



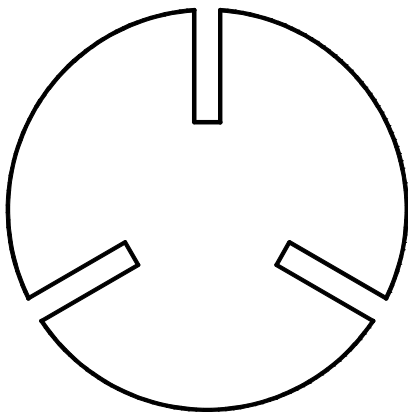
**VACUUM
TECHNOLOGY**



**OPERATING AND MAINTENANCE
INSTRUCTIONS**

(Translation of the original instructions)

**VACUUM PUMPS WITH RECIRCULATING
LUBRICATION SYSTEM**



**LB.6CC
LB.6BCC**

1 INTRODUCTION

1.1 GENERAL INFORMATION



The data presented in this appendix complete the manual of oil recirculation vane vacuum pumps (series "L") code 8702036, to which it is necessary to refer for all guidelines, instructions, regulations and important information for the safety of the persons involved in the installation, use, maintenance and disposal of pumps not listed here.

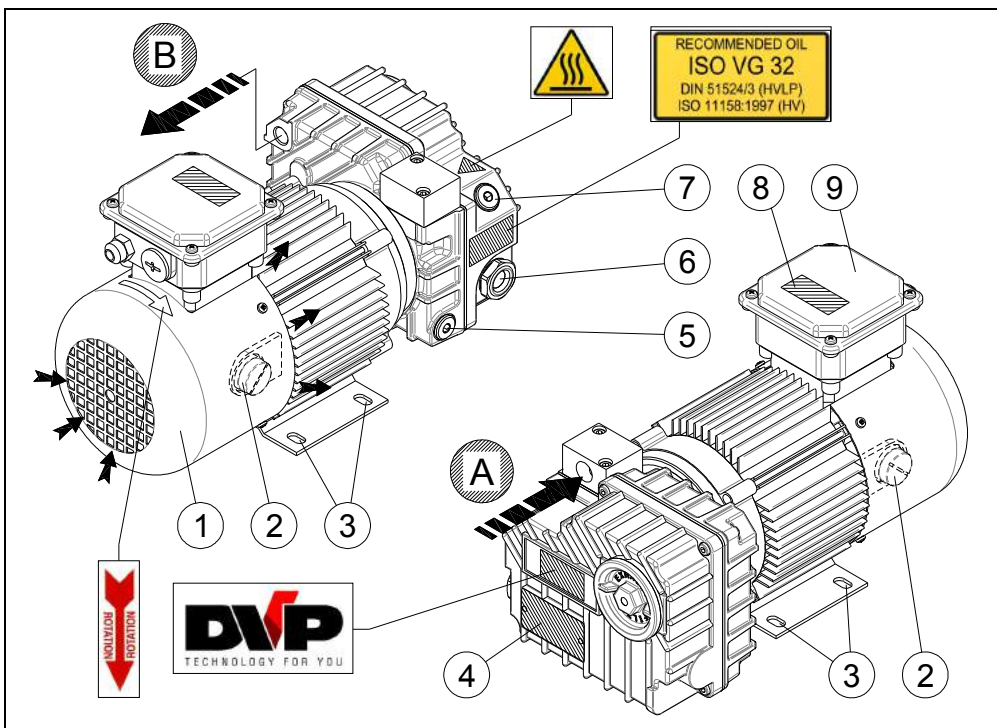
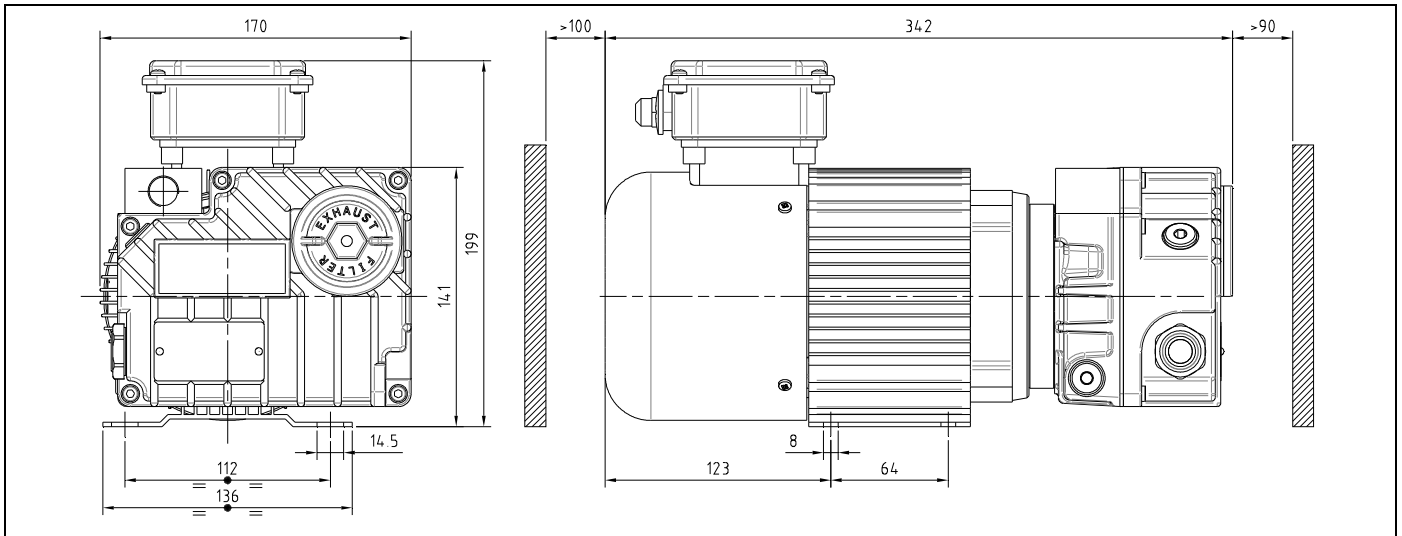
This manual, originally written in ITALIAN, is an integral part of the pump and must be preserved with care for the life of the pump itself. In the event of sale, lease or loaned use of the pump, it must be delivered to the new user along with EC declaration of conformity.

Carrying out any operations on the pump before reading and fully understanding all instructions in this manual is prohibited.

The images contained in this document are examples only and are not binding for the Manufacturer. The Manufacturer reserves the right to make changes to components, product improvement parts and any other without updating this manual, if said components or parts do not alter pump operation and safety.

3.3 DIMENSIONS AND CHARACTERISTICS

3.3.1 Model: LB.6CC



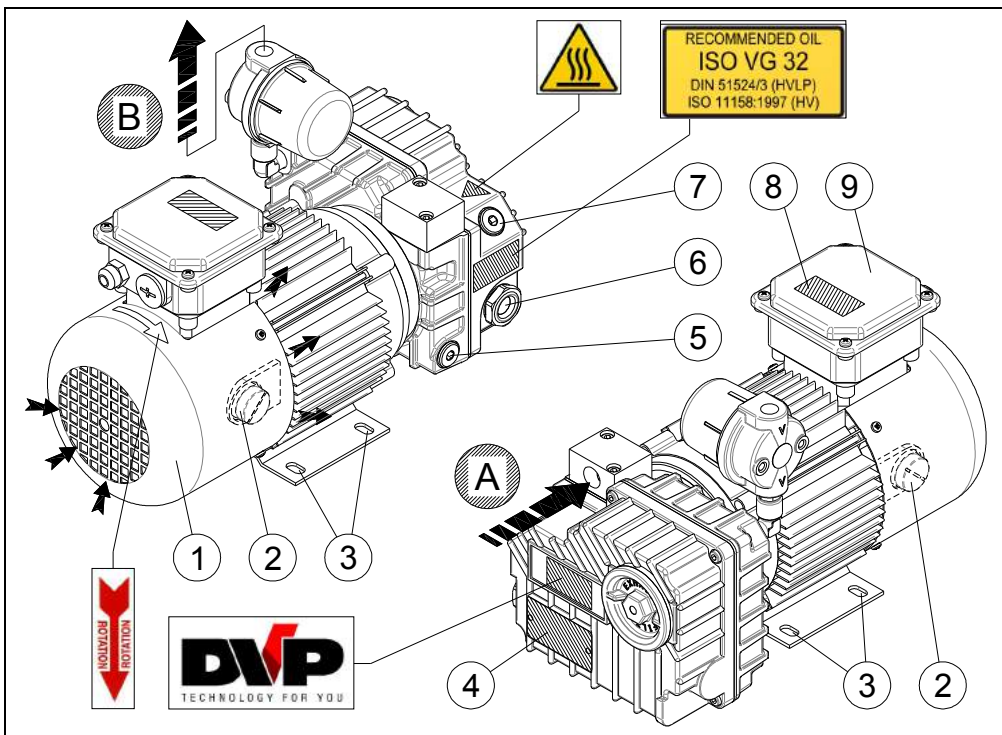
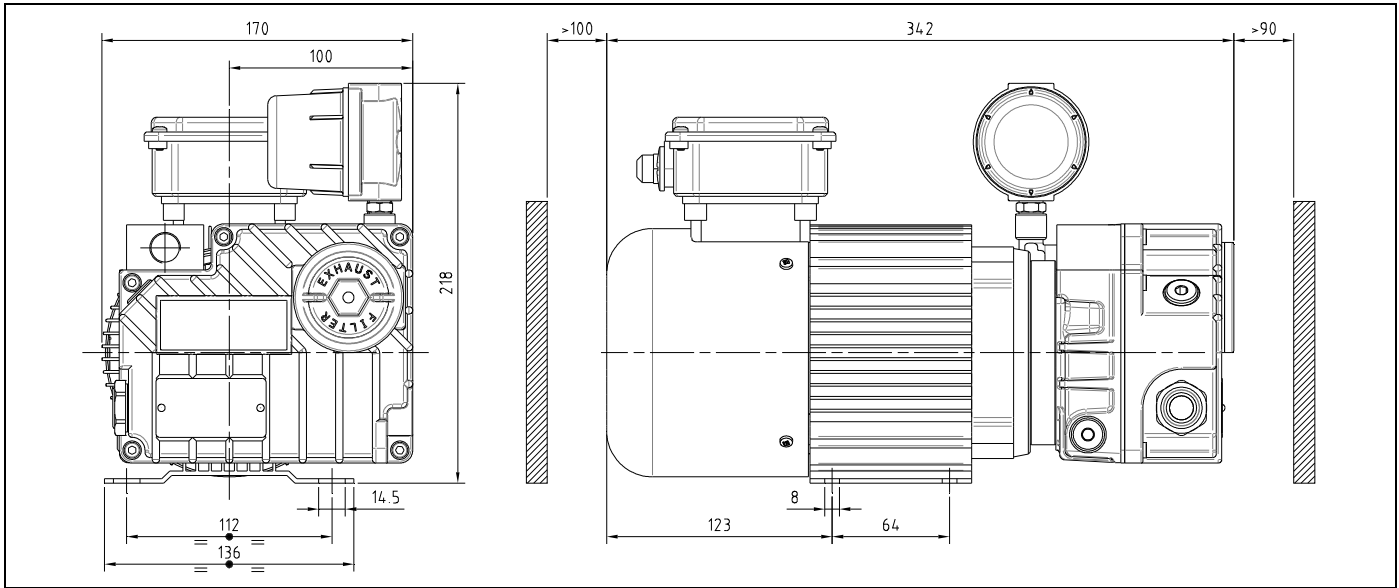
A	Intake
B	Air outlet
1	Motor fan guard
2	Motor brushes
3	Attachment point
4	Information plate
5	Oil drain plug
6	Oil sight glass
7	Oil filler plug
8	Motor rating plate
9	Terminal board

TECHNICAL SPECIFICATIONS

		LB.6CC
Inlet capacity	m ³ /h	6
Final pressure (Abs.)	mbar - hPa	2
Motor power	kW (24VDC)	0,28
Nominal r.p.m.	n/min	3000
Noise level (UNI EN ISO 2151) (K 3dB)	dB(A)	68
Weight	kg	10,5
Type of oil	cod. DVP	BV32 (SW40)
Oil quantity	dm ³	0,20
Pump Intake / Outlet	"G	3/8 / 1/4
Continuous-duty working range (Abs.)	mbar - hPa	-----
Operating temperature (room temp. 20°C)	°C	60
Required room temp. for place of installation	°C	12 ÷ 40
Ambient temperature for storage/transport	°C	-20 ÷ 50
MAX humidity / altitude		80% / 1000m a.s.l. *

(*) Please contact the Manufacturer if environmental conditions are different from those prescribed.

3.3.2 Model: LB.6BCC



A	Intake
B	Air outlet
1	Motor fan guard
2	Motor brushes
3	Attachment point
4	Information plate
5	Oil drain plug
6	Oil sight glass
7	Oil filler plug
8	Motor rating plate
9	Terminal board

TECHNICAL SPECIFICATIONS

		LB.6BCC
Inlet capacity	m ³ /h	6
Final pressure (Abs.)	mbar - hPa	40
Motor power	kW (24VDC)	0,28
Nominal r.p.m.	n/min	3000
Noise level (UNI EN ISO 2151) (K 3dB)	dB(A)	68
Weight	Kg	10,8
Type of oil	cod. DVP	BV32 (SW40)
Oil quantity	dm ³	0,20
Pump Intake / Outlet	"G	3/8 / 1/4
Continuous-duty working range (Abs.)	mbar - hPa	400 ÷ 40
Operating temperature (room temp. 20°C)	°C	60
Required room temp. for place of installation	°C	12 ÷ 40
Ambient temperature for storage/transport	°C	-20 ÷ 50
MAX humidity / altitude		80% / 1000m a.s.l. *

(*) Please contact the Manufacturer if environmental conditions are different from those prescribed.

4.8.2 WIRING



Make the earthing and shielding connections carefully.

the data on the motor plate is provided with a form factor equal to 1 (battery powered). if the power is of a different type it will be necessary to downgrade these values, this will also be necessary when the motor operates under different conditions from those of the test (higher than 1000 m above sea level or a type of service other than S1).

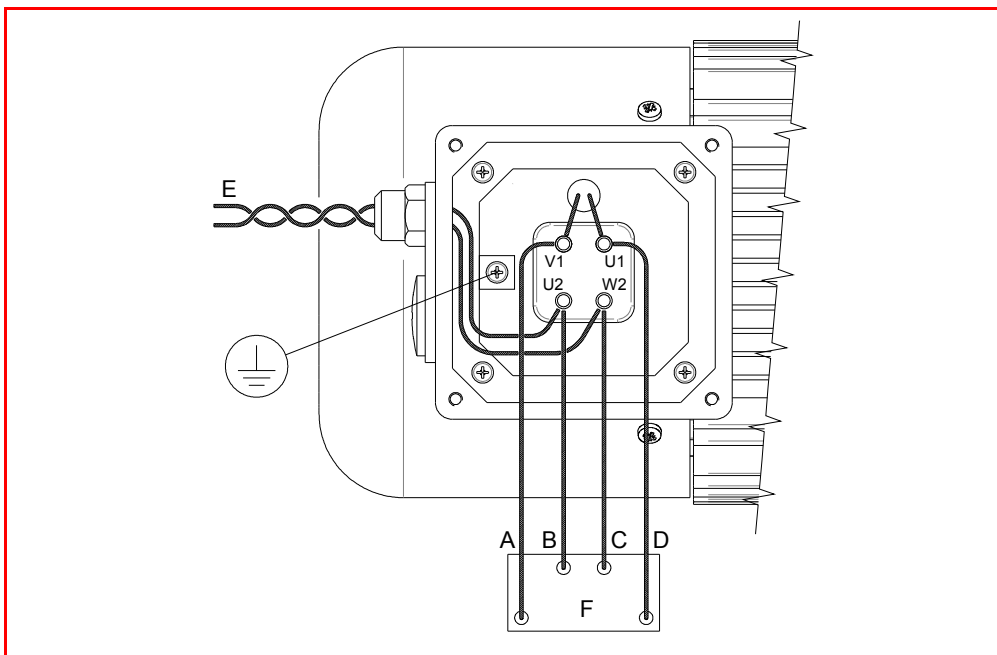
Always install a electrical protection system between the pump and the power supply; the pump absorption values are shown on the motor plate.

the pump is normally supplied without a power cord and switch; for connection to the electricity grid refer to the diagram shown below.

The shielded connection cable must have a minimum section of 4 mm², if the length is less than 3 m; if it is greater use cables with a larger section.

In the event a pair of single pole cables are used, it is essential that these are intertwined with each other and that, in the vicinity of the terminal box, three ferrite rings are inserted that have the following characteristics:

- \varnothing internal 9.5 ÷ 11 mm;
- 187 Ω ;
- 100MHz.



A	BROWN
B	BLACK
C	BLACK
D	BROWN
E	POWER CABLE
F	ANTI-INTERFERENCE FILTER

6.2 MAINTENANCE TABLE

The following table shows all required periodic operations to maintain pump efficiency.

OPERATION TYPE	FREQUENCY	OPERATOR QUALIFICATION
Change motor brushes	1000 h	

Shorter maintenance intervals may be required according to operating conditions (high temperature of intake gases, intake gases containing condensable vapours, etc.).

6.2.4 CHANGE MOTOR BRUSHES

If the condition of the brushes require it proceed with their replacement, as follows, bearing in mind the requirements given in paragraph 6.1 (General instructions).

- Unscrew the four screws that secure the protective guard of the motor fan and remove it;
- Unscrew the brush holder caps and remove the worn brushes;
- Clean the brush housing with compressed air;
- Insert the new brushes in their housing and screw on the brush holder caps again;
- Replace the motor fan protective guard and secure it with the appropriate screws;
- Dispose of the worn brushes by following the instructions given in paragraph 8 (Disposal).

6.3 SPARE PARTS

Use **Original Spare Parts** to replace pump parts.

When purchasing spare parts, always quote the serial number and model of the pump (these can be found on the identification plate) as well as the spare part purchase number.

DESCRIZIONE	LB.6CC	LB.6BCC
Air exhaust filter kit	K9605006	K9605007
Maintenance kit	K9605006/1	K9605007/1
Oil 0,25 dm ³	8811025 (BV32) / 8831025 (SW40)	
Oil 0,5 dm ³	8811050 (BV32) / 8831050 (SW40)	
Oil 1 dm ³	8811100 (BV32) / 8831100 (SW40)	
Oil sight glass	1105009	
Motor brushes	2 x 1203013	

D.V.P. Vacuum Technology s.p.a. disclaims all responsibility for any deterioration of pump performance or for damages caused due to use of non-original spare parts.

9 TROUBLESHOOTING

DAMAGE	CAUSE	REMEDY
(A) The pump does not run	Motor brusche worn	Change motor brushes

GENERAL CONDITIONS OF SALE

D.V.P. Vacuum Technology s.p.a. supplies products exclusively for professional clientele, hence, excluding consumers.

PRODUCT WARRANTY TERMS AND CONDITIONS

D.V.P. Vacuum Technology s.p.a. guarantees that the product is free from material or manufacturing defects for a period of 24 months of normal use from the shipping date. This period is of 6 months of normal use for products subject to repair not under warranty.

Normal use means an operating cycle of 8 hours per day for a maximum of 5000 operating hours in the 24 months covered by the warranty.

Warranty means the free replacement or repair at its own assistance network of any components of the product that are found to be faulty from the start due to manufacturing defects.

In the event of repair, D.V.P. Vacuum Technology s.p.a. guarantees, exclusively to its own customer, the identical spare parts for 24 months from the shipping date; once this period has passed, the pieces may no longer be available on the market, therefore the repairs, even under warranty, may require the payment of a difference between the product purchased and that installed during the repair. This price will be indicated to the customer before the repair is carried out, for acknowledgement and acceptance.

D.V.P. Vacuum Technology s.p.a. will do everything reasonable within its power to respect the assistance times and *standard* response (20 working days), which may vary according to the distance and accessibility of the place where the product is located and the availability of the components.

D.V.P. Vacuum Technology s.p.a. will not be held responsible for any direct or indirect losses caused by its failure to respect the assistance times and will not have any responsibility or contractual or civil obligation for product faults or for failure to repair the faults in a reasonable period of time.

In the event of irreparable faults, the product will be replaced. The replacement will cause the original warranty to be extended to the new product, until its expiry date.

The warranty does not cover any parts that appear to be faulty due to negligence and/or carelessness during use (failure to observe the equipment operating instructions, lack of maintenance), incorrect installation and/or maintenance, maintenance carried out by unauthorized staff, damage due to transport, or circumstances which, in any case, cannot be attributed to manufacturing faults on the equipment.

The warranty also excludes all components of the product that have been modified or repaired without prior written authorisation from D.V.P. Vacuum Technology s.p.a.

The warranty also excludes any faults deriving from improper use, normal wear, galvanic and electrostatic currents, chemical corrosion, tampering, replacement or elimination of the registration plate.

The warranty does not cover, in any case, faults generated by external causes, such as accidents and fortuitous events.

D.V.P. Vacuum Technology s.p.a. declines all responsibility to anyone for any damage and, consequence, of any kind and/or reason, that may derive from the use of the product, as well as for any faults that it may present.

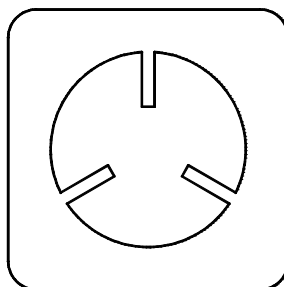
By way of non-limiting example, it declines all responsibility:

- for any damage that could, directly or indirectly, be caused to people, objects and animals, due to failure to observe all the instructions indicated in the relevant use and maintenance manual, especially the indications on the installation, use and maintenance of the equipment;
- for any damage and/or loss caused by faults of deficiencies of products repaired by D.V.P. Vacuum Technology s.p.a.;
- for any indirect or consequential damage such as, by way of non-limiting example, loss of business, profits, salaries, payments etc.;
- losses that could have been avoided by the customer by following the advice and instructions from D.V.P. Vacuum Technology s.p.a..

In any case, the customer waives the right to claim any right and/or demand as well as raising any objection or promoting any action, inherent to the use of the product.

The warranty is not extended to consumable parts, or faults deriving from: filtering cartridges, blades, membranes or sealing rings, as well as third party products that are part of the final product.

The transport, removal and subsequent re-installation costs of the repaired or replaced product are, however, to be entirely borne by the customer.



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