



Air Curtains | 2017



rosenberg



AIRTECNICS: The Air Curtain Specialist



Founded in 1986 and placed in Castellar del Vallès (Barcelona), Airtècnics has a large experience producing air curtains, air handling units, fan boxes, fan filter units, axial fans, centrifugal fans and other special and OEM equipment.

We export our products to more than 45 countries worldwide.

Besides our own production, Airtècnics distributes a wide range of HVAC products, mostly produced by Rosenberg Group companies.

Loyal to our commitments regarding our customers, our products fulfill the highest standards of quality criteria.

We are proud of our highly qualified team composed by master engineers, designers, specialized technicians and skilled professionals, ready to assist you in any questions you may have in design, installation or service maintenance requirements.



Airtècnics headquarters in Castellar del Vallès (Spain)

Be sure that Airtècnics or our worldwide distributors network will give you the right solution for any air curtains application.

- Air curtains market leading
- Producing +20 years
- Exporting +45 countries
- Catalogue +25 languages
- Experimented R+D+
- Continuous improving
- Complete range, all applications
- University knowledge collaboration

www.airtechnics.com

Find more information and our distributors list in our specialized air curtain websites:

Bulgar	www.vazdushnizavesi.com	Latvian	www.gaisaaizkari.com
Catalan	www.cortinesaire.com	Lithuanian	www.orouzuolaidos.com
Czech	www.vzduchovecloony.com	Norwegian	www.lufterporter.com
Danish	www.lufttaepper.com	Polish	www.kurtynapowietrzna.com
Dutch	www.luchtgordijnen.com	Portuguese	www.cortinadear.com
English	www.dooraircurtain.com	Romanian	www.perdeledeaer.com
Finnish	www.ilmaverho.com	Russian	www.vozdushnyezavesy.com
French	www.rideauxdair.com	Serbian	www.vazdusnezavese.com
German	www.luftschleieranlagen.net	Slovenian	www.zracnezavese.com
Greek	www.aerokourtines.com	Spanish	www.cortinasdeaire.es
Hungary	www.legfuggonyok.com	Swedish	www.luftridaer.com
Italian	www.barrieradaria.com	Turkish	www.havaperdeleri.eu

The Rosenberg Group

Airtècnics is from 1993 fully integrated in the Rosenberg Group, an organization specializing in the design, manufacturing and distribution of equipments and components of ventilation and air conditioning with factories, subsidiaries and agencies in more than 50 countries.

Founded in 1981, with a total of 1.400 employees, 14 production sites on 4 continents, as well as 4 development centres. Rosenberg develops, produces and distributes its products worldwide.

Through a combination of human know how and innovative production technology Rosenberg products achieve a quality which meets the highest requirements.



Rosenberg headquarters in Künzelsau (Germany)

AIR CURTAINS



The new and attractive generation of Airtècnics air curtains are the ideal solution to maintain a comfortable interior climate in commercial outlets and public buildings that need to keep their doors open.

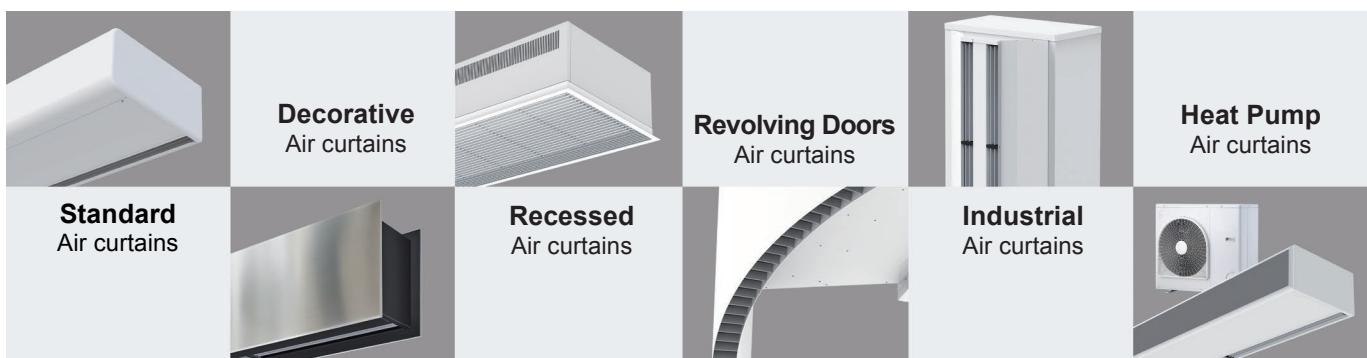
Airtècnics air curtains create an air stream layer over the doorway and act as an invisible barrier which efficiently divides the inside environment from the outside one. Therefore, it substantially reduces heating and cooling costs up to 80%, while increasing employees and clients comfort.

For shops, Airtècnics air curtains allow a clear view of the inside of the shop, welcoming the client to enter easily and freely.

The end result is more customers and an increase in sales. Airtècnics air curtains are a protection from the cold and heat, repel gusts of wind and minimize dust, fumes, pollution and insects entering the building.

In order to obtain these advantages it's very important to choose the appropriate air curtain. Factors such as interior drop, strong winds, the door's location, stairs between floors, opposite doors, and the installation height have to be taken into consideration.

Our expert consultants with their extensive experience are at your disposal to help you choose.



Advantages

MAINTAIN:

- Heating levels
- Refrigeration
- Air conditioning
- Comfort
- Clean atmosphere



PROTECT FROM:

- Cold winter temperatures
- Hot summer temperatures
- Car fumes
- Dust in the air
- Pollution
- Bad smells and odours
- Insects

Selection of an air curtain

To select an air curtain the following factors have to be kept in mind:

- The height of the installation measured from the discharge diffuser to the floor
- The width of the door
- The location of the building to determine the level of protection needed against weather conditions
- If the building has several doors in the same, different or opposite facade
- If the building has several stores connected by escalators
- Pressure differences between the inside and outside of the building
- Door characteristics: if always open, if automatic door, manual door, revolving door, etc.
- Characteristics of the ventilation and air conditioning installation
- Voltage and electrical power availability
- Type of business, style and decoration of the premises



WIDE RANGE
*Models and main characteristics
Selection and applications*

6



SMART
Decorative high pressure for commercial and industrial doors 2,5 - 4,2 m

16-17



MINIBEL
Economical for openings up to 1,8 m

7



ZEN
Customizable design with bespoke panels for commercial doors 2,5 - 4,2 m

18-19



OPTIMA WIRELESS
For commercial doors 2,2 - 2,8 m

8



RUND
Decorative cylindrical for vertical or horizontal installation 2,5 - 4,2 m

20-21



RECESSED OPTIMA WIRELESS
*For commercial doors
Recessed installation in false ceiling 2,2 - 2,8 m*

9



DECO
Decorative with aluminium profiles for commercial doors 2,5 - 4,2 m

22-23



OPTIMA
For commercial doors 2,2 - 2,8 m

10



DAM
High pressure for commercial doors with front panel 2,5 - 4,2 m

24-25



RECESSED OPTIMA
*For commercial doors
Recessed installation in false ceiling 2,2 - 2,8 m*

11



RECESSED DAM
Compact recessed for commercial and industrial doors 2,5 - 4,2 m

26-27



WINDBOX M,G
High pressure for commercial and industrial doors 2,5 - 4,2 m

12-13



HEAT PUMP AIR CURTAINS
Energy saving and very low consumption technology for commercial doors 2,5 - 4,2 m

28-35



RECESSED WINDBOX
*High pressure for commercial doors
Recessed installation in false ceiling 2,5 - 4,2 m*

14-15



WINDBOX L,XL
High pressure for commercial and large industrial doors 4 - 7 m

36-37



INVISAIR

*Recessed in column or bulkhead
vertical or horizontal 2,5 - 4,2 m*

38-39



ACCESSORIES

SPECIAL OPTIONS
Supports, valves, sensors, etc.

48



ROTWIND

*Tailor made for revolving doors
2,5 - 4,2 m*

40-41



POWER COEFFICIENTS

*Water heated air curtains
at different water temperatures*

49



VARIWIND

*Tailor made variable length
VP or VW construction 2,5 - 4,2 m*

42



EC TECHNOLOGY

*Centrifugal EC fans with
very low consumption technology*

50



RECESSED COMPACT

*Air only compact recessed for commercial
and industrial doors 2,5 - 4,2 m*

43



REGULATION

*Basic regulation: standard controls
Advanced regulation: Clever control*

51-53



KOOL

*High velocity for cold store
and freezer doors 2,5 - 4,2 m*

44



GALLERY

Installation pictures

54-55



TRIOJET SYSTEM

*Combination system with multijets
for large cold stores 2 - 3 m*

45



REFERENCES

Clients brand names

56-59



MAXWELL

*Large industrial doors
vertical or horizontal 4 - 6 m*

46



DISTRIBUTORS

Worldwide distributors

60-61



MAX

*Large industrial doors
vertical or horizontal 4 - 6 m*

47



Applications

Model	Kind	Recommended Installation Height (*)	Heating A E P	Common Applications
Minibel		Up to 1,8 m	• •	Kiosks, Fast Food and small sized shops. Restaurants and places with usually closed door or automatic door when low pedestrian flow.
Optima Wireless				
Recessed Optima Wireless				
Optima		2,2 - 2,8 m	• • •	Small and medium sized premises. Restaurants, shops and places with a medium and high pedestrian flow. Creation of different environment zones. Protection against dust, fumes, pollutants and insects. False ceiling installations. Isolation and sealing of smoking areas.
Recessed Optima				
Windbox				
Recessed Windbox				
Smart				
Zen	M, ECM	2,5 - 3,5 m	• • •	
Rund				
Deco				
Dam				
Recessed Dam	G	3,0 - 3,8 m	• • •	Medium and large sized premises with a high pedestrian flow. Protection against dust, fumes, pollutants and insects. Cold rooms. False ceiling installations. Isolation and sealing of smoking areas.
Windbox DX				
Invisair				
Rotowind	ECG	3,2 - 4,2 m	• • •	
Variwind				
Recessed Compact (A)				
Kool (A)				
Triojet		2 - 3 m	•	Industrial doors for large cold rooms and freezers with very low temperatures or problems with ice production.
Windbox	L	4 - 5 m	• • •	Medium and large sized premises with a high pedestrian flow. Industrial doors. Protection against dust, fumes, pollutants and insects. Cold rooms. False ceiling installations.
	XL	5 - 7 m	• • •	
Maxwell				
Max		4 - 6 m	• • •	Industrial doors. Loading dock. Vertical Installation to one side of the door or at each side of the door. Horizontal Installation.

(*) The maximum height of installation depends on the conditions of the premises. Contact us to clear up your queries or doubts.

(A) Air Only, (E) Electrical Heating, (P) Water Coil Heating LPHW.



Characteristics

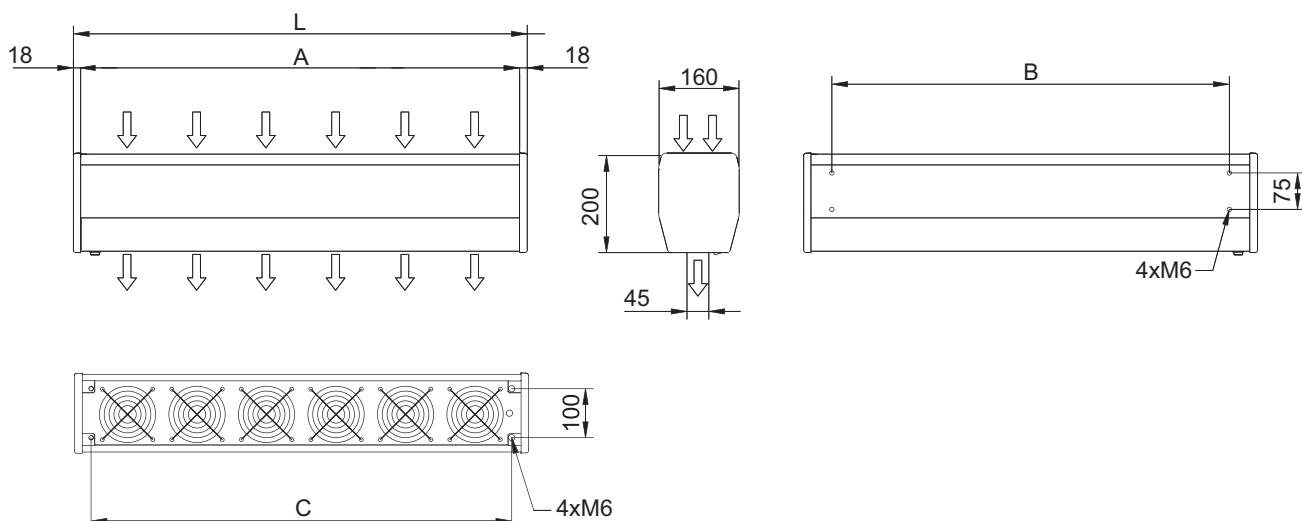


- Self-supporting casing construction made of galvanized steel plate, finished in structural epoxy-polyester painting white colour RAL9016 as standard. Other colours are available on request.
- Anodized aluminium outlet vanes, airfoil shaped.
- Compact axial fans, low noise level.
- "E" type with electrical shielded element. "A" type without heating, air only.
- Integrated switch for ventilation and heating control.
- Cable connection 1,5m length, integrated.
- Wall support included.

Specifications

		MIN 600 A	MIN 600 E230	MIN 900 A	MIN 900 E230
Power (fans)	W	60	60	90	90
Voltage (fans)	V	230~1	230~1	230~1	230~1
Current (fans)	A	0,52	0,52	0,78	0,78
Airflow	m ³ /h	420	420	630	630
Power (heating)	kW	-	2,5	-	3,2
Voltage (heating)	V	-	230~1	-	230~1
Current (heating)	A	-	10,8	-	13,9
Temperature Rise	°C	-	18	-	15
Weight	kg	9	10	12,5	13,5
Noise Level	dB(A)	46	46	47	47

Dimensions



	L	A	B	C
MIN 600	636	600	520	566
MIN 900	936	900	820	866



Characteristics



- Self-supporting casing construction made of galvanized steel plate, finished in structural epoxy-polyester painting white colour RAL9016 as standard. Other colours are available on request.
- Micro-perforated inlet grille with filter functions and easy service. It does not need prefilter.
- Anodized aluminium outlet vanes, airfoil shaped.
- Low noise twisted cross-flow fans driven by a 2-speed external rotor motor.
- "E" type with electrical shielded elements, two stages with integrated regulation.
- "A" type without heating, air only.
- Included regulation with infrared remote control and inbuilt keypad with leds.

Specifications

AIR ONLY

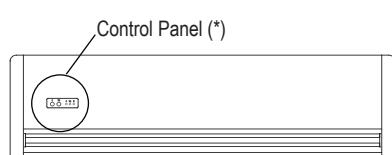
Model	Airflow m³/h	Power Fans 230V-50Hz W	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
OPT W 1000 A	1500	80	0,41	35/50	17,5
OPT W 1500 A	2150	117	0,53	36/51	25,5
OPT W 2000 A	2900	160	0,82	38/53	33

ELECTRICAL HEATED

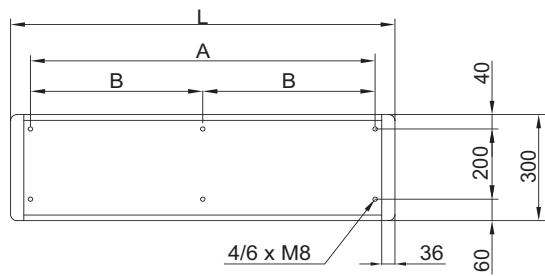
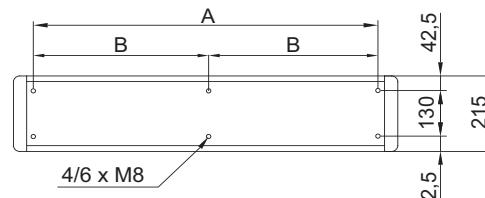
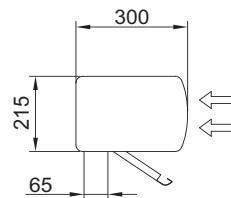
Model	Airflow m³/h	Electrical Heating Capacity kW	Power Supply	Maximum Electrical Heating Current A	Power Fans 230V-50Hz W	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
OPT W 1000 E	1500	4/6	400Vx3	8,7	80	0,41	35/50	20,5
OPT W 1000 E230	1500	3,8/5,6	230Vx1	24,5	80	0,41	35/50	20,5
OPT W 1500 E	2150	6/9	400Vx3	13,0	117	0,53	36/51	27,5
OPT W 1500 E230-6	2150	3,8/5,6	230Vx1	24,5	117	0,53	36/51	27,5
OPT W 1500 E230-9	2150	6/9	230Vx1 (*)	39,1	117	0,53	36/51	27,5
OPT W 2000 E	2900	5,6/11,3	400Vx3	16,3	160	0,82	38/53	42
OPT W 2000 E230	2900	5,6/11,3	230Vx1 (*)	49,1	160	0,82	38/53	42

(*) 2 separated power supplies.

Dimensions



	L	A	B
OPT W 1000	1050	940	-
OPT W 1500	1550	1440	-
OPT W 2000	2050	1940	970



(*) Manual regulation using inbuilt keypad or by infrared remote control





Characteristics



- Self-supporting casing construction made of galvanized steel plate, ready to be installed recessed in a false ceiling.
- Inlet grille panel (free of maintenance) integrated in a single frame colour white RAL 9016 or black RAL 9005. Other colours are available on request.
- Anodized aluminium outlet vanes, airfoil shaped.
- Low noise twisted cross-flow fans driven by a 2-speed external rotor motor.
- "E" type with electrical shielded elements, two stages with integrated regulation. "A" type without heating, air only.
- Included regulation with infrared remote control and inbuilt keypad with leds.

Specifications

AIR ONLY

Model	Airflow m³/h	Power Fans 230V-50Hz W	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
RO W 1000 A	1700	80	0,41	35/50	23
RO W 1500 A	2200	117	0,53	36/51	33
RO W 2000 A	3200	160	0,82	38/53	43

ELECTRICAL HEATED

Model	Airflow m³/h	Electrical Heating Capacity kW	Power Supply	Maximum Electrical Heating Current A	Power Fans 230V-50Hz W	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
RO W 1000 E	1700	4/6	400Vx3	8,7	80	0,41	35/50	25
RO W 1000 E230	1700	3,8/5,6	230Vx1	24,5	80	0,41	35/50	25
RO W 1500 E	2200	6/9	400Vx3	13,0	117	0,53	36/51	36
RO W 1500 E230-6	2200	3,8/5,6	230Vx1	24,5	117	0,53	36/51	36
RO W 1500 E230-9	2200	6/9	230Vx1 (*)	39,1	117	0,53	36/51	36
RO W 2000 E	3200	5,6/11,3	400Vx3	16,3	160	0,82	38/53	51
RO W 2000 E230	3200	5,6/11,3	230Vx1 (*)	49,1	160	0,82	38/53	51

(*) 2 separated power supplies.

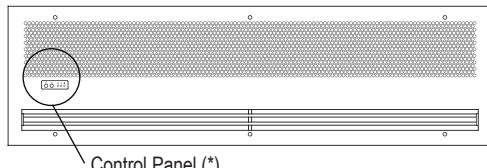
Dimensions and Finishes



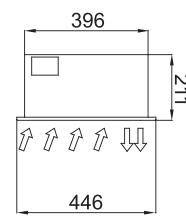
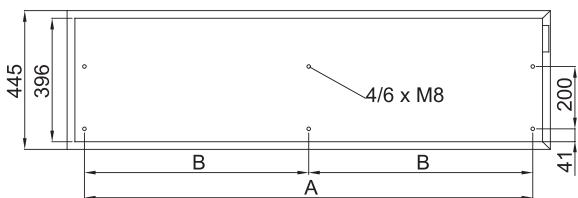
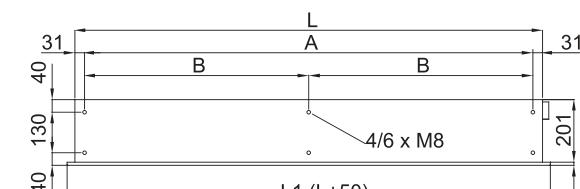
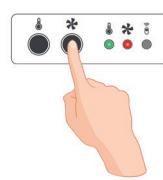
White Finish
RAL 9016



Black Finish
RAL 9005



(*) Manual regulation using inbuilt keypad or by infrared remote control



	L	L1	A	B
RO W 1000	1000	1050	938	-
RO W 1500	1500	1550	1438	-
RO W 2000	2000	2050	1938	969



Characteristics



- Self-supporting casing construction made of galvanized steel plate, finished in structural epoxy-polyester painting white colour RAL9016 as standard. Other colours are available on request.
- Micro-perforated inlet grille with filter functions and easy service. It does not need prefilter.
- Anodized aluminium outlet vanes, airfoil shaped.
- Low noise twisted cross-flow fans driven by a 2-speed external rotor motor.
- "P" type with water heated coil. "E" type with electrical shielded elements, two stages with integrated regulation. "A" type without heating, air only.
- Includes Plug&Play control with 7m RJ45 cable and infrared remote control. Optional: Clever control (programmable, automatic, intelligent, energy saving, Modbus RTU for BMS...).

Specifications

AIR ONLY					
Model	Airflow m³/h	Power Fans W	Current Fans A	Noise Level (5 m) dB(A)	Weight kg
OPT 1000 A	1500	80	0,41	35/50	17,5
OPT 1500 A	2150	117	0,53	36/51	25,5
OPT 2000 A	2900	160	0,82	38/53	33

WATER HEATED P86							
Model	Airflow m³/h	Heating capacity 80/60°C kW	Water Drop Pressure Pa	Power Fans 230V-50Hz W	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
OPT 1000 P	1400	8,2	7090	80	0,41	37/51	20,5
OPT 1500 P	2100	12,7	7200	117	0,53	38/52	27,5
OPT 2000 P	2750	16,7	6550	160	0,82	40/54	37,5

ELECTRICAL HEATED

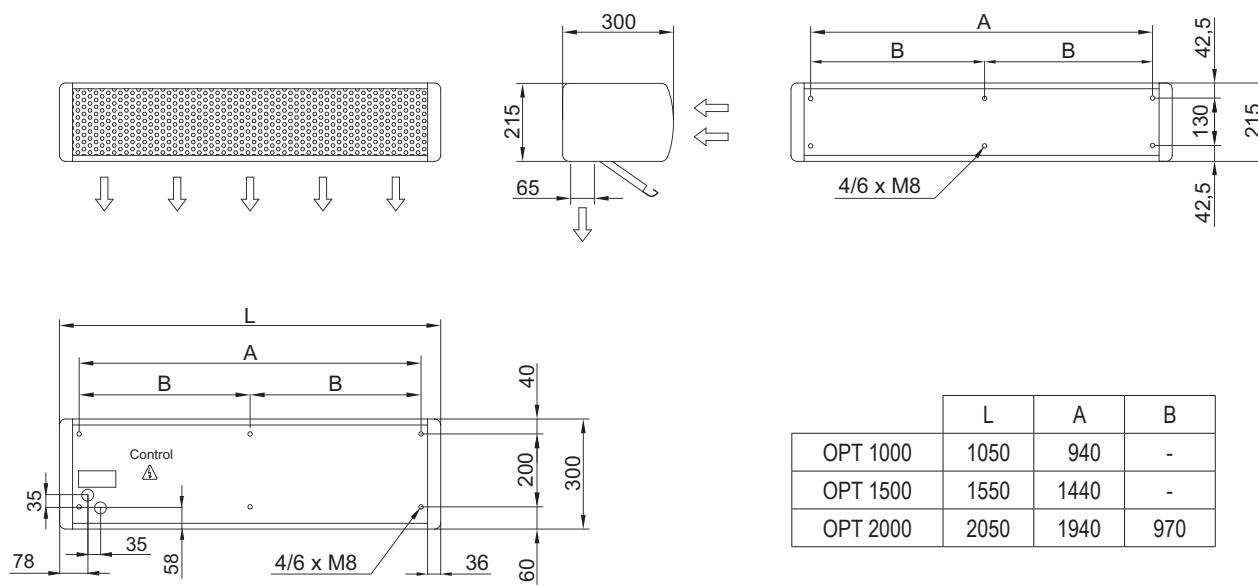
Model	Airflow m³/h	Electrical Heating Capacity (*) kW	Power Supply	Maximum Electrical Heating Current A	Power Fans 230V-50Hz W	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
OPT 1000 E	1500	4/6	400Vx3	8,7	80	0,41	35/50	20,5
OPT 1000 E-9	1500	6/9	400Vx3	13,0	80	0,41	35/50	21,5
OPT 1000 E230	1500	3,8/5,6	230Vx1	24,5	80	0,41	35/50	20,5
OPT 1500 E	2150	6/9	400Vx3	13,0	117	0,53	36/51	27,5
OPT 1500 E230-6	2150	3,8/5,6	230Vx1	24,5	117	0,53	36/51	27,5
OPT 1500 E230-9	2150	6/9	230Vx1(**)	39,1	117	0,53	36/51	27,5
OPT 2000 E	2900	5,6/11,3	400Vx3	16,3	160	0,82	38/53	42
OPT 2000 E230	2900	5,6/11,3	230Vx1(**)	49,1	160	0,82	38/53	42

Water heated: connection pipes 1/2" female. 2 rows coil.

(*) Under request other electrical heating capacities may be supplied.

(**) 2 separated power supplies.

Dimensions





Characteristics



- Self-supporting casing construction made of galvanized steel plate, ready to be installed recessed in a false ceiling.
- Inlet grille (free of maintenance) made with aluminium profiles and blow-out nozzle, integrated in a single white frame colour RAL 9016. Other colours are available on request.
- Anodized aluminium outlet vanes, airfoil shaped.
- Low noise twisted cross-flow fans driven by a 2-speed external rotor motor.
- "P" type with water heated coil. "E" type with electrical shielded elements, two stages with integrated regulation. "A" type without heating, air only.
- Includes Plug&Play control with 7m RJ45 cable and infrared remote control. Optional: Clever control (programmable, automatic, intelligent, energy saving, Modbus RTU for BMS...).

Specifications

AIR ONLY

Model	Airflow m³/h	Power Fans W	Current Fans A	Noise Level (5 m) dB(A)	Weight kg
RO 1000 A	1700	80	0,41	35/50	24
RO 1500 A	2200	117	0,53	36/51	34
RO 2000 A	3200	160	0,82	38/53	44,5

WATER HEATED P86

Model	Airflow m³/h	Heating capacity 80/60°C kW	Water Drop Pressure Pa	Power Fans W	Current Fans A	Noise Level (5 m) dB(A)	Weight kg
RO 1000 P	1450	8,3	7360	80	0,41	37/51	26,5
RO 1500 P	2175	13	7480	117	0,53	38/52	37,5
RO 2000 P	2850	17,1	6810	160	0,82	40/54	49

ELECTRICAL HEATED

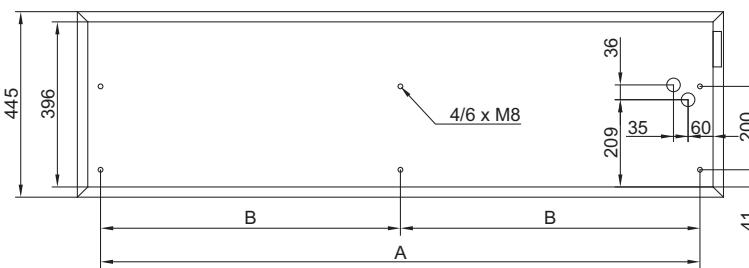
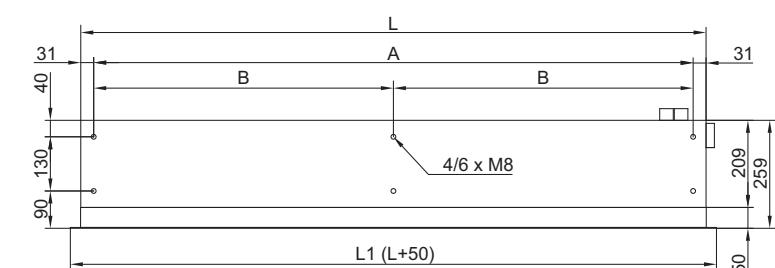
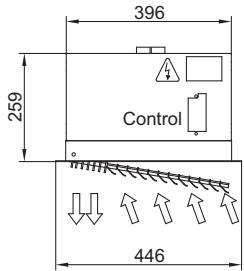
Model	Airflow m³/h	Electrical Heating Capacity (*) kW	Power Supply	Maximum Electrical Heating Current A	Power Fans 230V-50Hz W	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
RO 1000 E	1700	4/6	400Vx3	8,7	80	0,41	35/50	26
RO 1000 E-9	1700	6/9	400Vx3	13,0	80	0,41	35/50	27
RO 1000 E230	1700	3,8/5,6	230Vx1	24,5	80	0,41	35/50	26
RO 1500 E	2200	6/9	400Vx3	13,0	117	0,53	36/51	37,5
RO 1500 E230-6	2200	3,8/5,6	230Vx1	24,5	117	0,53	36/51	37,5
RO 1500 E230-9	2200	6/9	230Vx1 (**)	39,1	117	0,53	36/51	37,5
RO 2000 E	3200	5,6/11,3	400Vx3	16,3	160	0,82	38/53	53,5
RO 2000 E230	3200	5,6/11,3	230Vx1 (**)	49,1	160	0,82	38/53	53,5

Water heated: connection pipes 1/2" female. 2 rows coil.

(*) Under request other electrical heating capacities may be supplied.

(**) 2 separated power supplies.

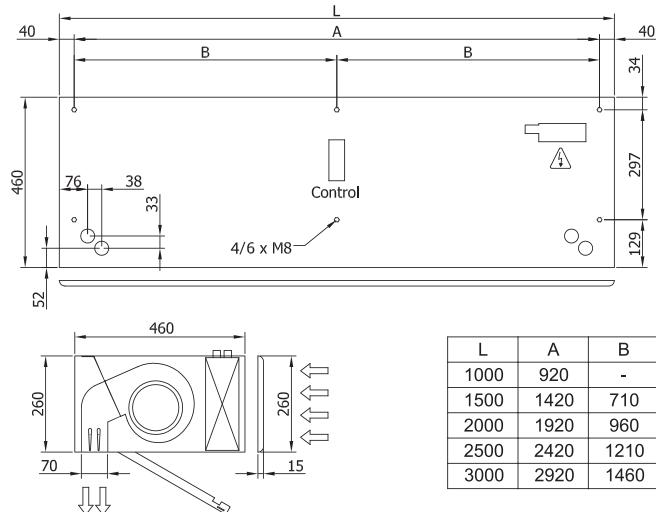
Dimensions



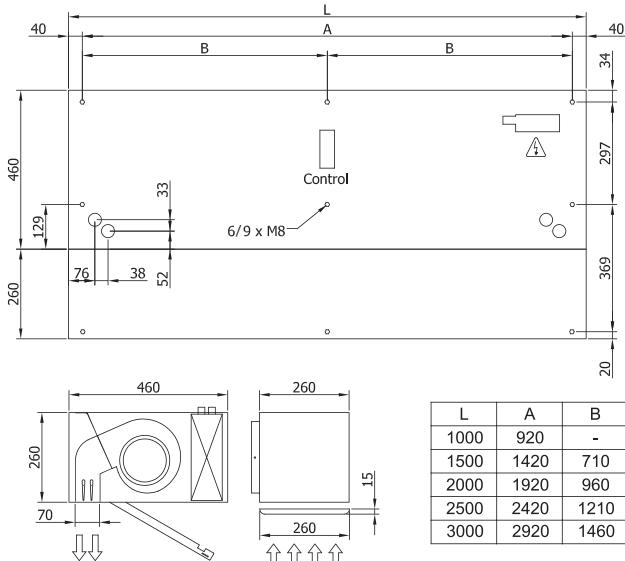
	L	L1	A	B
RO 1000	1000	1050	938	-
RO 1500	1500	1550	1438	-
RO 2000	2000	2050	1938	969



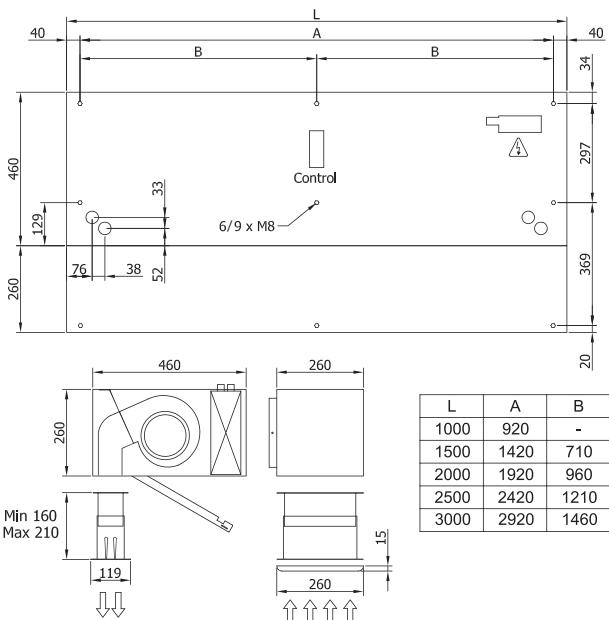
Layouts and dimensions



Free hanging mounting



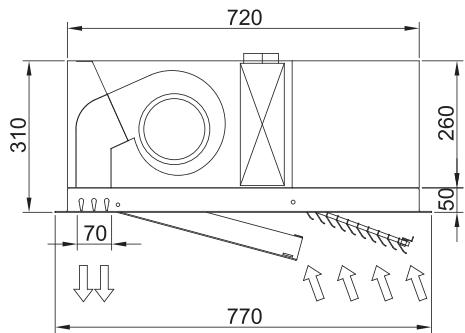
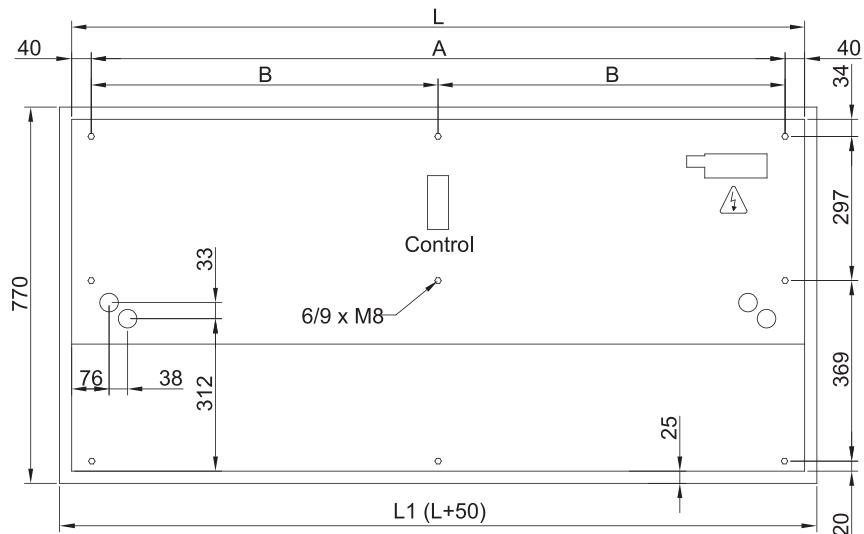
Inside ceiling surface mounting



False ceiling invisible mounting



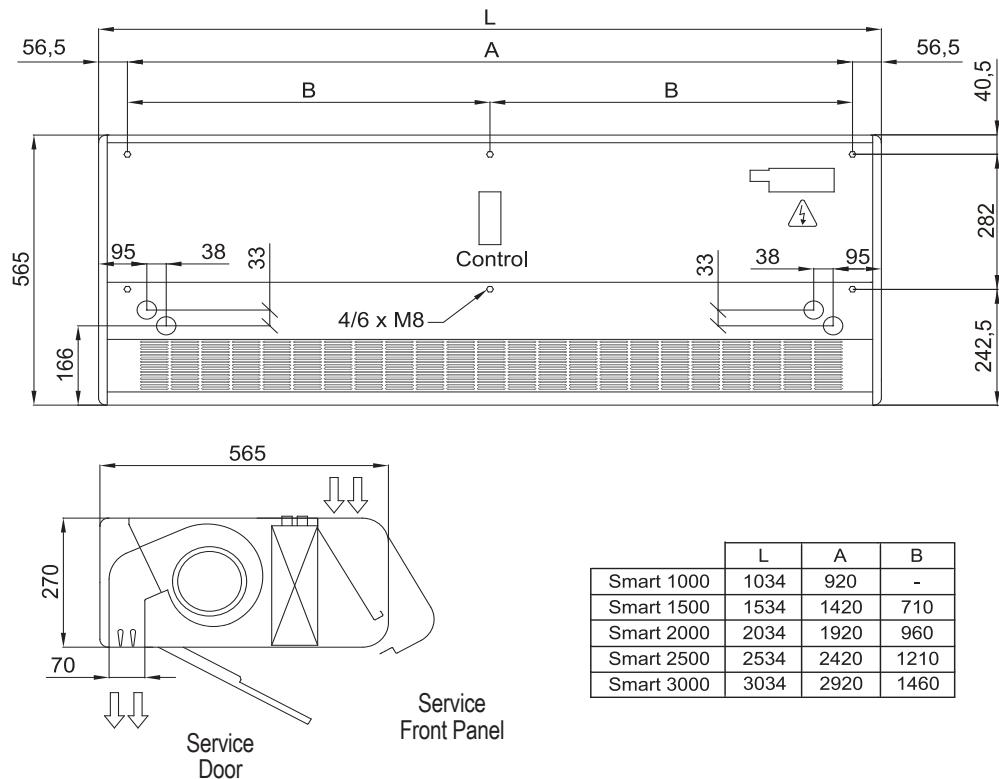
Dimensions



	L	L1	A	B
Recessed Windbox 1000	1000	1050	920	-
Recessed Windbox 1500	1500	1550	1420	710
Recessed Windbox 2000	2000	2050	1920	960
Recessed Windbox 2500	2500	2550	2420	1210



Dimensions



Finishes and Details

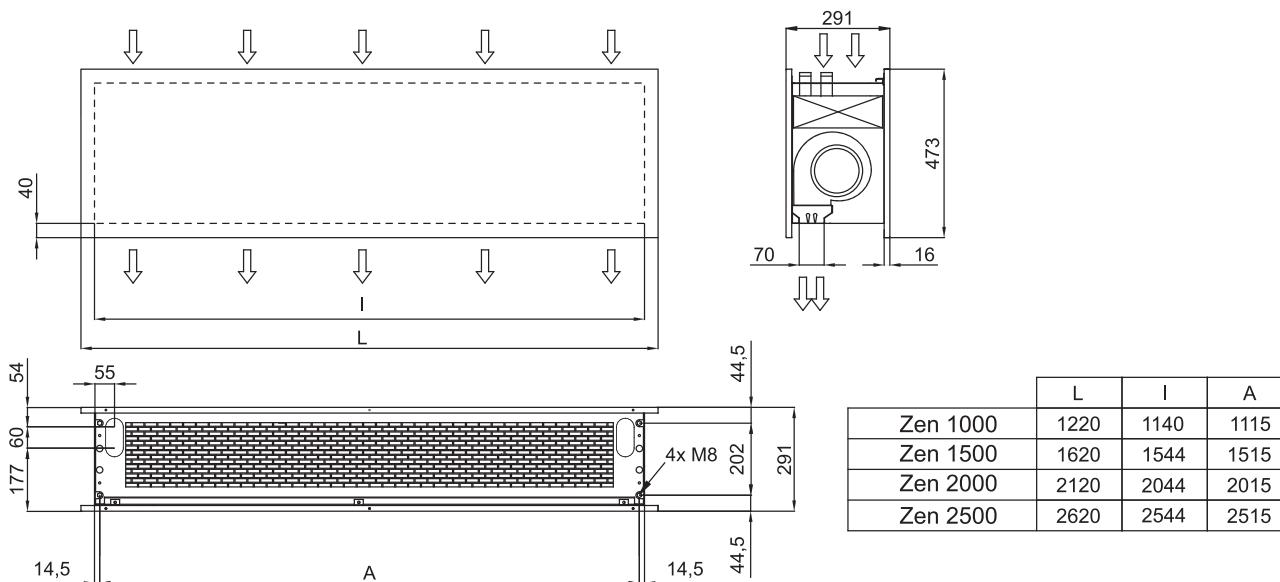


Smooth or customizable front panel with logos, lighting or signage

Hidden top air entrance



Dimensions



Finishes



Examples of customized front panels, to meet client needs

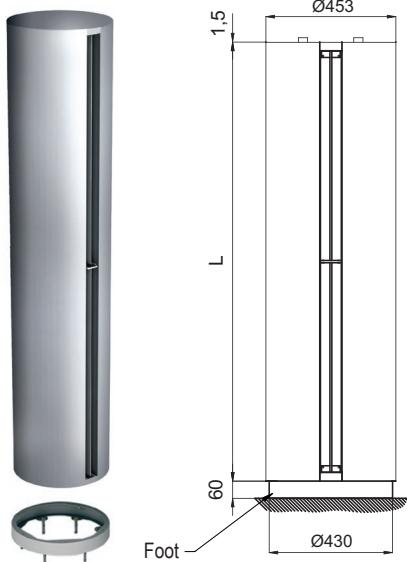


- Painted any RAL colour or metal
- Different materials: aluminium, stainless steel AISI 304 (brushed or polished), wood, glass, PVC/PES, etc.
- Logos, lights, clocks, signs, vinyls, patterns, etc.

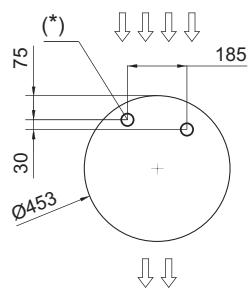


Layouts and dimensions

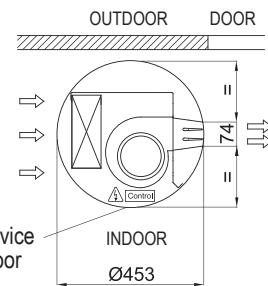
Vertical installation



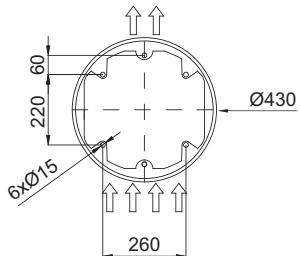
Water pipes top entrance



Standard installation
(vertical left side)



Floor fixing points with foot



	L
RUND 1000	1025
RUND 1500	1525
RUND 2000	2030
RUND 2500	2530
RUND 3000	2980

Horizontal installation



Ceiling fixation through threaded rods



Wall/ceiling fixation through arms

Wall/ceiling fixation through angle supports

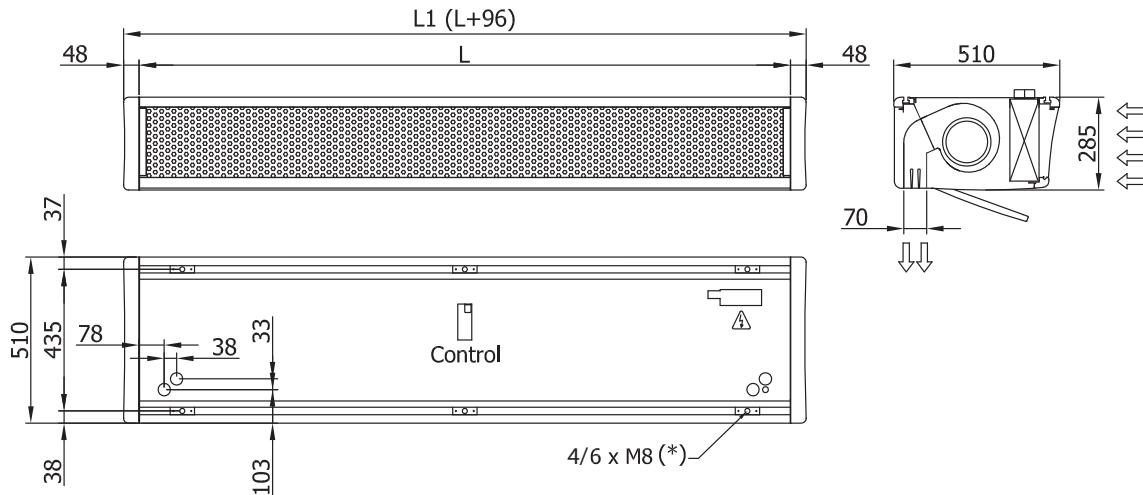


Wall fixation through lateral arms

Floor fixation (goalpost)

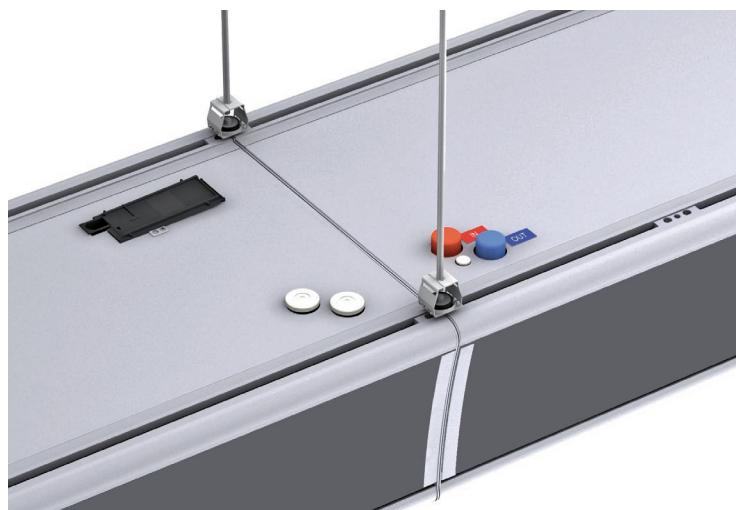


Dimensions



	L	L1
Deco 1000	1000	1096
Deco 1500	1500	1596
Deco 2000	2000	2096
Deco 2500	2500	2596

Details



Joining two units

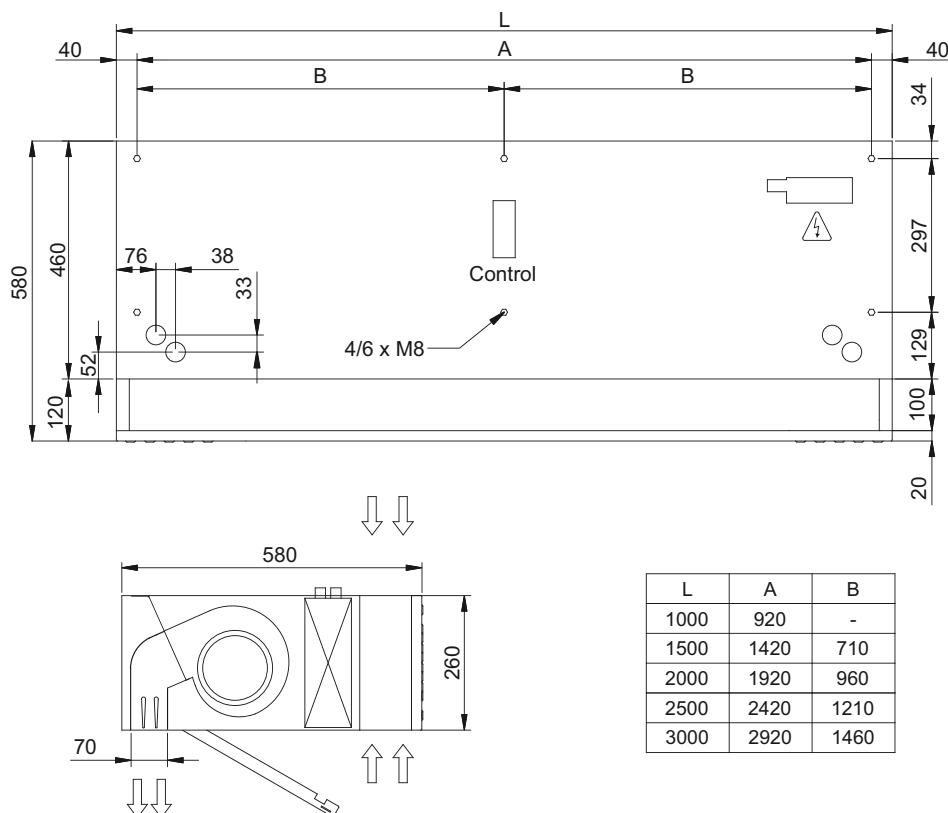


Different colour finishes

(*) Adjustable fixing points through guide rail



Dimensions



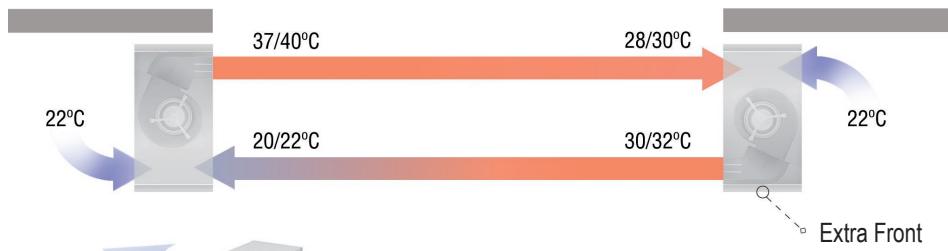
Dam Twin System

The DAM TWIN system consists of two vertical DAM air curtains face to face, one with the air jet ahead and the other behind.

At the end of each jet there is the inlet of the other air curtain helping to close the air barrier.

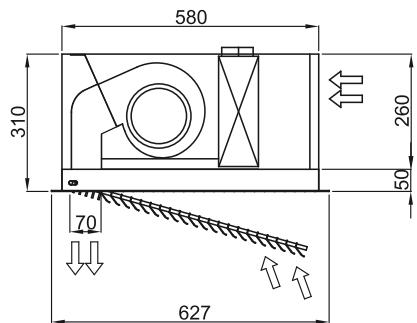
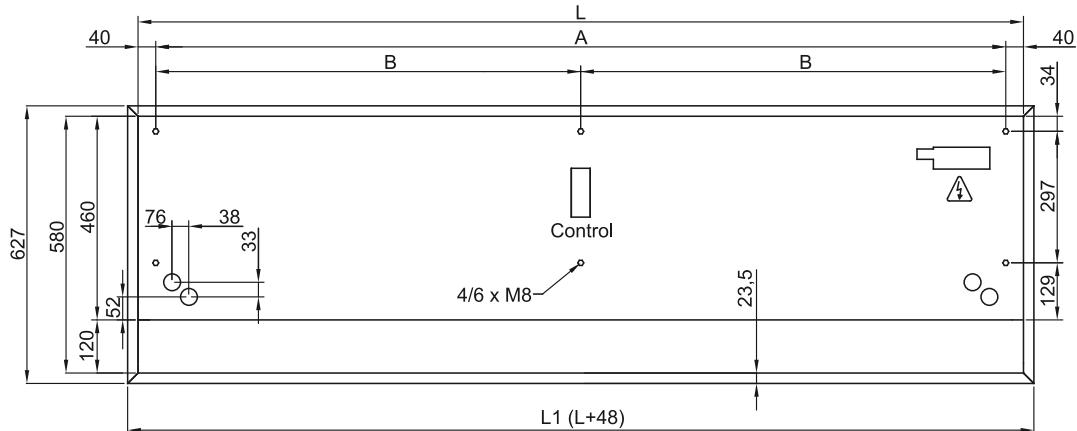
This double jet works as a closed circuit creating a separation zone at the door entrance.

DAM TWIN system is an optimal solution for installations with very adverse conditions.





Dimensions

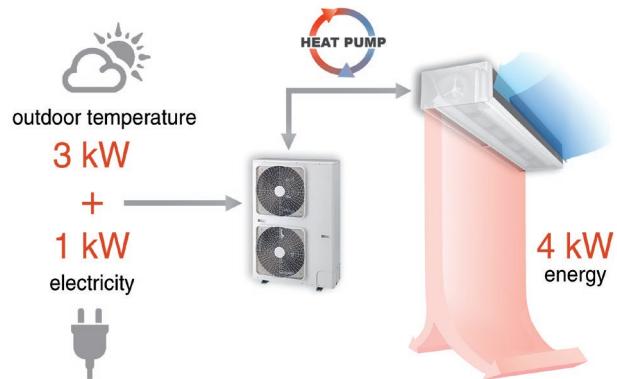


	L	L1	A	B
Recessed Dam 1000	1000	1048	920	-
Recessed Dam 1500	1500	1548	1420	710
Recessed Dam 2000	2000	2048	1920	960
Recessed Dam 2500	2500	2548	2420	1210



Heat Pump Technology

Heat pump is a device that uses a small amount of energy to move heat from one location to another. This system is extremely efficient because it simply transfers heat, rather than burn fuel to create it. It consists of a closed circuit through which a special fluid (refrigerant) flows. This fluid takes on a liquid or gaseous state according to temperature and pressure conditions. The circuit is composed by: compressor, condenser, expansion valve and evaporator.



Advantages and Benefits

The new Airtecnic Heat Pump Air curtains are absolutely efficient reducing the heating cost and CO₂ emissions up to 70%.

- Very high energy efficiency ratings to save big amounts of money on your energy bill
- Short Payback Period thanks to very high level of energy saving
- Heating and cooling included in the same system (reverse cycle)
- Environmentally Friendly as uses such low amounts of energy

Available Airtecnic Heat Pump Air Curtains:

- Heating/Cooling: Windbox M-G, Dam, Recessed Windbox, Smart, Recessed Dam and Windbox L-XL.
- Only Heating: Rund, Zen, Rotowind and Invisair.

Heat Pump vs Electrical Air Curtain - Energy Saving Example

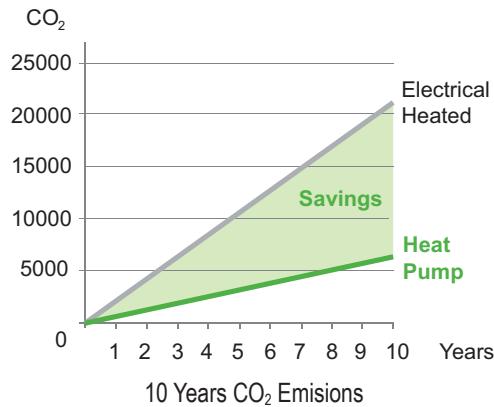
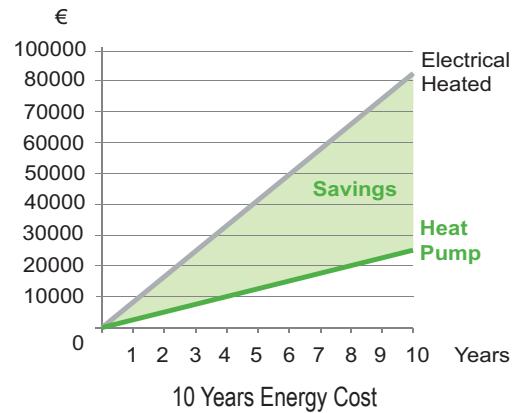
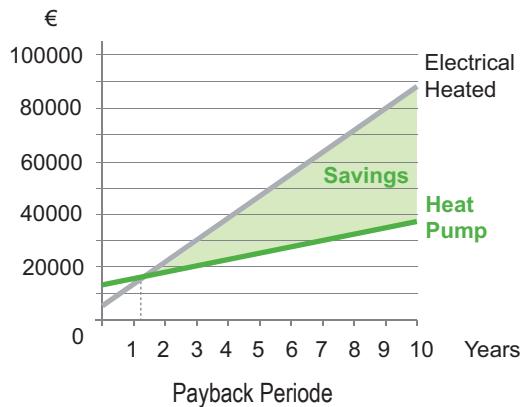
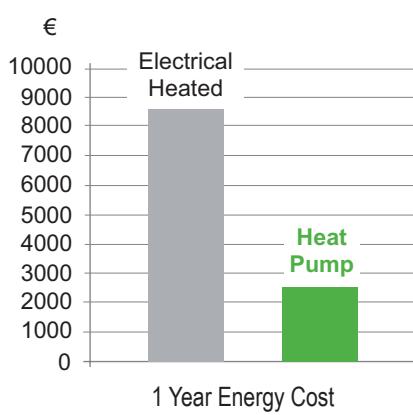
How much money can I save using a Heat Pump Air curtain?

Example:

Door dimension: 2 m width by 3 m height
Running time: 12 hours/day, 6 days/week, 26 weeks (~ 1/2 year)
Energy cost: 0,17 €/kW/h (EU-27 average cost)
Selected unit: G 2000, 27kW
COP: 3,31 (Coefficient of Performance)

	Electrical Air Curtain	Heat Pump Air Curtain	Difference
Total Heating Power	27 kW	27 kW	0 kW
Air Curtain Price	3.828 €/unit	10.987 €/unit	+ 7.159 €
Energy Consumption	50.544 kW/h	15.270 kW/h	- 35.274 kW/h
Energy Cost	8.592 €	2.596 €	- 5.996 €
CO ₂ Emissions	20.218 kg	6.108 kg	- 14.110 kg

Result: The payback period is 1,2 years. We recover the price increase of Heat Pump air curtain in nearly 14 months and then we start saving money. From the beginning we save energy and reduce CO₂ emissions to the environment.





Characteristics



- Energy saving heat pump air curtains: Up to 70% reduction in costs and CO₂ emissions (heating mode).
- Self-supporting casing construction made of galvanized steel plate, finished in structural epoxy-polyester painting white colour RAL9016 as standard. Other colours or stainless steel are available on request.
- Micro-perforated inlet grille with filter functions and easy service. Internal prefilter included.
- Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
- Double-inlet centrifugal fans driven by an external rotor motor and low noise level. 5-speed selector. "EC" models assembled with very low consumption efficiency fans.
- Includes direct expansion coil with sensors. Optional condensate water pump.
- Plug&Play control panel, infrared remote IR and 7m telephone cable included.
- MITSUBISHI ELECTRIC VRF Interface KIT and programmable control included.
- Ready to connect to MITSUBISHI ELECTRIC VRF heat pump unit (R410A) with expansion valve.

Specifications

Model (*)	Airflow m ³ /h	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg	Mitsubishi Electric Interface DX-kit (**)
M 1500 VRF12-ME	2160	0,642	2,85	57	53	PAC-AH125M-J
M 2000 VRF16-ME	2880	0,856	3,80	58	69	PAC-AH125M-J
M 2500 VRF22-ME	3600	1,070	4,75	59	86	PAC-AH250M-J
M 3000 VRF27-ME	4320	1,280	5,70	60	103	PAC-AH250M-J
ECM 1500 VRF12-ME	2460	0,198	1,71	57	53	PAC-AH125M-J
ECM 1500 VRF14-ME	2460	0,198	1,71	57	53	PAC-AH125M-J
ECM 2000 VRF16-ME	3280	0,264	2,28	58	69	PAC-AH125M-J
ECM 2500 VRF24-ME	4100	0,330	2,85	59	86	PAC-AH250M-J
ECM 3000 VRF30-ME	4920	0,396	3,42	60	103	PAC-AH250M-J
G 1000 VRF10-ME	2100	0,642	2,85	57	50	PAC-AH125M-J
G 1500 VRF15-ME	2800	0,856	3,80	58	59	PAC-AH125M-J
G 2000 VRF23-ME	4200	1,284	5,70	59	92	PAC-AH250M-J
G 2500 VRF28-ME	4900	1,498	6,65	60	96	PAC-AH250M-J
G 3000 VRF29-ME	5600	1,712	7,60	61	109	PAC-AH250M-J
G 3000 VRF32-ME	5600	1,712	7,60	61	109	PAC-AH250M-J
ECG 1000 VRF10-ME	2190	0,225	1,95	61	50	PAC-AH125M-J
ECG 1500 VRF16-ME	2920	0,300	2,60	62	59	PAC-AH125M-J
ECG 2000 VRF24-ME	4380	0,450	3,90	63	92	PAC-AH250M-J
ECG 2500 VRF29-ME	5110	0,525	4,55	64	96	PAC-AH250M-J
ECG 3000 VRF30-ME	5840	0,600	5,20	65	109	PAC-AH250M-J
ECG 3000 VRF32-ME	5840	0,600	5,20	65	109	PAC-AH250M-J

(*) Also valid for Models: M,ECM,G,ECG - Recessed Windbox, Smart, Dam, Recessed Dam
G,ECG - Rund, Zen, Rotowind, Invisair

(**) Includes expansion valve.

MITSUBISHI ELECTRIC VRF compatible Outdoor Units	
Gamma	Series
City Multi	S/Y (Heat Pump)
City Multi	R2 (Heat Recovery)
Mr. Slim	Standard Inverter
Mr. Slim	Power Inverter
Mr. Slim	Zubadan
Industrial	Standard Inverter
Industrial	Power Inverter



Characteristics



- Energy saving heat pump air curtains: Up to 70% reduction in costs and CO₂ emissions (heating mode).
- Self-supporting casing construction made of galvanized steel plate, finished in structural epoxy-polyester painting white colour RAL9016 as standard. Other colours or stainless steel are available on request.
- Micro-perforated inlet grille with filter functions and easy service. Internal prefilter included.
- Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
- Double-inlet centrifugal fans driven by an external rotor motor and low noise level. 5-speed selector. "EC" models assembled with very low consumption efficiency fans.
- Includes direct expansion coil with sensors. Optional condensate water pump.
- Plug&Play control panel, infrared remote IR and 7m telephone cable included.
- DAIKIN VRV Interface KIT and programmable controller included.
- Ready to connect to DAIKIN VRV heat pump unit (R410A) and expansion valve kit.

Specifications

Model (*)	Airflow m ³ /h	Expansion Valve Kit	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
M 1000 VRV7-DA	1440	EKEXV 63	0,428	1,90	56	35
M 1500 VRV12-DA	2160	EKEXV 100	0,642	2,85	57	53
M 2000 VRV15-DA	2880	EKEXV 125	0,856	3,80	58	69
M 2000 VRV17-DA	2880	EKEXV 125	0,856	3,80	58	69
M 2500 VRV22-DA	3600	EKEXV 200	1,070	4,75	59	86
M 3000 VRV24-DA	4320	EKEXV 200	1,280	5,70	60	103
M 3000 VRV27-DA	4320	EKEXV 200	1,280	5,70	60	103
ECM 1000 VRV8-DA	1640	EKEXV 63	0,132	1,14	56	35
ECM 1500 VRV12-DA	2460	EKEXV 100	0,198	1,71	57	53
ECM 2000 VRV19-DA	3280	EKEXV 140	0,264	2,28	58	69
ECM 2500 VRV24-DA	4100	EKEXV 200	0,330	2,85	59	86
ECM 3000 VRV26-DA	4920	EKEXV 200	0,396	3,42	60	103
ECM 3000 VRV30-DA	4920	EKEXV 250	0,396	3,42	60	103
G 1000 VRV10-DA	2100	EKEXV 80	0,642	2,85	57	50
G 1500 VRV15-DA	2800	EKEXV 125	0,856	3,80	58	59
G 2000 VRV23-DA	4200	EKEXV 200	1,284	5,70	59	92
G 2500 VRV24-DA	4900	EKEXV 200	1,498	6,65	60	96
G 2500 VRV28-DA	4900	EKEXV 250	1,498	6,65	60	96
G 3000 VRV29-DA	5600	EKEXV 250	1,712	7,60	61	109
G 3000 VRV33-DA	5600	EKEXV 250	1,712	7,60	61	109
ECG 1000 VRV10-DA	2190	EKEXV 80	0,225	1,95	61	50
ECG 1500 VRV15-DA	2920	EKEXV 125	0,300	2,60	62	59
ECG 2000 VRV24-DA	4380	EKEXV 200	0,450	3,90	63	92
ECG 2500 VRV29-DA	5110	EKEXV 250	0,525	4,55	64	96
ECG 3000 VRV29-DA	5840	EKEXV 250	0,600	5,20	65	109
ECG 3000 VRV34-DA	5840	EKEXV 250	0,600	5,20	65	109

(*) Also valid for Models: M,ECM,G,ECG - Recessed Windbox, Smart, Dam, Recessed Dam G,ECG - Rund, Zen, Rotowind, Invisair





Characteristics



- Energy saving heat pump air curtains: Up to 70% reduction in costs and CO₂ emissions (heating mode).
- Self-supporting casing construction made of galvanized steel plate, finished in structural epoxy-polyester painting white colour RAL9016 as standard. Other colours or stainless steel are available on request.
- Micro-perforated inlet grille with filter functions and easy service. Internal prefilter included.
- Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
- Double-inlet centrifugal fans driven by an external rotor motor and low noise level. 5-speed selector. "EC" models assembled with very low consumption efficiency fans.
- Includes direct expansion coil with sensors. Optional condensate water pump.
- Plug&Play control panel, infrared remote IR and 7m telephone cable included.
- HITACHI DX Interface KIT with expansion valve and programmable control included.
- Ready to connect to HITACHI Inverter outdoor heat pump unit (R410A).

Specifications

Model (*)	Airflow m ³ /h	Outdoor Unit (**)		Power Fans 230V-50Hz	Current Fans 230V-50Hz	Noise Level (5 m) dB(A)	Weight kg
		230Vx1	400Vx3				
M 1500 DX11-HI	2160	RAS-4H(V)NCE	RAS-4H(V)NCE	0,642	2,85	57	53
M 2500 DX22-HI	3600	-	RAS-8HNCE	1,070	4,75	59	86
ECM 1500 DX11-HI	2460	RAS-4H(V)NCE	RAS-4H(V)NCE	0,198	1,71	57	53
ECM 2500 DX22-HI	4100	-	RAS-8HNCE	0,330	2,85	59	86
ECM 3000 DX28-HI	4920	-	RAS-10HNCE	0,396	3,42	60	103
G 1000 DX8-HI	2100	RAS-3HVNC	-	0,642	2,85	57	50
G 1500 DX16-HI	2800	RAS-6H(V)NCE	RAS-6H(V)NCE	0,856	3,80	58	59
G 2000 DX22-HI	4200	-	RAS-8HNCE	1,284	5,70	59	92
G 2500 DX22-HI	4900	-	RAS-8HNCE	1,498	6,65	60	96
G 2500 DX28-HI	4900	-	RAS-10HNCE	1,498	6,65	60	96
G 3000 DX28-HI	5600	-	RAS-10HNCE	1,712	7,60	61	109
ECG 1000 DX8-HI	2190	RAS-3HVNC	-	0,225	1,95	61	50
ECG 1000 DX11-HI	2190	RAS-4H(V)NCE	RAS-4H(V)NCE	0,225	1,95	61	50
ECG 1500 DX14-HI	2920	RAS-5H(V)NCE	RAS-5H(V)NCE	0,300	2,60	62	59
ECG 1500 DX16-HI	2920	RAS-6H(V)NCE	RAS-6H(V)NCE	0,300	2,60	62	59
ECG 2000 DX22-HI	4380	-	RAS-8HNCE	0,450	3,90	63	92
ECG 2500 DX22-HI	5110	-	RAS-8HNCE	0,525	4,55	64	96
ECG 2500 DX28-HI	5110	-	RAS-10HNCE	0,525	4,55	64	96
ECG 3000 DX28-HI	5840	-	RAS-10HNCE	0,600	5,20	65	109

(*) Also valid for Models: M,ECM,G,ECG - Recessed Windbox, Smart, Dam, Recessed Dam

G,ECG - Rund, Zen, Rotowind, Invisair

(**) Heating capacity of Outdoor Unit can decrease due to stronger weather conditions, so please check with heat pump distributor to select it properly.

HITACHI Inverter Outdoor Units	Heating Capacity kW	Heating Power kW	SCOP or COP (*) W/W	Cooling Capacity kW	Cooling Power kW	SEER or EER (*) W/W	Power Supply	Pipes		Pipes Maximum Length inch	Pipes Maximum Height m
								Gas	Liquid		
RAS-3HVNC	8,0	1,90	4,21	7,1	1,94	3,66	230Vx1	5/8	3/8	50	30
RAS-4H(V)NCE	11,2	2,54	4,41	10,0	2,44	4,10	230Vx1/400Vx3	5/8	3/8	70	30
RAS-5H(V)NCE	14,0	3,39	4,12	12,5	3,53	3,54	230Vx1/400Vx3	5/8	3/8	75	30
RAS-6H(V)NCE	16,0	4,23	3,78	14,0	4,25	3,29	230Vx1/400Vx3	5/8	3/8	75	30
RAS-8HNCE	22,4	5,28	4,24	20,0	5,95	3,36	400Vx3	1	3/8	100	30
RAS-10HNCE	28,0	7,12	3,93	25,0	7,81	3,20	400Vx3	1	1/2	100	30

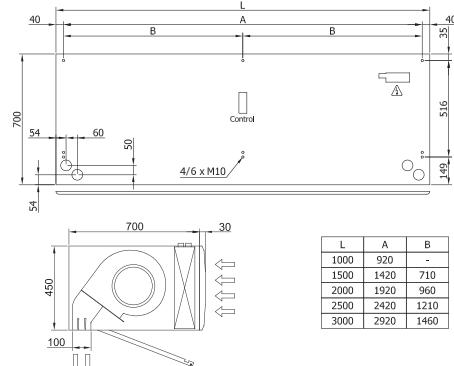
(*) Energy efficiency: SCOP and SEER seasonal ratio under 12kW and COP and EER over 12kW.

Outdoor unit heating capacity values at standard conditions: indoor dry-bulb temperature 20°C, outdoor dry-bulb temperature 7°C.

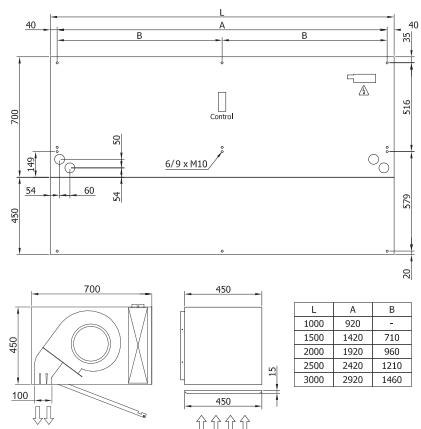
WINDBOX L,XL | High Pressure Air Curtains For Commercial And Industrial Doors



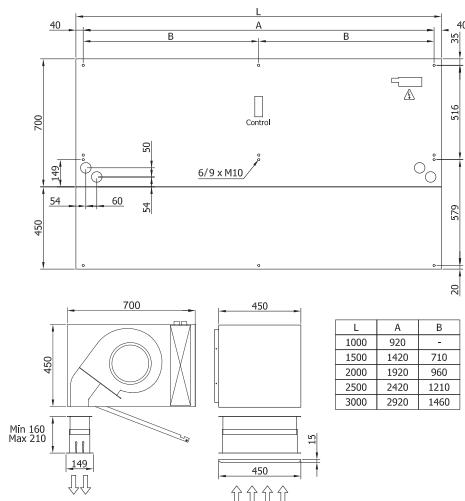
Layouts and dimensions



Free hanging mounting



Inside ceiling surface mounting



False ceiling invisible mounting

Grille finishes

Industrial



Decorative





Characteristics



- Specially designed for applications where the body of the air curtain is to be installed inside a column or bulkhead for architectural reasons. It can be vertically or horizontally mounted.
- Self-supporting casing construction made of galvanized steel plate, finished in structural epoxy-polyester painting white colour RAL9016 as standard. Other colours or stainless steel are available on request.
- The air flow of Invisair follows a straight line from the air inlet grille to the discharge. Inlet area inside a bulkhead or column should be designed with suitable grille provided by others.
- Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
- Double-inlet centrifugal fans driven by an external rotor motor and low noise level. 5-speed selector. "EC" models assembled with very low consumption efficiency fans.
- "P" type with water heated coil. "E" type with electrical shielded elements, three stages with integrated regulation. "A" type without heating, air only. Optional expansion DX coil.
- Includes Plug&Play control with 7m RJ45 cable and infrared remote control. Optional: Clever control (programmable, automatic, intelligent, energy saving, Modbus RTU for BMS...).

Specifications

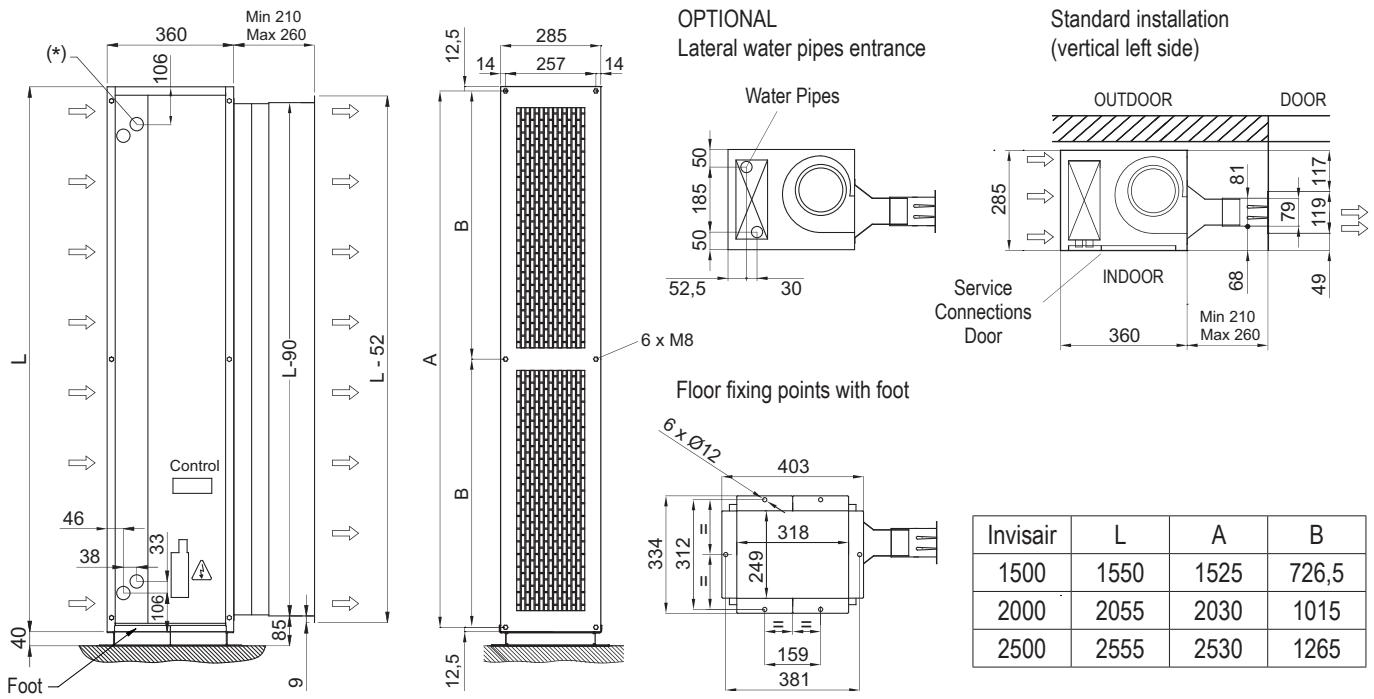
AIR ONLY					ELECTRICAL HEATED							
Model	Airflow m³/h	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)		Airflow m³/h	Electrical Heating Capacity 400Vx3-50Hz kW	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg	
IM 1500 A	2640	0,424	1,88	56	55	IM 1500 E	2640	4/8/12	0,424	1,88	56	67
IM 2000 A	3960	0,636	2,82	57	68	IM 2000 E	3960	6/12/18	0,636	2,82	57	86
IM 2500 A	4620	0,742	3,29	58	73	IM 2500 E	4620	6/12/18	0,742	3,29	58	93
IG 1500 A	3200	0,856	3,80	58	60	IG 1500 E	3200	7,5/15/22,5	0,856	3,80	58	73
IG 2000 A	4800	1,284	5,70	59	78	IG 2000 E	4800	10/20/30	1,284	5,70	59	96
IG 2500 A	5600	1,498	6,65	60	83	IG 2500 E	5600	10/20/30	1,498	6,65	60	103
IECG 1500 A	3600	0,300	2,60	62	60	IECG 1500 E	3600	7,5/15/22,5	0,300	2,60	62	73
IECG 2000 A	5400	0,450	3,90	63	78	IECG 2000 E	5400	10/20/30	0,450	3,90	63	96
IECG 2500 A	6300	0,525	4,55	64	83	IECG 2500 E	6300	10/20/30	0,525	4,55	64	103

WATER HEATED											
Model	Airflow m³/h	P86		P64		P54		Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	
		Heating Capacity 80/60°C kW	Water Drop Pressure 80/60°C Pa	Heating Capacity 60/40°C kW	Water Drop Pressure 60/40°C Pa	Heating Capacity 50/40°C kW	Water Drop Pressure 50/40°C Pa				
IM 1500 P	2480	14,23	760	13,65	6430	-	-	0,424	1,88	56	63
IM 2000 P	3720	22,17	2190	19,70	5470	-	-	0,636	2,82	57	78
IM 2500 P	4340	27,69	4000	23,48	4060	-	-	0,742	3,29	58	86
IG 1500 P	3000	16,02	940	15,47	8020	16,37	5670	0,856	3,80	58	69
IG 2000 P	4500	24,92	2700	22,29	6810	23,15	3030	1,284	5,70	59	89
IG 2500 P	5250	31,16	4930	26,61	5060	28,76	5450	1,498	6,65	60	94
IECG 1500 P	3400	17,29	1070	16,77	9240	17,86	6620	0,300	2,60	62	69
IECG 2000 P	5100	26,86	3080	24,14	7850	25,24	3530	0,450	3,90	63	89
IECG 2500 P	5950	33,63	5650	28,84	5840	31,38	6360	0,525	4,55	64	94

Water heated: connection pipes P86 and P64 are 2x3/4" female (male if lateral pipes), P54 2x1" male. P86 2 rows coil, P64 3 rows coil, P54 4 rows coil.



Layouts and dimensions



Installation examples





Characteristics



- Specially designed to be installed in all type of revolving doors. Two possible layouts, tailored dimensions.
- Self-supporting casing construction made of galvanized steel plate, finished in structural epoxy-polyester painting white colour RAL9016 as standard. Other colours or stainless steel are available on request.
- Large perforated inlet grille avoiding intensive maintenance.
- Circular anodized aluminium outlet vanes, airfoil shaped.
- Double-inlet centrifugal fans driven by an external rotor motor and low noise level. 5-speed selector. "EC" models assembled with very low consumption efficiency fans.
- "P" type with water heated coil. "E" type with electrical shielded elements, three stages with integrated regulation. "A" type without heating, air only. Optional expansion DX coil.
- Includes Plug&Play control with 7m RJ45 cable and infrared remote control.
Optional: Clever control (programmable, automatic, intelligent, energy saving, Modbus RTU for BMS...).

Specifications

AIR ONLY					
Model	Airflow m³/h	Power Fans kW	Current Fans A	Noise Level (5 m) dB(A)	Weight kg
ROTO M 1000 A	1980	0,318	1,41	55	-
ROTO M 1500 A	2640	0,424	1,88	56	-
ROTO M 2000 A	3960	0,636	2,82	57	-
ROTO M 2500 A	4620	0,742	3,29	58	-
ROTO G 1000 A	2400	0,642	2,85	57	-
ROTO G 1500 A	3200	0,856	3,80	58	-
ROTO G 2000 A	4800	1,284	5,70	59	-
ROTO G 2500 A	5600	1,498	6,65	60	-
ROTO ECG 1000 A	2700	0,225	1,95	61	-
ROTO ECG 1500 A	3600	0,300	2,60	62	-
ROTO ECG 2000 A	5400	0,450	3,90	63	-
ROTO ECG 2500 A	6300	0,525	4,55	64	-

ELECTRICAL HEATED					
Model	Airflow m³/h	Electrical Heating Capacity 400Vx3-50Hz kW	Power Fans kW	Current Fans A	Noise Level (5 m) dB(A)
ROTO M 1000 E	1980	3/6/9	0,318	1,41	55
ROTO M 1500 E	2640	4/8/12	0,424	1,88	56
ROTO M 2000 E	3960	6/12/18	0,636	2,82	57
ROTO M 2500 E	4620	6/12/18	0,742	3,29	58
ROTO G 1000 E	2400	5/10/15	0,642	2,85	57
ROTO G 1500 E	3200	7,5/15/22,5	0,856	3,80	58
ROTO G 2000 E	4800	10/20/30	1,284	5,70	59
ROTO G 2500 E	5600	10/20/30	1,498	6,65	60
ROTO ECG 1000 E	2700	5/10/15	0,225	1,95	61
ROTO ECG 1500 E	3600	7,5/15/22,5	0,300	2,60	62
ROTO ECG 2000 E	5400	10/20/30	0,450	3,90	63
ROTO ECG 2500 E	6300	10/20/30	0,525	4,55	64

WATER HEATED										
Model	Airflow m³/h	P86		P64		P54		Power Fans kW	Current Fans A	Noise Level (5 m) dB(A)
		Heating Capacity 80/60°C kW	Water Drop Pressure 80/60°C Pa	Heating Capacity 60/40°C kW	Water Drop Pressure 60/40°C Pa	Heating Capacity 50/40°C kW	Water Drop Pressure 50/40°C Pa			
ROTO M 1000 P	1860	9,84	1000	9,22	4990	-	-	0,318	1,41	55
ROTO M 1500 P	2480	14,23	760	13,65	6430	-	-	0,424	1,88	56
ROTO M 2000 P	3720	22,17	2190	19,70	5470	-	-	0,636	2,82	57
ROTO M 2500 P	4340	27,69	4000	23,48	4060	-	-	0,742	3,29	58
ROTO G 1000 P	2250	11,04	1230	10,42	6190	10,56	1790	0,642	2,85	57
ROTO G 1500 P	3000	16,02	940	15,47	8020	16,37	5670	0,856	3,80	58
ROTO G 2000 P	4500	24,92	2700	22,29	6810	23,15	3030	1,284	5,70	59
ROTO G 2500 P	5250	31,16	4930	26,61	5060	28,76	5450	1,498	6,65	60
ROTO ECG 1000 P	2550	11,89	1400	11,27	7110	11,50	2090	0,225	1,95	61
ROTO ECG 1500 P	3400	17,29	1070	16,77	9240	17,86	6620	0,300	2,60	62
ROTO ECG 2000 P	5100	26,86	3080	24,14	7850	25,24	3530	0,450	3,90	63
ROTO ECG 2500 P	5950	33,63	5650	28,84	5840	31,38	6360	0,525	4,55	64

Water heated: connection pipes P86 and P64 are 2x3/4" female (male if lateral pipes), P54 2x1" male. P86 2 rows coil, P64 3 rows coil, P54 4 rows coil.



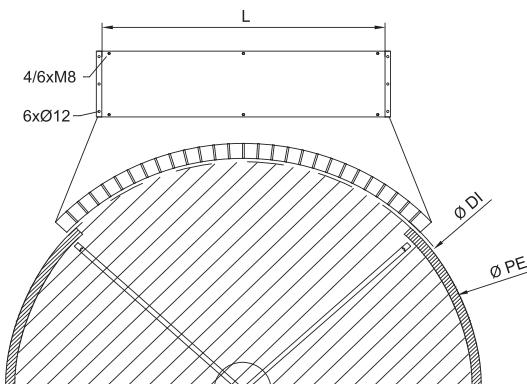
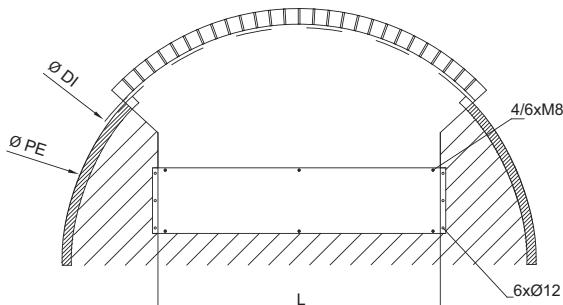
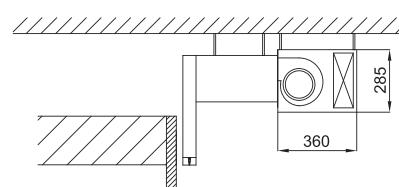
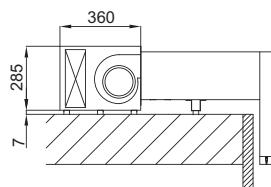
Layouts and dimensions

Rotowind air curtains are tailor-made for any kind of revolving door according to the following layouts:

On top mounting



False ceiling mounting



Fixation system



Fixed onto the door



Hanging from the ceiling

Optional decorative front cover



1. RAL 9016 standard
2. Colour from RAL palette
3. Stainless steel AISI 304

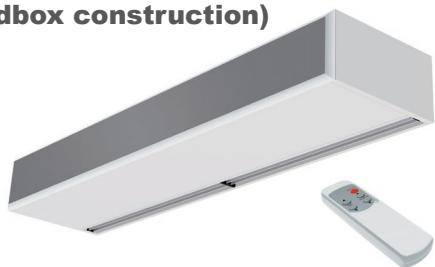


Characteristics

VP (with profiles)



VW (Windbox construction)



- Designed to be tailor-made, adaptable to any customer's needs.
- Option VP: Structure made of aluminium profiles and galvanized steel panels, finished white RAL 9016 as standard. Other colours are available on request. VP construction allow the service from the top and the bottom. Large perforated inlet grille avoiding intensive maintenance.
- Option VW: Same construction as Windbox M-G. Self-supporting casing construction made of galvanized steel plate, finished in structural epoxypolyester painting white colour RAL9016 as standard. Other colours or stainless steel are available on request. Micro-perforated inlet grille with filter functions and easy service. It does not need prefilter.
- Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
- Double-inlet centrifugal fans driven by an external rotor motor and low noise level. 5-speed selector. "EC" models assembled with very low consumption efficiency fans.
- "P" type with water heated coil. "E" type with electrical shielded elements, three stages with integrated regulation. "A" type without heating, air only.
- Includes Plug&Play control with 7m RJ45 cable and infrared remote control. Optional: Clever control (programmable, automatic, intelligent, energy saving, Modbus RTU for BMS...).

Specifications

The performance of Variwind air curtains is the same as Windbox M,G.

There all types from 1000 to 3000 mm length. It's available unheated, water heated, electrical heated or with heat pump.

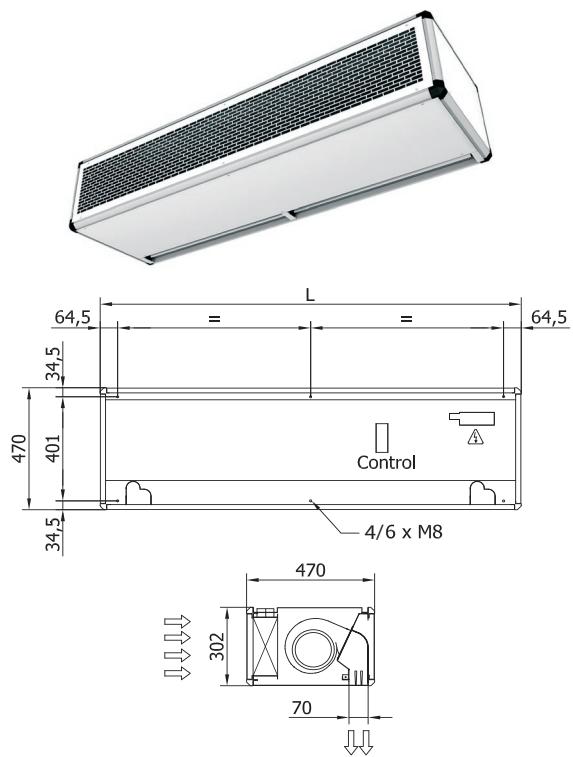
Layouts and dimensions

Variwind air curtains can be tailor-made at the request of the customers in any length from 1045 mm to 3000 mm.

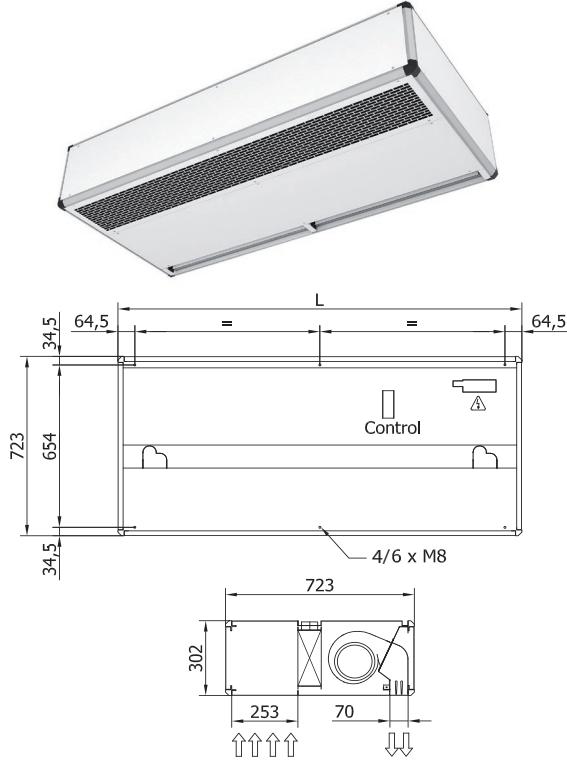
Example: Standard Variwind 1500 will have similar performance as Windbox 1500 (air volume, heating, consumption, etc.). Depending on how many mm we add to the nominal dimension 1500mm, we could put more fans and power heating if required (consult if possible).

Customized length (mm)	
VP	VW
Variwind 1000	1045-1544
Variwind 1500	1545-2049
Variwind 2000	2050-2549
Variwind 2500	2550-3000

VP Free hanging mounting



VP Inside ceiling surface mounting



VW Construction: see Windbox M-G dimensions



Characteristics



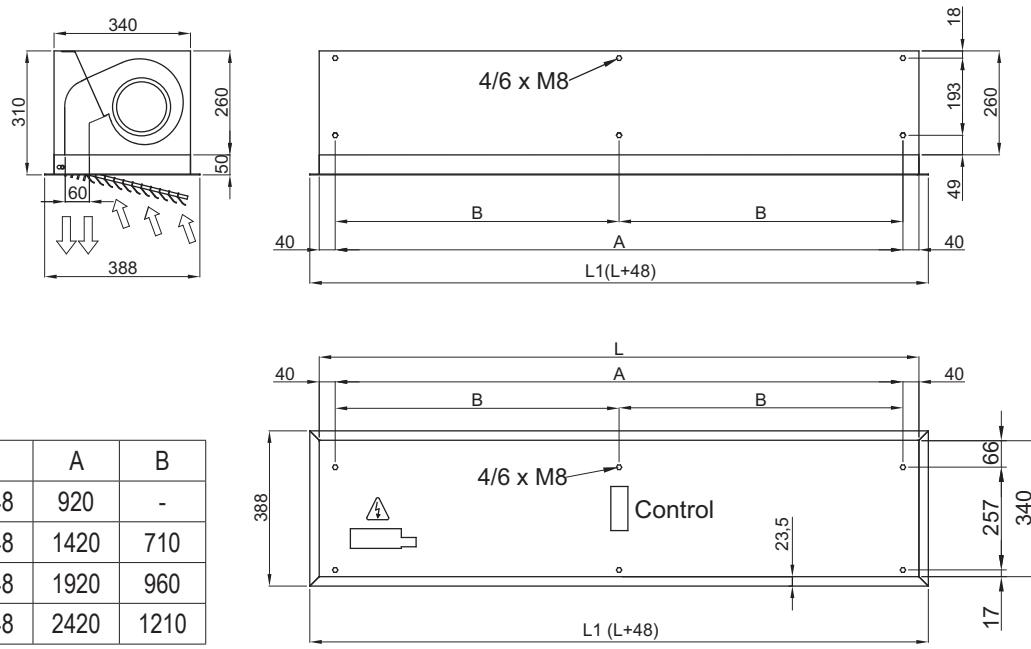
- Compact and low profile air only recessed air curtain, with full grille view, specially designed for applications without heating.
- Self-supporting casing construction made of galvanized steel plate, ready to be installed recessed in a false ceiling.
- Inlet grille (free of maintenance) made with aluminium profiles and blow-out nozzle, integrated in a single white frame colour RAL 9016. Other colours are available on request.
- Anodized aluminium outlet vanes, airfoil shaped, adjustable in both directions.
- Double-inlet centrifugal fans driven by an external rotor motor and low noise level. 5-speed selector. "EC" models assembled with very low consumption efficiency fans.
- "A" type without heating, air only.
- Includes Plug&Play control with 7m RJ45 cable and infrared remote control. Optional: Clever control (programmable, automatic, intelligent, energy saving, Modbus RTU for BMS...).

Specifications

AIR ONLY

Model	Airflow m³/h	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
RC M 1000 A	1800	0,212	0,94	55	33
RC M 1500 A	2700	0,318	1,41	56	50
RC M 2000 A	3600	0,424	1,88	57	61
RC M 2500 A	4500	0,530	2,35	58	68
RC ECM 1000 A	1840	0,132	1,14	56	33
RC ECM 1500 A	2760	0,198	1,71	57	50
RC ECM 2000 A	3680	0,264	2,28	58	61
RC ECM 2500 A	4600	0,330	2,85	59	68
RC G 1000 A	2400	0,642	2,85	57	37
RC G 1500 A	3200	0,856	3,80	58	55
RC G 2000 A	4800	1,284	5,70	59	71
RC G 2500 A	5600	1,498	6,65	60	78
RC ECG 1000 A	2700	0,225	1,95	61	37
RC ECG 1500 A	3600	0,300	2,60	62	56
RC ECG 2000 A	5400	0,450	3,90	63	71
RC ECG 2500 A	6300	0,525	4,55	64	78

Dimensions





Characteristics



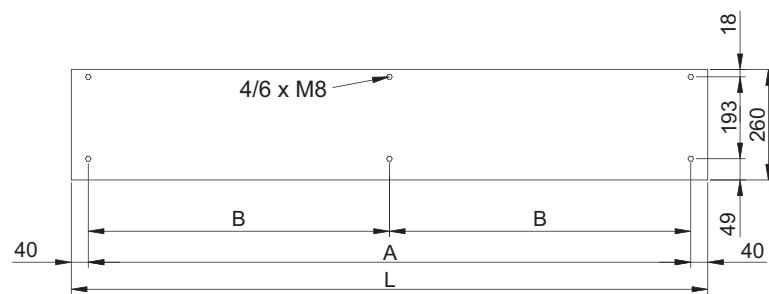
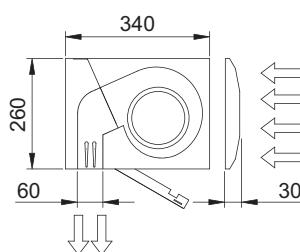
- Specially designed to be installed in doors of cold stores and freezers.
- Self-supporting casing construction made of galvanized steel plate, finished in structural epoxy-polyester painting white colour RAL9016 as standard. Other colours or stainless steel are available on request.
- Large perforated inlet grille avoiding intensive maintenance. Also available with flat micro-perforated inlet grille, more elegant for commercial doors where heating is not needed.
- Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
- Double-inlet centrifugal fans driven by an external rotor motor and low noise level. 5-speed selector. "EC" models assembled with very low consumption efficiency fans.
- "A" type without heating, air only.
- Includes Plug&Play control with 7m RJ45 cable and infrared remote control. Optional: Clever control (programmable, automatic, intelligent, energy saving, Modbus RTU for BMS...).

Specifications

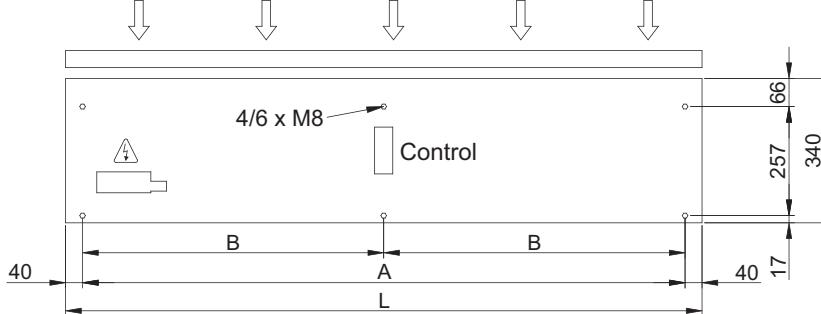
AIR ONLY

Model	Airflow m³/h	Power Fans 230V-50Hz kW	Current Fans 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
KM 1000 A	1800	0,212	0,94	55	29
KM 1500 A	2700	0,318	1,41	56	44
KM 2000 A	3600	0,424	1,88	57	53
KM 2500 A	4500	0,530	2,35	58	58
KM 3000 A	5400	0,636	2,82	59	76
KECM 1000 A	1840	0,132	1,14	56	33
KECM 1500 A	2760	0,198	1,71	57	50
KECM 2000 A	3680	0,264	2,28	58	61
KECM 2500 A	4600	0,330	2,85	59	68
KECM 3000 A	5520	0,396	3,42	60	76
KG 1000 A	2400	0,642	2,85	57	37
KG 1500 A	3200	0,856	3,80	58	55
KG 2000 A	4800	1,284	5,70	59	71
KG 2500 A	5600	1,498	6,65	60	78
KG 3000 A	6400	1,712	7,60	61	86
KECG 1000 A	2700	0,225	1,95	61	37
KECG 1500 A	3600	0,300	2,60	62	56
KECG 2000 A	5400	0,450	3,90	63	71
KECG 2500 A	6300	0,525	4,55	64	78
KECG 3000 A	7200	0,600	5,20	65	86

Dimensions



L	A	B
1000	920	-
1500	1420	710
2000	1920	960
2500	2420	1210
3000	2920	1460





Characteristics

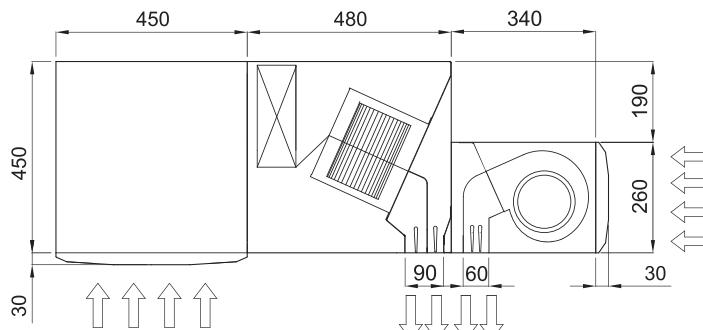


- Specially designed to be installed on doors of industrial cold stores and freezers with big temperature differences.
- Reduces mist, snow and ice decreasing risk of accidents.
- System composed by two air curtains: special Duojet air curtain with plenum and Kool air curtain. The result is a combination system of 3 jets at different temperatures and different speeds.
- High efficiency barrier against big amount of thermal losses due to a big temperature difference (shorter payback).
- Structure support with lateral walls to cover 100% of the opening with 3 jets should be provided by others.
- Self-supporting casing construction made of galvanized steel plate, finished in structural epoxy-polyester painting white colour RAL9016 as standard. Other colours or stainless steel are available on request.
- Large perforated inlet grille avoiding intensive maintenance.
- Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
- Duojet with IP55 AC centrifugal fans and Kool with EC fans (both double inlet, external rotor motors and built-in thermal protection contact). All provided with 5-speed selection, very low noise level.
- Includes electrical shielded element of 3 power stages with integrated regulation.
- Triojet is automatically fully controlled by Clever control. Electronics and controller protected inside IP65 boxes. Plug & Play connections.
- Ready for BMS connection via Modbus RTU.

Specifications

Model	Airflow m³/h	Fans Power 230V-50Hz kW	Fans Current 230V-50Hz A	Electrical Heating Capacity 400Vx3-50Hz kW	Noise Level (5 m) dB(A)	Weight kg
TRIOJET SYSTEM 1000	5900	1,08	5,75	3/6/9	62	125
TRIOJET SYSTEM 1500	8400	1,58	8,30	4/8/12	63	182
TRIOJET SYSTEM 2000	11800	2,16	11,50	6/12/18	64	234
TRIOJET SYSTEM 2500	14300	2,66	14,05	6/12/18	65	275
TRIOJET SYSTEM 3000	16800	3,17	16,60	8/16/24	66	314

Dimensions





Characteristics



- High performance industrial air curtains for vertical or horizontal installations for large industrial doors. Available in 1.5, 2.0 and 2.5 meters length. Easy dockable modules to reach large dimensions.
- Heavy self-supporting casing construction made of galvanized steel plate, finished in structural epoxy-polyester painting white colour RAL9016 as standard. Other colours are available on request.
- Double outlet with Coanda effect to achieve larger and efficient air jet. Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
- High efficiency and low noise axial fans, driven with external rotor motor single phase 230V. Optionally three phase 400V. Maintenance free.
- "P" type with water heated coil. "A" type without heating, air only.
- Regulation not included. Optional:
Basic regulation with Plug&Play control panel, 10m RJ45 cable and remote control.
Advanced regulation with Clever (automatic, intelligent, energy saving, Modbus RTU for BMS...).

Specifications

AIR ONLY

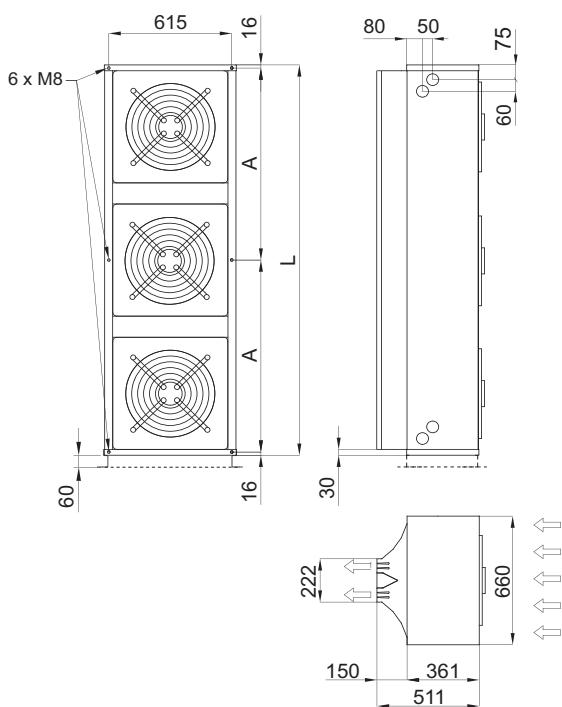
Model	Airflow m³/h	Fans Power 230V-50Hz kW	Fans Current 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
MXW 1500 A	7000	0,68	2,96	60	79
MXW 2000 A	10500	1,02	4,44	61	103
MXW 2500 A	14000	1,36	5,92	62	126

WATER HEATED

Model	Airflow m³/h	P86			P64			Fans Power 230V-50Hz kW	Fans Current 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
		Water Heating Capacity 80/60°C kW	Water Drop Pressure 80/60°C Pa	Water Connections 80/60°C	Water Heating Capacity 60/40°C kW	Water Drop Pressure 60/40°C Pa	Water Connections 60/40°C				
MXW 1500 P	6800	41,39	12040	2x1¼"	34,09	12620	2x1¼"	0,68	2,96	59	95
MXW 2000 P	10200	61,25	16920	2x1¼"	50,16	13660	2x1¼"	1,02	4,44	60	126
MXW 2500 P	13600	80,05	13940	2x1¼"	66,19	14600	2x1¼"	1,36	5,92	61	158

Water heated: P86 2 rows coil, P64 3 rows coil. Electrical heated models available on customer request. Let us know your needs.

Dimensions



L	A
MXW 1500	1500
MXW 2000	2000
MXW 2500	2500



Characteristics



- High performance industrial air curtains for vertical or horizontal installations for large industrial doors. Easy dockable modules to reach large dimensions.
- Heavy casing made of double chamber aluminium profiles and galvanized plated steel panels, finished in structural epoxy-polyester painting white colour RAL9016 as standard. Other colours are available on request.
- Double outlet with Coanda effect to achieve larger and efficient air jet. Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
- High efficiency and low noise axial fans, driven with external rotor motor single phase 230V. Optionally three phase 400V. Provided with 5-speed selection. Maintenance free.
- "P" type with water heated coil. "E" type with electrical shielded elements, three stages with integrated regulation. "A" type without heating, air only.
- Includes Plug&Play control with 10m RJ45 cable and infrared remote control. Optional: Clever control (programmable, automatic, intelligent, energy saving, Modbus RTU for BMS...).

Specifications

AIR ONLY

Model	Airflow m³/h	Fans Power kW	Fans Current A	Noise Level (5 m) dB(A)	Weight kg
MAX 2 A	6600	0,68	2,96	62	59
MAX 3 A	9900	1,02	4,44	63	79
MAX 4 A	13200	1,36	5,92	64	103
MAX 5 A	16500	1,70	7,40	65	124
MAX 6 A	19800	2,04	8,88	66	151

ELECTRICAL HEATED

Model	Airflow m³/h	Electrical Heating Capacity 400Vx3-50Hz kW	Fans Power 230V-50Hz kW	Fans Current 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
MAX 2 E	6600	15/25/40	0,68	2,96	62	74
MAX 3 E	9900	22,5/37,5/60 (*)	1,02	4,44	63	100
MAX 4 E	13200	30/50/80 (**)	1,36	5,92	64	133
MAX 5 E	16500	30/60/90 (**)	1,70	7,40	65	159
MAX 6 E	19800	30/60/90 (**)	2,04	8,88	66	186

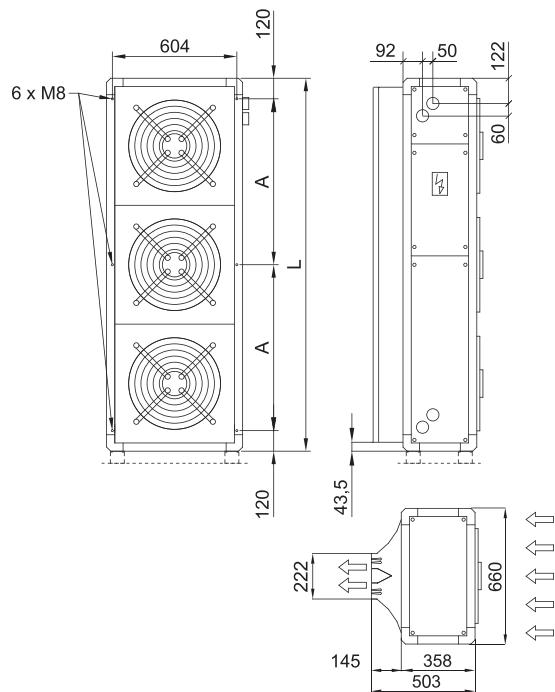
(*) 2 separated power supplies. (** 3 separated power supplies.

WATER HEATED

Model	Airflow m³/h	P86		P64		Water Connections 230V-50Hz	Fans Power kW	Fans Current A	Noise Level (5 m) dB(A)	Weight kg
		Water Heating Capacity 80/60°C kW	Water Drop Pressure 80/60°C Pa	Water Connections 60/40°C kW	Water Drop Pressure 60/40°C Pa					
MAX 2 P	6400	28,74	350	2x1¼"	29,71	8690	0,68	2,96	61	75
MAX 3 P	9600	51,77	1440	2x1¼"	47,10	11930	1,02	4,44	62	102
MAX 4 P	12800	74,15	2580	2x1¼"	63,30	9340	1,36	5,92	63	135
MAX 5 P	16000	96,43	7070	2x1¼"	82,16	18450	1,70	7,40	64	162
MAX 6 P	19200	118,69	12160	2x1¼"	91,92	3770	2,04	8,88	65	189

Water heated: P86 2 rows coil, P64 3 rows coil.

Dimensions



	L	A
MAX 2	1234	498
MAX 3	1811	786
MAX 4	2388	1074
MAX 5	2965	1363
MAX 6	3542	1651

ACCESSORIES - SPECIAL OPTIONS



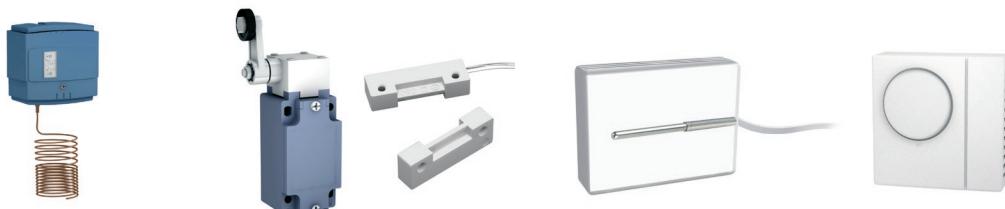
Accessories



Feet, wall or ceiling supports, tailor made arms, vibration dampers...



Thermostatic valve, solenoid valve (ON/OFF), modulating valves...



Anti-freeze sensor, door contact, ambient thermostat, external temperature sensor...



Telephone cables: RJ45, RJ11, different lengths...

Special Options

Airtecnics, as an air curtains specialist, can produce units with special requirements under request.

Here there are some of the possibilities:

- External alarm signals as: unit working, heating ON, airflow switch, dirty grille, electronic overheating signal, fans overheating thermo contact TK, electrical heating blocked, etc.
- Special water or steam coils for higher temperatures or different power than standard
- Tailor made electrical heating elements at desired power and power supply
- Electrical heated air curtains from 400Vx3 to 230Vx3 or 230Vx1
- Dummies (empty air curtains) to combine with working units
- Industrial air curtains at 400Vx3 with the same advantages of electronic regulation 5 speed range
- Industrial MAX with higher volume (MAX L)
- Industrial MAX with explosion proof EX fans
- Stainless steel AISI-316 or other materials under request
- Special RAL colour with gloss or other finishes. Special BS (British Standard), Tiger Drylac, etc.
- Complete tailor made air curtain or our standard range customized according to client needs

Please consult us for further information or other options.



EC Concept

EC technology (Electronically Commutated) combines AC and DC voltages, bringing the best of both technologies: the motor runs on a DC voltage, but with a normal AC supply.

The EC motor transforms the voltage within the motor. The non-rotating part of the motor (stator) includes an electronic PCB board which incorporates power transformation AC to DC, as well as the controls.

EC motors have no slippage losses, thus increasing efficiency versus AC motors.

Advantages and Benefits

The new Airtecnic EC Air curtains are fascinatingly efficient reducing the running cost of the ventilation up to 65% using EC instead of AC fans.

- Energy savings: minimum power consumption and better efficiency than AC equivalent
- Low motor temperature: for longer lifetime than AC equivalent
- Simplicity: electronic and power transformation are completely integrated within the motor
- High performance: speed can be driven up to 3600rpm

Available EC Air Curtains: Windbox ECM-ECG, Smart, Deco, Kool, Recessed Windbox, Dam, Recessed Dam, Duojet, Variwind, Recessed Compact, Rund, Zen, Rotowind and Invisair.

EC vs AC Air Curtain - Energy Saving Example

How much money can I save using an EC Air curtain?

Example:

Door dimension: 2 m width by 3,8 m height

Running time: 12 hours/day, 6 days/week,
50 weeks (~ 1 year)

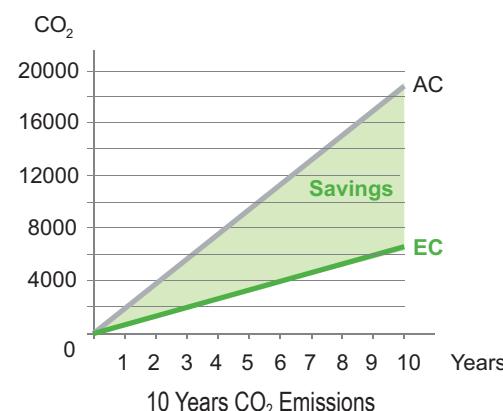
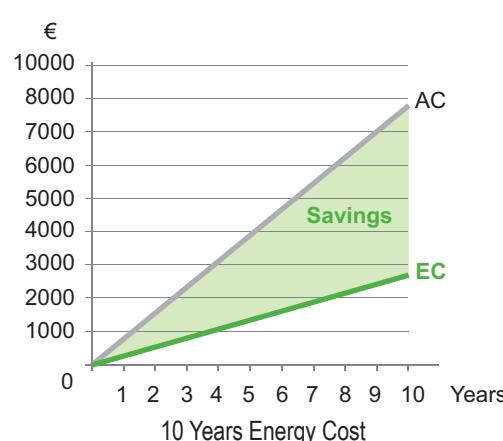
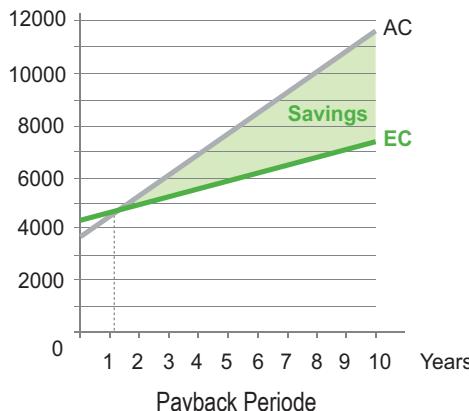
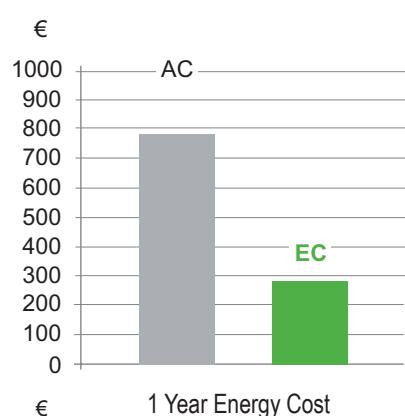
Energy cost: 0,17 €/kW/h (EU-27 average cost)

Selected unit: AC: G 2000, EC: ECG 2000

	AC Air Curtain		EC Air Curtain		Difference
Total Fans Power	1,284	kW	0,450	kW	- 0,834 kW
Air Curtain Price	3.828	€/unit	4.440	€/unit	+ 612 €
Energy Consumption	4.622	kWh	1.620	kWh	- 3.002 kWh
Energy Cost	786	€	275	€	- 510 €
CO ₂ Emissions	1.849	kg	648	kg	- 1.201 kg

Result: The payback period is 1,2 years. We recover the price increase of EC air curtain in about 1 year and then we start saving money.

From the beginning we save energy and reduce CO₂ emissions to the environment.



BASIC REGULATION: Standard Controls



Two ranges of control panels, both designed for easy and quick Plug & Play connection, free of mistakes, by using a telephone cable with RJ45 connectors. The digital communication between the control panel and air curtain is a very reliable connection without information losses even at long distances. All control panels can be turned ON/OFF externally and have internal memory (if the power supply is cut off, the unit goes back to the selected state).

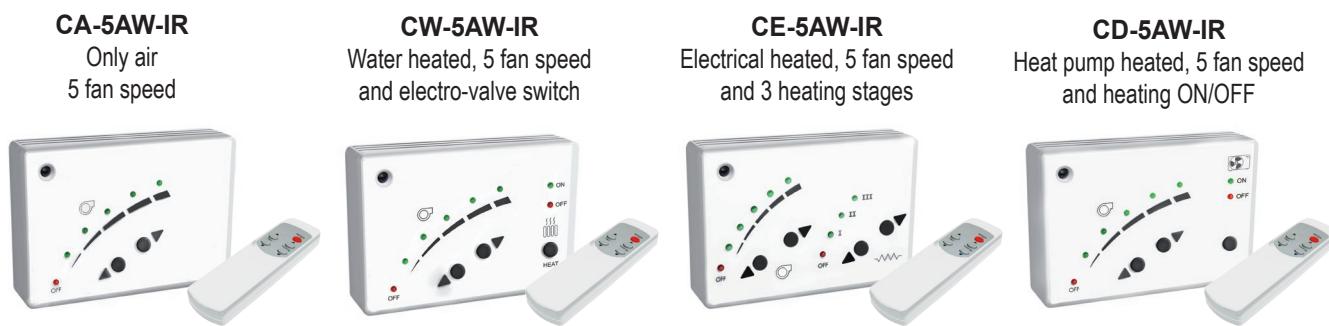
2 Speed Range Controls

Suitable for Optima and Recessed Optima air curtains. Infrared remote control included.



5 Speed Range Controls

Suitable for Windbox M,G,L,XL, Dam, Smart, Recessed Windbox, Recessed Dam, Recessed Compact, Kool, Zen, Rund, Deco, Rotowind, Invisair, Variwind, Max and Maxwell air curtains. Infrared remote control included.



Optional Controls

Hand Auto

Water heated: with manual and automatic operating.
Auxiliary functions: anti-freezing sensor, door contact
(with delay) and room thermostat.



CH-2HO-NE



CH-5HW-NE

Digital Thermostat

Only electrical heated: modifies heat stages and fan speed depending on temperature and selected program.



TD-NE-II

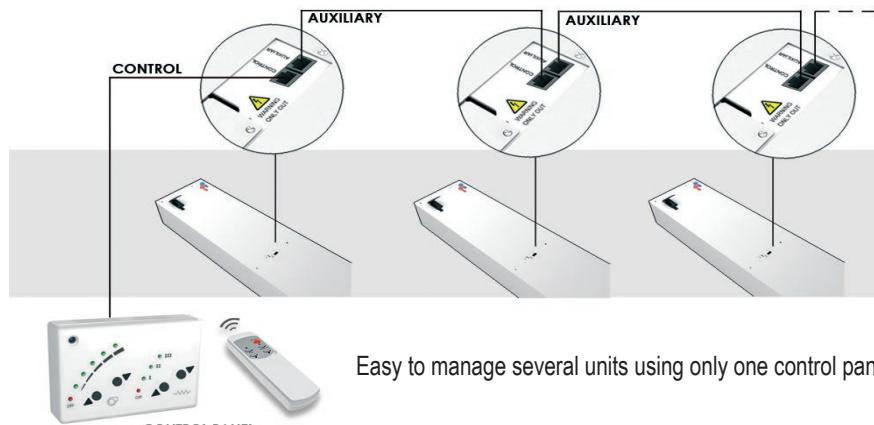
Interface

Allows the connection to a centralized management system like BMS and also to standard controllers.



IN-NE-II

Multiple air curtain connection



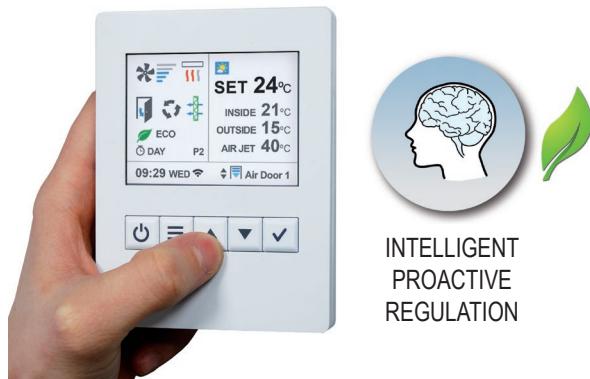
ADVANCED REGULATION: Clever Control



The future is here with the new generation Clever control. Maximum control with maximum energy saving.

What is Clever control?

Clever control automatically adapts the functioning of the air curtain to the entrance conditions, maintaining comfort while saving energy. It optimizes the ventilation and heating to make an efficient barrier for an optimal climate separation.



It includes manual or automatic functioning with many different programs depending on heating type (water, electrical, heat pump or unheated) and installed temperature sensors.



Clever kit includes:



Clever Control

- Color TFT screen 2.8 inch
- 114 (h) x 85 (w) x 14 (d) mm
- Prepared for flush-mount installation



Intelligent PCB Box

- Electronic PCB Regulation
- 218 (w) x 140 (h) x 64 (d) mm
- Varnish Protection



PCB Power Supply

- Input: 100-240Vx1 50/60Hz (AC)
- Output: 24V 2A (DC)
- EU 2 pins / BS 3 pin plugs



RJ11 + RJ45 Cables

- Easy Plug & Play installation
- RJ11 (4 Pins), 7m length
- RJ45 (8 Pins), provided with the air curtain



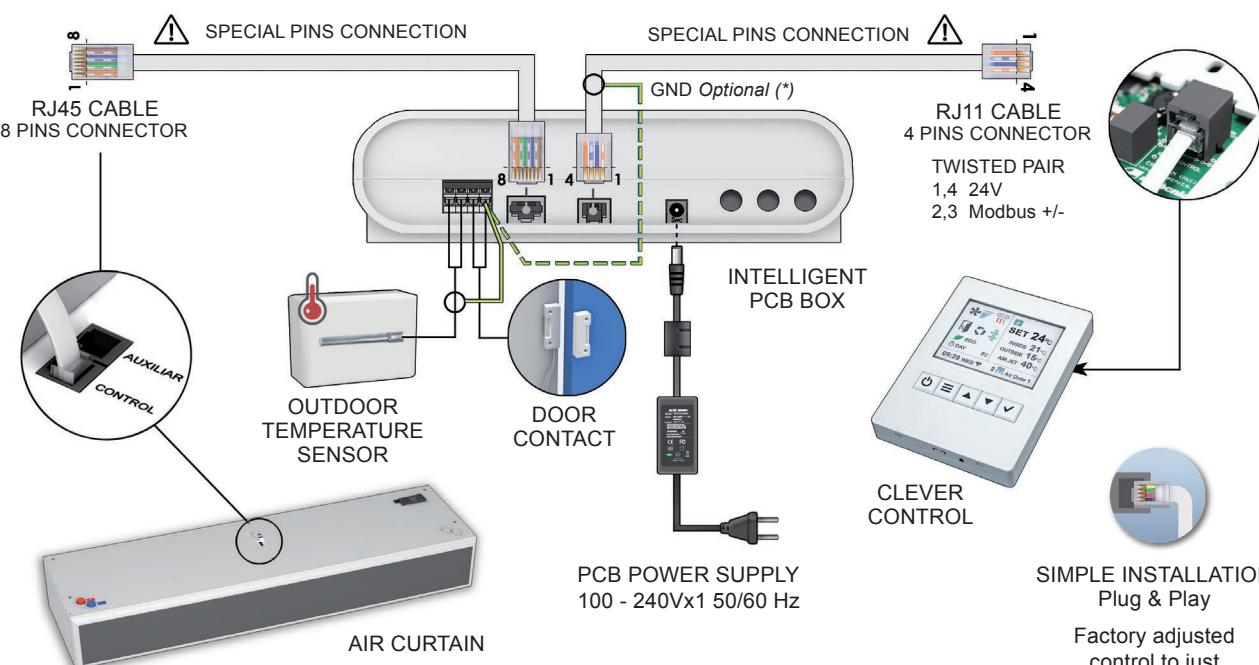
Outdoor Temperature Sensor

- Real-time temperature values
- IP65 Protection



Door Contact

- Monitoring Door Status
- Magnetic contact



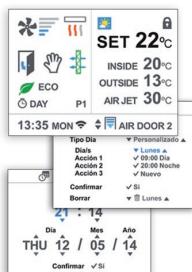
(*) If there are communication issues (interferences), use shielded cable connected to GND

ADVANCED REGULATION: Clever Control



Clever control includes lots of advanced functions and extras to fulfill all client needs.

Advanced functions:



USER FRIENDLY DESIGN

Multilanguage and easy icons for fully understanding.
Main state screen: ventilation speed, heating, temperatures, door state, working mode and program, filter state, day/hour, timer, etc. 3 different menu configurations depending on who is managing the equipment: user, basic or advanced.



ENERGY SAVING

3 grades of comfort and energy efficiency:
“Eco” uses the less energy possible without compromising too much the comfort.
“Comfort” spends more ventilation/heating to maintain / achieve quicker the Set temperature. “Medium” is in between.



ADAPTIVE DOOR DELAY

When the door closes, the air curtain remains working at door open conditions for certain time to be ready if it opens again.

2 modes with two strength stages:
“Fixed” where you define the duration
“Flexible” which adapts automatically the time depending on how often the door is open.



TIMER (DAY/NIGHT)

To turn ON DAY, ON NIGHT or OFF automatically the unit depending on each different day of the week or predefined groups of days.

User can select between Day or Night modes with 2 different Set temperatures in order to save energy.



COMPATIBLE

Android or Apple smartphone application with user functions connected via WIFI.

BMS communication with Modbus RTU protocol or using digital and analogical IN/OUT to control or monitor directly the unit. Modbus TCP/Bluetooth optional modules. PC Windows program (RS485).



FILTER ALARM

Indicates when filter needs replacing/cleaning.
2 options: by “Timer” of functioning hours or by “Pressure Sensor” switch.



FULLY PROGRAMMABLE

All parameters can be configured at Basic or Advanced menu.

Lots of extra functions to fulfill all clients applications. Editable device names for easy identification.



MULTI-EQUIPMENT

Clever works with different types of units: air curtains, fan heater, AHU, etc.
Once programmed, PCB can work by itself without any controller.
One Clever TFT can manage up to 255 different units, each one with its own program.

Other Characteristics:

- Clever is factory adjusted according to the device/s and client requirements
- Once installed, the system checks automatically all connected units and its temperature sensors
- Different integrated programs and functions for particular applications
- Different programs depending on installed temperature sensors: inside, outside and air jet
- Able to regulate by itself the ventilation and heating depending on: door state, temperature sensors, selected working mode, grade of energy saving, program and other parameters
- Alarms: general, filter state, anti freezing, overheating, fans overheating, airflow, fire, external, heating locked, etc.
- Security control buttons lock option by code
- Modulating valve for water heated (includes 24VDC power supply)
- Multiple functions: temporized door, excessive temperature of water return, cooling mode and others



Optima
Installation in
a shop entrance



Windbox
In a chain restaurant



Dam
With smooth front panel
in a shop



Windbox
Invisible Installation
with false ceiling kit



Recessed Windbox
Designed to be installed
in a false ceiling



Invisair
Invisible inbuild Column
or bulkhead air curtain



Zen
With aluminum panels
in an office building



Zen
Exclusive design and
custom finishes



Zen

With wood panels in a restaurant



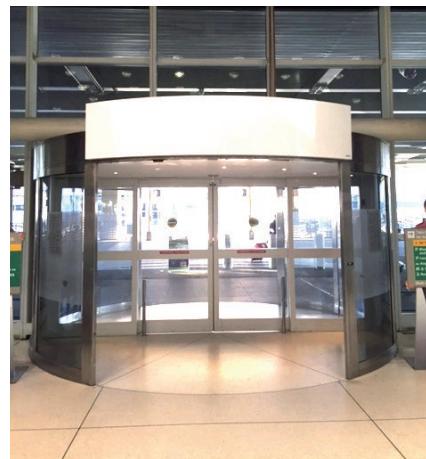
Rund

Vertical stainless steel in a big mall entrance



Rund

Multiple installation covering long distances



Rotowind

Revolving door in an international airport



Rotowind

Tailor-made for any revolving door



Kool

Cold chamber in a food factory



Windbox L

Multiple installation in an industrial door



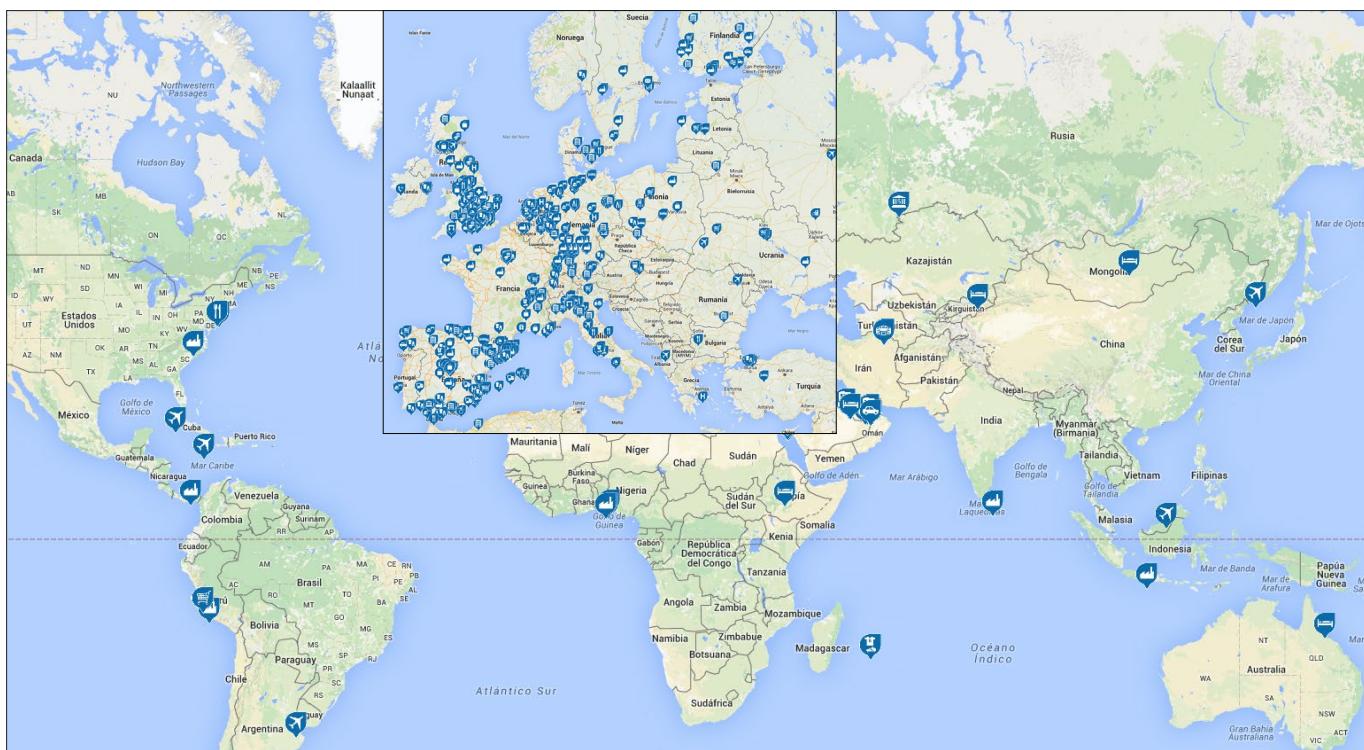
Max

Modular towers on large industrial doors

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Producing for Worldwide Brands



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Public Buildings



Buildings

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- Royal Courts of Justice (London, UK)
- Riffa King Palace (Manama, Bahrain)
- Fire Brigade headquarters (London, UK)
- O2 Space (Dublin, Ireland)
- Expo Georgia (Tbilisi, Georgia)
- Darwen Leisure Centre (Darwen, UK)
- Park Pavilion (London, UK)

- La Defense (Paris, France)
- Forum (Barcelona, Spain)
- Expo 2015 (Milan, Italy)
- National Audit Office (London, UK)
- Centre des Conventions (Oran, Algiers)
- Roca Gallery (London, UK)
- Expo Ourense (Ourense, Spain)
- Repsol Auditorio (Madrid, Spain)

- Palace of the United Nations (Geneva, Switzerland)
- Palacio de Ferias y Congresos (Málaga, Spain)
- Generalitat de Catalunya (Barcelona, Spain)
- Congreso de los Diputados (Madrid, Spain)
- Prefecture Des Yvelines (Versailles, France)
- Palacio Euskalduna Jauregia (Bilbao, Spain)
- Comissaria Mossos d'Esquadra (Amposta, Spain)
- Commissariat de Police (Aulnay-sous-Bois, France)



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- Gatwick (London, UK)
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- Heathrow (London, UK)
- Leonardo da Vinci (Roma, Italy)

- Hamad (Doha, Qatar)
- Malpensa (Milan, Italy)
- Vladivostok (Ayrton, Russia)
- Norman Manley (Kingston, Jamaica)
- Danylo Halytskyi (Lviv, Ukraine)

- José Martí (La Habana, Cuba)
- Queen Alia (Amman, Jordania)
- Jorge Newbery (Buenos Aires, Argentina)
- Ashgabat Airport (Ashgabat, Turkmenistan)
- Tirana International Airport (Tirana, Albania)



Train Stations

- Central Station (Vienna, Austria)
- AVE (Lleida, Spain)
- Stratford (London, UK)

- Kings Cross (London, UK)
- Atocha (Madrid, Spain)
- Ebbsfleet (London, UK)

- Haramain Highspeed (Jeddah, Saudi Arabia)
- RENFE Estació de França (Barcelona, Spain)
- FFCC Plaça Catalunya (Barcelona, Spain)



Hospitals

- Barking (London, UK)
- CAP Rambla (Terrassa, Spain)
- Dexeus (Barcelona, Spain)
- Forth Valley (Larbert, Scotland)

- Hygeia (Athens, Greece)
- Mútua (Terrassa, Spain)
- Sant Joan de Déu (Barcelona, Spain)
- Virgen del Castillo (Yecla, Spain)

- Asepeyo (Sant Cugat del Vallès, Spain)
- St. Peters (Chertsey, UK)
- Bellvitge (Hospitalet de Llobregat, Spain)
- Parc Taulí (Sabadell, Spain)



Colleges / Universities

- Hope (Liverpool, UK)
- Imperial (London, UK)
- Redbridge (Romford, UK)
- San Pablo CEU (Madrid, Spain)

- Blanqueria (Barcelona, Spain)
- Colegio Americano (Madrid, Spain)
- Evelyn Grace (London, UK)
- James Watt (Greenock, UK)

- National Physics Technology Centre (Vilnius, Lithuania)
- Liverpool University (Liverpool, UK)



Museums

- Louvre (Paris, France)
- Picasso (Barcelona, Spain)
- MNAC (Barcelona, Spain)

- Victoria Gallery (Liverpool, UK)
- Palacio de Carlos V (Granada, Spain)
- People's History (Manchester, UK)

- Bob Marley (Kingston, Jamaica)
- Arts Santa Mónica (Barcelona, Spain)
- Palacio Real (Madrid, Spain)



Theaters

- National Theatre (London, UK)

- Teatro de la Zarzuela (Madrid, Spain)

- Royal Albert Hall (London, UK)



Chains



Stores

- Apple headquarters (London, UK)
- Media Markt (Badajoz, Spain)
- Ikea (Växjö, Sweden)
- Leroy Merlin (Valladolid, Spain)
- FNAC (Zaragoza, Spain)
- T Mobile (Schwäbisch Hall, Germany)

- Adidas (Barcelona, Spain)
- Vodafone (Galway, Ireland)
- Swarovski (Norwich, UK)
- Nike (Dublin, Ireland)
- Sephora (Milan, Italy)
- Kipling (La Roca del Vallès, Spain)

- Dior (Stuttgart, Germany)
- El Corte Inglés (Talavera de la Reina, Spain)
- Decathlon (Sainte-Suzanne, Réunion Island)
- Gillette (Reading, UK)
- Yves Rocher (Amsterdam, Netherlands)
- Alain Afflelou (Barcelona, Spain)



Clothes

- Louis Vuitton (London, UK)
- Mango (Faro, Portugal)
- H&M (Amsterdam, Netherlands)
- Next (Manchester, UK)
- Primark (Madrid, Spain)
- Levi's (Barcelona, Spain)
- Napapijri (Oslo, Norway)

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- Kiabi (Aubenas, France)
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- Marks & Spencer (Glasgow, Scotland)

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- Billabong (Barcelona, Spain)
- Desigual (Dublin, Ireland)
- Guess (Barcelona, Spain)
- Pepe Jeans (Amsterdam, Netherlands)
- Stradivarius (Sabadell, Spain)
- C&A (Schwäbisch Hall, Germany)



Shoes

- Crocs (Amsterdam, Netherlands)
- Fila (Amsterdam, Netherlands)
- Fosco (Barcelona, Spain)

- Geox (Madrid, Spain)
- JD Sport King (Rotterdam, Netherlands)

- Foot Locker (Amsterdam, Netherlands)
- Vives (Vic, Spain)



Supermarkets

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- Aldi (Collado Villalba, Spain)
- Intermarché (Polliat, France)

- Lidl (Bydgoszcz, Poland)
- Tesco (Cheltenham, UK)
- E.Leclerc (Loudun, France)

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- Nestlé (Halifax, UK)
- Pizza Hut (Frankfurt, Germany)

- Hard Rock Cafe (Venezia, Italy)
- KFC (Amsterdam, Netherlands)
- Viena (Zaragoza, Spain)

- Häagen-Dazs (Palma de Mallorca, Spain)
- Subway (Rotterdam, Netherlands)
- Fosters Hollywood (Sabadell, Spain)



Cars

- Porsche (Stuttgart, Germany)
- Ford (Almussafes, Spain)
- BMW (Abrera, Spain)

- Nissan (Sunderland, UK)
- Ferrari (Las Rozas, Spain)
- Mercedes (Alcobendas, Spain)

- Citroen (Vigo, Spain)
- Toyota (Madrid, Spain)

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Companies



Banks

- Barclays (Leeds, UK)
- Sabadell Atlántico (Palafrugell, Spain)
- Kutxa Bank (Getaria, Spain)

- BBVA Headquarters (Bilbao, Spain)
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- Morabank (Andorra la Vella, Andorra)



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- Würth (Kouvolta, Finland)
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- Siemens Vdo (Abrera, Spain)
- Cadbury (Lagos, Nigeria)
- Basf (Milan, Italy)

- Siemens (Durham, USA)
- Allianz (Madrid, Spain)
- EAM Maliban Textile (Colombo, Sri Lanka)
- Bodega J. García Carrión (Daimiel, Spain)
- Vestas Technology Ltd (Isle of Wight, UK)
- Findus (Pamplona, Spain)



Others

- American Naval Base (Juffar, Bahrain)
- US Army Camp Liberty (Baghdad, Iraq)
- Sarrià Market (Barcelona, Spain)
- Barfoots Ltd Farm (Bognor Regis, UK)

- BBC TV (Cardiff, Wales)
- BFI Imax Cinema (London, UK)
- The Reef Hotel Casino (Cairns, Australia)
- Gran Casino (Barcelona, Spain)

- Nuclear Plant (Saint-Laurent-Nouan, France)
- Ceccato Car Wash (Milan, Italy)
- Spine Tower Carrefour SA (Istanbul, Turkey)

Leisure



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- Esselunga (Casale Monferrato, Italy)
- El Bulevar (Ávila, Spain)
- Zorlu Center (Istanbul, Turkey)



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- Indigo (New York, USA)
- NH (Madrid, Spain)
- Polaris (Ulaanbaatar, Mongolia)
- Novotel Paddington (London, UK)

- Crowne Plaza (Montpellier, France)
- Pegaso (Bergamo, Italy)
- Holiday Inn (Chessington, UK)
- Ritz (Almaty, Kazakhstan)
- NH Las Tablas (Madrid, Spain)

- Wyndham (Doha, Qatar)
- Le Jura (Dijon, France)
- Park Plaza (London, UK)
- Assila Rocco Forte (Jeddah, Saudi Arabia)



Restaurants

- Kyochon (New York, USA)
- Lujo Ibérico (Sabadell, Spain)
- Panorama (Sofia, Bulgaria)
- Tagliatella (Alicante, Spain)

- Atresmedia Café (Madrid, Spain)
- Deserie (Barnet, UK)
- CalaBoca (Sabadell, Spain)
- Filandón (Madrid, Spain)

- Paul Bocuse (Collonges-au-Mont-d'Or, France)
- El Refugi Alpí (Andorra la Vella, Andorra)
- Hatay Medeniyetler Sofrasi (Istanbul, Turkey)
- La Esquina del Bernabéu (Madrid, Spain)



Theme Parks / Sports

- Disneyland (Paris, France)
- Europapark (Rust, Germany)
- Port Aventura (Salou, Spain)

- Camp Nou (Barcelona, Spain)
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