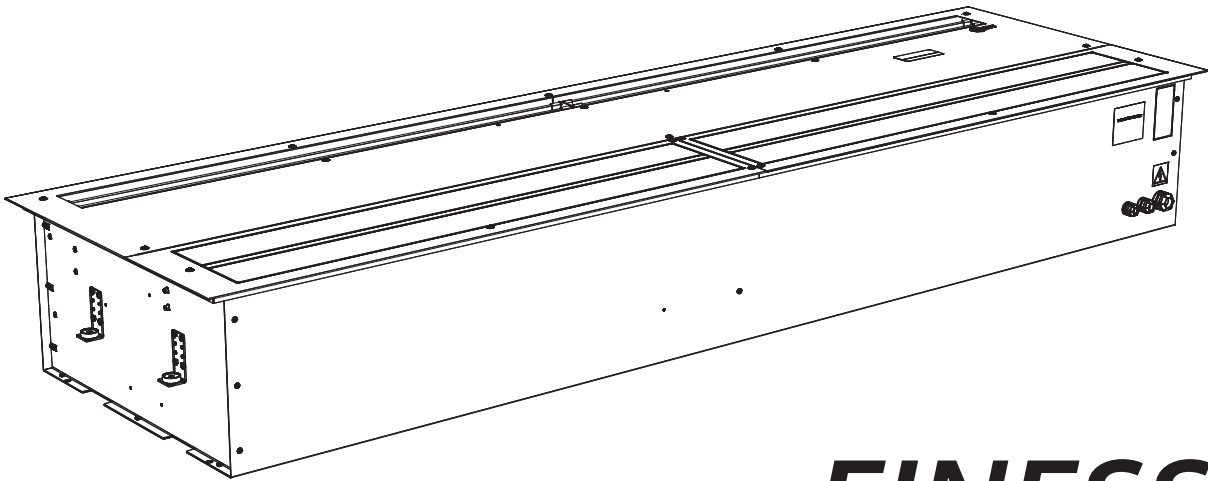


2VV

EN

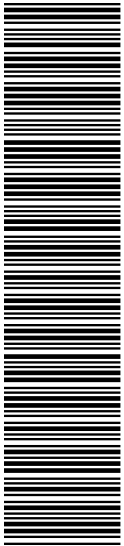


# ***FINESSE***

VCF-B-xxx-...

VCF-C-xxx-...






## Full manual **INSTALLATION**



B01-0211-0713-15

# 1. BEFORE YOU BEGIN

Meaning of symbols in the manual:

	SYMBOL	MEANING
	<b>ATTENTION!</b>	Warning/caution
	<b>DO NOT OVERLOOK!</b>	Important instructions
	<b>YOU WILL NEED NOTE</b>	Practical tips and information
	<b>TECHNICAL INFORMATION</b>	More detailed technical information
	<b>LINK</b>	Refer to other parts/sections of the manual



Before installation, thoroughly read the section "Safe use of air curtains". It contains all instructions on the safe and correct use of the product.

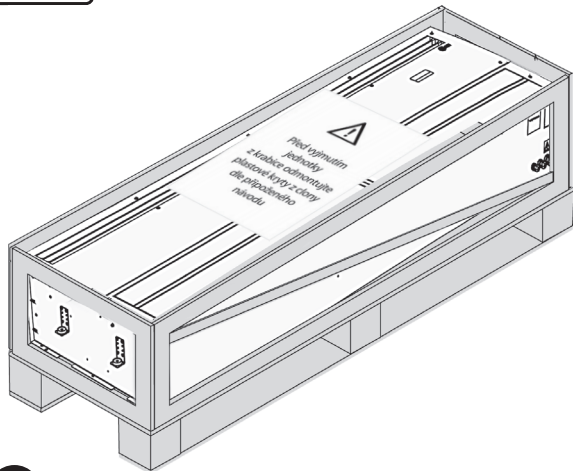
This manual contains important instructions to ensure correct installation of the air curtain. Before installation, read all of the following instructions thoroughly and then adhere to them! The manufacturer reserves the right to make changes, including to technical documentation without prior notice. Save this user manual for further use. The instructions in this manual are a part of the product.

## Statement of compliance

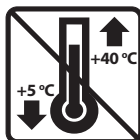
You will find the details at the [www.2vv.cz](http://www.2vv.cz) website

## 2. UNPACKING

### 2.1 CHECK THE SHIPMENT



- After delivery, immediately check to see if the packaged product is damaged. If the packaging is damaged contact the delivery service. If the complaint is not filed in time, your claim may not be valid later.
- Check to see if it is the same product you ordered. If there are any discrepancies, do not unpack the curtain, and immediately report the defect to the supplier.
- After unpacking, check to see if the curtain and other parts are in order. If you have any doubts, contact the supplier.
- Never install a damaged air curtain!
- If you do not unpack the curtain immediately after delivery, it must be stored in a dry indoor environment with an ambient temperature between **+5 °C and +40 °C**

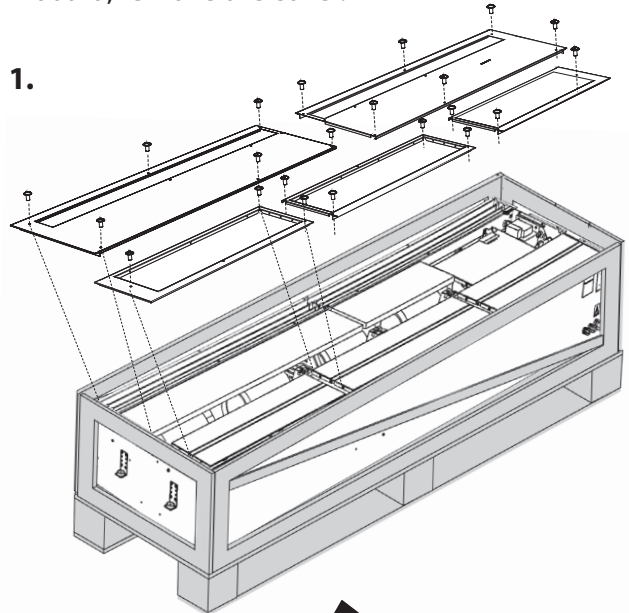


### 2.2 UNPACK THE AIR CURTAIN

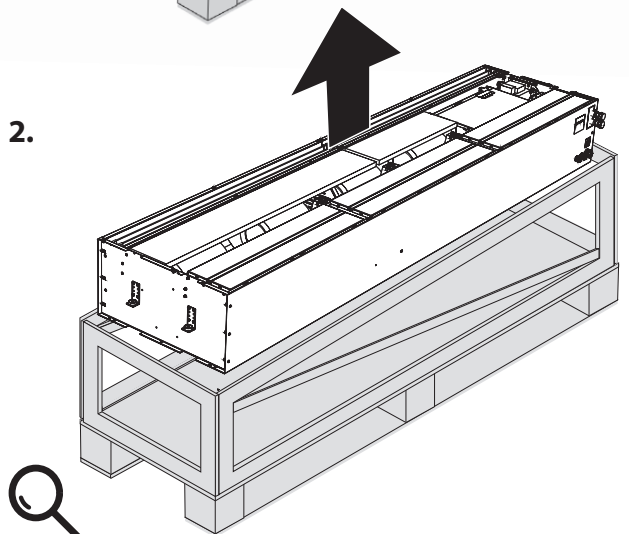


- Caution! Before removing the curtain from the board, remove the cover.

1.



2.



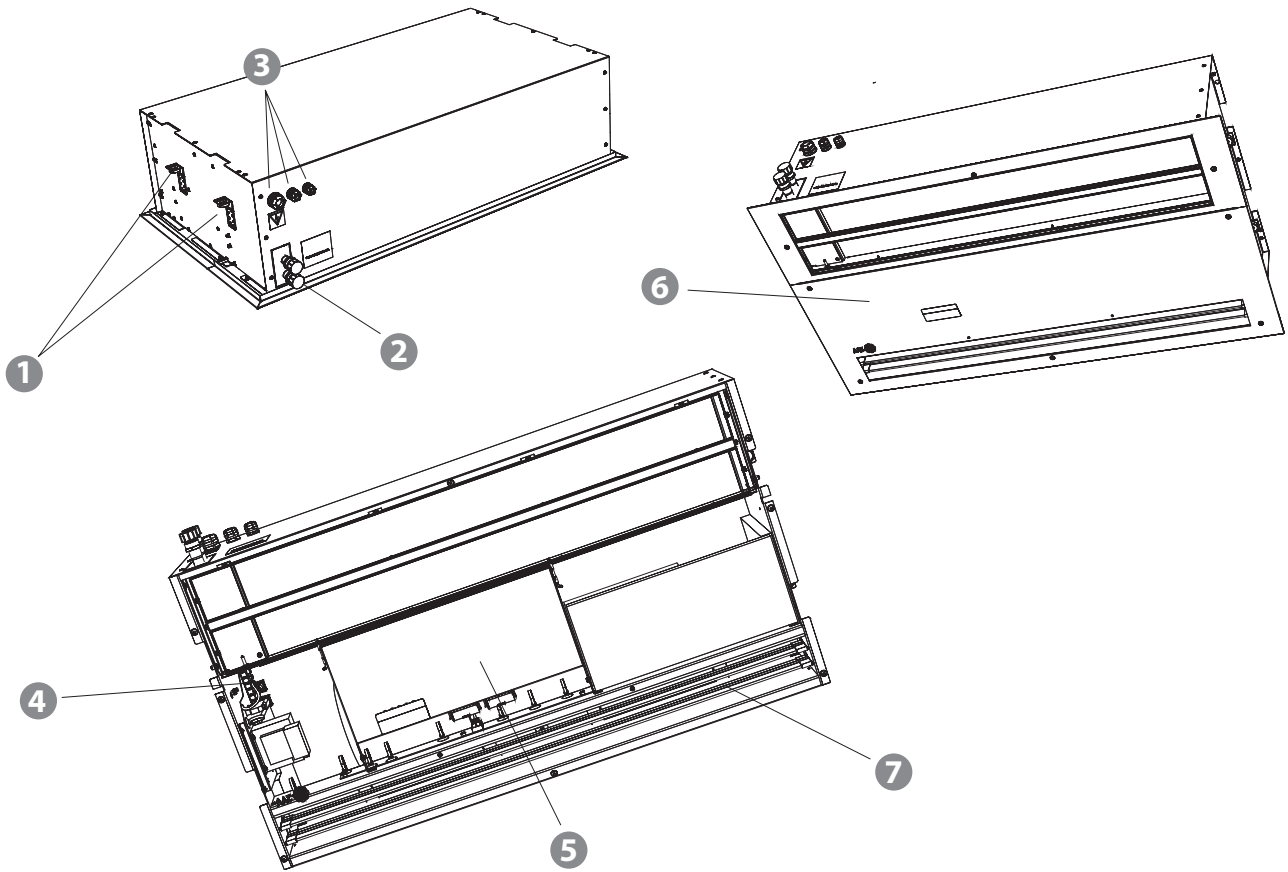
- If the curtain has been transported at temperatures below 0° C, it will be necessary to let it sit for at least 2 hours under normal operating conditions after unpacking, without turning it on. This will allow the air curtain's interior temperature to stabilise.



All used packaging materials are environmentally friendly and may be reused or recycled.  
Take an active part in environmental protection and see that packaging materials are correctly disposed of or repurposed.

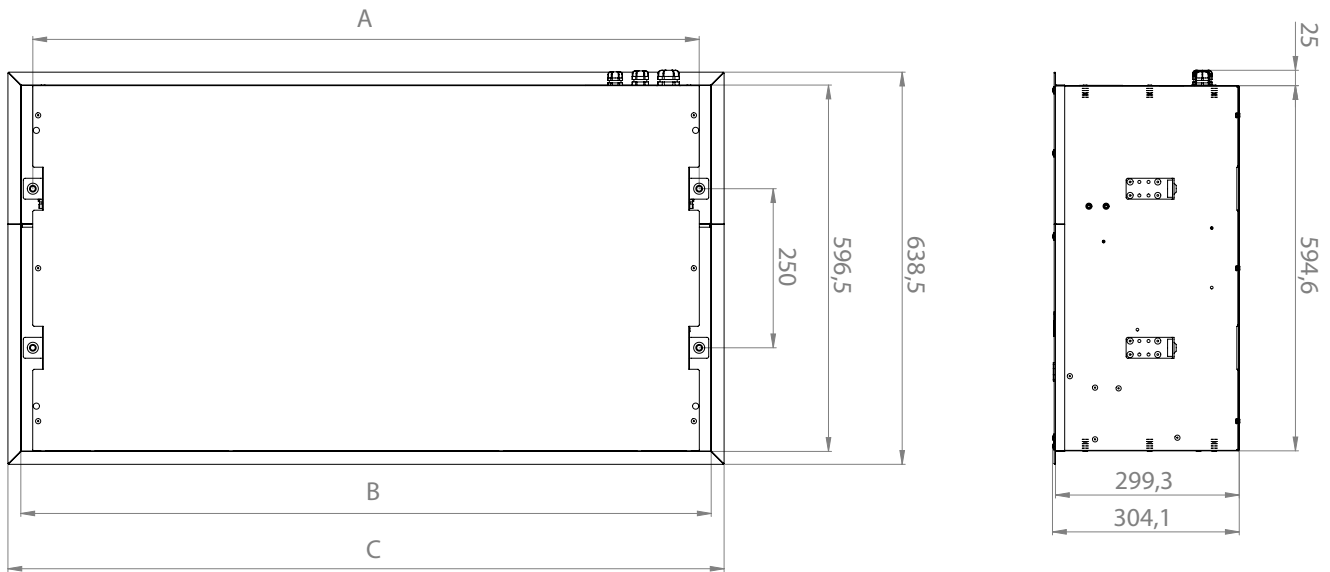


### 3. MAIN PARTS



- ① Suspension holders
- ② Water coil connection  $\frac{3}{4}$ "
- ③ Power supply cable plug
- ④ Power supply connectors and fusse location
- ⑤ Control modul socket
- ⑥ Inlet face cover
- ⑦ Outlet grid

## 4. DIMENSIONS



Type	Spacing of installation holes A [mm]	Length B [mm]	Length of cover C (mm)
VCF-x-100-x-...	1085	1124,1	1166,1
VCF-x-150-x-...	1585	1624,1	1666,1
VCF-x-200-x-...	2085	2124,1	2166,1
VCF-x-250-x-...	2465	2504,1	2546,1

## 5. TECHNICAL PARAMETERS

Type	Max. height doors [m]	Air output [m <sup>3</sup> /h]	Noise* [dB(A)]	Heater output [kW]	Heater power supply [V/A]	Fan power supply [V/A]	Weight [kg]
VCF-B-100-E-...	4	2250	57,9	9,1	400/15,5	230/2,2	39,5
VCF-B-150-E-...		3230	60,2	14,7	400/25,2	230/3,3	54,5
VCF-B-200-E-...		4360	61,2	19,1	400/31,3	230/4,4	71
VCF-B-250-E-...		5300	62,8	24,5	400/41,1	230/5,4	85
VCF-B-100-V-...		2140	57,5	24,77**	-	230/2,2	41
VCF-B-150-V-...		3100	59,6	38,77**	-	230/3,3	56
VCF-B-200-V-...		4280	61	52,61**	-	230/4,3	73
VCF-B-250-V-...		5140	62,5	62,29**	-	230/5,4	87

The distance at which the average velocity of the air current flow drops to 3m/s. For optimal conditions and maximum performance of the equipment.

\* Acoustic pressure at a distance of 3 m from the curtain.

\*\* With water temperature gradient of 90°/70° C and temperature of suctioned air at +18°C

\*\*\* With water temperature gradient of 40°/30° C and temperature of suctioned air at +18°C

## 5. TECHNICAL PARAMETERS

Type	Max. height doors [m]	Air output [m <sup>3</sup> /h]	Noise* [dB(A)]	Heater output [kW]	Heater power supply [V/A]	Fan power supply [V/A]	Weight [kg]
VCF-B-100-S-...	4	2270	58,3	-	-	230/2,2	37,5
VCF-B-150-S-...		3280	60,2	-	-	230/3,4	51
VCF-B-200-S-...		4400	61,5	-	-	230/4,2	66
VCF-B-250-S-...		5460	62,7	-	-	230/5,4	80
VCF-C-100-E-...	5	2960	61,2	9,6	400/17,9	230/4,0	44
VCF-C-150-E-...		4080	62,7	14,7	400/27,2	230/5,2	60
VCF-C-200-E-...		5180	64	19	400/34,3	230/6,8	75,5
VCF-C-250-E-...		6020	65,8	23,6	400/42,8	230/7,9	90
VCF-C-100-V-...		2800	61,2	29,13**	-	230/3,8	45,5
VCF-C-150-V-...		3900	62,5	44,57**	-	230/5,2	61
VCF-C-200-V-...		5070	63,7	56,99**	-	230/6,5	77
VCF-C-250-V-...		5860	65,6	67,3**	-	230/7,6	91,5
VCF-C-100-W-...		2530	61,6	13,47***	-	230/3,6	51,5
VCF-C-150-W-...		3500	62,6	19,03***	-	230/4,8	70,5
VCF-C-200-W-...		4670	63,7	25,71***	-	230/6,0	89
VCF-C-250-W-...		5260	65,2	29,81***	-	230/7,1	106
VCF-C-100-S-...		3020	61,9	-	-	230/3,9	42
VCF-C-150-S-...		4160	63	-	-	230/5,2	56,5
VCF-C-200-S-...		5270	64,2	-	-	230/6,7	71
VCF-C-250-S-...		6100	65,7	-	-	230/7,9	84

The distance at which the average velocity of the air current flow drops to 3m/s. For optimal conditions and maximum performance of the equipment.

\* Acoustic pressure at a distance of 3 m from the curtain.

\*\* With water temperature gradient of 90°/70° C and temperature of suctioned air at +18°C

\*\*\* With water temperature gradient of 40°/30° C and temperature of suctioned air at +18°C

### Air curtains with electrical heater

Type	Air flow [m <sup>3</sup> /h]	Heater output [kW]	Output temperature Δt [°C]
VCF-B-100-E-...	2250	9,1	12,1
VCF-B-150-E-...	3230	14,7	13,5
VCF-B-200-E-...	4360	19,1	13,1
VCF-B-250-E-...	5300	24,5	13,8
VCF-C-100-E-...	2960	9,6	9,7
VCF-C-150-E-...	4080	14,7	10,7
VCF-C-200-E-...	5180	19	10,9
VCF-C-250-E-...	6020	23,6	11,7

## 5. TECHNICAL PARAMETERS

**Air curtains with a water coil for a water temperature gradient of 90°/70° C and at an intake air temperature of +18° C**

Type	Air flow [m <sup>3</sup> /h]	Heat output [kW]	Outlet temperature [°C]	Water flow [l/s]	Pressure loss [kPa]
VCF-B-100-V-...	2140	24,77	52,7	0,29	12
VCF-B-150-V-...	3100	38,77	55,5	0,46	29,1
VCF-B-200-V-...	4280	52,61	54,9	0,62	24,1
VCF-B-250-V-...	5140	62,29	54,4	0,74	17,8
VCF-C-100-V-...	2800	29,13	49,2	0,35	14,5
VCF-C-150-V-...	3900	44,57	52,3	0,53	35,1
VCF-C-200-V-...	5070	56,99	51,7	0,68	27
VCF-C-250-V-...	5860	62,29	54,4	0,74	17,8

**Air curtains with a water coil for a water temperature gradient of 80°/60° C and at an intake air temperature of +18° C**

Type	Air flow [m <sup>3</sup> /h]	Heat output [kW]	Outlet temperature [°C]	Water flow [l/s]	Pressure loss [kPa]
VCF-B-100-V-...	2140	20,28	46,4	0,24	8,8
VCF-B-150-V-...	3100	31,78	48,8	0,38	20,8
VCF-B-200-V-...	4280	43,15	48,3	0,51	17,7
VCF-B-250-V-...	5140	51,07	47,8	0,61	13,4
VCF-C-100-V-...	2800	23,88	43,6	0,28	10,9
VCF-C-150-V-...	3900	36,57	46,1	0,43	25,3
VCF-C-200-V-...	5070	46,72	45,6	0,55	19,8
VCF-C-250-V-...	5860	51,07	47,8	0,61	13,4

**Air curtains with a water coil for a water temperature gradient of 70°/50° C and at an intake air temperature of +18° C**

Type	Air flow [m <sup>3</sup> /h]	Heat output [kW]	Outlet temperature [°C]	Water flow [l/s]	Pressure loss [kPa]
VCF-B-100-V-...	2140	15,98	40,4	0,19	6,2
VCF-B-150-V-...	3100	25,07	42,3	0,3	14,2
VCF-B-200-V-...	4280	34,05	41,9	0,4	12,4
VCF-B-250-V-...	5140	40,28	41,5	0,48	9,7
VCF-C-100-V-...	2800	18,82	38,2	0,22	7,9
VCF-C-150-V-...	3900	28,87	40,2	0,34	17,2
VCF-C-200-V-...	5070	36,88	39,8	0,44	13,8
VCF-C-250-V-...	5860	40,28	41,5	0,48	9,7

## 5. TECHNICAL PARAMETERS

**Air curtains with a water coil for a water temperature gradient of 60°/40° C and at an intake air temperature of +18° C**

Type	Air flow [m <sup>3</sup> /h]	Heat output [kW]	Outlet temperature [°C]	Water flow [l/s]	Pressure loss [kPa]
VCF-B-100-V-...	2140	11,83	34,6	0,14	4,1
VCF-B-150-V-...	3100	18,59	36	0,22	8,8
VCF-B-200-V-...	4280	25,25	35,7	0,3	8,1
VCF-B-250-V-...	5140	29,85	35,4	0,35	6,6
VCF-C-100-V-...	2800	13,93	32,9	0,17	5,4
VCF-C-150-V-...	3900	21,41	34,5	0,25	10,8
VCF-C-200-V-...	5070	27,28	34,1	0,32	8,9
VCF-C-250-V-...	5860	29,85	35,4	0,35	6,6

**Air curtains with a water coil for a water temperature gradient of 40/30° C and at an intake air temperature of +18° C**

Type	Air flow [m <sup>3</sup> /h]	Heat output [kW]	Outlet temperature [°C]	Water flow [l/s]	Pressure loss [kPa]
VCF-C-100-W-...	2530	13,47	34	0,2	13,2
VCF-C-150-W-...	3500	19,03	34,3	0,4	14,1
VCF-C-200-W-...	4670	25,71	34,5	0,5	13,3
VCF-C-250-W-...	5260	29,81	35	0,6	16,3

**Air curtains with a water coil for a water temperature gradient of 35/25° C and at an intake air temperature of +18° C**

Type	Air flow [m <sup>3</sup> /h]	Heat output [kW]	Outlet temperature [°C]	Water flow [l/s]	Pressure loss [kPa]
VCF-C-100-W-...	2530	9,4	29,2	0,2	8,6
VCF-C-150-W-...	3500	13,3	29,4	0,3	8,2
VCF-C-200-W-...	4670	18	29,6	0,3	8,4
VCF-C-250-W-...	5260	21	30	0,4	9,4



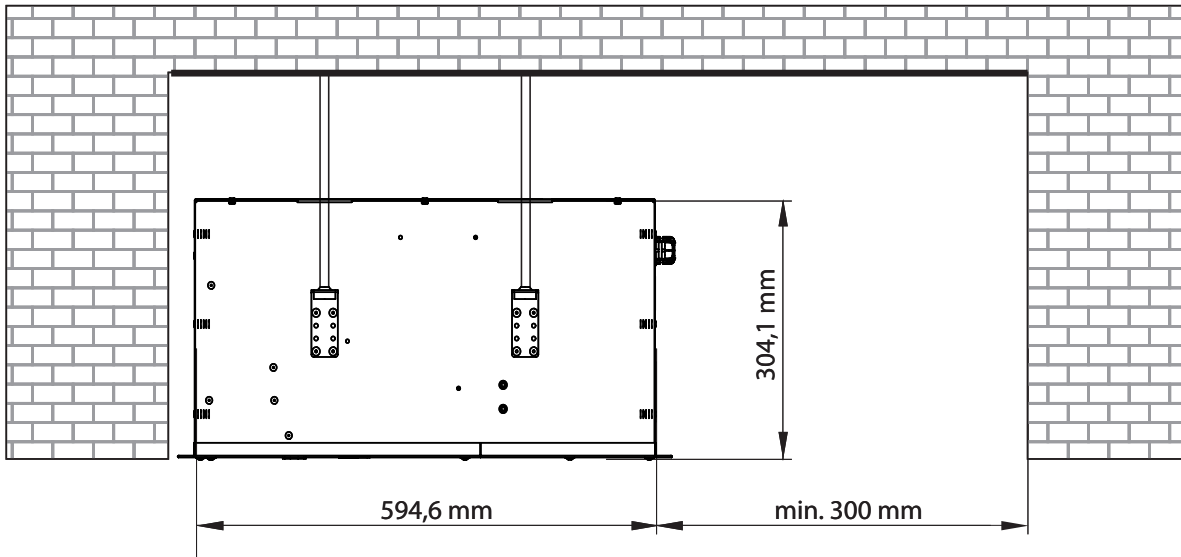
**The warm-water temperature coil, made of copper-aluminium alloy, is designed for a maximum operational water temperature of +100° C and a maximum operating pressure of 1.6 MPa.**



## 6. INSTALLATION

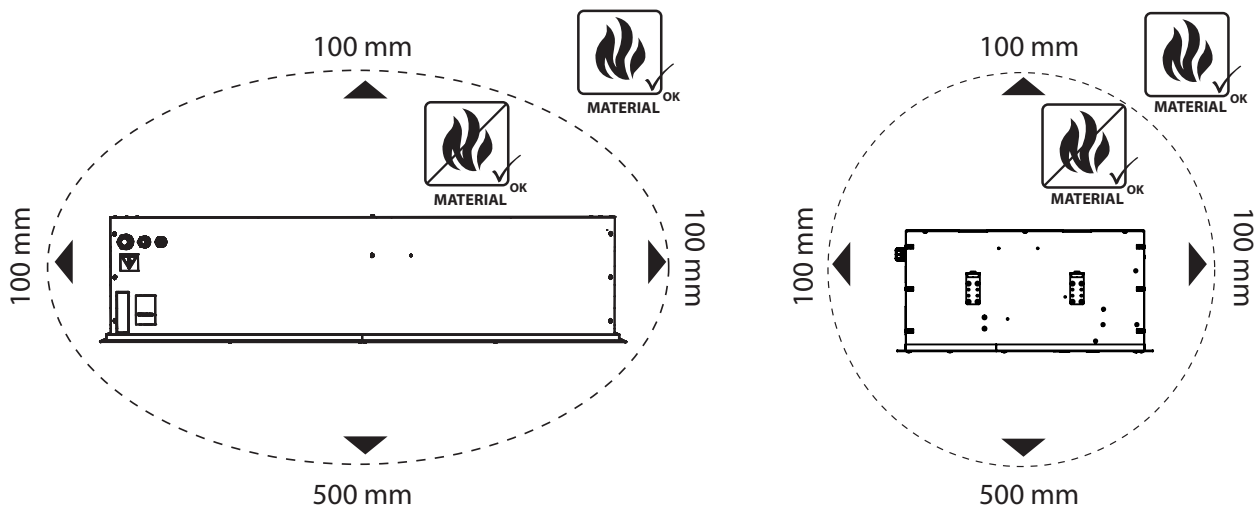
### 6.1 CHOOSE THE INSTALLATION SITE AND INSTALL THE AIR CURTAIN

#### 6.1-1 Built up dimensions



- The air curtain must be installed only in a horizontal position!
- The curtain can be installed over the door opening. All separation distances for flammable materials and safe use of air curtain has to be kept.
- The installed position of the air curtain can be chosen to accommodate the service hood.
- It must be operated in dry, covered indoor spaces with an ambient temperature between +5° C and +40° C and relative humidity up to 80%
- The air curtain is not intended for moving air that contains combustible or explosive mixtures, chemical fumes, coarse dust, soot, grease, poisons, infectious germs, etc.

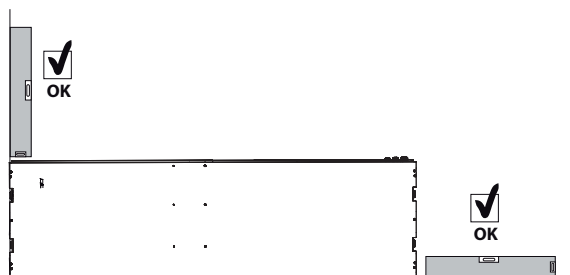
#### 6.1.-2 Clearance distance



## 6. INSTALLATION

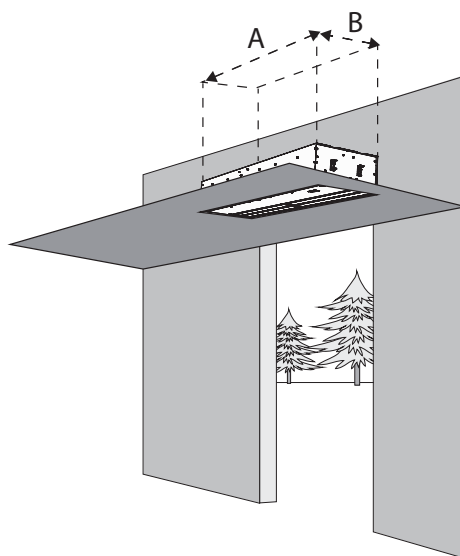
### 6.1-3 Measure the installation site

- Only nonflammable materials (those that do not burn, smoulder or carbonise) or fire-resistant materials (those that do not burn, but mainly smoulder, e.g., plaster board) can be kept within 100 mm in any direction of the air curtain. However, these materials should not block the intake or outlet openings.
- For air curtains with an electric heater, safe distances from building structural surfaces and flammable objects are as follows:
- The safe distance for flammable materials in the direction of the main air flow (i.e., behind the outlet) is 500 mm,
- The safe distance for flammable materials above the air curtain is 500 mm,
- The safe distance for flammable materials in other directions is 100 mm.



Recommended size of ceiling aperture for inserting the curtain:

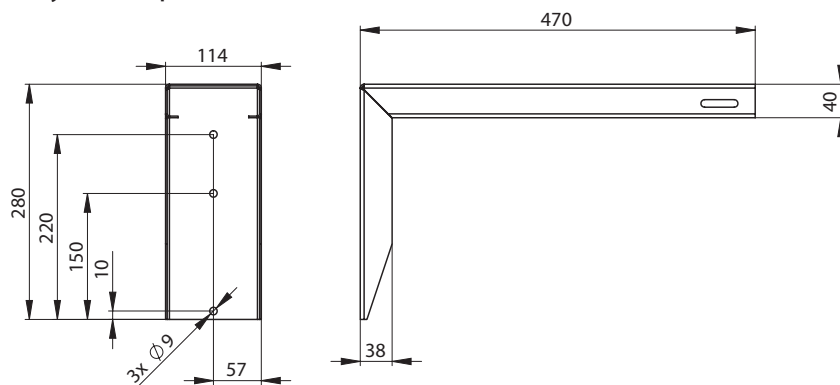
Type	A [mm]	B [mm]
VCF-X-100-X...	1140	620
VCF-X-150-X...	1640	620
VCF-X-200-X...	2140	620
VCF-X-250-X...	2520	620



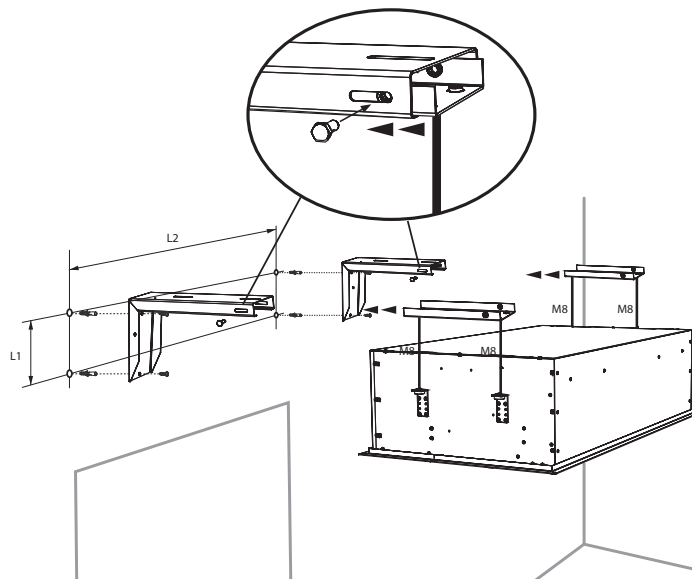
- Air curtain is fixed to the ceiling by 4 threaded rods, which are not included delivery.
- It is necessary to ensure proper in the supply at the site according to the exact type of use of the air curtain and based on its electric parameters.
- When using water heated air curtain, please ensure connection of the flow and return pipes.
- It is necessary to cut or otherwise make a hole according to the hereunder mentioned dimensions
- Drill four holes into the ceiling construction according to the dimensions scheme (see "Dimensions") for hanging of the air curtain to 4 anchoring points.
- Screw the air curtain directly to the ceiling without any space between its casing and ceiling, or use four threaded bars to reach the required distance from the ceiling, according to the situation on the site (see "Conditions for safety and proper function of the air curtain").



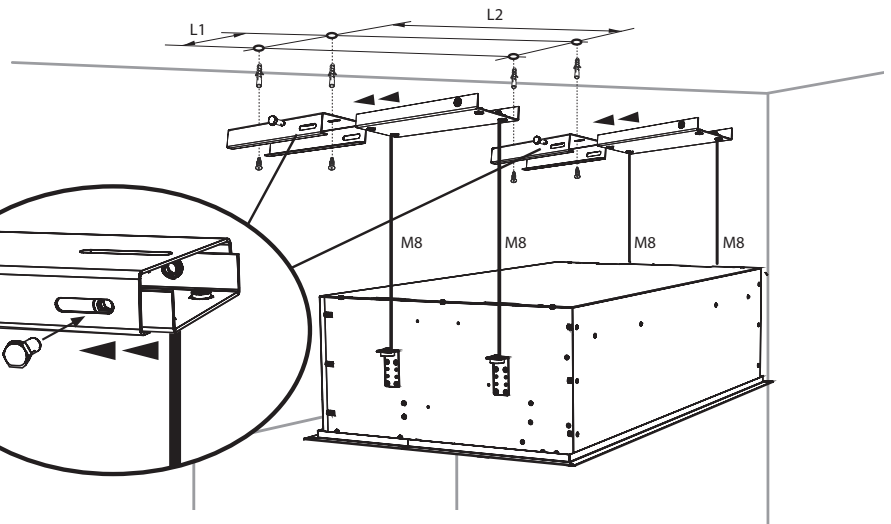
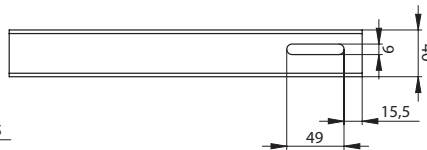
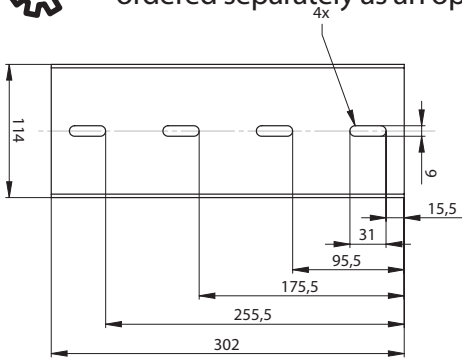
For wall installation use „Wall mounted bracket set“: VCS4-KONZ-STE. „Wall mounted bracket SET“ has to be ordered separately as an optional accessory.



## 6. INSTALLATION



For ceiling installation use „Ceiling holder SET“: VCS4-KONZ-STR. „Ceiling holder SET“ has to be ordered separately as an optional accessorie.



Type	L1 [mm]	L2 [mm]
VCF-X-100-X...	1085	250
VCF-X-150-X...	1585	250
VCF-X-200-X...	2085	250
VCF-X-250-X...	2465	250

### 6.1-4 Suspend the air curtain on the threaded bars and ensure that the suspension will not come loose



- In consideration of the air curtain weight into account, it is necessary to use either a suitable lifting device (forklift, etc.) or use two additional individuals to support it, as long as it is not securely fastened.



- Suspension has to carry the weight of the air curtain!

## 6. INSTALLATION

### 6.2 CONNECT THE WATER INTAKE AND OUTLET HOSES

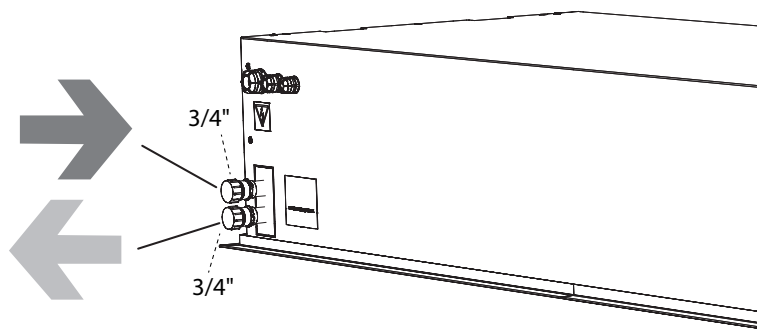
VCF-x-xxx-V(W)-...



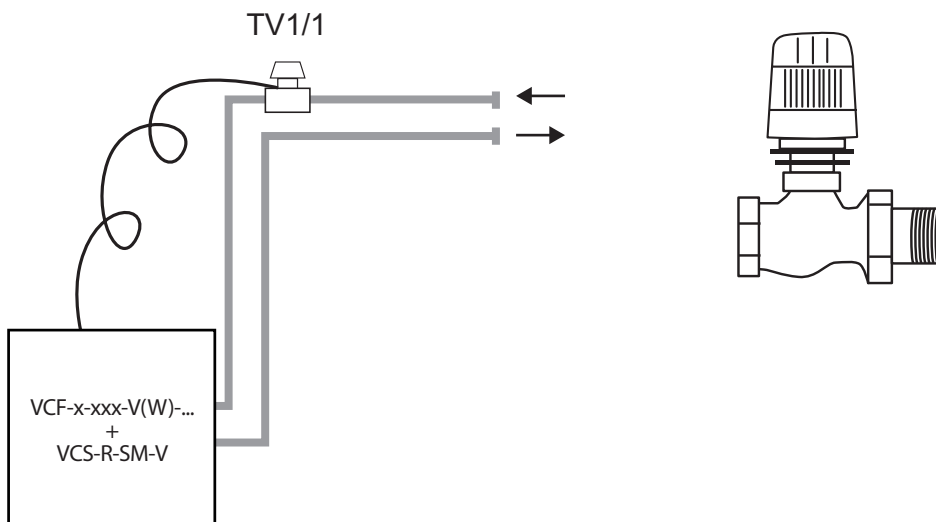
- A flexible hoses with a G3/4" connection



- Connection and pressure testing of the heater must be carried out by a person with professional plumbing knowledge, who must observe current standards and regulations of the given country.
- The maximum water temperature is +100° C. The maximum pressure is 1.6 MPa. We recommend installing a stop valve on the intake and outlet of the heater to allow the water supply to be shut off.



#### 6.2-1 Regulating the water coil with a thermostatic valve TV1/1 (Air curtains with water coil and SM control module: VCS-R-SM-V-2)



Thermostatic valve TV1/1 is an required accessorie for control module VCS-R-SM-V-2

## 6. INSTALLATION

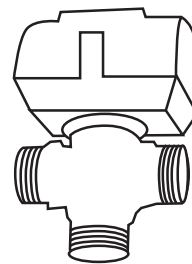
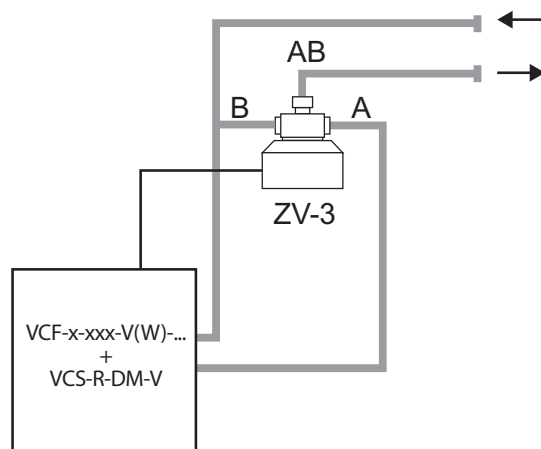


- Detailed description of water coil regulation by thermostatic valve (TV1/1), including it's connection, refer the instruction manual for thermostatic valve TV1/1.

### 6.2-2 Regulating the water coil with a ZV-3 zone valve (Air curtains with water coil and DM control module: VCS-R-DM-V-2)



Zone valve ZV-3 is an required accessorie for control module VCS-R-DM-V-2

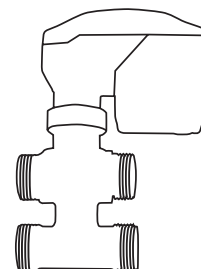
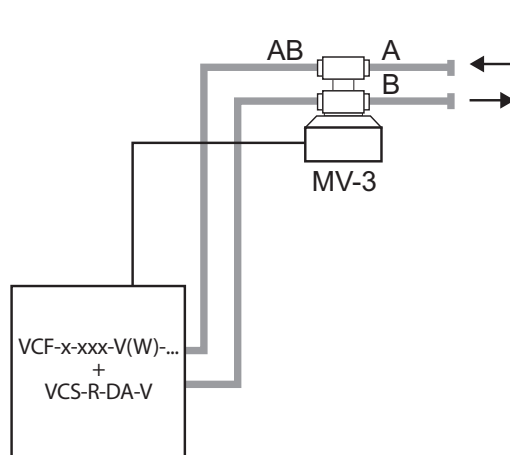


- Detailed description of water coil regulation by zone valve (ZV-3), including it's connection, refer the instruction manual for zone valve ZV-3.

### 6.2-3 Regulating the water coil with an mixing valve MV-3 (Air curtains with water coil and DA control module: VCS-R-DA-V-2)



Mixing valve MV-3 is an required accessorie for control module VCS-R-DA-V-2



- Detailed description of water coil regulation by mixing valve (MV-3), including it's connection, refer the instruction manual for mixing valve MV-3.

## 6. INSTALLATION

### 6.3 ELECTRO INSTALLATION



- The air curtain's electrical connection must be based on a professional design by a qualified electrical systems engineer.
- Installation must be carried out by a professionally trained electrical worker. All applicable national regulations and directives must be observed.
- The electrical schematics on the product take priority over those presented in this manual!
- Prior to installation, check to see if the terminal markings correspond to the markings on the electrical connections diagram. When in doubt, contact your supplier and do not connect the air curtain under any circumstances.
- Never reach inside the air curtain unless the main electrical supply has been turned off!
- If the product is connected to any control system other than the original one, the regulation and measurement components must be connected by the company that supplied the system.
- The electrical contractor defines the minimum size of the feed cable according to the standards applicable at the place of installation, the location for installing the cable, the surrounding conditions, and the curtain's technical parameters.



- **Special attention should be paid to the capacity of the distribution network of the air curtain with electric heater in terms of the supply of the appropriate phase current values for limiting the voltage fluctuations and flickering in the network.**

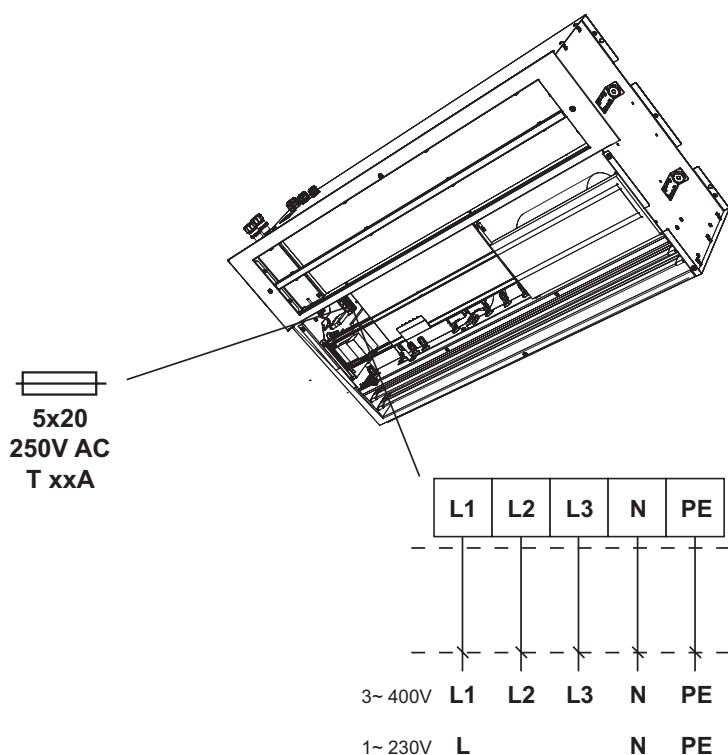
Minimal cable dimensions:

Type	Cable dimension
VCF-x-xxx-S...	3Cx1,5
VCF-x-xxx-V...	3Cx1,5
VCF-x-xxx-W...	3Cx1,5
VCF-x-100-E...	5Cx2,5
VCF-x-150-E...	5Cx4
VCF-x-200-E...	5Cx6
VCF-x-250-E...	5Cx10

Fuse specification:

VCF-x-xxx...	xxx	x	
		B	C
100	100	3,15A	5A
	150	4A	6,3A
	200	6,3A	8A
	250	8A	12A

## 6. INSTALLATION



- The electrical parameters are shown on the manufacturer's label, which is located under the air curtain's service cover.

Air curtain Type	
U = Voltage	I = Net current
f = Frequency	P = Output
n = Speed	m = Weight
ph = Phase	IP = IP rating
av = Air output	ver =
Serial number	

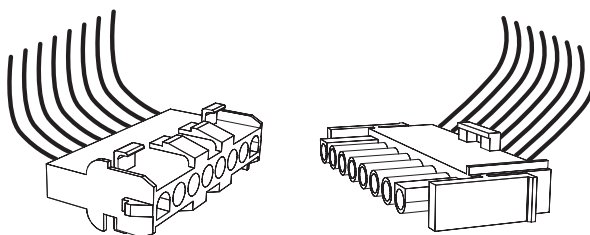
- The air curtain must be protected by an appropriate circuit breaker, in accordance with its electrical parameters. For safety reasons, over-designed protection is not recommended.
- The air curtain must be connected using the TN-S system, which means that the neutral conductor must always be connected.
- A main cut-off switch must be placed in the electrical supply network, disconnecting all poles of the network.
- The electrical enclosure of the air curtain is IP 20.



FINESSE air curtains are equipped with a fuse (with T characteristic – slow-blow). This safety fuse protects the electronic panel and fans. It is located under the service cover next to the main power supply connectors.

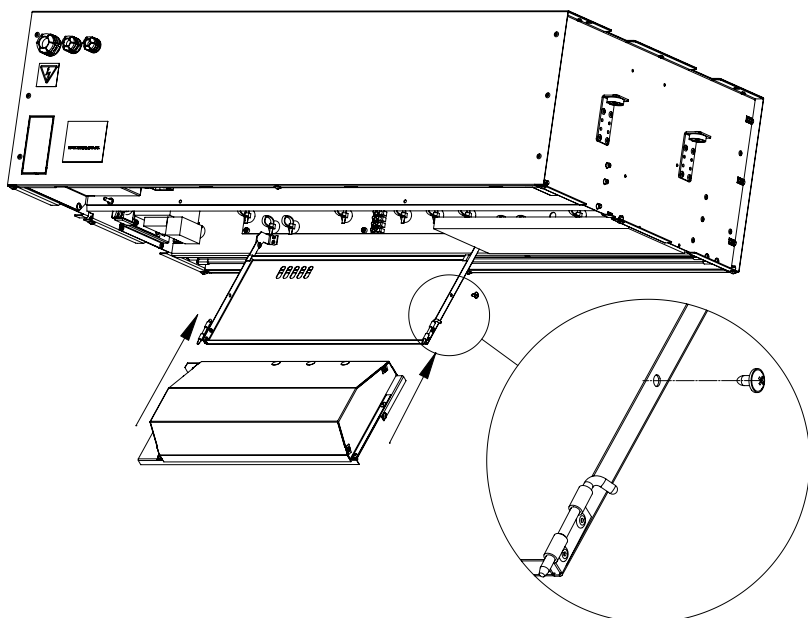
### 6.4 CONTROL MODULES

Air curtains FINESSE are produced with universal connection interface. Air curtains FINESSE can be controlled by one of following control modules. Control modules are required accessories and has to be orderot separately. Air curtain is connected with control module by „Quick connection sockets“



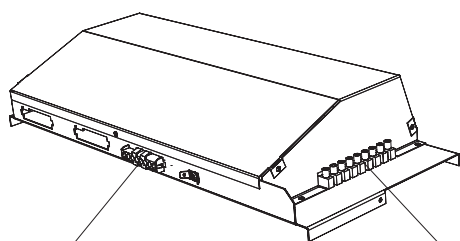
## 6. INSTALLATION

### 6.4-1 Insert control module to the air curtain



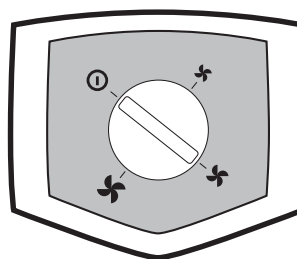
### 6.4-2 SM control module (suitable with all types of air curtains) Types of SM control modules:

**VCS-R-SM-S** (Suitable with types without heating - VCF-x-xxx-S-...)



X2 (WHITE)

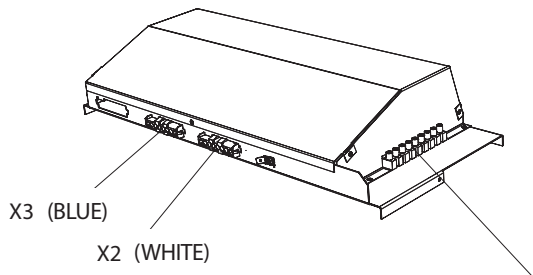
DK1
DK2
1
2
3
4
5



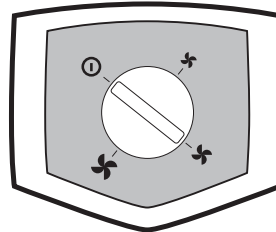


## 6. INSTALLATION

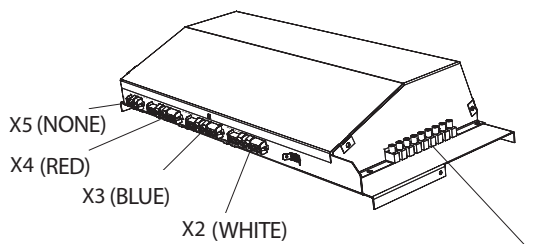
**VCS-R-SM-V** (Suitable with types with water coil VCF-x-xxx-V(W)-...)



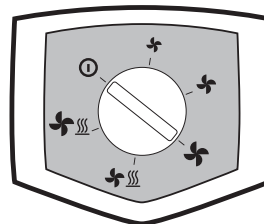
DK1
DK2
1
2
3
4
5



**VCS-R-SM-E** (Suitable with types with electric heater VCF-x-xxx-E-...)



DK1
DK2
1
2
3
4
5
6
7



## 6. INSTALLATION



For detailed information of SM control modules installation into FINESSE air curtains read carefully: QUICK START manual for SM control modules installation (delivered with control module)



For detailed information of SM control modules operation with FINESSE air curtains read carefully: Full manual: OPERATION AND MAINTANANCE of FINESSE with SM control module

### 6.4-2.1 Function overview of SM control modules

Air curtains execution		Air only (VCF-x-xxx-S-...)	With electric heater (VCF-x-xxx-E-...)	With water coil (VCF-x-xxx-V-..., VCF-C-xxx-W-...)
Required accessories	Control module	SM (VCS-R-SM-S)	SM (VCS-R-SM-E)	SM (VCS-R-SM-V)
	„External temperature sensor“	x	x	x
	Water coil regulator	x	x	„TV1/1 (Thermostatic valve)“
Optional accessories	Door switch	DS	DS	DS
	Door contact	x	x	x
	Room thermostat	x	x	x
	Ceiling mounted brackets	VCS4-KONZ-STR.	VCS4-KONZ-STR.	VCS4-KONZ-STR.
	Wall mounted brackets	VCS4-KONZ-STE.	VCS4-KONZ-STE.	VCS4-KONZ-STE.
	EXIT sign	VCS4-EXIT	VCS4-EXIT	VCS4-EXIT

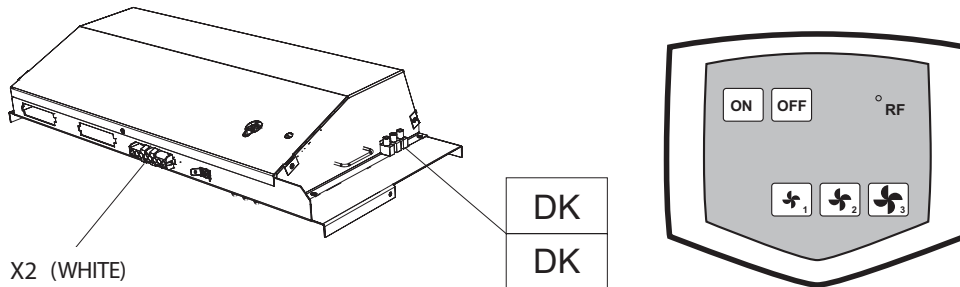
Air curtains execution	Air only (VCF-x-xxx-S-...)	With electric heater (VCF-x-xxx-E-...)	With water coil (VCF-x-xxx-V-..., VCF-C-xxx-W-...)
Control module	SM (VCS-R-SM-S)	SM (VCS-R-SM-E)	SM (VCS-R-SM-V)
Type of control	Manual	Manual	Manual
Speed of the fan	***	***	***
Electric heater regulation	x	2-steps	x
Water heater regulation	x	x	Thermostatic valve
Control panel connection	„Power cable 230V“	„Power cable 230V“	„Power cable 230V“
Number of quick connection sockets	1	4	2
Door switch behavior	ON/OFF	ON/OFF	ON/OFF
Timer	x	x	x
Temperature measurement	x	x	x
Operation state indication	x	x	x
Radio signal indication	x	x	x
Cleaning interval indication	x	x	x
Water heater anti-freeze protection	x	x	x
Aftercooling of electric heater	x	x	x
Chaining of the air curtains	x	x	x

## 6. INSTALLATION

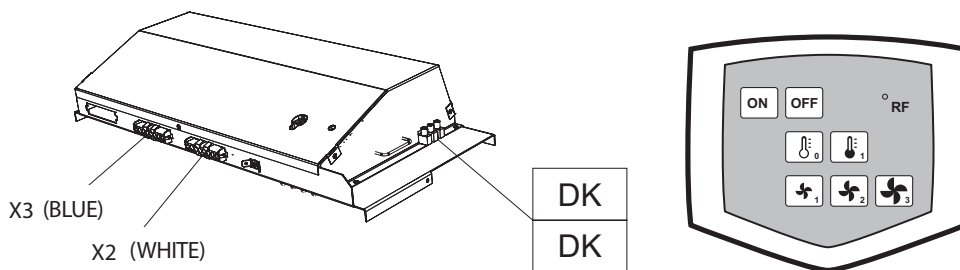
### 6.4-3 DM control module (suitable with all types of air curtains))

#### Types of DM control modules:

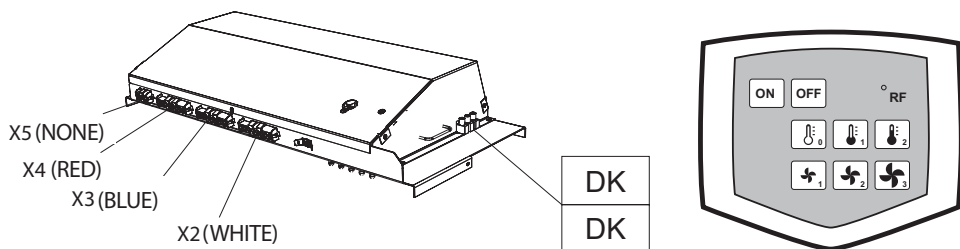
**VCS-R-DM-S** (Suitable with all types without heating - VCF-x-xxx-S-...)



**VCS-R-DM-V** (Suitable with all types with water coil VCF-x-xxx-V(W)-...)



**VCS-R-DM-E** (Suitable with types with electric heater VCF-x-xxx-E-...)



For detailed information of DM control modules installation into FINESSE air curtains read carefully: QUICK START manual for DM control modules installation (delivered with control module)

For detailed information of DM control modules operation with FINESSE air curtains read carefully: Full manual: OPERATION AND MAINTANANCE of FINESSE with DM control module

## 6. INSTALLATION

### 6.4-3.1 Function overview of DM control modules

Air curtains execution		Air only (VCF-x-xxx-S-...)	With electric heater (VCF-x-xxx-E-...)	With water coil (VCF-x-xxx-V-..., VCF-C-xxx-W-...)
Required accessories	Control module	DM (VCS-R-DM-S)	DM (VCS-R-DM-E)	DM (VCS-R-DM-V)
	„External temperature sensor“	x	x	x
	Water coil regulator	x	x	“ZV3 (Zone valve)“
Optional accessories	Door switch	x	x	x
	Door contact	DK-1	DK-1	DK-1
	Room thermostat	x	x	TER-P
	Ceiling mounted brackets	VCS4-KONZ-STR.	VCS4-KONZ-STR.	VCS4-KONZ-STR.
	Wall mounted brackets	VCS4-KONZ-STE.	VCS4-KONZ-STE.	VCS4-KONZ-STE.
	EXIT sign	VCS4-EXIT	VCS4-EXIT	VCS4-EXIT

Air curtains execution	Air only (VCF-x-xxx-S-...)	With electric heater (VCF-x-xxx-E-...)	With water coil (VCF-x-xxx-V-..., VCF-C-xxx-W-...)
Control module	DM (VCS-R-DM-S)	DM (VCS-R-DM-E)	DM (VCS-R-DM-V)
Type of control	Manual	Manual	Manual
Speed of the fan	***	***	***
Electric heater regulation	x	2-steps	x
Water heater regulation	x	x	Zone valve
Control panel connection	Radio signal	Radio signal	Radio signal
Number of quick connection sockets	1	4	2
Door switch behavior	ON/OFF	ON/OFF	ON/OFF
Timer	x	x	x
Temperature measurement	x	x	Room thermostat
Operation state indication	LED	LED	LED
Radio signal indication	LED/BEEP sound	LED/BEEP sound	LED/BEEP sound
Cleaning interval indication	x	x	x
Water heater anti-freeze protection	x	x	x
Aftercooling of electric heater	x	30 s	x
Chaining of the air curtains	In radio signal range	In radio signal range	In radio signal range



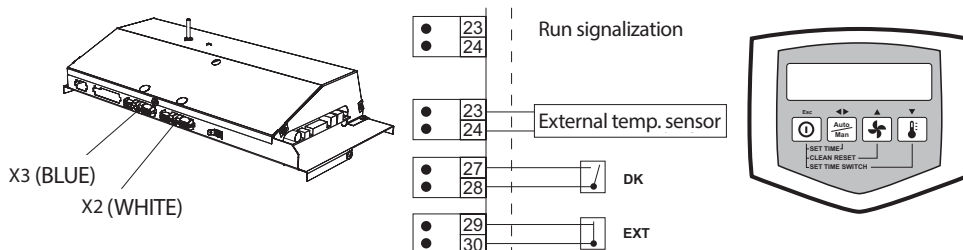
- Air curtains can be connected by chaining with up to a maximum of 6 pieces.
- The distance between first and last curtain should be a maximum of 40 metres.

## 6. INSTALLATION

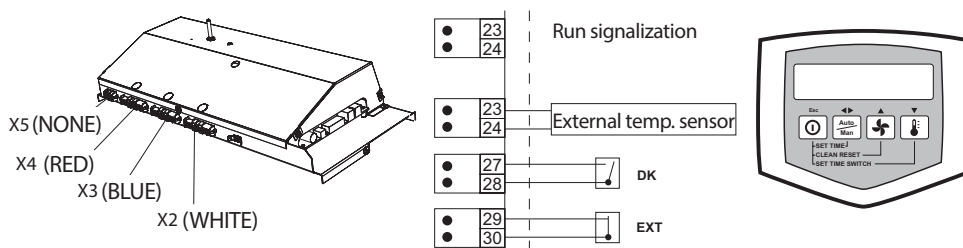
### 6.4-4 DA control module (suitable with air curtains with water or electric heater)

#### Types of control modules:

VCS-R-DA-V (Suitable with all types with water coil VCF-x-xxx-V(W)-...)



VCS-R-DA-E (Suitable with types with electric heater VCF-x-xxx-E-...)



For detailed information of DA control modules installation into FINESSE air curtains read carefully: QUICK START manual for DA control modules installation (delivered with control module)

For detailed information of DA control modules operation with FINESSE air curtains read carefully: Full manual: OPERATION AND MAINTANANCE of FINESSE with DA control module

## 6. INSTALLATION

### 6.4-4.1 Function overview of DA control modules

Air curtains execution		With electric heater (VCF-x-xxx-E-...)	With water coil (VCF-x-xxx-V-..., VCF-C-xxx-W-...)
Required accessories	Control module	DA(VCS-R-DA-E)	DA(VCS-R-DA-V)
	„External temperature sensor“	„Included with control module“	„Included with control module“
	Water coil regulator	x	„MV-3 (Mixing valve)“
Optional accessories	Door switch	x	x
	Door contact	DK-1	DK-1
	Room thermostat	x	x
	Ceiling mounted brackets	VCS4-KONZ-STR.	VCS4-KONZ-STR.
	Wall mounted brackets	VCS4-KONZ-STE.	VCS4-KONZ-STE.
	EXIT sign	VCS4-EXIT	VCS4-EXIT

Air curtains execution	With electric heater (VCF-x-xxx-E-...)	With water coil (VCF-x-xxx-V-..., VCF-C-xxx-W-...)
Control module	DA(VCS-R-DA-E)	DA(VCS-R-DA-V)
Type of control	Manual/Automatic	Manual/Automatic
Speed of the fan	***	***
Electric heater regulation	3 steps / Fluently	x
Water heater regulation	x	Mixing valve
Control panel connection	Radio signal	Radio signal
Number of quick connection sockets	4	2
Door switch behavior	OFF/1st speed / 2nd speed	OFF/1st speed / 2nd speed
Timer	Day/Week	Day/Week
Temperature measurement	„2 internal sensors 1 external sensor“	„2 internal sensors 1 external sensor“
Operation state indication	LCD	LCD
Radio signal indication	BEEP sound	BEEP sound
Cleaning interval indication	Time interval	Time interval
Water heater anti-freeze protection	x	Automatic
Aftercooling of electric heater	30s/1min	x
Chaining of the air curtains	In radio signal range	In radio signal range



- Air curtains can be connected by chaining with up to a maximum of 6 pieces.
- The distance between first and last curtain should be a maximum of 40 metres.

# 6. INSTALLATION

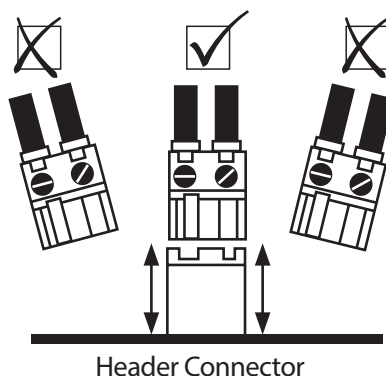
## 6.5 CONNECT THE EXTERNAL ACCESSORIES

Accessories overview

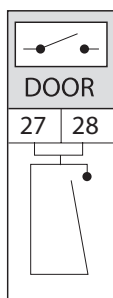
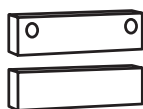
Air curtains execution		Air only (VCF-x-xxx-S-...)		With electric heater (VCF-x-xxx-E-...)			With water coil (VCF-x-xxx-V-..., VCF-C-xxx-W-...)		
Required accessories	Control module	SM(VCS-R-SM-S)	DM(VCS-R-DM-S)	SM(VCS-R-SM-E)	DM(VCS-R-DM-E)	DA(VCS-R-DA-E)	SM(VCS-R-SM-V)	DM(VCS-R-DM-V)	DA(VCS-R-DA-V)
	„External temperature sensor“	x	x	x	x	„Included with control module“	x	x	„Included with control module“
	Water coil regulator	x	x	x	x	x	„TV1/1 Thermo-static valve“	„ZV-3 (Zone valve)“	„MV-3 (Mixing valve)“
Optional accessories	Door switch	DS	x	DS	x	x	DS	x	x
	Door contact	x	DK-1	x	DK-1	DK-1	x	DK-1	DK-1
	Room thermostat	x	x	x	x	x	x	x	x
	Ceiling mounted brackets	VCS4-KONZ-STR.	VCS4-KONZ-STR.	VCS4-KONZ-STR.	VCS4-KONZ-STR.	VCS4-KONZ-STR.	VCS4-KONZ-STR.	VCS4-KONZ-STR.	VCS4-KONZ-STR.
	Wall mounted brackets	VCS4-KONZ-STE.	VCS4-KONZ-STE.	VCS4-KONZ-STE.	VCS4-KONZ-STE.	VCS4-KONZ-STE.	VCS4-KONZ-STE.	VCS4-KONZ-STE.	VCS4-KONZ-STE.
	EXIT sign	VCS4-EXIT	VCS4-EXIT	VCS4-EXIT	VCS4-EXIT	VCS4-EXIT	VCS4-EXIT	VCS4-EXIT	VCS4-EXIT



- When connecting external components, the electricity to the air curtain must be turned off.
- All external control components must be connected according to the electrical schematic. The connectors must be connected to the electrical board using reasonable force and always vertically to the base.



### 6.5-1 Door contact DK



- Isolated switching contact with a maximum voltage of 12V.
- Cable - Dual-core cable with a diameter of 0.5 mm. - Maximum length: 50 m.
- For DM and DA control modules only!

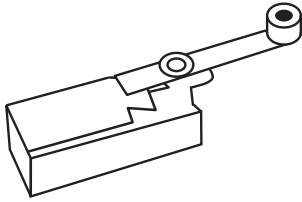
**Connectors on the DM control modules: DK/DK**  
**Connectors on the DA control modules: 27/28**



**Not included in delivery.**

## 6. INSTALLATION

### 6.5-2 Door switch DS



- Isolated switching contact with a maximum voltage of 230V. Cable - Dual-core cable with a diameter of 1.5 mm.
- Maximum length: 50 m..

**For SM control modules only!**

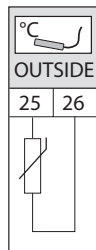
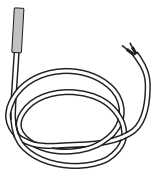
**Connectors on the SM control modules: DK1/DK2**



**Not included in delivery.**

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### 6.5-3 External temperature sensor



- Thermally-dependent resistive sensor

**For DA control modules only!**

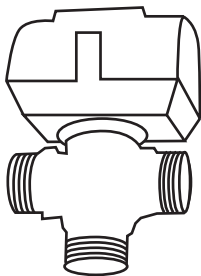
**Connectors on the DA control modules: 25/26**



**Included in delivery with VCS-R-DA-x**

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### 6.5-4 Zone valve ZV-3



- Zone valve for water heater regulation
- Cable – Three core cable with diameter of 1,5 mm, 230 V/ 50 Hz.

**For VCS-R-DM-V control modules only!**

**Connectors on the DM control modules: 1 /4 /5**

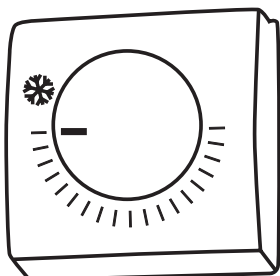


**Not included in delivery.**



## 6. INSTALLATION

### 6.5-5 Room thermostat TER-P



- Room thermostat for water coil regulation
- Cable – Two core cable with diameter of 1,5 mm, 230 V/ 50 Hz.

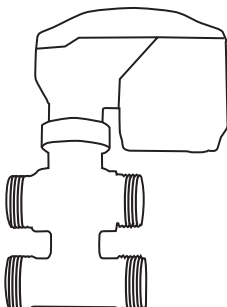
**For VCS-R-DM-V control module only!**  
**Connectors on the DM control modules: 2 / 3**



**Not included in delivery.**

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### 6.5-6 Mixing valve MV-3



- Mixing valve for water heater regulation
- Cable – Three core cable with diameter of 1,5 mm, 230 V/ 50 Hz.

**For VCS-R-DA-V control modules only!**

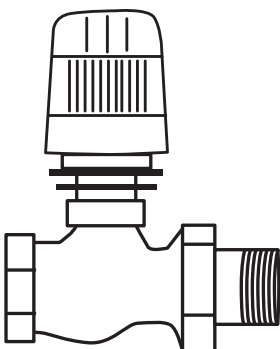
**Connectors on the DA control modules: 3 / 4 / 5**



**Not included in delivery.**

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### 6.5-7 Thermostatic valve TV1/1



- Thermostatic valve for water heater regulation

**For VCS-R-SM-V control modules only!**

**Connectors on the SM control module: NOT CONNECTED!**



**Not included in delivery.**

## 6. INSTALLATION

### 6.5-8 Exit sign

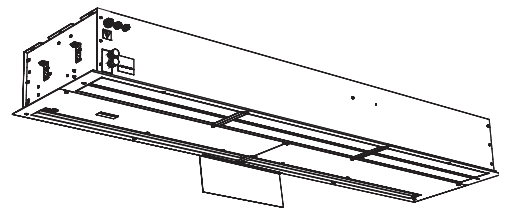
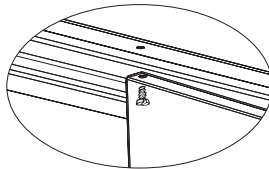
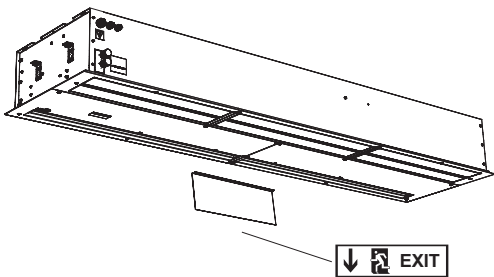


- Exit sign marking of emergency exit

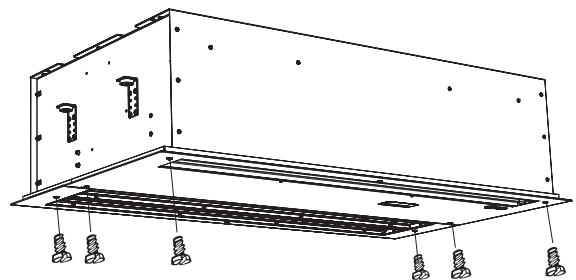
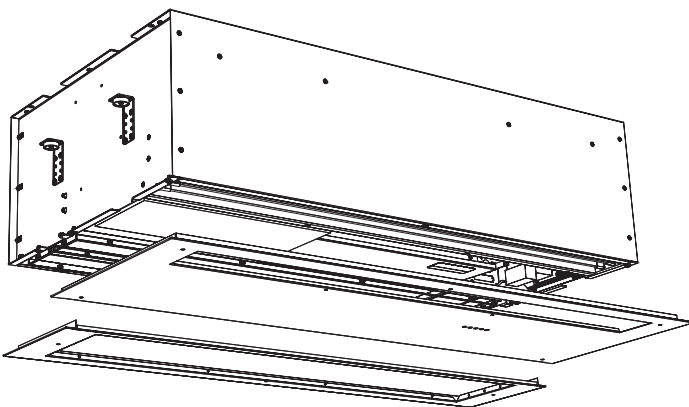
**For all types of VCS4x- air curtains!**



**Not included in delivery.**



### 6.6 COVERING THE AIR CURTAIN



## 7. INITIAL START-UP



Before putting the curtain into operation, check the following:

- Have any tools or other objects which could damage the curtain been left inside it?
- Is there a proper supply of electricity and, if necessary, heating water?
- Has the air curtain been properly closed?
- Has the control module been connected properly?

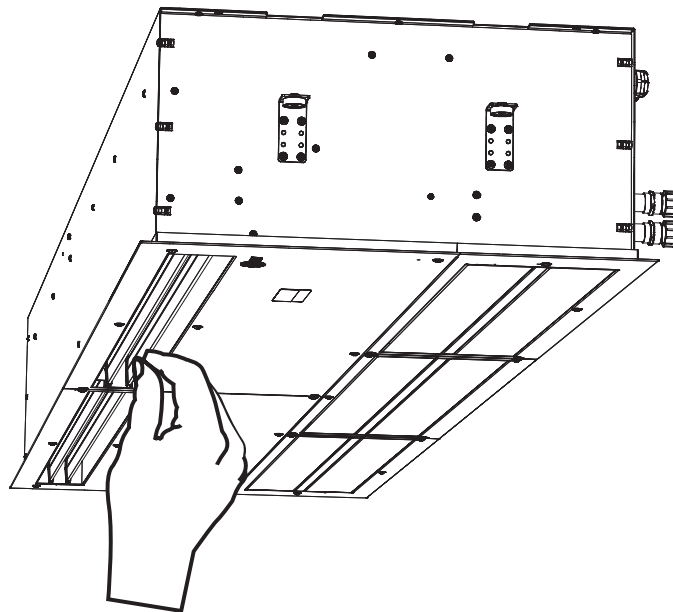


Before putting the curtain into operation, read carefully:

Full manual for OPERATION AND MAINTENANCE (delivered with control module)

### **7.1 SET AIR FLOW DIRECTION**

This is set by tilting the air curtain's fan louvers in the desired direction.



## 8. CONCLUSION

If you have any doubts or questions, do not hesitate to contact our sales or technical support department.



Before operation and maintenance, thoroughly read the section "Safe use of air curtains". It contains all instructions on the safe and correct use of the product.

## 9. CONTACT

### CONTACT

**Adresse**

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Poděbradská 289,  
530 09 Pardubice,  
**Czech Republic**

**Internet**

<http://www.2vv.cz/contact.distribution.php>



