

	Pages
	2
1. Ventilator type V:	3
2. Droplet separator type T:	5
3. Droplet separator with ventilator type TV:	6
4. Vent condenser type LKP:	8
5. Vent condenser type WL:	10
6. Vent condenser type WE:	12
7. Vent condenser type WSK:	14
8. Vent condenser type WSI:	18
9. Exhaust air scrubber type AW:	20
10. Air cooler:	22
11. Oil mist separator:	22
12. Fax form	23

All connections and designs can be fitted to the individual requirements of your system!

As a standard, the following types of plastic are used: PP, PE, PVC, PVDF

As a standard, the following types of stainless steel are used: 1.4301, 1.4571

Other materials available on request!

We look forward to hearing from you!

MC GmbH

Your Partner in Environmental Protection

If and how we use our most important natural resources - air and water - is up to us as human beings. We are convinced that we are obliged to do everything humanely possible to protect and preserve these natural resources for the generations to come.

For economical and ecological reasons, we principally push for the use of separator systems to minimize all kinds of pollution - including toxic contamination, to separate and reserve moisture, to lower heating costs, and to reuse separated media for other purposes.

Benefit from our decades of experience and allow us to convince you of the quality of MC-products:

- Ventilators
- Droplet separators
- Droplet separators with integrated ventilator
- Vent condensers
- Exhaust air scrubbers
- Air coolers
- Oil mist separators

Thus, you can actively contribute to environmental protection while benefitting from the advantage of energy preservation.

To guarantee for it, MC custom-designs all products based on your individual needs and requirements.

MC GmbH

Siemensstrasse 14 • 73760 Ostfildern • Germany

Phone 0049 7158 9878930 • Fax 0049 7158 9878934

MC Exhaust Ventilator Type V

MC

MC produces efficient exhaust ventilators made from plastic or stainless steel for industrial purposes.

Application: Industrial processes

- Advantages:**
1. Design in plastics PP, PE, PVC, PVDF with plastic rotor; therefore, highly acid- or alkaline-resistant and no corrosion
Temperatures for PP, PE und PVDF max. 59°C, temperatur for PVC max. 40°C.
 2. Design in plastics PP, PE, PVC, PVDF with stainless steel rotor; therefore, good acid- or alkaline resistance and no corrosion.
Temperatures for PP, PE, PVDF max. 80°C, temperatur for PVC max. 59°C.
 3. Design in stainless steel 1.4301 or 1.4571; good to very good acid- or alkaline resistance, no corrosion.
Temperatures up to 95°C.
 4. Compact design, equipped with flange connections for a quick and simple installation.
 5. Accumulated condensate is discharged via a pipe.

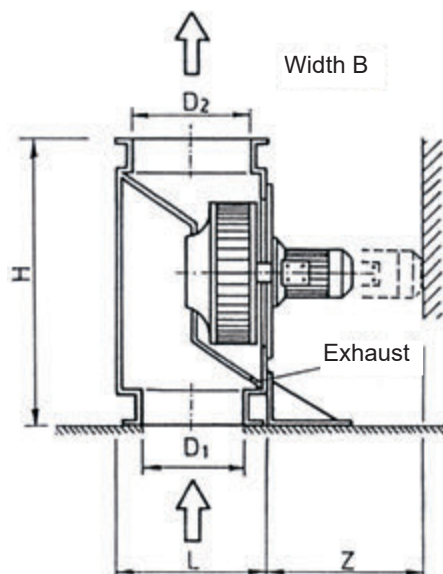
Ventilators with plastic rotor (other exhaust capacities available on request!)

Type	kW	u/min.	D ₁	D ₂	L	H	B	Z	m ³ /h min.	PA	m ³ /h medi.	PA	m ³ /h high	PA	Rotor material
V 140	0.25	2,800	140	140	290	520	340	430	150	600	400	500	800	150	PP
V 160	0.37	2,800	180	180	320	540	350	430	600	1,000	1,100	800	1,100	300	PP
V 180	0.55	2,800	220	220	420	580	390	530	800	1,300	1,500	950	2,500	200	PP
V 200	1.50	2,800	250	250	470	690	450	560	1,000	1,550	2,100	1,300	3,200	600	PP
V 250	0.37	1,400	280	280	530	770	550	600	800	500	1,500	350	2,500	100	PP
V 280	0.55	1,400	300	300	590	900	640	600	800	600	1,500	550	3,000	250	PP
V 315	1.10	1,400	320	320	640	990	710	630	1,000	600	2,500	350	3,700	100	PP
V 355	2.20	1,400	420	420	760	1,050	770	640	1,600	800	3,000	600	5,100	100	PP

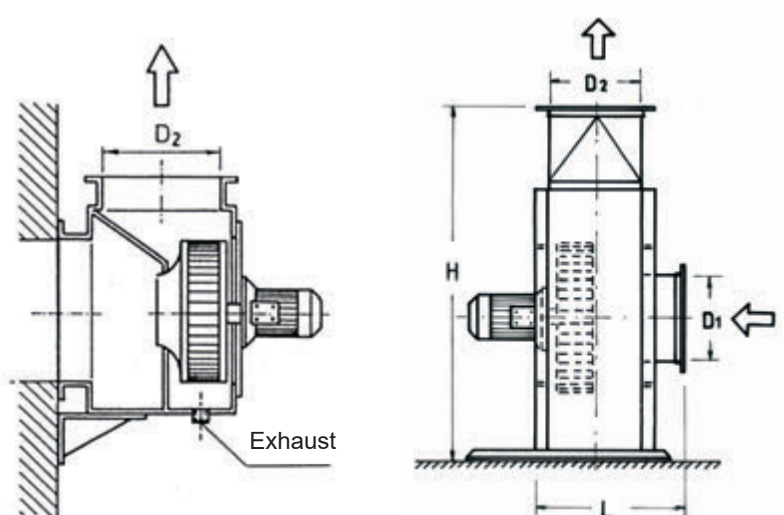
Ventilators with stainless steel rotor (other exhaust capacities available on request!)

V 160	0.75	2,800	180	180	330	480	400	390	400	550	900	500	1,400	250	VA
V 180	1.10	2,800	220	220	370	530	450	530	600	700	1,500	600	2,000	300	VA
V 200	1.50	2,800	250	250	400	580	500	560	1,000	950	2,000	800	3,000	350	VA
V 300	0.75	1,400	320	320	470	720	640	650	800	400	2,000	950	3,000	200	VA
V 350	1.10	1,400	380	380	460	920	720	670	1,100	500	2,500	450	4,000	300	VA
V 420	1.50	1,400	450	450	460	1,015	815	700	1,700	700	3,000	600	6,000	350	VA
V 480	2.20	1,400	500	500	470	1,105	905	700	2,200	800	5,000	700	8,500	300	VA
V 560	4.00	1,400	600	600	470	1,210	1,010	900	4,000	1,300	6,000	1,250	10,000	750	VA

Design A
Air intake and exhaust upwards
in one axis



Design B
Air intake and exhaust
at a 90° angle



Operating and Maintenance Instructions

1. You are advised to check the exhaust ventilator prior to installation for any damages (transportation damages). Please report any defects immediately.

2. Exhaust ventilators are shipped as a compact component. Please make sure that the direction of the arrow matches the direction of the airflow, and that the ventilator's direction of rotation matches the arrow indicating the proper rotational direction.

3. It is not permissible for large loads to be at work at the exhaust ventilator. If unavoidable, the exhaust air pipe should be supported by a special bracket on top of the roof.

4. The installation room should be frost-protected and UV-opaque for ventilators made from plastics. Exhaust air temperature should not exceed 59°C for ventilators made from PP. The limit for ventilators with PP-housing and VA-rotor is 80°C. When made from pure VA, a temperature of 95°C should not be exceeded.

5. Specific maintenance intervals are to be determined with regard to the actual operational modes.

As a rule of thumb:

The exhaust ventilator has to be checked for functionality every 3 months and, if necessary, also cleaned thoroughly. It should be cleaned with water once a year.

The condensate overflow has to be checked for possible plugging which is then to be removed immediately.

horizontal or vertical design

MC produces droplet separators made from plastic or stainless steel. These separate liquid droplets from exhaust air in industrial washing machines. In the process, up to 99% of all droplets larger than 10 µm are retained. Increased requirements can be realized.

As a standard, droplet separators are produced with only one line of separator profiles. It is also possible to install two lines of separator profiles with an additional fine filter mat in between to improve filtration efficiency. The resulting impact effect will even cause mist to converge into droplets, which can then be securely discharged.

In order to condense vapours, a vent condenser needs to be installed.

- Advantages:**
- The products are made entirely from plastic or stainless steel; therefore, no corrosion.
 - They are compact and, thus, installed easily and quickly.

Technical specifications:

Referencing the horizontal droplet separator. Please request specifications for the vertical design!

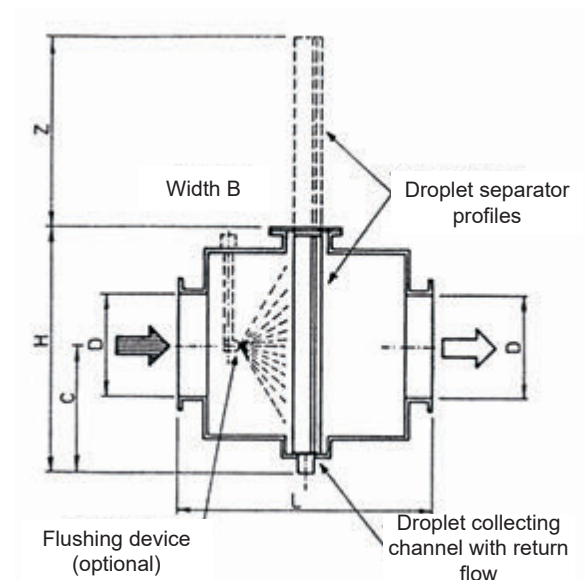
Exhaust air m ³ /h	Dimensions in mm					
	L	B	H	D	C	Z
500	500	250	400	150	225	400
1,000	600	350	500	200	275	500
2,000	620	420	570	280	310	570
3,000	840	500	650	320	350	650
4,000	960	630	780	380	420	780
6,000	1,100	710	860	450	460	860
8,000	1,300	850	1,000	560	580	1,000
10,000	1,490	950	1,100	600	680	1,100
12,000	1,670	1,000	1,150	700	720	1,200

Greater exhaust air capacities available on request!

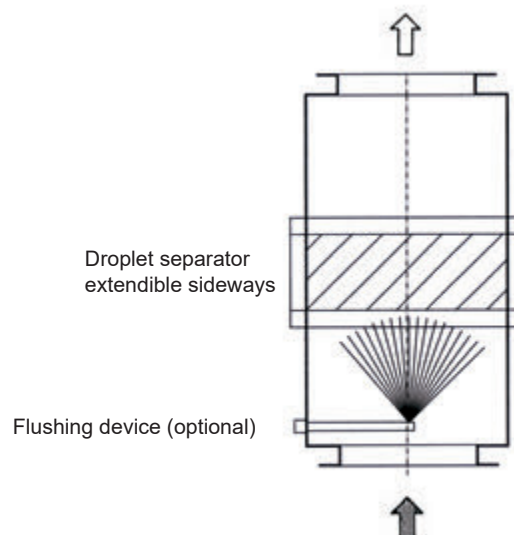
For droplet separators with two profile lines and a fine filter mat, total length L increases for type T 6,000 by approx. 180 mm, from T 8,000 on by approx. 270 mm.

Optionally, we offer a an additional flushing device. It allows for the cleaning of the separator profiles from time to time without having to demantle them.

Horizontal design



Vertical design



with integrated ventilator in horizontal or vertical design

The droplet separator product line **TV** features the same technical efficiency as product line T. Due to an integrated ventilator, installation on top of a machine or system is simplified.

This line also comes, as a standard, with one line of separator profiles.

It is also possible to install two lines of separator profiles with an additional fine filter mat in between to improve filtration efficiency. The resulting impact effect will even cause mist to converge into droplets, which can then be securely discharged.

In order to condensate vapours, a vent condenser needs to be installed.

- Advantages:**
- The combination of ventilator and droplet separator in one product allows for a much simpler and quicker installation than is the case for two separate components.
 - Ventilator rotor and housing are made from plastic or stainless steel, depending on area of application and requirements.
 - The products are compact, and, therefore, easy and quick to install.

Technical specifications:

Referencing the horizontal droplet separator. Please request specifications for the vertical design!

Exhaust air m ³ /h	Dimensions in mm						
	L	B	H	D	C	Z ₁	Z ₂
500	700	250	400	150	225	400	550
1,000	700	350	500	200	275	500	550
2,000	950	420	570	280	310	570	550
3,000	1,000	570	740	320	350	650	600
4,000	1,000	630	780	380	420	780	650
6,000	1,100	710	860	450	460	860	650
8,000	1,300	900	1,000	560	580	1,000	700
10,000	1,500	950	1,100	600	680	1,100	800
12,000	1,700	1,000	1,150	700	720	1,150	800

Greater exhaust air capacities available on request!

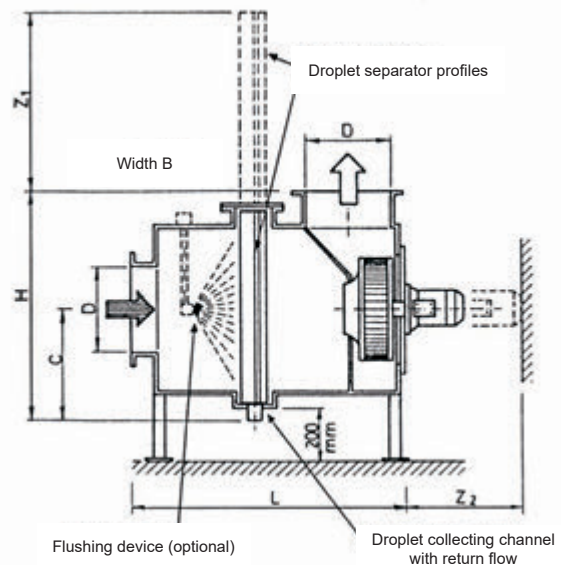
Height indication H increases by the height of the stand (approx. 130 mm)!

Droplet separators can be extended sideways to the left or the right as a drawer. Total length will, therefore, possible change.

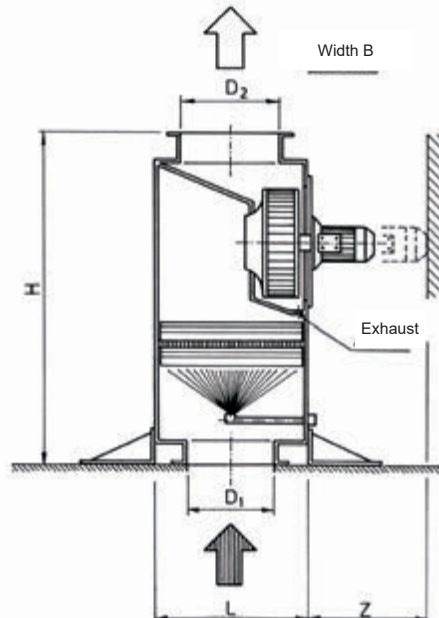
For droplet separators with two profile lines and a fine filter mat, total length L increases for type TV 6,000 by approx. 180 mm, from TV 8,000 on by approx. 270 mm.

Optionally, we offer a an additional flushing device. It allows for the cleaning of the separator profiles from time to time without having to demantle them.

Horizontal design

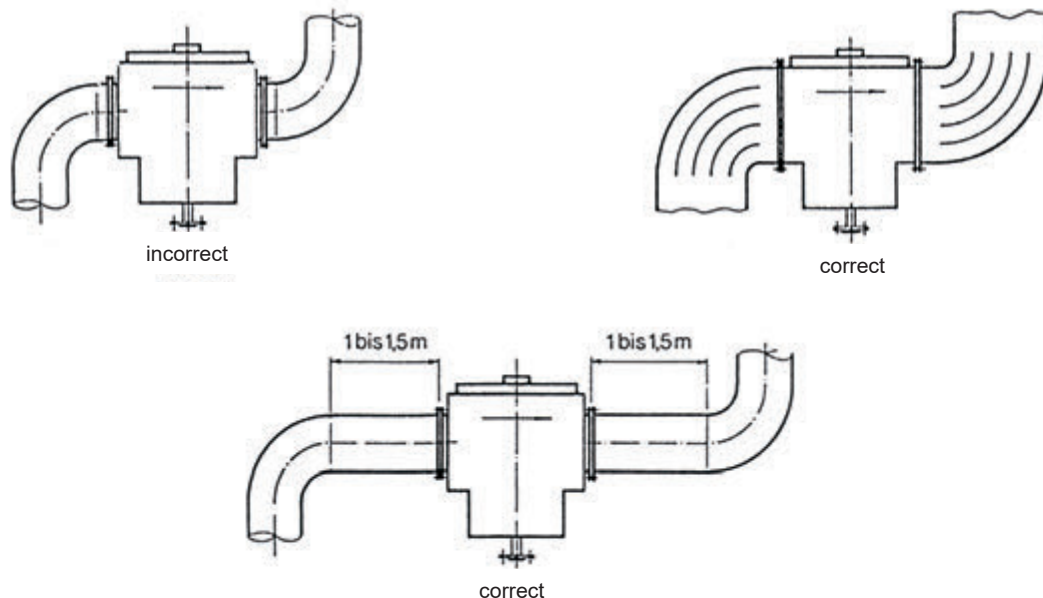


Vertical design



Operating and Maintenance Instructions

1. You are advised to check the droplet separator prior to installation for any damages (transportation damages). Please report any defects immediately.
2. Droplet separators are shipped as a compact component. Please make sure that the direction of the arrow matches the direction of the airflow.
When installing a droplet separator with ventilator you need to make sure that the ventilator's direction of rotation matches the arrow indicating the proper rotational direction.
3. A droplet separator's connection should be realized with an approx. 1-1.5 m long connecting pipe, if possible, to ensure for a stable air supply.
If this is not possible, flange and arc need to feature the same cross sectional area as the droplet separator area.
The pipe diameter for the air outlet across the roof should not be reduced.
4. Beware: You can choose between droplet separator profiles extending upwards or sideways. This allows for best maintenance conditions.
When installing a droplet separator with ventilator, there should be left enough room for a possible removal of the ventilator motor from behind.
5. Condensate is discharged via a socket attached to the underside.
6. When operating the droplet separator at full capacity for long periods of time, we recommend the addition of a rinsing unit to guarantee for effective long-term operating conditions. The rinsing unit will keep the profiles extensively clean and allow the droplet separator to perform accordingly well.
7. The installation room should be frost-protected and UV-opaque for all systems made from plastics.
Exhaust air temperature should not exceed 80°C for droplet separators made from PP and 59°C for droplet separators with ventilator. For the droplet separator with stainless steel rotor the temperature limit is 80°C, and 95°C for a droplet separator made entirely from stainless steel.
Please check for waterproofness before first operation.
8. Specific maintenance intervals are to be determined with regard to the droplet separator's actual operating mode. It can be minimized with the help of an integrated rinsing nozzle.
As a rule of thumb: The droplet separator resp. the droplet separator with integrated ventilator has to be checked for its functionality every 3 months, and cleaned, if necessary. The ventilator should be cleaned with water once a year.
The condensate overflow has to be checked for possible plugging which is then to be removed immediately.



directly air-cooled, horizontal or vertical design

MC produces vent condensers made from plastics or stainless steel for the purposes of recovering aerosols and clouds of steam. Thereby, water consumption and heating needs are substantially decreased.

- Applications:**
- Single-chamber- and continuous batch-type washing machines
 - Suitable for permanent operating modes

- Advantages:**
- No cooling water required since air-cooled
 - No exhaust air pipes required; exhaust air can be discharged into the installation room
 - Ready-to-connect, compact vent condenser, housing made from plastic or stainless steel, radiator core made from aluminium or stainless steel, ventilator rotor made from plastic or stainless steel
 - Decreased heat output for installation room
 - Decreased water consumption of the system when condensate is recirculated

- Function:**
- Vapours are drawn in with the help of the ventilator and led across the radiator core. Cooler air from the room is led across the radiator core at the same time so that the steam condenses, is filtered as droplets in the droplet separator abgeschieden, and recirculated into the washing machine or water treatment system.
 - Exhaust air can be discharged into the installation room, the adjoining room or to the outside.

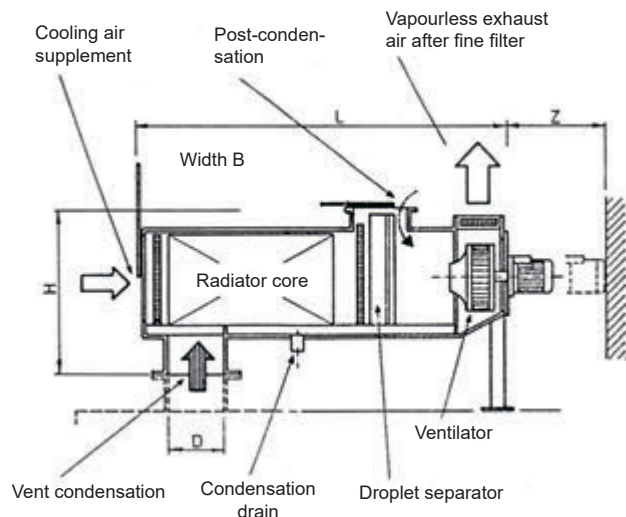
Technical specifications:

Referencing the horizontal vent condensers. Please request specifications for vertical vent condensers!

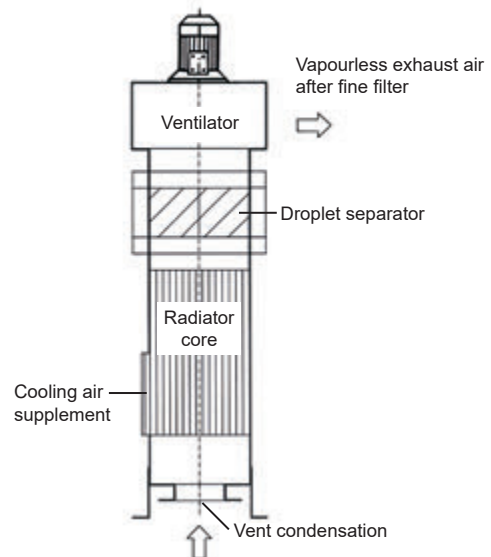
Exhaust air m³/h	Dimensions in mm					kW
	L	B	H	D	Z	
500	1,000	400	550	150	550	0.37
1,000	1,200	500	650	200	550	0.55
1,500	1,900	530	880	250	650	1.10
2,000	1,900	600	880	315	650	1.50
3,000	2,000	900	1,100	355	800	2.20

Greater exhaust air capacities on request!

Horizontal design:



Vertical design:



Operating and Maintenance Instructions

1. You are advised to check the vent condenser for any damages (transportation damages) prior to its installation. Please report any defects immediately. You are especially advised to check if the droplet separator profiles have shifted positions during transport.

2. Vent condensers are shipped as a compact component. Please make sure that the direction of the arrow matches the direction of the airflow, while the ventilator's rotational direction matches the direction of the arrow indicating the proper rotational direction.

3. Principally, the vent condenser's intake socket can be connected directly to the system. The condensate pipe has to be led leakproof into the system or a water treatment unit via a siphon. Now, the proper air ratio needs to be regulated with the help of the adjustable cooling air damper. In case there are still steam clouds exiting the system, the post-condensation unit has to be opened a little bit more.

4. The installation room should be frost-protected and UV-opaque for all systems made from plastics.

5. Specific maintenance intervals are to be determined with regard to the actual operating mode. As a rule of thumb:

The vent condenser should be checked for its functionality every 3 months and also cleaned, if necessary. Droplet separator profiles and radiator should be cleaned with water once a year. The condensate overflow has to be checked for possible plugging which is then to be removed immediately.

indirectly air-cooled

MC produces vent condensers made from plastics or stainless steel for the purposes of recovering aerosols and clouds of steam. Thereby, water consumption and heating needs are substantially decreased.

Applications: For continuous batch-type washing machines

Advantages:

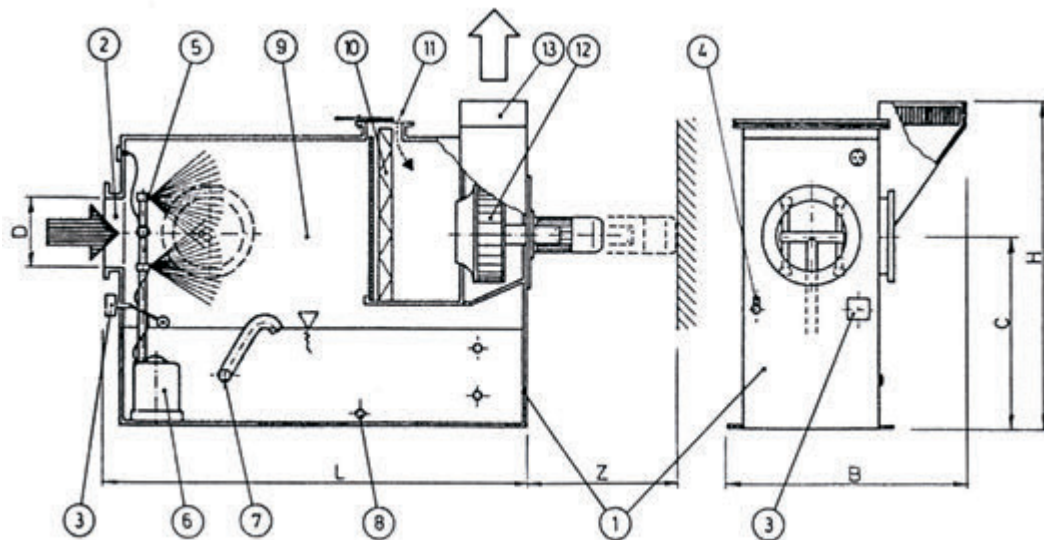
- No cooling water required since indirectly air-cooled
- Ready-to-connect, compact vent condenser, housing made from plastic or stainless steel, with integrated water supply, ventilator rotor made from plastic or stainless steel, droplet separator and fine filter made from plastic or stainless steel
- Water supply is cooled by indoor air
- No exhaust air pipes required; exhaust air can be discharged into the installation room
- Decreased heat output for installation room
- Decreased water consumption of the system when recirculating condensation water into pretreatment cycle.

Function: The ventilator draws the steam clouds in with the help of suction hoods located at the washing machine's intake and exit (for energy-saving reasons only as little as possible is drawn in directly from the system). The steam clouds are now condensed in the condensation and washing zone. Via a pump, cool water from the water supply is sprayed through hollow cone nozzles. This results in the condensation of the steam clouds. Droplets and aerosols are filtered in the adjoining droplet separator. At last, the exhaust air can be discharged into the installation room, while the condensate is recirculated into the system via overflow.

Technical specifications

Exhaust air m ³ /h	Dimensions in mm						Pump kW	Ventilator kW
	L	B	H	D	C	Z		
500	1,250	400	800	150	620	550	0.37	0.37
1,000	1,250	400	900	250	680	550	0.37	0.37
2,000	1,600	500	1,050	300	750	550	0.55	0.55
3,000	1,650	650	1,050	380	820	600	0.75	0.55
4,000	1,800	700	1,250	450	850	650	0.90	1.10
6,000	1,900	800	1,350	500	900	650	1.10	1.50
8,000	2,100	900	1,450	560	950	700	1.50	2.20
10,000	2,200	1,000	1,550	630	1,000	800	1.85	4.00
12,000	2,300	1,000	1,550	710	1,000	800	1.85	4.00

Greater exhaust air capacities on request!



Component description:

- | | |
|---|--|
| 1. Housing made from plastic or stainl. steel | 8. Drain outlet |
| 2. Intake socket | 9. Condensation and washing zone |
| 3. Float switch | 10. Droplet separator |
| 4. Solenoid valve | 11. Post-condensation |
| 5. Hollow cone nozzles | 12. Ventilator with plastic or stainless steel rotor |
| 6. Pump | 13. Air outlet with fine filter |
| 7. Condensate overflow | |

indirectly air-cooled

MC produces vent condensers made from plastics or stainless steel for the purposes of recovering aerosols and clouds of steam. Thereby, water consumption and heating needs are substantially decreased.

Application: For industrial single-chamber washing machines

Advantages:

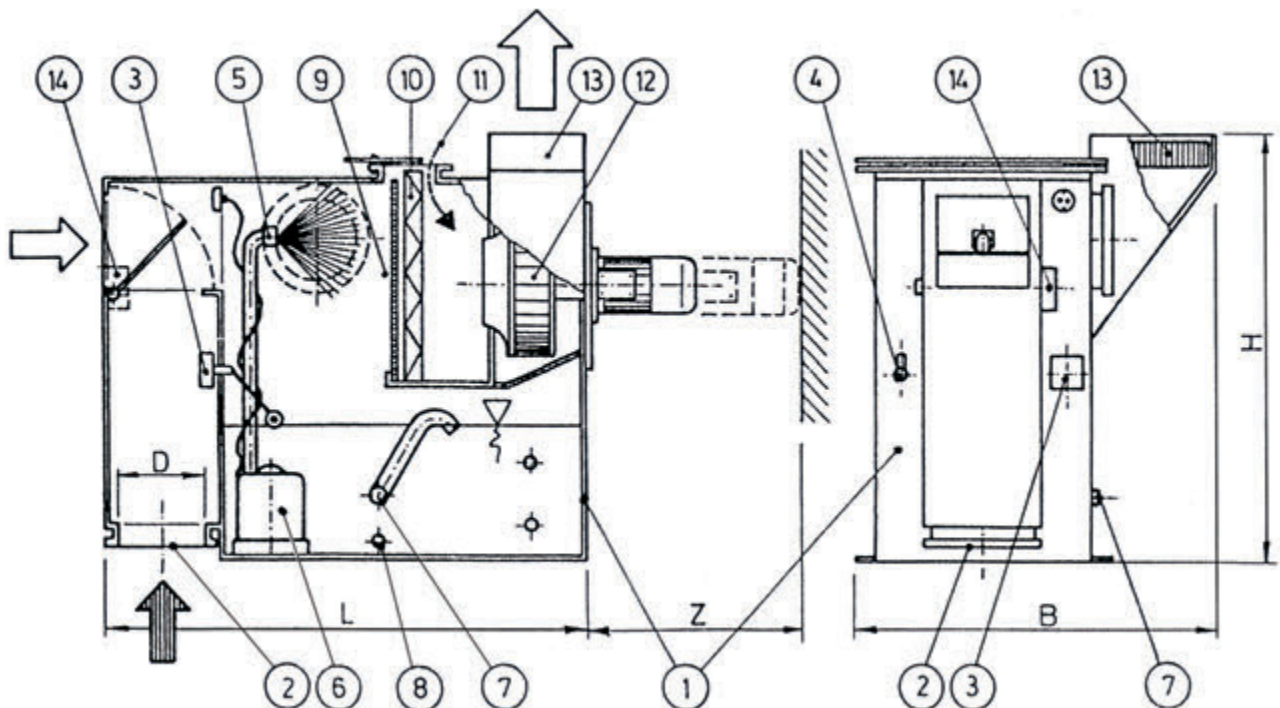
- No cooling water consumption since indirectly air-cooled
- Ready-to-connect, compact vent condenser, housing made from plastic or stainless steel, with integrated water supply, ventilator rotor made from plastic or stainless steel, droplet separator and fine filter made from plastic or stainless steel
- Water supply is cooled with indoor air
- No exhaust air piping required; exhaust air can be discharged back into the installation room
- Lowerer heat output in installation room required
- Decreased water consumption of the system when condensate is recircled into pretreatment

Function: During the washing process, steam is created. These steam clouds are sucked from the system with the help of a ventilator. (For energy-saving reasons, only as little as possible is sucked out during the washing process).
Beforehand a servomotor has opened the air damper so that the steam clouds get into the condense zone in order to rain out. Via a pump cool water supply is sprayed through hollow cone nozzles in very fine droplets, resulting in the condensing of the steam clouds. In the adjoining droplet separator droplets and aerosols are separated. In a last step, the exhaust air can be discharged into the installation room and the condensate can flow back into the system's overflow. Now, the servomotor closes the air damper, and the water supply is cooled down with ambient air.

Technical specifications

Exhaust air m ³ /h	Dimensions in mm					Pump kW	Ventilator kW
	L	B	H	D	Z		
500	1,000	400	600	150	550	0.37	0.37
1,000	1,000	400	800	150	550	0.37	0.37
2,000	1,200	500	900	250	550	0.55	0.55
3,000	1,500	500	1,000	320	600	0.55	0.55
4,000	1,700	550	1,050	380	650	0.90	1.10
6,000	2,000	650	1,250	450	650	1.10	1.50
8,000	2,500	800	1,450	560	700	1.50	2.20

Greater exhaust air capacities available on request!



Component description:

- | | |
|---|--|
| 1. Housing made from plastic or stainl. steel | 8. Drain outlet |
| 2. Intake socket | 9. Condensation and washing zone |
| 3. Float switch | 10. Droplet separator |
| 4. Solenoid valve | 11. Post-condensation |
| 5. Hollow cone nozzles | 12. Ventilator with plastic or stainless steel rotor |
| 6. Pump | 13. Air outlet with fine filter |
| 7. Condensate overflow | 14. Servomotor for air damper |

water-cooled

MC produces vent condensers made from plastics or stainless steel for the purposes of recovering aerosols and clouds of steam. Thereby, water consumption and heating needs are substantially decreased.

Einsatzgebiet: For industrial single-chamber and continuous batch-type washing machines

Advantages:

- Compact product with ventilator rotor made from plastic and stainless steel
- Independent of ambient air
- Temperature of cooling water may be up to 25°C
- No exhaust air pipes across the roof required

Function: The washing process results in steam clouds. These are drawn from the system with the help of a ventilator and flow across the radiator core in the vent condenser. Cooling water flows through the core. Due to the difference in temperature between steam and the radiator core surface, the steam clouds are condensed. The air is now saturated with droplets which are filtered and retained in the adjoining droplet separator. In a final step, the exhaust air can now be discharged back into the room while the condensate flows back into the system or a water treatment unit.

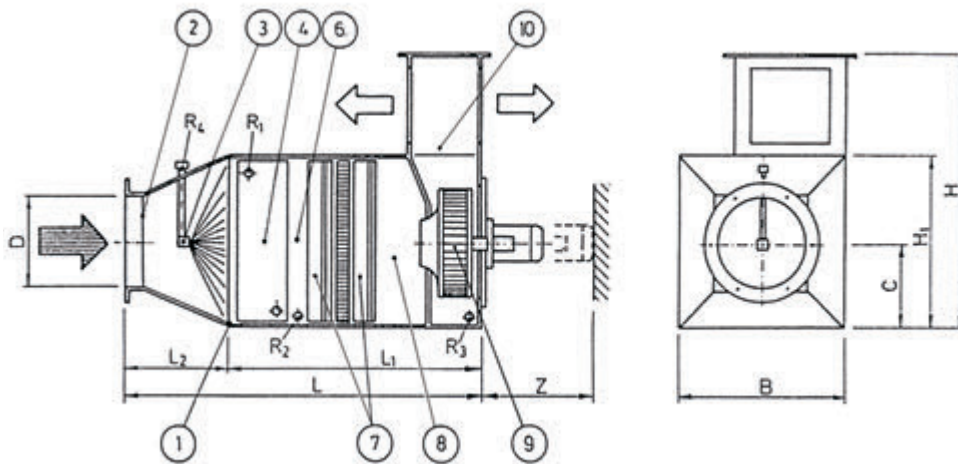
Technical specifications

Referencing the horizontal design. Please request specifications for the vertical design!

Exhaust air m ³ /h	Dimensions in mm													Cool. water m ³ /h	kW
	B	C	H ₁	H	L ₁	L ₂	L	Z	D	R ₁	R ₂	R ₃	R ₄		
1,500	764	327	654	1,194	1,300	370	1,670	600	250	1"	1 1/2"	1/2"	1/2"	6.2	0.75
2,500	864	401	802	1,342	1,350	450	1,800	650	315	1 1/4"	1 1/2"	1/2"	1/2"	8.0	1.50
3,500	886	446	892	1,432	1,400	500	1,900	650	355	1 1/2"	2"	1/2"	1/2"	9.9	1.50
4,500	986	446	892	1,432	1,400	500	1,900	650	400	1 1/2"	2"	1"	1/2"	12.7	2.20
5,500	986	526	1,052	1,592	1,450	570	2,020	700	500	2"	2"	1"	1"	15.6	3.00
7,500	1,190	586	1,172	1,712	1,700	630	2,330	800	600	2"	2"	1"	1"	21.2	4.00

Greater exhaust air capacities available on request!

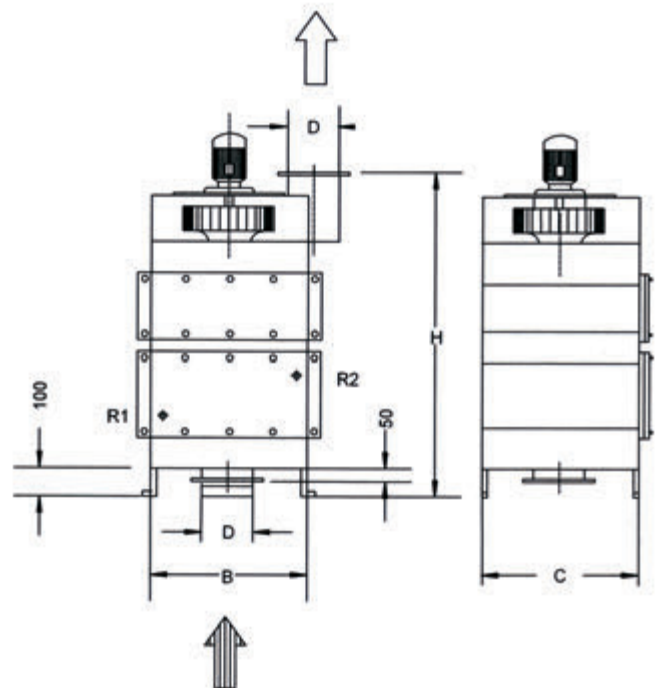
Horizontal design:



Component descriptions:

1. Housing made from plastic or stainl. steel
2. Intake socket with inlet guiding cone
3. Rinsing unit with cleaning nozzles
4. Radiator (epox-coated)
6. Fly zone
7. Droplet separator made from plastic or stainless steel
8. Post-condensation
9. Suction fan with rotor made from plastic or stainless steel
10. Exhaust opening with coarse particle separator made from stainless steel

Vertical design:

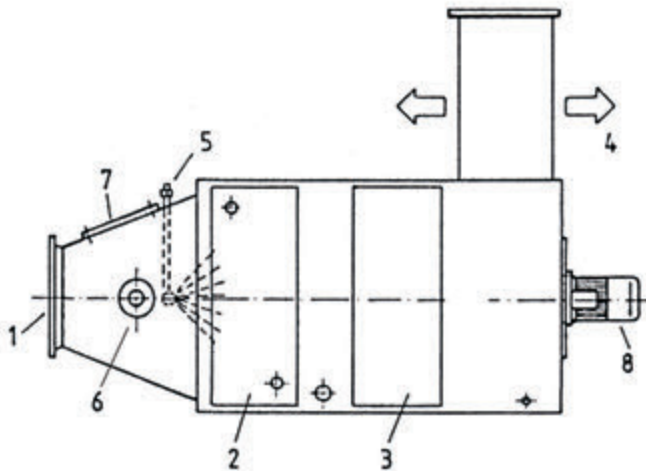


Accessories:

1. There is no need for a cooling water system if the cooling unit is installed on top of the vent condenser.
2. Sucked air from the vent condensers can be heated with the help of an air heater and then used to dry parts.

Type WSK - Water-cooled vent condenser (standard)

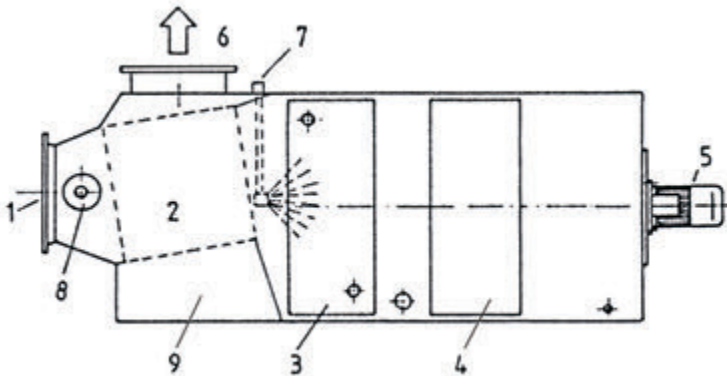
The standard product WSK was designed to condensate steam vapours with cooling water.



1. Steam suction
2. Water cooler
3. Droplet separator
4. Exhaust air into the room or across roof
5. Cleaning nozzle for water cooler
6. Added air
7. Cleaning and service opening
8. Suction fan powered directly or by belt drive

Type WSK-W - Water-cooled vent condenser with cross-flow heat exchanger

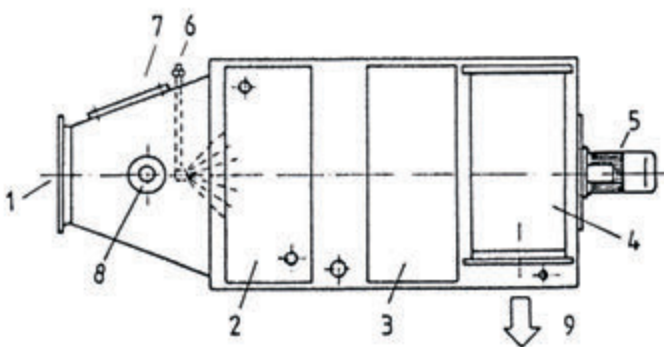
Cold exhaust air is warmed up across an air/air-heat exchanger to lower relative humidity.



1. Steam suction
2. Cross-flow heat exchanger
3. Water cooler
4. Droplet separator
5. Suction fan powered directly or by belt drive
6. Exhaust air led back into washing machine or room or across roof
7. Rinsing nozzle for water cooler
8. Added air
9. Air channel to recirculate cold air to cross-flow heat exchanger (recirculation is adapted to individual needs)

Type WSK-H - Water-cooled vent condenser with air heater

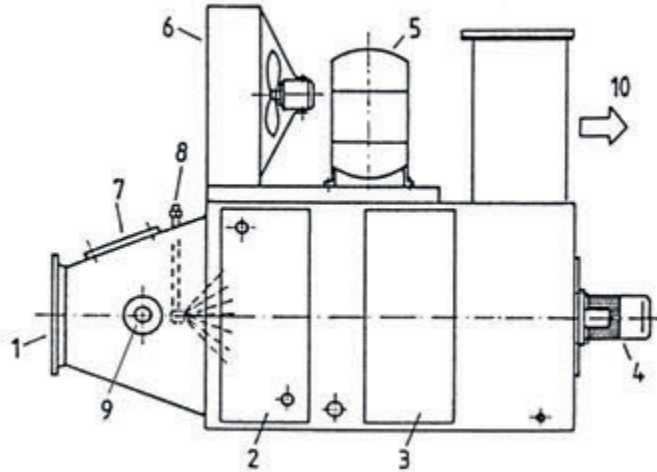
Exhaust air is warmed up electronically to lower relative humidity and possibly heated up enough to use it to dry parts.



1. Steam suction
2. Water cooler
3. Droplet separator
4. Electronic air heater
5. Suction fan for water cooler
6. Rinsing nozzle
7. Cleaning and service opening
8. Added air
9. Exhaust air in washing machine for drying purposes (has to be individually adapted)

Type WSK - Vent condenser with cooling unit

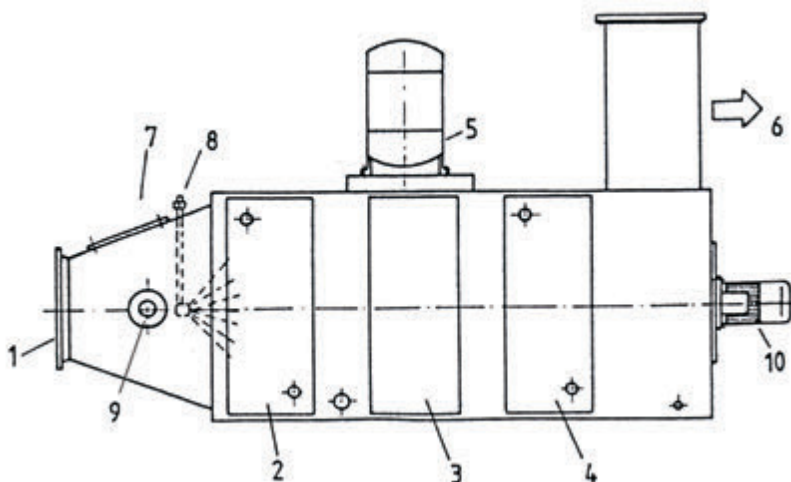
There is no cooling water piping required.



1. Steam suction
2. Vaporizer
3. Droplet separator
4. Suction fan powered directly or by belt drive
5. Cooling compressor
6. Condenser
7. Cleaning and service opening
8. Rinsing nozzle
9. Added air
10. Exhaust air into the room or across the roof

Type KSK-S - Vent condenser with cooling unit

Vaporizer and condenser are part of the vent condenser. There is no piping for the cooling water required. The product setup results in a lowering of relative humidity.



1. Steam suction
2. Vaporizer
3. Droplet separator
4. Condenser
5. Cooling compressor
6. Exhaust air into the room or across the roof
7. Cleaning and service opening
8. Rinsing nozzle for vaporizer and condenser
9. Added air
10. Suction fan powered directly or by belt drive

for industrial washing machines and phosphating units

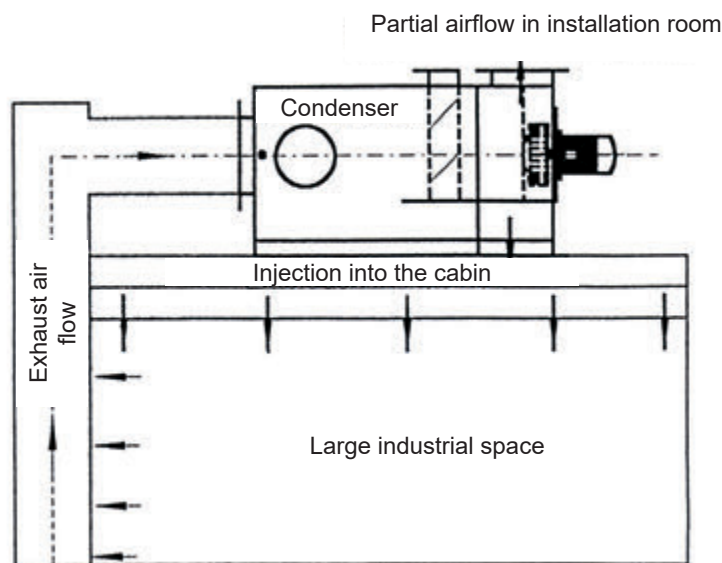
MC produces vent condensers made from plastics or stainless steel for the purposes of recovering aerosols and clouds of steam. Thereby, water consumption and heating needs are substantially decreased.

Application: For industrial washing machines with an exhaust air capacity of up to 80,000 m³/h

Advantages:

- No cooling water consumption since air-cooled
- Ready-to-connect, compact vent condenser, housing made from plastic or stainless steel, with integrated water supply, ventilator rotor, droplet separator and fine filter made from plastic or stainless steel
- Water supply is cooled with indoor air
- No exhaust air pipes required; exhaust air can be discharged into the installation room
- Lowerer heat output required in installation room
- Decreased water consumption of the system when condensate is recirculated into pretreatment

Function: With the help of a ventilator, steam is sucked from the washing machine after completion of the washing cycle and from washing units during the washing process. It is then condensed inside of the vent condenser by the spraying of cooling water. The resulting water droplets are then filtered from the fly zone through the droplet separator and retained. Exhaust air can be discharged either into the system or into the installation room (The exhaust air may also be separated so that one part is discharged into the room while the other part is recirculated into the system.). Indoor air is used to cool the water supply.



Operating and Maintenance Instructions

1. You are advised to check the vent condenser for any damages (transportation damages) prior to its installation. Please report any defects immediately. You are especially advised to check if the droplet separator profiles have shifted positions during transport.
2. Vent condensers are shipped as a compact component. Please make sure that the rotational direction of ventilator and pump match the rotational direction indicated by the arrow.
3. Principally, the vent condenser's suction socket can be connected directly to the system's suction hose.
4. Considering DIN 1988, a fresh water hose has to be connected to the solenoid valve to supply the required water.
5. The condensate hose has to be led leakproof into the system or a water treatment unit via a siphon. The drain's connection to the system also needs to be leakproof.
6. In case there are still steam clouds exiting the system, the optimal air ratio may be regulated with the help of the post-condensation unit. Exhaust air may now either be recirculated into the installation room and/or back into the system.
7. The electronic control system has to be provided by the customer. Principally, the ventilator may not be operated when the pump is not operating as well.
Water supply is regulated with the help of the solenoid valve and the float switch: the solenoid valve opens when the fluid level sinks, and water is added. As soon as the target level is reached, the float switch stops the water supply.
8. The installation room should be frost-free and UV-opaque for all systems made from plastics. Exhaust air temperature for vent condensers made from PP may not exceed 60°C and 80°C for vent condensers made from stainless steel.
9. Specific maintenance intervals are to be determined with regard to the actual operating mode.
As a rule of thumb:
The vent condenser should be checked for its functionality every 3 months and also cleaned, if necessary. Droplet separator profiles and the entire system should be cleaned with water once a year. The condensate overflow has to be checked for possible plugging which is then to be removed immediately.

MC produces exhaust air scrubber made from PP, PVC, PVDF (other plastics available on request) or stainless steel. They are used to clean steam clouds saturated with alkaline or acid media.

Application: Pretreatment, electroplating, etc.

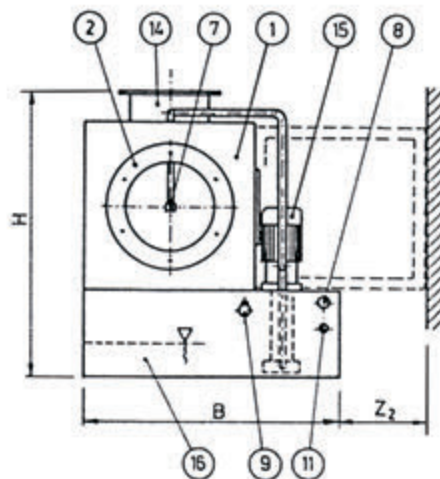
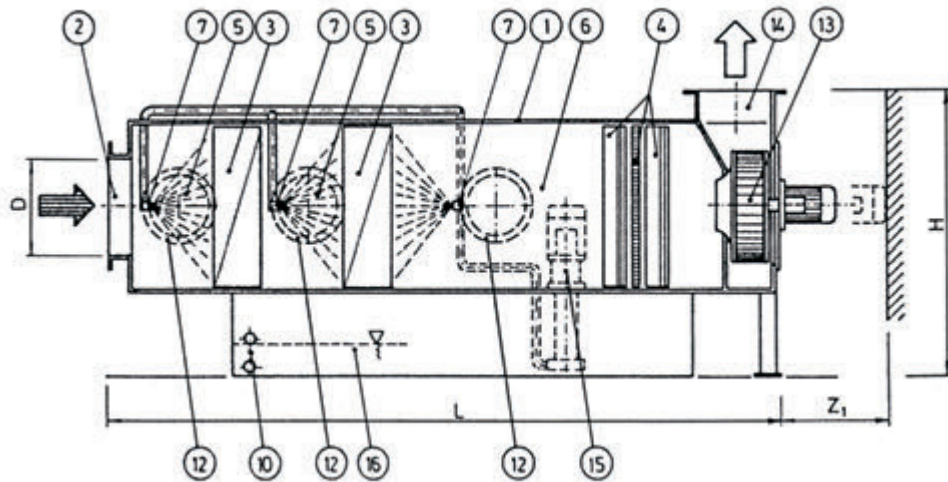
Advantages: Ready-to-connect, compact exhaust air scrubber, housing made from plastic or stainless steel, with integrated water supply, ventilator rotor made from plastic or stainless steel, packed beds and double-droplet separator with fine filter made from plastic

Function: Washing zone 1:
With the help of the pump, the water supply is sprayed from full cone nozzles onto the packed bed and into the exhaust air flow. The droplets are atomized in the impact zone and, thereby, contaminant uptake is increased.
In the process of the packed bed droplet size increases due to inertia. Larger droplets are formed which can now mostly be collected and separated.

Washing zone 2:
The prewashed exhaust air is pulled through a second waterwall and onto another packed bed. Inside the proceedings of washing zone 1 are repeated. This reduces the amount of contaminates once more.

Fly and washing zone 3:
In this zone, the water supply is sprayed via hollow cone nozzles. Due to this 3rd waterwall and the long reaction time, the remaining contaminates are finally bound and washed out. 99% of all droplets with a size of more than 10µm are filtered inside of the droplet separator system with its 2 droplet separator profiles and the fine filter.

Technical specifications



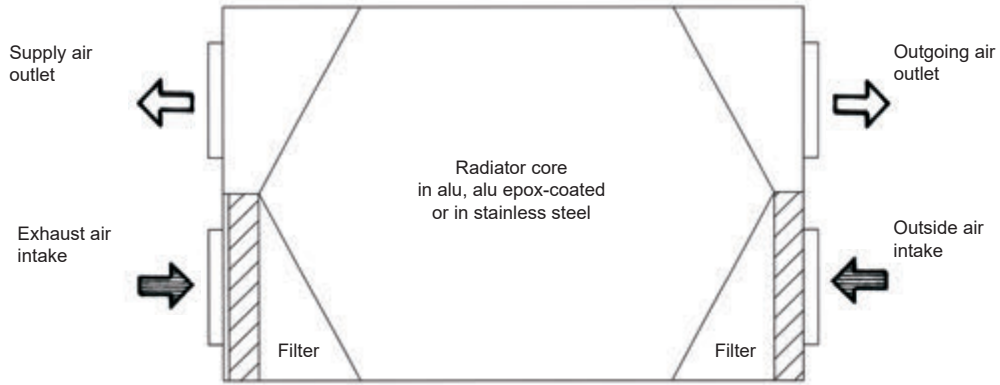
Component descriptions:

- | | |
|---|---|
| 1. Basic housing made from plastic or stainl. steel | 10. Overflow and system overflow |
| 2. Intake socket | 11. Prepared connections for a neutralization of the water supply |
| 3. 2 packed beds made from plastic or stainless steel | 12. 3 cleaning openings |
| 4. Double droplet separator system with fine filter | 13. Suction fan with rotor made from plastic or stainless steel |
| 5. Washing zones 1 and 2 | 14. Connection socket for exhaust air pipe |
| 6. Fly and washing zone | 15. Pump |
| 7. 3 spray bars with nozzles | 16. Water supply container |
| 8. Float switch | |
| 9. Solenoid valve | |

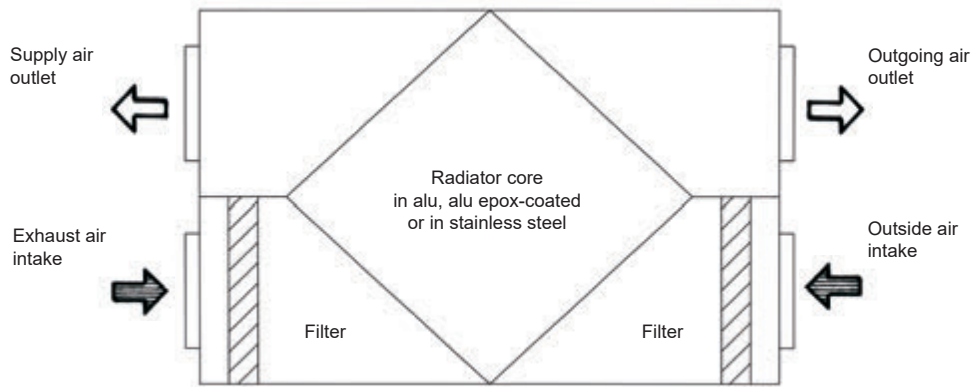
Performance specifications can only be given for individual cases. Please request more information or a direct offer based on your specific requirements.

Air Cooler

Counterflow cooler

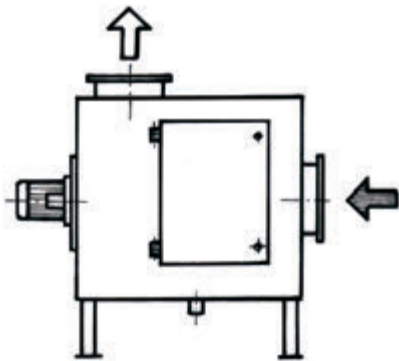


Cross-flow cooler



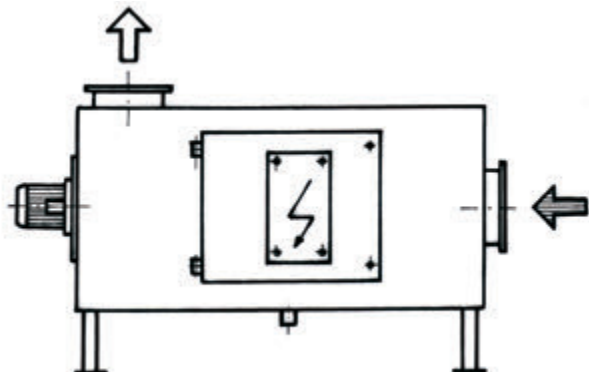
Oil Mist Separator

Oil mist separator with integrated ventilator ÖV



Suction capacity from 500 m³/h

Electrostatic oil mist separator EÖV



Suction capacity from 500 m³/h

MC GmbH
Siemensstrasse 14
73760 Ostfildern
Germany

Phone 0049 7158 9878930
Fax 0049 7158 9878934
E-Mail: office@mc-gmbh.eu



Fax form

Company

Contact person

Department

Street

Postal code

City/Country

Phone

Fax

E-Mail

Your specifications and sketches

- 1 Unless otherwise expressly agreed, goods are sold or delivered at the prices or price lists valid on the day of delivery or on the day on which the goods are notified as being ready for dispatch.
For deliveries within the Federal Republic of Germany, the prices do not include the applicable value-added tax.
2. Indicated delivery times refer to the day of dispatch. They are non-binding unless expressly stated to be non-binding. Order confirmations and any attachments thereto are legally binding. If they do not correspond to the information you provided, they must be revoked in writing. Operational disruptions (strikes, force majeure, etc.) which are not our fault release us from the obligation to deliver for as long as these factors affect our operational process.
Shipment is always at the expense and risk of the customer. If there is no written instruction from the customer, the means of transport shall be determined by us. We can make partial deliveries by agreement with the customer, which the customer must pay for directly.
3. Invoices shall be paid without any deduction no later than 30 days after the invoice date, unless other deadlines have been agreed and expressly confirmed by MC.
Invoices for amounts less than 80.00 euros are subject to a minimum quantity surcharge and are not granted a cash discount.
Failure to meet the payment deadline shall entitle MC to claim interest on arrears and reminder costs. The amount of the interest rate will be determined on the basis of the bank interest rates applicable at the time of performance.
4. The packaging is charged separately and is not returnable.
5. The information and data from the MC catalogue or workbook are not binding.
If specific needs require guarantees on dimensions, operating conditions or production, please request detailed confirmations from us.
6. Any complaints must be submitted immediately after receiving the goods, otherwise the goods shall be deemed to have been accepted free of defects.
Defective goods delivered by MC will be replaced against return or credited at the discretion of MC.
A wrong delivery quantity will only be recognised if the packaging is defective. This must be confirmed by the supplier.
The ordering party shall not be entitled to claim compensation or other rights, irrespective of the legal grounds on which they are based, against MC.
7. The statutory warranties apply if the product is handled properly. This does not apply to all wear parts such as nozzles, gaskets, mechanical seals, etc.
8. The delivered goods remain the property of MC until the purchase price has been paid in full. Should the ordering party or purchaser resell the goods delivered by MC prior to payment, the ordering party or purchaser hereby assigns its claims arising therefrom to MC.
9. The supplier assures that the relevant valid version of the requirements of the EU regulation for chemicals REACH are complied with. If the delivery items contain substances that are listed on the so-called "Candidate List of Substances of very High Concern" (SVHC list) according to Reach, the supplier is obliged to inform us immediately. This also applies if, in the case of current deliveries, substances not previously listed are added to this list.

The supplier further assures not to deliver items containing substances according to RoHS (2002/95/EC) for products according to their scope of application.

10. Confidentiality
The supplier and customer is obliged to treat all information received as part of the business relationship with us, including our orders and our invoices as well as further information about the material, workpiece or product provided by us, as strictly confidential and not to disclose or make it accessible to third parties without our written consent. The supplier and customer shall only disclose the confidential information to its own employees if and to the extent that this is necessary for the performance of their tasks as part of the business relationship. The obligation of confidentiality shall continue to apply after the termination of the business relationship with us. Further confidentiality agreements will be set up in separate agreements if necessary.

11. Unless further agreements have been and/or will be made, the following conditions shall apply with regard to the observance of employee rights:

The supplier shall follow the relevant laws and regulations, in particular labour and social law, with regard to its employees.

The supplier shall further ensure that, in case of engaging subcontractors, the latter also follow the relevant laws and regulations, in particular labour and social law, with regard to their employees, and that the subcontractors, for their part, contractually agree on a corresponding regulation with their subcontractors.

The suppliers shall indemnify MC against all claims asserted against MC due to the violation by the supplier and its subcontractors (including all companies in the subcontractor chain) of the the Law on Posting of Workers (AentG), the Minimum Wage Act (MiLoG), the German Temporary Employment Act (AÜG) as well as the occupational health and safety laws and, in the case of performance outside Germany, the corresponding regulations of the respective country.

12. Severability clause

The invalidity of any provision of these General Terms and Conditions of Purchase and Delivery shall not affect the validity of the remaining provisions. Should any provision be found to be invalid or unenforceable, it shall be replaced by a new provision which comes as close as possible to the legal and economic success of the invalid or unenforceable provision.

13. The place of performance for deliveries and payments is Ostfildern.
The place of jurisdiction is Stuttgart.

Ostfildern, October 2021