



NANO SYSTEM  
**AIR-CURTAIN**  
[www.yuhanhitec.com](http://www.yuhanhitec.com)



# YUHANHITEC

Create a dynamic world

YUHANHITEC Co., Ltd. is a specialized manufacturer of air curtain, and expands the market share in export and domestic market with excellent function, high efficiency and diverse designs by introducing the best technology.

Our company always strives for the development of product features and upgrades, and promises to do our best to satisfy customers with the best technology and diversification of products.



## Certification



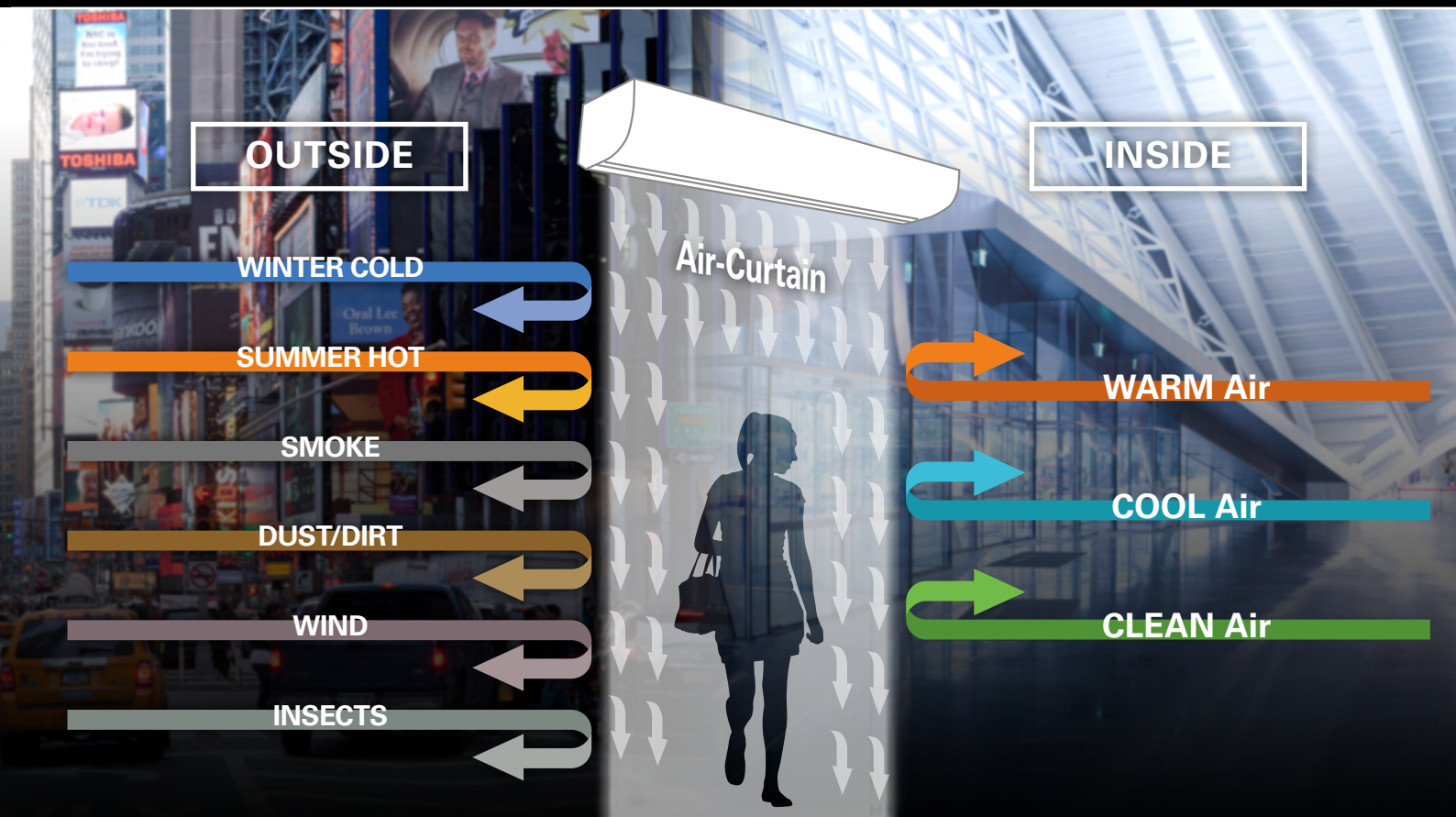
## Company History

- 1983.10. Established company
- 1997. 6. Air curtain development
- 2008. 9. ISO 9001: 2000 certification
- 2011. 7. Certified as a technological innovation type small and medium enterprise (Innobiz)
- 2012. 11. Acquired Nano System Co., Ltd.
- 2014. 12. Obtained certification of exporter certification of origin of air curtain
- 2015. 5. Participated in G-FAIR Mumbai (Korea Excellent Product Exhibition)
- 2015. 8. Acquired Air Curtain CE / SASO certification
- 2015. 8. Contracted exclusive supply of industrial air curtain Saudi Arabia
- 2017. 9. Registered country market item
- 2017. 11. Participated in G-FAIR Ho Chi Minh (Korea Excellent Product Exhibition)

## What's the Air-Curtain?

Air curtains are installed to create strong airflow at the entrance to the interior space to prevent insects, dust, and outside air from penetrating into the interior space.

Air curtains are used to open doors in frequently accessed areas, such as shops and warehouses, and are effective in preventing temperature controlled air from being lost through doors.



## Efficiency of Air-Curtain

### OPEN EFFECT

Opening the door makes it easier for customers to access and increase sales.



### AIR CIRCULATION

It effectively circulates air in a large space by creating air flow.



### BLOCKING EFFECT

It prevents smoke, dust, odor or insects from entering through the entrance.



### INCREASE SAFETY

It helps prevent accidental finger-pinching that can occur when opening and closing the door.



### INCREASE AIR-CON EFFICIENCY

It prevents hot air in summer and cold air in winter and protects indoor air.



### ENERGY SAVING

It saves energy by preserving heating and cooling and blocking outside air.





# Nano System Air-Curtain

"Nano System" is an air curtain brand owned by YUHANHITEC, a manufacturer specialized in air curtains, and supplies products to domestic and overseas market through its total lineup in Korea.

The company leads the market with the best quality and differentiated quality.



## Advanced Design

We pursue the differentiation from the mechanical design of the existing air curtain.



## Lowest Noise

It is the product of the lowest noise among the same class, due to the use of the motor developed with special fan and low noise.



## Made in Korea

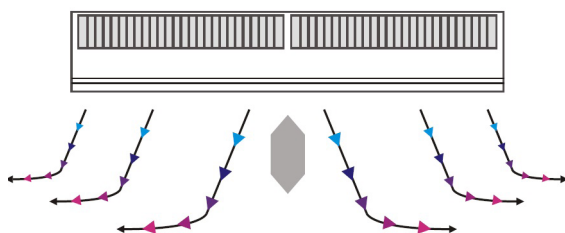
We make our utmost effort to reinforce durability through the localization of the core parts and to produce defect-free products through our thorough quality inspection.

## Compare Cross Fans

### Other products



Wind spread phenomenon exists. It is heavy and can give a lot of load to the motor as the material is plastic. It is hard to maintain of speed of fan.

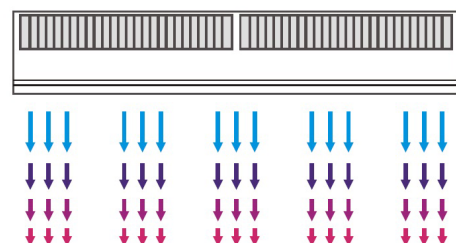


### Twisted cross fan of nano system



Noise is greatly reduced as the wheel itself is twisted and constant air volume and wind speed can be maintained since there is not wind spread phenomenon when the wheel rotates. Besides, it is lightweight due to the material of aluminum, and power loss can be prevented due to the less load of the motor.

VS



# Nano System Air-Curtain at a Glance



## Plasma ion Air-Curtain

Air curtain with sterilization and deodorization functions equipped with the world's first plasma ion cluster

## Luxury Type (dual-motor) Air-Curtain

Air curtain realizing the lowest noise with the refined design and sirocco fan



## Slim Type (single-motor) Air-Curtain

The only product at the same level with the low power consumption and high efficiency by using one motor and cross fan together with the appearance that can stand comparison as an interior decoration design

## Heater Type Air-Curtain

Air curtain that can be used in winter by installing the high efficiency heater rods with proven stability



## Industrial Type Air-Curtain

Air curtain with strong air-flow suitable for large shops and construction sites

## Air-Curtain for Vehicles

Air curtain that can be installed on vehicles by using DC motors



## Floor Type Air-Curtain

Air curtain, equipped with portable wheels, that maximizes cooling effect by blowing air to the floor

# Effective Distance

Applicable places	General store, office, cafe, restaurant etc. up to 2.5m in height	Public buildings, large supermarkets, etc. Up to 3m in height	Department stores, theaters, terminals, museums, etc. Up to 4m	Places requiring strong winds of up to 4m in height, such as large stores, factories, warehouses, and frozen warehouses	Places requiring strong winds of up to 6m in height, such as sewage treatment plants and recycling centers
1m	7~9.5m/s 4~5.5m/s	8~11.5m/s 4~5m/s	9~12.5m/s 5~6m/s	11~15m/s 6~9m/s	22~25m/s 14~17m/s
2m	2~3m/s	3~4.5m/s	4~5m/s	5~8m/s	12~15m/s
3m	1.5~2m/s	2~3.5m/s	3~4m/s	4~6m/s	9~11m/s
4m			2~3m/s	3~5m/s	6~8m/s
5m				2~4m/s 1~2m/s	4~5m/s 2~3m/s
<b>Suitable model</b>	NA-35 series NA-12 series NA-35 heater series	NA-12 series	NA-15R series NA-15 heater series	NA-15B series	NA-15B 380V series

# Installation Cases



A large shopping mall gateway



Complex resort heater type



Transverse type



Complex multiplex



Cafe and shop entrance



Large tourist bus




Control panel production





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# Air-Curtain for Vehicles

It is developed to install on the rear door of the refrigerator and reefer car, taking advantage of the air curtain that blocks the outside air. It is a product that functions to prevent the outflow of cold air and the inflow of outside air.



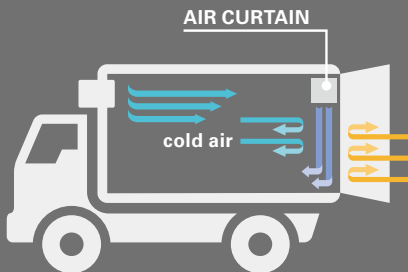
## WHAT IS AIR CURTAIN FOR VEHICLES?

When the door of a refrigerator truck is opened, the internal temperature rises, and a large amount of fuel is consumed to restart the cooler and maintain the proper temperature.

At this time, it is possible to save about 50% of fuel by installing an air curtain which blocks the outside air at the door of the loading box.

Air curtain for vehicles can have many effects such as saving fuel, preventing deterioration of food ingredients, and blocking foreign material for food hygiene.

### Advantages



#### Reduce fuel consumption

Reduces the loss of cool air and thus reduces the fuel consumed in cooling.



#### Durability for application

Made of stainless steel, it is resistant to humidity and low temperature.



#### DC converter power

Use a DC converter that is suitable for installation in vehicles.



#### Food Corruption Prevention

Prevents corruption of food by maintaining proper temperature.



### Specification

Model No.	Width(mm)	Height(mm)	Depth(mm)	Weight(Kg)
NA-0907CM	750	135	135	6.0kg
NA-0909CM	900			6.5kg
NA-0911CM	1100			7.0kg
NA-0912CM	1200			7.5kg

Model No.	Power	Motor Type	Fan Type	Wind Speed (m/s)	Noise (dB)	Air-Volume (CMM)	RPM
NA-0907CM	DC 12V/24V	1 Double Axis	2 Cross fan	15	58	19	2500
NA-0909CM				14	59	22	2400
NA-0911CM				13	60	24	2300
NA-0912CM				12	61	26	2250



# Luxury Type Air-Curtain

As it has the refined design, minimal noise and strong blocking effect, the model is suitable for installing at general stores, offices and so forth.



## Advantages of Luxury Type Air-Curtain



### Lowest Noise

The adoption of the Sirocco fan is pleasant without noise.



### Advanced design

There is no grill on the front, so the appearance is luxurious.



### Waterproof PCB

It is resistant to breakdown by waterproof processing circuit board.



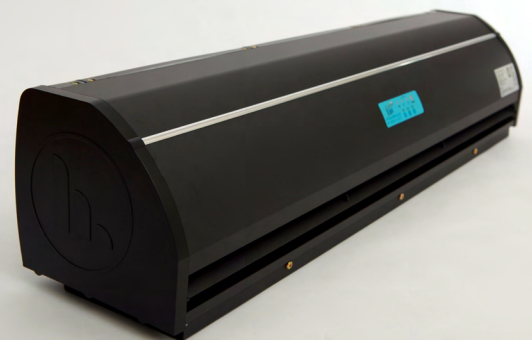
### Remote control

Easy operation with remote control method.



### Efficient air circulation

Effective air circulation is more effective in blocking.



Product Features

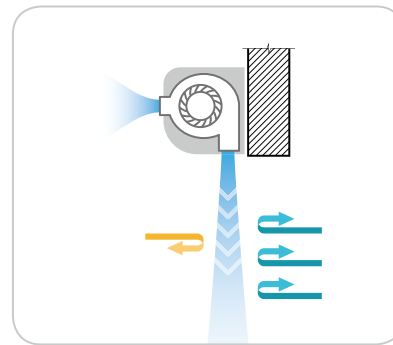


**Clean design**

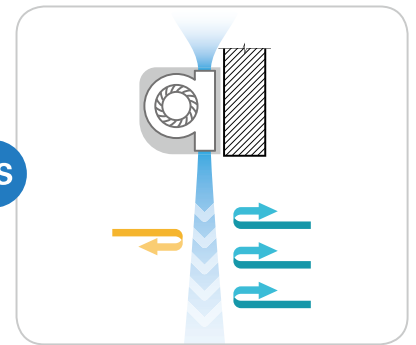
The air inlet grille was installed on the top of the product to provide a cleaner design.

**Efficient air flow**

The upper air intake grille makes air flow efficient, and it has excellent effect of blocking outside air.



**Airflow of other products**  
Loop-type circulation results in blocking losses and durability



**Airflow of the nanosystem**  
Linear type circulation provides thorough air circulation and effective

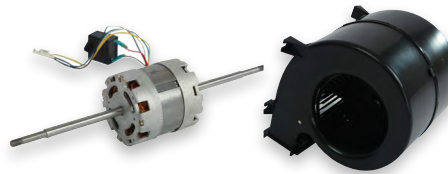
**Remote control method**

It is easy to use remote control method and can adjust wind speed according to user's environment.



**Lowest Noise Implementation**

Using a Sirocco fan and a low-noise type motor, the noise level is the lowest in same class products.



**Waterproof circuit board**

Defect of PCB caused by vapor is minimized by waterproofing treatment to the power PCB and controller PCB.



Specification

Model No.	Width(mm)	Height(mm)	Depth(mm)	Height of holder (mm)	Length of power Cord(M)	Weight(Kg)
NA-3509DF	900	220	225	170	1.5	16
NA-3510DF	1000					16.8
NA-3512DF	1200				2.0	18.5
NA-3515DF	1500					23

Model No.	Power	Motor Type	Fan Type	Output(W) speed-high	Wind Speed (m/s) H/M/L	Noise (dB) speed-high	Air-Volume (CMM)speed-H	Blocking Height(m)
NA-3509DF	220V	1 Double/1 single Axis	3 Sirocco fan	340	15/13/11	56	21	2.5
NA-3510DF						56		
NA-3512DF		2 Double Axis	4 Sirocco fan	390		56	28	
NA-3515DF		2 Double /1 single Axis	5 Sirocco fan	510		56	36	



# Slim Type Air-Curtain

This air-curtain is designed with a slim looks that harmonizes curves and straight lines unlike conventional mechanical design, giving a decorative effect.



**Advantages**



**Lightweight**

Lightweight special aluminum material, 2/3 weight of the same class.



**Easy A / S**

The structure of simple design makes maintenance and repair even easier.



**Low power consumption**

We have developed energy-saving motors to reduce power consumption by half.



**Good Cost-effectiveness**

A single motor achieves two motor-class wind speeds, resulting in excellent cost-to-benefit ratios.



**Remote control method**

It is easy to use remote control method and can adjust wind speed according to user's environment.



**Beautiful design**

The slim design adds an interior effect.





Product Features



### Lightweight product

Unlike other products in the same class as those of other companies (about 15kg), the chassis is made of ultra lightweight special aluminum. It is easy and safe to install with a weight of about 2/3 of 9.2kg (900 size standard) of the same air curtain.



### Easy A / S and management

Designed with a simple structure from the design stage, the nano-system slim type air curtain is easy to disassemble and assemble, making A / S and easy to manage.



### Low power consumption

The nano system slim type air curtain which focuses on energy conservation in motor development is only about 175W which is 1/2 of the power of other companies' products in operation with wind speed steel.



### Outstanding cost-to-benefit ratios

Nano System The slim type air curtain realized the wind speed which was possible only with 2 motor sirocco fan in the existing product as one motor cross fan, and the quality and performance of the product were raised at economical price of Chinese product level.



### Remote control method

It is easy to use remote control method and can adjust wind speed according to user's environment.



### Simple design

Nano System The slim air curtains are simple and slim, helping to enhance the interior of stores and offices.



Specification

Model No.	Width(mm)	Height(mm)	Depth(mm)	Height of holder (mm)	Length of power Cord(M)	Weight(Kg)
NA-1209DF	900	215	210	105	1.5	9.2
NA-1210DF	1000					9.7
NA-1212DF	1200				2.0	12.8
NA-1215DF	1500					15.5
NA-1218DF	1800					18.0
NA-1220DF	2000					19.2

Model No.	Power	Motor Type	Fan Type	Output(W) speed-high	Wind Speed (m/s) H/M/L	Noise (dB) speed-high	Air-Volume (CMM) speed-H	Blocking Height(m)
NA-1209DF	220V	1 single Axis	745mm 1pcs	175W	14/11/8.5	59	27	2.8
NA-1210DF			845mm 1pcs	180W	13.5/10.5/7.5	59	29	
NA-1212DF		1 Double Axis	489mm 2pcs	205W	13.5/11.5/9	61	37	
NA-1215DF			646mm 2pcs	260W	13/10/6.5	61	45	
NA-1218DF		2 single Axis	745mm 2pcs	350W	14/11/8.5	62	54	
NA-1220DF			845mm 2pcs	360W	13.5/10.5/7.5	62	58	

# Heater Type Air-Curtain

This air curtain is designed to produce warm air in winter by incorporating a high-heat-generating heater rod into the air blowing air curtain.



**Advantages**



**High-end design**

Added the heater function to the design of the high-grade air curtain.



**High efficiency heater rods**

Aluminum heater rods enhance durability and efficiency.



**Achieve low noise**

The use of a rod heater reduces the disadvantages of conventional heaters.



**Excellent corrosion resistance**

It is made of stainless steel which is resistant to corrosion inside and outside, making it suitable for high humidity environments.



**Simple remote control**

There is no unnecessary control panel installation because the remote control can be controlled.

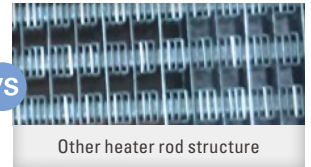
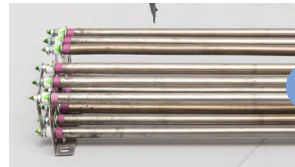


**Customized control panel**

When customer needs, various control panels are produced and installed.

**High-efficiency heater rods used**

In the case of other company's heater rods, the honeycomb heatsink is used and the durability is weak and the life is short due to dust. However, the heater rods of finite high-tech nano system use aluminum heater rods wrapped with heat coil in 8φ 12 rows structure, increased efficiency and minimized noise caused by wind strikes



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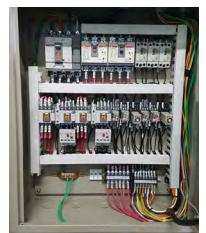
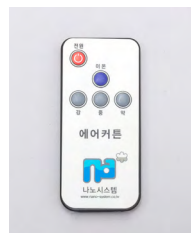
Other heater rod structure

**Remote control method**

Third-party heater-type products require a control panel, which adds extra costs such as panel production and secondary electrical work. However, finite-tech remote control type air curtains can be controlled by remote control only when the control panel is not needed.

**Various forms of control panels**

When installing as a control panel type, you can manufacture and install various types of enclosure (ABS box, general steel box, stainless steel box, double door structure) and internal configuration to suit your needs.



Product Features



**Air curtains combined with common fan heater**



**Air curtains for industrial ventilation heaters**

Conventional air curtains for both heaters have not been out of shape, but air curtains for both nano-system air-blowing heaters have been added to the design of high-grade air curtains to meet the needs of both quality and design.



**Stainless steel heater combined air curtain**

Unlike other products that are made of stainless steel and are resistant to corrosion of internal parts, Nano system stainless steel air curtain is made of stainless steel not only for appearance but also for many internal parts. It is used for aquariums and refrigerated warehouses. It is suitable and offers a luxurious feeling.

Specification

Product Type	Model No.	Width(mm)	Height(mm)	Depth(mm)	Height of holder (mm)	Length of power Cord(M)	Weight(Kg)
GENERAL TYPE (control panel)	NA-3509H	900	220	225	170	1.0	17
	NA-3510H	1000					17.8
	NA-3512H	1200					19.8
	NA-3515H	1500					25
GENERAL TYPE (remote control)	NA-3509HR	900	220	225	170	1.0	17
	NA-3510HR	1000					17.8
	NA-3512HR	1200					19.8
	NA-3515HR	1500					25
Industrial Heater Type (control panel)	NA-1509H	900	265	265	205	1.0	26
	NA-1510H	1000					28
	NA-1512H	1200					31
Industrial Heater Type (remote control)	NA-1509HR	900	265	265	205	1.0	26
	NA-1510HR	1000					28
	NA-1512HR	1200					31

Product Type	Model No.	Power	Heater rod capacity(KW)	Output(kW) speed-high	Wind Speed (m/s) H/M/L	Noise (dB) speed-high	Air-Volume (CMM) speed-H	Blocking Height(m)
GENERAL TYPE (control panel)	NA-3509H	Motor 220V Heater 380V (R,S,T)	6	6.2	10	65	21	2.0
	NA-3510H		7	7.2	9.5	66	22	
	NA-3512H		8	8.2	9	68	24	
	NA-3515H		10	10.2	8	69	26	
GENERAL TYPE (remote control)	NA-3509HR	380V 4 line (R,S,T,N)	6	6.2	10/9/8	65	21	2.0
	NA-3510HR		7	7.2	9.5/9/7.5	66	22	
	NA-3512HR		8	8.2	9/8/7	68	24	
	NA-3515HR		10	10.2	8/7.5/7	69	26	
Industrial Heater Type (control panel)	NA-1509H	Motor 220V / 380V Heater 380V (R,S,T)	6	6.6	10.5	68	28	3.0
	NA-1510H		7	7.6	10	69	29	
	NA-1512H		8	8.6	9	69	31	
Industrial Heater Type (remote control)	NA-1509HR	380V 4 line (R,S,T,N)	6	6.6	17/13/10.5	68	45	4.0
	NA-1510HR		7	7.6	16/12/10	69	47	
	NA-1512HR		8	8.6	15/11/9.0	69	50	



# Industrial Air-Curtain

It is a product of air curtain which is suitable for medium and large space requiring strong blocking effect such as exit of large store, shopping mall, sewage terminal treatment plant with strong air volume.



Advantages



### Strong wind volume

We have implemented strong blocking effect for medium and large space.



### Wind without spread

Designed with a twisted fan, it blocks the outside air without the phenomenon of wind spreading.



### Excellent corrosion resistance

It is made of high-grade stainless steel which is resistant to corrosion inside and outside, and is suitable for high humidity environment.



### Simple remote control

Remote control can be controlled without installing the control panels that require secondary electrical work.

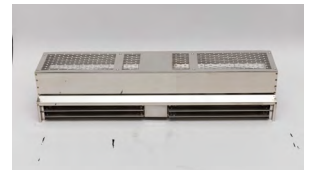


### Customized control panel

If you need centralized control, you can create and install various control panels.

### Stainless steel air curtain

Unlike other products which are made only of stainless steel and are resistant to corrosion of inner parts, finite hi-tech nano system stainless steel type air curtain is made of stainless steel not only for appearance but also for many internal parts. It is used in aquariums and refrigerated warehouses. It is suitable and offers a luxurious feeling.



### Industrial air curtains with remote control

Third-party products require panels, but there are additional costs such as panel manufacturing and secondary electrical construction. However, finite hi-tech remote control type industrial air curtains can be controlled by remote control only where control panel is not needed. We will produce it.

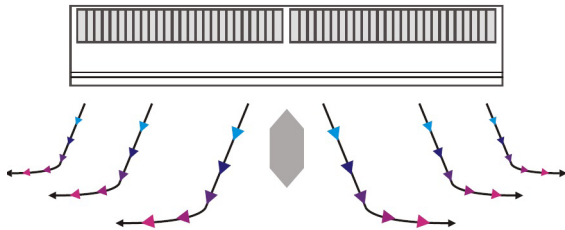


## Features of twisted cross fan

### Other products



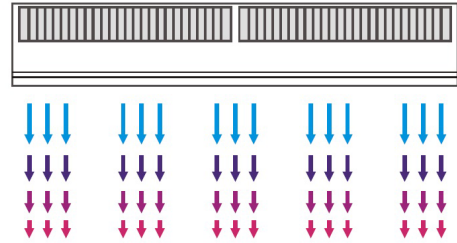
Conventional wheels are noisy, cause wind scattering, and can not stabilize airflow and wind speed. The material is heavy plastic, which increases motor load and power loss.



### Twisted cross fan of nano system



The twisted wheel reduces noise, does not cause wind scattering, and maintains constant airflow and wind speed. The material is lightweight aluminium, so the motor load is low and power loss can be prevented.



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## Specification

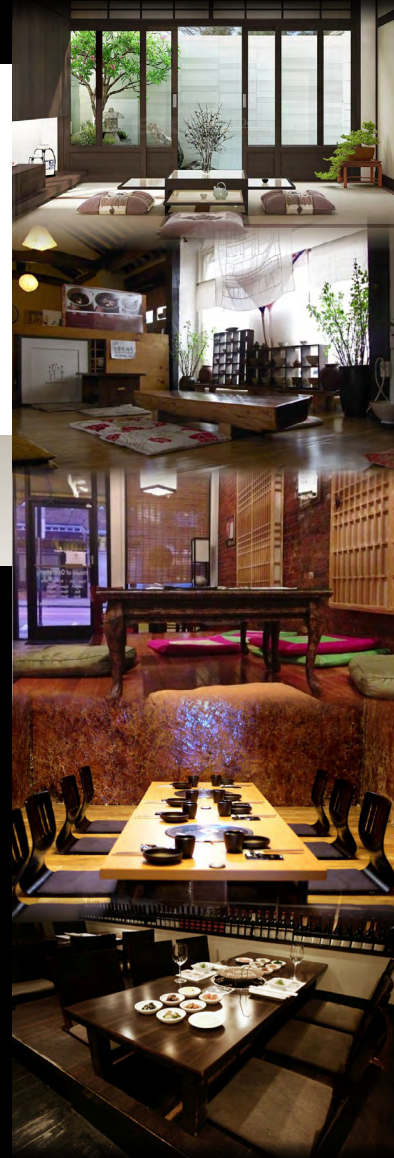
Product Type	Model No.	Width(mm)	Height(mm)	Depth(mm)	Height of holder (mm)	Length of power Cord(M)	Weight(Kg)
GENERAL TYPE (control panel)	NA-1509B	900	265	265	205	1.5	24
	NA-1510B	1000					26
	NA-1512B	1200					29
GENERAL TYPE (remote control)	NA-1509R	900	265	265	205	1.5	24
	NA-1510R	1000					26
	NA-1509R	1200					29
SPECIAL TYPE (control panel)	NA-1509S	900	265	265	205	1.5	25
	NA-1510S	1000					27
	NA-1512S	1200					30

Product Type	Model No.	Power	Fan	Output(W) speed-high	Wind Speed (m/s) H/M/L	Noise (dB) speed-high	Air-Volume (CMM) speed-H	Blocking Height(m)
GENERAL TYPE (control panel)	NA-1509B	220V single phase or 380V three phase	150φ specific aluminum fan x 2	600	19	72	55	4
	NA-1510B			620	18	74	58	
	NA-1512B			650	17	76	62	
GENERAL TYPE (remote control)	NA-1509R	220V single phase	150φ specific aluminum fan x 2	600	11~19	72	55	4
	NA-1510R			620	10.5~18	74	58	
	NA-1509R			650	10~17	76	62	
SPECIAL TYPE (control panel)	NA-1509S	380V three phase	150φ specific aluminum fan x 2	800	23	76	62	6
	NA-1510S			810	22	77	70	
	NA-1512S			820	20	79	77	



# Floor Type Air-Curtain (Air-Shot)

Air curtain features 360 ° rotating wheels at the bottom to blow air to the floor



Advantages



**MADE in KOREA**

Parts are manufactured in domestic, Unlike Chinese low-priced products, quality and A / S are guaranteed.



**LOW NOISE IMPLEMENTATION**

Using a Sirocco fan, both the strong airflow and low noise are realized.



**SPIN WHEEL MOUNTING**

You can easily move to the desired place by attaching the 360 ° swivel wheel.



**SEDENTARY CULTURE SUITABLE**

The wind blows to the floor, so it does not affect food and flame above.



**SIMPLE REMOTE CONTROL**

You can conveniently control it with the remote control.



**INCREASE COOLING EFFICIENCY**

Due to the air circulation effect, it is more than twice as efficient when used with an air conditioner.

Specification

Model No.	Width(mm)	Height(mm)	Depth(mm)	Height of holder (mm)	Length of power Cord(M)	Weight(Kg)
<b>NA-3509DF</b>	900	220	225	170	1.5	16kg

Model No.	Power	Motor Type	Fan Type	Output(W) speed-high	Wind Speed (m/s) H/M/L	Noise (dB) speed-high	Air-Volume (CMM) speed-H	Coverage(M)
<b>NA-3509DF</b>	220V	1 Double/1 single Axis	3 Sirocco fan	340	15/13/11	56	21	6.0

# Air-Curtain Cleaning

The appearance of the air curtain can be easily cleaned, but there is no filter, so the dust inside the air blowing fan will accumulate.

If dust accumulates in the fan, the dust will leak into the room air, and the load on the part will increase, which may cause a fire.

Also, if noise or burning odor occurs during use, it is necessary to replace the fan and special cleaning using chemicals.

## Cleaning effect



### Improve air quality

Improves indoor air quality by cleaning the dust-filled blower.



### Increased energy efficiency

Energy efficiency is improved by reducing the load on parts.



### Noise reduction

Smooth internal air flow reduces noise.



### Extended usage

Cleaning management extends the life of the machine and parts.

## Before



## Cleaning process

Remove & Transport

Dismantled & Sorted

Professional cleaning

Professional performance testing

Re-Attach Product

Clean the product with eco-friendly cleaner and dedicated tool

## After

