



# ASPINA - DO M

EN User manual

CE 2460



THE DENTAL ASPIRATOR  
DIE DENTALE ABSAUGPUMPE  
L'ASPIRATEUR DENTAIRE  
ДЕНТАЛЬНОЕ ОТСАСЫВАЮЩЕЕ УСТРОЙСТВО  
ODSYSARKA DENTALNA  
DENTÁLNA ODSÁVAČKA  
DENTÁLNÍ ODSÁVAČKA

MANUFACTURER  
HERSTELLER  
FABRICANTПРОИЗВОДИ  
ТЕЛЬ  
PRODUCENT  
VÝROBCA  
VÝROBCE

DATE OF LAST REVISION  
DATUM DER LETZTEN ÜBERARBEITUNG  
DATE DE MISE A JOUR  
ДАТАПОСЛЕДНЕГОПЕРЕСМОТРА  
DATA WYDANIA  
DÁTUM POSLEDNEJ REVÍZIE  
DATUM POSLEDNÍ REVIZE

ASPINA -DO M



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## **IMPORTANT INFORMATION**

### **1. WARNINGS**

#### **1.1. CE Marking**

Products marked with **CE** mark of compliance meet safety guidelines of European Union (93/42/EEC).

#### **1.2. General warnings**

- The installation, operation and maintenance manual is an integral part of the appliance. It is necessary to always keep this document close to the appliance. Strict observance of this manual is a prerequisite for the correct operation of the appliance.
- The safety of operating personnel and failure-free operation of the appliance are ensured only when using the original components of the appliance. It is possible to use accessories and spare parts mentioned in the technical documentation or clearly permitted by the manufacturer.
- When used with non authorized accessories or consumable material, the manufacturer cannot assume responsibility for the safe operation and functionality of the device.
- The Guarantee does not cover damages that originate due to the use of non authorized accessories or consumable material other than those recommended by the manufacturer.
- The manufacturer assumes responsibility regarding safety, reliability and function only if
  - The installation, calibration, amendments, extensions and repairs are made by the manufacturer or his representative or a service organization authorized by the manufacturer,
  - The appliance is used in accordance with the installation, operation and maintenance manual.
- The installation, operation and maintenance manual, at the time of printing, corresponds to the design of the appliance and its state according to the relevant safety and technical standards. The manufacturer reserves all copyrights for the given wiring schemes, methods and names.

#### **1.3. General safety warnings**

The manufacturer developed and constructed the appliance so that damage would not occur when the appliance is used for its intended purpose. The manufacturer considers it his obligation to describe the following safety measures in order to avoid further damages.

















- When operating the appliance, it is necessary to observe laws and regional regulations valid in the place of usage. In order to ensure safe course of works, the operator and user are responsible for the observation of regulations.
- The original packaging should be kept for the possible return of the unit. Only original packaging guarantees an optimal protection of the appliance during transportation. If it would be necessary to return the appliance during warranty period, the manufacturer is not responsible for damages caused by incorrect packing.
- It is necessary that the user ensures the appliance is safe to use prior to usage.
- The user must familiarize himself with the correct operation of appliance.
- If an undesirable event occurs in the operation of appliance, the user is obliged to immediately inform his supplier to this event.
- This product is not intended for use in areas with the risk of explosion.

#### **1.4. Safety warnings regarding the protection against electric current**

- The appliance must only be connected to an appropriate power source that has correct grounding.
- Prior the connecting the compressor, verify whether the mains voltage and frequency specified on the apparatus are in accordance with the local supply.
- Prior to putting into operation, check for possible damages on the appliance and the air connectors. Damaged cables and sockets/plugs must be replaced immediately.
- In the case of a dangerous situation or a technical failure, immediately disconnect the appliance from mains supply.
- During all repairs and maintenance:
  - ensure that the mains plug is removed from the power socket
  - pressure pipes must be air vented
  - pressure must be released from pressure tank.
- This appliance can only be installed only by a qualified expert.

## 1.5. Alert notices and symbols

For your information, the symbols below are used in the installation, operation and maintenance manual, on packaging materials and on the product :

	Information or instructions to prevent any injury to health or material damage to the compressor.
	Alert against dangerous electric voltage.
	Consult instructions for use
	CE – marking
	Attention! Hot surface.
	Handling mark on package – FRAGILE
	Handling mark on package – THIS SIDE UP
	Handling mark on package – KEEP DRY
	Handling mark on package – TEMPERATURE LIMITATIONS
	Handling mark on package – LIMITED STACKING
	Mark on package – RECYCLABLE MATERIAL
	Connection of protective ground wire
	Connector for equipotential connection
	Fuse
	Alternating current
	Danger of biological hazard
	Indicates a medical device that has not undergone sterilization

## 2. PRODUCT INFORMATION

### 2.1. Intended Use

The dental aspirator ASPINA DO M is a mobile equipment extending the possibilities of procedures provided for by a physician and ensuring the increase of ergonomics at his work. It is suitable for the dental units not equipped with the suction apparatus and a separator. It is intended for the dental practice needs for aspiration, separation and entrapping of the waste into the built-in separation vessel. With regard to its mobility it enables a simple transport between the workplaces and can be used above all where the connection to a sewerage system is impossible.

The dental aspirator is designed for the operation in dry, ventilated rooms, with the ambient temperature ranging between +5°C up to +40°C, and relative humidity not exceeding the value of 70%.

- The dental aspirator may not be exposed to rain. The apparatus may not be operated in the moist or wet environs. In addition, avoid the use near gases or combustible liquids.
- Other use, or the use exceeding this scope, can not be regarded as the intended use. The manufacturer is not responsible for the resulting damages. The risk will be born exclusively by the operator / user.

- 

**2.2. Product Description**

The mobile dental aspirator ASPINA DO M is built-up on a movable bogie on which is situated a box, lined by a noise damping material. Inside the box there is situated a fan cooled suction aggregate (9) with the electric distribution and the waste entrapping separation vessel (11). In the lower part – under the box – there is situated a silencer with an output filter (14) and a pre-filter (15) ensuring the air filtration from the suction aggregate. In the upper – narrowed part of the aspirator - there is situated a holder for suction tubings (2) equipped with mouthpieces (1), separation automatics and thermal box with fuses. On the lateral part there is situated a main switch (5), over which are placed the indicators for the network (3) and for the state of filling of the separation vessel (4).

**3. TECHNICAL DATA**

	<b>DO M</b>
Rated voltage / frequency V / Hz	230 / 50; 230 / 60*; 110 / 60*
Rated input of the aspirator VA	520
maximum flowrate : l/min	1100
maximum underpressure kPa	12
Sound level dB(A)	≤48
Mode of operation of the aspirator	permanent S 1
Dimensions of the aspirator mm	565x350x860
Dimensions of the aspirator with carton (h x w x d) mm	950x560x595
Weight of the aspirator kg	36
Weight of the aspirator with carton kg	40
Model according to EN 60 601-1 (IEC 601-1) STN	apparatus type B, class I.

(\* ) The rated voltage and frequency can be change by special order

Climatic conditions for the storage and transport

**Temperature** –25°C up to +55°C, 24 h up to +70°C

**Relative air humidity** 10% up to 90 % (without condensation)

Climatic conditions for the operation

**Temperature** +5°C up to 40°C

**Relative air humidity** up to +70%

## 3.1. FAD efficiency correction for differences in elevation

*FAD correction table*

Elevation [mamsl]	0 - 1500	1501 - 2500	2501 - 3500	3501 - 4500
FAD [l/min]	FAD x 1	FAD x 0.8	FAD x 0.71	FAD x 0.60

FAD efficiency refers to conditions at an elevation of 0 mamsl:

Temperature: 20°C

Atmospheric pressure: 101325 Pa

Relative humidity: 0%

## 4. FUNCTION DESCRIPTION

### 4.1. Function Description

After switching-on the main switch (5) into the position „I“ the network indicator (3) goes on. Taking the suction tubing (6) off the holder (2) will actuate the suction aggregate (9) and the underpressure occurs at the suction mouthpiece (1). After repeated putting the suction tubing into the holder, the suction aggregate turns off. When the separation vessel (11) is filled with waste products, the suction aggregate turns off and the indicator for the separation vessel (4) filling goes on. Then it is necessary to return the suction tubing back into the holder and to empty the separation vessel. During a longer work, mainly with the desalivating mouthpiece, the box temperature may increase; the cooling fan is then automatically actuated. The fan turns off automatically, when the box temperature drops

### 4.2. Detailed Description of the Suction Part Function

The underpressure air flows together with sucked waste products from the oral cavity through the tubing system from the suction mouthpiece (1) at first through the inlet sieve (7), wherein the solid impurities are entrapped. The underpressure air, together with the sucked waste products, free of solid impurities greater than 2 mm, then flows into the separation vessel (11) wherein it is separated from the underpressure air and entrapped into the separation vessel.

Suction air flows through the filter (18) and into the suction unit (9), from which it is pushed through a noise muffler. Therein the output air passes through the output pre-filter (15) and the bacteriologic output filter (14). After passing the filters, the air free of impurities is blown off into a free space under the dental aspirator.

## ASSEMBLY

## 5. STORAGE AND TRANSPORT CONDITIONS

The dental aspirator is delivered ex-work packed in a transport carton, preventing the apparatus from being damaged during the transport.



**For the transport, always use an original product packing, if possible.  
Transport the dental aspirator in an upright position.**



Protect the aspirator during transport against moisture, impurity or extreme temperatures.  
The aspirator in an original packing can be stored in warm, dry and dustfree rooms.



Keep the packing material for possible future return shipments. If this is not possible, dispose the packing material in an environmental-friendly way. The transport carton can be disposed off as the old paper.



**Mobile dental aspirator may only be transported with emptied separation vessel.  
Always empty the separation vessel contents before any transport.**

## 6. INSTALLATION AND INITIAL START-UP



**Before the initial start-up, remove all locking means serving for fixing the apparatus during the transport.**



**First actuation can be done only by professional specialist.**



**ANY MODIFICATION OF THIS EQUIPMENT IS FORBIDDEN!**



**This equipment cannot be used nearby other instruments. If this equipment is used nearby other instruments, the equipment must be observed in order to verify normal operations in the configuration it will be used.**

**Instruments may be affected electro-magnetically!**

### 6.1. Environmental Conditions

- The apparatus may only be installed and operated in dry, well ventilated and dust-free rooms.
- The mobile dental aspirator should be installed with regard to an easy access for the operation and maintenance and good accessible rating plate.
- The apparatus should stand on a plane, sufficiently stable base (be aware of the aspirator weight, see item 3. Technical data).



**Neither the lines for the connection to the electric network, nor the suction tubings may be cranked.**

- To guarantee a trouble-free operation of the aspirator, the room temperature should never drop under +5°C and exceed +40°C. The ideal ambient temperatures are between +10°C up to +25°C.
- Most of the electric energy used by the suction aggregate (9) is converted to heat and given off to the ambient. During a longer lasting work, above all with the desalivating mouthpiece, the box temperature increases over 40°C causing an automatic actuation of the cooling fan. After the room is cooled down under approximately 32°C, the fan turns off again.

### 6.2. Electric Connection

The dental aspirator model 230V is delivered with the safety plug. It is unavoidable to observe the rules of the local electricity works. The network voltage and frequency must be in compliance with the rating plate data.

- In case that the apparatus is fix connected to the supply of electric voltage, a disconnecting device must be situated near the apparatus.
- If the apparatus is connected to the supply of electric voltage by means of a plug, the socket must be good accessible for safety reasons, so that the apparatus can safely be unplugged from the network in case of a danger.
- The network distribution must be protected by maximum 10 A.



**The power cord can only be replaced by maintenance personnel!**

### 6.3. Initial Start-up

After unpacking, put the aspirator on the floor, open the door and check whether the separator's cover (10) with sensing electrodes is attached to the separation vessel (11). In case of need, fix the cover to the vessel and then follow the instructions in the Chapter No. 9. Close the door and connect the aspirator's power cord to the socket. Change the main switch (5) over into the position "I", the indicating lamp for the network (3) goes on and the aspirator is ready for the operation.



**The tips are not provided in the sterile status! The included tips must be steam cleaned before use (see Chapter 9.6)!**



## USE

### 7. OPERATION



**The apparatus may only be operated by the trained staff!**



**Disconnect from the network in case of a danger (unplug) !Hot surfaces of the suction aggregate. Do not touch - Danger of burn.**

#### 7.1. Switching on the Dental Aspirator

Switch on the dental aspirator by turning the power-supply switch (5) in the position „I“.

The aspirator is put into operation automatically by taking the suction tubing (6) with a mouthpiece (1) off the holder (2). It works uninterruptedly until both tubings are put on the holders again or until the separation vessel (11) is full (during an uniform operation it is filled within about 6 – 10 hours). Suction tips holder is equipped with vacuum regulation of suction unit depends on dentist needs. The state of filling of the separation vessel is evaluated by the separation automatics which interrupts the suction by the aggregate (9) and filling of the separation vessel is indicated automatically with the indicator lamp (4) going on. At this point it is necessary to put the tubings with suction mouthpieces into the holder and switch the power-supply switch off. Afterwards open the door by pulling the grips situated on the side walls, uncouple rubber fixing lugs from the separator cover (10) and pull the separator's vessel out. Hang the separator's cover into the holder on the left side (8).

Empty the separation vessel content into the sewer, rinse the vessel with water, connect with the separator's cover in a reversal order. Set the separator into a bowl (12) in the aspirator box (the bowl is detachable). Check the connection of the cover with the vessel, seating of the separation vessel in the bowl and close the door.

#### 7.2. Use of antifoaming tablets

Under specific exhaust conditions, increased exhaust condensate foaming may occur due to the switching off of the exhaust unit when the separation tank is not full. Antifoaming tables (17) must be inserted in order to prevent this from occurring (see the basic accessories); add these tables to the intake screen (7). The tablets will then gradually dissolve in the input screen and will significantly decrease exhaust condensate foaming; the tablets also function as disinfection agents.

#### 7.3. Filter use in the separation vessel

The filter in the separation vessel is an additional layer of protection for the suction unit to prevent moisture from the foam from entering the suction unit. Foam is generated in the separation vessel under specific suction conditions. Foam-blocking tablets are used to eliminate such foam, see Chapter

**Schedule for adding tablets:** Insert 1 or 2 antifoaming tablets into the intake screen (7) at the end of work and after cleaning and disinfecting the equipment.



**The tips are not delivered in a sterile state!  
Replace used suction mouthpieces on tubings after each patient!**



**Used suction tips intended for repeat use must be steam cleaned after every patient!  
The cannulas are to be exchanged after maximum of 100 cycles of steam cleaning or after one year based on whichever occurs first.**



**It's forbidden to cover all blow-holes placed on upper sides of unit.**



**Aspirator contains no spare power supply!**



**Before each switch on running unit it's necessary to check if door of box is closed.**

**8. MAINTENANCE INTERVALS - USER / TECHNICIAN**

**Notice!**

The operating entity is obliged to ensure that all tests of the equipment are carried out repeatedly at least once within every 24 months (EN 62353) or in intervals as specified by the applicable national legal regulations. A report must be prepared on the results of the tests (e.g.: according to EN 62353, Annex G), including the measurement methods used.

Maintenance to be done	Chapter	Time interval	To be performed by
Use of antifoaming tablets	7.2	at need	user
Inlet Sieve Cleaning	9.1	per day	user
Lubricating seals and sliding clamps	9.2	Every 15 days	User
Disinfection of Tubings and Separation Vessel	9.3	per day	user
Cleaning and disinfection of the exterior surfaces of the product	9.4	at need	user
Replacement of output pre-filter	9.5	every 3 months	user
Replacement of output filter	9.6	per annum	user
Exchange of suction cannula	9.7	max. 100 steam cleaning cycles	user
Replacing the filter in the separation vessel	9.8	Every 18 months	User
Perform "Repeated Test" according to EN 62353	8	1x in 2 years	qualified technician

**9. MAINTENANCE, CLEANING AND DISINFECTION**



**Repair works exceeding the scope of a general maintenance may only be carried out by a qualified specialist or by the manufacturer’s customer service.**



**Use only spare parts and accessories permitted by the manufacturer. Before making any maintenance, repair or cleaning, it is unavoidable to disconnect the apparatus from the network (unplug).**

Following works must be carried out from the hygiene and the correct aspirator function points of view.

**9.1. Inlet Sieve Cleaning**

Solid particles (sucked together with a liquid component and the air) are entrapped in the inlet sieve (7) during the apparatus operation (Enclosure No. 1, Fig. 1) which therefore must be regularly cleaned, by section 8 (though, always at the end of each shift).

The inlet sieve cleaning is possible only after the moisture inside suction tubings (6) and a sieve is reduced by means of the several seconds lasting air suction through tubings taken off the holder (2). Then turn the power-supply switch (5) off in the position „O“ and slightly lift the cover of the inlet sieve. Afterwards pull the sieve out of its place gripping the holder, remove solid particles and clean the sieve. Then put the sieve on the previous place into the holder and carry out the assembly in the contrary manner to the dismantling.

If the suction of amalgam particles is expected, it is necessary to empty the inlet sieve content into a closing vessel and forward it to the collecting centres.

**9.2. Lubricating seals and sliding closures**

O-rings (sealing rings) and sliding terminal clamps (Enclosure No. 1- pos.1) must be lubricated using a suitable silicone oil for dental applications (e.g. Lubri-Jet spray) every 15 working days.

**9.3. Disinfection of Tubings and Separation Vessel**

For the separation vessel (11) disinfection it is necessary to empty the same, rinse with warm water and clean mechanically with warm water and a disinfectant.

The disinfection of internal suction tubings and of the separation vessel should be performed by section 8, though always at the end of a shift by suction of warm water containing a disinfectant having a limited foaming power through both suction tubings (6) separately. The used disinfectant must be approved in compliance with a valid national legislation on usage for disinfected surface and a type of material. For the disinfectant use, follow the manufacturer's instructions.

**9.4. Cleaning and disinfection of the exterior surfaces of the product**


Use neutral agents for cleaning and disinfection of the external surfaces of the product.



**The use of aggressive cleaning agents and disinfectants comprising alcohol and chlorides may lead to the damage of the surface and the discoloration of the product.**

To find out whether the aspirator works correctly, the following works should be carried out in the defined maintenance intervals:

**9.5. Replacement of the Output Pre-filter**

It is necessary to replace the output pre-filter (15) by section 8. Before making any replacements turn the aspirator power-supply switch (5) off. The pre-filter together with the filter (14) are situated on the left lower part of the aspirator's bogie having the symbol .

For its dismantling, catch the filter holder (13) with one hand and with the other hand slew the fixing lugs (16) by 90° by simultaneous pulling down. Remove the filter holder together with the output filter. Then release the output pre-filter from the cavity wherein also the output filter was situated (check also the state of pollution of the output filter).

For the reassembly, set the output filter into the filter holder, put the output pre-filter onto the filter (direct the output pre-filter with the gummed cloth towards the filter) and insert all the assembly into the cavity space from below. Slew the fixing lugs back by 90° so that they engage into the recessed parts of the filter holder.

**9.6. Replacement of Output Filter**

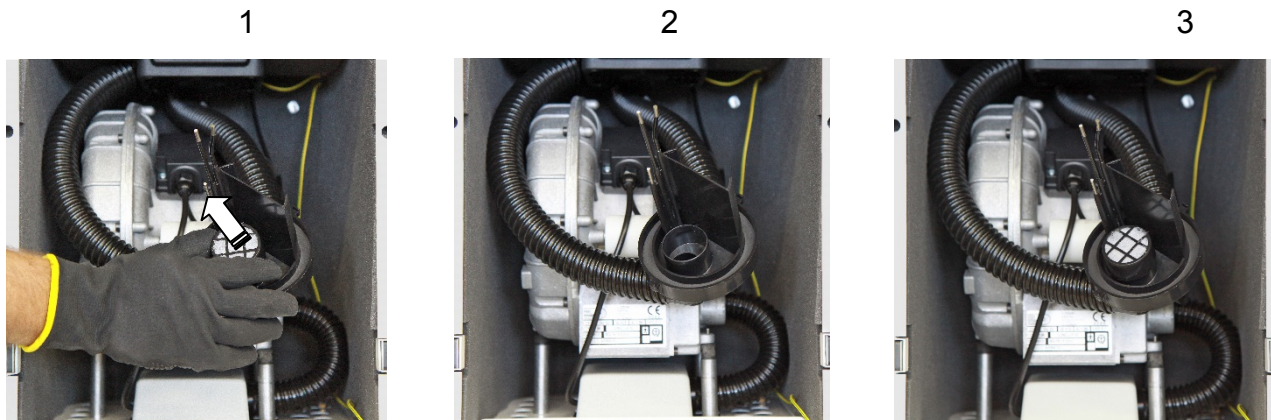
During the regular use of the device, the output filter (14) must be replaced according to the interval in Chapter 8. The procedure of disassembly and assembly of the filter is the same as for the replacement of output prefilter (15).

**9.7. Cannula steam cleaning process**

TYPE / MANUFACTURER OF CANNULAS DELIVERED FOR THE PRODUCT	10, 11 /Cattani S.p.A., VIA NATTA, 6/A - 43122 PHARMA – ITALY- TEL:+39 0521 607604, www.cattani.it
LIFE CYCLE OF CANNULAS DELIVERED FOR THE PRODUCT	Maximum number of steam cleaning cycles is 100
WARNINGS	Use a type B autoclave. Pay close attention when cleaning the cannulas! Do not exceed a temperature of 135°C! Patient health is at risk if the proper steam cleaning cycle is not followed! Damaged ends cannot be reused.
PREPARATION FOR STEAM CLEANING	Remove the cannulas from the equipment - exhaust ends. Immediately place the ends after use into a collection vessel or completely submerge them into Eco-Jet 2 1.5%, or 3% decontaminating solution for the time needed based on instructions

	provided with the product.
CLEANING	When hand cleaning, use a brush that is suitable for cleaning internal parts. An ultrasound bath or an instrument washer can also be used. Flush with running water for 1 minute after washing. Carefully clean the inside parts of the ends.
DRYING	Use a towel, paper towel or dry air to dry out the internal and external parts of the ends.
STEAM CLEANING	Use special packaging intended for use in autoclaves. Steam clean at 134°C and a pressure of 2.1 bar for 10 minutes.
STORAGE	Store in a suitable environment. Follow all product packaging instructions to maximise the efficiency of steam cleaning in storage conditions.
ADDITIONAL INFORMATION	When cleaning, do not overfill the autoclave or exceed the maximum steam cleaning temperature!

**9.8. Replacing the filter in the separation vessel**



**10. PUTTING OUT OF OPERATION**

When the dental aspirator is not used for a longer time, it is necessary to carry out the cleaning and disinfection of all parts as described in the Articles No. 9.1, 9.3 and then turn the power-supply switch (5) on in the position “I”, take the suction tubings (6) off the holder (2) and let the air intake flow through (for approximately 15-20 min) so that the suction system is fully dried out. Afterwards put the tubings into the holder and turn off the power-supply switch in the position “0”, disconnect the apparatus from the network (unplug) and remove the suction mouthpieces (1) from suction tubings.

**DISPOSAL**

**11. DISPOSAL OF APPLIANCE**

- Disconnect the appliance from mains.
- To follow the rules of personal hygiene for works with contaminated material
- Clean device according, section 9
- To separate, label, packing and providing for decontamination of contaminated parts by course of national regulations
- Liquidate dental suction unit according to local effective statutes.

**⚠ Inside parts of unit can be contaminated with biological material by reason incorrect using. Before clearing and waste disposal pass on special institution for decontamination.**

## TROUBLESHOOTING

### 12. INFORMATION ON REPAIR SERVICE

Guarantee and post-guarantee repairs are ensured by manufacturer or organizations and repairers denoted by the supplier.

**Warning !**

Manufacturer reserves the right to make changes on the appliance that however will have no impact on substantial characteristics of the appliance.

### 13. SOLVING COMMON PROBLEMS



**Disconnect the appliance from the network before making any interventions therein.**

Works in connection with the removal of failures may only be carried out by a trained stomer service technician.

In case of repair of parts of device which might be contaminated please follow bellow mentioned instruction:

- Disconnect the appliance from mains
- To follow the rules of personal hygiene for works with contaminated material
- Clean device according, section 9
- To separate, label, packing and providing for decontamination of contaminated parts by course of national regulations
- To perform the repair of damaged parts

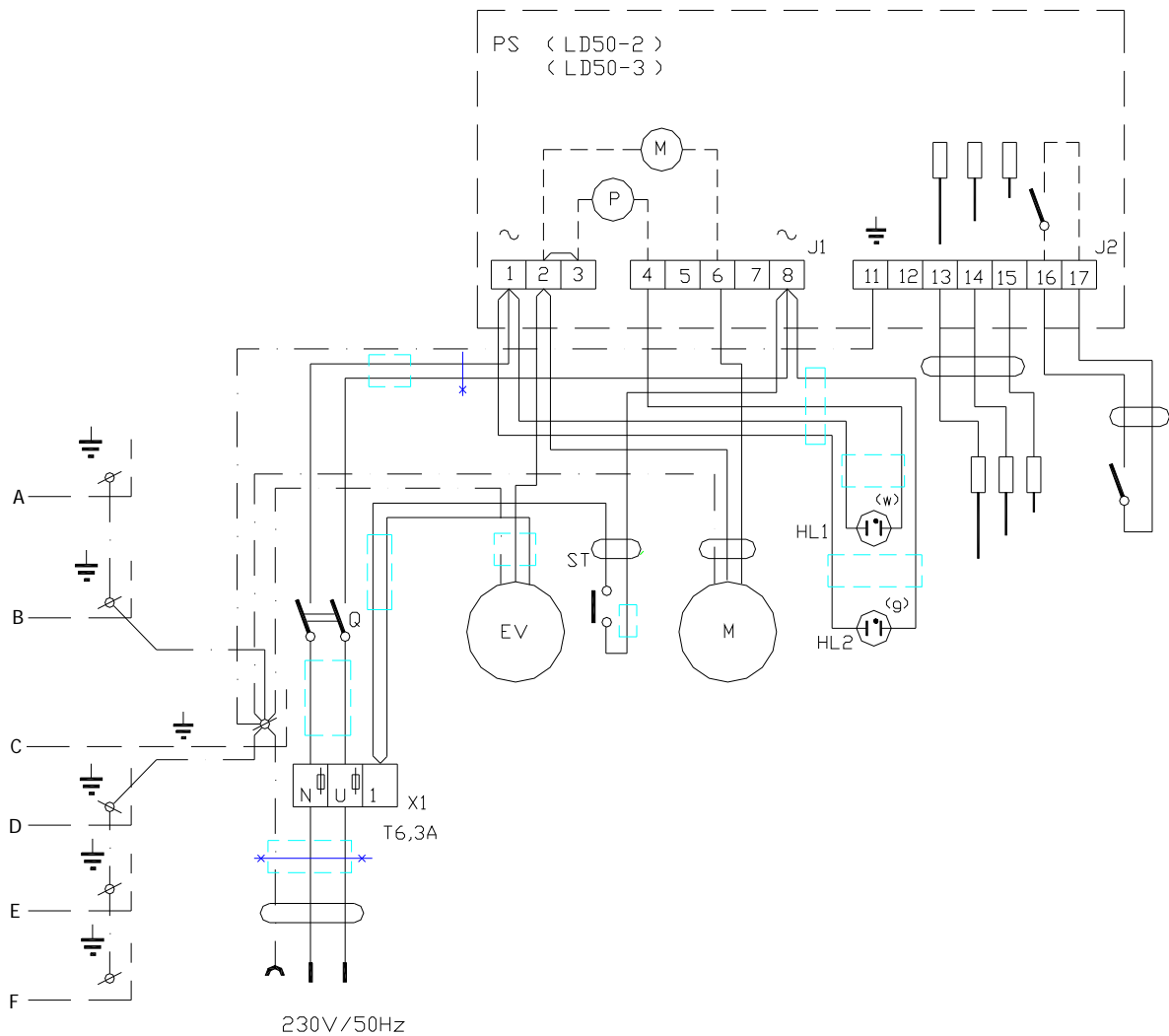
<b>Failure</b>	<b>Problem and possible reasons</b>	<b>Way of removal</b>
Aspirator does not work	Mains voltage absent	Check mains voltage in the socket, activate a protective element in the electric distribution (fuse, circuit breaker)
	Interrupted supply of el. energy Power-supply switch off	Check the power-supply switch position („I“), switch on the power-supply switch (network indicator goes on)
	Interrupted power cord	Replace the defective part
	Loose clamp of terminal board	Tighten the clamps
	Interrupted motor wiring, defective thermal protection	Replace suction aggregate
	Defective mains fuse of the apparatus	Check the state of apparatus mains fuse, replace defective fuse (fuses 2 x T 6.3 A are situated in the upper, narrowed part of the aspirator)
Aspirator is switching without taking suction tubings off	Full separation vessel High current consumption	Empty the separation vessel content Defective starting capacitor, replace the capacitor
	Suction unit is/was awash by liquid	Suction unit pass on repair to service – keep all rools and norms for work with contamination material
	Defective control automatics	Replace the defective part
Aspirator is switching without taking suction tubings off	Defective microswitch in the suction tubings holder	Replace the defective part
	Aspirator is noisy	Box door improper closed

	Defective bearings of the suction aggregate	Replace the defective bearing for an identical type
	Incorrectly mounted filter holder	Mount the filter holder into a correct position
	Incorrectly mounted cover of the separation vessel	Mount the separation vessel cover into a correct position
	Suction unit is/was overflowen by liquid.	Suction unit pass on repair to service – keep all rools and norms for work with contamination material
Aspirator efficiency reduced	Heavy polluted output pre-filter	Replace the pre-filter (see Maintenance intervals art.No.8)
	Heavy polluted output filter	Replace the filter (see Maintenance intervals art.No. 8)
	Leaks in the suction system	Check connections, seal untight connections
	Defective control valve in the suction tubings holder	Replace the defective part
	Heavy polluted inlet sieve	Clean the inlet sieve

**ANNEXES / BEILAGEN / ANNEXES / ПРИЛОЖЕНИЯ / ZAŁACZNIKI / PRÍLOHY / PŘÍLOHY**

**14. WIRING DIAGRAMS /SCHALTUNGSSCHEMA / SCHÉMA DE COUPLAGE / СХЕМЫ СОЕДИНЕНИЙ / SCHEMATY PODŁĄCZENIA / SCHÉMY ZAPOJENIA / SCHÉMY ZAPOJENÍ**

Vyhotovenie v 1/N/PE AC230V ~  
 Model 1/N/PE AC230V ~  
 Исполнение в 1/N/PE AC230 В перем  
 Ausführung in 1/N/PE AC230V ~  
 Version 1/N/PE AC230V ~  
 Wykonanie 1/N/PE AC230V ~  
 Vyhotovení v 1/N/PE AC230V ~



**List of Devices / Legende / Liste de matériel / Список оборудования / Wykaz urządzeń / Zoznam zariadení / Seznam zařízení:**



M	Aggregate motor 230 V/50 Hz
EV	Fan 230 V/50-60 Hz
HL1,2	Indicator glow lamps
PS	Control electronics
ST	Temperature switch
Q	Power-supply switch
A	Cover of bracket
B	Complete bracket
C	Complete cover
D	Plastic of box
E	Main board
F	Doorsofbox



M	Moteur du groupe 230 V/50 Hz
EV	Ventilateur 230 V/50-60 Hz
HL1,2	Diodes de signalisation
PS	Électronique de commande
ST	Contacteur thermique
Q	Interrupteur réseau
A	Couvercle console
B	Console complete
C	Couvercle complet
D	Couverture armoire
E	Plaque de base
F	Volets de l'armoire



M	Silnik agregatu 230 V/50 Hz
EV	Wentylator 230 V/50-60 Hz
HL1,2	Jarzeniówki sygnalizacyjne
PS	Elektronika sterująca
ST	Łącznik cieplny
Q	Wyłącznik sieciowy
A	Pokrywa wspornika
B	Wspornik zupełna
C	Pokrywa zupełna
D	Plas. skrzynki
E	Podst. płyta
F	Drzwi skrzynki



M	Motor agregátu 230 V/50 Hz
EV	Ventilátor 230 V/50-60 Hz
HL1,2	Signalizační výbojky
PS	Řídicí elektronika
ST	Teplotní spínač
Q	Síťový vypínač
A	Víko konzoly
B	Konzola úplná
C	Víko úplné
D	Plast skříňky
E	Zákl. deska
F	Dveře skříňky



M	Motoraggregat 230 V/50 Hz
EV	Lüfter 230 V/50-60 Hz
HL1,2	Signalisierungslampe
PS	Steuerelektronik
ST	Wärmeschalter
Q	Netzschalter
A	Konsolendeckel
B	Konsole vollständig
C	Deckel vollständig
D	Gehäuse
E	Basisplatte
F	Schranktür



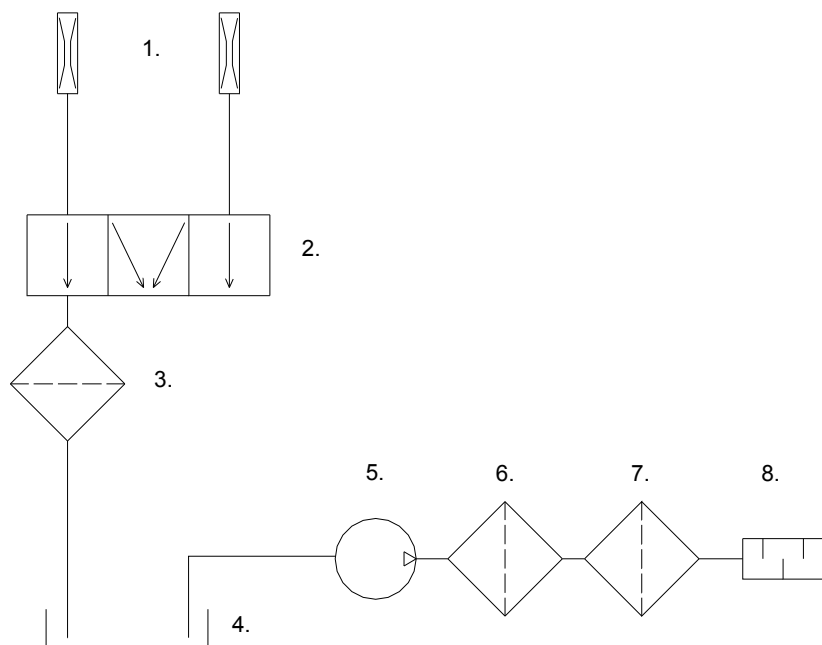
M	Двигатель агрегата 230 В/50 Гц
EV	Вентилятор 230 В/50-60 Гц
HL1,2	Сигнализационные лампы тлеющего разряда
PS	Управляющая электроника
ST	Температурный датчик
Q	Сетевой выключатель
A	Крышка консоли
B	Консоль полностью
C	Крышка полностью
D	Пластик шкафчика
E	Основ.плата
F	Двери шкафчика



M	Motor agregátu 230 V/50 Hz
EV	Ventilátor 230 V/50-60 Hz
HL1,2	Signalizačné tlejivky
PS	Riadiaca elektronika
ST	Teplotný spínač
Q	Sieťový vypínač
A	Veko konzoly
B	Konzola úplná
C	Veko úplné
D	Plast skrinky
E	Zákl. doska
F	Dvere skrinky



**15. FUNCTION DIAGRAM /FUNKTIONSSCHEMA /FONCTION SCHÉMA/  
ФУНКЦИОНАЛЬНАЯ СХЕМА / SCHEMAT IDEOWY / FUNKČNÁ SCHÉMA /  
FUNKČNÍ SCHÉMA**



1. suction cannulas  
2. underpressure valve  
3. inlet sieve  
4. separation vessel

5. suction aggregate  
6. output pre-filter  
7. output filter  
8. silencer



1. Absaugkanülen  
2. Unterdruckventil  
3. Eingangssieb  
4. Separationsbehälter

5. Absaugaggregat  
6. Ausgangsvorfilter  
7. Ausgangsfilter  
8. Schalldämpfer



1. les cannulas de l'aspiration  
2. soupape sous pression  
3. crépine d'entrée  
4. récipient de séparation

5. groupe d'aspiration  
6. garniture de filtration  
7. filtre de sortie  
8. l'absorbant du bruit



1. отсасывающие канюли  
2. вакуумный клапан  
3. входное сито  
4. сепараторная емкость

5. отсасывающий агрегат  
6. предварительный фильтр выходной  
7. фильтр выходной  
8. шумопоглотитель



1. węże odsysające  
2. zawór podciśnieniowy  
3. sito wejściowe  
4. naczynie separacyjne

5. agregat odsysający  
6. przedfiltr wyjściowy  
7. filtr wyjściowy  
8. tłumik hałasu



1. odsávacie kanyly  
2. podtlakový ventil  
3. vstupné sitko  
4. separačná nádoba

5. odsávací agregát  
6. predfilter výstupný  
7. filter výstupný  
8. tlmič hluku



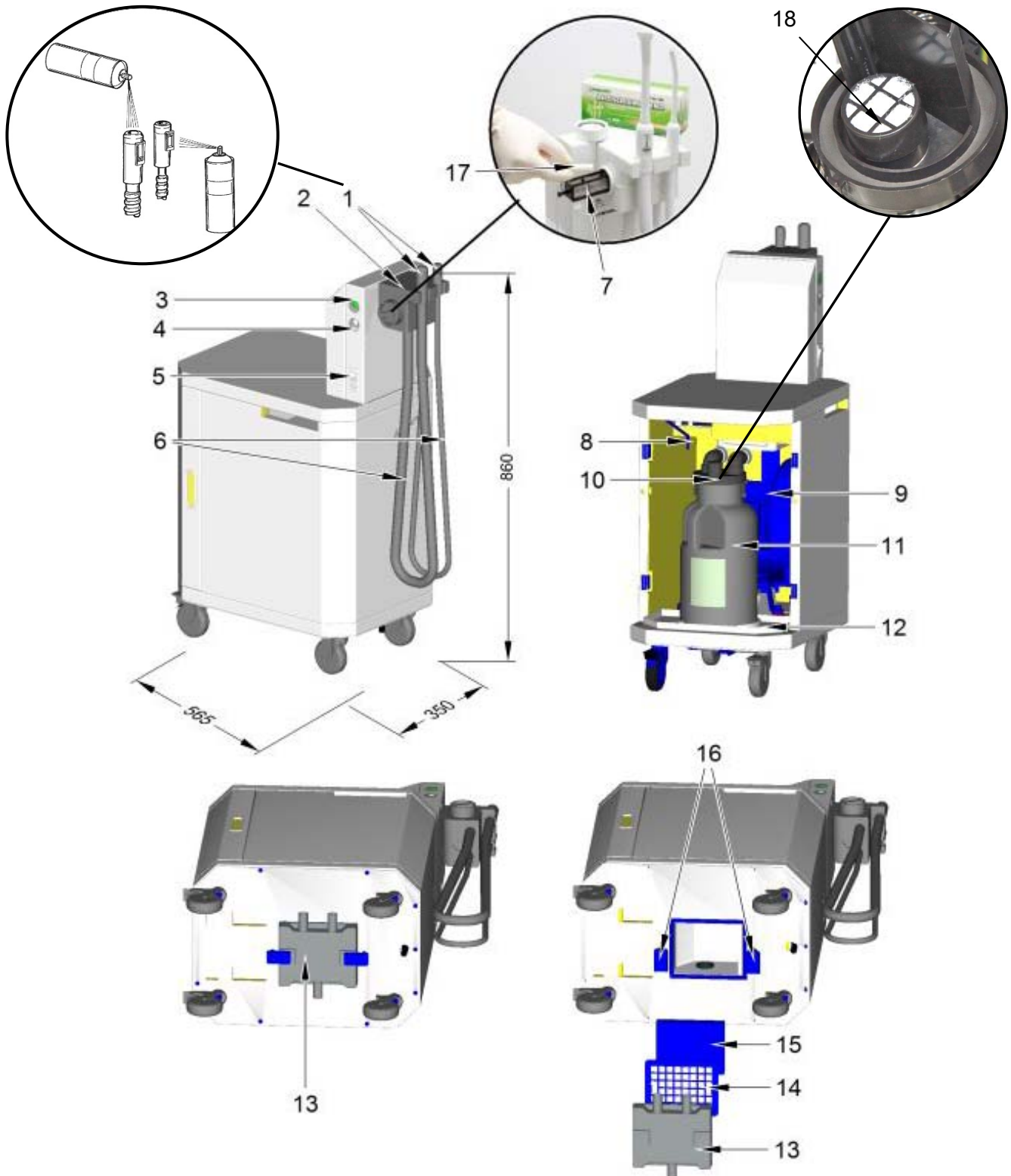
1. odsávací kanyly  
2. podtlakový ventil  
3. vstupní sítko  
4. separační nádoba

5. odsávací agregát  
6. předřazený filtr výstupní  
7. filtr výstupní  
8. tlumič hluku

16. ENCLOSURE NO. 1 / ABBILDUNGEN 1 / ANNEXE N°1 / ПРИЛОЖЕНИЕ1 /

ZAŁĄCZNIK NR 1 / PRÍLOHA Č. 1 / PŘÍLOHA Č. 1

Obrázky mobilnej dentálnej odsávačky  
 Figures of the mobile dental aspirator  
 Рисунки передвижного дентального отсасывающего устройства  
 Mobile dentale Absaugpumpe  
 Figures de l'aspirateur dentaire mobile  
 Rysunki mobilnej odsysarki dentálnej  
 Obrázky mobilní dentální odsávačky



**17. INSTALLATION RECORD**



<b>1. Product:</b> (model)  DO M		<b>2. Serial number:</b>	
<b>3.1. User's name:</b>			
<b>3.2. Address of installation:</b>			
<b>4. Equipment connected to the compressor:</b>			
<b>5. Installation / Commissioning:</b>		<b>6. Contents of operator training:</b>	
A. Product completeness check **	Y	A. Description of the product and functions**	Y
	N		N
B. Documentation completeness check **	Y	B. Product operation: turning on/off, controls, control procedures, data on the display panel, alarms, operation in alarm conditions**	Y
	N		N
C. Installation/connection to equipment **	Y	C. Product maintenance: maintenance intervals, maintenance procedure, service intervals, operating activities**	Y
	N		N
D. Functional test **	Y	D. Safety measures, warnings – their meaning and compliance **	Y
	N		N
<b>Notes::</b>			
<b>7. Operator instructed on safety measures, operations and maintenance:</b>			
Name :		Signature:	
Name:		Signature:	
Name :		Signature:	
<b>8. Installation and instruction performed by –</b> First name/Last name		Signature:	
Company:		Address:	
Phone:			
Email:		Date:	
<b>9. Distributor:</b>			
Company:		Adresa:	
Contact person:			
Phone:		Email: :	

\*\* mark with an "X" in points 5 and 6 (Y - yes /N - no). Enter any observations from points 5 and 6 into the "Notes" section



**PRODUCENT/ HERSTELLER / PRODUCTEUR /  
ПРОИЗВОДИТЕЛЬ/ PRODUCENT/ VÝROBCA/ VÝROBCE**

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