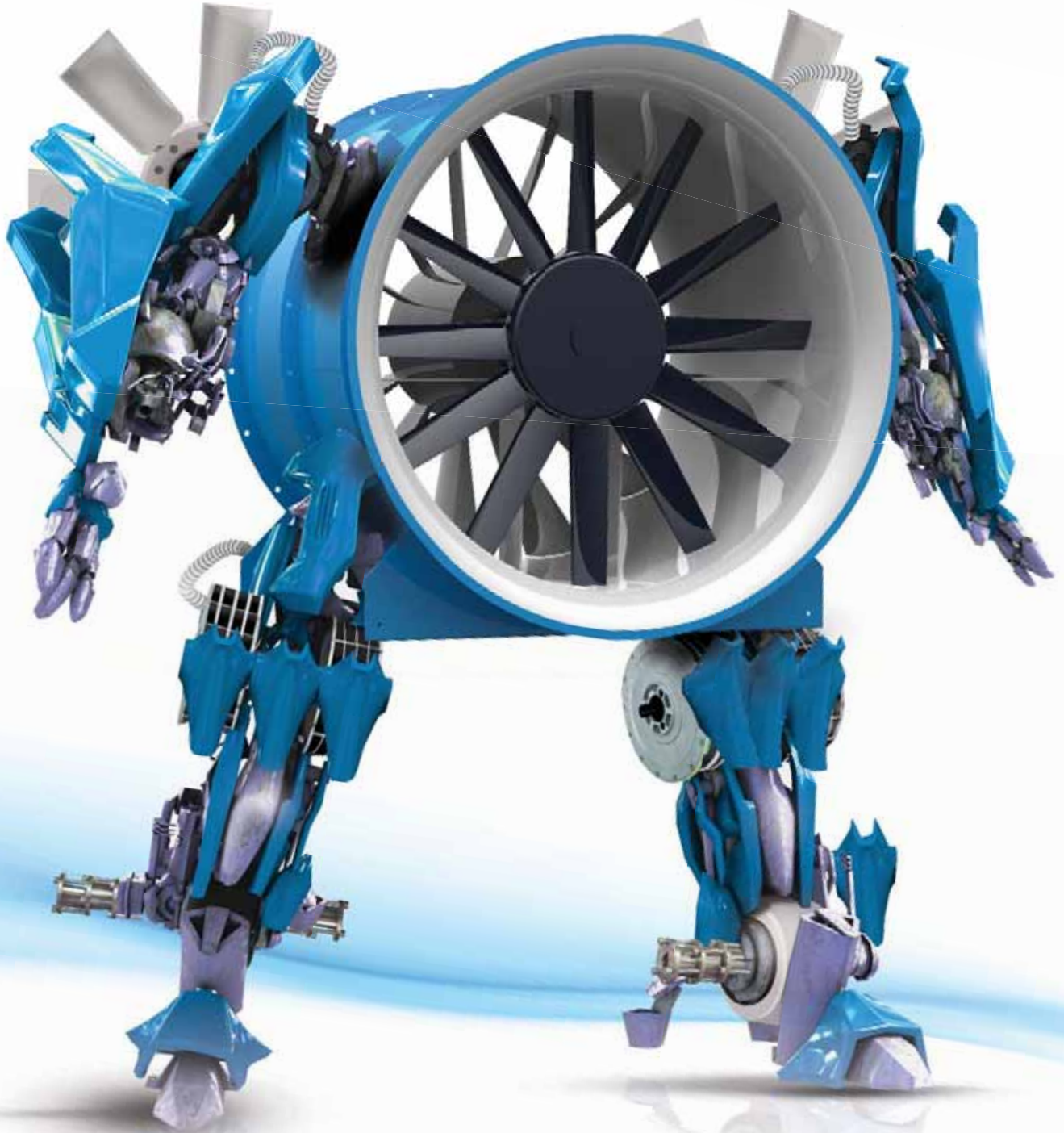


# MAGNETITE

Next Generation Adjustable Pitch Axial Fan

## Transformed Performance



The **Magnetite** adjustable pitch axial flow fan utilises high performance Elta impellers and next generation, permanent magnet motor technology to increase energy efficiency, lower noise output and reduce overall unit weight. Optional guide vanes can improve fan efficiency and increase pressure development which can lead to high air flow performance.



**FANTECH**  
Intelligent Ventilation

# An Energy Efficient Solution

Continual increases in energy costs have created greater demands by tenants and building owners for products and systems that minimise energy usage and greenhouse gas emissions.

Fantech has always been committed to the design and development of innovative products that optimise performance and have the ability to reduce running costs. These products aim to help create a comfortable and healthy indoor environment for building occupants, while minimising their effect on the environment.

## Next Generation Adjustable Pitch Axial Fan

Fantech's drive to develop innovative products has led to the Magnetite Next Generation Adjustable Pitch (AP) Axial Fan that utilises energy saving technologies. It is driven by a state-of-the-art permanent magnet motor that is energy efficient and produces low noise levels. Magnetite's low power consumption and quiet operation make it ideal for architects, engineers and developers seeking to create 'green' buildings that have low running costs and reduced environmental impact.

## High performance impeller blade design

The Magnetite is a direct drive adjustable pitch axial fan that is available in sizes ranging from 315 to 2000mm diameter. Its high performance impeller blade harnesses the latest construction and design technologies to deliver enhanced pressure development, energy efficiency and reduced noise levels. Its variable-pitch impeller can be adjusted to the angle that ensures maximum system efficiency and delivers the air flow and static pressure requirements of the application.

## Permanent magnet motor with energy efficient brushless technology

At the heart of the Magnetite is a permanent magnet synchronous motor that offers significant savings on running costs and efficient performance under partial loads compared to asynchronous induction type motors.

The Magnetite also minimises noisy distractions to building occupants as the brushless system within the permanent magnet motor is quieter than an equivalently rated brush, induction, stepper or switched reluctance system. Additionally, the high performance permanent magnet motor is compact in size, resulting in a lighter axial fan that is easier to manoeuvre and handle on-site.

## A high quality fan with long operating life

The Magnetite AP axial fan features flanged ends for ease of installation to ductwork, galvanised steel case for durability and its impellers are available in a range of materials to suit various applications. The result is an efficient, high quality fan with a long operating life and reliable performance.

**MAGNETITE**  
Next Generation Adjustable Pitch Axial Fan



2

3



*State-of-the-art  
Permanent  
Magnet Motor*

- 1 Optional Inlet Cone
- 2 Magnetite AP Axial Fan
- 3 Optional PowerV Guide Vane
- 4 Optional Mounting Feet
- 5 Variable Speed Drive (VSD)

## Pre-programmed VSD for fast & efficient commissioning

The Magnetite AP axial fan is supplied with either a Vacon 100 HVAC or 100X variable speed drive.

The Vacon 100 HVAC is compact in size and energy efficient to run due to its low speed cooling fan. The Vacon 100X is ideal for external mounting and features a die-cast metal enclosure that provides an IP66 class protection rating to minimise the effect of weather conditions.

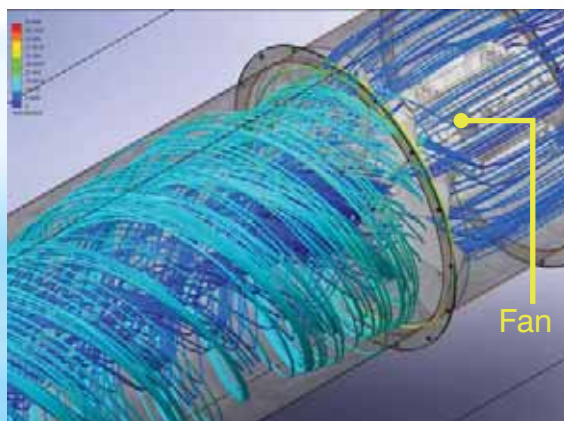


Both drives are supplied pre-configured to suit specific sensors or applications to help minimise on-site installation time. They are fast and efficient to commission and feature a built-in EMC filter to remove electromagnetic interference and lower harmonic levels.

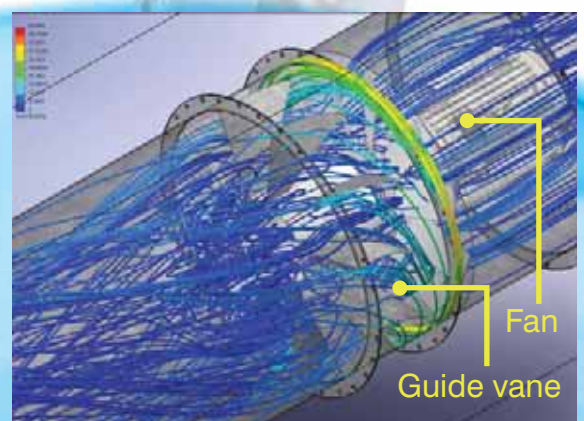
## Optional PowerV down-stream guide vanes

For added performance and efficiency the Magnetite is available with optional Fantech PowerV down-stream guide vanes. The Magnetite AP axial fan, whilst being very efficient and compact, imparts a swirl motion to the air in an axial and rotational direction. By adding PowerV guide vanes, the swirl energy is converted to static pressure which improves the efficiency of the fan.

PowerV down-stream guide vanes direct and straighten the air flow so that the Magnetite generates a higher static pressure with no additional power consumption. Static pressure increases of up to 20% can be achieved which improves fan performance. This can lead to smaller fan sizes being required for the application and reductions in energy consumption.



*Fan with no guide vanes – the air comes off the impeller with a large amount of helical swirl.*



*Fan fitted with guide vanes – a large proportion of the swirl is converted to static pressure.*

## Typical applications

Magnetite AP axial fans are designed for supply, exhaust and return air systems where high efficiency and quiet operation is required. They are most efficient in applications where the conditions vary during the course of the day and as a result fan speed is adjusted to modulate the ventilation rate so it meets the requirements of the area.

They are suitable for use in a wide range of commercial and industrial buildings such as hospitals, schools and universities, convention centres and office blocks. Magnetite AP axial fans can also help achieve Green Building Credits for Building Management, Indoor Environmental Quality and Energy Efficiency.



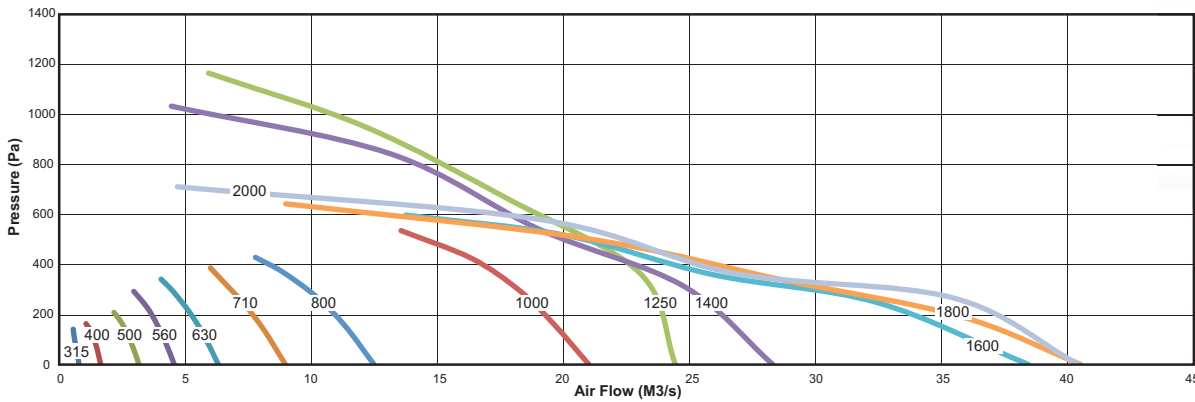
## Features

- High performance impeller blades deliver energy efficiency, exceptional air flows and enhanced pressure development
- Aerofoil section impellers and brushless motor technology ensures quiet operation
- Superior energy efficiency at all speeds
- Up to 25% lighter than standard AP axial fans making them easier to manoeuvre on-site
- Supplied with pre-configured Vacon variable speed drive for fast on-site installation and commissioning
- Standard casings are made of durable hot-dipped galvanised steel or pre-galvanised steel
- Ability to select fan with a specific impeller pitch angle ensures selections can be made accurately to the specification
- Speed controllable via matched Vacon Variable Speed Drive
- Optional PowerV guide vanes can increase fan's static pressure by up to 20%
- Available in sizes ranging from 315 to 2000mm diameter

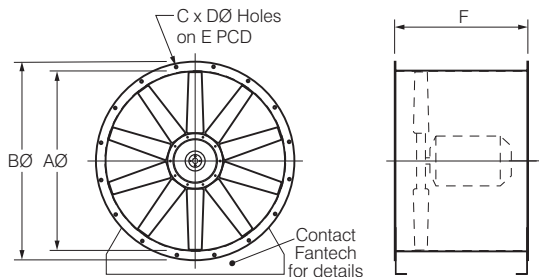


# Improved energy efficiency, lower noise output & reduced overall weight

## Performance Curve



## Dimensional Drawings



## Tested to the Following Standards

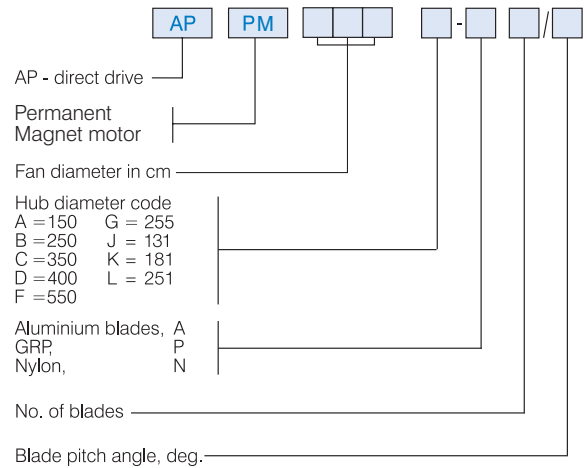
Three-phase motors up to 18.5 kW meet the efficiency levels of IE4

**Air flow:** 315-1000mm diameter - BS 848-1:1980  
1250-2000mm diameter - ISO5801:1997

**Balance Quality Grade G6.3 as per AS 3709:1989**

**Noise tests: BS 848-2:1985**

## How to Order



Model No. AP..	A	B	C	D	E
031	315	380	8	10	355
040	400	485	8	12	450
050	500	585	12	12	560
056	560	645	12	12	620
063	630	715	12	12	690
071	710	795	16	12	770
080	800	885	16	12	860
100	1000	1106	16	15	1070
125	1250	1356	20	15	1320
140	1400	1526	20	15	1470
160	1600	1730	24	19	1680
180	1800	1960	24	19	1880
200	2000	2160	24	19	2080

Motor Frame Size	F
D71	300
D90	400
D112	450
D132	600

Casing length, mm AP

## Matching Fantech Ancillaries



Scan the QR Code for more information



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For sales enquiries contact:

Specifications and design subject to change without notice.

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