

Pos. Nr.	Description
2	Motor
15	Rotor
16	Clamping disc
17	Star-tolerance ring
18	Toothed spring washer
19	Socket head screw
21	Pump body
22	Locating peg
23	Socket head screw
24	Carbon vanes (kit)
25	Locating peg
28	Lid
29	Socket head screw
30	Gasket
31	Slotted pin
32	Nozzle
33	Cooler
34	Gasket
35	Socket head screw
46	Fan
48	Key
49	Washer
50	Shaft end bolt
61	Filter cover
67	Leaf spring
72	Filter cartridge(1x)
73	Filter cartridge(1x)
74	Filter cartridge(1x)
76	Socket head screw
77	Sealing ring
78	O-ring
83	Protecting hood
84	Tube flexible
85	Rubber element
86	Washer
87	Nut
88	Protecting hood
89	Spacer
90	Socket head screw
91	Rubber element
92	Edge protection
94	Foot
95	Rubber element
96	Spacing collar
97	Socket head screw
98	Washer
101	Valve disc
102	Rubber bushing
103	Spacer tube
104	Ring screw
124	Vacuum regulating valve
125	Pressure regulating valve
127	Silencer
132	Plug
133	Plug

## 7.0

Warranty period: One (1) year from start-up or 13 months from shipment date of pump for defect of material and manufactured components. This does not include wear parts such as vanes. Vanes have a 2,500 hour or 6 month guarantee. Manufactured parts warranty and vane parts guarantee is void if damage results from improper installation or operating in excess of nameplate specifications, damage from improper maintenance, misuse, improper electrical supply or wiring, damage from foreign materials (dirt, dust, metal, plastic, water, etc.) ingested by the unit. Warranty is void if excessively high temperatures are used or reached other than the pump was specified for and that that were originally specified by the customer during pre-purchase; Void also if gases not specified previously have entered the pump during operation.

To return customer should get approval and instructions from PFS for return and repair. On warranty inspections an RGA form must be included with pump or parts. Upon investigation if any of the above conditions have been broken the customer will be responsible for any repairs required.

Under the warranty, PFS is only responsible up to the value of the defective component. Anything else effected by the defective component directly or indirectly is not the responsibility of the supplier Premier Fluid Systems.



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PREMIER FLUID SYSTEMS INC.

## Dry Vane Vacuum Pumps

# DVV / DP / DPV 10 - 16 - 25 - 40 Operating Manual



DVV SERIES



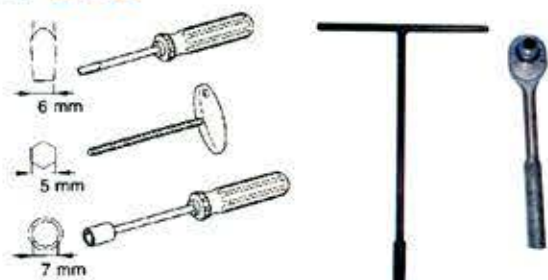
DPV SERIES

**Premier Fluid Systems**  
Canadian Home of Travaini Pumps

4161 Morris Dr. - Unit 5 \* Burlington \* Ontario \* L7L 5L5 \* Website: [www.pfspumps.com](http://www.pfspumps.com)  
Tel: 1-800-461-2611 or 905-637-2611 \* Fax: 905-333-4722 \* email: [info@pfspumps.com](mailto:info@pfspumps.com)

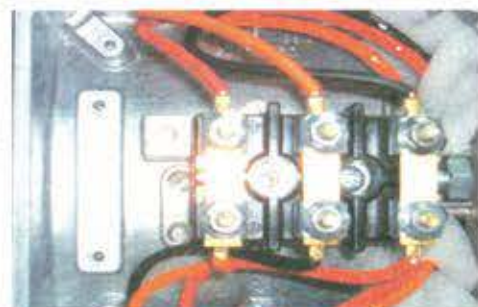


## 1. Tools

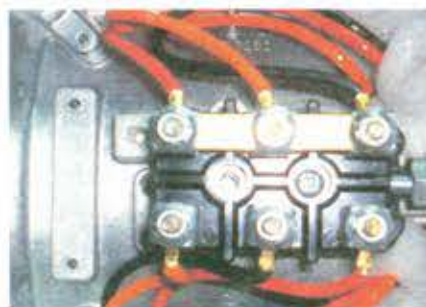


Year	XXXX	(Index)
Serial no.	XXXX	(Option)
Type	XXXXXXXXXX	
Pumping Speed	XXXX R.P.M.	
Motor Rating	XXXX KW	
Inlet Capacity	XXXX m³/h	
Vacuum	XXXX mbar	
Pressure	XXXX mbar	

## 2. Installation & Motor Connection



(Low Voltage): 3Φ 220V



(High Voltage): 3Φ 380V



Ambient temperatures must not exceed 45°C

It is recommended to install the pumps with easy access for maintenance. Clearance between compressors and adjacent walls should be no less than 10cm of free space in order to ensure sufficient air flow for cooling. Contact **Premier Fluid Systems Inc.** Prior to installation under noise insulation canopies. Ambient temperatures must not exceed 45°C.



Connect the pump to the electricity supply observing all applicable safety regulations. Comply with EN 60204 T1. Connect motor based on connecting diagram (in terminal box) or ready made plugs. This work should be carried out by an experienced electrician only. Check for connecting voltage and frequency. Avoid more than 10 switches per hour. Install motor circuit-breaker and set to nominal motor current. (For data see motor rating plate). Briefly start motor and check rotation (arrow on casing). Exchange phases if rotation is incorrect.

## 3. Application

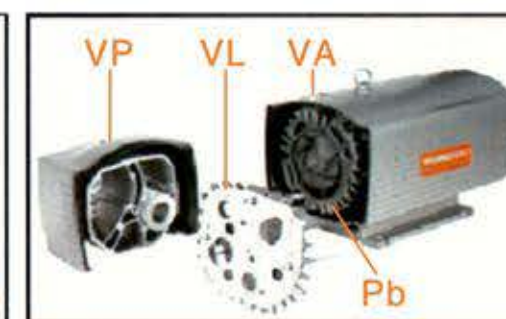


The pumps can be used to generate a vacuum (DVV) or over pressure (DPV). Inlet air must be standard dry atmospheric air. The pumps are dry-running. Avoid intake or oil mist. The specification is valid up to a height of 800 m above sea level.

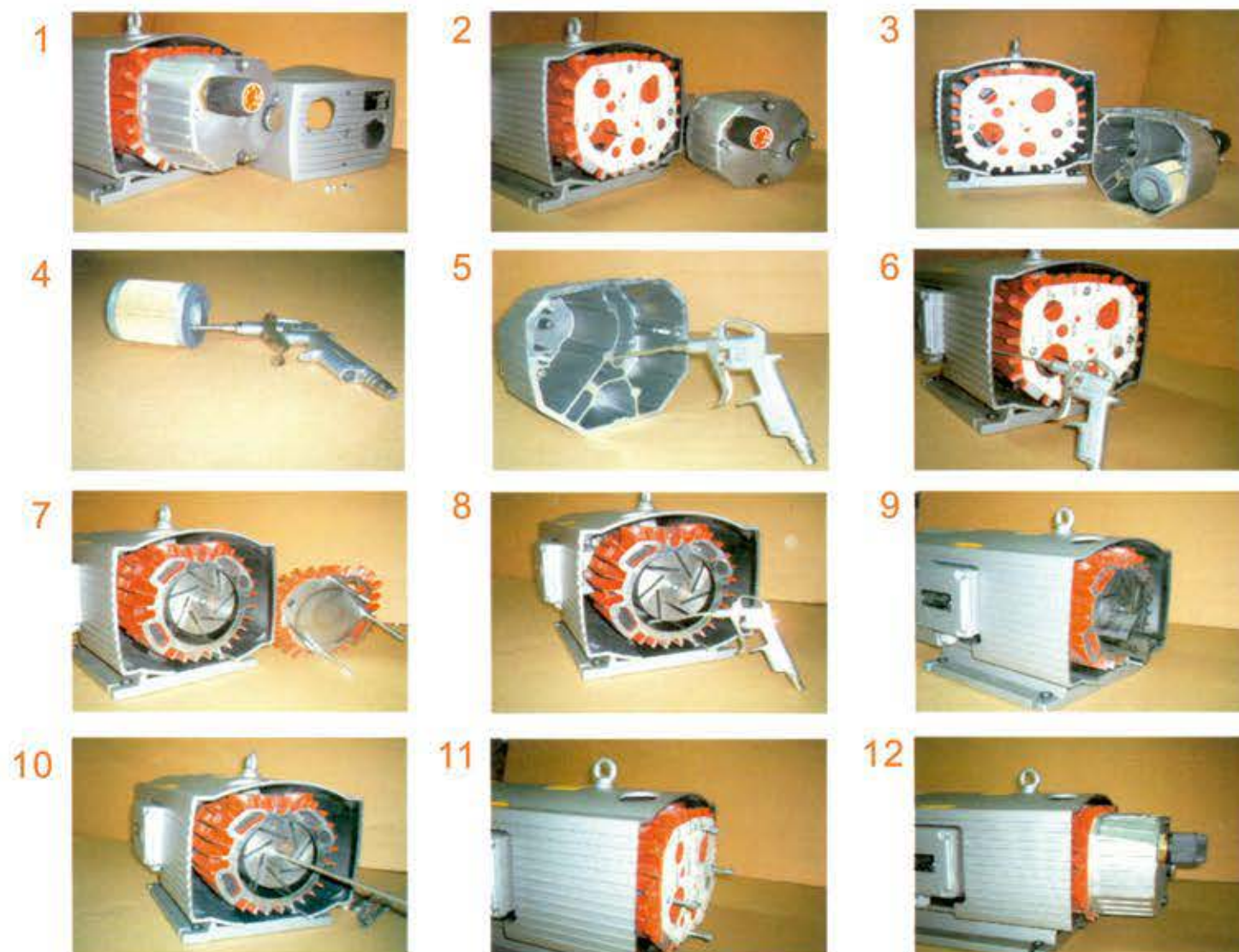
## 4. Maintenance

Maintain pump regularly to achieve the best operating results. Maintenance intervals will depend on the pumps use and ambient conditions.

## 5. The procedure for how to replace the carbon vanes



- VR (Vacuum regulating valve)
- VA (Intake of vacuum)
- VP (Protecting hood of filter)
- VL (Lid)
- Pb (Pump body)







# Note :

1. Before commencing replacement switch off electricity to ensure that the person whose safety.
2. Do not disassemble or maintain the pump to avoid any hurt during high temperature phase.

**Picture1.** Loosen 2 Socket head screws(pos.90) and remove the protecting hood by 5mm hexagon wrench key.

**Picture2.** Loosen 3 Socket head screws (pos.76) and remove the protecting hood of filter.

**Picture3.** Loosen 4 socket head screws (POS.29)of VL (Lid) and remove the VL (Lid). (Do not disassemble the SD during high temperature phase )

**Picture4.** Clean the filter (Note: Blow out dirt from inside to outside by compressed air.

**Picture5.** Clean the protecting hood of filter and Blow out dirt from inside to outside using compressed air.

**Picture6.** Blow out dirt in cooling air channel Pb by compressed air.

**Picture7.** Remove the VL and carbon vanes from the rotor.

**Picture8.** Blow out dirt in cooling air channel Pb (pump body) by compressed air.

**Picture9.** Install the carbon vanes in the rotor.(please notice the direction of carbon vanes).

**Picture10.** After install the carbon vanes, urn the rotor in the reverse direction and look the carbon vanes to fall from the rotor smoothly in the horizontal position.

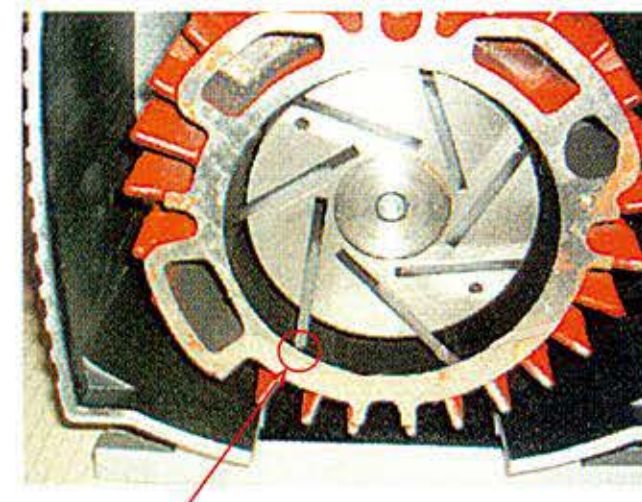
**Picture11.** Install the VL(Lid) and tighten 4 socket head screws evenly (Pos.29).

**Picture 12.** Tighten 4 socket head screws on the VL(Lid) evenly.

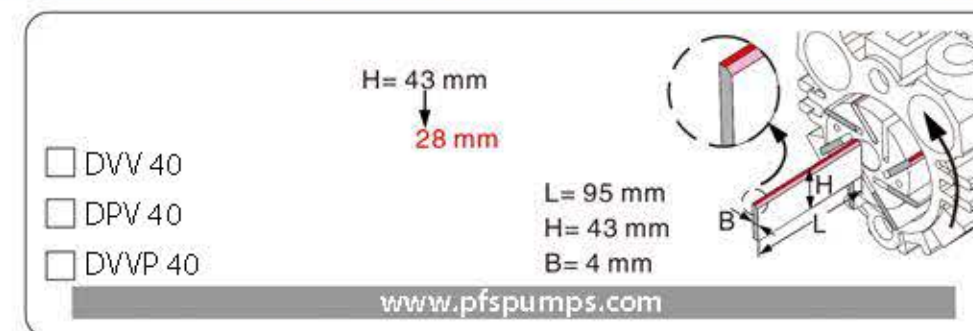
**Picture13.** Tighten 3 socket head screws on the protecting hood of filter evenly.

**Picture 14.** Replacement finish.

# ! Note !!!



The carbon vanes are installed by incorrect direction The carbon vanes are installed by correct direction



The filter cartridges are inserted behind the enclosure cover VP. Clean depending on dust accumulation. Blow out filter from inside to outside. Replace blocked ,oily or greasy cartridges. Additional filters are available for operation in very dusty environments.Blow out dirt in cooling air channels Pb by compressed air. The vanes are subject to abrasion from the walls of the enclosure.

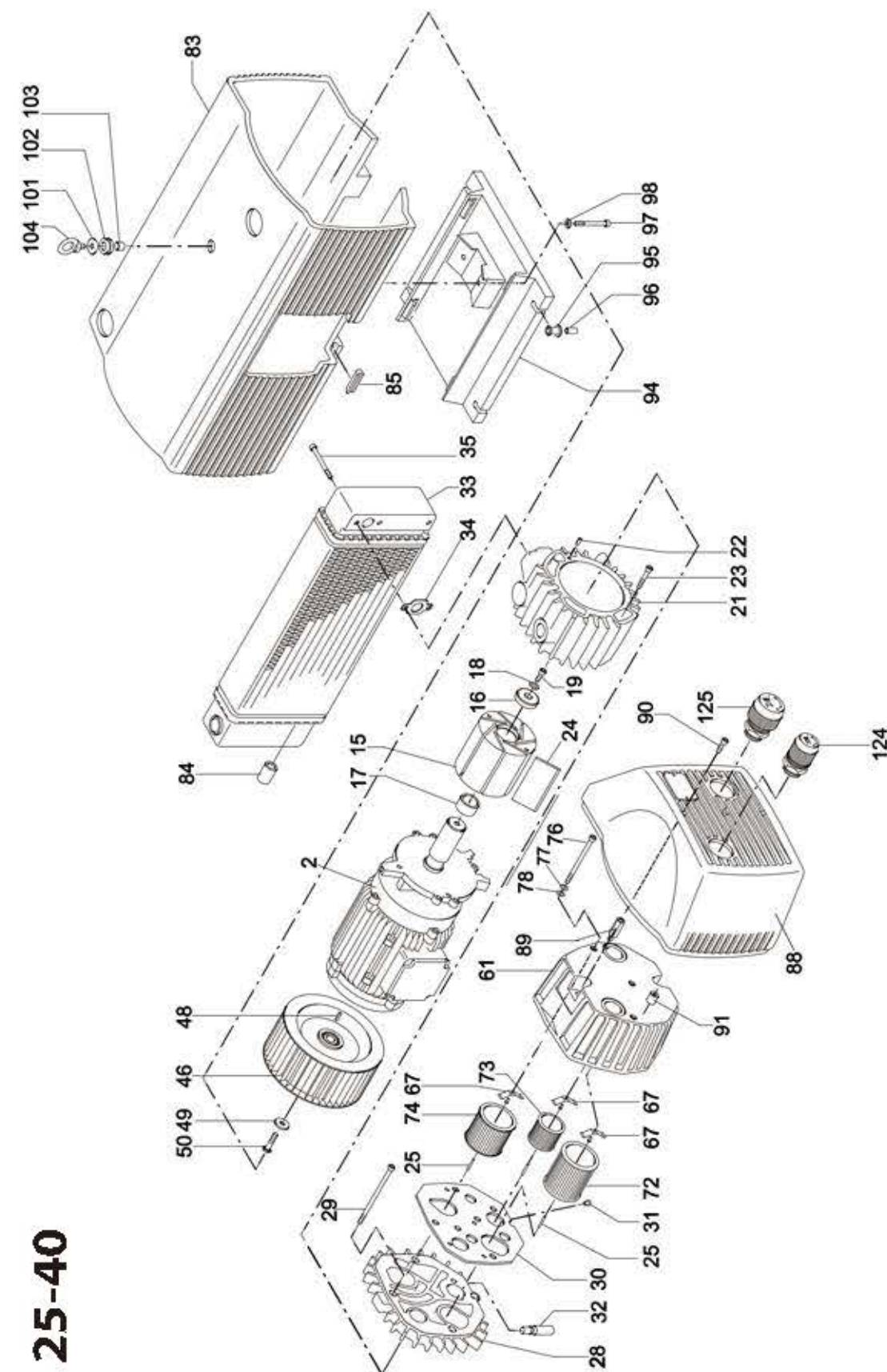
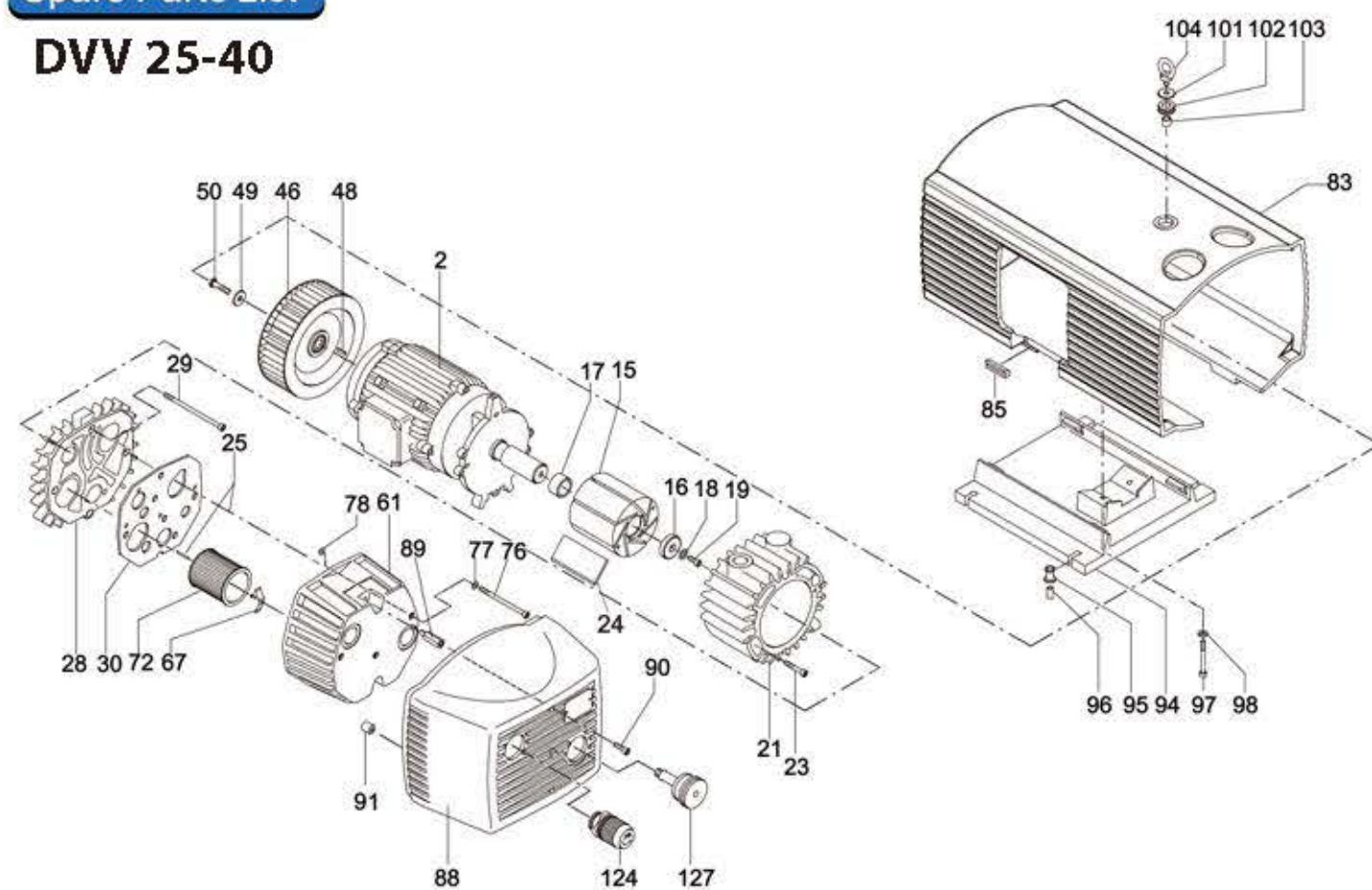
Check vane width every 3,000 operating hours or annually (It has to shorten the maintenance intervals by 24 operating hours daily).Remove housing cover VP and side cover VL for this. on replacement blow out enclosure by dry compressed air.

## Width of vanes (min. mm):

Model	Nominal 'H' Dimension	Min. before replacement
VE-DE-10	24 mm	18 mm
VE-DE-16	35 mm	22 mm
VE-DE-BVT-25	43 mm	28 mm
VE-DE-BVT-40	43 mm	28 mm



**DVV 10-16**



## Spare Parts List

DVVP 25-40

