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

Curves regarding capacity (referring to a 1013 bar pressure)

Curves regarding the emptying of a 6-litre volume

Time t(sec)

-100

-90

-80

-70

60

-50

- 4 0

-30

-20

10

100

Time t(sec)

-100

-90

- 8 0

-70

60

-50

- 4 በ

-30

-20

10

100

150

200

indicated for being installed on portable equipment.

They are suited for a discontinuous and non-intense use.



H35 M (50 Hz)

Capacity

18.0

16.2

14.4

12.6

10.8

9.0

7.2

5.4

3.6

1.8

1000

Capacity

1/1

22.0

19.8

17.6

15 4

13.2

11.0

8.8

6.6

4.4

2.2

1000

700 600 500

400 300

Vacuum mbar

700 600 500

400 300

Vacuum mbar

H35 M (60 Hz)





To calculate the emptying time of a volume V1, apply the formula $t_1 = \frac{t_X V 1}{c_1}$

150

200

V1 : Volume to be emptied

t1 : Time to be calculated (sec)

t : Time obtained in the table (sec)



3D drawings available at www.vuototecnica.net

7.01

H 35 M





H 40 DM





Art.		H3	5 M	H40	DM	
Frequency		50Hz	60Hz	50Hz	60Hz	
Nominal capacity:						
Connection in series	1/1'	17.5	21.0	18.0	21.5	
Connection in parallel	I / 1'	=	=	18.0 + 18.0	21.5 + 21.5	
Final pressure:						
Connection in series	mbar abs.	2	00	6	0	
Connection in parallel	mbar abs.	:	=	160		
Max. pressure	bar (g)		2		2	
Motor execution	1~	230 ± 10%		230 ±	230 ± 10%	
Volt						
Motor power	1~	15	18	16.5	20	
Watt						
Electric absorption	А	0.	.60	0.3	80	
Rotation speed	rev/min ⁻¹	2800	3300	2800	3300	
Noise level	dB(A)	≤	50	<	50	
Max. we <mark>ight</mark>	Kg	1.3		1.	.6	
Accessories and spare parts						
Membrane	art.	00 H3	35M 15	00 H40	DM 15	
Lid with <mark>fittings</mark>	art.	00 H3	35M 16	00 H40	DM 20	

7.02

X



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

18

MEMBRANE VACUUM MINI PUMPS WITH DC MOTOR

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.



--- Curves regarding capacity (referring to a 1013 bar pressure)

— Curves regarding the emptying of a 6-litre volume



MEMBRANE VACUUM MINI PUMPS WITH DC MOTOR

H 35 M CC



H 40 DM CC





Ø4.5

***** Ø7

7

Art.		H35 M CC	H40 DM CC
Nominal capacity:			
Connection in series	1/1'	21.5	20.0
Connection in parallel	1/1'	=	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	А	0.80	1.50
Rotation speed	rev/min ⁻¹	3000	3000
Noise level	dB(A)	≤ 50	≤ 50
Max. we <mark>ight</mark>	Kg	0.62	1.19
Accessories and spare parts			
Membra <mark>ne</mark>	art.	00 H35M 15	00 H40DM 15
Lid with <mark>fittings</mark>	art.	00 H35M 16	00 H40DM 20

Ø48

Ø4.5

7.04

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

X

3D drawings available at www.vuototecnica.net

ROTARY VANE VACUUM PUMPS – GENERAL DESCRIPTION

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.





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 threephase 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.

7.06



3D

VANE MINI VACUUM PUMPS

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.



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













To calculate the emptying time of a volume V1, apply the formula $t1 = \frac{t \times V1}{6}$

- V1 : Volume to be emptied t1 : Time to be calculated (sec) t : Time obtained in the table (sec)
 - 7.07







Art.







H45 R



H45 DR



Frequency		50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
Nominal capacity:							
Connection in series	1/1'	11.5	13.8	13.0	15.5	11.0	13.2
Connection in parallel	1/1'	=	=	=	=	10 + 10	12 + 12
Final pressure:							
Connection in series	mbar abs.	1	50	20	00		40
Connection in parallel	mbar abs.	:	=	=	=	1	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	3.15
Electric absorption	А	1	.2	1	.5		1.8
Rotation speed	rev/min-1	2800	3300	2800	3300	2800	3300
Noise level	dB(A)	≤	60	5	60	≤	s 60
Max. weight	Kg	1.	.45	2	.0	;	2.1
Α		1	48	16	65	1	180
В		45	5.5	47	<i>.</i> 5	6	3.5
C		3	38	5	3		53
Accesso <mark>ries and</mark> spare parts							
Vanes	art.	n° 10 00) H25R 03	n° 10 00	H45R 02	n° 20 00	0 H25R 03
Silencer filtre	art.	FE	31	FE	31	F	B 1
Fittings	art.	RM	1M5	RM	M5	RI	MM5
			$/ \Lambda$				

H25 R

7.08

X

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

cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

VANE MINI VACUUM PUMPS WITH DC MOTOR

The previously described mini pumps can be supplied with a DC motor instead of an AC one. The performance is practically the same.



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







To calculate the emptying time of a volume V1, apply the formula $t_1 = \frac{t_X V 1}{6}$

V1 : Volume to be emptied t1 : Time to be calculated (sec) t : Time obtained in the table (sec)

7.09

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	I/ 1'	11.5	14.5	13.5
Connection in parallel	I/ 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
Notor execution	Volt	24 CC	24 CC	24 CC
Notor power	Watt	20	24	30
electric absorption A	1.5	1.6	1.8	
Rotation speed	rev/min-1	3000	3000	3000
loise level	dB(A)	≤ 60	≤ 60	≤ 60
Aax. weight	Kg	0.96	1.29	1.44
		130	148	154
3		57	77	83
		73	71	71
accessories and spare parts				
lanes	art.	n° 10 00 H25R 03	n° 10 00 H45R 02	n° 20 00 H25R 03
Silencer <mark>filtre</mark>	art.	FB 1	FB 1	FB 1
Fittings	art.	RMM5	RMM5	RMM5

7.10

3D drawings available at www.vuototecnica.net

X

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 2 and 4

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 V1, apply the formula $t_1 = \frac{f \times V1}{100}$

- 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
- V1 : Volume to be emptied
- t1 : Time to be calculated (sec)
- t : Time obtained in the table (sec)

3D drawings available at www.vuototecnica.net





Art.		VTL	2	VTL	4	
Frequency		50Hz	60Hz	50Hz	60Hz	
Capacity	m³/h	2.0	2.4	4.0	4.8	
Final pressure	mbar abs.	150)	15	D	
Motor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%	
Volt	1~	230±1	0%	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		Spec	ial	
Motor size		56		63		
Noise level	dB(A)	62	65	62	65	
Max. weight	3~	5.7		7.3	3	
Kg	1~	6.0)	7.5	5	
Α		260)	285		
В		145	145		D	
C		126	5	13	2	
D		62		66	i	
E		71		80)	
F		127	7	139		
G	Ø	6.5	i	7.5	ō	
H		72		80)	
1		90		10	D	
L		43		48	}	
Μ		12		12		
N		76		86	j	
R	Ø gas	G1/4	1"	G3/8	8"	
Accessories and spare parts						
Oil load	1	0.05	5	0.0	5	
Synthetic oil	VT OIL	ISO 3	32	ISO	32	
4 vanes	art.	00 VTL 0	02 10	00 VTL	04 10	
Sealing <mark>kit</mark>	art.	00 KIT V	TL 02	00 KIT V	TL 04	
Check valve	art.	10 01	15	10 02	15	
Suction filtre	art.	FB 5	5	FB 10/F	-C 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).

7.12

X



cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

Π

VACUUM PUMPS VTL 5 and 10

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 V1, apply the formula $11 = \frac{1 \times V1}{100}$

- 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
- V1 : Volume to be emptied t1 : Time to be calculated (sec)

t : Time obtained in the table (sec)





Art.		VTL	. 5	VTL 10		
Frequency		50Hz	60Hz	50Hz	60Hz	
Capacity	m³/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%	
Notor power	3~	0.25	0.30	0.35	0.40	
Kw	1~	0.25	0.30	0.25	0.30	
Notor protection	IP	54	4	54	1	
Rotation speed	rev/min-1	1450	1740	1450	1740	
Notor shape		Spe	cial	Spe	cial	
Motor size		7	1	7		
Noise level	dB(A)	62	64	62	64	
Max. weight	3~	14	.5	20	5	
Kg	1~	15	.0	21.0		
A		26	0	310		
B		24	5	262 245		
;		24	5			
D		52	2	70)	
:		55	3	85	5	
H		12	2	12	2	
-		4	5	45	5	
Ń		8	5	10	2	
V		2	7	52)	
	Ø gas	G3/	/8"	G1/	2"	
Accessories and spare parts	- <u>3</u>		-	2	-	
Dil load		0.2	25	0.4	.0	
Synthetic oil	VT OIL	ISO	32	ISO	32	
5 vanes	art.	00 VTL	05 10	00 VTL	10 10	
Sealing kit	art.	00 KIT V	/TL 05	00 KIT \	/TL 10	
Check valve	art	10.0	2 10	10.02	3 10	
Suction filtre	art.	FB 10/	FC 10	FB 20/	FC 20	
Adjustable drip oiler	art	00 VTI	00.11	00 VTI	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 = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

X



cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

1

VACUUM PUMPS VTLP 5 and 10 WITH DISPOSABLE LUBRICATION











To calculate the emptying time of a volume V1, apply the formula $11 = \frac{1 \times V1}{100}$

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

Х

V1 : Volume to be emptied t1 : Time to be calculated (sec)

t : Time obtained in the table (sec)

VACUUM PUMPS VTL 5 AND 10





Art		VTL	VTLP 5 VTLP 10				
requency		50Hz	60Hz	50Hz	60Hz		
apacity	m³/h	5.0	6.0	10.0	12.0		
inal pressure	mbar abs.	80)	80	1		
otor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%		
Volt	1~	230±	10%	230±	10%		
otor power	3~	0.25	0.30	0.35	0.40		
Kw	1~	0.25	0.30	0.25	0.30		
otor protection	IP	54	1	54			
otation speed	rev/min ⁻¹	1450	1740	1450	1740		
otor shape		Spec	Special		tial		
otor size		71		71			
oise level	dB(A)	62	64	62	64		
ax. weight	3~	15.	6	21.	21.6		
Kg	1~	16.	1	22.	1		
		26	0	310			
		24	5	262			
		52	2	70			
		53	}	85	i		
		85	5	10	2		
		27	7	52) -		
	Ø gas	G3/	8"	G1/	<u>2</u> "		
ccessories and spare parts							
l load		1.8	3	1.8	3		
nthetic oil	VT OIL	ISO	32	ISO	32		
vanes	art.	00 VTL	05 10	00 VTL	10 10		
ealing kit	art.	00 KIT \	/TL 05	00 KIT V	TL 10		
eck valve	art.	10 02	2 10	10 03	10		
uction filtre	art.	FB 10/	=C 10	FB 20/F	FC 20		
l level switch	art.	00 LP V	TL 99	00 LP V	TL 99		
il filtre	art.	00 LP V	TL 40	00 LP V	TL 40		
diustab <mark>le drip o</mark> iler	art	00 VTI	00 11	00 VTI	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 = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

X

7.16



cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

(L

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

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.





9

8

7

5

4

1











To calculate the emptying time of a volume V1, apply the formula t1 = $\frac{1 \times V1}{100}$

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

- V1 : Volume to be emptied
- t1 : 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	m³/h	10.0	12.0	15.0	18.0	20.0	24.0	
Final pressure	mbar abs.	5	0	5	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	5	4	5	4	5	4	
Rotation speed	rev/min ⁻¹	1450	1740	1450	1740	1450	1740	
Motor shape		Spe	ecial	Spe	cial	Spe	cial	
Motor size		80 80		8	0			
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		
Α		385		40)5	42	25	
В		285		28	35	28	35	
C		2	59	25	59	25	59	
D		2	5	25		2	5	
E		34	40	340		340		
F		2	0	40		60		
н		1:	33	13	33	13	33	
L		5	5	5	5	5	5	
M		1(00	10	00	10	00	
N		5	3	6	3	7	3	
R	Ø gas	G1	/2"	G1.	/2"	G1.	/2"	
Accessories and spare parts								
Oil load	1	0	.4	0.	5	0.0	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 1	VTL 10F	00 KIT \	/TL 15F	00 KIT \	/TL 20F	
Check valve	art.	10 0	3 10	10 0	3 10	10 0	3 10	
Suction filtre	art.	FB 20.	/FC 20	FB 20/	FC 20	FB 20/	/FC 20	
Adjustab <mark>le drip o</mark> iler	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 = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

7.18

 \mathbf{X}

3D drawings available at www.vuototecnica.net



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.









VTLP 10/F (60 Hz)

Vacuum mbar

Capacity

cum/h

12

10.8

9.6

8.4

7 2

6

4.8

3.6

2.4

1.2

1000





To calculate the emptying time of a volume V1, apply the formula $11 = \frac{1 \times V1}{100}$

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

Time t(sec)

-260

-234

-208

182

-156

-130

-104

-78

-52

-26

10

V1 : Volume to be emptied

t1 : Time to be calculated (sec)

t : Time obtained in the table (sec)

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





Art.	Art.		P 10/F	VTL	TLP 15/F VTLP 20/F			
Frequency		50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	
Capacity	m³/h	10.0	12.0	15.0	18.0	20.0	24.0	
Final pressure	mbar abs.	5	0	Ę	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	5	4	ţ	54	:	54	
Rotation speed	rev/min-1	1450	1740	1450	1740	1450	1740	
Motor shape		Spe	ecial	Sp	ecial	Sp	Special	
Motor size		8	80		80		80	
Noise level	dB(A)	62	64	63	65	64	66	
Max. weight	3~	26	26.1 28.1		3	1.1		
Kg	1~	26	26.6		8.6	3	1.6	
Α		38	35	4	05	4	25	
F		2	0	2	40	60		
N		5	3	63		73		
Accessories and spare parts								
Oil load		1.	.8	1	.8		1.8	
Synthetic oil	VT OIL	ISO	68	ISC	0 60	IS	D 68	
6 vanes	art.	00 VTL	10F 10	00 VTL	. 15F 10	00 VTI	_ 20F 10	
Sealing kit	art.	00 KIT \	VTL 10F	00 KIT	VTL 15F	00 KIT	VTL 20F	
Check valve	art.	10 0	3 10	10 (03 10	10	03 10	
Suction filtre	art.	FB 20/	/FC 20	FB 20	/FC 20	FB 20)/FC 20	
Oil level <mark>switch</mark>	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 VT	L 00 11	00 VT	L 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 = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

X

7.20



cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

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

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.







VTL 25/FG (60 Hz)

100 Vacuum mbar

Capacity

. cum/h

30-

27.5

22.5

17.5

12.5

25

20

15

10

7.5

5

1000

2.5





Art.		VTL 25/FG	VTL	30/FG	V	TL 35/FG	
Frequency	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	
Capacity m³/h	n 25.0	30.0	30.0	36.0	35.0	42.0	
Final pressure mba	r abs.	50	Ę	iO	Ę	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		54	Ę	4	Ę	54	
Rotation speed rev/	min ⁻¹ 1450	1740	1450	1740	1450	1740	
Motor shape		B14	В	14	В	14	
Motor size		80	8	0	80		
Noise level dB(A) 64	66	65	67	65	67	
Max. weight 3~		31.0		5.0	3	37.0	
Kg							
Α		470	4	90	5	10	
C		280	2	280		80	
F		20	4	40		60	
H		133	1	33	133		
N		73	8	3	93		
R Ø ga	IS	G3/4"	GB	/4"	G	3/4"	
Accessories and spare parts							
Oil load		0.65	0.	85	0	.85	
Synthetic oil	DIL	ISO 68	ISC	68	ISC	0 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 V	TL 30FG	00 KIT \	/TL 35FG	
Check valve art.		10 04 10	10 0	4 10	10 (04 10	
Suction filtre art.	F	B 25/FC 25	FB 25	/FC 25	FB 25	J/FC 25	
Adjustable drip oiler art.	0	0 VTL 00 11	00 VTL	. 00 11	00 VT	L 00 11	

7.22

3D drawings available at www.vuototecnica.net

 \mathbf{X}

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.









VTLP 25/FG (60 Hz)

100 Vacuum mbar

Capacity

cum/h

27.5

25-

20

15

10

7 5

2 5

1000

22.5-

17.5

12.5





t1 : Time to be calculated (sec)

t : Time obtained in the table (sec)

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

Time

-100

- 8 8

- 80

-72

-64

-56

- 4 8

- 4 0

32

- 24

-16

- 8

10

32.4

28.8

25.2

21 6

14.4

10.8

7.2

3.6

18

7

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



Art.		VTL	.P 25/FG	VTLP	30/FG	V	VTLP 35/FG	
Frequency		50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	
Capacity	m³/h	25.0	30.0	30.0	36.0	35.0	42.0	
Final pressure	mbar abs.		50	5	0		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	5	4		54	
Rotation speed	rev/min ⁻¹	1450	1740	1450	1740	1450	1740	
Motor shape		E	314	B	14	E	314	
Motor size			80	8	0		80	
Noise level	dB(A)	64	66	65	67	65	67	
Max. weight	3~	3	2.0	36	6.0	3	8.0	
Kg								
Α		4	70	4	90	Ę	510	
F			20	4	0		60	
н		1	33	1:	33	1	133	
N			73	8	3		93	
R	Ø gas	G	3/4"	G3	/4"	G	3/4"	
Accessories and spare parts								
Oil load			1.8	1	.8		1.8	
Synthetic oil	VT OIL	IS	D 68	ISC	68	IS	0 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 V	TL 30FG	00 KIT	VTL 35FG	
Check valve	art.	10	04 10	10 C	4 10	10	04 10	
Suction filtre	art.	FB 25	5/FC 25	FB 25	/FC 25	FB 2	5/FC 25	
Oil level switch	art.	00 LP	VTL 99	00 LP	VTL 99	00 LF	9 VTL 99	
Oil filtre	art.	00 LP	VTL 40	00 LP	VTL 40	00 LF	9 VTL 40	
Adjustable drip oiler	art.	00 VT	L 00 11	00 VTL	. 00 11	00 VT	L 00 11	
			/ /					

7.24

3D drawings available at www.vuototecnica.net

X

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

cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

VACUUM PUMPS VTL 40/G1 ÷ 105/G1

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.









VTL 40/61 (60 Hz)

Vacuum mbar

Capacity

cum/h

43.2

38.4

33.6

28.8

19.2

14 4

9.6

4 8

1000

24





To calculate the emptying time of a volume V1, apply the formula $1 = \frac{1 \times V_1}{100}$

- V1 : Volume to be emptied
 - t1 : Time to be calculated (sec)
 - t : Time obtained in the table (sec)
- Curve regarding capacity (referring to a 1013 bar pressure) Curve regarding the emptying of a 100-litre volume

Time t(sec)

- 8 0

72

64

56

48 36

40 30

- 3 2

-24

16

8

Curve regarding capacity (referring to the suction pressure)

10

54

48

42

24

18

12

6

7.25

30





Art.		VTL	40/G1	VTL S	50/G1	VTL	65/G1	
Frequency		50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	
Capacity	m³/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	5	4		54	
Rotation speed	rev/min ⁻¹	1450	1740	1450	1740	1450	1740	
Motor shape			B5	В	B5		B5	
Motor size		1	90	9	0		90	
Noise level	dB(A)	68	70	68	70	70	72	
Max. weight	3~	51.0		54	54.0		71.0	
Kg								
Α		Ę	520	50	50	Ę	580	
В		3	865	30	35	3	365	
C		3	350	35	50	3	350	
D			60	11	15	1	120	
F			45	30		45		
н		1	86	18	36	1	186	
М		1	25	12	25	1	125	
N			70	8	0		80	
R	Ø gas	(31"	G	1"	(G1"	
Accessories and spare parts								
Oil load	I	0	.85	1.	00	1	.00	
Synthetic oil	VT OIL	ISC	100	ISO	100	ISC	0 100	
6 vanes	art.	00 VTL	40G1 10	00 VTL 5	50G1 10	00 VTL	.65G1 10	
Sealing <mark>kit</mark>	art.	00 KIT '	VTL 40G1	00 KIT V	TL 50G1	00 KIT \	VTL 65 G1	
Check valve	art.	10	05 10	10 0	5 10	10	05 10	
Suction filtre	art.	FB 30	D/FC 30	FB 30	/FC 30	FB 30	0/FC 30	
Adjustable drip oiler	art.	00 VT	L 00 11	00 VTL	00 11	00 VT	L 00 11	

7.26

3D drawings available at www.vuototecnica.net

 \mathbf{X}

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 V1, apply the formula $11 = \frac{1 \times V_1}{100}$

- V1 : Volume to be emptied t1 : Time to be calculated (sec)
- 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
- t : Time obtained in the table (sec)

7.27





Art.		VTL	75/G1	VTL 9	00/G1	VTL	105/G1
Frequency		50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
Capacity	m³/h	75.0	90.0	90.0	108.0	105.0	126.0
Final pressure	mbar abs.	Ę	50	5	0		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	Ę	54	5	4		54
Rotation speed	rev/min-1	1450	1740	1450	1740	1450	1740
Motor shape		E	35	B	5		B5
Motor size		1	00	10	00	1	00
Noise level	dB(A)	70	72	71	73	72	74
Max. weight	3~	7	6.5	84	.0	g	7.6
Kg							
Α		6	40	60	50	6	690
В		3	85	40	00	2	100
C		4	00	40	00	2	145
F		6	62	8	2	1	12
н		1	86	18	36	1	86
M		1	45	15	50	1	60
N		8	30	9	2	1	22
R	Ø gas	G1	"1/4	G1*	1/4	G1	"1/2
Accessories and spare parts							
Oil load	1	2	2.0	2	.6		2.6
Synthetic oil	VT OIL	ISO	100	ISO	100	ISC	0 100
Deoiling cartridge	art.	00 VTL	75G1 29	00 VTL 9	90G1 29	00 VTL	105G1 29
6 vanes	art.	00 VTL	75G1 10	00 VTL 9	90G1 10	00 VTL	105G1 10
Sealing <mark>kit</mark>	art.	00 KIT \	/TL 75G1	00 KIT V	TL 90G1	00 KIT V	/TL 105G1
Check valve	art.	10 (06 10	10 0	6 10	10	07 10
Suction filtre	art.	FB 40	/FC 40	FB 40.	/FC 40	FB 50	D/FC 50
Adjustab <mark>le drip </mark> oiler	art.	00 VTI	_ 00 11	00 VTL	. 00 11	00 VT	L 00 11

7.28

3D drawings available at www.vuototecnica.net

X



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

Time t(sec)

80

72

64

-56

48

40

32

24

16

8

10

Time t(sec)

80

72

- 6 4

-56

48

40

- 32

-24

16

- 8

10

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 V1, apply the formula $1 = \frac{t \times V_1}{100}$

- V1 : Volume to be emptied
 - t1 : Time to be calculated (sec)
 - t : Time obtained in the table (sec







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

Capacity

cum/h

45

40

35

30

25

20

15

10

1000

Capacity

cum/h

54

48

42

36

30

24

18

12

6

1000

VTL 50/G1 (50 Hz)

100 Vacuum mbar

VTL 50/61 (60 Hz)

100 Vacuum mbar



Art.		VTLP	40/G1	VTLP	50/G1	VTLP	° 65/G1
Frequency		50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
Capacity	m³/h	40.0	48.0	50.0	60.0	65.0	78.0
Final pressure	mbar abs.	-	50	5	0		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	5	4		54
Rotation speed	rev/min-1	1450	1740	1450	1740	1450	1740
Motor shape			B5	В	5		B5
Motor size		!	90	9	0		90
Noise level	dB(A)	68	70	68	70	70	72
Max. weight	3~	52.5		55.1		72.1	
Kg							
Α		5	520	56	60	Ę	580
D			60	11	15	1	20
F			45	3	0		45
M		1	25	12	25	1	25
N			70	8	0		80
R	Ø gas	(31"	G	1"	(31"
Accessories and spare parts							
Oil load	I	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	D/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	
Adjustab <mark>le drip o</mark> iler	art.	00 VT	L 00 11	00 VTL	. 00 11	00 VT	L 00 11

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

3D drawings available at www.vuototecnica.net

7.30

 \mathbf{X}



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 V1, apply the formula $1 = \frac{t \times V_1}{100}$

- 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
- V1 : Volume to be emptied t1 : Time to be calculated (sec)
- t : Time obtained in the table (sec)

7.31





Art.		VTLP	75/G1	VTLP	90/G1	VTLP	105/G1
Frequency		50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
Capacity	m³/h	75.0	90.0	90.0	108.0	105.0	126.0
Final pressure	mbar abs.	Ę	iO	5	0	1	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	5	4	5	4		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		E	35	В	5		B5
Motor size		1	00	1(00	1	00
Noise level	dB(A)	70	72	71	73	72	74
Max. weight	3~	78	3.3	85	.8	g	9.4
Kg							
Α		6	40	60	60	6	690
В		4	15	43	30	2	30
C		5	75	57	75	6	520
F		6	62	8	2	1	12
М		1	45	15	50	1	60
N		8	0	9	2	1	22
R	Ø gas	G1	1/4"	G1	1/4"	G1	1/2"
Accessories and spare parts							
Oil load		3	.8	3	.8	:	3.8
Synthetic oil	VT OIL	ISO	100	ISO	100	ISC	100
Deoiling cartridge	art.	00 VTL	75G1 29	00 VTL 9	90G1 29	00 VTL	105G1 29
6 vanes	art.	00 VTL	75G1 10	00 VTL 9	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 0	6 10	10 0	6 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 VT	L 00 11

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

7.32

3D drawings available at www.vuototecnica.net

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cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

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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.





- 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
- V1 : Volume to be emptied t1 : Time to be calculated (sec)
- t : Time obtained in the table (sec)
- t . Time obtained in the table (set

3D drawings available at www.vuototecnica.net

7.33

VACUUM PUMP VTL 6 DC WITH DC MOTOR





Art.		VTL 6 CC
Capacity	m³/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
В		168
C		195
D		124
E		65
F		146
G		8
H		128
l		1 12
L		12
Μ		44
N		32
0		14.5
R	Ø qas	G3/8"
Accessories and spare parts	č	
Oil load		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

7.34

3D drawings available at www.vuototecnica.net

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

cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

OIL-BATH VACUUM PUMPS MV 20 ÷ 300R and MV 20A ÷ 300RA

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.







0

Capacity

cum/h

20

18

16

14

12

10

8

6

2

1000

Capacity

cum/h

24

21.6

19.2

300 200

MV 20 (50 Hz)

100

MV 20 (60 Hz)

Vacuum mbar

40 30 20

Time t (sec)

- 108

- 97.2

- 86.4

-75 6

64.8

43.2

- 32.4

21.6

10 8

10

Time t(sec)

- 108

- 97.2

86.4

54



- 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
- 1= 1 x V 1 100 V1 : Volume to be emptied t1 : Time to be calculated (sec) t : Time obtained in the table (sec)

7.35

30

drawings available at www.vuototecnica.net

OIL-BATH VACUUM PUMPS MV 20 AND MV 20A





Art.		MV	20	MV 20A			
Frequency		50Hz	60Hz	50Hz	60Hz		
apacity	m³/h	20.0	24.0	20.0	24.0		
inal pressure	mbar abs.	40	40		7		
Notor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%		
Volt	1~	230±1	0%	230±10%			
Notor power	3~	0.75	0.90	0.75	0.90		
Kw	1~	0.75	0.90	0.75	0.90		
Notor protection	IP	55		55	i		
otation speed	rev/min ⁻¹	2800	3350	2800	3350		
lotor shape		B14		B14			
Notor size		80		80			
loise level	dB(A)	64	66	64	66		
lax. weight	3~	21.5	ō	21.5			
Kg	1~	22.0)	22.0			
		425	i	425			
		235	i	23	5		
		215	i	215 145 220			
)		145	i				
		220	1				
		60		60			
	Ø	6.5		6.5 170			
		170	1				
		113		11:	3		
		82		82			
I		40		40 60			
		60					
		30		30			
	Ø gas	G1/2	11	G1/2"			
ccessories and spare parts							
il load		0.70	0.70		0.70		
ynthetic oil	VT OIL	ISO 6	8	ISO 68			
eoiling cartridge	art.	00 MV 2	00 MV 20 11		00 MV 20 11		
vanes	art.	00 MV 2	00 MV 20 10		00 MV 20 10		
ealing kit	art.	00 KIT N	00 KIT MV 20		00 KIT MV 20		
heck valve	art.	Built-	in	Built-in			
Suction filtre	art.	FC 2	0	FC 20			
Ballast valve	art.	VZ 0	1	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).

7.36

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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

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OIL-BATH VACUUM PUMPS MV 40 and MV 40A





4.8

1000

Х





To calculate the emptying time of a volume V1, apply the formula $1 = \frac{1 \times V1}{100}$

- 8

10

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

40 30 20

300 200 100 Vacuum mbar

- V1 : Volume to be emptied
- t1 : Time to be calculated (sec)
- t : Time obtained in the table (sec)



Art.	Art.		40	MV 40A		
Frequency		50Hz	60Hz	50Hz	60Hz	
Capacity	m³/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	5	5	ō	
Rotation speed	rev/min ⁻¹	1450	1740	1450	1740	
Notor shape		B1	4	B1	4	
Motor size		90)	90)	
Noise level	dB(A)	66	68	66	68	
Max. weight	3~	45.0		45.0		
Kg						
)		30	0	30	0	
)		80		80		
		415		415		
:		13	133		3	
ł		25	0	25	0	
		21	0	21	0	
		90	.5	90	.5	
Λ		37	.5	37	.5	
l		18	8	18	8	
)		10	0	10	0	
		14	3	14	3	
	Ø gas	G1"	1/4	G1"1/4		
ccessories and spare parts						
)il load	1	2.0	00	2.0	00	
Synthetic oil	VT OIL	ISO	68	ISO 68		
eoiling cartridge	art.	00 MV	40 50	00 MV	40 50	
vanes	art.	00 MV	40 10	00 MV	40 10	
Sealing k <mark>it</mark>	art.	00 KIT	MV 40	00 KIT	MV 40	
Check va <mark>lve</mark>	art.	Built	t-in	Buil	i-in	
Suction <mark>filtre</mark>	art.	FC	35	FC	35	
Ballast v <mark>alve</mark>	art.	VZ	02	VZ	02	

7.38

3D drawings available at www.vuototecnica.net

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

cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

1п

OIL-BATH VACUUM PUMPS MV 60 and MV 60A











To calculate the emptying time of a volume V1, apply the formula $t_1 = \frac{1 \times V1}{100}$

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

V1: Volume to be emptied

t1 : Time to be calculated (sec) t : Time obtained in the table (sec)

3D





cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

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Art.		MV	60	MV	60	
Frequency		50Hz	60Hz	50Hz	60Hz	
Capacity	m³/h	60.0	72.0	60.0	72.0	
Final pressure	mbar abs.	40)	0.	7	
Notor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%	
Volt						
Notor power	3~	1.50	1.80	1.50	1.80	
Kw						
Notor protection	IP	55	i	55	ō	
otation speed	rev/min ⁻¹	1450	1740	1450	1740	
Notor shape		B14	4	B1	4	
Notor size		90	1	90)	
loise level	dB(A)	68	70	68	70	
lax. weight	3~	53.	53.0		53.0	
Kg						
		30	D	30	0	
)		14	140		140	
		41:	415		415	
		13	3	13	3	
		25	D	25	0	
		21	D	21	0	
		123	3	12	3	
1		97		97	7	
		18	8	18	8	
1		10	0	10	0	
		143	3	14	3	
	Ø gas	G1"1	/4	G1"1/4		
ccessories and spare parts						
il load	T I	2.0	0	2.0	00	
ynthetic oil	VT OIL	ISO	68	ISO 68		
eoiling cartridge	art.	00 MV	60 50	00 MV	60 50	
vanes	art.	00 MV	60 10	00 MV	60 10	
Sealing <mark>kit</mark>	art.	00 KIT N	/IV 60	00 KIT	MV 60	
Check valve	art.	Built	-in	Built	i-in	
Suction filtre	art.	FC 3	35	FC	35	
Ballast v <mark>alve</mark>	art.	VZ ()2	VZ	02	

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

7.40

3D drawings available at www.vuototecnica.net

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OIL-BATH VACUUM PUMPS MV 100 and MV 100A







120

106.4

93.1

79.8

66.5

53.2

39.9

26.6

13.3





7

3D drawings available at www.vuototecnica.net

To calculate the emptying time of a volume V1, apply the formula $t_1 = \frac{f_X V1}{100}$

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

Vacuum mbar

V1 : Volume to be emptied t1 : Time to be calculated (sec)

t: Time obtained in the table (sec)

7.41





Art.		MV 1	100	MV 1	00A
Frequency		50Hz	60Hz	50Hz	60Hz
Capacity	m³/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					
Notor power	3~	2.20	2.70	2.20	2.70
Kw					
Notor protection	IP	55	5	55	j
Rotation speed	rev/min-1	1450	1740	1450	1740
Notor shape		B1	B14		4
Motor size		10	0	10	0
Noise level	dB(A)	68	70	68	70
Max. weight	3~	80.	0	80.	0
Kg					
;		33	0	33	0
I		29	0	29	0
		27	5	27	5
		11	5	11	5
Λ		40)	40)
		24	0	24	0
		13	0	13	0
		18	0	180	
	Ø gas	G1"	1/4	G1"1/4	
ccessories and spare parts					
)il load		3.5	i0	3.5	0
Synthetic oil	VT OIL	ISO T	100	ISO 100	
deoiling cartridges	art.	00 MV 1	00 06	00 MV 1	00 06
vanes	art.	00 MV 1	00 10	00 MV 1	00 10
ealing kit	art.	00 KIT N	/W 100	00 KIT N	IV 100
heck valve	art.	Built	-in	Built	-in
Suction filtre	art.	FC	35	FC	35
Ballast valve	art.	V7 I	12	V7 (12

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

7.42

3D drawings available at www.vuototecnica.net

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cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

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











To calculate the emptying time of a volume V1, apply the formula $11 = \frac{1 \times V1}{100}$

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

X

- V1 : Volume to be emptied
- t1 : Time to be calculated (sec)
- t : Time obtained in the table (sec)

7.43

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



Art.		MV 160R		MV 160RA		
Frequency		50Hz	60Hz	50Hz	60Hz	
Capacity	m³/h	150	180	150	180	
Final pressure	mbar abs.	1()	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	ō	5	5	
Rotation speed	rev/min ⁻¹	1500	1800	1500	1800	
Motor shape		B	5	В	5	
Motor size		10	0	10	0	
Noise level	dB(A)	71	72	71	72	
Max. weight	3~	104	110	104	110	
Kg						
Α		217	226	217	226	
L		805	814	805	814	
Accessories and spare parts						
Oil load		3.0		3.	0	
Synthetic oil	VT OIL	ISO	100	ISO 100		
2 deoiling cartridges	art.	00 MV 1	60R 06	00 MV 160R 06		
3 vanes	art.	00 MV 1	60R 10	00 MV 1	60R 10	
Sealing kit	art.	00 KIT N	IV 160R	00 KIT N	IV 160R	
Check valve	art.	Buil	t-in	Buil	t-in	
Oil filtre	art.	00 MV 1	60R 07	00 MV 1	60R 07	
Suction filtre	art.	FC	50	FC	50	
Ballast valve	art.	Buil	t-in	Buil	t-in	

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

7.44

3D drawings available at www.vuototecnica.net

X

cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

OIL-BATH VACUUM PUMPS MV 200R and MV 200RA







X





To calculate the emptying time of a volume V1, apply the formula $11 = \frac{1}{100}$

- 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
- V1: Volume to be emptied
- t1 : Time to be calculated (sec)
- t : Time obtained in the table (sec)



Art.		MV 2	200R	MV 200RA	
Frequency		50Hz	60Hz	50Hz	60Hz
Capacity	m³/h	205	245	205	245
Final pressure	mbar abs.	1	D	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	5	5	5	5
Rotation speed	rev/min-1	1500	1800	1500	1800
Motor shape		В	5	В	5
Motor size		11	2	1.	12
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		7.0		7	.0
Synthetic oil	VT OIL	ISO	100	ISO 100	
2 deoiling cartridges	art.	00 MV 2	200R 50	00 MV 200R 50	
3 vanes	art.	00 MV 2	200R 10	00 MV 2	200R 10
Sealing kit	art.	00 KIT N	IV 200R	00 KIT N	/IV 200R
Check valve	art.	Buil	t-in	Bui	lt-in
Oil filtre	art.	00 MV 2	200R 07	00 MV 2	200R 07
Suction filtre	art.	FC	60	FC	60
Ballast valve	art	Buil	t-in	Bui	t-in

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

7.46

3D drawings available at www.vuototecnica.net

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cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

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







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To calculate the emptying time of a volume V1, apply the formula $t_1 = \frac{1}{100}$

- 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
- V1 : Volume to be emptied
- t1 : Time to be calculated (sec)
- t : Time obtained in the table (sec)

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



Art.		MV 3	00R	MV300RA	
Frequency		50Hz	60Hz	50Hz	60Hz
Capacity	m³/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	5	ō	5	5
Rotation speed	rev/min-1	1500	1800	1500	1800
Motor shape		B	5	В	5
Motor size		11	2	11	2
Noise level	dB(A)	71	73	71	73
Max. weight	3~	188	192	188	192
Kg					
A		25	7	29)7
L		97	9	10	19
Accessories and spare parts					
Oil load		7.0		7.	0
Synthetic oil	VT OIL	ISO -	100	ISO 100	
3 deoiling cartridges	art.	00 MV 3	00R 50	00 MV 300R 50	
3 vanes	art.	00 MV 3	00R 10	00 MV 3	00R 10
Sealing kit	art.	00 KIT N	IV 300R	00 KIT N	IV 300R
Check valve	art.	Buil	t-in	Buil	t-in
Oil filtre	art.	00 MV 3	00R 07	00 MV 3	00R 07
Suction filtre	art.	FC	60	FC	60
Ballast valve	art	Built	t-in	Buil	t-in

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

7.48

3D drawings available at www.vuototecnica.net

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cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

LUBRICATED VACUUM PUMP ACCESSORIES AND SPARE PARTS

	Art.	Quantity	For pump art.
Fibre vanes	00 VIL 02 10	4	VIL 2
	00 VIL 04 10	4	VIL 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
\cap	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 VTI 06	1	VIL 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 1608	1	MV 160R
		1	MV 200R
			MV 200N
	UU NII IWIY JUUN	1	

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 02 10	1	VTL 10
	10 03 10	I	VILIO
			VIL 10/F
			VTL 15/F
			VTL 20/F
	10 04 10	1	VTL 25/EG
A		·	VTL 30/FG
			VIL 35/FG
	10 05 10	1	VTL 40/G1
			VTL 50/G1
			VTL 65/G1
	10.06.10	1	VTL 75/G1
		·	VTL 00/G1
	40.07.40	_	
	10 07 10	I	VIL 105/GI
o 11 m	50.5		
Suction filtres	FB 5	1	VTL 2
	FB 10	1	VTL 4
			VTL 5
			VTL 6 CC
	ED 00	1	VTL 10
	FB 20	I	VILIO
			VIL 10/F
(Me)			VTL 15/F
			VTL 20/F
	FB 25	1	VTL 25/EG
	1020		VTL 20/FC
			VIL SU/FG
			VIL 35/FG
	FB 30	1	VTL 40/G1
			VTL 50/G1
all have been a			VTL 65/G1
	EB 40	1	VTL 75/G1
	1040	I	
			VIL 90/G1
	FB 50	1	VTL 105/G1
B	FC 10	1	VTL 4
			VTL 5
	50.00	4	
	FC 20	I	VIL IU
and the			VTL 10/F
			VTL 15/F
			VTL 20/F
			MV 20
			N/ 20
			IVIV ZUA
	FC 25	1	VIL 25/FG
			VTL 30/FG
			VTL 35/FG
	FC: 30	1	VTI 40/G1
	. 3 00		VTL 50/G1
			VIL 65/G1
	FC 35	1	MV 40
			MV 40A
			MV 60
			MV 60A
			IVIV ODA
			MV TOO
			MV 100A
	FC 40	1	VTL 75/G1
			VTL 90/G1
		1	
	10.00	I	
			MV 160R
			MV 160RA
	EC 60	1	MV 160RA MV 200R
	FC 60	1	MV 160RA MV 200R MV 200RA
	FC 60	1	MV 160RA MV 200R MV 200RA
	FC 60	1	MV 160RA MV 200R MV 200RA MV 300R

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3D drawings available at www.vuototecnica.net 7.50

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LUBRICATED VACUUM PUMP

NRC NRC VIL - All 00 VTL 00 11 VTL - All VTL - All 00 LP VTL 99 VTLP - All 00 LP VTL 40 VTLP - All 00 MV 160R 07 MV 160R 00 MV 200R 07 MV 200R 00 MV 200R 07 MV 200R 00 VTL 7561 29 1 00 VTL 9061 29 1 00 VTL 0561 29 1 00 MV 200A MV 20A 00 MV 40 50 1 00 MV 60 50 1 00 MV 60 50 1 00 MV 100 06 2 00 MV 100 06 2 00 MV 200R 50 3 01 MV 200A 02 MV 200R 50 3 02 MV 200R 50 3 03 MV 200R MV 40A
VTLP - All 00 LP VTL 99 VTLP - All 00 LP VTL 40 VTLP - All 00 MV 150R 07 MV 160R 00 MV 200R 07 MV 200R 00 VTL 7561 29 1 00 VTL 7561 29 1 00 VTL 0567 29 1 00 MV 200R 07 MV 200R 00 VTL 7561 29 1 00 MV 2011 1 00 MV 2011 1 00 MV 40 50 1 00 MV 40 50 1 00 MV 100 06 2 00 MV 100 06 2 00 MV 100 06 2 00 MV 200R 50 3 00 MV 300R 50 3 02 MV 200R 3 00 MV 300R 50 3 01 MV 200A MV 20A 00 MV 300R 50 3 00 MV 300R 50 3 00 MV 300R 50 3 01 MV 40A MV 40A MV 40A MV 40A MV 40A MV 40A <td< td=""></td<>
00 LP VTL 99 VTLP - All 00 LP VTL 40 VTLP - All 00 MV 100R 07 MV 100R 00 MV 200R 07 MV 200R 00 MV 200R 07 MV 200R 00 VTL 75G1 29 1 VTL 75/G1 00 VTL 905(129 1 VTL 90/G1 00 VTL 105(61 29 1 VTL 05/G1 00 MV 20 11 1 MV 20A 00 MV 40 50 1 MV 40A 00 MV 40 50 1 MV 60A 00 MV 40 50 1 MV 60A 00 MV 100 06 2 MV 100A 00 MV 100 06 2 MV 100A 00 MV 200R 50 3 MV 300R 00 MV 200R 50 3 MV 300R VZ 01 1 MV 20 VZ 02 1 MV 40A MV 300R 50 3 MV 300R VZ 02 1 MV 40A MV 60 MV 300R MV 300R MV 60 MV 300R MV 300R MV 60 MV 300R MV 300R MV 60 MV 40A MV 60 MV 60 MV 40A </td
00 LP VTL 99 VTLP - All 00 LP VTL 40 VTLP - All 00 MV 160R 07 MV 160R 00 MV 200R 07 MV 200R 00 MV 300R 07 MV 200R 00 VTL 75G1 29 1 00 VTL 90G1 29 1 00 VTL 105G1 29 1 00 MV 2011 1 00 MV 60 50 1 00 MV 60 50 1 00 MV 60 50 1 00 MV 100 06 2 00 MV 200R 50 2 00 MV 200R 50 3 00 MV 300R 50 3 VZ 01 1 VZ 02 1 MV 200A MV 300R 50 3 MV 201 1 MV 201 MV 201 MV 201 MV 200R 50 MV 201 MV 200R 50 MV 201 MV 201 MV 202 MV 203 MV 204 MV 205 <
00 LP VTL 40 VTLP - All 00 MV 160R 07 MV 160R 00 MV 300R 07 MV 200R 00 VTL 75G1 29 1 VTL 75/G1 00 VTL 90G1 29 1 VTL 90/G1 00 VTL 105G1 29 1 VTL 90/G1 00 MV 40 50 1 MV 40 00 MV 40 50 1 MV 40 00 MV 100 06 2 MV 100 A 00 MV 100 06 2 MV 100A 00 MV 2007 50 2 MV 200R 00 MV 300R 50 3 MV 300R VZ 01 1 MV 20 VZ 02 1 MV 40A MV 300R 50 3 MV 300R VZ 01 1 MV 20 MV 202 1 MV 40A MV 40A MV 40A MV 40A MV 300R 50 3 MV 300RA VZ 02 1 MV 40A MV 60A MV 40A MV 40A MV 60A MV 40A MV 40A MV 300R 50 3 MV 300RA MV 60A MV 40A MV 40A MV 60A
00 LP VTL 40 VTLP - All 00 MV 160R 07 MV 160R 00 MV 200R 07 MV 200R 00 MV 300R 07 MV 300R 00 VTL 75G1 29 1 VTL 75/G1 00 VTL 90G1 29 1 VTL 90/G1 00 MV 20 NT 005G1 29 1 VTL 105/G1 00 MV 20 11 MV 20 00 MV 40 50 1 MV 40 00 MV 60 50 1 MV 60 00 MV 100 06 2 MV 100A 00 MV 100 06 2 MV 160R 00 MV 200R 50 3 MV 200R 00 MV 200R 50 3 MV 200R 00 MV 200R 50 3 MV 300R VZ 01 1 MV 20 VZ 02 1 MV 40A VZ 04 MV 40A MV 40A VZ 05 1 MV 40A VZ 06 MV 40A MV 40A MV 60 MV 60 MV 60 MV 60 MV 40A MV 40A
00 MV 200R 07 MV 200R 00 MV 300R 07 MV 200R 00 VTL 75G1 29 1 VTL 75/G1 00 VTL 90G1 29 1 VTL 90/G1 00 MV 2011 1 MV 20A 00 MV 40 50 1 MV 40A 00 MV 60 50 1 MV 60 00 MV 100 06 2 MV 10A 00 MV 100 06 2 MV 10A 00 MV 200R 50 3 MV 60R 00 MV 200R 50 3 MV 20A 00 MV 200R 50 1 MV 60R 00 MV 200R 50 1 MV 20A 00 MV 200R 50 1 MV 200R 00 MV 200R 50 3 MV 300R VZ 01 1 MV 20A VZ 02 1 MV 40A VZ 02 1 MV 40A MV 60 MV 60 MV 60 MV 60A MV 100A MV 40A VZ 02 1 MV 40A MV 100A MV 40A MV 40A VZ 02 1 MV40 MV 40A MV 40A MV 40A MV 40A
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00 VIL 103G1 29 1 VIL 103G1 00 MV 20 11 1 MV 20 00 MV 40 50 1 MV 40 00 MV 60 50 1 MV 60 00 MV 100 06 2 MV 100 00 MV 100 06 2 MV 100A 00 MV 200R 50 2 MV 200R 00 MV 300R 50 3 MV 200R VZ 01 1 MV 20 VZ 02 1 MV40 MV 40A MV 40A MV 60 MV 40A MV 40A MV 40A MV 40A MV 40A MV 40A MV 40A MV 40A MV 40A MV 60 MV 40A MV 100 MV 40A MV 100 MV 40A
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NV 40A NV 60 50 1 MV 60 MV 60 A 00 MV 100 06 2 MV 100 MV 200 R MV 200 R 00 MV 200R 50 2 MV 200 R MV 200 R MV 200 R 00 MV 300R 50 3 MV 300 R MV 300 R VZ 01 1 MV 20 MV 200 MV 200 R VZ 02 1 MV 40 MV 20 MV 200 R VZ 02 1 MV 40 MV 20 MV 200 R VZ 02 1 MV 40 MV 20 MV 20 MV 200 R VZ 02 1 MV 40 MV
00 MV 60 50 1 MV 60 00 MV 100 06 2 MV 100 00 MV 160R 06 2 MV 160R 00 MV 200R 50 2 MV 200R 00 MV 300R 50 3 MV 300R VZ 01 1 MV 20 VZ 02 1 MV 40 MV 40A MV 40A MV 60 MV 60A MV 100 MV 100
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00 MV 160R 06 2 MV 160R MV 160R MV 160RA 00 MV 200R 50 2 MV 200R MV 200R MV 200RA 00 MV 300R 50 3 MV 300R MV 300R MV 300R VZ 01 1 MV 20 MV 20A VZ 02 1 MV 40A MV 40A MV 60 MV 60A MV 100 MV 100A IS0 32 - 68 - 100 - 150 - 220 Packages of I 2 - 5 - 10
NV 160RA 00 MV 200R 50 2 MV 200R 00 MV 300R 50 3 MV 300R VZ 01 1 MV 20 VZ 02 1 MV 20A VZ 02 1 MV 40A MV 60 MV 60A MV 100 MV 100A IS0 32 - 68 - 100 - 150 - 220 Packages of I 2 - 5 - 10
00 MV 200R 50 2 MV 200R 00 MV 300R 50 3 MV 300R VZ 01 1 MV 20 VZ 02 1 MV 40 VZ 02 1 MV 40A MV 60 MV 60A MV 100 MV 100A ISO 32 - 68 - 100 - 150 - 220 Packages of I 2 - 5 - 10
00 MV 300R 50 3 MV 300R VZ 01 1 MV 20 VZ 02 1 MV40 VZ 02 1 MV40 MV 40A MV 60 MV 60 MV 100 MV 100A MV 100A ISO 32 - 68 - 100 - 150 - 220 Packages of I 2 - 5 - 10
VZ 01 1 MV 20 VZ 02 1 MV 40A VZ 02 1 MV 40A MV 60 MV 60A MV 100 MV 100A ISO 32 - 68 - 100 - 150 - 220 Packages of I 2 - 5 - 10
VZ 01 1 MV 20 VZ 02 1 MV40 VZ 02 1 MV40 MV 40A MV 60 MV 60A MV 100 MV 100A MV 100A
VZ 02 1 MV 20A VZ 02 1 MV 40A MV 40A MV 60 MV 60A MV 100 MV 100A MV 100A ISO 32 - 68 - 100 - 150 - 220 Packages of I 2 - 5 - 10
VZ 02 1 MV40 MV 40A MV 60 MV 60A MV 100 MV 100A ISO 32 - 68 - 100 - 150 - 220 Packages of 2 - 5 - 10
ISO 32 - 68 - 100 - 150 - 220 ISO 32 - 68 - 100 - 150 - 220
MV 60A MV 100 MV 100A ISO 32 - 68 - 100 - 150 - 220 Packages of I 2 - 5 - 10
MV 100 MV 100A ISO 32 - 68 - 100 - 150 - 220 Packages of I 2 - 5 - 10
MV 100A ISO 32 - 68 - 100 - 150 - 220 Packages of I 2 - 5 - 10
ISO 32 - 68 - 100 - 150 - 220 Packages of I 2 - 5 - 10
VT OIL 32 - 68 - 100 Packages of I 2 - 5 - 10
VT OIL FI 68 - 100 Packages of I 2 - 5 - 10
VT 0IL 32 - 68 - 100 VT 0IL FI 68 - 100

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7.51

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 V1, apply the formula $t_{1} = \frac{t \times V1}{100}$

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

- V1 : Volume to be emptied
- t1 : Time to be calculated (sec)
- t : Time obtained in the table (sec)



7.52







Art.		VTS	2	VTS	64	
Frequency		50Hz	60Hz	50Hz	60Hz	
Capacity	m³/h	2.0	2.4	4.0	4.8	
Final pressure	mbar abs.	15	0	15	0	
Motor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%	
Volt	1~	230±	10%	230±	10%	
Notor power	3~	0.13	0.15	0.15	0.18	
Kw	1~	0.13	0.15	0.15	0.18	
Notor protection	IP	54	1	54	1	
Rotation speed	rev/min ⁻¹	2800	3300	2800	3300	
Notor shape		Spec	cial	Special		
Notor size		56	5	63		
loise level	dB(A)	64	66	64	66	
Max. weight	3~	5.3		6.8		
Kg	1~	5.	5	7.0		
l		21	7	251		
3		180		186		
;		12	1	131		
)		66	3	78		
		71	71		81	
:		80)	92		
l		35 90		45 100		
		79	79		3	
A		11	I	13		
8	Ø gas	G1/	4"	G1/4"		
Accessories and spare parts						
l graphite vanes	art.	00 VTS	02 10	00 VTS	04 10	
Perforated graphite disc	art.	00 VTS	02 12	00 VTS	02 12	
lon-perforated graphite disc	art.	00 VTS	02 16	00 VTS	02 16	
Sealing kit	art.	00 KIT \	/TS 02	00 KIT 1	/TS 04	
Check valve	art.	10 01	I 15	10 0	1 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).

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cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

7.53

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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 V1, apply the formula $11 = \frac{1 \times V1}{100}$

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

- V1 : Volume to be emptied
- t1 : Time to be calculated (sec)
- t : Time obtained in the table (sec)





7.54





Art.		VTS 6 CC
Capacity	m³/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
Α		290
B		136
C		193
D		124
E		65 5
F		101
H		131
I		112
L		12
M		28
N		48 😐
R	Ø gas	G1/4"
Accessories and spare parts		ava
4 vanes	art.	00 VTS 06 CC 10 8
Sealing kit	art.	00 KIT VTS 06 CC
Check valve	art.	10 01 15
Suction filtre	art.	FB 5

7

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

X

cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

7.55

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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 V1, apply the formula $1 = \frac{1 \times V1}{100}$

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

- V1 : Volume to be emptied
- t1 : Time to be calculated (sec)
 - t : Time obtained in the table (sec)



3D drawings available at www.vuototecnica.net

7.56

X





Art.		VTS 6		VTS 10		
Frequency		50Hz	60Hz	50Hz	60Hz	
Capacity	m³/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±	0%	230±1	0%	
Notor power	3~	0.25	0.30	0.35	0.40	
Kw	1~	0.18	0.21	0.25	0.30	
Notor protection	IP	54		54		
lotation speed	rev/min ⁻¹	1450	1740	1450	1740	
Notor shape		Special		Special		
Notor size		71		71		
loise level	dB(A)	64	66	64	66	
Aax. weight	3~	11.8		15.0		
Kg	1~	12.0		15.2		
-		268		298		
1		210		180		
;		156		156		
)		55		55		
		155		155		
		58		88		
		43 115 82.5		53 115 52.5		
Λ		12.5		12.5		
l		68		13		
1	Ø gas	G1/4	1"	G3/8"		
ccessories and spare parts						
graphite vanes	art.	00 VTS	06 10	00 VTS 10 10		
ront graphite disc	art.	00 VTS	06 08	00 VTS 1	0 12	
lear graphite disc	art.	00 VTS	06 13	00 VTS 1	0 19	
Sealing kit	art.	00 KIT V	TS 06	00 KIT VI	S 10	
Check valve	art.	10 01	15	10 02	10	
Suction filtre	art.	FB	ō	FB 10/F	C 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 = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$

X

cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

7.57

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P

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 V1, apply the formula $t_{1=}\frac{t \times V1}{100}$

- 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
- V1 : Volume to be emptied
- t1 : Time to be calculated (sec)
- t : Time obtained in the table (sec)

7.58



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drawings available at



Art.		VTS 1	0/F	VTS 1	VTS 15/F		
Frequency		50Hz	60Hz	50Hz	60Hz		
Capacity	m³/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±1	0%	230±	0%		
Motor power	3~	0.55	0.66	0.55	0.66		
Kw	1~	0.55	0.66	0.55	0.66		
Notor protection	IP	54		54			
lotation speed	rev/min ⁻¹	1450	1740	1450	1740		
Notor shape		Speci	al	Spec	ial		
Notor size		80		80			
loise level	dB(A)	64	66	65	67		
/lax. weight	3~	22.7		24.	1		
Kg	1~	22.5	5	24.5			
		388		408			
}		260		260)		
;		187		18	7		
)		24		24			
		340		340			
:		24		44			
l		133		133			
		130		130 55			
		55					
Λ		75		75			
I		53		63			
2	Ø gas	G1/2	39	G1/2	2"		
Accessories and spare parts							
i graphite vanes	art.	00 VTS 1	0F 10	00 VTS 1	5F 10		
ront graphite disc	art.	00 VTS 1	0F 21	00 VTS 1	0F 21		
lear graphite disc	art.	00 VTS 1	0F 21	00 VTS 1	0F 21		
Sealing kit	art.	00 KIT VT	S 10F	00 KIT V	IS 15F		
Check valve	art.	10 03	10	10 03	10		
Suction filtre	art.	FB 20/F	C 20	FB 20/F	C 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).

X

C'

cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

7.59

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P





7.60

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Art.		VTS 2	0/F	VTS 25/F			
Frequency		50Hz	60Hz	50Hz	60Hz		
Capacity	m³/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±	0%	230±1	0%		
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		Spec	ial	Speci	al		
Motor size		80		80			
Noise level	dB(A)	65	67	65	67		
Max. weight	3~	27.	4	28.			
Kg	1~	27.	9	28.6			
A		428	}	428			
В		260)	260)		
C		18	7	187			
D		24		24			
E		34()	385			
F		64		19			
H		13	}	133			
l		130)	130			
L		55		55			
М		75		75			
N		73		73			
R	Ø gas	G1/2)" _	G3/4	11		
Accessories and spare parts	-						
6 graphite vanes	art.	00 VTS 2	OF 10	00 VTS 2	5F 10		
Front graphite disc	art.	00 VTS 1	0F 21	00 VTS 1	0F 21		
Rear graphite disc	art.	00 VTS 1	0F 21	00 VTS 1	0F 21		
Sealing kit	art.	00 KIT V	S 20F	00 KIT VTS 25F			
Check valve	art.	10 03	10	10 04	10		
Suction filtre	art.	FB 20/F	C 20	FB 25/F	C 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 = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$

X

cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

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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 V1, apply the formula $11 = \frac{1 \times V1}{100}$

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

V1 : Volume to be emptied

t1 : Time to be calculated (sec)

t: Time obtained in the table (sec)



X





Art.		VTS	10/FG	VTS 1	5/FG	VTS	20/FG
Frequency		50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
Capacity	m³/h	10.0	12.0	15.0	18.0	20.0	24.0
Final pressure	mbar abs.		80	8	C	8	30
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	5	4	Ę	54
Rotation speed	rev/min ⁻¹	1450	1740	1450	1740	1450	1740
Motor shape		E	314	B1	4	В	14
Motor size			80	8	C	8	30
Noise level	dB(A)	64	66	65	67	65	67
Max. weight	3~	2	22.0	24.0		27.3	
Kg	1~	2	22.4	24.4		27.8	
Α		4	430	450		470	
В		2	265	265		2	65
C		-	170	17	0	170	
D			65	65		65	
E			340	340		340	
F			25	45		65	
H		-	133	133		133	
L			130	13	0	1	30
L			55	5	5	Ę	55
М			80	8	D	8	30
N			73	8	3	9	03
R	Ø gas	G	1/2"	G1/	(2"	G	/2"
Accessories and spare parts							
6 graphite vanes	art.	00 VTS	5 10FG 10	00 VTS 1	5FG 10	00 VTS	20FG 10
Front graphite disc	art.	00 VTS 10FG 17		00 VTS 1	00 VTS 15FG 17		20FG 17
Rear graphite disc	art.	00 VTS	5 10FG 26	00 VTS 15FG 26		00 VTS	20FG 26
Sealing kit	art.	00 KIT	VTS 10FG	00 KIT V	IS 15FG	00 KIT \	TS 20FG
Check valve	art.	10	03 10	10 0	3 10	<u>10 0</u> 3 10	
Suction filtre	art.	FB 2	0/FC 20	FB 20/	FC 20	FB 20	/FC 20

cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

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).

3D drawings available at www.vuototecnica.net

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

X















To calculate the emptying time of a volume V1, apply the formula $t1 = \frac{t \times V_1}{100}$

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

- V1 : Volume to be emptied
- t1 : Time to be calculated (sec)
 - t : Time obtained in the table (sec)





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Art.		VTS	25/FG	VTS 3	0/FG	VTS 35/FG		
Frequency		50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	
Capacity	m³/h	25.0	30.0	30.0	36.0	35.0	42.0	
Final pressure	mbar abs.		80	8	C	8	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	4	5	54	
Rotation speed	rev/min ⁻¹	1450	1740	1450	1740	1450	1740	
Motor shape		E	314	B1	4	B	14	
Motor size			80	8	C	8	30	
Noise level	dB(A)	66	68	68	70	70	72	
Max. weight	3~	2	.8.0	32	.0	34	4.0	
Kg								
A		4	170	49	0	510		
B		2	265	26	265		65	
C		1	70	17	0	170		
D			65	6	5	65		
E		3	385	38	5	385		
F			20	40	C	60		
H		1	33	13	3	133		
I		1	30	13	0	1:	30	
L			55	5	5	5	55	
M			80	8	D	8	30	
N			73	8	3	g)3	
R	Ø gas	G	3/4"	G3/	′4"	G3	8/4"	
Accessories and spare parts								
6 graphite vanes	art.	00 VTS	25FG 10	00 VTS 3	80FG 10	00 VTS	35FG 10	
Front graphite disc	art.	00 VTS	25FG 17	00 VTS 3	80FG 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 VT <mark>S</mark> 30FG		00 KIT VTS 35FG		
Check valve	art.	10	04 10	10 0	4 10	10 0	4 10	
Suction filtre	art.	FB 2	5/FC 25	FB 25/	FC 25	FB 25	/FC 25	

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

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cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6

DRY VACUUM PUMP ACCESSORIES AND SPARE PARTS

	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 20E 10	ĥ	VTS 20/E
	00 VTS 25F 10	6	VTS 25/F
		6	VTS 10/EG
		6	VTS 10/10
	00 VTS 15FG 10	0	VTS 15/FG
	00 VIS 20FG 10	6	VIS 20/FG
	00 VIS 25FG 10	6	VIS 25/FG
	00 VTS 30FG 10	6	VTS 30/FG
	00 VTS 35FG 10	6	VTS 35/FG
Perforated graphite		1	
diso	00 110 02 12	1	VTS 4
uisc			V13 4
		4	
Non-perforated	00 VIS 02 16	I	VIS 2
graphite disc			VIS 4
Front granhite		1	VILS 6
dies		1	VIG 0
uisc	00 VTS 10 12	1	V13 10
	00 VIS 10F 21	I	VIS IU/F
			VIS 15/F
			VIS 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	00 VTS 06 13	1	VTS 6
disc	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 25EG 26	1	VTS 25/FG
		1	
		1	
	UU VIO JOFU Z/	I	VIS 30/FG
Sealing kits	00 KIT VTS 02	1	VTS 2
	00 KIT VTS 04	1	VTS 4
0		1	
		1	
		1	
	UU KII VIS IU	I	V15 IU

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DRY VACUUM PUMP ACCESSORIES AND SPARE PARTS

	AIL	Quantity	
	00 KIT VTS 10F	1	VTS 10/F
		1	VIS 15/F
		1	VIS 20/F
		1	VIS 23/F
		1	VTS 10/FG
		1	VTS 15/10
	00 KIT VTS 25EG	1	VTS 20/10
		1	VTS 20/FG
	00 KIT VTS 35FG	1	VTS 35/FG
Check values	10.01.15	1	
UNDER FUTUES	10 01 10	1	VTS A
			VTS 6 CC
			VTS 6
	10.02.10	1	VTS 10
	10.03.10	1	VTS 10/F
		1	VTS 15/F
A			VTS 20/F
aller			
			VIS 15/FG
	10.04.10	4	VTS 20/FG
	10 04 10		VIS 25/F
			VIS 20/FG
			VTS 35/FG
Quelies filmer		4	
Suction mitres	LR D	Ι	V15 Z
			V13 4 VTS 6 CC
	ED 10	-	
	FB 10	1	VIS 10/F
	FB 20		VIS 10/F
			VIS 15/F
			VIS 20/F
			VIS 10/FG
			VIS 15/FG
		-	VTS 20/FG
	FB 20	Ι	VIS 25/F
			VIS 20/FG
			VTS 30/FG
	FC 10	-	VTS 35/FG
	FC 10 FC 20	1	VIS 10/E
(Section of the sect	1620	Ι	VTS 16/E
- March			VIS 15/F
			VTS 20/1
and the			
	EC 25	1	VTG 20/FG
	1020	I I	VIO ZU/F
			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.



3D drawings available at www.vuototecnica.net

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Art	Tank	Pump	Motor	Switchgear	C	D	E	F	Н	Weight	Filtre
ALC.			execution								accessories
	Litres	Mod.	Volt	art.						Kg	art.
00 06 VTS 2	6	VTS 2	3 ~ 230/400-50Hz	D0 06 92	60	220	135	181	230	14.8	FB 10 / FC 10
00 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
)0 06 VTS 4	6	VTS 4	3 ~ 230/400-50Hz	D0 06 92	60	253	135	191	230	16.3	FB 10 / FC 10
)0 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
00 06 VTS 6	6	VTS 6	3 ~ 230/400-50Hz	D0 06 92	60	270	135	216	230	21.3	FB 10 / FC 10
00 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
00 06 VTS 6 CC	6	VTS 6 CC	= 24-CC	D0 06 93	60	290	135	253	230	18.8	FB 10 / FC 10
00 10 VTS 2	10	VTS 2	3 ~ 230/400-50Hz	D0 06 92	100	220	175	221	270	19.0	FB 10 / FC 10
00 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
00 10 VTS 4	10	VTS 4	3 ~ 230/400-50Hz	D0 06 92	100	253	175	231	270	20.5	FB 10 / FC 10
00 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
00 10 VTS 6	10	VTS 6	3 ~ 230/400-50Hz	D0 06 92	100	270	175	256	270	25.5	FB 10 / FC 10
DO 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
DO 10 VTS 6 CC	10	VTS 6 CC	= 24-CC	D0 06 93	100	290	175	293	270	21.2	FB 10 / FC 10

GAS-NPT thread adapters available at page 1.117

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

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	Δrt	Tank	Pump	Motor	Switchgear	C	D	E	F	Н	Weight	Filtre
	Alt			execution								accessories
		Litres	Mod.	Volt	art.						Kg	art.
net	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
ca.	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
cui	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
ote	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
loti	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
1.	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
M	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
t w												
le a	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
lab	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
avai	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
gs g	D0 10 VT <mark>L 4 M</mark>	10	VTL 4 M	1 ~ 230-50Hz	D0 06 90	100	330	175	238	270	21.2	FB 10 / FC 10
ving	D0 10 VT <mark>L 5</mark>	10	VTL 5	3 ~ 230/400-50Hz	D0 06 92	100	260	175	350	270	28.2	FB 10 / FC 10
drav	D0 10 VT <mark>L 5 M</mark>	10	VTL 5 M	1 ~ 2 <mark>3</mark> 0-50Hz	D0 06 90	100	260	175	350	270	28.7	FB 10 / FC 10
3D (DO 10 VT <mark>L 6 CC</mark>	10	VTL 6 CC	= 2 4 -CC	D0 06 93	100	290	175	260	270	24.0	FB 10 / FC 10

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F

С

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	Switchgear	D	F	Н	Weight	Filtre
Alt			execution						accessories
	Litres	Mod.	Volt	art.				Kg	art.
DO 20 VTL 5	20	VTL 5	3 ~ 230/400-50Hz	D0 06 92	320	345	270	38.5	FB 20 / FC 20
D0 20 VTL 5 M	20	VTL 5 M	1 ~ 230/50Hz	D0 06 90	320	345	270	39.0	FB 20 / FC 20
DO 20 VTL 6 CC	20	VTL 6 CC	= 24-CC	D0 06 93	400	295	270	34.3	FB 20 / FC 20
DO 20 VTL 10	20	VTL 10	3 ~ 230/400-50Hz	D0 06 92	352	345	270	44.5	FB 20 / FC 20
DO 20 VTL 10 M	20	VTL 10 M	1 ~ 230-50Hz	D0 06 90	352	345	270	45.0	FB 20 / FC 20
D0 20 VTL 10/F	20	VTL 10/F	3 ~ 230/400-50Hz	D0 06 92	390	360	270	49.0	FB 20 / FC 20
D0 20 VTL 10/F M	20	VTL 10/F M	1 ~ 230-50Hz	D0 06 90	390	360	270	49.5	FB 20 / FC 20
D0 20 VTL 15/F	20	VTL 15/F	3 ~ 230/400-50Hz	D0 06 92	410	360	270	51.0	FB 20 / FC 20
D0 20 VTL 15/F M	20	VTL 15/F M	3 ~ 230/400-50Hz	D0 06 90	410	360	270	51.5	FB 20 / FC 20
D0 20 VTL 20/F	20	VTL 20/F	3 ~ 230/400-50Hz	D0 06 92	430	360	270	54.0	FB 20 / FC 20
D0 20 VTL 20/F M	20	VTL 20/F M	1 ~ 230-50Hz	D0 06 90	430	360	270	54.5	FB 20 / FC 20
DO 20 MV 20	20	MV 20	3 ~ 230/400-50Hz	D0 06 92	430	315	270	45.5	FB 20 / FC 20
DO 20 MV 20 M	20	MV 20 M	1 ~ 230-50Hz	D0 06 90	430	315	270	46.0	FB 20 / FC 20

GAS-NPT thread adapters available at page 1.117

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

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3D

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.





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HORIZONTAL PUMPSETS D0 25 ...



Art.	Tank	Pump	Motor	Switchgear	С	Н	R	Weight	Filtre
			execution						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).



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

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

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GAS-NPT thread adapters available at page 1.117

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HORIZONTAL PUMPSETS DO 100 ...



Note: By adding the letters SR, the pumpset will be supplied with wheels (E.g.: D0 100 VTL 15/F S)

HORIZONTAL PUMPSETS DO 150 ...



Note: By adding the letters SR, the pumpset will be supplied with wheels (E.g.: D0 150 VTL 30/FG SR). As a standard, all MV... pumps are equipped with an FC... filtre adjusted to the suction connection size.

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3D





D0 100 90

DO 100 90

1080

988

940

940

G1"1/2

G1"1/2

181.7

186.3

FB 50 / FC 50

FB 50 / FC 50

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

3 ~ 230/400-50Hz

3 ~ 230/400-50Hz

VTL 105/G1

MV 160R

DO 300 VTL 105/G1

DO 300 MV 160R

300

300



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

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GAS-NPT thread adapters available at page 1.117

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HORIZONTAL PUMPSETS DO 1000 ...





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Art.		Tank	Pump	Motor	Switchgear	C	Н	R	Weight	Filtre
74.4				execution						accessories
		Litres	Mod.	Volt	art.			Ø	Kg	art.
D0 100	0 <mark>mv 200</mark> r	1000	MV 200R	<mark>3</mark> ~ 230/400-50Hz	D0 100 91	1541	1250	G3"	405	FC 80
D0 100	0 <mark>MV 300</mark> r	1000	MV 300R	<mark>3</mark> ~ 400/690-50Hz	D0 100 91	1541	1250	G3"	432	FC 80

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

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

7.76



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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 24/7. 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	z pumps	WOLDI	ownengea	0	L		worgin	necommenaca
			execution						accessories
	Litres	Mod.	Volt	art.			Ø	Kg	art.
DS0 300 MV 40	300	MV 40	3 ~ 230/400-50Hz	DS0 300 90	940	1480	G1"1/2	196.8	FB 50 / FC 50
DS0 300 VTL 50/G1	300	VTL 50/G1	3 ~ 230/400-50Hz	DS0 300 90	990	1480	G1"1/2	214.8	FB 50 / FC 50
DSO 300 MV 60	300	MV 60	3 ~ 230/400-50Hz	DS0 300 90	940	1480	G1"1/2	212.8	FB 50 / FC 50
DS0 300 VTL 75/G1	300	VTL 75/G1	3 ~ 230/400-50Hz	DS0 300 90	1040	1480	G1"1/2	259.8	FB 50 / FC 50
DS0 300 MV 100	300	MV 100	3 ~ 230/400-50Hz	DS0 300 90	970	1480	G1"1/2	266.8	FB 50 / FC 50
DS0 300 VTL 105/G1	300	VTL 105/G1	3 ~ 230/400-50Hz	DS0 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	С	L	R	Weight	Filtre accessories
		Litres	Mod.	Volt	art.			Ø	Kg	art.
DS0 5	00 VTL 50/G1	500	VTL 50/G1	3 ~ 230/400-50Hz	DS0 300 90	1090	1510	G2"	287.8	FB 60 / FC 60
DS0 5	DO MV 60	500	MV 60	3 ~ 230/400-50Hz	DS0 300 90	1030	1510	G2"	285.8	FB 60 / FC 60
DS0 5	00 <mark>VTL 75/</mark> G1	500	VTL 75/G1	3 ~ 230/400-50Hz	DS0 300 90	1140	1510	G2"	332.8	FB 60 / FC 60
DS0 5	00 <mark>MV 100</mark>	500	MV 100	3 ~ 230/400-50Hz	DS0 300 90	1060	1510	G2"	339.8	FB 60 / FC 60
DS0 50	00 <mark>VTL 105</mark> /G1	500	VTL 105/G1	<mark>3</mark> ~ 230/400-50Hz	DS0 300 90	1180	1510	G2"	375.0	FB 60 / FC 60
DS0 50	00 <mark>mv 160</mark> r	500	MV 160R	<mark>3</mark> ~ 230/400-50Hz	DS0 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.

7.78

3D drawings available at www.vuototecnica.net

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

HORIZONTAL SAFETY PUMPSETS DS0 1000 ...





126	775	5	•		2	2350			Art. 13 03 11
Art.	Tank	2 pumps	Motor	Switchgear	C	L	R	Weight	Filtre
			execution						accessories
	Litres	Mod.	Volt	art.			Ø	Kg	art.
SO 1000 MV 60	1000	MV 60	3 ~ 230/400-50Hz	DS0 300 90	1280	1730	G3"	342.8	FC 80
0 1000 VTL 75/G1	1000	VTL 75/G1	3 ~ 230/400-50Hz	DS0 300 90	1380	1730	G3"	389.2	FC 80
60 1000 MV 100	1000	MV 100	3 ~ 230/400-50Hz	DS0 300 90	1310	1730	G3"	396.8	FC 80
60 1000 VTL 105/G1	1000	VTL 105/G1	3 ~ 230/400-50Hz	DS0 300 90	1430	1730	G3"	432.0	FC 80
60 1000 MV 160R	1000	MV 160R	3 ~ 230/400-50Hz	DS0 300 90	1328	1730	G3"	452.0	FC 80
SO 1000 MV 200R	1000	MV 200R	3 ~ 230/400-50Hz	DS0 300 91	1421	1730	G3"	570.2	FC 80
SO 1000 MV 300B	1000	MV 300R	3 ~ 400/690-50Hz	DS0 300 91	1421	1730	G3"	624.2	FC 80

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

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GAS-NPT thread adapters available at page 1.117

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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 ...



Δrt	Tank	Pump	Motor	Switchgear	C	Н	R	Weight	Filtre
Alta			execution						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



	2		300) 1400		Cock for condens drainage	r sation e Art. 13 05 10	450 650	₩ ¹⁵⁰	
Art.	Tank	Pump	Motor	Switchgear	C	Н	R	Weight	Filtre
			execution						accessories
	Litres	Mod.	Volt	art.			Ø	Kg	art.
V 300 MV 40	300	MV 40	3 ~ 230/400-50Hz	D0 100 90	810	1890	G2"	147	FB 60 / FC 60
V 300 VTL 50/G1	300	VTL 50/G1	3 ~ 230/400-50Hz	D0 100 90	805	1890	G2"	156	FB 60 / FC 60
V 300 MV 60	300	MV 60	3 ~ 230/400-50Hz	D0 100 90	810	1890	G2"	155	FB 60 / FC 60
V 300 VTL 75/G1	300	VTL 75/G1	3 ~ 230/400-50Hz	D0 100 90	855	1890	G2"	178	FB 60 / FC 60
V 300 MV 100	300	MV 100	3 ~ 230/400-50Hz	D0 100 90	840	1890	G2"	182	FB 60 / FC 60
V 300 VTL 105/G1	300	VTL 105/G1	3 ~ 230/400-50Hz	D0 100 90	900	1890	G2"	199	FB 60 / FC 60
OV 300 MV 160R	300	MV 160R	3 ~ 230/400-50Hz	D0 100 90	858	1890	G2"	206	FB 60 / FC 60

GAS-NPT thread adapters available at page 1.117

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

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VERTICAL PUMPSETS DV 500 ...





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

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

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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 24/7. 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					-				
Alti			execution						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	DSO 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



drawings available at www.vuototecnica.net

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Mod. Litres Volt Ø art. 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 DSO 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.

7.84



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

VERTICAL SAFETY PUMPSETS DSV 500 ...

Ø800





pump exclusion Vacuum switches 811 Ĵ Vacuum pump 400 Electric device (O) . . Vacuum gauge Art. 09 05 10 8 Vacuum ķ /interception 600 88 đ valve Art. 13 09 10 :**8**01 н С Of G HIL ΓR 1060 Pump outlets 800 Ш Cock for condensation 1350 850 75 250 drainage Art. 13 05 10 Switchgear Weight Filtre Tank Motor Н R 2 pumps С Art. execution accessories Litres Volt Ø Kg art. Mod. 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 **G**3" 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

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drawings available at www.vuototecnica.net

3D

7.85

VERTICAL SAFETY PUMPSETS DSV 2000 ...





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

3 ~ 400/690-50Hz

MV 300R

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DSV 200<mark>0 MV 30</mark>0R

2000

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

1751

2450

G3"

DS0 300 91

GAS-NPT thread adapters available at page 1.117

926

FC 80

PUMPSET AND MINI PUMPSET COMPONENTS

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.



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



			8.5 530×180		Ø8.5
			620×200		
Art.			For:		Recommended
	Tank	Weight	Pump	Switchgear	filtre
					accessories
	Litres	Kg	Mod.	art.	art.
DO 10 01	10	11.7	VTS 2 - VTS 4 - VTS 6 - VTS 6 CC	D0 06 90	FB 10 / FC 10
			VTL 2 - VTL 4 - VTL 5 - VTL 6 CC	D0 06 92	
				D0 06 93	

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7.87

MINI PUMPSET TANKS





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				For:		Recommended
Alu	Tank	Weight	R	Pump	Switchgear	filtre
						accessories
	Litres	Kg	Ø	Mod.	art.	art.
DO 25 01	25	17	G3/8"	VTL 5	D0 06 90	FB 20 / FC 20
					D0 06 92	
D0 25 02	25	17	G1/2"	VTL 6 CC - VTL 10	D0 06 90	FB 20 / FC 20
					D0 06 92	
					D0 06 93	

Note: By adding the letters RS, the pumpset will be supplied with wheels (E.g.: D0 25 01 SR).



Note: By adding the letters RS, the pumpset will be supplied with wheels (E.g.: D0 50 01 SR).

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

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GAS-NPT thread adapters available at page 1.117

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TANKS FOR HORIZONTAL PUMPSETS WITH ONE PUMP



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



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

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TANKS FOR HORIZONTAL PUMPSETS WITH ONE PUMP



GAS-NPT thread adapters available at page 1.117

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

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Note: By adding the letters RS, the pumpset will be supplied with wheels (E.g.: D0 300 02 SR).



Note: By adding the letters RS, the pumpset will be supplied with wheels (E.g.: D0 300 04 SR).

7.92

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

TANKS FOR HORIZONTAL PUMPSETS WITH ONE PUMP



Art				For:		Recommended
ALC	Tank	Weight	R	Pump	Switchgear	filtre
						accessories
	Litres	Kg	Ø	Mod.	art.	art.
DO 500 01	500	143	G1"1/4	MV 100	D0 100 90	FB 60 / FC 60
DO 500 04	500	143	G1"1/2	MV 160R	D0 100 90	FB 60 / FC 60
D0 500 03	500	143	G2"	MV 200R - MV 300R	D0 100 91	FB 60 / FC 60



7.93

GAS-NPT thread adapters available at page 1.117

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

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TANKS FOR HORIZONTAL PUMPSETS WITH ONE PUMP





TANKS FOR HORIZONTAL PUMPSETS WITH TWO PUMPS

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.



٨+				For		Recommended
Art.	Tank	Weight	R	2 pumps	Switchgear	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



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

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Art				101		nooonninonaoa
Alt	Tank	Weight	R	2 pumps	Switchgear	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



7.96

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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

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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.				For:		Recommended
Alt	Tank	Weight	R	2 pumps	Switchgear	filtre
						accessories
	Litres	Kg	Ø	Mod.	art.	art.
DSO 300 01	300	145	G1"	VTL 50/G1	DS0 300 90	FB 50 / FC 50
DSO 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



TANKS FOR HORIZONTAL SAFETY PUMPSETS WITH TWO PUMPS



Art.			For:			Recommended
7.1.1	Tank	Weight	R	2 pumps	Switchgear	filtre
						accessories
	Litres	Kg	Ø	Mod.	art.	art.
DSO 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



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

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GAS-NPT thread adapters available at page 1.117



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

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.				For:	Recommended	
Alu	Tank	Weight	R	Pump	Switchgear	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



					acces <mark>sories</mark>
	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 = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$

TANKS FOR VERTICAL PUMPSETS WITH ONE PUMP



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
				I 4-	ø500	



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

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TANKS FOR VERTICAL PUMPSETS WITH ONE PUMP



Art				For:	Recommended	
Alta	Tank	Weight	R	Pump	Switchgear	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



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

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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.				For:		Recommended
7.1.1	Tank	Weight	R	2 pumps	Switchgear	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



lable at www.vuototecnica.net						1180x438	455
ava	Art.					For:	Recommended
gs			Tank	Weight	2 pumps	Switchgear	filtre
Nin							accessories
drav			Litres	Kg	Mod.	art.	art.
Q	D2V 150	02	150	70	MV 20	D2V 150 90	FB 30 / FC 30
0.5	-						

7.104



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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

TANKS FOR VERTICAL PUMPSETS WITH TWO PUMPS





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

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D2V 300 03

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GAS-NPT thread adapters available at page 1.117

VTL 75/G1 - VTL 105/ G1

D2V 150 90

G1"1/4

7.105

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FB 60 / FC 60

TANKS FOR VERTICAL PUMPSETS WITH TWO PUMPS



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				N		
Art.				For:		
	Tank	Weight	R	2 pumps	Switchgear	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



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7.106



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

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TANKS FOR VERTICAL PUMPSETS WITH TWO PUMPS



						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



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

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GAS-NPT thread adapters available at page 1.117

7.107

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.				For:		Recommended
	Tank	Weight	R	2 pumps	Switchgear	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



3D drawings available at www.vuototecnica.net

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7.108



Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$
TANKS FOR VERTICAL SAFETY PUMPSETS WITH TWO PUMPS





Δrt				For:			Recommended		
A16	Tank	Weight	R	2 pumps	Switchgear		filtre		
							acces <mark>sories</mark>		
	Litres	Kg	Ø	Mod.	art.		a <mark>rt.</mark>		
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 <mark>/ FC 60</mark>	6	

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

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GAS-NPT thread adapters available at page 1.117

7.109

TANKS FOR VERTICAL SAFETY PUMPSETS WITH TWO PUMPS



						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



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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

TANKS FOR VERTICAL SAFETY PUMPSETS WITH TWO PUMPS



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

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





e a	Art				For:		Recommended
ab	ALC.	Tank	Weight	R	3 pumps	Switchgear	filtre
aval							accessories
S		Litres	Kg	Ø	Mod.	art.	art.
awing	DS3V 50 <mark>0 01</mark>	500	192	G1"	VTL 50/G1	DS0 300 95	FB 60 / FC 60
	DS3V 50 <mark>0 02</mark>	500	192	G1"1/4	VTL 75/G1	DS0 300 95	FB 60 / FC 60

7.112

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

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TANKS FOR VERTICAL SAFETY PUMPSETS WITH THREE PUMPS





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

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TANKS FOR VERTICAL SAFETY PUMPSETS WITH THREE PUMPS





7.114



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

(II

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	2 pumps	For: 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.



SUPPORT FRAME AND SWITCHGEAR FOR THREE VACUUM PUMPS

I I Ī Ī 1 880 Ţ Ī Ī Ī 1940 1060 Ī I Ţ Ξ Ī 1350 850 For: Art. Weight 3 pumps Switchgear Kg Mod. art. 00 DSV 19 200 MV 160R DS0 300 95 - DS0 300 96

MV 200R - MV 300R

DS0 300 95 - DS0 300 96

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.

SUPPORT FRAME FOR THREE VACUUM PUMPS

200

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

00 DSV 20



VACUUM PUMP AND PUMPSET MANIFOLDS

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.





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												totecnica.r
	Δ	B	<u> </u>	6		м	B	Manual valve F	Manual valve F	Sleeve	Weight	e at www.vuo
7.1.1	~	5	Ũ	ø	-		Ø	art.	art.	Ø	Kq	lable
COLL 01 03	35	70	40	G1/2"	350	100	G1/4"	13 01 11	13 03 10	G1/4"	1.75	avai
COLL 01 04	35	70	40	G3/4"	350	100	G3/8"	13 02 11	13 04 10	G3/8"	1.90	gs
COLL 01 05	35	70	40	G1"	350	100	G3/8"	13 02 11	13 05 10	G3/8"	2.00	win
COLL 01 06	40	85	60	G1"1/4	420	160	G1/2"	13 03 11	13 06 10	G1/2"	2.50	drav
COLL 01 07	40	85	60	G1"1/2	420	160	G1/2"	13 03 11	13 07 10	G1/2"	2.60	3D

GAS-NPT thread adapters available at page 1.117

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

VACUUM PUMP AND PUMPSET MANIFOLDS







Art.	Α	В	С	F	G	Н	L	М	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

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able at www.vuototecnica.net			A	В		- B) 	В	A				G F M	•
avail	Art.		А	В	С	F	G	Н	I	L	М	R	Manual valve E	Weight
gs 8							Ø					Ø	art.	Kg
win	COLL 03	03	20	70	30	55	G1/2"	64	21	250	87	G1/4"	13 01 11	1.2
dra	COLL 03	05	20	70	40	66	G1"	84	21	250	96	G3/8"	13 02 11	1.4
3D	COLL 03	07	20	70	60	94	G1"1/2	108	24	250	127	G1/2"	13 03 11	1.5

7.118

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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

7

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	Motor	Pump	Weight
	pumps	execution	max- power	
	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
DO 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 changeover switch for the automatic or continuous pump operation and an hour-counter for measuring the actual pump operation time.



Art.		WOTO	rump	Weight
74.4	pumps	execution	max. power	
	n°	Volt	Kw	Kg
DO 100 89	1	1 ~ 230-50Hz	1.0	8
DO 100 90	1	3 ~ 230/400-50Hz	3.0	8
DO 100 91	1	3 ~ 230/400-50Hz	7.5	8

7.119

7

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

X

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.		Motor	rump	Worgin
	pumps	execution	max. power	
	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, alarmtest 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.

600

30

Weight

Kq

27

27

33

max. power

Kw

3.0 cad.

7.5 cad

X

Art.

DS0 300 90

DS0 300 91

7.120



Volt

3 ~ 230/400-50Hz

3 ~ 230/400-50Hz

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

pumps

n°

2

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



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.



GAS-NPT thread adapters available at page 1.117

 $\frac{\text{mm}}{25.4}$; pounds =

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

Conversion ratio: inch =

7.121

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	Motor execution	Pump max. power	Weight
		n°	Volt	Kw	Kg
D0 100	93	1	3 ~ 230/400-50Hz	3.0	8.0
DO 100	94	1	3 ~ 230/400-50Hz	7.5	8.0

7.122



X

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

30

Address Zip Code/ City Country			For a correct dimensioning and selection of a vacuum pun it is important to know and assess the use to be made as w as the working environment in which it will operate. For th reason, we kindly ask you to fill in this form and send it ba to us via e-mail or fa We will suggest the best pump to solve your proble
		Country	
Cor	ntact person:		<i>E-mail: tecnico@vuototecnica.</i> <i>Fax: +39 039 53200</i>
Tele	lephone	Fax	
E-n	mail		
1)	In which industry sect	or will the pump be used?	
	□ Plastic □ CD/DVD □ Elettronics □ Food	 Packaging Glass/Solar Graphic arts Bottling 	 Wood processing Marble/Stone Medical/Pharmaceutical Other sectors
2)	For what service will t	he vacuum pump be used?	
	 Handling by vacuur Degasification of si plastic/rubber/resin Container emptying Other uses 	n pumps licon or resin compounds v/aluminium moulding ı: Volume/I	 □ Vacuum clamping □ Vacuum packaging Required time s
3)	Where will the vacuum	1 pump be located?	
	 Inside a factory or a Outside a factory or Height above sea le Work environment t 	a mobile unit r a mobile unit evel of the pump place of installatio remperature: min °C	n m max °C Humidity %
4)	Fluid to be sucked?		
	□ Dry air □ Aggressive gasses	□ Humid air	□ Air with water □ Air with oil vapours □ Air with abrasive dust
	□ Fluid temperature ^c	6	
5)	□ Fluid temperature ^c Required capacity?		
5)	 □ Fluid temperature ^o Required capacity? □ m³/h 	🗆 NI/min	□ cfm
5) 6)	Control of the second states	□ NI/min	□ cfm
5) 6)	Fluid temperature ^o Required capacity? m ³ /h Required vacuum level mbar abs	□ NI/min !? □ torr □	□ cfm mmHg □ KPa □ inch.Hg
5) 6) 7)	Fluid temperature ⁶ Required capacity? m ³ /h Required vacuum level mbar abs Vacuum pump use and	□ NI/min !? □ torr □ ! working cycles	□ cfm mmHg □ KPa □ inch.Hg
5) 6) 7)		□ NI/min I? □ torr I working cycles 8 hours □ bur □ I level variations in the plant? es: min	□ cfm mmHg □ KPa □ inch.Hg 16 hours □ 24 hours □ hours? mittance time: ON/ s
5) 6) 7)	Fluid temperature Fluid temperature Required capacity? m ³ /h Required vacuum level mbar abs Vacuum pump use and Daily duration: Are there strong vacuul If so, within which value	□ NI/min I? □ torr I working cycles 8 hours □ bur □ Inter m level variations in the plant? es: min	cfm mmHg KPa inch.Hg 16 hours 24 hours hours? rmittance time: ON/ s yes no mbar
5) 6) 7)		NI/min I? torr I working cycles 8 hours Inter pur Inter n level variations in the plant? es: min	cfm mmHg KPa inch.Hg 16 hours 24 hours hours? yes no mbar

7

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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) \Box Yes \Box No If so, for how long? s.....0. 10) Vacuum tanks Required volume I
 Recommended volume I
 Available volume I 11) Purchasing prospect □ Nr pumps/year □ Single request Required delivery: 12) In case of the vacuum pump replacement \Box Capacity m^3/h \Box Vacuum level mbar □ *Model used until now:* D 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?.....

