Air disinfection

Air conditioning and ventilation equipment is essential to our lives today. Such systems are a fixed part of working environments, medical technology and the food industry. In addition to significantly extending the shelf lives of food, a clean environment also has positive impacts on work atmosphere and effectively prevents sick building syndrome in work facilities. STERILSYSTEMS calculates and optimizes disinfection components and required modules for specific applications. In addition, existing equipment can be upgraded or decentralized operating units can be installed.

The pure power of the sun

Air is a fundamental element of our world, providing us with well-being, energy and vitality.

STERILSYSTEMS calculates and optimizes UV-C air disinfection components for any application – specifically to handle pathogenic germs on difficult to clean surfaces or in narrow channels, and we do so with no chemicals – just the pure power of the sun.

PF
512
Air disinfection

Applications

Storage areas | Refrigerated areas | Curing rooms | Odor neutralization

The PF512 air disinfection unit offers the effective disinfection of room air which is already subject to circulation – for example caused by cooling evaporator fans.

Circulating room air flows through the air disinfection unit, which emits a dose of UV-C rays to reliably eliminate unwanted microorganisms.

Function the movable panel shields against direct radiation (personnel and foods)
Equipment The electronic ballast is integrated into the housing and protected against water

Assembly/maintenance May be mounted on the ceiling or wall; emitters can be exchanged easily via a screw-in socket
Options UV-C emitters can be fitted with splinter protection; design available with ozone emitters for additional odor neutralization

Technical data

TYPE	PF512ST1
Dimensions in mm L x W x H	900 × 130 × 88
Housing material	AISI304 or AISI316 stainless steel
Emitter ST1	1 × UV-C high efficiency / 16,000 h
Power in W	40
Voltage	230V ± 10% (50 – 60Hz)
Connection cable in m	3 incl. Schuko plug
Weight in kg	3.1
Protection class	IP54

AR
300–1500
Air and surface disinfection

AR devices are used to disinfect room air and surfaces without requiring personnel to be present.

Applications

Production surfaces | Laboratories | Work surfaces | Incubators | Sterile workbenches | Safety workbenches | Storage rooms

Air, surfaces and work areas are disinfected to eliminate germs, viruses, yeasts and mold spores using UV-C light.

Function The direct action of UV-C emitters reliably eliminates microorganisms in room air and surfaces without any personnel present

Equipment The electronic ballast is integrated into the housing and protected against water
Assembly/maintenance May be mounted on the ceiling or wall; emitters can be exchanged easily via a screw-in socket
Options UV-C-emitters can be fitted with splinter protection

Technical data

TYPE	AR300	AR400	AR600	AR810	AR1000	AR1200	AR1500
Dimensions in mm L x W x H	390 × 107 × 52	490 × 107 × 52	700 × 107 × 52	900 × 107 × 52	1100 × 107 × 52	1300 × 107 × 52	1600 × 107 × 52
Housing material	AISI304 / KS stainless steel						
Emitter ST1	UV-C high efficiency / 16,000 h						
Power in W	13	18	29	40	50	61	77
Voltage	230V ± 10% (50 – 60Hz)						
Connection cable in m	3 incl. Schuko plug						
Weight in kg	1.5	2	2.3	3.5	4.2	4.9	6
Protection class	IP54						

ULE
1000
Ambient air disinfection unit

The ULE1000 is designed for the effective disinfection of room air without air circulation.

This high-quality UV-C air disinfection unit with integrated fan reliably disinfects the air flow.

Function An integrated fan regulates air volume to the emitter design; reliably shields employees and foods
Equipment Integrated fan; full shielding of UV-C emitters ensures reliable personnel protection; the electronic ballast is integrated into the housing and protected

against water; LED service display – for an integrated operating hours display
Assembly/maintenance Delivered ready to plug in for flexible wall or ceiling installation; emitters can be exchanged easily via a screw-in socket.
Options Available with ozone emitters for additional odor neutralization

Technical data

TYPE	ULE1000
Dimensions in mm L x W x H	1000 × 127 × 176
Housing material	AISI316 stainless steel
Emitter ST1	1× UV-C high efficiency / 16,000 h
Power in W	40
Voltage	230V ± 10% (50 – 60Hz)
Connection cable in m	3 incl. Schuko plug
Weight in kg	7.4
Protection class	IP54

ULE
2000
Ambient air disinfection unit

The ULE2000 was developed specifically for the disinfection of rooms in which personnel are present and in difficult ambient conditions, or for high levels of contamination.

This high-quality UV-C air disinfection unit with integrated fan reliably disinfects the air flow.

Function Adjusting the air volume to the design of the emitter with an integrated fan; reliably shielding employees and foods; no disruptive drafts; germ-free in every step of production – manufacturing, storage, refrigeration

Equipment Integrated quiet-running fan; full shielding of UV-C emitters provides reliable protection to personnel; the electronic ballast is integrated into the housing and protected against water; LED service display – for an integrated operating hours display
Assembly/maintenance Delivered ready to plug in for flexible ceiling installation; emitters can be exchanged easily via a screw-in socket.
Options Available with ozone emitters for additional odor neutralization

Ballast units designed specifically for the particular equipment type are required for ATEX certification, and must be mounted outside of the potentially explosive area.

Technical data

TYPE	ULE2000-2	ULE2000-4	ULE2000-6	ULE2000-4 EX
Dimensions in mm	D300 × L1100			D300 × L1400 × H450
Housing material	AISI316 stainless steel			
Emitter ST1	2× UV-C high efficiency / 16,000 h	4× UV-C high efficiency / 16,000 h	6× UV-C high efficiency / 16,000 h	4× UV-C high efficiency / 12,000h
Power in W	100	200	260	200
Voltage	230V ± 10% (50 – 60Hz)			
Connection cable in m	3 incl. Schuko plug			
Weight in kg	16.2	16.7	17.2	45
Protection class	IP54			

KB
1/2
Air disinfection unit

KB units are used to reliably disinfect air flow in smaller air conditioning and ventilation systems.
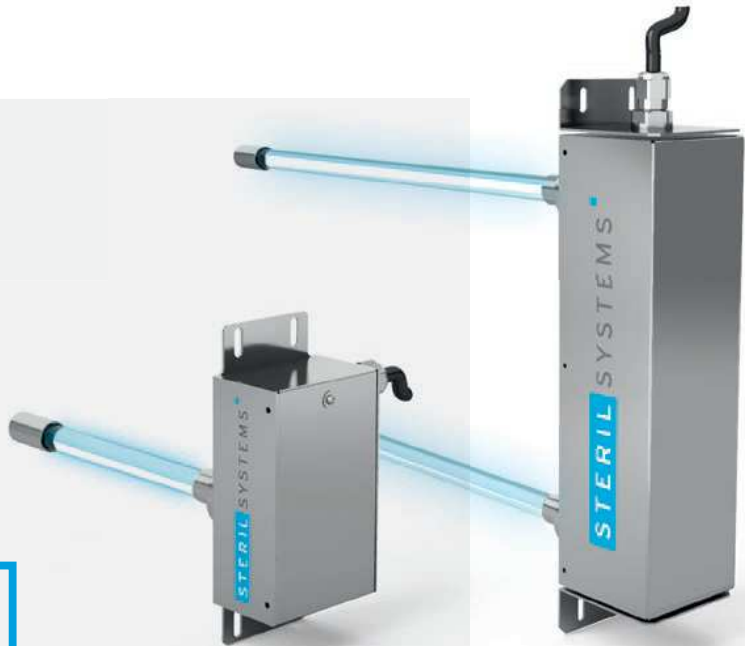
Applications

Ventilation housing | Ventilation ducts | Residential ventilation systems

Microorganisms formed in the ventilation system or brought in through outdoor air are efficiently deactivated and destroyed by this system. These UV-C air disinfection units help reduce sick building syndrome and infections.

Function KB1/KB2 suitable for small ventilation systems; supports the hygiene specifications of VDI Directive 6022

Equipment Moisture-protected UV-C emitter module with integrated electronic ballast; LED indicator for functional controlling

Assembly/maintenance Easy installation from the outside – can be integrated into existing work processes/ventilation systems

Options Available with ozone emitters for additional odor neutralization

TR
200–1800
Air and water disinfection system

The TR system is used to disinfect air flows in central air conditioning and ventilation systems, and to disinfect process water.

Applications

Ventilation housing | Ventilation ducts | Water tanks | Process water | OEM mechanical and plant engineering

With its many different applications, the TR system provides reliable disinfection in any moist environment. It is installed in the wall of the ventilation duct or water tank using a customized flange system and optional counter support.

Function The UV-C module is installed directly in the air duct/water tank

Equipment Ballast unit available separately or installed in the switch cabinet; high-quality, sealed UV-C emitter IP68

Assembly/maintenance Easily exchange the emitter via a screw-in socket; three attachment options are available:

Standard flange = TR
Installation in air conditioning/ventilation duct = TRKL
Installation in tank = TRT

Options LED indicator for easier functional controlling, remote signaling contact for function monitoring. Cable lengths 3/6/10 m

Technical data

TYPE	KB 1	KB 2
Dimensions in mm L x W x H	140×72×47 emitter lengths 200 – 600mm	335×75×75 emitter lengths 200 – 600mm
Housing material	AISI304 stainless steel	
Emitter ST1	1× UV-C high efficiency / 16,000 h	2× UV-C high efficiency / 16,000 h
Power in W	7 – 29	14 – 58
Voltage	230V ± 10% (50 – 60Hz)	
Connection cable in m	3/6/10	
Weight in kg	0.7	2.3
Protection class	IP54	

Technical data

TYPE	TR200	TR300	TR400	TR500	TR600	TR700	TR810	TR1000	TR1200	TR1500	TR1800
Dimensions in mm	D30×L250	D30×L350	D30×L450	D30×L450	D30×L650	D30×L750	D30×L860	D30×L1050	D30×L1250	D30×L1550	D30×L1850
Housing material	AISI316 stainless steel										
Emitter ST1	1× UV-C high efficiency / 16,000 h										
Power with Hg in W	7	13	18	23	29	35	40	50	61	77	92
Power with Amalgam in W			55				110				
Voltage	230V ± 10% (50 – 60Hz)										
Connection cable in m	3/6/10										
Weight in kg	0.47	0.5	0.54	0.57	0.6	0.62	0.67	0.73	0.78	0.8	0.83
Protection class	IP68										

KB
299
Air disinfection unit

The KB299 offers high-quality finishing that provides the efficient UV-C disinfection of air flows in central air conditioning and ventilation systems.

Applications

Laboratories | Ventilation housing | Ventilation ducts | Sterile workbenches

Microorganisms formed in the ventilation system or brought in through outdoor air can be eliminated using this system. These UV-C air disinfection units help reduce sick building syndrome and infections.

Function KB299 is suitable for larger ventilation systems; can be integrated into existing work processes/ventilation systems; supports the hygiene specifications of VDI directive 6022; series connection of individual modules possible

Equipment Moisture-protected UV-C emitter module with reflectors and integrated electronic ballast; LED indicator for functional controlling
Assembly/maintenance Easy installation from the outside – can be integrated into existing work processes/ventilation systems; placed inside of the ventilation housing
Options Available with ozone emitters for additional odor neutralization

Technical data

TYPE	KB299K + KB299W
Dimensions in mm L x W x H	990 × 90 × 105
Housing material	AISI316 stainless steel
Emitter ST1	2 × UV-C high efficiency / 16,000 h
Power in W	200
Voltage	230V ± 10% (50 – 60Hz)
Connection cable in m	3/6/10
Weight in kg	4.8
Protection class	IP54

KL
2–4
Air disinfection rack

The KL Rack is used to disinfect the air flow in large or very large central air conditioning- and ventilation systems.

Applications

Ventilation housing | Ventilation ducts

The KL Rack is used to disinfect the air flow in large or very large central air conditioning- and ventilation systems. Microorganisms formed in the ventilation system or brought in through outdoor air can be eliminated using the KL Rack.

Function KL is suitable for large to very large ventilation systems (up to 200,000m³/h); supports the hygiene specifications of VDI directive 6022; low pressure loss
Equipment Assembly unit ready to install; functional and control electronics mounted outside of the module in an external switch cabinet

Assembly/maintenance Easy installation with adjustable assembly angle; can be integrated into existing work processes/ventilation systems
Options Available with ozone emitters for additional odor neutralization; LED indicator for functional controlling

Technical data

TYPE	KL 2	KL 3	KL 4
Dimensions in mm L x W x H	295 – 1595 × 65 × 460 (50±)	295 – 1595 × 65 × 860 (50±)	295 – 1595 × 65 × 860 (50±)
Housing material		AISI304 stainless steel	
Emitter ST1	2× UV-C high efficiency / 16,000 h	3× UV-C high efficiency / 16,000 h	4× UV-C high efficiency / 16,000 h
Power in W	80	120	160
Voltage		230V ± 10% (50 – 60Hz)	
Connection cable in m		3/6/10	
Weight in kg	2.5	3.6	4.6
Protection class		IP54	

KLM
2000
Air disinfection module

The KLM module was specifically developed for the UV-C disinfection of the air flow in central air conditioning and ventilation systems.

Applications

Food industry | Ventilation systems | Hospitals | Pharmaceutical industry | Residential ventilation systems | Public ventilation systems

The KLM module stands out for its high-quality finishing and custom adaptability.

Function The finished module is easy to retrofit and integrate into existing systems, and can be installed directly in the ventilation duct; the module supports the hygiene specifications of VDI directive 6022; protective tube offers optimal protection against moisture

Equipment the module is delivered with a galvanized or AISI316 housing and is ready to connect, including controller.
Assembly/maintenance Simple installation; emitters can be exchanged easily via a screw-in socket
Option Available with ozone emitters for additional odor neutralization/upon request, the KLM can be equipped with an LED indicator for functional controlling

Technical data

TYPE	KLM2000
Dimensions in mm L x W x H	Depending on volume flow rate
Housing material	Galvanized steel or stainless steel
Emitter ST1	UV-C high efficiency / 16,000 h
Power in W	Depending on volume flow rate
Voltage	230V ± 10% (50 – 60Hz)
Connection cable in m	3/6/10
Weight in kg	Depending on size
Protection class	IP68

SLM
6/3
Disinfection air-module

The SLM6/3 is used to disinfect the airless area of tanks or containers and to disinfect intake air.

Applications

Ventilation systems | Ventilation ducts | Airless areas of tanks/containers

The SLM6/3 is used to guide air through three filter stages (G4, F7, H13) for treatment and filtration. Then the air is disinfected by the UV-C module, after which it is blown into the existing tank.

Function Filtering and UV-C disinfection are combined into just one device, allowing for the reliable elimination of dust particles, suspended and polluting materials and microorganisms ; dry, heat-free and chemical-free disinfection

Equipment Module contains three filter stages (G4, F7, H13) and the UV-C module; UV-C emitters are waterproof with a protective glass; switch cabinet contains operating hours counter and remote signaling contact for functional monitoring
Assembly/maintenance The module is mounted upstream of the suction channel; maintenance can easily be performed on the filter and emitter from the outside

Technical data

TYPE	SLM6/3	
Dimensions in mm L x W x H	1830 × 713 × 435	
Housing material	Galvanized steel or stainless steel	
Emitter ST1	UV-C high efficiency / 16,000 h	
Power in W	300	
Voltage	230V ± 10% (50 – 60Hz)	
Connection cable in m	3/6/10	
Weight in kg	70	
Protection class	IP68	
Filter stage 1	Filter class G4 as per EN779:2012	Average degree of separation (Am) of the synthetic test dust (%) G4: 90 ≤ Am
Filter stage 2	Filter class F9 as per EN 779:2012	Minimum effectiveness at 0.4 µm F9 70%, mean effectiveness (Em) of 0.4 µm 95 ≤ Em
Filter stage 3	Filter class H13 as per EN 1822 aerosol filter	Filter class H13 as per EN 1822 aerosol filter

VD
500–1800
Evaporator disinfection
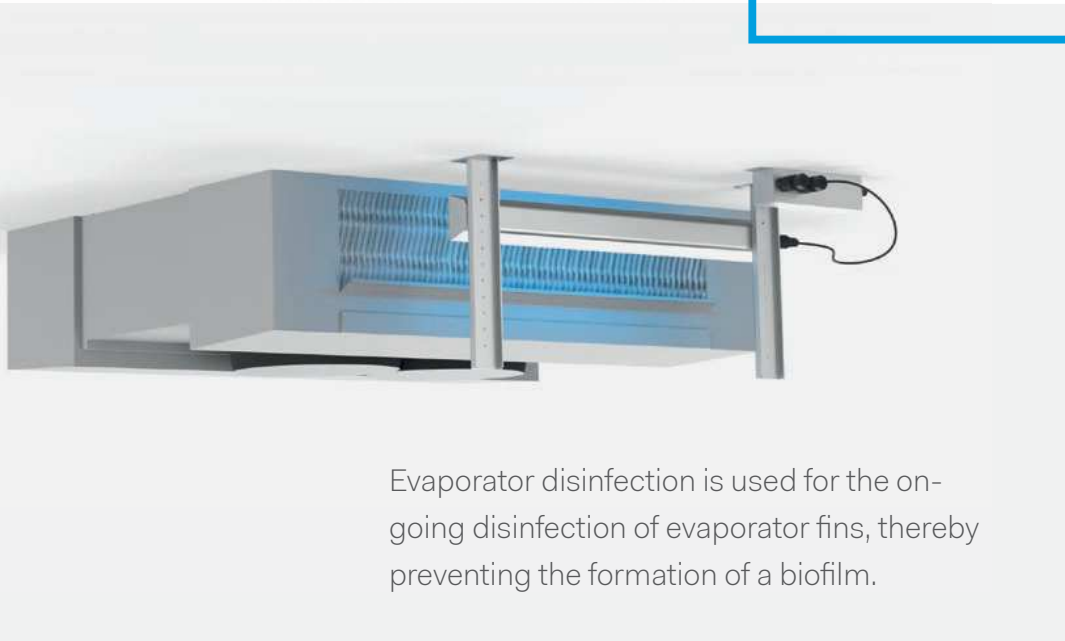
Evaporator disinfection is used for the ongoing disinfection of evaporator fins, thereby preventing the formation of a biofilm.

The unit prevents the formation of a biofilm, which has a negative impact on heat and cold transmission and re-contaminates the room air with bacteria and mold. This prevents odor formation in the ventilation system.

Function Keeping fins clean reduces the germ load in the air, optimizes heat transmission and drastically reduces energy costs; no additional chemicals required for disinfection

Equipment The system includes reflectors and mounting consoles that allow for variable adjustment of the height position and targeted disinfection; the electronic ballast is in a water-tight stainless steel housing
Assembly/maintenance Simple, flexible and inexpensive installation for retrofitting any evaporator system

Technical data

TYPE	VD500	VD0600	VD0810	VD1000	VD1200	VD1500
Dimensions in mm L x W x H	600 × 53 × 88	700 × 53 × 88	910 × 53 × 88	1100 × 53 × 88	1300 × 53 × 88	1600 × 53 × 88
Housing material	AISI304 stainless steel					
Emitter ST1	UV-C high efficiency / 16,000 h					
Power in W	23	29	40	50	61	77
Voltage	230V ± 10% (50 – 60Hz)					
Connection cable in m	3 incl. Schuko plug					
Weight in kg	2	2.1	2.4	2.7	3	3.4
Protection class	IP68					

CD
300–1800
Heat exchanger/evaporator disinfection
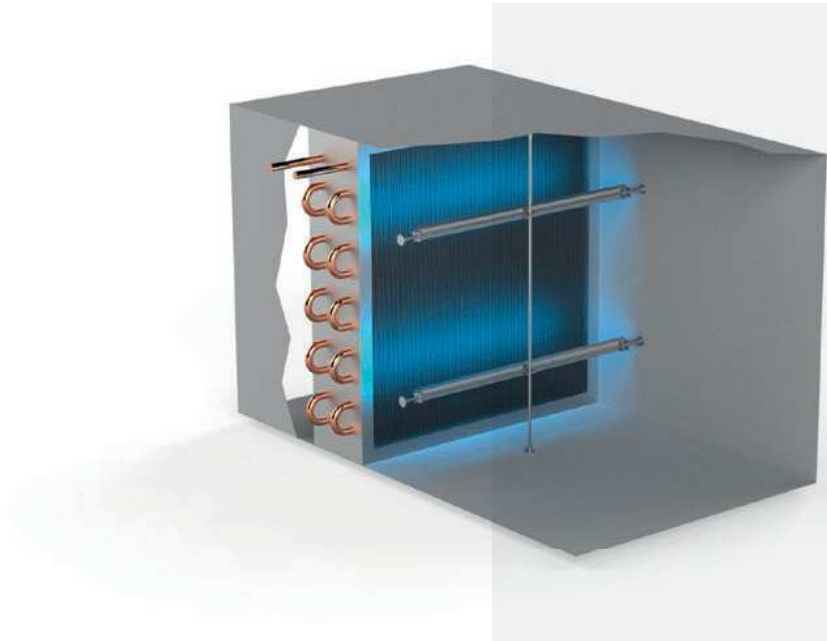
The coil disinfection unit is used for the permanent disinfection of heat exchanger fins/coils, and prevents biofilm buildup on the fins, inside ducts.

The coil disinfection unit is used for the permanent disinfection of heat exchanger fins/coils, and prevents biofilm buildup on the fins. This means heat and cold transmission are not impacted, maintaining consistent performance for the evaporator or heat exchanger.

Function Stainless steel reflectors direct targeted radiation to the fins; different emitters allow for both cold and hot use; drastically reduce energy/maintenance and cleaning costs by restoring heat transmission

Equipment Very high-quality UV-C emitter, designed for 16,000 operating hours
Assembly/maintenance Essy, fast, flexible and cost-effective installation for almost any ventilation system, regardless of its size
Option UV-C emitters can be equipped with splinter protection, and additional bar installation systems and wall brackets are available

Technical data

TYPE	CD300	CD500	CD700	CD810	CD1000	CD1200	CD1500	CD1800
Dimensions in mm L x W x H	320 × 20 × 80	520 × 20 × 80	720 × 20 × 80	830 × 20 × 80	1020 × 20 × 80	1220 × 20 × 80	1520 × 20 × 80	1820 × 20x80
Housing material	AISI304 stainless steel							
Emitter ST1	UV-C high efficiency / 16,000 h							
Power in W	13	23	35	40	50	61	77	92
Voltage	230V ± 10% (50 – 60Hz)							
Connection cable in m	3/6/10							
Weight in kg	2	2.1	2.4	2.7	3	3.4	3.8	4.2
Protection class	IP68							