

Precise Air Management

Fläkt Woods is a global leader in air management. We specialise in the design and manufacture of a wide range of air climate and air movement solutions. And our collective experience is unrivalled.

Our constant aim is to provide systems that precisely deliver required function and performance, as well as maximise energy efficiency.

Solutions for all your air climate and air movement needs

Fläkt Woods is the only company in the UK capable of providing total system solutions from the following portfolio:

Fans

Advanced axial, centrifugal and boxed fans for general and specialist applications. Comprehensive range including high temperature and ATEX compliant options. Engineered for energy efficiency and minimised life cycle cost.

Air Handling Units (AHUs)

Modular, compact and small AHU units. Designed to ensure optimisation of indoor air quality, operational performance and service life.

Chillers

Air-cooled and water-cooled chillers with cooling capacity up to 1800kW. Designed to minimise annual energy consumption in all types of buildings.

Chilled Beams

Active induction beams for ventilation, cooling and heating, and passive convection beams for cooling. For suspended or flush-mounted ceiling installation – and multi-service configuration. With unique Comfort Control and Flow Pattern Control features.

Smoke control and car park ventilation systems

Unique approach to car park ventilation, aided and optimised by Computational Fluid Dynamics (CFD) software. Complete turnkey solutions for designing, installing and commissioning mechanical and natural smoke ventilation.

Controls and drives

Variable speed drives and control systems, all tested to ensure total compatibility with our products. Specialist team can advise on energy saving and overall system integration.

Technical Site Services

Our dedicated team providing comprehensive post-installation services. Including condition-based contract monitoring, preventative and routine maintenance, refurbishment and system upgrades.

Precise Air Management Product Range > e3-line A

Volume flow up to 65m³/s

Static Pressures up to 1900 Pa

Operating temperatures from -20°C to +50°C

Energy saving options with EFF1 motors

Larger sizes available



UK&3-IAP0-01/0909

Fläkt Woods Limited

Axial Way, Colchester, Essex CO4 5ZD
Tel 01206 222 555 Fax 01206 222 777
email info.uk@flaktwoods.com www.flaktwoods.co.uk

See global website for international sales offices www.flaktwoods.com

Fläkt Woods operates a policy of continuous improvement and reserves the right to supply products that may differ from those illustrated and described in this publication. Certified dimensions will be supplied on request on receipt of order.

FläktWoods

e³-LINE

FläktWoods

Fläkt Woods experience – at your service

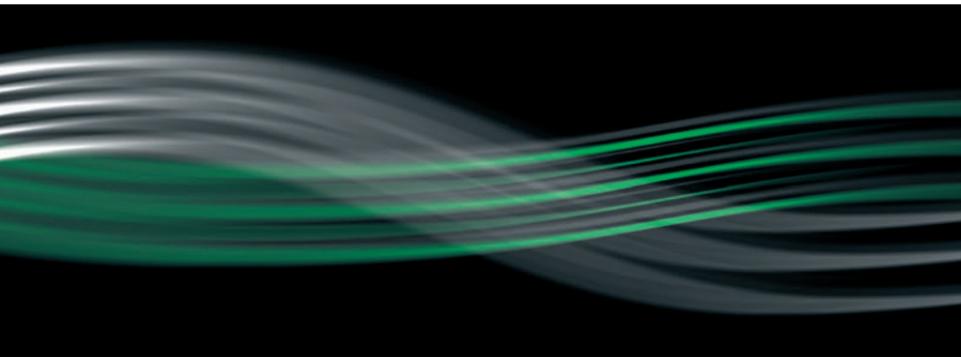
Fläkt Woods is a global leader in air management. We specialise in the design and manufacture of precision technology to deliver complete, integrated solutions. In everything we do, energy efficiency and environmental responsibility are always our major priorities. And our collective experience is unrivalled.



Our knowledge and reputation has been built up through a century of engineering innovation and development. This reflects an impressive track record that equips all our customers with a special confidence. An assurance that, whatever the need or application, Fläkt Woods can deliver the product, the performance and the service that is required. Precisely.

Our expertise is not confined to original manufacture and supply. It is available to you from the selection process onwards, and continues well beyond installation, throughout each system's operating life.

When you first select and install one or more of our systems, our partnership with you is only just beginning. Because you'll always be able to call on Fläkt Woods experience. We're at your service.



Fläkt Woods systems summary

The comprehensive Fläkt Woods range serves a very wide spectrum of applications: across Commercial, Industrial, Public and Residential sectors.

Systems to create integrated air quality solutions include

- Axial and Centrifugal Fans
- Air Handling Units
- Chillers
- Chilled Beams
- Other Air Terminal Devices and Ducts
- Integrated controls

Fans

The widest selection for all sizes and types of application. These range from large supply and extraction fans for service in industry or infrastructure, through to compact and small units for domestic ventilation – or as components for air management equipment. We also have specialist options and ranges to help deliver fire safety and extra energy efficiency.

Total air movement solutions – precisely

Air movement in occupied buildings has many roles to play. Not just to bring the ventilation and comfort that are vital to human existence. It also has the potential to protect.

In an ideal world, this would all be achievable via natural, non-mechanical processes. But reality is different. In most cases, and to varying extents, powered air movement is essential.

From functional operational routines, to one-off emergency situations, fans have a front-line role to play in many built environments. And, whatever each precise need, Fläkt Woods certainly has the right solution.

The perfect solution

The ideal air movement equipment will satisfy the correct combination of several factors, insofar as each applies to a specific project:

- **Function**
Including air supply or extraction; heat transfer and recovery; drying; blowing; particle transportation and filtering; and, in the event of fire, emergency management of smoke and toxic fumes
- **Flow**
Required air volume capacity and speed
- **Energy efficiency**
Less energy consumed to achieve the desired result
- **Controllability**
Allowing performance to match demand – no more, no less
- **Sound**
Quiet operation to avoid noise distraction
- **Space availability**
Fitting the space or location available

At Fläkt Woods, we have the technology and experience to give you that combination.

From one expert source

Fläkt Woods has the widest range of fans available in today's market: from the largest infrastructure fan; through to compact, lightweight models designed for small premises or domestic situations.

That means we can deliver all the air movement functions, capacity and performance that a building or structure requires – whatever its size and purpose.

In short, our expertise has precisely the answer you need.

Contents

Range overview

e3-line A - Summary information 4-5

Performance Information

The widest range available 6

Further information/guidance

Unrivalled R&D facilities 7



Energy Efficient Fan Solution

e³ - Line A - Axial Flow Fans

- Volume flow up to 65m³/s
- Static Pressures up to 1900 Pa
- Operating temperature from -20°C to +50°C
- Energy saving options with EFF1 motors

World Leading Design and Technology

Fläkt Woods are the acknowledged leaders in the specialised world of air movement technology.

With a 100 year's experience in designing and manufacturing air movement equipment has kept Fläkt Woods in the forefront of innovation, enabling the company to maintain their leadership in an ever increasingly sophisticated and competitive market.

Fläkt Woods have taken their worldwide supply of fans a further step forward by introducing the e³ line A range of axial flow fans with EFF1 category motors as standard.

This range of fans incorporate the already world beating JM impellers, and by utilising EFF1 motors it now offers the opportunity to maximise installed efficiency and minimise energy consumption. For further reductions in energy consumption at part load, the e³ line A range of axial flow fans are compatible

with the FWX range of inverter drives – thereby offering a complete energy package.

The e³ line A range of axial flow fans are also designed to accept the new IEC 60034-30 International Standard IE2 – IE3 standard motors that will increasingly become available without the need for further modification – thus making the range future proofed as motor technology develops.

To maximise performance Fläkt Woods are proud to also incorporate the new Twist Wing motor mounting platform where required. This unique design approach has been developed to allow improved performances and efficiency when using foot-mounted motors – and heralds a new generation of fans from a truly innovative world leader.

Quality Assured

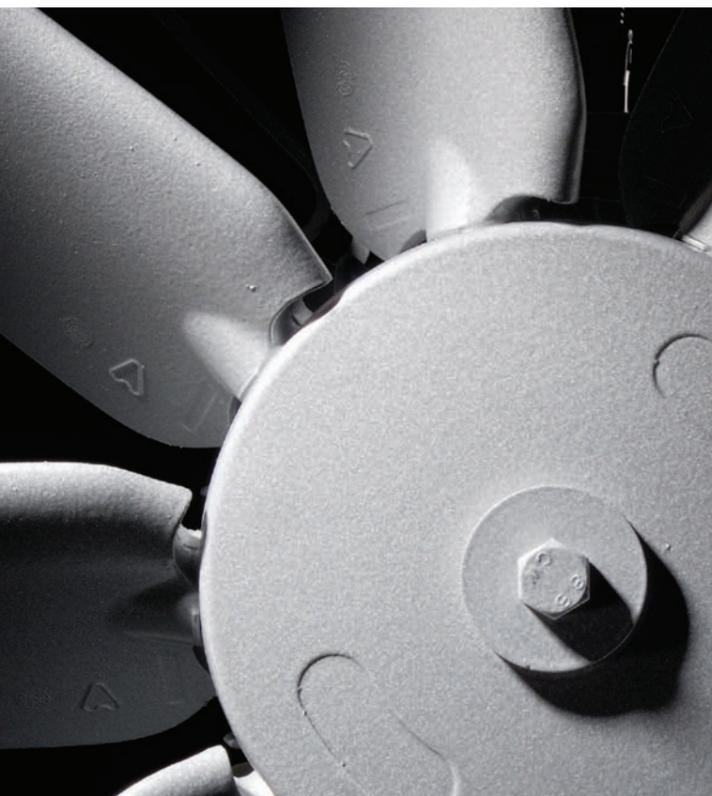
A product built to the highest quality assurance standards, every fan manufactured by Fläkt Woods must meet the most stringent operating criteria, ensuring that many will still be operating satisfactorily in excess of 20 years after their installation.

Superiority of design and construction that applies to every product through vigorous quality management systems at every level. A commitment to quality is at the heart of our manufacturing operation and that of our partners and suppliers.

To substantiate all claims on product performance, our development facility is approved to ISO, AMCA and BSI test standards, and fans are air performance tested to the new international standard ISO 5801.

Technical excellence is backed by a network of fully trained local staff, together with sales centres throughout the world.

In fact Fläkt Woods products are marketed and installed in most countries, making us one of the largest manufacturers of air movement equipment. With applications ranging from the



Keeping Energy Costs Down

world's most prestige engineering projects to the smallest single fan applications, Fläkt Woods deliver consistently superior standards of design, innovation and product quality at a price to suit every customer's requirement.

Cost Competitive

The e³ line A range of axial flow fans gives you more for your money; high performance criteria with unrivalled high levels of installed efficiency, it is also quiet, light, flexible and available now. Designed to provide the greatest possible flexibility in performance and installation, the e³ line A range of axial flow fans is available in fifteen diameters, with various mounting options, adjustable impellers so you don't have to compromise on selection and the capability of accepting a variety of purpose made – high efficiency motors and drives.

Quality & Performance

Tested to the ISO 5801; installation category type D, the catalogue performance is 'as installed' in the required configuration, duct mounted with connections up and downstream. e³ line A range of axial flow fans can also be supplied suitable for emergency use at temperature time categories H.T. 200/2 to 400/2 – still using high efficiency motors and approved to EN12101-3 test standard.

Range

The fifteen basic sizes indicated represent only the physical dimensions - performance is dictated by the choice of motor and impeller. Fan diameters available:- 315, 355, 400, 450, 500, 560, 630, 710, 800, 900, 1000, 1120, 1250, 1400 and 1600 mm.

The e³ line A range of axial flow fans also includes specific alternatives such as Fans for Fire Safety, with options for up to 400°C for 2 hours operation; Multi-stage fans for higher pressures; Explosion proof fans for hazardous applications.

Features

Lower installed noise levels

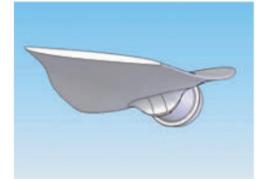
Allows the customer to achieve stringent noise requirements for their installation.

High efficiency performance

The adjustable pitch angle impeller allows the maximum aerodynamic performance to be achieved for a given motor output, therefore reducing running costs. Unlike other fans, the adjustable geometry impellers means the customer can achieve specific performance parameters – and don't need to accept over sizing in product selection that wastes energy.

A unique aerodynamic blade section

Based on the latest aerospace technology, the impeller optimises the air performance that can be achieved for a ducted installation, and is designed specifically for the intended application.



Low levels of vibration

The combination of state of the art manufacturing techniques and the use of modern materials results in a product which can be readily installed without causing undue vibration.

Flexibility of design

Multiple mounting configurations allow the customer to match the product best suited to the individual application.

Reliability of catalogue performance.

Tested to the latest International and British standards, e³ line A range of axial flow fans is catalogued showing an installation Category D, ducted performance to match the customers installed configuration.

An updated web based electronic fan selection package is now available (www.flaktwoods.com/fan-selector)

e³ line A range of axial flow fans are guaranteed for a period of 2 years, when installed in accordance with Fläkt Woods operating and maintenance instructions.

e³ line A range of axial flow fans are weatherproof to IP55.

All Aluminium Precision Die-Cast Impeller

A unique high efficiency aerofoil section blade within a purposely-smoothed hub and clamp-plate for adjustable pitch angle availability. The Fläkt Woods impellers are all precision die-cast to offer thin aerofoil sections for low generation of noise levels. Aluminium cast components are x-ray inspected using real time radiography prior to assembly – essential on impellers that are used in fire safety applications where stress levels are dramatically increased.

Fan Motors

All Fläkt Woods e³ line A range of axial flow fans range of fans incorporate an EFF1 standard electrical power drive specifically designed to optimise fan performance, and minimise the obstruction to airflow. Totally enclosed, IEC motors directly coupled to the fan impeller to further minimise drive losses.

Fixings

All fixings are organically zinc coated to offer excellent corrosion resistance.

Same Performance Just Lower Running Costs

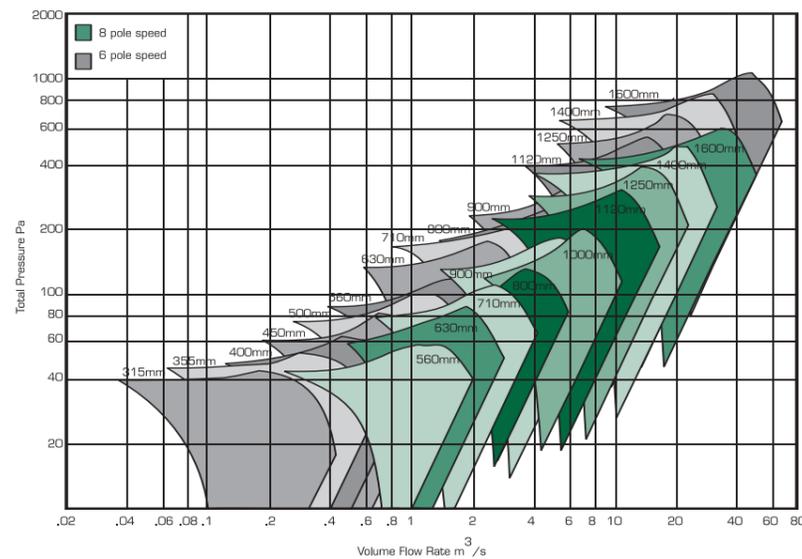
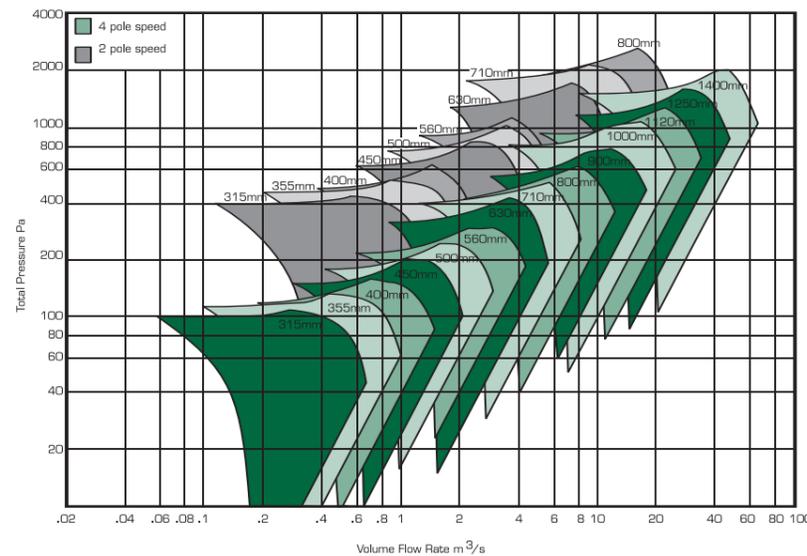
Motor Supports

Motor supports are plate type to offer minimal resistance to airflow. These arms are carefully spaced away from the impeller to minimise noise generation and utilise the unique Twist Wing design where appropriate to increase performance and efficiency.

Casings

Available in either a long cased form complete with an externally mounted pre-wired electrical terminal box, or short cased for duct or plate installation. Casings are spun from sheet steel with integral pre-drilled and radiused inlet flanges, hot dip galvanised after manufacture or painted for excellent durability.

Performance Details



Further information and guidance

Whatever the size of your planned air management systems installation, you can be sure that, at Fläkt Woods, we're always ready to help.

To supply expert advice, information and guidance.

And to ensure selection and specification of an integrated system that exactly matches the detailed needs of each building.

We're also equipped to provide the best possible support throughout the operational service life of each installed system.

About other Fläkt Woods systems

Fans are just one part of our comprehensive solutions for your air management needs.

To get the bigger picture, you can request introductory literature for our other air management systems:

- Air Handling Units
- Chillers
- Chilled Beams

Selection and specification advice

If you'd welcome expert assistance with design, selection and system specification, the Fläkt Woods Sales Team can be contacted on:

01206 222555 or

email info.uk@flaktwoods.com

Upgrades and system monitoring

If you're looking to upgrade or refurbish an existing installation, Fläkt Woods Technical Site Services Team are the experts. They can also help extend operational service life, ensure legal compliance, and monitor and maintain efficient operation of your installed systems. Our brochure can tell you more.

Call 01206 222547 or

email service.uk@flaktwoods.com

Unrivalled R&D facilities

As leading pioneers in our specialist fields, Fläkt Woods has one of the world's largest networks of facilities for testing entire air climate solutions.

Our dedicated laboratory in Colchester, unique in the UK, is equipped to demonstrate and prove product performance and control strategies. We have further R&D facilities in Sweden, Finland, France and the USA.

Specific dynamic testing capabilities include measurement and study of:

- Comfort levels
- Cooling and heating outputs
- Velocity profiles
- Noise criteria

We also use advanced software tools for theoretical design, covering:

- Computational fluid dynamics [CFD]
- Product/component design
- System selection

In all, across Europe, there are 6 Fläkt Woods Technical Centres. More than 270 skilled personnel are constantly focused on maintaining technological progress, system performance and product quality.

Selection and specification advice

01206 222555

Upgrades and system monitoring

01206 222547