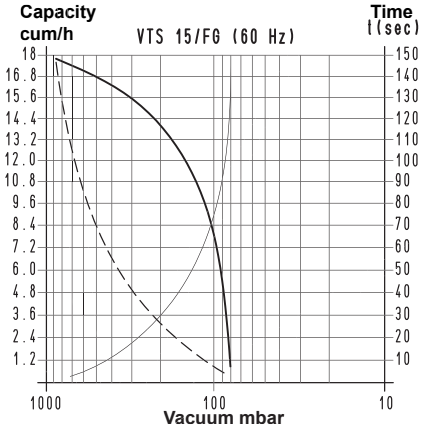
These lubrication-free rotating vane vacuum pumps have a suction capacity of 10, 15, 20, 25, 30 and 35 cum/h. The particular shape of the working chamber and the special graphite, with which the locking flanges and vanes are made, allow these pumps to operate with no lubrication.
The pump rotor is fitted on the motor shaft and supported by independent bearings located on both the pump locking flanges.
Therefore, the pump and the electric motor are two independent units connected to each other by an elastic transmission joint.
All this allows using standard electric motors in the shapes and sizes indicated in the table.
The pump is surface-cooled; the heat is dispersed from the especially finned external surface by a radial fan located between the motor and the pump.
A filtre that functions as a silencer is installed on the suction inlet..
We strongly recommend installing a filtre on the suction inlet against possible impurities. These pumps are ***not recommended*** *when the fluid to be sucked contains water or oil vapours or condensations.*
The pumps with capacity up to 20 cum/h can also be supplied with single-phase electric motors.

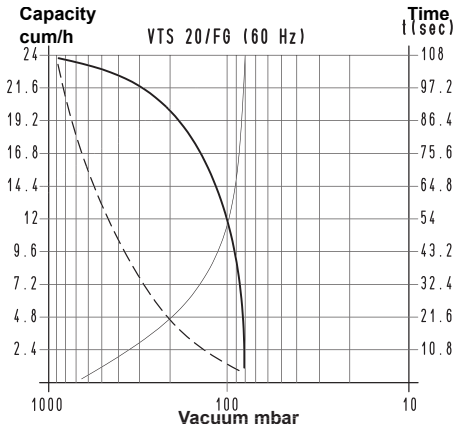








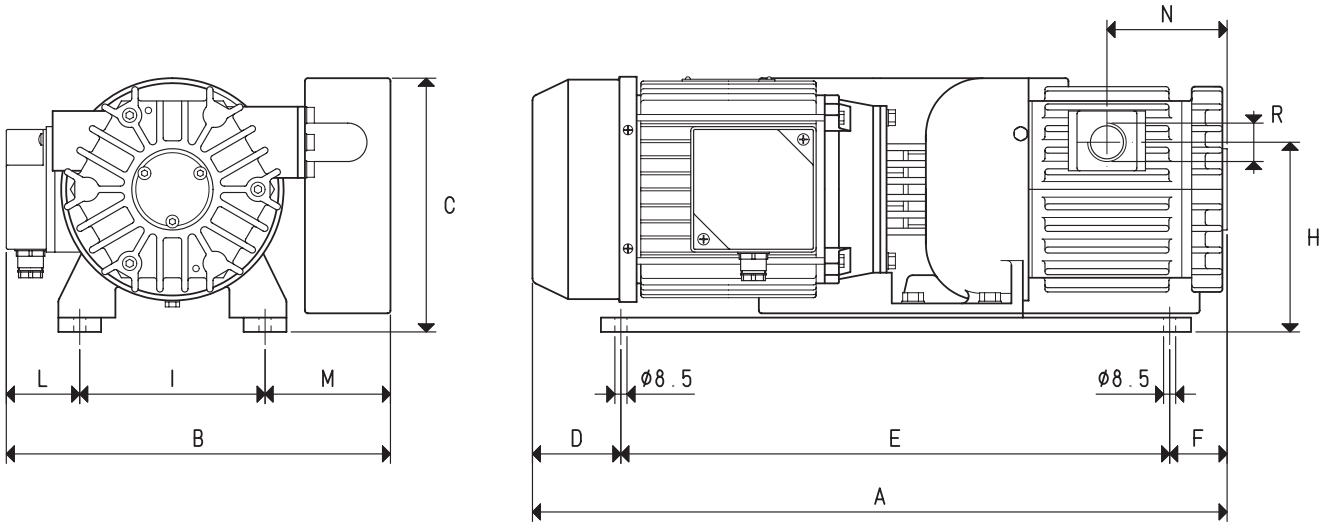




To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

——— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
——— Curve regarding the emptying of a 100-litre volume

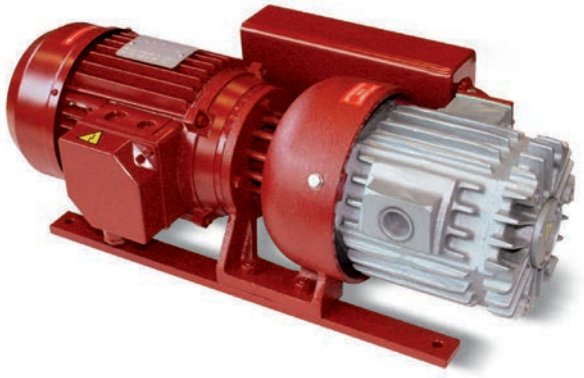
V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)

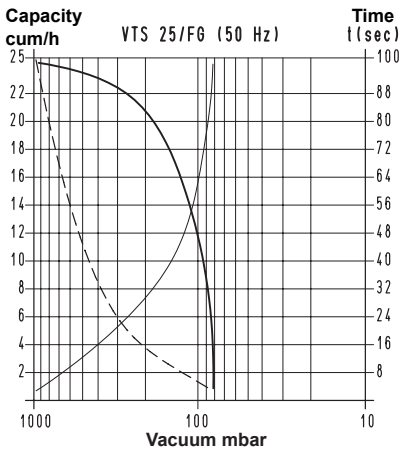


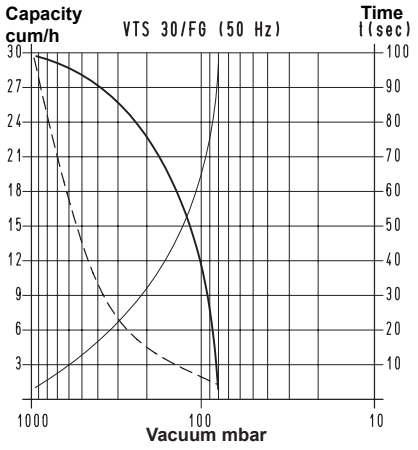
Art.		VTS 10/FG		VTS 15/FG		VTS 20/FG	
Frequency		50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
Capacity	m^3/h	10.0	12.0	15.0	18.0	20.0	24.0
Final pressure	mbar abs.	80		80		80	
Motor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%	230/400±10%	275/480 ±10%
Volt		230±10%		230±10%		230±10%	
Motor power	3~	0.55	0.66	0.55	0.66	0.88	1.05
Kw	1~	0.55	0.66	0.55	0.66	0.88	1.05
Motor protection	IP	54		54		54	
Rotation speed	rev/min^{-1}	1450	1740	1450	1740	1450	1740
Motor shape		B14		B14		B14	
Motor size		80		80		80	
Noise level	dB(A)	64	66	65	67	65	67
Max. weight	3~	22.0		24.0		27.3	
Kg	1~	22.4		24.4		27.8	
A		430		450		470	
B		265		265		265	
C		170		170		170	
D		65		65		65	
E		340		340		340	
F		25		45		65	
H		133		133		133	
I		130		130		130	
L		55		55		55	
M		80		80		80	
N		73		83		93	
R	Ø gas	G1/2"		G1/2"		G1/2"	
Accessories and spare parts							
6 graphite vanes	art.	00 VTS 10FG 10		00 VTS 15FG 10		00 VTS 20FG 10	
Front graphite disc	art.	00 VTS 10FG 17		00 VTS 15FG 17		00 VTS 20FG 17	
Rear graphite disc	art.	00 VTS 10FG 26		00 VTS 15FG 26		00 VTS 20FG 26	
Sealing kit	art.	00 KIT VTS 10FG		00 KIT VTS 15FG		00 KIT VTS 20FG	
Check valve	art.	10 03 10		10 03 10		10 03 10	
Suction filtre	art.	FB 20/FC 20		FB 20/FC 20		FB 20/FC 20	

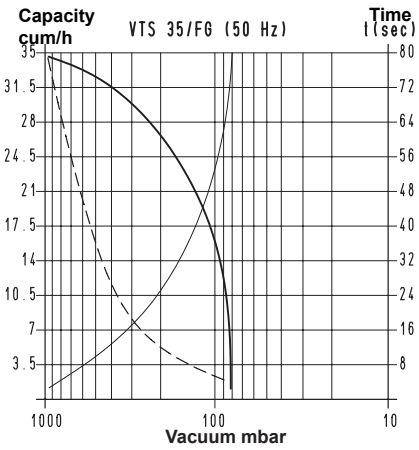
Note: The pump will be supplied with single-phase electric motor by adding the letter M to the article (E.g.: VTS 10/FG M).

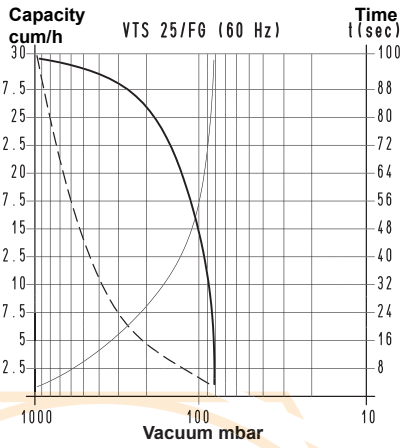
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

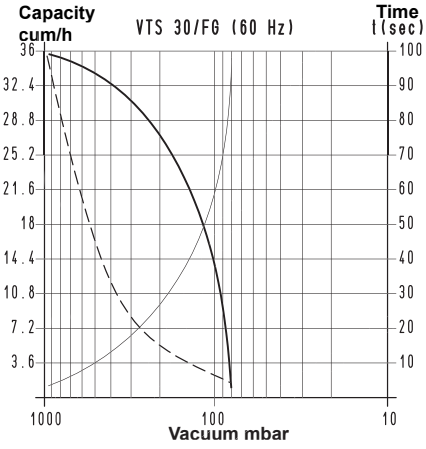


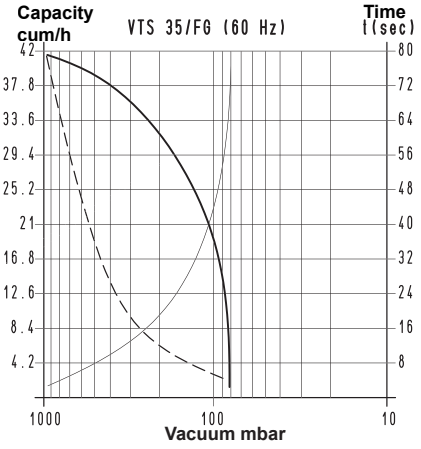












To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

——— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
——— Curve regarding the emptying of a 100-litre volume

V_1 : Volume to be emptied
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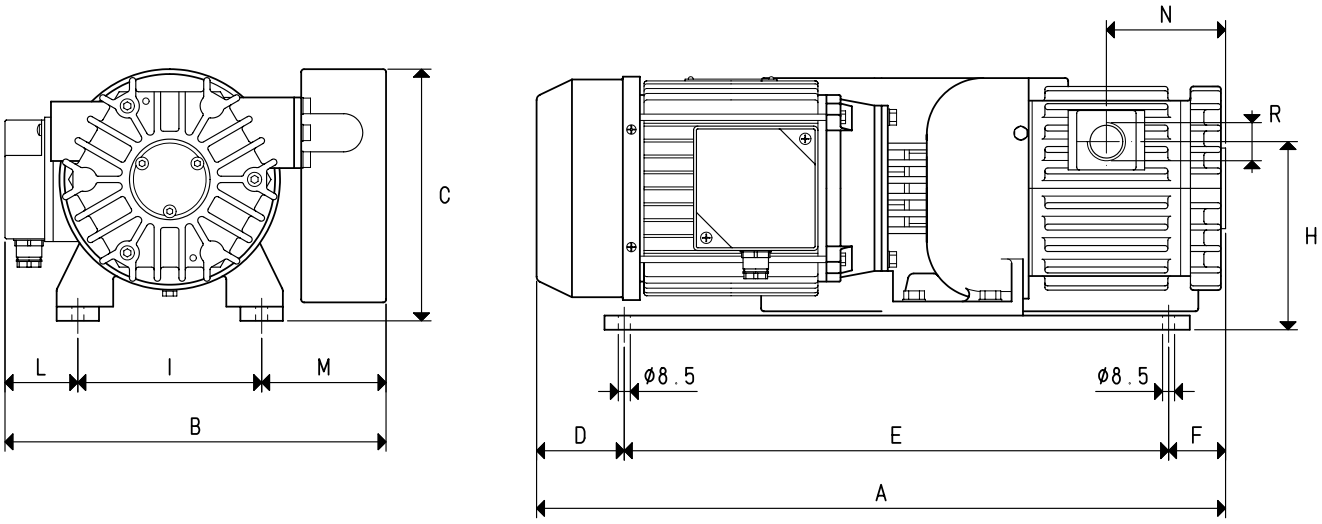
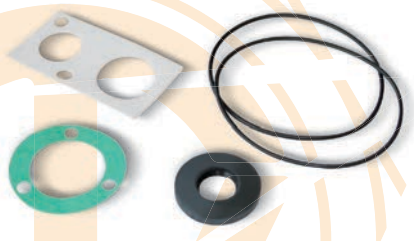


Art.		VTS 25/FG		VTS 30/FG		VTS 35/FG	
Frequency		50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
Capacity	m^3/h	25.0	30.0	30.0	36.0	35.0	42.0
Final pressure	mbar abs.	80		80		80	
Motor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%	230/400±10%	275/480 ±10%
Volt							
Motor power	3~	0.88	1.05	1.00	1.20	1.00	1.20
Kw							
Motor protection	IP	54		54		54	
Rotation speed	rev/min^{-1}	1450	1740	1450	1740	1450	1740
Motor shape		B14		B14		B14	
Motor size		80		80		80	
Noise level	dB(A)	66	68	68	70	70	72
Max. weight	3~	28.0		32.0		34.0	
Kg							
A		470		490		510	
B		265		265		265	
C		170		170		170	
D		65		65		65	
E		385		385		385	
F		20		40		60	
H		133		133		133	
I		130		130		130	
L		55		55		55	
M		80		80		80	
N		73		83		93	
R	Ø gas	G3/4"		G3/4"		G3/4"	
Accessories and spare parts							
6 graphite vanes	art.	00 VTS 25FG 10		00 VTS 30FG 10		00 VTS 35FG 10	
Front graphite disc	art.	00 VTS 25FG 17		00 VTS 30FG 18		00 VTS 35FG 18	
Rear graphite disc	art.	00 VTS 25FG 26		00 VTS 30FG 27		00 VTS 35FG 27	
Sealing kit	art.	00 KIT VTS 25FG		00 KIT VTS 30FG		00 KIT VTS 35FG	
Check valve	art.	10 04 10		10 04 10		10 04 10	
Suction filtre	art.	FB 25/FC 25		FB 25/FC 25		FB 25/FC 25	

Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

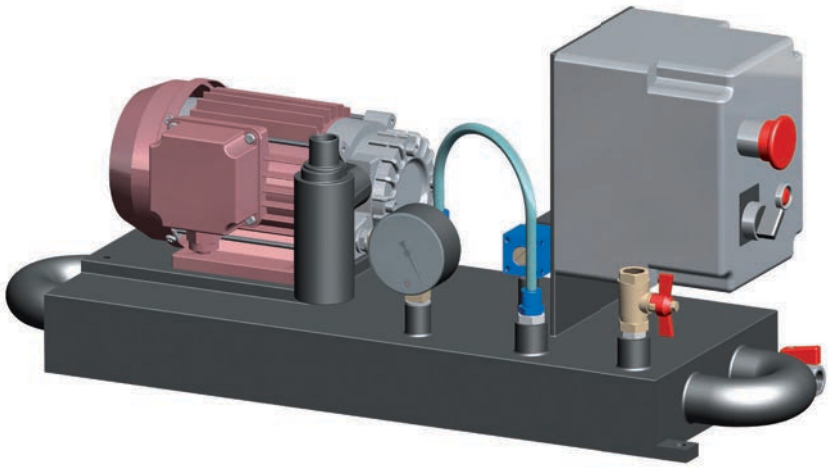
	Art.	Quantity	For pump art.
Graphite vanes	00 VTS 02 10	4	VTS 2
	00 VTS 04 10	4	VTS 4
	00 VTS 06 CC 10	4	VTS 6 CC
	00 VTS 06 10	6	VTS 6
	00 VTS 10 10	6	VTS 10
	00 VTS 10F 10	6	VTS 10/F
	00 VTS 15F 10	6	VTS 15/F
	00 VTS 20F 10	6	VTS 20/F
	00 VTS 25F 10	6	VTS 25/F
	00 VTS 10FG 10	6	VTS 10/FG
	00 VTS 15FG 10	6	VTS 15/FG
	00 VTS 20FG 10	6	VTS 20/FG
	00 VTS 25FG 10	6	VTS 25/FG
	00 VTS 30FG 10	6	VTS 30/FG
	00 VTS 35FG 10	6	VTS 35/FG
Perforated graphite disc	00 VTS 02 12	1	VTS 2 VTS 4
Non-perforated graphite disc	00 VTS 02 16	1	VTS 2 VTS 4
Front graphite disc	00 VTS 06 08	1	VTS 6
	00 VTS 10 12	1	VTS 10
	00 VTS 10F 21	1	VTS 10/F VTS 15/F VTS 20/F VTS 25/F
	00 VTS 10FG 17	1	VTS 10/FG
	00 VTS 15FG 17	1	VTS 15/FG
	00 VTS 20FG 17	1	VTS 20/FG
	00 VTS 25FG 17	1	VTS 25/FG
	00 VTS 30FG 18	1	VTS 30/FG
	00 VTS 35FG 18	1	VTS 35/FG
Rear graphite disc	00 VTS 06 13	1	VTS 6
	00 VTS 10 19	1	VTS 10
	00 VTS 10F 21	1	VTS 10/F VTS 15/F VTS 20/F VTS 25/F
	00 VTS 10FG 26	1	VTS 10/FG
	00 VTS 15FG 26	1	VTS 15/FG
	00 VTS 20FG 26	1	VTS 20/FG
	00 VTS 25FG 26	1	VTS 25/FG
	00 VTS 30FG 27	1	VTS 30/FG
	00 VTS 35FG 27	1	VTS 35/FG
Sealing kits	00 KIT VTS 02	1	VTS 2
	00 KIT VTS 04	1	VTS 4
	00 KIT VTS 06 CC	1	VTS 6 CC
	00 KIT VTS 06	1	VTS 6
	00 KIT VTS 10	1	VTS 10

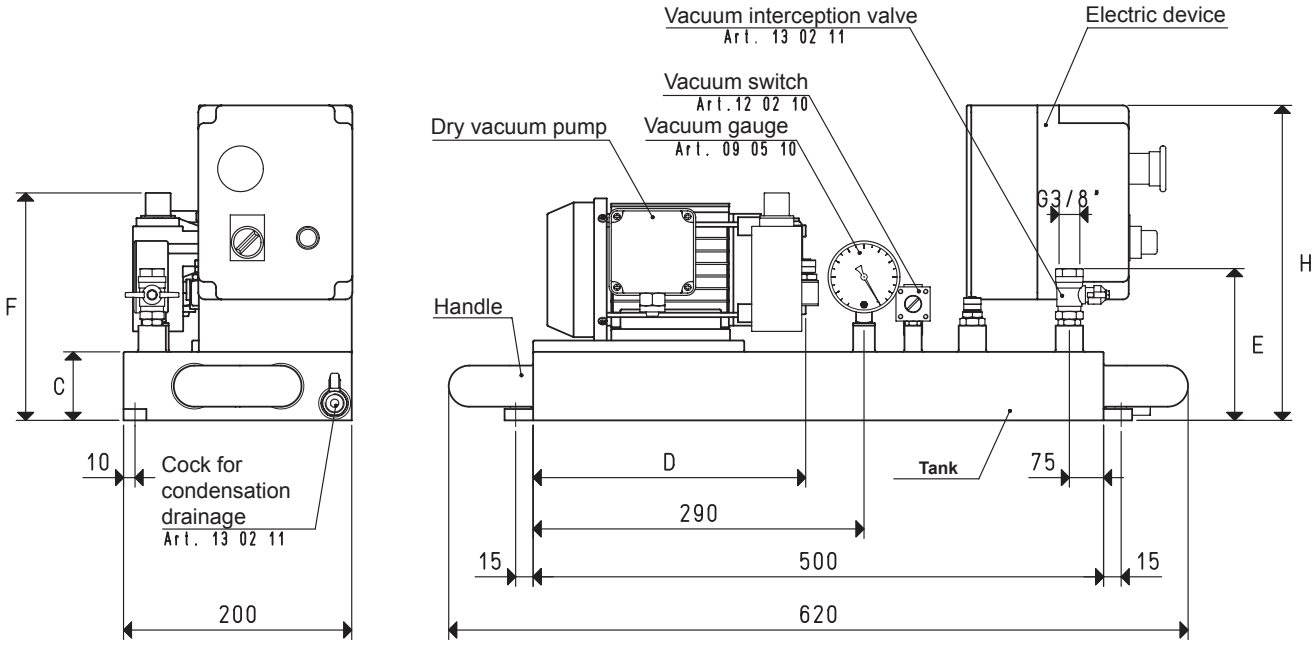


	Art.	Quantity	For pump art.
	00 KIT VTS 10F	1	VTS 10/F
	00 KIT VTS 15F	1	VTS 15/F
	00 KIT VTS 20F	1	VTS 20/F
	00 KIT VTS 25F	1	VTS 25/F
	00 KIT VTS 10FG	1	VTS 10/FG
	00 KIT VTS 15FG	1	VTS 15/FG
	00 KIT VTS 20FG	1	VTS 20/FG
	00 KIT VTS 25FG	1	VTS 25/FG
	00 KIT VTS 30FG	1	VTS 30/FG
	00 KIT VTS 35FG	1	VTS 35/FG
Check valves	10 01 15	1	VTS 2
			VTS 4
			VTS 6 CC
			VTS 6
	10 02 10	1	VTS 10
	10 03 10	1	VTS 10/F
			VTS 15/F
			VTS 20/F
			VTS 10/FG
			VTS 15 /FG
			VTS 20/FG
	10 04 10	1	VTS 25/F
			VTS 25/FG
			VTS 30/FG
			VTS 35/FG
Suction filtres	FB 5	1	VTS 2
			VTS 4
			VTS 6 CC
			VTS 6
	FB 10	1	VTS 10
	FB 20	1	VTS 10/F
			VTS 15/F
			VTS 20/F
			VTS 10/FG
			VTS 15/FG
			VTS 20/FG
	FB 25	1	VTS 25/F
			VTS 25/FG
			VTS 30/FG
			VTS 35/FG
	FC 10	1	VTS 10
	FC 20	1	VTS 10/F
			VTS 15/F
			VTS 20/F
			VTS 10/FG
			VTS 15/FG
			VTS 20/FG
	FC 25	1	VTS 25/F
			VTS 25/FG
			VTS 30/FG
			VTS 35/FG

MINI PUMPSETS – GENERAL DESCRIPTION

Mini pumpsets are independent vacuum-producing units with reduced size.
They are composed of:
- A small welded sheet steel tank with perfect vacuum seal.
- A low-capacity dry or lubricated rotating vane vacuum pump.
- A mini vacuum switch for adjusting the maximum vacuum level.
- A vacuum gauge for reading the vacuum level.
- A switchgear enclosed in a special casing.
- A manual valve for vacuum interception.
- A cock for condensation drainage.
The vacuum level, preset via the mini vacuum switch is automatically maintained in the tank.
Mini pumpsets can also be supplied with single-phase or DC electric motors and they are suited for equipping fixed or mobile working units that require vacuum, such as:
- Trolleys with vacuum cups for fixing and transporting glass and crystals.
- Vacuum clamping systems for ski maintenance, marble processing and for polishing copper, pewter or silver objects.
- Hoists with vacuum cups for lifting television sets and household appliances for glass installation in door and window frames, for laying ceramic tiles, for feeding sheet metal into presses, etc.

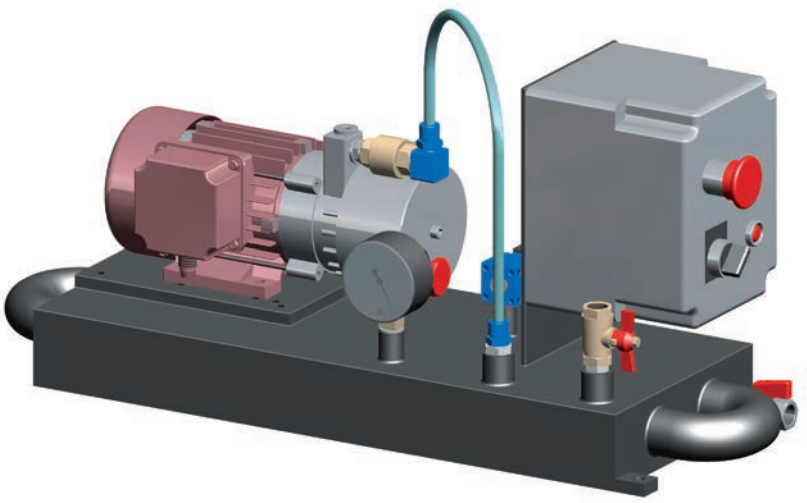


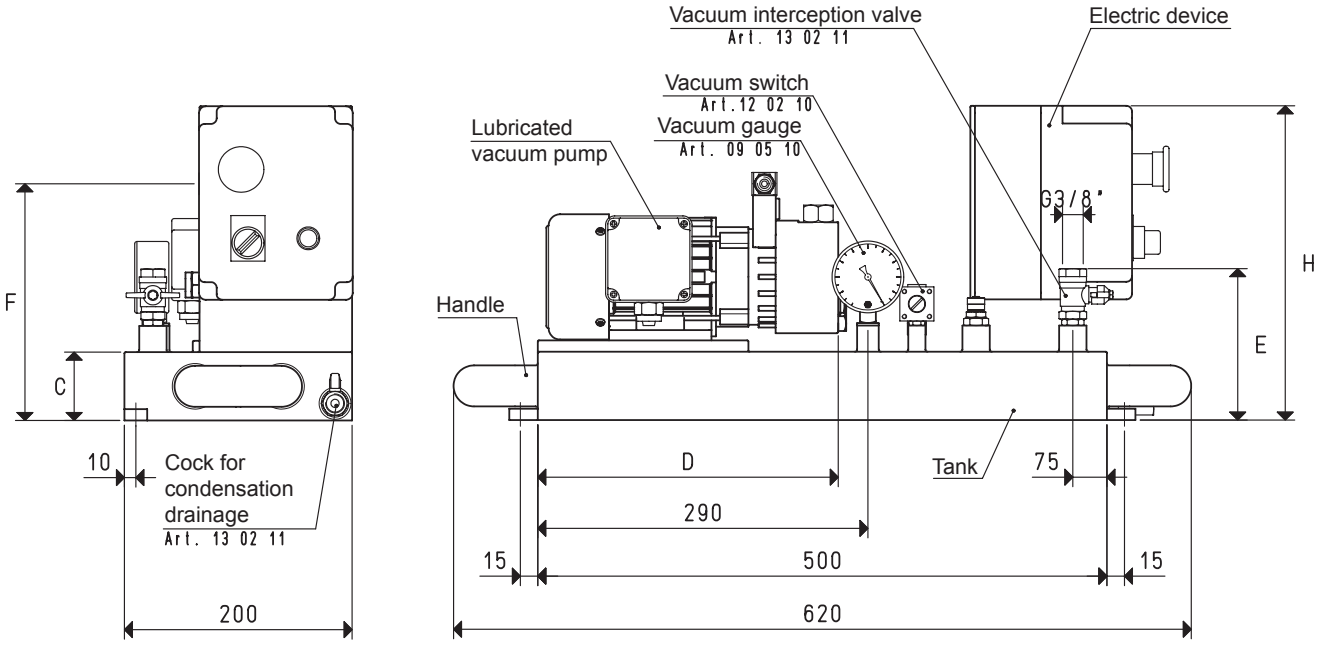


Art.	Tank	Pump	Motor execution	Switchgear	C	D	E	F	H	Weight	Filtre accessories
	Litres	Mod.	Volt	art.						Kg	art.
D0 06 VTS 2	6	VTS 2	3 ~ 230/400-50Hz	D0 06 92	60	220	135	181	230	14.8	FB 10 / FC 10
D0 06 VTS 2 M	6	VTS 2 M	1 ~ 230-50Hz	D0 06 90	60	220	135	181	230	15.0	FB 10 / FC 10
D0 06 VTS 4	6	VTS 4	3 ~ 230/400-50Hz	D0 06 92	60	253	135	191	230	16.3	FB 10 / FC 10
D0 06 VTS 4 M	6	VTS 4 M	1 ~ 230-50Hz	D0 06 90	60	253	135	191	230	16.5	FB 10 / FC 10
D0 06 VTS 6	6	VTS 6	3 ~ 230/400-50Hz	D0 06 92	60	270	135	216	230	21.3	FB 10 / FC 10
D0 06 VTS 6 M	6	VTS 6 M	1 ~ 230-50Hz	D0 06 90	60	270	135	216	230	21.5	FB 10 / FC 10
D0 06 VTS 6 CC	6	VTS 6 CC	= 24-CC	D0 06 93	60	290	135	253	230	18.8	FB 10 / FC 10
D0 10 VTS 2	10	VTS 2	3 ~ 230/400-50Hz	D0 06 92	100	220	175	221	270	19.0	FB 10 / FC 10
D0 10 VTS 2 M	10	VTS 2 M	1 ~ 230-50Hz	D0 06 90	100	220	175	221	270	19.2	FB 10 / FC 10
D0 10 VTS 4	10	VTS 4	3 ~ 230/400-50Hz	D0 06 92	100	253	175	231	270	20.5	FB 10 / FC 10
D0 10 VTS 4 M	10	VTS 4 M	1 ~ 230-50Hz	D0 06 90	100	253	175	231	270	20.7	FB 10 / FC 10
D0 10 VTS 6	10	VTS 6	3 ~ 230/400-50Hz	D0 06 92	100	270	175	256	270	25.5	FB 10 / FC 10
D0 10 VTS 6 M	10	VTS 6 M	1 ~ 230-50Hz	D0 06 90	100	270	175	256	270	25.7	FB 10 / FC 10
D0 10 VTS 6 CC	10	VTS 6 CC	= 24-CC	D0 06 93	100	290	175	293	270	21.2	FB 10 / FC 10

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

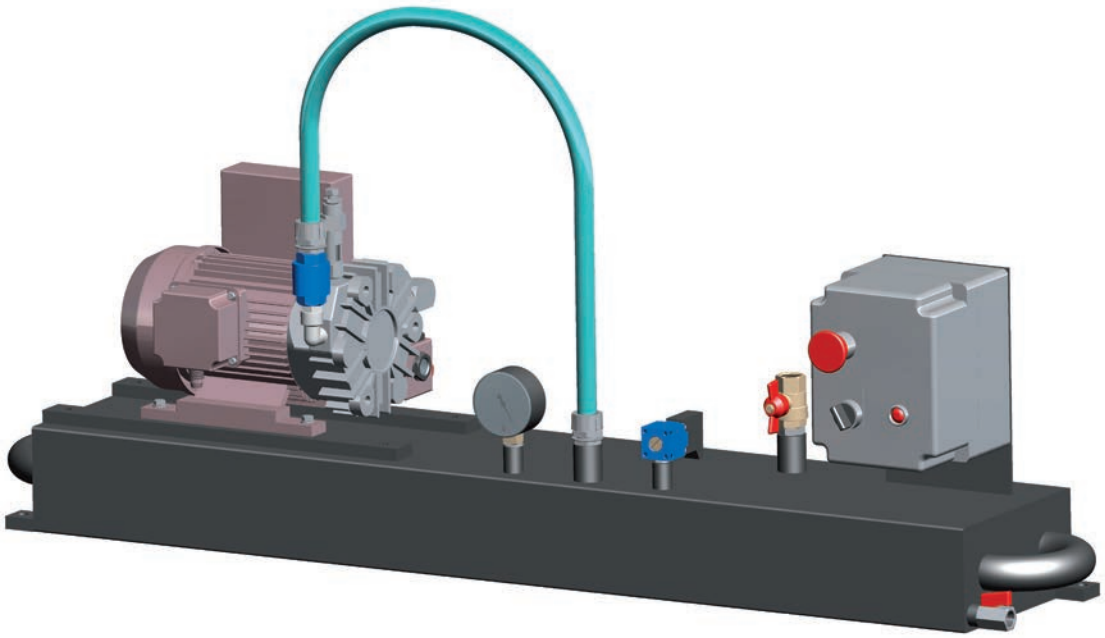


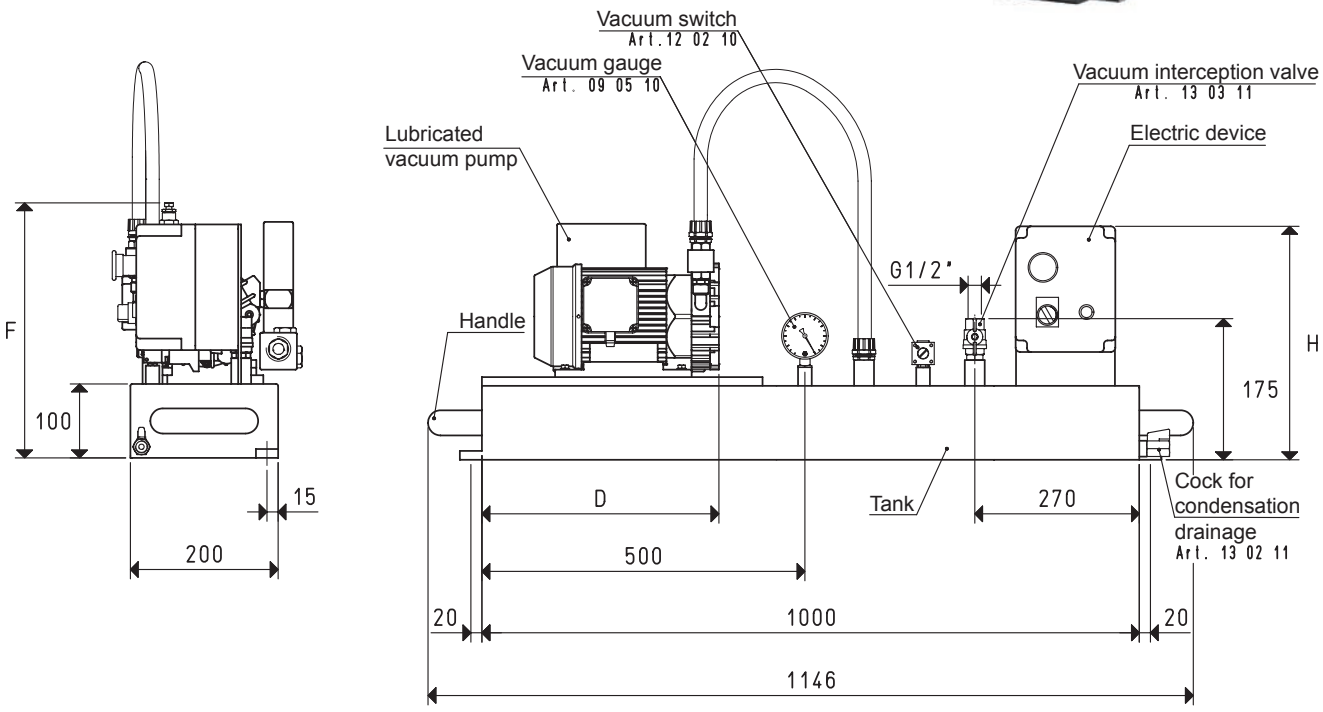


Art.	Tank	Pump	Motor execution	Switchgear	C	D	E	F	H	Weight	Filtre accessories
	Litres	Mod.	Volt	art.						Kg	art.
D0 06 VTL 2	6	VTL 2	3 ~ 230/400-50Hz	D0 06 92	60	300	135	198	230	15.2	FB 10 / FC 10
D0 06 VTL 2 M	6	VTL 2 M	1 ~ 230-50Hz	D0 06 90	60	300	135	198	230	15.5	FB 10 / FC 10
D0 06 VTL 4	6	VTL 4	3 ~ 230/400-50Hz	D0 06 92	60	330	135	198	230	16.8	FB 10 / FC 10
D0 06 VTL 4 M	6	VTL 4 M	1 ~ 230-50Hz	D0 06 90	60	330	135	198	230	17.0	FB 10 / FC 10
D0 06 VTL 5	6	VTL 5	3 ~ 230/400-50Hz	D0 06 92	60	260	135	310	230	24.0	FB 10 / FC 10
D0 06 VTL 5 M	6	VTL 5 M	1 ~ 230-50Hz	D0 06 90	60	260	135	310	230	24.5	FB 10 / FC 10
D0 06 VTL 6 CC	6	VTL 6 CC	= 24-CC	D0 06 93	60	290	135	260	230	19.8	FB 10 / FC 10
D0 10 VTL 2	10	VTL 2	3 ~ 230/400-50Hz	D0 06 92	100	300	175	238	270	19.4	FB 10 / FC 10
D0 10 VTL 2 M	10	VTL 2 M	1 ~ 230-50Hz	D0 06 90	100	300	175	238	270	19.7	FB 10 / FC 10
D0 10 VTL 4	10	VTL 4	3 ~ 230/400-50Hz	D0 06 92	100	330	175	238	270	21.0	FB 10 / FC 10
D0 10 VTL 4 M	10	VTL 4 M	1 ~ 230-50Hz	D0 06 90	100	330	175	238	270	21.2	FB 10 / FC 10
D0 10 VTL 5	10	VTL 5	3 ~ 230/400-50Hz	D0 06 92	100	260	175	350	270	28.2	FB 10 / FC 10
D0 10 VTL 5 M	10	VTL 5 M	1 ~ 230-50Hz	D0 06 90	100	260	175	350	270	28.7	FB 10 / FC 10
D0 10 VTL 6 CC	10	VTL 6 CC	= 24-CC	D0 06 93	100	290	175	260	270	24.0	FB 10 / FC 10

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





Art.	Tank	Pump	Motor execution	Switchgear	D	F	H	Weight	Filtre accessories
	Litres	Mod.	Volt	art.				Kg	art.
DO 20 VTL 5	20	VTL 5	3 ~ 230/400-50Hz	DO 06 92	320	345	270	38.5	FB 20 / FC 20
DO 20 VTL 5 M	20	VTL 5 M	1 ~ 230/50Hz	DO 06 90	320	345	270	39.0	FB 20 / FC 20
DO 20 VTL 6 CC	20	VTL 6 CC	= 24-CC	DO 06 93	400	295	270	34.3	FB 20 / FC 20
DO 20 VTL 10	20	VTL 10	3 ~ 230/400-50Hz	DO 06 92	352	345	270	44.5	FB 20 / FC 20
DO 20 VTL 10 M	20	VTL 10 M	1 ~ 230-50Hz	DO 06 90	352	345	270	45.0	FB 20 / FC 20
DO 20 VTL 10/F	20	VTL 10/F	3 ~ 230/400-50Hz	DO 06 92	390	360	270	49.0	FB 20 / FC 20
DO 20 VTL 10/F M	20	VTL 10/F M	1 ~ 230-50Hz	DO 06 90	390	360	270	49.5	FB 20 / FC 20
DO 20 VTL 15/F	20	VTL 15/F	3 ~ 230/400-50Hz	DO 06 92	410	360	270	51.0	FB 20 / FC 20
DO 20 VTL 15/F M	20	VTL 15/F M	3 ~ 230/400-50Hz	DO 06 90	410	360	270	51.5	FB 20 / FC 20
DO 20 VTL 20/F	20	VTL 20/F	3 ~ 230/400-50Hz	DO 06 92	430	360	270	54.0	FB 20 / FC 20
DO 20 VTL 20/F M	20	VTL 20/F M	1 ~ 230-50Hz	DO 06 90	430	360	270	54.5	FB 20 / FC 20
DO 20 MV 20	20	MV 20	3 ~ 230/400-50Hz	DO 06 92	430	315	270	45.5	FB 20 / FC 20
DO 20 MV 20 M	20	MV 20 M	1 ~ 230-50Hz	DO 06 90	430	315	270	46.0	FB 20 / FC 20

Note: As a standard, MV 20 pumps are equipped with an FC 20 filtre on the suction inlet.

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

HORIZONTAL PUMPSETS – GENERAL DESCRIPTION

As a standard, these pumpsets are built with various capacities and they are composed of:

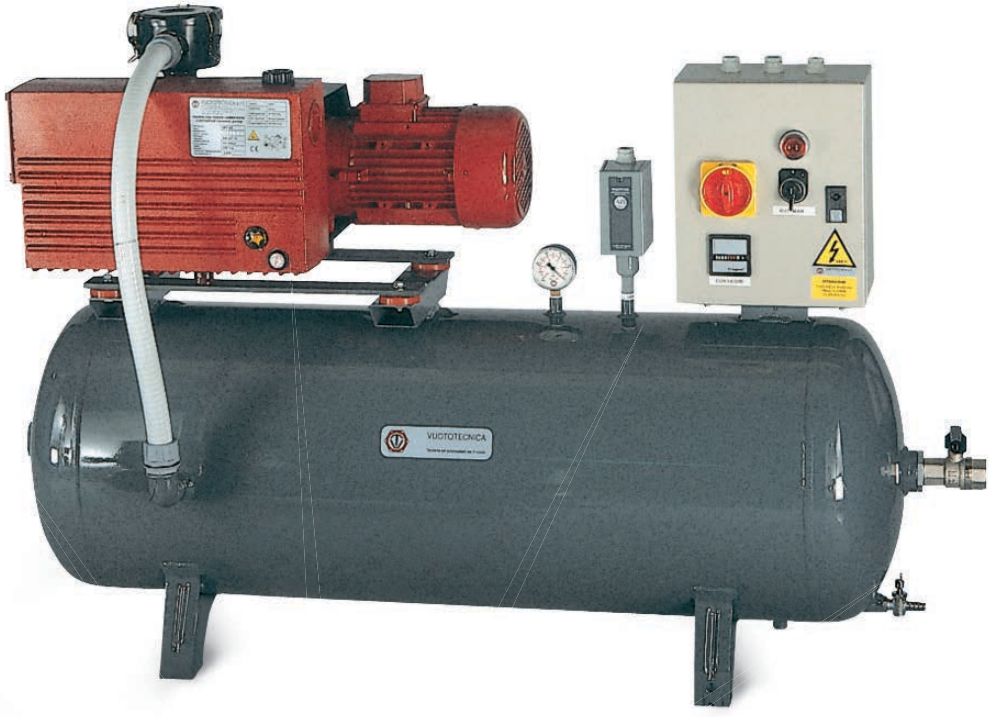
- *A horizontal welded sheet steel tank with perfect vacuum seal.*
- *A rotating vane vacuum pump to be selected according to the required suction capacity and vacuum degree.*
- *A vacuum switch for adjusting the vacuum level within which to operate.*
- *A vacuum gauge for a direct reading of the vacuum level in the tank.*
- *A switchgear enclosed in a special plastic casing for tanks from 25 to 50 litres and in a watertight metal casing for tanks of 100 litres upwards.*
- *A manual valve for vacuum interception.*
- *A cock for condensation drainage.*

The vacuum level, preset via the mini vacuum switch is automatically maintained in the tank. The pump operation can be both continuous or automatic.

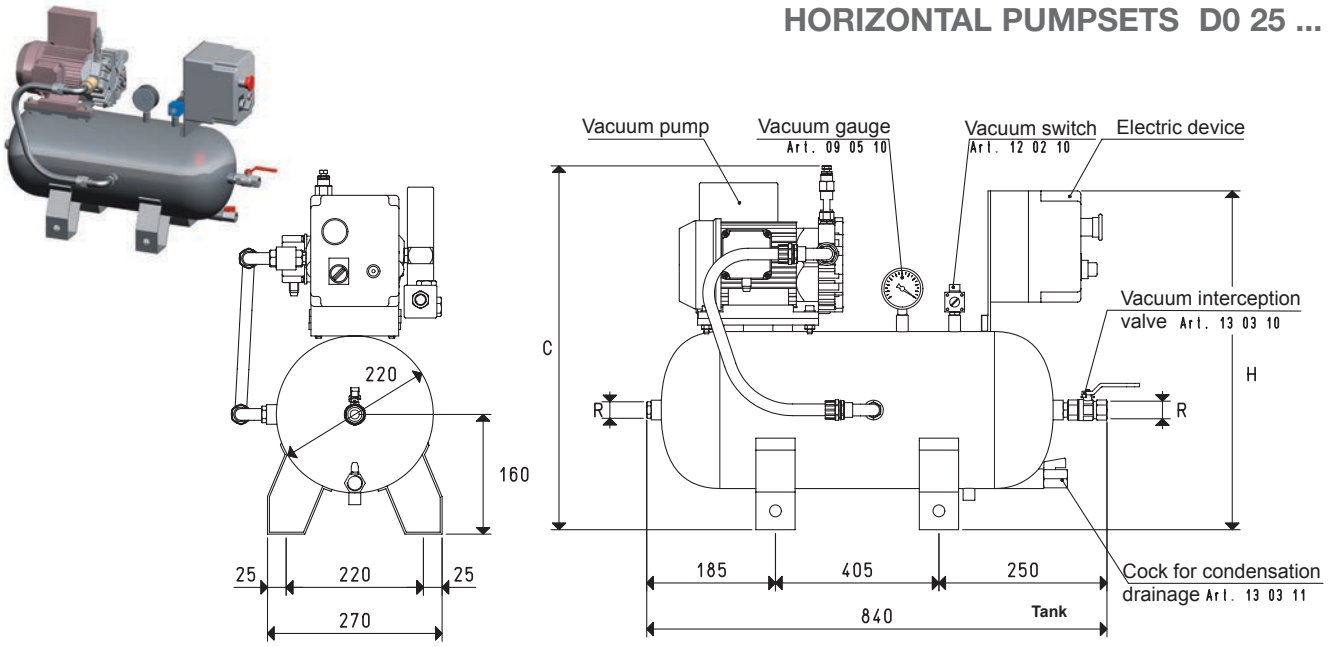
Pumpsets are normally used for handling particularly heavy or valuable loads since, in case of electricity failure, they allow the vacuum cups to maintain the grip for a certain amount of time, according to the tank capacity.

These pumpsets are recommended for multi-point applications, to centralise vacuum.

These pumpsets offer many advantages in energy consumption, since the pump operates only when required by the machine.



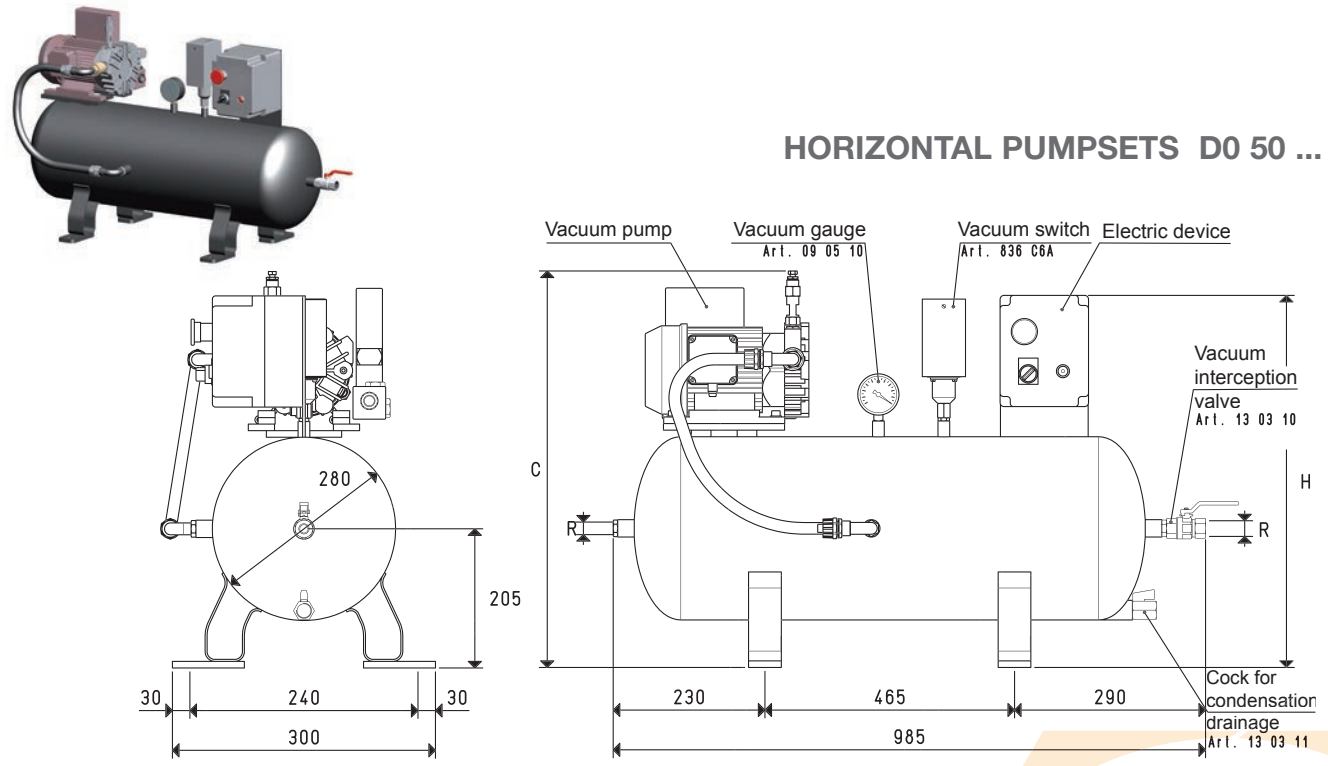
HORIZONTAL PUMPSETS D0 25 ...



Art.	Tank	Pump	Motor execution	Switchgear	C	H	R	Weight	Filtre accessories
	Litres	Mod.	Volt	art.			Ø	Kg	art.
D0 25 VTL 5	25	VTL 5	3 ~ 230/400-50Hz	D0 06 92	540	450	G1/2"	33.5	FB 20 / FC 20
D0 25 VTL 5 M	25	VTL 5 M	1 ~ 230/50Hz	D0 06 90	540	450	G1/2"	34.0	FB 20 / FC 20
D0 25 VTL 6 CC	25	VTL 6 CC	= 24-CC	D0 06 93	480	450	G1/2"	29.3	FB 20 / FC 20
D0 25 VTL 10	25	VTL 10	3 ~ 230/400-50Hz	D0 06 92	540	450	G1/2"	39.5	FB 20 / FC 20
D0 25 VTL 10 M	25	VTL 10 M	1 ~ 230-50Hz	D0 06 90	540	450	G1/2"	40.0	FB 20 / FC 20

Note: By adding the letters SR, the pumpset will be supplied with wheels (E.g.: D0 25 VTL 10 SR).

HORIZONTAL PUMPSETS D0 50 ...



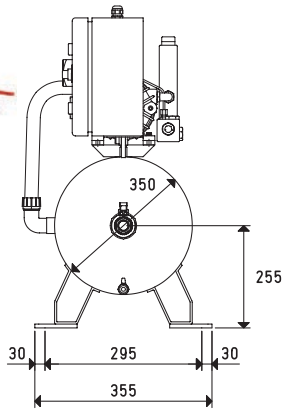
Art.	Tank	Pump	Motor execution	Switchgear	C	H	R	Weight	Filtre accessories
	Litres	Mod.	Volt	art.			Ø	Kg	art.
D0 50 VTL 5	50	VTL 5	3 ~ 230/400-50Hz	D0 06 92	620	530	G1/2"	39.3	FB 20 / FC 20
D0 50 VTL 5 M	50	VTL 5 M	1 ~ 230/50Hz	D0 06 90	620	530	G1/2"	39.8	FB 20 / FC 20
D0 50 VTL 6 CC	50	VTL 6 CC	= 24-CC	D0 06 93	570	530	G1/2"	35.1	FB 20 / FC 20
D0 50 VTL 10	50	VTL 10	3 ~ 230/400-50Hz	D0 06 92	620	530	G1/2"	45.3	FB 20 / FC 20
D0 50 VTL 10 M	50	VTL 10 M	1 ~ 230-50Hz	D0 06 90	620	530	G1/2"	45.8	FB 20 / FC 20

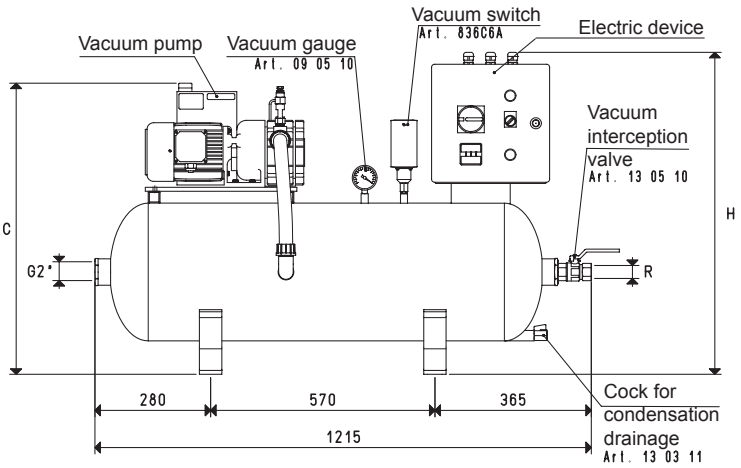
Note: By adding the letters SR, the pumpset will be supplied with wheels (E.g.: D0 50 VTL 10 SR).

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

HORIZONTAL PUMPSETS DO 100 ...

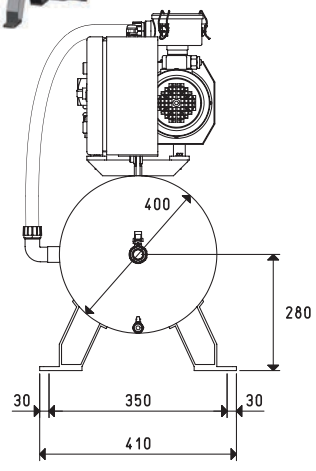


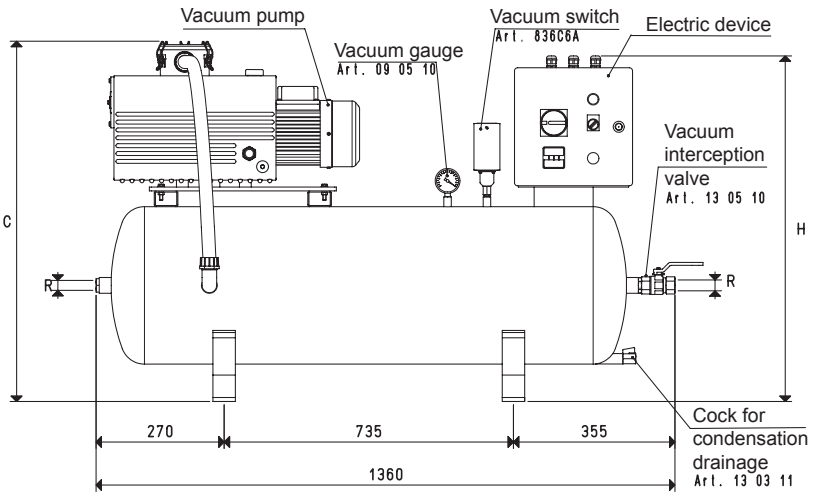


Art.	Tank	Pump	Motor execution	Switchgear	C	H	R	Weight	Filtre accessories
	Litres	Mod.	Volt	art.			Ø	Kg	art.
DO 100 VTL 10/F	100	VTL 10/F	3 ~ 230/400-50Hz	DO 100 90	710	800	G1"	66.7	FB 30 / FC 30
DO 100 VTL 10/F M	100	VTL 10/F M	1 ~ 230/50Hz	DO 100 89	710	800	G1"	68.2	FB 30 / FC 30
DO 100 VTL 15/F	100	VTL 15/F	3 ~ 230/400-50Hz	DO 100 90	710	800	G1"	68.7	FB 30 / FC 30
DO 100 VTL 15/F M	100	VTL 15/F M	1 ~ 230-50Hz	DO 100 89	710	800	G1"	70.2	FB 30 / FC 30
DO 100 VTL 20/F	100	VTL 20/F	3 ~ 230/400-50Hz	DO 100 90	710	800	G1"	71.7	FB 30 / FC 30
DO 100 VTL 20/F M	100	VTL 20/F M	1 ~ 230-50Hz	DO 100 89	710	800	G1"	73.2	FB 30 / FC 30
DO 100 MV 20	100	MV 20	3 ~ 230/400-50Hz	DO 100 90	681	800	G1"	62.2	FB 30 / FC 30
DO 100 MV 20 M	100	MV 20 M	1 ~ 230-50Hz	DO 100 89	681	800	G1"	64.7	FB 30 / FC 30

Note: By adding the letters SR, the pumpset will be supplied with wheels (E.g.: DO 100 VTL 15/F S)

HORIZONTAL PUMPSETS DO 150 ...





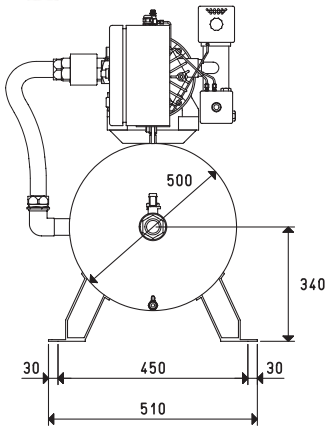
Art.	Tank	Pump	Motor execution	Switchgear	C	H	R	Weight	Filtre accessories
	Litres	Mod.	Volt	art.			Ø	Kg	art.
DO 150 VTL 25/FG	150	VTL 25/FG	3 ~ 230/400-50Hz	DO 100 90	805	840	G1"	79.0	FB 30 / FC 30
DO 150 VTL 30/FG	150	VTL 30/FG	3 ~ 230/400-50Hz	DO 100 90	805	840	G1"	83.0	FB 30 / FC 30
DO 150 VTL 35/FG	150	VTL 35/FG	3 ~ 230/400-50Hz	DO 100 90	805	840	G1"	85.0	FB 30 / FC 30
DO 150 MV 40	150	MV 40	3 ~ 230/400-50Hz	DO 100 90	916	840	G1"	93.0	FB 30 / FC 30
DO 150 VTL 50/G1	150	VTL 50/G1	3 ~ 230/400-50Hz	DO 100 90	880	840	G1"	102.0	FB 30 / FC 30
DO 150 MV 60	150	MV 60	3 ~ 230/400-50Hz	DO 100 90	916	840	G1"	101.0	FB 30 / FC 30
DO 150 VTL 75/G1	150	VTL 75/G1	3 ~ 230/400-50Hz	DO 100 90	930	840	G1"	118.5	FB 30 / FC 30

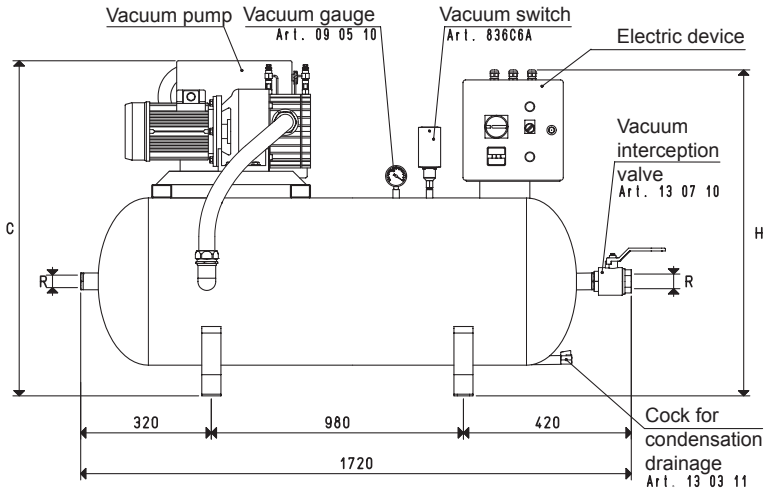
Note: By adding the letters SR, the pumpset will be supplied with wheels (E.g.: DO 150 VTL 30/FG SR).

As a standard, all MV... pumps are equipped with an FC... filtre adjusted to the suction connection size.

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

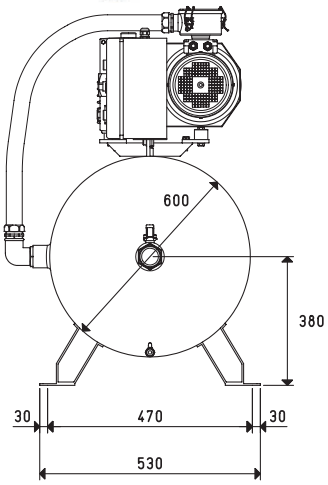


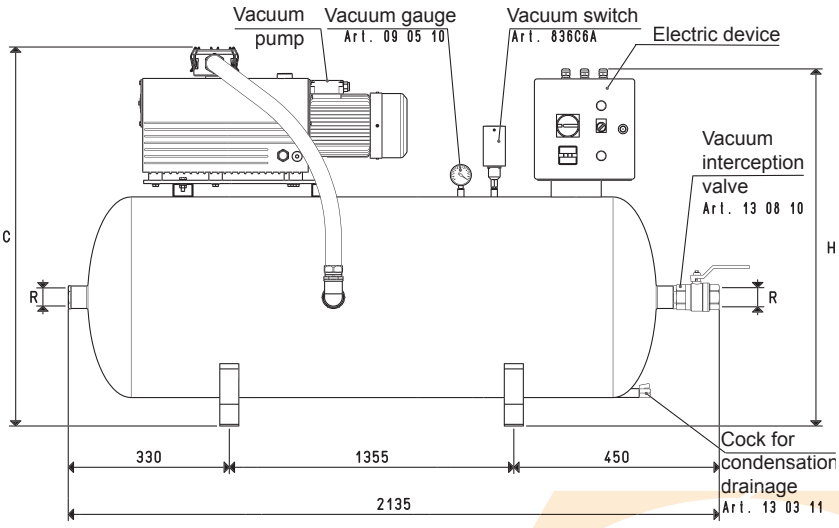


Art.	Tank	Pump	Motor execution	Switchgear	C	H	R	Weight	Filtre accessories
	Litres	Mod.	Volt	art.			Ø	Kg	art.
D0 300 MV 60	300	MV 60	3 ~ 230/400-50Hz	D0 100 90	940	940	G1"1/2	135.3	FB 50 / FC 50
D0 300 VTL 75/G1	300	VTL 75/G1	3 ~ 230/400-50Hz	D0 100 90	1040	940	G1"1/2	153.3	FB 50 / FC 50
D0 300 MV 100	300	MV 100	3 ~ 230/400-50Hz	D0 100 90	970	940	G1"1/2	162.3	FB 50 / FC 50
D0 300 VTL 105/G1	300	VTL 105/G1	3 ~ 230/400-50Hz	D0 100 90	1080	940	G1"1/2	181.7	FB 50 / FC 50
D0 300 MV 160R	300	MV 160R	3 ~ 230/400-50Hz	D0 100 90	988	940	G1"1/2	186.3	FB 50 / FC 50

Note: By adding the letters SR, the pumpset will be supplied with wheels (E.g.: D0 300 MV 100 SR).

HORIZONTAL PUMPSETS D0 500 ...



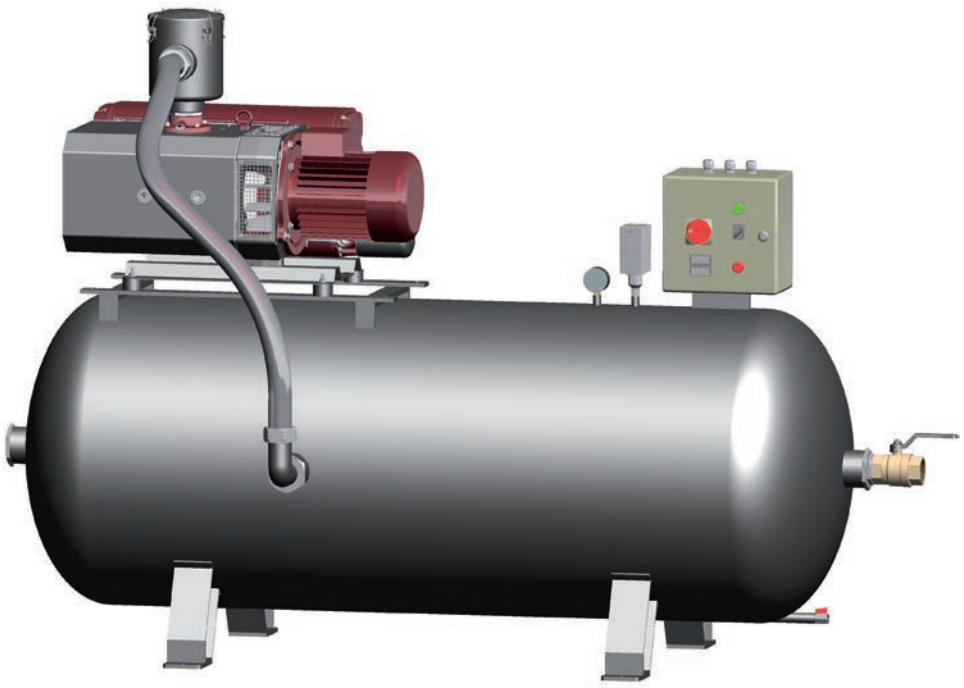


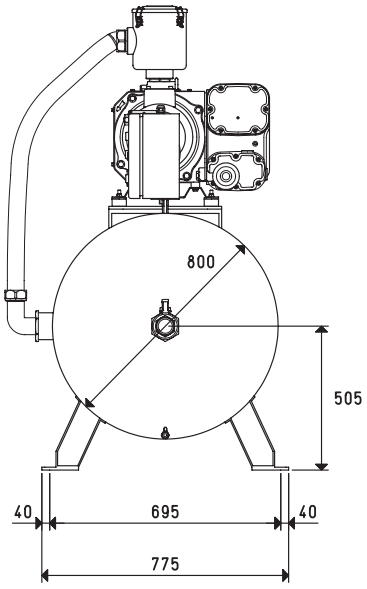
Art.	Tank	Pump	Motor execution	Switchgear	C	H	R	Weight	Filtre accessories
	Litres	Mod.	Volt	art.			Ø	Kg	art.
D0 500 MV 100	500	MV 100	3 ~ 230/400-50Hz	D0 100 90	1060	1010	G2"	232.2	FB 60 / FC 60
D0 500 VTL 105/G1	500	VTL 105/G1	3 ~ 230/400-50Hz	D0 100 90	1180	1010	G2"	249.8	FB 60 / FC 60
D0 500 MV 160R	500	MV 160R	3 ~ 230/400-50Hz	D0 100 90	1198	1010	G2"	273.8	FB 60 / FC 60
D0 500 MV 200R	500	MV 200R	3 ~ 230/400-50Hz	D0 100 91	1220	1010	G2"	303.2	FB 60 / FC 60
D0 500 MV 300R	500	MV 300R	3 ~ 400/690-50Hz	D0 100 91	1220	1010	G2"	333.2	FB 60 / FC 60

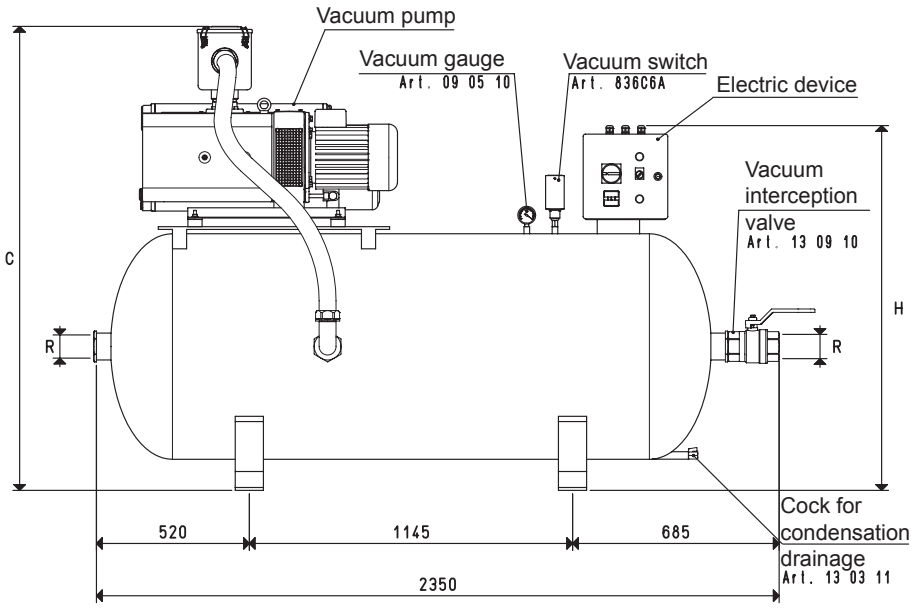
Note: As a standard, all MV... pumps are equipped with an FC... filtre adjusted to the suction connection size.

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







Art.	Tank	Pump	Motor execution	Switchgear	C	H	R	Weight	Filtre accessories
	Litres	Mod.	Volt	art.			Ø	Kg	art.
DO 1000 MV 200R	1000	MV 200R	3 ~ 230/400-50Hz	DO 100 91	1541	1250	G3"	405	FC 80
DO 1000 MV 300R	1000	MV 300R	3 ~ 400/690-50Hz	DO 100 91	1541	1250	G3"	432	FC 80

Note: As a standard, all MV... pumps are equipped with an FC... filtre adjusted to the suction connection size.

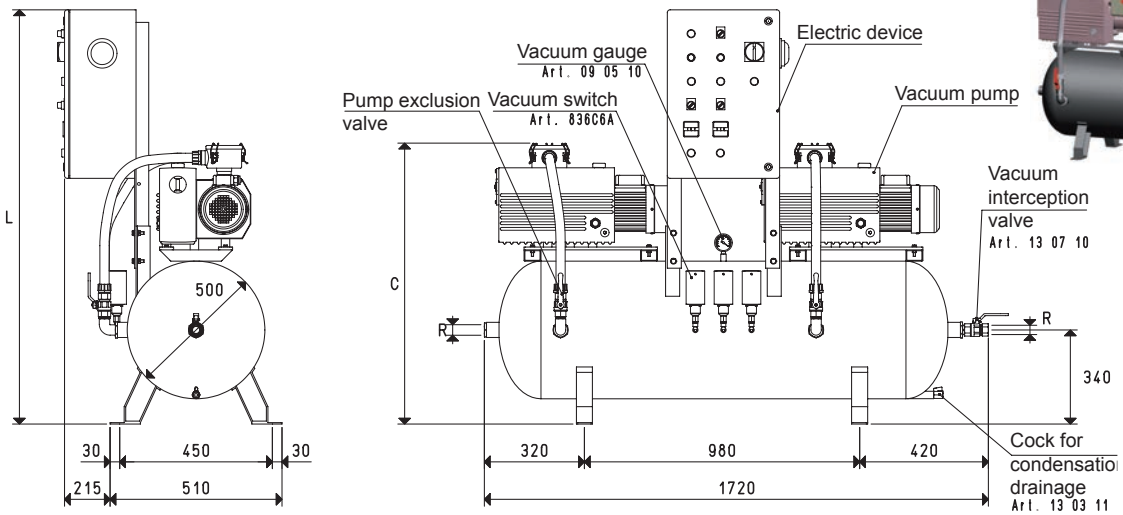
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

GAS-NPT thread adapters available at page 1.117

HORIZONTAL SAFETY PUMPSETS – GENERAL DESCRIPTION

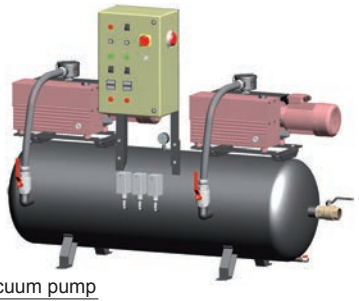
Safety pumpsets have been designed to centralise vacuum in all work environments such as hospitals, laboratories, etc. where vacuum must be guaranteed 24/24.
They are composed of:
- A horizontal welded sheet steel tank with perfect vacuum seal.
- Two rotating vane vacuum pumps to be chosen according to the required suction capacity and vacuum level.
- Three vacuum swithces, of which two for adjusting the vacuum level within which each pump must operate, and one for determining the minimum safety value, under which the alarm sets off.
- A vacuum gauge for a direct reading of the vacuum level in the tank.
- Two manual valves for pump exclusion.
- A manual valve for vacuum interception.
- A cock for condensation drainage.
- A switchgear enclosed in a special watertight metal casing with switches for automatic or manual pump operation, an alarm device with sound and light signal, alarm-test buttons and hour-counter for counting the hours of actual operation of every single pump.
These pumpsets normally provide for the operation of one pump with subsequent automatic insertion of the second one for larger consumptions and when, for whatever reason, the plant vacuum level goes under the preset value.
The automatic timed inverter, located on the switchboard, accurately alternates the pump start-up, so that they are both subject to the same mechanical wear.
The switchboard and remote alarm systems operate when the plant vacuum level is below the set safety value.

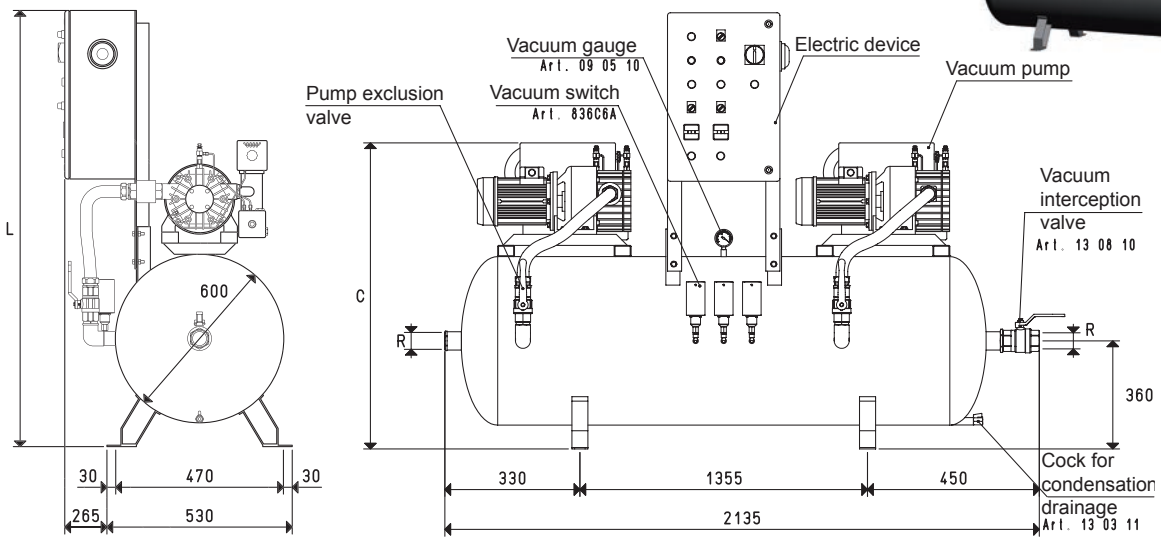
HORIZONTAL SAFETY PUMPSETS DSO 300 ...



Art.	Tank	2 pumps	Motor execution	Switchgear	C	L	R	Weight	Recommended accessories
	Litres	Mod.	Volt	art.			Ø	Kg	art.
DSO 300 MV 40	300	MV 40	3 ~ 230/400-50Hz	DSO 300 90	940	1480	G1"1/2	196.8	FB 50 / FC 50
DSO 300 VTL 50/G1	300	VTL 50/G1	3 ~ 230/400-50Hz	DSO 300 90	990	1480	G1"1/2	214.8	FB 50 / FC 50
DSO 300 MV 60	300	MV 60	3 ~ 230/400-50Hz	DSO 300 90	940	1480	G1"1/2	212.8	FB 50 / FC 50
DSO 300 VTL 75/G1	300	VTL 75/G1	3 ~ 230/400-50Hz	DSO 300 90	1040	1480	G1"1/2	259.8	FB 50 / FC 50
DSO 300 MV 100	300	MV 100	3 ~ 230/400-50Hz	DSO 300 90	970	1480	G1"1/2	266.8	FB 50 / FC 50
DSO 300 VTL 105/G1	300	VTL 105/G1	3 ~ 230/400-50Hz	DSO 300 90	1080	1480	G1"1/2	302.0	FB 50 / FC 50

HORIZONTAL SAFETY PUMPSETS DSO 500 ...



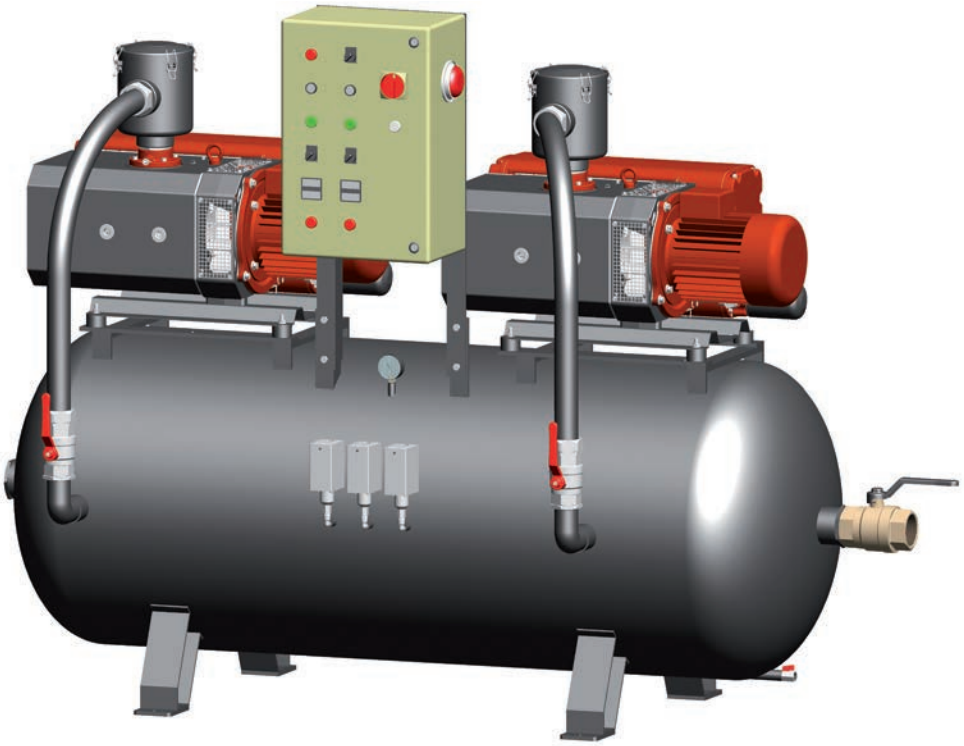


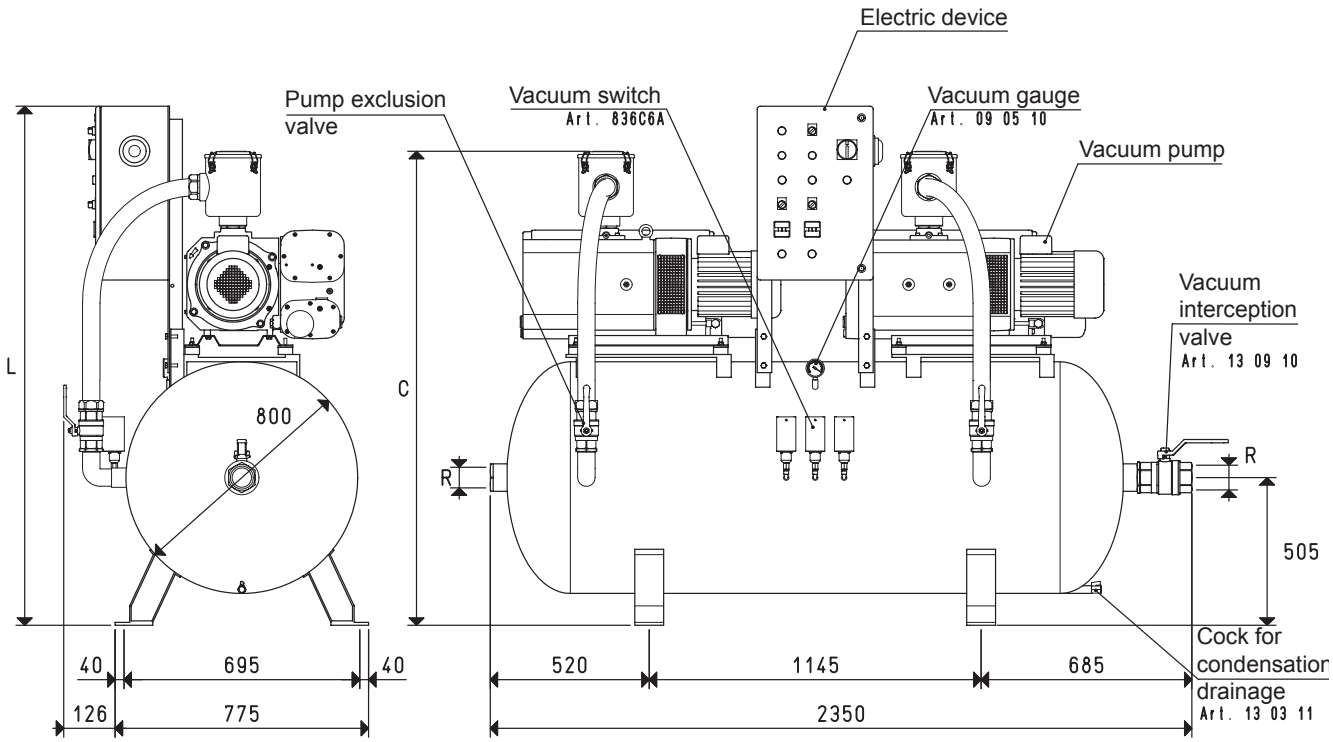
Art.	Tank	2 pumps	Motor execution	Switchgear	C	L	R	Weight	Filtre accessories
	Litres	Mod.	Volt	art.			Ø	Kg	art.
DSO 500 VTL 50/G1	500	VTL 50/G1	3 ~ 230/400-50Hz	DSO 300 90	1090	1510	G2"	287.8	FB 60 / FC 60
DSO 500 MV 60	500	MV 60	3 ~ 230/400-50Hz	DSO 300 90	1030	1510	G2"	285.8	FB 60 / FC 60
DSO 500 VTL 75/G1	500	VTL 75/G1	3 ~ 230/400-50Hz	DSO 300 90	1140	1510	G2"	332.8	FB 60 / FC 60
DSO 500 MV 100	500	MV 100	3 ~ 230/400-50Hz	DSO 300 90	1060	1510	G2"	339.8	FB 60 / FC 60
DSO 500 VTL 105/G1	500	VTL 105/G1	3 ~ 230/400-50Hz	DSO 300 90	1180	1510	G2"	375.0	FB 60 / FC 60
DSO 500 MV 160R	500	MV 160R	3 ~ 230/400-50Hz	DSO 300 90	1078	1510	G2"	399.0	FB 60 / FC 60

Note: As a standard, all MV... pumps are equipped with an FC... filtre adjusted to the suction connection size.

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





Art.	Tank	2 pumps	Motor execution	Switchgear	C	L	R	Weight	Filtre accessories
	Litres	Mod.	Volt	art.			Ø	Kg	art.
DS0 1000 MV 60	1000	MV 60	3 ~ 230/400-50Hz	DS0 300 90	1280	1730	G3"	342.8	FC 80
DS0 1000 VTL 75/G1	1000	VTL 75/G1	3 ~ 230/400-50Hz	DS0 300 90	1380	1730	G3"	389.2	FC 80
DS0 1000 MV 100	1000	MV 100	3 ~ 230/400-50Hz	DS0 300 90	1310	1730	G3"	396.8	FC 80
DS0 1000 VTL 105/G1	1000	VTL 105/G1	3 ~ 230/400-50Hz	DS0 300 90	1430	1730	G3"	432.0	FC 80
DS0 1000 MV 160R	1000	MV 160R	3 ~ 230/400-50Hz	DS0 300 90	1328	1730	G3"	452.0	FC 80
DS0 1000 MV 200R	1000	MV 200R	3 ~ 230/400-50Hz	DS0 300 91	1421	1730	G3"	570.2	FC 80
DS0 1000 MV 300R	1000	MV 300R	3 ~ 400/690-50Hz	DS0 300 91	1421	1730	G3"	624.2	FC 80

Note: As a standard, all MV... pumps are equipped with an FC... filtre adjusted to the suction connection size.

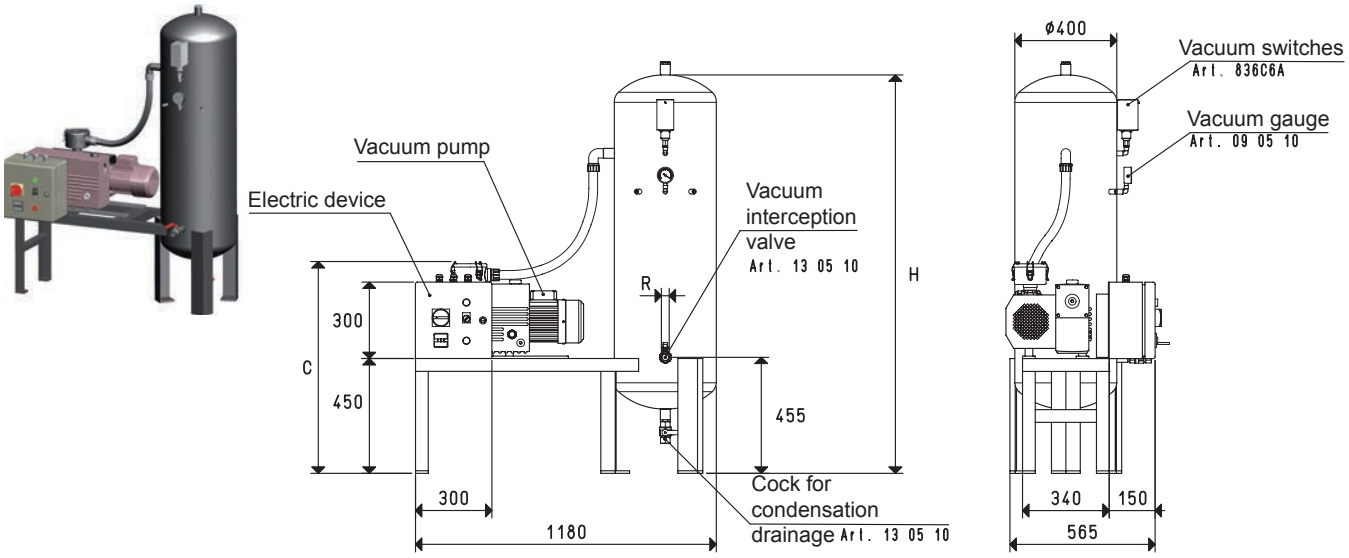
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

GAS-NPT thread adapters available at page 1.117

VERTICAL PUMPSETS – GENERAL DESCRIPTION

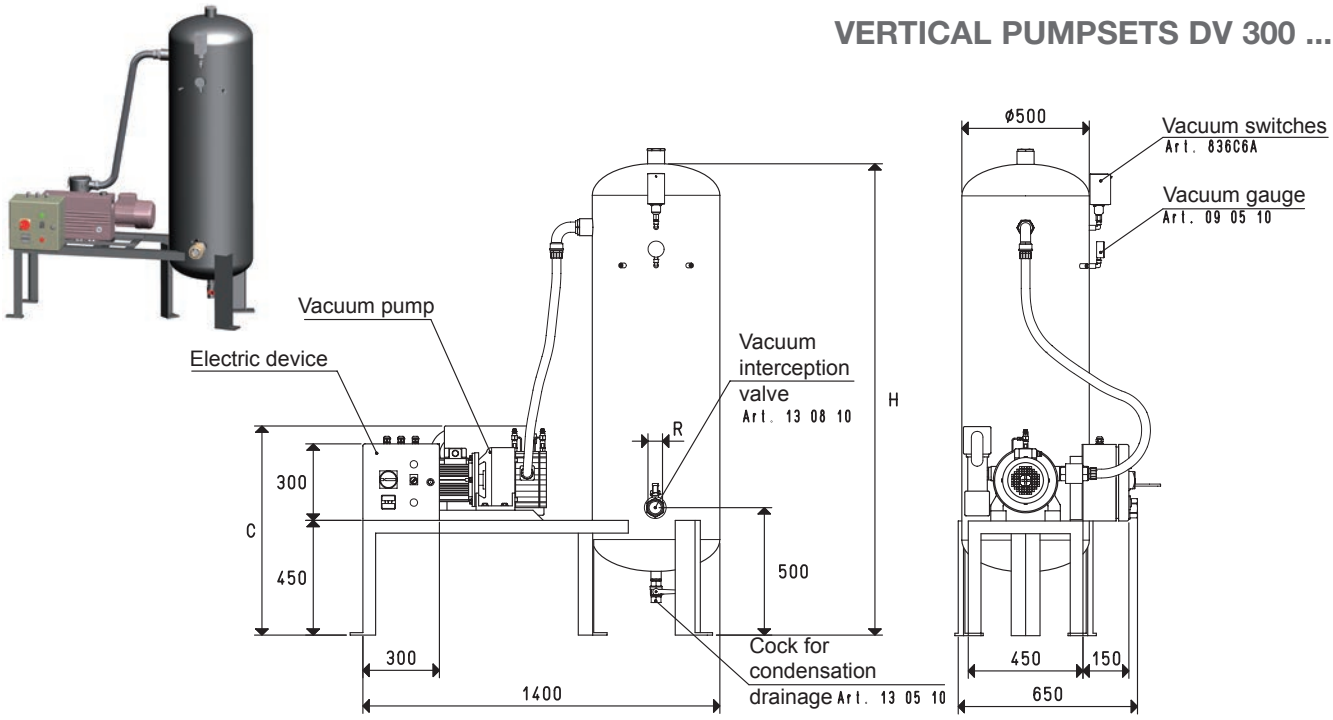
As a standard, these pumpsets are built with various capacities and they are composed of:
- A vertical welded sheet steel tank with perfect vacuum seal.
- A rotating vane vacuum pump to be selected according to the required suction capacity and vacuum degree.
- A vacuum switch for adjusting the vacuum level within which to operate.
- A vacuum gauge for a direct reading of the vacuum level in the tank.
- A switchgear enclosed in a special watertight metal casing.
- A manual valve for vacuum interception.
- A cock for condensation drainage.
The vacuum level, preset via the mini vacuum switch is automatically maintained in the tank. The pump operation can be both continuous or automatic.
These pumpsets are normally used for interconnecting several vacuum-operated machines and, for safety reasons, for vacuum handlers since, in case of electricity failure, they allow the vacuum cups to maintain the grip for an amount of time proportional to the tank capacity.
As for energy consumption, in both cases these pumpsets offer many advantages, since the pump operates only to restore vacuum in the tank within the preset values and its interventions depend exclusively on the quantity of air that is actually sucked at the service.

VERTICAL PUMPSETS DV 150 ...



Art.	Tank	Pump	Motor execution	Switchgear	C	H	R	Weight	Filtre accessories
	Litres	Mod.	Volt	art.			Ø	Kg	art.
DV 150 VTL 25/FG	150	VTL 25/FG	3 ~ 230/400-50Hz	D0 100 90	730	1600	G1"	103	FB 30 / FC 30
DV 150 VTL 30/FG	150	VTL 30/FG	3 ~ 230/400-50Hz	D0 100 90	730	1600	G1"	107	FB 30 / FC 30
DV 150 VTL 35/FG	150	VTL 35/FG	3 ~ 230/400-50Hz	D0 100 90	730	1600	G1"	109	FB 30 / FC 30
DV 150 MV 40	150	MV 40	3 ~ 230/400-50Hz	D0 100 90	810	1600	G1"	117	FB 30 / FC 30
DV 150 VTL 50/G1	150	VTL 50/G1	3 ~ 230/400-50Hz	D0 100 90	805	1600	G1"	126	FB 30 / FC 30
DV 150 MV 60	150	MV 60	3 ~ 230/400-50Hz	D0 100 90	810	1600	G1"	125	FB 30 / FC 30
DV 150 VTL 75/G1	150	VTL 75/G1	3 ~ 230/400-50Hz	D0 100 90	855	1600	G1"	148	FB 30 / FC 30

VERTICAL PUMPSETS DV 300 ...



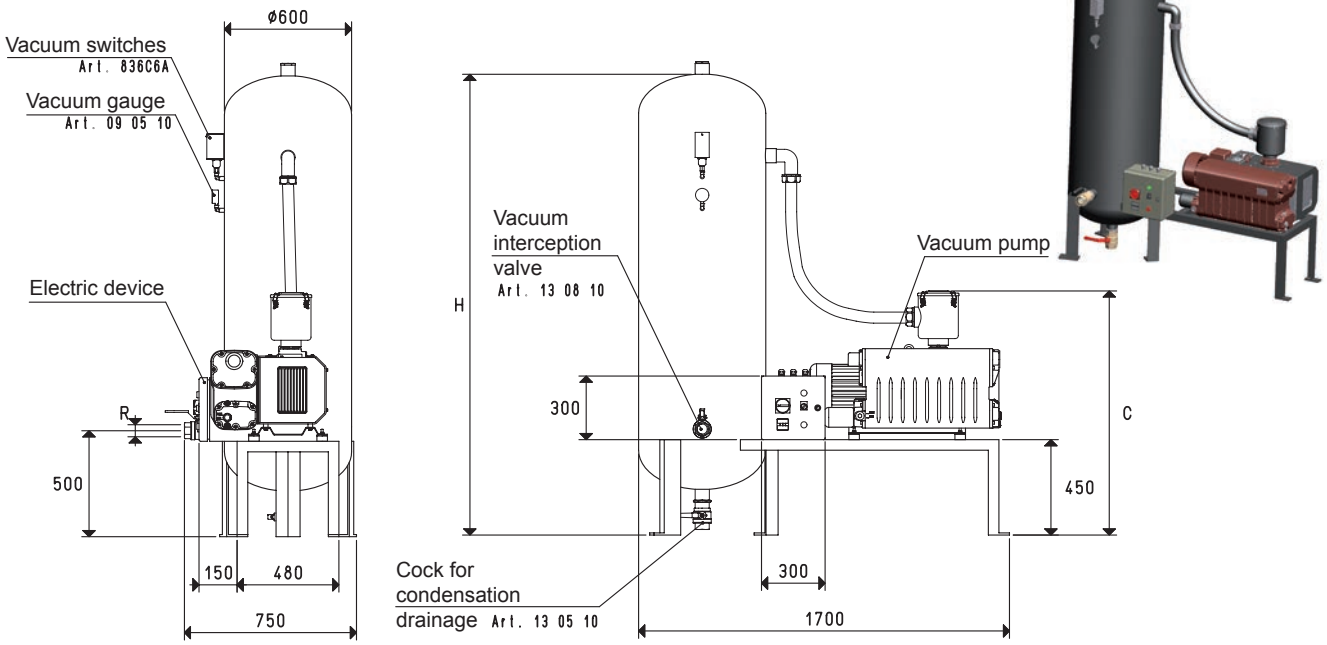
Art.	Tank	Pump	Motor execution	Switchgear	C	H	R	Weight	Filtre accessories
	Litres	Mod.	Volt	art.			Ø	Kg	art.
DV 300 MV 40	300	MV 40	3 ~ 230/400-50Hz	D0 100 90	810	1890	G2"	147	FB 60 / FC 60
DV 300 VTL 50/G1	300	VTL 50/G1	3 ~ 230/400-50Hz	D0 100 90	805	1890	G2"	156	FB 60 / FC 60
DV 300 MV 60	300	MV 60	3 ~ 230/400-50Hz	D0 100 90	810	1890	G2"	155	FB 60 / FC 60
DV 300 VTL 75/G1	300	VTL 75/G1	3 ~ 230/400-50Hz	D0 100 90	855	1890	G2"	178	FB 60 / FC 60
DV 300 MV 100	300	MV 100	3 ~ 230/400-50Hz	D0 100 90	840	1890	G2"	182	FB 60 / FC 60
DV 300 VTL 105/G1	300	VTL 105/G1	3 ~ 230/400-50Hz	D0 100 90	900	1890	G2"	199	FB 60 / FC 60
DV 300 MV 160R	300	MV 160R	3 ~ 230/400-50Hz	D0 100 90	858	1890	G2"	206	FB 60 / FC 60

Note: As a standard, all MV... pumps are equipped with an FC... filtre adjusted to the suction connection size.

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

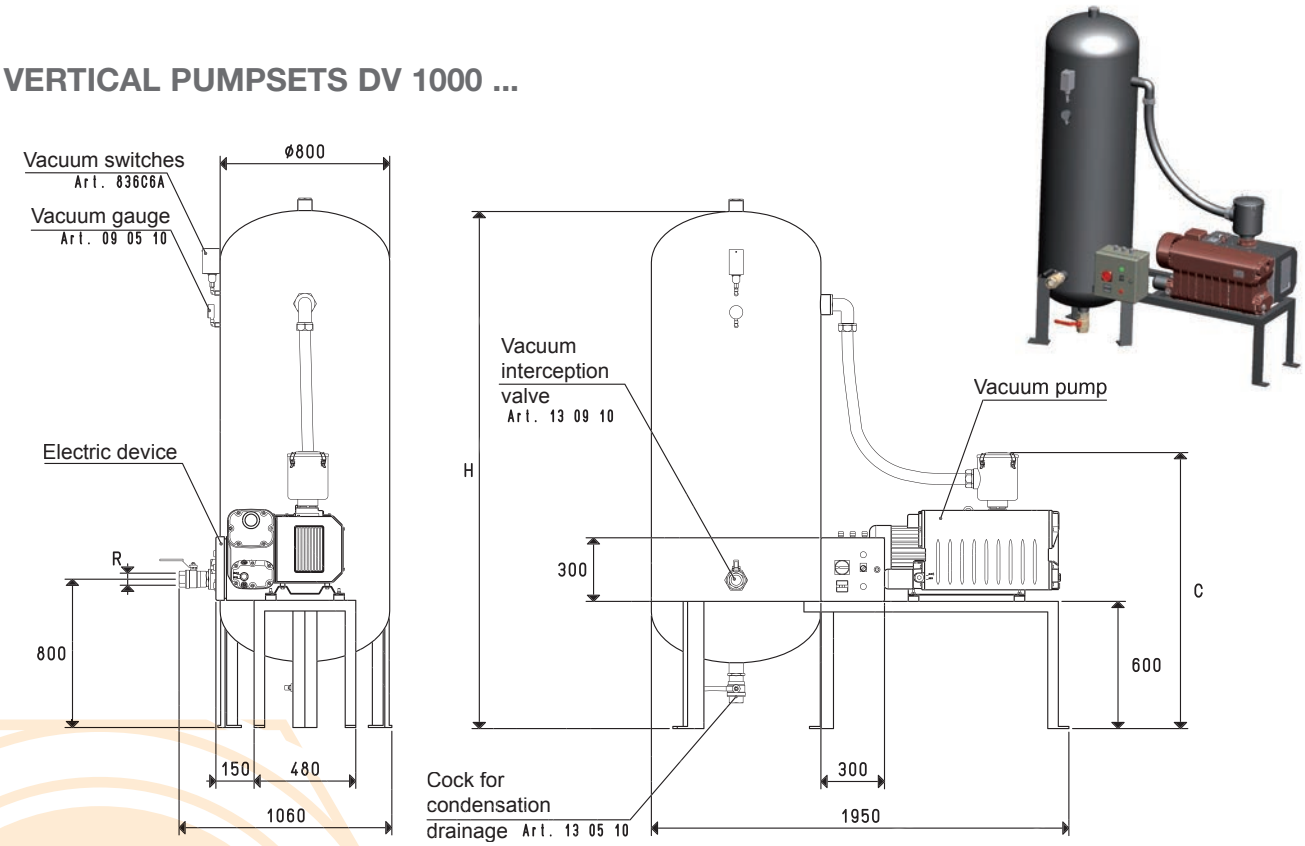
GAS-NPT thread adapters available at page 1.117

VERTICAL PUMPSETS DV 500 ...



Art.	Tank	Pump	Motor execution	Switchgear	C	H	R	Weight	Filtre accessories
	Litres	Mod.	Volt	art.			Ø	Kg	art.
DV 500 MV 160R	500	MV 160R	3 ~ 230/400-50Hz	D0 100 90	1061	2220	G2"	300	FB 60 / FC 60
DV 500 MV 200R	500	MV 200R	3 ~ 230/400-50Hz	D0 100 91	1151	2220	G2"	357	FB 60 / FC 60
DV 500 MV 300R	500	MV 300R	3 ~ 400/690-50Hz	D0 100 91	1151	2220	G2"	404	FB 60 / FC 60

VERTICAL PUMPSETS DV 1000 ...



Art.	Tank	Pump	Motor execution	Switchgear	C	H	R	Weight	Filtre accessories
	Litres	Mod.	Volt	art.			Ø	Kg	art.
DV 1000 MV 200R	1000	MV 200R	3 ~ 230/400-50Hz	D0 100 91	1301	2480	G3"	406	FC 80
DV 1000 MV 300R	1000	MV 300R	3 ~ 400/690-50Hz	D0 100 91	1301	2480	G3"	433	FC 80

Note: As a standard, all MV... pumps are equipped with an FC... filtre adjusted to the suction connection size.

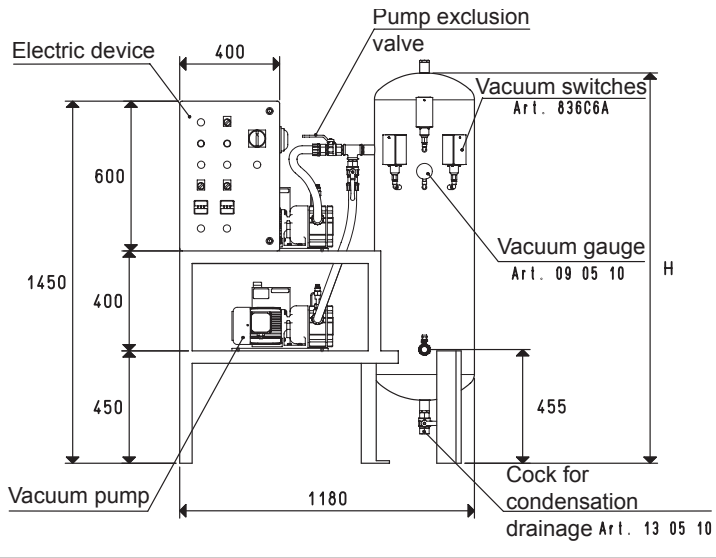
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

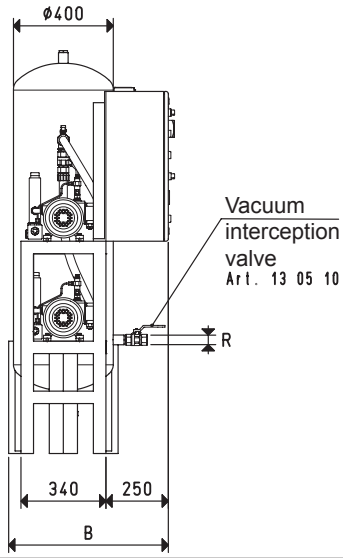
GAS-NPT thread adapters available at page 1.117

VERTICAL SAFETY PUMPSETS – GENERAL DESCRIPTION

Safety pumpsets have been designed to centralise vacuum in all work environments such as hospitals, laboratories, etc. where vacuum must be guaranteed 24/24.
They are composed of:
- A vertical welded sheet steel tank with perfect vacuum seal.
- Two rotating vane vacuum pumps to be chosen according to the required suction capacity and vacuum level.
- Three vacuum swithces, of which two for adjusting the vacuum level within which each pump must operate, and one for determining the minimum safety value, under which the alarm sets off.
- A vacuum gauge for a direct reading of the vacuum level in the tank.
- Two manual valves for pump exclusion.
- A manual valve for vacuum interception.
- A cock for condensation drainage.
- A switchgear enclosed in a special watertight metal casing with switches for automatic or manual pump operation, an alarm device with sound and light signal, alarm-test buttons and hour-counter for counting the hours of actual operation of every single pump.
These pumpsets normally provide for the operation of one pump with subsequent automatic insertion of the second one for larger consumptions and when, for whatever reason, the plant vacuum level goes under the preset value.
The automatic timed inverter, located on the switchboard, accurately alternates the pump start-up, so that they are both subject to the same mechanical wear.
The switchboard and remote alarm systems operate when the plant vacuum level is below the set safety value.

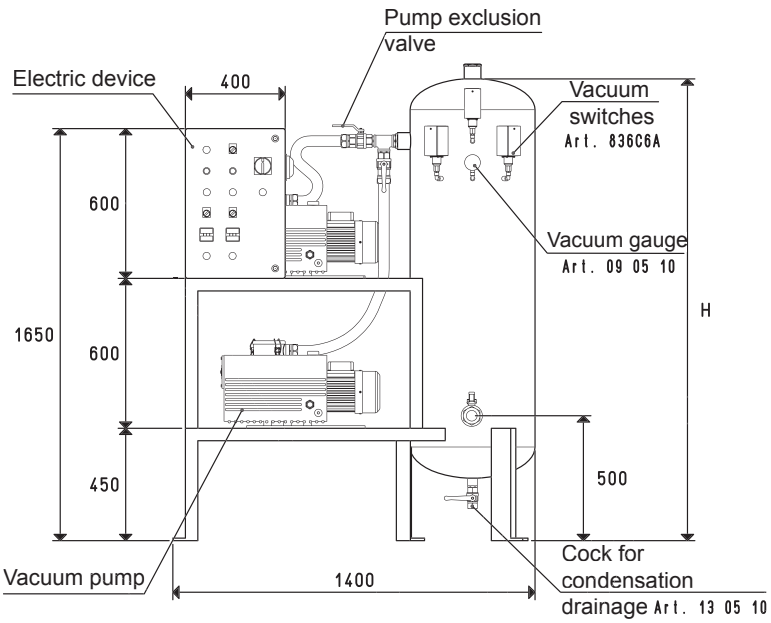
VERTICAL SAFETY PUMPSETS DSV 150 ...

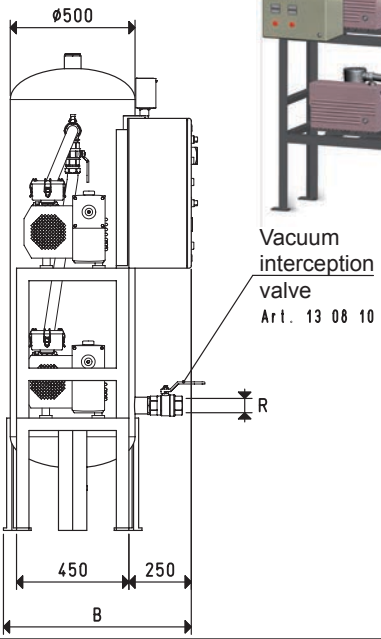




Art.	Tank	2 pumps	Motor execution	Switchgear	B	H	R	Weight	Filtre accessories
	Litres	Mod.	Volt	art.			Ø	Kg	art.
DSV 150 VTL 10/F	150	VTL 10/F	3 ~ 230/400-50Hz	DS0 300 90	625	1600	G1"	152	FB 30 / FC 30
DSV 150 VTL 15/F	150	VTL 15/F	3 ~ 230/400-50Hz	DS0 300 90	625	1600	G1"	164	FB 30 / FC 30
DSV 150 VTL 20/F	150	VTL 20/F	3 ~ 230/400-50Hz	DS0 300 90	625	1600	G1"	167	FB 30 / FC 30
DSV 150 MV 20	150	MV 20	3 ~ 230/400-50Hz	DS0 300 90	625	1600	G1"	158	FB 30 / FC 30
DSV 150 VTL 25/FG	150	VTL 25/FG	3 ~ 230/400-50Hz	DS0 300 90	630	1600	G1"	168	FB 30 / FC 30
DSV 150 VTL 30/FG	150	VTL 30/FG	3 ~ 230/400-50Hz	DS0 300 90	630	1600	G1"	172	FB 30 / FC 30
DSV 150 VTL 35/FG	150	VTL 35/FG	3 ~ 230/400-50Hz	DS0 300 90	630	1600	G1"	174	FB 30 / FC 30

VERTICAL SAFETY PUMPSETS DSV 300 ...





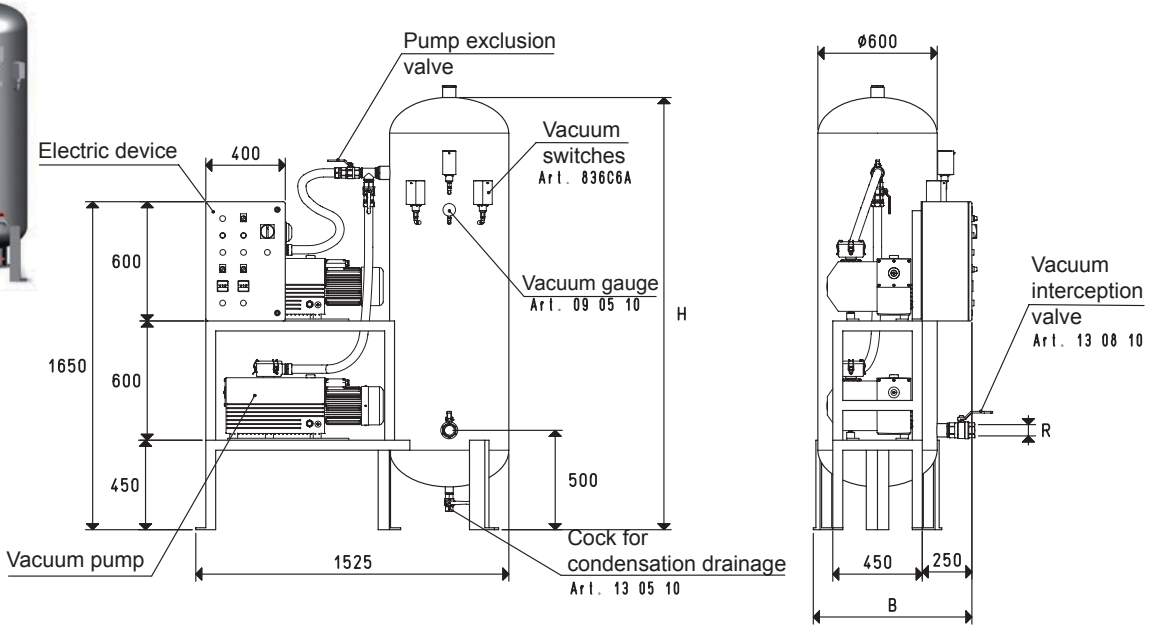
Art.	Tank	2 pumps	Motor accessories	Switchgear	B	H	R	Weight	Filtre accessories
	Litres	Mod.	Volt	art.			Ø	Kg	art.
DSV 300 MV 40	300	MV 40	3 ~ 230/400-50Hz	DS0 300 90	725	1890	G2"	217	FB 60 / FC 60
DSV 300 VTL 50/G1	300	VTL 50/G1	3 ~ 230/400-50Hz	DS0 300 90	725	1890	G2"	226	FB 60 / FC 60
DSV 300 MV 60	300	MV 60	3 ~ 230/400-50Hz	DS0 300 90	725	1890	G2"	225	FB 60 / FC 60
DSV 300 VTL 75/G1	300	VTL 75/G1	3 ~ 230/400-50Hz	DS0 300 90	725	1890	G2"	249	FB 60 / FC 60
DSV 300 MV 100	300	MV 100	3 ~ 230/400-50Hz	DS0 300 90	725	1890	G2"	252	FB 60 / FC 60
DSV 300 VTL 105/G1	300	VTL 105/G1	3 ~ 230/400-50Hz	DS0 300 90	725	1890	G2"	270	FB 60 / FC 60

Note: As a standard, all MV... pumps are equipped with an FC... filtre adjusted to the suction connection size.

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

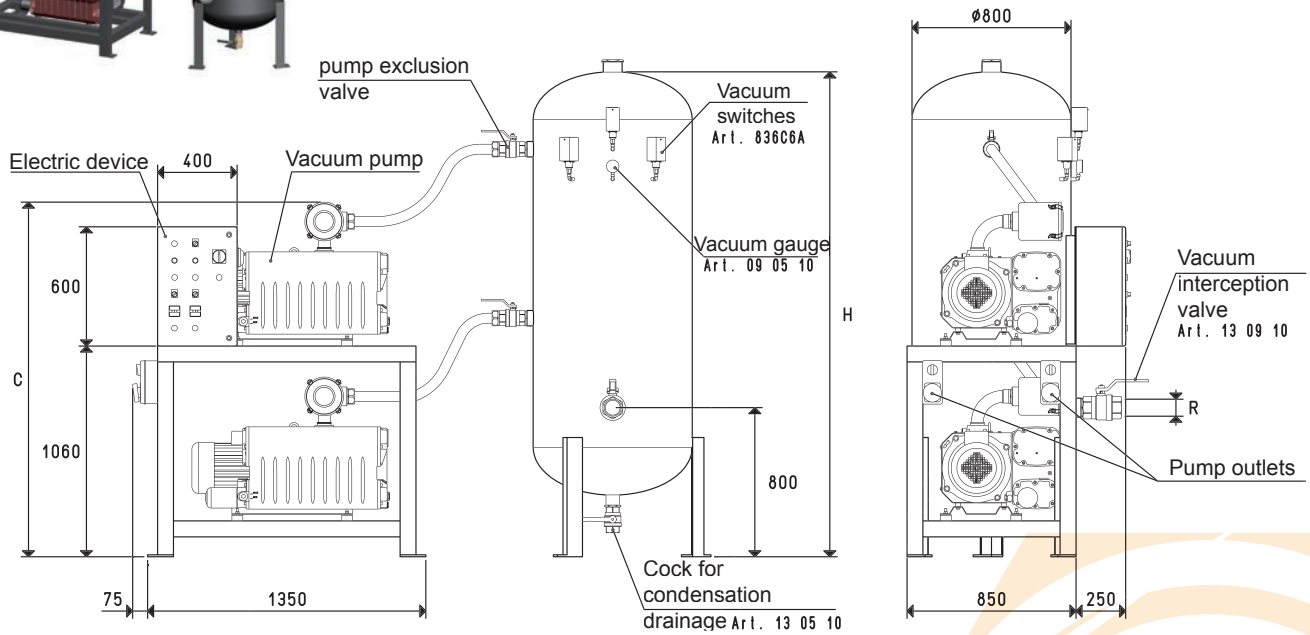
GAS-NPT thread adapters available at page 1.117

VERTICAL SAFETY PUMPSETS DSV 500 ...



Art.	Tank	2 pumps	Motor execution	Switchgear	B	H	R	Weight	Filtre accessories
	Litres	Mod.	Volt	art.			Ø	Kg	art.
DSV 500 MV 60	500	MV 60	3 ~ 230/400-50Hz	DS0 300 90	750	2220	G2"	308	FB 60 / FC 60
DSV 500 VTL 75/G1	500	VTL 75/G1	3 ~ 230/400-50Hz	DS0 300 90	750	2220	G2"	355	FB 60 / FC 60
DSV 500 MV 100	500	MV 100	3 ~ 230/400-50Hz	DS0 300 90	750	2220	G2"	362	FB 60 / FC 60
DSV 500 VTL 105/G1	500	VTL 105/G1	3 ~ 230/400-50Hz	DS0 300 90	750	2220	G2"	396	FB 60 / FC 60
DSV 500 MV 160R	500	MV 160R	3 ~ 230/400-50Hz	DS0 300 90	750	2220	G2"	410	FB 60 / FC 60

VERTICAL SAFETY PUMPSETS DSV 1000 ...

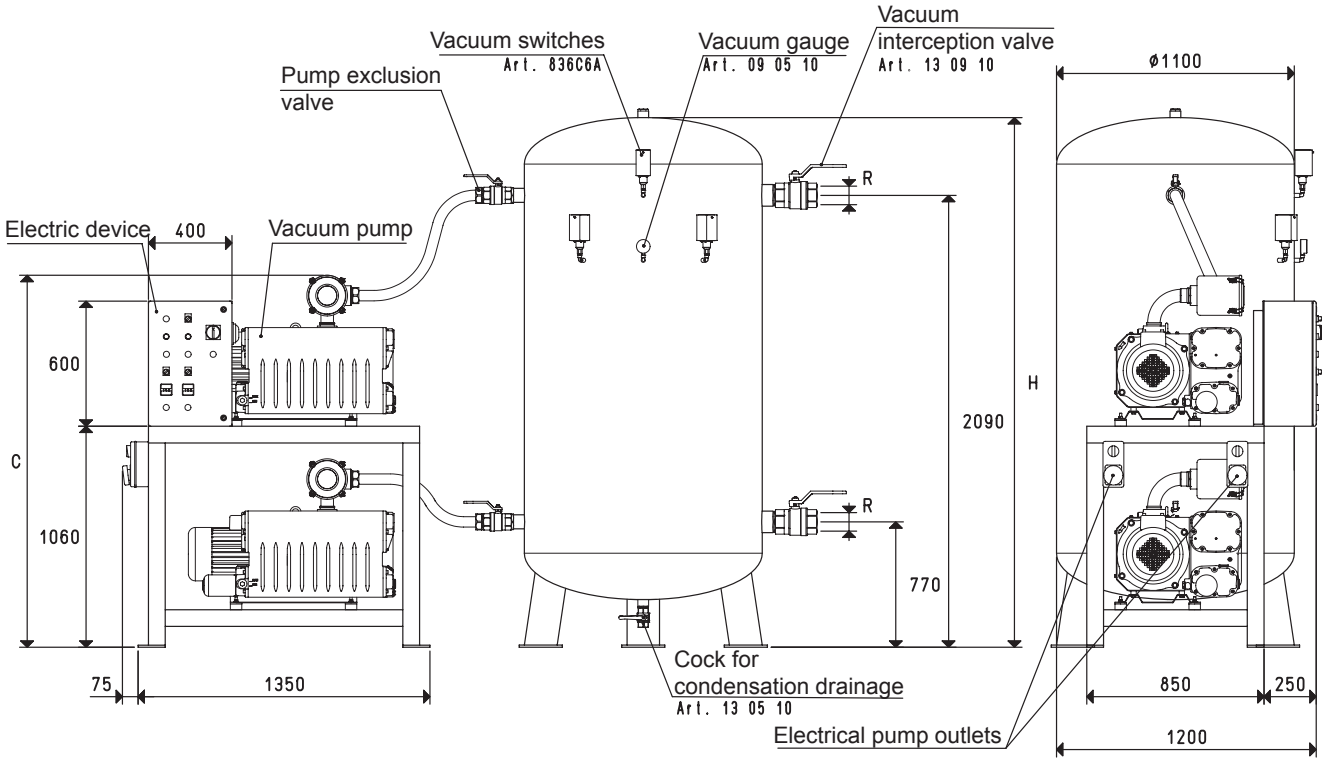


Art.	Tank	2 pumps	Motor execution	Switchgear	C	H	R	Weight	Filtre accessories
	Litres	Mod.	Volt	art.			Ø	Kg	art.
DSV 1000 MV 160R	1000	MV 160R	3 ~ 230/400-50Hz	DS0 300 90	1663	2480	G3"	478	FC 80
DSV 1000 MV 200R	1000	MV 200R	3 ~ 230/400-50Hz	DS0 300 91	1751	2480	G3"	592	FC 80
DSV 1000 MV 300R	1000	MV 300R	3 ~ 400/690-50Hz	DS0 300 91	1751	2480	G3"	646	FC 80

Note: As a standard, all MV... pumps are equipped with an FC... filtre adjusted to the suction connection size.

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



Art.	Tank	2 pumps	Motor execution	Switchgear	C	H	R	Weight	Filtre accessories
	Litres	Mod.	Volt	art.			Ø	Kg	art.
DSV 2000 MV 200R	2000	MV 200R	3 ~ 230/400-50Hz	DS0 300 91	1751	2450	G3"	902	FC 80
DSV 2000 MV 300R	2000	MV 300R	3 ~ 400/690-50Hz	DS0 300 91	1751	2450	G3"	926	FC 80

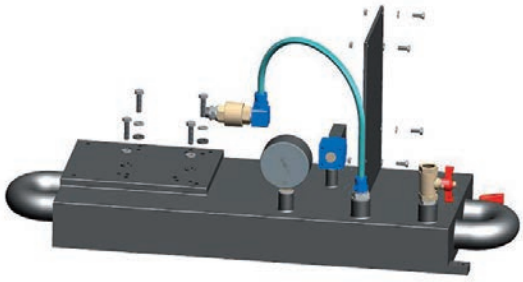
Note: As a standard, all MV... pumps are equipped with an FC... filtre adjusted to the suction connection size.

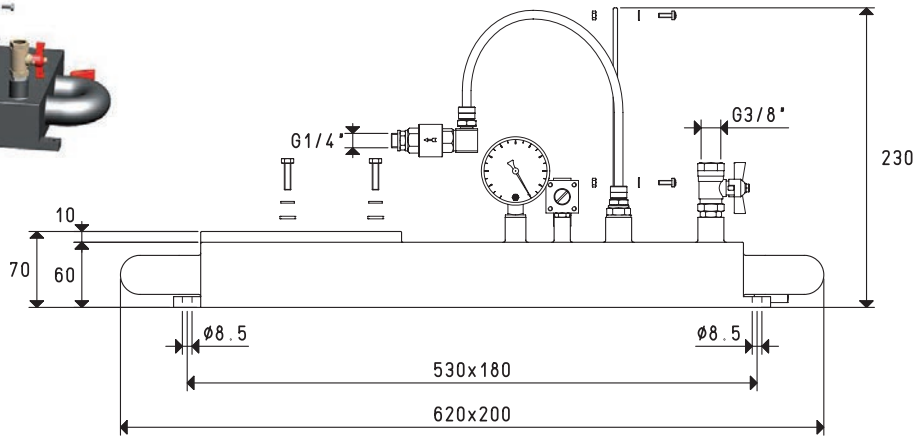
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$

GAS-NPT thread adapters available at page 1.117

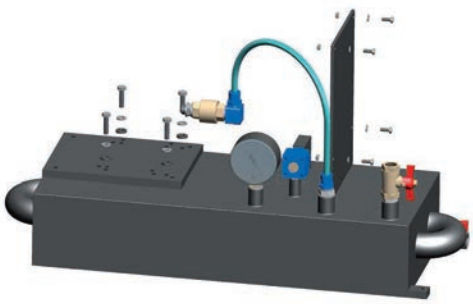
Mini pumpset tanks

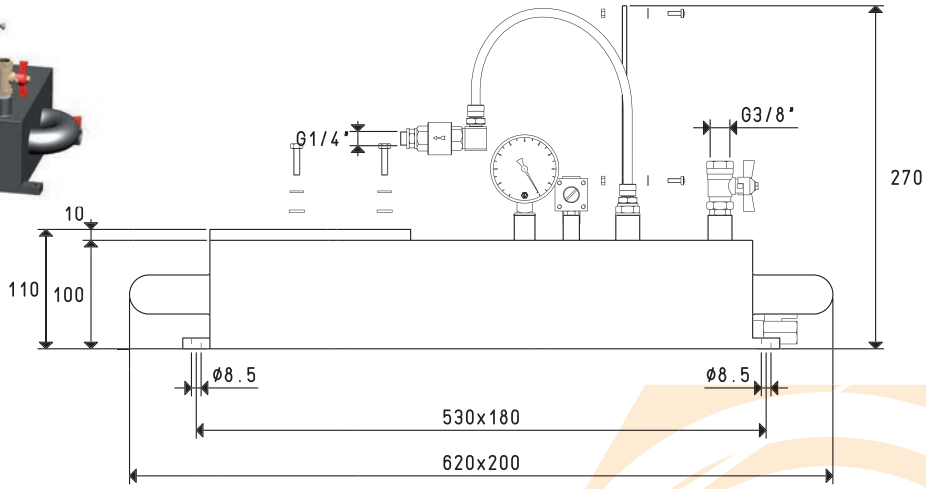
Mini pumpset tanks are horizontal and have a rectangular section.
They are made with welded sheet steel with perfect vacuum seal and varnished with special corrosion and water condensation-resistant paint.
They are set for the installation of a vacuum pump and a switchgear to be selected from those listed in the table. They are equipped with:
- A mini vaccum switch for adjusting the maximum vacuum level.
- A vacuum gauge for a direct reading of the vacuum level in the tank.
- A check valve adjusted to the pump
- A manual valve for vacuum interception.
- A cock for condensation drainage.
- Hoses, fittings and screws for fixing the pump to the tank.
Available with a 6, 10 and 20 litre volume.





Art.	Tank	Weight	For: Pump	Switchgear	Recommended filtre accessories
	Litres	Kg	Mod.	art.	art.
D0 06 01	6	7.5	VTS 2 - VTS 4 - VTS 6 - VTS 6 CC VTL 2 - VTL 4 - VTL 5 - VTL 6 CC	D0 06 90 D0 06 92 D0 06 93	FB 10 / FC 10

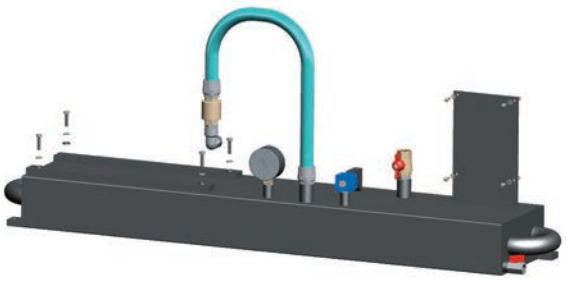


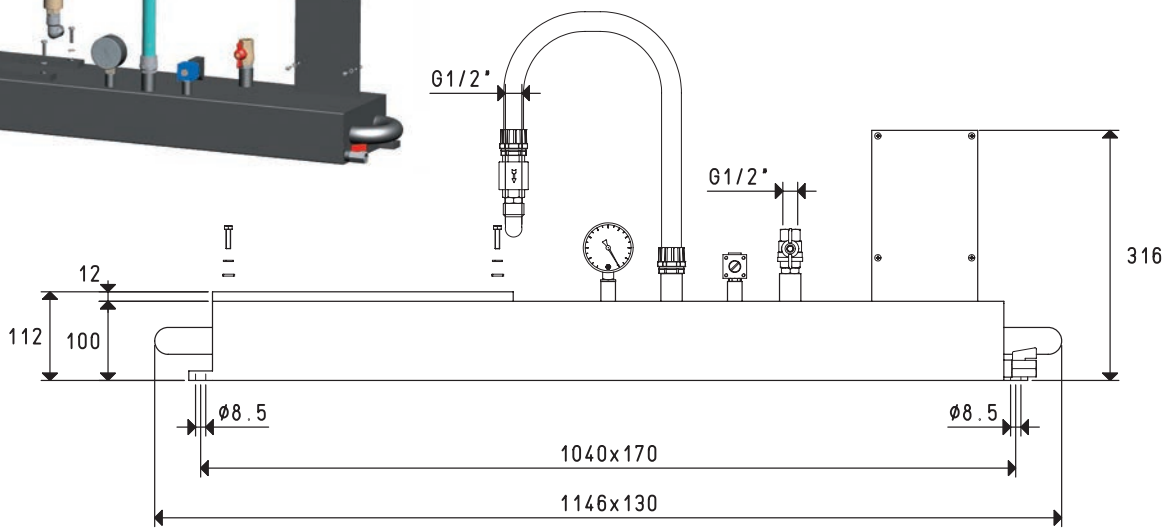


Art.	Tank	Weight	For: Pump	Switchgear	Recommended filtre accessories
	Litres	Kg	Mod.	art.	art.
D0 10 01	10	11.7	VTS 2 - VTS 4 - VTS 6 - VTS 6 CC VTL 2 - VTL 4 - VTL 5 - VTL 6 CC	D0 06 90 D0 06 92 D0 06 93	FB 10 / FC 10

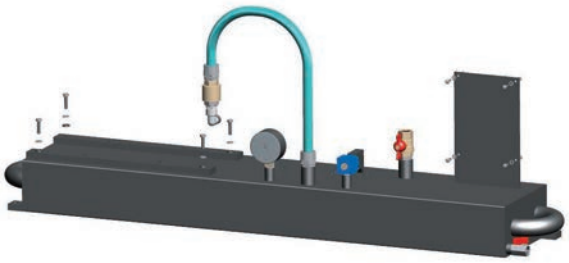
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

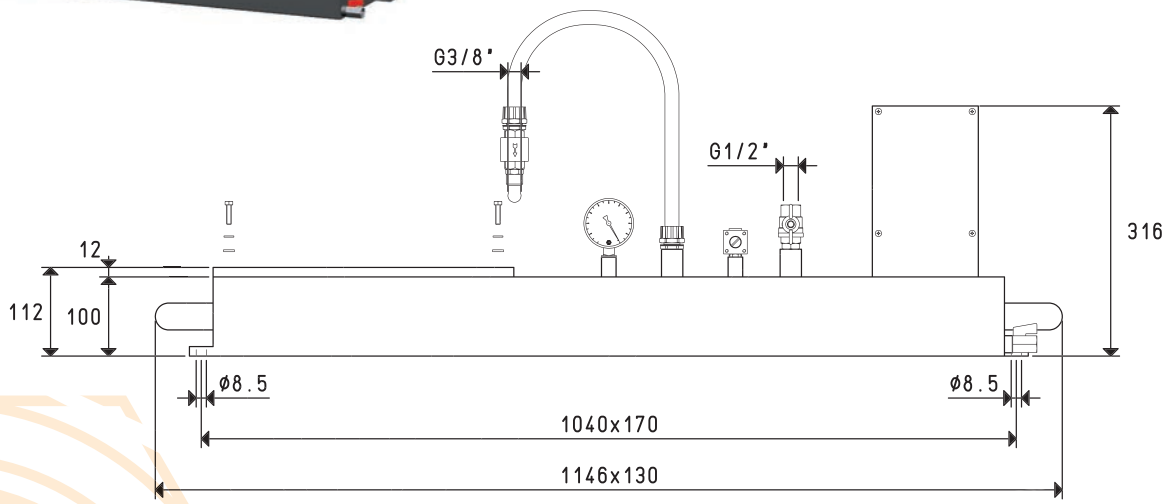
GAS-NPT thread adapters available at page 1.117





Art.	Tank	Weight	For: Pump	Switchgear	Recommended filtre accessories
	Litres	Kg	Mod.	art.	art.
D0 20 01	20	22	VTL 10 - VTL 10/F VTL 15/F - VTL 20/F - MV 20	D0 06 90 D0 06 92	FB 20 / FC 20





Art.	Tank	Weight	For: Pump	Switchgear	Recommended filtre accessories
	Litres	Kg	Mod.	art.	art.
D0 20 02	20	22	VTL 5 - VTL 6 CC	D0 06 90 D0 06 92 D0 06 93	FB 20 / FC 20

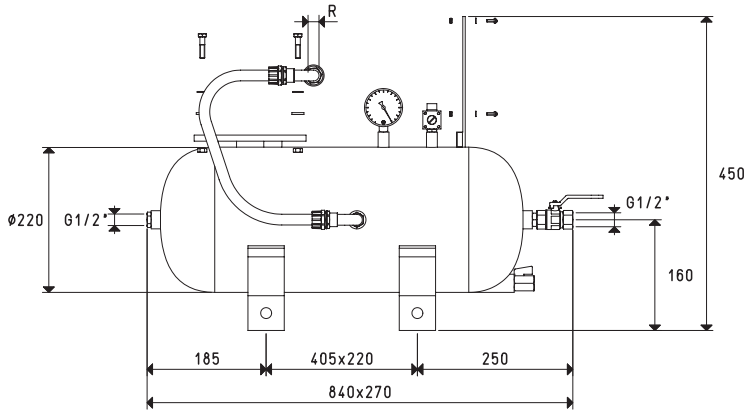
3D drawings available at **www.vuototecnica.net**

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

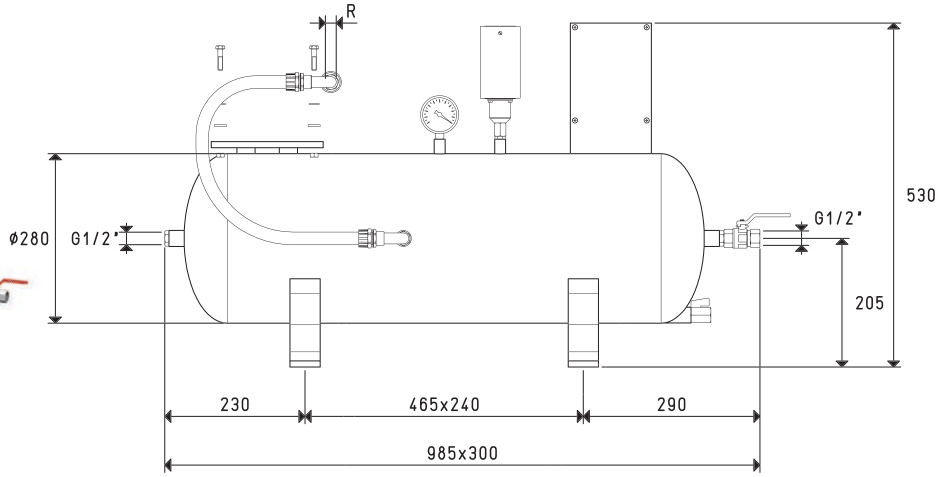
TANKS FOR HORIZONTAL PUMPSETS WITH ONE VACUUM PUMP

Horizontal pumpset tanks have a circular section.
They are made with welded sheet steel with perfect vacuum seal and are varnished with special corrosion and water condensation-resistant paint.
They are set for the installation of a vacuum pump and a switchgear to be selected among those in the table, and are equipped with:
- 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 check valve for the pumps that do not have them.
- A manual valve for vacuum interception.
- A cock for condensation drainage.
- Hoses, fittings and screws for fixing the pump to the tank.
Available with various volumes, from 25 to 1000 litres.



Art.	Tank	Weight	R	For: Pump	For: Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
DO 25 01	25	17	G3/8"	VTL 5	DO 06 90 DO 06 92	FB 20 / FC 20
DO 25 02	25	17	G1/2"	VTL 6 CC - VTL 10	DO 06 90 DO 06 92 DO 06 93	FB 20 / FC 20

Note: By adding the letters RS, the pumpset will be supplied with wheels (E.g.: DO 25 01 SR).



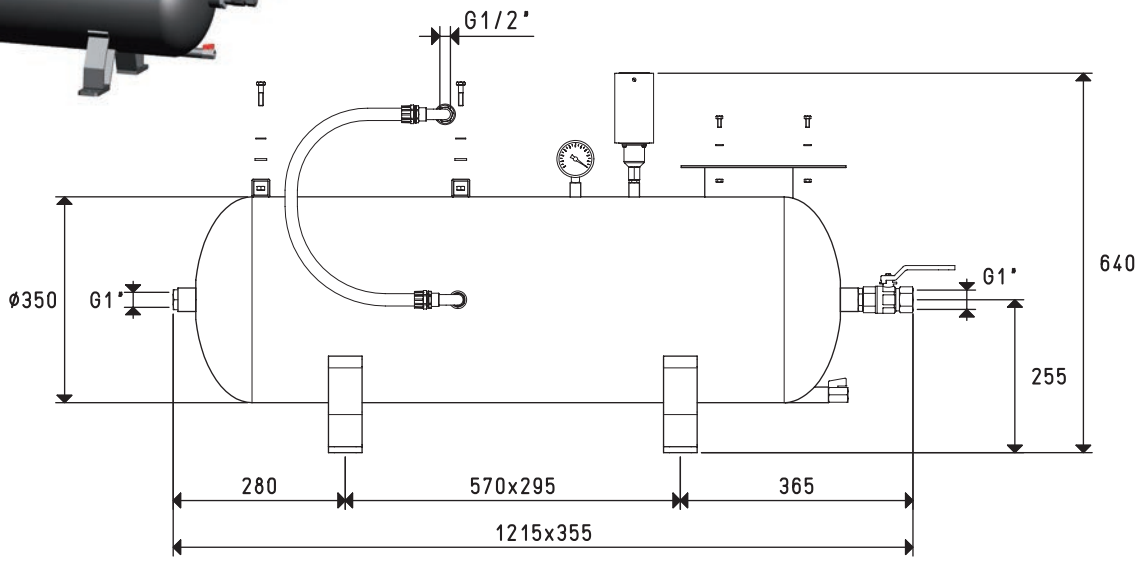
Art.	Tank	Weight	R	For: Pump	For: Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
DO 50 01	50	23	G3/8"	VTL 5	DO 06 90 DO 06 92	FB 20 / FC 20
DO 50 02	50	23	G1/2"	VTL 6 CC - VTL 10	DO 06 90 DO 06 92 DO 06 93	FB 20 / FC 20

Note: By adding the letters RS, the pumpset will be supplied with wheels (E.g.: DO 50 01 SR).

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

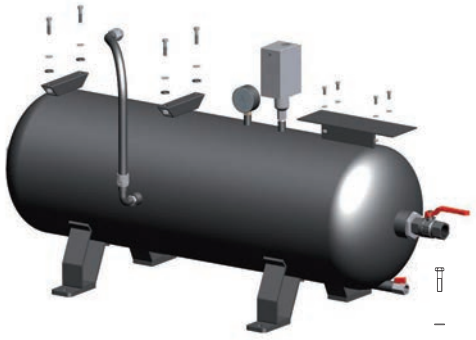
GAS-NPT thread adapters available at page 1.117

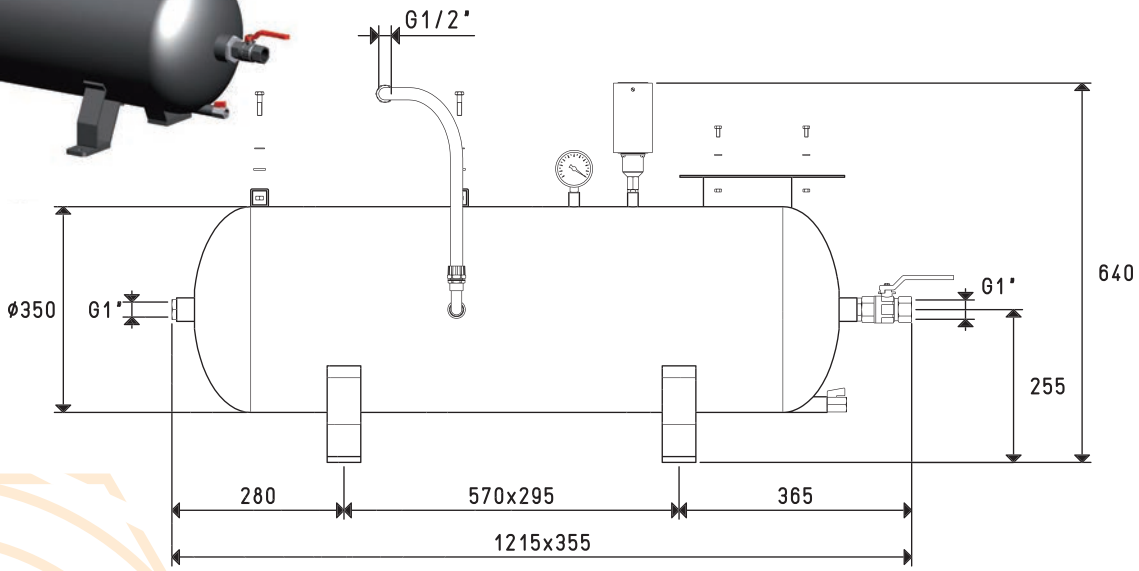
TANKS FOR HORIZONTAL PUMPSETS WITH ONE PUMP



Art.	Tank	Weight	For: Pump	Switchgear	Recommended filtre accessories
	Litres	Kg	Mod.	art.	art.
D0 100 01	100	31.6	VTL 10/F - VTL 15/F - VTL 20/F	D0 100 89 D0 100 90	FB 30 / FC 30

Note: By adding the letters RS, the pumpset will be supplied with wheels (E.g.: D0 100 01 SR).



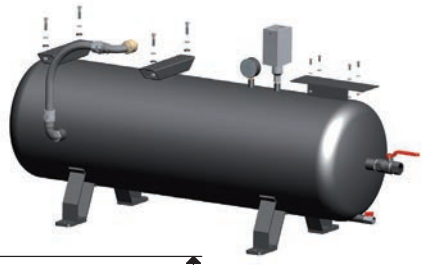


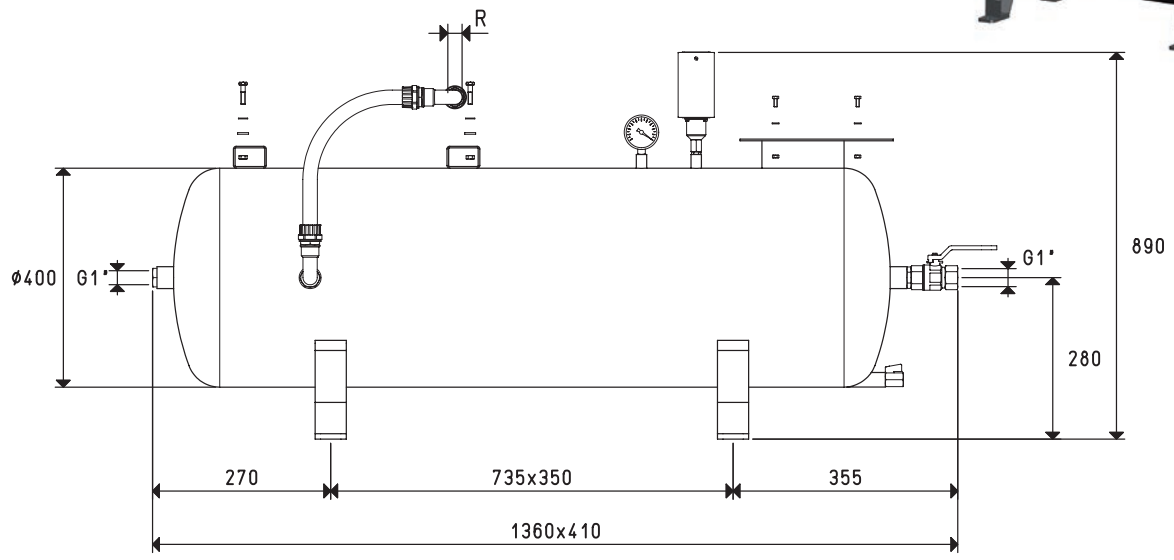
Art.	Tank	Weight	For: Pump	Switchgear	Recommended filtre accessories
	Litres	Kg	Mod.	art.	art.
D0 100 02	100	31.6	MV 20	D0 100 89 D0 100 90	FB 30 / FC 30

Note: By adding the letters RS, the pumpset will be supplied with wheels (E.g.: D0 100 02 SR).

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

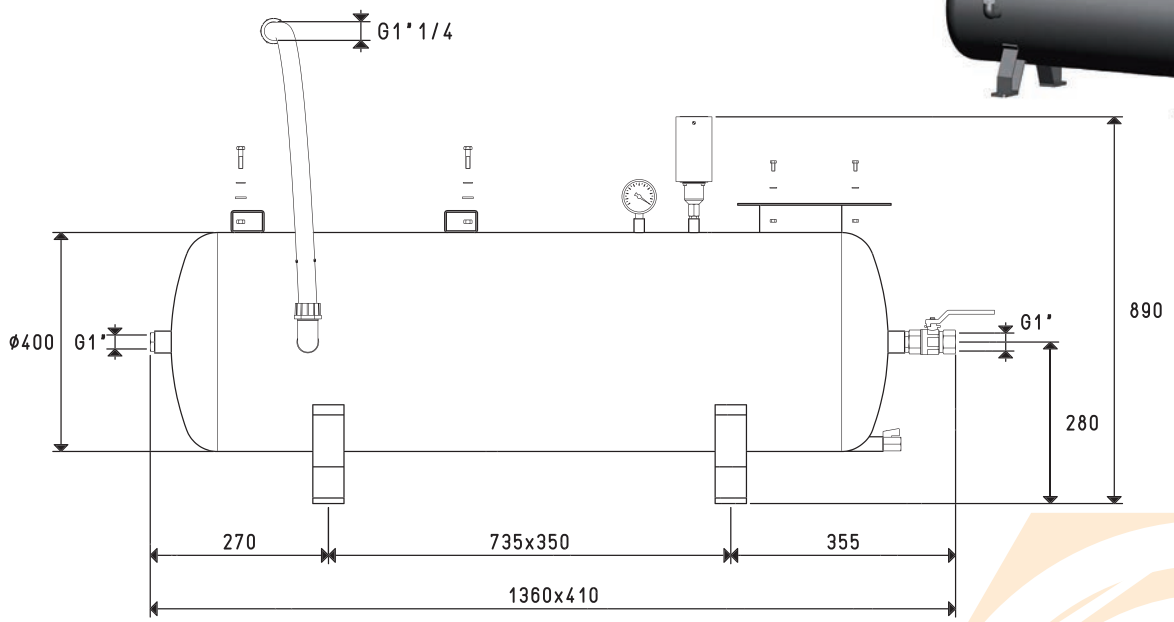
GAS-NPT thread adapters available at page 1.117





Art.	Tank	Weight	R	For: Pump	For: Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
DO 150 01	150	39	G3/4"	VTL 25/FG - VTL 30/FG - VTL 35/FG	DO 100 90	FB 30 / FC 30
DO 150 02	150	39	G1"	VTL 50/G1 - VTL 75 /G1	DO 100 90	FB 30 / FC 30

Note: By adding the letters RS, the pumpset will be supplied with wheels (E.g.: DO 150 01 SR).



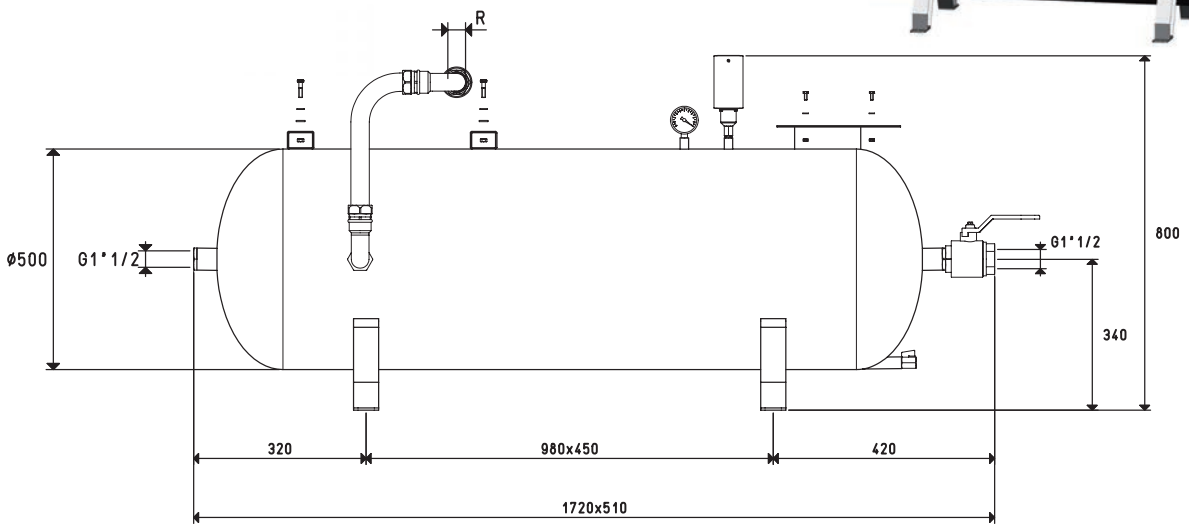
Art.	Tank	Weight	For: Pump	For: Switchgear	Recommended filtre accessories
	Litres	Kg	Mod.	art.	art.
DO 150 03	150	39	MV 40 - MV 60	DO 100 90	FB 30 / FC 30

Note: By adding the letters RS, the pumpset will be supplied with wheels (E.g.: DO 150 03 SR).

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

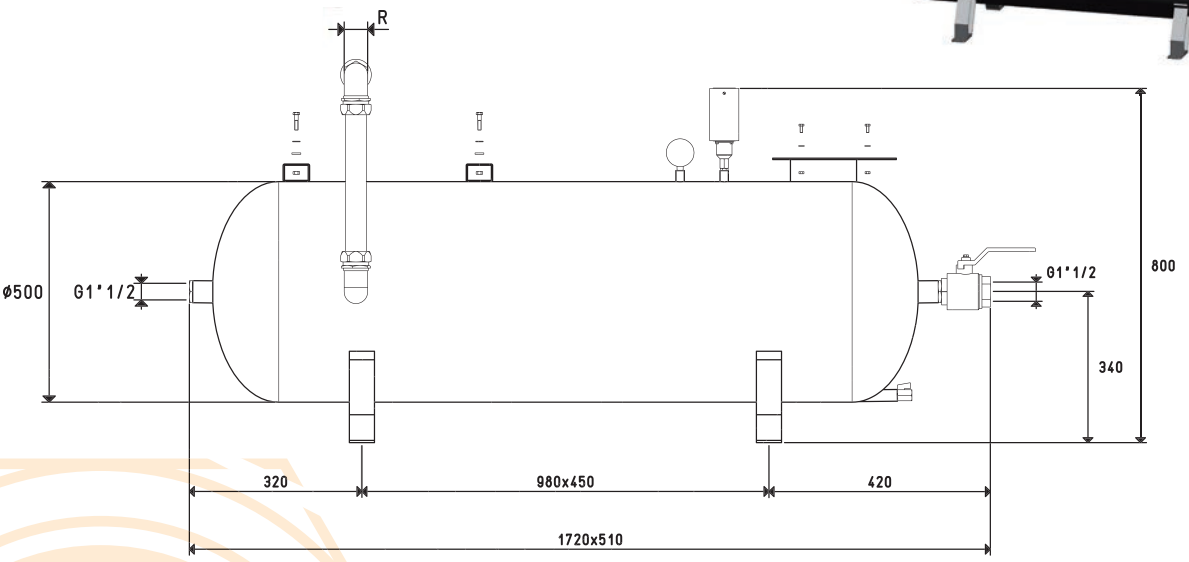
GAS-NPT thread adapters available at page 1.117

TANKS FOR HORIZONTAL PUMPSETS WITH ONE PUMP



Art.	Tank	Weight	R	For: Pump	For: Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
DO 300 02	300	73	G1"1/4	VTL 75/G1	DO 100 90	FB 50 / FC 50
DO 300 03	300	73	G1"1/2	VTL 105/G1	DO 100 90	FB 50 / FC 50

Note: By adding the letters RS, the pumpset will be supplied with wheels (E.g.: DO 300 02 SR).

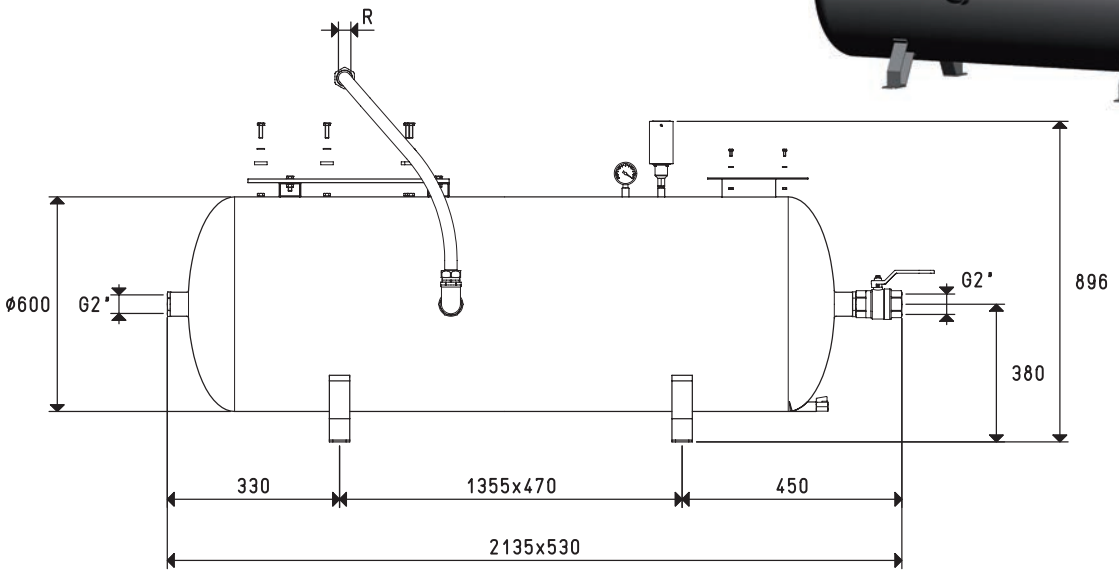


Art.	Tank	Weight	R	For: Pump	For: Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
DO 300 04	300	73	G1"1/4	MV 60 - MV 100	DO 100 90	FB 50 / FC 50
DO 300 05	300	73	G1"1/2	MV 160R	DO 100 90	FB 50 / FC 50

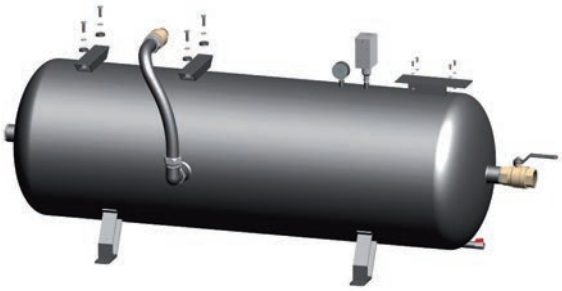
Note: By adding the letters RS, the pumpset will be supplied with wheels (E.g.: DO 300 04 SR).

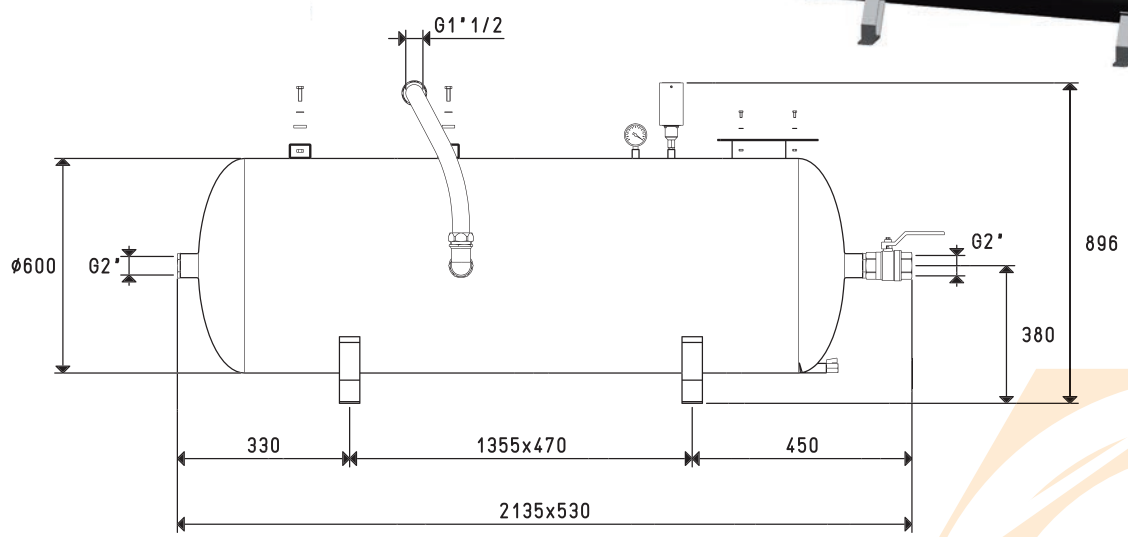
Conversion ratio: inch $= \frac{mm}{25.4}$; pounds $= \frac{g}{453.6} = \frac{Kg}{0.4536}$

GAS-NPT thread adapters available at page 1.117



Art.	Tank	Weight	R	For: Pump	Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
DO 500 01	500	143	G1"1/4	MV 100	DO 100 90	FB 60 / FC 60
DO 500 04	500	143	G1"1/2	MV 160R	DO 100 90	FB 60 / FC 60
DO 500 03	500	143	G2"	MV 200R - MV 300R	DO 100 91	FB 60 / FC 60



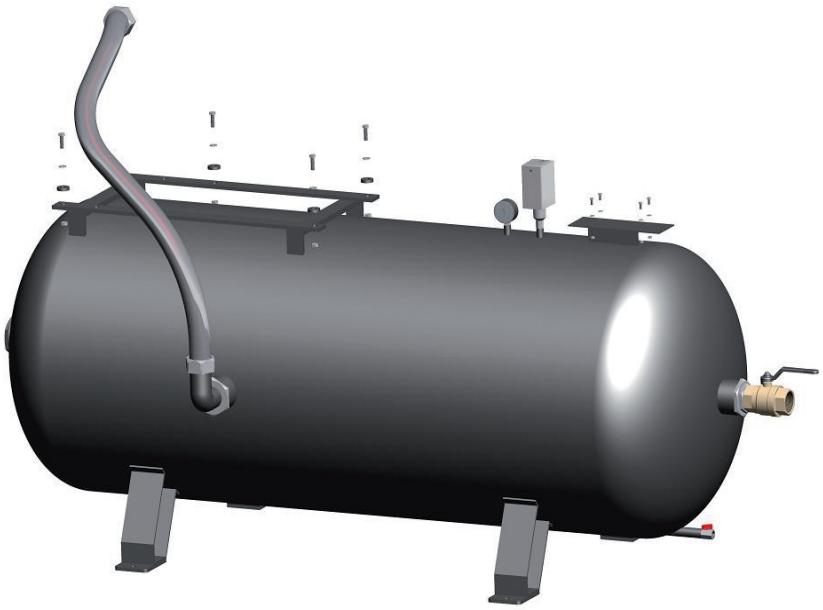


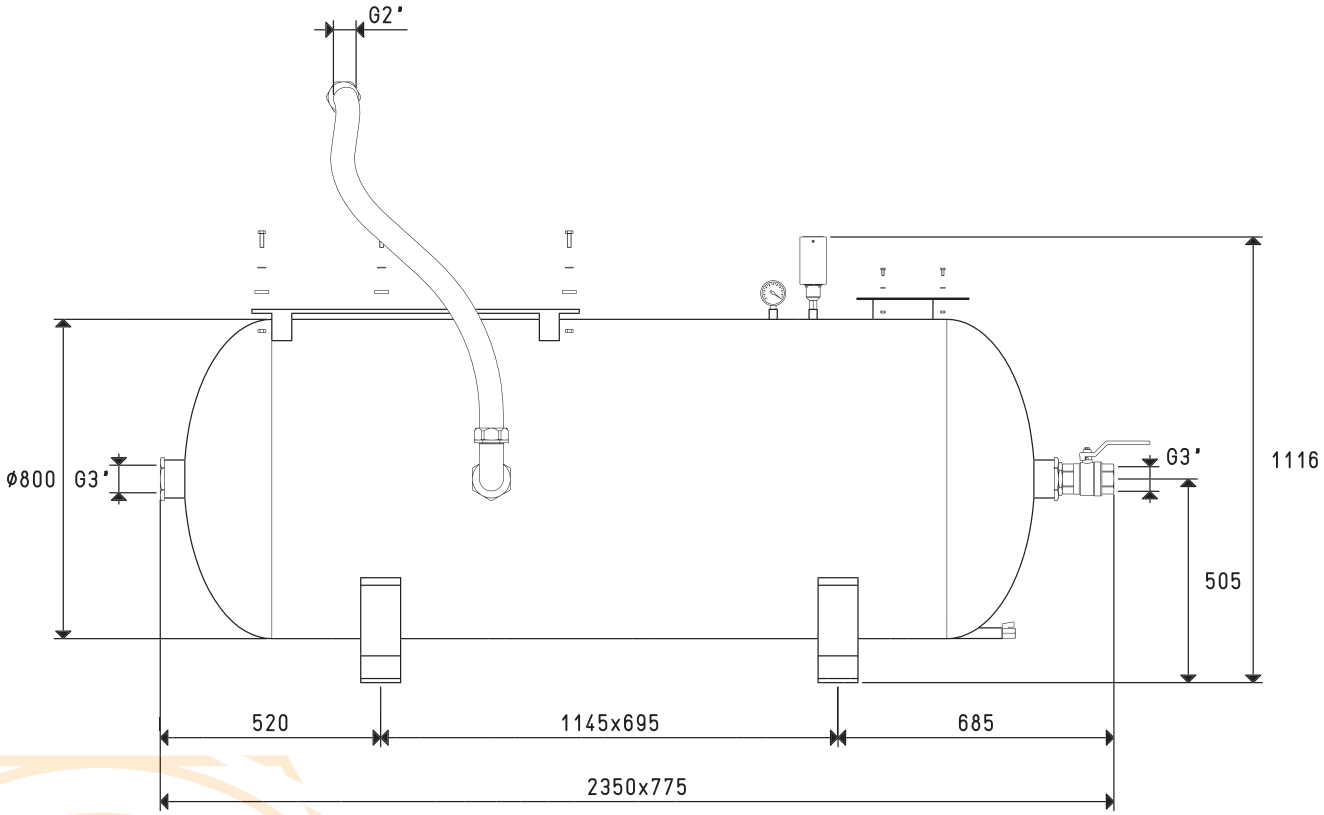
Art.	Tank	Weight	For: Pump	Switchgear	Recommended filtre accessories
	Litres	Kg	Mod.	art.	art.
DO 500 02	500	143	VTL 105/G1	DO 100 90	FB 60 / FC 60

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

TANKS FOR HORIZONTAL PUMPSETS WITH ONE PUMP



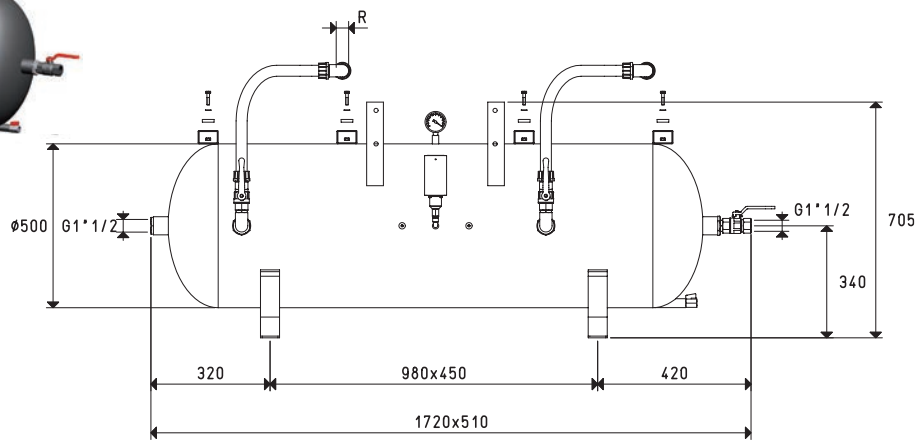


Art.	Tank	Weight	For: Pump	Switchgear	Recommended filtre accessories
	Litres	Kg	Mod.	art.	art.
D0 1000 02	1000	235	MV 200R - MV 300R	D0 100 91	FC 80

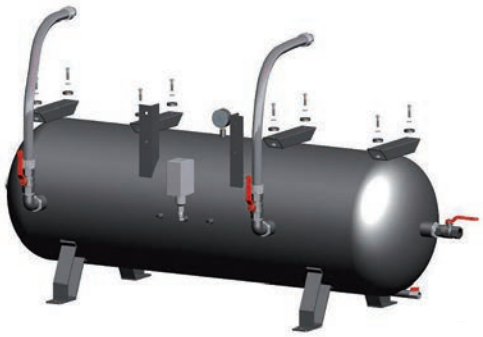
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$

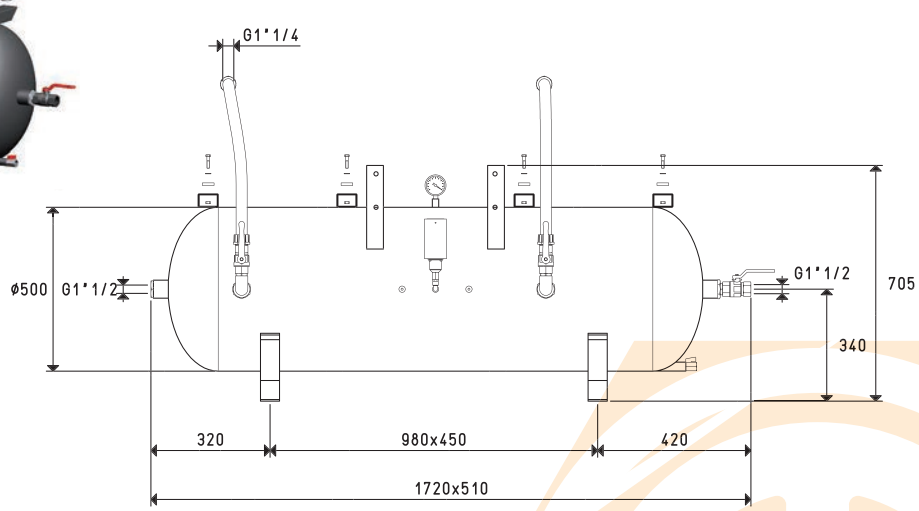
GAS-NPT thread adapters available at page 1.117

Horizontal pumpset tanks have a circular section.
They are made with welded sheet steel with perfect vacuum seal and are varnished with special corrosion and water condensation-resistant paint.
They are set for the installation of two vacuum pumps and a switchgear to be selected among those in the table, and are equipped with:
- 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.
- Two check valves for the pumps that do not have them.
- Two manual valves for pump exclusion.
- A manual valve for vacuum interception.
- A cock for condensation drainage.
- Hoses, fittings and screws for connecting and fixing the pumps to the tank.
Available with various volumes, from 300 to 1000 litres.



Art.	Tank	Weight	R	For: 2 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
D20 300 01	300	143	G1"	VTL 50/G1	D2V 150 90	FB 50 / FC 50
D20 300 03	300	143	G1"1/4	VTL 75/G1	D2V 150 90	FB 50 / FC 50
D20 300 04	300	143	G1"1/2	VTL 105/G1	D2V 150 90	FB 50 / FC 50



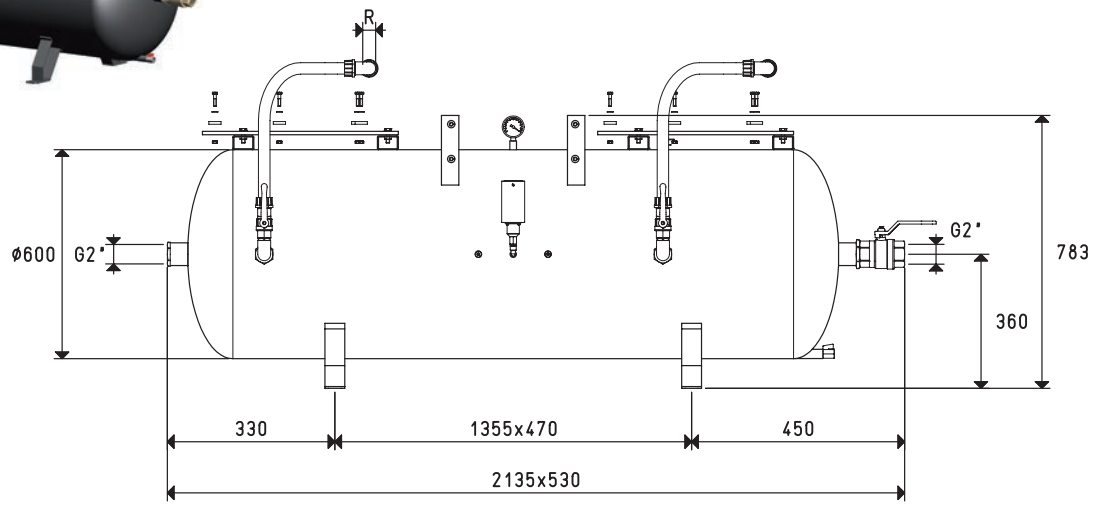


Art.	Tank	Weight	For: 2 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Mod.	art.	art.
D20 300 02	300	143	MV 40 - MV 60 - MV 100	D2V 150 90	FB 50 / FC 50

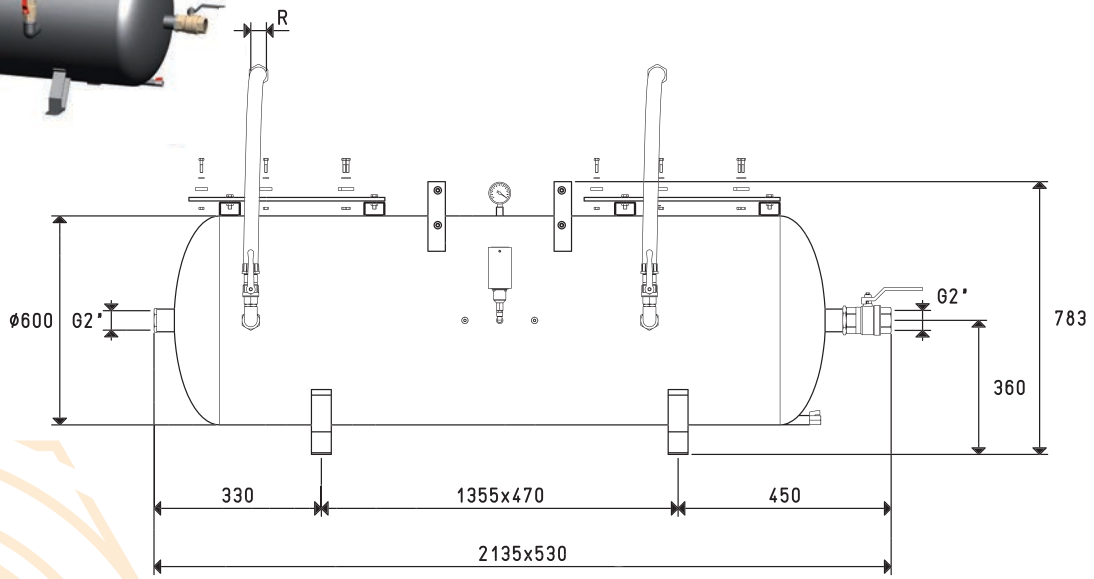
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

GAS-NPT thread adapters available at page 1.117

TANKS FOR HORIZONTAL PUMPSETS WITH TWO PUMPS



Art.	Tank	Weight	R	For: 2 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
D20 500 01	500	155	G1"	VTL 50/G1	D2V 150 90	FB 60 / FC 60
D20 500 02	500	155	G1"1/4	VTL 75/G1	D2V 150 90	FB 60 / FC 60
D20 500 04	500	155	G1"1/2	VTL 105/G1	D2V 150 90	FB 60 / FC 60

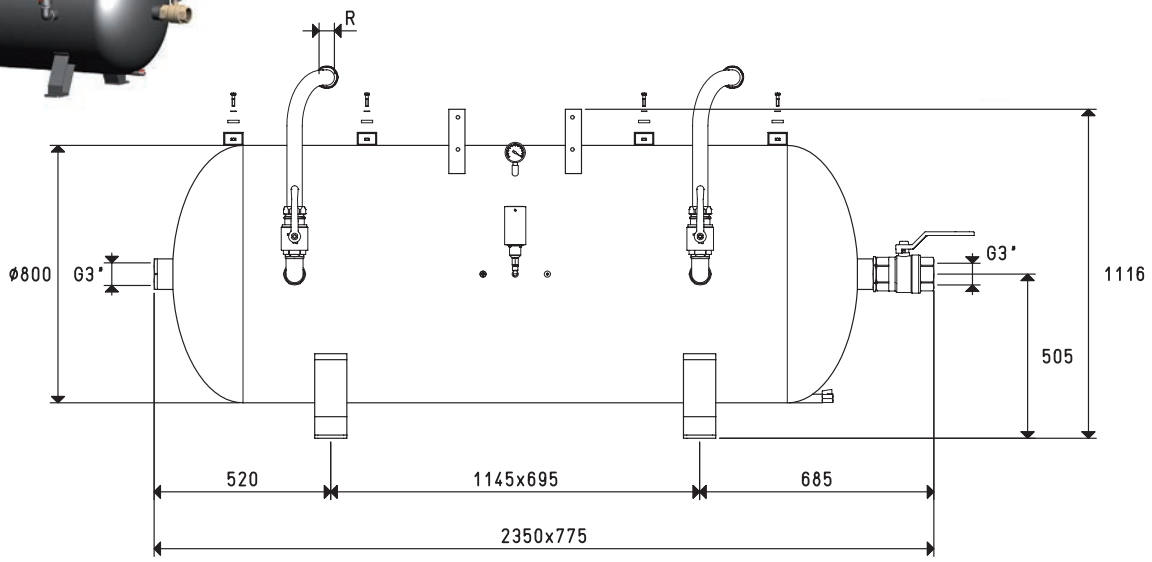


Art.	Tank	Weight	R	For: 2 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
D20 500 03	500	155	G1"1/4	MV 60 - MV 100	D2V 150 90	FB 60 / FC 60
D20 500 05	500	155	G1"1/2	MV 160R	D2V 150 90	FB 60 / FC 60

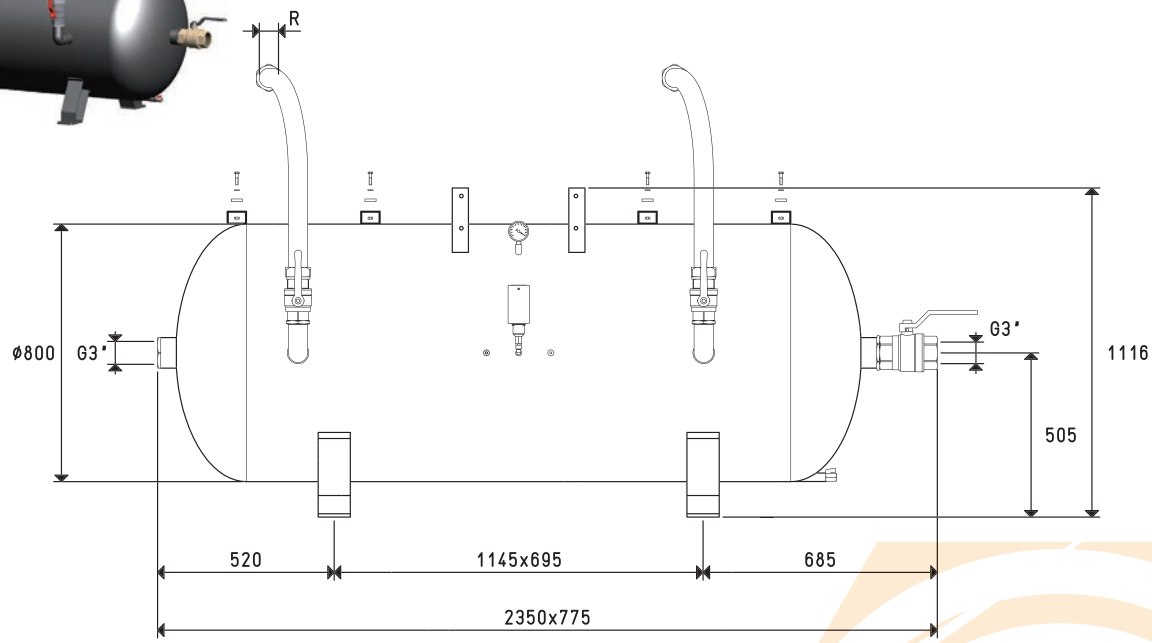
3D drawings available at **www.vuototecnica.net**

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



Art.	Tank	Weight	R	For: 2 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
D20 1000 02	1000	210	G1"1/4	VTL 75/G1	D2V 150 90	FC 80
D20 1000 04	1000	210	G1"1/2	VTL 105/G1	D2V 150 90	FC 80



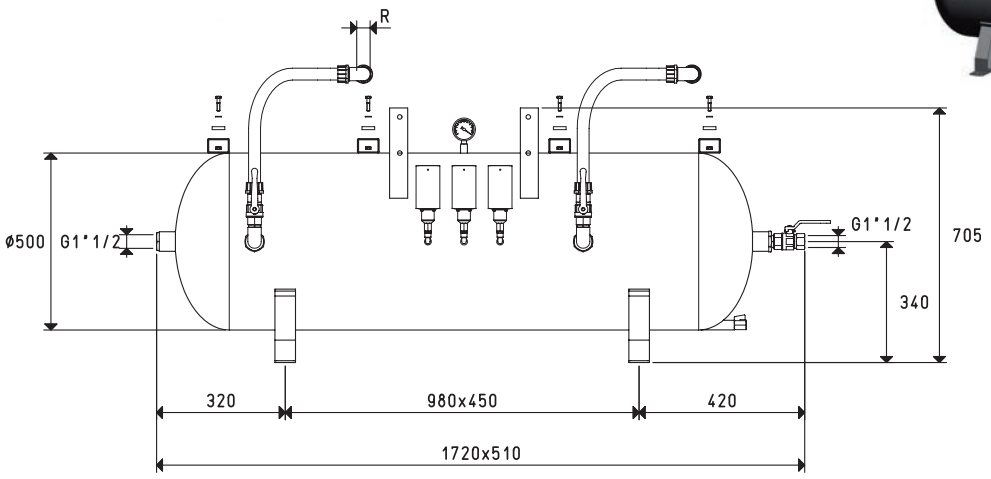
Art.	Tank	Weight	R	For: 2 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
D20 1000 03	1000	210	G1"1/4	MV 60 - MV 100	D2V 150 90	FC 80
D20 1000 05	1000	210	G1"1/2	MV 160R	D2V 150 90	FC 80
D20 1000 06	1000	210	G2"	MV 200R - MV 300R	D2V 150 91	FC 80

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

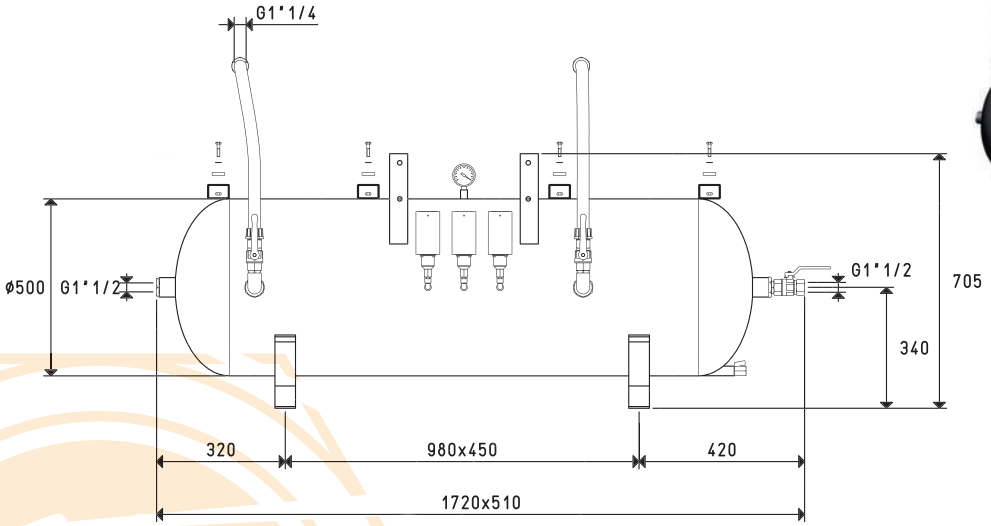
GAS-NPT thread adapters available at page 1.117

TANKS FOR HORIZONTAL SAFETY PUMPSETS WITH TWO PUMPS

Horizontal safety pumpset tanks have a circular section.
They are made with welded sheet steel with perfect vacuum seal and are varnished with special corrosion and water condensation-resistant paint.
They are set for the installation of two vacuum pumps and a switchgear, to be selected among those in the table, and are equipped with:
- Three vacuum switches, of which two are for adjusting the vacuum level within which each pump must operate and one is for determining the minimum safety value, under which the alarm sets off.
- A vacuum gauge for a direct reading of the vacuum level in the tank.
- Two check valves for the pumps that do not have them.
- Two manual valves for pump exclusion.
- A manual valve for vacuum interception.
- A cock for condensation drainage.
- Hoses, fittings and screws for connecting and fixing the pumps to the tank.
Available with various volumes, from 300 to 1000 litres.



Art.	Tank	Weight	R	For: 2 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
DS0 300 01	300	145	G1"	VTL 50/G1	DS0 300 90	FB 50 / FC 50
DS0 300 03	300	145	G1"1/4	VTL 75/G1	DS0 300 90	FB 50 / FC 50
DS0 300 04	300	145	G1"1/2	VTL 105/G1	DS0 300 90	FB 50 / FC 50

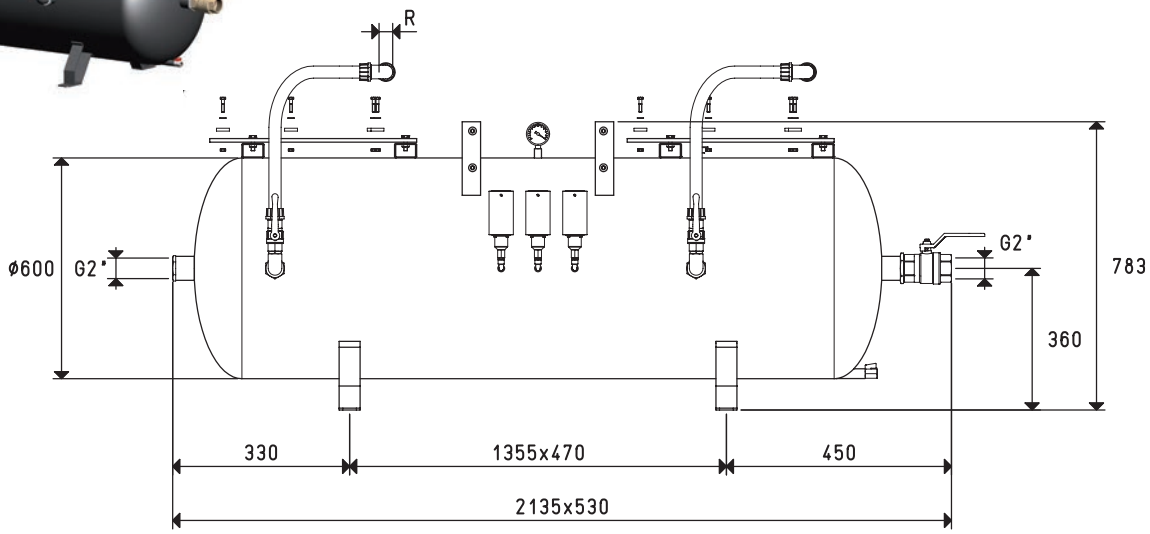


Art.	Tank	Weight	For: 2 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Mod.	art.	art.
DS0 300 02	300	145	MV 40 - MV 60 - MV 100	DS0 300 90	FB 50 / FC 50

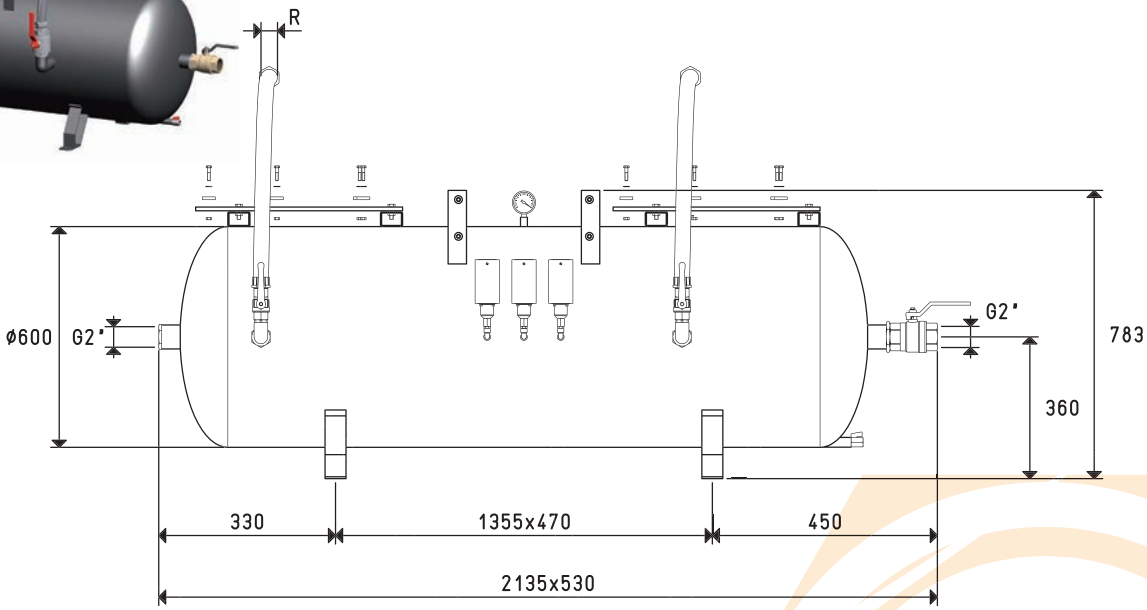
3D drawings available at **www.vuototecnica.net**

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



Art.	Tank	Weight	R	For: 2 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
DS0 500 01	500	157	G1"	VTL 50/G1	DS0 300 90	FB 60 / FC 60
DS0 500 02	500	157	G1"1/4	VTL 75/G1	DS0 300 90	FB 60 / FC 60
DS0 500 04	500	157	G1"1/2	VTL 105/G1	DS0 300 90	FB 60 / FC 60

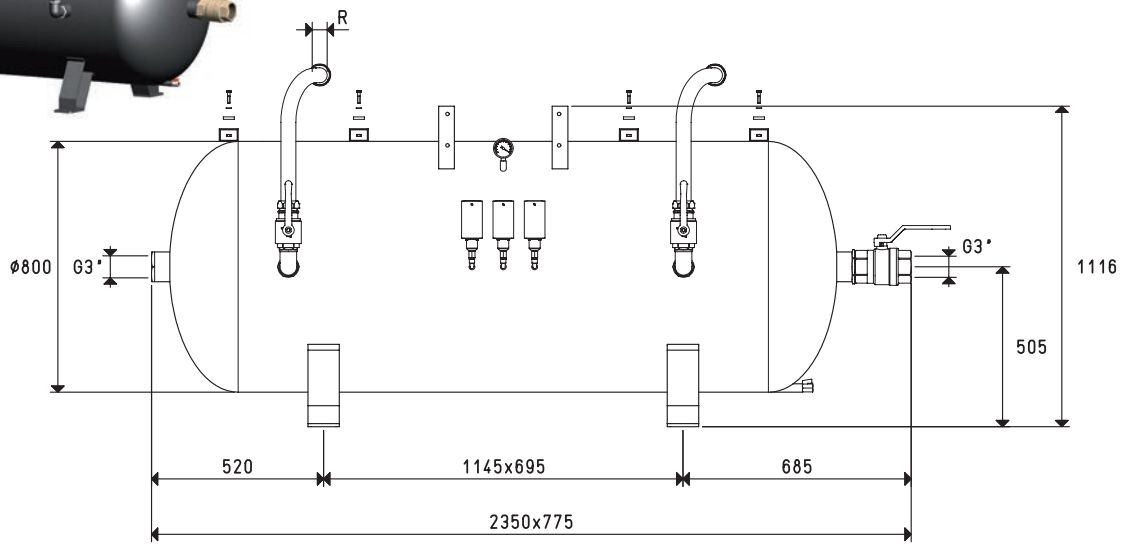


Art.	Tank	Weight	R	For: 2 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
DS0 500 03	500	157	G1"1/4	MV 60 - MV 100	DS0 300 90	FB 60 / FC 60
DS0 500 05	500	157	G1"1/2	MV 160R	DS0 300 90	FB 60 / FC 60

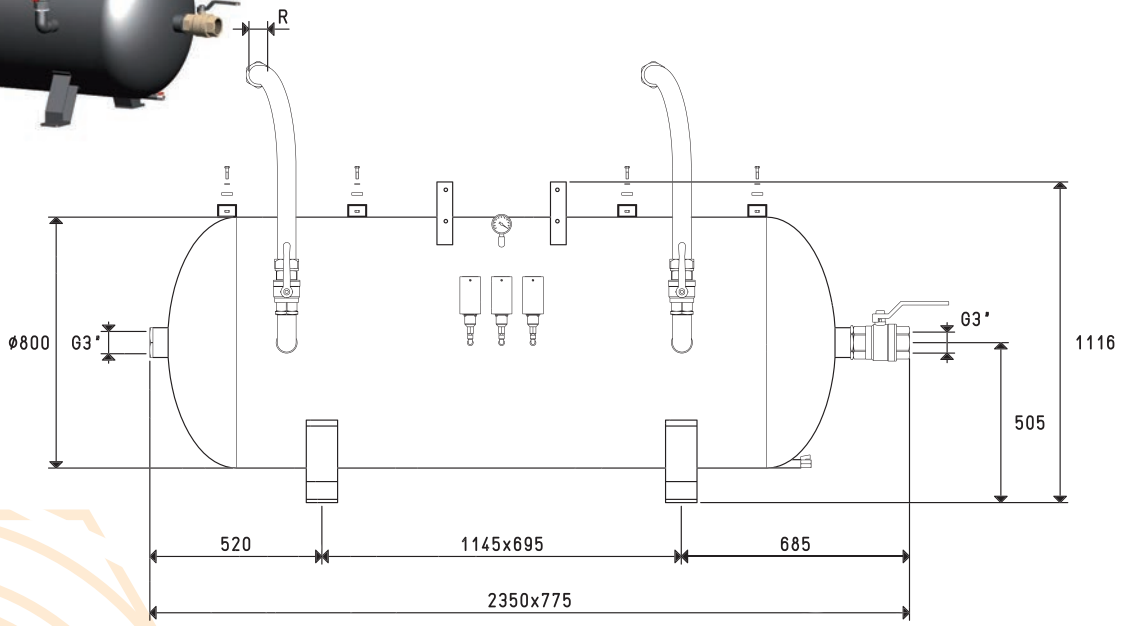
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

GAS-NPT thread adapters available at page 1.117

TANKS FOR HORIZONTAL SAFETY PUMPSETS WITH TWO PUMPS



Art.	Tank	Weight	R	For: 2 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
DS0 1000 02	1000	212	G1"1/4	VTL 75/G1	DS0 300 90	FC 80
DS0 1000 04	1000	212	G1"1/2	VTL 105/G1	DS0 300 90	FC 80



Art.	Tank	Weight	R	For: 2 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
DS0 1000 03	1000	212	G1"1/4	MV 60 - MV 100	DS0 300 90	FC 80
DS0 1000 05	1000	212	G1"1/2	MV 160R	DS0 300 90	FC 80
DS0 1000 06	1000	212	G2"	MV 200R - MV 300R	DS0 300 91	FC 80

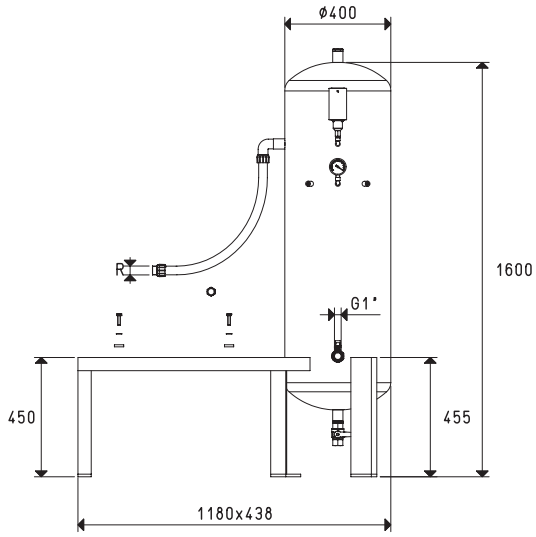
3D drawings available at **www.vuototecnica.net**

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

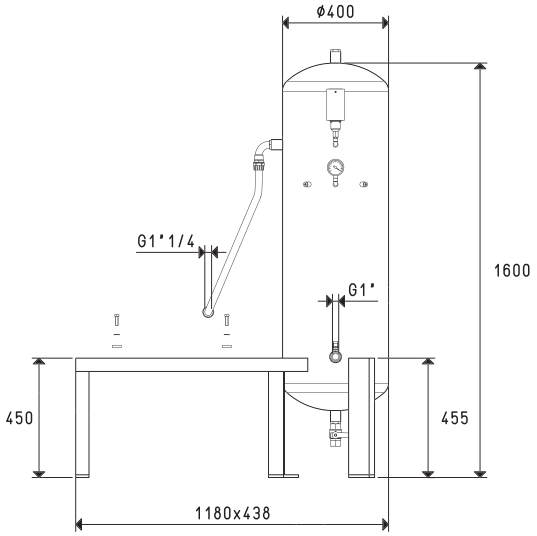
GAS-NPT thread adapters available at page 1.117

TANKS FOR VERTICAL PUMPSETS WITH ONE VACUUM PUMP

Vertical pumpset tanks have a circular section and are made with welded sheet steel with perfect vacuum seal, while the pump support frame, which is welded to the tank, is made with profiled steel.
Both the tank and the support frame are varnished with special corrosion and water condensation-resistant paint.
They are set for the installation of a vacuum pump and a switchgear to be selected among those in the table, and are equipped with:
- 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 check valve for the pumps that do not have them.
- A manual valve for vacuum interception.
- A cock for condensation drainage.
- Hoses and fittings for connecting the pump to the tank and screws for fixing it to the support frame.
Available with various volumes, from 150 to 1000 litres.



Art.	Tank	Weight	R	For: Pump	For: Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
DV 150 01	150	63	G3/4"	VTL 25/FG - VTL 30/FG - VTL 35/FG	D0 100 90	FB 30 / FC 30
DV 150 02	150	63	G1"	VTL 50/G1 - VTL 75/G1	D0 100 90	FB 30 / FC 30

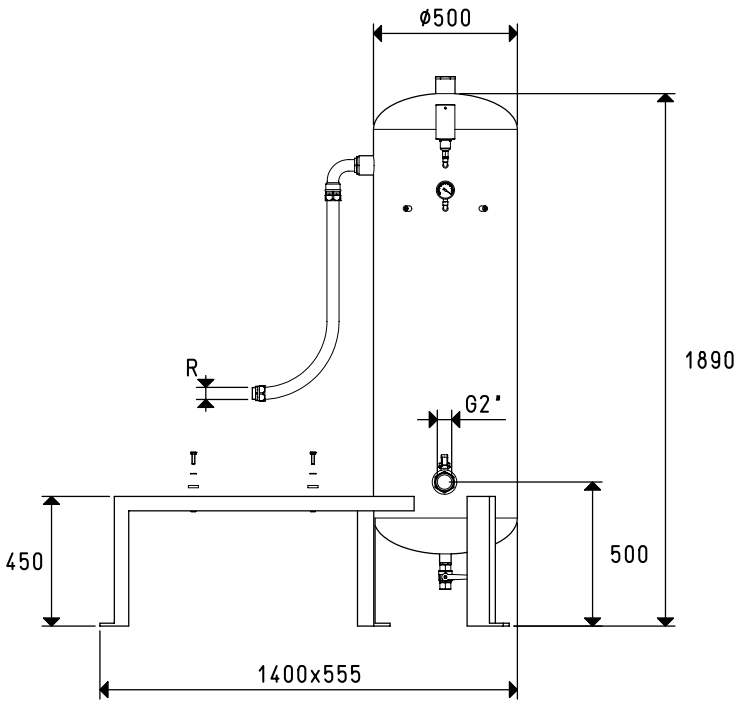


Art.	Tank	Weight	For: 2 pumps	For: Switchgear	Recommended filtre accessories
	Litres	Kg	Mod.	art.	art.
DV 150 03	150	63	MV 40 - MV 60	D0 100 90	FB 30 / FC 30

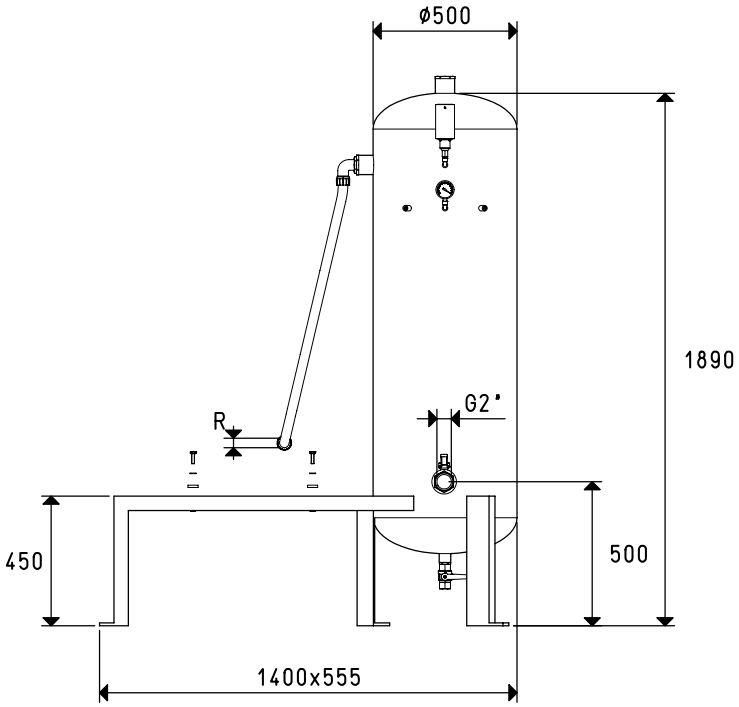
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

GAS-NPT thread adapters available at page 1.117

TANKS FOR VERTICAL PUMPSETS WITH ONE PUMP



Art.	Tank	Weight	R	For: Pump	Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
DV 300 01	300	75	G1"1/4	MV 40 - MV 60 - MV 100	D0 100 90	FB 60 / FC 60
DV 300 04	300	75	G1"1/2	MV 160R	D0 100 90	FB 60 / FC 60

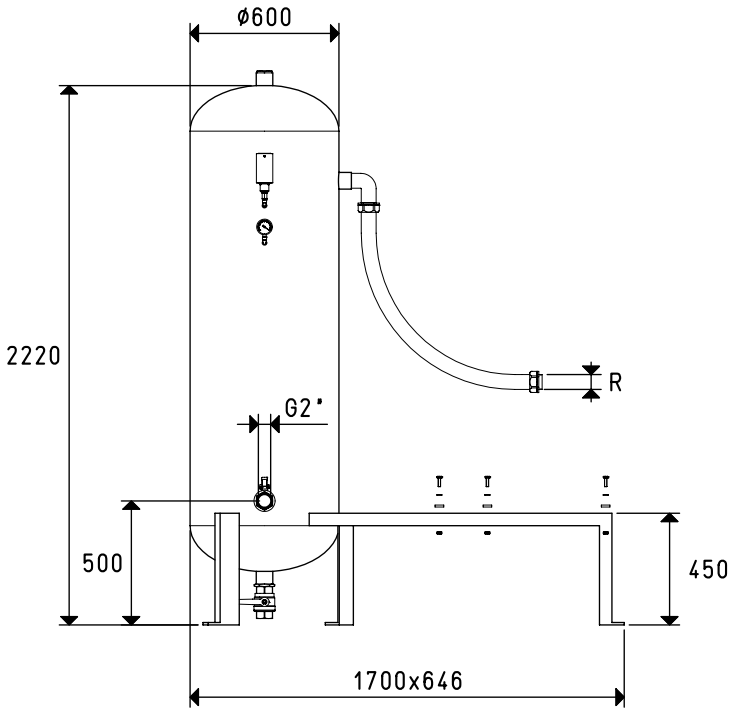


Art.	Tank	Weight	R	For: Pump	Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
DV 300 02	300	75	G1"	VTL 50/G1	D0 100 90	FB 60 / FC 60
DV 300 03	300	75	G1"1/4	VTL 75/G1 - VTL 105/G1	D0 100 90	FB 60 / FC 60

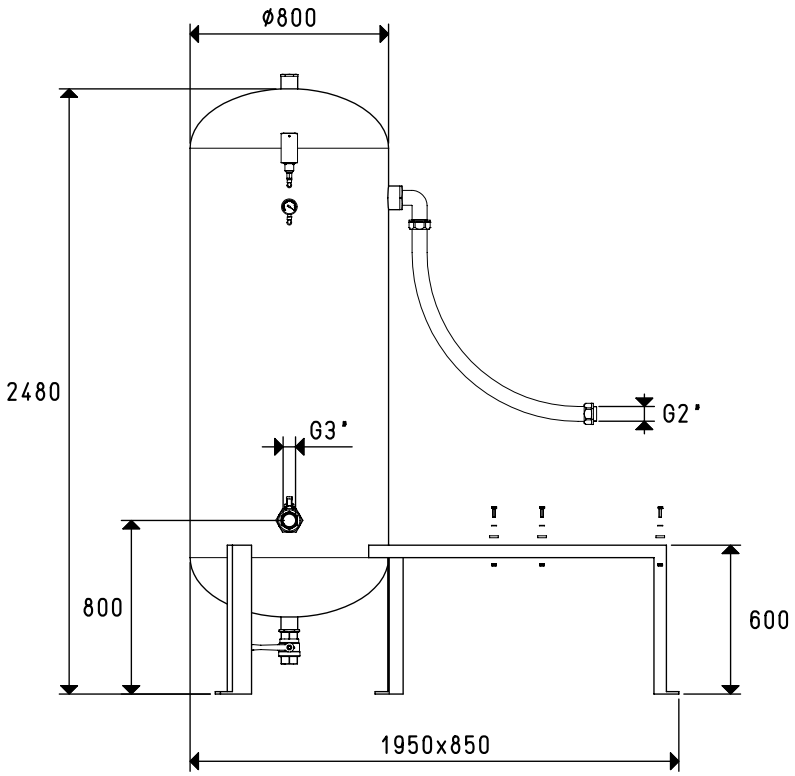
3D drawings available at **www.vuototecnica.net**

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



Art.	Tank	Weight	R	For: Pump	For: Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
DV 500 02	500	165	G1"1/2	MV 160R	D0 100 90	FB 60 / FC 60
DV 500 03	500	165	G2"	MV 200R - MV 300R	D0 100 91	FB 60 / FC 60



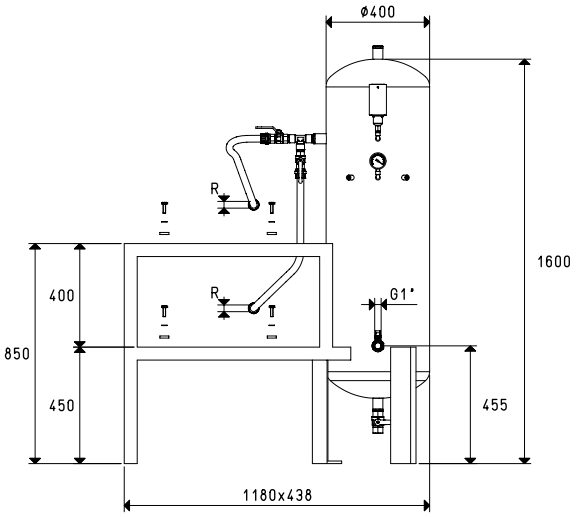
Art.	Tank	Weight	For: Pump	For: Switchgear	Recommended filtre accessories
	Litres	Kg	Mod.	art.	art.
DV 1000 03	1000	214	MV 200R - MV 300R	D0 100 91	FC 80

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

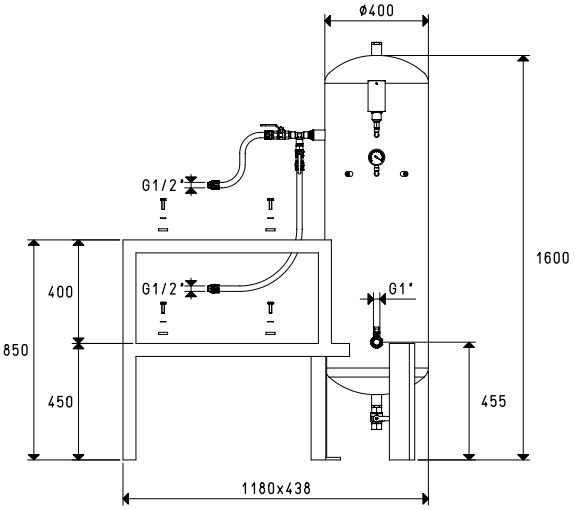
GAS-NPT thread adapters available at page 1.117

TANKS FOR VERTICAL PUMPSETS WITH TWO VACUUM PUMPS

Vertical pumpset tanks have a circular section and are made with welded sheet steel with perfect vacuum seal, while the pump support frame, which is welded to the tank with volume up to 500 litres and is autonomous over that capacity, is made with profiled steel.
Both the tank and the support frame are varnished with special corrosion and water condensation-resistant paint.
They are set for the installation of two vacuum pumps and a switchgear, to be selected among those in the table, and are equipped with:
- 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.
- Two check valves for the pumps that do not have them.
- Two manual valves for pump exclusion.
- A manual valve for vacuum interception.
- A cock for condensation drainage.
- Hoses and fittings for connecting the pumps to the tank and screws for fixing them to the support frame.
Available with various volumes, from 150 to 2000 litres.



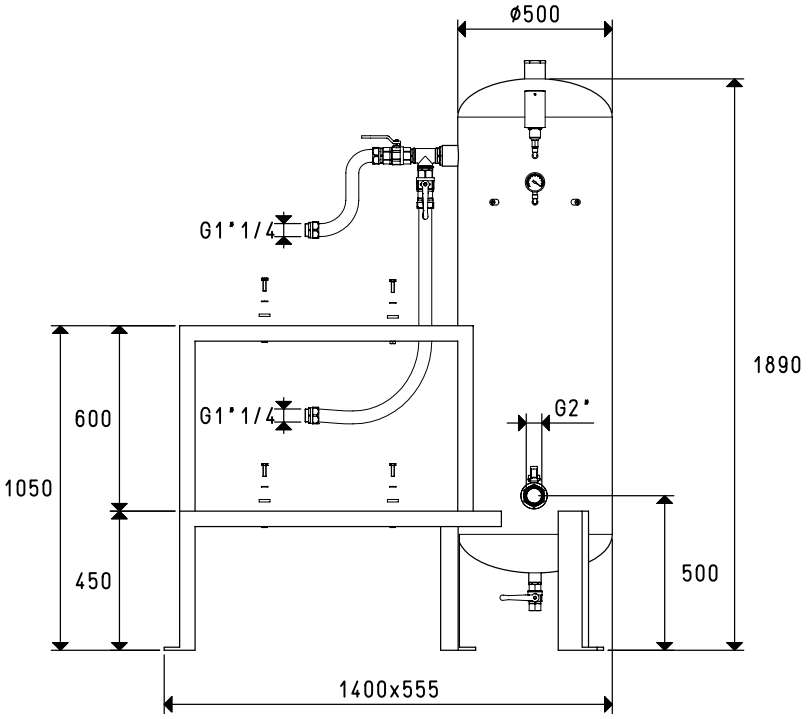
Art.	Tank	Weight	R	For: 2 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
D2V 150 01	150	70	G1/2"	VTL 10/F - VTL 15/F - VTL 20/F	D2V 150 90	FB 30 / FC 30
D2V 150 03	150	70	G3/4"	VTL 25/FG - VTL 30/FG - VTL 35/FG	D2V 150 90	FB 30 / FC 30



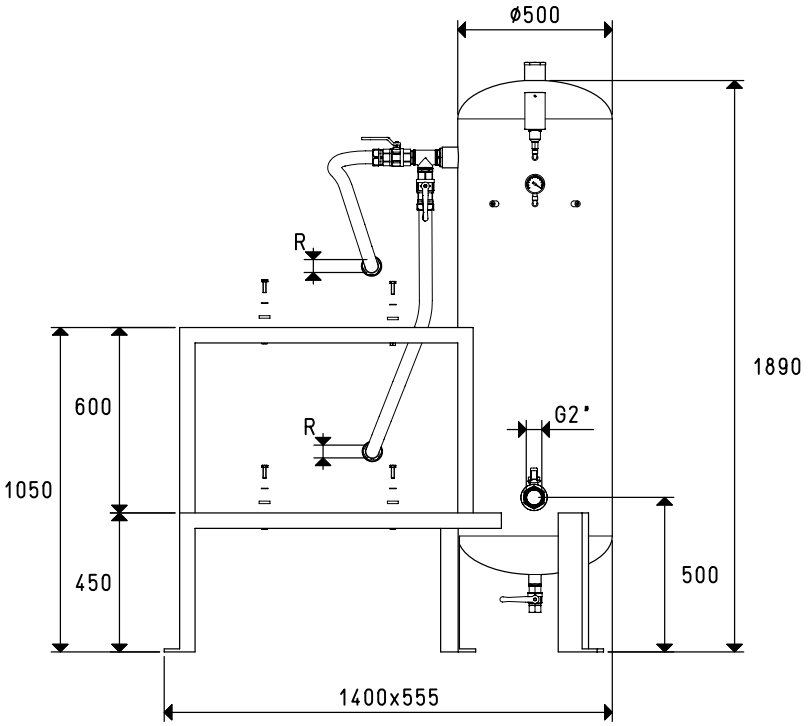
Art.	Tank	Weight	For: 2 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Mod.	art.	art.
D2V 150 02	150	70	MV 20	D2V 150 90	FB 30 / FC 30

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



Art.	Tank	Weight	For: 2 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Mod.	art.	art.
D2V 300 01	300	98	MV 40 - MV 60 - MV 100	D2V 150 90	FB 60 / FC 60

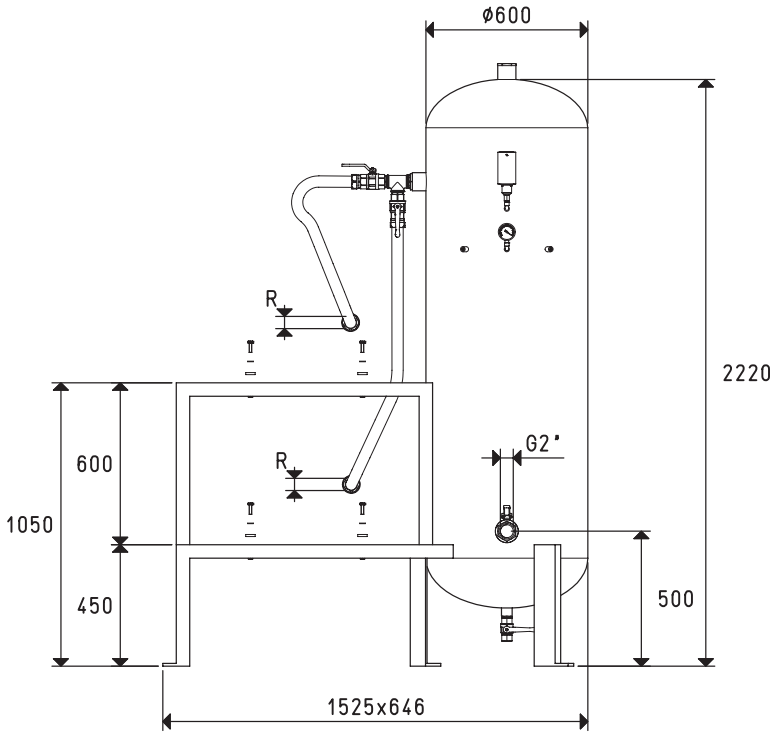


Art.	Tank	Weight	R	For: 2 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
D2V 300 02	300	98	G1"	VTL 50/G1	D2V 150 90	FB 60 / FC 60
D2V 300 03	300	98	G1"1/4	VTL 75/G1 - VTL 105/ G1	D2V 150 90	FB 60 / FC 60

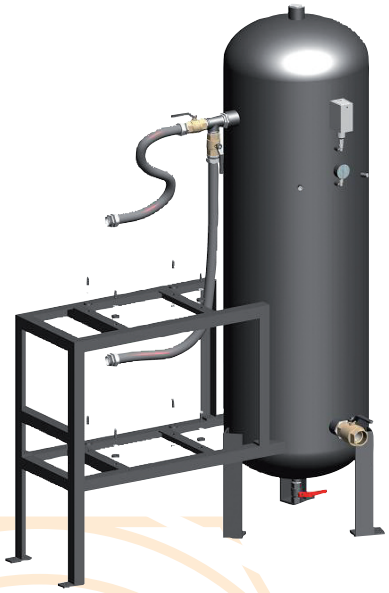
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

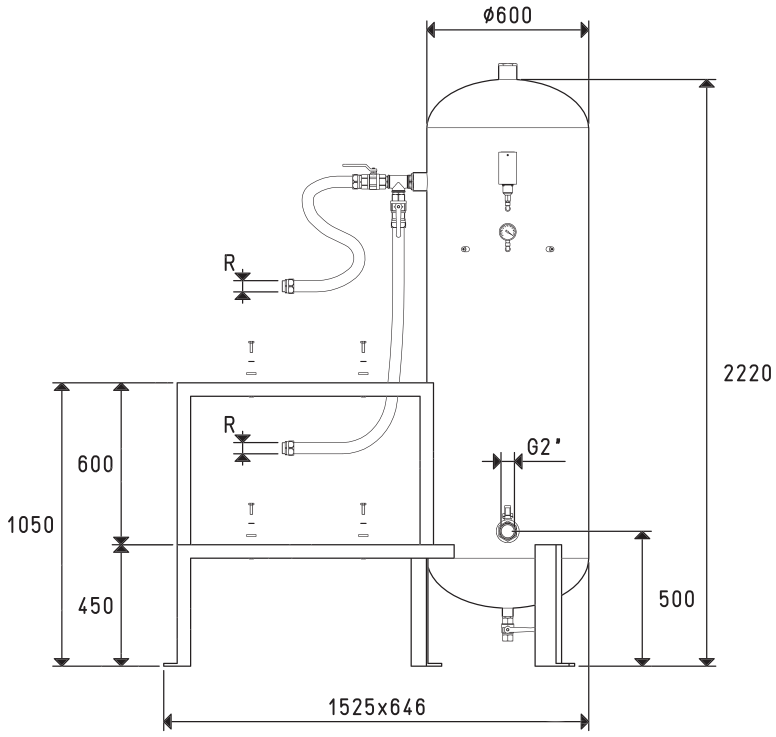
GAS-NPT thread adapters available at page 1.117

TANKS FOR VERTICAL PUMPSETS WITH TWO PUMPS



Art.	Tank	Weight	R	For: 2 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
D2V 500 01	500	173	G1"1/4	VTL 75/G1	D2V 150 90	FB 60 / FC 60
D2V 500 03	500	173	G1"1/2	VTL 105/G1	D2V 150 90	FB 60 / FC 60



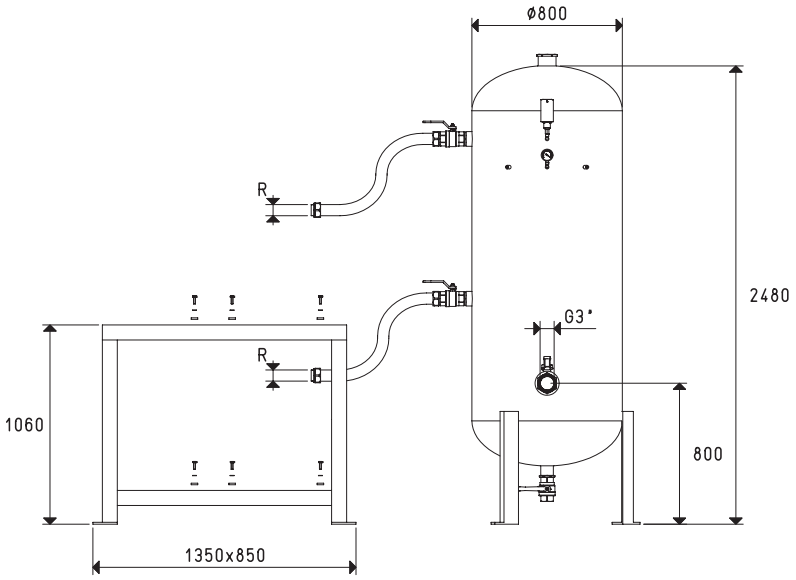


Art.	Tank	Weight	R	For: 2 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
D2V 500 02	500	173	G1"1/4	MV 60 - MV 100	D2V 150 90	FB 60 / FC 60
D2V 500 04	500	173	G1"1/2	MV 160R	D2V 150 90	FB 60 / FC 60

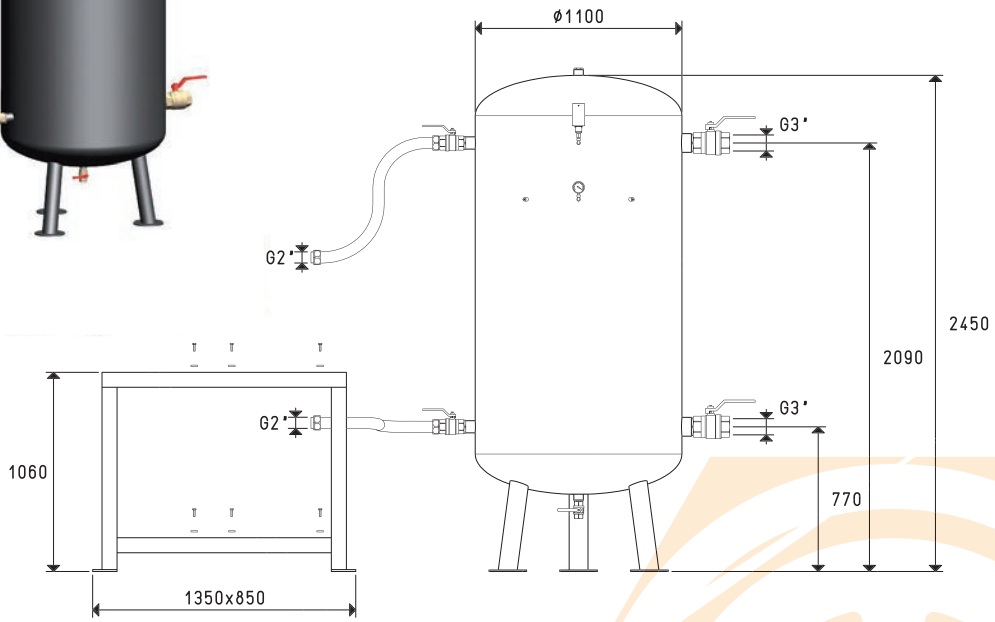
3D drawings available at **www.vuototecnica.net**

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



Art.	Tank	Weight	R	For: 2 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
D2V 1000 01	1000	243	G1"1/2	MV 160R	DV 150 90	FC 80
D2V 1000 02	1000	243	G2"	MV 200R - MV 300R	DV 150 91	FC 80



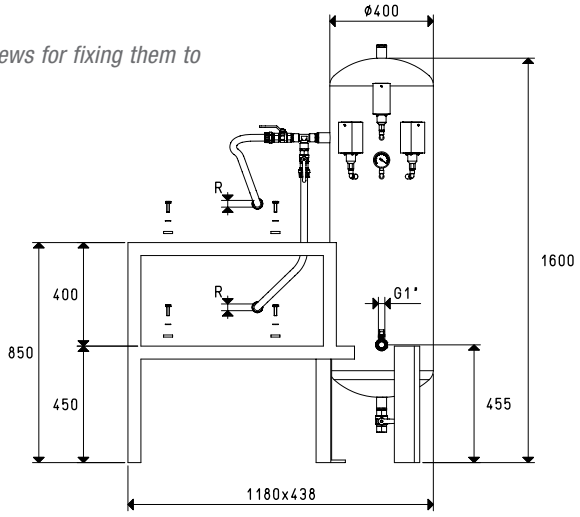
Art.	Tank	Weight	For: 2 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Mod.	art.	art.
D2V 2000 01	2000	580	MV 200R - MV 300R	DV 150 91	FC 80

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

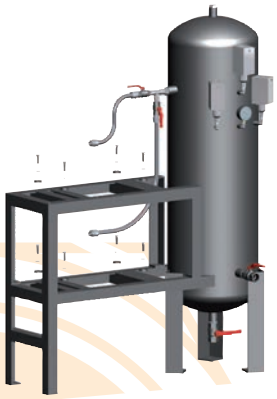
GAS-NPT thread adapters available at page 1.117

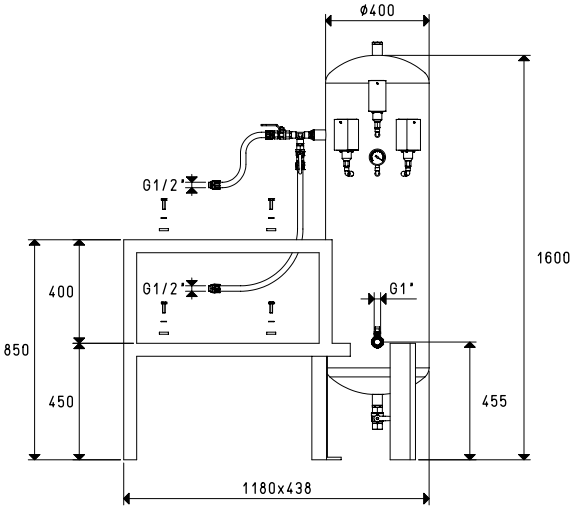
TANKS FOR VERTICAL SAFETY PUMPSETS WITH TWO VACUUM PUMPS

Vertical safety pumpset tanks have a circular section and are made with welded sheet steel with perfect vacuum seal, while the pump support frame, which is welded to the tanks with a volume up to 500 litres and is autonomous above that volume, is made with profiled steel.
Both the tank and the support frame are varnished with special corrosion and water condensation-resistant paint.
They are set for the installation of two vacuum pumps and a switchgear, to be selected among those in the table, and are equipped with:
- Three vacuum switches, of which two are for adjusting the vacuum level within which each pump must operate in order to determin the minimum safety value, under which the alarm sets off.
- A vacuum gauge for a direct reading of the vacuum level in the tank.
- Two check valves for the pumps that do not have them.
- Two manual valves for pump exclusion.
- A manual valve for vacuum interception.
- A cock for condensation drainage.
- Hoses and fittings for connecting the pumps to the tank and screws for fixing them to the support frame.
Available with various volumes, from 150 to 2000 litres.



Art.	Tank	Weight	R	For: 2 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
DSV 150 01	150	72	G1/2"	VTL 10/F - VTL 15/F - VTL 20/F	DS0 300 90	FB 30 / FC 30
DSV 150 03	150	72	G3/4"	VTL 25/FG - VTL 30/FG - VTL 35/FG	DS0 300 90	FB 30 / FC 30



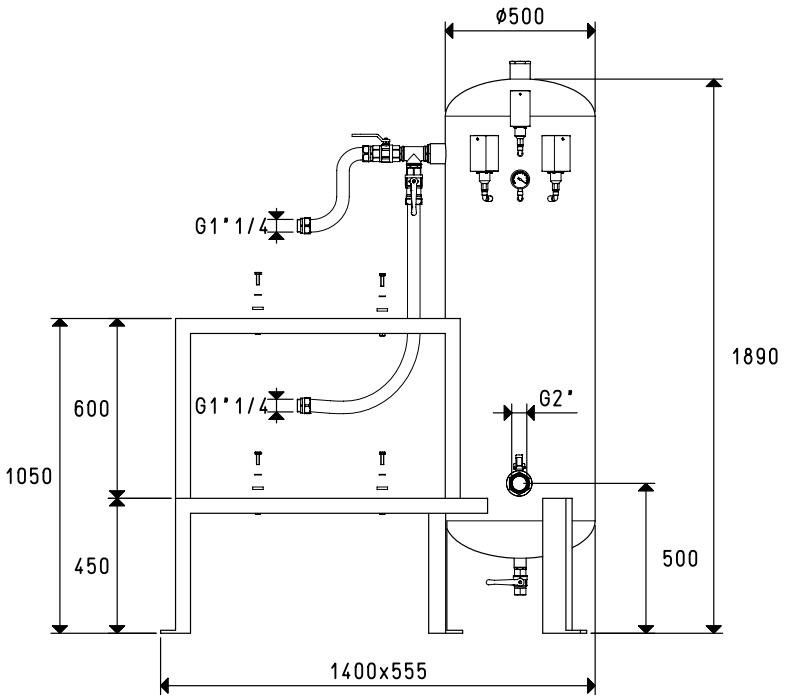


Art.	Tank	Weight	For: 2 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Mod.	art.	art.
DSV 150 02	150	72	MV 20	DS0 300 90	FB 30 / FC 30

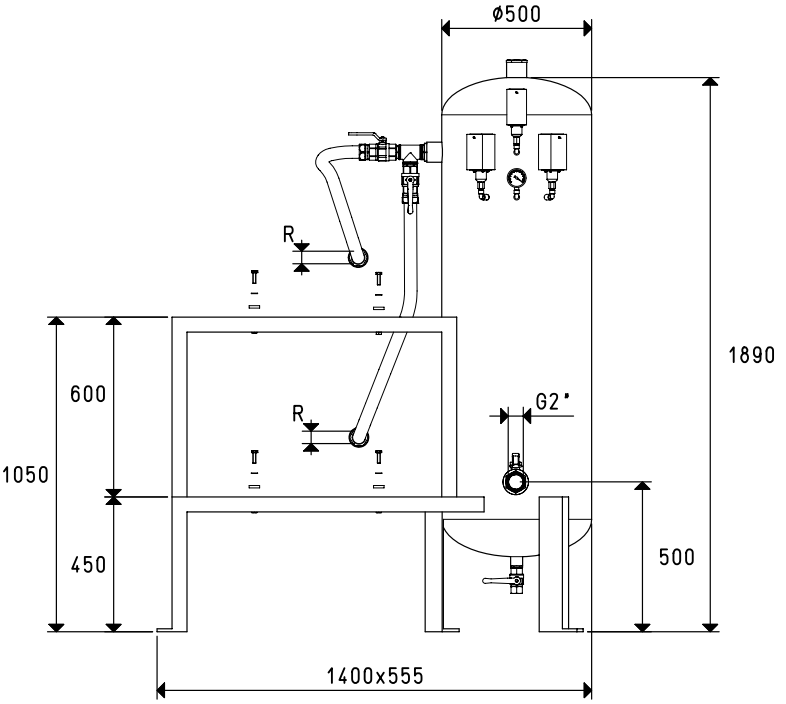
3D drawings available at **www.vuototecnica.net**

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



Art.	Tank	Weight	For: 2 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Mod.	art.	art.
DSV 300 01	300	100	MV 40 - MV 60 - MV 100	DS0 300 90	FB 60 / FC 60

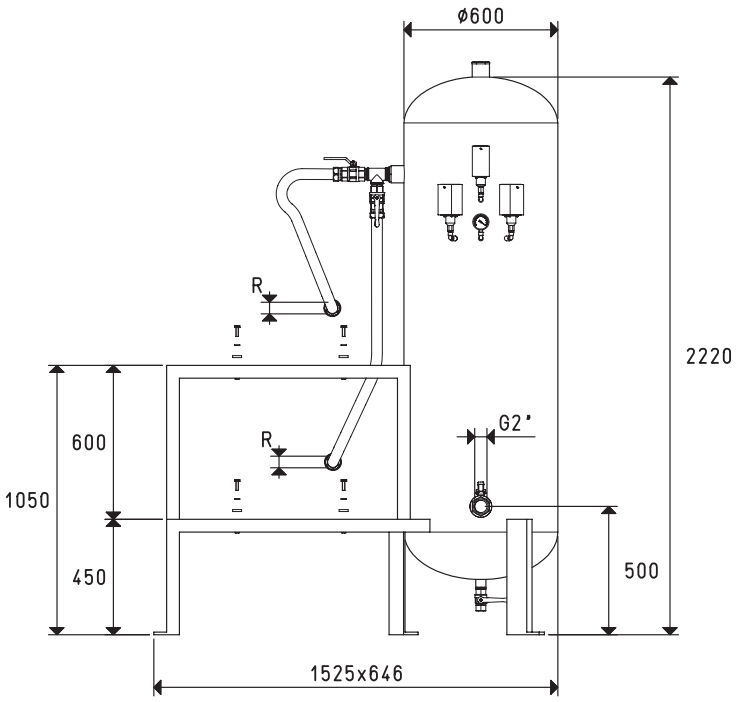


Art.	Tank	Weight	R	For: 2 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
DSV 300 02	300	100	G1"	VTL 50/G1	DS0 300 90	FB 60 / FC 60
DSV 300 03	300	100	G1"1/4	VTL 75/G1 - VTL 105/G1	DS0 300 90	FB 60 / FC 60

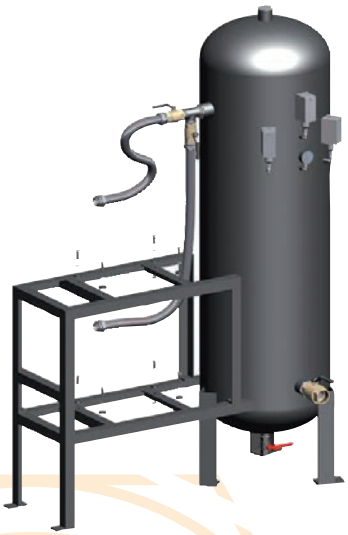
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

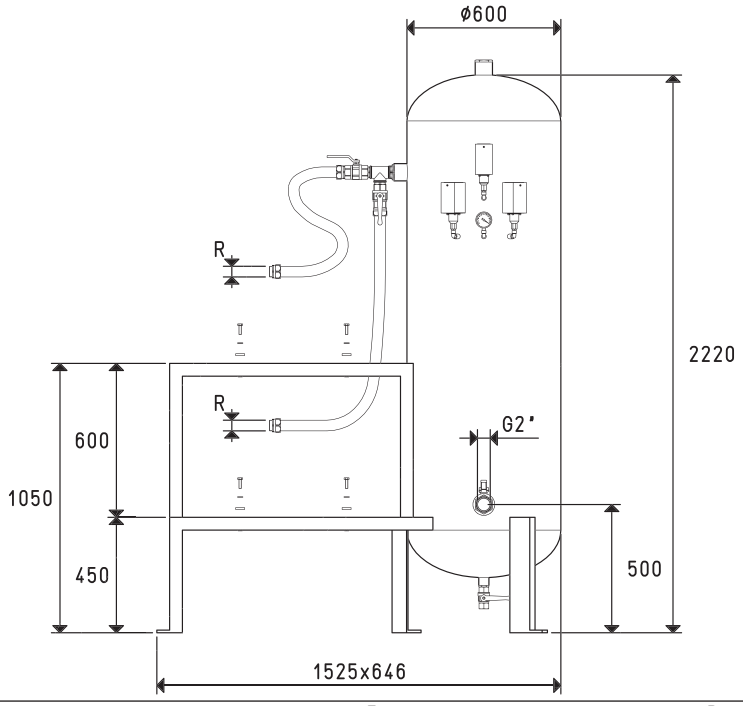
GAS-NPT thread adapters available at page 1.117

TANKS FOR VERTICAL SAFETY PUMPSETS WITH TWO PUMPS



Art.	Tank	Weight	R	For: 2 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
DSV 500 01	500	175	G1"1/4	VTL 75/G1	DS0 300 90	FB 60 / FC 60
DSV 500 03	500	175	G1"1/2	VTL 105/G1	DS0 300 90	FB 60 / FC 60

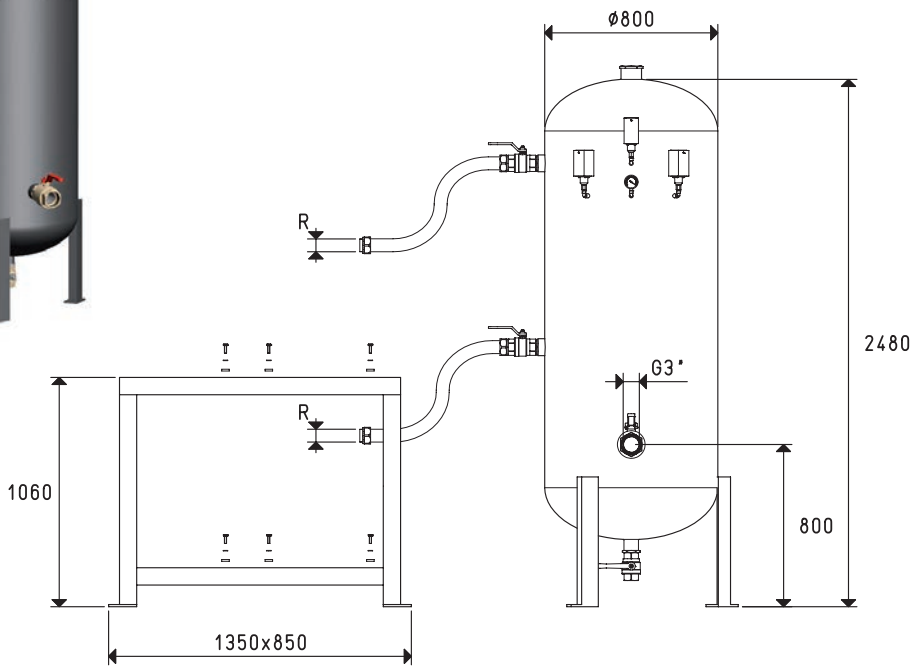




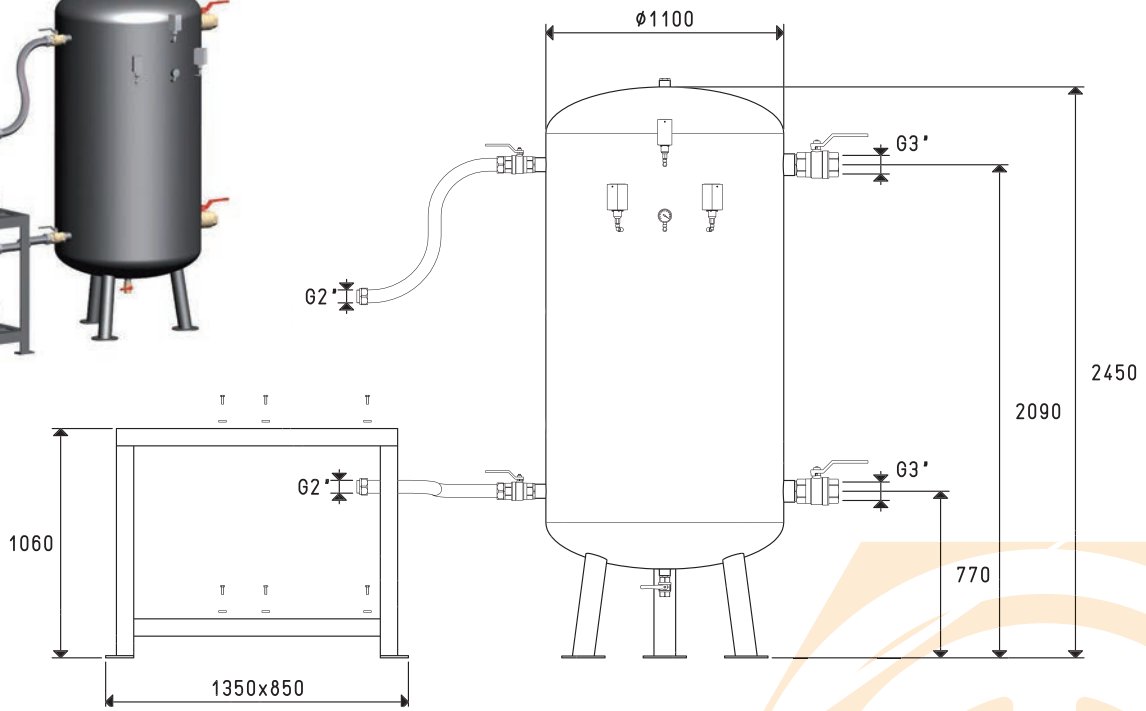
Art.	Tank	Weight	R	For: 2 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
DSV 500 02	500	175	G1"1/4	MV 60 - MV 100	DS0 300 90	FB 60 / FC 60
DSV 500 04	500	175	G1"1/2	MV 160R	DS0 300 90	FB 60 / FC 60

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



Art.	Tank	Weight	R	For: 2 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
DSV 1000 01	1000	245	G1"1/2	MV 160R	DS0 300 90	FC 80
DSV 1000 02	1000	245	G2"	MV 200R - MV 300R	DS0 300 91	FC 80



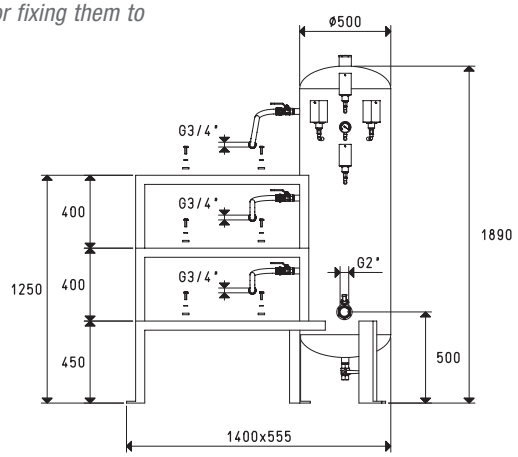
Art.	Tank	Weight	For: 2 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Mod.	art.	art.
DSV 2000 01	2000	582	MV 200R - MV 300R	DS0 300 91	FC 80

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

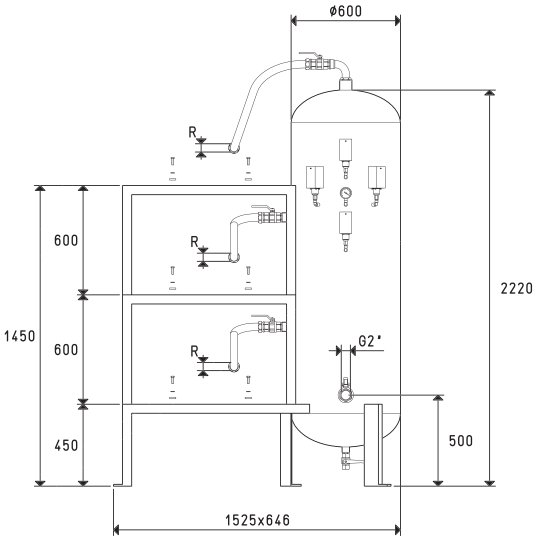
GAS-NPT thread adapters available at page 1.117

TANKS FOR VERTICAL SAFETY PUMPSETS WITH THREE VACUUM PUMPS

Vertical safety pumpset tanks have a circular section and are made with welded sheet steel with perfect vacuum seal, while the pump support frame, which is welded to the tanks with a volume up to 500 litres and is autonomous above that volume, is made with profiled steel.
Both the tank and the support frame are varnished with special corrosion and water condensation-resistant paint.
They are set for the installation of three vacuum pumps and a switchgear to be selected among those in the table, and are equipped with:
- Four vacuum switches, of which three are for adjusting the vacuum level within which each pump must operate and one is for determining the minimum safety value, under which the alarm sets off.
- A vacuum gauge for a direct reading of the vacuum level in the tank.
- Three check valves for the pumps that do not have them
- Three manual valves for pump exclusion.
- A manual valve for vacuum interception.
- A cock for condensation drainage.
- Hoses and fittings for connecting the pumps to the tank and screws for fixing them to the support frame.
Available with various volumes, from 300 to 2000 litres.



Art.	Tank	Weight	For: 3 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Mod.	art.	art.
DS3V 300 01	300	112	VTL 25/FG - VTL 30/FG - VTL 35/FG	DS0 300 95	FB 60 / FC 60

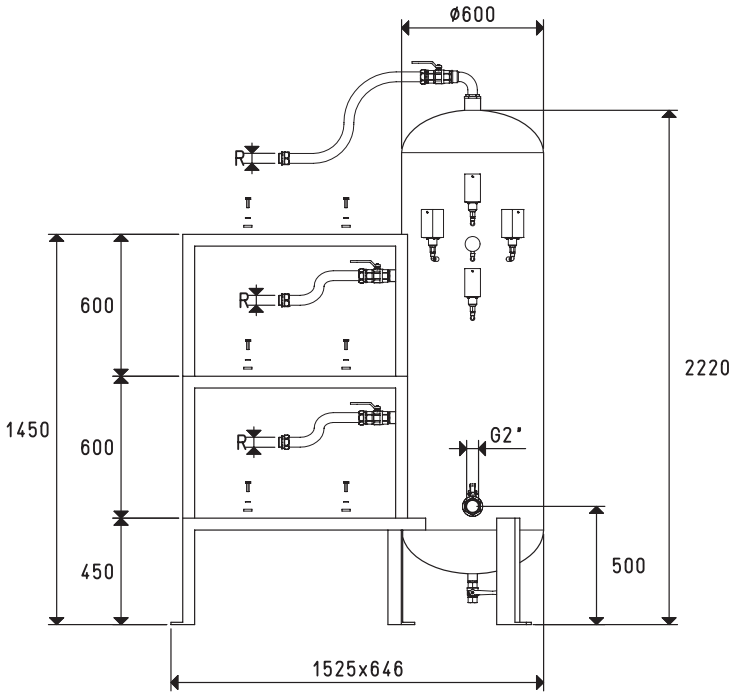


Art.	Tank	Weight	R	For: 3 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
DS3V 500 01	500	192	G1"	VTL 50/G1	DS0 300 95	FB 60 / FC 60
DS3V 500 02	500	192	G1"1/4	VTL 75/G1	DS0 300 95	FB 60 / FC 60

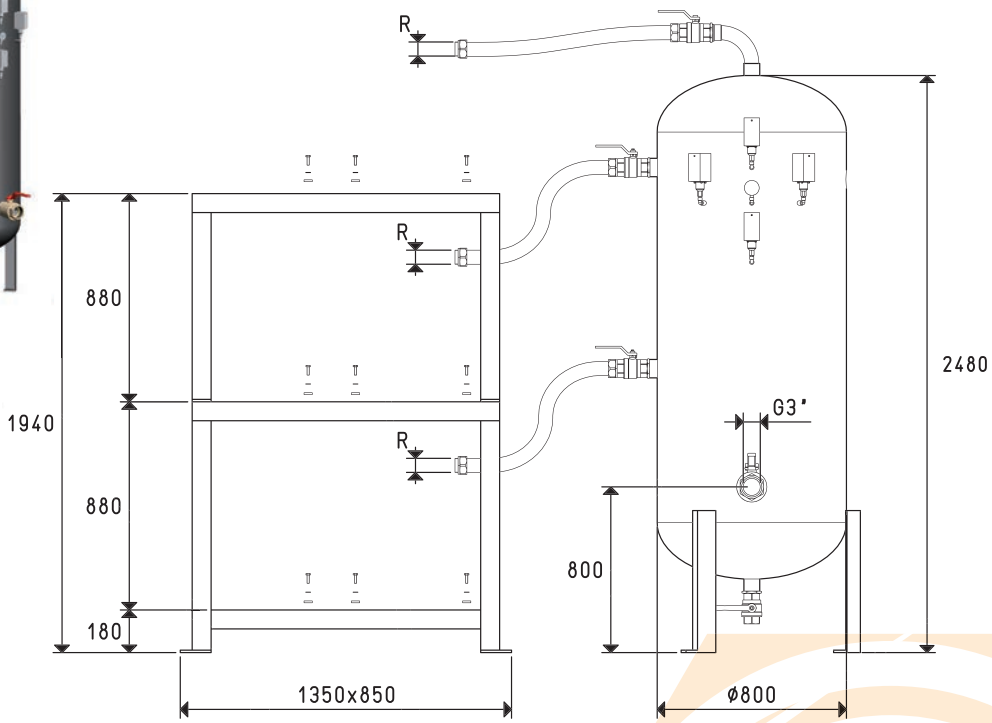
3D drawings available at **www.vuototecnica.net**

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



Art.	Tank	Weight	R	For: 3 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
DS3V 500 03	500	192	G1"1/4	MV 40 - MV 60 - MV 100	DS0 300 95	FB 60 / FC 60

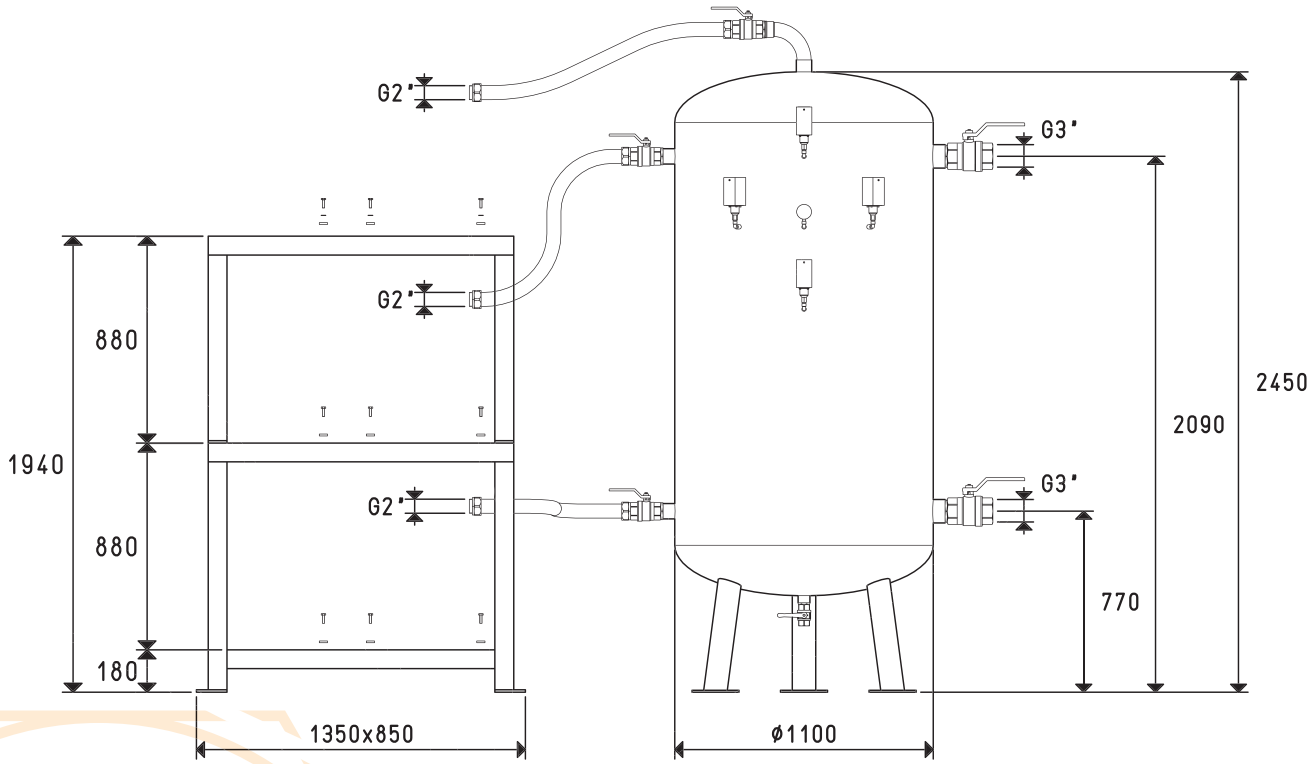


Art.	Tank	Weight	R	For: 3 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Ø	Mod.	art.	art.
DS3V 1000 01	1000	280	G1"1/2	MV 160R	DS0 300 95	FC 80
DS3V 1000 02	1000	280	G2"	MV 200R - MV 300R	DS0 300 96	FC 80

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

TANKS FOR VERTICAL SAFETY PUMPSETS WITH THREE PUMPS



Art.	Tank	Weight	For: 3 pumps	Switchgear	Recommended filtre accessories
	Litres	Kg	Mod.	art.	art.
DS3V 2000 01	2000	640	MV 200R - MV 300R	DS0 300 96	FC 80

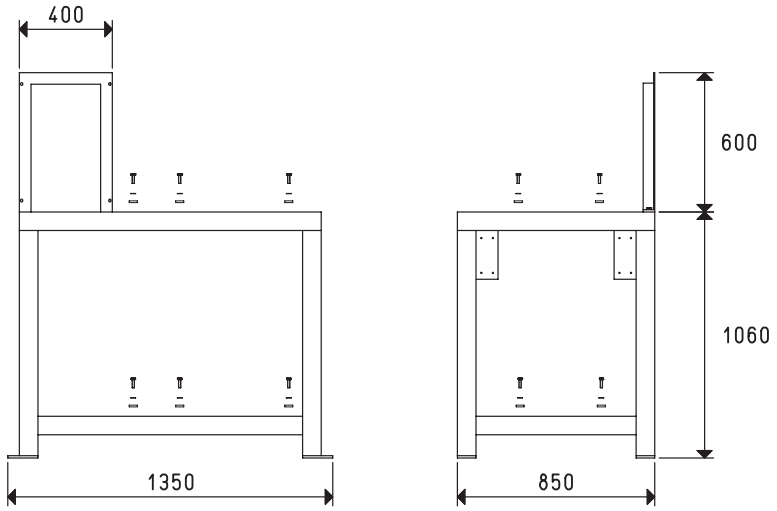
3D drawings available at **www.vuototecnica.net**

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

SUPPORT FRAME AND SWITCHGEAR FOR TWO VACUUM PUMPS

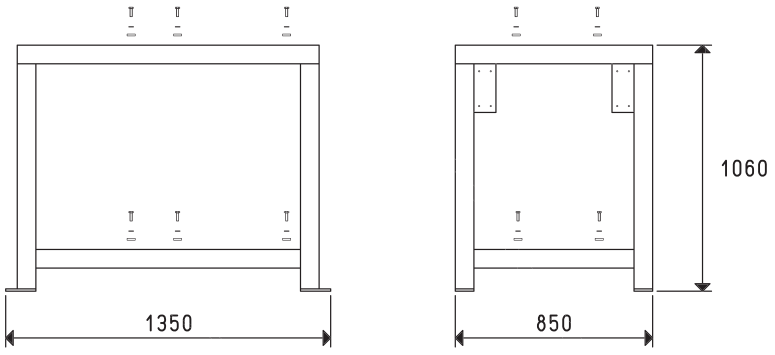
This frame is made with profiled steel and varnished with special weather-resistant paints.
It is suited for assembling two vacuum pumps and their switchgear.

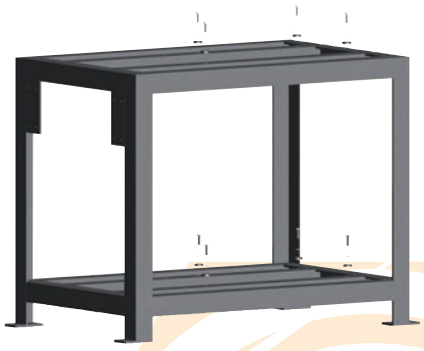


Art.	Weight	For: 2 pumps	Switchgear
	Kg	Mod.	art.
00 DSV 15	120	MV 160R	DS0 300 90 - DS0 300 91 - D2V 150 90 - D2V 150 92
00 DSV 16	120	MV 200R - MV 300R	DS0 300 90 - DS0 300 91 - D2V 150 90 - D2V 150 92

SUPPORT FRAME FOR TWO VACUUM PUMPS

This frame is made with profiled steel and varnished with special weather-resistant paints. It is suited for assembling two vacuum pumps.



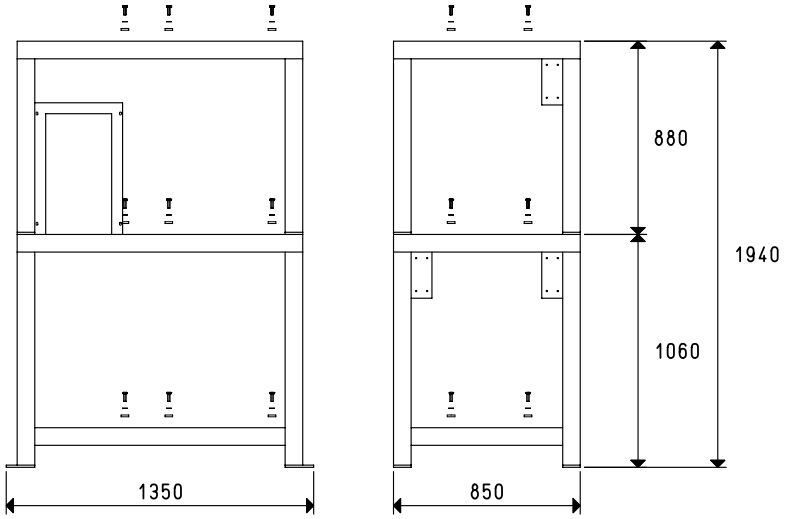


Art.	Weight	For 2 pumps
	Kg	Mod.
00 DSV 17	117	MV 160R
00 DSV 18	117	MV 200R - MV 300R

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

SUPPORT FRAME AND SWITCHGEAR FOR THREE VACUUM PUMPS

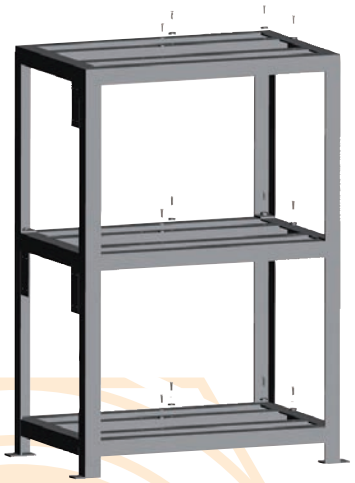
This frame is made with profiled steel and varnished with special weather-resistant paints. It is suited for assembling three vacuum pumps and their switchgear.

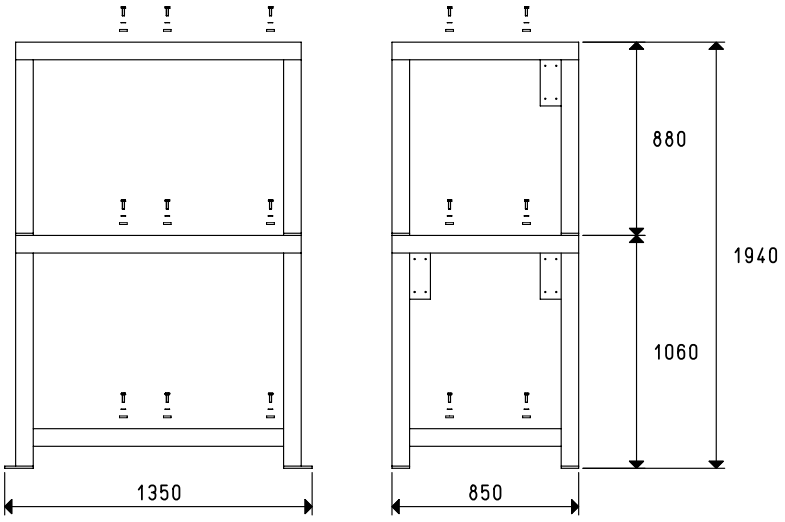


Art.	Weight	For: 3 pumps	Switchgear
	Kg	Mod.	art.
00 DSV 19	200	MV 160R	DS0 300 95 - DS0 300 96
00 DSV 20	200	MV 200R - MV 300R	DS0 300 95 - DS0 300 96

SUPPORT FRAME FOR THREE VACUUM PUMPS

This frame is made with profiled steel and varnished with special weather-resistant paints. It is suited for assembling three vacuum pumps.

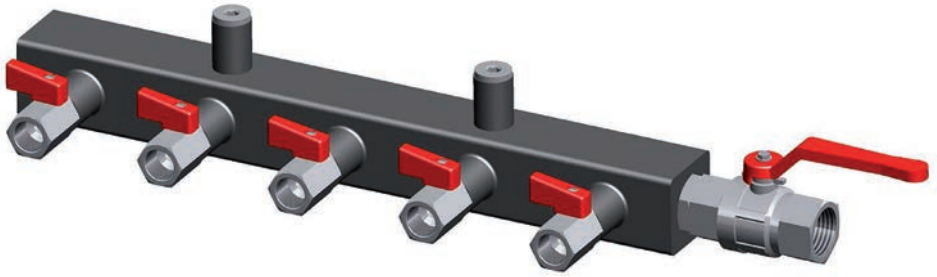


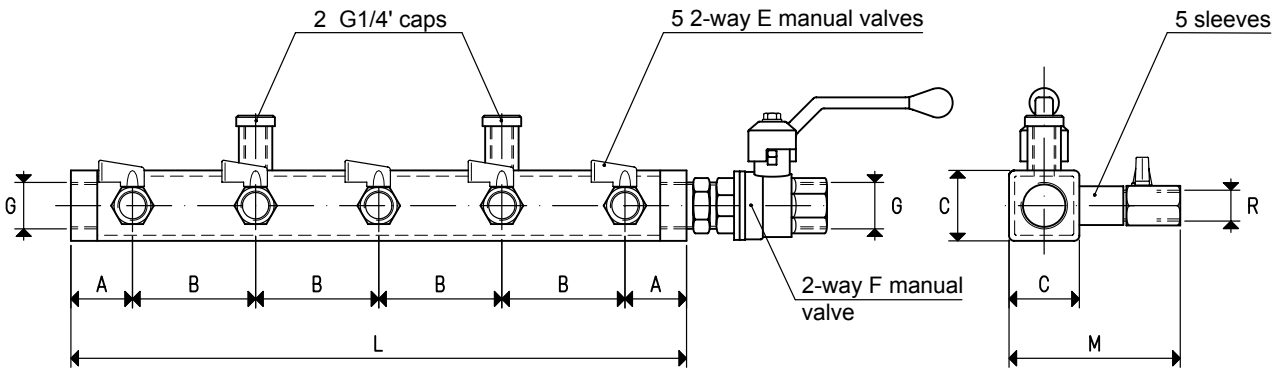


Art.	Weight	For 3 pumps
	Kg	Mod.
00 DSV 21	197	MV 160R
00 DSV 22	197	MV 200R - MV 300R

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

These manifolds are made to distribute the vacuum generated by the pumps and pumpsets to several services.
They are composed of a varnished steel tubular onto which the interception valves and the connections to the vacuum level reading and control devices are installed.
The manifolds described in these pages are standard. Upon request, they can be supplied with different shapes and sizes.

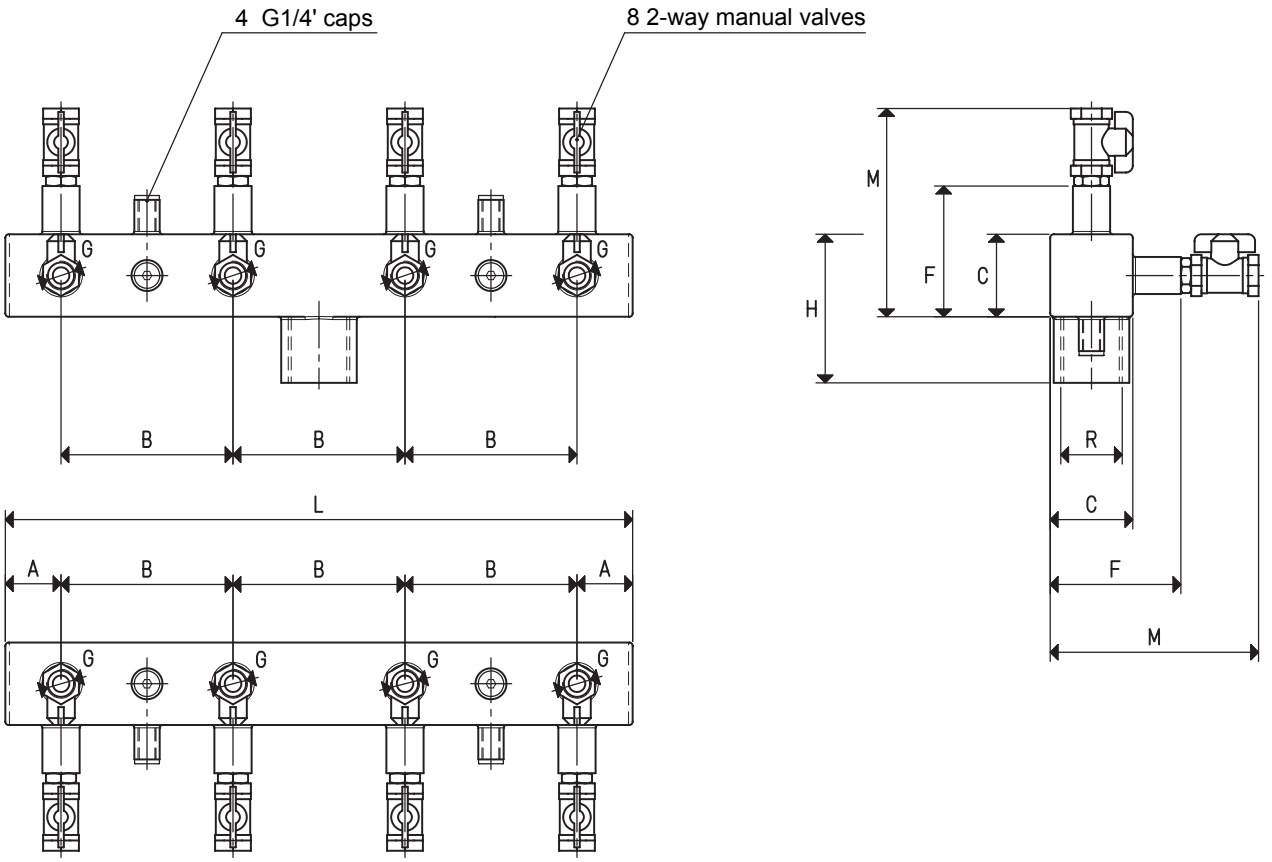




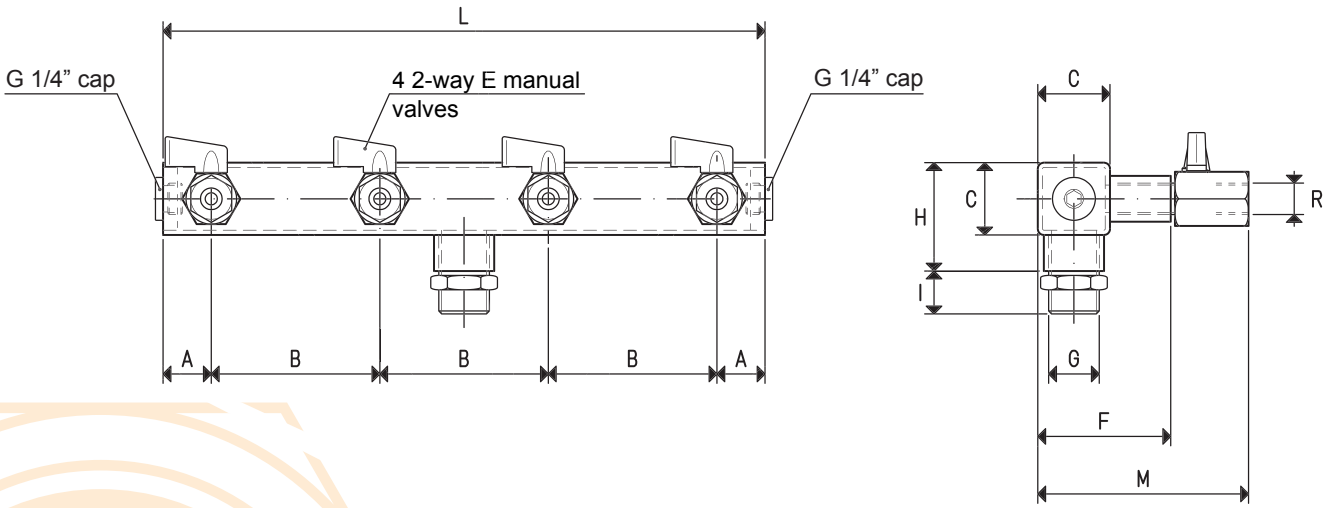
Art.	A	B	C	G	L	M	R	Manual valve E	Manual valve F	Sleeve	Weight
				Ø			Ø	art.	art.	Ø	Kg
COLL 01 03	35	70	40	G1/2"	350	100	G1/4"	13 01 11	13 03 10	G1/4"	1.75
COLL 01 04	35	70	40	G3/4"	350	100	G3/8"	13 02 11	13 04 10	G3/8"	1.90
COLL 01 05	35	70	40	G1"	350	100	G3/8"	13 02 11	13 05 10	G3/8"	2.00
COLL 01 06	40	85	60	G1"1/4	420	160	G1/2"	13 03 11	13 06 10	G1/2"	2.50
COLL 01 07	40	85	60	G1"1/2	420	160	G1/2"	13 03 11	13 07 10	G1/2"	2.60

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



Art.	A	B	C	F	G	H	L	M	R	Weight
					Ø				Ø	Kg
COLL 02 03	37.5	125	40	65	G1/4"	74	450	97	G1/2"	2.5
COLL 02 05	37.5	125	40	66	G3/8"	84	450	96	G1"	2.7
COLL 02 07	37.5	125	60	94	G1/2"	108	450	127	G1" 1/2	2.9



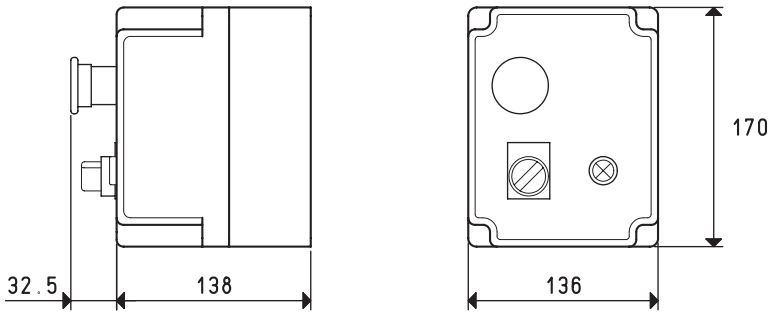
Art.	A	B	C	F	G	H	I	L	M	R	Manual valve E	Weight
					Ø					Ø	art.	Kg
COLL 03 03	20	70	30	55	G1/2"	64	21	250	87	G1/4"	13 01 11	1.2
COLL 03 05	20	70	40	66	G1"	84	21	250	96	G3/8"	13 02 11	1.4
COLL 03 07	20	70	60	94	G1"1/2	108	24	250	127	G1/2"	13 03 11	1.5

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

MINI PUMPSET SWITCHGEAR

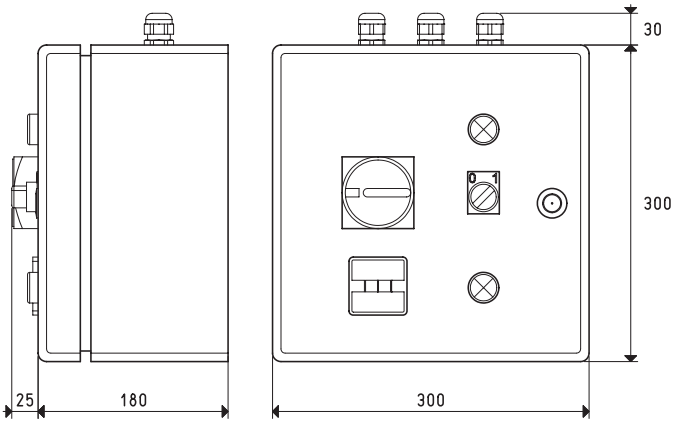
The mini pumpset switchgear is enclosed in a special plastic casing and it can manage a vacuum pump with a maximum power of 1 KW with AC and 0.5 KW with DC as well as automatically maintain the vacuum level, set with the vacuum switch, in the tank. It is equipped with a remote control switch with adjustable thermal protection, a transformer for low voltage auxiliary command power supply (with AC only), a line switch with indicator light and a deviator for the automatic or continuous pump operation.



Art.	Number of pumps	Motor execution	Pump max- power	Weight
	n°	Volt	Kw	Kg
D0 06 90	1	1 ~ 230-50Hz	1.0	2
D0 06 92	1	3 ~ 230/400-50Hz	1.0	2
D0 06 93	1	= 24-CC	0.5	2

SWITCHGEAR FOR PUMPSETS WITH ONE PUMP

The pumpset switchgear is enclosed in a special watertight metal casing and can manage a vacuum pump with a power up to 3 KW, or from 4 to 7.5 KW and it automatically maintains the vacuum level, set with the vacuum switch, in the tank. It is equipped with fuses, remote control switch with thermal protection, a transformer for low voltage auxiliary command power supply, a line switch with indicator light, a change-over switch for the automatic or continuous pump operation and an hour-counter for measuring the actual pump operation time.

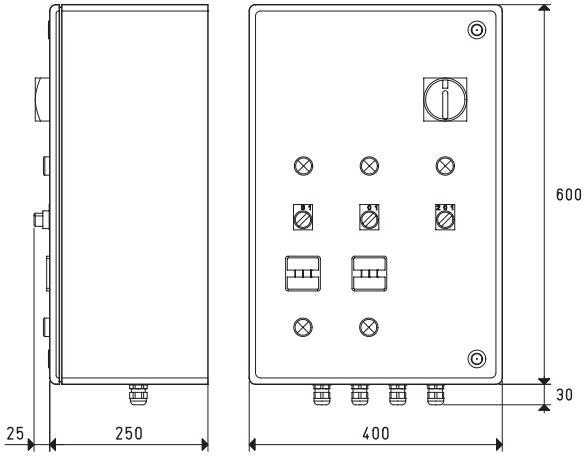


Art.	Number of pumps	Motor execution	Pump max. power	Weight
	n°	Volt	Kw	Kg
D0 100 89	1	1 ~ 230-50Hz	1.0	8
D0 100 90	1	3 ~ 230/400-50Hz	3.0	8
D0 100 91	1	3 ~ 230/400-50Hz	7.5	8

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

SWITCHGEAR FOR PUMPSETS WITH TWO PUMPS

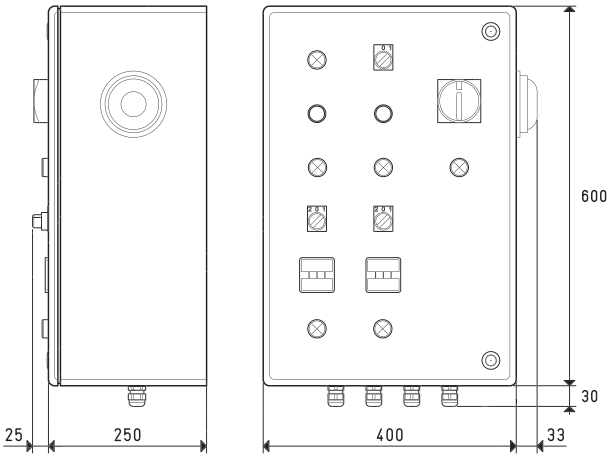
The pumpset switchgear, is enclosed in a special watertight metal casingand it manages two vacuum pumps, each with a power up to 3 KW, or from 4 to 7.5 KW and automatically maintains the vacuum level, set with the vacuum switch, in the tank.
It is equipped with fuses, two remote control switches with thermal protection, a transformer for low voltage auxiliary command power supply, a line switch with indicator light, two change-over switches for automatic or continuous pump operation and two hour-counters for measuring the actual pump operation time.



Art.	Number of pumps	Motor execution	Pump max. power	Weight
	n°	Volt	Kw	Kg
D2V 150 90	2	3 ~ 230/400-50Hz	3.0 cad.	24
D2V 150 92	2	3 ~ 230/400-50Hz	7.5 cad.	24

SWITCHGEAR FOR SAFETY PUMPSETS WITH TWO PUMPS

The safety pumpset switchgear is enclosed in a special watertight metal casing and it manages two vacuum pumps, each with a power up to 3 KW, or from 4 to 7.5 KW and it automatically maintains the vacuum level, set with the vacuum switches, in the tank.
It is equipped with fuses, two remote control switches with thermal protection, a transformer for low voltage auxiliary command power supply, an automatic time-set inverter, electrical connection terminal blocks and, on the panel, a main switch with door-opening unit, line indicator lights and pump service, two change-over switches for manual or automatic operation, an alarm device with sound and light signal, alarm-test buttons and two hour-counters for measuring the actual pump operation time.
These switchgears normally provide for the operation of one pump, with the subsequent automatic insertion of the second one for larger consumptions and when, for whatever reason, the plant vacuum level goes below the preset value.
An automatic time-set inverter accurately alternates the start-up of the pumps, so that they are both subject to the same mechanical wear.
The switchboard and the remote alarm systems start up when the plant vacuum level goes below the set minimum safety level.



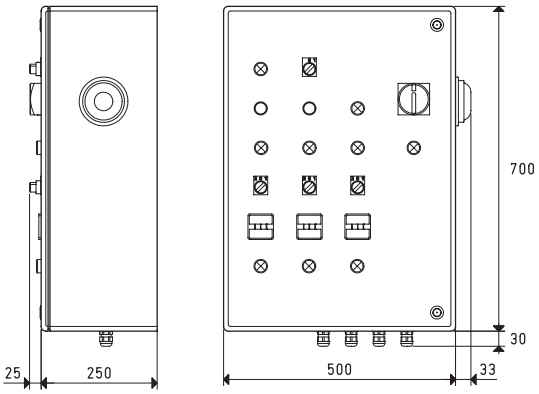
Art.	Number of pumps	Motor execution	Pump max. power	Weight
	n°	Volt	Kw	Kg
DS0 300 90	2	3 ~ 230/400-50Hz	3.0 cad.	27
DS0 300 91	2	3 ~ 230/400-50Hz	7.5 cad.	27

3D drawings available at **www.vuototecnica.net**

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

SWITCHGEAR FOR SAFETY PUMPSETS WITH THREE PUMPS

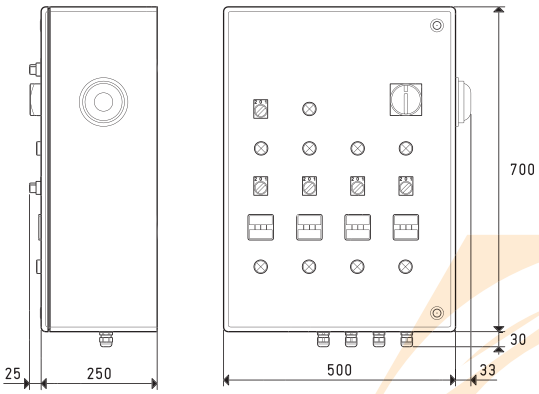
The safety pumpset switchgear is enclosed in a special watertight metal casing and it manages three vacuum pumps, each with a power up to 3 KW, or from 4 to 7.5 KW and it automatically maintains the vacuum level, set with the vacuum switches, in the tank.
It is equipped with fuses, three remote control switches with thermal protection, a transformer for low voltage auxiliary command power supply, an automatic time-set inverter, electrical connection terminal blocks and, on the control panel, a main switch with door-opening unit, line indicator lights and pump service, three change-over switches for manual or automatic operation, an alarm device with sound and light signal, alarm-test buttons and three hour-counters for measuring the actual pump operation time.
These switchgears normally provide for the operation of one pump, with subsequent automatic insertion of the other two for larger consumptions and when, for whatever reason, the plant vacuum level goes below the preset value.
An automatic time-set inverter, accurately alternates the start-up of the pumps, so that they are both subject to the same mechanical wear.
The switchboard and the remote alarm systems start up when the plant vacuum level goes below the set minimum safety level



Art.	Number of pumps n°	Motor execution Volt	Pump max. power Kw	Weight Kg
DS0 300 95	3	3 ~ 230/400-50Hz	3.0 cad.	29
DS0 300 96	3	3 ~ 230/400-50Hz	7.5 cad.	29

SWITCHGEAR FOR SAFETY PUMPSETS WITH FOUR PUMPS

The safety pumpset switchgear is enclosed in a special watertight metal casing and it manages four vacuum pumps, each with a power up to 3 KW, or from 4 to 7.5 KW and it automatically maintains the vacuum level, set with the vacuum switches, in the tank.
It is equipped with fuses, four remote control switches with thermal protection, a transformer for low voltage auxiliary command power supply, an automatic time-set inverter, electrical connection terminal blocks and, on the control panel, a main switch with door-opening unit, line indicator lights and pump service, four change-over switches for manual or automatic operation, an alarm device with sound and light signal, alarm-test buttons e four hour-counters for measuring the actual pump operation time.
These switchgears normally provide for the operation of two pumps and the subsequent automatic insertion of the other two for larger consumptions and when, for whatever reason, the plant vacuum level goes below the preset value.
An automatic time-set inverter, accurately alternates the start-up of the pumps, so that they are both subject to the same mechanical wear.
The switchboard and the remote alarm systems start up when the plant vacuum level goes below the set minimum safety level.



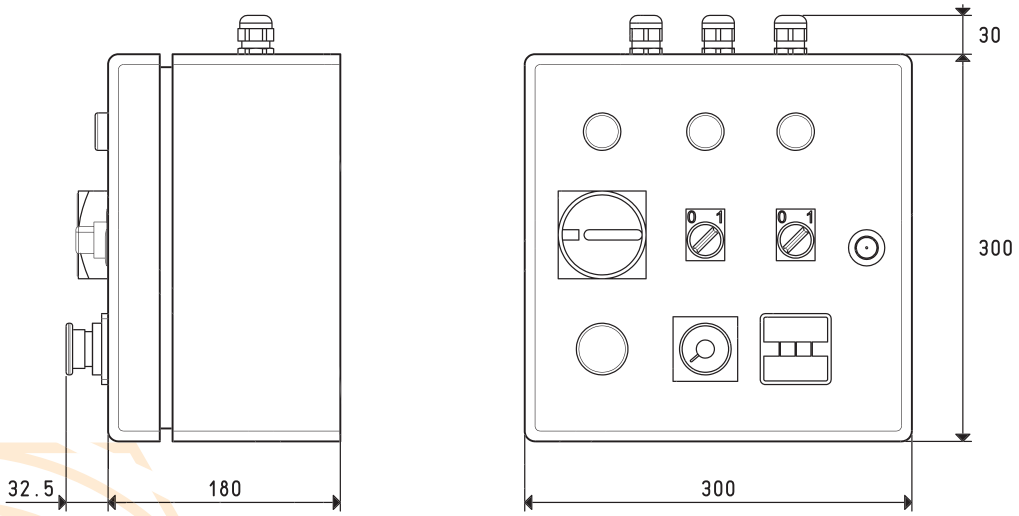
Art.	Number of pumps n°	Motor execution Volt	Pump max. power Kw	Weight Kg
DSV 2000 90	4	3 ~ 230/400-50Hz	3.0 cad.	29.5
DSV 2000 91	4	3 ~ 230/400-50Hz	7.5 cad.	29.5

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

SINGLE PUMP SAFETY SWITCHGEAR

The need to use the same vacuum pump in various spots in the work environment, such as, for example, a shipyard, has led us to creating this mobile switchgear that allows for polarity reversal in presence of current, as well as for time setting pump operation and the automatic start-up restoration in case of accidental black-out.
The switchgear is enclosed in a special watertight metal casing and it is composed of fuses, remote control switches with thermal protection, a transformer for low voltage auxiliary command power supply.
On the casing lid, on the other hand there are installed:
- A line switch with indicator light;
- A change-over switch for pump start-up with indicator light;
- A change-over switch for polarity reversal;
- An emergency button;
- A timer for setting the duration of pump operation;
- An hour-counter for counting the actual pump operation time;
- A malfunction warning light.
This switchgear is available in two versions: the first one managing a vacuum pump with a power up to Kw and the second one a vacuum pump with a power ranging from 4 to 7.5 Kw.



Art.	Number of pumps n°	Motor execution Volt	Pump max. power Kw	Weight Kg
DO 100 93	1	3 ~ 230/400-50Hz	3.0	8.0
DO 100 94	1	3 ~ 230/400-50Hz	7.5	8.0

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

VACUUM PUMP QUESTIONNAIRE

Company

.....

Address

.....

Zip Code/ City *Country*

....

Contact person:

.....

Telephone *Fax*

....

E-mail

.....

For a correct dimensioning and selection of a vacuum pump, it is important to know and assess the use to be made as well as the working environment in which it will operate. For this reason, we kindly ask you to fill in this form and send it back to us via e-mail or fax.
We will suggest the best pump to solve your problem.
E-mail: tecnico@vuototecnica.net
Fax: +39 039 5320015

1) In which industry sector will the pump be used?

- ☐ Plastic
- ☐ CD/DVD
- ☐ Elettronics
- ☐ Food
- ☐ Packaging
- ☐ Glass/Solar
- ☐ Graphic arts
- ☐ Bottling
- ☐ Wood processing
- ☐ Marble/Stone
- ☐ Medical/Pharmaceutical
- ☐ Other sectors .....
- ☐ Cosmetics
- ☐ Automotive
- ☐ Ceramic/China

2) For what service will the vacuum pump be used?

- ☐ Handling by vacuum pumps
- ☐ Degasification of silicon or resin compounds
- ☐ plastic/rubber/resin/aluminium moulding
- ☐ Container emptying: Volume/l..... Required time s ..... Max. vacuum mbar abs.....
- ☐ Other uses .....
- ☐ Vacuum clamping
- ☐ Vacuum packaging

3) Where will the vacuum pump be located?

- ☐ Inside a factory or a mobile unit
- ☐ Outside a factory or a mobile unit
- ☐ Height above sea level of the pump place of installation m .....
- ☐ Work environment temperature: min °C ..... max °C ..... Humidity % .....

4) Fluid to be sucked?

- ☐ Dry air
- ☐ Humid air
- ☐ Air with water
- ☐ Air with oil vapours
- ☐ Aggressive gasses .....
- ☐ Air with abrasive dust
- ☐ Fluid temperature °C .....

5) Required capacity?

- ☐ m^3/h .....
- ☐ Nl/min .....
- ☐ cfm .....

6) Required vacuum level?

- ☐ mbar abs. .....
- ☐ torr .....
- ☐ mmHg .....
- ☐ KPa .....
- ☐ inch.Hg .....

7) Vacuum pump use and working cycles

Daily duration: ☐ 8 hours ..... ☐ 16 hours..... ☐ 24 hours..... ☐ hours?.....
Nr of working cycles/hour..... ☐ Intermittance time: ON/ s ..... OFF/s.....
Are there strong vacuum level variations in the plant? ☐ yes ☐ no
If so, within which values: min..... mbar; max..... mbar

VACUUM PUMP QUESTIONNAIRE

8) When the pump stops, must the air be prevented from returning into the plant brought to vacuum?

☐ *Yes* ☐ *No*

The seal is guaranteed by check valves whose use is:
- Mandatory on lubricated vacuum pumps
- Not mandatory on dry vacuum pumps
Note: On the oil-bath vacuum pumps of the MV series, the check valves are built-in.

9) Time for maintaining vacuum

Must the vacuum be maintained for a certain amount of time? (For example to allow the vacuum cups to keep the grip even in absence of electricity) ☐ *Yes* ☐ *No*
If so, for how long? s.....0.

10) Vacuum tanks

☐ *Required volume l .....* ☐ *Recommended volume l .....* ☐ *Available volume l .....*

11) Purchasing prospect

☐ *Single request .....* ☐ *Nr ..... pumps/year* *Required delivery: .....*

12) In case of the vacuum pump replacement

☐ *Model used until now: .....* ☐ *Capacity m^3/h .....* ☐ *Vacuum level mbar .....*
☐ *Brand .....*
Power supply: ☐ *Single-phase* ☐ *Volt 230-50 Hz* ☐ *Other Volt ..... Hz .....*
☐ *Three-phase* ☐ *Volt 230/400 – 50Hz* ☐ *Other Volt ..... Hz .....*

13) Contact

○ *Would you like to be contacted? Yes* ☐ *No* ☐
○ *Are you interested in a visit? Yes* ☐ *No* ☐ *if so, in what date?.....*

PNEUMATIC VACUUM GENERATORS AND PUMPSETS

TABLE REGARDING THE QUANTITY OF AIR SUCKED BY GENERATORS AT DIFFERENT VACUUM LEVELS

Art Generator	Supply press. bar (g)	Air consumption Nl/s	Quantity of sucked air (Nl/s) at different vacuum levels (-KPa) 0	10	20	30	40	50	60	70	80	Max. vacuum level -KPa
15 01 10	6	0.9	0.77	0.66	0.61	0.55	0.44	0.29	0.19	0.09	--	83
15 02 10	6	0.9	0.77	0.66	0.61	0.55	0.44	0.29	0.19	0.09	--	83
15 03 10	6	1.8	1.39	1.30	1.15	1.00	0.89	0.77	0.69	0.44	0.04	85
15 04 10	6	1.8	1.39	1.30	1.15	1.00	0.89	0.77	0.69	0.44	0.04	85
PVP 1	5	0.8	0.27	0.25	0.22	0.18	0.12	0.07	0.06	0.03	0.004	85
PVP 2	6	1.0	0.83	0.70	0.65	0.52	0.37	0.23	0.13	0.07	0.007	85
PVP 2 M	6	1.0	0.83	0.70	0.65	0.52	0.37	0.23	0.13	0.07	0.007	85
PVP 3	6	1.5	1.03	0.82	0.72	0.61	0.41	0.24	0.15	0.08	0.008	85
PVP 7 X	6	3.2	2.47	2.28	2.10	1.94	1.44	0.97	0.86	0.54	0.05	85
PVP 7 SX	6	3.2	2.47	2.28	2.10	1.94	1.44	0.97	0.86	0.54	0.05	85
GV 1	5	0.7	0.27	0.23	0.20	0.17	0.13	0.06	0.05	0.03	0.004	85
GV 2	5	0.7	0.27	0.23	0.20	0.17	0.13	0.06	0.05	0.03	0.004	85
GV 3	5	0.7	0.27	0.23	0.20	0.17	0.13	0.06	0.05	0.03	0.004	85
M 3 - M 3 SSX	5	0.8	1.00	0.83	0.61	0.34	0.18	0.12	0.10	0.07	0.03	85
M 7 - M 7 SSX	5	1.4	1.72	1.28	0.89	0.50	0.37	0.27	0.16	0.11	0.05	85
M 10 - M 10 SSX	5	1.9	2.61	2.00	1.55	0.80	0.64	0.50	0.29	0.19	0.09	85
M 14 - M 14 SSX	5	2.5	3.50	2.33	1.72	1.00	0.89	0.67	0.35	0.24	0.11	85
M 18 - M 18 SSX	5	3.6	5.00	3.50	2.78	2.02	1.02	0.75	0.44	0.30	0.14	85
MVG 3	5	0.8	0.89	0.69	0.41	0.23	0.18	0.12	0.10	0.07	0.03	85
MVG 7	5	1.3	1.83	1.44	1.11	0.63	0.41	0.25	0.16	0.11	0.05	85
MVG10	5	1.7	2.55	1.85	1.30	0.75	0.64	0.48	0.30	0.20	0.09	85
MVG14	5	2.1	3.40	2.45	1.84	1.05	0.88	0.61	0.36	0.24	0.11	85
GVMM 3	5	0.8	0.83	0.66	0.38	0.20	0.16	0.11	0.09	0.06	0.02	85
GVMM 7	5	1.3	1.78	1.30	0.98	0.56	0.44	0.29	0.20	0.14	0.06	85
GVMM 10	5	1.7	2.52	2.00	1.66	0.97	0.56	0.40	0.22	0.16	0.07	85
GVMM 14	5	2.1	3.35	2.42	1.84	0.99	0.80	0.58	0.34	0.22	0.10	85
MI 3	5	0.8	0.83	0.66	0.38	0.20	0.16	0.11	0.09	0.06	0.02	85
MI 7	5	1.3	1.78	1.30	0.98	0.56	0.44	0.29	0.20	0.14	0.06	85
MI 10	5	1.7	2.52	2.00	1.66	0.97	0.56	0.40	0.22	0.16	0.07	85
MI 14	5	2.1	3.35	2.42	1.84	0.99	0.80	0.58	0.34	0.22	0.10	85
AVG 18	6	6.4	4.83	4.58	4.04	3.58	2.72	1.90	1.68	1.07	0.10	85
AVG 25	6	9.6	7.00	6.63	5.86	5.18	3.94	2.76	2.44	1.54	0.15	85
PVP 12 MX	6	1.8	5.80	4.14	2.76	1.38	0.98	0.78	0.59	0.41	0.23	90
PVP 25 MX	6	3.2	8.61	6.15	4.10	2.05	1.46	1.17	0.88	0.61	0.35	90
PVP 40 M	6	3.2	11.66	8.32	5.55	2.77	1.98	1.58	1.19	0.83	0.47	90
PVP 70 M	6	6.6	22.22	15.87	10.58	5.29	3.77	3.02	2.27	1.58	0.90	90
PVP 100 M	6	9.8	30.00	21.42	14.28	7.14	5.10	4.08	3.06	2.14	1.22	90
PVP 140 M	6	13.0	42.22	30.15	20.10	10.05	7.18	5.74	4.31	3.02	1.72	90
PVP 170 M	6	16.3	50.55	36.10	24.07	12.03	8.59	6.87	5.17	3.61	2.06	90
PVP 200 M	6	19.4	55.55	39.67	26.45	13.22	9.44	7.55	5.68	3.97	2.27	90
PVP 250 M	6	24.0	77.77	55.55	37.03	18.51	13.22	10.58	7.95	5.56	3.17	90
PVP 300 M	6	29.0	88.88	63.48	42.32	21.16	15.11	12.09	9.09	6.35	3.63	90
PVP 25 MDX	6	3.2	11.94	8.53	5.68	2.84	2.03	1.62	1.22	0.85	0.48	90
PVP 35 MDX	6	4.8	15.83	11.30	7.53	3.76	2.69	2.15	1.61	1.13	0.64	90
PVP 50 MDX	6	6.5	18.88	13.48	8.99	4.49	3.21	2.56	1.93	1.35	0.77	90
PVP 60 MDX	6	8.2	25.55	18.25	12.16	6.08	4.34	3.47	2.61	1.82	1.04	90
PVP 75 MDX	6	9.8	28.61	20.43	13.62	6.81	4.86	3.89	2.92	2.04	1.16	90
PVP 150 MD	6	16.0	55.55	39.68	26.45	13.22	9.44	7.55	5.68	3.97	2.27	90
PVP 300 MD	6	32.0	111.11	79.36	52.91	26.45	18.89	15.11	11.36	7.94	4.54	90
PVP 450 MD	6	47.8	161.11	115.07	76.71	38.35	27.39	21.91	16.48	11.52	6.58	90
PVP 600 MD	6	63.2	208.33	148.80	99.20	49.60	35.43	28.34	21.31	14.90	8.51	90

TABLE REGARDING VACUUM GENERATOR EVACUATION TIME, AT DIFFERENT VACUUM LEVELS

Art. Generator	Supply press. bar (g)	Max. vacuum level -KPa	Evacuation time (ms/l= s/m³) at different vacuum levels (-KPa) 10	20	30	40	50	60	70	80	85	90
15 01 10	6	82	139	278	472	727	1171	1628	2720	4928	--	
15 02 10	6	82	139	278	472	727	1171	1628	2720	4928	--	
15 03 10	6	85	77	154	261	403	649	902	1506	2730	3876	
15 04 10	6	85	77	154	261	403	649	902	1506	2730	3876	
PVP 1	5	85	393	786	1336	2057	3312	4605	7690	13935	19787	
PVP 2	6	85	128	257	438	675	1087	1511	2523	4572	6492	
PVP 2 M	6	85	128	257	438	675	1087	1511	2523	4572	6492	
PVP 3	6	85	104	207	353	544	875	1217	2033	3684	5232	
PVP 7 X	6	85	43	86	147	226	365	507	847	1536	2181	
PVP 7 SX	6	85	43	86	147	226	365	507	847	1536	2181	
GV 1	5	85	394	788	1339	2063	3322	4617	7711	13973	19841	
GV 2	5	85	394	788	1339	2063	3322	4617	7711	13973	19841	
GV 3	5	85	394	788	1339	2063	3322	4617	7711	13973	19841	
M 3 - M 3 SSX	5	85	106	244	491	969	1642	2398	4004	7128	10122	
M 7 - M 7 SSX	5	85	61	142	285	563	954	1394	2328	4144	5885	
M 10 - M 10 SSX	5	85	40	93	188	371	629	918	1534	2731	3878	
M 14 - M 14 SSX	5	85	30	69	140	276	469	685	1144	2036	2892	
M 18 - M 18 SSX	5	85	21	48	98	193	327	478	799	1423	2020	
MVG 3	5	85	119	274	552	1088	1845	2694	4499	8009	11373	
MVG 7	5	85	58	133	268	529	897	1310	2188	3895	5531	
MVG 10	5	85	41	95	192	379	642	938	1567	2790	3962	
MVG 14	5	85	31	71	144	284	482	704	1175	2092	2971	
GVMM 3	5	85	128	294	592	1167	1978	2889	4824	8588	12195	
GVMM 7	5	85	59	137	275	543	921	1344	2245	3997	5676	
GVMM 10	5	85	42	97	195	384	651	951	1589	2828	4016	
GVMM 14	5	85	31	72	146	288	489	714	1193	2124	3016	
MI 3	5	85	128	294	592	1167	1978	2889	4824	8588	12195	
MI 7	5	85	59	137	275	543	921	1344	2245	3997	5676	
MI 10	5	85	42	97	195	384	651	951	1589	2828	4016	
MI 14	5	85	31	72	146	288	489	714	1193	2124	3016	
AVG 18	6	85	22	44	75	115	185	258	430	798	1107	
AVG 25	6	85	15	30	52	80	128	178	297	538	764	
PVP 12 MX	6	90	15.4	38.7	85.1	204.4	365.9	559.8	929.4	1607.8	--	5916
PVP 25 MX	6	90	10.4	26.0	57.3	137.7	246.5	377.1	626.0	1083.1	--	3986
PVP 40 M	6	90	7.7	19.2	42.3	101.6	182.0	278.4	462.3	799.8	--	2943
PVP 70 M	6	90	4.0	10.1	22.2	53.3	95.5	146.1	242.6	419.7	--	1544
PVP 100 M	6	90	3.0	7.4	16.4	39.5	70.7	108.2	179.6	310.8	--	1144
PVP 140 M	6	90	2.1	5.3	11.7	28.0	50.2	76.9	127.6	220.8	--	812
PVP 170 M	6	90	1.7	4.4	9.7	23.4	42.0	64.2	106.6	184.5	--	678
PVP 200 M	6	90	1.6	4.0	8.9	21.3	38.2	58.4	97.0	167.8	--	618
PVP 250 M	6	90	1.1	2.9	6.4	15.2	27.3	41.8	69.3	119.9	--	442
PVP 300 M	6	90	1.0	2.5	5.5	13.3	23.8	36.5	60.6	104.9	--	386
PVP 25 MDX	6	90	7.5	18.8	41.3	99.3	177.7	271.9	451.4	781.0	--	2874
PVP 35 MDX	6	90	5.6	14.1	31.2	74.9	134.0	205.1	340.5	589.1	--	2168
PVP 50 MDX	6	90	4.7	11.9	26.2	62.8	112.4	172.0	285.5	494.0	--	1818
PVP 60 MDX	6	90	3.5	8.8	19.3	46.4	83.0	127.0	211.0	365.0	--	1343
PVP 75 MDX	6	90	3.1	7.8	17.2	41.4	74.2	113.5	188.4	326.0	--	1200
PVP 150 MD	6	90	1.6	4.0	8.9	21.3	38.2	58.4	97.0	167.8	--	618
PVP 300 MD	6	90	0.8	2.0	4.4	10.6	19.1	29.2	48.5	83.9	--	309
PVP 450 MD	6	90	0.5	1.4	3.0	7.4	13.2	20.1	33.5	57.9	--	213
PVP 600 MD	6	90	0.4	1.0	2.4	5.7	10.2	15.6	25.9	44.8	--	165

MINIMUM PIPE INTERNAL DIAMETER RECOMMENDED FOR THE GENERATORS

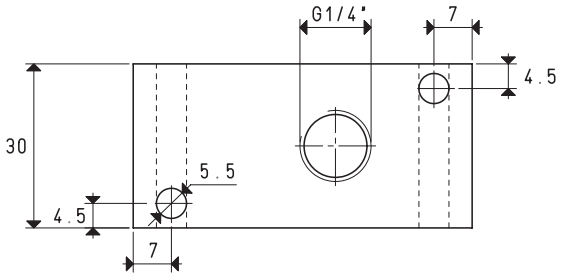
Choosing the right fittings and pipe sections is essential for the correct operation of the vacuum plant. To obtain the highest performance by the vacuum generators, please see the temperature below and keep to the data shown in it.

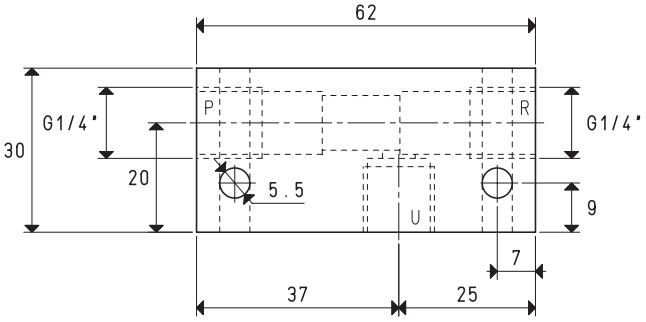
Vacuum generator Art.	Compressed air Pipe internal Ø mm	Vacuum Pipe internal Ø mm	Exhaust Pipe internal Ø mm
15 01 10	2	6	8
15 02 10	2	6	8
15 03 10	2	8	10
15 04 10	2	8	10
PVP 1	2	4	=
PVP 2	2	6	8
PVP 2 M	2	6	8
PVP 3	2	6	8
PVP 7 X	4	10	=
PVP 7 SX	4	10	=
GV 1	2	4	6
GV 2	2	4	6
GV 3	2	4	6
M 3 - M 3 SSX	2	6	=
M 7 - M 7 SSX	2	8	=
M 10 - M 10 SSX	4	10	=
M 14 - M 14 SSX	4	12	=
M 18 - M 18 SSX	4	15	=
MVG 3	2	6	=
MVG 7	2	8	=
MVG 10	4	10	=
MVG 14	4	12	=
GVMM 3	2	6	=
GVMM 7	2	8	=
GVMM 10	4	10	=
GVMM 14	4	12	=
MI 3	2	6	=
MI 7	2	8	=
MI 10	4	10	=
MI 14	4	12	=
AVG 18	8	15	=
AVG 25	9	15	=
PVP 12 MX	4	12	14
PVP 25 MX	4	15	6 x 4 pipes
PVP 40 M **PA 40 - PS 40**	6	27	=
PVP 70 M **PA 70 - PS 70**	8	27	=
PVP 100 M **PA 100 - PS 100**	9	27	=
PVP 140 M **PA 140 - PS 140**	9	35	=
PVP 170 M **PA 170 - PS 170**	12	35	=
PVP 200 M **PA 200 - PS 200**	12	40	=
PVP 250 M **PA 250 - PS 250**	12	40	=
PVP 300 M **PA 300 - PS 300**	12	50	=
PVP 25 MDX	6	27	=
PVP 35 MDX	6	27	=
PVP 50 MDX	6	27	=
PVP 60 MDX	8	27	=
PVP 75 MDX	8	27	=
PVP 150 MD	12	35	=
PVP 300 MD	12	40	=
PVP 450 MD	16	50	=
PVP 600 MD	18	60	=

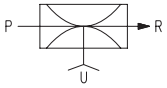
Note: Data valid for pipes max. 2 m long.

SINGLE-STAGE VACUUM GENERATORS 15 01 10 and 15 03 10

Single-stage vacuum generator operation is based on the Venturi principle.
Supplying the generator with compressed air in P, vacuum will be generated at connection U, while both the supply and the sucked air will be released through R.
By interrupting the air supply in P, the vacuum effect in U will also stop.
Vacuum generators 15 01 10 and 15 03 10 are generally used for controlling vacuum cups, for gripping and handling non-porous objects and equipment with low capacity requirements.
They are fully made with anodised aluminium.







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

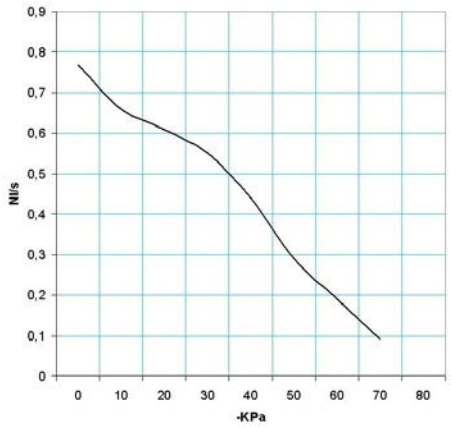
Art.		15 01 10		
Quantity of sucked air	cum/h	2.7	2.8	2.8
Max. vacuum level	-KPa	55	70	83
Final pressure	mbar abs.	450	300	170
Supply pressure	bar (g)	4	5	6
Air consumption	Nl/s	0.7	0.8	0.9
Working temperature	°C			-20 / +80
Noise level	dB(A)			63
Weight	g			140

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

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

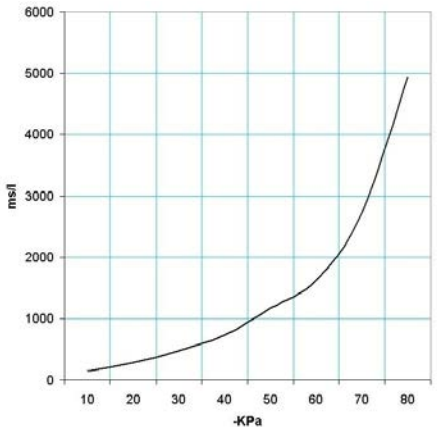
GAS-NPT thread adapters available at page 1.117

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



Generator art.	Supply press. bar (g)	Air consumption Nl/s	Air capacity (Nl/s) at different vacuum levels (-KPa) 0	10	20	30	40	50	60	70	80	Max. vacuum level -KPa
15 01 10	6.0	0.9	0.77	0.66	0.61	0.55	0.44	0.29	0.19	0.09	--	83

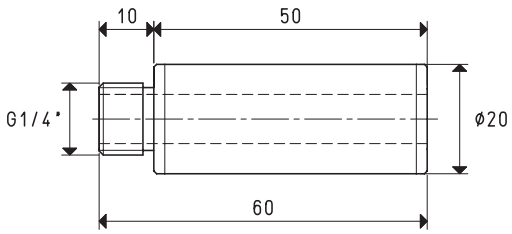
Evacuation time (ms/l=s/m³) at different vacuum levels (-Kpa)



Generator art.	Supply press. bar (g)	Air consumption Nl/s	Evacuation time (ms/l = s/m³) at different vacuum levels (-KPa) 10	20	30	40	50	60	70	80	Max. vacuum level -KPa
15 01 10	6.0	0.9	139	278	472	727	1171	1628	2720	4928	83

Accessories upon reques

Silencer art. SSX 1/4”

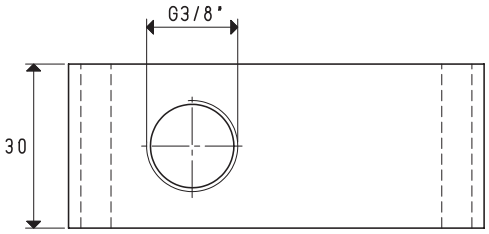


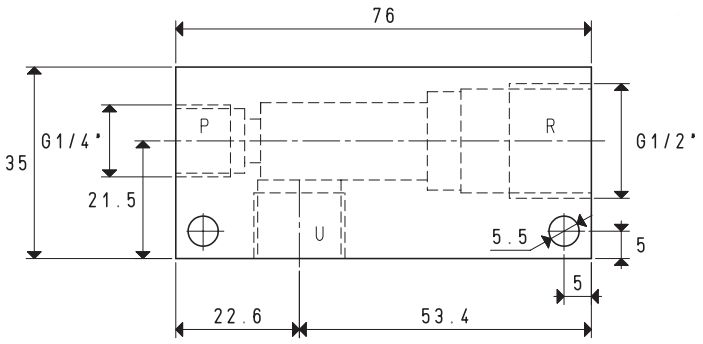
8

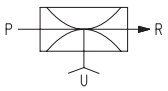
3D drawings available at **www.vuototecnica.net**

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

GAS-NPT thread adapters available at page 1.117







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

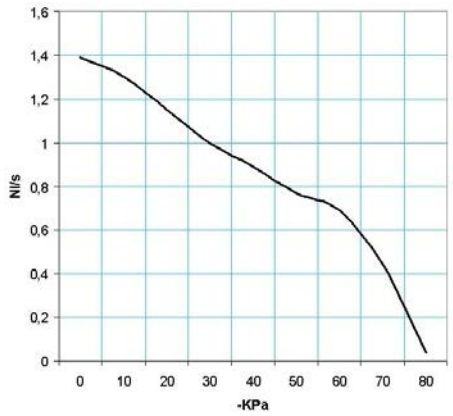
Art.		15 03 10		
Quantity of sucked air	cum/h	4.8	5	5
Max. vacuum level	-KPa	62	78	85
Final pressure	mbar abs.	380	220	150
Supply pressure	bar (g)	4	5	6
Air consumption	Nl/s	1.3	1.6	1.8
Working temperature	°C			-20 / +80
Noise level	dB(A)			79
Weight	g			179

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

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

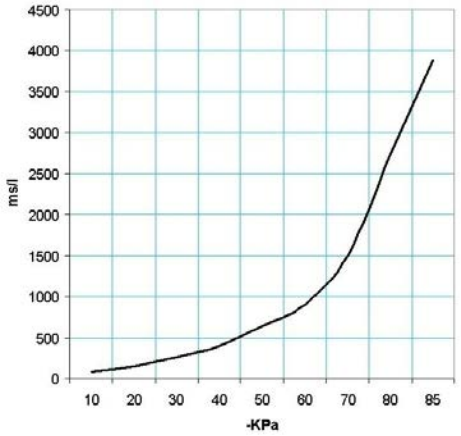
GAS-NPT thread adapters available at page 1.117

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



Generator	Supply press.	Air consumption	Air capacity (Nl/s) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	0	10	20	30	40	50	60	70	80	-KPa
15 03 10	6.0	1.8	1.39	1.30	1.15	1.00	0.89	0.77	0.69	0.44	0.04	85

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

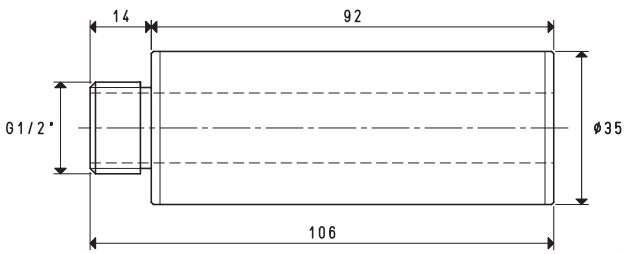


Generator	Supply press.	Air consumption	Evacuation time (ms/l = s/m³) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	10	20	30	40	50	60	70	80	85	-KPa
15 03 10	6.0	1.8	77	154	261	403	649	902	1506	2730	3876	85

8

Accessories upon req

Silencer art. SSX 1/2"



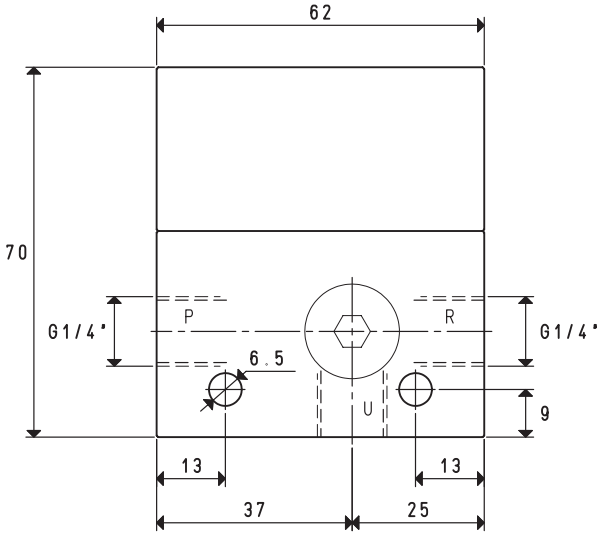
3D drawings available at **www.vuototecnica.net**

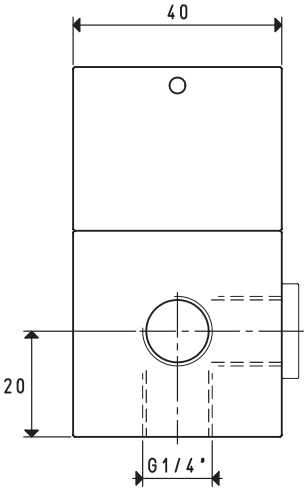
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

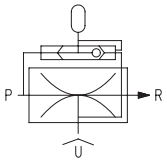
GAS-NPT thread adapters available at page 1.117

SINGLE-STAGE VACUUM GENERATORS WITH EJECTOR 15 02 10 and 15 04 10

The operation of these single-stage vacuum generators is based on the Venturi principle. Supplying the generator with compressed air in P, vacuum will be generated at connection U, while both the supply and the sucked air will be released through R. At the same time, the chamber contained in the generator is also supplied and, as soon as the supply in P is interrupted, it discharges the compressed air that had been collected in it through connection U, thus rapidly restoring the atmospheric pressure at the service.
If, for example, a vacuum cup is connected to the service U, thanks to this system it will disconnect much rapidly than with the vacuum generators described previously.
They are fully made with anodised aluminium.







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

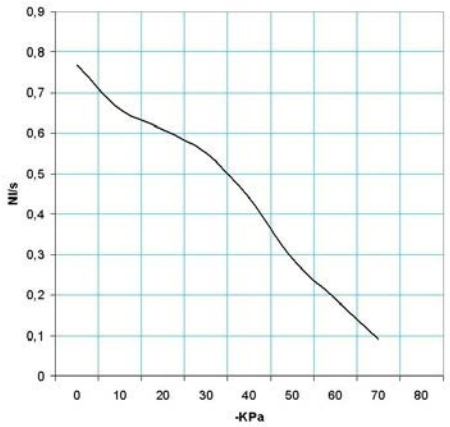
Art.		15 02 10		
Quantity of sucked air	cum/h	2.7	2.8	2.8
Max. vacuum level	-KPa	55	70	83
Final pressure	mbar abs.	450	300	170
Supply pressure	bar (g)	4	5	6
Air consumption	Nl/s	0.7	0.8	0.9
Working temperature	°C			-20 / +80
Noise level	dB(A)			63
Weight	g			319
Spare parts				
Sealing kit	art.			00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

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

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

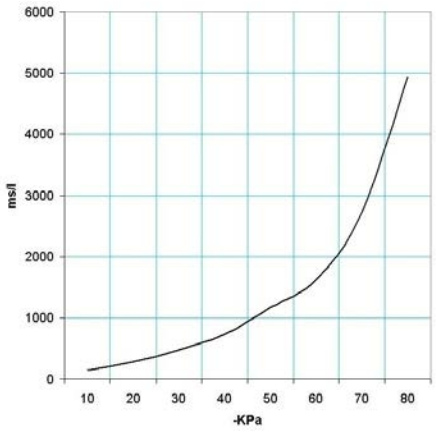
GAS-NPT thread adapters available at page 1.117

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



Generator	Supply press.	Air consumption	Air capacity (Nl/s) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	0	10	20	30	40	50	60	70	80	-KPa
15 02 10	6.0	0.9	0.77	0.66	0.61	0.55	0.44	0.29	0.19	0.09	--	83

Evacuation time (ms/l=s/m^3) at different vacuum levels (-Kpa)

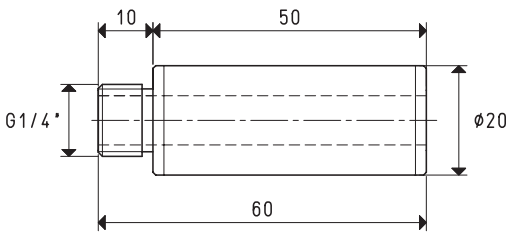


Generator	Supply press.	Air consumption	Evacuation time (ms/l = s/m^3) at different vacuum levels (-KPa)								Max. vacuum level
art.	bar (g)	Nl/s	10	20	30	40	50	60	70	80	-KPa
15 02 10	6.0	0.9	139	278	472	727	1171	1628	2720	4928	83

8

Accessories upon req

Silencer art. SSX 1/4”

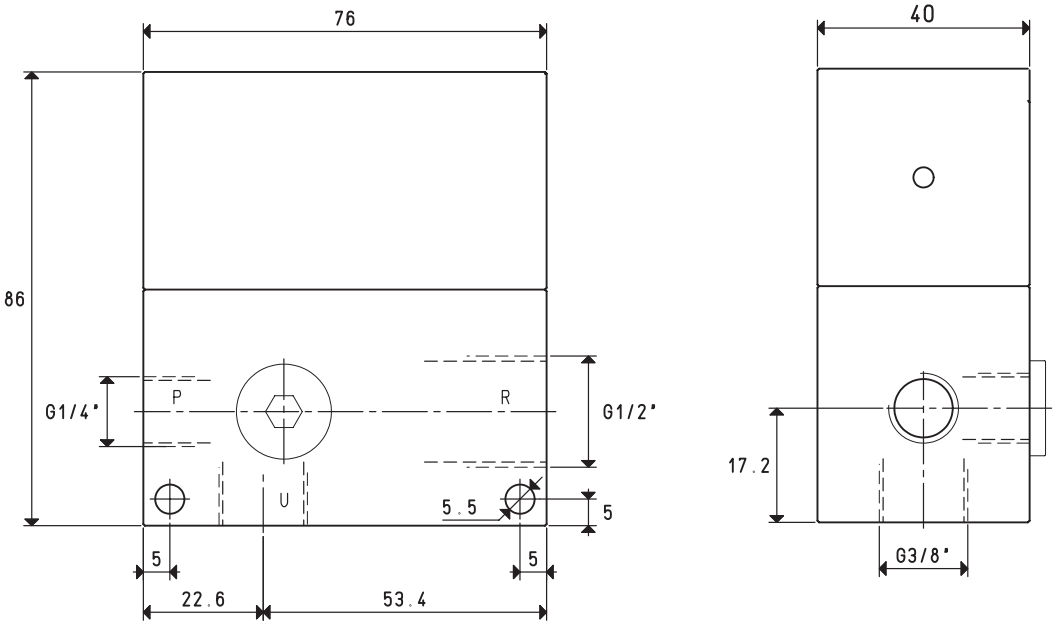


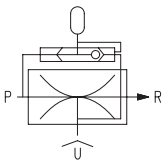
3D drawings available at **www.vuototecnica.net**

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

SINGLE-STAGE VACUUM GENERATORS WITH EJECTOR 15 04 10





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

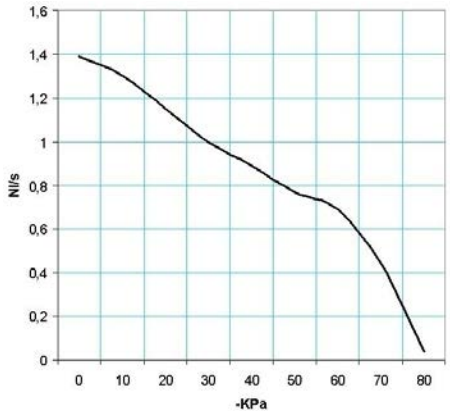
Art.		15 04 10		
Quantity of sucked air	cum/h	4.8	5	5
Max. vacuum level	-KPa	62	78	85
Final pressure	mbar abs.	380	220	150
Supply pressure	bar (g)	4	5	6
Air consumption	Nl/s	1.3	1.6	1.8
Working temperature	°C			-20 / +80
Noise level	dB(A)			79
Weight	g			501
Spare parts				
Sealing kit	art.			00 15 501

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

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

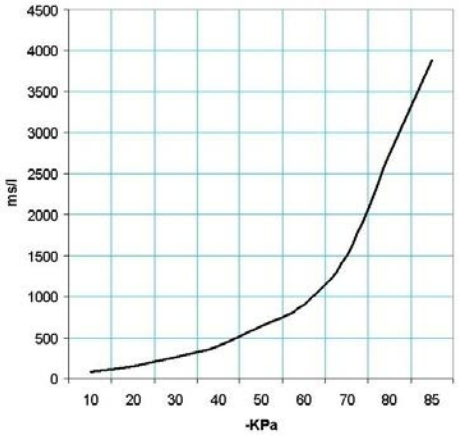
GAS-NPT thread adapters available at page 1.117

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



Generator	Supply press.	Air consumption	Air capacity (Nl/s) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	0	10	20	30	40	50	60	70	80	-KPa
15 04 10	6.0	1.8	1.39	1.30	1.15	1.00	0.89	0.77	0.69	0.44	0.04	85

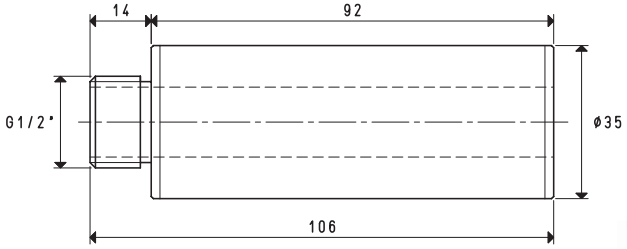
Evacuation time (ms/l=s/m³) at different vacuum levels (-Kpa)



Generator	Supply press.	Air consumption	Evacuation time (ms/l = s/m³) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	10	20	30	40	50	60	70	80	85	-KPa
15 04 10	6.0	1.8	77	154	261	403	649	902	1506	2730	3876	85

Accessories upon request

Silencer art. SSX 1/2”



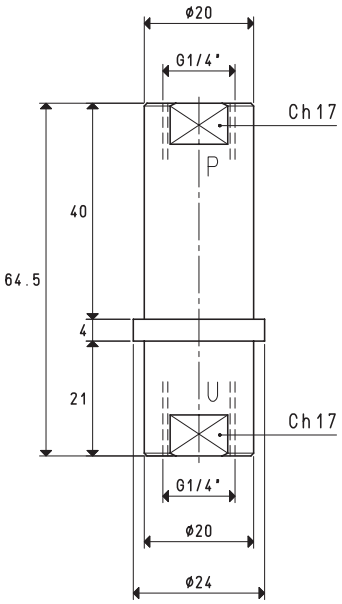
3D drawings available at **www.vuototecnica.net**

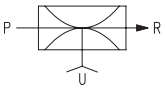
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

GAS-NPT thread adapters available at page 1.117

IN-LINE SINGLE-STAGE VACUUM GENERATORS PVP 1

This new range of vacuum generators also exploits the Venturi principle. Their distinctive feature compared with traditional vacuum generators are the two air and vacuum supply connections located in-line, while the exhaust connection of the sucked and exhaust air is orthogonal to them and it is located on the on the generator circumference.
These vacuum generators are easy to disassemble, thus allowing visibility and access to all the components. The advantages of these generators include reduced overall dimensions, easy maintenance and easy assembly to the vacuum cup supports or to the vacuum cup holders.
As a standard, they are equipped with pressed stainless steel suction filtre and a special microfibre silencer, which is wrapped around the exhaust connection, making them particularly silent.
They are fully made with anodised aluminium.





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

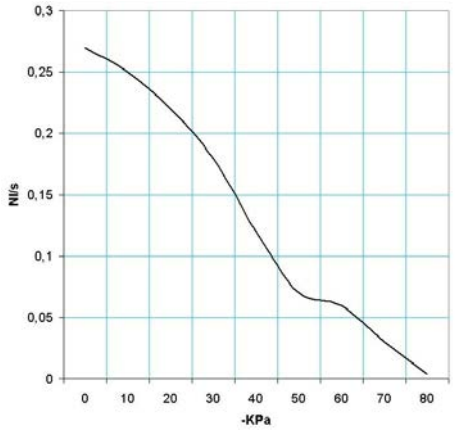
Art.		PVP 1		
Quantity of sucked air	cum/h	0.9	1.0	1.0
Max. vacuum level	-KPa	60	80	85
Final pressure	mbar abs.	400	200	150
Supply pressure	bar (g)	3	4	5
Air consumption	Nl/s	0.5	0.6	0.8
Working temperature	°C			-20 / +80
Noise level	dB(A)			62
Weight	g			44
Spare parts				
Silencer	art.			00 15 114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

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

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

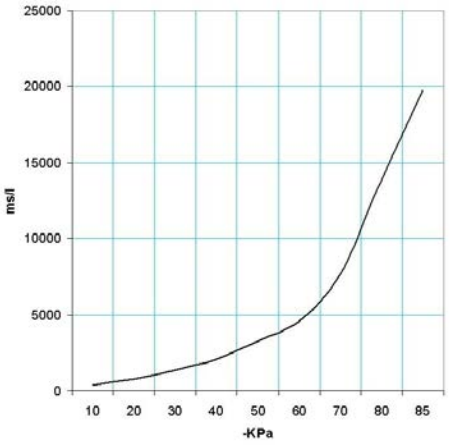
GAS-NPT thread adapters available at page 1.117

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



Generator	Supply press.	Air consumption	Air capacity (Nl/s) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	0	10	20	30	40	50	60	70	80	-KPa
PVP 1	5.0	0.8	0.27	0.25	0.22	0.18	0.12	0.07	0.06	0.03	0.004	85

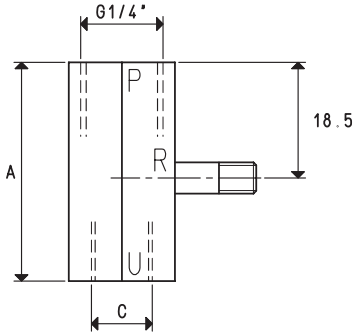
Evacuation time (ms/l=s/m³) at different vacuum levels (-Kpa)

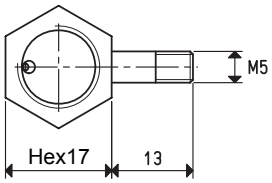


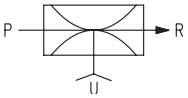
Generator	Supply press.	Air consumption	Evacuation time (ms/l = s/m³) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	10	20	30	40	50	60	70	80	85	-KPa
PVP 1	5.0	0.8	393	786	1336	2057	3312	4605	7690	13935	19787	85

IN-LINE SINGLE-STAGE VACUUM GENERATORS GV 1, GV 2 and GV 3

The operation of these vacuum generators is also based on the Venturi principle.
Their distinctive feature compared with traditional vacuum generators are the two air and vacuum supply connections located in-line, while the exhaust connection of the sucked and exhaust air is orthogonal to them.
The advantages of these generators include reduced overall dimensions, easy maintenance and easy assembly. These vacuum generators can be assembled directly onto the vacuum cup supports or vacuum cup holders. They are fully made with anodised aluminium,except for the exhaust nozzle which is made with brass.







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

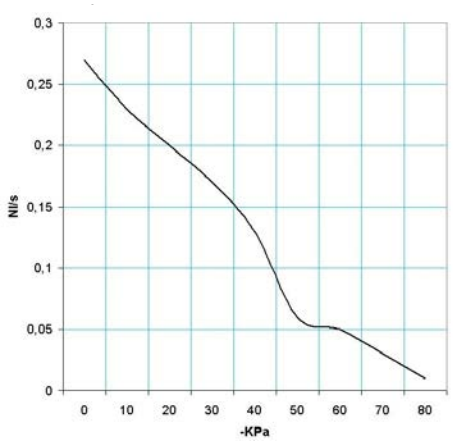
Art.		GV1			GV2			GV3		
Quantity of sucked air	cum/h	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Max. vacuum level	-KPa	60	75	85	60	75	85	60	75	85
Final pressure	mbar abs.	400	250	150	400	250	150	400	250	150
Supply pressure	bar (g)	3	4	5	3	4	5	3	4	5
Air consumption	Nl/s	0.5	0.6	0.7	0.5	0.6	0.7	0.5	0.6	0.7
Working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

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

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

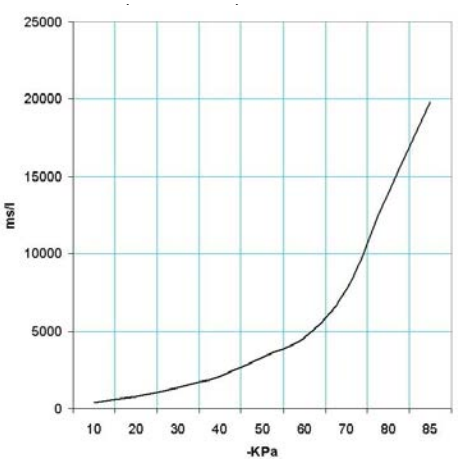
GAS-NPT thread adapters available at page 1.117

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



Generator	Supply press.	Air consumption	Air capacity (Nl/s) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	0	10	20	30	40	50	60	70	80	-KPa
GV1 - GV2 - GV3	5.0	0.7	0.27	0.23	0.20	0.17	0.13	0.06	0.05	0.03	0.004	85

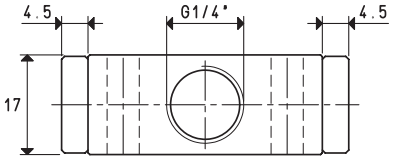
Evacuation time (ms/l=s/m^3) at different vacuum levels (-Kpa)

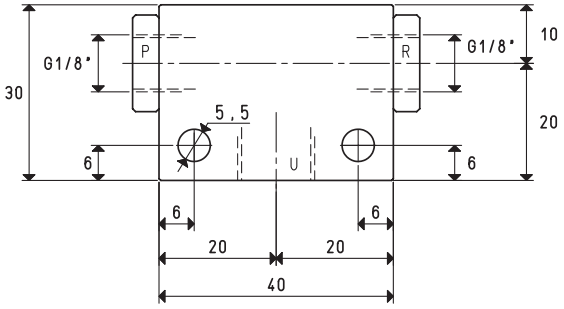


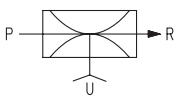
Generator	Supply press.	Air consumption	Evacuation time (ms/l = s/m^3) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	10	20	30	40	50	60	70	80	85	-KPa
GV1 - GV2 - GV3	5.0	0.7	394	788	1339	2063	3322	4617	7711	13973	19841	85

SINGLE-STAGE VACUUM GENERATORS PVP 2 and PVP 3

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







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

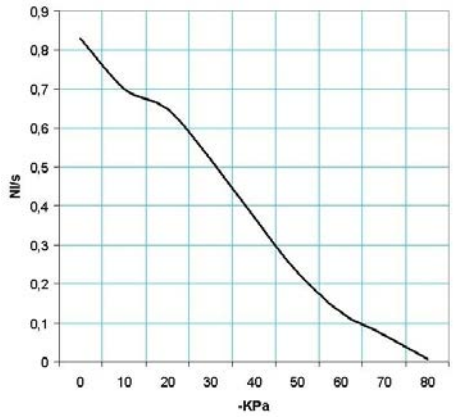
Art.		PVP 2		
Quantity of sucked air	cum/h	2.8	2.9	3.0
Max. vacuum level	-KPa	60	70	85
Final pressure	mbar abs.	400	300	150
Supply pressure	bar (g)	4	5	6
Air consumption	Nl/s	0.7	0.9	1.0
Working temperature	°C			-20 / +80
Noise level	dB(A)			78
Weight	g			70

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

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

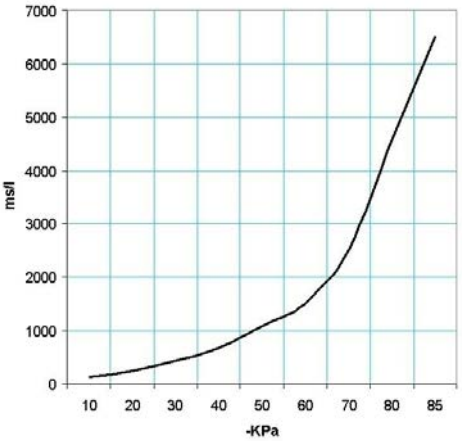
GAS-NPT thread adapters available at page 1.117

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



Generator	Supply press.	Air consumption	Air capacity (Nl/s) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	0	10	20	30	40	50	60	70	80	-KPa
PVP 2	6.0	1.0	0.83	0.70	0.65	0.52	0.37	0.23	0.13	0.07	0.007	85

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

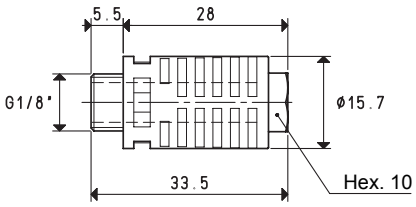


Generator	Supply press.	Air consumption	Evacuation time (ms/l = s/m³) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	10	20	30	40	50	60	70	80	85	-KPa
PVP 2	6.0	1.0	128	257	438	675	1087	1511	2523	4572	6492	85

8

Accessories upon request

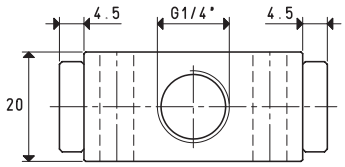
Silencer art. 00 15 74

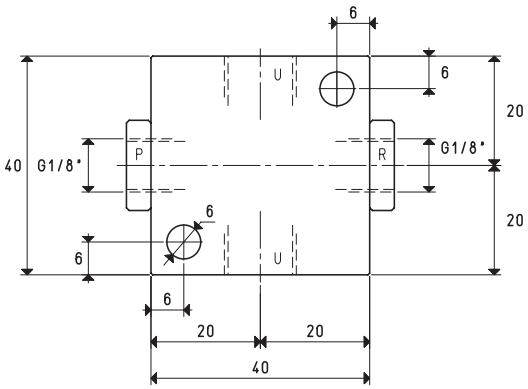


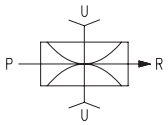
3D drawings available at **www.vuototecnica.net**

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

GAS-NPT thread adapters available at page 1.117







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

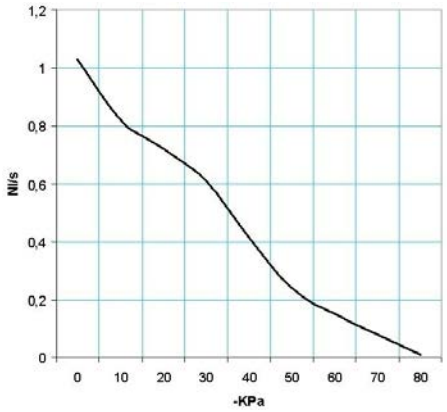
Art.		PVP 3		
Quantity of sucked air	cum/h	3.4	3.5	3.7
Max. vacuum level	-KPa	60	70	85
Final pressure	mbar abs.	400	300	150
Supply pressure	bar (g)	4	5	6
Air consumption	Nl/s	1.1	1.3	1.5
Working temperature	°C			-20 / +80
Noise level	dB(A)			80
Weight	g			100

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

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

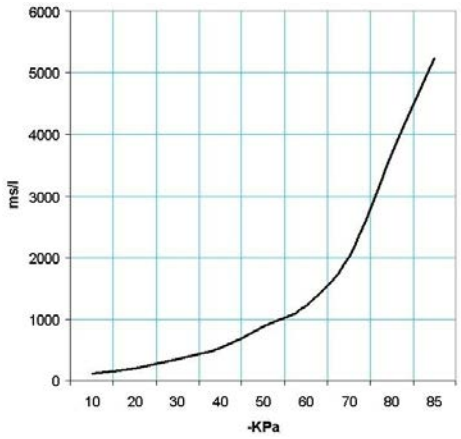
GAS-NPT thread adapters available at page 1.117

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



Generator	Supply press.	Air consumption	Air capacity (Nl/s) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	0	10	20	30	40	50	60	70	80	-KPa
PVP 3	6.0	1.5	1.03	0.82	0.72	0.61	0.41	0.24	0.15	0.08	0.008	85

Evacuation time (ms/l=s/m^3) at different vacuum levels (-Kpa)

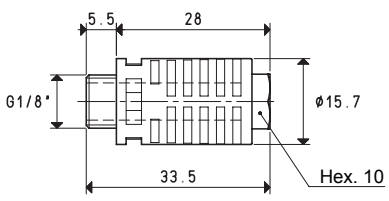


Generator	Supply press.	Air consumption	Evacuation time (ms/l = s/m^3) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	10	20	30	40	50	60	70	80	85	-KPa
PVP 3	6.0	1.5	104	207	353	544	857	1217	2033	3684	5232	85

8

Accessories upon request

Silencer art. 00 15 74



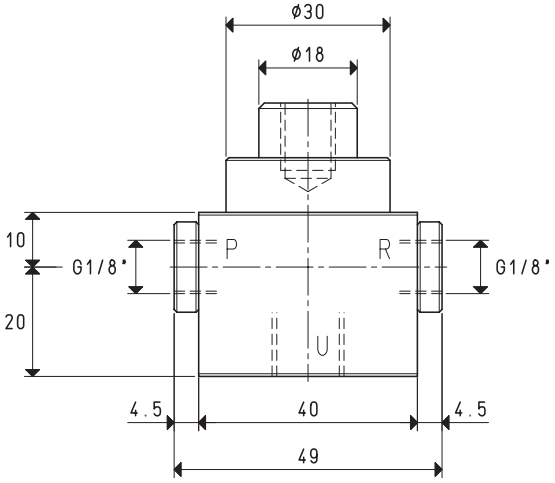
3D drawings available at **www.vuototecnica.net**

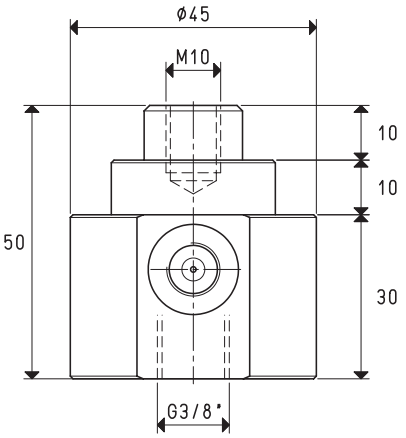
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

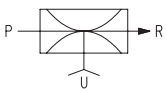
GAS-NPT thread adapters available at page 1.117

SINGLE-STAGE VACUUM GENERATORS PVP 2 M

The vacuum generators described in this page are also based on the Venturi principle and share the same technical features as the previous ones. Their distinctive feature is their shape.
The vacuum connection U, in fact, is threaded to allow the assembly of a vacuum cup with a male 3/8" threaded gas support, while in-line, but on the opposite side an M 10 threaded hole allows installing the generator directly onto the machine or on the cup holders with springing device. They are fully made with anodised aluminium, with brass ejectors.
Equipped with a vacuum cup, they are true independent gripping units.
These vacuum generators are suited for vacuum cup operated loaders or handlers, for gripping sheet steel, glass slabs, plastic panels and other similar products.







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

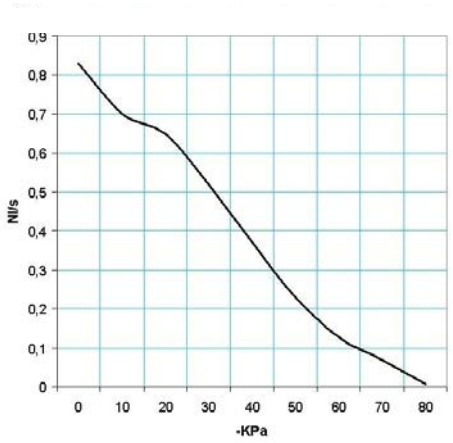
Art.		PVP 2 M		
Quantity of sucked air	cum/h	2.8	2.9	3.0
Max. vacuum level	-KPa	60	70	85
Final pressure	mbar abs.	400	300	150
Supply pressure	bar (g)	4	5	6
Air consumption	Nl/s	0.7	0.9	1.0
Working temperature	°C			-20 / +80
Noise level	dB(A)			78
Weight	g			162

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

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

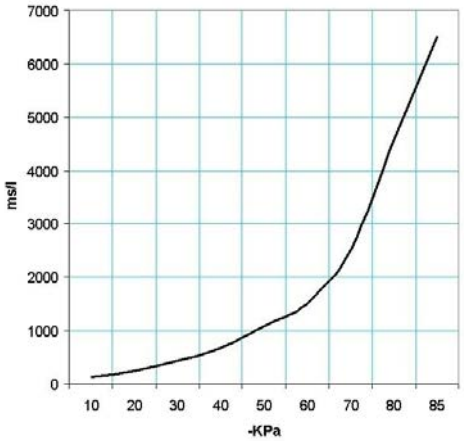
GAS-NPT thread adapters available at page 1.117

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



Generator	Supply press.	Air consumption	Air capacity (Nl/s) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	0	10	20	30	40	50	60	70	80	-KPa
PVP 2 M	6.0	1.0	0.83	1.70	0.65	0.52	0.37	0.23	0.13	0.07	0.007	85

Evacuation time (ms/l=s/m^3) at different vacuum levels (-Kpa)

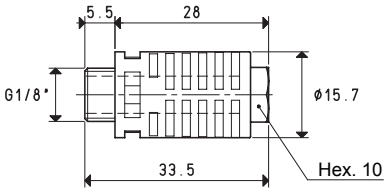


Generator	Supply press.	Air consumption	Evacuation time (ms/l = s/m^3) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	10	20	30	40	50	60	70	80	85	-KPa
PVP 2 M	6.0	1.0	128	257	438	675	1087	1511	2523	4572	6492	85

8

Accessories upon request

Silencer art. 00 15 74



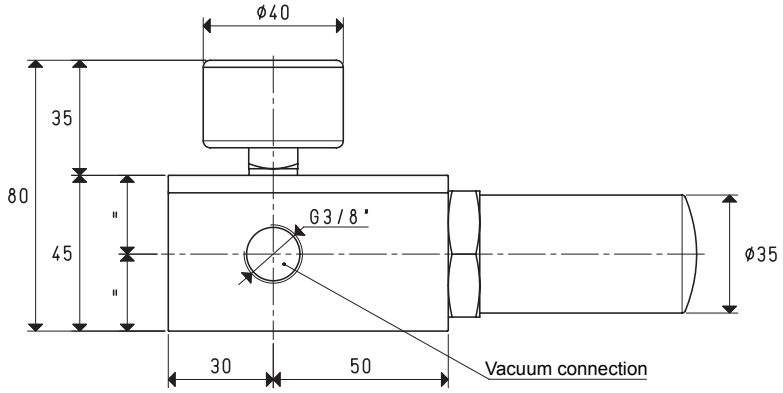
3D drawings available at **www.vuototecnica.net**

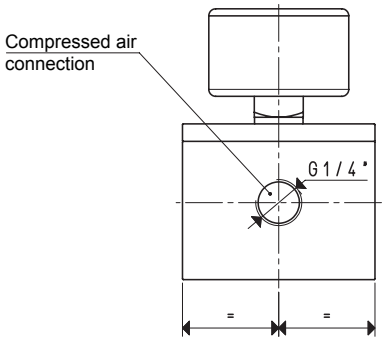
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$

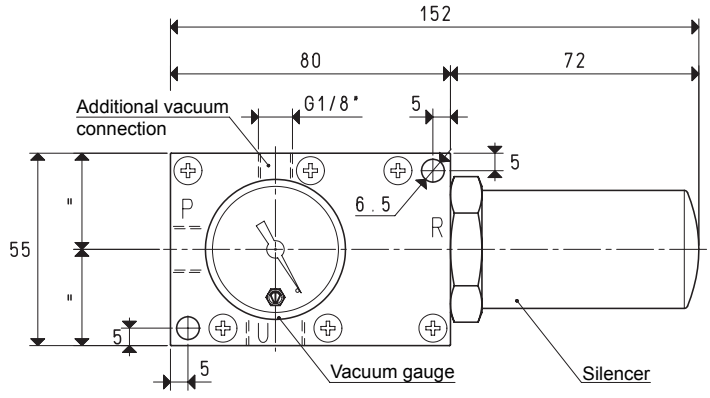
GAS-NPT thread adapters available at page 1.117

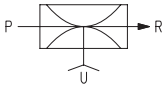
SINGLE-STAGE VACUUM GENERATORS PVP 7 X

Vacuum generators PVP 7 X also exploit the Venturi principle. Their distinctive feature compared to PVP 2 and PVP 3 is their greater suction capacity, thanks to the association of two ejectors in parallel.
A special silencer made with sintered ceramic is installed on their exhaust, making them particularly silent.
As a standard, they are equipped with a vacuum gauge for a direct reading of the vacuum level.
An additional connection on the body of the generator allows the installation of a mini vacuum switch for signalling the vacuum level, or of a pneumatic solenoid valve for a quick restoration of the atmospheric pressure at the service.
They are fully made with anodised aluminium, with stainless steel ejectors.
These vacuum generators can be used for connecting one or more vacuum cups or equipment with capacity requirements within the shown values.









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

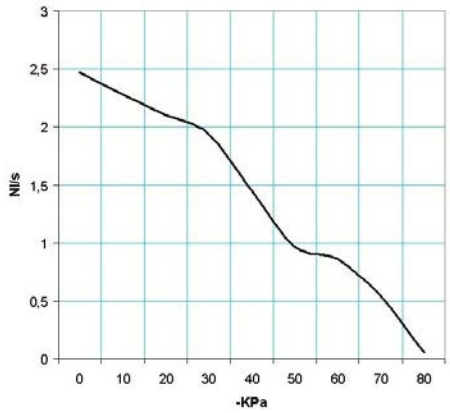
Art.		PVP 7 X		
Quantity of sucked air	cum/h	8.5	8.8	8.9
Max. vacuum level	-KPa	60	73	85
Final pressure	mbar abs.	400	270	150
Supply pressure	bar (g)	4	5	6
Air consumption	Nl/s	2.3	2.8	3.2
Working temperature	°C			-20 / +80
Noise level	dB(A)			63
Weight	g			470
Spare parts				
Sealing kit	art.			00 15 276
Vacuum gauge	art.			09 03 15
Silencer	art.			00 15 55

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

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

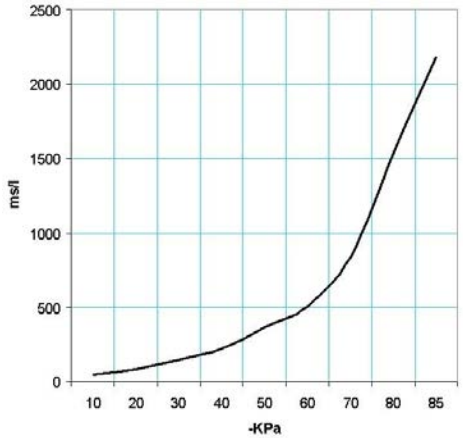
GAS-NPT thread adapters available at page 1.117

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



Generator	Supply press.	Air consumption	Air capacity (Nl/s) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	0	10	20	30	40	50	60	70	80	-KPa
PVP 7 X	6.0	3.2	2.47	2.28	2.10	1.94	1.44	0.97	0.86	0.54	0.05	85

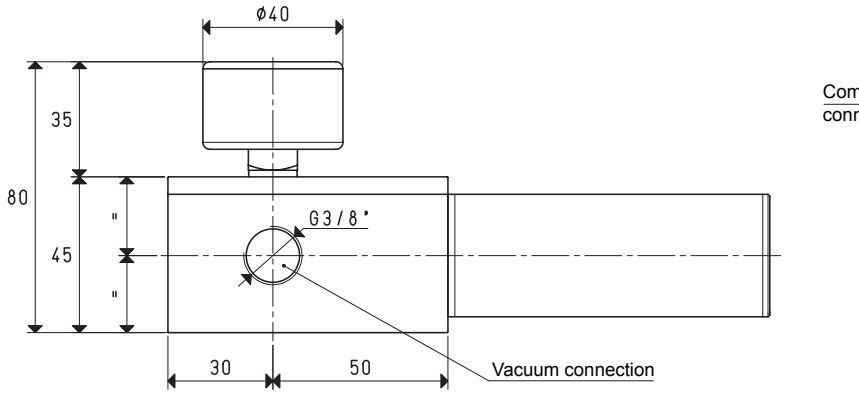
Evacuation time (ms/l=s/m³) at different vacuum levels (-Kpa)

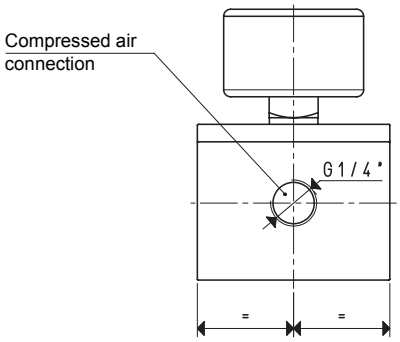


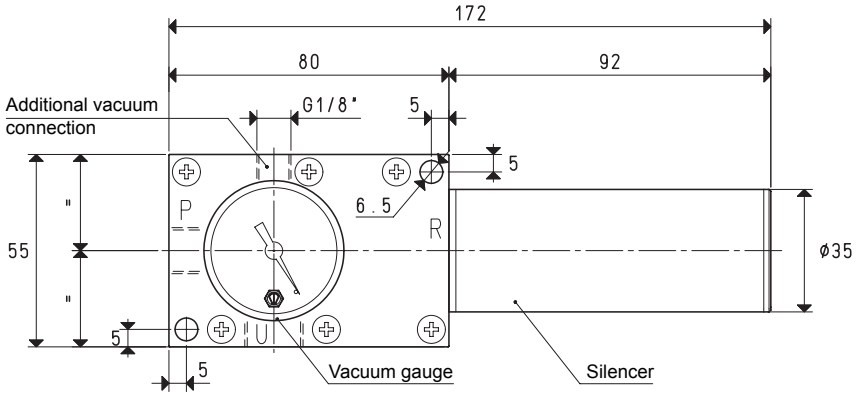
Generator	Supply press.	Air consumption	Evacuation time (ms/l = s/m³) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	10	20	30	40	50	60	70	80	85	-KPa
PVP 7 X	6.0	3.2	43	86	147	226	365	507	847	1536	2181	85

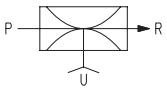
SINGLE-STAGE VACUUM GENERATORS PVP 7 SX

Vacuum generators PVP 7X share the same mechanical and technical features as the previously described ones. Their distinctive feature is a state of the are silencer installed on them and made with natural fibre sound absorbing material contained in a special cylindrical anodised aluminium enclosure open on the exhaust.
This prevents the silencer from being clogged and allows the vacuum generator to suck oil or water condensation saturated fluids mixed with fine and impalpable dust.
They can be used as PVP 7X and, in addition, they can also operate in humid or dusty environments.









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

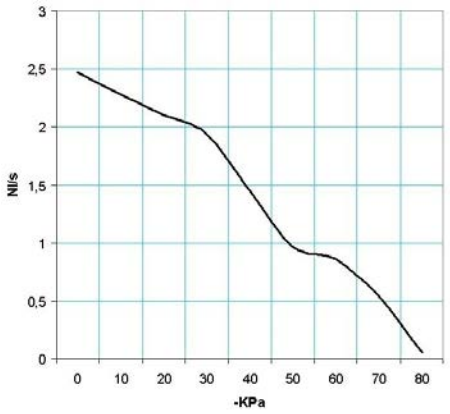
Art.		PVP 7 SX		
Quantity of sucked air	cum/h	8.5	8.8	8.9
Max. vacuum level	-KPa	60	73	85
Final pressure	mbar abs.	400	270	150
Supply pressure	bar (g)	4	5	6
Air consumption	Nl/s	2.3	2.8	3.2
Working temperature	°C			-20 / +80
Noise level	dB(A)			63
Weight	g			470
Spare parts				
Sealing kit	art.			00 15 276
Vacuum gauge	art.			09 03 15
Silencer	art.			SSX 3/4 R

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

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

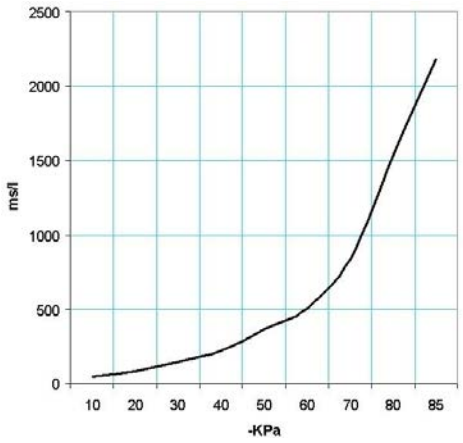
GAS-NPT thread adapters available at page 1.117

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



Generator	Supply press.	Air consumption	Air capacity (Nl/s) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	0	10	20	30	40	50	60	70	80	-KPa
PVP 7 SX	6.0	3.2	2.47	2.28	2.10	1.94	1.44	0.97	0.86	0.54	0.05	85

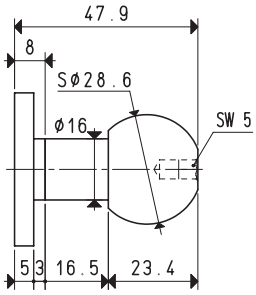
Evacuation time (ms/l=s/m^3) at different vacuum levels (-Kpa)

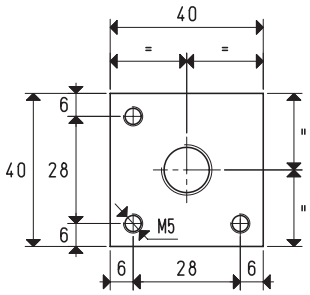


Generator	Supply press.	Air consumption	Evacuation time (ms/l = s/m^3) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	10	20	30	40	50	60	70	80	85	-KPa
PVP 7 SX	6.0	3.2	43	86	147	226	365	507	847	1536	2181	85

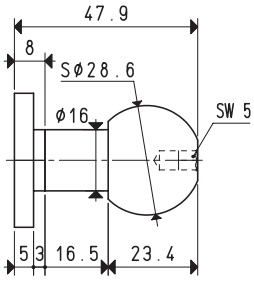
FIXING SUPPORTS FOR SINGLE-STAGE VACUUM GENERATORS

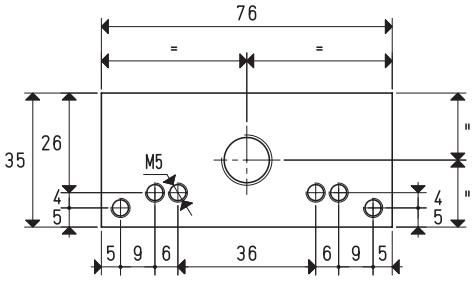
The supports described in this page are made with anodised aluminium as a standard, but, upon request, they can be supplied in the stainless steel version.
These supports are for fixing the single-stage vacuum generators to the machine via a cylindrical slotted pin or a ball pin housed in the machine itself.
They are suited for robotic gripping systems and they allow for an easy installation of the vacuum generators on the profiles used in the automotive sector.





Art.	For generators	Material	Weight g
FCH 01	PVP 2	aluminium	60
	PVP 3		
FCH 01 INOX	PVP 2	stainless steel	180
	PVP 3		

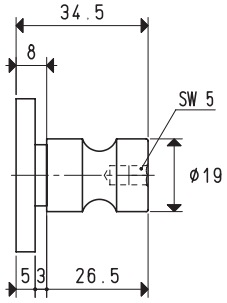


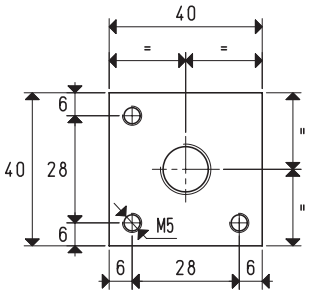


Art.	For generators	Material	Weight g
FCH 02	15 01 10	aluminium	72
	15 02 10		
	15 03 10		
	15 04 10		
FCH 02 INOX	15 01 10	stainless steel	220
	15 02 10		
	15 03 10		
	15 04 10		

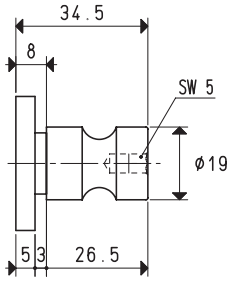
3D drawings available at **www.vuototecnica.net**

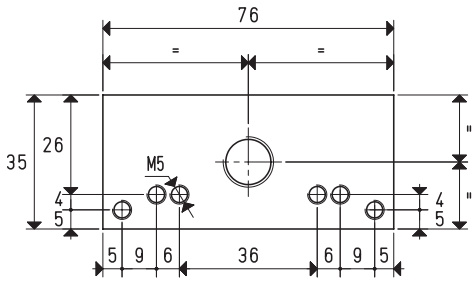
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$





Art.	For generators	Material	Weight g
FCH 03	PVP 2	aluminium	39
	PVP 3		
FCH 03 INOX	PVP 2	stainless steel	117
	PVP 3		





Art.	For generators	Material	Weight g
FCH 04	15 01 10	aluminium	52
	15 02 10		
	15 03 10		
	15 04 10		
FCH 04 INOX	15 01 10	stainless steel	156
	15 02 10		
	15 03 10		
	15 04 10		

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

MULTI-STAGE VACUUM GENERATORS - GENERAL INFORMATION

Our multi-stage vacuum generators produce a maximum vacuum of 90%, equal to a final vacuum level of 100 mbar abs., with different suction capacities. They operate by use of compressed air from 1 to 6 bar (g).

Working principle

Each ejector is based on the Venturi principle: the supply fluid (compressed air) is led high speed by a convergent pipe into the fluid to be extracted (volume of the air to be sucked). This mixture is then led into two or three divergent pipes, where its kinetic energy is transformed into pressure energy for it to enter in the environment at a higher pressure (atmospheric pressure at the exhaust).

Technical features

The main asset of multi-stage vacuum generators is its ability to exploit the kinetic energy of the supply compressed air via several specially dimensioned in-line ejectors, before releasing it in the atmosphere. This system allows, given the same capacity, a reduced compressed air consumption compared to the single-stage vacuum generators.

The suction capacity is indirectly proportional to the differential between the pressure of the fluid to be sucked and the external (atmospheric) pressure.

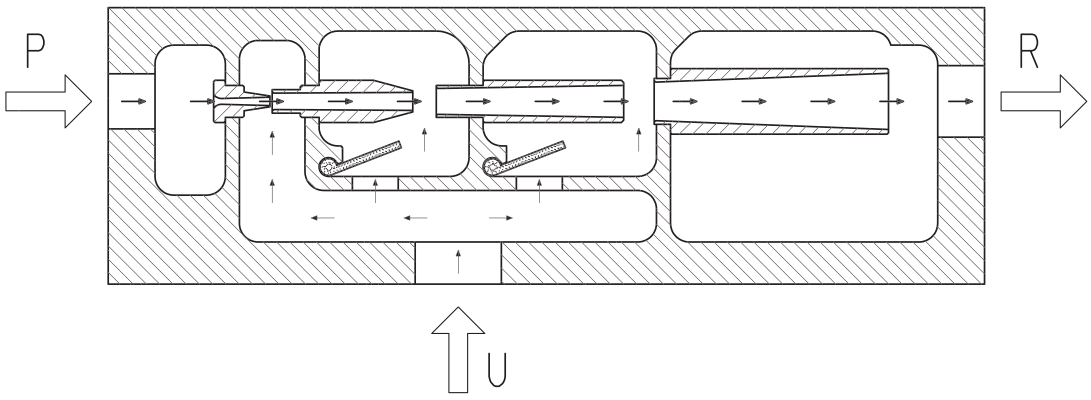
The reduced size and weight make multi-stage vacuum generators compact in relation to their great suction capacity.

The absence of moving parts make them particularly silent and allow them to be used continuously, without developing heat.

Being supplied exclusively by compressed air, these vacuum generators are explosion-proof and can be used in work environments with temperatures ranging from -20 to +80 °C.

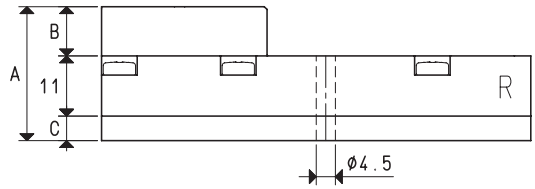
They are fully made with stainless materials.

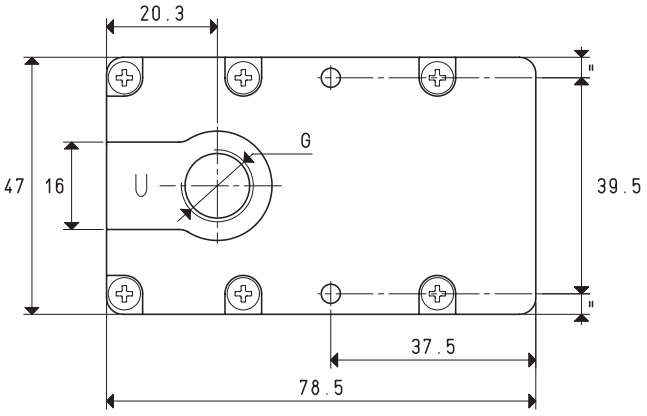
Thanks to all these features, a good filtration of the supply and sucked compressed air is sufficient to make these generators are fully maintenance-free.

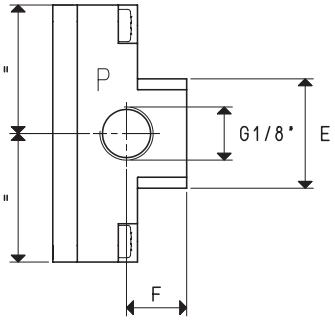


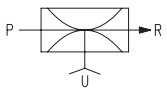
P = Compressed air connection
R = Exhaust
U = Vacuum connection

These vacuum generators feature multiple state of the art ejectors assembled onto small modules. One of their distinctive features is their great suction capacity compared to their reduced size.
With a compressed air supply of 4 ÷ 5 bar (g), they can produce a maximum vacuum equal to 85% and a suction capacity of 3.6 ÷ 18 cum/h, according to the number of modules. The silencer is built-in.
They are fully made with slightly anodised alloys and can be installed in any position. The multi-stage vacuum generators in this range are suited for interconnecting vacuum cup gripping systems and, in particular, in the industrial robotics sector, which requires equipment with excellent working performance, but with weight and size reduced to the minimum.









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

Art.		M 3					M 7
Quantity of sucked air	cum/h	3	3.4	3.6	5.4	5.8	6.2
Max. vacuum level	-KPa	62	82	85	62	82	85
Final pressure	mbar abs.	380	180	150	380	180	150
Supply pressure	bar (g)	3	4	5	3	4	5
Air consumption	Nl/s	0.5	0.7	0.8	0.8	1.2	1.4
Working temperature	°C			-10 / +80			-10 / +80
Noise level	dB(A)			64			70
Weight	g			109			111
A				24.5			25.5
B				9			10
C				4.5			4.5
E	Ø			20			24
F				11			12
G	Ø			G1/4"			G3/8"
Spare parts							
Sealing kit and reed valve	art.			00 KIT M 3			00 KIT M 7

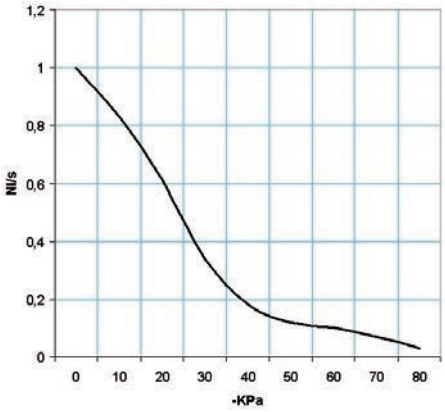
Note: All the vacuum data indicated in the table are valid at the normal atmospheric pressure of 1013 mbar and are obtained with a constant supply pressure.

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

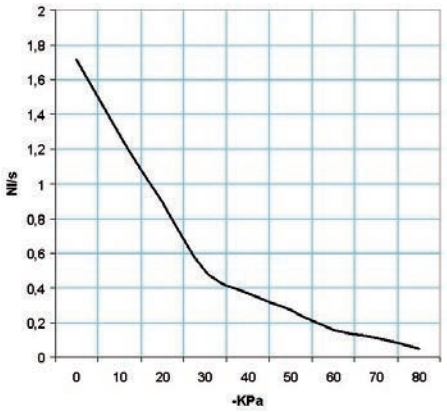
GAS-NPT thread adapters available at page 1.117

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

M 3



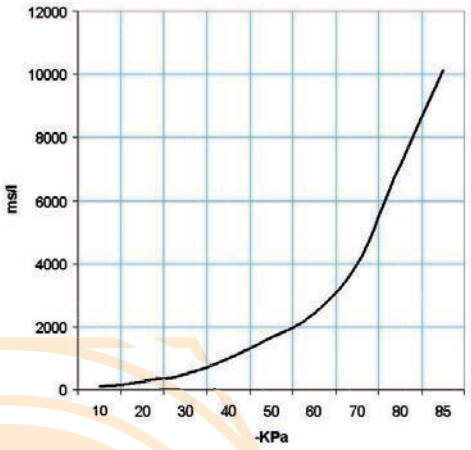
M 7



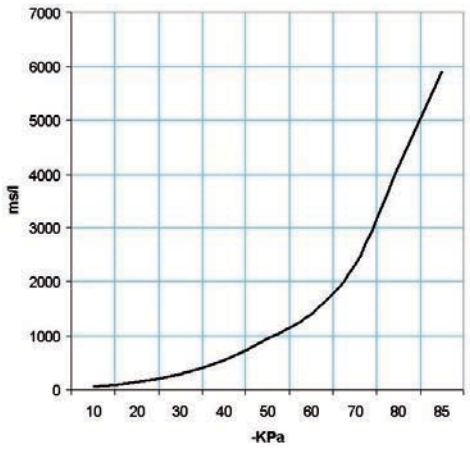
Generator	Supply press.	Air consumption	Air capacity (Nl/s) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	0	10	20	30	40	50	60	70	80	-KPa
M 3	5.0	0.8	1.00	0.83	0.61	0.34	0.18	0.12	0.10	0.07	0.03	85
M 7	5.0	1.4	1.72	1.28	0.89	0.50	0.37	0.27	0.16	0.11	0.05	85

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

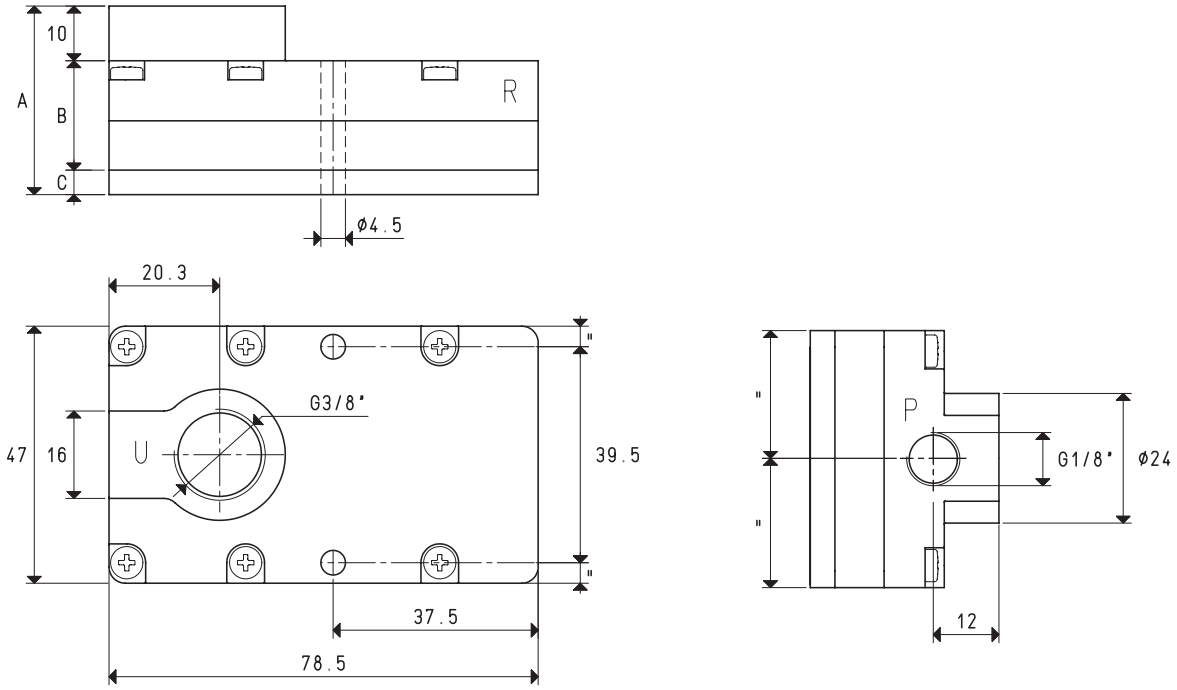
M 3

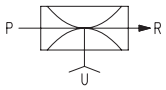


M 7



Generator	Supply press.	Air consumption	Evacuation time (ms/l = s/m³) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	10	20	30	40	50	60	70	80	85	-KPa
M 3	5.0	0.8	106	244	491	969	1642	2398	4004	7128	10122	85
M 7	5.0	1.4	61	142	285	563	954	1394	2328	4144	5885	85





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

Art.		M 10				M 14				M 18
Quantity of sucked air	cum/h	7.7	8.5	9.4	10.2	11.6	12.6	14.8	16.5	18.0
Max. vacuum level	-KPa	62	82	85	62	82	85	62	82	85
Final pressure	mbar abs.	380	180	150	380	180	150	380	180	150
Supply pressure	bar (g)	3	4	5	3	4	5	3	4	5
Air consumption	Nl/s	1.2	1.6	1.9	1.7	2.1	2.5	2.3	2.9	3.6
Working temperature	°C			-10 / +80			-10 / +80			-10 / +80
Noise level	dB(A)			72			72			76
Weight	g			144			145			150
A				34.5			34.5			44.5
B				20			20			30
C				4.5			4.5			4.5
Spare parts										
Sealing kit and reed valve	art.			00 KIT M 10			00 KIT M 14			00 KIT M 18

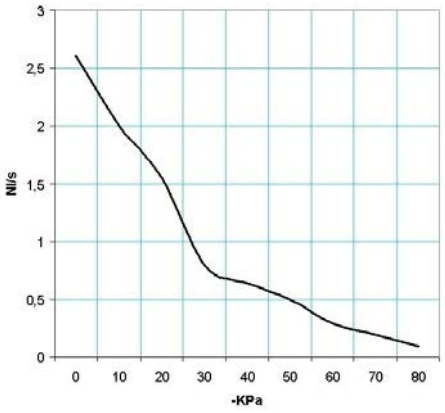
Note: All the vacuum data indicated in the table are valid at the normal atmospheric pressure of 1013 mbar and are obtained with a constant supply pressure.

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

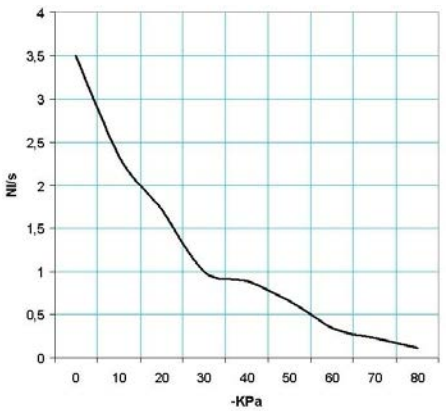
GAS-NPT thread adapters available at page 1.117

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

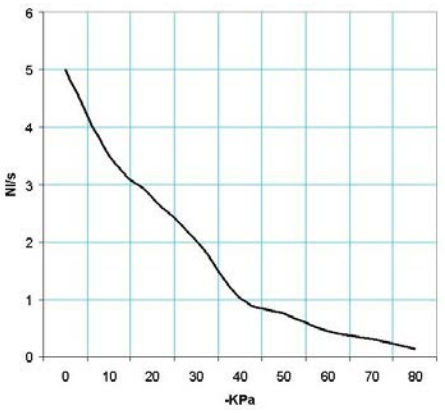
M10



M14



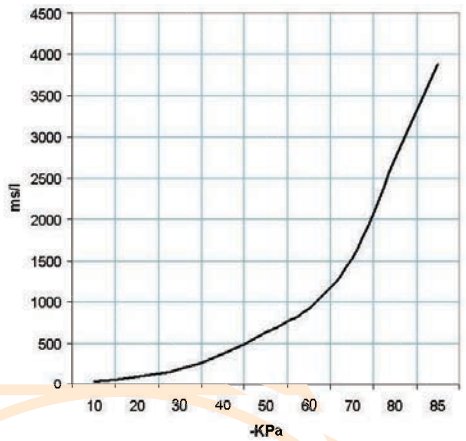
M18



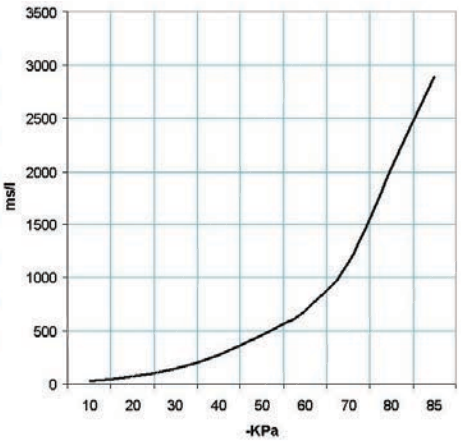
Generator	Supply press.	Air consumption	Air capacity (Nl/s) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	0	10	20	30	40	50	60	70	80	-KPa
M 10	5.0	1.9	2.61	2.00	1.55	0.80	0.64	0.50	0.29	0.19	0.09	85
M 14	5.0	2.5	3.50	2.33	1.72	1.00	0.89	0.67	0.35	0.24	0.11	85
M 18	5.0	3.6	5.00	3.50	2.78	2.02	1.02	0.75	0.44	0.30	0.14	85

Evacuation time (ms/l=s/m^3) at different vacuum levels (-Kpa)

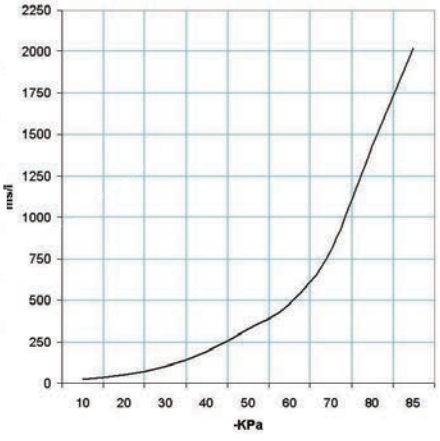
M10



M14

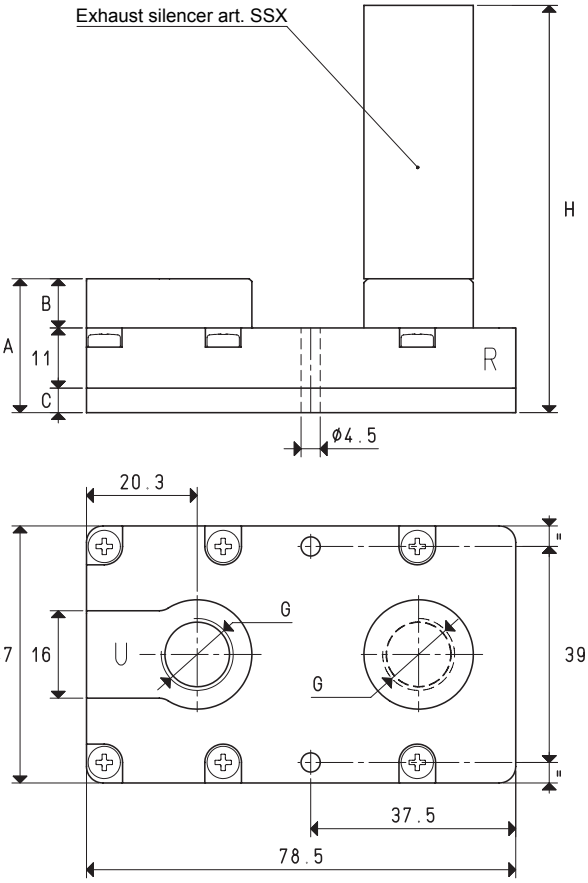


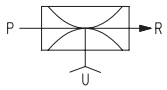
M18



Generator	Supply press.	Air consumption	Evacuation time (ms/l = s/m^3) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	10	20	30	40	50	60	70	80	85	-KPa
M 10	5.0	1.9	40	93	188	371	629	918	1534	2731	3878	85
M 14	5.0	2.5	30	69	140	276	469	685	1144	2036	2892	85
M 18	5.0	3.6	21	48	98	193	327	478	799	1423	2020	85

These vacuum generators share the same technical features as the others of the M series described above. Their distinctive feature is their silent operation.
In fact, along with thye built-in silencer, they also have an external SSX silencer for a further noise reduction.
These generators are particularly recommended in work environments where the noise level must be kept within very low values.





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

Art.		M 3 SSX					M 7 SSX
Quantity of sucked air	cum/h	3.0	3.4	3.6	5.4	5.8	6.2
Max. vacuum level	-KPa	62	82	85	62	82	85
Final pressure	mbar abs.	380	180	150	380	180	150
Supply pressure	bar (g)	3	4	5	3	4	5
Air consumption	Nl/s	0.5	0.7	0.8	0.8	1.2	1.4
Working temperature	°C			-10 / +80			-10 / +80
Noise level	dB(A)			52			58
Weight	g			109			111
A				24.5			25.5
B				9			10
C				4.5			4.5
E	Ø			20			29
F				11			12
G	Ø			G1/4"			G3/8"
H				74.5			97.5
Spare parts							
Silencer	art.			SSX 1/4"			SSX 3/8"
Sealing kit and reed valve	art.			00 KIT M 3			00 KIT M 7

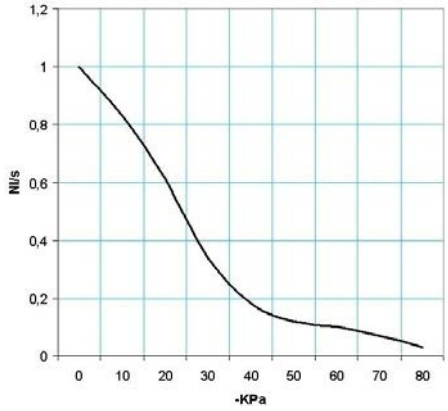
Note: All the vacuum data indicated in the table are valid at the normal atmospheric pressure of 1013 mbar and are obtained with a constant supply pressure.

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

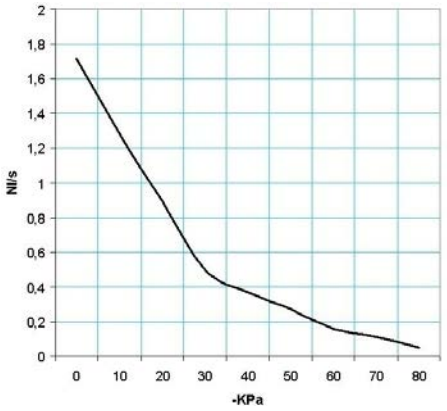
GAS-NPT thread adapters available at page 1.117

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

M3 SSX



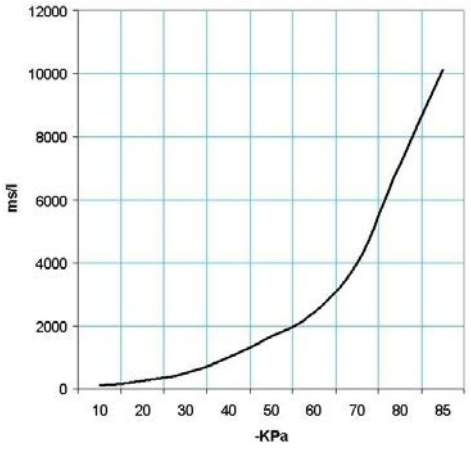
M7 SSX



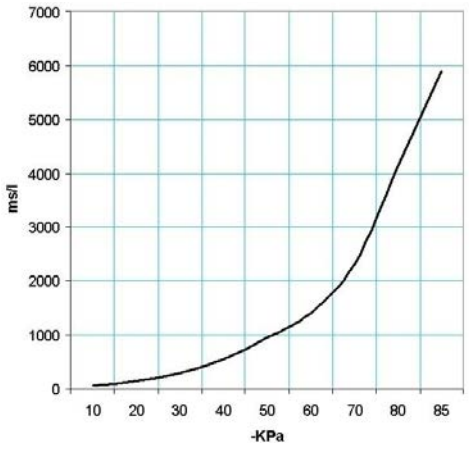
Generator art.	Supply press. bar (g)	Air consumption Nl/s	Air capacity (Nl/s) at different vacuum levels (-KPa) 0	10	20	30	40	50	60	70	80	Max. vacuum level -KPa
M 3 SSX	5.0	0.8	1.00	0.83	0.61	0.34	0.18	0.12	0.10	0.07	0.03	85
M 7 SSX	5.0	1.4	1.72	1.28	0.89	0.50	0.37	0.27	0.16	0.11	0.05	85

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

M3 SSX



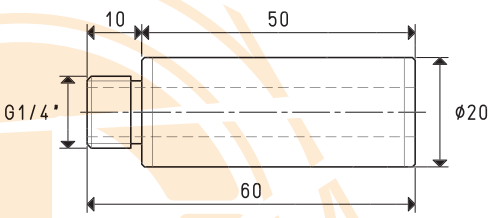
M7 SSX



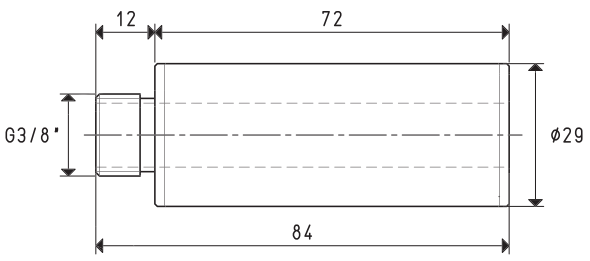
Generator art.	Supply press. bar (g)	Air consumption Nl/s	Evacuation time (ms/l = s/m³) at different vacuum levels (-KPa) 10	20	30	40	50	60	70	80	85	Max. vacuum level -KPa
M 3 SSX	5.0	0.8	106	244	491	969	1642	2398	4004	7128	10122	85
M 7 SSX	5.0	1.4	61	142	285	563	954	1394	2328	4144	5885	85

Accessories included

Silencer art. SSX 1/4" on M3

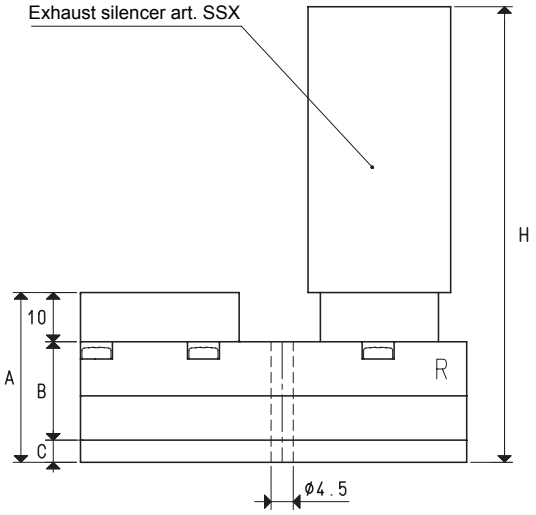


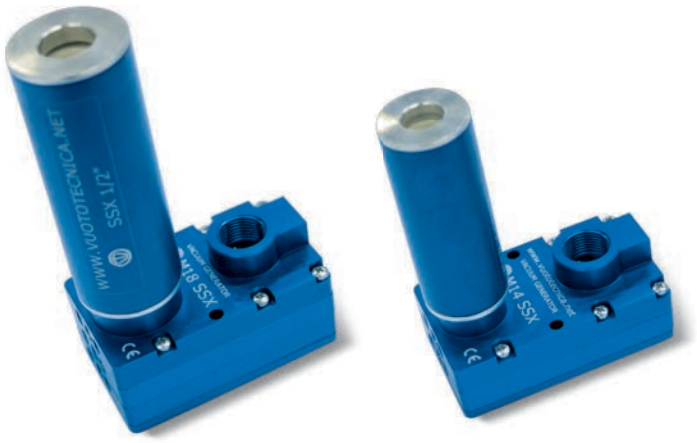
Silencer art. SSX 3/8" on M7

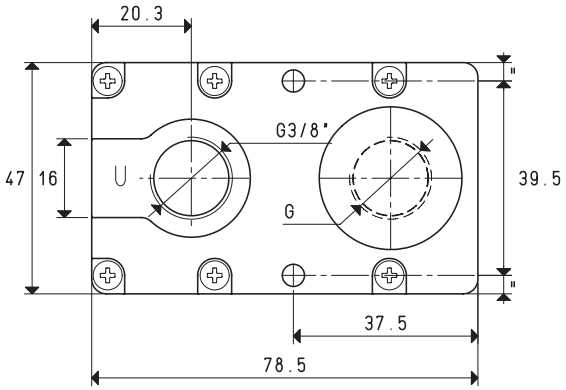


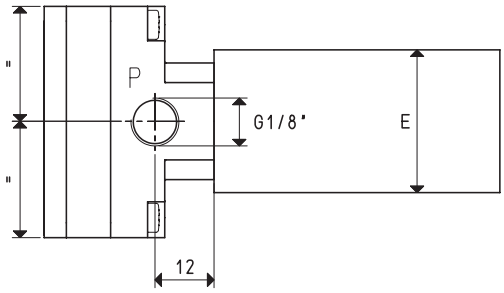
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

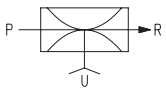
GAS-NPT thread adapters available at page 1.117











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

Art.		M 10 SSX				M 14 SSX				M 18 SSX
Quantity of sucked air	cum/h	7.7	8.5	9.4	10.2	11.5	12.6	14.8	16.5	18.0
Max. vacuum level	-KPa	62	82	85	62	82	85	62	82	85
Final pressure	mbar abs.	380	180	150	380	180	150	380	180	150
Supply pressure	bar (g)	3	4	5	3	4	5	3	4	5
Air consumption	Nl/s	1.2	1.6	1.9	1.7	2.1	2.5	2.3	2.9	3.6
Working temperature	°C			-10 / +80			-10 / +80			-10 / +80
Noise level	dB(A)			60			62			66
Weight	g			144			145			150
A				34.5			34.5			44.5
B				20			20			30
C				4.5			4.5			4.5
E	Ø			29			29			35
G	Ø			G3/8"			G3/8"			G1/2"
H				106.5			106.5			136.5
Spare parts										
Silencer	art.			SSX 3/8"			SSX 3/8"			SSX 1/2"
Sealing kit and reed valve	art.			00 KIT M 10			00 KIT M 14			00 KIT M 18

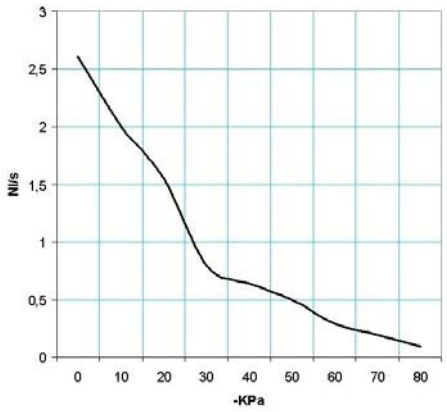
Note: All the vacuum data indicated in the table are valid at the normal atmospheric pressure of 1013 mbar and are obtained with a constant supply pressure.

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

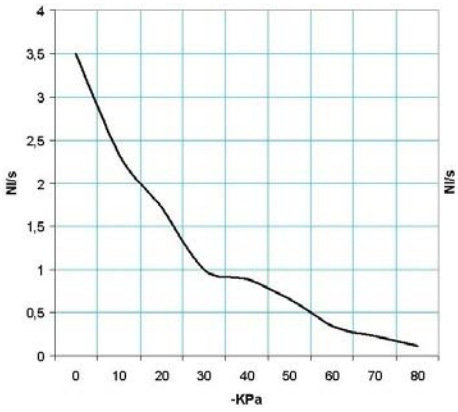
GAS-NPT thread adapters available at page 1.117

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

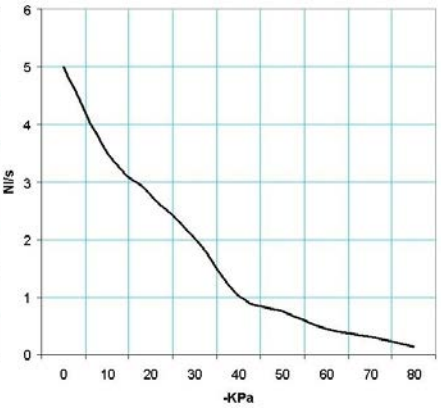
M10 SSX



M14 SSX



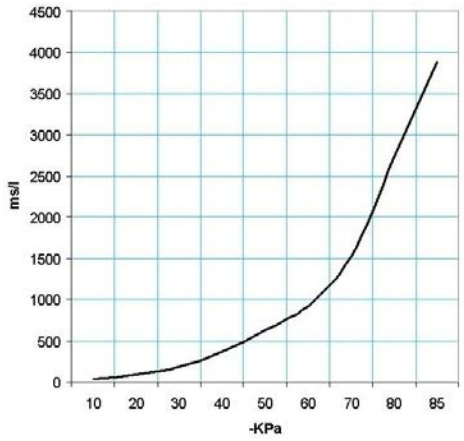
M18 SSX



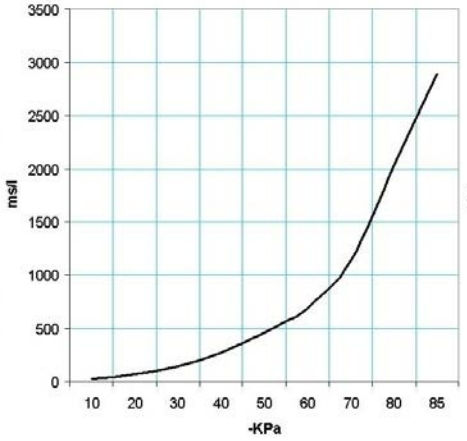
Generator	Supply press.	Air consumption	Air capacity (Nl/s) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	0	10	20	30	40	50	60	70	80	-KPa
M 10 SSX	5.0	1.9	2.61	2.00	1.55	0.80	0.64	0.50	0.29	0.19	0.09	85
M 14 SSX	5.0	2.5	3.50	2.33	1.72	1.00	0.89	0.67	0.35	0.24	0.11	85
M 18 SSX	5.0	3.6	5.00	3.50	2.78	2.02	1.02	0.75	0.44	0.30	0.14	85

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

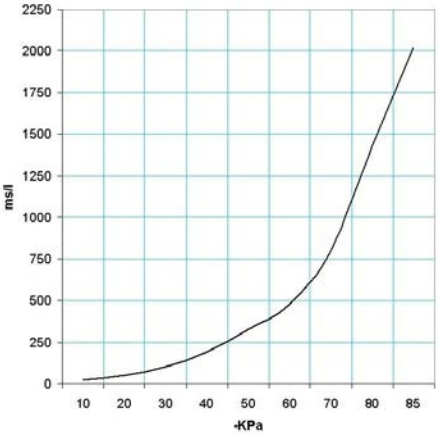
M10 SSX



M14 SSX



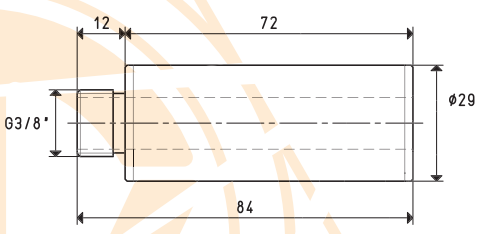
M18 SSX



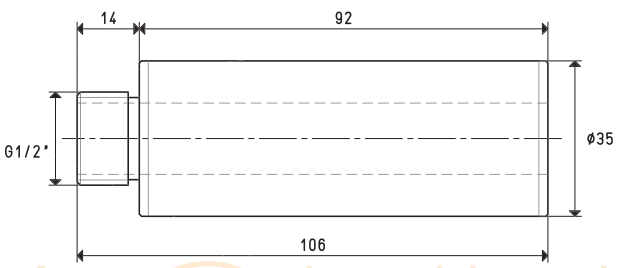
Generator	Supply press.	Air consumption	Evacuation time (ms/l = s/m³) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	10	20	30	40	50	60	70	80	85	-KPa
M 10 SSX	5.0	1.9	40	93	188	371	629	918	1534	2731	3878	85
M 14 SSX	5.0	2.5	30	69	140	276	469	685	1144	2036	2892	85
M 18 SSX	5.0	3.6	21	48	98	193	327	478	799	1423	2020	85

Accessories included

Silencer art. SSX 1/2" on M10 and M14



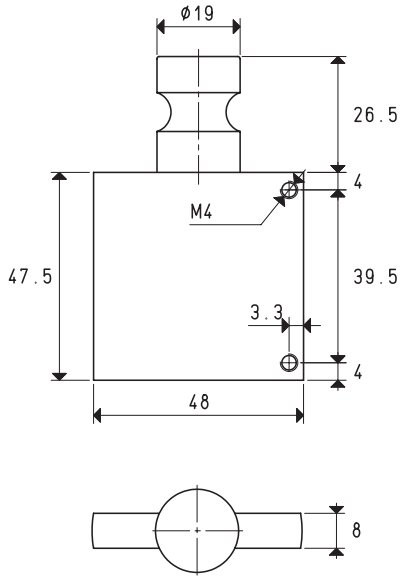
Silencer art. SSX 1/2" on M18

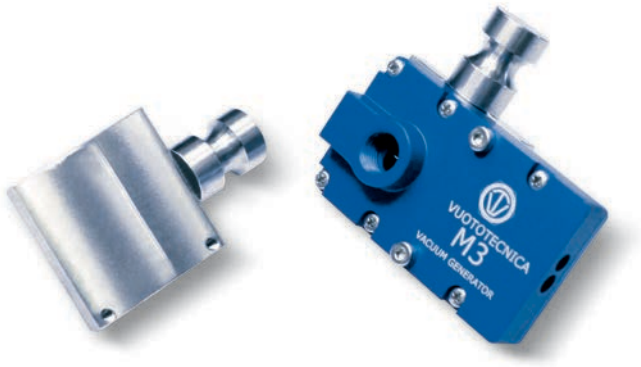


Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

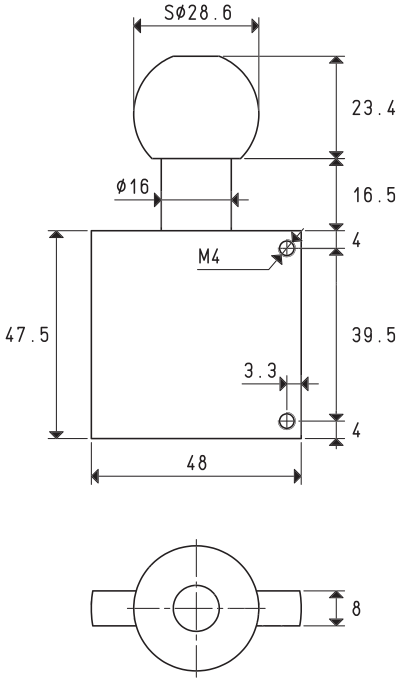
GAS-NPT thread adapters available at page 1.117

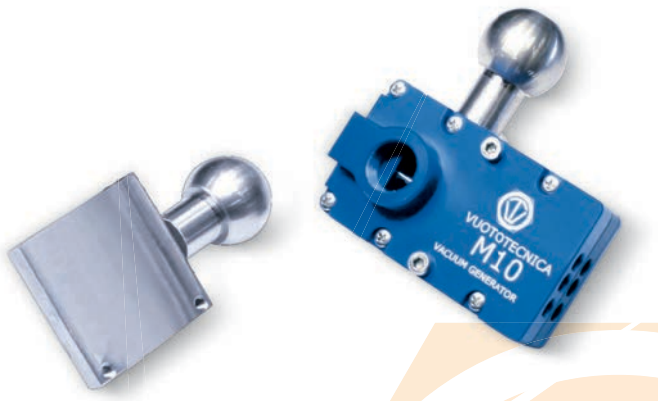
The supports described in this page are made with anodised aluminium as a standard, but, upon request, they can be supplied in the stainless steel version.
These supports are for fixing the multi-stage vacuum generators to the machine via a cylindrical slotted pin or a ball pin housed in the machine itself.
They are suited for robotic gripping systems and they allow for an easy installation of the vacuum generators on the profiles used in the automotive sector.





Art.	For generators	Material	Weight g
00 FCH 23	M 3 - M 7 - M 10 - M 14 - M 18	aluminium	63
00 FCH 22	M 3 - M 7 - M 10 - M 14 - M 18	stainless steel	191



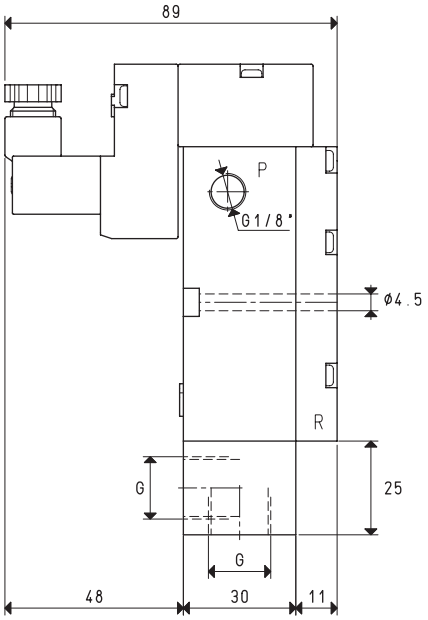


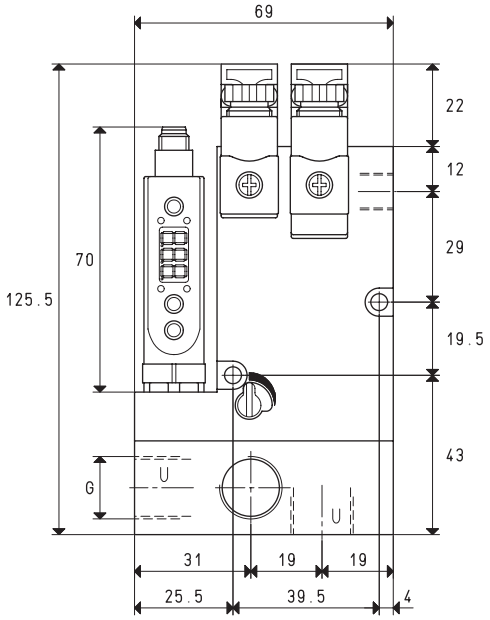
Art.	For generators	Material	Weight g
00 FCH 13	M 3 - M 7 - M 10 - M 14 - M 18	aluminium	85
00 FCH 12	M 3 - M 7 - M 10 - M 14 - M 18	stainless steel	256

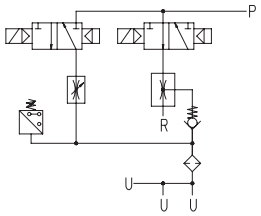
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$

MULTI-STAGE AND MULTI-FUNCTION VACUUM GENERATORS SERIES MVG

These generators are true independent vacuum units that can control an entire vacuum gripping system. Their distinctive features are their compact size and great suction capacity.
They are composed of a monobloc anodised aluminium structure onto which are assembled:
- A modular and silenced multi-stage vacuum generator.
- A micro solenoid valve for supplying compressed air to the generator.
- A micro solenoid valve for blowing the exhaust compressed air.
- An adjustable flow regulator for dosing the exhaust air.
- A unidirectional check valve, located on the suction inlet, for maintaining the vacuum in case of electricity failure.
- A digital vacuum switch provided with display and commutation LEDs, for managing the compressed air supply and for signalling the safety cycle start-up.
- An anodised aluminium manifold provided with vacuum connections and a built-in filtre easy to inspect.
By activating the compressed air solenoid valve, the generator creates vacuum at the service. Once the preset maximum value is reached, the vacuum switch acts on the solenoid valve electric coil and interrupts the air supply, restoring it when the vacuum value returns below the minimum value.
Along with maintaining the vacuum level within preset safety values (hysteresis), this modulation allows saving a considerable amount of compressed air.
A second vacuum switch signal, also adjustable and independent from the first, can be used to start up the cycle when the vacuum level is suitable for the application. Once the working cycle is completed, the compressed air supply is deactivated and, at the same time, the ejection micro solenoid valve is activated for a quick restoration of the atmospheric pressure at the application.
MVG multi-function vacuum generators can be installed in any position and are suited for interconnecting vacuum gripping systems for handling sheet steel, glass, marble, ceramic, plastic, cardboard, wood, etc., and, in particular, for the industrial robotics sector which requires equipment with excellent performance and with size and weight reduced to the minimum.







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

Art.		MVG 3					MVG 7
Quantity of sucked air	cum/h	2.8	3.0	3.2	5.6	6.0	6.6
Max. vacuum level	-KPa	50	70	85	50	70	85
Final pressure	mbar abs.	500	300	150	500	300	150
Supply pressure	bar (g)	3	4	5	3	4	5
Air consumption	Nl/s	0.5	0.6	0.8	0.8	1.0	1.3
Max. quantity of blown air at 5 bar	l/min			205			205
Supply solenoid valve position	NO/NC			NO			NO
Ejection solenoid valve position	NC			NC			NC
Supply voltage	V			24 DC			24 DC
Electric absorption	W			2 x 2			2 x 2
Vacuum switch output				PNP			PNP
Class of protection	IP			65			65
Working temperature	°C			-10 / +60			-10 / +60
Noise level	dB(A)			66			70
Weight	Kg			0.666			0.670
G	Ø			G1/4"			G3/8"

Note: To order the generator: with supply solenoid valve NC, please indicate the code MVG .. NC;
without the digital vacuum switch, please indicate the code MVG .. SV;
without the ejection solenoid valve, please indicate the code MVG .. SC.

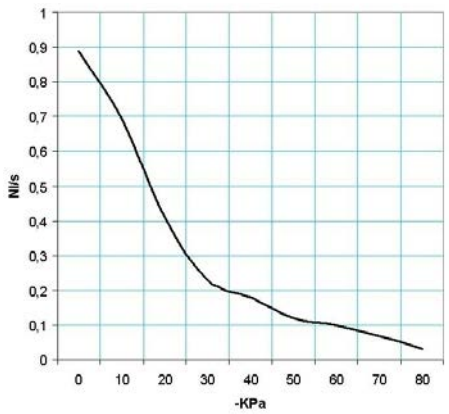
Note: All the vacuum data indicated in the table are valid at the normal atmospheric pressure of 1013 mbar and are obtained with a constant supply pressure.

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

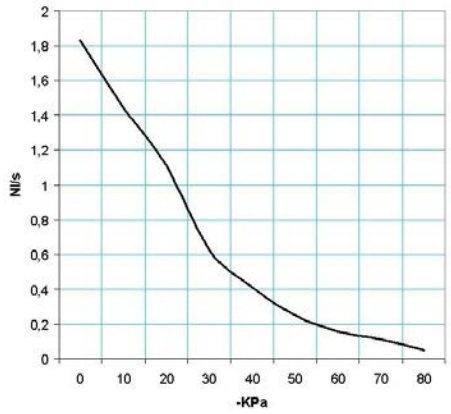
GAS-NPT thread adapters available at page 1.117

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

MVG3



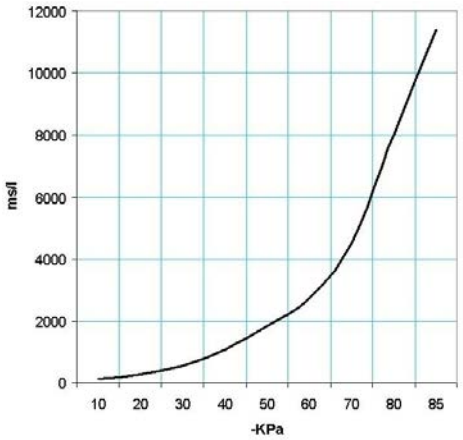
MVG7



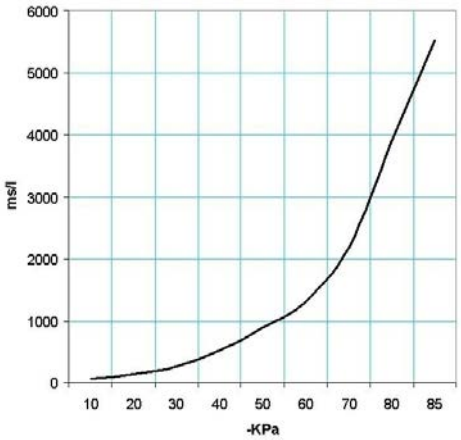
Generator	Supply press.	Air consumption	Air capacity (Nl/s) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	0	10	20	30	40	50	60	70	80	-KPa
MVG 3	5.0	0.8	0.89	0.69	0.41	0.23	0.18	0.12	0.10	0.07	0.03	85
MVG 7	5.0	1.3	1.72	1.44	1.11	0.63	0.41	0.25	0.16	0.11	0.05	85

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

MVG3



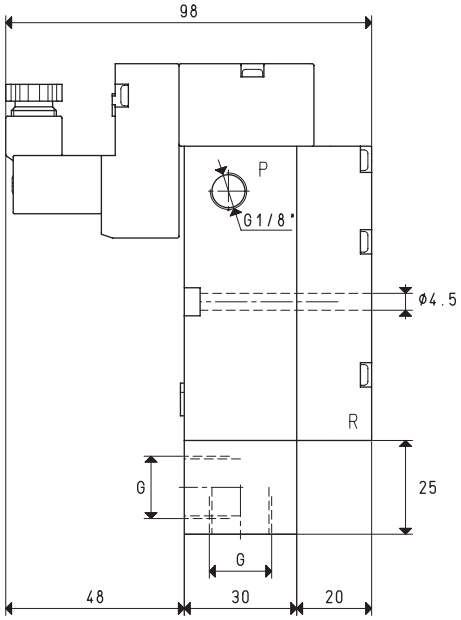
MVG7

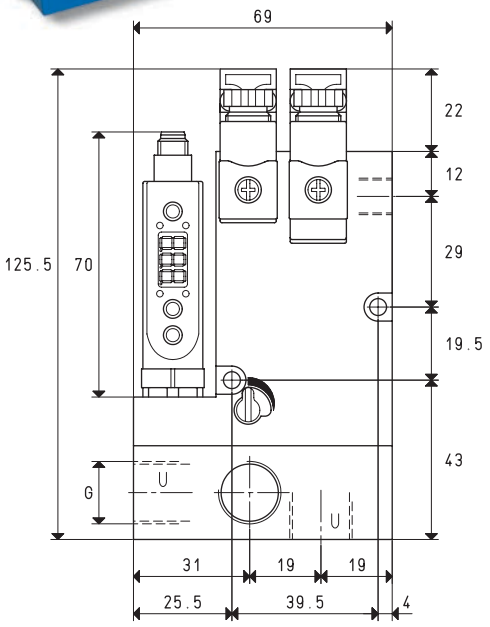


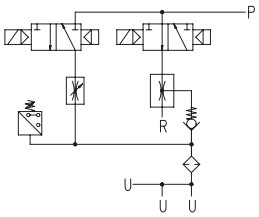
Generator	Supply press.	Air consumption	Evacuation time (ms/l = s/m³) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	10	20	30	40	50	60	70	80	85	-KPa
MVG 3	5.0	0.8	119	274	552	1088	1845	2694	4499	8009	11373	85
MVG 7	5.0	1.3	58	133	268	529	897	1310	2188	3895	5531	85

ACCESSORIES AND SPARE PARTS UPON REQUEST

Art.		MVG 3	MVG 7
Sealing kit and reed valve	art.	00 KIT MVG 3	00 KIT MVG 7
Electric connection cable with axial connector for vacuum switch	art.	00 12 20	
Electric connection cable with radial connector for vacuum switch	art.	00 12 21	
Electric connection cable set with built-in energy Saving device NO and connectors	art.	00 15 202	
Electric connection cable set with built-in energy Saving device NC and connectors	art.	00 15 203	
Digital vacuum switch	art.	12 10 10	
Supply solenoid valve NO	art.	00 15 155	
Supply solenoid valve NC	art.	00 15 156	







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

Art.		MVG 10					MVG 14
Quantity of sucked air	cum/h	7.7	8.4	9.2	10.2	11.2	12.2
Max. vacuum level	-KPa	50	70	85	50	70	85
Final pressure	mbar abs.	500	300	150	500	300	150
Supply pressure	bar (g)	3	4	5	3	4	5
Air consumption	Nl/s	0.9	1.3	1.7	1.3	1.7	2.1
Max. quantity of blown air at 5 bar (g)	l/min			205			205
Supply solenoid valve position	NO/NC			NO			NO
Ejection solenoid valve position	NC			NC			NC
Supply voltage	V			24 DC			24 DC
Electric absorption	W			1.4 x 2			1.4 x 2
Vacuum switch output				PNP			PNP
Class of protection	IP			65			65
Working temperature	°C			-10 / +60			-10 / +60
Noise level	dB(A)			62			70
Weight	Kg			0.716			0.720
G	Ø			G3/8"			G3/8"

Note: To order the generator: with supply solenoid valve NC, please indicate the code MVG .. NC;
without the digital vacuum switch, please indicate the code MVG .. SV;
without the ejection solenoid valve, please indicate the code MVG .. SC.

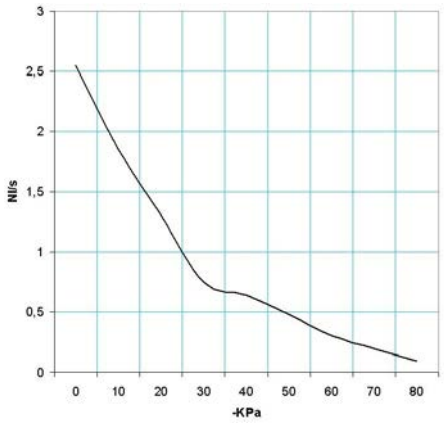
Note: All the vacuum data indicated in the table are valid at the normal atmospheric pressure of 1013 mbar and are obtained with a constant supply pressure.

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

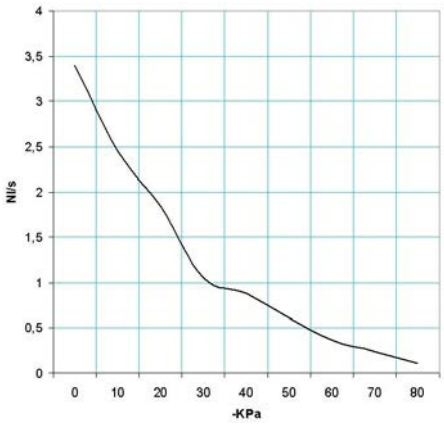
GAS-NPT thread adapters available at page 1.117

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

MVG 10



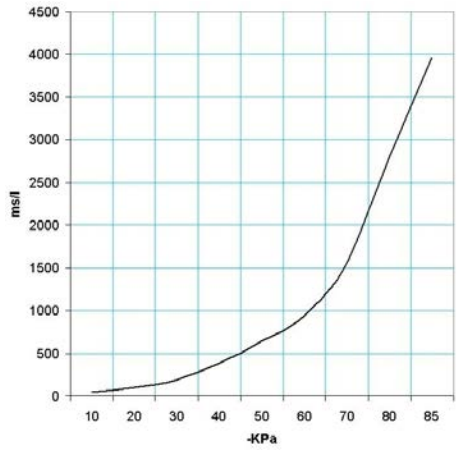
MVG 14



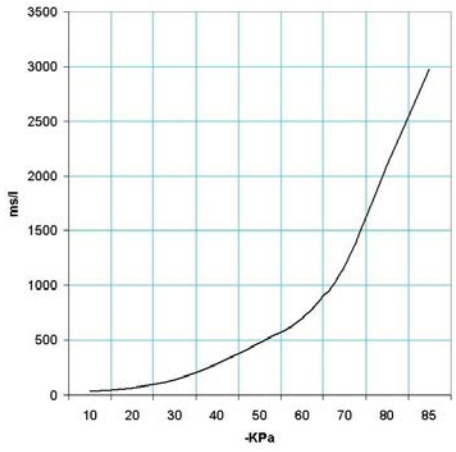
Generator	Supply press.	Air consumption	Air capacity (Nl/s) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	0	10	20	30	40	50	60	70	80	-KPa
MVG 10	5.0	1.7	2.55	1.85	1.30	0.75	0.64	0.48	0.30	0.20	0.09	85
MVG 14	5.0	2.1	3.40	2.45	1.84	1.05	0.88	0.61	0.36	0.24	0.11	85

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

MVG 10



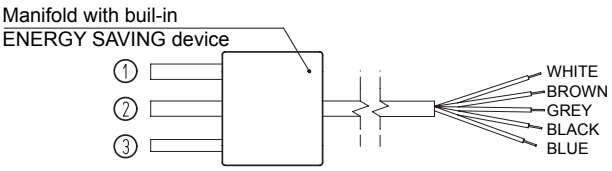
MVG 14

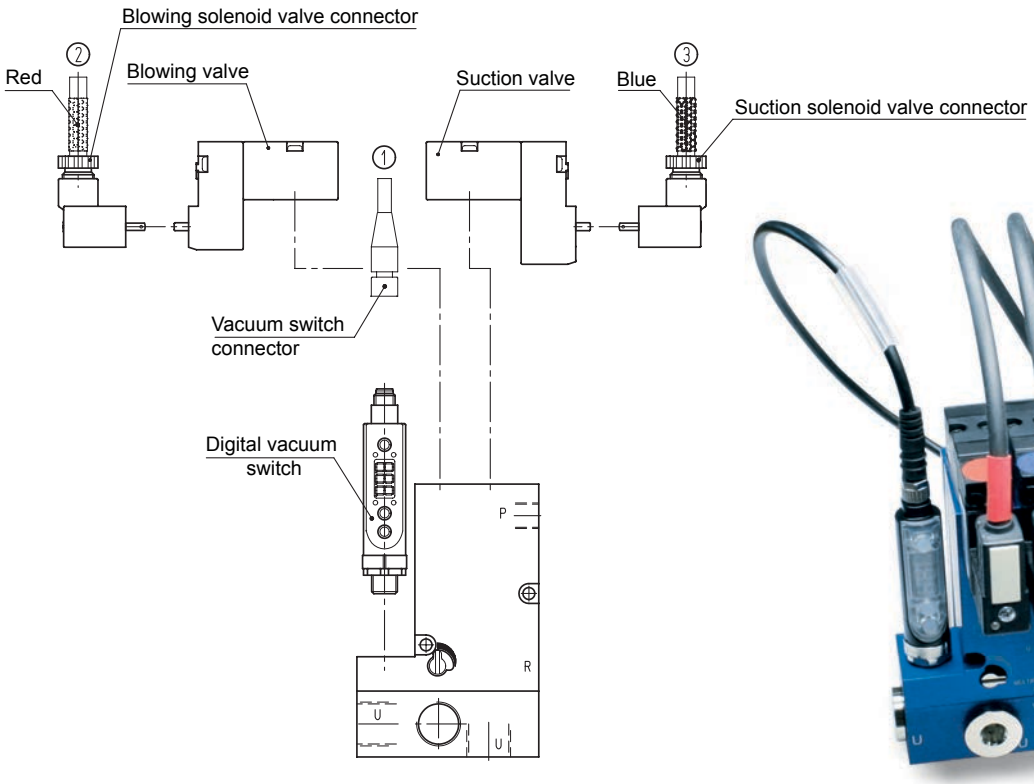


Generator	Supply press.	Air consumption	Evacuation time (ms/l = s/m³) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	10	20	30	40	50	60	70	80	85	-KPa
MVG 10	5.0	1.7	41	95	192	379	642	938	1567	2790	3962	85
MVG 14	5.0	2.1	31	71	144	284	482	704	1175	2092	2971	85

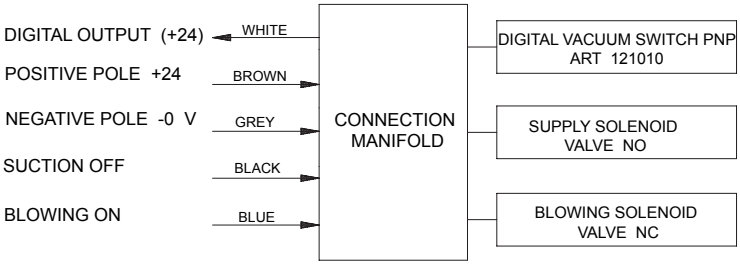
ACCESSORIES AND SPARE PARTS UPON REQUEST

Art.		MVG 10	MVG 14
Sealing kit and reed valve	art.	00 KIT MVG 10	00 KIT MVG 14
Electric connection cable with axial connector for vacuum switch	art.	00 12 20	
Electric connection cable with radial connector for vacuum switch	art.	00 12 21	
Electric connection cable set with built-in energy Saving device NO and connectors	art.	00 15 202	
Electric connection cable set with built-in energy Saving device NC and connectors	art.	00 15 203	
Digital vacuum switch	art.	12 10 10	
Supply solenoid valve NO	art.	00 15 155	
Supply solenoid valve NC	art.	00 15 156	





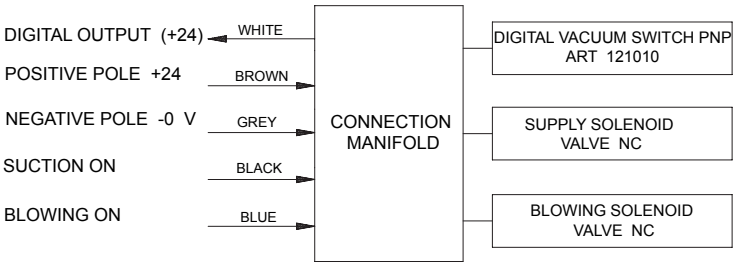
Cable set with built-in energy saving device



Art.	Description
00 15 202	Cable set with built-in energy saving device for connection to: - Digital vacuum switch - Supply solenoid valve NO - Ejection solenoid valve NC Cable length = 5 mt.

ACCESSORIES AND SPARE PARTS FOR MULTI-STAGE AND MULTI-FUNCTION VACUUM GENERATORS SERIES MVG

Cable set with built-in energy saving device



Art.	Description
00 15 203	Cable set with built-in energy saving device for connection to: - Digital vacuum switch - Supply solenoid valve NC - Ejection solenoid valve NC Cable length= 5 mt.

Connector

Art.	Description
00 15 157	Connector with LED for micro solenoid valve

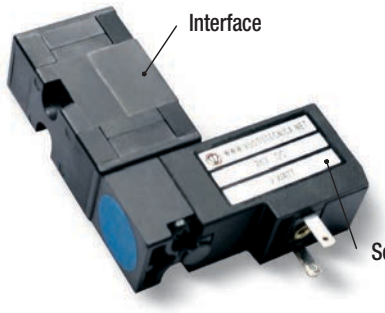
Cable with axial connector

Art.	Description
00 12 20	Electric connection cable with axial connector for digital vacuum switch

Cable with radial connector

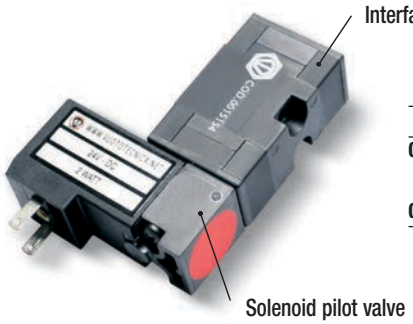
Art.	Description
00 12 21	Electric connection cable with radial connector for digital vacuum switch

Supply solenoid valve NO

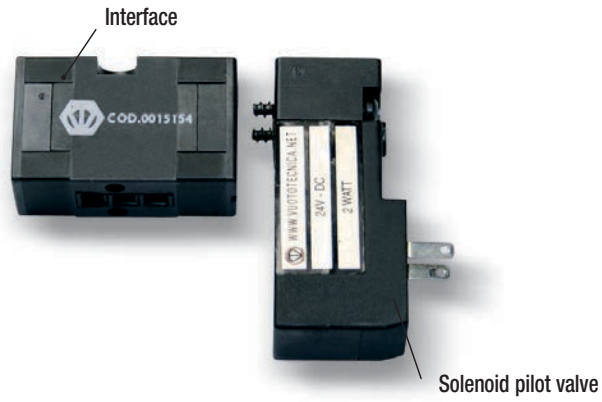


Art.	Description
00 15 155	NO solenoid pilot valve with built-in low-absorption electric coil
00 15 154	Interface

Supply solenoid valve NC



Art.	Description
00 15 156	NC solenoid pilot valve with built-in low-absorption electric coil
00 15 154	Interface



Ejection solenoid valve spare plate

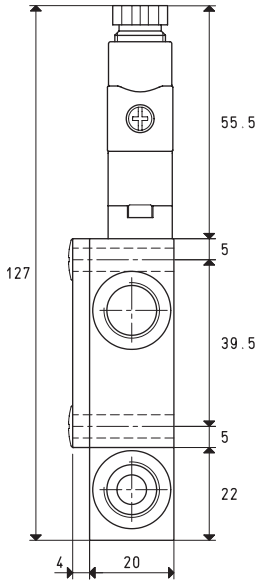
Art.	Description
00 15 178	Ejection solenoid valve spare plate

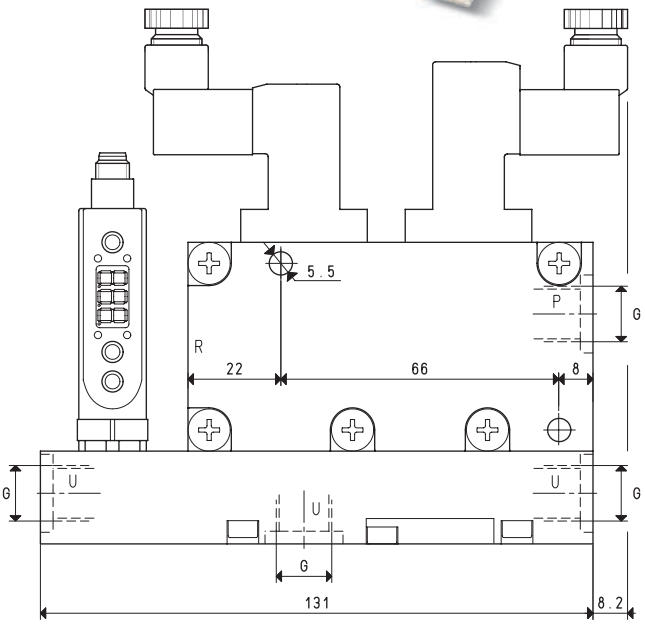
Digital vacuum switch

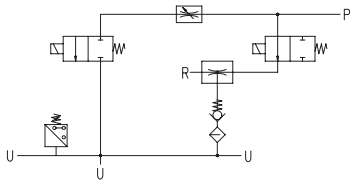
Art.	Description
12 10 10	Digital vacuum switch

MODULAR MULTI-STAGE AND MULTI-FUNCTION VACUUM GENERATORS SERIES GVMM

Modular multi-function vacuum generators are true independent vaccum units that offer an entire vacuum control system.
They feature a reduced thickness and weight compared to their suction capacity and they have been designed to be assembled with screws to one or more intermediate modules MI. The original internal connection system for the compressed air supply allows communication with no need for external manifolds.
This modular system allows increasing the number of independent vacuum units according to the requirements. In fact, you can order a multi-function vacuum generator and the intermediate modules with the desired capacities, already assembled, or you can assemble one or more intermediate modules to the GVMM generator that has already been installed on the machine, without having to make particular modifications. GVMM vacuum generators are composed of an anodised aluminium monobloc with lid, inside of which the silenced multiple ejectors are installed and the vacuum chamber and the compressed air supply connection are contained.
The following items are assembled externally:
- A micro solenoid valve for supplying compressed air to the generator.
- A micro solenoid valve for blowing the exhaust compressed air.
- An adjustable flow regulator for dosing the exhaust air.
- A digital vacuum switch with display and commutation LEDs for managing the compressed air supply and for signalling the safety cycle start-up.
- An anodised aluminium or transparent plexiglas manifold provided with vacuum connections with built-in suction filtre, easy to inspect, and a check valve for maintaining the vacuum in case of electricity or compressed air failure.
By activating the compressed air solenoid valve, the generator creates vacuum at the service. Once the preset maximum value is reached, the vacuum switch acts on the solenoid valve electric coil and interrupts the air supply, restoring it when the vacuum value returns below the minimum value.
Along with maintaining the vacuum level within preset safety values (hysteresis), this modulation allows saving a considerable amount of compressed air.
A second vacuum switch signal, also adjustable and independent from the first, can be used to start up the cycle when the vacuum level is suitable for the application. Once the working cycle is completed, the compressed air supply is deactivated and, at the same time, the ejection micro solenoid valve is activated for a quick restoration of the atmospheric pressure at the application.
GVMM multi-function vacuum generators can be installed in any position and are suited for interconnecting vacuum gripping systems for handling sheet steel, glass, marble, ceramic, plastic, cardboard, wood, etc., and, in particular, for the industrial robotics sector which requires eqipment with excellent performance and several independent vacuum units for controlling several applications but with reduced size and weight.







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

Art.		GVMM 3					GVMM 7
Quantity of sucked air	cum/h	2.6	2.8	3.0	5.5	6.0	6.4
Max. vacuum level	-KPa	64	85	85	60	80	85
Final pressure	mbar abs.	360	150	150	400	200	150
Supply pressure	bar (g)	3	4	5	3	4	5
Air consumption	Nl/s	0.6	0.7	0.8	0.9	1.1	1.3
Max. quantity of blown air at 5 bar (g)	l/min			128			128
Supply solenoid valve position	NO/NC			NO			NO
Electric absorption	W			2			2
Ejection solenoid valve position	NC			NC			NC
Electric absorption	W			4			4
Supply voltage	V			24DC			24DC
Vacuum switch output				PNP			PNP
Class of protection	IP			65			65
Working temperature	°C			-10 / +60			-10 / +60
Noise level	dB(A)			66			70
Weight	g			420			420
G	Ø			G1/4"			G1/4"

Note: To order the generator: with supply solenoid valve NC, please indicate the code GVMM .. NC; without the digital vacuum switch, please indicate the code GVMM .. SV.

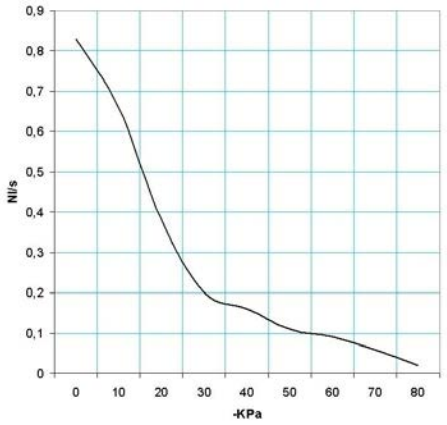
Note: All the vacuum data indicated in the table are valid at the normal atmospheric pressure of 1013 mbar and are obtained with a constant supply pressure.

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

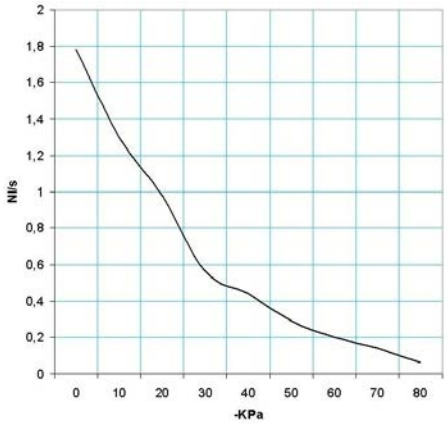
GAS-NPT thread adapters available at page 1.117

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

GVMM3



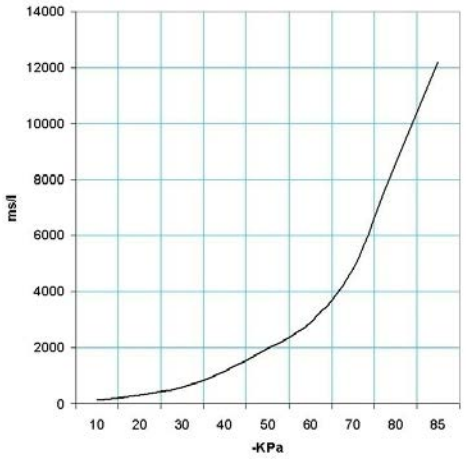
GVMM7



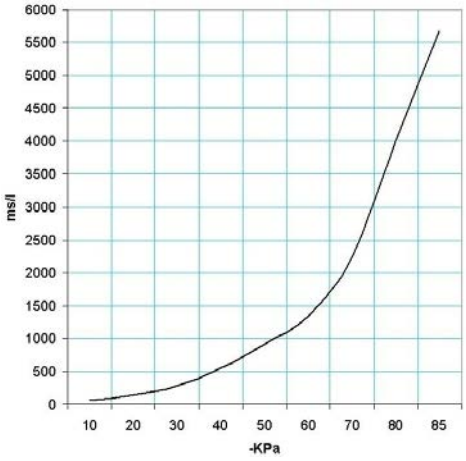
Generator art.	Supply press. bar (g)	Air consumption Nl/s	Air capacity (Nl/s) at different vacuum levels (-KPa) 0	10	20	30	40	50	60	70	80	Max. vacuum level -KPa
GVMM 3	5.0	0.8	0.83	0.66	0.38	0.20	0.16	0.11	0.09	0.06	0.02	85
GVMM 7	5.0	1.3	1.78	1.30	0.98	0.56	0.44	0.29	0.20	0.14	0.06	85

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

GVMM3



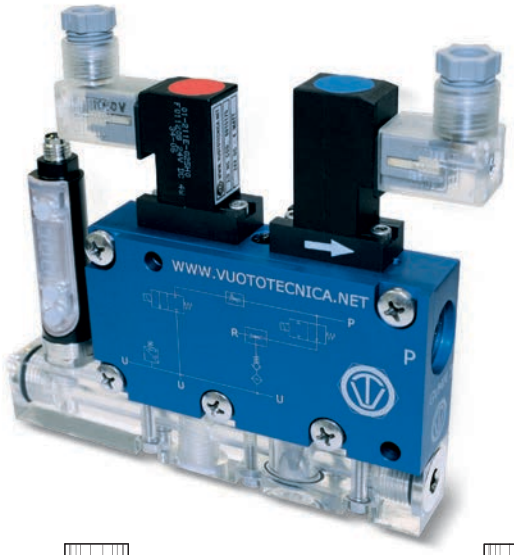
GVMM7

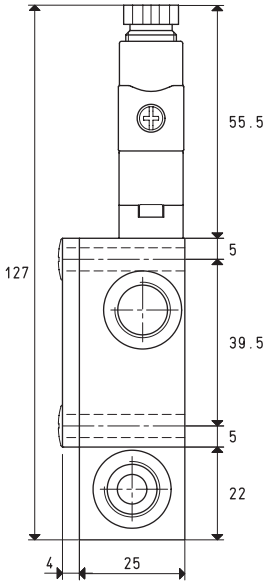


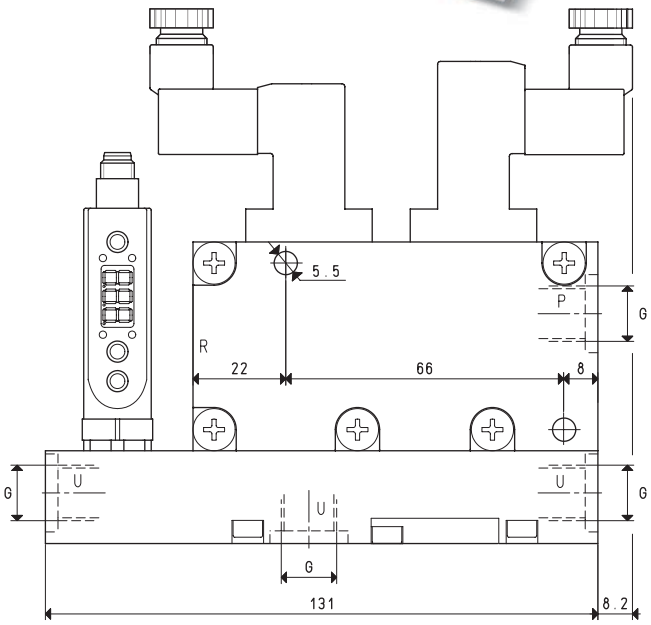
Generator art.	Supply press. bar (g)	Air consumption Nl/s	Evacuation time (ms/l = s/m³) at different vacuum levels (-KPa) 10	20	30	40	50	60	70	80	85	Max. vacuum level -KPa
GVMM 3	5.0	0.8	128	294	592	1167	1978	2889	4824	8588	12195	85
GVMM 7	5.0	1.3	59	137	275	543	921	1344	2245	3997	5676	85

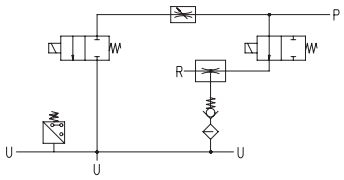
ACCESSORIES AND SPARE PARTS UPON REQUEST

Art.		GVMM 3	GVMM 7
Sealing kit and reed valve	art.	00 KIT GVMM 3	00 KIT GVMM 7
Electric connection cable with axial connector for vacuum switch	art.	00 12 20	
Electric connection cable with radial connector for vacuum switch	art.	00 12 21	
Electric connection cable set with built-in energy Saving device NO and connectors	art.	00 15 202	
Electric connection cable set with built-in energy Saving device NC and connectors	art.	00 15 203	
Digital vacuum switch	art.	12 10 10	
Supply solenoid valve NO	art.	00 15 176	
Supply solenoid valve NC	art.	00 15 175	









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

Art.		GVMM 10					GVMM 14
Quantity of sucked air	cum/h	7.5	8.3	9.1	10.1	11.1	12.1
Max. vacuum level	-KPa	60	80	85	60	80	85
Final pressure	mbar abs.	400	200	150	400	200	150
Supply pressure	bar (g)	3	4	5	3	4	5
Air consumption	Nl/s	1.1	1.4	1.7	1.4	1.7	2.1
Max. quantity of blown air at 5 bar (g)	l/min			128			128
Supply solenoid valve position	NO/NC			NO			NO
Electric absorption	W			2			2
Ejection solenoid valve position	NC			NC			NC
Electric absorption	W			4			4
Supply voltage	V			24DC			24DC
Vacuum switch output				PNP			PNP
Class of protection	IP			65			65
Working temperature	°C			-10 / +60			-10 / +60
Noise level	dB(A)			70			72
Weight	g			460			460
G	Ø			G1/4"			G1/4"

Note: To order the generator: with supply solenoid valve NC, please indicate the code GVMM .. NC; without the digital vacuum switch, please indicate the code GVMM .. SV.

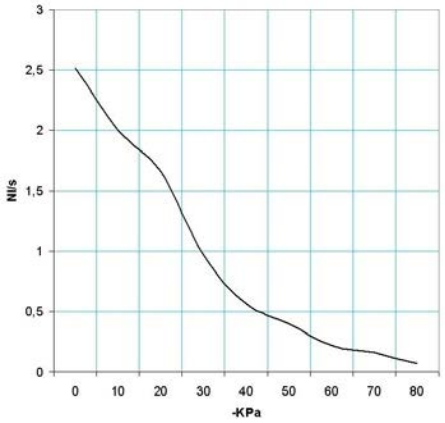
Note: All the vacuum data indicated in the table are valid at the normal atmospheric pressure of 1013 mbar and are obtained with a constant supply pressure.

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

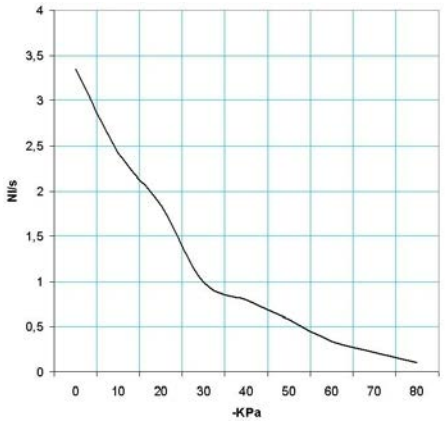
GAS-NPT thread adapters available at page 1.117

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

GVMM10



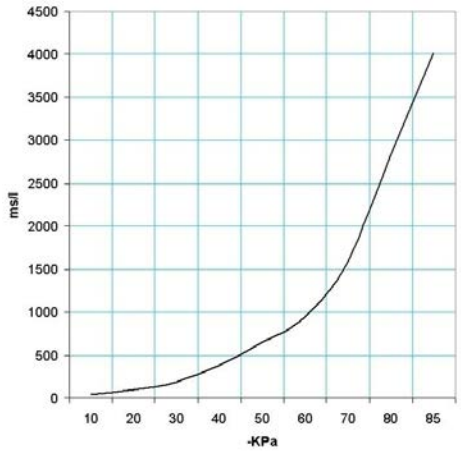
GVMM14



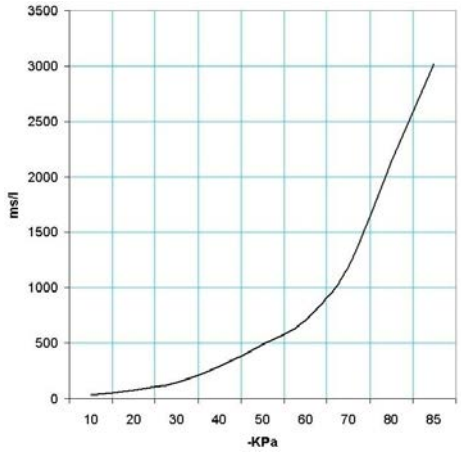
Generator	Supply press.	Air consumption	Air capacity (Nl/s) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	0	10	20	30	40	50	60	70	80	-KPa
GVMM 10	5.0	1.7	2.52	2.00	1.66	0.97	0.56	0.40	0.22	0.16	0.07	85
GVMM 14	5.0	2.1	3.35	2.42	1.84	0.99	0.80	0.58	0.34	0.22	0.10	85

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

GVMM10



GVMM14



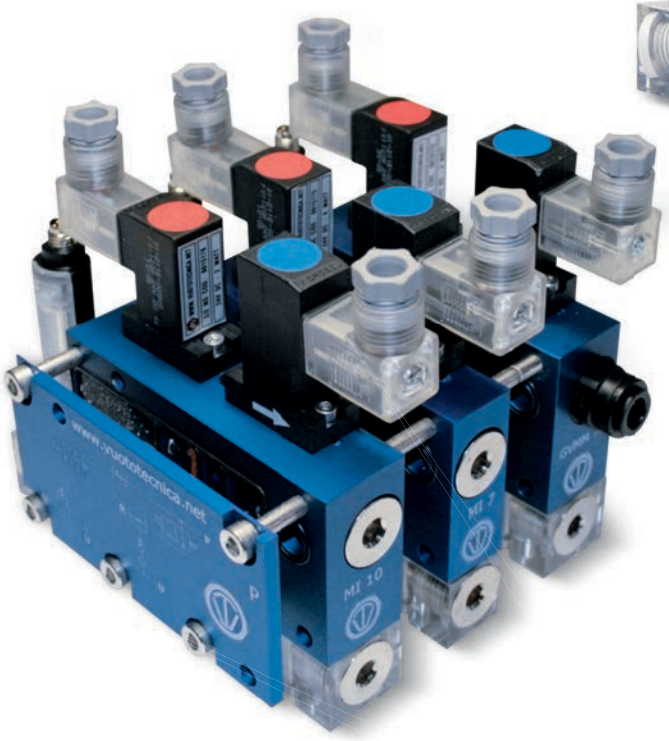
Generator	Supply press.	Air consumption	Evacuation time (ms/l = s/m³) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	10	20	30	40	50	60	70	80	85	-KPa
GVMM 10	5.0	1.7	42	97	195	384	651	951	1589	2828	4016	85
GVMM 14	5.0	2.1	31	72	146	288	489	714	1193	2124	3016	85

ACCESSORIES AND SPARE PARTS UPON REQUEST

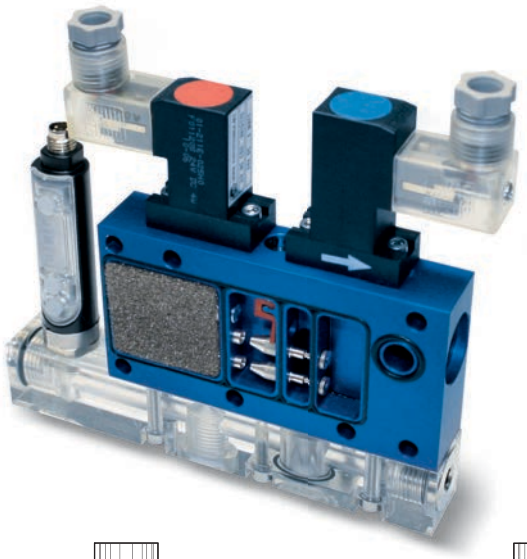
Art.		GVMM 10	GVMM 14
Sealing kit and reed valve	art.	00 KIT GVMM 10	00 KIT GVMM 14
Electric connection cable with axial connector for vacuum switch	art.	00 12 20	
Electric connection cable with radial connector for vacuum switch	art.	00 12 21	
Electric connection cable set with built-in energy Saving device NO and connectors	art.	00 15 202	
Electric connection cable set with built-in energy Saving device NC and connectors	art.	00 15 203	
Digital vacuum switch	art.	12 10 10	
Supply solenoid valve NO	art.	00 15 176	
Supply solenoid valve NC	art.	00 15 175	

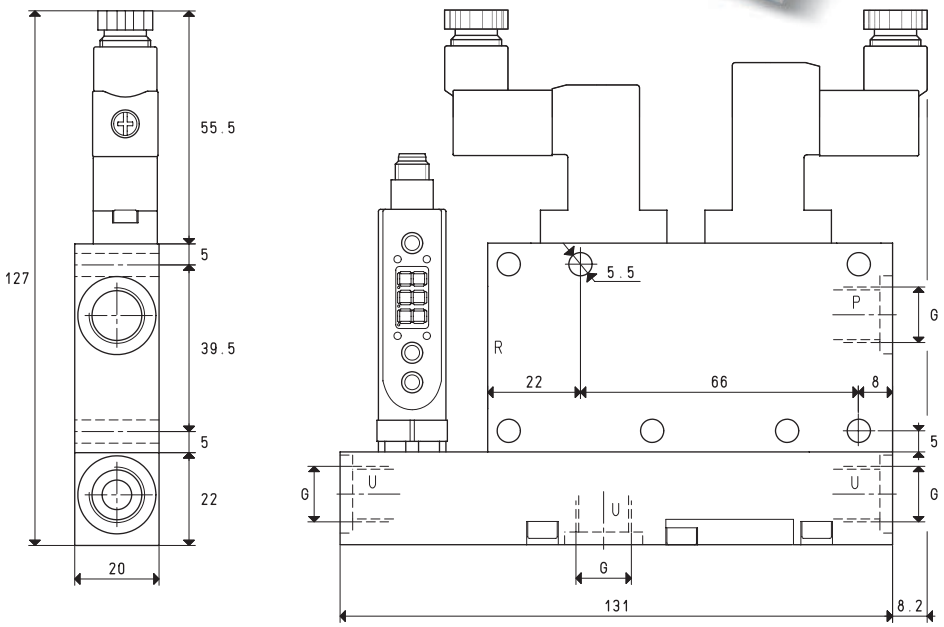
MULTI-STAGE, MULTI-FUNCTION AND MODULAR INTERMEDIATE VACUUM MODULES SERIES MI

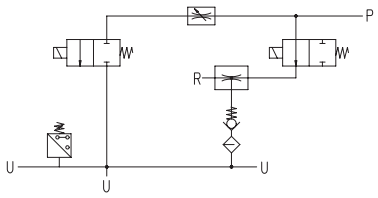
Intermediate modules are non-independent multi-stage and multi-function vacuum generators to be assembled to the generators of the GVMM range.
Their thickness and weight are reduced to the maximum compared to their suction capacity and they have been designed to be enclosed between the lid and the base of the GVMM vacuum generator and fixed with screws. The internal connections for the compressed air supply allow communication between them and the basic generator, with no need for external manifolds.
This way, each module becomes an independent vacuum unit that can control an entire vacuum system.
They can be ordered in the desired amount and capacity, either already assembled onto the GVMM multi-function vacuum generator, or separately, to be assembled to the GVMM generator previously installed onto the machine. In this case, we suggest ordering a screw kit suitable for the number of modules to be assembled.
MI intermediate vacuum modules are made up of the same elements that compose GVMM generators, except for the lid. They operate and they are used as the GVMM multi-function vacuum generator onto which they are assembled.



INTERMEDIATE VACUUM MODULES MI 3 and MI 7







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

Art.		MI 3					MI 7
Quantity of sucked air	cum/h	2.6	2.8	3.0	5.5	6.0	6.4
Max. vacuum level	-KPa	64	85	85	60	80	85
Final pressure	mbar abs.	360	150	150	400	200	150
Supply pressure	bar (g)	3	4	5	3	4	5
Air consumption	Nl/s	0.6	0.7	0.8	0.9	1.1	1.3
Max. quantity of blown air at 5 bar (g)	l/min			128			128
Supply solenoid valve position	NO/NC			NO			NO
Electric absorption	W			2			2
Ejection solenoid valve position	NC			NC			NC
Electric absorption	W			4			4
Supply voltage	V			24DC			24DC
Vacuum switch output				PNP			PNP
Class of protection	IP			65			65
Working temperature	°C			-10 / +60			-10 / +60
Noise level	dB(A)			66			70
Weight	g			380			380
G	Ø			G1/4"			G1/4"

Note: To order the generator: with supply solenoid valve NC, please indicate the code MI .. NC; without the digital vacuum switch, please indicate the code MI .. SV.

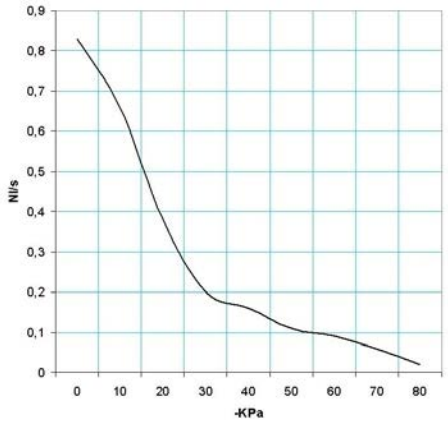
Note: All the vacuum data indicated in the table are valid at the normal atmospheric pressure of 1013 mbar and are obtained with a constant supply pressure.

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

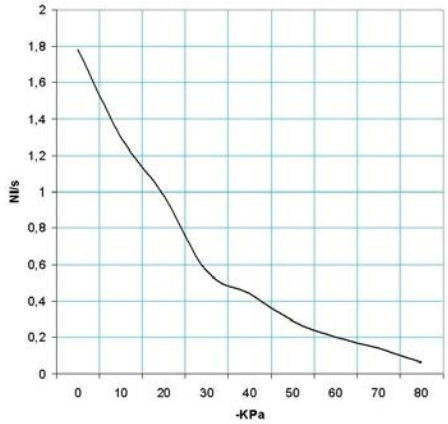
GAS-NPT thread adapters available at page 1.117

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

MI 3



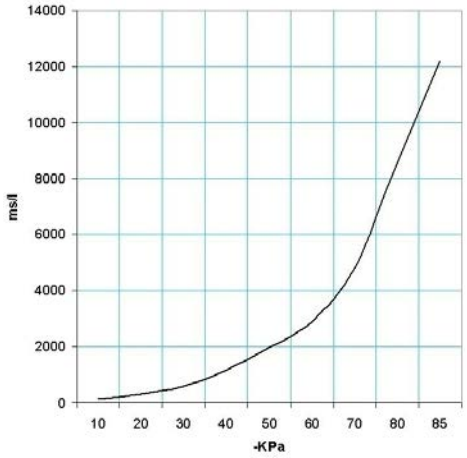
MI 7



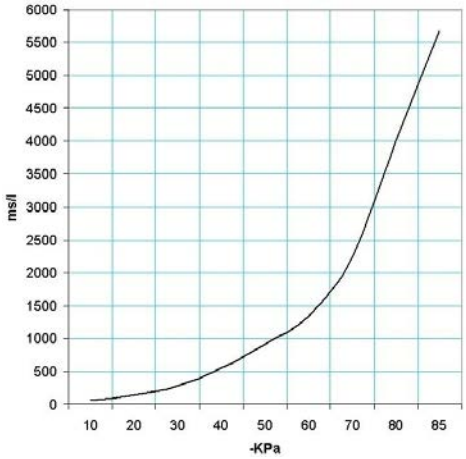
Generator	Supply press.	Air consumption	Air capacity (Nl/s) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	0	10	20	30	40	50	60	70	80	-KPa
MI 3	5.0	0.8	0.83	0.66	0.38	0.20	0.16	0.11	0.09	0.06	0.02	85
MI 7	5.0	1.3	1.78	1.30	0.98	0.56	0.44	0.29	0.20	0.14	0.06	85

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

MI 3



MI 7

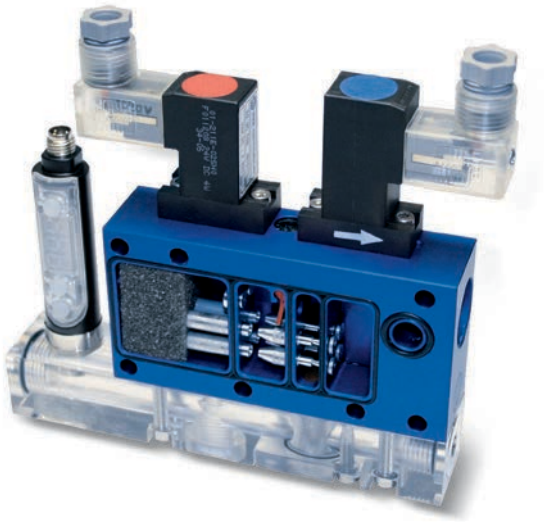


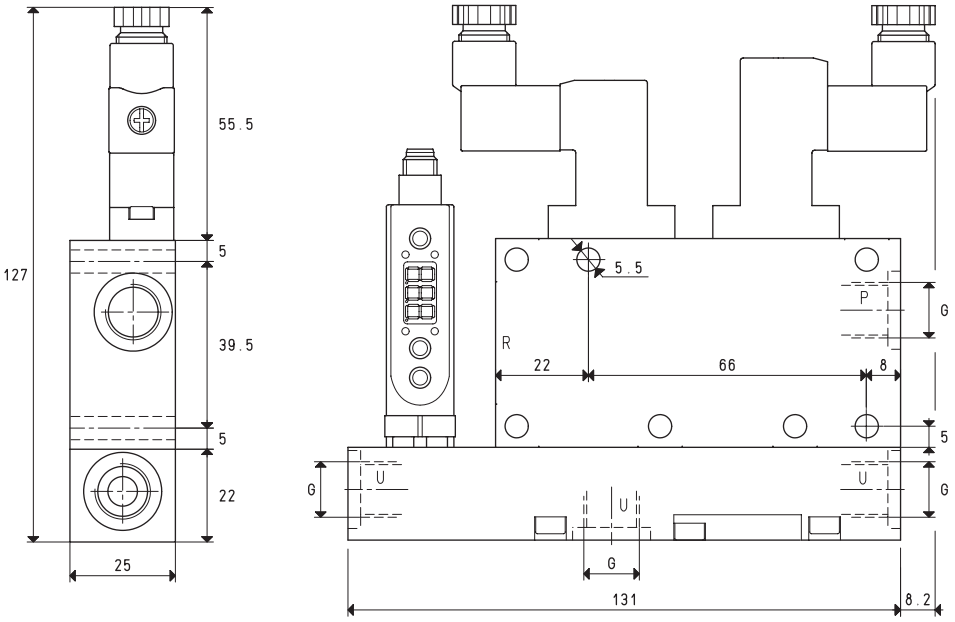
Generator	Supply press.	Air consumption	Evacuation time (ms/l = s/m³) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	10	20	30	40	50	60	70	80	85	-KPa
MI 3	5.0	0.8	128	294	592	1167	1978	2889	4824	8588	12195	85
MI 7	5.0	1.3	59	137	275	543	921	1344	2245	3997	5676	85

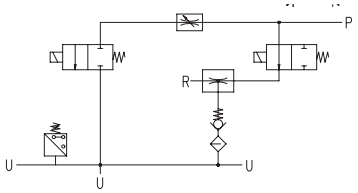
ACCESSORIES AND SPARE PARTS UPON REQUEST

Art.		MI 3	MI 7
Sealing kit and reed valve	art.	00 KIT MI 3	00 KIT MI 7
Electric connection cable with axial connector for vacuum switch	art.	00 12 20	
Electric connection cable with radial connector for vacuum switch	art.	00 12 21	
Electric connection cable set with built-in energy Saving device NO and connectors	art.	00 15 202	
Electric connection cable set with built-in energy Saving device NC and connectors	art.	00 15 203	
Digital vacuum switch	art.	12 10 10	
Supply solenoid valve NO	art.	00 15 176	
Supply solenoid valve NC	art.	00 15 175	

INTERMEDIATE VACUUM MODULES MI 10 and MI 14







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

Art.		MI 10					MI 14
Quantity of sucked air	cum/h	7.5	8.3	9.1	10.1	11.1	12.1
Max. vacuum level	-KPa	60	80	85	60	80	85
Final pressure	mbar abs.	400	200	150	400	200	150
Supply pressure	bar (g)	3	4	5	3	4	5
Air consumption	Nl/s	1.1	1.4	1.7	1.4	1.7	2.1
Max. quantity of blown air at 5 bar (g)	l/min			128			128
Supply solenoid valve position	NO/NC			NO			NO
Electric absorption	W			2			2
Ejection solenoid valve position	NC			NC			NC
Electric absorption	W			4			4
Supply voltage	V			24DC			24DC
Vacuum switch output				PNP			PNP
Class of protection	IP			65			65
Working temperature	°C			-10 / +60			-10 / +60
Noise level	dB(A)			70			72
Weight	g			410			410
G	Ø			G1/4"			G1/4"

Note: To order the generator: with supply solenoid valve NC, please indicate the code MI .. NC; without the digital vacuum switch, please indicate the code MI .. SV.

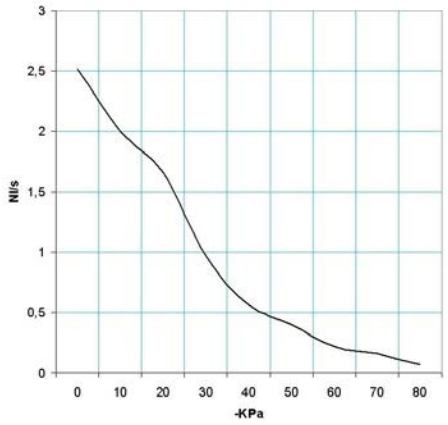
Note: All the vacuum data indicated in the table are valid at the normal atmospheric pressure of 1013 mbar and are obtained with a constant supply pressure.

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

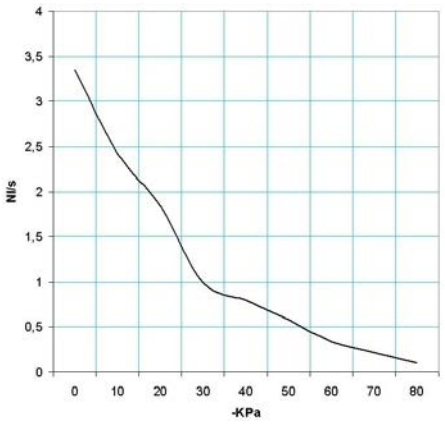
GAS-NPT thread adapters available at page 1.117

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

MI 10



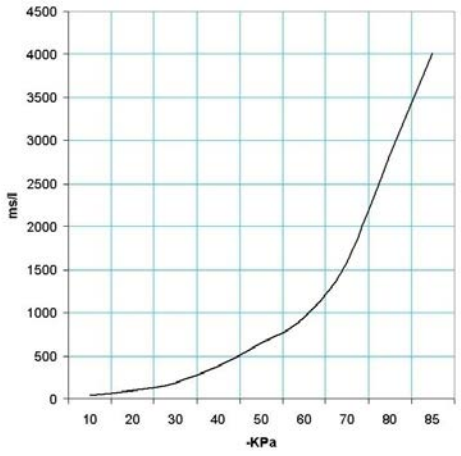
MI 14



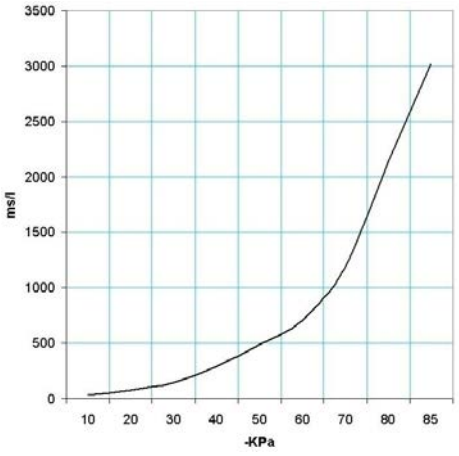
Generator	Supply press.	Air consumption	Air capacity (Nl/s) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	0	10	20	30	40	50	60	70	80	-KPa
MI 10	5.0	1.7	2.52	2.00	1.66	0.97	0.56	0.40	0.22	0.16	0.07	85
MI 14	5.0	2.1	3.35	2.42	1.84	0.99	0.80	0.58	0.34	0.22	0.10	85

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

MI 10



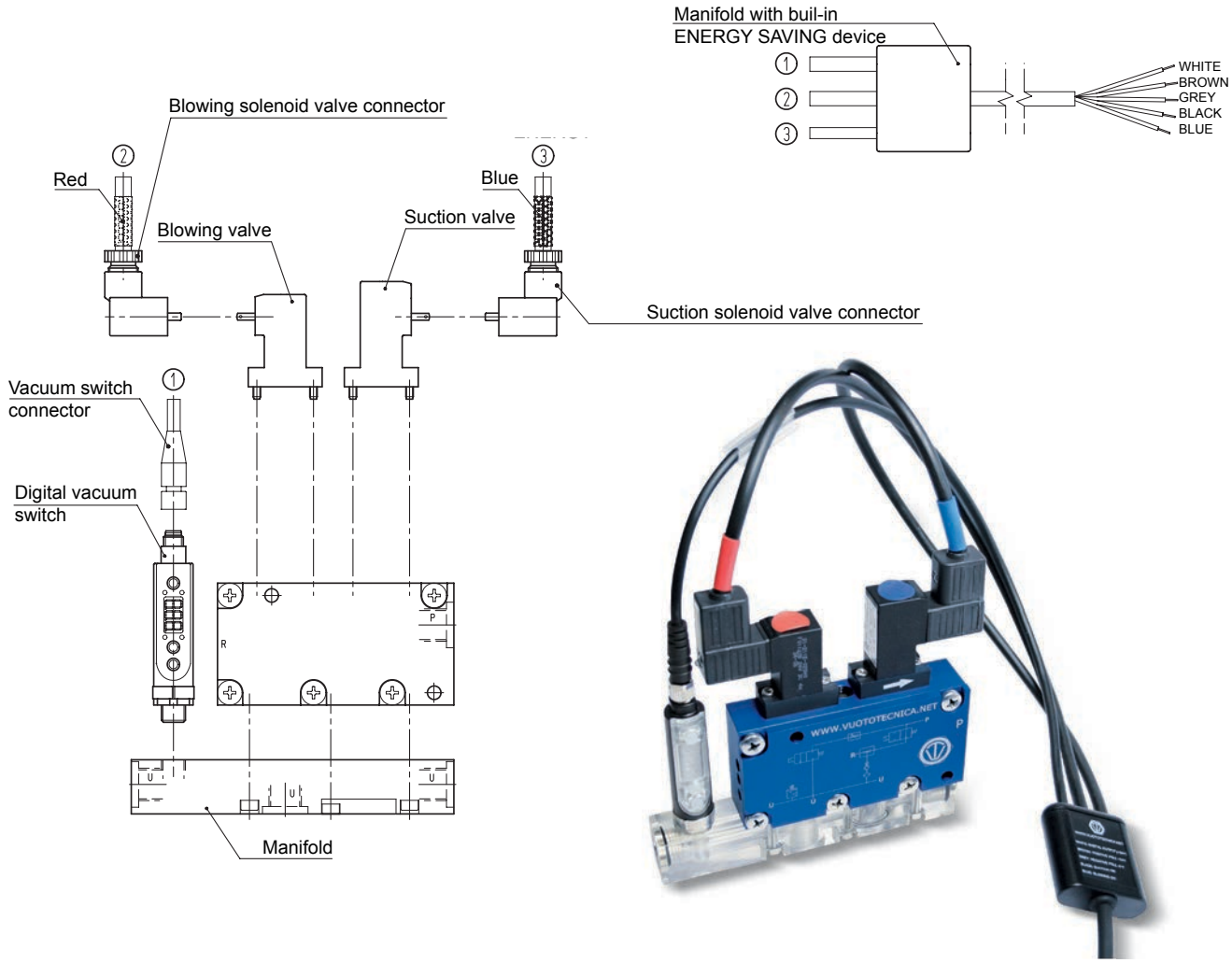
MI 14



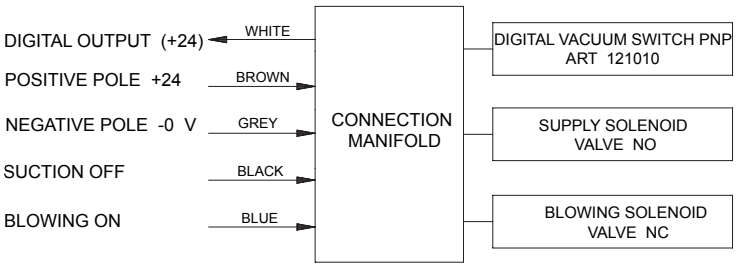
Generator	Supply press.	Air consumption	Evacuation time (ms/l = s/m³) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	10	20	30	40	50	60	70	80	85	-KPa
MI 10	5.0	1.7	42	97	195	384	651	951	1589	2828	4016	85
MI 14	5.0	2.1	31	72	146	288	489	714	1193	2124	3016	85

ACCESSORIES AND SPARE PARTS UPON REQUEST

Art.		MI 10	MI 14
Sealing kit and reed valve	art.	00 KIT MI 10	00 KIT MI 14
Electric connection cable with axial connector for vacuum switch	art.	00 12 20	
Electric connection cable with radial connector for vacuum switch	art.	00 12 21	
Electric connection cable set with built-in energy Saving device NO and connectors	art.	00 15 202	
Electric connection cable set with built-in energy Saving device NC and connectors	art.	00 15 203	
Digital vacuum switch	art.	12 10 10	
Supply solenoid valve NO	art.	00 15 176	
Supply solenoid valve NC	art.	00 15 175	

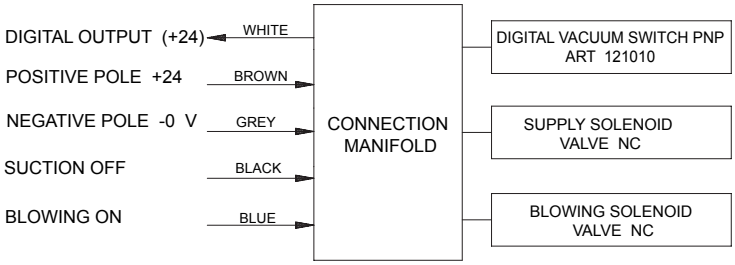


Cable set with built-in energy saving device



Art.	Description
00 15 202	Cable set with built-in energy saving device for connection to : - Digital vacuum switch - Supply solenoid valve NO - Ejection solenoid valve NC Cable length = 5 mt.

Cable set with built-in energy saving device



Art.	Description
00 15 203	Cable set with built-in energy saving device for connection to : - Digital vacuum switch - Supply solenoid valve NC - Ejection solenoid valve NC Cable length= 5 mt.

Connector

Art.	Description
00 15 157	Connector with LED for micro solenoid valve

Cable with axial connector

Art.	Description
00 12 20	Electric connection cable with axial connector, for digital vacuum switch

Cable with radial connector

Art.	Description
00 12 21	Electric connection cable with radial connector, for digital vacuum switch

Digital vacuum switch

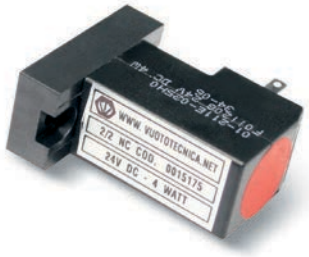
Art.	Description
12 10 10	Digital vacuum switch

ACCESSORIES AND SPARE PARTS FOR VACUUM GENERATORS AND MODULES SERIES GVMM e MI

Micro solenoid valve NO

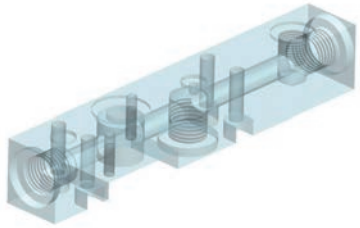
Art.	Description
00 15 176	Supply solenoid valve NO

Micro solenoid valve NC



Art.	Description
00 15 175	Supply solenoid valve NC

Plexiglass manifolds

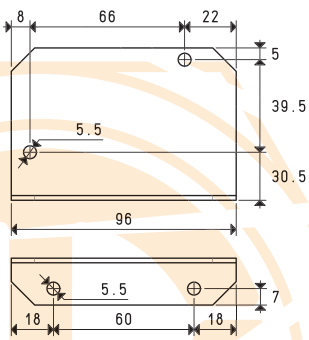


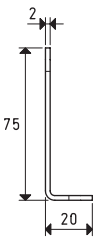
Art.	Description
00 15 171	Plexiglass manifold for GVMM - MI 3/7
00 15 188	Plexiglass manifold for GVMM - MI 10/14

Aluminium manifolds

Art.	Description
00 15 174	Aluminium manifold for GVMM - MI 3/7
00 15 187	Aluminium manifold for GVMM - MI 10/14

Support

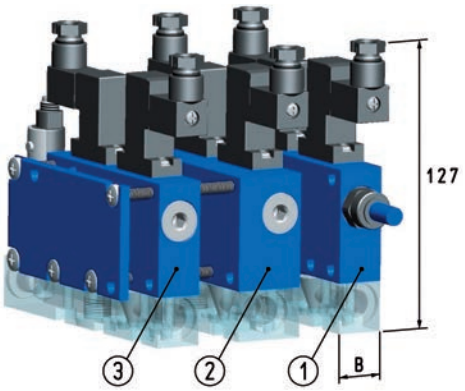




Art.	Description
00 15 306	Galvanised sheet metal L-type fixing support

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

GVMM multi-function vacuum generators can be assembled with one or more intermediate modules, thus forming a modular vacuum system, featuring a compact shape and reduced size and weight.
As a standard, up to 6 vacuum units can be assembled, but using threaded bars instead allows assembling even more.

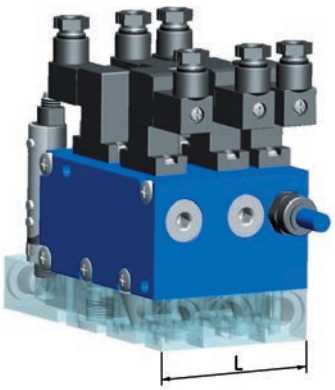


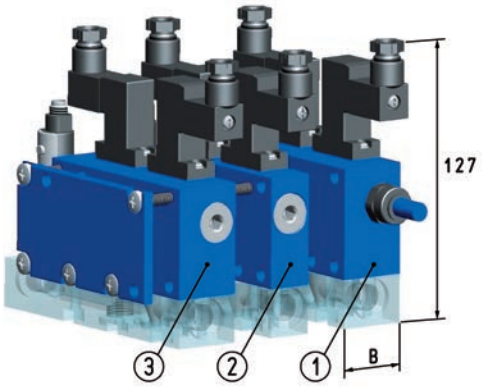
SET-UP EXAMPLE 1

N°	Art.	B
1	GVMM 3 - 7	20
2	MI 10 - 14	25
3	MI 3 - 7	20

Total length L= 65
Recommended screw kit: Art. 00 KIT GVMM 02

Order example:
n°1 Generator GVMM 3
n°1 Intermediate module MI 10
n°1 Intermediate module MI 3
n°1 stainless steel screw kit 00 KIT GVMM 02



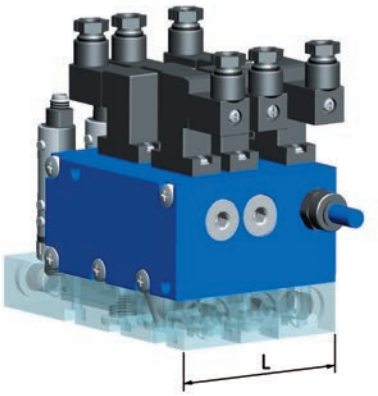


SET-UP EXAMPLE 2

N°	Art.	B
1	GVMM 10 - 14	25
2	MI 3 - 7	20
3	MI 10 - 14	25

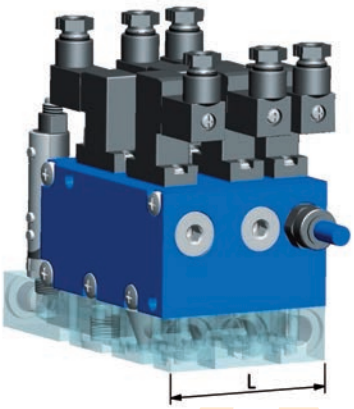
Total length L= 70
Recommended screw kit: Art. 00 KIT GVMM 03

Order example:
n°1 Generator GVMM 10
n°1 Intermediate module MI 3
n°1 Intermediate module MI 10
n°1 stainless steel screw kit 00 KIT GVMM 03



STAINLESS STEEL M5 SCREW KIT

Art.	L
00 KIT GVMM 01	45 - 50
00 KIT GVMM 02	60 - 65
00 KIT GVMM 03	70 - 75
00 KIT GVMM 04	80 - 85
00 KIT GVMM 05	90 - 95
00 KIT GVMM 06	100 - 105
00 KIT GVMM 07	110 - 115
00 KIT GVMM 08	120 - 125
00 KIT GVMM 09	130 - 135
00 KIT GVMM 10	140 - 145
00 KIT GVMM 11	150 - 155



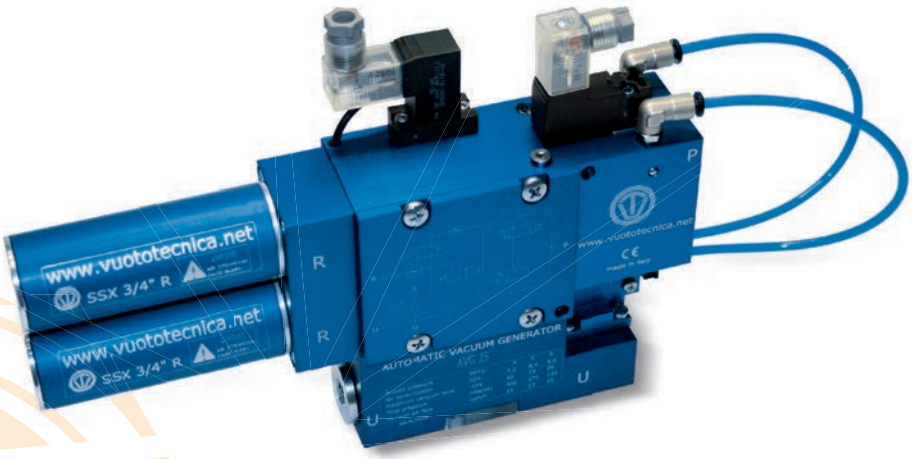
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$

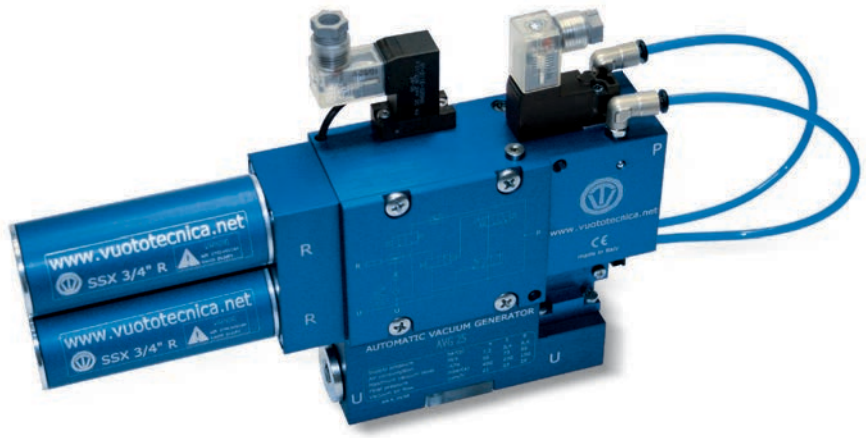
SINGLE-STAGE AND MULTI-FUNCTION VACUUM GENERATORS SERIES AVG

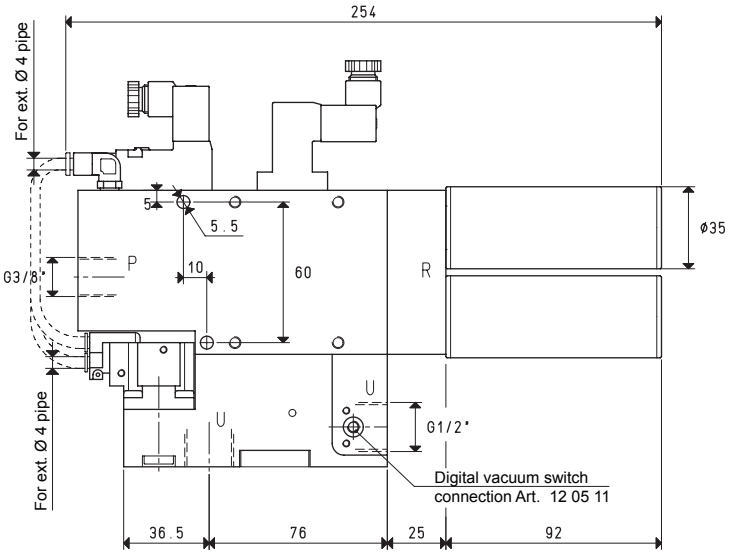
These generators are independent vacuum units that can control an entire vacuum gripping system. They have been specially designed for the AUTOMOTIVE sector and they are equipped with single ejectors that, given the same capacity as the multi-ejector generators, allow a quicker grip and, as a result, a greater compressed air consumption.
As a standard, they are provided with a built-in pneumatic energy-saving device.
They are composed of an anodised aluminium monobloc structure, inside of which are installed the ejectors, the servo-controlled slide valve for the compressed air supply and are contained the vacuum chambers as well as the various connections.
On the outside, on the other hand, are installed:

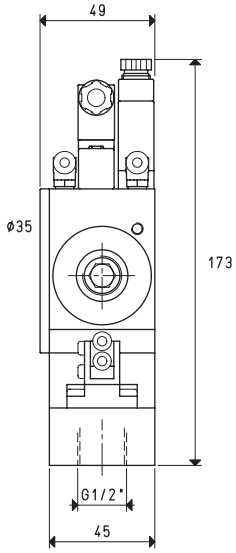
- *A bistable impulse solenoid valve for controlling the slide valve.*
- *A micro solenoid valve for blowing the exhaust compressed air.*
- *A flow regulator for dosing the exhaust compressed air.*
- *Two silencers for removing noise from the ejected air.*
- *An aluminium manifold provided with vacuum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

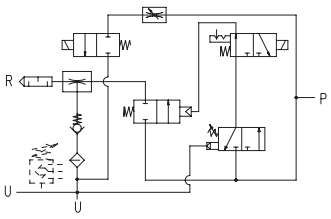
By providing an electric impulse to the two-position micro solenoid valve, the compressed air supply slide valve will be activated and vacuum will be created at the application.
Once the preset maximum value has been reached, the pneumatic vacuum switch, acts on the slide valve and interrupts the compressed air supply, restoring it when the value returns below the minimum value.
Along with maintaining the vacuum level within the preset safety values, this modulation allows saving a considerable amount of compressed air, even in case of electricity failure. Once the work cycle is completed, an electric impulse deactivates the supply micro solenoid valve and, at the same time, the ejection micro solenoid valve for a quick restoration of the atmospheric pressure at the application.
AVG vacuum generators are set for the installation of a micro digital vacuum switch art. 12 05 11 at the application and, upon request, they can be supplied protection devices against shocks and accidental falls.
Also these vacuum generators can be installed in any position.
AVG vacuum generators are suited for controlling vacuum cup gripping systems, for handling sheet metal, glass, marble, ceramic, plastic, cardboard, wood, etc., and, in particular for the AUTOMOTIVE sector, which requires equipment with excellent performance and reduced overall dimensions and weight.











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

Art.		AVG 18					AVG 25
Max. quantity of sucked air	cum/h	16.5	17.0	17.4	24.5	25.0	25.2
Max. vacuum level	-KPa	60	70	85	60	70	85
Final pressure	mbar abs.	400	300	150	400	300	150
Supply pressure	bar (g)	4	5	6	4	5	6
Air consumption	Nl/s	4.3	5.3	6.4	6.5	8.0	9.6
Max. quantity of air blown at 6 bar (g)	l/min			140			140
Bistable supply solenoid valve	NO/NC			NO/NC			NO/NC
Electric absorption	W			1			1
Ejection solenoid valve position	NC			NC			NC
Electric absorption	W			4			4
Supply voltage	V			24 DC			24 DC
Class of protection	IP			65			65
Working temperature	°C			-10 / +60			-10 / +60
Noise level	dB(A)			63			65
Weight	Kg			1.67			1.67

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

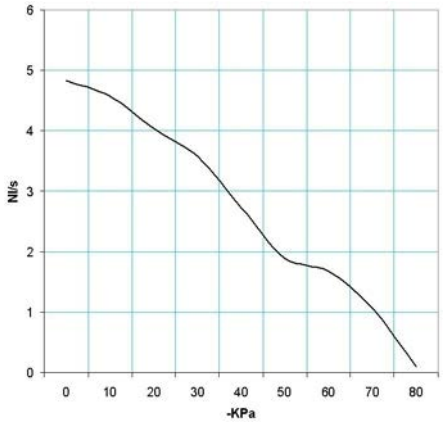
Note: All the vacuum data indicated in the table are valid at the normal atmospheric pressure of 1013 mbar and are obtained with a constant supply pressure.

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

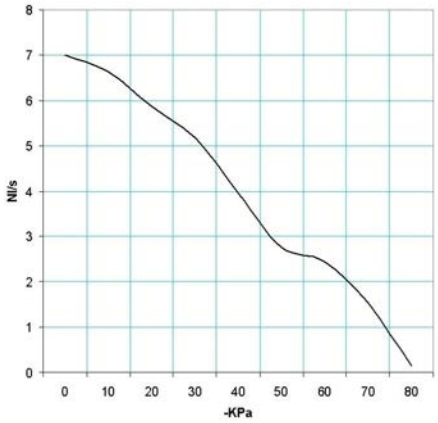
GAS-NPT thread adapters available at page 1.117

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

AVG18



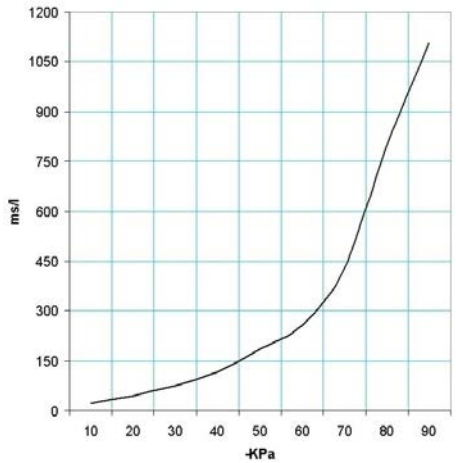
AVG25



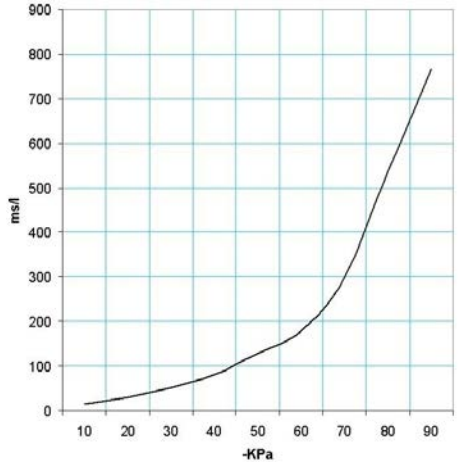
Generator	Supply press.	Air consumption	Air capacity (Nl/s) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	0	10	20	30	40	50	60	70	80	-KPa
AVG 18	6.0	6.4	4.83	4.58	4.04	3.58	2.72	1.90	1.68	1.07	0.10	85
AVG 25	6.0	9.6	7.00	6.63	5.86	5.18	3.94	2.76	2.44	1.54	0.15	85

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

AVG18



AVG25

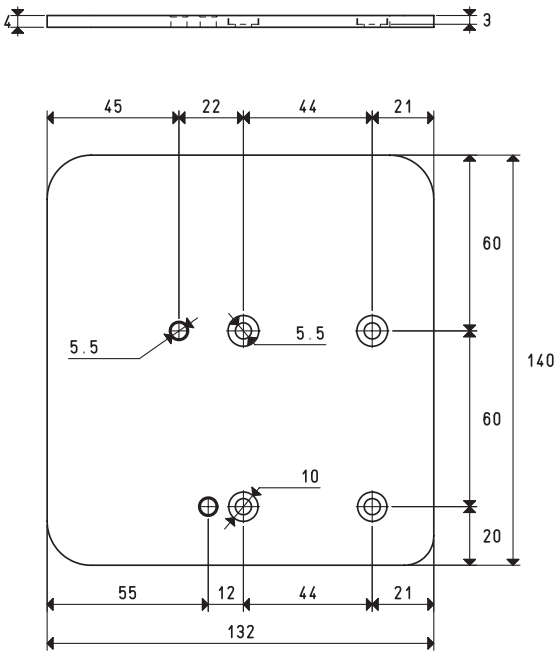


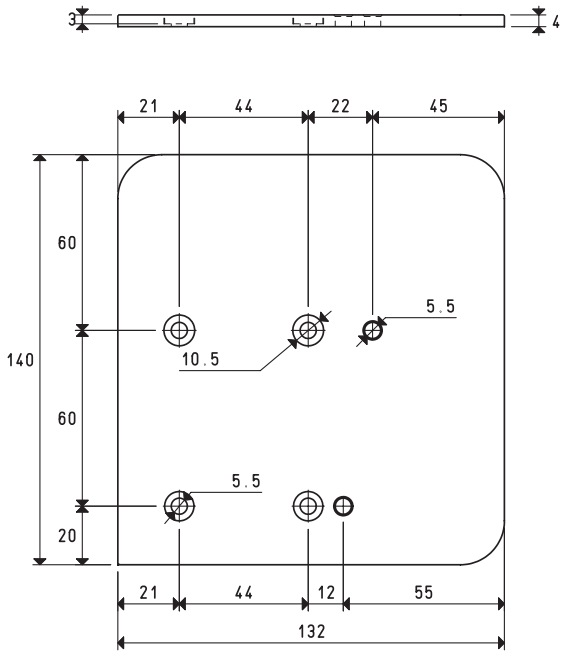
Generator	Supply press.	Air consumption	Evacuation time (ms/l = s/m³) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	10	20	30	40	50	60	70	80	85	-KPa
AVG 18	6.0	6.4	22	44	75	115	185	258	430	798	1107	85
AVG 25	6.0	9.6	15	30	52	80	128	178	297	538	764	85

ACCESSORIES AND SPARE PARTS UPON REQUEST

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

Protection devices





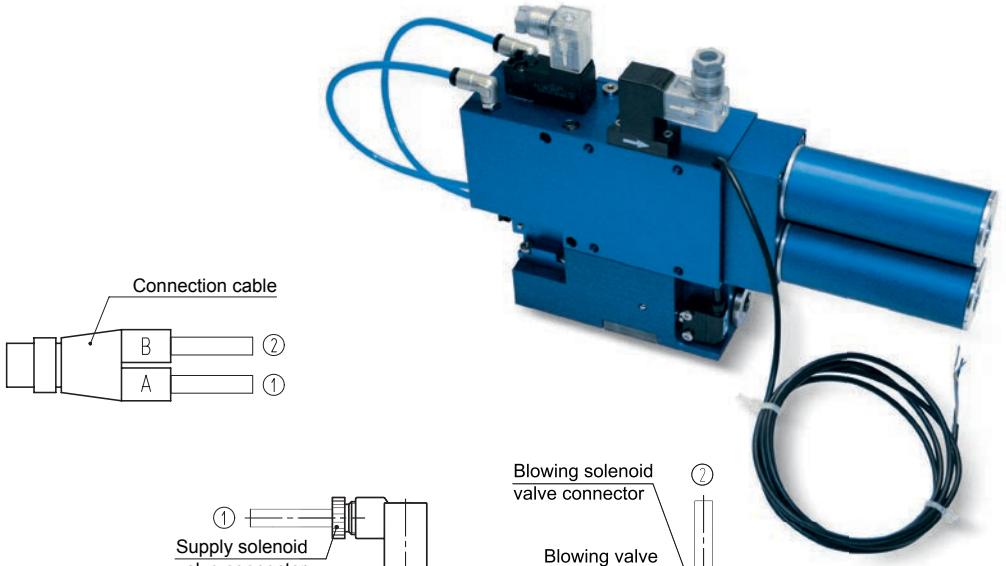
Art.	Description
00 15 271	Rear shockproof protection

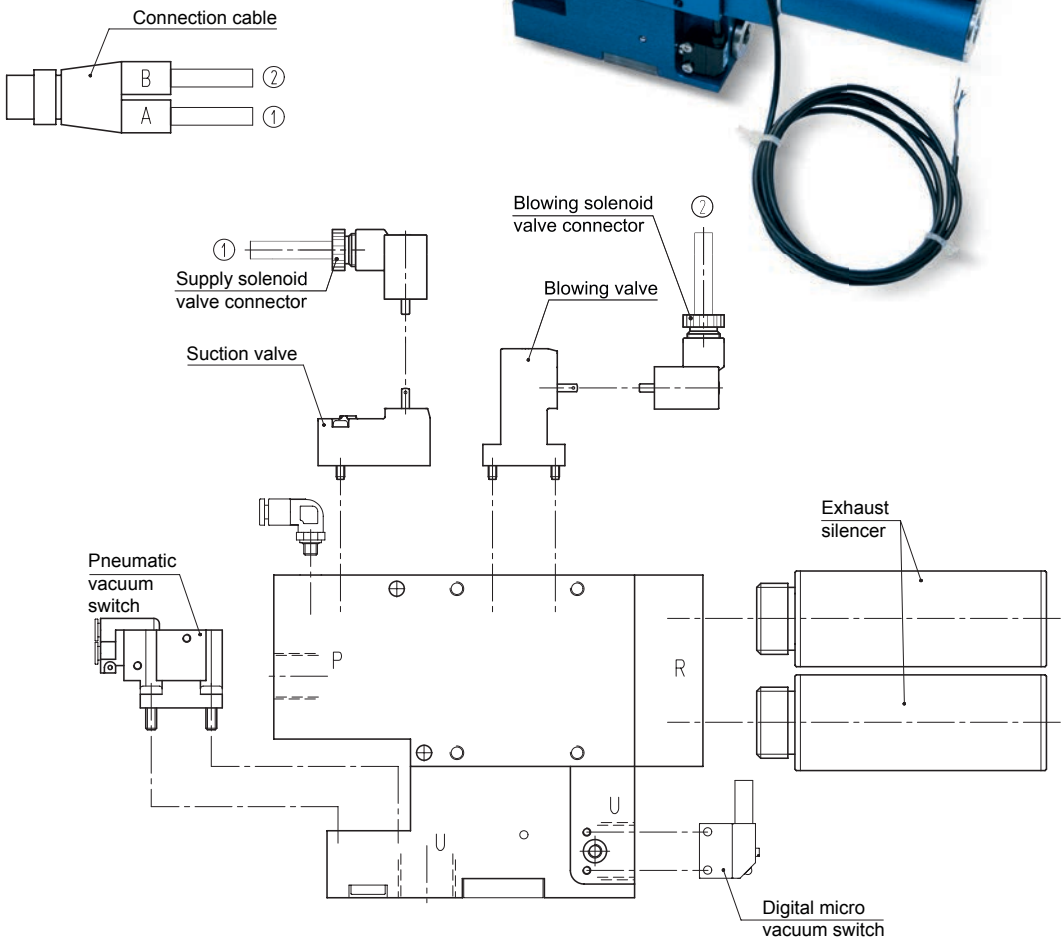
Art.	Description
00 15 272	Front shockproof protection

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

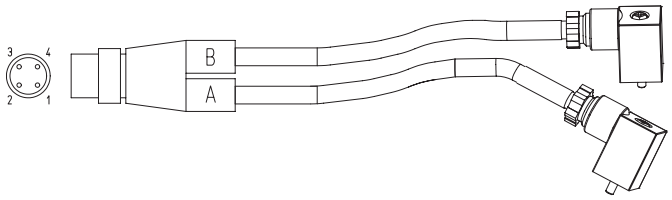
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

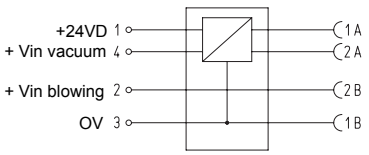
ACCESSORIES AND SPARE PARTS FOR SINGLE-STAGE AND MULTI-FUNCTION VACUUM GENERATORS SERIES AVG

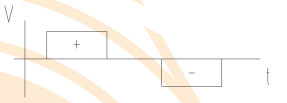




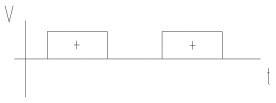
Cable with built-in electronic device



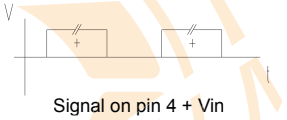




Voltage at the "vacuum" coil ends



Voltage at the "blowing" coil ends



Signal on pin 4 + Vin

Voltage on pin 2 + Vin

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

Digital micro vacuum switch

Art.		Description
12 05 11	|	Digital micro vacuum switch

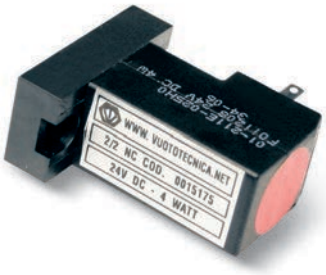
Connector

Art.		Description
00 15 157	|	Connector with solenoid valve LED

Bistable micro solenoid valve

Art.		Description
00 15 297	|	Bistable supply solenoid valve

Micro solenoid valve NC



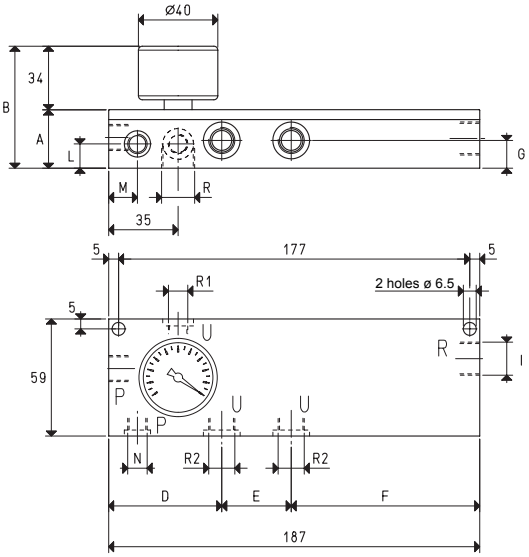
Art.		Description
00 15 175	|	Blowing solenoid valve NC

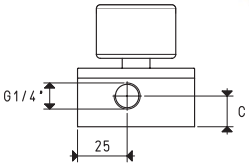
Silencer

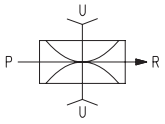
Art.		Description
SSX 3/4" R	|	Exhaust silencer

MULTI-STAGE VACUUM GENERATORS PVP 12 MX and 25 MX

This new range of multiple ejector vacuum generators represents the natural evolution of the PVP 12M and 25M generators. In fact, given the same air consumption and final vacuum level, the maximum suction capacity is increased from 15 to 21 cum/h and from 25 to 31 cum/h respectively.
The body and the lid are made with anodised aluminium, all the ejectors are made with stainless steel, as well as the fixing screws.
The state of the art seal in EPDM and is never in contact with the sucked fluid. The reed valves, on the other hand, are made with silicon as a standard, and viton, upon request.
The devices are also equipped with two new vacuum connections, apart from the existing one, and one for the possible connection to control or measuring devices.
As a standard, the devices are equipped with a vacuum gauge, a quick coupler for compressed air supply and metal locking caps for the unused connections.
The exhaust air connections are threaded in order to allow the installation of the new SSX silencers, for a further noise reduction.
They are perfectly interchangeable with the previous generators.







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

Art.			PVP 12 MX					PVP 25 MX
Max. quantity of sucked air		cum/h	16.0	18.0	21.0	25.0	28.0	31.0
Max. vacuum level		-KPa	65	85	90	65	85	90
Final pressure		mbar abs.	350	150	100	350	150	100
Supply pressure		bar (g)	4	5	6	4	5	6
Air consumption		Nl/s	1.3	1.5	1.8	2.3	2.7	3.2
Working temperature		°C			-20 / +80			-20 / +80
Noise level		dB(A)			65			70
Weight		g			660			960
A					29.5			45.5
B					63.5			79.5
C					15.5			20.7
D					57.0			60.5
E					35.0			37.0
F					95.0			89.5
G					14.0			20.7
L					--			20.75
M					--			14.5
N					--			G1/8"
I	Exhaust connection	Ø			G3/8"			N° 4 x G1/4"
R	Vacuum connection	Ø			G3/8"			G3/8"
R 1	Auxiliary vacuum connection	Ø			G1/8"			G1/8"
R 2	Additional vacuum connection	Ø			G1/4"			G1/2"
Spare parts								
Sealing kit and reed valve		art.			00 KIT PVP 12 MX			00 KIT PVP 25 MX
Vacuum gauge		art.			09 03 15			09 03 15

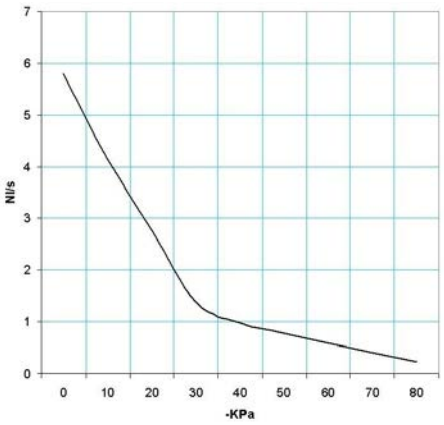
Note: All the vacuum data indicated in the table are valid at the normal atmospheric pressure of 1013 mbar and are obtained with a constant supply pressure.

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

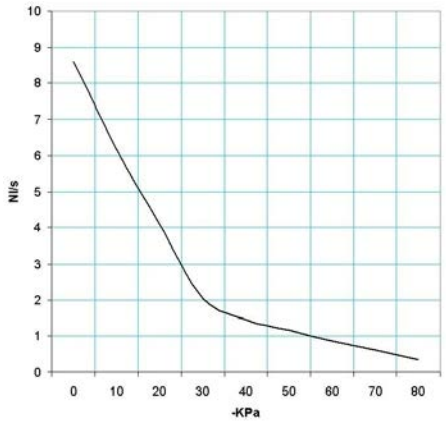
GAS-NPT thread adapters available at page 1.117

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

PVP 12MX



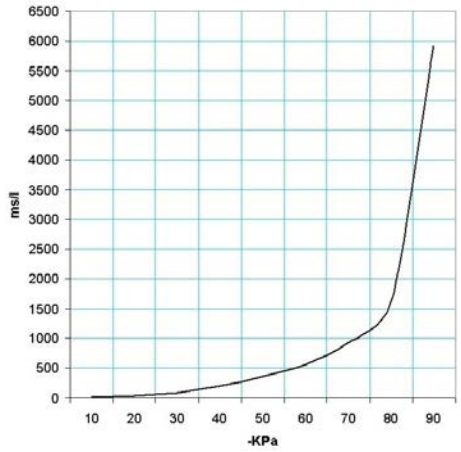
PVP 25MX



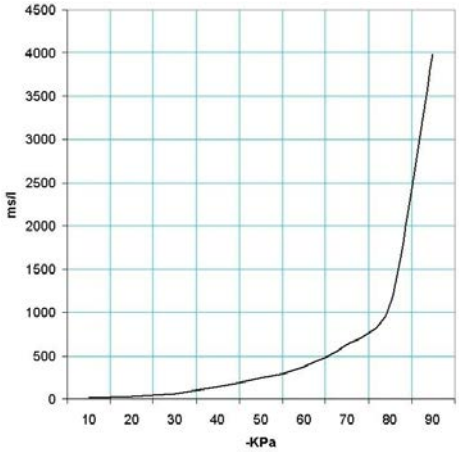
Generator	Supply press.	Air consumption	Air capacity (Nl/s) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	0	10	20	30	40	50	60	70	80	-KPa
PVP 12 MX	6.0	1.8	5.80	4.14	2.76	1.38	0.98	0.78	0.59	0.41	0.23	90
PVP 25 MX	6.0	3.2	8.61	6.15	4.10	2.05	1.46	1.17	0.88	0.61	0.35	90

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

PVP 12MX



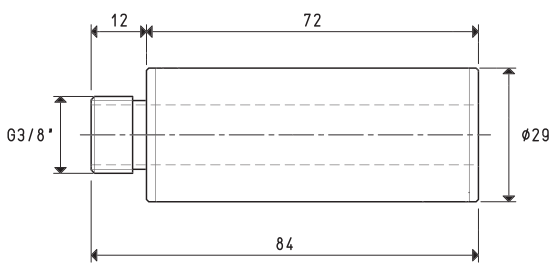
PVP 25MX



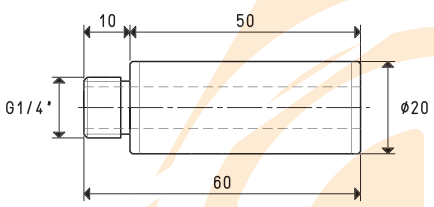
Generator	Supply press.	Air consumption	Evacuation time (ms/l = s/m³) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	10	20	30	40	50	60	70	80	85	-KPa
PVP 12 MX	6.0	1.8	15.4	38.7	85.1	204.4	365.9	559.8	929.4	1607.8	5916	90
PVP 25 MX	6.0	3.2	10.4	26.0	57.3	137.7	246.5	377.1	626.0	1083.1	3986	90

Accessories upon request

Silencer art. SSX 3/8" for PVP 12MX



4 silencers art. SSX 1/4 for PVP 25 MX

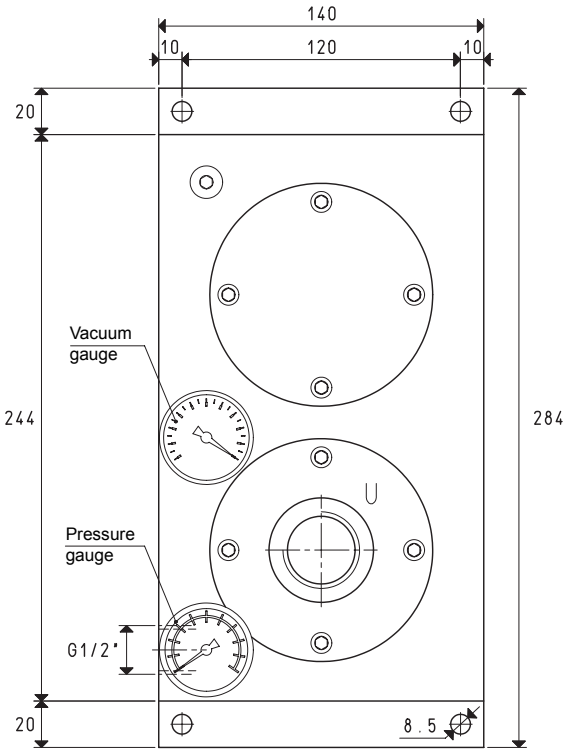


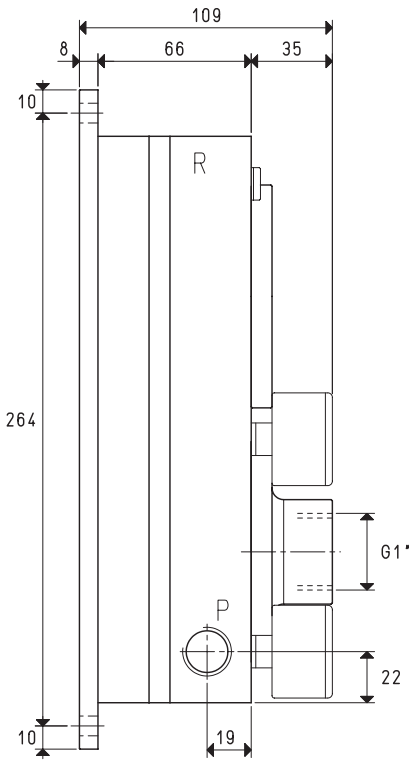
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

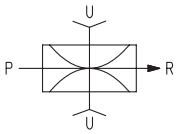
GAS-NPT thread adapters available at page 1.117

MULTI-STAGE VACUUM GENERATORS PVP 40 ÷ 300 M

This new range of multi-stage vacuum generators have been designed to be assembled onto OCTOPUS vacuum systems and represents a true evolution of traditional vane vacuum pumps. They feature state of the art ejectors and boast an excellent ratio between the consumed and the sucked air to the benefit of operative consumption. They also allow adjusting the vacuum level and capacity according to the air supply pressure.
When designing these vacuum generators, our focus was on noise; In fact, they are free of moving parts subject to vibrations and wear and they are perfectly soundproofed, therefore, their operation is particularly silent.
Moreover, their operation being based on Venturi's principle, they do not develop heat.
The light alloys used to make them have allowed a considerable reduction of their weight.
A good filtration of the compressed air supply and of the sucked one allows discharging air free from oil vapours, water condensation and impurities and reducing maintenance to a simple regular filtre cleaning.







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

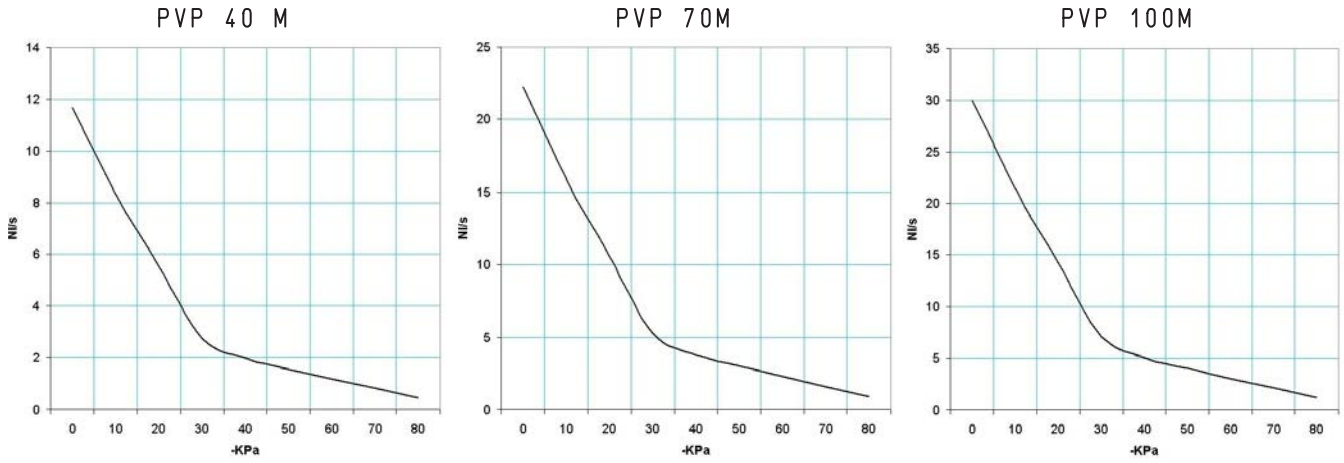
Art.		PVP 40 M			PVP 70 M				PVP 100 M	
Max. quantity of sucked air	cum/h	36	39	42	65	73	80	88	98	108
Max. vacuum level	-KPa	65	82	90	65	82	90	65	82	90
Final pressure	mbar abs.	350	180	100	350	180	100	350	180	100
Supply pressure	bar (g)	4	5	6	4	5	6	4	5	6
Air consumption	Nl/s	2.3	2.7	3.2	4.9	5.7	6.6	7.2	8.5	9.8
Working temperature	°C			-20 / +80			-20 / +80			-20 / +80
Noise level	dB(A)			67			68			70
Weight	Kg			4.2			4.2			4.2
Spare parts										
Sealing kit e disc valves	art.			00 KIT PVP 40 M			00 KIT PVP 70 M			00 KIT PVP 100 M
Vacuum gauge	art.			09 03 15			09 03 15			09 03 15
Pressure gauge	art.			09 03 25			09 03 25			09 03 25

Note: All the vacuum data indicated in the table are valid at the normal atmospheric pressure of 1013 mbar and are obtained with a constant supply pressure.
By adding the letter R to the article, the generator will be supplied with a built-in check valve (E.g.: PVP 40 MR).

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

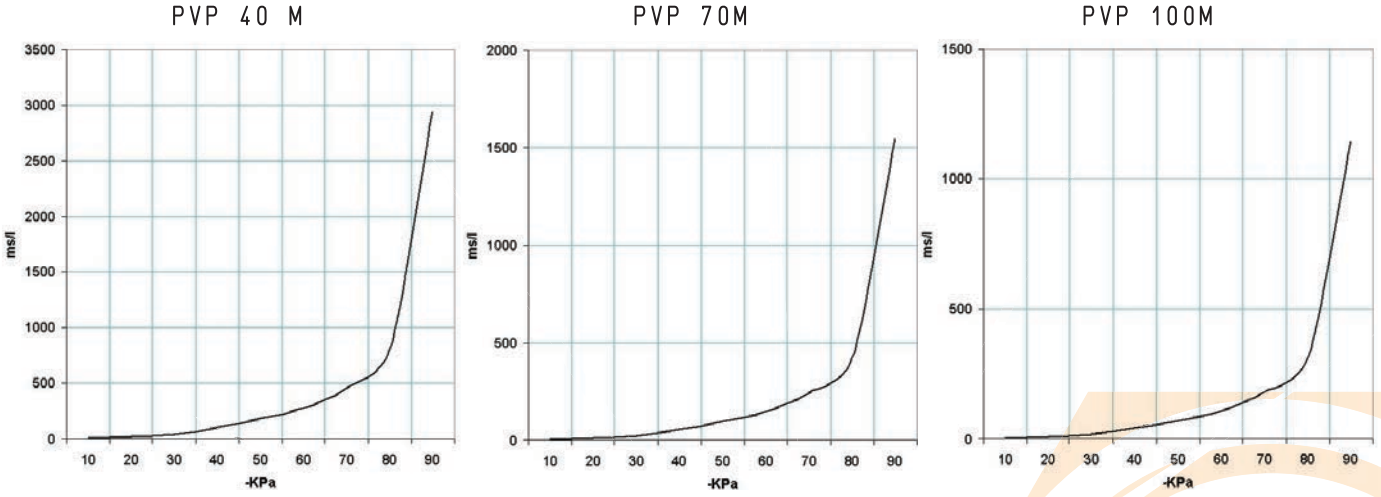
GAS-NPT thread adapters available at page 1.117

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



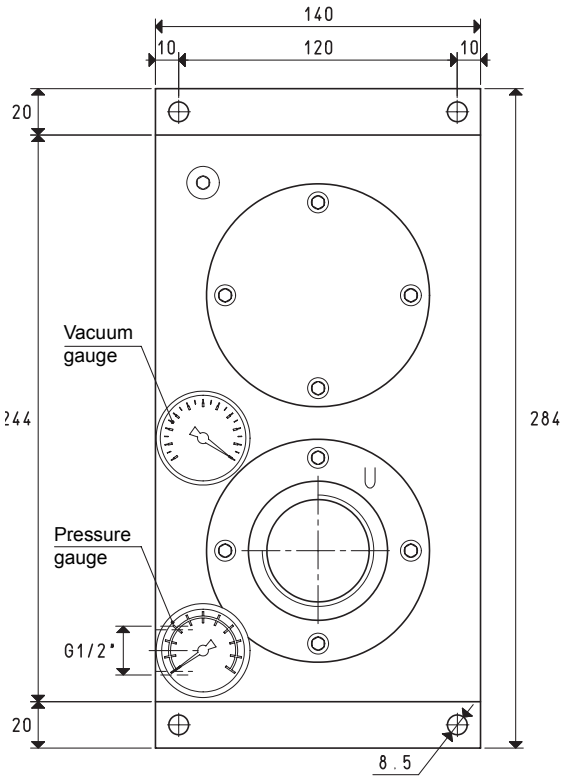
Generator	Supply press.	Air consumption	Air capacity (Nl/s) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	0	10	20	30	40	50	60	70	80	-KPa
PVP 40 M	6.0	3.2	11.66	8.32	5.55	2.77	1.98	1.58	1.19	0.83	0.47	90
PVP 70 M	6.0	6.6	22.22	15.87	10.58	5.29	3.77	3.02	2.27	1.58	0.90	90
PVP 100 M	6.0	9.8	30.00	21.42	14.28	7.14	5.10	4.08	3.06	2.14	1.22	90

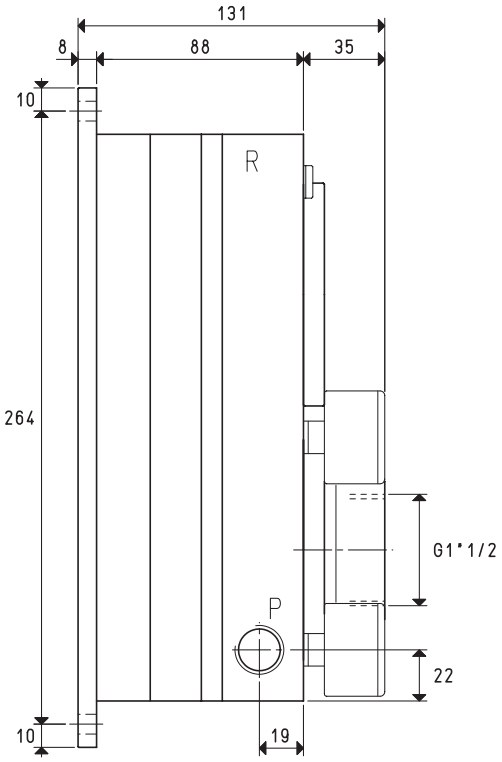
Evacuation time (ms/l=s/m³) at different vacuum levels (-Kpa)

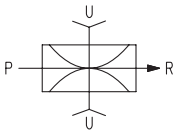


Generator	Supply press.	Air consumption	Evacuation time (ms/l = s/m³) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	10	20	30	40	50	60	70	80	90	-KPa
PVP 40 M	6.0	3.2	7.7	19.2	42.3	101.6	182.0	278.4	462.3	799.8	2943	90
PVP 70 M	6.0	6.6	4.0	10.1	22.2	53.3	95.5	146.1	242.6	419.7	1544	90
PVP 100 M	6.0	9.8	3.0	7.4	16.4	39.5	70.7	108.2	179.6	310.8	1144	90

MULTI-STAGE VACUUM GENERATORS PVP 140 M, 170 M and 200 M







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

Art.		PVP 140 M				PVP 170 M				PVP 200 M
Max. quantity of sucked air	cum/h	125	140	152	150	168	182	170	188	200
Max. vacuum level	-KPa	65	82	90	65	82	90	65	82	90
Final pressure	mbar abs.	350	180	100	350	180	100	350	180	100
Supply pressure	bar (g)	4	5	6	4	5	6	4	5	6
Air consumption	Nl/s	9.6	11.4	13.0	12.1	14.2	16.3	14.2	16.9	19.4
Working temperature	°C			-20 / +80			-20 / +80			-20 / +80
Noise level	dB(A)			70			71			72
Weight	Kg			5.1			5.1			5.1
Spare parts										
Sealing kit e disc valves	art.			00 KIT PVP 140 M			00 KIT PVP 170 M			00 KIT PVP 200 M
Vacuum gauge	art.			09 03 15			09 03 15			09 03 15
Pressure gauge	art.			09 03 25			09 03 25			09 03 25

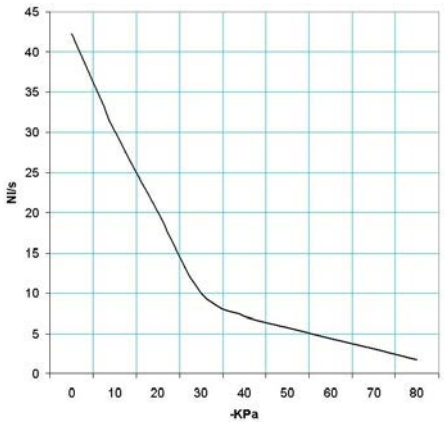
Note: All the vacuum data indicated in the table are valid at the normal atmospheric pressure of 1013 mbar and are obtained with a constant supply pressure.
By adding the letter R to the article, the generator will be supplied with a built-in check valve (E.g.: PVP 140 MR).

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

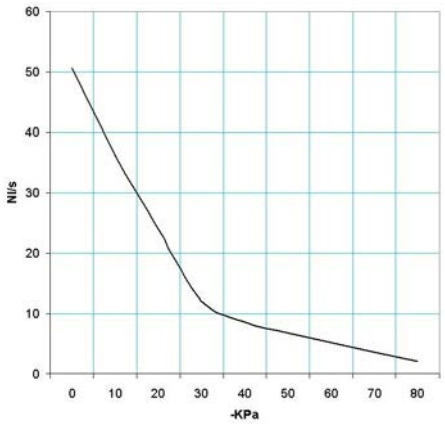
GAS-NPT thread adapters available at page 1.117

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

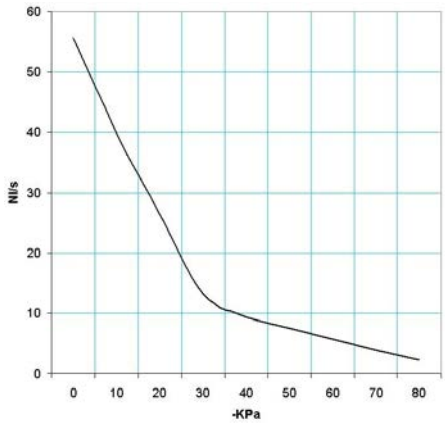
PVP 140 M



PVP 170M



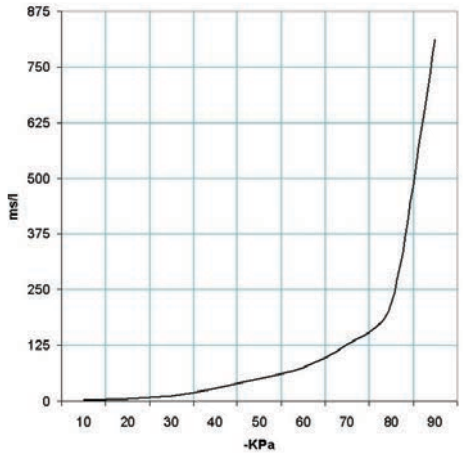
PVP 200M



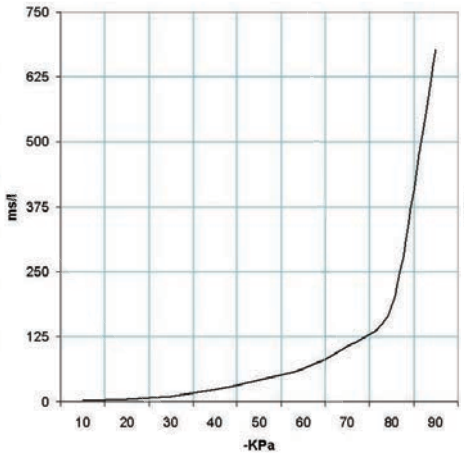
Generator art.	Supply press. bar (g)	Air consumption Nl/s	Air capacity (Nl/s) at different vacuum levels (-KPa) 0	10	20	30	40	50	60	70	80	Max. vacuum level -KPa
PVP 140 M	6.0	13.0	42.22	30.15	20.10	10.05	7.18	5.74	4.31	3.02	1.72	90
PVP 170 M	6.0	16.3	50.55	36.10	24.07	12.03	8.59	6.87	5.17	3.61	2.06	90
PVP 200 M	6.0	19.4	55.55	39.67	26.45	13.22	9.44	7.55	5.68	3.97	2.27	90

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

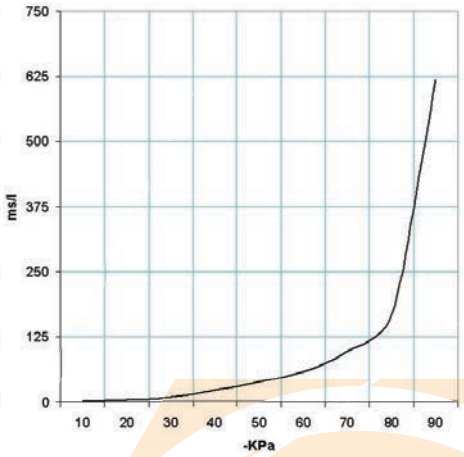
PVP 140 M



PVP 170M

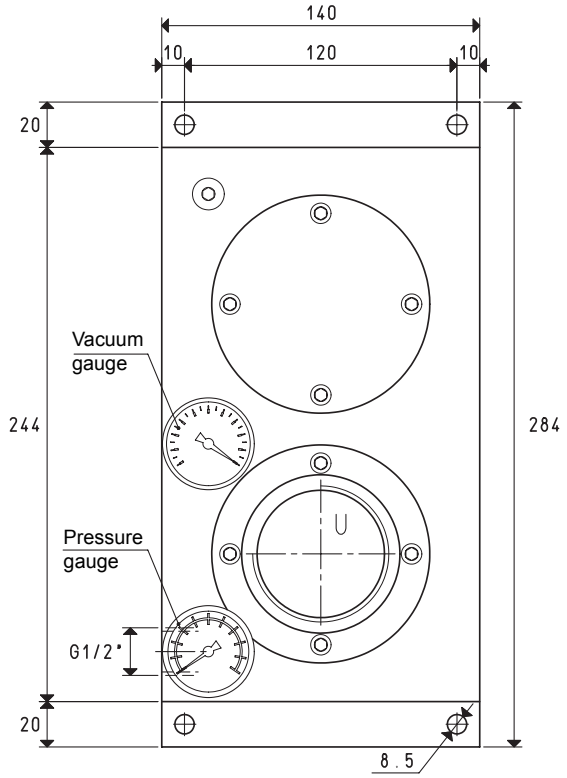


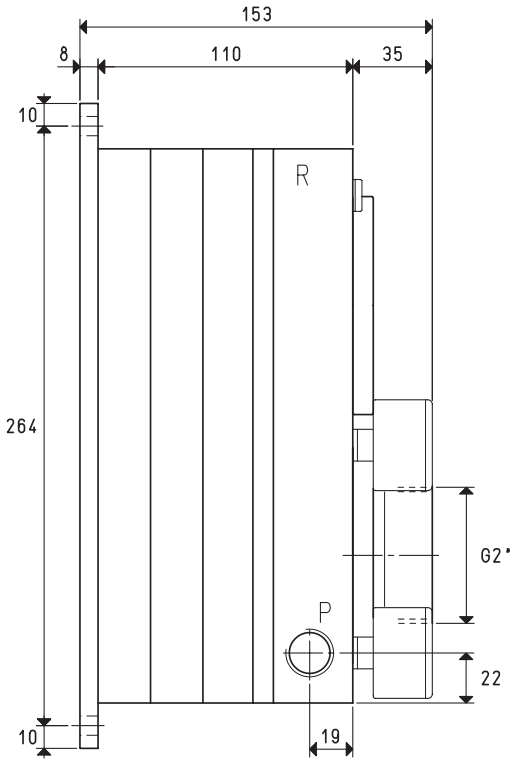
PVP 200M

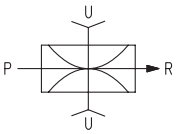


Generator art.	Supply press. bar (g)	Air consumption Nl/s	Evacuation time (ms/l = s/m³) at different vacuum levels (-KPa) 10	20	30	40	50	60	70	80	90	Max. vacuum level -KPa
PVP 140 M	6.0	13.0	2.1	5.3	11.7	28.0	50.2	76.9	127.6	220.8	812	90
PVP 170 M	6.0	16.3	1.7	4.4	9.7	23.4	42.0	64.2	106.6	184.5	678	90
PVP 200 M	6.0	19.4	1.6	4.0	8.9	21.3	38.2	58.4	97.0	167.8	618	90

MULTI-STAGE VACUUM GENERATORS PVP 250 M and 300 M







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

Art.		PVP 250 M					PVP 300 M
Max. quantity of sucked air	cum/h	224	252	280	240	290	320
Max. vacuum level	-KPa	65	82	90	65	82	90
Final pressure	mbar abs.	350	180	100	350	180	100
Supply pressure	bar (g)	4	5	6	4	5	6
Air consumption	Nl/s	17.3	20.7	24.0	20.4	24.8	29.0
Working temperature	°C			-20 / +80			-20 / +80
Noise level	dB(A)			72			74
Weight	Kg			6.0			6.0
Spare parts							
Sealing kit e disc valves	art.			00 KIT PVP 250 M			00 KIT PVP 300 M
Vacuum gauge	art.			09 03 15			09 03 15
Pressure gauge	art.			09 03 25			09 03 25

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

By adding the letter R to the article, the generator will be supplied with a built-in check valve (E.g.: PVP 250 MR).

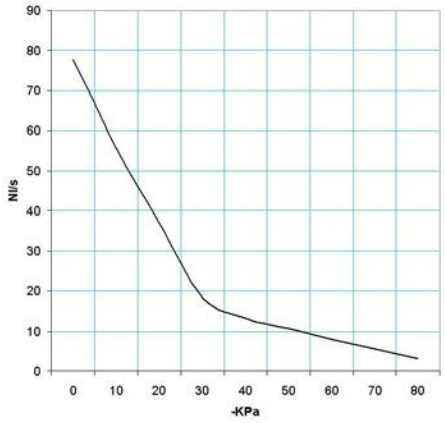
3D drawing available at **www.vuototecnica.net**

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

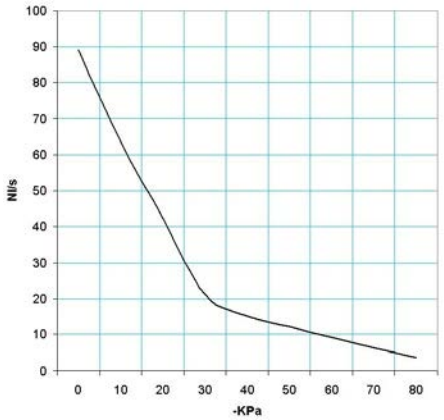
GAS-NPT thread adapters available at page 1.117

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

PVP 250M



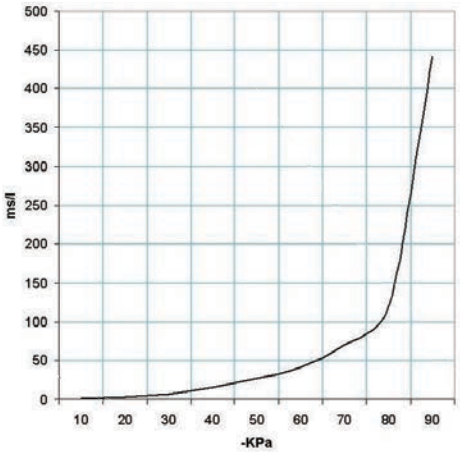
PVP 300M



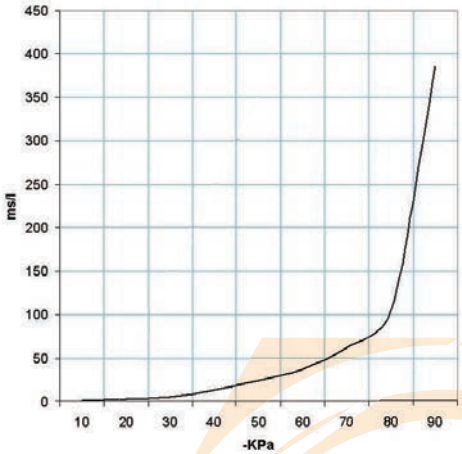
Generator	Supply press.	Air consumption	Air capacity (Nl/s) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	0	10	20	30	40	50	60	70	80	-KPa
PVP 250 M	6.0	24.0	77.77	55.55	37.03	18.51	13.22	10.58	7.95	5.56	3.17	90
PVP 300 M	6.0	29.0	88.88	63.48	42.32	21.16	15.11	12.09	9.09	6.35	3.63	90

Evacuation time (ms/l=s/m^3) at different vacuum levels (-Kpa)

PVP 250M



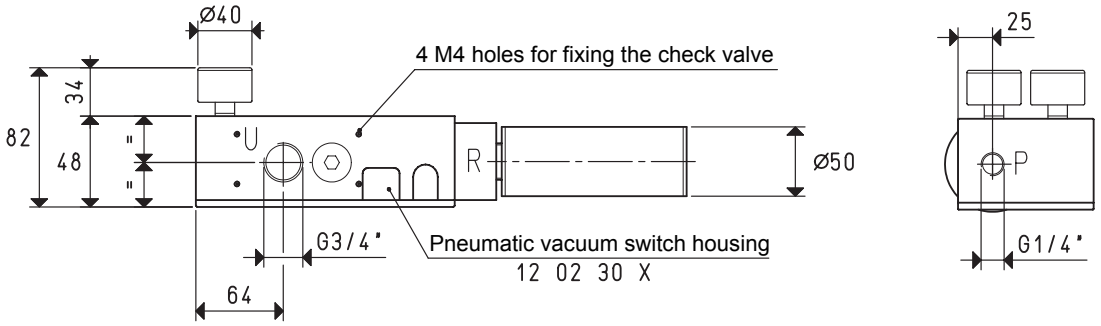
PVP 300M

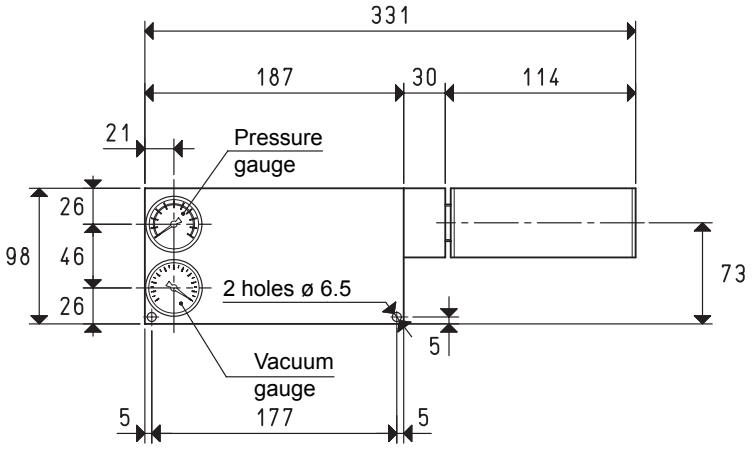


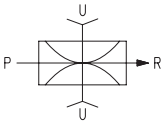
Generator	Supply press.	Air consumption	Evacuation time (ms/l = s/m^3) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	10	20	30	40	50	60	70	80	90	-KPa
PVP 250 M	6.0	24.0	1.1	2.9	6.4	15.2	27.3	41.8	69.3	119.9	442	90
PVP 300 M	6.0	29.0	1.0	2.5	5.5	13.3	23.8	36.5	60.6	104.9	386	90

MULTI-STAGE VACUUM GENERATORS PVP 25 ÷ 75 MDX

This new range of generators represent the natural evolution of the PVP 25 ÷ 75 MD multiple ejector vacuum generators and they boast an excellent performance. In fact, given the same air consumption values and the same final vacuum level, the maximum suction capacity is increased by 10 ÷ 12% compared to the previous range.
the body and lid are made with anodised aluminium, all the ejectors are made with stainless steel, as well as the fixing screws.
The state of the art seal is in EPDM and is never in contact with the sucked fluid; le reed valves, on the other hand, are made with silicon as a standard and in viton, upon request.
These new devices contain a housing for the installation, upon request, of a pneumatic vacuum switch, that, associated with a pneumatic slide valve and a special check valve, allows making an energy saving device. As a standard, these devices are equipped with a vacuum gauge a pressure gauge, a silencer on the exhaust and a quick coupler for the compressed air supply.
This new range of vacuum generators is perfectly interchangeable with the previous one.







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

Art.		PVP 25 MDX				PVP 35 MDX			PVP 50 MDX	
Max. quantity of sucked air	cum/h	35	39	43	47	52	57	57	62	68
Max. vacuum level	-KPa	65	82	90	65	82	90	65	82	90
Final pressure	mbar abs.	350	180	100	350	180	100	350	180	100
Supply pressure	bar (g)	4	5	6	4	5	6	4	5	6
Air consumption	Nl/s	2.3	2.8	3.2	3.4	4.1	4.8	4.7	5.6	6.5
Working temperature	°C			-20 / +80			-20 / +80			-20 / +80
Noise level	dB(A)			58			58			60
Weight	Kg			1.71			1.73			1.75
Spare parts										
Sealing kit and reed valve	art.			00 KIT PVP 25 MDX			00 KIT PVP 35 MDX			00 KIT PVP 50 MDX
Vacuum gauge	art.			09 03 15			09 03 15			09 03 15
Pressure gauge	art.			09 03 25			09 03 25			09 03 25
Silencer	art.			SSX 3/4"			SSX 3/4"			SSX 3/4"

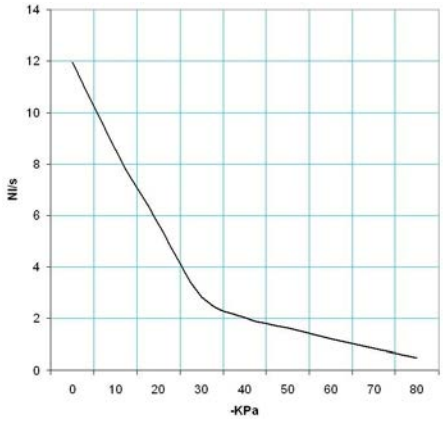
Note: All the vacuum data indicated in the table are valid at the normal atmospheric pressure of 1013 mbar and are obtained with a constant supply pressure.

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

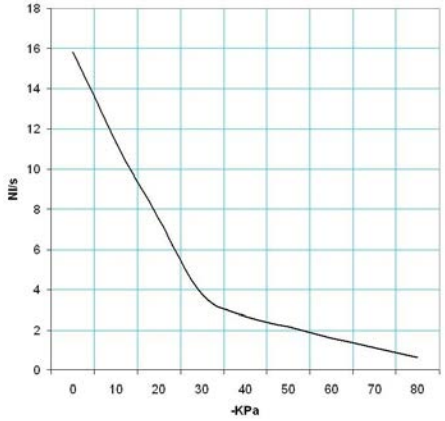
GAS-NPT thread adapters available at page 1.117

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

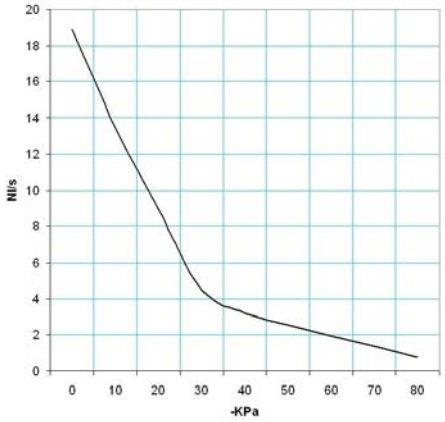
PVP 25 MDX



PVP 35 MDX



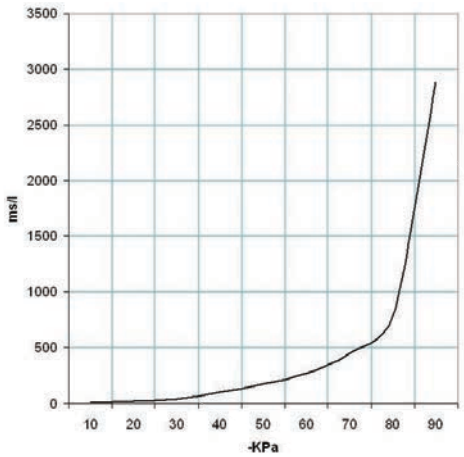
PVP 50 MDX



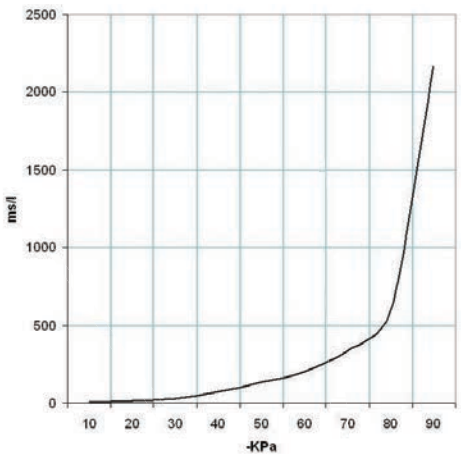
Generator	Supply press.	Air consumption	Air capacity (Nl/s) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	0	10	20	30	40	50	60	70	80	-KPa
PVP 25 MDX	6.0	3.2	11.94	8.53	5.68	2.84	2.03	1.62	1.22	0.85	0.48	90
PVP 35 MDX	6.0	4.8	15.83	11.30	7.53	3.76	2.69	2.15	1.61	1.13	0.64	90
PVP 50 MDX	6.0	6.5	18.88	13.48	8.99	4.49	3.21	2.56	1.93	1.35	0.77	90

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

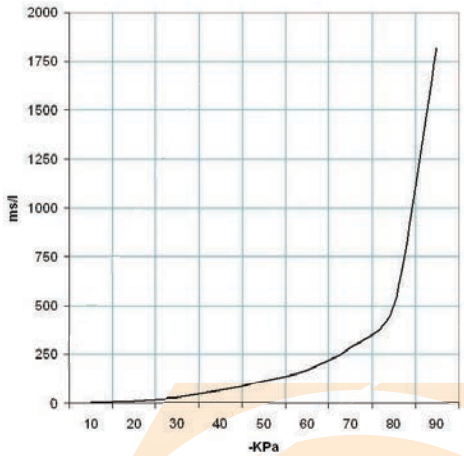
PVP 25 MDX



PVP 35 MDX

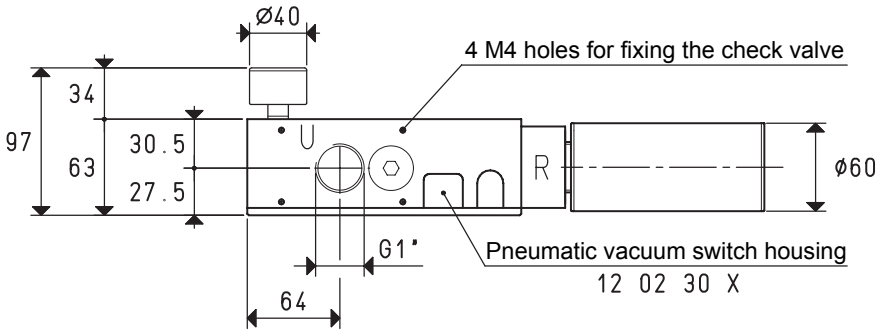


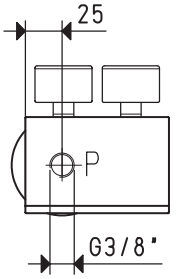
PVP 50 MDX

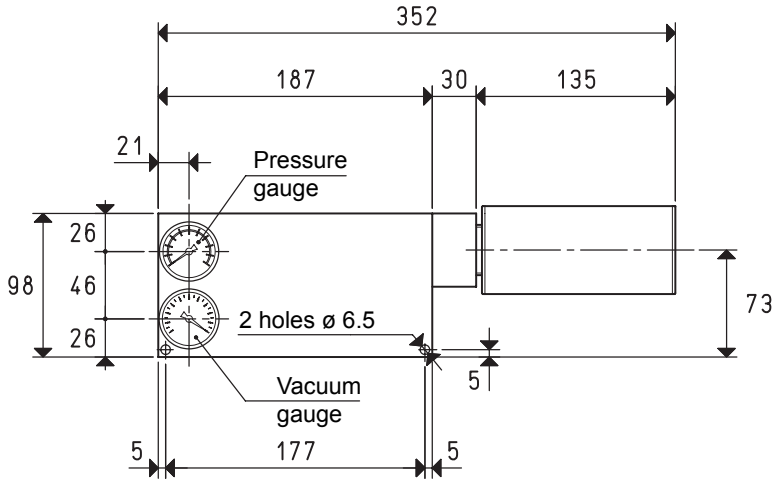


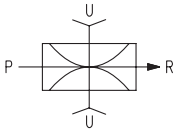
Generator	Supply press.	Air consumption	Evacuation time (ms/l = s/m³) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	10	20	30	40	50	60	70	80	90	-KPa
PVP 25 MDX	6.0	3.2	7.5	18.8	41.3	99.3	177.7	271.9	451.4	781.0	2874	90
PVP 35 MDX	6.0	4.8	5.6	14.1	31.2	74.9	134.0	205.1	340.5	589.1	2618	90
PVP 50 MDX	6.0	6.5	4.7	11.9	26.2	62.8	112.4	172.0	285.5	494.0	1818	90

MULTI-STAGE VACUUM GENERATORS PVP 60 MDX and 75 MDX









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

Art.		PVP 60 MDX					PVP 75 MDX
Max. quantity of sucked air	cum/h	75	85	92	85	94	103
Max. vacuum level	-KPa	65	82	90	65	82	90
Final pressure	mbar abs.	350	180	100	350	180	100
Supply pressure	bar (g)	4	5	6	4	5	6
Air consumption	Nl/s	5.9	7.0	8.2	7.0	8.4	9.8
Working temperature	°C			-20 / +80			-20 / 80
Noise level	dB(A)			62			64
Weight	Kg			1.90			1.92
Spare parts							
Sealing kit and reed valve	art.			00 KIT PVP 60 MDX			00 KIT PVP 75 MDX
Vacuum gauge	art.			09 03 15			09 03 15
Pressure gauge	art.			09 03 25			09 03 25
Silencer	art.			SSX 1"			SSX 1"

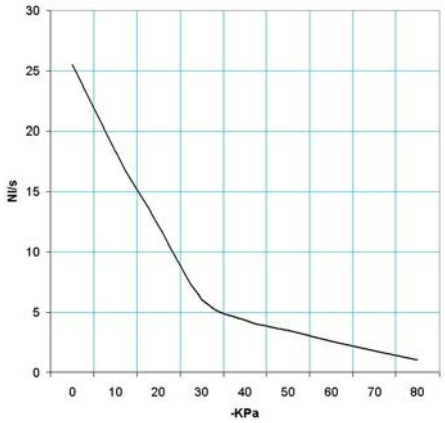
Note: All the vacuum data indicated in the table are valid at the normal atmospheric pressure of 1013 mbar and are obtained with a constant supply pressure.

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

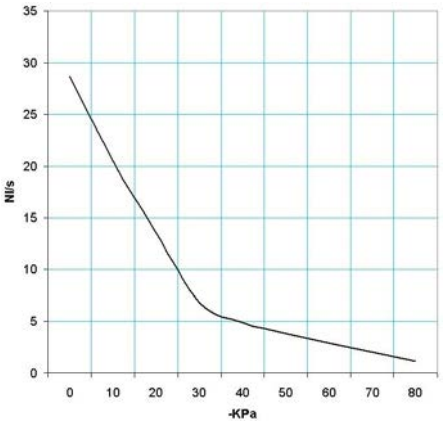
GAS-NPT thread adapters available at page 1.117

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

PVP 60 MDX



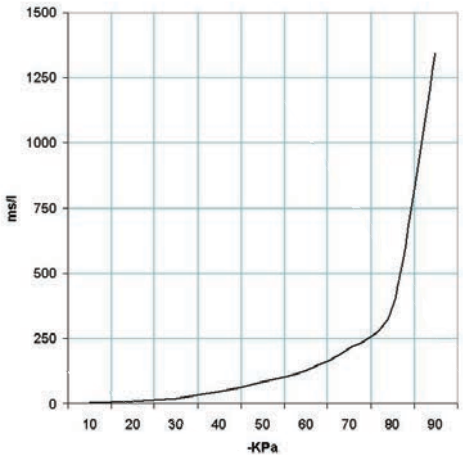
PVP 75 MDX



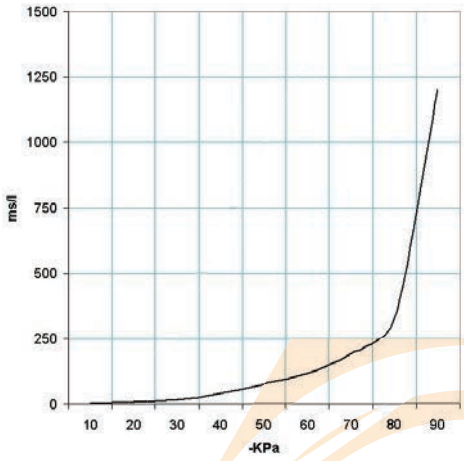
Generator	Supply press.	Air consumption	Air capacity (Nl/s) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	0	10	20	30	40	50	60	70	80	-KPa
PVP 60 MDX	6.0	8.2	25.55	18.25	12.16	6.08	4.34	3.47	2.61	1.82	1.04	90
PVP 75 MDX	6.0	9.8	28.61	20.43	13.62	6.81	4.86	3.89	2.92	2.04	1.16	90

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

PVP 60 MDX

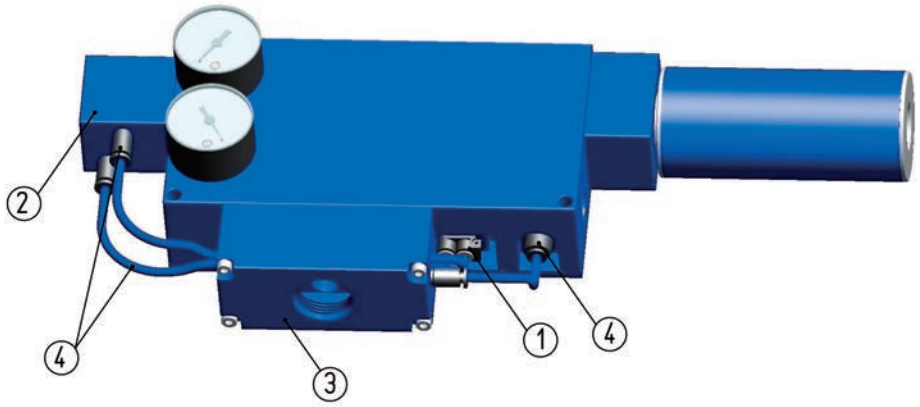


PVP 75 MDX



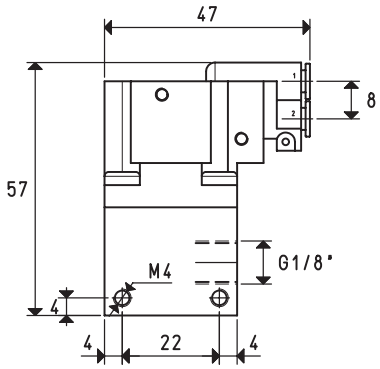
Generator	Supply press.	Air consumption	Evacuation time (ms/l = s/m³) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	10	20	30	40	50	60	70	80	90	-KPa
PVP 60 MDX	6.0	8.2	3.5	8.8	19.3	46.4	83.0	127.0	211.0	365.0	1343	90
PVP 75 MDX	6.0	9.8	3.1	7.8	17.2	41.4	74.2	113.5	188.4	326.0	1200	90

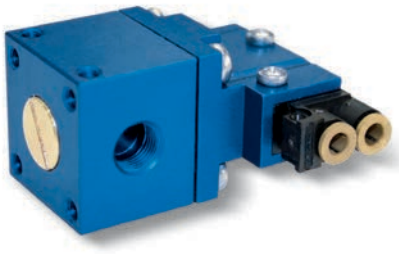
VACUUM GENERATORS ACCESSORIES PVP 25 ÷ 75 MDX



① - MINI PNEUMATIC VACUUM SWITCH

The vacuum switch removes a pneumatic signal as soon as a determined adjustable vacuum level is reached. The pressure differential between the set maximum value and the value of reset of the rest signal cannot be adjusted and it is equal to approximately 100 mbar.
The pneumatic vacuum switch installed on PVP 25 ÷ 75 MDX vacuum generators intervene on the supply slide valve and automatically maintain the maximum and minimum vacuum level within the differential level.

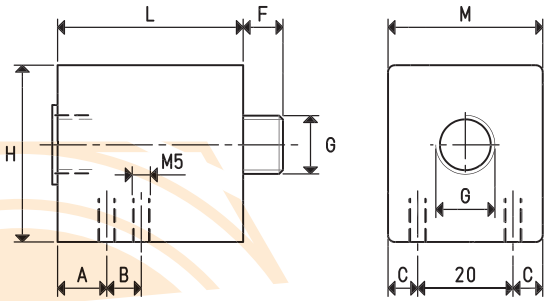




Art.	For generator art.	Weight g
12 02 30 X	PVP 25 ÷ 50 MDX PVP 60 ÷ 75 MDX	104

② - SERVO-CONTROLLED SUPPLY SLIDE VALVE

This valve is provided with slide shutter that, once pneumatically activated by the vacuum switch or by alternative sources intercepts the generator compressed air supply, with pressure ranging from 1.5 and 7 bar (g).
The value is according to the generator supply connection.



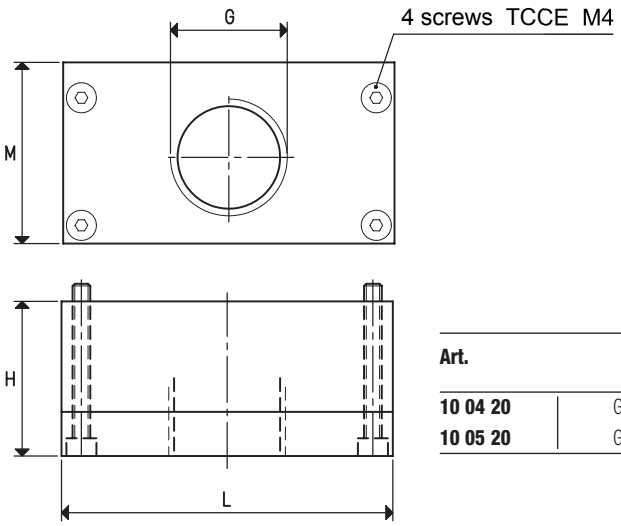
Art.	A	B	C	F	G Ø	H	L	M	Weight g	For generator art.
07 01 70	11.5	8.0	7.5	9.5	G1/4"	40	42	35	190	PVP 25 ÷ 50 MDX
07 02 70	13.5	9.5	12.5	9.5	G3/8"	50	51	45	420	PVP 60 ÷ 75 MDX

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

③ - MEMBRANE CHECK VALVE

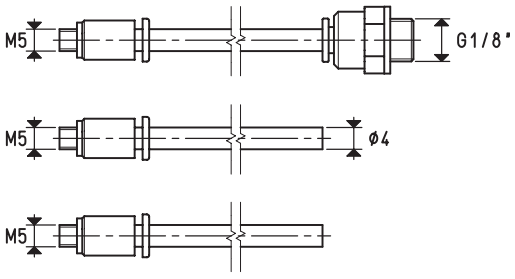
This check valve has been specially designed for PVP 25 ÷ 75 MDX vacuum generators.
Its distinctive feature, along with its shape, is its membrane check valve that guarantees minimal load loss, quick intervention and perfect sealing.



Art.	G Ø	H	L	M	Weight g	For generator art.
10 04 20	G3/4"	35	75	41	165	PVP 25 ÷ 50 MDX
10 05 20	G1"	48	113	58	458	PVP 60 ÷ 75 MDX

④ - HOSE KIT WITH FITTINGS

This hose kit is for connecting the vacuum switch to the supply slide valve and to the membrane check valve. On the hose ends are installed the special quick couplers to screw onto the valve and vacuum switch connections.



Art.	For generator art.	Weight g
00 15 308	PVP 25 ÷ 50 MDX PVP 60 ÷ 75 MDX	16

COMPLETE ES ENERGY SAVING DEVICE KIT

Art.	For generator art.	Weight g
ES 01	PVP 25 ÷ 50 MDX	475
ES 02	PVP 60 ÷ 75 MDX	998

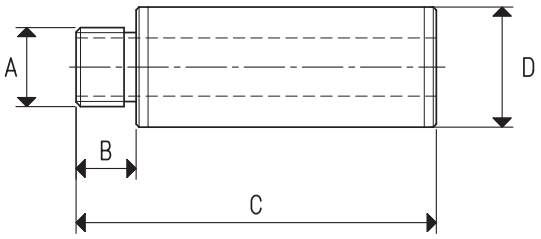
Note: To order multi-stage vacuum generators with energy-saving device, add the letters ES to the the code (E.g.: PVP 25 MDX ES).

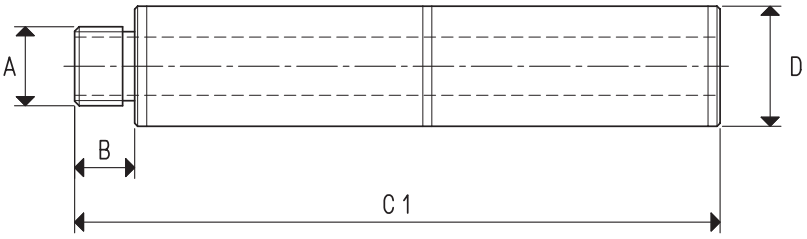
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

GAS-NPT thread adapters available at page 1.117

SILENCERS

The use of natural fibre sound absorbing material enclosed in special anodised aluminium casings has allowed creating this new range of silencers that considerably reduce noise made by air at the vacuum generator exhaust.
There are two versions with different lengths: the longer the length and the more will the noise be reduced.
Noise reduction: from -13 to -20 dB (A);
Working temperature: from -20 to +100 °C.





Art.	A Ø	B	C	C1	D Ø	Weight g
SSX 1/4"	G1/4"	10	60	--	20	20
SSX 3/8"	G3/8"	12	84	--	29	52
SSX 1/2"	G1/2"	14	106	--	35	96
SSX 3/4" R	G3/4"	14	106	--	35	100
SSX 3/4"	G3/4"	14	126	--	50	174
SSX 1"	G1"	14	146	--	55	240
SSX 1" 1/2	G1" 1/2	30	210	--	80	302
SSX 2"	G2"	30	230	--	90	372
2SSX 1/4"	G1/4"	10	--	108	20	40
2SSX 3/8"	G3/8"	12	--	154	29	104
2SSX 1/2"	G1/2"	14	--	196	35	192
2SSX 3/4"	G3/4"	14	--	236	50	348
2SSX 1"	G1"	14	--	276	55	480

3D drawing available at **www.vuototecnica.net**

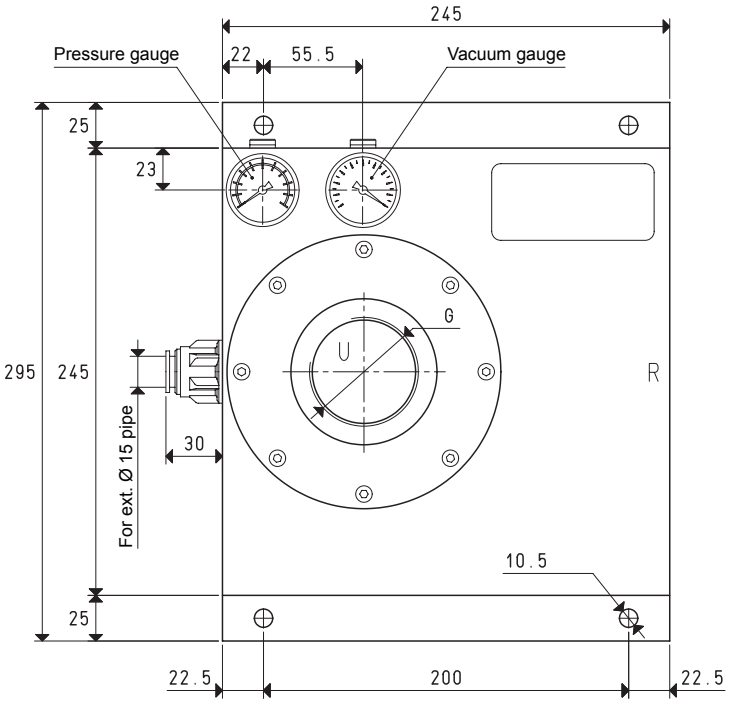
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

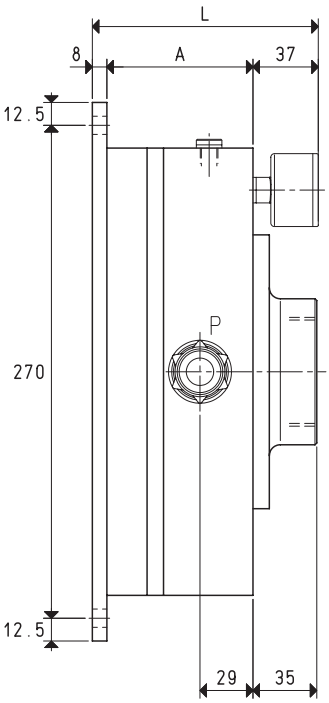
GAS-NPT thread adapters available at page 1.117

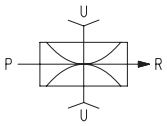
MODULAR MULTI-STAGE VACUUM GENERATORS PVP 150 ÷ 600 MD

The special shape of these vacuum generators has allowed obtaining great suction capacities in very limited overall dimensions. The ejectors share the same features as the previous ones, but instead of being fixed directly onto the generator body, they are assembled onto modular frames. The superimposition of one or more frames determines the generator capacity. They are supplied by filtered compressed air with an optimal pressure of 6 bar (g), and they can create a maximum vacuum of 90%, with a suction capacity ranging from 200 to 750 cum/h, measured at the normal atmospheric pressure of 1013 mbar.
They are fully made with anodised aluminium with disc valves and special compound seals.
They are perfectly soundproofed which results in an extremely silent operation.

MODULAR MULTI-STAGE VACUUM GENERATORS PVP 150 MD and 300 MD







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

Art.		PVP 150 MD					PVP 300 MD
Max. quantity of sucked air	cum/h	160	180	200	320	360	400
Max. vacuum level	-KPa	65	82	90	65	82	90
Final pressure	mbar abs.	350	180	100	350	180	100
Supply pressure	bar (g)	4	5	6	4	5	6
Air consumption	Nl/s	12.1	14.2	16.0	23.2	27.8	32.0
Working temperature	°C			-20 / +80			-20 / +80
Noise level	dB(A)			72			74
Weight	Kg			7.8			8.8
A				80			100
G	Ø			G1" 1/2			G2"
L				125			145
Spare parts							
Sealing kit e disc valves	art.			00 KIT PVP 150 MD			00 KIT PVP 300 MD
Vacuum gauge	art.			09 03 15			09 03 15
Pressure gauge	art.			09 03 25			09 03 25

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

By adding the letter R to the article, the generator will be supplied with a built-in check valve (E.g.: PVP 300 MDR).

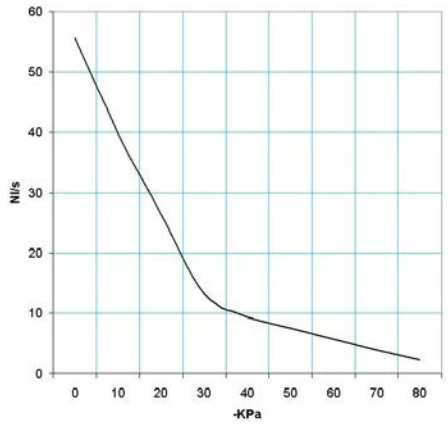
3D drawing available at **www.vuototecnica.net**

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

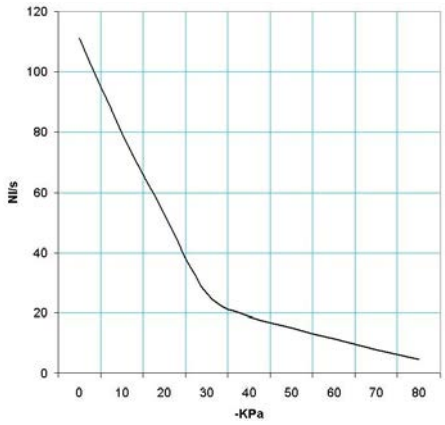
GAS-NPT thread adapters available at page 1.117

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

PVP 150 MD



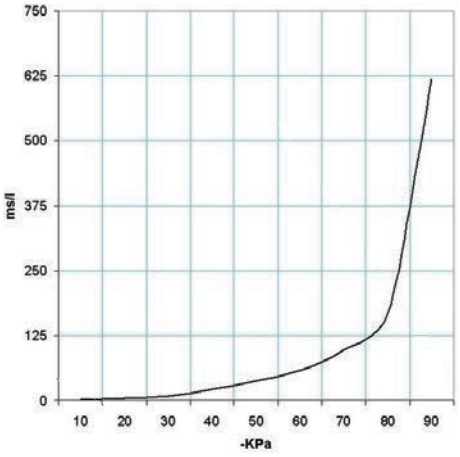
PVP 300 MD



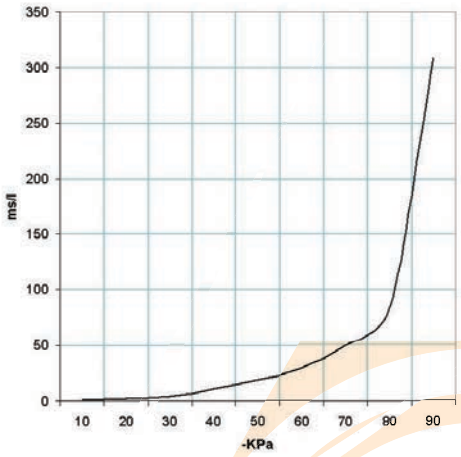
Generator	Supply press.	Air consumption	Air capacity (Nl/s) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	0	10	20	30	40	50	60	70	80	-KPa
PVP 150 MD	6.0	16	55.55	39.68	26.45	13.22	9.44	7.55	5.68	3.97	2.27	90
PVP 300 MD	6.0	32	111.11	79.36	52.91	26.45	19.89	15.11	11.36	7.94	4.54	90

Evacuation time (ms/l=s/m^3) at different vacuum levels (-Kpa)

PVP 150 MD

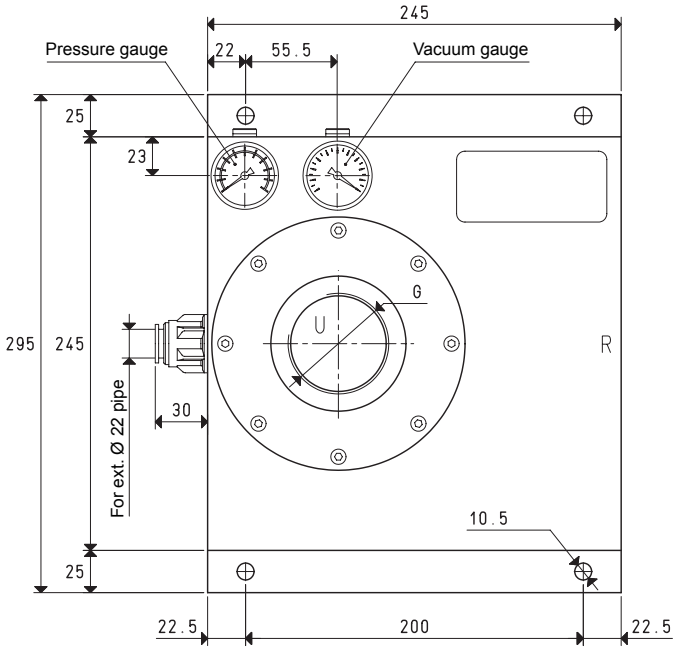


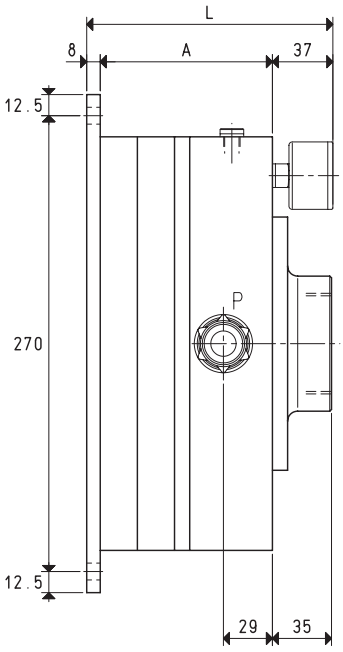
PVP 300 MD

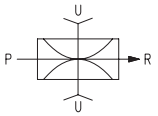


Generator	Supply press.	Air consumption	Evacuation time (ms/l = s/m^3) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	10	20	30	40	50	60	70	80	90	-KPa
PVP 150 MD	6.0	16	1.6	4.0	8.9	21.3	38.2	58.4	97.0	167.8	618	90
PVP 300 MD	6.0	32	0.8	2.0	4.4	10.6	19.1	29.2	48.5	83.9	386	90

MODULAR MULTI-STAGE VACUUM GENERATORS PVP 450 MD and 600 MD







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

Art.		PVP 450 MD					PVP 600 MD
Max. quantity of sucked air	cum/h	490	530	580	640	700	750
Max. vacuum level	-KPa	65	82	90	65	82	90
Final pressure	mbar abs.	350	180	100	350	180	100
Supply pressure	bar (g)	4	5	6	4	5	6
Air consumption	Nl/s	34.4	39.4	47.8	43.2	53.5	63.2
Working temperature	°C			-20 / +80			-20 / +80
Noise level	dB(A)			74			78
Weight	Kg			9.9			11.1
A				122			142
G	Ø			G2" 1/2			G3"
L				167			187
Spare parts							
Sealing kit e disc valves	art.			00 KIT PVP 450 MD			00 KIT PVP 600 MD
Vacuum gauge	art.			09 03 15			09 03 15
Pressure gauge	art.			09 03 25			09 03 25

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

By adding the letter R to the article, the generator will be supplied with a built-in check valve (E.g.: PVP 450 MDR).

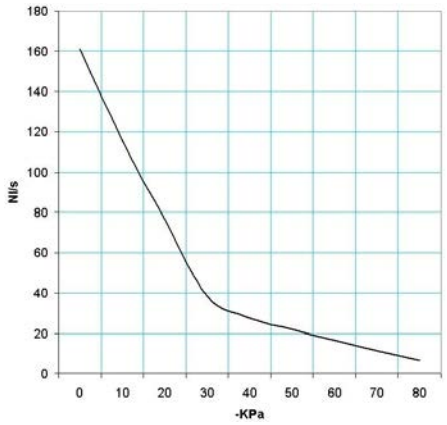
3D drawing available at **www.vuototecnica.net**

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

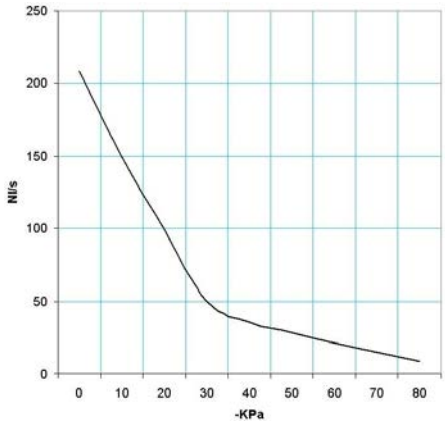
GAS-NPT thread adapters available at page 1.117

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

PVP 450 MD



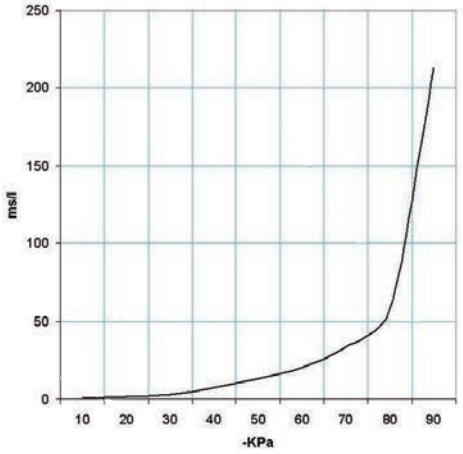
PVP 600 MD



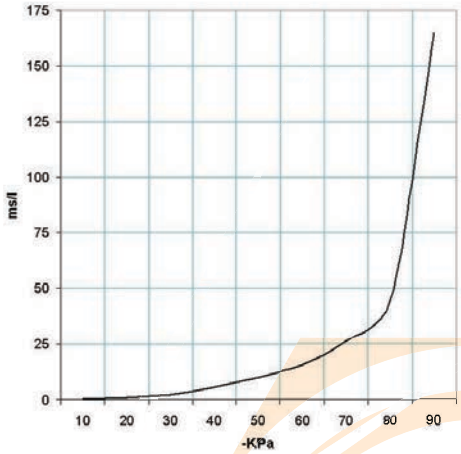
Generator	Supply press.	Air consumption	Air capacity (Nl/s) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	0	10	20	30	40	50	60	70	80	-KPa
PVP 450 MD	6.0	47.8	161.11	115.07	76.71	38.35	27.39	21.91	16.48	11.52	6.58	90
PVP 600 MD	6.0	63.2	208.33	148.80	99.20	49.60	35.43	28.34	21.31	14.90	8.51	90

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

PVP 450 MD



PVP 600 MD



Generator	Supply press.	Air consumption	Evacuation time (ms/l = s/m³) at different vacuum levels (-KPa)									Max. vacuum level
art.	bar (g)	Nl/s	10	20	30	40	50	60	70	80	90	-KPa
PVP 450 MD	6.0	47.8	0.5	1.4	3.0	7.4	13.2	20.1	33.5	57.9	213	90
PVP 600 MD	6.0	63.2	0.4	1.0	2.4	5.7	10.2	15.6	25.9	44.8	165	90

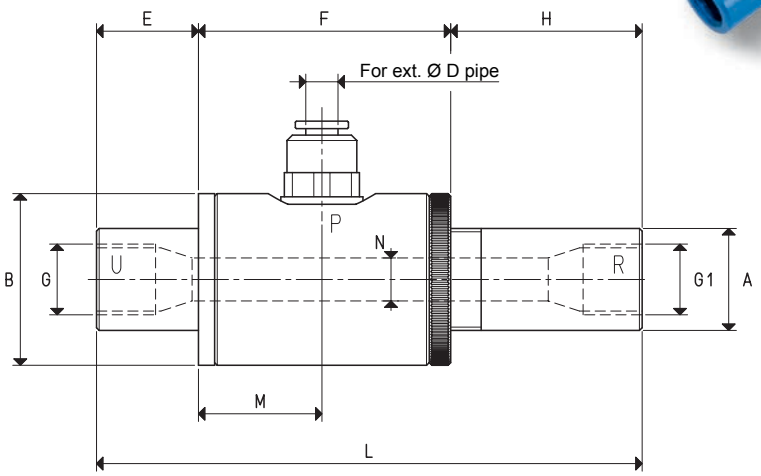
ADJUSTABLE VACUUM GENERATORS CONEYOR

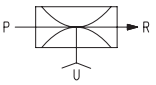
Working principle

The operation of these vacuum generators is based on the Venturi principle.
Unlike the previous ones, the ejector, apart from having a much larger flow diameter, is also adjustable.
This feature allows modifying the capacity and the vacuum level of the device, without intervening on the air supply pressure level.
Also the compressed air consumption is related to the actual performance of the vacuum generator.

Features

The special shape of these adjustable vacuum generators, as well as their straight-flow working principle allow sucking and transferring products of various nature with no interference, just like flow generators, only, unlike these, they allow overcoming much higher level differences.
They are suited for transferring powders, granulated products, sawdust, metal chips, dry or liquid food products, etc.They are also recommended for controlling vacuum cups in presence of large amounts of dust or liquids, as well as for sucking fumes, cooling mists, water and oil condensation, etc. The absence of moving parts allows for a continuous use without developing heat.
The noise level, which is quite high for this kind of equipment, can be considerably reduced with a silencer screwed on the exhaust connection.
They do not require electricity, therefore, they can even be used in work environments with hazardous environments where an ignition source would be dangerous.
Available in anodised aluminium and stainless steel.
Thanks to all these features, a good filtration of the compressed air supply will be sufficient to make these devices fully maintenance-free.





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

Art.		PVR 25	PVR 50
Max quantità di aria aspirata a 5 bar (g)	cum/h	13.0	36.0
Max. quantity of blown air at 6 bar (g)	cum/h	33.5	88.0
Max. vacuum level	-KPa	80	75
Final pressure	mbar abs.	200	250
Max pressione di alimentazione	bar (g)	6	6
Air consumption at 6 bar (g)	Nl/s	6.1	15.5
Working temperature	°C	-20 / +80	-20 / +80
Noise level	dB(A)	92	98
Weight	g	150	280
A	Ø	19	26
B	Ø	32	38
D	Ø	6	8
E		19	35
F		47	54
G	Ø	G1/4"	G3/8"
G1	Ø	G1/4"	G1/2"
H		34	61
L		100	150
M		22	25
N	Ø	6	10

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

By adding the letter I to the article, the generator will be supplied in the stainless steel version (E.g.: PVR 50 I).

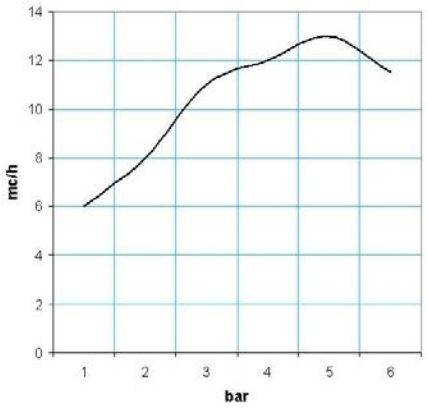
3D drawing available at **www.vuototecnica.net**

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

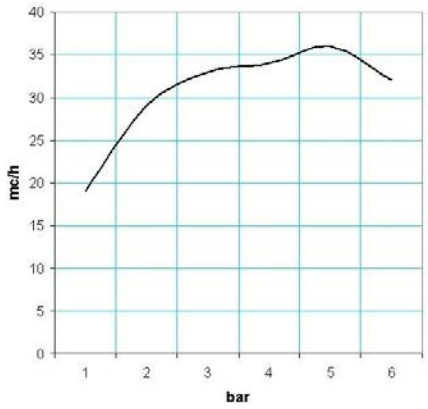
GAS-NPT thread adapters available at page 1.117

Quantity of sucked air (cum/h) at different supply pressures (bar)

PVR 25

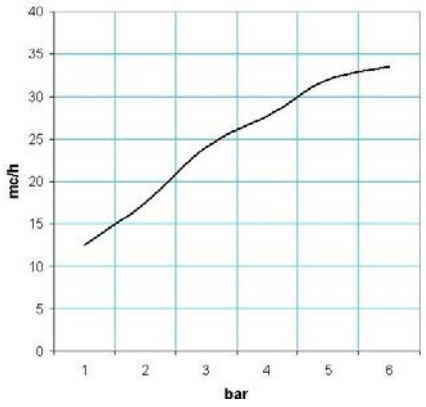


PVR 50

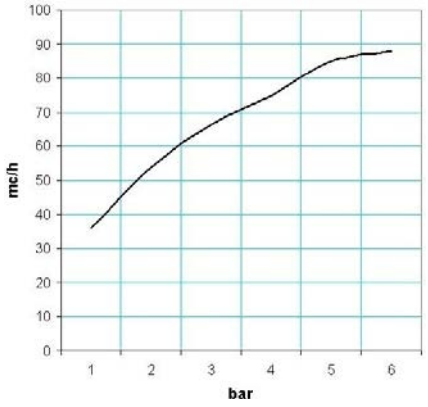


Quantity of blown air (cum/h) at different supply pressures (bar)

PVR 25

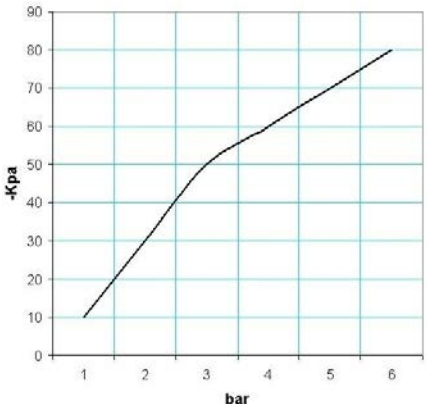


PVR 50

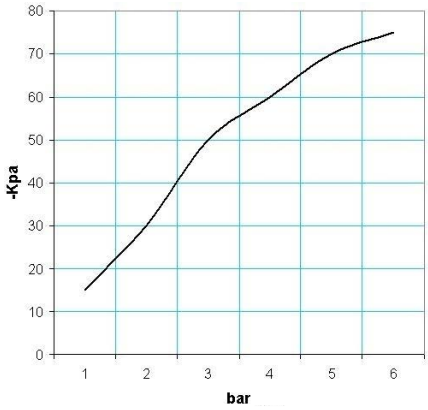


Vacuum level (-Kpa) at different supply pressures (bar)

PVR 25

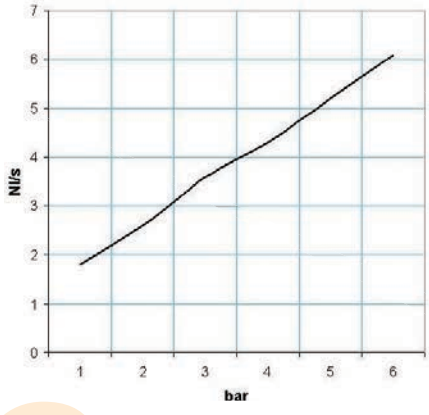


PVR 50

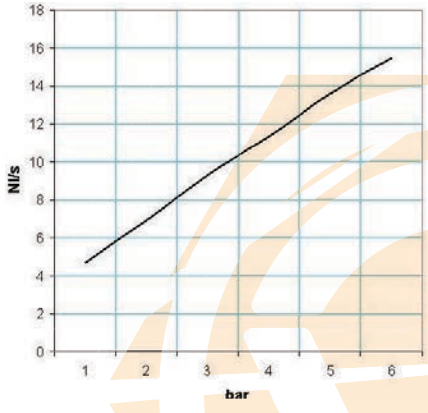


Air consumption (Nl/s) at different supply pressures (bar)

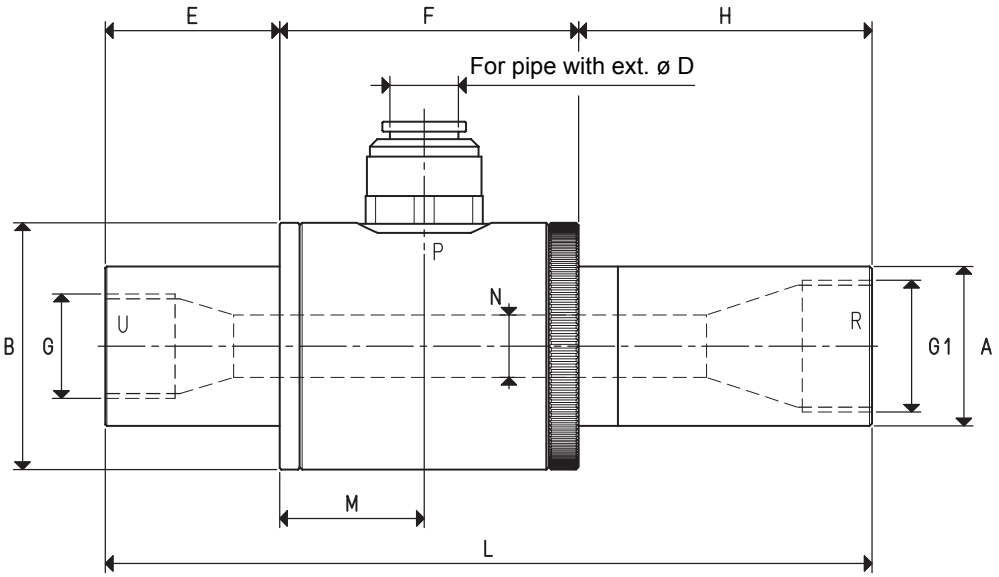
PVR 25

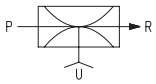


PVR 50



ADJUSTABLE VACUUM GENERATORS CONEYOR PVR 100 and PVR 200





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

Art.		PVR 100	PVR 200
Max quantità di aria aspirata a 5 bar (g)	cum/h	50	72
Max. quantity of blown air at 6 bar (g)	cum/h	129	177
Max. vacuum level	-KPa	75	70
Final pressure	mbar abs.	250	300
Max pressione di alimentazione	bar (g)	6	6
Air consumption at 6 bar (g)	Nl/s	22.7	28.3
Working temperature	°C	-20 / +80	-20 / +80
Noise level	dB(A)	100	104
Weight	g	430	550
A	Ø	32	38
B	Ø	50	57
D	Ø	10	12
E		35	35
F		60	60
G	Ø	G1/2"	G3/4"
G1	Ø	G3/4"	G1"
H		55	77
L		150	172
M		28	28
N	Ø	12.5	16.0

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

By adding the letter I to the article, the generator will be supplied in the stainless steel version (E.g.: PVR 100 I).

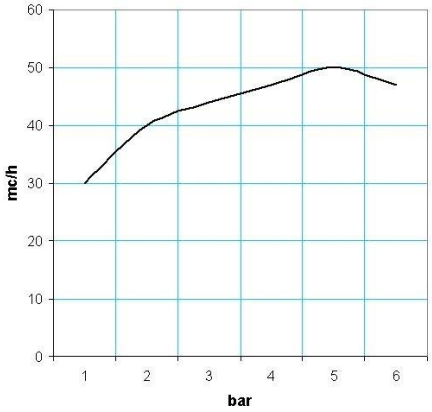
3D drawing available at **www.vuototecnica.net**

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

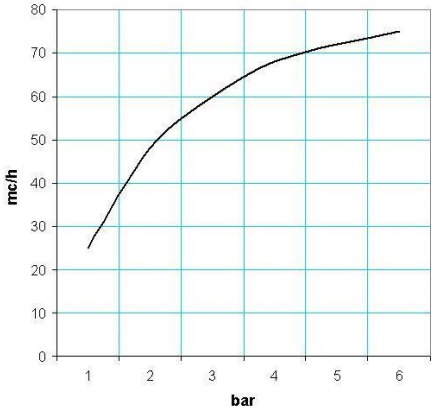
GAS-NPT thread adapters available at page 1.117

Quantity of sucked air (cum/h) at different supply pressures (bar)

PVR 100

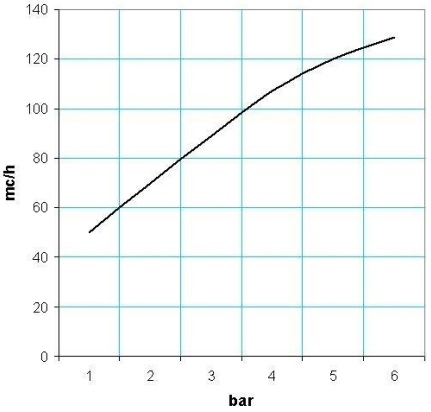


PVR 200

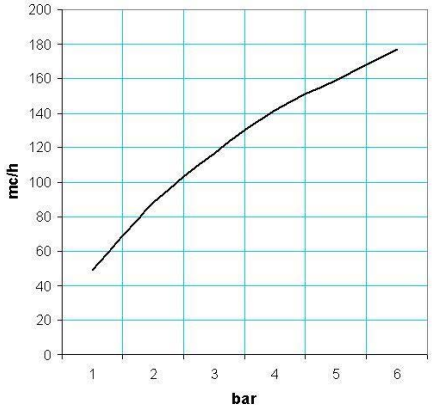


Quantity of blown air (cum/h) at different supply pressures (bar)

PVR 100

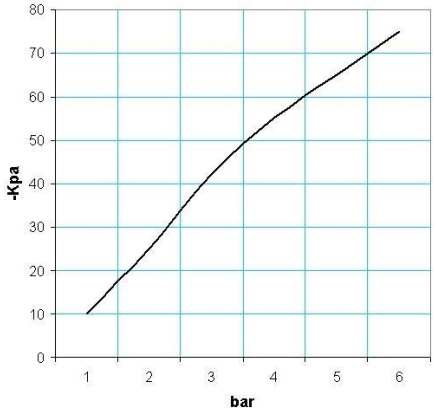


PVR 200

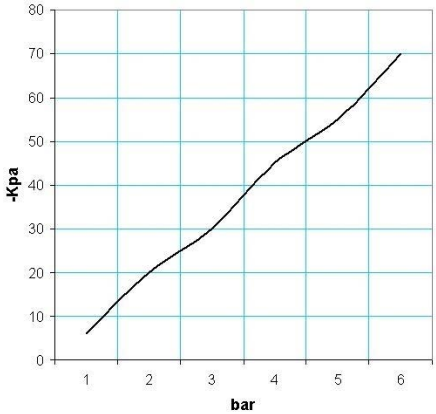


Vacuum level (-Kpa) at different supply pressures (bar)

PVR 100

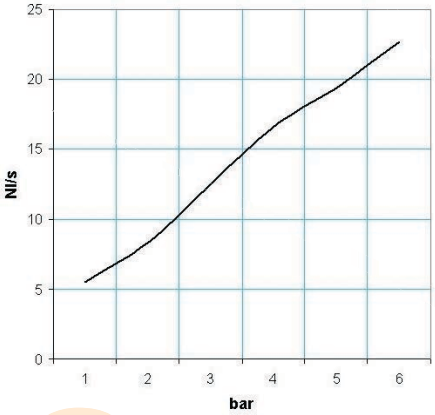


PVR 200

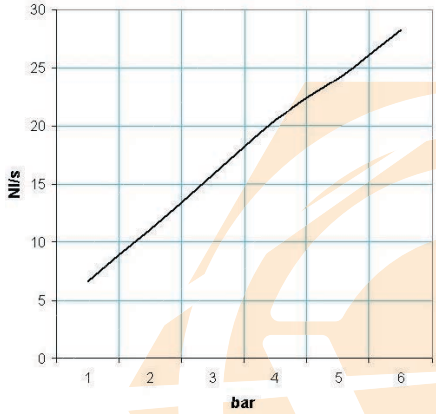


Air consumption (Nl/s) at different supply pressures (bar)

PVR 100



PVR 200



ACCESSORIES FOR ADJUSTABLE VACUUM GENERATORS CONVEYOR

The noise level of adjustable vacuum generators Conveyor is always quite high, but it can be considerably reduced with a silencer screwed on the exhaust connection. Upon request, silencers of the SSX range, which are suitable for any kind of Conveyor vacuum generator, can be supplied.
The table below shows the codes of the silencers associated with the various vacuum generators.

PVR 25 with exhaust silencer SSX 1/4" and vacuum cup 08 53 35 S

PVR 50 with exhaust silencer 2SSX 1/2"

PVR 100 with exhaust silencer SSX 3/4"

Art.	Silencer art.	Noise reduction dB(A)	Silencer art.	Noise reduction dB(A)
PVR 25	SSX 1/4"	-13	2SSX 1/4"	-20
PVR 50	SSX 1/2"	-13	2SSX 1/2"	-20
PVR 100	SSX 3/4"	-13	2SSX 3/4"	-20
PVR 200	SSX 1"	-13	2SSX 1"	-20

3D drawing available at **www.vuototecnica.net**

Working principle

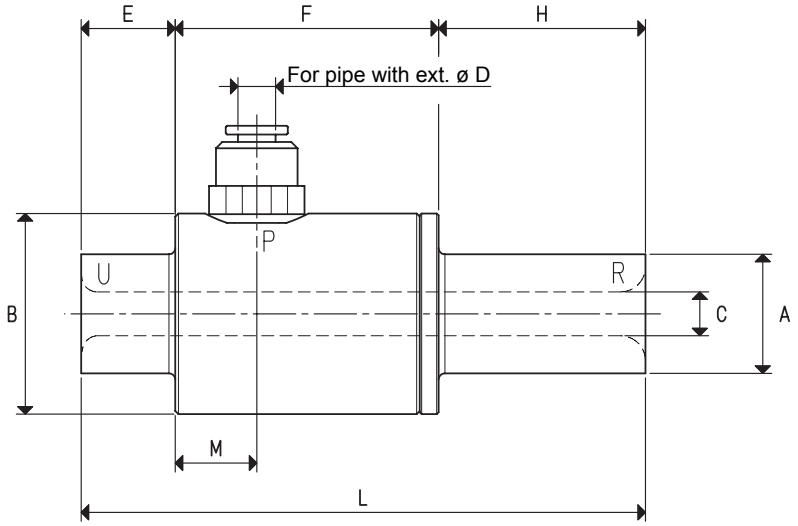
The compressed air supply blown into a ring chamber concentric to the device, flows at a very high speed towards the centre of the main pipe, thus forming a cyclonic effect. The latter creates a vacuum inside the device and leads a great volume of air towards its outlet. Therefore, a variation of the air supply pressure will modify the vacuum level and the amount of sucked air.

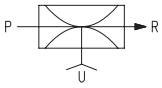
Features

The special shape of these adjustable vacuum generators, as well as their straight-flow working principle allow sucking and transferring products of various nature with no interference. In fact, Vacuum Jet flow generators are suited for transferring powders, granulated products, sawdust, metal chips, dry or liquid food products, etc.They are also recommended for controlling vacuum cups in presence of large amounts of dust or liquids, as well as for sucking fumes, cooling mists, water and oil condensation, etc. The absence of moving parts allows for a continuous use without developing heat.

Available in anodised aluminium and stainless steel.

Thanks to all these features, a good filtration of the compressed air supply will be sufficient to make these devices fully maintenance-free.





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

Art.		CX 7	CX 10
Max. quantity of sucked air at 6 bar (g)	cum/h	12.0	28.0
Max. quantity of blown air at 6 bar (g)	cum/h	17.6	51.4
Max. vacuum level	-KPa	15	22
Final pressure	mbar abs.	850	780
Max pressione di alimentazione	bar (g)	6	6
Air consumption at 6 bar (g)	Nl/s	1.5	6.5
Working temperature	°C	-20 / +80	-20 / +80
Noise level	dB(A)	75	84
Weight	g	110	104
A	Ø	19	19
B	Ø	32	32
C	Ø	7	10
D	Ø	6	6
E		15	15
F		42	42
H		33	33
L		90	90
M		13	13

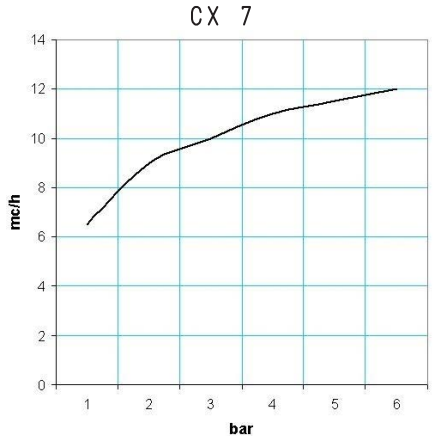
Note: All the vacuum data indicated in the table are valid at the normal atmospheric pressure of 1013 mbar and are obtained with a constant supply pressure.

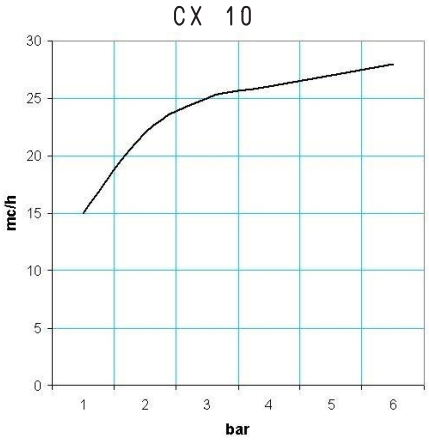
By adding the letter I to the article, the generator will be supplied in the stainless steel version (E.g.: CX 10 I).

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

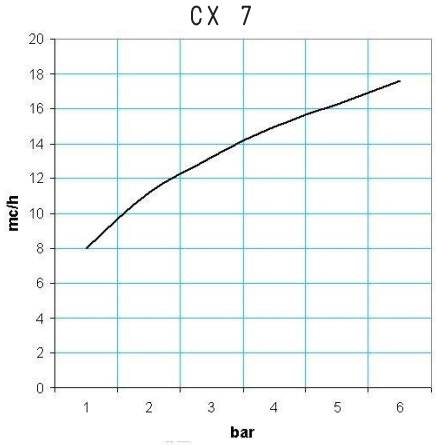
GAS-NPT thread adapters available at page 1.117

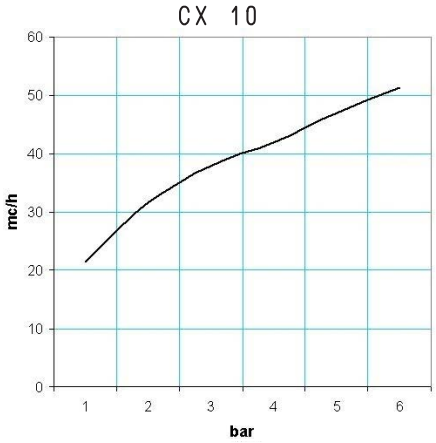
Quantity of sucked air (cum/h) at different supply pressures (bar)



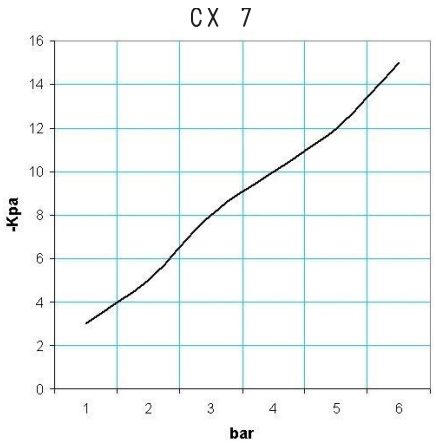


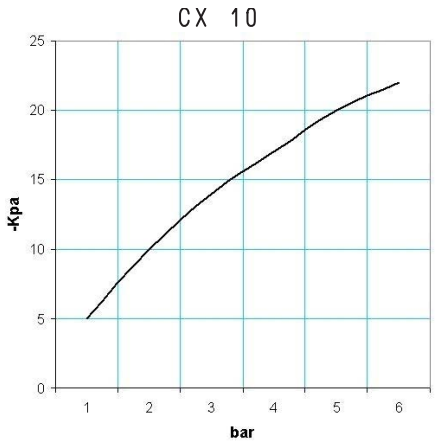
Quantity of blown air (cum/h) at different supply pressures (bar)



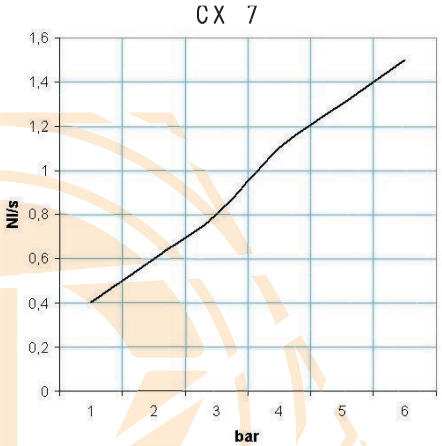


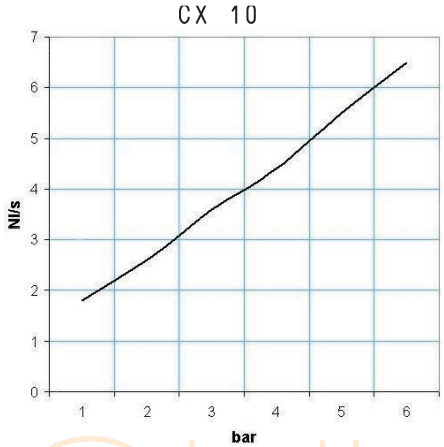
Vacuum level (-Kpa) at different supply pressures (bar)

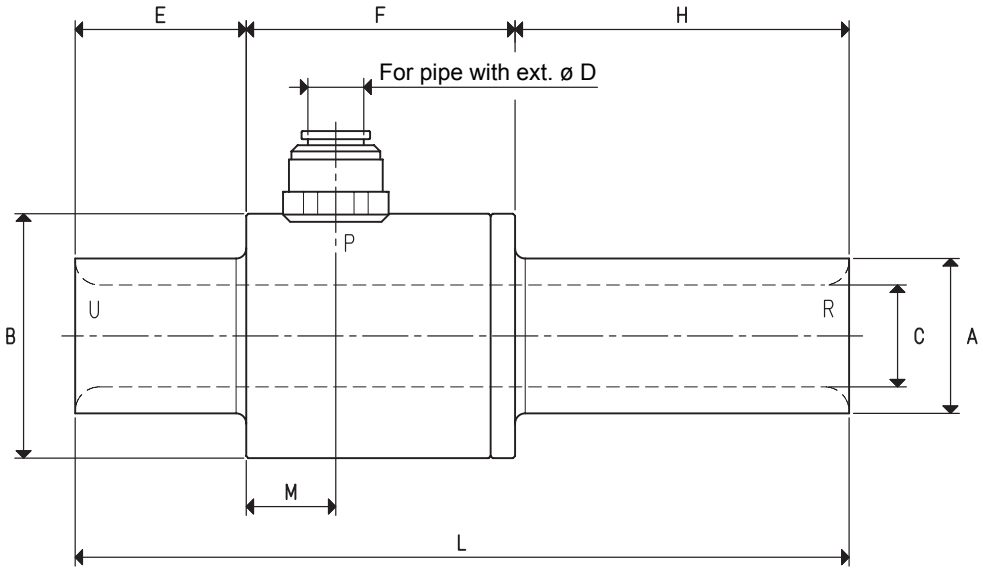


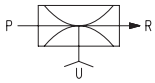


Air consumption (Nl/s) at different supply pressures (bar)









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

Art.		CX 13	CX 19
Max. quantity of sucked air at 6 bar (g)	cum/h	50.0	92.0
Max. quantity of blown air at 6 bar (g)	cum/h	73.7	134.0
Max. vacuum level	-KPa	18	16
Final pressure	mbar abs.	820	840
Max pressione di alimentazione	bar (g)	6	6
Air consumption at 6 bar (g)	Nl/s	6.6	11.6
Working temperature	°C	-20 / +80	-20 / +80
Noise level	dB(A)	88	92
Weight	g	280	500
A	Ø	25	32
B	Ø	45	54
C	Ø	13	19
D	Ø	8	10
E		30	43
F		55	65
H		55	82
L		140	190
M		18	22

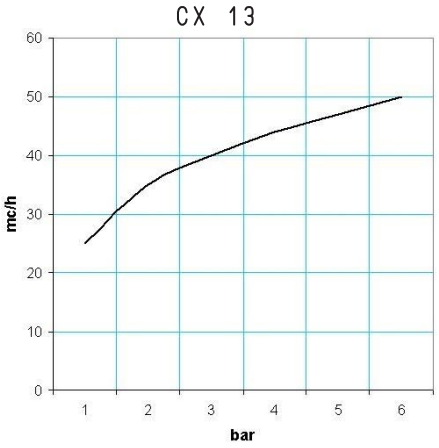
Note: All the vacuum data indicated in the table are valid at the normal atmospheric pressure of 1013 mbar and are obtained with a constant supply pressure.

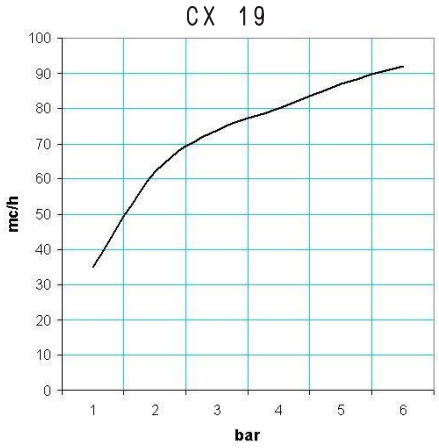
By adding the letter I to the article, the generator will be supplied in the stainless steel version (E.g.: CX 13 I).

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

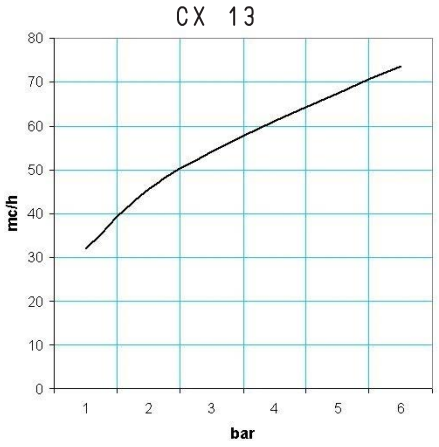
GAS-NPT thread adapters available at page 1.117

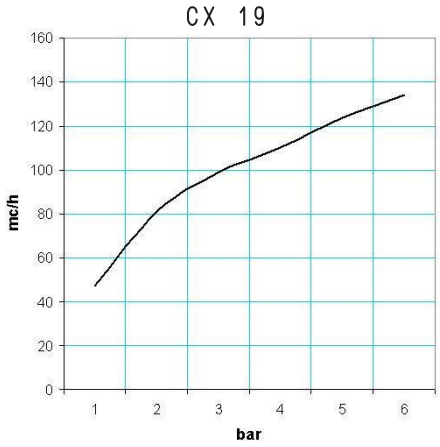
Quantity of sucked air (cum/h) at different supply pressures (bar)



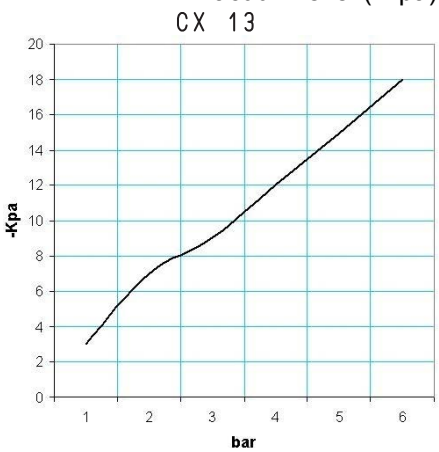


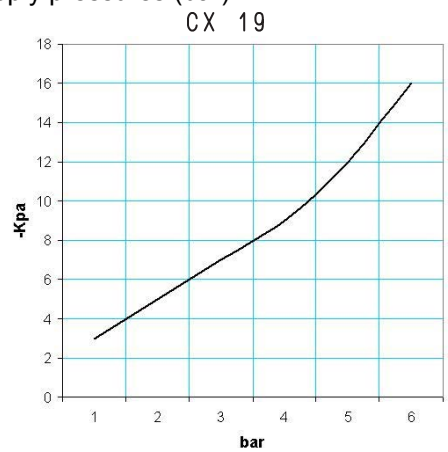
Quantity of blown air (cum/h) at different supply pressures (bar)



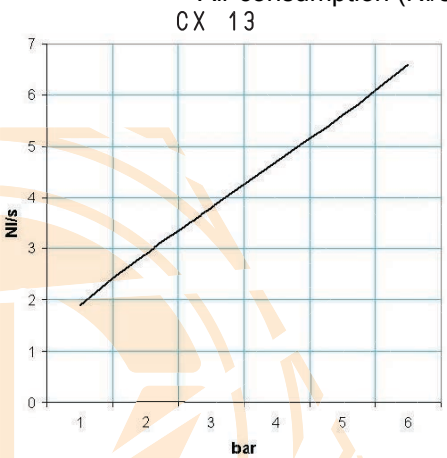


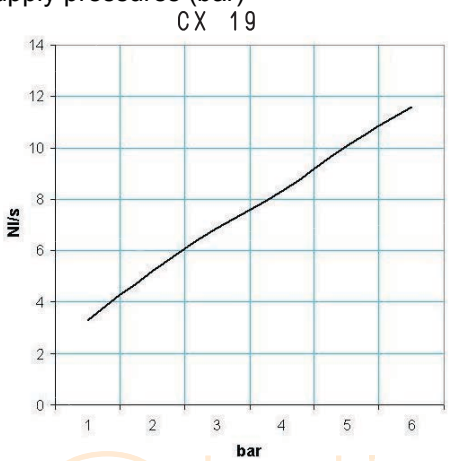
Vacuum level (-Kpa) at different supply pressures (bar)

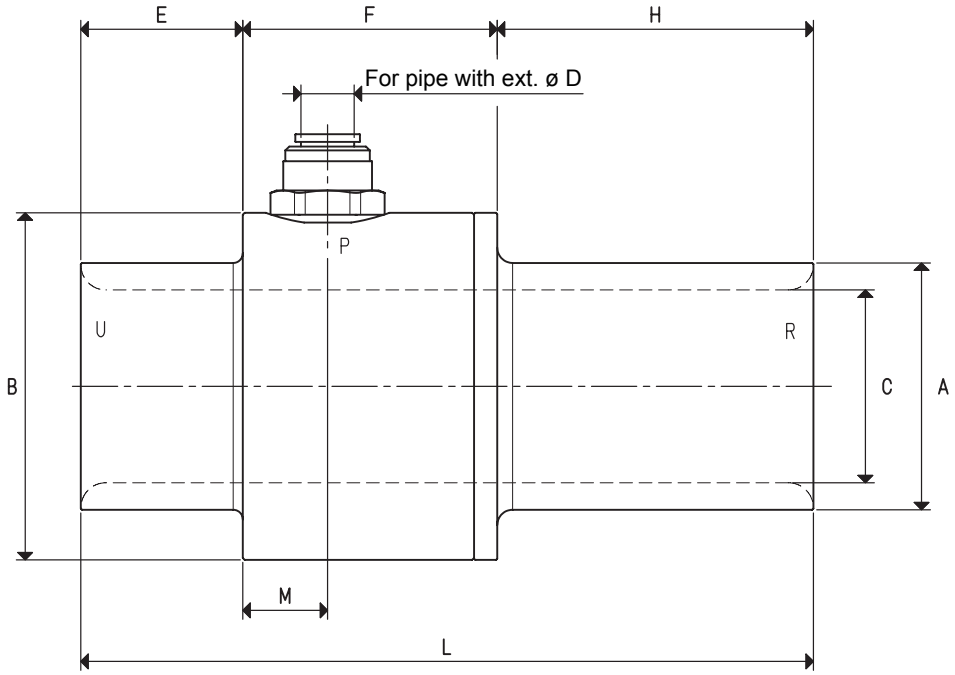


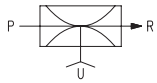


Air consumption (Nl/s) at different supply pressures (bar)









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

Art.		CX 25	CX 38	CX 50
Max. quantity of sucked air at 6 bar (g)	cum/h	150	310	405
Max. quantity of blown air at 6 bar (g)	cum/h	210	400	525
Max. vacuum level	-KPa	13	10	8
Final pressure	mbar abs.	870	900	920
Max. supply pressure	bar (g)	6.0	6.0	6.0
Air consumption at 6 bar (g)	Nl/s	16.6	25.0	33.3
Working temperature	°C	-20 / +80	-20 / +80	-20 / +80
Noise level	dB(A)	100	103	103
Weight	g	560	800	1090
A	Ø	38	51	64
B	Ø	60	75	90
C	Ø	25	38	50
D	Ø	10	12	16
E		42	42	42
F		66	66	66
H		82	82	82
L		190	190	190
M		22	22	22

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

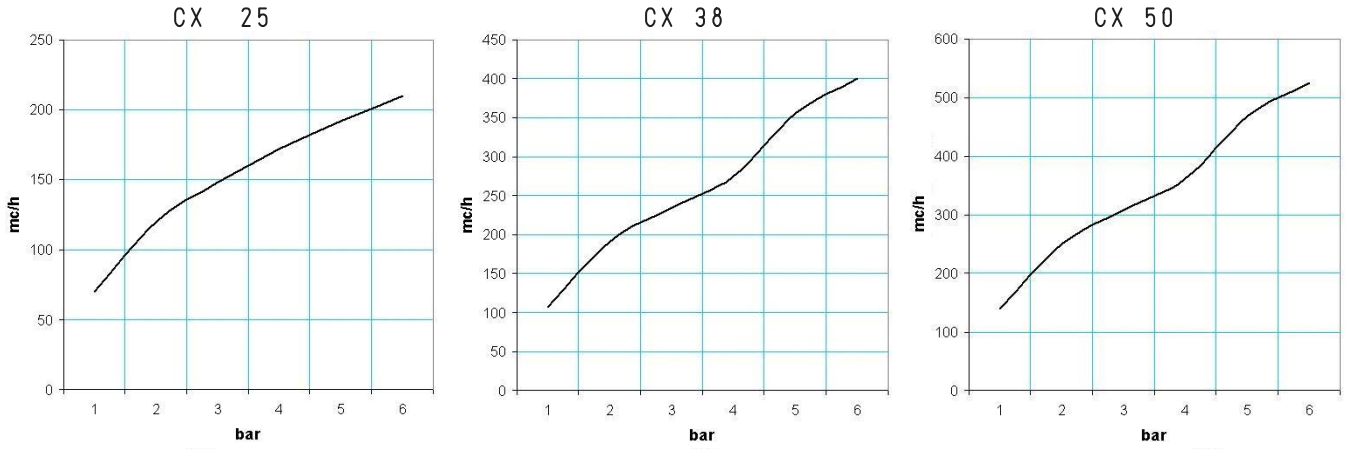
By adding the letter I to the article, the generator will be supplied in the stainless steel version (E.g.: CX 38 I).

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

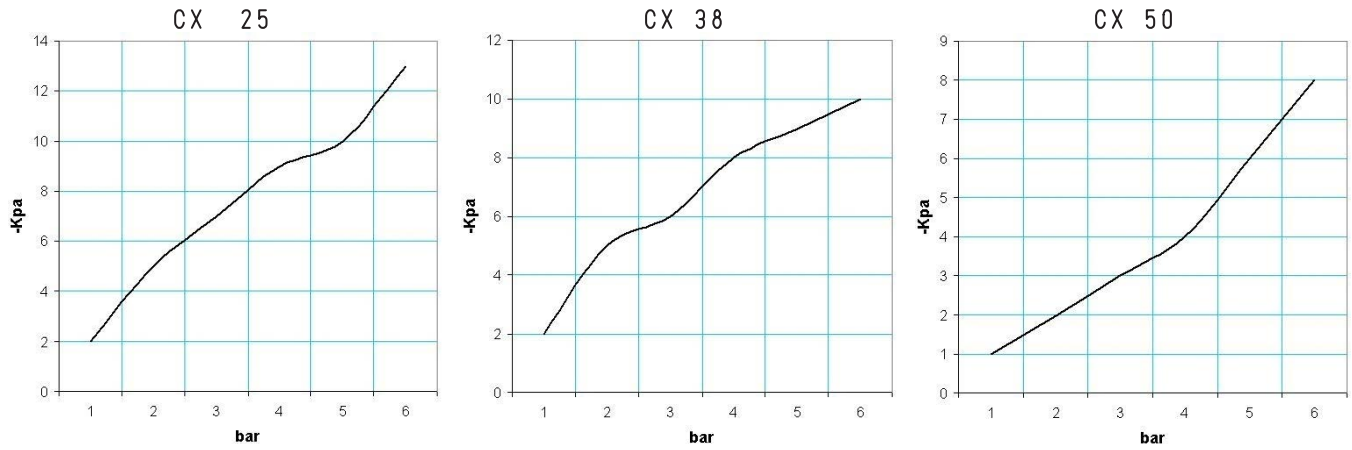
GAS-NPT thread adapters available at page 1.117

Quantity of sucked air (cum/h) at different supply pressures (bar)

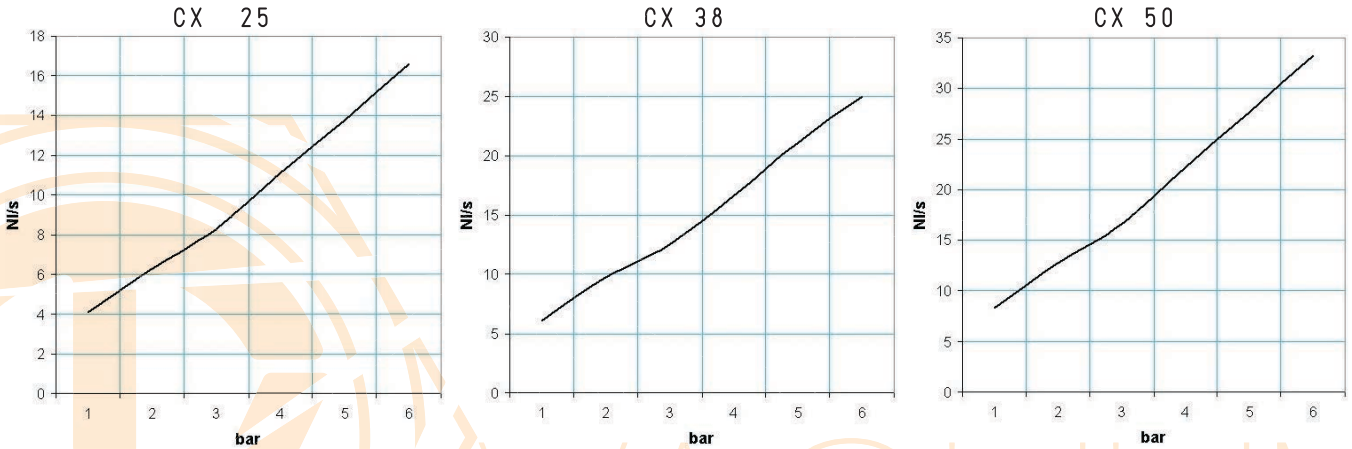
Quantity of blown air (cum/h) at different supply pressures (bar)

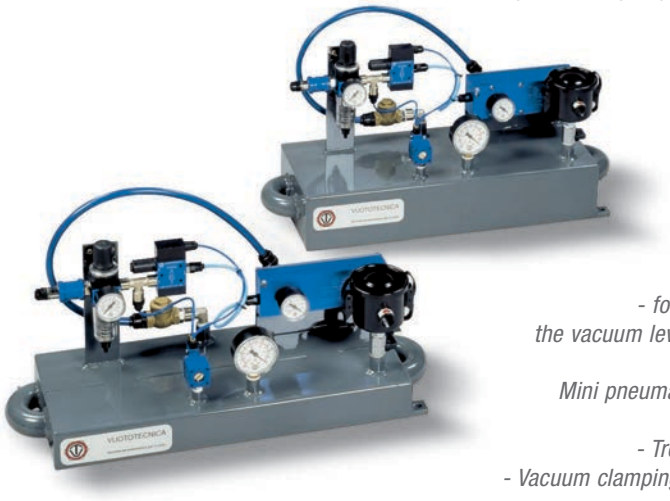


Vacuum level (-Kpa) at different supply pressures (bar)

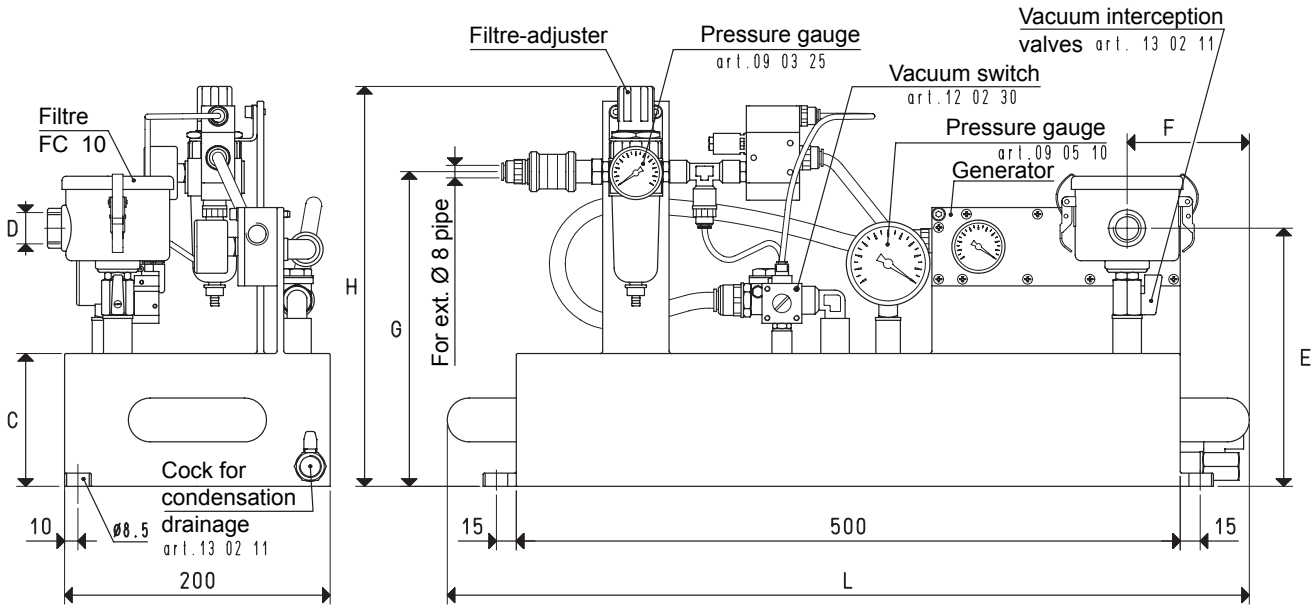


Air consumption (Nl/s) at different supply pressures (bar)





Mini pneumatic pumpsets are independent vacuum units, fed exclusively by compressed air and featuring very small sizes. They are composed of:
- A small welded sheet steel tank.
- A compressed air-operated vacuum generator.
- A pneumatic vacuum switch for adjusting the vacuum level.
- A vacuum gauge for a direct reading of the vacuum level.
- A manual valve for vacuum interception.
- A suction filtre with an FC paper cartridge.
- A pressure adjuster equipped with filtre.
- A pneumatic activation valve for the vacuum generator supply.
- A sleeve valve for compressed air interception.
- for compressed air interception for draining condensation from the tank.
the vacuum level in the tank, previously set with the vacuum switch, is automatically maintained.
Mini pneumatic pumpsets are suited for equipping small fixed and mobile working units that require vacuum, such as:
- Trolleys with vacuum cups for fixing and transporting glass and crystals.
- Vacuum clamping systems for ski maintenance, to drill or pantograph marble, to polish pewter, copper or silver objects, etc.
- Tackles with cups for lifting television sets and other household aplliances, for the insertion of glass in the window fittings, for feeding sheet metal to presses, etc.
Mini pneumatic pumpsets require no electricity, only compressed air at a 4 ÷ 6 bar (g) pressure. For this feature they are recommended in hazardous environments where an ignition source would be dangerous.



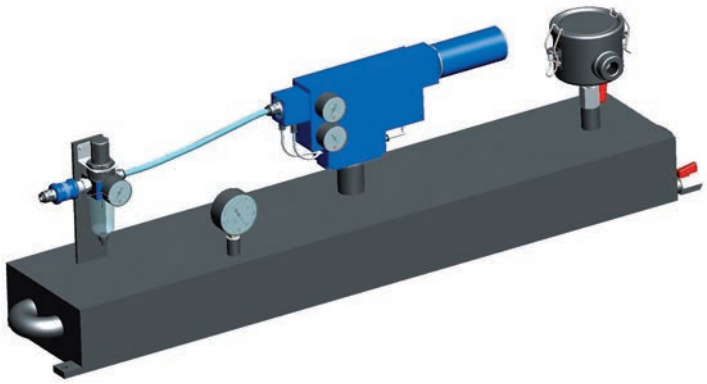
Art.	Tank	Generator	Pneumatic device	C	D	E	F	G	H	L	Weight
	Litres	art.	art.				Ø				Kg
DOP 06 PVP 12 MX	6	PVP 12 MX	DOP 06 90	60	G3/8"	150	95	180	260	620	12.7
DOP 06 PVP 25 MX	6	PVP 25 MX	DOP 06 90	60	G3/8"	150	95	180	260	620	13.0
DOP 10 PVP 12 MX	10	PVP 12 MX	DOP 06 90	100	G3/8"	210	95	240	300	620	12.9
DOP 10 PVP 25 MX	10	PVP 25 MX	DOP 06 90	100	G3/8"	210	95	240	300	620	13.2

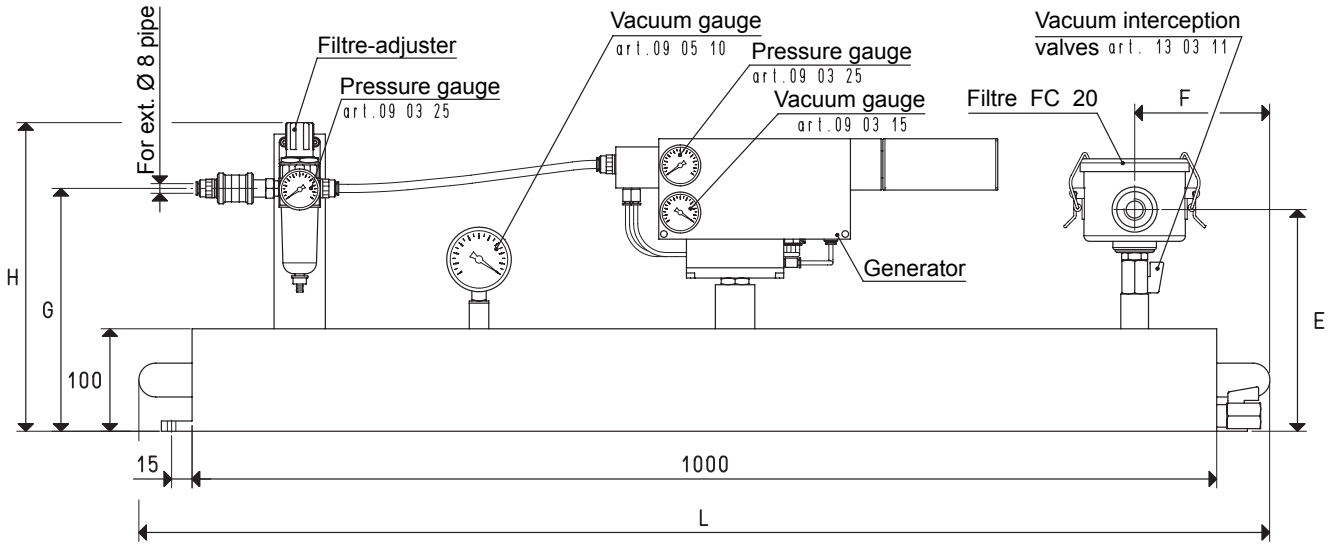
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

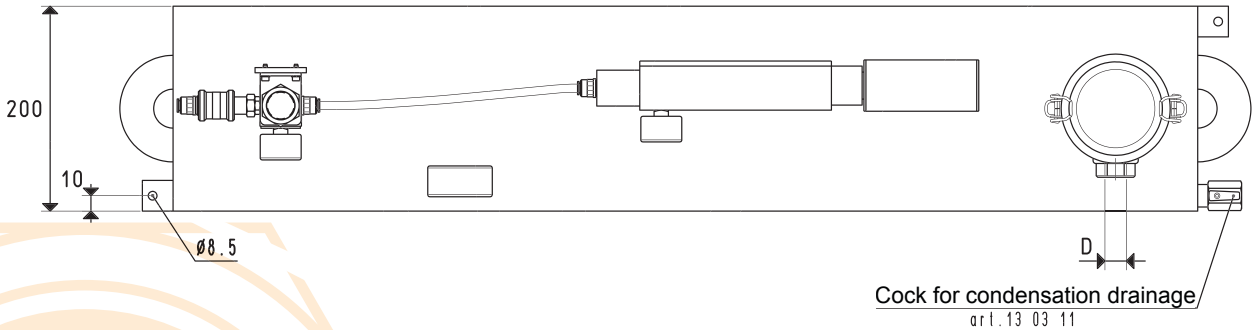
GAS-NPT thread adapters available at page 1.117

MINI PNEUMATIC PUMPSETS DOP 20

The distinctive feature of this mini pumpset, apart from the tank volume, is the installed vacuum generator.
The vacuum generator of the PVP… MDX ES range, in fact, is equipped with an energy saving device which allows automatically maintaining the preset vacuum level inside the tank. The other accessories, except for the vacuum switch and the pneumatic activation valve for the vacuum generator supply, are the same as those installed on DOP 06 and DOP 10. They are used as the previously described mini pneumatic pumpsets.





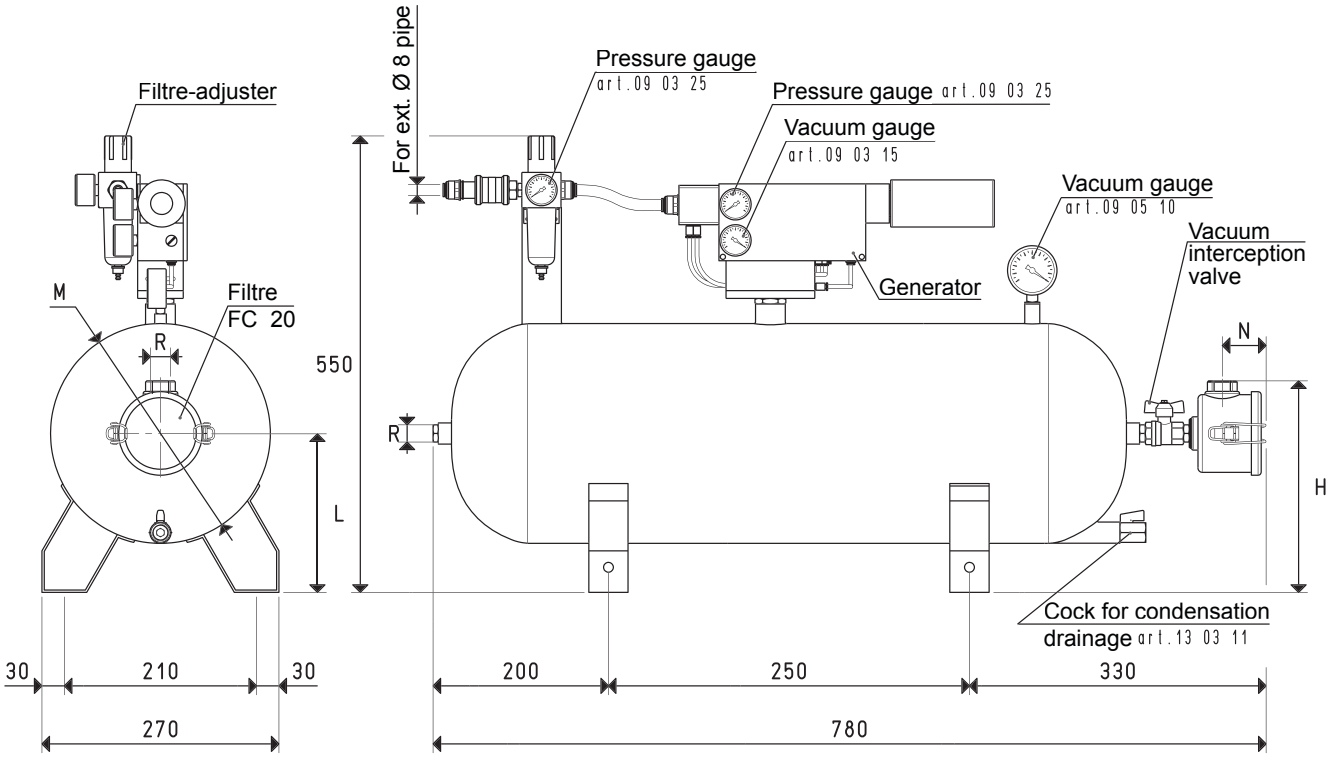


Art.	Tank	Generator	Pneumatic device	D	E	F	G	H	L	Weight
	Litres	art.	art.	Ø						Kg
DOP 20 PVP 25 MDX	20	PVP 25 MDX ES	DOP 20 90	G1/2"	225	135	270	340	1110	20.6
DOP 20 PVP 35 MDX	20	PVP 35 MDX ES	DOP 20 90	G1/2"	225	135	270	340	1110	20.7

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

Pneumatic pumpsets are independent vacuum units fed exclusively by compressed air. They are composed of:
- A welded sheet steel tank.
- A compressed air-operated vacuum generator PVP … MDX ES, equipped with an energy saving device.
- A vacuum gauge for a direct reading of the vacuum level.
- A manual valve for vacuum interception.
- A suction filtre with an FC paper cartridge.
- A pressure adjuster equipped with filtre.
- A sleeve valve for compressed air interception.
- A cock for draining condensation from the tank.
the vacuum level in the tank, previously set with the vacuum switch, is automatically maintained. Pneumatic pumpsets are normally used for handling particularly heavy or valuable loads, since even in case of a sudden power supply failure, they allow the vacuum cups to maintain the grip for a certain amount of time (which varies according to the tank capacity). They are recommended for connecting several applications to centralise the vacuum. In any case, the use of the pumpset offers a great advantage under an energy-saving point of view, since the generator operates only when vacuum is required by the application.
Pneumatic pumpsets require no electricity, only compressed air at a 4 ÷ 6 bar (g) pressure. For this feature, they are recommended in hazardous environments where an ignition source would be dangerous.

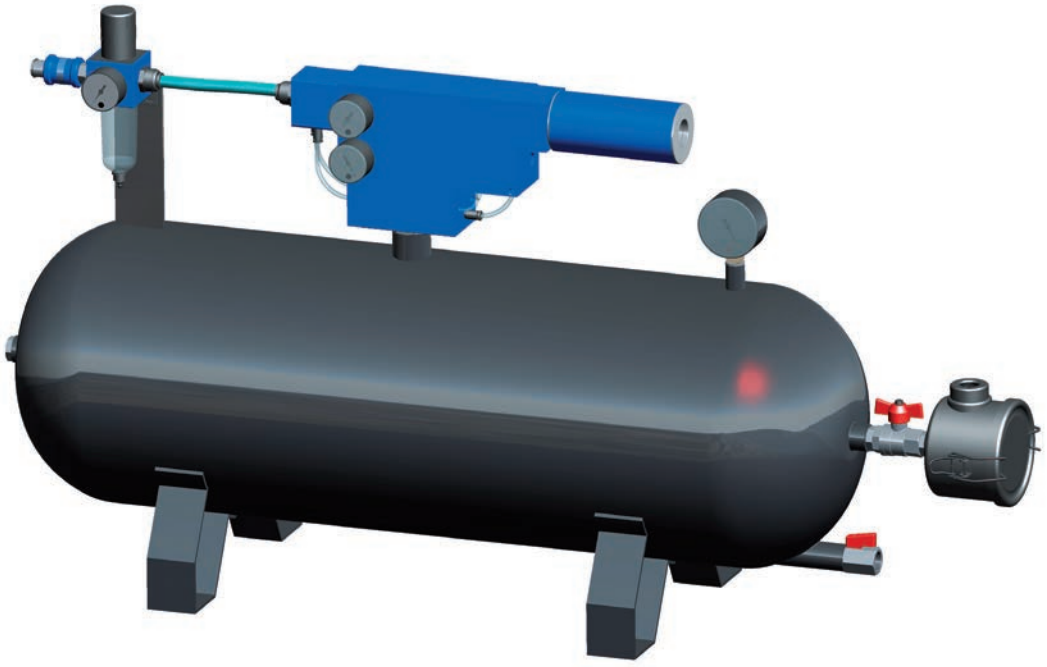


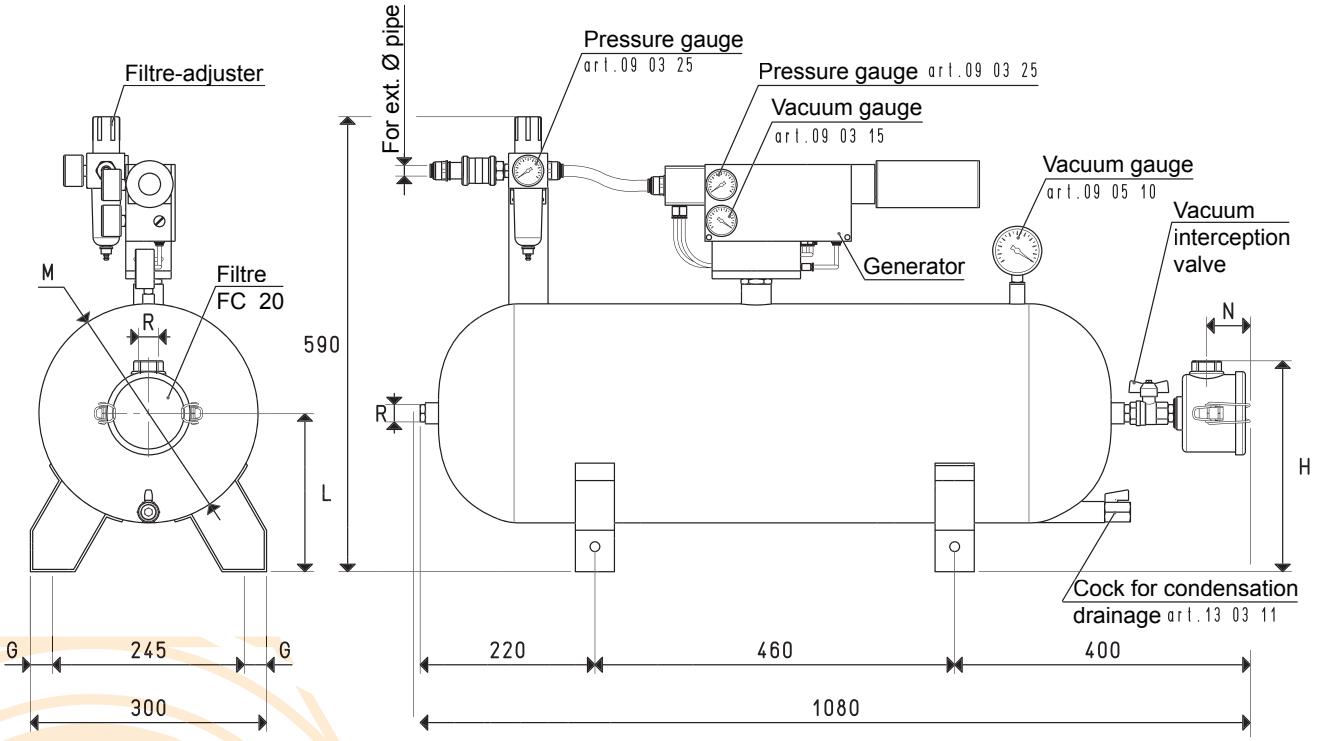
Art.	Tank	Generator	Pneumatic device	H	L	M	N	R	Weight
	Litres	art.	art.			Ø		Ø	Kg
DOP 25 PVP 25 MDX	25	PVP 25 MDX ES	DOP 20 90	225	185	240	51	G1/2"	15.9
DOP 25 PVP 35 MDX	25	PVP 35 MDX ES	DOP 20 90	225	185	240	51	G1/2"	16.0

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

PNEUMATIC PUMPSETS DOP 50



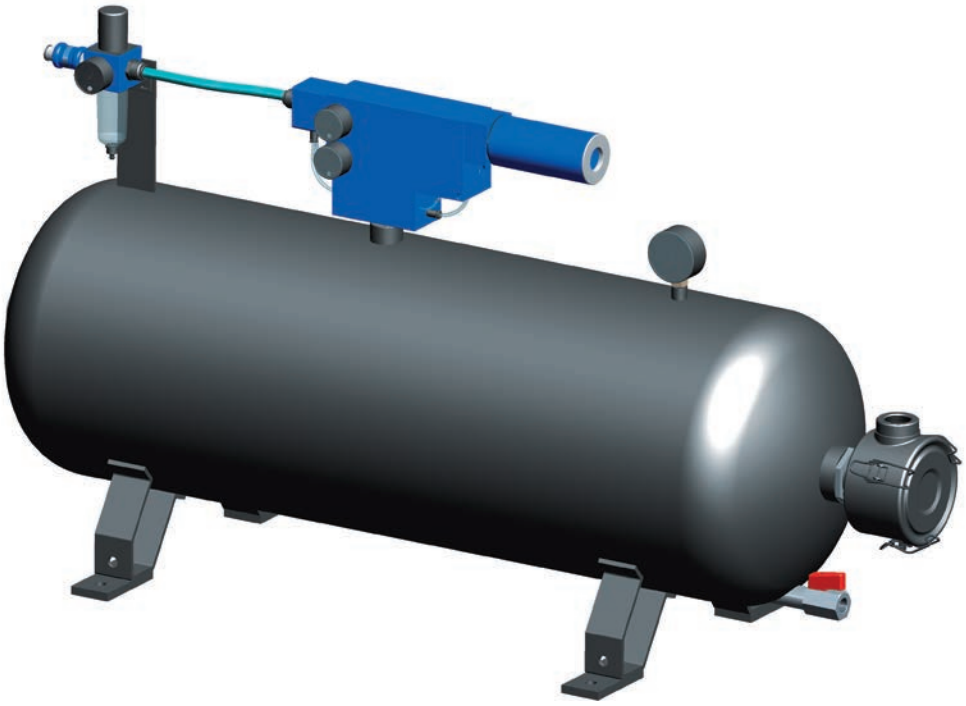


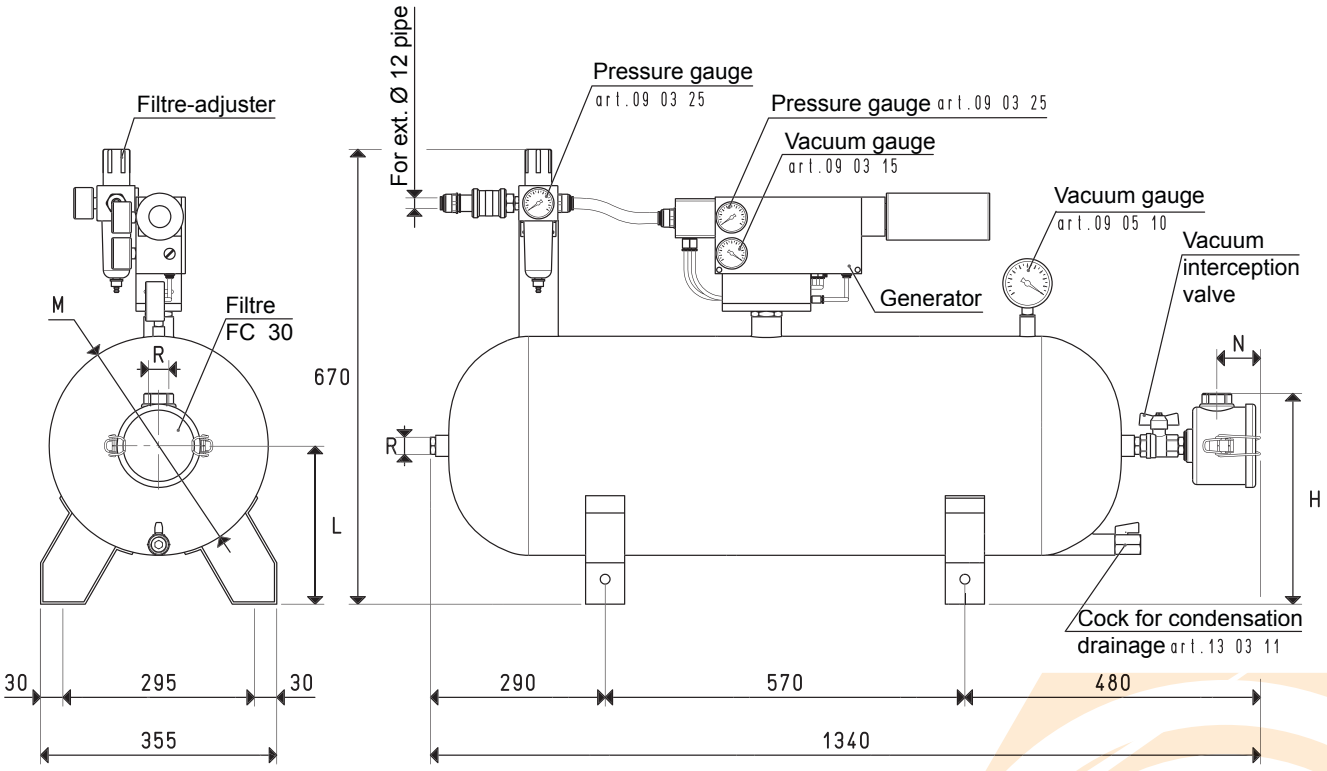
Art.	Tank	Generator	Pneumatic device	G	H	L	M	N	R	Hose ext. ø	Weight
	Litres	art.	art.				Ø		Ø	Ø	Kg
DOP 50 PVP 50 MDX	50	PVP 50 MDX ES	DOP 20 90	27.5	245	205	280	51	G1/2"	8	18.9
DOP 50 PVP 60 MDX	50	PVP 60 MDX ES	DOP 50 90	27.5	245	205	280	51	G1/2"	12	19.7

3D drawing available at **www.vuototecnica.net**

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





Art.	Tank	Generator	Pneumatic device	H	L	M	N	R	Weight
	Litres	art.	art.			Ø		Ø	Kg
DOP 100 PVP 75 MDX	100	PVP 75 MDX ES	DOP 50 90	300	255	350	41	G1"	31.0

3D drawing available at **www.vuototecnica.net**

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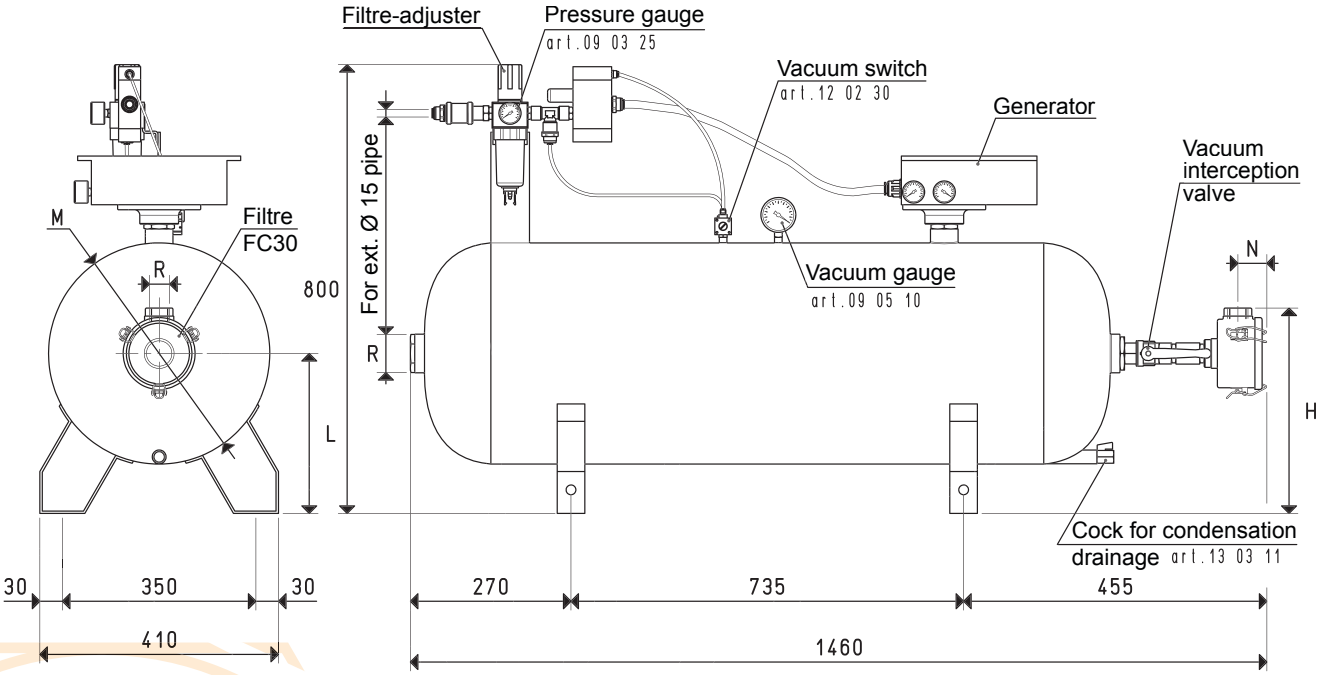
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

GAS-NPT thread adapters available at page 1.117

PNEUMATIC PUMPSETS DOP 150 and DOP 300

Pneumatic pumpsets are independent vacuum units fed exclusively by compressed air.
They are composed of:
- A welded sheet steel tank.
- A compressed air-operated vacuum generator.
- A pneumatic vacuum switch for adjusting the vacuum level.
- Un vacuum gauge for a direct reading of the vacuum level.
- A manual valve for vacuum interception.
- A suction filtre with an FC paper cartridge.
- A pressure adjuster equipped with filtre.
- A pneumatic activation valve for the vacuum generator supply.
- A sleeve valve for compressed air interception.
- A cock for draining condensation from the tank.
the vacuum level in the tank, previously set with the vacuum switch, is automatically maintained. Pneumatic pumpsets are normally used for handling particularly heavy or valuable loads, since even in case of a sudden power supply failure, allow the vacuum cups to maintain the grip for a certain amount of time (which varies according to the tank capacity). They are recommended for connecting several applications to centralise the vacuum. In any case, the use of the pumpset offers a great advantage under an energy-saving point of view, since the generator operates only when vacuum is required by the application.
Pneumatic pumpsets require no electricity, only compressed air at a 4 ÷ 6 bar (g) pressure. For this feature, they are recommended in hazardous environments where an ignition source would be dangerous.

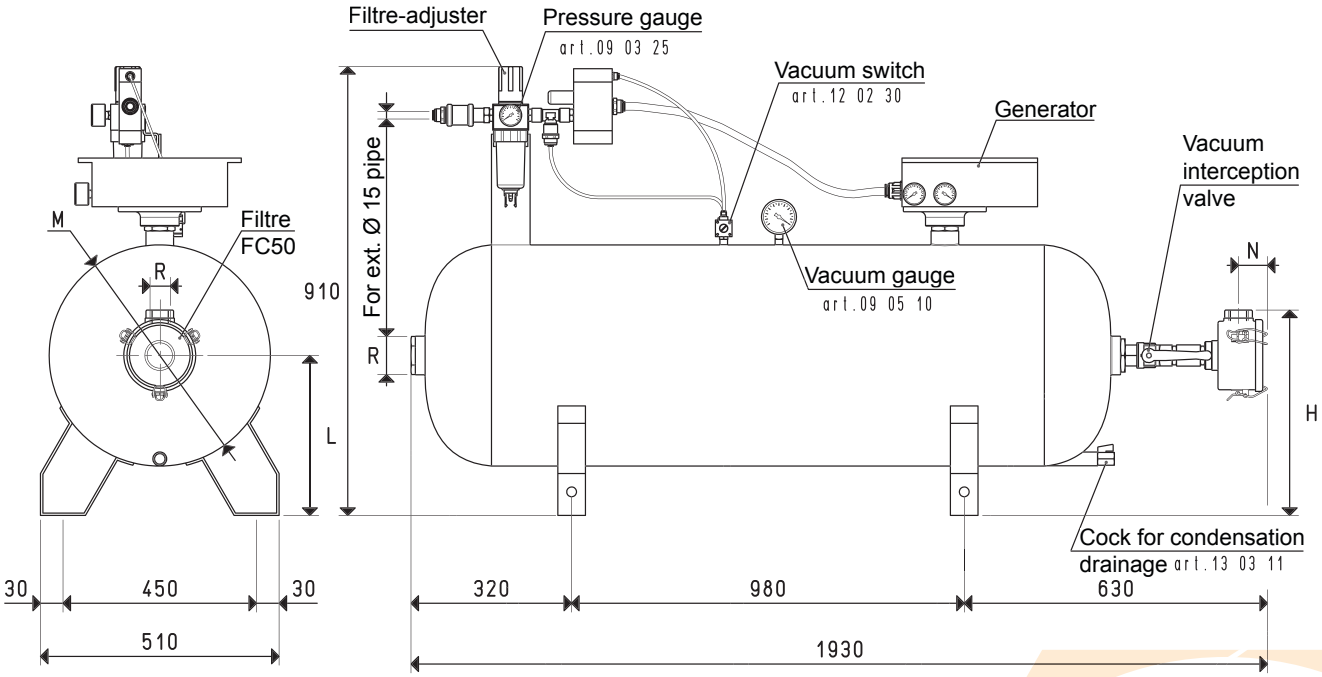


Art.	Tank	Generator	Pneumatic device	H	L	M	N	R	Weight
	Litres	art.	art.			Ø		Ø	Kg
DOP 150 PVP 150 MD	150	PVP 150 MDR	DOP 150 90	360	280	400	41	G1"	40.2

3D drawing available at **www.vuototecnica.net**

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



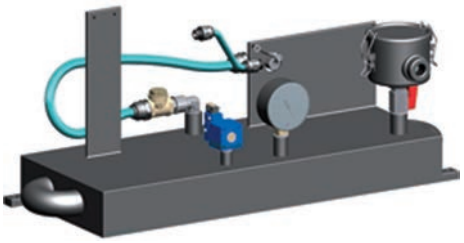
Art.	Tank	Generator	Pneumatic device	H	L	M	N	R	Weight
	Litres	art.	art.			Ø		Ø	Kg
DOP 300 PVP 300 MD	300	PVP 300 MDR	DOP 150 90	440	340	500	45	G1"1/2	41.2

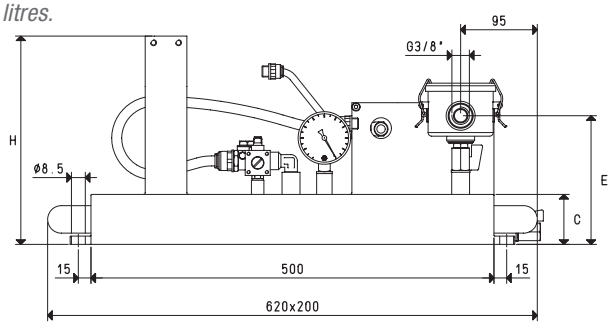
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

GAS-NPT thread adapters available at page 1.117

Mini pneumatic pumpset tanks DOP 06 and 10

Mini pneumatic pumpset tanks are horizontal with a rectangular section. They are made with welded sheet steel, a perfect vacuum seal, and varnished with special paints resistant to water condensation corrosion.
They are set for the installation of a vacuum generator to be chosen in the table and a pneumatic device.
They are equipped with:
- A pneumatic vacuum switch for adjusting the maximum vacuum level.
- Un vacuum gauge for a direct reading of the vacuum level in the tank.
- A check valve suitable for the generator connection.
- A manual valve for vacuum interception.
- A suction filtre with an FC paper cartridge.
- A cock for condensation drainage.
- Hoses, fittings and screws for connecting and fixing the generator to the tank.
Available with volumes of 6 and 10 litres.

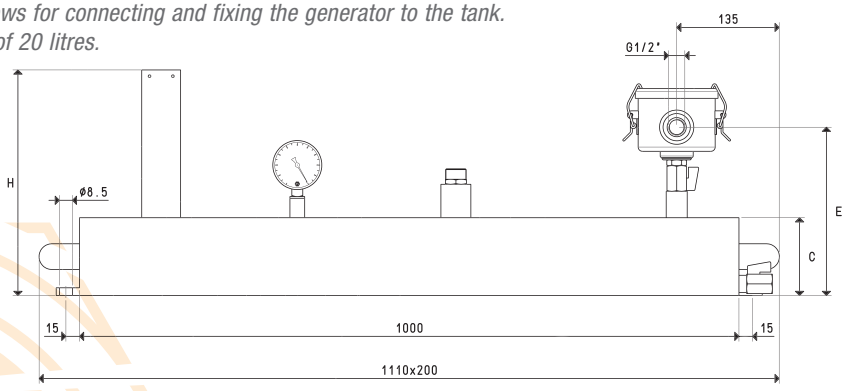




Art.	Tank	Weight	C	E	H	Set for: Generator art.	Pneumatic device art.
	Litres	Kg					
DOP 06 01	6	11.4	60	150	250	PVP 12 MX PVP 25 MX	DOP 06 90
DOP 10 01	10	11.6	100	210	290	PVP 12 MX PVP 25 MX	DOP 06 90

Mini pneumatic pumpset tanks DOP 20

Mini pneumatic pumpset tanks are horizontal with a rectangular section.
They are made with welded sheet steel, a perfect vacuum seal, and varnished with special paints resistant to water condensation corrosion.
They are set for the installation of a pneumatic device and a PVP .. MDX ES generator to be chosen in the table which are provided with built-in servo-controlled supply slide valve, check valve and pneumatic vacuum switch.
They are equipped with:
- Un vacuum gauge for a direct reading of the vacuum level in the tank.
- A manual valve for vacuum interception.
- A suction filtre with an FC paper cartridge.
- A cock for condensation drainage.
- Hoses, fittings and screws for connecting and fixing the generator to the tank.
Available with a volume of 20 litres.



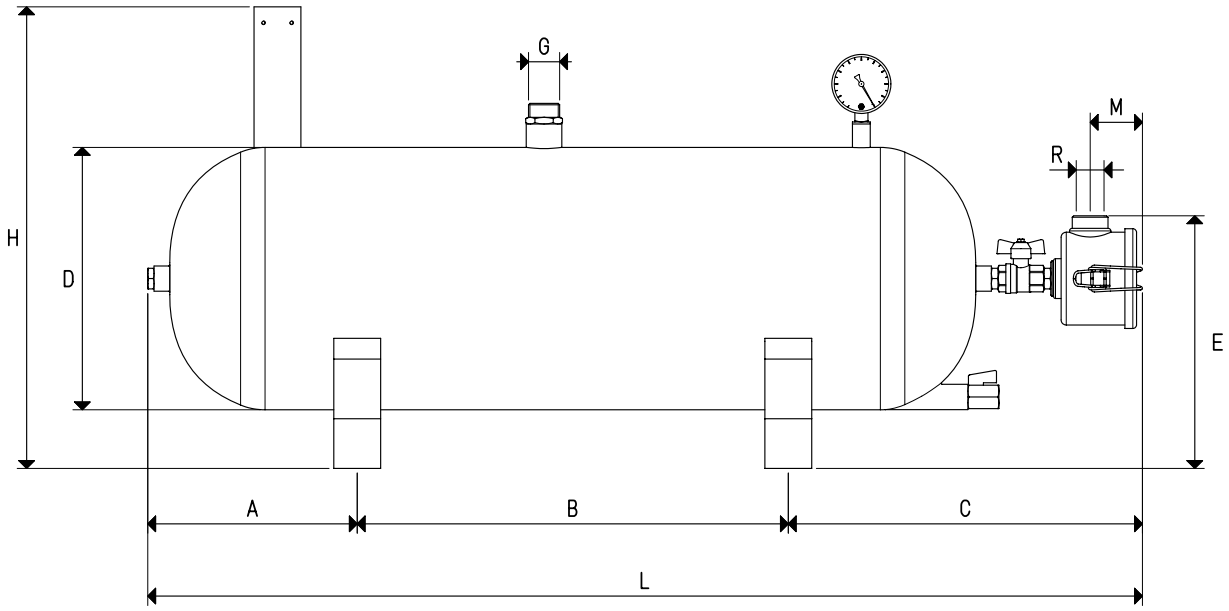
Art.	Tank	Weight	C	E	H	Set for: Generator art.	Pneumatic device art.
	Litres	Kg					
DOP 20 01	20	18.2	100	225	290	PVP 25 MDX ES PVP 35 MDX ES	DOP 20 90

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

PNEUMATIC PUMPSET TANKS DOP 25, 50 and 100

Pneumatic pumpset tanks are horizontal with a circular section.
Made with welded sheet steel, a perfect vacuum seal, they are varnished with special paints resistant to water condensation corrosion.
They are set for the installation of a pneumatic device and a PVP .. MDX ES generator to be chosen in the table which are provided with built-in servo-controlled supply slide valve, check valve and pneumatic vacuum switch.
They are equipped with:
- A vacuum gauge for a direct reading of the vacuum level in the tank.
- A manual valve for vacuum interception.
- A cock for condensation drainage.
- Hoses, fittings and screws for connecting and fixing the generator to the tank.
Available with volumes of 25, 50 and 100 litres.



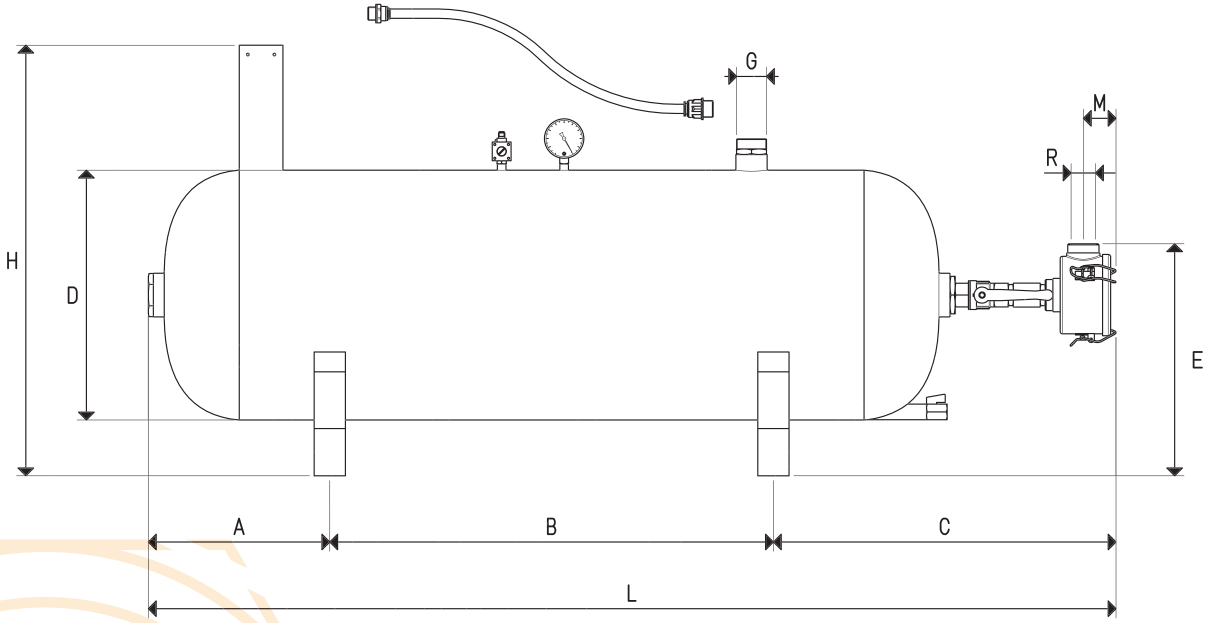
Art.	Tank	Weight	A	B	C	D	E	G	H	L	M	R	Set for: Generator	Set for: Pneumatic device
	Litres	Kg				ø		ø				ø	art.	art.
DOP 25 01	25	13.5	200	250x210	330	240	225	G3/4"	485	780x270	51	G1/2"	PVP 25 MDX ES PVP 35 MDX ES	DOP 20 90
DOP 50 01	50	16.4	220	460x245	400	280	245	G3/4"	492	1080x300	51	G1/2"	PVP 50 MDX ES	DOP 20 90
DOP 50 02	50	16.4	220	460x245	400	280	245	G1"	492	1080x300	51	G1/2"	PVP 60 MDX ES	DOP 50 90
DOP 100 01	100	27.6	290	570x295	480	350	300	G1"	585	1340x355	41	G1"	PVP 75 MDX ES	DOP 50 90

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

TANKS FOR PNEUMATIC PUMPSETS DOP 150 e 300

Pneumatic pumpset tanks are horizontal with a circular section.
Made with welded sheet steel a perfect vacuum seal, they are varnished with special paints resistant to water condensation corrosion.
They are set for the installation of a pneumatic device and a PVP .. MDX ES generator to be chosen in the table which are provided with built-in servo-controlled supply slide valve, check valve and pneumatic vacuum switch.
They are equipped with:
- A pneumatic vacuum switch for adjusting the maximum vacuum level.
- Un vacuum gauge for a direct reading of the vacuum level in the tank.
- A manual valve for vacuum interception.
- A suction filtre with an FC paper cartridge.
- A cock for condensation drainage.
- Hoses, fittings and screws for connecting and fixing the generator to the tank.
Available with volumes of 150 and 300 litres.



Art.	Tank	Weight	A	B	C	D	E	G	H	L	M	R	Set for: Generator	Set for: Pneumatic device
	Litres	Kg				ø		ø				ø	art.	art.
DOP 150 01	150	31.3	270	735x350	455	400	360	G1"1/2	690	1460x410	41	G1"	PVP 150 MDR	DOP 150 90
DOP 300 01	300	50.2	320	980x450	630	500	440	G2"	775	1930x510	45	G1"1/2	PVP 300 MDR	DOP 150 90

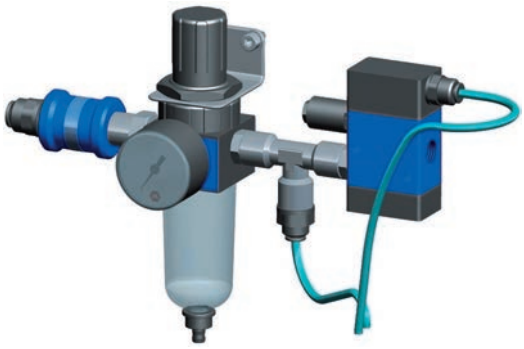
3D drawing available at **www.vuototecnica.net**

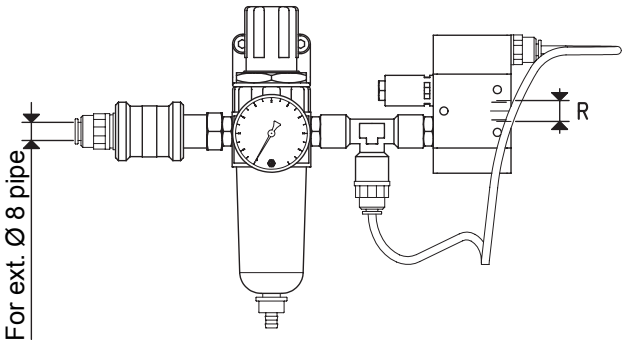
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

GAS-NPT thread adapters available at page 1.117

PNEUMATIC CONTROL GEAR FOR MINI PUMPSETS DOP 06 and DOP 10

The mini pumpset pneumatic control gear manages a vacuum generator and automatically maintains the vacuum level, set with the pneumatic vacuum switch, in the tank.
It is composed of:
- A pressure filtre-adjuster provided with pressure gauge, for adjusting the compressed air supply.
- A slide valve for compressed air interception.
- A 3-way servo-controlled valve for the vacuum generator supply
- Fittings and hoses for connecting the various component and screws for fixing them to the support

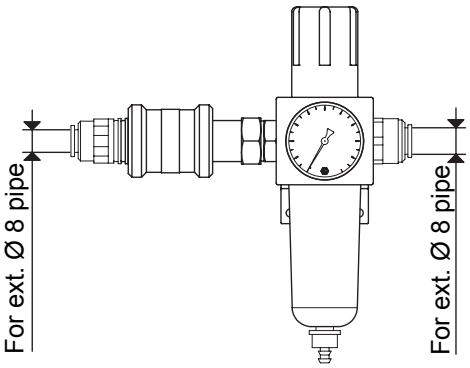




Art.	Weight Kg	R Ø	For Generator art.
DOP 06 90	0.6	G1/4"	PVP 12 MX PVP 25 MX PVP 25 MDX PVP 35 MDX PVP 50 MDX

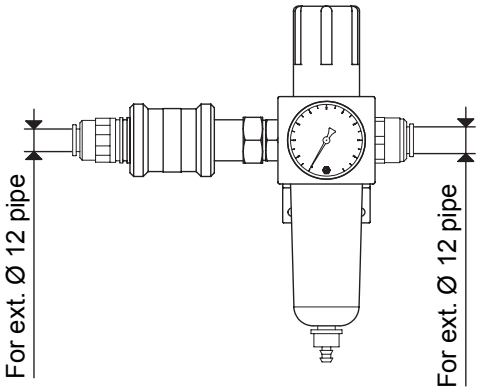
PNEUMATIC CONTROL GEAR FOR MINI PUMPSETS DOP 20 AND PUMPSETS DOP 25, 50 and 100

The pneumatic control gear for these pumpsets manages a vacuum generator and automatically maintains the vacuum level, set with the built-in pneumatic vacuum switch, in the tank.
It is composed of:
- A pressure filtre-adjuster provided with pressure gauge, for adjusting the compressed air supply.
- A slide valve for compressed air interception.
- Fittings and hoses for connecting the various component and screws for fixing them to the support.
Available in two sizes according to the supply connection.



Art.	Weight Kg	For generator art.
DOP 20 90	0.4	PVP 25 MDX ES PVP 35 MDX ES PVP 50 MDX ES

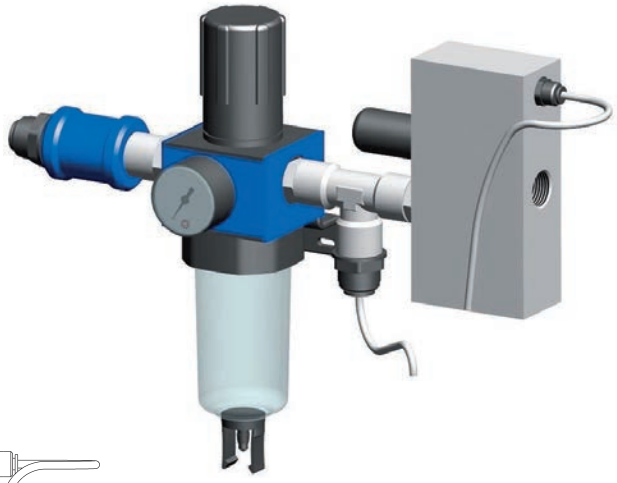
PNEUMATIC CONTROL GEAR FOR PUMPSETS DOP 50 and 100

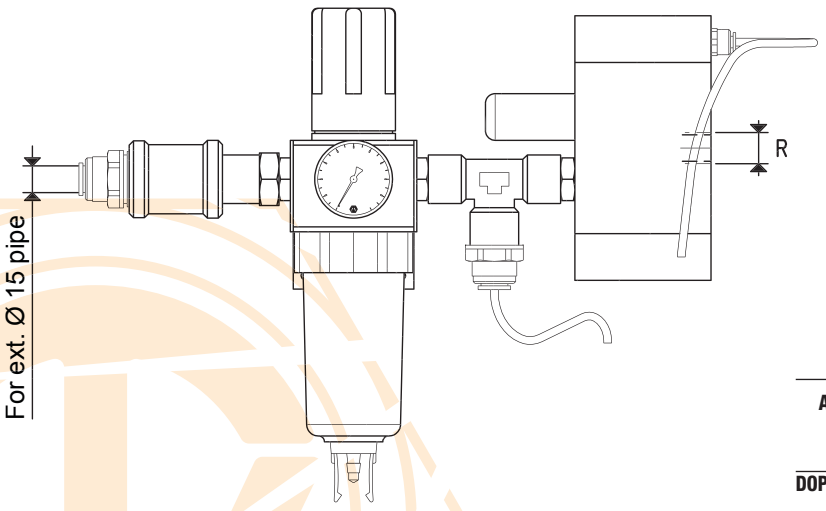


Art.	Weight Kg	For Generator art.
DOP 50 90	0.4	PVP 60 MDX ES PVP 75 MDX ES

PNEUMATIC CONTROL GEAR FOR PUMPSETS DOP 150 and 300

The pneumatic control gear for these pumpsets manages a vacuum generator and automatically maintains the vacuum level, set with the pneumatic vacuum switch, in the tank.
It is composed of:
- A pressure filtre-adjuster provided with pressure gauge, for adjusting the compressed air supply.
- A slide valve for compressed air interception.
- A 3-way servo-controlled valve for the vacuum generator supply
- Fittings and hoses for connecting the various component and screws for fixing them to the support.





Art.	Weight Kg	R Ø	For Generator art.
DOP 150 90	1.1	G1/2"	PVP 150 MDR PVP 300 MDR

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