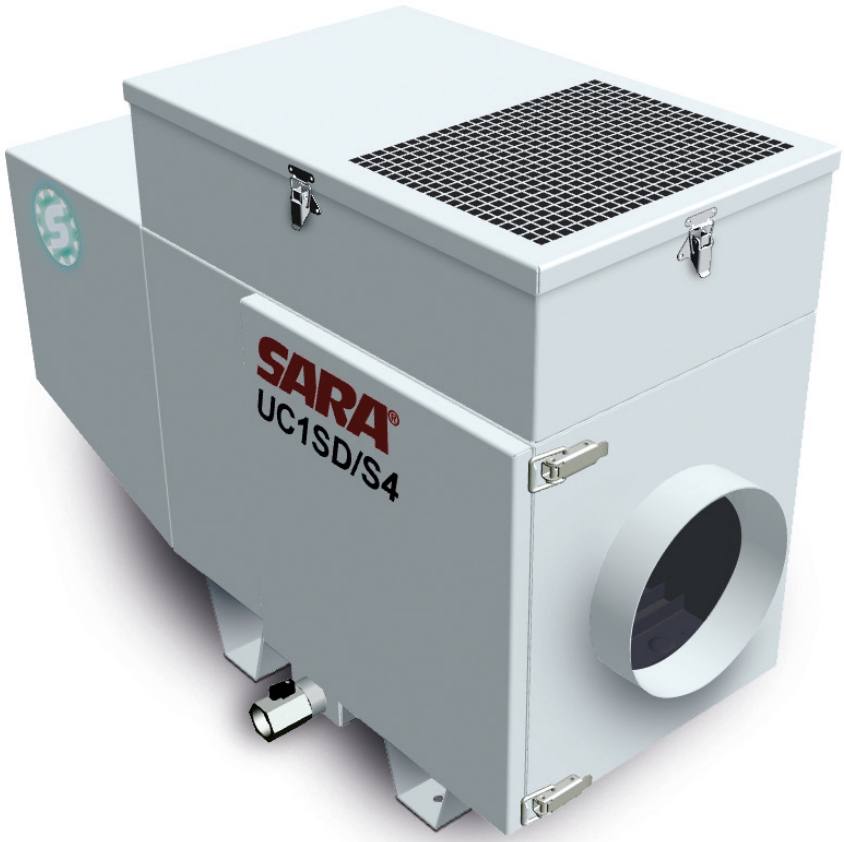
SARA® Ultra-Cleaner series

Operating and Maintenance Instructions

Models SARA® Ultra-Cleaner UCS-Mini/S4, UC1SD/S4, UC2SD/S4, UC3SD/S4

INNOVATION BW Award Winner
Innovation Award Baden-Württemberg
Dr.-Rudolf-Eberle-Preis



SARTORIUS Werkzeuge
POWER TO PRODUCE

Order No.

As of July 2025

SARTORIUS Werkzeuge GmbH & Co. KG
Harkortstr. 54
40880 Ratingen · Germany

Phone: +49 2102 4400-0
Fax: +49 2102 4400-24
info@sartorius-werkzeuge.de

Contents

ATTENTION:
Read the manual completely before setting up the unit and before commencing any cleaning or maintenance work!

General Description

The SARA® Ultra-Cleaner is suitable for the separation of air pollutants such as aerosols and mist

The high-performance air cleaner is designed as a multi-stage system and delivered ready for connection. The fan is integrated into the unit. The maintenance door is fitted with quick-release fasteners. The stainless steel housing (material no. 1.4016) with a lacquer finish in RAL 7035 is stable and torsion-resistant with smooth inner surfaces. The bottom part accommodates an oil- and water-tight collecting pan that is fitted with a one-inch socket and a ball valve. The functional indicator mounted to the unit shows the degree of contamination of the separating system. Aerosols and liquid particles are mechanically separated by patented X-CYCLONE® Aerosol Separators. Via additional filter stages, the finest aerosols are agglomerated using high-performance agglomerators to ensure that even the smallest droplets are separated. The unit is designed to prevent uncontrolled growth of micro-organisms if the specified cleaning and maintenance intervals are observed (see page 17).

The X-CYCLONE® Aerosol Separators and the Agglomerators can be cleaned and reused – no disposable filters!

The ***flame-arresting capability*** of the filters was tested in accordance with DIN EN 16282 and DIN 18869-5.

Fig.: SARA® Ultra-Cleaner with sound absorber (standard version)

In the standard version, the unit is fitted with an agglomerator and an X-CYCLONE® Aerosol Separator.
An additional filter can be fitted. A sound-absorber top unit is included in the scope of delivery.

The air cleaners of the SARA® Ultra-Cleaner series have been developed designed and manufactured in compliance with EC Directives.

For particularly high oil mist loads, you can retrofit the unit with an optionally available electrostatic collector or a submicron particulate filter, both available as after-filter top units

Material SARA® Ultra-Cleaner series

Housing	stainless steel 1.4016 with a lacquer finish in RAL 7035
Separator Frame Profiles	 stainless steel 1.4016 aluminium
Agglomerator	stainless steel 1.4301

Aerosols
Dispersions of fluid droplets and solid particles in a gaseous environment.

Mist
Fluid droplets generated from supersaturated vapor through condensation when the temperature/ pressure drops.

EDELSTAHL Rostfrei®

ErP compliant

All SARA® Ultra-Cleaners comply with the European ErP Directive!

Use of the units in potentially explosive environments

Our separators are delivered without explosion protection. This means that no vapours, gases, or mists that are themselves explosive or might form ***explosive media*** inside the units may be extracted.

Extraction of media with a low point of ignition

The steady increase in the use of liquids with a low ignition point in modern machine tools produces a ***generally increased risk of fire and explosion in the material processing sector***. In case of doubt, contact a competent specialised provider of fire protection consultancy services and equipment.

ATTENTION:

Never open the maintenance door when the unit is running. Never switch the unit on when the maintenance door is open. There is a high risk of accident in both cases!

The recirculation of cleaned air in connection with the handling of particularly carcinogenic materials is prohibited in accordance with Art. 15a of the German regulation on the handling of hazardous materials GefStoffV. These substances are:

- 6-amino-2-ethoxynaphthalene
- 4-aminobiphenyl and its salts
- Asbestos
- Benzidine and its salts
- Bis(chlormethyl)ether
- Cadmium chloride (in respirable condition)
- Chloromethyl methyl ether
- Dimethylcarbamoylchloride
- Hexamethyl phosphoric acid triamide
- 2-naphtylamine and its salts
- 4-nitrodiphenyl
- 1,3-propane sultone
- N-nitrosamine compounds
- Tetranitromethane
- 1,2,3-trichloripropane

In these cases, the air extracted by the SARA® Ultra-Cleaner must not be recirculated, i.e. no cleaned air may be returned into areas where people congregate!

Installation of the Equipment I

General notices

- Set up the SARA® Ultra-Cleaner
  in a perfectly horizontal position.
- When putting up the unit make sure that the maintenance side of the unit is accessible to connect a drain pipe to the one-inch socket.
- You can fix the SARA® Ultra-Cleaner using the installation supports underneath the unit.
- Make sure that the maintenance door can be opened up by 90° at least.
- If you desire special fastening devices such as suspensions or mounting frames, please specify them in your inquiry.

Assembly/installation of the unit

An installation aid is provided underneath the unit to facilitate transport and installation (fifth unit support). You can remove it after the installation.

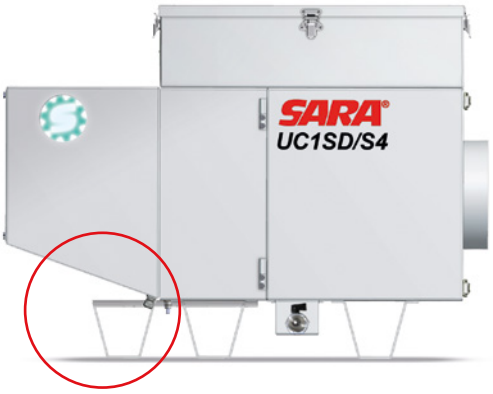
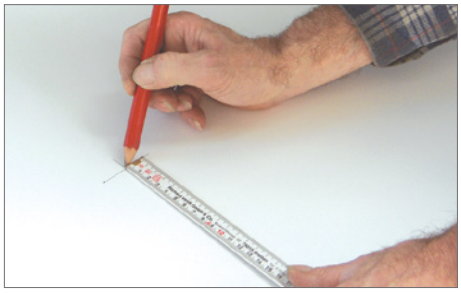


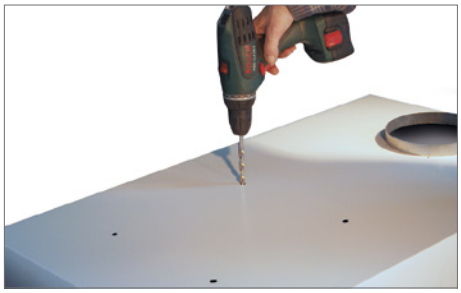
Fig.: Fifth unit support

Fixing the unit

1. Choose the place of installation.
Consider the load-bearing capacity of the processing machine,
when installing the unit directly on top of it.



2. If you install the unit directly on top of the machine, line up the hole pattern and drill accordingly.
Pay attention to any rails or built-in units underneath!



3. Fasten the SARA® Ultra-Cleaner with M10 machine screws.

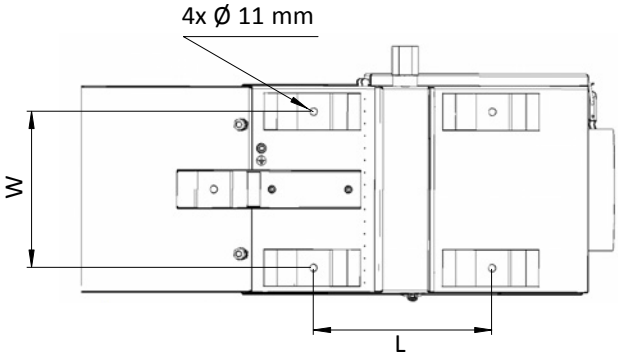
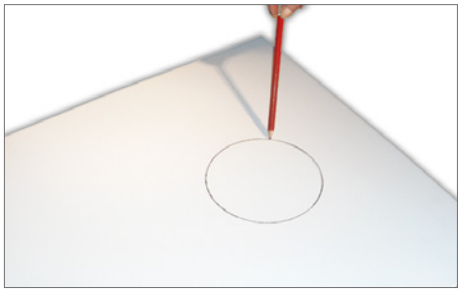


Fig.: Spacing of the fastening holes

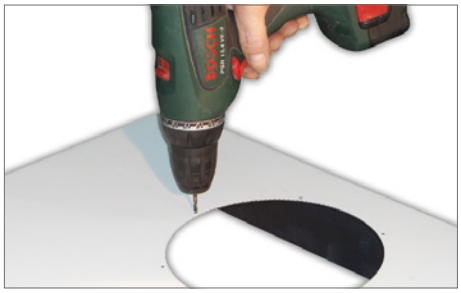
SARA® Ultra-Cleaner	Width in mm	Length in mm
UCS-Mini/S4	255	342
UC1SD/S4	255	292
UC2SD/S4	255	292
UC3SD/S4	255	292

Suction opening

4. Determine the position of the suction opening.
Line up the hole and cut it out
(diameter, see the technical details on page 12).



5. Drill the rivet holes for the collar.
Apply adhesive and fix the collar with rivets.



6. Mount the extraction hose.

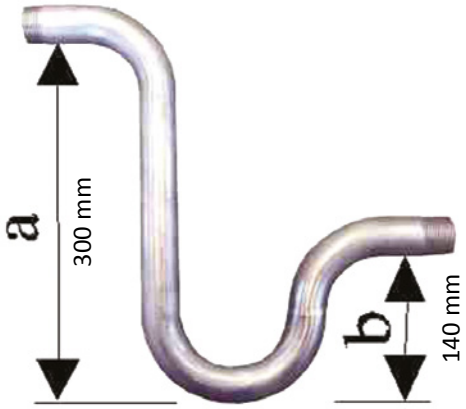
Fig.: Fitted extraction hose

Connection of the drain line

7. ***ATTENTION:***

The connections to the unit must be sealed airtight in order to ensure the perfect function of the separator.

For this purpose, a syphon or drain line with an air-tight end in a collecting tank can be connected, for example.



The dimensioning of the siphon with respect to the sizes specified for a and b is described below:
The maximum oil column in the siphon has a height of 2 x b.

Connection of a hose or simple tubing

In case of a simple pipe/hose drain, the vertical length, i.e. the difference in height between the housing socket and the hose end, must at least be equal to ‚a'.

Fig.: Connection for oil return hose
part no. 9090050004

Before putting the unit into operation, seal the siphon or collecting pan with the cooling lubricant (cooling liquid) to be used to ensure their airtight closure.

Details of the Unit

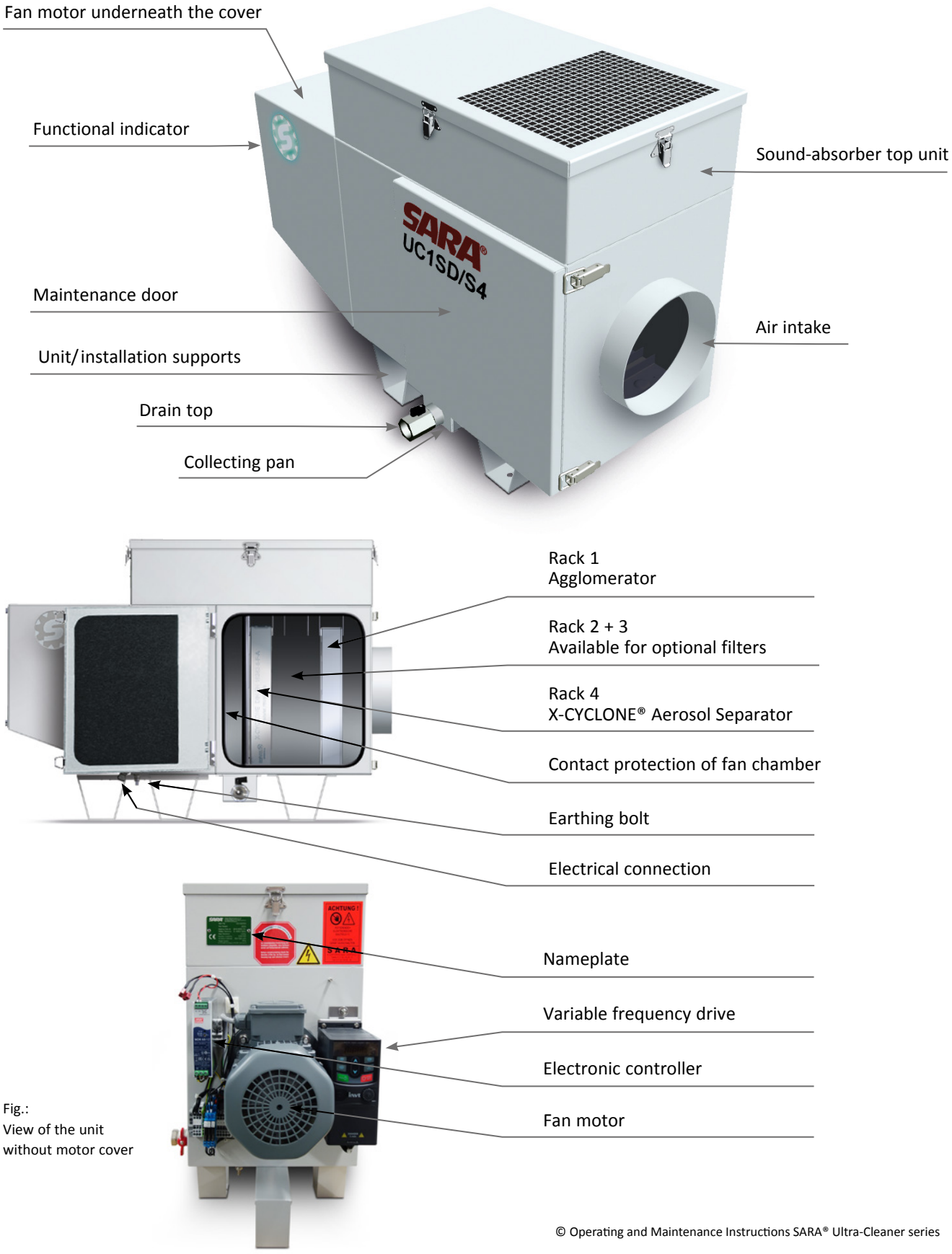
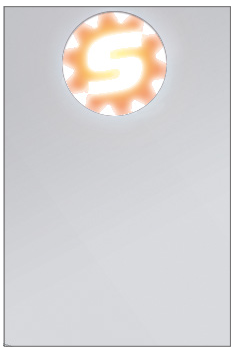


Fig.:
View of the unit
without motor cover

Variable frequency drive

SARA® Ultra-Cleaners are fitted with a modern variable frequency drive. The variable frequency drive offers plug-and-play options providing for fast commissioning, maximum flexibility and a lead in competition.
The system, which has been especially developed for industrial and commercial applications, is perfectly suited for OEMs, system integrators and end users.

Fig.: Variable frequency drive installed in the motor cabinet (on the left)



Functional indicator

An LED indicates the degree of contamination of the separator and the agglomerator:

Green: in operation,
separator/agglomerator in good condition.
Yellow: Cleaning required
Red: Cleaning mandatory,
malfunction of the variable frequency drive

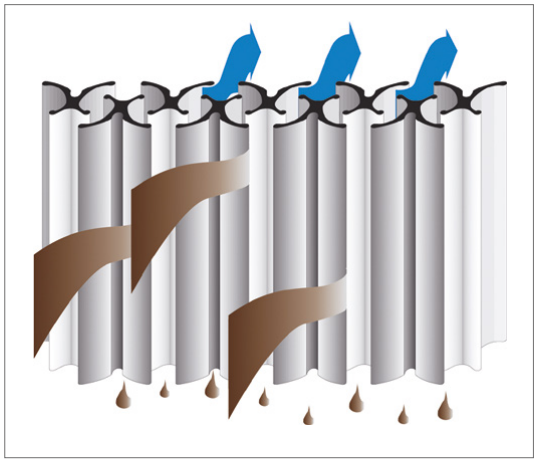
X-CYCLONE® Aerosol Separator

The patented X-CYCLONE® Separators made by Rentschler REVEN are capable of separating particles of any size down to 0.01 µm with a very high degree of efficiency (oil and emulsion mists).

ATTENTION:
Gaseous substances cannot be separated, however.

The ***flame-arresting capability*** of the X-CYCLONE® Separator (basic module) has been tested and confirmed by the German TÜV.

Observe the installation position!



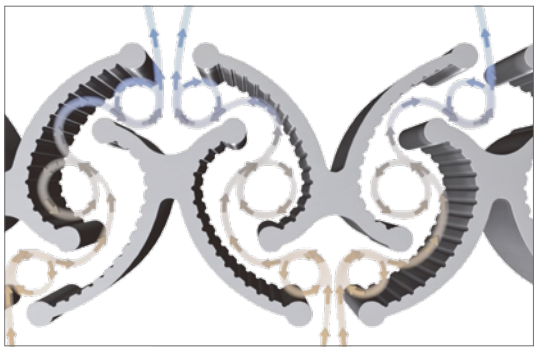
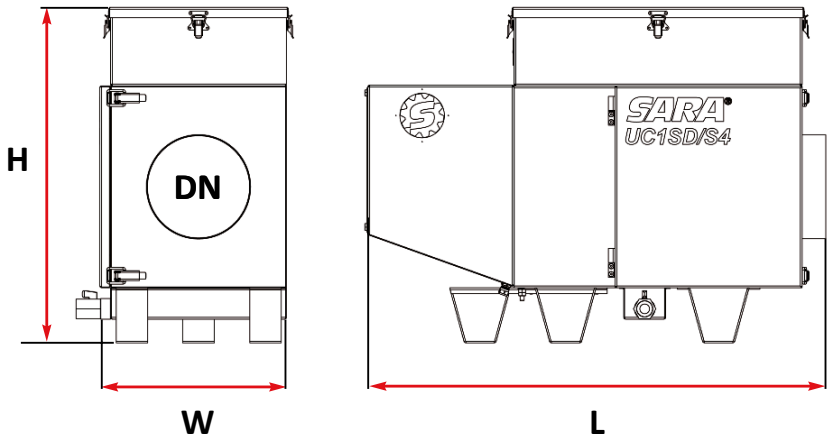


Fig.: Schematic representation of how the X-CYCLONE® Aerosol Separator works

ATTENTION:
SARA® Ulta-Cleaners must not be used when toxic substances are to be extracted in inadmissibly high concentrations.

Technical Data



SARA® Ultra-Cleaner series

Type of unit SARA®	Airflow rate in m³/h		Length L in mm	Width W in mm	Height H in mm	Connection DN in mm	Separator H x B in mm	Weight in kg (approx.)
	1*	2*						
UCS-Mini/S4	300	500	629	355	565	150	330 x 330	25
UC1SD/S4	500	1000	865	360	640	200	330 x 330	44
UC2SD/S4	1000	2000	900	440	720	200	410 x 410	62
UC3SD/S4	2000	3000	945	520	800	300	410 x 490	93

1* Minimum volume flow when the separators are severely polluted or the suction lines are very long.
2* Maximum volume flow when the separators are clean.

Type of unit SARA®	Voltage U in Volt [1]		Current I in Ampere		Power P in Watt	
	50 Hz [2]	60 Hz [3]	50 Hz	60 Hz	50 Hz	60 Hz
UCS-Mini/S4	3~400	3~460	0.52	0.52	180	210
UC1SD/S4	3~230	–	3.00	–	650	–
	3~400	3~460	1.61	1.50	650	750
UC2SD/S4	3~230	–	5.70	–	1400	–
	3~400	3~460	3.07	2.70	1400	1500
UC3SD/S4	3~230	–	7.64	–	1550	–
	3~400	3~460	4.43	3.90	1550	2200

1) ***ATTENTION: Ensure operation at the voltage indicated on the nameplate!*** Power data referring to the operational power. ***Any other voltage will cause the destruction of the fan!*** Other voltages on request!

2) Neutral phase is required when fitting an optional electrostatic after-filter with 3~400 V/50 Hz.

3) An electrostatic after-filter cannot be operated with an operating voltage of 460 V/60 Hz.

Electrical Connection I

General notices

Any work on electrical components/devices may only be carried out by ***electrically skilled personnel*** and must comply with applicable regulations. Moreover, the contracting or operating company must ensure that the electrical installations and the electrical equipment are operated and maintained in compliance with applicable regulations. Before commencing any work on electrical components/devices, make sure that you separate the unit from its power supply and secure it against unintentional activation.

Our units are wired ready for connection and their compliance with safety regulations was tested prior to the delivery. They comply with VDE directives.

ACHTUNG:

The SARA® Ultra-Cleaner must be connected to the local equipotential bonding. Local lines must be secured against overload and short-circuits.

The electrical connection is made via the variable frequency drive (VFD)

- The motor and the variable frequency drive have already been wired at the factory.
- The unit is ready for operation after connection to a supply line provided by the customer!
- As soon as the power supply is established, the SARA® Ultra-Cleaner starts automatically!
- The volume flow can be adjusted continuously on the variable frequency drive.

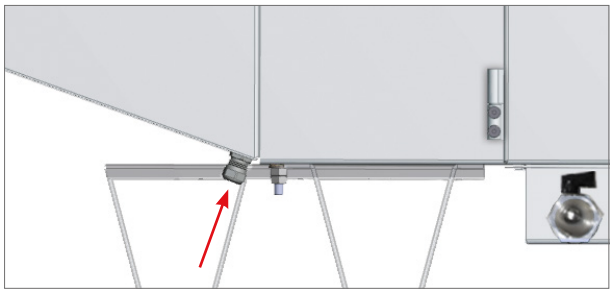


Fig.: Threaded cable connection for the electrical supply line

Observe and check the direction of rotation of the fan

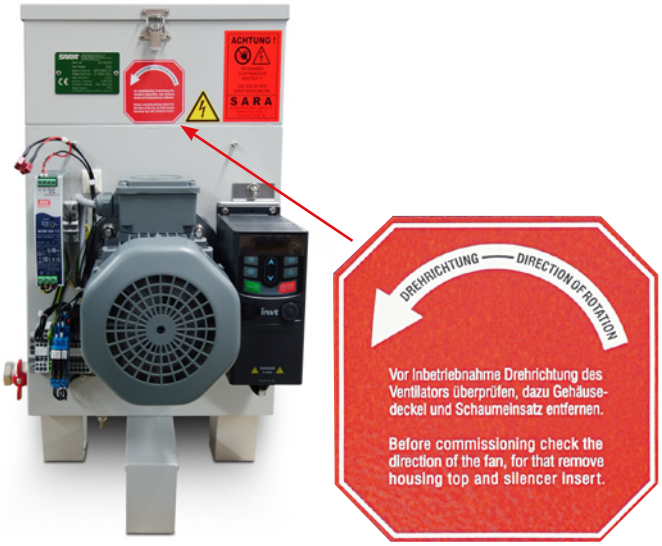
The shape and direction of rotation of the fan ensure that the air is drawn through the air intake.
The fan always rotates anti-clockwise (pre-set on the variable frequency drive in the factory)!
An incorrect direction of rotation causes a considerably reduced performance of the unit and can permanently damage the fan motor.

ATTENTION:

Our guarantee does not cover an incorrect connection of the fan!

Check the direction of rotation of the fan by following the notices on the sticker shown in the illustration.
To check the direction remove the housing lid and the sound-absorbing mat.

Wear protective glasses!



ATTENTION:

Never use any rigid tools such as scrapers or screw drivers to clean the fan – risk of damage!

Variable frequency drive GD20 Open Loop Control
Structure

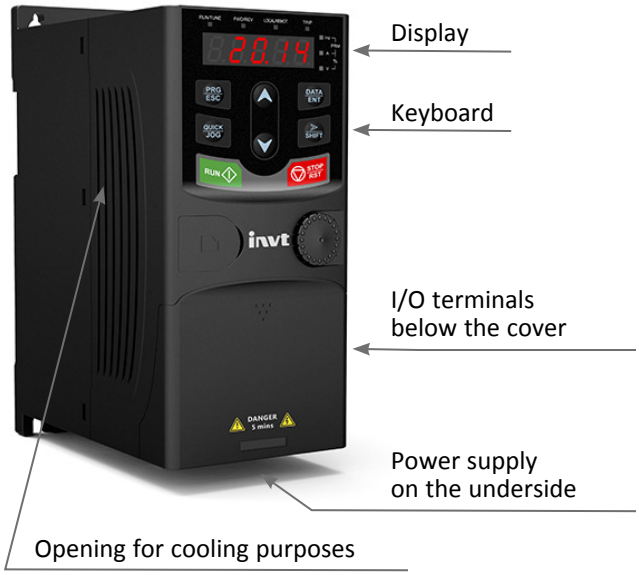


Fig.: Variable frequency drive installed in the motor cabinet (on the left)

Variable frequency drive
Definition

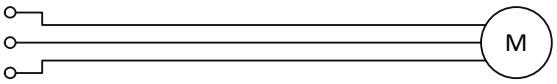
A variable frequency drive is a current converter that generates an alternating voltage with variable frequency and amplitude from alternating voltage for the direct supply of electrical machines such as three-phase motors. Setpoints for frequency and amplitude of the output AC voltage are based on the requirements of the electrical machine and its current load.

Some variable frequency drives have additional sensor inputs to record status parameters of the electrical machine such as speed or the current angular position of the rotor.

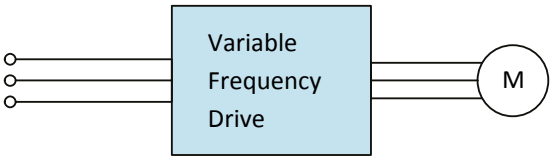
Depending on the type of electrical machine, variable frequency drives can operate with both single-phase AC voltage and three-phase AC voltage and can also generate three-phase AC voltage from single-phase AC voltage to supply three-phase motors.

(Source: https://de.wikipedia.org/ (translated from the German article “Frequenzumrichter”)

Simplified scheme



Constant speed



Variable speed
Additional functions (start-up/braking/current limiting)

Variable frequency drive
Electrical connection

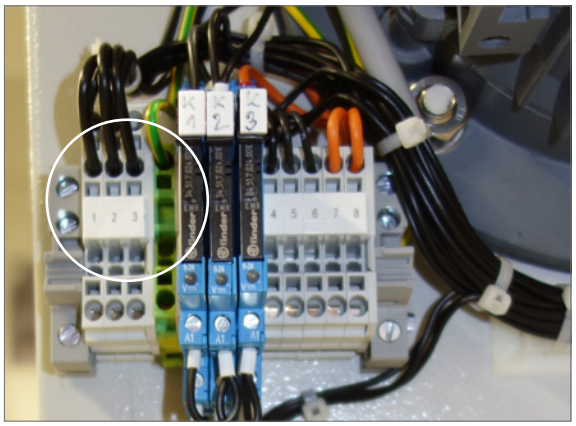
ATTENTION:

Please make sure that the power supply cable is de-energised during connection and secured against unintentional activation of the power supply.
Otherwise, there is a danger to life!

1. Remove the motor cover from the unit.

2. Remove the protection cover from the variable frequency drive.

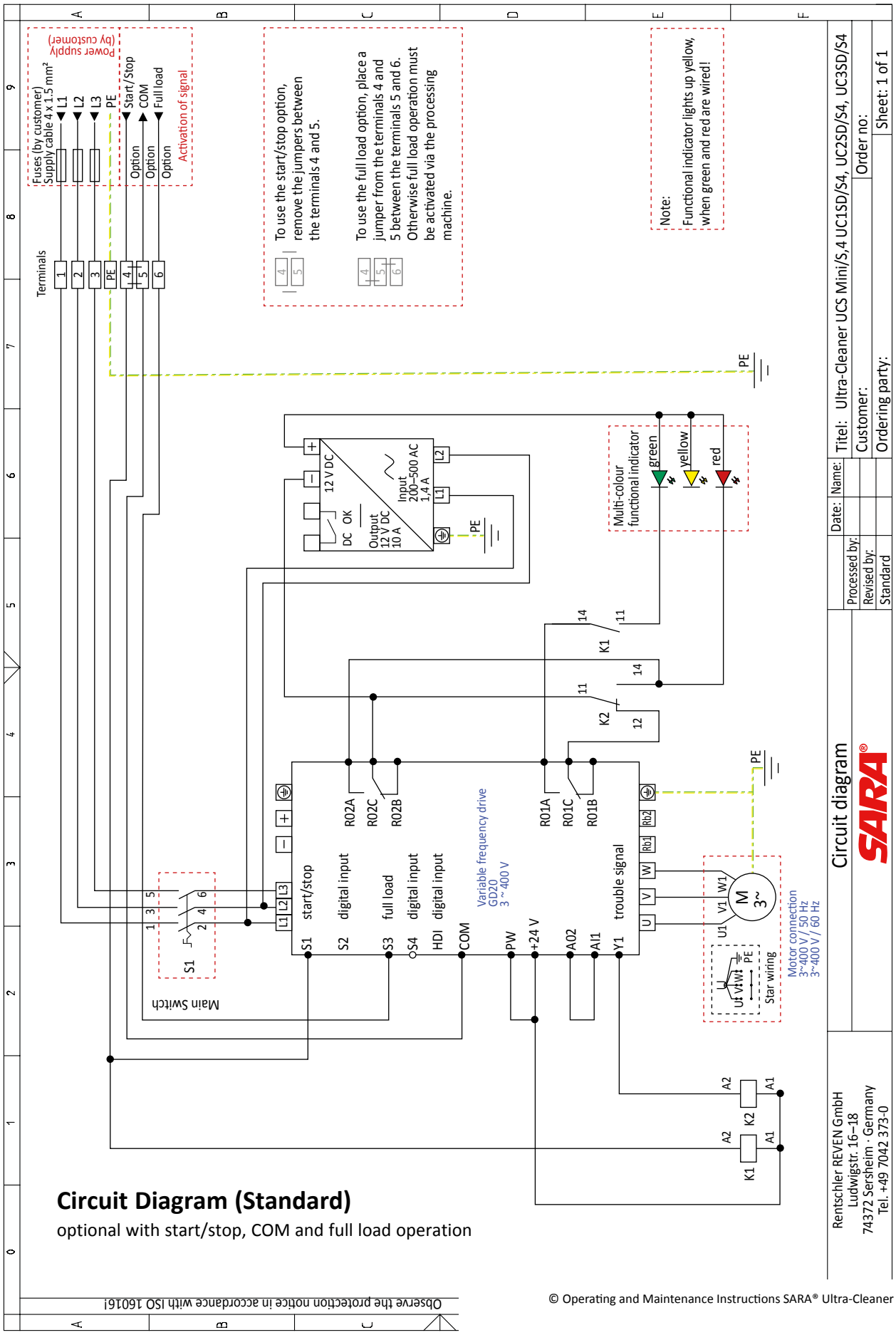
3. The electrical connection is established via the connection terminals:
terminal 1, terminal 2, terminal 3, PE
Conductor assignment:
L1-conductor 1, L2-conductor 2, L3-conductor 3 and PE-PE



4. With the specified operating voltage of 400 V/50–60 Hz, a neutral conductor is required for the installation of an optional electrostatic after-filter.
An electrostatic after-filter cannot be operated with an operating voltage of 460 V/60 Hz.

Please observe the circuit diagrams on the page 16.

Fig.: View of a unit with the motor on the left side without motor cover



Circuit Diagram (Standard)

optional with start/stop, COM and full load operation

Cleaning and maintenance of the unit at regular intervals

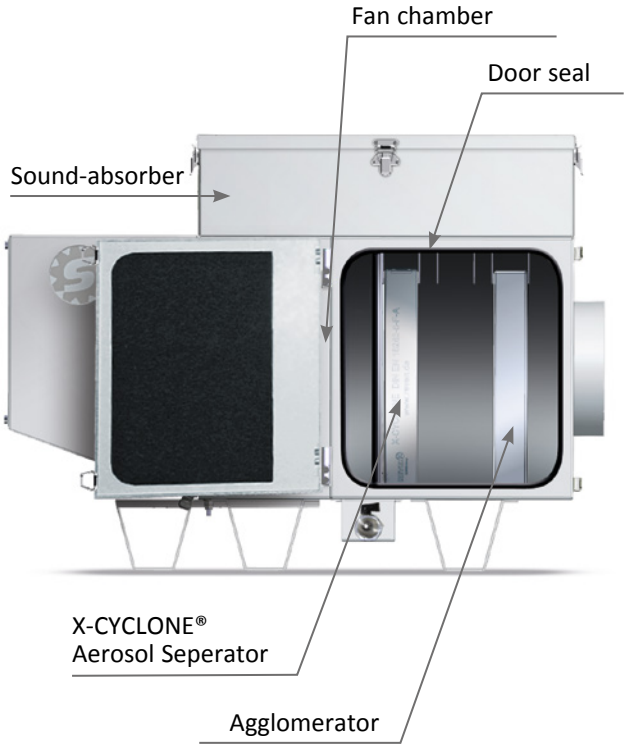
Cleaning and maintenance of the unit should be carried out at regular intervals

- ***to prevent the growth of harmful bacteria or fungi, and***
- to ensure the proper functioning and long service life of the unit.

(See the chapter “Cleaning and Maintenance VI” on page 22 and the following pages).

We recommend using a non-aggressive machine cleaning agent.

Spray it onto the housing parts and clean the unit on the inside and outside with a suitable cloth or paper towel. Make sure that you dispose the auxiliaries and cleaning agents in accordance with statutory regulations on environmental protection and waste disposal.



The cleaning and maintenance of the designated unit parts or inserts is explained individually on the following pages

Legionella

Fig.: 3D Illustration von Legionella pneumophila bacteria

Legionella are bacteria that cause various states of disease in humans, ranging from flu-like symptoms to severe pneumonia ... in artificial water systems such as water pipes in buildings, the bacteria find good growth conditions at appropriate temperatures ... The pathogens are transmitted by atomised, vaporised water. The droplets containing the pathogen can spread in the air and be inhaled.
(Translation of excerpts from the article at: https://www.infektionsschutz.de/erregersteckbriefe/legionellen)

The use of water-miscible coolants and lubricants can result in the colonisation of legionella in ventilation systems of machine tools.

In various types of filters, legionella can often find best possible growth conditions and, depending on the use of these filters, proliferate over time without being noticed. This may present a health hazard to the operating personnel.

For this reason, the separation and recirculation of coolant and lubricant aerosols is preferable to filtering and storage.

ATTENTION:
To prevent the growth of legionella, clean the air cleaner and the pipes at least every six months and replace the filter if applicable.

Cleaning and maintenance of the separator and the agglomerator

If the X-CYCLONE® Aerosol Separator or the Agglomerator show strong contamination in the form of gumming or filter caking, they should be cleaned with the help of a high-pressure cleaner or an industrial washing machine. If the media to be separated constitute a biological or micro-biological hazard, because they form mildew cultures, viruses or bacteria, it is imperative that ***regular maintenance and cleaning cycles be observed at short intervals.***

Fig.: X-CYCLONE® Separator
Observe the installation position!

Fig.: Agglomerator

Follow the instructions below:

1. Switch off the unit and separate it from its power supply before you open the maintenance door.

2. If substances that are hazardous to health are separated in the unit, put on appropriate protective clothing before you open the maintenance door.
This helps to avoid burns, poisoning and/or caustic burns depending on the nature of the separated medium.

3. Wait until the fan has stopped rotating before you open the maintenance door.

4. Open the maintenance door and extract the filter modules from the housing.

5. When reinstalling the separator and the agglomerator make sure that the modules are ***correctly inserted*** into the drainage receiver and that the ***separator profiles are in a vertical position***.

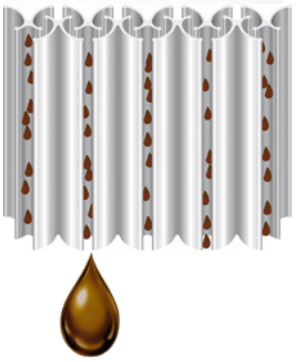


Fig.: Separated aerosols

Fig.: When installing the filter, the profiles must be arranged vertically.

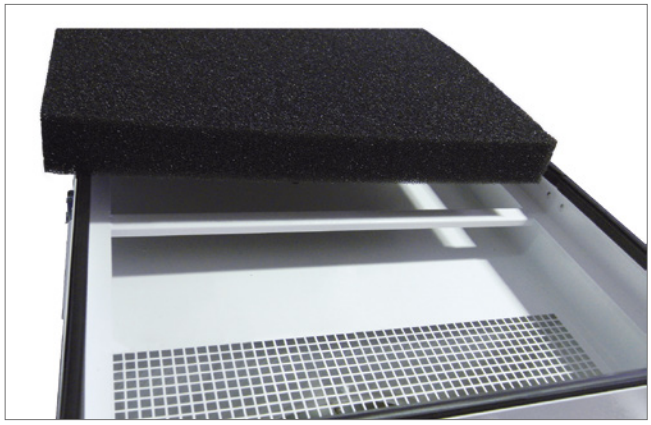
Fig.: The maintenance door can be unhinged to facilitate maintenance operations.

Cleaning of the sound absorber

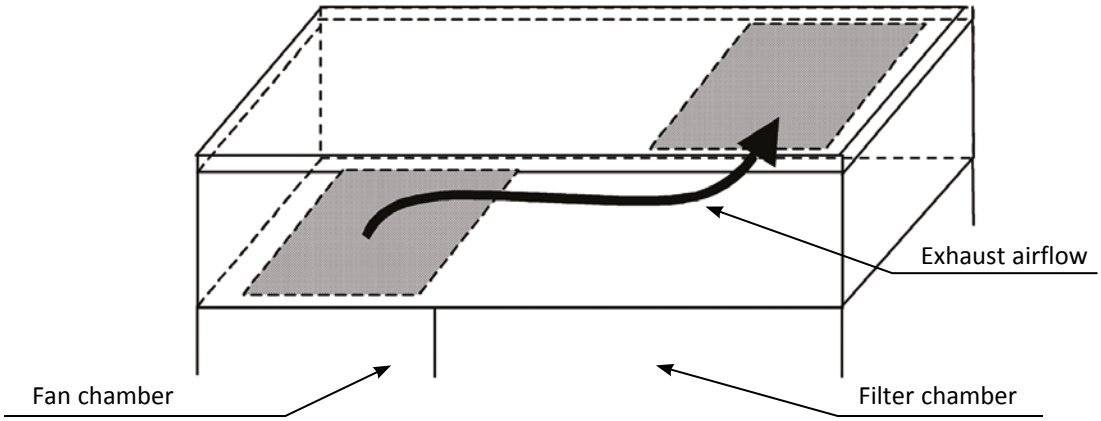
The sound-absorber unit, which is firmly attached to the unit, can be removed by opening the four quick-release fasteners.
The sound-absorbing mat underneath the lid must be washed or replaced if required.

The sound-absorbing mat fulfils two different functions:

1. Soundproofing
2. The fan can eject condensed oil droplets. These are collected in the cellular plastic mat and can drip off.



ATTENTION:
When reinstalling the sound-absorbing mat after cleaning, make sure that the exhaust air opening of the lid is opposite to that of the fan chamber.



Cleaning the fan chamber

Check the cleanliness of the fan chamber during each maintenance operation. The cleanliness of the fan is of particular importance.
Incrustation on the fan blades will produce imbalance and might damage or even destroy the fan motor.

ATTENTION:
Wait until the fan has stopped rotating before you remove the contact protection – risk of injury!

Remove strong incrustation with the help of a soft brush.
Remove the fan contact protection to clean the fan.
Spray a machine cleaning agent suitable for aluminium onto the impeller and brush the blades carefully.
Repeat this process until the fan is clean.

ATTENTION:
Never use any rigid tools such as scrapers or screw drivers to clean the fan – risk of damage!

Avoid any direct action of the cleaning agent on the fan motor!

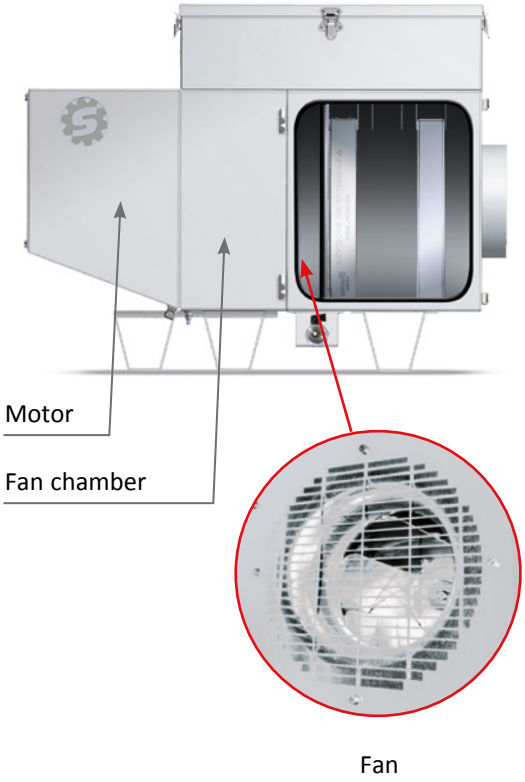



Fig.: View of the interior of a unit that was not maintained

Checking the door seal

The door seal of the SARA® Ultra-Cleaner units is affected by ageing.

If any leakage, age hardening or damage becomes apparent, the door seal must be replaced.

The door seal is fitted onto the frame section – and can easily be replaced!

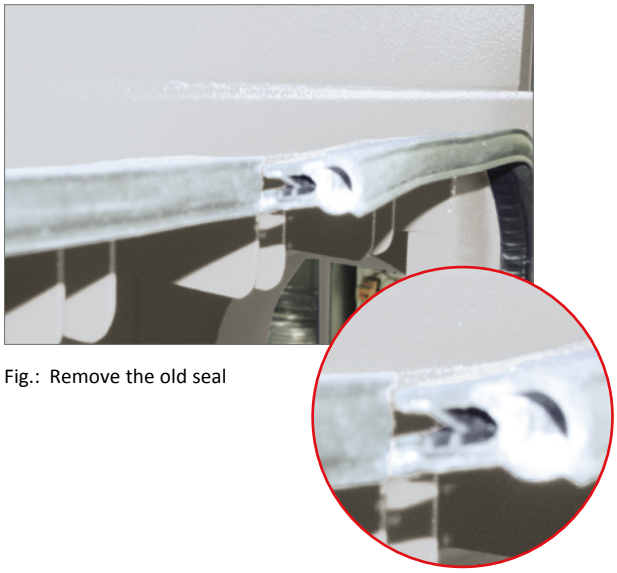


Fig.: Remove the old seal

ATTENTION:

The butt joint of the seal must always be on top. The three sealing lips should always face the side to be sealed (which is the housing interior).

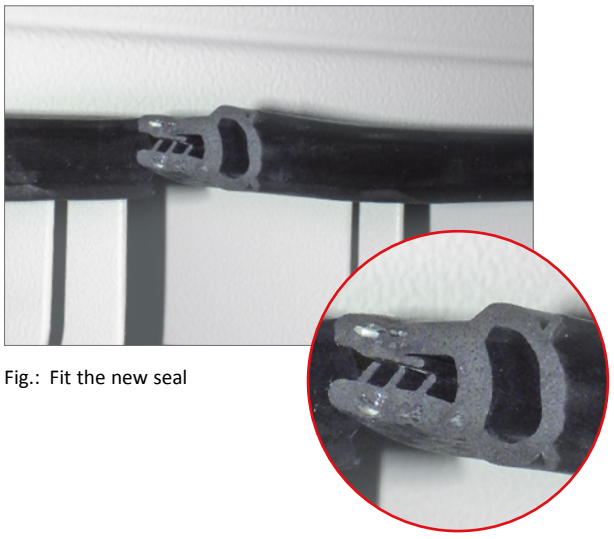


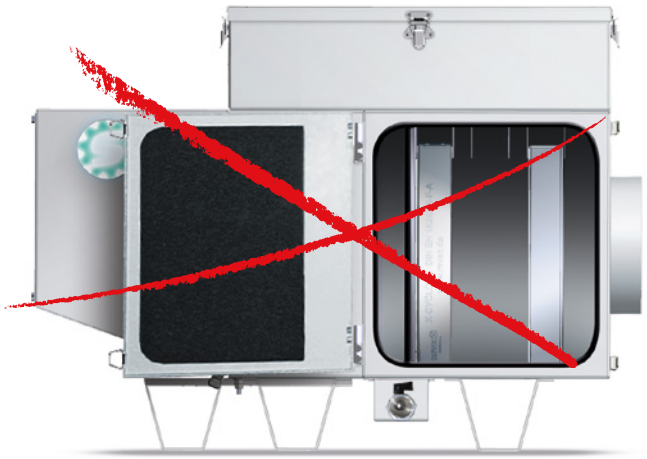
Fig.: Fit the new seal

Completing the maintenance work

After you have finished all maintenance work, reinstall the contact protection of the fan chamber and close the maintenance door.

ATTENTION:

The unit must never be operated when the maintenance door is open.



ATTENTION:

The use of any parts other than the original ones will result in the termination of our warranty and functional guarantee for the unit.

Cleaning and Maintenance VI

Inspection point	Case of application	Maintenance interval					
		1 week after commissioning	Once a week	Every 6 months	Every 12 months	Every 24 months	Every 60 months
Drain facilities	- Check for leakage	O	O				
	- Check easy runoff Clean if necessary			O			
Safety devices	- Fan contact protection installed - Safety sticker		O				
Air intake / suction line	- Check for leakage	O	O				
Housing	- Check for contamination Clean if necessary	O	O				
	- Clean the housing			O			
Fan chamber/fan	- Check for contamination Clean if necessary	O	O				
	- Clean fan and chamber			O			
Agglomerator/ aerosol separator	- Clean agglomerator, separator			O			
Door seal	- Check for tightness and damage			O			
	- Replace seal						O
Sound-absorbing mat	- Clean the sound-absorbing mat			O			
	- Check for contamination Replace if necessary					O	
	- Replace sound-absorbing mat						O
Safety testing	- Test electrical protective conductors				O		

ATTENTION:

The use of any parts other than the original ones will result in the termination of our warranty and functional guarantee for the unit.

Inspection point	Inspected on date/signature	Inspected on date/signature
Drain facility		
Safety devices		
Suction line		
Housing		
Fan chamber/ fan		
Agglomerator/ aerosol separator		
Door seal		
Sound-absorbing mat		
Safety inspection		

Inspection point	Inspected on date/signature	Inspected on date/signature
Drain facility		
Safety devices		
Suction line		
Housing		
Fan chamber/ fan		
Agglomerator/ aerosol separator		
Door seal		
Sound-absorbing mat		
Safety inspection		

Inspection point	Inspected on date/signature	Inspected on date/signature
Drain facility		
Safety devices		
Suction line		
Housing		
Fan chamber/ fan		
Agglomerator/ aerosol separator		
Door seal		
Sound-absorbing mat		
Safety inspection		

Spare Parts List I

Part No.	Designation	Suitable for
9020501080	Prefilter	SARA® UC1SD/S4 + UC2SD/S4
9020501090	Prefilter	SARA® UC3SD/S4
9090050002	Siphon	all types
9090050004	Connection for oil return hose	all types
9090050053	Particulate air filter top unit (incl. cartridge), 365 x 335 x 230 mm	SARA® SARA UCS-Mini/S4
9090050030	Particulate air filter top unit (incl. cartridge), 550 x 335 x 350 mm	SARA® UC1SD/S4
9090050031	Particulate air filter top unit (incl. cartridge), 590 x 415 x 350 mm	SARA® UC2SD/S4
9090050032	Particulate air filter top unit (incl. cartridge), 630 x 495 x 350 mm	SARA® UC3SD/S4
9849013335	Particulate air filter as spare, DIN 24184 / EN 1822	SARA® SARA UCS-Mini/S4
9090050007	Particulate air filter as spare, DIN 24184 / EN 1822	SARA® UC1SD/S4
9090050017	Particulate air filter as spare, DIN 24184 / EN 1822	SARA® UC2SD/S4
9090050008	Particulate air filter as spare, DIN 24184 / EN 1822	SARA® UC3SD/S4
9090050026	Sound-absorbing mat	SARA® UC1SD/S4
9090050027	Sound-absorbing mat	SARA® UC2SD/S4
9090050028	Sound-absorbing mat	SARA® UC3SD/S4
9849003333	X-CYCLONE® Aerosol Separator, 330 x 330 x 50 mm	SARA® UCS-Mini/S4 + UC1SD/S4
9849004141	X-CYCLONE® Aerosol Separator, 410 x 410 x 50 mm	SARA® UC2SD/S4
9849004949	X-CYCLONE® Aerosol Separator, 490 x 490 x 50 mm	SARA® UC3SD/S4
9090050013	Agglomerator, 330 x 330 x 30 mm	SARA® UCS-Mini/S4
9090050010	Agglomerator, 330 x 330 x 50 mm	SARA® UC1SD/S4
9090050012	Agglomerator, 410 x 410 x 50 mm	SARA® UC2SD/S4
9090050011	Agglomerator, 490 x 490 x 50 mm	SARA® UC3SD/S4

Spare Parts List II

Part No.	Designation	Suitable for
9090050037	Vapour-phase condenser, Ø 200 mm x length 600 mm	SARA® UC1SD/S4 + UC2SD/S4
9090050038	Vapour-phase condenser, Ø 300 mm x length 600 mm	SARA® UC3SD/S4
9090050039	Pipe end holder, displaceable	all types
9090050040	Stainless steel mesh insert for vapour-phase condenser	SARA® UC1SD/S4 + UC2SD/S4
9090050041	Stainless steel mesh insert for vapour-phase condenser	SARA® UC3SD/S4
9090050009	Stand 200 mm with mounting plate	all types

Phone +49 2102 4400-0 · www.sartorius-werkzeuge.de
Fax +49 2102 4400-24 · info@sartorius-werkzeuge.de

Installation Check List

No.	Check points	inspected	Signature
1	Load carrying capacity of processing machine checked		
2	Unit safely installed in horizontal position		
3	Elect. connection checked by electrical specialist		
4	Protective earth conductor checked		
5	Direction of fan rotation checked		
6	Contact protection of fan installed		
7	Air intake fastened and tightness checked		
8	Drain lines fastened and closed airtight		
9	Siphon (option) filled with fluid		
10	X-CYCLONE® Aerosol Separator inserted correctly		
11	Operators instructed properly		

Manufacturer's Declaration

Declaration of Conformity in accordance with the standards

EC Machinery Directive 2006/42/EC and the EU EMC Directive 2014/30/EU

We hereby declare that the design and construction of this unit as delivered complies with the above-mentioned directives.

Designation: SARA® Ultra-Cleaner Models **UCS-Mini/S4, UC1SD/S4, UC2SD/S4, UC3SD/S4**
Order no.:

The following harmonised DIN EN standards apply in accordance with the official journals of the directives:

Directive/Standard		Title
DIN EN 82079-1	2013	Preparation of instructions for use – Structuring, content and presentation – Part 1: General principles and detailed requirements (IEC 82079-1:2012)

2014/30/EU		EU Directive: EMC valid from 26 February 2014
DIN EN 61000-6-2	2005 + AC: 2005	Electromagnetic compatibility (EMC) – Part 6-2: Generic standards – Immunity for industrial environments (IEC 61000-6-2:2005)
DIN EN 61000-6-4	2007 + A1: 2011	Electromagnetic compatibility (EMC) – Part 6-4: Generic standards – Emission standard for industrial environments (IEC 61000-6-4:2006 + A1:2010)

2006/42/EC		EU Directive: Machinery valid from 17 May 2006
DIN EN ISO 12100	2011	Safety of machinery – General principles for design – Risk assessment and risk reduction
DIN EN 60204-1	2006 + AC: 2010	Safety of machinery - Electrical equipment of machines – Part 1: General requirements
DIN EN ISO 13732-1	2008	Ergonomics of the thermal environment – Methods for the assessment of human responses to contact with surfaces – Part 1: Hot surfaces
DIN EN ISO 13850	2015	Safety of machinery – Emergency stop function – Principles for design
DIN EN 16282-8	2017-2	Equipment for commercial kitchens – Components for ventilation in commercial kitchens – Part 8: Installations for treatment of aerosol; Requirements and testing

In the standard DIN EN ISO 12100, reference is made to the following standards among others:
DIN EN 349; DIN EN 574; DIN EN 614-1; DIN-EN 842; DIN EN 981; DIN EN 894-1, -2, -3; DIN EN ISO 14118; DIN EN ISO 14119; DIN EN ISO 14123-1

! *ATTENTION:*

- This declaration refers exclusively to the machine in the condition in which it was placed on the market.
- The essential safety and health requirements specified in Annex I of the Machinery Directive 2006/42/EC have been implemented and are met.
- The special technical file as per Annex VII A has been compiled and will be transmitted electronically to the relevant national authority on request.
- Authorised person for the compilation of the technical documentation:
  Klaus Mann, Ludwigstr. 16–18, 74372 Sersheim/Germany

Sersheim, (date) ----------

Signature of the business manger
(Dipl.-Ing. Sven Rentschler, Managing Director)

Subject to changes and errors!