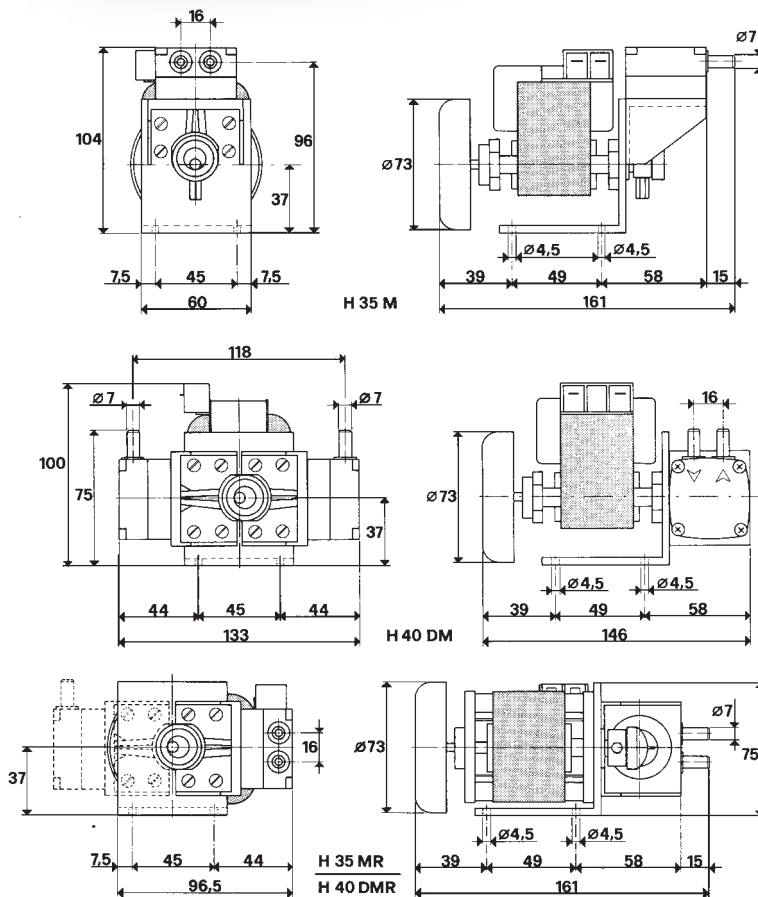


[Small diaphragm vacuum pumps]



The small vacuum pumps shown on this page produce vacuum using a diaphragm.

They can be used either as vacuum pump or as a small compressor, and they are able to deliver 100% oil-free compressed air, at a maximum pressure of 1 bar.

They consist of:

- A small single-phase electric motor, with protection class IP 00 (assembling execution), air-cooled.
- A pump body made of plastic material resistant to corrosion, complete with fittings at both suction and blowing ports.
- A diaphragm, integral to a connection rod, made of special materials, resistant to wear and corrosion.
- A connection rod with built-in "long-life" bearing, driven by a balanced eccentric system splined to the motor shaft.
- Aluminium bracket to hold the pump, available in two versions.

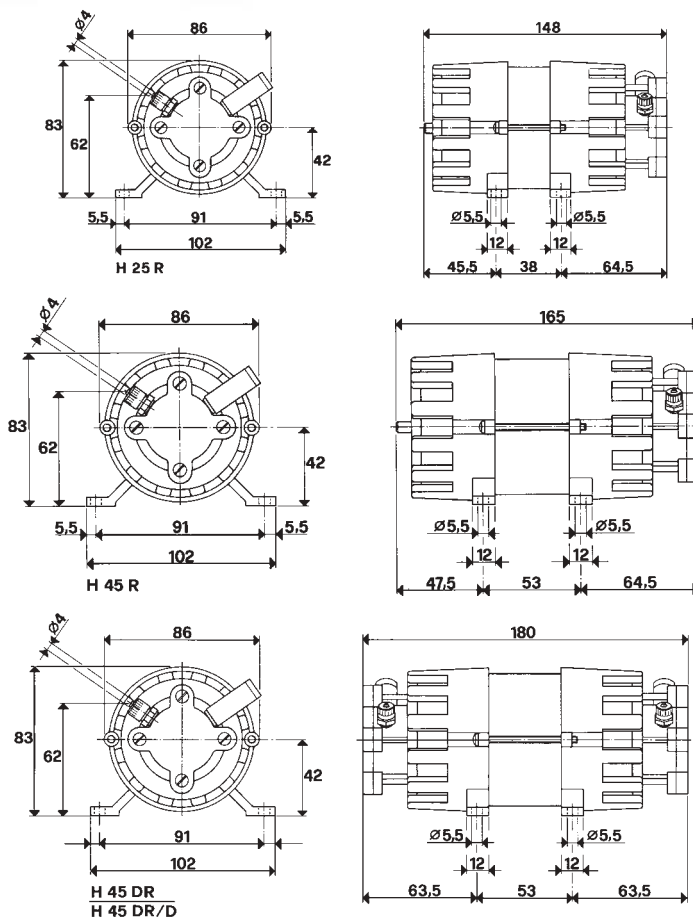
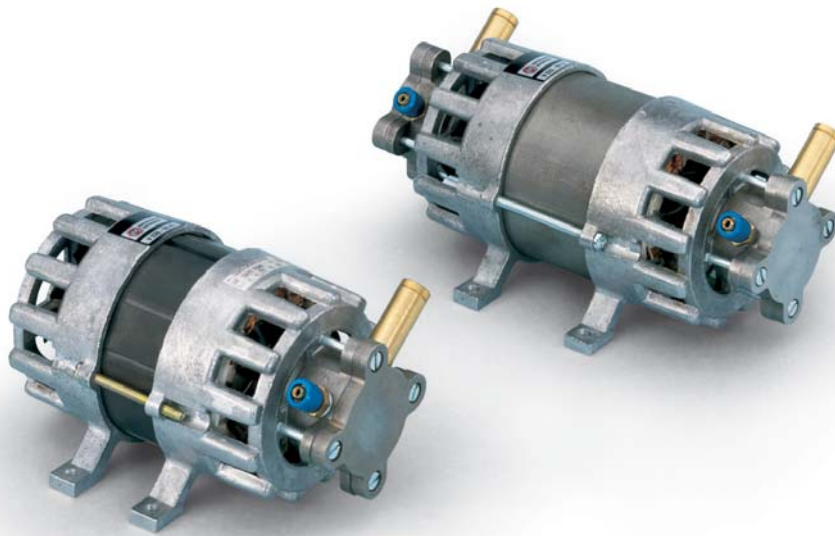
The diaphragm small vacuum pumps are very noiseless (<50dBA), have low vibrations and can be installed in every position.

Without lubrication, no maintenance is needed. Their compact size and light weight makes them particularly suitable for installation on portable equipment.

They are suitable for intermittent and not heavy use only.

Model	Capacity lt/l'	Final pressure mbar (a)	Max pressure bar (g)	Power watt	Input A	Weight Kg.
H 35 M	18.0	300	1	30	0.45	1.3
H 40 DM	17.5	300	1	38	0.40	1.6
H 35 MR	18.0	300	1	30	0.45	1.3
H 40 DMR	17.5	300	1	38	0.40	1.6

[Small vacuum pumps]



They are very small vacuum pumps with rotating vanes that can also be used as a small compressor for pressures up to 2 bar.

They are made up of a single-phase induction electric motor with capacitor (upon request they can be supplied with D.C. motor), a self-lubricating stator in sintered metal, a rotor in white metal splined to the motor shaft and grooved for housing the hardened steel vanes and a silencer on the exhaust.

The operating principle is the same as the vacuum pumps with rotating vanes of the bigger series. They are noiseless, completely lubrication-free and they do not need any maintenance.

Due to their very small size and weight, they are particularly suitable for the installation on portable equipment.

They are suitable for intermittent and not heavy use.

Model.	Capacity lt/l'	Final pressure mbar (a)	Max pressure bar (g)	Power watt	Capac. μ F	Weight Kg.
H 25 R	13.5	210	2	28	2.50	1.3
H 45 R	15.0	150	2	35	3.15	2.0
H 45 DR	20.0	150	2	38	3.15	2.1
H 45 DR/D	13.5	70	2	40	3.15	2.1

[Vacuum pumps VTLP 75/G1, 90/G1, 105/G1 with oil loss lubrication]



They are vacuum pumps having a suction capacity of 75, 90 and 105 cum/h.

They are lubricated by depression with oil loss and lubrication is adjustable by means of two oilers placed in correspondence of the supporting bearings.

The rotor is splined to its own shaft and is supported by bearings on both sides.

In this series, pump and motor are two independent units and the two shafts are coupled by means of an elastic joint.

Cooling occurs by the surface.

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

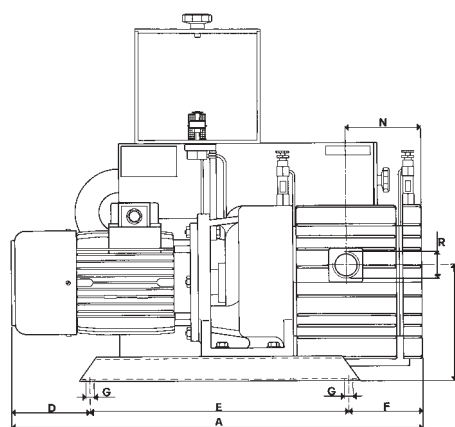
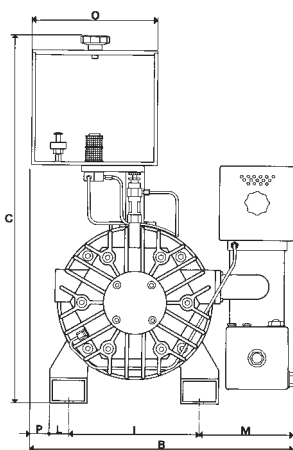
A big tank for the oil recovery is installed on the pump outlet, with built-in oil condensate trap, has the purpose to reduce noise and to eliminate smokes.

A safety valve is incorporated on this tank for the automatic drainage of the used oil between periodical changing. The lubricating oil is contained in a suitable transparent container fixed to the pump by means of its support and is controlled by a magnetic level switch.

In pumps with oil loss lubrication, lubricating oil, sucked into the pump by means of the drop oilers, is drained into the recovery tank together with the air without being put into circulation again.

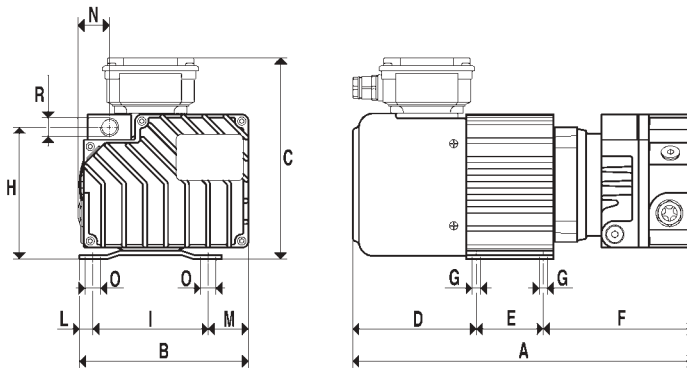
These pumps are recommended when in the sucked air there are water condensates, solvent vapours or any other thing that may contaminate the lubricating oil.

It is necessary to install a check valve and a suitable filter on the pump suction inlet to keep possible impurities sucked.



VTLP		75/G1	90/G1	105/G1
Capacity	cum/h	75	90	105
Final pressure	mbar abs.	50	50	50
Motor execution	Volt	230/400 ± 10%, 50Hz		
Motor power	Kw	2.2	3.0	3.0
Motor power	Hp	3	4	4
Rpm		1450	1450	1450
Max weight	Kg	78.3	85.8	99.4
A		640	660	690
B		415	430	430
C		575	575	620
D		163	163	163
E		415	415	415
F		62	82	112
G	∅	12.5	12.5	12.5
H		186	186	186
I		210	210	210
L		30	30	30
M		145	150	160
N		80	92	122
R	∅ gas	1"1/4	1"1/4	1"1/2
O	∅	200	200	200
P		30	30	30

[Vacuum pumps VTL 6 D.C.]



The compact size, very good final vacuum level, and the D.C. electrical motor are the main features of this sliding vane vacuum pump.

The pump has an oil loop depression lubrication system.

Both the pump and motor are surface cooled by the motor fan.

The pumps are equipped with a small holding tank, which contains the lubricating oil, and a condensing separator that eliminates exhaust oil mist and also acts as a silencer making these pumps very quiet in operation.

The pump has an integral check valve on the inlet port and upon request suitable vacuum filtration can be supplied.

VTL 6 D.C. pumps can be supplied only with D.C. electrical motor (service S1) in conformity with EMC directive (89/336/EEC).

The table shows all the data and the technical features of this range of pumps.

VTL		6 D.C.
Capacity	cum/h	6
Final pressure	mbar abs.	2
Motor execution	Volt	24 D.C.
Motor power	Kw	0.28
Max input at 24V D.C.	A	15
Rpm		3000
Max weight	Kg	10.5
A		335
B		168
C		195
D		124
E		65
F		146
G		8
H		128
I		112
L		12
M		44
N		32
O		14.5
R	ø gas	3/8"

[Oil-bath vacuum pumps MV200, 200A, 300, 300A]



MV series vacuum pumps are single stage pumps with rotating vanes, with oil-bath loop lubrication system.

These pumps are driven by a standard electric motor coupled together via an elastic drive joint. A centrifugal fan, splined to the pump shaft, assures a proper airflow for the best cooling of the pump unit (surface forced cooling).

A big tank for the oil recovery, installed on the pump outlet, with built-in oil condensate trap, reduces noise and eliminates smoke.

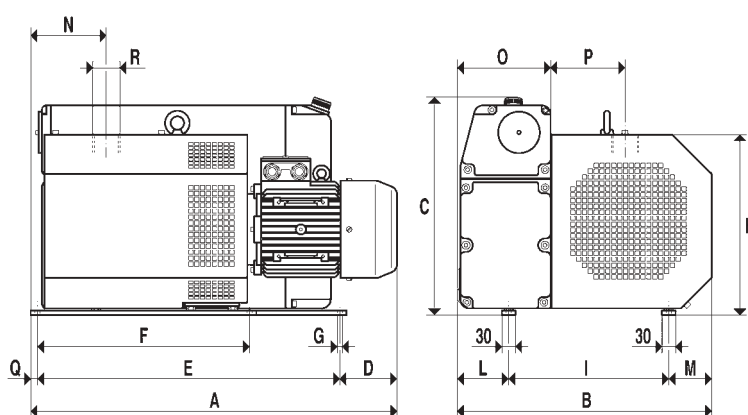
The oil contained in the system carries out the function of lubrication, cooling and sealing between the rotating and the fixed parts of the pump.

On the suction inlet, the check valve is integral part of the pump as a standard, while upon request, a suitable filter is supplied to stop possible sucked impurities.

All MV series pumps can be prepared for installing a gas ballast valve (upon request), which allows a high compatibility to steam.

Thanks to the above mentioned devices, as well as to a compact and sturdy construction, MV series of pumps are particularly suitable to operate on continuous duty and under very heavy conditions.

In the table on the side, dimensional data and values concerning the technical specifications of this series of pumps are shown.



MV		200	200A	300	300A
Capacity	cum/h	200	200	300	300
Final pressure	mbar abs.	20	0.7	20	0.7
Motor execution	Volt	230/400 ± 10%, 50 Hz			
Motor power	Kw	5.5	5.5	7.5	7.5
Motor power	Hp	7.5	7.5	10	10
Rpm		1450	1450	1450	1450
Max weight	Kg	150	150	180	180
A		820	820	1030	1030
B		570	570	570	570
C		485	485	485	485
D		135	135	245	245
E		670	670	770	770
F		470	470	625	625
G	ø	12	12	12	12
H		400	400	400	400
I		350	350	350	350
L		123	123	123	123
M		97	97	97	97
N		167	167	282	282
O		206	206	206	206
P		165	165	165	165
Q		15	15	15	15
R	ø gas	2"	2"	2"	2"

[Vacuum pumps VTS 25/FG, 30/FG, 35/FG]



They are dry vacuum pumps having a suction capacity of 25, 30, and 35 cum/h.

The particular shape of the working chamber and the special graphite which is used to manufacture the locking flanges and the vanes, allow these pumps to operate without any lubrication.

The rotor is splined on its shaft and it is supported by two bearings. The pump and electrical motor are two independent units coupled together by an elastic joint.

Cooling occurs by surface.

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

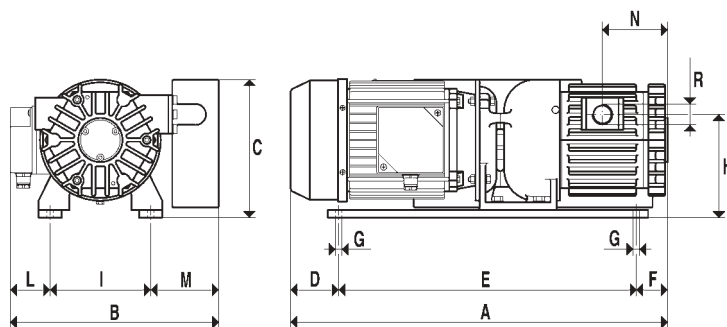
A filter is installed on the pump outlet and it operates as a silencer.

It is recommended to install proper a filter on the pump suction inlet to keep possible sucked impurities.

These pumps may not be used when the sucked fluid contains vapours or water or oil condensates.

This series of pumps can also be supplied with single-phase electric motors.

The table shows all data and technical features of this series of pumps.



VTS		25/FG	30/FG	35/FG
Capacity	cum/h	25	30	35
Final pressure	mbar abs.	80	80	80
Motor execution	Volt	230/400 ± 10%, 50 Hz		
Motor power	Kw	0.88	1.0	1.0
Motor power	Hp	1.20	1.4	1.4
Rpm		1450	1450	1450
Max weight	Kg	28	32	34
A		470	490	510
B		265	265	265
C		170	170	170
D		65	65	65
E		385	385	385
F		20	40	60
G	∅	8.5	8.5	8.5
H		133	133	133
I		130	130	130
L		55	55	55
M		80	80	80
N		73	83	93
R	∅ gas	3/4"	3/4"	3/4"