

V6000

Individual Vacuuming Unit



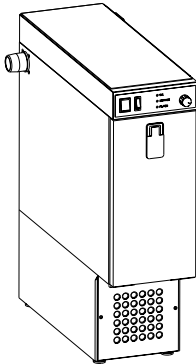


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0. Introduction

0.1 Declaration of conformity



We, Zubler GmbH
Buchbrunnenweg 26
89081 Ulm-Jungingen /Germany

declare, that the product vacuuming unit

V6000

corresponds to the regulations of the following directives in regard to protective requirements

2004/108/EG EMV-Directive
2006/95/EG Low-Voltage Directive
2006/42/EG Machines Directive

Any modification not specifically approved by us voids the validity of this declaration.



Kurt Zubler
Managing Director

0.2 General hints

Dear customer,

we are pleased that you have made the decision to purchase a zubler product and wish you a comfortable working with our equipment.

We are asking you to read the instructions carefully before putting the installation into operation.

The V6000 vacuuming unit is especially designed to improve the dust collection, thus protecting the operator from hazardous dusts. The automatic suction volume adjustment and the two stage filter system, which corresponds with the DIN EN 60335-2-69 standard (class M), provides an ideal dust collection and enables an intact room air condition.

0.3 Regular usage

The V6000 vacuuming unit is designed to collect dry dusts only which are produced in dental laboratories and similar professional fields (e.g. goldsmith, hearing aid acoustician, model maker).

- The V6000 is for indoor usage only !
- Before connecting the V6000 to the mains power, check if the voltage given on the number plate corresponds with the specifications of your local mains power supply.
- For a proper usage a stable mains power supply is required with voltage fluctuations below 10% of the rated value.
- Upon the occurrence of visible dust fall or a sensibly insufficient vacuuming performance the work must be interrupted immediately and the installation must be switched off. Inform your dealer or our service team.
- The use is limited to persons instructed in handling and charged with the usage.

0.4 Environment

Temperature	+5°C to +40°C
Air humidity	max. 80% (@ 30°C)
Max. load	max. 1150 W

0.5 Setting up

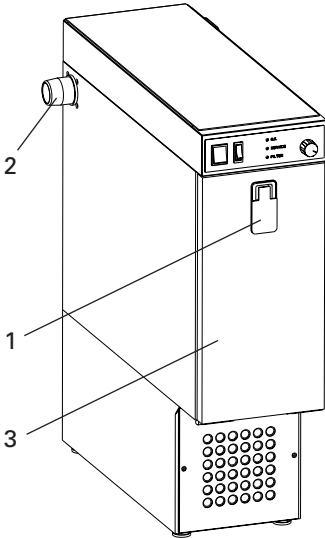


Fig. 0.1: front view

- | | |
|---|------------------|
| 1 | Door lock |
| 2 | Vacuum connector |
| 3 | Front door |

- The unit may be used standing upright only.
- Place the unit on a sufficient stable and even floor.
- To avoid vibrations take care that the housing does not touch.
- The exhaust on the front must be kept free.

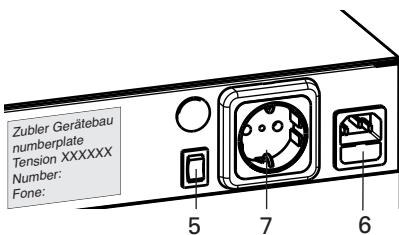


Fig. 0.2: side view

- | | |
|---|------------------------|
| 6 | Sensitivity switch |
| 7 | Low-heat-device socket |
| 8 | Autom. power socket |

0.5.1 Connecting the unit

- Before connecting the V6000 to the mains power, check if the voltage given on the number plate corresponds with the specifications of your local mains power supply.
- Plug the enclosed power cord into the low-heat-device socket (6) and connect it to a local power socket.
- Connect the enclosed 40mm vacuum hose to the vacuum connector (2) and the other side to your intake system.

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Absauganlage
V6000

Spannung 230V
Gesamtleistung max. 1150W
Absaugung max. 700W
Automatiksteckdose 450W
V4010 00-11111-22



Made in
Germany

0.5.2 Connecting the technical gear

- Plug in the power cord of the working tool (e.g. handpiece) into the autom. power socket(7).
- The power consumption of the working tool may not exceed 450W !
- In order to make use of the automatic operation mode the sensitivity must be set. Choose the best matching sensitivity setting with the sensitivity switch (5).
- If the V6000 does not start/stop reliably with one of the predefined 3 switch positions, an internal sensitivity adjustment is required (see chapter 2).

0.5.3 Remote switching (CAD/CAM)

- ① If the remote machine offers a switched power socket, plug the V6000 into the remote power socket.
- ② If the remote machine offers a 24V signal the optional FP-R24 and a corresponding connection cable is needed. (see list below)

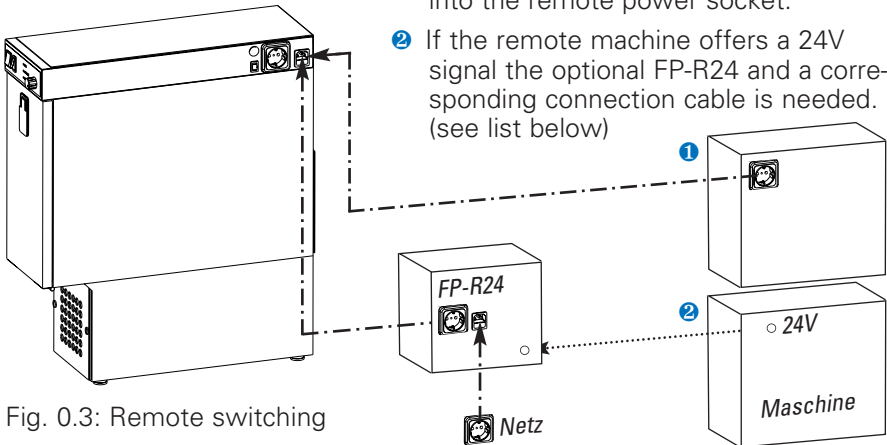


Fig. 0.3: Remote switching

				Order No.
FP-R24				825/257R24
Connection cable 24V length 2m:				
SL-24 - DIN	Round plug	4-pin	vhf, wieland, shera	825/25600
SL-24 - DE9	D-sub-9	9-pin	imes-icore, ammanngirrbach	825/25601
SL-24 - TRS	stereo phone jack	3,5mm	roland	825/25602
SL-24	without plug		other	825/25646

1. ■ Functions

1.1 Front panel

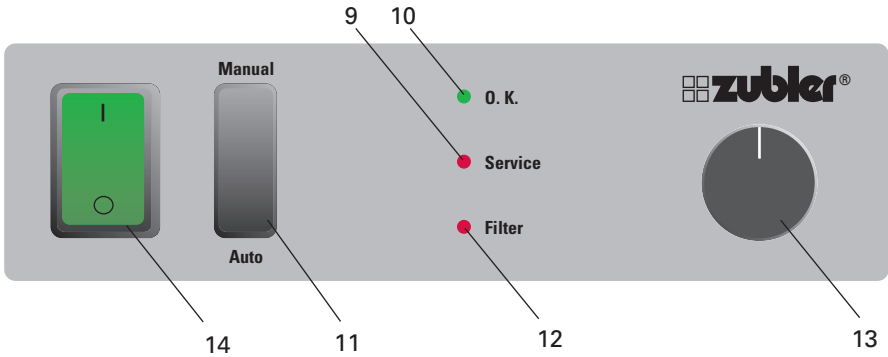


Fig. 1.1: Front panel

9 LED Service

10 LED OK

11 Autom. / Manual switch

12 LED Filter

13 Suction volume

14 Main switch

1.2 Starting the unit

- Switch the Automatic / Manual switch (11) to Manual position to use the manual operation mode. In this mode the suction starts immediately after the vacuuming unit is switched on.
- Switch the main switch (14) to ON position to start the suction unit. The main switch is illuminated green. Adjust the required suction volume with turn knob (13).
- Switch the Automatic / Manual switch (11) to Automatic position to use the automatic operation mode. In this mode the suction starts automatically after the technical gear (e.g. handpiece) is started.
- For sensitivity adjustment see chapter 2.

1.3 Operation

- The green LED "OK" (10) indicates a normal operation.
- The red LED "Service" (9) indicates an electric malfunctioning (e.g. worn out carbon brushes of the motor).
- The red LED "Filter" (12) indicates a filled up filterbag, a clogged finefilter cartridge or a clogged intake line. The suction is stopped automatically and the connected technical gear cannot be operated.
- Switch OFF the suction unit with the main switch (14). Also switch OFF your technical gear to avoid an erroneous startup after the malfunction will have been remedied. Change the filterbag and / or the fine filter cartridge and check the intake line.
- For filterchange see chapter **3**.

2. ■ Adjustments

2.1 Sensitivity settings

Plug in the power cord of the technical gear (e.g. handpiece) into the automatic socket (27) (Fig.0.2) of the suction unit. The max. load may not exceed 450W !

Use one of the three predefined sensitivity settings of the external sensitivity switch (25). The order of the switch positions is as follows :

- | | | |
|-----|--------------------|----------------------------------|
| I: | Low sensitivity | (Schick CN, KaVo SF) |
| 0: | Medium sensitivity | (W+H Elco 2) |
| II: | High sensitivity | (Schick C2 & SM78, KaVo K9, K10) |

If your working tool does not work reliable with one of the three sensitivity switch positions, an internal sensitivity adjustment is necessary.

2.2 Sensitivity adjustment

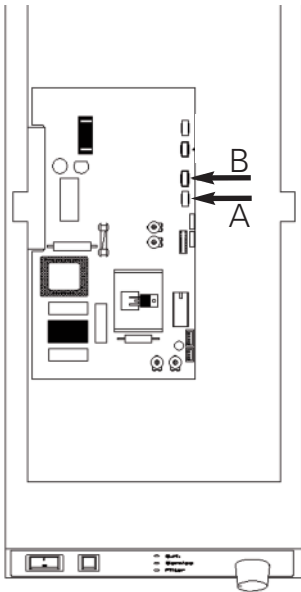


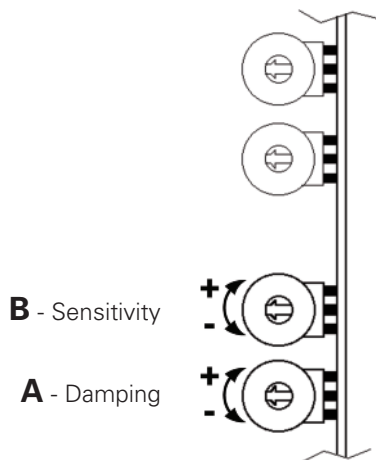
Fig. 2.1

- Remove the screw which is holding the top cover.
- Pull the cover carefully backwards and take it off.
- Remove the ground wire and put the cover aside.



Attention!

Pull mains plug before opening the unit!



- The adjustment is performed by turning rheostat B on the PC-board into the needed direction.
- If the suction unit does not shut OFF although the handpiece is not actuated, the sensitivity is too high. Turn rheostat B to minus (- = CCW).
- If in a reversed case the suction unit does not start after actuating the handpiece, the sensitivity is too low. Turn rheostat B to plus (+ = CW).

Fig. 2.2



Take care that neither hoses nor wires inside the electronic room are pinched or twisted.

2.3 KaVo K-Control

- If the external sensitivity switch (5) (Fig. 0.2) is on level II the suction unit will run continuously, even if the handpiece is not actuated. (Sensitivity too high)
- On level 0 the unit will not start with the lowest rotation speed 5000 rpm. (Sensitivity too low)
- Switch externally to level 0 and increase the sensitivity by turning rheostat B to plus (+) until the unit starts running.
- Alternatively you may also switch externally to level II and decrease the sensitivity by turning the rheostat to minus (-) until the unit stops running.

3. ■ Filterchange

3.1 Replacing the filterbag

- Switch off the unit with the main switch (14) and open the door lock (1).
- Open the front door (3) and pull out the filter cage (16).

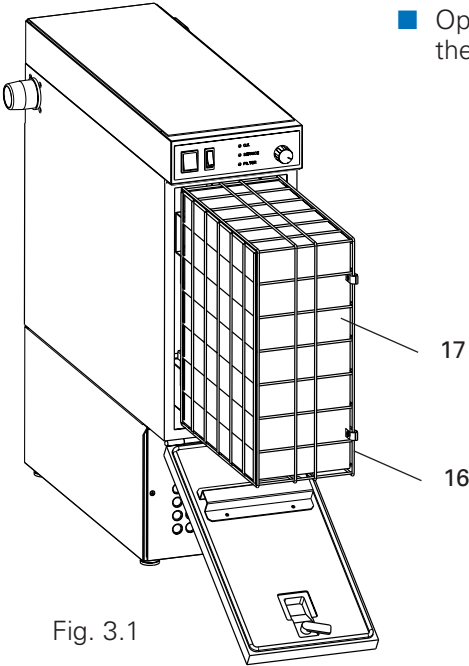


Fig. 3.1



16 Filter cage

17 Filter bag

Perform a **filter** change only with an appropriate protective equipment. (Gloves, breathing mask)

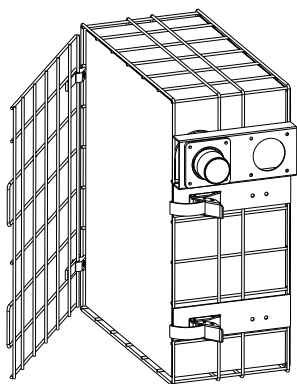


Fig. 3.2

- Open the cage door by unlocking the 2 fasteners.
- Pull the gasket off the nozzle and take out the filter bag (17).
- Close the opening with the adhesive foil.
- Store the filter bag immediately in a dust-tight plastic bag and dispose the filter bag according to your local guidelines.
- Insert a new filter bag and slide the gasket over the nozzle.
- Close the filter cage and slide it back into the unit. Close the front door (3) and lock it again.

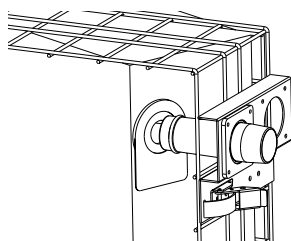


Fig. 3.3



Store and eliminate contaminated filters immediately after withdrawal in a dust-tight lockable plastic bag.

Activated carbon filters must be changed periodically. The period is dependant on type, amount and concentration of the vacuumed fumes and gases.

3.2 Replacing the finefilter

The V6000 is additionally equipped with a finefilter cartridge.

Its function is to collect fine dusts, which volatilizes through the filter bag or are set free during the replacement.

If the red LED "Filter" (12) (Fig.1.1) is still lighted although the filter bag was already replaced or if the change intervals of the filterbag get sensibly shorter, the cause is a clogged finefilter cartridge.

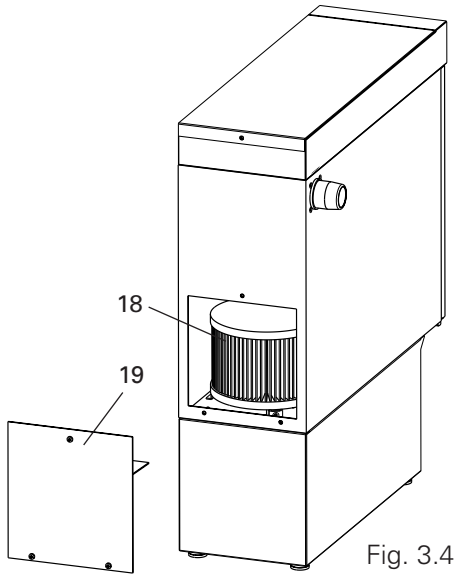


Fig. 3.4

- 18 Finefilter cartridge
- 19 Finefilter cover
- 20 Exhaust plate

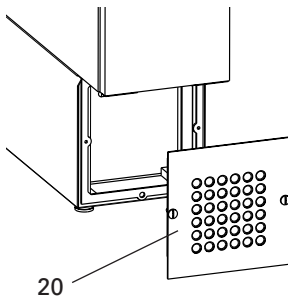


Fig. 3.5

- Switch off the unit with the main switch (14).
- To access the back side of the V6000 you may need to remove all connections and pull out the unit.
- Open the finefilter cover (19) by removing the 3 philips screws.
- Take out the finefilter cartridge by twisting it upwards.
- Store the cartridge immediately in a dust-tight plastic bag and dispose the filter bag according to your local guidelines.
- Insert a new finefilter cartridge and close the finefilter cover with the 3 philips screws.
- Reconnect the vacuum hose and all electrical connections.

Activated carbon filter (optional)

- The V6000 can be additionally equipped with an activated carbon filter which replaces the exhaust plate (20). Remove the plate by turning the 2 screws into horizontal position.

4. ■ Intake system

4.1 Requirements

Basic requirements upon an intake system are beside an optimal dirt collection the avoidance of disturbing flow noises and the encouragement of an ergonomic working position.

4.2 R1200/R1250

These properties can only be granted with an intake system especially matching the vacuuming unit consisting of

- Suction funnel R1200
- Suction funnel R1250 (ceramics, gold)
- Rectangular pipe R1000, R1300
- Silencer R1100.

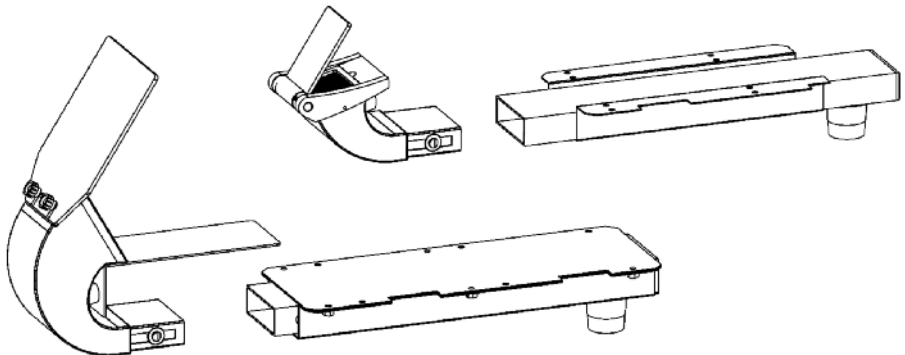


Fig. 4.1

- Upright seat position on an appropriate seat furniture.
- Workpiece as close to the suction funnel as possible, no dust fog may be visible. Dust streaks must be pulled into the funnel.
- Viewing direction onto the workpiece vertical to the safety glass.

5. ■ Maintenance

Before cleaning and servicing the gear and also before replacing spare parts the suction unit must be separated from the mains supply !

Wipe off any outer soiling with a mere moist cloth, protect the suction unit from water penetration !

Maintenance works on electrical parts of the unit must solely be carried out by expert personnel or by persons having been trained.

We recommend to verify the suction technique once per annum or to let an instructed person do this check with regard to tightness against dust and to functioning.

5.1 Replacing the Carbon Brushes

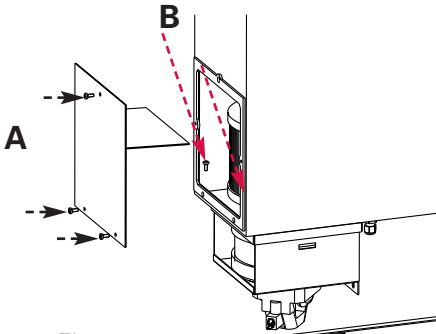


Fig. 5.1

- Open the finefilter cover and the motor cover by removing the 7 phillips screws (A+B) to get access to the motor.
- Do NOT remove the motor !
- Unplug the wires from the brush holders and pull out the brushes while pressing down the metal latch.
- Insert the new brushes until they lock and reconnect the wires.

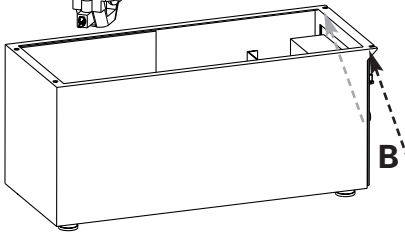
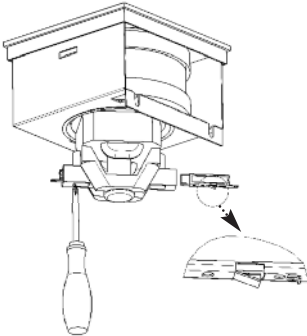


Fig. 5.2



Always change BOTH carbon brushes !

6. Troubleshooting

Fehlererkennung	Ursache	Abhilfe
LED „Filter“ illuminated	<p>Due to a filled up filter bag and/or a clogged fine filter as well as a clogged suction line, the minimum suction performance can no longer be granted.</p> <p>The internal electronics interrupts the vacuuming operation.</p>	<p>Change the main filter (see chapter "Main filter change"). If the indication does not extinguish also change the fine filter (see chapter "fine filter change"). If the indicator light will still not extinguish check the suction line, starting with the intake system, with regard to clog ups.</p>
LED „Service“ illuminated	<p>An electrical disturbance mostly caused by worn out carbon brushes of the suction motor after an operating period of about 2 – 3 years.</p>	<p>Replace the used carbon brushes (instructions will be sent with the replacement brushes).</p> <p>Carbon brushes must and can be replaced only once. If the collector is already worn out, only an exchange of the motor can create remedy.</p>

Fehlererkennung	Ursache	Abhilfe
Suction does not start (main switch (14) is NOT illuminated)	No mains supply or mains switch not switched on. Fuse burnt-out due to overcharging.	Check the mains connection. Switch the main switch (14) into "On" position, the main switch is illuminated green. Check the fuse inside the cold gear socket and also the breaker on the installation side.
Suction does not start in "Automatic"-mode	Sensitivity level of the automatic socket is too low.	Select a different sensitivity switch position (see chapter "Setting-up").
Suction does not switch off in "Automatic"-mode (Suction runs continuously)	Sensitivity level of the automatic socket is too high; Spark discharge due to renewed carbon brushes.	Select a different sensitivity switch position (see chapter "Setting-up"). New carbon brushes need a run-in period of about 2 – 3 hours.

Please ask your local dealer or call our service team under +49 (0)731 1452-58.

You can reach us from :

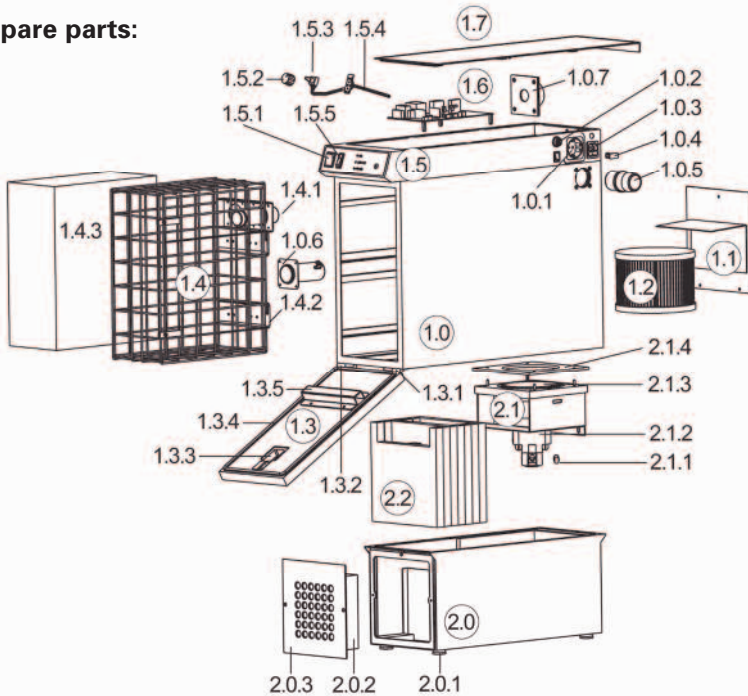
Mo – Thu 8-17h,

Fr 8-13h

For faster processing keep model type and serial number ready at hand. You can find these data on the type label near the automatic socket.

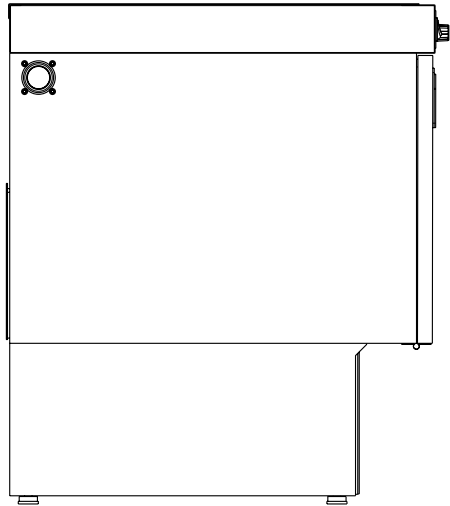
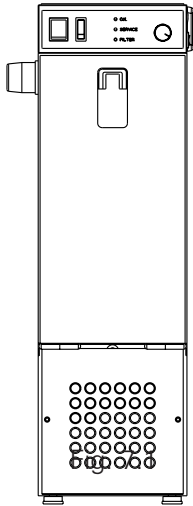
7. Data

7.1 Spare parts:



Pos.	Name	Order No.	Pos.	Name	Order No.
1.0	Filter housing	570/2202	1.4.3	Filter bag, fedded	556/035
1.0.1	Autom. power socket	012/005	1.5	Electronic housing	570/2375
	Socket frame	012/0051		Front panel	020/006
1.0.2	Sensitivity switch	019/0011	1.5.1	Main switch I/O	019/0061
1.0.3	low-heat-device socket	012/0031	1.5.2	Turn knob	022/004
1.0.4	Main fuse	028/0125	1.5.3	Potentiometer	752/041
1.0.5	Vacuum connector	563/0804	1.5.4	LED board	752/040
1.0.6	Vacuum sensor	752/0103	1.5.5	Mode switch	019/0082
1.0.7	Cage sealing	557/118	1.6	Mainboard	753/0347
1.1	finefilter cover	570/2367	1.7	Top cover	570/2365
1.2	finefilter cartridge	556/019	2.0	Motor cover	570/2423
1.3	Front door	563/082	2.0.1	Foot	558/007
1.3.1	Hinge right	567/001	2.0.2	Exhaust Foam	549/0037
1.3.2	Hinge left	567/002	2.0.3	Exhaust cover	570/2371
1.3.3	Door lock	570/0398	2.1	Motor package	752/310
1.3.4	Door sealing	557/1211	2.1.1	Carbon brushes	037/10240
1.3.5	Distance piece	570/2497	2.1.2	Blower motor K71	450/008
1.4	Filter cage	752/103	2.1.3	Motor ring	558/130
1.4.1	Filter nozzle	563/0041	2.1.4	Motor package sealing	557/059
1.4.2	Cage fastener	570/1052	2.2	Noise damper	549/009

7.2 Dimensions:



7.3 Technical data:

Width	200 mm	
Height	680 mm	
Depth	610 mm	
Weight	31 kg	
Tension (see number plate)	100V / 115V	230V / 240V
	50-60 Hz	50-60 Hz
Fusing		
main fuse	T10 A	T6,3 A
autom. socket (internal)	T4 A	T2 A
Total power consumption	max. 1150 W	
Nominal power	suction unit	max. 700 W
	autom. socket	max. 450 W
Filterbag :		
Filtersurface	0,4 m ²	
Dust capacity	approx. 4 kg	
Finefilter cartridge :		
Filtersurface	0,7 m ²	
Volume flow	90 -135m ³ /h	
Low pressure	8.000 - 14.000 Pa	
Sound level	52-61 dB(A)	



B- V6000 - en 48-2012

technical changes without notice!



Bxxxx / 11-2012



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