

→ Operating instruction

Atmos pre-filter VA5



#version 1.5
English
Original manual

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1 Introduction

This operating instruction is a substantial assistance for the successful and safe operation of the Atmos pre-filter VA 5-1, VA 5-2/110V, VA 5-2/230V and VA 5-2 ADD.

The operating instructions must be constantly available at the Atmos pre-filter and must be read and used from each person who work with / and on the Atmos pre-filter e.g.:

- Operation, disturbance recovery in the work routine, disposal of operating and auxiliary materials,
- Maintenance (maintenance, care, repair) and/or
- Transport

is assigned.

1.1 Service and Guarantee

The Trotec Laser GmbH is endeavoured to work on your questions and orders as fast as possible. We ask you to indicate your name and address before each inquiry.

The guarantee of the Trotec Laser GmbH for the Atmos pre-filter extends within the guarantee period to damage, which can be proved on construction – to lead back material or production defects.

The guarantee period amounts to 24 months. It begins with the delivery / or start up of the Atmos pre-filter.

A guarantee is transferred only in its entirety if:

- The distribution inspection, the delivery and the instructions are implemented correctly,
- The Atmos pre-filter must be used like intended,
- The maintenance and servicing instructions have to be obeyed strictly.

In the case of guarantee the manufacturing firm transfers the material costs, which results directly from the remedy at the Atmos pre-filter.

Only the spare part prices and the fee of the current price list are valid.

We refer to the regulations as well as the general trading conditions of the Trotec Laser GmbH.

2 Safety

2.1 Duty of Information

For your security!

As operator of the filter system please, consider absolutely the data given in the CE manufacturer explanation, CE - declaration of conformity, the data and information in the user manual and in particular the operating and safety instructions.

Residual Risk

Filter systems and suction units contain inflammable construction parts (filter materials, seals, plastic parts, etc.). Consider in your work place evaluation after the law for employee protection (AschG) the residual risk of a case of fire. It is important to have the approval of us with changes in the use of the filter system in writing.

CE – Declaration of Conformity

As a rule we deliver the filter system with a CE - declaration of conformity. When assembled with other parts it becomes a higher - ranking filter system for which you, as operator, have the duty to make a danger analysis and you must provide a CE - declaration of conformity for the whole filter system.

Duty of Information

Sparks, cigarette stubs or similar may not be sucked into the filtering device.

Our plants may be used only as described in the operating manual and as intended. Changes in the use require our expressly written permission.

Each use going beyond it is not considered as intended, the manufacturer / supplier can not be made liable for developing damages which result from it. The risk carries the operator.

Intended use of the Atmos pre-filters

It is not allowed sucking off dust, smoke, gases and media which do not correspond with this operating instruction, take notice of chapter 2.4. The media exhausted may be classified in no dust explosion class (St-Class).

Start-up, Maintenance and Service

Refer to maintenance and safety instructions in the operating manual.

All repair and maintenance work may only be carried out with complete stand still of the machine/plant (separate all connected machines or switching off from the mains, pull the plug out of the socket). Only trained and authorised personnel may operate, make maintenance work service at the machine/plant. Work within the electrical range may be implemented by authorised specialists only!

In Austria: The Atmos pre-filter must at least 1x be examined per § 32 1-4 GKV annually.

2.2 Intended Use

The Atmos pre-filter of the Trotec Laser GmbH exclusively serves for sucking off dust, gases and smoke with pollutants, which develop in the following range of production:

- Stamp production
- Marker/sign production, and engraving procedure

No statement can be made for other fields of activity regarding the endangerment of humans and environment. If loaded gases and smoke pollutants in other than here mentioned purposes are to be sucked off, no overall statement can be made.

In this case the Trotec Laser GmbH are to be addressed, otherwise any warranty claim is void.

Also consider while handling dangerous materials the rules for prevention of accidents and here in particular the safety rules for extractor equipment for air pollution control on the job, ZH 1/140.

The Atmos pre-filter may be operated only with accessory / with the equipment which are intended from the Trotec Laser GmbH.

The Atmos pre-filter may not be used:

- for damp liquids or vaporous materials
- sticky dusts
- outdoors,
- with explosive or inflammable gas/material/material air mixtures,
- with incandescent or burning substances.

Alone the operator of the Atmos pre-filter is responsible for damage resulting from not intended use.

This implies changes in the construction of the Atmos pre-filter without the permission (in writing!) too.

Exchange damaged construction units / spare parts immediately! Use original spare parts only. In particular with non original filter cartridges it is not ensured that they filter the pollutants from the extracted gas / smoke completely!

Keeping the references also belongs to the intended use:

- for safety,
- for the operation and
- to maintenance / servicing,

which are described in these operating instructions.

2.3 Residual Risk

With attention of all safety regulations a residual risk remains with the operation of the Atmos pre-filter.

All persons, who work on / with the Atmos pre-filter, must know these residual risks and obey the instructions, which prevent that these residual risks lead to accidents or damage.



CAUTION!

By the inhalation of poisonous gases and types of poisoning dust damage can occur. Likewise long term damage can occur to internal organs by repeated inhalation, sips and contact with gases and dust contained in the filter cartridges and suction hoses itself.

Before all work on the inside of the Atmos pre-filter, in particular at the filter cartridge as well as on the dust extraction hose and dust collection bin the personal protection equipment is to put on.

In addition belongs:

1. Protection gloves (one-way gloves from polyethylene, long version),
2. Protection mask (purifying dust respirator with particle filter with examination of the protection stage 3),
3. Eye protector.

2.4 Notes for the Operator

The operating instructions are a substantial component of the Atmos pre-filter. The operator ensures that the operation personnel take these guidelines to the knowledge.

Since the operating instructions are exposed presumably to a strong demand at the place of work, it is incumbent on the operator:

- to keep the original safe,
- to make sure that a copy of the operating instructions are constantly available at the Atmos pre-filter,
- that each user reads and considers the operating instruction attentively.

The operating instructions are to be supplemented by the operator around operating instructions due to the existing national regulations for accident prevention (BVG D27) and to the environmental protection, including the information of the duty to supervision and obligations to register for regarding working particularity relating to the work sequences and assigned personnel.

Beside the operating instructions and the in the user country valid regulations for accident prevention are to be considered and the recognised specialised technical rules for security and professional working as well.

The operator / user must not make changes at the Atmos pre-filter, which could impair security, without the permission of the manufacturing firm! This applies in particular to the installation and the attitude of safety devices.

Spare parts must correspond to the technical requirements specified by the manufacturing firm. This is always ensured with original spare parts.

Only trained or instructed personnel may work on / with the Atmos pre-filter. Specify the competencies of the personnel for servicing, controlling and repairing clearly!

Untrained personnel or persons in training may work on / with the Atmos pre-filter under constant supervision of an experienced person only!

2.5 Instruction and Training

As operator of the Atmos pre-filter you are obligated to inform and/or to instruct the operating/maintenance staff about existing right and safety rules for the prevention of accidents as well as about existing safety devices on and around the Atmos pre-filter. Different technical qualifications of the personnel are to be considered.

The operating / maintenance staff must have understood the instructions and it must be guaranteed that the instructions are considered and obeyed.

As operator make each member confirm the participation in the instructions and training in writing.

2.6 Safety References for the Operation of the Atmos pre-filter

With all works, this implies:

- the operating,
- the inspection,
- the maintenance and
- the repairing

consider the turn on and turn off processes in accordance with the operating instruction and the references to the maintenance!

Operate the Atmos pre-filter only, if all protection and safety devices e.g. solvable protection devices, housing bolts etc. are in place and functional!

Before starting up, the personnel have to make itself familiar with and around the Atmos pre-filter.

At least once a shift the Atmos pre-filter must be examined for outwardly recognisable damage, if there is a dust container fixed and the filling level.

Stop and secure immediately with malfunctions at the Atmos pre-filter. Disturbances are to be eliminated immediately through trained specialists.

2.7 Safety References to the Maintenance

Before beginning inform the operating personnel about execution of special- and maintenance work.

Make sure that the in this operating instructions prescribed inspections are made in time.

Illuminate maintenance area if necessary with hand or stand lamps.

- Switch off the connected suction unit (Atmos, Atmos Compact) and the laser for servicing and maintenance work at the Atmos pre-filter.

The turbine(s) (of the Atmos, Atmos Compact) must stand still before you begin with the service and maintenance work at the Atmos pre-filter.

Exchange the filter cartridge if necessary and in time, even there are no safety relevant defects!

With prepare-, assembly or maintenance works tighten loosened screwed connections always again!

If the disassembly of protection device is necessary for maintenance, the reattachment and the examination of the protection device has to take place immediately after conclusion of the servicing and maintenance work!

Clean the Atmos pre-filter at the beginning of service / maintenance work and in particular connections and bolts from dust and other impurity by wiping off with a damp cloth.

With the selection of the cleaning agent make it certain that no surfaces, keyboards, plastics or seals are attacked.

3 Referring to Special Kinds of Danger

3.1 Electrical power of the Atmos pre-filter VA5-2 and VA5-2/ADD

The work on the electrical equipment of the Atmos pre-filter VA5-2 and VA5-2/ADD may be made only by an electrical specialist or personnel instructed by/under line and supervision of an electrical specialist, in accordance with the electrical rules!

It must be waited always five minutes after switching off, so that the inserted condenser in the control board can unload themselves. Opening of the housing is only permissible at the end of this time.

Use only original safety devices with prescribed amperages!

Never accomplish work on live parts!

With repairs pay attention to the fact that constructional characteristics are not to be safety reducing changed in particular: allowed air creeping and air clearance as well as distances are not to be made smaller by isolations.

The perfect grounding of the electrical system must be ensured by a protective grounding system.

Program modifications at the control system may be made only in consultation with Trotec Laser GmbH or directly with the manufacturing firm.

With disturbances at the electrical power-supply separate immediately the Atmos pre-filter from the net, by:

- switching off the Atmos pre-filter at the On/Off key and thereafter
- disconnecting the plug from the mains.

3.2 Types of dust and chemical Substances

With the Atmos pre-filter partial toxic types of dust from contaminated air are filtered. Depending upon the kind of the assigned material these types of dust can be health-endangering and / or carcinogenic.

While handling toxic types of dust special caution is required.

Consider and observe valid regulations and safety data sheets of the manufacturers concerning storage, handling, employment and disposal!

With eye or skin contact with the dust in the filters or the suction hose, the part concerned must be rinsed immediately with much water. Suitable mechanisms (eye wash bottle) must be at hand!

By cleansing agent and disinfectants loaded skin should be maintained. Irritation can be avoided by the preventing use of skin protection means and suitable skin care. The preservative agent which can be used is to be selected depending of the pollution impact and the individual condition of the skin. Containing fat preservative agents are predominantly applicable.

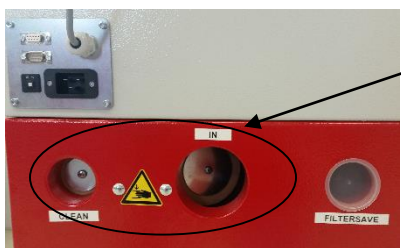
Eating, drinking, smoking and keeping food in areas in which chemicals are, is forbidden!

Keep dangerous materials never in containers for food. Mark always clearly for the respective material use certified containers.

Depending upon pollution impact particle and gas filters are subjects to special regulations and are accordingly to dispose.

The inappropriate exchange of the pollutant-loaded filter cartridge represents a health risk for the implementing persons and their environment. Absolutely consider therefore with the exchange of the filter cartridge the section "Exchange of the filter cartridge".

3.3 Crushing hazard at the changeover damper



Dont reach into the openings there is the risk of crushing your finger!!!

4 Technical Data

Atmos pre-filter manual cleaning	Type	VA5-1
	Width x height x depth	435 x 1.270 x 520 mm
Atmos pre-filter automatic cleaning	Type	VA5-2/115V
	Width x height x depth	435 x 1.270 x 408 mm
	Connection voltage	115 V
	Control voltage	24 V
	Type of protection	IP 30
	Type of current	1PH+N+PE
	Rated current	4,4 A
	Frequency	50/60 Hz
Atmos pre-filter automatic cleaning	Type	VA5-2/230V
	Width x height x depth	435 x 1.270 x 408 mm
	Connection voltage	230 V
	Control voltage	24 V
	Type of protection	IP 30
	Type of current	1PH+N+PE
	Rated current	2,2 A
	Frequency	50/60 Hz
Atmos pre-filter automatic cleaning & additiv	Type	VA5-2/115V ADD
	Width x height x depth	435 x 1.270 x 408 mm
	Connection voltage	115 V
	Control voltage	24 V
	Type of protection	IP 30
	Type of current	1PH+N+PE
	Rated current	4,4 A
	Frequency	50/60 Hz

Atmos pre-filter automatic cleaning & additiv	Type	VA5-2/230V ADD
	Width x height x depth	435 x 1.270 x 408 mm
	Connection voltage	230 V
	Control voltage	24 V
	Type of protection	IP 30
	Type of current	1PH+N+PE
	Rated current	2,2 A
	Frequency	50/60 Hz
Dust class		M der DIN Norm EN-60335-2-69

5 Functional description of the Atmos pre-filter

The Atmos pre-filter serves for pre extraction of gases and smoke loaded with pollutants. The Atmos pre-filter must be operated with a suction unit (e. g. Atmos, Atmos Compact).

The gases / smoke are sucked in through the suction hose into the Atmos pre-filter with the inserted filter cartridge.

Underneath the filter unit is the dust bin wherein the dust of the filter cartridge is cleaned.

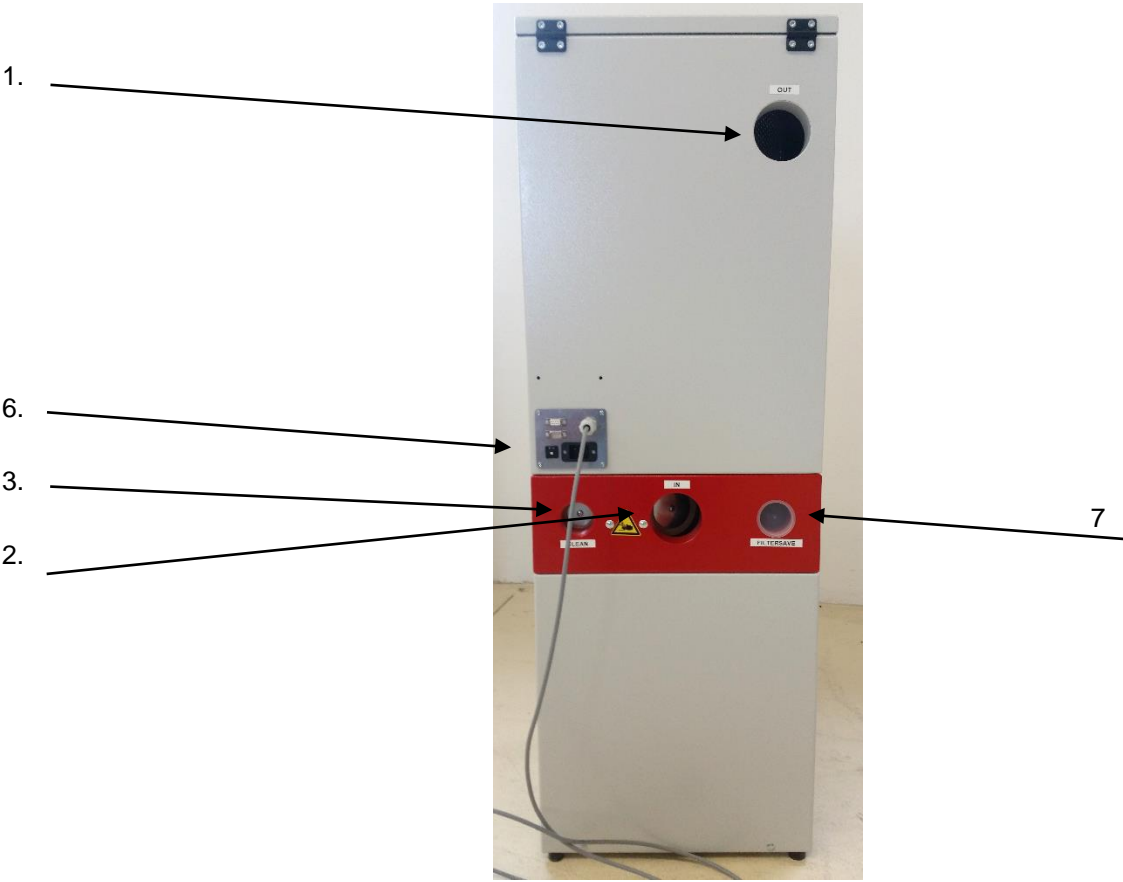


Fig 1

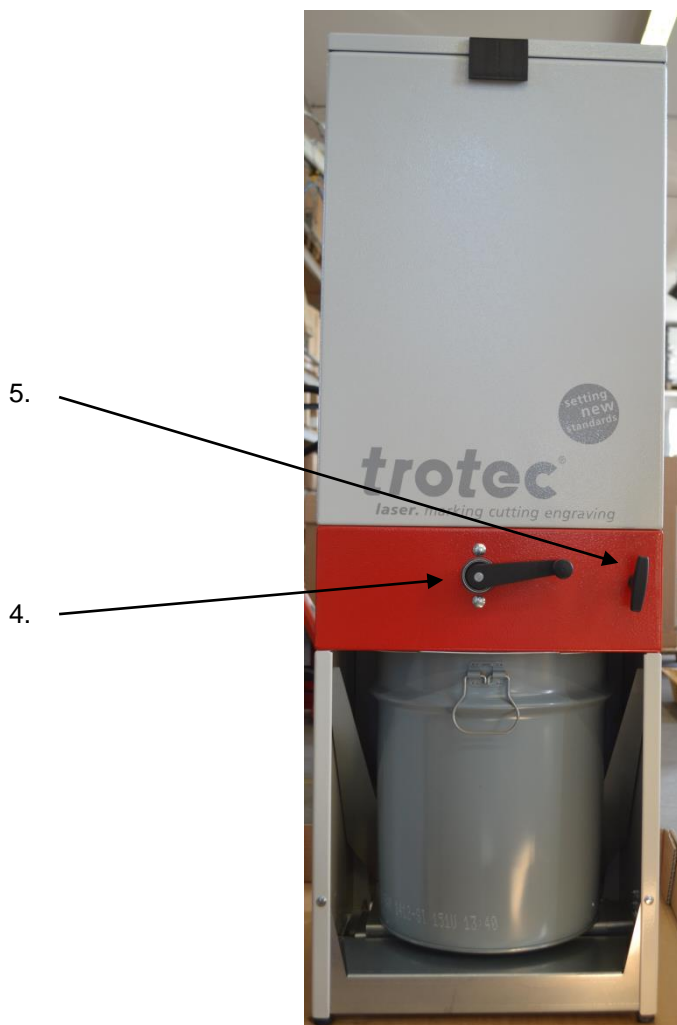


Fig 2 (manual Atmos pre-filter)

Pos. 1	Exhaust manifold (OUT)	Pos. 5	T-handle, manually operated change-over
Pos. 2	Intake manifold (IN)	Pos. 6	Connections for laser and Atmos Fuse and power
Pos. 3	Cleaning rubber wipe / rubber plate connector	Pos. 7	Connection part for vacuum table
Pos. 4	Crank for mechanical wipe		

6 Transport, Storage and Starting Up

6.1 Transport on an INKA-palette

The Atmos pre-filter will be delivered horizontal on an INKA palette. For the transport the following corridor promoting vehicles are permissible:

- Fork lift and
- Fork truck.

Hard impacts of the Atmos pre-filter when setting off (e.g. on the loading area of the transport vehicle) must be avoided.

Secure the INKA palette with the Atmos pre-filter against sliding and tilting in the case of transport.

Consider the valid accident prevention and industrial safety regulations.

Consider absolutely references on the packing!



DANGER!

Mortal danger by falling down of the Atmos pre-filter!

By inappropriate attachment on the INKA palette the Atmos pre-filter can fall over and cause heaviest injuries or death.

Use only suitable lifting tools and means of mounting!

The driver must be entitled for leading a transport car / a fork truck.

Drive with the fork lift between the horizontal span members of the INKA pallet.

The contact between the Atmos pre-filter and stroke rack of the corridor promotion vehicle is to be prevented:

- Wedge in a distance wood between the packing of the Atmos pre-filter and the stroke rack.
- Avoid hard impacts when setting off the Atmos pre-filter.

Before rising up the Atmos pre-filter, all persons must depart from the work area of the corridor promoting vehicle

6.2 Storage

The Atmos pre-filter must be stored at a vibration less, dry and as dust free place as possible. It may not be stored outside of buildings.

The range of air temperature must be between + 5 °C and + 35 °C.

The condensation of air humidity on the surface of the Atmos pre-filter must absolutely be avoided.

6.3 Unpack and Setup

i	Information!
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Unpack the Atmos pre-filter only at the place of assembly.

Do not set up the Atmos pre-filter in direct proximity to heating / heating elements.

When setting up, respect for sufficient area for the exchange of the filter cartridge. / dust collecting bin.

Proceed when unpacking and setting up the Atmos pre-filter as follows:

- Examine the complete supply for outside damage, which may have developed e.g. in the case of transport.
- Place the Atmos pre-filter to even firm ground. Adjust the adjustable leg to the maybe uneven ground.
- Place the Atmos pre-filter in such a way, that connected hoses do not lie in passageways. In general no one has to step over connected hoses.
- OPTION at ADD: Place the additive container next to the Atmos pre-filter and connect it as shown.



- Y-adapter (black)
- 2,5 m suction hose NW 45 mm incl. connection tubes

6.4 Scope of supply / Packing List

Examine in every detail with the delivery of the Atmos pre-filter the scope of supply and announce immediately if parts are missing or be damaged. Later complaints are not accepted.

To the regular scope of supply belongs:

- Atmos pre-filter, complete (with built-in filter cartridge);
- at automatic VA the matching 115/230V net cable is added in each case
- 2,5 m suction hose with 2 connection tubes NW 70.
- 1 reserve-dust bin / with the automatic Atmos pre-filter with ADD is it filled with FilterSave (additive media) serves as reserve dust bin
- Y-Adapter for additive or vacuum table connection (only with ADD)
- 2,5 m suction hose with 2 connection tubes NW 45
- Long hexagon key for tightening and loosening the cartridge fixing

Please note that the scope of supply can deviate in individual cases from this list. In this case the list in the delivery document is valid.

6.5 Start-up protocol

Control according to the enclosed installation report.



Start-up- / shortcoming- / protocol

Contracting body:

Order number:

Project:

Object:

Contractor:

Project number:

- final inspection list of defects

Notes / defects:

.....

.....

.....

.....

.....

.....

.....

.....

.....

The item has been tested and the plaque attached on

The audit showed that the object is

- approved.
- approved excluded the listed deficiencies.
- not approved.

Documentation delivered on

Next system verification:

City, Date:

customer

Technical Datas extraction system:

Adjustment control system

Serial number / Type:

Attented time:

Operating mode: differential pressure control

Alarm differential pressure: ..1500... PA

Filter pollution in %: %

Change-over valve:

Change-over valve time adjustment:min

Filter cleaning:clockwise / anti clockwise

Cleaning time:sec.

Follow up cleaning: ..1...period

Additiv dosing:

Additiv dosing ON:sec.

Additiv dosing intermission:min.

7 Connection of the Atmos pre-filter

Connect the Atmos pre-filter as follows:

Connecting the Atmos pre-filter with the Atmos, Atmos Compact:

Attaching the flexible suction hose:

- Push in the flexible connection tube Ø 70 as far as possible into the intake of the suction unit (Atmos, Atmos Compact).
- Push the second connection tube into the upper socket pipe of the Atmos pre-filter (Fig.1).

Connecting the Atmos pre-filter with the laser/suction unit:

- Push in a suitable flexible connection tube Ø 70 (item of the scope of supply of the Atmos suction unit) into the outlet opening of the Laser (consider the operation instructions of the Laser).
- Push the second end of the connection tube into the lower socket pipe (intake of the Atmos pre-filter Fig.1).
- Examine all connections for a correct and firm seat

8 Operation

The Atmos pre-filter works when you starts the suction unit (Atmos, Atmos Compact).

8.1 Filter-Cartridge with mechanical wipe

Control regularly the percentage figure for the filter pollution during the operation of the suction unit (Atmos, Atmos Compact - right percentage figure in the announcement). At least with 100 per cent announcement clean the filter cartridge with the mechanical wipe.

- The maximum effort of force for the cleaning of the cartridge must not exceed 8 kg.
- For to clean the filter cartridge in each case turn the crank at least some turnings in the clockwise direction and some turnings against the clockwise direction.
- When the Atmos pre-filter is used for fine dust, a more frequent cleaning is necessary.

In order to check whether the dust bin is already filled, there must be waited 5 minutes after the de-dusting in order the dust can set off.



Warning!

With the Atmos pre-filter the life of the filter in your suction unit (Atmos, Atmos Compact) extends. Check always if the filter in the suction unit has to be exchanged. It might be so if the percentages figure (Atmos, Atmos Compact) for the filter pollution is 100% after cleaning the filter cartridge of the Atmos pre-filter.

8.2 Manually Operated Change Over

The (manual) Atmos pre-filter (Type VA5-1) has a (manually) operated change-over flap (fig.1) and is so adjusted that the Laser will be sucked off.


For change over T-handle (5):

- turn clockwise 45° (out of the indexed position)
- pull out
- turn against clockwise (into the new indexed position).



fig.1

9 Maintenance

	<p>Warning! Endangerment of human and real values possible!</p>
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By inappropriate inspection, maintenance or repair damages to property and persons directly or in the future are possible.

All maintenance and repair at the Atmos pre-filter may be implemented only by qualified personnel. In particular consider chapter 2, safety.

	<p>Reference!</p>
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The regular work for the maintenance and service must be proven by record for the preservation of the warranty claim by record.

Only use approved original spare parts!

With the use of unapproved spare or replacement parts the Trotec Laser GmbH does not take over warranty!

Provide for careful and safe environmental disposal.

	<p>Reference!</p>
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To avoid damages at the Atmos pre-filter, pay attention to a duly disassembly and assembly of construction units.

With all maintenance work applies therefore in principle:

- Control all bolt connections for tightness.
- Control all hoses and fittings as well as connections for tightness.

If for maintenance the disassembly of protective devices is necessary, the reattachment and the examination of the protective devices have to take place immediately.

Also consider the safety references in section 2.7, safety references for maintenance as well as references to special kind of danger section 3.

9.1 Operating Condition

Depending upon kind and range of the maintenance the connected suction device (Atmos, Atmos Compact) must be stopped and accordingly the area concerned switched completely dead.

9.2 Care and Visual Inspection

Task of the operating personnel is: To check daily the accessible ranges of the Atmos pre-filter for contamination and damages. Contamination should, so far as accessible, be removed and damages announced to the responsible maintenance personnel.

9.3 Visual Control

Kind of control	Activity / Construction Units	Frequency	✓
Control of the Operation behaviour	Observe the Atmos pre-filter on normal behaviour: <ul style="list-style-type: none"> • Smell development. Stop the connected suction device and laser if necessary and inform maintenance personnel.	Daily	
Control for residue	Check the Atmos pre-filter and surrounding for residue of material and operating material and remove if necessary.	Daily	
Remove contamination	Corridor, work surfaces and inscriptions.	Daily	
Filling level of the dust bin	Check the filling level.	Daily	
Wear control	<ul style="list-style-type: none"> • All mobile supply and disposal hoses/pipes. • Outwardly recognisable seals etc. • Renew construction units if necessary. 	Monthly	
Control for damage	Outwardly recognisable damages at all construction units.	Monthly	
Examine for leakage	Hoses for supplying and disposal of the Atmos pre-filter.	Monthly	
Examine filter cartridge	If the filter vlies is perfect.	Yearly	

9.4 Maintenance

All maintenance work must be accomplished in the indicated period and with appropriate care.

Apart from the regular cleaning the precautionary exchange of wearing parts is recommended emphatically.


9.4.1 Exchange of the Filter Cartridges

After a period of operation the filter will slowly add itself by penetration of finest dust into the pores. If the mechanical wipe cannot remove this penetrated dust any longer the filter must be ex-changed.

The filter cartridge is to be exchanged as soon as the measured differential pressure at the attached suction unit (Atmos, Atmos Compact) exceeds the final value despite repeated dedusting. The announcement of the differential pressure indicates in this case 100 % and the red disturbance LED (error) shines continuously (see also operating instructions Atmos, Atmos Compact).

i	Reference!
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If the filter cartridge is to be exchanged: when switching off the connected suction unit there must be waited about one minute.


	CAUTION! Poisonous types of dust!
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When working with / on the filter cartridges the danger exists that you inhale or come in contact with whirling up of dust.

Before beginning with the work put on therefore a purifying dust respirator of the protection stage3 and put on one-way gloves from polyethylene (long execution). (not included in the delivery)

Proceed with the filter exchange as follows:

Switch off connected suction unit Atmos, Atmos Compact

- Switch off the connected suction unit (Atmos, Atmos Compact) at the transparency keyboard with the key .
- Alternatively switch off the machine which is sucked off. After the adjusted time the Atmos, Atmos Compact is switched off automatically.

Open the Atmos pre-filter housing

Open the quick release and move the cover back the filter cartridge is connected via a bayonet fixing. First unscrew on the bajonett ring the screw which holds the cartridge in place. By the means of turning 120° against clockwise the cartridge can be removed.

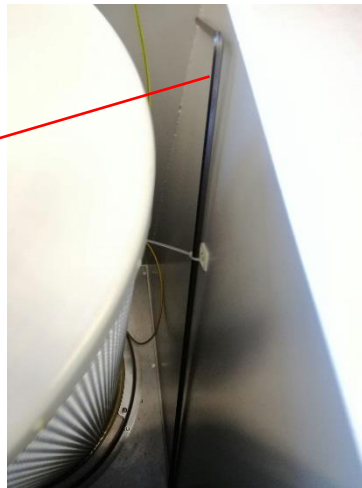
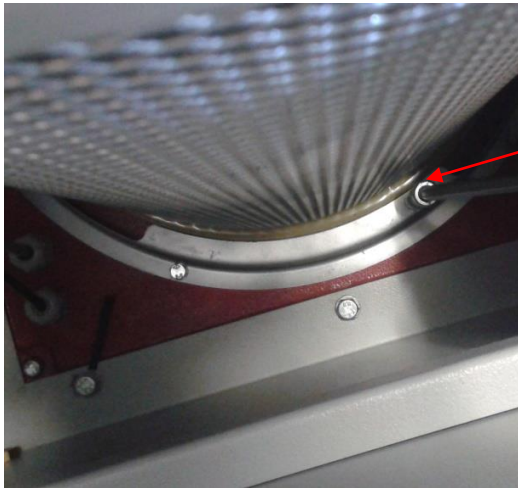


Fig. 3 - mechanical wipe (under the cartridge)

Insert a new filter cartridge

Put in the new filter cartridge in reverse order.

Turning the cartridge completely until it stops and fix then screw behind it (so that the cartridge can not rotate).



65 cm long imbus
key

for fastening and
loosening the
bayonet ring

Fig. 4

If the cartridge will not be cleaned when the crank is turned or with the automatic Atmos pre-filter if the program cleaning has worked, tighten the fixing screw (reachable from the underside when the dust bin is pulled out).

9.4.2 Exchange of the Dust bin

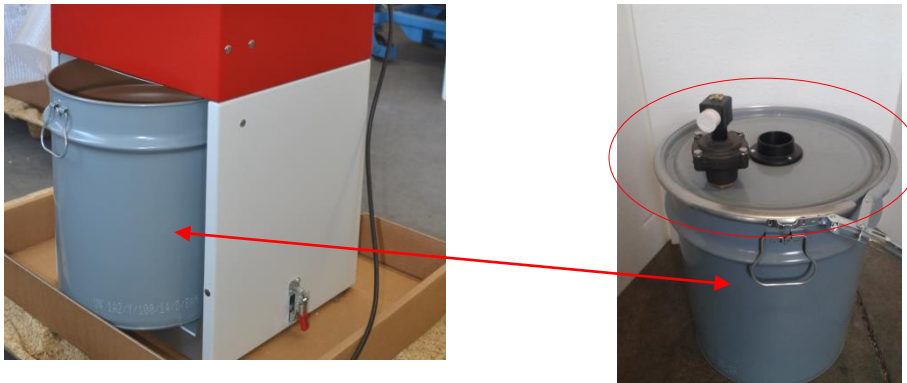
At the VA5 (manual + automatic) **without** ADD FilterSave the Dust bin has to be exchanged against an empty one when the maximum filling level (max. 2/3 filled) is reached. Dispose the full pail.



At the VA5 (automatically) **with** ADD FilterSave take the pail from the device and replace it to the new empty pail (without lid - this remains on the additive side!) of additive media. The full pail has to be tightly closed with the cover, then the system can be restarted.

Dont dispose the Dust bin or cover – Dust bin exchange / reuse!

FilterSave Additive may be used so long until the powder begins to clump / stick.



i	Reference!
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If the mechanical wipe was used immediately before, wait 5 minutes after switching off the suction unit until the dust has settled itself, with the opening and sharing of the dust bin.

	CAUTION! Poisonous types of dust!
--	---

When working with / on the filter cartridge the danger exists that you inhale or come in contact with whirling up of dust.

Before beginning with the work put on therefore a purifying dust respirator of the protection stage 3 and put on one-way gloves from polyethylene (long execution).

Proceed with the removing of the dust collection bin as follows:

After opening the clamp pull the Dust bin forward.

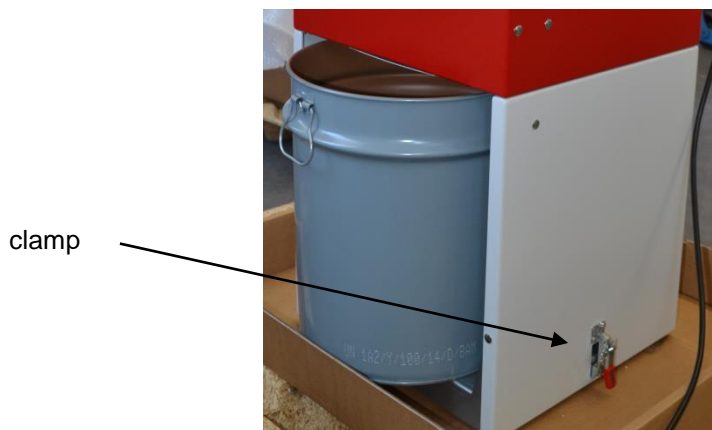


Fig 5

Push the new Dust bin (before unscrew the clamp and remove cover) back underneath the Atmos pre-filter and close the clamp.

10 Option

The Atmos pre-filter VA 5 may be equipped with the following automatic systems (no retrofit):

- Switch valve
- Filter cleaning
- Additive dosing system

For the program see chapter 11.

10.1 Automatic Filter Cleaning VA 5-2

Instead of the manual (crank) filter dedusting the Atmos pre-filter VA 5-2 is operated with an automatic motor drive.

After completion of the engraving procedure and the interval for cleaning the engraved piece (Pt.10.2) the cleaning process will begin automatically in both directions.

10.2 Automatic Operated Change-Over VA 5-2

Optional to the manually operated change-over the Atmos pre-filter VA 5-2 is operated automatically.

After completion of the engraving procedure the change to the cleaning brush (Clean - for cleaning the engraved piece) will be carried out automatically.

The time for cleaning the engraved piece is preset and may be altered in the control.

When the preset time for the cleaning ends the flap automatically switches into the position Laser again.

If the laser starts during the cleaning process the procedure will be stopped immediately and the automatically operated change-over flap switches into the position Laser.

10.3 Dust bin with additive media FilterSave



Fig. 6

For special application (sticky dusts) an additive dosage system for aditiv media may be necessary (only available as a complete system of automatic pre-filter VA5-2 / 230V ADD - see spare parts list).

With each „Job start“ the program starts with a dosing impulse with additive media FilterSave (one impulse, then a break).

With a cycle control (break – dosage) the amount of the dosing may be set.

The necessary amount of the dosing has to be indicated individually, dependent on the application.

Only the original dust bin is guaranteed that he can withstand the corresponding pressure, which is necessary for the application.

10.4 Automatic Control



Fig. 7

If an option section 10.1 to 10.3 is selected, the Atmos Pre-Filter VA 5 will be delivered with the required electrical equipment.

In this case the standard announcement shows the differential pressure (filter pollution) and the present ac-tive program step.




The input signal is a potential free contact from the laser (On – Off).

Language: German – French – English

11 Activation of the Programs

11.1 In General

The has to be carried out in each case with the keys:

ENTER Up  or Down 


11.2 Operation of the Control

After switching-on the name and version number 1.1 of the installed software are announced for about 5 sec. With the key ENTER the language may be selected and the menu setup/announcement may be entered:

Setup: Press Enter

If no key will be pushed, the control switches after 10 sec into the basic setting for the normal operation.

With the ↑ key one gains access to the menu for the service engineer, a pass-code has to be keyed in (the Setup is only to be entered after the announcement **Setup: press Enter**. If the menu “normal operation” is open, the control has to be switched OFF and ON again).

11.3 Standard Announcement – Menu Normal Operation

- Differential pressure (the filter pollution in % will be announced in the menu normal operation in the 1st line of the text-announcement: e.g. filter 75 %.)

Announcement in the menu normal operation: in the 2nd line the present action will be announced

1.	Line	Filter pollution in %		
2.	Line	Laser	Or	Cleaning

Change-over: Announcement / adjustment alternative:

1.	Line	Change-over		
2.	Line	Laser AUT	Adjustment alternative	Cleaning MAN

Filter-Cleaning Announcement /adjustment alternative:

1.	Line	Filter cleaning		
2.	Line	OFF AUT	Adjustment alternative	Left MAN
Or			Adjustment alternative	Right MAN
	Announcement during the automatically cleaning			Left AUT
Or				Right AUT

Additive dosing system announcement/adjustment alternative (if active):

1.	Line	Additiv dosing		
2.	Line	OFF AUT	Adjustment alternative	ON MAN

- Alarm announcement: Differential pressure (filter pollution).
- Alarm announcement: Differential pressure sensor defective.

11.4 Setup Announcement, Adjustment

To enter the menu setup, press the ENTER-key, if the menu “normal operation” is open.













The language selection may be implemented after pressing the ENTER key.










With the ENTER key access to the menu for the service engineer, after a pass-code has been keyed in, is gained.









Selected key:	Input	Next announcement
Key ENTER (pressed)		Language e.g. English
Or: Key DOWN (pressed)		Pass-code
	Code	
	Confirm always with the key ENTER	Setup 1 st menu item
	or	Next menu item
At the end of the Setup menu the announcement is:		Exit
End the Setup with ENTER		Menu normal operation
No Code		
Key ENTER (pressed):		0000
Key ENTER (pressed again)!		Code invalid !
And again with ENTER into the:		basic setting

At the end of the set-up program the announcement shows: Setup Exit. Press the key ENTER to drop out of the menu setup (see chapter 11.5).

11.5 Function of the Programs and Adjustments for the Servicing personnel

<p>Change-Over</p>	<p>Adjustment alternative in the menu Setup for servicing personnel</p> <p>Key  or  Than </p>
<p>Change-Over time adjustment</p>	<p>After every ending of the engraving process you have the opportunity to clean the engraving area with a cleaning brush</p> <p>Basic setting: 1:40 min:sec</p> <p>After the procedure of the cleaning the switch valve switches automatically to „Laser“. If you chose to clean after this period you have to select the manual operation (see chapter 11.3.).</p> <p>If the laser starts during this phase with the engraving process it will be automatically switched into the position laser.</p> <p>Adjustments for the servicing personnel: Key in the code. Confirm with the key ENTER.</p> <p>Press the key</p> <p> or  Than </p> <p>Adjust the desired time in minutes and seconds (mm:ss).</p> <p>Recommended time: 01:30 min:sec to 03:00 min:sec</p> <p>Confirm with the key ENTER.</p>
<p>Filter cleaning</p>	<p>Adjustment alternative in the menu Setup for the servicing personnel</p> <p>Key  or  Than </p>
<p>Filter cleaning cleaning time</p>	<p>After each engraving process and when the time for the cleaning of the engraving area is over, the cleaning time for the cartridge starts in both directions (left, right).</p> <p><u>Display text:</u> Left AUT or Right AUT</p>
	<p>Adjustments for the servicing personnel: Key in the code. Confirm with the key ENTER.</p> <p>Press the key</p> <p> or  Than </p> <p>and feed in the cleaning time in seconds via the number pad.</p> <p>Recommended adjustment 20 sec</p> <p>confirm with the key ENTER.</p>

<p>Additiv dosing</p>	<p>Adjustment alternative in the menu Setup for the servicing personnel</p> <p>Key  or  Than </p> <p>If a replacement of the control will take place for your Atmos pre-filter VA5-2/add, the additive dosing has to be activated.</p> <p>The same applies for expanding your Atmos pre-filter VA5-2 with the additive dosing system.</p>
<p>Additive time ON</p>	<p>Only if the option additive dosing is selected. Standard setting 1 sec.</p> <p>Adjustments for the servicing personnel: Key in the code. Confirm with the key ENTER. Press the key</p> <p> or </p> <p>and key in the dosing time in seconds via the number pad. These settings are based on operating conditions, consistence of dust etc. Confirm with the key ENTER.</p>
<p>Additive intermission</p>	<p>With each „switch ON“ the program starts after 30 sec. with a dosing impulse and clocks automatically in the cycle with the pause – dosage cycle time. Standard setting: Pause 10 min.</p> <p>Adjustments for the servicing personnel: Key in the code. Confirm with the key ENTER. Press the key</p> <p> or </p> <p>and type the time between the dosing pulses in minutes and seconds (mm:ss) via number pad. Confirm with the key ENTER.</p>
<p>Pressure sensor Filter alarm</p>	<p>Standard adjustment: 1500 Pa.</p> <p>Adjustments for the servicing personnel: Key in the code. Confirm with the key ENTER. Press the key</p> <p> or </p> <p>The adjustment of the filter alarm will be set via the number pad, adjust and confirm with the key ENTER.</p>

<p>Pressure sensor Sensor alarm</p>	<p>Alarm signal with defective pressure sensor or cable breakage. The tension signal at the time the alarm has been released will be adjusted. Standard adjustment 0,25V.</p> <p>Adjustments for the servicing personnel: Key in the code. Confirm with the key ENTER. Press the key</p> <p>left  or right </p> <p>Make the adjustment of the sensor-alarm via the number pad and confirm with the key ENTER.</p>
<p>Setup complete</p>	<p>Adjustments for the servicing personnel: Confirm with the key</p> <p>ENTER  or go with   to any menu item.</p> <p>To exit press the key ENTER.</p>
<p>Filter reset</p>	<p>500 Pa</p>
<p>Operation OK</p>	<p>200 Pa</p>
<p>assistant</p>	<p>If a check mark is set, then turned off the system, the factory setting is restored.</p>
<p>Exit</p>	<p>Adjustments for the servicing personnel: Confirm with the key</p> <p>ENTER  or go with   to any menu item.</p> <p>To exit press the key ENTER.</p>

11.6 Manual Carrying out of the Programs

Dependent on the drive mechanism your Atmos pre-filter VA 5 is equipped with, you too may make the adjustment manually.



At the normal operating mode with the Up „+“ and Down „-“ – key (if an option is opted) the particular program will be activated.





Filter-cartridge cleaning	Chapter 10.1	left - right – drive
Change-over	Chapter 10.2	left - right – cleaning
Additive dosing	Chapter 10.3	right key - dosage

11.6.1 Filter Cleaning

With the key

 Than  • the motor turns right
 • press it again



 Than  the motor turns right

Important: Do operate in both directions.

With no further confirmation, the cleaning process is max. 1 minute, than the program stops the cleaning process automatically.

11.6.2 Change-Over

With the key

 than 

you activate the switching of the flap to the position „Cleaning“. On the display “CLEANING” will be displayed. Now you can begin with the cleaning of the working area of the laser. Till the end of time, which you have chose (standart time 1:40).

Afterwards an automatic filter cleaning follows.

Starts the laser with an engraving process the change-over flap switches automatically into the position „Laser“.

11.6.3 Additive Dosing

Select with the key

 or 

“ADDITIV“.

To prevent a continuous additive media dosing, only one dosing impulse will be released.

The adjustment returns to manual “OFF”.

Manual dosing is not possible during the working period of the laser.

Connecting the additive dosage on Atmos pre-filter VA5

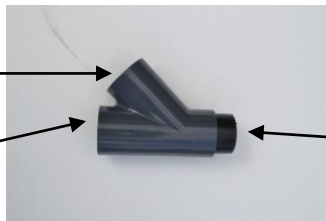
Connection from the vacuum table and filter Save with a Y-piece



The Y-piece is only needed when a vacuum table is available!

vacuum table

Connection Filter Save



Atmos pre-filter VA5

Connection of compressed air

- It is needed an oil-free and dry air to Pneurop.
- The hose should min. Ø be 10 mm in size and be equipped with a standard quick release-action coupling NW 7,2 G.
- **Max. 3 - 4 bar!**




Electrical connection Solenoid Valve

- The cable is located on the side of VA5.
- The angle plug attached and screwed.



12 Error Tracing and Brake down search

Error	Cause	Elimination
No suction power (Smoke/gas are not sucked off).	Suction hose not attached at the suction unit.	Attach the suction hose between the Atmos pre-filter and the suction unit.
	Suction hose not attached at the machine.	Attach the suction hose at the industrial laser.
	Damage of the suction hose.	Exchange the suction hose.
No suction power and/or error announcement "Change Filter" also with a new filter cartridge inserted.	Inlet clogs.	Examine inlet. If necessary repair disturbance.
	Clean gas way clogs.	Examine clean gas way. If necessary repair disturbance.
	Suction air way too long.	Use the Atmos pre-filter with a short length of hose. If necessary, use only a hose no longer than 2,5 m.
Error message check additive	After 200 pulses is shown the message check additive	<p>It must be checked if the Additivhobbock is empty -> replace if necessary!</p> <p>After controlling acknowledge message -> use the Enter key in the first submenu -> with the "minus" button on "Default reset. Counter" -> press Enter, then click Exit!</p> 

13 Disposal

By the operation of the Atmos pre-filter waste materials and replacement parts result, which have to be disposed according to the laws and environmental protection regulations.

13.1 Environmental Protection



CAUTION!

With all work on and with the Atmos pre-filter the legal obligations for waste avoidance and duly utilisation / removal are to be kept in particular with repair and maintenance work.

In particular with repair and maintenance work water-endangering materials like:

- Lubricating oils and –fats as well as
- Solvent containing cleaning agents

may not load the soil or arrive into the drains!

These materials must kept and transported in suitable containers and be disposed!

13.2 Filter and Types of Filter Dust



CAUTION!

Poisonous dust!

While handling toxic types of dust special caution is required. When working with / on the filter cartridges exists the danger that you inhale or come into contact with whirling up of dust.

- Before beginning with the work put on therefore a purifying dust respirator of the protection stage 3 and put on one-way gloves from polyethylene (long execution). (not included in the delivery)

Depending upon pollution impact filters cartridges must be disposed accordingly to at this time valid laws.

13.3 Final putting out of Operation

For the Atmos pre-filter finally is set out of operation, dispose the construction units and filter accordingly to (at this time valid) laws and regulations for disposal.