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There are no general rules for recycling of used filters. Different rules exist on local level in all countries. Please contact the recycling company in your district and ask how to handle used filters.

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1. Purpose

This user manual is part of the documentation that must be available under appendix 5 of the machine directive. The purpose of the manual is to give details of the design of the *CamCleaner 800* and how it works. New users must be able to work safely with the *CamCleaner 800*.

2. Contents

This user manual gives details of the *CamCleaner 800* only and must not be used for any other machine. Besides short explanations of what the machine is used for, the first few sections also give some technical specifications. After these, there are illustrated texts about the various parts that make up the *CamCleaner 800*. The user manual also includes details of safety procedures associated with the use of the machine.

3. Version history

Version	Date	Signature	Altered
2013	See approval	Initial	Version

4. Identification plate

All *CamCleaner 800* type machines have this plate on their steel shell.

5. Guarantees and undertakings

The guarantee relates to full functionality as per the details in this user manual and covers errors in software and hardware for a period of one year from the delivery date.

Should the equipment develop a fault, please contact your distributor.

Distributor of *CamCleaner 800*:

CAMFIL
Industrigatan 3
SWEDEN-619 33 TROSA
Tel: +46 (0)156 537 00
Web: www.camfil.com

6. Preface

Thank you for buying an air purifier from Camfil.

We hope that you will be delighted with your *CamCleaner 800*.

Important!

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Before using your *CamCleaner 800* air purifier, it is important that you, as the user read:

1. User manual
2. The fan instructions
3. Follow the safety instructions in both documents.

7. Technical specifications

External dimensions, Basic model

Height: 638 mm Width: 550 mm Depth: 263 mm

Weight: 32 Kg (including new filters)



Fan specifications

If unsure, fan type can be identified from the rating plate on the machine.

1-phase EC fan
Voltage: 1~, 200 – 240 V
Frequency: 50/60 Hz, IP 22
Max. power: 0,3 kW
Max. current: 2,6 A
Speed: 1,950 rpm min. -1
Noise level: 35 dbA – 85 dbA
Operating temperature: 5°C – 50°C

Air flow, *CamCleaner 800*

0 m³/h – 800m³/h (max. mode with unused filters).

8. Use

The *CamCleaner 800* is used to clean air by mechanically filtering it through highly efficient filters.

There is one standard versions of the *CamCleaner 800* and are mobile.

8.1. Wall and ceiling mounting

If the *CamCleaner 800* is to be mounted in a ceiling or a wall, the following points must be borne in mind:

1. Ceiling mounting – the unit must be so mounted that there is no risk of trucks (and similar) colliding with it.
2. The ceiling or wall must be able to take a load of 84 kg.
3. Only fixed mounting is permitted.
4. Mounting devices must be able to take a load of at least 84 kg.
5. Position the *CamCleaner 800* on a stable, firm and flat surface.

9. Safety instructions



Read the user manual and follow the instructions given therein.

For installation, servicing, maintenance or filter replacement, the machine's power supply must be disconnected. NB! Pull out the electrical connector!

The machine is not to be regarded as de-energized until 5 minutes after disconnection from the power supply.

Rotating parts do not stop immediately once power has been cut or the machine has been switched off. Allow 5 minutes to elapse before handling the cabinet.

1. In its standard version, the *CamCleaner 800* must only be used for handling dry non-explosive materials. If the air purifier is used for purposes other than those set out in the user manual, or is handled otherwise than set out therein, Camfil Svenska AB can accept no liability whatsoever for the consequences of said use/handling.

2. NBI Fixed installation may only be carried out by a professional who has appropriate qualifications for the assignment and who takes responsibility for the installation.
3. The machine must not be used in ATEX classified areas or where, at any time, there may be explosive gases.
4. Electrical connection may only be carried out by an appropriately qualified electrician. Wall outlets must also be installed by an appropriately qualified electrician.
5. Accessories, filters, spare parts, etc. used with the *CamCleaner 800* must be approved by Camfil. Guarantee undertakings cease to apply if the foregoing is not respected. Please contact Camfil for the correct accessories.
6. Do not cover inlets or outlets.
7. Inserting objects through inlets or outlets is forbidden.
8. The wheels must be locked throughout operation.
9. The *CamCleaner 800* must not be used in environments where burning/smouldering objects can get into the machine.
10. The *CamCleaner 800* must be used indoors only.
11. The *CamCleaner 800* must be used in the 5°C – 50°C temperature range only.
12. The *CamCleaner 800* must not be drenched with water. The highest permitted humidity is 85%.
13. The *CamCleaner 800* must not be used for point extraction or dust separation. It must also not be used in environments where dust explosions may occur.
14. Your *CamCleaner 800* is equipped with “automatic start”. This means that, on power restoration after a power disruption, the fan automatically returns to its speed before the disruption.
15. Follow the filter handling and replacement instructions very carefully. Incorrect handling can damage the filter medium. In turn, this can mean that the promised filter class will not be achieved.
16. Take great care when handling used filters. Incorrect handling can result in ill health or sickness. Follow the instructions for filter replacement.
17. When replacing filters, remember that the filter cassettes are heavy – your feet are vulnerable! When replacing filters with the machine raised from the floor, it is recommended that the cassettes, before they are detached, should be secured with wire.

10. Design

The *CamCleaner 800* is a self-standing one-section design. The section houses the filters, with fans, pressure sensor and all the electrical and control apparatus in between filters.

The machine is entirely constructed of stainless steel or painted steel plates. Thus, it is environment friendly and readily recyclable.

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10.1. Constituent standard components

In its standard version, the air purifier is supplied with the following components:

- One *CamCleaner 800* unit with one rectangular outlet.
- Filters for the chosen purpose (EPA or HEPA filter).
- Filter replacement warning light on control panel.
- User manual.
- Fan instructions (from the fan supplier).

If anything is missing, or if you require further information about accessories, please contact Camfil.

11. Transport and unpackaging

When the *CamCleaner 800* is to be installed, remove the packaging carefully. If sharp objects are used for unpackaging, take care of the machine's cables and lacquer finish.

The *CamCleaner 800* handle is supplied with four wheels and can thus be easily moved to the point of use. The *CamCleaner 800* basic do not have wheels and need to be carried to the point of use.

Take especial care when handling the filters. See the filter replacement section.

Check that the product has not been damaged during transport. Report any transport damage to the carrier. Check also that the delivery is complete.

10.2. Air flow details

1. The air first passes through two prefilters, most often pleated Ecopleats or PPI mat.

2. Behind these, there is the HEPA filter. This is a unique, environment-friendly "absolute filter". It is so efficient that air must pass three times through the ventilation system to achieve the same level of air purification as it does in a single circulation through the CamCleaner. The extremely large filter surface increases both service life and filter efficiency. Further increases of the HEPA/EPA filter's service life can be achieved by careful management of prefilter replacement.

3. All CamCleaner models have at least two intakes. This makes it possible to mix and purify air from, for example, two areas at different temperatures or with different air qualities



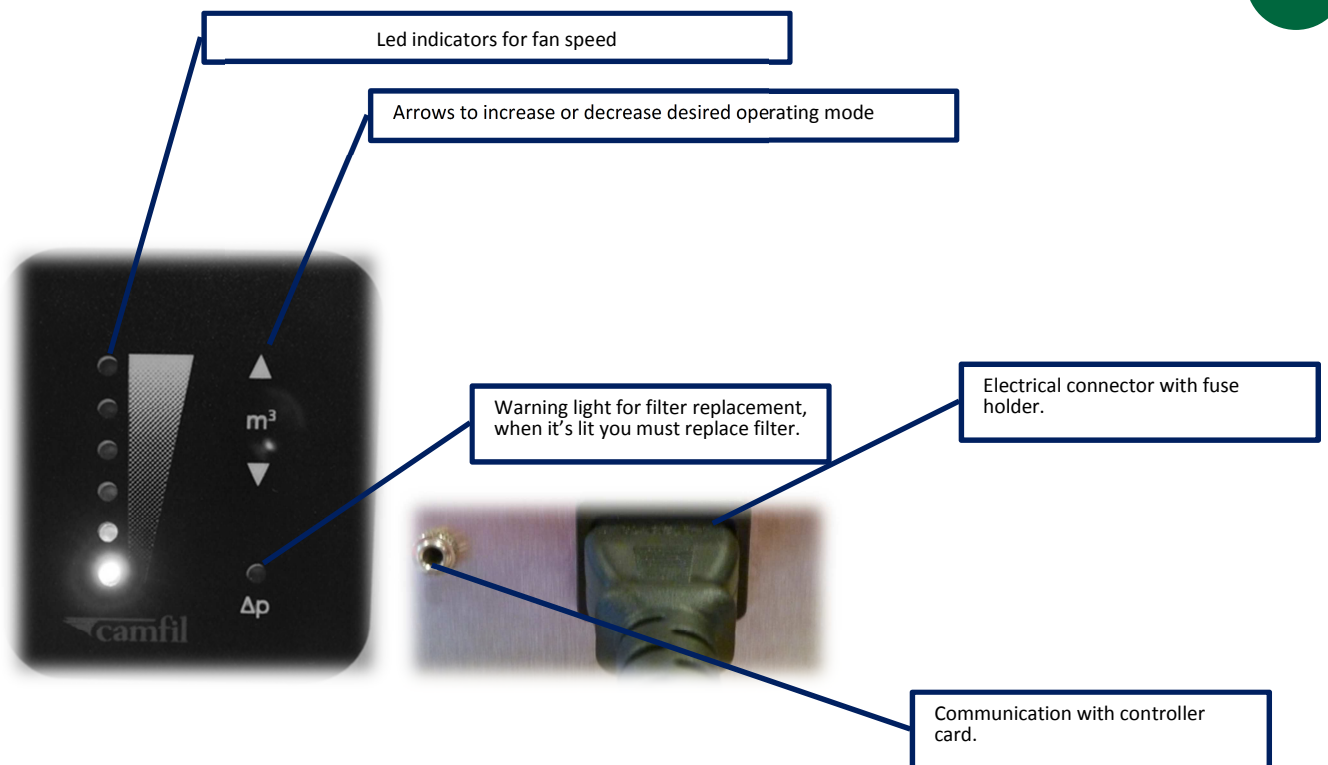
4. The only moving part in the CamCleaner is the fan. This is under the filters and creates strong and even *underpressure in the air column after the filters*. Our EC fans consume little energy and can be controlled (even via the internet) for optimal needs-specific air purification and indication of necessary filter replacement.

5. Outlets are on one side using round 160 mm standard connectors and fits standard circular 160mm ductings.

12. Taking into operation

First, read the entire user manual.

Schematic diagram.



1. Connect the air purifier to the electrical outlet. Ensure that there is nothing obstructing the air outlets/inlets (see figure below).

3. Press up or down arrow. For control panel location, see "Schematic diagram of the control panel" (above).

To switch the fan off, press the arrow down until no blue led light is lit.

When it is time to replace filters, the red warning light flashes on the control panel. New Camfil filters should be replaced as soon as possible.

Your *CamCleaner 800* is equipped with "automatic start". This means that, on the restoration of power after a power disruption, the air purifier automatically returns to the speed at which it was set before the disruption. The user/installation engineer must bear this in mind during use, servicing or the carrying out of fixed installation.

12.1. Positioning

The *CamCleaner 800* must always be positioned and used indoors only. When using the air purifier, lock its wheels.

Air outlets and intakes must not be obstructed during use. Before it is taken into operation, ensure that there are sufficient space (50 cm) around the machine.

12.2. System integration

When connecting the *CamCleaner 800* to the ventilation system, the load on the *CamCleaner 800* must not exceed a total weight of 25 kg (of which a maximum of 10 kg on the intake side). Systems heavier than this must be secured to support their own weight.

12.3. Electrical connection

Electrical connection must be carried out by an appropriately qualified electrician. All routing of cables, etc. must be carried out in accordance with the relevant regulations. The *CamCleaner 800* is factory supplied ready for plugging in. Any intervention in the machine's internal electrical systems may only be carried out by appropriately qualified persons using Camfil Svenska AB supplied equipment.

The *CamCleaner 800* may only be connected to the network voltage that is stated on the machine plate.

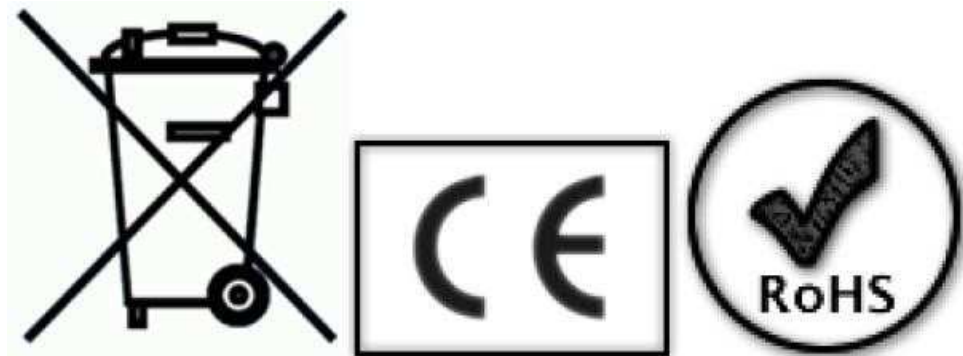
14. *CamCleaner 800* and the environment

The *CamCleaner 800* air purifier is made from lead-free components. Because the *CamCleaner 800* can be recycled, used models must always be sent to a recycling station for correct recycling and/or disposal of parts and components.

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14.1. *CamCleaner 800* filters and the environment

Note that filters must not be disposed of along with ordinary household waste. Scrapped filters must always be correctly taken care of and handled safely. Recycling or disposal must always be carried out at an approved waste facility. If you have any questions about this, please contact your local authority or distributor for advice on correct care.



15. Maintenance

If necessary, the *CamCleaner 800* can be cleaned using a mild cleaning agent.

Before cleaning, always switch off the machine and pull out the electrical connector!

NB! Do not touch the filter surface.

16. Instructions for replacing *CamCleaner 800* filters

WARNING! When handling used filters, personal protective equipment such as protective gloves and masks must be used. To choose the correct type of respiratory protection, consult either the safety representative/officer at the workplace or the manufacturer of the respiratory protection.

Used filters may contain harmful substances and particles. With incorrect handling, these can escape to the environment and present risks of sickness and ill health.

Filters should be replaced on a continuous basis. As regards frequency of filter replacement, see Camfil's recommendations.

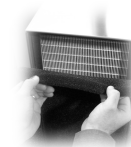
16.1. Filter replacement

Always use protective gloves and respiratory protection when handling used filters! Risk of ill health and sickness.

1. Switch off the *CamCleaner* by pressing the arrow down.
2. When the *CamCleaner* has been switched off and the fan has stopped, pull out the electrical connector. There is rotating parts inside.



3. Vacuum clean the pre-filter.
Grasp the pre-filter and pull it towards you.
4. Loosen the two jumpers and pull them upwards until it stops.
Bend them toward you until they drop from the edge.
5. Use jumper as tools to remove the filter as shown in picture.
(Up and down at the same time to avoid filter stocked)
Remove the EPA/HEPA filter.



6. When you put in new filters, look at the arrow on filter to mount filter in right direction to avoid that the filter get stocked.
7. For further information or find your local dealer for new filters, please visit www.camfil.com
8. Reconnect the electrical connector. Your *CamCleaner* is equipped with "automatic start". This means that, after a power disruption, it automatically starts up and returns to its speed before the disruption.



17. IP classification

The *CamCleaner 800* is supplied with an IP 22 classification.

The IP code is defined as per international standard IEC 60529.

IP classifications define how much dust and water a product tolerates while maintaining full functionality and safety.

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Important information

In accordance with the casing's stated protection classification, the machine must not be placed in water or exposed to liquid chemicals. Similarly, the machine must not be placed in extremely high or low temperatures.

The guarantee does not cover problems arising through carelessness/negligence.

Remember that the classification covers the machine only and not the filters. For information about filters, contact the filter supplier.

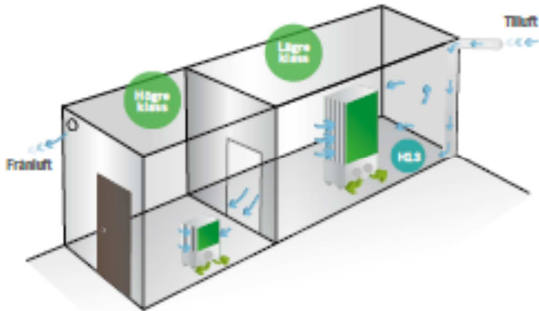
18. EU provisions governing the product

This product complies with EU standards as per the "machine directive" (2006/42/EC), the "low voltage" directive (2006/95/EC) and the "EMC directive" (2004/108/EC).

Note that correct observance of the installation and safety instructions is a precondition for the compliance of all the operating properties.

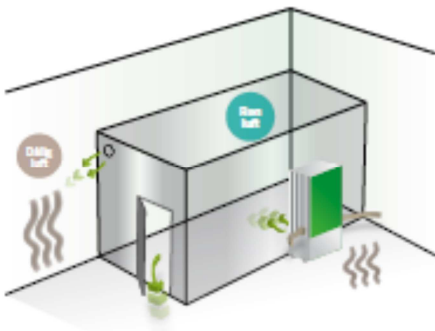
For more details of technical specifications, the standards that have been complied with and Camfil's patents, please contact Camfil Svenska AB.

19. CamCleaner system



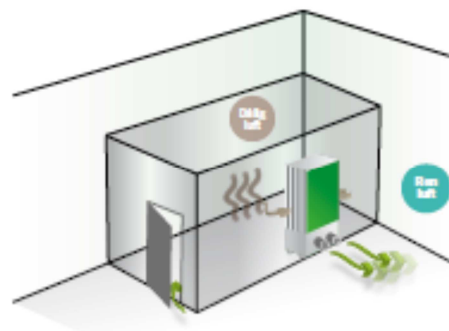
Two air purifiers work together in a cleaning system.

In compartment 1, the incoming air creates overpressure. This means that the air, after it has passed through the air purifier, is transported to compartment 2. There, the air is sucked through another CamCleaner, which further raises the air quality. You can also use various effective filters in the air purifiers to control the air quality. In this instance, a class H13 filter is used in compartment 1, where the contaminated incoming air enters. This method is used in premises used for production, in air locks as well as in other environments.



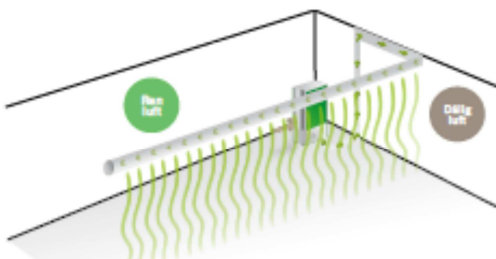
Over pressure.

Exactly as in the example above, overpressure is created when the air is purified and enters the compartment. By doing this, a thoroughly controlled indoor environment is achieved in the space in question. This is useful in processes such as those involving installation, food, electronic installation, and other sensitive production units.




Under pressure.

In this example, the air is sucked from the compartment and purified before it is discharged into the room. CamCleaner also makes it possible to clean the air many times before allowing it to be released, in order to achieve increased control over the air quality. Under pressure is used, for example, on building sites, and in industries and places where a small dirty production area in large premises



Cleaning zone in open premises.

In this example, the air is purified in the CamCleaner unit's HEPA filter. Then it passes through the pipe along the ceiling, where air is discharged from the holes along the wall. The purified air thus creates a sort of curtain that divides the room into two zones; one with higher quality air and one with lower quality air.



Camfil IAQ Analysis – monitors and measures your air quality in real time.

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IAQ stands for Indoor Air Quality and is a measurement of the quality of indoor air. As an additional option for your CamCleaner system, you can choose Camfil IAQ Analysis which provides a direct picture of the air quality in your rooms. We monitor the air quality, and all measurements are saved in an IAQ database which contains millions of measurement values and benchmarks for the indoor environment and air quality. As a customer, you have the option of viewing the analysis in real time at the time of measuring, and all measurements taken can easily be compared with each other. With the aid of a calibrated particle counter, the quantity of particles in the air can be examined. By subscribing to this service,

you will, as a customer, always have a particle counter in place connected to a computer which monitors the indoor environment. When an abnormal particle distribution is identified, or in cases of other suspected problems, we perform an analysis with a scanning electron microscope (SEM) with associated X-ray analysis system (EDAX). As required, the quantity, weight and structure of the particles are analyzed as well as the chemical composition of the air and element content. We have more than 10 year's experience of this. We also work together with many of the world's leading laboratories for further analyses. Our IAQ reports are based according to the following standards for air classification: SS EN, SS EN ISO and IEST.

CAMFIL

– the world's largest and leading manufacturer of filters and clean air solutions

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There is a good chance that, at this very moment, you are breathing clean air that has passed through a filter manufactured by us. Our products can be found everywhere from offices, clean rooms for sensitive electronics production and mines to factories, hospitals and nuclear power stations. Camfil is a global company with 29 subsidiaries, 23 production plants and an extensive network of agents in Europe, the Americas and the Asia-Pacific region.

CamCleaner

CamCleaner is synonymous with high efficiency purification, energy savings and almost silent operation. Unlike all other air purifiers on the market, our HEPA filters offer a degree of purification that can eliminate the tiniest and most difficult to remove particles. CamCleaner is also entirely unique in that it can suck in air from two directions. This makes it possible to have different cleaning zones and thereby considerably increase the efficiency of air purification.