



# HELICOPTER FANS<sup>®</sup>



A scenic view of a mountain valley with a cable car gondola in the foreground. The background shows rolling green hills and mountains under a bright sky. The foreground features a cable car gondola with a metal frame and a cable running across the top right. The text "The Most Comfortable Air" is overlaid in a dark blue font on a semi-transparent white bar.

**The Most Comfortable Air**

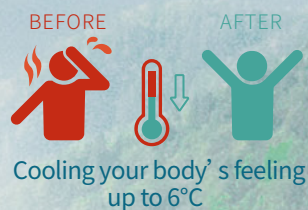
# The Perfect Combination of Smart Technology and Nature

## Cooler the apparent temperature x The Secret of natural air

During the summer, doing outdoors activities or climbing mountains, all the summer heat often swept away by the gentle breeze.

The team of AMA TECH has carried out in-depth studies and found that the most comfortable wave frequency for humans to accept is natural wind.

When the strong breeze blows, the moisture on the skin surface can be evaporated; gentle breeze can provide the buffer time for skin sweating, when natural wind with such a change of wind speed blows, the human body can cool down naturally.



The helicopter large fan adopts the technology of intelligent AIOT and HVLS of large air volume and low speed, which reproduces natural wind that can blow the human body in an all-round and three-dimensional way, and create the most comfortable wind.

# Applications

## Warehousing:

Sales centers, Logistics and warehousing, Metal-sheet covered warehouses

## Industrial:

Auto repair plants, Processing plants

## Commercial:

Exhibition centers, Large supermarkets, Showrooms

## Traffic:

Airports, MRTs, Train stations, Bus terminals

## Leisure:

Amusement parks, Zoos and botanical gardens, Large playgrounds

## Sports:

Gyms, Sport centers, Golf courses, Swimming pools

## Others:

Museums, villas, prisons, churches, temples

## Baseball Field

## Factory





Mall



Pasture



Assembly plant



Stadium

# -High volume , Low speed-

## The most comfortable air on earth

Expertise of AMA Tech professional team has successfully cracked the natural wind code, and it perfectly generates the most comfortable air on earth at the golden ratio of 1-3m/s air speed.

## Sensible high air volume

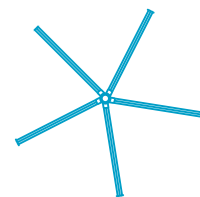
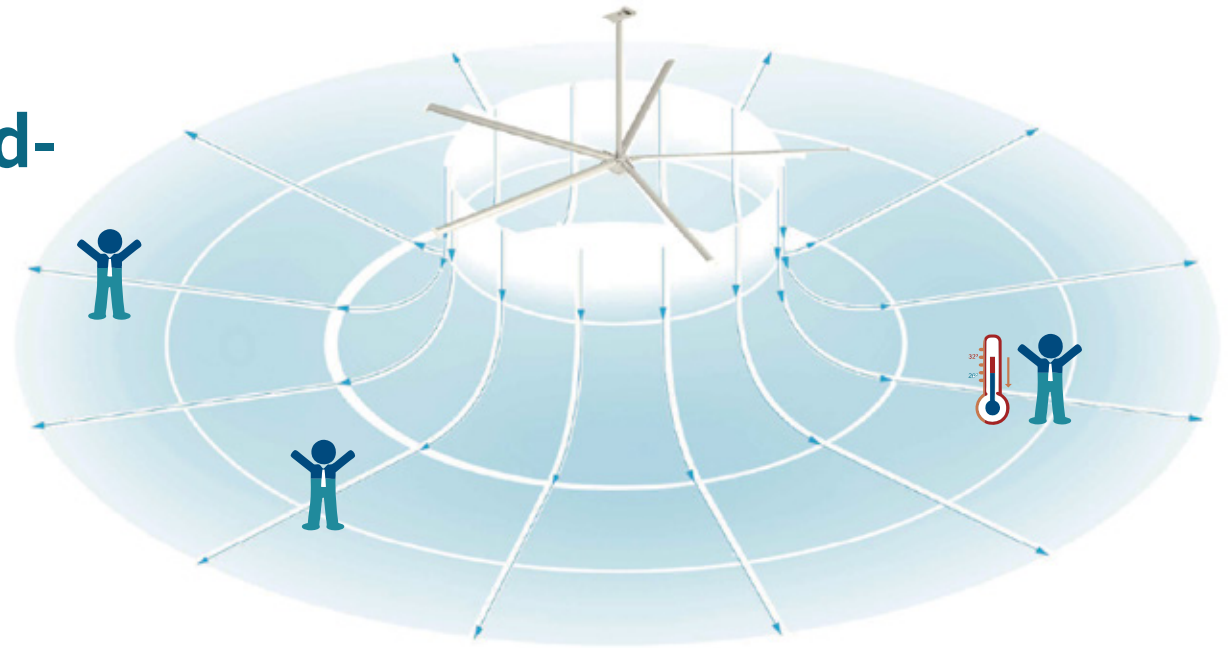
Aerospace-level fan blade is designed for low-speed mode and successfully activates wind blow from large blade area which results in sensible large wind volume.

## Energy & power saving

The measured data from experiments indicate that Helicopter HVLS Fan can achieve full coverage effect of more than 1300 square meters. No need to use too many small fans in the future with low efficiency and high power consumption.

## Activated oxygen ventilation

The professional AMA Tech R&D team has utilized HVLS operation mode to achieve cyclone convection inside a large open space, which can maximize air oxygen content and create a healthy and comfortable environment.



Helicopter Fans

=



Energy saving

=

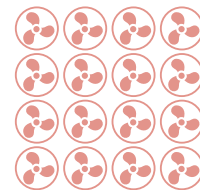


High cost-effective ratio

=



Permanent use



Small Fans

=



Energy waste

=



Low cost-effective ratio

=



Periodic replacement

As part of the installation process, it is common for clients to request a CAE / CFD simulation; this allows clients to observe, study, and decide beforehand what is the best layout of our products, based on a projection of our solutions on their own projects.

CAEs and CDFs are made uniquely for each of our clients, based on the proportions and building specifications they provide us.

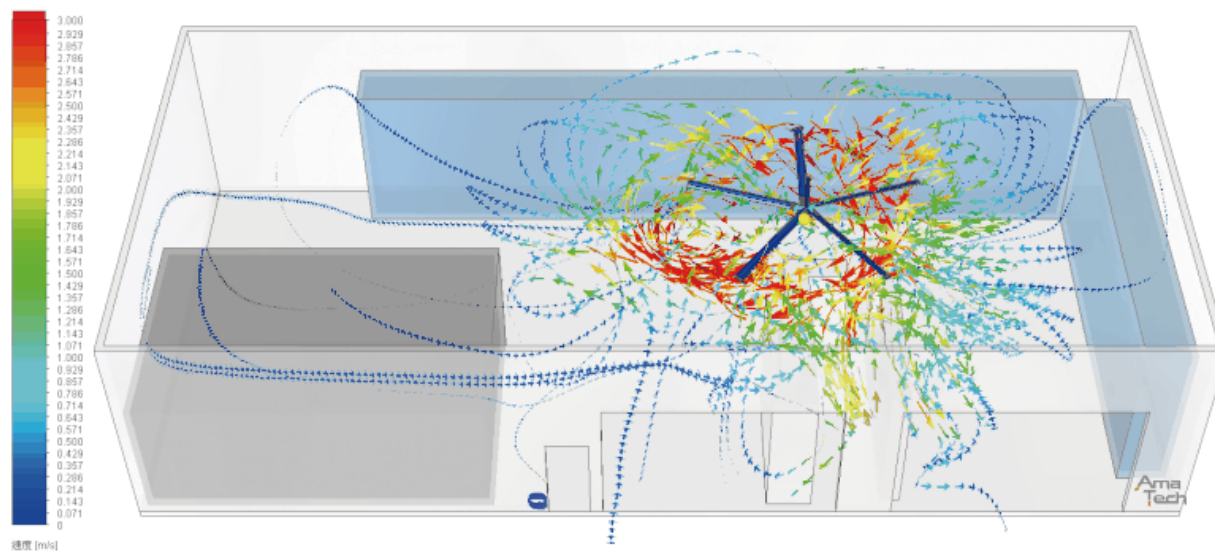
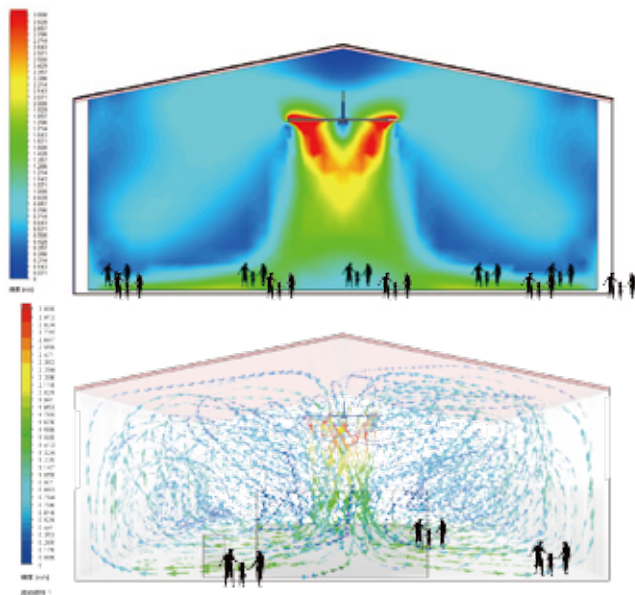
AMA Tech seeks to do more than just sell you fans - we want to provide ventilation solutions, and to do so, we want to ensure that you receive the products that best suit your needs.

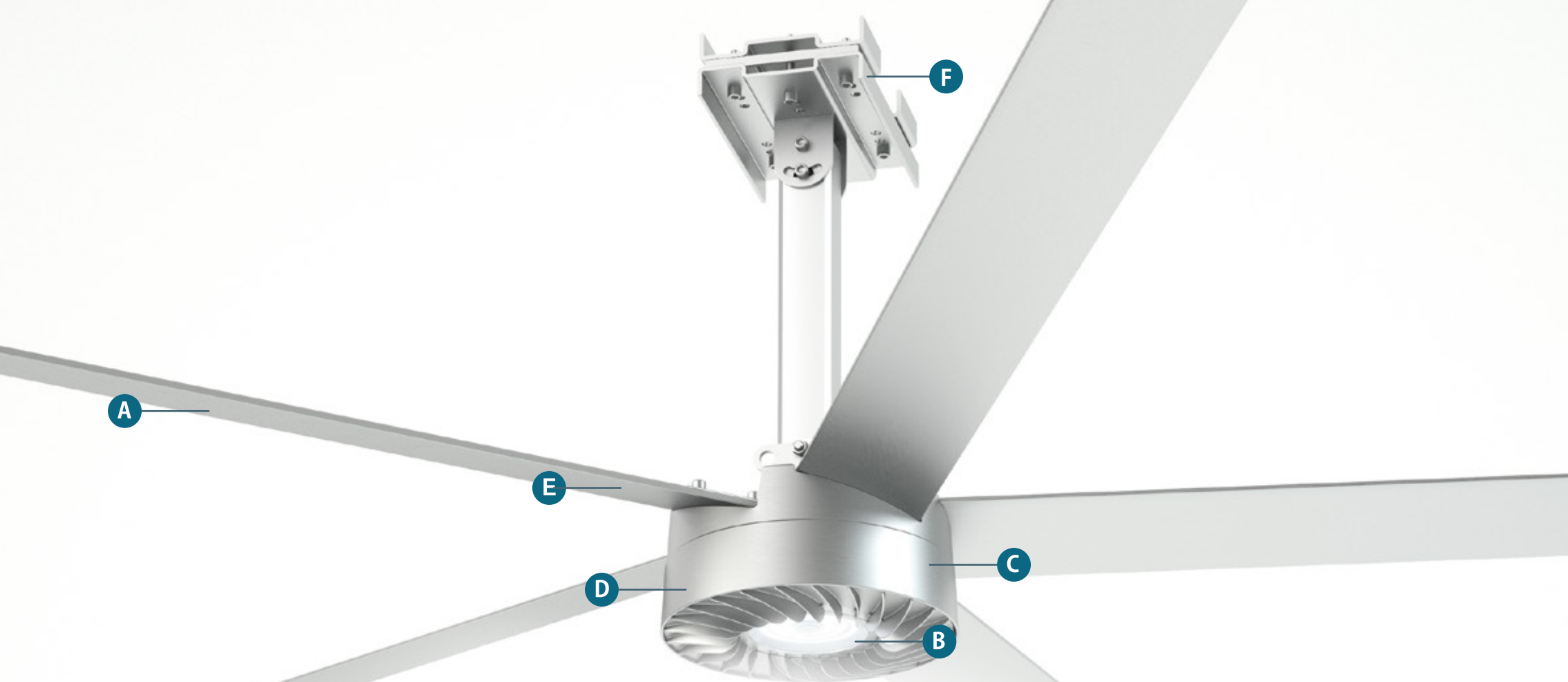
**CAE**

Computer-Aided Engineering (CAE) utilizes computer software to provide support in tasks related to engineering analysis.

**CFD**

Computational Fluid Dynamics (CFD) is designed to solve problems involving fluid flows by using numerical analysis and data structures.





# GLOBAL LEADING & MOST ADVANCED IN THE WORLD

PATENTED/ One-piece Embedded chassis design



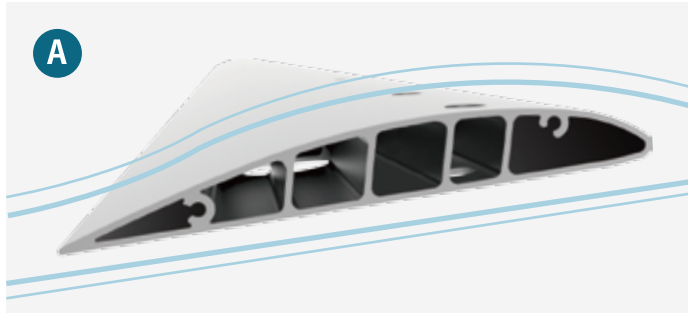
**NO.1 STRUCTURAL SAFETY**  
**NO.1 ENERGY SAVING**

**NO.1 LIGHTWEIGHT**  
**NO.1 DURABILITY**



  
**TAIWAN**  
EXCELLENCE 2021





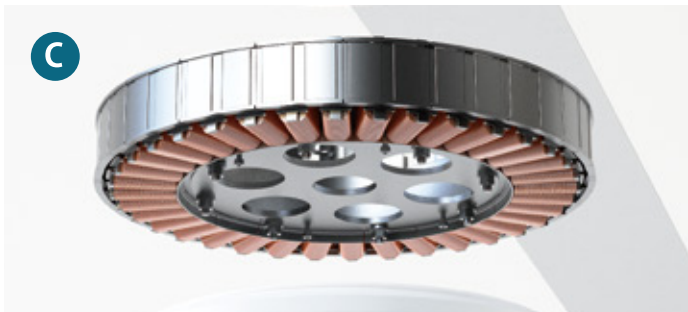
### Aerospace-level precision on airfoil design

Adopt imported high-strength aluminum alloy to build a four-rib structure fan wing to improve the safety factor.



### High-power, energy-saving LED hanging light

Adopt the high-power 100w LED lamp set which can be replaced quickly, the durability is long.



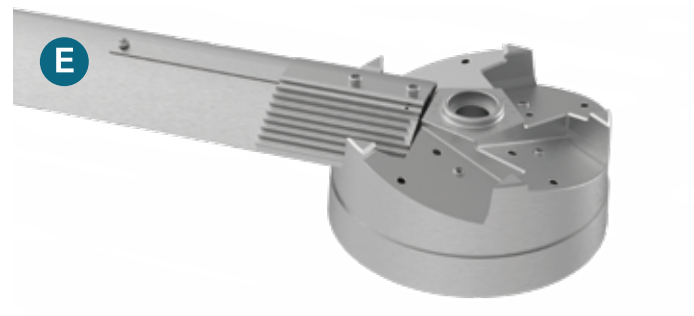
### Ultra-quiet DC Inverter motor

Using elevator-grade rare earth, and the world's highest density pure copper automatic wiring technology.



### One-piece aluminum alloy chassis

Adopt world's first engine shell casting technology ·



### Embedded structure for the blades

Innovate and shift from the traditional plug-in and lock attachment design, to the exclusive patented fully embedded design, which is safe, strong, and able to withstand any external impact force.



### Safe suspension device

It passes SGS certification and can carry up to 500 kg load.



## Lightweight

Break away from traditional design methods by using the leading one-piece casting technology to build the chassis. The weight of the whole AH-7 is only about 69 kg, which reduces the load of the building by a great deal.



## Maintenance free

Using the patented PMSM permanent magnet synchronous motor technology, our motor design is gearless and does not require oil maintenance.



## Energy saving

Our R&D team created the DC motor, which saves 30% more energy compared with HVLS of the same specifications. In addition, compared with small fans, under same coverage area, it saves up to 90% of original electricity costs. The maximum electricity consumption is around 0.84 unit per hour. If used together with air conditioners in the same area, it could save up to 30% more electricity.



## LED (Optional)

Patented design, equipped with the world's lightest high-power LED lamp, can avoid the afterimage of the light caused by the rotation of the fan blade, and protect the user's vision without interference.



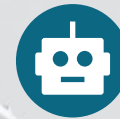
## Waterproof and Dustproof

With SGS IPX7 certification, the waterproof and dustproof motor is designed with fully sealed technology. Even if it is installed in an outdoor open space, there is no need to worry about wind and rain. It can be used both indoors and outdoors.



## Extremely silent

In traditional motors, gears and reducers are prone to create noise, PMSM solves this problem by using a gearless design. The measured noise when the motor is less than 40 dB.



## AIOT Smart Control (Optional)

Users can freely control from the remote end of the mobile phone.



# REVOLUTIONARY INVENTION PATENT



## New Era of PMSM (Permanent Magnet Synchronous Motor)

- HVLS helicopter fan is powered by the internationally leading PMSM system. The tradeoff between power and heating is solved successfully by making use of aerospace industrial design technology and PMSM energy-saving permanent magnet synchronous motor. Compared with the traditional gear reducer developed in the United States in the early period, the power output exceeds 20%, the noise level is reduced by 15%, and it is completely maintenance-free. In term of performance e.g. power output stationarity, anti-interference ability, overall lifespan and so on, our PMSM exceed traditional motor several times.

**The power of revolution - free maintenance, low noise, super lightweight and completely waterproof!**

## Green energy technology

- As human energy demand increases, the earth's carbon emissions also increase rapidly. Mitigating the extreme climate change caused by the greenhouse effect is the common goal of all mankind. Compared with the traditional fan motor, the energy efficiency of AMA TECH helicopter large fan reaches more than 90%, carbon emissions are reduced, and the patented motor technology always maintains the operation efficiency of the fan for long periods of time making the product more sustainable, contributing to the green environment.

## AMA TECH Team

- AMA TECH is the pioneer of a super large energy-saving circulation fan in Taiwan. With its rich experience, the R&D team continuously pursues innovation and breakthrough, and provides customers with the best solutions of air circulation and body cooling in big space with the combination of cross-domain professional core technology and the latest technology, so that truly comfortable natural wind field is presented. AMA TECH actively builds a global service system, expects to serve more than 80 countries in the future, including pre-sales, after-sales and technical support localization, provides new standards for services and makes the commitment of "Quality Assurance and Owners' Satisfaction".



## Specification

Model	AH-7	AH-6/AH-5.5	AH-5	AH-4/AH-3.7	AH-3
Size(M)	7.15	6.15/5.5	5.15	4.15/3.7	3.15
Size(ft)	24'	20'/18'	16'	14'/12'	10'
Min/Max Speed (RPM)	25 / 55	25 / 60	25 / 75	25 / 75	25 / 100
Full-load Current (A)	0.5 / 3.8A	0.46 / 2.8A	0.43 / 2.0A	0.49 / 1.28A	0.19 / 1.0A
3-Phase Voltage (V)	200~240	200~240	200~240	200~240	200~240
Noise level (dB)	<40	<40	<40	<40	<40
Blade	5	5	5	5	5
Weight(KG)	69	60	54	34	28



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