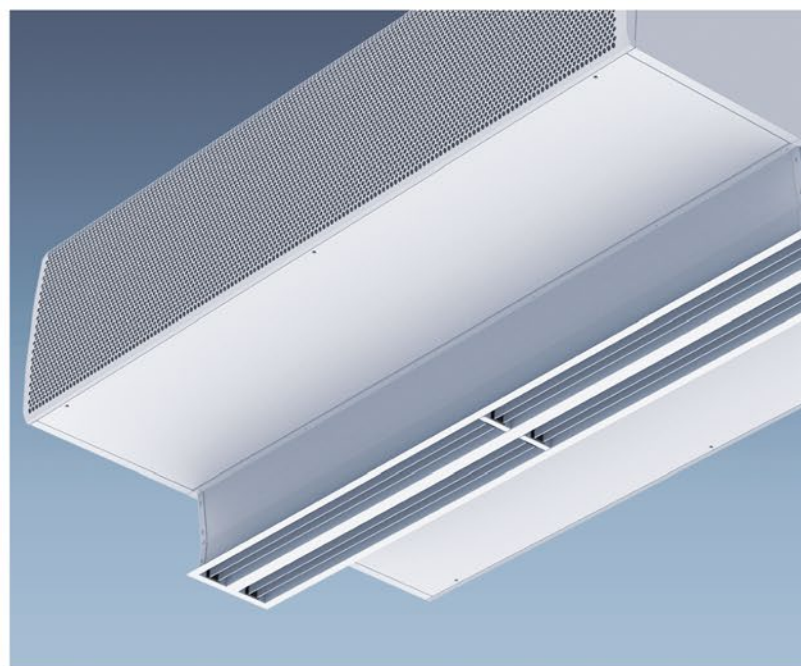
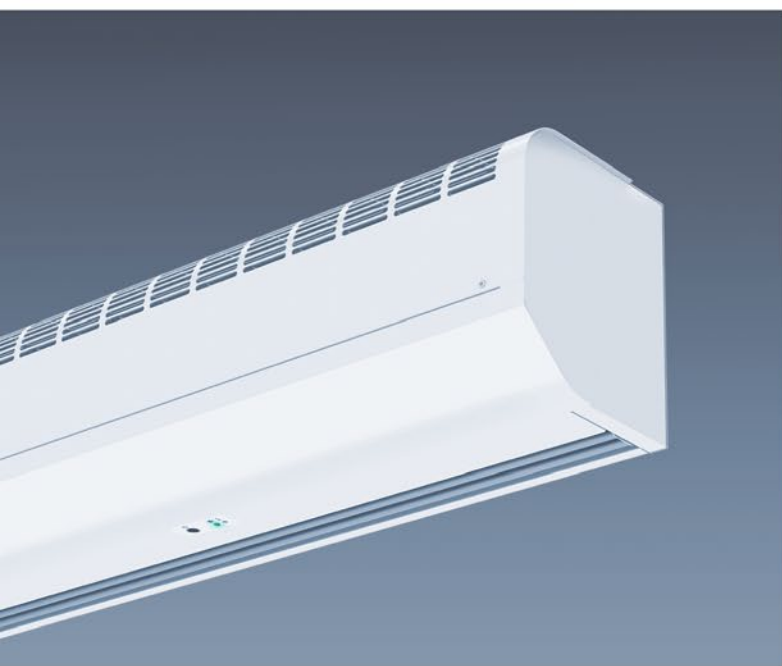




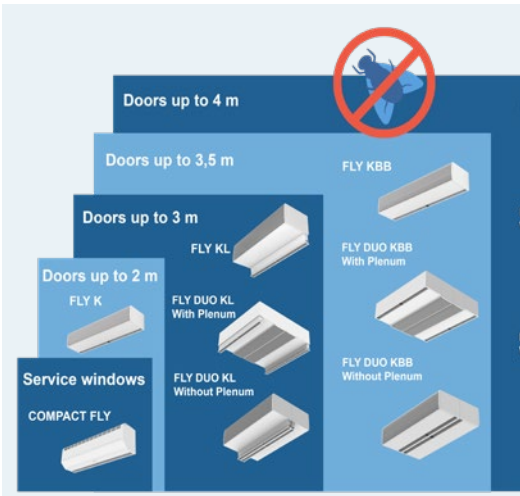
AIR CURTAINS FOR INSECT PREVENTION

Catalogue



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The insects problem

Pest control in food business, whether in the food industry, warehouses or establishments selling packaged or table-top food products, is of great importance.

Insects can contaminate any of the facilities where food is processed and stored. When in contact with food products, they can transmit diseases known as "vector-borne", which accounts for more than 17% of infectious diseases globally. Catering businesses can attract insects such as flies or mosquitoes since their raw material is organic. This is not only annoying but can also mean a public health problem with the consequent fines.

How can we combat this problem successfully? The least invasive way to prevent insect infestation is to restrict their access to buildings with air curtains, rather than eliminating them with electronic devices, traps or pesticides, which can be harmful to humans and the Earth.

Airtècnics offers a complete range of high-performance air curtains to minimize the entrance of flies or other flying insects in establishments, hospitals, factories or clean areas.



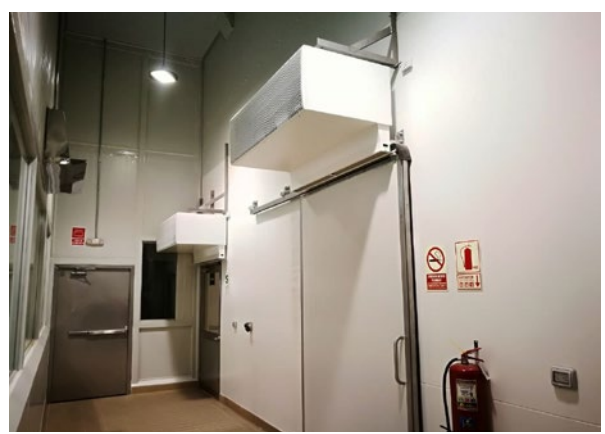
Restaurants and food establishments



Industry



Farming



Health sector

More than 100 clients have solved the problem of insects entry with Airtècnics air curtains:



Monographic study

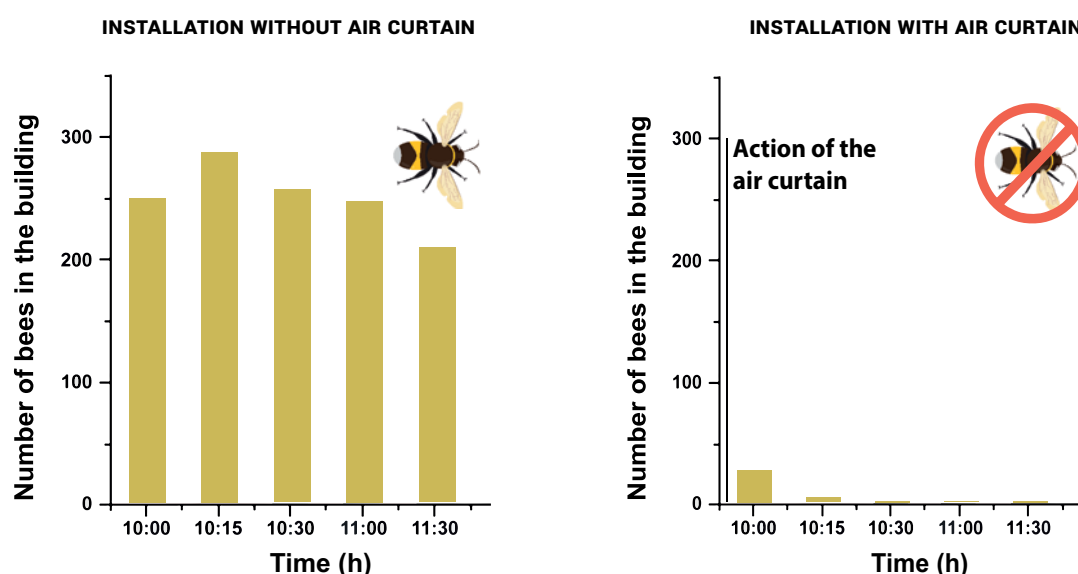
Effectiveness of an air curtain as an insect barrier by taking the honey bee as a model insect

Scope

Test the possible deterrent effect of an air curtain against strong flying insects using the honey bee as a model insect to measure the effectiveness of air curtains against insects.

Procedure

A 7500 worker bees are placed in a tunnel (8 m × 20 m) covered by an insect-proof net. The tunnel is connected to a building by a corridor, also covered by the net, through which the bees have access to a building where there is a food source. An air curtain is introduced between the food source and the colony. The bees that enter the chamber with the food at different times with and without an air curtain activated are measured in order to make a comparison between both results. The velocity of the air flow produced by the curtain at a height of 91 cm from the ground is measured as a reference value to compare the anti-insect effectiveness of the air curtain against different airflow velocities.



Results

The results show that an airflow velocity of 7.25m/s prevents insects from entering a building. This study demonstrates that air curtains with a high jet speed according to NSF-37 have an efficacy against insects up to 99.9% (see next page for speed limits).

An air curtain can prevent a strong flyer, such as the honey bee, from entering buildings. The results suggest that air curtains might also be efficient against other strong flyers that acquire kinetic energies below or near that of the honey bee. Thus, air curtains may represent a preventive approach for limiting the infestation of buildings by flying insects and thereby decrease the health impacts of vector-borne and food-borne diseases.

Bibliography

Authors of the article: The study was carried out by Guillaume Kairo, Maryline Pioz, Sylvie Tchamitchian, Michel Pelissier, Jean-Luc Brunet and Luc P Belzunces in INRA, Laboratoire de Toxicologie Environnementale, UR 406 Abeilles & Environnement, Avignon, France. Published online in Wiley Online Library: 22 July 2018. Source - bibliography Guillaume Kairo, Maryline Pioz, Sylvie Tchamitchian, Michel Pelissier, Jean-Luc Brunet and Luc P Belzunces. (2018). Efficiency of an air curtain as an anti-insect barrier: the honeybee as a model insect. Wiley Online Library. Society of Chemical Industry. Pest Manag Sci 2018; 74 2707-2715. DOI 10.1002/ps.5090.

INSECT CONTROL AIR CURTAINS



Airtècnics Air Curtains

The new range of Airtècnics insect control air curtains FLY is composed of 5 models and all them comply with the requirements of the American NSF / ANSI Standard 37 "Air curtains for Entrance ways in Food and Food Services Establishments" guideline of the Federal Department of Agriculture and Pharmaceutical that regulates the use of air curtains to avoid the entrance of insects in buildings dedicated to food handling.

According to **NSF/ANSI 37-2012**, the minimum performance depending on the type of door is:



In **service windows**:

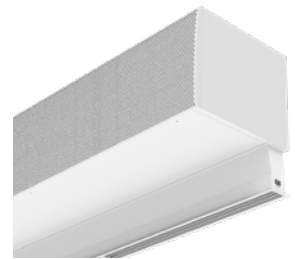
The air jet must have a minimum velocity of 3,05 m/s at 1/3 distance from the vertical opening above the base of the service window.

At **service doors**:

The air jet must have a minimum velocity of 8,1 m/s at 0,91 metres above the floor.

At **customer entrances**:

The air jet minimum velocity at 0,91 metres from the floor must be 3,05 m/s.



FLY KL / KSB / KBB / KXL

High power and efficiency models recommended for doors up to 3/3,5/4 meters high.



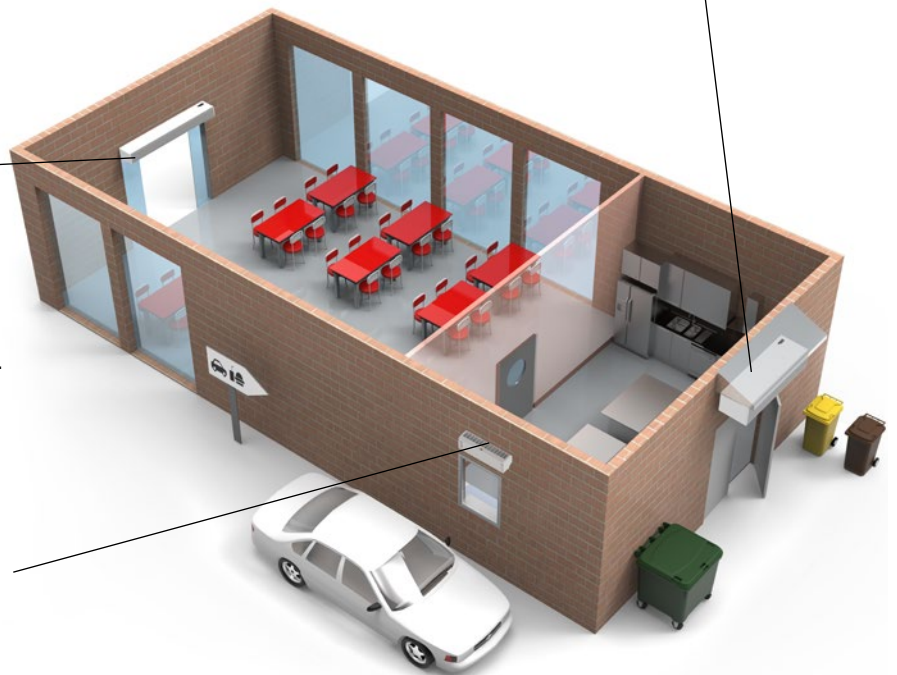
FLY K

Compact and sleek design for service doors up to 2 metres high, and customer entrances.



COMPACT FLY

Recommended to reduce the passage of insects in service windows or small openings.



WATCH VIDEO

SELECTION CRITERIA



Considerations and recommendations

To select the appropriate air curtain model for our installation and prevent the entry of insects, the following characteristics must be considered:



1. Analyze the environment:

- Installation **location** and **number of insects**.
- If the building is under **positive or negative pressure**. In case of negative pressure, it will encourage the entry of insects.

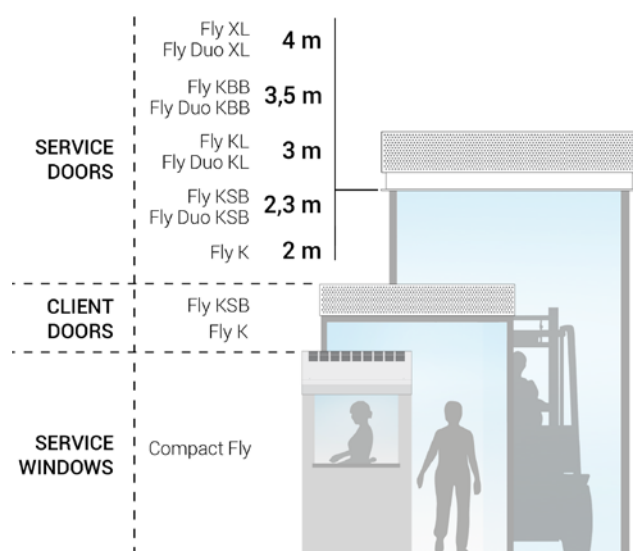
2. Model selection:

- Standard air curtains designed for climate separation are not suitable for insect control because a **higher velocity air jet** is required through an opening.
- The model must be selected based on what is dictated by the NSF/ANSI 37 guideline regarding the **type of door**, the **speed of the jet** and the **height of the door** (the guideline establishes the distance of 0.91m with respect to the ground, since it is the height at which insects usually fly).
- If the **smell** coming from the building is very strong or the **volume of insects** is very high, it is recommended to select a higher power model to ensure that it performs its function.
- Take into account the door **time and opening frequency** of the door.

3. Installation:

- **Indoor/outdoor installation:** in case of odors that may attract insects, it is recommended to install the air curtains outdoors whenever possible and if the building conditions allow it. In this way, the air sucked in comes from outside and is clean of odors, unlike the air inside, which contains these odors and can be expelled to the outside, causing the opposite effect and attracting insects.
- **Adjustable outlet lamellas** that can tilt the air flow away from the area to be protected. An angle of about 15° from the vertical is usually optimal.
- There should be **no hollow spaces** through which insects can enter. The entire door should be covered and even slightly exceeded, and the air curtain should be installed as close to the door as possible.
- When you have a large door, one solution could be to install a **double door system** to reduce its height and require a less powerful air curtain model. If this is not possible, you can also combine horizontal and vertical air curtains to cover the entire door.

Selection table



Model	Service windows	Service doors		Customer entrances
	NSF/ANSI 37 3,05 m/s 1/3 above base	NSF/ANSI 37 8,1 m/s 0,91 m above floor	Air jet range	NSF/ANSI 37 3,05 m/s 0,91 m above floor
COMPACT FLY	✓	-	-	-
FLY K	-	✓	2 m	✓
FLY KSB	-	✓	2,3m	✓
FLY KL FLY DUO KL	-	✓	3 m	-
FLY KSB FLY KBB FLY DUO KBB	-	✓	3,5 m	-
FLY KXL FLY DUO KXL	-	✓	4 m	-



Technical Features



RAL 9016
standard



Other colors
on request



Maximum range
3,5 m



Heating type
Unheated



Casing
Galvanised steel



Airflow / Length
1150 - 1725 m³/h
0,6 m to 0,9 m



Heating capacity
-



Inlet grille
Slotted perforated



Fans
Centrifugal
2-speed



Control
Inbuild LED keypad with
IR remote control



Outlet lamellas
Aluminium, airfoil type

COMPACT FLY is the most compact model from the insect control air curtains range. It has been specially designed to prevent flying insects from entering drive-thru windows, food shops, toll booths or kiosks.

Double-inlet centrifugal fans driven by an external rotor motor and low noise level. Large faceted inlet grille avoiding intensive maintenance. It incorporates two stages of ventilation: Comfort Mode, with a softer jet, and Insect Mode, with a more powerful jet.

Included regulation with infrared remote control and inbuilt keypad with leds.

In case of outdoor installation, the air curtain must be adequately protected from the weather. In addition, the electrical connections of the air curtain must be housed in a watertight box and it is recommended to protect the cabinet with AQUA AERO paint or stainless steel (see options).

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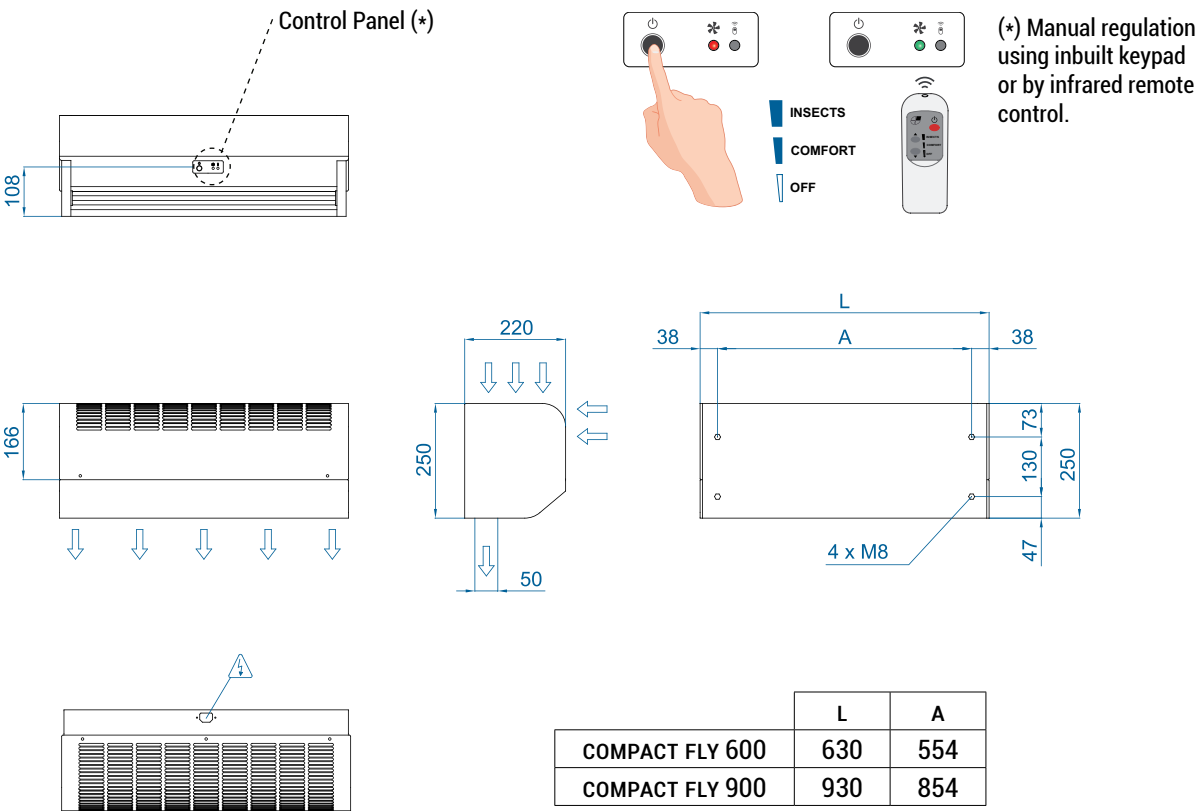
Model	Airflow m³/h	Ventilation power 230V~50Hz W	Ventilation current 230V~50Hz A	Noise Level (5 m) dB(A)	Weight kg
COMPACT FLY 600 A	1150	318	1,43	51/67	13
COMPACT FLY 900 A	1725	478	2,15	52/68	18,5



Selection program



Dimensions



Optional accessories

Supports and installation



Omega wall support



Silentblock supports
SPANG-SIL / SLB

Control



IR Control
✓ Included

CAD drawings, BIM files, installation manuals and other documentation





Technical Features



Maximum range
Service doors: 2 m
Clients doors: All



Heating type
Unheated



Casing [*]
Galvanised steel



Airflow / Length
2700 - 7200 m³/h
1 m to 3 m



Heating capacity
-



Inlet grille
Circular perforated



Fans
Centrifugal
5-speed



Control
Plug&Play Advanced PRO
+ IR remote control
(Optional Clever PRO)



Outlet lamellas
Aluminium, airfoil type
Adjustable 0-15° each side

RAL 9016
standard



Stainless
steel



Other colors
on request



[*] Customizable dimensions on request

FLY K air curtain generates a high-velocity air jet that minimizes the entry of insects into buildings through commercial doors and industrial service doors, such as food establishments and industries, hospitals or clean areas.

Works with EC Double-inlet centrifugal fans driven by an external rotor motor and low noise level, with very low consumption efficiency fans. With a compact and stylish design, and large perforated inlet grille avoiding intensive maintenance.

Advanced Plug&Play control. Includes: Advanced PRO control with LCD display and integrated thermostat, door contact, 7m RJ11 cable and remote control. Optional: intelligent Clever PRO Control (automatic, programmable, modbus for PLC, timer, etc).

Air curtain not prepared for outdoor installation. In this case, it is necessary to select an air curtain from the Fly KSB-KBB range with the required prepa-

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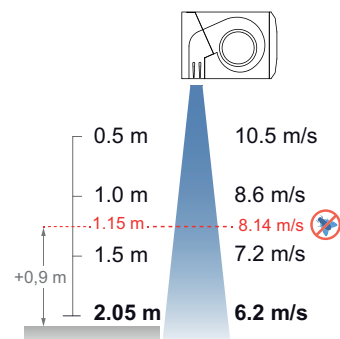
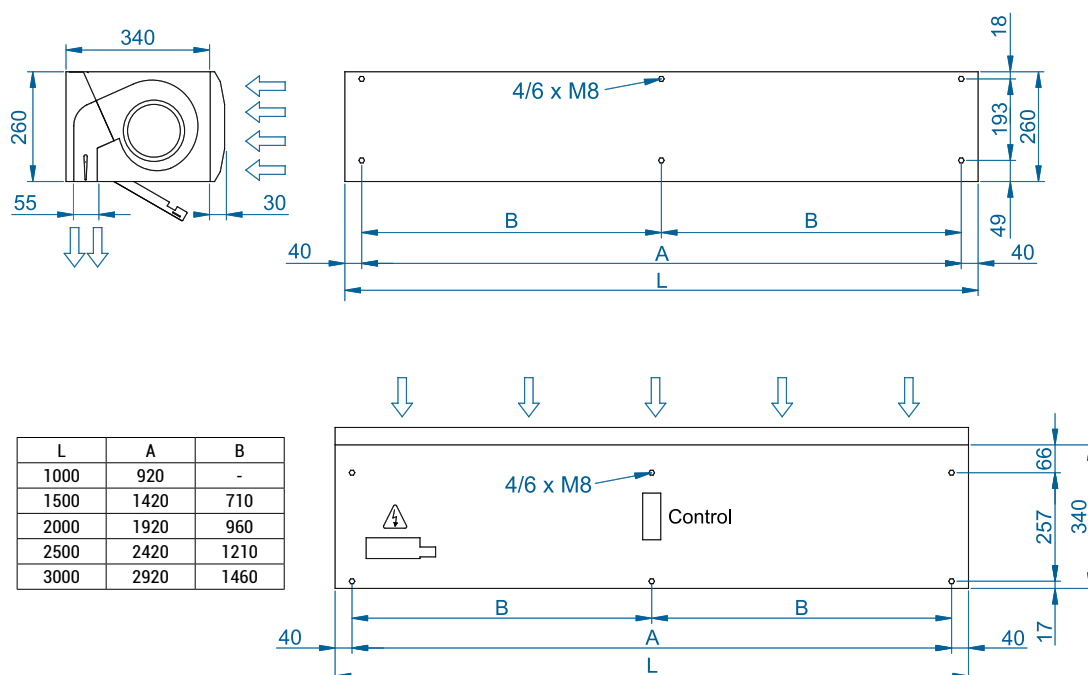
Model	Airflow m³/h	Ventilation power 230V~50/60Hz kW	Ventilation current 230V~50/60Hz A	Noise Level (5 m) dB(A)	Weight kg
FLY K 1000 A	2700	0,213	1,86	61	37
FLY K 1500 A	3600	0,284	2,48	62	56
FLY K 2000 A	5400	0,426	3,72	63	71
FLY K 2500 A	6300	0,497	4,34	64	78
FLY K 3000 A	7200	0,568	4,96	65	86



Selection program



Dimensions



According to standard NSF-37-2012, the maximum installation height in **service doors** is the speed profile point at 8,14m/s plus 0,9m.

So FLY K can be used in service doors until 1,15m + 0,9m = 2,05m

Optional accessories

Supports and installation



Wall rail support
SPWR



Silentblock supports
SPANG-SIL / SLB



Suspension cables
SPCT



Omega wall support

Control



ADVANCED PRO
✓ Included



IR Control
✓ Included



RJ11 Cable
✓ Included



CLEVER PRO

Sensors



Mechanical door contact
DC



Magnetical door contact
✓ Included



External Temperature
Sensor (Clever PRO)

CAD drawings, BIM files, installation manuals and other documentation





Technical Features



Maximum range
SB : 2,3 m BB : 3,5 m



Airflow / Length
3060 - 10720 m³/h
1 m to 3 m



Fans
Centrifugal
5-speed



Heating type
Unheated



Heating capacity
-



Control
Plug&Play Advanced PRO
+ IR remote control
(Optional Clever PRO)



Casing [*]
Galvanised steel



Inlet grille
Circular perforated



Outlet lamellas
Aluminium, airfoil type
Adjustable 0-15° each side

RAL 9016 standard  Stainless steel  Other colors on request 

[*] Customizable dimensions on request

Commercial size air curtain with a power equivalent to an industrial unit, with an elegant and timeless design.
Recommended to minimize the passage of insects in industrial service doors up to 3.5 meters high.

Works with EC Double-inlet centrifugal fans driven by an external rotor motor and low noise level, with very low consumption efficiency fans.
With a large perforated inlet grille avoiding intensive maintenance.

Advanced Plug&Play control. Includes: Advanced PRO control with LCD display and integrated thermostat, door contact, 10m RJ11 cable and remote control. Optional: intelligent Clever PRO Control (automatic, programmable, modbus for PLC, timer, etc).

In case of outdoor installation, the air curtain must be adequately protected from the weather. In addition, the electrical connections of the air curtain must be housed in a watertight box and it is recommended to protect the cabinet with AQUA AERO paint or stainless steel (see options).

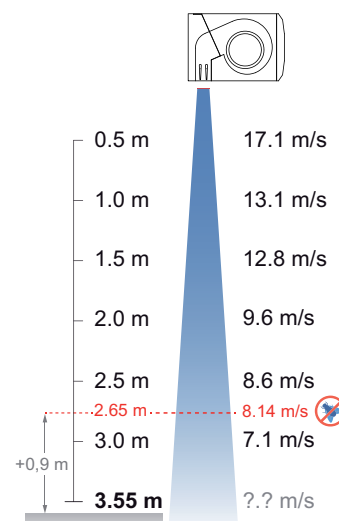
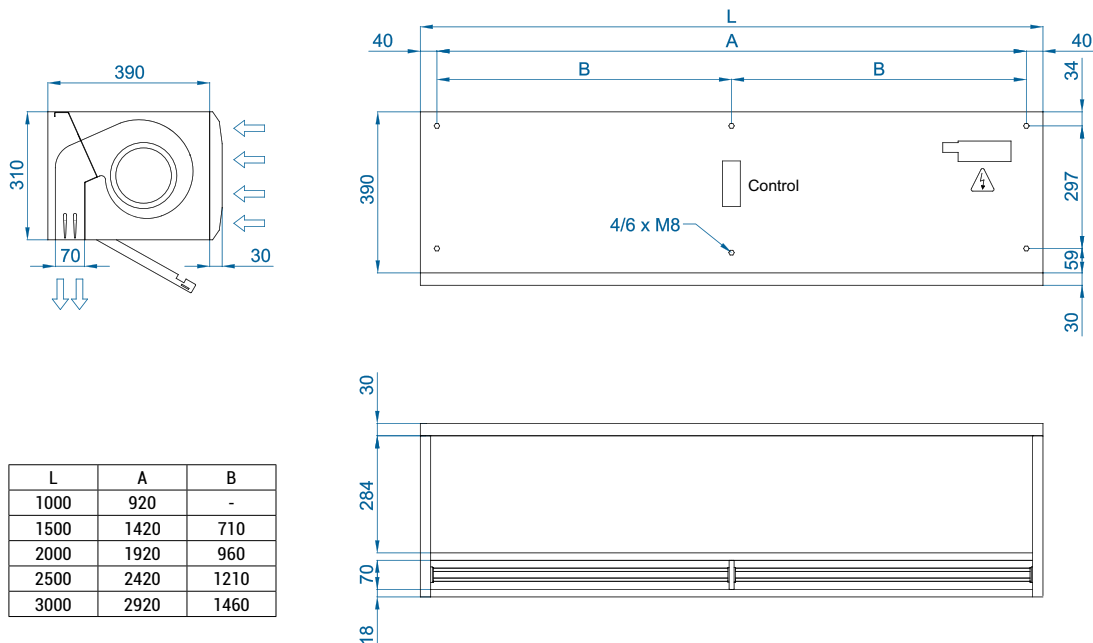
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Model	Airflow m³/h	Ventilation power 230V~50Hz kW	Ventilation current 230V~50Hz A	Noise level (5 m) dB (A)	Weight kg
FLY KSB 1000 A	3060	0,523	3,8	62	37
FLY KSB 1500 A	4080	0,697	5,07	63	54
FLY KSB 2000 A	6120	1,046	7,61	64	75
FLY KSB 2500 A	7140	1,22	8,87	65	91
FLY KSB 3000 A	8160	1,395	10,14	66	107
FLY KBB 1000 A	4020	0,873	3,87	66	38
FLY KBB 1500 A	5360	1,164	5,16	67	55
FLY KBB 2000 A	8040	1,746	7,74	68	77
FLY KBB 2500 A	9380	2,037	9,03	69	93
FLY KBB 3000 A	10720	2,328	10,32	70	110



Selection program

Dimensions



According to standard NSF-37-2012, the maximum installation height in **service doors** is the speed profile point at 8,14m/s plus 0,9m.

So FLY KBB can be used until 2,65m + 0,9m = 3,55m.

Optional accessories

Supports and installation



Wall rail support
SPWR



Silentblock supports
SPANG-SIL / SLB



Suspension cables
SPCT

Control



ADVANCED PRO
✓ Included



IR Control
✓ Included



RJ11 Cable
✓ Included



CLEVER PRO

Sensors



Mechanical door contact
DC



Magnetical door contact
✓ Included



External Temperature
Sensor (Clever PRO)

CAD drawings, BIM files, installation manuals and other documentation





Technical Features



Maximum range
3 m



Heating type
Unheated



Casing [*]
Galvanised steel



Airflow / Length
4000 - 12000 m³/h
1 m to 3 m



Heating capacity
-



Inlet grille
Circular perforated



Fans
Centrifugal
5-speed



Control
Plug&Play Advanced PRO
+ IR remote control
(Optional Clever PRO)



Outlet lamellas
Aluminium, airfoil type
Adjustable 0-15° each side

RAL 9016 standard  Stainless steel  Other colors on request 

[*] Customizable dimensions on request

FLY KL is recommended to reduce the passage of insects across industrial service doors up to 3 meters high.

A robust and versatile insect control air curtain, provided with an extensor outlet kit to optimize the air outlet with the minimum turbulence at maximum speed. Works with double-inlet centrifugal fans driven by an external rotor motor and low noise level.

Elegant and timeless design, with large perforated inlet grille avoiding intensive maintenance.

Advanced Plug&Play control. Includes: Advanced PRO control with LCD display and integrated thermostat, door contact, 7m RJ11 cable and remote control. Optional: intelligent Clever PRO Control (automatic, programmable, modbus for PLC, timer, etc).

In case of outdoor installation, the air curtain must be adequately protected from the weather. In addition, the electrical connections of the air curtain must be housed in a watertight box and it is recommended to protect the cabinet with AQUA AERO paint or stainless steel (see options).

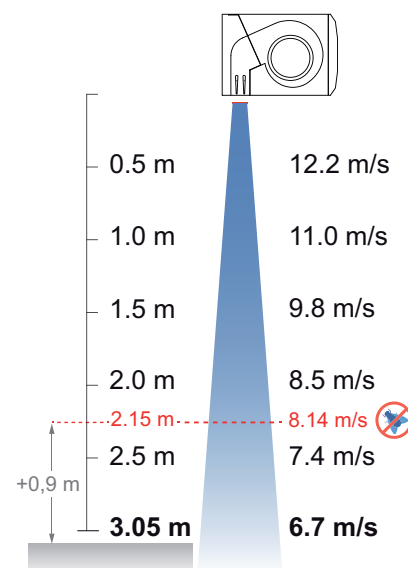
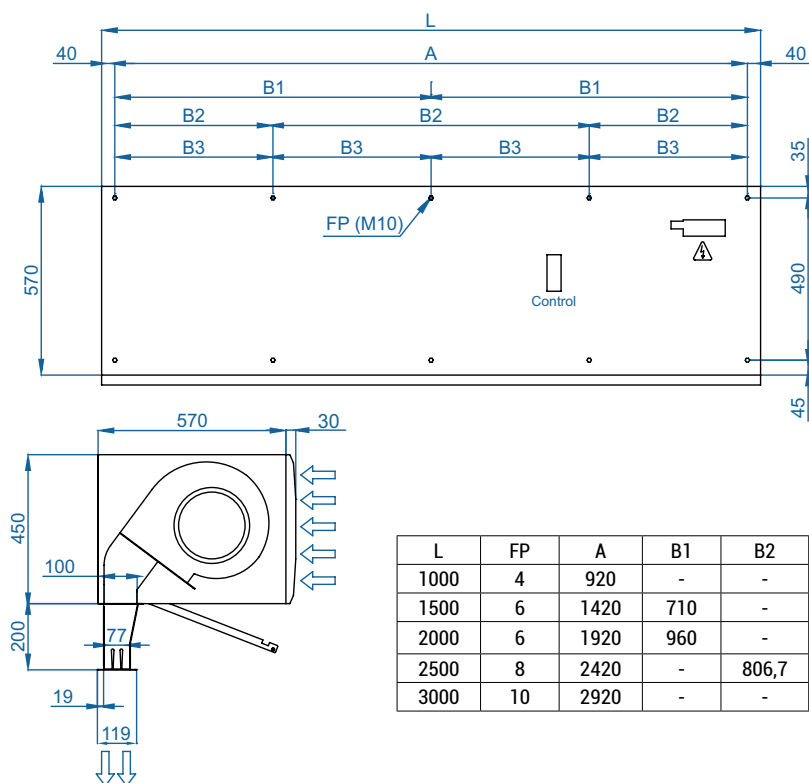
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Model	Airflow m³/h	Ventilation power		Ventilation current		Noise Level (5 m) dB(A)	Weight kg
		230V~50Hz kW	230V~60Hz kW	230V~50Hz A	230V~60Hz A		
FLY KL 1000 A	4000	1,04	1,37	4,40	6,15	63	76
FLY KL 1500 A	6000	1,56	2,05	6,60	9,22	64	114
FLY KL 2000 A	8000	2,08	2,73	8,80	12,30	65	153
FLY KL 2500 A	10000	2,60	3,41	11,00	15,37	66	187
FLY KL 3000 A	12000	3,12	4,09	13,20	18,44	67	225



Selection program

Dimensions



According to standard NSF-37-2012, the maximum installation height in **service doors** is the speed profile point at 8,14m/s plus 0,9m. So **FLY KL can be used until 2,15m + 0,9m = 3,05m.**

Optional accessories

Supports and installation



Wall rail support
SPWR



Silentblock supports
SPANG-SIL / SLB



Suspension cables
SPCT

Control



ADVANCED PRO
✓ Included



IR Control
✓ Included



RJ11 Cable
✓ Included



CLEVER PRO

Sensors



Mechanical door contact
DC



Magnetical door contact
✓ Included



External Temperature
Sensor (Clever PRO)

CAD drawings, BIM files, installation
manuals and other documentation





Technical Features



Maximum range
4 m



Heating type
Unheated



Casing [*]
Galvanised steel



Airflow / Length
5300 - 15900 m³/h
1 m to 3 m



Heating capacity
-



Inlet grille
Circular perforated



Fans
Centrifugal
5-speed



Control
Plug&Play Advanced PRO
+ IR remote control
(Optional Clever PRO)



Outlet lamellas
Aluminium, airfoil type
Adjustable 0-15° each side

RAL 9016
standard



Stainless
steel



Other colors
on request



[*] Customizable dimensions on request

FLY KXL is recommended to reduce the passage of insects across industrial service doors up to 4 meters high.

A robust and versatile insect control air curtain, provided with an extensor outlet kit to optimize the air outlet with the minimum turbulence at maximum speed. Works with double-inlet centrifugal fans driven by an external rotor motor and low noise level.

Elegant and timeless design, with large perforated inlet grille avoiding intensive maintenance.

Advanced Plug&Play control. Includes: Advanced PRO control with LCD display and integrated thermostat, door contact, 7m RJ11 cable and remote control. Optional: intelligent Clever PRO Control (automatic, programmable, modbus for PLC, timer, etc).

In case of outdoor installation, the air curtain must be adequately protected from the weather. In addition, the electrical connections of the air curtain must be housed in a watertight box and it is recommended to protect the cabinet with AQUA AERO paint or stainless steel (see options).

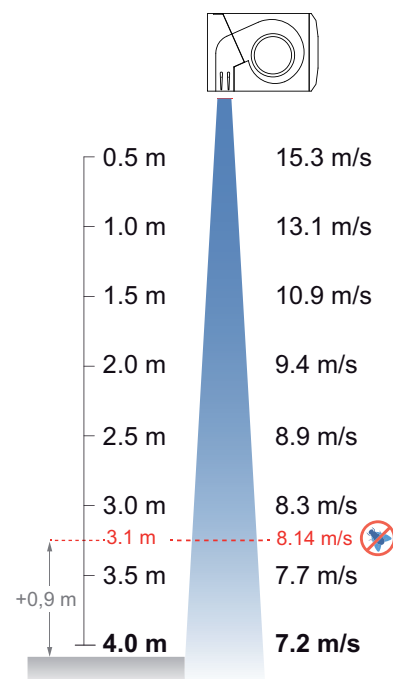
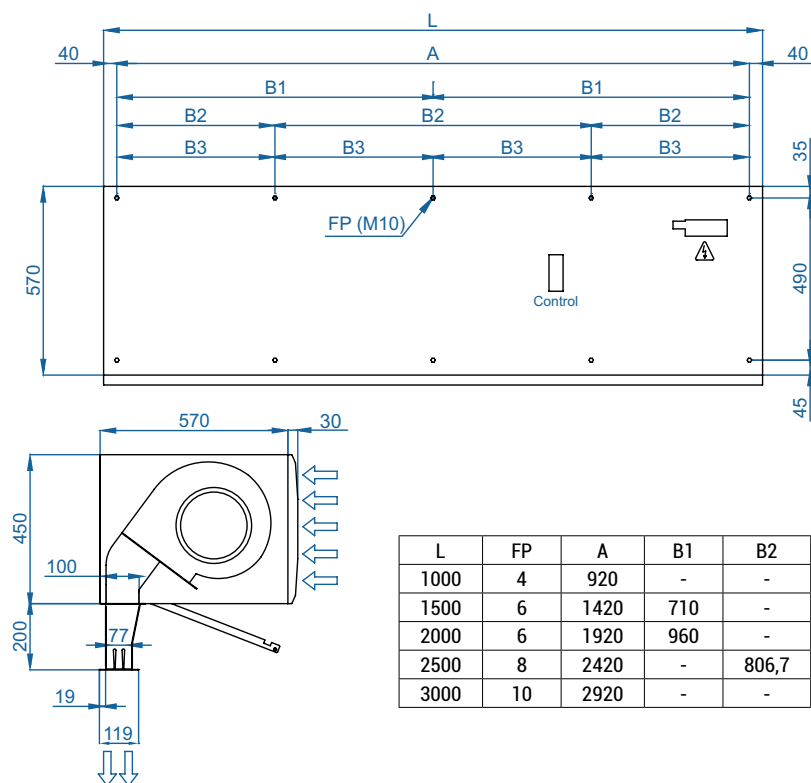
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Model	Airflow m³/h	Ventilation power		Ventilation current		Noise Level (5 m) dB(A)	Weight kg
		230V~50Hz kW	230V~60Hz kW	230V~50Hz A	230V~60Hz A		
FLY KXL 1000 A	5300	1,40	1,84	6,00	8,26	65	82
FLY KXL 1500 A	7950	2,10	2,76	9,00	12,39	66	123
FLY KXL 2000 A	10600	2,80	3,68	12,00	16,52	67	165
FLY KXL 2500 A	13250	3,50	4,60	15,00	20,65	68	202
FLY KXL 3000 A	15900	4,20	5,52	18,00	24,78	69	243



Selection program

Dimensions



According to standard NSF-37-2012, the maximum installation height in **service doors** is the speed profile point at 8,14m/s plus 0,9m. So **FLY KXL** can be used until $3,1m + 0,9m = 4,0m$.

Optional accessories

Supports and installation



Wall rail support
SPWR



Silentblock supports
SPANG-SIL / SLB



Suspension cables
SPCT

Control



ADVANCED PRO
✓ Included



IR Control
✓ Included



RJ11 Cable
✓ Included



CLEVER PRO

Sensors



Mechanical door contact
DC



Magnetical door contact
✓ Included



External Temperature
Sensor (Clever PRO)

CAD drawings, BIM files, installation
manuals and other documentation



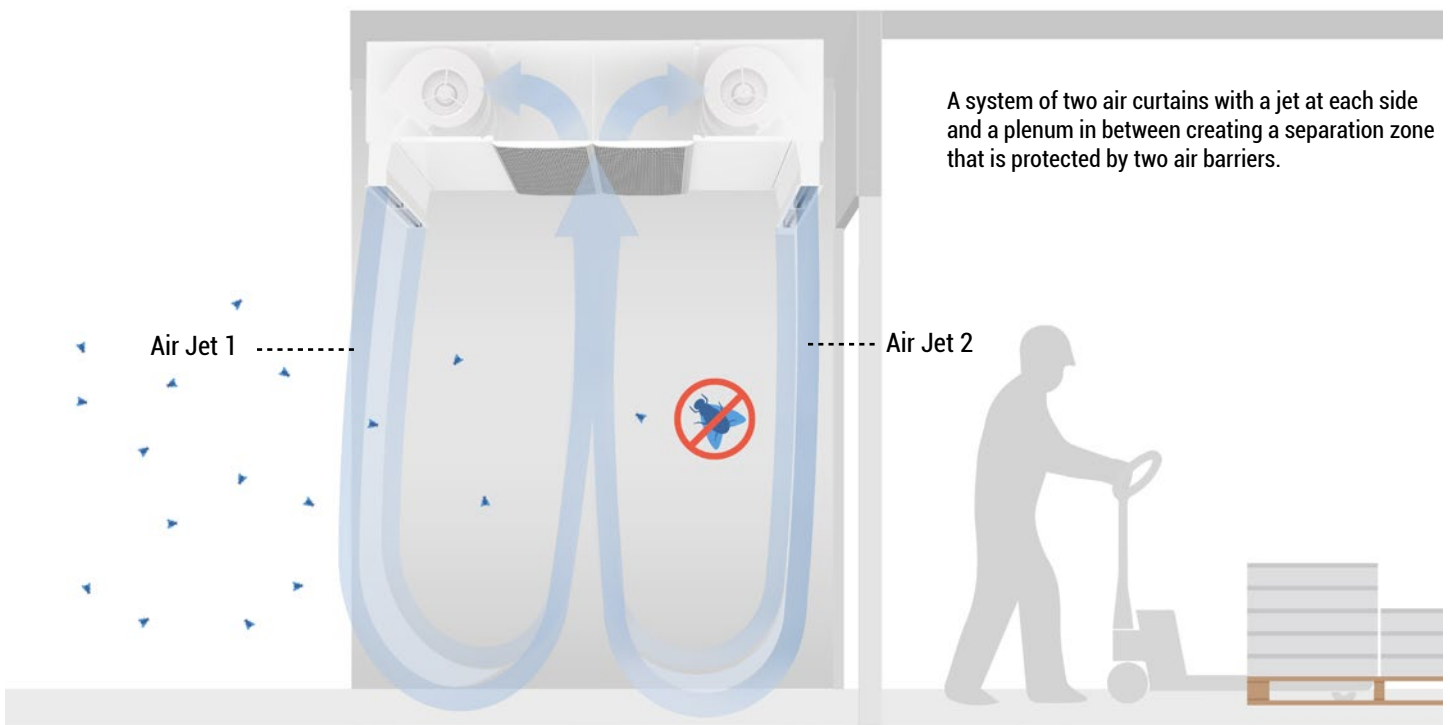
FLY DUO SYSTEM



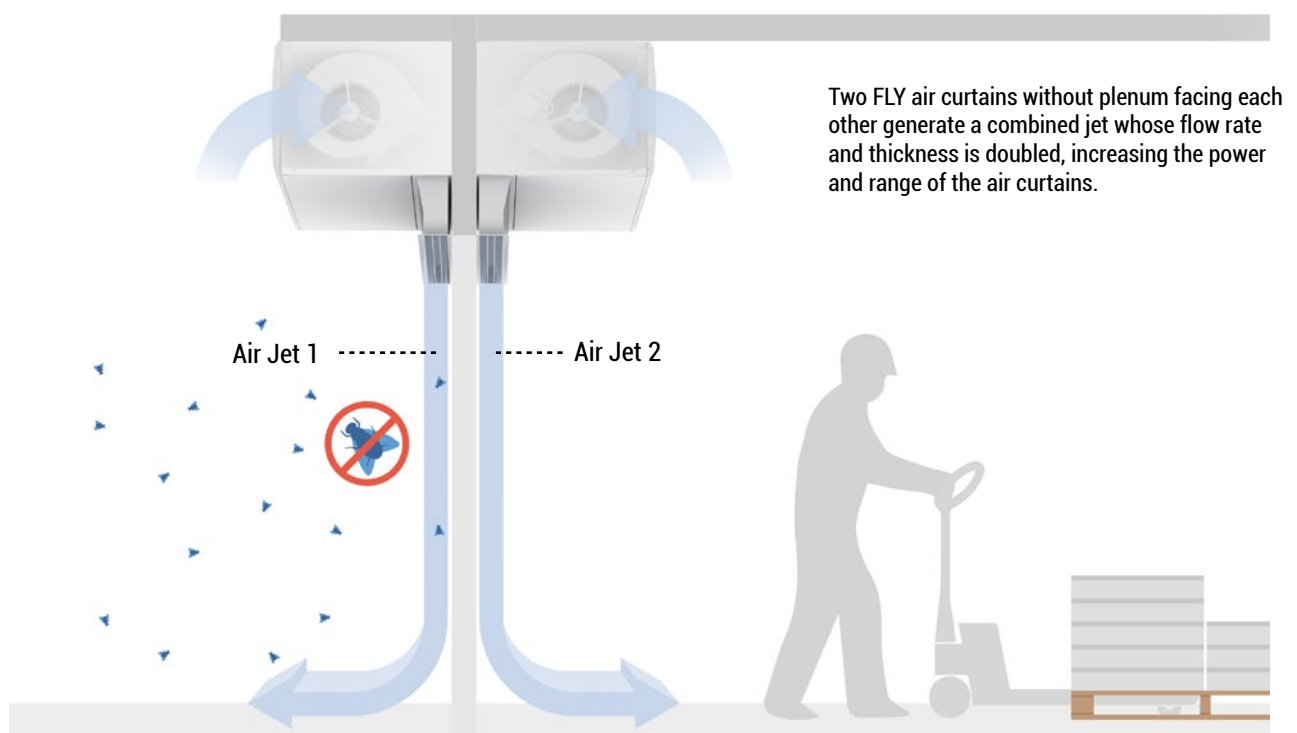
FLY DUO System consists of double protection barrier with two air jets that increases the insect control effect in the most critical installations. This double jet system works as a closed circuit creating a separation zone at the door entrance.

The first air jet fights directly against external insects infiltration. The air jet direction can be adjusted towards outside depending on the conditions of each installation. The second jet collects the possible insects infiltrations, guiding them to the central inlet plenum in order to drive them out.

Fly Duo System with plenum



Fly Duo System without plenum





WITHOUT PLENUM



WITH PLENUM



RAL 9016
standard



Stainless
steel



Other colors
on request



Technical Features



Maximum range
3 m



Airflow / Length
**7800 - 20800 m³/h
1 m to 3 m**



Fans
**Centrifugal
5-speed**



Heating type
Unheated



Heating capacity
-



Control
**Plug&Play Advanced PRO
+ IR remote control
(Optional Clever PRO)**



Casing [*]
Galvanised steel



Inlet grille
Circular perforated



Outlet lamellas
**Aluminium, airfoil type
Adjustable 0-15° each side**

Specially designed to be installed in places with higher insect and pest control requirements with maximum screening capacity.

System composed by two air curtains to increase the efficiency against insects with very low consumption fans. Two available configurations depending on installation conditions "Without Plenum" or "With Plenum". Side walls to cover from the door to the jets should be provided by others.

"A" type without heating, air only. On option, for climate separation, the inside air curtain can be "P" type with water heated coil or "E" type with electrical shielded elements, three stages with integrated regulation.

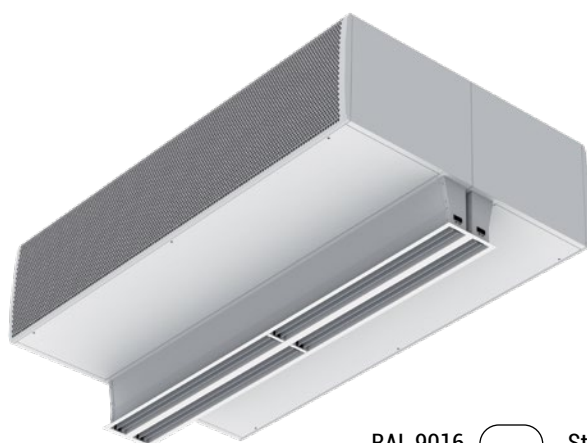
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Model	Airflow m³/h	Ventilation power 230V~50/60Hz kW	Ventilation current 230V~50/60Hz A	Noise Level (5 m) dB(A)	Weight kg
FLY DUO KBB 1000 A	7.800	1,842	8,16	70	-
FLY DUO KBB 1500 A	10.400	2,456	10,88	70,5	-
FLY DUO KBB 2000 A	15.600	3,684	16,32	71	-
FLY DUO KBB 2500 A	18.200	4,298	19,04	71,5	-
FLY DUO KBB 3000 A	20.800	4,912	21,76	72	-



WITHOUT PLENUM

WITH PLENUM



RAL 9016
standard



Stainless
steel



Other colors
on request



Technical Features



Maximum range
3 m



Airflow / Length
8000 - 31800 m³/h
1 m to 3 m



Fans
Centrifugal
5-speed



Heating type
Unheated



Heating capacity
-



Control
Plug&Play Advanced PRO
+ IR remote control
(Optional Clever PRO)



Casing [*]
Galvanised steel



Inlet grille
Circular perforated



Outlet lamellas
Aluminium, airfoil type
Adjustable 0-15° each side

Specially designed to be installed in places with higher insect and pest control requirements with maximum screening capacity.

System composed by two air curtains to increase the efficiency against insects with very low consumption fans. Two available configurations depending on installation conditions "Without Plenum" or "With Plenum". Side walls to cover from the door to the jets should be provided by others.

"A" type without heating, air only. On option, for climate separation, the inside air curtain can be "P" type with water heated coil or "E" type with electrical shielded elements, three stages with integrated regulation.

[*] Customizable dimensions on request

* UNHEATED

Model	Airflow m³/h	Ventilation power		Ventilation current		Noise Level (5 m) dB(A)	Weight kg
		230V~50Hz kW	230V~60Hz kW	230V~50Hz A	230V~60Hz A		
FLY DUO KL 1000 A	8.000	2,08	2,74	8,8	12,30	66	-
FLY DUO KL 1500 A	12.000	3,12	4,10	13,2	18,44	67	-
FLY DUO KL 2000 A	16.000	4,16	5,46	17,6	24,60	68	-
FLY DUO KL 2500 A	20.000	5,20	6,82	22,0	30,74	69	-
FLY DUO KL 3000 A	24.000	6,24	8,18	26,4	36,88	70	-

* UNHEATED

Model	Airflow m³/h	Ventilation power		Ventilation current		Noise Level (5 m) dB(A)	Weight kg
		230V~50Hz kW	230V~60Hz kW	230V~50Hz A	230V~60Hz A		
FLY DUO KXL 1000 A	10.600	2,8	3,68	12,0	16,52	68	-
FLY DUO KXL 1500 A	15.900	4,2	5,52	18,0	24,78	69	-
FLY DUO KXL 2000 A	21.200	5,6	7,36	24,0	33,04	70	-
FLY DUO KXL 2500 A	26.500	7,0	9,20	30,0	41,30	71	-
FLY DUO KXL 3000 A	31.800	8,4	11,04	36,0	49,56	72	-

Advanced regulation: Advanced PRO Control

- Advanced control for regulating 2 and 5 speed Airtècnics air curtains. Replaces and improves all previous controls within the basic range (unheated, water heating, electric heating, DX heating), Hand Auto and Interface.
- 2.8" LCD screen with backlight and capacitive touch buttons. Infrared remote control.
- Plug & Play connection with RJ45 cable. Automatic initialization with detection of connected hardware, and configuration according to the detected devices.
- Robust electronics with electrical and electronic protections, Poka-yoke connections and protected with varnish to improve corrosion resistance and extend service life.
- Sensors included: Integrated room temperature thermostat + door contact.
- Semi-automatic ECO operation, with ventilation and heating control based on door status and room temperature.
- User menu for setting the set temperature and ventilation and heating according to the door status.
- Quick access for setting the set temperature.
- Internal parameters configuration menu: Door delay, maintenance programming, speed and heating limitation, control memory, temperature units, auto-cooling program, control lock and boost mode.
- Alarm and error codes: Overheating, heating blocked, anti-freeze, fire alarm...
- Compact ABS plastic housing with polished finish in white RAL9016 as standard. Easy opening and closing with snap-in pivots. Optional safety lock with screw.
- Prepared for wall installation. Standard wall Fixing points and multiple cable entries on the back cover and sides of the front housing.



Screen LCD 2,8" Backlit	Management Touch keypad IR remote control	Control connection Plug & Play RJ45 Digital IN (x3)	Electronics Poka-Yoke connections Electrical protections	PCB protection Tropicalized
Housing material ABS UL 94 V0	Housing finish RAL 9016 Polished surface	Weight 144 g	Fire protection Self-extinguishing	Security screw 3 x L6 mm optional

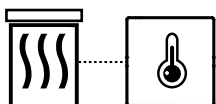
Features



Semi-Automatic ECO Mode: Door status

With the door contact installed, the following functions can be performed:

- **Door Open/Closed:** Allows programming different ventilation speeds and heating stages depending on the state of the door.
- **Door Delay:** When the door is closed, the equipment continues to operate as if the door were open for the programmed time (programmable from 0 to 95 seconds).



Semi-Automatic ECO Mode: Temperature

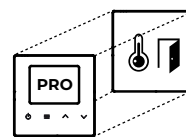
With the temperature sensors (one internal included in Advanced Pro, and the other optional external), the following functions can be carried out:

- **Heating control:** Modifies the heating based on the difference between the ambient temperature and the set temperature. With an optional external sensor, it regulates the heating based on the outside temperature when the door is open.
- **Heating modulation:** Gradually regulates the heating when the ambient temperature approaches or moves away from the set temperature, achieving greater comfort and energy savings.
- **Programmable boost:** Increases the set temperature by 2°C when the door is opened, to improve thermal comfort in winter.
- **Heater function:** With the door closed, the heating continues to run as long as the room temperature is below the set temperature. If the set temperature is exceeded, the curtain stops or continues with only ventilation for when the door is opened again.



A single advanced control for the entire range

Advanced Pro replaces all controls on the basic Airtècnics previous range of 2 and 5 speeds (without heating, water heating, electric heating, DX heating), Hand Auto and Interface. Now all control models in one.



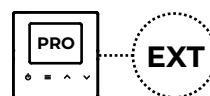
Temperature and door sensors included

Advanced Pro integrates a room temperature sensor and includes a door sensor. Together with the set temperature, form a system that allows to regulate ventilation and heating while saving energy.



Control safety lock

The control can be locked with a key combination, and the air curtain will continue to operate normally. When the equipment is locked, the user will not be able to perform any action. In addition, when pressing a button, the alarm symbol will appear on the screen and a deeper beep will be heard indicating that the equipment is locked.



BMS external control

External modification (EXT) of operation through potential-free digital inputs that vary depending on the air curtain model.



3 levels of menu

Quick user access menu: With just one click, you can adjust the set temperature on heating equipment.

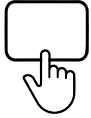
User menu: Allows to select the ventilation speed, the heating stage for open and closed door, and temperature setting.

Internal parameters configuration menu:

- Door delay (0 to 95 seconds).
- Maximum speed and heating (open/closed door).
- Maintenance/cleaning (0 to 99 weeks).
- Temperature units (°C or F).
- Control memory (ON by default).
- Boost mode, increases the set temperature when the door is opened (2°C by default).

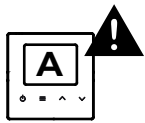
Advanced regulation: Advanced PRO Control

Features



Interface and control panel

The LCD screen displays fan speed, heating stage, room set temperature and optional outdoor temperature, door status, external control, automatic cooling, as well as alarms and errors.



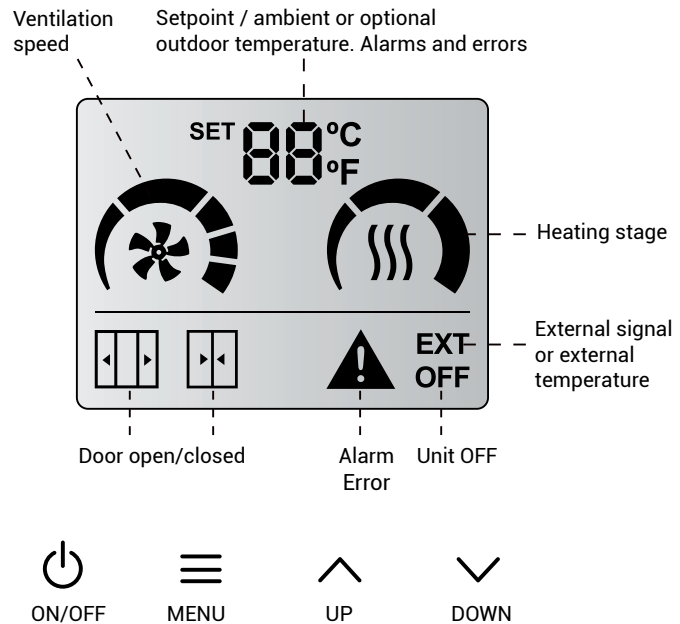
Alarm and error indications

The control will indicate on the display when there is an alarm (A) or error (E), and will show a letter and number in the same place as the temperature. Visually, some icons and the alarm sign will flash.

Alarms: Overheat (A1), Heater blocked (A2), Antifreezing (A3), Fire alarm (A6).

Errors: Filter/maintenance (E1), Missing temperature sensor (E3), External alarm (E5).

Alarms and errors depend on the connected equipment and the type of heating.



Technical characteristics



Designed with slots for good ventilation of electronic components.



Standard fixing points on back cover for electrical wall boxes.



Side incisions on both sides of the back cover for easy opening of the case.



Pre-cut holes in the back cover for the entry of cables of different sizes, easily removable with a tool.



The main casing has breaking zones of two different sizes, two located on each side and one at the bottom.



Easy opening and closing with snap-on pivots. Optional safety lock with screw.

Advanced regulation

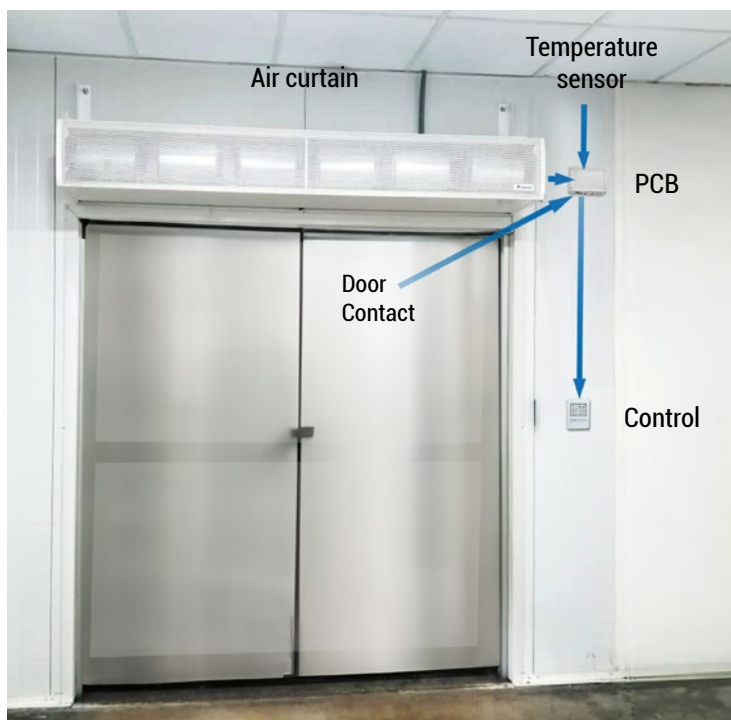
INTELLIGENT
PROACTIVE
REGULATION



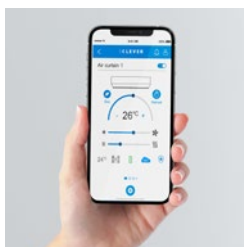
Air curtains regulation is essential to substantially reduce energy consumption.

Our latest technology control system allows to manage the operation of the air curtains automatically according to each situation, maintaining indoors comfort with maximum energy savings.

Clever PRO 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.



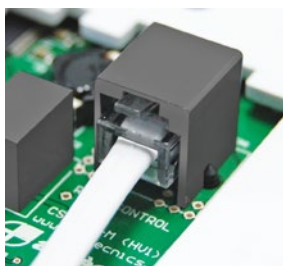
**Basic and
advanced
modes**



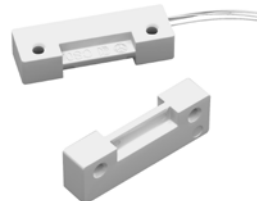
Connectivity
Modbus BMS
and control
via APP



Easy
Plug & Play
installation



Regulation
with **valves**:
thermostatic,
solenoid,
modulating



Ambient
thermostat
and external
temperature
sensors

Special Requirements

Airtècnics can produce units with special requirements under request.

- External alarm signals: unit working, heating ON, airflow switch, dirty grille, electronic overheating signal, fans overheating thermal contact TK, electrical heating blocked, etc.
- Water or steam coils for higher temperatures or different power than standard.
- Special heating elements at desired power and power supply.
- Dummies (empty air curtains) to combine with working units.
- Industrial air curtains with ATEX fans.

Clever PRO features:



USER FRIENDLY DESIGN

Multilanguage and intuitive icons for easy 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.



FILTER ALARM

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



ADAPTIVE DOOR DELAY

Air curtain delay: when the door closes, the air curtain remains working at door open conditions for certain time to be ready if it opens again. Door opening delay: the door remains closed until the air curtain achieve the nominal speed.



TIMER

To turn ON 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.



COMPATIBLE

BMS communication with Modbus RTU protocol or using digital and analogical IN/OUT to control or monitor directly the unit.



ENERGY SAVING

3 grades of comfort and energy efficiency.



FULLY PROGRAMMABLE

All parameters can be configured at Basic or Advanced menu. Lots of extra functions to fulfill all clients applications. Customizable 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.

- Clever PRO 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.
- Multiple 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.



Fly K
Multiple installation in a fast food restaurant



Fly K
Installation in a factory office entrance



Fly K
In a service door in an oriental food industry



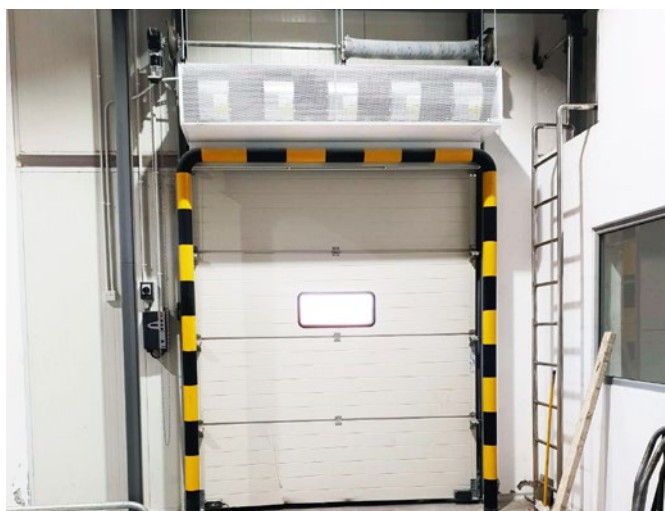
Fly K
Installation IP55 in a factory service door



Fly KBB
Multiple outdoor installation in a pharma factory doorway



Fly KBB
Installation in a packaging factory entranceway



Fly KL
Installation in a bakery factory service door



Fly KXL
Multiple outdoor installation in a candy's factory



Fly KXL
Installation in factory doorway



Fly KXL
Multiple installation in an energy industry factory



Fly KXL
Multiple installation in a chemical factory



Fly KXL
Installation in a dairy products factory



Fly KXL
Installation in a honey production factory



Fly KXL
Installation in a food industry factory



Fly KXL
Outdoor installation in legume factory service door



Fly KXL
Installation in an anchovy and sardine factory



Fly KXL
Multiple installation in a cosmetics and soaps factory



Fly KXL
Installation at the entrance of a packaging factory



Production for world renowned brands



See all references



See all installation photos



Pepsi Co. Factory (Funza, Colombia)
Henkel (Villefranche-sur-Saône, France)
Nestlé (Derby, UK)
Cadbury (Lagos, Nigeria)
Procter & Gamble Distribution Center (Alomaja, Nigeria)
Haribo (UK, Pontefract)
Haribo (Hungary, Nemesvámos)
Haribo (Girona, Spain)
Apisol (Valencia, Spain)
Vestas (Ciudad Real, Spain)
Jawad Bakery (Amman, Jordan)
Legumbres Luengo (León, Spain)
Ferrero (Vladimir, Russia)
Tetra Pak Envases (Madrid, Spain)
Operadora Avícola S.A.S (Antioquía Colombia)

Compañía Nacional de Chocolates (Antioquía Colombia)
Forsan Foods Factories (Riyadh, Saudi Arabia)
Europastry (Barcelona, Spain)
Greif (San José, Costa Rica)
Gardenia Bakeries Philippines (Laguna, Philippines)
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Reny Picot (Asturias, Spain)
Gil Comes (Larache, Morocco)
Seprolesa (León, Spain)
Tottus (Lima, Peru)

TOP REFERENCES



Production for world renowned brands



See all references



See all installation photos

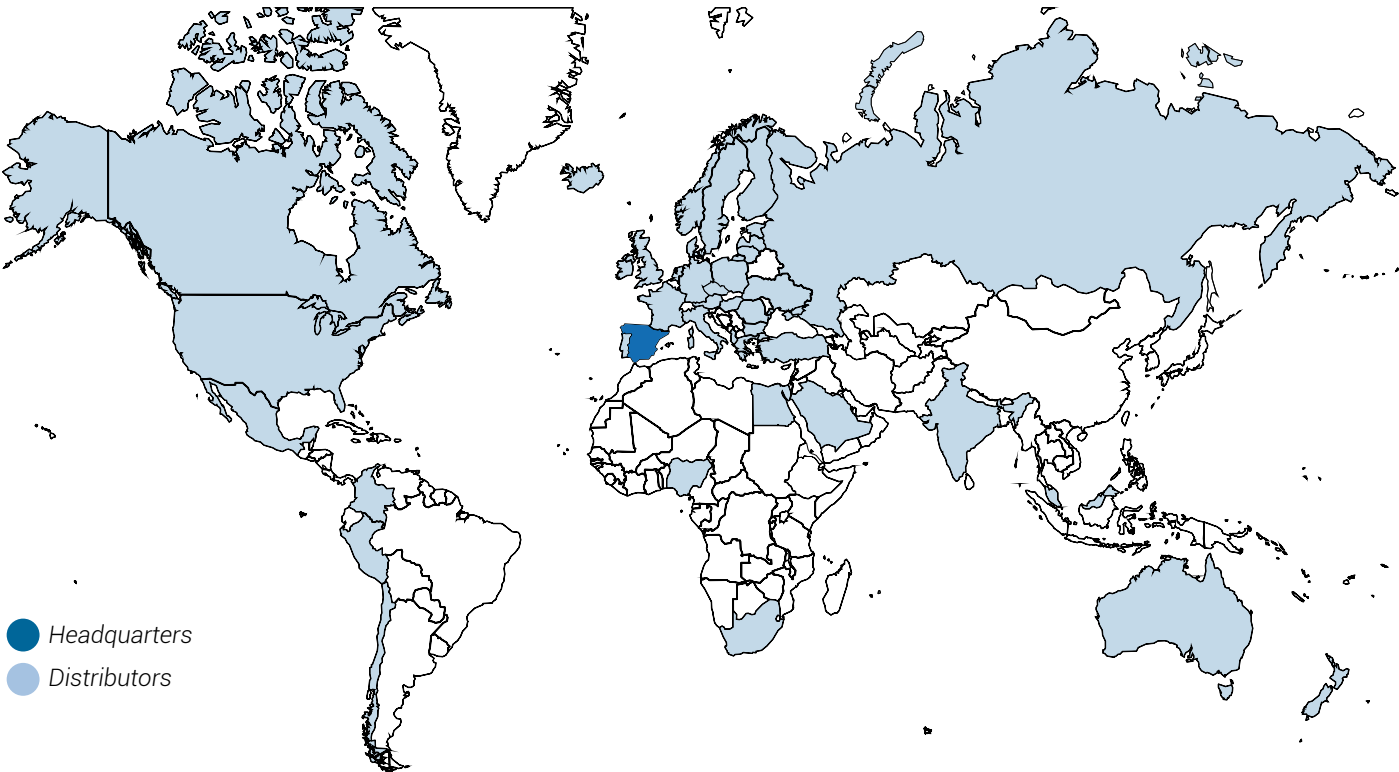


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Ferrari (Las Rozas, Spain)
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JFK Airport (New York, United States)
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Aston Martin F1 Team (Silverstone, UK)
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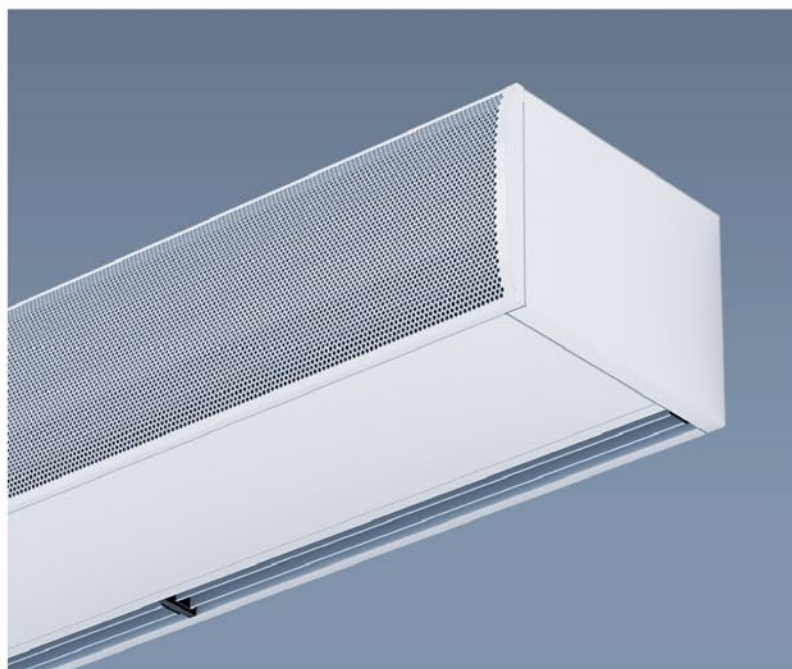
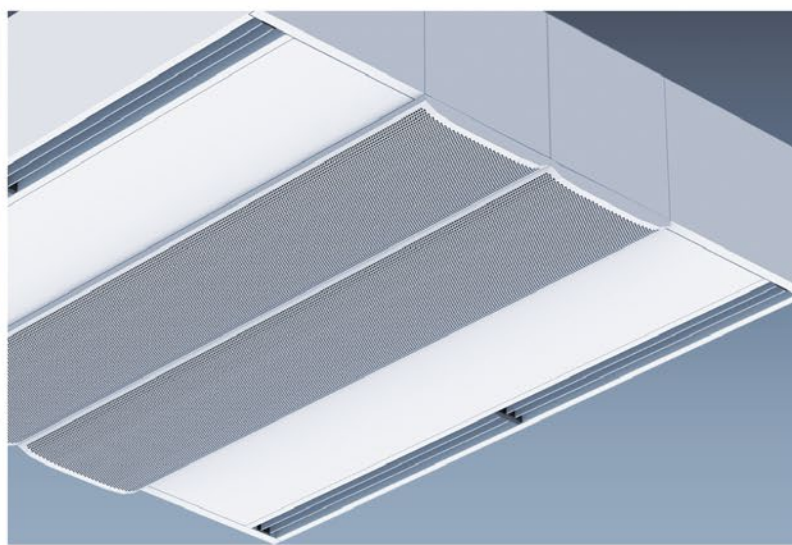
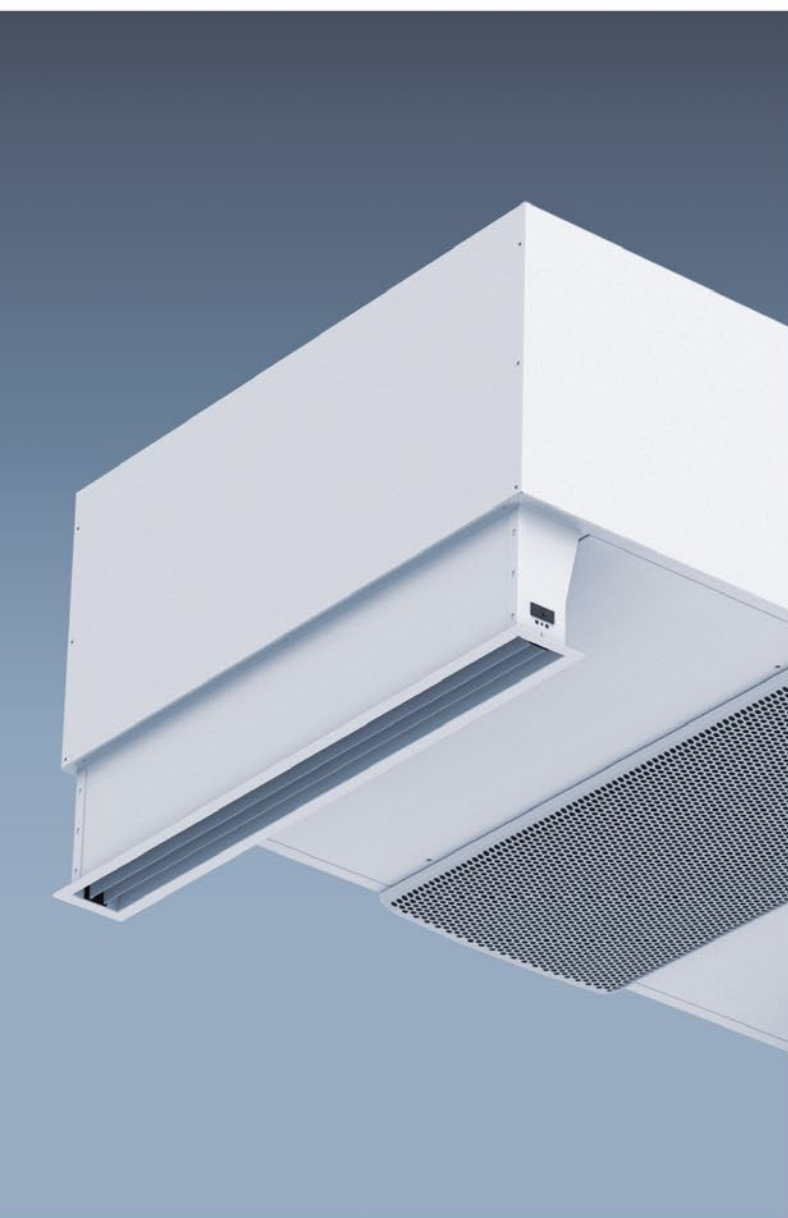
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