

TAC 1500 S

EN

ORIGINAL INSTRUCTIONS
AIR CLEANER



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Notes regarding the instructions

Symbols



Warning of electrical voltage

This symbol indicates dangers to the life and health of persons due to electrical voltage.



Warning

This signal word indicates a hazard with an average risk level which, if not avoided, can result in serious injury or death.



Caution

This signal word indicates a hazard with a low risk level which, if not avoided, can result in minor or moderate injury.

Note

This signal word indicates important information (e.g. material damage), but does not indicate hazards.



Info

Information marked with this symbol helps you to carry out your tasks quickly and safely.



Follow the manual

Information marked with this symbol indicates that the instructions must be observed.

You can download the current version of the instructions and the EU declaration of conformity via the following link:



TAC 1500 S



<https://hub.trotec.com/?id=40656>

Safety

Read this manual carefully before starting or using the device. Always store the manual in the immediate vicinity of the device or its site of use.



Warning

Read all safety warnings and all instructions.

Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

- Do not use the device in potentially explosive rooms or areas and do not install it there.
- Do not use the device in aggressive atmosphere.
- Only put up the device in an upright, stable position on firm ground.
- Let the device dry out after a wet clean. Do not operate it when wet.
- Do not use the device with wet or damp hands.
- Do not expose the device to directly squirting water.
- Never insert any objects or limbs into the device.
- Do not cover the device during operation.
- Do not sit on the device.
- This appliance is not a toy. Keep away from children and animals. Do not leave the device unattended during operation.
- Check accessories and connection parts for possible damage prior to every use of the device. Do not use any defective devices or device parts.
- Ensure that all electric cables outside of the device are protected from damage (e.g. caused by animals). Never use the device if electric cables or the power connection are damaged!
- The mains connection must correspond to the specifications in the Technical annex.
- Insert the mains plug into a properly fused mains socket.

- Observe the technical data when selecting extensions to the power cable. Completely unroll the extension cable. Avoid electrical overload.
- Before carrying out maintenance, care or repair work on the device, remove the mains plug from the mains socket. Hold onto the mains plug while doing so.
- Switch the device off and disconnect the power cable from the mains socket when the device is not in use.
- Do not under any circumstances use the device if you detect damages on the mains plug or power cable. If the power cable is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
Defective power cables pose a serious health risk!
- When positioning the device, observe the minimum distances from walls and other objects as well as the storage and operating conditions specified in the Technical annex.
- Make sure that the air inlet and outlet are not obstructed.
- Make sure that there are no loose items or dirt located in the immediate surroundings of air inlet and air outlet.
- Do not remove any safety signs, stickers or labels from the device. Keep all safety signs, stickers and labels in legible condition.
- Make sure that the suction side is kept free of dirt and loose objects.
- Dispose of replaced filters properly, especially after filtering substances hazardous to health.
- Never use the device as storage place or footstep.

Intended use

Only use the device to clean atmospheric air from non-conducting and non-combustible dusts, fogs or suspended matter whilst using the appropriate filter classes and adhering to the technical data.

The device is intended to be used in commercial areas.

Foreseeable misuse

- Do not place the device on wet or flooded ground.
- Do not place any objects, e.g. clothing, on the device.
- Do not use the device out of doors.
- Do not use the device to siphon off vapours or fluids.
- Any use other than the intended use is regarded as a reasonably foreseeable misuse.
- Any unauthorised modifications, alterations or structural changes to the device are forbidden.

Personnel qualifications

People who use this device must:

- be aware of the dangers that occur when working with electrically driven air cleaners.
- have read and understood the instructions, especially the Safety chapter.

Electrically skilled person

Electrically skilled personnel must be able to read and understand electric circuit diagrams, to put electrical systems into service and to maintain them, to wire control cabinets, to ensure the functionality of electrical components and to identify possible hazards from electrical and electronic systems.

Instructed person

Instructed persons have been informed of the tasks they were entrusted with as well as of potential hazards resulting from inappropriate behaviour. They are allowed to operate and transport the device and perform simple maintenance activities (cleaning the housing, cleaning the fan).

The device is to be maintained and looked after by instructed personnel.

Residual risks



Warning of electrical voltage

Work on the electrical components must only be carried out by an authorised specialist company!



Warning of electrical voltage

Before any work on the device, remove the mains plug from the mains socket!
Do not touch the mains plug with wet or damp hands.
Hold onto the mains plug while pulling the power cable out of the mains socket.



Warning

Dangers can occur at the device when it is used by untrained people in an unprofessional or improper way!
Observe the personnel qualifications!



Warning

The device is not a toy and does not belong in the hands of children.



Warning

Risk of suffocation!
Do not leave the packaging lying around. Children may use it as a dangerous toy.



Caution

Risk of injury from parts being whirled up!
Before switching the device on, make sure that there are no loose parts (clothing, hair ...) located near the air inlet or outlet!

Note

Observe the overvoltage protection.
The device comes equipped with an overvoltage protection. When checking for electrical safety, please bear in mind that the test voltage has to be reduced to 250 V.

Note

Do not operate the device without an air filter inserted into the air inlet!
Without the air filter, the inside of the device will be heavily contaminated. This could reduce the performance and result in damage to the device.

Note

Do not use abrasive cleaners or solvents to clean the device.

Behaviour in the event of an emergency

1. Switch the device off.
2. In an emergency, disconnect the device from the mains feed-in: Hold onto the mains plug while pulling the power cable out of the mains socket.
3. Do not reconnect a defective device to the mains.

Information about the device

Device description

Air cleaners are used to filter the room air. On building sites and renovation areas high concentrations of dust can arise, for instance when using angle grinders or during blasting, chiselling or demolition operations as well as when mixing dry mortar or tile cement.

Depending on the inserted filter, the air cleaners of the TAC series serve to eliminate various dusts, e.g. from asbestos, building rubble, quartz, flour, wood, etc., but also mould spores, paint particles and mineral fibres in the air, possibly arising during the above-mentioned operations.

This dust is to be vacuumed off as close as possible to the point of origin in order to reduce the pollution of the breathing air to a minimum. Depending on the used filter quality it is permissible to employ the device for the separation of quartziferous mineral dusts, wood dust, lead-containing dusts, artificial mineral fibres or high-temperature fibres.

Application as vacuum generator for mould remediation and asbestos abatement is also a possibility. In case of other hazardous substances there are additional requirements; hence observe the corresponding Technical Rules for Hazardous Substances (TRGS) or the country-specific regulations.

The device is suited for:

- producing a vacuum in a room, e.g. in heavily contaminated spaces;
- air purification in workspaces via air circulation, e.g. indoor building sites, workshops etc.;
- producing overpressure in a room, e.g. cleanroom;
- supplying filtered fresh air.

The device is structured as follows:

- housing with stacking aid
- adjustable fan for air transport
- filter monitoring for air volume flow

The device may be equipped with various filters. It provides the user with the possibility of configuring both the filter quality and the filter chain arrangement for the respective field of application. The filters must be selected according to the area of application.

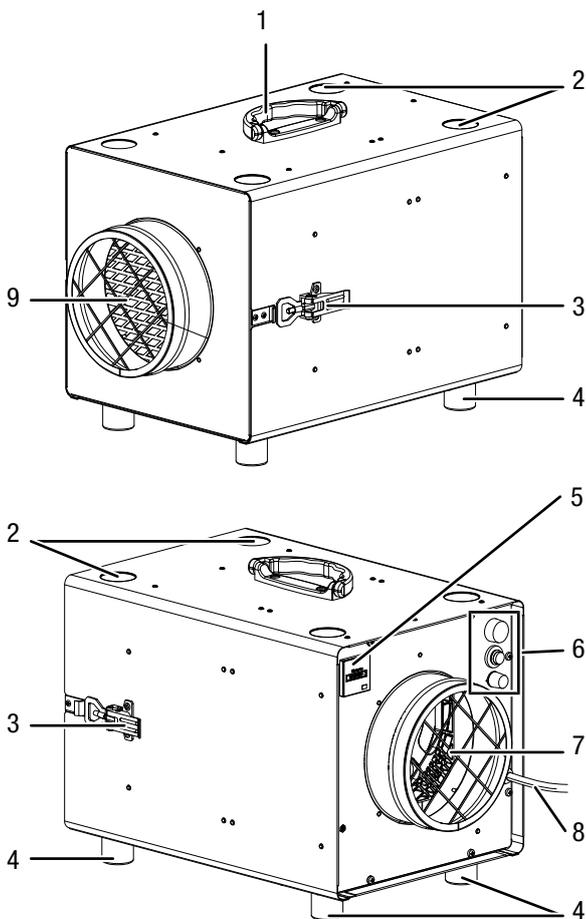
The device is approvable for asbestos abatement as per TRGS 519, dust class H.



Info

The filters are not included in the scope of delivery!
Choose the filters according to the area of application from our filter range. Insert the selected filters prior to initial start-up.

Device depiction



No.	Designation
1	transport handle
2	stacking aid
3	tension lock
4	foot
5	operating hours counter
6	control panel
7	air outlet opening
8	power cable
9	air inlet opening

Transport and storage

Note

If you store or transport the device improperly, the device may be damaged.

Note the information regarding transport and storage of the device.

Transport

Before transporting the device, observe the following:

- Switch the device off.
- Hold onto the mains plug while pulling the power cable out of the mains socket.
- Do not use the power cable to drag the device.

After transporting the device, proceed as follows:

- Set up the device in an upright position after transport.

Storage

When the device is not being used, observe the following storage conditions:

- dry and protected from frost and heat
- in an upright position where it is protected from dust and direct sunlight
- with a cover to protect it from invasive dust, if necessary

Assembly and start-up

Scope of delivery

- 1 x Device
- 1 x Manual

Unpacking the device

1. Open the cardboard box and take the device out.
2. Completely remove the packaging.
3. Fully unwind the power cable. Make sure that the power cable is not damaged and that you do not damage it during unwinding.

Assembly

Inserting the filters



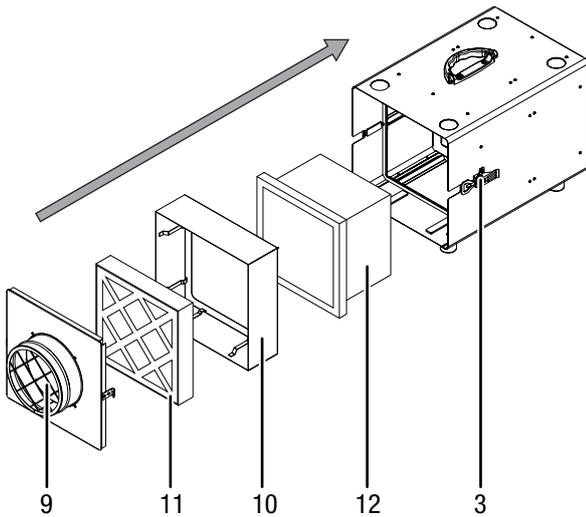
Info

The filters are not included in the scope of delivery! Choose the filters according to the area of application from our filter range. Insert the selected filters prior to initial start-up.

Prior to start-up the filter chain of the device must be configured according to the desired field of application.

1. Open the tension locks (3) on both sides of the device.
2. Remove the front cover (air inlet opening, 9).
3. For all filter installations always observe the correct flow direction according to the direction of the air current (air flow direction: from back to front)!
4. Remove the coarse or fine filters, if any, from the device.
5. Remove the filter frame (10) from the device.
6. Remove the coarse or fine filters, if any, from the filter frame (10).
7. Remove the HEPA or bag filters, if any, from the device.
8. Insert the HEPA or bag filter into the device.
9. Insert the coarse filter and, if applicable, the fine filter into the filter frame (10).
10. Reinsert the filter frame (10) into the device.
11. Refit the cover (air inlet opening, 9).
12. Close the tension locks (3).

Schematic representation of the filter chain (example with coarse filter (11) and HEPA filter (12)):



No.	Designation
3	tension locks
9	air inlet opening
10	filter frame
11	Z-line filter G4
12	HEPA filter E10 to H14 / dust class M + H

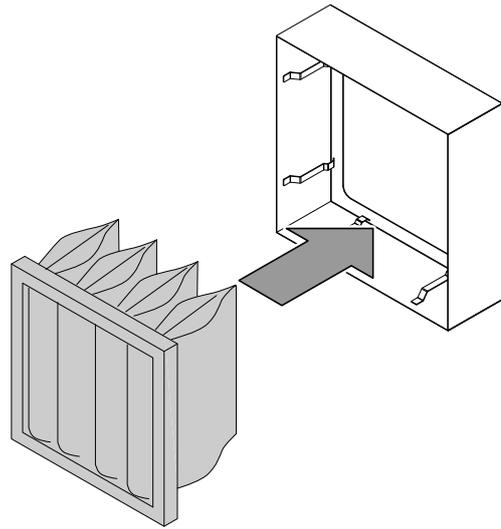
Using a bag filter



Info

Please note that the arrangement slightly differs if a bag filter is used. The bag filter is also inserted into the filter frame (10), more specifically **in front of** the coarse filter.

Please observe the filter chain arrangement from coarse to fine.



Filter frame

The filter frame can be equipped with a coarse filter G and/or a fine filter F. We recommend using at least one coarse filter for pre-cleaning, so as to maximize the service life of the subsequent filter.

- coarse filter G: Z-line filter G4
- fine filter F: pleated M5 to F9

The coarse filter is to be assembled in a way that it is the first in the air stream.

For maximum efficiency bag and Z-line filters are to be assembled vertically.

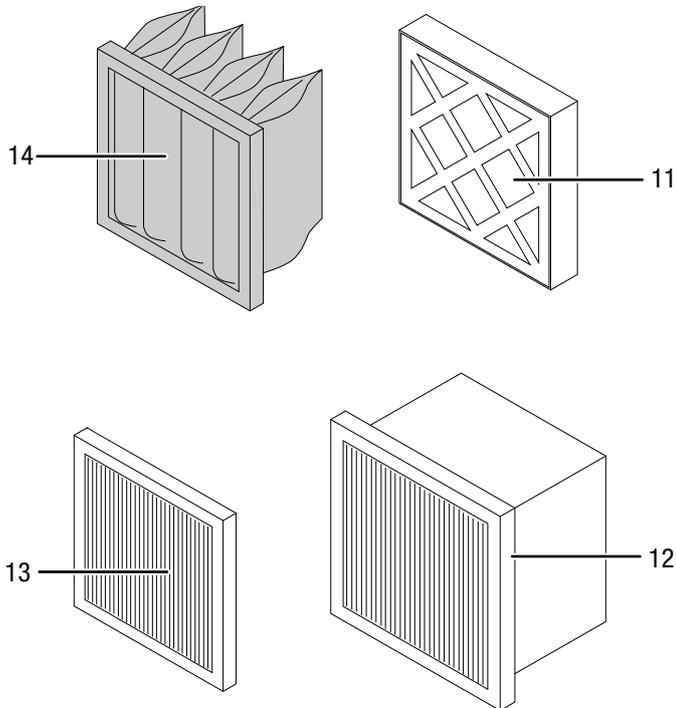


Info

When the warning light lights up and the warning signal is emitted, still an air flow rate of 500 m³/h is ensured. For an effective filtration of pollutants the scheduled directives of the (German) employer's liability insurance association recommend to exchange the filter.

Filter types (not included in the scope of delivery)

The designated air filters are especially geared to these devices and come with the largest possible filter surface based on the geometric dimensions. This ensures maximum air flow rate and service life for safe operation.



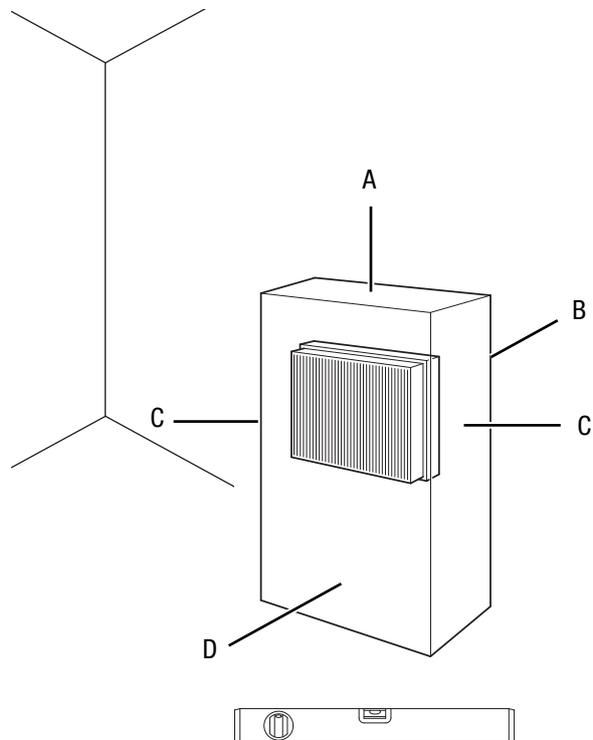
No.	Designation
11	Z-line filter G4
12	HEPA filter E10 to H14 / dust class M + H
13	pleated filter M5 to F9
14	bag filter M5 to F9

Filter ladder and configuration depend on the pollutant particle size, filtration efficiency and the field of application. The filter technology is monitored by a sensor.

The fan and filter arrangement in the device corresponds to the general configuration for the air filtration of coarse dusts and fine particulates or the separation of suspended matter according to EN 60335-2-69 up to dust class H. Here the filtration of dust particles and other suspended material harmful and hazardous to health has priority. The filter chain must be operated in a vacuum, i.e. with a terminal fan.

Start-up

When positioning the device, observe the minimum distance from walls or other objects as described in the chapter Technical annex.

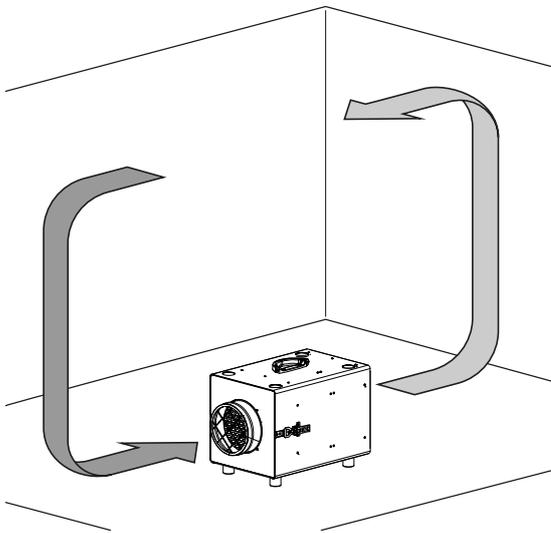


- Before restarting the device, check the condition of the power cable. If there are doubts as to the sound condition, contact the customer service.
- Only put up the device in an upright, stable position on firm ground.
- Do not create tripping hazards when laying the power cable or other electric cables, especially when positioning the device in the middle of the room. Use cable bridges.
- Make sure that extension cables are completely unrolled.
- Position the device near the source of air contamination.
- When positioning the device, keep a sufficient distance to heat sources.
- Make sure that no curtains or other objects interfere with the air flow.
- Make sure that the air inlet and outlet are not obstructed.

Installation of the device in the room, the air of which is to be purified

- When positioning the device, make sure it is located in the centre of the room the air of which is to be cleaned. Alternatively, you can also position the device near the source of air contamination.
- Prior to operation you have to ensure that the filters have been installed in the device as desired.
- The device works in recirculation mode, this means that the contaminated air enters the air cleaner via the air inlet opening and is blown out through the air outlet opening in purified state.

Air purification in sealed off area via air circulation:

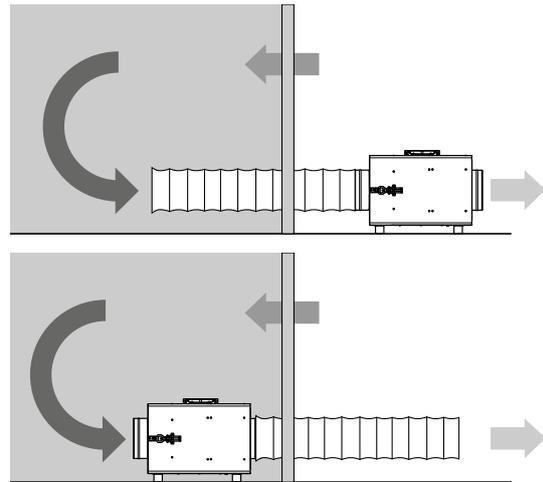


Installation of the device outside of the room, the air of which is to be purified

The device can be connected in either recirculation or ventilation mode.

- In recirculation mode, the air to be cleaned is led via a hose from the room into the air inlet opening of the device. The purified air is fed through another hose from the air outlet opening and back into the room.
- In ventilation mode, the air to be cleaned is led via a hose from the room into the air inlet opening of the device. This creates a slight negative pressure in the room. Clean, fresh air flows in from outside.

Installation variants for maintaining the pressure:



When connecting hoses, the following must be observed:

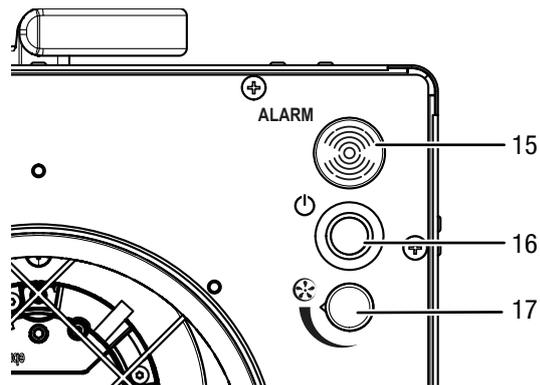
- The used pipes and hoses must be designed for the available static compression of the fans. They should preferably be laid in a straight line and at full length. 7.6 m of air hose each can be connected to the air inlet and air outlet openings of the device.
- There ought to be a minimum distance of 1 m between air inlet and air outlet opening.

Connecting the power cable

- Insert the mains plug into a properly fused mains socket.

Operation

Operating elements



No.	Designation	Meaning
15	filter change warning light	Filter change required indication
16	power button	For switching the device on and off
17	air volume control dial	For setting the desired air volume

Switching the device on

Once you have positioned the device as described in the Start-up chapter, you can switch it on.

1. Ensure that air inlet and outlet are not covered.
2. Turn the *air volume* control dial (17) counter-clockwise to the lowest air volume.
3. Press the *power* button (16).
 - ⇒ The *power* button (16) lights up.

Adjusting the air volume

By use of the infinitely variable air flow regulation you can adjust the fan speed and thus regulate the air flow rate of the device.

With the filter arrangement G4, F7 and H13 to meet the requirements of dust class H, the device with connected exhaust air hose (7.6 m, laid in 2 90° arcs) reaches an air flow rate of 600 m³/h.

If the *filter change* warning light (15) warns that a filter change will soon be required, a minimum air flow rate of 500 m³/h will still be ensured. Exchange the corresponding filters in a timely manner.

1. To increase the air volume, turn the *air volume* control dial (17) clockwise.
2. To decrease the air volume, turn the *air volume* control dial (17) counter-clockwise.

Shutdown



Warning of electrical voltage

Do not touch the mains plug with wet or damp hands.

- Switch off the device.
- Hold onto the mains plug while pulling the power cable out of the mains socket.
- Clean the device according to the Maintenance chapter.
- Store the device according to the Transport and storage chapter.

Available accessories



Warning

Only use accessories and additional equipment specified in the instructions. Using insertion tools or accessories other than those specified in the instructions may cause a risk of injury.

Designation	Article number
G4 Z-line filter	7.160.000.404
F7 pleated filter cartridge	7.160.000.409
F7 bag filter	7.160.000.414
H13 HEPA filter approved for dust class H	7.160.000.424
Spray paint filter	7.160.000.416
Air transport hose Tronect SP-T, length 7.6 m	6.100.001.200

Errors and faults

The device has been checked for proper functioning several times during production. If malfunctions occur nonetheless, check the device according to the following list.

The device does not start:

- Check the power connection.
- Check the power cable and mains plug for damage.
- Check the on-site fusing.
- Wait for 10 minutes before restarting the device. If the device is not starting, have the electrics checked by a specialist company or by Trotec.

The device is loud or vibrates:

- Check whether the device is set up in a stable and upright position.

The device gets very warm, is loud or is losing performance:

- Check the air inlets and air filters for dirt. Remove external dirt.

The warning light on the device lights up and an acoustic signal is emitted:

- If the warning light lights up during operation, this means that the filters must be changed.
- If the device issues a warning although a new filter has just been inserted, check whether any hoses connected to the device are kinked too much.

The device gives off an unpleasant odour:

- Smoke, e.g. dense tobacco smoke, odours and contaminations may be in the air. Ventilate the room.

The device still does not operate correctly after these checks:

Please contact the customer service. If necessary, bring the device to an authorised specialist electrical company or to Trotec for repair.

Maintenance

Note

All service activities other than those specified in the maintenance table may only be performed by a specialist company authorized by Trotec.

Activities required before starting maintenance



Warning of electrical voltage

Do not touch the mains plug with wet or damp hands.

- Switch the device off.
- Hold onto the mains plug while pulling the power cable out of the mains socket.



Warning of electrical voltage

Tasks which require the device to be opened must only be carried out by authorised specialist companies or by Trotec.

Note

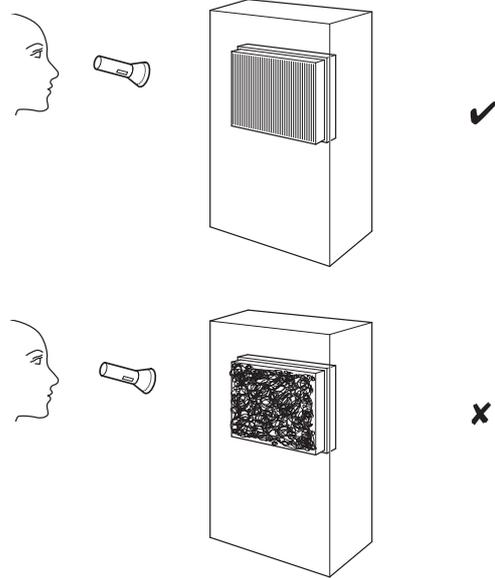
Observe the overvoltage protection. The device comes equipped with an overvoltage protection. When checking for electrical safety, please bear in mind that the test voltage has to be reduced to 250 V.

Cleaning the housing

Clean the housing with a soft, damp and lint-free cloth. Make sure that no moisture enters the housing. Protect electrical components from moisture. Do not use any aggressive cleaning agents such as cleaning sprays, solvents, alcohol-based or abrasive cleaners to dampen the cloth.

Visual inspection of the inside of the device for dirt

1. Remove the air filters.
2. Use a torch to illuminate the openings of the device.
3. Check the inside of the device for dirt.
4. If you see a thick layer of dust, clean the inside of the device with a vacuum cleaner.
5. Reinsert the air filters.



Cleaning the inside of the device

1. First remove the filters and the filter frame as described in the chapter Inserting the filters.
2. Clean the inside of the device and the filter frame with a soft, damp and lint-free cloth. Make sure that no moisture enters the housing. Protect electrical components from moisture. Do not use any aggressive cleaning agents such as cleaning sprays, solvents, alcohol-based or abrasive cleaners to dampen the cloth.
3. Reinsert the filters and the filter frame into the device.

Changing the filter(s)

The filters must be changed if the *filter change* warning light (15) lights up during operation and an acoustic signal is emitted.

If a filter needs to be replaced, please proceed as described in the Inserting the filters section in the Assembly and start-up chapter.

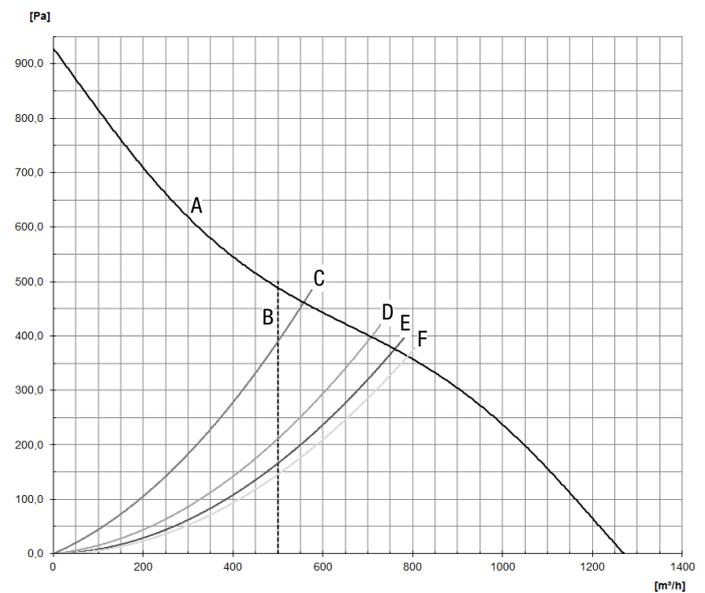
Technical annex

Technical data

Parameter	Value
Model	TAC 1500 S
Article number	1.580.000.104
Recommended amount of air for dust class H	500 m ³ /h
Dust class (as per DIN 60335-2-69)	Dust class H
Max. power input	0.17 kW
Mains connection	1/N/PE ~ 230 V / 50-60 Hz
Nominal current	1.3 A
Connection cable	CEE 7/7, 3 m cable length
Air transport hose connector inlet/outlet side	200 mm
Sound level (at a distance of 1 m)	65 dB(A)
Dimensions (length x width x height)	610 x 360 x 400 mm
Weight	16 kg

Maximum permissible room size for 15-fold air change at maximum power stage: 12 m²

Performance chart



A	Fan
B	Recommended amount of air for dust class H
C	With G4+H13 filter combination (approval for dust class H) and air transport hose*
D	With G4+F7 filter combination and air transport hose*
E	With G4 filter and air transport hose* With spray paint filter and air transport hose*
F	Without filter, with air transport hose*

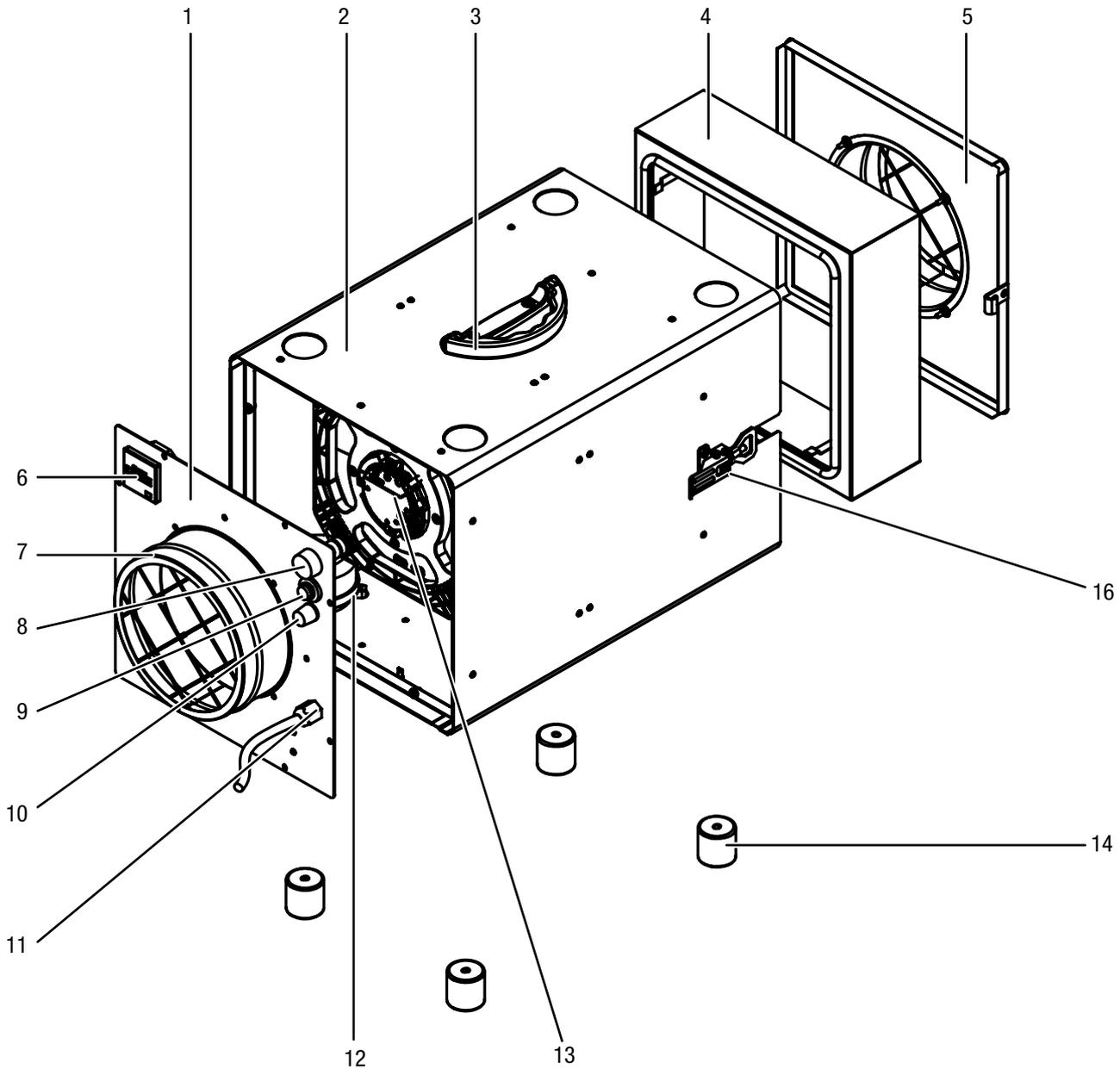
* Connected to the pressure side, standard length 7.6 m, laid with one 90° arc. **When the air hose is laid stretched and arc-free, an increase of air volume by up to 25 % is possible!**

Spare parts drawing and list



Info

The position numbers of the spare parts differ from those describing the positions of the components mentioned in these instructions.



No.	Designation	Article number	No.	Designation	Article number
1	Front panel – outlet	P10006572	9	On/off switch	P10001376
2	Basic housing	P10006574	10	Air volume controller	P10001249, P10001250
3	Hinged handle	P10001246	11	Cable gland	P10001247, P10001248
4	Filter frame	P10006575	12	Load cell	P10001545
5	Front panel – inlet	P10006573	13	Fan	P10000535
6	Operating hours counter	P10001137	14	Rubber foot	P10005190
7	Spigot	B1114	16	Tension lock with clamp	P10006576
8	LED signal	P10000755			

Disposal



The icon with the crossed-out waste bin on waste electrical or electronic equipment stipulates that this equipment must not be disposed of with the household waste at the end of its life. You will find collection points for free return of waste electrical and electronic equipment in your vicinity. The addresses can be obtained from your municipality or local administration. You can also find out about other return options that apply for many EU countries on the website <https://hub.trotec.com/?id=45090>. Otherwise, please contact an official recycling centre for electronic and electrical equipment authorised for your country.

The separate collection of waste electrical and electronic equipment aims to enable the re-use, recycling and other forms of recovery of waste equipment as well as to prevent negative effects for the environment and human health caused by the disposal of hazardous substances potentially contained in the equipment.

Declaration of conformity

Declaration of conformity in accordance with the EC Machinery Directive 2006/42/EC, Annex II, Part 1, Section A

We – Trotec GmbH – declare in sole responsibility that the product designated below was developed, constructed and produced in compliance with the requirements of the EC Machinery Directive in the version 2006/42/EC.

Product model / Product: TAC 1500 S

Product type: air cleaner

Year of manufacture as of: 2019

Relevant EU directives:

- 2011/65/EU: 01/07/ 2011
- 2014/30/EU: 29/03/2014

Applied harmonised standards:

- EN ISO 12100:2010
- EN ISO 13849-1:2015
- EN ISO 13857:2008
- EN ISO 14118:2018
- EN 55011:2009
- EN 60204-1:2006
- EN 60335-1:2012/AC:2014
- EN 60335-2-65:2003/A1:2008
- EN 60335-2-65:2003/A11:2012
- EN 61000-6-1:2007
- EN 61000-6-3:2007+A11:2011+AC:2012

Applied national standards and technical specifications:

Manufacturer and name of the authorised representative of the technical documentation:

Trotec GmbH
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 Phone: +49 2452 962-400
 E-mail: info@trotec.de

Place and date of issue:
 Heinsberg, 06.04.2017



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